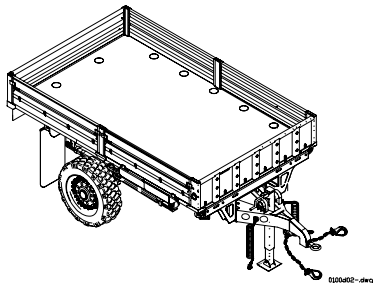
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TECHNICAL MANUAL

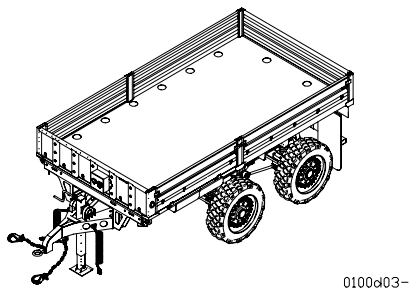
OPERATOR'S, FIELD LEVEL MANUAL FOR THE M1082 SERIES, 2 ½ TON LIGHT TACTICAL VEHICLE TRAILER (LMTVT)

Model	NSN	EIC
M1082	NSN: 2330-01-449-1775	CMN



AND
THE M1095 SERIES, 5 TON MEDIUM TACTICAL VEHICLE TRAILER (MTVT)

Model	NSN	EIC
M1095	NSN: 2330-01-449-1776	CPK



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HEADQUARTERS, DEPARTMENTS OF THE ARMY AND AIR FORCE

JANUARY 2005

WARNING

Do not touch extremely cold metal below -26°F (-32°C). Bare skin may freeze to cold metal. Failure to comply may result in injury to personnel.

WARNING

Trailer must be secure. Chock wheels when stopped on incline. Trailer may roll. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Ensure trailer is parked on level ground before changing flat tire. Trailer may roll. Failure to comply may result in serious injury or death to personnel.

WARNING

Cargo cover weighs approximately 60 lbs (27 kgs). Arctic cargo cover weighs approximately 100 lbs (45 kgs). An assistant is required to lift cargo cover. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Data and instruction plates must be followed at all times to safely operate trailer. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Tire assembly weighs approximately 350 lbs (159 kgs). Use caution when handling tire. Failure to comply may result in injury to personnel.

WARNING

Tire assembly weighs approximately 350 lbs (159 kgs). Do not stand in front of tire while raising. Failure to comply may result in injury to personnel.

WARNING

Tire assembly weighs approximately 350 lbs (159 kgs). Do not stand in front of tire while lowering. Failure to comply may result in injury to personnel.

WARNING

Wear heavy gloves when handling tire assembly. Failure to comply may result in injury to personnel.

WARNING

Place hydraulic jack on flat surface. Do not allow personnel under trailer when jacking. Failure to comply may result in serious injury or death to personnel.

WARNING

Handle flat tire with care. Tire may have exposed broken metal cords or sharp debris in it. Failure to comply may result in injury to personnel.

WARNING

All cleaning procedures must be accomplished in well-ventilated areas. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

WARNING

Use caution when inflating tire. Overinflation may cause tire to blow apart. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Wheels must be chocked and service brakes applied before parking brake is released. Trailer may roll if wheels are not chocked. Failure to comply may result in serious injury or death to personnel.

WARNING

Protective gloves, clothing, and/or respiratory equipment must be worn whenever caustic, toxic, or flammable cleaning solutions are used. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

A fire extinguisher must be available and ready during all cleaning operations involving Dry Cleaning Solvent. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Trailer must not be operated until rear panel and side panels are raised and properly secured. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Dry Cleaning Solvent (P-D-680) is TOXIC and flammable. Wear protective goggles and gloves; use only in well-ventilated area; avoid contact with skin, eyes, and clothes, and do not breath vapors. Keep away from heat or flame. Never smoke when using Dry Cleaning Solvent; the flashpoint for Type I Dry Cleaning Solvent is 100 °F (38 °C) and for Type II is 138 °F (50 °C). Failure to comply may result in serious injury or death to personnel.

WARNING

If personnel become dizzy while using cleaning Dry Cleaning Solvent, immediately get fresh air and medical help. If Dry Cleaning Solvent contacts skin or clothes, flush with cold water. If Dry Cleaning Solvent contacts eyes, immediately flush eyes with water and get medical attention. Failure to comply may result in serious injury or death to personnel.

WARNING

Do not back up trailer without an assistant. Operator has limited vision while backing trailer. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Diesel fuel or gasoline must never be used for cleaning. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Operating in mud causes brake linings to get covered with mud and can impair trailer braking. Dry brakes by towing trailer about 500 ft (153 m) while applying service brakes often. If adequate braking is not restored by drying brakes, notify Field Level Maintenance. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Notify Field Level Maintenance that lugnuts need to be tightened to 415-475 lb-ft (563-644 N·m) as soon as possible. Wheel may come loose if lugnuts are not tightened to proper torque. Failure to comply may result in serious injury or death to personnel.

WARNING

Cargo bed weighs approximately 2900 lbs (1317 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Cargo bed weighs approximately 2900 lbs (1317 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Do not exceed maximum trailer speed and grade limitations during normal operations. Do not exceed maximum approach or departure angles or ford water greater than maximum depth. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Do not exceed 30% side slope when towing trailer. Trailer could roll over. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Do not straddle or drive on sides of sand mounds. Loose sand will not support trailer on steep slopes. Trailer may roll over. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Do not place hands near pintle hook when coupling/uncoupling trailer drawbar assembly and towing vehicle pintle hook. Towing vehicle may move suddenly. Failure to comply may result in injury to personnel.

WARNING

Personnel must not occupy towed trailer during towing operation. Towed trailer may become disconnected while being towed. Failure to comply may result in serious injury or death to personnel.

WARNING

Wear heavy leather-palmed work gloves when handling cable. Cables can become frayed or contain broken wires. Never let moving cable slide through hands, even when wearing gloves. Failure to comply may result in injury to personnel.

WARNING

Do not exceed rated payload of trailer. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Position of assistant must be known at all times. Do not allow anyone to stand between towing vehicle and trailer, behind trailer, or under trailer neck during coupling of towing vehicle to trailer. Failure to comply may result in serious injury or death to personnel.

WARNING

Trailer wheels must be chocked before coupling, uncoupling, or when trailer is parked. Trailer wheels may roll if they are not chocked. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Ensure that SERVICE and EMERGENCY gladhand connections do not leak. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Cargo bed is approximately 5 ft (1.5 m) above ground level. Use care during any loading/unloading operation. Failure to comply may result in serious injury or death to personnel.

WARNING

Ensure that wheels are chocked prior to loading/unloading trailer. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Ensure tires have correct tire pressure for terrain conditions and driving speed (refer to Table 1 Cold Tire Inflation Pressure and Restrictions for LMTVT and MTVT). Failure to comply may result in serious injury or death to personnel.

WARNING

Consult towing vehicle operating procedures to determine required front and rear brake air pressure. Do not operate towing vehicle until psi reaches required level (trailer spring brakes will not release unless there is at least 60 psi/414 kPa). Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Heavy objects/loads, such as tool boxes and heavy parts, must always be positioned as low as possible in the trailer with the weight distributed as equally as possible between left and right trailer sides. Poor weight distribution decreases the stability of the trailer and will increase the likelihood of a rollover. Failure to comply may result in serious injury or death to personnel.

WARNING

Trailer axle service brakes will not operate if towing vehicle FRONT and REAR BRAKE AIR pressure gage reads below 75 psi (517 kPa). Trailer braking will be provided by spring brakes for a limited time. Allow greater stopping distance. Discontinue trailering operation as soon as possible. Failure to comply may result in serious injury or death to personnel.

WARNING

Increased length of towing vehicle and trailer combination will affect left and right mirror adjustment in towing vehicle. Mirrors must be adjusted prior to operating towing vehicle. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Spring brakes must be caged prior to installation of air chamber. Failure to comply may result in serious injury or death to personnel.

WARNING

Spring brakes must be caged prior to removal of air chamber. Failure to comply may result in serious injury or death to personnel.

WARNING

Stabilizer bar weighs approximately 50 lbs (22 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Do not attempt to repair or disassemble leaf springs. Leaf springs are under extreme tension. Failure to comply may result in serious injury or death to personnel.

WARNING

Brake shoes may be covered with dust. Breathing the dust may be harmful to your health. Do not use compressed air to clean brake shoes. Wear a filter mask approved for use against brake dust. Failure to comply may result in injury to personnel.

WARNING

Vehicle speed should be reduced to 5-10 mph (8-16 km/h) during blackout conditions. Failure to comply may result in serious injury or death to personnel.

WARNING

Wheel drum weighs approximately 90 lbs (41 kgs). Use the aid of an assistant to help remove wheel drum. Failure to comply may result in injury to personnel.

WARNING

Wheel drum weighs approximately 90 lbs (41 kgs). Use the aid of an assistant to help install wheel drum. Failure to comply may result in injury to personnel.

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

WARNING

Adhesive sealant MIL-S-46163 can damage your eyes. Wear safety goggles/glasses when using; avoid contact with eyes. If sealant contacts eyes, flush eyes with water and get immediate medical attention. Failure to comply may result in injury to personnel.

WARNING

Wear appropriate eye protection when drilling out rivets. Failure to comply may result in injury to personnel.

WARNING

Trailer wheels must be chocked before caging parking/emergency spring brakes. Failure to comply may result in injury to personnel.

WARNING

Wear heavy gloves when handling tire assembly. Tire may have exposed broken metal cords or sharp debris in it. Failure to comply may result in injury to personnel.

WARNING

Spring brakes must be caged before attempting replacement of a rear wheel stud. Failure to comply may result in severe injury to personnel.

WARNING

Ensure that tire is totally deflated before removing self-locking nuts. Failure to comply may result in serious injury or death to personnel.

WARNING

Always use an inflation safety cage to inflate tires mounted on multipiece rims, and tire/rim assemblies not mounted on a tire changing machine that has a positive lock down device designed to hold the assembly during inflation (TM 9-2610-200-14). When using a tire changing machine, always follow manufacturer's mounting and safety instructions. Always inflate tires that are mounted with demountable side ring flanges or lockrings in an inflation safety cage.. Failure to comply may result in serious injury or death to personnel.

WARNING

Trailer must be uncoupled from towing vehicle to avoid risk of electrical shock. Failure to comply may result in serious injury or death to personnel.

WARNING

Compressed air used for cleaning purposes will not exceed 30 psi (207 kPa). Use only with effective chip guarding and personal protective equipment (goggles/shield, gloves, etc). Failure to comply may result in injury to personnel.

WARNING

Never use fuel to clean parts. Fuel is highly flammable. Serious injury could result if fuel ignites during cleaning.

WARNING

Steam cleaning creates hazardous noise levels and severe burn potential. Eye, skin, and ear protection is required. Failure to comply may result in injury to personnel.

WARNING

Subframe rail (LMTVT) weighs approximately 150 lbs (69 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Subframe rail (LMTVT) weighs approximately 150 lbs (69 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Subframe rail (MTVT) weighs approximately 170 lbs (78 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Subframe rail (MTVT) weighs approximately 170 lbs (78 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Subframe rail (LMTVT) weighs approximately 150 lbs (69 kgs). Attach a suitable lifting device prior to removal of collars and bolts. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Subframe rail (MTVT) weighs approximately 170 lbs (78 kgs). Attach a suitable lifting device prior to removal of collars and bolts. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Brake drums can become very hot during trailer operations. Do not touch brake drum. Failure to comply may result in injury to personnel.

WARNING

Do not allow grease or oil to contact brake linings. Linings can absorb grease and oil, causing early glazing and very poor braking action. Failure to comply may result in serious injury or death to personnel.

WARNING

Completely deflate tires before removing from axles if there is obvious damage to wheel components. Removing tires from damaged wheel components without deflating tires may cause wheel components to separate. Failure to comply may result in serious injury or death to personnel.

WARNING

Frame rail (LMTVT) weighs approximately 155 lbs (71 kgs). Attach a suitable lifting device prior to removal of collars and bolts. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Frame rail (LMTVT) weighs approximately 155 lbs (71 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Frame rail (MTVT) weighs approximately 180 lbs (81 kgs). Attach a suitable lifting device prior to removal of collars and bolts. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Frame rail (MTVT) weighs approximately 180 lbs (81 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Tongue assembly weighs approximately 290 lbs (130 kgs). Attach a suitable lifting device prior to removal of collars and bolts. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Tongue assembly weighs approximately 290 lbs (130 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Ensure trailer wheels on axle not being removed are chocked before performing maintenance or repair to trailer. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Axle assembly weighs approximately 1580 lbs (717 kgs). Axle assembly must be supported during removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Axle assembly weighs approximately 1580 lbs (717 kgs). Axle assembly must be supported during installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Lifting beam arms weigh approximately 75 lbs (34 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Bumper weighs approximately 75 lbs (34 kgs). Attach a suitable lifting device prior to removal of collars and bolts. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Overheated brakes can cause severe burns. Perform task only when brakes have cooled. Failure to comply may result in injury to personnel.

WARNING

Remove rings, bracelets, wristwatches, neck chains, and any other jewelry before working around trailer. Jewelry may catch on equipment or may short across an electrical circuit. Failure to comply may result in serious injury or death to personnel.

WARNING

Stabilizer bar weighs approximately 50 lbs (22 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Remove rings, bracelets, wristwatches, neck chains, and any other jewelry before working around trailer. Jewelry may catch on equipment or may short across an electrical circuit. Failure to comply may result in serious injury or death to personnel.

WARNING

Wear appropriate eye protection when using high pressure water to clean trailer. Failure to comply may result in injury to personnel.

WARNING

Do not rely on automatic adjusters to take up excessive initial clearance, Tightening adjusting screws against plunger housings may result in failure of automatic adjusters to function properly. Failure to comply may result in serious injury or death to personnel.

WARNING

Vent air system before disconnecting air hoses. Pressurized air can blow dirt and debris with sufficient force to cause injury. Safety goggles must be worn when working with compressed air.. Failure to comply may result in injury to personnel.

WARNING

Landing gear weighs approximately 85 lbs (39 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Landing gear weighs approximately 85 lbs (39 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

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INSET LATEST UPDATED PAGES/WORK PACKAGES, DESTROY SUPERSEDED DATA

LIST OF EFFECTIVE PAGES / WORK PACKAGES

NOTE: The portion of text affected by updates are indicated by a vertical line in the outer margins of the page.

Dates of issue for original and updated pages / work packages are:

Original .....3 January 2005

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TM 9-2330-394-13&P

HEADQUARTERS
DEPARTMENTS OF THE ARMY AND AIR FORCE
WASHINGTON, D.C., 3 JANUARY 2005

TECHNICAL MANUAL
OPERATOR'S, FIELD LEVEL MANUAL FOR
THE M1082 SERIES, 2 ½ TON
LIGHT TACTICAL VEHICLE TRAILER (LMTVT)

MODEL	NSN	EIC
M1082	2330-01-449-1775	CMN

AND
THE M1095 SERIES, 5 TON
MEDIUM TACTICAL VEHICLE TRAILER (MTVT)

MODEL	NSN	EIC
M1095	2330-01-449-1776	CPK

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Group 1810 Cargo Bed and Dropside Assembly 0161 00
Group 1810 Dropside Assembly 0162 00
Group 1810 Ladder Assembly 0163 00
Group 2202 Reflectors 0164 00
Group 2210 Data and Identification Plates 0165 00
Group 3307 Cargo Covers M1082 ..... 0166 00
Group 3307 Cargo Covers M1095 ..... 0167 00
Group 3307 Tank and Pump Unit Mounting Kit (M1095) 0168 00
Group 3307 Single Tank and Pump Unit Mounting Kit (M1095) 0169 00
Group 9401 Repair Kits 0170 00
Group 9501 Bulk Material List 0171 00
National Stock Number Index 0172 00
Part Number Index 0173 00
Components of End Item (COEI) List 0174 00
Additional Authorization List (AAL) 0175 00
Expendable/Durable Items List 0176 00
Stowage and Decal/Data Plate Guide 0177 00
Tools Identification List 0178 00
Illustrated List of Manufactured Items 0179 00
Torque Limits 0180 00
Mandatory Replacement Parts 0181 00

DIAGRAMS

GLOSSARY

DA FORM 2028

INDEX

HOW TO USE THIS MANUAL

OVERVIEW

This Technical Manual (TM) contains procedures associated with the FMTV Trailers. It is divided into the following major sections in order of appearance:

Front Cover. Provides information about the type of manual and trailer models covered by the TM.

Warning Summary. Provides a summary of all warnings that apply throughout the manual. Read all WARNINGS and CAUTIONS before performing any procedures.

Table of Contents. Lists the Chapters, Work Packages, and Alphabetical Index in order of appearance.

Chapter 1, Introductory Information With Theory Of Operation. Contains general information and equipment description data.

Chapter 2, Operator Instructions. Provides information on how to operate the FMTV trailers in Usual and Unusual conditions.

Chapter 3, Troubleshooting Procedures. Contains Operator and Field level troubleshooting procedures.

Chapter 4, Maintenance Instructions. Contains Operator and Field Level maintenance procedures.

Chapter 5, Supporting Information. Contains Repair Parts and Special Tools List.

FINDING INFORMATION

There are several ways to find the information you need in this manual. They are as follows:

Table of Contents. Lists Chapters, Sections, and Indexes with Work Package Numbers in order of appearance.

OPERATION AND MAINTENANCE

Operation. Always follow WARNINGS and CAUTIONS in the operating instructions. Perform the BEFORE, DURING, and AFTER preventive maintenance checks.

Maintenance. When you perform maintenance, look over the entire procedure before starting. Make sure you have the necessary tools and materials at hand. Always observe WARNINGS and CAUTIONS.

CHAPTER 1
INTRODUCTORY INFORMATION WITH THEORY OF OPERATION

GENERAL INFORMATION/WARRANTY 0001 00

SCOPE

Type of Manual. This manual provides instructions for operation and maintenance of the Family of Medium Tactical Vehicle Trailers (FMTVT). Maintenance procedures are given at operational, and field levels. In addition, this manual contains a list of repair parts and special tools required for trailer maintenance. The FMTVT will herein be referred to as the trailer, unless a distinction must be made between trailer models.

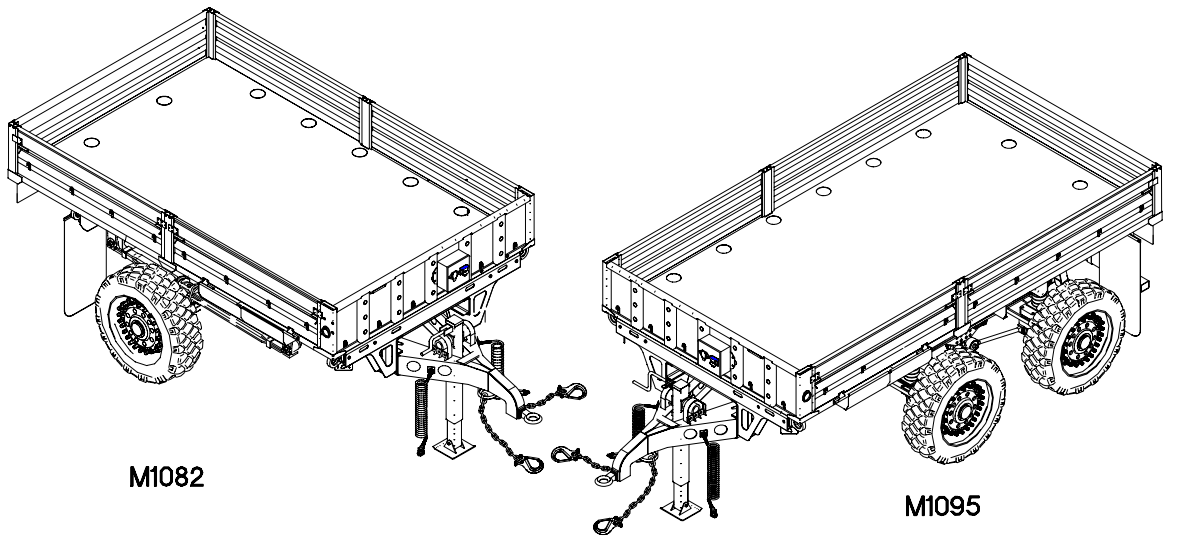
Name and Model. The trailer names and model numbers are listed below:

NAME	MODEL
Light Medium Tactical Vehicle Trailer (LMTVT)	M1082
Medium Tactical Vehicle Trailer (MTVT)	M1095

Purpose of Equipment. The trailers are designed for tactical use. The purpose of these trailers is as follows:

M1082 is a two-wheeled trailer capable of carrying up to 5,000 lb (2,268 kg).

M1095 is a four-wheeled trailer capable of carrying up to 10,000 lb (4,536 kg).



0100F01-.dwg

SCOPE - Continued

MAINTENANCE FORMS, RECORDS, AND REPORTS

Department of the Army (DA) forms and procedures used for equipment maintenance will be those prescribed by DA PAM 738-750 The Army Maintenance Management System (TAMMS), as contained in the Maintenance Management Update.

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)

If your trailer needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. Put it on an SF 368. Mail it to us at: Commander, U.S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-QRT, Warren, MI 48397-5000. We'll send you a reply.

CORROSION PREVENTION AND CONTROL (CPC)

The trailer has a total service life of 20 years which allows for extended periods of operation in a corrosive environment. A corrosive environment includes exposure to high humidity, salt spray, road-deicing chemicals, gravel damage, and atmospheric contamination. No action beyond normal washing and repair of damaged areas is needed to control corrosion.

Corrosion Prevention and Control (CPC) of Army materiel is a continuing concern. It is important that any corrosion problem with the trailer be reported so that the problem can be corrected and improvements can be made to prevent the problem in the future.

While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials, such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem.

If a corrosion problem is identified, it can be reported using form SF 368 (Product Quality Deficiency Report). Using keywords such as "corrosion," "rust," "cracking," or "deterioration" will ensure that the information is identified as a CPC problem.

Form SF 368 should be submitted to the address specified in DA PAM 738-750 The Army Maintenance Management System (TAMMS).

DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE

Command decision, according to the tactical situation, will determine when the using organization is to destroy a trailer. A destruction plan will be prepared by the using organization, unless one was prepared by a higher authority. For general trailer destruction procedures, refer to TM 750-224-6, Procedures for Destruction of Tank-Automotive Equipment to Prevent Enemy Use (U.S. Army Tank-automotive and Armaments Command).

SCOPE - Continued

PREPARATION FOR SHIPMENT

Land, Sea, and Air Shipment.

Instructions for shipment of the trailer by land, sea, and air are contained in the following publications:

MTMCTEA Pam 56-1	Marine Terminal Lifting Guidance
MTMCTEA Pam 55-19	Tiedown Handbook for Rail Movements
TB 55-46-1	Standard Characteristics (Dimensions, Weight, and Cube) for Transportability of Military Vehicles and Other Outsize/Overweight Equipment (in TOE Line Item Number Sequence)

SECTION I WARRANTY **Contract Number DAAE07-98-C-M005,** FMTV Serial Numbers up to 099999, See Section II for FMTV Serial Numbers 200001 and up

1. General. The trailers, serial numbers up through 099999, have an S&S Extended Warranty and a Pass-Through Warranty, which is a Vendor's (Michelin) Commercial Warranty. These trailers may also have an Ohio Casting warranty as described in paragraph 6. All are administered by Stewart & Stevenson Tactical Vehicle Systems, LP (TVSLP). The item identified in Table 1. Supplier Summary Section has a Pass-Through Warranty available. The items identified in Table 2. S&S Extended Summary Section are items warranted by TVSLP. To find out if the Pass-Through Warranty for the item listed in Table 1. Supplier Summary Section, an S&S Extended Warranty for an item listed in Table 2. S&S Extended Summary Section, or if Ohio Casting coverage as described in paragraph 6, is still in effect, simply contact your local WARCO. Your local WARCO can contact TVSLP at 1-800-221-3688 and ask for the Warranty Department, or contact them through their website at www.tvsonlinesupport.com. The Warranty Department will need the information in paragraph 3.b. to determine if the warranty is still in effect. This Work Package provides implementation instructions for the Pass-Through Warranty, the S&S Extended Warranty, and Ohio Casting warranty as described in paragraph 6, on the M1082 Series, 2-1/2 Ton, Light Medium Tactical Vehicle Trailer (LMTVT) and M1095 Series, 5 Ton, Medium Tactical Vehicle Trailer (MTVT). It contains instructions for obtaining services and/or supplies covered under warranty. This Work Package also describes methods of processing warranty claims. For additional warranty information on the M1082 Series, 2-1/2 Ton, Light Medium Tactical Vehicle Trailer (LMTVT), M1095 Series, 5 Ton, Medium Tactical Vehicle Trailer (MTVT), or any U.S. Army Tank-automotive and Armaments Command (TACOM) equipment, contact your local Warranty Control Office/Officer (WARCO) or TACOM Logistics Assistance Representative (LAR). If your WARCO or TACOM LAR is not available, or if additional information is required, contact TACOM. The number to call is DSN 786-8081, COMMERCIAL (810) 574-8081. The caller should be prepared to provide: (1) name, (2) DSN and commercial telephone numbers, (3) complete unit designation, (4) identification of the equipment to include the serial number(s), (5) a brief description of the problem, and (6) the contract number (see paragraph 3).

WARRANTY - Continued

2. Explanation of Terms.

a. Abuse. The improper use, maintenance, repair or handling of warranted items that may cause the warranty of those items to become void, for example, not following service intervals, using the equipment for other than what is intended.

b. Acceptance. The execution of the Acceptance Block and signing of DD Form 250, by the authorized Government representative.

c. Acceptance Date. The date an item of equipment is accepted into the Army's inventory by the execution of the Acceptance Block and signing of a DD Form 250 or, in the case of S&S Extended Warranty, date of shipment for purposes of fielding. Pass-Through Warranty is different

d. Contractor. The supplier of equipment who enters into an agreement directly with the Government to furnish supplies.

e. Correction. The elimination of a defect.

f. Defect. Any condition or characteristic in supplies furnished by the Contractor that does not function as intended.

g. Pass-Through Warranty. A vendor's (Michelin) commercial warranty that provides warranty coverage.

h. Failure. A part, component, or end item that fails to perform its intended use.

i. Owning Unit. The Army Unit authorized to operate, maintain, and use the equipment.

j. Repair. A maintenance action required to restore an item to serviceable condition without affecting the warranty.

k. Supplies. All assemblies, subassemblies, and down parts to the lowest level that comprise an end item.

l. WARCO. Serves as the intermediary between the troops owning the equipment and the local dealer, Contractor, or manufacturer. All warranty claim actions will be processed through the WARCO.

m. Warranty. A written agreement between a Contractor and the Government which outlines the rights and obligations of both parties for defective supplies.

n. Warranty Claim. Action started by the equipment user for authorized warranty repair.

o. Warranty Expiration Date. The date the warranty is no longer valid. The Pass-Through Warranty expiration date and the S&S Extended Warranty expiration date are not the same. The S&S Extended Warranty expires 16 months after the Government Acceptance Date. Ohio Casting coverage identified in paragraph 6 expires 54 months after DD250.

WARRANTY - Continued

2. Explanation of Terms (cont).

p. Warranty Period. Time during which the warranty is in effect. Normally measured as the maximum number of years, months, days, miles, or hours used.

q. Warranty Start Date. The date the warranty is put into effect.

3. Coverages-Specific. The trailers, serial numbers up through 099999, have an S&S Extended Warranty and a Pass-Through Warranty, which is a Vendor's (Michelin) Commercial Warranty, as well as Ohio Casting Warranty identified in paragraph 6. All are administered by Stewart & Stevenson Tactical Vehicle Systems, LP (TVSLP). The item identified in Table 1. Supplier Summary Section has a Pass-Through Warranty available. The items identified in Table 2. S&S Extended Summary Section are items warranted by TVSLP. Ohio Casting parts identified in paragraph 6 are warranted by TVSLP. To find out if the Pass-Through Warranty for the item listed in Table 1. Supplier Summary Section, an S&S Extended Warranty for an item listed in Table 2. S&S Extended Summary Section, or Ohio Casting part described in paragraph 6, are still in effect, simply contact your local WARCO. Your local WARCO can contact TVSLP at 1-800-221-3688, and ask for the Warranty Department, or online through their website at www.tvsonlinesupport.com. The Warranty Department will need the information in paragraph 3.b. to determine if the warranty is still in effect. This warranty information applies to the equipment listed below. The items are manufactured by Stewart & Stevenson Tactical Vehicle Systems, LP (TVSLP) under contract number DAAE07-98-C-M005. Inquiries can be made to TVSLP by calling 1-800-221-3688. These are the M1082 and M1095 series models and the National Stock Numbers (NSN) for each:

- TRAILER, CARGO: LMTVT, ONE AXLE, 2-1/2 TON, M1082 NSN 2330-01-449-1775
- TRAILER, CARGO: MTVT, TWO AXLE, 5 TON, M1095 NSN 2330-01-449-1776

a. Defects. If a defect/failure is caused by (or falls within) any of the following categories, it is not considered warrantable and a claim should not be initiated:

1) Misuse or negligence
2) Accidents
3) Improper operation
4) Improper storage
5) Improper transport
6) Improper or insufficient maintenance service
7) Improper alterations or repairs
8) Defect/failure discovered or occurring after warranty expiration date
9) Fair wear and tear items (brake shoes, etc)
10) Foreign object damage
11) Improper packing or handling
12) Combat damage
13) Consequential damages resulting from a defect or failure

WARRANTY - Continued

3. Coverages-Specific (cont).

b. Pass-Through, S&S Extended, and Ohio Casting Warranties. Take advantage of coverage provided by the Contractor and their vendors. The Pass-Through Warranty is provided by the vendor in Table 1. Supplier Summary Section, but will be administered by TVSLP through your local WARCO. The S&S Extended Warranty, in Table 2. S&S Extended Summary Section, and Ohio Casting Warranty described in paragraph 6, are supplied by TVSLP through your local WARCO. To obtain services for S&S Extended, Pass-Through, or Ohio Casting Warranties, your local WARCO simply contacts TVSLP at 1-800-221-3688, asks for the Warranty Department, or goes to their website at www.tvsonlinesupport.com and provides the following information:

1) Equipment S/N
2) Defective Component P/N
3) Description of the Defect
4) Component Serial No. or Date Code, if available
5) Quantity
6) Person to Contact on the Request for Warranty to include telephone, fax number and shipping address. This information can be sent by your local WARCO through the TVSLP website at www.tvsonlinesupport.com, or via electronic mail (tvswarranty@ssss.com) utilizing DA Form 2407.

c. Warranty Start Dates. Information to determine the Pass-Through Warranty start date for Michelin is listed later in this section. Ohio Casting Warranty starts at DD250 date. For S&S Extended Warranty, your local WARCO simply contacts TVSLP online at www.tvsonlinesupport.com, or 1-800-221-3688, asks for the Warranty Department, and provides the information in 3.b. At this time, TVSLP will obtain the Warranty Start Date and notify the Government if the warranty has expired.

4. Pass-Through Warranty. FMTV Serial Numbers through 099999

Table 1. Supplier Summary Section

Vendor	Government Part No.	NSN	Government Description
Michelin	MSPN32764	2610-01-356-9098	Tire, Pneumatic, Vehicular

Michelin

1) **Warranty Period.** 5 years from the date of manufacture of the tire or the life of the original usable tread down to 2/32nds of and inch of tread remaining.

2) **Coverage.** User must pay for the cost of a new tire on a pro-rata basis calculated by multiplying the current negotiated TACOM replacement price or the Government Open Market price, whichever is applicable, by the percentage of usable tread. This does not include any mounting, balancing or other charges.

3) **Procedure.** ALL CONUS claims must be addressed through the Michelin Government Sales Department at 1-800-TIRE-HELP. ALL OCONUS claims must be forwarded to Stewart & Stevenson, TVS Division for processing through Michelin's 1-800-TIRE-HELP line.

WARRANTY – Continued

5. S&S Extended Warranties.

Table 2. S&S Extended Summary Section

Vendor	Government Part No.	NSN	Government Description
Dana Spicer	673217	4820-01-363-3743	Valve, Pneumatic
Holland	12441149	2590-01-490-4398	Support, Retractable
Meritor	S472-195-032-0		ECU, ABS
Meritor	S472-500-012-0		ECU, ABS
Meritor	12441145-001	2530-01-485-6186	Axle Assembly [1]
Meritor	12441145-002	2530-01-479-5955	Axle Assembly [1]

[1] Applies to axle assembly down parts only, not the complete axle assembly.

a. Warranty Period. The warranty period for all items listed in Table 2. S&S Extended Summary Section is 16 months and begins with shipment of the equipment for purposes of fielding.

b. Coverage. This is a replacement part warranty only. Labor is not included. In the case of axles, this warranty only provides for replacement of down parts of the axle assembly. Fair wear and tear items are not included.

c. Procedure. Unit will submit a DA Form 2407 to their WARCO for submittal to TVSLP for warranty consideration. Upon claim approval, TVSLP will ship replacement parts to their Field Service Representative. The Field Service Representative will exchange the replacement part for the defective part with the WARCO. OCONUS requirements (excluding Alaska and Hawaii) will be shipped to a Government provided APO. If the part is too heavy for APO shipment, the unit and WARCO must provide a CONUS Port of Embarkation and make arrangements for shipment from that CONUS Port. Installations not represented by a Field Service Representative will be provided replacement parts through their WARCO. The WARCO will be responsible for returning defective supplies to TVSLP using the replacement part/container.

6. Ohio Casting Produced Parts (Trailer S/N range 21604 – 25268). Warranty Period for Ohio Casting produced parts installed in above listed trailers is fifty-four (54) months from DD250 date. Follow the instructions in paragraphs 3b and 5c, S&S Extended Warranties. Part numbers applying to FMTV Trailers include:

Gov't P/N	NSN	Variant	Description
12442825	5340-01-479-5463	MTV	Shockmount Axle Bracket
12442827	5340-01-479-5470	MTV	Bracket, V-Rod Mounting
12442829	5340-01-479-5466	MTV	Bracket, Resilient Mount
12442828-001	5340-01-479-5493	MTV	Bracket, Stabilizer Bar Mtg, RH
12442828-002	5340-01-479-5489	MTV	Bracket, Stabilizer Bar Mtg, LH
12443094-001	2590-01-483-2609	LMTV	Shockmount, Axle Bracket, Left
12443094-002	5340-01-483-1532	LMTV	Shockmount, Axle Bracket, Right
12443604-001	No NSN	LMTV	Plate, Clamping, Upper
12443604-002	No NSN	LMTV	Plate, Clamping, Upper

WARRANTY - Continued

7. Contractor Responsibilities. The Pass-Through Warranty is provided by the vendor in Table 1. Supplier Summary Section, but will be administered by TVSLP, through your local WARCO. To obtain services for the Pass-Through Warranty or the S&S Extended Warranty, your local WARCO simply contacts TVSLP through their website at www.tvsonlinesupport.com or at 1-800-221-3688, asks for the Warranty Department, and provides the information in paragraph 3. b.

8. Government Responsibilities. The Major Subordinate Command for the M1082 Series, 2-1/2 Ton, Light Medium Tactical Vehicle Trailer (LMTVT) and M1095 Series, 5 Ton, Medium Tactical Vehicle Trailer (MTVT) is the U.S. Army Tank-automotive and Armaments Command (TACOM), Warren, MI 48397-5000. TACOM is responsible for managing and implementing the warranty. Warranty claims will be reported to:

Technical Publication Information Office
TACOM-RI
1 Rock Island Arsenal
Rock Island, IL 61299-7630
Email: tacom-tech-pubs@ria.army.mil
Fax: DSN 793-0726
Commercial: (309) 782-0726

a. TACOM will:

Verify, review, process and if valid and complete, submit claims (reimbursable and/or disputes) to the Contractor.

Reject claims that are not valid and send them back to the local WARCO with a short explanation of why the claim is rejected.

Request additional information for incomplete claims.

Provide warranty claim acknowledgment/ closeout letters and/or parts/assemblies disposition instructions to the local WARCO.

Ensure the Contractor performs in accordance with the terms of the contract.

b. Equipment owning unit will:

Identify defects/failures and verify that the defects/failures are warrantable.

Submit warranty claims, using DA Form 2407 and DA Form 2407-1 Maintenance Request Claims, through channels to the supporting repair facility.

Tag and retain parts, pieces of parts and/or assemblies removed at the owning unit level and as a result of a warrantable defect/failure and/or correction, in accordance with DA PAM 738-750 The Army Maintenance Management System (TAMMS).

WARRANTY – Continued

8. Government Responsibilities (cont).

c. Supporting repair facility will:

Identify defects/failures as warrantable (if owning unit has not already identified them). Verify defects/failures are warrantable.

Review, process, and submit valid warranty claims to the local WARCO if the DA Form 2407 and DA Form 2407-1 are complete and correctly filled out.

Reject invalid warranty claims or request additional information for incomplete and incorrect claims.

Coordinate with the owning unit to correct the warrantable defect/failure.

Provide labor required to accomplish the repairs.

Tag and retain (in accordance with DA PAM 738-750 The Army Maintenance Management System (TAMMS)) all parts, pieces or parts and/or assemblies removed as a result of warrantable defect/failure and/or correction.

d. Local WARCO will:

Verify, administer, and process warranty claims to the TACOM WARCO (in accordance with DA PAM 738-750 The Army Maintenance Management System (TAMMS)).

Act as a liaison with the owning unit, the Contractor, supporting repair facility, and TACOM.

Notify the owning units of all warranty claim acknowledgments/closeouts, information and/or instructions received from TACOM or the Contractor.

Act as a liaison between local dealers and the Army.

e. Alterations/Modifications. Alterations/modifications shall not be applied unless authorized by TACOM.

9. Claim Procedures.

a. The procedures for reporting warranty claims are found in DA PAM 738-750 The Army Maintenance Management System (TAMMS) and this Work Package. Responsibilities of the Major Army Command (MACOM) are found in AR 700-139 Army Warranty Program, Concepts and Policies. Units should use DA Form 2407 and DA Form 2407-1 for making warranty claims. It is very important to fill in the blocks on the forms as accurately as possible.

WARRANTY – Continued

9. Claim Procedures (cont).

b. The Contractor shall be notified in writing via their website (www.tvsonlinesupport.com) or electronic mail (tvswarranty@ssss.com) utilizing DA Form 2407 by the local WARCO following the discovery of a defect in supplies which requires Contractor/vendor replacement parts. This shall constitute formal notification of a warranty claim. The notification shall include, but not be limited to furnishing the equipment serial number, part number, or NSN of the defective part and circumstances surrounding the defect(s). Upon completion of repair, forward completed warranty claims (Information Only) to TACOM.

c. Identification of Failed Items. Failed warranty items shall be tagged/identified to prevent improper repair or use. Documents that describe the use of DA Form 2402 Exchange Tag and DA Form 2407 Maintenance Request shall be referenced. Items requiring special handling, storage or shipment during the processing of claims shall be identified.

d. Disposition. The repair activity shall return defective supplies to the Contractor's representative or return as directed using the replacement part carton/container.

e. Invalid Warranty Claims. When supplies are inspected by the Contractor/vendor and found to be non-warrantable, or the supplies are found to be serviceable, the repair activity submitting the claim will be required to make reimbursement for Contractor/vendor services.

f. Air Force Warranty Claims. Air Force

1) For letter warranty claims:

WR-ALC/LVR
225 Ocmulgee CT
Robbins AFB, GA 31098-1647
DSN 468-7161
COML (912) 926-7126

2) For Teletype warranty claims:

WR-ALC ROBBINS AFB GA//LVR

10. Claim Denials/Disputes. TACOM will handle all denials or disputes.

11. Reporting. Reporting or recording action on a failed item shall be as specified in DA PAM 738-750 The Army Maintenance Management System (TAMMS). Forms that are unique to the Contractor or Repair Activity shall not be used.

WARRANTY - Continued

12. Storage/Shipment/Handling.

a. Storage. Not applicable.

b. Shipment. See paragraphs 5.c, 8.b, 8.c, 9.c and 9.d.

c. Handling. See paragraphs 5.c, 8.b, 8.c, 9.c and 9.d.

SECTION II WARRANTY Contract Number DAAE07-03-C-S023 FMTV Serial Numbers 200001 through 299999. See Section I for Serial Numbers up to 099999.

1. General. This Section provides implementation instructions for the Warranty on the FMTV trailers, serial numbers 200001 through 299999, manufactured under contract DAAE07-03-C-S023. It contains instructions for obtaining services and/or supplies covered under warranty. This Section also describes methods of processing warranty claims. For additional information on the FMTV or any U.S. Army Tank-automotive and Armaments Command (TACOM) equipment, contact your local Warranty Control Office/Officer (WARCO) or TACOM Logistics Assistance Representative (LAR). If your WARCO or TACOM LAR is not available or if additional information is required, contact TACOM. The number to call is DSN 786-8081, COMMERCIAL (810) 574-8081. The caller should be prepared to provide: (1) name, (2) DSN and commercial telephone numbers, (3) complete unit designation, (4) identification of the equipment, to include the serial number(s), (5) a brief description of the problem, and (6) the contract number (see paragraph 3).

2. Explanation of Terms.

Abuse. The improper use, maintenance, repair, or handling of warranted items that may cause the warranty of those items to become void, for example, not following service intervals, using the equipment for other than what is intended.

Acceptance. The execution of the Acceptance Block and signing of DD Form 250, by the authorized Government representative.

Acceptance Date. The date an item of equipment is accepted into the Army's inventory by the execution of the Acceptance Block and signing of a DD Form 250 or, in case of Material and Workmanship Warranty, date of hand off as evidenced by the user's hand receipt or property book.

Contractor. The supplier of equipment who enters into an agreement directly with the Government to furnish supplies.

Correction. The elimination of a defect.

Defect. Any condition or characteristic in supplies furnished by the Contractor that does not function as intended.

Pass-Through Warranty. A vendor's (Michelin) commercial warranty that provides warranty coverage.

Failure. A part, component, or end item that fails to perform its intended use.

Owning Unit. The Army Unit authorized to operate, maintain, and use the equipment.

WARRANTY - Continued

Reimbursement. A written provision in this warranty in which the Using/Support Unit requests replacement parts from the Contractor to make the necessary repairs, and the Government will be reimbursed for the labor required to correct or repair the end item.

Repair. A maintenance action required to restore an item to serviceable condition without affecting the warranty.

Supplies. All assemblies, subassemblies, and down parts to the lowest level that comprise an end item.

WARCO. Serves as the intermediary between the troops owning the equipment and the local dealer, Contractor, or manufacturer. All warranty claim actions will be processed through the WARCO.

Warranty. A written agreement between the Contractor and the Government which outlines the rights and obligations of both parties for defective supplies.

Warranty Claim. Action started by the equipment user for authorized warranty repair or reimbursement.

Warranty Expiration Date. The date the warranty is no longer valid. The Pass-Through warranty expiration date and the Material and Workmanship warranty expiration date are not the same. The Material and Workmanship Warranty expires 24 months after the Government Acceptance Date. Ohio Casting parts described in paragraph 6 expire 60 months after DD250 date.

Warranty Period. Time during which the warranty is in effect. Normally measured as the maximum number of years, months, days, miles, or hours used.

Warranty Start Date. The date the warranty is put into effect.

3. Coverages-Specific. The FMTV trailer, serial numbers 200001 through 299999, have a Material and Workmanship and a Pass-Through Warranty which is a Vendor's (Michelin) Commercial Warranty, as well as Ohio Casting Warranty described in paragraph 6, , that are administered by Stewart & Stevenson Tactical Vehicle Systems, LP (TVSLP). The item identified in Table 1. Supplier Summary Section has a Pass-Through Warranty available. Regardless of the Pass-Through Warranty, all items may be warranted by TVSLP under the 24 month Material and Workmanship Warranty which covers parts and labor for claims having a total value of $300.00 or more. Ohio Casting Warranty described in paragraph 6, begins with DD250 date. To find out if the Pass-Through Warranty for the item listed in Table 1. Supplier Summary Section, the Material and Workmanship Warranty, or Ohio Casting Warranty as described in paragraph 6, are still in effect, simply contact your local WARCO. Your local WARCO can inquiry TVSLP's website (www.tvsonlinesupport.com) or contact TVSLP at 1-800-221-3688, and ask for the Warranty Department. The Warranty Department will need the information in paragraph 3.b. to determine if the warranty is still in effect. This Technical Bulletin, Section II, applies to the equipment listed. The items are manufactured by Stewart & Stevenson Tactical Vehicle Systems, LP (TVSLP) under contract number DAAE07-03-C-S023. Inquiries to TVSLP can be made by calling 1-800-221-3688 or visiting their website at www.tvsonlinesupport.com. These are the M1082 and M1095 series models and the National Stock Numbers (NSN) for each:

TRAILER, CARGO: LMTVT, ONE AXLE, 2-1/2 TON, M1082 NSN 2330-01-449-1775

TRAILER, CARGO: MTVT, TWO AXLE, 5 TON, M1095 NSN 2330-01-449-1776

WARRANTY - Continued

a. Defects. If a defect/failure is caused by (or falls within) any of the following categories, it is not considered warrantable and a claim should not be initiated:

a. Misuse or negligence
b. Accidents
c. Improper operation
d. Improper storage
e. Improper transport
f. Improper or insufficient maintenance service
g. Improper alterations or repair
h. Defect/failure discovered or occurring after warranty expiration date
i. Fair wear and tear items (brake shoes, etc)
j. Foreign object damage
k. Improper packing or handling
l. Combat damage
m. Consequential damages resulting from a defect or failure
n. Failure of parts/components resulting in less than $300.00 cost, labor and parts (Not applicable to Pass-Through Warranties)

b. Pass-Through, Material and Workmanship, and Ohio Casting Warranties. The Pass-Through Warranty is provided by the vendor in Table 1. Supplier Summary Section, but will be administered by TVSLP through your local WARCO. Material and Workmanship and Ohio Casting Warranties, as described in paragraph 6, are supplied by TVSLP through your local WARCO. To obtain services for Pass-Through, Material and Workmanship, or Ohio Casting Warranties, your local WARCO contacts TVSLP through their website (www.tvsonlinesupport.com) or calls 1-800-221-3688, asks for the Warranty Department, and provides the following information:

- Customer work order number
- Customer complete address
- Equipment serial number
- Defective component part number
- Manufacturer cage code
- Defective component National Stock Number
- Description of the defect including codes from the electronic boxes
- Component serial number or date code, if available
- Quantity
- Person to contact on the request for warranty, to include: telephone, fax number and shipping address. This information can be sent by your local WARCO to TVSLP's website (www.tvsonlinesupport.com) or electronic mail (tvswarranty@ssss.com).

c. Warranty Start Dates.

- Information to determine the Pass-Through Warranty start date for Michelin is listed later in this Bulletin. Material and Workmanship Warranties start at hand off as evidenced by the user's hand receipt or property book and expire 24 months later. Ohio Casting Warranties as described in paragraph 6 starts at DD250 and expires 60 months later.

WARRANTY - Continued

c. Warranty Start Dates (Cont).

- For Pass-Through, Material and Workmanship, or Ohio Casting Warranty, your local WARCO contacts TVSLP through their website (www.tvsonlinesupport.com) or calls 1-800-221-3688, asks for the Warranty Department, and provides the information in paragraph 3.b. TVSLP will obtain the warranty start date and notify the Government if the warranty period has expired.

4. Material and Workmanship Warranties.

a. Warranty Period. The warranty period for the Material and Workmanship Warranty is 24 months and begins with hand off to the unit as evidenced by the unit's hand receipt or property book.

b. Coverage. The Material and Workmanship Warranty covers the complete equipment, parts and labor, excluding those items identified in paragraph 3.a. No warranty claims will be submitted for less than $300.00 total value, parts and labor.

c. Procedure. The unit will submit a DA Form 2407 or DA Form 5504 to their local WARCO for submittal to TVSLP for warranty consideration. Upon claim approval, TVSLP will begin appropriate repair action as identified by the warranty claim.

5. Pass-Through Warranties. FMTV Serial Numbers 200001 through 299999

Table 1. Supplier Summary Section

VENDOR	VENDOR PART NO	NSN	DESCRIPTION
Michelin	MSPN32764	2610-01-356-9098	Tire, Pneumatic

Michelin

1. Warranty Period. The warranty is 5 years from the date of tire manufacture, or the life of the original usable tread down to 2/32nds of an inch of tread remaining. The date of manufacture is determined from the "DOT" number on the lower side above the bead. It will end in "X" and 4 numerics. The numerics represent the week and year of manufacture (i.e., "4804" = 48th week of 2004)

2. Coverage. The user must pay for the cost of a new tire on a pro-rata basis calculated by multiplying the current negotiated TACOM replacement price or the Government Open Market price, whichever is applicable, by the percentage of usable tread. This warranty does not include any mounting, balancing or other charges.

3. Procedure. Unit will submit a DA Form 2407 or DA Form 5504 to their WARCO for warranty consideration. During the first 2 years of vehicle warranty, the WARCO will address all claims to TVSLP under the Material and Workmanship Warranty. Upon expiration of the Material and Workmanship Warranty, the WARCO will address all claims to the Michelin Government Sales Department at webtruck@us.michelin.com.

WARRANTY - Continued

6. Ohio Casting Produced Parts (Trailer S/N Range 200001 – 200004). Warranty Period for Ohio Casting produced parts installed in above listed trailers is sixty (60) months from DD250 date. Follow the instructions in paragraphs 3.b. to submit a claim for these components. When the cost of the part and labor combined is $300.00 or more total value, follow paragraph 4. Material and Workmanship Warranty. If the vehicle is outside of the Material and Workmanship Warranty, TVSLP will provide replacement material to complete Government repair. Part numbers applying to FMTV Trailers include:

Gov't P/N	NSN	Variant	Description
12442825	5340-01-479-5463	MTV	Shockmount Axle Bracket
12442827	5340-01-479-5470	MTV	Bracket, V-Rod Mounting
12442829	5340-01-479-5466	MTV	Bracket, Resilient Mount
12442828-001	5340-01-479-5493	MTV	Bracket, Stabilizer Bar Mtg, RH
12442828-002	5340-01-479-5489	MTV	Bracket, Stabilizer Bar Mtg, LH
12443094-001	2590-01-483-2609	LMTV	Shockmount, Axle Bracket, Left
12443094-002	5340-01-483-1532	LMTV	Shockmount, Axle Bracket, Right
12443604-001	No NSN	LMTV	Plate, Clamping, Upper
12443604-002	No NSN	LMTV	Plate, Clamping, Upper

7. Contractor Responsibilities.

a. Government Correction. When the owning unit has elected to perform corrective action, the Contractor will ship all replacement parts required to affect correction within 3 calendar days of notification. If the Contractor is unable to meet the 3 calendar days, the repair site will be notified of any delay and the anticipated ship date. CONUS requirements, including Alaska and Hawaii, will be shipped to the repair location. OCONUS requirements will be shipped to a Government provided APO or CONUS Port of Embarkation. The Contractor shall reimburse the Government for the cost of labor involved in Government correction. Labor will be calculated at the current fiscal years labor rate for the maintenance level identified in the Maintenance Allocation Chart (MAC) multiplied by the actual number of labor hours incurred, not to exceed the labor hours in the MAC. The Government will notify the Contractor in writing via DA Form 2407 for the reimbursement required.

b. Contractor Correction. When the owning unit has directed the Contractor to correct the Supplies, the Contractor will furnish all material required to correct the defective supplies. The Contractor will complete repairs on site or at an approved repair facility, and will maintain an overall repair time equal to 5 calendar days or less from the notification date.

c. Defective Parts. The Contractor has the right to inspect parts found to be defective and will be allowed to take possession of failed parts following their replacement. All freight charges for the return of defective/failed parts are the responsibility of the Contractor.

8. Government Responsibilities. The Major Subordinate Command for the M1082 Series, 2-1/2 Ton, Light Medium Tactical Vehicle Trailer (LMTVT), and M1095 Series, 5 Ton, Medium Tactical Vehicle Trailer (MTVT) is the U.S. Army Tank-automotive and Armaments Command (TACOM), Warren, MI 48397-5000. TACOM is responsible for managing and implementing the warranty. Warranty claims will be reported to:

WARRANTY - Continued

Technical Publication Information Office
TACOM-RI
1 Rock Island Arsenal
Rock Island, IL 61299-7630
Email: tacom-tech-pubs@ria.army.mil
Fax: DSN 793-0726
Commercial: (309) 782-0726

a. TACOM will:

- Verify, review, process and if valid and complete, submit claims (reimbursable and /or disputes) to the Contractor.
- Reject claims that are not valid and send them back to the local WARCO with a short explanation of why the claim is rejected.
- Request additional information for incomplete claims.
- Provide warranty claim acknowledgement/closeout letters and/or parts/assemblies disposition instructions to the local WARCO.
- Ensure the Contractor performs in accordance with the terms of the contract.

b. Equipment owning unit will:

- Identify defects/failures and verify that the defects/failures are warrantable.
- Submit warranty claims, using DA Form 2407 and DA Form 2407-1 or DA Form 5504 Maintenance Request through channels to the supporting repair facility.
- Tag and retain, pieces of parts and/or assemblies removed at the owning unit level and as a result of a warrantable defect/failure and/or correction, in accordance with DA PAM 738-750 The Army Maintenance Management System (TAMMS) and this Technical Bulletin.

c. Supporting repair facility will:

- Identify defects/failures as warrantable (if owning unit has not already identified them). Verify defects/failures are warrantable.
- Review, process, and submit valid warranty claims to the local WARCO if the Maintenance Request is complete and correctly filled out.
- Reject invalid warranty claims or request additional information for incomplete and incorrect claims.
- Coordinate with the owning unit and decide which option for repair is desired to correct the warrantable defect/failure.

WARRANTY - Continued

- Depending upon which repair option was selected (Government or Contractor repair), provide labor and Contractor furnished parts to accomplish the warrantable repairs.

- Tag and retain (in accordance with DA PAM 738-750 The Army Maintenance Management System (TAMMS) and this Technical Bulletin) all parts, pieces or parts and/or assemblies removed as a result of warrantable defect/failure and/or correction.

d. Local WARCO will:

- Verify, administer, and process warranty claims to the TACOM WARCO (in accordance with DA PAM 738-750 The Army Maintenance Management System (TAMMS) and this Technical Bulletin).

- Act as a liaison with the owning unit, the Contractor, supporting repair facility, and TACOM.

- Notify the owning units of all warranty claim acknowledgements/closeouts, information and/or instructions received from TACOM or the Contractor.

- Act as a liaison between local dealers and the Army.

e. Alterations/Modifications. Alterations/modifications shall not be applied unless authorized by TACOM.

9. Claim Procedures.

a. The procedures for reporting warranty claims are found in DA PAM 738-750 The Army Maintenance Management System (TAMMS) and this Work Package. Responsibilities of the Major Army Command (MACOM) are found in AR 700-139 Army Warranty Program, Concepts and Policies. Units should use DA Form 2407 or DA Form 5504 for making warranty claims. It is very important to fill in the blocks on the forms as accurately as possible.

b. The Contractor may be notified in writing via their website, (www.tvsonlinesupport.com), electronic mail (tvswarranty@ssss.com), or telephonically (1-800-221-3688), followed up in writing by DA Form 2407 or DA Form 5504 from the local WARCO following the discovery of a defect in supplies which requires Contractor/Vendor repair and/or replacement parts. This shall constitute formal notification of a warranty claim. The notification shall include all items identified in paragraph 3.b of this Technical Bulletin. At this time, the Contractor will further be informed whether the owning unit has elected: (1) to correct the defect themselves or; (2) to direct the Contractor to correct the defect. Upon completion of Contractor/Vendor repair, forward completed warranty claims (Information Only) to TACOM. Additionally, the local WARCO will forward claims to TACOM utilizing DA Form 2407 or DA Form 5504 for any warrantable repairs accomplished by the owning unit which requires Contractor reimbursement to the Government.

c. The Contractor shall reimburse the Government for the cost of labor involved in the Government correction of a defect. The cost of labor involved will be computed at the current Fiscal Years labor rate for the maintenance level identified in the Maintenance Allocation Chart (MAC) multiplied by the number of actual hours incurred, not to exceed the labor hours in the MAC. The Contractor shall ship replacement parts for Government correction in accordance with paragraph 7.a.

WARRANTY - Continued

d. Identification of Failed Items. Failed warranty items shall be tagged/identified to prevent improper repair or use and must identify the trailer serial number from the trailer which they were removed. Documents that describe the use of DA Form 2402 Exchange Tag and DA Form 2407 Maintenance Request shall be referenced. Items requiring special handling, storage or shipment during the processing of claims shall be identified.

e. Disposition. The repair activity shall return defective supplies to the Contractor's representative or ship them back at the Contractor's expense using the replacement part carton/container.

f. Invalid Warranty Claims. When supplies are inspected by the Contractor/Vendor and found to be non-warrantable, or the supplies are found to be serviceable, the repair activity submitting the claim will be required to make reimbursement for Contractor/Vendor services. Additionally, regarding Contractor/Vendor repair, the local WARCO must stipulate at the time of request for services that either non-warranty work be stopped at the time it is determined non-warrantable or be prepared to pay for completion of such work. In either case, the WARCO must be prepared to pay for diagnosis and trip charges for non-warranty service.

g. Air Force Warranty Claims. Air Force warranty claims shall be submitted as follows:

(1) For letter warranty claims:

WR-ALC/LVR
225 Ocmulgee Ct
Robbins AFB, GA 31098-1647
DSN 468-7161
COML (912) 926-7126

(2) For teletype warranty claims:

WR-ALC ROBBINS AFB GS/LVR

10. Reimbursement for Army Repair. The Contractor shall remit payment by the fifteenth (15) day of the month for all warrantable claims by the Government for reimbursement which were received by the Contractor in the previous month. Payment shall be sent to the PM, MTV, Attn: Business Management Office, with checks made payable to "The Treasurer of the United States". In the event that the repair activity should receive any reimbursement from the Contractor, the monies must be forwarded to the PM, MTV.

11. Claim Denials/Disputes. TACOM will handle all denials or disputes.

12. Reporting. Reporting or recording action on a failed item shall be as specified in DA PAM 738-750 The Army Maintenance Management System (TAMMS). Forms that are unique to the Contractor or Repair Activity shall not be used.

13. Storage/Shipment/Handling.

a. Storage. See paragraphs 2, 3.a, 3.c, 5.a and TM Care and Storage Requirements for the Trailer.
b. Shipment. See paragraphs 3.a, 7.a, 7.c, 8.b, 8.c, 9.d, and 9.e.
c. Handling. See paragraphs 3.a, 7.a, 7.c, 8.b, 8.c, 9.d, and 9.e.

EQUIPMENT DESCRIPTION AND DATA 0002 00

EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

Characteristics

The LMTVT and MTVT are towed by an FMTV. The trailers are designed for use over all types of roads, cross-country terrain, and in all weather conditions. They may be equipped with auxiliary equipment depending on trailer mission.

Capabilities

1. The trailers can ford water up to 60 in. (152 cm) deep.
2. The trailers may be transported by highway, rail, and sea.
3. The LMTVT carries loads up to 5,000 lb (2,268 kg).
4. The MTVT carries loads up to 10,000 lb (4,535 kg).

Features

1. Air-operated, wedge-actuated drum brakes that incorporate Anti-lock Braking System (ABS) on all wheels. Spring-applied (air-actuated) parking/emergency brakes are provided for all wheels.
2. Service and emergency gladhands at the front of the trailer to allow towing.
3. Drawbar assembly for attachment to a towing vehicle pintle hook.
4. Landing gear for level storage when not in use.

EQUIPMENT DESCRIPTION AND DATA - Continued 0002 00

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS

Major External Components Common to all FMTV Trailers

Table 1 describes the common external components found on FMTV trailers.

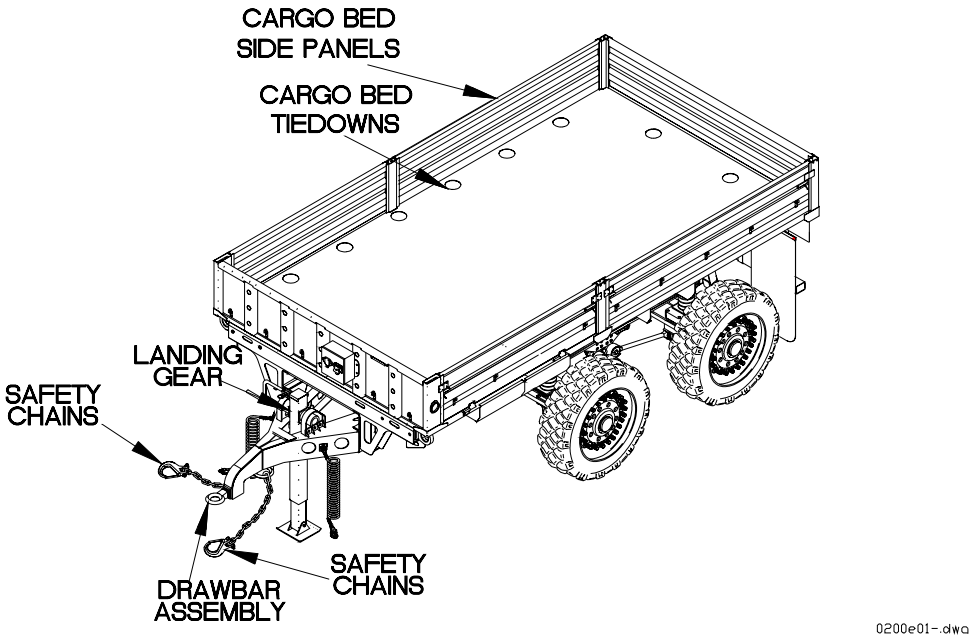


Table 1. Common External Components of FMTV Trailers.

COMPONENT	DESCRIPTION
Drawbar Assembly	Towing vehicle pintle hook attaches to drawbar assembly for towing operations.
Safety Chains	Attached to towing vehicle during towing operations to prevent trailer breakaway in event of drawbar assembly or pintle hook failure.
Landing Gear	Supports front of trailer when not connected to towing vehicle. When landing gear is not in use, it folds and is stowed in a near-horizontal position.
Cargo Bed Tiedowns	Anchor points for securing cargo.
Cargo Bed Side Panels	Aluminum panels used to keep cargo from falling out of cargo bed. They may be raised or lowered, or removed and stowed under the cargo bed.

EQUIPMENT DESCRIPTION AND DATA - Continued 0002 00

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS - Continued

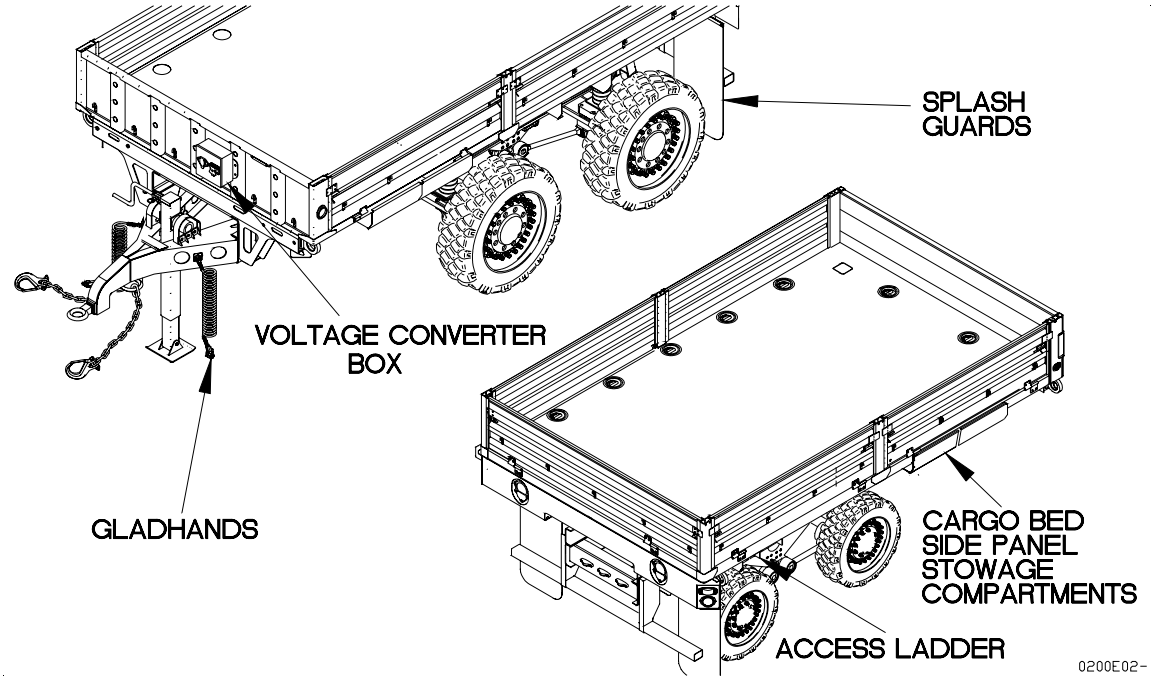


Table 1. Common External Components of FMTV Trailers - Continued.

COMPONENT	DESCRIPTION
Gladhands	Allows connection of brake air supply from towing vehicle to trailer during towing operations.
Voltage Converter Box	Consists of two connectors (for 24 VDC and 12 VDC). The 24 VDC or 12 VDC intervehicular cable is plugged into the appropriate connector to supply electrical power from towing vehicle to trailer. When a 24 VDC intervehicular cable is used, the converter reduces voltage to 12 volts to properly operate the trailer lights and Anti-lock Braking System (ABS).
Splash Guards	Keep road debris, mud, and water from being thrown from tires while trailer is being towed.
Cargo Bed Side Panel Stowage Compartments	Two compartments used to stow cargo bed side panels when not in use.
Access Ladder	Assists personnel when climbing in or out of cargo bed during loading and unloading operations. The access ladder is stored beneath the cargo bed when not in use.

EQUIPMENT DESCRIPTION AND DATA - Continued 0002 00

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS - Continued

Major Internal Components Common to all FMTV Trailers

Table 2 describes the common internal components found on FMTV trailers.

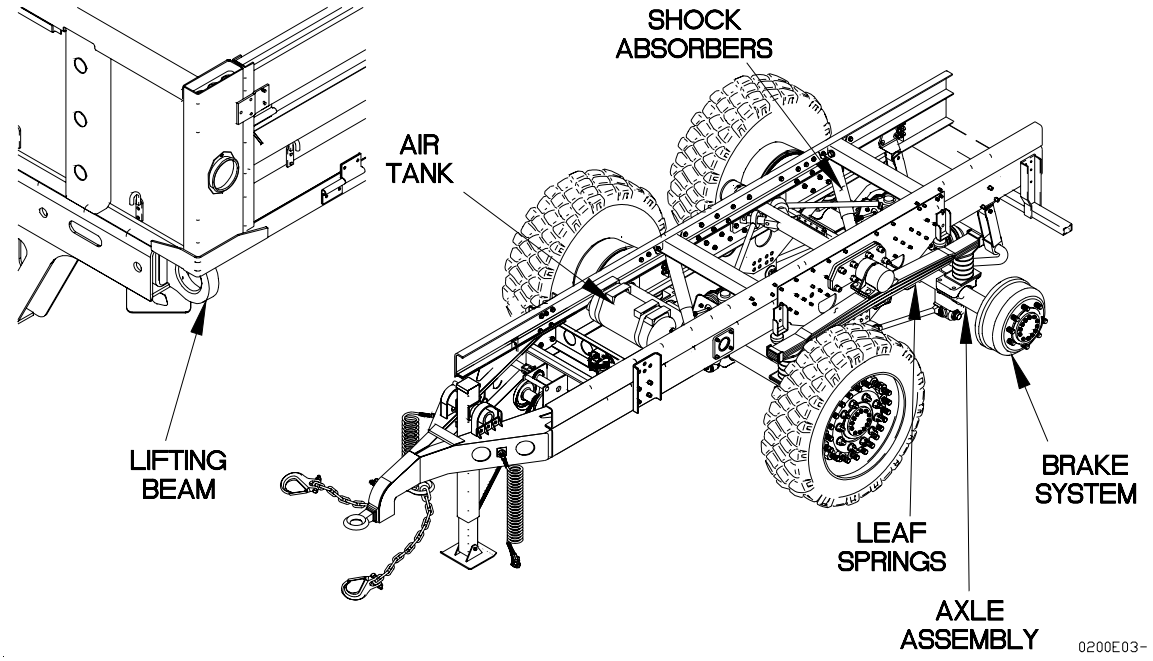


Table 2. Common Internal Components of FMTV Trailers.

COMPONENT	DESCRIPTION
Shock Absorbers	Dual-acting hydraulic shocks used to improve trailer stability by dampening vertical wheel motion and keeping wheels in firmer contact with ground.
Air Tank	Stores compressed air transferred from towing vehicle to operate trailer brakes.
Brake System	Uses air-operated, wedge-actuated drum brakes that incorporate ABS on all wheels. Spring-applied (air-actuated) parking/emergency brakes are provided for all wheels on LMTVT and rear MTVT wheels.
Axle Assembly	The shaft on which the wheels revolve. The axles support shock absorbers and brakes. The LMTVT has a single axle and the MTVT has dual axles.
Lifting Beam	Provides attachment point for lifting/loading operations.
Leaf Springs	Axle suspension that supports the load, transmits brake action to the chassis, and cushions cargo.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS - Continued

Major Internal Trailer Components of MTVT Only

Table 3 describes the internal components found on the MTVT.

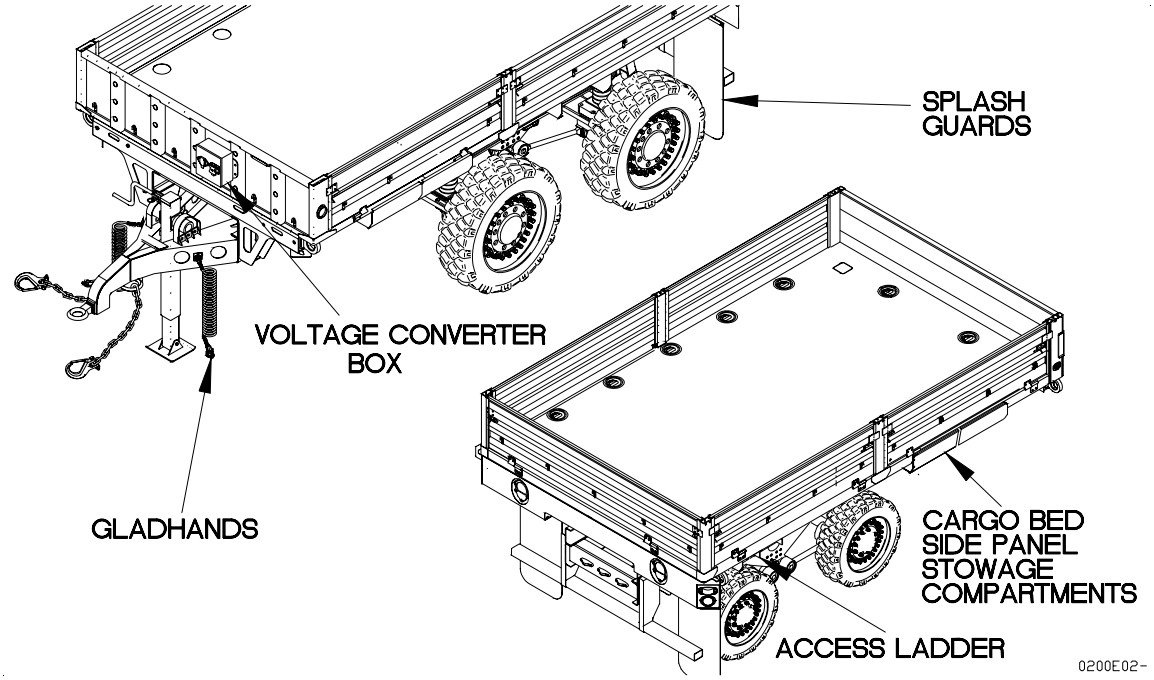


Table 3. Internal Components of MTVT.

COMPONENT	DESCRIPTION
V-Rod Control Arms	Support frame.
Torque Rods	Anchor the frame to the axles and control vertical wheel travel; i.e., maintain wheel on a fixed path as it moves up or down. The torque rods also transfer driving and braking forces from axles to frame.

DIFFERENCES BETWEEN TRAILER MODELS

Table 4. Differences Between Models shows major equipment and operational differences between the LMTVT and MTVT. An "X" means that the designated model is provided with the equipment/capability listed. A "—" means that the model does not have the equipment/capability listed.

Table 4. Differences Between Models.

FEATURE	LMTVT M1082	MTVT M1095
Body Feature		
12 ft 10 in.(391 cm) cargo bed	X	—
14 ft 6 in. (442 cm) cargo bed	—	X
Single axle	X	—
Dual axle	—	X
V-Rod Controls	—	X
Control Arms	—	X
Operating Function		
Cargo transport of loads up to 5,000 lb (2,268 kg)	X	X
Cargo transport of loads up to 10,000 lb (4,536 kg)	—	X
Storage	X	X
Special Purpose Kits[1]		
Cargo Cover Soft Top Kit	X	X
Cargo Ring Replacement Kit	X	X

[1] Trailers may or may not be equipped with special purpose kits. If an "X" appears under the model number, it only indicates availability of the special purpose kit, rather than actual inclusion of the kit on the trailer.

EQUIPMENT DATA

Table 5. Trailer Dimensions provides overall dimensions for the LMTVT (M1082) and MTVT (M1095).

Table 5. Trailer Dimensions.

Trailer	Overall Length	Overall Width	Deck Height - curb	Deck Height - gross	Overall Height
LMTVT M1082	209.5 in. (532.2 cm)	96.0 in. (243.8 cm)	60.2 in. (153.0 cm)	57.0 in. (144.8 cm)	78.0 in. (197.9 cm)
MTVT M1095	227.9 in. (578.8 cm)	96.0 in. (243.8 cm)	62.8 in. (159.5 cm)	60.5 in. (153.7 cm)	82.2 in. (208.7 cm)

Table 6. Trailer Weights, Shipping Cubage, and Payload provides information regarding the weight, shipping cubage, and payload of the LMTVT (M1082) and MTVT (M1095).

Table 6. Trailer Weights, Shipping Cubage, and Payload.

Trailer	Curb Weight [2]	Gross Curb Weight[3]	Tongue Weight	Shipping Cubage	Payload
LMTVT M1082 (Vehicle S/N 11,438 to 18,549)	6,660 lbs (3,112 kgs)	11,860 lbs (5,360 kgs)	VCW: 800 lbs (363 kgs) GVW: 1,383 lbs (628 kgs)	977.7 cu ft (27.69 cu m)	5,000 lbs (2,268 kgs)
LMTVT M1082 (Vehicle S/N 18,550 to 299,999)	7,004 lbs (3,177 kgs)	12,004 lbs (5,445 kgs)	VCW: 810 lbs (368 kgs) GVW: 1,431 lbs (649 kgs)	977.7 cu ft (27.69 cu m)	5,000 lbs (2,268 kgs)
MTVT M1095 (Vehicle S/N 11,438 to 18,549)	9,520 lbs (4,318 kgs)	19,520 lbs (8,854 kgs-)	VCW: 880 lbs (409 kgs) GVW: 2,059 lbs (934 kgs)	1,064 cu ft (30.13 cu m)	10,000 lbs (4,536 kgs)
MTVT M1095 (Vehicle S/N 18,550 to 299,999)	9,626 lbs (4,366 kgs)	19,626 lbs (8,902 kgs-)	VCW: 906 lbs (411 kgs) GVW: 2,305 lbs (1,046 kgs)	1,064 cu ft (30.13 cu m)	10,000 lbs (4,536 kgs)

[2] Curb weight is defined as weight of empty trailer (without cargo).
[3] Gross curb weight is defined as weight of trailer when carrying maximum cargo load.

EQUIPMENT DESCRIPTION AND DATA - Continued 0002 00

EQUIPMENT DATA - Continued

WARNING

Do not exceed maximum speed and grade limitations during normal operations. Do not exceed maximum side slope or departure angles or ford water greater than maximum depth. Failure to comply may result in serious injury or death to personnel.

Table 7. Trailer Performance Data provides information for the LMTVT (M1082) and MTVT (M1095).

Table 7. Trailer Performance Data.

Maximum Speed (primary roads, 2% grade)	Maximum Speed (primary roads, 3% grade)	Maximum Grade Ability	Maximum Side Slope Ability	Maximum Departure Angle	Maximum Fording Depth (without preparation)	Minimum Ground Clearance
35 mph (56 km/h) if towed by FMTV tractor or wrecker. 45 mph (72 km/h) all other FMTVs.	25 mph (40 km/h) if towed by FMTV tractor or wrecker. 40 mph (64 km/h) all other FMTVs.	30%	30%	LMTVT: 25 degrees MTVT: 40 degrees	60 in. (152.4 cm)	LMTVT: 16.5 in. (41.9 cm) MTVT: 14.5 in. (36.8 cm)

Table 8. System Data provides detailed information for the major components of the FMTV trailers.

Table 8. System Data.

VOLTAGE REGULATOR

Make ..... Dantronics, Inc.

Model DT325B

Type ..... Solid State, 12/24 VDC negative ground

AXLES

Make ..... Meritor

Type ..... Non-driving

SUSPENSION SYSTEM

Make ..... Standen's Ltd.

Type ..... Multiple Leaf Spring

Table 8. System Data - Continued.

BRAKE SYSTEM

Make	Meritor
Model	Easy-Stop Trailer ABS/ Stopmaster Brakes
Type	Full air, wedge-type, self-adjusting
Drum Size	15 in. (38.1 cm) diameter
Number of Brake Air Chambers	2 per wheel
Pressure Range	60-120 psi (414-827 kPa)

LANDING GEAR

Make	Holland Binkley
Type	Retractable, handcrank
Lift Capacity	10,000 lbs (4,540 kgs)
Static Capacity	12,000 lbs (5,448 kgs)

DRAWBAR ASSEMBLY

Make	Holland Hitch Co.
Maximum Load Capacity, pulling (maximum gross trailer weight)	45,000 lbs (20,430 kgs)
Maximum Load Capacity, vertical	9,000 lbs (4,082 kgs)

WHEELS

Make	Titan Wheel
Rim Size and Type	20 x 10, two-piece, bolt-together
Quantity, LMTVT	2
Quantity, MTVT	4
Studs Per Wheel	10
Maximum Wheel, Pneumatic Tire Rate Load Capacity	9,000 lbs (4,082 kgs) at 85 psi (586 kPa)

TIRES

Make	Michelin North America
Size	395/85 R20 XML
Tread Design	Non-directional, on-off road
Ply Rating	14
Tube or Tubeless	Tubeless
Load Range	G

Table 8. System Data - Continued.

TIRES - Continued

Maximum Load, Single Tire, Highway Conditions:

65 mph (105 km/h), Cold Inflation Pressure of 88 psi (607 kPa) ..... 9,172 lbs (4,164 kgs)

55 mph (89 km/h), Cold Inflation Pressure of 94 psi (648 kPa) ..... 9,651 lbs (4,381 kgs)

45 mph (72 km/h), Cold Inflation Pressure of 99 psi (683 kPa) ..... 10,103 lbs (4,586 kgs)

TIRE PRESSURES

Terrain Condition	Maximum Speed	Tire Pressure
Highway	65 mph (104 km/h)	77 psi (531 kPa)
Cross Country	40 mph (64 km/h)	59 psi (407 kPa)
Sand (soft terrain)	12 mph (19 km/h)	35 psi (241 kPa)
Emergency	5 mph (8 km/h)	18 psi (125 kPa) (10 minutes only)

SPECIAL PURPOSE KITS[4]

Arctic Cargo Cover Kit (Green) for LMTVT (M1082) ..... Part No. 12420288

Arctic Cargo Cover Kit (Green) for MTVT (M1095) ..... Part No. 12420289

Soft Top Cargo Cover Kit (Green) for LMTVT (M1082) ..... Part No. 12420281

Soft Top Cargo Cover Kit (Green) for MTVT (M1095) ..... Part No. 12420283

Soft Top Cargo Cover Kit (Tan) for MTVT (M1095) ..... Part No. 12420283-015

Soft Top Cargo Cover Kit (Tan) for LMTVT (M1082) ..... Part No. 12420281-015

Cargo Ring Replacement Kit for LMTVT (M1082) and MTVT (M1095) ..... Part No. 57K2017

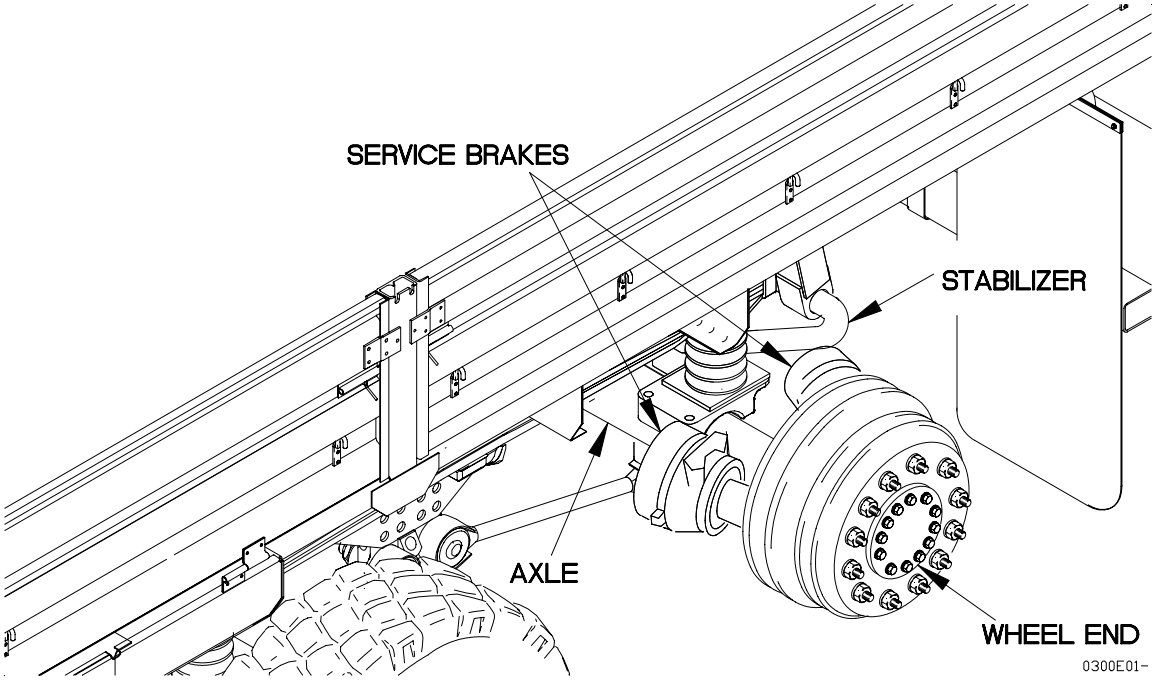
[4] Trailer may be equipped with these items depending on mission, climate, and other factors.

SUSPENSION ASSEMBLY THEORY OF OPERATION 0003 00

The trailer suspension assembly includes the axle and spring assemblies. The suspension assembly supports the trailer and its cargo and provides an efficient, safe ride by transmitting shock and torque from the wheels to the frame.

AXLE ASSEMBLY

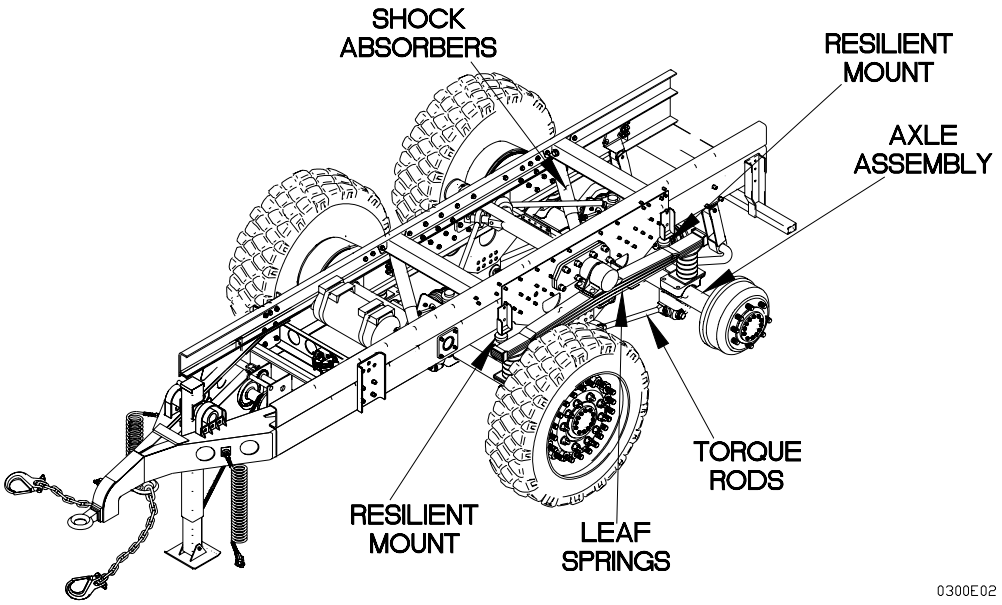
The trailer axle is a non-powered axle, able to support the trailer but not transmit power (the axle does not have gears to transmit power from a vehicle's engine and transmission). The axle assembly includes a tubular axle beam, wedge-actuated service brakes, spring-actuated emergency brakes, wheel-end components such as bearings and hubs, and a stabilizer bar to stabilize the trailer during turns. The LMTVT is equipped with a single axle. The MTVT has two axles. Other than a unique bracket on the MTVT, the axle design is identical on the LMTVT and MTVT.



SUSPENSION ASSEMBLY THEORY OF OPERATION - Continued 0003 00

SPRING ASSEMBLY

The multiple steel alloy leaf springs attach to the axle and frame to cushion the load. The spring assembly also improves braking and steering by absorbing road shock and torque from the brakes and transmitting these to the frame. Further cushioning is provided by shock absorbers and resilient mounts. Torque rods on the MTVT stabilize the dual-axle trailer and help transmit shock to the MTVT frame.



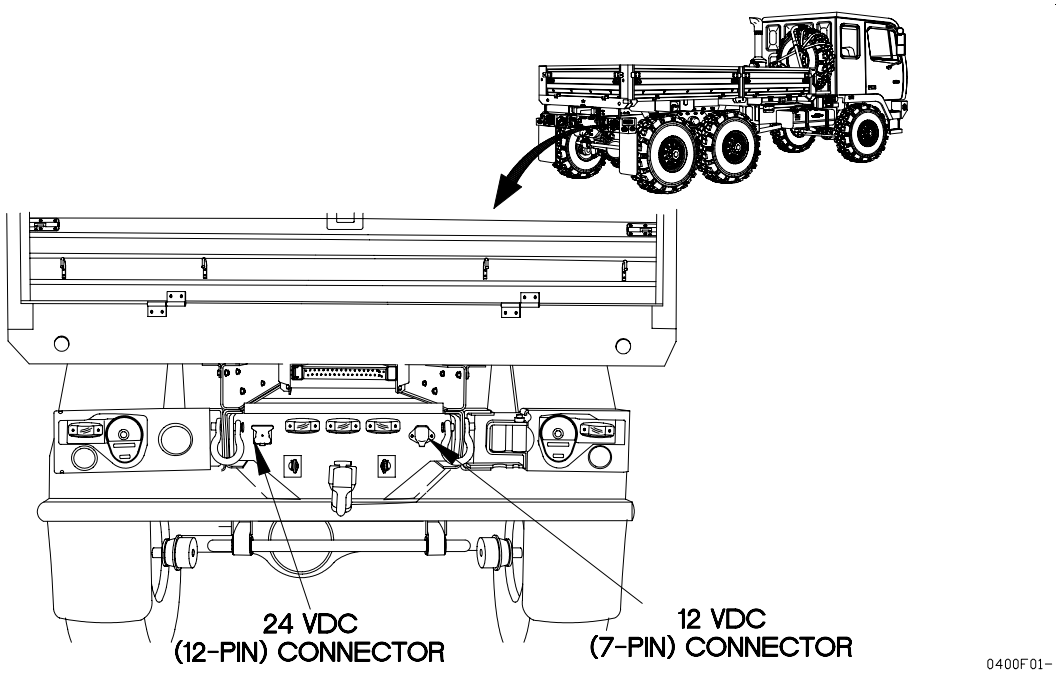
ELECTRICAL SYSTEM THEORY OF OPERATION 0004 00

TOWING VEHICLE ELECTRICAL SYSTEM

The towing vehicle electrical system supplies all electrical power to the trailer by way of a 12 vdc (7-pin) connector or a 24 vdc (12-pin) connector at the rear of the towing vehicle.

In order for the towing vehicle to supply electrical power to the trailer lights, the main light switch of the towing vehicle must be on.

The master power switch of the towing vehicle must be positioned to on in order for electrical power to be supplied to the trailer Anti-lock Braking System (ABS) Electronic Control Unit (ECU).



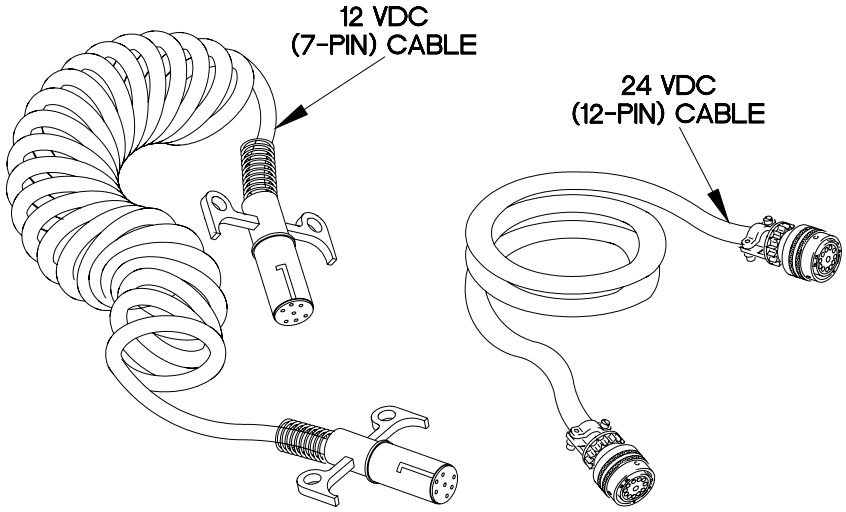
0400F01-

ELECTRICAL SYSTEM THEORY OF OPERATION - Continued 0004 00

TRAILER ELECTRICAL SYSTEM

The trailer electrical system is dependent on the towing vehicle electrical system. The towing vehicle electrical system must be operational in order for the trailer electrical system to be operational. The trailer lights and ABS ECU operate on 12 vdc.

All power to the trailer lights and ABS ECU is routed from a 12 vdc (7-pin) intervehicular cable or a 24 vdc (12-pin) intervehicular cable to a voltage converter box before allowing power to flow to the lights or ABS ECU.

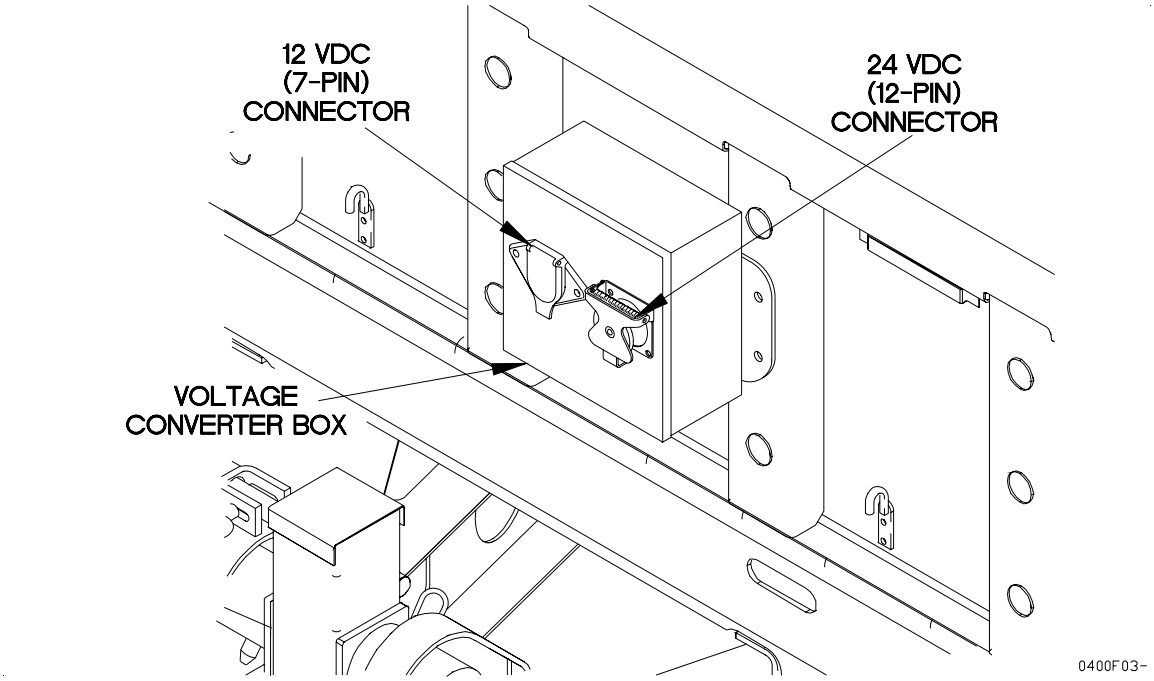


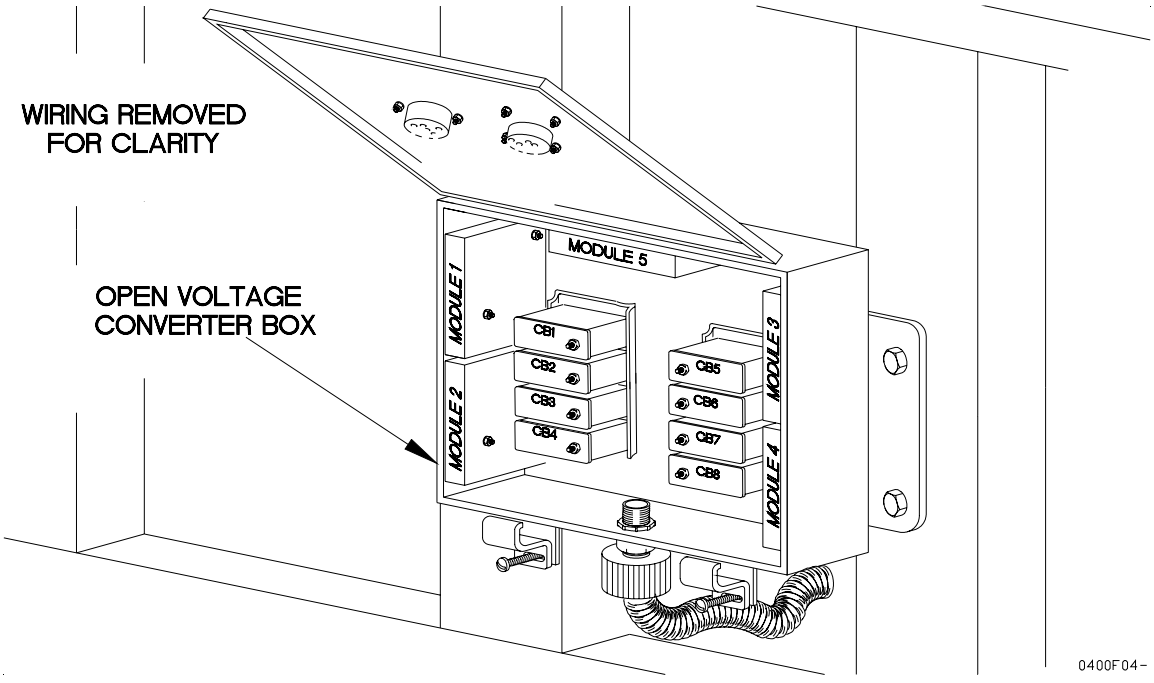
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ELECTRICAL SYSTEM THEORY OF OPERATION - Continued 0004 00

VOLTAGE CONVERTER BOX

The voltage converter box, mounted on the front of the cargo bed, has a connector for the 12 vdc (7-pin) intervehicular cable and a connector for the 24 vdc (12-pin) intervehicular cable. The voltage converter box is equipped with five solid state switches that convert 24 vdc to 12 vdc when the 24 vdc (12-pin) intervehicular cable is used. Circuit breakers located in the voltage converter box prevent excessive voltage or amperage from being supplied to the trailer electrical system and causing damage to the circuits.





ELECTRICAL SYSTEM THEORY OF OPERATION - Continued 0004 00

TRAILER LIGHTS

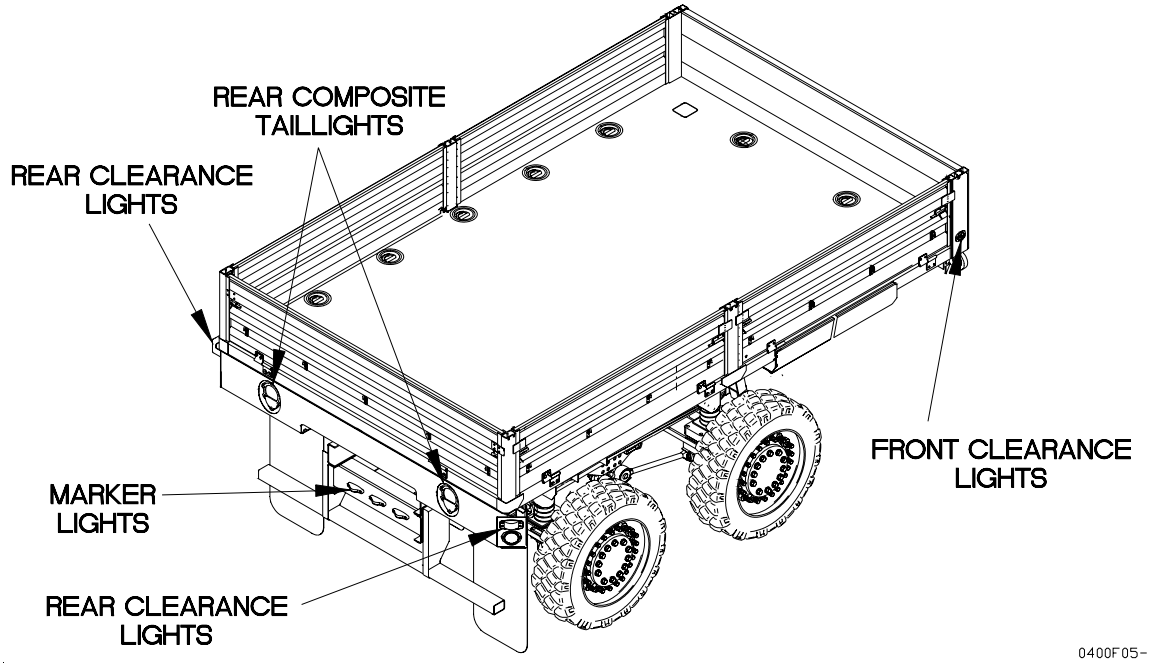
The trailer lights consist of clearance and marker lights and rear composite taillights. The front clearance lights are located on the left and right side of the trailer frame rail. The rear clearance lights are located on the left and right of the trailer frame rail. The marker lights are located on the rear marker light bracket. The rear composite taillights are located on the rear bumper.

After electrical power is routed through the voltage converter box, 12 vdc is then supplied to the trailer lights through an electrical harness.

Service Lighting.
The Service Lighting System includes the rear composite taillights and clearance and marker lights. They are energized by positioning the main light switch of the towing vehicle to the appropriate position.

Blackout Lighting.
The Blackout Lighting System includes the rear blackout marker lights and blackout stop lights. These lights are energized by positioning the main light switch of the towing vehicle to the appropriate position.

Blackout lights operate only with 24 vdc intervehicular cable.



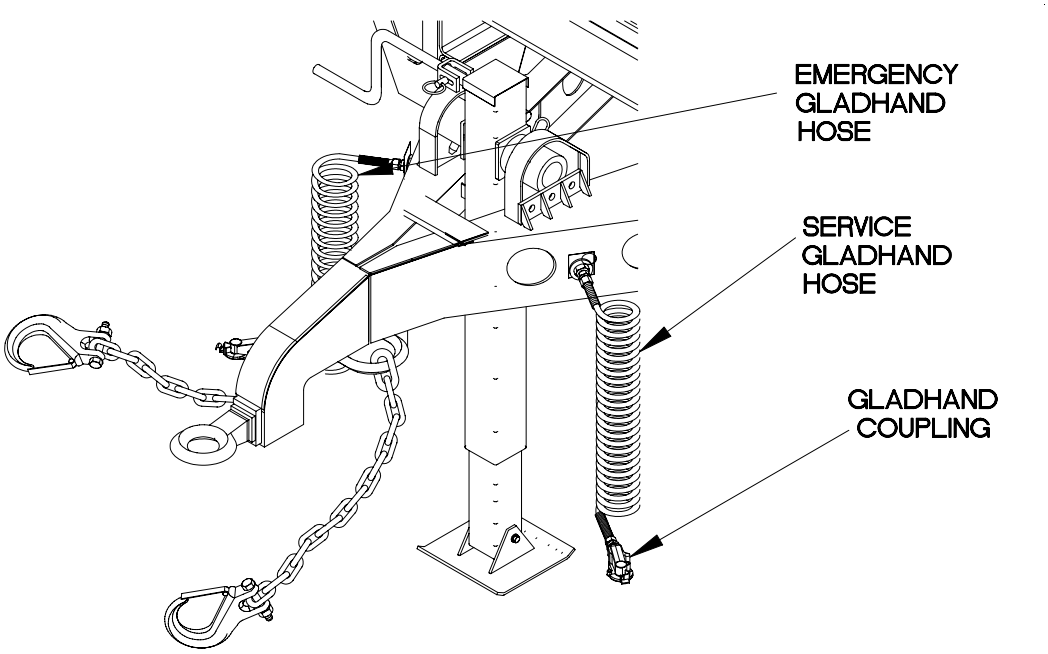
BRAKE SYSTEM THEORY OF OPERATION 0005 00

GENERAL

The trailer is equipped with an air brake system which complies with the Federal Motor Vehicle Safety Standard (FMVSS) 121, S5.5. The trailer brake system operates in tandem with the towing vehicle brake system. The trailer brake system is made up of a number of components including EMERGENCY and SERVICE gladhand hoses, an air tank, an Anti-lock Braking System (ABS) Electronic Control Unit (ECU), ABS external diagnostic capability, and several valves which control the application and release of the brakes.

EMERGENCY AND SERVICE GLADHAND HOSES

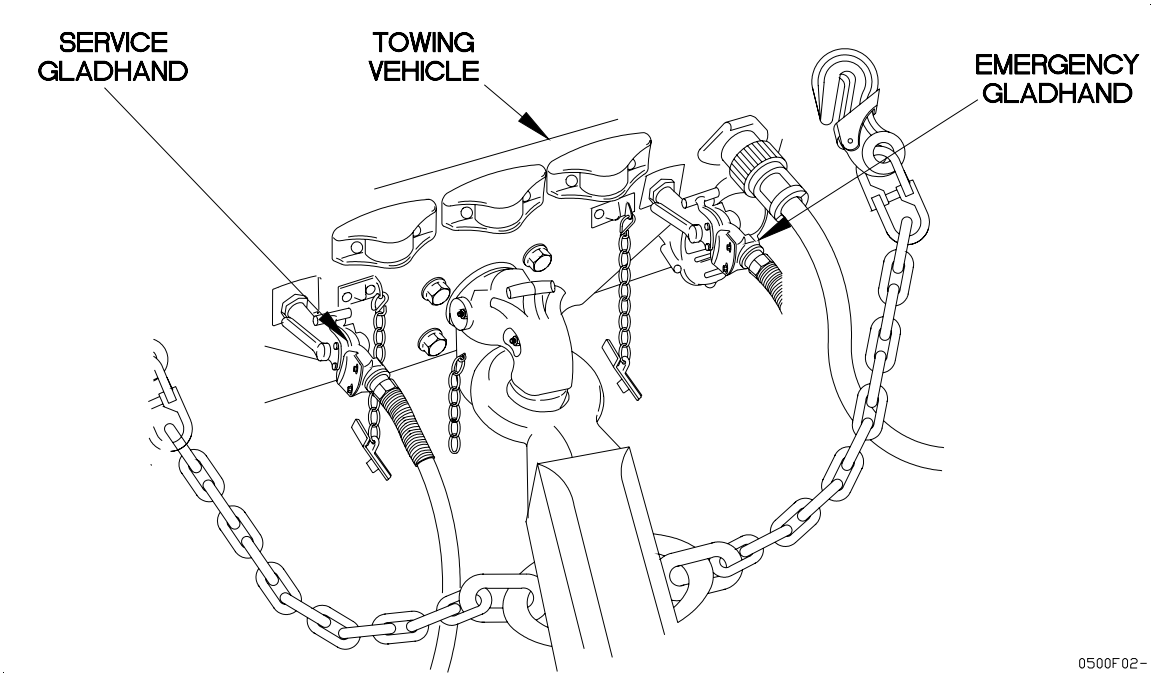
The EMERGENCY and SERVICE gladhand hoses provide air for operation of the trailer brakes from the towing vehicle. One hose is for SERVICE brake operation; the other hose is for EMERGENCY brake operation. Both hoses have gladhand couplings.



BRAKE SYSTEM THEORY OF OPERATION - Continued 0005 00

GLADHANDS

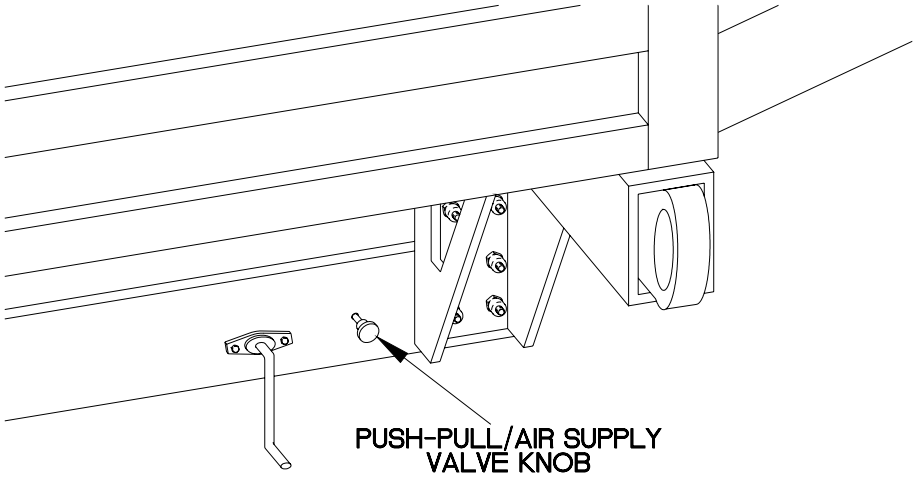
The hoses connect to the SERVICE gladhand and EMERGENCY gladhand at the rear of the towing vehicle. The left hose is for SERVICE brake operation; the right hose is for EMERGENCY brake operation.



BRAKE SYSTEM THEORY OF OPERATION - Continued 0005 00

PUSH-PULL/AIR SUPPLY VALVE

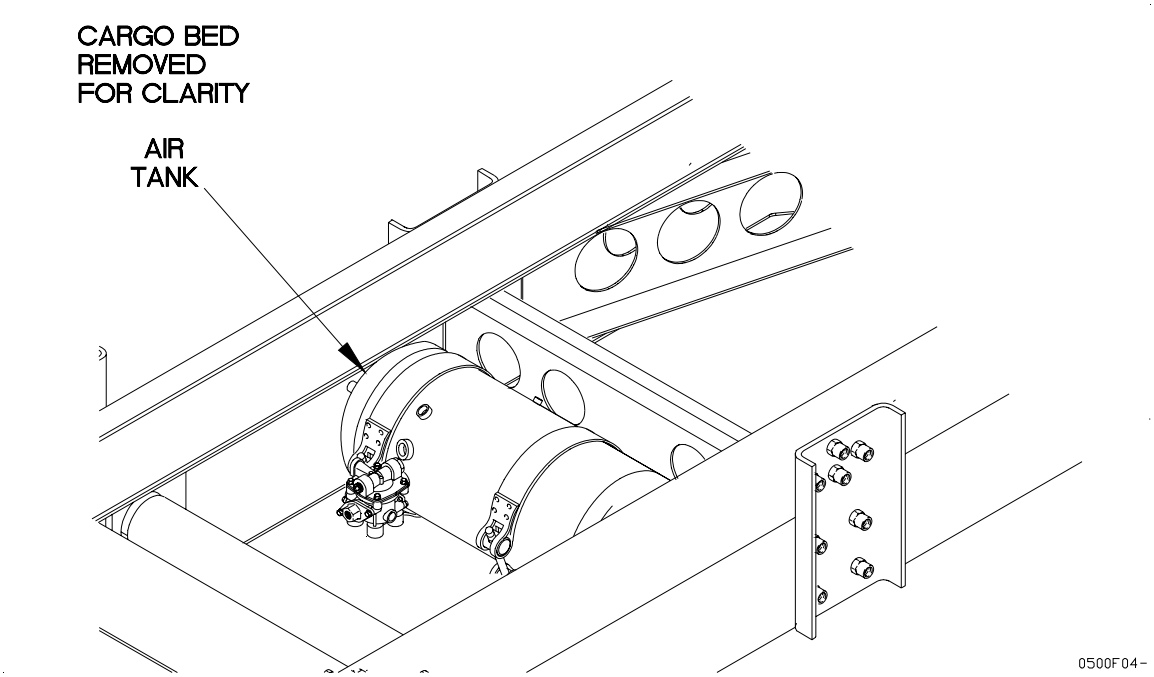
A push-pull/air supply valve is connected to the hose assembly for emergency brake operation. The push-pull/air supply valve allows the trailer brakes to be manually set or released when trailer is not connected to a towing vehicle. The push-pull/air supply valve knob is located on the right front side of trailer. The knob is pulled to set the brakes. Pushing the knob will release the brakes as long as there is at least 60 psi (414 kPa) in the air tank. If there is less than 60 psi (414 kPa) in the air tank, the brakes cannot be released using the push-pull/air supply valve knob.



0500F03-

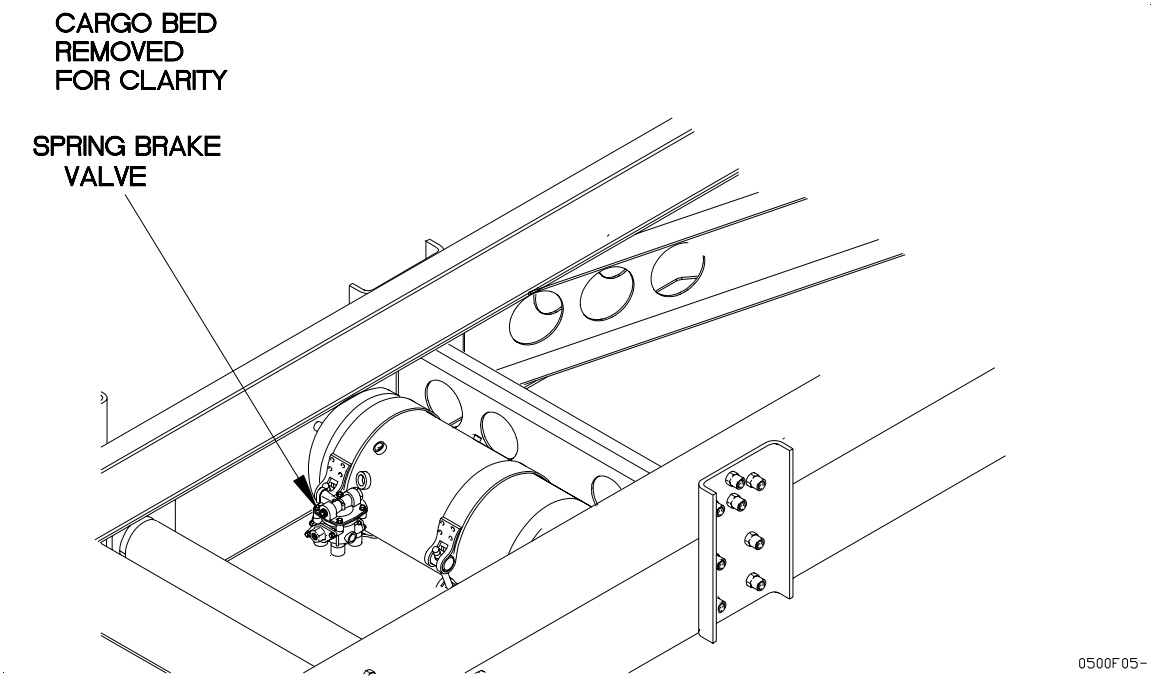
AIR TANK

The air tank stores pressurized air from the towing vehicle for use in the trailer brake system.



SPRING BRAKE VALVE

Both the emergency and service brake hose assemblies are plumbed through the spring brake valve, which is connected to the air tank. If air pressure drops below 60 psi, (414 kPa) the spring brake valve automatically activates the spring brake system and locks the brakes. Once the spring brake system is activated, the loss of air pressure must be corrected before the spring brakes can be automatically released. If sufficient air pressure is unavailable, the spring may be manually released by a special bolt that compresses the spring in the brake air chamber.

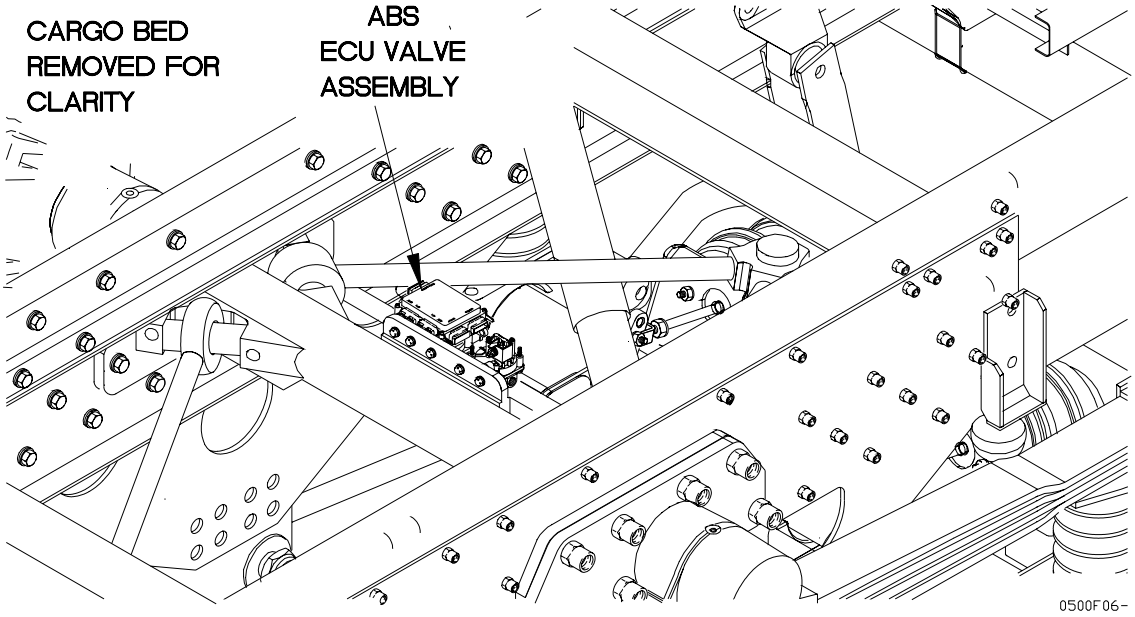


ABS ECU

After exiting the spring brake valve, the service hose assembly is plumbed to the ABS ECU. The ABS ECU monitors and regulates release of air to the service brake air chambers using two relay valves that are triggered when speed sensors (one on each wheel) detect trailer wheel lock-up. The relay valves modulate the air supply by sending pulses of air. In between air pulses, the service brakes release, thereby preventing wheel lock-up.

ABS ECU Valve Assembly.

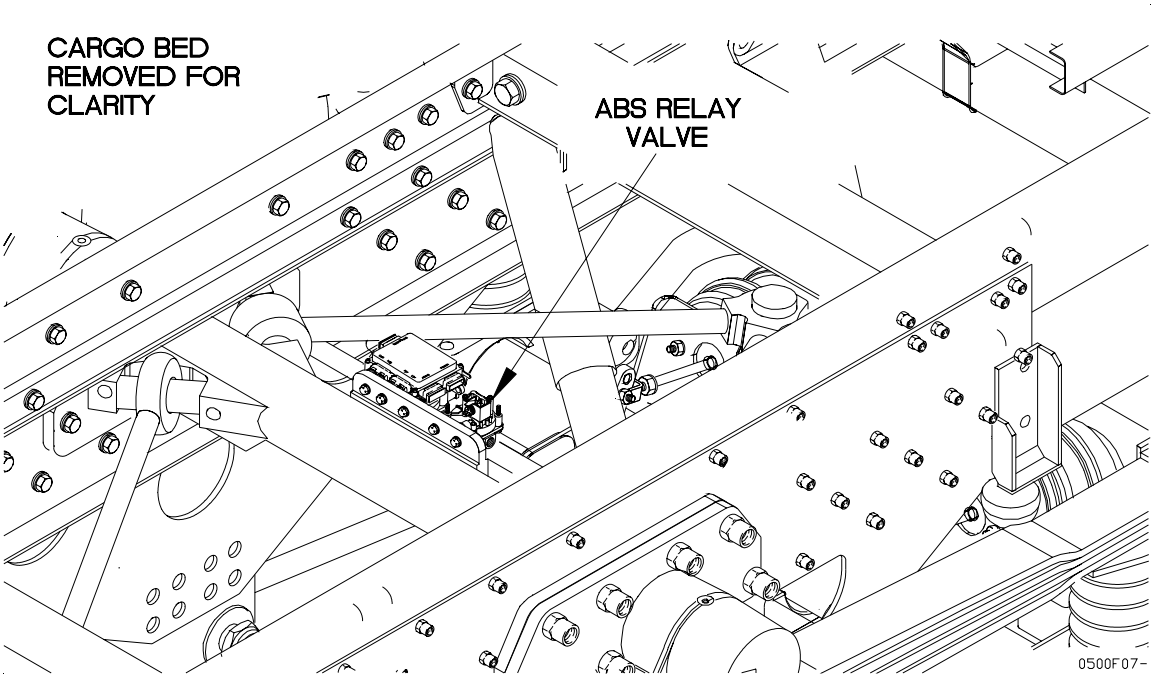
The ABS ECU valve assembly contains the first relay valve.



ABS ECU - Continued

ABS Relay Valve.

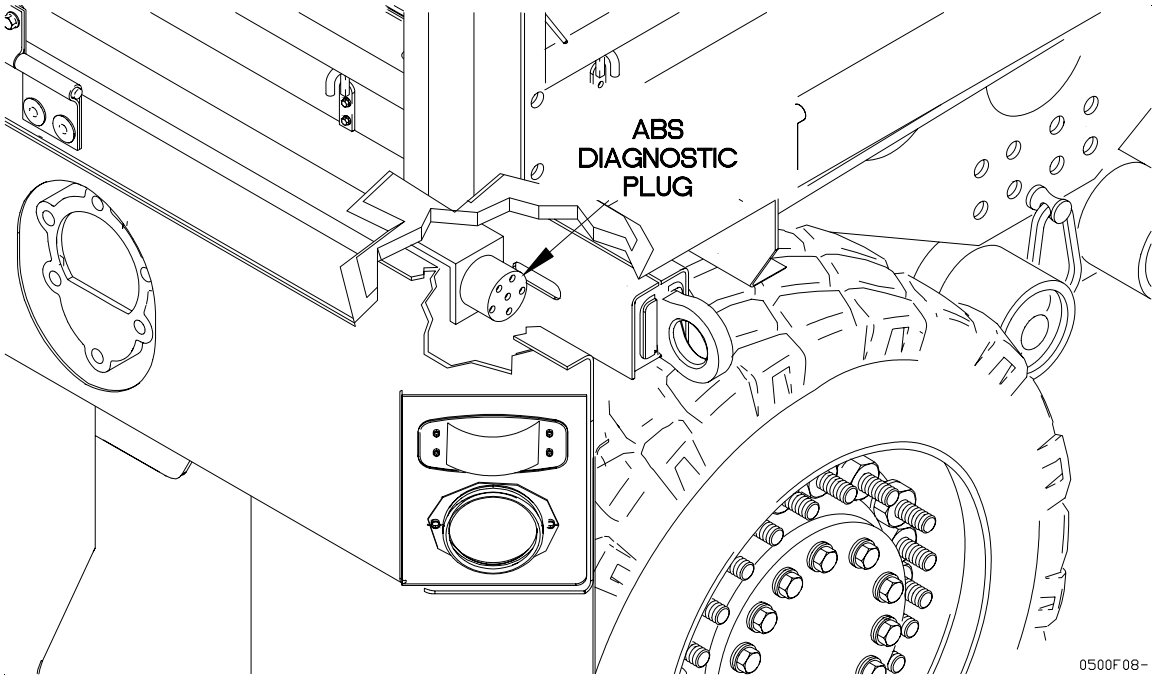
The external ABS relay valve is the second relay valve. The ECU valve assembly services curbside brake air chambers. The external ABS relay valve services roadside brake air chambers.



ABS ECU - Continued

ABS Diagnostic.

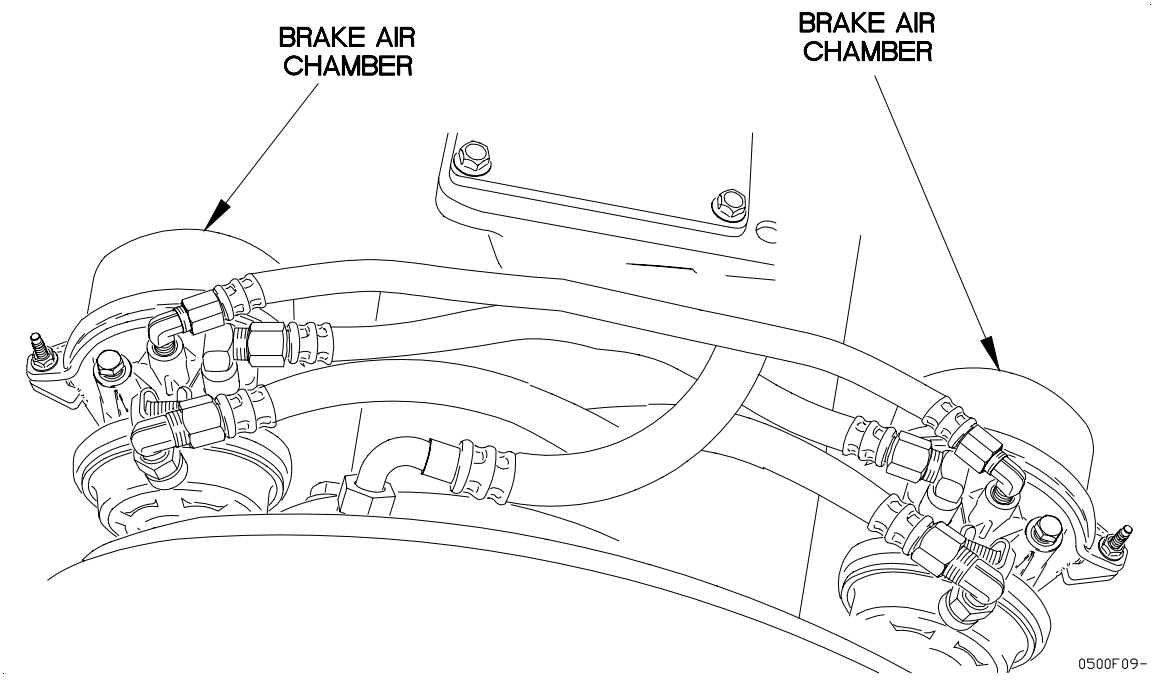
The trailer brake system has a connector on the ECU valve assembly for external ABS DIAGNOSTIC capability.



BRAKE SYSTEM THEORY OF OPERATION - Continued 0005 00

BRAKE AIR CHAMBERS

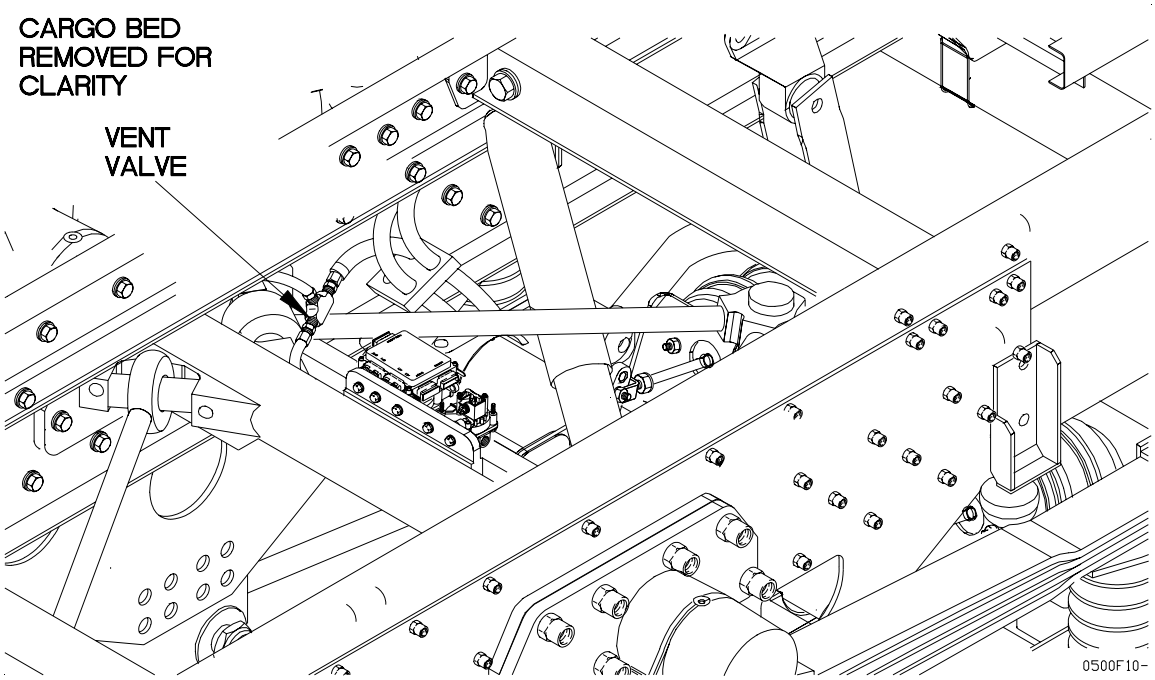
After exiting the spring brake valve, the emergency hose assembly is plumbed directly to the brake air chambers. After exiting the ABS ECU, the service hose assembly is plumbed to the brake air chambers. The wedge-type brake design uses dual brake air chambers per brake. Within the brake air chambers, air pressure is converted to mechanical force to create braking action.



BRAKE SYSTEM THEORY OF OPERATION - Continued 0005 00

VENT VALVE

The trailer brake system includes vent valve(s) that allow the atmospheric side of the brake air chamber to breathe when the trailer is fording and the brakes are under water. There is one on the LMTVT and two on the MTVT.



COMMON TOOLS AND EQUIPMENT/ SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT 0006 00

COMMON TOOLS AND EQUIPMENT

For authorized common tools and equipment, refer to Modified Table of Organization and Equipment (MTOE), CTA 50-970, or CTA 8-100 as applicable to your unit.

SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT

For a listing of special tools, Test, Measurement, and Diagnostic Equipment (TMDE), and support equipment, refer to the Maintenance Allocation Chart (MAC) (WP 0124 00), and to the Repair Parts and Special Tools List (RPSTL) (WP 0125 00).

Field Level Maintenance repair parts and special tools for the trailers are listed and illustrated in the RPSTL (WP 0125 00).

CHAPTER 2
OPERATOR INSTRUCTIONS

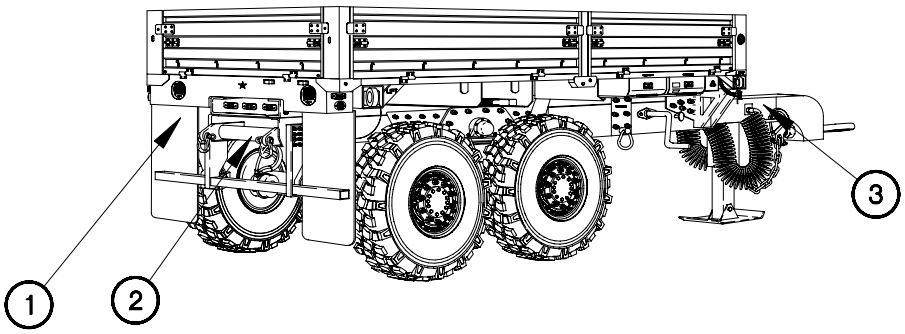
TRAILER CONTROLS 0007 00

GENERAL

The following paragraphs contain illustrations that show the location of each control for the M1082/M1095 series trailers. Each control is clearly labeled as it appears on the trailers. Find numbers on the illustration are keyed to the tabular listing which contains the name and the functional description of each control. Operator must become thoroughly familiar with this section before attempting to operate trailer. Controls are identical for LMTV (M1082) trailer and MTV (M1095) trailer unless otherwise indicated.

CONTROLS

Table 1 describes all controls on the exterior of the trailer.



0700E01

Table 1. Exterior Controls.

KEY	CONTROL	FUNCTION
1	Rear composite taillights	Two composite taillights located on the rear trailer bumper. Each contains tail, stop, and turn lights plus blackout tail and blackout stop lights. Towing vehicle controls each light.
2	Marker lights	Three red identification lights centered at the trailer rear on the crossmember. Illuminate when towing vehicle drive lights or parking lights are on.
3	Amber clearance lights	Two lights located on the front trailer corners. They illuminate when towing vehicle drive lights or parking lights are on.

TRAILER CONTROLS - Continued 0007 00

CONTROLS - Continued

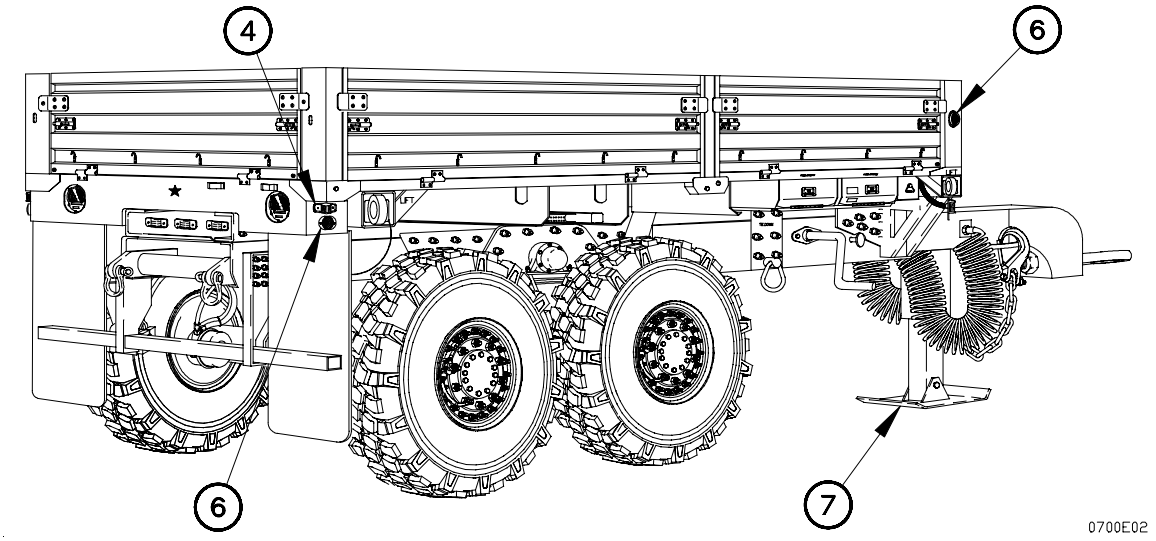


Table 1. Exterior Controls - Continued.

KEY	CONTROL	FUNCTION
4	Red clearance lights	Two lights located on the corners of the rear trailer bumper. They illuminate when towing vehicle drive lights or parking lights are on.
5	Amber front reflectors	Two reflectors located on the trailer sides, at the front left and front right.
6	Red rear reflectors	Two reflectors located on the corners of the rear trailer bumper, beneath red clearance lights.
7	Landing gear	Used to raise/lower the front of trailer during coupling/uncoupling operations and support trailer when disconnected from towing vehicle. Table 2. Landing Gear shows all controls on the landing gear.

LANDING GEAR

Table 2 describes the trailer landing gear controls.

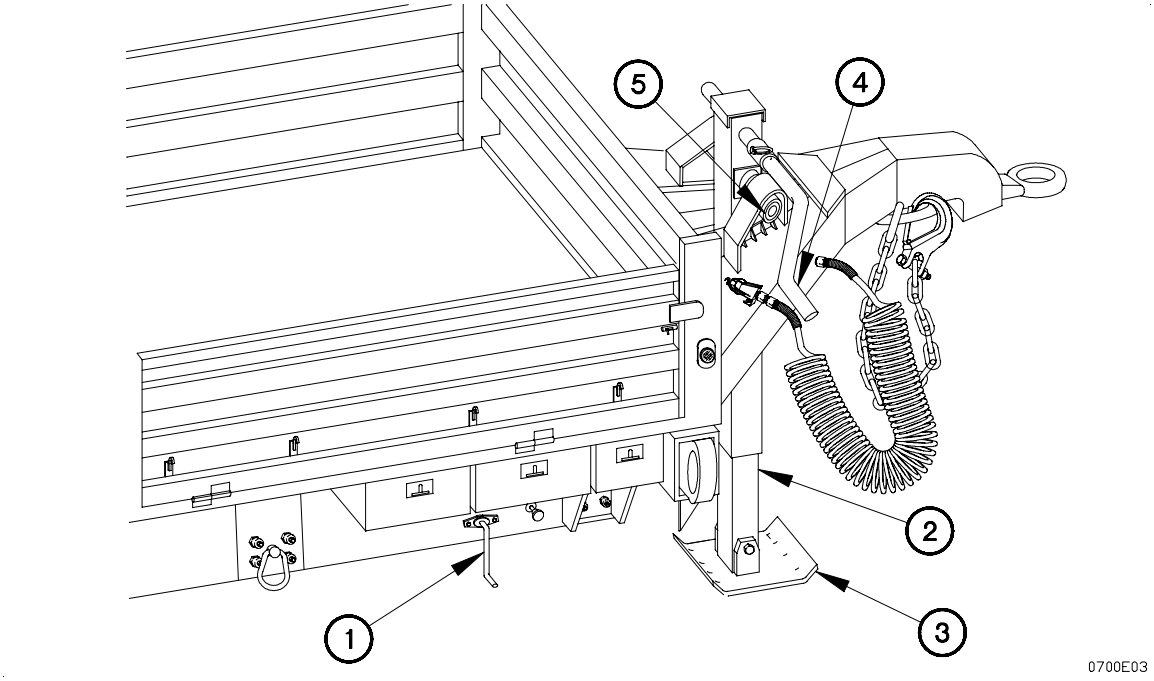


Table 2. Landing Gear.

KEY	CONTROL	FUNCTION
1	Winch handle	Raises or drops landing gear to/from stowed position. Turning the crank clockwise drops the landing gear; counterclockwise raises the landing gear. Located on upper right frame rail.
2	Retractable support	The retractable support is extended to support and level front of trailer when uncoupled from towing vehicle.
3	Landing gear foot plate	Keeps retractable support from sinking into the ground.
4	Landing gear handle	Raises or lowers retractable support by operating gearbox.
5	Gearbox	Moves retractable support up or down. Operated by the landing gear handle.

PREPARATION FOR USE 0008 00

INITIAL SETUP:

Maintenance Level
Operator

Equipment Conditions
Wheels chocked (WP 0011 00).
Trailer coupled (WP 0009 00).

References
WP 0010 00
WP 0011 00
FM 55-450-5
Towing vehicle Operator manual

GENERAL

The trailer must be properly prepared before each use. The paragraphs in this work package provide the data and procedures to be used by the Operator when preparing the trailer for use. Items covered include towing vehicle mirror adjustment and operation in off-road conditions.

ADJUSTING MIRRORS

WARNING

Increased length of towing vehicle and trailer combination will affect left and right mirror adjustment in towing vehicle. Mirrors must be adjusted prior to operating towing vehicle. Failure to comply may result in injury to personnel or damage to equipment.

1. Adjust towing vehicle left and right mirrors for best visibility during backing and passing operations of towing vehicle and trailer combination.

OPERATION IN OFF-ROAD CONDITIONS

WARNING

Heavy objects/loads, such as tool boxes and heavy parts, must always be positioned as low as possible in the trailer with the weight distributed as equally as possible between left and right sides of trailer. Poor weight distribution decreases the stability of the trailer and will increase the likelihood of a rollover. Failure to comply may result in serious injury or death to personnel.

OPERATION IN OFF-ROAD CONDITIONS - Continued

1. Check trailer cargo for ability to withstand off-road conditions.
2. Lower cargo bed side panels (WP 0010 00, Lower Cargo Bed Side Panel) and open tailgate (WP 0010 00, Lower Ladder).
3. Load cargo (WP 0011 00, Loading Trailer).
4. Secure load using methods that will withstand off-road conditions (FM 55-450-5, Load Rigging Procedures).
5. Raise cargo bed side panels tailgate (WP 0010 00, Raise Cargo Bed Side Panel) and close and secure tailgate (WP 0010 00, Stow Ladder).

UNCHOCKING WHEELS

1. Remove wheel chocks (WP 0008 00, Unchocking Wheels).
2. Stow wheel chocks on towing vehicle.

END OF WORK PACKAGE

COUPLING TRAILER TO TOWING VEHICLE 0009 00

INITIAL SETUP:

Maintenance Level
Operator

Personnel Required
Two

References
WP 0004 00
WP 0013 00
WP 0017 00
WP 0042 00
Towing vehicle Operator manual

Equipment Conditions
Landing gear lowered (WP 0013 00).

GENERAL

The trailer is coupled to the towing vehicle before each use. The paragraphs in this work package provide the data and procedures to be used by the Operator when coupling the trailer to the towing vehicle.

COUPLING TRAILER

WARNING

Trailer wheels must be chocked before coupling, uncoupling, or when trailer is parked. Trailer wheels may roll if they are not chocked. Failure to comply may result in serious injury or death to personnel or damage to equipment.

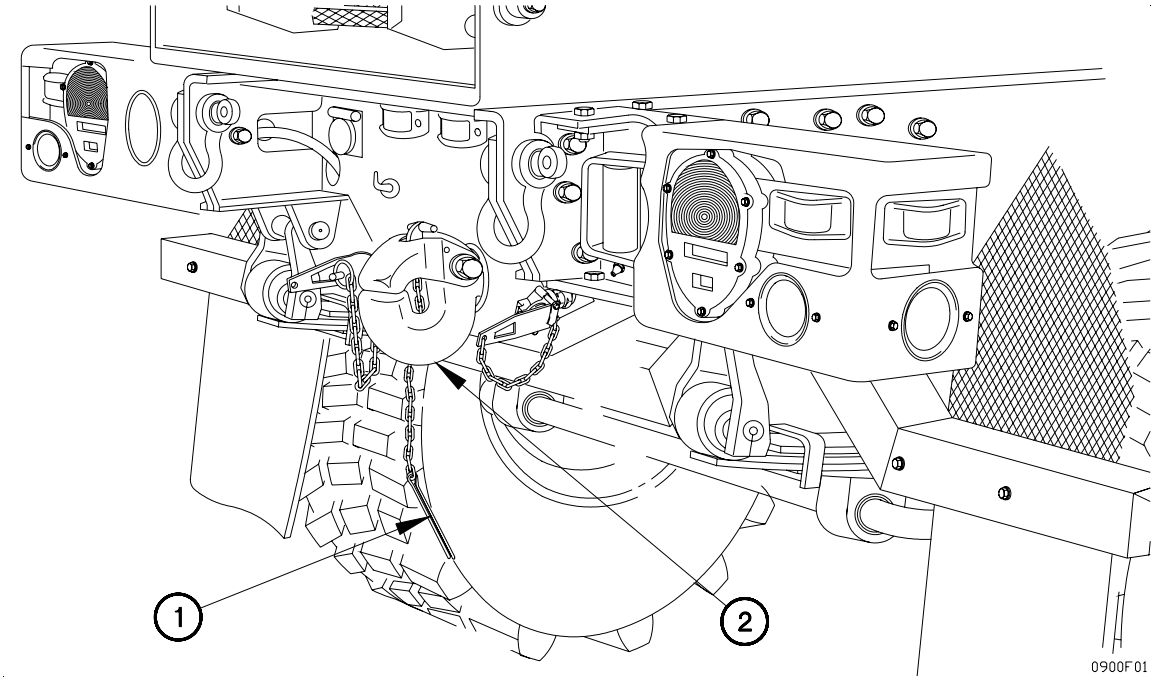
NOTE

Towing vehicle operating procedures required include starting towing vehicle engine, adjusting left and right mirrors for best visibility, and putting towing vehicle in reverse.

COUPLING TRAILER TO TOWING VEHICLE - CONTINUED 0009 00

COUPLING TRAILER - Continued

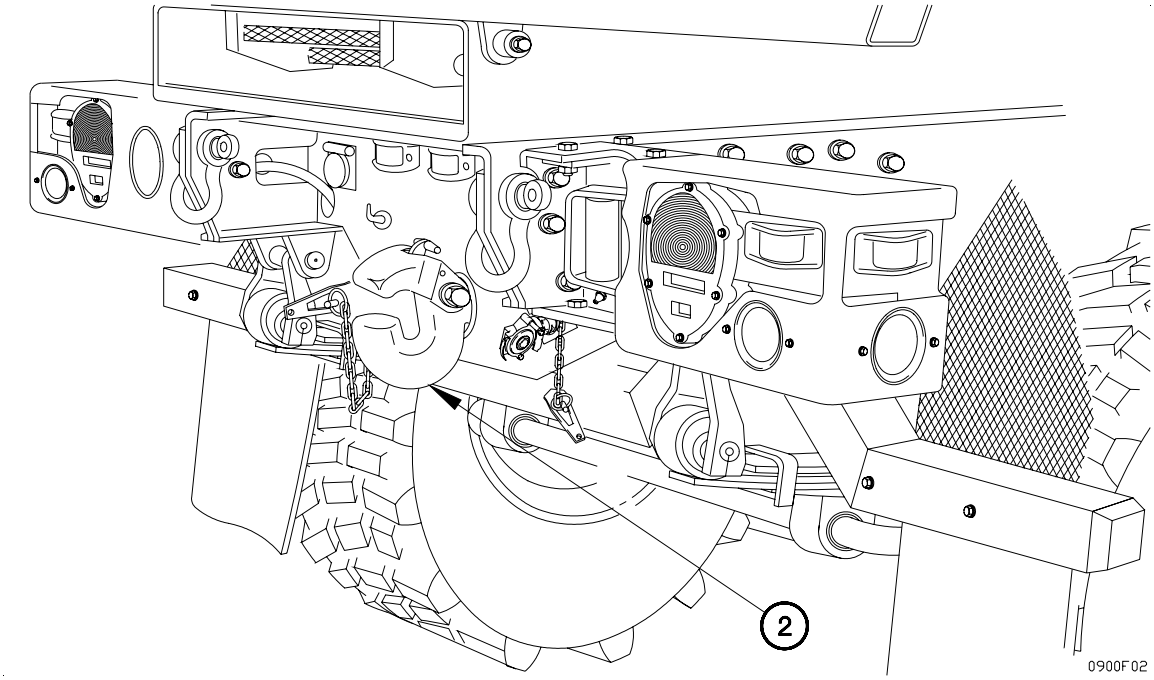
1. Perform towing vehicle operating procedures to prepare towing vehicle for coupling to trailer.
2. Line up towing vehicle with trailer.
3. Remove cotter pin (1) from pintle towing hook (2).



COUPLING TRAILER TO TOWING VEHICLE - CONTINUED 0009 00

COUPLING TRAILER - Continued

4. Open pintle towing hook (2).



COUPLING TRAILER TO TOWING VEHICLE - CONTINUED 0009 00

COUPLING TRAILER - Continued

WARNING

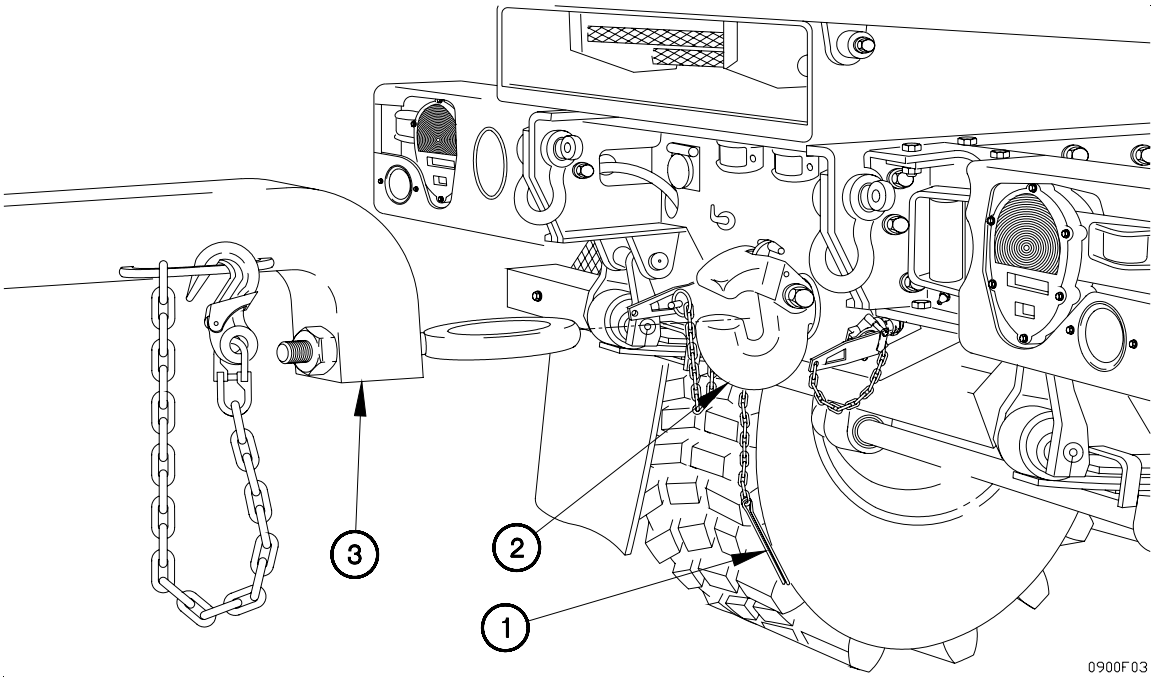
Position of assistant must be known at all times. Do not allow anyone to stand between towing vehicle and trailer, behind trailer, or crawl under trailer tongue during coupling of towing vehicle to trailer. Failure to comply may result in serious injury or death to personnel.

Do not place hands near pintle towing hook when coupling/uncoupling trailer drawbar assembly and pintle towing hook. Towing vehicle may move suddenly. Failure to comply may result in injury to personnel.

NOTE

- In order to center trailer drawbar assembly in pintle towing hook, it may be necessary to raise or lower landing gear.
- Step (5) requires the aid of an assistant.

5. Back up towing vehicle slowly until trailer drawbar assembly (3) is centered in pintle towing hook (2).
6. Perform towing vehicle operating procedures to put towing vehicle in park.
7. Close pintle towing hook (2)
8. Install cotter pin (1) in pintle towing hook (2).



COUPLING TRAILER TO TOWING VEHICLE - CONTINUED 0009 00

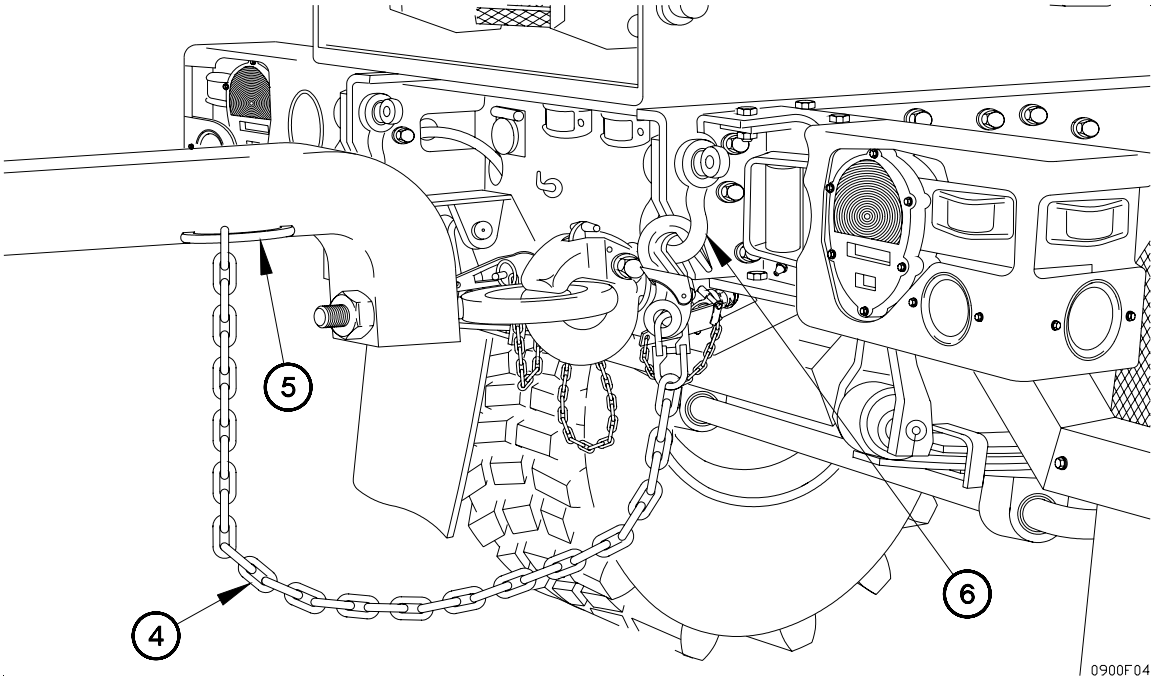
COUPLING TRAILER - Continued

NOTE

Left and right trailer safety chain assemblies and towing vehicle tiedowns are connected the same way. Right trailer safety chain assembly and right towing vehicle tiedown are shown.

9. Disconnect safety chain assembly (4) from trailer tongue (5).

10. Connect safety chain assembly (4) to shackle (6).



COUPLING TRAILER TO TOWING VEHICLE - CONTINUED 0009 00

COUPLING TRAILER - Continued

11. Raise trailer landing gear (WP 0013 00, Raising Landing Gear).

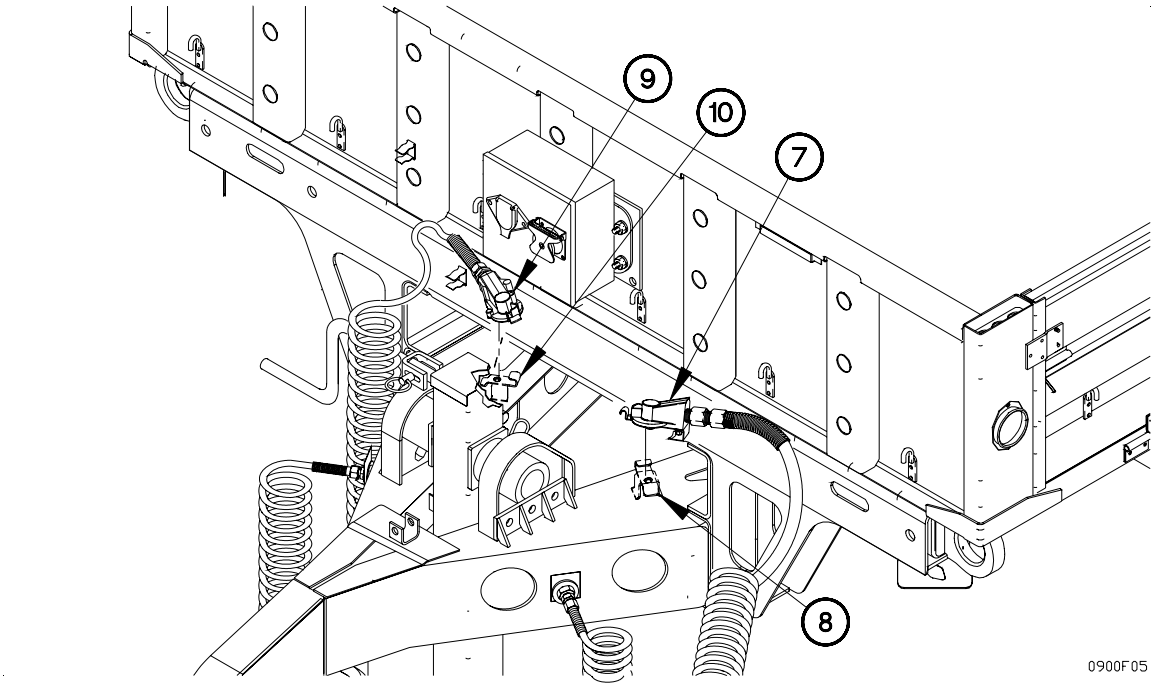
12. Perform towing vehicle operating procedures for disconnection of dummy couplings from towing vehicle SERVICE and EMERGENCY gladhand connections.

WARNING

Ensure that SERVICE and EMERGENCY gladhand connections do not leak. Failure to comply may result in serious injury or death to personnel or damage to equipment.

13. Disconnect SERVICE gladhand hose (7) from bracket (8).

14. Disconnect EMERGENCY gladhand hose (9) from bracket (10).

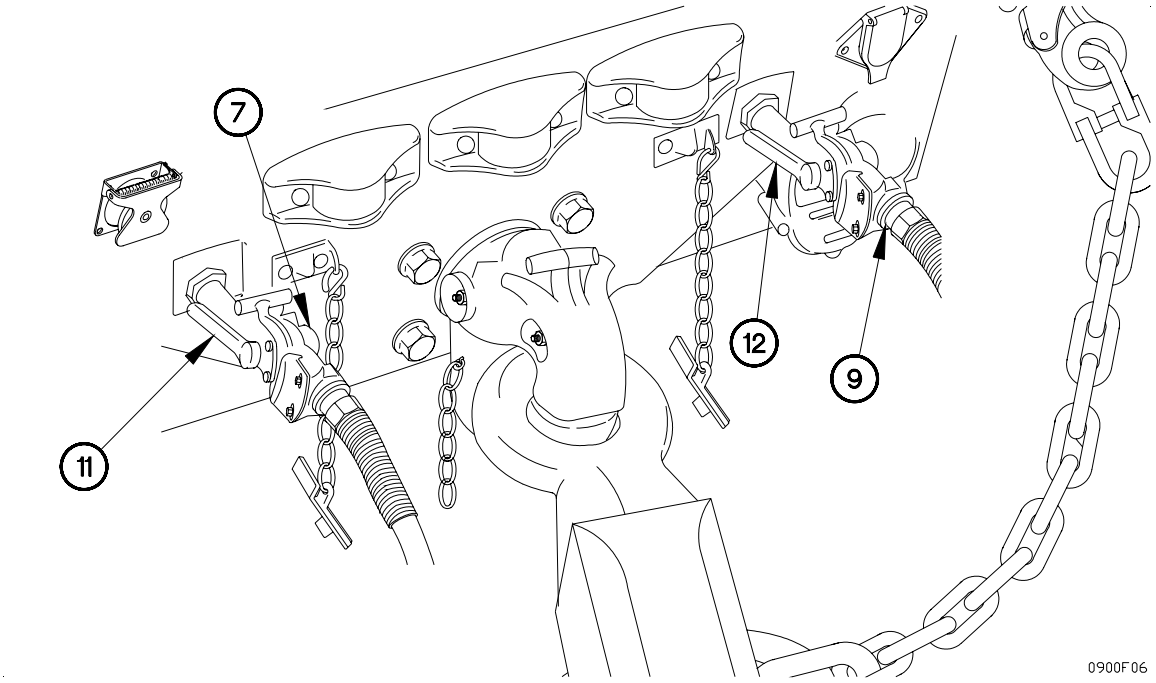


COUPLING TRAILER TO TOWING VEHICLE - CONTINUED 0009 00

COUPLING TRAILER - Continued

15. Connect trailer SERVICE gladhand hose (7) to SERVICE gladhand (11) on towing vehicle.

16. Connect trailer EMERGENCY gladhand hose (9) to EMERGENCY gladhand (12) on towing vehicle.

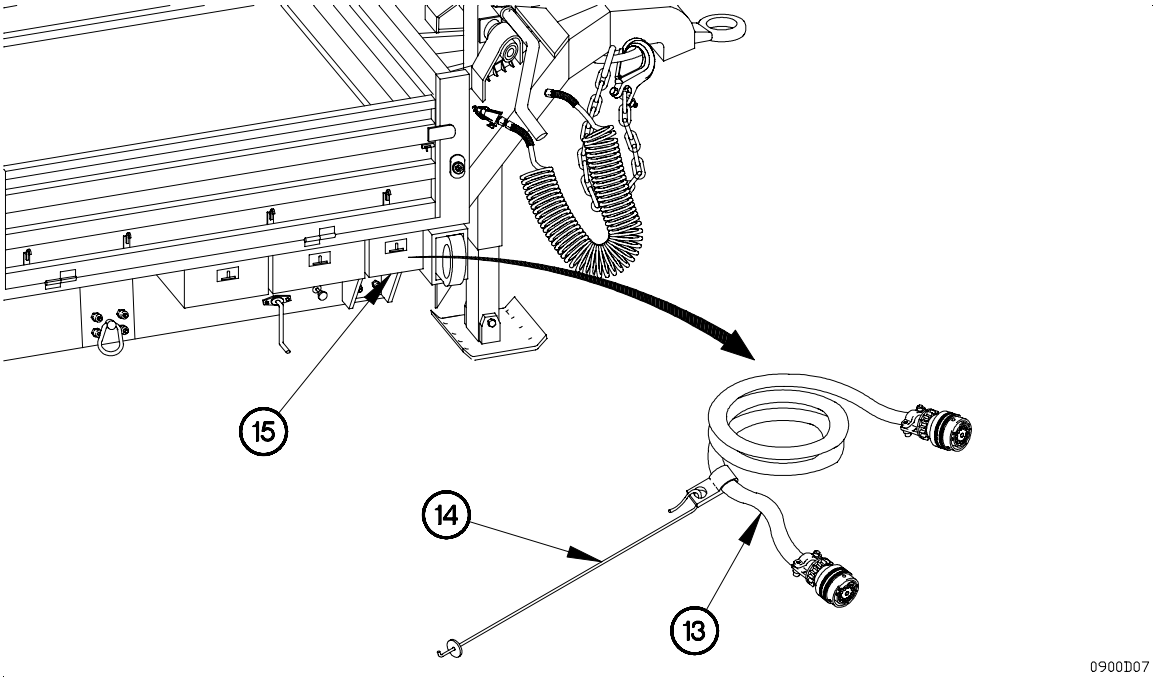


COUPLING TRAILER TO TOWING VEHICLE - CONTINUED 0009 00

COUPLING TRAILER - Continued

17. Perform towing vehicle operating procedures for correct positioning of towing vehicle gladhand selector valves.

18. Remove intervehicular cable (13) and cable support rod (14) from trailer stowage compartment (15).



COUPLING TRAILER TO TOWING VEHICLE - CONTINUED 0009 00

COUPLING TRAILER - Continued

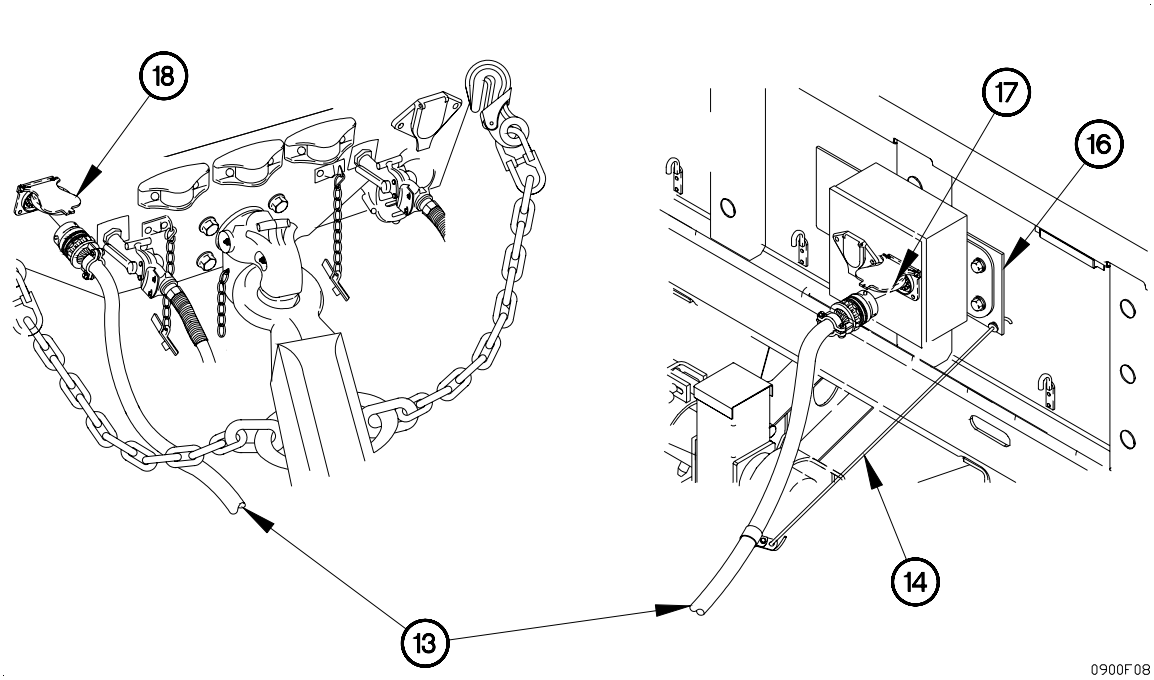
NOTE

Both 12 vdc, 7-pin or 24 vdc, 12-pin intervehicular cables are connected the same way. The 24 vdc, 12-pin intervehicular cable and 24 vdc, 12-pin connector are shown. Blackout lights operate only with 24 vdc intervehicular cable.

19. Connect cable support rod (14) to bracket (16).

20. Connect intervehicular cable (13) to trailer connector (17).

21. Connect intervehicular cable (13) to towing vehicle connector (18).



COUPLING TRAILER TO TOWING VEHICLE - CONTINUED 0009 00

COUPLING TRAILER - Continued

22. Push the push-pull/air supply valve knob to release brakes.

23. Prepare trailer for movement (WP 0017 00, Preparation for Movement).

24. Perform towing vehicle operating procedures to take towing vehicle out of park.

NOTE

If towing vehicle Front Brake Air and Rear Brake Air pressure gages do not read 60 psi or more, trailer spring brakes will not release.

25. Check trailer brakes for proper operation (WP 0042 00, Table 2. Preventive Maintenance Checks and Services (PMCS) - During, Item No. 2).

26. Drive towing vehicle forward.

END OF WORK PACKAGE

LADDER AND CARGO BED SIDE PANEL OPERATION 0010 00

INITIAL SETUP:

Maintenance Level
Operator

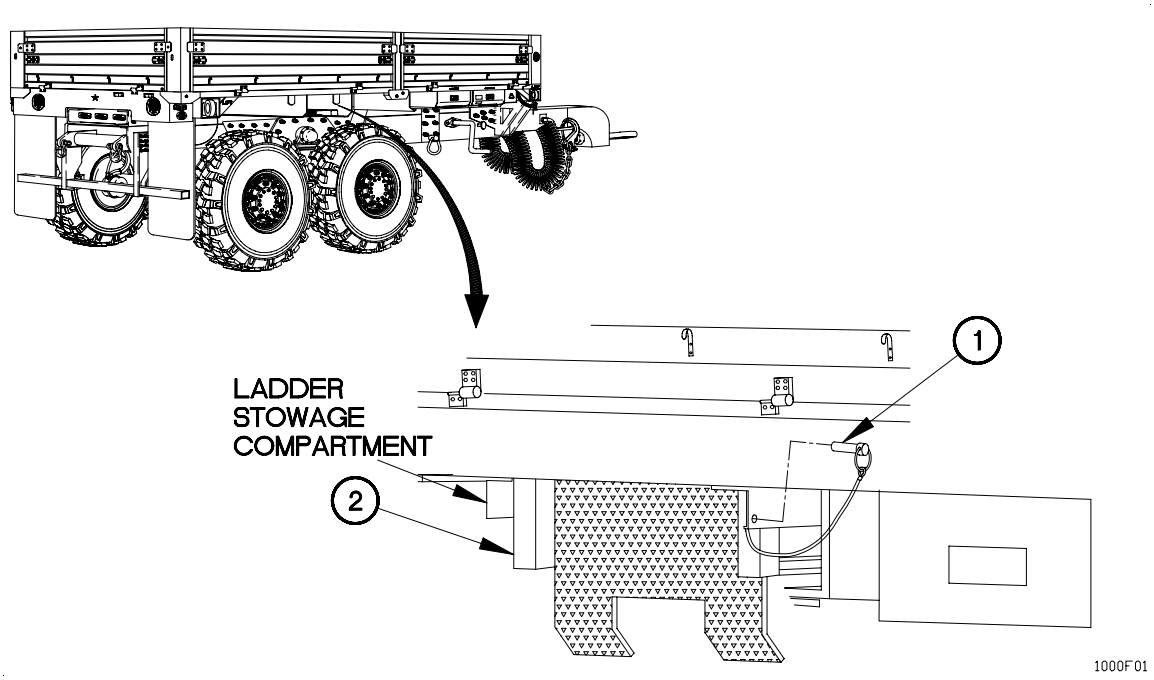
GENERAL

The paragraphs in this work package provide the data and procedures to be used by the Operator when operating the ladder and cargo bed side panels. Items covered include lowering ladder, stowing ladder, lowering cargo bed side panels, raising cargo bed side panels, removing cargo bed side panels, stowing cargo bed side panels, installing cargo bed side panels, cargo bed stake removal, and cargo bed stake installation.

LOWER LADDER

1. Remove ladder locking pin (1) from ladder (2).

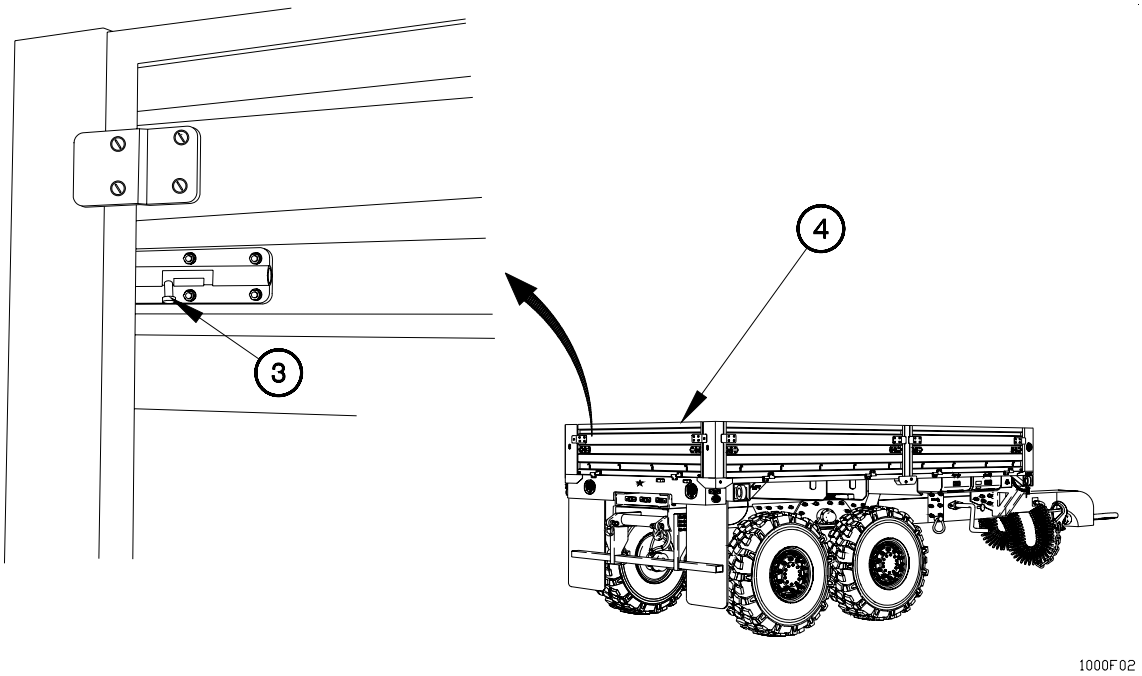
2. Remove ladder (2) from ladder stowage compartment.



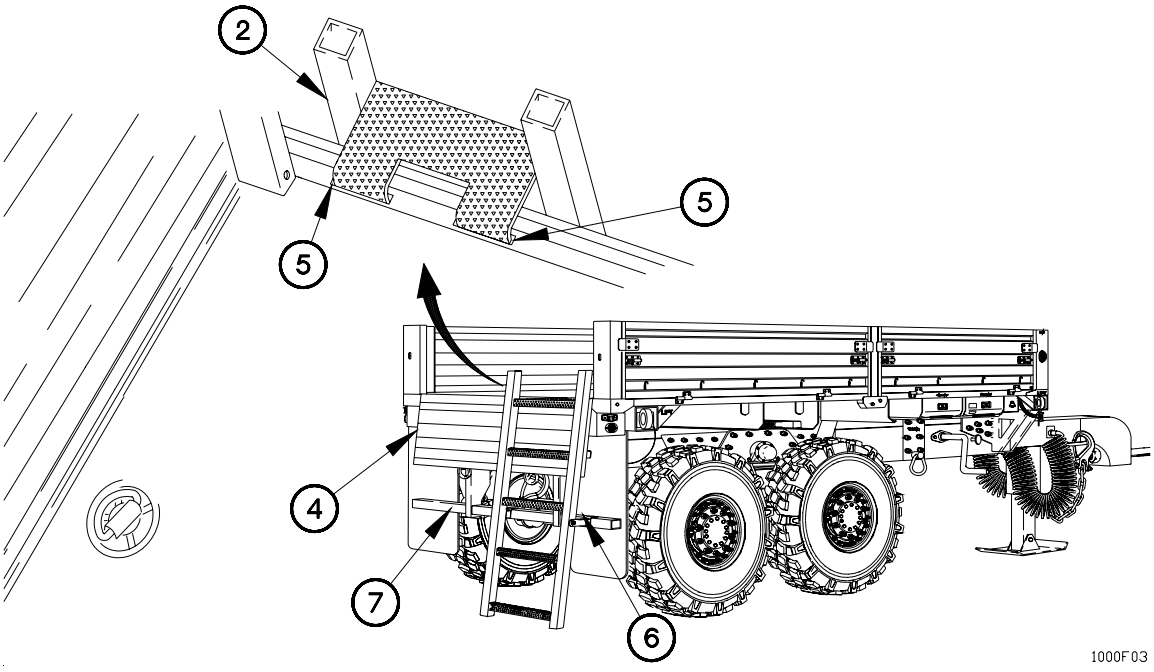
LADDER AND CARGO BED SIDE PANEL OPERATION - Continued 0010 00

LOWER LADDER - Continued

3. Unlatch two latches (3) from tailgate (4).



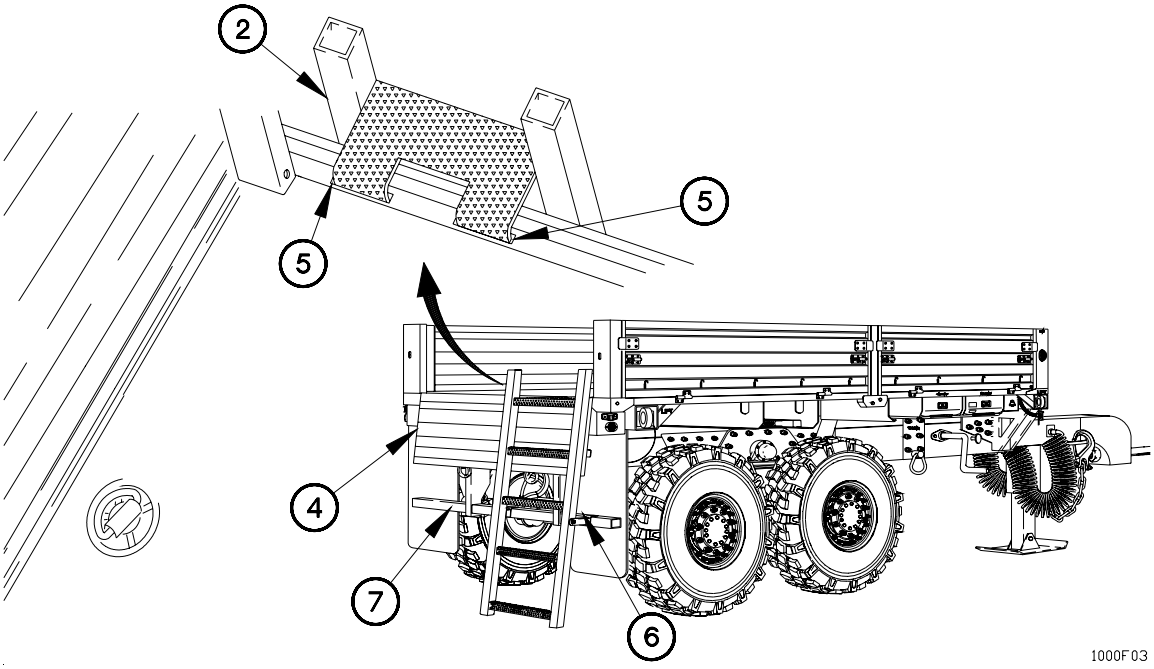
4. Lower tailgate (4).
5. Mount ladder (2) in two ladder mounting slots (5).
6. Extend brace (6) and position on bumper (7).



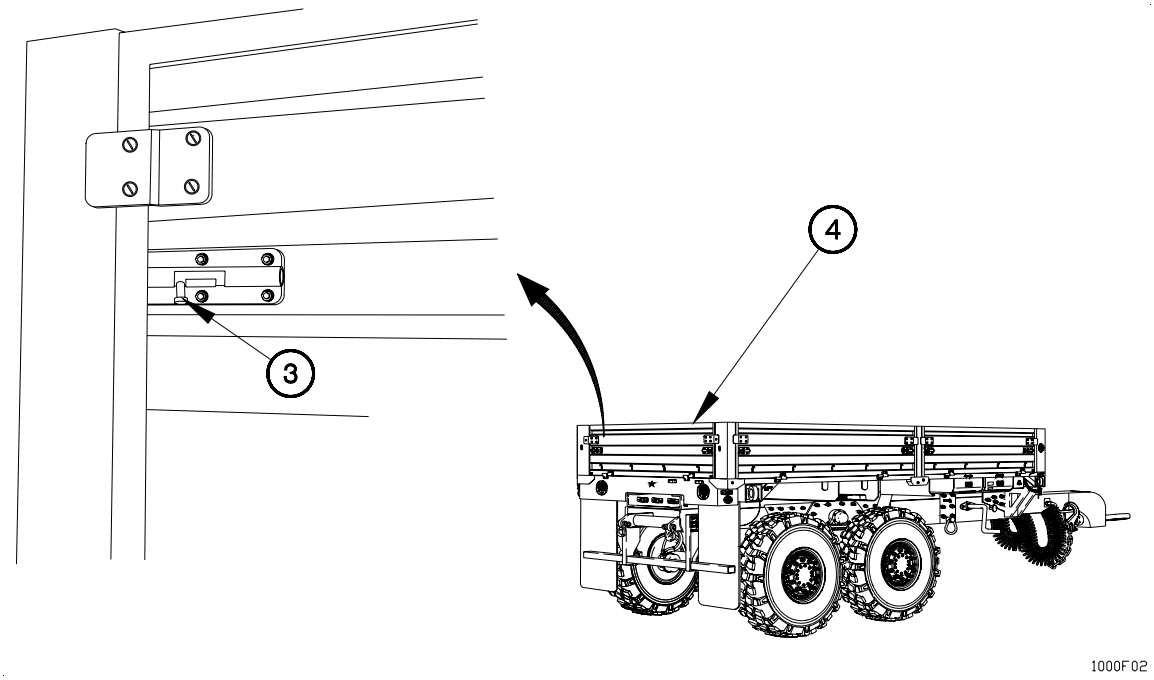
LADDER AND CARGO BED SIDE PANEL OPERATION - Continued 0010 00

STOW LADDER

1. Remove brace (6) from bumper (7) and stow on ladder (2).
2. Remove ladder (2) from two ladder mounting slots (5).



3. Raise tailgate (4) and fasten two latches (3).

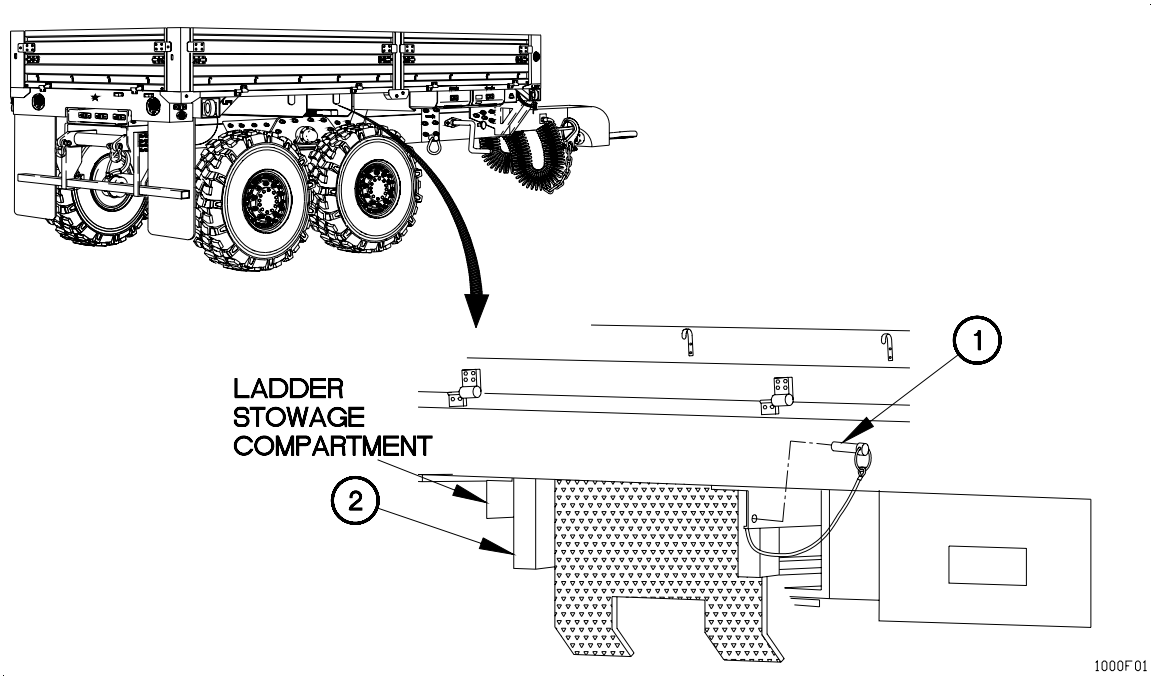


LADDER AND CARGO BED SIDE PANEL OPERATION - Continued 0010 00

STOW LADDER - Continued

3. Install ladder (2) in ladder stowage compartment.

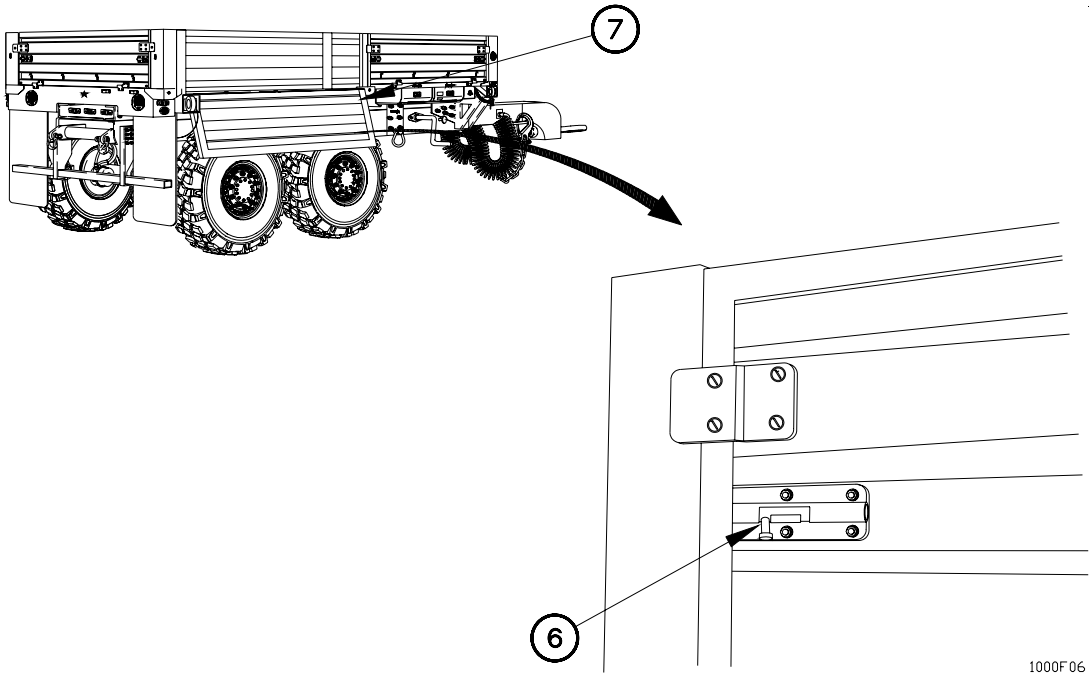
4. Install ladder locking pin (1) in ladder (2).



LADDER AND CARGO BED SIDE PANEL OPERATION - Continued 0010 00

LOWER CARGO BED SIDE PANELS

1. Unlock two latches (6) and lower cargo bed side panel (7).
2. Perform step (1) on remaining cargo bed side panels as required.



LADDER AND CARGO BED SIDE PANEL OPERATION - Continued 0010 00

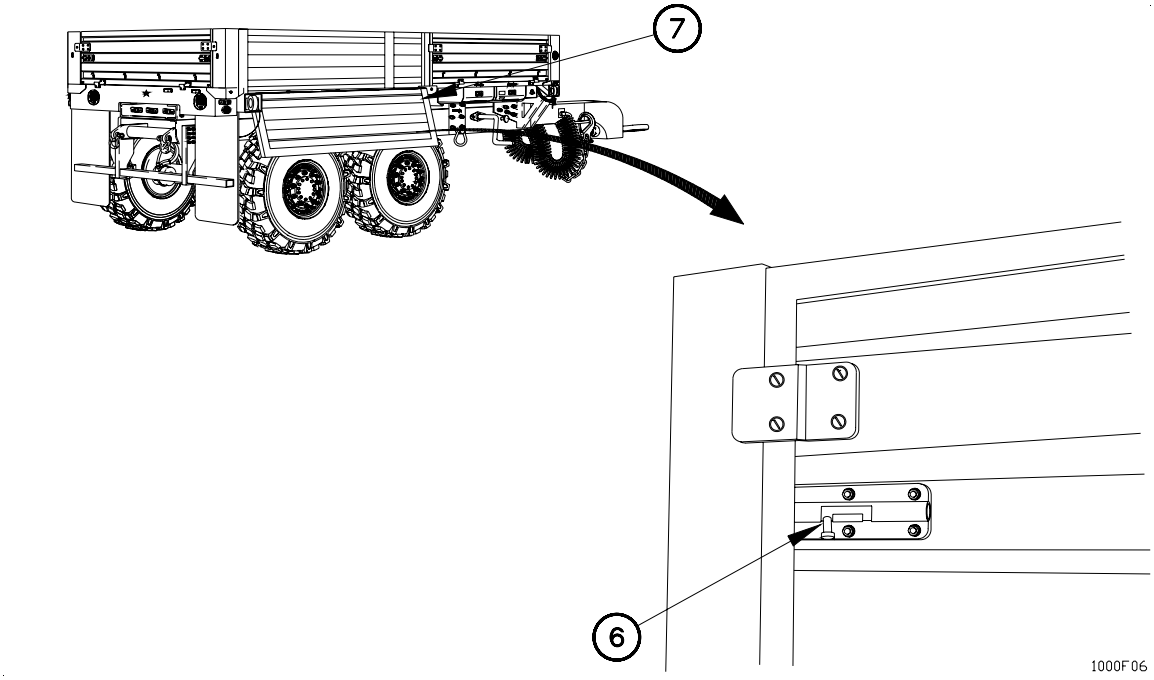
RAISE CARGO BED SIDE PANEL

1. Raise cargo bed side panel (7) and latch two latches (6).

CAUTION

Ensure each cargo bed side panel is securely locked to cargo bed before resuming operation. Failure to comply may result in damage to equipment.

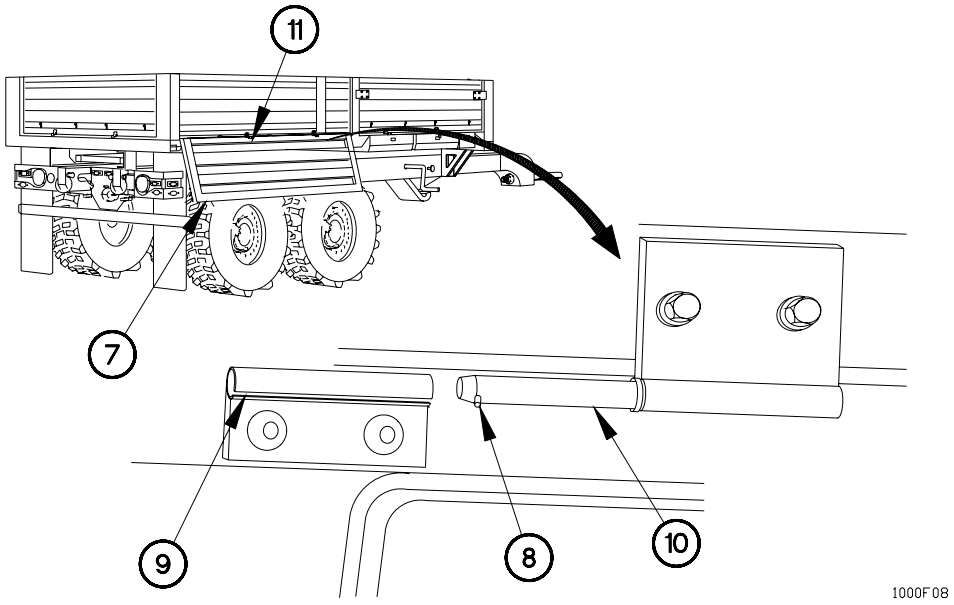
2. Perform step (1) on remaining cargo bed side panels as required.



LADDER AND CARGO BED SIDE PANEL OPERATION - Continued 0010 00

REMOVE CARGO BED SIDE PANEL

1. Lower cargo bed side panels (WP 0010 00, Lower Cargo Bed Side Panel).
2. Align pin (8) with slot in lower hinge half (9).
3. Slide hinge shaft (10) out of lower hinge half (9) and remove cargo bed side panel (7) from cargo bed (11).



LADDER AND CARGO BED SIDE PANEL OPERATION - Continued 0010 00

STOW CARGO BED SIDE PANELS

1. Open cargo bed stowage compartment (12).

2. Stow cargo bed side panel (7) in cargo bed stowage compartment (12) with hinge shafts (10) facing up (refer to Table 1 Cargo Bed Side Panel Stowage Information).

3. Perform steps (1) and (2) on remaining cargo bed side panels as required.

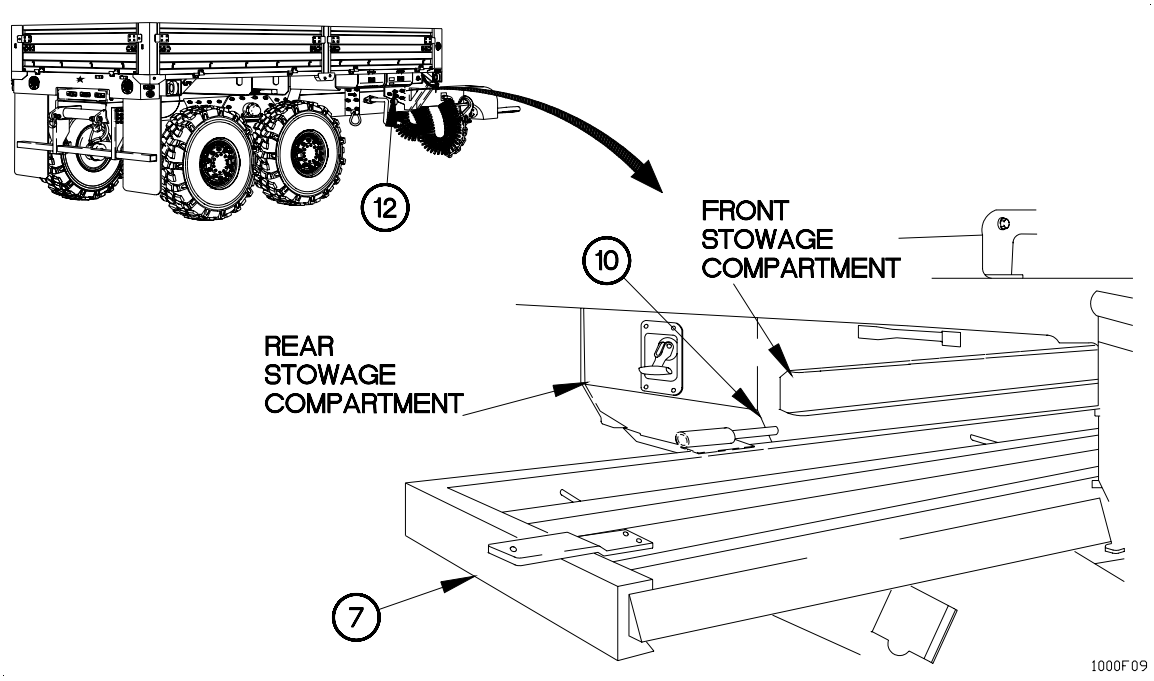


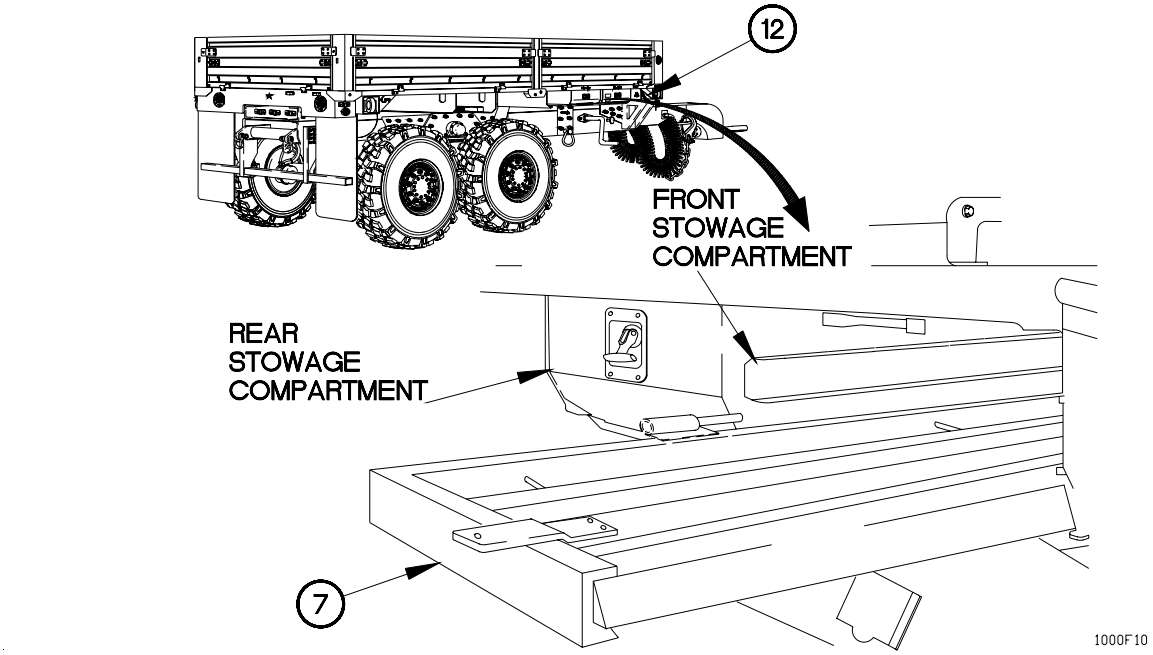
Table 1 Cargo Bed Side Panel Stowage Information.

Cargo Bed Side Panels Stowed	Stowage Compartment Used	Position of Cargo Bed Side Panels	Shelf Used to Stow Cargo Bed Side Panels
1st side stowed	Rear	Hinges on right side of panel	Bottom shelf
2nd side stowed	Front	Hinges on left side of panel	Bottom shelf
3rd side stowed	Rear	Hinges on left side of panel	Middle self
4th side stowed	Rear	Hinges on left side of panel	Top shelf
5th side stowed	Front	Hinges on right side of panel	Middle shelf

LADDER AND CARGO BED SIDE PANEL OPERATION - Continued 0010 00

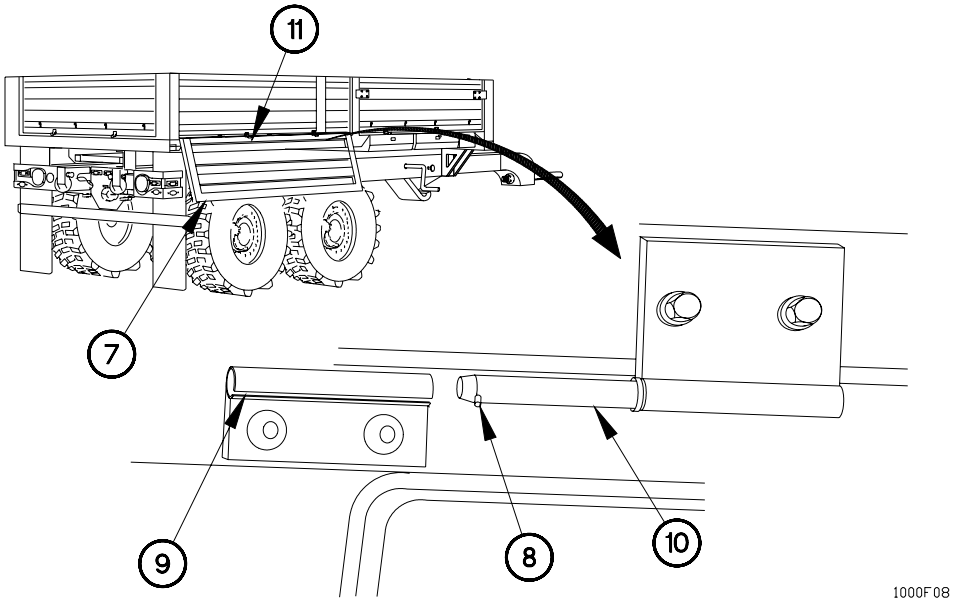
INSTALL CARGO BED SIDE PANEL

1. Remove cargo bed side panel (7) from cargo bed stowage compartment (12).



INSTALL CARGO BED SIDE PANEL - Continued

2. Align pin (8) on hinge shaft (10) with slot in lower hinge half (9).
3. Install cargo bed side panel (7) on cargo bed (11), by sliding hinge shaft (10) into lower hinge half (9).
4. Install cargo bed side panels (WP 0010 00, Raise Cargo Bed Side Panel).
5. Perform steps (1) through (4) on remaining cargo bed side panels as required.



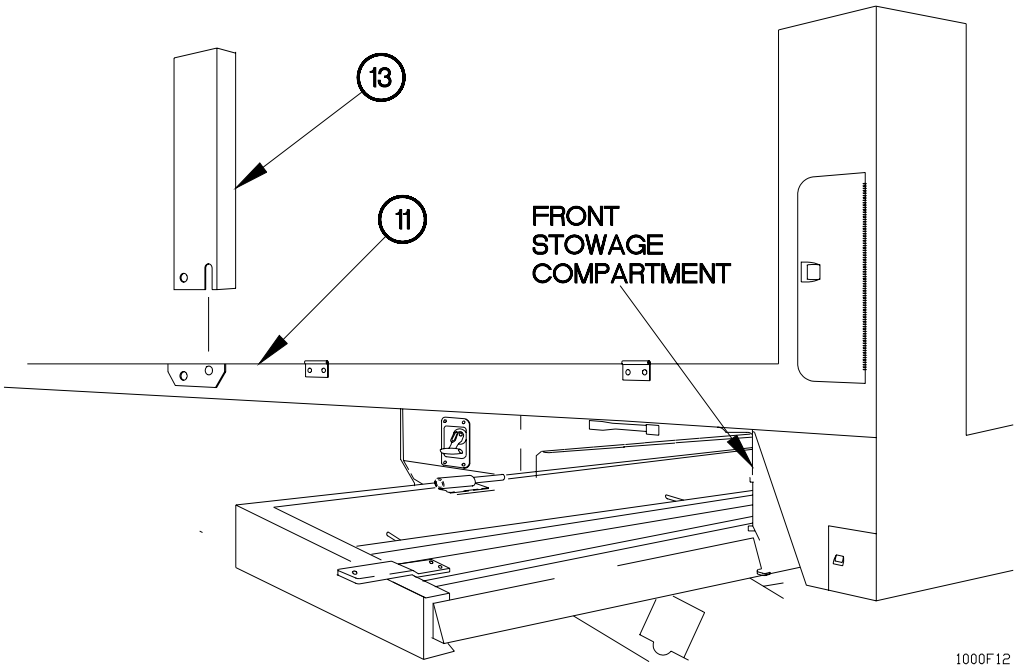
LADDER AND CARGO BED SIDE PANEL OPERATION - Continued 0010 00

CARGO BED STAKE REMOVAL

1. Remove cargo bed stake (13) from cargo bed (11).
2. Place cargo bed stake (13) in front stowage compartment.
3. Perform steps (1) and (2) on remaining cargo bed stake.

CARGO BED STAKE INSTALLATION

1. Remove cargo bed stake (13) from front stowage compartment.
2. Install cargo bed stake (13) in cargo bed (11).
3. Perform steps (1) and (2) on remaining cargo bed stake.



END OF WORK PACKAGE

TRAILER OPERATION - Continued 0011 00

INITIAL SETUP:

Maintenance Level
Operator

References
FM 55-450-5
Towing vehicle manual.

GENERAL

The trailer must be prepared before and after each trailering operation. The paragraphs in this work package provide the data and procedures to be used by the Operator when operating the trailer. Items covered include loading trailer, operating trailer lights, operating trailer service brakes, towing trailer, parking trailer, chocking trailer wheels, draining air tank, and unloading trailer.

LOADING TRAILER

WARNING

Ensure that wheels are chocked prior to loading/unloading trailer. Failure to comply may result in serious injury or death to personnel or damage to equipment.

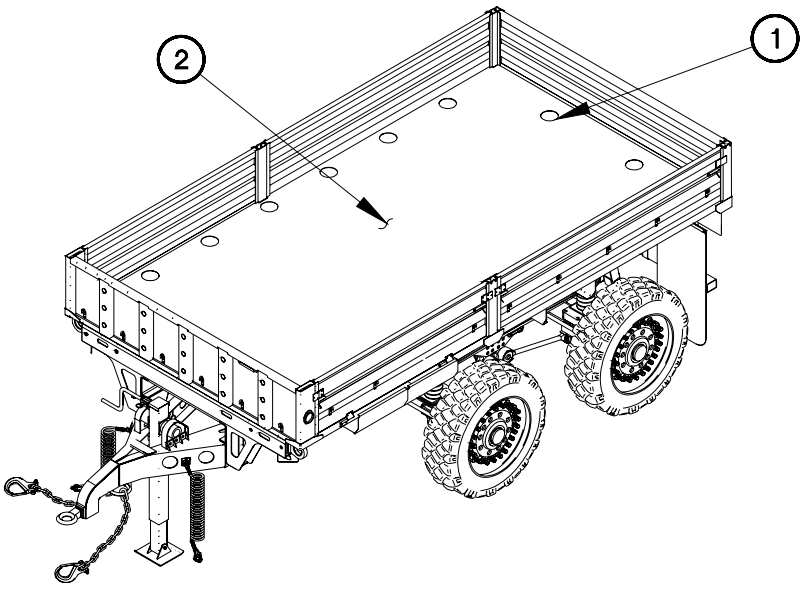
Heavy objects/loads, such as tool boxes and heavy parts, must always be positioned as low as possible in the trailer with the weight distributed as equally as possible between left and right trailer sides. Poor weight distribution decreases the stability of the trailer and will increase the likelihood of a rollover. Failure to comply may result in serious injury or death to personnel.

TRAILER OPERATION - Continued 0011 00

LOADING TRAILER - Continued

1. Load cargo into trailer, distributing weight of load as evenly as possible lengthwise and sideways.

2. Secure load using tiedown rings (1) which are located around perimeter of cargo bed (2). For general cargo loading procedures, refer to FM 55-450-5, Load Rigging Procedures.



1100E01

OPERATING TRAILER LIGHTS

NOTE

The service lights include the rear composite taillights and clearance and marker lights.

The blackout lights include the rear blackout marker lights and blackout stop lights.

1. Operate Trailer Service Lights.

   a. Review and perform towing vehicle operating procedures to operate main light switch of towing vehicle. Trailer service lights are energized by positioning the main light switch of the towing vehicle to the appropriate position.

OPERATING TRAILER LIGHTS - Continued

WARNING

Towing vehicle speed should be reduced to 5-10 mph (8-16 km/h) during blackout conditions. Failure to comply may result in serious injury or death to personnel.

2. Operate Trailer Blackout Lights.

   a. Review and perform towing vehicle operating procedures to operate main light switch of towing vehicle. Trailer blackout lights are energized by positioning the main light switch of the towing vehicle to the appropriate position.

OPERATING TRAILER SERVICE BRAKES

WARNING

Consult towing vehicle operating procedures to determine required front and rear brake air pressure. Do not operate towing vehicle until psi reaches required level (trailer spring brakes will not release unless there is at least 60 psi/414 kPa). Failure to comply may result in serious injury or death to personnel or damage to equipment.

NOTE

During normal operation, brakes of towing vehicle and trailer are applied at same time when brake pedal is depressed.

Push down and hold towing vehicle brake pedal to slow or stop towing vehicle and trailer.

TOWING TRAILER

WARNING

Personnel must not occupy towed trailer during towing operation. Towed trailer may become disconnected while being towed. Failure to comply may result in serious injury or death to personnel.

Do not exceed maximum trailer speed and grade limitations during normal operations. Do not exceed maximum approach or departure angles or ford water greater than maximum depth. Failure to comply may result in serious injury or death to personnel or damage to equipment.

TRAILER OPERATION - Continued 0011 00

TOWING TRAILER - Continued

WARNING

Do not back up trailer without an assistant. Operator has limited vision while backing trailer. Failure to comply may result in serious injury or death to personnel or damage to equipment.

Increased length of towing vehicle and trailer combination will affect left and right mirror adjustment in towing vehicle. Mirrors must be adjusted prior to operating towing vehicle. Failure to comply may result in injury to personnel or damage to equipment.

CAUTION

The trailer cargo will affect stopping and off-road maneuverability: the heavier the cargo, the greater the stopping distance and the less the off-road maneuverability. Allow adequate stopping distance, and drive cautiously in off-road conditions. Failure to comply may result in damage to equipment.

Overall length of towing vehicle and trailer will affect the passing of other vehicles. Increase time and distance needed to complete pass. Failure to comply may result in damage to equipment.

Stopping distance will increase when towing trailer. When possible, plan stops in advance. Apply brake pressure gradually and smoothly. Failure to comply may result in damage to equipment.

When turning corners, trailer wheels turn inside turning radius of towing vehicle. Allow adequate turning room. Failure to comply may result in damage to equipment.

NOTE

When backing, trailer moves in opposite direction of front wheels on towing vehicle. When front wheels on towing vehicle are turned right, rear of trailer will go left. When front wheels on towing vehicle are turned left, rear of trailer will go right. When trailer has turned and backing in a straight line is required, turn towing vehicle wheels in direction that trailer is moving. This will bring towing vehicle and trailer back in line with each other.

1. Use two ground guides when backing towing vehicle. Station one ground guide to right or left rear of trailer and other ground guide to left or right front of towing vehicle. Front ground guide must be visible to Operator at all times to provide backing instructions.

2. Back up slowly and pay close attention to ground guide's signals.

PARKING TRAILER

WARNING

Trailer must be secure. Chock wheels when stopped on incline. Trailer may roll. Failure to comply may result in serious injury or death to personnel or damage to equipment.

NOTE

Parking brake on trailer will be engaged automatically when towing vehicle parking brake is engaged.

1. Set parking brake on towing vehicle.
2. Chock trailer wheels (WP 0011 00, Chocking Trailer Wheels).

CHOCKING TRAILER WHEELS

WARNING

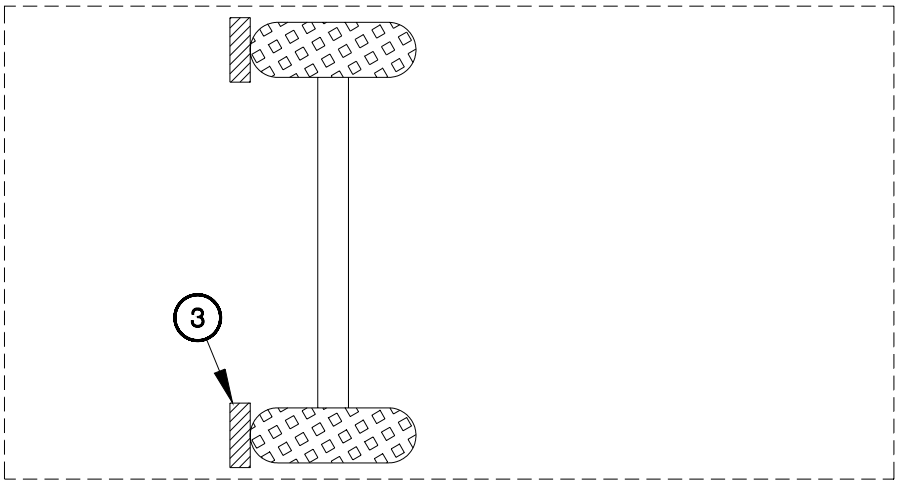
Trailer wheels must be chocked before coupling, uncoupling, or when trailer is parked. Trailer wheels may roll if they are not chocked. Failure to comply may result in serious injury or death to personnel or damage to equipment.

1. Install wheel chocks (3) on trailer wheels as follows:

NOTE

Perform substeps (a) to (c) for the LMTVT (M1082).

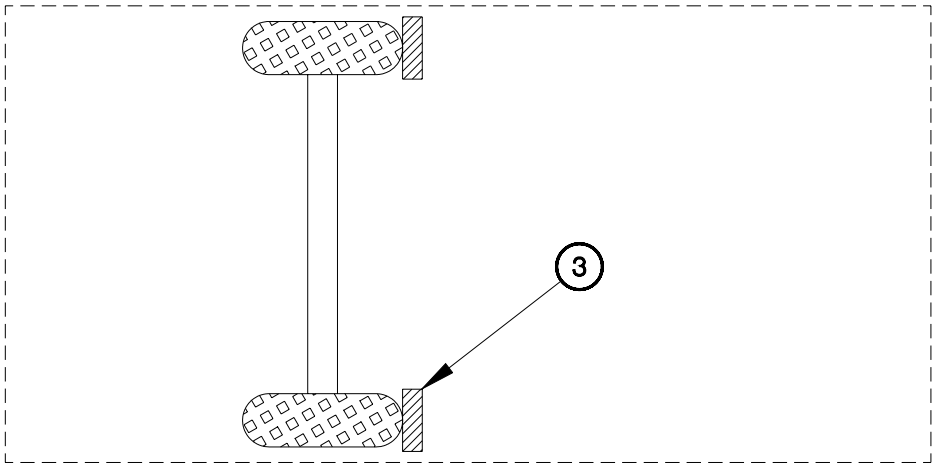
a. Place wheel chocks (3) in back of both trailer wheels when parked uphill.



1100D02

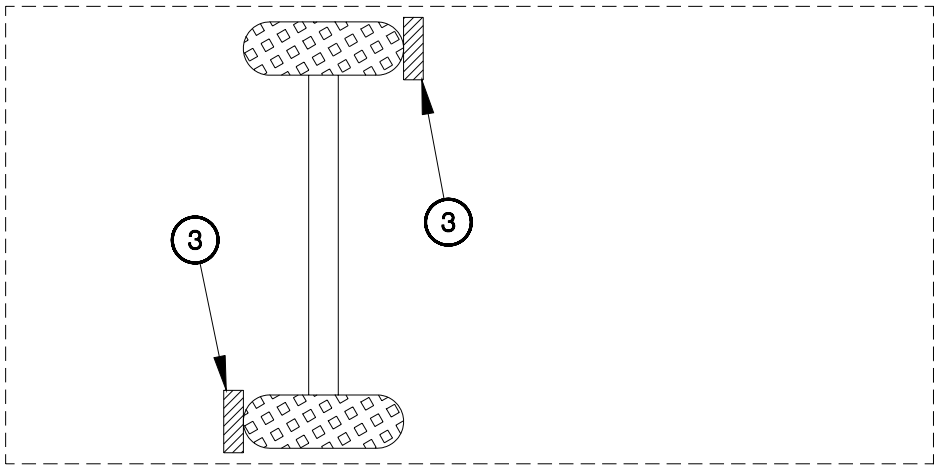
CHOCKING TRAILER WHEELS - Continued

b. Place wheel chocks (3) in front of both trailer wheels when parked downhill.



1100D03

c. Place one wheel chock (3) in front of one trailer wheel and the other wheel chock in back of the opposite trailer wheel when parked on level ground.



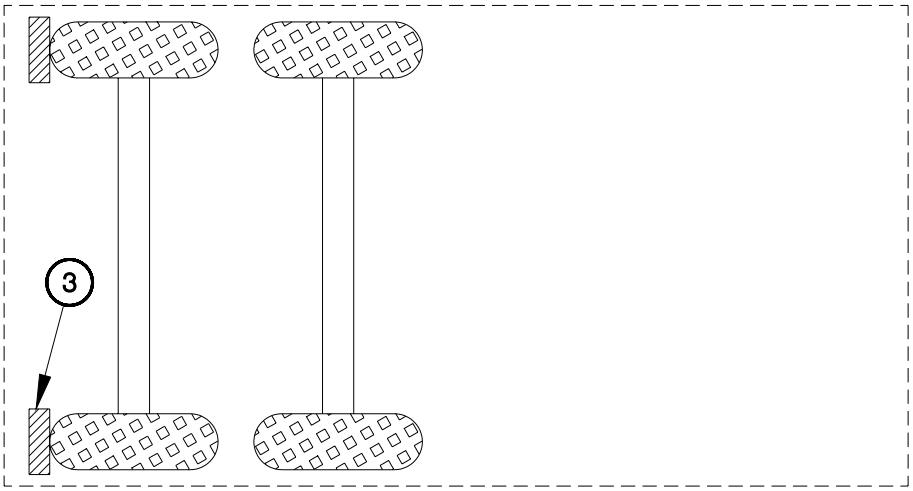
1100D04

CHOCKING TRAILER WHEELS - Continued

NOTE

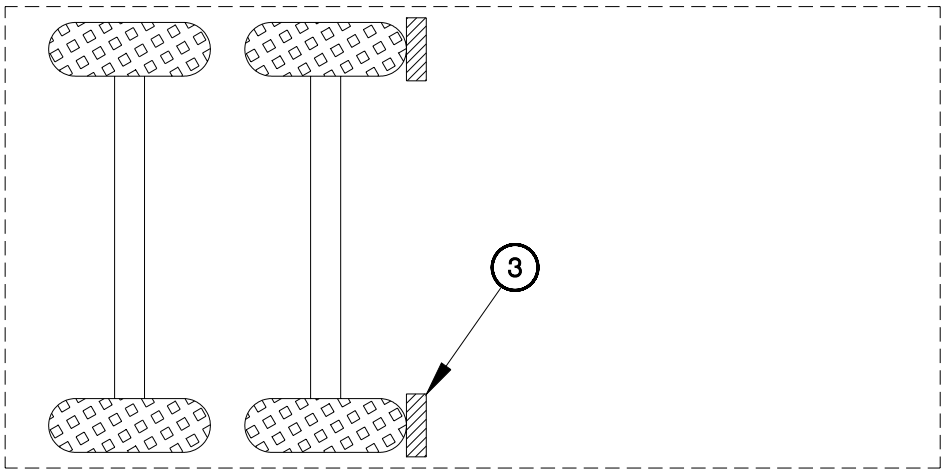
Perform substeps (d) to (f) for the MTVT (M1095).

d. Place wheel chocks (3) in back of both rear trailer wheels when parked uphill.



1100E05

e. Place wheel chocks (3) in front of both front trailer wheels when parked downhill.

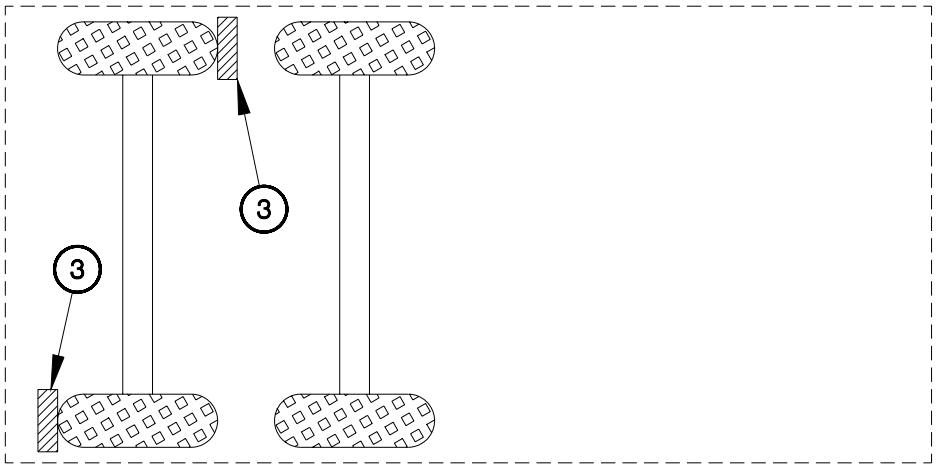


1100E07

TRAILER OPERATION - Continued 0011 00

CHOCKING TRAILER WHEELS - Continued

f. Place one wheel chock (3) in front of one trailer wheel and the other wheel chock in back of the opposite trailer wheel when parked on level ground.



1100E06

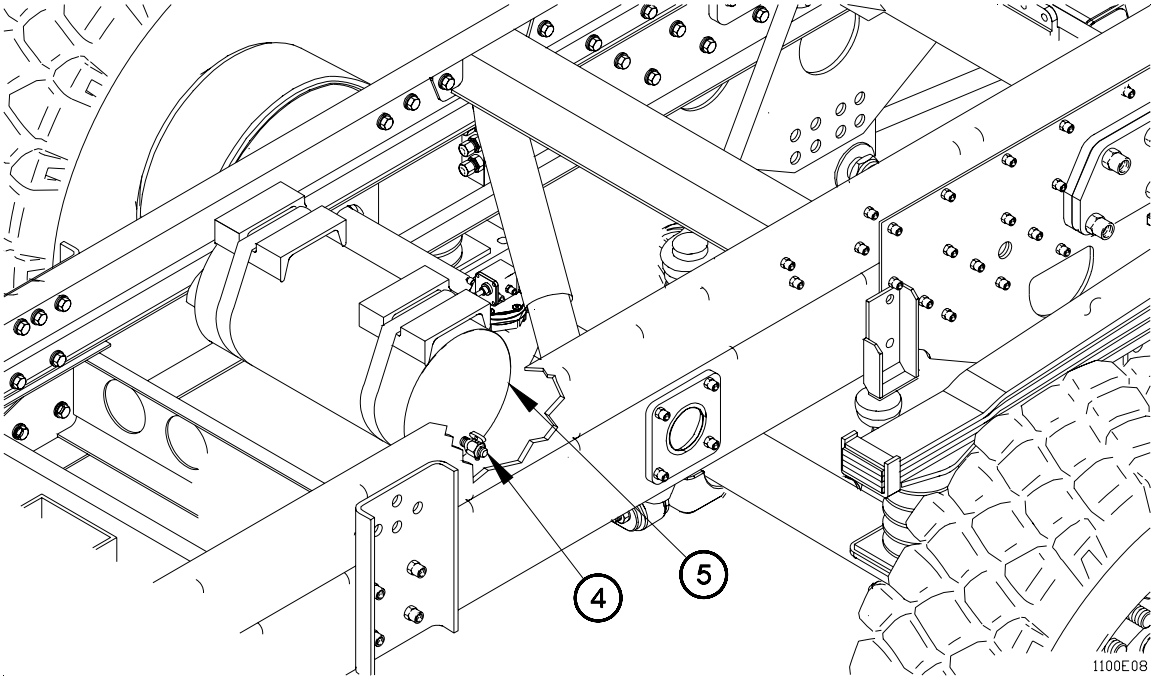
DRAINING AIR TANK

CAUTION

Air tank should be drained when trailer will not be operated for 12 hours or more or when operating in temperatures below 50° F (10° C). Failure to comply may result in damage to equipment.

1. Open drain valve (4) until air cannot be heard escaping.

2. Close drain valve (4) on air tank (5).



UNLOADING TRAILER

1. Release cargo from tiedown rings.

2. Unload cargo. For general cargo unloading procedures, refer to FM 55-450-5, Load Rigging Procedures.

END OF WORK PACKAGE

UNCOUPLING TRAILER FROM TOWING VEHICLE 0012 00

INITIAL SETUP:

Maintenance Level
Operator

Personnel Required
Two

References
WP 0004 00
WP 0011 00
WP 0013 00
Towing vehicle Operator manual

Equipment Conditions
Wheels chocked (WP 0011 00).

GENERAL

The trailer is typically uncoupled from the towing vehicle after each use. The paragraphs in this work package provide the data and procedures to be used by the Operator when uncoupling the trailer from the towing vehicle.

UNCOUPLING TRAILER

WARNING

Trailer wheels must be chocked before coupling, uncoupling, or when trailer is parked. Trailer wheels may roll if they are not chocked. Failure to comply may result in serious injury or death to personnel or damage to equipment.

1. Perform towing vehicle operating procedures to prepare towing vehicle for uncoupling. Procedures include towing vehicle engine shutdown and putting towing vehicle in park.

2. Lower trailer landing gear (WP 0013 00, Lowering Landing Gear).

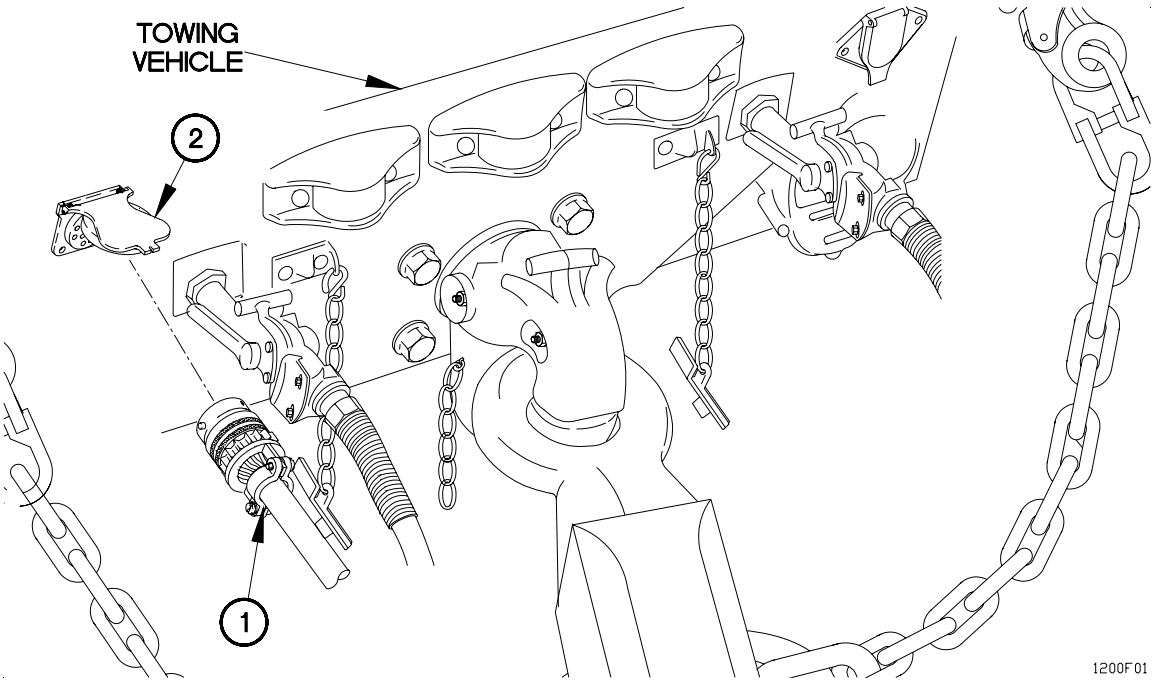
UNCOUPLING TRAILER FROM TOWING VEHICLE - Continued 0012 00

UNCOUPLING TRAILER - Continued

NOTE

Both 12 vdc,(7-pin) or 24 vdc, (12-pin) intervehicular cables are disconnected the same way. The 24 vdc, (12-pin) intervehicular cable and 24 vdc, (12-pin) connectors are shown.

3. Disconnect 24 vdc (12 pin) intervehicular cable (1) from towing vehicle connector (2).

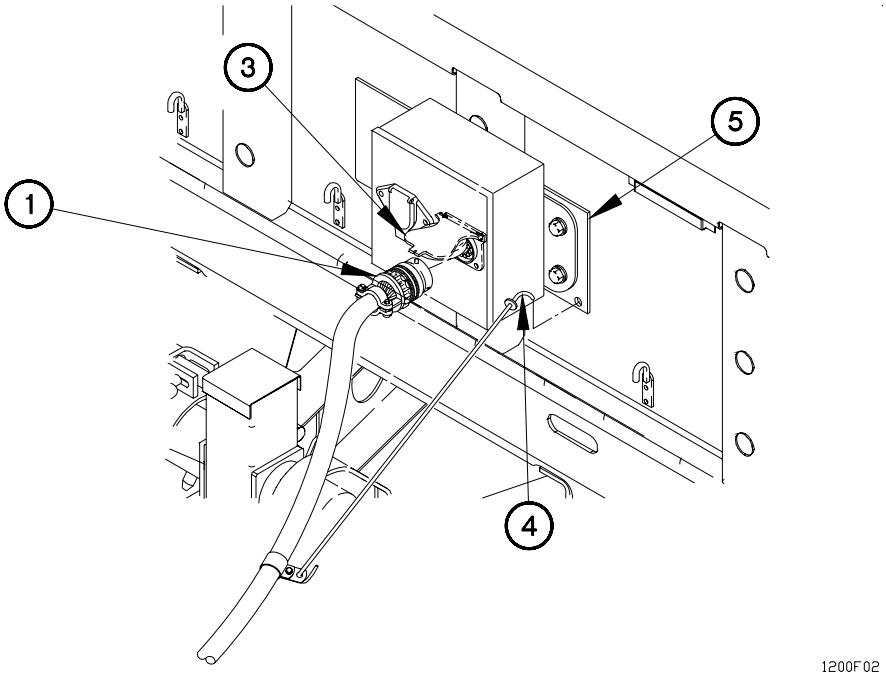


UNCOUPLING TRAILER FROM TOWING VEHICLE - Continued 0012 00

UNCOUPLING TRAILER - Continued

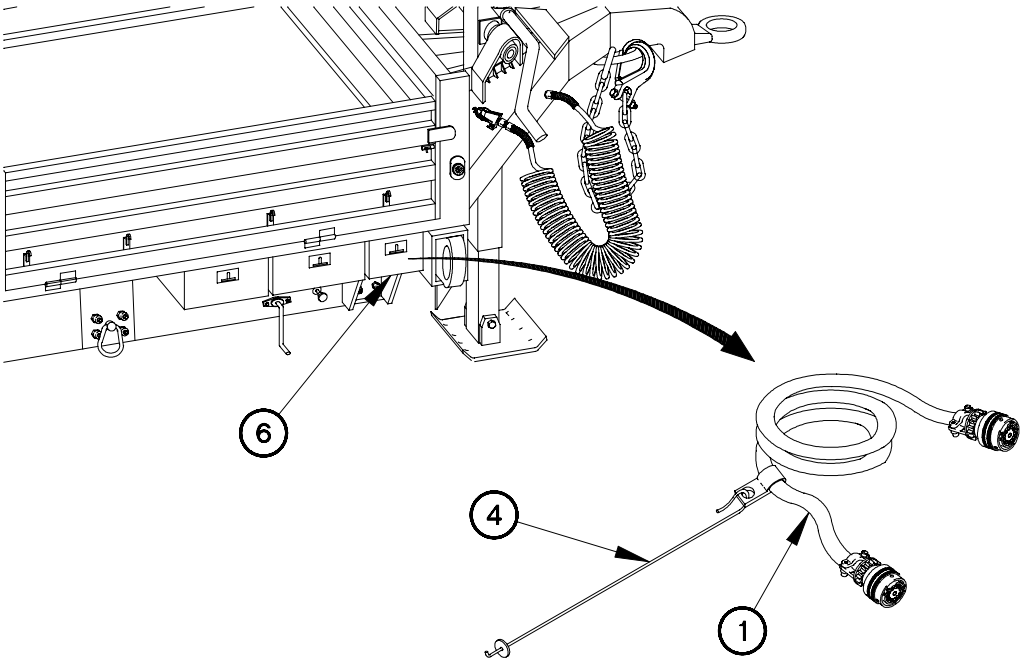
4. Disconnect 24 vdc (12 pin) intervehicular cable (1) from trailer connector (3).

5. Disconnect cable support rod (4) from bracket (5).



1200F02

6. Stow 24 vdc (12 pin) intervehicular cable (1) and cable support rod (4) in trailer stowage compartment (6).



1200F03

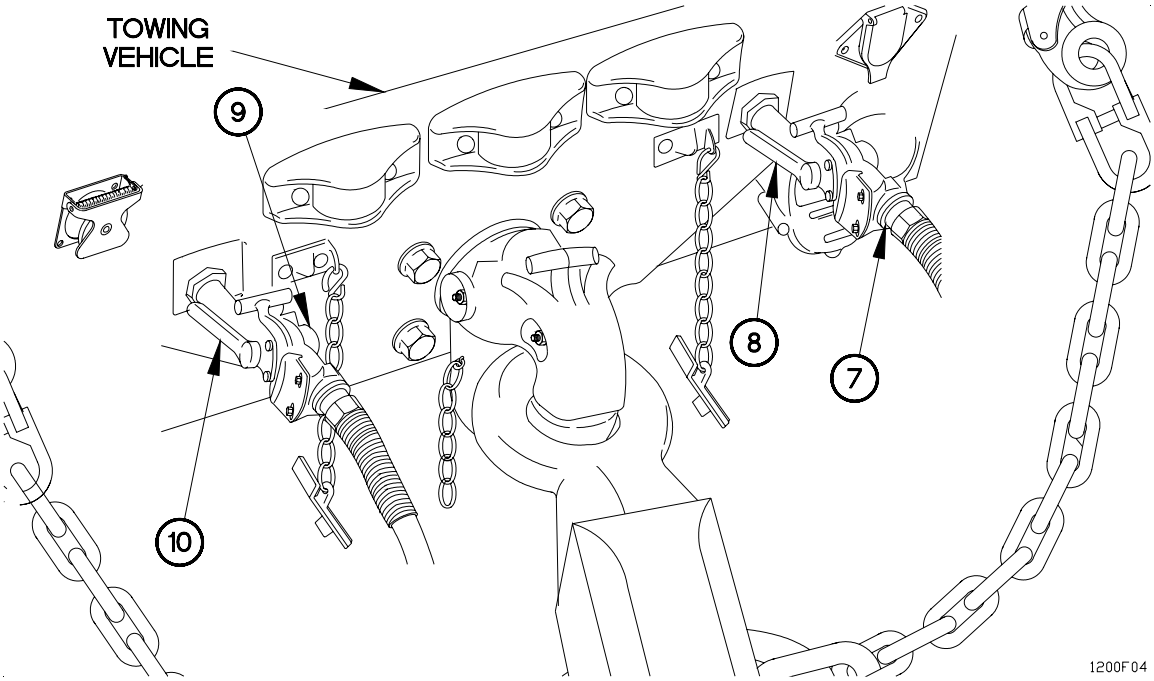
UNCOUPLING TRAILER FROM TOWING VEHICLE - Continued 0012 00

UNCOUPLING TRAILER - Continued

7. Perform towing vehicle operating procedures for correct positioning of towing vehicle gladhand selector valves.

8. Disconnect trailer EMERGENCY gladhand hose (7) from EMERGENCY gladhand (8) on towing vehicle.

9. Disconnect trailer SERVICE gladhand hose (9) from SERVICE gladhand (10) on towing vehicle.

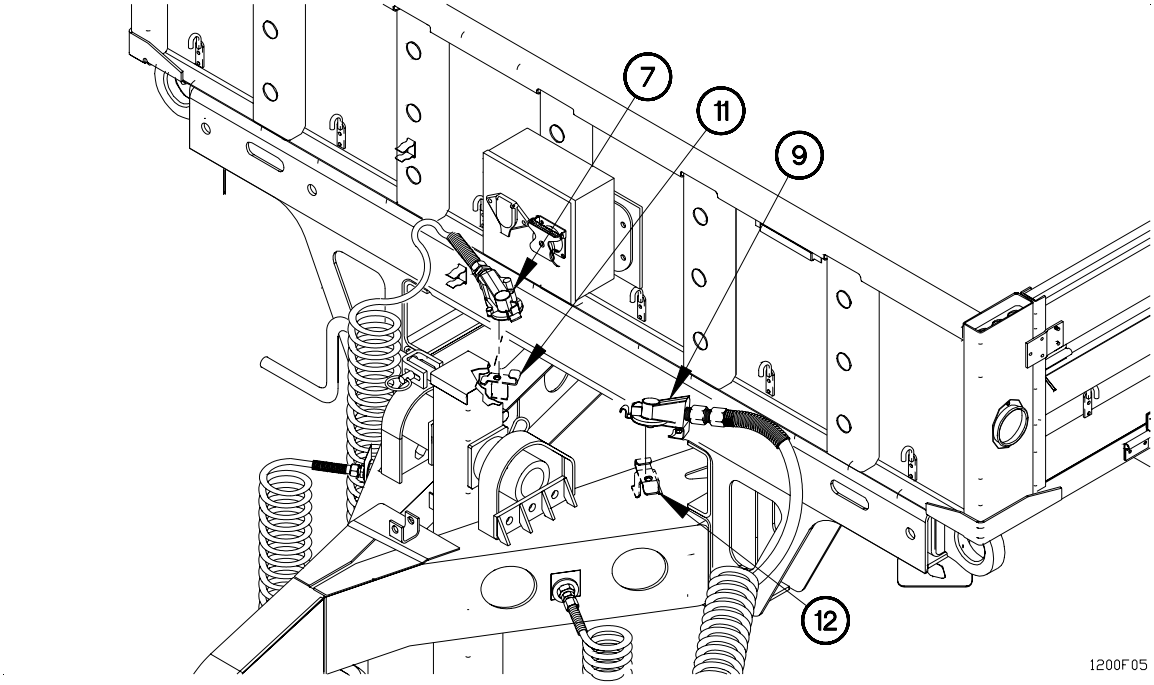


UNCOUPLING TRAILER FROM TOWING VEHICLE - Continued 0012 00

UNCOUPLING TRAILER - Continued

10. Secure EMERGENCY gladhand hose (7) to bracket (11) on trailer.

11. Secure SERVICE gladhand hose (9) to bracket (12) on trailer.



UNCOUPLING TRAILER FROM TOWING VEHICLE - Continued 0012 00

UNCOUPLING TRAILER - Continued

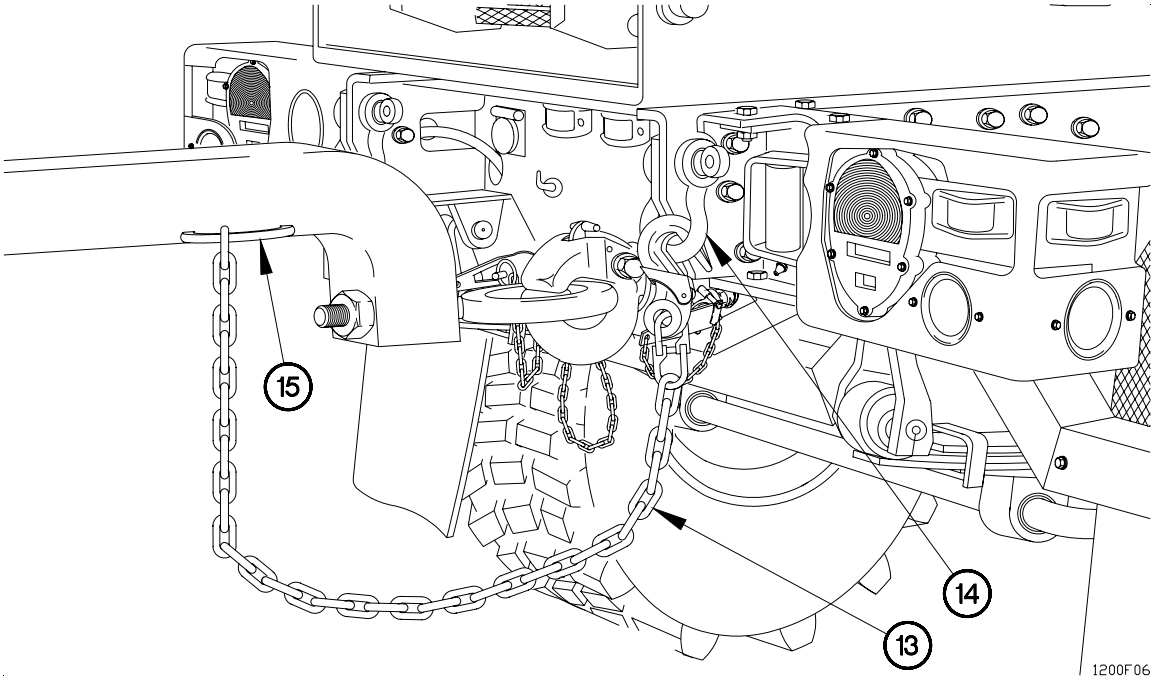
12. Perform towing vehicle operating procedures for connection of dummy couplings to service and emergency gladhands on the towing vehicle.

NOTE

Left and right trailer safety chain assemblies and towing vehicle tiedowns are connected the same way. Right trailer safety chain assembly and right towing vehicle tiedown shown.

13. Disconnect safety chain assembly (13) from shackle (14).

14. Connect safety chain assembly (131) to tongue assembly (15).



UNCOUPLING TRAILER FROM TOWING VEHICLE - Continued 0012 00

UNCOUPLING TRAILER - Continued

15. Remove cotter pin (16) from towing vehicle pintle towing hook (17).

16. Unhook pintle towing hook (17) from trailer drawbar assembly (18).

WARNING

Position of assistant must be known at all times. Do not allow anyone to stand between towing vehicle and trailer, behind trailer, or crawl under trailer tongue during coupling of towing vehicle to trailer. Failure to comply may result in serious injury or death to personnel.

Do not place hands near pintle hook when coupling/uncoupling trailer drawbar assembly and towing vehicle pintle towing hook. Towing vehicle may move suddenly. Failure to comply may result in injury to personnel.

NOTE

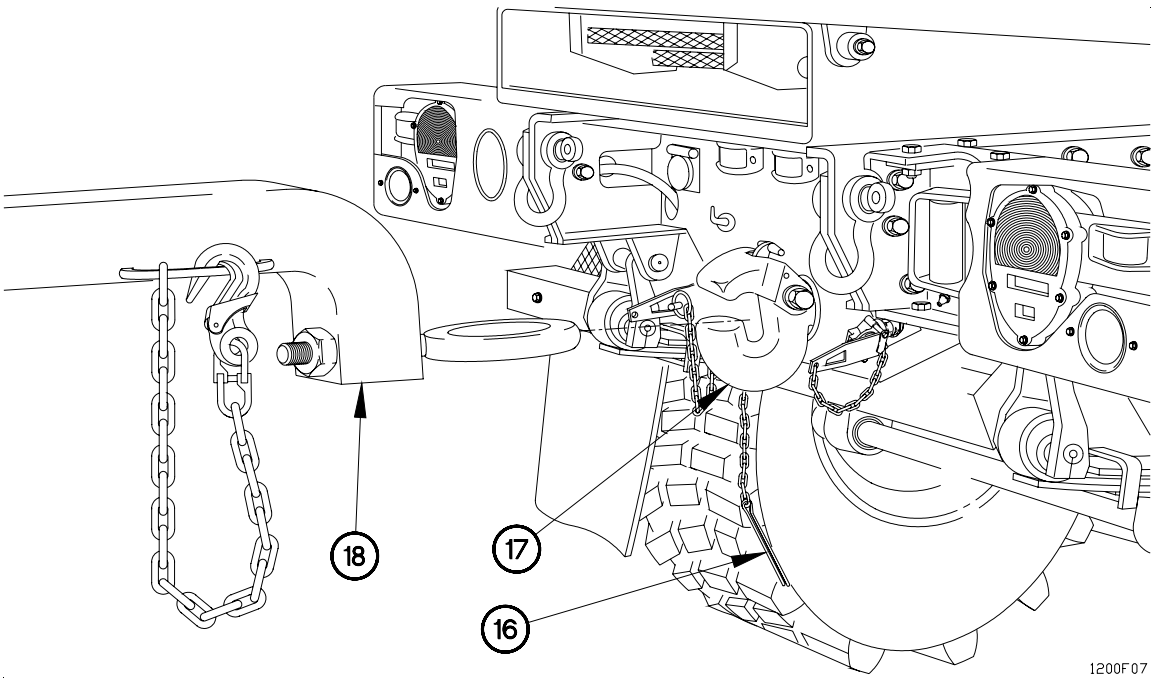
If necessary, lower or raise landing gear until trailer drawbar assembly clears towing pintle towing hook.

17. Perform towing vehicle operating procedures to start engine.

18. Drive towing vehicle forward until clear of trailer.

19. Close pintle towing hook (17).

20. Install cotter pin (16) in pintle towing hook (17).



UNCOUPLING TRAILER FROM TOWING VEHICLE - Continued 0012 00

UNCOUPLING TRAILER - Continued

21. Pull push-pull/air supply valve knob to set brakes.

22. Drain trailer air tank (WP 0011 00, Draining Air Tank).

END OF WORK PACKAGE

LANDING GEAR OPERATION 0013 00

INITIAL SETUP:

Maintenance Level
Operator

Equipment Conditions
Wheels chocked (WP 0011 00).

GENERAL

WARNING

Trailer wheels must be chocked before landing gear operation. Trailer wheels may roll if they are not chocked. Failure to comply may result in serious injury or death to personnel or damage to equipment.

NOTE

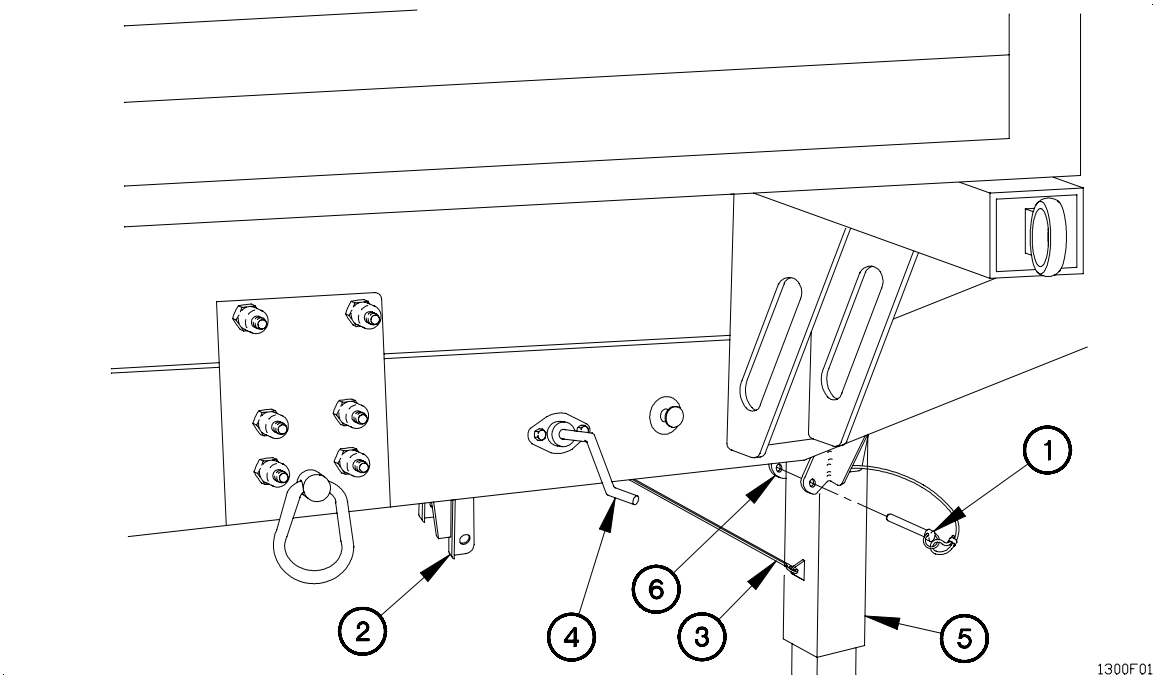
Landing gear operation is the same for LMTVT and MTVT. The LMTVT is shown.

The landing gear aids connecting the trailer to the towing vehicle and levels the trailer cargo bed. The paragraphs in this work package provide the data and procedures to be used by the Operator when operating the landing gear. Items covered include lowering landing gear, lowering foot plate, raising foot plate, and raising landing gear.

LANDING GEAR OPERATION - Continued 0013 00

LOWERING LANDING GEAR

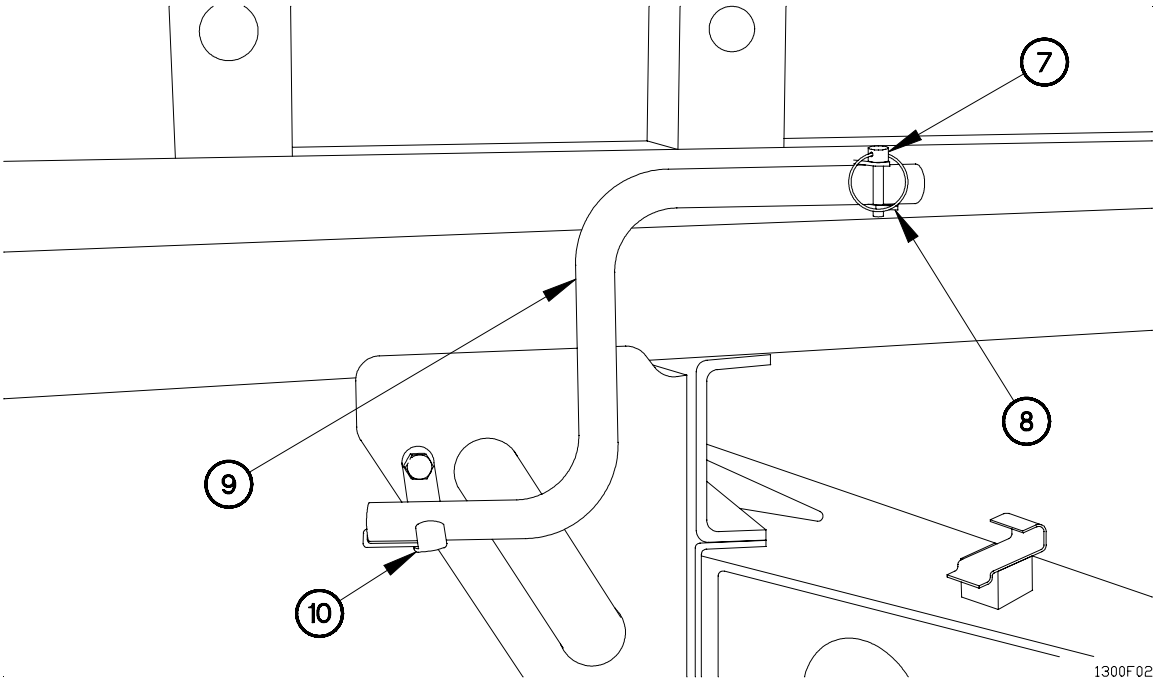
1. Remove pin (1) from bracket (2).
2. Remove slack from cable (3) with landing gear winch handle (4).
3. Manually lower landing gear (5) to vertical position.
4. Install pin (1) in pivot (6).



LANDING GEAR OPERATION - Continued 0013 00

LOWERING FOOT PLATE

1. Remove pin (7) from stowage bracket (8).
2. Remove retractable support winch handle (9) from bracket (10).



LANDING GEAR OPERATION - Continued 0013 00

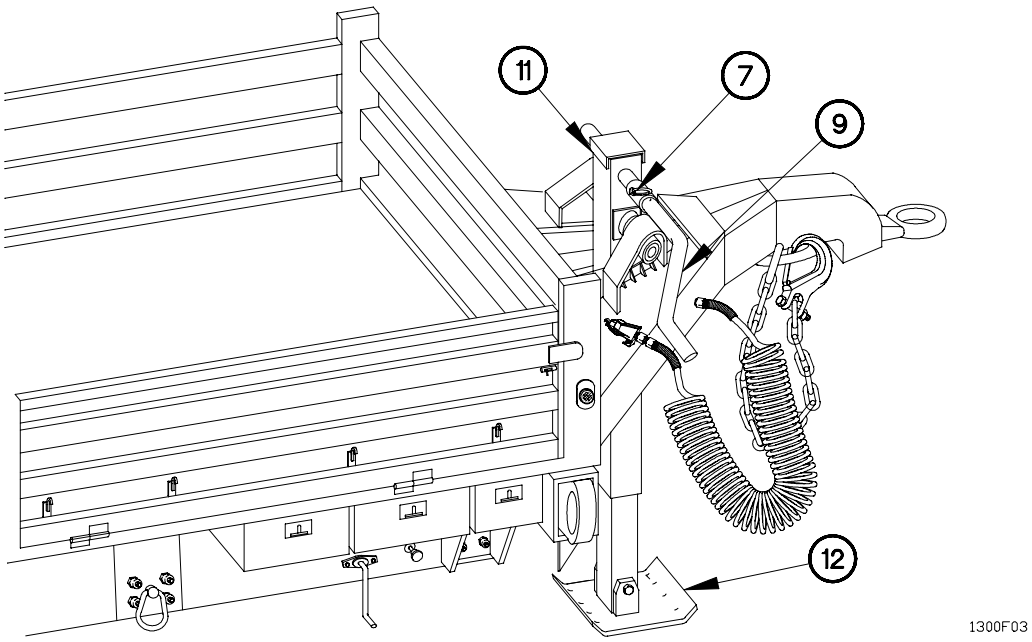
LOWERING FOOT PLATE - Continued

3. Install retractable support winch handle (9) on gearbox (11) with pin (7).

NOTE

Turn retractable support winch handle clockwise to lower foot plate.

4. Lower foot plate (12) to ground.

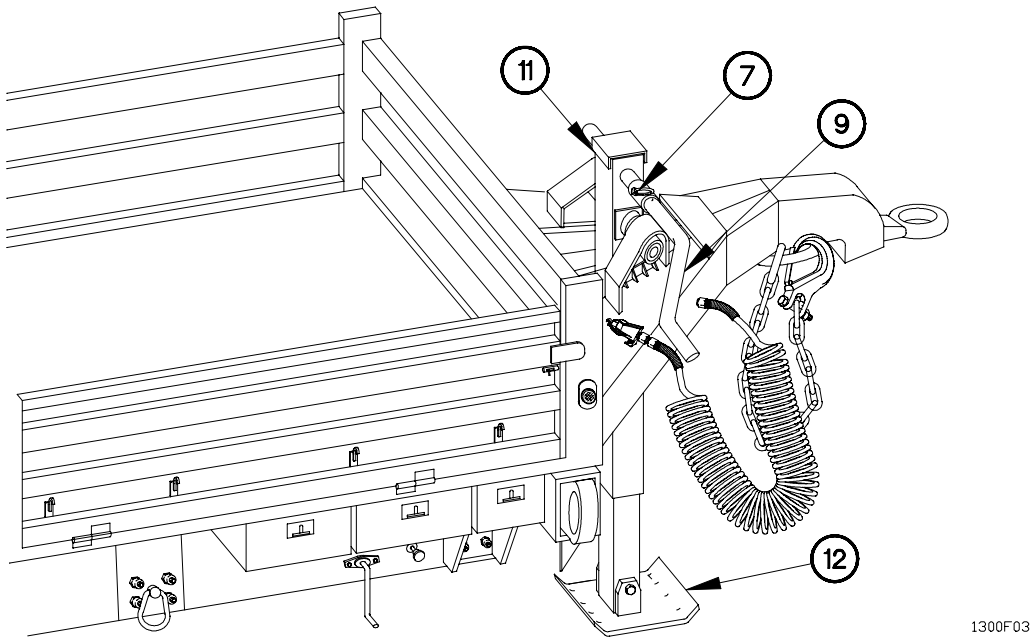


RAISING FOOT PLATE

NOTE

Turn retractable support winch handle counter-clockwise to raise foot plate.

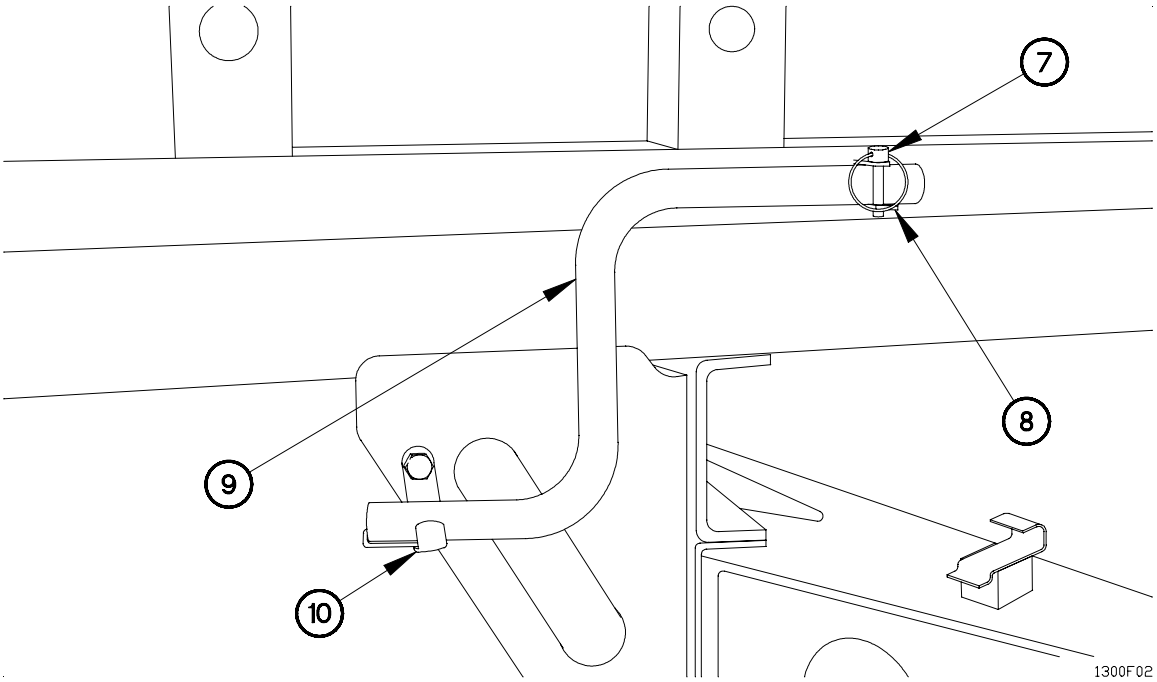
1. Raise foot plate (12) from ground.
2. Remove pin (7) and remove retractable support winch handle (9) from gearbox (11).



RAISING FOOT PLATE - Continued

3. Attach retractable support winch handle (9) to bracket (10).

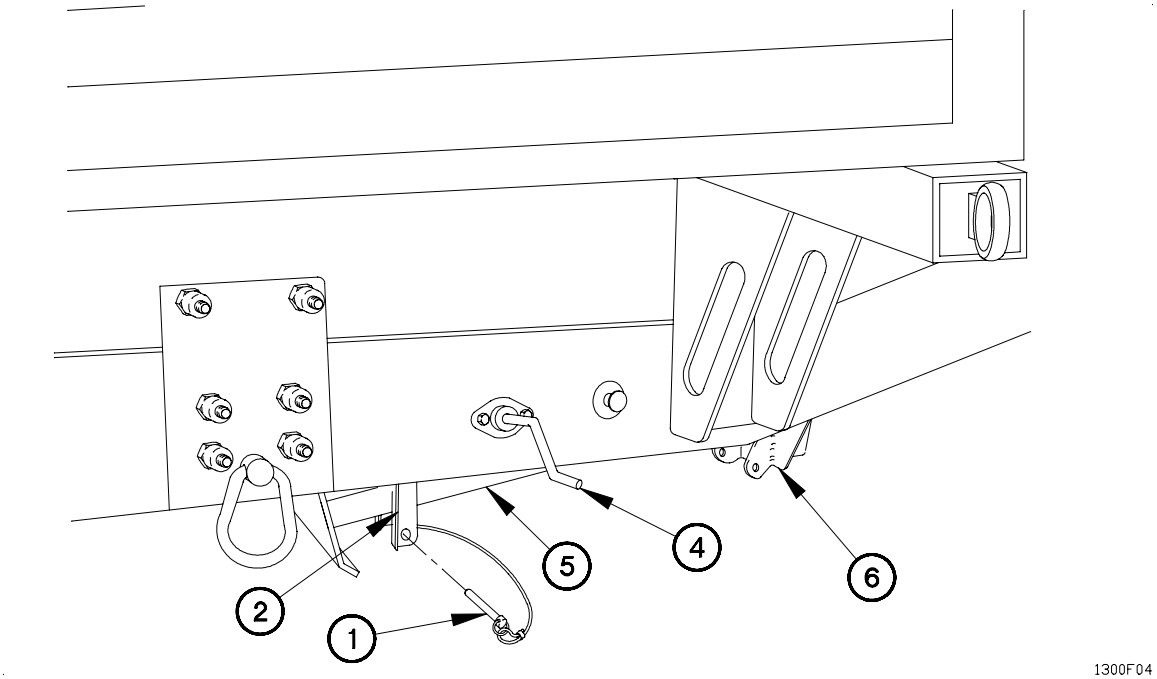
4. Install pin (7) in stowage bracket (8).



LANDING GEAR OPERATION - Continued 0013 00

RAISING LANDING GEAR

1. Remove pin (1) from pivot (6).
2. Raise landing gear (5) with landing gear handle (4).
3. Install pin (1) in bracket (2).



1300F04

END OF WORK PACKAGE

CARGO COVER KIT INSTALLATION/REMOVAL 0014 00

INITIAL SETUP:

Maintenance Level
Operator

Personnel Required
Two

References
WP 0010 00
WP 0015 00

GENERAL

This work package provides the data and procedures for installing and removing the cargo cover kit. Items covered include soft top kit (steel bows) installation, soft top (steel bows) installation, soft top (steel bows) removal, and soft top kit (steel bows) removal.

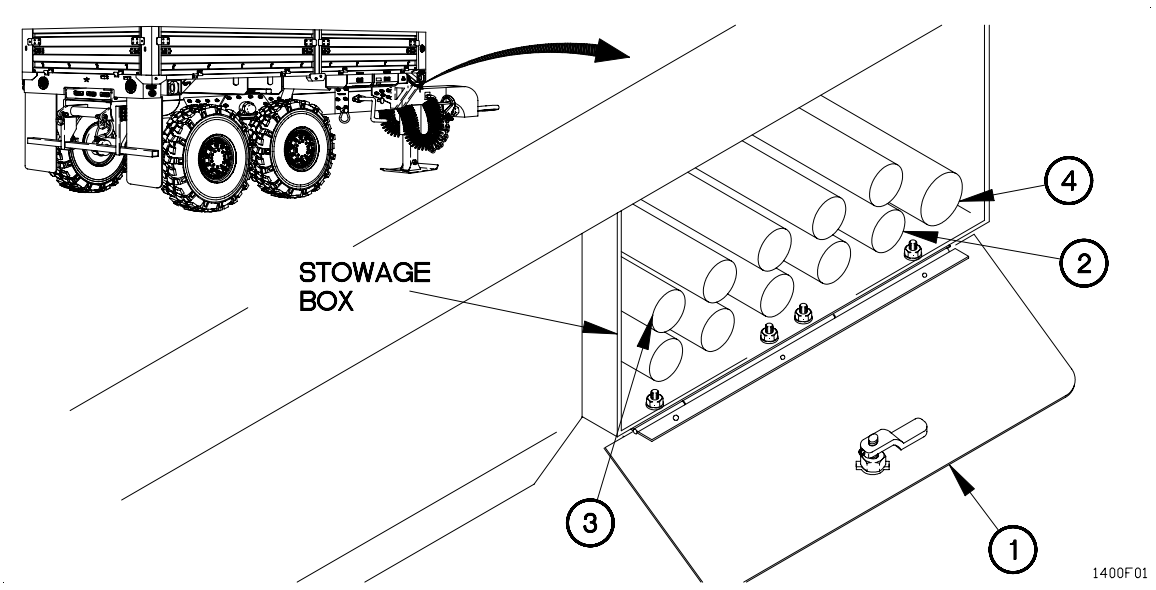
SOFT TOP KIT (STEEL BOWS) INSTALLATION

1. Lower ladder (WP 0010 00, Lower Ladder).
2. Open stowage box door (1).

NOTE

Soft top kit is equipped with a total of 10 tubes. Five front tubes are longer than rear tubes.

3. Stow five front tubes (2), five rear tubes (3), and steel pole (4) in stowage box.
4. Close stowage box door (1).



CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

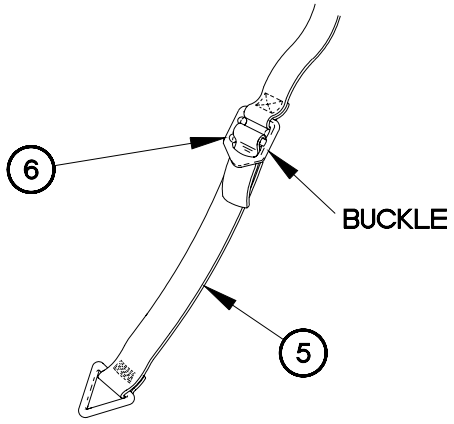
SOFT TOP KIT (STEEL BOWS) INSTALLATION - Continued

NOTE

Front, center, and rear bows have two bow straps and tiedown straps. All tiedown straps are installed on bow straps the same way. One tiedown strap shown.

5. Install tiedown strap (5) through buckle of bow strap (6).

6. Perform step (5) on remaining tiedown straps.

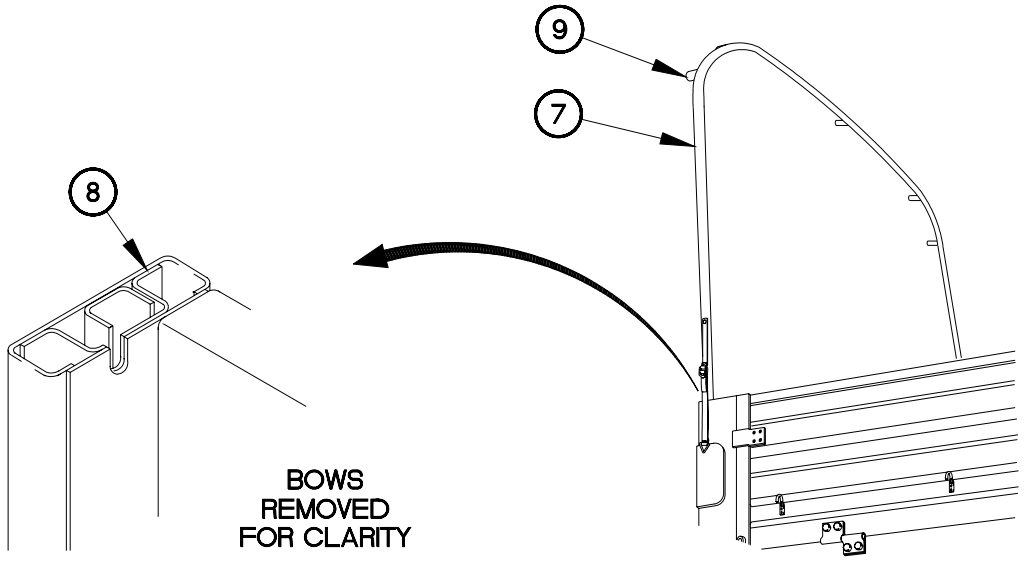


1400F02

NOTE

Steps (7) through (9) require the aid of an assistant.

7. Position front bow (7) in front cargo bed pockets (8) with front bow brackets (9) toward front of trailer.

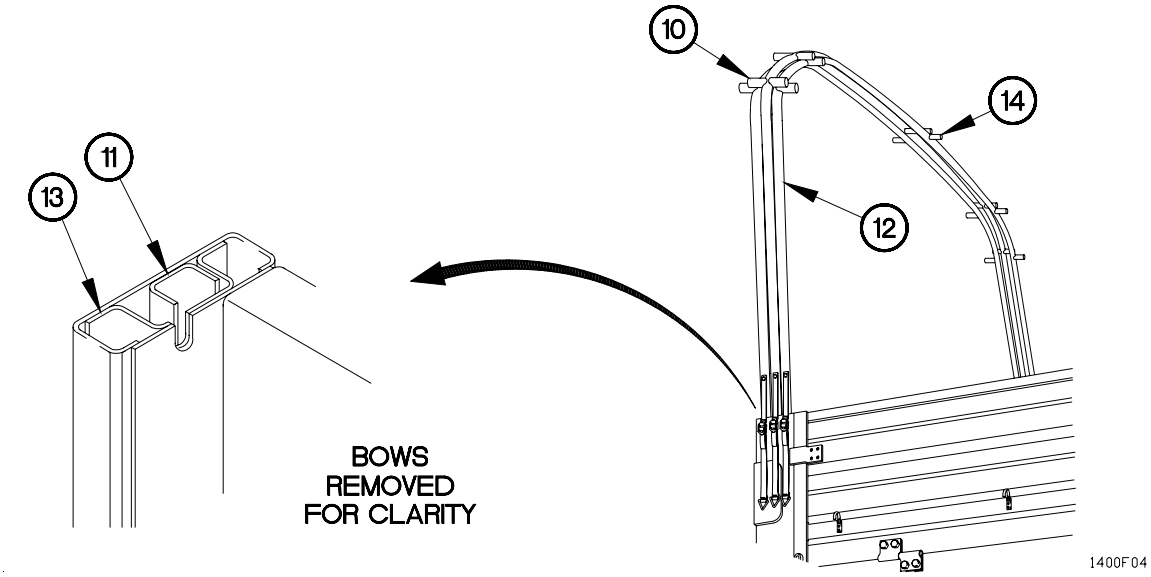


1400F03

SOFT TOP KIT (STEEL BOWS) INSTALLATION - Continued

8. Position center bow (10) in center cargo bed pockets (11).

9. Position rear bow (12) in rear cargo bed pockets (13) with rear bow brackets (14) toward rear of trailer.



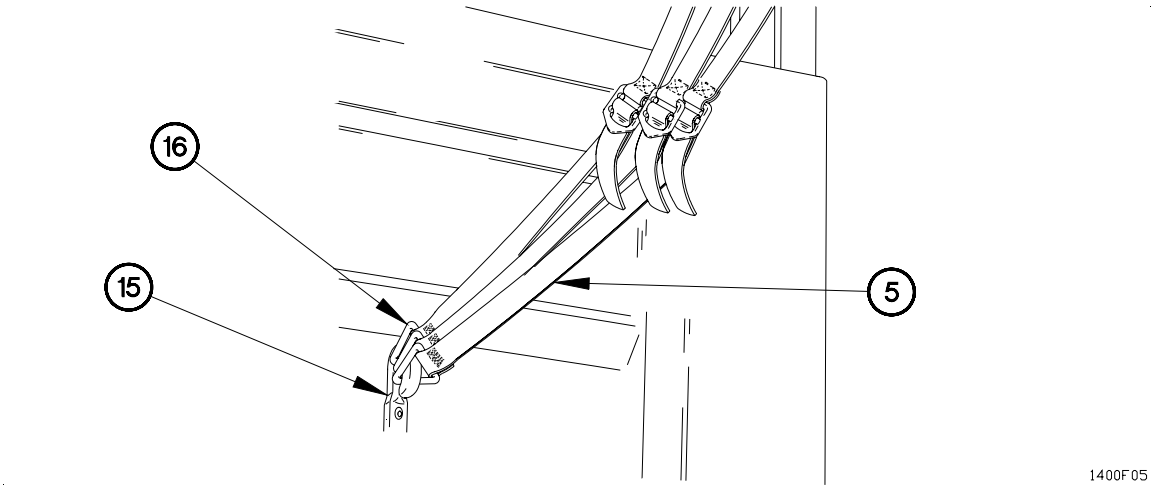
NOTE

Left and right sides of front, center, and rear bows are secured the same way. Right side shown.

10. Position three tiedown straps (5) on J-hook (15) with three tri-rings (16).

11. Tighten three tiedown straps (5).

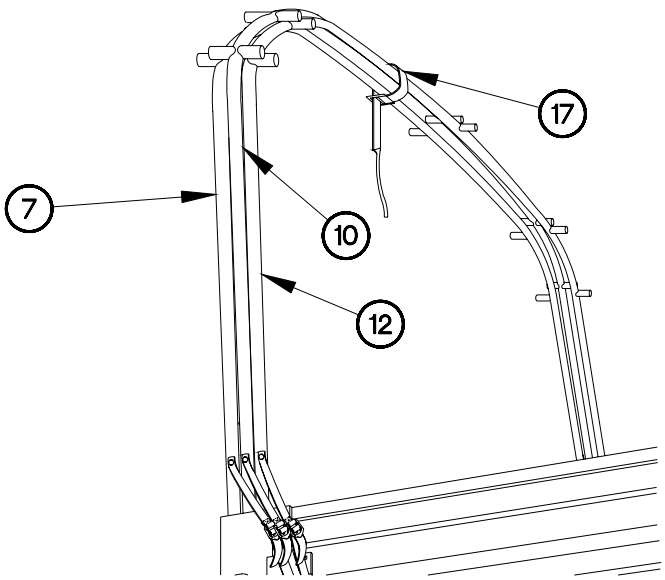
12. Perform steps (10) and (11) on left side.



CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP KIT (STEEL BOWS) INSTALLATION - Continued

13. Install stowage strap (17) on front bow (7), center bow (10), and rear bow (12).

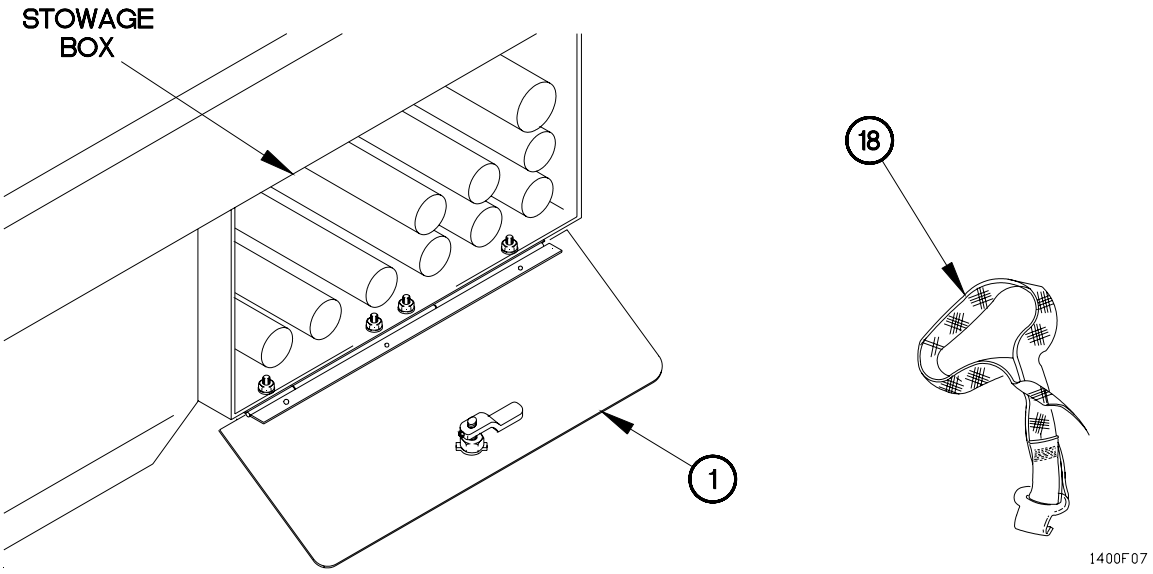


1400F06

14. Open door (1) on stowage box.

15. Stow three cargo cover tiedowns (18) in stowage box.

16. Close door (1) on stowage box.



1400F07

CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP KIT (STEEL BOWS) INSTALLATION - Continued

WARNING

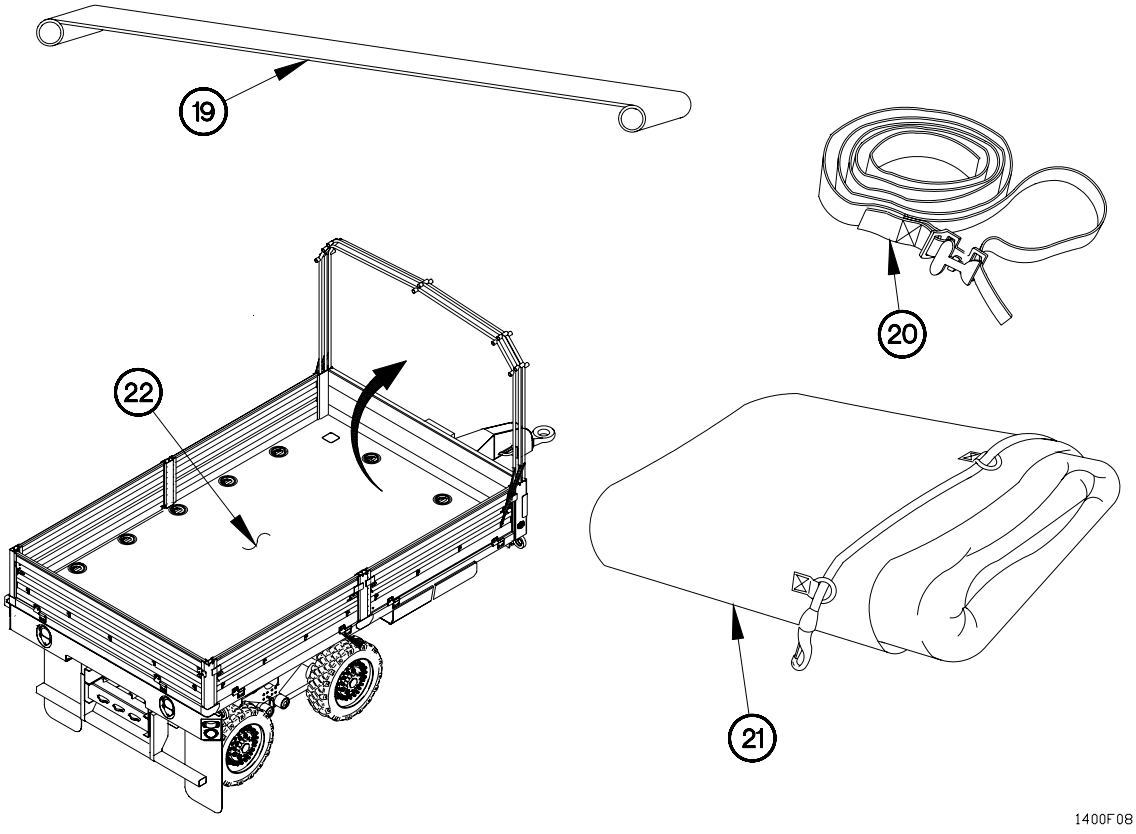
Cargo cover weighs approximately 60 lbs (27 kgs). Arctic cargo cover weighs approximately 100 lbs (45 kgs). An assistant is required to lift cargo cover. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

Step (17) requires the aid of an assistant.

17. Stow four braces (19), two support straps (20), and cargo cover (21) on cargo bed (22).

18. Stow ladder (WP 0010 00, Stow Ladder).



1400F08

CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) INSTALLATION

1. Lower ladder (WP 0010 00, Lower Ladder).

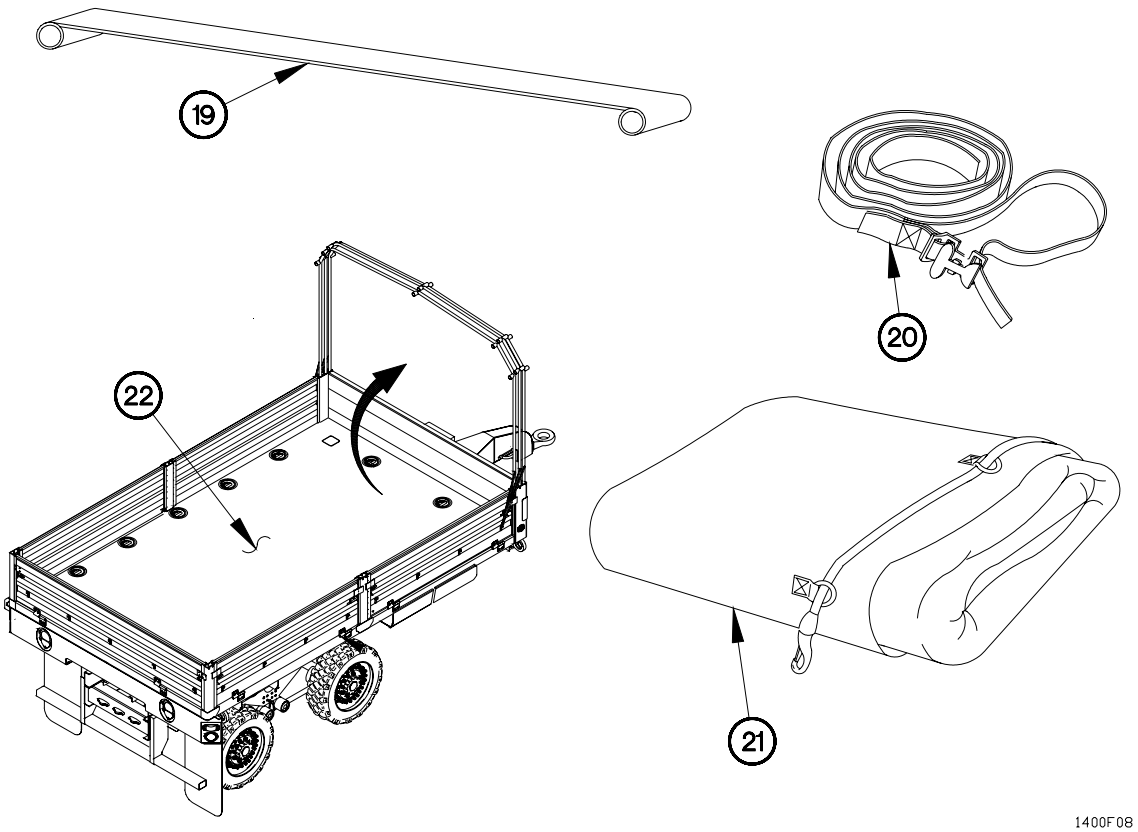
WARNING

Cargo cover weighs approximately 60 lbs (27 kgs). Arctic cargo cover weighs approximately 100 lbs (45 kgs). An assistant is required to lift cargo cover. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

Step (2) requires the aid of an assistant.

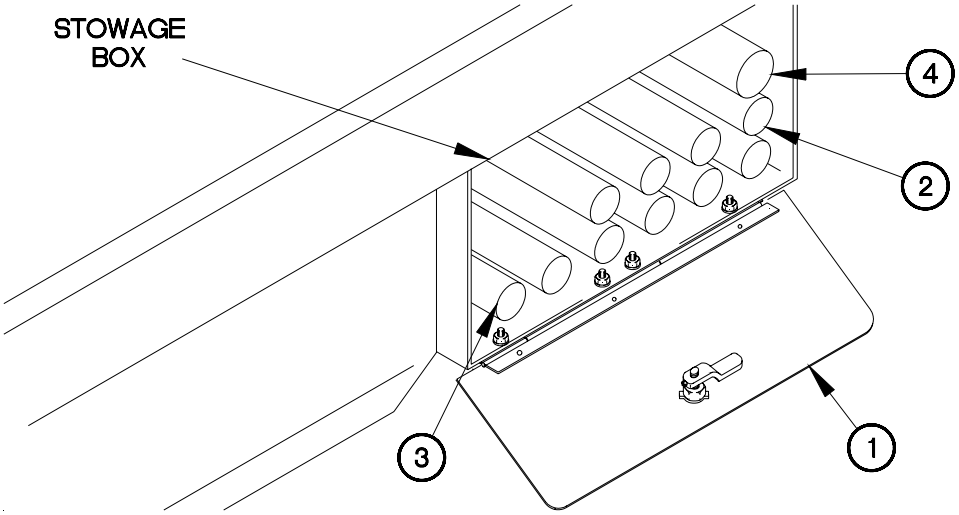
2. Remove four braces (19), two support straps (20), and cargo cover (21) from cargo bed (22).



CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

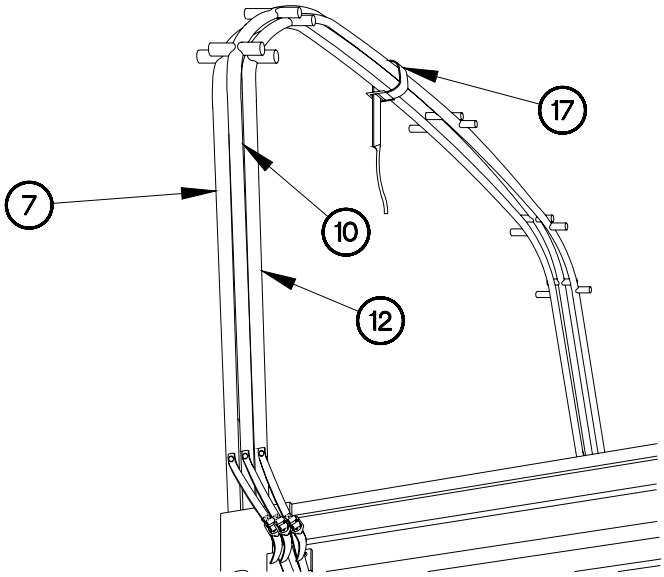
SOFT TOP (STEEL BOWS) INSTALLATION

3. Open stowage box door (1).
4. Remove five front tubes (2) five rear tubes (3), and steel pole (4) from stowage box.
5. Close stowage box door (1).



1400F09

6. Remove stowage strap (17) from front bow (7), center bow (10), and rear bow (12).



1400F06

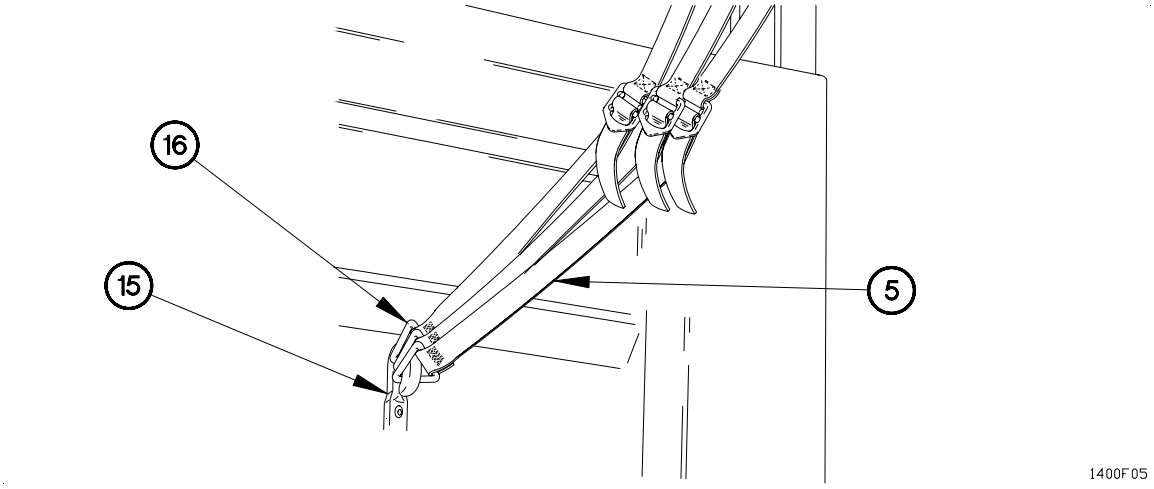
CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) INSTALLATION - Continued

NOTE

Left and right sides of front, center, and rear bows are released the same way. Right side shown.

7. Loosen three tiedown straps (5).
8. Remove three tri-rings (16) on tiedown straps (5) from J-hook (15).
9. Perform steps (7) and (8) on left side.



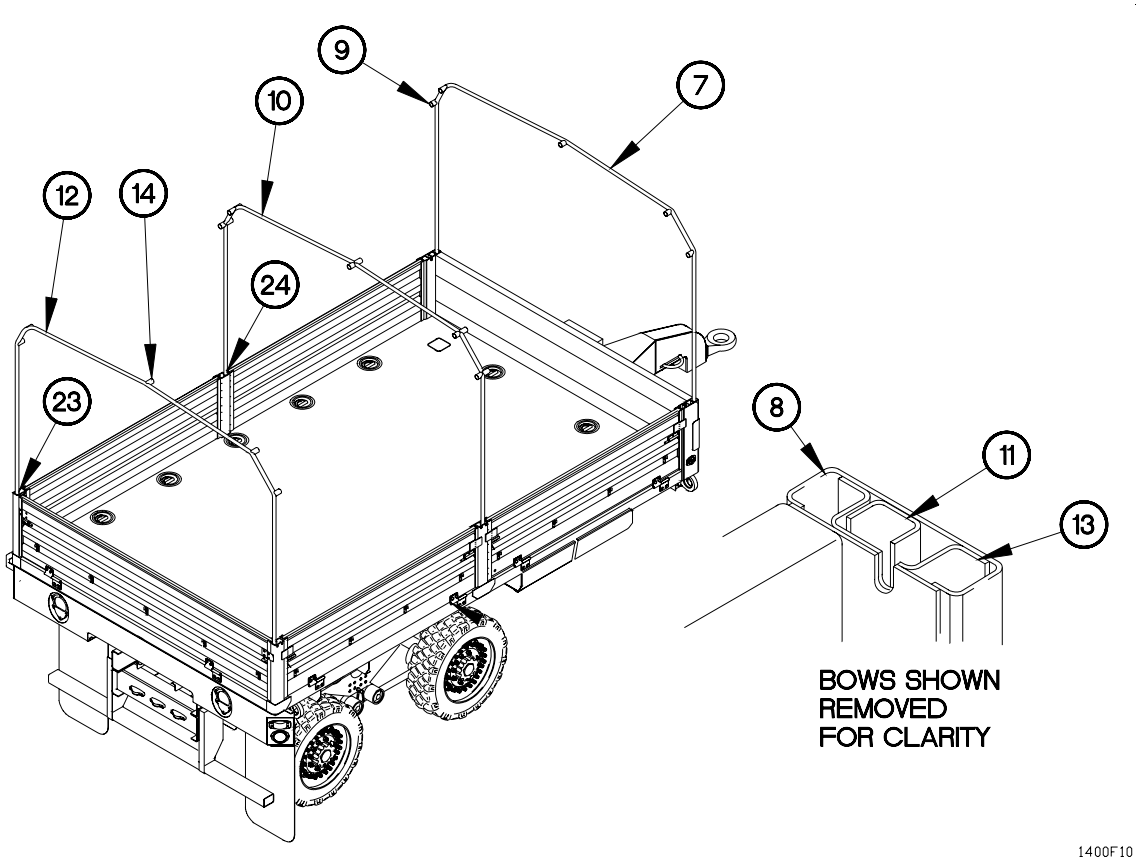
CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) INSTALLATION - Continued

NOTE

Steps (10) through (15) require the aid of an assistant.

10. Remove rear bow (12) from rear cargo bed pockets (13).
11. Position rear bow (12) in rear pockets of rear cargo bed stakes (23) with rear bow brackets (14) toward front of trailer.
12. Remove center bow (10) from center cargo bed pockets (11).
13. Position center bow (10) in rear pockets of center cargo bed stakes (24).
14. Remove front bow (7) from front cargo bed pockets (8).
15. Position front bow (7) in front cargo bed pockets (8) with front bow brackets (9) toward rear of trailer.



SOFT TOP (STEEL BOWS) INSTALLATION - Continued

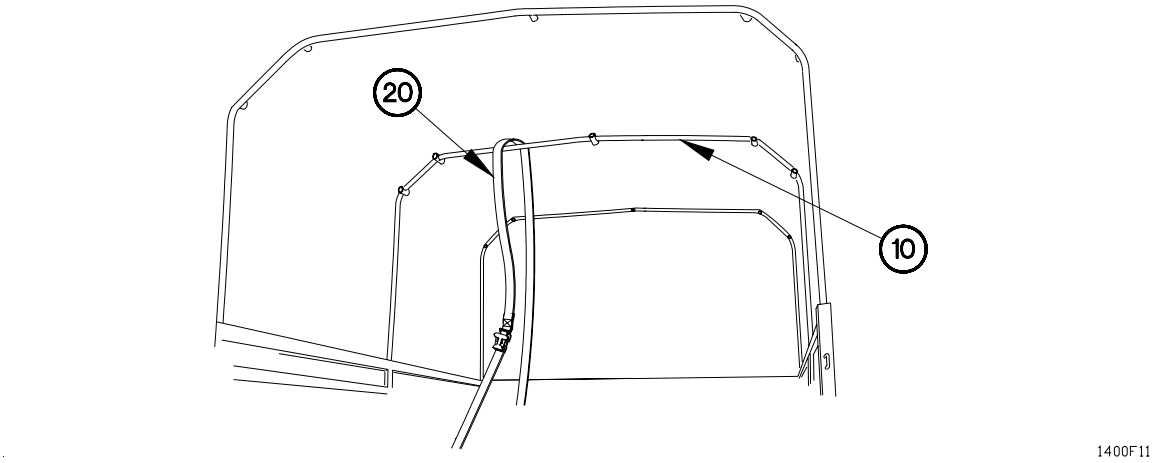
NOTE

Support strap is marked with FRONT and an arrow to indicate front bottom of support strap.

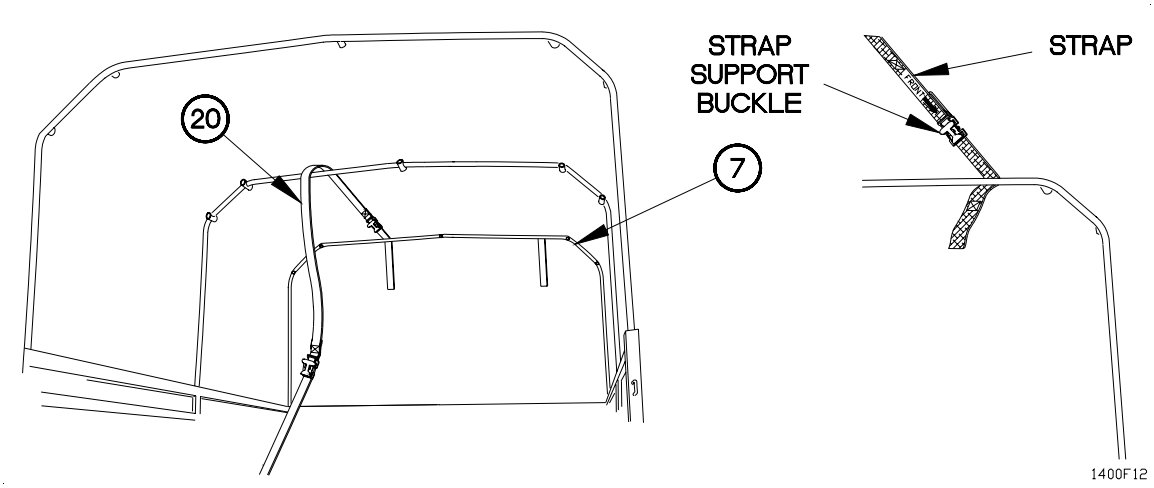
Support straps are to be centered between center bow brackets and left and right inside of bow brackets.

Left and right support straps are installed the same way. Left support strap shown.

16. Position left support strap (20) over center bow (10).



17. Position left support strap (20) around front bow (7) and through strap support buckle.



CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

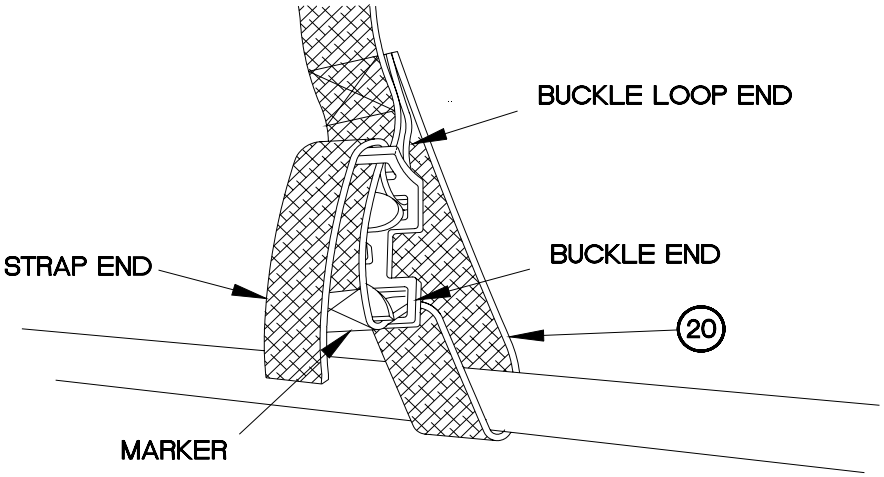
SOFT TOP (STEEL BOWS) INSTALLATION - Continued

18. Tighten left support strap (20) until marker is through the buckle end.

CAUTION

Strap end must be installed in the buckle loop end after strap is tightened. Failure to comply may result in damage to equipment.

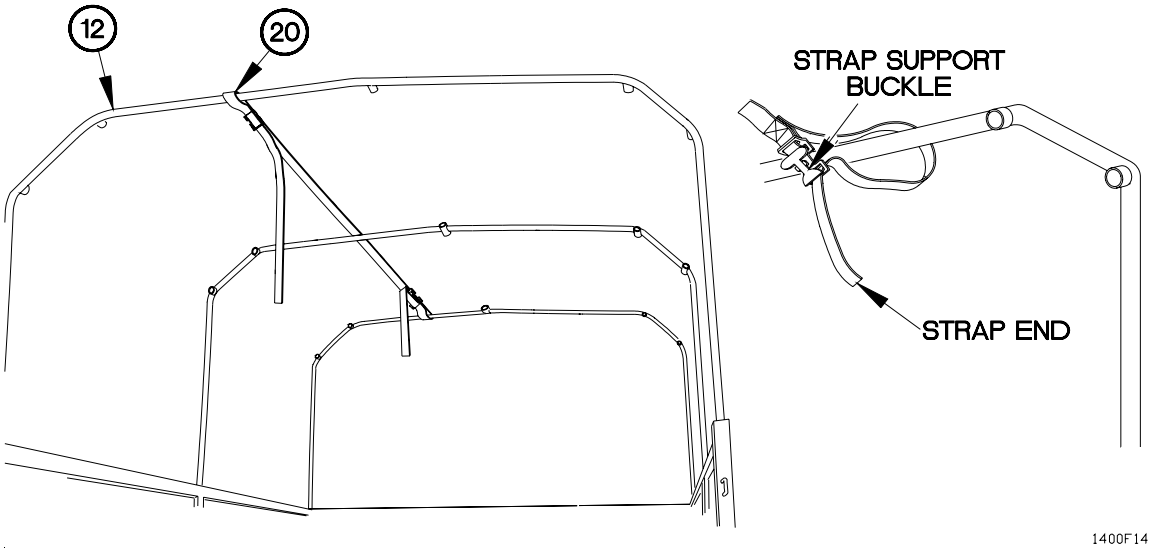
19. Install strap end through buckle loop end on left support strap (20).



1400F13

20. Position left support strap (20) around rear bow (12) and through strap support buckle.

21. Perform steps (16) through (20) on right support strap.



1400F14

CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) INSTALLATION - Continued

NOTE

Steps (22) through (24) require the aid of an assistant.

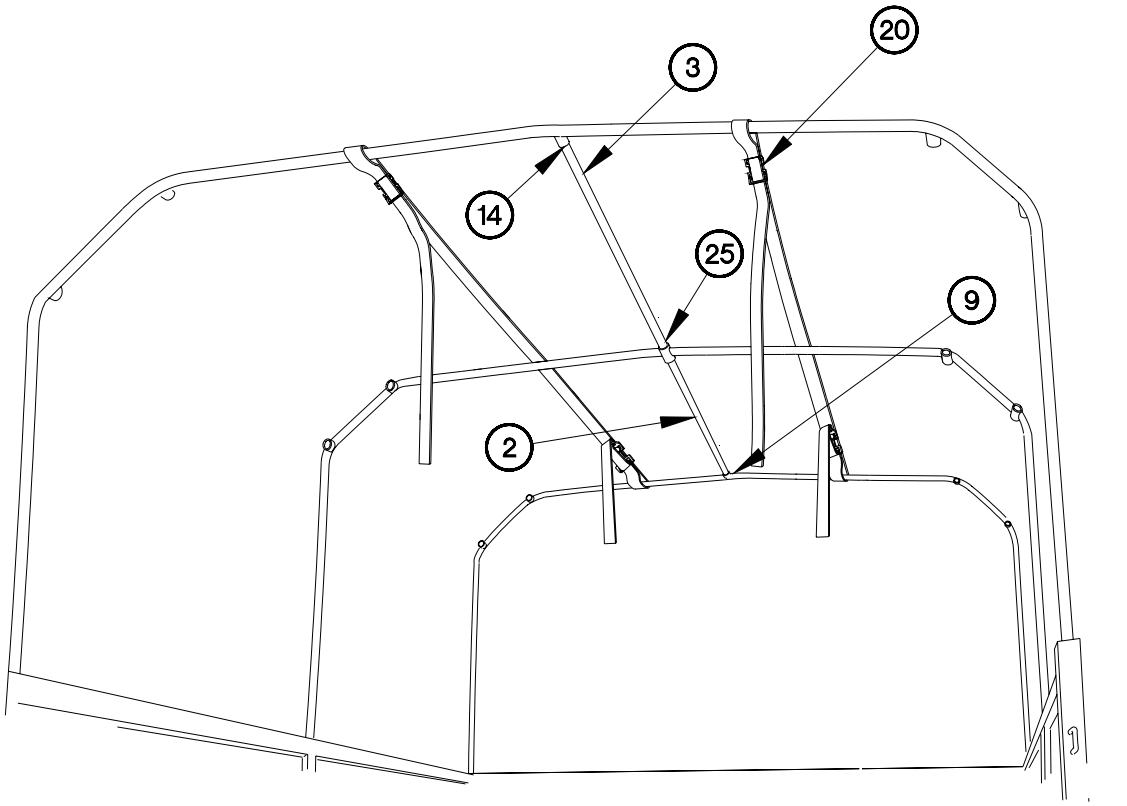
22. Install front tube (2) in front bow bracket (9) and center bow bracket (25).

23. Install rear tube (3) in center bow bracket (25) and rear bow bracket (14).

CAUTION

Strap supports must be aligned straight between front bow and rear bow. Failure to comply may result in damage to equipment.

24. Tighten right support strap (20).



1400F15

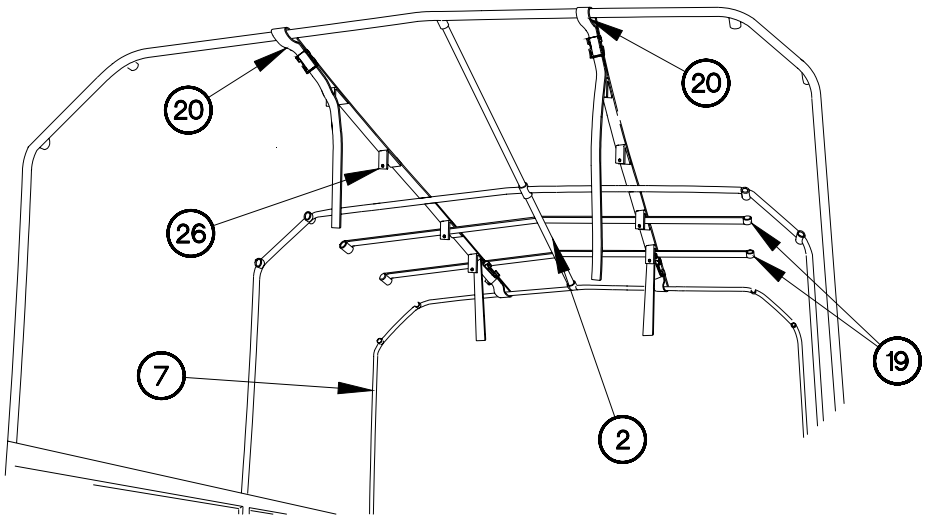
SOFT TOP (STEEL BOWS) INSTALLATION - Continued

25. Open four flaps (26) on both support straps (20).

NOTE

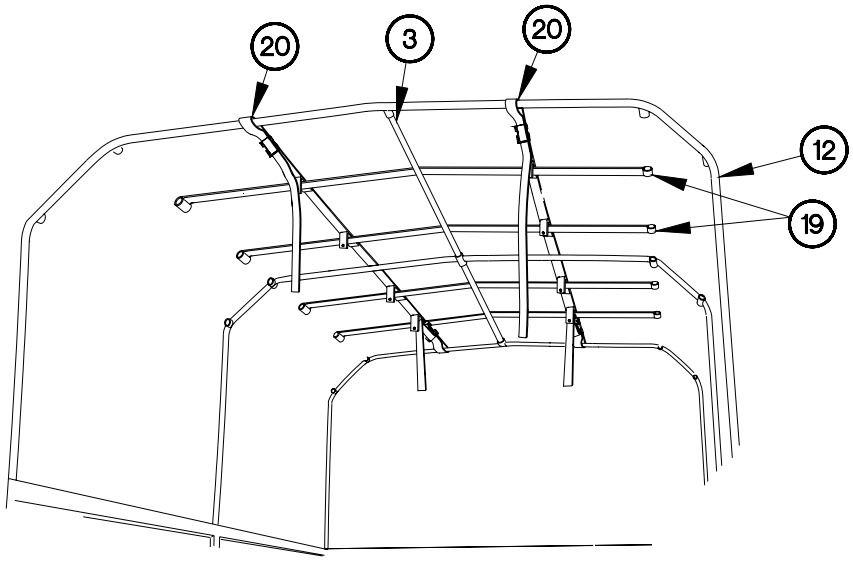
Left and right strap supports have six flaps. From front to rear of trailer, perform step (26) on first, second, third, and fifth straps on each strap support.

26. Position two braces (19) over front tube (2) and under both support straps (20) with approximately 2 feet (61 cm) between front bow (7) and between each brace (19).



1400F16

27. Position two braces (19) over rear tube (3) and under both support straps (20) with approximately 2 feet (0.6 m) between rear bow (12) and each brace (19).



1400F17

CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) INSTALLATION - Continued

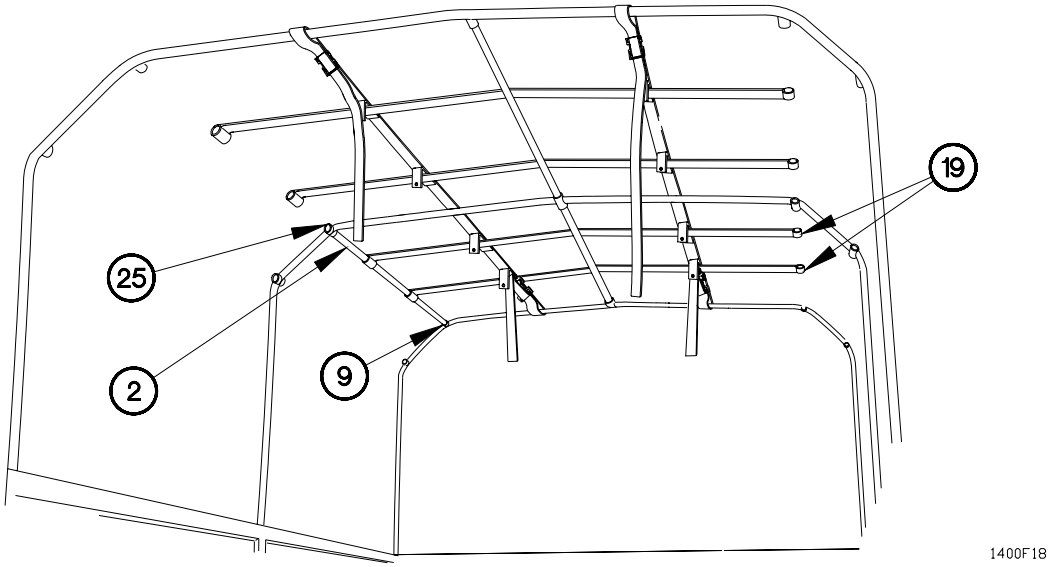
NOTE

Left and right tubes are installed the same way. Left side tubes shown.

Steps (28) through (35) require the aid of an assistant.

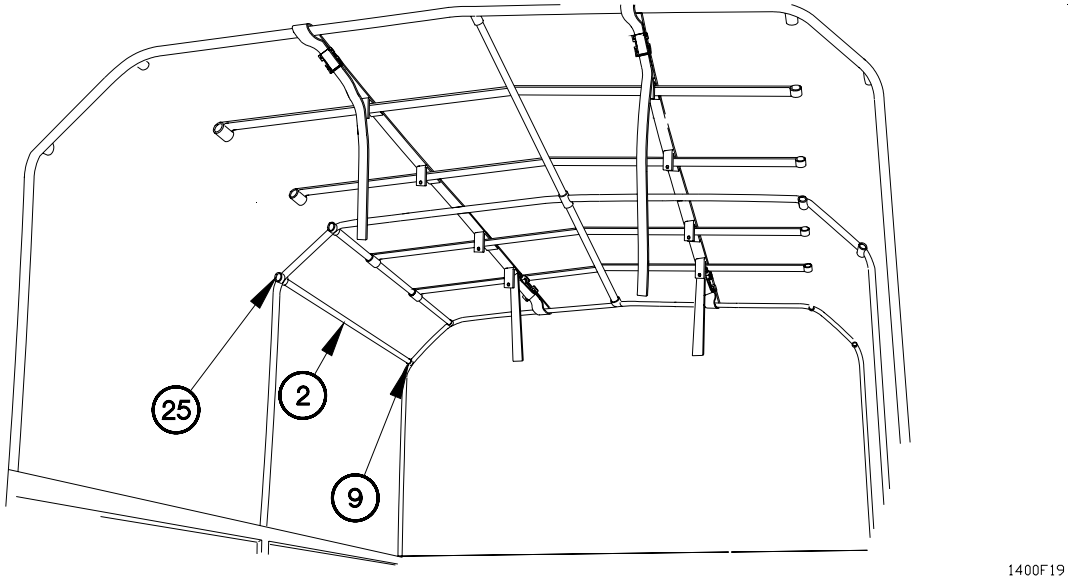
28. Position top front tube (2) through two braces (19).

29. Install top front tube (2) in front bow bracket (9) and center bow bracket (25).



1400F18

30. Install bottom front tube (2) in front bow bracket (9) and center bow bracket (25).



1400F19

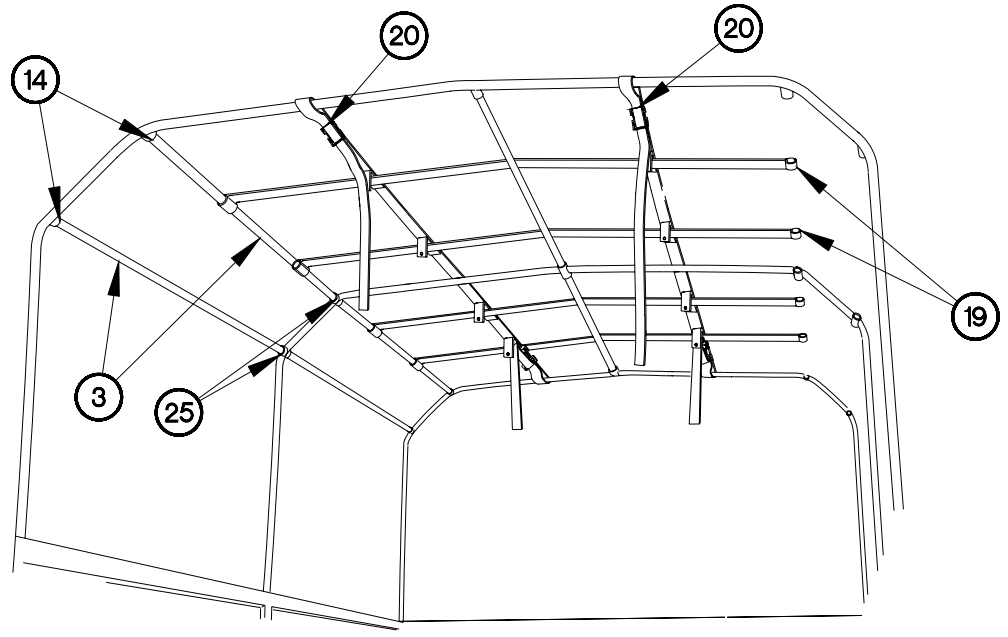
CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) INSTALLATION - Continued

NOTE

Position two braces over center of rear tube and under both support straps approximately 31 inches (79 cm) apart.

31. Install rear tube (3) in rear bow bracket (14) and center bow bracket (25).
32. Position rear tube (3) through two braces (19).
33. Install other rear tube (3) in rear bow bracket (14) and center bow bracket (25)
34. Tighten left support strap (20).
35. Loosen right support strap (20).
36. Perform steps (28) through (33) on right side tubes.

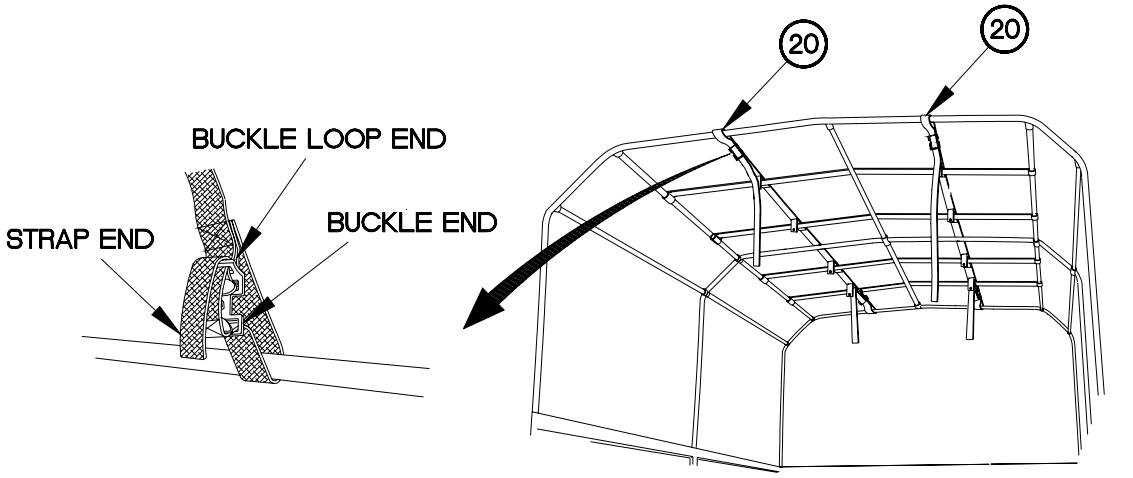


1400F20

SOFT TOP (STEEL BOWS) INSTALLATION - Continued

37. Tighten right support strap (20).

38. Install two strap ends through buckle loop ends on left and right support straps (20).

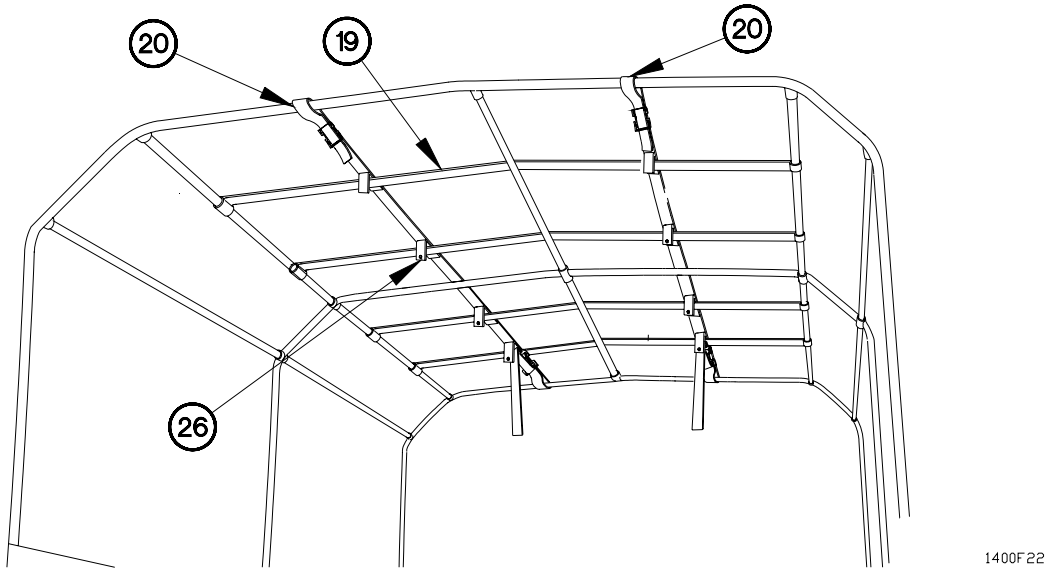


1400F21

NOTE

Adjust braces as needed to snap and attach flaps over braces.

39. Close four flaps (26) on each support strap (20) over four braces (19).



1400F22

CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) INSTALLATION - Continued

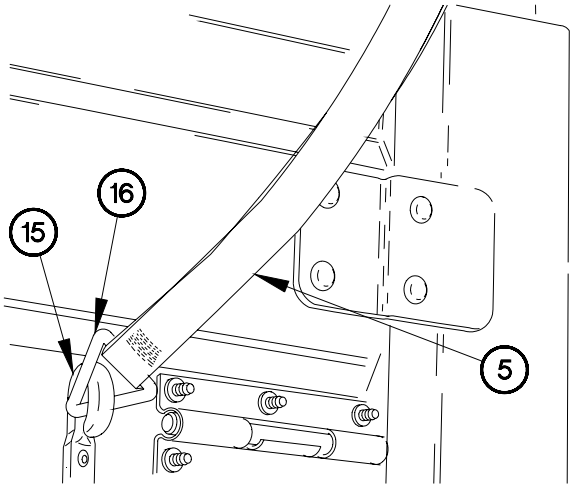
NOTE

Left and right sides of front, center, and rear bows are secured the same way. Rear bow left side shown.

40. Position tiedown strap (5) on J-hook (15) with tri-ring (16).

41. Tighten tiedown strap (5).

42. Perform steps (40) and (41) on remaining tiedown straps.



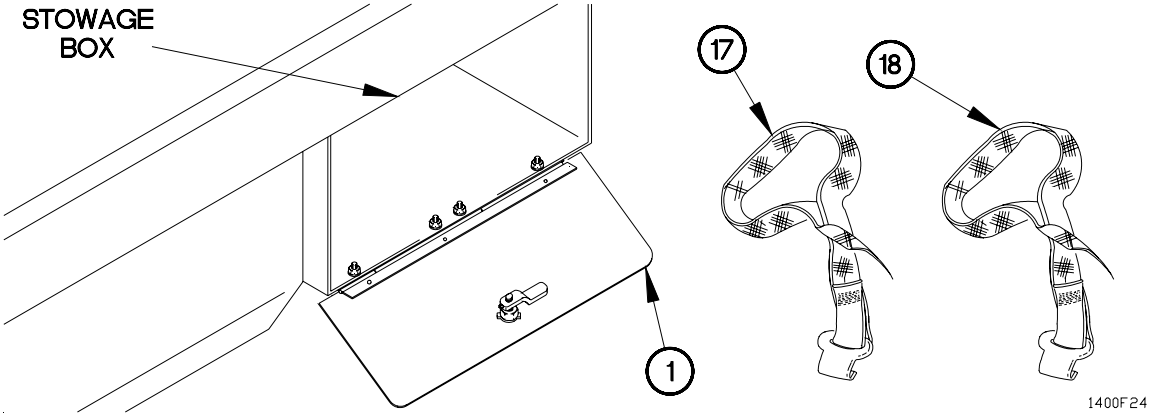
1400F23

43. Open door (1) on stowage box.

44. Remove three cargo cover tiedowns (18) from stowage box.

45. Stow stowage strap (17) in stowage box.

46. Close door (1) on stowage box.



1400F24

CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) INSTALLATION - Continued

WARNING

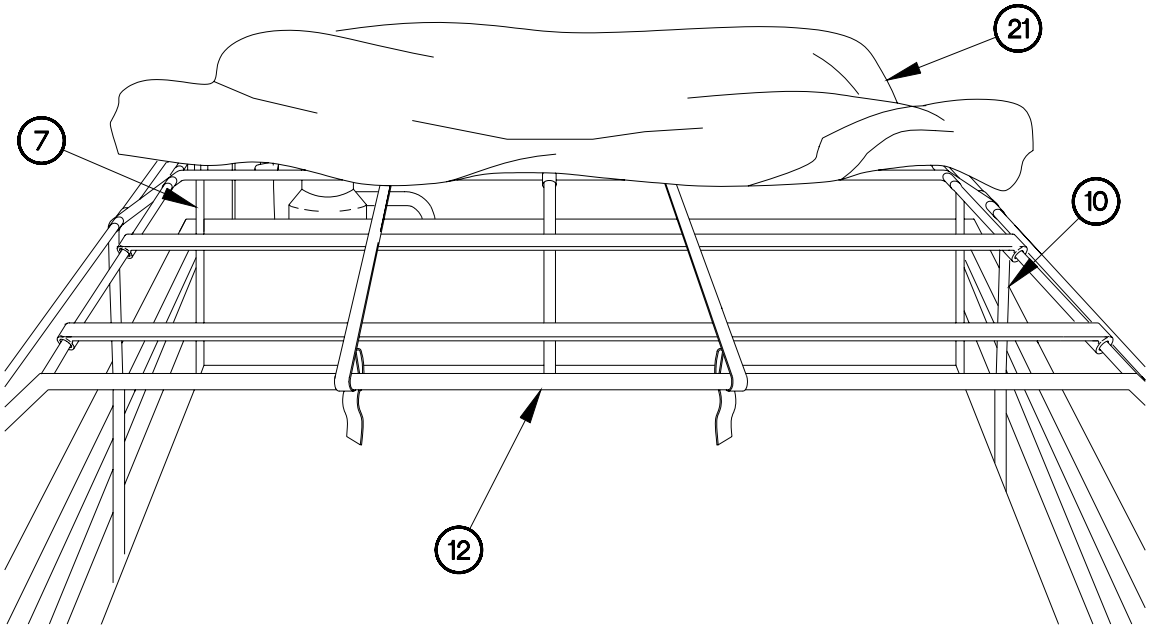
Cargo cover weighs approximately 60 lbs (27 kgs). Arctic cargo cover weighs approximately 100 lbs (45 kgs). An assistant is required to lift cargo cover. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

Steps (47) through (74) require the aid of an assistant.

Cargo cover is marked with FRONT on the front flap.

47. Position cargo cover (21) on front bow (7), center bow (10), and rear bow (12).



1400F25

CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

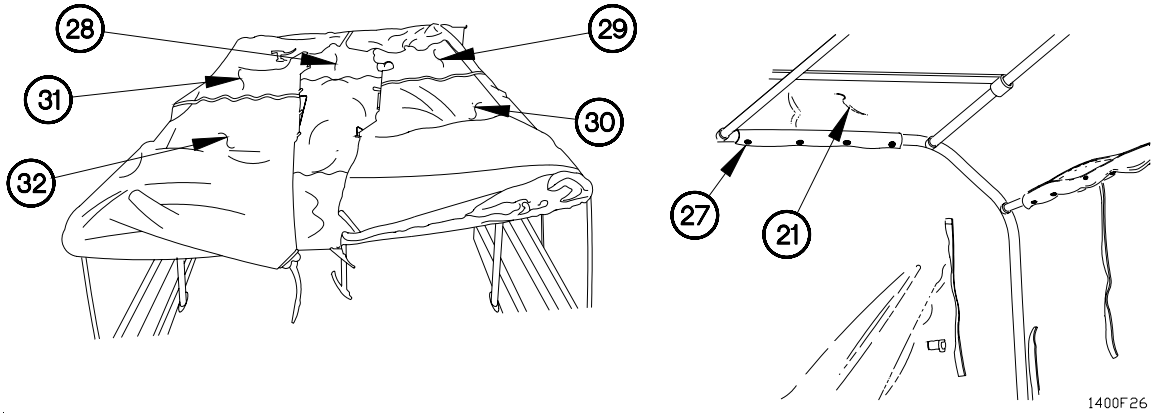
SOFT TOP (STEEL BOWS) INSTALLATION - Continued

NOTE

Use snap extensions as required.

48. Fasten snaps (27) on front, rear, sides, and center of cargo cover (21).

49. Unfold front flap (28), right side front flap (29), right side rear flap (30), left side front flap (31), and left side rear flap (32).

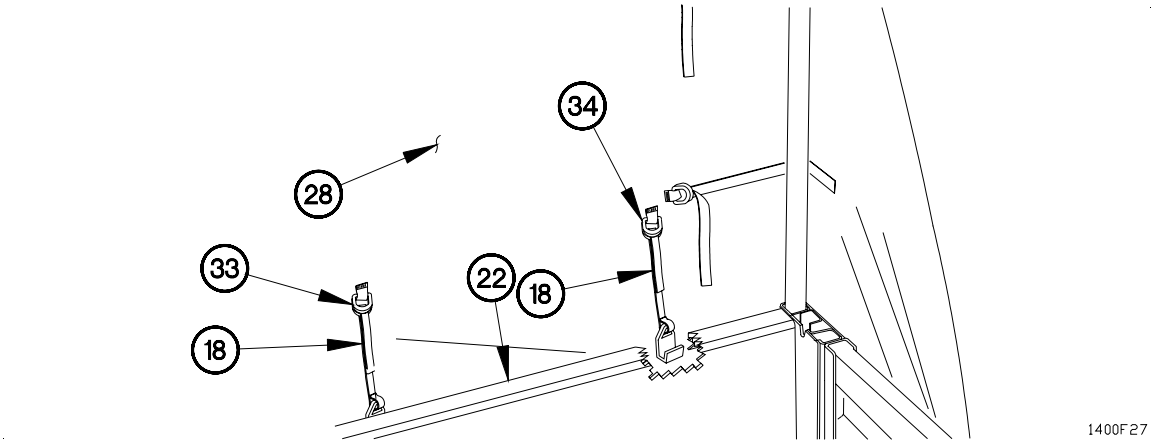


NOTE

Cargo covers are equipped with either D-rings or buckles and D-rings. Cargo cover with D-rings shown.

50. Install cargo cover tiedown (18) in center D-ring (33) on front flap (28) with hook end of strap in outside lip of cargo bed (22).

51. Install cargo cover tiedown (18) in right side D-ring (34) on front flap (28) with hook end of strap in outside lip of cargo bed (22).

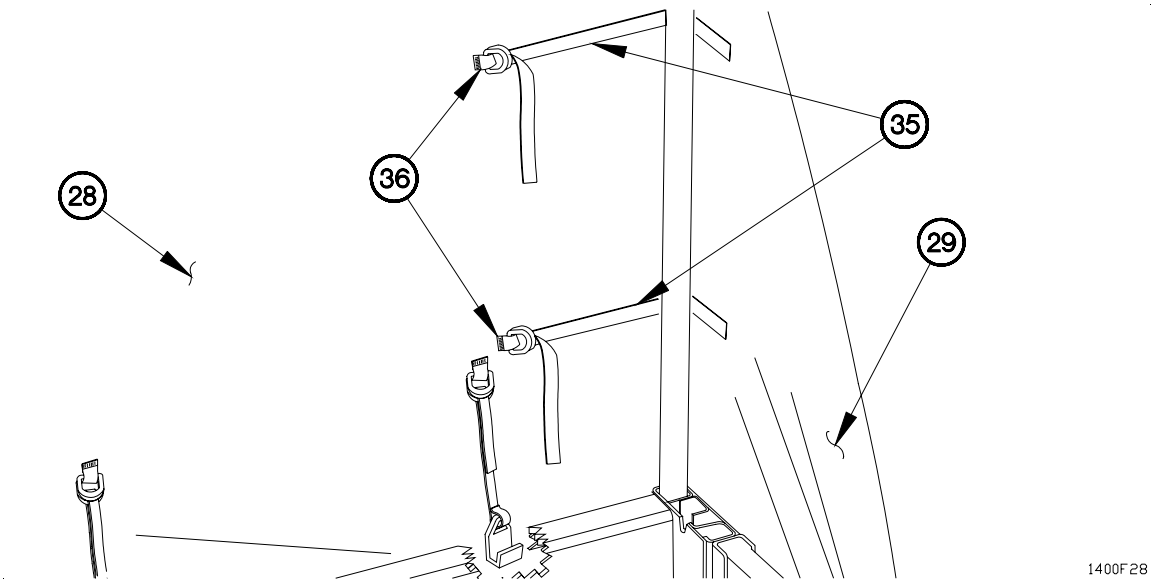


CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) INSTALLATION - Continued

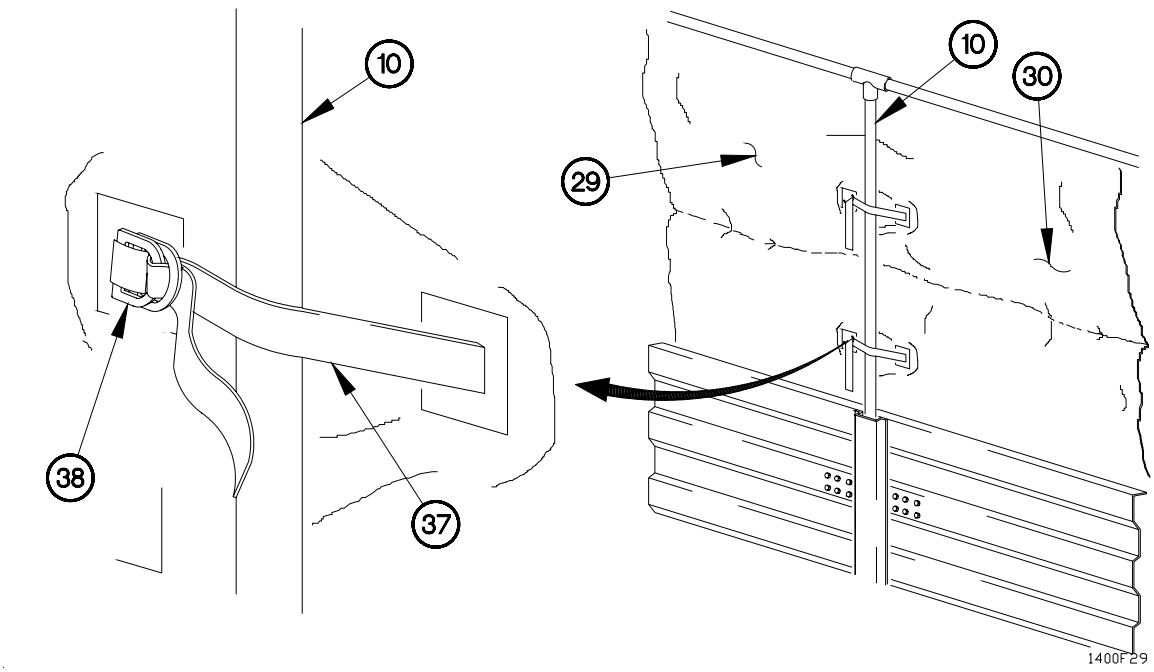
52. Install two straps (35) on right side front flap (29) in two D-rings (36) on front flap (28).

53. Perform steps (51) and (52) on left side front flap.



54. Install two straps (37) from right side rear flap (30) on inside of center bow (10) in two D-rings (38) on right side front flap (29).

55. Perform step (54) on left side of trailer.



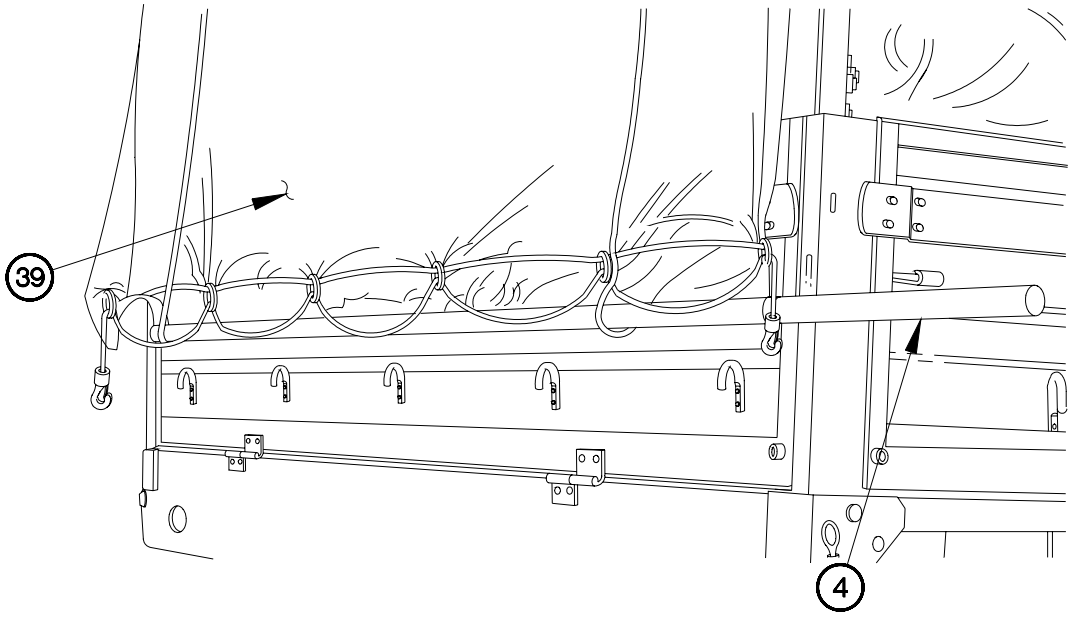
CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) INSTALLATION - Continued

56. Unfold rear flap (39).

57. Position steel pole (4) in lower portion of rear flap (39).

58. Stow ladder (WP 0010 00, Stow Ladder).



1400F30

CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) INSTALLATION - Continued

NOTE

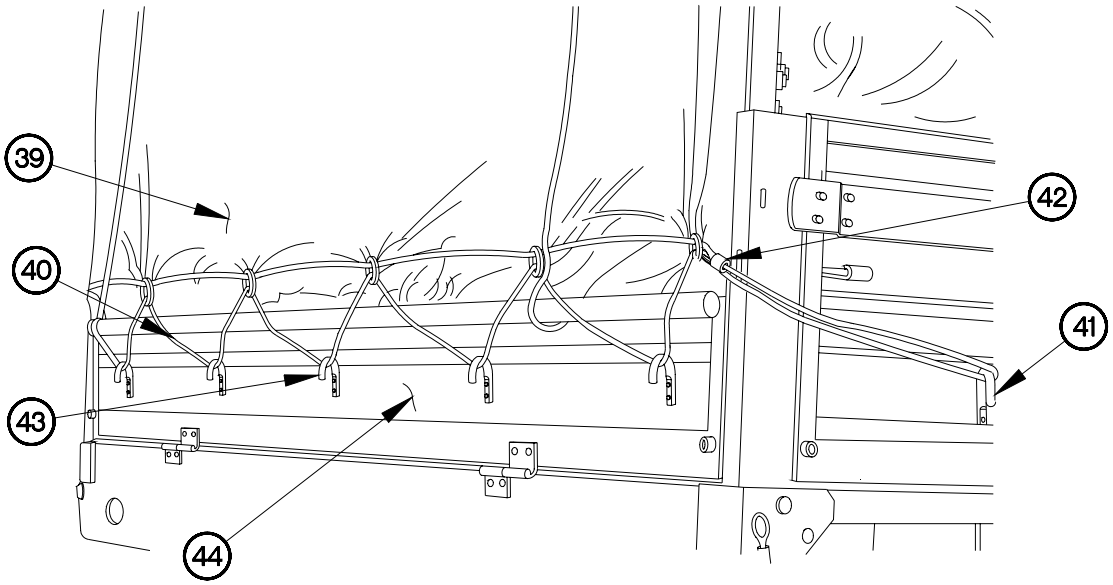
Cargo cover flaps are equipped with either D-rings or loops and D-rings. Cargo cover flaps with D-rings shown.

D-rings are attach to lower part of flaps with shock cord placed through D-rings. Shock cord is attached to J-hooks on cargo bed to hold flap down.

59. Position shock cord (40) on right side of rear flap (39) on J-hook (41) and D-ring (42).

60. Perform step (59) on left side of trailer.

61. Install shock cord (40) on five J-hooks (43) on tailgate (44).



1400F31

CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) INSTALLATION - Continued

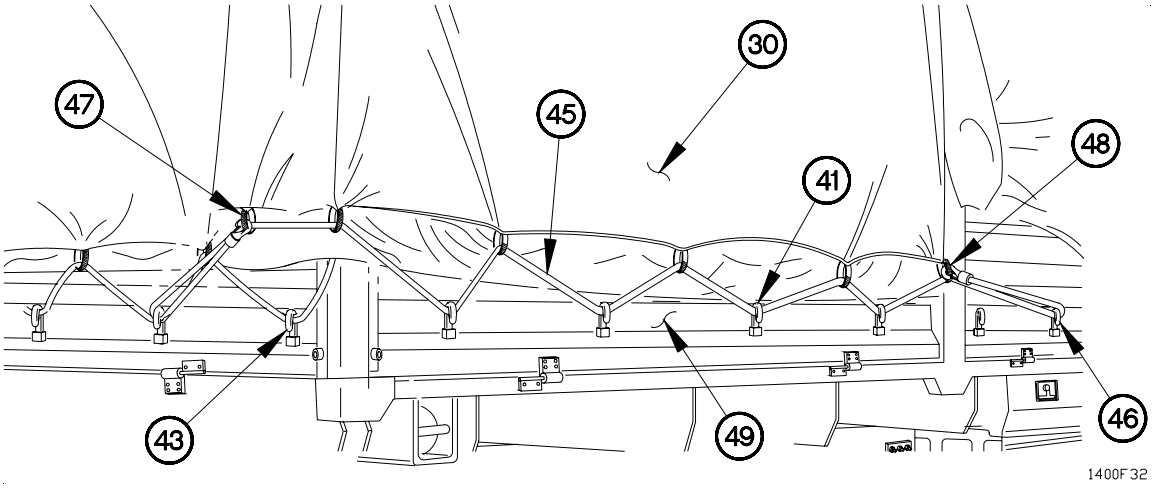
NOTE

Perform steps (62) through (64) on the LMTVT or steps (65) through (67) on the MTVT.

62. Position shock cord (45) on right side rear flap (30) on J-hooks (43 and 46) and D-rings (47 and 48).

63. Install shock cord (45) on four J-hooks (41) on right rear side panel (49).

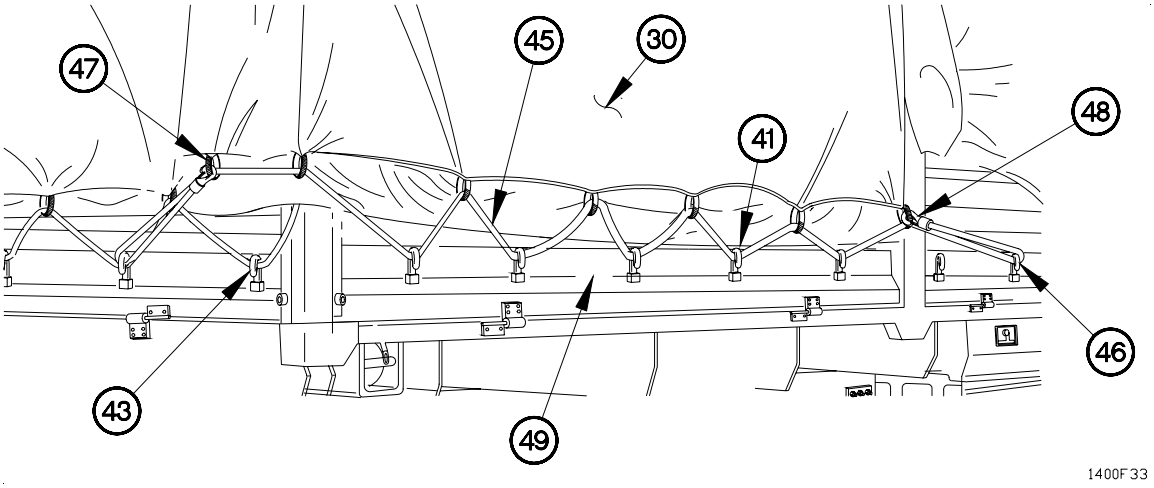
64. Perform steps (62) and (63) on left side of trailer.



65. Position shock cord (45) on right side rear flap (30) on J-hooks (43 and 46) and D-rings (47 and 48).

66. Install shock cord (45) on five J-hooks (41) on right rear side panel (49).

67. Perform steps (62 and 63) on left side of trailer.



CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

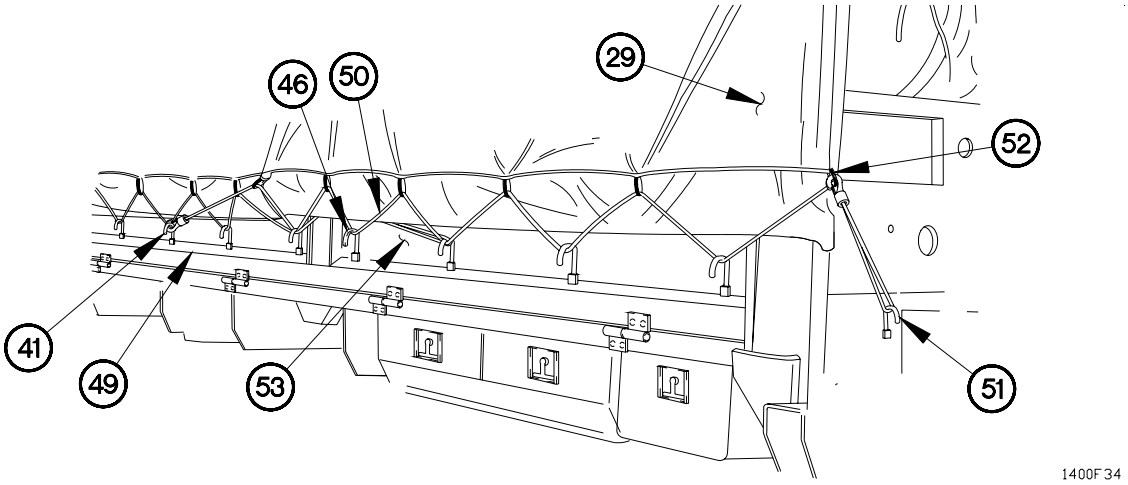
SOFT TOP (STEEL BOWS) INSTALLATION - Continued

68. Position shock cord (50) on right side front flap (29) on J-hook (51) and D-ring (52).

69 Position shock cord (50) on right side front flap (29) on J-hook (41).

70. Install shock cord (50) on four J-hooks (46) on right front side panel (53) and J-hook (41) on right rear side panel (49).

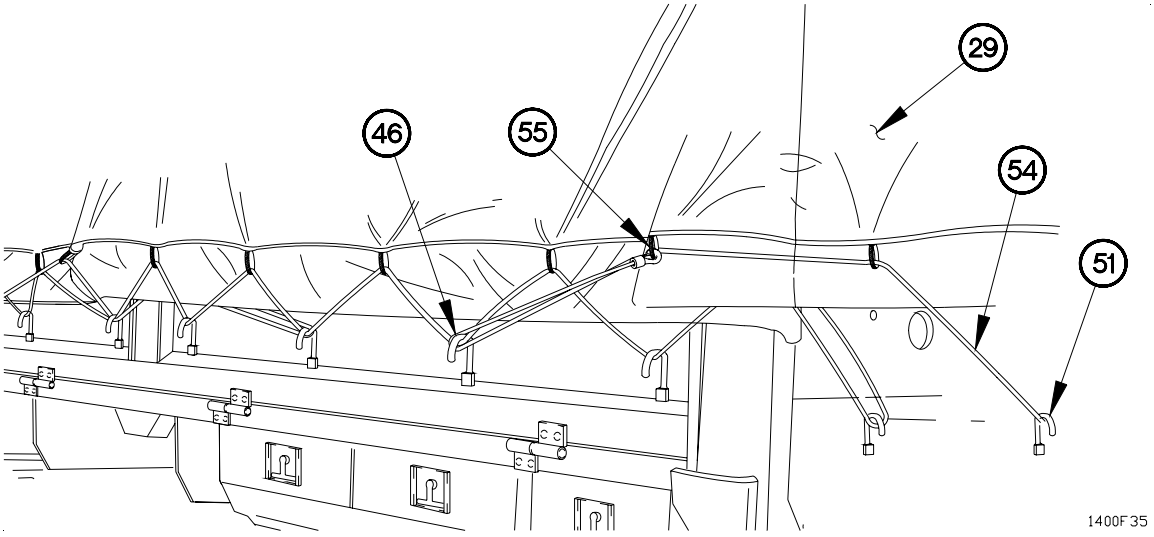
71. Perform steps (68) through (70) on left side of trailer.



72. Install shock cord (54) on right side of front flap (29) on J-hook (51).

73 Install shock cord (54) on right side of front flap (29) on J-hook (46) and D-ring (55).

74. Perform steps (72) and (73) on left side of trailer.



CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

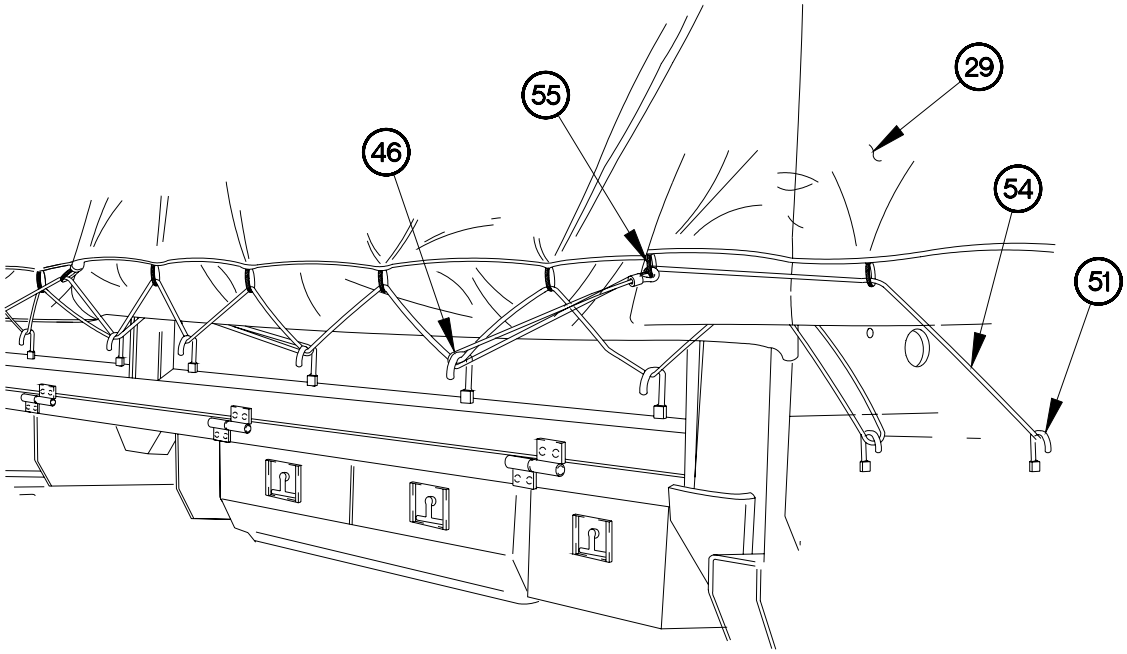
SOFT TOP (STEEL BOWS) REMOVAL

NOTE

Cargo cover flaps are equipped with either D-rings or loops and D-rings. Cargo cover flaps with D-rings shown.

Steps (1) through (30) require the aid of an assistant.

1. Remove shock cord (54) on right side of front flap (29) from D-ring (55) and J-hook (46).
2. Remove shock cord (54) from J-hook (51).
3. Perform steps (1) and (2) on left side of front flap.



1400F36

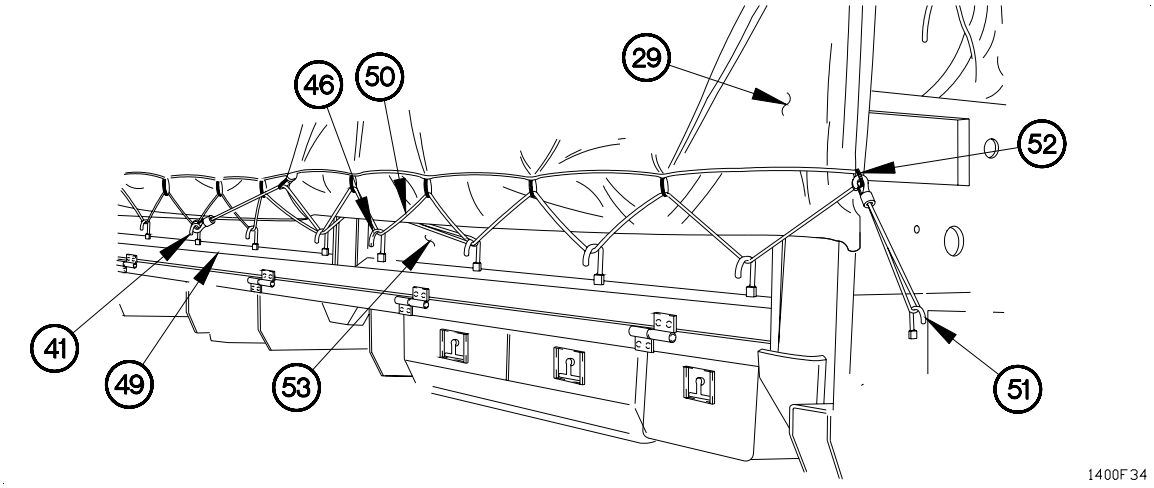
CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) REMOVAL - Continued

4. Remove shock cord (50) from four J-hooks (46) on right front side panel (53) and J-hook (41) on right rear side panel (49).

5. Remove shock cord (50) from D-ring (52) on right side front flap (29) and from J-hook (51).

6. Perform steps (4) and (5) on left side front flap.



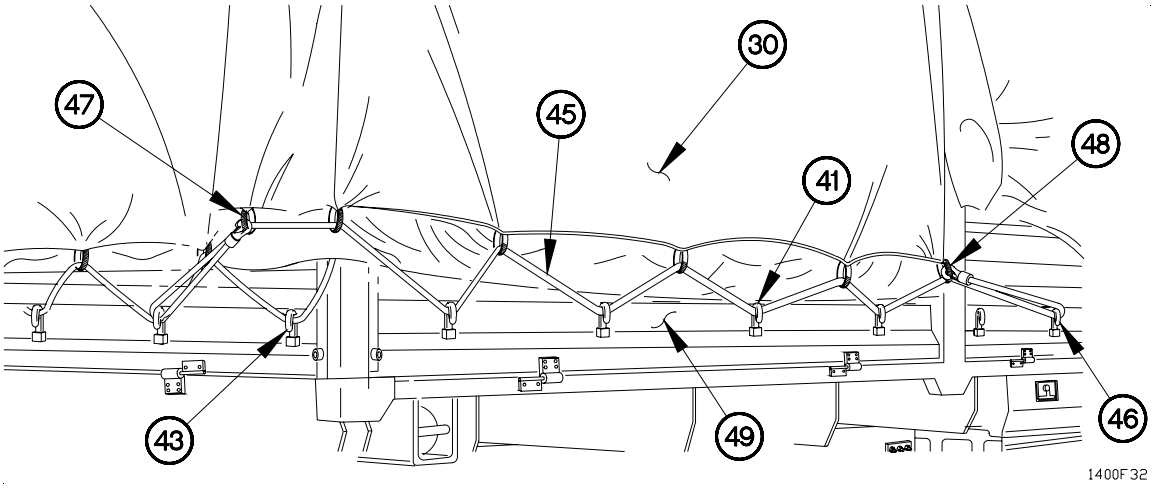
NOTE

Perform steps (7) through (9) on the LMTVT.

7. Remove shock cord (45) from four J-hooks (41) on right rear side panel (49).

8. Remove shock cord (45) from D-rings (47 and 48) on right side rear flap (30) and from J-hooks (43 and 46).

9. Perform steps (7) and (8) on left side rear flap.



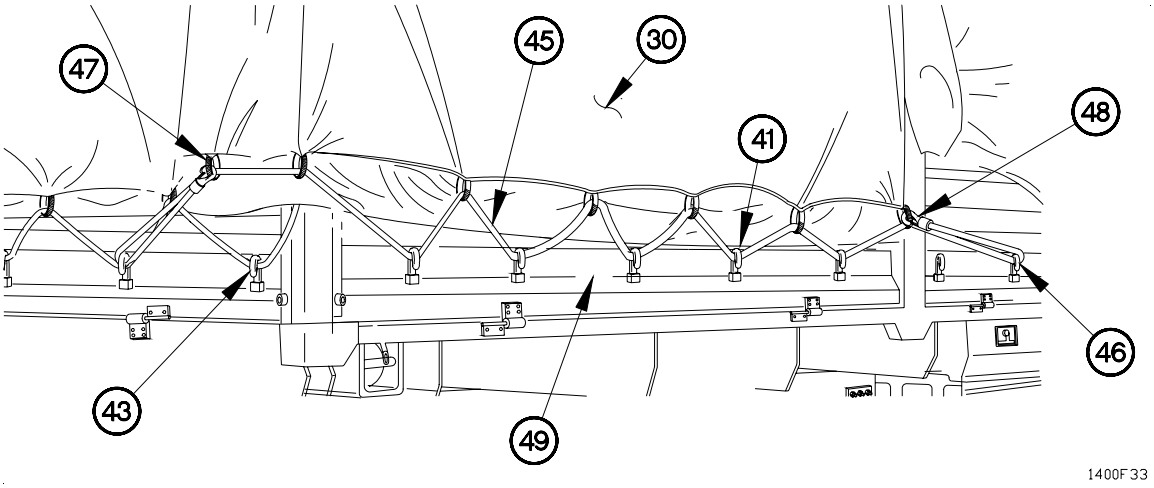
CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) REMOVAL - Continued

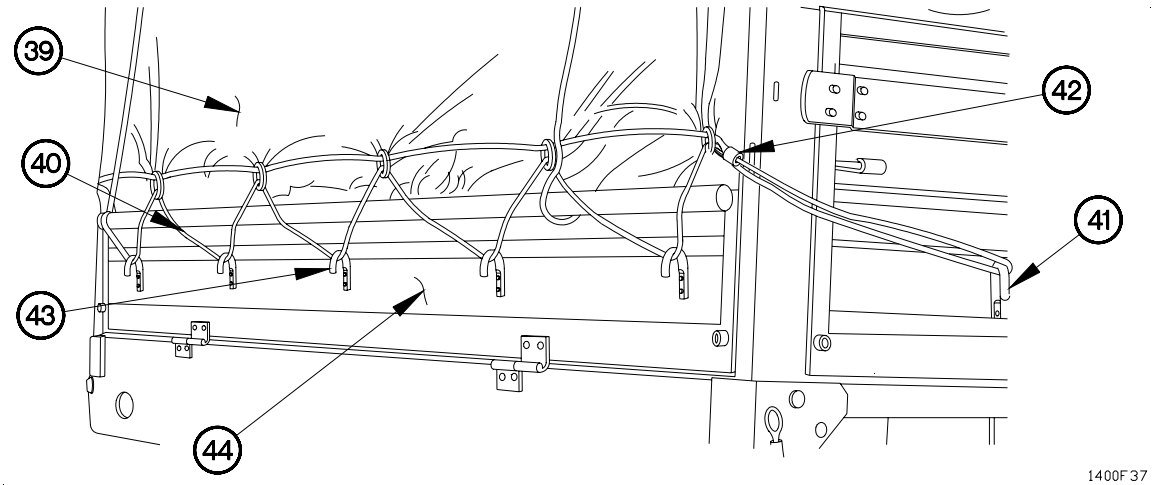
NOTE

Perform steps (10) through (12) on the MTVT.

10. Remove shock cord (45) from five J-hooks (41) on right rear side panel (49).
11. Remove shock cord (45) from D-rings (47 and 48) on right side rear flap (30) and from J-hooks (43 and 46).
12. Perform steps (10) and (11) on left side rear flap.



13. Remove shock cord (40) from five J-hooks (43).
14. Remove shock cord (40) from D-ring (42) on right side of rear flap (39) and from J-hook (41).
15. Perform step (14) on left side of trailer.



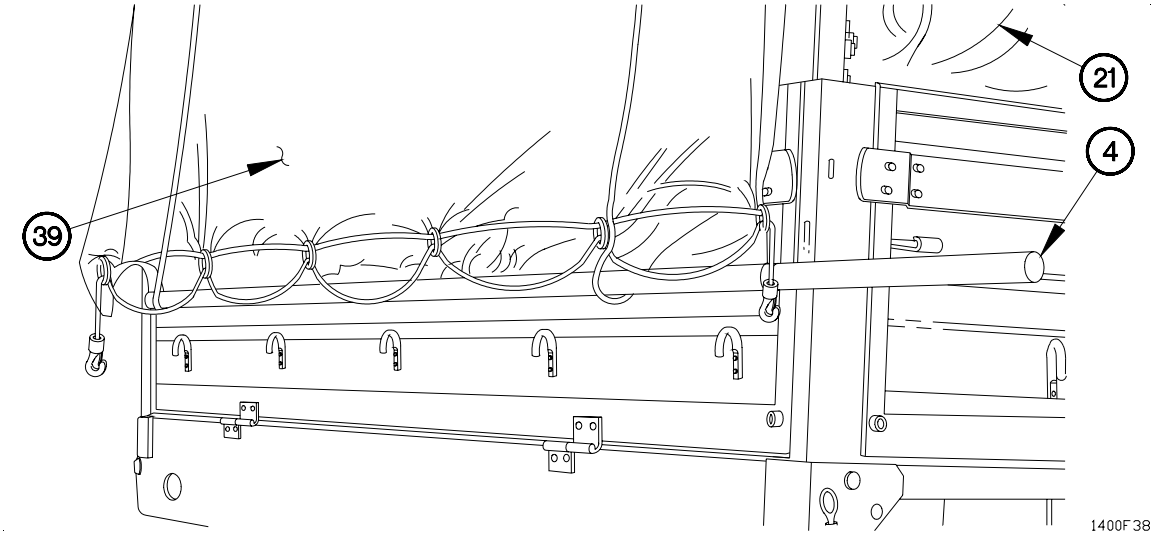
CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) REMOVAL - Continued

16. Lower ladder (WP 0010 00, Lower Ladder).

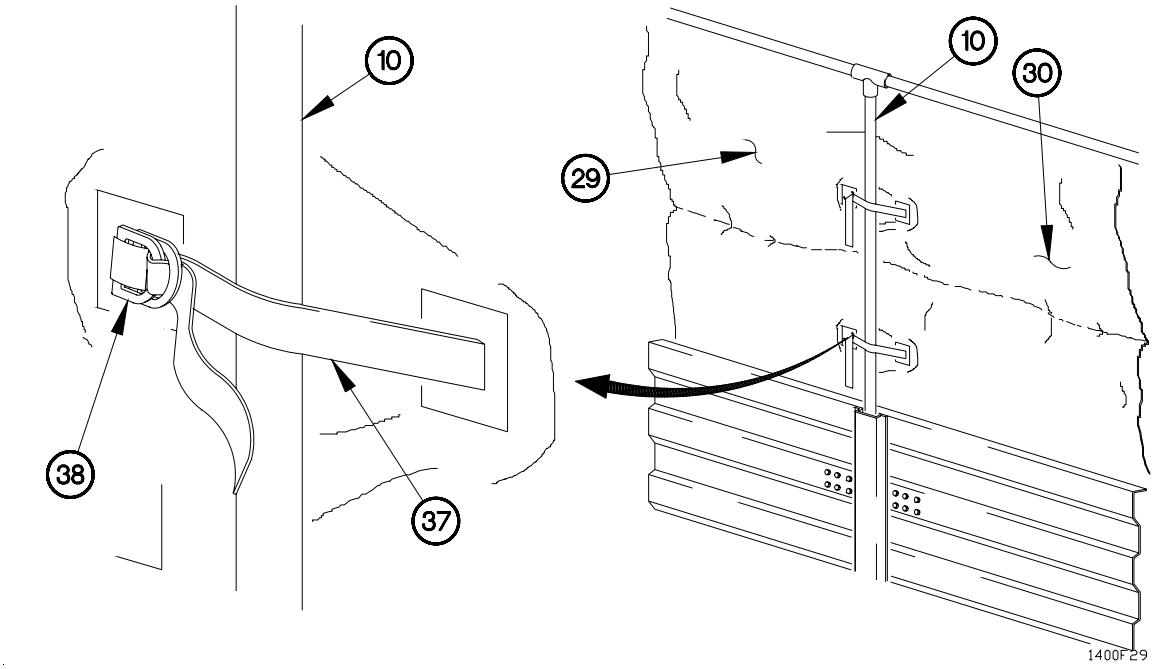
17. Remove steel pole (4) from rear flap (39).

18. Fold rear flap (39) on top of cargo cover (21).



19. Remove two straps (37) on right side rear flap (30) from D-rings (38) on right side front flap (29) and center bow (10).

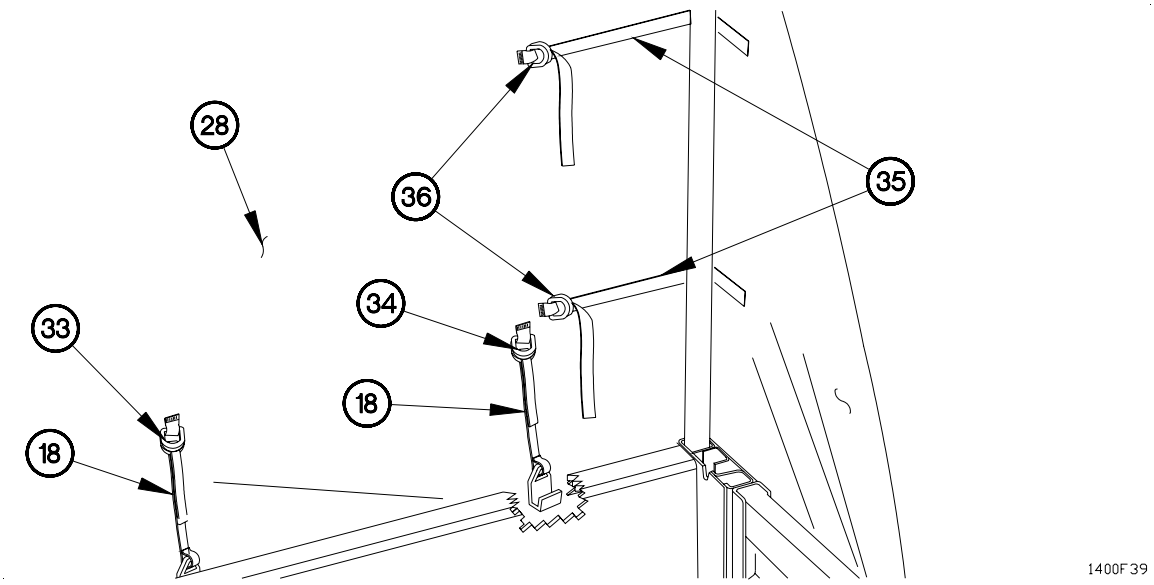
20. Perform step (19) on left side of trailer.



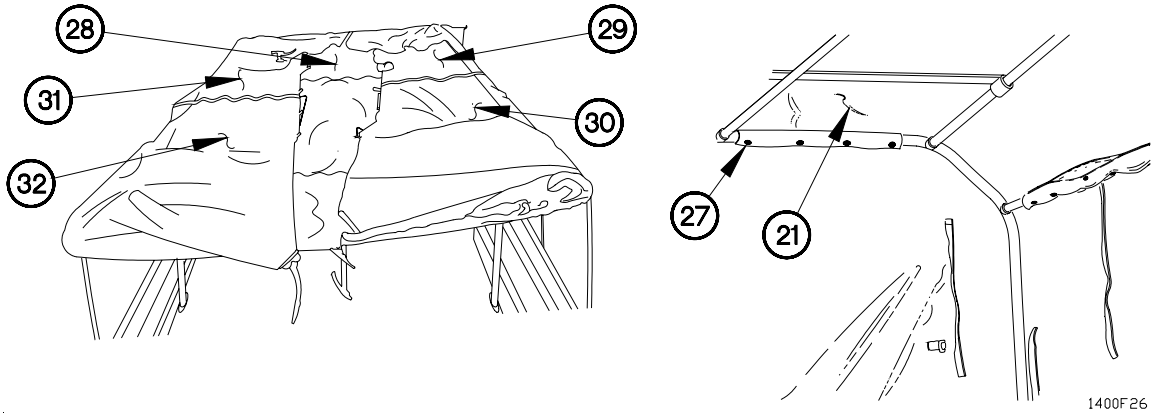
CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) REMOVAL - Continued

21. Remove two straps (35) from D-rings (36) on right side of front flap (28).
22. Remove cargo cover tiedown (18) from right side D-ring (34) on front flap (28).
23. Perform steps (21) and (22) on left side of front flap.
24. Remove cargo cover tiedown (18) from center D-ring (33) on front flap (28).



25. Fold front flap (28), right side front flap (29), right side rear flap (30), left side front flap (31), and left side rear flap (32) on top of cargo cover (21).
26. Unfasten snaps (27) on front, rear, sides, and center of cargo cover (21).
27. Fold cargo cover (21) to front of trailer.



CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) REMOVAL - Continued

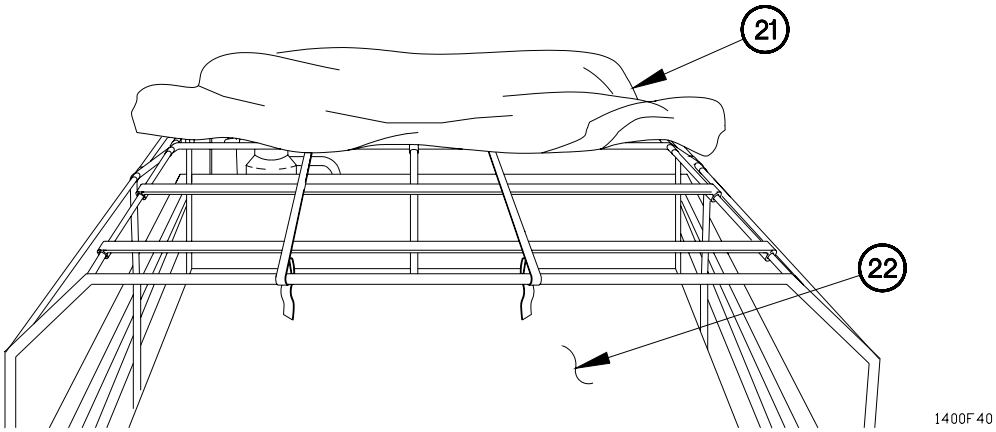
28. Fold right side of cargo cover (21) toward center of cargo bed (22).

29. Fold left side of cargo cover (21) toward center of cargo bed (22).

WARNING

Cargo cover weighs approximately 60 lbs (27 kgs). Arctic cargo cover weighs approximately 100 lbs (45 kgs). An assistant is required to lift cargo cover. Failure to comply may result in injury to personnel or damage to equipment.

30. Remove cargo cover (21) from trailer.

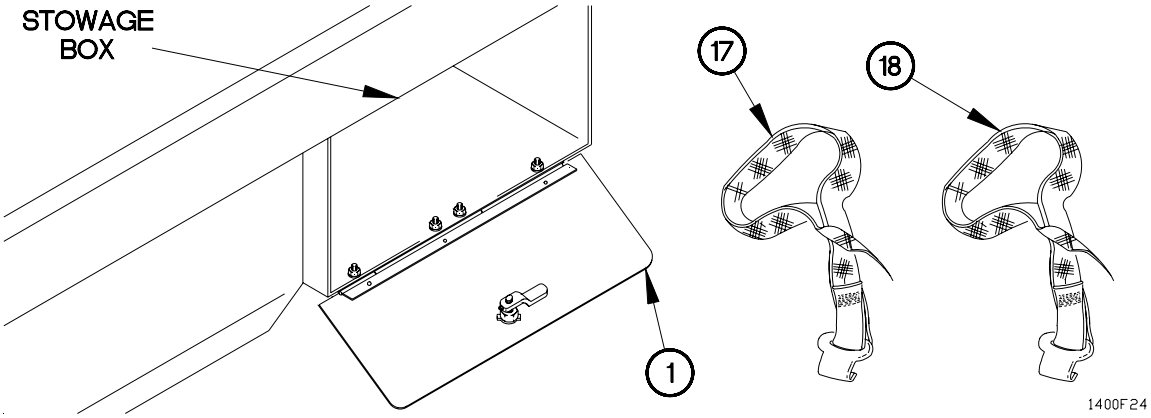


31. Open door (1) on stowage box.

32. Remove stowage strap (17) from stowage box.

33. Stow three cargo cover tiedowns (18) in stowage box.

34. Close door (1) on stowage box.



CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) REMOVAL - Continued

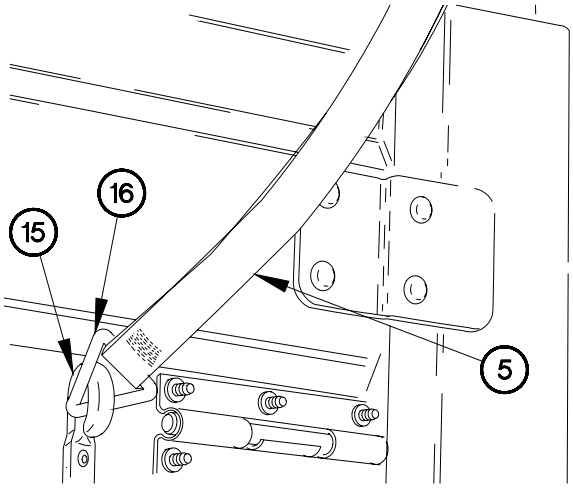
NOTE

Left and right sides of front, center, and rear bows are unsecured the same way. Rear bow left side shown.

35. Loosen tiedown strap (5).

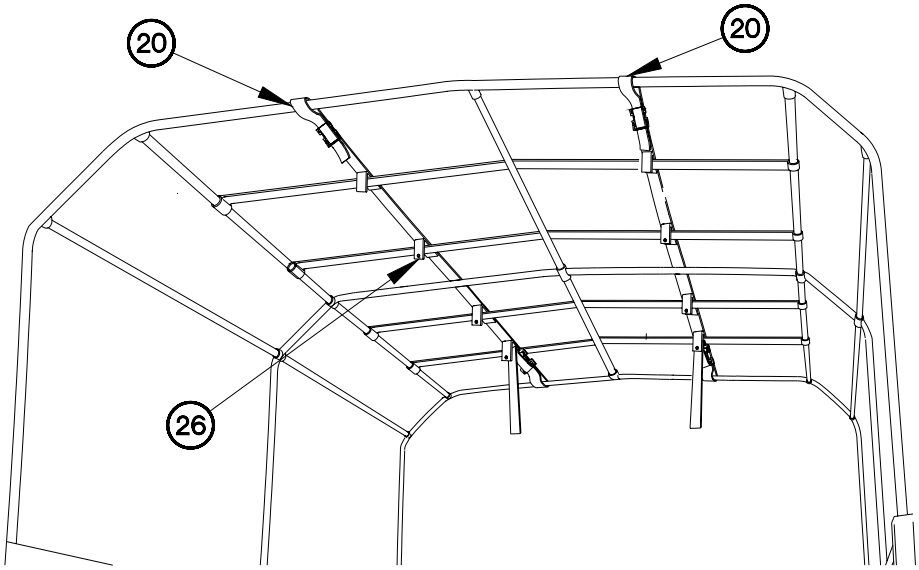
36. Remove tri-ring (16) on tiedown strap (5) from J-hook (15).

37. Perform steps (35) and (36) on remaining tiedown straps.



1400F23

38. Open four flaps (26) on each support strap (20).



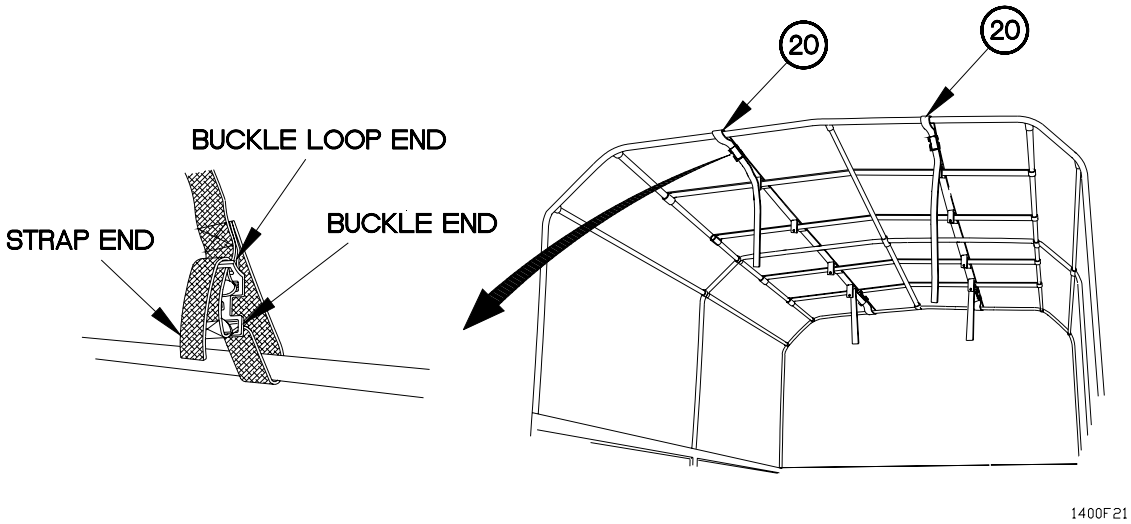
1400F41

CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) REMOVAL - Continued

39. Remove two strap ends from buckle loop ends on left and right support straps (20).

40. Loosen left support strap (20).



NOTE

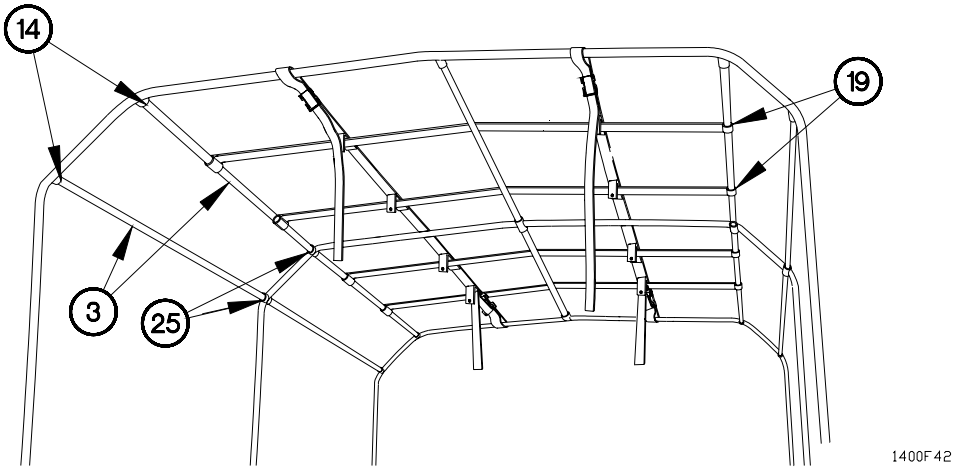
Left and right tubes are removed the same way. Left side tubes shown.

Steps (41) through (48) require the aid of an assistant.

41. Remove rear tube (3) from rear bow bracket (14) and center bow bracket (25).

42. Remove rear tube (3) from center bow bracket (25) and rear bow bracket (14).

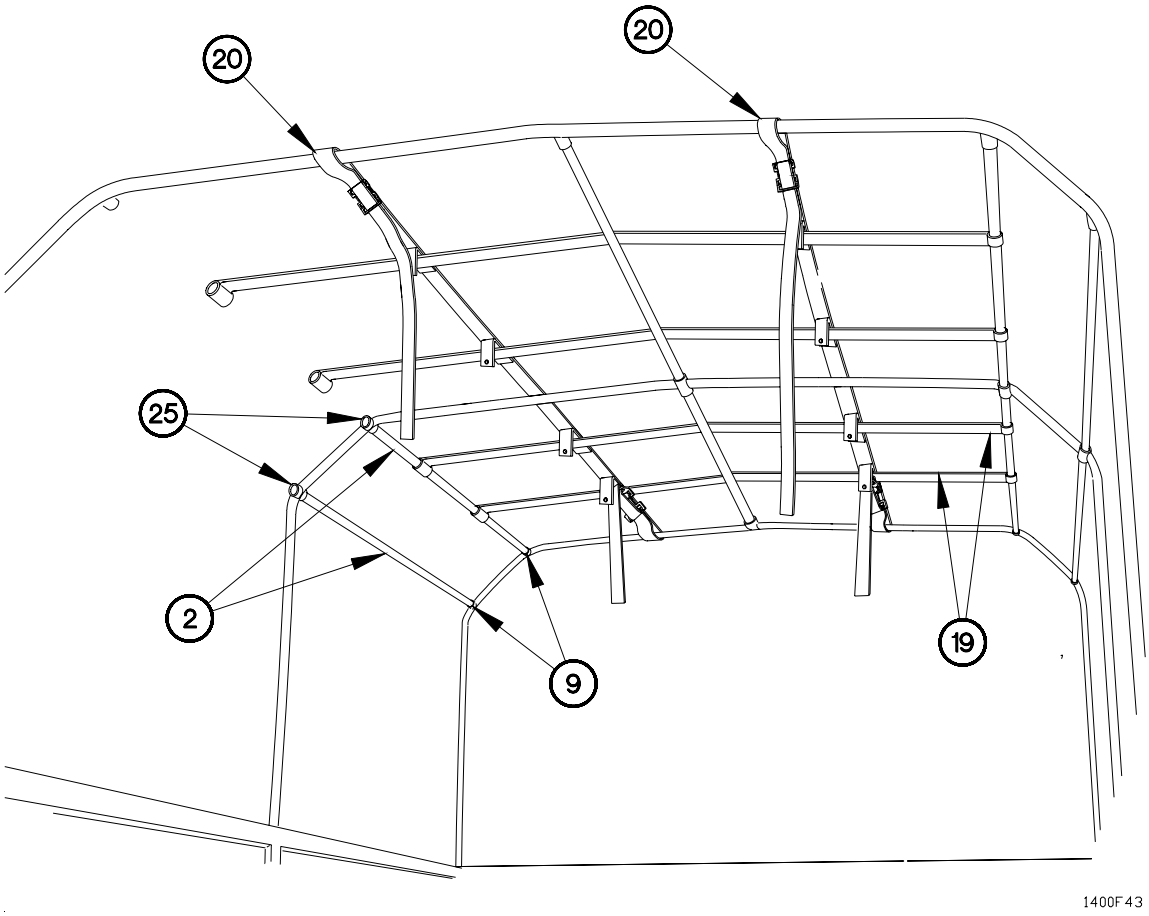
43. Remove rear tube (3) from two braces (19).



CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) REMOVAL - Continued

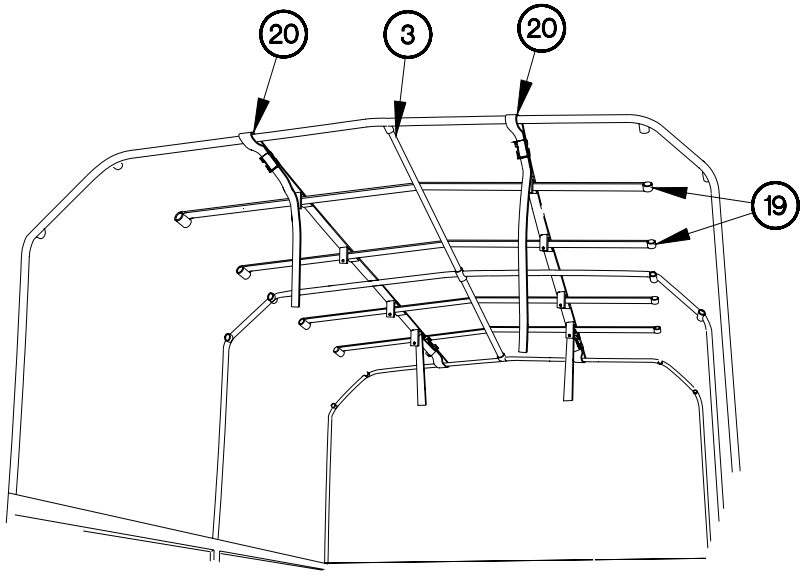
44. Remove bottom front tube (2) from front bow bracket (9) and center bow bracket (25)
45. Remove top front tube (2) from front bow bracket (9) and center bow bracket (25).
46. Remove top front tube (2) from two braces (19).
47. Tighten left rear support strap (20).
48. Loosen right rear support strap (20).
49. Perform steps (41) through (46) on right side tubes.
50. Tighten right rear support strap (20).



CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) REMOVAL - Continued

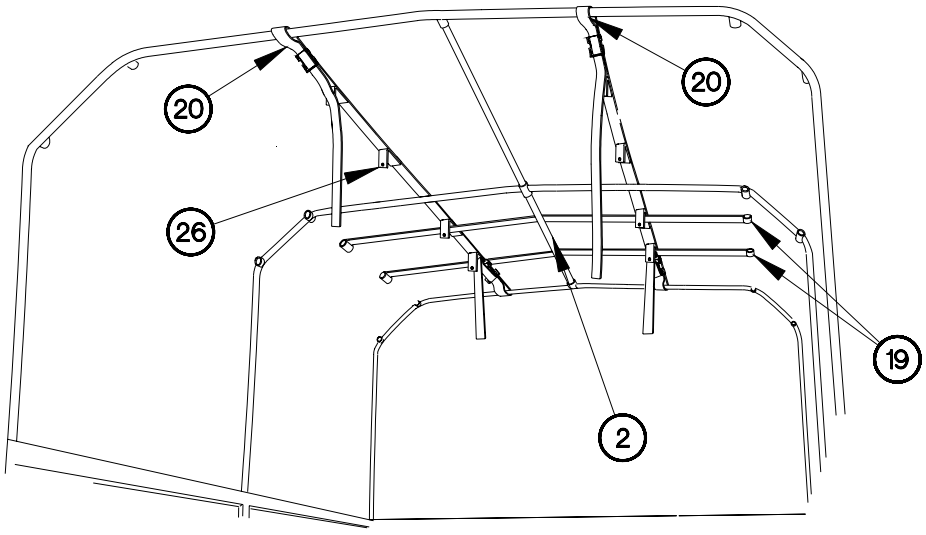
51. Remove two braces (19) from rear tube (3), left and right support straps (20).



1400F44

52. Remove two braces (19) from front tube (2), and left and right support straps (20).

53. Close four flaps (26) on both support straps (20).



1400F45

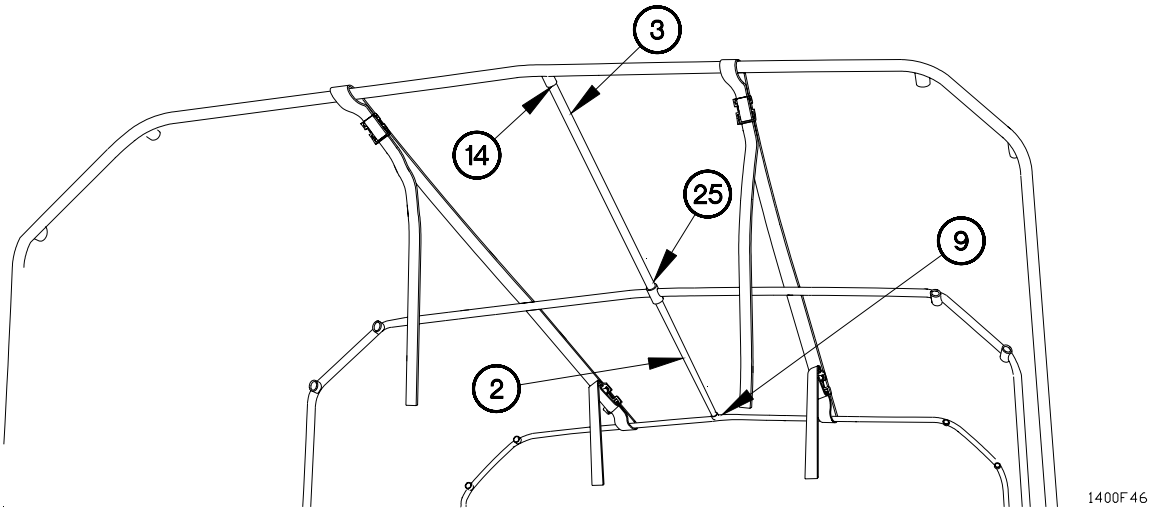
SOFT TOP (STEEL BOWS) REMOVAL - Continued

NOTE

Steps (54) and (55) require the aid of an assistant.

54. Remove rear tube (3) from center bow bracket (25) and rear bow bracket (14).

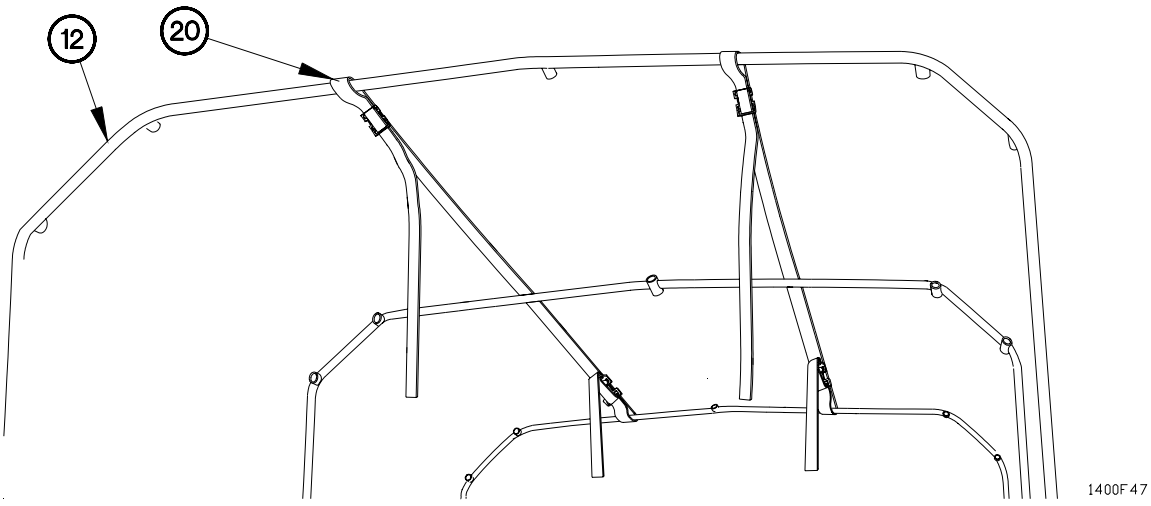
55. Remove front tube (2) from front bow bracket (9) and center bow bracket (25).



NOTE

Left and right support straps are removed the same way. Left support strap shown.

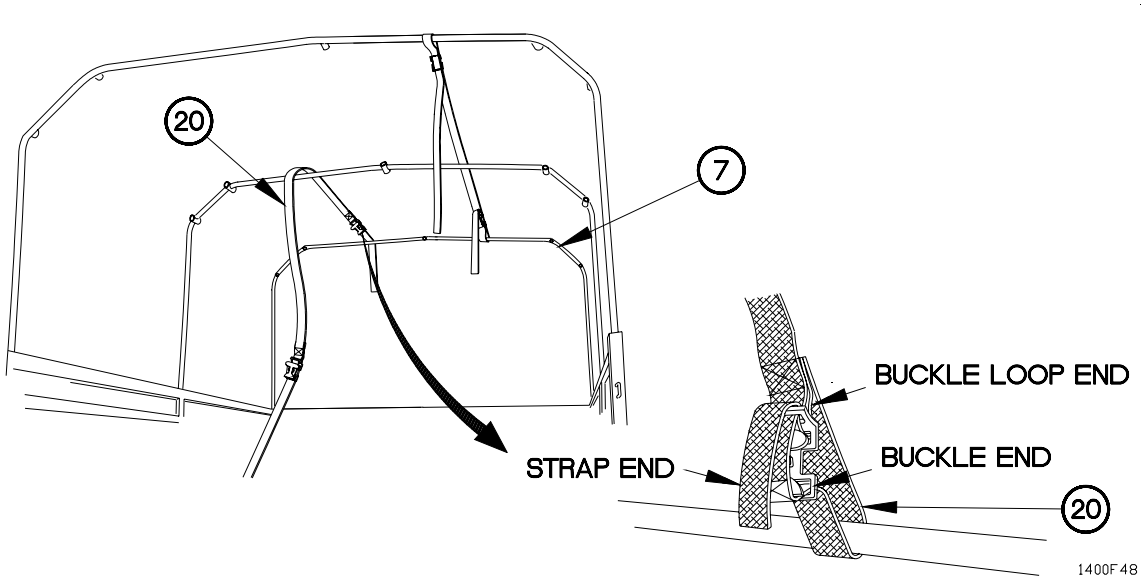
56. Remove left support strap (20) from rear bow (12).



SOFT TOP (STEEL BOWS) REMOVAL - Continued

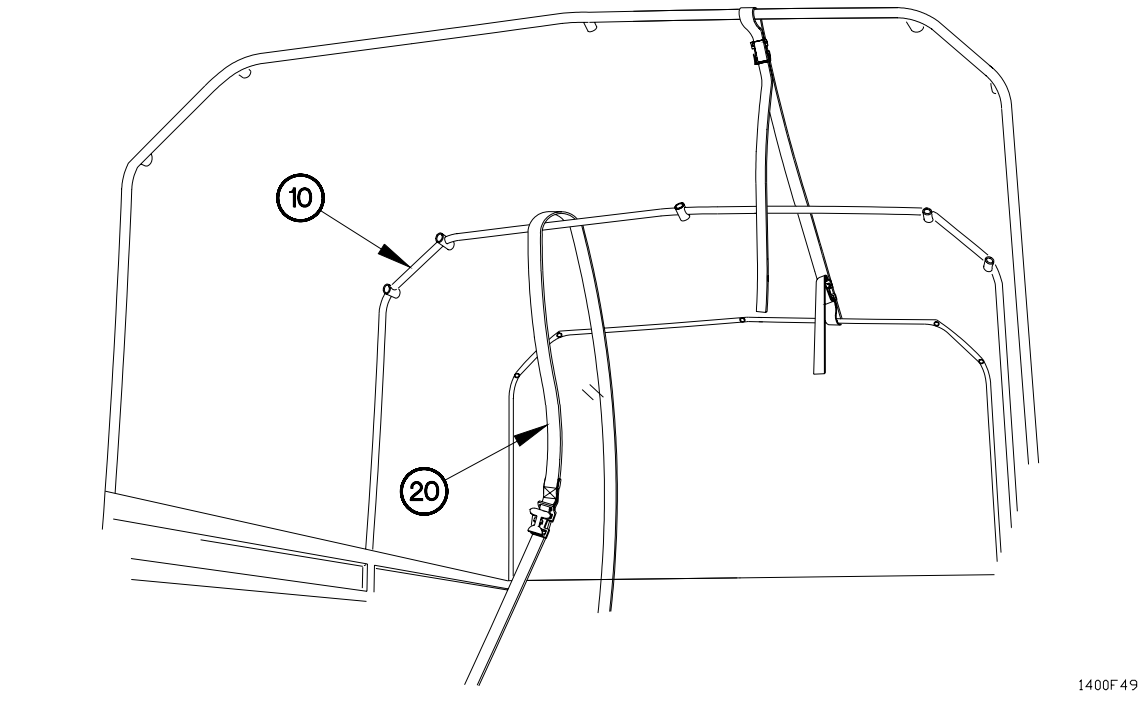
57. Remove front strap end from buckle loop end on left support strap (20).

58. Remove left support strap (20) from front bow (7).



59. Remove left support strap (20) from center bow (10).

60. Perform steps (56) through (59) on right strap support.



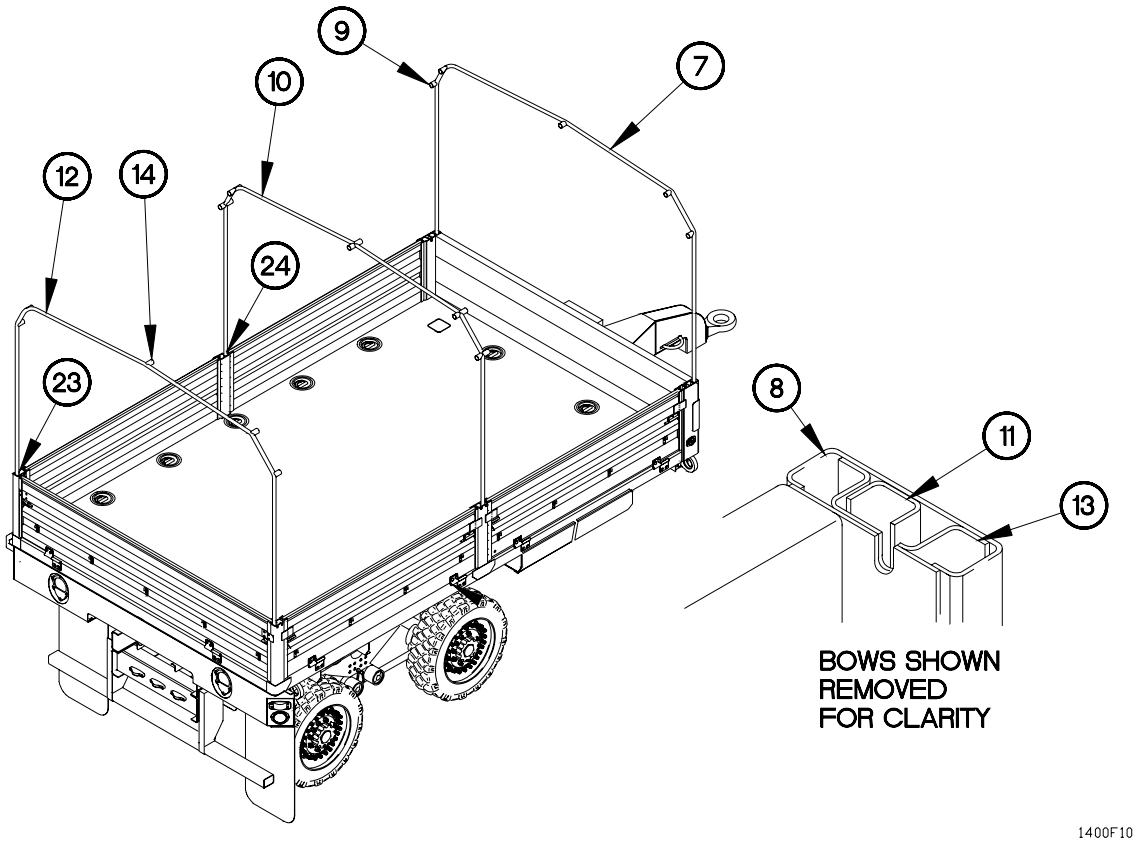
CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) REMOVAL - Continued

NOTE

Steps (61) through (66) require the aid of an assistant.

61. Remove front bow (7) from front cargo bed pockets (8).
62. Position front bow (7) in front cargo bed pockets (8) with front bow brackets (9) toward front of trailer.
63. Remove center bow (10) from rear pockets of center cargo bed stakes (24).
64. Position center bow (10) in center cargo bed pockets (11).
65. Remove rear bow (12) from rear pockets of rear cargo bed stakes (23).
66. Position rear bow (12) in rear cargo bed pockets (13) with rear bow brackets (14) toward rear of trailer.



SOFT TOP (STEEL BOWS) REMOVAL - Continued

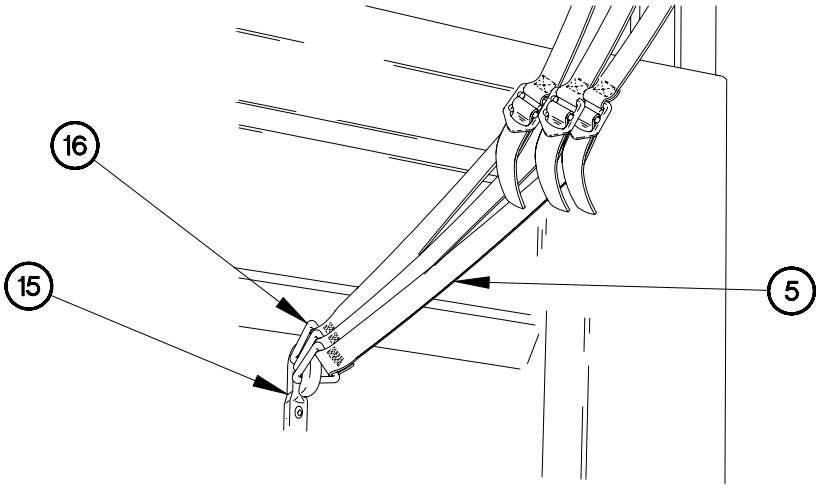
NOTE

Left and right sides of front, center, and rear bows are secured the same way. Right side shown.

67. Position three tiedown straps (5) on J-hook (15) with three tri-rings (16).

68. Tighten three tiedown straps (5).

69. Perform steps (67) and (68) on left side.

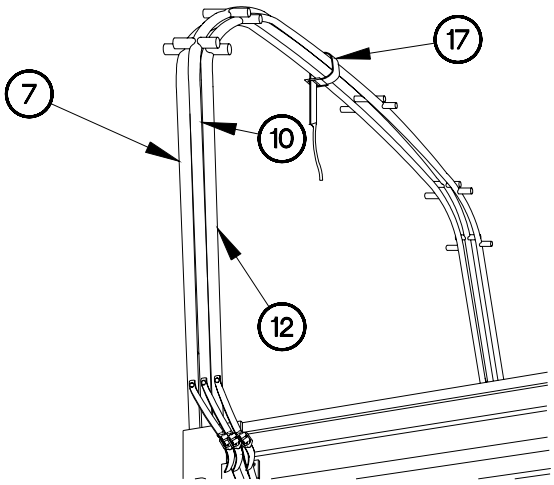


1400F05

NOTE

Stowage strap should be positioned between center bow brackets and left inside bow brackets.

70. Install stowage strap (17) on front bow (7), center bow (10), and rear bow (12).

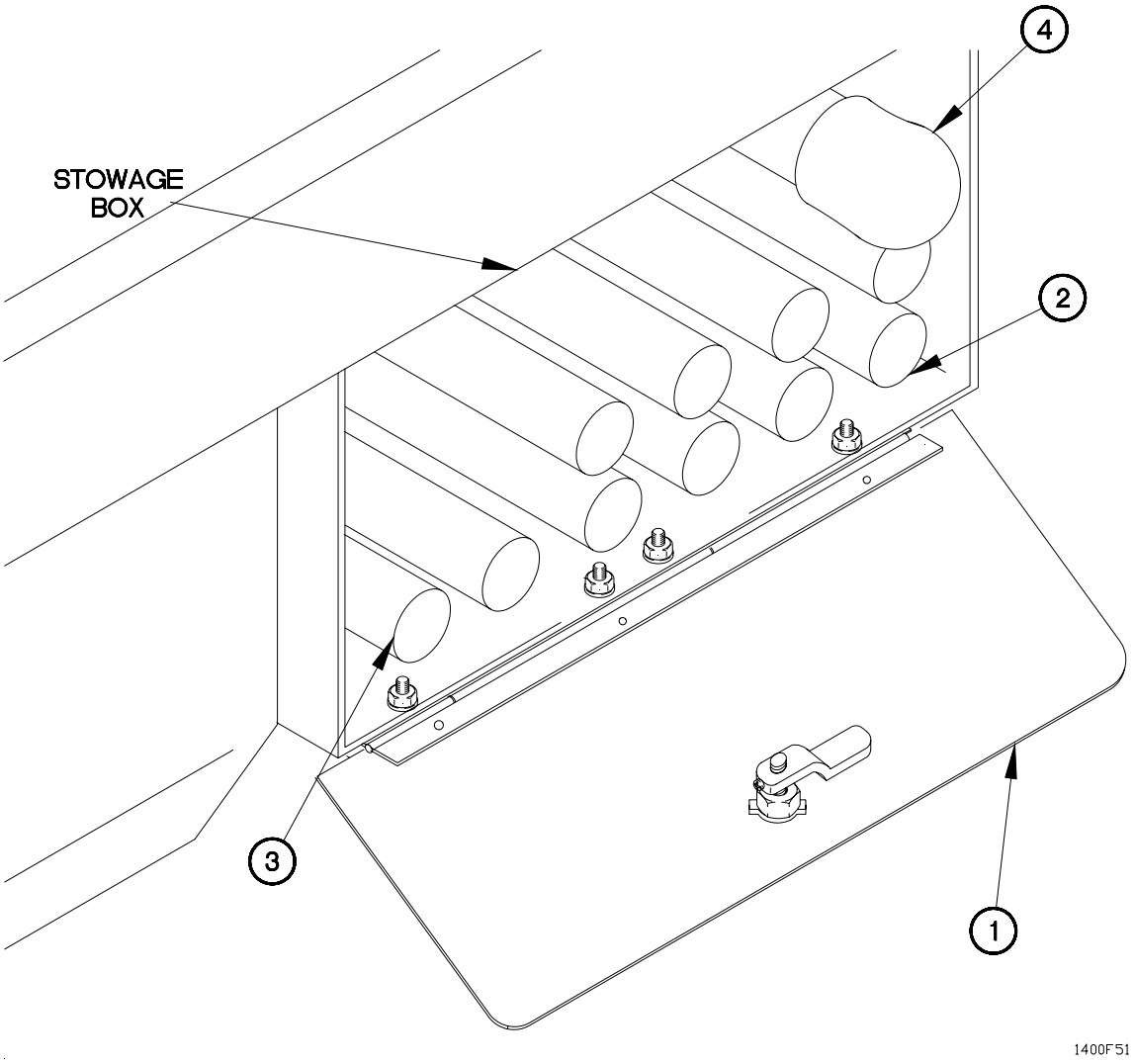


1400F50

CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP (STEEL BOWS) REMOVAL - Continued

71. Open stowage box door (1).
72. Stow five front tubes (2), five rear tubes (3), and steel pole (4) in stowage box.
73. Close stowage box door (1).



SOFT TOP (STEEL BOWS) REMOVAL - Continued

WARNING

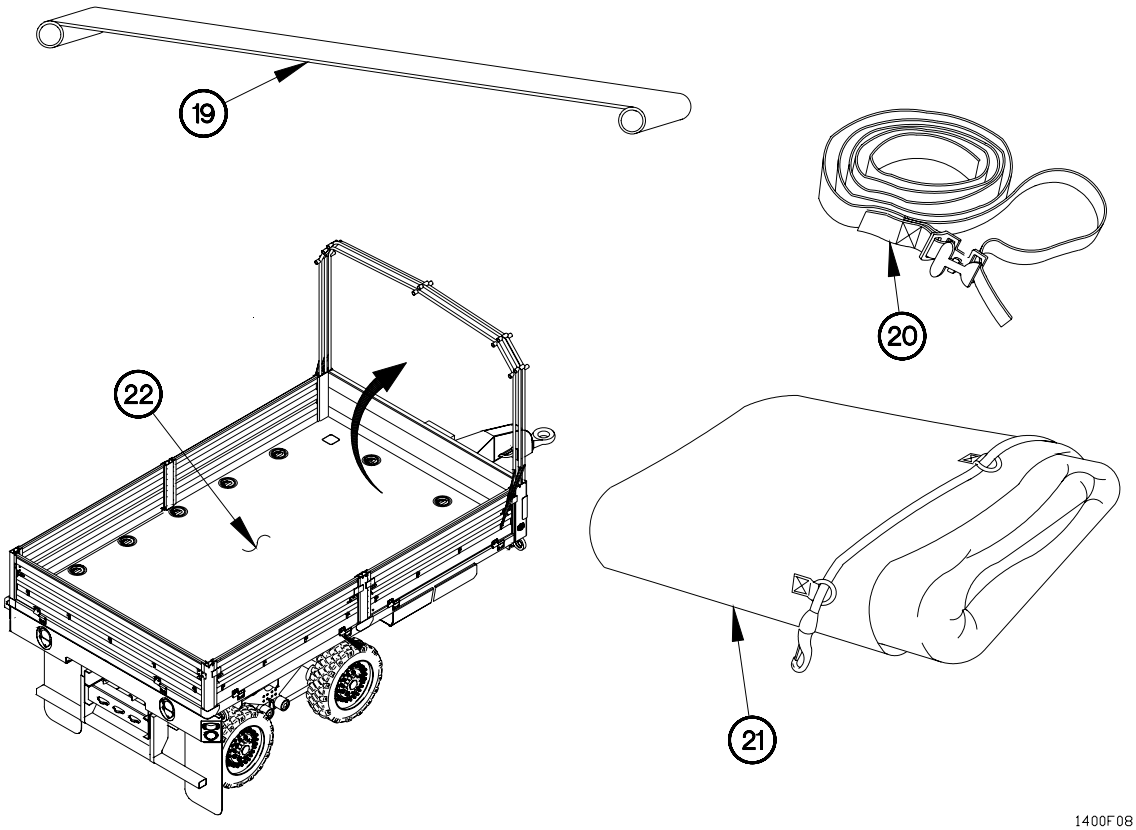
Cargo cover weighs approximately 60 lbs (27 kgs). Arctic cargo cover weighs approximately 100 lbs (45 kgs). An assistant is required to lift cargo cover. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

Step (74) requires the aid of an assistant.

74. Stow four braces (19), two support straps (20), and cargo cover (21) on cargo bed (22).

75. Stow ladder (WP 0010 00, Stow Ladder).



CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP KIT (STEEL BOWS) REMOVAL

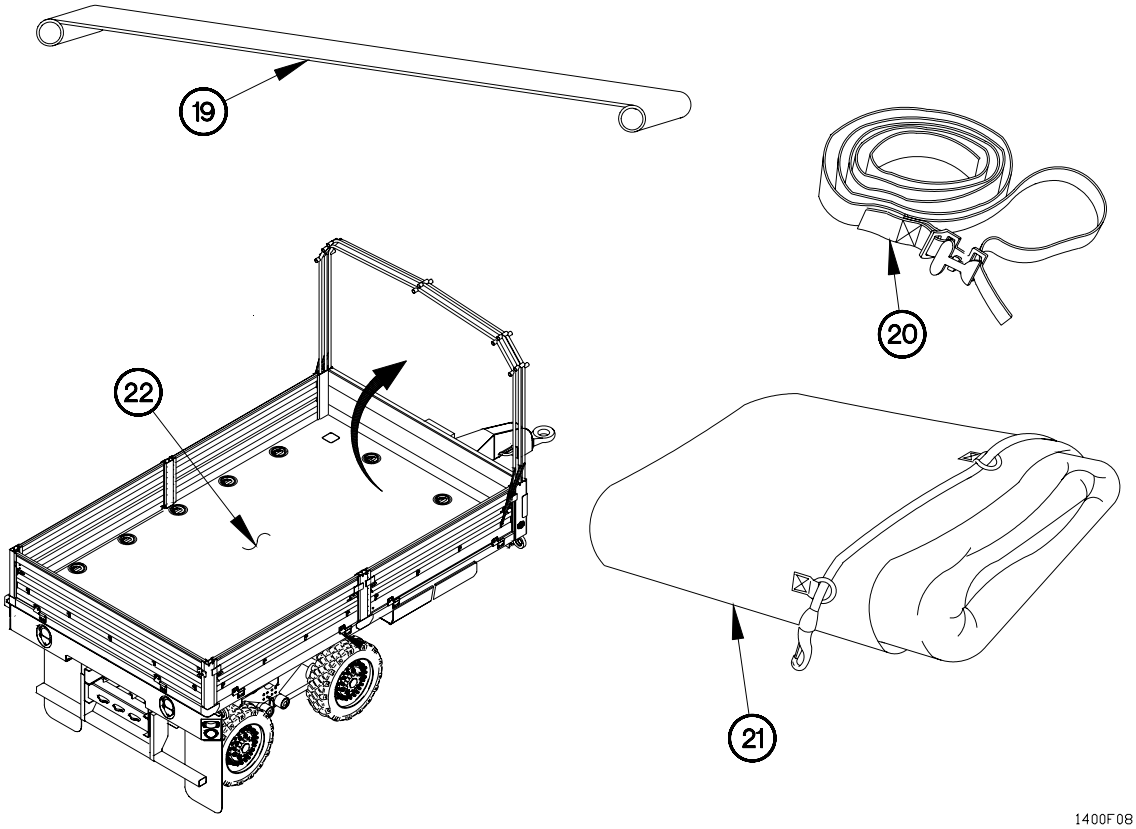
WARNING

Cargo cover weighs approximately 60 lbs (27 kgs). Arctic cargo cover weighs approximately 100 lbs (45 kgs). An assistant is required to lift cargo cover. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

Step (1) requires the aid of an assistant.

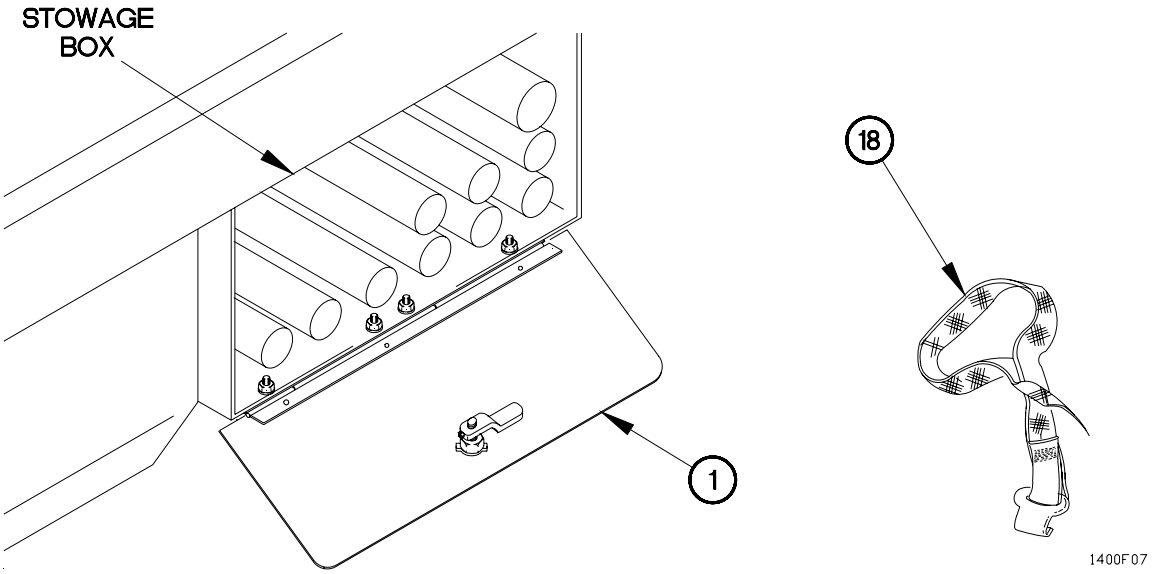
1. Lower ladder (WP 0010 00, Lower Ladder).
2. Remove four braces (19), two support straps (20), and cargo cover (21) from cargo bed (22).



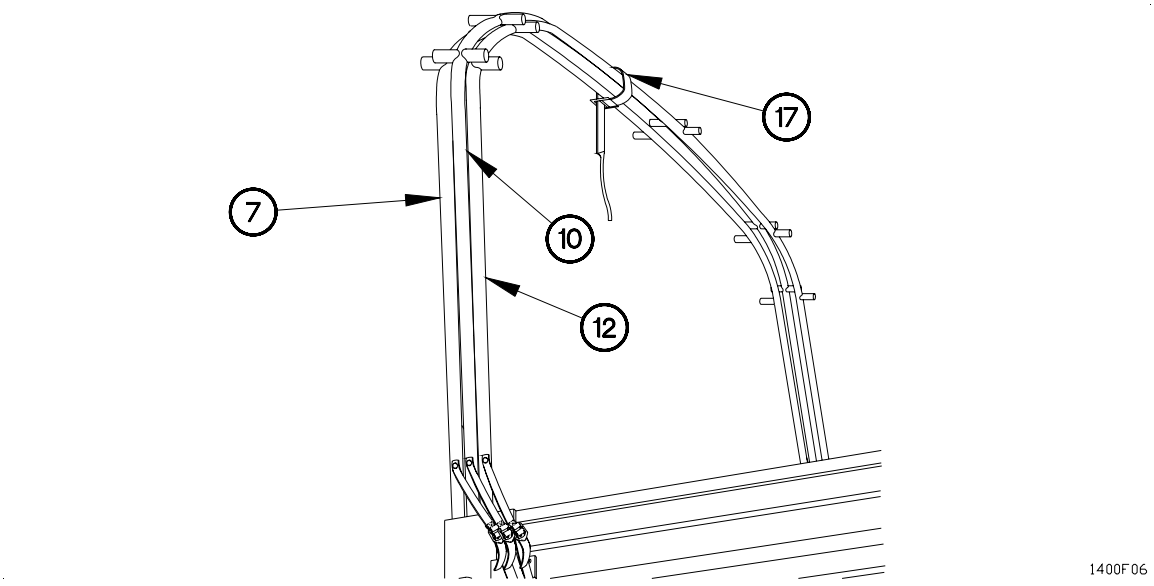
CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP KIT (STEEL BOWS) REMOVAL - Continued

3. Open door (1) on stowage box.
4. Remove three cargo cover tiedowns (18) from stowage box.
5. Close door (1) on stowage box.



6. Remove stowage strap (17) from front bow (7), center bow (10), and rear bow (12).



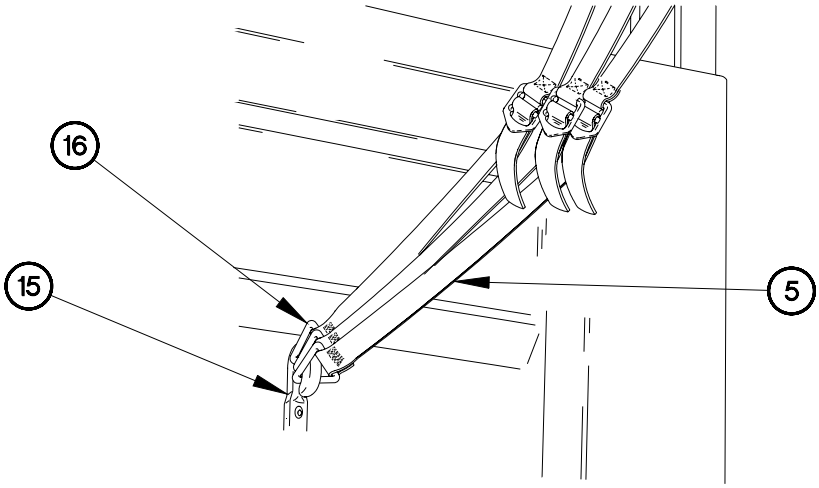
CARGO COVER KIT INSTALLATION/REMOVAL - Continued 0014 00

SOFT TOP KIT (STEEL BOWS) REMOVAL - Continued

NOTE

Left and right sides of front, center, and rear bows are unsecured the same way. Right side shown.

7. Loosen three tiedown straps (5).
8. Remove three tri-rings (16) on tiedown straps (5) from J-hook (15).
9. Perform steps (7) and (8) on left side.

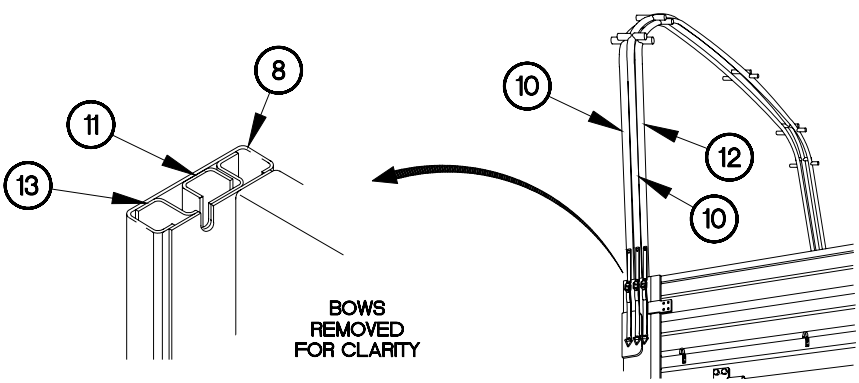


1400F05

NOTE

Steps (10) through (12) require the aid of an assistant.

10. Remove rear bow (12) from rear cargo bed pockets (13).
11. Remove center bow (10) from center cargo bed pockets (11).
12. Remove front bow (7) from front cargo bed pockets (8).



1400F52

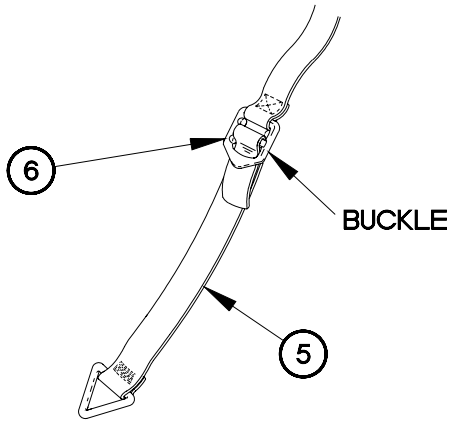
SOFT TOP KIT (STEEL BOWS) REMOVAL - Continued

NOTE

Front, center, and rear bows have two bow straps and tiedown straps. All tiedown straps are removed from bow straps the same way. One shown.

13. Remove tiedown strap (5) from buckle on bow strap (6).

14. Perform step (13) on remaining tiedown straps.



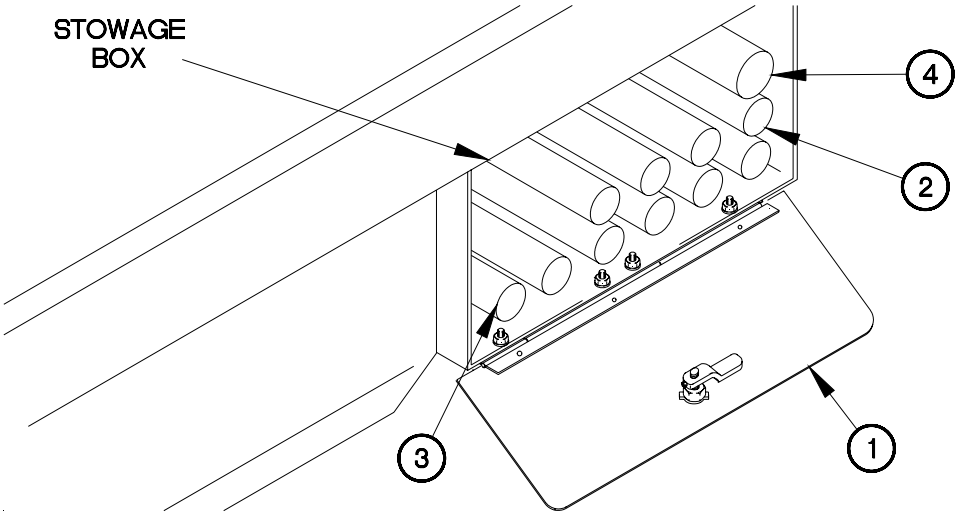
1400F02

15. Open stowage box door (1).

16. Remove five front tubes (2), five rear tubes (3), and steel pole (4) from stowage box.

17. Close stowage box door (1).

18. Stow ladder (WP 0010 00, Stow Ladder).



1400F09

END OF WORK PACKAGE

CARGO COVER FLAP OPERATION 0015 00

INITIAL SETUP:

Maintenance Level
Operator

Personnel Required
Three

References
Towing vehicle Operator manual
WP 0014 00
WP 0010 00

GENERAL

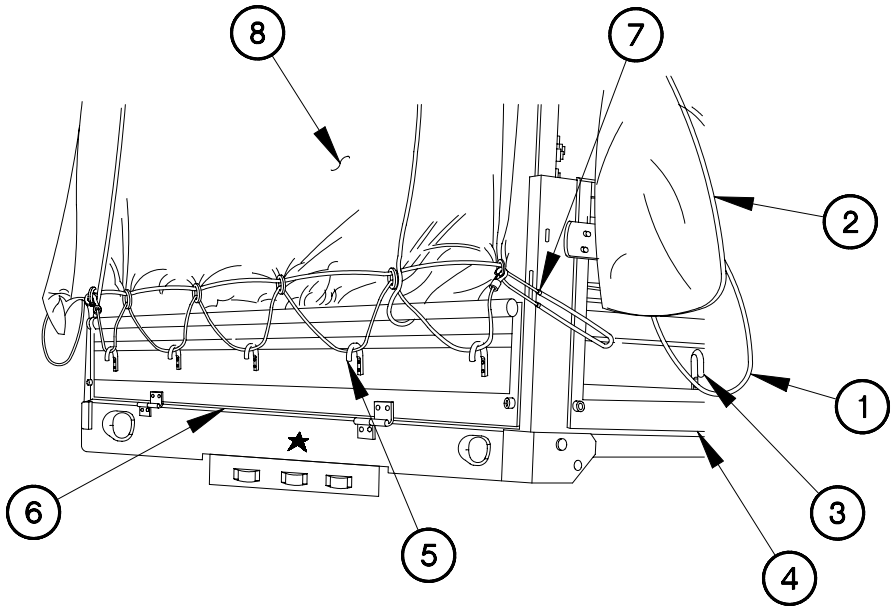
This work package provides the data and procedures for cargo cover flap operation. Items covered include Raising Rear Flap, Lowering Rear Flap, Raising Side Flaps, Lowering Side Flaps, and Draw String Installation.

RAISING REAR FLAP

NOTE

Right and left side of rear flaps are disconnected the same way. Right side rear flap shown.

1. Remove shock cord (1) on rear side flap (2) from J-hook (3) on side panel (4) and from J-hook (5) on tailgate (6).
2. Remove shock cord (7) on rear flap (8) from J-hook (3) on side panel (4).
3. Perform steps (1 and 2) on left side of trailer.



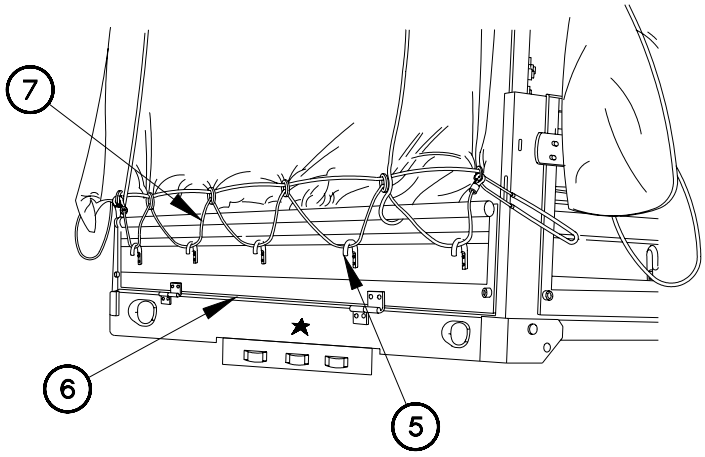
1500f01.dwg

CARGO COVER FLAP OPERATION - Continued 0015 00

RAISING REAR FLAP - Continued

4. Remove shock cord (7) from five J-hooks (5) on tailgate (6).

5. Lower ladder (WP 0010 00, Lower Ladder).

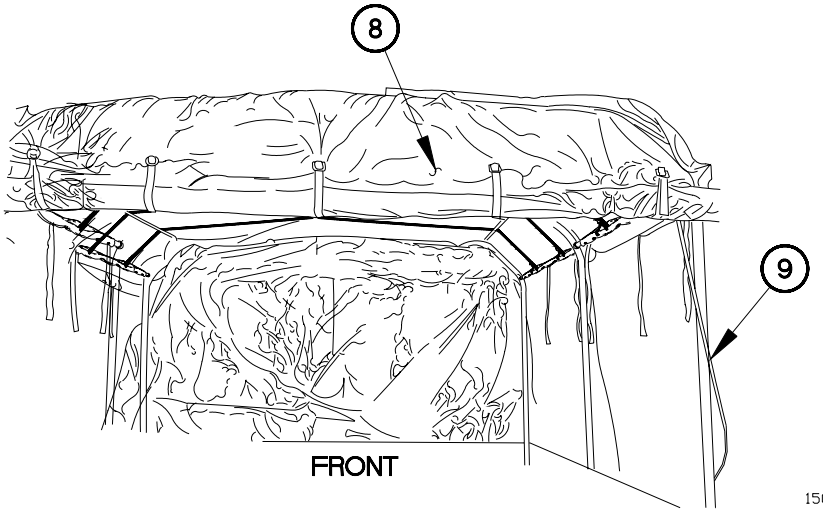


1500F02

NOTE

Perform steps (6 through 8) from inside cargo bed.

6. Pull draw string (9) to raise rear flap (8).

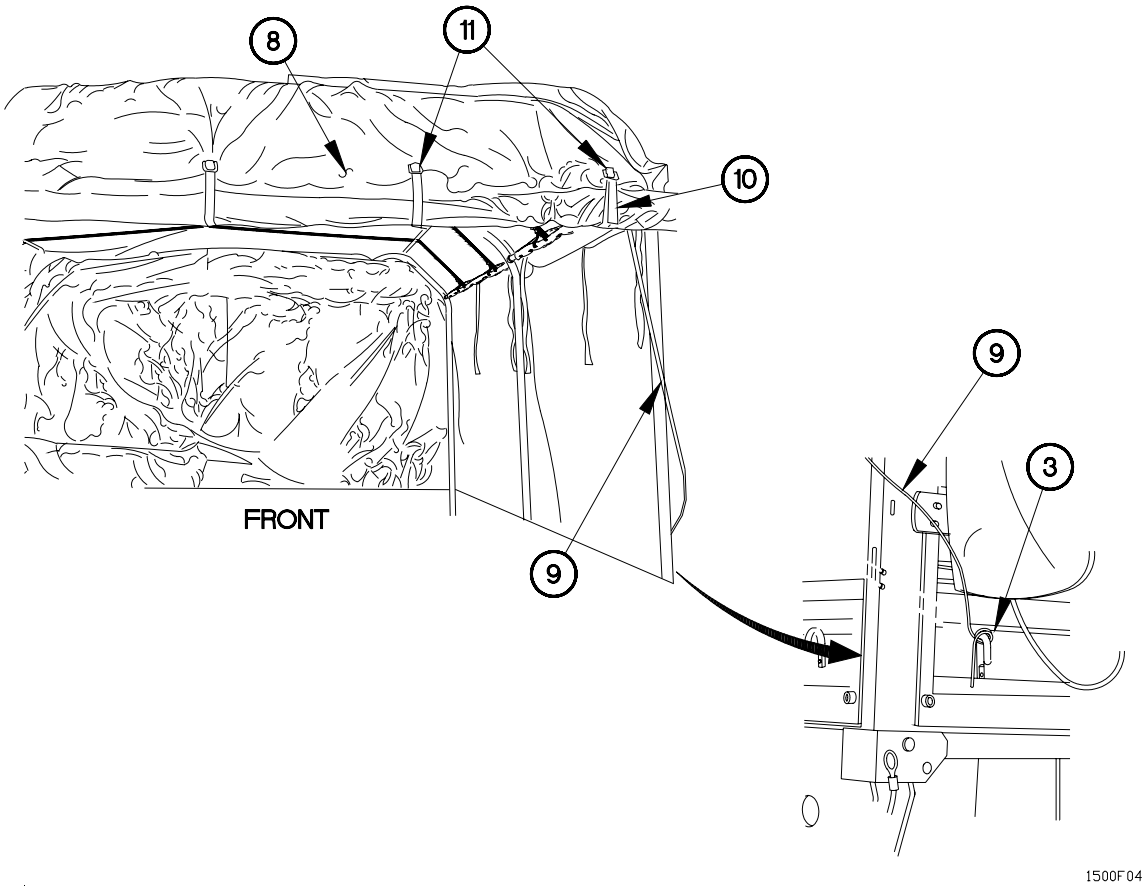


1500F03

CARGO COVER FLAP OPERATION - Continued 0015 00

RAISING REAR FLAP - Continued

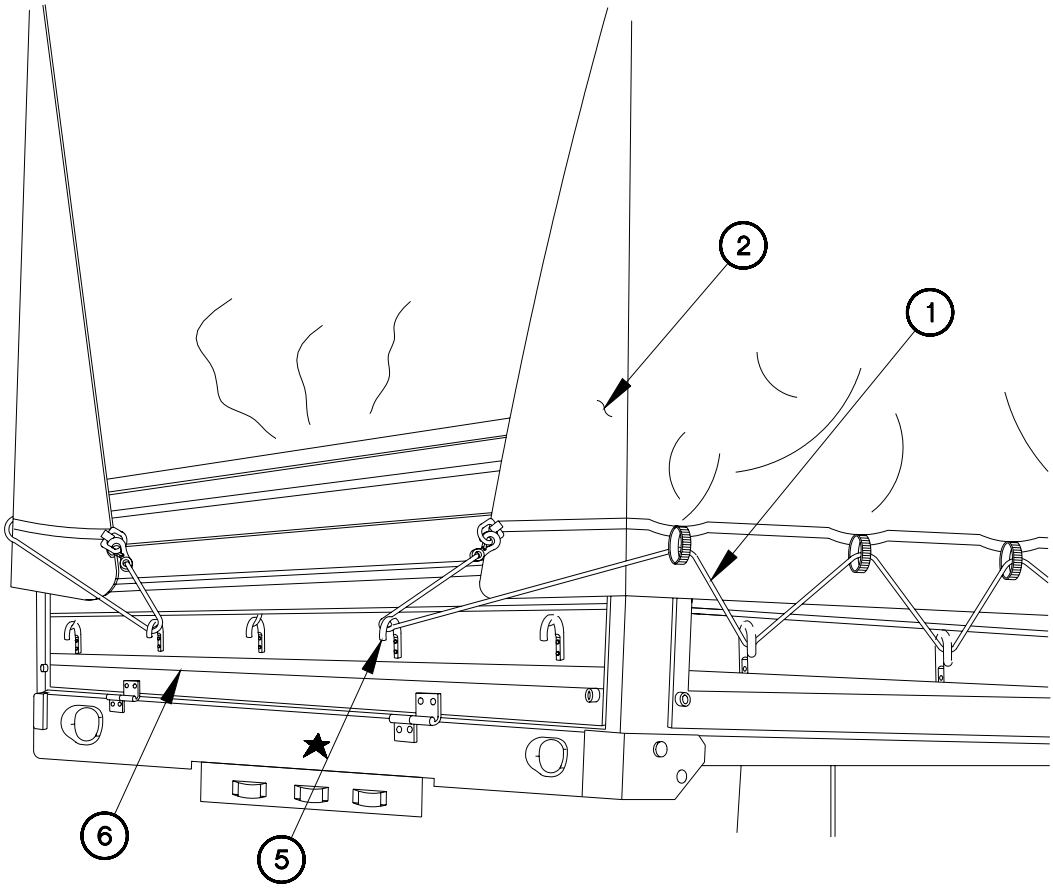
7. Tie draw string (9) to J-hook (3).
8. Install five straps (10) around rear flap (8) to five D-rings (11).
9. Stow ladder (WP 0010 00, Stow Ladder).



CARGO COVER FLAP OPERATION - Continued 0015 00

RAISING REAR FLAP - Continued

10. Pull rear side flap (2) over tailgate (6).
11. Position shock cord (1) on J-hook (5).
12. Perform steps (10 and 11) on left side flap.



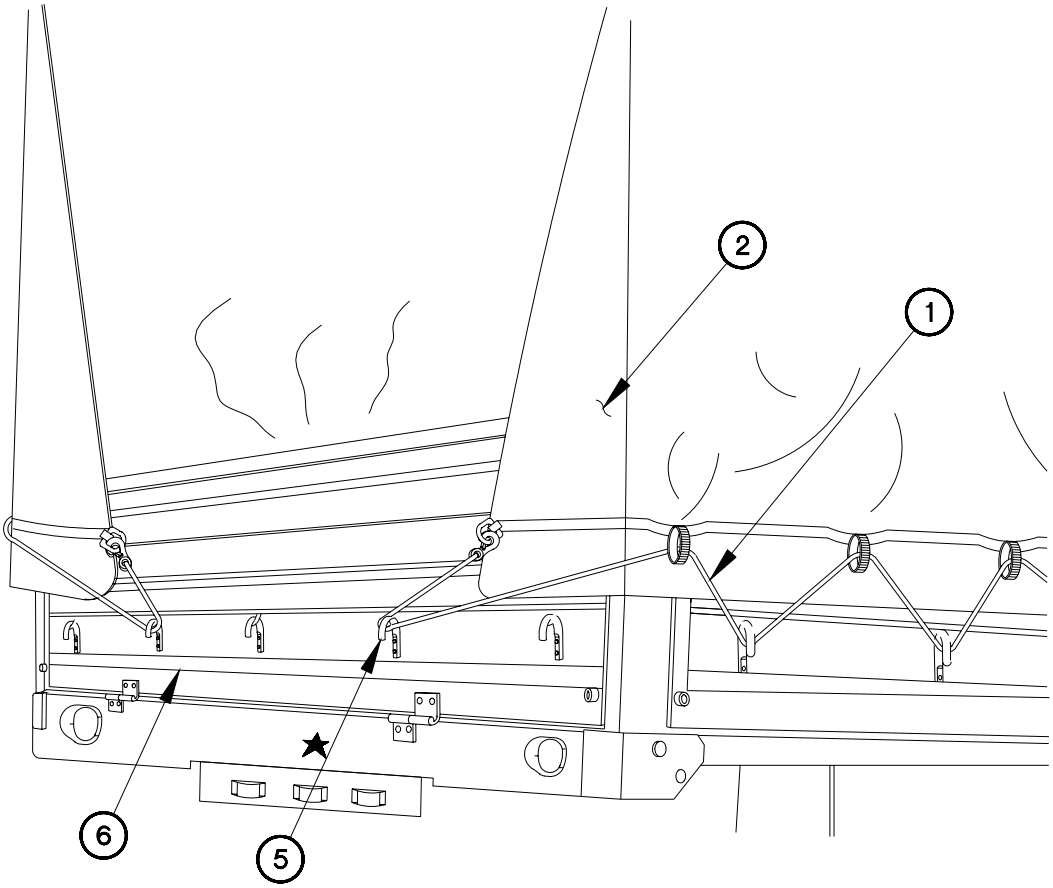
CARGO COVER FLAP OPERATION - Continued 0015 00

LOWERING REAR FLAP

NOTE

Right and left side of rear flaps are installed the same way. Right side rear flap shown.

1. Remove two shock cords (1) on side flap (2) from J-hook (5) on tailgate (6).
2. Perform step (1) on left side flap.
3. Lower ladder (WP 0010 00, Lower Ladder).



1500F05

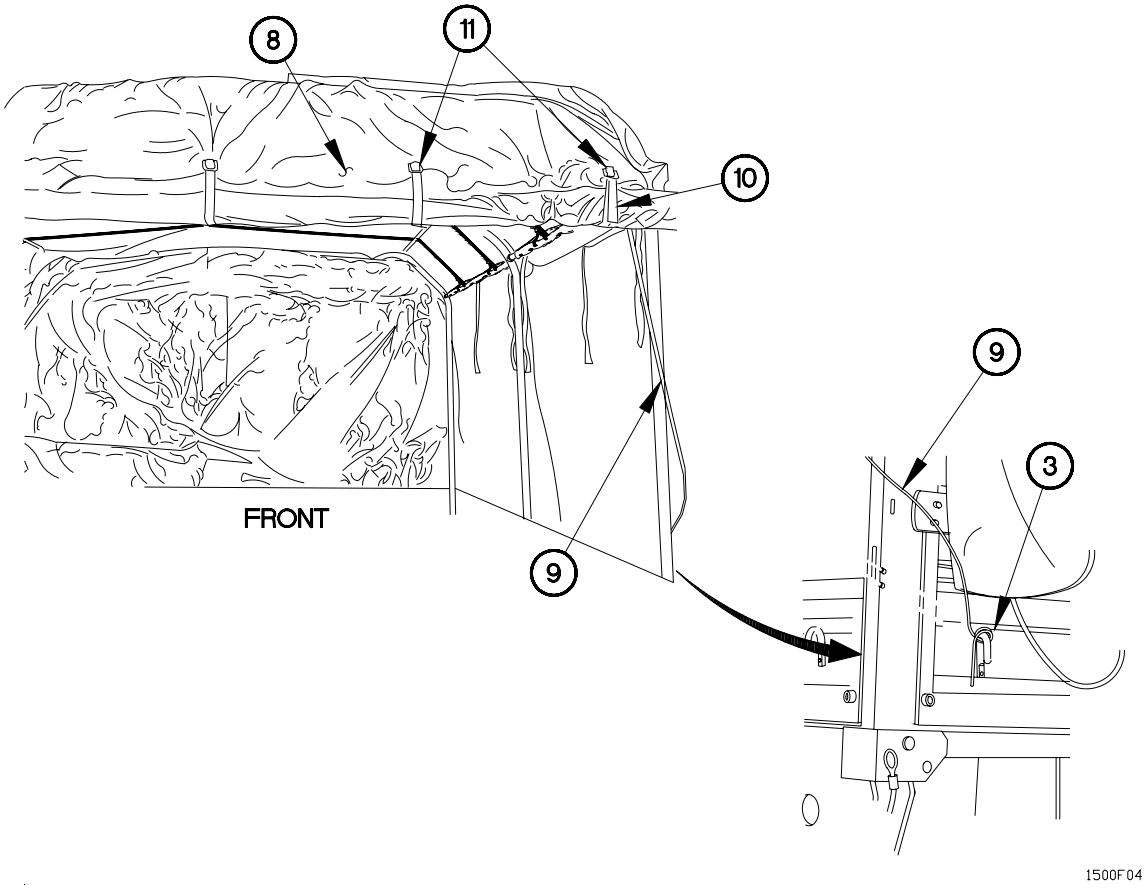
CARGO COVER FLAP OPERATION - Continued 0015 00

LOWERING REAR FLAP - Continued

NOTE

Perform steps (4 through 6) from inside cargo bed.

4. Disconnect five straps (10) from D-rings (11).
5. Remove draw string (9) from J-hook (3).
6. Lower rear flap (8) with draw string (9).
7. Stow ladder (WP 0010 00, Stow Ladder).



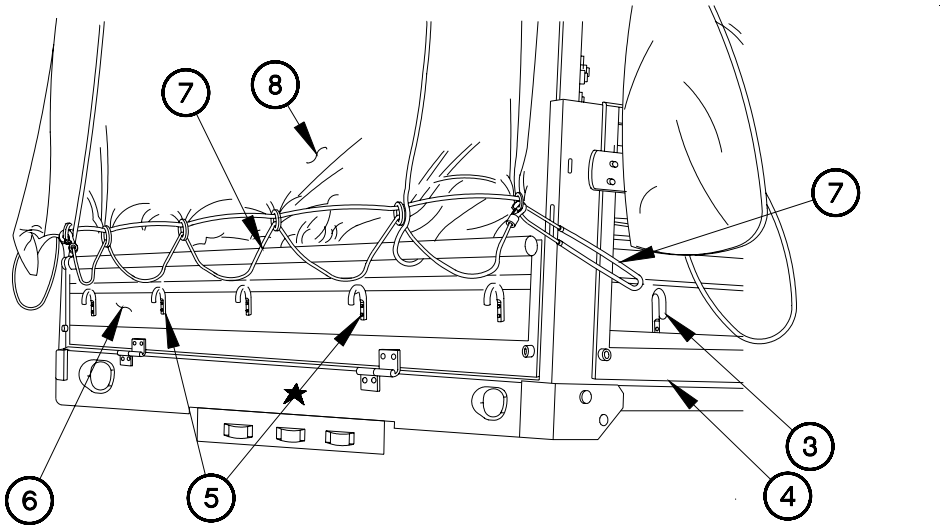
CARGO COVER FLAP OPERATION - Continued 0015 00

LOWERING REAR FLAP - Continued

8. Install shock cord (7) on rear flap (8) to J-hook (3) on side panel (4).

9. Perform step (8) on left side of rear flap (8).

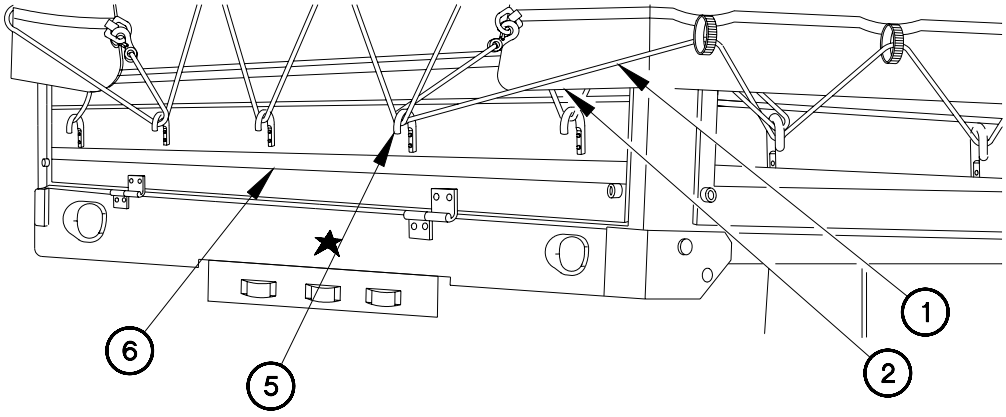
10. Install shock cord (7) on five J-hooks (5) on tailgate (6).



1500F06

11. Install shock cord (1) from rear side flap (2) on J-hook (5) on tailgate (6).

12. Perform step (11) on left side flap.



1500F07

CARGO COVER FLAP OPERATION - Continued 0015 00

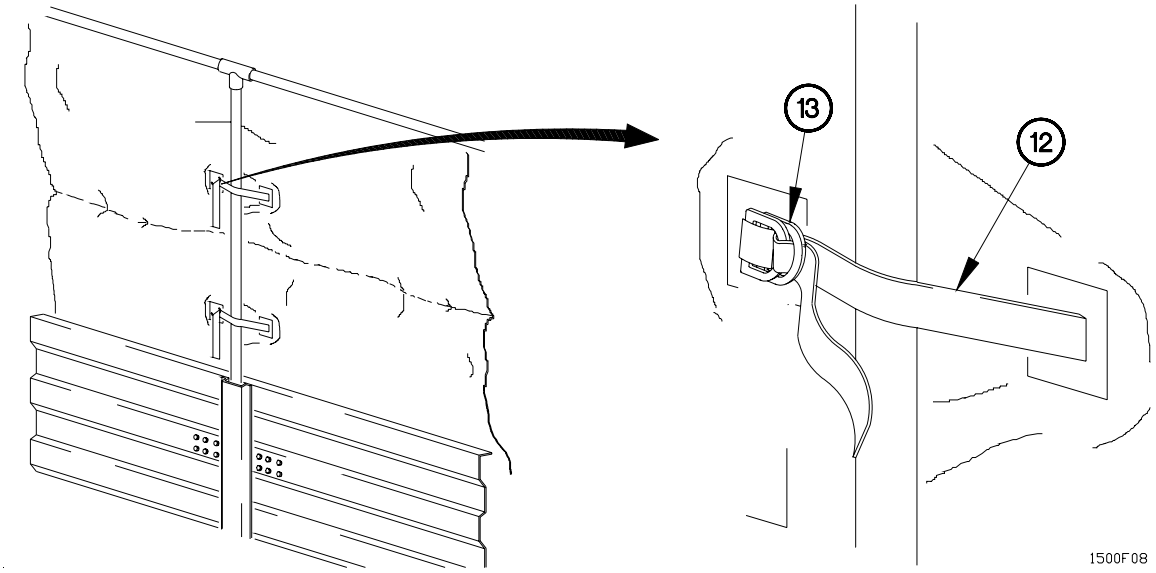
RAISING SIDE FLAPS

1. Lower ladder (WP 0010 00, Lower Ladder).
2. Raise rear flap (WP 0014 00, Raising Rear Flap).

NOTE

All side flaps are raised the same way. Rear right side flap shown.

3. Disconnect two straps (12) from D-rings (13).



CARGO COVER FLAP OPERATION - Continued 0015 00

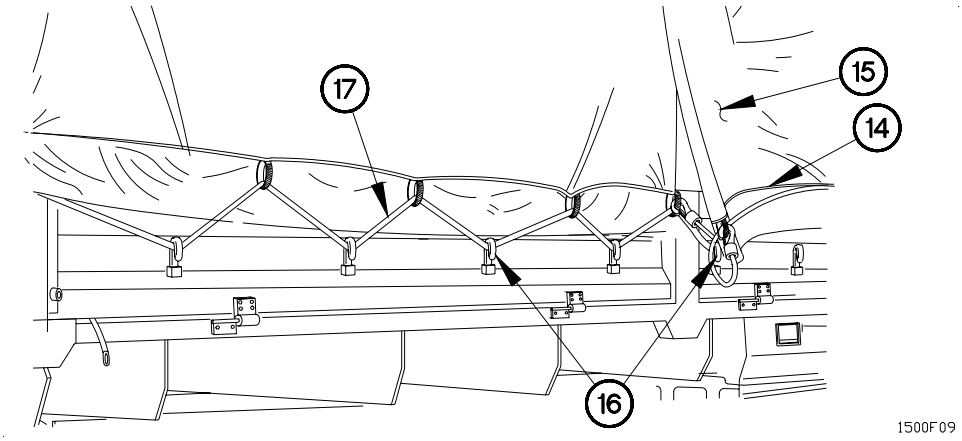
RAISING SIDE FLAPS - Continued

NOTE

Steps (4 through 10) require the aid of two assistants.

Perform steps (4 and 5) on LMTVT.

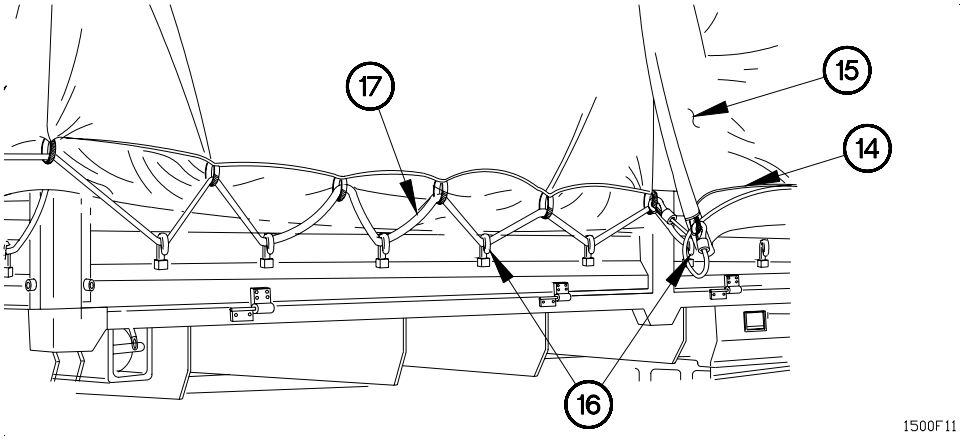
4. Remove shock cord (14) on front side flap (15) from two J-hooks (16).
5. Remove shock cord (17) from four J-hooks (16).



NOTE

Perform steps (6 and 7) on MTVT.

6. Remove shock cord (14) on front side flap (15) from two J-hooks (16).
7. Remove shock cord (17) from five J-hooks (16).



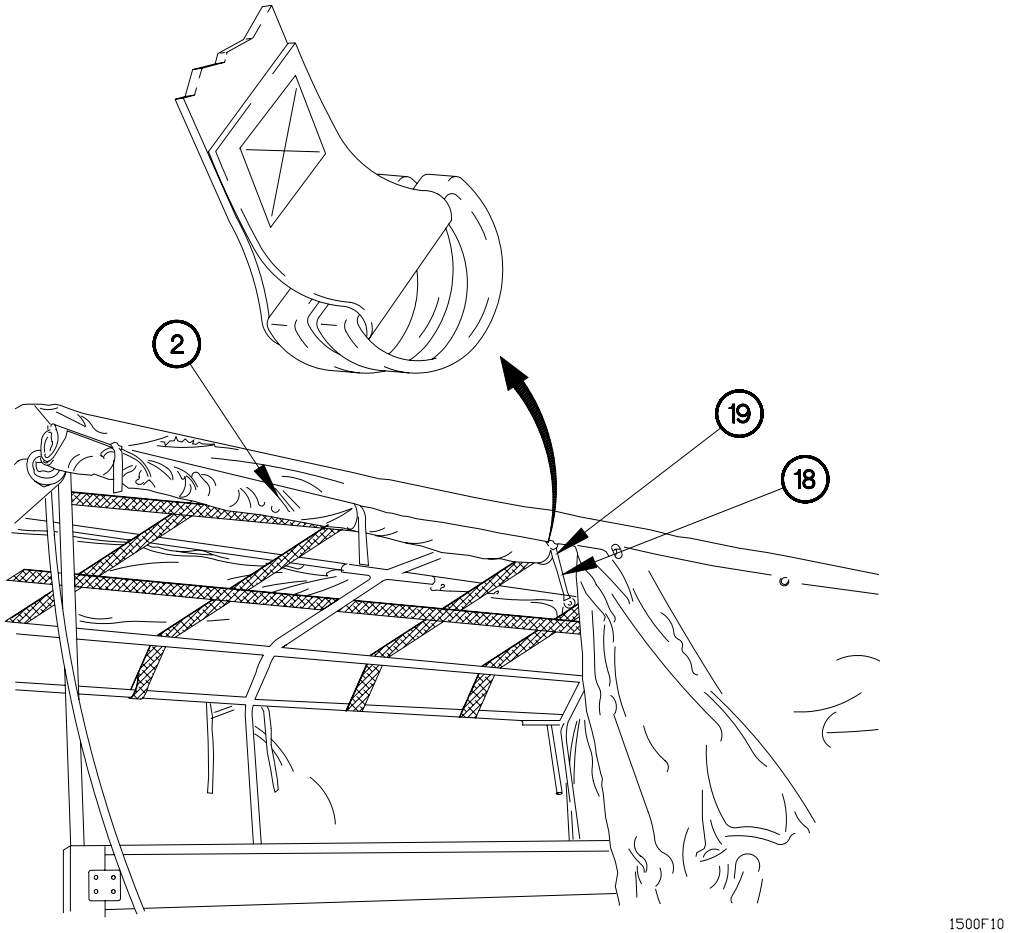
CARGO COVER FLAP OPERATION - Continued 0015 00

RAISING SIDE FLAPS - Continued

NOTE

Perform steps (8 through 10) from inside cargo bed.

8. Roll up rear side flap (2).
9. Wrap three straps (18) around rear side flap (2).
10. Install three straps (18) through D-rings (19).
11. Raise ladder (WP 0010 00, Raise Ladder).



CARGO COVER FLAP OPERATION - Continued 0015 00

LOWERING SIDE FLAPS

1. Lower ladder (WP 0010 00, Lower Ladder).

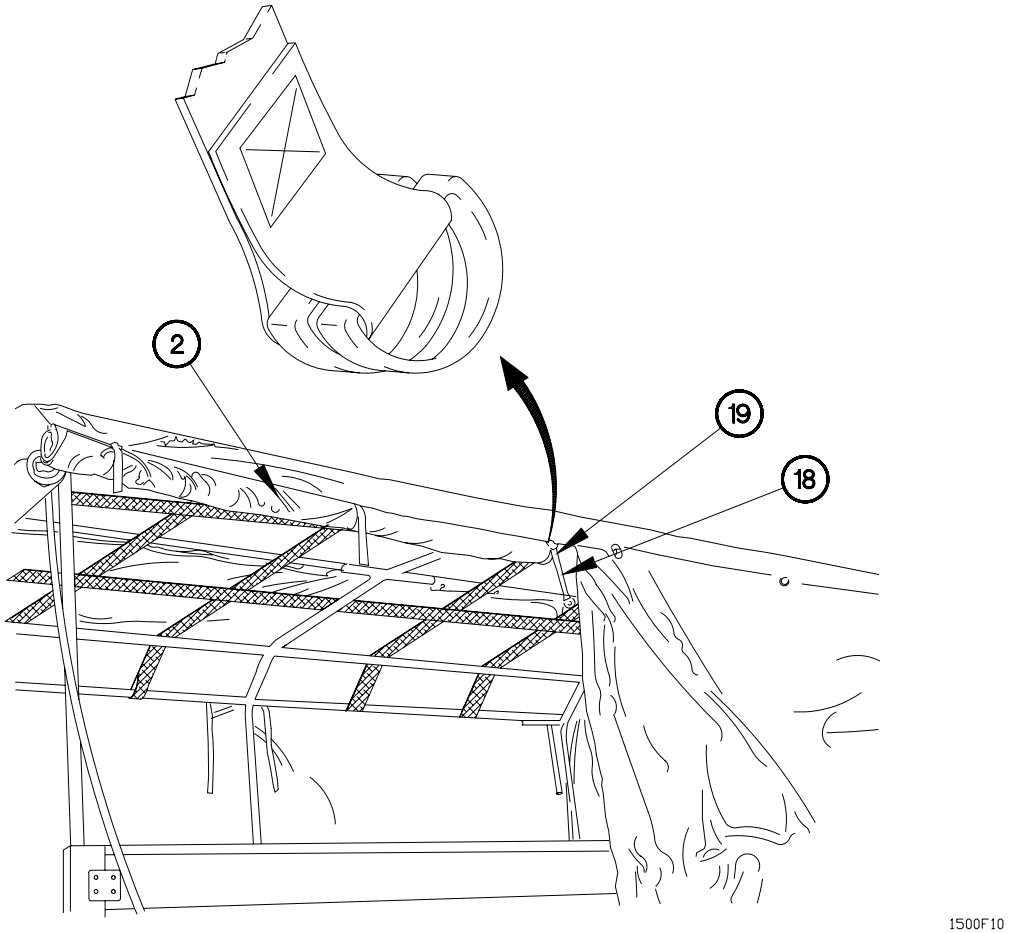
NOTE

All side flaps are lowered the same way. Rear right side flap shown.

Perform steps (2 and 3) from inside cargo bed.

2. Remove three straps (18) from D-rings (19).

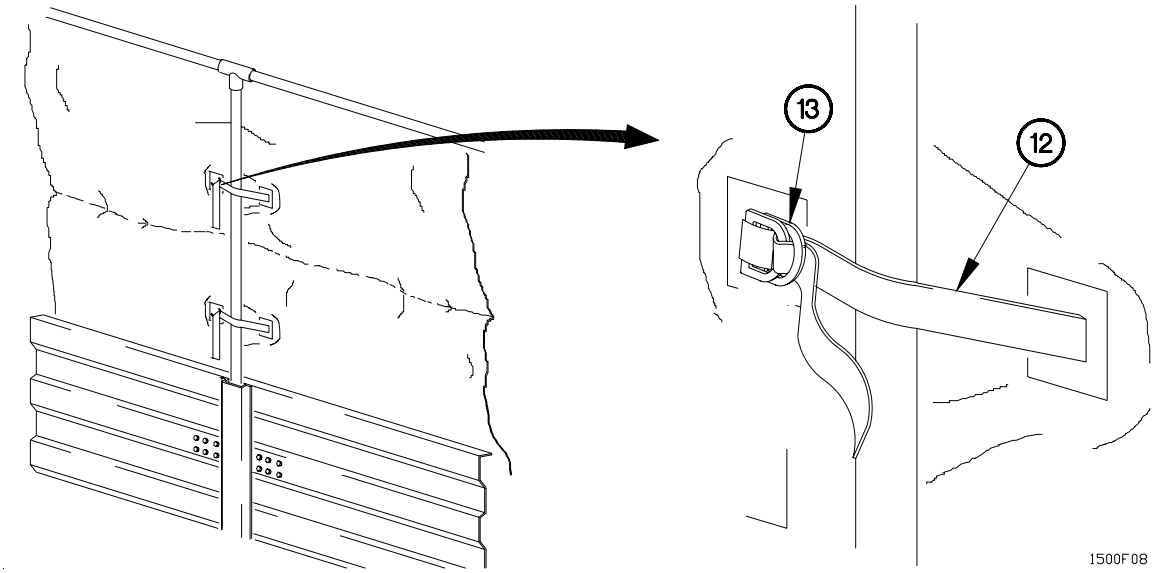
3. Unwrap three straps (18) and lower rear side flap (2).



CARGO COVER FLAP OPERATION - Continued 0015 00

LOWERING SIDE FLAPS - Continued

4. Connect two straps (12) to D-rings (13).



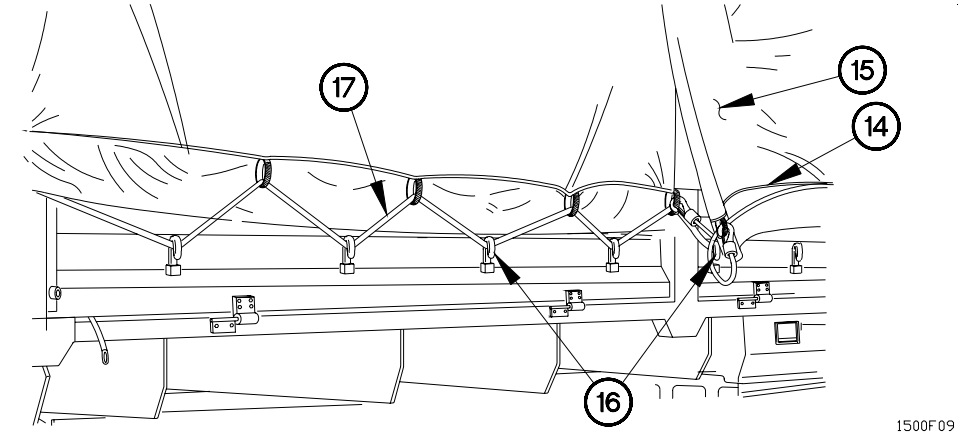
NOTE

Perform steps (5 through 7) on LMTVT.

5. Install shock cord (17) on four J-hooks (16).

6. Install shock cord (14) on front side flap (15) on two J-hooks (16).

7. Lower rear flap (WP 0010 00, Lowering Rear Flap).



CARGO COVER FLAP OPERATION - Continued 0015 00

LOWERING SIDE FLAPS - Continued

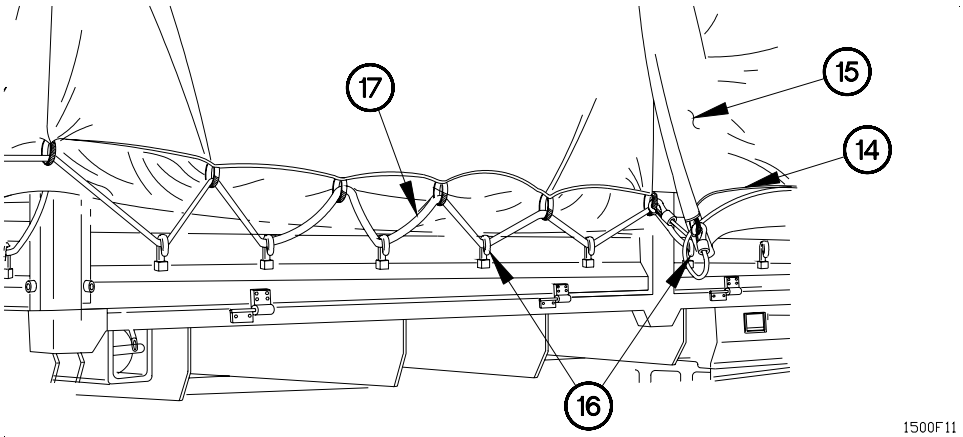
NOTE

Perform steps (8 through 10) on MTVT.

8. Install shock cord (17) on five J-hooks (16).

9. Install shock cord (14) on front side flap (15) on two J-hooks (16).

10. Lower rear flap (WP 0010 00, Lowering Rear Flap).



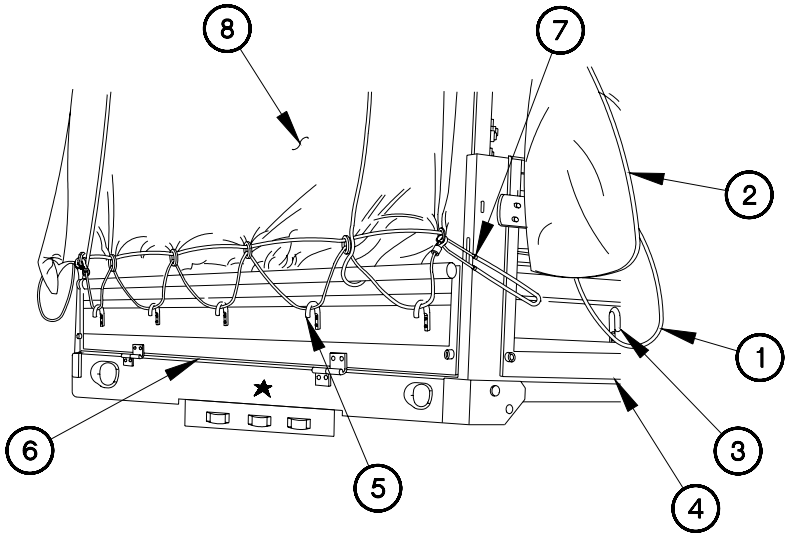
CARGO COVER FLAP OPERATION - Continued 0015 00

DRAW STRING INSTALLATION

NOTE

Right and left side of rear flaps are disconnected the same way. Right side rear flap shown.

1. Remove shock cord (1) on rear side flap (2) from J-hook (3) on side panel (4) and from J-hook (5) on tailgate (6).
2. Remove shock cord (7) on rear flap (8) from J-hook (3) on side panel (4).
3. Perform steps (1 and 2) on left side of trailer.



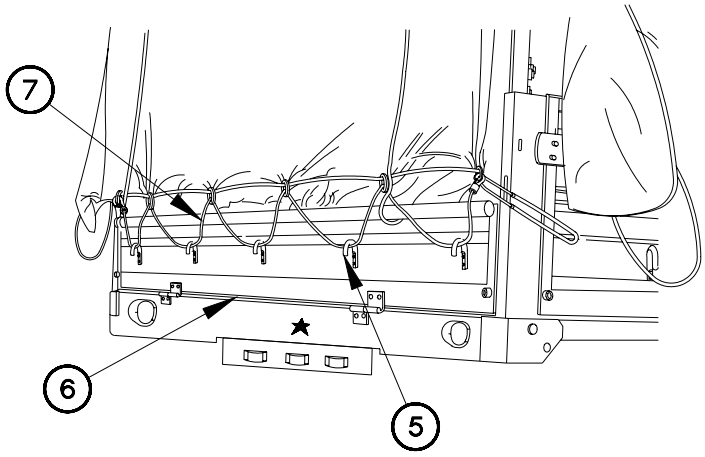
1500F01

CARGO COVER FLAP OPERATION - Continued 0015 00

DRAW STRING INSTALLATION - Continued

4. Remove shock cord (7) from five J-hooks (5) on tailgate (6).

5. Lower ladder (WP 0010 00, Lower Ladder).



1500F02

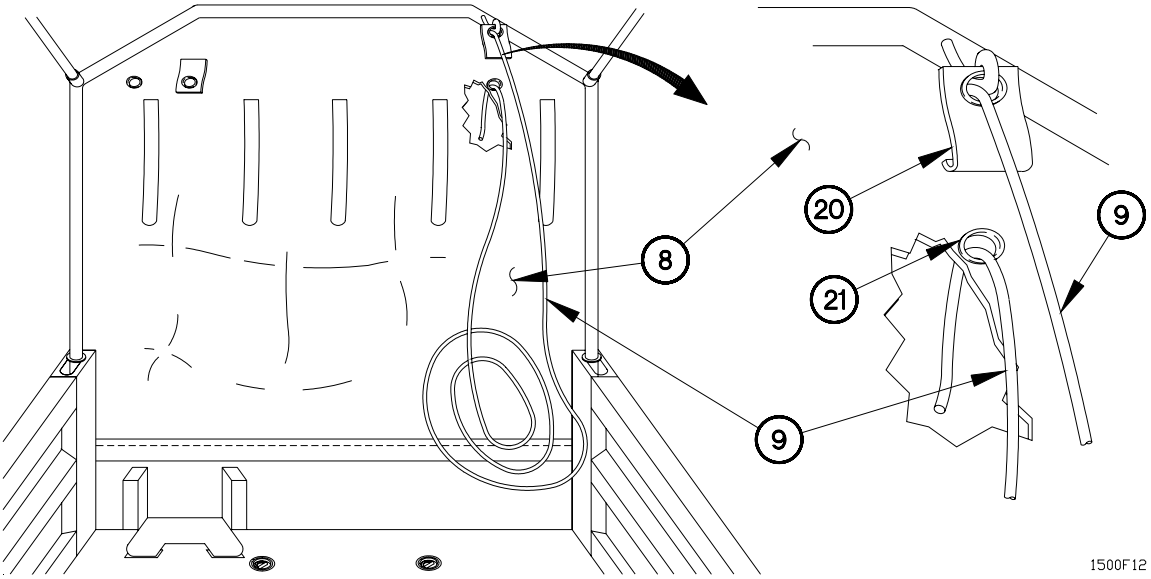
NOTE

Perform steps (6 through 16) from inside cargo bed.

Perform steps (6 through 9) on roadside of rear flap.

6. Tie one end of draw string (9) to grommeted strap (20) on interior of rear flap (8).

7. Insert draw string (9) through grommet (21) to exterior of rear flap (8).



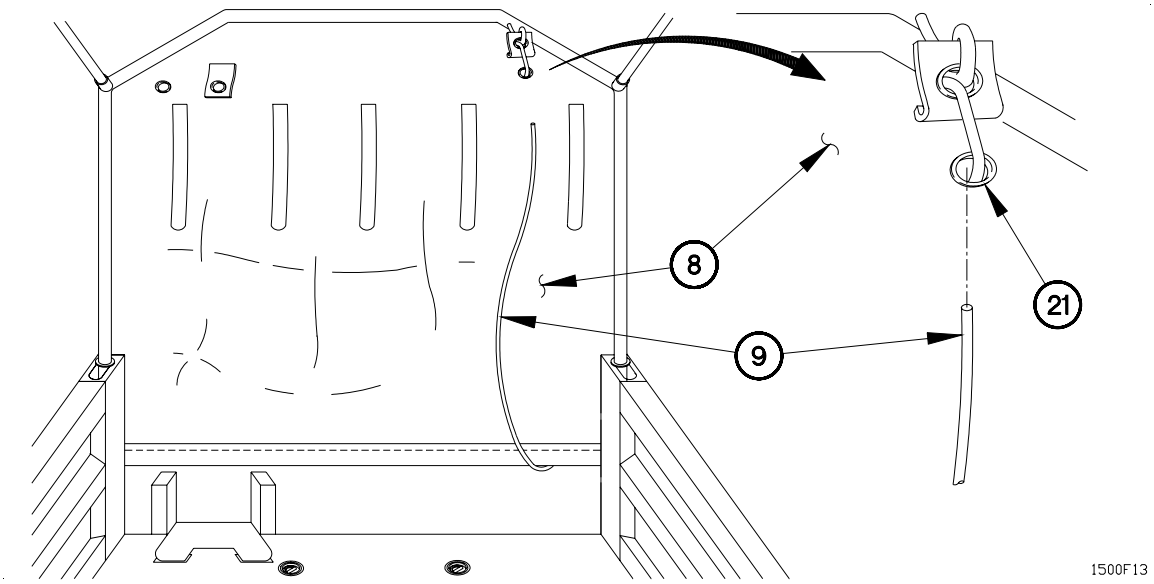
1500F12

CARGO COVER FLAP OPERATION - Continued 0015 00

DRAW STRING INSTALLATION - Continued

8. Route draw string (9) under bottom and back up along interior of rear flap (8).

9. Insert draw string (9) through grommet (21) to exterior of rear flap (8) again.

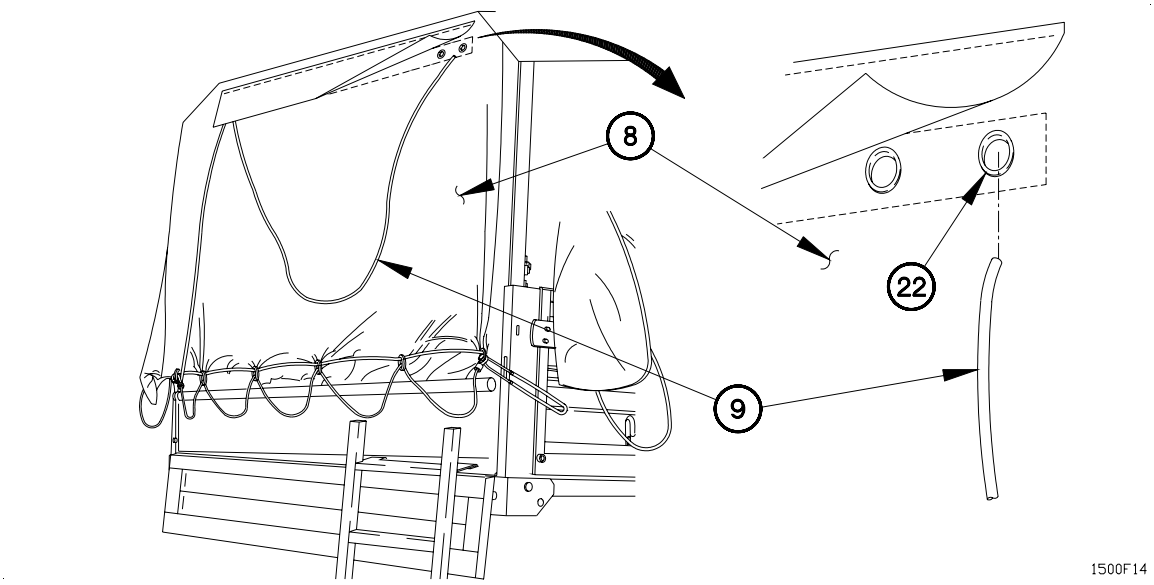


NOTE

Perform steps (10 through 16) on curbside of rear flap.

10. Route draw string (9) to curbside of rear flap (8).

11. Insert draw string (9) through the outside grommet (22) to interior of rear flap (8).



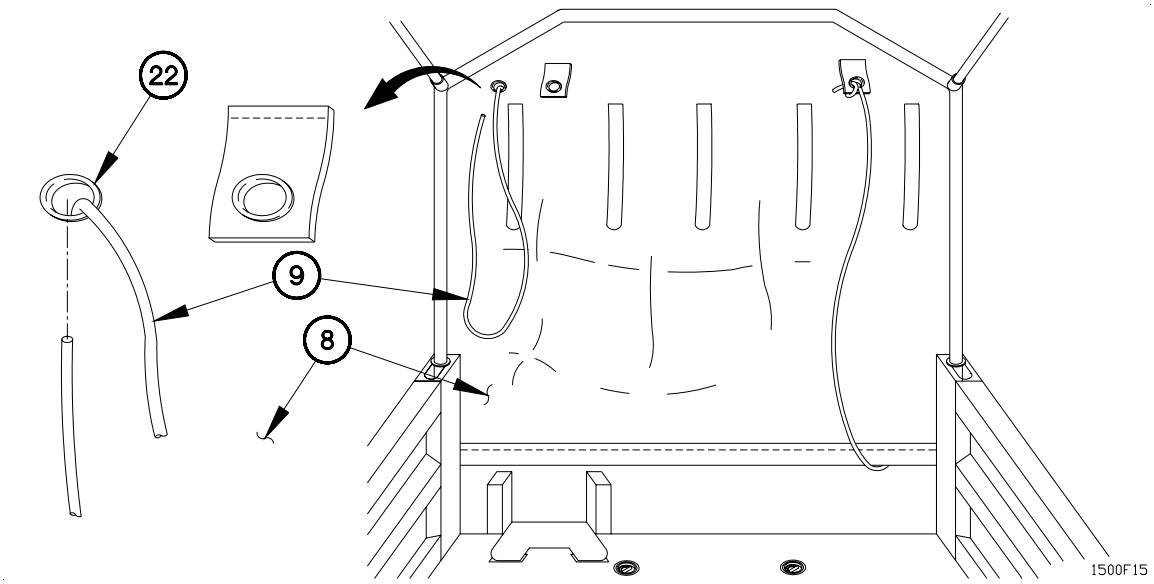
CARGO COVER FLAP OPERATION - Continued 0015 00

DRAW STRING INSTALLATION - Continued

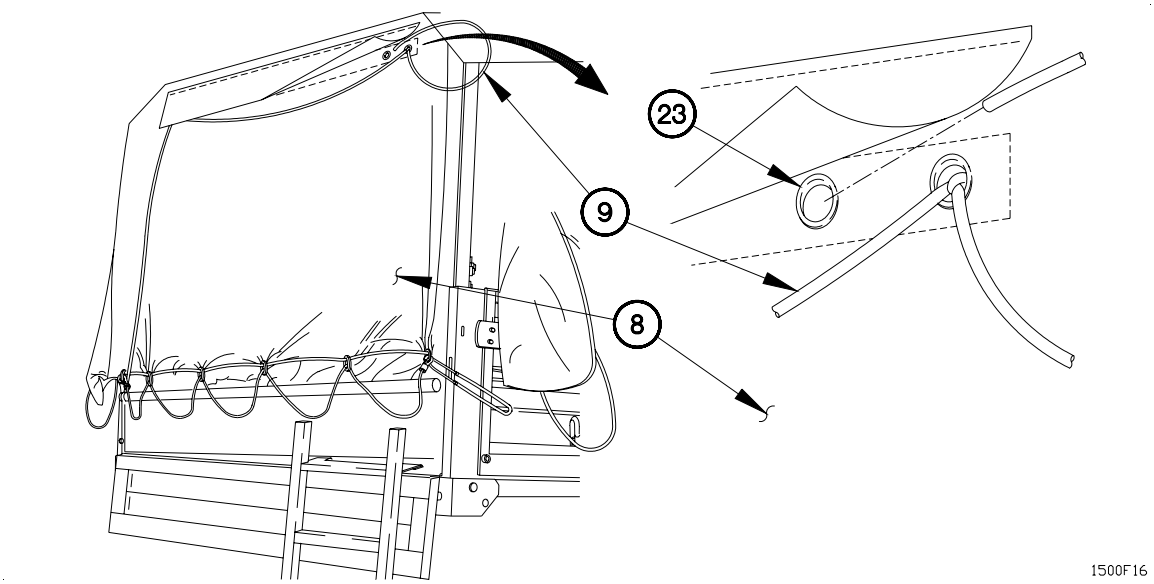
NOTE

Leave a loop of draw string about 6 ft (1.8 m) long on interior of rear flap when step (12) is performed.

12. Insert draw string (9) back through the outside grommet (22) to exterior of rear flap (8).



13. Insert draw string (9) through the inside grommet (23) to interior of rear flap (8).

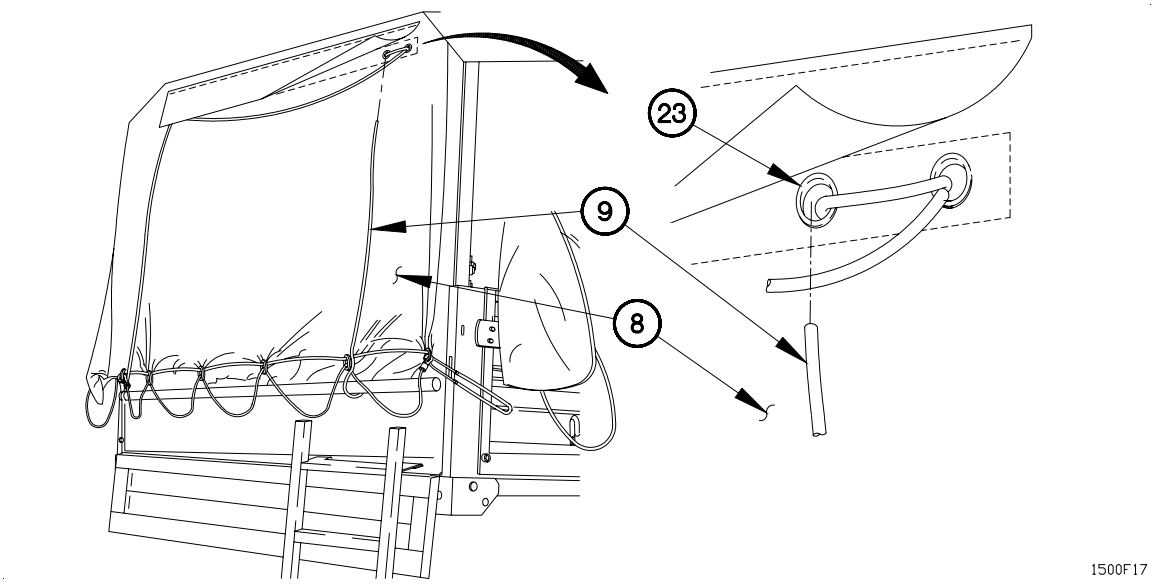


CARGO COVER FLAP OPERATION - Continued 0015 00

DRAW STRING INSTALLATION - Continued

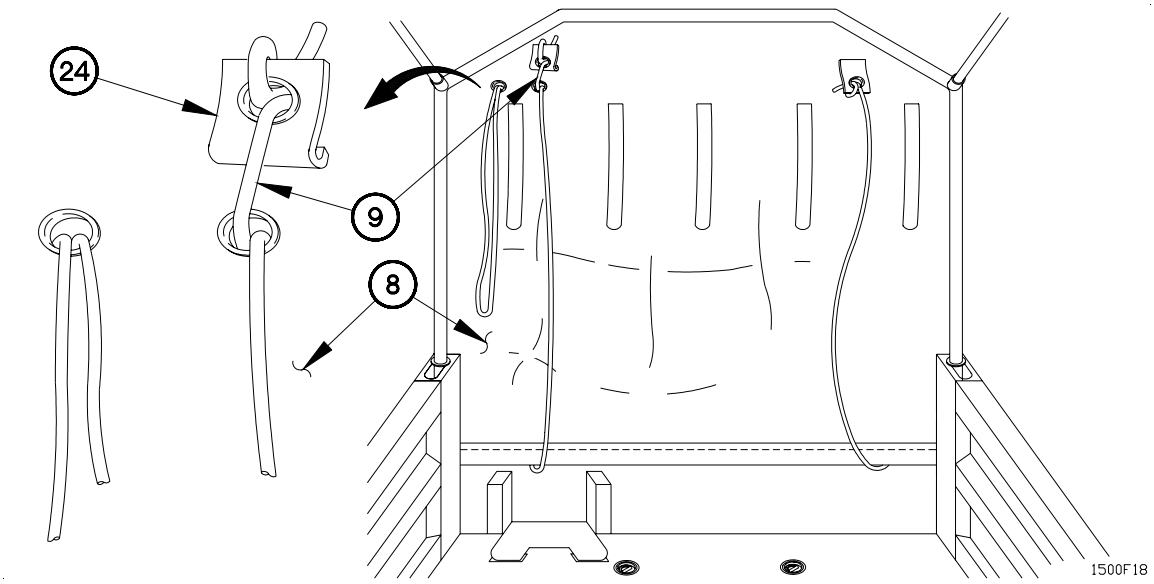
14. Route draw string (9) under bottom and back up along exterior of rear flap (8).

15. Insert draw string (9) back through the inside grommet (23) to interior of rear flap (8).



16. Tie end of draw string (9) to grommeted strap (24) on interior of rear flap (8).

17. Stow ladder (WP 0010 00, Stow Ladder).



END OF WORK PACKAGE

DATA AND INSTRUCTION PLATES 0016 00

INITIAL SETUP:

Maintenance Level
Operator

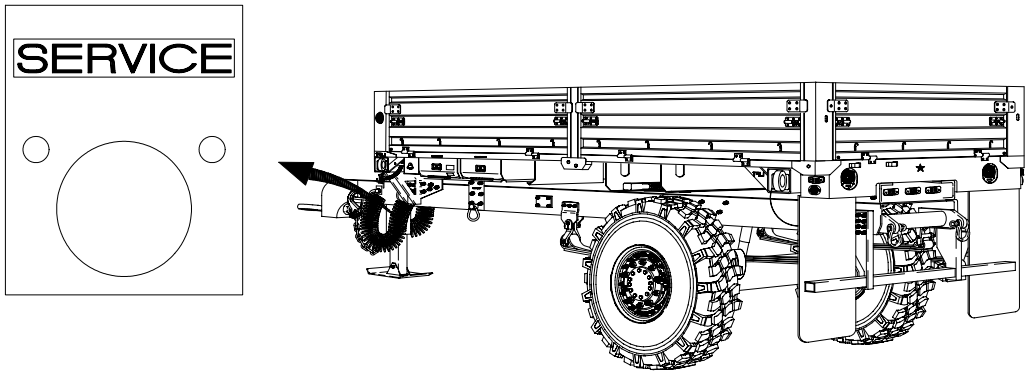
GENERAL

The Operator must be familiar with location of data and instruction plates before beginning trailering operation. The paragraphs in this work package provide the location on the trailer and content of these sources of Operator information. Locations covered include both trailers, left side; MTVT, right side; LMTVT, right side; MTVT, top; and LMTVT, top.

WARNING

Data and instruction plates must be followed at all times to safely operate trailer. Failure to comply may result in injury to personnel or damage to equipment.

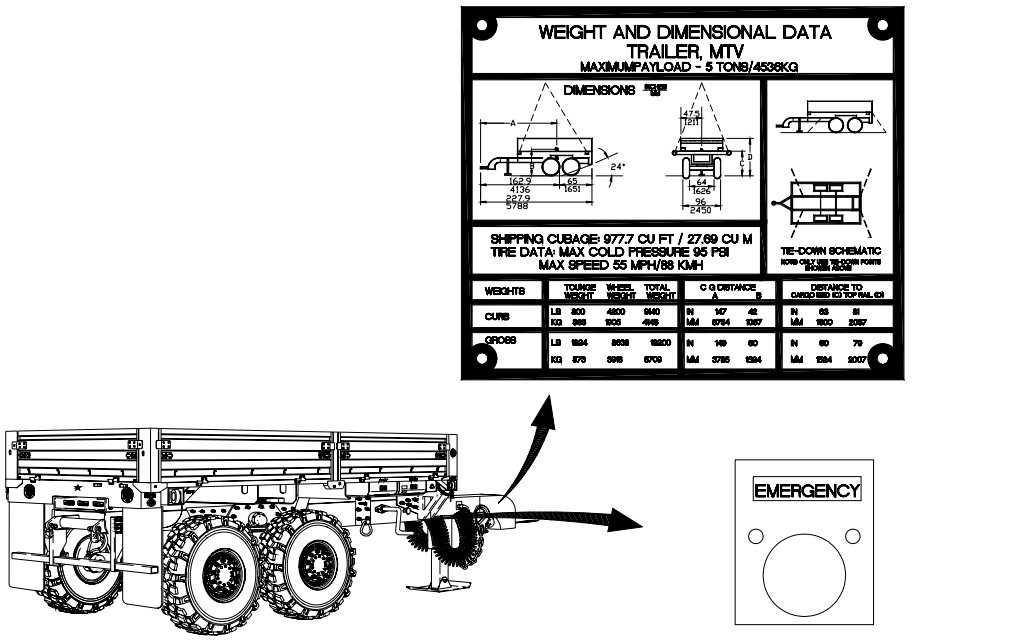
BOTH TRAILERS, LEFT SIDE (LMTVT SHOWN)



1600D01

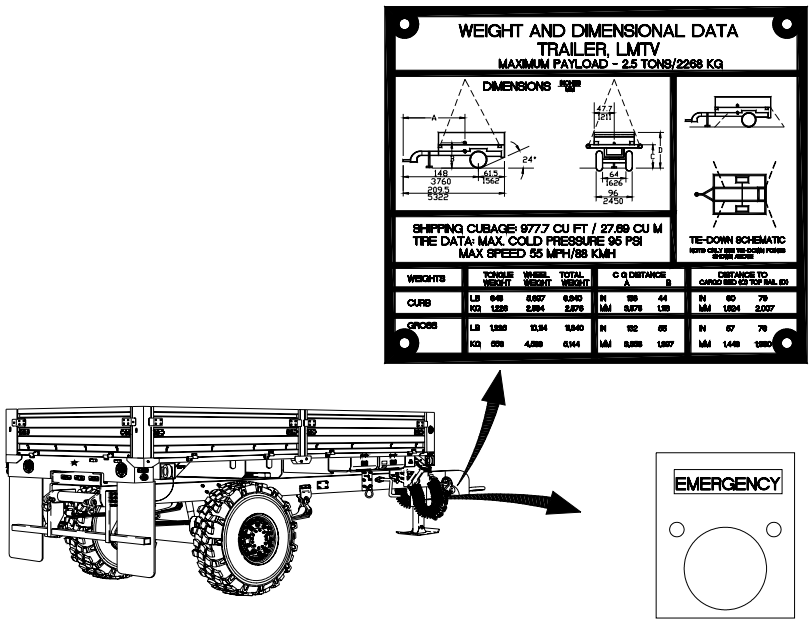
DATA AND INSTRUCTION PLATES - Continued 0016 00

MTVT, RIGHT SIDE



1600E02

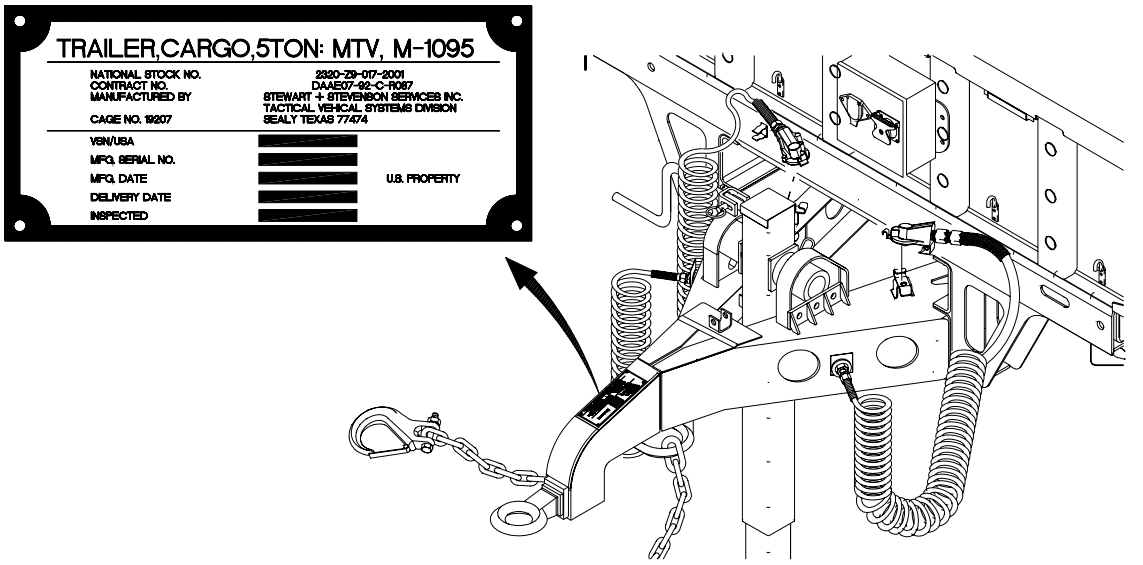
LMTVT, RIGHT SIDE



1600D03

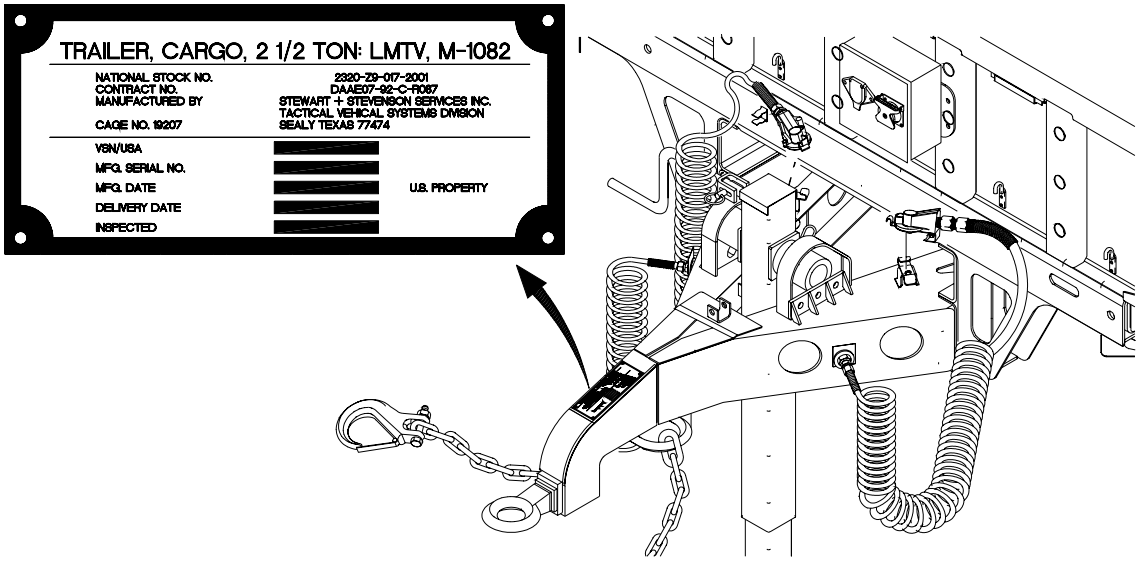
DATA AND INSTRUCTION PLATES - Continued 0016 00

MTVT, TOP



1600E04

LMTVT, TOP



1600D05

PREPARATION FOR MOVEMENT 0017 00

INITIAL SETUP:

Maintenance Level
Operator

References
WP 0010 00
WP 0008 00
Towing vehicle Operator manual

GENERAL

The trailer is designed for use in a wide range of conditions. The paragraphs in this work package provide the data and procedures to be used by the Operator when preparing to move the trailer.

PREPARATION FOR MOVEMENT

WARNING

Heavy objects/loads, such as tool boxes and heavy parts, must always be positioned as low as possible in the trailer with the weight distributed as equally as possible between left and right sides of trailer. Poor weight distribution decreases the stability of the trailer and will increase the likelihood of a rollover. Failure to comply may result in serious injury or death to personnel.

Cargo bed is approximately 5 ft (1.5 m) above ground level. Use care during any loading/unloading operation. Failure to comply may result in serious injury or death to personnel.

Ensure that wheels are chocked prior to loading trailer. Failure to comply may result in serious injury or death to personnel or damage to equipment.

1. All objects that can shift during movement will be secured by using a bracing, cushioning, or tiedown method. The method used must not cause damage to the walls or equipment.

WARNING

Trailer must not be operated until rear panel and side panels are raised and properly secured. Failure to comply may result in serious injury or death to personnel or damage to equipment.

2. Raise cargo bed side panels (WP 0010 00, Raise Cargo Bed Side Panel).

3. Stow trailer ladder (WP 0010 00, Stow Ladder).

4. Remove wheel chocks (WP 0008 00, Unchocking Wheels).

5. Stow wheel chocks on towing vehicle.

END OF WORK PACKAGE

OPERATION IN EXTREME COLD, -26° F TO -65° F (-32° C TO -54° C)

0018 00

INITIAL SETUP:

Maintenance Level:
Operator

References:
FM 9-207
FM 31-70
FM 31-71
FM 21-305

GENERAL

The trailer is designed for use in a wide range of conditions. The paragraphs in this work package provide the data and procedures to be used by the Operator when operating the trailer in extreme cold. Items covered include operation in extreme cold and at-halt parking.

OPERATION IN EXTREME COLD

WARNING

Do not touch extremely cold metal (below -26° F (-32° C)). Bare skin may freeze to cold metal. Failure to comply may result in injury to personnel.

CAUTION

Before operating ensure the trailer has been prepared for cold weather environment in accordance with FM 9-207. Refer to FM 31-70, FM 31-71, and FM 21-305 for additional information on operation in cold environment. Failure to comply may result in damage to equipment.

Park in shelter when possible. If shelter is not available, park so trailer does not face into wind. Follow procedures in FM 9-207 to prevent trailer from freezing in place. Failure to comply may result in damage to equipment.

All snow and ice should be removed from trailer as soon as possible. Snow and ice may slow or prevent movement of equipment. Failure to comply may result in damage to equipment.

1. Caution must be taken when placing trailer in operation after a shutdown. Congealed lubricants can cause part failure.

2. Check that tires have not frozen to ground or have a flat spot if they are underinflated.

3. Test braking to ensure that brake shoes are not frozen to brake drums.

4. Refer to FM 9-207 and FM 21-305 for special instructions on driving hazards in snow and ice that may be encountered during extremely cold weather conditions.

OPERATION IN EXTREME COLD (-26° F, (-32° C) TO -65° F, (-54° C)) - Continued

0018 00

AT-HALT PARKING

1. For short shutdown periods, park in a sheltered area out of the wind.
2. For long shutdown periods, if high, dry ground is not available, prepare a footing of planks or brush.
3. Remove all built-up snow and ice as soon as possible after parking.
4. Cover and shield trailer with canvas covers (if available). Keep ends of covers elevated to prevent them from freezing to ground.

END OF WORK PACKAGE

OPERATION IN EXTREME HEAT 0019 00

INITIAL SETUP:

Maintenance Level
Operator

GENERAL

The trailer is designed for use in a wide range of conditions. The paragraphs in this work package provide the data and procedures to be used by the Operator when operating the trailer in extreme heat.

OPERATION IN EXTREME HEAT

NOTE

Extreme temperature is defined as temperatures in excess of 100° F (38° C).

1. Do not park trailer in sun for long periods of time as heat and sunlight will shorten life of tires and will cause paint to pit and/or blister.

2. During extended shutdown periods, cover trailer with canvas (if available) to protect it from heat, sun, and dust.

END OF WORK PACKAGE

OPERATION IN RAINY OR HUMID CONDITIONS 0020 00

INITIAL SETUP:

Maintenance Level	References
Operator	TM 9-247 WP 0023 00

GENERAL

The trailer is designed for use in a wide range of conditions. The paragraphs in this work package provide the data and procedures to be used by the Operator when operating the trailer in rainy or humid conditions.

OPERATION IN RAINY OR HUMID CONDITIONS

1. Frequently inspect, clean, and lubricate inactive equipment to prevent the accumulation of corrosion and fungus. Notify Field Level Maintenance if corrosion is found. Clean fungus with appropriate solution. Refer to TM 9-247 for cleaning instructions.

2. Check soft top covers periodically for deterioration and damage. Notify Field Level Maintenance if damage is found.

3. Refer to operation in mud (WP 0023 00, Operation in Mud).

END OF WORK PACKAGE

OPERATION IN SALT WATER AREAS 0021 00

INITIAL SETUP:

Maintenance Level	References
Operator	WP 0046 00

GENERAL

The trailer is designed for use in a wide range of conditions. The paragraph in this work package provide the data and procedures to be used by the Operator when operating the trailer in salt water areas.

OPERATION IN SALT WATER AREAS

1. The trailer can ford water to a depth of 60 in. (152 cm).

2. Salt water will cause metal parts to rust and corrode. Trailer must be cleaned (WP 0046 00, Cleaning Trailer) and lubricated immediately after salt water fording, or as soon as tactical situation permits. Notify Field Level Maintenance if corrosion is found.

END OF WORK PACKAGE

OPERATION IN SNOW OR ICE 0022 00

INITIAL SETUP:

Maintenance Level
Operator

References
FM 9-207
FM 21-305
FM 31-70
FM 31-71
WP 0018 00

GENERAL

The trailer is designed for use in a wide range of conditions. The paragraph in this work package provide the data and procedures to be used by the Operator when operating the trailer in snow or ice.

OPERATION IN SNOW OR ICE

CAUTION

Before operating ensure the trailer has been prepared for cold weather environment in accordance with FM 9-207. Refer to FM 31-70, FM 31-71, and FM 21-305 for additional information on operation in a cold environment with snow or ice. Failure to comply may result in damage to equipment.

NOTE

Refer to WP 0018 00, Operation in Extreme Cold, -26° F TO -65° F (-32° C TO -54° C) when operating in extremely cold environment.

Do not push trailer from rear if it becomes stuck in snow or ice. Damage to trailer could result.

1. If one or more wheels sink into snow, it may be necessary to jack up the stuck wheel(s) and insert planking or matting beneath wheel(s).

CAUTION

All snow and ice should be removed from trailer as soon as possible. Snow and ice may slow or prevent movement of equipment. Failure to comply may result in damage to equipment.

2. Remove all snow and ice build-up from trailer as soon as tactical situation permits.

3. Park in shelter when possible. If shelter is not available, park so trailer does not face into wind. Follow procedures in FM 9-207 to prevent trailer from freezing in place.

END OF WORK PACKAGE

OPERATION IN MUD 0023 00

INITIAL SETUP:

Maintenance Level	References
Operator	WP 0046 00

GENERAL

The trailer is designed for use in a wide range of conditions. The paragraphs in this work package provide the data and procedures to be used by the Operator when operating the trailer in mud.

OPERATION IN MUD

WARNING

Operating in mud causes brake linings to get covered with mud and can impair trailer braking. Dry brakes by towing trailer about 500 ft (153 m) while applying service brakes often. If adequate braking is not restored by drying brakes, notify Field Level Maintenance. Failure to comply may result in injury to personnel or damage to equipment.

CAUTION

Do not push trailer from rear if it becomes stuck in mud. Damage to trailer could result.

1. If one or more wheels is stuck in mud, it may necessary to jack up stuck wheel(s) and insert planking or matting under wheel(s).

2. Frequently clean (WP 0046 00, Cleaning Trailer), inspect, and lubricate trailer after operation in mud or as soon as tactical operation permits.

END OF WORK PACKAGE

OPERATION IN DUSTY OR SANDY AREAS 0024 00

INITIAL SETUP:

Maintenance Level	References
Operator	WP 0046 00

GENERAL

The trailer is designed for use in a wide range of conditions. The paragraphs in this work package provide the data and procedures to be used by the Operator when operating the trailer in dusty or sandy areas.

OPERATION IN DUSTY OR SANDY AREAS

WARNING

Do not straddle or drive on sides of sand mounds. Loose sand will not support trailer on steep slopes. Trailer may roll over. Failure to comply may result in serious injury or death to personnel or damage to equipment.

CAUTION

Do not push trailer from the rear if it becomes stuck in sand. Damage to trailer may result.

1. If one or more wheels sink into sand, it may be necessary to jack up the stuck wheel(s) and insert planking or matting beneath wheel(s).

2. Frequently clean (WP 0046 00, Cleaning Trailer), inspect, and lubricate trailer after operation in dusty or sandy areas or as soon as tactical operation permits.

3. If possible, park trailer out of blowing dust or sand during extended shutdown periods. If sheltered area is not available, cover and shield trailer with canvas covers (if available).

END OF WORK PACKAGE

EMERGENCY PROCEDURES 0025 00

INITIAL SETUP:

Maintenance Level
Operator

References
FM 3-5
TB 700-4
WP 0047 00
Towing vehicle Operator manual

GENERAL

The trailer is designed for use in a wide range of conditions. The paragraphs in this work package provide the data and procedures to be used by the Operator when operating the trailer under emergency conditions. Items covered include loss in air pressure and nuclear, biological, and chemical (NBC) decontamination.

LOSS IN AIR PRESSURE

When the trailer is attached to a towing vehicle, the vehicle air supply is opened to the trailer, creating a single air system. If a leak occurs, the towing vehicle air system will attempt to compensate for the loss. If the leak is greater than the system's ability to compensate, the towing vehicle alarm will sound. If the leak is in the trailer and air pressure drops to 55 - 65 psi, (379-448 kPa) the towing vehicle air brake protection valve will start to close, isolating the trailer and protecting the towing vehicle air supply. The trailer will continue to lose air until the spring brakes activate.

While Coupled to Towing Vehicle

1. Check brake air pressure gages if indicator(s) and/or an audible alarm sounds on the towing vehicle indicating low air pressure.

WARNING

Trailer axle service brakes will not operate if towing vehicle brake air pressure gage reads below 75 psi (517 kPa). Trailer braking will be provided by spring brakes for a limited time. Allow greater stopping distance. Discontinue trailering operation as soon as possible. Failure to comply may result in serious injury or death to personnel.

CAUTION

Do not attempt to tow the trailer with spring brakes caged except to move the trailer out of the traveled portion of the highway. Failure to comply may result in damage to equipment.

2. If air pressure reads below 75 psi (517 kPa):

   a. Leave additional distance between vehicles.

   b. Apply brake pedal earlier than usual when slowing towing vehicle and trailer.

LOSS IN AIR PRESSURE - Continued

c. Use a lower gear range on towing vehicle.

d. Notify Field Level Maintenance as soon as possible.

3. If spring brakes have engaged, due to air pressure falling below 60 psi (414 kPa), follow spring brake caging procedures (WP 0047 00, Spring Brake Caging).

While Uncoupled from Towing Vehicle

Since the Central Tire Inflation System (CTIS) non-functional in the FMTVT, there is no means to determine a loss of trailer air system pressure while uncoupled from the towing vehicle. A loss can only be determined while the trailer is coupled to a towing vehicle.

NUCLEAR, BIOLOGICAL, AND CHEMICAL (NBC) DECONTAMINATION

Refer to TB 700-4 for nuclear, biological, and chemical (NBC) defense procedures. Refer to FM 3-5 for chemical, biological, and radiological (CBR) decontamination procedures.

END OF WORK PACKAGE

CHAPTER 3
TROUBLESHOOTING PROCEDURES

TROUBLESHOOTING INTRODUCTION 0026 00

MALFUNCTION/SYMPTOM INDEX

The malfunction/symptom index (WP 0027 00, Malfunctions/Symptom Index) is a quick reference index for finding Operator troubleshooting procedures. Associated with each symptom name is a work package sequence number representing the starting point in a troubleshooting sequence. Should any one symptom require more than one troubleshooting sequence to arrive at the most likely area of investigation, the additional starting point numbers are presented.

As the troubleshooting activity progresses through to the conclusion of a particular sequence, a reference is made to the next logical troubleshooting sequence by work package sequence number, or by referring to the malfunction/symptom index to locate the next failure symptom work package. This type of activity continues until successful fault isolation is achieved.

TROUBLESHOOTING PROCEDURES

The troubleshooting work packages contain tables listing the malfunctions, tests or inspections, and corrective action required to return the trailer to normal operation. Perform the steps in the order they appear in the tables.

Each work package is headed by an initial setup. This setup outlines what is needed as well as certain conditions which must be met before starting the task. DON'T START UP A TASK UNTIL:

You understand the task.

You understand what you are to do.

You understand what is needed to do the work.

You have the things you need.

This manual cannot list all malfunctions that may occur, or all tests or inspections and corrective actions. If a malfunction is not listed or is not corrected by listed corrective actions, notify Field Level Maintenance.

MALFUNCTIONS/SYMPTOM INDEX 0027 00

Malfunction/Symptom	Troubleshooting Procedure
ELECTRICAL SYSTEM	
1. Side marker lights do not illuminate	WP 0028 00
2. Rear marker lights do not illuminate	WP 0028 00
3. Right front marker lights do not illuminate	WP 0028 00
4. Left front marker lights do not illuminate	WP 0028 00
5. Both front marker lights do not illuminate	WP 0028 00
6. Right taillight does not illuminate	WP 0028 00
7. Right stoplight does not illuminate	WP 0028 00
8. Right blackout taillight does not illuminate	WP 0028 00
9. Right blackout stoplight does not illuminate	WP 0028 00
10. Left taillight does not illuminate	WP 0028 00
11. Left stoplight does not illuminate	WP 0028 00
12. Left blackout taillights do not illuminate	WP 0028 00
13. Left blackout stoplights do not illuminate	WP 0028 00
14. All rear lights do not illuminate	WP 0028 00
15. All lights do not illuminate	WP 0028 00
BRAKE SYSTEM	
1. Service brakes do not apply	WP 0029 00
2. Parking brakes do not release	WP 0029 00
3. Brakes overheat	WP 0029 00
4. Trailer brakes unevenly, brakes pull to one side or grab	WP 0029 00
5. Parking brakes do not apply	WP 0029 00

MALFUNCTIONS/SYMPTOM INDEX - Continued 0027 00

Malfunction/Symptom	Troubleshooting Procedure
AIR SYSTEM	
1. Air system loses pressure during operation/slow air pressure buildup	WP 0030 00
2. Large quantity of moisture expelled from air tank	WP 0030 00
3. No air pressure or low air pressure at gladhands	WP 0030 00
4. Gladhand(s) leaks or does not operate	WP 0030 00
WHEELS, TIRES, AND HUBS	
1. Wheel wobbles or shimmies	WP 0031 00
2. Tires wear unevenly or excessively	WP 0031 00
SUSPENSION SYSTEM	
1. Leans to one side, or rear of trailer sags	WP 0032 00
2. Wanders, pulls to one side, or shimmies while towed	WP 0032 00
LANDING GEAR	
1. Landing gear is difficult to raise or lower	WP 0033 00
2. Foot plate is difficult to raise or lower	WP 0033 00

ELECTRICAL SYSTEM TROUBLESHOOTING 0028 00

THIS WORK PACKAGE COVERS:
Electrical System

INITIAL SETUP:

Maintenance Level
Operator

Materials/Parts
Rag, Wiping (Item 24, WP 0176 00)
Solvent, Dry Cleaning SD (P-D-680) (Item 21, WP 0176 00)

References
WP 0009 00
WP 0046 00
WP 0053 00

ELECTRICAL SYSTEM

Table 1 is used to identify circuit breakers for electrical system troubleshooting.

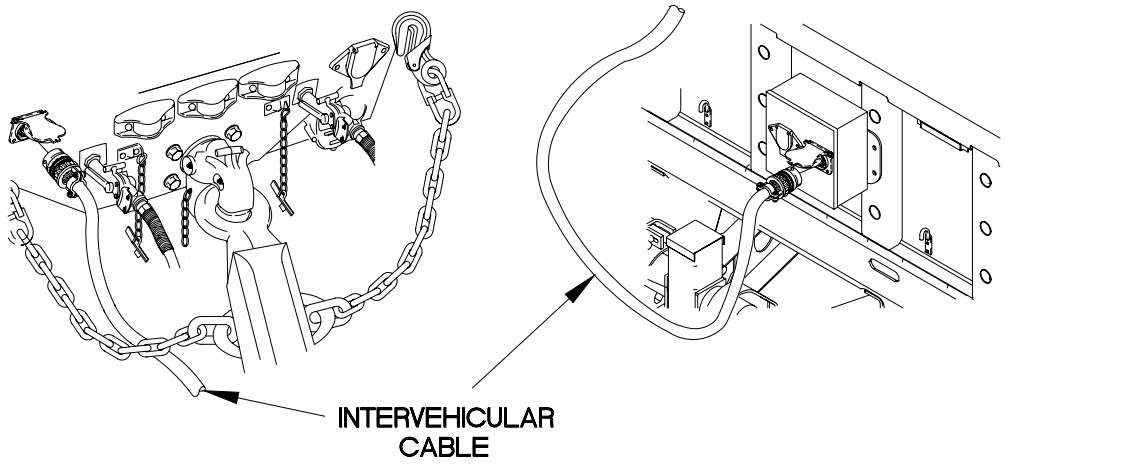
Table 1. Circuit Breaker Identification for Electrical System Troubleshooting.

REFERENCE DESIGNATOR	FUNCTION	CB AMPS	CIRCUIT VOLTAGE
CB1	ABS ECU Constant Power, Stoplights	10.0	12
CB2	Blackout Stop Lights	10.0	24
CB3	Rear Marker Feeds, Rear Clearance Light Feeds, Left Taillight	10.0	12
CB4	Right Stop Light/Turn Signal/Hazard Light	10.0	12
CB5	Left Blackout Taillight/ Turn Signal	10.0	24
CB6	Right Blackout Taillight/ Turn Signal	10.0	24
CB7	Rear Marker Feeds, Front Clearance Light Feeds, Right Taillight	10.0	12
CB8	Left Stop Light/Turn Signal/Hazard Light	10.0	12

ELECTRICAL SYSTEM - Continued

Table 2. Electrical System Troubleshooting Procedures - Continued.

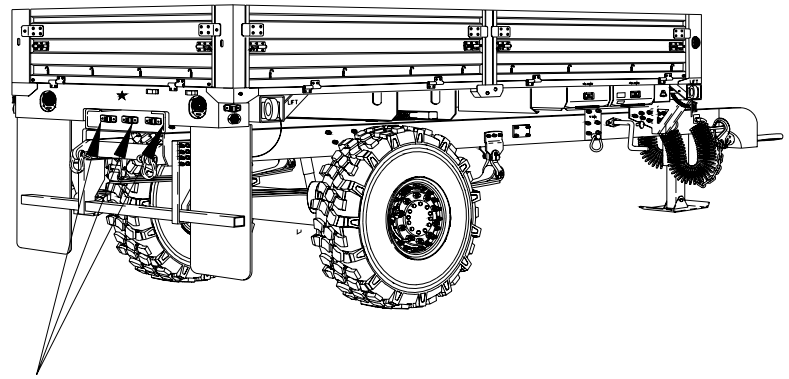
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. SIDE REAR MARKER LIGHTS DO NOT ILLUMINATE	1. Check to see if towing vehicle lights are operational.	If towing vehicle lights are not operational, notify Field Level Maintenance.
	2. Check intervehicular cable for proper and secure connections.	If intervehicular cable is not properly connected, reconnect intervehicular cable (WP 0009 00, Coupling Trailer).
	3. Check intervehicular cable for cuts, breaks, and frayed wires or damaged cable plugs.	If damage is evident, notify Field Level Maintenance.
	4. Check intervehicular cable and mating connectors for dirty, corroded, and/or damaged pins.	1. Clean pins if dirty or corroded (WP 0046 00, Table 1. General Cleaning Instructions). If pins are damaged, notify Field Level Maintenance. 2. If light(s) still fail to illuminate, notify Field Level Maintenance to continue troubleshooting.



ELECTRICAL SYSTEM - Continued

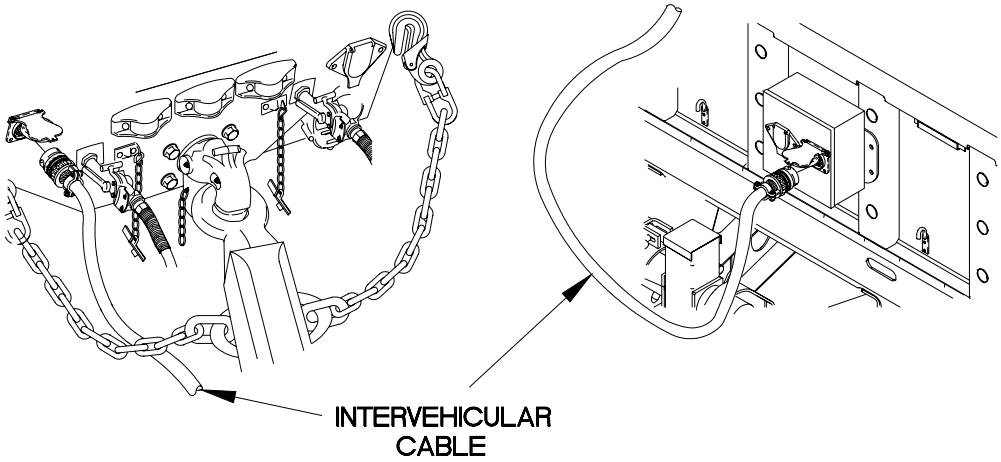
Table 2. Electrical System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. ONE OR MORE REAR MARKER LIGHTS DO NOT ILLUMINATE	1. Check to see if towing vehicle lights are operational.	If towing vehicle lights are not operational, notify Field Level Maintenance.



2800f02

	2. Check intervehicular cable for proper and secure connections.	If intervehicular cable is not properly connected, reconnect intervehicular cable (WP 0009 00, Coupling Trailer).



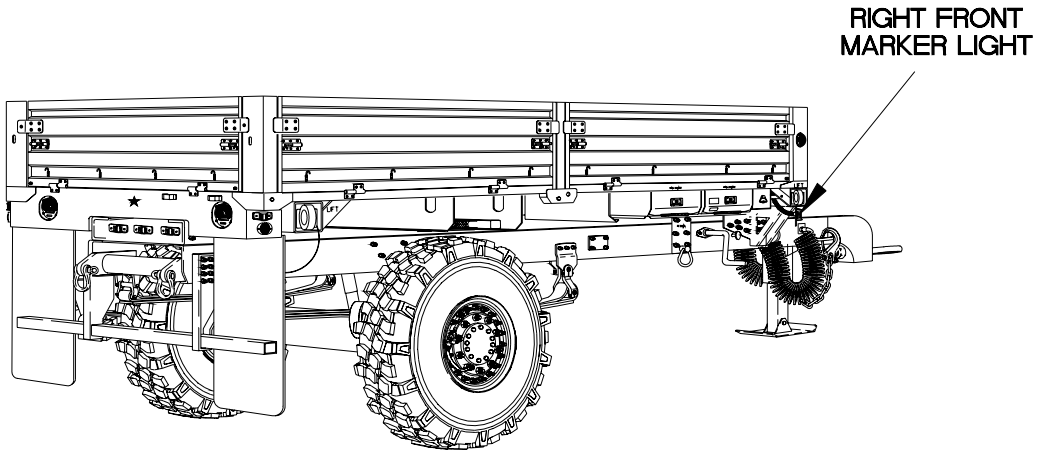
2800f03

ELECTRICAL SYSTEM TROUBLESHOOTING - Continued 0028 00

ELECTRICAL SYSTEM - Continued

Table 2. Electrical System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. ONE OR MORE REAR MARKER LIGHTS DO NOT ILLUMINATE-CONTINUED	3. Check intervehicular cable for cuts, breaks, and frayed wires or damaged cable plugs.	If damage is evident, notify Field Level Maintenance.
	4. Check intervehicular cable and mating connectors for dirty, corroded, and/or damaged pins.	1. Clean pins if dirty or corroded (WP 0046 00, Table 1. General Cleaning Instructions). If pins are damaged, notify Field Level Maintenance.
		2. If light(s) still fail to illuminate, notify Field Level Maintenance to continue troubleshooting.
3. RIGHT FRONT MARKER LIGHT DOES NOT ILLUMINATE	1. Check to see if towing vehicle lights are operational.	If towing vehicle lights are not operational, notify Field Level Maintenance.

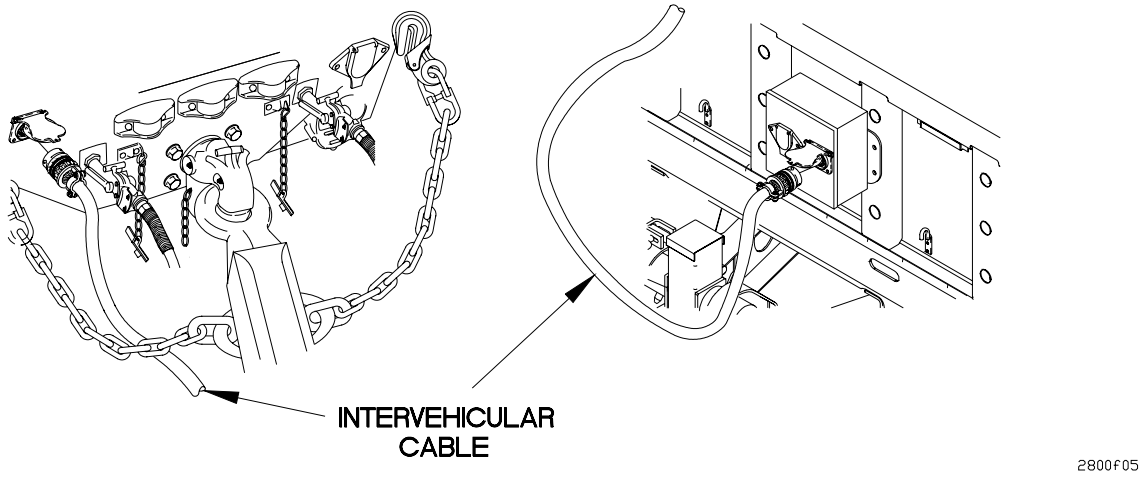


2800f04

ELECTRICAL SYSTEM - Continued

Table 2. Electrical System Troubleshooting Procedures - Continued.

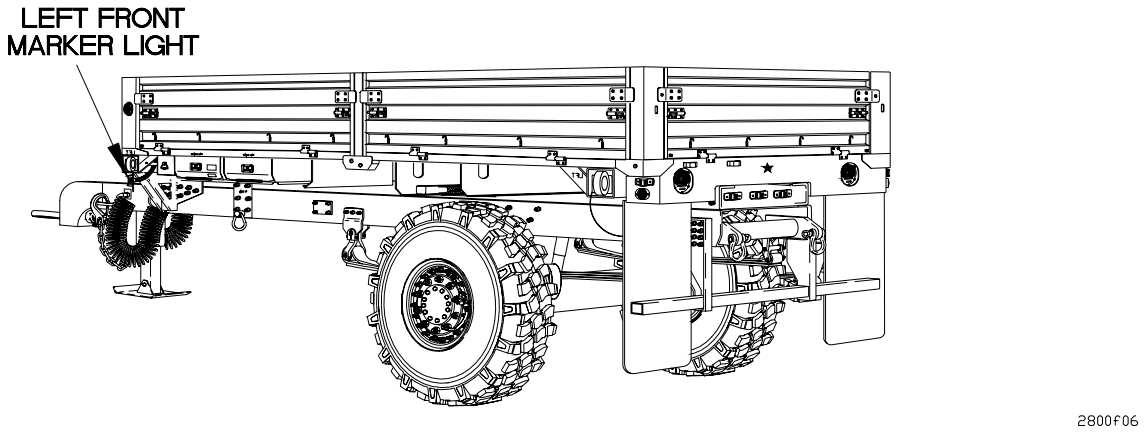
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. RIGHT FRONT MARKER LIGHT DOES NOT ILLUMINATE - CONTINUED	2. Check intervehicular cable for proper and secure connections.	If intervehicular cable is not properly connected, reconnect intervehicular cable (WP 0009 00, Coupling Trailer).
	3. Check intervehicular cable for cuts, breaks, and frayed wires or damaged cable plugs.	If damage is evident, notify Field Level Maintenance.
	4. Check intervehicular cable and mating connectors for dirty, corroded, and/or damaged pins.	1. Clean pins if dirty or corroded (WP 0046 00, Table 1. General Cleaning Instructions). If pins are damaged, notify Field Level Maintenance.



ELECTRICAL SYSTEM - Continued

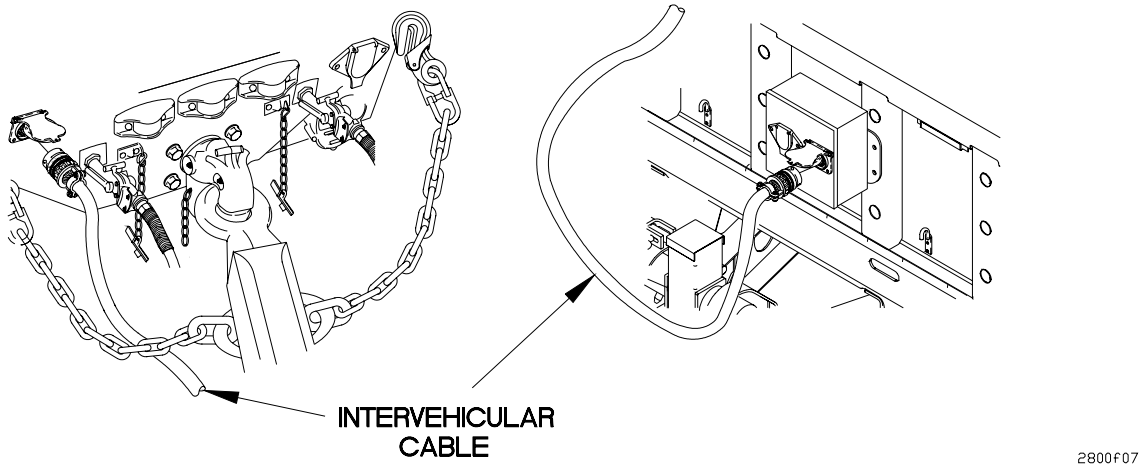
Table 2. Electrical System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. RIGHT FRONT MARKER LIGHT DOES NOT ILLUMINATE - CONTINUED		2. If light(s) still fail to illuminate, notify Field Level Maintenance.
4. LEFT FRONT MARKER LIGHT DOES NOT ILLUMINATE	1. Check to see if towing vehicle lights are operational.	If towing vehicle lights are not operational, notify Field Level Maintenance.



2800f06

	2. Check intervehicular cable for proper and secure connections.	If intervehicular cable is not properly connected, reconnect intervehicular cable (WP 0009 00, Coupling Trailer).



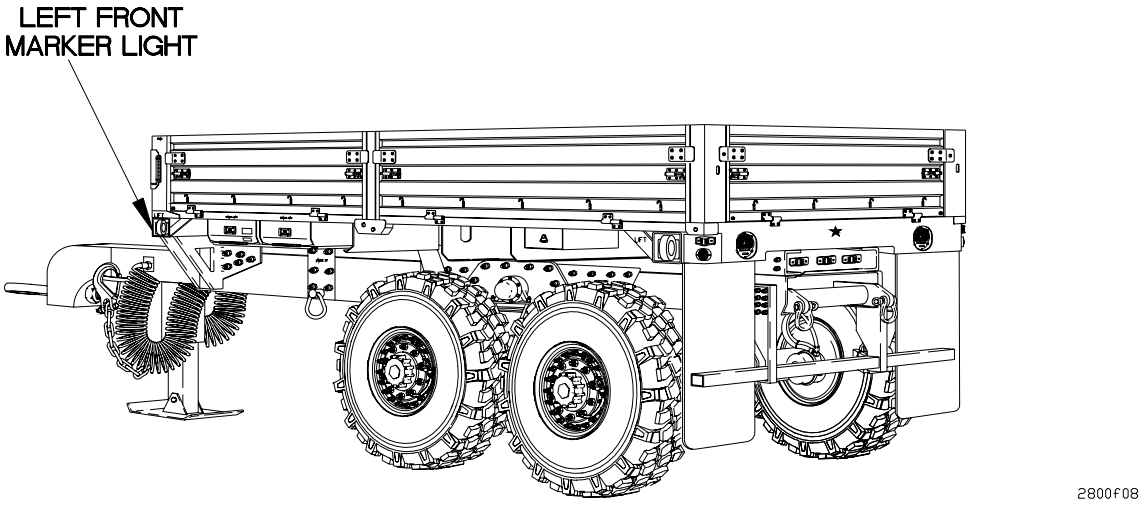
2800f07

ELECTRICAL SYSTEM TROUBLESHOOTING - Continued 0028 00

ELECTRICAL SYSTEM - Continued

Table 2. Electrical System Troubleshooting Procedures - Continued.

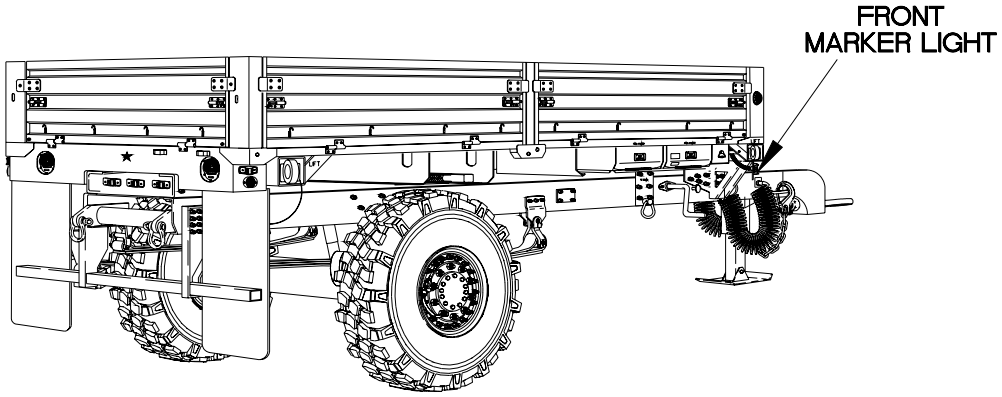
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
4. LEFT FRONT MARKER LIGHT DOES NOT ILLUMINATE - CONTINUED	3. Check intervehicular cable for cuts, breaks, and frayed wires or damaged cable plugs.	If damage is evident, notify Field Level Maintenance.
	4. Check intervehicular cable and mating connectors for dirty, corroded, and/or damaged pins.	1. Clean pins if dirty or corroded (WP 0046 00, Table 1. General Cleaning Instructions). If pins are damaged, notify Field Level Maintenance. 2. If light(s) still fail to illuminate, notify Field Level Maintenance to continue troubleshooting.



ELECTRICAL SYSTEM - Continued

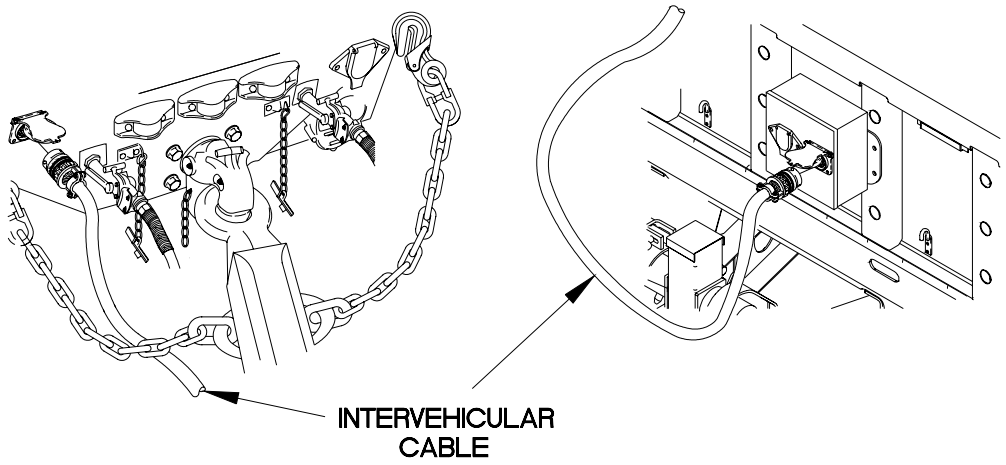
Table 2. Electrical System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
5. BOTH FRONT MARKER LIGHTS DO NOT ILLUMINATE	1. Check to see if towing vehicle lights are operational.	1. If towing vehicle lights are not operational, notify Field Level Maintenance.



2800f09

	2. Check intervehicular cable for proper and secure connections.	If intervehicular cable is not properly connected, reconnect intervehicular cable (WP 0009 00, Coupling Trailer).

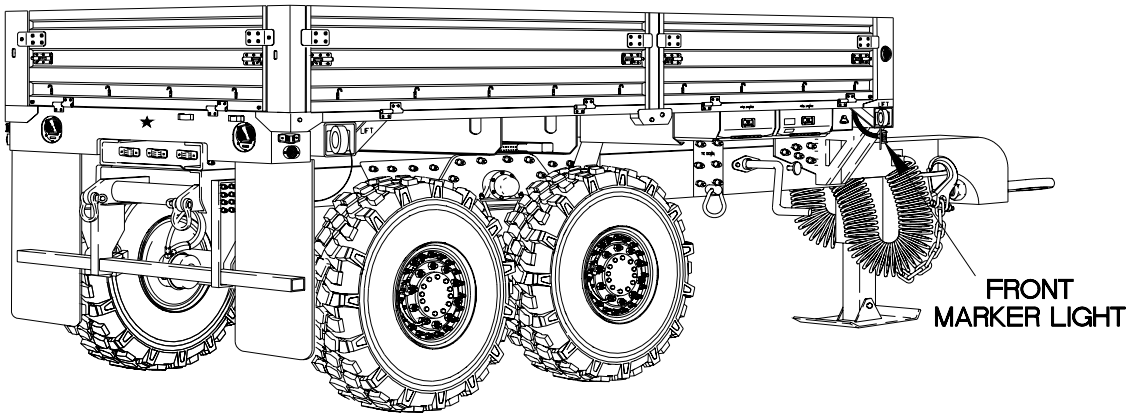


2800f10

ELECTRICAL SYSTEM - Continued

Table 2. Electrical System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
5. BOTH FRONT MARKER LIGHTS DO NOT ILLUMINATE - CONTINUED	3. Check intervehicular cable for cuts, breaks, and frayed wires or damaged cable plugs.	If damage is evident, notify Field Level Maintenance.
	4. Check intervehicular cable and mating connectors for dirty, corroded, and/or damaged pins.	1. Clean pins if dirty or corroded (WP 0046 00, Table 1. General Cleaning Instructions). If pins are damaged, notify Field Level Maintenance.
		2. If light(s) still fail to illuminate, notify Field Level Maintenance to continue troubleshooting.

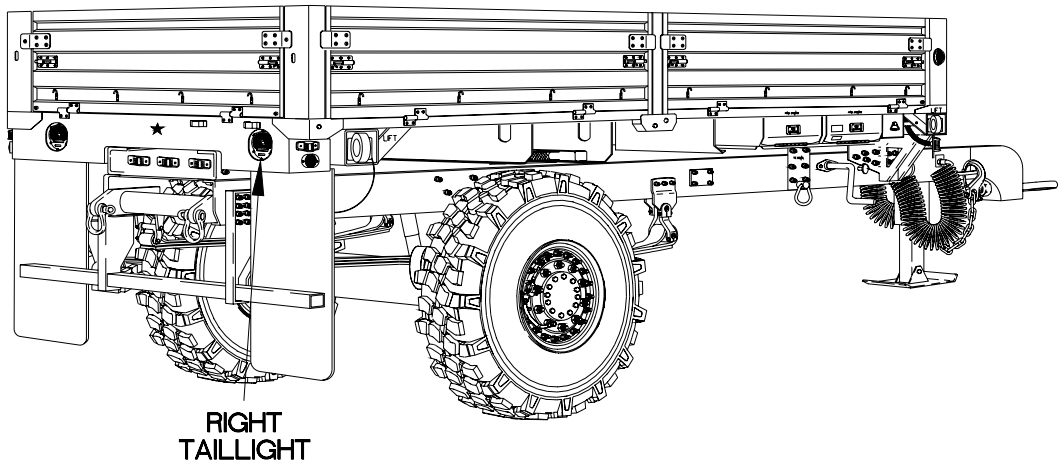


2800f11

ELECTRICAL SYSTEM - Continued

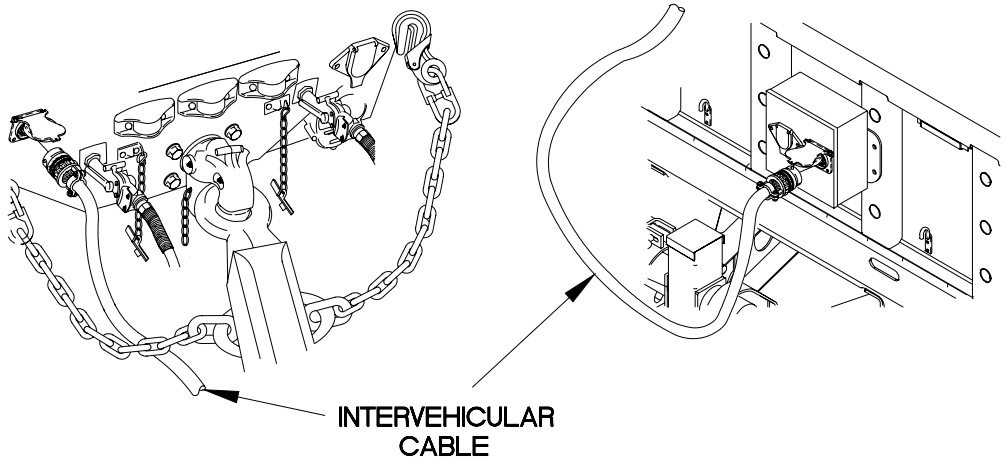
Table 2. Electrical System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
6. RIGHT TAILLIGHT DOES NOT ILLUMINATE	1. Check to see if towing vehicle lights are operational.	If towing vehicle lights are not operational, notify Field Level Maintenance.



2800f12

	2. Check intervehicular cable for proper and secure connections.	If intervehicular cable is not properly connected, reconnect intervehicular cable (WP 0009 00, Coupling Trailer).



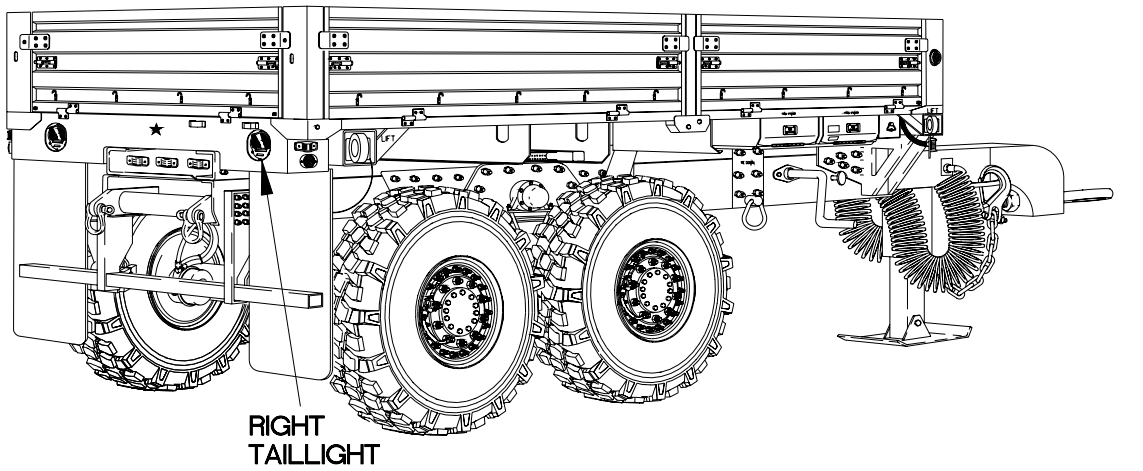
2800f13

ELECTRICAL SYSTEM TROUBLESHOOTING - Continued 0028 00

ELECTRICAL SYSTEM - Continued

Table 2. Electrical System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
6. RIGHT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	3. Check intervehicular cable for cuts, breaks, and frayed wires or damaged cable plugs.	If damage is evident, notify Field Level Maintenance.
	4. Check intervehicular cable and mating connectors for dirty, corroded, and/or damaged pins.	1. Clean pins if dirty or corroded (WP 0046 00, Table 1. General Cleaning Instructions). If pins are damaged, notify Field Level Maintenance.
		2. If light(s) still fail to illuminate, notify Field Level Maintenance to continue troubleshooting.

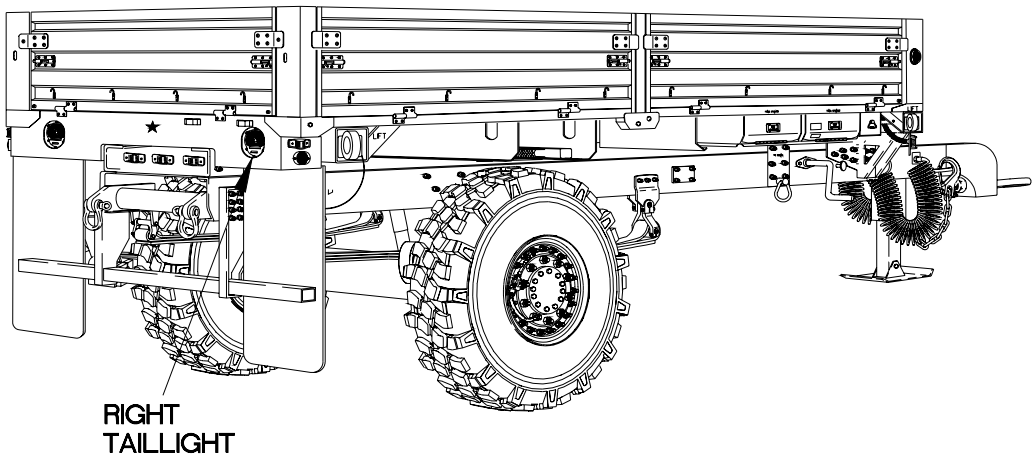


2800f14

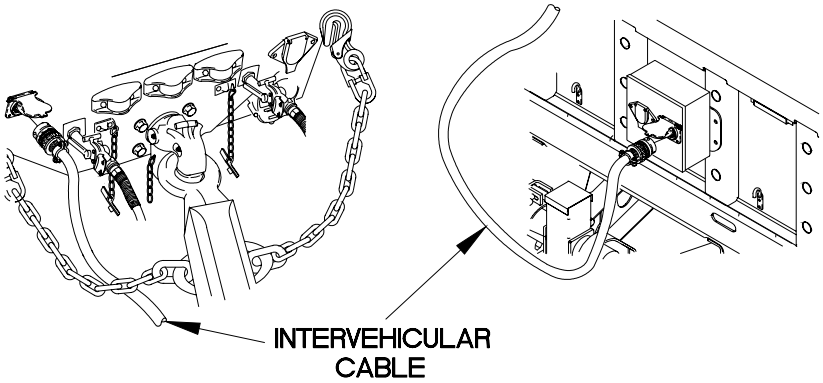
ELECTRICAL SYSTEM - Continued

Table 2. Electrical System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
7. RIGHT STOPLIGHT DOES NOT ILLUMINATE	1. Check to see if towing vehicle lights are operational.	If towing vehicle lights are not operational, notify Field Level Maintenance.
	2. Check intervehicular cable for proper and secure connections.	If intervehicular cable is not properly connected, reconnect intervehicular cable (WP 0009 00, Coupling Trailer).
	3. Check intervehicular cable for cuts, breaks, and frayed wires or damaged cable plugs.	If damage is evident, notify Field Level Maintenance.



2800f15



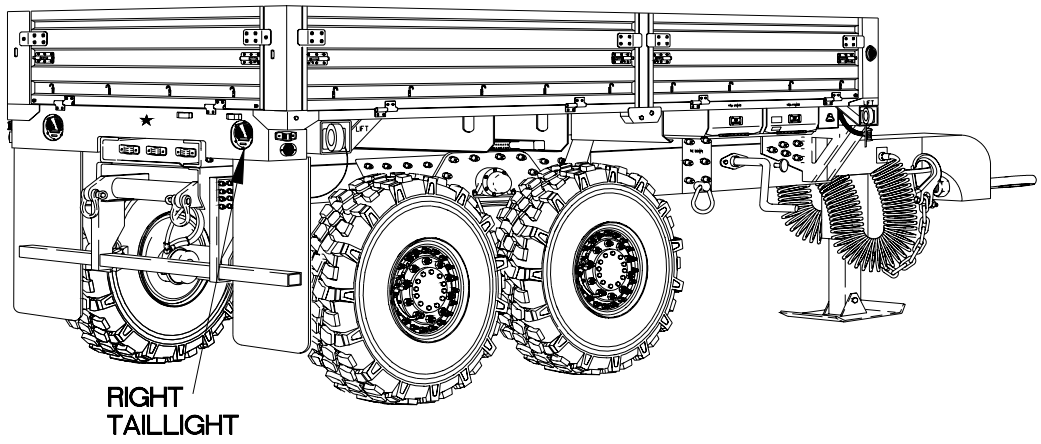
2800f16

ELECTRICAL SYSTEM TROUBLESHOOTING - Continued 0028 00

ELECTRICAL SYSTEM - Continued

Table 2. Electrical System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
7. RIGHT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED	4. Check intervehicular cable and mating connectors for dirty, corroded, and/or damaged pins.	1. Clean pins if dirty or corroded (WP 0046 00, Table 1. General Cleaning Instructions). If pins are damaged, notify Field Level Maintenance. 2. If light(s) still fail to illuminate, notify Field Level Maintenance to continue troubleshooting.

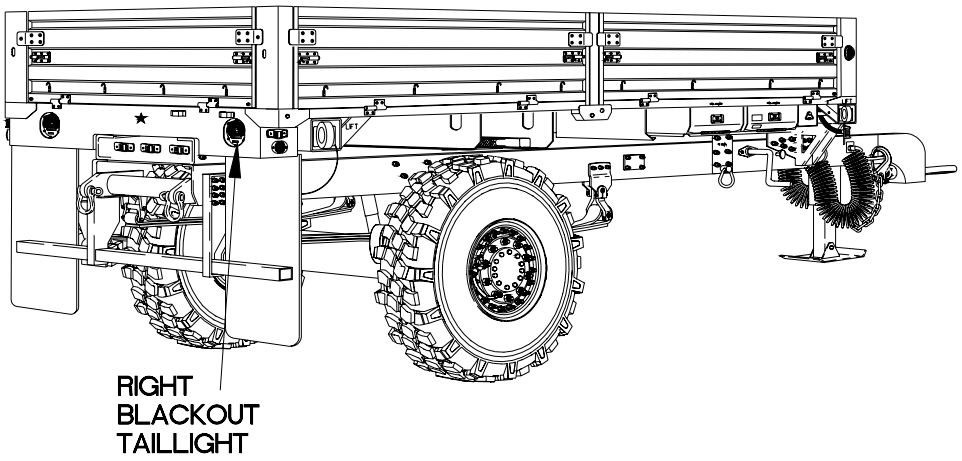


2800f17

ELECTRICAL SYSTEM - Continued

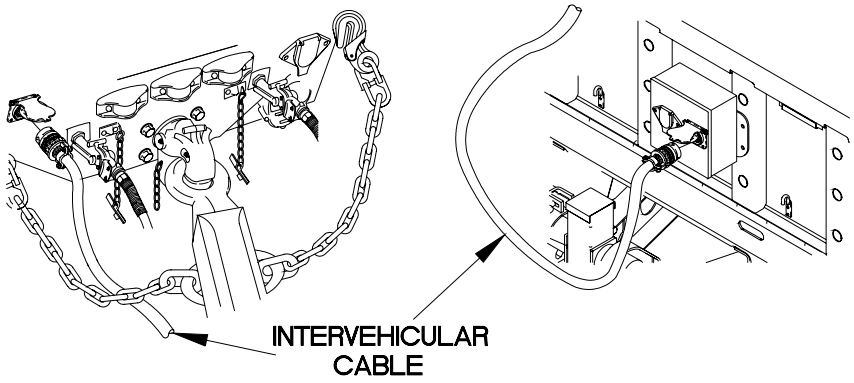
Table 2. Electrical System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
8. RIGHT BLACKOUT TAILLIGHT DOES NOT ILLUMINATE	1. Check to see if towing vehicle lights are operational.	If towing vehicle lights are not operational, notify Field Level Maintenance.



2800f18

	2. Check intervehicular cable for proper and secure connections.	If intervehicular cable is not properly connected, reconnect intervehicular cable (WP 0009 00, Coupling Trailer).



2800f19

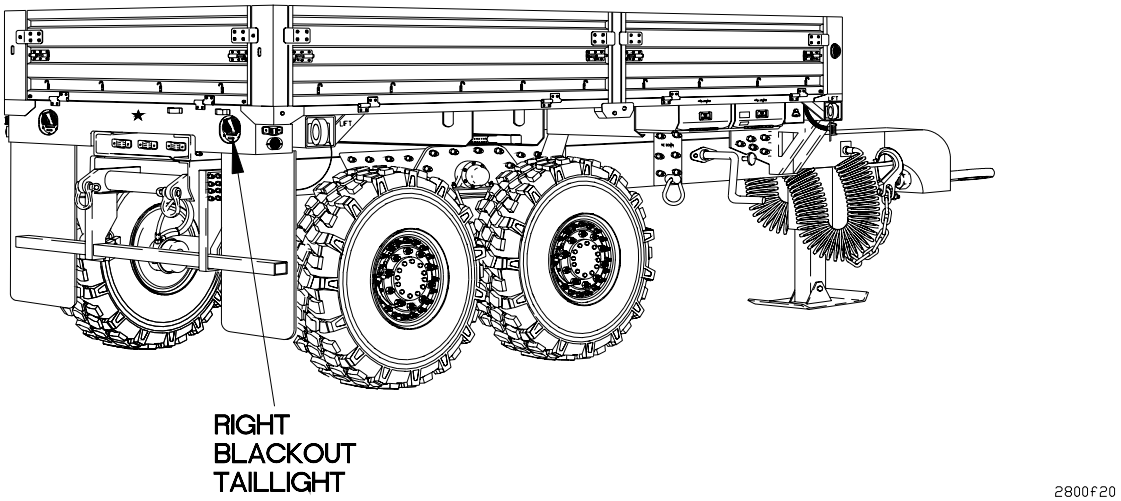
	3. Check intervehicular cable for cuts, breaks, and frayed wires or damaged cable plugs.	If damage is evident, notify Field Level Maintenance.

ELECTRICAL SYSTEM TROUBLESHOOTING - Continued 0028 00

ELECTRICAL SYSTEM - Continued

Table 2. Electrical System Troubleshooting Procedures - Continued.

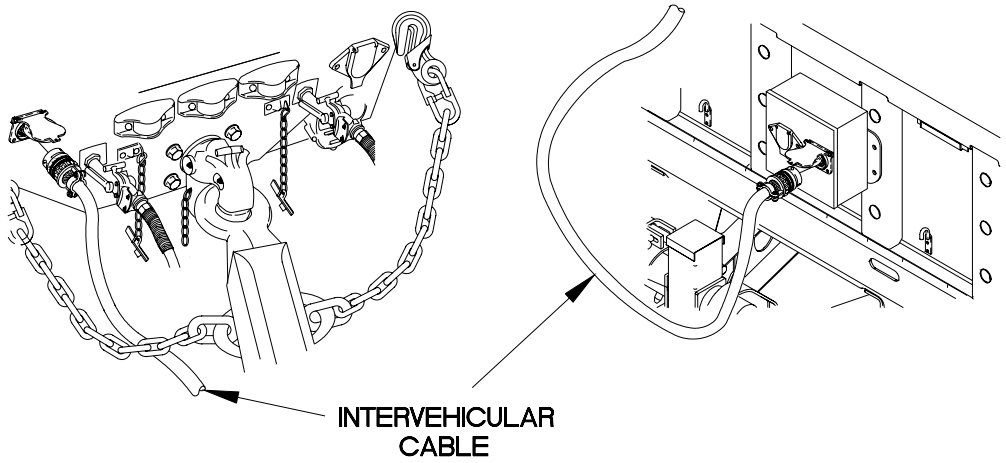
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
8. RIGHT BLACKOUT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	4. Check intervehicular cable and mating connectors for dirty, corroded, and/or damaged pins.	1. Clean pins if dirty or corroded (WP 0046 00, Table 1. General Cleaning Instructions). If pins are damaged, notify Field Level Maintenance.
		2. If light(s) still fail to illuminate, notify Field Level Maintenance to continue troubleshooting.



ELECTRICAL SYSTEM - Continued

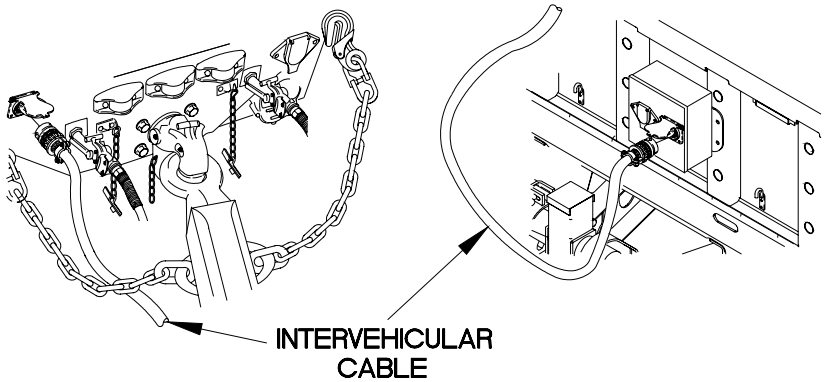
Table 2. Electrical System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
9. RIGHT BLACKOUT STOPLIGHT DOES NOT ILLUMINATE	1. Check to see if towing vehicle lights are operational.	If towing vehicle lights are not operational, notify Field Level Maintenance.



2800f01

	2. Check intervehicular cable for proper and secure connections.	If intervehicular cable is not properly connected, reconnect intervehicular cable (WP 0009 00, Coupling Trailer).



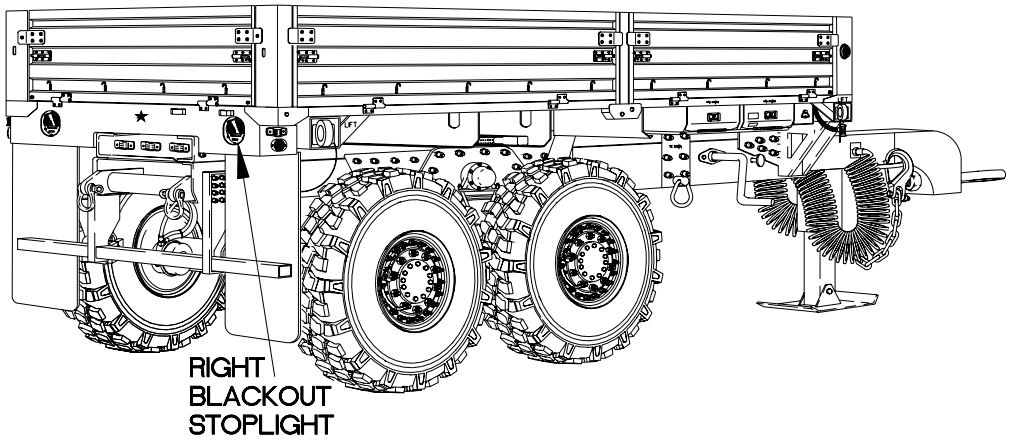
2800f22

	3. Check intervehicular cable for cuts, breaks, and frayed wires or damaged cable plugs.	If damage is evident, notify Field Level Maintenance.

ELECTRICAL SYSTEM - Continued

Table 2. Electrical System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
9. RIGHT BLACKOUT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED	4. Check intervehicular cable and mating connectors for dirty, corroded, and/or damaged pins.	1. Clean pins if dirty or corroded (WP 0046 00, Table 1. General Cleaning Instructions). If pins are damaged, notify Field Level Maintenance.
		2. If light(s) still fail to illuminate, notify Field Level Maintenance to continue troubleshooting.

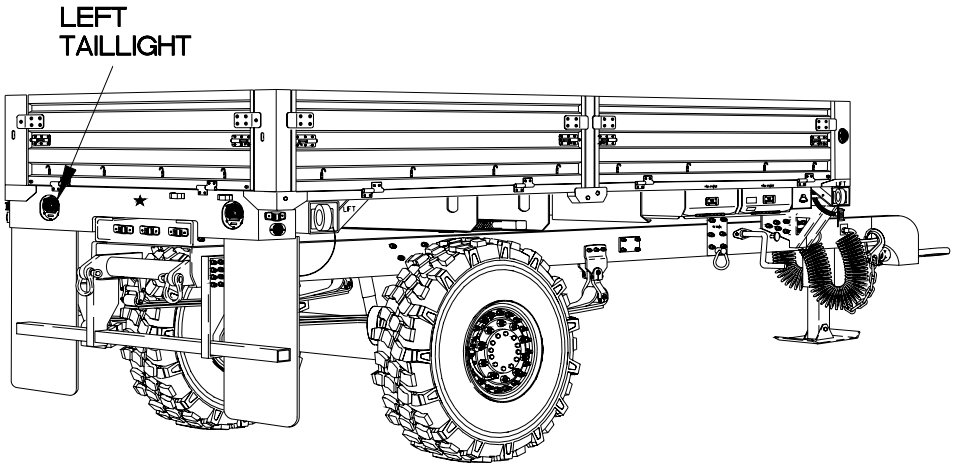


2800f23

ELECTRICAL SYSTEM - Continued

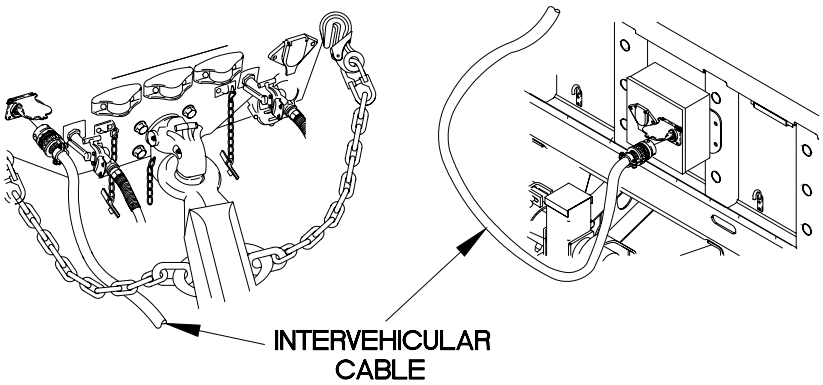
Table 2. Electrical System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
10. LEFT TAILLIGHT DOES NOT ILLUMINATE	1. Check to see if towing vehicle lights are operational.	If towing vehicle lights are not operational, notify Field Level Maintenance.



2800f24

	2. Check intervehicular cable for proper and secure connections.	If intervehicular cable is not properly connected, reconnect intervehicular cable (WP 0009 00, Coupling Trailer).



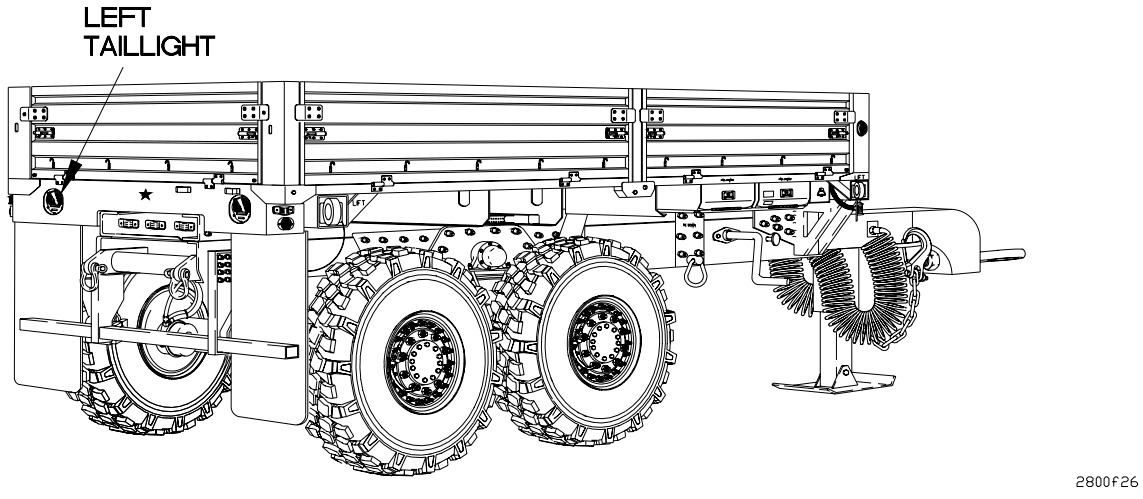
2800f25

	3. Check intervehicular cable for cuts, breaks, and frayed wires or damaged cable plugs.	If damage is evident, notify Field Level Maintenance.

ELECTRICAL SYSTEM - Continued

Table 2. Electrical System Troubleshooting Procedures - Continued.

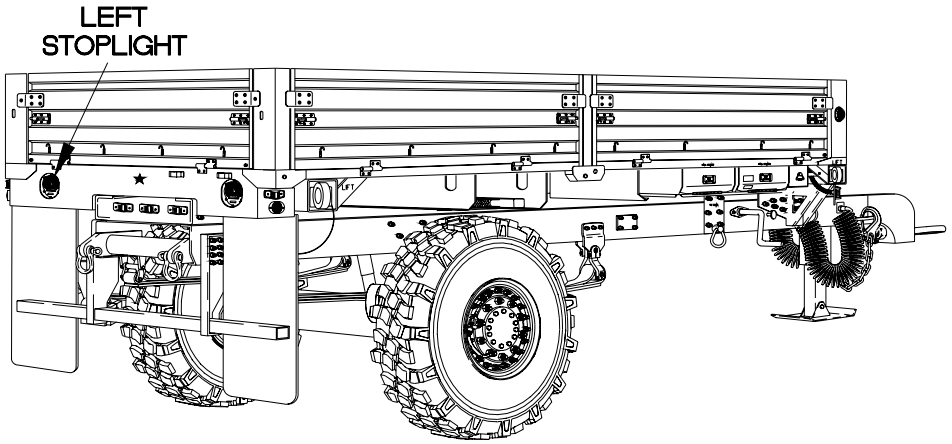
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
10. LEFT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	4. Check intervehicular cable and mating connectors for dirty, corroded, and/or damaged pins.	1. Clean pins if dirty or corroded (WP 0046 00, Table 1. General Cleaning Instructions). If pins are damaged, notify Field Level Maintenance.
		2. If light(s) still fail to illuminate, notify Field Level Maintenance to continue troubleshooting.



ELECTRICAL SYSTEM - Continued

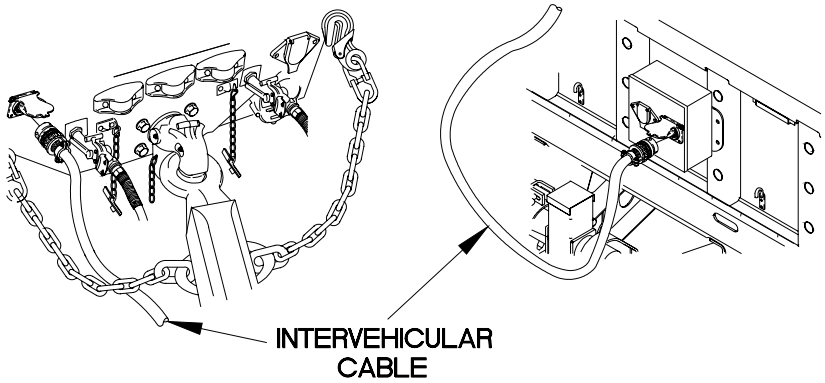
Table 2. Electrical System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
11. LEFT STOPLIGHT DOES NOT ILLUMINATE	1. Check to see if towing vehicle lights are operational.	If towing vehicle lights are not operational, notify Field Level Maintenance.



2800f27

	2. Check intervehicular cable for proper and secure connections.	If intervehicular cable is not properly connected, reconnect intervehicular cable (WP 0009 00, Coupling Trailer).



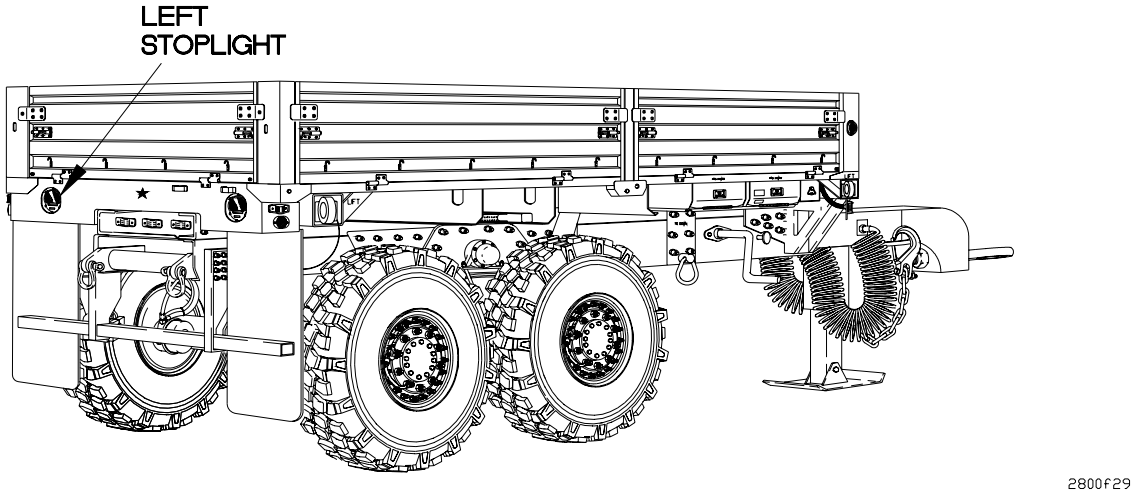
2800f28

	3. Check intervehicular cable for cuts, breaks, and frayed wires or damaged cable plugs.	If damage is evident, notify Field Level Maintenance.

ELECTRICAL SYSTEM - Continued

Table 2. Electrical System Troubleshooting Procedures - Continued.

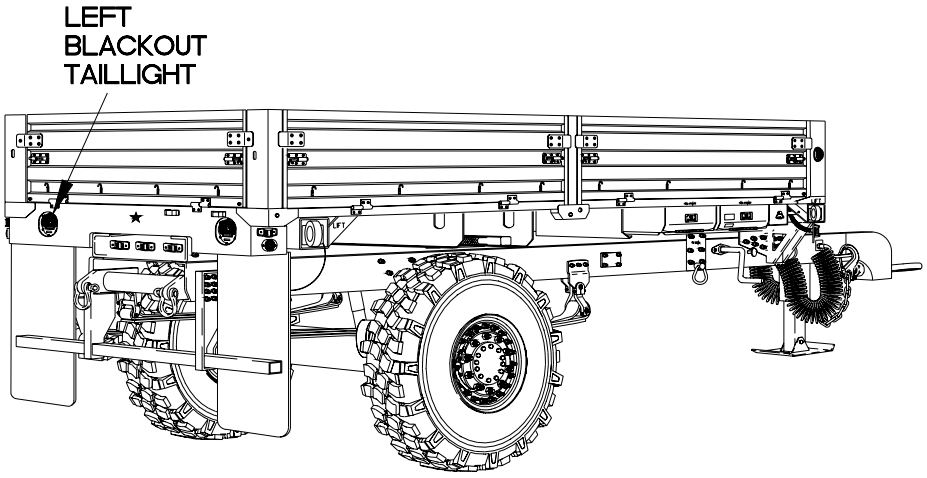
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
11. LEFT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED	4. Check intervehicular cable and mating connectors for dirty, corroded, and/or damaged pins.	1. Clean pins if dirty or corroded (WP 0046 00, Table 1. General Cleaning Instructions). If pins are damaged, notify Field Level Maintenance.
		2. If light(s) still fail to illuminate, notify Field Level Maintenance to continue troubleshooting.



ELECTRICAL SYSTEM - Continued

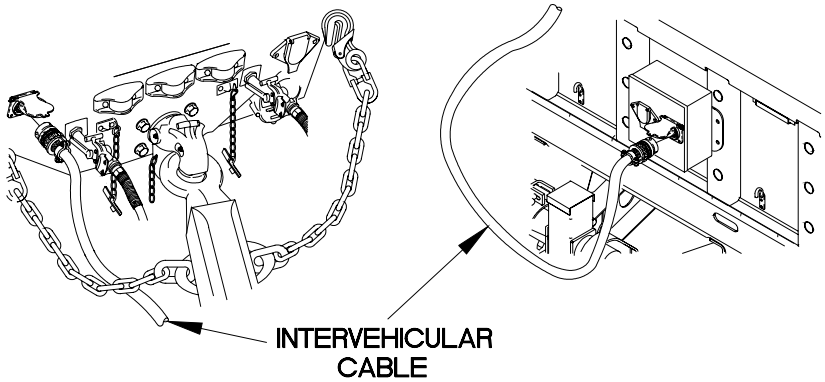
Table 2. Electrical System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
12. LEFT BLACKOUT TAILLIGHT DOES NOT ILLUMINATE	1. Check to see if towing vehicle lights are operational.	If towing vehicle lights are not operational, notify Field Level Maintenance.



2800f30

	2. Check intervehicular cable for proper and secure connections.	If intervehicular cable is not properly connected, reconnect intervehicular cable (WP 0009 00, Coupling Trailer).



2800f31

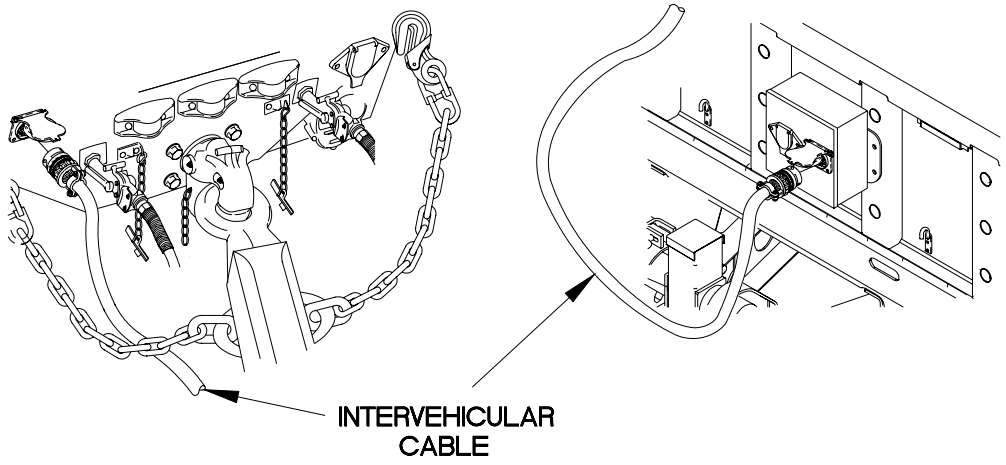
	3. Check intervehicular cable for cuts, breaks, and frayed wires or damaged cable plugs.	If damage is evident, notify Field Level Maintenance.

ELECTRICAL SYSTEM TROUBLESHOOTING - Continued 0028 00

ELECTRICAL SYSTEM - Continued

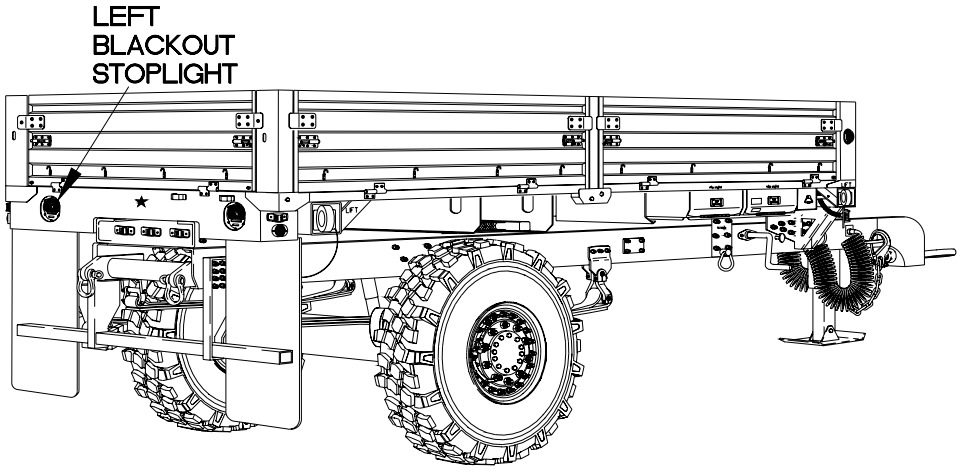
Table 2. Electrical System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
12. LEFT BLACKOUT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	4. Check intervehicular cable and mating connectors for dirty, corroded, and/or damaged pins.	Clean pins if dirty or corroded (WP 0046 00, Table 1. General Cleaning Instructions). If pins are damaged, notify Field Level Maintenance.



2800f01

13. LEFT BLACKOUT STOPLIGHT DOES NOT ILLUMINATE	1. Check to see if towing vehicle lights are operational.	If towing vehicle lights are not operational, notify Field Level Maintenance.



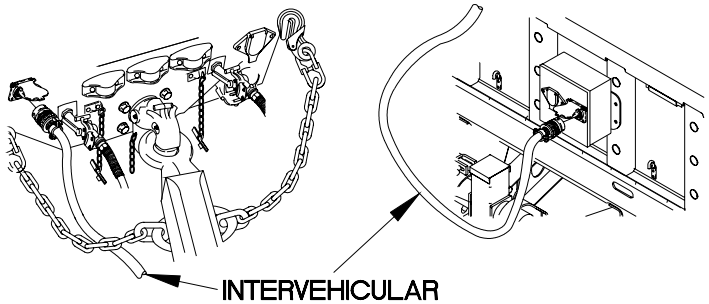
2800f33

ELECTRICAL SYSTEM TROUBLESHOOTING - Continued 0028 00

ELECTRICAL SYSTEM - Continued

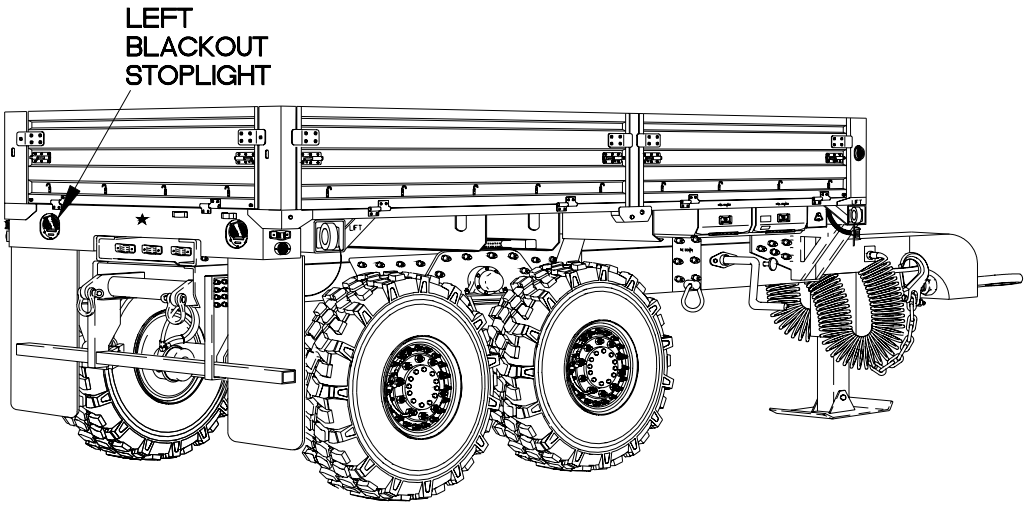
Table 2. Electrical System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
13. LEFT BLACKOUT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED	2. Check intervehicular cable for proper and secure connections.	If intervehicular cable is not properly connected, reconnect intervehicular cable (WP 0009 00, Coupling Trailer).



2800f34

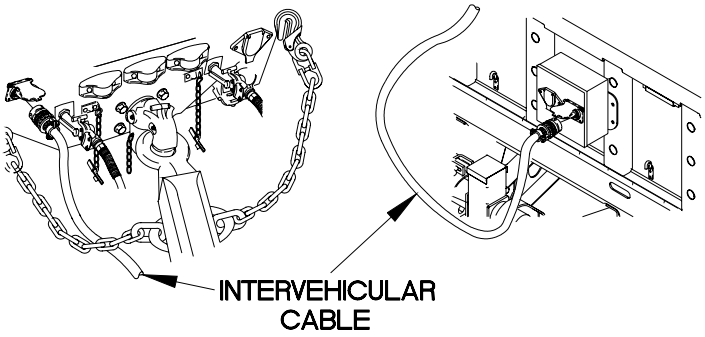
	3. Check intervehicular cable for cuts, breaks, and frayed wires or damaged cable plugs.	If damage is evident, notify Field Level Maintenance.
	4. Check intervehicular cable and mating connectors for dirty, corroded, and/or damaged pins.	Clean pins if dirty or corroded (WP 0046 00, Table 1. General Cleaning Instructions). If pins are damaged, notify Field Level Maintenance.



2800f35

ELECTRICAL SYSTEM - Continued

Table 2. Electrical System Troubleshooting Procedures - Continued.

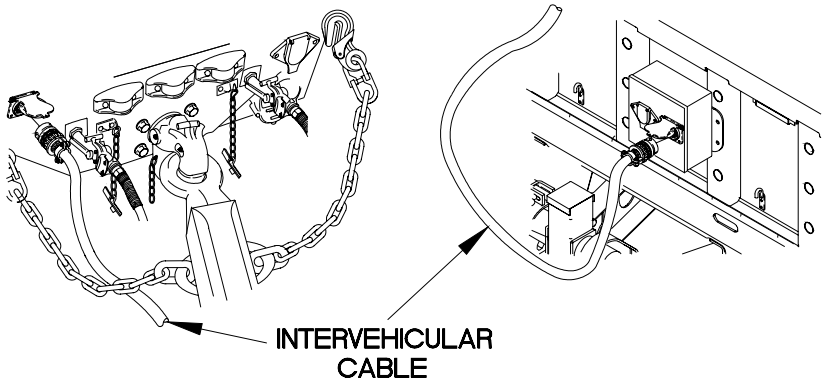
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
14. ALL REAR LIGHTS DO NOT ILLUMINATE	1. Check to see if towing vehicle lights are operational.	If towing vehicle lights are not operational, notify Field Level Maintenance.
	2. Check intervehicular cable for proper and secure connections.	If intervehicular cable is not properly connected, reconnect intervehicular cable (WP 0009 00, Coupling Trailer).
	 2800f36	
	3. Check intervehicular cable for cuts, breaks, and frayed wires or damaged cable plugs.	If damage is evident, notify Field Level Maintenance.
	4. Check intervehicular cable and mating connectors for dirty, corroded, and/or damaged pins.	Clean pins if dirty or corroded (WP 0046 00, Table 1. General Cleaning Instructions). If pins are damaged, notify Field Level Maintenance.

ELECTRICAL SYSTEM TROUBLESHOOTING - Continued 0028 00

ELECTRICAL SYSTEM - Continued

Table 2. Electrical System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
15. ALL LIGHTS DO NOT ILLUMINATE	1. Check to see if towing vehicle lights are operational.	1. If towing vehicle lights are not operational, notify Field Level Maintenance.
	2. Check intervehicular cable for proper and secure connections.	If intervehicular cable is not properly connected, reconnect intervehicular cable (WP 0009 00, Coupling Trailer).
	3. Check intervehicular cable for cuts, breaks, and frayed wires or damaged cable plugs.	If damage is evident, notify Field Level Maintenance.
	4. Check intervehicular cable and mating connectors for dirty, corroded, and/or damaged pins.	Clean pins if dirty or corroded (WP 0046 00, Table 1. General Cleaning Instructions). If pins are damaged, notify Field Level Maintenance.



END OF WORK PACKAGE

BRAKE SYSTEM TROUBLESHOOTING 0029 00

THIS WORK PACKAGE COVERS:
Brake System

INITIAL SETUP:

Maintenance Level
Operator

References
WP 0044 00
Towing vehicle Operator manual

Equipment Conditions
Trailer coupled (WP 0009 00).

BRAKE SYSTEM

Table 1. Brake System Troubleshooting Procedures.

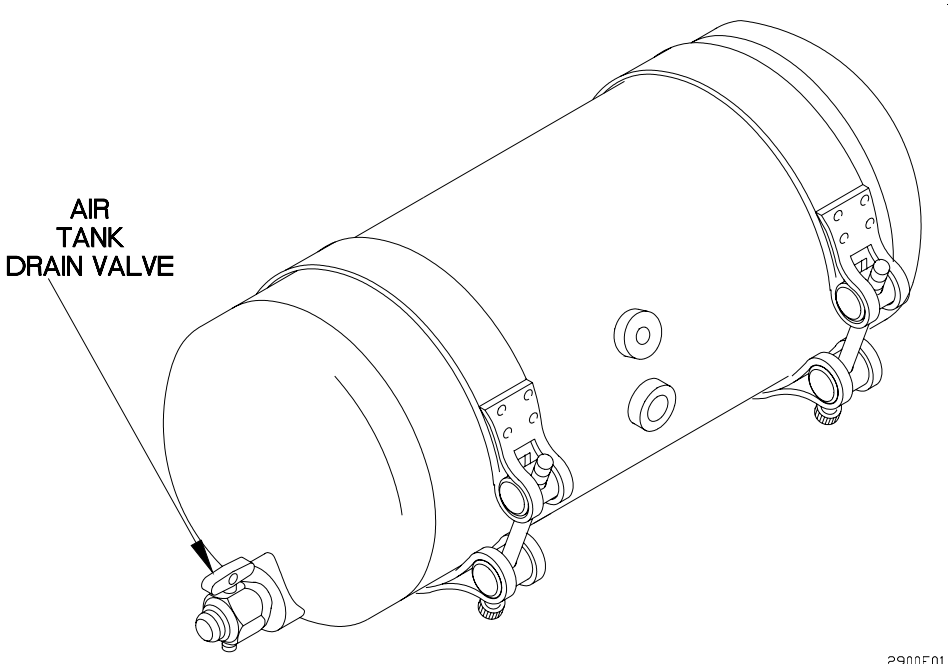
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. SERVICE BRAKES DO NOT APPLY	1. Check air pressure of towing vehicle.	1. Start towing vehicle engine. 2. Allow engine to idle until 120 psi is registered on FRONT BRAKE AIR and REAR BRAKE AIR pressure gages. 3. Shut down engine. 4. If either FRONT BRAKE AIR or REAR BRAKE AIR pressure gages do not register 120 psi, notify Field Level Maintenance to continue troubleshooting.

BRAKE SYSTEM TROUBLESHOOTING 0029 00

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. SERVICE BRAKES DO NOT APPLY - CONTINUED	2. Check to see if air tank drain valve is open.	Close air tank drain valve, if open.

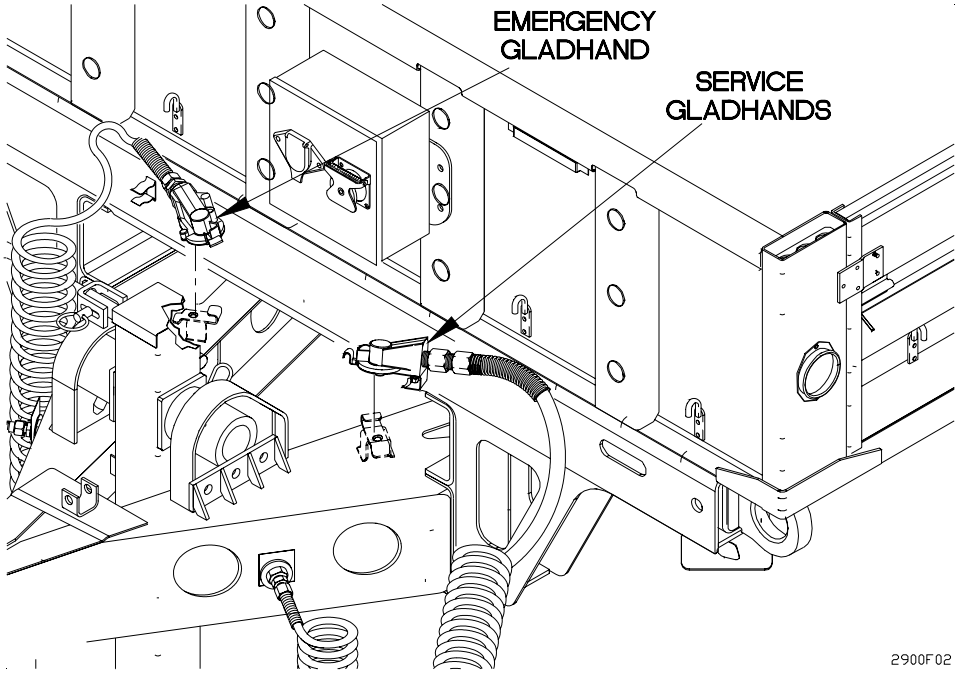


BRAKE SYSTEM TROUBLESHOOTING 0029 00

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

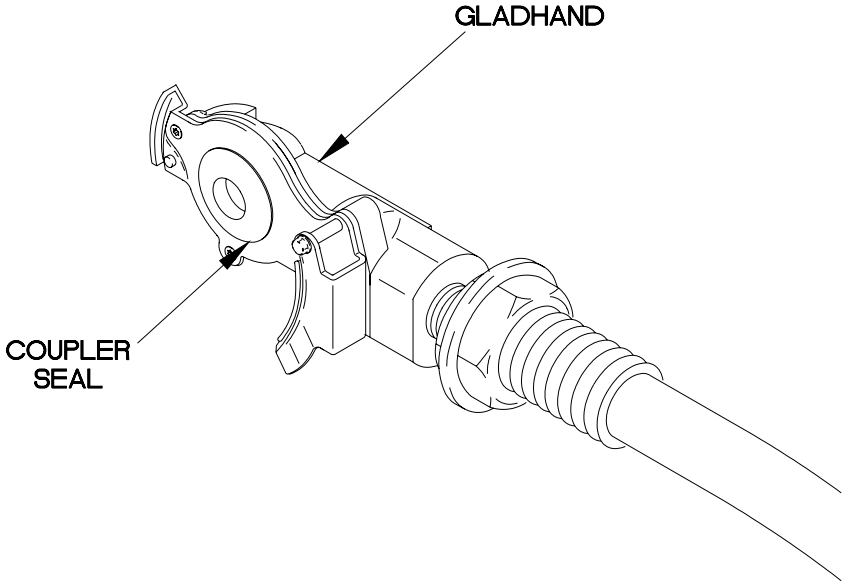
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. SERVICE BRAKES DO NOT APPLY - CONTINUED	3. Check air hose connections between towing vehicle and trailer.	If air hoses are not properly connected (Service to Service and Emergency to Emergency), reconnect properly.



BRAKE SYSTEM TROUBLESHOOTING 0029 00

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. SERVICE BRAKES DO NOT APPLY - CONTINUED	4. Check for missing or damaged coupler seal on gladhand.	If coupler seal is damaged or missing, notify Field Level Maintenance.
		
	5. Inspect air brake hoses and connections for leaks.	1. If air brake hoses or connections are leaking, notify Field Level Maintenance. 2. If service brakes still do not apply, notify Field Level Maintenance to continue troubleshooting.
2. PARKING BRAKES WILL NOT RELEASE	1. Check air pressure of towing vehicle.	1. Start towing vehicle engine. 2. Allow engine to idle until 120 psi is registered on FRONT BRAKE AIR and REAR BRAKE AIR pressure gages. 3. Shut down engine.

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. PARKING BRAKES WILL NOT RELEASE - CONTINUED		4. If either FRONT BRAKE AIR or REAR BRAKE AIR pressure gages do not register 120 psi, notify Field Level Maintenance to continue troubleshooting.
	2. Check to see if air tank drain valve is open.	Close air tank drain valve, if open.
	3. Check air hose connections between towing vehicle and trailer.	If air hoses are not properly connected (Service to Service and Emergency to Emergency), reconnect properly.
	4. Check for missing or damaged coupler seal on gladhand.	If coupler seal is damaged or missing, notify Field Level Maintenance.
	5. Inspect air brake hoses and connections for leaks.	1. If air brake hoses or connections are leaking, notify Field Level Maintenance.
		2. If parking brake(s) still will not release, notify Field Level Maintenance to continue troubleshooting.
3. BRAKES OVERHEAT	1. Check tires for proper inflation and damage (WP 0044 00, Checking Tire Pressures).	1. If tires are improperly inflated, adjust tire pressure (WP 0044 00, Manually Inflating Tires).
		2. If tires are damaged, notify Field Level Maintenance.
		3. If brakes still overheat, notify Field Level Maintenance to continue troubleshooting.
4. TRAILER BRAKES UNEVENLY, BRAKES PULL TO ONE SIDE OR GRAB	1. Check to see if TRAILER AIR SUPPLY knob on the towing vehicle is engaged.	If TRAILER AIR SUPPLY knob is not engaged, do so.
	2. Check to see if air tank drain valve is open or leaking.	Close air tank drain valve, if open. If air tank drain valve is leaking, notify Field Level Maintenance.

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
4. TRAILER BRAKES UNEVENLY, BRAKES PULL TO ONE SIDE OR GRAB - CONTINUED	3. Check air hose connections between towing vehicle and trailer.	1. If air hoses are not properly connected (Service to Service and Emergency to Emergency), reconnect air hoses.
	4. Inspect air brake hoses and connections for leaks.	1. If air brake hoses or connections are leaking, notify Field Level Maintenance.
	.	2. If trailer brakes continue to brake unevenly, pull to one side or grab, notify Field Level Maintenance.
5. PARKING BRAKES DO NOT APPLY	1. Check towing vehicle front and rear air pressure gages for 75-120 psi.	1. If air pressure is below 75 psi, notify Field Level Maintenance. If parking brakes still do not apply, notify Field Level Maintenance.

END OF WORK PACKAGE

AIR SYSTEM TROUBLESHOOTING 0030 00

THIS WORK PACKAGE COVERS:
Air System Troubleshooting

INITIAL SETUP:

Maintenance Level
Operator

Equipment Conditions
Trailer coupled (WP 0009 00).

AIR SYSTEM

Table 1. Air System Troubleshooting Procedures.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. AIR SYSTEM LOSES PRESSURE DURING OPERATION/SLOW AIR PRESSURE BUILDUP		Notify Field Level Maintenance to continue troubleshooting.
2. LARGE QUANTITY OF MOISTURE EXPELLED FROM AIR TANK		Notify Field Level Maintenance to continue troubleshooting.
3. NO AIR PRESSURE/LOW AIR PRESSURE PRESENT AT GLADHANDS		Notify Field Level Maintenance to continue troubleshooting.

END OF WORK PACKAGE

WHEELS, TIRES, AND HUBS TROUBLESHOOTING 0031 00

THIS WORK PACKAGE COVERS:
Wheels, Tires, and Hubs Troubleshooting

INITIAL SETUP:

Maintenance Level
Operator

References
WP 0044 00

Tools and Special Tools
Inflator-Gage, Tire w/Hose (Item 12, WP 0178 00)

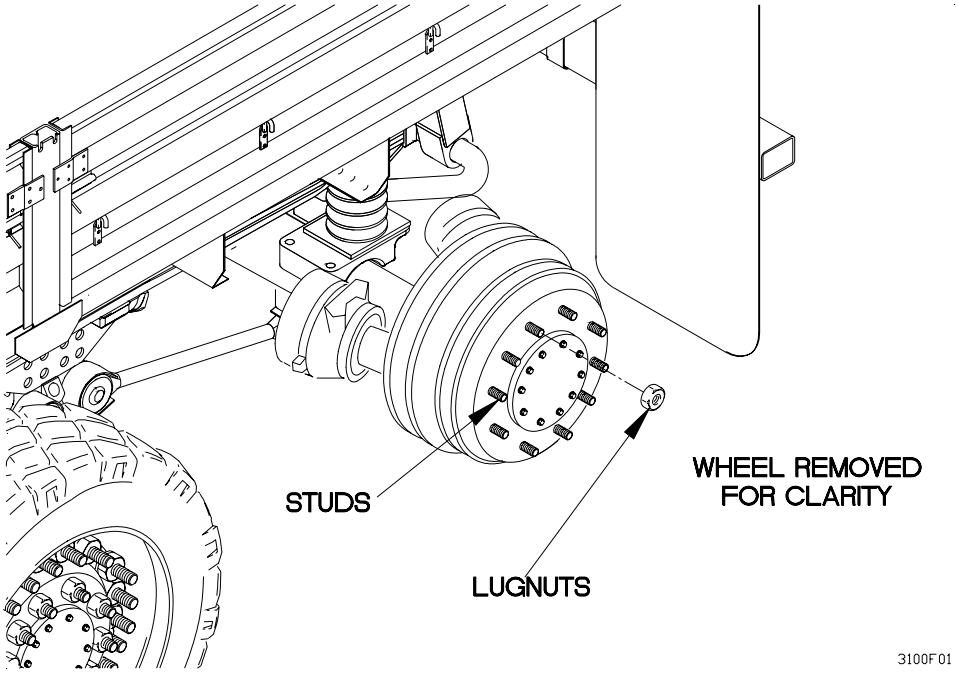
WHEELS, TIRES, AND HUBS

Table 1. Wheels, Tires, and Hubs Troubleshooting Procedures.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
WARNING **Notify Field Level Maintenance that lugnuts need to be tightened to 415-475 lb-ft (563-644 N·m) as soon as possible. Wheel may come loose if lugnuts are not tightened to proper torque. Failure to comply may result in serious injury or death to personnel.**		
1. WHEEL WOBBLES OR SHIMMIES	1. Check for cracked, bent, or broken wheels.	If wheel is cracked or broken, replace with spare tire from towing vehicle and notify Field Level Maintenance that a replacement wheel/tire assembly is needed.
	2. Check for bent or broken studs and missing lugnuts.	Notify Field Level Maintenance if two or more lugnuts or studs on the same wheel are missing, broken, or bent.

WHEELS, TIRES, AND HUBS - Continued

Table 1. Wheels, Tires, and Hubs Troubleshooting Procedures - Continued.

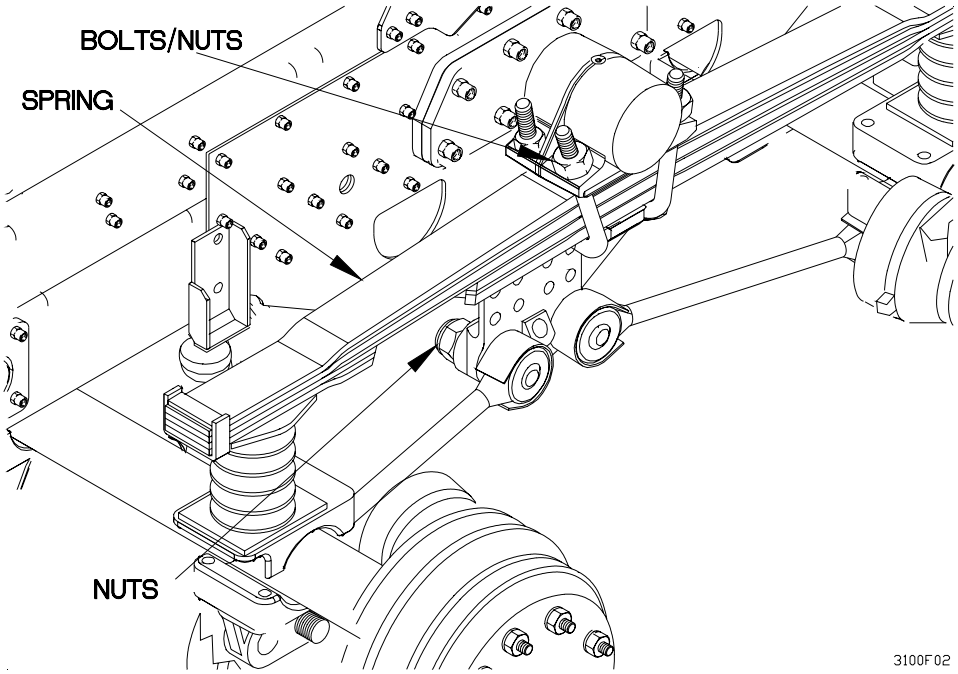
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
		
1. WHEEL WOBBLES OR SHIMMIES - CONTINUED	3. Check wheel studs and lugnuts for obvious looseness.	1. If loose, tighten. 2. If wheel still wobbles or shimmies, notify Field Level Maintenance to continue troubleshooting.
2. TIRES WEAR UNEVENLY OR EXCESSIVELY	1. Check tire pressures with tire gage (WP 0044 00, Checking Tire Pressures).	Adjust tire pressures (WP 0044 00, Checking Tire Pressures) to match those given below:

WHEELS, TIRES, AND HUBS TROUBLESHOOTING - Continued 0031 00

WHEELS, TIRES, AND HUBS - Continued

Table 1. Wheels, Tires, and Hubs Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. TIRES WEAR UNEVENLY OR EXCESSIVELY - CONTINUED	2. Check suspension system for damaged springs and loose or missing bolts and nuts.	If suspension system is damaged or has loose or missing bolts and nuts, notify Field Level Maintenance.
	3. Check tracking for indication of wheel misalignment.	1. If wheels appear to be misaligned, notify Field Level Maintenance. 2. If tires still wear unevenly or excessively, notify Field Level Maintenance to continue troubleshooting.



END OF WORK PACKAGE

SUSPENSION SYSTEM TROUBLESHOOTING 0032 00

THIS WORK PACKAGE COVERS:
Suspension System Troubleshooting

INITIAL SETUP:

Maintenance Level
Operator

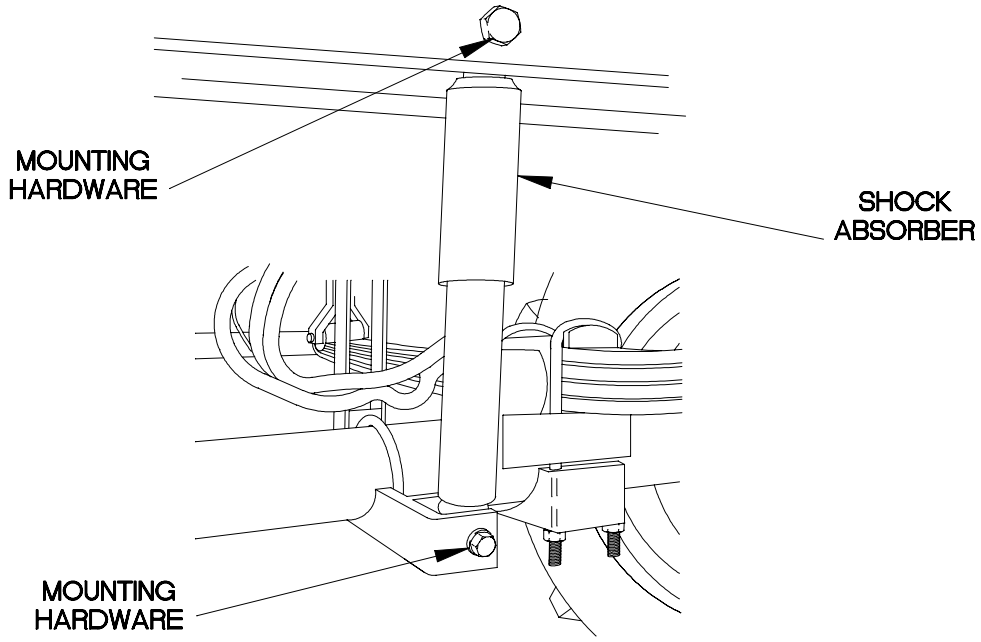
Tools and Special Tools
Inflator-Gage, Tire w/Hose (Item 12, WP 0178 00)

References
WP 0029 00
WP 0044 00

SUSPENSION SYSTEM

Table 1. Suspension System Troubleshooting Procedures.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. LEANS TO ONE SIDE, OR REAR OF TRAILER SAGS	1. Check shock absorbers for worn, loose, or broken mounting hardware.	If worn, loose, or broken mounting hardware is found, notify Field Level Maintenance.

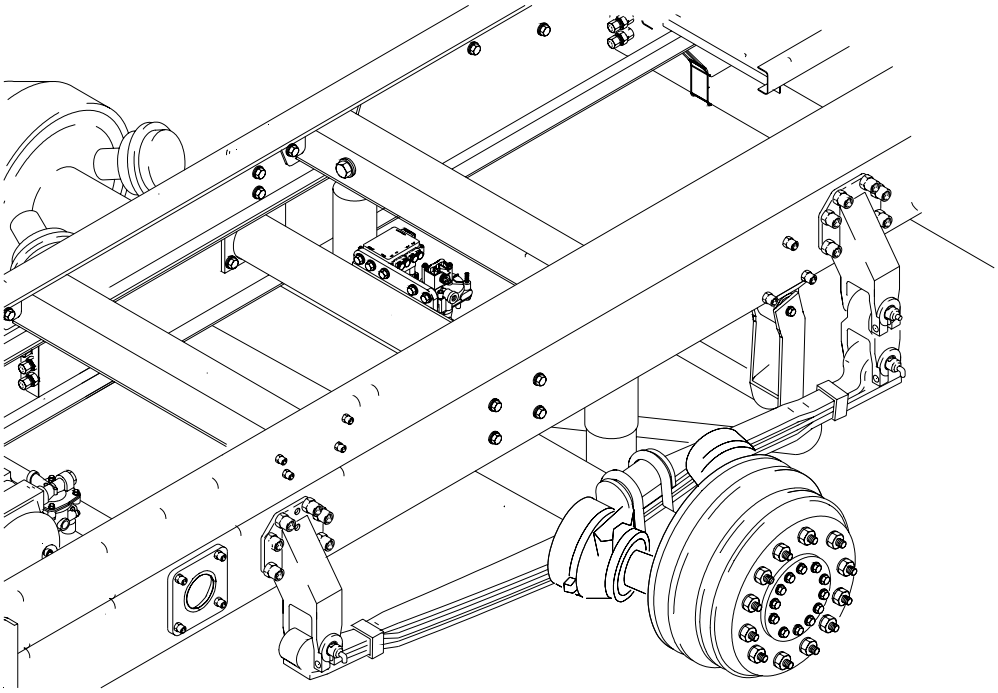


SUSPENSION SYSTEM TROUBLESHOOTING - Continued 0032 00

SUSPENSION SYSTEM - Continued

Table 1. Suspension System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. LEANS TO ONE SIDE, OR REAR OF TRAILER SAGS - CONTINUED	2. Check air pressure in all tires (WP 0044 00, Checking Tire Pressures).	Adjust tire pressures (WP 0044 00, Checking Tire Pressures) to match those given below:
	3. Visually inspect leaf springs for cracks, breaks, or missing sections.	If damage is found, notify Field Level Maintenance.



SUSPENSION SYSTEM - Continued

Table 1. Suspension System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. LEANS TO ONE SIDE, OR REAR OF TRAILER SAGS - CONTINUED	4. Check cargo load distribution.	1. Redistribute cargo load to level trailer. 2. If trailer continues to pull or lean to one side, notify Field Level Maintenance to continue troubleshooting.
2. WANDERS, PULLS TO ONE SIDE, OR SHIMMIES WHILE TOWED	Perform Brake System Troubleshooting (WP 0029 00, Malfunction 4, Trailer Brakes Unevenly, Brakes Pull To One Side Or Grab).	If trailer continues to wander, pull to one side, or shimmy, notify Field Level Maintenance to continue troubleshooting.

END OF WORK PACKAGE

LANDING GEAR TROUBLESHOOTING 0033 00

THIS WORK PACKAGE COVERS:
Landing Gear Troubleshooting

INITIAL SETUP:

Maintenance Level
Operator

Materials/Parts
Oil, Lubricating (Item 23, WP 0176 00)

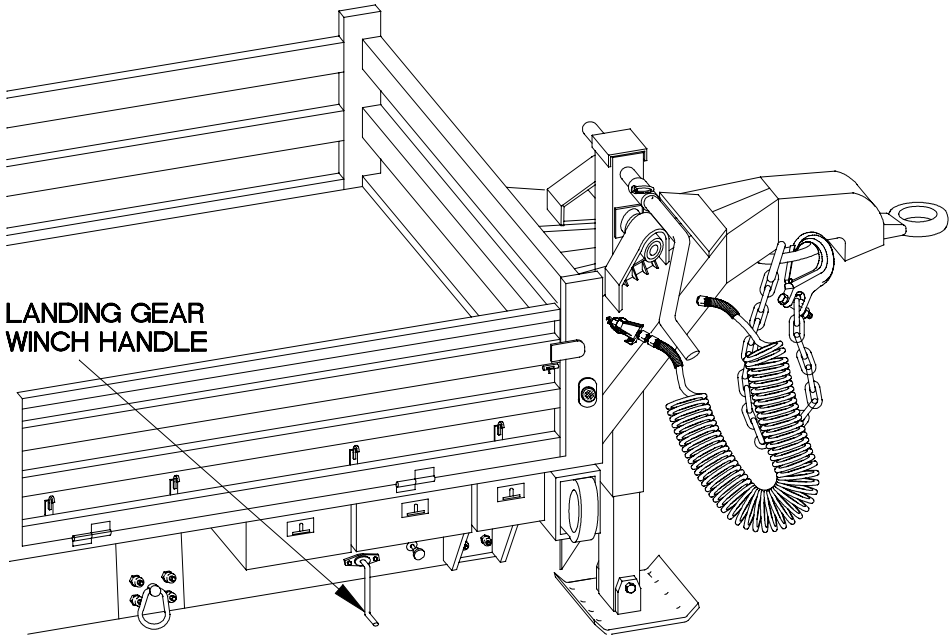
References
WP 0042 00
WP 0046 00

Equipment Conditions
Trailer coupled (WP 0009 00).

LANDING GEAR

Table 1. Landing Gear Troubleshooting Procedures.

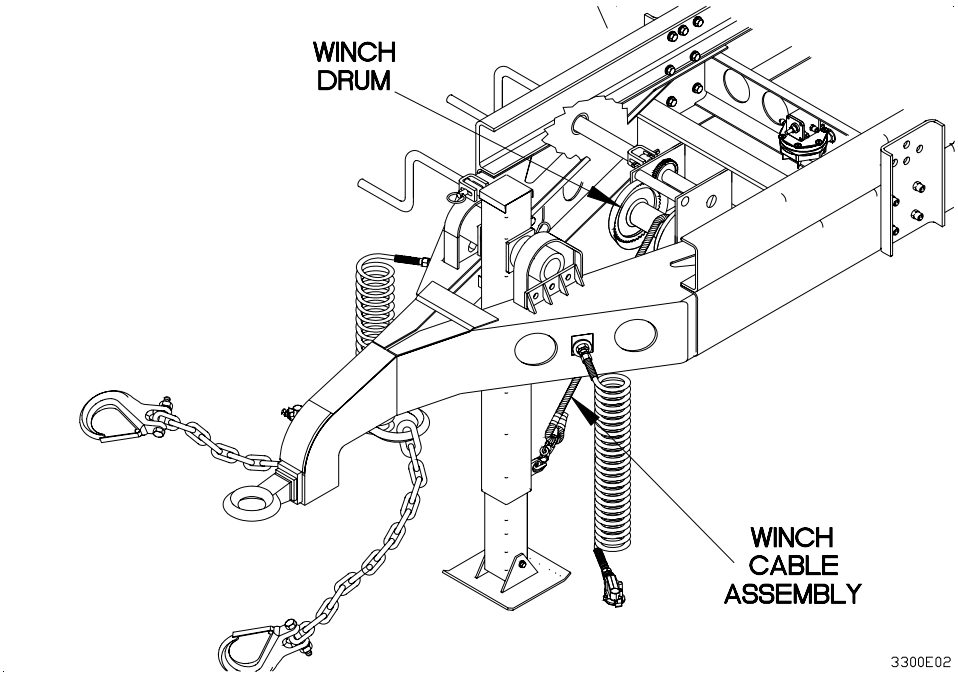
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. LANDING GEAR IS DIFFICULT TO RAISE OR LOWER	1. Check to see if landing gear needs lubrication (WP 0042 00, Table 1, Item No. 5).	If landing gear needs lubrication, lubricate (WP 0042 00, Table 5, Item No. 5).
	2. Check for misaligned or broken landing gear winch handle.	If landing gear winch handle is misaligned or broken, notify Field Level Maintenance to continue troubleshooting.



LANDING GEAR TROUBLESHOOTING - Continued 0033 00

LANDING GEAR - Continued

Table 1. Landing Gear Troubleshooting Procedures - Continued.

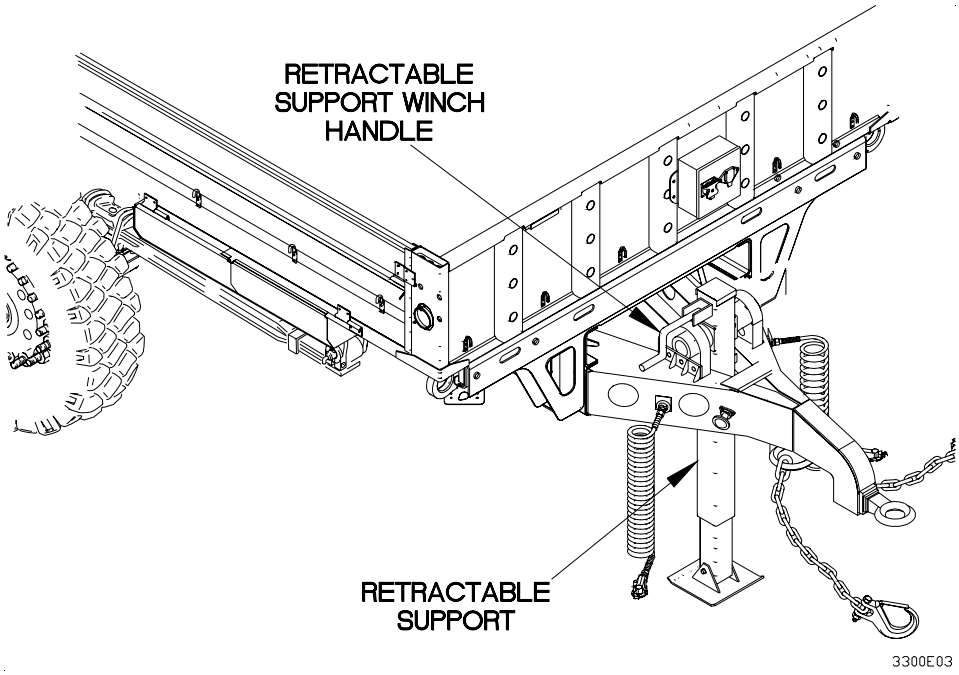
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. LANDING GEAR IS DIFFICULT TO RAISE OR LOWER - CONTINUED	3. Check for damaged or broken winch drum.	If winch drum is damaged or broken, notify Field Level Maintenance to continue troubleshooting.
		
	4. Check for broken winch cable assembly.	1. If winch cable assembly is broken, notify Field Level Maintenance to continue troubleshooting. 2. If landing gear remains difficult to raise or lower, notify Field Level Maintenance to continue troubleshooting.

LANDING GEAR TROUBLESHOOTING - Continued 0033 00

LANDING GEAR - Continued

Table 1. Landing Gear Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. FOOT PLATE IS DIFFICULT TO RAISE OR LOWER	1. Check to see if retractable support needs lubrication.	1. Uncouple trailer (WP 0012 00). 2. If retractable support needs lubrication, lubricate (WP 0042 00, Table 10, Item No. 9).
	2. Check for dirt on retractable support.	If retractable support is dirty, clean (WP 0046 00, General).
	3. Check for misaligned or broken retractable support winch handle.	If retractable support winch handle is misaligned or broken, notify Field Level Maintenance.

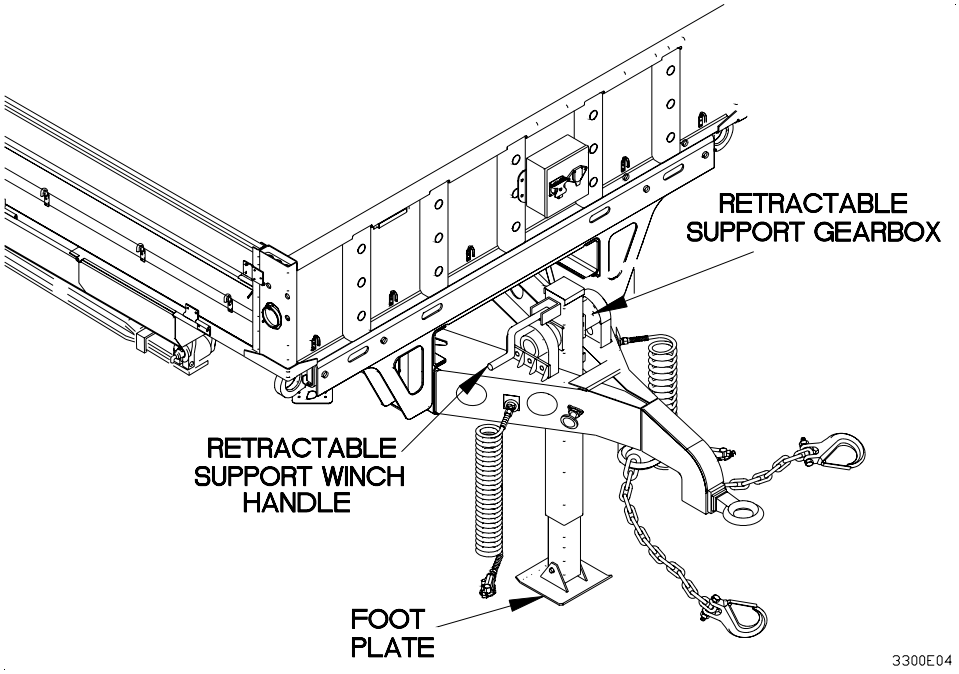


LANDING GEAR TROUBLESHOOTING - Continued 0033 00

LANDING GEAR - Continued

Table 1. Landing Gear Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. FOOT PLATE IS DIFFICULT TO RAISE OR LOWER - CONTINUED	4. Check for misaligned, damaged, or bent retractable support.	1. If retractable support is damaged, notify Field Level Maintenance to continue troubleshooting. 2. If retractable support is not damaged and the foot plate remains difficult to raise or lower, notify Field Level Maintenance to continue troubleshooting.
	5. Check for damaged or broken retractable support gearbox.	1. If retractable support gearbox is damaged or broken, notify Field Level Maintenance to continue troubleshooting.
		2. If foot plate remains difficult to raise or lower, notify Field Level Maintenance to continue troubleshooting.



END OF WORK PACKAGE

FIELD LEVEL TROUBLESHOOTING INTRODUCTION 0034 00

MALFUNCTION/SYMPTOM INDEX

The malfunction/symptom index (WP 0035 00) is a quick reference index for finding field level troubleshooting procedures. Associated with each symptom name is a work package sequence number representing the starting point in a troubleshooting sequence. Should any one symptom require more than one troubleshooting sequence to arrive at the most likely area of investigation, the additional starting point numbers are presented.

As the troubleshooting activity progresses through to the conclusion of a particular sequence, a reference is made to the next logical troubleshooting sequence by work package sequence number, or by referring to the malfunction/symptom index to locate the next failure symptom work package. This type of activity continues until successful fault isolation is achieved.

TROUBLESHOOTING PROCEDURES

The troubleshooting work packages contain tables listing the malfunctions, tests or inspections, and corrective action required to return the vehicle to normal operation. Perform the steps in the order they appear in the tables.

Each work package is headed by an initial setup. This setup outlines what is needed as well as certain conditions which must be met before starting the task. DON'T START UP A TASK UNTIL:

You understand the task.

You understand what you are to do.

You understand what is needed to do the work.

You have the things you need.

This manual cannot list all malfunctions that may occur, or all tests or inspections and corrective actions. If a malfunction is not listed or is not corrected by listed corrective actions, notify Direct Support.

MALFUNCTIONS/SYMPTOM INDEX 0035 00

Malfunction/Symptom	Troubleshooting Procedure
ELECTRICAL SYSTEM	
1. Side Marker Lights Do Not Illuminate	WP 0036 00
2. Center Rear Marker Lights Do Not Illuminate	WP 0036 00
3. Right Front Marker Light Does Not Illuminate	WP 0036 00
4. Left Front Marker Light Does Not Illuminate	WP 0036 00
5. Front Marker Lights Do Not Illuminate	WP 0036 00
6. Right Taillight Does Not Illuminate	WP 0036 00
7. Right Stoplight Does Not Illuminate	WP 0036 00
8. Right Blackout Taillight Does Not Illuminate	WP 0036 00
9. Right Blackout Stoplight Does Not Illuminate	WP 0036 00
10. Left Taillight Does Not Illuminate	WP 0036 00
11. Left Stoplight Does Not Illuminate	WP 0036 00
12. Left Blackout Taillight Does Not Illuminate	WP 0036 00
13. Left Blackout Stoplight Does Not Illuminate	WP 0036 00
14. All Rear Lights Do Not Illuminate	WP 0036 00
15. All Lights Do Not Illuminate	WP 0036 00
BRAKE SYSTEM	
1. Service Brakes Do Not Apply	WP 0037 00
2. Parking Brakes Do Not Release	WP 0037 00
3. Brakes Overheat	WP 0037 00
4. Trailer Brakes Unevenly, Or Brakes Pull To One Side Or Grab	WP 0037 00
5. Parking Brakes Do Not Apply	WP 0037 00
6. ABS Diagnostic Tool Does Not Operate	WP 0037 00
7. ABS Diagnostic Tool Blinks Three Times In Series	WP 0037 00

MALFUNCTIONS/SYMPTOM INDEX - Continued 0035 00

Malfunction/Symptom	Troubleshooting Procedure
BRAKE SYSTEM - Continued	
8. ABS Diagnostic Tool Blinks Four Times In Series	WP 0037 00
9. ABS Diagnostic Tool Blinks Five Times In Series	WP 0037 00
10. ABS Diagnostic Tool Blinks Six Times In Series	WP 0037 00
11. ABS Diagnostic Tool Blinks Nine Times In Series	WP 0037 00
12. ABS Diagnostic Tool Blinks Ten Times In Series	WP 0037 00
13. ABS Diagnostic Tool Blinks Fourteen Times In Series	WP 0037 00
14. ABS Diagnostic Tool Blinks Fifteen Times In Series	WP 0037 00
AIR SYSTEM	
1. Air System Loses Pressure During Operation/Slow Air Pressure Buildup	WP 0038 00
2. No Air Pressure Or Low Air Pressure At Gladhands	WP 0038 00
3. Gladhands Leak Or Do Not Operate	WP 0038 00
WHEELS, TIRES, AND HUBS	
1. Wheel Wobbles Or Shimmies	WP 0039 00
2. Tires Wear Unevenly Or Excessively	WP 0039 00
SUSPENSION SYSTEM	
1. Leans To One Side, Or Rear Of Trailer Sags	WP 0040 00
2. Suspension System Does Not Support Trailer Load	WP 0040 00
LANDING GEAR	
1. Landing Gear Is Difficult To Raise Or Lower	WP 0041 00
2. Foot Plate Is Difficult To Raise Or Lower	WP 0041 00

ELECTRICAL SYSTEM TROUBLESHOOTING 0036 00

THIS WORK PACKAGE COVERS:
Electrical System

INITIAL SETUP:

Maintenance Level
Field

Tools/Special Tools
Multimeter, Digital (Item 16, WP 0178 00)
Tool Kit, Genl Mech (Item 37, WP 0178 00)

Materials/Parts
Ties, Cable, Plastic (Item 37, WP 0176 00)

Materials/Parts (Cont)
Lockwasher (Item 10, WP 0181 00)
Lockwasher (2) (Item 12, WP 0181 00)
Packing, Preformed (7) (Item 17, WP 0181 00)

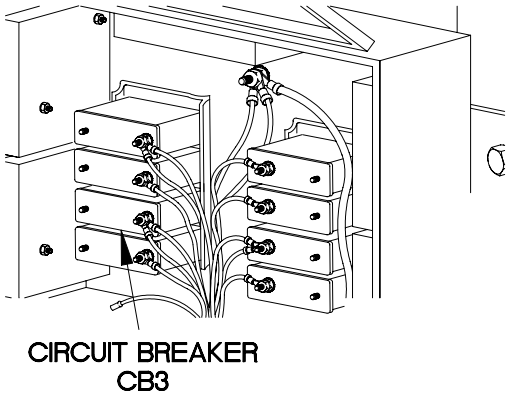
Personnel Required
Two

Equipment Conditions
Trailer coupled (WP 0009 00).
Towing vehicle main light switch set to OFF.

ELECTRICAL SYSTEM

Table 1. Electrical System Troubleshooting Procedures

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. REAR MARKER LIGHTS DO NOT ILLUMINATE	1. Check for continuity across circuit breaker CB3.	1. Open cover on voltage converter box (WP 0053 00). 2. Set digital multimeter to ohms.
		3. Connect positive (+) probe of digital multimeter to one terminal of circuit breaker CB3.



ELECTRICAL SYSTEM - Continued

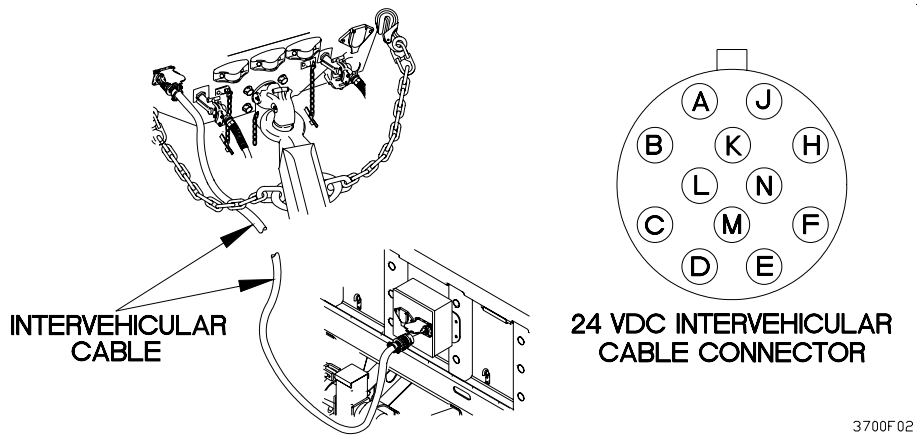
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. SIDE REAR MARKER LIGHTS DO NOT ILLUMINATE - CONTINUED		4. Connect negative (-) probe of digital multimeter to other terminal of circuit breaker CB3. 5. Note reading on digital multimeter. 6. If continuity is not present, replace circuit breaker CB3 (WP 0053 00).

WARNING

Remove rings, bracelets, wristwatches, neck chains, and any other jewelry before working around trailer. Jewelry may catch on equipment or may short across an electrical circuit. Failure to comply may result in serious injury or death to personnel

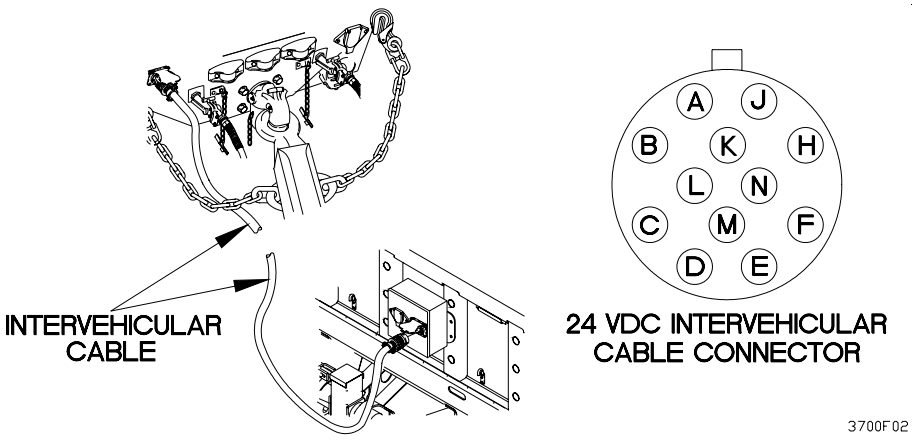
	2. Check for 18-26 vdc at 24 vdc intervehicular cable connector pin E.	1. Close cover on voltage converter box (WP 0053 00). 2. Disconnect intervehicular cable from trailer (WP 0012 00).



		3. Set digital multimeter to vdc.

ELECTRICAL SYSTEM - Continued

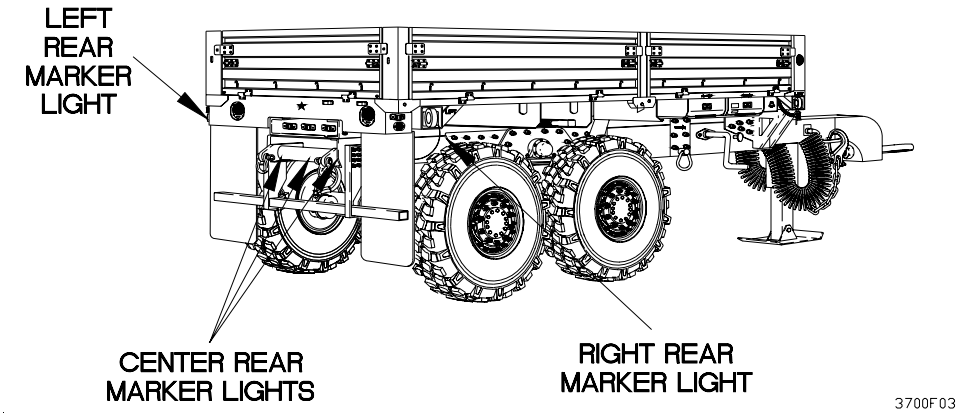
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
	WARNING **Remove rings, bracelets, wristwatches, neck chains, and any other jewelry before working around trailer. Jewelry may catch on equipment or may short across an electrical circuit. Failure to comply may result in serious injury or death to personnel**	
1. SIDE REAR MARKER LIGHTS DO NOT ILLUMINATE - CONTINUED		4. Connect positive (+) probe of digital multimeter to 24 vdc intervehicular cable connector pin E. 5. Connect negative (-) probe of digital multimeter to a known good ground.
		
		6. Position towing vehicle main light switch to SER DRIVE 7. Note reading on digital multimeter. 8. If 18-26 vdc is not present, replace 24 vdc intervehicular cable (WP 0009 00).

ELECTRICAL SYSTEM - Continued

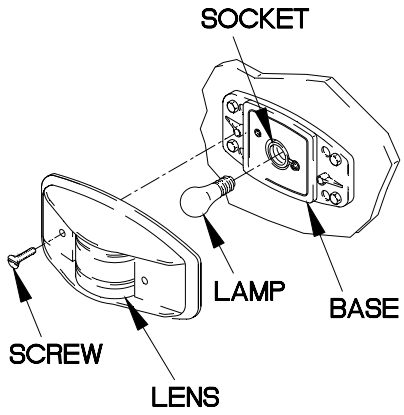
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. ONE OR MORE REAR MARKER LIGHTS DO NOT ILLUMINATE	1. Check to see which marker light(s) does not illuminate.	1. Position towing vehicle main light switch to SER DRIVE.
		2. Check to see which marker light(s) does not illuminate.
		3. Position towing vehicle main light switch to OFF.
		4. If only right center rear marker light does not illuminate, go to (Test Or Inspection number 2) of this Malfunction.
		5. If only left center rear marker light does not illuminate, go to (Test Or Inspection number 4) of this Malfunction.
		6. If only center rear marker light does not illuminate, go to (Test Or Inspection number 7) of this Malfunction.



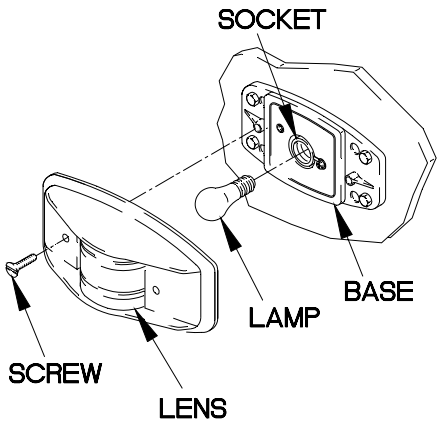
ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. ONE OR MORE REAR MARKER LIGHTS DO NOT ILLUMINATE - CONTINUED		7. If all rear marker lights do not illuminate, repair wire between terminal lugs TL268 and TL261 (WP 0043 00) or replace electrical cable assembly (WP 0051 00). 8. If center and left center rear marker lights do not illuminate, go to (Test Or Inspection number 10) of this Malfunction.
	2. Check continuity through right rear marker lamp.	1. Remove right rear marker lamp (WP 0050 00).
	 3700F04	
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to center of socket side of lamp.

ELECTRICAL SYSTEM - Continued

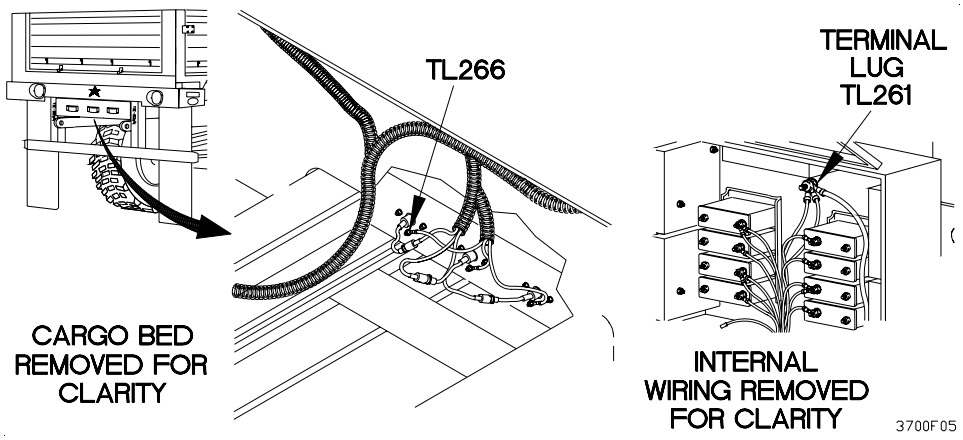
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. ONE OR MORE REAR MARKER LIGHTS DO NOT ILLUMINATE - CONTINUED		4. Connect negative (-) probe of digital multimeter to side of socket side of lamp. 5. Note reading on digital multimeter. 6. If continuity is not present, replace right rear marker lamp (WP 0050 00).
	3. Check for continuity between terminal lug TL266 and terminal lug TL261.	1. Install right rear marker lamp in socket.
	 3700F06	2. Install lens on base with two screws. 3. Set digital multimeter to ohms.

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

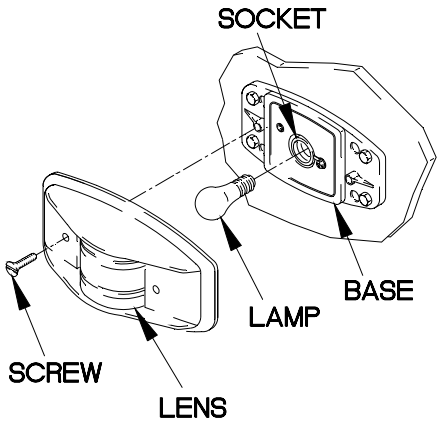
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. ONE OR MORE REAR MARKER LIGHTS DO NOT ILLUMINATE - CONTINUED		4. Open cover on voltage converter box (WP 0053 00). 5. Connect positive (+) probe of digital multimeter to terminal lug TL266. 6. Connect negative (-) probe of digital multimeter to terminal lug TL261.
		7. Note reading on digital multimeter. 8. If continuity is not present, repair wire (WP 0043 00). or replace electrical cable assembly (WP 0051 00). If continuity is present, replace right rear marker light assembly (WP 0050 00). 9. Close cover on voltage converter box (WP 0053 00).



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. ONE OR MORE REAR MARKER LIGHTS DO NOT ILLUMINATE - CONTINUED	4. Check for continuity through left rear marker lamp.	1. Remove left center rear marker lamp (WP 0050 00).
		2. Set digital multimeter to ohms.
		3. Connect positive (+) probe of digital multimeter to center of socket side of lamp.
		4. Connect negative (-) probe of digital multimeter to side of socket side of lamp.
		5. Note reading on digital multimeter.
		6. If continuity is not present, replace left rear marker lamp (WP 0050 00).

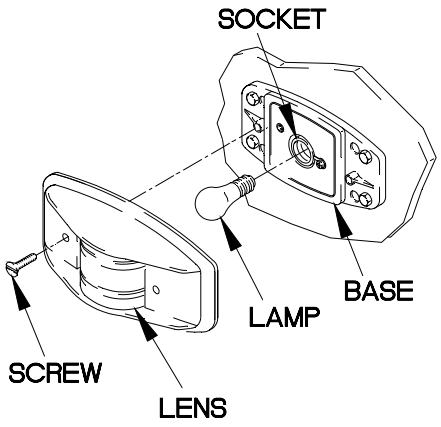


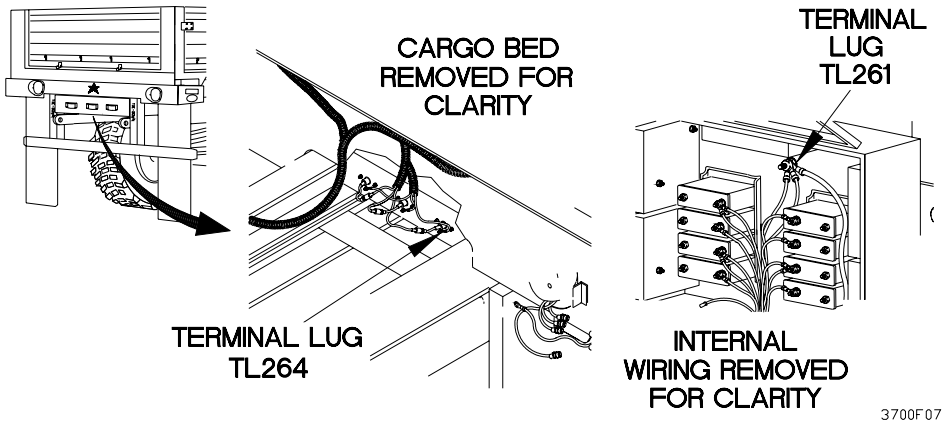
3700F06

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. ONE OR MORE REAR MARKER LIGHTS DO NOT ILLUMINATE - CONTINUED	5. Check for continuity between terminal lug TL264 and terminal lug TL261.	1. Install left rear marker lamp in socket.
		2. Install lens on base with two screws.
		3. Set digital multimeter to ohms.
		4. Connect positive (+) probe of digital multimeter to terminal lug TL264.
		5. Open voltage converter box (WP 0053 00).

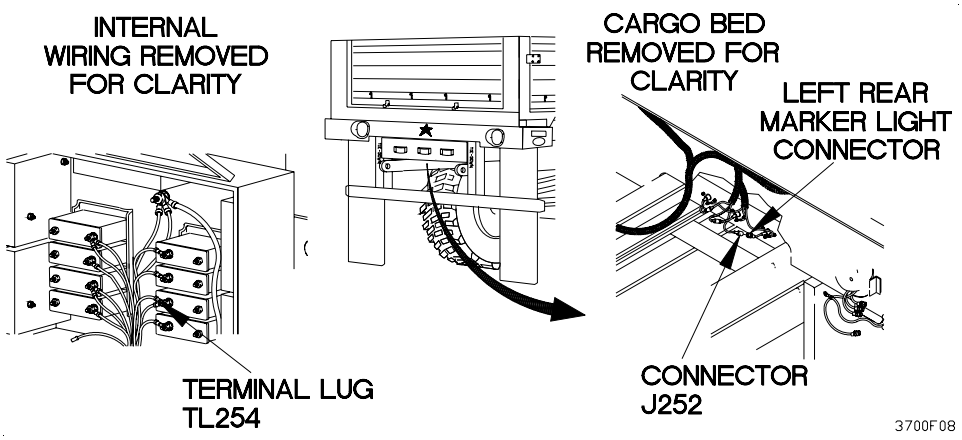




ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

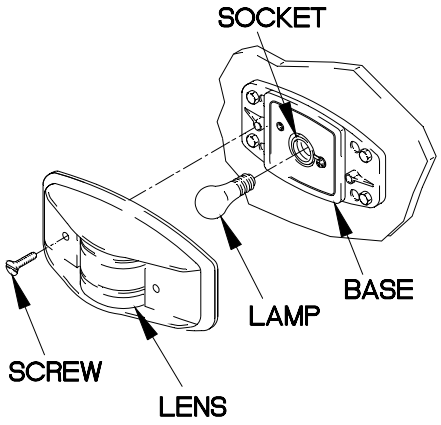
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. ONE OR MORE REAR MARKER LIGHTS DO NOT ILLUMINATE - CONTINUED		6. Connect negative (-) probe of digital multimeter to terminal lug TL261. 7. Note reading on digital multimeter. 8. If continuity is not present, repair wire (WP 0043 00) or replace electrical cable assembly (WP 0051 00).
	6. Check for continuity between terminal lug TL254 and connector J252.	1. Set digital multimeter to ohms. 2. Connect positive (+) probe of digital multimeter to terminal lug TL254.
		3. Disconnect connector J252 from left rear marker light connector. 4. Connect negative (-) probe of digital multimeter to connector J252. 5. Note reading on digital multimeter.



ELECTRICAL SYSTEM TROUBLESHOOTING - Continued 0036 00

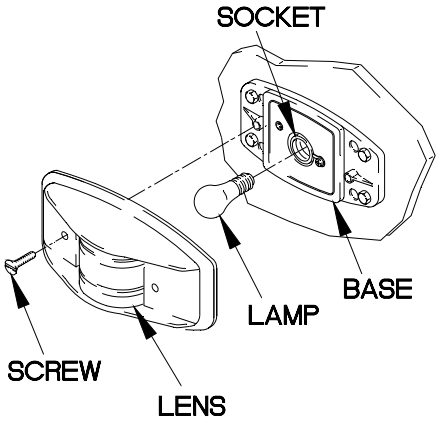
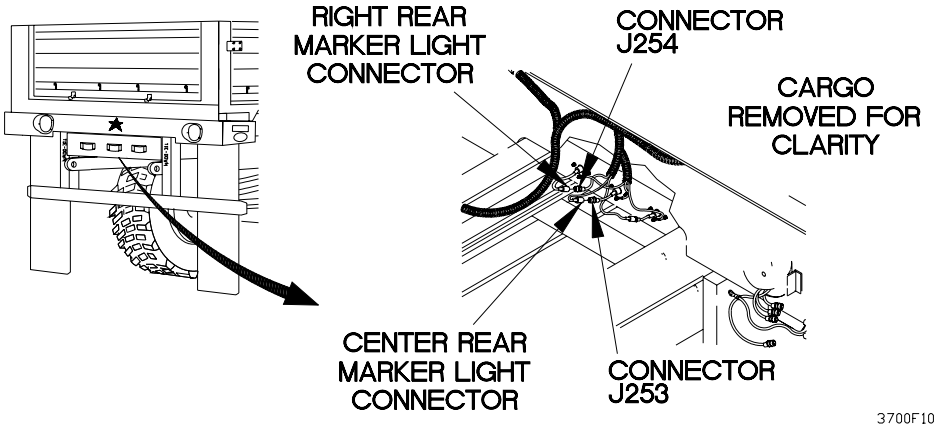
ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. ONE OR MORE REAR MARKER LIGHTS DO NOT ILLUMINATE - CONTINUED		6. If continuity is not present, repair wire (WP 0043 00) or replace electrical cable assembly (WP 0051 00). If continuity is present, replace left rear marker light assembly (WP 0050 00).
	7. Check for continuity through center rear marker lamp.	1. Remove center rear marker lamp (WP 0050 00).
	 3700F09	
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to center of socket side of lamp. 4. Connect negative (-) probe of digital multimeter to side of socket side of lamp. 5. Note reading on digital multimeter. 6. If continuity is not present, replace center rear marker lamp (WP 0050 00).

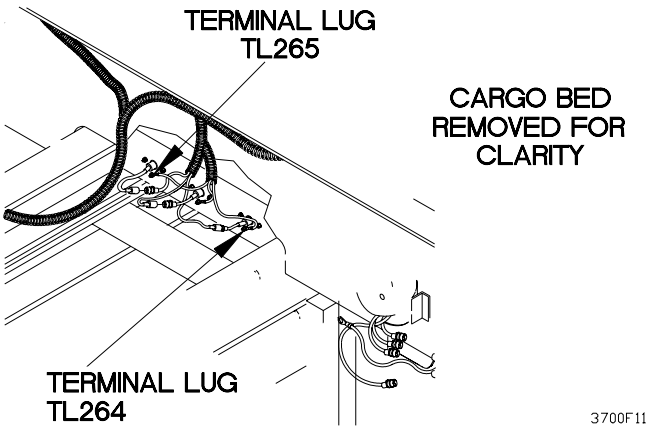
ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. ONE OR MORE REAR MARKER LIGHTS DO NOT ILLUMINATE - CONTINUED	8. Check for continuity between connector J253 and connector J254.	1. Install center rear marker lamp in socket.
		 3700F09
		2. Install lens on base with two screws. 3. Disconnect connector J253 from center rear marker light connector. 4. Disconnect connector J254 from right center marker light connector.
		 3700F10
		5. Set digital multimeter to ohms.

ELECTRICAL SYSTEM - Continued

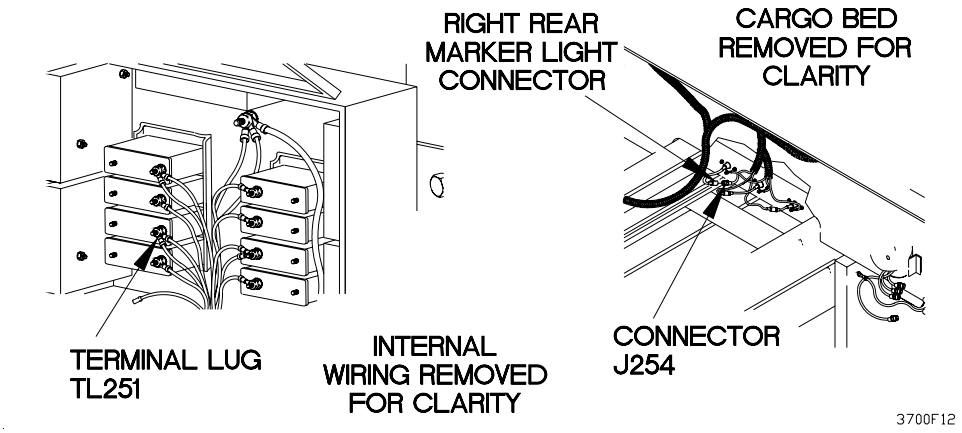
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. ONE OR MORE REAR MARKER LIGHTS DO NOT ILLUMINATE - CONTINUED		6. Connect positive (+) probe of digital multimeter to connector J253. 7. Connect negative (-) probe of digital multimeter to connector J254. 8. Note reading on digital multimeter. 9. If continuity is not present, repair wire (WP 0043 00) or replace electrical cable assembly (WP 0051 00).
	9. Check for continuity between terminal lug TL265 and terminal lug TL264.	1. Set digital multimeter to ohms.
		
		2. Connect positive (+) probe of digital multimeter to terminal lug TL265. 3. Connect negative (-) probe of digital multimeter to terminal lug TL264. 4. Note reading on digital multimeter.

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. ONE OR MORE REAR MARKER LIGHTS DO NOT ILLUMINATE - CONTINUED		5. If continuity is not present, repair wire (WP 0043 00) or replace electrical cable assembly (WP 0051 00). If continuity is present, replace center rear marker light assembly (WP 0050 00).
	10. Check for continuity between terminal lug TL251 and connector J254.	1. Set digital multimeter to ohms. 2. Disconnect connector J254 from right rear marker light connector. 3. Connect positive (+) probe of digital multimeter to terminal lug TL251. 4. Connect negative (-) probe of digital multimeter to connector J254.
		5. Note reading on digital multimeter.



ELECTRICAL SYSTEM TROUBLESHOOTING - Continued 0036 00

ELECTRICAL SYSTEM - Continued

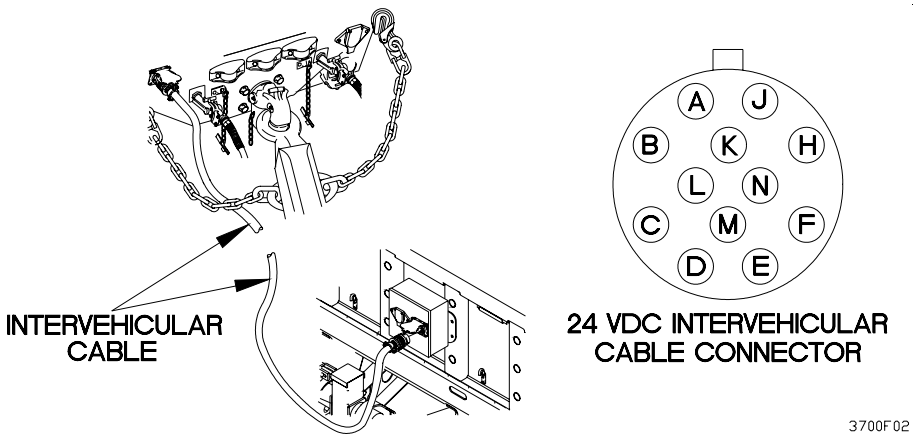
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. ONE OR MORE REAR MARKER LIGHTS DO NOT ILLUMINATE - CONTINUED		6. If continuity is not present, repair wire between terminal lug TL251 and connector J254 (WP 0043 00) or replace electrical cable assembly (WP 0051 00). If continuity is present repair wire between terminal lug TL264 and terminal lug TL266 (WP 0043 00) or replace electrical cable assembly (WP 0051 00).

WARNING

Remove rings, bracelets, wristwatches, neck chains, and any other jewelry before working around trailer. Jewelry may catch on equipment or may short across an electrical circuit. Failure to comply may result in serious injury or death to personnel

3. RIGHT FRONT MARKER LIGHT DOES NOT ILLUMINATE	1. Check for 18-26 vdc at 24 vdc intervehicular cable connector pin E.	1. Set digital multimeter to vdc.

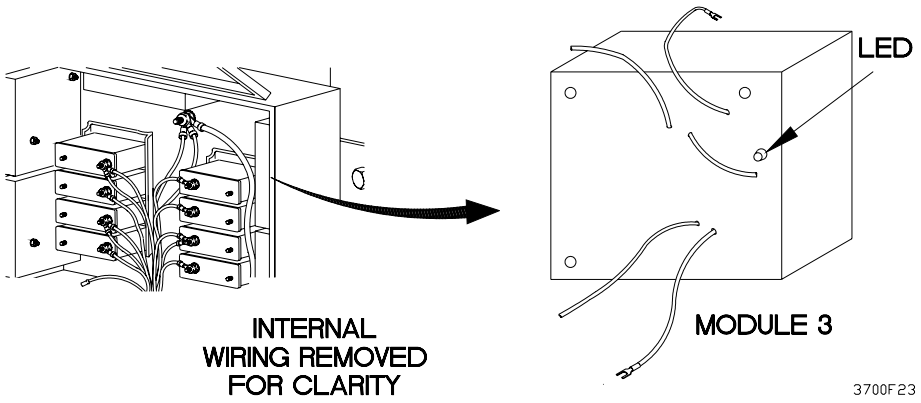


		2. Connect positive (+) probe of digital multimeter to 24 vdc intervehicular cable connector pin E.

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. RIGHT FRONT MARKER LIGHT DOES NOT ILLUMINATE - CONTINUED		3. Connect negative (-) probe of digital multimeter to a known good ground. 4. Position towing vehicle main light switch to SER DRIVE 5. Note reading on digital multimeter. 6. If 18-26 vdc is not present, replace 24 vdc intervehicular cable (WP 0009 00).
	2. Check module 3 LED for illumination.	1. Open cover on voltage converter box (WP 0053 00).



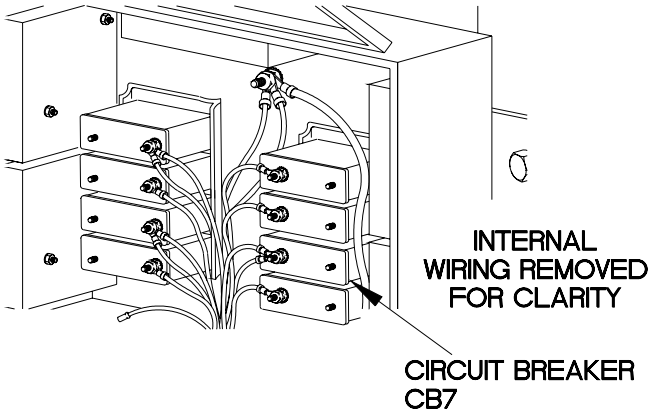
		2. Check to see if module 3 LED illuminates. 3. Position towing vehicle main light switch to OFF 4. If module 3 LED does not illuminate, replace module 3 (WP 0053 00).

ELECTRICAL SYSTEM TROUBLESHOOTING - Continued 0036 00

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

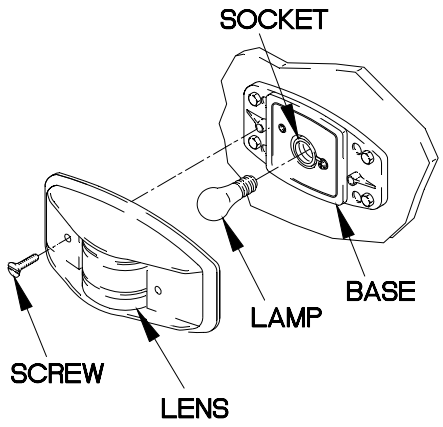
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. RIGHT FRONT MARKER LIGHT DOES NOT ILLUMINATE - CONTINUED	3. Check for continuity across circuit breaker CB7.	1. Set digital multimeter to ohms. 2. connect positive (+) probe of digital multimeter to one terminal on circuit breaker CB7.
		3. Connect negative (-) probe of digital multimeter to other terminal on circuit breaker CB7. 4. Note reading on digital multimeter. 5. If continuity is not present, replace circuit breaker CB7 (WP 0053 00).



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

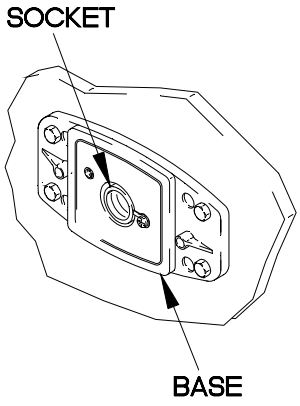
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. RIGHT FRONT MARKER LIGHT DOES NOT ILLUMINATE - CONTINUED	4. Check continuity through right front marker lamp.	1. Remove right front marker lamp (WP 0050 00).
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to center of lamp. 4. Connect negative (-) probe of digital multimeter to side of lamp. 5. Note reading on digital multimeter. 6. If continuity is not present, replace lamp (WP 0050 00).



3700F17

ELECTRICAL SYSTEM - Continued

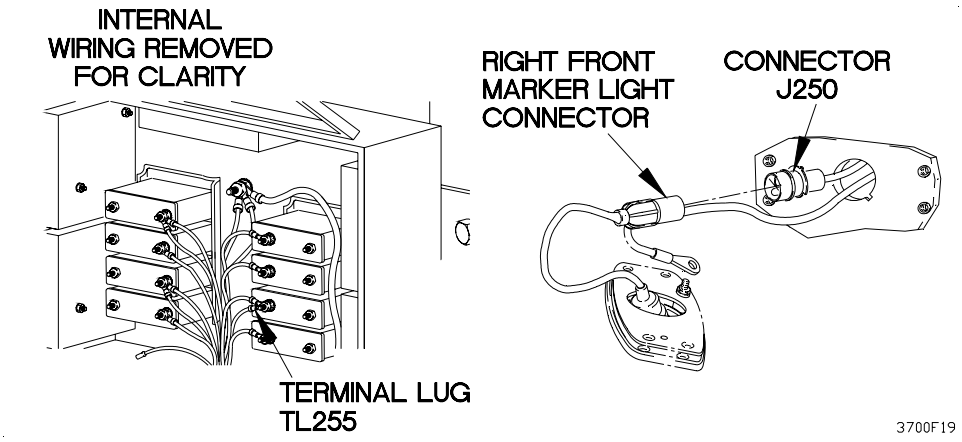
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
	WARNING **Remove rings, bracelets, wristwatches, neck chains, and any other jewelry before working around trailer. Jewelry may catch on equipment or may short across an electrical circuit. Failure to comply may result in serious injury or death to personnel**	
3. RIGHT FRONT MARKER LIGHT DOES NOT ILLUMINATE - CONTINUED	5. Check for 8-14 vdc at lamp socket center contact.	1. Set digital multimeter to vdc.
	 3700F18	
		2. Connect positive (+) probe of digital multimeter to marker light socket center contact. 3. Connect negative (-) probe of digital multimeter to a known good ground. 4. Position towing vehicle main light switch to SER DRIVE 5. Note reading on digital multimeter.

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

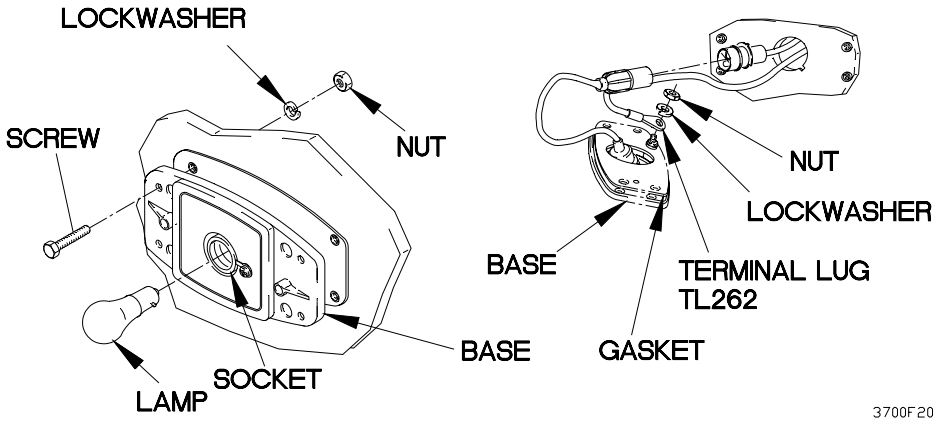
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. RIGHT FRONT MARKER LIGHT DOES NOT ILLUMINATE - CONTINUED		6. If 8-14 vdc is not present, go to Test Or Inspection number 7 of this Malfunction. If 8-14 vdc is present go to (Test Or Inspection) number 8 of this Malfunction.
	6. Check for continuity between connector J250 and terminal lug TL255.	1. Position towing vehicle main light switch to OFF.
		2. Disconnect connector J250 from right front marker light connector.
		3. Set digital multimeter to ohms.
		4. Connect positive (+) probe of digital multimeter to connector J250.
		5. Connect negative (-) probe of digital multimeter to terminal lug TL255.
		6. Note reading on digital multimeter.



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. RIGHT FRONT MARKER LIGHT DOES NOT ILLUMINATE - CONTINUED		7. If continuity is not present, repair wire (WP 0043 00) or replace electrical cable assembly (WP 0051 00). If continuity is present, replace voltage converter box (WP 0052 00).
	7. Check for continuity from terminal lug TL262 to a known good ground.	1. Remove four nuts, lockwashers, and screws from base.



2. Extend base.

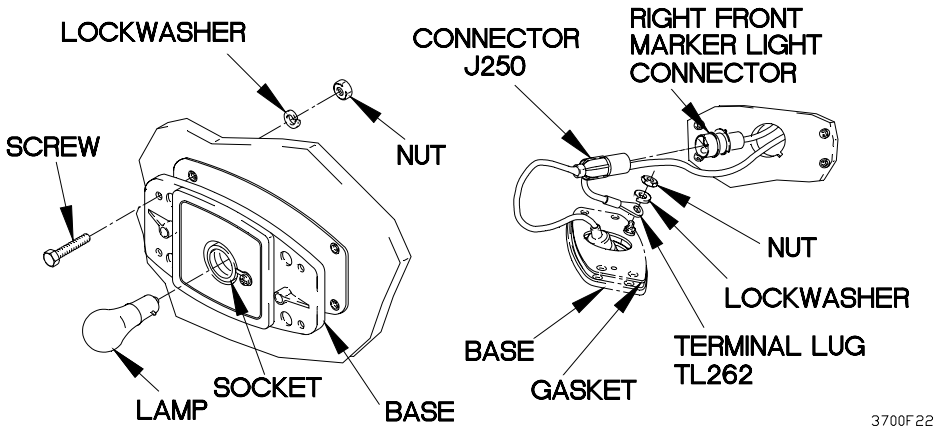
CAUTION

Two nuts are used to keep bottom nut in place. To prevent damage to equipment, use care when removing base.

3. Remove nut, lockwasher, terminal lug TL262, base, and gasket from trailer. Discard lockwasher.
4. Set digital multimeter to ohms.
5. Connect positive (+) probe of digital multimeter to terminal lug TL262.

ELECTRICAL SYSTEM - Continued

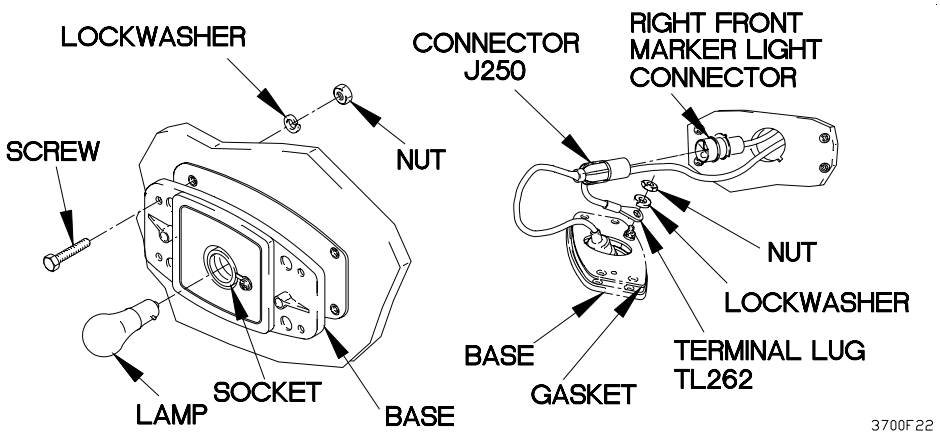
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. RIGHT FRONT MARKER LIGHT DOES NOT ILLUMINATE - CONTINUED		6. Connect negative (-) probe of digital multimeter to a good known ground. 7. Note reading on digital multimeter. 8. If continuity is not present, repair wire between terminal lug TL262 and terminal lug TL260 (WP 0043 00) or replace electrical cable assembly. If continuity is present, replace right front marker light assembly (WP 0050 00). 9. Connect connector J250 to right front marker light connector.  10. Install terminal lug TL262, lockwasher, and nut on back of base. 11. Install base on trailer with four washers and screws. 12. Install lamp in socket.

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. RIGHT FRONT MARKER LIGHT DOES NOT ILLUMINATE - CONTINUED		13. Install lens on base with two screws.



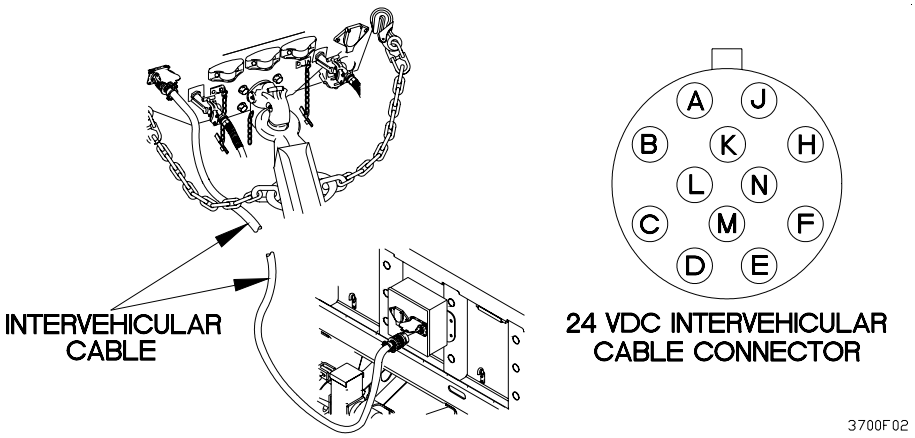
WARNING

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ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

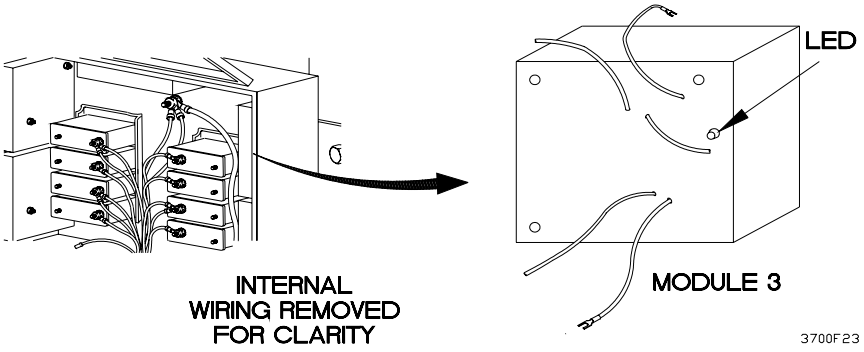
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
4. LEFT FRONT MARKER LIGHT DOES NOT ILLUMINATE	1. Check for 18-26 vdc at 24 vdc intervehicular cable connector pin E.	1. Disconnect 24 vdc intervehicular cable from trailer. 2. Set digital multimeter to vdc.
		3. Connect positive (+) probe of digital multimeter to 24 vdc intervehicular cable connector pin E. 4. Connect negative (-) probe of digital multimeter to a known good ground.



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
4. LEFT FRONT MARKER LIGHT DOES NOT ILLUMINATE - CONTINUED		5. Position towing vehicle main light switch to SER DRIVE 6. Note reading on digital multimeter. 7. Connect 24 vdc intervehicular cable to trailer. 8. If 18-26 vdc is not present, replace 24 vdc intervehicular cable (WP 0009 00).
	2. Check module 3 LED for illumination.	1. Open cover on voltage converter box (WP 0052 00).

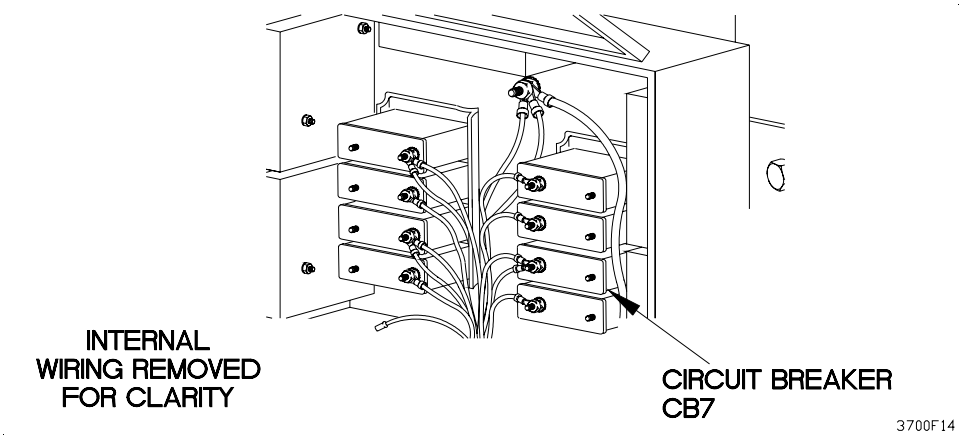


		2. Check to see if module 3 LED illuminates. 3. Position towing vehicle main light switch to OFF 4. If module 3 LED does not illuminate, replace module 3 (WP 0053 00).

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

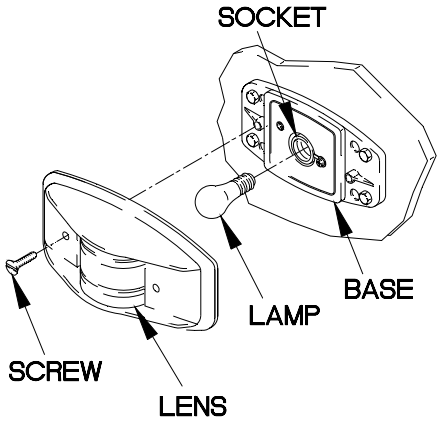
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
4. LEFT FRONT MARKER LIGHT DOES NOT ILLUMINATE - CONTINUED	3. Check for continuity across circuit breaker CB7.	1. Set digital multimeter to ohms.
		2. Connect positive (+) probe of digital multimeter to one terminal on circuit breaker CB7. 3. Connect negative (-) probe of digital multimeter to other terminal on circuit breaker CB7. 4. Note reading on digital multimeter. 5. If continuity is not present, replace circuit breaker CB7 (WP 0053 00).



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

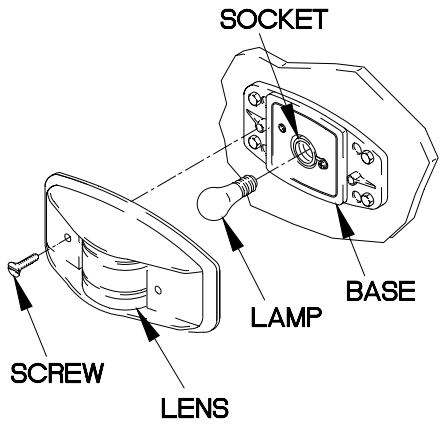
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
4. LEFT FRONT MARKER LIGHT DOES NOT ILLUMINATE - CONTINUED	4. Check continuity through left front marker lamp.	1. Remove left front marker lamp (WP 0050 00).
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to center of lamp. 4. Connect negative (-) probe of digital multimeter to side of lamp. 5. Note reading on digital multimeter. 6. If continuity is not present, replace lamp (WP 0050 00).



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

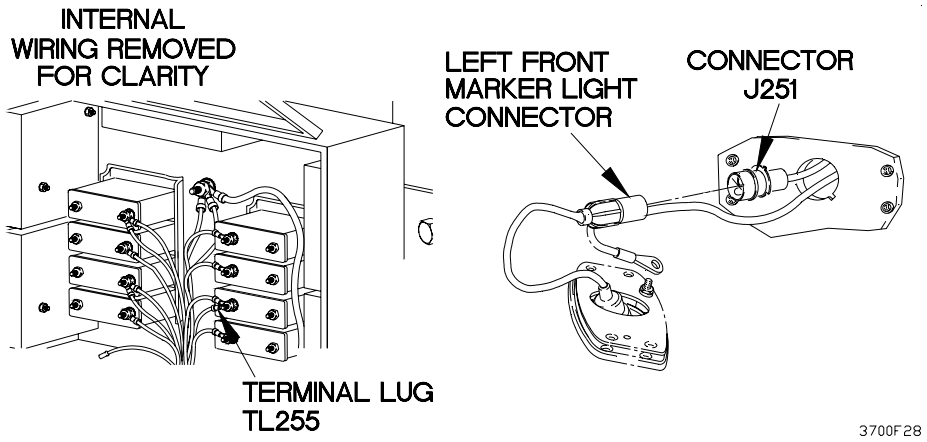
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
WARNING **Remove rings, bracelets, wristwatches, neck chains, and any other jewelry before working around trailer. Jewelry may catch on equipment or may short across an electrical circuit. Failure to comply may result in serious injury or death to personnel**		
4. LEFT FRONT MARKER LIGHT DOES NOT ILLUMINATE - CONTINUED	5. Check for 8-14 vdc at lamp socket center contact.	1. Set digital multimeter to vdc.
		2. Connect positive (+) probe of digital multimeter to marker light socket center contact. 3. Connect negative (-) probe of digital multimeter to a known good ground. 4. Position towing vehicle main light switch to SER DRIVE 5. Note reading on digital multimeter.



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

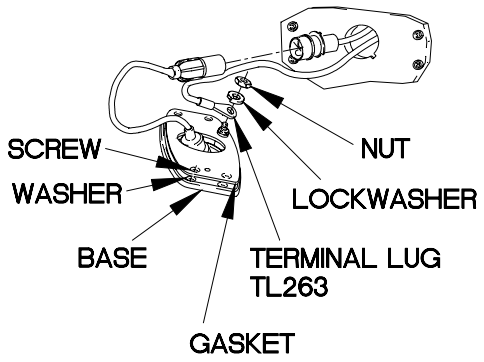
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
4. LEFT FRONT MARKER LIGHT DOES NOT ILLUMINATE - CONTINUED		6. If 8-14 vdc is not present, go to (Test Or Inspection) number 7 of this Malfunction. If 8-14 vdc is present go to (Test Or Inspection) number 8 of this Malfunction.
	6. Check for continuity between connector J251 and terminal lug TL255.	1. Position towing vehicle main light switch to OFF.
		2. Disconnect connector J251 from left front marker light connector.
		3. Open voltage converter box cover (WP 0053 00).
		4. Set digital multimeter to ohms.
		5. Connect positive (+) probe of digital multimeter to connector J251.
		6. Connect negative (-) probe of digital multimeter to terminal lug TL255.
		7. Note reading on digital multimeter.



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
4. LEFT FRONT MARKER LIGHT DOES NOT ILLUMINATE - CONTINUED		8. If continuity is not present, repair wire (WP 0043 00) or replace electrical cable assembly (WP 0051 00). If continuity is present, replace voltage converter box (WP 0052 00).
	7. Check for continuity from terminal lug TL263 to a known good ground.	1. Remove four screws from base.
		2. Extend base.



3700F29

CAUTION

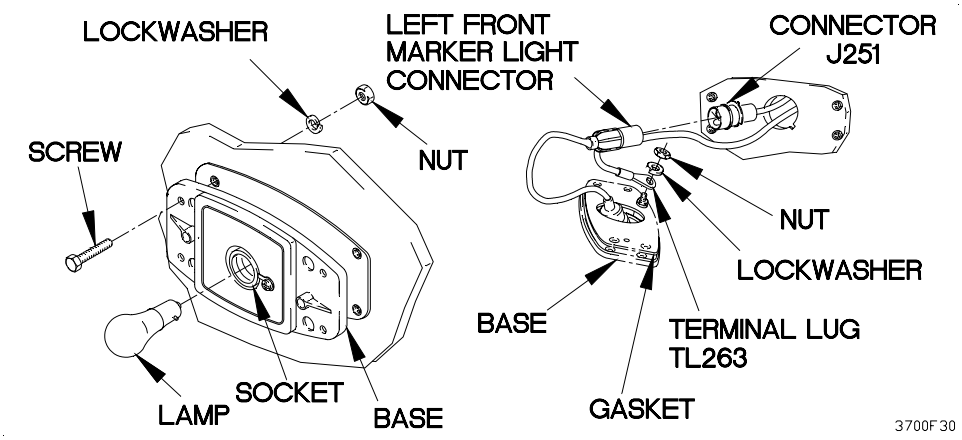
Two nuts are used to keep bottom nut in place. To prevent damage to equipment, use care when removing base.

3. Remove nut, lockwasher, terminal lug TL263, base, and gasket from trailer. Discard lockwasher.
4. Set digital multimeter to ohms.
5. Connect positive (+) probe of digital multimeter to terminal lug TL263.

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

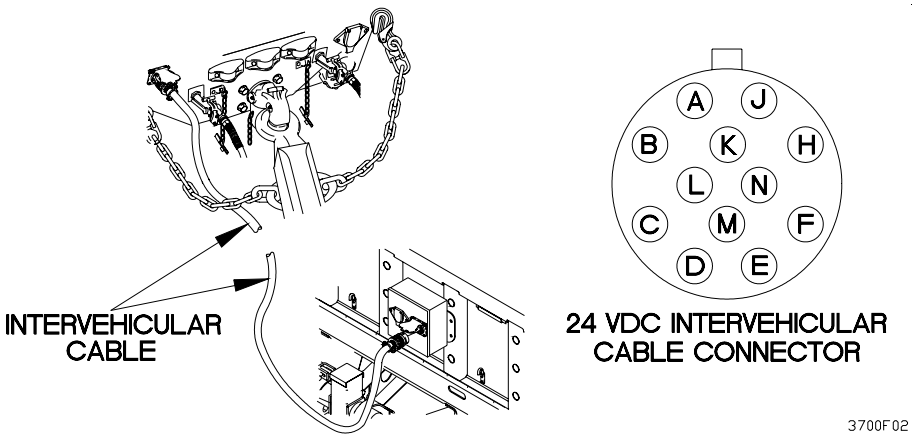
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
4. LEFT FRONT MARKER LIGHT DOES NOT ILLUMINATE - CONTINUED		6. Connect negative (-) probe of digital multimeter to a good known ground. 7. Note reading on digital multimeter. 8. If continuity is not present, repair wire between terminal lug TL263 and terminal lug TL260 (WP 0043 00) or replace electrical cable assembly (WP 0051 00). If continuity is present, replace left front marker light assembly (WP 0050 00). 9. Connect connector J251 to left front marker light connector. 10. Install terminal lug TL263, lockwasher, and nut on back of base.



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
4. LEFT FRONT MARKER LIGHT DOES NOT ILLUMINATE - CONTINUED		11. Install base on trailer with four washers and screws. 12. Install lamp in socket. 13. Install lens on base with two screws.
5. BOTH FRONT MARKER LIGHTS DO NOT ILLUMINATE	1. Check for 18-24 vdc at intervehicular cable connector pin E.	1. Disconnect 24 vdc intervehicular cable from trailer (WP 0012 00).

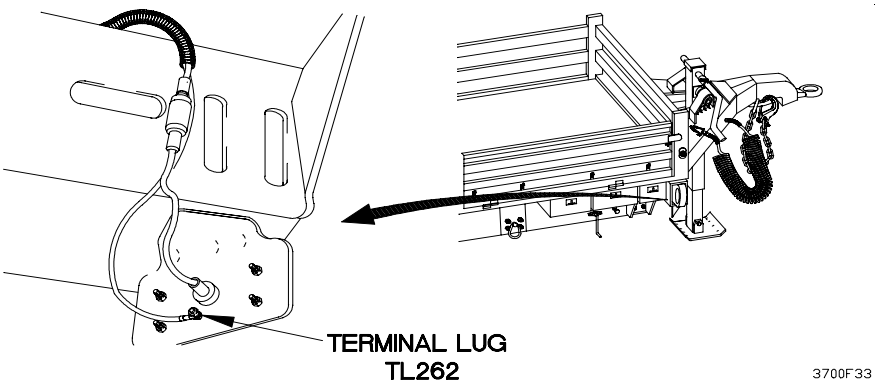


		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to 24 vdc intervehicular cable connector pin E. 4. connect negative (-) probe of digital multimeter to a known good ground. 5. Position towing vehicle main light switch to SER DRIVE 6. Note reading on digital multimeter.

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

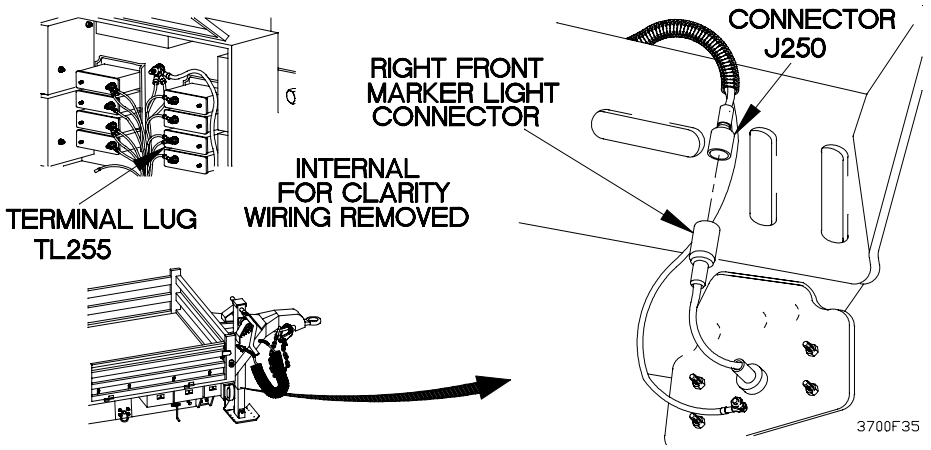
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
5. BOTH FRONT MARKER LIGHTS DO NOT ILLUMINATE - CONTINUED		7. If continuity is not present, replace 24 vdc intervehicular cable (WP 0009 00).
	2. Check for continuity between terminal lug TL262 and a known good ground.	1. Close cover on voltage converter box (WP 0052 00).
		2. Set digital multimeter to ohms.
		3. connect positive (+) probe of digital multimeter to terminal lug TL262.
		4. Connect negative (-) probe of digital multimeter to a known good ground and not reading on digital multimeter.
		5. If continuity is not present, repair wire between terminal lug TL262 and terminal lug TL260 (WP 0043 00) or replace electrical cable assembly.



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
5. BOTH FRONT MARKER LIGHTS DO NOT ILLUMINATE - CONTINUED	3. Check for continuity between connector J250 and terminal lug TL255.	1. Disconnect connector J250 from right front marker light connector.

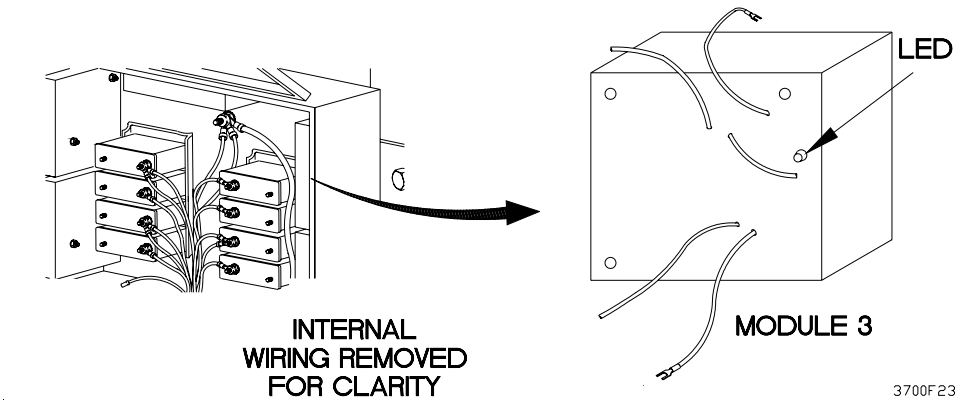


		2. Open voltage converter box cover (WP 0053 00). 3. Set digital multimeter to ohms. 4. connect positive (+) probe of digital multimeter to connector J250. 5. Connect negative (-) probe of digital multimeter to terminal lug TL255 and note reading on digital multimeter. 6. If continuity is not present, repair wire between terminal lug TL263 and terminal lug TL260 (WP 0043 00) or replace electrical cable assembly (WP 0051 00).

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

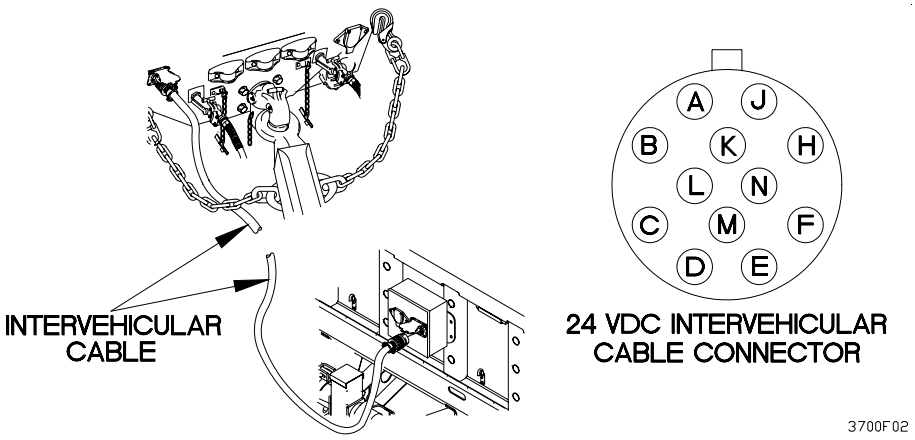
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
5. BOTH FRONT MARKER LIGHTS DO NOT ILLUMINATE - CONTINUED	4. Check module 3 LED for illumination.	1. Connect 24 vdc intervehicular cable to trailer (WP 0009 00).



2. Open voltage converter box (WP 0053 00).
3. Position towing vehicle main light switch to SER DRIVE and note if LED on module 3 illuminates.
4. If module 3 LED does not illuminate, replace module 3 (WP 0053 00). If module 3 LED illuminates, replace voltage converter box (WP 0052 00).

ELECTRICAL SYSTEM - Continued

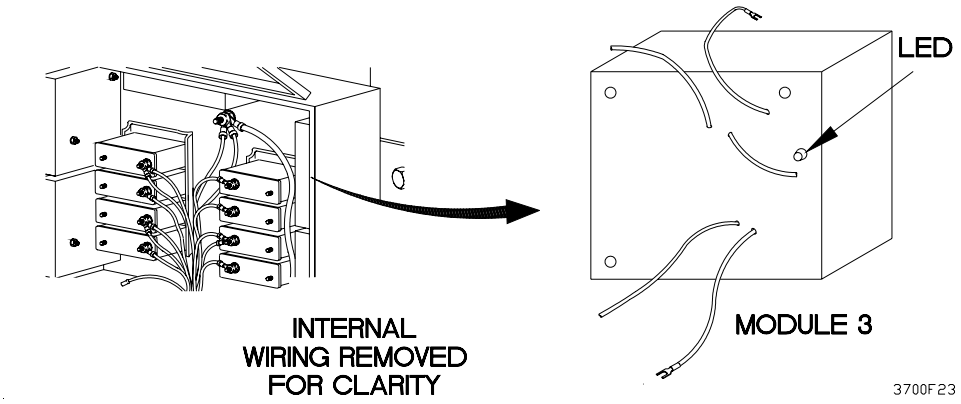
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
	WARNING **Remove rings, bracelets, wristwatches, neck chains, and any other jewelry before working around trailer. Jewelry may catch on equipment or may short across an electrical circuit. Failure to comply may result in serious injury or death to personnel**	
6. RIGHT TAILLIGHT DOES NOT ILLUMINATE	1. Check for 18-26 vdc at 24 vdc intervehicular cable connector pin E.	1. Disconnect 24 vdc intervehicular cable from trailer (WP 0012 00).
		
		2. Set digital multimeter to vdc. 3. Connect positive (+) probe of digital multimeter to 24 vdc intervehicular cable connector pin E. 4. Connect negative (-) probe of digital multimeter to a known good ground. 5. Position towing vehicle main light switch to SER DRIVE 6. Note reading on digital multimeter.

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

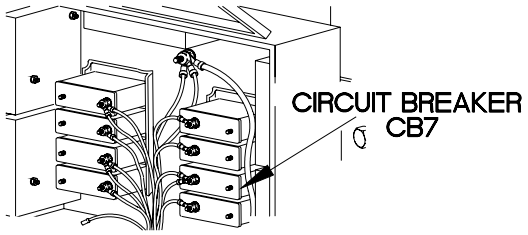
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
6. RIGHT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED		7. If 18-26 vdc is not present, replace 24 vdc intervehicular cable (WP 0009 00).
	2. Check module 3 LED for illumination.	1. Couple trailer (WP 0009 00).
		2. Open cover on voltage converter box (WP 0052 00).
		3. Check to see if module 3 LED illuminates.
		4. Position towing vehicle main light switch to OFF
		5. If module 3 LED does not illuminate, replace module 3 (WP 0053 00).



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

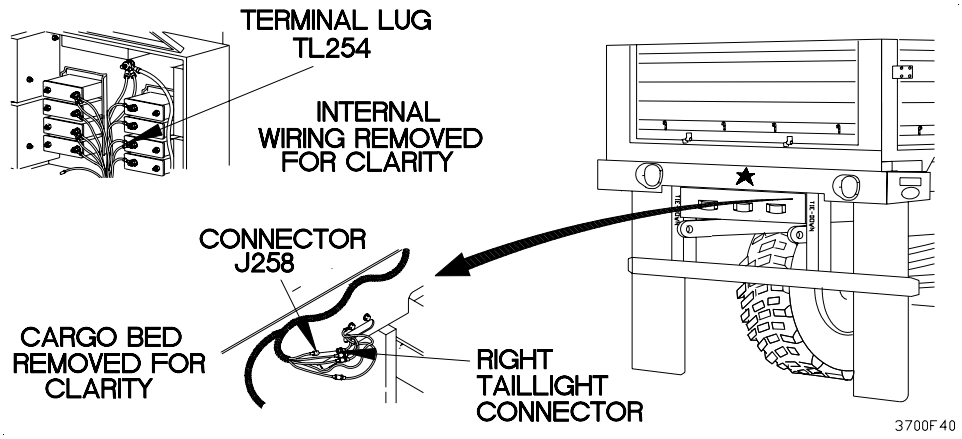
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
6. RIGHT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	3. Check for continuity across circuit breaker CB7.	1. Set digital multimeter to ohms.
		2. Connect positive (+) probe of digital multimeter to one terminal on circuit breaker CB7. 3. Connect negative (-) probe of digital multimeter to other terminal on circuit breaker CB7. 4. Note reading on digital multimeter. 5. If continuity is not present, replace circuit breaker CB7 (WP 0053 00).



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

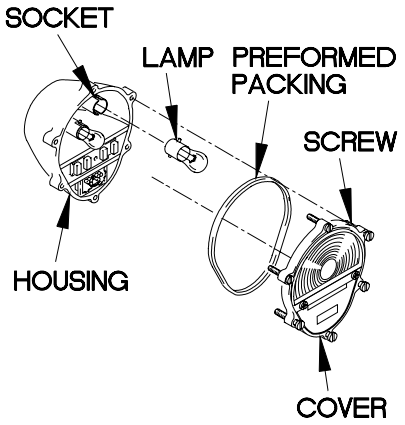
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
6. RIGHT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	4. Check for continuity between connector J258 and terminal lug TL254.	1. Disconnect connector J258 from right taillight connector.
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to connector J258. 4. Connect negative (-) probe of digital multimeter to terminal lug TL254. 5. Note reading on digital multimeter. 6. If continuity is not present, repair wire between connector J258 and terminal lug TL254 (WP 0043 00) or replace electrical cable assembly (WP 0051 00).



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

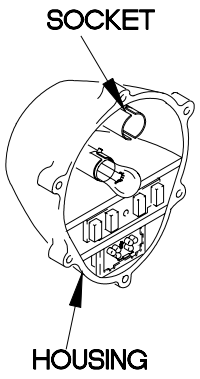
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
6. RIGHT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	5. Check continuity through right taillight lamp.	1. Loosen six screws and remove cover and preformed packing from housing. Discard preformed packing.
		2. Remove lamp from socket. 3. Set digital multimeter to ohms. 4. Connect positive (+) probe of digital multimeter to center of socket side of lamp. 5. Connect negative (-) probe of digital multimeter to side of socket side of lamp. 6. Note reading on digital multimeter. 7. If continuity is not present, replace lamp (WP 0049 00).



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
WARNING **Remove rings, bracelets, wristwatches, neck chains, and any other jewelry before working around trailer. Jewelry may catch on equipment or may short across an electrical circuit. Failure to comply may result in serious injury or death to personnel**		
6. RIGHT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	6. Check for 8-14 vdc at lamp socket center contact.	1. Set digital multimeter to vdc.
		2. Connect positive (+) probe of digital multimeter to marker light socket center contact. 3. Connect negative (-) probe of digital multimeter to a known good ground. 4. Position towing vehicle main light switch to SER DRIVE 5. Note reading on digital multimeter. 6. If continuity is present, go to (Test Or Inspection) step 9 of this Malfunction.

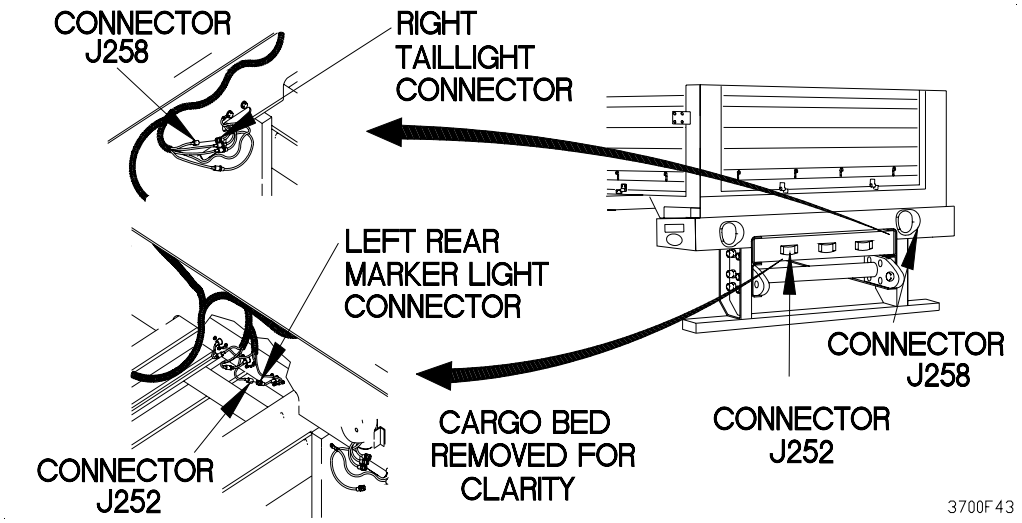


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ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

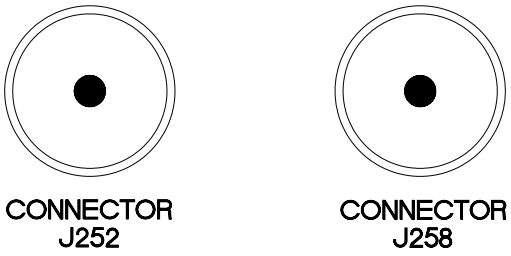
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
6. RIGHT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	7. Check for continuity between connector J258 and connector J252.	1. Disconnect connector J258 from right taillight connector.
		2. Disconnect connector J252 from left rear marker light connector.
		3. Connect positive (+) probe of digital multimeter connector J258.
		4. Connect negative (-) probe of digital multimeter to connector J252 and note reading on digital multimeter.
		5. If continuity is not present, repair wire between connector J258 and connector J252 (WP 0043 00) or replace electrical cable assembly (WP 0051 00). If continuity is present, replace composite taillight assembly (WP 0049 00).



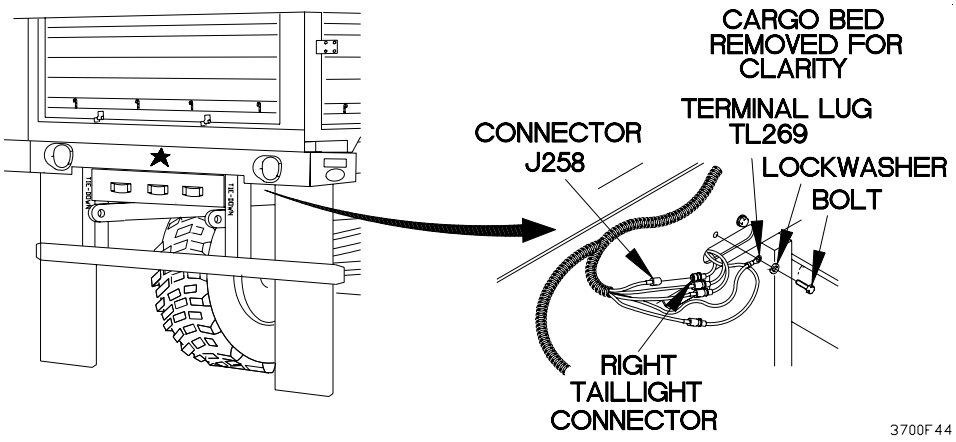
ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
6. RIGHT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED		6. Connect connector J258 to right taillight connector. 7. Connect connector J252 to left rear marker light.



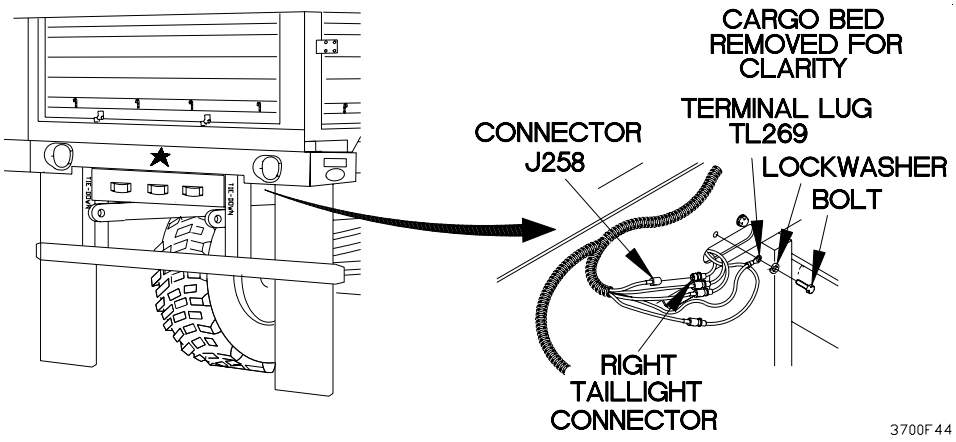
	8. Check for continuity between terminal lug TL269 and a known good ground.	1. Disconnect connector J258 from right taillight connector.



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

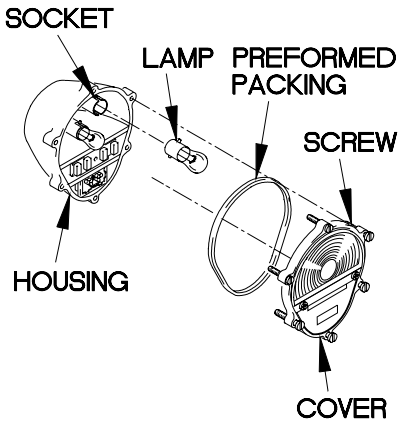
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
6. RIGHT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED		2. Remove bolt, lockwasher, and terminal lug TL269 from trailer. Discard lockwasher. 3. Set digital multimeter to ohms. 4. Connect positive (+) probe of digital multimeter to terminal lug TL269. 5. Connect negative (-) probe of digital multimeter to a known good ground and note reading on digital multimeter. 6. If continuity is not present, repair wire (WP 0043 00) or replace electrical cable assembly (WP 0051 00). 7. If continuity is present, replace right taillight (WP 0049 00). 8. Connect connector J258 to right taillight connector. 9. Install terminal lug TL 269, lockwasher, and bolt on back of base.



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
6. RIGHT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED		10. Install preformed packing and cover on housing with six screws.

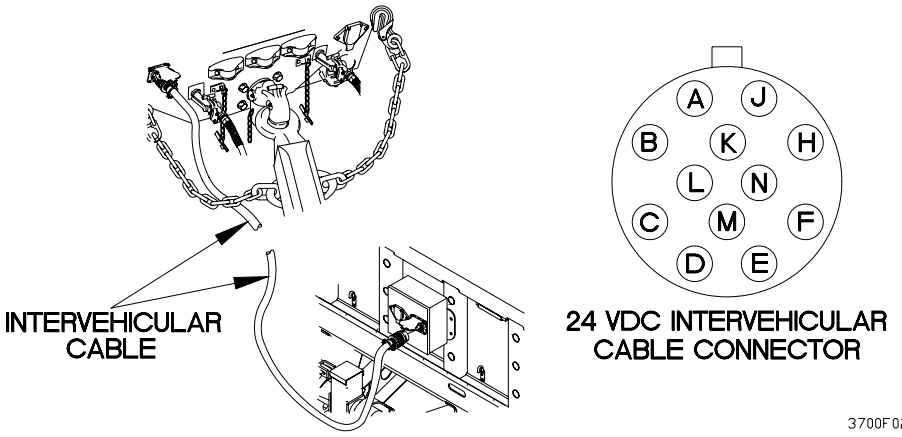


3700F41

WARNING

Remove rings, bracelets, wristwatches, neck chains, and any other jewelry before working around trailer. Jewelry may catch on equipment or may short across an electrical circuit. Failure to comply may result in serious injury or death to personnel

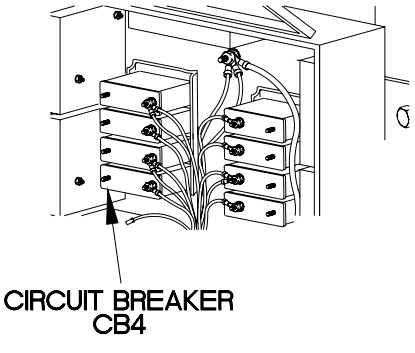
7. RIGHT STOPLIGHT DOES NOT ILLUMINATE	1. Check for 18-26 vdc at 24 vdc intervehicular cable connector pin J.	1. Disconnect 24 vdc intervehicular cable from trailer (WP 0012 00).



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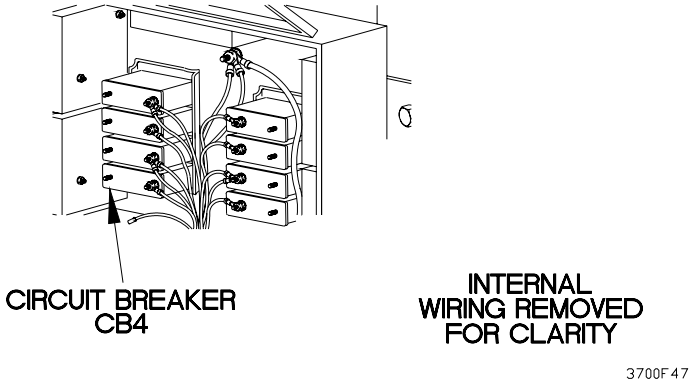
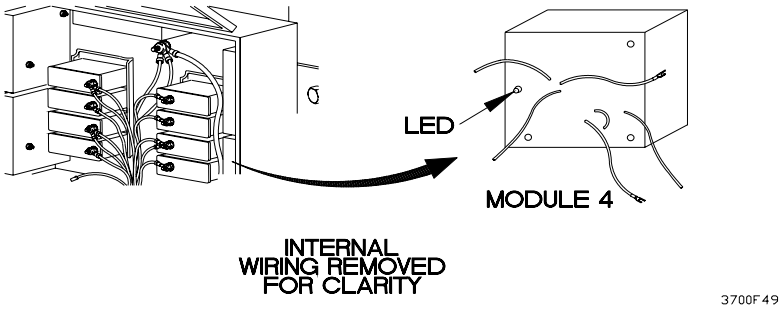
ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
7. RIGHT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED		2. Connect positive (+) probe of digital multimeter to 24 vdc intervehicular cable connector pin J. 3. Connect negative (-) probe of digital multimeter to a known good ground. 4. Position towing vehicle main light switch to STOPLIGHT and note reading on digital multimeter. 5. If continuity is not present, replace 24 vdc intervehicular cable. 6. Position towing vehicle main light switch to OFF.
	2. Check continuity across circuit breaker CB4.	1. Open voltage converter box (WP 0053 00).
		
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to one terminal of circuit breaker CB4.

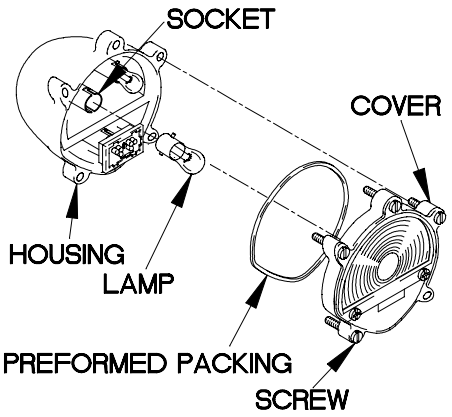
ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
7. RIGHT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED		4. Connect negative (-) probe of digital multimeter to other terminal of circuit breaker CB4.
		
		5. Note reading on digital multimeter. 6. If continuity is not present, replace circuit breaker CB4 (WP 0053 00).
	3. Check module 4 LED for illumination.	1. Connect 24 vdc intervehicular cable to trailer (WP 0009 00).
		
		2. Position towing vehicle main light switch to STOPLIGHT. 3. Check to see if module 4 LED illuminates.

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
7. RIGHT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED		4. Position towing vehicle main light switch to OFF. 5. If continuity is not present, replace module 2 (WP 0053 00).
	4. Check for continuity through right stoplight lamp.	1. Loosen six screws on right rear composite taillight cover.
	 3700F50	
		2. Remove cover and preformed packing from housing. Discard preformed packing. 3. Remove lamp from socket. 4. Set digital multimeter to ohms. 5. Connect positive (+) probe of digital multimeter to center of socket side of lamp. 6. Connect negative (-) probe of digital multimeter to side of socket side of lamp. 7. Note reading on digital multimeter.

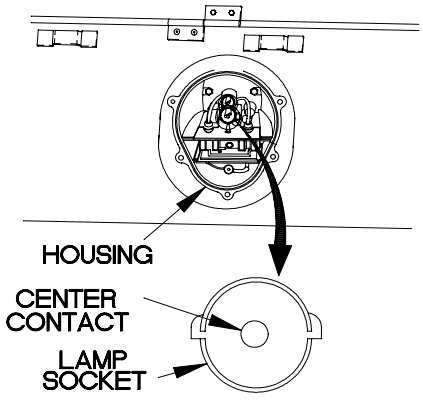
ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
7. RIGHT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED		8. If continuity is not present, replace lamp (WP 0049 00).

WARNING

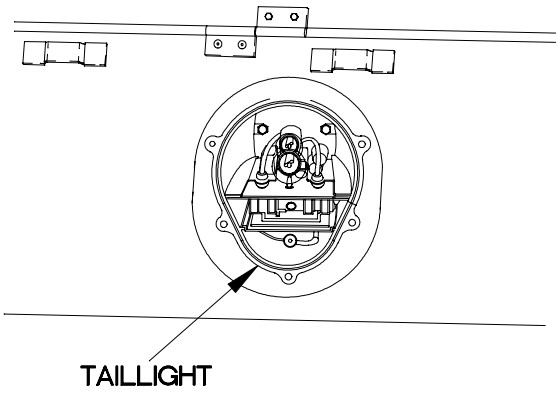
Remove rings, bracelets, wristwatches, neck chains, and any other jewelry before working around trailer. Jewelry may catch on equipment or may short across an electrical circuit. Failure to comply may result in serious injury or death to personnel

	5. Check for 8-14 vdc at stoplight socket center contact.	1. Set digital multimeter to vdc.
	 3700F51	
		2. Connect positive (+) probe of digital multimeter to marker light socket center contact. 3. Connect negative (-) probe of digital multimeter to a known good ground. 4. Position towing vehicle main light switch to STOPLIGHT.

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
7. RIGHT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED		5. Depress brake pedal and note reading on digital multimeter. 6. Release brake pedal. 7. Position towing vehicle main light switch to OFF. 8. If 8-14 vdc is not present, go to (Test Or Inspection) step 8 of this Malfunction.
	6. Check to see if right taillight illuminates.	1. Position towing vehicle main light switch to STOPLIGHT.
		2. Depress brake pedal. 3. Check to see if right stoplight illuminates. 4. Release brake pedal. 5. Position towing vehicle main light switch to OFF.

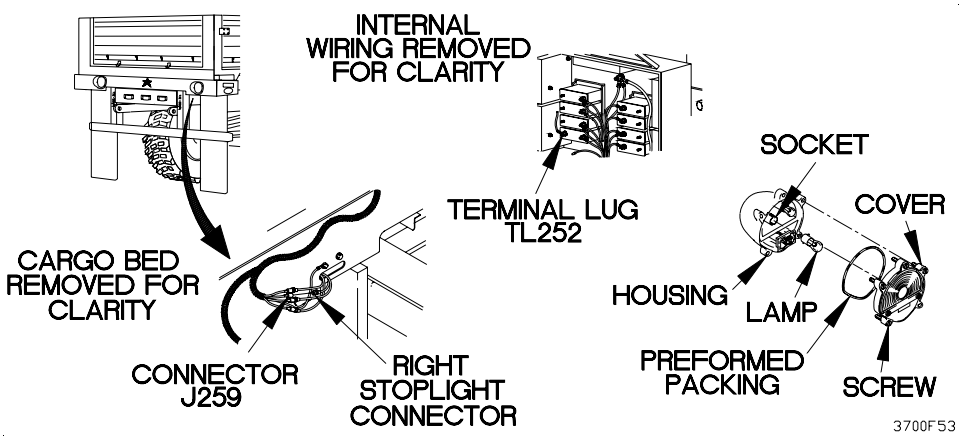


3700F52

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
7. RIGHT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED		6. If brake light does not illuminate, repair wire between terminal lug TL269 and terminal lug TL267 (WP 0043 00) or replace electrical cable assembly (WP 0051 00).
	7. Check for continuity between connector J259 and terminal lug TL252.	1. Install lamp in socket.



		2. Install preformed packing and cover on housing with six screws. 3. Disconnect connector J259 form right stoplight connector. 4. Open voltage converter box cover (WP 0054 00). 3. Connect positive (+) probe of digital multimeter to connector J259.

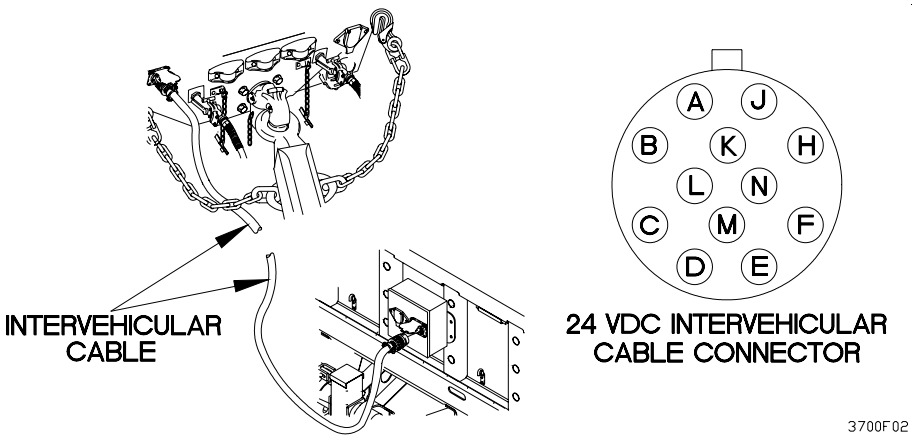
ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
7. RIGHT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED		5. Connect negative (-) probe of digital multimeter to terminal lug TL252 and not reading on digital multimeter. 6. If continuity is not present, repair wire between connector J259 and terminal lug TL252 (WP 0043 00) or replace electrical cable assembly (WP 0051 00). If continuity is present replace voltage converter box (WP 0052 00). 7. Close voltage converter box cover (WP 0053 00). 8. connect connector J259 to right stoplight connector.

ELECTRICAL SYSTEM - Continued

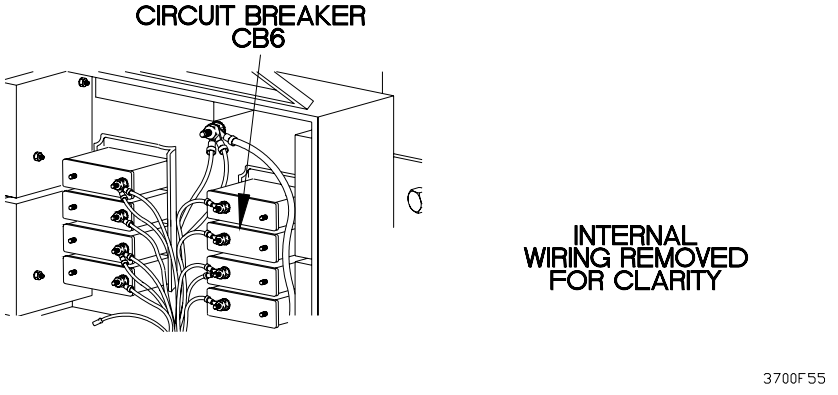
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
WARNING **Remove rings, bracelets, wristwatches, neck chains, and any other jewelry before working around trailer. Jewelry may catch on equipment or may short across an electrical circuit. Failure to comply may result in serious injury or death to personnel**		
8. RIGHT BLACKOUT TAILLIGHT DOES NOT ILLUMINATE	1. Check for 18-26 vdc at 24 vdc intervehicular cable connector pin C.	1. Disconnect 24 vdc intervehicular cable from trailer (WP 0012 00).
		
		2. Connect positive (+) probe of digital multimeter to 24 vdc intervehicular cable connector pin C. 3. Connect negative (-) probe of digital multimeter to a known good ground. 4. Position towing vehicle main light switch to BO DRIVE and note reading on digital multimeter.

ELECTRICAL SYSTEM - Continued

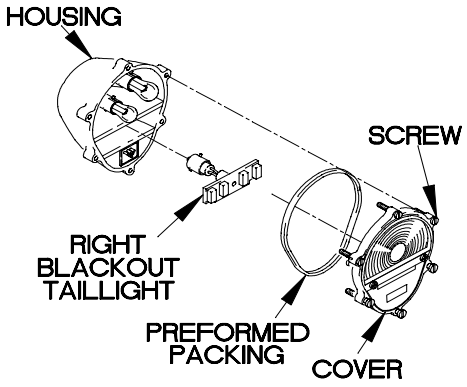
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
8. RIGHT BLACKOUT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED		5. If continuity is not present, replace 24 vdc intervehicular cable. 6. Position towing vehicle main light switch to OFF.
	2. Check for continuity across circuit breaker CB6.	1. Open voltage converter box (WP 0053 00).
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to one terminal of circuit breaker CB6. 4. Connect negative (-) probe of digital multimeter to other terminal of circuit breaker CB6 and note reading on digital multimeter. 5. If continuity is not present, replace circuit breaker CB6 (WP 0053 00).



ELECTRICAL SYSTEM - Continued

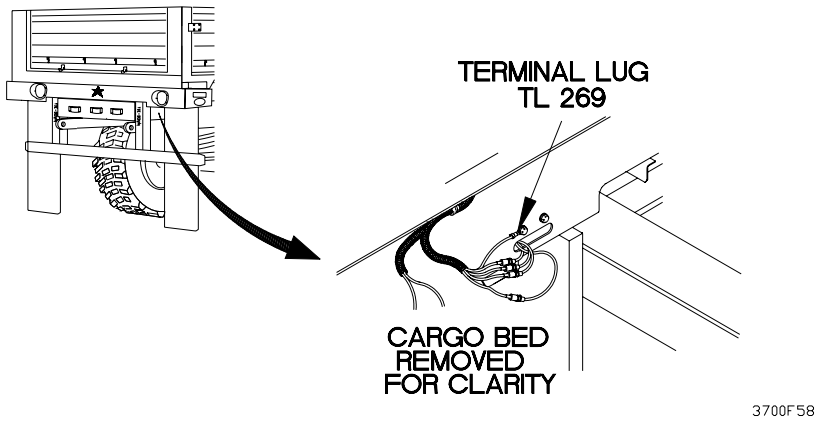
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
WARNING **Remove rings, bracelets, wristwatches, neck chains, and any other jewelry before working around trailer. Jewelry may catch on equipment or may short across an electrical circuit. Failure to comply may result in serious injury or death to personnel**		
8. RIGHT BLACKOUT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	3. Check for 18-26 vdc at blackout taillight lamp socket center contact.	1. Connect 24 vdc intervehicular cable to trailer (WP 0009 00).
 3700F57		
		2. Loosen six screws, cover, and preformed packing from housing. Discard preformed packing. 3. Remove blackout taillight from socket. 4. Set digital multimeter to vdc. 5. Connect positive (+) probe of digital multimeter to marker light socket center contact. 6. Connect negative (-) probe of digital multimeter to a known good ground.

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
8. RIGHT BLACKOUT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED		7. Position towing vehicle main light switch to BO DRIVE and note reading on digital multimeter. 8. Position towing vehicle main light switch to OFF. 9. If 18-26 vdc is not present, go to (Test Or Inspection) step 6 of this Malfunction.
	4. Check for continuity between terminal lug TL269 and a known good ground.	1. Set digital multimeter to ohms.
		2. Connect positive (+) probe of digital multimeter to terminal lug TL269. 3. Connect negative (-) probe of digital multimeter to a known good ground and note reading on digital multimeter.



ELECTRICAL SYSTEM - Continued

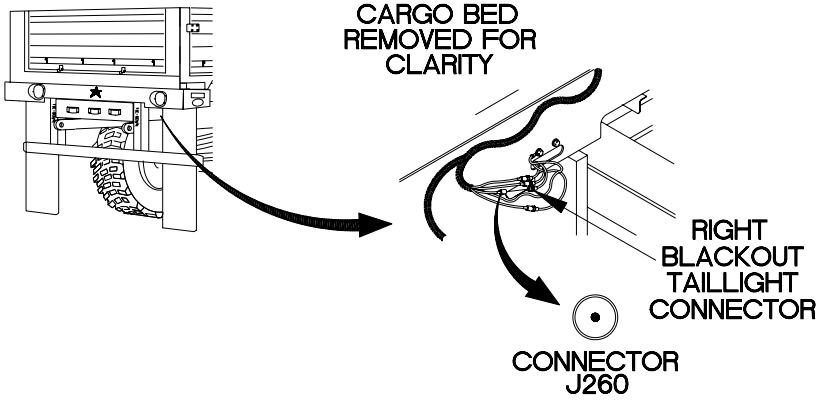
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
8. RIGHT BLACKOUT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED		4. If continuity is not present, replace composite taillight assembly (WP 0049 00). If continuity is present, replace blackout lamp (WP 0049 00).

WARNING

Remove rings, bracelets, wristwatches, neck chains, and any other jewelry before working around trailer. Jewelry may catch on equipment or may short across an electrical circuit. Failure to comply may result in serious injury or death to personnel

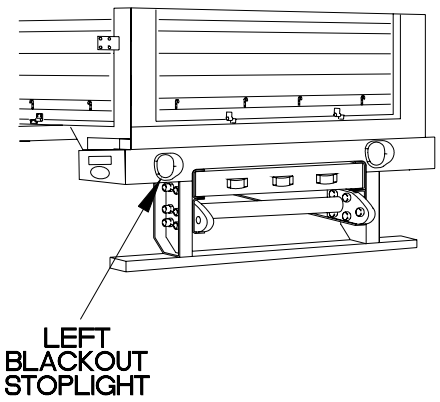
	5. Check for 18-26 vdc at connector J260.	1. Disconnect connector J260 from blackout taillight connector.



		2. Connect positive (+) probe of digital multimeter to connector J260. 3. Connect negative (-) probe of digital multimeter to a known good ground. 4. Position towing vehicle main light switch to BO DRIVE and note reading on digital multimeter.

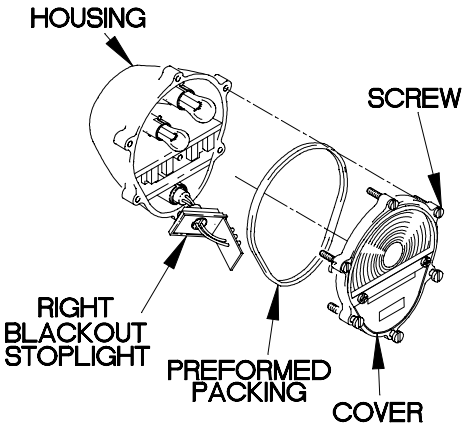
ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
8. RIGHT BLACKOUT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED		5. Position towing vehicle main light switch to OFF. 6. If 18-26 vdc is not present, repair wire between connector J260 and terminal lug TL259 (WP 0043 00) or replace electrical cable (WP 0051 00). If 18-26 vdc is present, replace composite taillight assembly (WP 0049 00). 7. Connect connector J260 to blackout taillight connector.
9. RIGHT BLACKOUT STOPLIGHT DOES NOT ILLUMINATE	1. Check to see if left BLACKOUTstoplight illuminates.	1. Position towing vehicle main light switch to BO DRIVE.
	 3700F94	
		2. Depress brake pedal. 3. Check to see if left blackout stoplight illuminates. 4. Release brake pedal. 5. Position towing vehicle main light switch to OFF.

ELECTRICAL SYSTEM - Continued

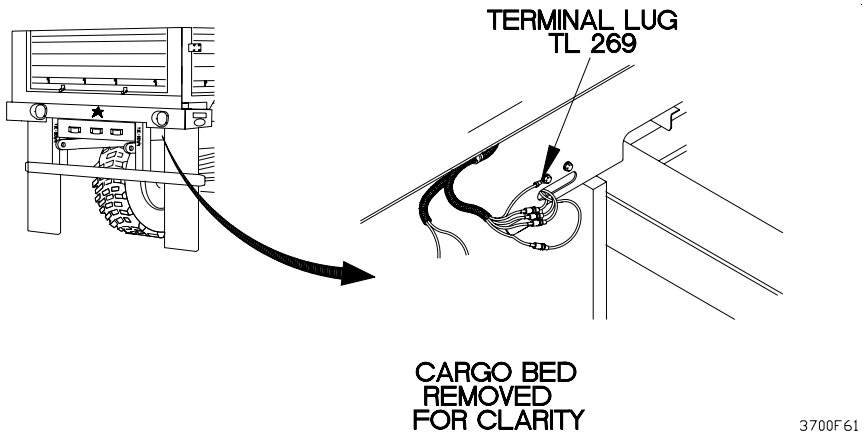
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
9. RIGHT BLACKOUT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED		6. If left blackout stoplight does not illuminate, go to step 5 of this malfunction.
	2. Check to see if 18-26 vdc is present at right blackout stoplight lamp socket center contact.	1. Loosen six screws and remove cover and preformed packing from housing. Discard preformed packing.
		
		2. Remove blackout stoplight from socket. 3. Set digital multimeter to volts dc. 4. Connect positive (+) probe of digital multimeter to blackout stoplight lamp socket center contact. 5. Connect negative (-) probe of digital multimeter to a known good ground. 6. Position towing vehicle main light switch to BO DRIVE and note reading on digital multimeter. 7. Position towing vehicle main light switch to OFF.

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

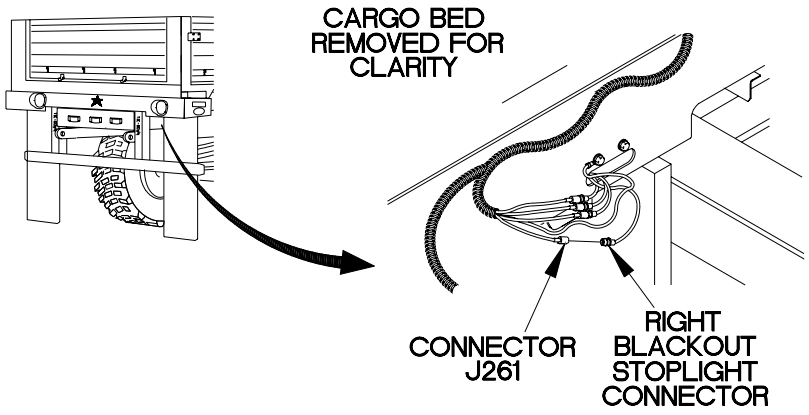
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
9. RIGHT BLACKOUT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED		8. If 18-26 vdc is not present, go to step 4 of this malfunction. 9. Install blackout stoplight in socket. 10. Install preformed packing and cover with six screws.
	3. Check to see if continuity is present between terminal lug TL269 and a known good ground.	1. Set digital multimeter to ohms.
		2. Connect positive (+) probe of digital multimeter to terminal lug TL269. 3. Connect negative (-) probe of digital multimeter to a known good ground and note reading on digital multimeter. 4. If continuity is not present, replace composite taillight assembly (WP 0049 00).



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

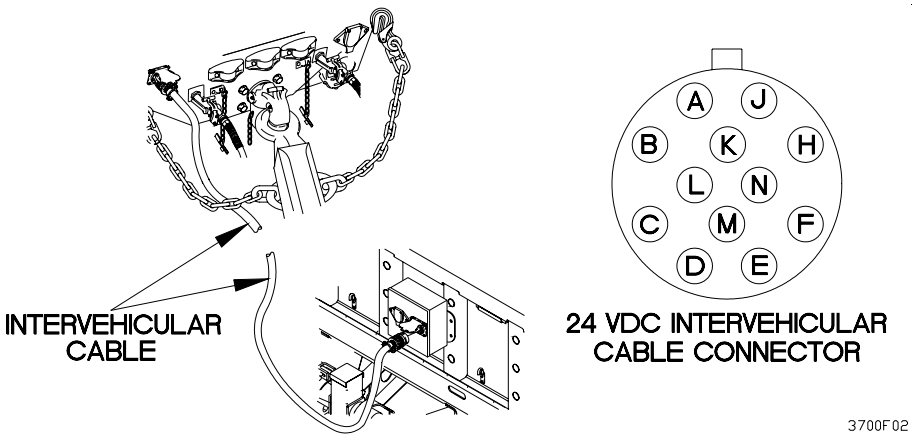
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
9. RIGHT BLACKOUT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED		5. If continuity is present, replace blackout lamp (WP 0049 00).
	4. Check to see if 18-26 vdc is present at connector J261.	1. Disconnect connector J261 from blackout stoplight connector.
		2. Set digital multimeter to ohms.
		3. Connect positive (+) probe of digital multimeter to connector J261.
		4. Connect negative (-) probe of digital multimeter to a known good ground.
		5. Position towing vehicle main light switch to BO DRIVE and note reading on digital multimeter.
		6. Position towing vehicle main light switch to OFF.
		7. If 18-26 vdc is not present, repair wire (WP 0043 00) or replace electrical cable assembly (WP 0051 00).



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

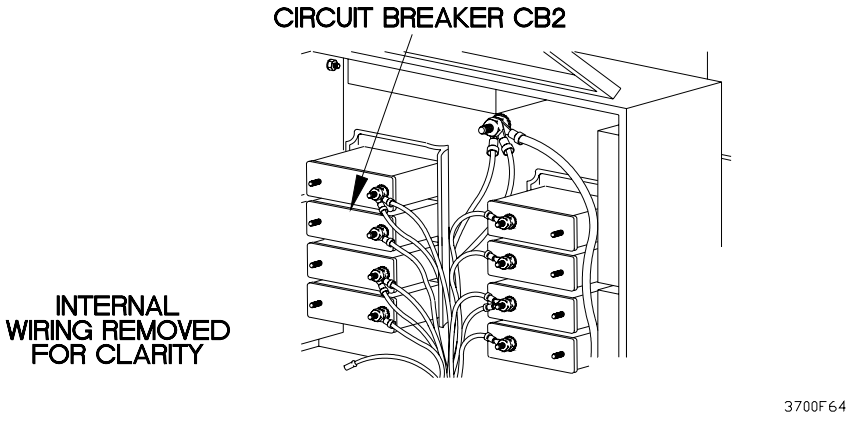
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
9. RIGHT BLACKOUT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED		8. If 18-26 vdc is present, replace composite taillight assembly (WP 0049 00).
	5. Check to see if 18-26 vdc is present at 24 vdc intervehicular cable connector pin F.	1. Disconnect 24 vdc intervehicular cable from trailer (WP 0012 00).
		2. Set digital multimeter to ohms.
		3. Connect positive (+) probe of digital multimeter to 24 vdc intervehicular cable connector pin F.
		4. Connect negative (-) probe of digital multimeter to a known good ground.
		5. Position towing vehicle main light switch to BO DRIVE and note reading on digital multimeter.
		6. Position towing vehicle main light switch to OFF.



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

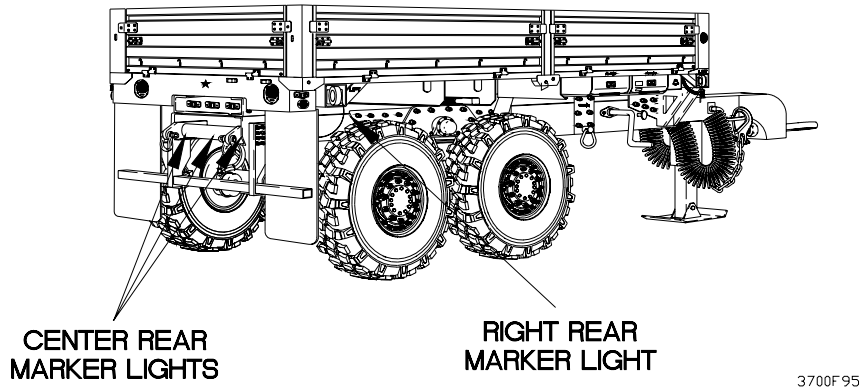
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
9. RIGHT BLACKOUT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED		7. If 18-26 vdc is not present, replace intervehicular cable.
	6. Check to see if continuity is present across circuit breaker CB2.	1. Open voltage converter box cover (WP 0053 00). 2. Set digital multimeter to ohms.
		3. Connect positive (+) probe of digital multimeter to one terminal of circuit breaker CB2. 4. Connect negative (-) probe of digital multimeter to other terminal of circuit breaker CB2. 5. If continuity is not present, replace circuit breaker CB2 (WP 0053 00).



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
10. LEFT TAILLIGHT DOES NOT ILLUMINATE	1. Check to see if right rear and center rear marker lights illuminate.	1. Position towing vehicle main light switch to SER DRIVE.



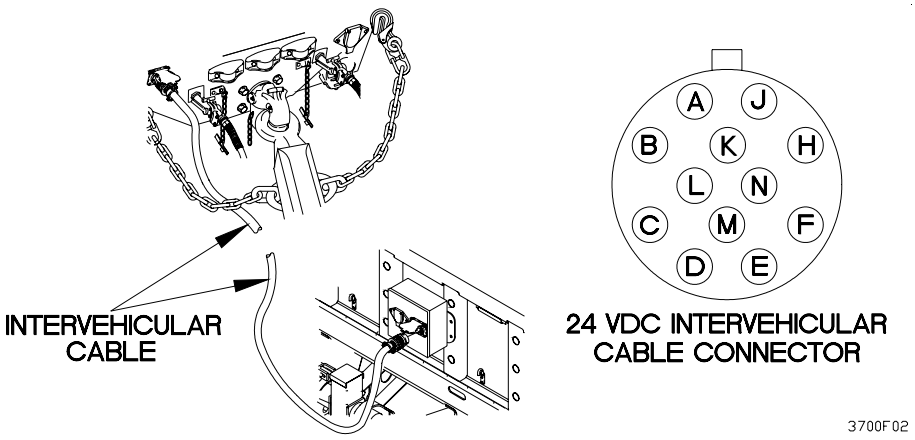
		2. Check to see if right rear and center rear marker lights illuminate. 3. Position towing vehicle main light switch to OFF. 4. If right rear and center rear marker lights illuminate, go to test 7 of this malfunction.

ELECTRICAL SYSTEM TROUBLESHOOTING - Continued 0036 00

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
10. LEFT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	2. Check to see if 18-26 vdc is present at 24 vdc intervehicular cable connector pin E.	1. Disconnect 24 vdc intervehicular cable from trailer (WP 0012 00).

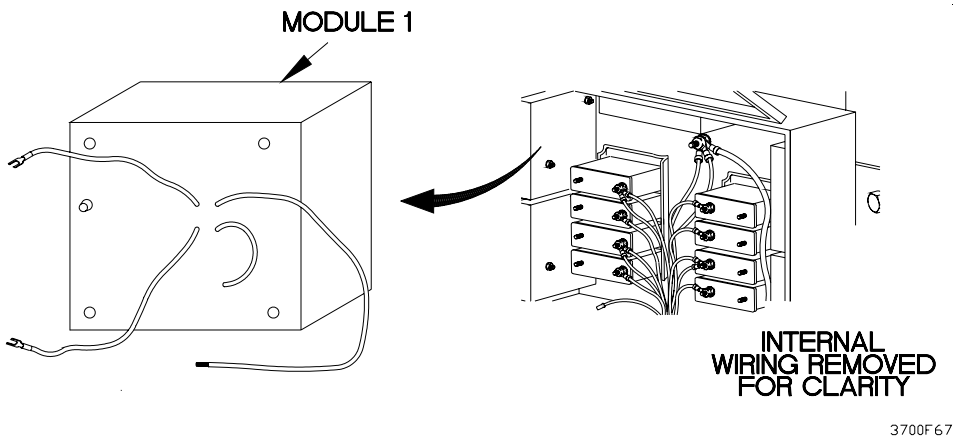


2. Set digital multimeter to volts dc.
3. Connect positive (+) probe of digital multimeter to 24 vdc intervehicular cable connector pin E.
4. Connect negative (-) probe of digital multimeter to a known good ground.
5. Position towing vehicle main light switch to SER DRIVE and note reading on digital multimeter.
6. Position towing vehicle main light switch to OFF.
7. If 18-26 vdc is not present, replace 24 vdc intervehicular cable (WP 0164 00, Item 2).

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

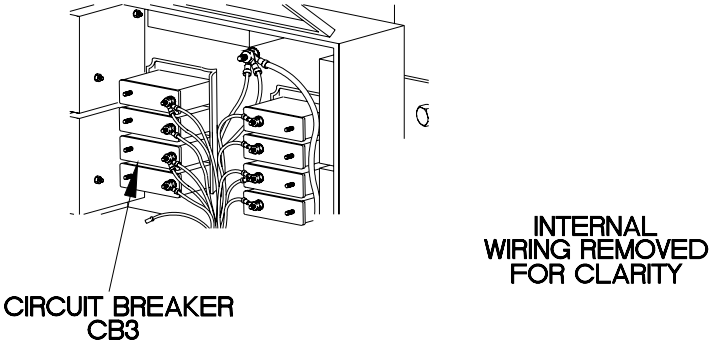
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
10. LEFT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	3. Check to see if module 1 LED illuminates.	1. Connect 24 vdc intervehicular cable (WP 0009 00). 2. Position towing vehicle main light switch to SER DRIVE.
		3. Open voltage converter box (WP 0053 00). 4. Check to see if module 1 LED illuminates. 5. Position towing vehicle main light switch to OFF. 6. If module 1 LED does not illuminate, replace module 1 (WP 0053 00).



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

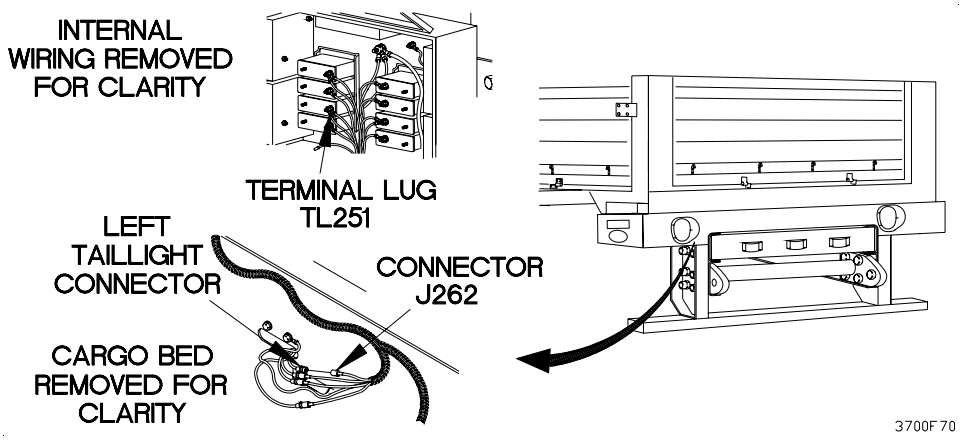
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
10. LEFT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	4. Check to see if continuity is present across circuit breaker CB3.	1. Set digital multimeter to ohms.
		2. Connect positive (+) probe of digital multimeter to one terminal of circuit breaker CB3.
		3. Connect negative (-) probe of digital multimeter to other terminal of circuit breaker CB3 and note reading on digital multimeter.
		4. If continuity is not present, replace circuit breaker CB3 (WP 0053 00).



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
10. LEFT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	5. Check to see if continuity is present between connector J262 and terminal lug TL251.	1. Disconnect connector J262 from left taillight connector.
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to connector J262. 4. Connect negative (-) probe of digital multimeter to terminal lug TL251 and note reading on digital multimeter. 5. If continuity is not present, repair wire (WP 0043 00) or replace electrical cable assembly (WP 0051 00).

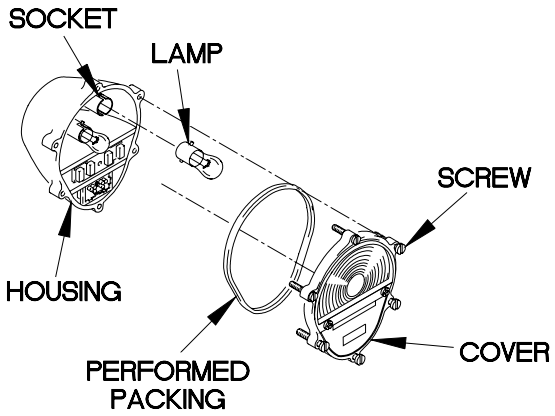


ELECTRICAL SYSTEM TROUBLESHOOTING - Continued 0036 00

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
10. LEFT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	6. Check to see if continuity is present through lamp.	1. Loosen six screws and remove cover and preformed packing from housing. Discard preformed packing.

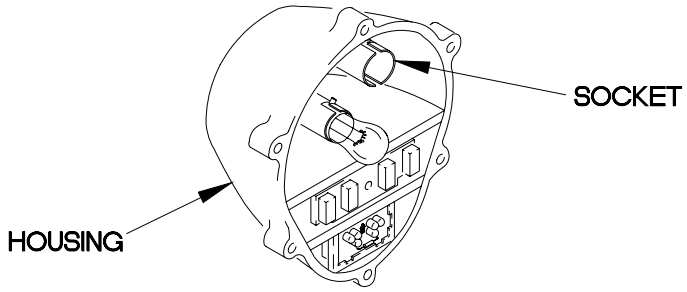


		2. Remove lamp from socket. 3. Connect positive (+) probe of digital multimeter to center of socket side of bulb. 4. Connect negative (-) probe of digital multimeter to side of socket side of bulb and note reading on digital multimeter. 5. If continuity is not present, replace lamp (WP 0050 00).

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
10. LEFT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	7. Check to see if 8-14 vdc is present at lamp socket center contact.	1. Set digital multimeter to volts dc.
		2. Connect positive (+) probe of digital multimeter to taillight socket center contact.
		3. Connect negative (-) probe of digital multimeter to a known good ground.
		4. Position towing vehicle main light switch to SER DRIVE and note reading on digital multimeter.
		5. Position towing vehicle main light switch to OFF.
		6. If 8-14 vdc is not present, repair wire (WP 0043 00) or replace electrical cable assembly (WP 0051 00).



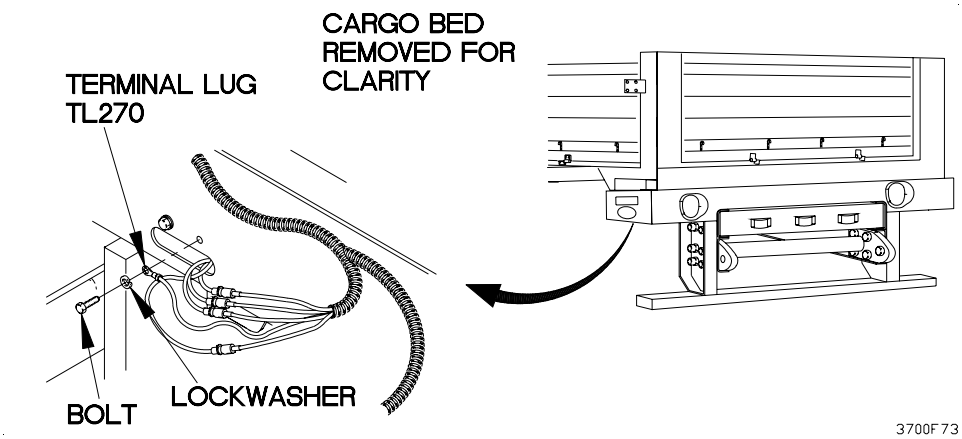
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ELECTRICAL SYSTEM TROUBLESHOOTING - Continued 0036 00

ELECTRICAL SYSTEM - Continued

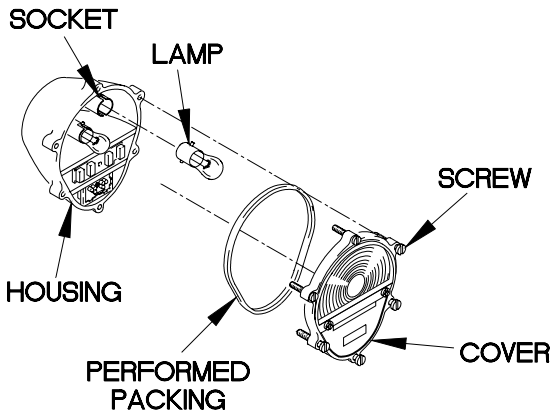
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
10. LEFT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	8. Check to see if continuity is present between terminal lug TL270 and a known good ground.	1. Remove bolt, lockwasher, and terminal lug TL270 from trailer. Discard lockwasher.
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to terminal lug TL270. 4. Connect negative (-) probe of digital multimeter to a known good ground and note reading on digital multimeter. 5. If continuity is not present, repair wire (WP 0043 00) or replace electrical cable assembly (WP 0051 00). 6. If continuity is present, replace left taillight (WP 0049 00).



ELECTRICAL SYSTEM - Continued

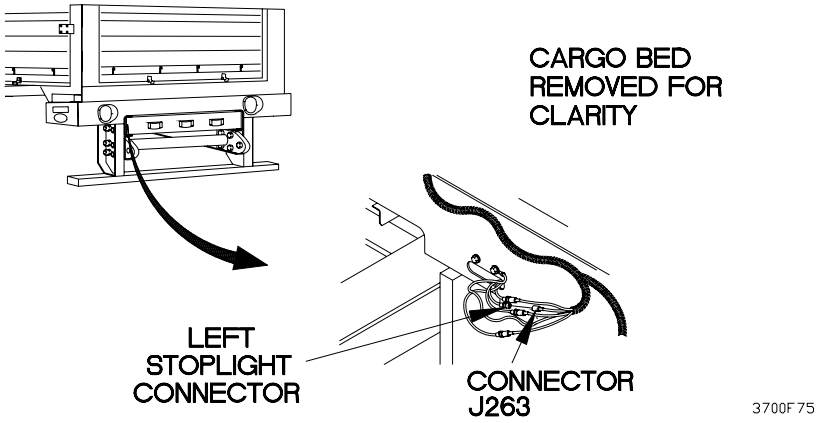
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
11. LEFT STOPLIGHT DOES NOT ILLUMINATE	1. Check to see if continuity is present through lamp.	1. Loosen six screws on cover.
		 3700F74
		2. Remove cover and preformed packing from housing. Discard preformed packing.
		3. Remove lamp from socket.
		4. Set digital multimeter to ohms.
		5. Connect positive (+) probe of digital multimeter to center of socket side of bulb.
		6. Connect negative (-) probe of digital multimeter to side of socket side of bulb and note reading on digital multimeter.
		7. If continuity is not present, replace lamp (WP 0049 00).
		8. Install lamp in socket.
		9. Install preformed packing and cover on housing with six screws.

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
11. LEFT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED	2. Check to see if 8-14 vdc is present at connector J263.	1. Disconnect connector J263 from left stoplight connector.

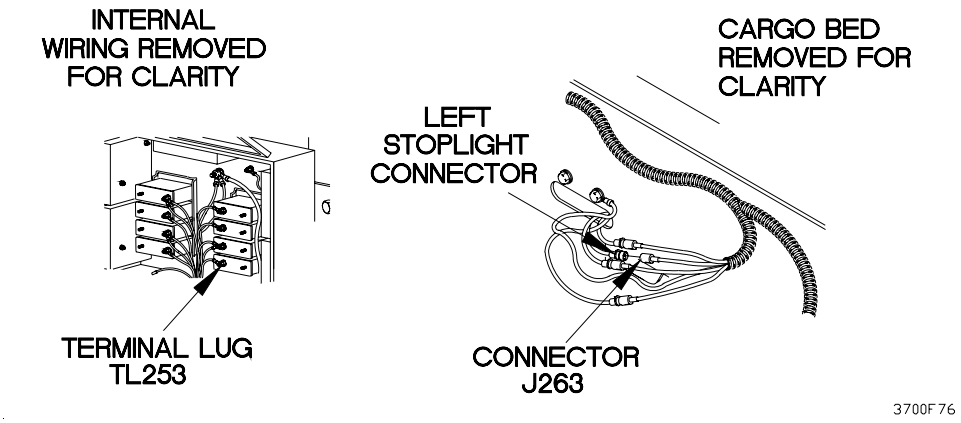


2. Set digital multimeter to ohms.
3. Connect positive (+) probe of digital multimeter to connector J263.
4. Connect negative (-) probe of digital multimeter to a known good ground.
5. Position towing vehicle main light switch to SER DRIVE. and note reading on digital multimeter.
6. Depress brake pedal and note reading on digital multimeter.
7. Release brake pedal.
8. Position towing vehicle main light switch to OFF.
9. If 8-14 vdc is present, replace composite taillight assembly (WP 0049 00).

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
11. LEFT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED	3. Check to see if continuity is present between terminal lug TL253 and connector J263.	1. Open voltage converter box cover (WP 0053 00).

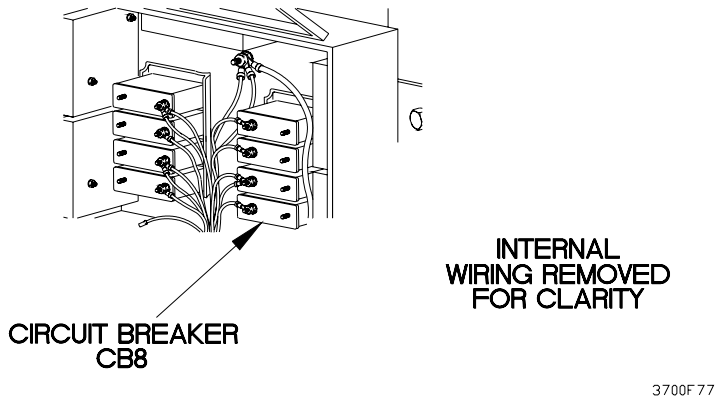


		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to terminal lug TL253. 4. Connect negative (-) probe of digital multimeter to connector J263 and note reading on digital multimeter. 5. If continuity is not present, repair wire (WP 0043 00) or replace electrical cable assembly (WP 0051 00). 6. Connect connector J263 to left stoplight connector.

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

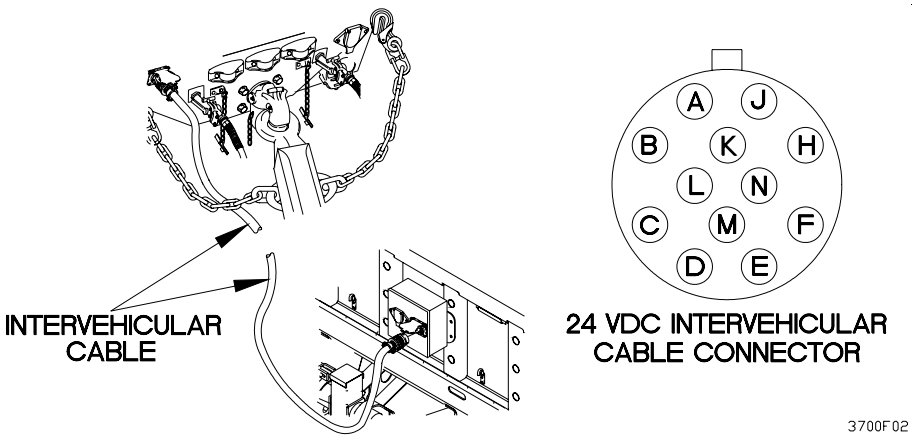
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
11. LEFT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED	4. Check to see if continuity is present across circuit breaker CB8.	1. Set digital multimeter to ohms.
		2. Connect positive (+) probe of digital multimeter to one terminal of circuit breaker CB8. 3. Connect negative (-) probe of digital multimeter to other terminal of circuit breaker CB8 and note reading on digital multimeter. 4. If continuity is not present, replace circuit breaker CB8 (WP 0053 00).



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

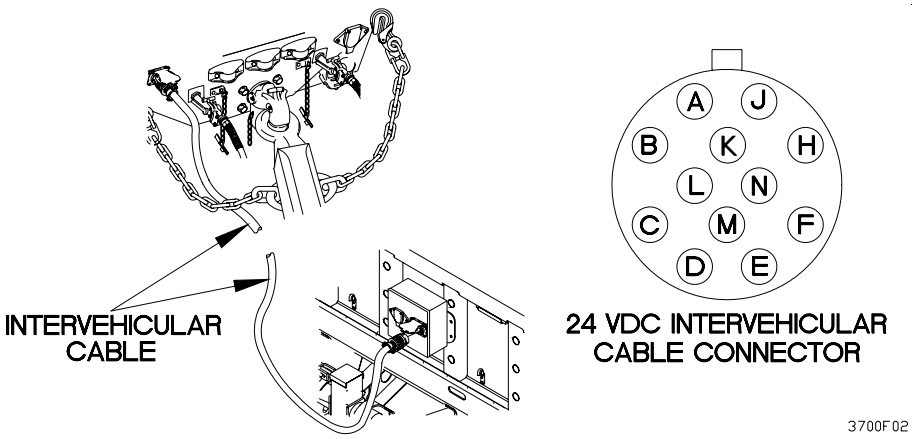
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
11. LEFT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED	5. Check to see if 18-26 vdc is present at 24 vdc intervehicular cable connector pin B.	1. Disconnect 24 vdc intervehicular cable from trailer (WP 0012 00).
		2. Set digital multimeter to vdc.
		3. Connect positive (+) probe of digital multimeter to 24 vdc intervehicular cable connector pin B.
		4. Connect negative (-) probe of digital multimeter to a known good ground.
		5. Position towing vehicle main light switch to SER DRIVE and note reading on digital multimeter.
		6. Position towing vehicle main light switch to OFF.
		7. If 18-26 vdc is not present, replace 24 vdc intervehicular cable (WP 0164 00, Item 2).
		8. If 18-26 vdc is present, replace module 4 (WP 0053 00).



ELECTRICAL SYSTEM - Continued

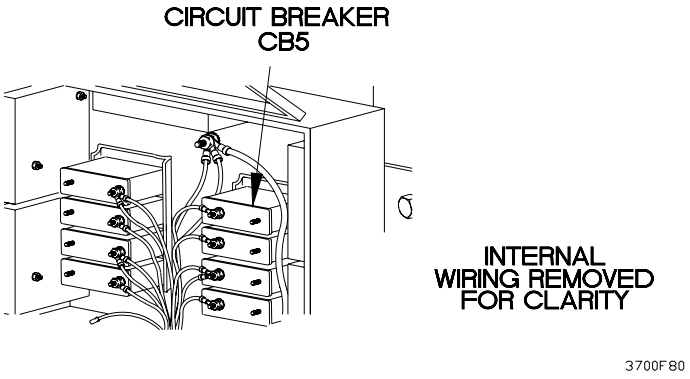
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
12. LEFT BLACKOUT TAILLIGHT DOES NOT ILLUMINATE	1. Check to see if 18-26 vdc is present at 24 vdc intervehicular cable connector pin A.	1. Disconnect 24 vdc intervehicular cable from trailer (WP 0012 00).
		2. Set digital multimeter to ohms.
		3. Connect positive (+) probe of digital multimeter to 24 vdc intervehicular cable connector pin A.
		4. Connect negative (-) probe of digital multimeter to a known good ground.
		5. Position towing vehicle main light switch to SER DRIVE and note reading on digital multimeter.
		6. Position towing vehicle main light switch to OFF.
		7. If 18-26 vdc is not present, replace 24 vdc intervehicular cable (WP 0164 00, Item 2).



ELECTRICAL SYSTEM - Continued

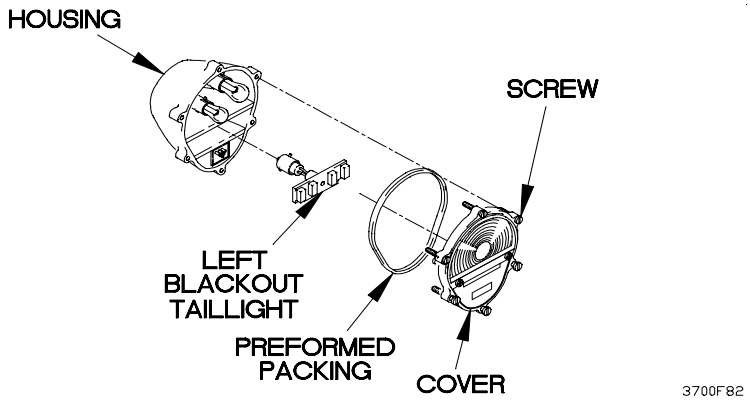
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
12. LEFT BLACKOUT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	2. Check to see if continuity is present across circuit breaker CB5.	1. Open voltage converter box cover (WP 0012 00).
		
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to one terminal of circuit breaker CB5. 4. Connect negative (-) probe of digital multimeter to other terminal of circuit breaker CB5 and note reading on digital multimeter. 5. If continuity is not present, replace circuit breaker CB5 (WP 0053 00).

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

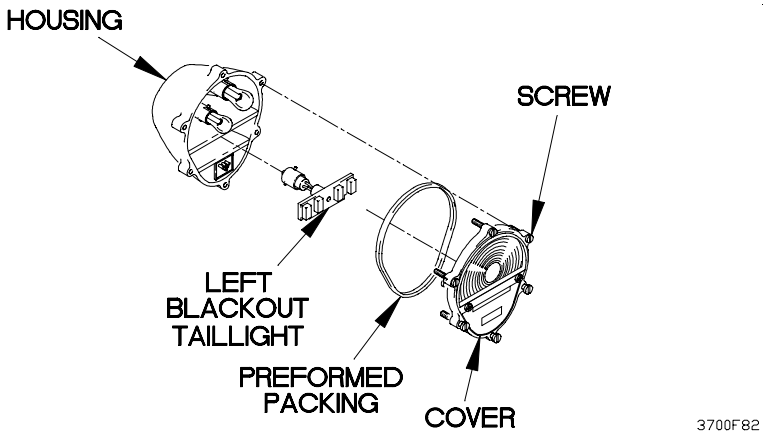
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
12. LEFT BLACKOUT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	3. Check to see if 18-26 vdc is present at blackout taillight lamp socket center contact.	1. Connect 24 vdc intervehicular cable to trailer (WP 0009 00).
		2. Loosen six screws and remove cover and preformed packing from housing. Discard preformed packing.
		3. Remove blackout taillight from socket.
		4. Set digital multimeter to volts dc.
		5. Connect positive (+) probe of digital multimeter to blackout taillight lamp socket center contact.
		6. Connect negative (-) probe of digital multimeter to a known good ground.
		7. Position towing vehicle main light switch to BO DRIVE and note reading on digital multimeter.



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

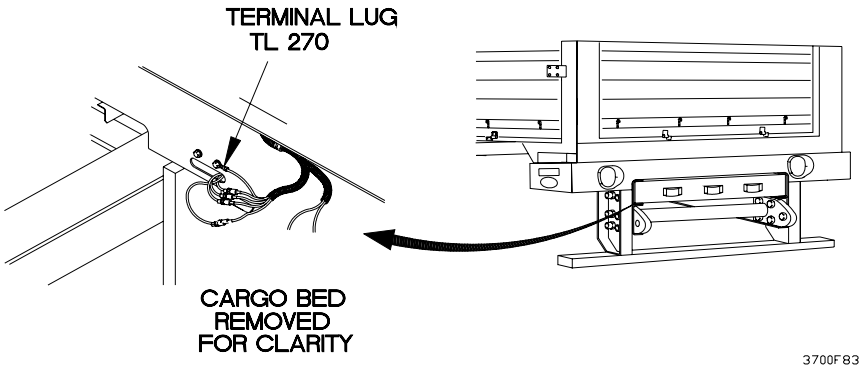
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
12. LEFT BLACKOUT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED		8. Position towing vehicle main light switch to OFF. 9. If 18-26 vdc is not present, go to step 5 of this malfunction. 10. Install left blackout taillight in socket.
		11. Install preformed packing and cover with six screws.



ELECTRICAL SYSTEM - Continued

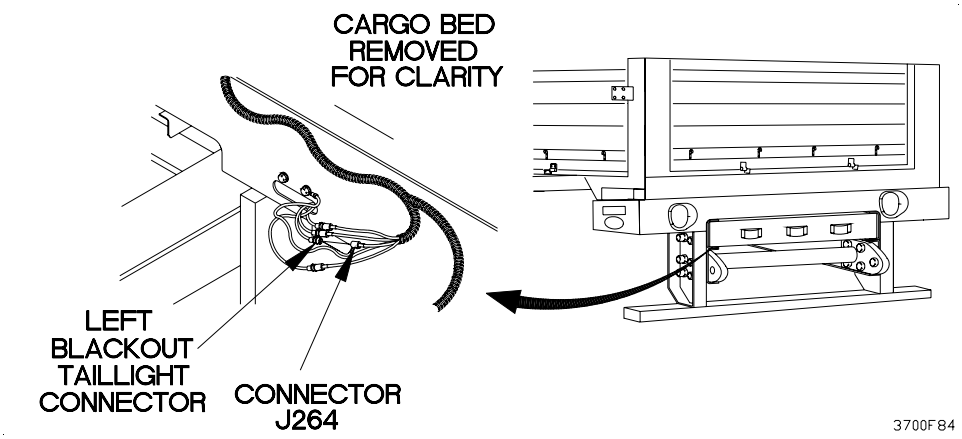
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
12. LEFT BLACKOUT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	4. Check to see if continuity is present between terminal lug TL270 and a known good ground.	1. Set digital multimeter to ohms.
		2. Connect positive (+) probe of digital multimeter to terminal lug TL270. 3. Connect negative probe (-) or digital multimeter to a known good ground and note reading on digital multimeter. 4. If continuity is not present, replace composite taillight assembly (WP 0049 00).



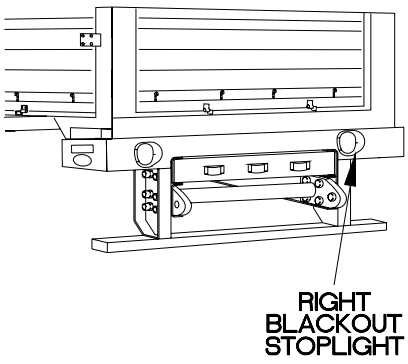
ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
12. LEFT BLACKOUT TAILLIGHT DOES NOT ILLUMINATE - CONTINUED	5. Check to see if 18-26 vdc is present at connector J264.	1. Disconnect connector J264 from blackout taillight connector.
		
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to connector J264. 4. Connect negative (-) probe of digital multimeter to a known good ground. 5. Position towing vehicle main light switch to BO DRIVE and note reading on digital multimeter. 6. Position towing vehicle main light switch to OFF. 7. If 18-26 vdc is not present, repair wire (WP 0043 00) or replace electrical cable assembly (WP 0051 00). 8. If 18-26 vdc is present, replace composite taillight assembly (WP 0049 00).

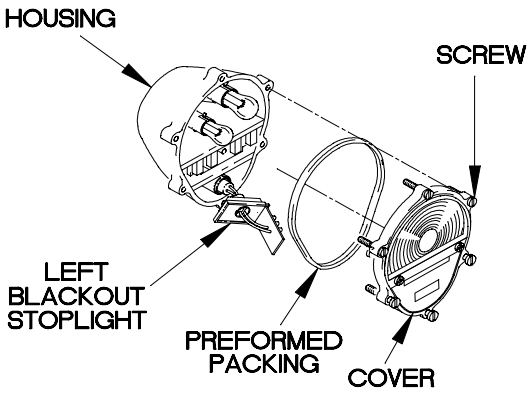
ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
13. LEFT BLACKOUT STOPLIGHT DOES NOT ILLUMINATE	1. Check to see if right blackout stoplight illuminates.	1. Position towing vehicle main light switch to BO DRIVE.
	 3700F85	
		2. Depress brake pedal. 3. Check to see if right blackout stoplight illuminates. 4. Release brake pedal. 5. Position towing vehicle main light switch to OFF. 6. If right blackout stoplight does not illuminate, go to step 5 of this malfunction.

ELECTRICAL SYSTEM - Continued

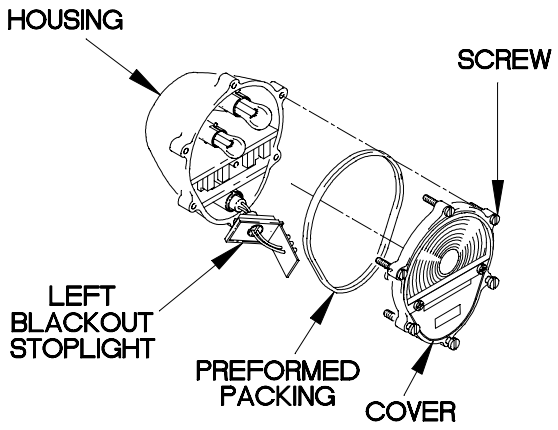
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
13. LEFT BLACKOUT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED	2. Check to see if 18-26 vdc is present at left blackout stoplight lamp socket center contact.	1. Loosen six screws and remove cover and preformed packing from housing. Discard preformed packing.
		 3700F86
		3. Remove blackout stoplight from socket. 4. Set digital multimeter to volts dc. 5. Connect positive (+) probe of digital multimeter to blackout stoplight lamp socket center contact. 6. Connect negative (-) probe of digital multimeter to a known good ground. 7. Position towing vehicle main light switch to BO DRIVE and note reading on digital multimeter. 8. Position towing vehicle main light switch to OFF. 9. If 18-26 vdc is not present, go to step 4 of this malfunction.

ELECTRICAL SYSTEM - Continued

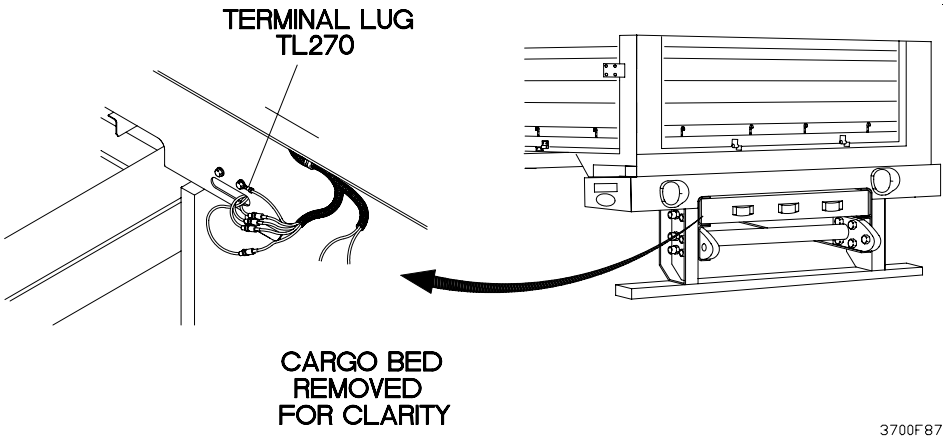
Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
13. LEFT BLACKOUT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED		10. Install blackout stoplight in socket.



3700F86

		11. Install preformed packing and cover with six screws.
	3. Check to see if continuity is present between terminal lug TL270 and a known good ground.	1. Set digital multimeter to ohms.

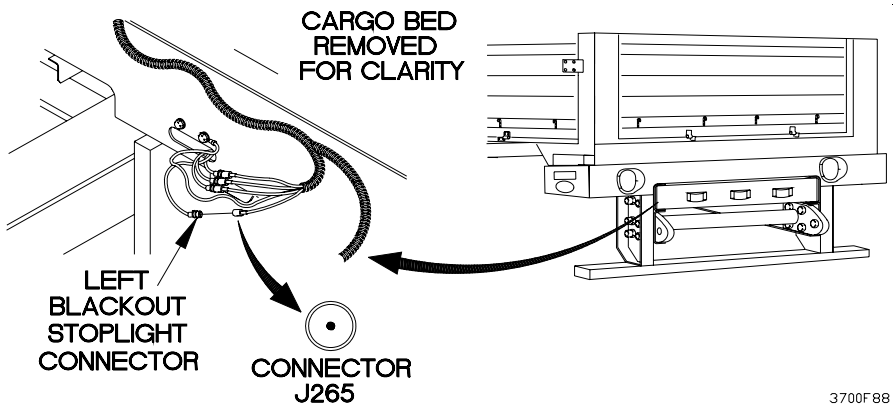


3700F87

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

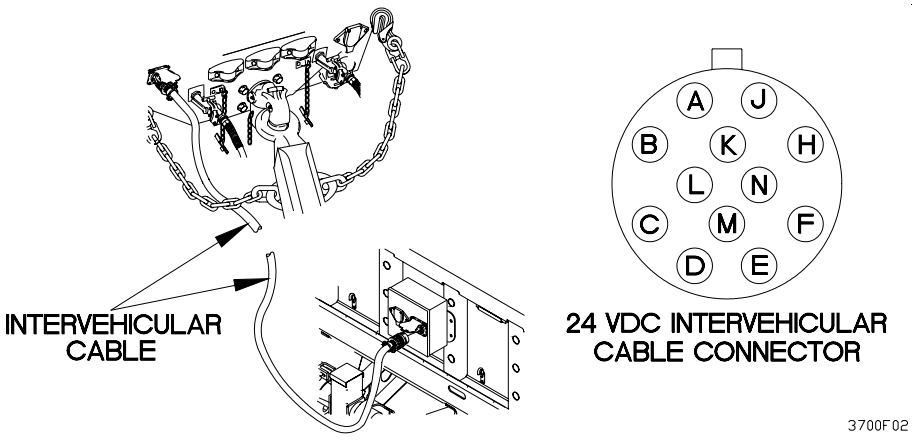
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
13. LEFT BLACKOUT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED		2. Connect positive (+) probe of digital multimeter to terminal lug TL270. 3. Connect negative (-) probe of digital multimeter to a known good ground and note reading on digital multimeter. 4. If continuity is not present, replace composite taillight assembly (WP 0049 00). 5. If continuity is present, replace blackout lamp (WP 0049 00).
	4. Check to see if 18-26 vdc is present at connector J265.	1. Disconnect connector J265 from blackout stoplight connector.
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to connector J265. 4. Connect negative (-) probe of digital multimeter to a known good ground.



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

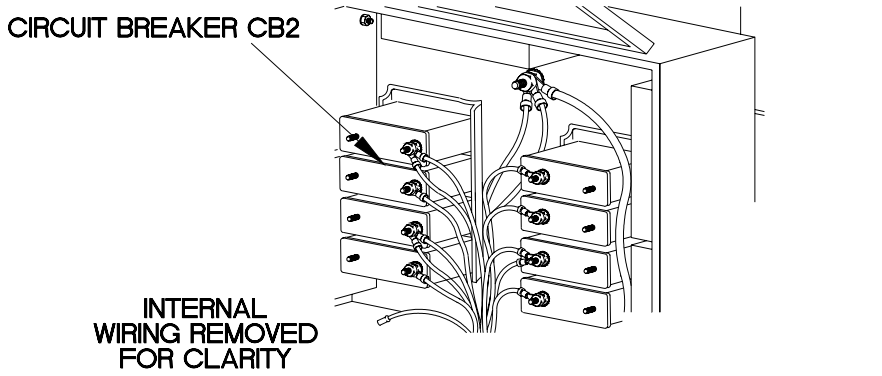
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
13. LEFT BLACKOUT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED		5. Position towing vehicle main light switch to BO DRIVE and note reading on digital multimeter. 6. Position towing vehicle main light switch to OFF. 7. If 18-26 vdc is not present, repair wire (WP 0043 00) or replace electrical cable assembly (WP 0051 00). 8. If 18-26 vdc is present, replace composite taillight assembly (WP 0049 00).
	5. Check to see if 18-26 vdc is present at 24 vdc intervehicular cable connector pin F.	1. Disconnect 24 vdc intervehicular cable from trailer (WP 0012 00).
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to 24 vdc intervehicular cable connector pin F.



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

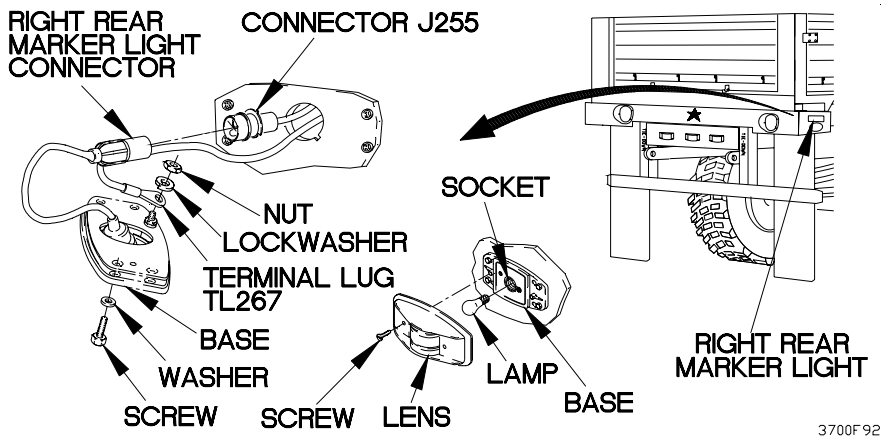
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
13. LEFT BLACKOUT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED		4. Connect negative (-) probe of digital multimeter to a known good ground. 5. Position towing vehicle main light switch to BO DRIVE and note reading on digital multimeter. 6. Position towing vehicle main light switch to OFF. 7. If 18-26 vdc is not present, replace 24 vdc intervehicular cable (WP 0164 00, Item 2).
	6. Check to see if continuity is present across circuit breaker CB2.	1. Open voltage converter box cover (WP 0053 00). 2. Set digital multimeter to ohms.



ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
13. LEFT BLACKOUT STOPLIGHT DOES NOT ILLUMINATE - CONTINUED		3. Connect positive (+) probe of digital multimeter to one terminal of circuit breaker CB2. 4. Connect negative (-) probe of digital multimeter to other terminal of circuit breaker CB2. 5. If continuity is not present, replace circuit breaker CB2 (WP 0053 00).
14. ALL REAR LIGHTS DO NOT ILLUMINATE	Check to see if continuity is present between terminal lug TL267 and a known good ground.	1. Remove two screws and lens from base of right rear marker light.

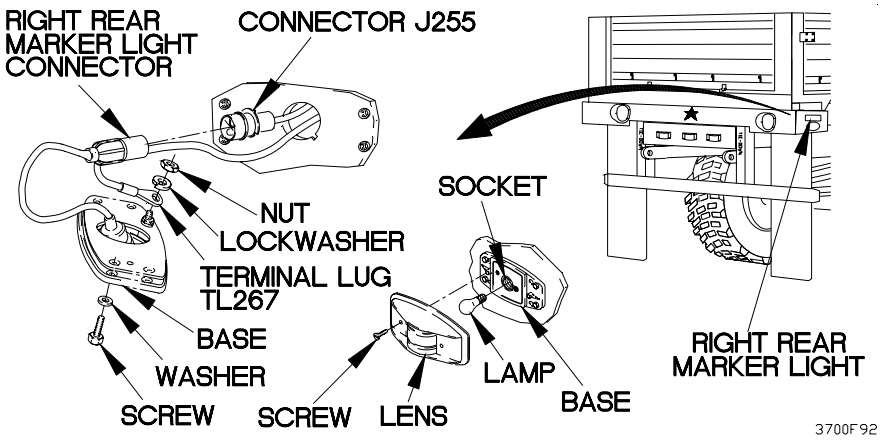


		2. Remove lamp from socket. 3. Remove four screws and washers from base. 4. Extend base and disconnect connector J255 from right rear marker light connector.

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
14. ALL REAR LIGHTS DO NOT ILLUMINATE - CONTINUED		5. Set digital multimeter to ohms. 6. Connect positive (+) probe of digital multimeter to terminal lug TL267 7. Connect negative (-) probe of digital multimeter to a known good ground and note reading on digital multimeter. 8. If continuity is not present, repair wire (WP 0043 00) or replace electrical cable assembly (WP 0051 00). 9. If continuity is present, replace voltage converter box (WP 0053 00).
		10. Connect connector J255 to right rear marker light connector. 11. Install base on vehicle with four washers and screws. 12. Install lamp in socket. 13. Install lens on base with two screws.

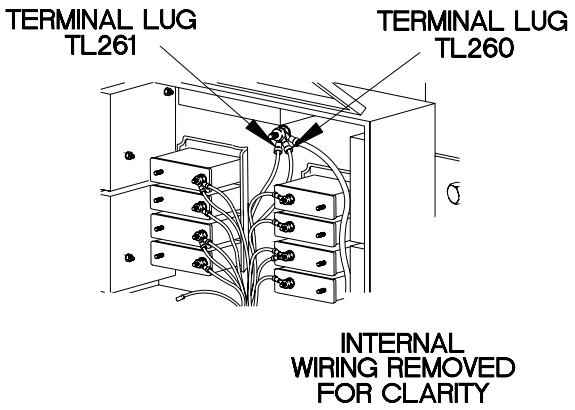


ELECTRICAL SYSTEM TROUBLESHOOTING - Continued 0036 00

ELECTRICAL SYSTEM - Continued

Table 1. Electrical System Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
15. ALL LIGHTS DO NOT ILLUMINATE	Check to see if ground post terminal lugs are damaged.	1. Open voltage converter box cover (WP 0053 00).
		2. Inspect terminal lugs TL260 and TL261 for looseness, improper crimping, or corrosion.
		3. Inspect terminal lug TL260 and TL261 wires for signs of abrasions, nicks, and/or cuts.
		4. If one or both wire is damaged, repair wire(s) (WP 0043 00) or replace electrical cable assembly (WP 0051 00).
		5. Close voltage converter box (WP 0053 00).



END OF WORK PACKAGE

BRAKE SYSTEM TROUBLESHOOTING 0037 00

THIS WORK PACKAGE COVERS:
Brake System

INITIAL SETUP:

Maintenance Level
Field

Tools/Special Tools
Adjusting Tool, Brake Shoe (Item 1, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Jack, Dolly Type, Hydraulic (Item 14, WP 0178 00)
Digital multimeter, Digital (Item 16, WP 0178 00)
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Trestle, Motor Vehicle Maintenance (Item 38, WP 0178 00)
Wrench, Torque, 50-250 lb-ft (Item 50, WP 0178 00)

Materials
Wire, Elect, 50 ft. (Item 38, WP 00176 00)

References
WP 0045 00
Towing vehicle Operator manual

Equipment Conditions
Trailer coupled (WP 0009 00).
Towing vehicle engine shut down.

BRAKE SYSTEM

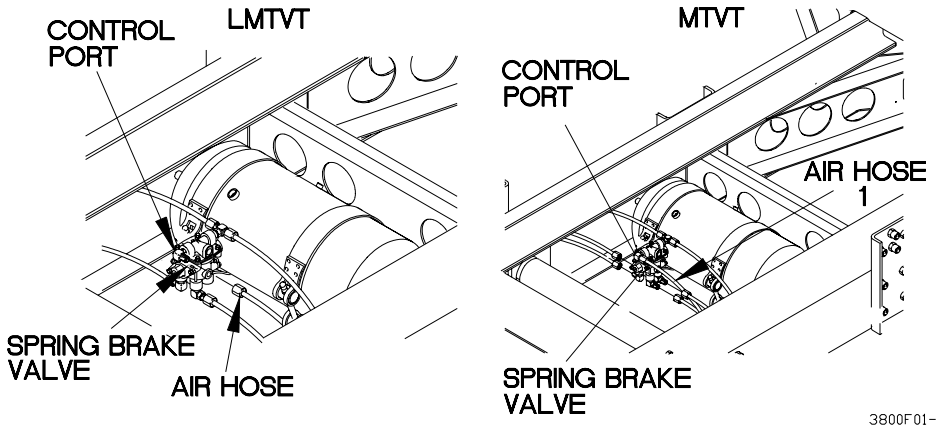
Table 1. Brake System Troubleshooting Procedures.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
WARNING **Vent air system before disconnecting air lines. Pressurized air can blow dirt and debris with sufficient force to cause injury. Safety goggles must be worn when working with compressed air. Failure to comply may result in injury to personnel.**		
1. SERVICE BRAKES DO NOT APPLY	1. Check to see if air is present at spring brake valve control port.	1. Loosen air hose 1 at spring brake valve control port.

BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

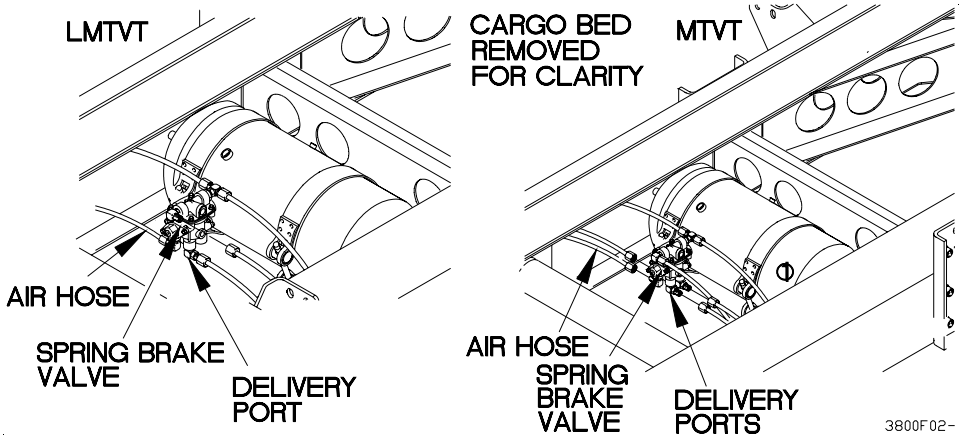
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
		
1. SERVICE BRAKES DO NOT APPLY - CONTINUED		2. Start towing vehicle engine. 3. Depress towing vehicle brake pedal 4. Check for presence of air. 5. Shut down towing vehicle engine. 6. If no air is present, replace air hose 1 (WP 0060 00/WP 0061 00). 7. Tighten air hose 1 to spring brake valve control port.

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. SERVICE BRAKES DO NOT APPLY - CONTINUED	2. Check to see if air is present at spring brake valve delivery ports.	1. Loosen air hoses at spring brake valve delivery ports.

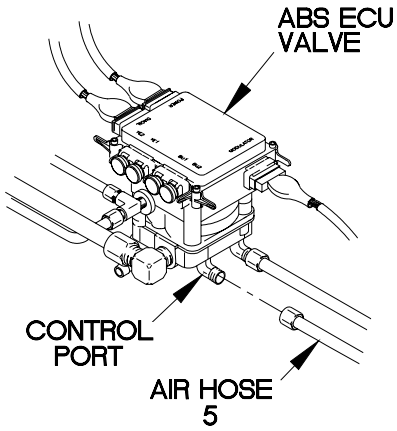


2. Start towing vehicle engine.
3. Depress towing vehicle brake pedal
4. Check for presence of air.
5. Shut down towing vehicle engine.
6. If no air is present, replace spring brake valve (WP 0063 00).
7. Tighten air hoses to spring brake valve delivery port.

BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

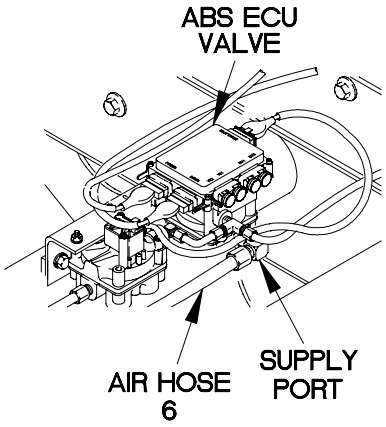
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. SERVICE BRAKES DO NOT APPLY - CONTINUED	3. Check to see if air is present at control port of ABS ECU valve.	1. Loosen air hose 5 at ABS ECU valve control port.
	 3800F03-	2. Start towing vehicle engine. 3. Depress towing vehicle brake pedal 4. Check for presence of air. 5. Shut down towing vehicle engine. 6. If no air is present, replace air hose 5 (WP 0060 00/WP 0061 00). 7. Tighten air hose 5 to ABS ECU valve control port.

BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

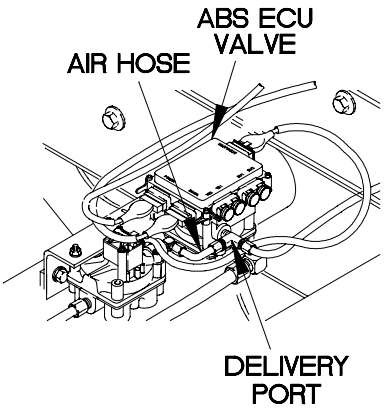
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. SERVICE BRAKES DO NOT APPLY - CONTINUED	4. Check to see if air is present at supply port of ABS ECU valve.	1. Loosen air hose 6 at ABS ECU valve supply port.
	 3800F04-	2. Start towing vehicle engine. 3. Depress towing vehicle brake pedal 4. Check for presence of air. 5. Shut down towing vehicle engine. 6. If no air is present, replace air hose 6 (WP 0060 00/WP 0061 00). 7. Tighten air hose 6 to ABS ECU valve supply port.

BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

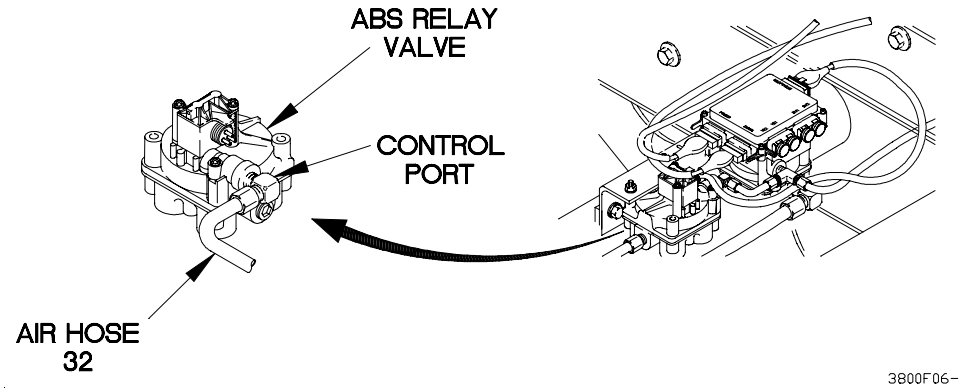
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. SERVICE BRAKES DO NOT APPLY - CONTINUED	5. Check to see if air is present at delivery ports of ABS ECU valve.	1. Loosen air hoses at ABS ECU valve delivery ports.
	 3800F05-	2. Start towing vehicle engine. 3. Check for presence of air. 4. Shut down towing vehicle engine. 5. If no air is present, replace ABS ECU valve (WP 0065 00/WP 0066 00). 6. Tighten air hoses to ABS ECU valve delivery port.

BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

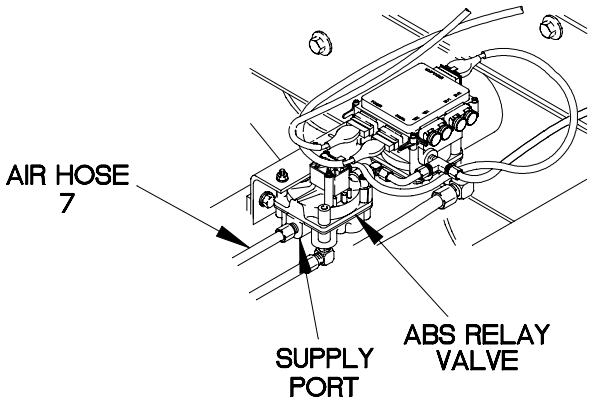
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. SERVICE BRAKES DO NOT APPLY - CONTINUED	6. Check to see if air is present at control port of ABS relay valve.	1. Loosen air hose 32 at ABS relay valve control port.
		2. Start towing vehicle engine.
		3. Depress towing vehicle brake pedal
		4. Check for presence of air.
		5. Shut down towing vehicle engine.
		6. If no air is present, replace air hose 32 (WP 0060 00/WP 0061 00).
		7. Tighten air hose 32 to ABS relay valve control port.



BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

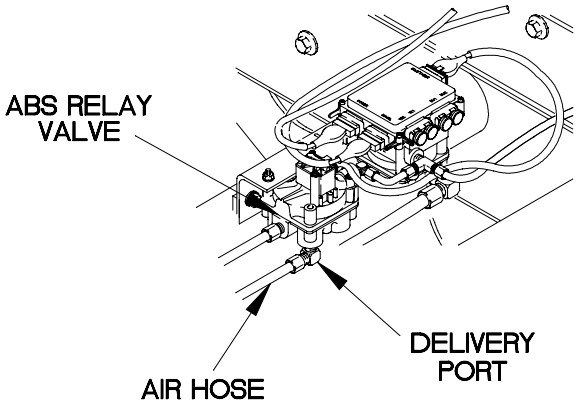
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. SERVICE BRAKES DO NOT APPLY - CONTINUED	7. Check to see if air is present at supply port of ABS relay valve.	1. Loosen air hose 7 at ABS relay valve supply port.
	 3800F07-	
		2. Start towing vehicle engine. 3. Depress towing vehicle brake pedal 4. Check for presence of air. 5. Shut down towing vehicle engine. 6. If no air is present, replace air hose 7 (WP 0060 00/WP 0061 00). 7. Tighten air hose 7 to ABS relay valve supply port.

BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. SERVICE BRAKES DO NOT APPLY - CONTINUED	8. Check to see if air is present at delivery ports of ABS relay valve.	1. Loosen air hoses at ABS relay valve delivery ports.
		2. Start towing vehicle engine.
		3. Depress towing vehicle brake pedal
		4. Check for presence of air.
		5. Shut down towing vehicle engine.
		6. If no air is present, replace ABS relay valve (WP 0067 00).
		7. Tighten air hoses to ABS relay valve delivery port.

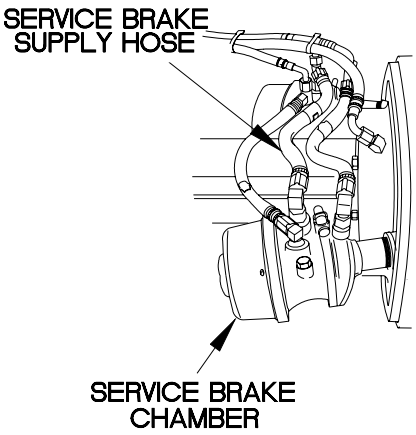


BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

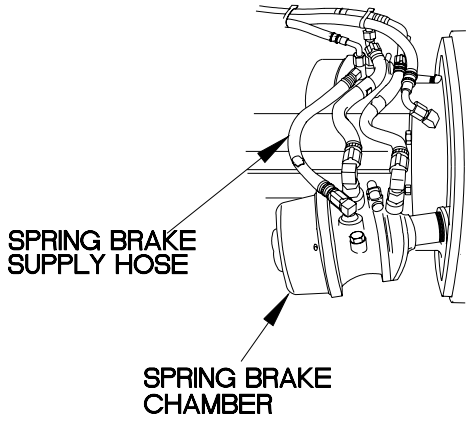
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. SERVICE BRAKES DO NOT APPLY - CONTINUED	9. Check to see if air is present at service brake air chambers of brakes.	1. Loosen service brake air hose at brake chamber.
		2. Start towing vehicle engine.
		3. Depress towing vehicle brake pedal
		4. Check for presence of air.
		5. Shut down towing vehicle engine.
		6. If no air is present, replace service brake air supply hose(s) 7 (WP 0060 00/WP 0061 00).
		7. Tighten air hoses to ABS relay valve delivery port.
		8. Repeat steps (1 through 7) for each wheel.



BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

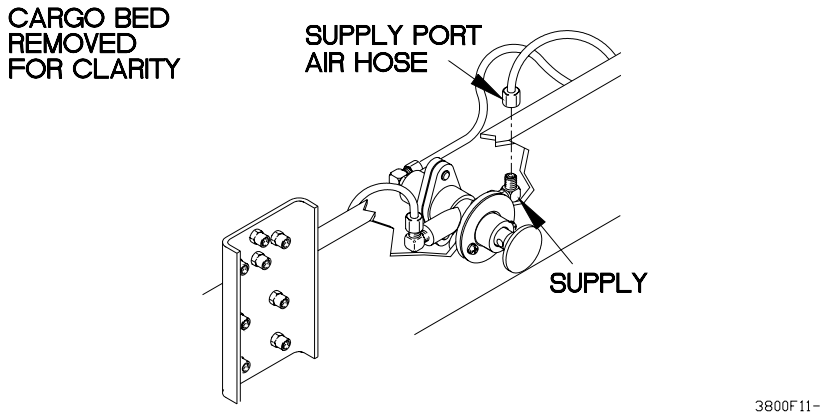
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. SERVICE BRAKES DO NOT APPLY - CONTINUED	10. Check to see if air is present at spring brake air chambers of brakes.	1. Loosen spring brake air hose at brake chamber.
		2. Start towing vehicle engine. 3. Depress towing vehicle brake pedal 4. Check for presence of air. 5. Shut down towing vehicle engine. 6. If no air is present, replace spring brake air supply hose(s) 7 (WP 0060 00/WP 0061 00). 7. Tighten air hoses to ABS relay valve delivery port. 8. Repeat steps (1 through 7) for each wheel. 9. If air is present at all wheels, replace brake air chambers WP 0057 00).

BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. PARKING BRAKE DOES NOT RELEASE	1. Do all wheels fail to release	1. Start towing vehicle engine. 2. Release towing vehicle parking brake. 3. Check if trailer moves. 4. Shut down towing vehicle engine. 5. If trailer moves, perform Brake System Trouble-shooting (WP 0037 00, Trailer Brakes unevenly).
	2. Check to see if air is present at push-pull/air supply valve supply port.	1. Loosen air hose at push-pull/air supply valve supply port.
		2. Check air hose for escaping air. 3. Tighten air hose at supply port of push-pull/air supply valve. 4. If no air is present, replace supply air hose from emergency air brake coupler to push-pull/air supply valve supply port (WP 0060 00/WP 0061 00).

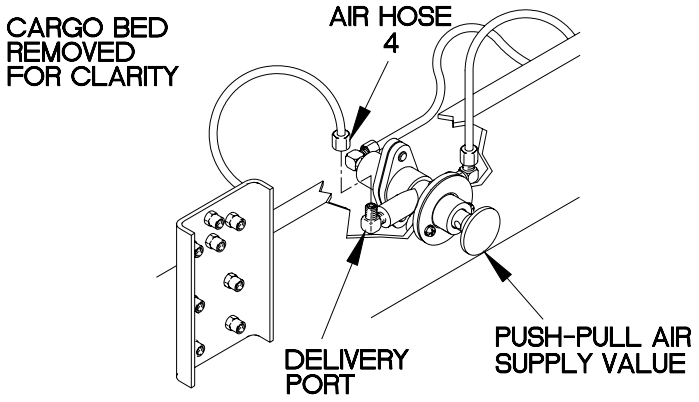


BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

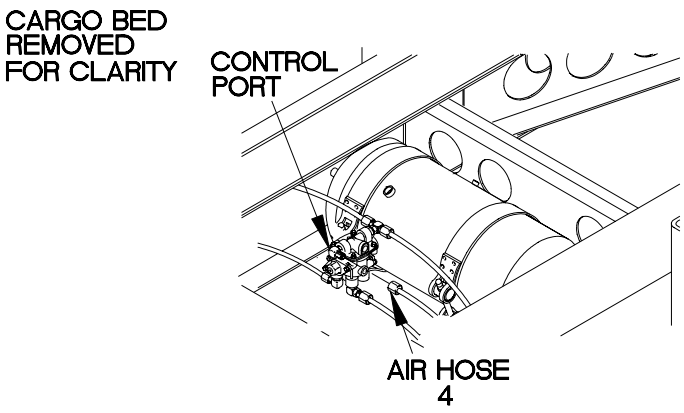
BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. PARKING BRAKE DOES NOT RELEASE - CONTINUED	3. Check to see if air is present at delivery port of push-pull/air supply valve.	1. Loosen air hose 4 at push-pull/air supply valve delivery port.
		2. Check for air escaping from push-pull/air supply valve.
		3. Tighten air hose at delivery port of push-pull/air supply valve.
		4. If air is not present, replace push-pull/air supply valve (WP 0062 00).
	4. Check to see if air is present at control port of spring brake valve.	1. Loosen air hose 4 at control port of spring brake valve.



3800F12-



3800F13-

BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. PARKING BRAKE DOES NOT RELEASE - CONTINUED		2. Check for air escaping from air hose 4. 3. Tighten air hose 4 to control port of spring brake valve. 4. If no air is present, replace air hose 4 (WP 0060 00/WP 0061 00).

WARNING

Overheated brakes can cause severe burns. Perform task only when brakes have cooled. Failure to comply may result in injury to personnel.

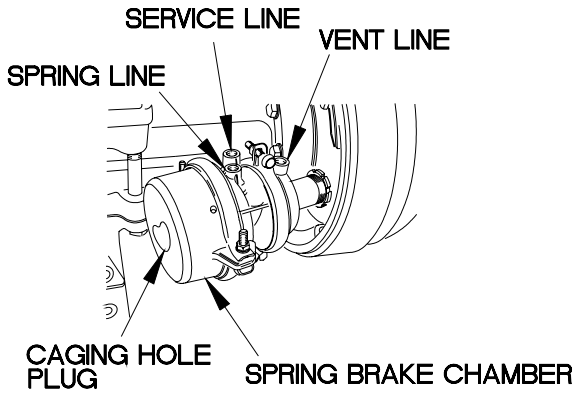
WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

NOTE

If wheel drums are too hot for hand to touch after road test of trailer, brakes are overheated.

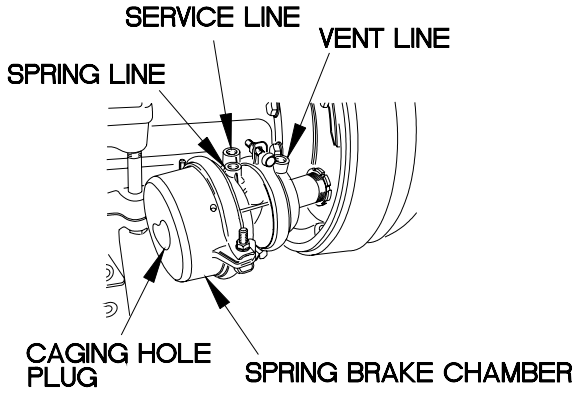
3. BRAKES OVERHEAT	1. Check to see if air is present at air to spring brake chamber on affected wheels.	1. Release parking brake (WP 0009 00).



3800F14-

BRAKE SYSTEM - Continued

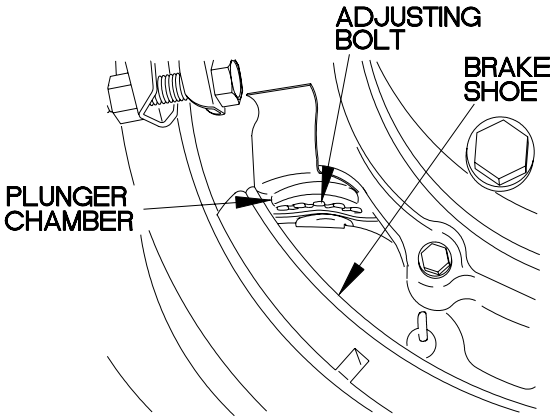
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. BRAKES OVERHEAT - CONTINUED		2. Check for presence of air at air hose to spring brake chamber. 3. If no air is present, replace air hose and/or fittings (WP 0060 00/WP 0061 00).
	2. Check to see if both spring brakes cage on affected wheels.	1. Remove cover plug from caging hole at back of spring brake chamber (WP 0047 00).
		
		2. With flashlight directed at caging hole, apply and release parking brake (WP 0009 00). 3. Check to see if spring cages (retracts) when air is supplied by releasing parking brake. 4. If spring does not cage when air is supplied, replace spring brake chamber (WP 0057 00).

BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

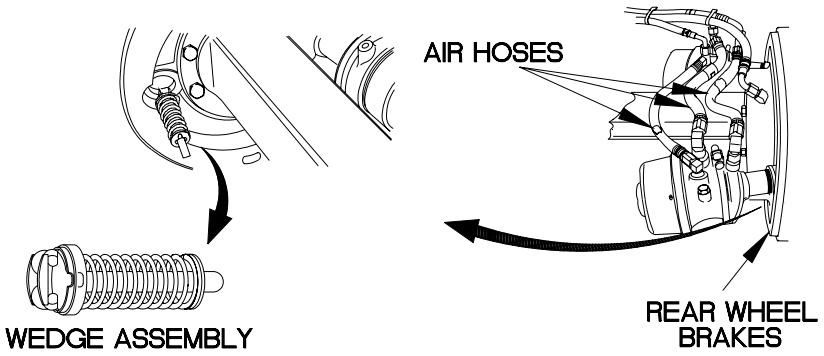
BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. BRAKES OVERHEAT - CONTINUED	3. Check to see if rear brake adjusting bolts locked-up at affected wheels.	1. Jack up rear axle (WP 0045 00) and support with trestles.
		
		2. Turn adjusting bolt clockwise with adjusting tool. 3. If bolt does not turn, or if brake shoes do not move away from wheel when adjuster is turned; adjust brakes (WP 0055 00).

BRAKE SYSTEM - Continued

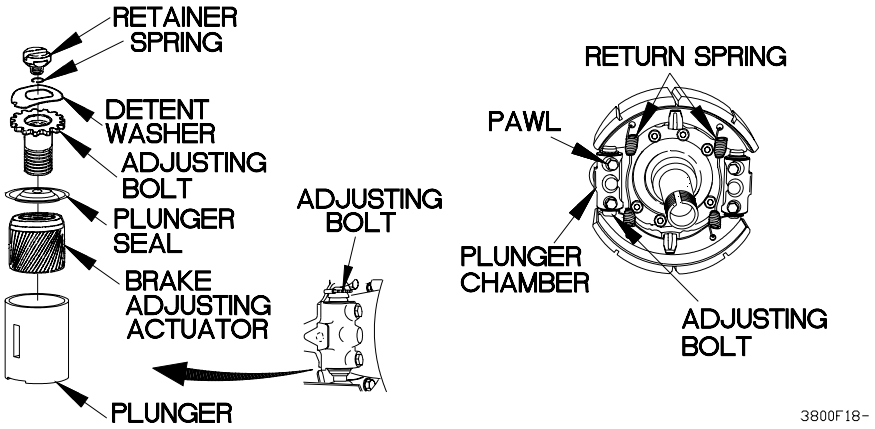
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. BRAKES OVERHEAT - CONTINUED	4. Check to see if wedge assemblies are free from wear and damage and that they operate.	1. Disconnect and tag air hoses to brake chambers at wheel.
		
		2. Unscrew brake chamber(s) from hub and remove wedge assembly from wheel (WP 0060 00/WP 0061 00). 3. Inspect wedge springs for damage. 4. Inspect rollers for flattening or damage. 5. Manually check operation of wedge assembly in plunger chamber. 6. If wedge assembly(ies) is worn or damaged or does not operate, replace wedge assembly (WP 0056 00).

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. BRAKES OVERHEAT - CONTINUED	5. Check to see if rear brake adjusting components at affected wheel(s) are free from damage and that they function.	1. Remove wheel(s) with affected brakes (WP 0045 00).

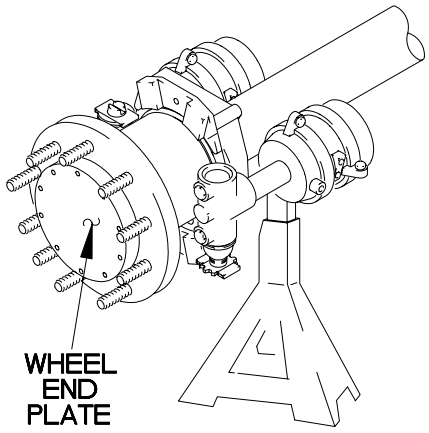


		2. Remove, disassemble clean, and inspect brake plunger assembly (WP 0056 00). 3. Assemble and install brake plunger assembly (WP 0056 00). 4. Install rear wheel brake components and adjust brakes (WP 0056 00). 5. Install wheel(s) (WP 0045 00).

BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

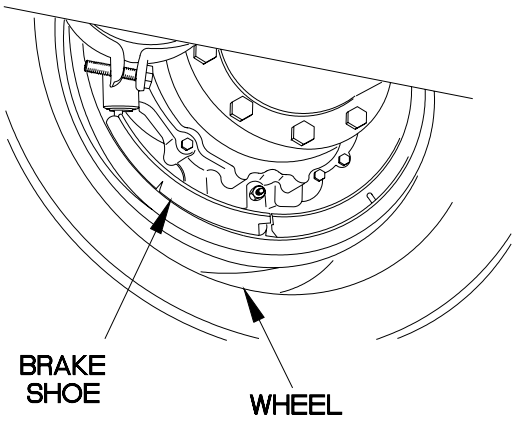
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. BRAKES OVERHEAT - CONTINUED	6. Check to see if wheel bearings are loose or damaged.	1. Rotate affected wheel(s) by hand.
	 3800F19-	
		2. Listen for grinding sound during rotation. 3. If wheel makes grinding sound during rotation, adjust or replace wheel bearings (WP 0080 00). 4. Grasp wheel on top and bottom and pull in and out. 5. If wheel has excessive play on axle, adjust or replace wheel bearings (WP 0080 00). 6. Check wheel end plate for grease leaks (WP 0042 00). 7. If wheel end plate has leak(s), adjust or replace wheel bearings (WP 0080 00).

BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

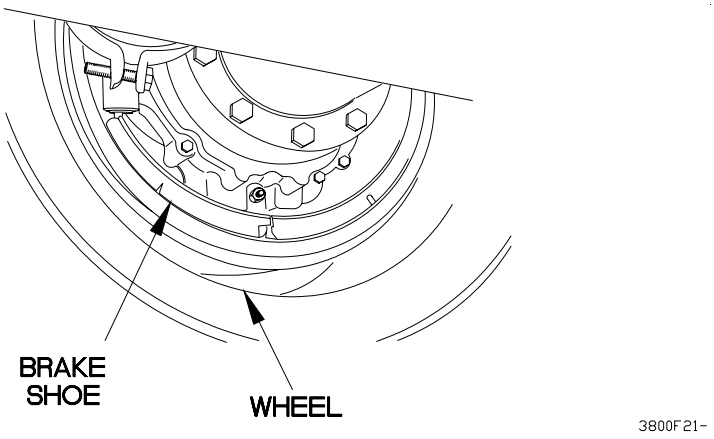
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
4. TRAILER BRAKES UNEVENLY OR BRAKES PULL TO ONE SIDE OR GRAB	1. Check to see if brake shoes are free from contamination, oil, and grease.	1. Jack up axle (WP 0045 00) of each affected wheel/brake and support axle assembly on trestles.
		
		2. Rotate wheel and check for contamination of brake shoe linings from leaking oil or grease. 3. If contamination is present, replace wheel bearing seals (WP 0078 00) and check that brake shoes are serviceable (WP 0055 00).

BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

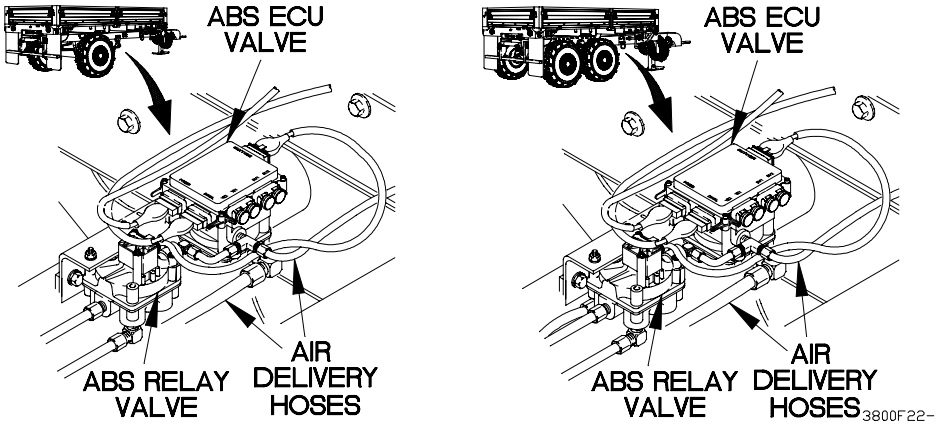
BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
4. TRAILER BRAKES UNEVENLY OR BRAKES PULL TO ONE SIDE OR GRAB - CONTINUED	2. Check to see if individual wheels/brakes lockup or drag while applying brakes and manually spinning wheel.	1. Start towing vehicle engine.
		
		2. Allow brake air pressure to build up. 3. Depress brake pedal. 4. Have assistant spin wheels, one at a time. 5. Shut down towing vehicle engine. 6. If both brakes apply or wheel/brakes grab, are hard to turn, or resist turning by hand, adjust brake shoe clearance (WP 0055 00).

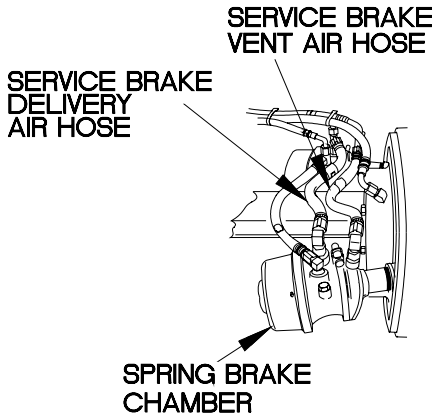
BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
4. TRAILER BRAKES UNEVENLY OR BRAKES PULL TO ONE SIDE OR GRAB - CONTINUED	3. Check to see if air is present at relay valve delivery port(s) (LH) or ABS ECU valve port(s) (RH) to affected wheel(s)/brake(s).	1. Loosen air delivery hoses to spring brakes at delivery ports of ABS relay valve (LH) or ABS ECU valve (RH).
		
		2. Start towing vehicle engine. 3. Allow brake air pressure to build up. 4. Depress brake pedal. 5. While depressing brake pedal, have assistant check for presence of air escaping at delivery port of ABS relay valve or ABS ECU valve and air hoses. 6. Shut down towing vehicle engine. 7. If no air escapes, replace ABS relay valve (WP 0067 00) or ABS ECU valve (WP 0065 00/WP 0066 00).

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

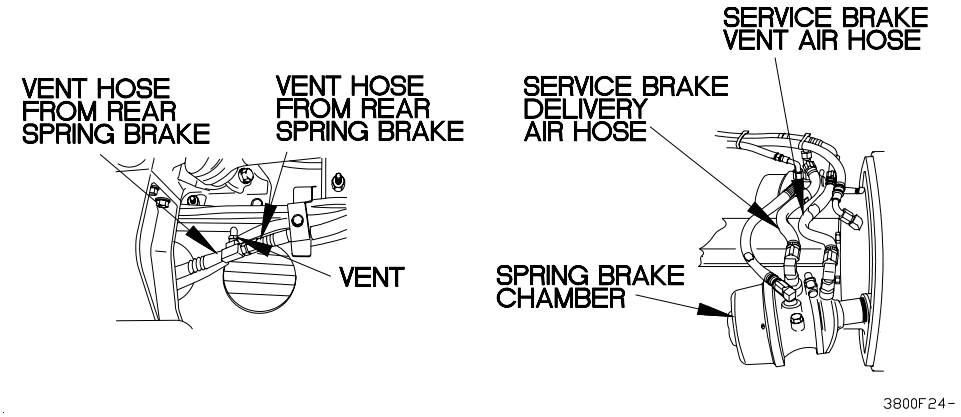
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
4. TRAILER BRAKES UNEVENLY OR BRAKES PULL TO ONE SIDE OR GRAB - CONTINUED		8. Tighten service brake air hoses to spring brakes at ABS relay valve.
	4. Check to see if air is present at service brake air chamber of affected wheel(s)/brake(s) when brakes are applied.	1. Loosen service brake vent air hose at spring brake air chamber.
		
		2. Start towing vehicle engine. 3. Allow brake air pressure to build up. 4. While assistant depresses brake pedal, check for presence of air escaping at service brake vent air hose at spring brake air chamber. 5. Shut down towing vehicle engine.

BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
4. TRAILER BRAKES UNEVENLY OR BRAKES PULL TO ONE SIDE OR GRAB - CONTINUED		6. If no air escapes from service brake air hose at spring brake air chamber, replace damaged or blocked air hose (WP 0060 00/WP 0061 00).
	5. Check to see if vent air hoses and vent valve of affected wheel(s)/brake(s) are free from obstructions.	1. Tighten service brake vent air hose at spring brake air chamber. 2. Disconnect service brake vent air hose from affected wheel/brake air chamber.
		3. Blow compressed air through vent air hose. 4. Check to see if air escapes from service brake vent air hose vent valve. 5. If no air escapes, replace damaged or blocked service brake vent air hose or vent valve (WP 0060 00/WP 0061 00). 6. Tighten service brake vent air hose at spring brake air chamber.

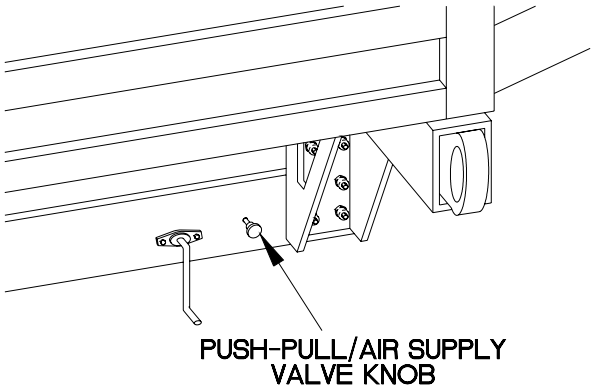


BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
4. TRAILER BRAKES UNEVENLY OR BRAKES PULL TO ONE SIDE OR GRAB - CONTINUED		7. Jack up trailer just enough to clear trestles (WP 0045 00). 8. Remove trestles and lower trailer. 9. Remove jack.
5. PARKING BRAKES DO NOT APPLY	1. Check to hear if air release is audible at push-pull/air supply valve when push-pull/air supply valve is pulled.	1. Push in push-pull/air supply valve knob.
		2. Pull push-pull/air supply valve knob out. 3. Listen for release of air from push-pull/air supply valve knob. 4. If no air is present, replace push-pull/air supply valve knob (WP 0062 00).

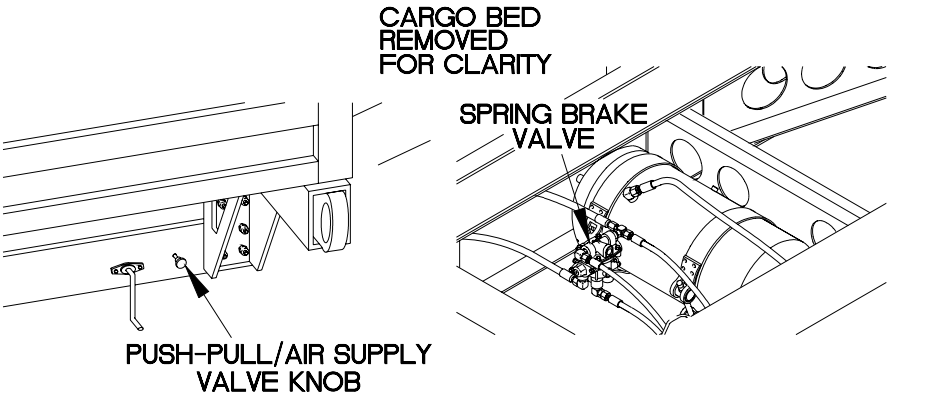


BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

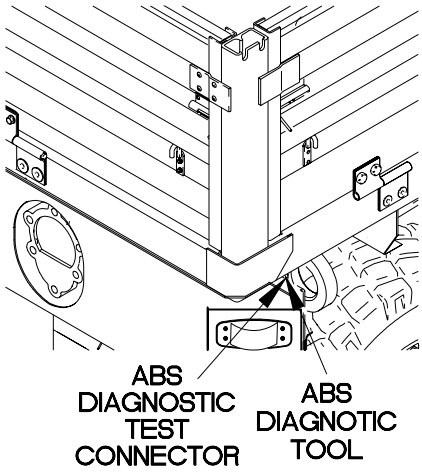
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
5. PARKING BRAKES DO NOT APPLY - CONTINUED	2. Check to hear if air release is audible at spring brake valve when push-pull/air supply valve knob is pulled.	1. Push in push-pull/air supply valve knob.
		2. Pull push-pull/air supply valve knob out. 3. Listen for release of air from spring brake valve. 4. If no air is present, replace spring brake valve (WP 0063 00).

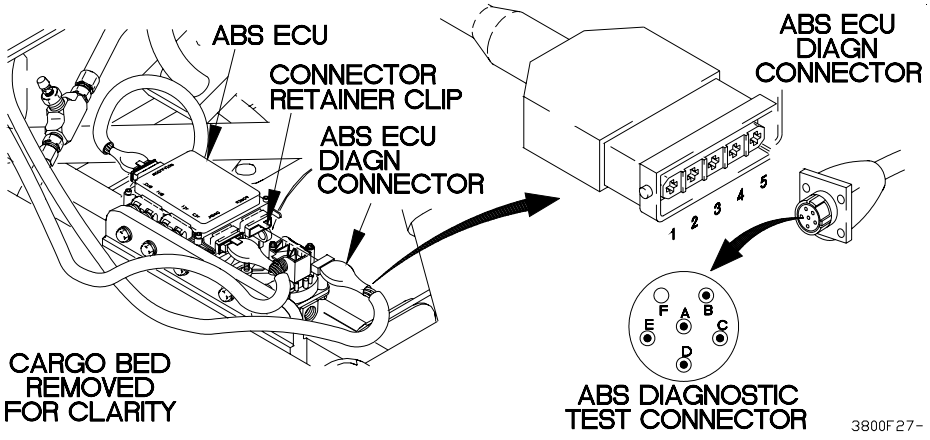


BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
6. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL DOES NOT OPERATE	1. Check to see if continuity is present between ABS diagnostic test connector pin A and ABS ECU DIAGN connector pin 1.	1. Disconnect ABS diagnostic test tool from ABS diagnostic test connector.
		2. Push up on connector retainer clip.
		3. Disconnect DIAGN connector from ABS ECU.
		4. Set digital multimeter to ohms.

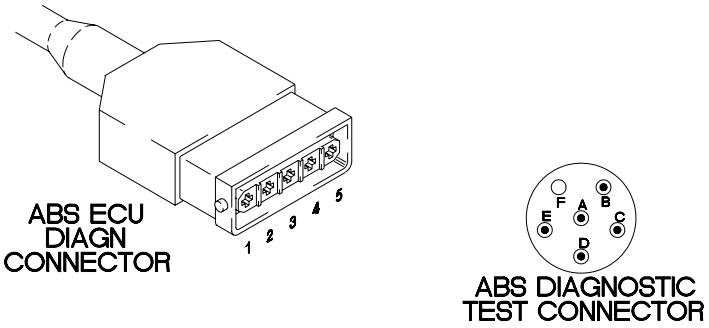




BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

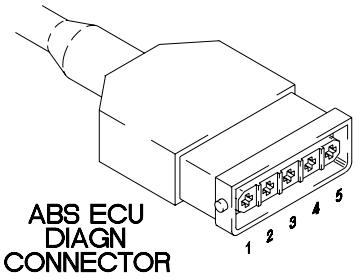
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
6. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL DOES NOT OPERATE - CONTINUED		5. Connect positive (+) probe of digital multimeter to ABS diagnostic test connector pin A. 6. Connect negative (-) probe of digital multimeter to ABS ECU DIAGN connector pin 1 and note reading on digital multimeter. 7. If continuity is not present, replace ABS control to diagnostic cable (WP 0072 00).
	2. Check to see if continuity is present between ABS diagnostic test connector pin B and ABS ECU DIAGN connector pin 2.	1. Set digital multimeter to ohms.
		2. Connect positive (+) probe of digital multimeter to ABS diagnostic test connector pin B. 3. Connect negative (-) probe of digital multimeter to ABS ECU DIAGN connector pin 2 and note reading on digital multimeter.



BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
6. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL DOES NOT OPERATE - CONTINUED		4. If continuity is not present, replace ABS control to diagnostic cable (WP 0072 00).
	3. Check to see if continuity is present between ABS diagnostic test connector pin C and ABS ECU DIAGN connector pin 3.	1. Set digital multimeter to ohms.
		2. Connect positive (+) probe of digital multimeter to ABS diagnostic test connector pin C.
		3. Connect negative (-) probe of digital multimeter to ABS ECU DIAGN connector pin 3 and note reading on digital multimeter.
		4. If continuity is not present, replace ABS control to diagnostic cable (WP 0072 00).



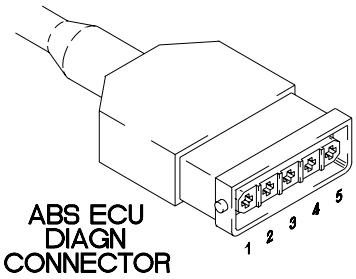


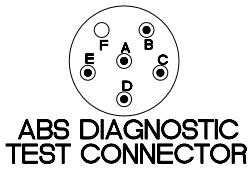
3800F28-

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
6. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL DOES NOT OPERATE - CONTINUED	4. Check to see if continuity is present between ABS diagnostic test connector pin D and ABS ECU DIAGN connector pin 5.	1. Set digital multimeter to ohms.
		2. Connect positive (+) probe of digital multimeter to ABS diagnostic test connector pin D.
		3. Connect negative (-) probe of digital multimeter to ABS ECU DIAGN connector pin 5 and note reading on digital multimeter.
		4. If continuity is not present, replace ABS control to diagnostic cable (WP 0072 00).



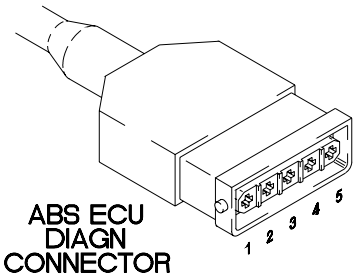


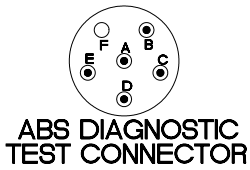
3800F28-

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
6. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL DOES NOT OPERATE - CONTINUED	5. Check to see if continuity is present between ABS diagnostic test connector pin E and ABS ECU DIAGN connector pin 4.	1. Set digital multimeter to ohms.
		2. Connect positive (+) probe of digital multimeter to ABS diagnostic test connector pin E.
		3. Connect negative (-) probe of digital multimeter to ABS ECU DIAGN connector pin 4 and note reading on digital multimeter.
		4. If continuity is not present, replace ABS control to diagnostic cable (WP 0072 00).
		5. If continuity is present, replace ABS ECU (WP 0065 00/WP 0066 00).



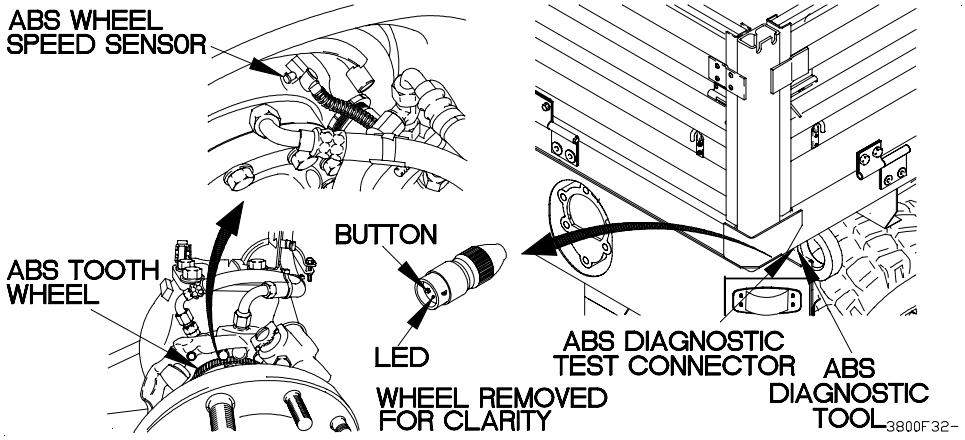


3800F28-

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
CAUTION Do not pry or push ANTI-LOCK BRAKING SYSTEM (ABS) wheel speed sensor with sharp objects. Failure to comply may result in damage to equipment. **NOTE** ANTI-LOCK BRAKING SYSTEM (ABS) wheel speed sensor will self-adjust during wheel rotation.		
7. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS THREE TIMES IN SERIES: LEFT FRONT ABS WHEEL SPEED SENSOR FAULT (MTVT)	1. Check to see if ABS diagnostic tool blinks three times in series after left front ABS wheel speed sensor position is reset.	1. Push left front ABS wheel speed sensor in until it contacts tooth wheel.
		2. Start towing vehicle engine.
NOTE Trailer must be operated greater than 4 mph (6 km/h) during performance of step (3).		
		3. Road test trailer. 4. Park towing vehicle.



BRAKE SYSTEM - Continued

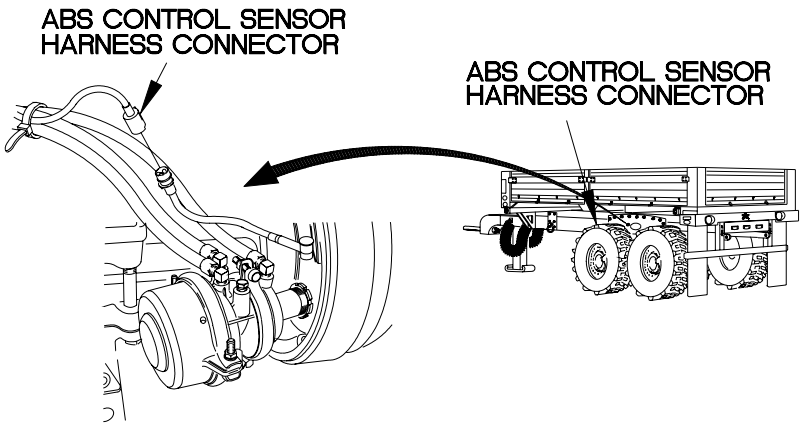
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
NOTE Towing vehicle ignition must be on during steps (5 through 10).		
7. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS THREE TIMES IN SERIES: LEFT FRONT ABS WHEEL SPEED SENSOR FAULT (MTVT) - CONTINUED		5. Connect ABS diagnostic tool to ABS diagnostic test connector. 6. If towing vehicle is not FMTV A1, position towing vehicle main light switch to SER DRIVE and depress brake pedal during step (7). 7. Press button on ABS diagnostic tool for 1 second and release. 8. Check to see if ABS diagnostic tool blinks. 9. If towing vehicle is not FMTV A1, position towing vehicle main light switch to OFF. 10. If ABS diagnostic tool does not blink, fault is corrected. Shut down towing vehicle engine.
	2. Check to see if front wheel wobbles or shimmies.	1. Road test trailer. 2. Check to see if left front wheel wobbles or shimmies. 3. Shut down towing vehicle engine.

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

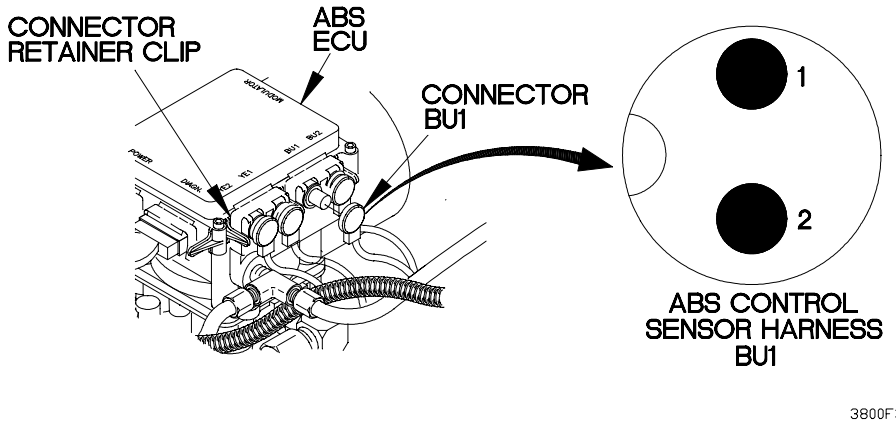
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
7. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS THREE TIMES IN SERIES: LEFT FRONT ABS WHEEL SPEED SENSOR FAULT (MTVT) - CONTINUED		4. If left front wheel wobbles or shimmies, perform Wheel Troubleshooting (WP 0031 00, malfunction 1, Wheel Wobbles or Shimmies).
	3. Check to see if 700-3,000 ohms of resistance is present across left front ABS wheel speed sensor.	1. Disconnect ABS control sensor harness connector from ABS wheel speed sensor.
		2. Set digital multimeter to ohms.
		3. Connect positive (+) probe of digital multimeter to one socket of ABS wheel speed sensor connector.
		4. Connect negative (-) probe of digital multimeter to other socket of ABS wheel speed sensor connector and note reading on digital multimeter.
		5. If 700-3,000 ohms is not present, replace left front ABS wheel speed sensor (WP 0054 00).



BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
7. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS THREE TIMES IN SERIES: LEFT FRONT ABS WHEEL SPEED SENSOR FAULT (MTVT) - CONTINUED	4. Check to see if continuity is present across left front ABS control sensor harness connector with jumper wire across connector BU1.	1. Loosen connector retaining clip on connector BU1.

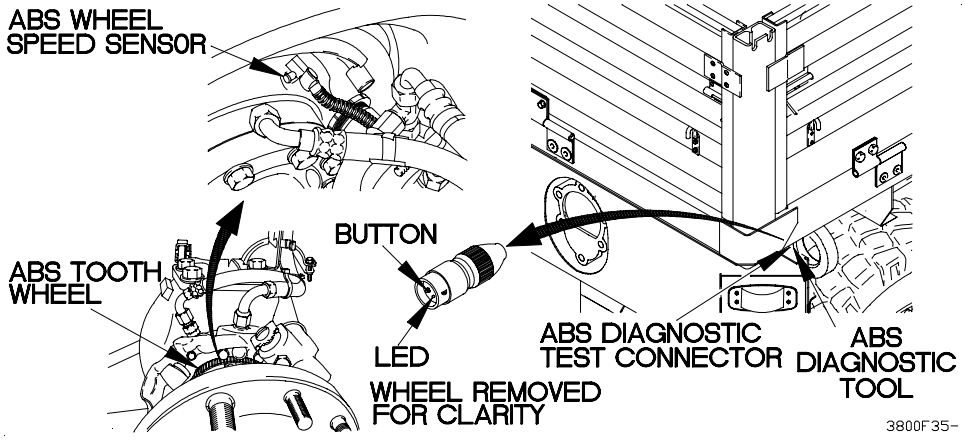


2. Disconnect connector BU1 from ABS ECU.
3. Install jumper wire across connector BU1.
4. Connect positive (+) probe of digital multimeter to one pin of ABS control sensor harness connector.
5. Connect negative (-) probe of digital multimeter to other pin of ABS control sensor harness connector and note reading on digital multimeter.
6. If continuity is not present, replace ABS control sensor harness (WP 0069 00).
7. If continuity is present, replace ABS ECU (WP 0065 00/WP 0066 00).

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
8. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS THREE TIMES IN SERIES: LEFT ABS WHEEL SPEED SENSOR FAULT (LMTVT)	1. Check to see if ABS diagnostic tool blinks three times in series after left ABS wheel speed sensor position is reset.	1. Push left ABS wheel speed sensor in until it contacts tooth wheel.
		2. Start towing vehicle engine.
		3. Road test trailer.
		4. Park towing vehicle.
		5. Connect ABS diagnostic tool to ABS diagnostic test connector.



NOTE

Trailer must be operated greater than 4 mph (6 km/h) during performance of step (3).

NOTE

Towing vehicle ignition must be on during steps (5 through 9).

BRAKE SYSTEM - Continued

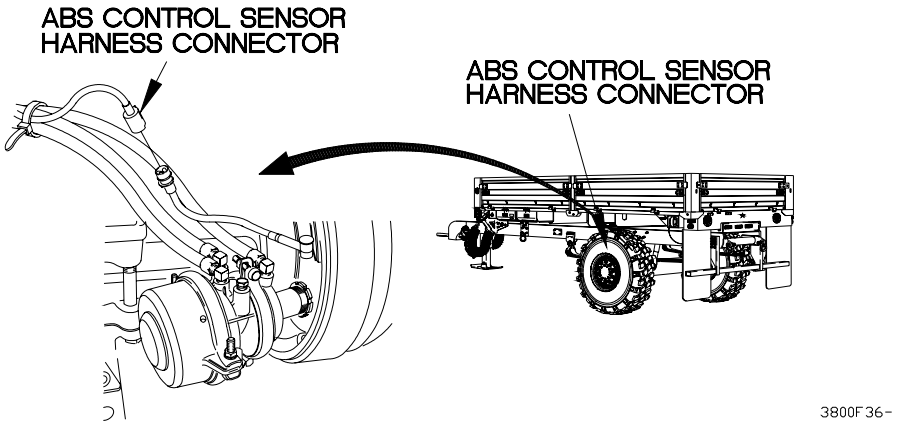
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
8. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS THREE TIMES IN SERIES: LEFT ABS WHEEL SPEED SENSOR FAULT(LMTVT) - CONTINUED		6. If towing vehicle is not FMTV A1, position towing vehicle main light switch to SER DRIVE and depress brake pedal during step (7). 7. Press button on ABS diagnostic tool for 1 second and release. 8. Check to see if ABS diagnostic tool blinks. 9. If towing vehicle is not FMTV A1, position towing vehicle main light switch to OFF. 10. If ABS diagnostic tool does not blink, fault is corrected. Shut down towing vehicle engine.
	2. Check to see if wheel wobbles or shimmies.	1. Road test trailer. 2. Check to see if left wheel wobbles or shimmies. 3. Shut down towing vehicle engine. 4. If left wheel wobbles or shimmies, perform Wheel Troubleshooting (WP 0031 00, Malfunction 1, Wheel Wobbles or Shimmies).

BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

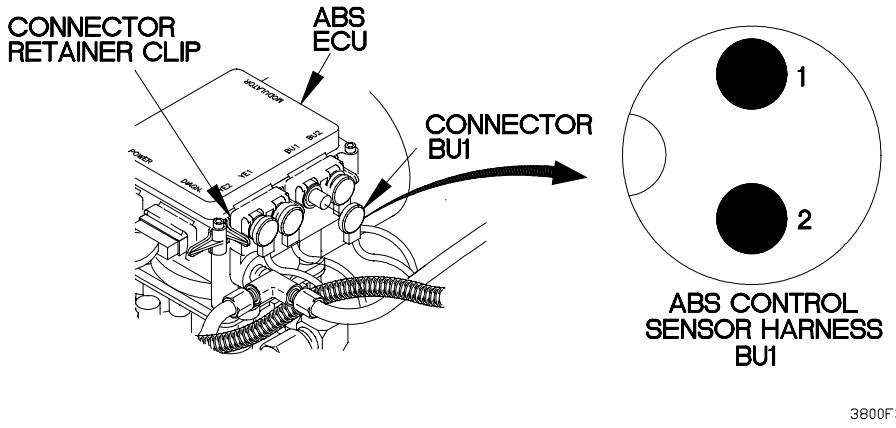
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
8. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS THREE TIMES IN SERIES: LEFT ABS WHEEL SPEED SENSOR FAULT (LMTVT) - CONTINUED	3. Check to see if 700-3,000 ohms of resistance is present across left ABS wheel speed sensor.	1. Disconnect ABS control sensor harness connector from ABS wheel speed sensor.
		
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to one socket of ABS wheel speed sensor connector. 4. Connect negative (-) probe of digital multimeter to other socket of ABS wheel speed sensor connector and note reading on digital multimeter. 5. If 700-3,000 ohms is not present, replace left ABS wheel speed sensor (WP 0054 00).

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
8. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS THREE TIMES IN SERIES: LEFT ABS WHEEL SPEED SENSOR FAULT (LMTVT) - CONTINUED	4. Check to see if continuity is present across left ABS control sensor harness connector with jumper wire across connector BU1.	1. Loosen connector retaining clip on connector BU1.

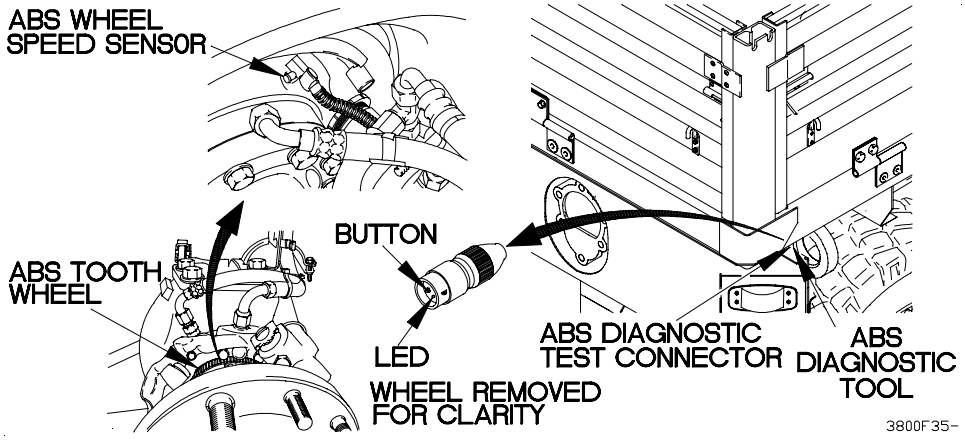


2. Disconnect connector BU1 from ABS ECU.
3. Install jumper wire across connector BU1.
4. Connect positive (+) probe of digital multimeter to one pin of ABS control sensor harness connector.
5. Connect negative (-) probe of digital multimeter to other pin of ABS control sensor harness connector and note reading on digital multimeter.
6. If continuity is not present, replace ABS control sensor harness (WP 0069 00).
7. If continuity is present, replace ABS ECU (WP 0065 00/WP 0066 00).

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
9. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS FOUR TIMES IN SERIES: RIGHT FRONT ABS WHEEL SPEED SENSOR FAULT (MTVT)	1. Check to see if ABS diagnostic tool blinks four times in series after right front ABS wheel speed sensor position is reset.	1. Push right front ABS wheel speed sensor in until it contacts tooth wheel.



		2. Start towing vehicle engine.

NOTE

Trailer must be operated greater than 4 mph (6 km/h) during performance of step (3).

		3. Road test trailer. 4. Park towing vehicle.

NOTE

Towing vehicle ignition must be on during steps (5 through 9).

		5. Connect ABS diagnostic tool to ABS diagnostic test connector.

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

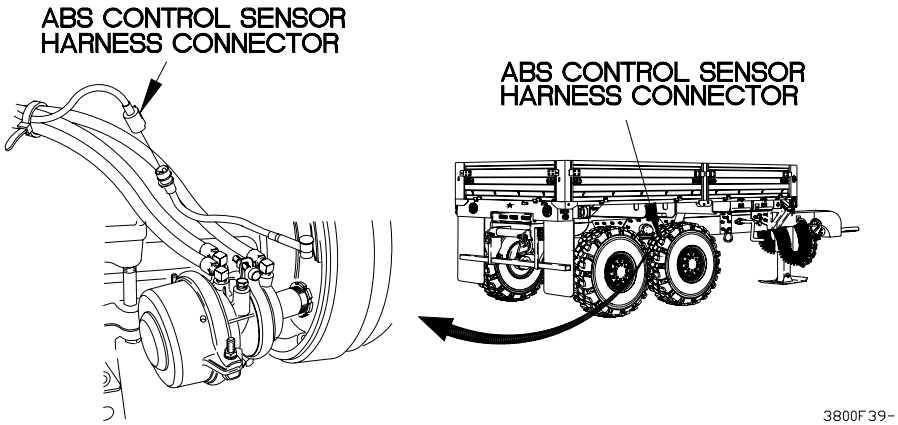
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
9. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS FOUR TIMES IN SERIES: RIGHT FRONT ABS WHEEL SPEED SENSOR FAULT (MTVT) - CONTINUED		6. If towing vehicle is not FMTV A1, position towing vehicle main light switch to SER DRIVE and depress brake pedal during step (7). 7. Press button on ABS diagnostic tool for 1 second and release. 8. Check to see if ABS diagnostic tool blinks. 9. If towing vehicle is not FMTV A1, position towing vehicle main light switch to OFF. 10. If ABS diagnostic tool does not blink, fault is corrected. Shut down towing vehicle engine.
	2. Check to see if front wheel wobbles or shimmies.	1. Road test trailer. 2. Check to see if right front wheel wobbles or shimmies. 3. Shut down towing vehicle engine. 4. If right front wheel wobbles or shimmies, perform Wheel Troubleshooting (WP 0031 00, malfunction 1, Wheel Wobbles or Shimmies).

BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
9. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS FOUR TIMES IN SERIES: RIGHT FRONT ABS WHEEL SPEED SENSOR FAULT (MTVT) - CONTINUED	3. Check to see if 700-3,000 ohms of resistance is present across right front ABS wheel speed sensor.	1. Disconnect ABS control sensor harness connector from ABS wheel speed sensor.

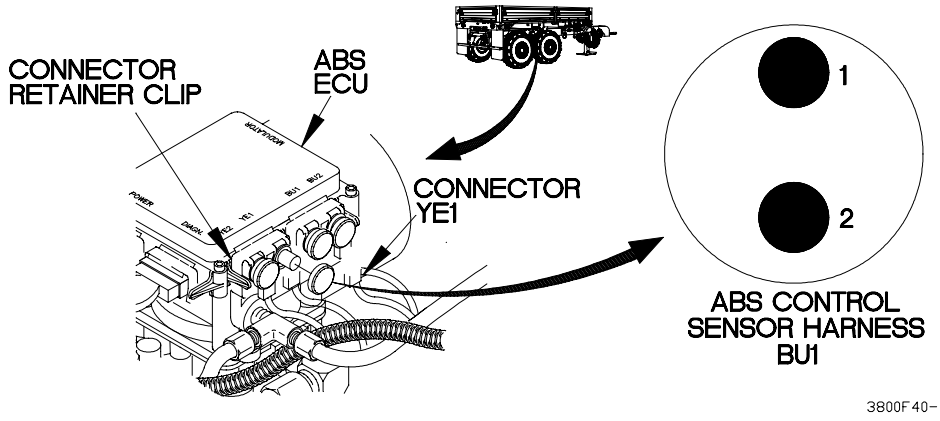


2. Set digital multimeter to ohms.
3. Connect positive (+) probe of digital multimeter to one socket of ABS wheel speed sensor connector.
4. Connect negative (-) probe of digital multimeter to other socket of ABS wheel speed sensor connector and note reading on digital multimeter.
5. If 700-3,000 ohms is not present, replace right front ABS wheel speed sensor (WP 0054 00).

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
9. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS FOUR TIMES IN SERIES: RIGHT FRONT ABS WHEEL SPEED SENSOR FAULT (MTVT) - CONTINUED	4. Check to see if continuity is present across right front ABS control sensor harness connector with jumper wire across connector YE1.	1. Loosen connector retaining clip on connector YE1.

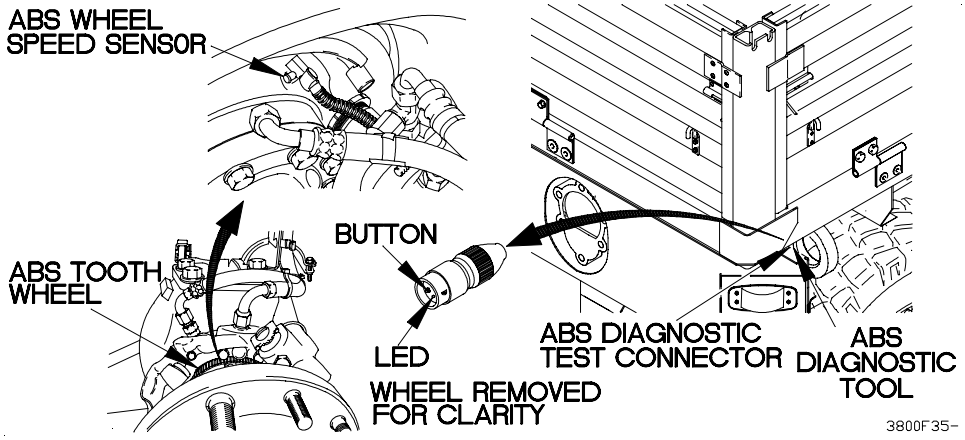


2. Disconnect connector YE1 from ABS ECU.
3. Install jumper wire across connector YE1.
4. Connect positive (+) probe of digital multimeter to one pin of ABS control sensor harness connector.
5. Connect negative (-) probe of digital multimeter to other pin of ABS control sensor harness connector and note reading on digital multimeter.
6. If continuity is not present, replace ABS control sensor harness (WP 0069 00).
7. If continuity is present, replace ABS ECU (WP 0065 00/WP 0066 00).

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
10. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS FOUR TIMES IN SERIES: RIGHT ABS WHEEL SPEED SENSOR FAULT (LMTVT)	1. Check to see if ABS diagnostic tool blinks four times in series after right ABS wheel speed sensor position is reset.	1. Push right ABS wheel speed sensor in until it contacts tooth wheel.
		2. Start towing vehicle engine.
		3. Road test trailer.
		4. Park towing vehicle.
		5. Connect ABS diagnostic tool to ABS diagnostic test connector.



NOTE

Trailer must be operated greater than 4 mph (6 km/h) during performance of step (3).

NOTE

Towing vehicle ignition must be on during steps (5 through 9).

BRAKE SYSTEM - Continued

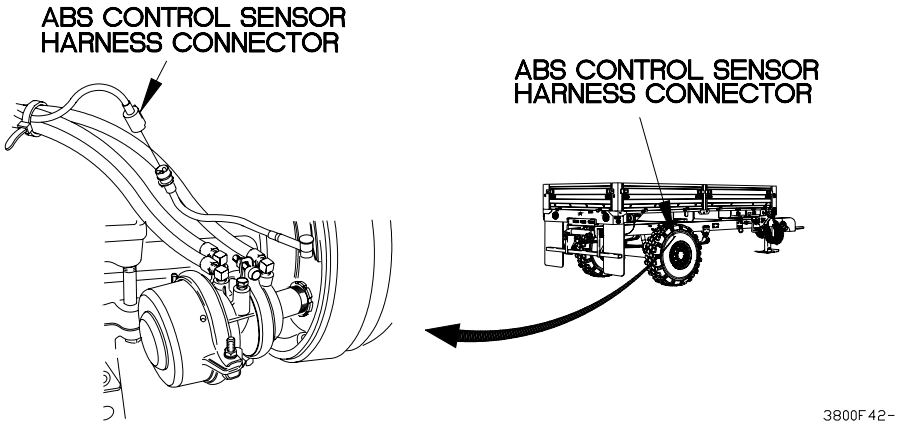
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
10. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS FOUR TIMES IN SERIES: RIGHT ABS WHEEL SPEED SENSOR FAULT (LMTVT) - CONTINUED		6. If towing vehicle is not FMTV A1, position towing vehicle main light switch to SER DRIVE and depress brake pedal during step (7). 7. Press button on ABS diagnostic tool for 1 second and release. 8. Check to see if ABS diagnostic tool blinks. 9. If towing vehicle is not FMTV A1, position towing vehicle main light switch to OFF. 10. If ABS diagnostic tool does not blink, fault is corrected. Shut down towing vehicle engine.
	2. Check to see if wheel wobbles or shimmies.	1. Road test trailer. 2. Check to see if right wheel wobbles or shimmies. 3. Shut down towing vehicle engine.

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

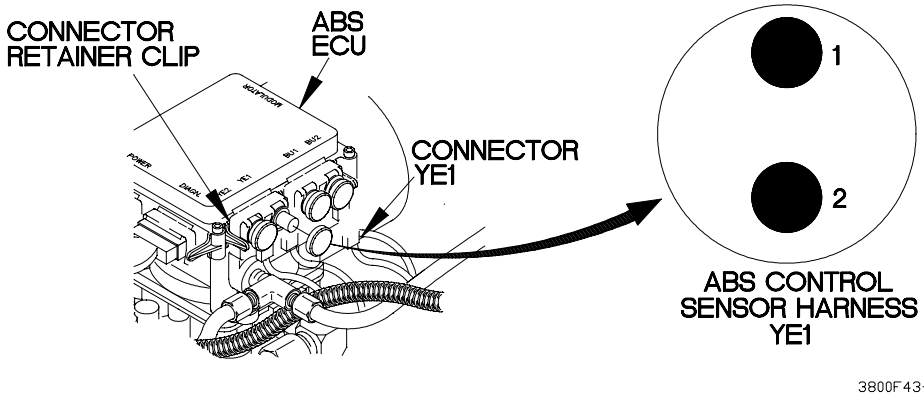
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
10. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS FOUR TIMES IN SERIES: RIGHT ABS WHEEL SPEED SENSOR FAULT (LMTVT) - CONTINUED		4. If right wheel wobbles or shimmies, perform Wheel Troubleshooting (WP 0031 00, Malfunction 1, Wheel Wobbles or Shimmies).
	3. Check to see if 700-3,000 ohms of resistance is present across right ABS wheel speed sensor.	1. Disconnect ABS control sensor harness connector from ABS wheel speed sensor.
		2. Set digital multimeter to ohms.
		3. Connect positive (+) probe of digital multimeter to one socket of ABS wheel speed sensor connector.
		4. Connect negative (-) probe of digital multimeter to other socket of ABS wheel speed sensor connector and note reading on digital multimeter.
		5. If 700-3,000 ohms is not present, replace right ABS wheel speed sensor (WP 0054 00).



BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
10. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS FOUR TIMES IN SERIES: RIGHT ABS WHEEL SPEED SENSOR FAULT (LMTVT) - CONTINUED	4. Check to see if continuity is present across right ABS control sensor harness connector with jumper wire across connector YE1.	1. Loosen connector retaining clip on connector YE1.

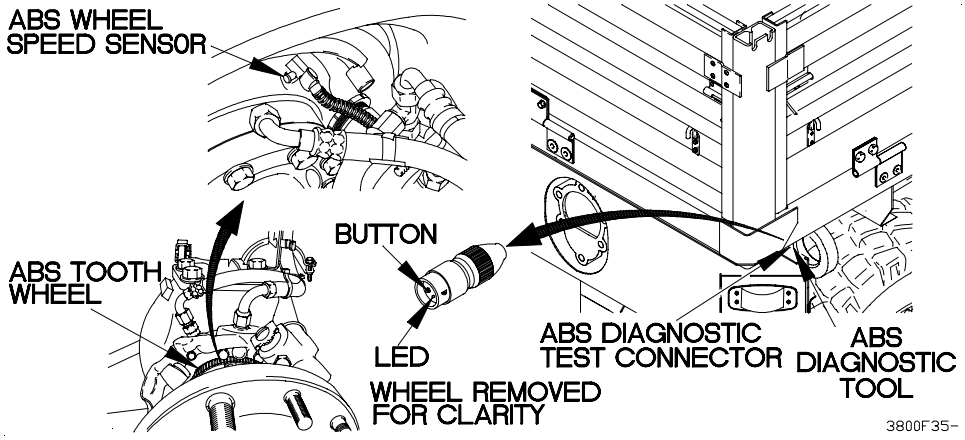


2. Disconnect connector YE1 from ABS ECU.
3. Install jumper wire across connector YE1.
4. Connect positive (+) probe of digital multimeter to one pin of ABS control sensor harness connector.
5. Connect negative (-) probe of digital multimeter to other pin of ABS control sensor harness connector and note reading on digital multimeter.
6. If continuity is not present, replace ABS control sensor harness (WP 0069 00).
7. If continuity is present, replace ABS ECU (WP 0065 00/WP 0066 00).

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
11. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS FIVE TIMES IN SERIES: LEFT REAR ABS WHEEL SPEED SENSOR FAULT (MTVT)	1. Check to see if ABS diagnostic tool blinks five times in series after left rear ABS wheel speed sensor position is reset.	1. Push left rear ABS wheel speed sensor in until it contacts tooth wheel.



	2. Start towing vehicle engine.

NOTE

Trailer must be operated greater than 4 mph (6 km/h) during performance of step (3).

	3. Road test trailer.
	4. Park towing vehicle.

NOTE

Towing vehicle ignition must be on during steps (5 through 9).

	5. Connect ABS diagnostic tool to ABS diagnostic test connector.

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

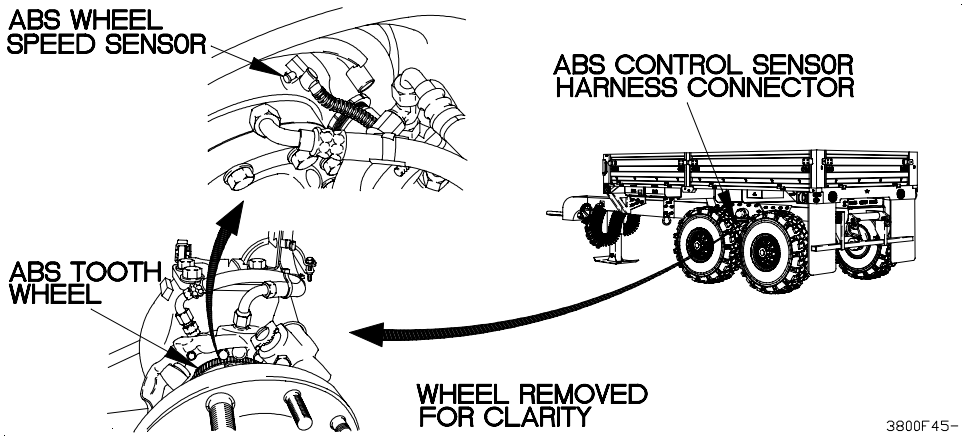
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
11. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS FIVE TIMES IN SERIES: LEFT REAR ABS WHEEL SPEED SENSOR FAULT (MTVT) - CONTINUED		6. If towing vehicle is not FMTV A1, position towing vehicle main light switch to SER DRIVE and depress brake pedal during step (7). 7. Press button on ABS diagnostic tool for 1 second and release. 8. Check to see if ABS diagnostic tool blinks. 9. If towing vehicle is not FMTV A1, position towing vehicle main light switch to OFF. 10. If ABS diagnostic tool does not blink, fault is corrected. Shut down towing vehicle engine.
	2. Check to see if rear wheel wobbles or shimmies.	1. Road test trailer. 2. Check to see if left rear wheel wobbles or shimmies. 3. Shut down towing vehicle engine. 4. If left rear wheel wobbles or shimmies, perform Wheel Troubleshooting (WP 0031 00, Malfunction 1, Wheel Wobbles or Shimmies).

BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

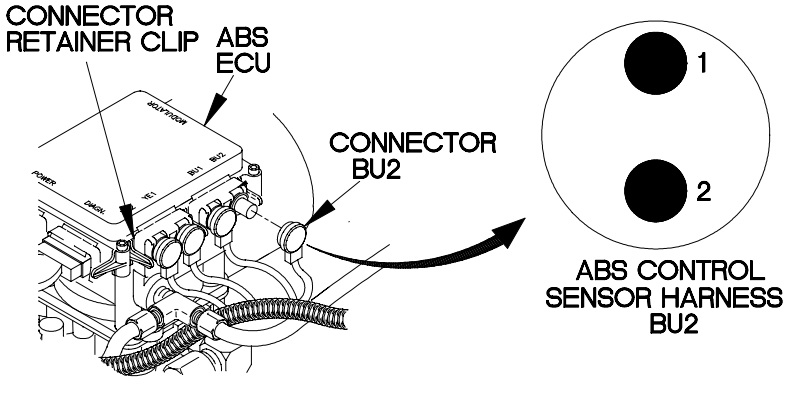
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
11. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS FIVE TIMES IN SERIES: LEFT REAR ABS WHEEL SPEED SENSOR FAULT (MTVT) - CONTINUED	3. Check to see if 700-3,000 ohms of resistance is present across left rear ABS wheel speed sensor.	1. Disconnect ABS control sensor harness connector from ABS wheel speed sensor.
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to one socket of ABS wheel speed sensor connector. 4. Connect negative (-) probe of digital multimeter to other socket of ABS wheel speed sensor connector and note reading on digital multimeter. 5. If 700-3,000 ohms is not present, replace left rear ABS wheel speed sensor (WP 0054 00).



BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
11. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS FIVE TIMES IN SERIES: LEFT REAR ABS WHEEL SPEED SENSOR FAULT (MTVT) - CONTINUED	4. Check to see if continuity is present across left rear ABS control sensor harness connector with jumper wire across connector BU2.	1. Loosen connector retaining clip on connector BU2.

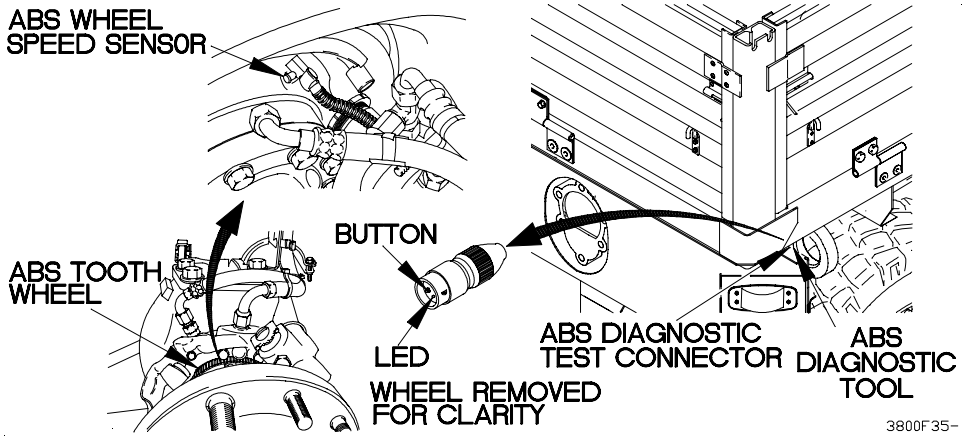


2. Disconnect connector BU2 from ABS ECU.
3. Install jumper wire across connector BU2.
4. Connect positive (+) probe of digital multimeter to one pin of ABS control sensor harness connector.
5. Connect negative (-) probe of digital multimeter to other pin of ABS control sensor harness connector and note reading on digital multimeter.
6. If continuity is not present, replace ABS control sensor harness (WP 0069 00).
7. If continuity is present, replace ABS ECU (WP 0065 00/WP 0066 00).

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
12. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS SIX TIMES IN SERIES: RIGHT REAR ABS WHEEL SPEED SENSOR FAULT (MTVT)	1. Check to see if ABS diagnostic tool blinks six times in series after right rear ABS wheel speed sensor position is reset.	1. Push right rear ABS wheel speed sensor in until it contacts tooth wheel.
		2. Start towing vehicle engine.
		3. Road test trailer.
		4. Park towing vehicle.
		5. Connect ABS diagnostic tool to ABS diagnostic test connector.



NOTE

Trailer must be operated greater than 4 mph (6 km/h) during performance of step (3).

NOTE

Towing vehicle ignition must be on during steps (5 through 9).

BRAKE SYSTEM - Continued

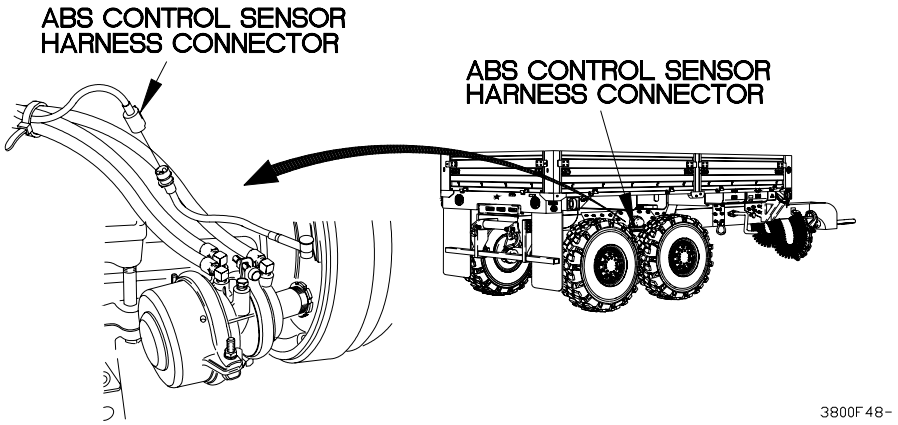
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
12. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS SIX TIMES IN SERIES: RIGHT REAR ABS WHEEL SPEED SENSOR FAULT (MTVT) - CONTINUED		6. If towing vehicle is not FMTV A1, position towing vehicle main light switch to SER DRIVE and depress brake pedal during step (7). 7. Press button on ABS diagnostic tool for 1 second and release. 8. Check to see if ABS diagnostic tool blinks. 9. If towing vehicle is not FMTV A1, position main light switch to OFF. 10. If ABS diagnostic tool does not blink, fault is corrected. Shut down towing vehicle engine.
	2. Check to see if rear wheel wobbles or shimmies.	1. Road test trailer. 2. Check to see if right rear wheel wobbles or shimmies. 3. Shut down towing vehicle engine. 4. If right rear wheel wobbles or shimmies, perform Wheel Troubleshooting (WP 0031 00, Malfunction 1, Wheel Wobbles or Shimmies).

BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

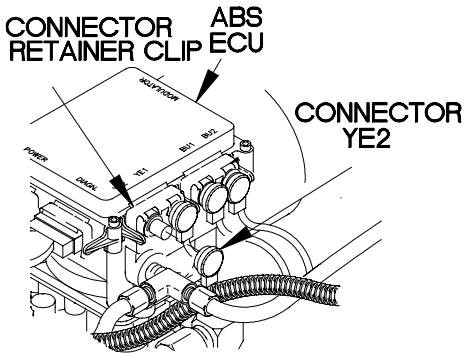
Table 1. Brake System Troubleshooting Procedures - Continued.

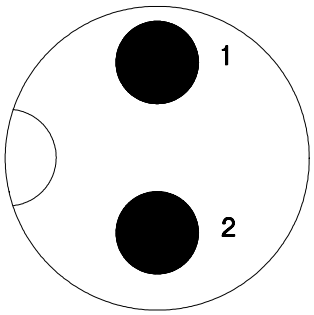
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
12. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS SIX TIMES IN SERIES: RIGHT REAR ABS WHEEL SPEED SENSOR FAULT (MTVT) - CONTINUED	3. Check to see if 700-3,000 ohms of resistance is present across right rear ABS wheel speed sensor.	1. Disconnect ABS control sensor harness connector from ABS wheel speed sensor.
		
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to one socket of ABS wheel speed sensor connector. 4. Connect negative (-) probe of digital multimeter to other socket of ABS wheel speed sensor connector and note reading on digital multimeter. 5. If 700-3,000 ohms is not present, replace right rear ABS wheel speed sensor (WP 0054 00).

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
12. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS SIX TIMES IN SERIES: RIGHT REAR ABS WHEEL SPEED SENSOR FAULT (MTVT) - CONTINUED	4. Check to see if continuity is present across right rear ABS control sensor harness connector with jumper wire across connector YE2.	1. Loosen connector retaining clip on connector YE2.



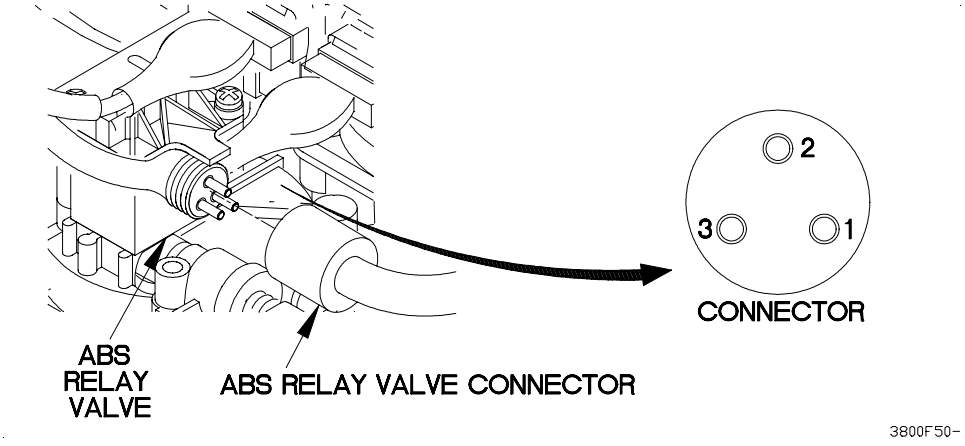


3800F49-

2. Disconnect connector YE2 from ABS ECU.
3. Install jumper wire across connector YE2.
4. Connect positive (+) probe of digital multimeter to one pin of ABS control sensor harness connector.
5. Connect negative (-) probe of digital multimeter to other pin of ABS control sensor harness connector and note reading on digital multimeter.
6. If continuity is not present, replace ABS control sensor harness (WP 0069 00).
7. If continuity is present, replace ABS ECU (WP 0065 00/WP 0066 00).

BRAKE SYSTEM - Continued

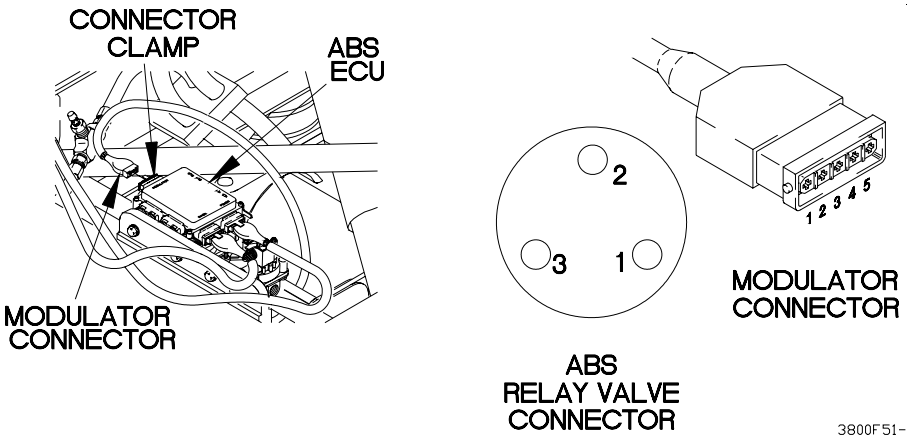
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
13. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS NINE TIMES IN SERIES: ABS RELAY VALVE FAULT	1. Check to see if 4-8 ohms of resistance is present across ABS relay valve.	1. Disconnect relay valve connector from ABS relay valve.  2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to pin 1 of ABS relay valve. 4. Connect negative (-) probe of digital multimeter to pin 2 of ABS relay valve and note reading on digital multimeter. 5. If 4-8 ohms is not present, replace ABS relay valve (WP 0067 00).

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

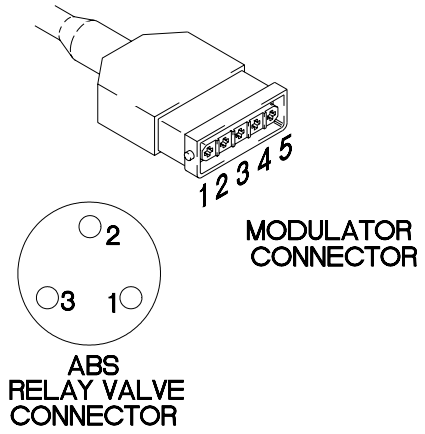
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
13. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS NINE TIMES IN SERIES: ABS RELAY VALVE FAULT - CONTINUED	2. Check to see if continuity is present across ABS ECU valve to relay valve harness, pins 1 and 2.	1. Disconnect MODULATOR connector from ABS ECU.



2. Install jumper wire across pins 1 and 2 on MODULATOR connector.
3. Set digital multimeter to ohms.
4. Connect positive (+) probe of digital multimeter to relay valve connector pin 1.
5. Connect negative (-) probe of digital multimeter to relay valve connector pin 2 and note reading on digital multimeter.
6. If continuity is not present, replace ABS ECU valve to relay valve harness (WP 0071 00).
7. Remove jumper wire from MODULATOR connector.

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
13. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS NINE TIMES IN SERIES: ABS RELAY VALVE FAULT - CONTINUED	3. Check to see if continuity is present across ABS ECU valve to relay valve harness, pin 3.	1. Set digital multimeter to ohms.
		
		2. Connect positive (+) probe of digital multimeter to relay valve connector pin 3. 3. Connect negative (-) probe of digital multimeter to MODULATOR connector pin 3 and note reading on digital multimeter. 4. If continuity is not present, replace ABS ECU valve to relay valve harness (WP 0071 00). 5. If continuity is present, replace ABS ECU (WP 0065 00/WP 00666 00). 6. Connect MODULATOR connector to ABS ECU.

BRAKE SYSTEM - Continued

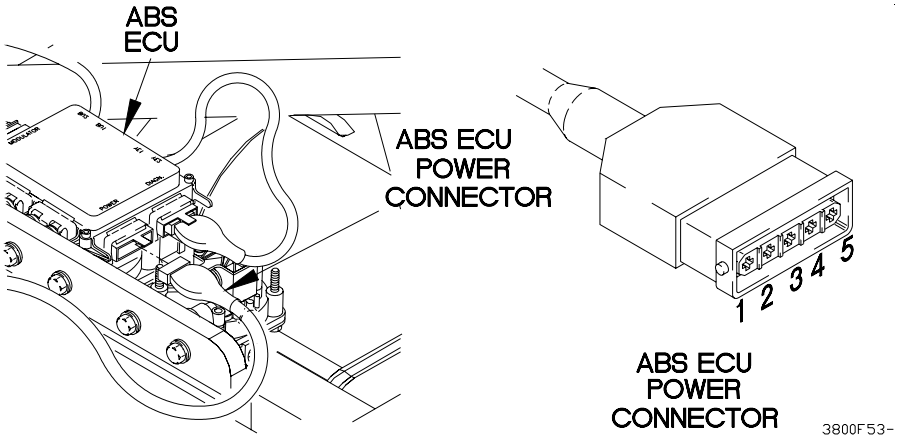
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
13. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS NINE TIMES IN SERIES: ABS RELAY VALVE FAULT - CONTINUED		7. Connect relay valve connector to ABS relay valve.

WARNING

Remove rings, bracelets, wristwatches, neck chains, and any other jewelry before working around trailer. Jewelry may catch on equipment or may short across an electrical circuit. Failure to comply may result in serious injury or death to personnel.

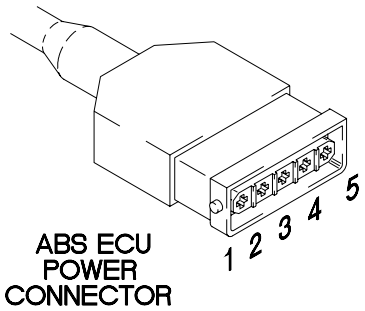
14. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 10 TIMES IN SERIES: ABS MODULATOR VALVE FAULT	1. Check to see if 8-14 vdc is present at ABS ECU POWER connector pin 1?	1. Disconnect POWER connector from ABS ECU.



		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to POWER connector pin 1. 4. Connect negative (-) probe of button probe to a known good ground.

BRAKE SYSTEM - Continued

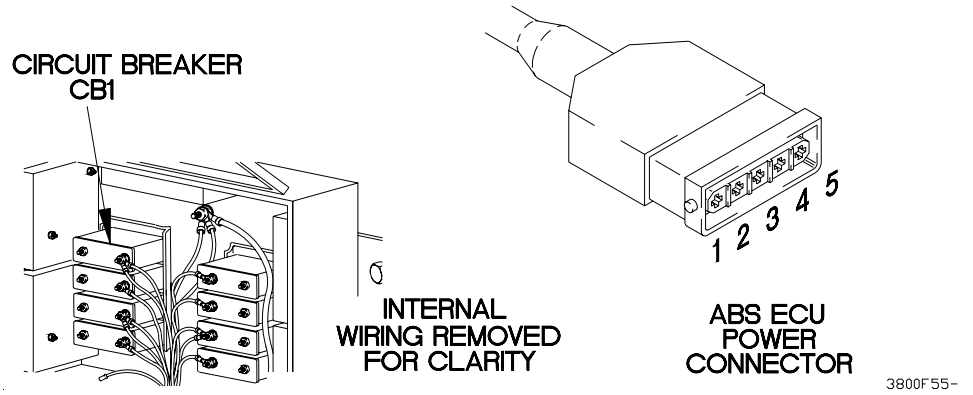
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
14. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 10 TIMES IN SERIES: ABS MODULATOR VALVE FAULT - CONTINUED		5. Start towing vehicle engine. 6. If towing vehicle is not FMTV A1, position towing vehicle main light switch to SER DRIVE and depress brake pedal during step (6). 7. Note reading on digital multimeter. 8. If towing vehicle is not FMTV A1, position main light switch to OFF. 9. Shut down towing vehicle engine. 10. If 8-14 vdc is not present, go to step 3 of this malfunction.
	2. Check to see if continuity is present between ABS ECU POWER connector pin and a known good ground.  3800F54-	1. Set digital multimeter to ohms. 2. Connect positive (+) probe of digital multimeter to POWER connector pin 4.

BRAKE SYSTEM - Continued

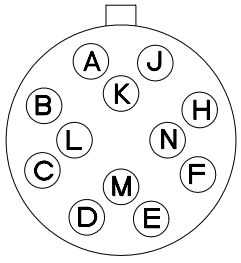
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
14. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 10 TIMES IN SERIES: ABS MODULATOR VALVE FAULT - CONTINUED		3. Connect negative (-) probe of digital multimeter to a known good ground and note reading on digital multimeter. 4. If continuity is not present, go to step 8 of malfunction. 5. If continuity is present, replace ABS ECU (WP 0065 00/WP 0066 00).
	3. Check to see if continuity is present between ABS POWER connector and circuit breaker CB1.	1. Open voltage converter box cover (WP 0053 00).
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to POWER connector pin 1. 4. Connect negative (-) probe of digital multimeter to right side terminal of circuit breaker CB1 and note reading on digital multimeter.



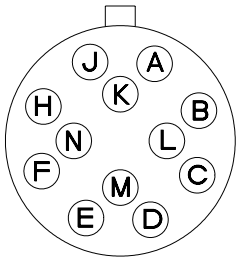
BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
14. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 10 TIMES IN SERIES: ABS MODULATOR VALVE FAULT - CONTINUED		5. If continuity is not present, replace ABS control power harness (WP 0068 00). 6. Close voltage converter box cover (WP 0053 00).
	4. Check to see if 18-26 vdc is present at 24 vdc intervehicular cable connector pin K.	1. Disconnect 24 vdc intervehicular cable from trailer (WP 0012 00).
	 24 VDC CONNECTOR 3800F56-	
		2. Set digital multimeter to ohms. 3. Connect positive (+) of digital multimeter to 24 vdc intervehicular cable connector pin K. 4. Connect negative (-) of digital multimeter to a known good ground. 5. Start towing vehicle engine. 6. If towing vehicle is not FMTV A1, position main light switch to SER DRIVE and depress brake pedal during step (7).

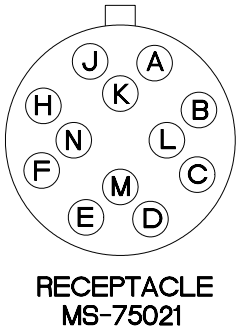
BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
14. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 10 TIMES IN SERIES: ABS MODULATOR VALVE FAULT - CONTINUED		7. Note reading on digital multimeter. 8. If towing vehicle is not FMTV A1, position main light switch to OFF. 9. Shut down towing vehicle engine. 10. If 18-26 vdc is not present, replace 24 vdc intervehicular cable.
	5. Check to see if continuity is present through receptacle pin MS-750231 pin K.	1. Open voltage converter box cover (WP 0053 00).
	 RECEPTACLE MS-75021 3800F57-	2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to pin K on outside of receptacle MS-75021.

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

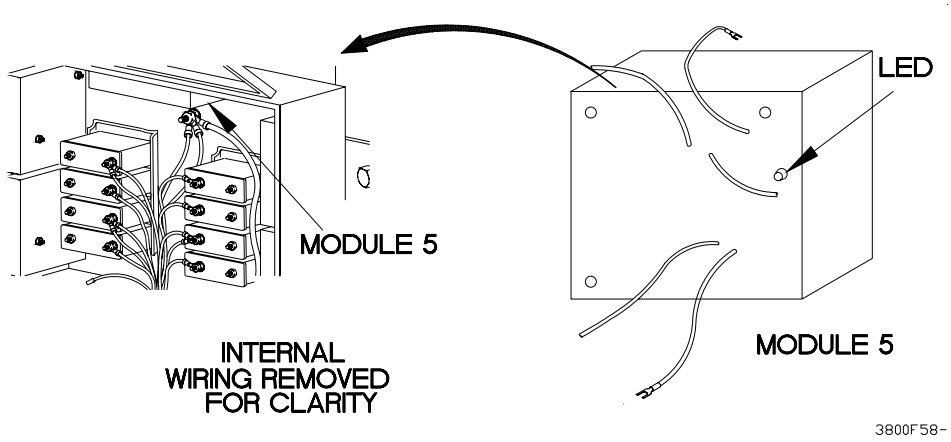
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
14. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 10 TIMES IN SERIES: ABS MODULATOR VALVE FAULT - CONTINUED		4. Connect negative (-) probe of digital multimeter to pin K on inside of receptacle MS-75021 and note  RECEPTACLE MS-75021 3800F57- 5. If continuity is not present, replace voltage converter box (WP 0052 00).

BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
14. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 10 TIMES IN SERIES: ABS MODULATOR VALVE FAULT - CONTINUED	6. Check to see if module 5 LED illuminates.	1. Connect 24 vdc intervehicular cable to trailer (WP 0009 00).
		2. Position towing vehicle main light switch to SER DRIVE. 3. Check to see if module 5 LED illuminates. 4. Position towing vehicle main light switch to OFF.

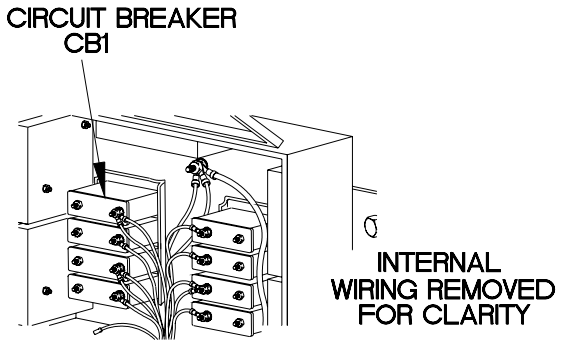


BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

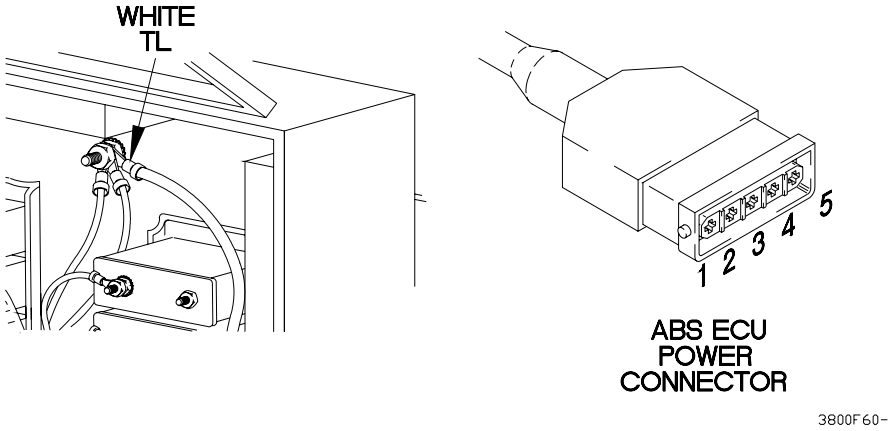
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
14. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 10 TIMES IN SERIES: ABS MODULATOR VALVE FAULT - CONTINUED	7. Check to see if continuity is present across circuit breaker CB1.	1. Set digital multimeter to ohms.
		2. Connect positive (+) probe of digital multimeter to one terminal of circuit breaker CB1.
		3. Connect negative (-) probe of digital multimeter to other terminal of circuit breaker CB1 and not reading on digital multimeter.
		4. If continuity is not present, replace circuit breaker CB1 (WP 0053 00).
		5. If continuity is present, replace voltage converter box (WP 0052 00).



BRAKE SYSTEM - Continued

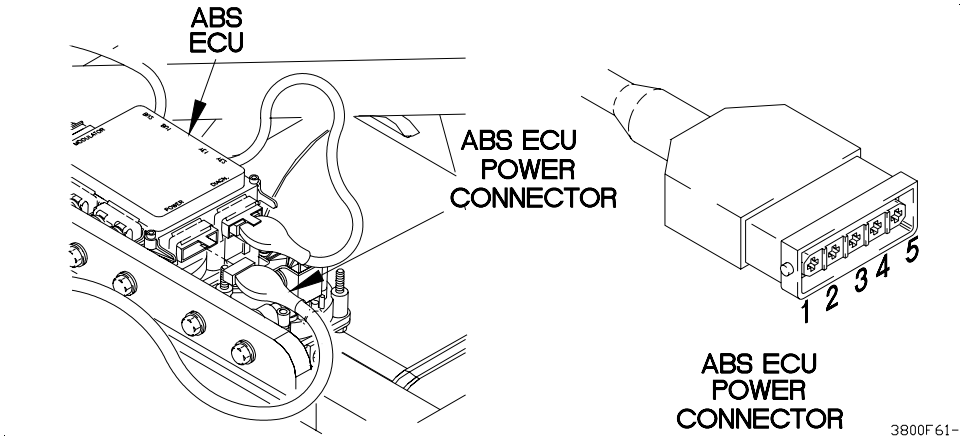
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
14. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 10 TIMES IN SERIES: ABS MODULATOR VALVE FAULT - CONTINUED	8. Check to see if continuity is present between ABS POWER connector pin 1 and ground post terminal lug.	1. Open voltage converter box cover (WP 0053 00).
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to ABS POWER connector pin 1. 4. Connect negative (-) probe of digital multimeter to ground post terminal lug. 5. If continuity is not present, replace ABS control power harness (WP 0068 00). 6. If continuity is present, replace voltage converter box (WP 0052 00).



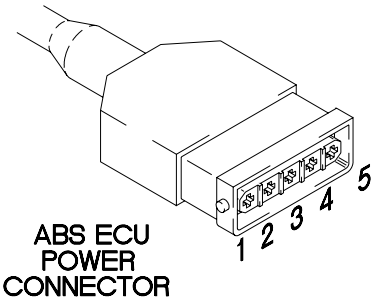
BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
WARNING **Remove rings, bracelets, wristwatches, neck chains, and any other jewelry before working around trailer. Jewelry may catch on equipment or may short across an electrical circuit. Failure to comply may result in serious injury or death to personnel.**		
15. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 14 TIMES IN SERIES: ABS SYSTEM CONFIGURATION OR POWER SUPPLY FAULT	1. Check to see if 8-14 vdc is present at ABS ECU POWER connector pin 1?	1. Disconnect POWER connector from ABS ECU.
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to POWER connector pin 1. 4. Connect negative (-) probe of button probe to a known good ground. 5. Start towing vehicle engine.

BRAKE SYSTEM - Continued

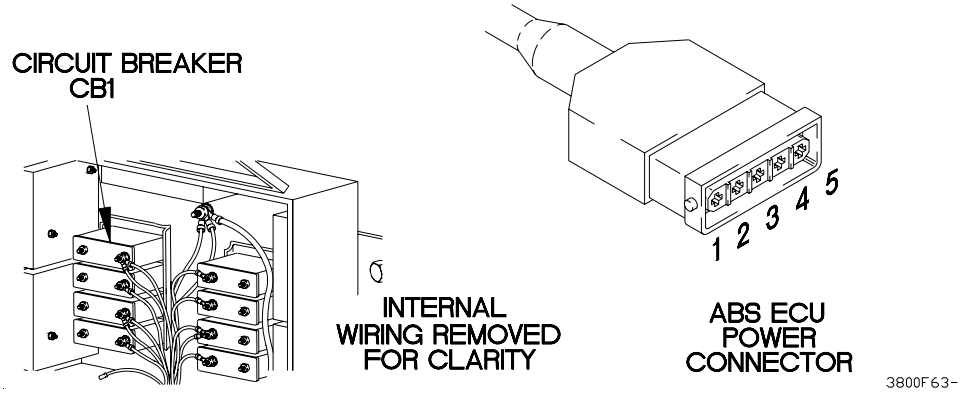
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
15. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 14 TIMES IN SERIES: ABS SYSTEM CONFIGURATION OR POWER SUPPLY FAULT - CONTINUED		6. If towing vehicle is not FMTV A1, position main light switch to SER DRIVE and depress brake pedal during step (7). 7. Note reading on digital multimeter. 8. If towing vehicle is not FMTV A1, position main light switch to OFF. 9. Shut down towing vehicle engine. 10. If 8-14 vdc is not present, go to step 3 of this malfunction.
	2. Check to see if continuity is present between ABS ECU POWER connector pin and a known good ground.	1. Set digital multimeter to ohms.
		
		2. Connect positive (+) probe of digital multimeter to POWER connector pin 4.

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

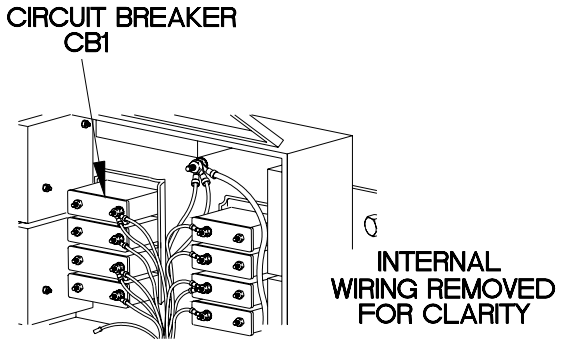
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
15. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 14 TIMES IN SERIES: ABS SYSTEM CONFIGURATION OR POWER SUPPLY FAULT - CONTINUED		3. Connect negative (-) probe of digital multimeter to a known good ground and note reading on digital multimeter. 4. If continuity is not present, go to step 8 of this malfunction. 5. If continuity is present, replace ABS ECU (WP 0065 00/WP 0066 00).
	3. Check to see if continuity is present between ABS POWER connector and circuit breaker CB1.	1. Open voltage converter box cover (WP 0053 00).
		2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to POWER connector pin 1.



BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

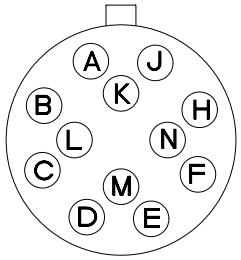
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
15. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 14 TIMES IN SERIES: ABS SYSTEM CONFIGURATION OR POWER SUPPLY FAULT - CONTINUED		4. Connect negative (-) probe of digital multimeter to right side terminal of circuit breaker CB1 and note reading on digital multimeter.
		
		5. If continuity is not present, replace ABS control power harness (WP 0068 00). 6. Close voltage converter box cover (WP 0053 00).

BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

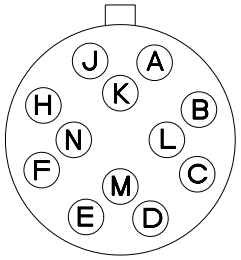
BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
15. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 14 TIMES IN SERIES: ABS SYSTEM CONFIGURATION OR POWER SUPPLY FAULT - CONTINUED	4. Check to see if 18-26 vdc is present at 24 vdc intervehicular cable connector pin K.	1. Disconnect 24 vdc intervehicular cable from trailer (WP 0012 00).
	 24 VDC CONNECTOR 3800F64-	
		2. Set digital multimeter to ohms. 3. Connect positive (+) of digital multimeter to 24 vdc intervehicular cable connector pin K. 4. Connect negative (-)of digital multimeter to a known good ground. 5. Start towing vehicle engine. 6. If towing vehicle is not FMTV A1, position main light switch to SER DRIVE and depress brake pedal during step (7). 7. Note reading on digital multimeter.

BRAKE SYSTEM - Continued

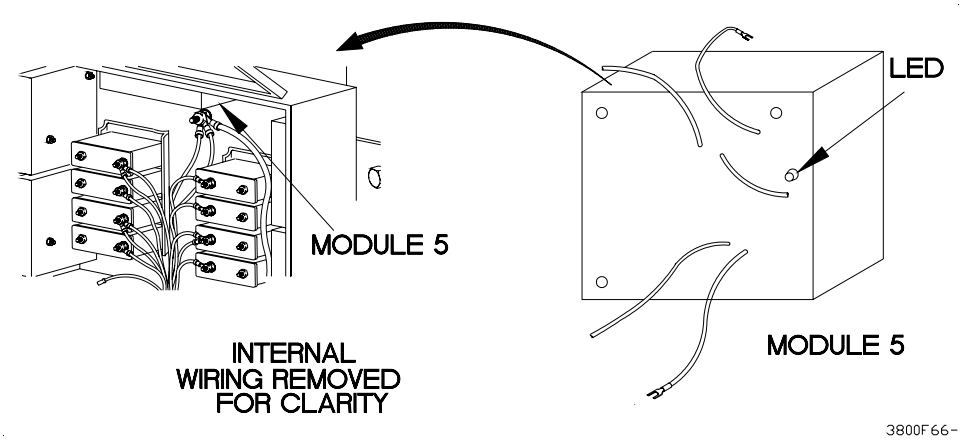
Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
15. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 14 TIMES IN SERIES: ABS SYSTEM CONFIGURATION OR POWER SUPPLY FAULT - CONTINUED		8. If towing vehicle is not FMTV A1, position main light switch to OFF. 9. Shut down towing vehicle engine. 10. If 18-26 vdc is not present, replace 24 vdc intervehicular cable.
	5. Check to see if continuity is present through receptacle pin MS-750231 pin K.	1. Open voltage converter box cover (WP 0053 00).
	 RECEPTACLE MS-75021 3800F65-	2. Set digital multimeter to ohms. 3. Connect positive (+) probe of digital multimeter to pin K on outside of receptacle MS-75021. 4. Connect negative (-) probe of digital multimeter to pin K on inside of receptacle MS-75021 and note

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
15. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 14 TIMES IN SERIES: ABS SYSTEM CONFIGURATION OR POWER SUPPLY FAULT - CONTINUED		5. If continuity is not present, replace voltage converter box (WP 0052 00).
	6. Check to see if module 5 LED illuminates.	1. Connect 24 vdc intervehicular cable to trailer (WP 0009 00).
		2. Position towing vehicle main light switch to SER DRIVE.
		3. Check to see if module 5 LED illuminates.
		4. Position towing vehicle main light switch to OFF.

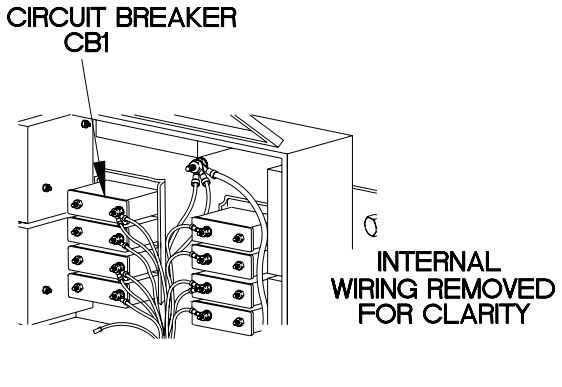


BRAKE SYSTEM TROUBLESHOOTING - Continued 0037 00

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

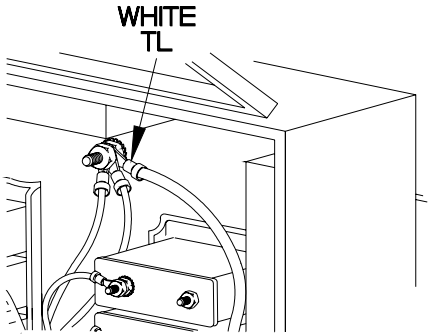
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
15. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 14 TIMES IN SERIES: ABS SYSTEM CONFIGURATION OR POWER SUPPLY FAULT - CONTINUED	7. Check to see if continuity is present across circuit breaker CB1.	1. Set digital multimeter to ohms.
		2. Connect positive (+) probe of digital multimeter to one terminal of circuit breaker CB1.
		3. Connect negative (-) probe of digital multimeter to other terminal of circuit breaker CB1 and not reading on digital multimeter.
		4. If continuity is not present, replace circuit breaker CB1 (WP 0053 00).
		5. If continuity is present, replace voltage converter box (WP 0052 00).

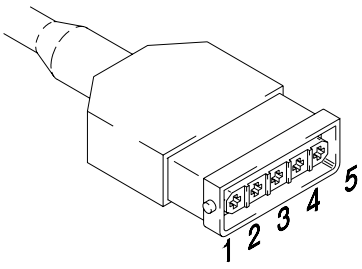


BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
15. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 14 TIMES IN SERIES: ABS SYSTEM CONFIGURATION OR POWER SUPPLY FAULT - CONTINUED	8. Check to see if continuity is present between ABS POWER connector pin 1 and ground post terminal lug.	1. Open voltage converter box cover (WP 0053 00).





ABS ECU POWER CONNECTOR

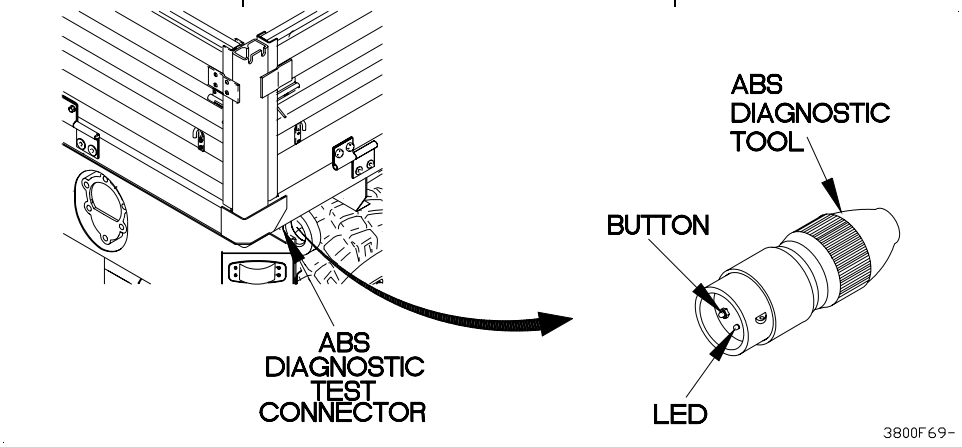
3800F68-

2. Set digital multimeter to ohms.
3. Connect positive (+) probe of digital multimeter to ABS POWER connector pin 1.
4. Connect negative (-) probe of digital multimeter to ground post terminal lug.
5. If continuity is not present, replace ABS control power harness (WP 0068 00).
6. If continuity is present, replace voltage converter box (WP 0052 00).

BRAKE SYSTEM - Continued

Table 1. Brake System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
16. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 15 TIMES IN SERIES: ABS ECU FAULT	1. Check to see if ABS diagnostic tool blinks 15 times in series after test drive.	1. Start towing vehicle engine.
		2. Road test trailer. 3. Park towing vehicle.
		4. Connect ABS diagnostic tool to ABS diagnostic test connector.



NOTE

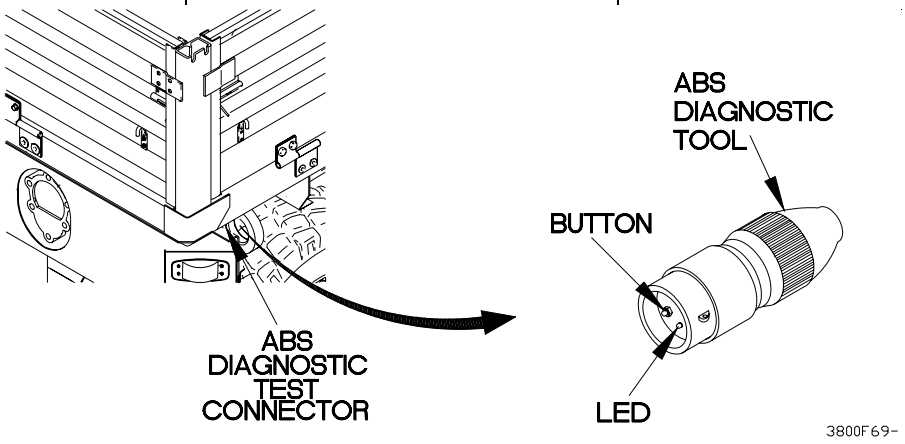
Trailer must be operated greater than 4 mph (6 km/h) during performance of step (2).

NOTE

Towing vehicle ignition must be on during steps (4 through 6).

BRAKE SYSTEM - CONTINUED

Table 1. Brake System Troubleshooting Procedures.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
16. ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC TOOL BLINKS 15 TIMES IN SERIES: ABS ECU FAULT - CONTINUED		5. If towing vehicle is not FMTV A1, position main light switch to SER DRIVE and depress brake pedal during step (6). 6. Press button on ABS diagnostic tool for 1 second and release.  7. Check to see if ABS diagnostic tool blinks. 8. If towing vehicle is not FMTV A1, position main light switch to OFF. 9. Shut down towing vehicle engine. 10. If ABS diagnostic tool blinks 15 times in series, replace ABS ECU (WP 0065 00/WP 0066 00).

END OF WORK PACKAGE

AIR SYSTEM TROUBLESHOOTING 0038 00

THIS WORK PACKAGE COVERS:
Air System Troubleshooting

INITIAL SETUP:

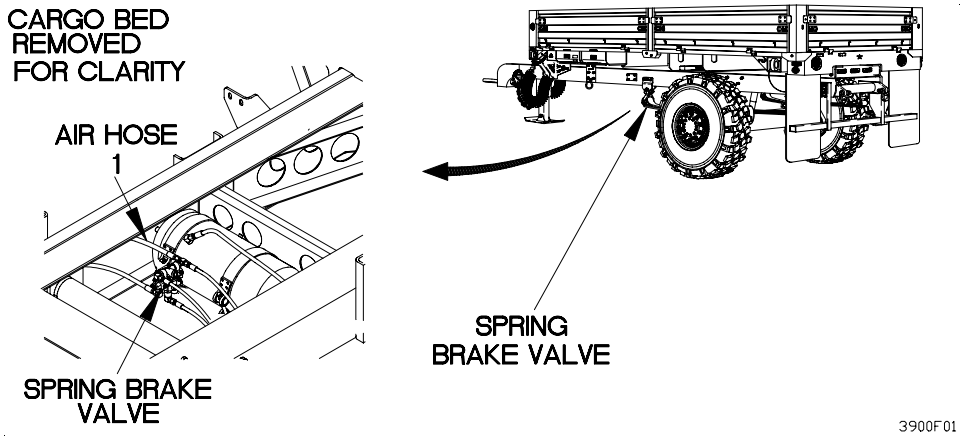
Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Pan, Wash (Item 19, WP 0178 00)
Soap, Laundry (Item 31, WP 0176 00)

Equipment Conditions
Towing vehicle engine running (WP 0012 00).
Trailer coupled (WP 0009 00).

AIR SYSTEM

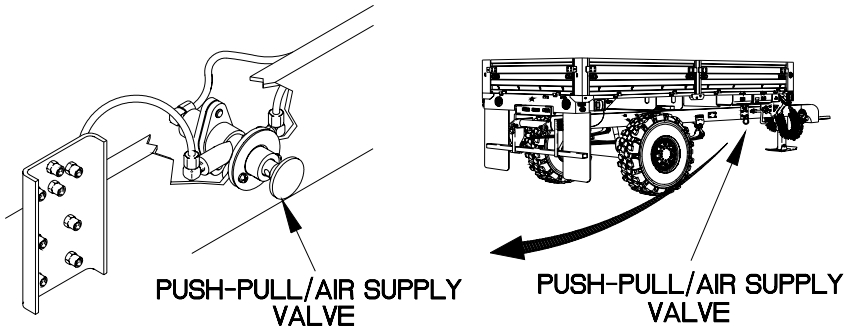
Table 1. Air System Troubleshooting Procedures.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. AIR SYSTEM LOSES PRESSURE DURING OPERATION/SLOW AIR PRESSURE BUILDUP	1. Check to see if service brakes apply.	Check to see if trailer brakes operate. (WP 0011 00)
		
	2. Check to see if air hose 1 from SERVICE GLADHAND to spring brake valve is free from kinks and leaks.	1. Shut down towing vehicle engine.

AIR SYSTEM - Continued

Table 1. Air System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. AIR SYSTEM LOSES PRESSURE DURING OPERATION/SLOW AIR PRESSURE BUILDUP - CONTINUED		2. Apply soapy water solution to air hose 1, fittings, and couplings. 3. Check air hose 1 between SERVICE GLADHAND and spring brake valve for kinks and leaks. 4. Check fittings for bubbles, indicating leaks. 5. Tighten loose connections. 6. If kinked, replace air hose. (WP 0060 00, LMTVT/WP 0061 00, MTVT).
	3. Check to see if hose 2 from EMERGENCY GLADHAND to push-pull/air supply valve free from kinks and leaks.	1. Apply soapy water solution to air hose 2, fittings, and couplings.



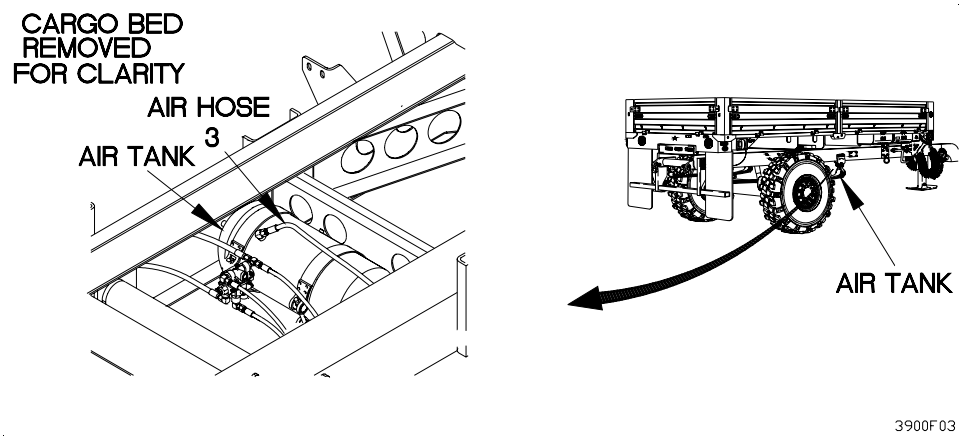
		2. Check air hose 2 between EMERGENCY GLADHAND and push-pull/air supply valve for kinks and leaks. 3. Check fittings for bubbles indicating leaks.

AIR SYSTEM TROUBLESHOOTING - Continued 0038 00

AIR SYSTEM - Continued

Table 1. Air System Troubleshooting Procedures - Continued.

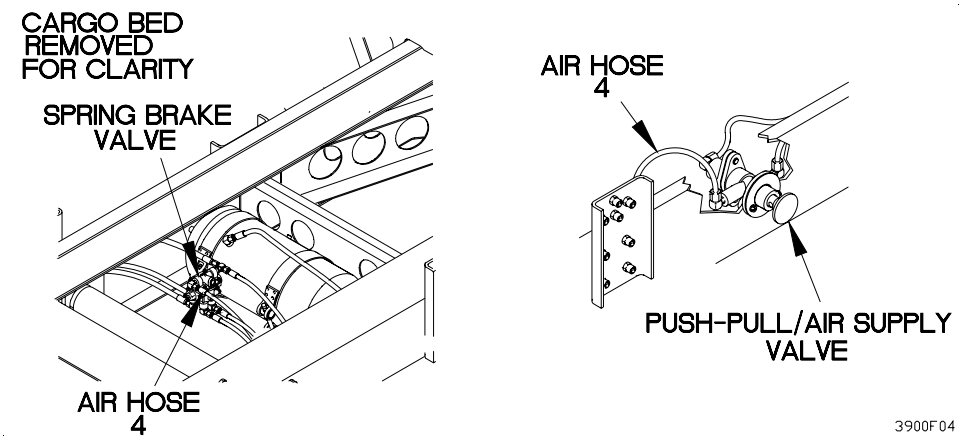
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. AIR SYSTEM LOSES PRESSURE DURING OPERATION/SLOW AIR PRESSURE BUILDUP-CONTINUED		4. If air hose between EMERGENCY GLADHAND and push-pull/air supply valve has kinks and or leaks, tighten loose connections. 5. If kinked replace air hose. (WP 0060 00, LMTVT/WP 0061 00, MTVT).
	4. Check to see if air hose 3 is free from kinks and leaks.	1. Apply soapy water solution to air hose 3, fittings, and couplings
		2. Check air hose 3 between push-pull/air supply valve and air tank for kinks and leaks. If kinked, replace air hose 3. (WP 0060 00, LMTVT/WP 0061 00, MTVT).



AIR SYSTEM - Continued

Table 1. Air System Troubleshooting Procedures - Continued.

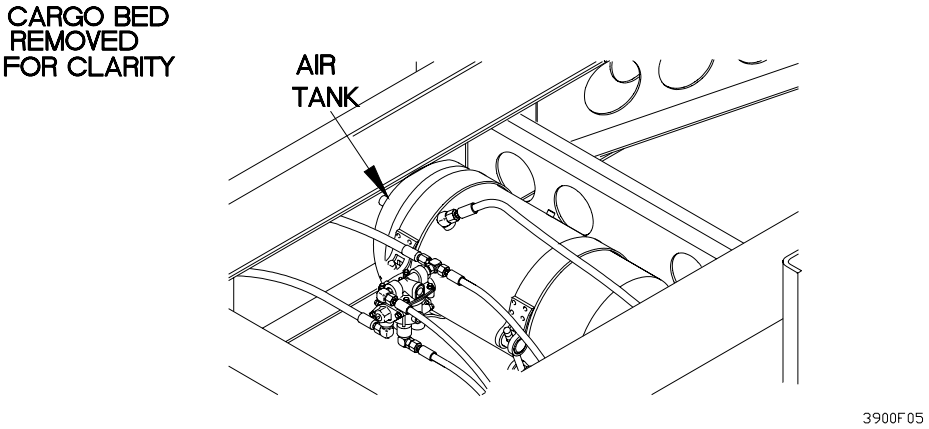
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. AIR SYSTEM LOSES PRESSURE DURING OPERATION/SLOW AIR PRESSURE BUILDUP-CONTINUED	5. Check to see if air hose 4 is free from kinks and leaks.	1. Apply soapy water solution to air hose 4, fittings, and coupling.
		2. Check air hose 4 between push-pull/air supply valve and air tank for kinks and leaks.
		3. Check air hose 4 and fittings for bubbles indicating leaks.
		4. Tighten loose connections.
		5. If kinked, replace air hose 4. (WP 0060 00, LMTVT/WP 0061 00, MTVT).
	6. Check to see if air escapes from spring brake valve.	1. Check for presence of air at spring brake valve.
		2. If no air is present at spring brake valve, replace spring brake valve. (WP 0063 00).



AIR SYSTEM - Continued

Table 1. Air System Troubleshooting Procedures - Continued.

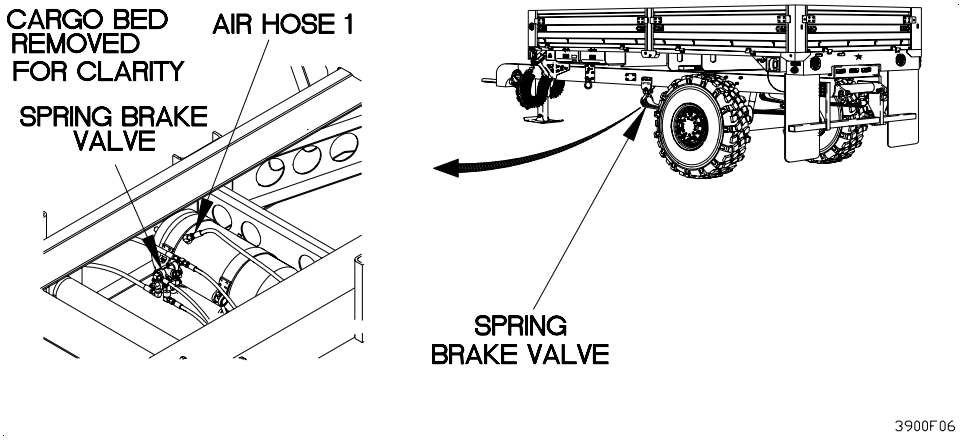
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. AIR SYSTEM LOSES PRESSURE DURING OPERATION/SLOW AIR PRESSURE BUILDUP-CONTINUED	7. Check to see if air escapes from air tank.	1. Open drain valve and check for presence of air at air tank.
		2. If no air is present at air tank, replace air tank. (WP 0064 00).
2. NO AIR PRESURE OR LOW AIR PRESURE PRESENT AT GLADHANDS	1. Check to see if air pressure system is between 100 -120 psi (690 -827 kPa).	1. Note air pressure readings on towing vehicle.
		2. If air system pressure is not between 100-120 psi (690-827 kPa), notify supervisor.



AIR SYSTEM - Continued

Table 1. Air System Troubleshooting Procedures - Continued.

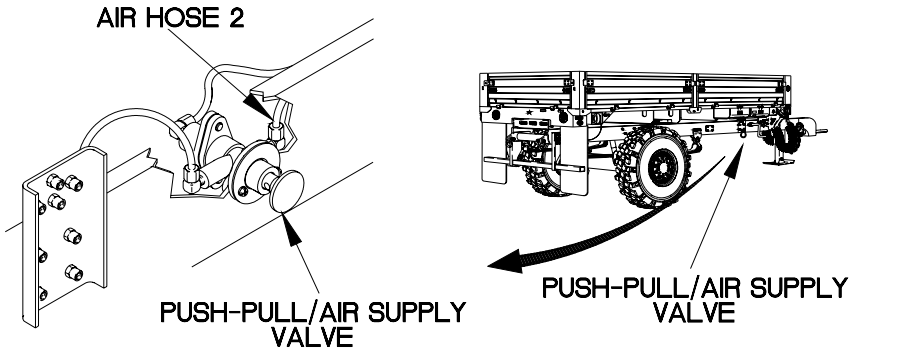
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. NO AIR PRESURE OR LOW AIR PRESURE PRESENT AT GLADHANDS - CONTINUED	2. Check to see if air hose 1 from SERVICE GLADHAND to spring brake valve is free from kinks and leaks.	1. Apply soapy water solution to air hose 1, fittings, and couplings.
		2. Check air hose 1 between SERVICE GLADHAND and spring brake valve for kinks and leaks. 3. Check fittings for bubbles, indicating leaks 4. If air hose between service GLADHAND and spring brake valve has kinks and/or leaks tighten loose connections. 5. If kinked, replace air hose 1. (WP 0060 00, LMTVT/WP 0061 00, MTVT).



AIR SYSTEM - Continued

Table 1. Air System Troubleshooting Procedures - Continued.

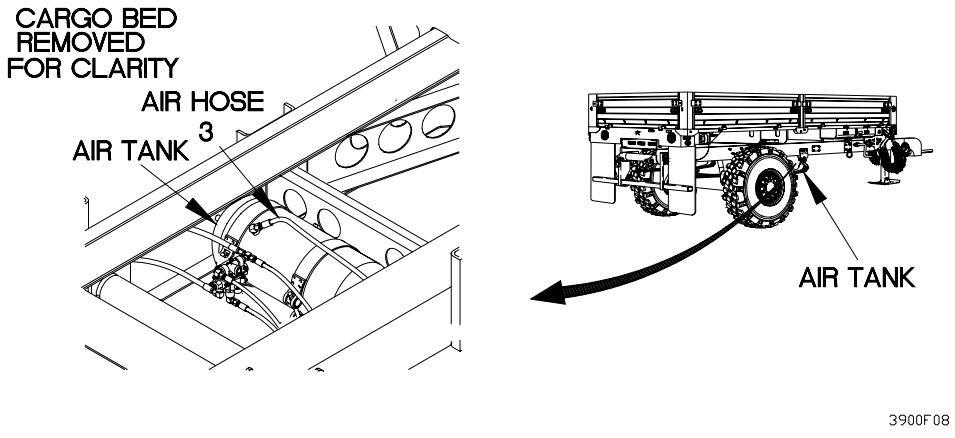
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. NO AIR PRESURE OR LOW AIR PRESURE PRESENT AT GLADHANDS - CONTINUED	3. Check to see if air hose 2 from EMERGENCY GLADHAND to push-pull/air supply valve is free from kinks and leaks.	1. Apply soapy water solution to air hose 2 fittings, and couplings.
		2. Check air hose 2 between EMERGENCY GLADHANDS and push-pull/air supply valve for kinks and leaks. 3. Check fittings for bubbles indicating leaks. 4. If air hose between EMERGENCY GLADHAND and push-pull/air supply valve has kinks and/or leaks tighten loose connections. 5. If kinked, replace air hose 2. (WP 0060 00, LMTVT/WP 0061 00, MTVT).



AIR SYSTEM - Continued

Table 1. Air System Troubleshooting Procedures - Continued.

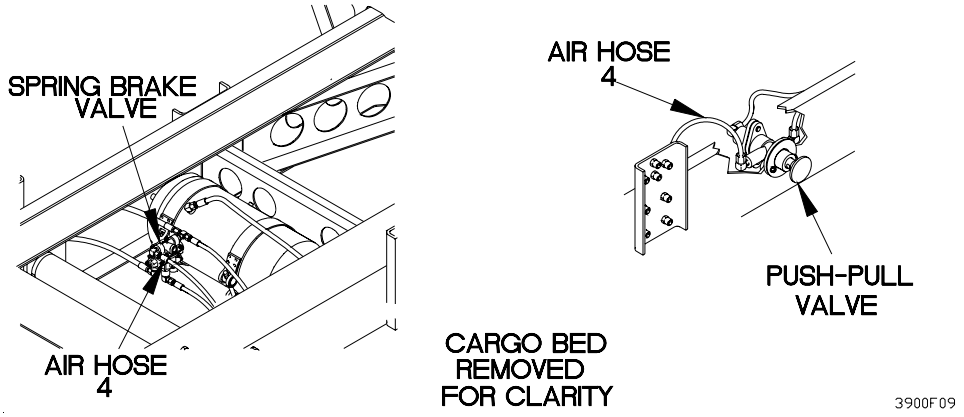
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. NO AIR PRESURE OR LOW AIR PRESURE PRESENT AT GLADHANDS - CONTINUED	4. Check to see if air hose 3 is free from kinks and leaks.	1. Apply soapy water solution to air hose 3, fittings, and couplings.
		2. Check air hose 3 between push-pull/air supply valve and air tank for kinks and leaks
		3. Check air hose 3 for bubbles indicating leaks.
		4. If air hose 3 has kinks and/or leaks tighten loose connections.
		5. If kinked, replace air hose 3. (WP 0060 00, LMTVT/WP 0061 00, MTVT).



AIR SYSTEM - Continued

Table 1. Air System Troubleshooting Procedures - Continued.

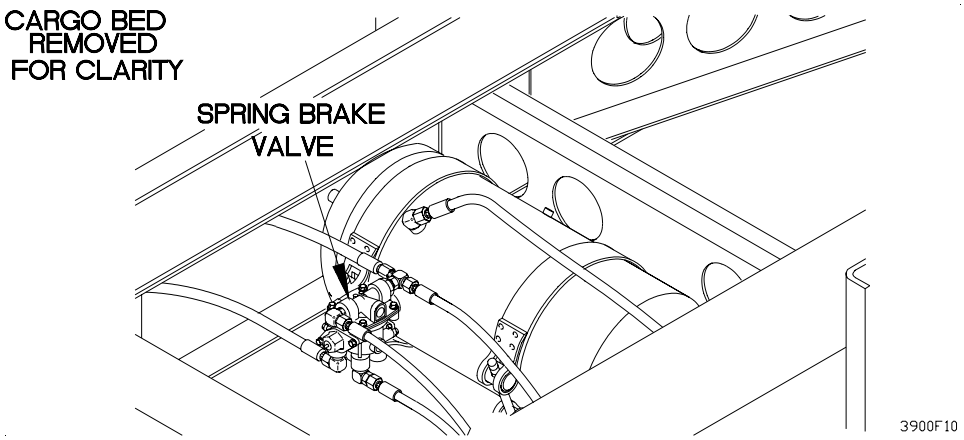
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. NO AIR PRESURE OR LOW AIR PRESURE PRESENT AT GLADHANDS - CONTINUED	5. Check to see if air hose 4 is free from kinks and leaks.	1. Apply soapy water solution to air hose 4, fittings, and couplings.
		2. Check air hose 4 between push-pull/air supply valve and air tank for kinks and leaks.
		3. Check air hose 4 and fittings for bubbles indicating leaks.
		4. If air hose 4 has kinks and/or leaks tighten loose connections.
		5. If kinked, replace air hose 4. (WP 0060 00, LMTVT/WP 0061 00, MTVT).



AIR SYSTEM - Continued

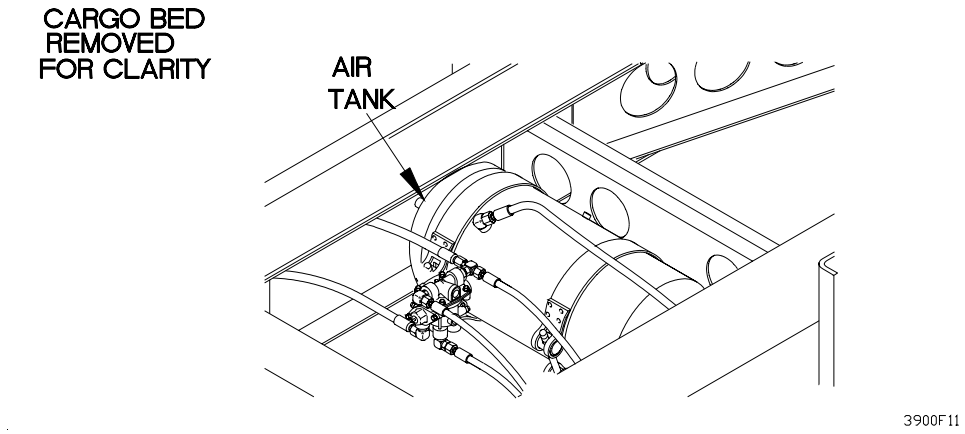
Table 1. Air System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. NO AIR PRESURE OR LOW AIR PRESURE PRESENT AT GLADHANDS - CONTINUED	6. Check to see if air escapes from spring brake valve.	1. Apply soapy water solution to spring brake valve fittings, and couplings.
		2. Check for presence of air at spring brake valve 3. If no air is present at spring brake valve, replace spring brake valve. (WP 0063 00).



AIR SYSTEM - Continued

Table 1. Air System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. NO AIR PRESURE OR LOW AIR PRESURE PRESENT AT GLADHANDS - CONTINUED	7. Check to see if air escapes from air tank.	1. Open drain valve and check for presence of air in air tanks.
		
		2. If no air is present at air tank, replace air tank. (WP 0064 00).

END OF WORK PACKAGE

WHEELS, TIRES, AND HUBS TROUBLESHOOTING 0039 00

THIS WORK PACKAGE COVERS:
Wheels, Tires and Hubs

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Trestle, Motor Vehicle Maintenance (Item 38, WP 0178 00)

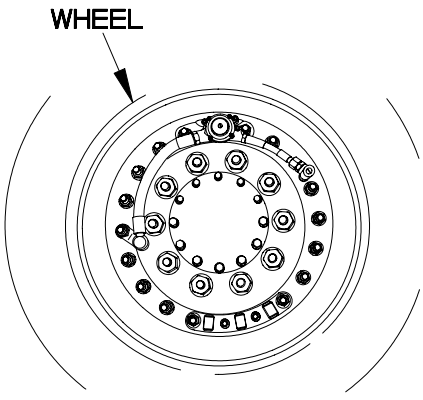
Tools and Special Tools (Cont)
Multiplier, Torque Wrench (Item 17, WP 0178 00)
Wrench, Torque 100-600 lb-ft (Item 52, WP 0178 00)

Equipment Conditions
Trailer uncoupled (WP 0012 00).

WHEELS, TIRES AND HUBS

Table 1. Wheels, Tires And Hubs Troubleshooting Procedures.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. WHEEL WOBBLES OR SHIMMIES		
WARNING **Trailer must be secure. Chock wheels when stopped on incline. Trailer may roll. Failure to comply may result in serious injury or death to personnel or damage to equipment.**		
	1. Check to see if wheel is free from damage.	1. Jack up trailer one wheel at a time.

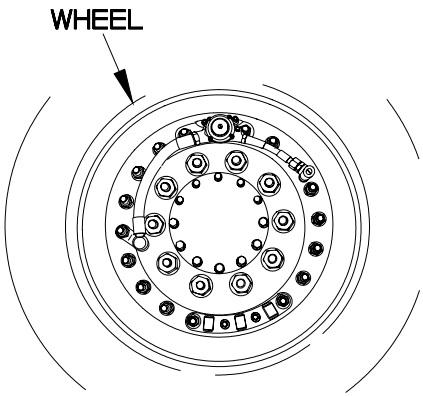


4000F01

WHEELS, TIRES, AND HUBS TROUBLESHOOTING - Continued 0039 00

WHEELS, TIRES AND HUBS

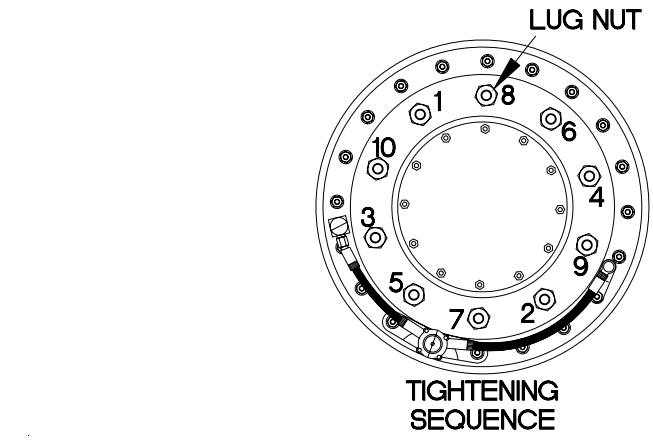
Table 1. Wheels, Tires And Hubs Troubleshooting Procedures - Continued.

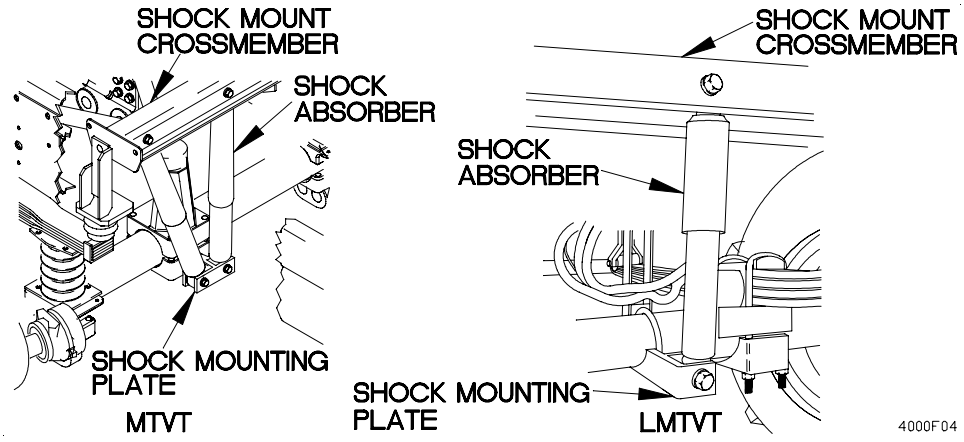
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. WHEEL WOBBLES OR SHIMMIES - CONTINUED		2. Place trailer on four trestles so wheels are off ground. 3. Rotate each tire to check for bent wheel. 4. If any wheel is bent replace damaged wheel (s). (WP 0079 00)
	2. Check to see if wheel is free of play.	1. Insert prybar under each tire. 2. Lift while observing wheel play.
	 4000F01	
		3. If wheel play is present notify Sustainment Level maintenance. 4. Remove trailer from trestles.

WHEELS, TIRES AND HUBS

Table 1. Wheels, Tires And Hubs Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. TIRES WEAR UNEVENLY OR EXCESSIVELY	1. Check to see if lug nuts are tight	1. Inspect for spacing between lug nuts and wheels.
		2. Check lug nuts for tightness by using a torque wrench. Ensure that all lug nuts are tightened to 415-475 lb-ft. (576-644 N•m).
	2. Check to see if shock absorbers are free from leaks and damage.	1. Check shock absorbers for greater than a Class I leak.





WHEELS, TIRES, AND HUBS TROUBLESHOOTING - Continued 0039 00

WHEELS, TIRES AND HUBS

Table 1. Wheels, Tires And Hubs Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. TIRES WEAR UNEVENLY OR EXCESSIVELY - CONTINUED		2. Check shock absorbers for damage. 3. If either shock absorber is leaking or damaged, replace faulty shock (s). (WP 0075 00) 4. If tire continues to wear unevenly, notify supervisor.

END OF WORK PACKAGE

SUSPENSION SYSTEM TROUBLESHOOTING 0040 00

THIS WORK PACKAGE COVERS:
Suspension system

INITIAL SETUP:

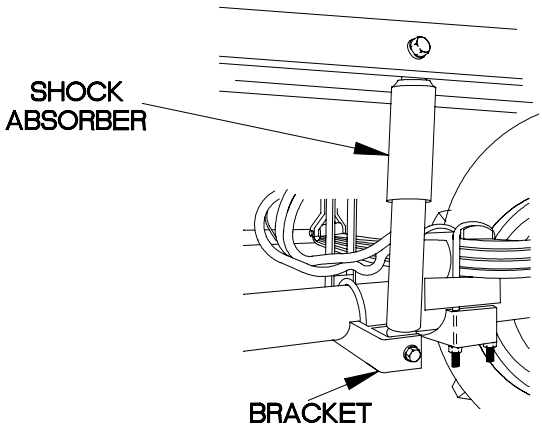
Maintenance Level
Field

Equipment Conditions
Trailer uncoupled (WP 0012 00).

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Iron, Tire (Item 13, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)

SUSPENSION SYSTEM TROUBLESHOOTING

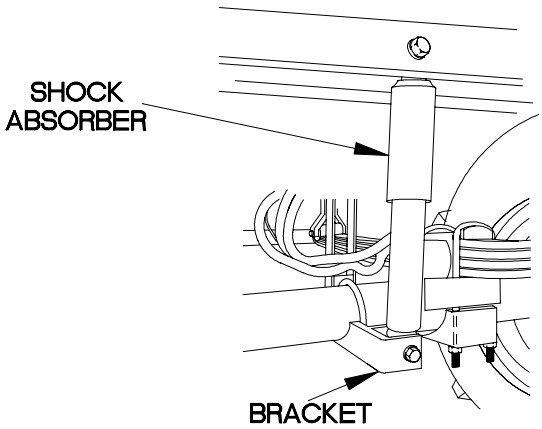
Table 1. Suspension System Troubleshooting Procedures.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
WARNING **Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.**		
1. LEANS TO ONE SIDE OR REAR OF TRAILER SAGS (LMTVT)	1. Check to see if shock absorber (s) is secure and free of damage.	1. Check shock absorbers for damage or leaks greater than a Class I leak. 2. Check shock absorbers bushings for movement.
 4100F01		
		3. Grasp shock absorber and ensure there is not excessive play.

SUSPENSION SYSTEM TROUBLESHOOTING 0040 00

SUSPENSION SYSTEM TROUBLESHOOTING - Continued

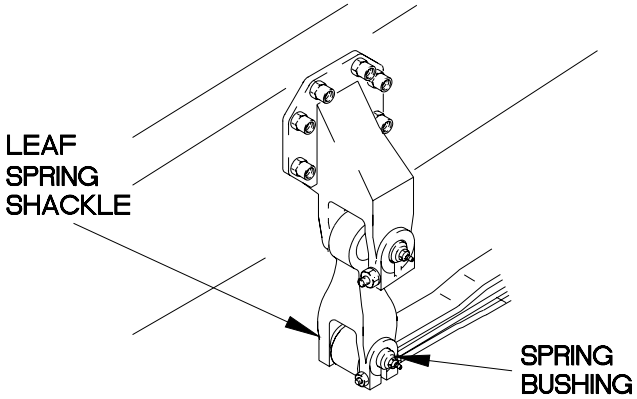
Table 1. Suspension System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. LEANS TO ONE SIDE OR REAR OF TRAILER SAGS (LMTVT)-CONTINUED		4. Check for worn bushings.
		5. If shock absorber (s) are not secure and free from damage, replace damaged shock absorbers. (WP 0075 00)
	2. Check to see if shock absorber bracket (s) are secure and free from damage.	1. Check shock absorber brackets for damage and for missing mounting hardware.
	 4100F01	
		2. If shock absorber bracket (s) are not secure and free from damage replace damaged shock absorber bracket (s). (WP 0075 00)

SUSPENSION SYSTEM TROUBLESHOOTING - Continued

Table 1. Suspension System Troubleshooting Procedures - Continued.

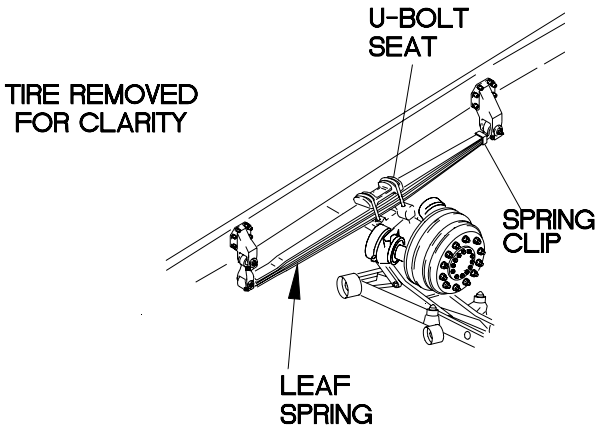
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. LEANS TO ONE SIDE OR REAR OF TRAILER SAGS (LMTVT)-CONTINUED	3. Check to see if spring shackles and spring bushings are secure and free from damage.	1. Lubricate spring bushings if necessary.
		2. Check spring shackles and spring bushings for damage and for missing mounting hardware. 3. Position tire iron between spring assembly and frame. 4. Pry up and down to ensure there is no movement. 5. Shackles or bushings are damaged if movement occurs. 6. If leaf spring shackles and spring bushings are not secure and free from damage replace damaged shackle (s). (WP 0118 00)



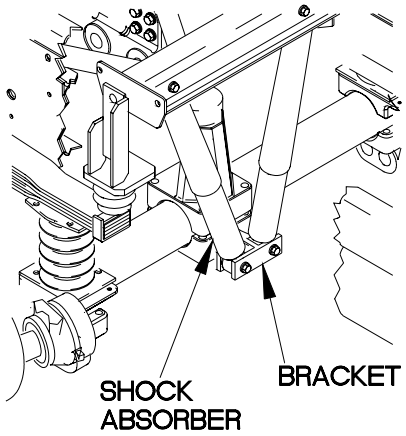
SUSPENSION SYSTEM TROUBLESHOOTING - Continued

Table 1. Suspension System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. LEANS TO ONE SIDE OR REAR OF TRAILER SAGS (LMTVT)-CONTINUED	4. Check to see if leaf springs are secure and free from damage.	1. Check leaf springs for damage and for missing hardware.
		2. If leaf springs are not secure and free from damage, replace damaged leaf spring (s).
2. LEANS TO ONE SIDE OR REAR OF TRAILER SAGS (MTVT)	1. Check to see if shock absorber (s) is secure and free of damage and leaks greater than a Class I leak.	1. Check shock absorbers for damage or leaks greater than a Class I leak.
		2. Check shock absorbers bushings for movement.



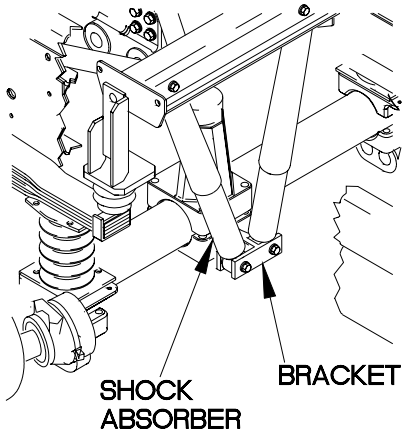
4100F03



4100F04

SUSPENSION SYSTEM TROUBLESHOOTING - Continued

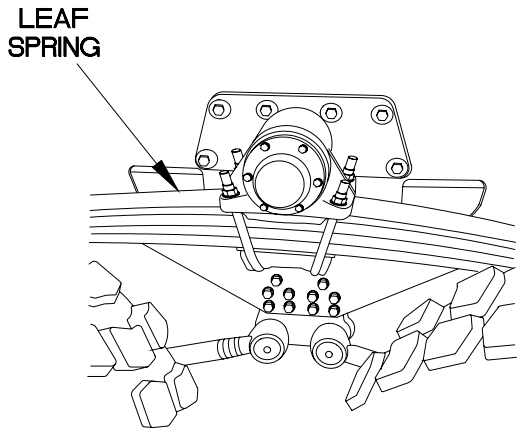
Table 1. Suspension System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. LEANS TO ONE SIDE OR REAR OF TRAILER SAGS (MTVT)-CONTINUED		3. Grasp shock absorber and ensure there is not excessive play. 4. Check for worn bushings. 5. If shock absorber (s) are not secure and free from damage, replace damaged shock absorbers. (WP 0075 00)
	2. Check to see if shock absorber bracket (s) are secure and free from damage.	1. Check shock absorber brackets for damage and for missing mounting hardware.
	 4100F04	
		2. If shock absorber bracket (s) are not secure and free from damage replace damaged shock absorber bracket (s).

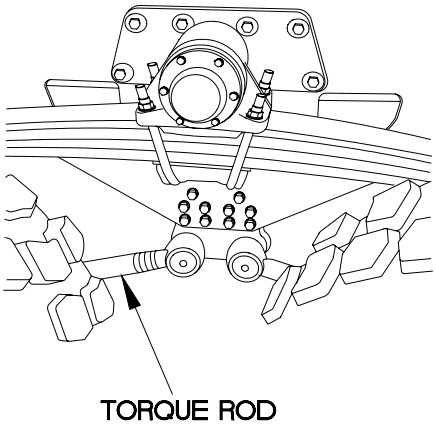
SUSPENSION SYSTEM TROUBLESHOOTING - Continued

Table 1. Suspension System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. LEANS TO ONE SIDE OR REAR OF TRAILER SAGS (MTVT)-CONTINUED	3. Check to see if leaf springs are secure and free from damage.	1. Check leaf springs for damage and missing mounting hardware.
		2. If leaf springs are not secure or free from damage, replace damaged leaf spring (s). (WP 0099 00)
	4. Check to see if torque rods are properly lubricated, secure, and free from damage.	1. Lubricate torque rods if necessary.



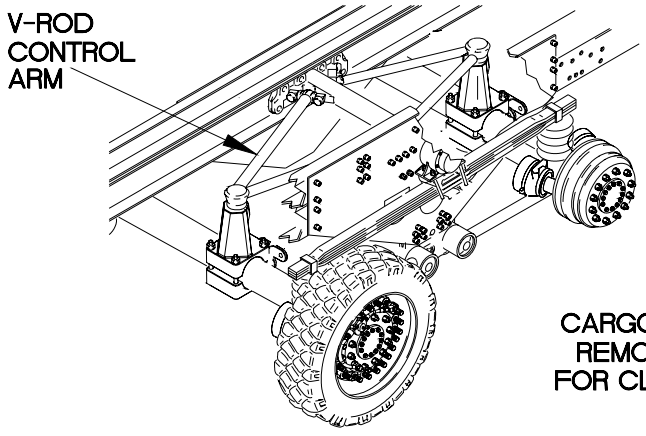
4100F05



4100F08

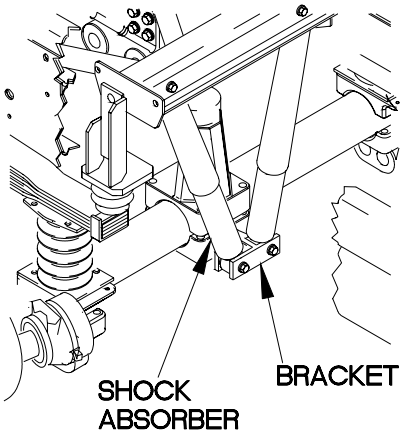
SUSPENSION SYSTEM TROUBLESHOOTING - Continued

Table 1. Suspension System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. LEANS TO ONE SIDE OR REAR OF TRAILER SAGS (MTVT)-CONTINUED		2. Check torque rods for damage, and loose or missing mounting hardware. 3. Grasp torque rods and ensure there is no up and down play. 4. If torque rod (s) are not properly secured and free from damage, replace damaged torque rods.
	5. Check to see if V-rod control arms are properly lubricated, secure, and free from damage.	1. Check both ends of V-rod control arms for damage and missing mounting hardware. 2. Position tire iron between bottom of frame and top of V-rod control arm.
		
		3. Pry up and down to ensure there is no movement. 4. V-rod control arms are damaged if movement occurs. 5. If V-rod (s) are not properly secure, and free from damage, replace V-rod control arms.(WP 0098 00)

SUSPENSION SYSTEM TROUBLESHOOTING - Continued

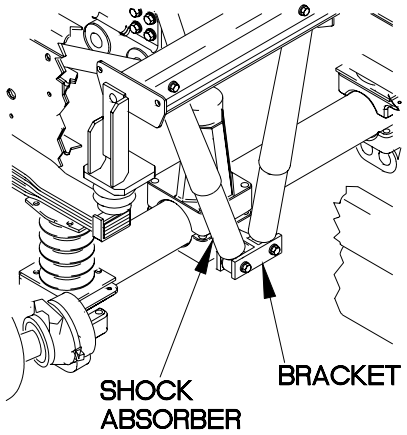
Table 1. Suspension System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. WANDERS, PULLS TO ONE SIDE, OR SHIMMIES (BOTH MODELS)-CONTINUED	1. Check to see if brakes are properly adjusted	1. Check to see if brakes are properly adjusted 2. If brakes are not properly adjusted, adjust brakes.
	2. Check to see if shock absorbers are secure and free from damage.	1. Check shock absorber for damage or leaks greater than a Class I leak.
	 4100F04	
		2. Check shock absorbers bushings for movement. 3. Grasp shock absorber and insure there is not excessive play. 4. Check for worn bushings. 5. If shock absorber (s) are not secure or free from damage replace damaged shock absorber (s). (WP 0075 00)

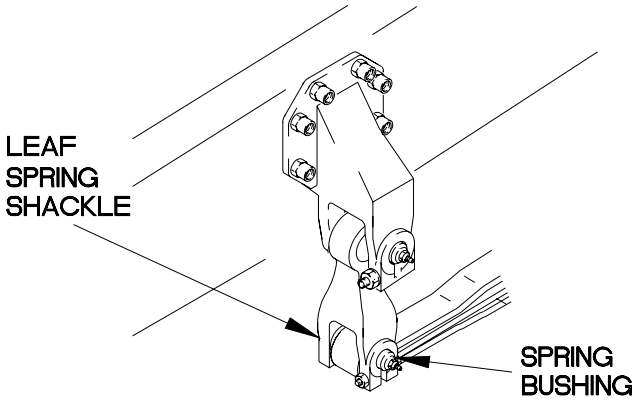
SUSPENSION SYSTEM TROUBLESHOOTING - Continued

Table 1. Suspension System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. WANDERS, PULLS TO ONE SIDE, OR SHIMMIES (BOTH MODELS)-CONTINUED	3. Check to see if shock absorber brackets are secure and free from damage.	1. Check shock absorber brackets for damage and for missing mounting hardware.
		2. If shock absorber brackets are not secure and free from damage, replace damaged shock absorber bracket (s) (WP 0118 00).
	2. Check to see if spring shackles and spring bushings are secure and free from damage.	1. Lubricate spring bushings if necessary.



4100F04

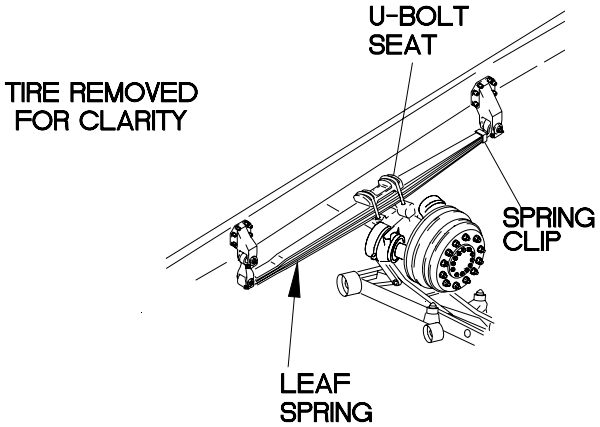


4100F02

SUSPENSION SYSTEM TROUBLESHOOTING - Continued

Table 1. Suspension System Troubleshooting Procedures - Continued.

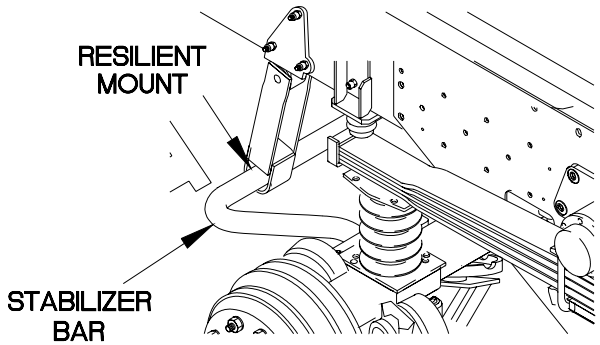
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. WANDERS, PULLS TO ONE SIDE, OR SHIMMIES (BOTH MODELS)-CONTINUED		2. Check leaf spring shackles and spring bushings for damage and missing mounting hardware. 3. Position tire iron between spring assembly and frame. 4. Pry up and down to ensure there is no movement. 5. Shackles or bushings are damaged if movement occurs. 6. If spring shackles and spring bushings are not secure and free from damage, replace damaged shackles. (WP 0118 00)
	3. Check to see if leaf springs are secure and free from damage.	1. Check leaf springs for damage and for missing mounting hardware.
		2. If leaf springs are not secure and free from damage, replace damaged leaf spring.



SUSPENSION SYSTEM TROUBLESHOOTING - Continued

Table 1. Suspension System Troubleshooting Procedures - Continued.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
3. WANDERS, PULLS TO ONE SIDE, OR SHIMMIES (BOTH MODELS)-CONTINUED	4. Check to see if stabilizer bar and resilient mounts are secure and free from damage.	1. Check stabilizer bar and resilient mounts for damage and missing mounting hardware.
		2. Position tire iron between bottom of bumper and top of stabilizer bar. 3. Pry up and down to ensure there is no movement. 4. Replace stabilizer bar or resilient mounts if movement occurs or if damaged. 5. If stabilizer bar and resilient mounts are not secure and free from damage replace damaged hardware. (WP 0091 00)



4100F07

END OF WORK PACKAGE

LANDING GEAR TROUBLESHOOTING 0041 00

THIS WORK PACKAGE COVERS:
Landing gear and Foot Plate

INITIAL SETUP:

Maintenance Level
Field

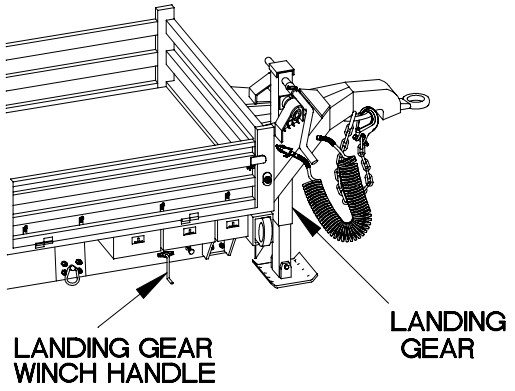
Equipment Conditions
Trailer coupled (WP 0009 00).

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Pan, wash (item 19, WP 0178 00)

LANDING GEAR AND FOOT PLATE

Table 1. Landing Gear Troubleshooting Procedures.

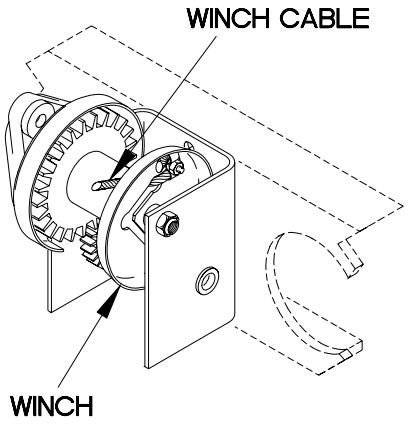
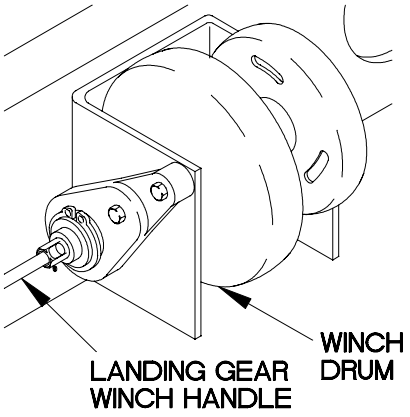
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
WARNING **Trailer wheels must be chocked before coupling, uncoupling, or when trailer is parked. Trailer wheels may roll if they are not chocked, failure to comply may result in serious injury or death to personnel or damage to equipment.**		
1. LANDING GEAR IS DIFFICULT TO RAISE OR LOWER.	1. Check to see if landing gear winch handle is damaged or misaligned.	1. Check landing gear winch handle for damage or misalignment.



LANDING GEAR TROUBLESHOOTING - Continued 0041 00

LANDING GEAR AND FOOT PLATE - Continued

Table 1. Landing Gear Troubleshooting Procedures - Continued

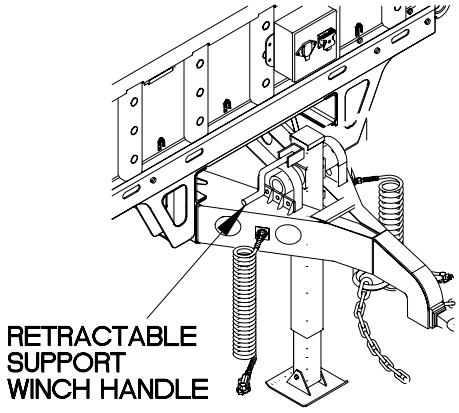
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. LANDING GEAR IS DIFFICULT TO RAISE OR LOWER - CONTINUED.		2. If landing gear winch handle is damaged or misaligned replace damaged winch handle. (WP 0104 00).
	2. Check to see if winch cable if frayed or broken.	1. Check winch cable for frays or breaks.
	 4200F03	
		If the winch cable is damaged, replace damaged winch cable. (WP 0086 00).
	3. Check to see if winch drum is damaged or missing parts.	1. Check the winch drum assembly for damage.
	 4200F01	

LANDING GEAR TROUBLESHOOTING - Continued 0041 00

LANDING GEAR AND FOOT PLATE - Continued

Table 1. Landing Gear Troubleshooting Procedures - Continued

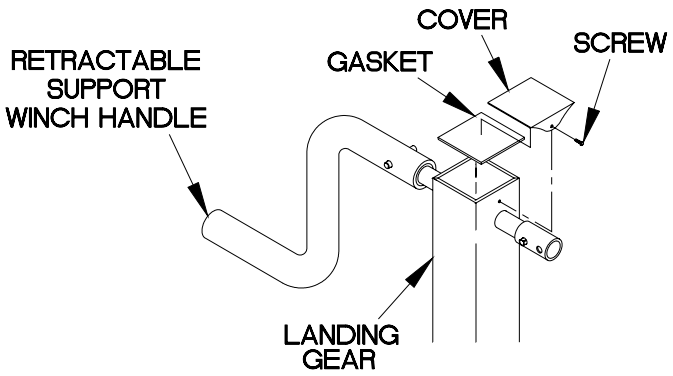
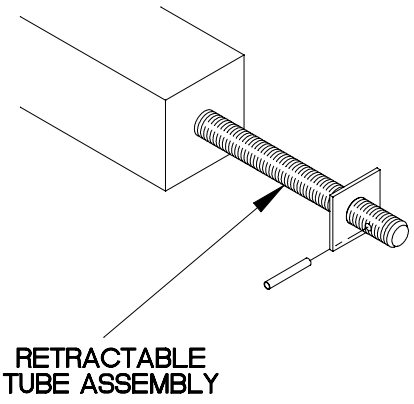
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. LANDING GEAR IS DIFFICULT TO RAISE OR LOWER - CONTINUED.		2. If the winch drum is damaged or missing parts replace damaged winch drum.
2. FOOT PLATE IS DIFFICULT TO RAISE OR LOWER	1. Check to see if landing gear is properly lubricated.	1. Lubricate landing gear.
		2. Check to see if landing gear operates properly.
	2. Check to see if retractable support winch handle is damaged or misaligned.	1. Check retractable support winch handle for damage of misalignment.
		2. If the retractable support winch handle is damaged or misaligned, replace damaged winch handle.
	3. Check to see if pinion gear and bevel gear are free from damage.	1. Remove screw cover and gasket from landing gear.



4200F04

LANDING GEAR AND FOOT PLATE - Continued

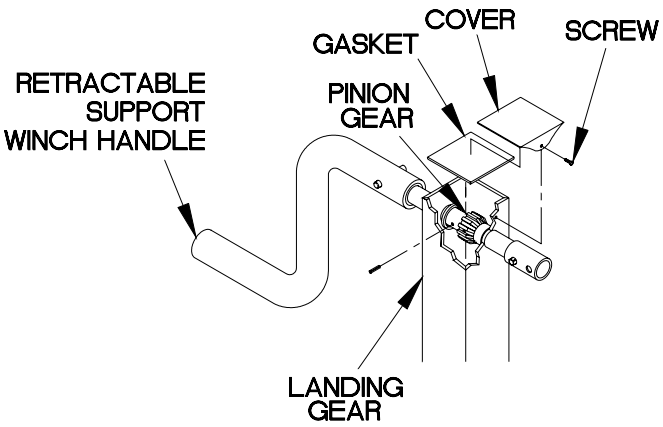
Table 1. Landing Gear Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
		 4200F05
2. FOOT PLATE IS DIFFICULT TO RAISE OR LOWER - CONTINUED		2. Crank retractable support winch handle while checking gear for damage. 3. If gear has damage replace pinion and/or bevel gear.
	4. Check to see if threads and on retractable tube are faulty.	1. Remove retractable tube assembly.
		 4200F06
		2. Check threads on retractable tube assembly for damage. 3. If threads on retractable tube assembly have damage, replace pinion and/or bevel gear.

LANDING GEAR AND FOOT PLATE - Continued

Table 1. Landing Gear Troubleshooting Procedures - Continued

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. FOOT PLATE IS DIFFICULT TO RAISE OR LOWER - CONTINUED	5. Check to see if foot plate raises and lowers properly.	1. Install retractable tube assembly.
		2. Position gasket and cover on banding gear. 3. Install screw in landing gear cover. 4. Check to see if foot plate operates properly. 5. If foot plate does not raise and lower properly, notify your supervisor.



END OF WORK PACKAGE

CHAPTER 4
MAINTENANCE INSTRUCTIONS

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS

0042 00

THIS WORK PACKAGE COVERS:

Introduction, Leakage Definition, Inspection, Lubrication Service Intervals - Normal Conditions, Lubrication Service Intervals - Unusual Conditions, Cleaning and Lubrication, PMCS Procedures

INITIAL SETUP:

Maintenance Level

Operator

Tools and Special Tools

Bar, Socket Wrench Handle (Item 2, WP 0178 00)
Screwdriver, Crosstip (Item 24 WP 0178 00)
Screwdriver, Crosstip (Item 25, WP 0178 00)
Wrench, Adjustable, 8 in. (Item 40, WP 0178 00)
Wrench, Adjustable, 12 in. (Item 41, WP 0178 00)
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Inflator-Gage, Tire w/Hose (Item 12, WP 0178 00)
Gloves, Welder's (Item 7, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Gloves, Rubber (Item 6, WP 0178 00)

Materials/Parts

Grease, Automotive and Artillery (GAA) (Item 11, WP 0176 00)
Grease, Wire-Rope and Exposed Gear (Item 13, WP 0176 00)
Oil, Lubricating, Gear, Multipurpose (Item 23, WP 0176 00)
Oil, Lubricating, OE/HDO-10 (Item 22, WP 0176 00)
Oil, Lubricating, OE/HD, Arctic (Item 21, WP 0176 00)

Materials/Parts (Cont)

Solvent, Dry Cleaning (Item 32, WP 0176 00)
Rag, Wiping (Item 25, WP 0176 00)
Cleaning Compound, (Item 7, WP 0176 00)
Brush Set (Item 4, WP (Item 4, WP 0176 00)
Soap, Laundry (Item 31, WP 0176 00)

Personnel

(2)

References

WP 0001 00
WP 0004 00
WP 0007 00
WP 0010 00
WP 0011 00
WP 0042 00
WP 0046 00
WP 0055 00
WP 0056 00
WP 0077 00
WP 0078 00
WP 0079 00
WP 0080 00
WP 0105 00
TB 43-0213
Towing Vehicle Operator Manual
DA Form 2404
FM 10-16

INTRODUCTION

General

Preventive Maintenance Checks and Services (PMCS) are performed to keep the trailer in operating condition. The checks are used to find, correct, or report problems. Crewmembers are to do the PMCS jobs as shown in the PMCS tables. PMCS are done every day the trailer is operated, using the PMCS tables.

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

INTRODUCTION - Continued

General - Continued

Pay attention to WARNING and CAUTION statements. A WARNING means someone could be hurt. A CAUTION means equipment could be damaged.

Before you begin operating the trailer and/or its equipment, do Before PMCS.

During operation, do During PMCS.

After operation, do After PMCS.

Once a week do Weekly PMCS. If trailer has not been operated in a week, also do Before PMCS at the same time.

Do Monthly PMCS once a month. If trailer has not been operated in a month, also do After PMCS at the same time.

Field Level Maintenance performs SEMIANNUAL PMCS once every six months.

Field Level Maintenance performs ANNUAL PMCS once every 12 months.

If you are operating the trailer for the first time, do your Weekly and Monthly PMCS the first time you do your Before PMCS.

If you find something wrong when performing PMCS, fix it if you can, using troubleshooting procedures and/or maintenance procedures.

The right-hand column of the PMCS table lists conditions that make the trailer Not Fully Mission Capable. Write up items not fixed on DA Form 2404 for Field Level Maintenance. For further information on how to use this form, see DA PAM 738-750.

Explanation Of Table Entries

Item Number Column. Numbers in this column are for reference. When completing DA Form 2404 (Equipment Inspection and Maintenance Worksheet), include the Item Number for the Check/Service indicating a fault. Item Numbers also appear in the order that you must perform Checks and Services for the intervals listed.

Interval Column. This column tells you when you must perform the procedure in the procedure column. BEFORE procedures must be performed before you operate or use the trailer. DURING procedures must be performed during operation of the trailer. AFTER procedures must be performed immediately after you have operated the trailer. WEEKLY procedures must be performed every seven days. MONTHLY procedures must be performed approximately every 30 days. SEMIANNUAL procedures must be performed every six months. ANNUAL procedures must be performed every 12 months.

Man-hour Column. This column describes the number of man-hours required to complete all prescribed lubrication service. It is stated to the nearest tenth of an hour.

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued 0042 00

INTRODUCTION - Continued

Explanation Of Table Entries - Continued

Item to be Checked/Serviced Column. This column provides the location and the item(s) to be checked or serviced.

Procedure Column. This column provides the procedure to check or to service the item(s) listed in the check/service column.

Equipment Not Ready/Available If: Column. This column tells you what faults will keep the trailer from being capable of performing the primary mission. If you perform check and service procedures that show faults listed in this column, do not operate the trailer. Follow standard operating procedures for maintaining the trailer or reporting equipment failure.

LEAKAGE DEFINITION

It is necessary for you to know how fluid leakage affects the status of the trailer. The following are definitions of the classes of leakage you need to know to be able to determine the status of the trailer. Learn these leakage definitions and REMEMBER - WHEN IN DOUBT, REFER TO NEXT MAINTENANCE LEVEL.

NOTE

Equipment operation is allowable with minor leakages (Class I or II). Consideration must be given to the fluid capacity of the item or system being checked. When Operators are in doubt, refer to Field Level Maintenance.

When operating with Class I or II leaks, continue to check fluid levels as required in your PMCS.

CAUTION

Operators must report Class III leaks to Field Level Maintenance. Failure to comply may result in damage to equipment.

CLASS I - Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops.

CLASS II - Leakage of fluid great enough to form drops but not enough to cause drops to drip from item being checked.

CLASS III - Leakage of fluid great enough to form drops that fall from the item being checked.

INSPECTION

Look for signs of a problem or trouble. Senses help here. You can feel, smell, hear, or see many problems. Be alert when on the trailer.

Inspect to see if items are in good condition. Are they correctly assembled, stowed, and secured, or excessively worn, leaking, corroded, or improperly lubricated? Correct any problems found or notify the next level of maintenance.

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued 0042 00

INSPECTION - Continued

There are some common items to check all over the trailer. These include the following:

1. Bolts, clamps, nuts, and screws: Continuously check for looseness. Look for chipped paint, rust, or corrosion around bolt and screw heads and nuts. Tighten them when you find them loose. If tools are not available, notify the next level of maintenance.

2. Welds: Many items on the trailer are welded. To check these welds, look for chipped paint, rust corrosion, or gaps. When these conditions exist, Operators must notify Field Level Maintenance on DA Form 2404.

3. Electrical wires, connectors, and harnesses: Tighten loose connectors. Look for cracked or broken insulation, bare wires, and broken connectors. If any are found, Operators must notify Field Level Maintenance.

4. Hoses and fluid lines: Look for wear, damage and leaks, and make sure clamps and fittings are tight. Wet spots mean a leak. A stain by a fitting or connector can also mean a leak. When you find a leak, Operators must notify Field Level Maintenance.

LUBRICATION SERVICE INTERVALS - NORMAL CONDITIONS

General

For safer, more trouble-free operations, make sure that your trailer is serviced when it needs it. Proper lubrication and service intervals which are the responsibility of the Operator/Crew and Field level maintenance are found in this work package.

Adherence

Intervals (on-condition or hard time) and the related man-hour times are based on normal operation. The man-hour time specified is the time needed to do all the services prescribed for a particular interval. On-condition (OC) oil sample intervals shall be applied. Change the hard time interval if lubricants are contaminated or if operating the equipment under adverse operating conditions, included longer-than-usual operating hours. The calendar interval may be extended during periods of low activity. If extended, adequate preservation precautions must be taken. Hard time intervals must be applied during the warranty period.

Intervals shown in this work package are based on calendar times. An example of a calendar interval is: Q, which means quarterly (every three months). The lubrication is to be performed at whichever interval indicated for the trailer.

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued 0042 00

LUBRICATION SERVICE INTERVALS - NORMAL CONDITIONS - Continued

WARNING

Dry Cleaning Solvent (P-D-680) is TOXIC and flammable. Wear protective goggles and gloves; use only in well-ventilated area; avoid contact with skin, eyes, and clothes, and do not breath vapors. Keep away from heat or flame. Never smoke when using Dry Cleaning Solvent; the flashpoint for Type I Dry Cleaning Solvent is 100 °F (38 °C) and for Type II is 138 °F (50 °C). Failure to comply may result in serious injury or death to personnel.

If personnel become dizzy while using Dry Cleaning Solvent, immediately get fresh air and medical help. If Dry Cleaning Solvent contacts skin or clothes, flush with cold water. If Dry Cleaning Solvent contacts eyes, immediately flush eyes with water and get medical attention. Failure to comply may result in serious injury or death to personnel.

Cleaning Fittings Before Lubrication. Clean parts with Dry Cleaning Solvent (SD II, P-D-680) or equivalent. Dry before lubricating. Dashed arrows indicate lubrication on both sides of equipment.

Lubrication After Fording. If a fording operation occurs, lubricate all fittings below fording depth and check submerged gear boxes for presence of water.

Lubrication After High Pressure Washing. After a thorough washing, lubricate all grease fittings and oil can points outside and underneath trailer.

Lubrication Local Views. A reference to the appropriate localized view is given after most lubrication entries.

Corrosion Control

Refer to WP 0001 00, Corrosion Prevention and Control (CPC), for appropriate corrosion control procedures.

Hard Time Lubrication Intervals

For equipment under manufacturer's warranty, hard time lubrication intervals shall be followed. Intervals shall be shortened if lubricants are known to be contaminated or if operation is under adverse conditions (e.g. longer than usual operating hours, extended idling periods, extreme dust).

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued 0042 00

LUBRICATION SERVICE INTERVALS - NORMAL CONDITIONS - Continued

Lubrication Interval Symbols

The following lubrication interval symbols will be used as applicable:
M-monthly
S-semiannually

Lubrication Man-Hour Requirements

Table 1. Lubrication Man-Hours

Intervals		Total Man-Hours - LMTVT	Total Man-Hours - MTVT
Monthly (M)	Lubrication performed once every month	0.3	0.3
Semi-annually (S)	Lubrication performed once every six months*	6.0	10.5

LUBRICATION KEY

Table 2. Lubricants

Specification	Type
MIL-G-10924 (GAA)	Grease, Automotive and Artillery
MIL-G-18458 (GW)	Grease, Wire-Rope and Exposed Gear
MIL-L-2105 (GO)	Lubricating Oil, Gear, Multipurpose
MIL-L-2104 (OE/HDO-10)	Lubricating Oil, Internal Combustion Engine, Combat/Tactical Service
MIL-PRF-46167C (OEA)	Lubricating Oil, Internal Combustion Engine, Arctic

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

LUBRICATION SERVICE INTERVALS - NORMAL CONDITIONS - Continued

Table 3. Cleaning Agents

Specification	Type
O-C-1901 P-D-680	Cleaning Compound, Window Dry Cleaning Solvent, SD II

Table 4. Cleaning Agent/Temperature

DESCRIPTION	CAPACITY	EXPECTED TEMPERATURES*		
		Above +15°F (Above -9°C)	+15°F to -15°F (-9°C to -26°C)	-15°F to -50°F (-26°C to -46°C)
All metal parts as required.	N/A	P-D-680 (all temperatures)		
Windshield cleaning solution	N/A	2/3 water to 1/3 O-C-1901	½ water to ½ O-C-1901	1/3 water to 2/3 O-C-1901

*For arctic operation refer to FM 9-207, Operation and Maintenance of Ordnance Materiel in Cold Weather (0 degrees to minus 65°F).

LUBRICATION SERVICE INTERVALS - UNUSUAL CONDITIONS

The trailer will require extra service and care when you operate under unusual conditions. High or low temperatures, long periods of hard use, or continued use in sand, water, mud, or snow will break down the lubricant requiring you to add or change lubricant more often.

CLEANING AND LUBRICATION

WARNING

Dry Cleaning Solvent (P-D-680) is TOXIC and flammable. Wear protective goggles and gloves; use only in well-ventilated area; avoid contact with skin, eyes, and clothes, and do not breath vapors. Keep away from heat or flame. Never smoke when using Dry Cleaning Solvent; the flashpoint for Type I Dry Cleaning Solvent is 100 °F (38 °C) and for Type II is 138 °F (50 °C). Failure to comply may result in serious injury or death to personnel.

If personnel become dizzy while using Dry Cleaning Solvent, immediately get fresh air and medical help. If Dry Cleaning Solvent contacts skin or clothes, flush with cold water. If Dry Cleaning Solvent contacts eyes, immediately flush eyes with water and get medical attention. Failure to comply may result in serious injury or death to personnel.

Dirt, grease, oil, and debris only get in the way and may cover up a serious problem. Use Dry Cleaning Solvent on metal surfaces where directed.

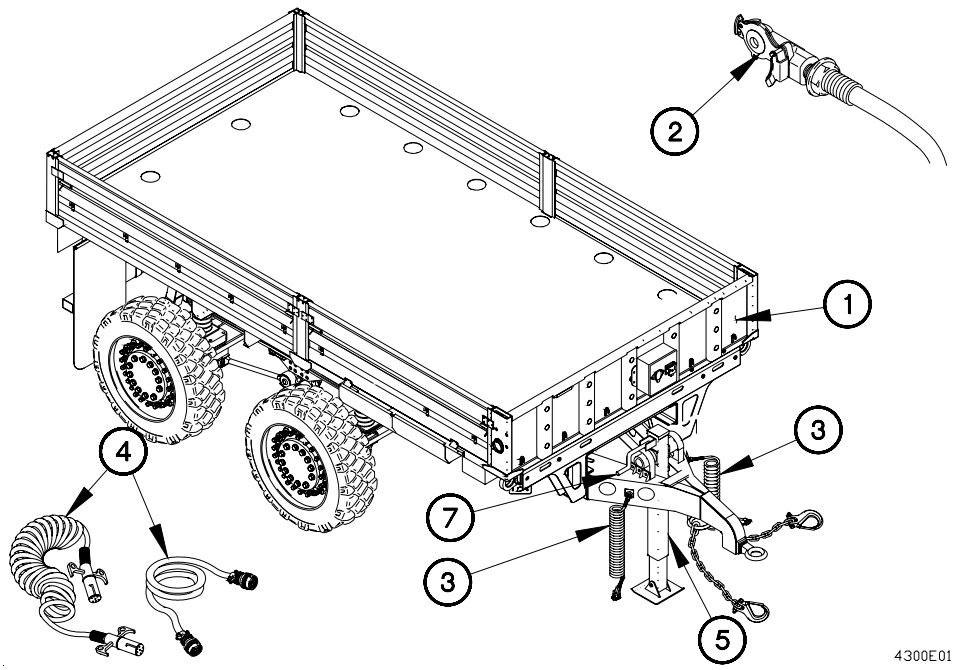
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

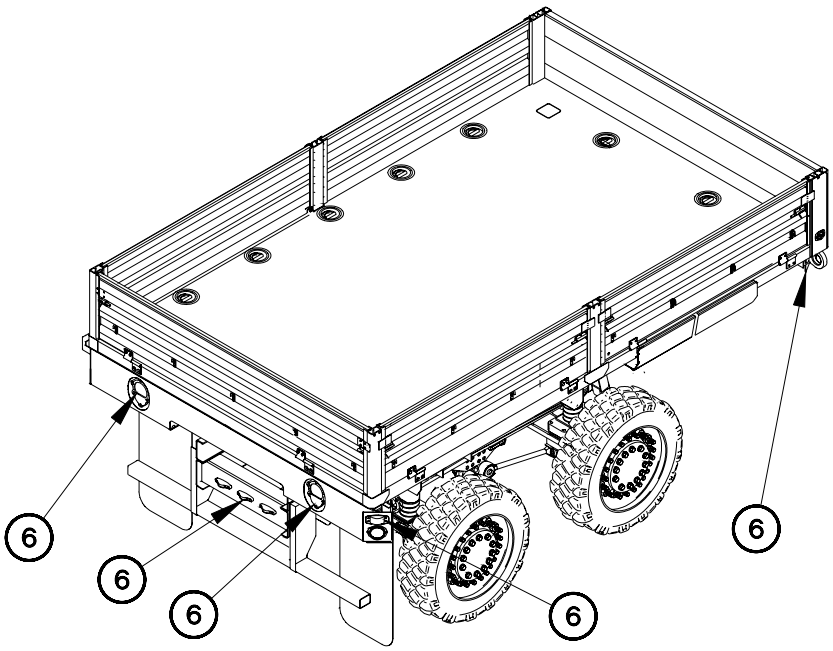
PMCS PROCEDURES

Before PMCS Procedures for Trailer

These illustrations will help you perform BEFORE trailer PMCS. Callouts match PMCS item numbers/procedures.



4300E01



4300E02

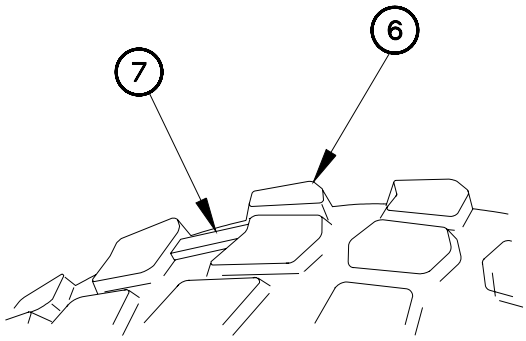
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Before PMCS Procedures for Trailer - Continued

Table 5. Preventive Maintenance Checks and Services (PMCS) - Before.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Before		Exterior of Trailer	Look under trailer for signs of fluid leakage (grease or water).	Class III leak is evident.
2	Before		Wheels and Tires	1. Check tire tread depth (6). Tread depth should not be worn beyond level of wear bar (7).	Tire tread (6) is worn even to height of wear bar (7) (depth is 1/8 in. (0.3 cm) or less). Any cut, gouge, or crack that extends to cord body or any unusual bulges.



4300E21

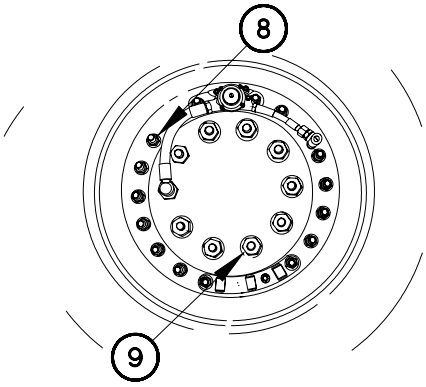
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Before PMCS Procedures for Trailer - Continued

Table 5. Preventive Maintenance Checks and Services (PMCS) - Before.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
2	Before		Wheels and Tires - Continued	2. Check wheel assembly for damage. If damaged, remove wheel and check wheel for cracked, broken, or bent surfaces. 3. Check wheel studs (8) and nuts (9) for obvious looseness. Check for bent or broken studs and missing or loose nuts. Notify Field Level Maintenance if any nuts are loose or missing or if any studs are broken or bent.	Wheel is cracked, broken, or bent. Two or more nuts or studs on same wheel are missing, loose, or broken.



4300E22

4. Check tire pressures with tire inflator/gage for applicable setting.

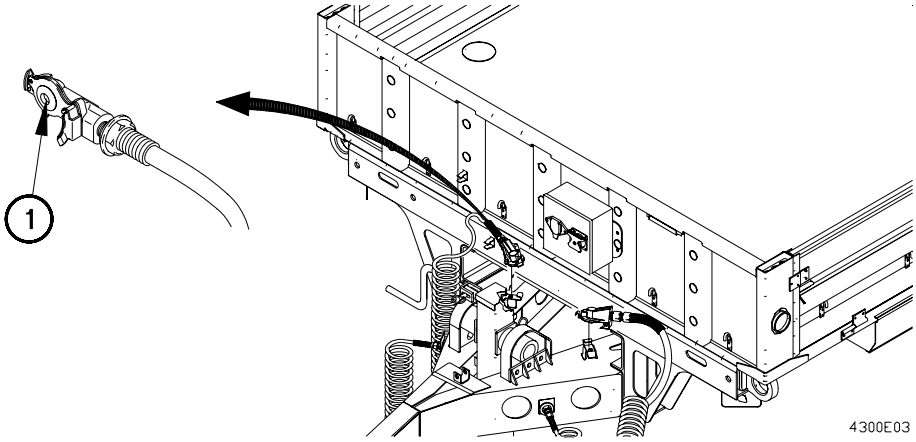
BOTH MODELS			
MODE			
HWY	X-C37	SAND	EMER
77 psi (531 kPa)	59 psi (407 kPa)	35 psi (241 kPa)	18 psi (124 kPa)

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

Before PMCS Procedures for Trailer - Continued

Table 5. Preventive Maintenance Checks and Services (PMCS) - Before.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	Before		Coupler Seals on Trailer and Towing Vehicle Gladhands	Check that coupler seals (1) on gladhands are free of dirt, sand, or other abrasive materials. Clean if dirt, sand, or other abrasive materials are present (WP 0046 00, General, Table 1. General Cleaning Instructions).	



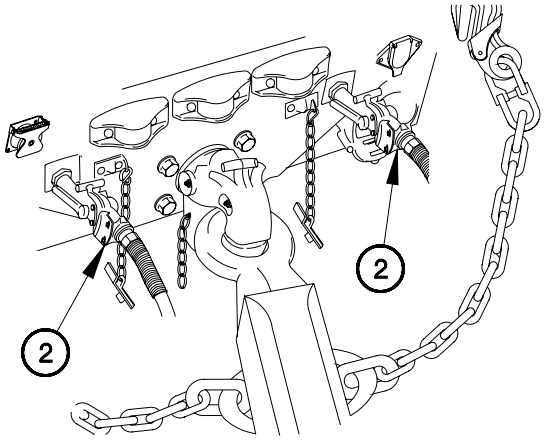
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Before PMCS Procedures for Trailer - Continued

Table 5. Preventive Maintenance Checks and Services (PMCS) - Before - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
4	Before		SERVICE and EMERGENCY Gladhand Hoses with Trailer Coupled to Towing Vehicle	1. Check that SERVICE and EMERGENCY gladhand hoses (2) are securely connected to towing vehicle.	Both SERVICE and EMERGENCY gladhand hoses cannot be securely connected to towing vehicle.



4300E04

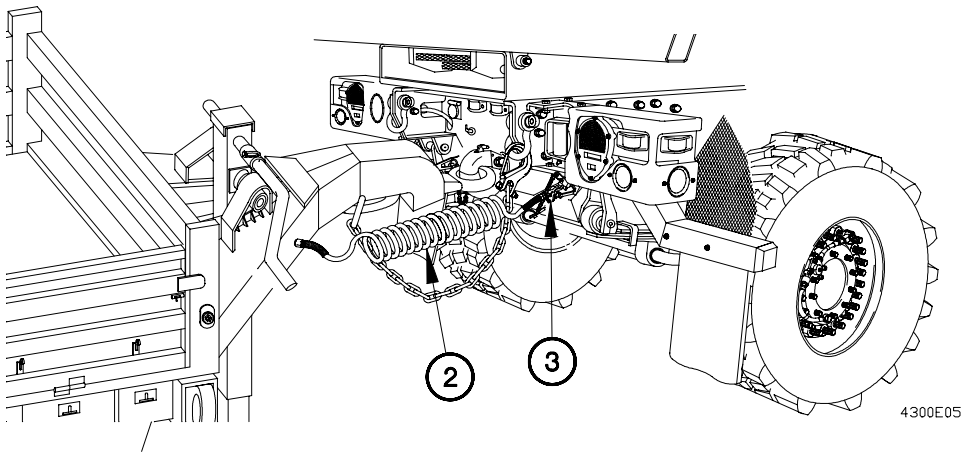
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Before PMCS Procedures for Trailer - Continued

Table 5. Preventive Maintenance Checks and Services (PMCS) - Before - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
4	Before		SERVICE and EMERGENCY Gladhand Hoses with Trailer Coupled to Towing Vehicle - Continued	2. Check SERVICE and EMERGENCY gladhand hoses (2) and gladhands (3) for leaks and other obvious damage, such as cuts or breaks.	SERVICE and EMERGENCY gladhand hoses and gladhands are leaking or damaged.



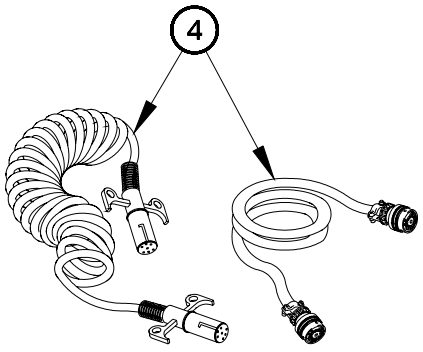
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Before PMCS Procedures for Trailer - Continued

Table 5. Preventive Maintenance Checks and Services (PMCS) - Before - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
				NOTE The trailer voltage converter box will accommodate 12 vdc, 7-pin or 24 vdc, 12-pin intervehicular cables (WP 0004 00, Voltage Converter Box).	
5	Before		Intervehicular Cable with Trailer Coupled to Towing Vehicle	1. Check for secure attachment of intervehicular cable (4) to trailer and towing vehicle.	Intervehicular cable cannot be securely connected to trailer and towing vehicle.
				2. Check intervehicular cable (4) for cracked insulation or bare wires.	Intervehicular cable has cracked insulation or bare wires.



4300E06

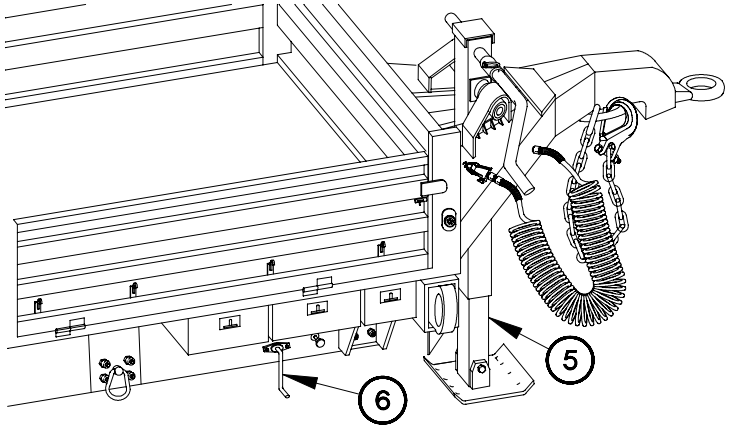
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Before PMCS Procedures for Trailer - Continued

Table 5. Preventive Maintenance Checks and Services (PMCS) - Before - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
6	Before		Landing Gear	1. Inspect landing gear (5) for damaged, loose, or missing parts. Ensure landing gear is in good repair. 2. Attempt to operate landing gear winch handle (6) to check for damage and/or misalignment. If misaligned, attempt to realign.	Landing gear does not operate properly. Winch cable assembly handle is damaged and/or cannot be realigned.



4300E07

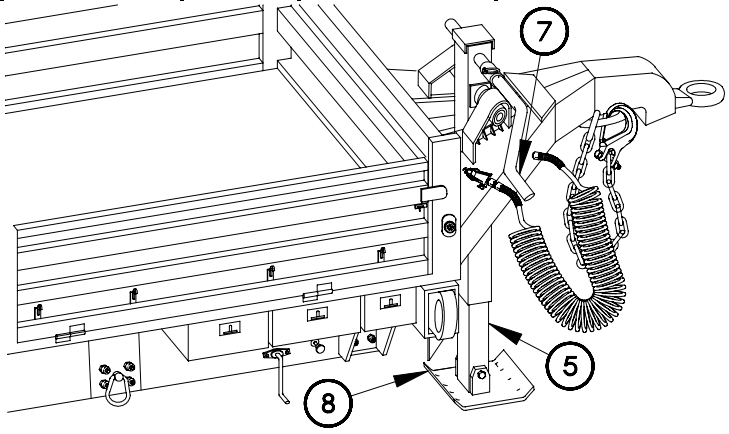
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Before PMCS Procedures for Trailer - Continued

Table 5. Preventive Maintenance Checks and Services (PMCS) - Before - Continued

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
6	Before		Landing Gear, Continued	3. Attempt to operate landing gear handle (7) to check for damage and/or misalignment. If misaligned, attempt to realign.	Landing gear handle is damaged and/or cannot be realigned.
				4. Attempt to drop and raise landing gear (5).	Landing gear cannot be lowered and/or raised.
				5. Attempt to lower and raise footplate (8).	Footplate cannot be lowered and/or raised.

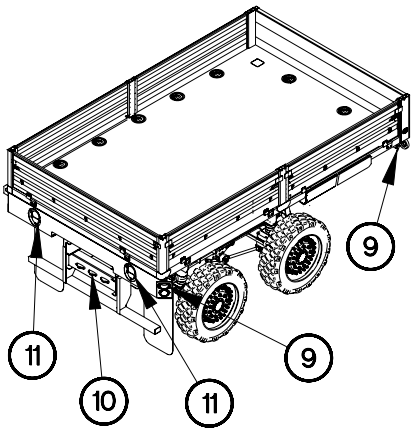


PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued 0042 00

Before PMCS Procedures for Trailer - Continued

Table 5. Preventive Maintenance Checks and Services (PMCS) - Before - Continued

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
7	Before		Trailer Lights/ABS Diagnostic Tool	1. Couple trailer to towing vehicle (WP 0009 00, Coupling Trailer). 2. Position the main light switch of the towing vehicle to the appropriate position. 3. Check trailer clearance lights (9), marker lights (10), turn signals (11), taillights (11), stoplights (11), blackout marker lights (10), and blackout stop lights (11) for damage and proper operation (WP 0007 00, Controls).	One or more trailer marker lights, turn signals, taillights, stoplights, blackout marker lights, and blackout stop lights are missing, damaged, or not operational.



4300E09

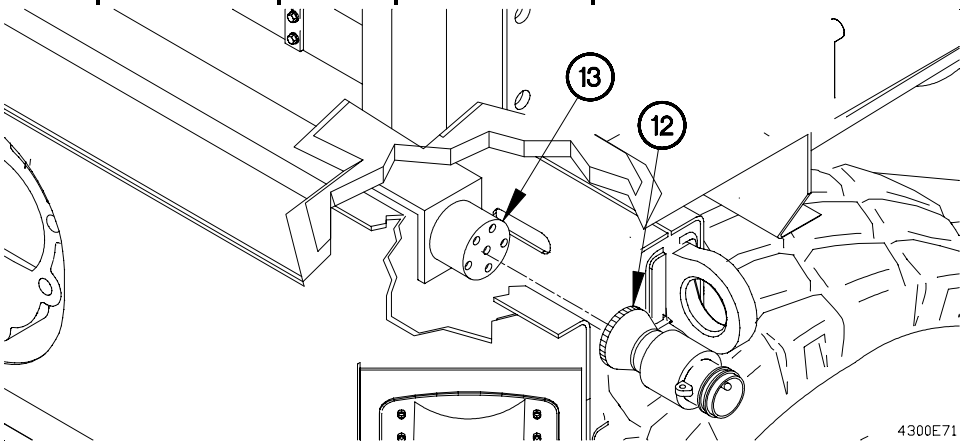
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Before PMCS Procedures for Trailer - Continued

Table 5. Preventive Maintenance Checks and Services (PMCS) - Before - Continued

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
7	Before		Trailer Lights/ABS Diagnostic Tool - Continued.	**NOTE** If towing vehicle is not FMTV A1, position towing vehicle main light switch to SER DRIVE and depress brake pedal while pressing blink code button as described in step (4). 4. Plug diagnostic tool (12) in socket (13). Press blink code button on diagnostic tool once for one second and release the button. If there are no faults the lamp will go off, come back on and remain on. If there are faults, the tool will flash (blink).	If the ABS diagnostic tool flashes (blinks).

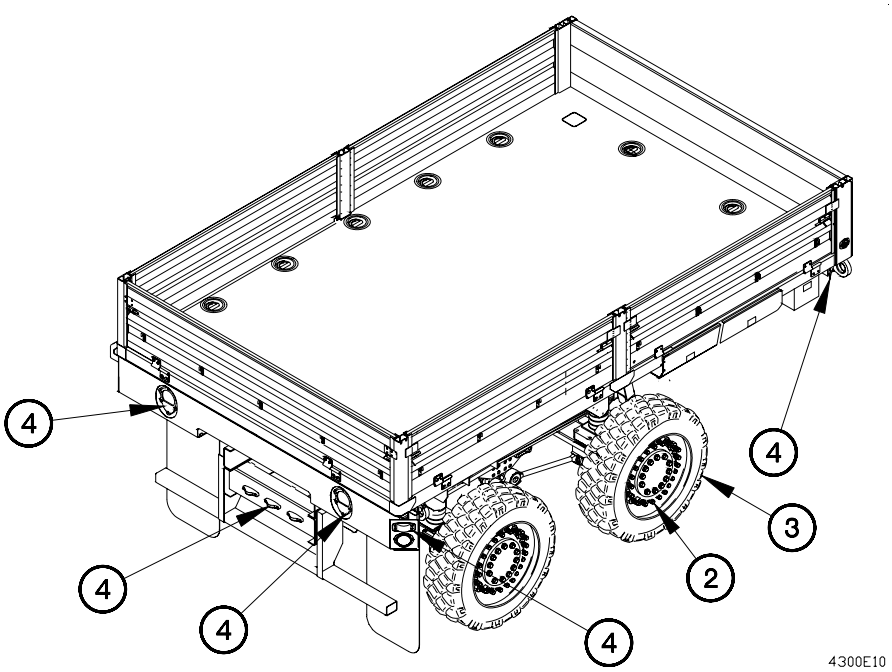


PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

During PMCS Procedures for Trailer

These illustrations will help you perform DURING trailer PMCS. The callouts match PMCS item numbers/procedures.



PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

During PMCS Procedures for Trailer - Continued

Table 6. Preventive Maintenance Checks and Services (PMCS) - During.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	During		Steering With Trailer Coupled to Towing Vehicle	Check for any unusual steering noise, binding, or difficulty in turning during operation.	Steering binds or is unresponsive.
2	During		Service Brakes With Trailer Coupled to Towing Vehicle	1. Check if adequate braking is available to stop trailer during operation.	System does not provide adequate braking to trailer.
				2. Check if trailer is pulled to one side when brakes are applied during operation.	Trailer pulls to one side when brakes are applied.
				3. Listen for unusual noises (chattering, grinding, groaning, or excessive squealing) during braking. Notify Field Level Maintenance if unusual noises are present.	
3	During		Wheel Alignment	Check tracking for indication of wheel misalignment.	Serious wheel misalignment is present.

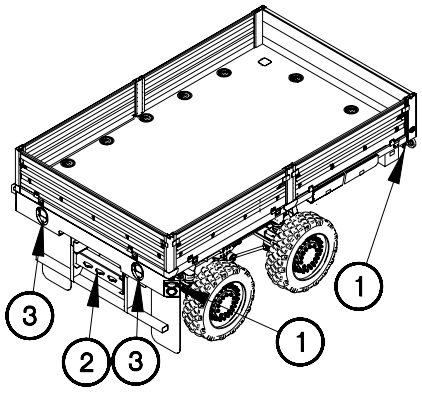
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

During PMCS Procedures for Trailer - Continued

Table 6. Preventive Maintenance Checks and Services (PMCS) - During - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
4	During		Trailer Lights	Check trailer clearance lights (1), marker lights (2), turn signals (3), taillights (3), stoplights (3), blackout marker lights (2), and blackout stop lights (3) for proper operation (WP 0007 00, Trailer Controls).	One or more trailer clearance lights, marker lights, turn signals, taillights, stoplights, blackout marker lights, and blackout stop lights are not operational.



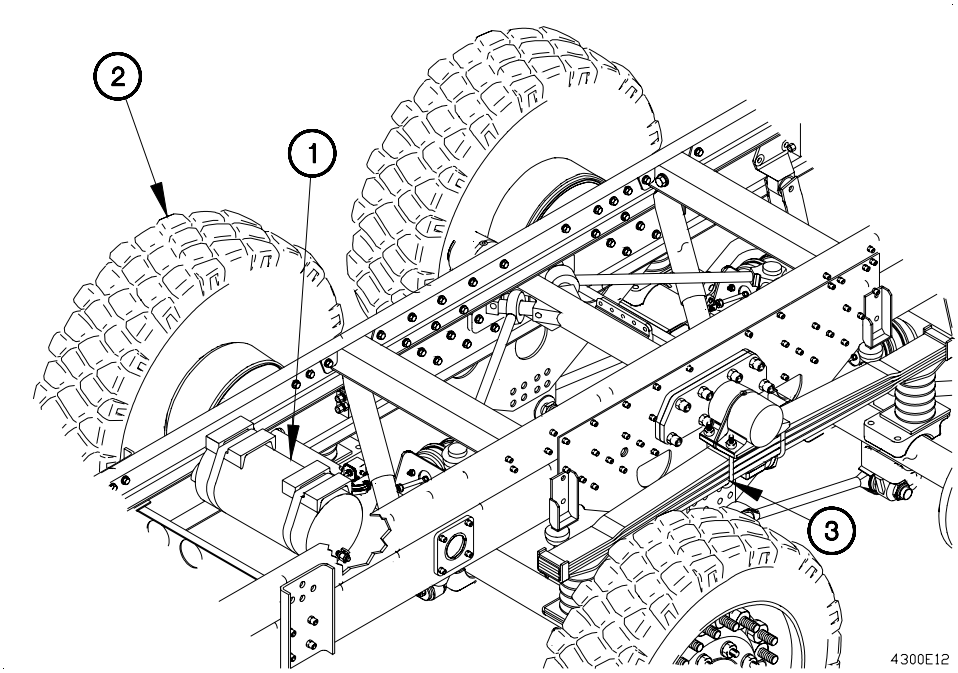
4300E11

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

After PMCS Procedures for Trailer

These illustrations will help you perform AFTER trailer PMCS. The callouts match PMCS item numbers/procedures.



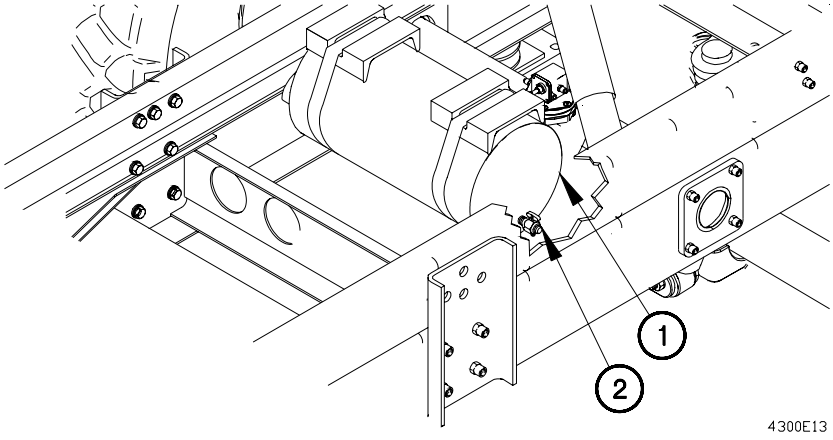
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

After PMCS Procedures for Trailer - Continued

Table 7. Preventive Maintenance Checks and Services (PMCS) - After.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	After		Air Tank	1. With trailer parked and towing vehicle engine shut down, listen for sound of air leaks around trailer air tank (1). 2. Open air tank drain valve (2) and drain moisture (WP 0011 00, Draining Air Tank).	Air leak(s) heard around air tank.



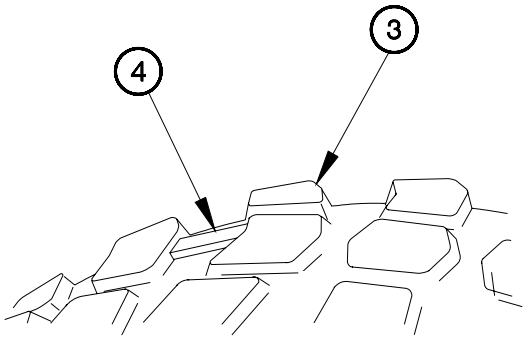
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

After PMCS Procedures for Trailer - Continued

Table 7. Preventive Maintenance Checks and Services (PMCS) - After - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
2	After		Tires	Check for missing tire treads (3) or improperly inflated tires. Check tires for cuts, gouges, cracks, and unusual bulges. Remove any object that could penetrate tire(s).	Tire tread (3) is worn even to height of wear bar (4) (depth is 1/8 in. (0.3 cm) or less). Any cut, gouge, or crack that extends to cord body or any unusual bulges.



4300E14

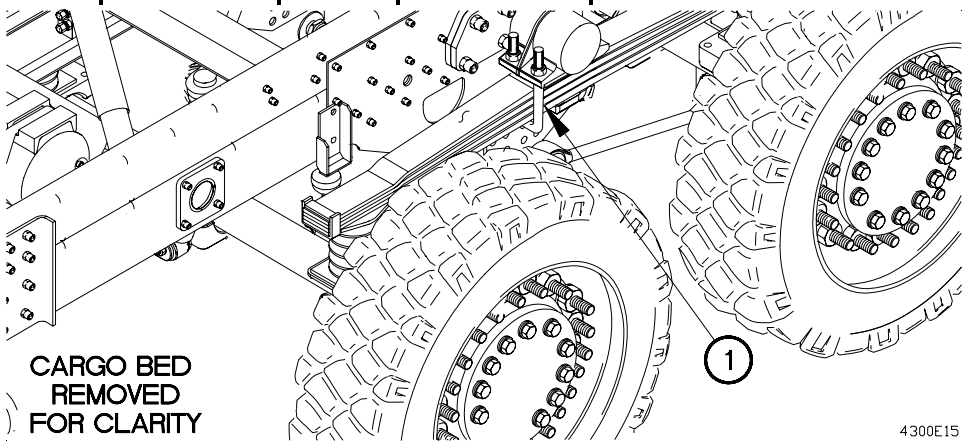
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

After PMCS Procedures for Trailer - Continued

Table 7. Preventive Maintenance Checks and Services (PMCS) - After - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	After		Leaf Springs - MTVT and LMTVT	After initial three months of use, notify Field Level Maintenance to tighten U-bolts (5) to 390-510 lb-ft (530-690 N•m), in sequence increments of 50 lb-ft (68 N•m) in crisscross pattern	U-bolts are loose.

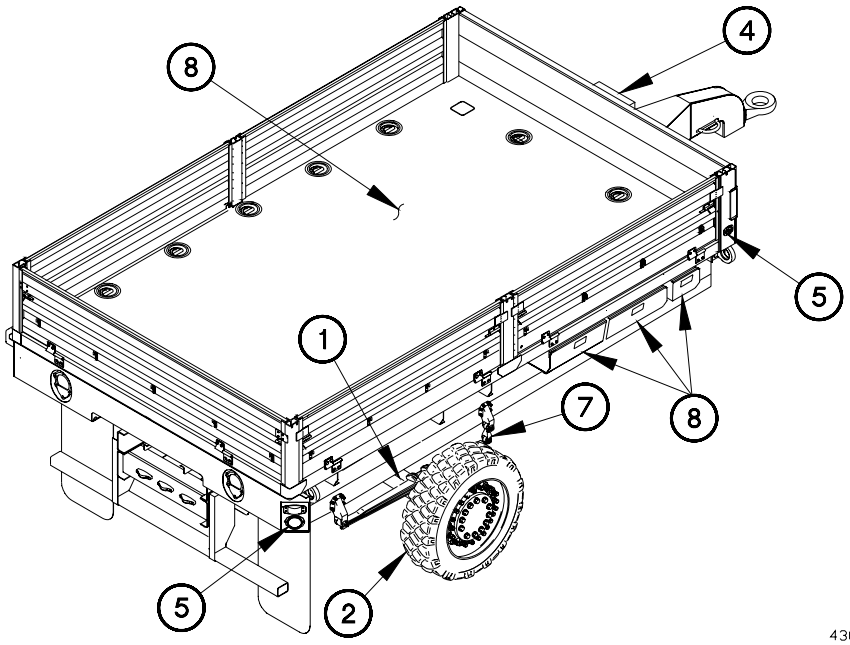


PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

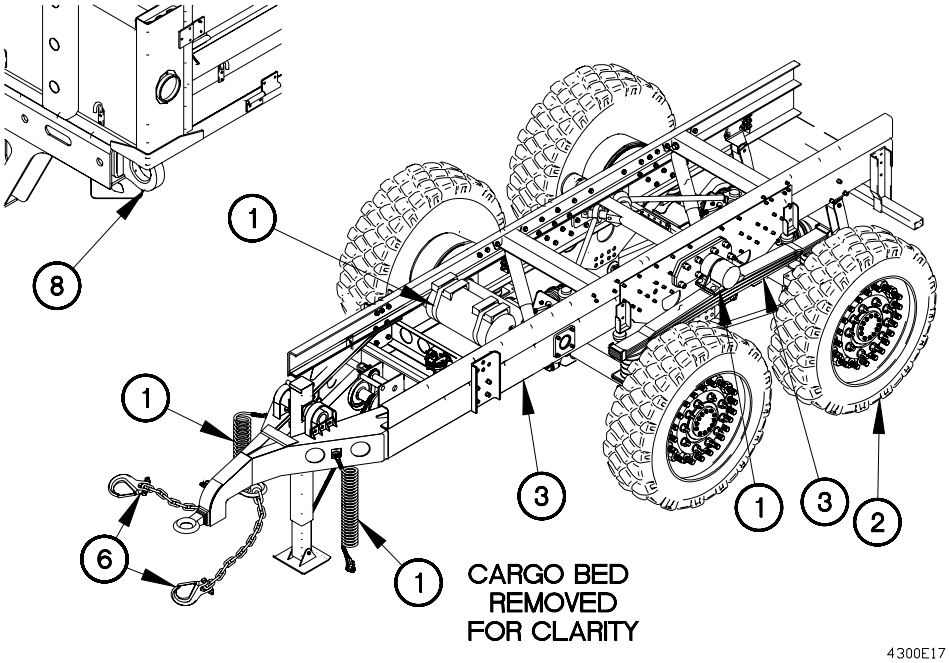
0042 00

Weekly PMCS Procedures for Trailer

These illustrations will help you perform WEEKLY trailer PMCS. The callouts match PMCS item numbers/procedures.



4300E16 *



4300E17

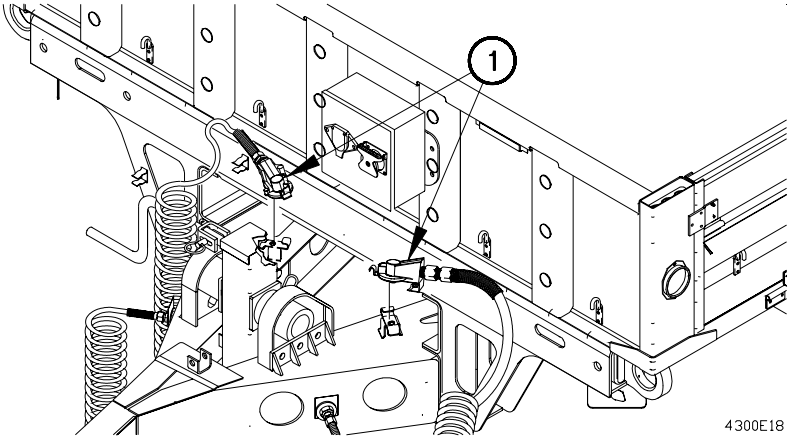
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Weekly PMCS Procedures for Trailer - Continued

Table 8. Preventive Maintenance Checks and Services (PMCS) - Weekly.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Weekly		Mounting/ Coupling Hardware and Hoses/ Tubes	Check bolts, nuts, clamps, hoses, and tubes for looseness and missing, broken, or leaking conditions. Tighten loose bolts, nuts, and clamps. If bolts, nuts, clamps, hoses, or tubes are missing, broken, cannot be tightened, or are damaged to the point of leaking, notify Field Level Maintenance. The following should be checked: 1. Air intake system, including SERVICE and EMERGENCY gladhand hoses (1).	



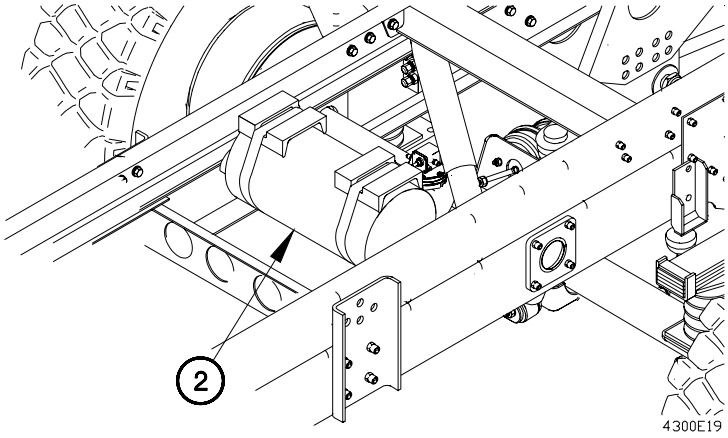
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Weekly PMCS Procedures for Trailer - Continued

Table 8. Preventive Maintenance Checks and Services (PMCS) - Weekly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Weekly		Mounting/ Coupling Hardware and Hoses/ Tubes - Continued	2. Air storage system, including air tank (2).	



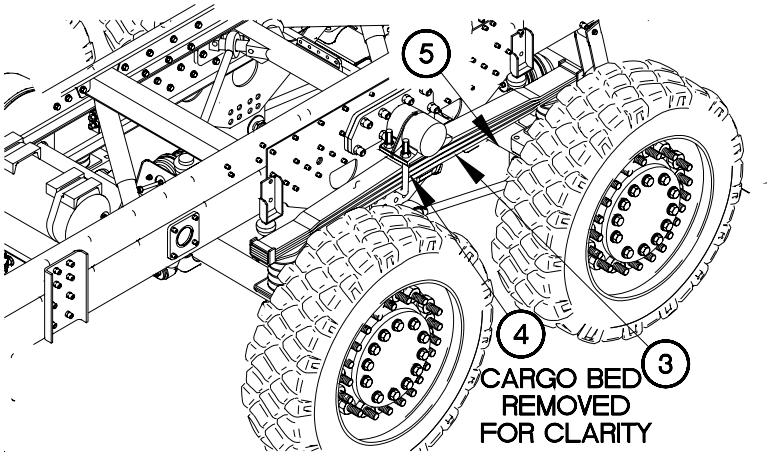
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Weekly PMCS Procedures for Trailer - Continued

Table 8. Preventive Maintenance Checks and Services (PMCS) - Weekly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Weekly		Mounting/ Coupling Hardware and Hoses/ Tubes - Continued	Check nuts, bolts, clamps, hoses, and tubes for looseness and missing, broken, or leaking conditions. If damage is found, notify Field Level Maintenance. The following should be checked: 3. Leaf spring suspension (3), including U-bolts (4). 4. Axles (5).	



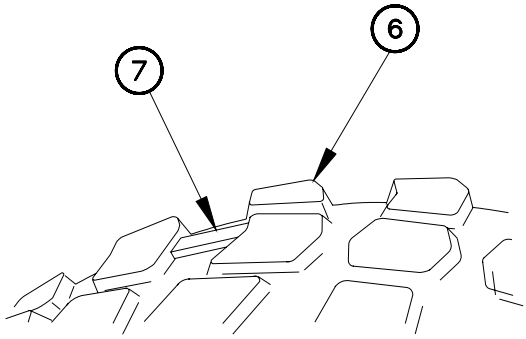
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Weekly PMCS Procedures for Trailer - Continued

Table 8. Preventive Maintenance Checks and Services (PMCS) - Weekly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
2	Weekly		Wheels and Tires	1. Check tire tread depth (6). Tread depth should not be worn beyond level of wear bar (7).	Tire tread (6) is worn even to height of wear bar (7) (depth is 1/8 in. (0.3 cm) or less). Any cut, gouge, or crack that extends to cord body or any unusual bulges.



4300E21

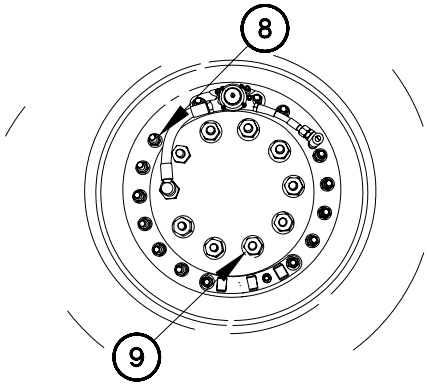
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Weekly PMCS Procedures for Trailer - Continued

Table 8. Preventive Maintenance Checks and Services (PMCS) - Weekly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
2	Weekly		Wheels and Tires - Continued	2. Check wheel assembly for damage. If damaged, remove wheel and check wheel for cracked, broken, or bent surfaces. 3. Check wheel studs (8) and nuts (9) for obvious looseness. Check for bent or broken studs and missing or loose nuts. Notify Field Level Maintenance if any nuts are loose or missing or if any studs are broken or bent.	Wheel is cracked, broken, or bent. Two or more nuts or studs on same wheel are missing, loose, or broken.



4300E22

4. Check tire pressures with tire inflator/gage for applicable setting.

BOTH MODELS			
MODE			
HWY	X-C37	SAND	EMER
77 psi (531 kPa)	59 psi (407 kPa)	35 psi (241 kPa)	18 psi (124 kPa)

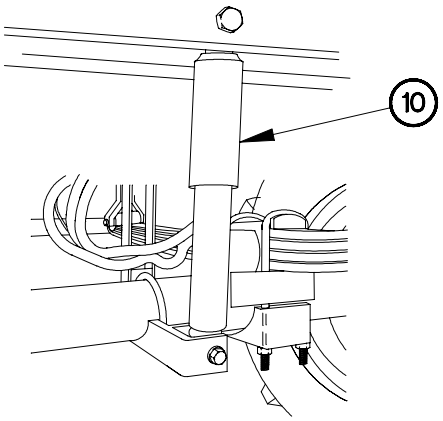
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Weekly PMCS Procedures for Trailer - Continued

Table 8. Preventive Maintenance Checks and Services (PMCS) - Weekly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	Weekly		Underneath Trailer	1. Check underneath trailer for obvious damage to leaf springs, frame rails, and crossmembers.	Any loose or broken frame rails, crossmembers, broken welds, or broken screws are found.
				2. Check air hoses and fittings underneath trailer for obvious damage and leakage.	Any air leaks or damage to hoses or fittings are found.
				3. Check shock absorbers (10) for leaks, missing or loose hardware and/or loose shock absorber.	Any oil leaks, missing or loose hardware, or loose shock absorbers are found.



4300E23

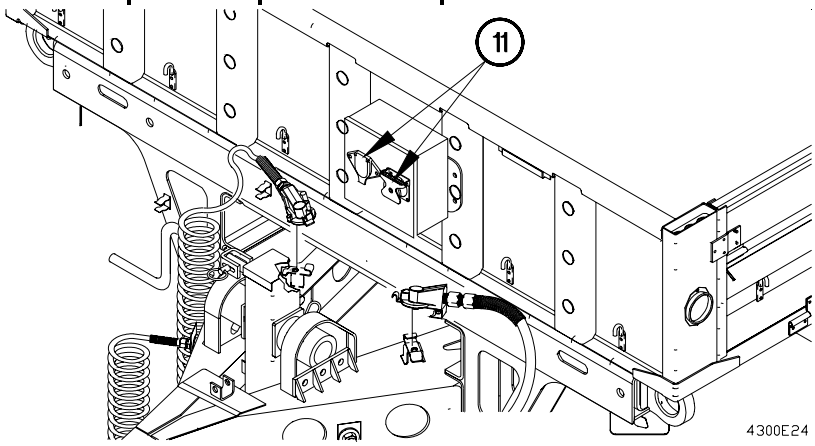
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Weekly PMCS Procedures for Trailer - Continued

Table 8. Preventive Maintenance Checks and Services (PMCS) - Weekly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
4	Weekly		Electrical Connectors	Check electrical connectors and covers (11) for damage.	Electrical connectors are damaged.



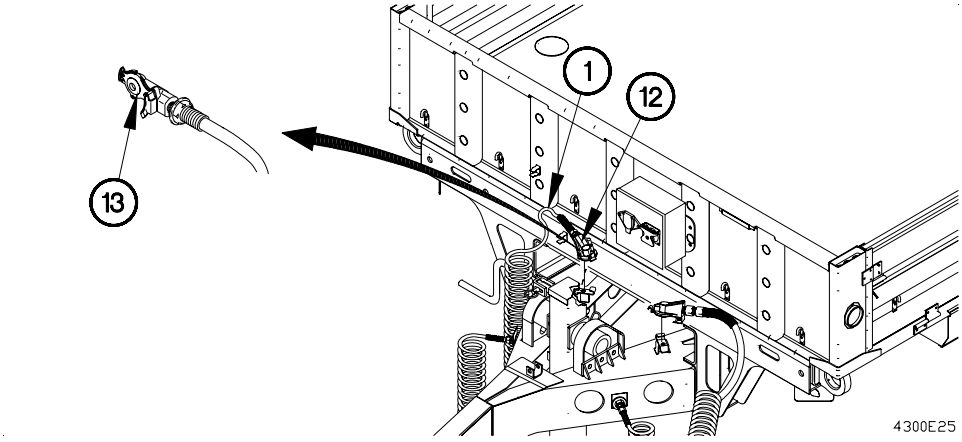
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Weekly PMCS Procedures for Trailer - Continued

Table 8. Preventive Maintenance Checks and Services (PMCS) - Weekly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
5	Weekly	0.1	Gladhands	1. Check trailer SERVICE and EMERGENCY air hoses (1) and gladhands (12) for damage and air leaks. 2. Check condition of coupler seals (13).	Air leaks are heard. Seals are damaged.

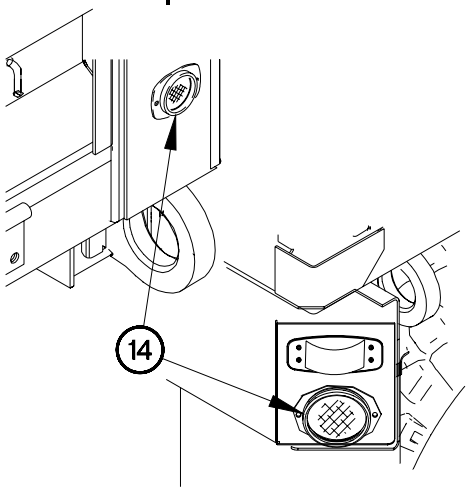
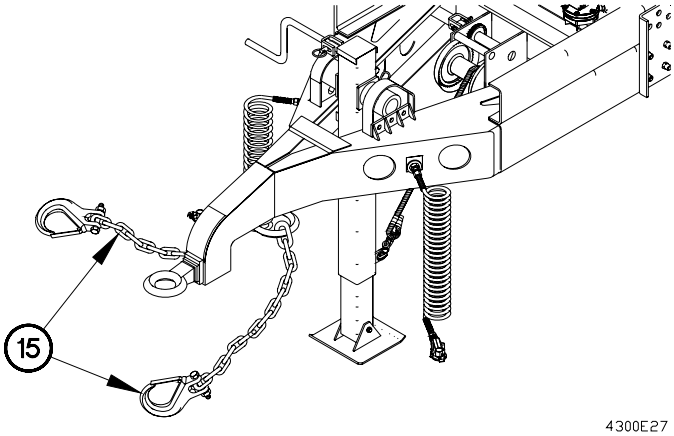


PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Weekly PMCS Procedures for Trailer - Continued

Table 8. Preventive Maintenance Checks and Services (PMCS) - Weekly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
6	Weekly		Reflectors	Check for missing or damaged reflectors (14).	
				 4300E26	
7	Weekly		Safety Chains	Check safety chains (15) for looseness and/or damaged fastening mechanism.	One or both safety chains is damaged.
				 4300E27	

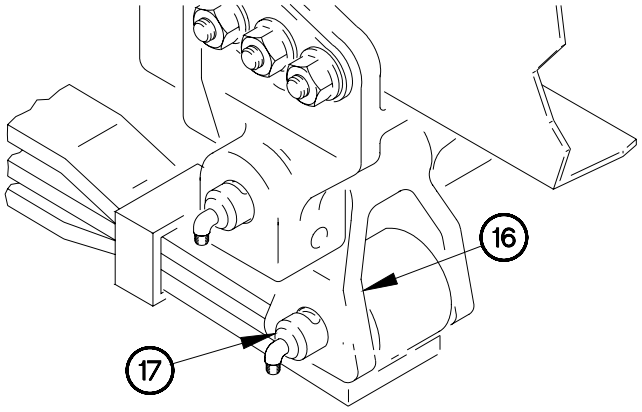
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Weekly PMCS Procedures for Trailer - Continued

Table 8. Preventive Maintenance Checks and Services (PMCS) - Weekly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
8	Weekly		Leaf Spring Brackets/ Shackles (LMTVT).	Check leaf spring brackets/shackles (16) for damage. Check spring pins (17) for damage.	One or more leaf spring brackets/ shackles is damaged or missing, and/or one or more spring pins is damaged or missing.



4300E28

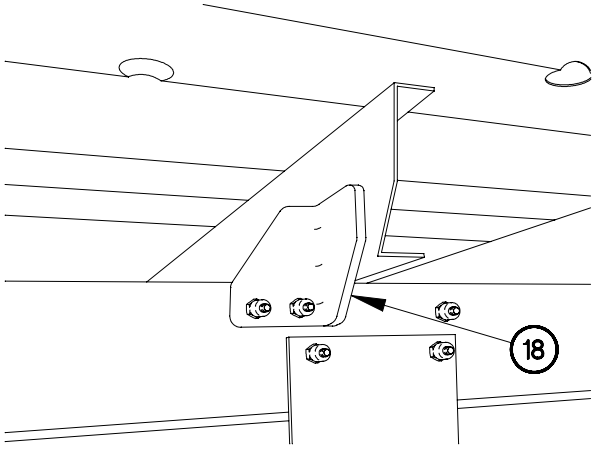
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Weekly PMCS Procedures for Trailer - Continued

Table 8. Preventive Maintenance Checks and Services (PMCS) - Weekly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
9	Weekly		Cargo Bed	1. Check that cargo bed mounting bolts on trailer sides (18) are not damaged, loose, or missing.	One or more cargo bed mounting bolts is damaged or missing.



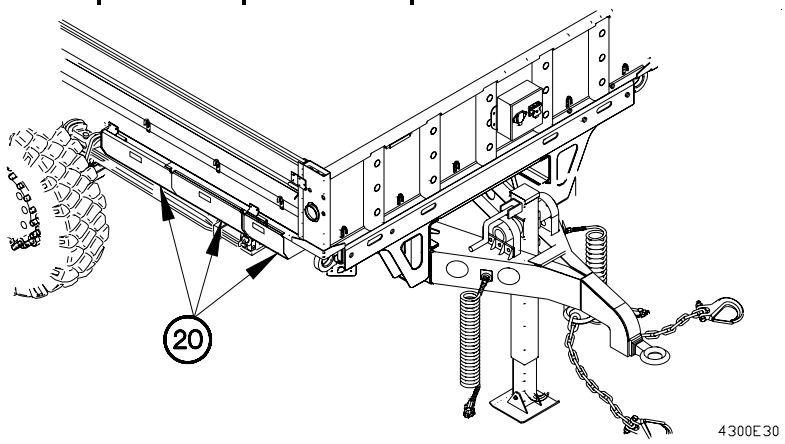
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Weekly PMCS Procedures for Trailer - Continued

Table 8. Preventive Maintenance Checks and Services (PMCS) - Weekly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
9	Weekly		Cargo Bed - Continued	2. Check inside stowage compartments (20) underneath cargo bed for obvious damage.	



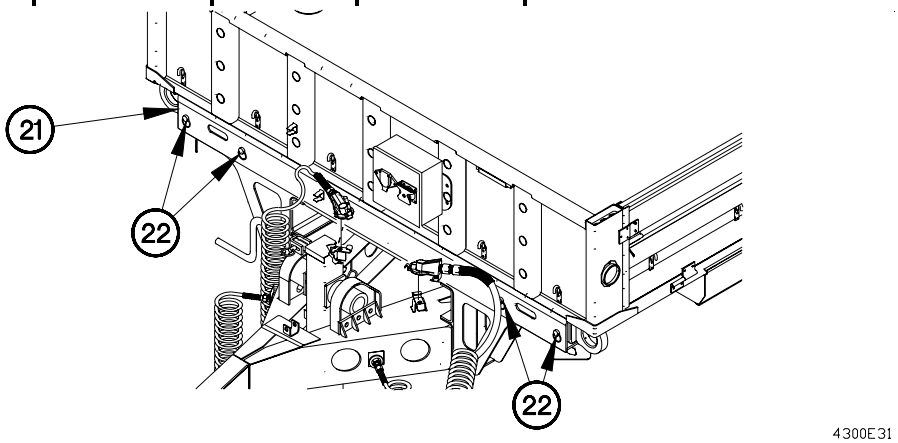
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Weekly PMCS Procedures for Trailer - Continued

Table 8. Preventive Maintenance Checks and Services (PMCS) - Weekly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
9	Weekly		Cargo Bed - Continued	3. Check lifting beams (21) on both sides of trailer for damage. Check that lift beam lock pins (22) are not missing or damaged.	Lifting beam is damaged, or lock pin is missing or damaged, and lifting beam is required for trailer mission.



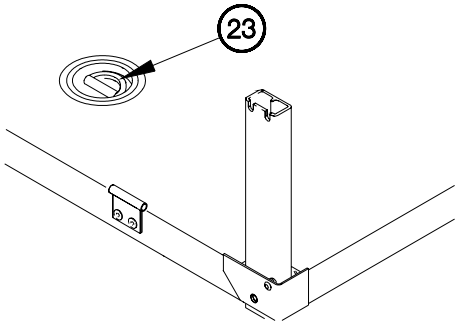
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Weekly PMCS Procedures for Trailer - Continued

Table 8. Preventive Maintenance Checks and Services (PMCS) - Weekly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
9	Weekly		Cargo Bed - Continued	4. Check for missing or damaged cargo bed tiedown rings (23).	



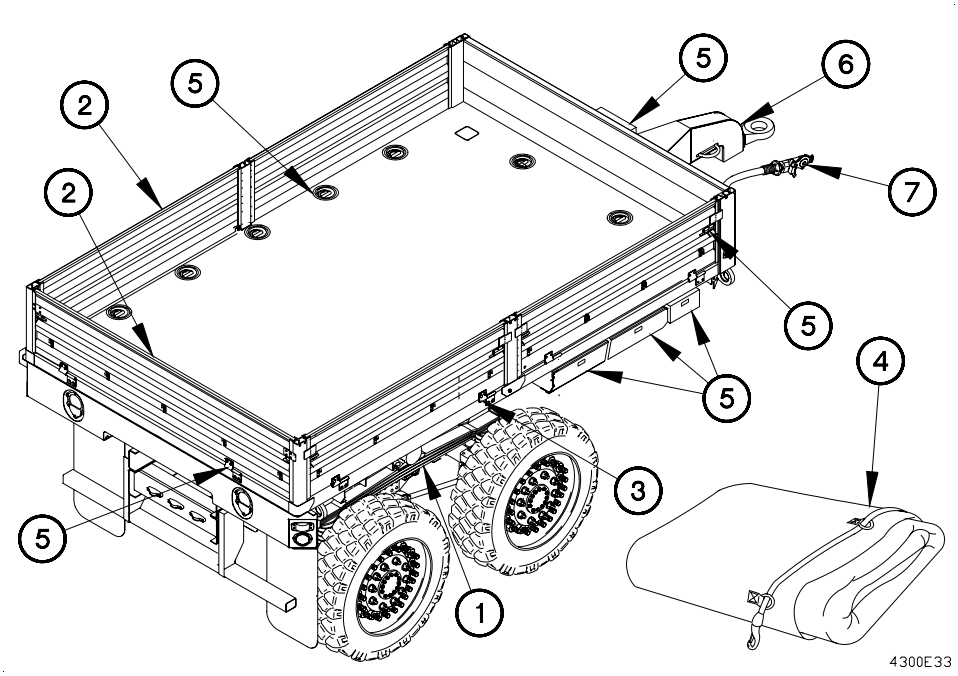
4300E32

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Monthly PMCS Procedures for Trailer

These illustrations will help you perform MONTHLY trailer PMCS. The callouts match PMCS item numbers/procedures.



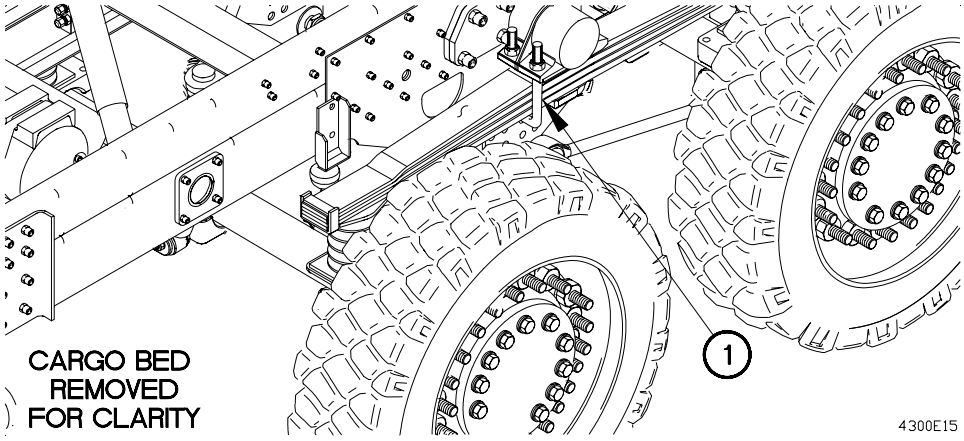
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Monthly PMCS Procedures for Trailer - Continued

Table 9. Preventive Maintenance Checks and Services (PMCS) - Monthly.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Monthly		Leaf Springs	Check U-bolts (1) and spring pins for damage, looseness, or if missing.	U-bolts and/or spring pins are damaged, loose, or missing.



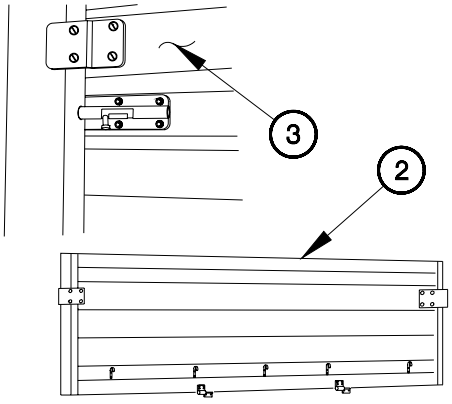
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Monthly PMCS Procedures for Trailer - Continued

Table 9. Preventive Maintenance Checks and Services (PMCS) - Monthly.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
2	Monthly		Cargo Bed Side Panels and Tailgate	1. Check that cargo bed side panels (2) and tailgate (3) are not bent or damaged.	Cargo bed side panels and/or tailgate are bent or damaged and needed for mission.



4300E34

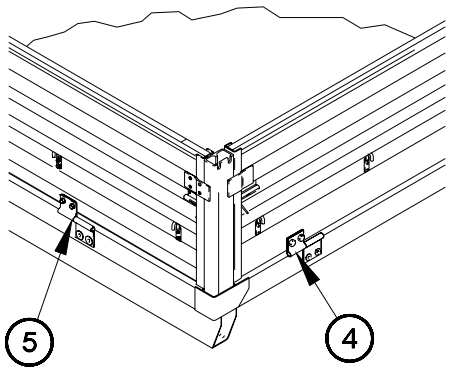
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Monthly PMCS Procedures for Trailer - Continued

Table 9. Preventive Maintenance Checks and Services (PMCS) - Monthly.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
2	Monthly		Cargo Bed Side Panels and Tailgate - Continued	**NOTE** Hinges and latches on cargo bed side panels and tailgate are the same. 2. Check cargo bed side panels (4) and tailgate hinges (5) for damage and broken welds.	Cargo bed side panels or tailgate hinge is damaged, or weld is broken.



4300E35

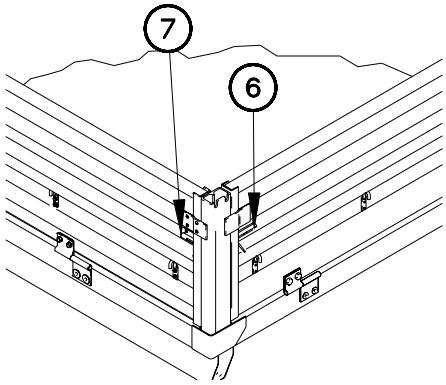
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Monthly PMCS Procedures for Trailer - Continued

Table 9. Preventive Maintenance Checks and Services (PMCS) - Monthly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
2	Monthly		Cargo Bed Side Panels and Tailgate - Continued	3. Check cargo bed side panels (6) and tailgate latches (7) for missing or damaged latches. Ensure that latches securely lock cargo bed side panels and tailgate in raised position.	Latch is missing, damaged, or does not securely lock cargo bed side panels or tailgate in raised position.



4300E36

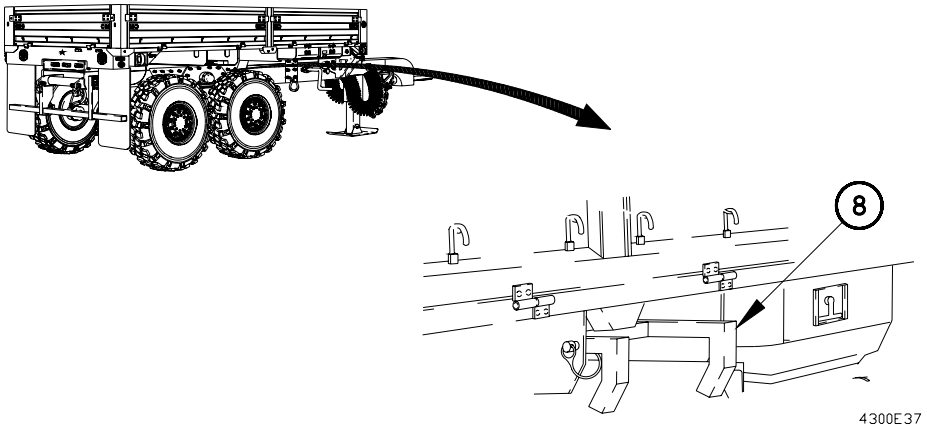
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Monthly PMCS Procedures for Trailer - Continued

Table 9. Preventive Maintenance Checks and Services (PMCS) - Monthly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	Monthly		Ladder	1. Remove ladder (8) from stowage compartment (WP 0010 00, Lower Ladder). 2. Check ladder (8) for cracked or broken welds. 3. Stow ladder (8) in stowage compartment (WP 0010 00, Stow Ladder).	



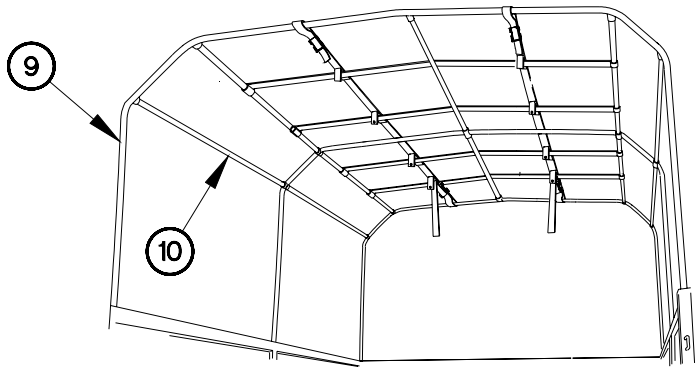
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Monthly PMCS Procedures for Trailer - Continued

Table 9. Preventive Maintenance Checks and Services (PMCS) - Monthly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
4	Monthly		Cargo Cover	**NOTE** Cargo cover is checked before trailer operation only as required to perform trailer mission. 1. Check for missing, damaged, or bent bows (9). 2. Check for missing, damaged, or bent braces (10).	



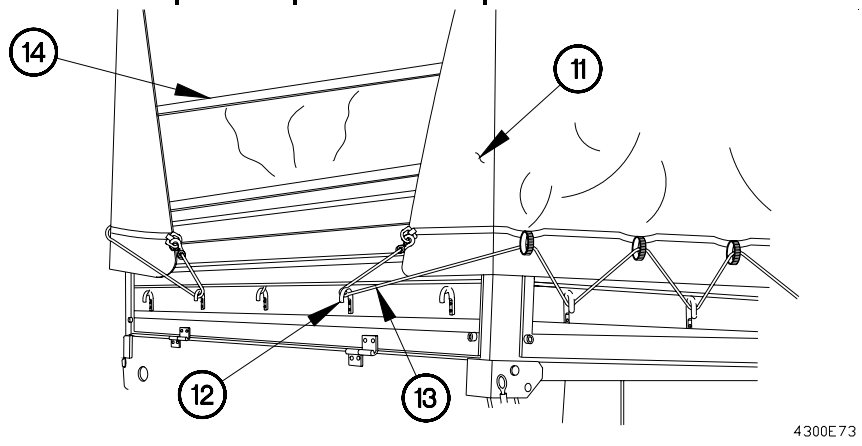
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Monthly PMCS Procedures for Trailer - Continued

Table 9. Preventive Maintenance Checks and Services (PMCS) - Monthly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
4	Monthly		Cargo Cover - Continued	3. Check cargo cover (11) for tears, punctures, and ripped seams that would interfere with proper operation. If damage is found, notify Field Level Maintenance to repair in accordance with FM 10-16. 4. Check that J-hook (12) used to secure cargo cover tiedown straps (13) are secure and not damaged. 5. Check that safety straps (14) are not missing or damaged.	



PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Monthly PMCS Procedures for Trailer - Continued

Table 9. Preventive Maintenance Checks and Services (PMCS) - Monthly - Continued.

<table>
<tr><th>ITEM NO.</th><th>INTERVAL</th><th>MAN-HOUR</th><th>ITEM TO BE CHECKED OR SERVICED</th><th><u>CREWMEMBER</u> PROCEDURE</th><th>EQUIPMENT NOT READY/ AVAILABLE IF:</th></tr>
<tr><td>5</td><td>Monthly</td><td>0.1</td><td>Oil Can Points</td><td>Lubricate all oil can points with OE/HDO specified for ambient temperature. The Operator/crew is responsible for lubricating the following points:
<table>
<tr><th>OIL CAN POINTS</th><th>NUMBER</th></tr>
<tr><td>1. Tailgate hinge pins</td><td>2</td></tr>
<tr><td>2. Cargo bed side panel hinge pins</td><td>8</td></tr>
<tr><td>3. Cargo bed tiedown rings</td><td>14 (LMTVT), 16 (MTVT)</td></tr>
<tr><td>4. Voltage converter box cover hinge pin.</td><td>1</td></tr>
<tr><td>5. Side panel stowage box hinge pins</td><td>2</td></tr>
<tr><td>6. Stowage box door hinge pin</td><td>1</td></tr>
</table>
<table>
<tr><th colspan="3">OIL CAN POINTS
As Required</th></tr>
<tr><td colspan="3">Expected Temperatures</td></tr>
<tr><td>Above 40° F (4° C)</td><td>40° to -15°F (4° to -26° C)</td><td>-15° to -50°F (-26° to -46° C)</td></tr>
<tr><td>OE/HDO-10</td><td>OE/HDO-10</td><td>OEA</td></tr>
</table></td><td></td></tr>
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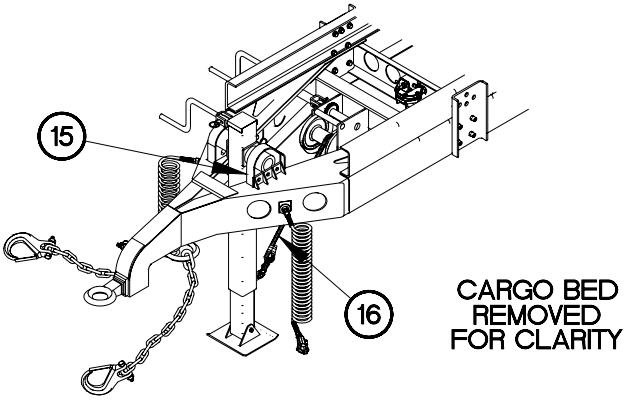
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Monthly PMCS Procedures for Trailer - Continued

Table 9. Preventive Maintenance Checks and Services (PMCS) - Monthly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
6	Monthly		Landing Gear	**WARNING** **Wear heavy leather-palmed work gloves when handling cable. Cables can become frayed or contain broken wires. Never let moving cable slide through hands, even when wearing gloves. Failure to comply may result in injury to personnel.** 1. Check retractable support mounts (15) for corrosion, cracks, and security of mounting hardware. 2. Pay out winch cable assembly (16) completely and inspect for kinks, sharp bends, abrasions, and broken wires.	Mounts are excessively damaged due to corrosion or cracks or hardware is loose. Approximately 1/3 of cable strands are broken at any given section.



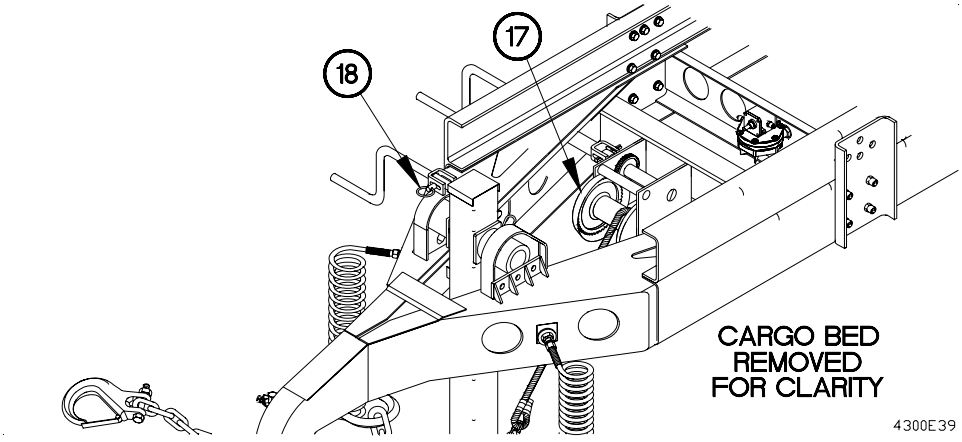
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Monthly PMCS Procedures for Trailer - Continued

Table 9. Preventive Maintenance Checks and Services (PMCS) - Monthly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
6	Monthly		Landing Gear - Continued	3. Check that winch drum (17) turns freely and is not damaged. 4. Check that landing gear handle pin (18) is not missing or damaged and is secure.	Winch drum is damaged. Landing gear handle pin is missing or damaged.



PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

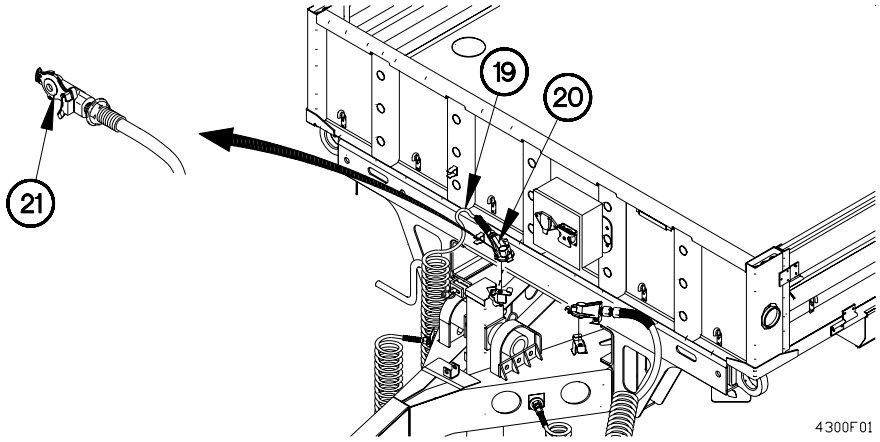
0042 00

Monthly PMCS Procedures for Trailer - Continued

Table 9. Preventive Maintenance Checks and Services (PMCS) - Monthly - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	CREWMEMBER PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
7	Monthly	0.1	Gladhands	1. Check trailer SERVICE and EMERGENCY air hoses (19) and gladhands (20) for damage and air leaks. 2. Check condition of coupler seals (21). 3. Lubricate coupler seals (21) with grease (GAA) using a wiping rag.	Air leaks are heard. Seals are damaged.

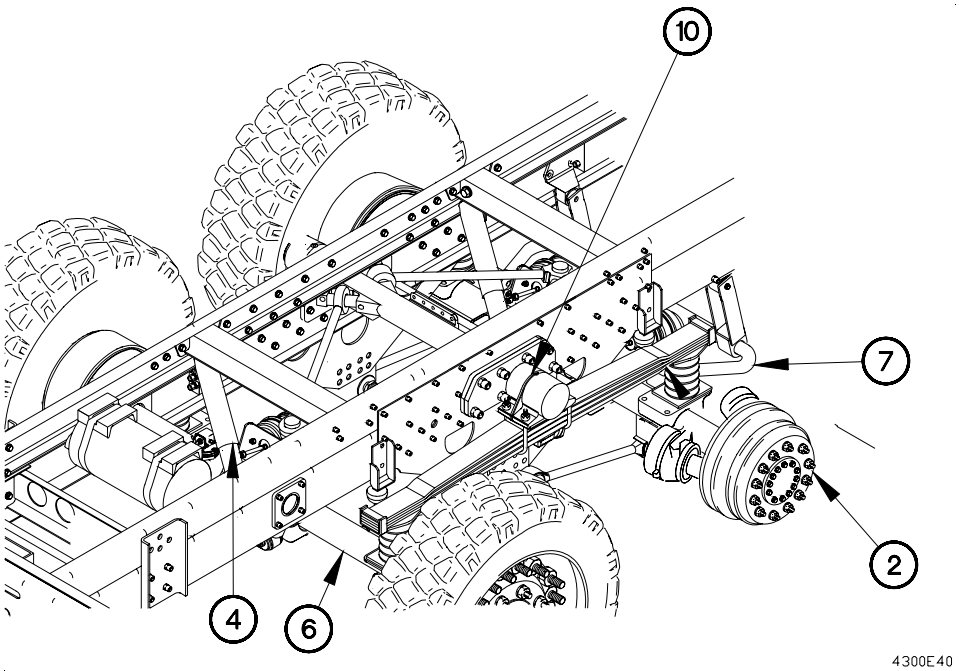
GLADHAND COUPLER SEALS As Required		
Temperatures		
Above 40° F (4° C)	40° to -15°F (4° to -26° C)	-15° to -50°F (-26° to -46° C)
GAA	GAA	GAA

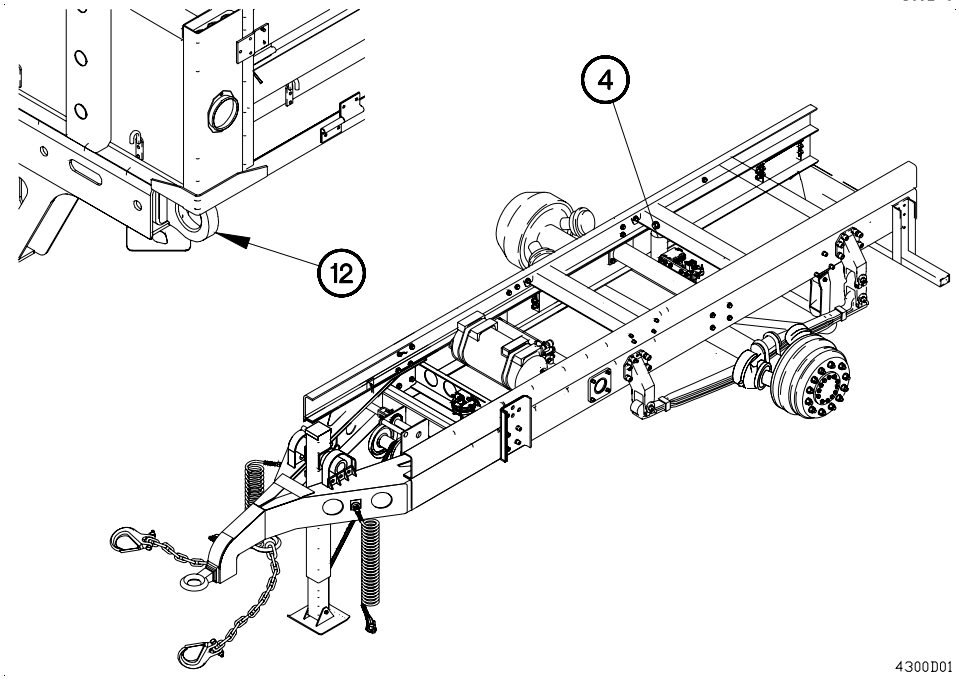


PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

Semiannual PMCS Procedures for Trailer (Field Level)

These illustrations will help you perform SEMIANNUAL (Field Level) trailer PMCS. The callouts match PMCS item numbers/procedures.





PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

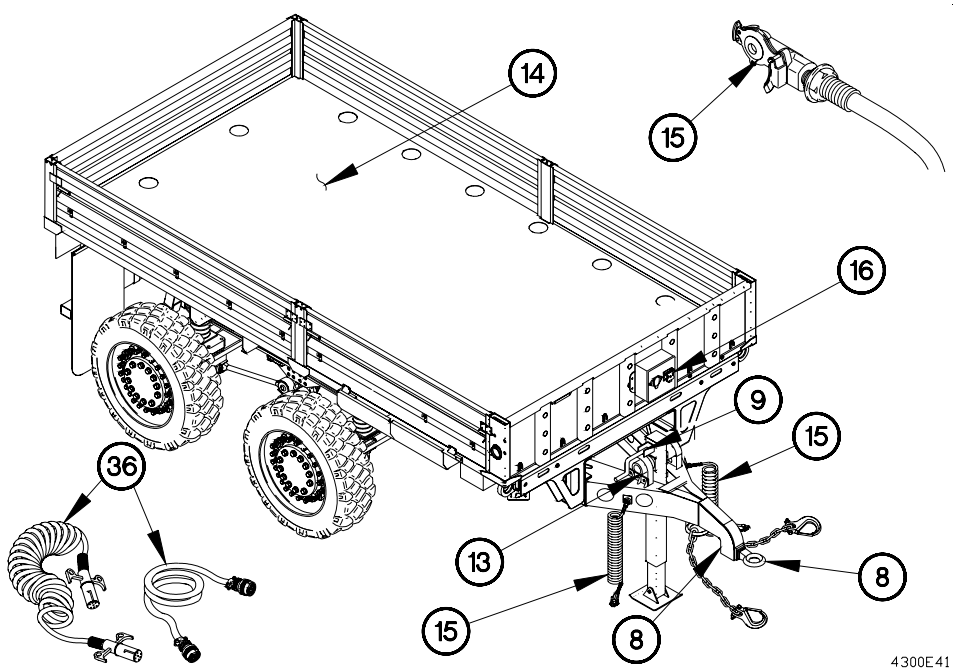


Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level).

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
				NOTE Separate towing vehicle road test must be performed before coupling towing vehicle to trailer. Perform towing vehicle road test and resultant towing vehicle maintenance as outlined in TM 9-2320-365/366-20. **TRAILER ROAD TEST** Maintenance personnel will be with towing vehicle/trailer operator during the road test.	

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
				NOTE • For road test, towing vehicle/trailer combination will be driven at least five miles over different types of terrain to give enough time to detect any malfunctions. • Perform the following during towing vehicle/trailer road test:	
1	Semiannual		Preservice Checks	1. With towing vehicle/trailer speed approximately 5 mph (8 kph), turn steering wheel to left, then right, to detect steering backlash, shimmy or freeplay . With towing vehicle/trailer moving on straight, level terrain, lightly hold steering wheel to check for pull and wandering.	Steering binds, grabs, wanders or has freeplay.
				2. Apply towing vehicle brake pedal with steady force. Towing vehicle/trailer should slow down and stop without pulling to one side or jerking. Release towing vehicle brake pedal. The towing vehicle/trailer brake system should release immediately and without difficulty.	Brake system chatters, pulls to one side, will not release, or does not operate.
				3. Observe trailer response to road shocks. Side sway or continuous bouncing indicates a malfunction.	Handling is unstable.

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
2	Semiannual	2.0 - LMTVT 4.0 - MTVT	Wheels, Hubs		
				WARNING **Completely deflate tires before removing from axles if there is obvious damage to wheel components. Removing tires from damaged wheel components without deflating tires may cause wheel components to separate. Failure to comply may result in serious injury or death to personnel.**	
				1. Check wheels for obvious cracks around lug holes. If cracks are found, repair wheel (WP 0079 00, Wheel Repair).	Cracks are found around lug holes.
				2. Replace any loose or damaged wheel studs (WP 0077 00, Wheel Stud Replacement). Tighten lugnuts (WP 0076 00, Wheel Stud Tightening Sequence).	More than one lugnut or wheel stud is damaged or missing.
				3. Check for grease leaks. If leaks are found, repair wheel (WP 0080 00, Wheel Bearing/Hub Seal Replacement).	Class III leak is evident.
				4. Check if six months has passed since wheel end hubs (1) have had grease changed. If grease has not been changed, perform the following:	
				WARNING **Dry Cleaning Solvent (P-D-680) is TOXIC and flammable. Wear protective goggles and gloves; use only in well-ventilated area; avoid contact with skin, eyes, and clothes, and do not breath vapors. Keep away from heat or flame. Never smoke when using Dry Cleaning Solvent; the flashpoint for Type I Dry Cleaning Solvent is 100 °F (38 °C) and for Type II is 138 °F (50 °C). Failure to comply may result in serious injury or death to personnel.**	

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

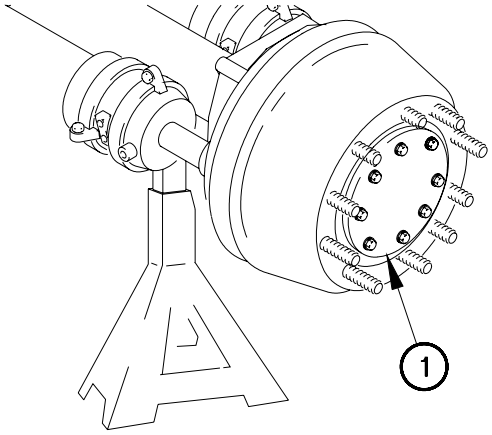
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
2	Semiannual		Wheels, Hubs - Continued		

WARNING

If personnel become dizzy while using Dry Cleaning Solvent, immediately get fresh air and medical help. If Dry Cleaning Solvent contacts skin or clothes, flush with cold water. If Dry Cleaning Solvent contacts eyes, immediately flush eyes with water and get medical attention. Failure to comply may result in serious injury or death to personnel.

a. Clean old grease from hub, bearing cones, and hub cap using Dry Cleaning Solvent P-D-680.
b. Allow cleaned parts to dry.
c. Wipe Dry Cleaning Solvent away with a clean wiping rag.
d. Install wheel end components (WP 0080 00, Wheel Bearing/Hub Seal Replacement) and pack inner and outer bearing cones with GAA.

Wheel End Hub		
Interval: S		
Temperature		
Above +40°F (Above +4°C)	+40°F to -15°F (+4°C to -26°C)	-15°F to -50°F (-26°C to -46°C)
GAA	GAA	GAA



4300E42

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

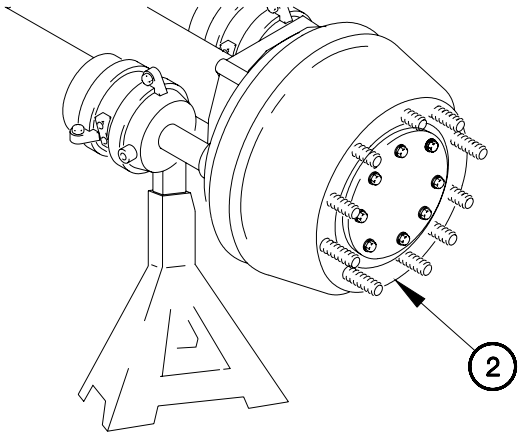
ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	Semiannual	1.0 - LMTVT 2.0 - MTVT	Service Brakes	**WARNING** • **Brake shoes may be covered with dust. Breathing the dust may be harmful to your health. Do not use compressed air to clean brake shoes. Wear a filter mask approved for use against brake dust. Failure to comply may result in injury to personnel.** • **Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.** 1. Check security of mounting hardware. 2. Check for air leaks around brake hose fittings. 3. Inspect brake air chambers for obvious cracks and corrosion. **WARNING** **Brake drums can become very hot during trailer operations. Do not touch drum. Failure to comply may result in injury to personnel.**	 Air leaks are found. Brake air chamber leaks.

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued 0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	Semiannual		Service Brakes - Continued	**CAUTION** Brake drum clearance must be checked along centerline of brake shoe. Failure to comply may result in damage to equipment. **NOTE** Over time a ridge will form on the outer edge of the brake shoes. This is normal and does not affect brake shoe serviceability. 4. Examine and compare each brake drum (2) for evidence of overheating. Excessive heating of brake drums may indicate a dragging brake shoe. Cool brake drums could mean improper adjustment, defective or inoperative brakes, or rust on braking surfaces.	Brake drums are excessively hot, cool, or rusted.



4300E43

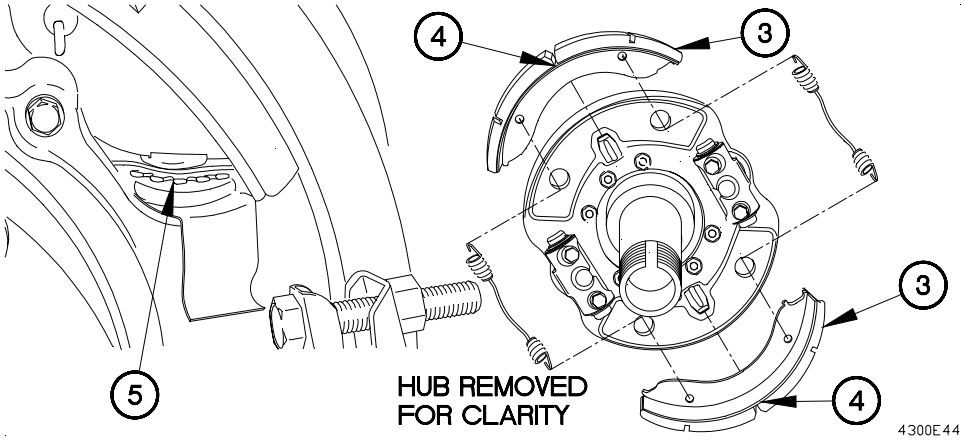
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	Semiannual		Service Brakes - Continued	5. Check brake lining to brake drum clearance along centerline of shoe (3) at scallop (4) to ensure automatic adjusters (5) are functioning properly (WP 0055 00, Brake Shoe Replacement/ Adjustment). Clearance should be 0.020-0.040 in. (0.051-0.102 cm) maximum.	Brake shoe adjustment is out of tolerance.
				WARNING **Do not allow grease or oil to contact brake linings. Linings can absorb grease and oil, causing early glazing and very poor braking action. Failure to comply may result in serious injury or death to personnel.**	
				6. Examine brake shoes for excessive brake lining wear and cracking (WP 0055 00, Brake Shoe Replacement/Adjustment).	Brake linings are cracked or excessively worn.



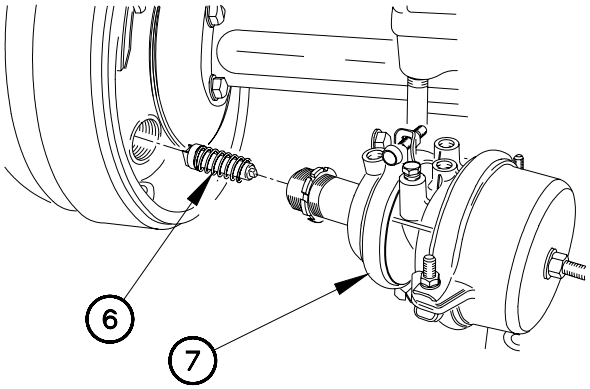
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
3	Semiannual		Service Brakes - Continued	7. Inspect brake shoe return springs and hold-down clips for cracks (WP 0055 00, Brake Shoe Replacement/Adjustment).	Springs or clips are cracked or broken.
				8. Inspect actuator plunger seals for cuts, tears, and leaks (WP 0056 00, Brake Plunger Assembly Replacement/Repair).	Plunger seals, adjusting pawl assembly, adjusting plunger or actuator are damaged.
				9. Check if six months has passed since brake wedges (6) and air chambers (7) have been cleaned and lubricated.	



4300E45

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

<table>
<tr><th>ITEM NO.</th><th>INTERVAL</th><th>MAN-HOUR</th><th>ITEM TO BE CHECKED OR SERVICED</th><th>FIELD-LEVEL MAINTENANCE PROCEDURE</th><th>EQUIPMENT NOT READY/ AVAILABLE IF:</th></tr>
<tr><td>3</td><td>Semiannual</td><td></td><td>Service Brakes - Continued</td><td>9, Continued.

If brake wedges and air chambers have not been cleaned and lubricated, perform the following:
a. Clean and lubricate (with GAA) areas of spider and hardware that contact brake shoes (WP 0055 00, Brake Shoe Replacement/Adjustment).
b. Disassemble, clean and lubricate the self-adjuster mechanism (WP 0055 00, Brake Shoe Replacement/Adjustment).
c. Clean and lubricate the wedge head, rollers and ramps in the plungers (WP 0056 00, Brake Plunger Assembly Replacement/Repair).

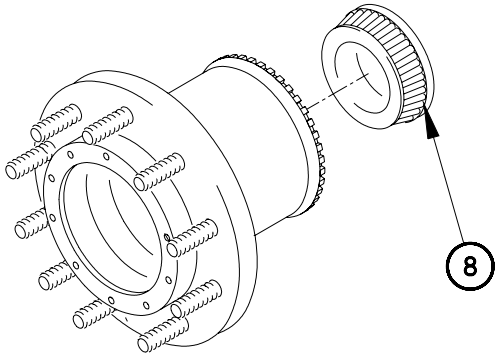
BRAKE WEDGE AND AIR CHAMBER
Interval: S
Temperatures
<table><tr><td>Above +40°F (Above +4°C)</td><td>+40°F to -15°F (+4°C to -26°C)</td><td>-15°F to -50°F (-26°C to -46°C)</td></tr><tr><td>GAA</td><td>GAA</td><td>GAA</td></tr></table>NOTE
If operating conditions are severe or abnormal, service brake wedge and air chambers once every three months.</td><td></td></tr>
</table>

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

<table>
<tr><th>ITEM NO.</th><th>INTERVAL</th><th>MAN-HOUR</th><th>ITEM TO BE CHECKED OR SERVICED</th><th>FIELD-LEVEL MAINTENANCE PROCEDURE</th><th>EQUIPMENT NOT READY/ AVAILABLE IF:</th></tr>
<tr><td>3</td><td>Semiannual</td><td></td><td>Service Brakes - Continued</td><td>10. Check service brakes for grease leak from inner hub. If grease leaks, repack inner wheel bearing cones (8) with GAA (WP 0080 00, Wheel Bearing/Hub Seal Replacement).
<table>
<tr><th colspan="3">INNER WHEEL BEARING CONES</th></tr>
<tr><td colspan="3">Interval: S</td></tr>
<tr><td colspan="3">Temperatures</td></tr>
<tr><td>Above +40°F (Above +4°C)</td><td>+40°F to -15°F (+4°C to -26°C)</td><td>-15°F to -50°F (-26°C to -46°C)</td></tr>
<tr><td>GAA</td><td>GAA</td><td>GAA</td></tr>
</table>


4300E46</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td>11. Check if Anti-lock Braking System (ABS) diagnostic codes have been checked in the past six months. If ABS codes have not been checked, perform diagnostic code check.</td><td>If ABS diagnostic codes are present.</td></tr>
</table>

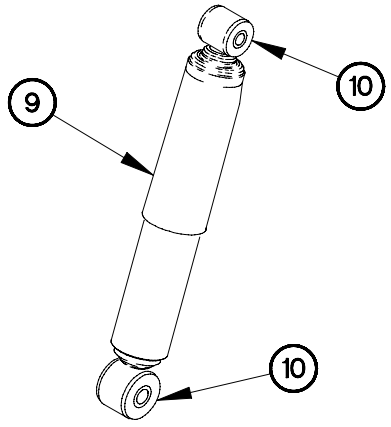
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
4	Semiannual		Shock Absorbers and Springs	1. Inspect shock absorbers (9) for oil leaks and damage. Replace leaking shock absorbers (9) if more than a Class I leak is found. If worn or cracked, replace (WP 0075 00). 2. Check shock absorber mounting hardware for security. 3. Check rubber bushings (10) for looseness which may result in inner sleeve contacting eye ring of shock absorber.	Shock absorber is bent or Class III leaks are evident. Rubber bushings are loose or inner sleeve is contacting eye ring of shock absorber.



4300E47

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

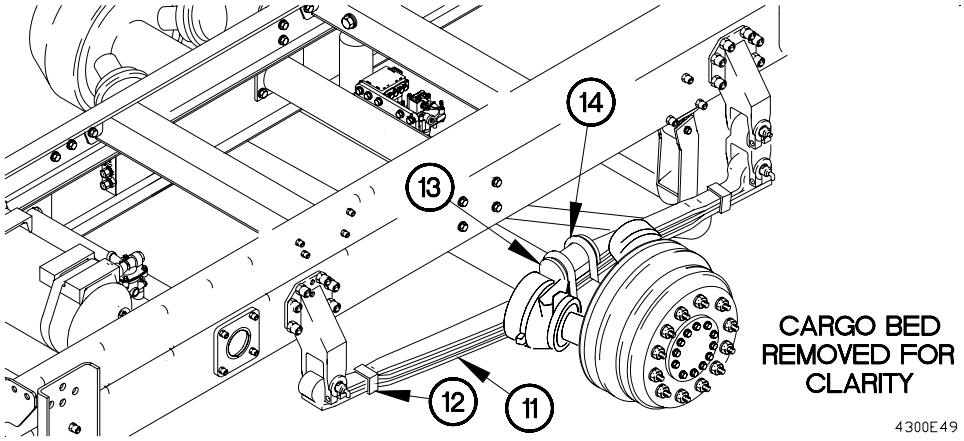
0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

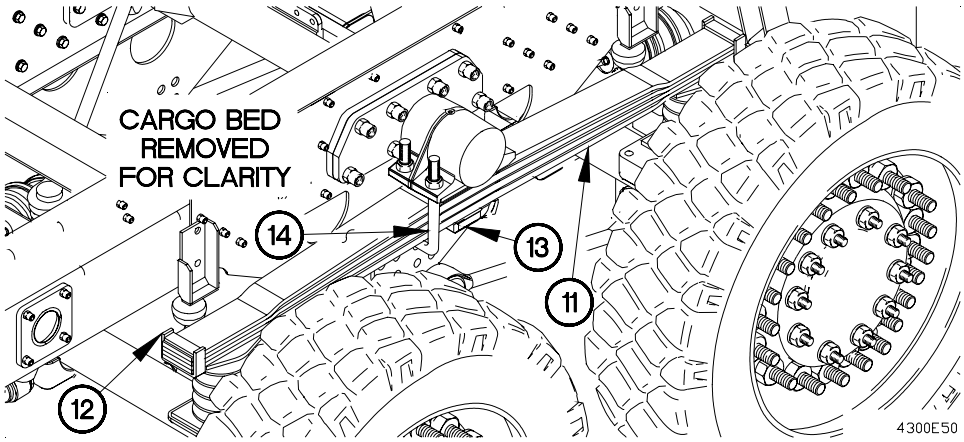
Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
4	Semiannual		Shock Absorbers and Springs, Continued	4. Inspect leaf spring (11), spring clips (12), saddles (13), and U-bolts (14) for cracks or breaks.	Cracks or breaks are found.

LMTVT:



MTVT:



PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

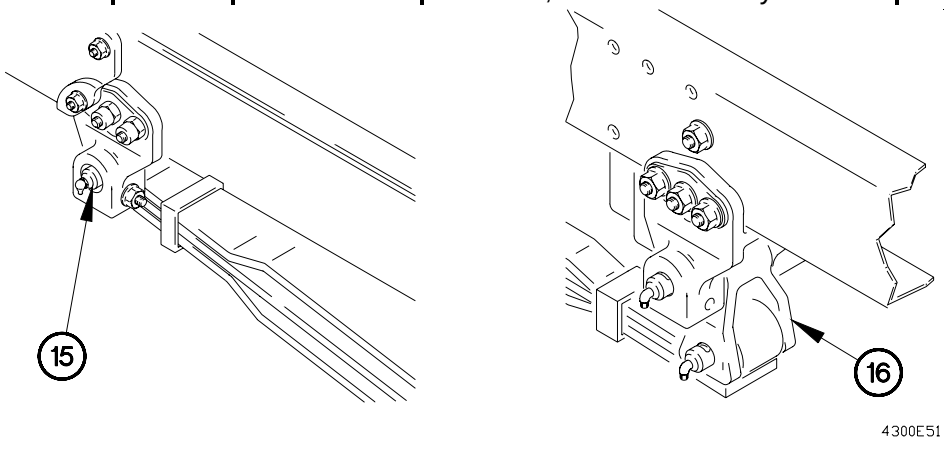
Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

<table>
<tr><th>ITEM NO.</th><th>INTERVAL</th><th>MAN-HOUR</th><th>ITEM TO BE CHECKED OR SERVICED</th><th>FIELD-LEVEL MAINTENANCE PROCEDURE</th><th>EQUIPMENT NOT READY/ AVAILABLE IF:</th></tr>
<tr><td>5</td><td>Semiannual</td><td>0.2 - LMTVT</td><td>Spring Bolts and Spring Shackles, LMTV</td><td>Check if three months have passed since spring bolts (15) and spring shackles (16) have been lubricated (LMTVT only). If spring bolts and spring shackles have not been lubricated, lubricate using a low-pressure lubricating gun until grease appears between pins and bushings at both ends of spring bolt and spring shackle. If pins do not accept grease, remove pins. Clean and inspect pins and bushings, replace if necessary.

Spring Bolt and Spring Shackle Interval: S
Temperatures
Above +40°F (Above +4°C) | +40°F to -15°F (+4°C to -26°C) | -15°F to -50°F (-26°C to -46°C)
GAA | GAA | GAA

NOTE

If operating conditions are severe or abnormal, service once every month.</td><td></td></tr>
</table>



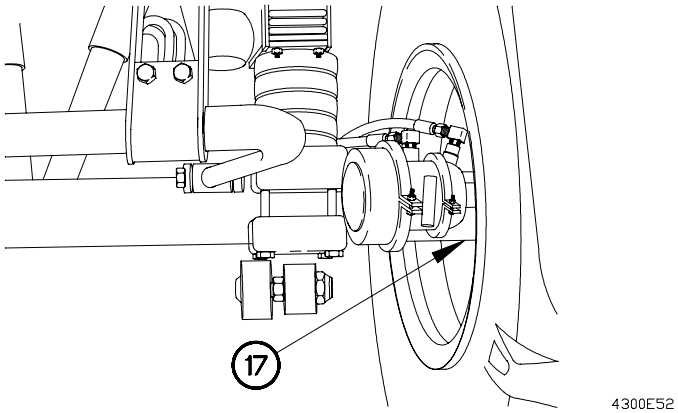
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
6	Semiannual		Axles	**WARNING** **Wear appropriate eye protection when working under vehicle due to the possibility of falling debris. Failure to comply may result in injury to personnel.** 1. Inspect axles for leaks around wheel end assemblies (17).	Class III leak is evident.



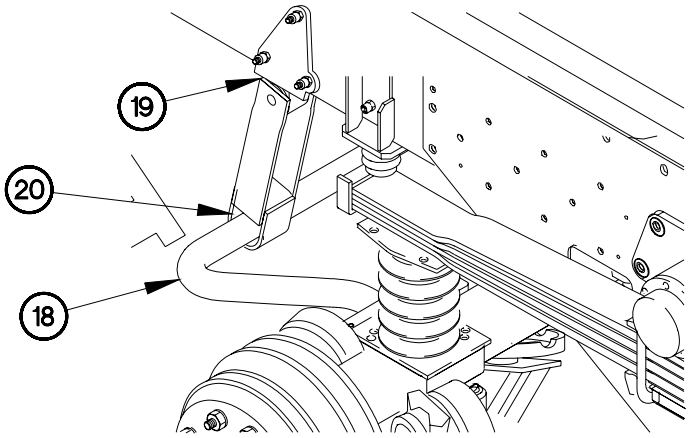
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
7	Semiannual		Stabilizer Bar	1. Check stabilizer bar (18) for secure mounting. 2. Inspect grommets and sleeves (19) for cracks and dry rot. 3. Inspect resilient mount (20) for cracks and dry rot.	



4300E53

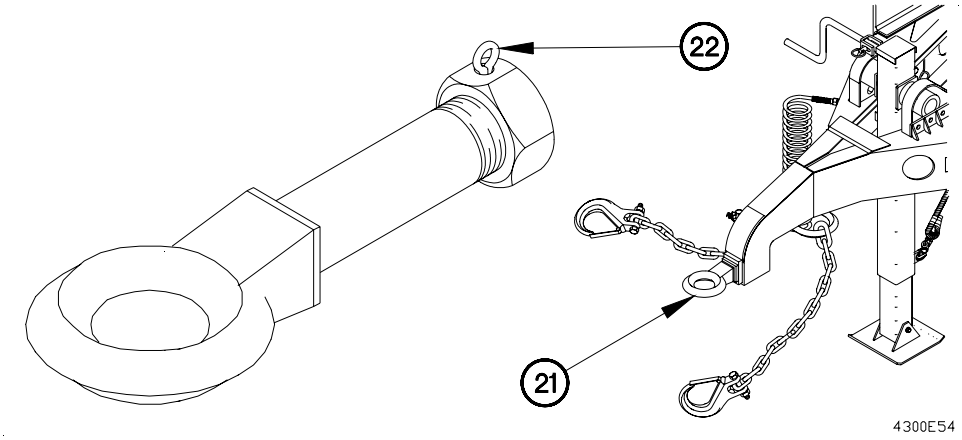
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
8	Semiannual		Drawbar Assembly	1. Inspect drawbar assembly (21) for cracks or loose hardware. 2. Inspect for presence of drawbar assembly cotter pin (22).	



PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

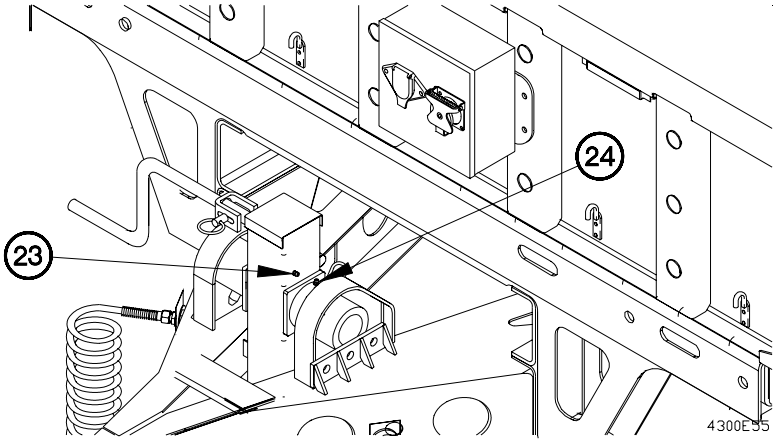
0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

<table>
<tr><th>ITEM NO.</th><th>INTERVAL</th><th>MAN-HOUR</th><th>ITEM TO BE CHECKED OR SERVICED</th><th>FIELD-LEVEL MAINTENANCE PROCEDURE</th><th>EQUIPMENT NOT READY/ AVAILABLE IF:</th></tr>
<tr><td>9</td><td>Semiannual</td><td>2.0</td><td>Retractable Support</td><td>1. Check if six months have passed since retractable support (23) has been lubricated. If retractable support has not been lubricated, lubricate with GAA using a low-pressure lubrication gun until grease pushes out of head. Check that grease coats pinion and bevel gears.

2. Check if six months have passed since retractable support mounts (24) have been lubricated. If retractable support mounts have not been lubricated, lubricate with GAA using a low-pressure lubrication gun.

<table>
<tr><th colspan="3">RETRACTABLE SUPPORT
Interval: S</th></tr>
<tr><td colspan="3">Temperatures</td></tr>
<tr><td>Above +40°F (Above +4°C)</td><td>+40°F to -15°F (+4°C to -26°C)</td><td>-15°F to -50°F (-26°C to -46°C)</td></tr>
<tr><td>GAA</td><td>GAA</td><td>GAA</td></tr>
</table>


</td><td></td></tr>
</table>

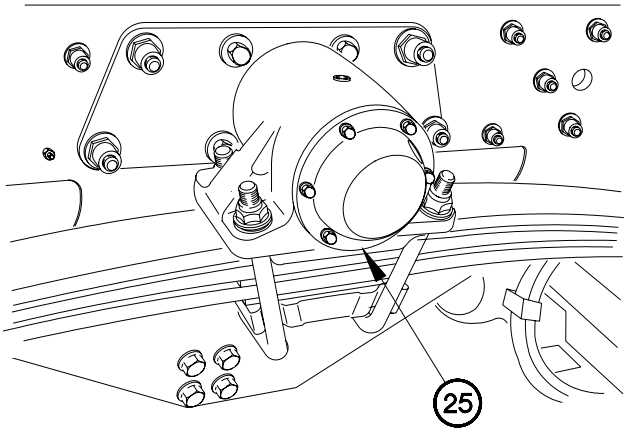
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
10	Semiannual	1.7 - MTVT	Axle Bogie (MTVT)	1. Inspect axle bogie (25) for damage.	Axle bogie damage or excessive movement.



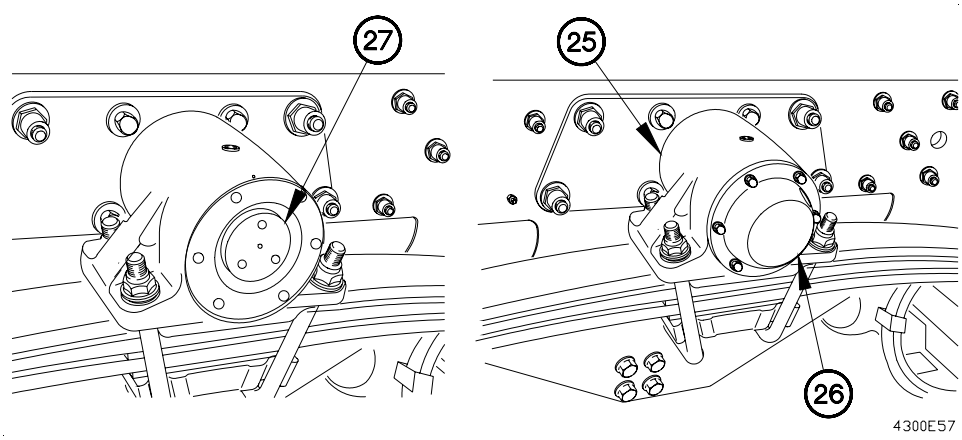
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
10	Semiannual		Axle Bogie (MTVT) - Continued	2. Check if six months have passed since axle bogie (25) has had oil changed. If oil has not been changed, perform the following: a. Remove six screws and axle bogie cover (26) from one side at a time. b. Raise axle on opposite side of trailer to allow oil to drain out. c. Lower axle and repeat on other side of trailer. d. Apply thin bead of silicone adhesive sealant 593 to seating surface of housing (27).	



				e. Position cover (with fill plug at the 1 o'clock position) and six screws on housing. f. Tighten six screws to 24 lb-ft (32 N•m).	

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

<table>
<tr><th>ITEM NO.</th><th>INTERVAL</th><th>MAN-HOUR</th><th>ITEM TO BE CHECKED OR SERVICED</th><th colspan="3">FIELD-LEVEL MAINTENANCE PROCEDURE</th><th>EQUIPMENT NOT READY/ AVAILABLE IF:</th></tr>
<tr><td rowspan="6">10</td><td rowspan="6">Semiannual</td><td rowspan="6"></td><td rowspan="6">Axle Bogie (MTVT) - Continued</td><td colspan="3">2., Continued

g. Remove plug from cover and plug from top of axle bogie housing.
h. Refill axle bogie with GO specified for the ambient temperature, until level with port on housing cover.
i. Install plugs in cover and housing.</td><td rowspan="6"></td></tr>
<tr><td colspan="3">AXLE BOGIE</td></tr>
<tr><td colspan="3">Interval: S</td></tr>
<tr><td colspan="3">Temperatures</td></tr>
<tr><td>Above +40°F (Above +4°C)</td><td>+40°F to -15°F (+4°C to -26°C)</td><td>-15°F to -50°F (-26°C to -46°C)</td></tr>
<tr><td>GO-75W</td><td>GO-75W</td><td>GO-75W</td></tr>
<tr><td>11</td><td>Semiannual</td><td></td><td>Trailer Exterior</td><td colspan="3">Inspect trailer exterior for evidence of corrosion damage such as surface color change, surface separation, seam separation, blistered paint, rust-through, in accordance with TB 43-0213.</td><td></td></tr>
</table>

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
12	Semiannual	0.3	Lifting Beams	Check if six months have passed since lifting beam (28) has been lubricated. If lifting beam has not been lubricated, perform the following: 1. Remove left and right lifting beams (WP 0105 00, Lifting Arm Bracket Replacement).	

WARNING

• Dry Cleaning Solvent (P-D-680) is TOXIC and flammable. Wear protective goggles and gloves; use only in well-ventilated area; avoid contact with skin, eyes, and clothes, and do not breath vapors. Keep away from heat or flame. Never smoke when using Dry Cleaning Solvent; the flashpoint for Type I Dry Cleaning Solvent is 100 °F (38 °C) and for Type II is 138 °F (50 °C). Failure to comply may result in serious injury or death to personnel.

• If personnel become dizzy while using Dry Cleaning Solvent, immediately get fresh air and medical help. If Dry Cleaning Solvent contacts skin or clothes, flush with cold water. If Dry Cleaning Solvent contacts eyes, immediately flush eyes with water and get medical attention. Failure to comply may result in serious injury or death to personnel.

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

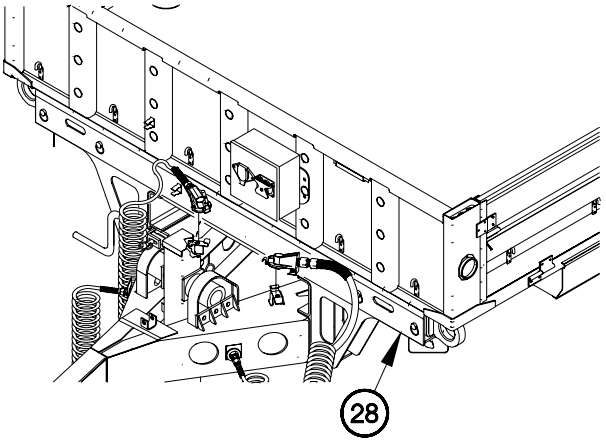
Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

<table>
<tr><th>ITEM NO.</th><th>INTERVAL</th><th>MAN-HOUR</th><th>ITEM TO BE CHECKED OR SERVICED</th><th>FIELD-LEVEL MAINTENANCE PROCEDURE</th><th>EQUIPMENT NOT READY/ AVAILABLE IF:</th></tr>
<tr><td>12</td><td>Semiannual</td><td></td><td>Lifting Beams - Continued</td><td>2. Clean with Dry Cleaning Solvent.

3. Apply a light coat of GAA to lifting beams (28).

FRONT LIFTING BEAM
Interval: S
Temperature
<table><tr><td>Above +40°F (Above +4°C)</td><td>+40°F to -15°F (+4°C to -26°C)</td><td>-15°F to -50°F (-26°C to -46°C)</td></tr><tr><td>GAA</td><td>GAA</td><td>GAA</td></tr></table>
NOTE

If operating conditions are severe or abnormal, service every month.</td><td></td></tr>
</table>



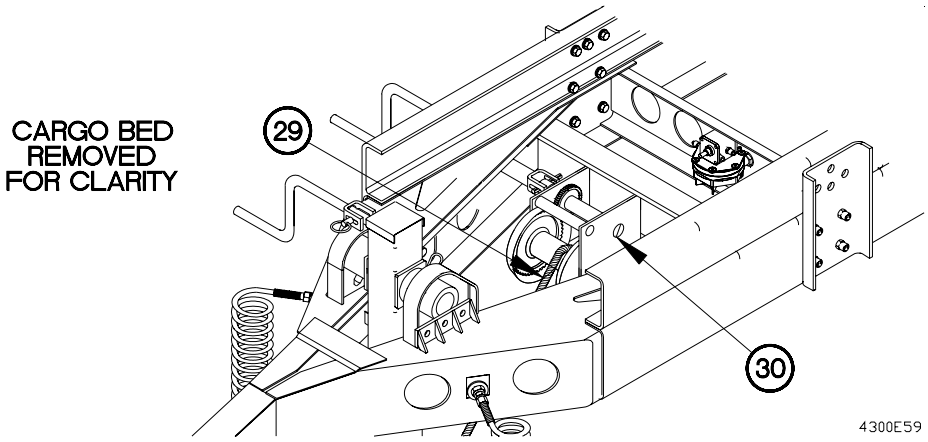
4300E58

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued 0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
13	Semiannual	0.5	Landing Gear Winch	**WARNING** **Wear heavy leather-palmed work gloves when handling cable. Cables can become frayed or contain broken wires. Never let moving cable slide through hands, even when wearing gloves. Failure to comply may result in injury to personnel.** 1. Pay out landing gear winch cable assembly (29) completely and inspect for kinks, sharp bends, abrasions, and broken wires. Check that no more than approximately one-third of landing gear winch cable assembly strands are broken at any given section. 2. Check security of landing gear winch cable assembly mounting hardware (30).	More than one-third of landing gear winch cable assembly strands are broken at any given section. Mounting hardware



PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

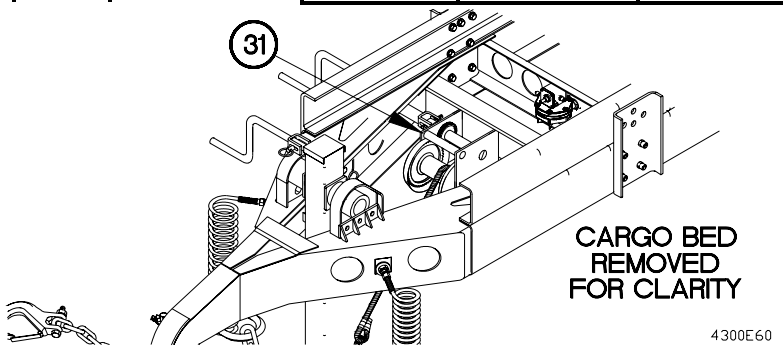
Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

<table>
<tr><th>ITEM NO.</th><th>INTERVAL</th><th>MAN-HOUR</th><th>ITEM TO BE CHECKED OR SERVICED</th><th>FIELD-LEVEL MAINTENANCE PROCEDURE</th><th>EQUIPMENT NOT READY/ AVAILABLE IF:</th></tr>
<tr><td>13</td><td>Semiannual</td><td></td><td>Landing Gear Winch - Continued</td><td>
CAUTION

Do not over-lubricate the landing gear winch brake bushings. Over-lubricating may cause oil to leak on the friction discs, which may damage the friction discs or result in poor operation of the disc brake. Failure to comply may result in damage to equipment.

3. Place one or two drops of GO-85/140 into the hole in the landing gear winch brake housing (31) marked “oil.” Turn the brake several times to allow the oil to penetrate.

4. Lubricate landing gear winch bearings, shafts, and gear teeth by applying two to three drops of GO-85/140 to all friction points. Rotate drum several times for oil to penetrate, and wipe off excess oil to prevent dirt accumulation.

<table>
<tr><th colspan="3">LANDING GEAR WINCH BRAKE, BEARINGS, AND SHAFTS</th></tr>
<tr><td colspan="3">Interval: S</td></tr>
<tr><td colspan="3">Temperatures</td></tr>
<tr><td>Above +40° F (4° C)</td><td>+40° to -15° F (4° to -26° C)</td><td>-15° to -50° F (-26° to -46° C)</td></tr>
<tr><td>GW</td><td>GW</td><td>GW</td></tr>
</table>


</td><td></td></tr>
</table>

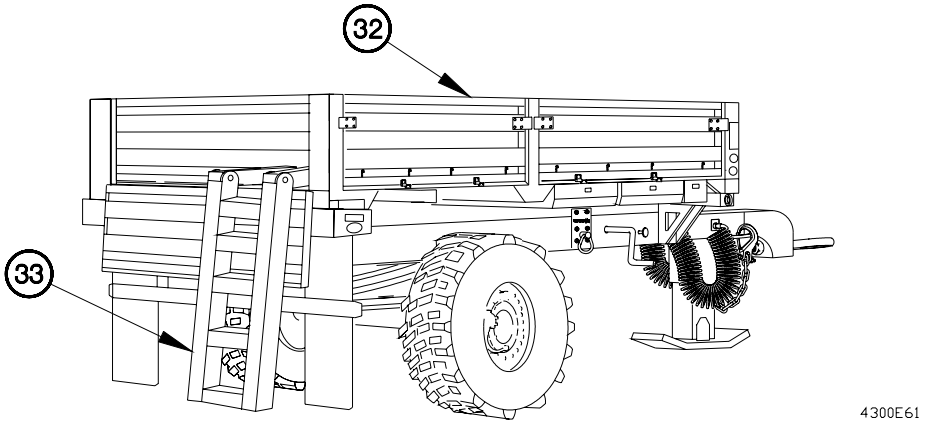
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE			EQUIPMENT NOT READY/ AVAILABLE IF:
13	Semiannual		Landing Gear Winch	3. Lubricate landing gear winch by applying a light film of GW to the landing gear teeth on all gears.			
				LANDING GEAR WINCH As Required			
				Temperature			
				Above +40° F (4° C)	+40° to -15° F (4° to -26° C)	-15° to -50° F (-26° to -46° C)	
				GW	GW	GW	
14	Semiannual		Cargo Body	1. Check cargo body (32) for corrosion and damage. 2. Inspect ladder (33) for damage and cracks.			



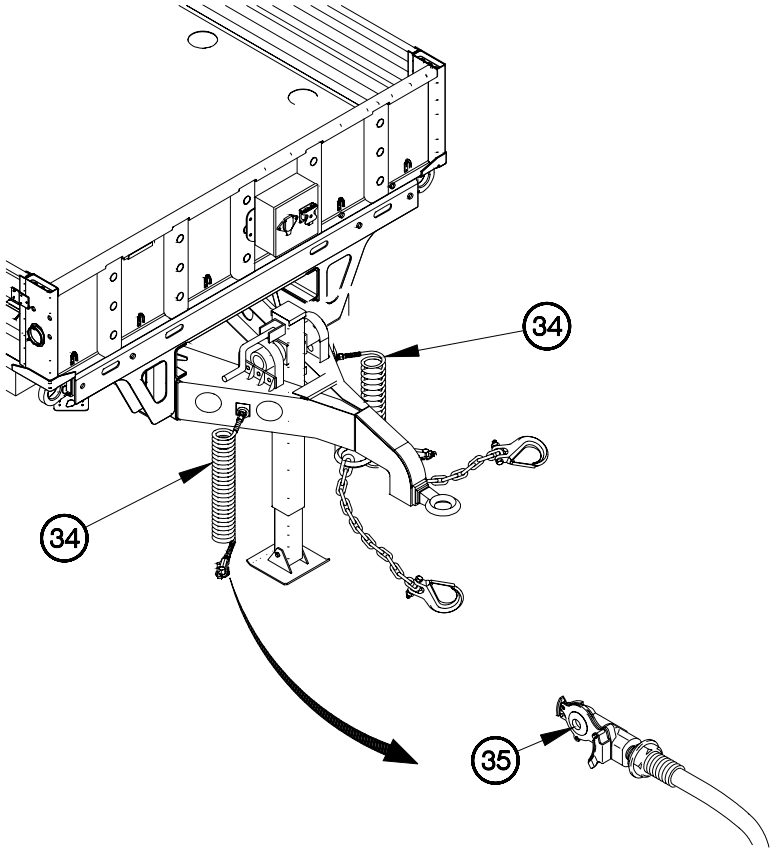
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
15	Semiannual		Air Hoses	1. Check emergency and service air hoses (34) for cracks and leaks. 2. Check coupler seals (35) in gladhands for cracking and dry rot.	Air hoses damaged. Gladhands damaged.



4300E62

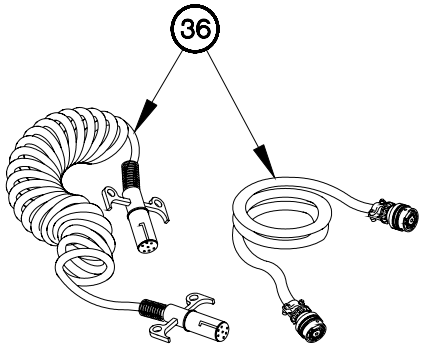
PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS - Continued

0042 00

Semiannual PMCS Procedures for Trailer (Field Level) - Continued

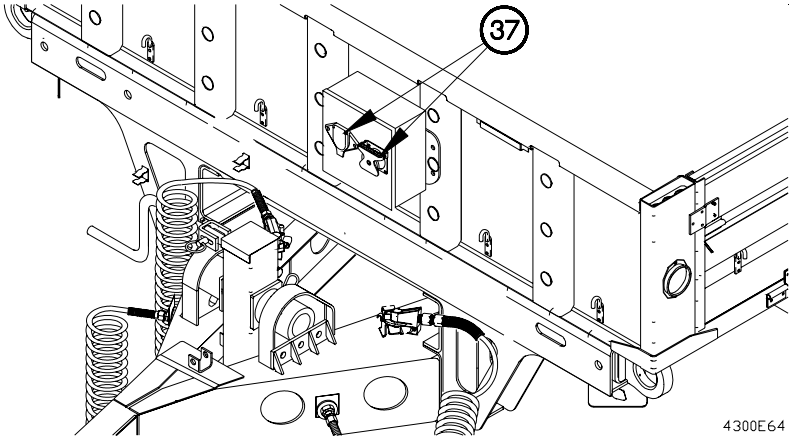
Table 10. Preventive Maintenance Checks and Services (PMCS) - Semiannual (Field Level) - Continued.

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
16	Semiannual		Electrical	1. Check intervehicular cables (36) for cracking, chafing, and bare wires.	Electrical power supply cables are damaged.



4300E63

				2. Check electrical connectors (37) for secure attachment to cables.	Secure attachment not possible.



4300E64

PREVENTIVE MAINTENANCE CHECKS AND SERVICES, INCLUDING LUBRICATION INSTRUCTIONS

0042 00

Annual PMCS Procedures for Trailer (Field Level)

These illustrations will help you perform ANNUAL (Field Level) trailer PMCS. The callouts match PMCS item numbers/procedures.

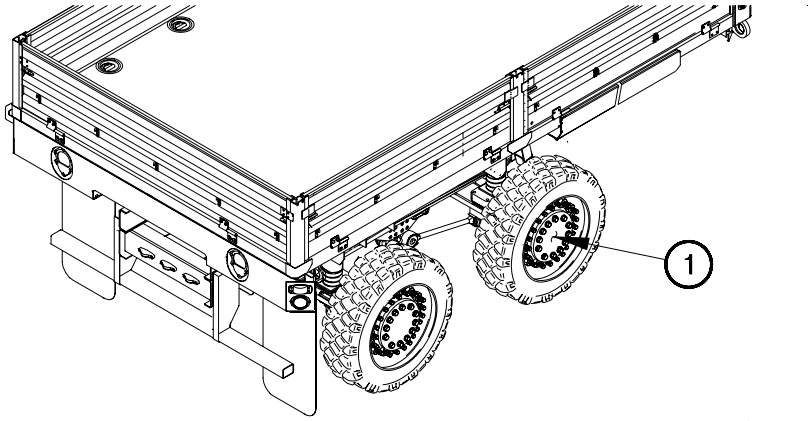
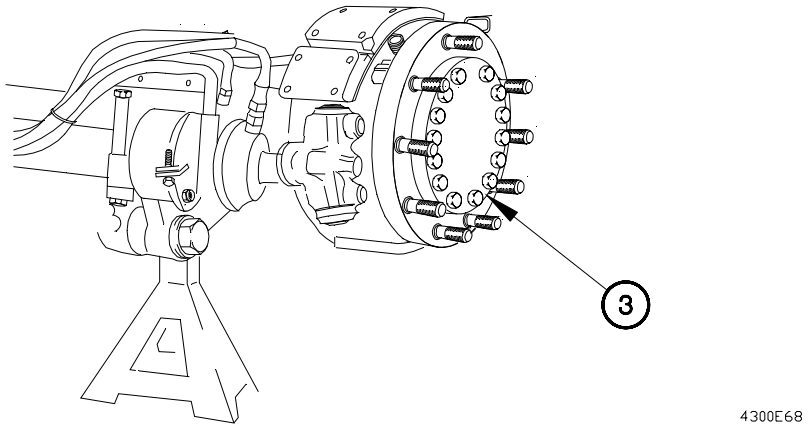


Table 11. Preventive Maintenance Checks and Services (PMCS) - Annual (Field Level)

ITEM NO.	INTERVAL	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	FIELD-LEVEL MAINTENANCE PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
1	Annual		Wheel End Plate Gasket	Inspect edge of wheel end plate gasket (1) for deterioration or wear. Replace if worn (WP 0080 00, Wheel Bearing/Hub Seal Replacement).	



END OF WORK PACKAGE

MAINTENANCE INTRODUCTION 0043 00

INTRODUCTION

The following work packages (WP 0044 00 through WP 0122 00) contain instructions for servicing, installing, and removing components at the Operator, and Field Level Maintenance.

GENERAL MAINTENANCE INSTRUCTIONS

GROUND HANDLING

Towing. A drawbar assembly is located at front on the trailer tongue.

Parking. Parking brakes are designed to hold GVW on a minimum of 7-9 percent grade, pointing either uphill or downhill IAW Federal Motor Carrier Safety Regulation 393.41.

Hoisting. Four lift arms used for hoisting are found on the trailer.

GENERAL REMOVAL INSTRUCTIONS

Work Required. Remove parts if repair or replacement is required. Do not disassemble a component any further than needed.

Preparation. Before removal of any electrical or air system components, ensure system component is not energized or pressurized. Disconnect trailer intervehicular cables from towing vehicle. Relieve air system pressure. Before removal of fasteners (nuts, self-locking nuts) remove any paint on threads to prevent binding of fastener.

Identification. To ease assembly and installation, tag and mark shims, connectors, wires and mating ends of lines before disconnecting them. Identify similar parts to ensure correct assembly.

Position of Valves. Before removing valve handles, mark or diagram their positions when open and closed. This will help during assembly.

Tire Removal. Before removing any tires, position jackstands under an axle or frame. This will secure the trailer for safe tire removal.

Location. Before removing cable ties, cushion clamps, hoses, tubing, wiring, etc., note the location, position and routing to ensure correct assembly.

Data Plate Removal. Remove rivets and data plate from trailer.

WARNING

Wear appropriate eye protection when drilling out rivets. Failure to comply may result in injury to personnel.

CAUTION

Use appropriate size drill bit when drilling out rivets. Failure to comply may cause damage to equipment.

Rivnut Removal. Remove rivets and rivnut from trailer.

GENERAL DISASSEMBLY INSTRUCTIONS

Cleanliness. Work area must be as clean as possible to prevent contamination to components.

CAUTION

Self-locking fasteners that are loosened must be replaced, not tightened.

Locking Parts. Replace all lockwashers, cotter pins and self-locking nuts at time of reassembly.

Expendable Parts. All gaskets, preformed packings, and seals removed during repair must be discarded and replaced with new parts.

Removing Seals. Be sure all traces of oil, gaskets and sealants are removed from components. When possible, use wood or plastic probes and scrapers to prevent damage to machined surfaces.

CAUTION

Do not use tape to close off oil openings. Sticky surface of tape can mix with oil and cause malfunctions.

Parts Protection. To keep dust, dirt, moisture and other objects out of internal parts of systems or components, cap or tape all open tubes, hoses, air lines, fittings and components openings as soon as part is removed. Wrap all removed parts in clean paper or dip parts in preservation oil.

GENERAL CLEANING INSTRUCTIONS

WARNING

Dry Cleaning Solvent (P-D-680) is TOXIC and flammable. Wear protective goggles and gloves; use only in well-ventilated area; avoid contact with skin, eyes, and clothes, and do not breath vapors. Keep away from heat or flame. Never smoke when using Dry Cleaning Solvent; the flashpoint for Type I Dry Cleaning Solvent is 100° F (38° C) and for Type II is 138° F (50° C). Failure to comply may result in serious injury or death to personnel.

Never use fuel to clean parts. Fuel is highly flammable. Serious injury could result if fuel ignites during cleaning.

Cleaning Solvents. Use only approved cleaning solvents to clean parts. Dry Cleaning Solvent (Item 32, WP 0176 00) is commonly used. Always work in a well-ventilated area.

GENERAL CLEANING INSTRUCTIONS - Continued

WARNING

Compressed air used for cleaning purposes will not exceed 30 psi (207 kPa). Use only with effective chip guarding and personal protective equipment (goggles/shield, gloves, etc.) Failure to comply may result in injury to personnel.

Removing Deposits. Soak parts in Dry Cleaning Solvent (Item 32, WP 0176 00), and wash away deposits by flushing or spraying. When necessary, brush with a soft bristle brush (not wire) moistened in Dry Cleaning Solvent. Use compressed air to dry parts, except bearings, after cleaning. Bearings must drip and air dry.

Tools. Do not use wire brushes, abrasive wheels, or compounds to clean parts unless specifically approved in the detailed procedures. Parts may be scratched or altered and may weaken a highly stressed part.

Ball and Roller Bearings. When cleaning ball or roller bearings, place them in a basket and suspend them in a container of Dry Cleaning Solvent (Item 32, WP 0176 00). If needed, use a brush to remove caked grease, chips, etc. Avoid rotating bearing before solid particles are removed to prevent damaging races and balls. When bearings have been cleaned, coat them lightly with lubricating oil (Item 23, WP 0176 00) to remove Dry Cleaning Solvent (Item 32, WP 0176 00).

CAUTION

Do not clean tires, lubricant seals, rubber hoses, or electrical components with solvent mixture. Failure to comply may result in damage to equipment.

Rubber Parts. Do not clean preformed packings or other rubber parts in Dry Cleaning Solvent. Wipe parts clean with a dry wiping rag (Item 25, WP 0176 00).

WARNING

Steam cleaning creates hazardous noise levels and severe burn potential. Eye, skin, and ear protection is required. Failure to comply may result in injury to personnel.

Exterior Parts. Steam clean all exterior parts thoroughly before removing. This will make inspection and disassembly easier.

WARNING

Compressed air used for cleaning purposes will not exceed 30 psi (207 kPa). Use only with effective chip guarding and personal protective equipment (goggles/shield, gloves, etc.) Failure to comply may result in injury to personnel.

GENERAL CLEANING INSTRUCTIONS - Continued

Body. Use a spray gun and solvent mixture for cleaning exterior of body. Allow mixture to remain on item surface for 10 minutes before rinsing. Rinse with hot water under 80 to 120 psi (550 to 830 kPa), if available. An ordinary garden hose with nozzle may be used if other equipment is not available. Rinse thoroughly.

CAUTION

To prevent corrosion, parts should be dipped in rust preventive within two hours of degreasing. Failure to comply may result in damage to equipment.

Degreasing Machine. A degreasing machine may be used to remove heavy grease and oil from metal parts.

WARNING

Dry Cleaning Solvent (P-D-680) is TOXIC and flammable. Wear protective goggles and gloves; use only in well-ventilated area; avoid contact with skin, eyes, and clothes, and do not breath vapors. Keep away from heat or flame. Never smoke when using Dry Cleaning Solvent; the flashpoint for Type I Dry Cleaning Solvent is 100° F (38° C) and for Type II is 138° F (50° C). Failure to comply may result in serious injury or death to personnel.

Never use fuel to clean parts. Fuel is highly flammable. Serious injury could result if fuel ignites during cleaning.

Passages. After degreasing, check all oil passages and cavities for dirt or blockage before coating with lubricating oil (Item 23, WP 0176 00). Run a thin, flexible wire through oil passages to make sure they are not clogged. Use a pressure spray gun and Dry Cleaning Solvent (Item 32, WP 0176 00) to clean dirty passages.

Electrical Parts. Electrical parts should not be soaked or sprayed with cleaning solutions. Clean these parts with a clean wiping rag (Item 25, WP 0176 00) moistened with Dry Cleaning Solvent (Item 32, WP 0176 00).

GENERAL INSPECTION INSTRUCTIONS

Cleaning. Clean all parts before inspection. Check for defects such as physical distortion, wear, cracks, and pitting.

Sealing Surfaces. Inspect all surfaces in contact with gaskets, preformed packings, or seals for nicks and burrs. If any defect is found, remove it before assembly.

Bearings. Inspect bearings for rusted or pitted balls, races, or separators. Inspect balls and races for brinelling, abrasion, and serious discoloration. The following are conditions for bearing rejection:

GENERAL INSPECTION INSTRUCTIONS - Continued

Cuts or grooves parallel to ball or roller rotation.

Fatigue pits (not minor machine marks or scratches).

Cracks.

Tubing and Hoses. Inspect all hose surfaces for broken or frayed fabric. Check for breaks caused by sharp kinks or contact with other parts of the trailer. Inspect fitting threads and mating surfaces for damage. Replace any defective part. After assembly and during initial trailer operation period, check for leaks.

Electrical Parts. Inspect all wiring harnesses for broken, chafed, or burned wiring. Inspect all terminal connectors for loose connections and broken parts.

Metal Parts. Visually inspect all castings and weldments for cracks. Parts that carry a great load should receive magnetic particle inspection. Critical non-ferrous parts may be inspected with fluorescent penetrant.

GENERAL REPAIR INSTRUCTIONS

Burrs. Remove burrs from surface teeth with a fine-cut file or crocus cloth.

Exterior Parts. Chassis and exterior painted parts may be resurfaced when paint is damaged, or where parts have been repaired TB 43-0242m CARC Spot Painting (WP 0123 00).

NOTE

Polished and machined steel parts not protected by cadmium, tin, copper, or other plating or surface treatment require protection. Bare metal parts must be free of moisture when protective coating is applied..

Protecting Parts. Protect bare steel surfaces from rust when not actually undergoing repair work. Dip parts in, or spray them with, corrosion preventive compound (Item 9, WP 0176 00). Aluminum parts may require protection in atmospheres having a high salt content.

Screws, Nuts and Fittings. Replace any screw, nut, or fitting with damaged threads. Inspect tapped holes for thread damage. If cross-threading is evident retap the hole for the next oversize screw or stud. If the retapping will weaken the part, or if the cost of the part makes retapping impractical, replace the part. Chasing the threads with proper size tap or die may be adequate.

Stud Installation. When installing studs use a proper driver. A worn stud driver may damage the end thread. Then a chasing die must be used before a nut can be screwed on. This procedure will remove cadmium plating and allow corrosion. Before installing a stud, inspect the hole for chips. Blow out foreign matter and start stud by hand. Before final insertion, coat thread with a film of antiseize compound (Item 3, WP 0176 00). Install stud to proper "setting height", which is the total projecting length.

Dents. Straighten minor body dents by tapping with a soft-faced hammer while using a wooden block backing.

Sheet Metal Repair. Repair minor skin cracks by installing patches.

Wire Repair. Replace all broken, worn, or burned electrical wiring. Wires with several broken strands must be replaced. Broken strands will increase the resistance of the wire and impair efficiency of electrical components. Wire numbers must be permanently identified on any new wiring.

GENERAL ASSEMBLY INSTRUCTIONS

Preparation. Remove protective grease coatings from new parts before installation.

Preformed Packing Installation. Lubricate all preformed packings with a thin coat of lubricating oil (Item 23, WP 0176 00) before installing. To install a preformed packing, first clean the groove, then stretch packing and place into position. Place component on flat surface and uniformly press packing into position.

Pipe Joints and Fittings. Use nonhardening sealing compound (Item 28, WP 0176 00) or antiseize tape (Item 34, WP 0176 00) to join piping and fittings.

Oil Seals. Coat oil seals evenly with oil or grease before installing. Install oil seals with seal lip facing toward lubricant, applying an even force to outer edge of seal. If oil seals are to be installed over keyed or splined shafts, use a guide to prevent sharp edge of keyway or splines from cutting the leather or neoprene seal. Construct guides of very thin gauge sheet metal and shape to the required diameter. Make certain guide edges are not sharp and are bent slightly inward so they do not cut the seal.

Bearings and Shafts. When mounting bearings on shafts always apply force to the inner races. When mounting bearings into housing always apply the force to the outer race.

Bearing Lubrication. Lubricate bearings before assembly with lubricant used in the related housing or container to provide the first run-in until lubricant from the system can reach the bearings.

WARNING

Adhesive sealant MIL-S-46163 can damage your eyes. Wear safety goggles/glasses when using; avoid contact with eyes. If sealant contacts eyes, flush eyes with water and get immediate medical attention. Failure to comply may result in injury to personnel.

Silicone Sealant. Silicone sealant is often used instead of a gasket to seal mating parts. The mating parts must be clean, dry, and free of oil or grease for proper adhesion. After silicone sealant has been applied, the mating parts must be assembled immediately. Silicone sealant starts to set up in 15 minutes and takes 24 hours to completely dry. Excess silicone sealant should be wiped off after assembling the mating parts.

Gaskets. Remove all traces of previous gasket and sealant before installing new gasket. Coat both sides of gasket with sealant to provide added sealing.

GENERAL INSTALLATION INSTRUCTIONS

Preparation. When unpacking items, remove all packing material, barrier paper, tape, plastic bags, protective caps and protective grease coatings. Handle and store removed components carefully.

CAUTION

Use sealing compound sparingly and only on threads. Do not apply compound to hose connections. Failure to comply may result in damage to equipment.

GENERAL INSTALLATION INSTRUCTIONS - Continued

Sealing Compounds. Use sealing compounds as required in each maintenance task.

Torquing. Tighten nuts, bolts, screws, and fittings as required in Appendix J or in each maintenance task.

Identification Tags. Put hoses, tubes, lines, and electrical wiring in place by matching identification tags and markings on equipment.

Hoses, Air Lines and Wiring. After installing hoses, air lines and wiring, ensure that they do not contact moving parts or components edges. Secure in place, out of way with cable ties and cushion clamps.

Data Plate Installation. Install data plate on trailer with rivets.

Rivnut Installation. Install rivnut on trailer with rivnuts.

PREPARATION FOR STORAGE OR SHIPMENT INTRODUCTION

This section gives instructions for making the trailer ready for shipment or storage.

Refer to AR 750-1 for detailed administrative storage instructions.

Refer to TB 9-2300-422-20 for security procedures.

PREPARATION FOR STORAGE OR SHIPMENT

Perform Preventive Maintenance Checks and Services (PMCS) as listed.

Correct all deficiencies noted during inspection, if facilities are available. If repairs are required beyond the scope of Field Level Maintenance, refer the deficiencies to Direct Support Maintenance.

STORAGE MAINTENANCE PROCEDURES

Provide access to the trailer during storage.

CAUTION

Ensure tires are not resting on surfaces containing grease or oil. Failure to comply may result in damage to equipment.

Do not block wheels, but do be sure tires are not resting on surfaces containing grease or oil.

Perform complete lubrication in accordance with TM 9-2330-394-13&P and PMCS Introduction.

If possible, store trailers close together, out of direct sunlight and away from electrical or generating equipment.

Monthly Storage Maintenance Instructions.

Conduct visual inspection of trailer. Check lubricant and tire pressures. Correct any discrepancies.

Inspect oil can points. Lubricate if necessary.

Move trailer 30 ft (9 m) forward and reverse.

Check grease coating on all chromium plated and unpainted surfaces. If grease was wiped from chromium plates or unpainted surfaces when trailer was moved, recoat these surfaces.

STORAGE MAINTENANCE PROCEDURES - Continued

Quarterly Storage Maintenance Instructions.

Move trailer at least 1/4 mile (2/5 km).

Exercise all auxiliary equipment and landing gear winch. While operating winch, lubricate cable.

Yearly Storage Maintenance Instructions.

Clean exterior and undercarriage. Clean interior of trailer cargo bed. Wash any oil or grease from tires.

Visually inspect trailer. Check lubricant levels and tire pressures. Correct all discrepancies.

Lubricate chassis, auxiliary equipment, winch cable and oil can points.

SERVICING TIRES 0044 00

THIS WORK PACKAGE COVERS:
Checking Tire Pressures, Manually Inflating Tires

INITIAL SETUP:

Maintenance Level
Operator

Tools and Special Tools
Inflator-Gage, Tire w/Hose (Item 12, WP 0178 00)

Personnel Required
Two

References
Towing vehicle Operator manual

Equipment Conditions
Trailer coupled (WP 0009 00).

GENERAL

This work package contains information and instructions to service the tires for the trailer.

WARNING

Ensure tires have correct tire pressure for terrain conditions and driving speed (refer to Table 1. Cold Tire Inflation Pressures and Restrictions for LMTVT and MTVT). Failure to comply may result in serious injury or death to personnel.

CHECKING TIRE PRESSURES

Check tire pressures with tire inflator/gage.

Table 1. Cold Tire Inflation Pressures and Restrictions for LMTVT and MTVT.

Operating Mode	Maximum Speed	Operating Time Restriction	Tire Pressure
Highway	65 mph (105 km/h)	NONE	77 psi (531 kPa)
Cross-Country	40 mph (64 km/h)	NONE	59 psi (407 kPa)
Sand (soft terrain)	12 mph (19 km/h)	NONE	35 psi (241 kPa)
Emergency	5 mph (8 km/h)	10 MINUTES	18 psi (124 kPa)

MANUALLY INFLATING TIRES

WARNING

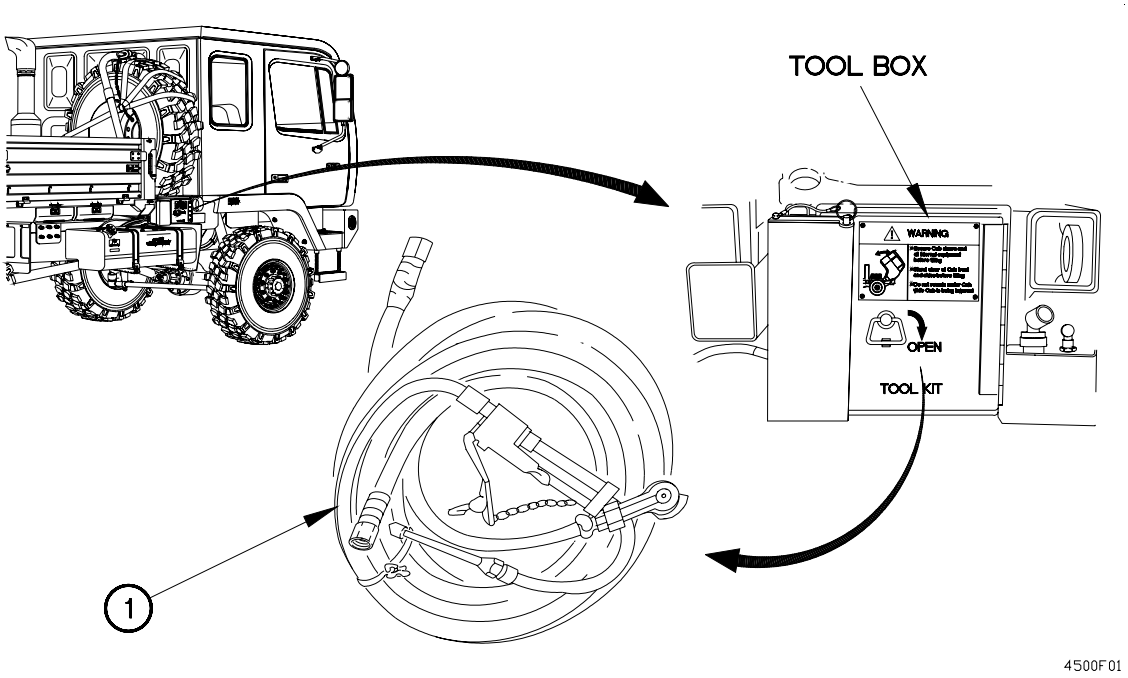
Use caution when inflating tire. Over-inflation may cause tire to blow apart. Failure to comply may result in serious injury or death to personnel or damage to equipment.

NOTE

Central Tire Inflation System (CTIS) is not functional in trailers; tires are inflated manually. Tires should be inflated when they are cool. Inflate to proper pressure for terrain conditions and driving speed. Refer to Table 1. Cold Tire Inflation Pressures and Restrictions for LMTVT and MTVT.

Gladhands at front of trailer are used to manually inflate tires.

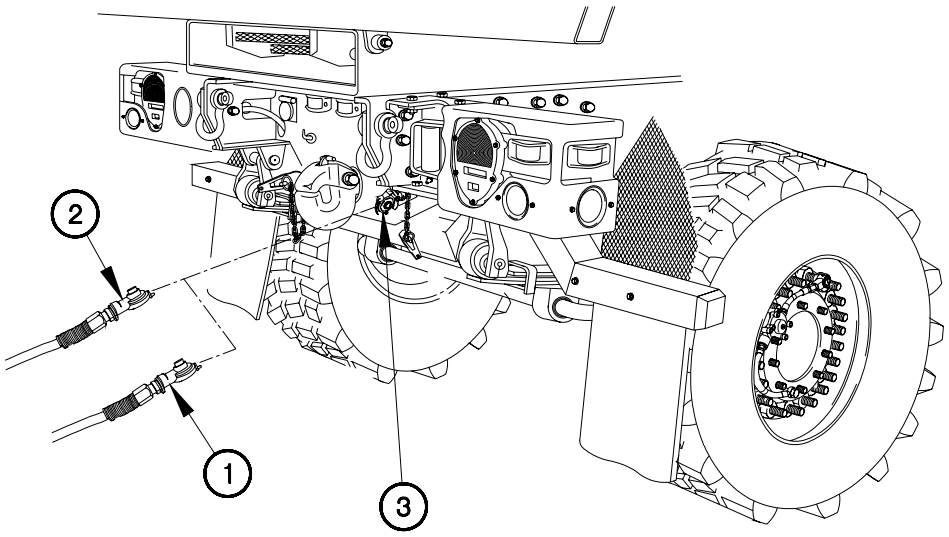
1. Remove tire inflator/gage and hose (1) from tool box of towing vehicle.



SERVICING TIRES - Continued 0044 00

MANUALLY INFLATING TIRES - Continued

2. Remove coupling (2) from SERVICE or EMERGENCY gladhand (3) at rear of towing vehicle.
3. Connect tire inflator/gage and hose (1) to SERVICE or EMERGENCY gladhand (3).
4. Start engine of towing vehicle.



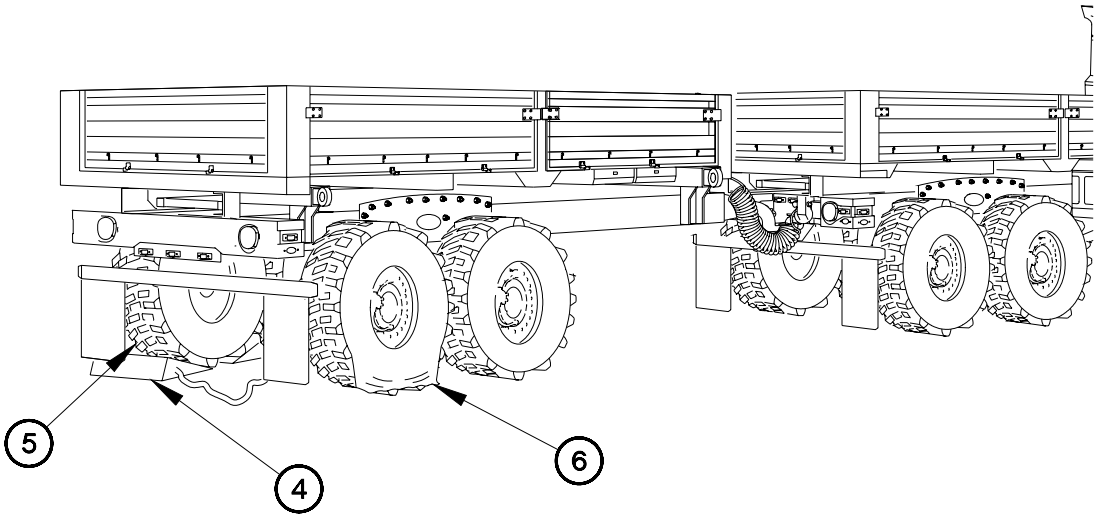
4500F07

MANUALLY INFLATING TIRES - Continued

WARNING

Wheels must be chocked and service brakes applied before parking brake is released. Trailer may roll if wheels are not chocked. Failure to comply may result in serious injury or death to personnel.

5. Install two wheel chocks (4) against tire (5) across from tire (6) that is to be inflated.



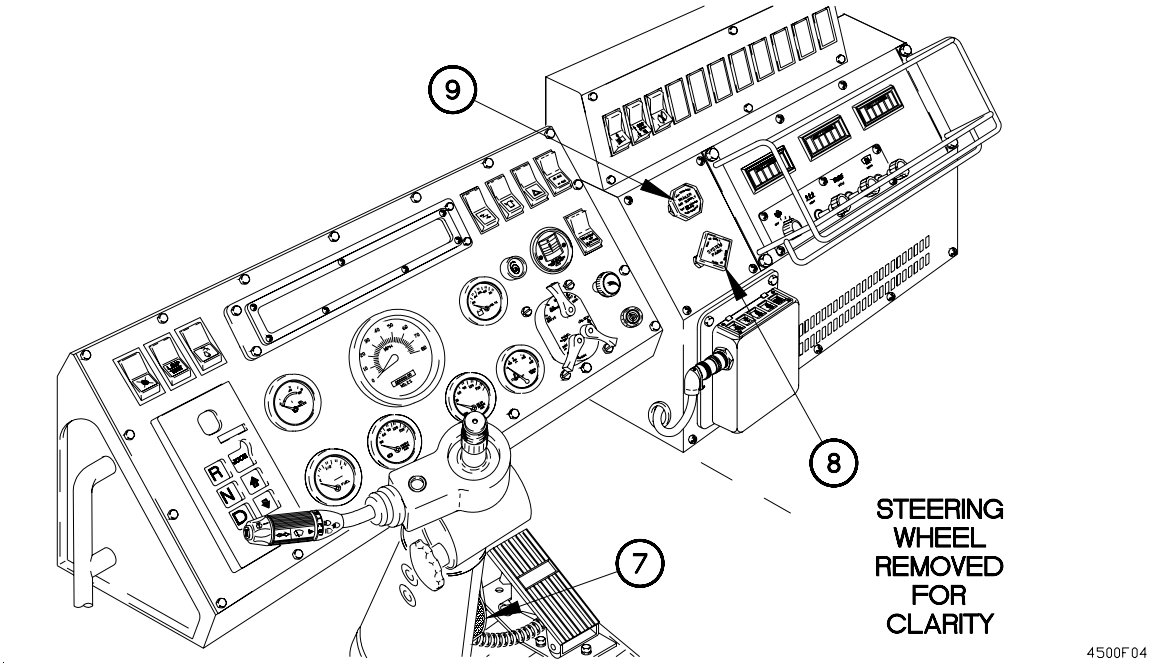
MANUALLY INFLATING TIRES - Continued

NOTE

Air is available at rear gladhands as long as brake pedal is applied.

Steps (6) through (16) require the aid of an assistant.

6. Depress brake pedal (7).
7. Push in SYSTEM PARK control (8).
8. Push in TRAILER AIR SUPPLY control (9).



SERVICING TIRES - Continued 0044 00

MANUALLY INFLATING TIRES - Continued

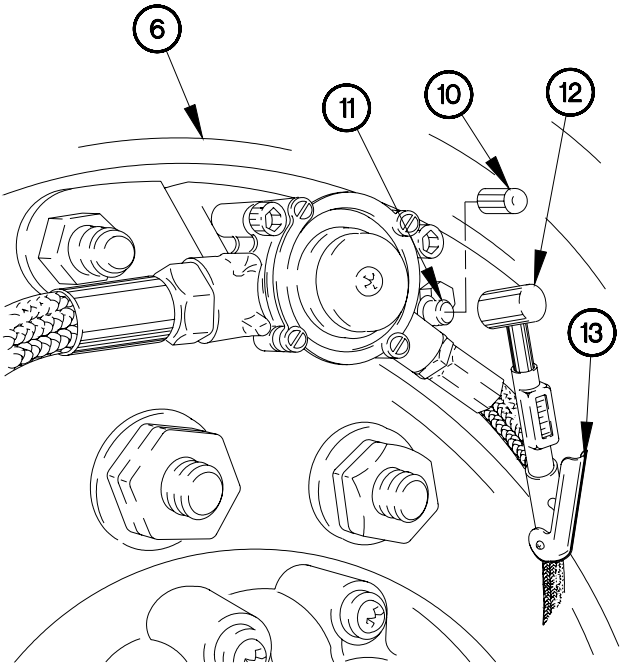
9. Remove cap (10) from valve stem (11).

10. Press chuck of tire inflator-gage (12) over valve stem (11) and squeeze handle (13).

11. Add air to tire (6) as required by Table 1. Cold Tire Inflation Pressures and Restrictions for LMTVT and MTVT.

12. Remove chuck of tire inflator/gage (12) from valve stem (11).

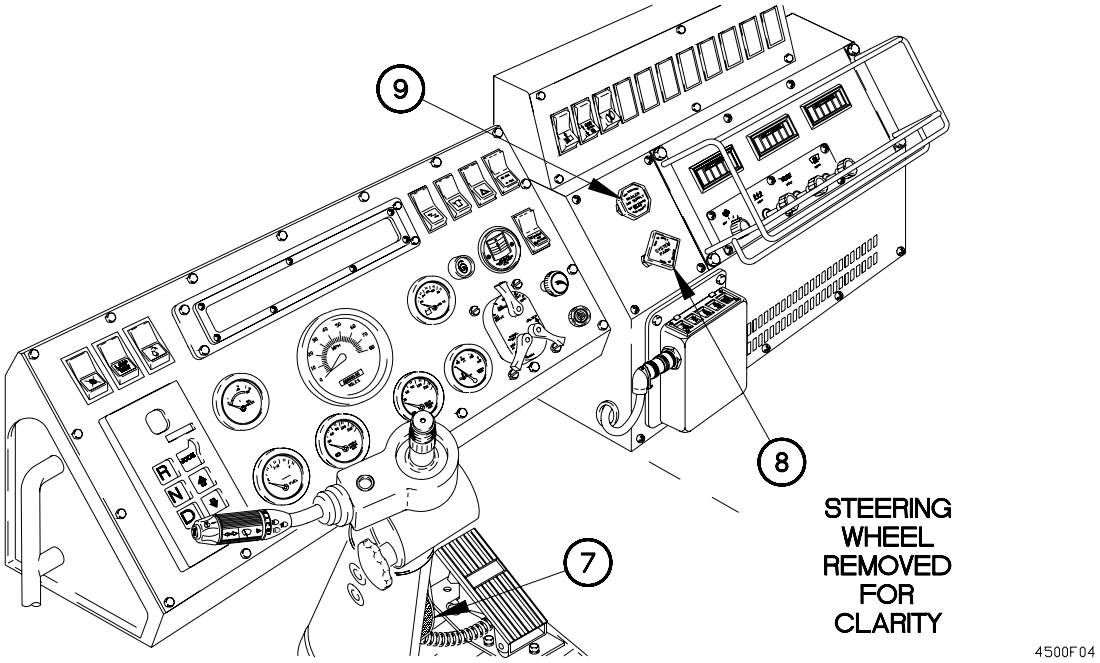
13. Install cap (10) on valve stem (11).



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MANUALLY INFLATING TIRES - Continued

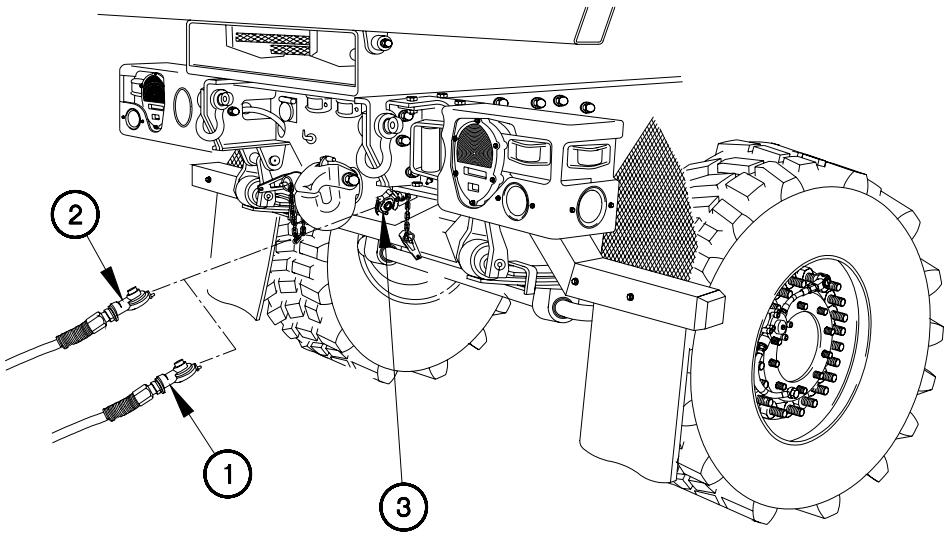
14. Pull out SYSTEM PARK control (8).
15. Pull out TRAILER AIR SUPPLY control (9).
16. Release brake pedal (7).
17. Shut down engine of towing vehicle.



MANUALLY INFLATING TIRES - Continued

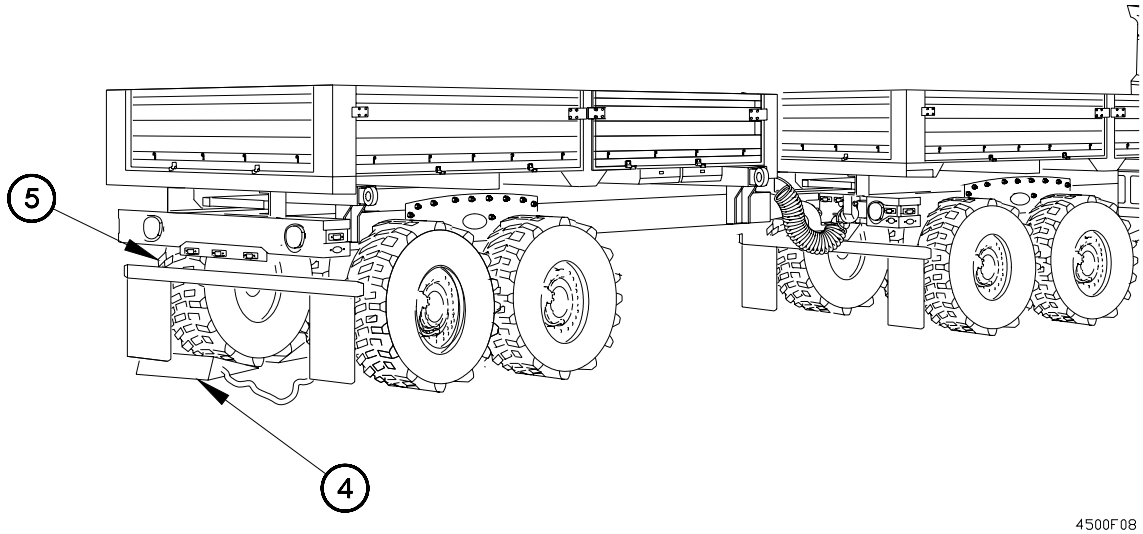
18. Remove tire inflator/gage and hose (1) from SERVICE or EMERGENCY gladhand (3).

19. Install coupling (2) on SERVICE or EMERGENCY gladhand (3).



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20. Remove two wheel chocks (4) from tire (5).

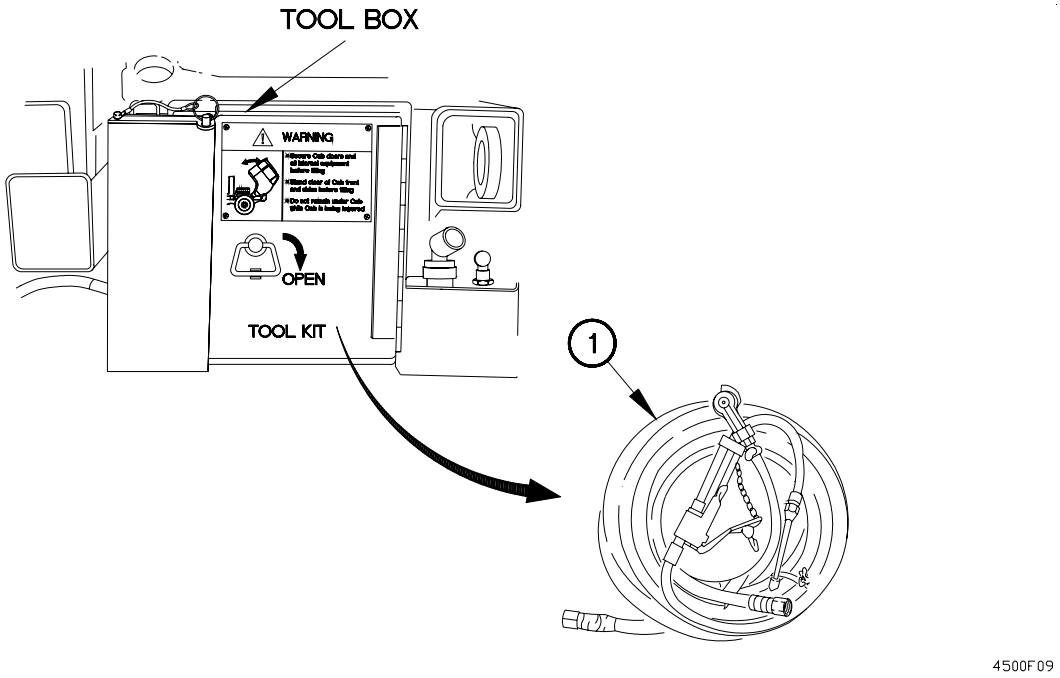


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SERVICING TIRES - Continued 0044 00

MANUALLY INFLATING TIRES - Continued

21. Stow tire inflator/gage and hose (1) in tool box of towing vehicle.



END OF WORK PACKAGE

CHANGING TIRE 0045 00

THIS WORK PACKAGE COVERS:

Lower Spare Tire (from Towing Vehicle), Tire Removal, Tire Installation, Tire Stowage, Equipment Stowage, Operational Check

INITIAL SETUP:

Maintenance Level
Operator

Personnel Required
Two

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Jack, Hydraulic (Item 14, WP 0178 00)
Bar, Socket Wrench Handle (Item 2, WP 0178 00)
Wrench, Socket (Item 48, WP 0178 00)
Wrench, Torque, 100-600 lb-ft (Item 52, WP 0178 00)

Equipment Conditions
Trailer uncoupled (WP 0012 00).
Towing vehicle cab raised.

LOWER SPARE TIRE (FROM TOWING VEHICLE)

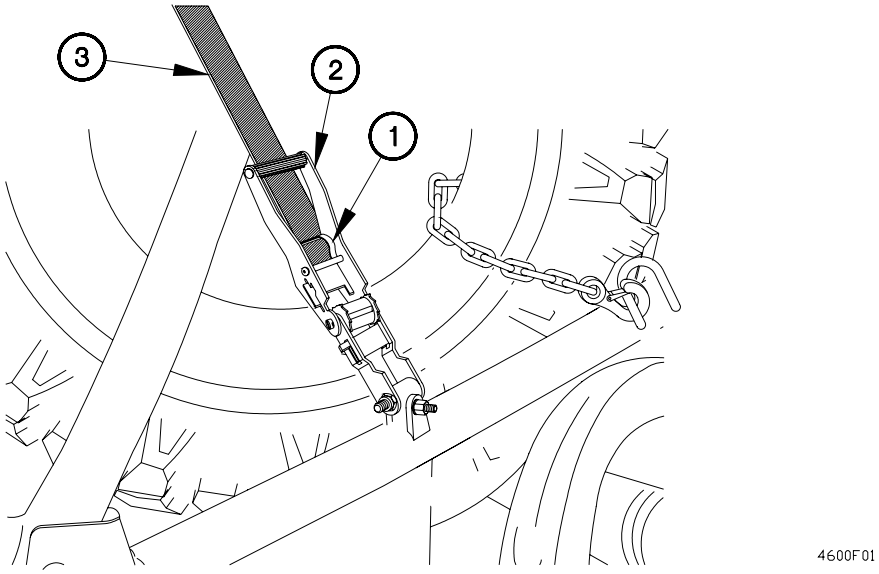
WARNING

Ensure trailer is parked on level ground before changing flat tire. Trailer may roll. Failure to comply may result in injury or death to personnel.

CHANGING TIRE - Continued 0045 00

LOWER SPARE TIRE (FROM TOWING VEHICLE) - Continued

1. Lift latch (1) on ratchet (2).
2. Lift ratchet (2) and release strap (3).
3. Remove strap (3) from ratchet (2).

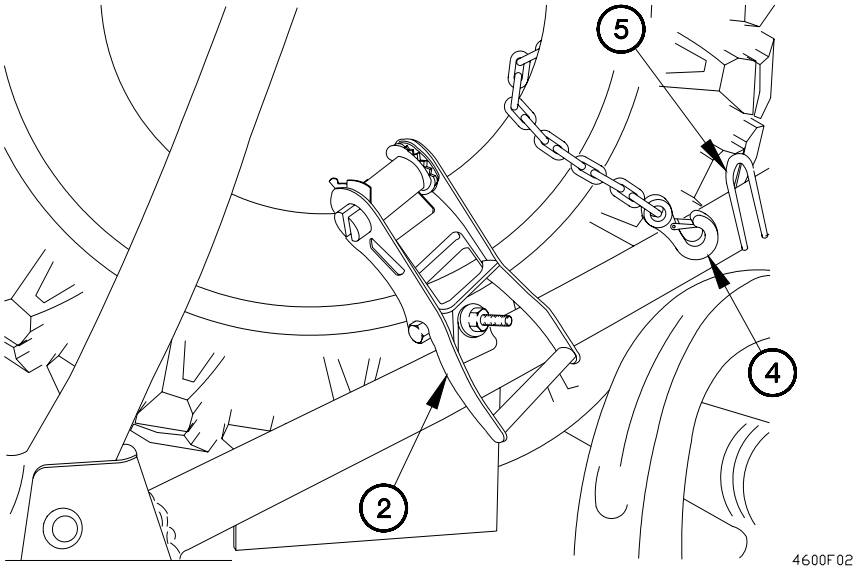


4. Disconnect safety chain (4) from spare tire retainer (5).

CAUTION

Ratchet must be in the closed position before cab of towing vehicle is lowered. Failure to comply may result in damage to equipment.

5. Place ratchet (2) in closed position.



CHANGING TIRE - Continued 0045 00

LOWER SPARE TIRE (FROM TOWING VEHICLE) - Continued

6. Remove strap (3) and safety chain (4) from spare tire retainer (5).

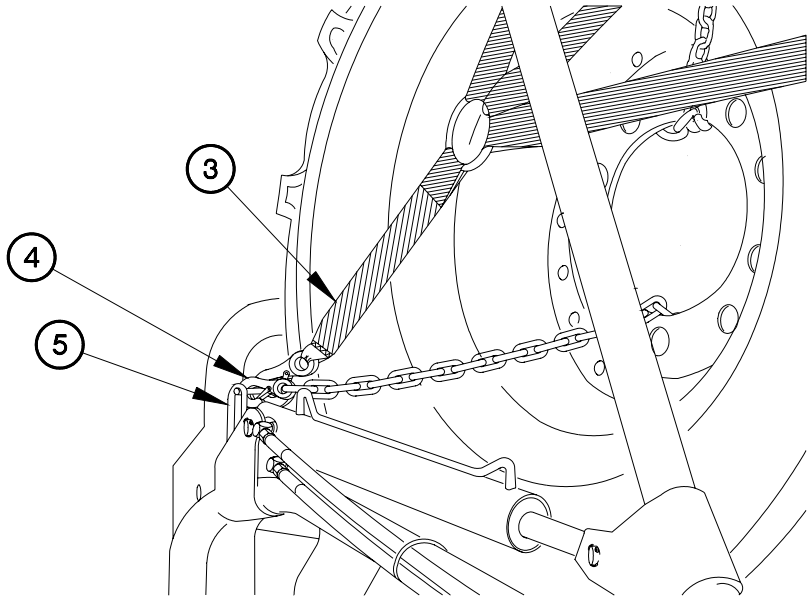
CAUTION

Cab must remain raised to remove spare tire from M1089/M1089A1. Failure to comply may result in damage to equipment.

NOTE

Perform step (7) on all towing vehicle models except M1089/M1089A1.

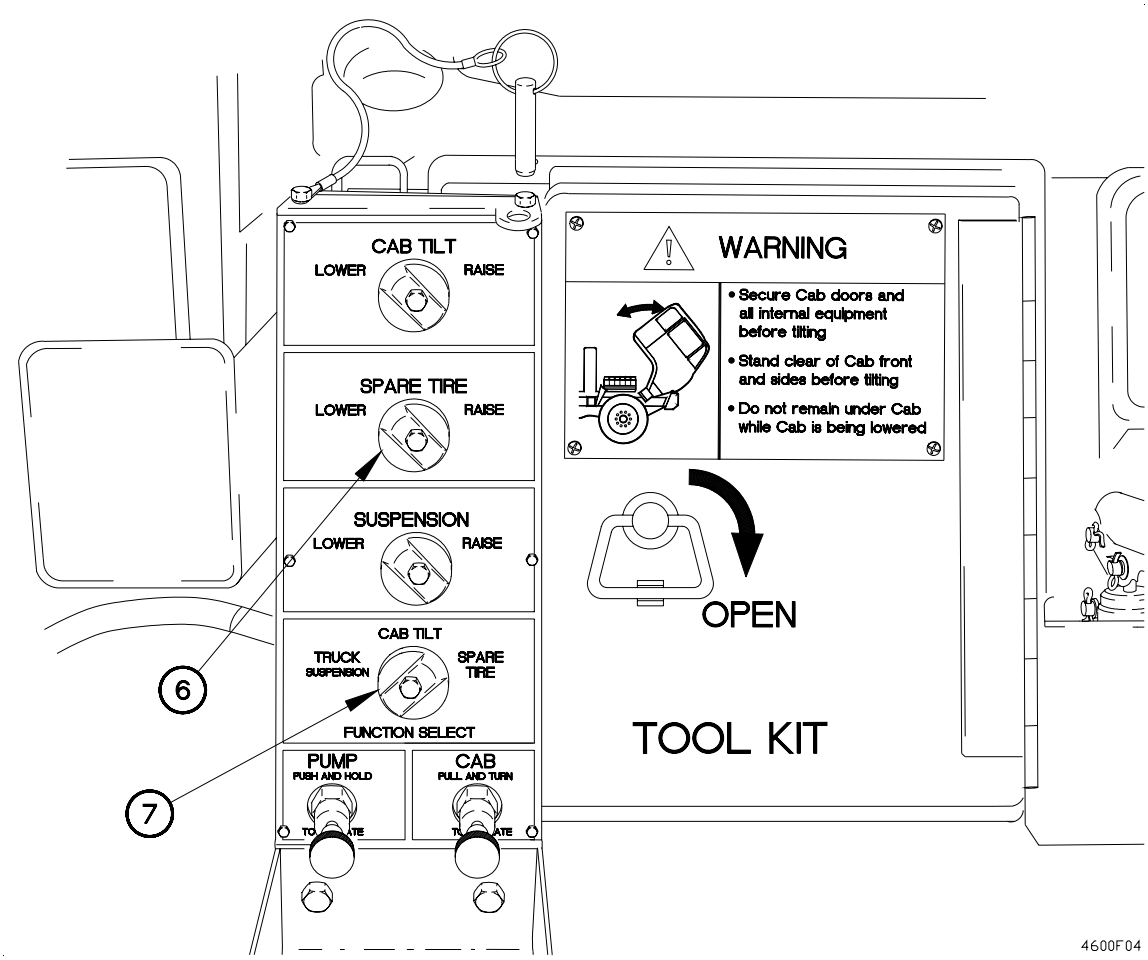
7. Lower cab of towing vehicle.



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LOWER SPARE TIRE (FROM TOWING VEHICLE) - Continued

8. Turn SPARE TIRE knob (6) to the LOWER position.
9. Turn FUNCTION SELECT knob (7) to the SPARE TIRE position.



CHANGING TIRE - Continued 0045 00

LOWER SPARE TIRE (FROM TOWING VEHICLE) - Continued

WARNING

Tire weighs approximately 350 lbs (159 kgs). Do not stand in front of spare tire while lowering. Failure to comply may result in injury to personnel.

Wear heavy gloves when handling tire. Tire may have exposed broken metal cords or sharp debris in it. Failure to comply may result in injury to personnel.

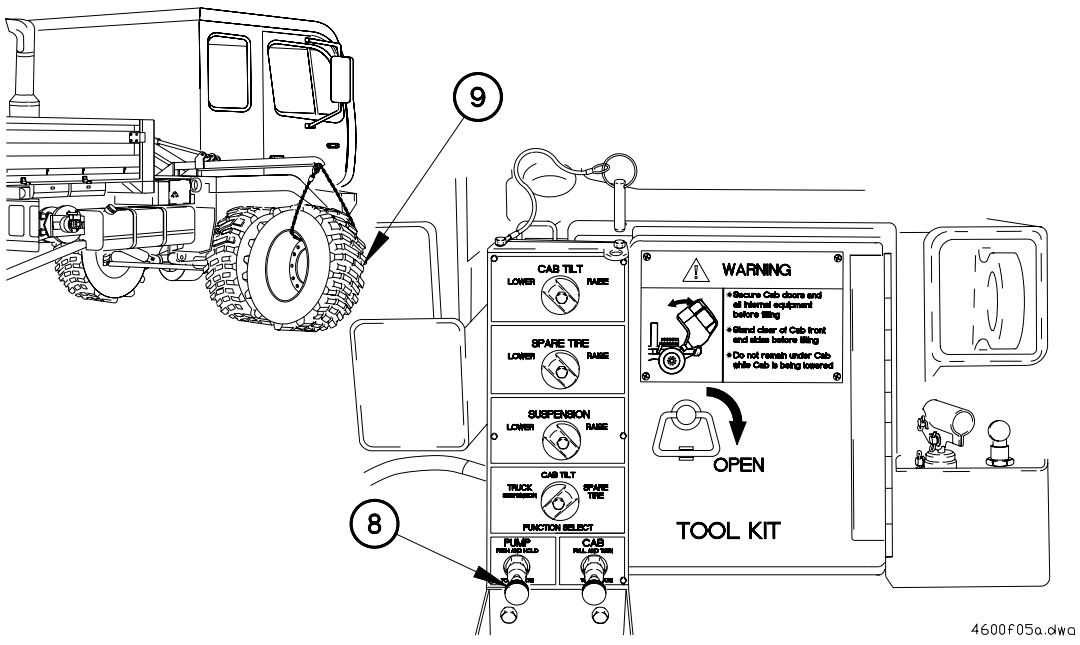
CAUTION

Use caution when lowering tire to prevent damage to Central Tire Inflation System (CTIS) wheel valve. Failure to comply may result in damage to equipment.

NOTE

Use back-up hydraulic pump if temperature is below -25° F (-32° C) or if pressing PUMP knob does not accomplish step (10).

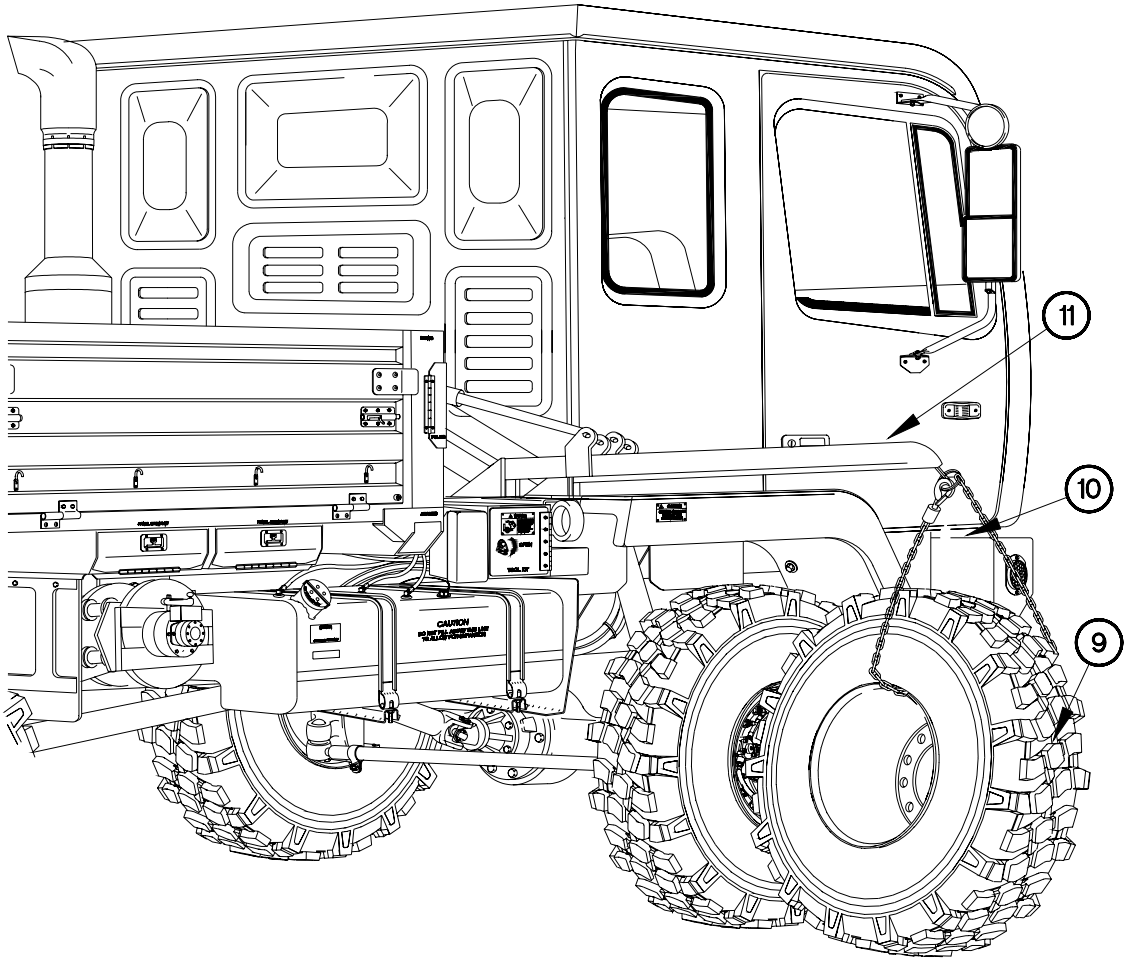
10. Press and hold PUMP knob (8) to lower spare tire (9) to ground.



CHANGING TIRE - Continued 0045 00

LOWER SPARE TIRE (FROM TOWING VEHICLE) - Continued

11. Disconnect one end of chain (10) from spare tire retainer lift arm (11).
12. Pull chain (10) through hole in spare tire (9).
13. Hook chain (10) to spare tire retainer lift arm (11).



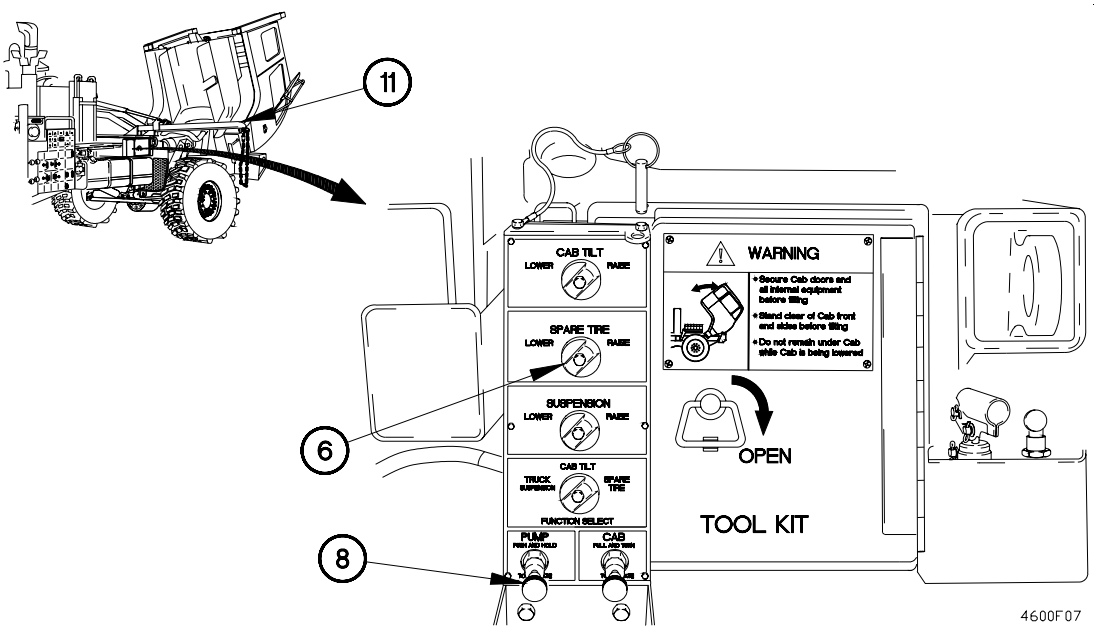
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LOWER SPARE TIRE (FROM TOWING VEHICLE) - Continued

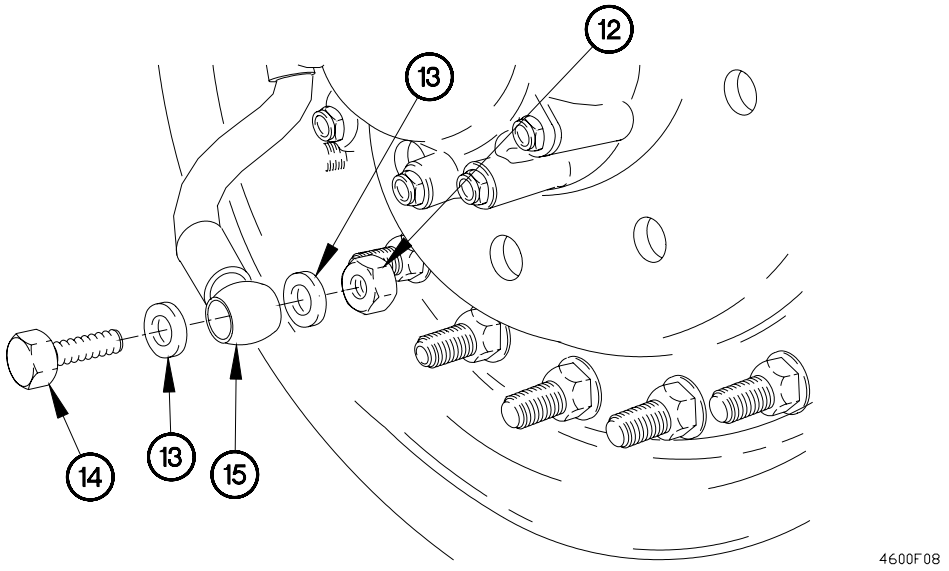
NOTE

Perform steps (14) through (16) on towing vehicle M1089/M1089A1.

14. Turn SPARE TIRE knob (6) to the RAISE position.
15. Press and hold PUMP knob (8) to raise spare tire retainer lift arm (11) to the vertical position.
16. Lower cab.



17. Remove nut (12), two washers (13), and dummy bolt (14) from CTIS hose (15).



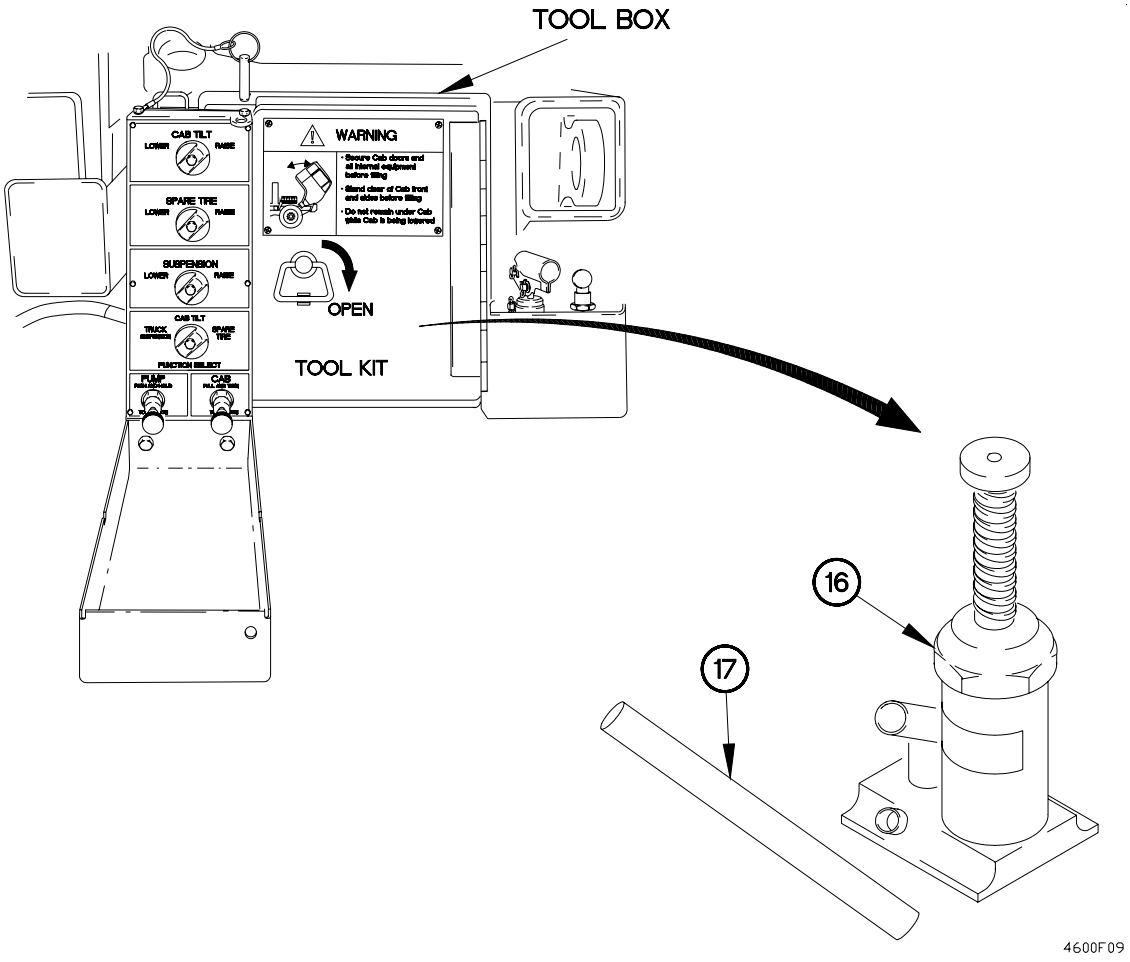
TIRE REMOVAL

WARNING

Place hydraulic jack on flat surface. Do not allow personnel under trailer when jacking. Failure to comply may result in serious injury or death to personnel.

Handle flat tire assembly with care. Failure to comply may result in injury to personnel.

1. Remove jack (16) and handle (17) from tool box of towing vehicle.



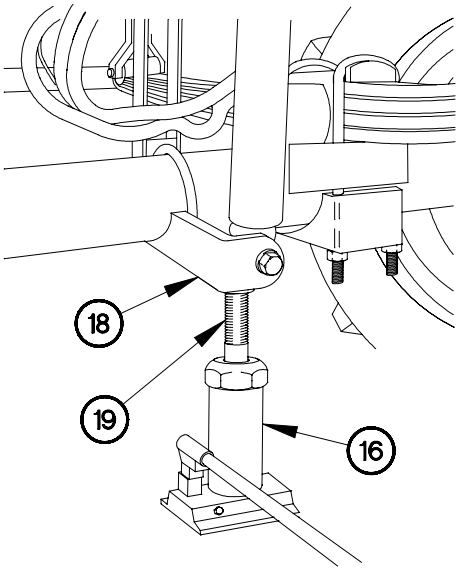
CHANGING TIRE - Continued 0045 00

TIRE REMOVAL - Continued

NOTE

Perform steps (2) and (3) when removing tire from LMTVT or (4) and (5) from MTVT.

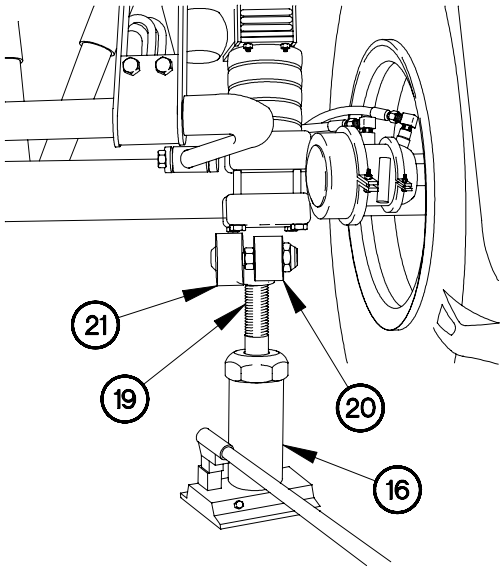
2. Position jack (16) under shock mount (18).
3. Unscrew jack ram (19) until it touches shock mount (18).



LMTVT

4600F10

4. Position jack (16) under bracket (20) securing control arm (21).
5. Unscrew jack ram (19) until it touches bracket (20).



MTVT

4600F11

CHANGING TIRE - Continued 0045 00

TIRE REMOVAL - Continued

NOTE

All tires are removed the same way.

6. Remove dummy bolt (14), washer (13), CTIS hose (15), and washer (13) from bracket (22).

7. Remove nut (12), and bracket (22) from outside wheel stud (23). Retain dummy bolt (14), washers (13) and bracket (22) for later use.

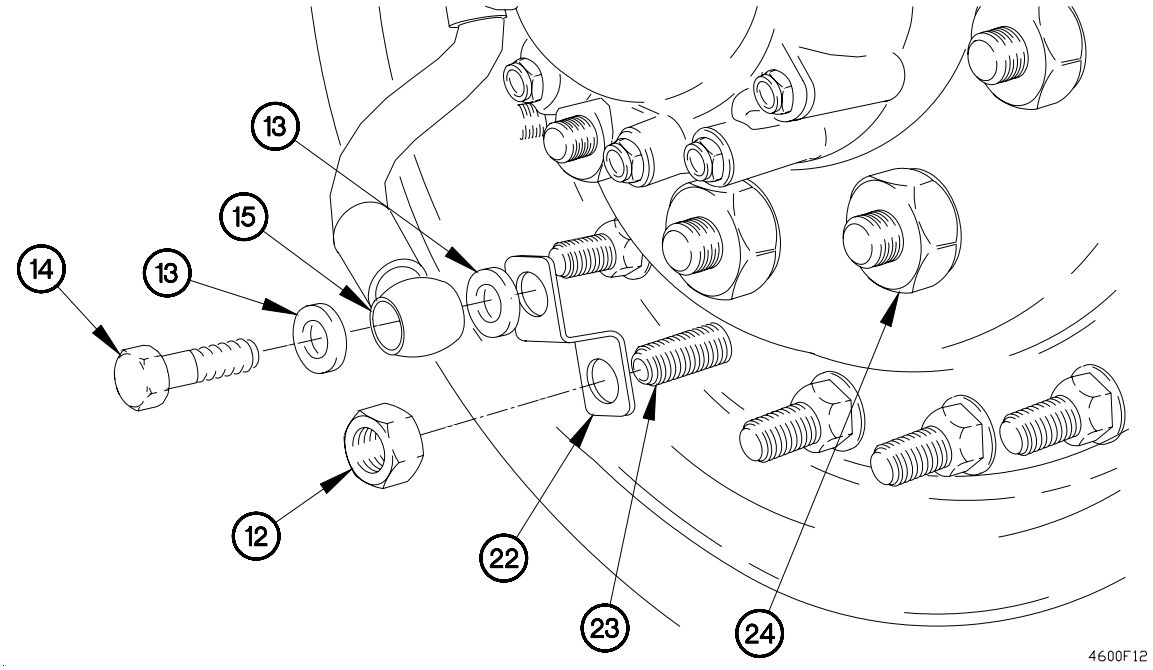
8. Install nut (12) back on wheel stud (23).

NOTE

Wheel stud and lugnuts on left side of trailer have left-hand threads. Rotate lugnuts clockwise to loosen, and counterclockwise to tighten.

Wheel studs and lugnuts on right side of trailer have right-hand threads. Rotate lugnuts counterclockwise to loosen, clockwise to tighten.

9. Loosen, but do not remove, 10 lugnuts (24).



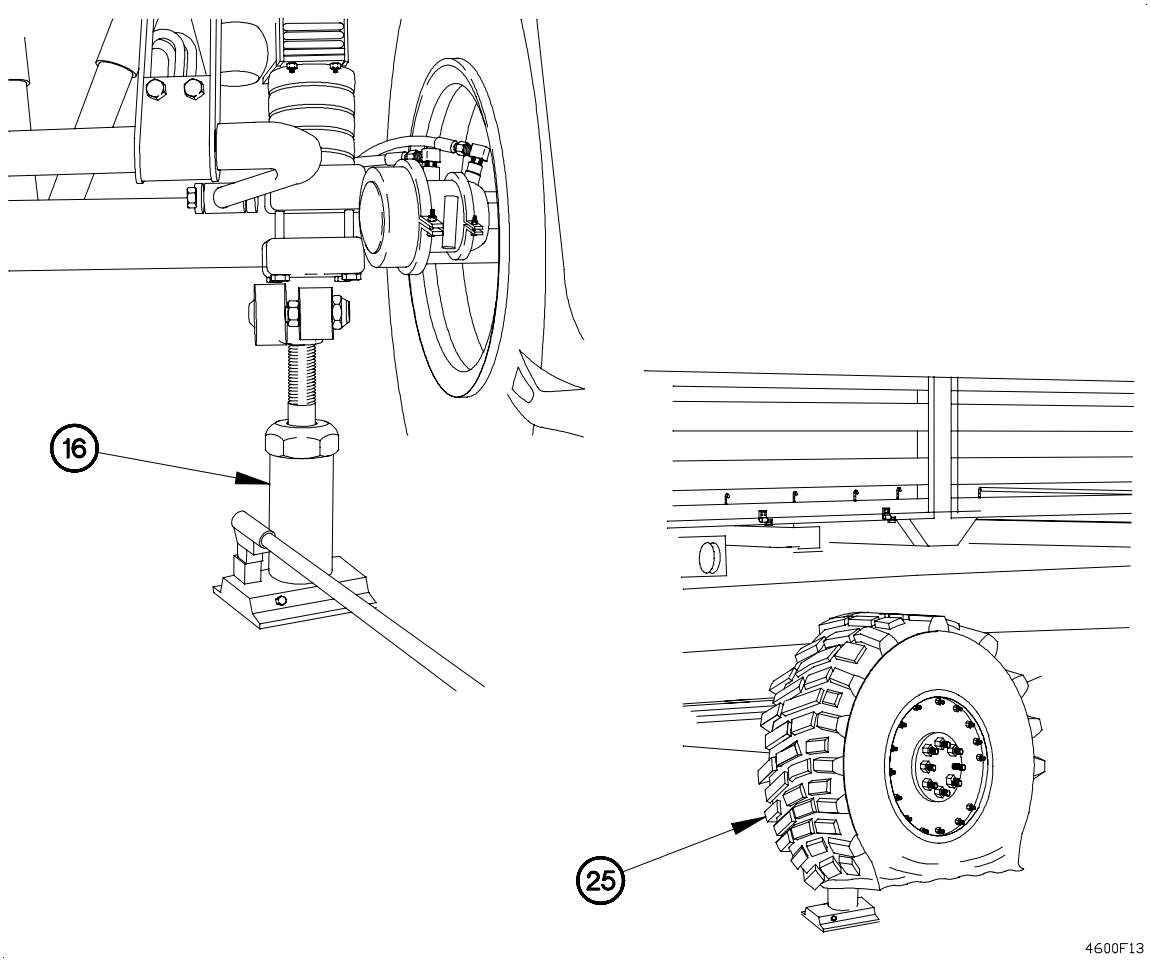
CHANGING TIRE - Continued 0045 00

TIRE REMOVAL - Continued

NOTE

Both trailers are jacked up the same way. The MTVT is shown.

10. Raise jack (16) until flat tire (25) is off ground.



CHANGING TIRE - Continued 0045 00

TIRE REMOVAL - Continued

WARNING

Tire weighs approximately 350 lbs (159 kgs). Use caution when handling tire. Failure to comply may result in injury to personnel.

11. Remove ten lugnuts (24) from wheel studs (23) while assistant holds flat tire (25). Retain lugnuts.

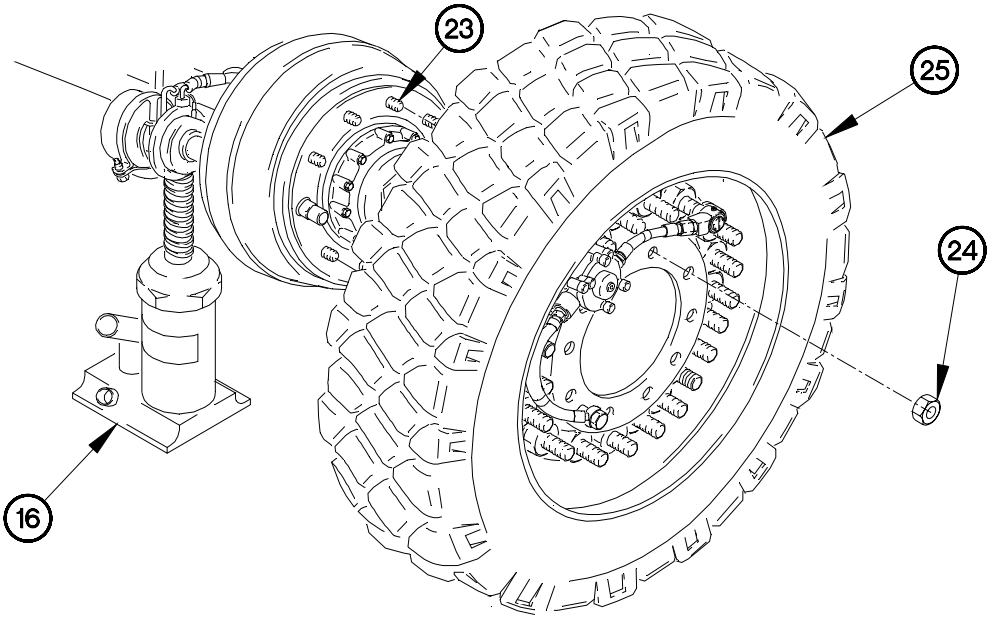
12. While assistant holds flat tire (25), lower jack (16) until flat tire (25) is just touching ground.

CAUTION

Do not drag tire across wheel studs during removal. Failure to comply may result in damage to equipment.

13. Pull top of flat tire (25) outward while assistant raises jack (16) slightly.

14. With the aid of an assistant, remove flat tire (25) from wheel studs (23).



4600F14

CHANGING TIRE - Continued 0045 00

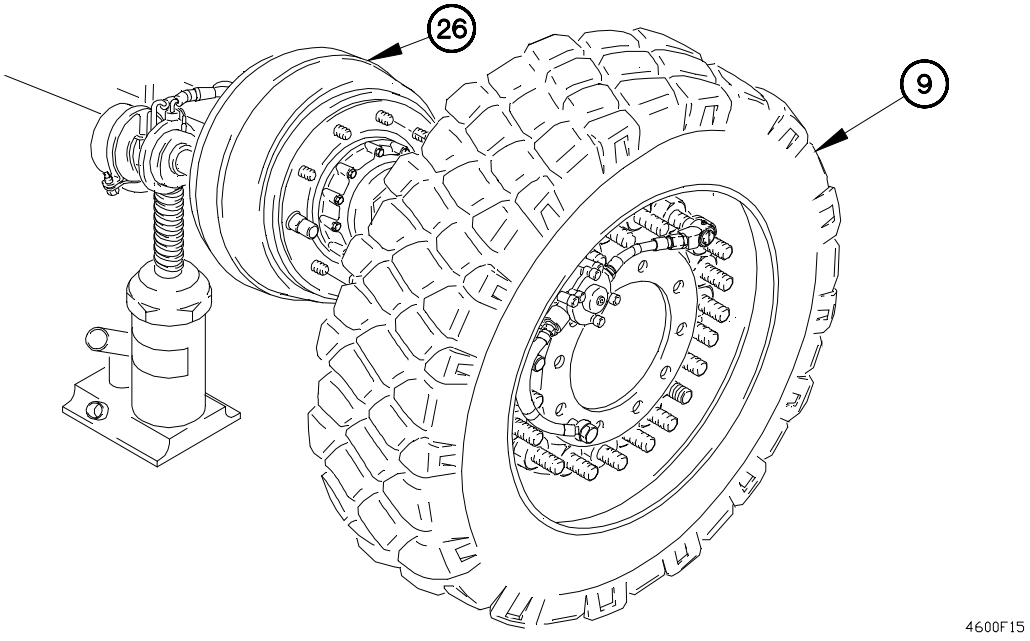
TIRE INSTALLATION

NOTE

Steps (1) through (5) require the aid of an assistant.

All tires are installed the same way. Rear tire installation shown.

1. Roll spare tire (9) up to hub (26) from which flat tire was removed.



CHANGING TIRE - Continued 0045 00

TIRE INSTALLATION - Continued

WARNING

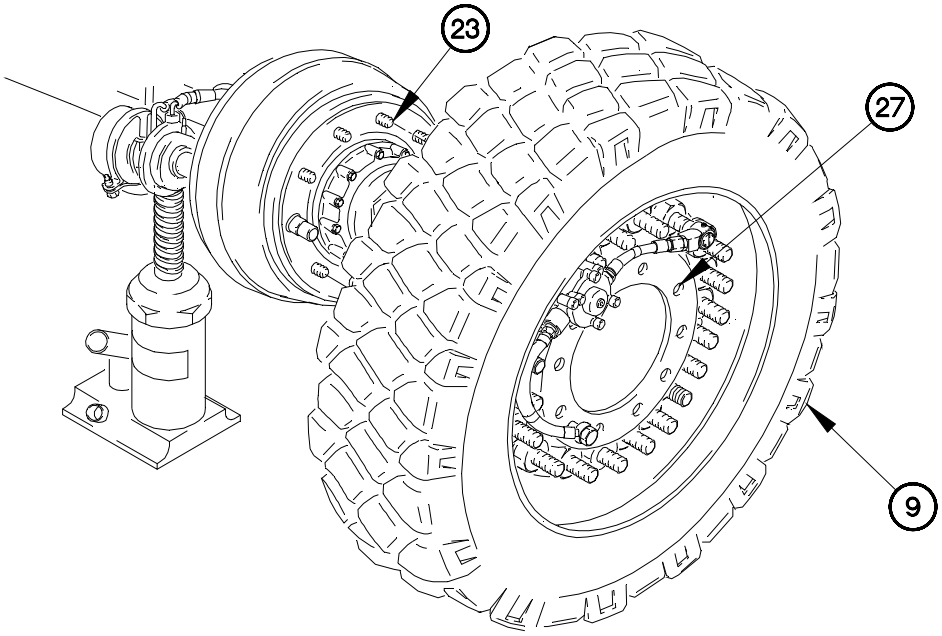
Tire weighs approximately 350 lbs (159 kgs). Use caution when handling tire. Failure to comply may result in injury to personnel.

2. Align 10 holes (27) in spare tire (9) with wheel studs (23).

3. Lean top of spare tire (9) against wheel studs (23).

WARNING

Place hydraulic jack on flat surface. Do not allow personnel under trailer when jacking. Failure to comply may result in serious injury or death to personnel.



CHANGING TIRE - Continued 0045 00

TIRE INSTALLATION - Continued

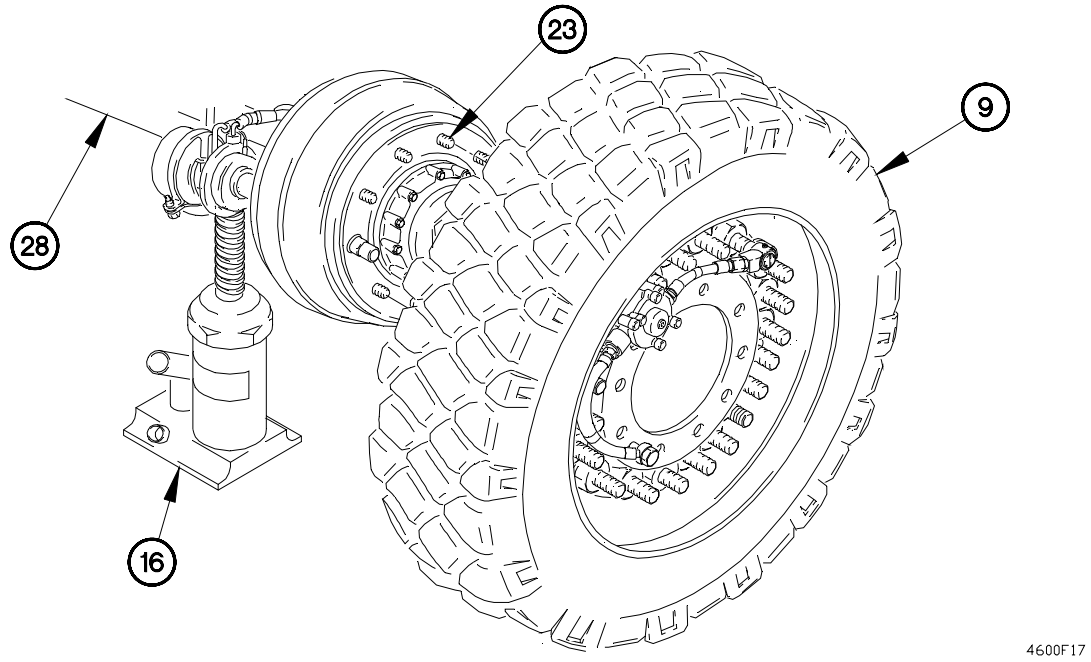
CAUTION

Do not drag spare tire across wheel studs or crossthread lugnuts. Failure to comply may result in damage to equipment.

4. Slide spare tire (9) onto wheel studs (23) while assistant raises axle (28) with jack (16). Bottom of spare tire (9) should swing toward trailer.

5. Lower axle (28) with jack (16) just until spare tire (9) touches ground.

6. Repeat steps (4) and (5) until spare tire (9) is seated on wheel studs (23).



4600F17

CHANGING TIRE - Continued 0045 00

TIRE INSTALLATION - Continued

WARNING

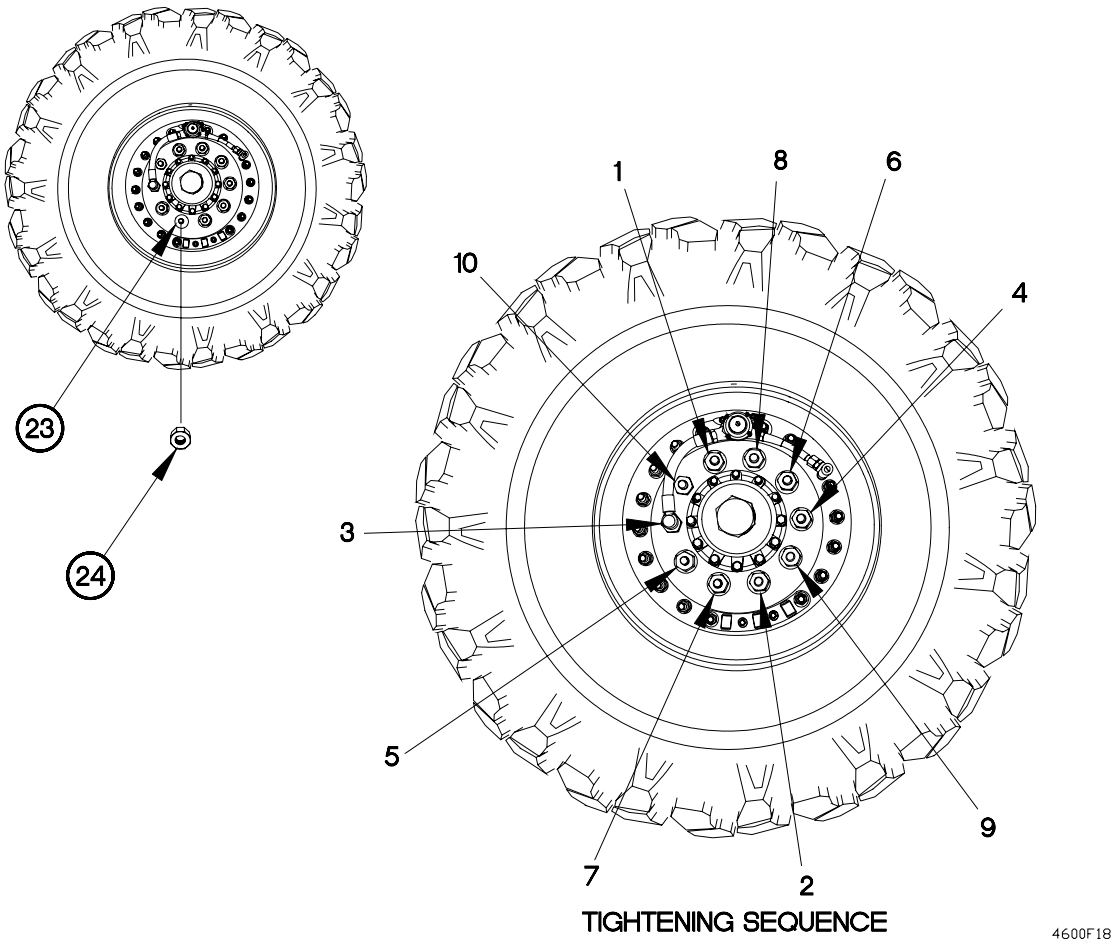
Notify Field Level Maintenance that lugnuts must be tightened to 415-475 lb-ft (563-644 N·m) as soon as possible. Wheel may come loose if lugnuts are not tightened to proper torque. Failure to comply may result in serious injury or death to personnel.

NOTE

Wheel studs and lugnuts on left side of trailer have left-hand threads. Rotate lugnuts clockwise to loosen, counterclockwise to tighten.

Wheel studs and lugnuts on right side of trailer have right-hand threads. Rotate lugnuts counterclockwise to loosen, clockwise to tighten.

7. Install 10 lugnuts (24) on wheel studs (23) in sequence shown.

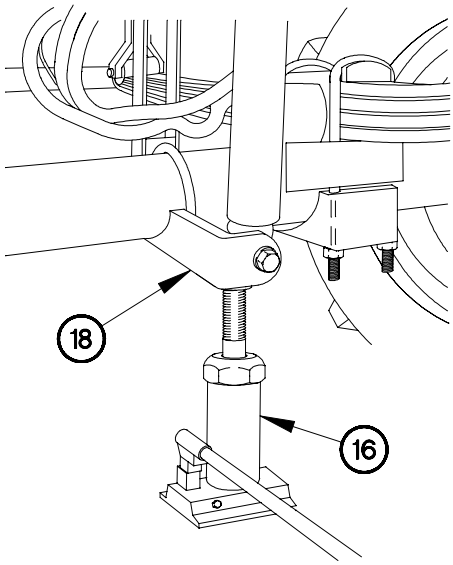


TIRE INSTALLATION - Continued

NOTE

Perform steps (8) and (9) when removing jack from LMTVT or steps (10) and (11) when removing jack from MTVT.

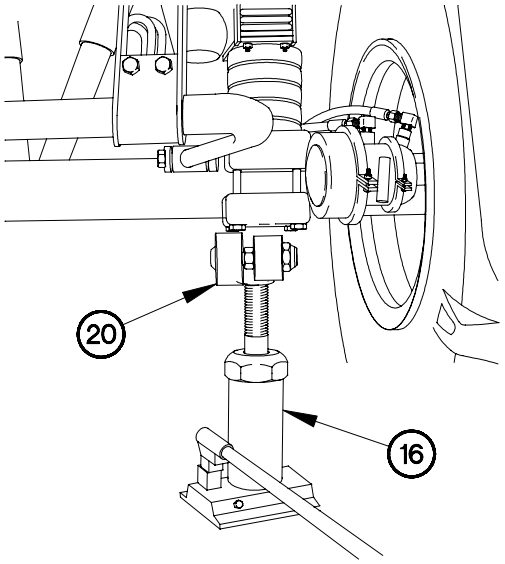
8. Lower trailer to ground with jack (16).
9. Remove jack (16) from under shock mounting bracket (18).



LMTVT

4600F19

10. Lower trailer to ground with jack (16).
11. Remove jack (16) from under control arm bracket (20).



MTVT

4600E20

CHANGING TIRE - Continued 0045 00

TIRE INSTALLATION - Continued

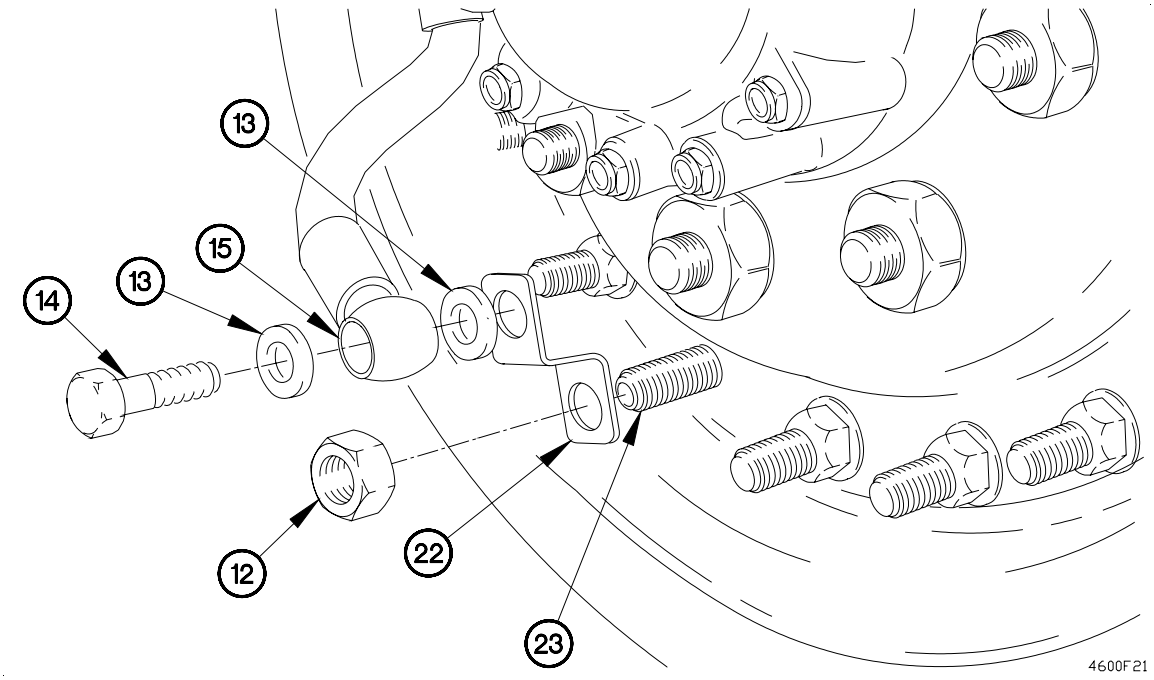
12. Remove nut (12) from outside wheel stud (23).

13. Install bracket (22) on wheel stud (23) and secure with nut (12).

CAUTION

Do not overtighten dummy bolt when installing CTIS hose on bracket. Failure to comply may result in damage to equipment.

14. Install washer (13), CTIS hose (15), washer (13), and dummy bolt (14) on bracket (22).



CHANGING TIRE - Continued 0045 00

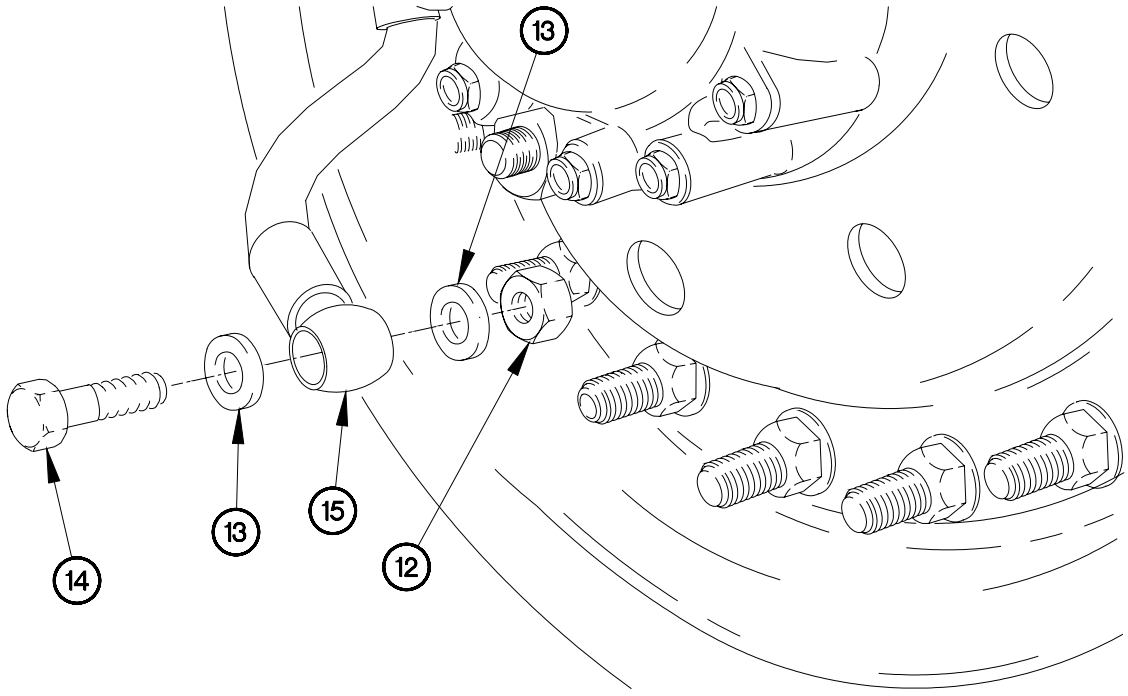
TIRE STOWAGE

WARNING

Handle flat tire with care. Tire may have exposed broken metal cords or sharp debris in it. Failure to comply may result in injury to personnel.

Tire weighs approximately 350 lbs (154 kgs). Do not stand in front of tire while raising. Failure to comply may result in injury to personnel.

1. Install dummy bolt (14), two washers (13), and nut (12) in CTIS hose (15).



4600F22

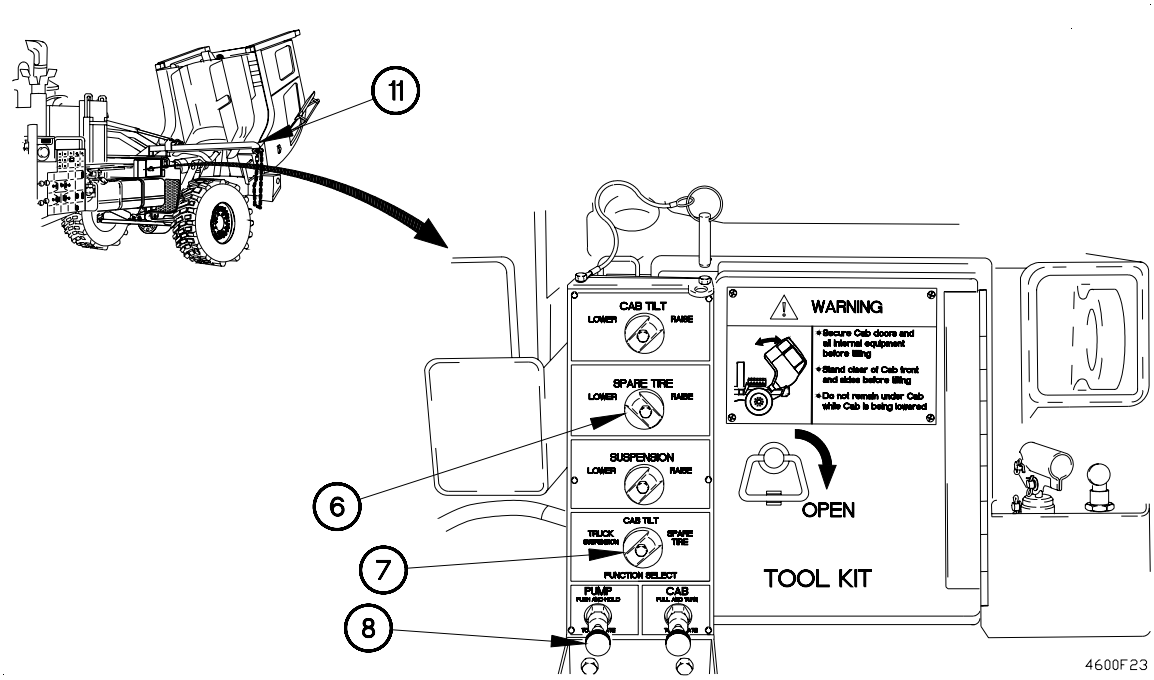
CHANGING TIRE - Continued 0045 00

TIRE STOWAGE - Continued

NOTE

Perform steps (2) through (5) if towing vehicle is M1089/M1089A1 only.

2. Raise cab.
3. Position SPARE TIRE knob (6) to LOWER.
4. Position FUNCTION SELECT knob (7) to SPARE TIRE.
5. Press and hold PUMP knob (8) to lower spare tire retainer lift arm (11).



CHANGING TIRE - Continued 0045 00

TIRE STOWAGE - Continued

6. Roll flat tire (25) under center of towing vehicle spare tire retainer lift arm (11).

7. Disconnect one end of chain (10) from spare tire retainer lift arm (11).

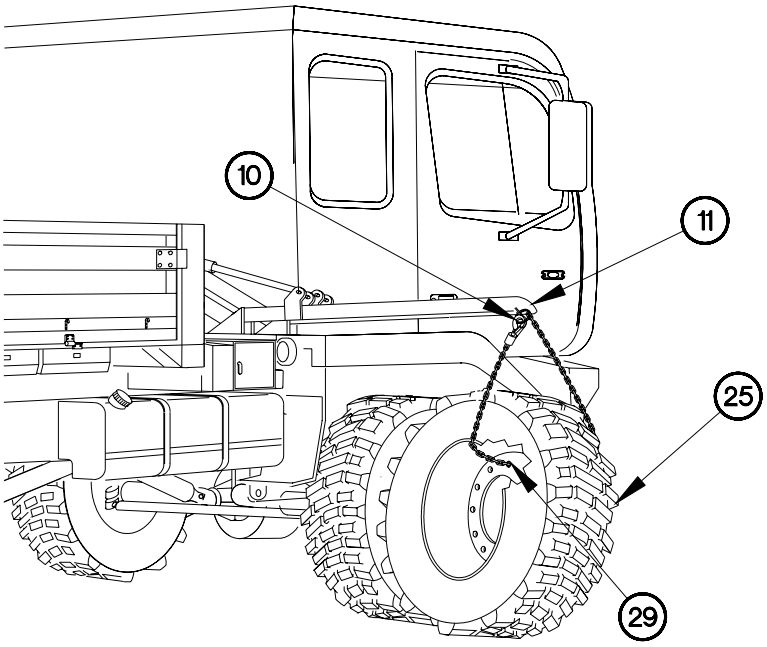
NOTE

CTIS valve on tire must be positioned to the front of towing vehicle and at the 6 o'clock position.

Flat tire should be straight up and down when installing chain through lug hole.

8. Route chain (10) through uppermost lug hole (29) in flat tire (25).

9. Connect chain (10) to spare tire retainer lift arm (11).



4600F24

CHANGING TIRE - Continued 0045 00

TIRE STOWAGE - Continued

CAUTION

Use caution when raising tire to prevent damage to Central Tire Inflation System (CTIS) valve. Failure to comply may result in damage to equipment.

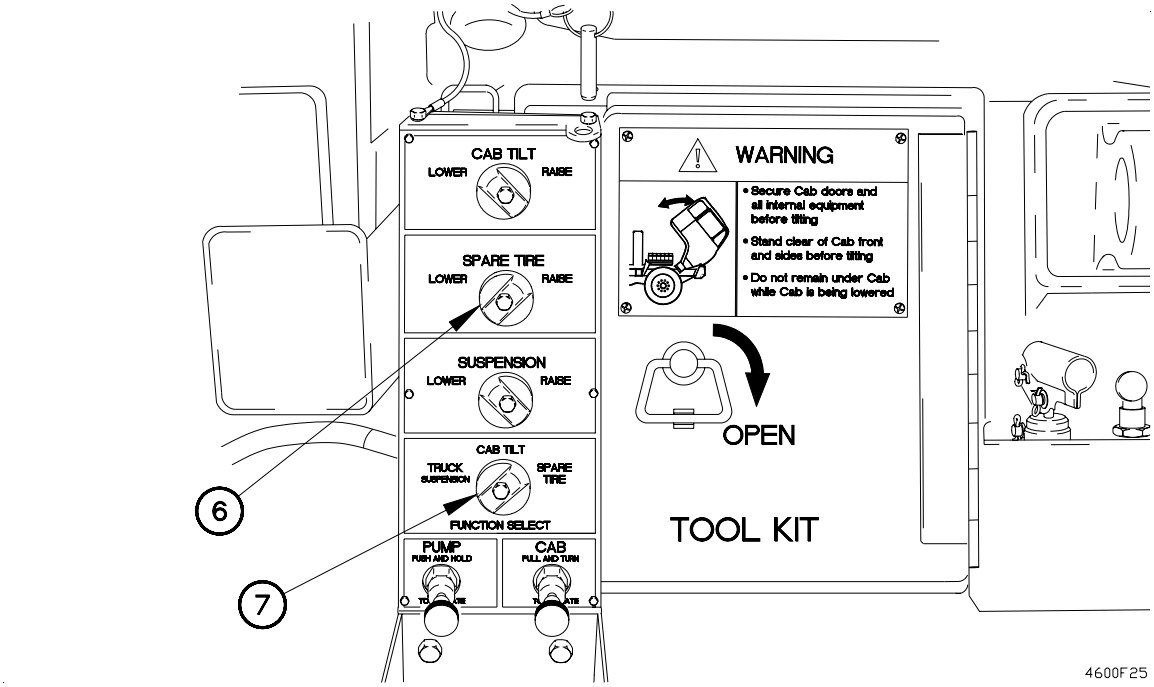
NOTE

Perform step (10) on all towing vehicle models except M1089/M1089A1.

10. Raise cab.

11. Turn SPARE TIRE knob (6) to the RAISE position.

12. Turn FUNCTION SELECT knob (7) to the SPARE TIRE position.



CHANGING TIRE - Continued 0045 00

TIRE STOWAGE - Continued

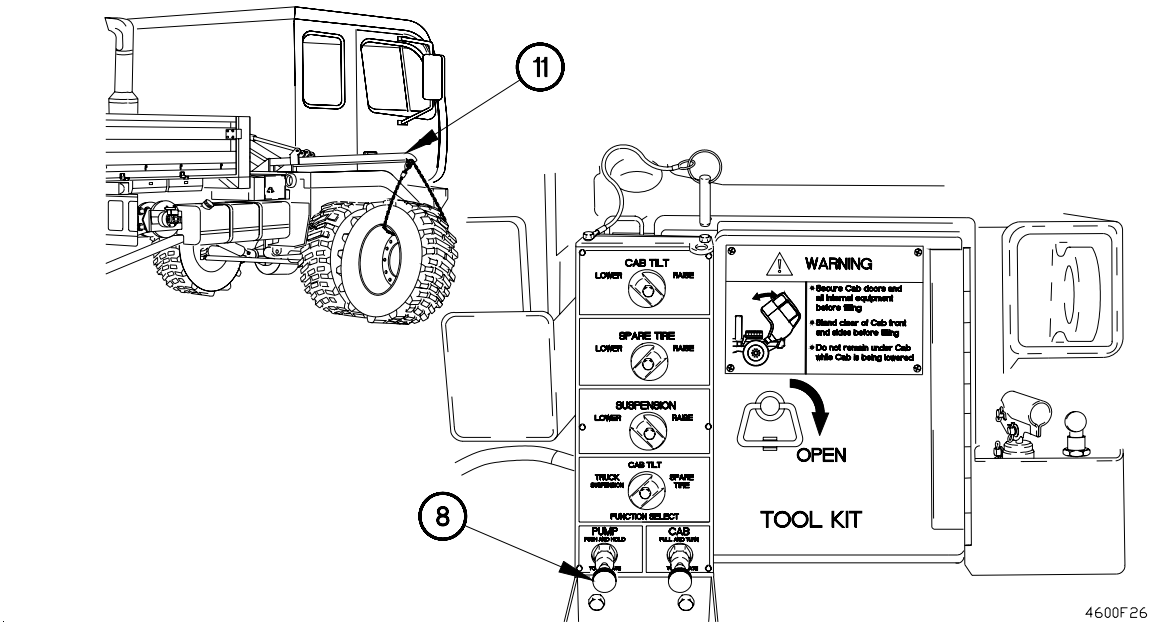
CAUTION

Tire must be stowed against back frame of spare tire retainer. Failure to comply may result in damage to equipment.

NOTE

Use back-up hydraulic pump if temperature is below -25° F (-32° C) or if pressing PUMP knob does not accomplish step (13).

13. Press and hold PUMP knob (8) to raise spare tire retainer lift arm (11) to the stowed position.



CHANGING TIRE - Continued 0045 00

TIRE STOWAGE - Continued

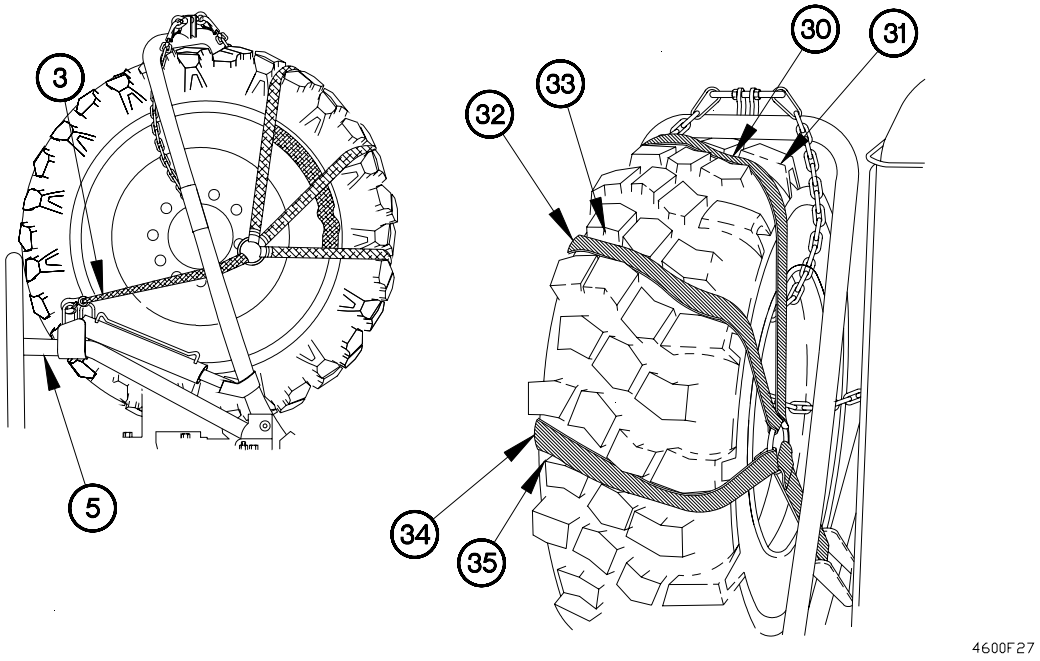
CAUTION

Tread engagers must be in slots of tire treads. A loose strap will allow the tire to move, causing chafing of strap and possible loss of tire. Failure to comply may result in damage to equipment.

Tread engagers must not be snug at installation for proper fit, but the strap must have a tight fit. Failure to comply may result in damage to equipment.

14. Position tread engager (30) in third tread (31), tread engager (32) in sixth tread (33), and tread engager (34) in ninth tread (35).

15. Connect strap (3) to spare tire retainer (5).



CHANGING TIRE - Continued 0045 00

TIRE STOWAGE - Continued

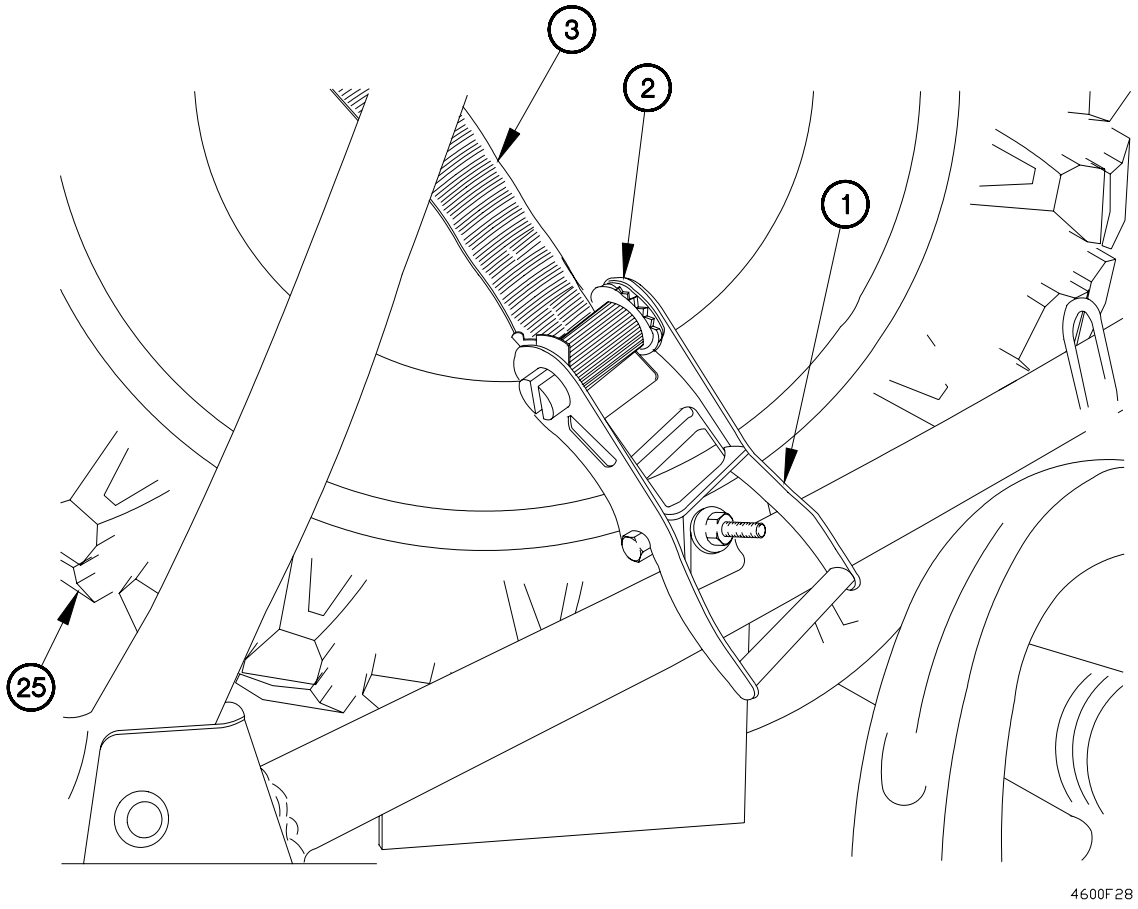
16. Feed other end of strap (3) through ratchet (2).

CAUTION

Ensure that strap is wrapped around ratchet at least three complete wraps after tightening. Failure to comply may result in damage to equipment.

17. Tighten strap (3) around flat tire (25) with ratchet (2) and close latch (1).

18. Place ratchet handle (1) in down position.



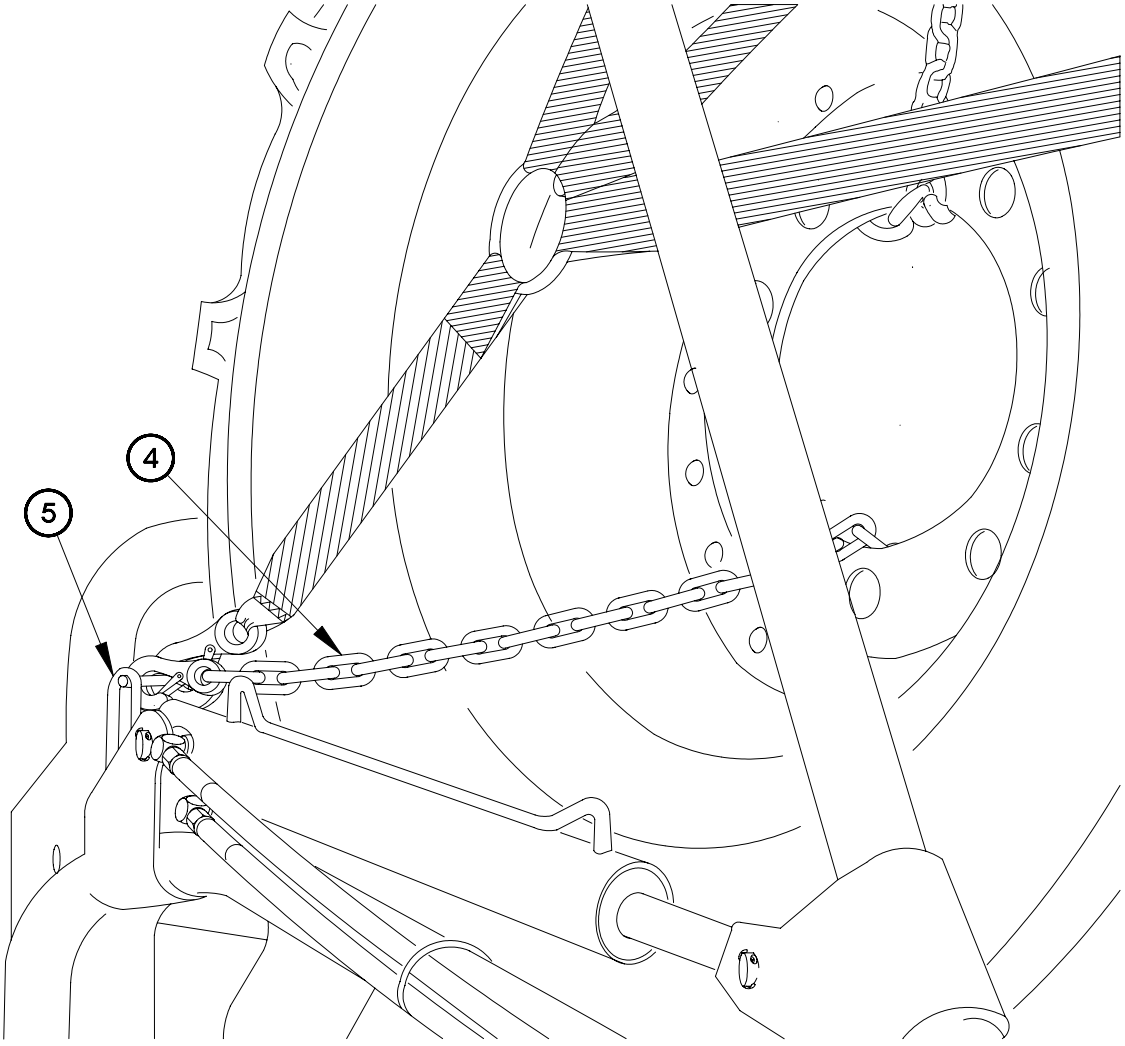
CHANGING TIRE - Continued 0045 00

TIRE STOWAGE - Continued

CAUTION

Ensure that safety chain is loose. If safety chain is tight then strap is not tight enough. Failure to comply may result in damage to equipment.

19. Connect safety chain (4) to spare tire retainer (5).



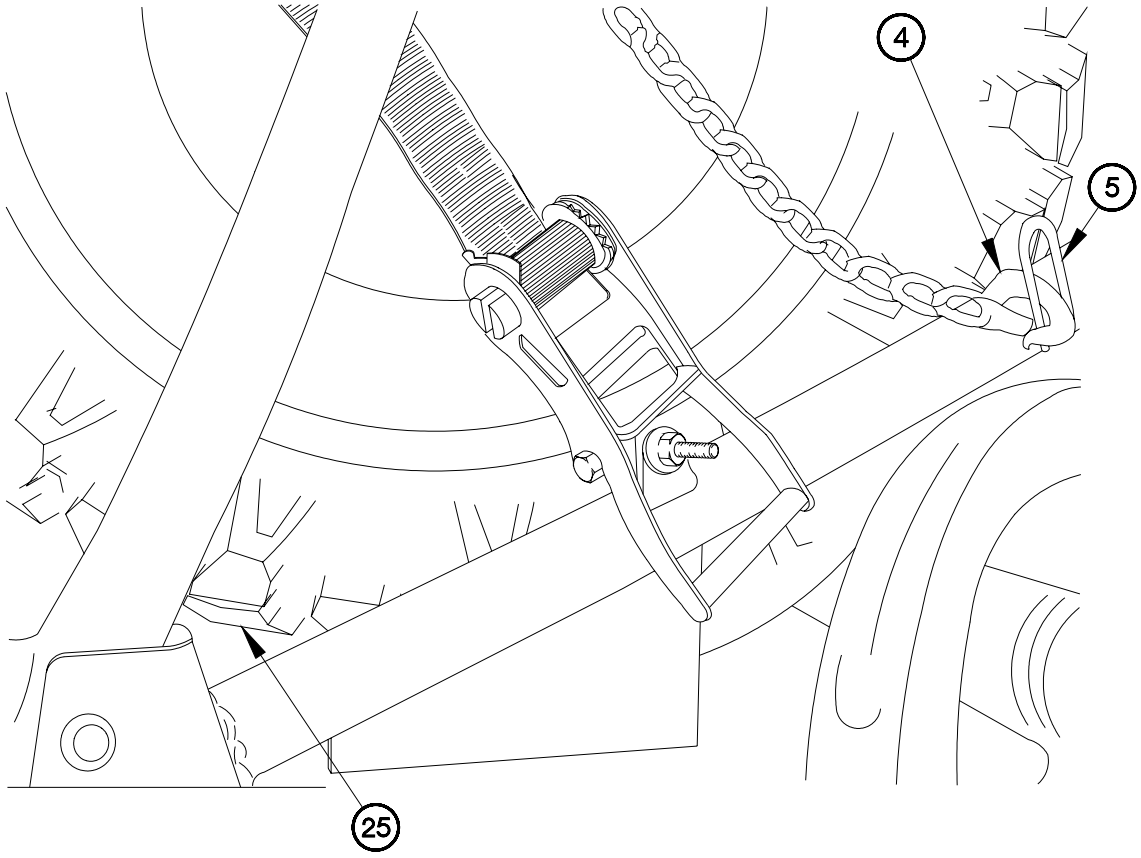
4600F29

CHANGING TIRE - Continued 0045 00

TIRE STOWAGE - Continued

20. Route other end of safety chain (4) through flat tire (25) and connect to spare tire retainer (5).

21. Lower cab.

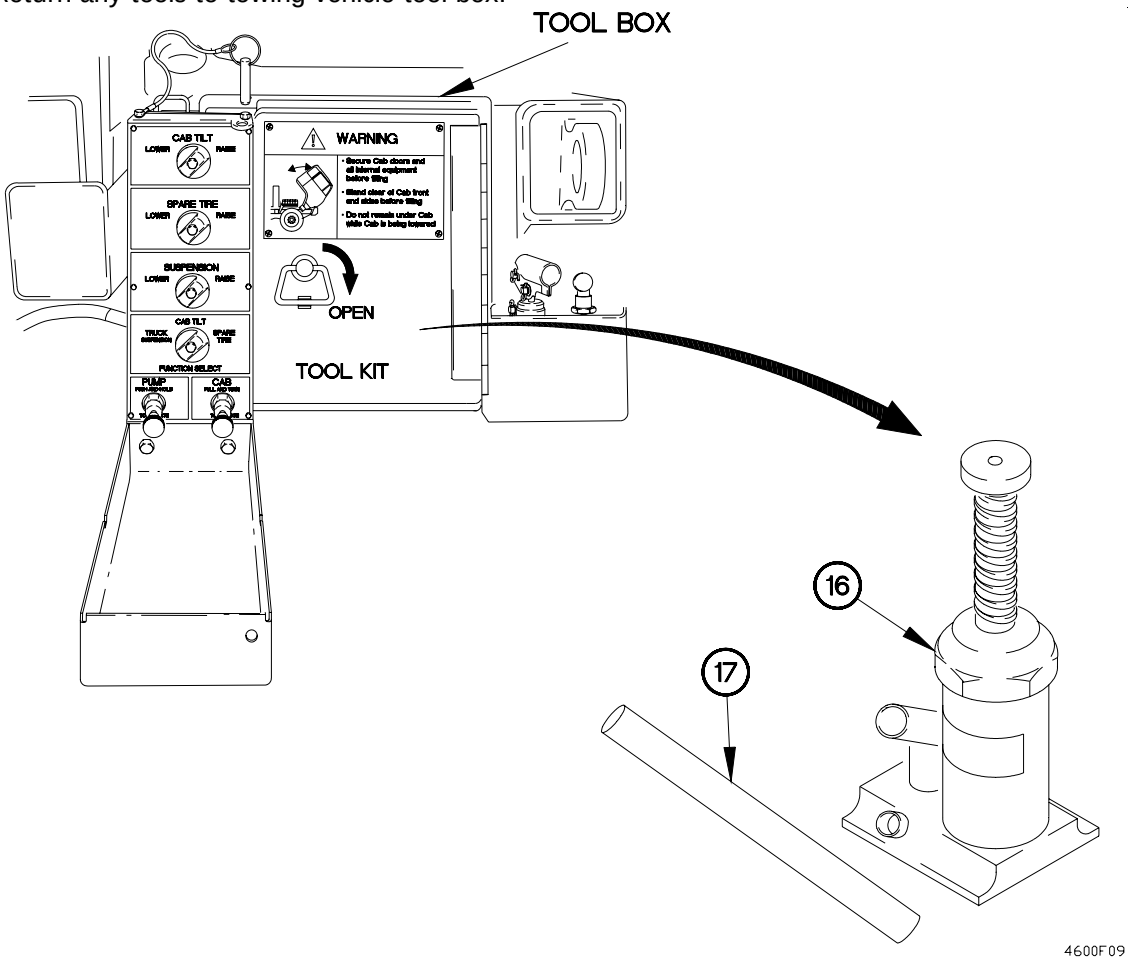


4600F30

EQUIPMENT STOWAGE

1. Return jack (16) and handle (17) to towing vehicle tool box.

2. Return any tools to towing vehicle tool box.



OPERATIONAL CHECK

1. Remove wheel chocks (WP 0008 00, Unchocking Wheels).

2. Notify Field Level Maintenance that lugnuts need to be tightened to 415-475 lb-ft (563-644 N•m) as soon as possible.

3. Notify Field Level Maintenance flat tire needs to be repaired/replaced as soon as possible.

4. Notify Field Level Maintenance that dummy bolt needs to be tightened to 22-28 lb-ft (30-52 N•m) as soon as possible.

END OF WORK PACKAGE

CLEANING TRAILER 0046 00

THIS WORK PACKAGE COVERS:
General, Cleaning Trailer

INITIAL SETUP:

Maintenance Level
Operator

Tools/Special Tools
Gloves, Rubber (Item 6, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)

Materials/Parts
Rag, Wiping (Item 25, WP 0176 00)
Soap, Laundry (Item 31, WP 0176 00)
Solvent, Dry Cleaning P-D-680 (Item 32, WP 0176 00)

Materials/Parts (Cont)
Oil, Lubricating (Item 22, WP 0176 00)
Brush Set (Item 4, WP 0176 00)

Personnel Required
Two

References
TM 9-247

Equipment Conditions
Wheels chocked (WP 0011 00).

GENERAL

This work package contains information and instructions to clean the LMTVT and MTVT.

WARNING

All cleaning procedures must be accomplished in well-ventilated areas. Failure to comply may result in injury to personnel or damage to equipment.

Protective gloves, clothing, and/or respiratory equipment must be worn whenever caustic, toxic, or flammable cleaning solutions are used. Failure to comply may result in injury to personnel or damage to equipment.

Diesel fuel or gasoline must never be used for cleaning. Failure to comply may result in injury to personnel or damage to equipment.

A fire extinguisher must be available and ready during all cleaning operations involving Dry Cleaning Solvent. Failure to comply may result in injury to personnel or damage to equipment.

Dry Cleaning Solvent (P-D-680) is TOXIC and flammable. Wear protective goggles and gloves; use only in well-ventilated area; avoid contact with skin, eyes, and clothes, and do not breath vapors. Keep away from heat or flame. Never smoke when using Dry Cleaning Solvent; the flashpoint for Type I Dry Cleaning Solvent is 100°F (38°C) and for Type II is 138°F (50°C). Failure to comply may result in serious injury or death to personnel.

CLEANING TRAILER - Continued 0046 00

GENERAL - Continued

WARNING

If personnel become dizzy while using Dry Cleaning Solvent, immediately get fresh air and medical help. If Dry Cleaning Solvent contacts skin or clothes, flush with cold water. If Dry Cleaning Solvent contacts eyes, immediately flush eyes with water and get medical attention. Failure to comply may result in serious injury or death to personnel.

Wear appropriate eye protection when using high pressure water to clean trailer. Failure to comply may result in injury to personnel.

CAUTION

Do not wipe dirt off trailer when it is dry. Dirt, stones, or debris may scratch and damage trailer. Failure to comply may result in damage to equipment.

Do not direct high-pressure water stream at glass or plastic surfaces, seals, or any other component of trailer that could be easily damaged by high-pressure water stream. Failure to comply may result in damage to equipment.

Do not use strong detergent or abrasives. Failure to comply may result in damage to equipment.

Do not allow cleaning compounds to come into contact with rubber, vinyl, or canvas materials. Failure to comply may result in damage to equipment.

Do not allow corrosion-removing cleaning compounds to contact painted surfaces. Failure to comply may result in damage to equipment.

Do not steam clean any part of trailer that has been rustproofed. Failure to comply may result in damage to equipment.

Mildew must be removed with a bristle brush before canvas can be properly cleaned and aired. Failure to comply may result in damage to equipment.

NOTE

Detailed description of specific cleaning compounds, Dry Cleaning Solvents, and corrosion-removing compounds are found in TM 9-247.

Table 1. General Cleaning Instructions provides a general guideline to cleaning materials used in removing contaminants from various trailer surfaces.

CLEANING TRAILER - Continued 0046 00

GENERAL - Continued

Table 1. General Cleaning Instructions.

Cleaning Materials Used to Remove			
Surface	**Oil/Grease**	**Salt/Mud/ Dust/Debris**	**Surface Rust/Corrosion**
Body	Grease-cleaning compound, running water, and damp or dry rags.	High pressure water, soapy warm water, soft brush, and damp or dry rags.	Corrosion-removing compound, bristle brush, dry rags, and lubricating oil.*
Frame	Grease-cleaning compound rinsed with running water and rags.	High pressure water, soapy warm water, wire brush, and damp or dry rags.	Corrosion-removing compound, bristle brush, dry rags, and lubricating oil.*
Gladhands	Damp or dry rags.**	Damp or dry rags.**	Not applicable.
Glass	Glass cleaning solution and clean, dry rags.	Glass cleaning solution and clean, dry rags.	Not applicable.
Rubber	Damp or dry rags.	Damp or dry rags.	Not applicable.
Tires	Soapy water and bristle brush.	High pressure water and bristle brush.	Not applicable.
Electrical plugs/ connectors	Rag moistened with Dry Cleaning Solvent	Rag moistened with Dry Cleaning Solvent	Not applicable.
Cable	Cleaning compound and wire brush.	Wire brush.	Wire brush and lubricating oil.*
* After cleaning, apply light grade of lubricating oil to all unprotected surfaces to prevent continued rust.			
** After cleaning, apply light grade of lubricating oil to all unprotected surfaces to prevent drying and cracking.			

CLEANING TRAILER

Clean trailer per Table 1. General Cleaning Instructions.

END OF WORK PACKAGE

SPRING BRAKE CAGING PROCEDURES 0047 00

THIS WORK PACKAGE COVERS:

Caging Spring Brakes, Uncaging Spring Brakes

INITIAL SETUP:

Maintenance Level
Operator

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench, Torque, 0-175 lb-ft (Item 49, WP 0178 00)
Socket, Socket Wrench (Item 34, WP 0178 00)

Tools and Special Tools (Continued)
Wrench Set, Socket (Item 46, WP 0178 00)

Personnel Required
Two

Equipment Conditions
Wheels chocked (WP 0011 00).
Air tank drained (WP 0011 00).

CAGING SPRING BRAKES

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

Trailer wheels must be chocked before caging parking/emergency spring brakes. Failure to comply may result in injury to personnel.

CAUTION

Do not attempt to tow the trailer with spring brakes caged except to move the trailer out of the traveled portion of the highway. Failure to comply may result in damage to equipment.

NOTE

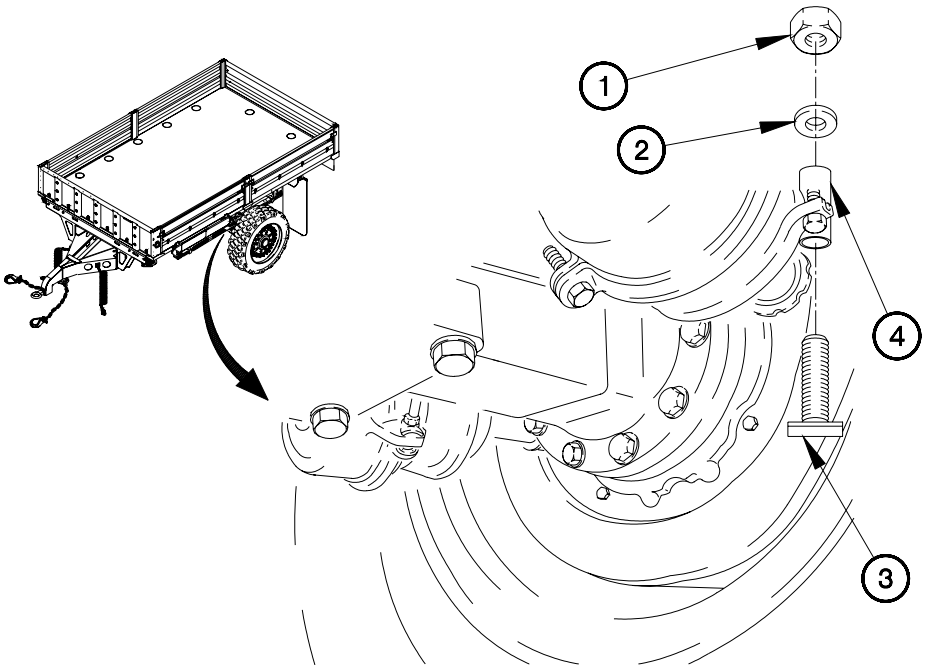
To cage spring brakes, caging procedures apply to both front and rear brake air chambers.

All spring brakes are caged the same way. Left side of LMTVT shown.

SPRING BRAKE CAGING PROCEDURES - Continued 0047 00

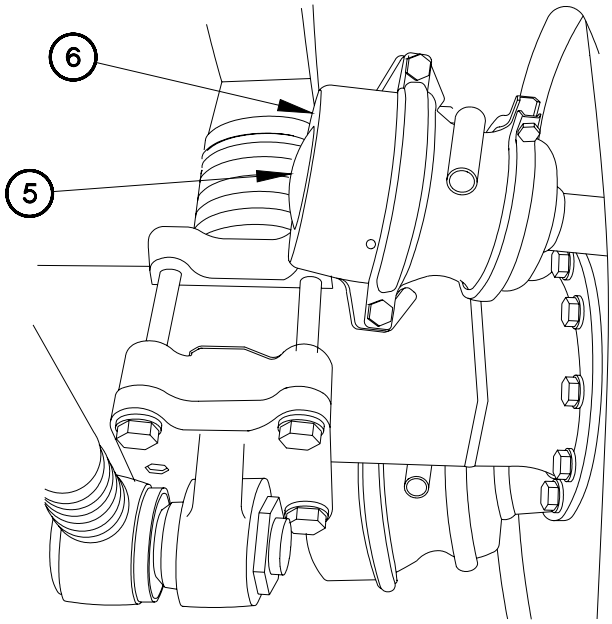
CAGING SPRING BRAKES - Continued

1. Remove nut (1) and washer (2) from caging bolt (3).
2. Remove caging bolt (3) from caging bolt holder (4).



4800F01A

3. Remove rubber cap (5) from back of brake air chamber (6).



4800F02A

SPRING BRAKE CAGING PROCEDURES - Continued 0047 00

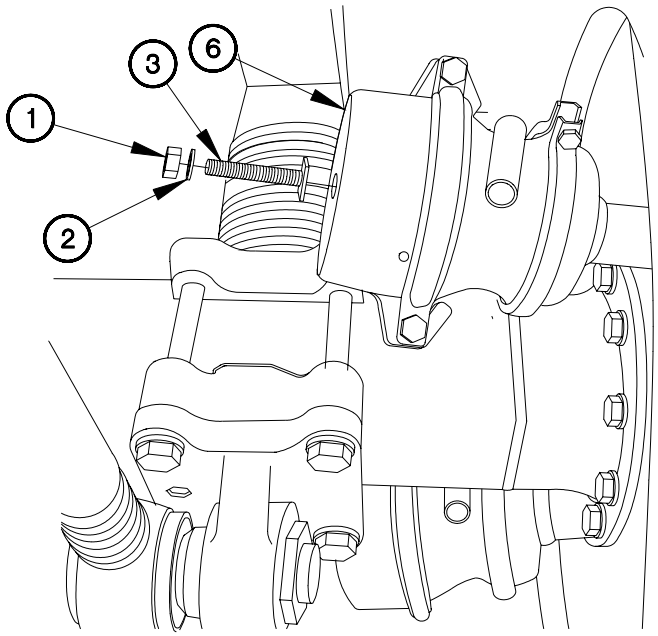
CAGING SPRING BRAKES - Continued

4. Insert T-end of caging bolt (3) in back of brake air chamber (6) and lock in place by turning caging bolt (3) 1/4 turn.

5. Install washer (2) and nut (1) on caging bolt (3).

6. Tighten nut (1).

7. Perform steps (1) through (6) on remaining brake air chambers.



4800F03A

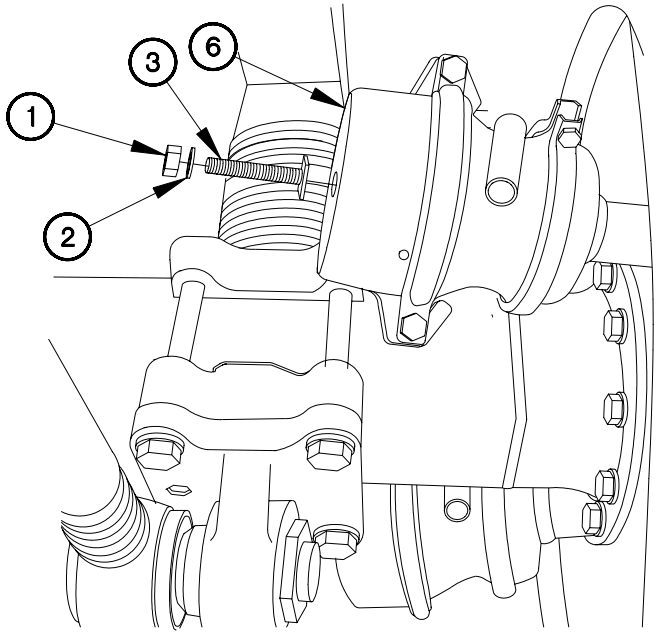
SPRING BRAKE CAGING PROCEDURES - Continued 0047 00

UNCAGING SPRING BRAKES

NOTE

All spring brakes are uncaged the same way. Left side of LMTVT shown.

1. Remove nut (1) and washer (2) from caging bolt (3).
2. Remove caging bolt (3) by turning to the left 1/4 turn.
3. Remove caging bolt (3) from brake air chamber (6).

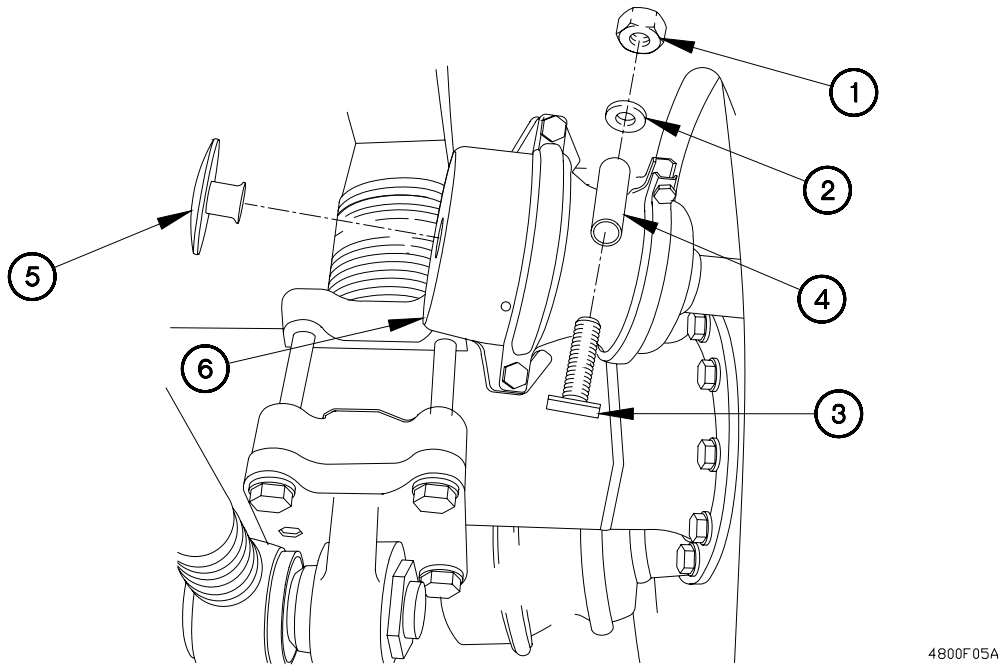


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SPRING BRAKE CAGING PROCEDURES - Continued 0047 00

UNCAGING SPRING BRAKES - Continued

4. Install caging bolt (3) in caging bolt holder (4).
5. Position washer (2) and nut (1) on caging bolt (3).
6. Tighten nut (1) to 50 lb-ft (68 N·m).
7. Install rubber cap (5) on brake air chamber (6).



END OF WORK PACKAGE

SERVICE UPON RECEIPT 0048 00

THIS WORK PACKAGE COVERS:

Service Upon Receipt of Materiel, Preliminary Servicing of Equipment

INITIAL SETUP:

Maintenance Level

Field

Materials/Parts

Solvent, Dry Cleaning (Item 32, WP 0176 00)

References

DD Form 1397
DA Form 2407
DA PAM 738-750
SF 361, Transportation Discrepancy Report
WP 0008 00 - 0025 00
WP 0042 00
WP 0044 00
WP 0045 00
WP 0046 00

SERVICE UPON RECEIPT OF MATERIEL

Unpacking

1. Read "Processing and Deprocessing Record of Shipping, Storage and Issue of Vehicles and Spare Engines" tag, (DD Form 1397) and follow all precautions checked. This tag should be attached to a visible location on the tongue assembly.

2. Remove any metal strapping, plywood, tape, seals, wrapping paper, or any other shipping and protective items from the trailer.

Checking Unpacked Equipment

1. Inspect the equipment for damaged incurred during shipment. If the equipment has been damaged, report the damage on SF 361, Transportation Discrepancy Report.

2. Check the equipment against the packing slip to see if the shipment is complete. Report all discrepancies in accordance with applicable service instructions (e.g., for Army instructions, see DA PAM 738-750).

3. Check to see whether the equipment has been modified.

4. Inventory the trailer equipment. For detailed procedures, refer to WP 0174 00, (COEI), and WP 0175 00, (AAL).

SERVICE UPON RECEIPT - Continued 0048 00

Checking Unpacked Equipment - Continued

NOTE

During inspection, pay close attention to loose or missing nuts, bolts, screws, access plates, drain plugs, draincocks, assemblies, subassemblies, or components that may be easily lost or broken in transit.

If trailer has been towed to the using organization, most or all of the work in Table 1. Special Service Instructions should have been done.

Table 1. Special Service Instructions.

ITEM	ACTION	REMARKS
1. Trailer body and sheet metal inspection	1. Inspect body and sheet metal for evidence of damage during shipment. 2. Check doors, latches, and hinges on compartments for proper operation. 3. Check mounting hardware and tighten as necessary.	WP 0042 00, Table 4. Preventive Maintenance Checks and Services (PMCS) - Weekly.
2. Electrical system inspection	1. Check all lights for burned out lamps, loose connections, and dirty or broken lenses. 2. Check that all electrical equipment functions properly.	WP 0042 00, Inspection
3. Air system inspection	1. Drain any water from air tanks. 2. Inspect all accessible air hose and tubing connections for leakage.	WP 0011 00, Draining Air Tank. WP 0042 00, Table 4. Preventive Maintenance Checks and Services (PMCS) - Weekly.
4. Chassis and axle inspection	Check all lubricant levels.	WP 0042 00, Table 5. Preventive Maintenance Checks and Services (PMCS) - Monthly

Checking Unpacked Equipment - Continued.

Table 1. Special Service Instructions - Continued.

ITEM	ACTION	REMARKS
5. Anti-lock Braking System (ABS) inspection	1. Inspect Electronic Control Unit (ECU) for proper connection of wiring and visible damage. 2. Check air hose assembly on all modulator valves for evidence of leakage and for damage. 3. Check all wiring between wheel sensors and ECU for clean connection and/or damage.	WP 0042 00, Inspection
6. Tire inspection	1. Check tire pressure. 2. Inspect tires for serious cuts, bubbles, cracks, bruises, dry-rot, foreign objects, or exposure of internal cords. Remove any foreign objects lodged between treads. 3. Check all wheel mounting nuts for proper torque.	WP 0044 00, Checking Tire Pressures WP 0045 00, Spare Tire Installation

Processing Unpacked Equipment

WARNING

Dry Cleaning Solvent P-D-680 is TOXIC and flammable. Wear protective goggles and gloves; use only in well-ventilated area; avoid contact with skin, eyes, and clothes, and do not breathe vapors. Keep away from open flame. Never smoke when using Dry Cleaning Solvent; the flashpoint for Type I Dry Cleaning Solvent is 100°F (38°C) and for Type II is 130°F (50°C). Failure to comply may result in serious injury or death to personnel.

If personnel become dizzy while using Dry Cleaning Solvent, immediately get fresh air and medical help. If Dry Cleaning Solvent contacts skin or clothes, flush with cold water. If Dry Cleaning Solvent contacts eyes, immediately flush eyes with water and get immediate medical attention. Failure to comply may result in serious injury to personnel.

1. Clean all surfaces coated with rust-preventive compound with Dry Cleaning Solvent (Item 32, WP 0176 00, Table 1. Expendable/Durable Items List).

2. Clean trailer body, frame, gladhands, lights, tires, electrical plugs and receptacles, and winch cable assembly (WP 0046 00, Cleaning Trailer).

PRELIMINARY SERVICING OF EQUIPMENT

1. Perform the semiannual Preventive Maintenance Checks and Services (PMCS) (WP 0042 00, Table 10. Preventive Maintenance Checks and Services (PMCS) - Semi-Annual).

2. Lubricate all points shown in WP 0042 00, Table 10. Preventive Maintenance Checks and Services (PMCS) - Semi-Annual, regardless of interval.

3. Schedule a semiannual service in accordance with DA PAM 738-750.

4. Tighten self-locking nuts on leaf spring U-bolts to 390-510 lb-ft (530-690 N•m), in 50 lb-ft (68 N•m) increments, in a crisscross pattern after initial three months of use of trailer.

5. If deficiencies appear to involve unsatisfactory design, report deficiencies on DA Form 2407.

General

Refer to WP 0008 00 - WP 0025 00 for Operator instructions for the trailer.

END OF WORK PACKAGE

COMPOSITE TAILLIGHT ASSEMBLY REPLACEMENT/REPAIR 0049 00

THIS WORK PACKAGE COVERS:

Removal (Incandescent Model), Disassembly (Incandescent Model), Assembly (Incandescent Model), Installation (Incandescent Model), Removal (LED Model), Installation (LED Model), Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0176 00)
Wrench, Torque, 0-75 lb-ft (Item 53, WP 0176 00)
Wrench, Torque, 0-175 lb-ft (Item 49, WP 0176 00)
Goggles, Industrial (Item 8, WP 0176 00)

Materials/Parts
Ties, Cable, Plastic (Item 37, WP 0174 00)
Dispenser, Pressure Sensitive Adhesive Tape (Item 10, WP 0174 00)

Materials/Parts
Lockwasher (2) (Item 12, WP 0179 00)
Packing, Preformed (Item 17, WP 0179 00)

References
Towing vehicle Operator manual
WP 0009 00

Equipment Conditions
Trailer uncoupled (WP 0012 00).

REMOVAL (Incandescent Model)

WARNING

Wear appropriate eye protection when working under vehicle due to the possibility of falling debris. Failure to comply may result in injury to personnel.

NOTE

Tag wires and connection points prior to disconnecting.

Remove plastic cable ties as required.

Left and right composite taillights are removed the same way. Left side shown.

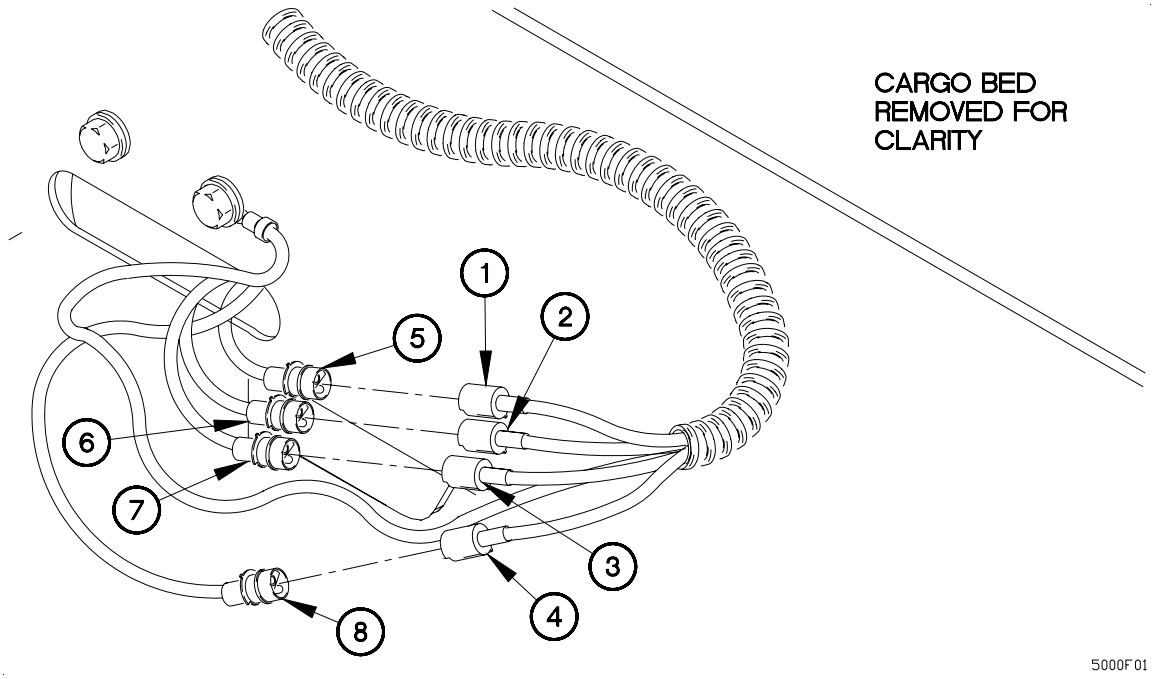
Connectors and corresponding light connections are:

Right Side		Left Side	
J258	21	J262	21
J259	22	J263	22
J260	24	J264	24
J261	23	J265	23
TL269	Ground	TL270	Ground

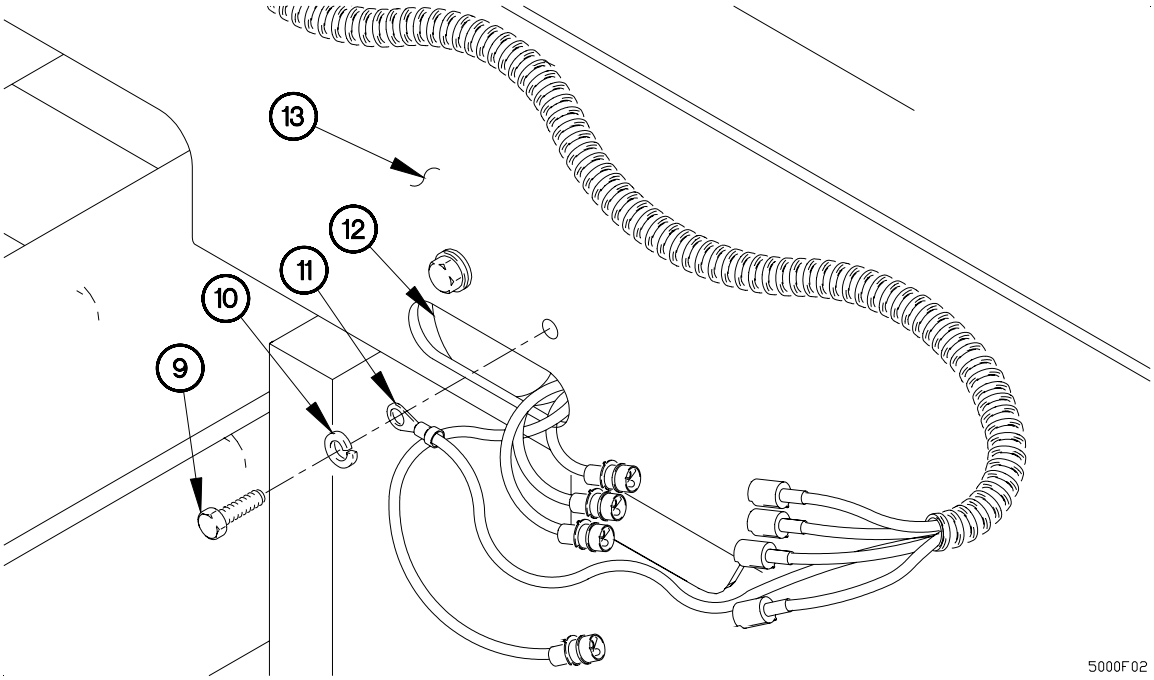
COMPOSITE TAILLIGHT ASSEMBLY REPLACEMENT/REPAIR 0049 00
REPLACEMENT/REPAIR - Continued

REMOVAL (Incandescent Model) - Continued

1. Disconnect connectors J262 (1), J263 (2), J264 (3), and J265 (4) from left taillight connectors 21 (5), 22 (6), 24 (7), and 23 (8).



2. Remove two screws (9), lockwashers (10), terminal lug TL270 (11) and composite taillight assembly (12) from taillight mounting crossmember (13). Discard lockwashers.

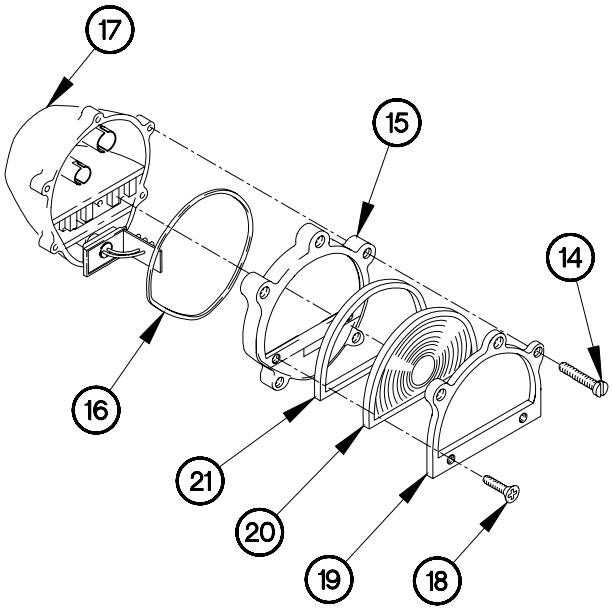


COMPOSITE TAILLIGHT ASSEMBLY REPLACEMENT/REPAIR 0049 00
REPLACEMENT/REPAIR - Continued

DISASSEMBLY (Incandescent Model)

1. Remove six screws (14), cover (15), and preformed packing (16) from housing (17). Discard preformed packing.

2. Remove two screws (18), bezel (19), lens (20), and retainer (21) from cover (15).

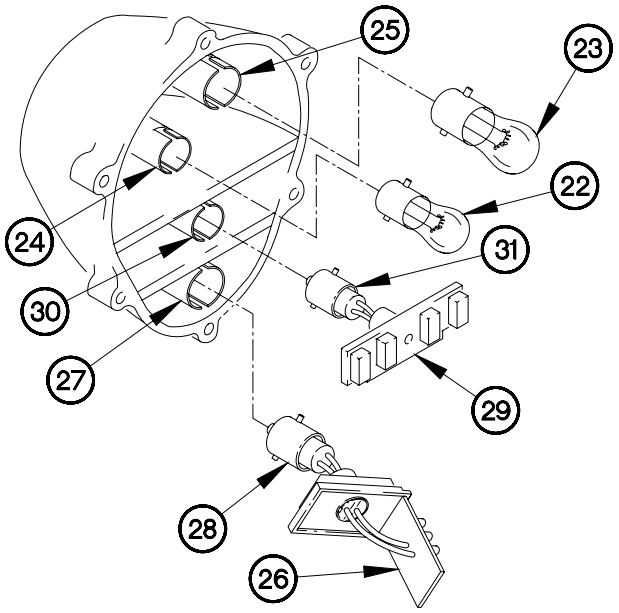


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COMPOSITE TAILLIGHT ASSEMBLY REPLACEMENT/REPAIR 0049 00
REPLACEMENT/REPAIR - Continued

DISASSEMBLY (Incandescent Model) - Continued

3. Remove lamps (22 and 23) from sockets (24 and 25).
4. Disconnect blackout stoplight lamp (26) for access to socket (27).
5. Remove connector (28) from socket (27).
6. Position blackout marker lamp (29) for access to socket (30).
7. Remove connector (31) from socket (30).

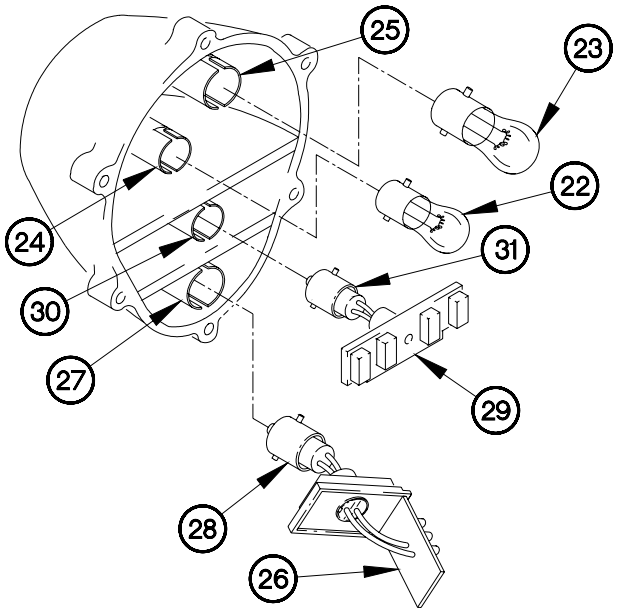


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COMPOSITE TAILLIGHT ASSEMBLY REPLACEMENT/REPAIR 0049 00
REPLACEMENT/REPAIR - Continued

ASSEMBLY (Incandescent Model)

1. Install connector (31) in socket (30).
2. Install blackout marker lamp (29) on connector (31).
3. Install connector (28) in socket (27).
4. Install blackout stoplight lamp (26) on connector (28).
5. Install two lamps (22) and (23) in sockets (24) and (25).

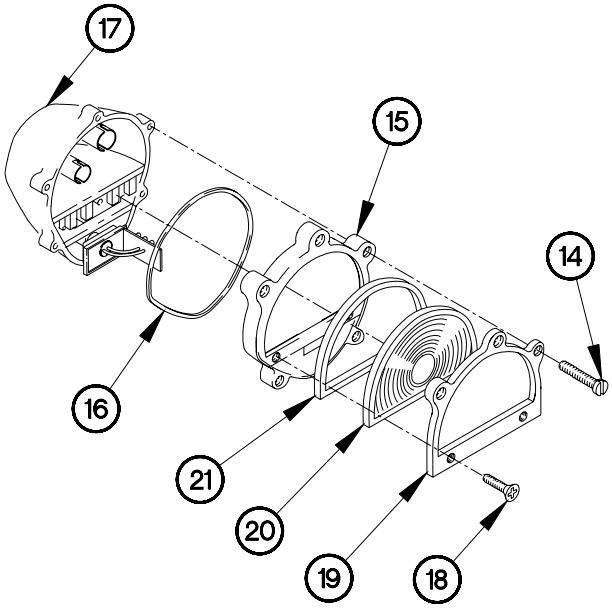


5000F04

COMPOSITE TAILLIGHT ASSEMBLY REPLACEMENT/REPAIR 0049 00
REPLACEMENT/REPAIR - Continued

ASSEMBLY (Incandescent Model) - Continued

6. Position retainer (21), lens (20), and bezel (19) on cover (15) with two screws (18).
7. Position preformed packing (16) and cover (15) on housing (17) with six screws (14).
8. Tighten two screws (18) and six screws (14) to 20-25 lb-in. (1 N•m).



5000F03

COMPOSITE TAILLIGHT ASSEMBLY REPLACEMENT/REPAIR 0049 00
REPLACEMENT/REPAIR - Continued

INSTALLATION (Incandescent Model)

NOTE

Install plastic cable ties as required.

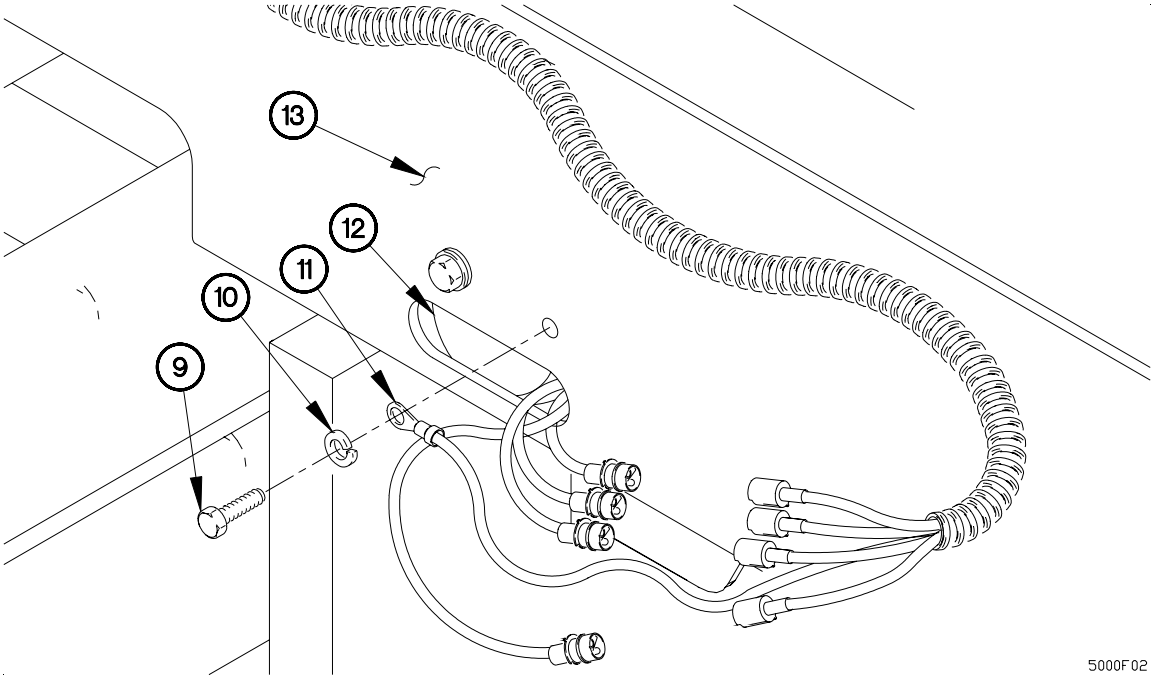
Left and right composite taillights are installed the same way. Left side shown.

Connectors and corresponding light connections are:

Right Side		Left Side	
J258	21	J262	21
J259	22	J263	22
J260	24	J264	24
J261	23	J265	23
TL269	Ground	TL270	Ground

1. Position two lockwashers (10), screws (9), terminal lug TL270 (11) and composite taillight assembly (12) on taillight mounting crossmember (13).

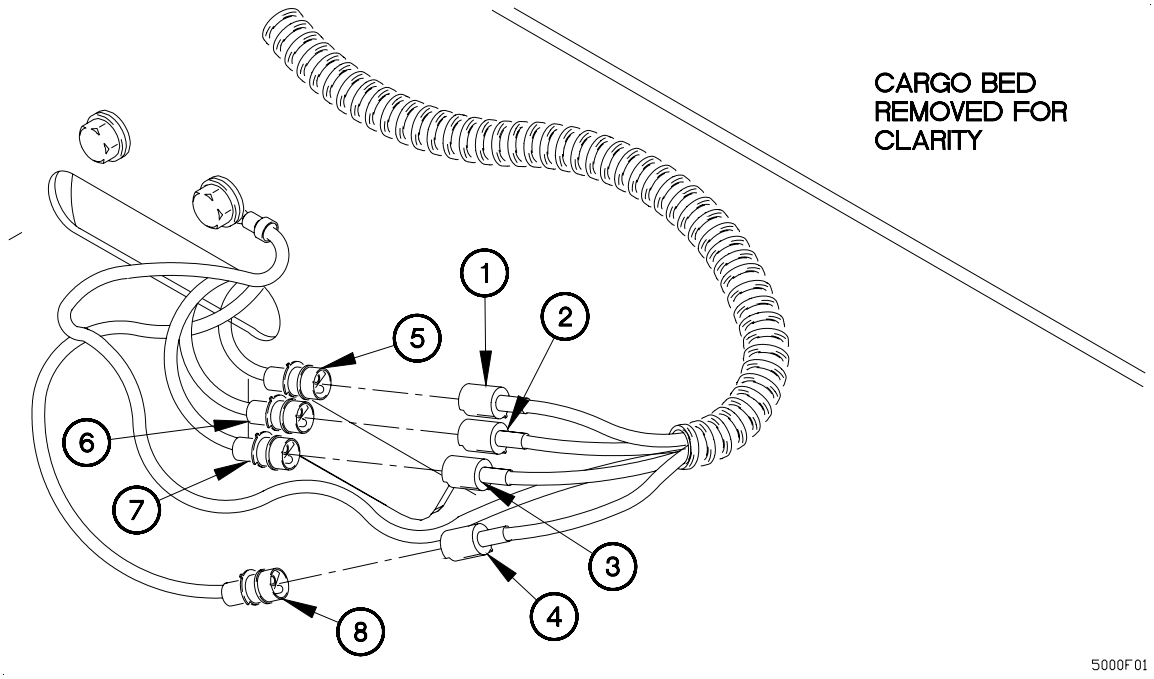
2. Tighten two screws (9) to 19-23 lb-ft (26-32 N•m).



COMPOSITE TAILLIGHT ASSEMBLY REPLACEMENT/REPAIR 0049 00
REPLACEMENT/REPAIR - Continued

INSTALLATION (Incandescent Model) - Continued

3. Connect left taillight connectors 23 (8), 24 (7), 461, 461, 22 (6), and 21 (5) to connectors J265 (4), J264 (3), J263 (2), and J262 (1).



COMPOSITE TAILLIGHT ASSEMBLY REPLACEMENT/REPAIR 0049 00
REPLACEMENT/REPAIR - Continued

REMOVAL (LED Model)

WARNING

Wear appropriate eye protection when working under vehicle due to the possibility of falling debris. Failure to comply may result in injury to personnel.

NOTE

Tag wires and connection points prior to disconnecting.

Remove plastic cable ties as required.

Left and right composite taillights are removed the same way. Left side shown.

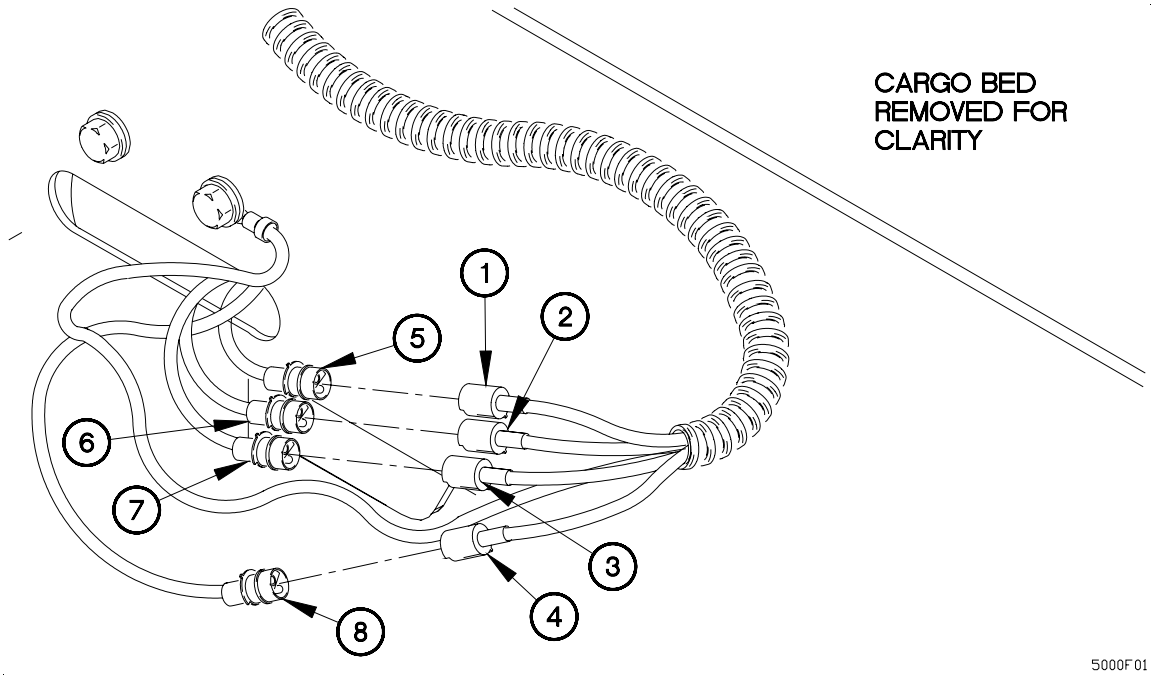
Connectors and corresponding light connections are:

Right Side		Left Side	
J258	21	J262	21
J259	22	J263	22
J260	24	J264	24
J261	23	J265	23
TL269	Ground	TL270	Ground

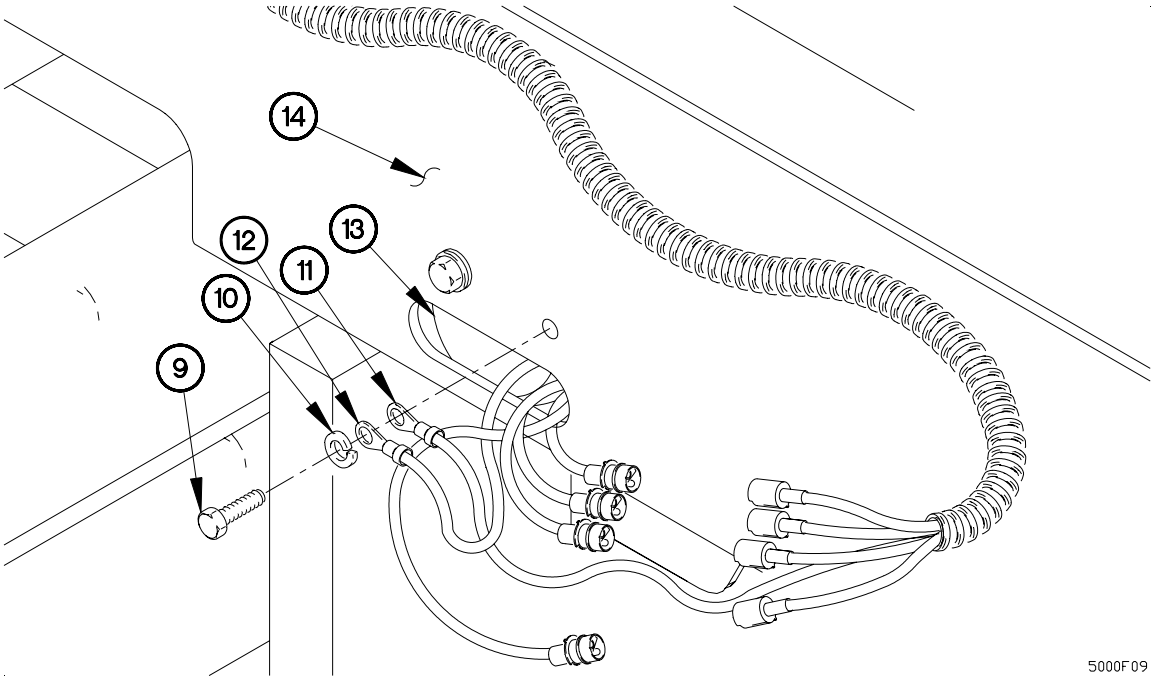
COMPOSITE TAILLIGHT ASSEMBLY REPLACEMENT/REPAIR 0049 00
REPLACEMENT/REPAIR - Continued

REMOVAL (LED Model) - Continued

1. Disconnect connectors J262 (1), J263 (2), J264 (3), and J265 (4) from left taillight connectors 21 (5), 22 (6), 24 (7), and 23 (8).



2. Remove two screws (9), lockwashers (10), terminal lug TL270 (11), ground lug (12), and composite taillight assembly (13) from taillight mounting crossmember (14). Discard lockwashers.



COMPOSITE TAILLIGHT ASSEMBLY REPLACEMENT/REPAIR 0049 00
REPLACEMENT/REPAIR - Continued

INSTALLATION (LED Model)

NOTE

Install plastic cable ties as required.

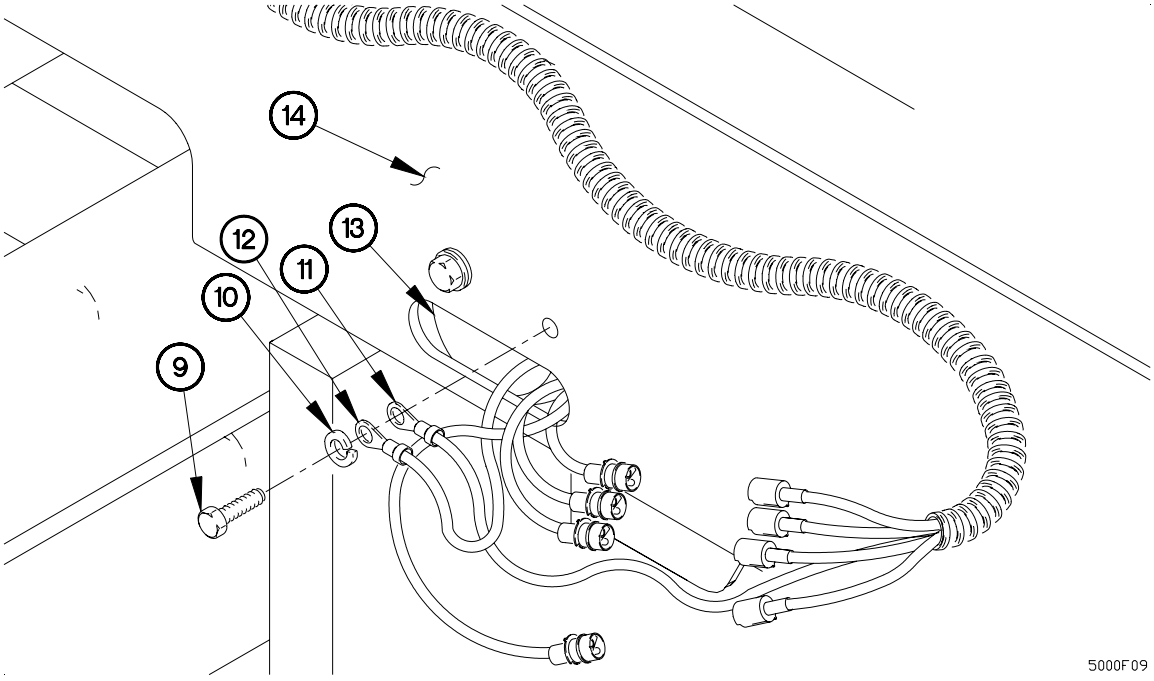
Left and right composite taillights are installed the same way. Left side shown.

Connectors and corresponding light connections are:

Right Side		Left Side	
J258	21	J262	21
J259	22	J263	22
J260	24	J264	24
J261	23	J265	23
TL269	Ground	TL270	Ground

1. Position two lockwashers (10), screws (9), terminal lug TL270 (11), ground lug (12) and composite taillight assembly (13) on taillight mounting crossmember (14).

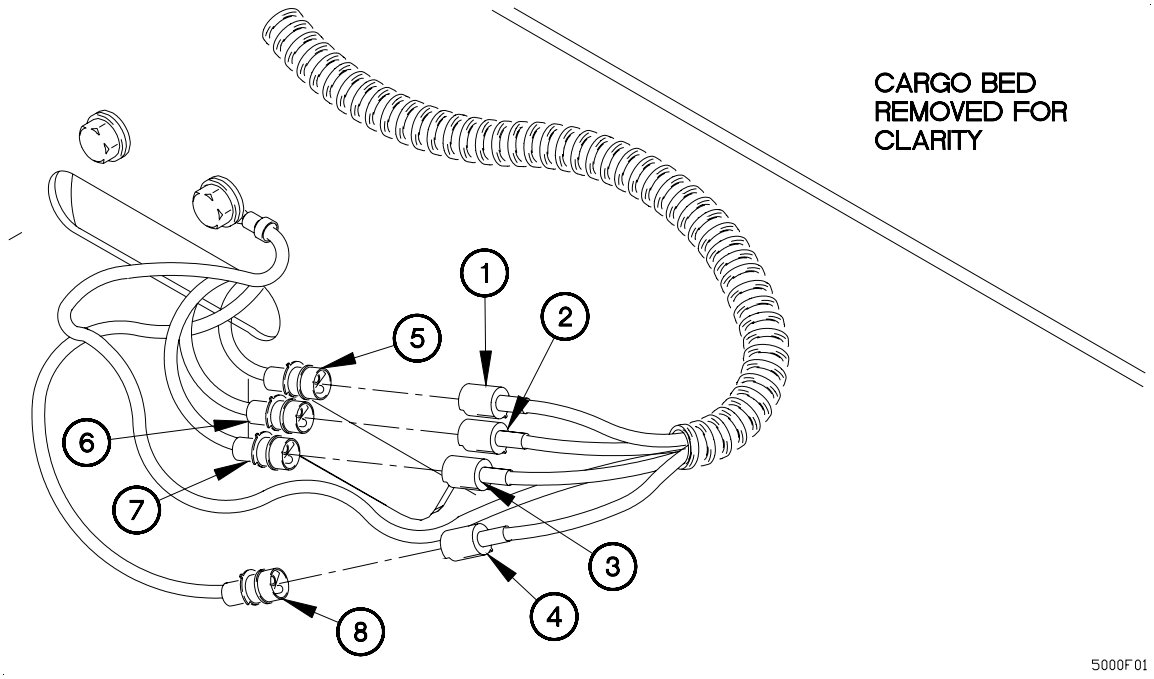
2. Tighten two screws (9) to 19-23 lb-ft (26-32 N•m).



COMPOSITE TAILLIGHT ASSEMBLY REPLACEMENT/REPAIR 0049 00
REPLACEMENT/REPAIR - Continued

INSTALLATION (LED Model) - Continued

3. Connect left taillight connectors 23 (8), 24 (7), 461, 461, 22 (6), and 21 (5) to connectors J265 (4), J264 (3), J263 (2), and J262 (1).



OPERATIONAL CHECK

1. Couple trailer (WP 0009 00, Coupling Trailer).
2. Check operation of taillights.
3. Check operation of blackout lights.
4. Check operation of brake lights.
5. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

CLEARANCE AND MARKER LIGHT ASSEMBLIES REPLACEMENT 0050 00

THIS WORK PACKAGE COVERS:

Removal (Incandescent Model), Installation (Incandescent Model), Removal (LED Clearance Model), Installation (LED Clearance Model), Removal (LED Marker Model), Installation (LED Marker Model), Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Wrench, Torque, 0-300 lb-in. (Item 51, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)

Materials/Parts
Lockwashers (2) (Item 10, WP 0181 00) (Incandescent Model)
Lockwashers (4) (Item 41, WP 0181 00) (Incandescent Model)
Lockwasher (Item 63, WP 0181 00) (LED Marker Model)

Materials/Parts (Cont.)
Ties, Cable, Plastic (Item 37, WP 176 00)
Adhesive (Item 1, WP 0176 00)
Nut, Self-Locking (4) (Item 61, WP 0181 00) (Incandescent Model)
Nut, Self-Locking (8) (Item 62, WP 0181 00) (LED Clearance and Marker Models)
Tool Kit, Genl Mech (Item 37, WP 0178 00)

References
Towing vehicle Operator manual
WP 0009 00

Equipment Conditions
Trailer uncoupled (WP 0012 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

CLEARANCE AND MARKER LIGHT REMOVAL (Incandescent Model)

NOTE

Remove plastic cable ties as required.

All clearance and marker lights are removed the same way. Right marker light shown.

Clearance and marker connectors are:

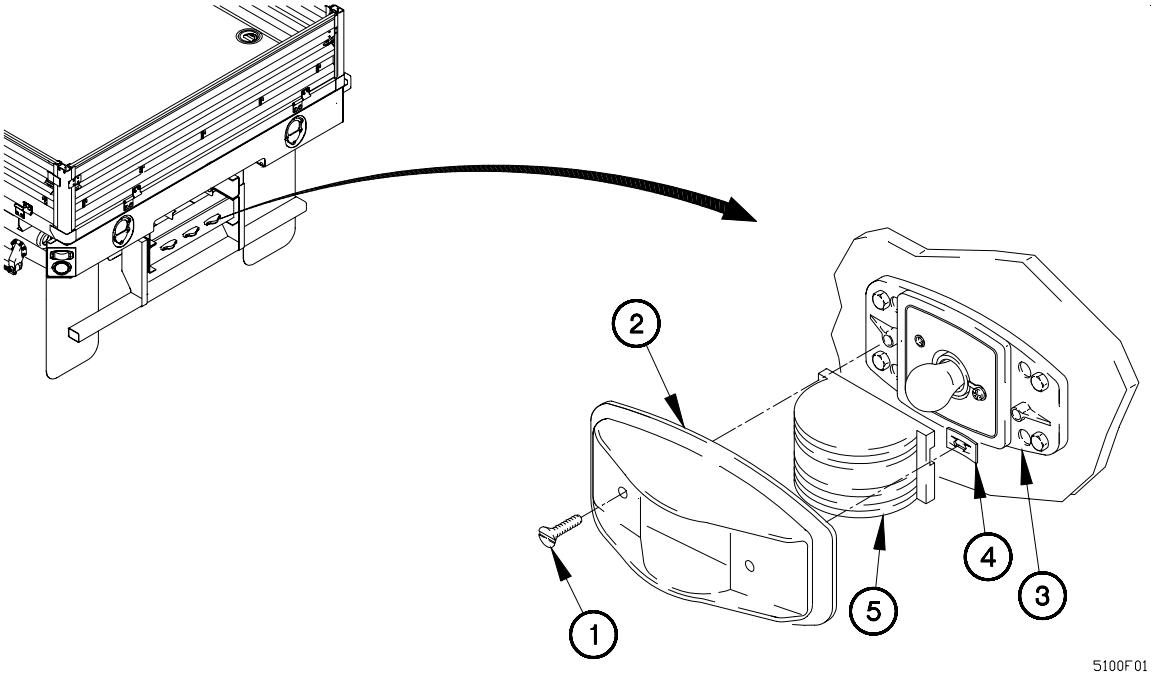
Right front clearance connector	J250:TL262
Left front clearance connector	J251:TL263
Right rear clearance connector	J255:TL267
Left rear clearance connector	J256:TL268
Left marker light	J252:TL264
Center marker light	J253:TL265
Right marker light	J254:TL266

CLEARANCE AND MARKER LIGHT ASSEMBLIES REPLACEMENT - Continued

0050 00

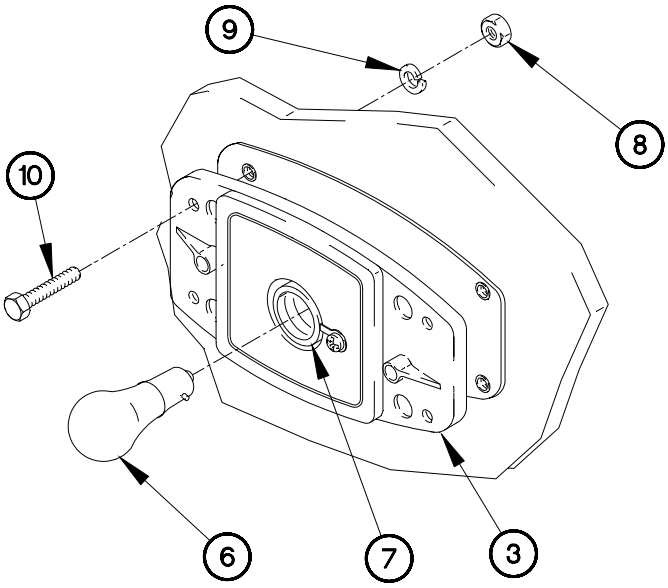
CLEARANCE AND MARKER LIGHT REMOVAL (Incandescent Model) - Continued

1. Remove two screws (1) and lens cover (2) from base (3).
2. Remove two clips (4) and lens (5) from lens cover (2).



5100F01

3. Remove lamp (6) from socket (7).
4. Remove four self-locking nuts (8), lockwashers (9), and screws (10) from base (3). Discard self-locking nuts and lockwashers.



5100F02

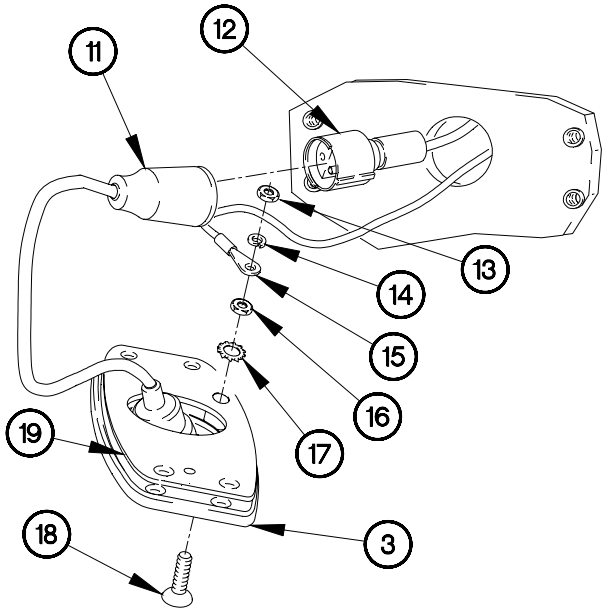
CLEARANCE AND MARKER LIGHT ASSEMBLIES REPLACEMENT - Continued

CLEARANCE AND MARKER LIGHT REMOVAL (Incandescent Model) - Continued

5. Disconnect plug (11) from connector J254 (12).

6. Remove nut (13), lockwasher (14), terminal lug TL266 (15), nut (16), lockwasher (17), screw (18) and base (3) from trailer. Discard lockwashers.

7. Remove gasket (19) from trailer.



5100F03

CLEARANCE AND MARKER LIGHT INSTALLATION (Incandescent Model)

NOTE

Install plastic cable ties as required.

All clearance and marker lights are installed the same way. Right marker light shown.

Clearance and marker connectors are:

Right front clearance connector	J250:TL262
Left front clearance connector	J251:TL263
Right rear clearance connector	J255:TL267
Left rear clearance connector	J256:TL268
Left marker light	J252:TL264
Center marker light	J253:TL265
Right marker light	J254:TL266

CLEARANCE AND MARKER LIGHT ASSEMBLIES REPLACEMENT - Continued

0050 00

CLEARANCE AND MARKER LIGHT INSTALLATION (Incandescent Model) - Continued

1. Install gasket (19) on base (3).

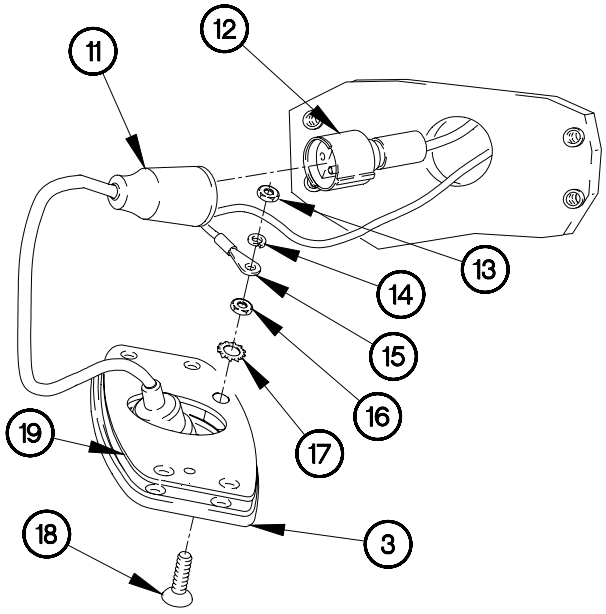
WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in a well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

2. Apply adhesive to threads of screw (18).

3. Install screw (18) in base (3) with lockwasher (17), nut (16), terminal lug TL266 (15), lockwasher (14), and nut (13).

4. Connect connector J254 (12) to plug (11).



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CLEARANCE AND MARKER LIGHT ASSEMBLIES REPLACEMENT - Continued

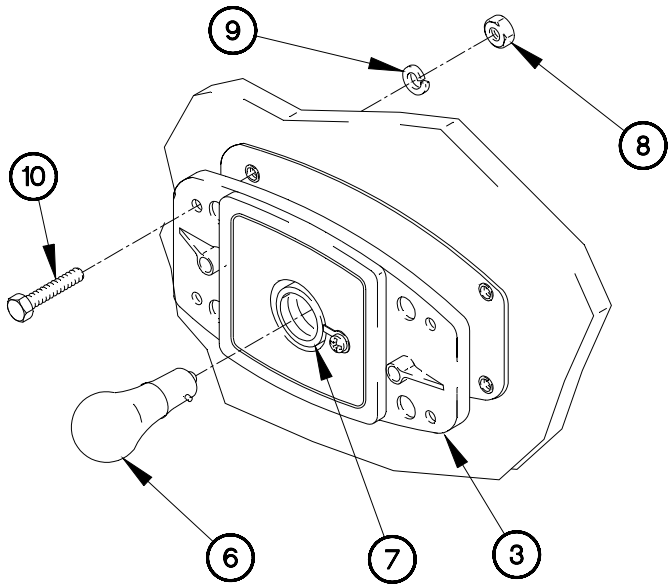
0050 00

CLEARANCE AND MARKER LIGHT INSTALLATION (Incandescent Model) - Continued

5. Position base (3) on trailer with four screws (10), lockwashers (9), and self-locking nuts (8).

6. Tighten nuts (8) to 29-36 lb-in. (3-4 N•m).

7. Install lamp (6) in socket (7).



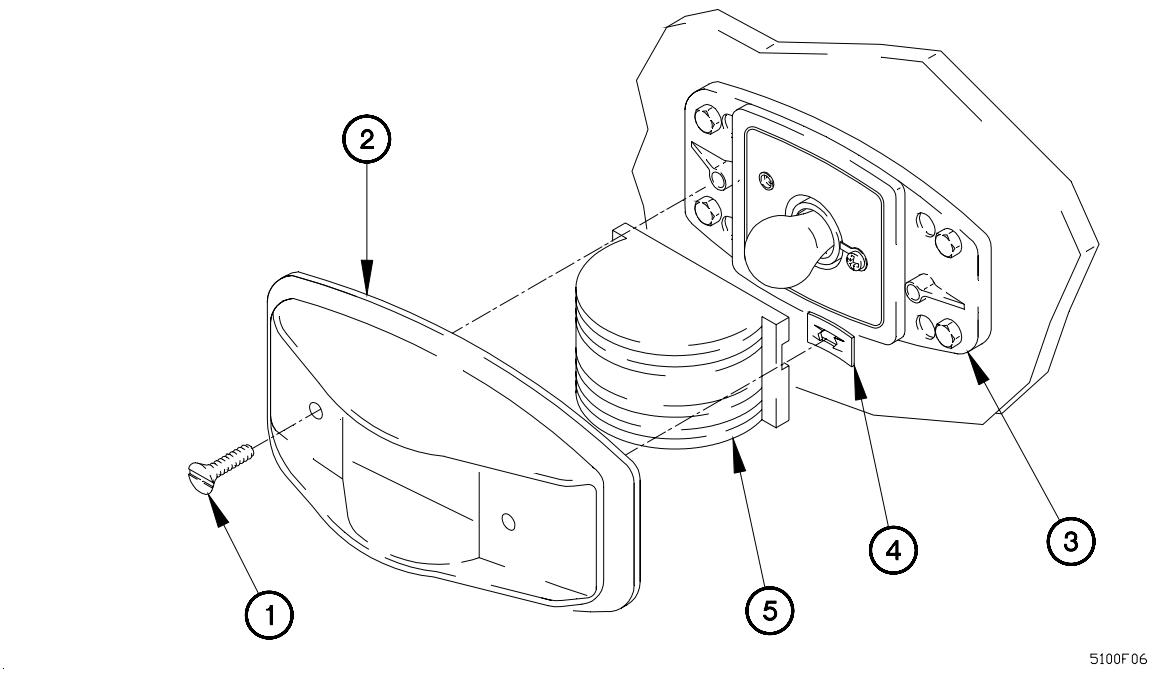
5100F02

CLEARANCE AND MARKER LIGHT ASSEMBLIES REPLACEMENT - Continued

CLEARANCE AND MARKER LIGHT INSTALLATION (Incandescent Model) - Continued

8. Install lens (5) on lens cover (2) with two clips (4).

9. Install lens cover (2) on base (3) with two screws (1).



CLEARANCE AND MARKER LIGHT ASSEMBLIES REPLACEMENT - Continued

0050 00

CLEARANCE AND MARKER LIGHT REMOVAL (LED Clearance Model)

NOTE

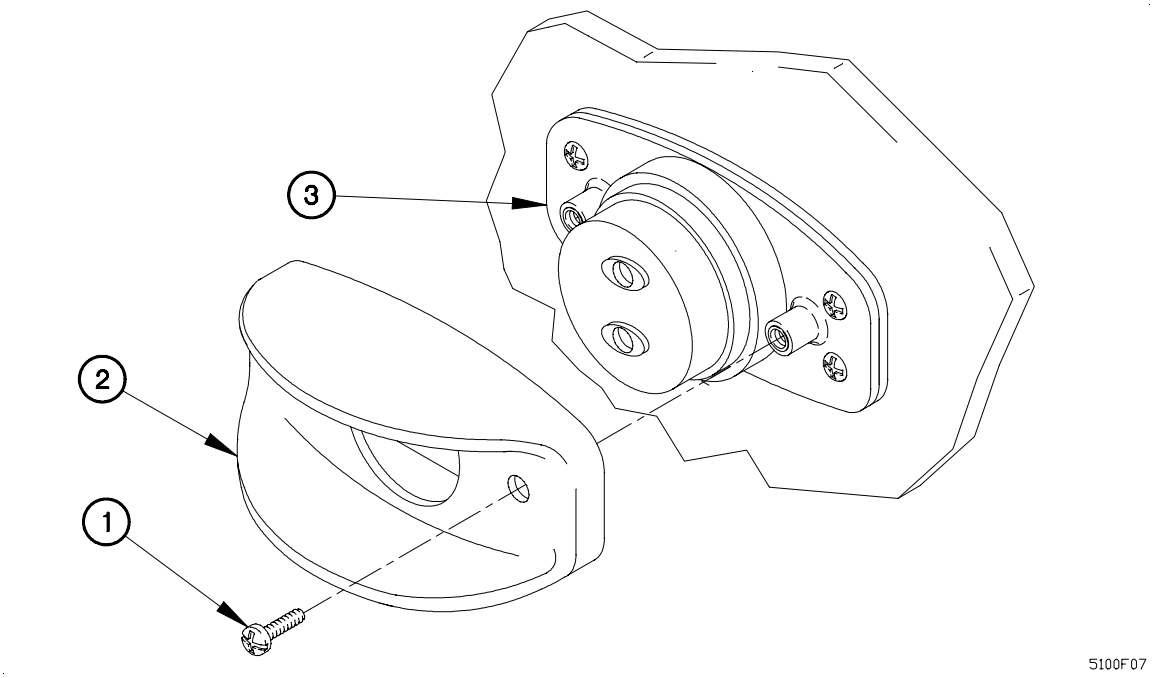
Remove plastic cable ties as required.

All clearance and marker lights are removed the same way. Right front clearance light shown.

Clearance and marker connectors are:

Right front clearance connector	J250:TL262
Left front clearance connector	J251:TL263
Right rear clearance connector	J255:TL267
Left rear clearance connector	J256:TL268
Left marker light	J252:TL264
Center marker light	J253:TL265
Right marker light	J254:TL266

1. Remove two screws (1) and bracket (2) from marker light (3).



5100F07

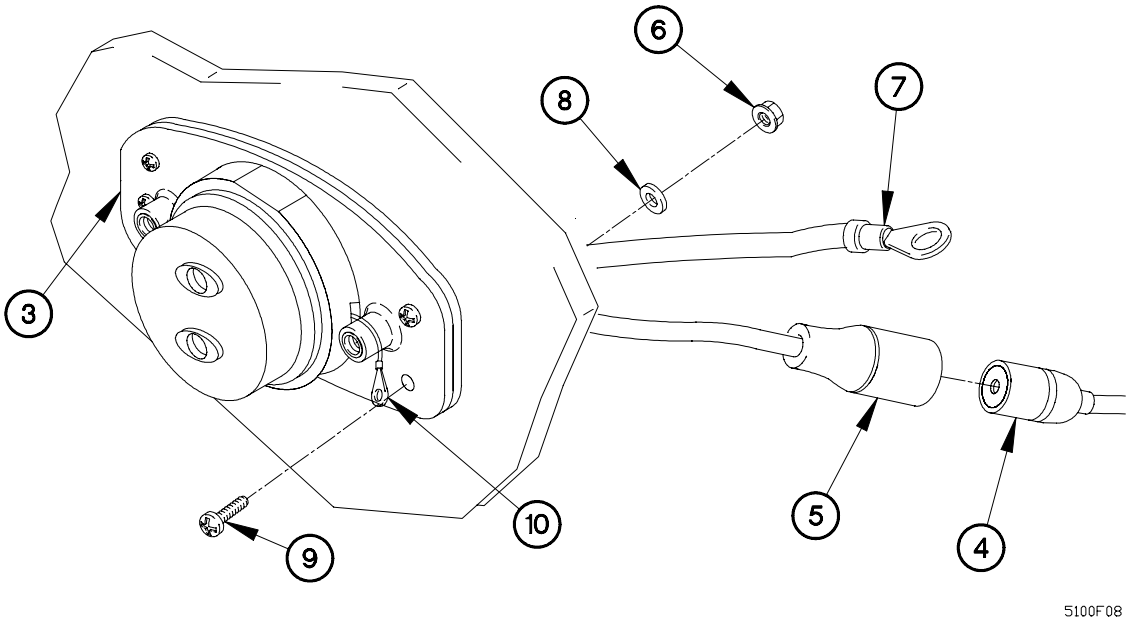
CLEARANCE AND MARKER LIGHT ASSEMBLIES REPLACEMENT - Continued

0050 00

CLEARANCE AND MARKER LIGHT REMOVAL (LED Clearance Model) - Continued

2. Disconnect plug (4) from connector J250 (5).

3. Remove self-locking nut (6), washer (7), terminal lug TL262 (8), ground lug (9), and screw (10) from marker light (3).



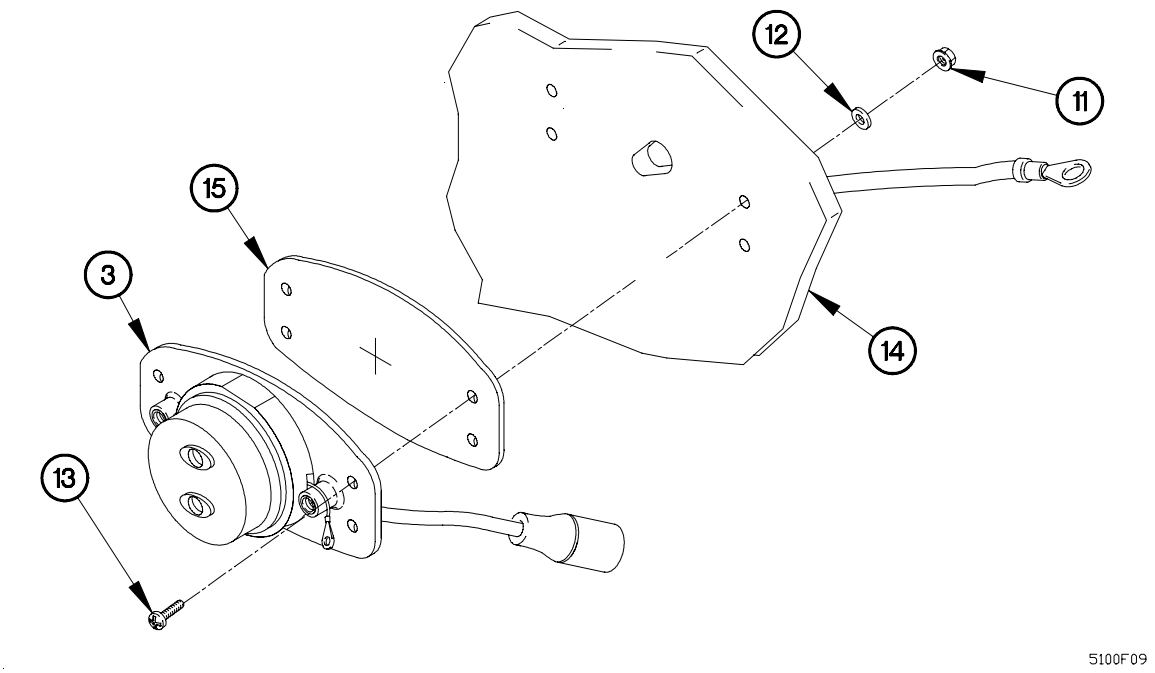
CLEARANCE AND MARKER LIGHT ASSEMBLIES REPLACEMENT - Continued

0050 00

CLEARANCE AND MARKER LIGHT REMOVAL (LED Clearance Model) - Continued

4. Remove three self-locking nuts (11), washers (12), screws (13), and marker light (3), from bumper (14).

5. Remove gasket (15) from marker light (3).



CLEARANCE AND MARKER LIGHT INSTALLATION (LED Clearance Model)

NOTE

Install plastic cable ties as required.

All clearance and marker lights are installed the same way. Right front clearnace light shown.

Clearance and marker connectors are:

Right front clearance connector	J250:TL262
Left front clearance connector	J251:TL263
Right rear clearance connector	J255:TL267
Left rear clearance connector	J256:TL268
Left marker light	J252:TL264
Center marker light	J253:TL265
Right marker light	J254:TL266

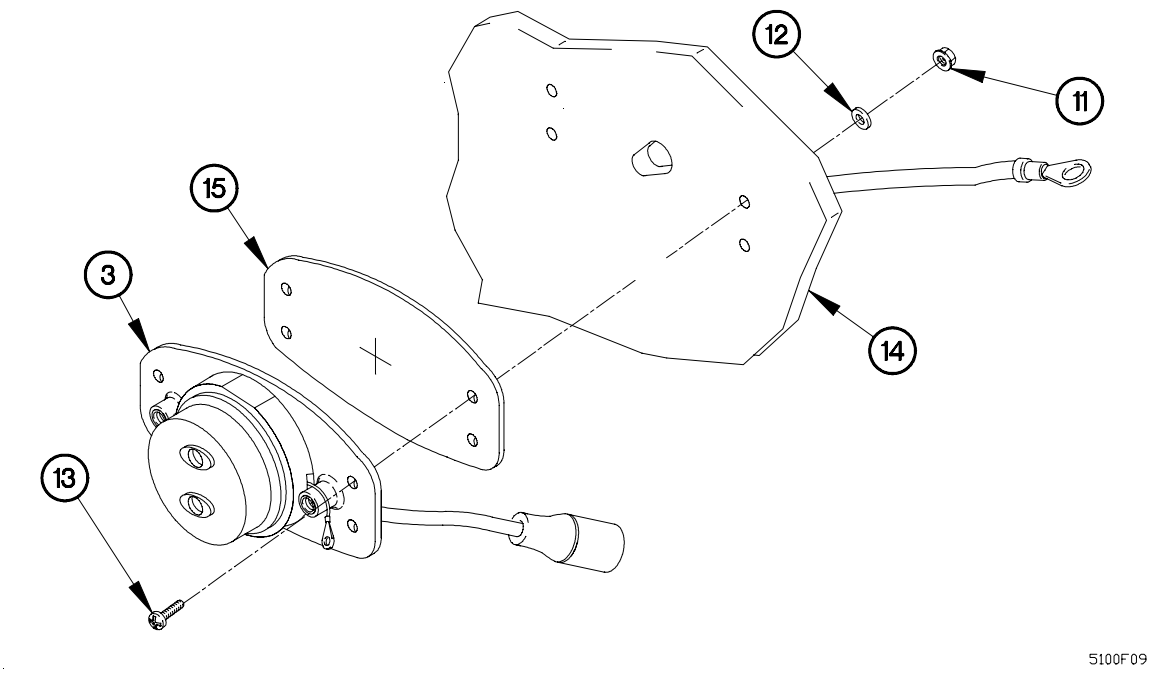
CLEARANCE AND MARKER LIGHT ASSEMBLIES REPLACEMENT - Continued

0050 00

CLEARANCE AND MARKER LIGHT INSTALLATION (LED Clearance Model) - Continued

1. Position gasket (15) on marker light (3).

2. Position marker light (3) on bumper (14) with three screws (13), washers (12), and self-locking nuts (11).



CLEARANCE AND MARKER LIGHT ASSEMBLIES REPLACEMENT - Continued

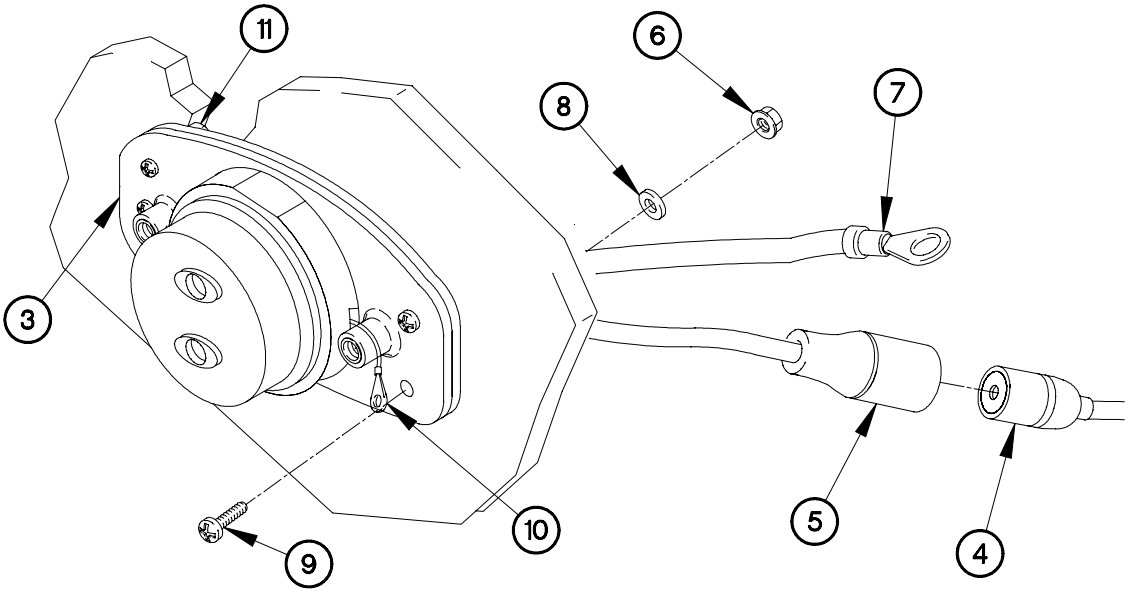
0050 00

CLEARANCE AND MARKER LIGHT INSTALLATION (LED Clearance Model) - Continued

3. Position ground terminal (10), screw (9), washer (8), and terminal lug TL262 (7) on marker light (3) with self-locking nut (6).

4. Tighten three nuts (11) and nut (6) to 27-33 lb-in. (3-4 N•m).

5. Connect connector J250 (4) to lamp connector (5).

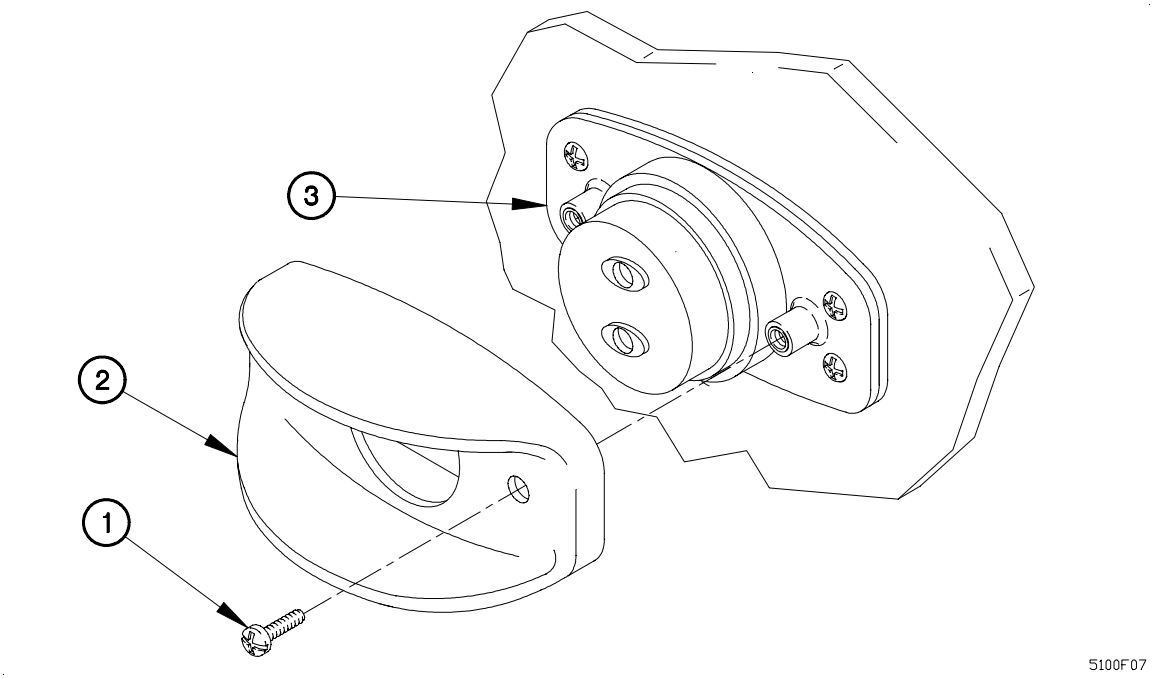


CLEARANCE AND MARKER LIGHT ASSEMBLIES REPLACEMENT - Continued

0050 00

CLEARANCE AND MARKER LIGHT INSTALLATION (LED Clearance Model) - Continued

6. Install bracket (2) on marker light (3) with two screws (1).



CLEARANCE AND MARKER LIGHT ASSEMBLIES REPLACEMENT - Continued

0050 00

CLEARANCE AND MARKER LIGHT REMOVAL (LED Marker Model)

NOTE

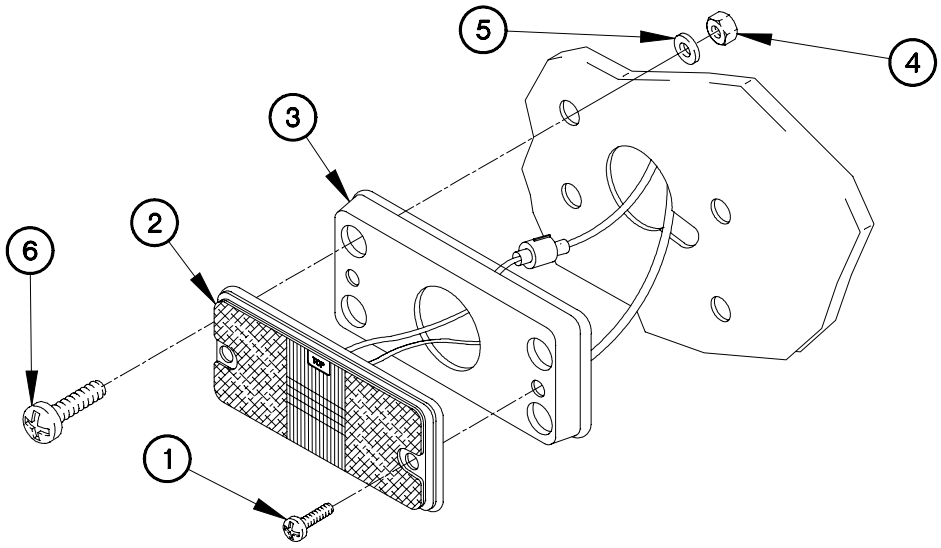
Remove plastic cable ties as required.

All clearance and marker lights are removed the same way. Right marker light shown.

Clearance and marker connectors are:

Right front clearance connector	J250:TL262
Left front clearance connector	J251:TL263
Right rear clearance connector	J255:TL267
Left rear clearance connector	J256:TL268
Left marker light	J252:TL264
Center marker light	J253:TL265
Right marker light	J254:TL266

1. Remove two screws (1) and lamp (2) from base (3).
2. Remove four self-locking nuts (4), washers (5) screws (6) and base (3) from trailer. Discard self-locking nut.



5100F10

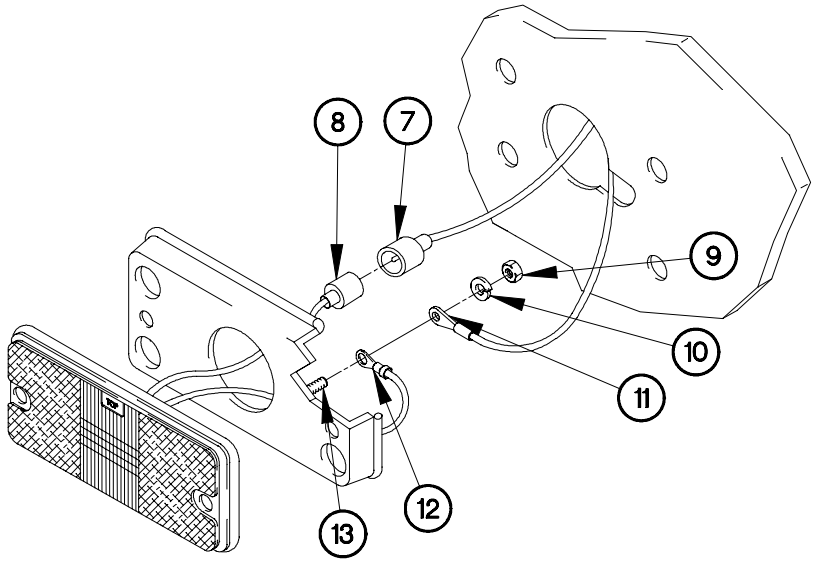
CLEARANCE AND MARKER LIGHT ASSEMBLIES REPLACEMENT - Continued

0050 00

CLEARANCE AND MARKER LIGHT REMOVAL (LED Marker Model) - Continued

3. Disconnect connector J254 (7) from lamp connector (8).

4. Remove nut (9), lockwasher (10), terminal lug TL266 (11), and lamp terminal lug (12) from ground stud (13). Discard lockwasher.



5100F11

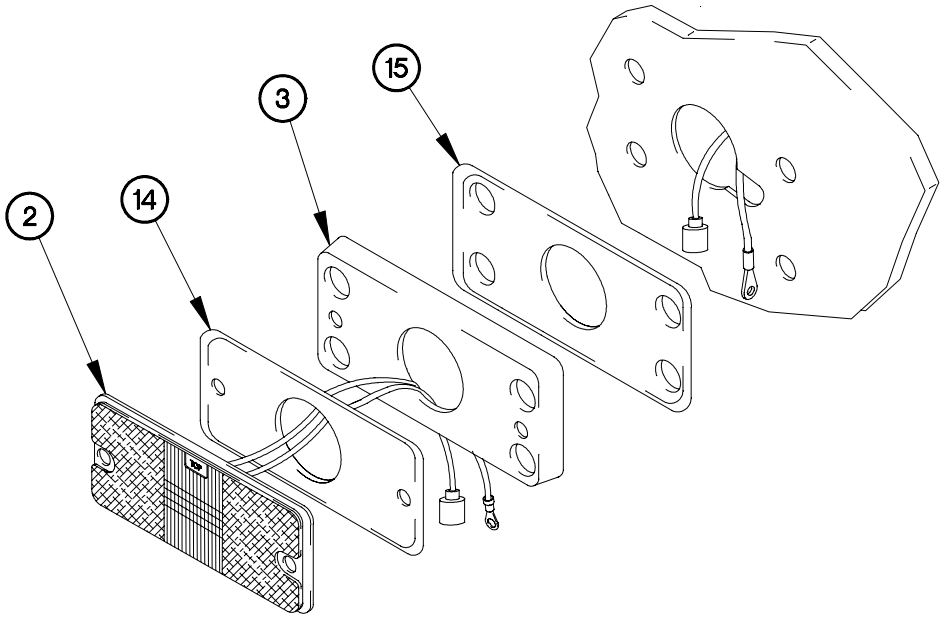
CLEARANCE AND MARKER LIGHT ASSEMBLIES REPLACEMENT - Continued

0050 00

CLEARANCE AND MARKER LIGHT REMOVAL (LED Marker Model) - Continued

5. Remove gasket (14) from lamp (2). Discard gasket.

6. Remove gasket (15) from base (3). Discard gasket.



5100F12

CLEARANCE AND MARKER LIGHT ASSEMBLIES REPLACEMENT - Continued

0050 00

CLEARANCE AND MARKER LIGHT INSTALLATION (LED Marker Model)

NOTE

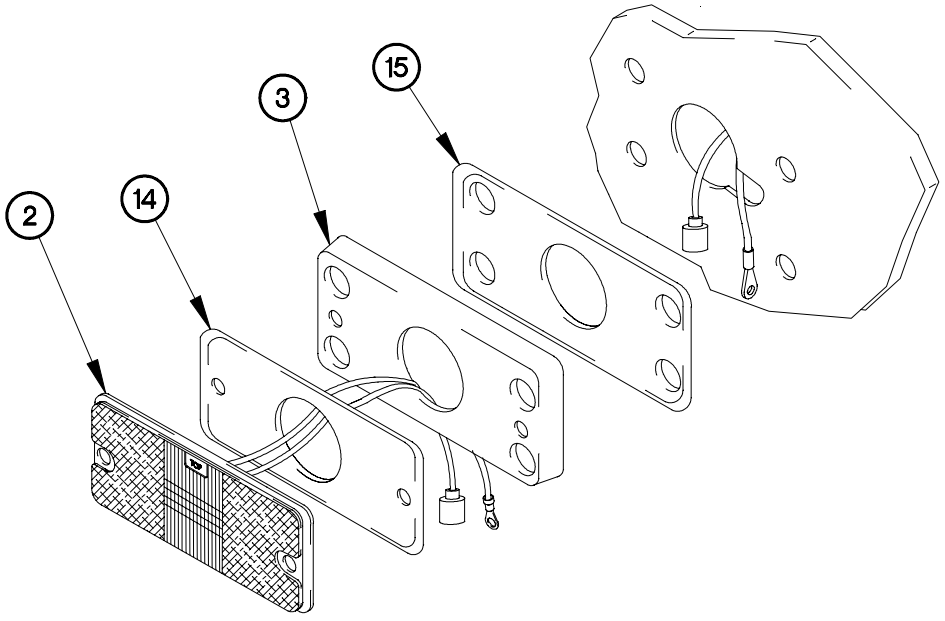
Install plastic cable ties as required.

All clearance and marker lights are installed the same way. Right marker light shown.

Clearance and marker connectors are:

Right front clearance connector	J250:TL262
Left front clearance connector	J251:TL263
Right rear clearance connector	J255:TL267
Left rear clearance connector	J256:TL268
Left marker light	J252:TL264
Center marker light	J253:TL265
Right marker light	J254:TL266

1. Position gasket (15) on base (3).
2. Position gasket (14) on lamp (2).



5100F12

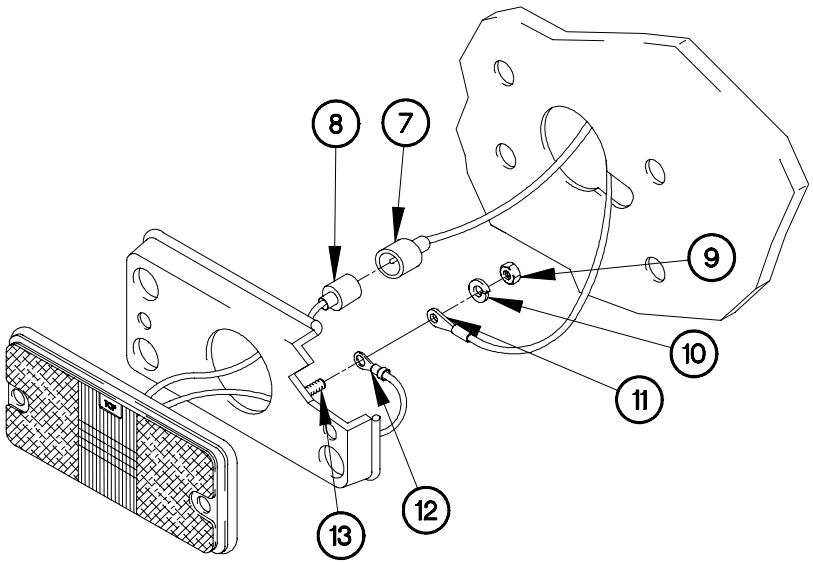
CLEARANCE AND MARKER LIGHT ASSEMBLIES REPLACEMENT - Continued

CLEARANCE AND MARKER LIGHT INSTALLATION (LED Marker Model) - Continued

3. Position lamp terminal lug (12), terminal lug TL266 (11) and lockwasher (10) on ground stud (13) with nut (9).

4. Tighten nut (9) to 18-22 lb-in. (2-3 N•m).

5. Connect connector J254 (7) to lamp connector (8).



5100F11

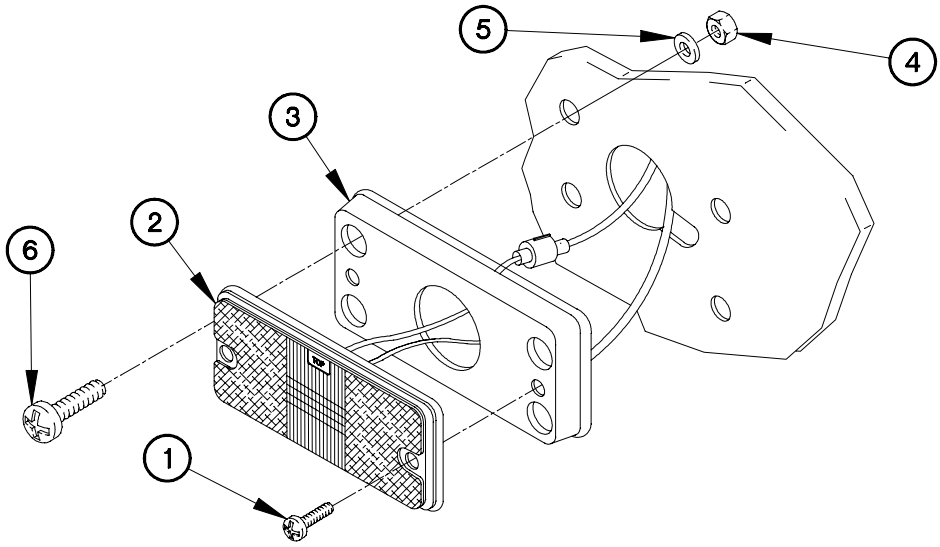
CLEARANCE AND MARKER LIGHT ASSEMBLIES REPLACEMENT - Continued

0050 00

CLEARANCE AND MARKER LIGHT INSTALLATION (LED Marker Model) – Continued

6. Install base (3) on trailer with four washers (5), screws (6), and self-locking nuts (4).

7. Install lamp (2) on base (3) with two screws (1).



5100F10

OPERATIONAL CHECK

1. Couple trailer (WP 0009 00, Coupling Trailer).

2. Check clearance and marker light operation.

3. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

ELECTRICAL CABLE ASSEMBLY REPLACEMENT 0051 00

THIS WORK PACKAGE COVERS:

Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level

Field

Tools and Special Tools

Tool Kit, Genl Mech (Item 37, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench, Torque, 0-175 lb-ft (Item 49, WP 0178 00)
Wrench, Torque, 0-300 lb-in. (Item 51, WP 0178 00)

Materials/Parts

Ties, Cable, Plastic (Item 37, WP 176 00)
Lockwasher (14) (Item 10, WP 0181 00)
Lockwasher (2) (Item 12, WP 0181 00)

Materials/Parts (Cont.)

Dispenser, Pressure Sensitive Adhesive Tape (Item 10, WP 0176 00)

References

WP 0009 00
WP 0068 00
WP 0072 00
WP 0088 00
WP 0012 00

Equipment Conditions

Trailer uncoupled (WP 0012 00).
Splash guards removed (WP 0090 00).

REMOVAL

WARNING

Wear appropriate eye protection when working under vehicle due to the possibility of falling debris. Failure to comply may result in injury to personnel.

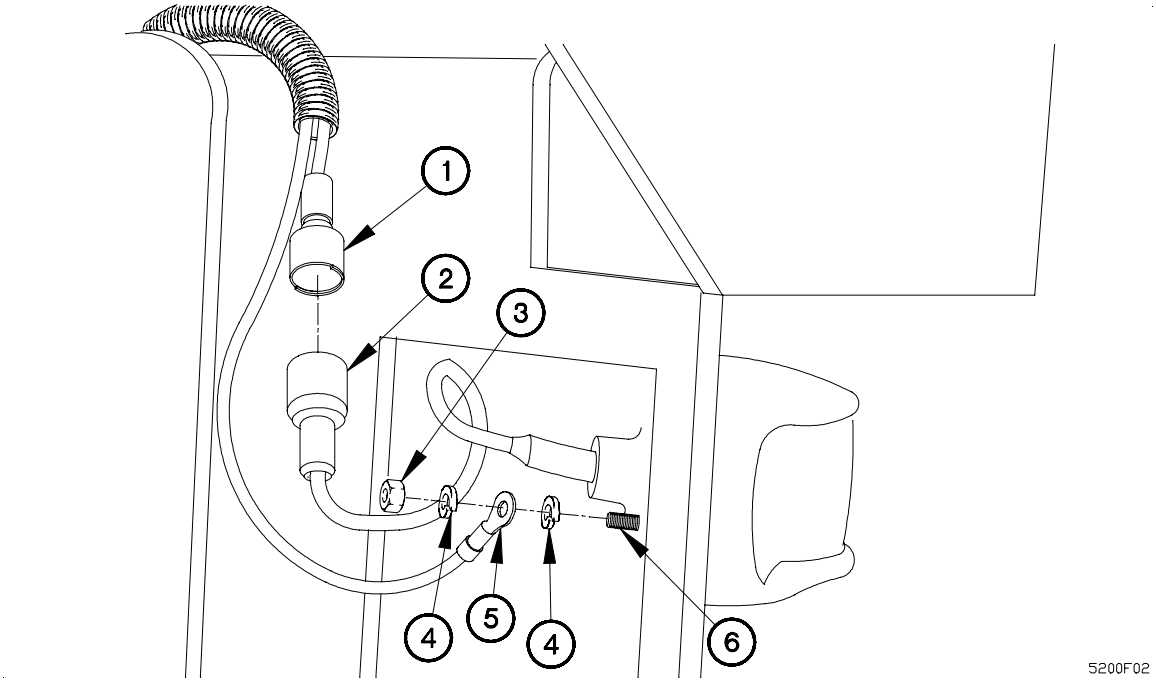
NOTE

Remove plastic cable ties as required.

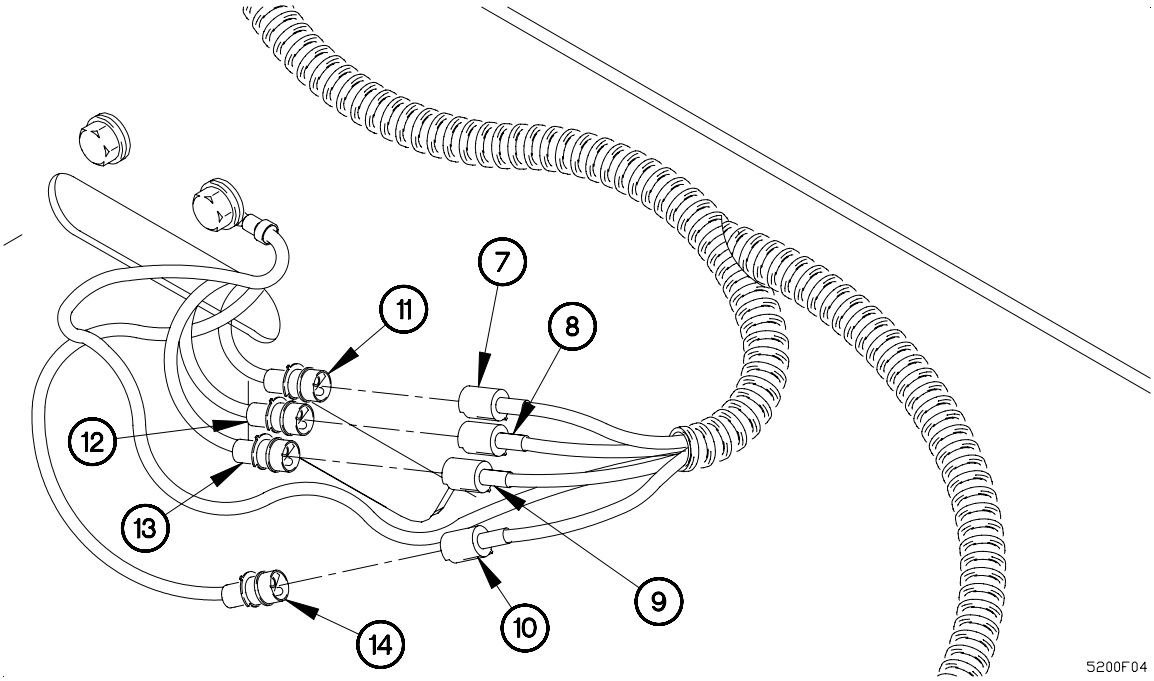
Tag connectors and connection points prior to disconnecting.

REMOVAL - Continued

1. Disconnect connector J256 (1) from left rear marker light connector (2).
2. Remove nut (3), two lockwashers (4), and terminal lug TL268 (5) from marker light stud (6). Discard lockwashers.



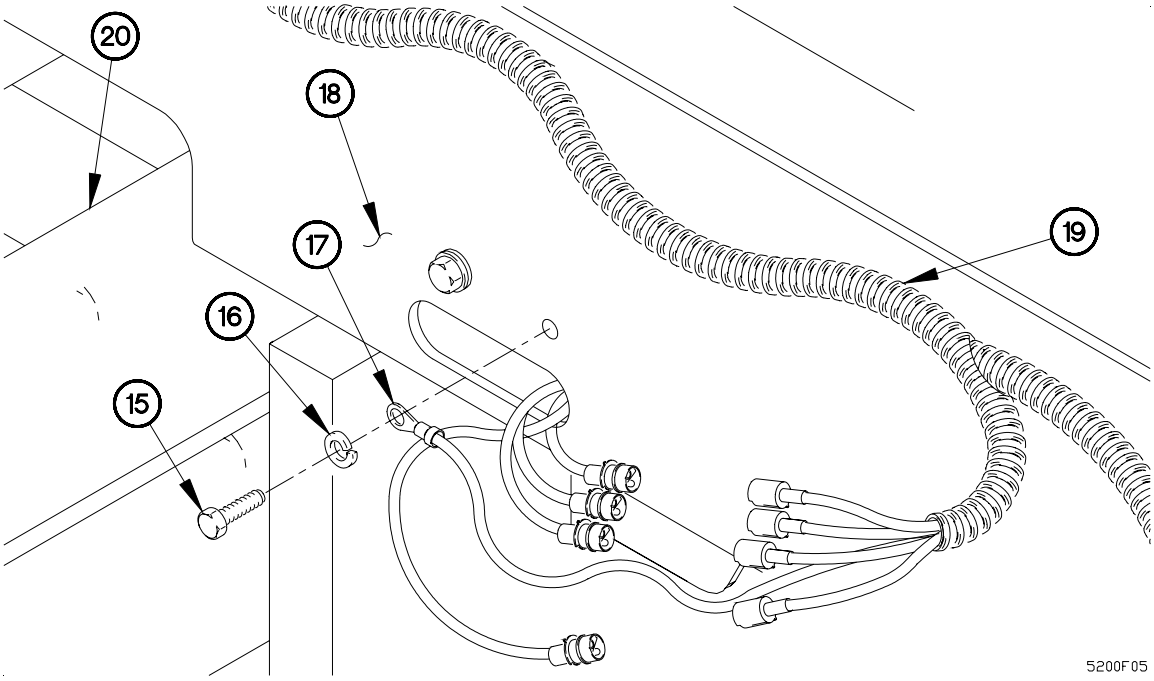
3. Disconnect connectors J262 (7), J263 (8), J264 (9), and J265 (10) from left taillight connectors 21 (11), 460, 461, 22 (12), 24 (13), and 23 (14).



REMOVAL - Continued

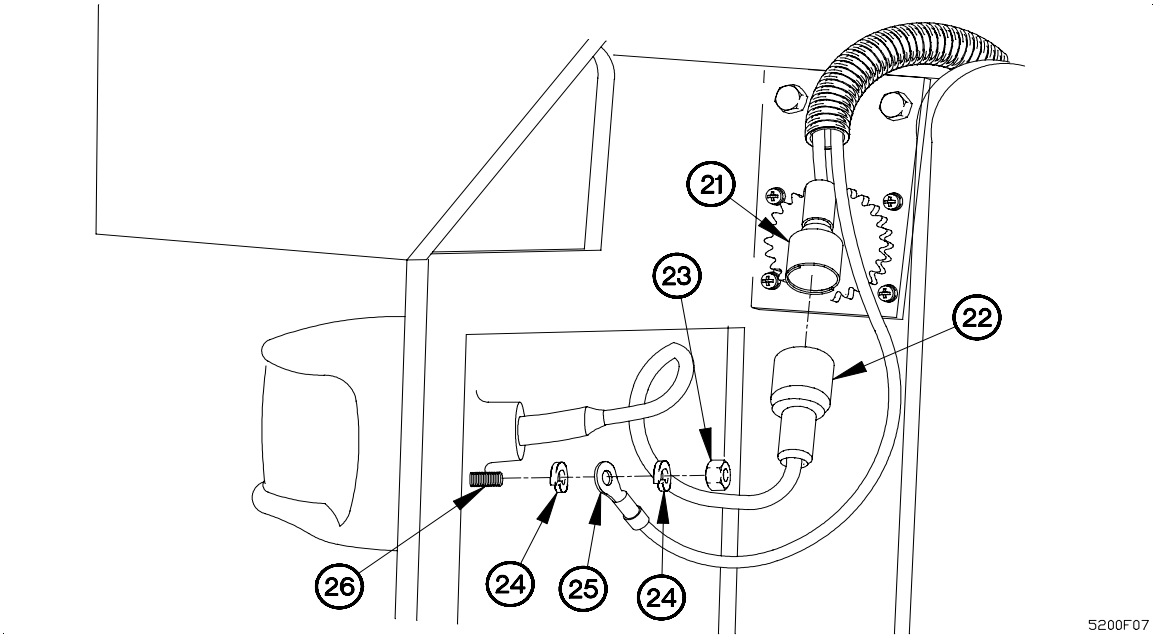
4. Remove screw (15), lockwasher (16), and terminal lug TL270 (17) from taillight crossmember (18). Discard lockwasher.

5. Pull electrical cable assembly (19) through left frame rail (20).



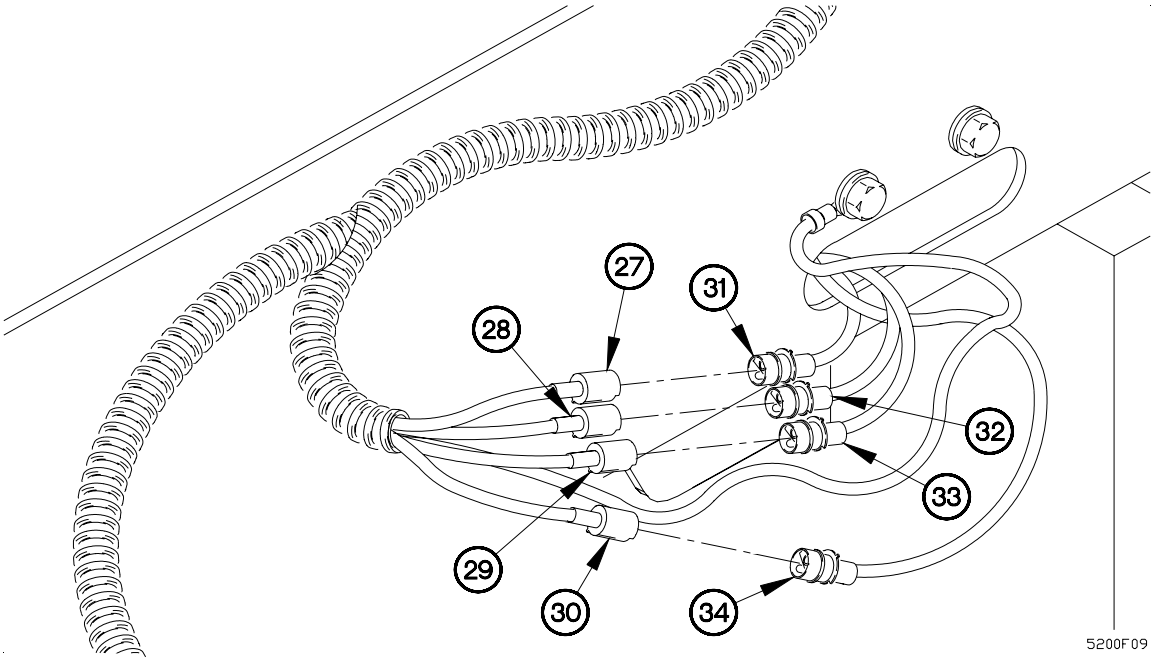
6. Disconnect connector J255 (21) from right rear marker light connector (22).

7. Remove nut (23), two lockwashers (24), and terminal lug TL267 (25) from marker light stud (26). Discard lockwashers.



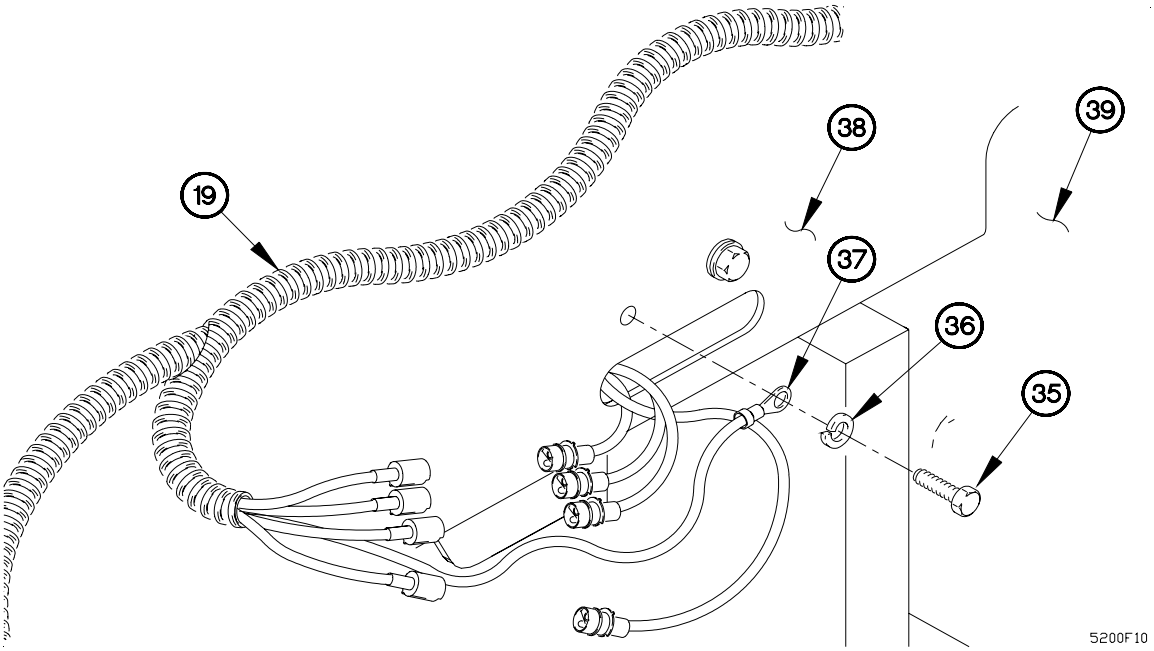
REMOVAL - Continued

8. Disconnect connectors J258 (27), J259 (28), J260 (29), and J261 (30) from right taillight connectors 21 (31), 460, 461, 22 (32), 24 (33), 23 (34).



9. Remove screw (35), lockwasher (36), and terminal lug TL269 (37) from right side of taillight crossmember (38). Discard lockwasher.

10. Pull electrical cable assembly (19) through right frame rail (39).



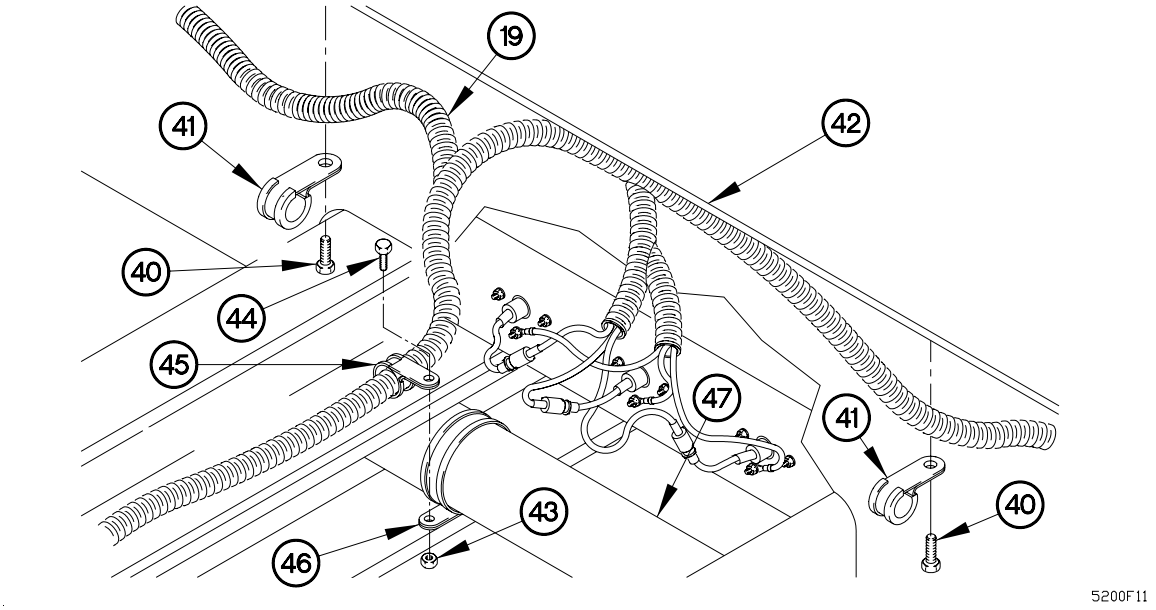
REMOVAL - Continued

11. Remove two screws (40), clamps (41), and electrical cable assembly (19) from cargo bed (42).

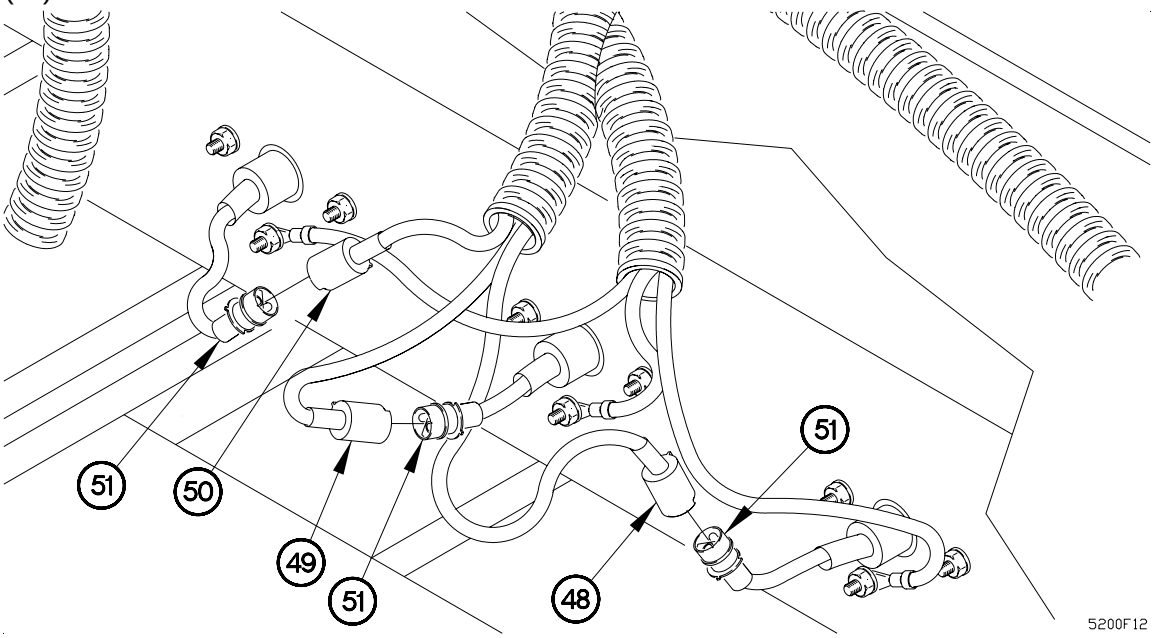
12. Remove two clamps (41) from electrical cable assembly (19).

13. Remove nut (43) screw (44), clamps (45 and 46), and electrical cable assembly (19) from crossmember (47).

14. Remove clamp (45) from electrical cable assembly (19).

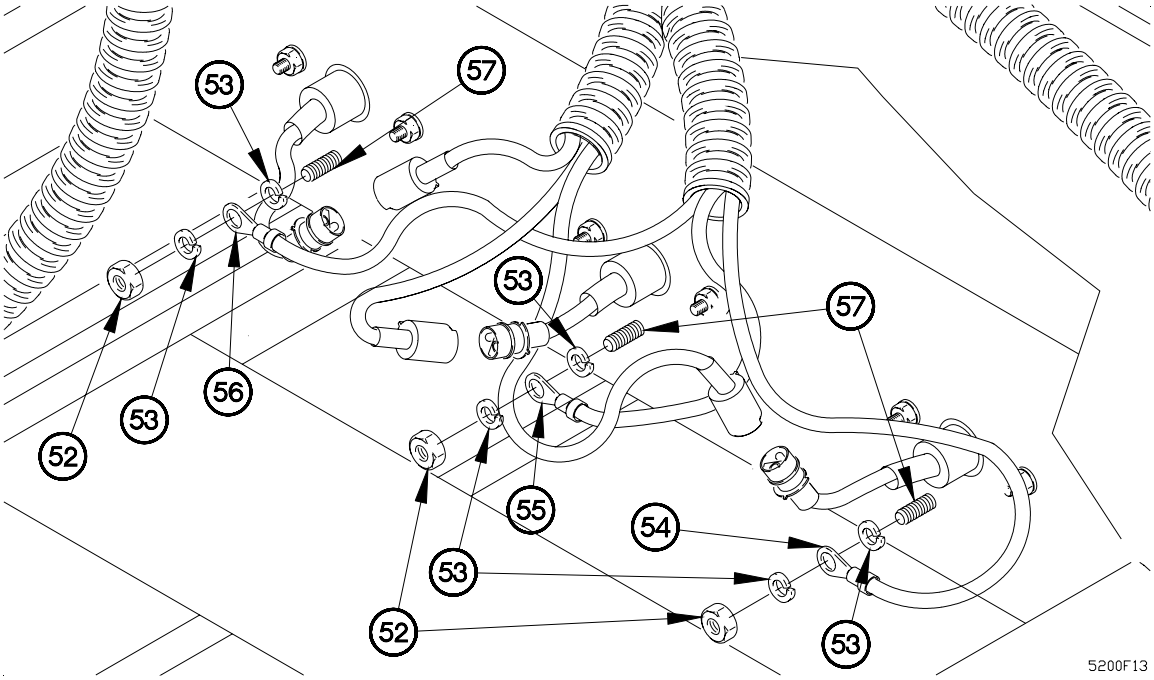


15. Disconnect connectors J252 (48), J253 (49), and J254 (50) from three rear marker light connectors (51).



REMOVAL - Continued

16. Remove three nuts (52), six lockwashers (53), terminal lugs TL 264 (54), TL265 (55), and TL266 (56) from three rear marker light studs (57). Discard lockwashers.



REMOVAL - Continued

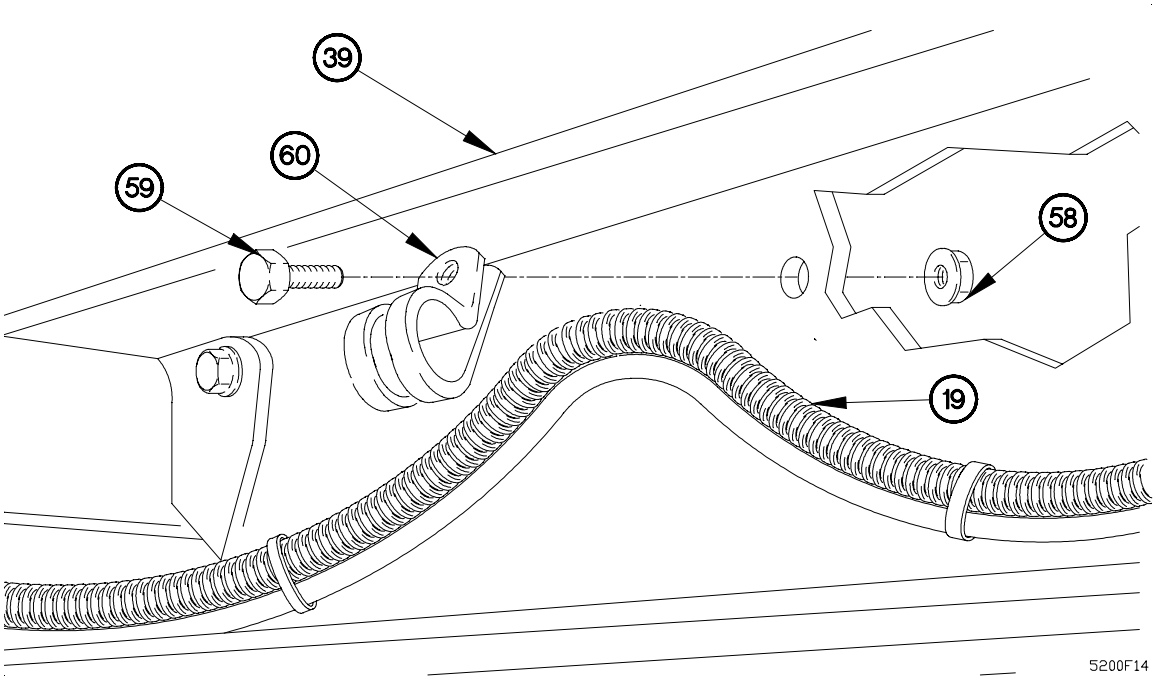
NOTE

Note routing of electrical cable assembly prior to removal.

Perform steps (17) and (18) on LMTVT.

17. Remove three self-locking nuts (58), screws (59), clamps (60), and electrical cable assembly (19) from right frame rail (39). Discard self-locking nuts.

18. Remove three clamps (60) from electrical cable assembly (19).



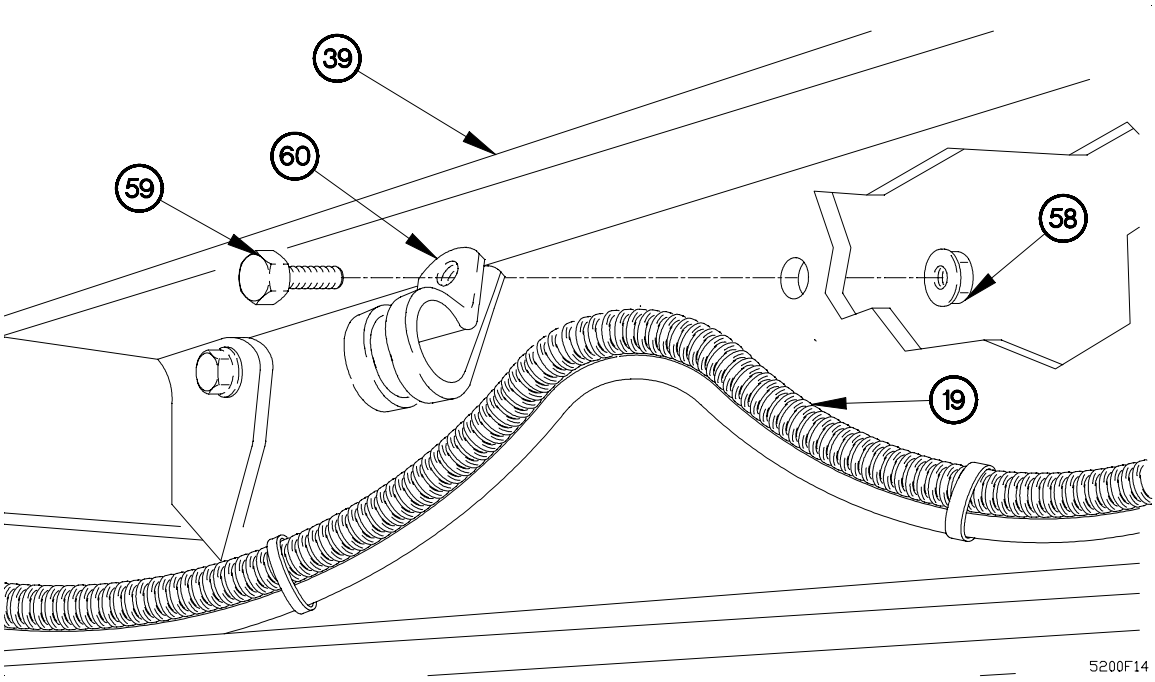
REMOVAL - Continued

NOTE

Perform steps (19) and (20) on MTVT.

19. Remove four self-locking nuts (58), screws (59), clamps (60), and electrical cable assembly (19) from right frame rail (39). Discard self-locking nuts.

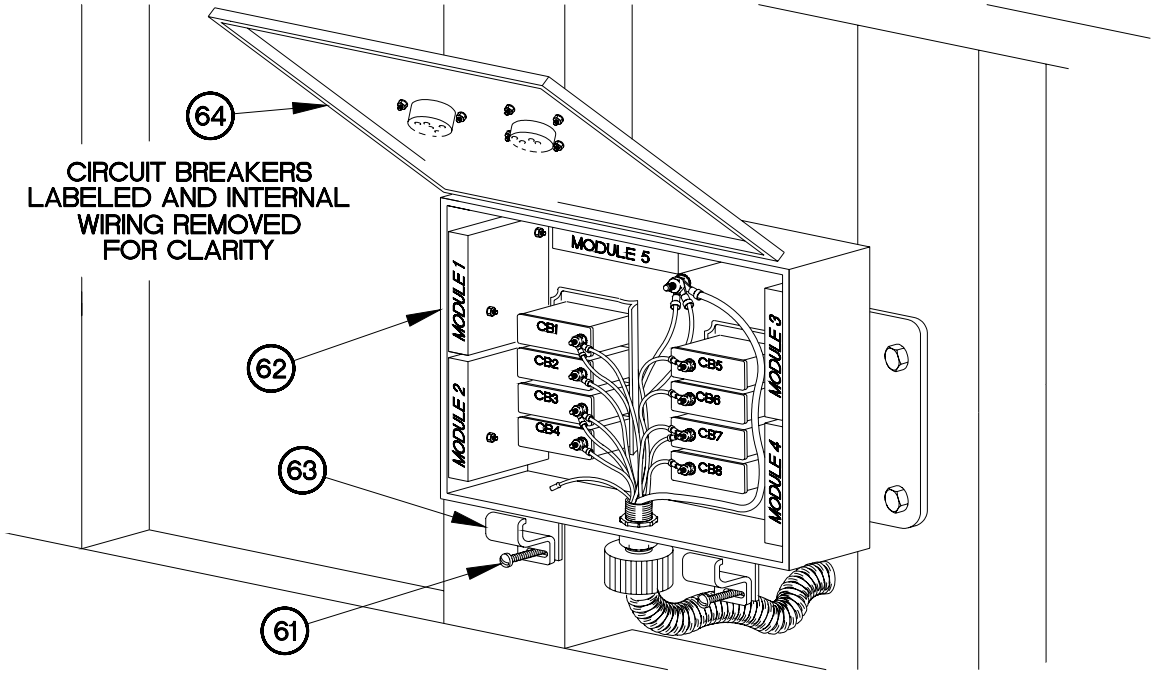
20. Remove four clamps (60) from electrical cable assembly (19).



REMOVAL - Continued

21. Loosen two screws (61) on voltage converter box (62) and disconnect latches (63).

22. Open cover (64) on voltage converter box (62).



5200F15

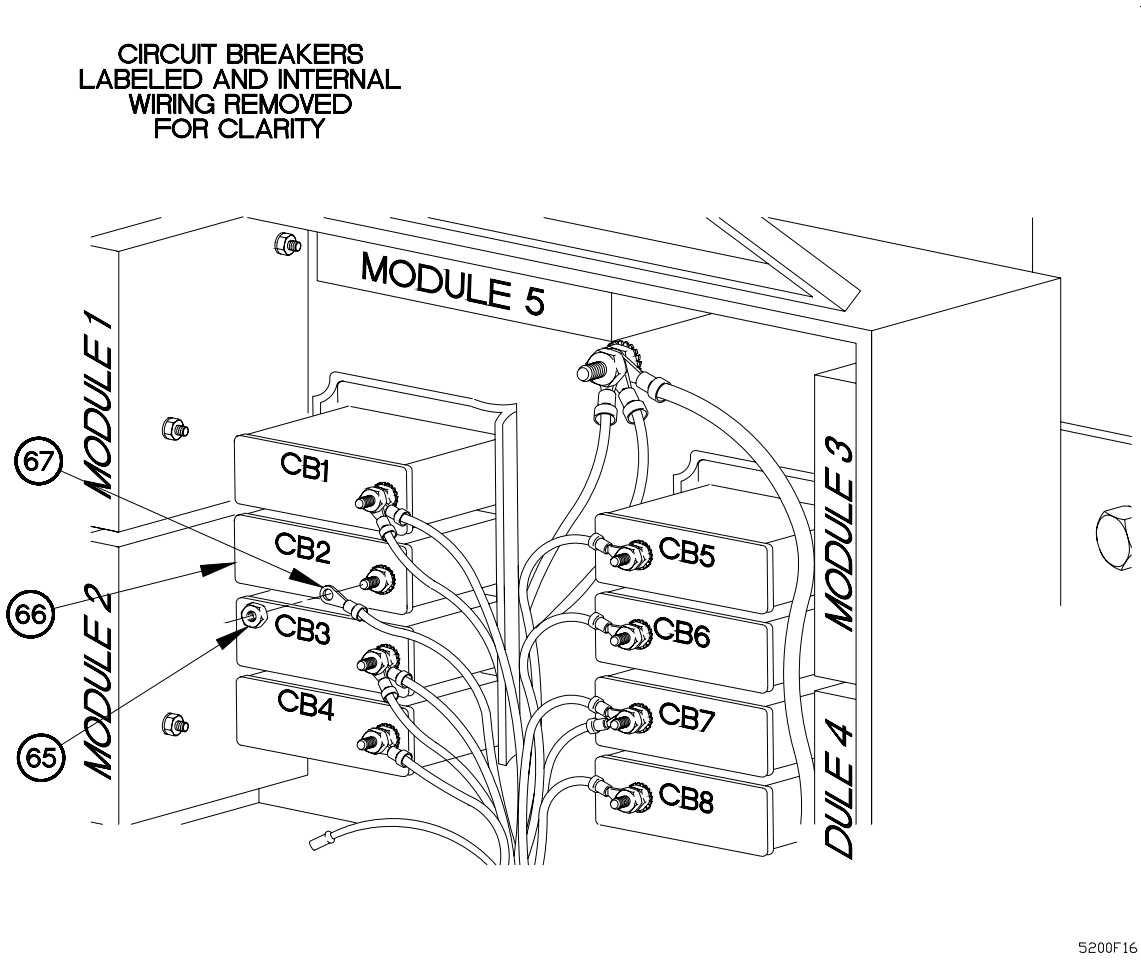
REMOVAL - Continued

NOTE

Wires are removed from CB2, CB4, CB5, CB6, and CB8 the same way. CB 2 shown.

23. Remove nut (65) and two wiring harness wires (66) from circuit breaker (67).

24. Perform step (23) on remaining circuit breakers.



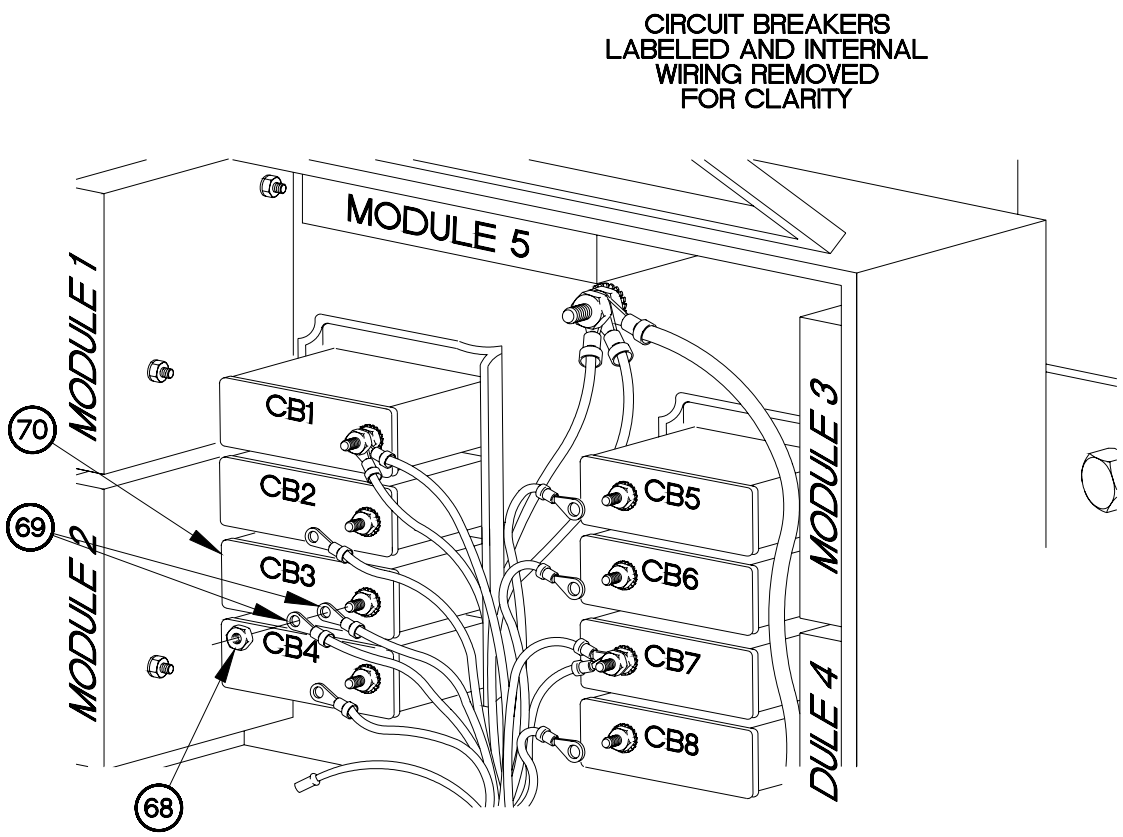
REMOVAL - Continued

NOTE

Wires are removed from CB1, CB3 and CB7 the same way. CB3 shown.

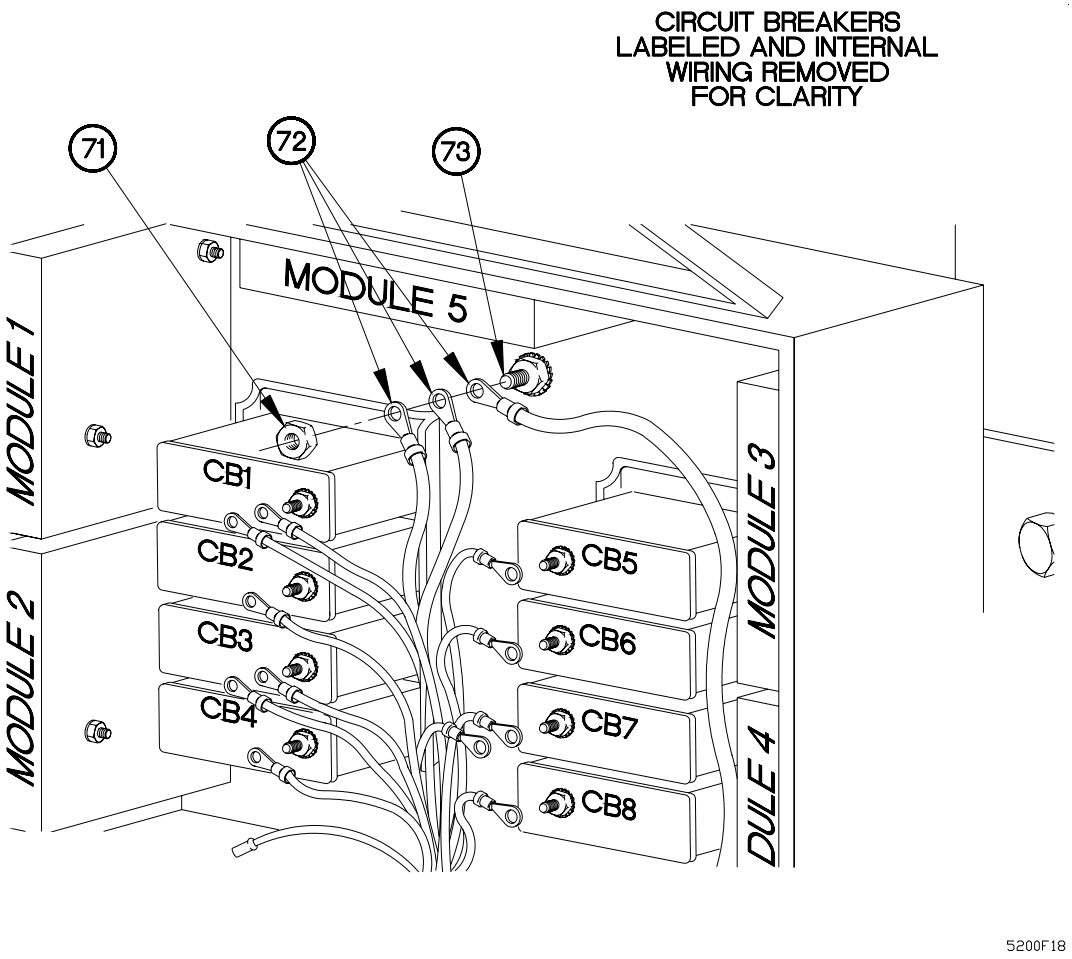
25. Remove nut (68) and two wiring harness wires (69) from circuit breaker (70).

26. Perform step (25) on remaining circuit breakers.



REMOVAL - Continued

27. Remove nut (71) and three ground wires (72) from ground stud (73).

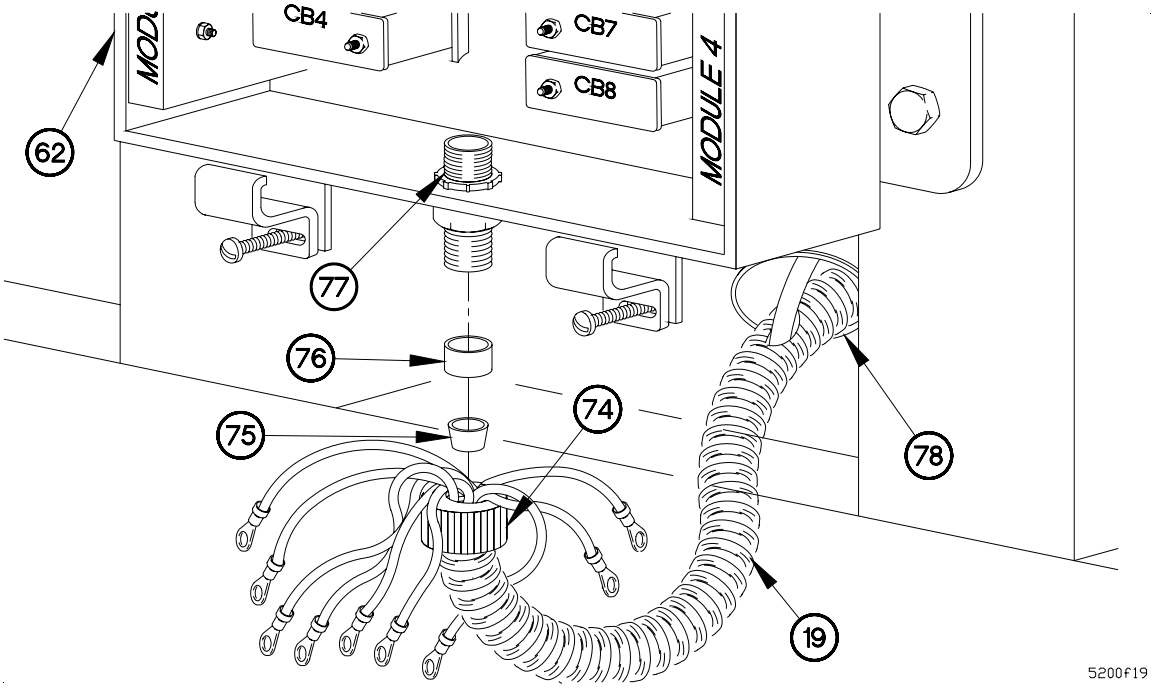


REMOVAL - Continued

28. Loosen fitting collar (74), swedge (75), and protector (76).

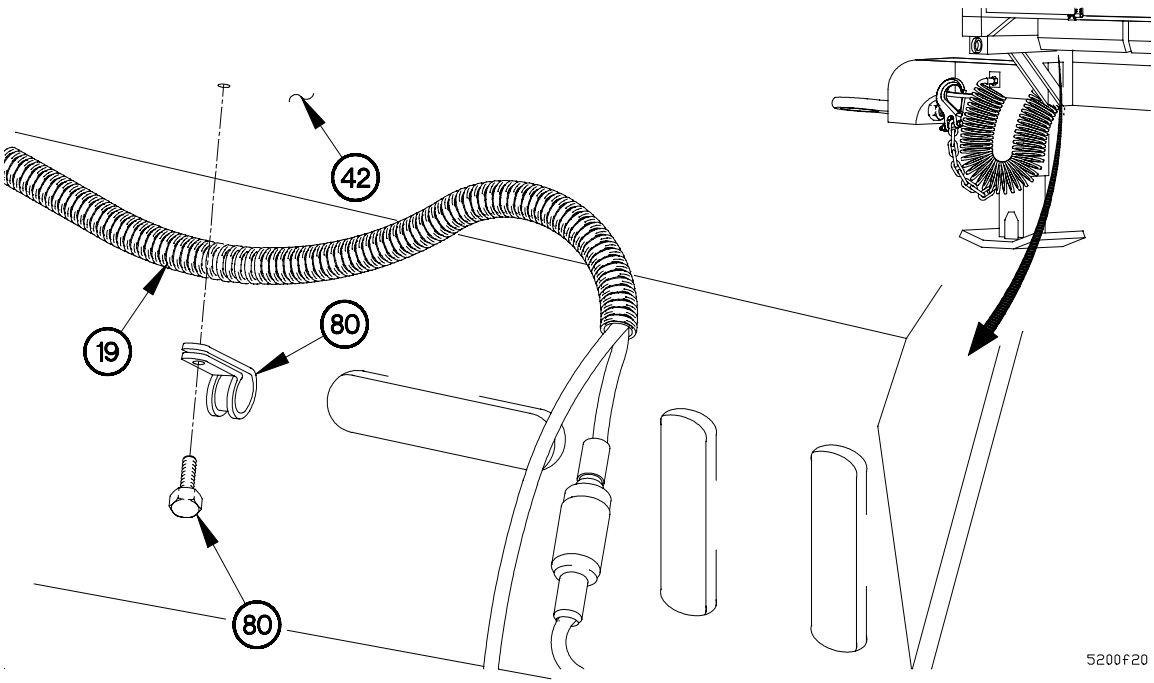
29. Remove electrical cable assembly (19) from voltage converter box (62).

30. Pull electrical cable assembly (19) through bulkhead opening (77).



31. Remove screw (78), clamp (79), and electrical cable assembly (19) from left front of cargo bed (42).

32. Remove clamp (79) from electrical cable assembly (19).

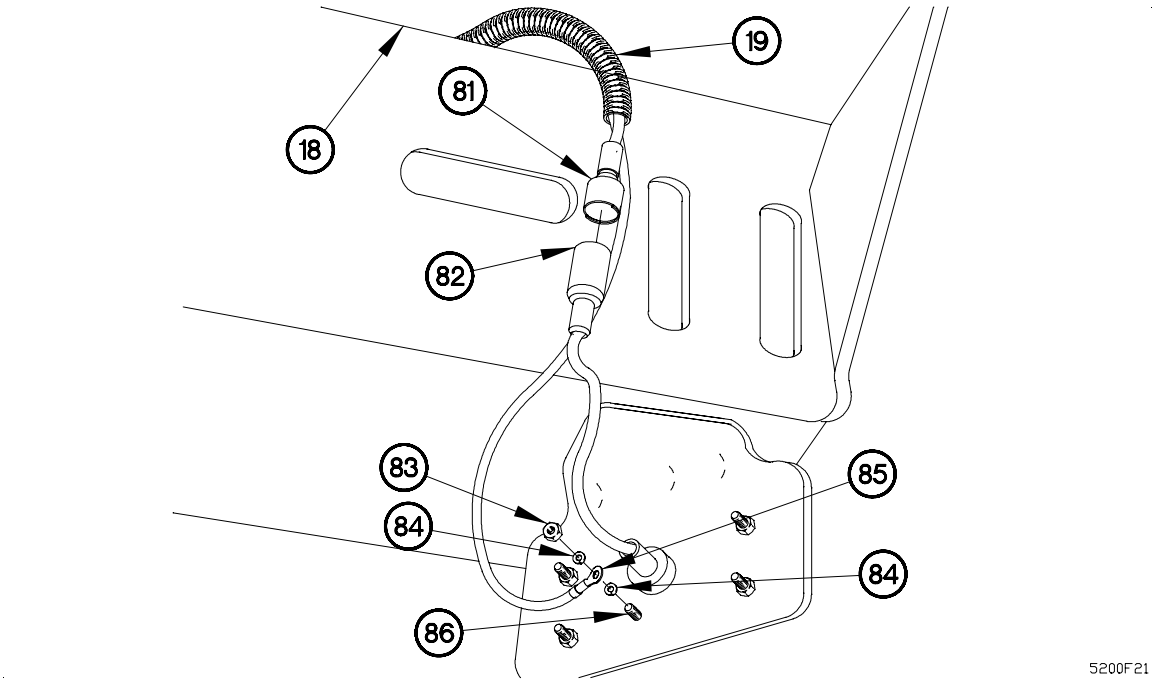


REMOVAL - Continued

33. Disconnect connector J251 (80) from left front marker light connector (81).

34. Remove nut (82), two lockwashers (83), and terminal lug TL263 (84) from left front marker light stud (85). Discard lockwashers.

35. Pull electrical cable assembly (19) through cold shuts on left frame rail (18).

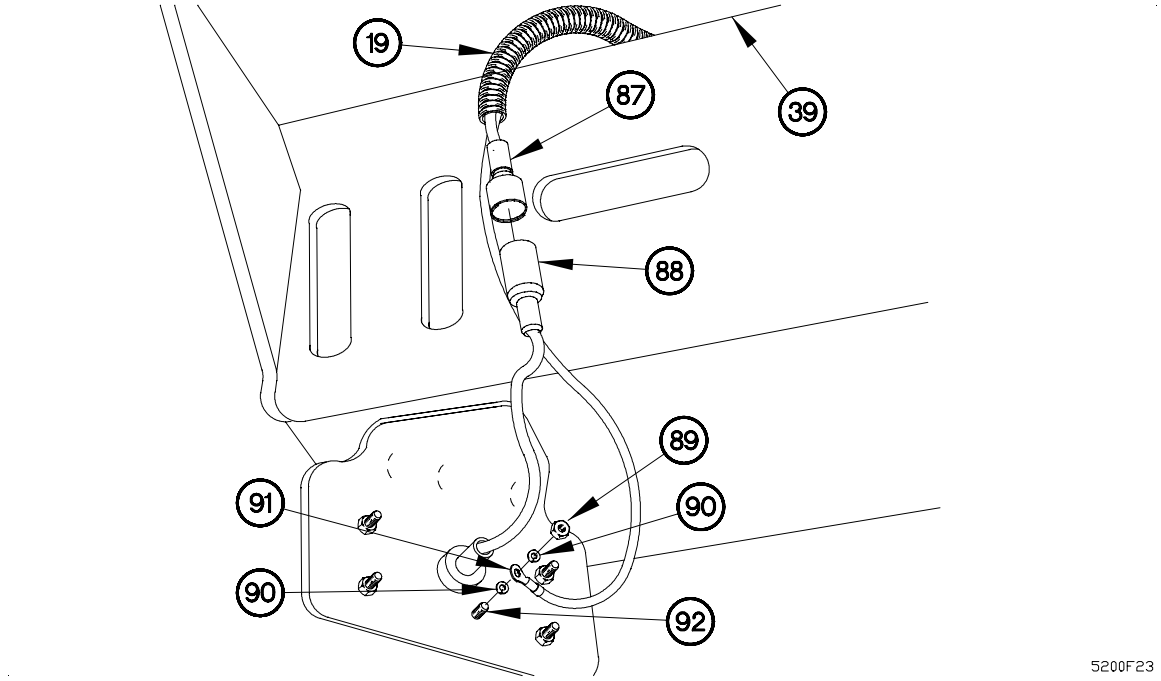


REMOVAL - Continued

36. Disconnect connector J250 (86) from right front marker light connector (87).

37. Remove nut (88), two lockwashers (89), and terminal lug TL262 (90) from right front marker light stud (91). Discard lockwashers.

38. Pull electrical cable assembly (19) through cold shuts on right frame rail (39).



INSTALLATION

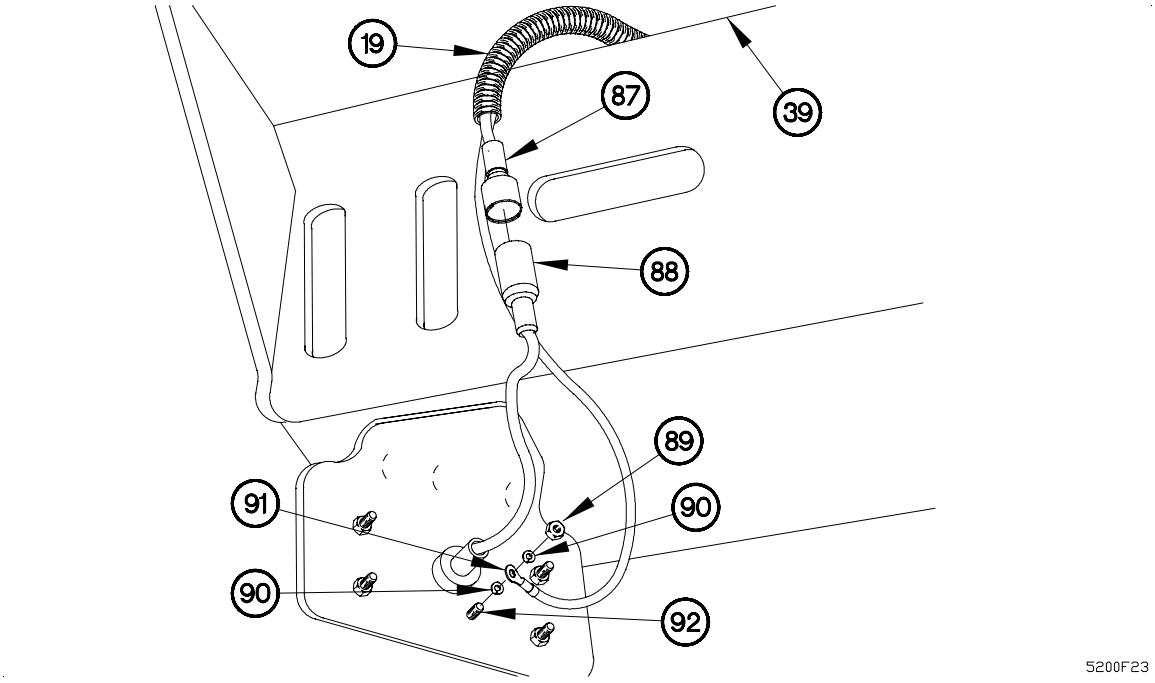
WARNING

Wear appropriate eye protection when working under vehicle due to the possibility of falling debris. Failure to comply may result in injury to personnel.

NOTE

Install plastic cable ties as required.

1. Pull electrical cable assembly (19) through cold shuts on right frame rail (39).
2. Install terminal lug TL262 (90) on right front marker light stud (91) with two lockwashers (89) and nut (88).
3. Connect right front marker light connector (87) to connector J250 (86).

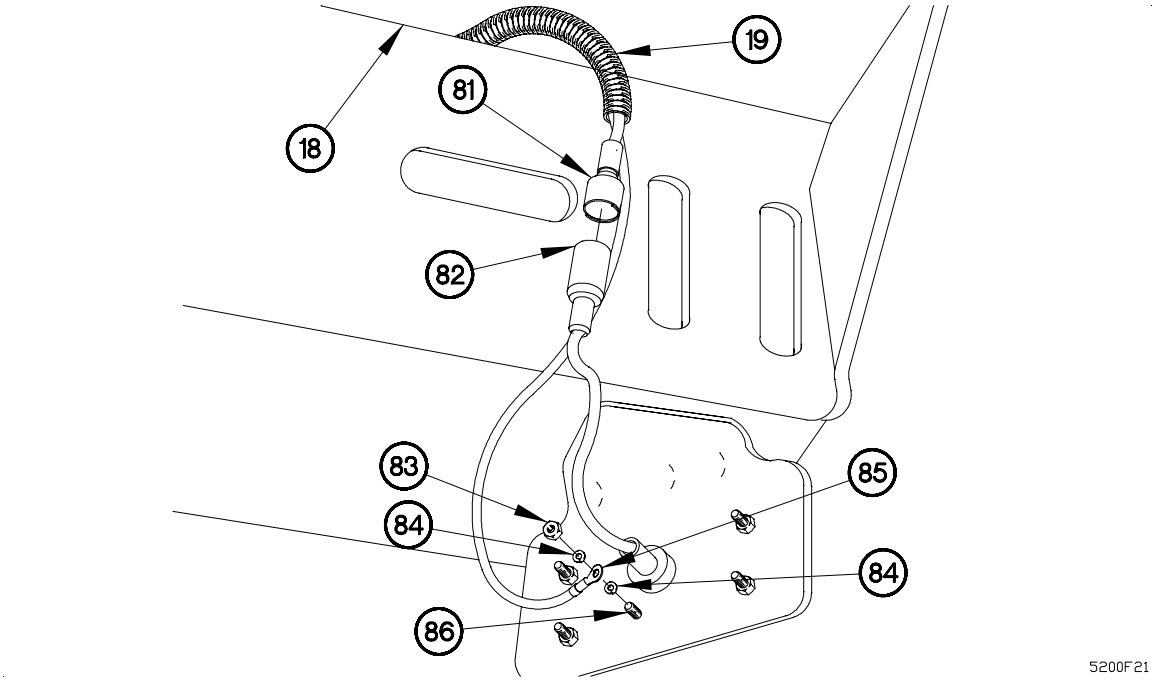


INSTALLATION - Continued

4. Pull electrical cable assembly (19) through cold shuts on left frame rail (18).

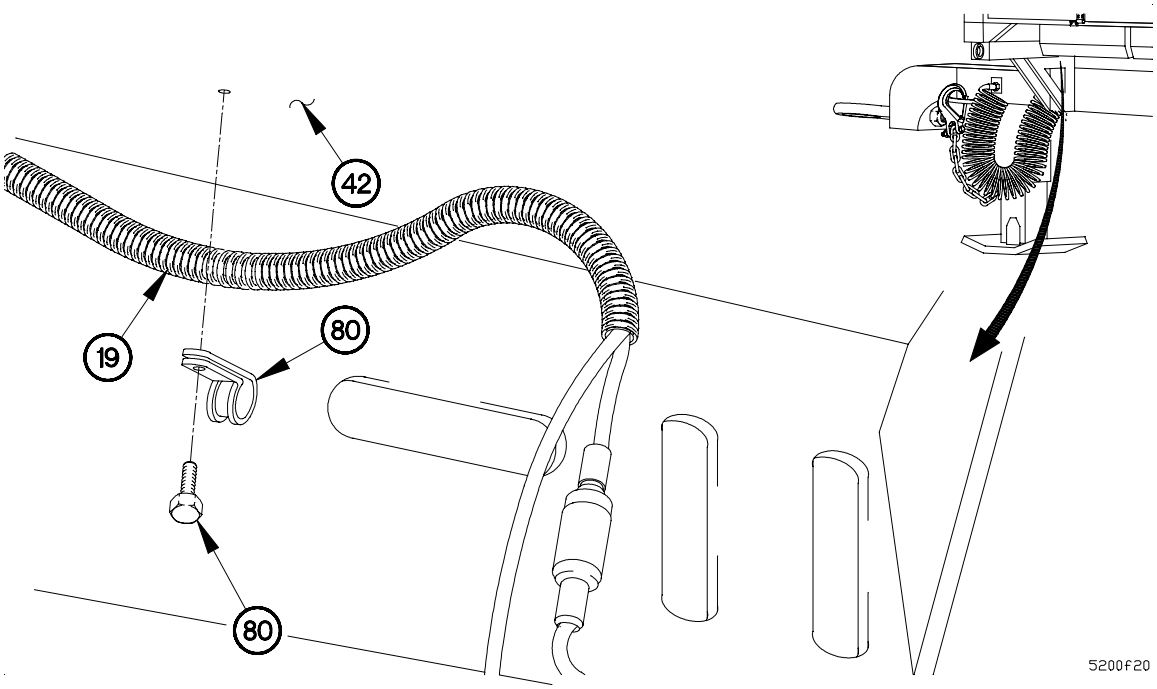
5. Install terminal lug TL263 (84) on left front marker light stud (85) with two lockwashers (83) and nut (82).

6. Connect left front marker light connector (81) to connector J251 (80).



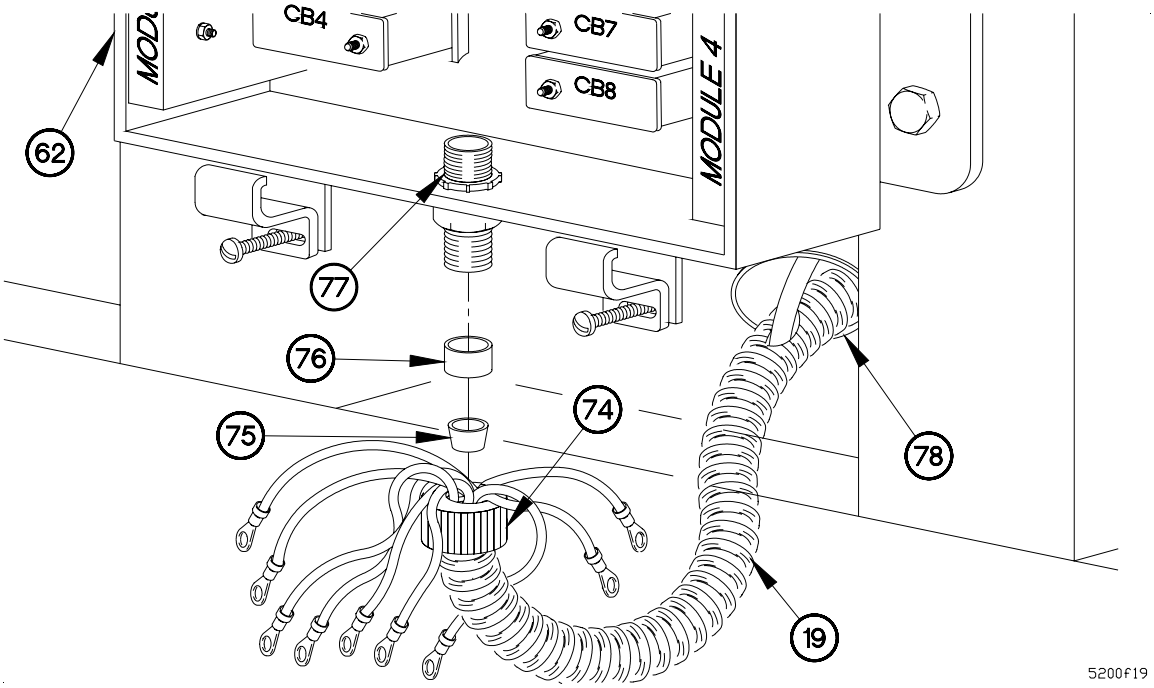
INSTALLATION - Continued

7. Position clamp (79) on electrical cable assembly (19).
8. Position clamp (79) on cargo bed (42) with screw (78).
9. Tighten screw (78) to 36-48 lb-in (4-5 N•m).



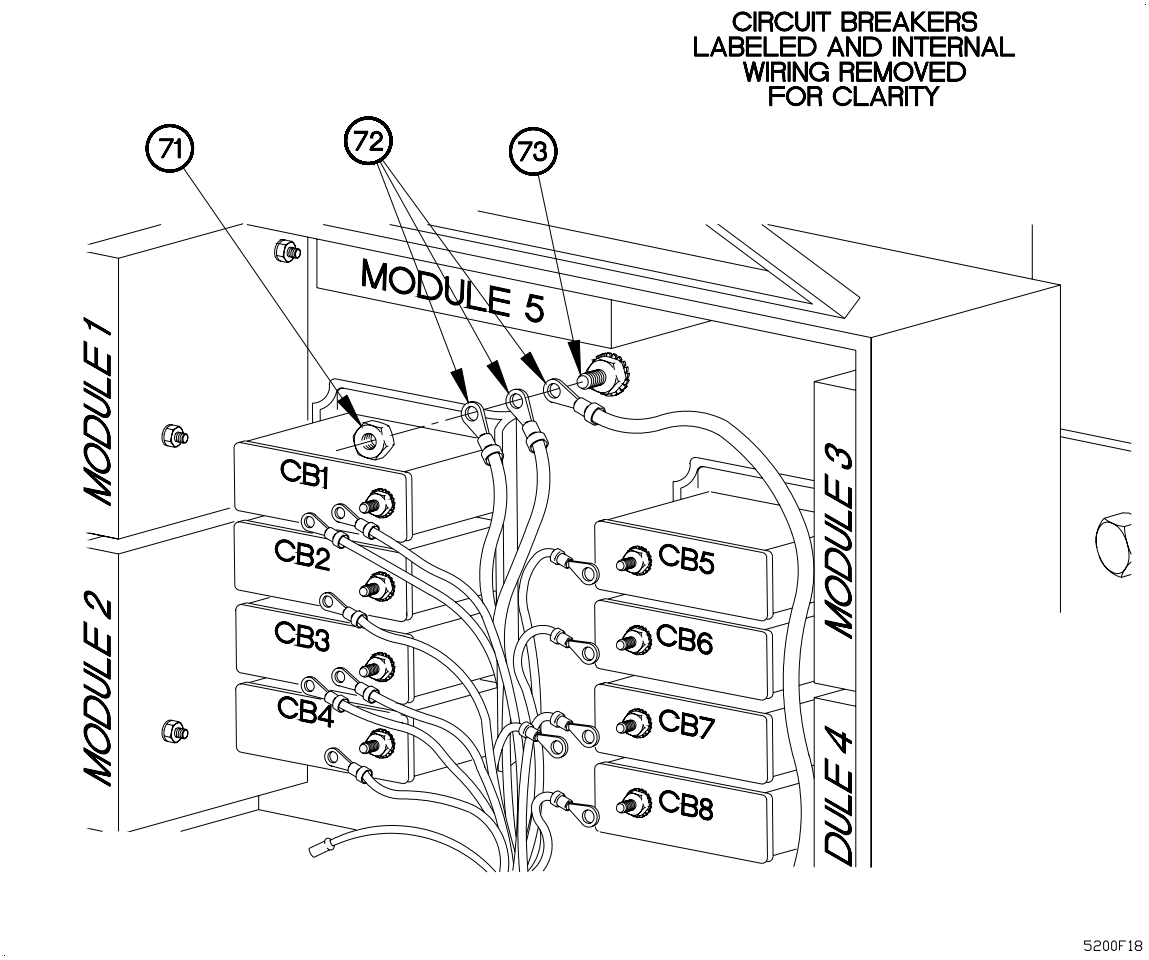
INSTALLATION - Continued

10. Pull electrical cable assembly (19) through bulkhead opening (77).
11. Thread electrical cable assembly (19) through fitting (73) in bottom of voltage converter box (62).
12. Tighten protector (76), swedge (75), and collar (74) on fitting (73).



INSTALLATION - Continued

13. Install three ground wires (73) on ground stud (72) with nut (71).



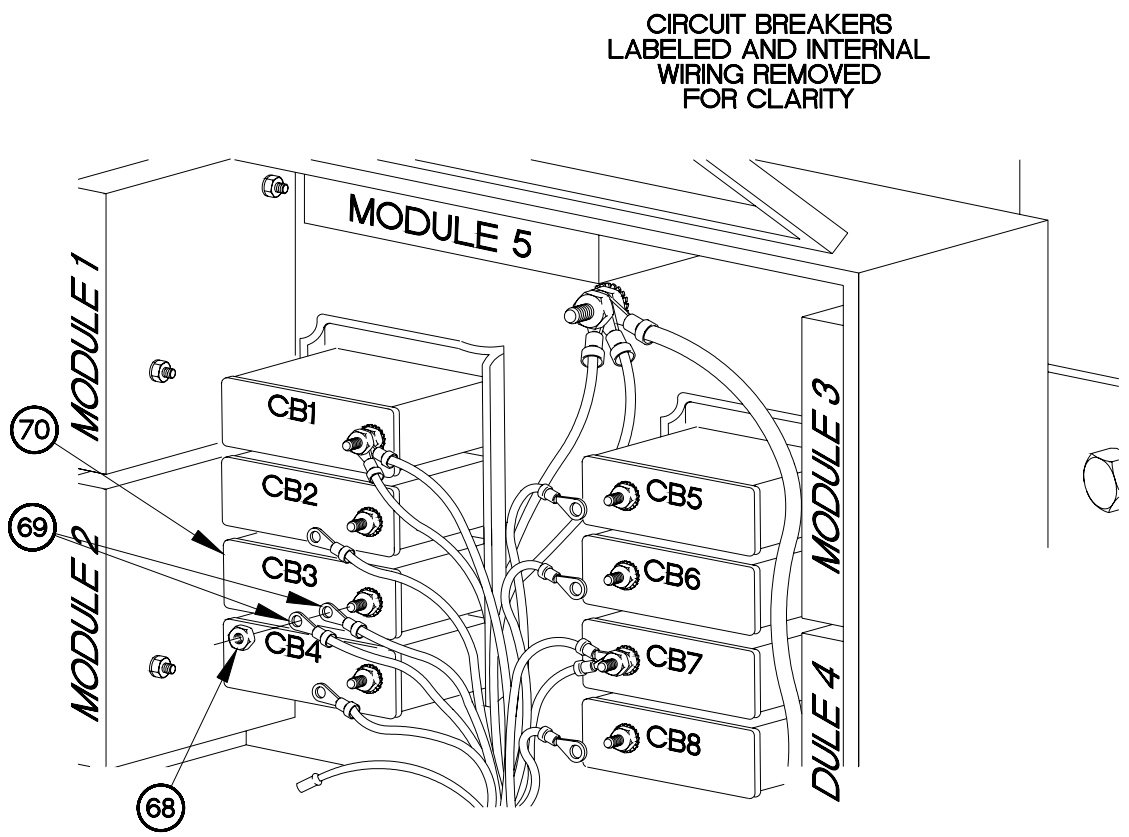
INSTALLATION - Continued

NOTE

All wires are installed on CB1, CB3 and CB7 the same way. CB3 shown.

14. Install two wiring harness wires (69) on circuit breaker (70) with nut (68).

15. Perform step (14) on remaining circuit breakers.



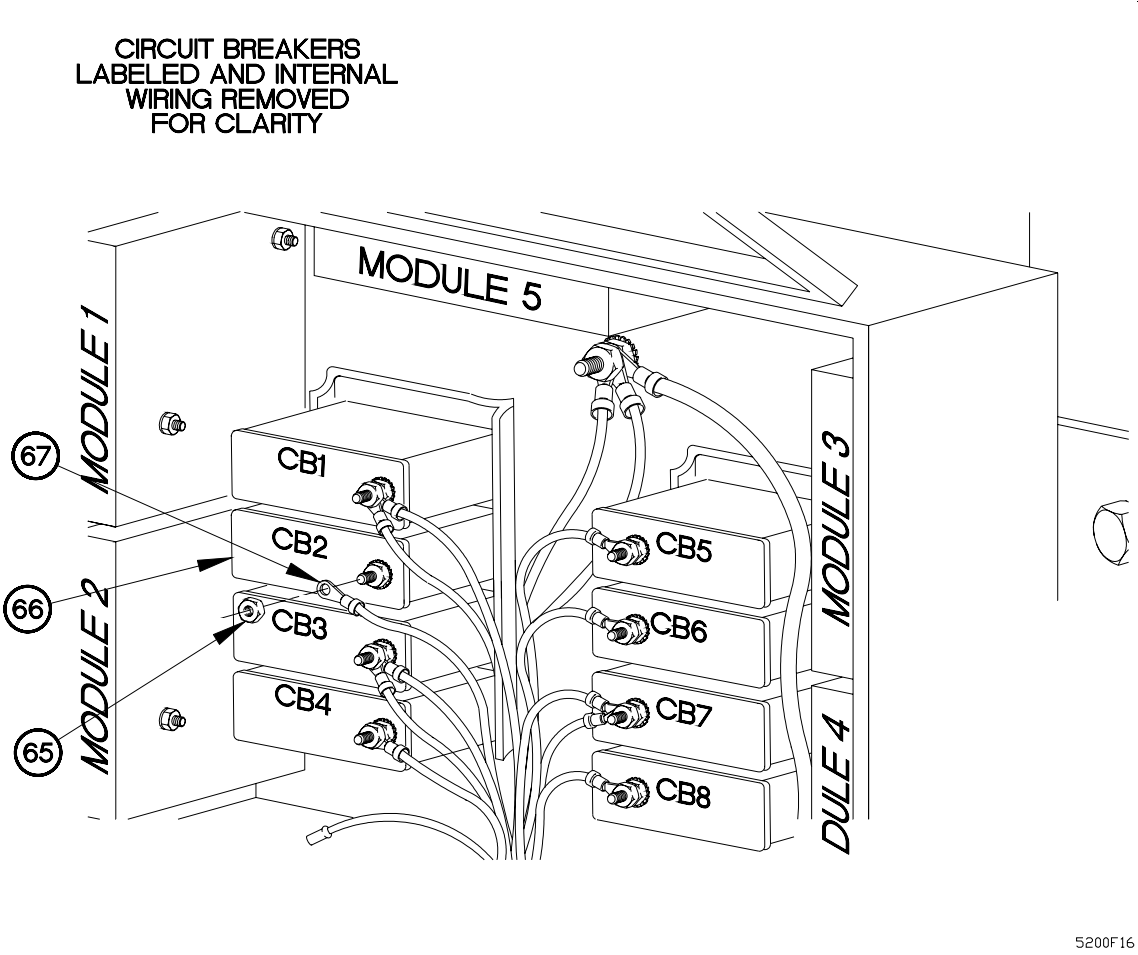
INSTALLATION - Continued

NOTE

All wires are installed on CB2, CB4, CB5, CB6, and CB8 the same way. CB2 shown.

16. Install wiring harness wire (67) on circuit breaker (66) with nut (65).

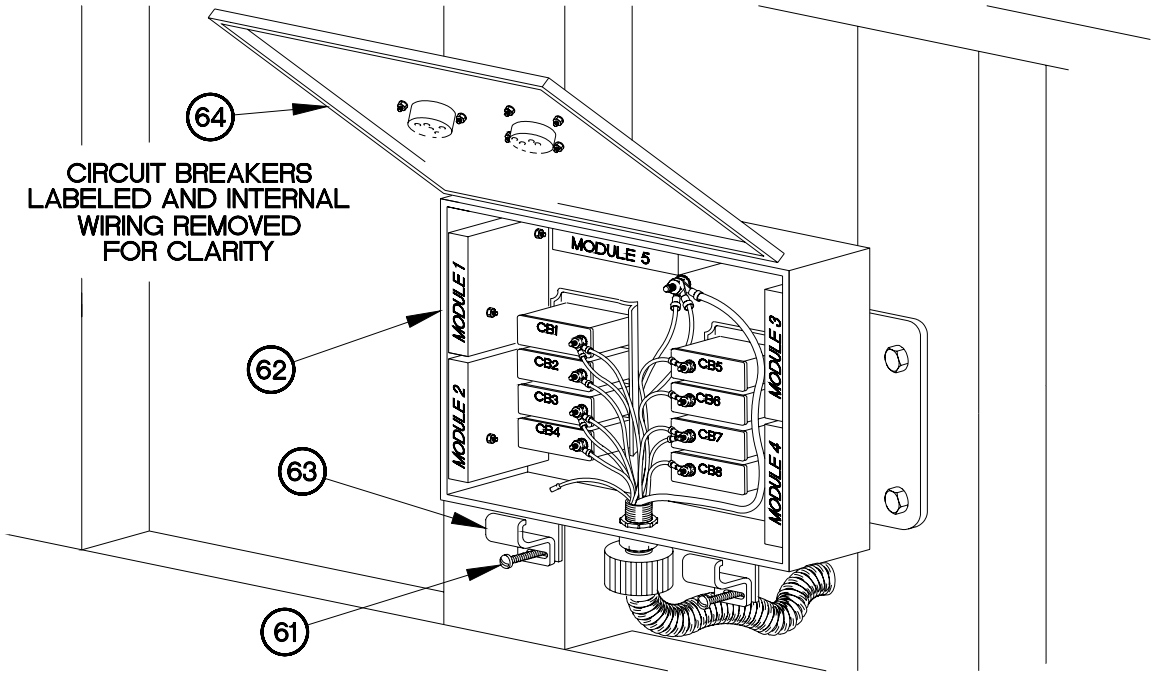
17. Perform step (16) on remaining circuit breakers.



INSTALLATION - Continued

18. Close cover (64) and connect two latches (63).

19. Tighten two screws (61) on voltage converter box (62).



5200F15

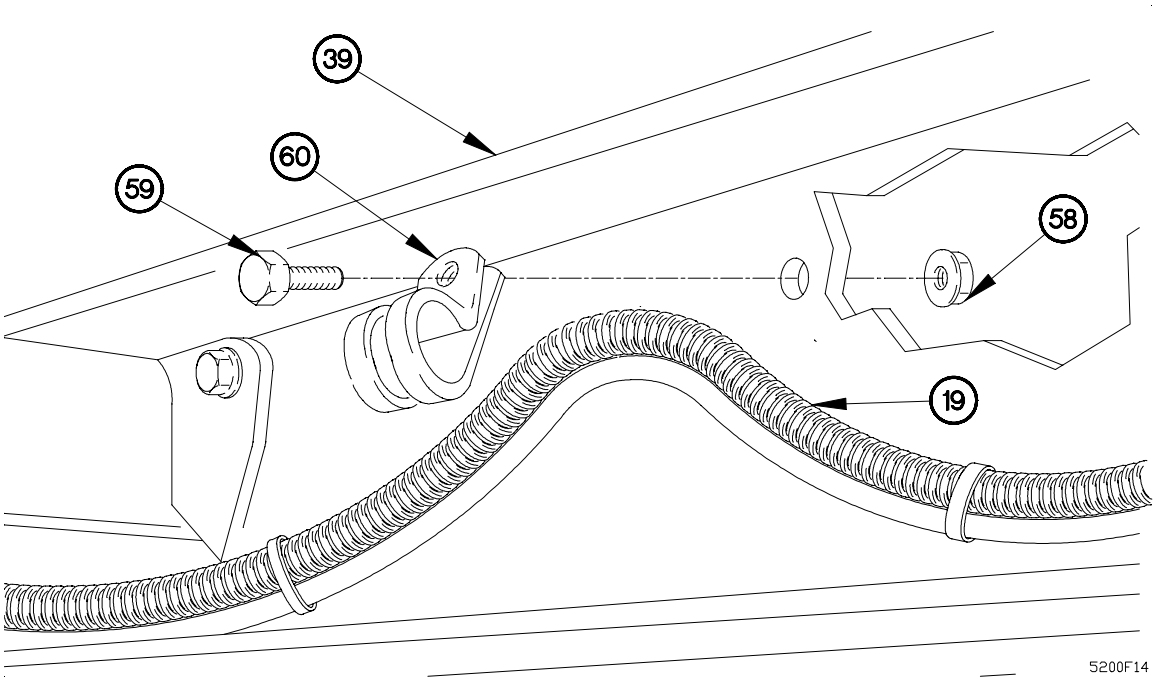
INSTALLATION - Continued

NOTE

Perform steps (20) and (21) on the LMTVT or steps (22) and (23) on the MTVT.

20. Position electrical cable assembly (19) on right frame rail (39) with three clamps (60) and screws (59) and self-locking nuts (58).

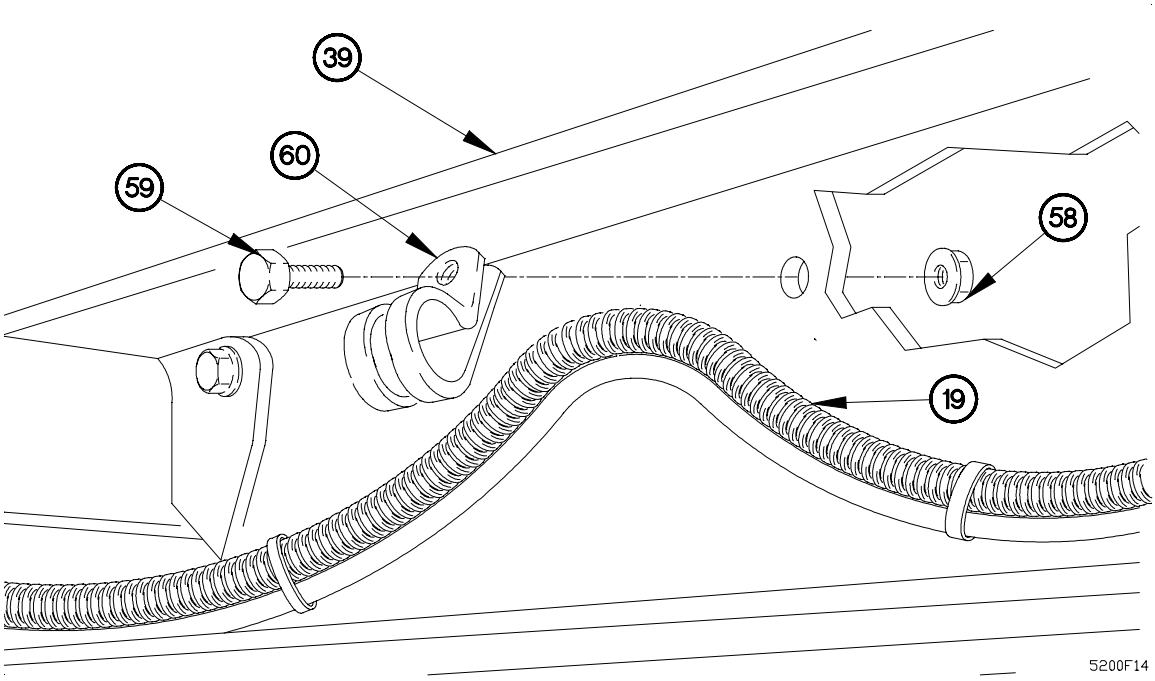
21. Tighten three self-locking nuts (58) to 60-72 lb-in (7-9 N•m).



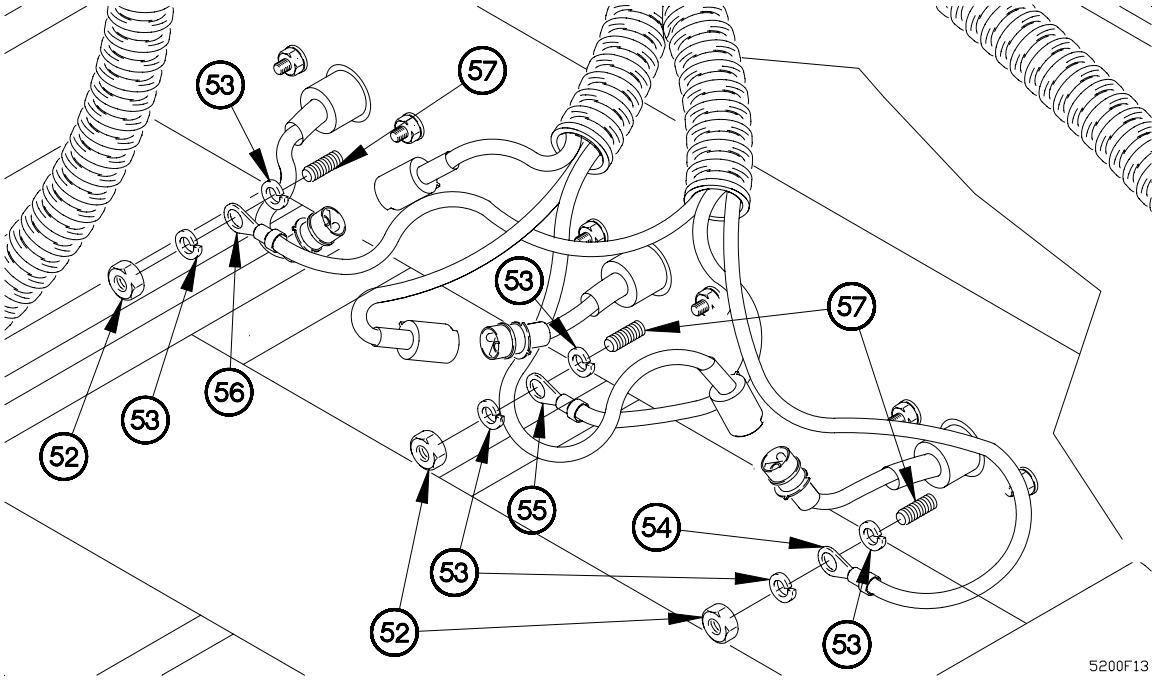
INSTALLATION - Continued

22. Position electrical cable assembly (19) on right frame rail (39) with four clamps (60) and screws (59) and self-locking nuts (58).

23. Tighten three self-locking nuts (58) to 60-72 lb-ft (7-9 N•m).

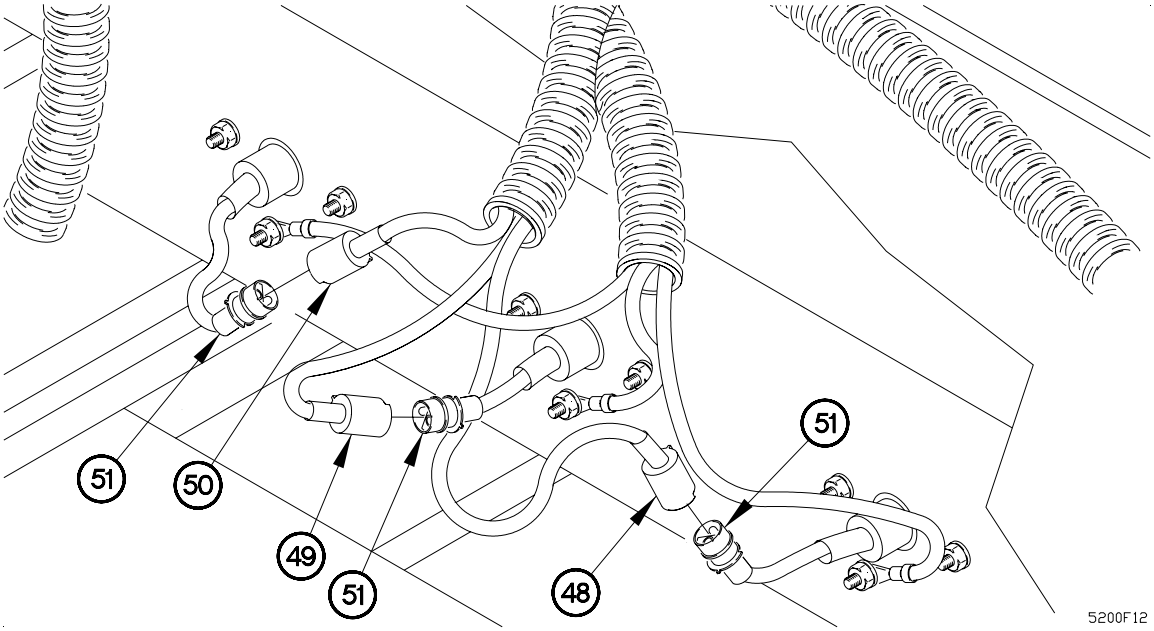


24. Install terminal lugs TL266 (56), TL265 (55), and TL264 (54) on three rear marker light studs (57) with six lockwashers (53) and three nuts (52).



INSTALLATION - Continued

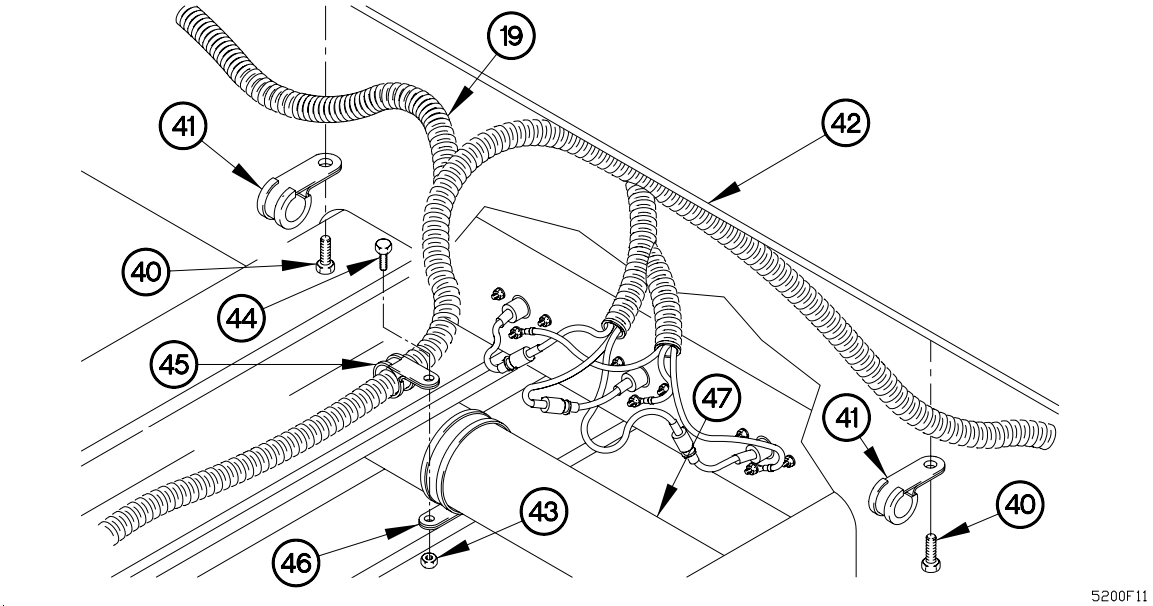
25. Connect rear marker light connectors (51) to connectors J254 (50), J253 (49), and J252 (48).



26. Install electrical cable assembly (19) on crossmember (47) with clamps (45 and 46), screw (44), and nut (43).

27. Position electrical cable assembly (19) on cargo bed (42) with two clamps (41) and screws (40).

28. Tighten two screws (40) to 36-48 lb-in (4-5 N•m).

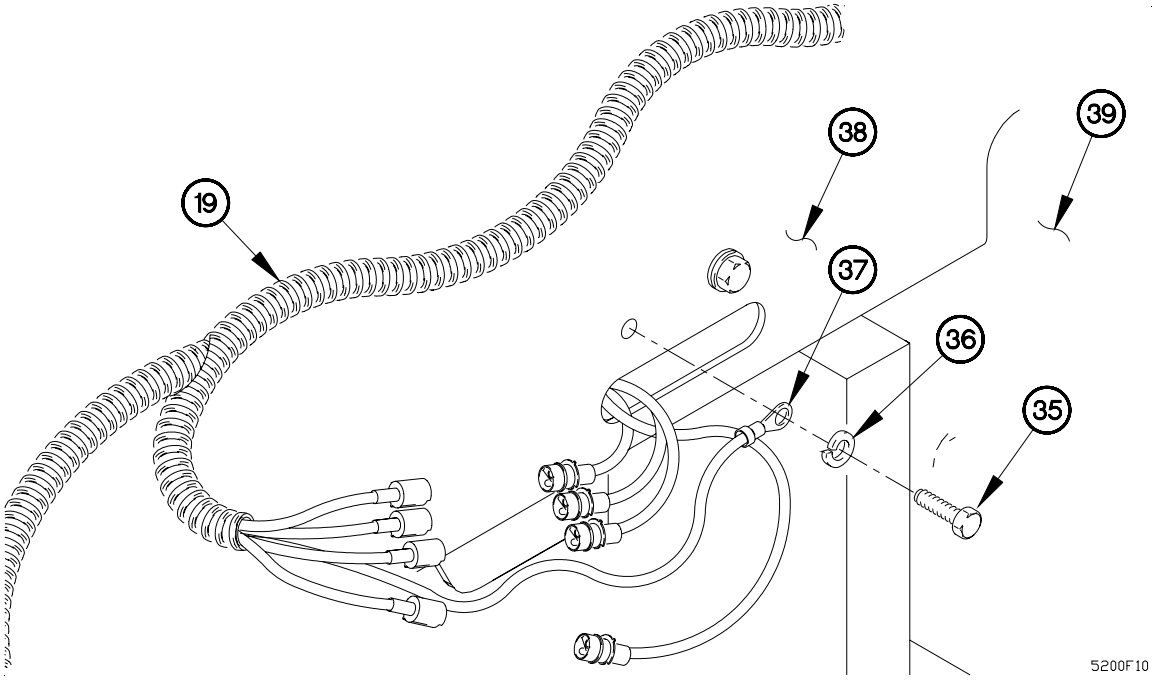


INSTALLATION - Continued

29. Pull electrical cable assembly (19) through right frame rail (39).

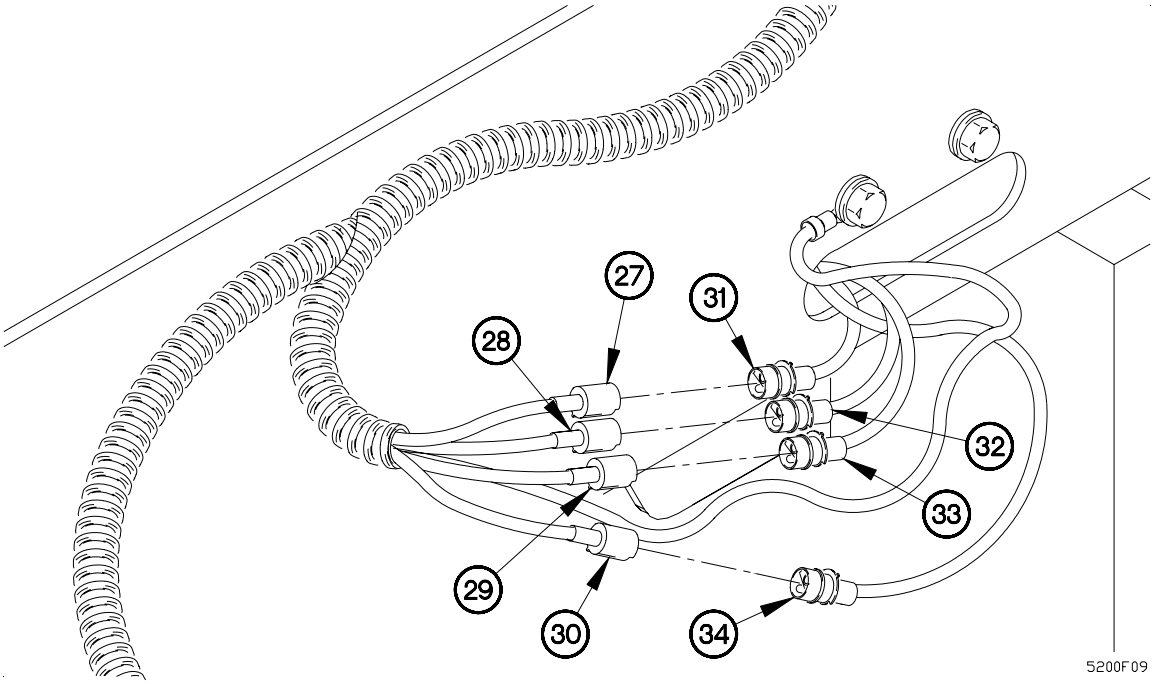
30. Position terminal lug TL269 (37) on taillight crossmember (38) with lockwasher (36) and screw (35).

31. Tighten screw (35) to 19-23 lb-ft (26-32 N•m).



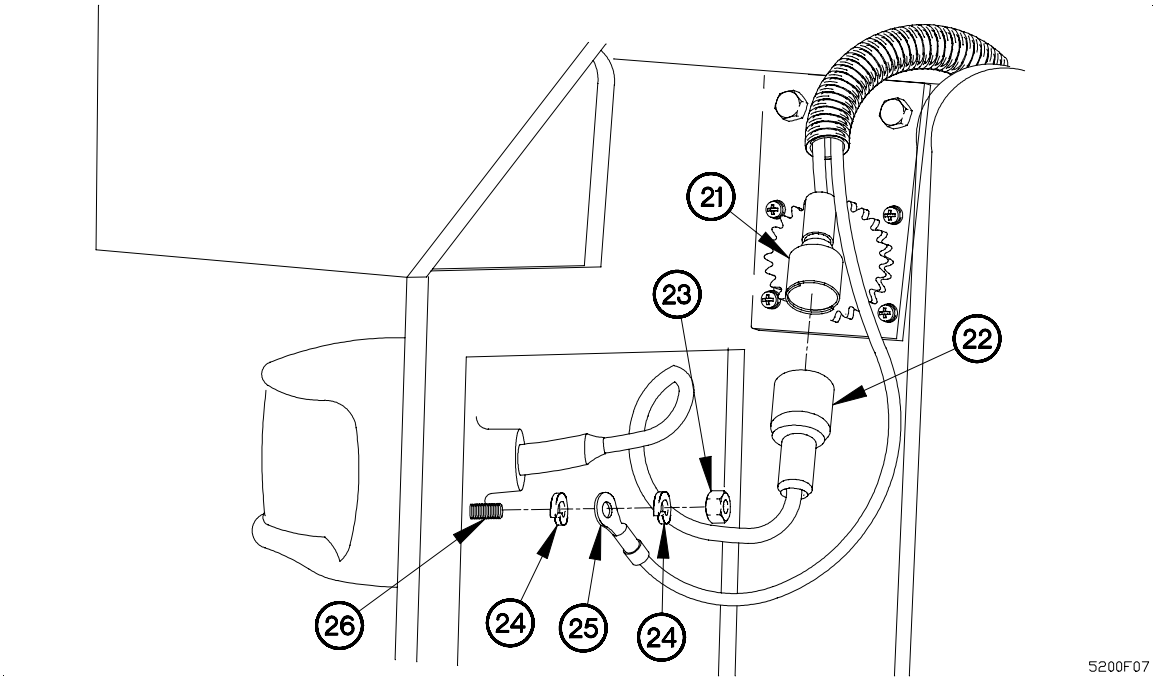
INSTALLATION - Continued

32. Connect right taillight connectors 23 (34), 24 (33), 460, 461, 22 (32), 21 (31) to connectors J261 (30), J260 (29), J259 (28), and J258 (27).



33. Install terminal lug TL267 (25) on right rear marker light stud (26) with two lockwashers (24) and nut (23).

34. Connect right rear marker light connector (22) to connector J255 (21).

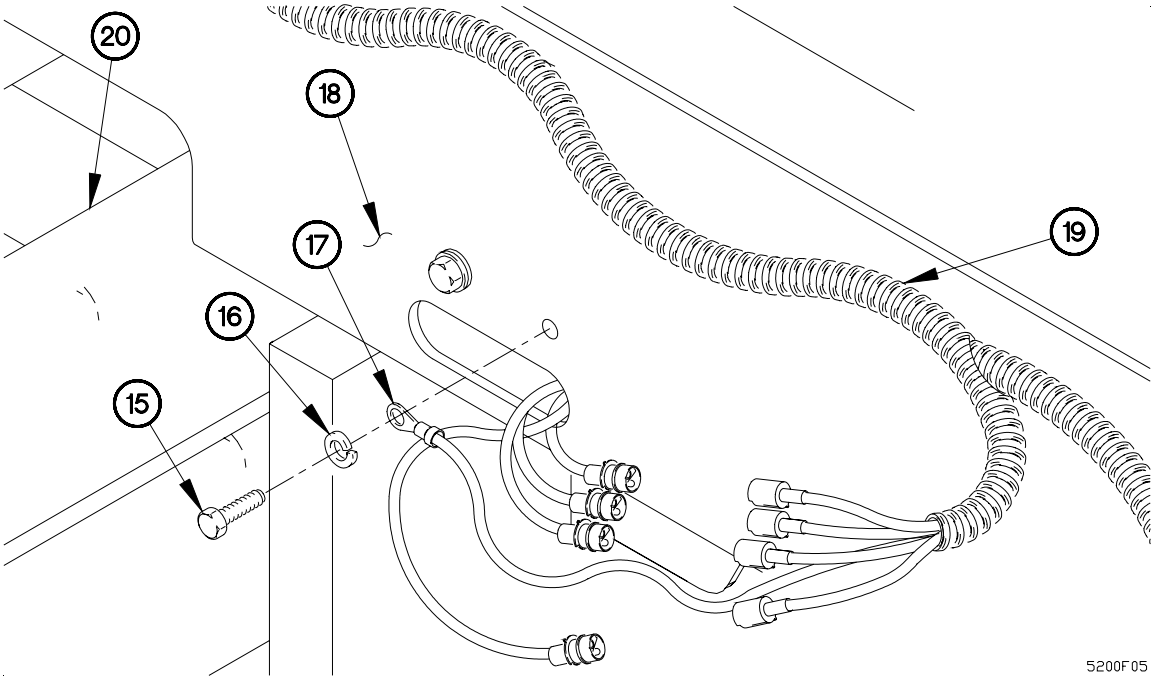


INSTALLATION - Continued

35. Pull electrical cable assembly (19) through left frame rail (18).

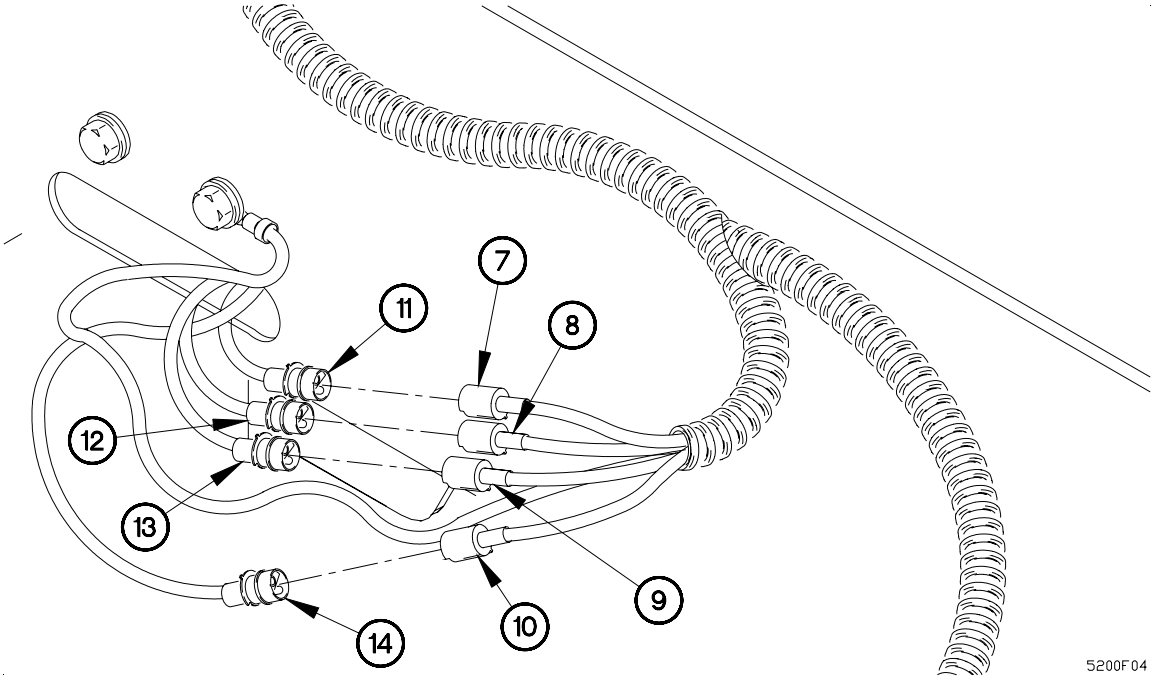
36. Install terminal lug TL270 (17) on left side of taillight crossmember (18) with lockwasher (16) and screw (15).

37. Tighten screw (15) to 19-23 lb-ft (26-32 N•m).



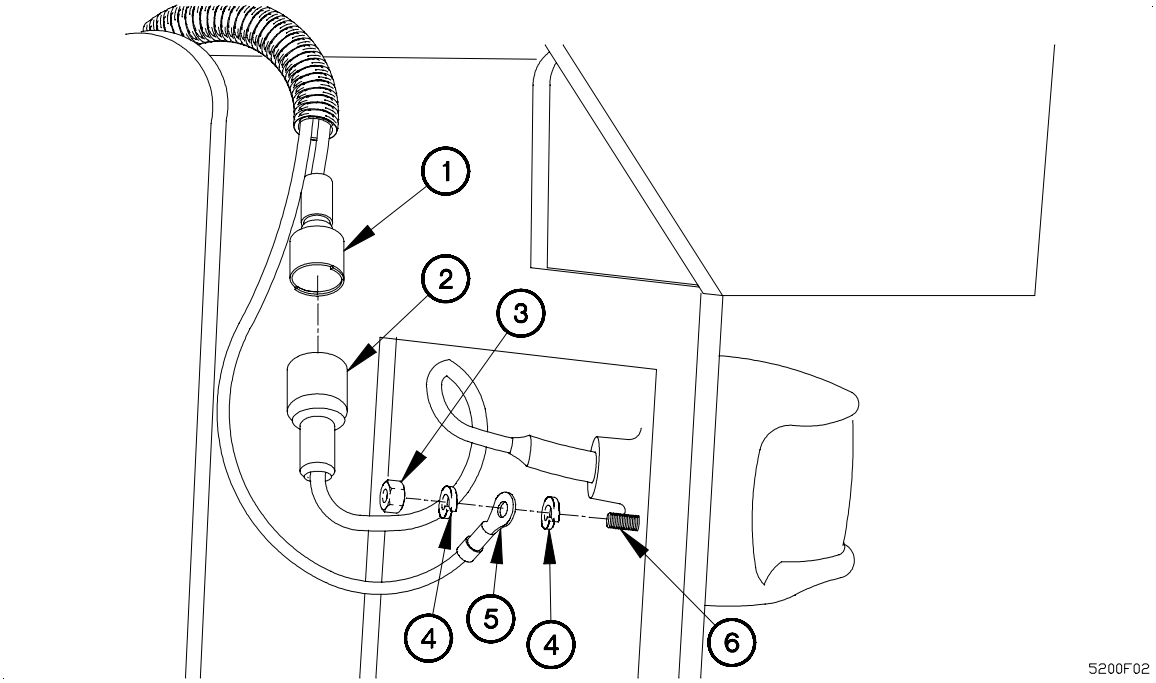
INSTALLATION - Continued

38. Connect left taillight connectors 23 (14), 24 (13), 461, 461, 22 (12), 21 (11) to connectors J265 (10), J264 (9), J263 (8), and J262 (7).



39. Install terminal lug TL268 (5) on left rear marker light stud (6) with two lockwashers (4) and nut (3).

40. Connect left rear marker light connector (2) to connector J256 (1).



OPERATIONAL CHECK

1. Install splash guards (WP 0090 00, Installation).
2. Couple trailer (WP 0009 00, Coupling Trailer).
3. Check operation of trailer lights.
4. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE.

VOLTAGE CONVERTER BOX REPLACEMENT 0052 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Socket Set, Socket Wrench (Item 29, WP 0178 00)
Wrench, Torque 0-300 lb-in. (Item 51, WP 0178 00)

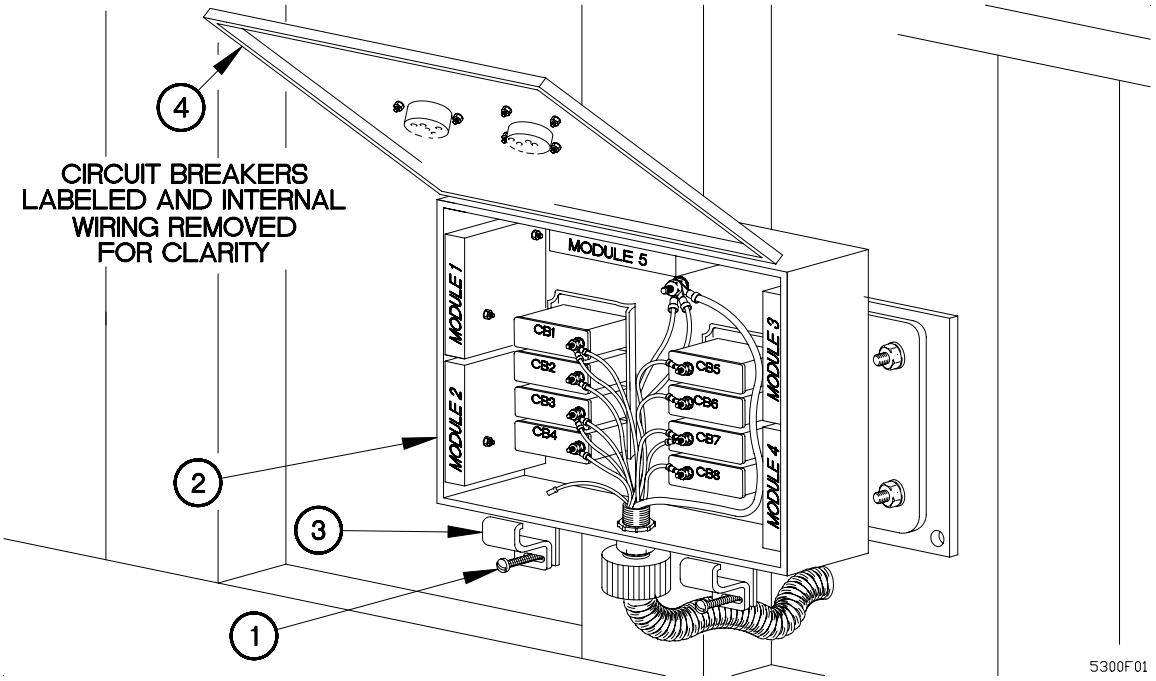
Materials/Parts
Dispenser, Pressure Sensitive Adhesive Tape (Item 10, WP 0176 00)
Lockwasher (4) (Item 11, WP 0181 00)

Equipment Conditions
Trailer uncoupled (WP 0012 00).

REMOVAL

1. Loosen two screws (1) on voltage converter box (2) and disconnect latches (3).

2. Open cover (4) on voltage converter box (2).



VOLTAGE CONVERTER BOX REPLACEMENT - Continued 0052 00

REMOVAL - Continued

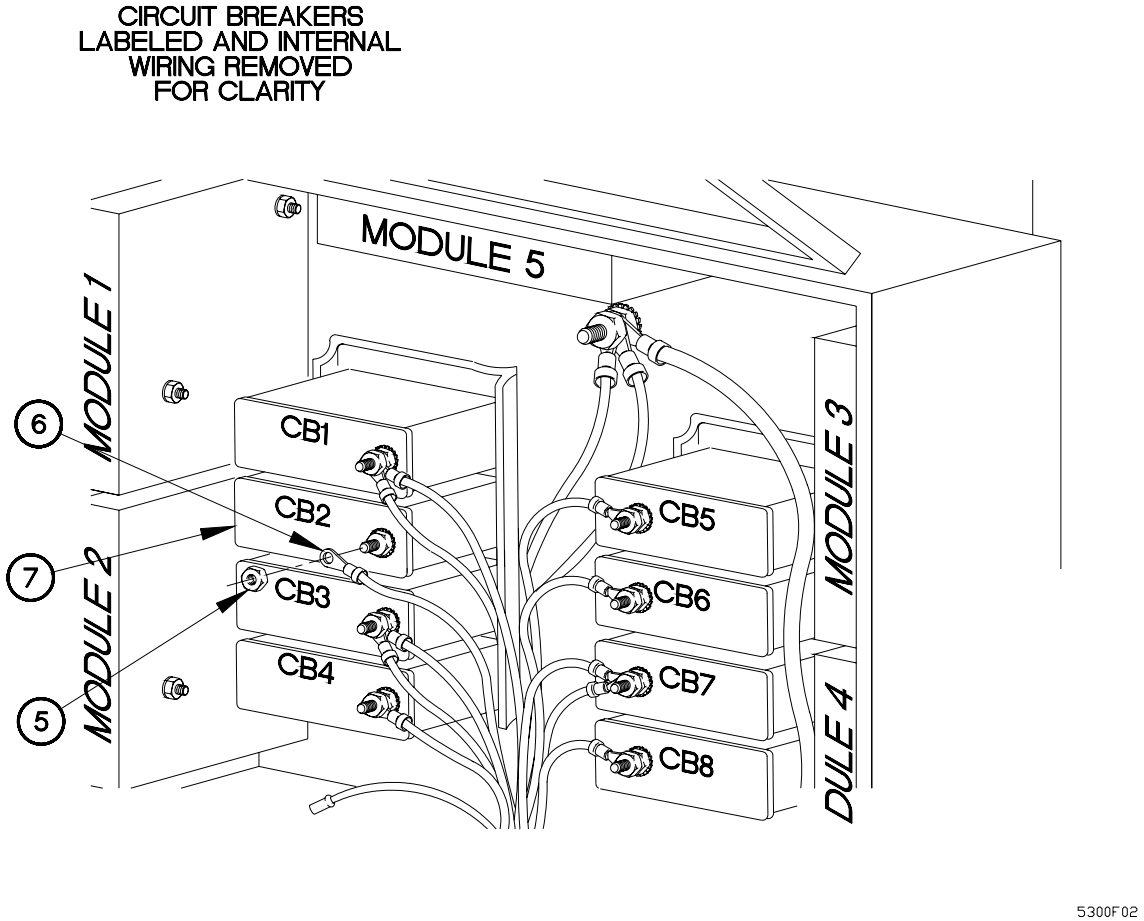
NOTE

Tag wires and connection points prior to disconnecting.

All wires are removed from CB2, CB4, CB5, CB6, and CB8 the same way. CB 2 shown.

3. Remove nut (5) and wiring harness wire (6) from circuit breaker (7).

4. Perform step (3) on remaining circuit breakers.



VOLTAGE CONVERTER BOX REPLACEMENT - Continued 0052 00

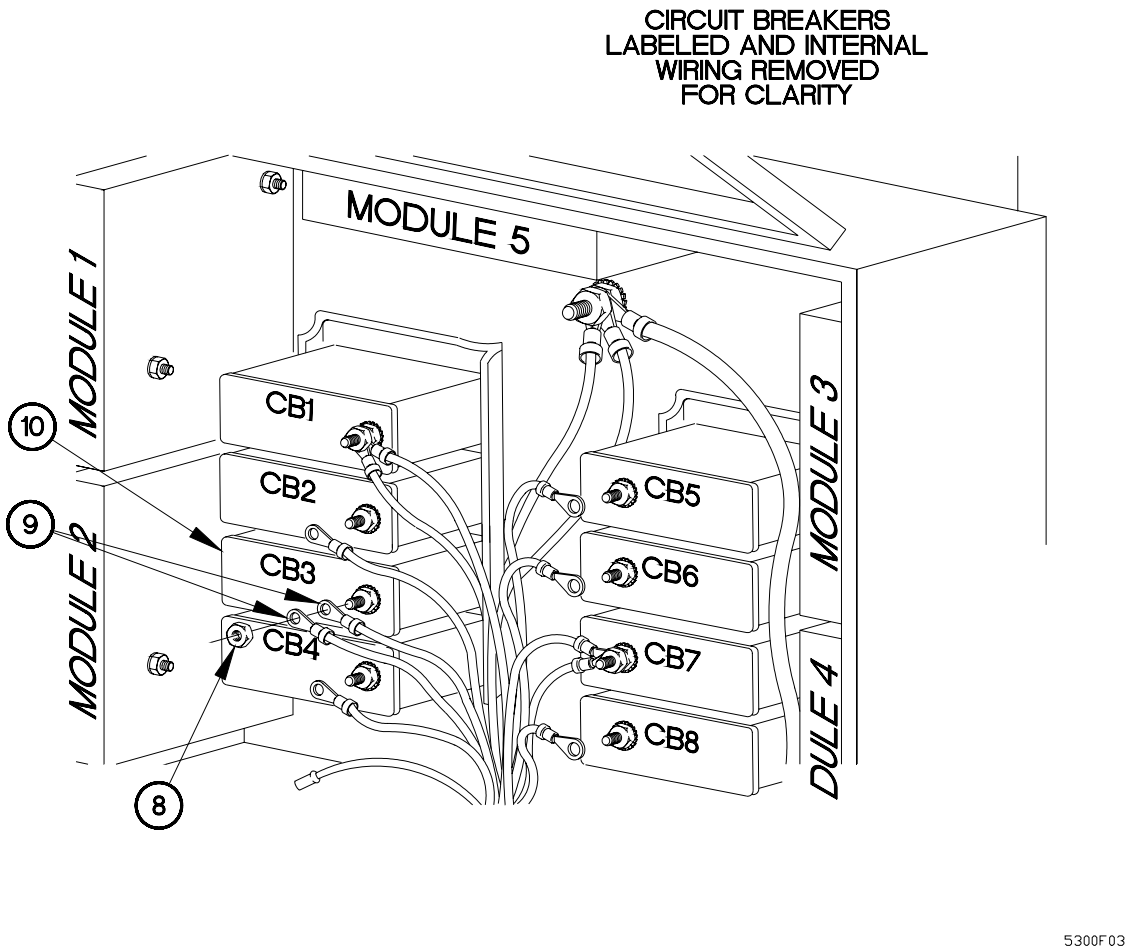
REMOVAL - Continued

NOTE

All wires are removed from CB1, CB3 and CB7 the same way. CB3 shown.

5. Remove nut (8) and two wiring harness wires (9) from circuit breaker (10).

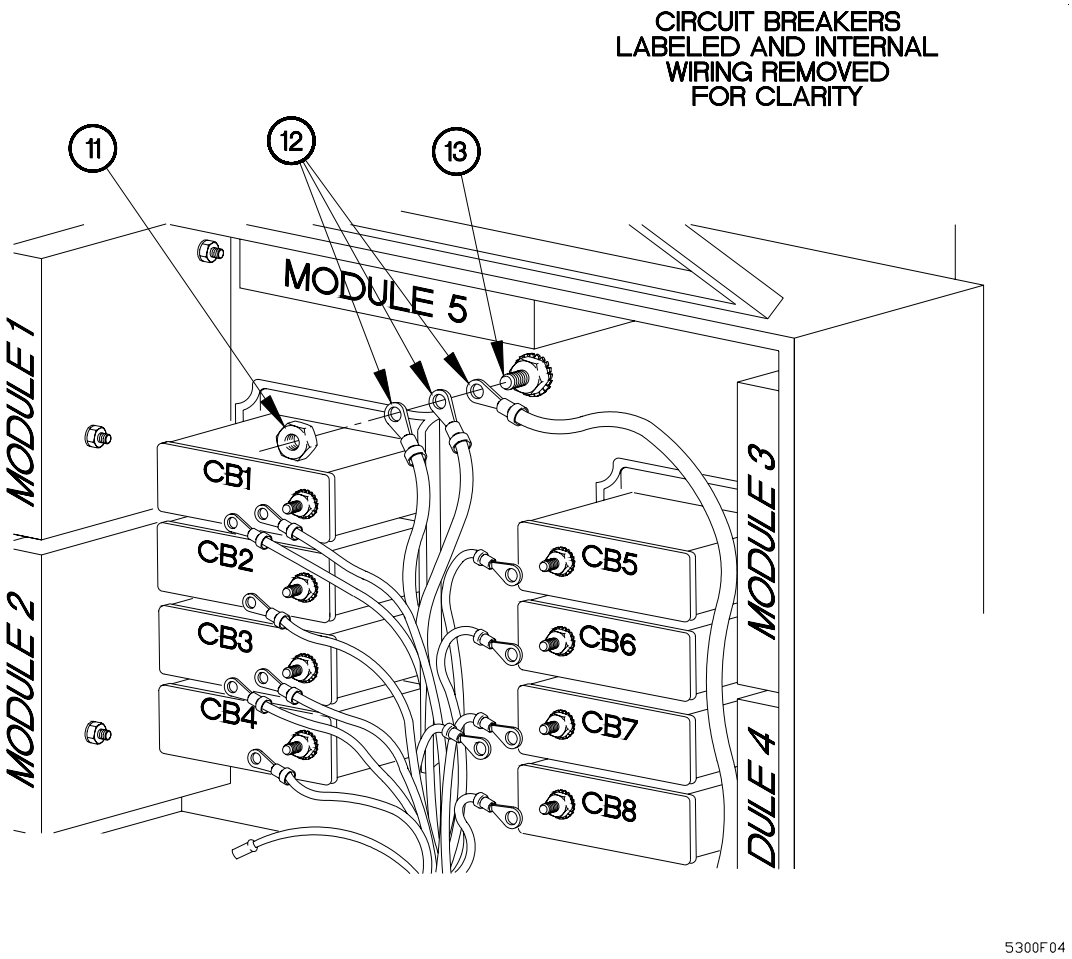
6. Perform step (5) on remaining circuit breakers.



VOLTAGE CONVERTER BOX REPLACEMENT - Continued 0052 00

REMOVAL - Continued

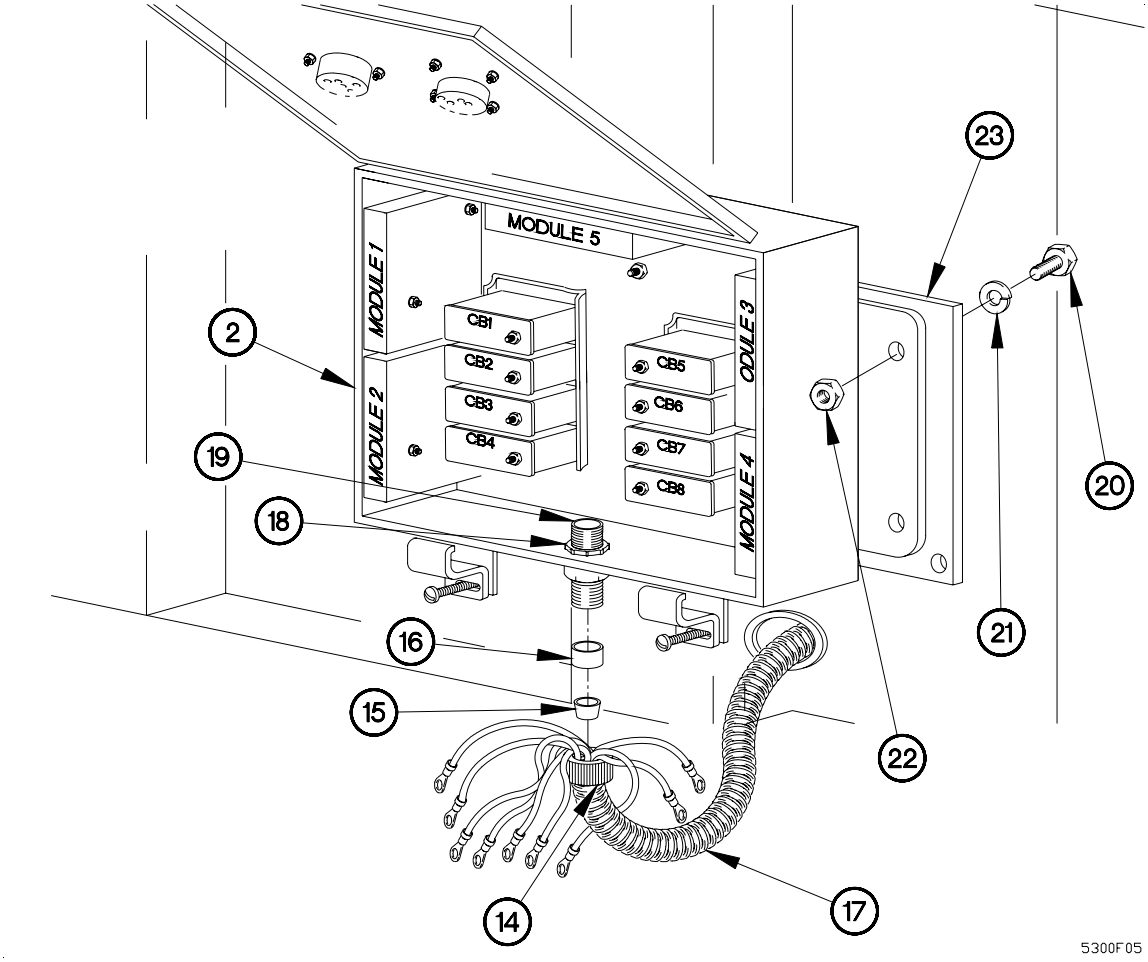
7. Remove nut (11) and three ground wires (12) from ground stud (13).



VOLTAGE CONVERTER BOX REPLACEMENT - Continued 0052 00

REMOVAL - Continued

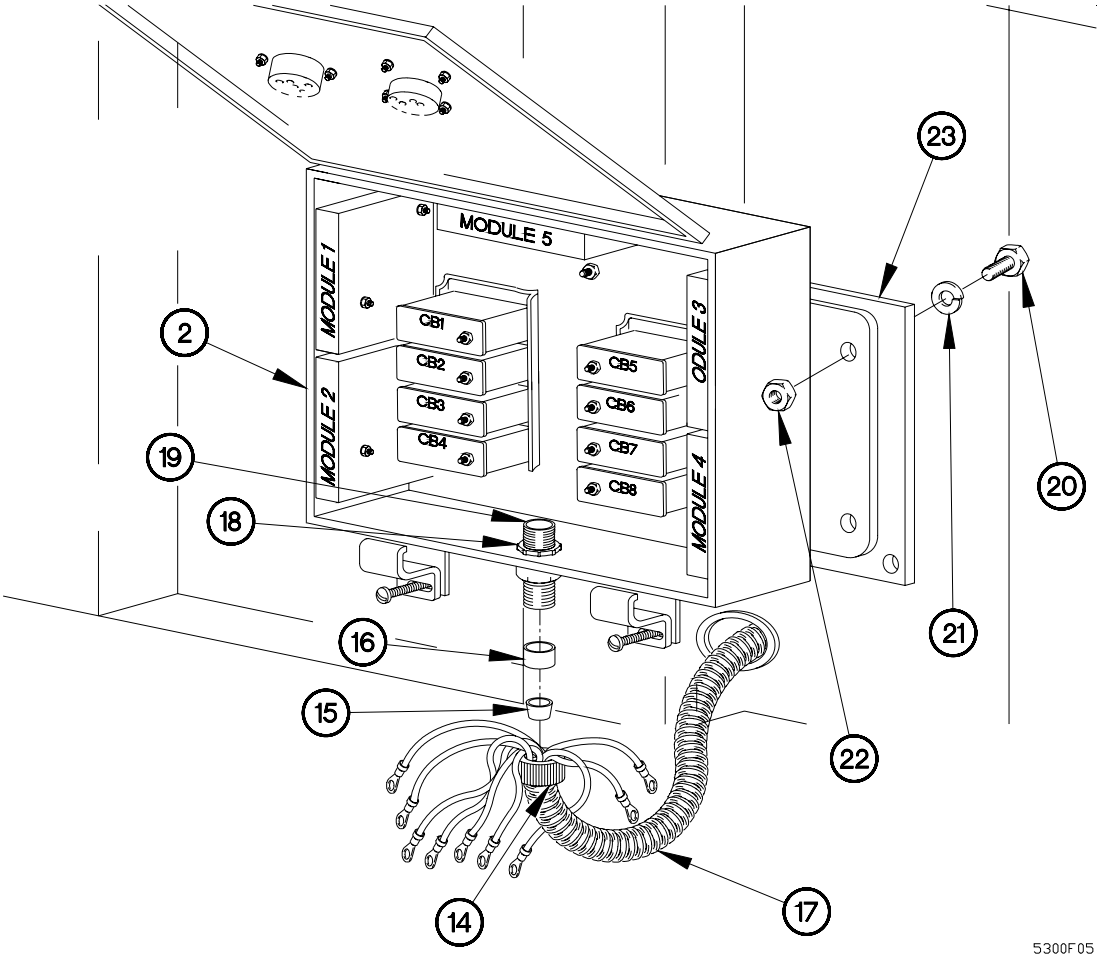
8. Loosen fitting collar (14), protector (15), and swedge (16).
9. Pull wiring harness (17) through voltage converter box (2).
10. Remove locknut (18) and fitting (19) from voltage converter box (2).
11. Remove four screws (20), lockwashers (21), and nuts (22) from voltage converter box (2). Discard lockwashers.
12. Remove voltage converter box (2) from bracket (23).



VOLTAGE CONVERTER BOX REPLACEMENT - Continued 0052 00

INSTALLATION

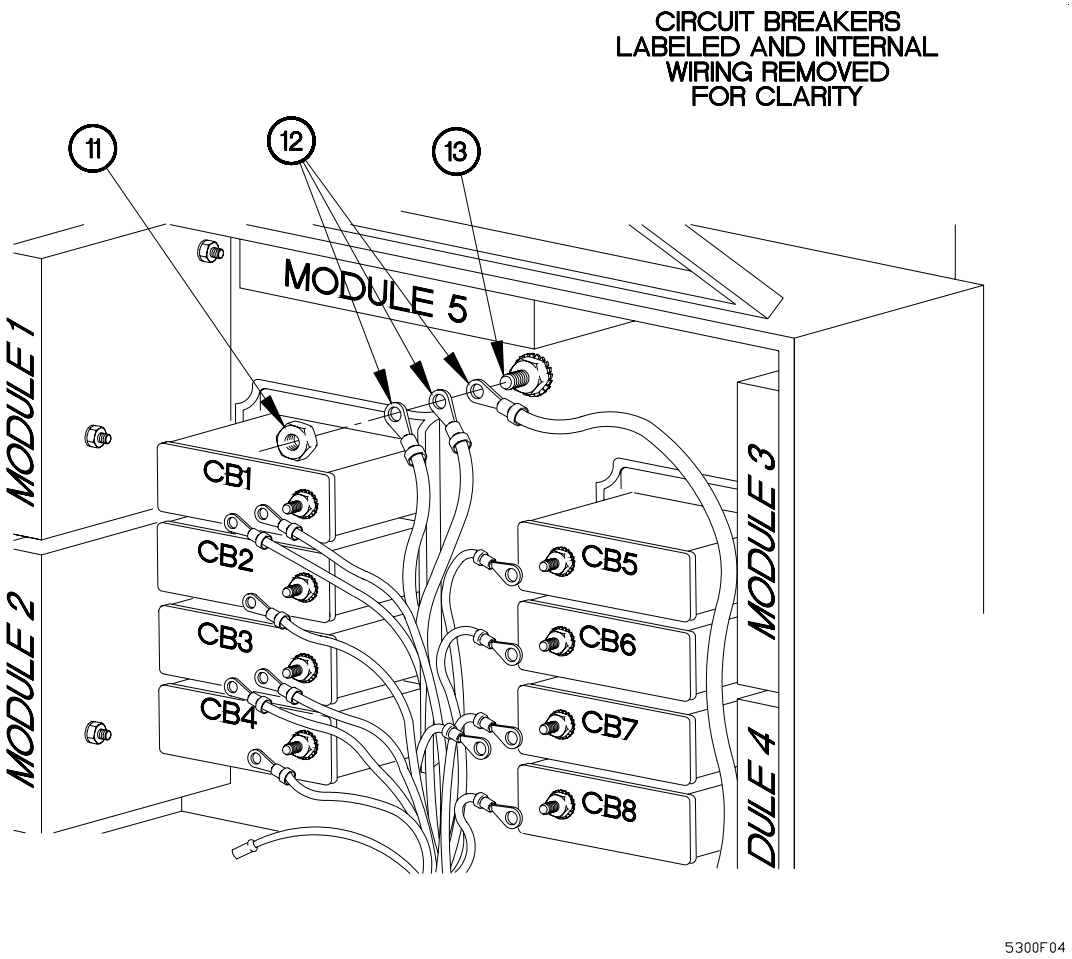
1. Position voltage converter box (2) on bracket (23) with four screws (20), lockwashers (21), and nuts (22).
2. Tighten four nuts (22) to 96-120 lb-in (11-14 N•m).
3. Install fitting (19) in voltage convertor box (2) with locknut (18).
4. Thread wiring harness (17) through fitting (19) in bottom of voltage converter box (2).
5. Tighten swedge (16), protector (15), and collar (14) on fitting (19).



VOLTAGE CONVERTER BOX REPLACEMENT - Continued 0052 00

INSTALLATION - Continued

6. Install three ground wires (12) on ground stud (13) with nut (11).



5300F04

VOLTAGE CONVERTER BOX REPLACEMENT - Continued 0052 00

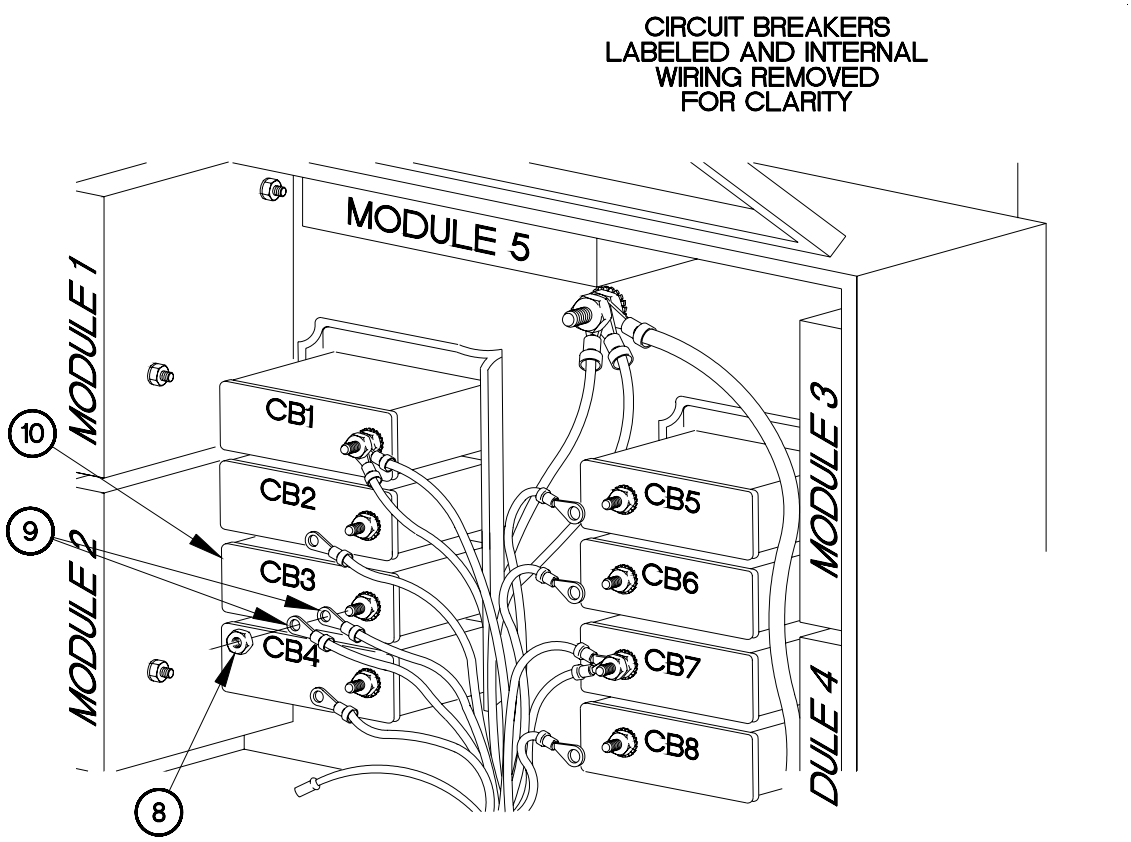
INSTALLATION - Continued

NOTE

All wires are installed on CB1, CB3 and CB7 the same way. CB3 shown.

7. Install two wiring harness wires (9) on circuit breaker (10) with nut (8).

8. Perform step (7) on remaining circuit breakers.



5300F03

VOLTAGE CONVERTER BOX REPLACEMENT - Continued 0052 00

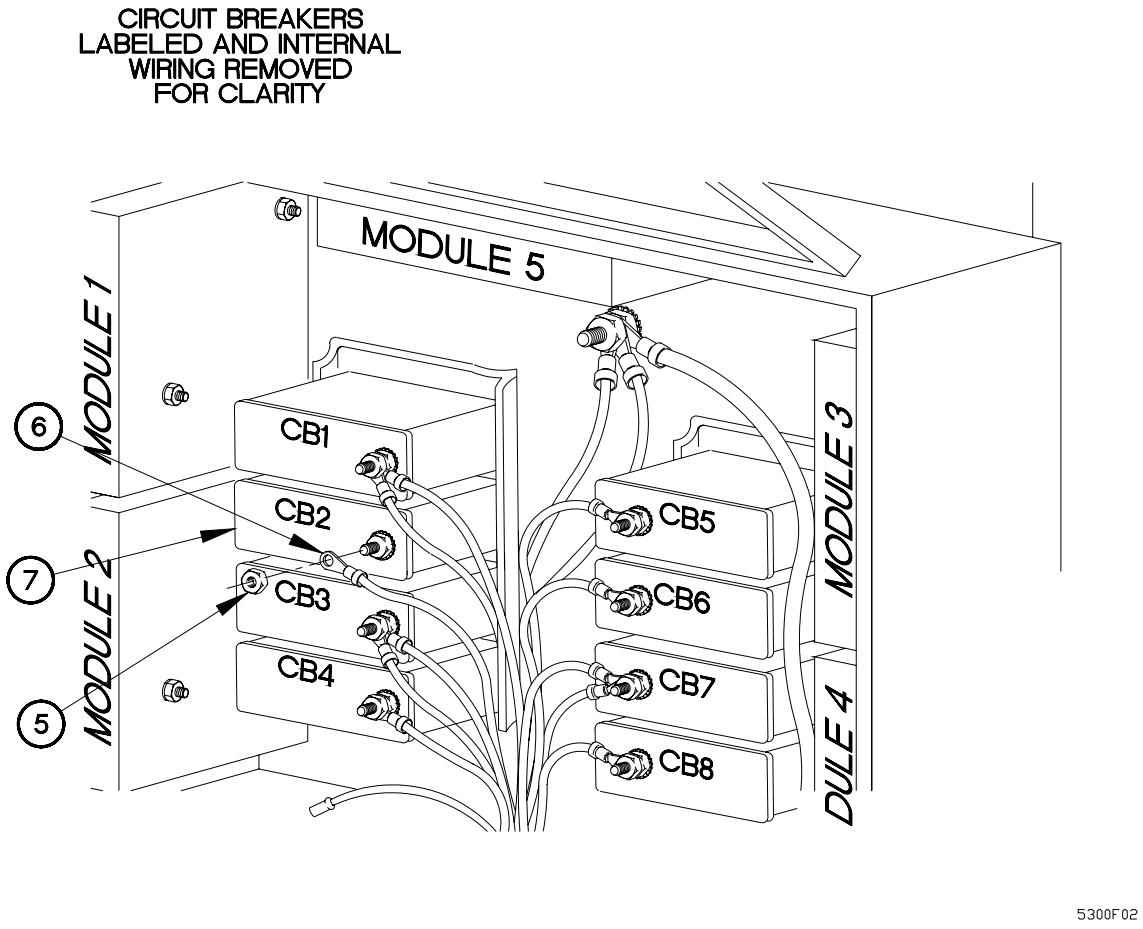
INSTALLATION - Continued

NOTE

All wires are installed on CB2, CB4, CB5, CB6, and CB8 the same way. CB2 shown.

9. Install wiring harness wire (6) on circuit breaker (7) with nut (5).

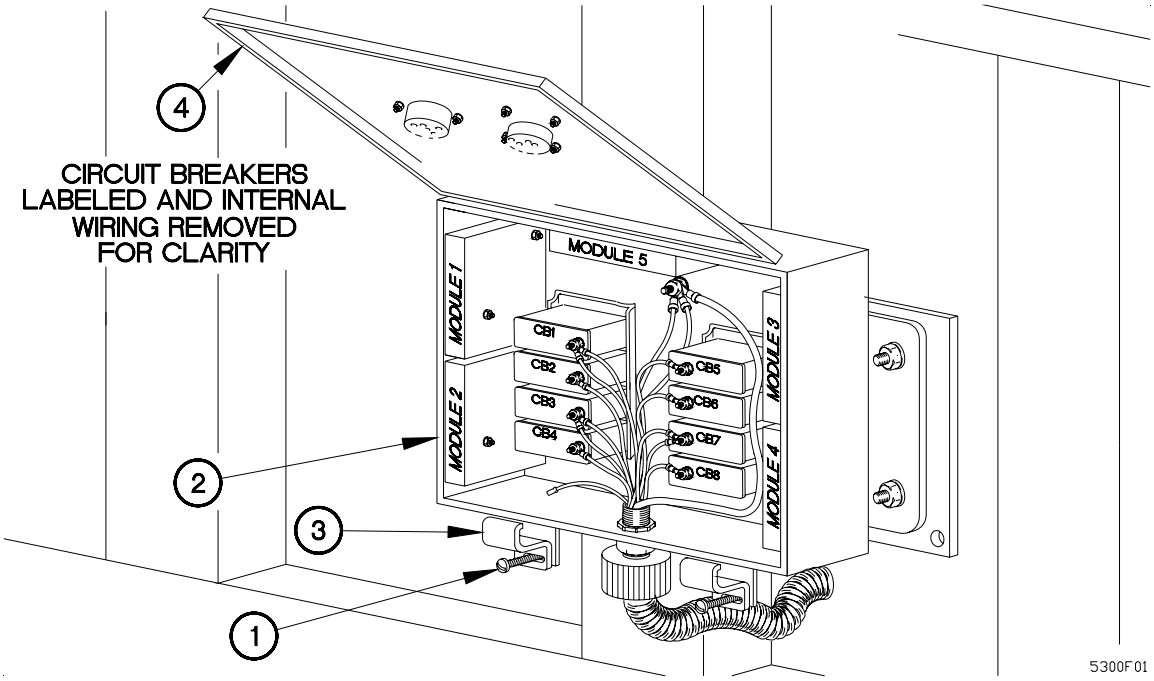
10. Perform step (9) on remaining circuit breakers.



VOLTAGE CONVERTER BOX REPLACEMENT - Continued 0052 00

INSTALLATION - Continued

11. Close cover (4) on voltage converter box (2).
12. Position two latches (3) on voltage converter box (2) with two screws (1).
13. Tighten two screws (1) to 96-120 lb-in (11-14 N•m).



OPERATIONAL CHECK

1. Couple trailer (WP 0009 00, Coupling Trailer).
2. Check for proper operation of trailer lights (WP 0042 00, Table 1. Preventive Maintenance Checks and Services (PMCS) - Before).
3. Uncouple trailer (WP 0012 00 Uncouple Trailer).

END OF WORK PACKAGE

CIRCUIT BREAKER AND MODULE REPLACEMENT 0053 00

THIS WORK PACKAGE COVERS:

Open Voltage Converter Box Cover, Circuit Breaker Removal, Circuit Breaker Installation, Module Removal, Module Installation, Operational Check, Close Voltage Converter Box Cover

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Electrical Contact Repair
(Item 36, WP 0178 00)
Tool Kit, Genl Mech (Item 37, WP 0178 00)

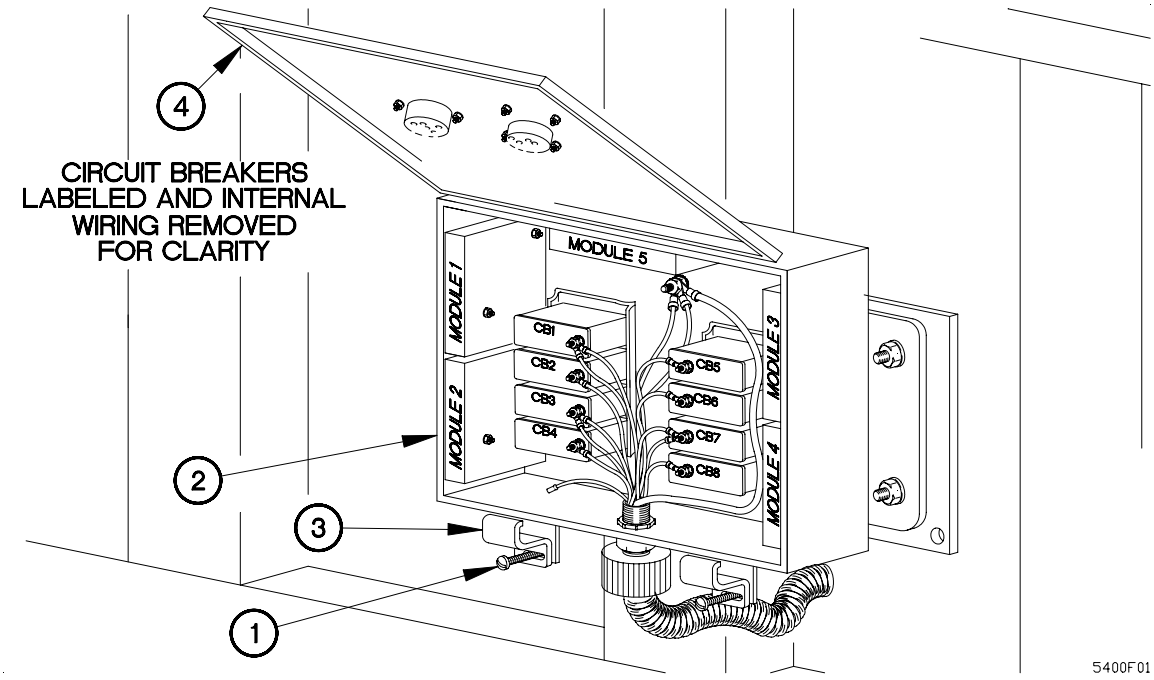
Materials/Parts
Ties, Cable, Plastic (Item 37, WP 0176 00)
Lockwasher (5) (Item 8, WP 0181 00)

References
WP 0009 00
WP 0012 00
WP 0052 00

Equipment Conditions
Trailer uncoupled (WP 0012 00).

OPEN VOLTAGE CONVERTER BOX COVER

1. Loosen two screws (1) on voltage converter box (2) and disconnect latches (3).
2. Open cover (4) on voltage converter box (2).



CIRCUIT BREAKER AND MODULE REPLACEMENT - Continued 0053 00

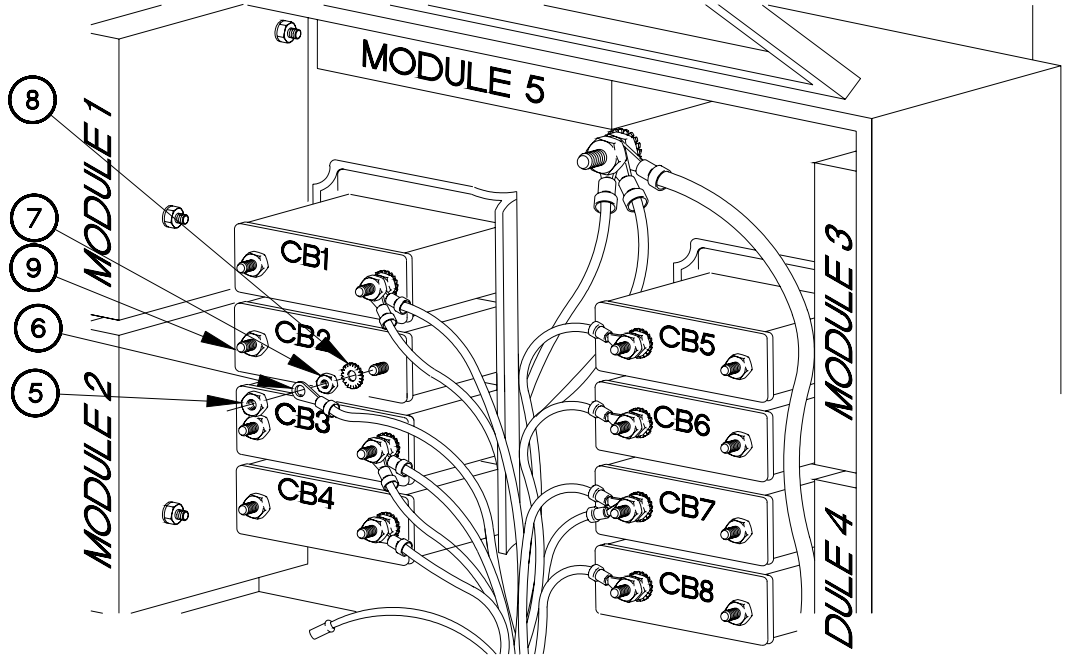
CIRCUIT BREAKER REMOVAL

NOTE

Tag wires and connection points prior to disconnecting.

Perform steps (1) through (3) on CB2, CB4, CB5, CB6, and CB8.

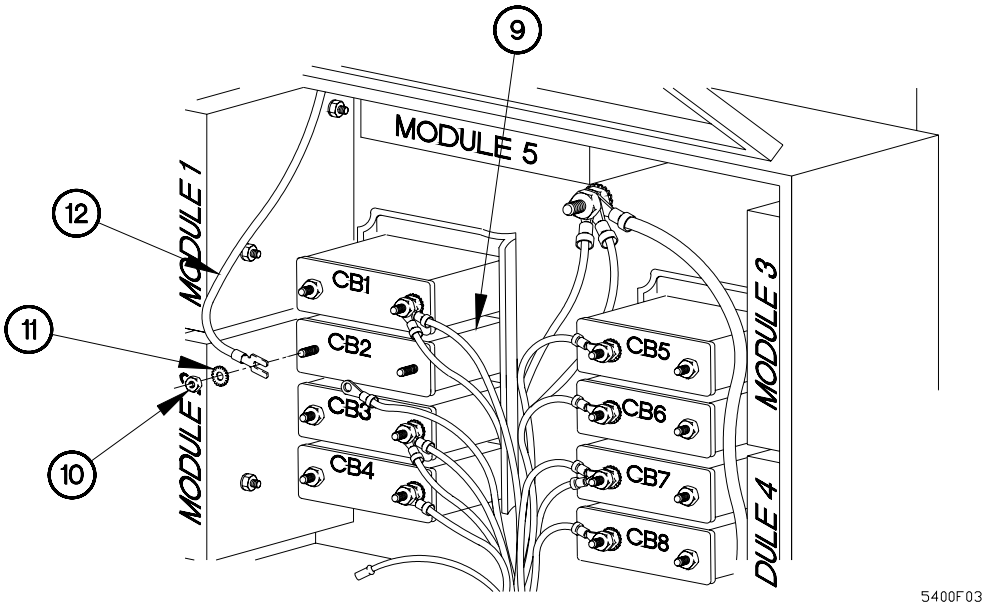
1. Remove nut (5), wiring harness wire (6), nut (7), and lockwasher (8) from circuit breaker (9). Discard lockwasher.



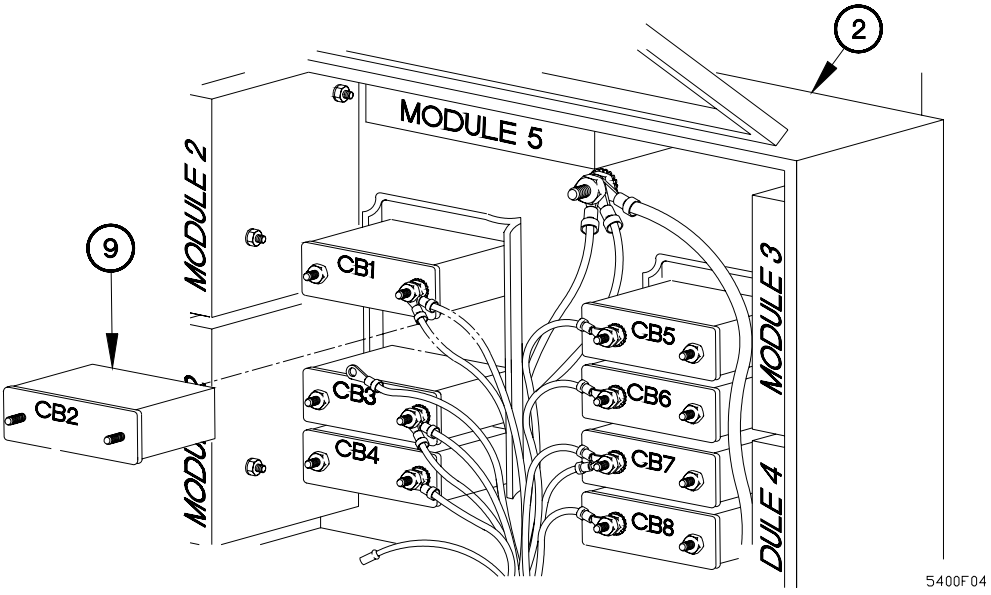
5400F02

CIRCUIT BREAKER REMOVAL - Continued

2. Remove nut (10), lockwasher (11) and wire (12) from circuit breaker (9). Discard lockwasher.



3. Remove circuit breaker (9) from voltage converter box (2).



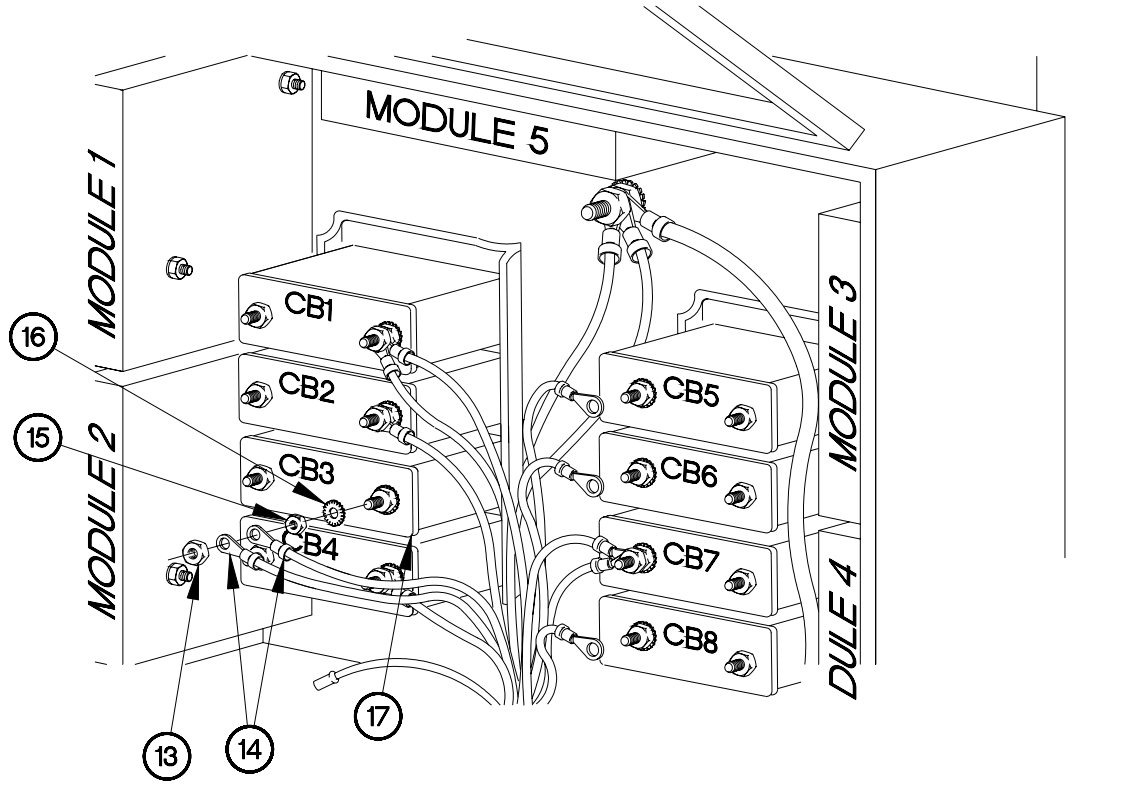
CIRCUIT BREAKER AND MODULE REPLACEMENT - Continued 0053 00

CIRCUIT BREAKER REMOVAL - Continued

NOTE

Perform steps (4) through (6) on CB1, CB3 and CB7.

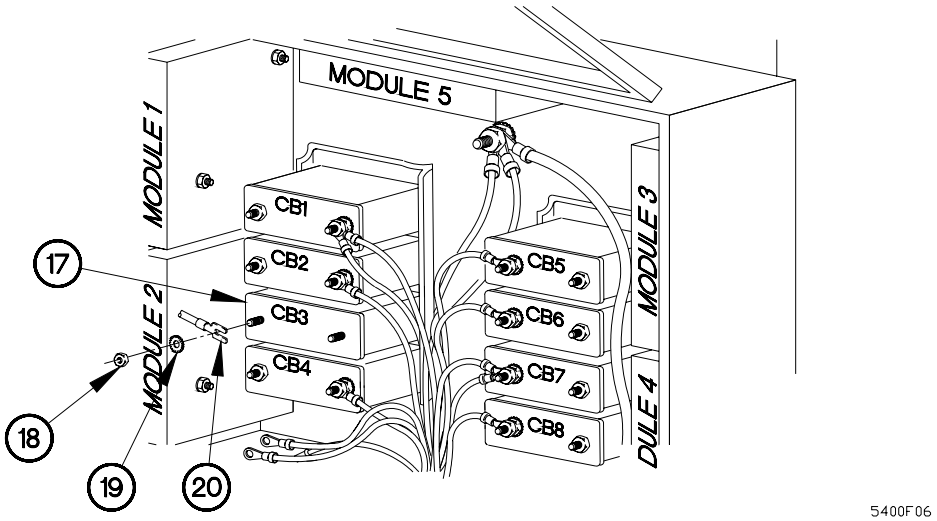
4. Remove nut (13), two wiring harness wires (14), nut (15), and lockwasher (16) from circuit breaker (17). Discard lockwasher.



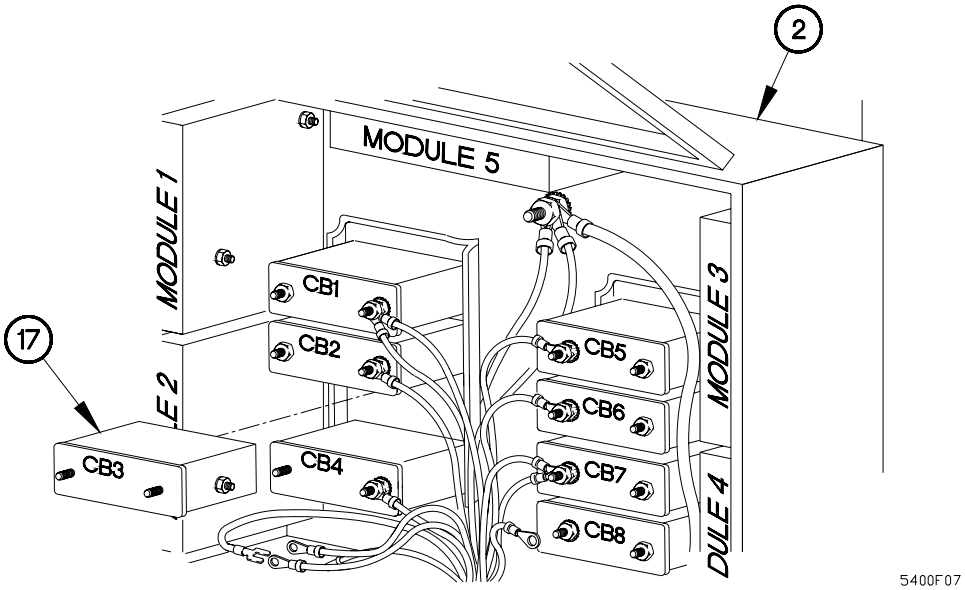
5400F05

CIRCUIT BREAKER REMOVAL - Continued

5. Remove nut (18), lockwasher (19) and wire (20) from circuit breaker (17). Discard lockwasher.



6. Remove circuit breaker (17) from voltage converter box (2).



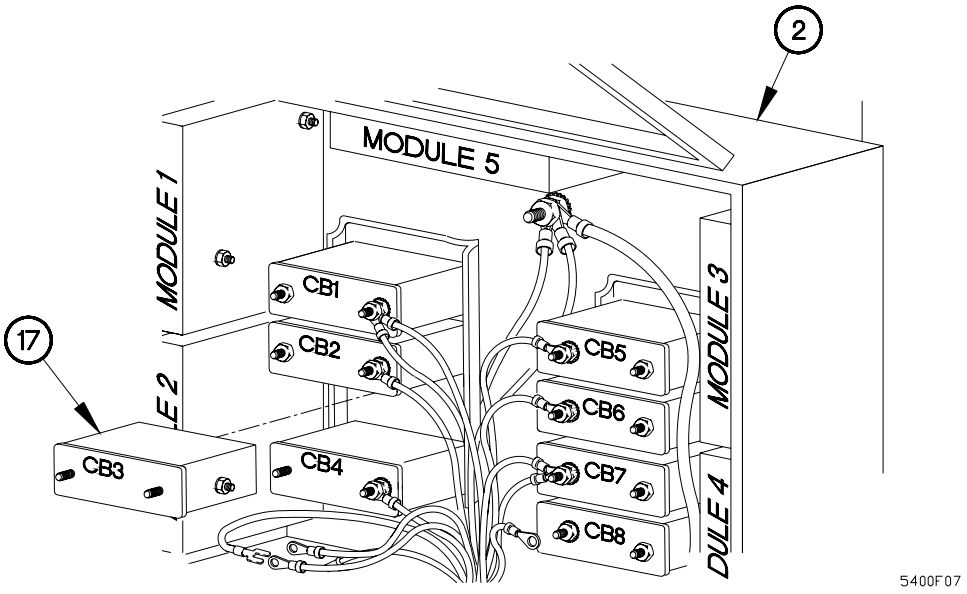
CIRCUIT BREAKER AND MODULE REPLACEMENT - Continued 0053 00

CIRCUIT BREAKER INSTALLATION

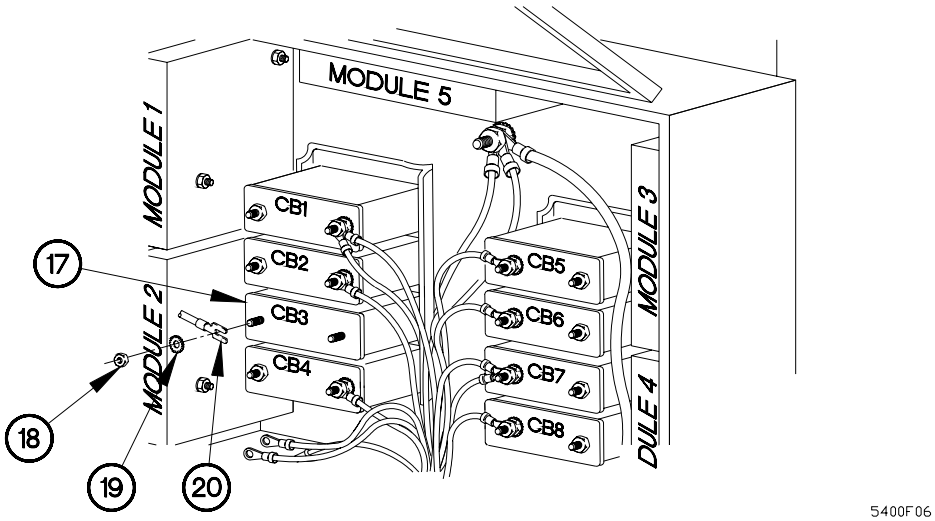
NOTE

Perform steps (1) through (4) on CB1, CB3 and CB7.

1. Install circuit breaker (17) in voltage converter box (2).



2. Position wire (20) on circuit breaker (17) with lockwasher (19) and nut (18).

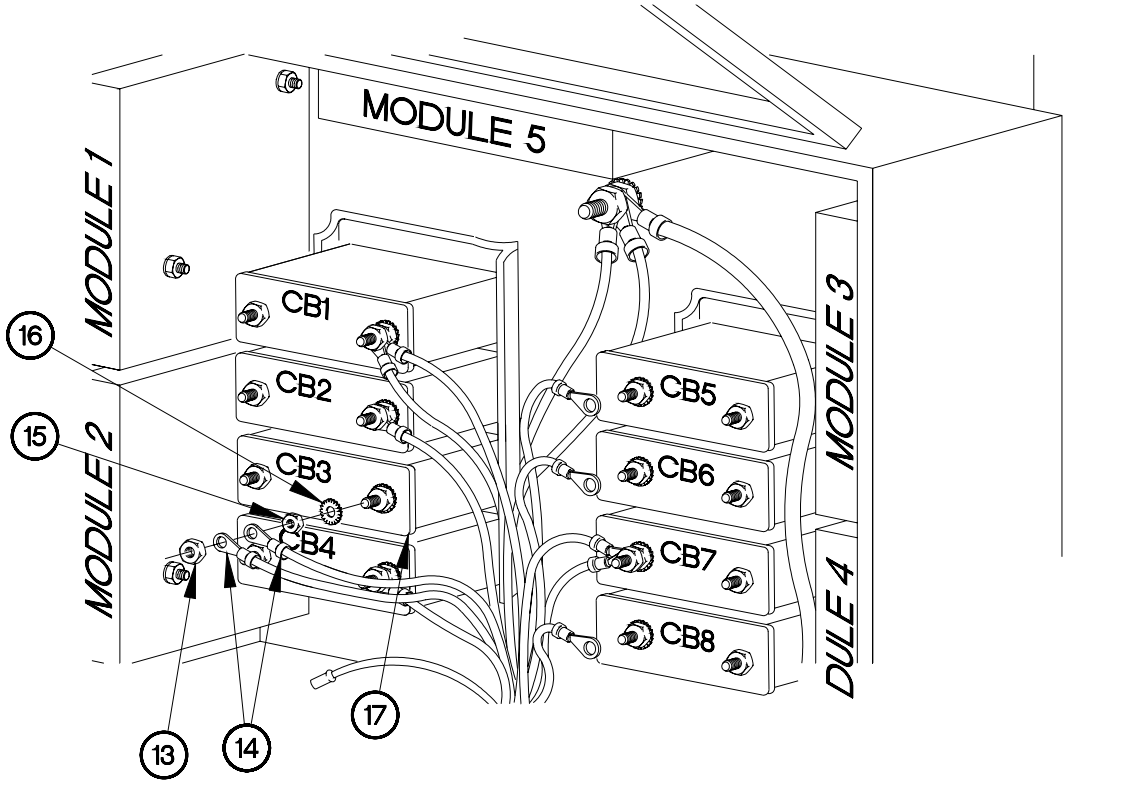


CIRCUIT BREAKER AND MODULE REPLACEMENT - Continued 0053 00

CIRCUIT BREAKER INSTALLATION - Continued

3. Install lockwasher (16) and nut (15) on circuit breaker (17).

4. Position two wiring harness wires (14) on circuit breaker (17) with nut (13).



5400F05

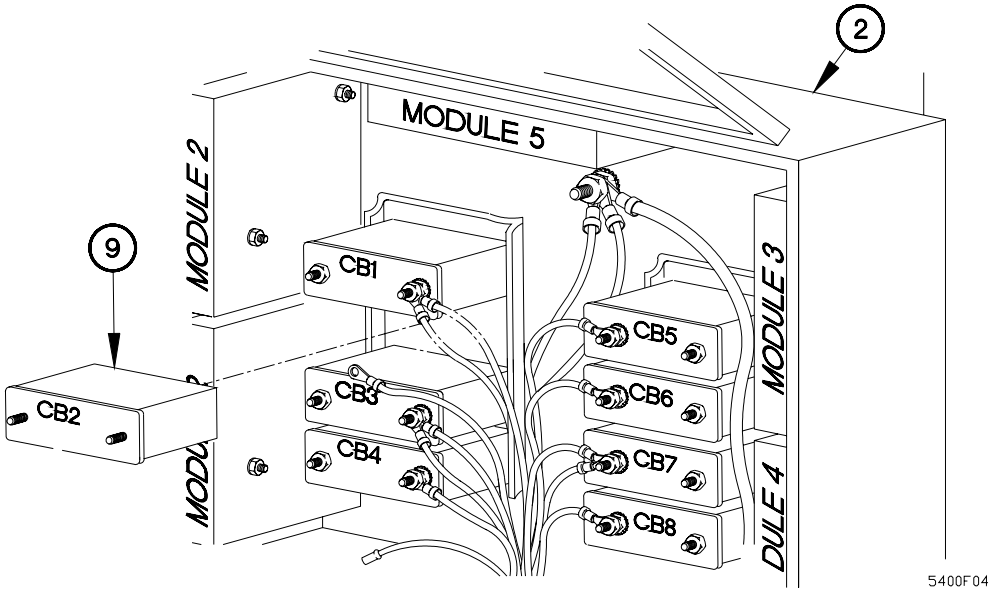
CIRCUIT BREAKER AND MODULE REPLACEMENT - Continued 0053 00

CIRCUIT BREAKER INSTALLATION - Continued

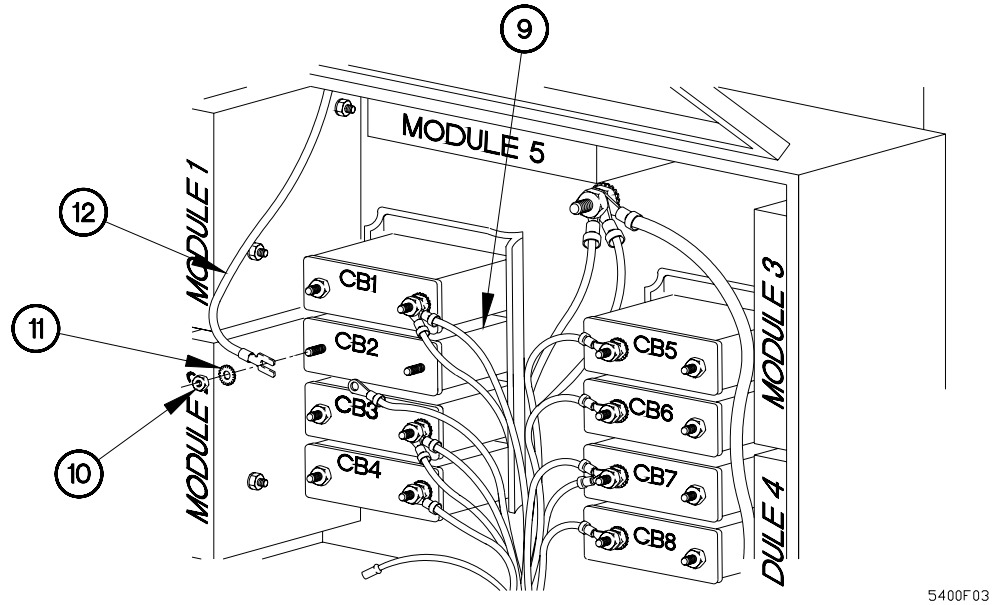
NOTE

Perform steps (5) through (8) on CB2, CB4, CB5, CB6, and CB8.

5. Install circuit breaker (9) in voltage converter box (2).



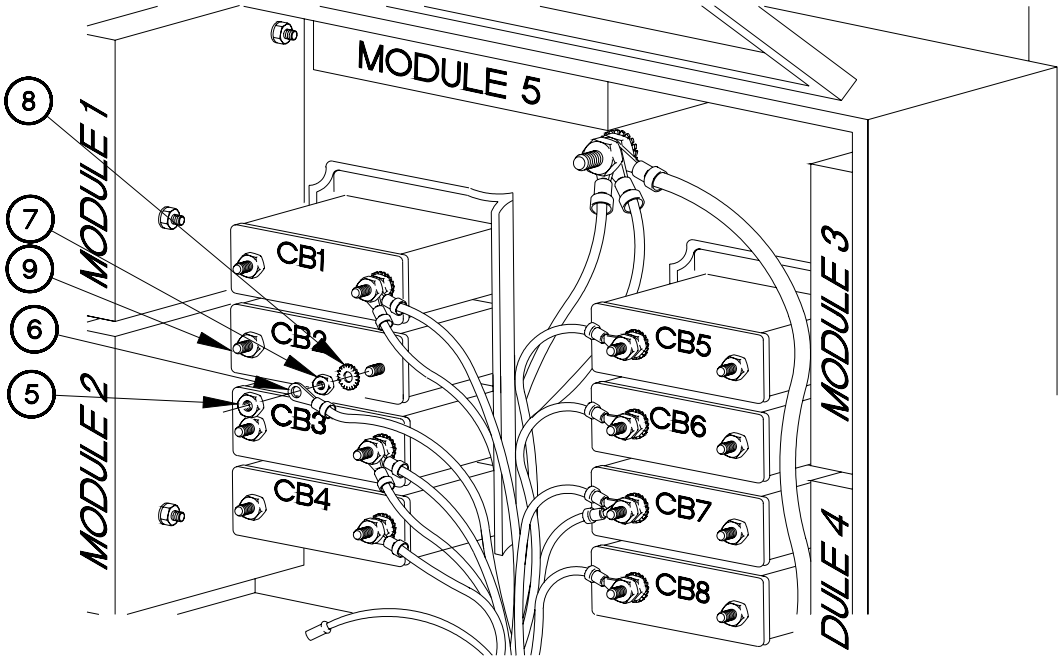
6. Position wire (12) on circuit breaker (9) with lockwasher (11) and nut (10).



CIRCUIT BREAKER INSTALLATION - Continued

7. Install lockwasher (8) and nut (7) on circuit breaker (9).

8. Position wiring harness wires (6) on circuit breaker (9) with nut (5).



5400F02

MODULE REMOVAL

NOTE

This task shows locations of Voltage Converter Box module wiring connection points. Refer to Table 1. Voltage Converter Box Module Wiring Connections for details.

Modules 1 through 5 are remove the same way, Module 3 shown.

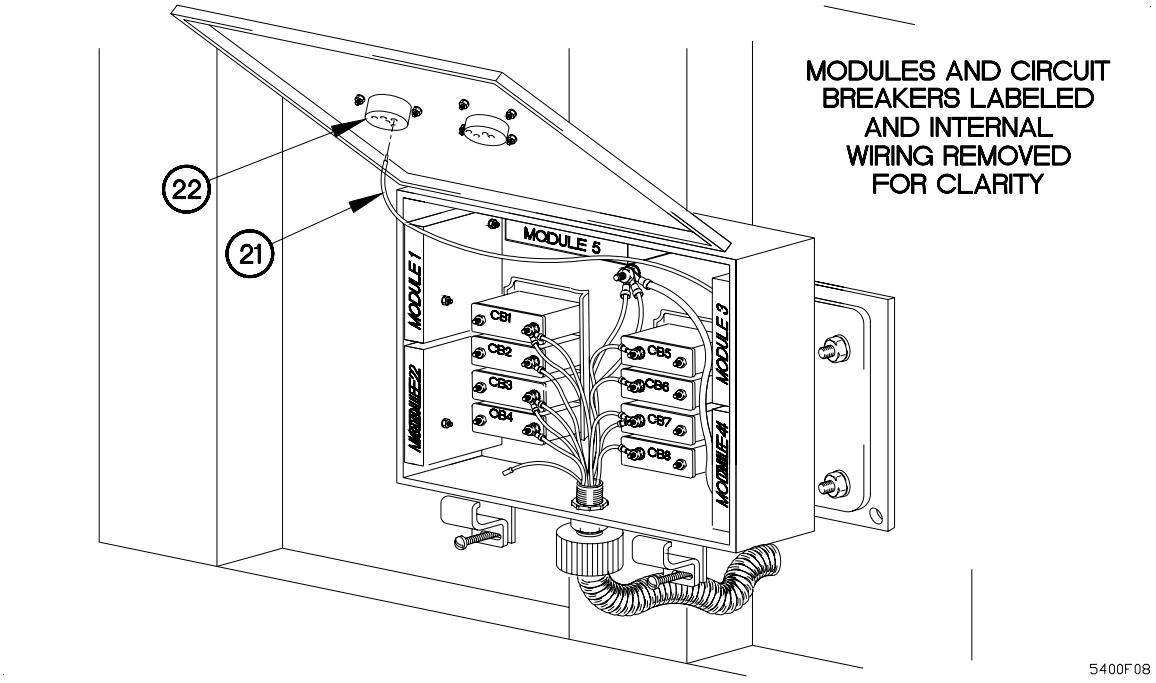
Tag wires and connection points prior to disconnecting.

Remove plastic cable ties as required.

Table 1. Voltage Converter Box Module Wiring Connections.

MODULE	CONNECTION POINTS
1	CB3, left ground stud, Pin #2-12 volt connector, E-Pin-24 volt connector
2	CB4, left ground stud, Pins #4/#5-12 volt connector, J-Pin-24 volt connector
3	CB7, right ground stud, Pin #6-12 volt connector
4	CB8, right ground stud, Pins #3/#4-12 volt connector, B-Pin-24 volt connector
5	CB1, right ground stud, Pins #4/#7-12 volt connector, B-/J-/K-Pins-24 volt connector

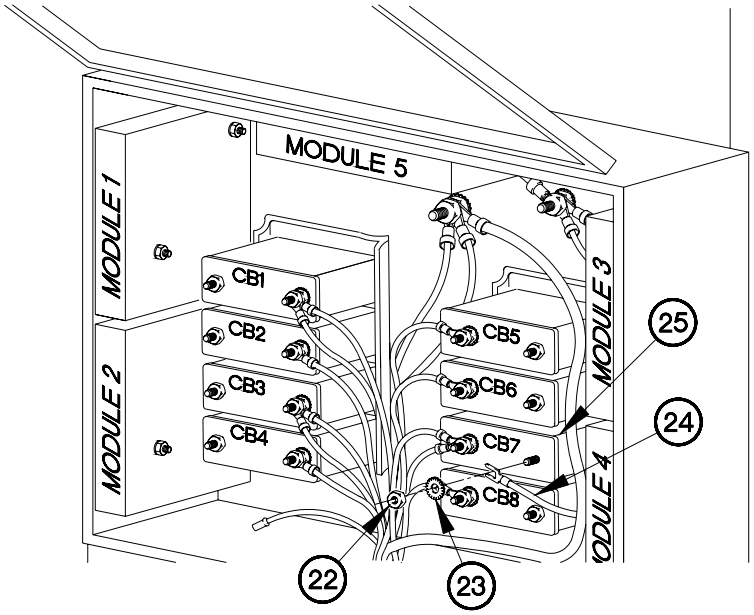
1. Remove wire (21) from pin #6 of 12 volt connector (22).



CIRCUIT BREAKER AND MODULE REPLACEMENT - Continued 0053 00

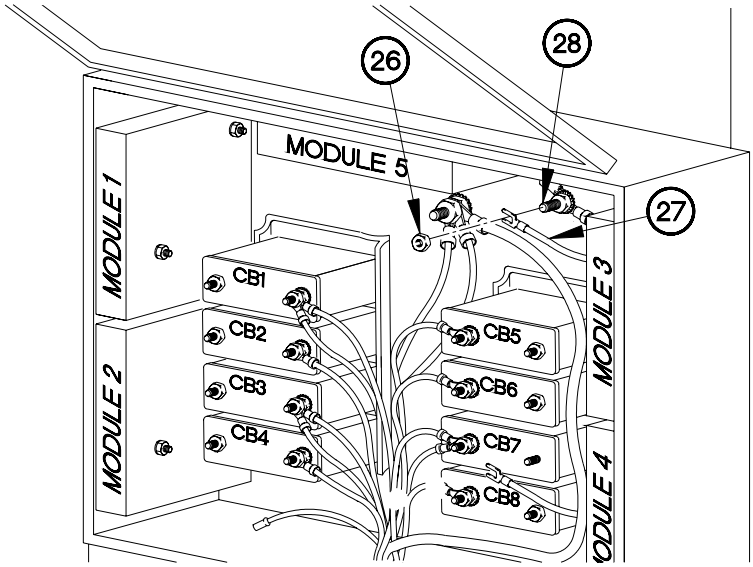
MODULE REMOVAL - Continued

2. Remove nut (22), lockwasher (23), and wire (24) from CB7 (25). Discard lockwasher.



5400F09

3. Remove nut (26) and wire (27) from right ground stud (28).

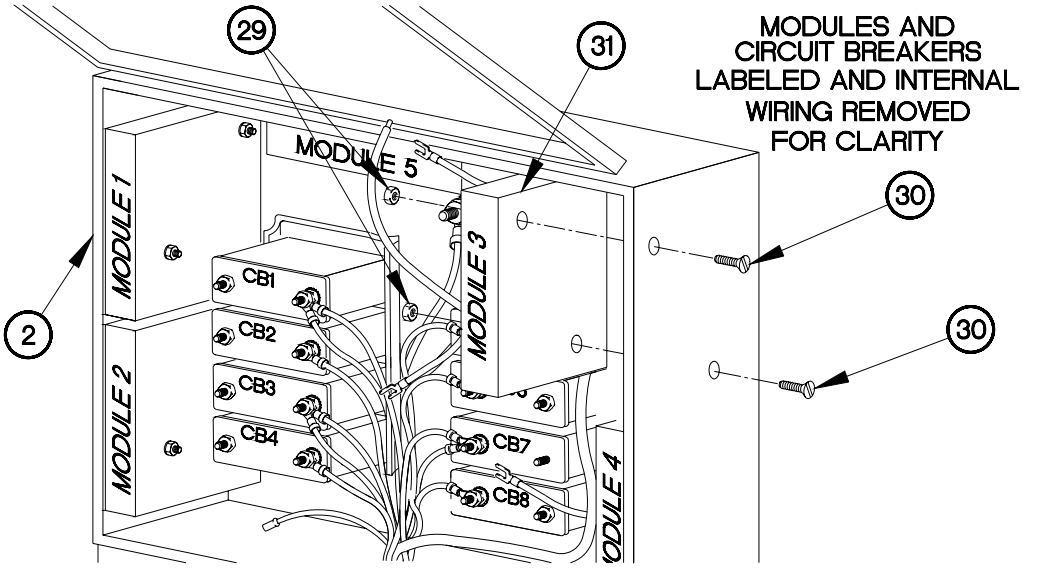


5400F10

CIRCUIT BREAKER AND MODULE REPLACEMENT - Continued 0053 00

MODULE REMOVAL - Continued

4. Remove module (31) from voltage converter box (2) with two nuts (29) and screws (30)



5400F11

CIRCUIT BREAKER AND MODULE REPLACEMENT - Continued 0053 00

MODULE INSTALLATION

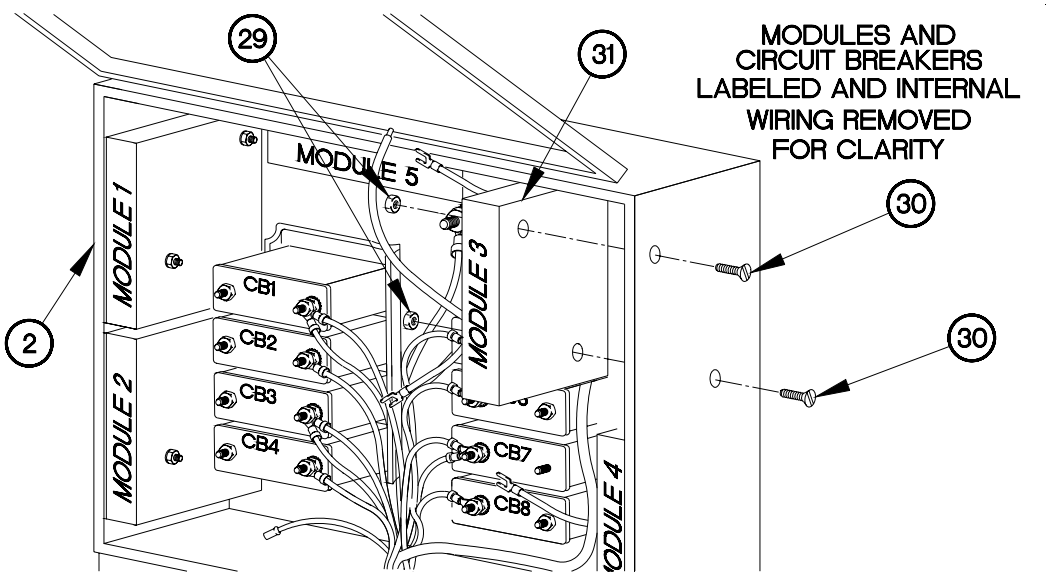
NOTE

This task shows locations of Voltage Converter Box module wiring connection points. Refer to Table 1 Voltage Converter Box Module Wiring Connections for details.

Modules 1 through 5 are installed the same way, Module 3 shown.

Install plastic cable ties as required.

1. Install module (31) in voltage converter box (2) with two screws (30) and nuts (29).

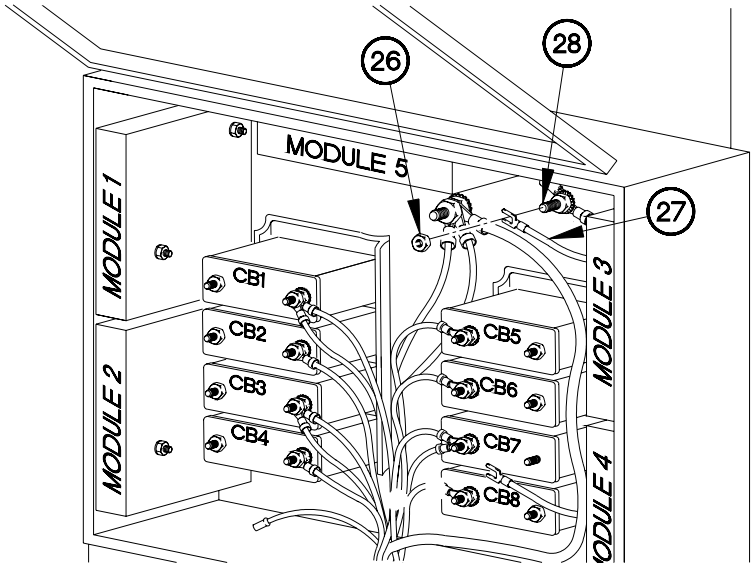


5400F11

CIRCUIT BREAKER AND MODULE REPLACEMENT - Continued 0053 00

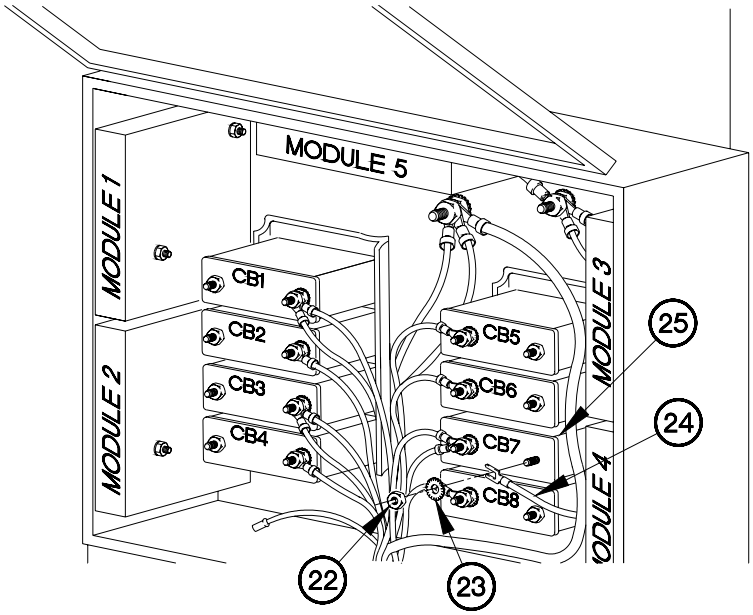
MODULE INSTALLATION - Continued

2. Position wire (27) on right ground stud (28) with nut (26).



5400F10

3. Position wire (24) on CB7 (25) with lockwasher (23) and nut (22).

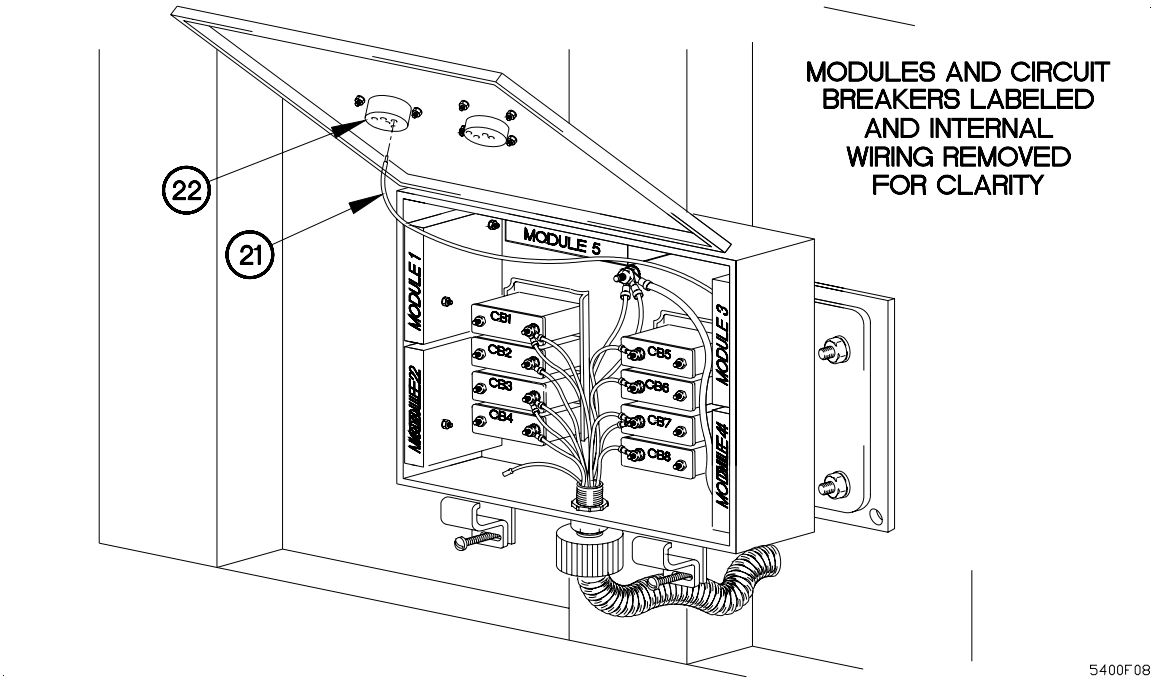


5400F09

CIRCUIT BREAKER AND MODULE REPLACEMENT - Continued 0053 00

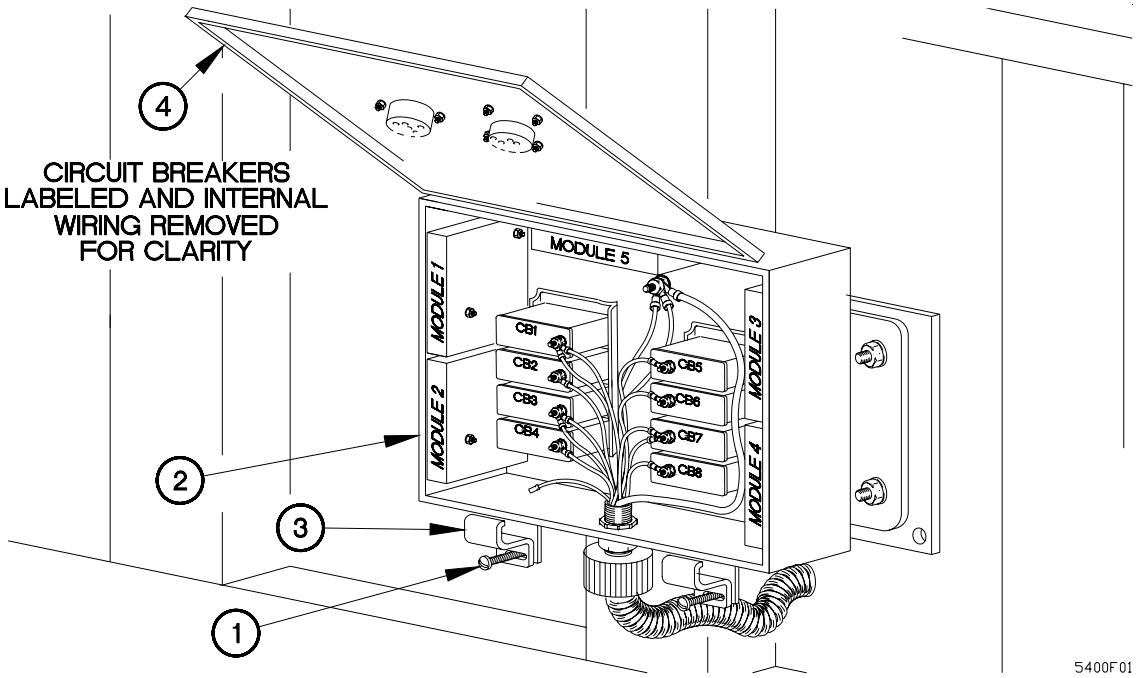
MODULE INSTALLATION - Continued

4. Install wire (21) on pin #6 of 12 volt connector (22).



CLOSE VOLTAGE CONVERTER BOX COVER

1. Close cover (4) and connect two latches (3) on voltage converter box (2).
2. Tighten two screws (1) on voltage converter box (2).



OPERATIONAL CHECK

1. Couple trailer (WP 0009 00, Coupling Trailer).
2. Check for proper operation of trailer electrical system affected by replaced circuit breaker or module (WP 0042 00, Table 1. Preventive Maintenance Checks and Services (PMCS) - Before).

END OF WORK PACKAGE

ANTI-LOCK BRAKING SYSTEM (ABS) WHEEL SPEED SENSOR REPLACEMENT 0054 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Goggles, Industrial (Item 8, WP 0178 00)
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Multimeter, Digital (Item 16, WP 0178 00)

Materials/Parts
Ties, Cable, Plastic (Item 37, WP 0176 00)

References
WP 0009 00
WP 0045 00
Towing vehicle Operator manual

Equipment Conditions
Brake shoes removed (WP 0055 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

NOTE

One ABS wheel speed sensor is located behind each wheel. The MTVT is equipped with four ABS wheel speed sensors, and the LMTVT has two. All ABS wheel speed sensors are removed the same way. The MTVT right side shown.

ANTI-LOCK BRAKING SYSTEM (ABS) WHEEL SPEED SENSOR REPLACEMENT - Continued 0054 00

REMOVAL

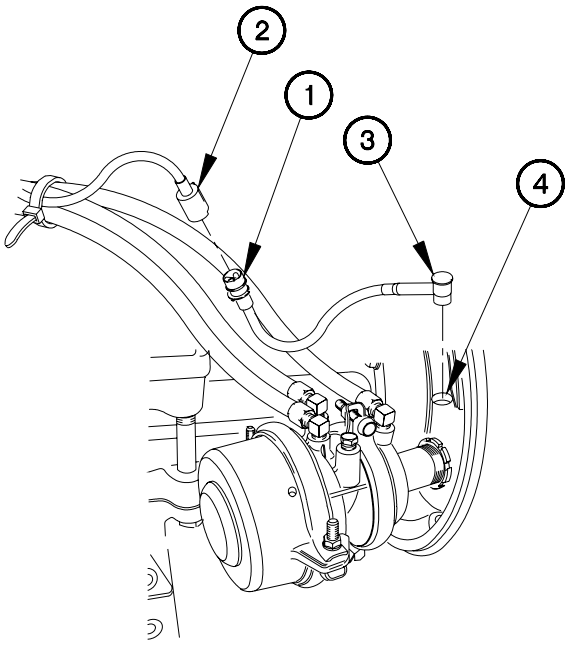
NOTE

Remove plastic cable ties as required.

Control sensor harness connectors correspond to the following ABS wheel speed sensor lead connectors:

Right side, rear: J255
Left side, rear: J256
Right side, front: J250 (MTVT only)
Left side, front: J251 (MTVT only)

1. Disconnect ABS wheel speed sensor lead (1) from control sensor harness connector (2).
2. Remove ABS wheel speed sensor (3) from wheel hub (4).



5500F01

ANTI-LOCK BRAKING SYSTEM (ABS) WHEEL SPEED SENSOR REPLACEMENT - Continued 0054 00

INSTALLATION

NOTE

One ABS wheel speed sensor is located behind each wheel. The MTVT is equipped with four ABS wheel speed sensors, and the LMTVT has two. All ABS wheel speed sensors are installed the same way. The MTVT right side shown.

1. Install ABS wheel speed sensor (3) in wheel hub (4).

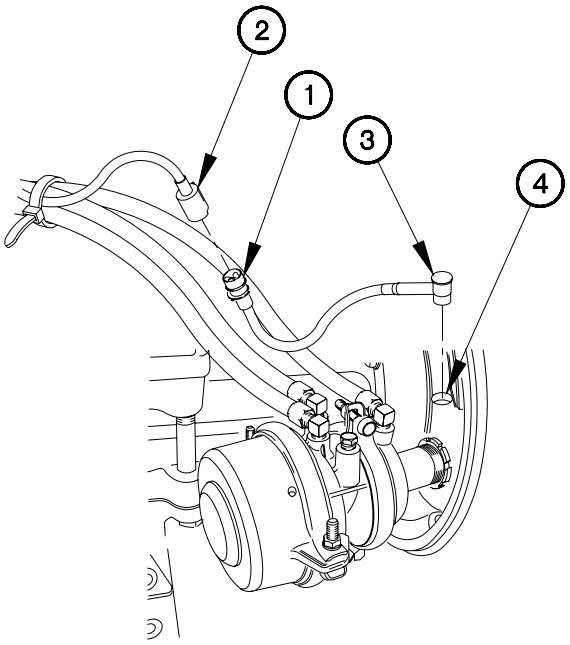
NOTE

Install plastic cable ties as required.

Control sensor harness connectors correspond to the following ABS wheel speed sensor lead connectors:

Right side, rear: J255
Left side, rear: J256
Right side, front: J250 (MTVT only)
Left side, front: J251 (MTVT only)

2. Connect ABS wheel speed sensor lead (1) to control sensor harness connector (2).



5500F01

ANTI-LOCK BRAKING SYSTEM (ABS) WHEEL SPEED SENSOR REPLACEMENT - Continued 0054 00

OPERATIONAL CHECK

1. Install brake shoes (WP 0055 00, Installation).
2. Install wheel (WP 0045 00, Tire Installation).
3. Check the output voltage of the sensor while rotating the wheel at approximately one-half revolution per second. If minimum output is less than 0.5 volt AC, push the ABS wheel speed sensor toward the tooth wheel. Recheck sensor output.
4. Uncage spring brakes (WP 0047 00, Uncaging Spring Brakes).
5. Couple trailer (WP 009 00, Coupling Trailer).
6. Operate trailer and check for normal brake operation (WP 0011 00, Towing Trailer).
7. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

BRAKE SHOE REPLACEMENT/ADJUSTMENT 0055 00

THIS WORK PACKAGE COVERS:

Removal, Cleaning/Inspection, Installation, Adjustment, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Trestle, Motor Vehicle Maintenance (Item 38, WP 0178 00)
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Respirator, Air Filter (Item 23, WP 0178 00)
Adjusting Tool, Brake Shoe (Item 1, WP 0178 00)
Brake Adjusting Tool Support (Item 1, WP 0179 00)

Materials/Parts
Rag, Wiping (Item 25, WP 0176 00)
Grease, Automotive and Artillery (GAA) (Item 11, WP 0176 00)
Lockwasher (2) (Item 18, WP 0181 00)

Personnel Required
Two

References
WP 0009 00
WP 0011 00
Towing vehicle Operator manual

Equipment Conditions
Tire removed (WP 0045 00).
Air tank drained (WP 0011 00).
Spring brakes caged (WP 0047 00).

REMOVAL

WARNING

Vent air system before disconnecting airlines. Pressurized air can blow dirt and debris with sufficient force to cause injury. Safety goggles must be worn when working with compressed air. Failure to comply may result in injury to personnel.

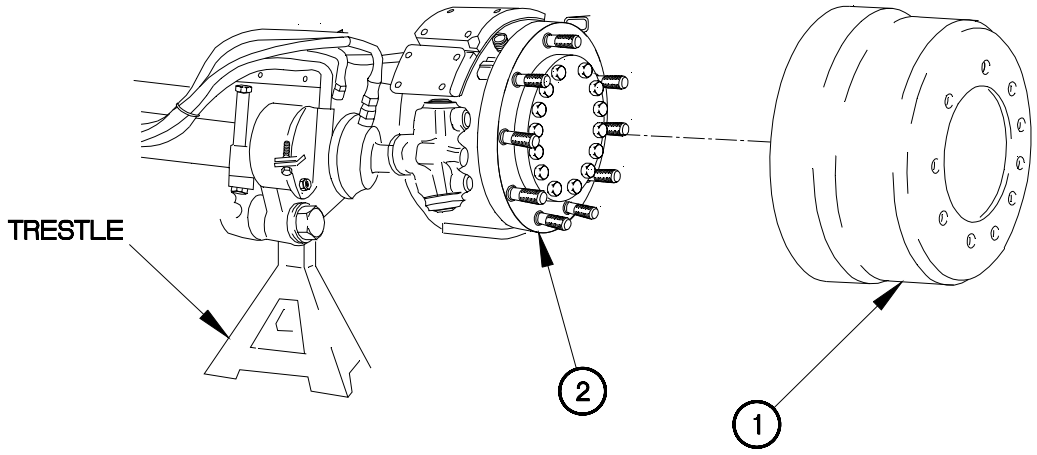
Wheel drum weighs approximately 90 lbs (41 kg). Use the aid of an assistant to help remove wheel drum. Failure to comply may result in injury to personnel.

Brake shoes may be covered with dust. Breathing this dust may be harmful to your health. Do not use compressed air to clean brake shoes. Wear a filter mask approved for use against brake dust. Failure to comply may result in injury to personnel.

BRAKE SHOE REPLACEMENT/ADJUSTMENT - Continued 0055 00

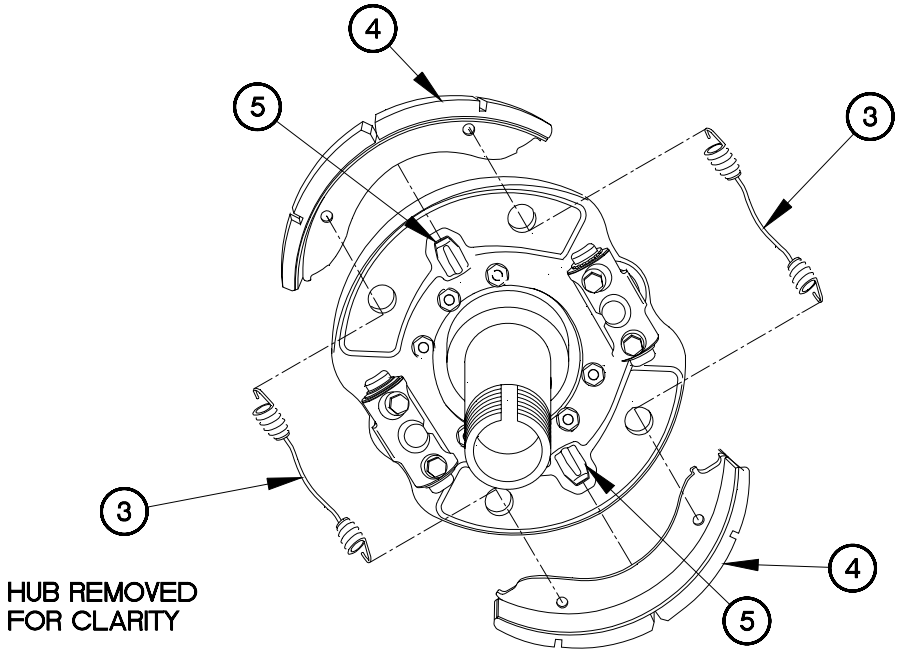
REMOVAL - Continued

1. Remove wheel drum (1) from wheel hub (2).



5600F01

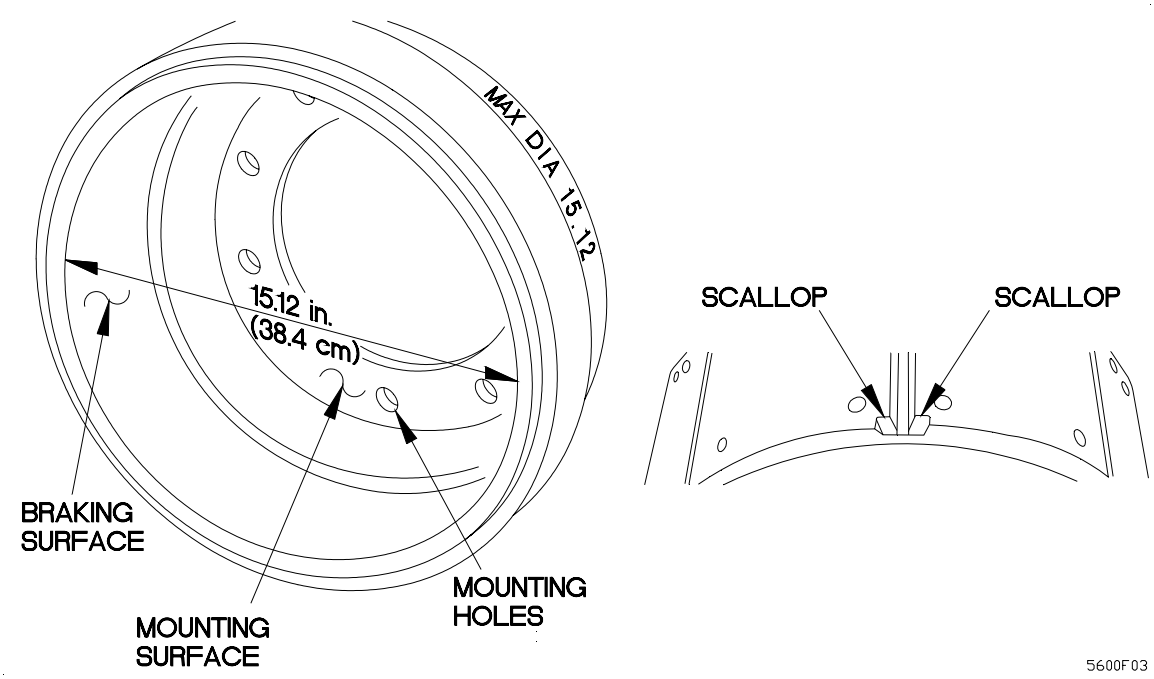
2. Remove two return springs (3) from brake shoes (4).
3. Remove two brake shoes (4) from holddown clips (5).
4. Perform brake plunger assembly replacement/repair (WP 0056 00, Brake Plunger Assembly Replacement/Repair).



5600F02

INSPECTION

1. Clean wheel drums of all mud, sand, and debris.
2. Inspect wheel drums for the following:
   a. Braking surface of wheel drums must be free of scoring and cracks.
   b. Maximum inside diameter, which is stamped on wheel drum, does not exceed 15.12 in. (38.4 cm).
   c. Wheel drum mounting holes must not be egg-shaped or have cracks around edges.
   d. Wheel drum mounting surface must be flat.
3. Inspect brake shoes for presence of scallops at brake shoe lining four inner corners.



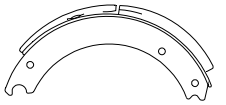
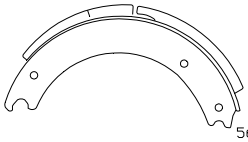
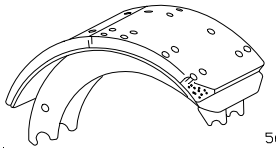
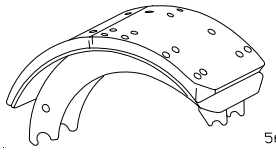
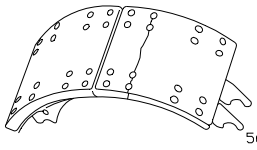
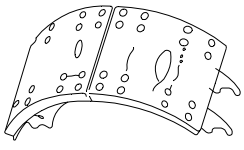
INSPECTION - Continued

NOTE

Over time, a ridge will form on the outer edge of the brake shoes. This is normal and does not affect brake shoe serviceability.

4. Inspect brake shoes for OUT-OF-SERVICE and IN-SERVICE criteria as shown in Table 1. Brake Shoe Service Criteria.

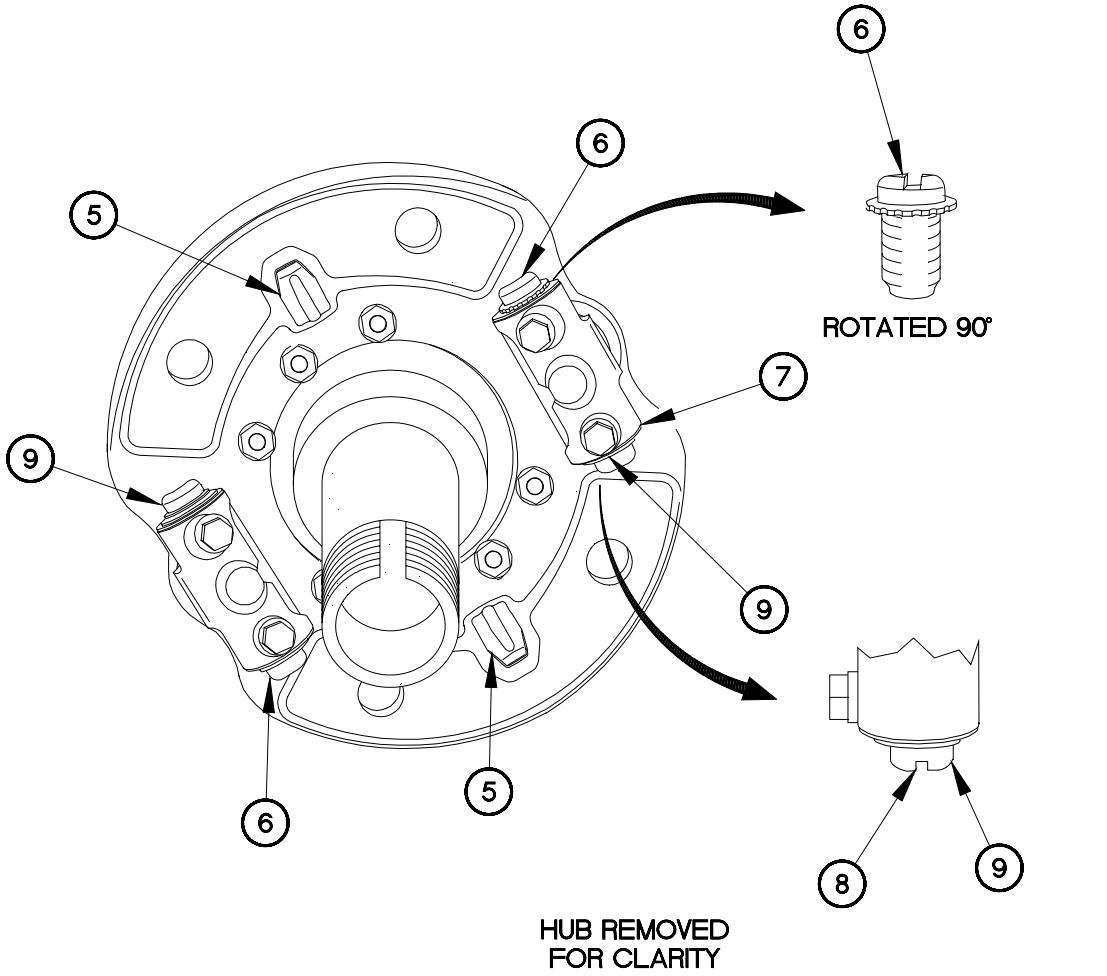
Table 1. Brake Shoe Service Criteria

OUT-OF-SERVICE	IN-SERVICE
 5600F04	 5600F07
Cracks or voids that exceed 1/16 in. (0.16 cm) in width. Cracks that exceed 1-1/2 in. (3.75 cm) in length.	Vertical or horizontal cracks in lining edge not exceeding 1/16 in. (0.16 cm) in width or not exceeding 1-1/2 in. (3.75 cm) in length.
 5600F05	 5600F08
Portion of lining missing that exposes a fastening device, or worn to the point that a fastening device is exposed.	Corner segment missing with no fastening device (rivet or bolt) exposed.
 5600F06	 5600F09
Cracks across the lining face that extend through the lining edges.	Surface cracks in lining face that can extend from hole to hole. Pitting and material erosion on the lining face.

INSTALLATION

1. Turn two adjusting screws (6) in plunger housing (7) until they bottom.

2. Apply a thin film of grease to slots (8) in two adjusting screws (6), anchor plungers (9) and to inside of two holddown clips (5).



BRAKE SHOE REPLACEMENT/ADJUSTMENT - Continued 0055 00

INSTALLATION - Continued

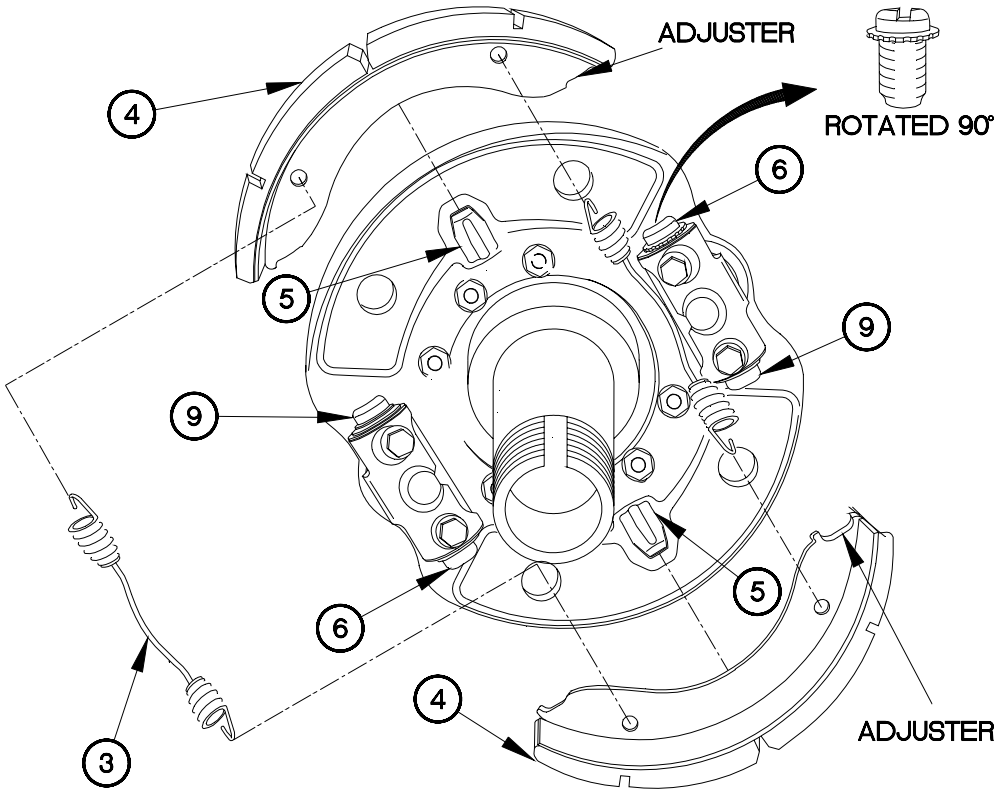
WARNING

Do not rely on automatic adjusters to take up excessive initial clearance. Tightening adjusting screws against plunger housings may result in failure of automatic adjusters to function properly. Failure to comply may result in serious injury or death to personnel.

CAUTION

Brake shoe ends stamped ADJUSTER are positioned on adjusting screws. Failure to comply may result in damage to equipment.

3. Loosen two adjusting screws (6) 1/2 turn or until slots are aligned with brake shoes (4).
4. Install two brake shoes (4) in holddown clips (5) with ends seated in slots in adjusting screws (6) and anchor plungers (9).
5. Install two return springs (3) on brake shoes (4).



5600F11

INSTALLATION - Continued

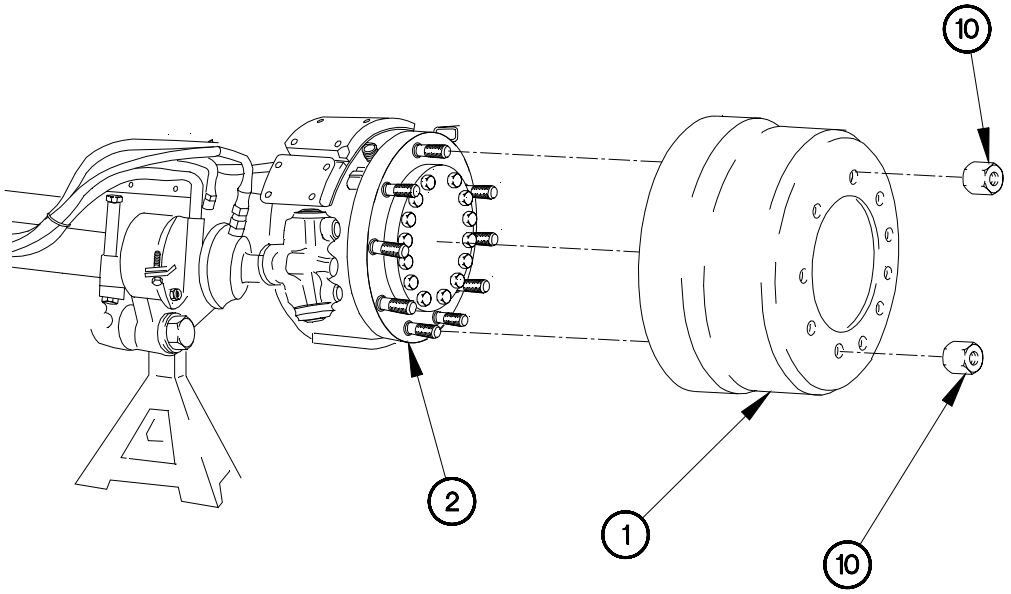
WARNING

Wheel drum weighs approximately 90 lbs (41 kg). Use the aid of an assistant to help remove wheel drum or injury to personnel may result.

NOTE

Position lug nuts 180 degrees apart and tighten until wheel drum is seated.

6. Install wheel drum (1) on wheel hub (2) with two lugnuts (10).



5600F12

ADJUSTMENT

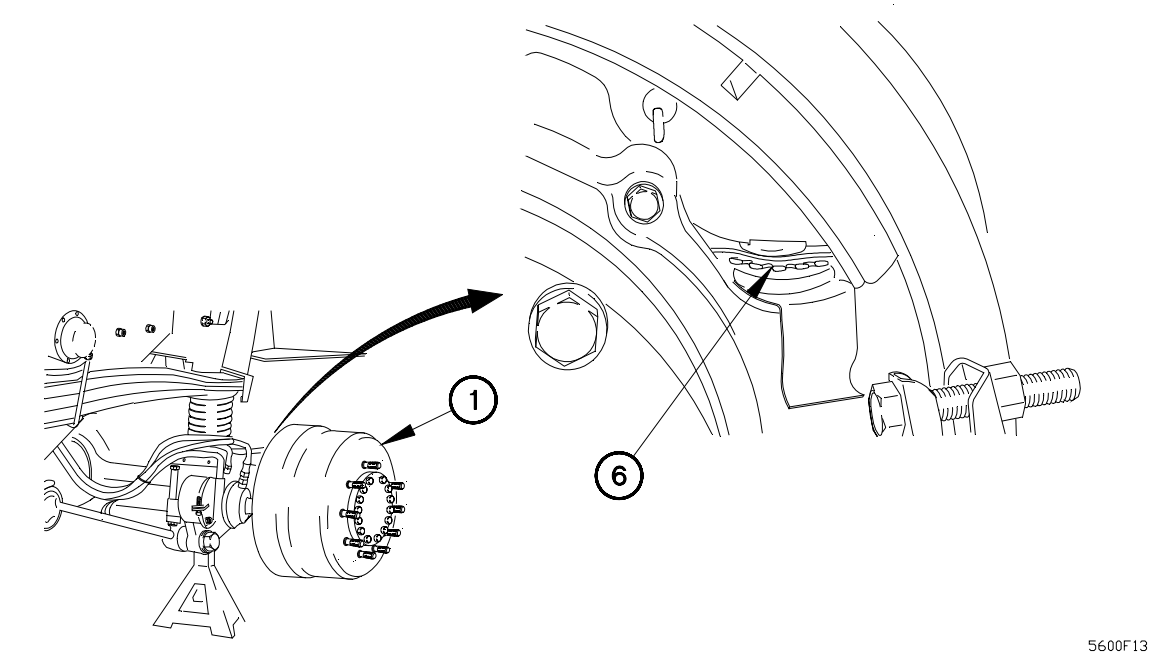
CAUTION

Do not rely on automatic adjusters to take up excessive initial clearance. Tightening adjusting screws against plunger may result in failure of automatic adjusters to function properly.

NOTE

Dual actuated brakes will not self-adjust on stationary trailer.

1. Adjust brake adjusting screws (6) while turning wheel drum (1).
2. Turn wheel drum (1) through one or more revolutions to ensure there is no binding.

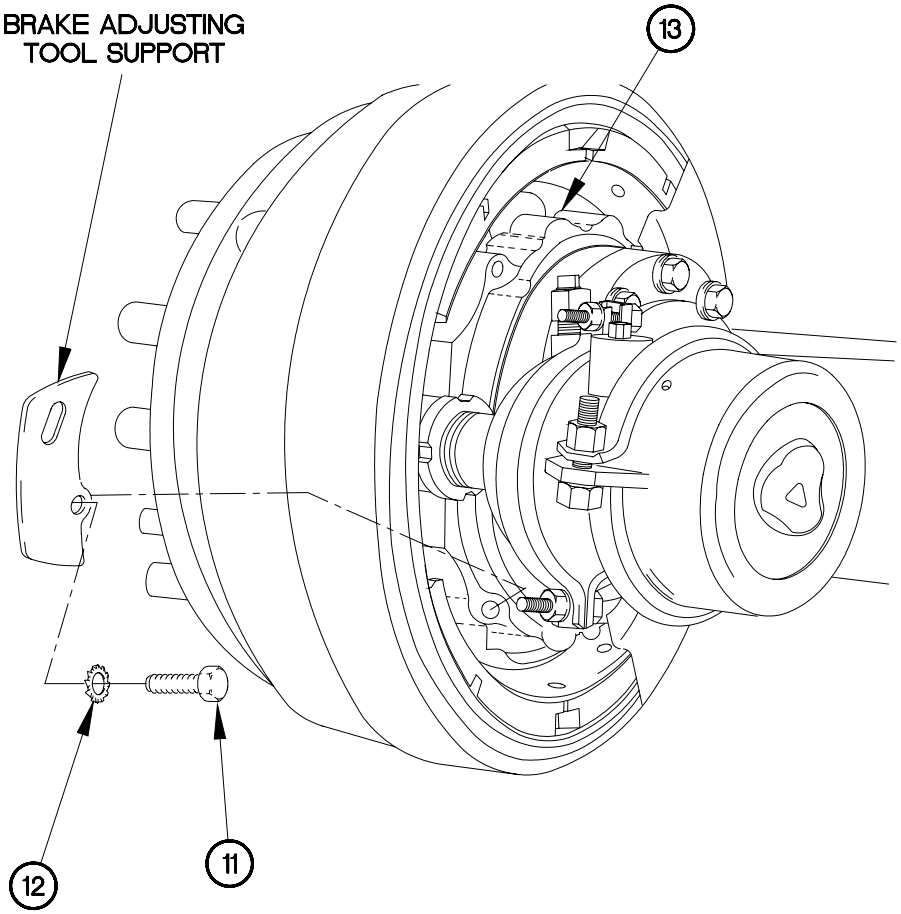


BRAKE SHOE REPLACEMENT/ADJUSTMENT - Continued 0055 00

ADJUSTMENT - Continued

3. Remove screw (11) and lockwasher (12) from back side of spider (13) toward rear of trailer.

4. Install brake adjusting tool support on spider (13) with lockwasher (12) and screw (11).



5600F14

BRAKE SHOE REPLACEMENT/ADJUSTMENT - Continued 0055 00

ADJUSTMENT - Continued

NOTE

Dual actuated brakes will not self-adjust on stationary trailer.

5. Adjust brake adjusting screw (6) until wheel drum (1) does not turn freely or until heavy drag is noticed.

6. Uncage spring brakes (WP 0047 00, Uncaging Spring Brakes).

NOTE

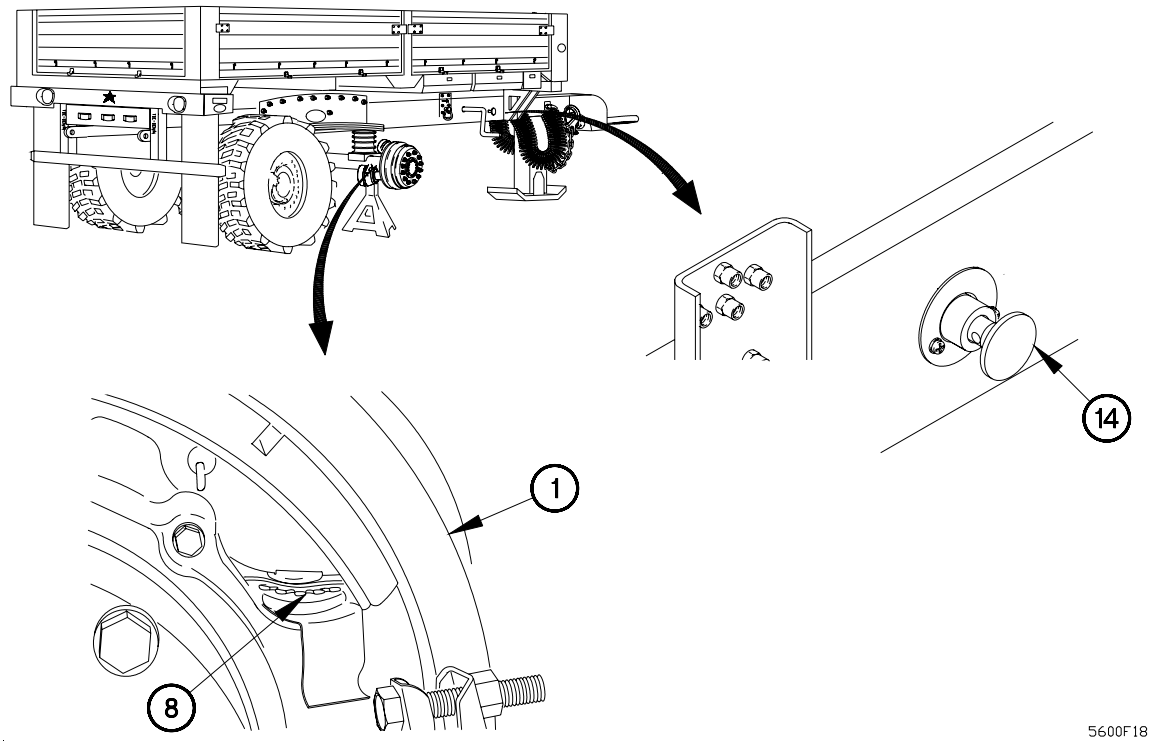
Trailer air tank has limited storage capacity. Excessive use of push/pull valve will deplete air. If air tank is exhausted, couple trailer to towing vehicle to complete this task.

7. Operate the push/pull valve (14) several times to position brake shoes.

NOTE

Step (8) requires the aid of an assistant.

8. Readjust brake adjusting screw (6) while turning wheel drum (1) until heavy drag is noticed.



ADJUSTMENT - Continued

CAUTION

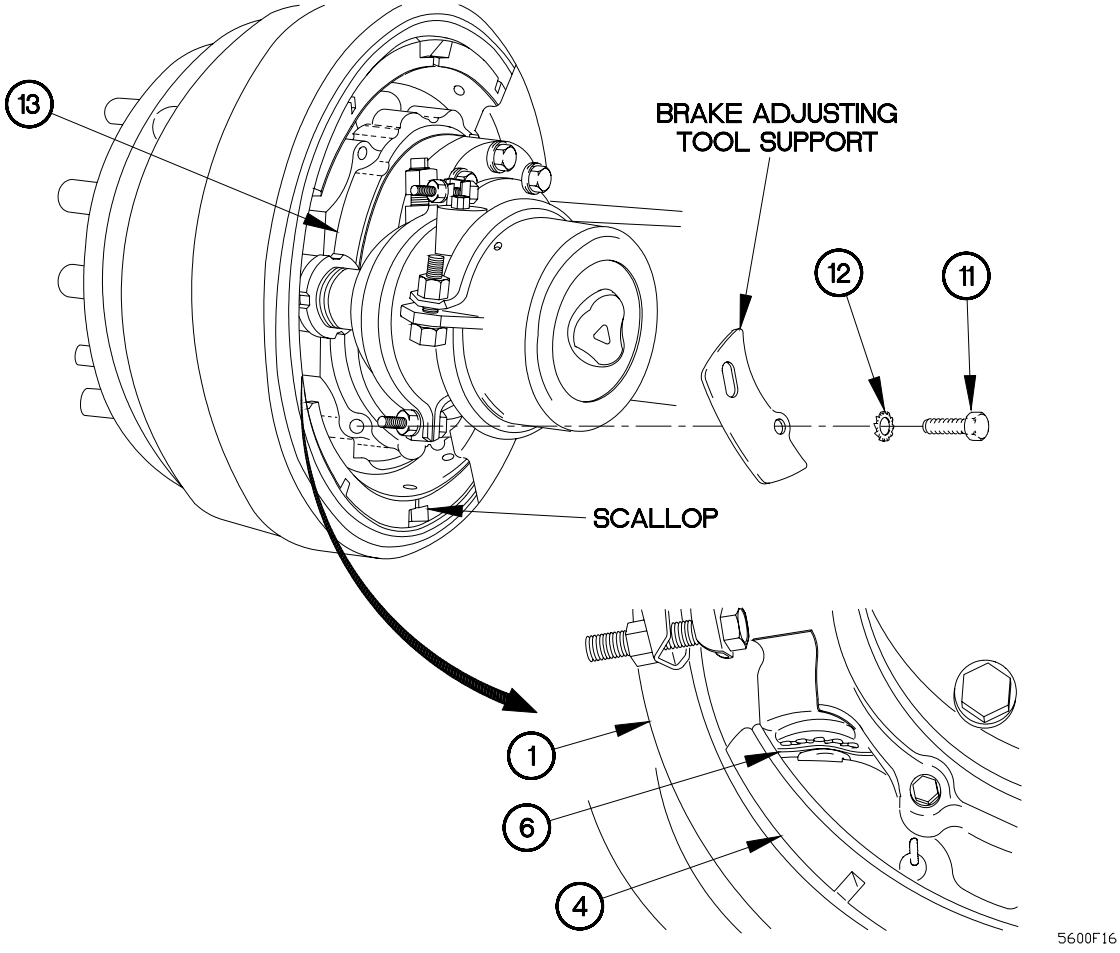
Wheel drum clearance must be checked along centerline of brake shoe at scallop. Failure to comply may result in damage to equipment.

Record the number of clicks as adjusting screw is loosened. All adjustments on any wheel should be within six clicks of one another. If not, repeat procedure or examine for damage. Failure to comply may result in damage to equipment.

9. Back-off brake adjusting screw (6) to obtain 0.020 - 0.040 in. (0.051 - 0.102 cm) clearance between brake shoe (4) and wheel drum (1).

10. Remove screw (11), lockwasher (12), and brake adjusting tool support from spider (13). Discard lockwasher.

11. Install lockwasher (12) and screw (11) in spider (13).

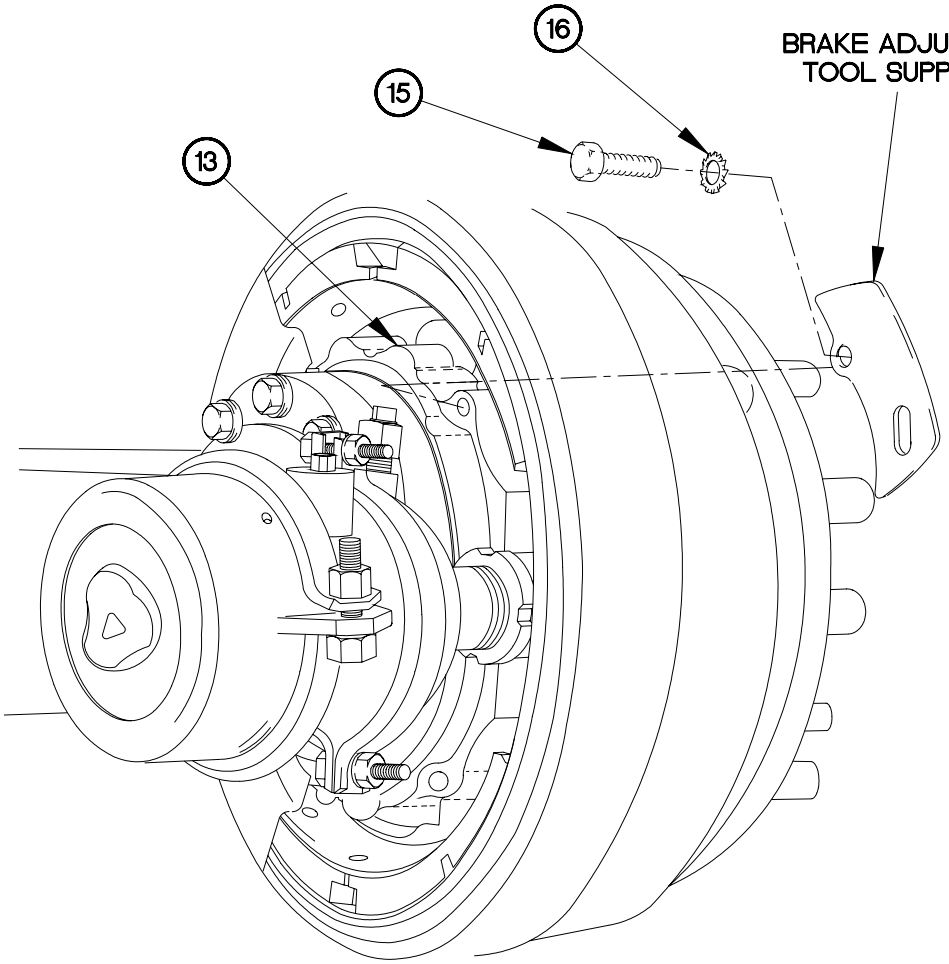


BRAKE SHOE REPLACEMENT/ADJUSTMENT - Continued 0055 00

ADJUSTMENT - Continued

12. Remove screw (15) and lockwasher (16) from back side of spider (13) toward front of trailer.

13. Install brake adjusting tool support on spider (13) with lockwasher (16) and screw (15).



5600F17

BRAKE SHOE REPLACEMENT/ADJUSTMENT - Continued 0055 00

ADJUSTMENT - Continued

NOTE

Dual actuated brakes will not self-adjust on stationary trailer.

14. Adjust brake adjusting screw (6) until wheel drum (1) does not turn freely or until heavy drag is noticed.

15. Uncage spring brakes (WP 0047 00, Uncaging Spring Brakes).

NOTE

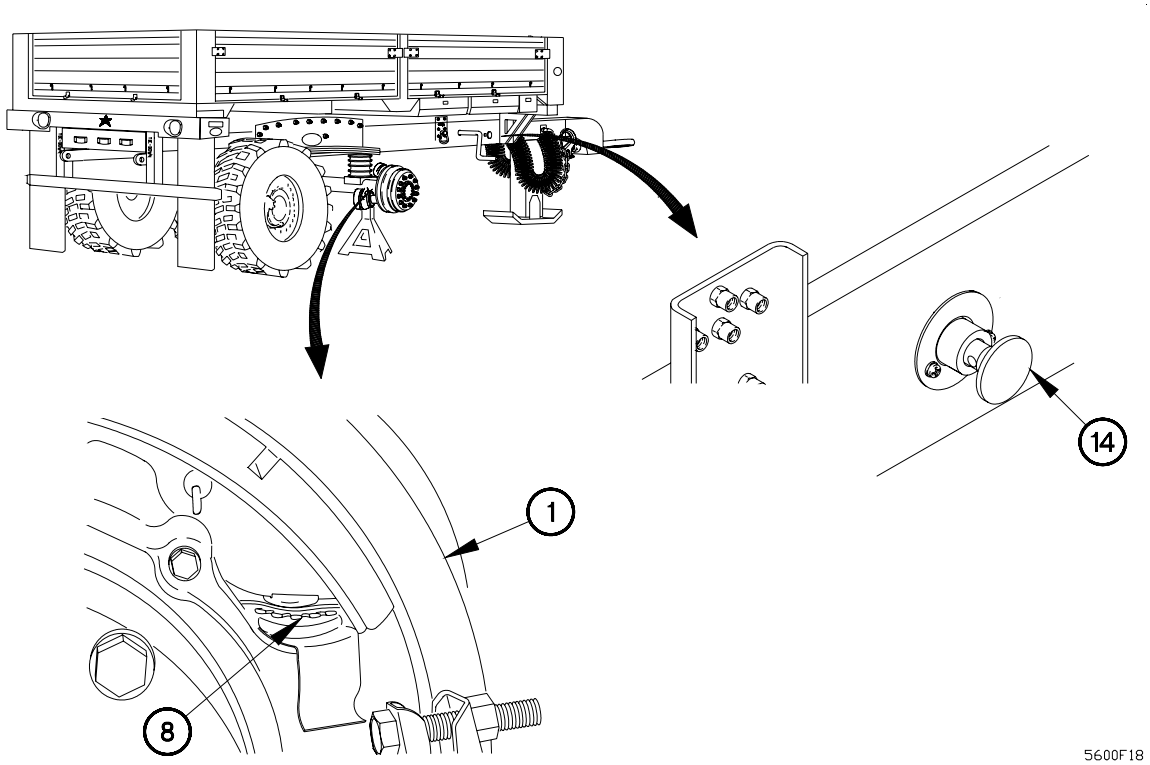
Trailer air tank has limited storage capacity. Excessive use of push/pull valve will deplete air. If air tank is exhausted, couple trailer to towing vehicle to complete this task.

16. Operate the push/pull valve (14) several times to position brake shoes.

NOTE

Step (17) requires the aid of an assistant.

17. Readjust brake adjusting screw (6) while turning wheel drum (1) until heavy drag is noticed.



BRAKE SHOE REPLACEMENT/ADJUSTMENT - Continued 0055 00

ADJUSTMENT - Continued

CAUTION

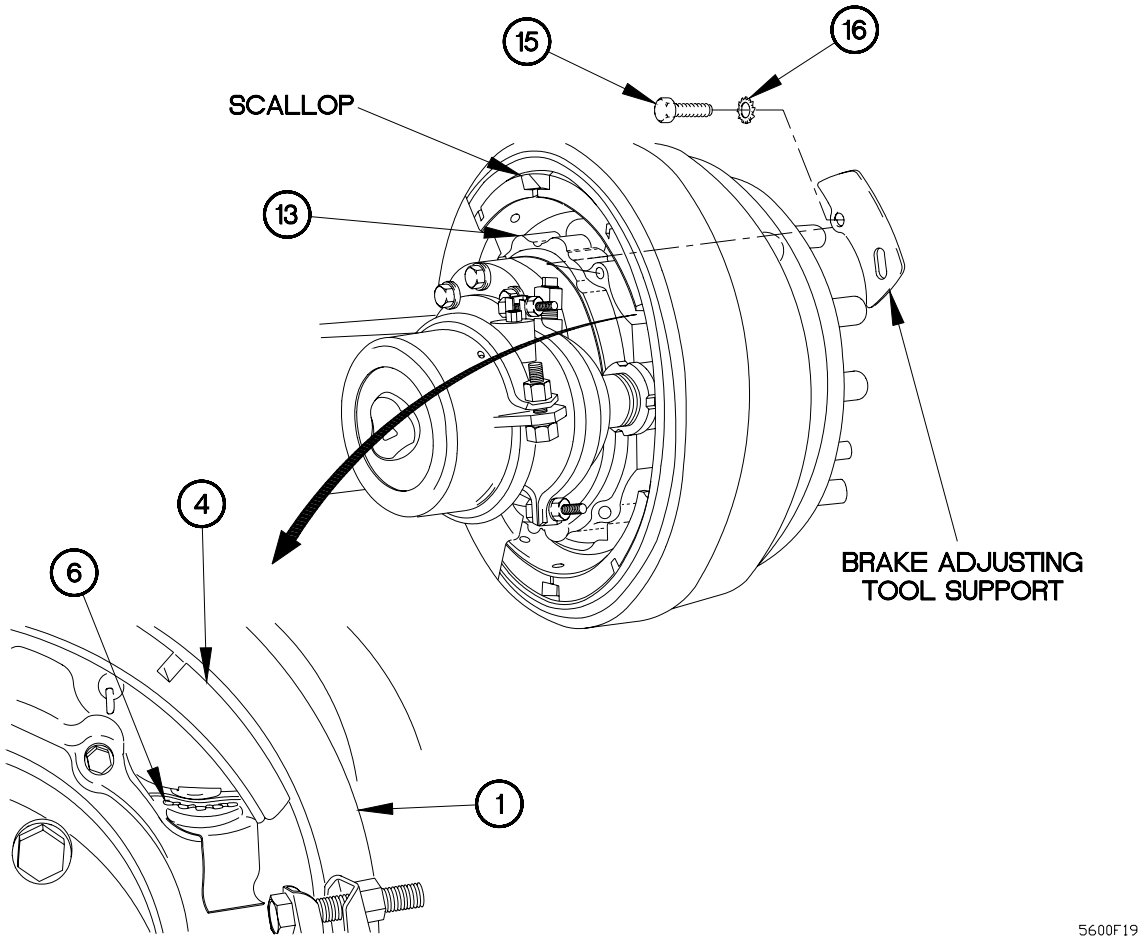
Wheel drum clearance must be checked along centerline of brake shoe at scallop. Failure to comply may result in damage to equipment.

Record the number of clicks as adjusting screw is loosened. All adjustments on any wheel should be within six clicks of one another. If not, repeat procedure or examine for damage. Failure to comply may result in damage to equipment.

18. Back-off adjusting screw (6) to obtain 0.020 - 0.040 in. (0.051 - 0.102 cm) clearance between brake shoe (4) and wheel drum (1).

19. Remove screw (15), lockwasher (16), and brake adjusting tool support from spider (13). Discard lockwasher.

20. Install lockwasher (16) and screw (15) in spider (13).



OPERATIONAL CHECK

1. Install tire (WP 0045 00, Tire Installation).
2. Uncage spring brakes (WP 0047 00, Uncaging Spring Brakes).
3. Couple trailer (WP 009 00, Coupling Trailer).
4. Operate trailer and check for normal brake operation (WP 0011 00, Towing Trailer).
5. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

BRAKE PLUNGER ASSEMBLY REPLACEMENT/REPAIR 0056 00

THIS WORK PACKAGE COVERS:
Removal, Disassembly, Cleaning/Inspection, Assembly, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Trestle, Motor Vehicle Maintenance (Item 38, WP 0178 00)
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Respirator, Air Filter (Item 23, WP 0178 00)
Wrench, Torque, 0-175 lb-ft (Item 49, WP 0178 00)
Gloves, Rubber (Item 6, WP 0178 00)
Brake Plunger Seal Driver (Figure 2, WP 0179 00)

Tools and Special Tools, Cont.
Goggles, Industrial (Item 8, WP 0178 00)

Materials/Parts
Grease, Automotive and Artillery (GAA) (Item 11, WP 0176 00)
Lockwasher (2) (Item 52, WP 0181 00)
Rag, Wiping (Item 25, WP 0176 00)
Solvent, Dry Cleaning (Item 32, WP 0176 00)

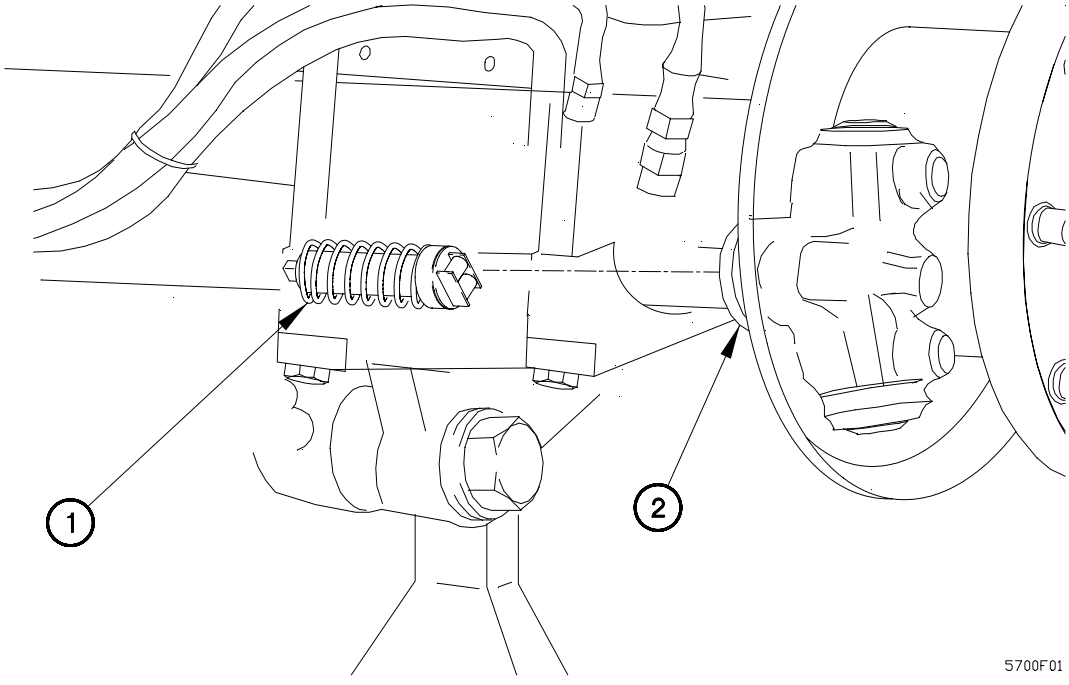
Equipment Conditions
Brake shoes removed (WP 0055 00).
Brake air chamber removed (WP 0057 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

REMOVAL

1. Remove wedge assembly (1) from plunger housing (2).



BRAKE PLUNGER ASSEMBLY REPLACEMENT/REPAIR - Continued 0056 00

REMOVAL - Continued

WARNING

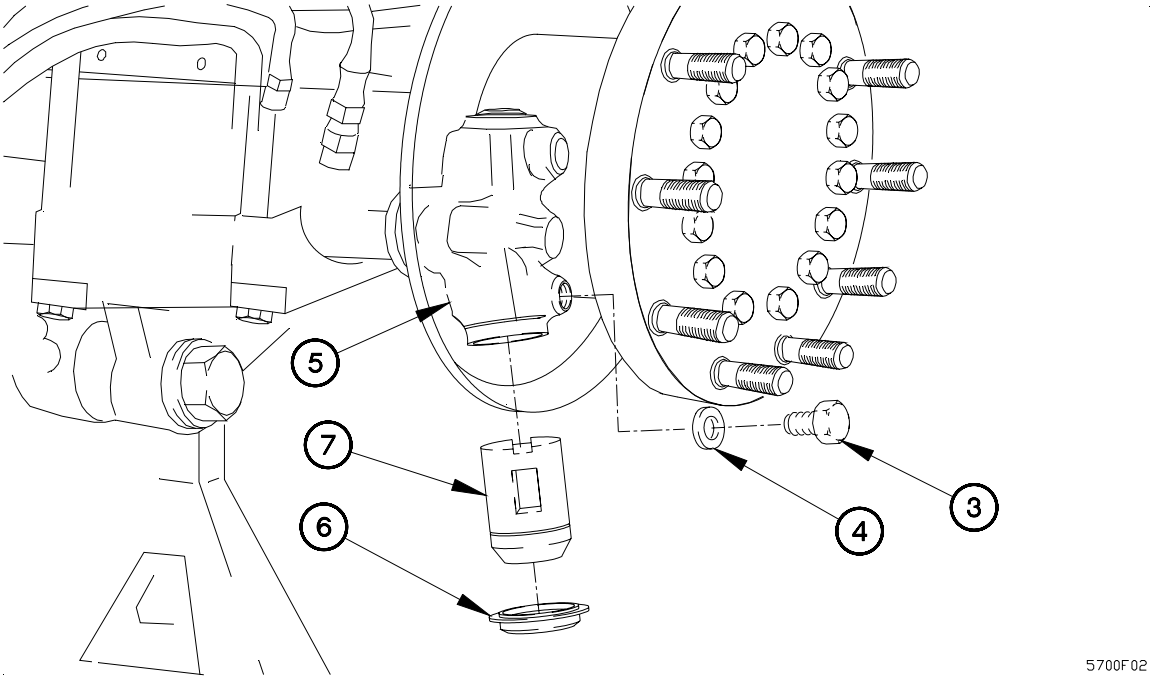
Brake shoes may be covered with dust. Breathing the dust may be harmful to your health. Do not use compressed air to clean brake shoes. Wear a filter mask approved for use against brake dust. Failure to comply may result in injury to personnel.

NOTE

- Identify anchor and adjusting plunger locations prior to disassembly.
- Anchor plungers and adjusting plungers are opposite each other in each plunger housing. The positions are reversed for opposite sides of the wheel. Perform the following procedure to disassemble both plunger assemblies.

2. Remove guide screw (3) and lockwasher (4) from plunger housing (5). Discard lockwasher.

3. Remove seal (6) and anchor plunger (7) from plunger housing (5).



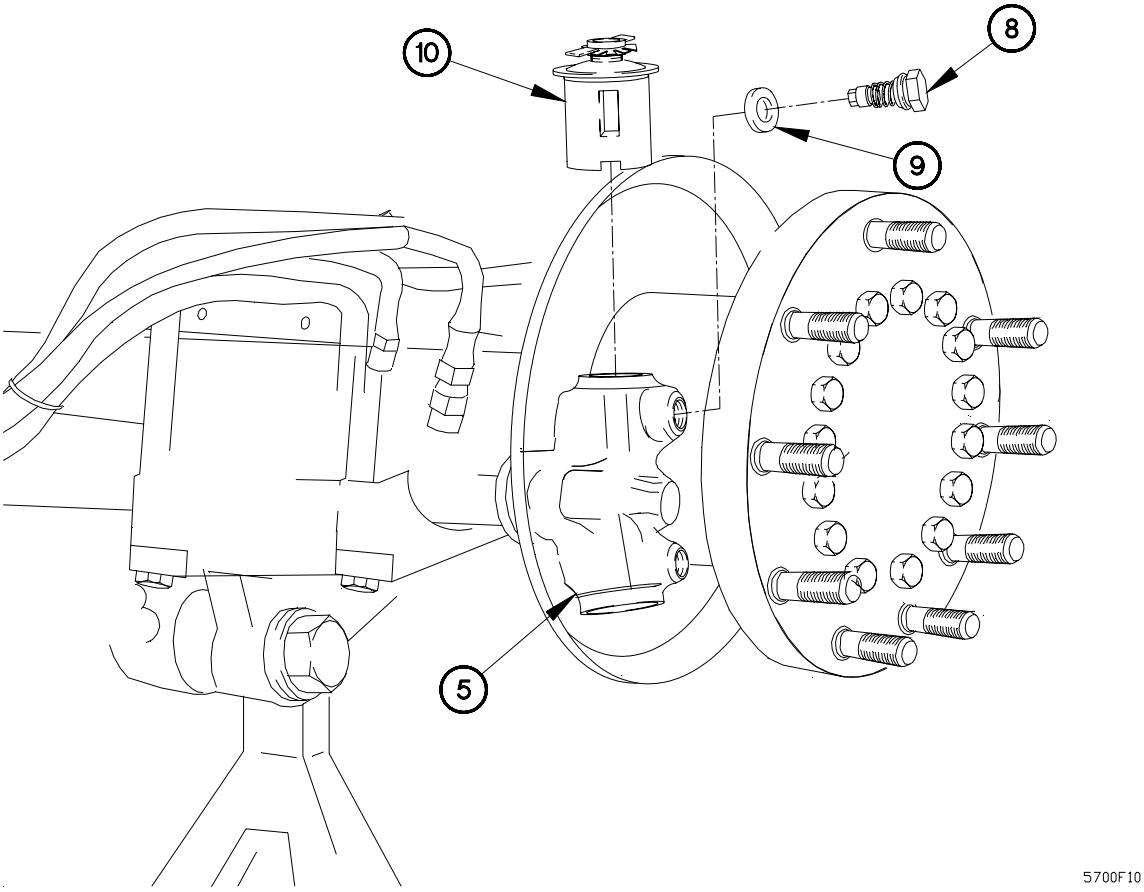
5700F02

BRAKE PLUNGER ASSEMBLY REPLACEMENT/REPAIR - Continued 0056 00

REMOVAL - Continued

4. Remove adjusting pawl assembly (8) and lockwasher (9) from plunger housing (5). Discard lockwasher.

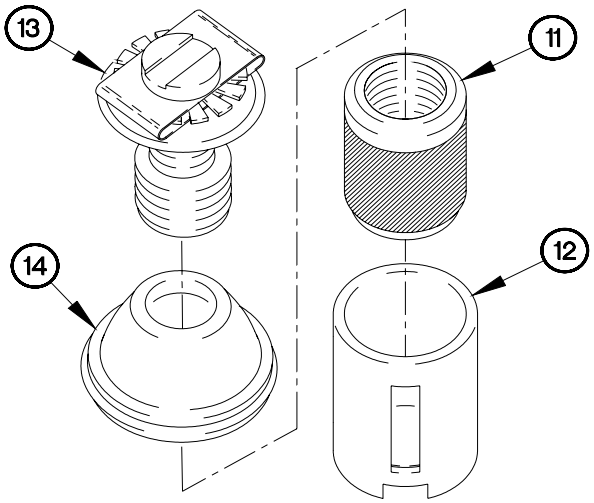
5. Remove adjusting plunger assembly (10) from plunger housing (5).



BRAKE PLUNGER ASSEMBLY REPLACEMENT/REPAIR - Continued 0056 00

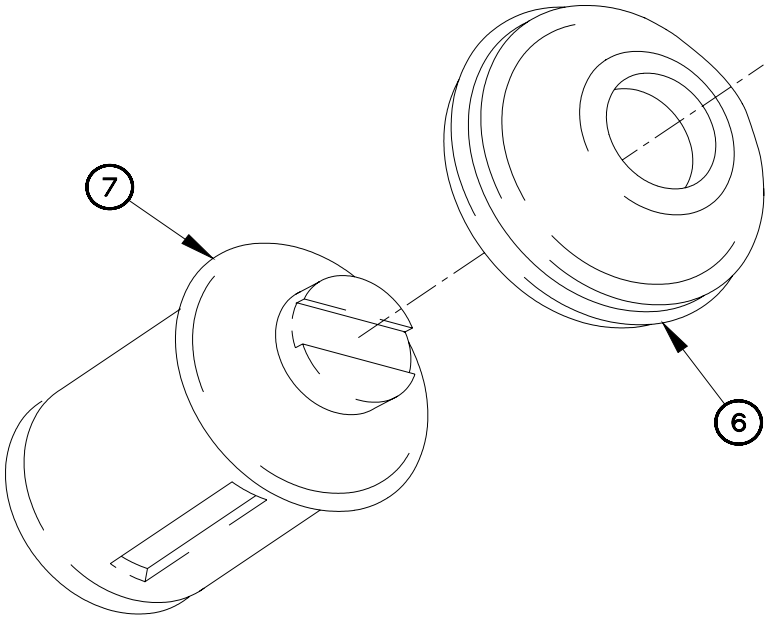
DISASSEMBLY

1. Remove adjusting sleeve (11) from adjusting plunger (12).
2. Remove adjusting screw (13) from adjusting sleeve (11).
3. Remove seal (14) from adjusting screw (13).



5700F04

4. Remove seal (6) from anchor plunger (7).



5700F05

BRAKE PLUNGER ASSEMBLY REPLACEMENT/REPAIR - Continued 0056 00

CLEANING/INSPECTION

WARNING

Dry Cleaning Solvent (P-D-680) is TOXIC and flammable. Wear protective goggles and gloves; use only in well-ventilated area; avoid contact with skin, eyes, and clothes, and do not breath vapors. Keep away from heat or flame. Never smoke when using Dry Cleaning Solvent; the flashpoint for Type I Dry Cleaning Solvent is 100 °F (38 °C) and for Type II is 138 °F (50 °C). Failure to comply may result in serious injury or death to personnel.

If personnel become dizzy while using Dry Cleaning Solvent, immediately get fresh air and medical help. If Dry Cleaning Solvent contacts skin or clothes, flush with cold water. If Dry Cleaning Solvent contacts eyes, immediately flush eyes with water and get medical attention. Failure to comply may result in serious injury or death to personnel.

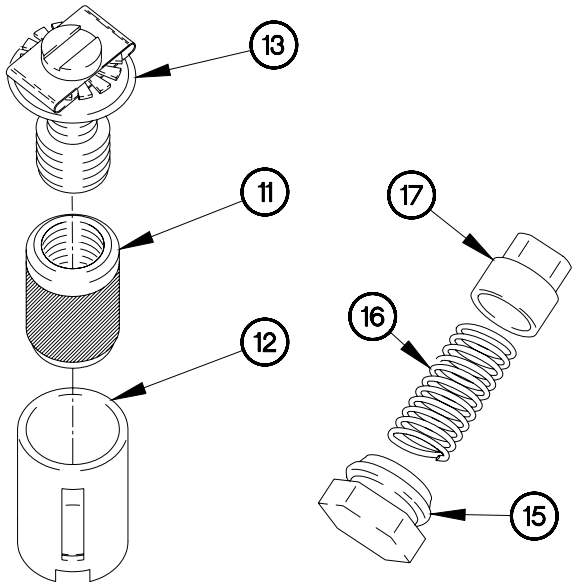
1. Clean all metal parts thoroughly with Dry Cleaning Solvent.

NOTE

If plungers, sleeves, screws, springs, or pawls do not pass inspection, replace adjusting plunger assembly as a unit.

2. Inspect adjusting plunger (12), adjusting sleeve (11), and adjusting screw (13) for damage.

3. Inspect screw (15), spring (16), and adjusting pawl (17) for damage.

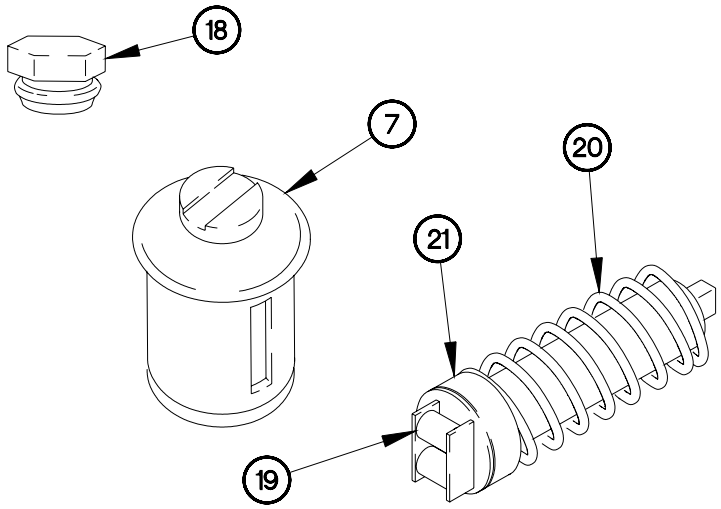


5700F06

BRAKE PLUNGER ASSEMBLY REPLACEMENT/REPAIR - Continued 0056 00

CLEANING/INSPECTION - Continued

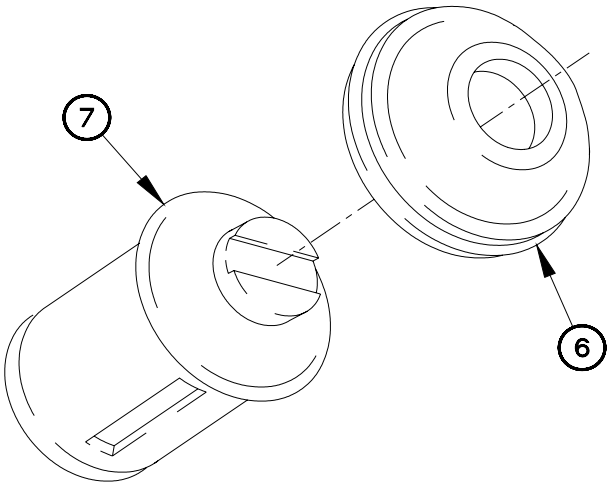
4. Inspect anchor plunger (7) and guide screw (18) for damage.
5. Inspect rollers (19) for freedom of movement, and pitting or cracks.
6. Inspect spring (20) for cracks, distortion, or corrosion.
7. Inspect rubber (21) for deterioration or damage.



5700F07

ASSEMBLY

1. Apply grease to inside surfaces of seal (6).
2. Position and seat seal (6) on anchor plunger (7).



5700F08

BRAKE PLUNGER ASSEMBLY REPLACEMENT/REPAIR - Continued 0056 00

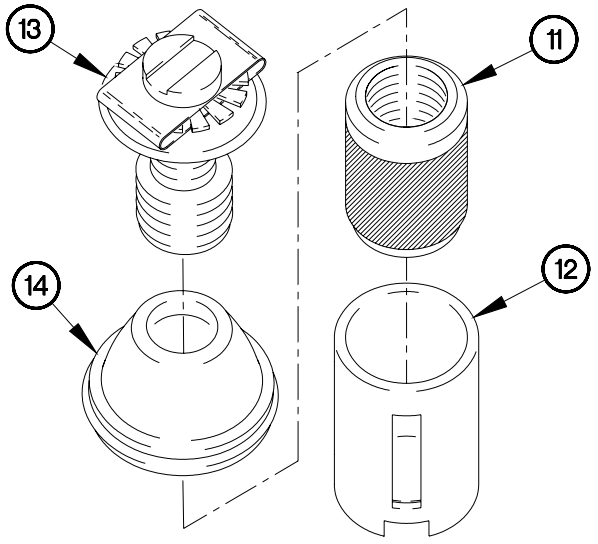
ASSEMBLY - Continued

3. Apply grease to inside surface of seal (14).
4. Position and seat seal (14) on adjusting screw (13).
5. Install adjusting screw (13) in adjusting sleeve (11) until snug. Back off 1/4 turn.
6. Apply film of grease on adjusting sleeve (11).

CAUTION

Ensure adjusting sleeve is installed in adjusting plunger with large shouldered end up. Failure to comply will cause self-adjusting feature not to function.

7. Position adjusting sleeve (11) in adjusting plunger (12).
8. Apply film of grease on adjusting plunger (12).



5700F04

BRAKE PLUNGER ASSEMBLY REPLACEMENT/REPAIR - Continued 0056 00

INSTALLATION

CAUTION

Adjusting sleeve must bottom on shoulder inside plunger. Threading adjusting screw too far into adjusting sleeve will cause automatic adjuster not to function.

NOTE

Install plungers in same location as removed and align keyways in anchor/adjusting plungers with hole in plunger housings.

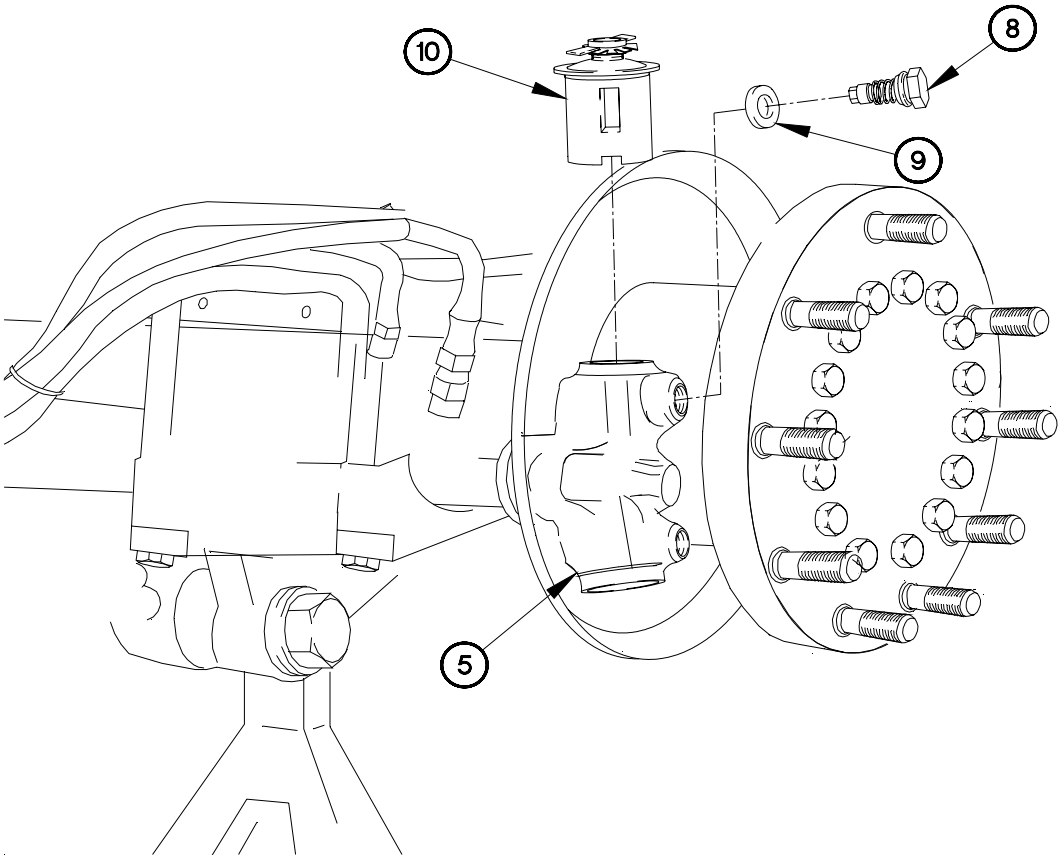
1. Install adjusting plunger assembly (10) in plunger housing (5).

NOTE

Make certain grooves in pawl assembly end engage in adjusting sleeve grooves.

2. Position lockwasher (9) and pawl assembly (8) in plunger housing (5).

3. Tighten pawl assembly (8) to 15-25 lb-ft (20-34 N•m).



5700F10

BRAKE PLUNGER ASSEMBLY REPLACEMENT/REPAIR - Continued 0056 00

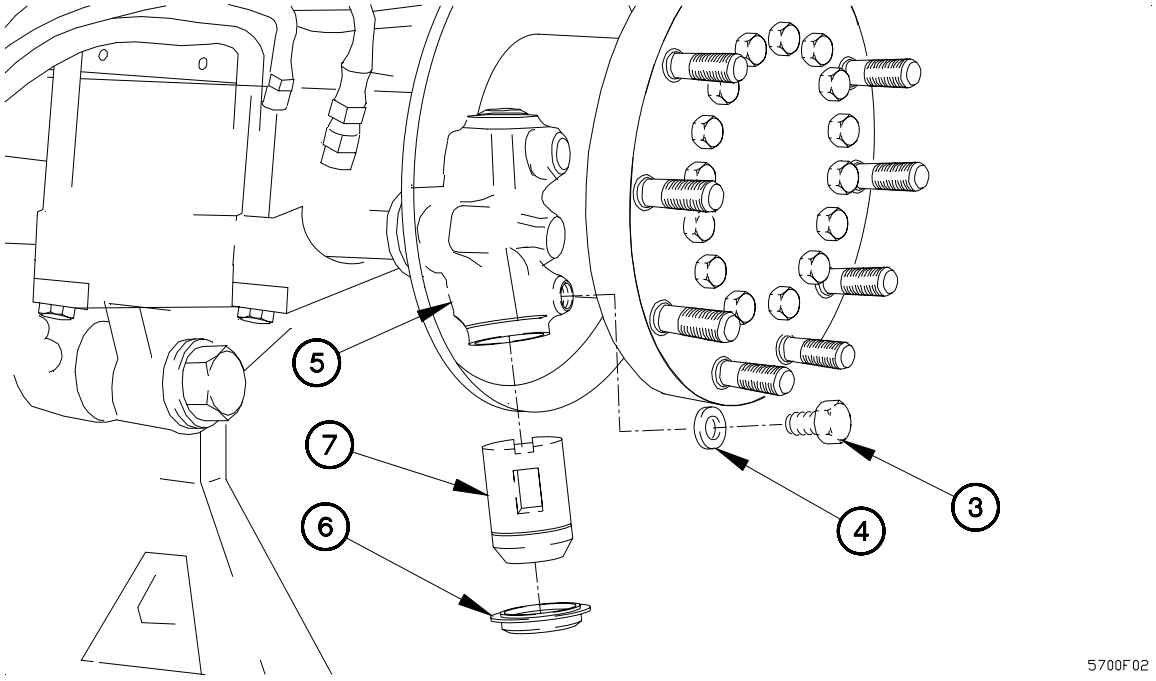
INSTALLATION - Continued

NOTE

One anchor (solid) and one adjusting plunger must be installed in each plunger housing.

Install anchor plunger marked “L” in left plunger housing. Install anchor plunger marked “R” in right plunger housing.

4. Apply film of grease on anchor plunger (7).
5. Install and seat seal (6) and anchor plunger (7) in plunger housing (5).
6. Position lockwasher (4) and guide screw (3) in plunger housing (5).
7. Tighten guide screw (3) to 15-25 lb-ft (20-34 N•m).



BRAKE PLUNGER ASSEMBLY REPLACEMENT/REPAIR - Continued 0056 00

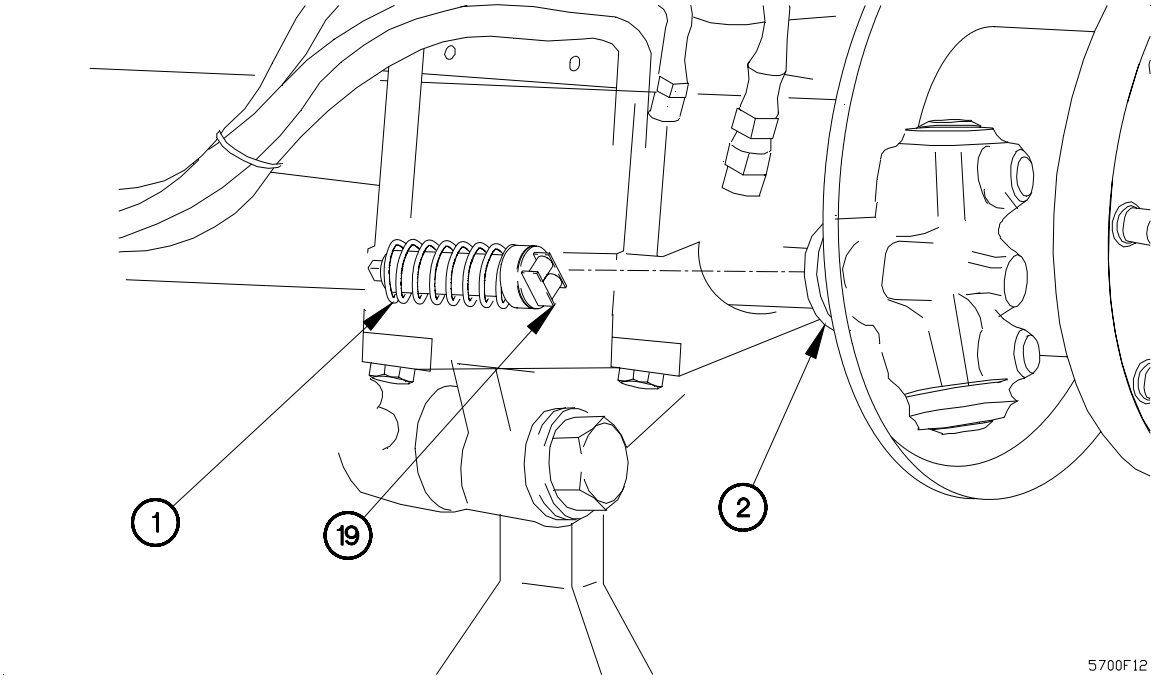
INSTALLATION - Continued

8. Apply grease to rollers (19) on wedge assembly (1).

CAUTION

Ensure wedge rollers are aligned with slots in adjusting plunger and anchor plunger. Firm pressure is required to fully seat wedge in plungers. Failure to fully seat wedge in plungers may result in damage to equipment.

9. Install wedge assembly (1) in back of plunger housing (2).



OPERATIONAL CHECK

1. Install brake air chamber (WP 0057 00, Installation).
2. Install brake shoes (WP 0055 00, Brake Shoe Installation).
3. Couple trailer (WP 0009 00, Coupling Trailer).
4. Unchock wheels (WP 0008 00, Unchocking Wheels).
5. Operate trailer (WP 0011 00, Towing Trailer) and check for proper brake operation.

END OF WORK PACKAGE

BRAKE AIR CHAMBER REPLACEMENT 0057 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 00178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench, Pipe (Item 43, WP 0178 00)
Trestle, Motor Vehicle Maintenance (Item 38, WP 0178 00)
Respirator, Air Filter (Item 23, WP 0178 00)

Materials/Parts
Dispenser, Pressure Sensitive Adhesive Tape (Item 10, WP 0176 00)
Antiseize Compound (Item 3, WP 0176 00)
Sealing Compound (Item 30, WP 0176 00)

Personnel Required
Two

References
WP 0009 00
WP 0012 00
WP 0045 00
WP 0047 00
Towing vehicle Operator manual

Equipment Conditions
Trailer uncoupled (WP 0012 00).
Tire removed (from side being worked) (WP 0045 00).
Spring brakes caged (WP 0047 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

Vent air system before disconnecting air hoses. Pressurized air can blow dirt and debris with sufficient force to cause injury. Safety goggles must be worn when working with compressed air. Failure to comply may result in injury to personnel.

Spring brakes must be caged prior to removal of air chamber. Failure to comply may result in serious injury or death to personnel.

CAUTION

Use caution not to pinch left side air hoses when positioning trestles. Failure to comply may result in damage to equipment.

NOTE

Left and right brake air chambers are removed the same way. Left side shown.

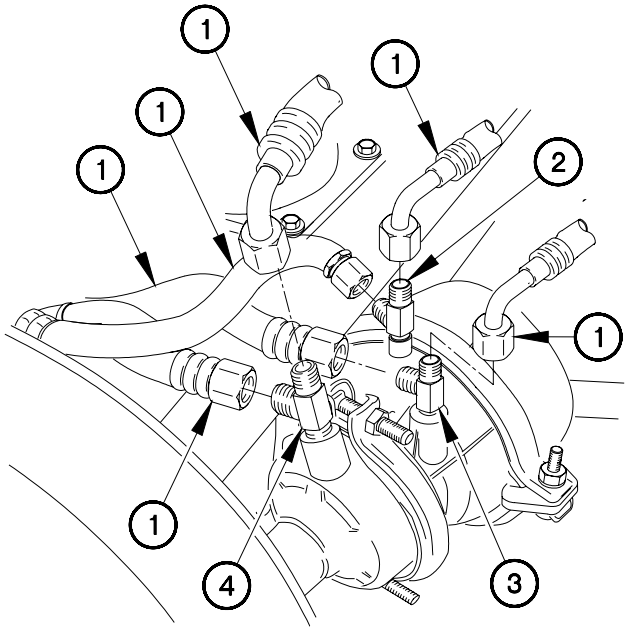
BRAKE AIR CHAMBER REPLACEMENT - Continued 0057 00

REMOVAL

NOTE

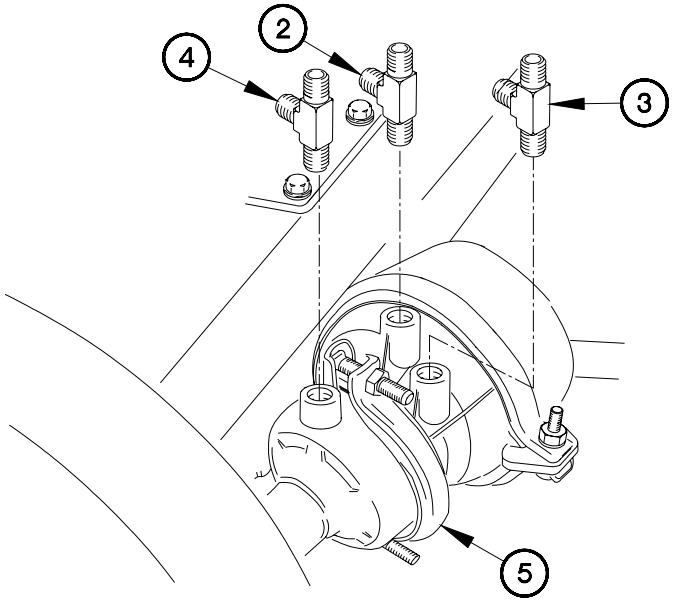
Each brake assembly consists of two brake air chambers placed on opposite sides of the axle for each wheel. One brake air chamber is fitted with tee fittings while the other has 90-degree fittings. Note orientation of fittings prior to removal.
Tag air hoses and connection points prior to removal.

1. Disconnect six air hoses (1) from tee fittings (2, 3, and 4).



5800F01

2. Remove tee fittings (2, 3, and 4) from brake air chamber (5).

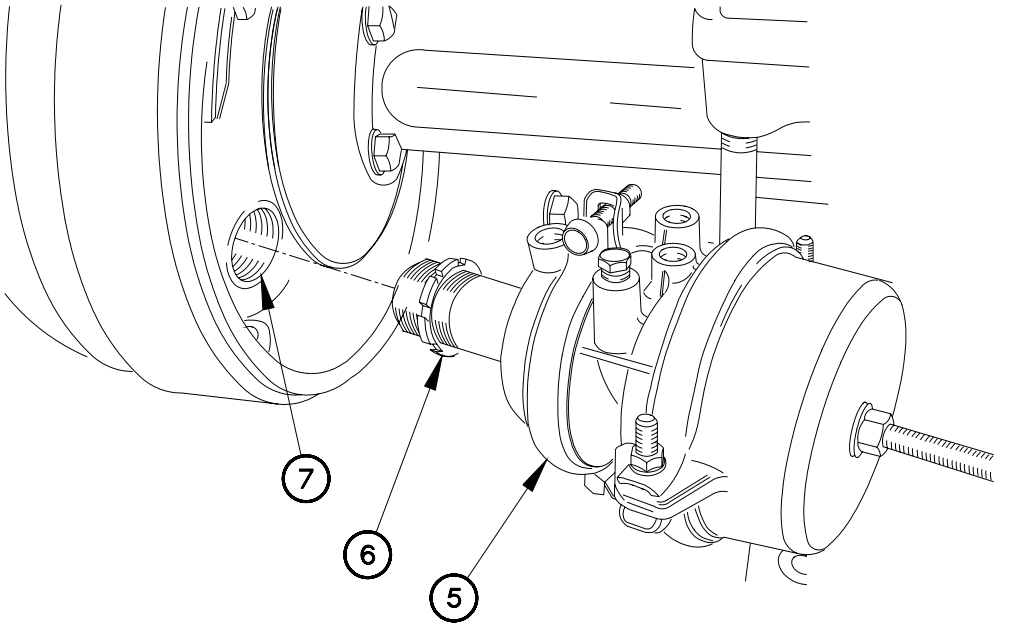


5800F02

BRAKE AIR CHAMBER REPLACEMENT - Continued 0057 00

REMOVAL - Continued

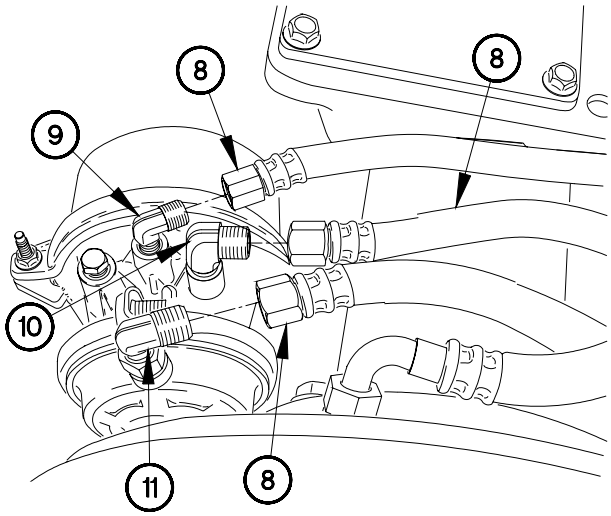
3. Loosen collet nut (6) on brake air chamber (5).
4. Remove brake air chamber (5) from plunger housing (7).



5800F03

NOTE
Tag air hoses and connection points prior to disconnecting.

5. Remove three air hoses (8) from 90-degree fittings (9, 10, and 11).



5800F04

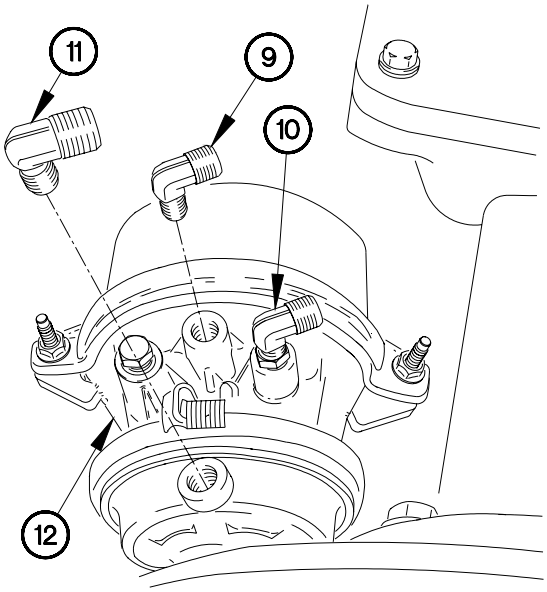
BRAKE AIR CHAMBER REPLACEMENT - Continued 0057 00

REMOVAL - Continued

NOTE

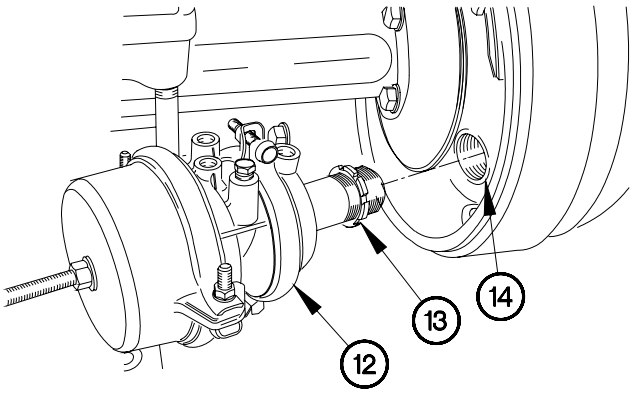
Note orientation of fittings prior to removal.

6. Remove three 90-degree fittings (9, 10, and 11) from brake air chamber (12).



5800F05

7. Loosen collet nut (13) on brake air chamber (12).
8. Remove brake air chamber (12) from plunger housing (14).



5800F06

BRAKE AIR CHAMBER REPLACEMENT - Continued 0057 00

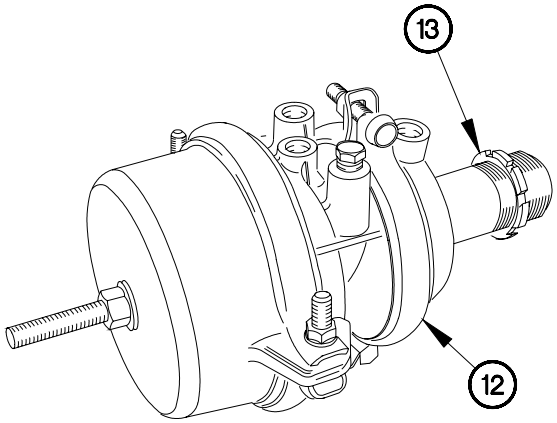
INSTALLATION

1. Install collet nut (13) on brake air chamber (12) to bottom of threads.

WARNING

Adhesives, solvents, and sealing com-pounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in a well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

2. Apply antiseize compound to threads of brake air chamber (12).



5800F07

BRAKE AIR CHAMBER REPLACEMENT - Continued 0057 00

INSTALLATION - Continued

WARNING

Spring brakes must be caged prior to installation of brake air chamber. Failure to comply may result in serious injury or death to personnel.

CAUTION

Install brake air chamber with fitting ports positioned up. Failure to comply may result in damage to equipment.

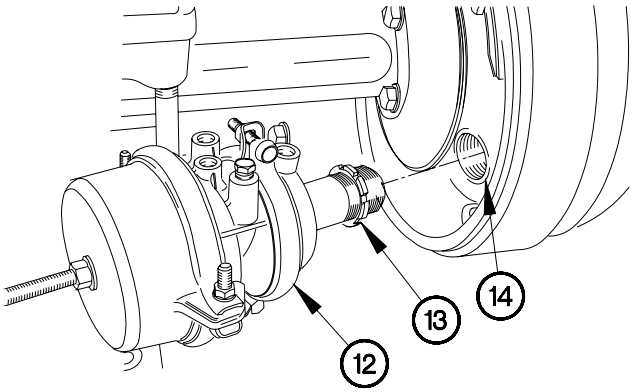
3. Install brake air chamber (12) in plunger housing (14) until it bottoms.

CAUTION

Loosen brake air chamber no more than one full turn. Failure to comply may result in damage to equipment.

4. Loosen brake air chamber (12) until fitting ports are up.

5. Tighten collet nut (13) against plunger housing (14).



5800F06

BRAKE AIR CHAMBER REPLACEMENT - Continued 0057 00

INSTALLATION - Continued

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in a well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

NOTE

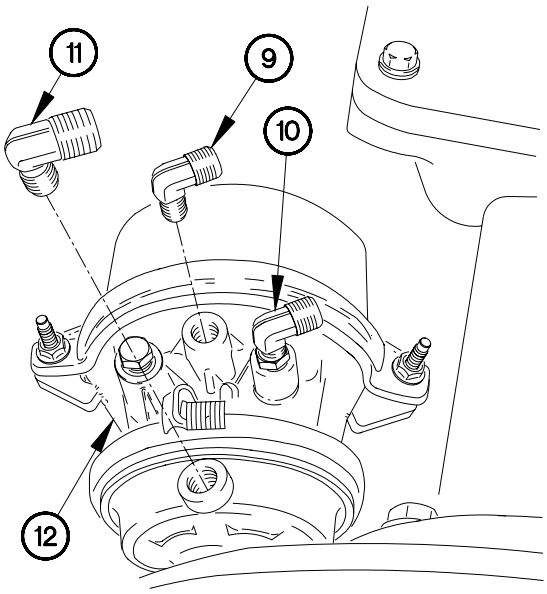
Clean fittings and front brake air chamber of all sealing compound residue prior to installation.

6. Apply sealing compound to threads of 90-degree fittings (9, 10, and 11).

CAUTION

Brake chamber fittings are to be installed hand tight. Then tighten with a wrench an additional 1 ½ to 2 turns until fittings align with air hose. Do not back out fitting. Failure to comply may result in damage to equipment.

7. Install 90-degree fittings (9, 10, and 11) in brake air chamber (12).

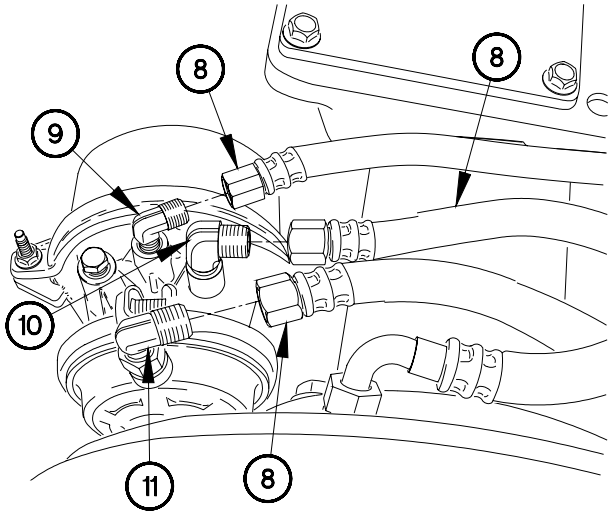


5800F05

BRAKE AIR CHAMBER REPLACEMENT - Continued 0057 00

INSTALLATION - Continued

8. Connect three air hoses (8) to 90-degree fittings (9, 10, and 11).



5800F04

BRAKE AIR CHAMBER REPLACEMENT - Continued 0057 00

INSTALLATION - Continued

9. Install collet nut (6) on brake air chamber (5) to bottom of threads.

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in a well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

10. Apply antiseize compound to threads of brake air chamber (5).

WARNING

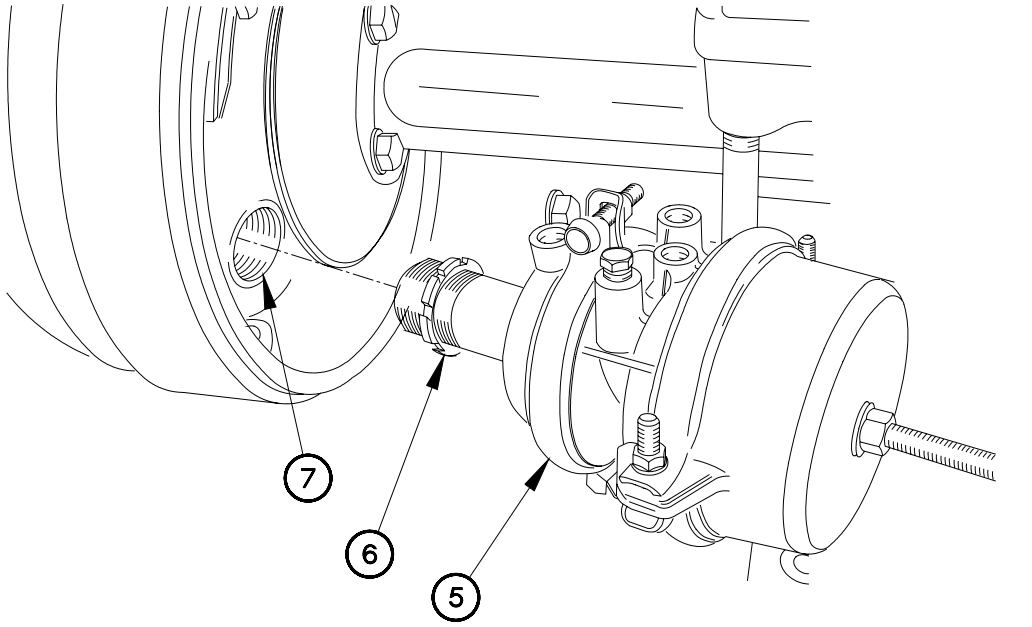
Spring brakes must be caged prior to installation of brake air chamber. Failure to comply may result in serious injury or death to personnel.

11. Install brake air chamber (5) in plunger housing (7) until it bottoms.

CAUTION

Loosen rear brake air chamber no more than one full turn. Failure to comply may result in damage to equipment.

12. Tighten collet nut (6) against plunger housing (7).



5800F03

BRAKE AIR CHAMBER REPLACEMENT - Continued 0057 00

INSTALLATION - Continued

NOTE

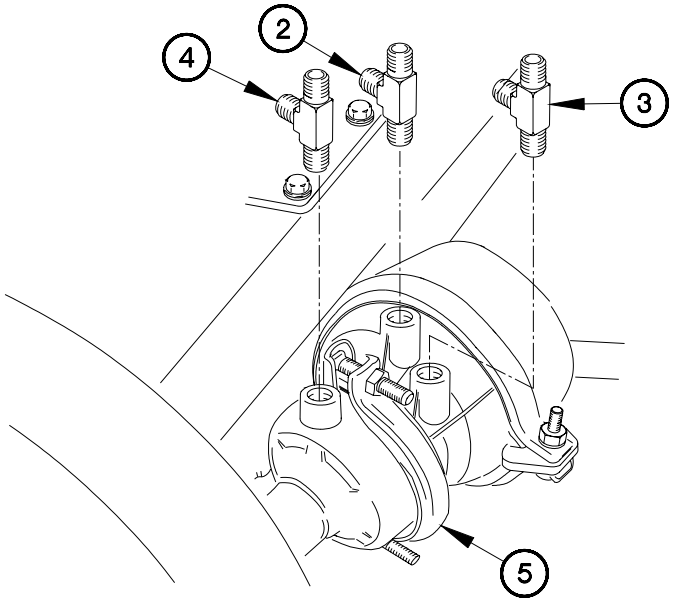
Clean fittings and rear brake air chamber of all sealing compound residue prior to installation.

13. Apply sealing compound to tee fittings (2, 3, and 4).

CAUTION

Brake chamber fittings are to be installed hand tight. Then tighten with a wrench an additional 1 ½ to 2 turns until fittings align with air hose. Do not back out fitting. Failure to comply may result in damage to equipment.

14. Install tee fittings (2, 3, and 4) in rear brake air chamber (5).

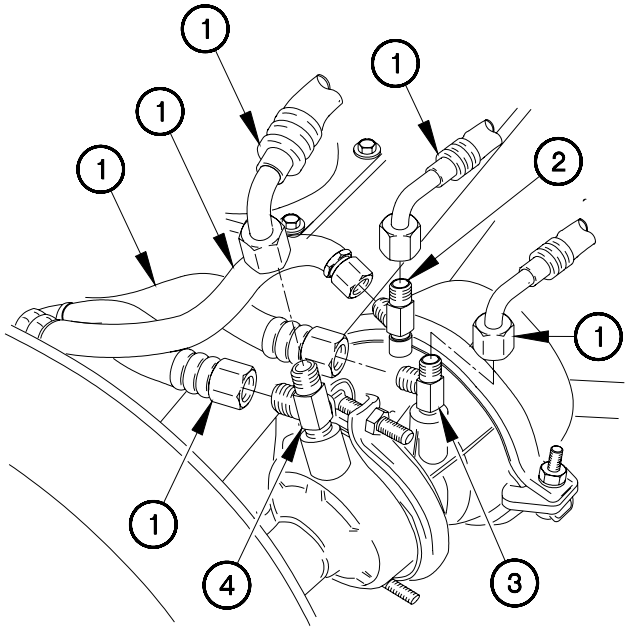


5800F02

BRAKE AIR CHAMBER REPLACEMENT - Continued 0057 00

INSTALLATION – Continued

15. Connect six air hoses (1) to tee fittings (2, 3, and 4).



5800F01

INSTALLATION - Continued

CAUTION

Apply towing vehicle full brake pedal before and during tightening of collet nut. Failure to comply may result in damage to equipment.

NOTE

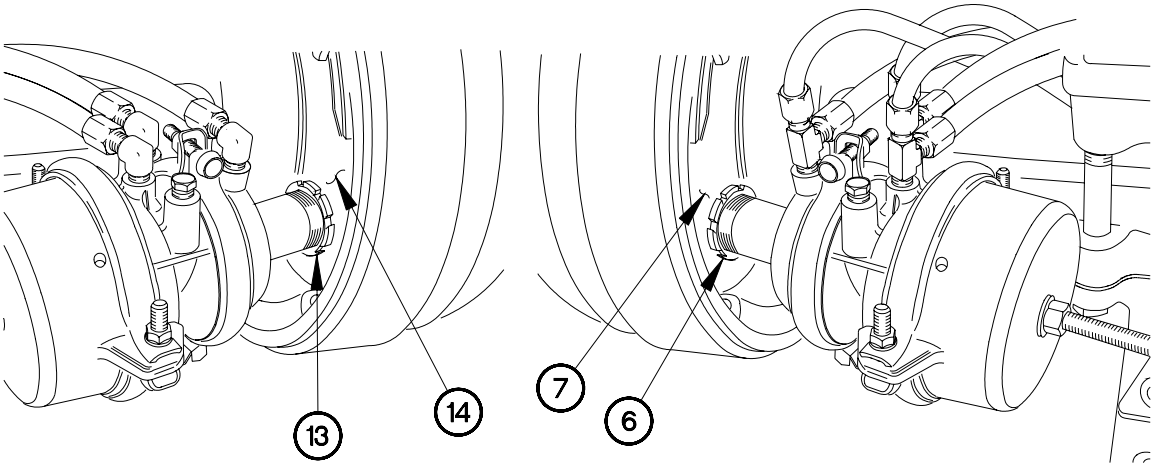
Steps (16) through (19) require trailer to be coupled with towing vehicle and the aid of an assistant.

16. Couple trailer to towing vehicle (WP 0009 00, Coupling Trailer).

17. Apply brake pedal and continue holding until steps (18) and (19) are accomplished.

18. Hand tighten collet nuts (6 and 13) against plunger housings (7 and 14).

19. Tighten collet nuts (6 and 13) 3/16 turn (1 1/2 teeth).



5800F08

BRAKE AIR CHAMBER REPLACEMENT - Continued 0057 00

OPERATIONAL CHECK

1. Install tire on trailer (WP 0045 00, Tire Installation).
2. Uncage spring brakes (WP 0047 00, Uncaging Spring Brakes).
3. Start towing vehicle.
4. Check for air leaks around trailer brake air chamber and fittings.
5. Road test trailer and check for proper brake operation.
6. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

EMERGENCY/SERVICE GLADHAND HOSE REPLACEMENT 0058 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Personnel Required
Two

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 00178 00)
Goggles, Industrial (Item 8, WP 0178 00)

References
WP 0009 00
WP 0012 00
WP 0059 00

Materials/Parts
Antiseize Compound (Item 3, WP 0176 00)
Elbow, Pipe (Item 5, WP 138) (if required)

Equipment Conditions
Trailer uncoupled (WP 0012 00).

REMOVAL

WARNING

Vent air system before disconnecting air hoses. Pressurized air can blow dirt and debris with sufficient force to cause injury. Safety goggles must be worn when working with compressed air. Failure to comply may result in injury to personnel.

NOTE

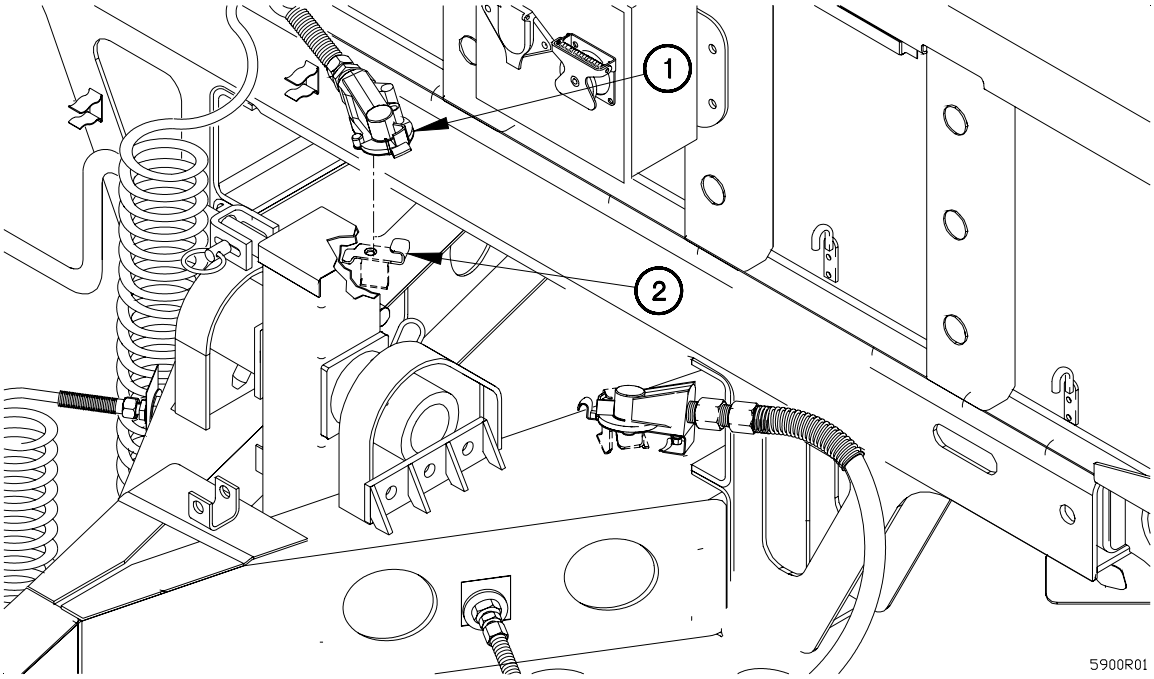
Both EMERGENCY and SERVICE gladhand hoses are removed the same way. SERVICE gladhand hose shown.

EMERGENCY/SERVICE GLADHAND HOSE REPLACEMENT - Continued

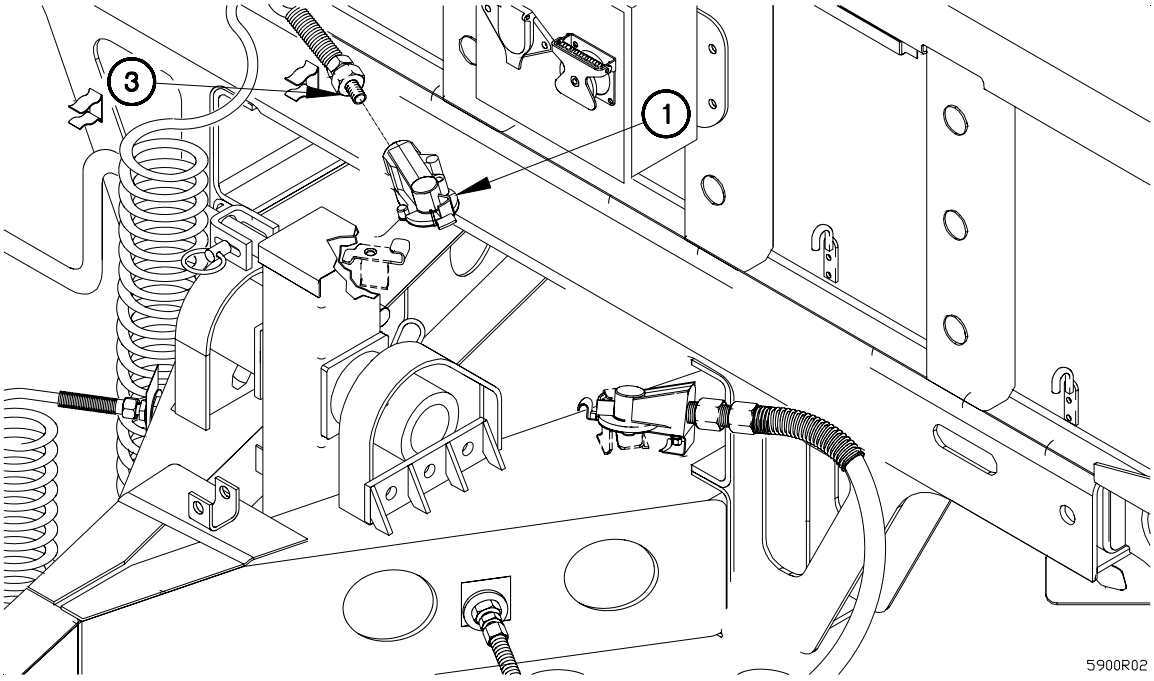
0058 00

REMOVAL - Continued

1. Remove SERVICE gladhand (1) from bracket (2).



2. Remove SERVICE gladhand (1) from SERVICE gladhand hose (3).



EMERGENCY/SERVICE GLADHAND HOSE REPLACEMENT - Continued

0058 00

REMOVAL - Continued

3. Remove SERVICE gladhand hose (3) from fitting (4).

NOTE

Perform Step (4) if trailer is not equipped with 90 degree elbow fitting.

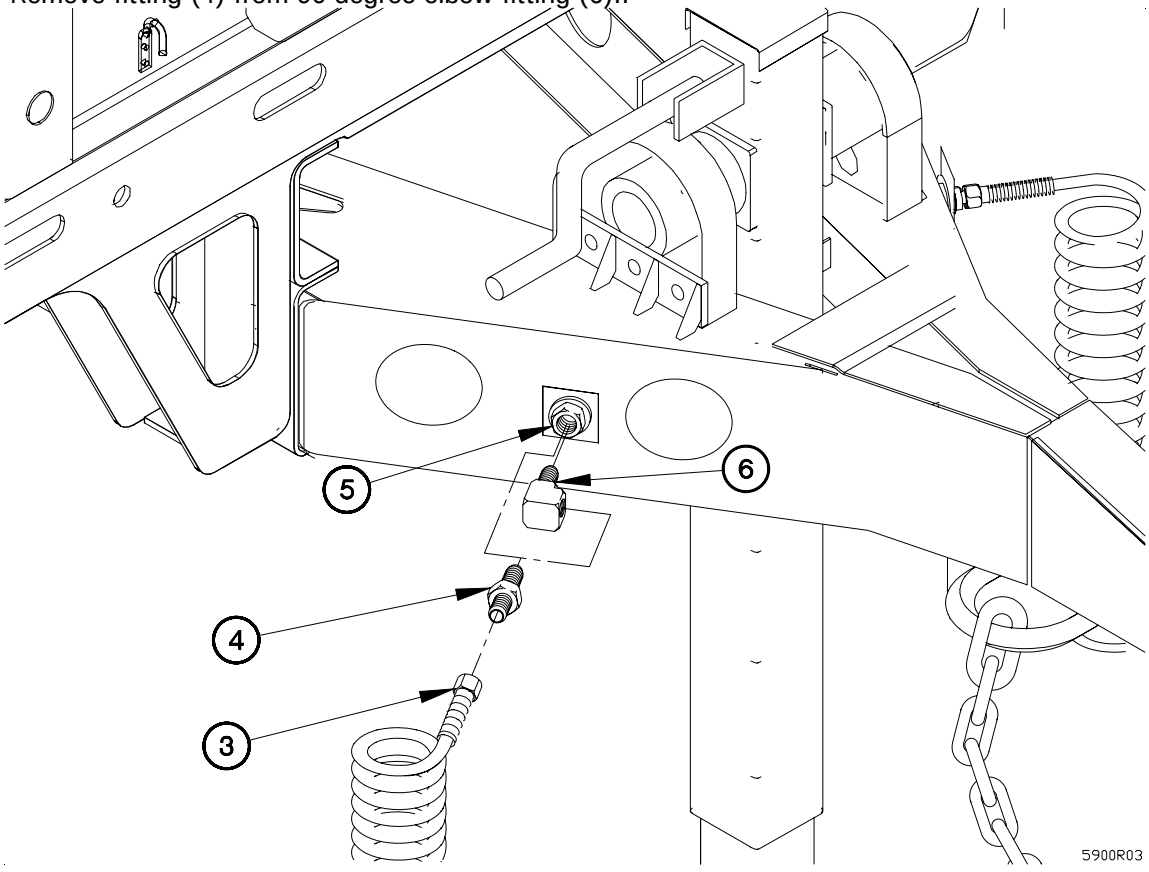
4. Remove fitting (4) from tubing connector (5).

NOTE

Perform Steps (5) and (6) if trailer is equipped with 90 degree elbow fitting.

5. Remove 90 degree elbow fitting (6) from tubing connector (5).

6. Remove fitting (4) from 90 degree elbow fitting (6)..



EMERGENCY/SERVICE GLADHAND HOSE REPLACEMENT - Continued

0058 00

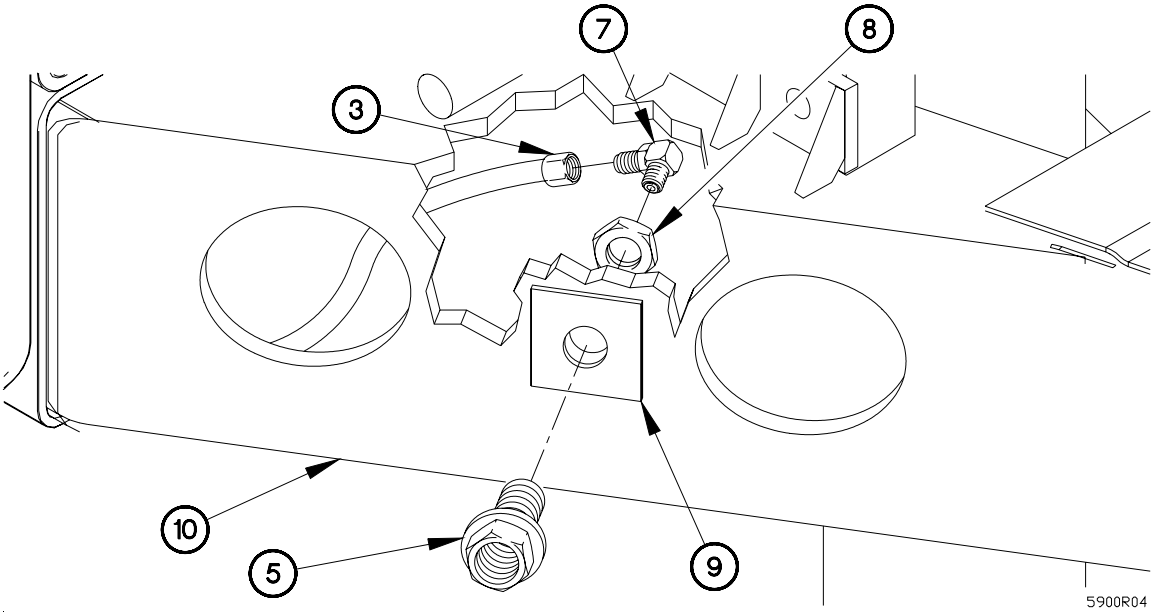
REMOVAL - Continued

7. Disconnect SERVICE gladhand hose (3) from 90-degree fitting (7).

NOTE

Note orientation of 90-degree fitting prior to removal.

8. Remove 90-degree fitting (7) from tubing connector (5).
9. Remove tubing connector locknut (8) from tubing connector (5).
10. Remove tubing connector (5) and data plate (9) from frame rail (10).



EMERGENCY/SERVICE GLADHAND HOSE REPLACEMENT - Continued

INSTALLATION

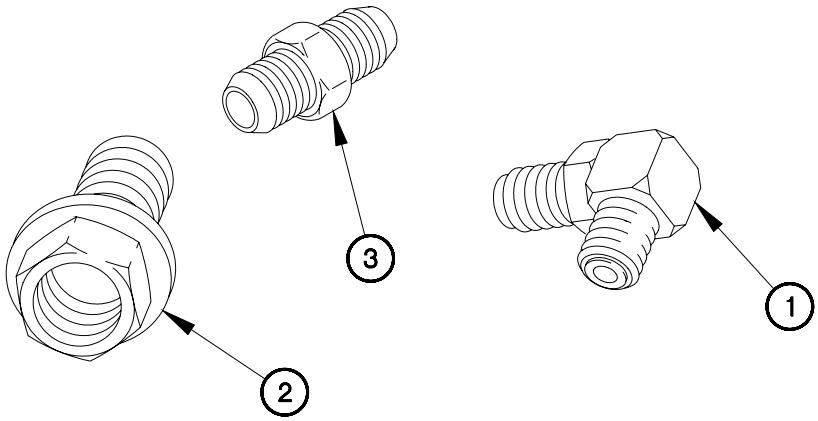
WARNING

Adhesives, compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in a well-ventilated area. If adhesive, compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

NOTE

Both EMERGENCY and SERVICE gladhand hoses are installed the same way. SERVICE gladhand hose shown.

1. Apply antiseize compound to threads of two 90-degree fittings (1) tubing connector (2) and fitting (3)



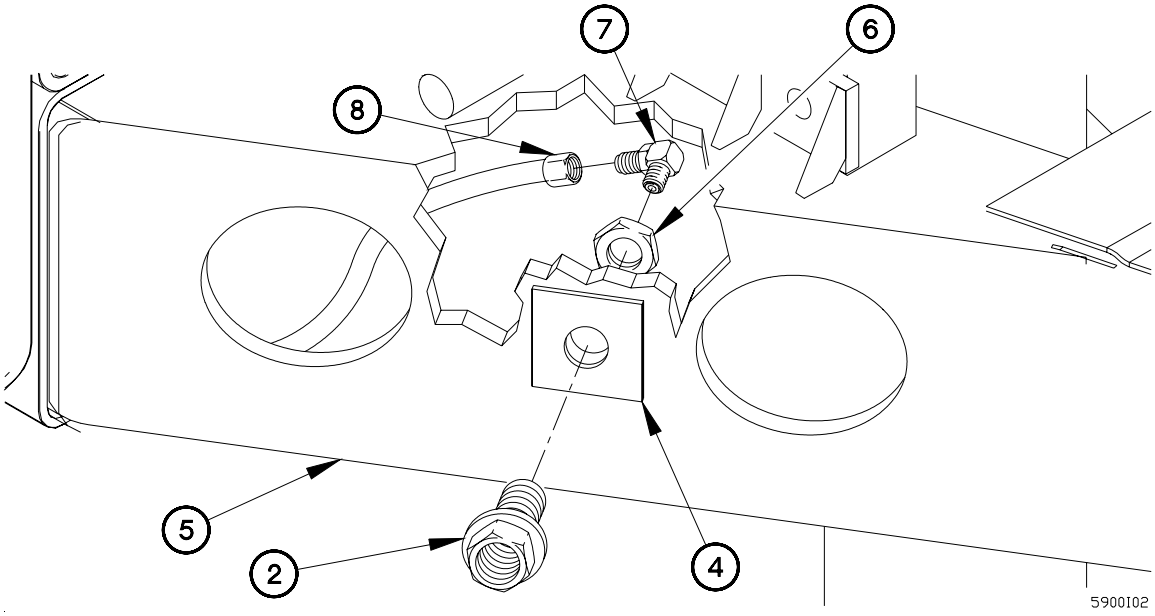
5900I01

EMERGENCY/SERVICE GLADHAND HOSE REPLACEMENT - Continued

0058 00

INSTALLATION - Continued

2. Install data plate (4) and tubing connector (2) on frame rail (5) with tubing connector locknut (6).
3. Install 90-degree fitting (7) on tubing connector (2).
4. Connect SERVICE gladhand hose (8) on 90-degree fitting (7).

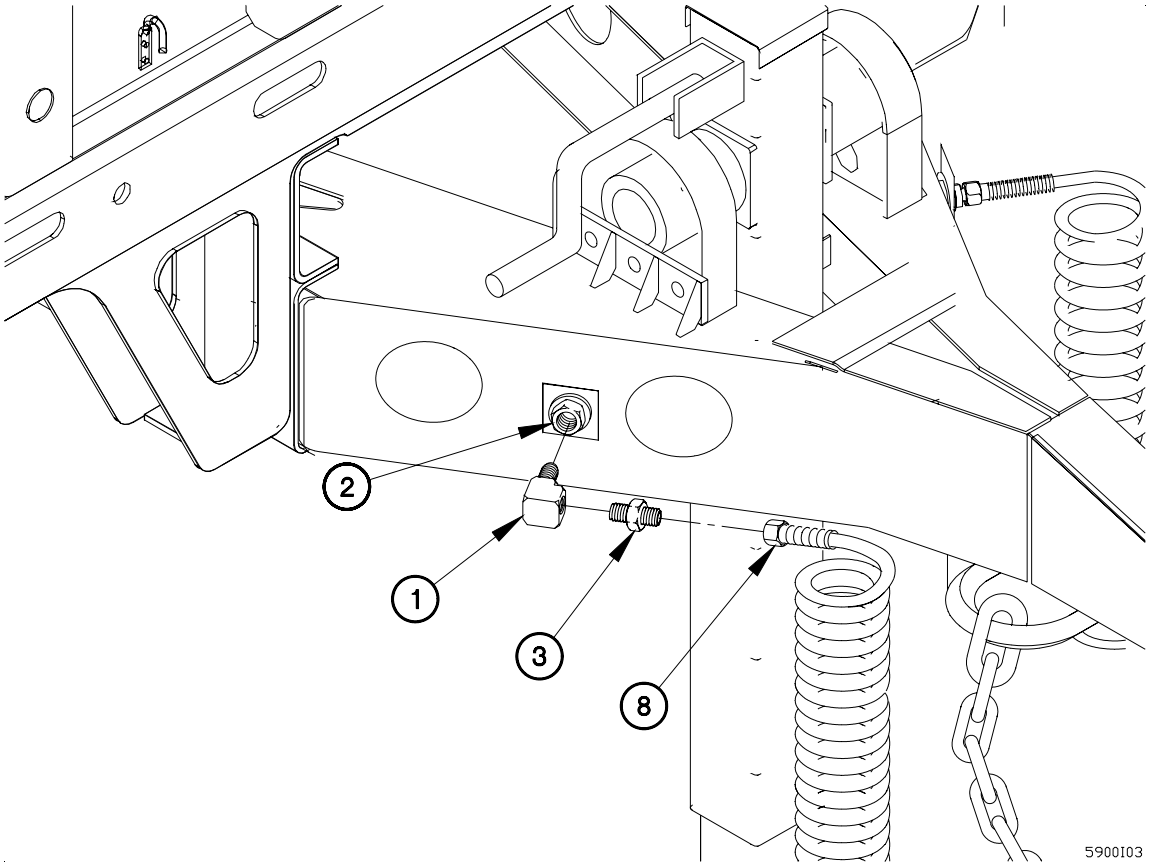


EMERGENCY/SERVICE GLADHAND HOSE REPLACEMENT - Continued

0058 00

INSTALLATION - Continued

5. Install 90 degree elbow fitting (1) on tubing connector (2).
6. Install fitting (3) in 90 degree elbow fitting (1).
7. Connect SERVICE gladhand hose (8) to fitting (3).



EMERGENCY/SERVICE GLADHAND HOSE REPLACEMENT - Continued

0058 00

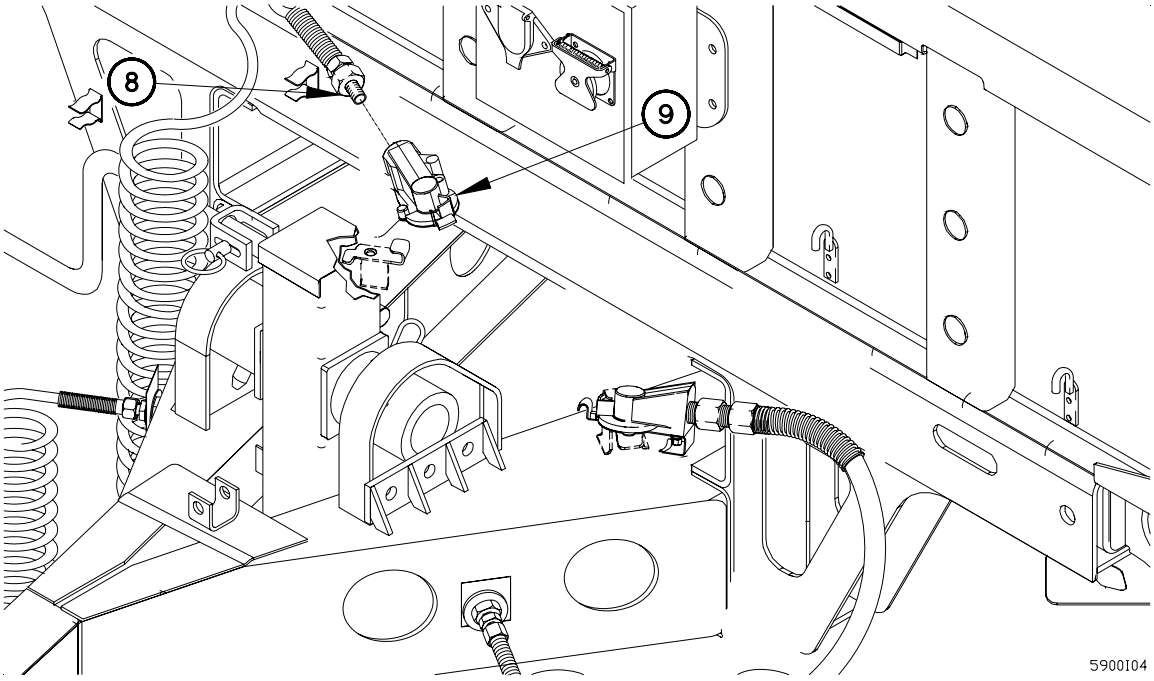
INSTALLATION - Continued

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in a well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

8. Apply antiseize compound to threads of SERVICE gladhand hose (8).

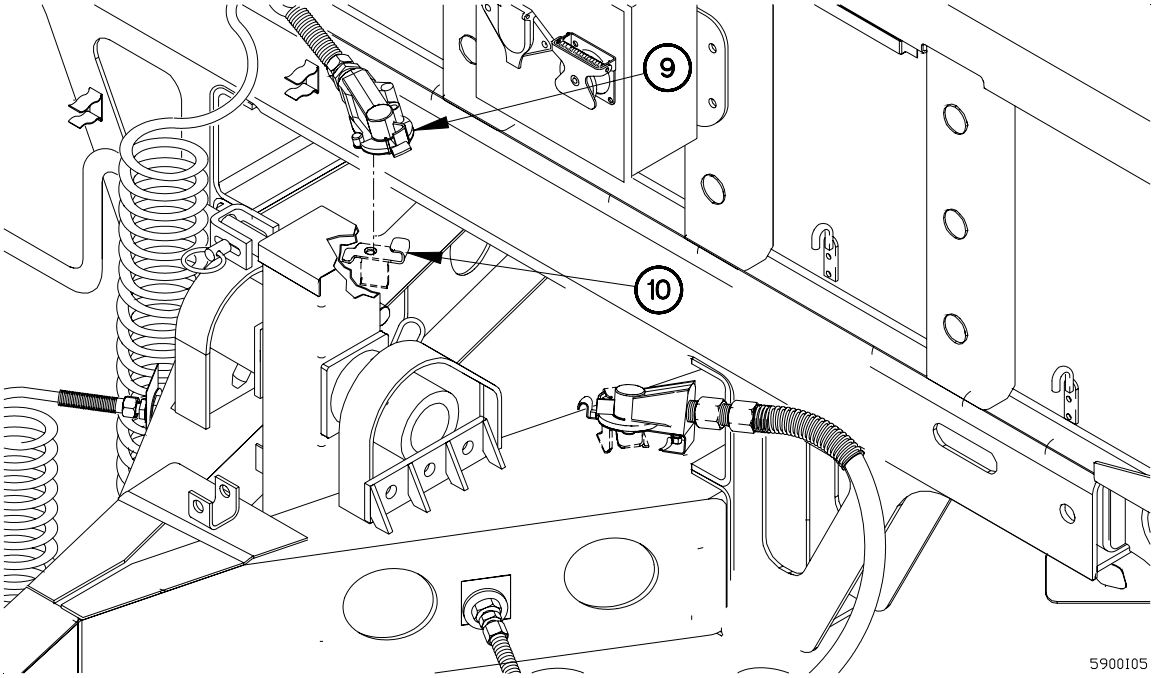
9. Install SERVICE gladhand (9) on SERVICE gladhand hose (8).



EMERGENCY/SERVICE GLADHAND HOSE REPLACEMENT - Continued

INSTALLATION - Continued

10. Connect SERVICE gladhand (9) to bracket (10).



OPERATIONAL CHECK

1. Couple trailer (WP 009 00, Coupling Trailer).
2. Check for air leaks around EMERGENCY and SERVICE gladhand hoses.
3. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

EMERGENCY/SERVICE GLADHAND REPLACEMENT 0059 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Goggles, Industrial (Item 8, WP 0178 00)
Tool Kit, Genl Mech (Item 37, WP 0178 00)

Materials/Parts
Antiseize Compound (Item 3, WP 0176 00)

References
WP 0009 00
WP 0012 00

Equipment Conditions
Trailer uncoupled (WP 0012 00).

REMOVAL

WARNING

Vent air system before disconnecting air lines. Pressurized air can blow dirt and debris with sufficient force to cause injury. Safety goggles must be worn when working with compressed air. Failure to comply may result in injury to personnel.

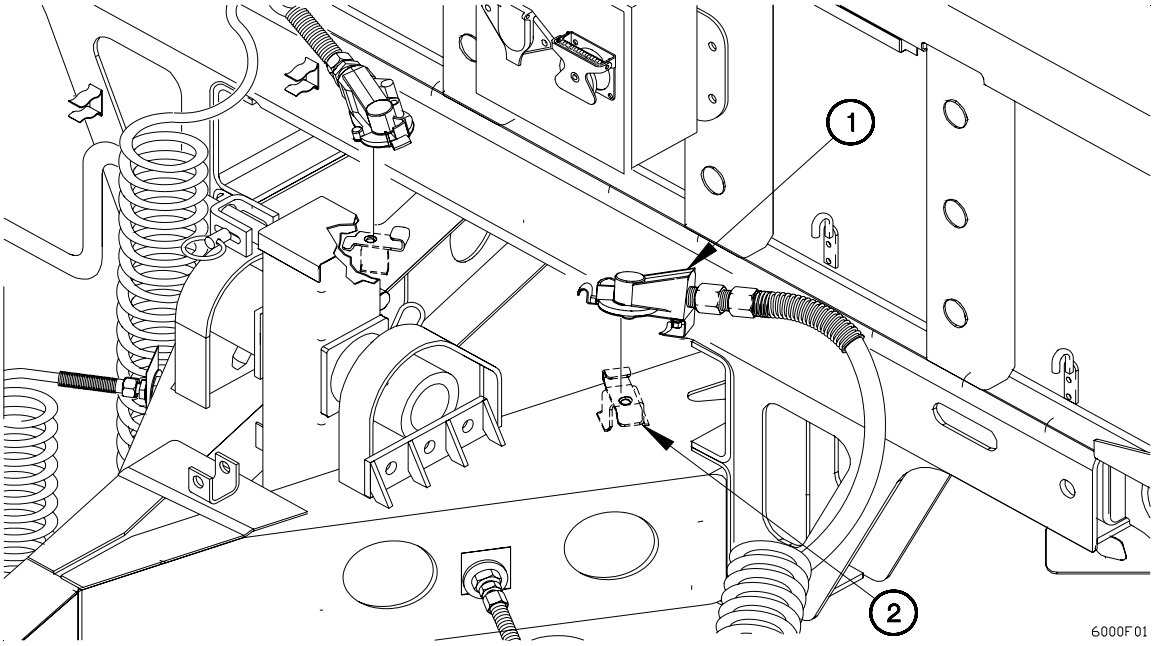
EMERGENCY/SERVICE GLADHAND REPLACEMENT - Continued 0059 00

REMOVAL - Continued

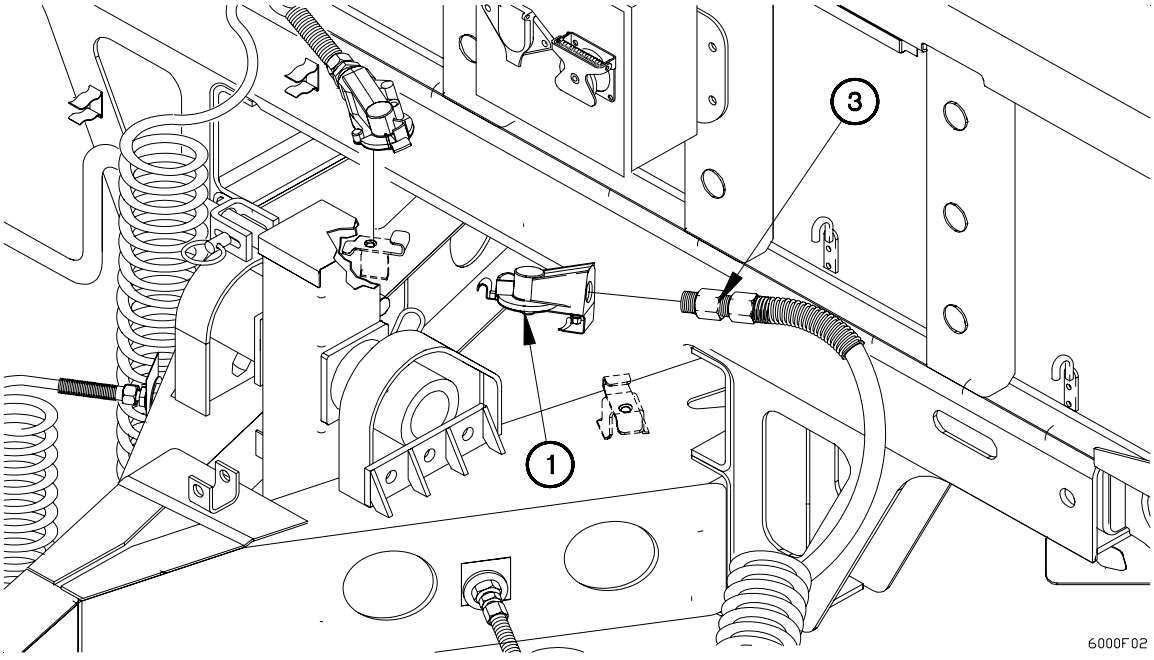
NOTE

Both EMERGENCY and SERVICE gladhands are removed the same way. Service gladhand shown.

1. Remove SERVICE gladhand (1) from bracket (2).



2. Remove SERVICE gladhand (1) from SERVICE gladhand hose (3).



EMERGENCY/SERVICE GLADHAND REPLACEMENT - Continued 0059 00

INSTALLATION

WARNING

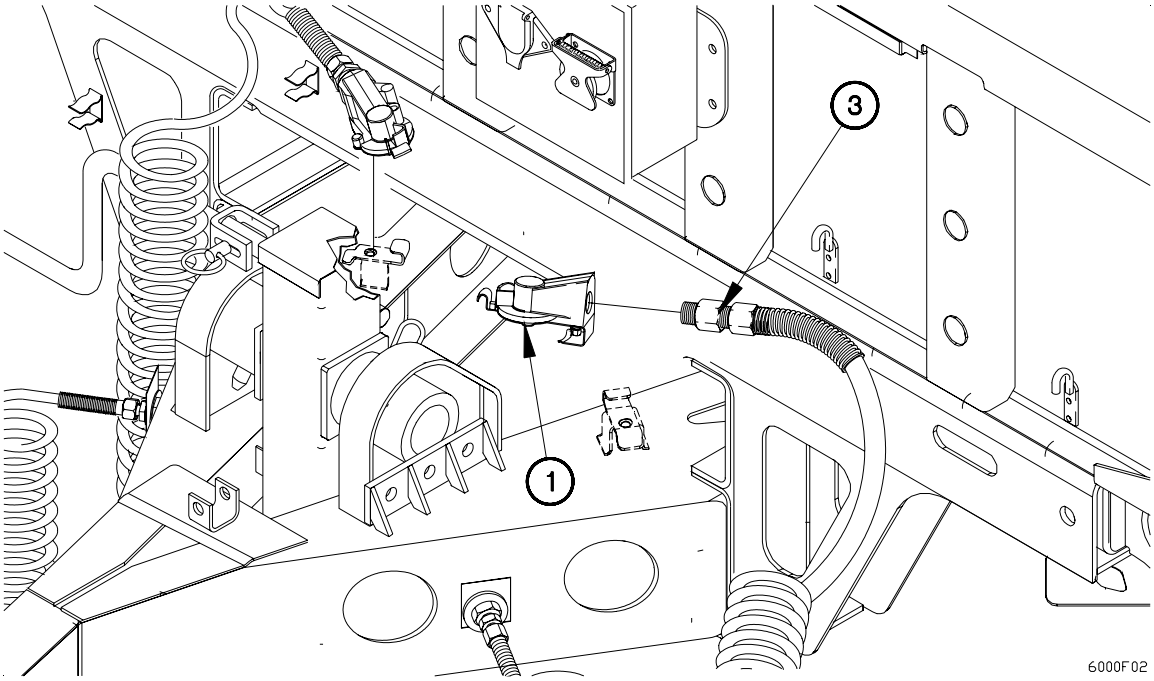
Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in a well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

NOTE

Both EMERGENCY and SERVICE gladhands are installed the same way. Service gladhand shown.

1. Apply antiseize compound to threads of SERVICE gladhand hose (3).

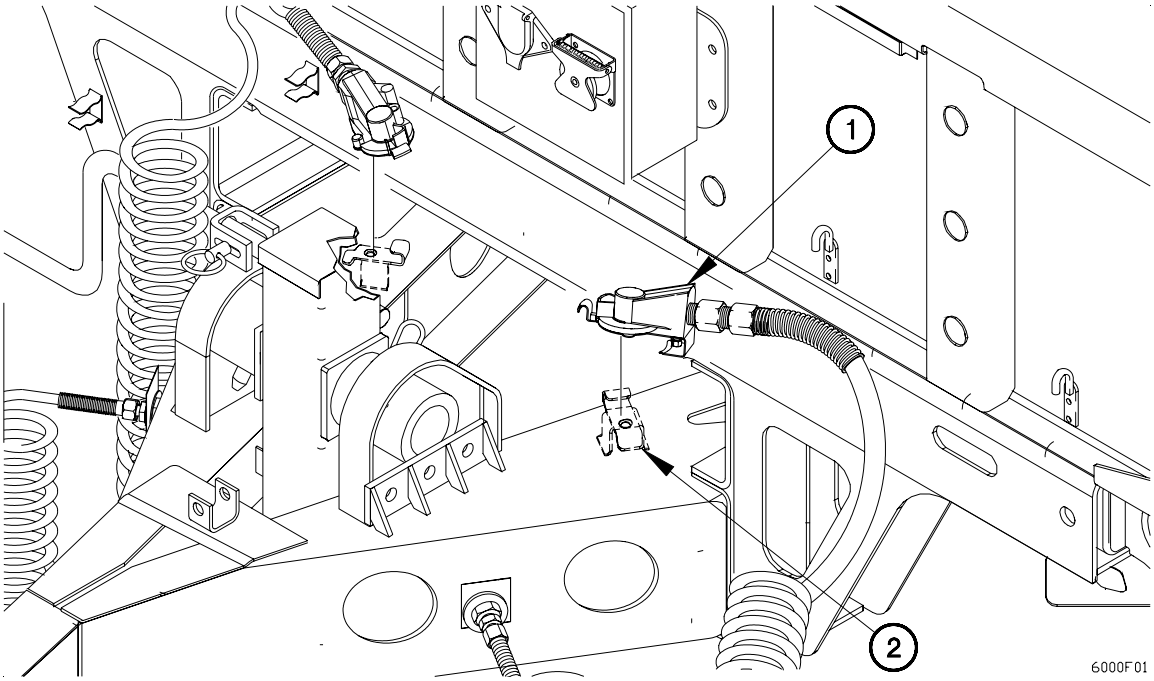
2. Install service gladhand (1) SERVICE gladhand hose (3).



EMERGENCY/SERVICE GLADHAND REPLACEMENT - Continued 0059 00

INSTALLATION - Continued

3. Connect SERVICE gladhand (1) to bracket (2).



OPERATIONAL CHECK

1. Couple trailer (WP 0009 00, Coupling Trailer).
2. Check trailer gladhands for air leaks.
3. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

BRAKE AIR HOSES (MTVT) REPLACEMENT 0060 00

THIS WORK PACKAGE COVERS:
Brake Air Hose Locations, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)

Materials/Parts
Cap and Plug Set (Item 6, WP 0176 00)
Dispenser, Pressure Sensitive Adhesive Tape (Item 10 WP 0176 00)
Ties, Cable, Plastic (Item 37, WP 0176 00)

Equipment Conditions
Trailer uncoupled (WP 0012 00).

BRAKE AIR HOSE LOCATIONS

WARNING

Vent air system before disconnecting airlines. Pressurized air can blow dirt and debris with sufficient force to cause injury. Safety goggles must be worn when working with compressed air. Failure to comply may result in injury to personnel.

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

CAUTION

Cap or plug hose connections to prevent contamination. Failure to comply may result in damage to equipment.

NOTE

This task shows locations of hoses on the trailer. It may not be necessary to remove all hoses at one time.

- Tag hoses and connection points prior to removal.
- Note location of plastic cable ties prior to removal.
- Remove plastic cable ties as required.

BRAKE AIR HOSES (MTVT) REPLACEMENT - Continued 0060 00

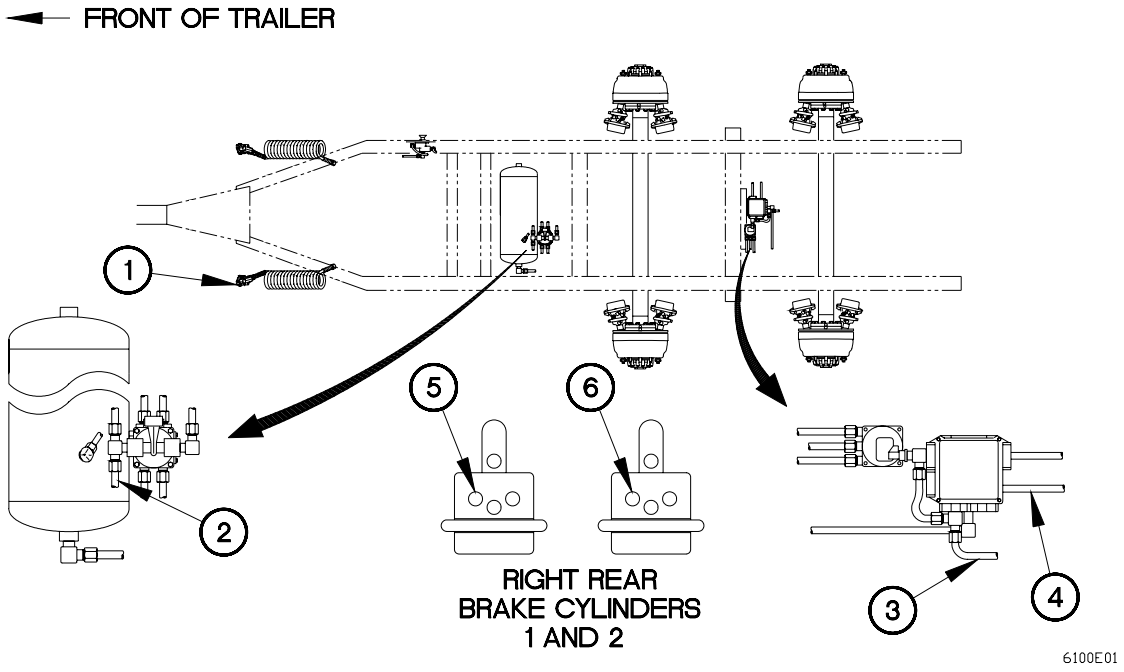
BRAKE AIR HOSE LOCATIONS - Continued

NOTE

Inspect hoses and fittings for cracks, kinks, nicks, stripped threads, and cuts. Replace damaged parts.

Table 1. MTVT Service Brake Air Hose Locations.

HOSE NAME	FROM	TO
Service brake air supply	Service gladhand (1)	Spring brake valve fitting (2)
Service brake air supply tie	Spring brake valve fitting (2)	ECU valve assembly input fitting (3)
Right rear brake air supply	ECU valve assembly input fitting (3)	ECU valve assembly output fitting (4)
Right rear brake air supply tie #1	ECU valve assembly output fitting (4)	Right rear brake cylinder #1 (5)
Right rear brake air supply tie #2	Right rear brake cylinder #1 (5)	Right rear brake cylinder #2 (6)

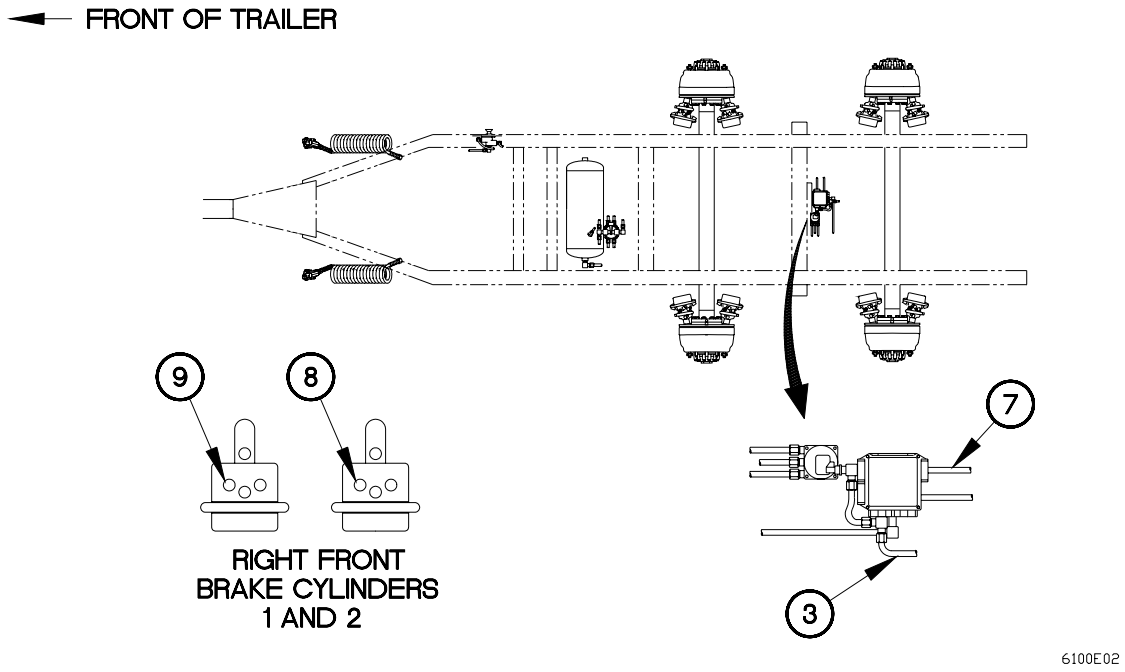


BRAKE AIR HOSES (MTVT) REPLACEMENT - Continued 0060 00

BRAKE AIR HOSE LOCATIONS - Continued

Table 1. MTVT Service Brake Air Hose Locations - Continued.

HOSE NAME	FROM	TO
Right front brake air supply	ECU valve assembly input fitting (3)	ECU valve assembly output fitting (7)
Right front brake air supply tie #1	ECU valve assembly output fitting (7)	Right front brake cylinder #1 (8)
Right front brake air supply tie #2	Right front brake cylinder #1 (8)	Right front brake cylinder #2 (9)

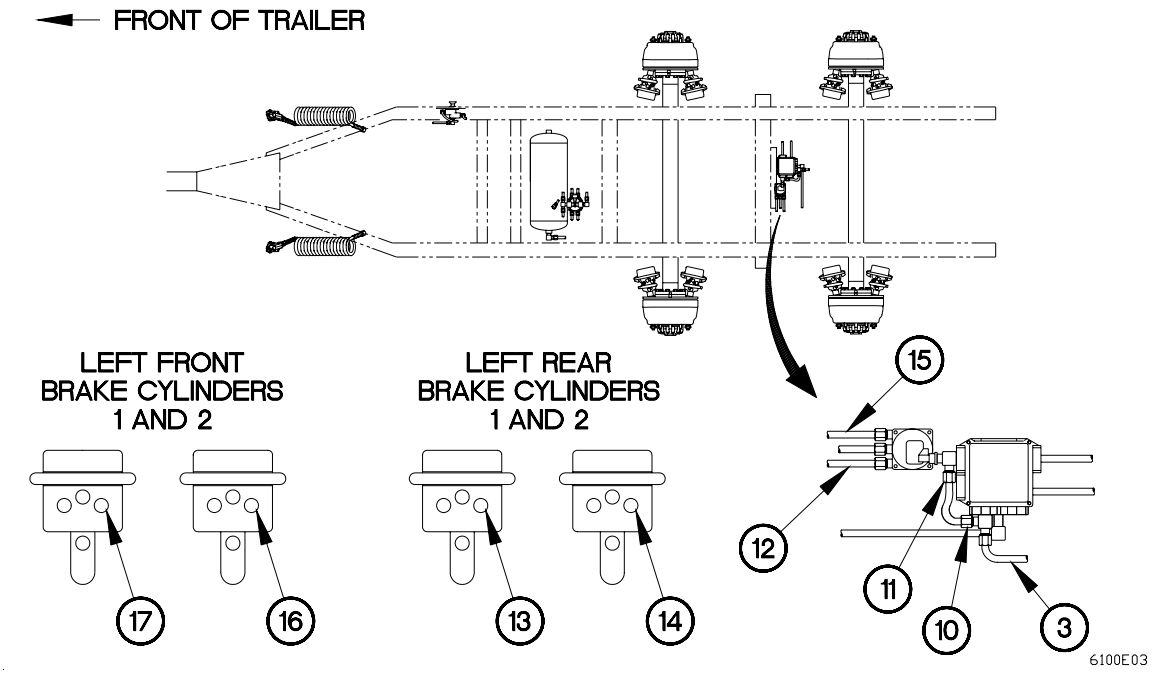


BRAKE AIR HOSES (MTVT) REPLACEMENT - Continued 0060 00

BRAKE AIR HOSE LOCATIONS - Continued

Table 1. MTVT Service Brake Air Hose Locations - Continued.

HOSE NAME	FROM	TO
Left brake air supply	ECU valve assembly input fitting (3)	ECU valve assembly output fitting (10)
Left brake air supply tie	ECU valve assembly output fitting (10)	ABS relay valve input fitting (11)
Left rear brake air supply	ABS relay valve input fitting (11)	ABS relay valve output fitting (12)
Left rear brake air supply tie #1	ABS relay valve output fitting (12)	Left rear brake cylinder #1 (13)
Left rear brake air supply tie #2	Left rear brake cylinder #1 (13)	Left rear brake cylinder #2 (14)
Left front brake air supply	ABS relay valve input fitting (11)	ABS relay valve output fitting (15)
Left front brake air supply tie #1	ABS relay valve output fitting (15)	Left front brake cylinder #1 (16)
Left front brake air supply tie #2	Left front brake cylinder #1 (16)	Left front brake cylinder #2 (17)

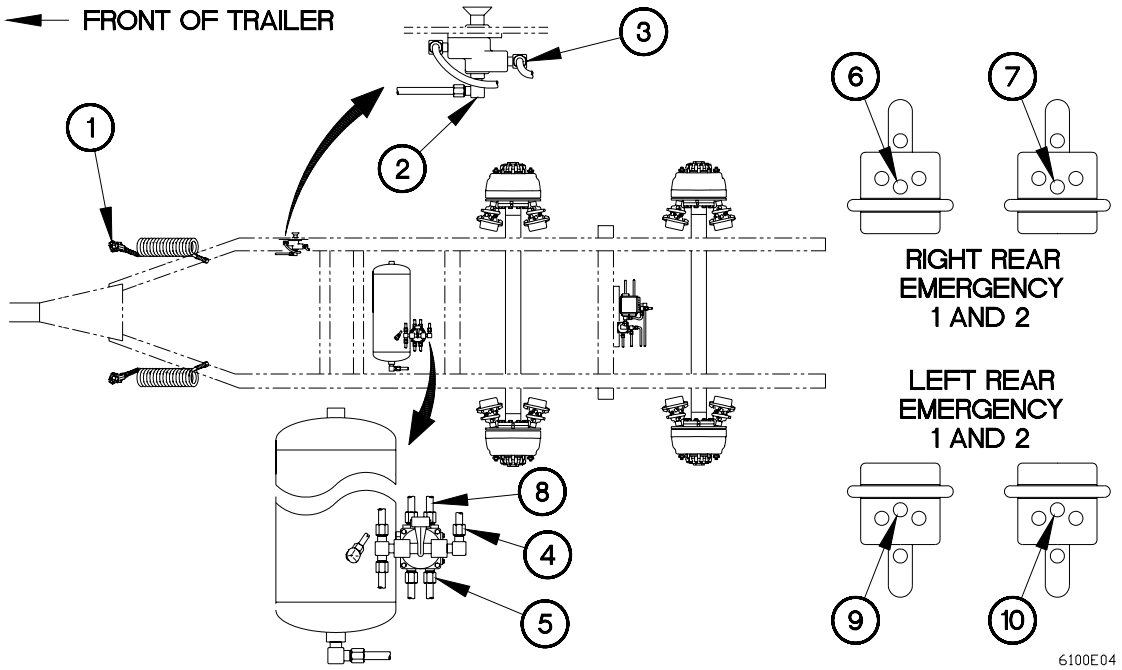


BRAKE AIR HOSES (MTVT) REPLACEMENT - Continued 0060 00

BRAKE AIR HOSE LOCATIONS - Continued

Table 2. MTVT Emergency Brake Air Hose Locations.

HOSE NAME	FROM	TO
Emergency brake air supply	Emergency gladhand (1)	Air supply/push-pull valve input fitting (2)
Emergency brake air supply tie #1	Air supply/push-pull valve input fitting (2)	Air supply/push-pull valve output fitting (3)
Emergency brake air supply tie #2	Air supply/push-pull valve output fitting (3)	Spring brake valve input fitting (4)
Right rear emergency brake air supply	Spring brake valve input fitting (4)	Spring brake output B (5)
Right rear brake emergency air tie #1	Spring brake output B (5)	Right rear brake cylinder #1 (6)
Right rear brake emergency air tie #2	Right rear brake cylinder #1 (6)	Right rear brake cylinder #2 (7)
Left rear emergency brake air supply	Spring brake valve input fitting (4)	Spring brake output A (8)
Left rear brake emergency air tie #1	Spring brake output A (8)	Left rear brake cylinder #1 (9)
Left rear brake emergency air tie #2	Left rear brake cylinder #1 (9)	Left rear brake cylinder #2 (10)

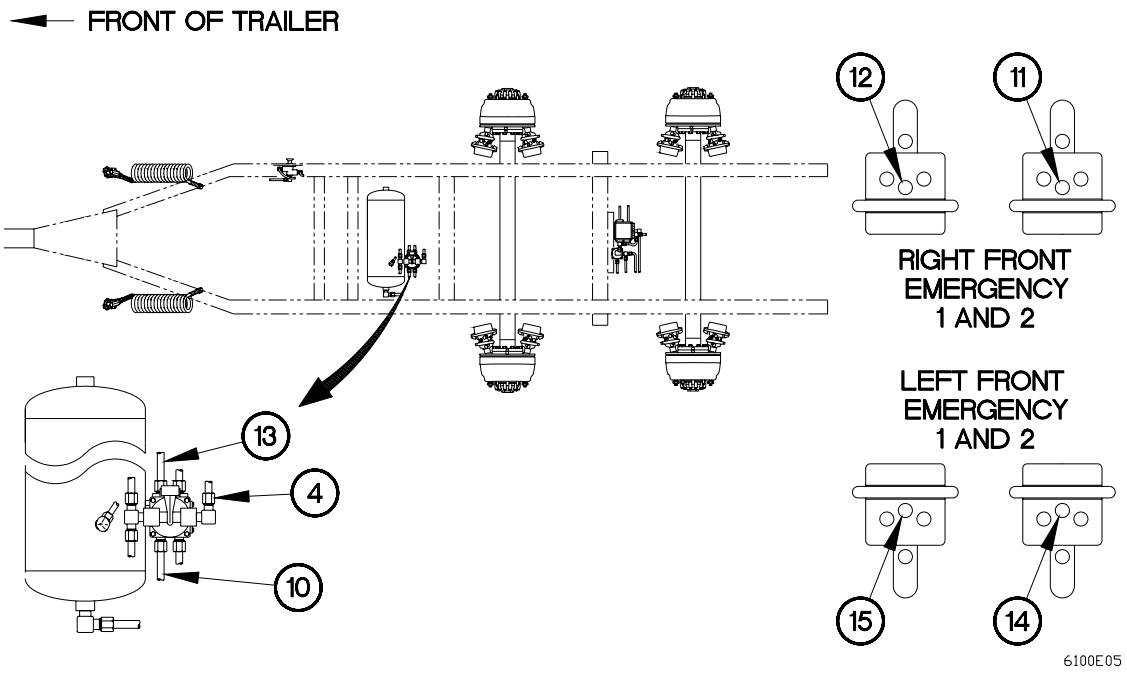


BRAKE AIR HOSES (MTVT) REPLACEMENT - Continued 0060 00

BRAKE AIR HOSE LOCATIONS - Continued

Table 2. MTVT Emergency Brake Air Hose Locations - Continued.

HOSE NAME	FROM	TO
Right front emergency brake air supply	Spring brake valve input fitting (4)	Spring brake output D (10)
Right front brake emergency air supply tie #1	Spring brake output D (10)	Right front brake cylinder #1 (11)
Right front brake emergency air supply tie #2	Right front brake cylinder #1 (11)	Right front brake cylinder #2 (12)
Left front emergency brake air supply	Spring brake valve input fitting (4)	Spring brake output C (13)
Left front brake emergency air supply tie #1	Spring brake output C (13)	Left front brake cylinder #1 (14)
Left front brake emergency air supply tie #2	Left front brake cylinder #1 (14)	Left front brake cylinder #2 (15)



BRAKE AIR HOSES (MTVT) REPLACEMENT - Continued 0060 00

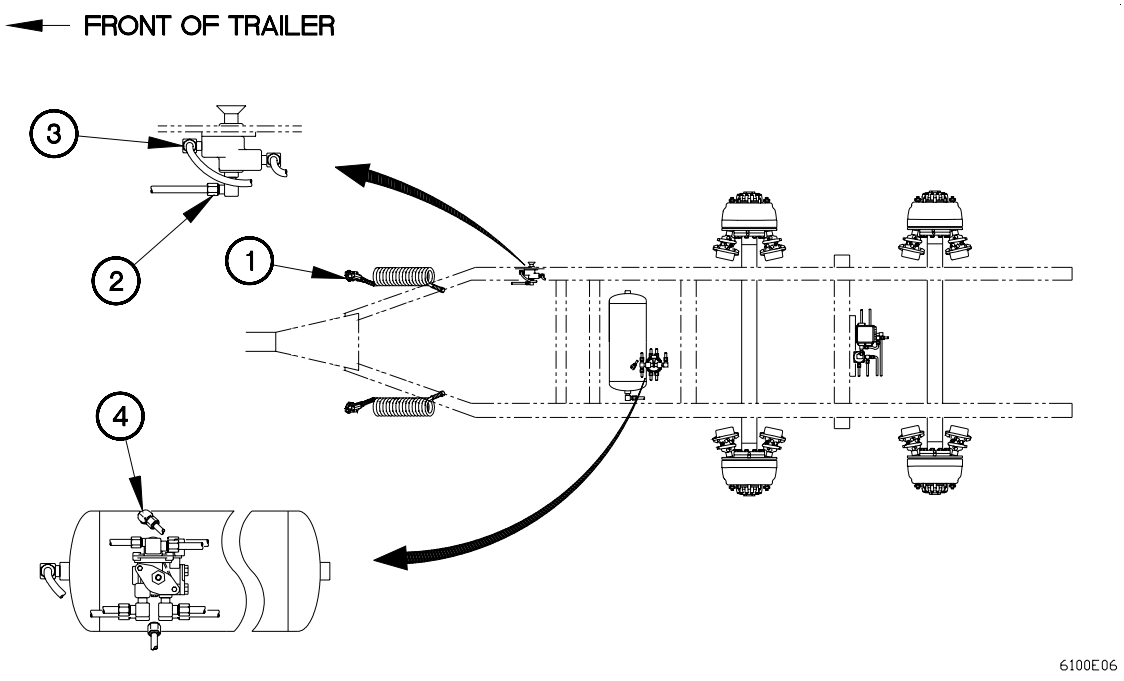
BRAKE AIR HOSE LOCATIONS - Continued

NOTE

After entering the spring brake valve, the service brake reserve air supply plumbing is the same as in Table 1. MTVT Service Brake Air Hose Locations. After entering the spring brake valve, the emergency brake reserve air supply plumbing is the same as in Table 2. MTVT Emergency Brake Air Hose Locations.

Table 3. MTVT Reserve Supply Air Hose Locations.

HOSE NAME	FROM	TO
Air tank air supply	Emergency gladhand (1)	Air supply/push-pull valve input fitting (2)
Air tank air supply tie #1	Air supply/push-pull valve input fitting (2)	Air supply/push-pull valve output fitting (3)
Air tank air supply tie #2	Air supply/push-pull valve output fitting (3)	Air tank input fitting (4)

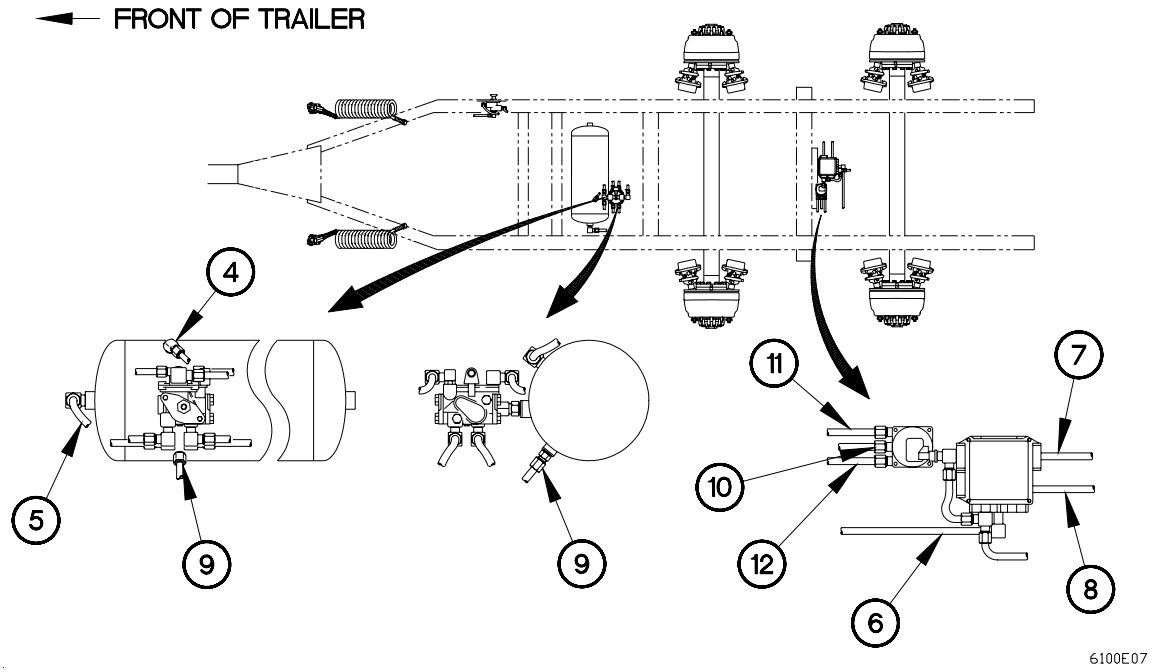


BRAKE AIR HOSES (MTVT) REPLACEMENT - Continued 0060 00

BRAKE AIR HOSE LOCATIONS - Continued

Table 3. MTVT Reserve Supply Air Hose Locations - Continued.

HOSE NAME	FROM	TO
Right service brake reserve air supply	Air tank input fitting (4)	Air tank output fitting (5)
Right service brake reserve air supply tie #1	Air tank output fitting (5)	ECU valve assembly input fitting (6)
Right service brake reserve air supply tie #2	ECU valve assembly input fitting (6)	ECU valve assembly output fittings: right front service brakes, (7); right rear service brakes, (8)
Left service brake reserve air supply	Air tank input fitting (4)	Air tank output fitting (9)
Left service brake reserve air supply tie #1	Air tank output fitting (9)	ABS relay valve assembly input fitting (10)
Left service brake reserve air supply tie #2	ABS relay valve assembly input fitting (10)	ABS relay valve output fittings: left front service brakes, (11); left rear service brakes, (12)

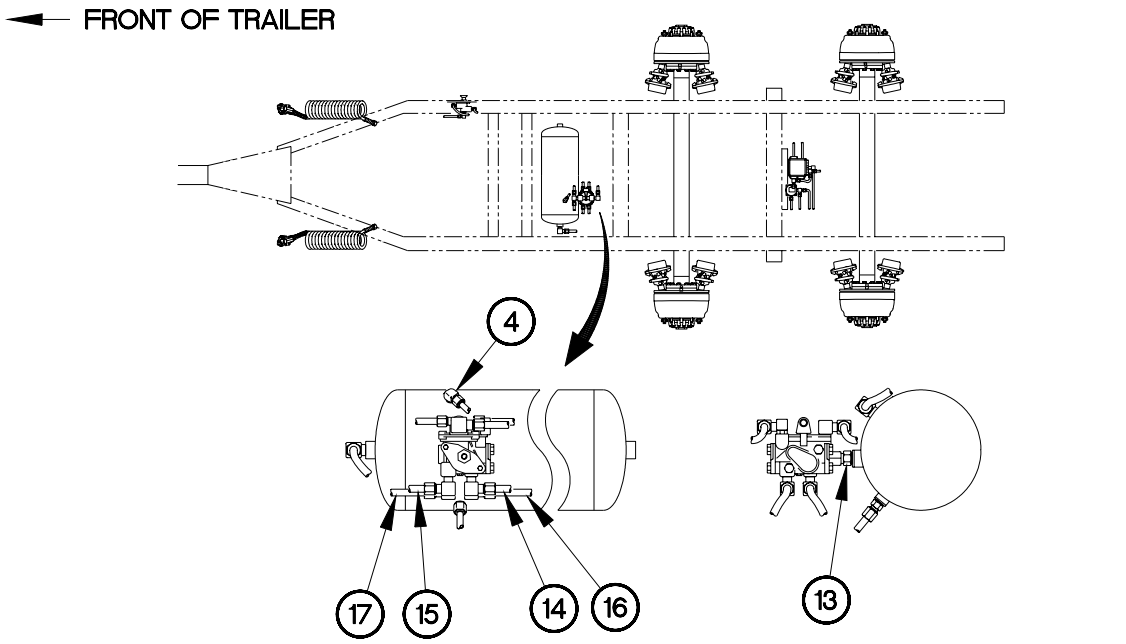


BRAKE AIR HOSES (MTVT) REPLACEMENT - Continued 0060 00

BRAKE AIR HOSE LOCATIONS - Continued

Table 3. MTVT Reserve Supply Air Hose Locations - Continued.

HOSE NAME	FROM	TO
Emergency brake reserve air supply	Air tank input fitting (4)	Air tank port A (13)
Emergency brake reserve air supply tie	Air tank port A (13)	Spring brake valve output fittings: A, (14); B, (15); C, (16); D (17)

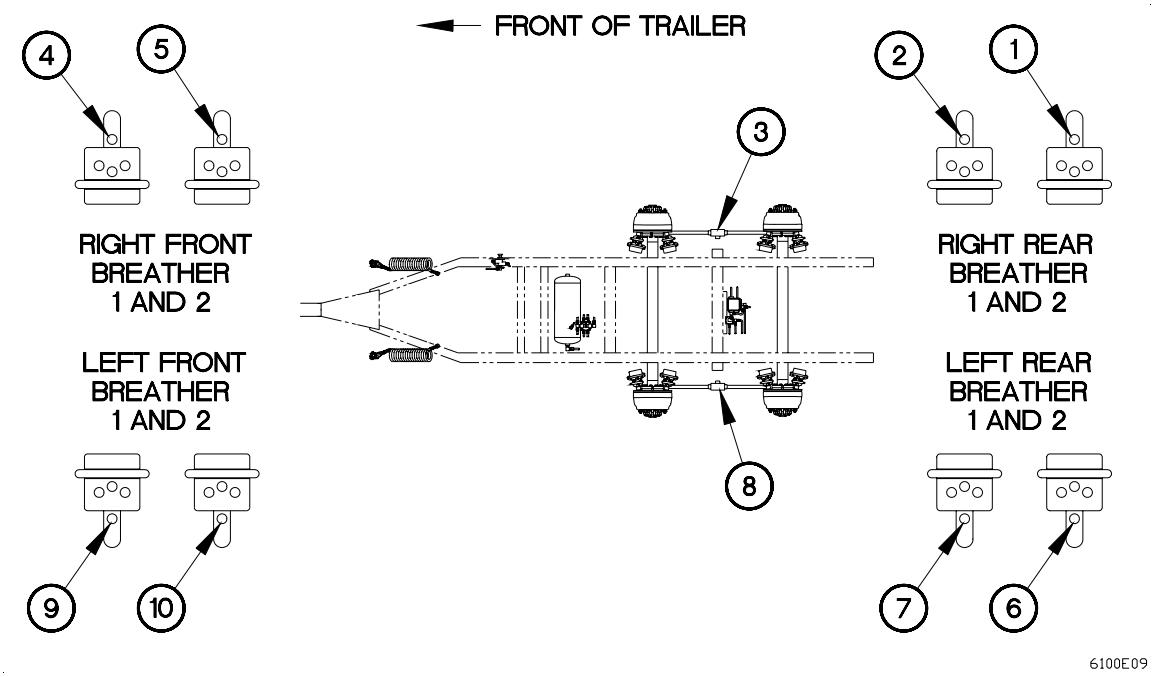


BRAKE AIR HOSES (MTVT) REPLACEMENT - Continued 0060 00

BRAKE AIR HOSE LOCATIONS - Continued

Table 4. MTVT Breather Port Brake Air Hose Locations.

HOSE NAME	FROM	TO
Right rear brake vent tie	Right rear brake cylinder # 2 breather port fitting (1)	Right rear brake cylinder # 1 breather port fitting (2)
Right rear brake vent	Right rear brake cylinder # 1 breather port fitting (2)	Vent fitting/exhaust (3)
Right front brake vent tie	Right front brake cylinder #2 breather port fitting (4)	Right front brake cylinder #1 breather port fitting (5)
Right front brake vent	Right front brake cylinder #1 breather port fitting (5)	Vent fitting/exhaust (3)
Left rear brake vent tie	Left rear brake cylinder #2 breather port fitting (6)	Left rear brake cylinder #1 breather port fitting (7)
Left rear brake vent	Left rear brake cylinder #1 breather port fitting (7)	Vent fitting/exhaust (8)
Left front brake vent tie	Left front brake cylinder #2 breather port fitting (9)	Left front brake cylinder #1 breather port fitting (10)
Left front brake vent	Left front brake cylinder #1 breather port fitting (10)	Vent fitting/exhaust (8)



OPERATIONAL CHECK

1. Couple trailer (WP 0009 00, Coupling Trailer).
2. Check around air hoses and fittings for air leaks.
3. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

BRAKE AIR HOSES (LMTVT) REPLACEMENT 0061 00

THIS WORK PACKAGE COVERS:
Brake Air Hose Locations, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)

Materials/Parts
Cap and Plug Set (Item 6, WP 0176 00)
Dispenser, Pressure Sensitive Adhesive Tape (Item 10, WP 0176 00)
Ties, Cable, Plastic (Item 37, WP 0176 00)

References
WP 0009 00

Equipment Conditions
Trailer uncoupled (WP 0012 00).

BRAKE AIR HOSE LOCATIONS

WARNING

Vent air system before disconnecting airlines. Pressurized air can blow dirt and debris with sufficient force to cause injury. Safety goggles must be worn when working with compressed air. Failure to comply may result in injury to personnel.

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

CAUTION

Cap or plug hose connections to prevent contamination. Failure to comply may result in damage to equipment.

NOTE

This task shows locations of hoses on the trailer. It may not be necessary to remove all hoses at one time.

- Tag hoses and connection points prior to removal.
- Note location of plastic cable ties prior to removal.
- Remove plastic cable ties as required.

BRAKE AIR HOSES (LMTVT) REPLACEMENT - Continued 0061 00

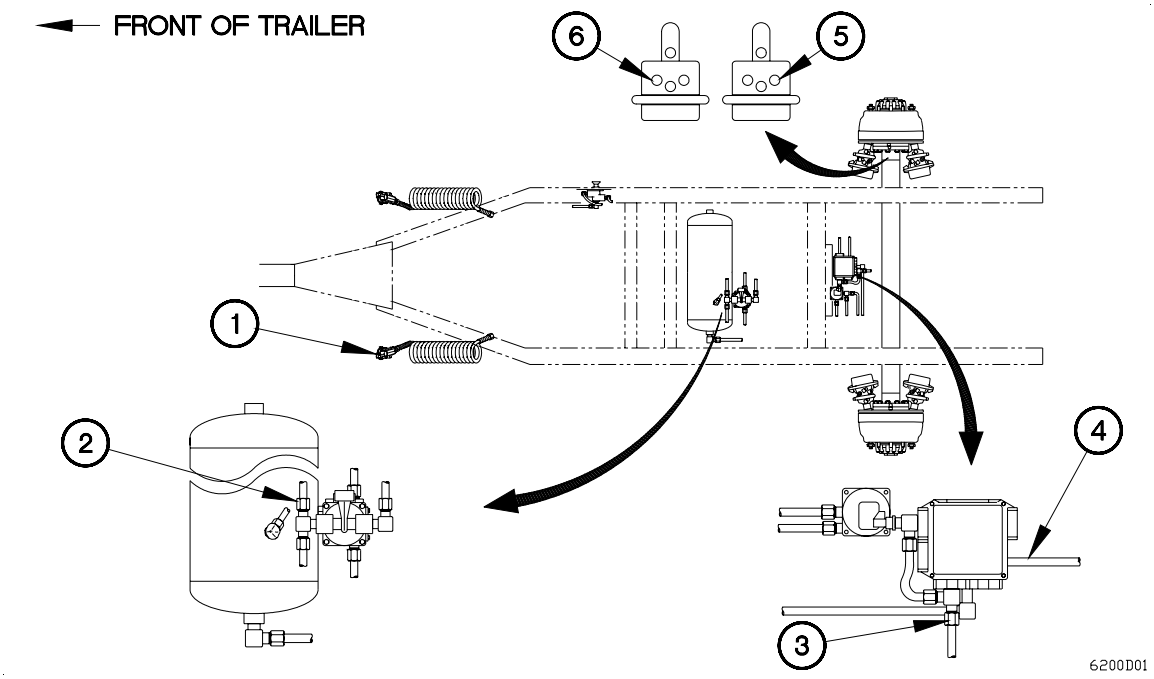
BRAKE AIR HOSE LOCATIONS - Continued

NOTE

Inspect hoses and fittings for cracks, kinks, nicks, stripped threads, and cuts. Replace damaged parts.

Table 1. LMTVT Service Brake Air Hose Locations.

HOSE NAME	FROM	TO
Service brake air supply	Service gladhand (1)	Spring brake valve fitting (2)
Service brake air supply tie	Spring brake valve fitting (2)	ECU valve assembly input fitting (3)
Right brake air supply	ECU valve assembly input fitting (3)	ECU valve assembly output fitting (4)
Right brake air tie #1	ECU valve assembly output fitting (4)	Right brake cylinder #1 (5)
Right brake air tie #2	Right brake cylinder #1 (5)	Right brake cylinder #2 (6)

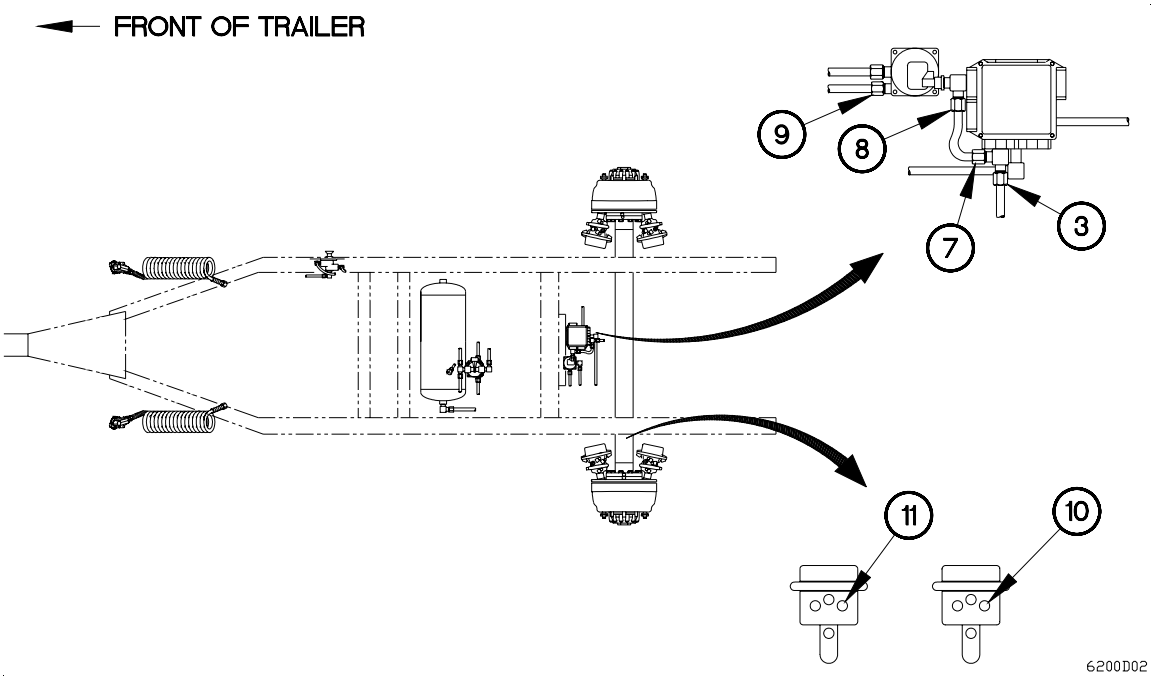


BRAKE AIR HOSES (LMTVT) REPLACEMENT - Continued 0061 00

BRAKE AIR HOSE LOCATIONS - Continued

Table 1. LMTVT Service Brake Air Hose Locations - Continued.

Left brake air supply	ECU valve assembly input fitting (3)	ECU valve assembly output fitting (7)
Left brake air tie #1	ECU valve assembly output fitting (7)	ABS relay valve input fitting (8)
Left brake air tie #2	ABS relay valve input fitting (8)	ABS relay valve output fitting (9)
Left brake air tie #3	Left brake cylinder #1 (10)	Left brake cylinder #2 (11)

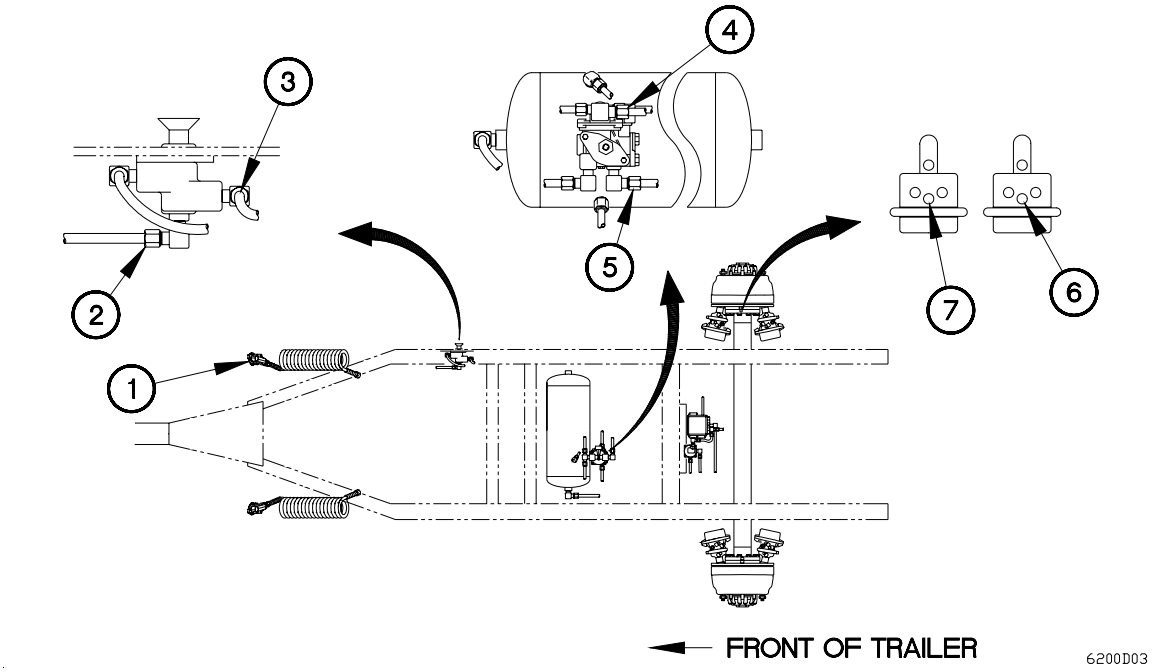


BRAKE AIR HOSES (LMTVT) REPLACEMENT - Continued 0061 00

BRAKE AIR HOSE LOCATIONS - Continued

Table 2. LMTVT Emergency Brake Air Hose Locations.

HOSE NAME	FROM	TO
Emergency brake air supply	Emergency gladhand (1)	Air supply/push-pull valve input fitting (2)
Emergency brake air supply tie #1	Air supply/push-pull input fitting valve (2)	Air supply/push-pull output fitting valve (3)
Emergency brake air supply tie #2	Air supply/push-pull output fitting valve (3)	Spring brake input fitting (4)
Right brake emergency air supply	Spring brake input fitting (4)	Spring brake output B (5)
Right brake emergency air supply tie #1	Spring brake output B (5)	Right brake cylinder #1 (6)
Right brake emergency air supply tie #2	Right brake cylinder #1 (6)	Right brake cylinder #2 (7)

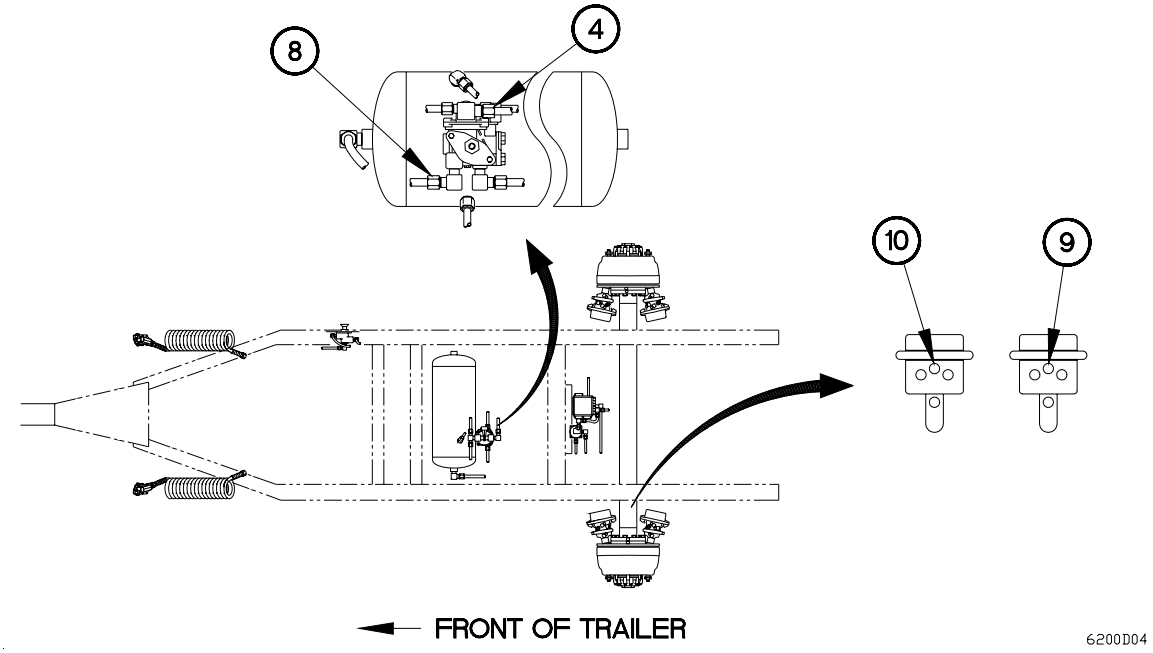


BRAKE AIR HOSES (LMTVT) REPLACEMENT - Continued 0061 00

BRAKE AIR HOSE LOCATIONS - Continued

Table 2. LMTVT Emergency Brake Air Hose Locations - Continued.

Left brake emergency air supply	Spring brake input fitting (4)	Spring brake output A (8)
Left brake emergency air supply tie #1	Spring brake output A (8)	Left brake cylinder #1 (9)
Left brake emergency air supply tie #2	Left brake cylinder #1 (9)	Left brake cylinder #2 (10)



BRAKE AIR HOSES (LMTVT) REPLACEMENT - Continued 0061 00

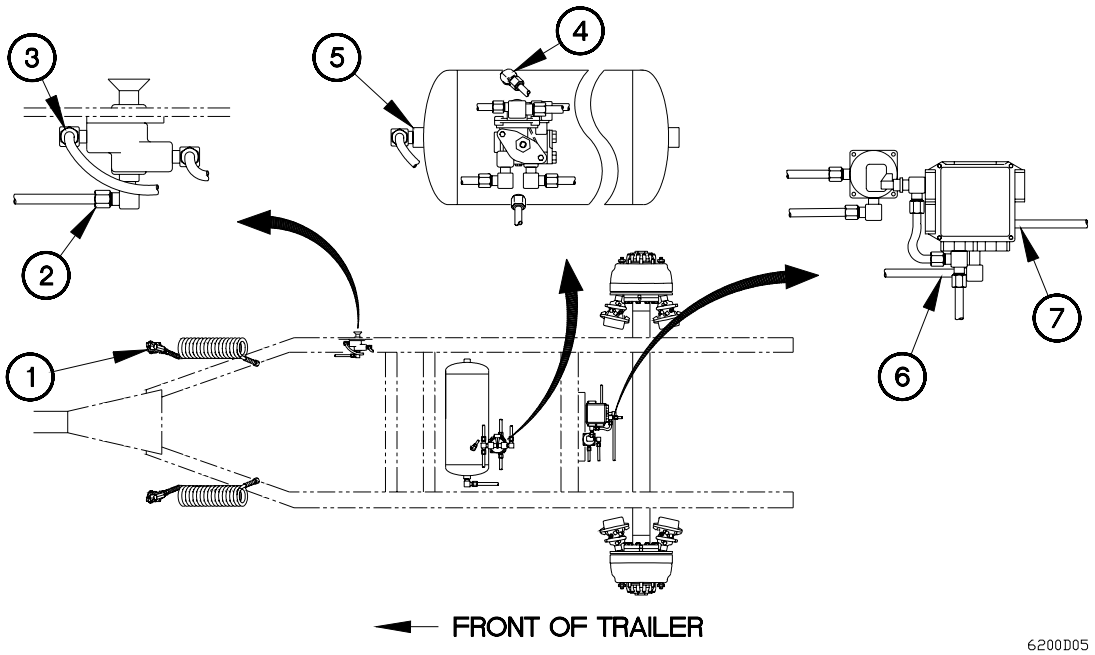
BRAKE AIR HOSE LOCATIONS - Continued

NOTE

After entering the spring brake valve, the service brake reserve air supply plumbing is the same as in Table 1. LMTVT Service Brake Air Hose Locations. After entering the spring brake valve, the emergency brake reserve air supply plumbing is the same as in Table 2. LMTV Emergency Brake Air Hose Locations.

Table 3. LMTVT Reserve Supply Air Hose Locations.

HOSE NAME	FROM	TO
Air tank air supply	Emergency gladhand (1)	Air supply/push-pull valve input fitting (2)
Air tank air supply tie #1	Air supply/push-pull valve input fitting (2)	Air supply/push-pull valve output fitting (3)
Air tank air supply tie #1	Air supply/push-pull valve output fitting (3)	Air tank input fitting (4)
Right service brake reserve air supply	Air tank input fitting (4)	Air tank output fitting (5)
Right service brake reserve air supply tie #1	Air tank output fitting (5)	ECU valve assembly input fitting (6)
Right service brake reserve air supply tie #2	ECU valve assembly input fitting (6)	ECU valve assembly output fitting (7)

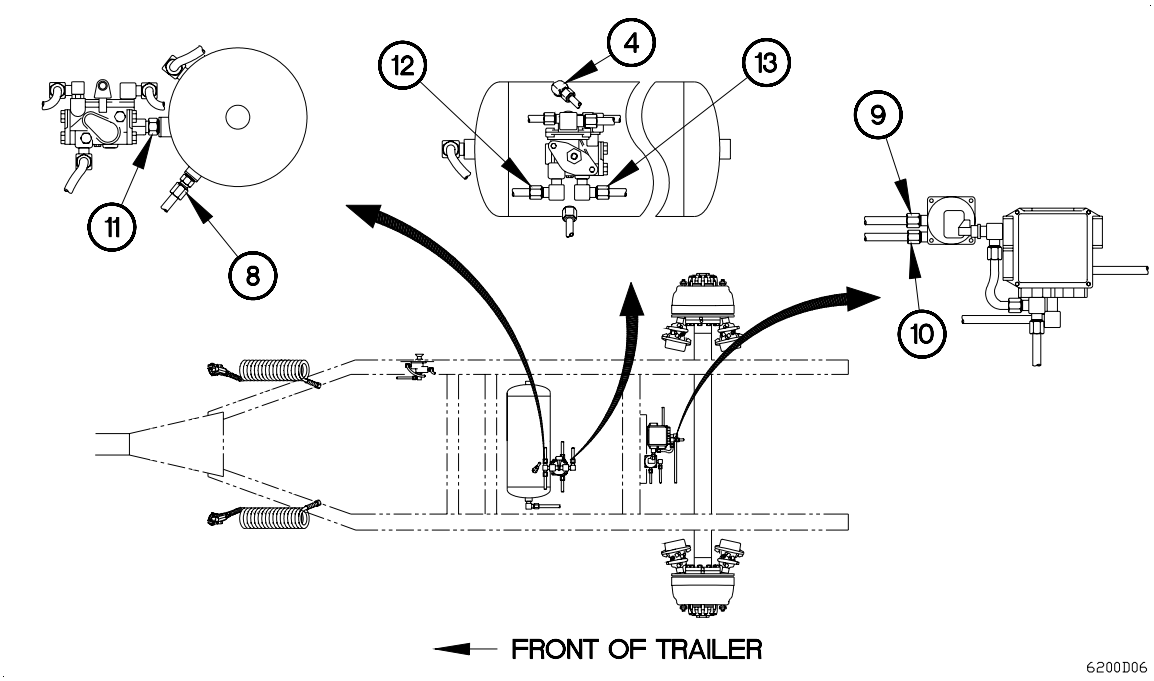


BRAKE AIR HOSES (LMTVT) REPLACEMENT - Continued 0061 00

BRAKE AIR HOSE LOCATIONS - Continued

Table 3. LMTVT Reserve Supply Air Hose Locations - Continued.

HOSE NAME	FROM	TO
Left service brake reserve air supply	Air tank input fitting (4)	Air tank output fitting (8)
Left service brake reserve air supply tie #1	Air tank output fitting (8)	ABS relay valve assembly input fitting (9)
Left service brake reserve air supply tie #2	ABS relay valve assembly input fitting (9)	ABS relay valve assembly output fitting (10)
Emergency brake reserve air supply	Air tank input fitting (4)	Air tank port A (11)
Emergency brake reserve air supply tie	Air tank port A (11)	Spring brake valve output fittings A (12); B (13)

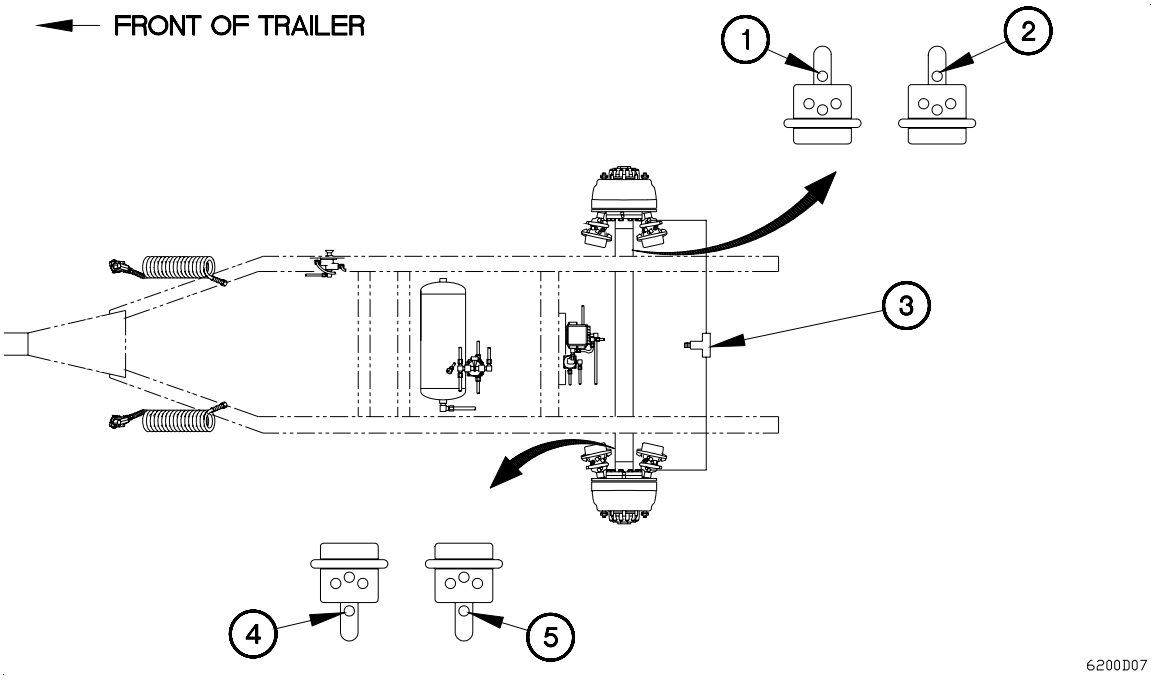


BRAKE AIR HOSES (LMTVT) REPLACEMENT - Continued 0061 00

BRAKE AIR HOSE LOCATIONS - Continued

Table 4. LMTVT Breather Port Brake Air Hose Locations.

HOSE NAME	FROM	TO
Right brake vent tie	Right brake cylinder #2 breather port fitting (1)	Right brake cylinder #1 breather port fitting (2)
Right brake vent	Right brake cylinder #1 breather port fitting (2)	Vent fitting/exhaust (3)
Left brake vent tie	Left brake cylinder #2 breather port fitting (4)	Left brake cylinder #1 breather port fitting (5)
Left brake vent	Left brake cylinder #1 breather port fitting (5)	Vent fitting/exhaust (3)



OPERATIONAL CHECK

1. Couple trailer (WP 0009 00, Coupling Trailer).
2. Check around air hoses and fittings for air leaks.
3. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

PUSH-PULL/AIR SUPPLY VALVE REPLACEMENT 0062 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Operator

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Vise, Machinist (Item 39, WP 0178 00)
Wrench, Torque, 0-75 lb-in. (Item 53, WP 0178 00)

Materials/Parts
Dispenser, Pressure Sensitive Adhesive Tape (Item 10, WP 0176 00)
Antiseize Compound (Item 3, WP 0176 00)

Personnel Required
Two

References
WP 0009 00

Equipment Conditions
Trailer uncoupled (WP 0012 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

REMOVAL

WARNING

Vent air system before disconnecting air lines. Pressurized air can blow dirt and debris with sufficient force to cause injury. Safety goggles must be worn when working with compressed air. Failure to comply may result in injury to personnel.

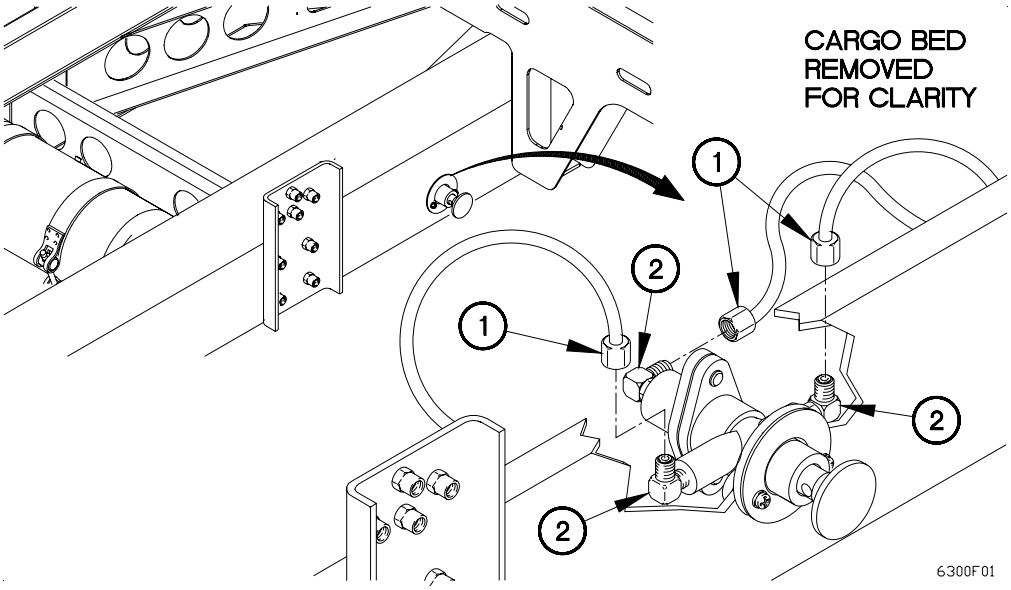
NOTE

Tag air hoses and connection points prior to disconnecting.

PUSH-PULL/AIR SUPPLY VALVE REPLACEMENT - Continued 0062 00

REMOVAL - Continued

1. Disconnect three air hoses (1) from 90-degree fittings (2).

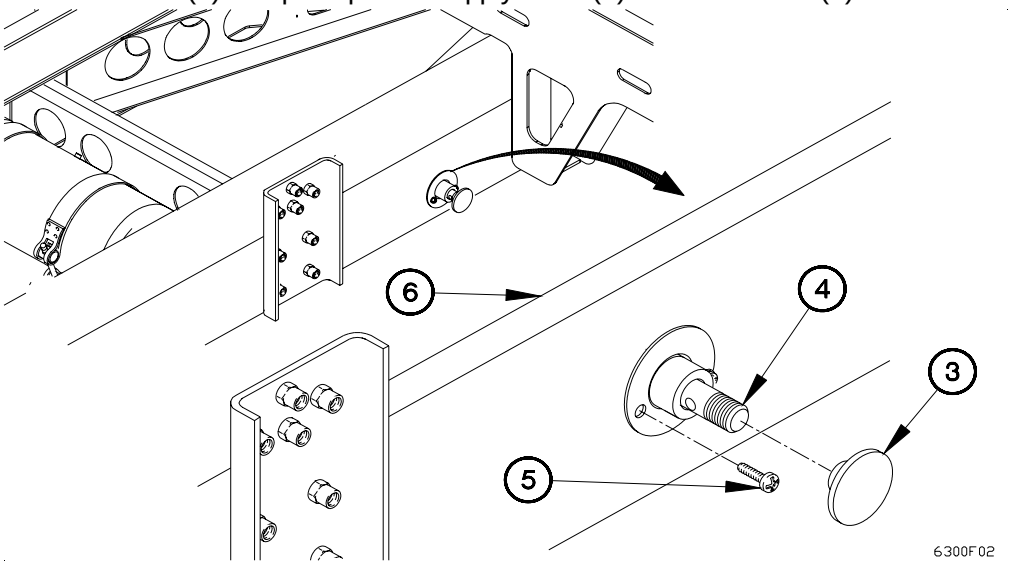


2. Unscrew knob (3) from push-pull/air supply valve (4).

CAUTION

Push-pull/air supply valve on interior frame rail will drop upon removal of screws from exterior push-pull/air supply valve knob assembly if not secured. An assistant is required to hold push-pull/air supply valve during removal. Failure to comply may result in damage to equipment.

3. Remove two screws (5) and push-pull/air supply valve (4) from frame rail (6).



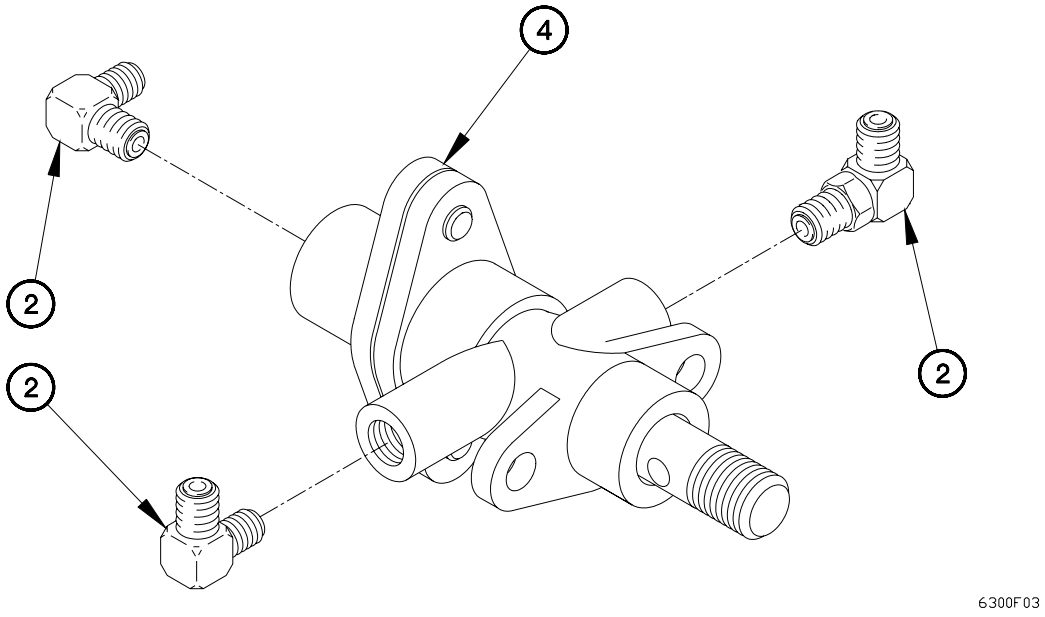
PUSH-PULL/AIR SUPPLY VALVE REPLACEMENT - Continued 0062 00

REMOVAL - Continued

NOTE

Note orientation of fittings prior to removal.

4. Remove three 90-degree fittings (2) from push-pull/air supply valve (4).



INSTALLATION

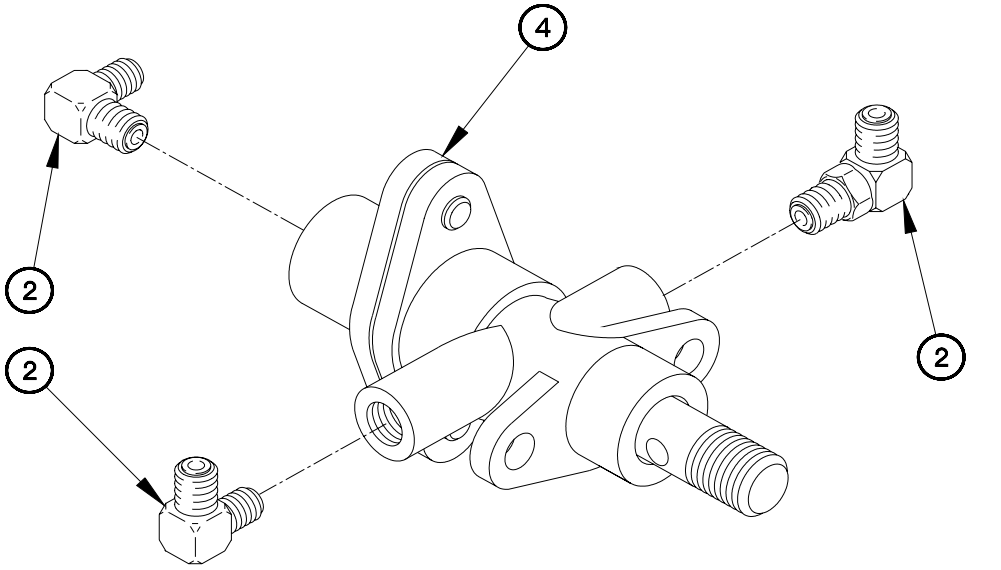
WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in a well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

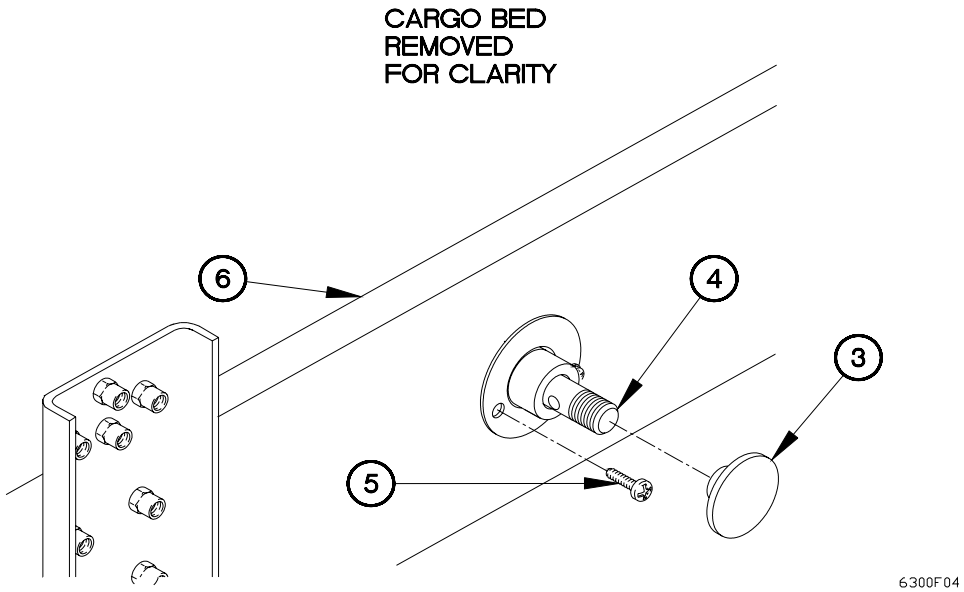
PUSH-PULL/AIR SUPPLY VALVE REPLACEMENT - Continued 0062 00

INSTALLATION - Continued

1. Apply antiseize compound to threads of three 90-degree fittings (2).
2. Install three 90-degree fittings (2) in push-pull/air supply valve (4).



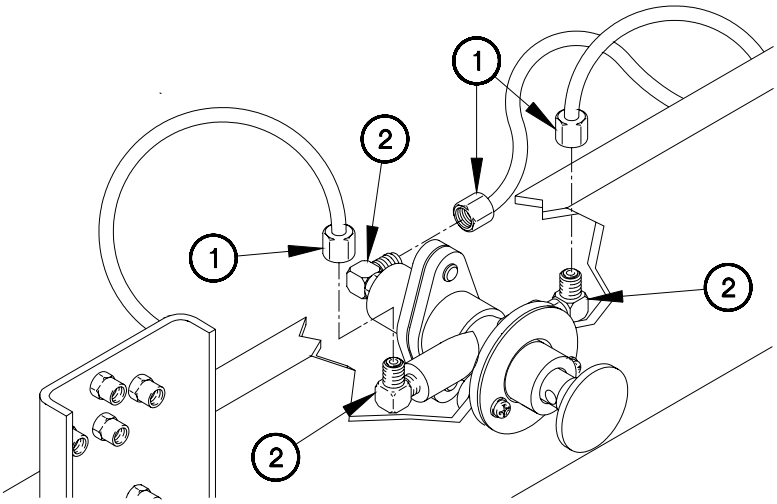
3. Position push-pull/air supply valve (4) on frame rail (6) with two screws (5).
4. Install push-pull knob (3) on push-pull/air supply valve (4).
5. Tighten two screws to 25-35 lb-in (3-4 N•m).



PUSH-PULL/AIR SUPPLY VALVE REPLACEMENT - Continued 0062 00

INSTALLATION - Continued

6. Connect three air hoses (1) to 90-degree fittings (2).



6300F05

OPERATIONAL CHECK

1. Couple trailer to towing vehicle (WP 0009 00). Allow towing vehicle engine time for air pressure to reach normal operating pressure.

NOTE

Do not drain air tank as part of trailer uncoupling task.

2. Uncouple trailer (WP 0012 00, Uncoupling Trailer).
3. Check around push-pull/air supply valve and hoses for air leaks.
4. Couple trailer (WP 0009 00, Coupling Trailer).
5. Road test trailer and check for proper brake operation.
6. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

SPRING BRAKE VALVE REPLACEMENT 0063 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Vise, Machinist (Item 39, WP 0178 00)
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)

Materials/Parts
Dispenser, Pressure Sensitive Adhesive Tape (Item 10, WP 0176 00)

Materials/Parts (Cont)
Antiseize Compound (Item 3, WP 0176 00)

Personnel Required
Two

References
WP 0009 00

Equipment Conditions
Trailer uncoupled (WP 0012 00).

REMOVAL

WARNING

Vent air system before disconnecting air hoses. Pressurized air can blow dirt and debris with sufficient force to cause injury. Safety goggles must be worn when working with compressed air. Failure to comply may result in injury to personnel.

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

NOTE

Tag air hoses and connection points prior to disconnecting.

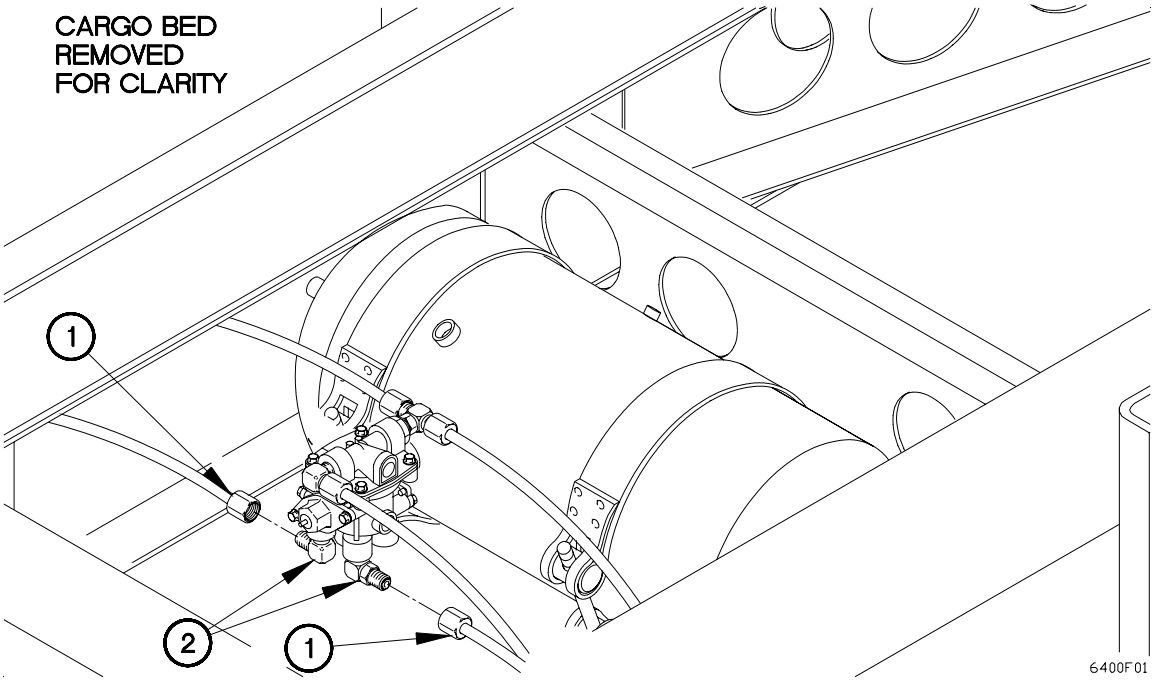
SPRING BRAKE VALVE REPLACEMENT - Continued 0063 00

REMOVAL - Continued

NOTE

Perform step (1) on LMTVT.

1. Disconnect two air hoses (1) from 90-degree fittings (2).



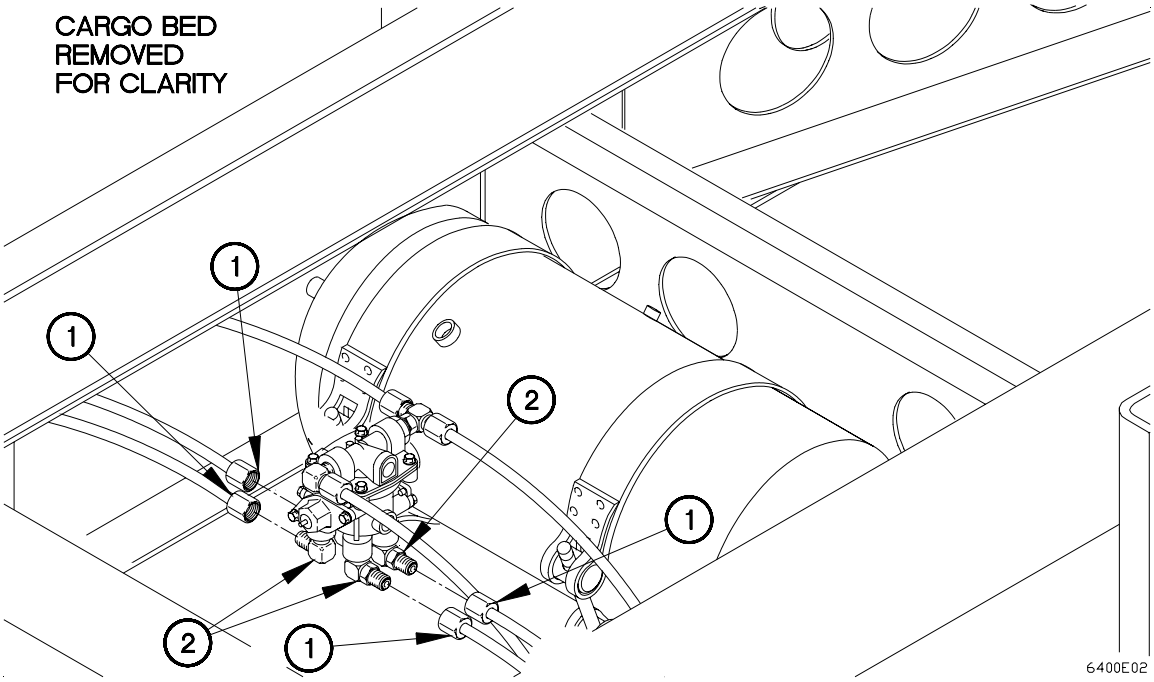
SPRING BRAKE VALVE REPLACEMENT - Continued 0063 00

REMOVAL - Continued

NOTE

Perform step (2) on MTVT.

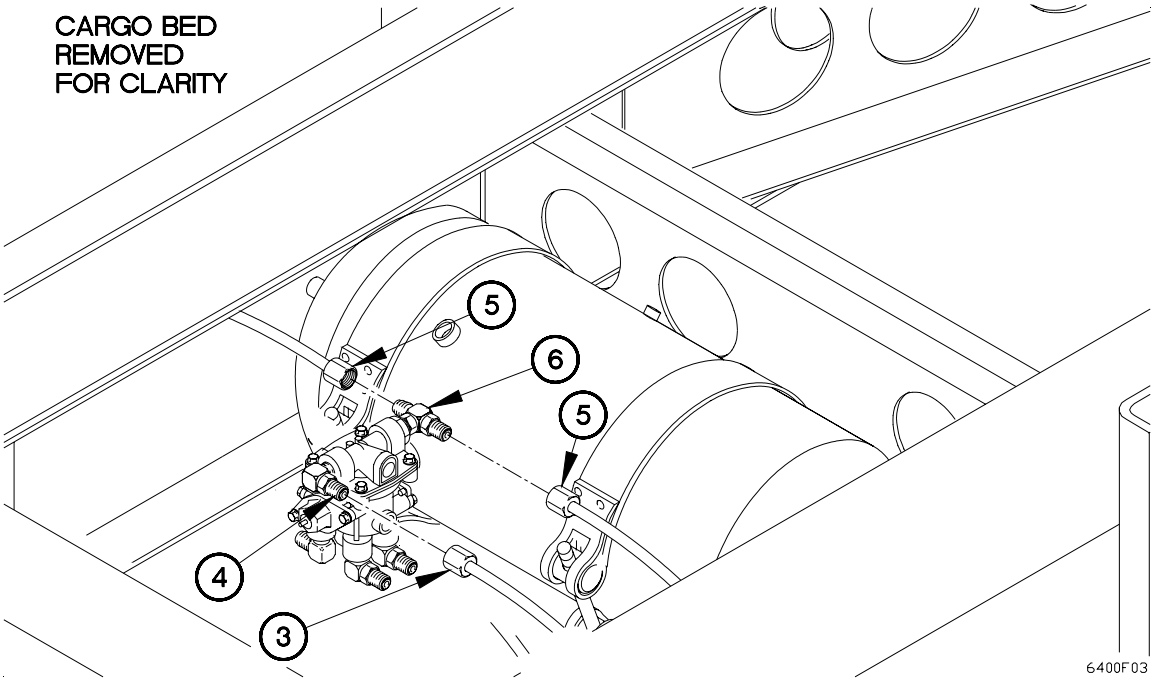
2. Disconnect four air hoses (1) from 90-degree fittings (2).



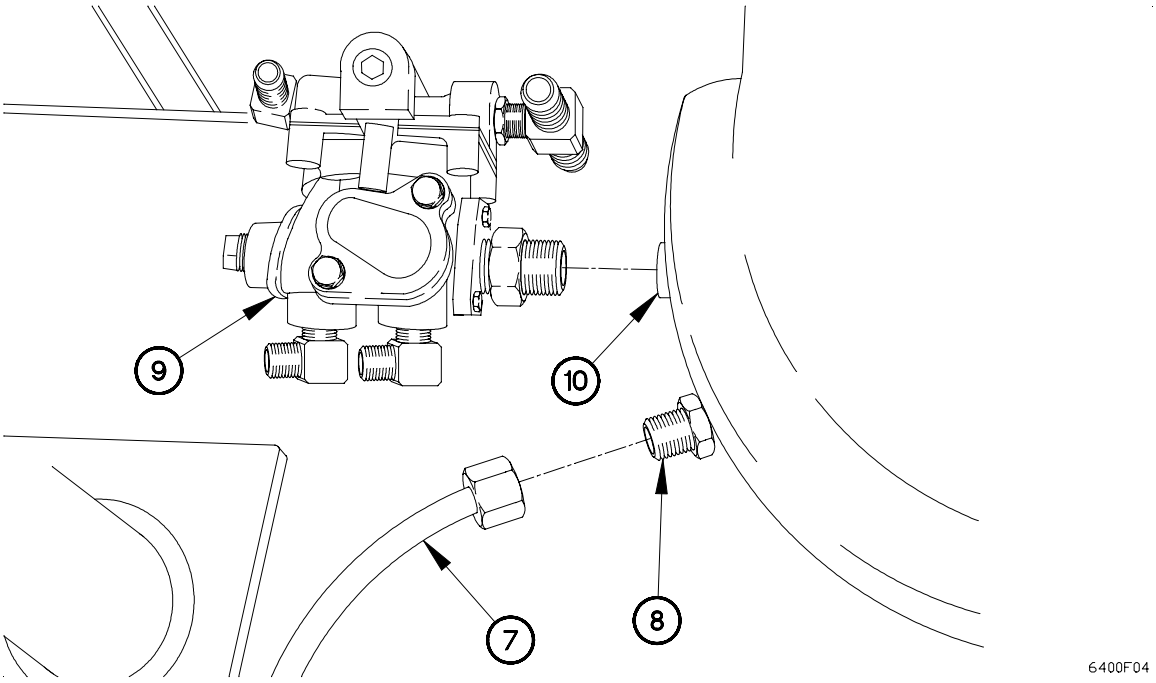
SPRING BRAKE VALVE REPLACEMENT - Continued 0063 00

REMOVAL - Continued

3. Disconnect air hose (3) from 90-degree fitting (4).
4. Disconnect two air hoses (5) from tee fitting (6).



5. Disconnect air hose (7) from fitting (8).
6. Remove spring brake valve (9) from air tank (10).

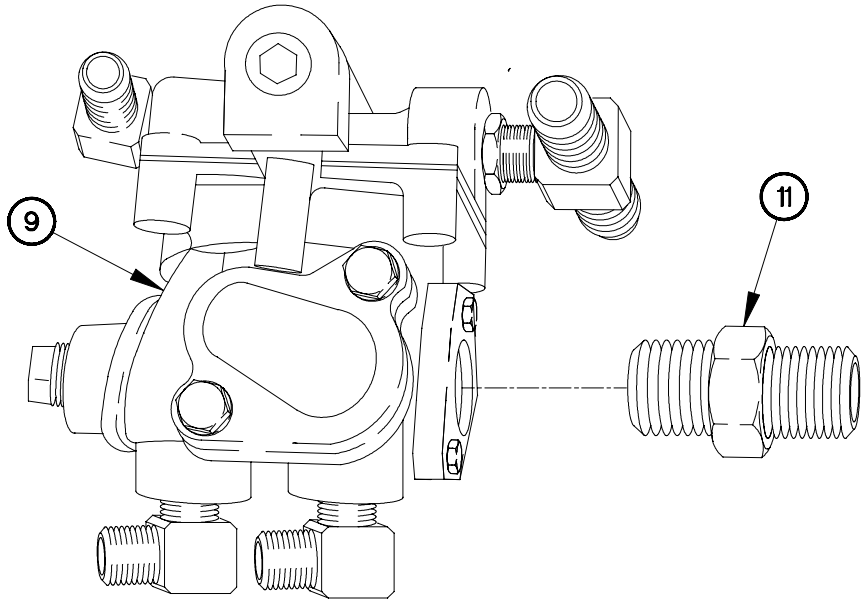


SPRING BRAKE VALVE REPLACEMENT - Continued 0063 00

REMOVAL - Continued

NOTE
Note orientation of fittings prior to removal.

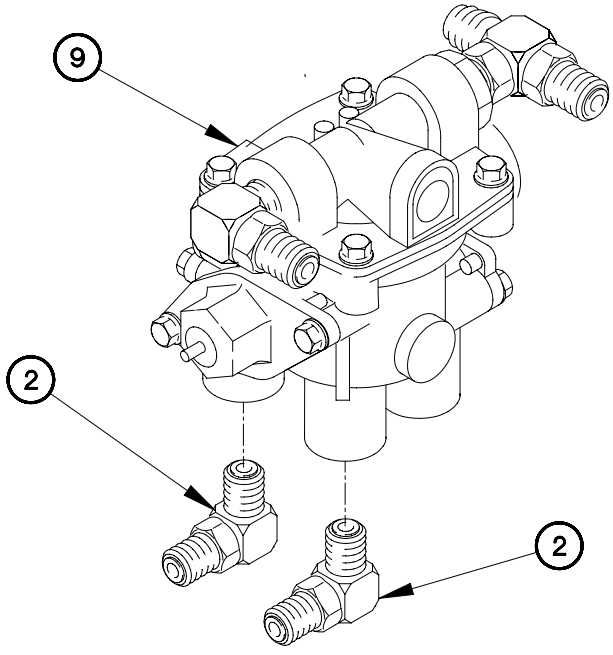
7. Remove fitting (11) from spring brake valve (9).



6400F05

NOTE
Perform step (8) on LMTVT.

8. Remove two 90-degree fittings (2) from spring brake valve (9).



6400F06

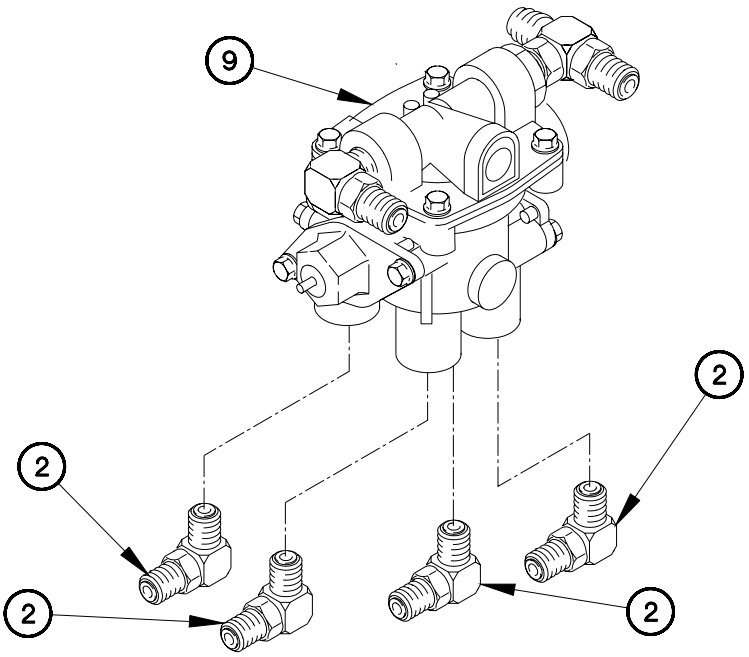
SPRING BRAKE VALVE REPLACEMENT - Continued 0063 00

REMOVAL - Continued

NOTE

Perform step (9) on MTVT.

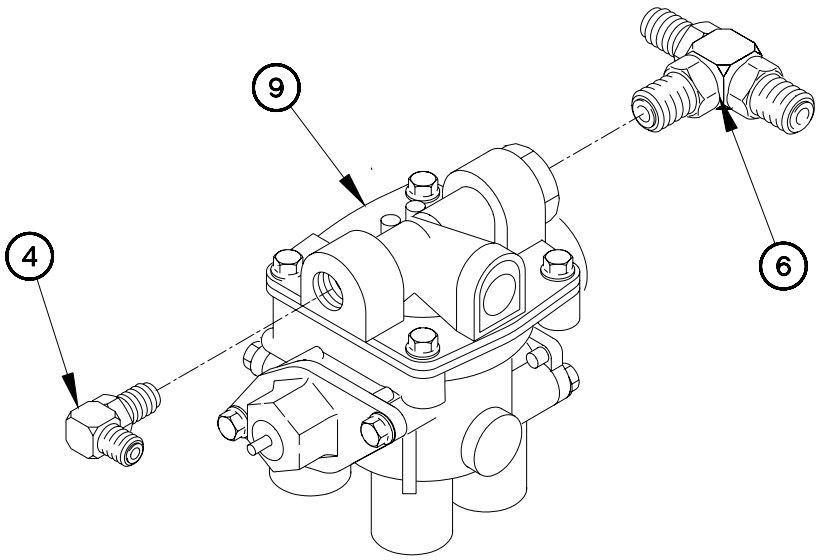
9. Remove four 90-degree fittings (2) from spring brake valve (9).



6400E07

10. Remove 90-degree fitting (4) from spring brake valve (9).

11. Remove tee fitting (6) from spring brake valve (9).



6400F08

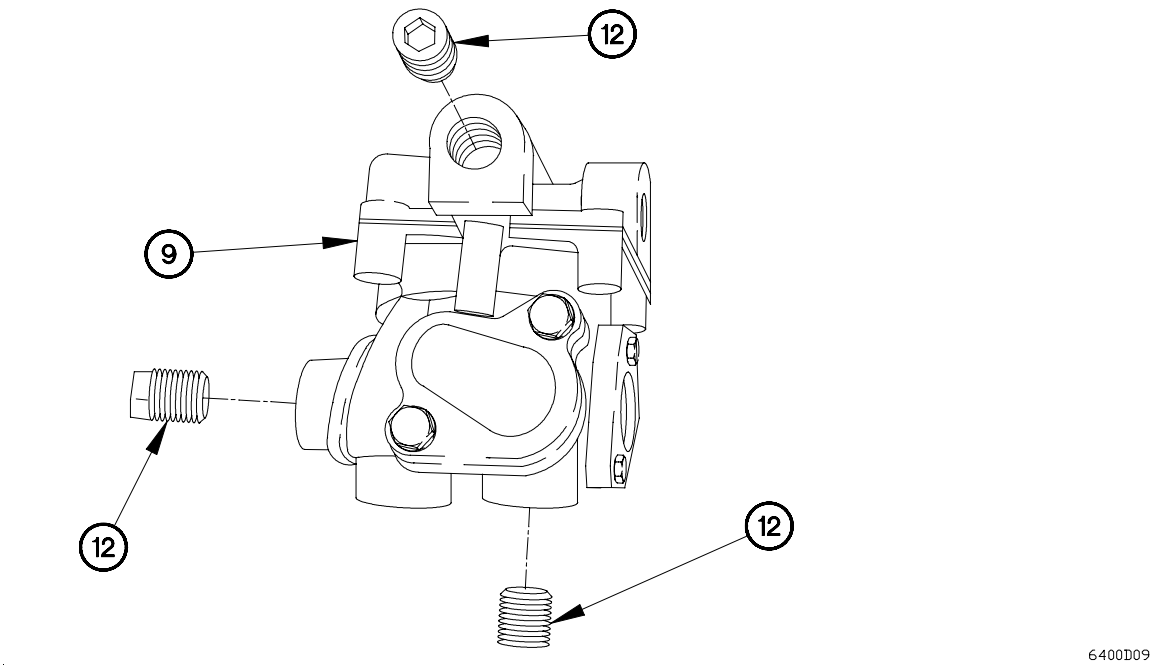
SPRING BRAKE VALVE REPLACEMENT - Continued 0063 00

REMOVAL - Continued

NOTE

Perform step (12) on LMTVT.

12. Remove three plugs (12) from spring brake valve (9).



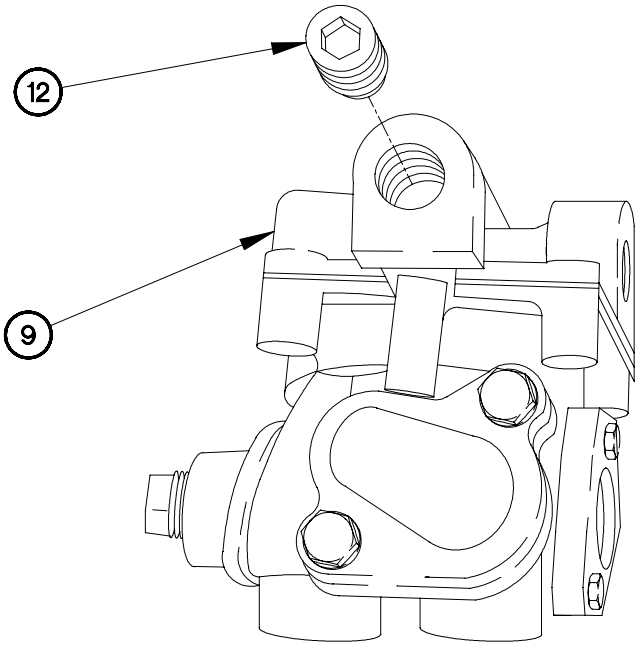
SPRING BRAKE VALVE REPLACEMENT - Continued 0063 00

REMOVAL - Continued

NOTE

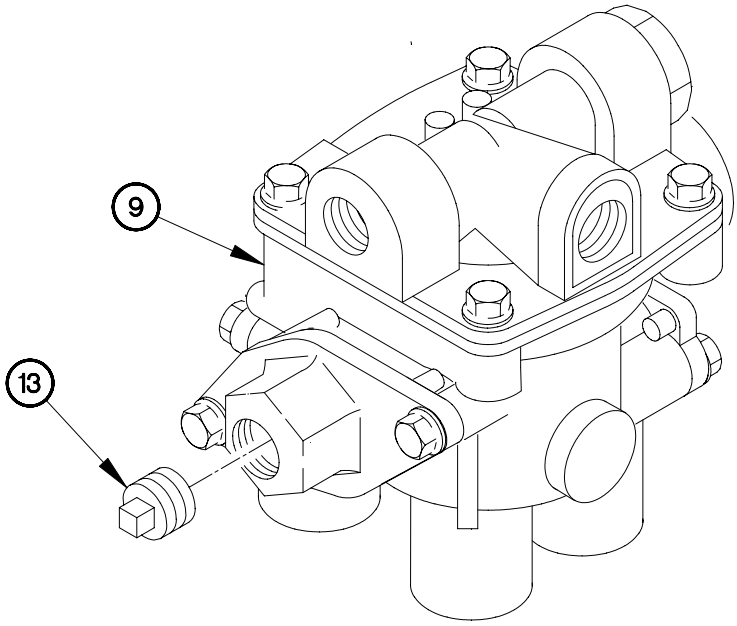
Perform step (13) on MTVT.

13. Remove plug (12) from spring brake valve (9).



6400E10

14. Remove plug (13) from spring brake valve (9).



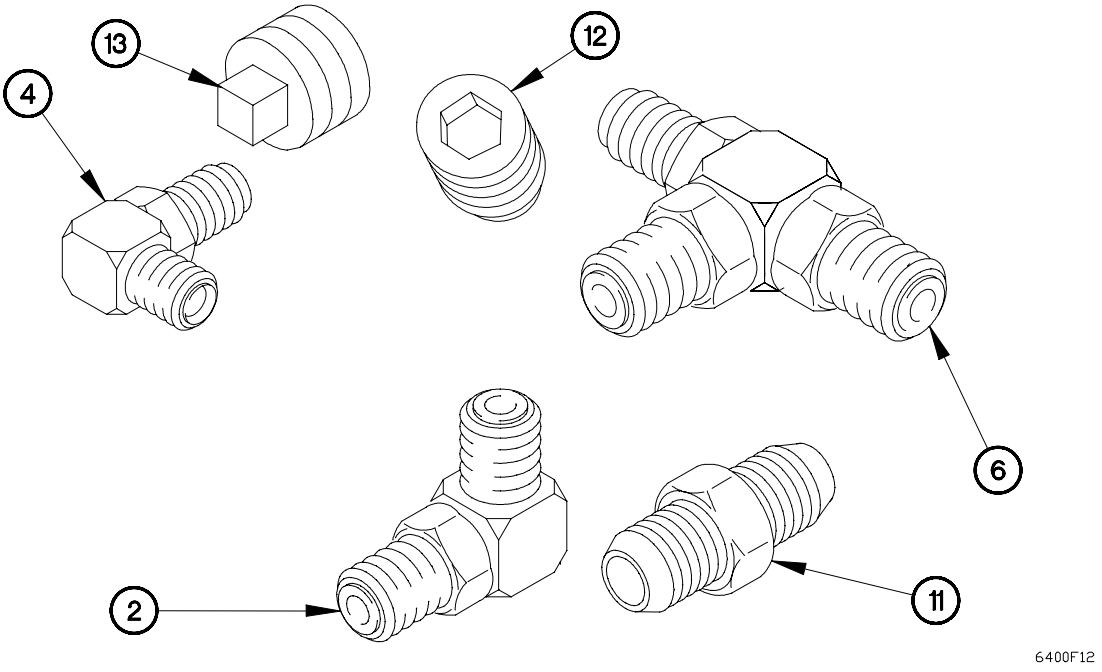
6400F11

INSTALLATION

WARNING

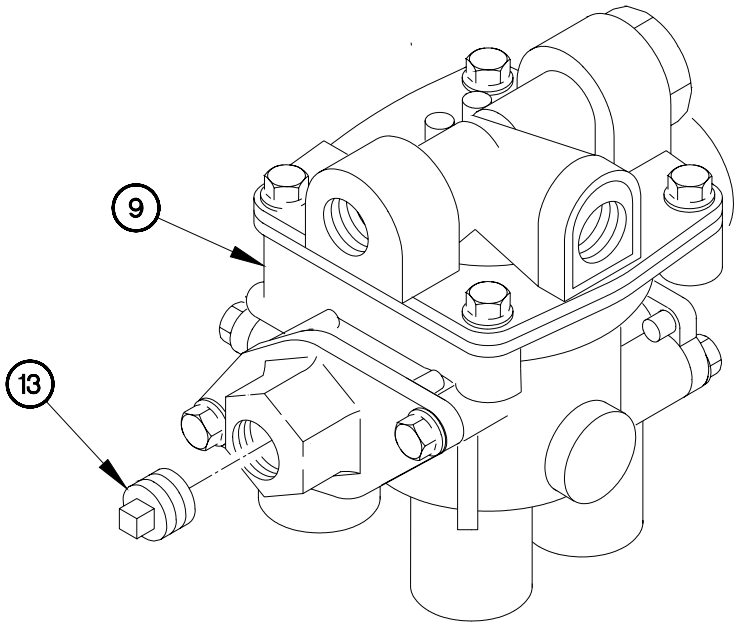
Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in a well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

1. Apply antiseize compound to threads of plug (13), plug(s) (12), tee fitting (6), 90-degree fitting (4), 90-degree fittings (2), fitting (11).



INSTALLATION - Continued

2. Install plug (13) in spring brake valve (9).

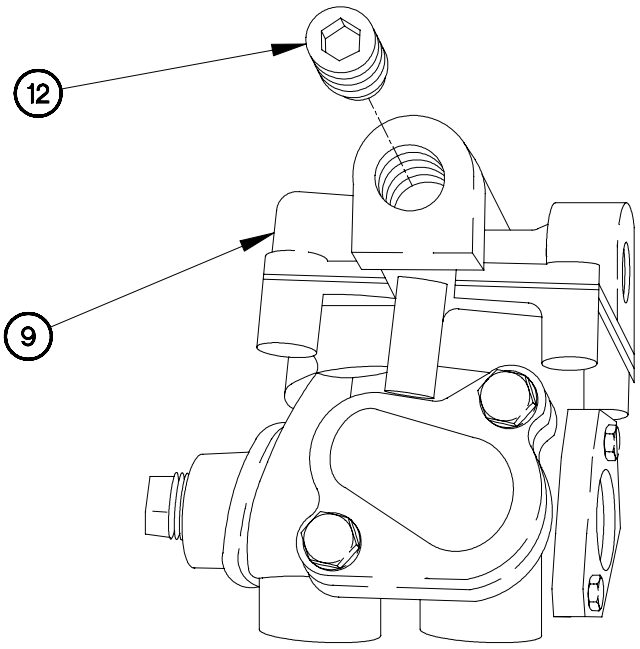


6400F11

NOTE

Perform step (3) on MTVT.

3. Install plug (12) in spring brake valve (9).



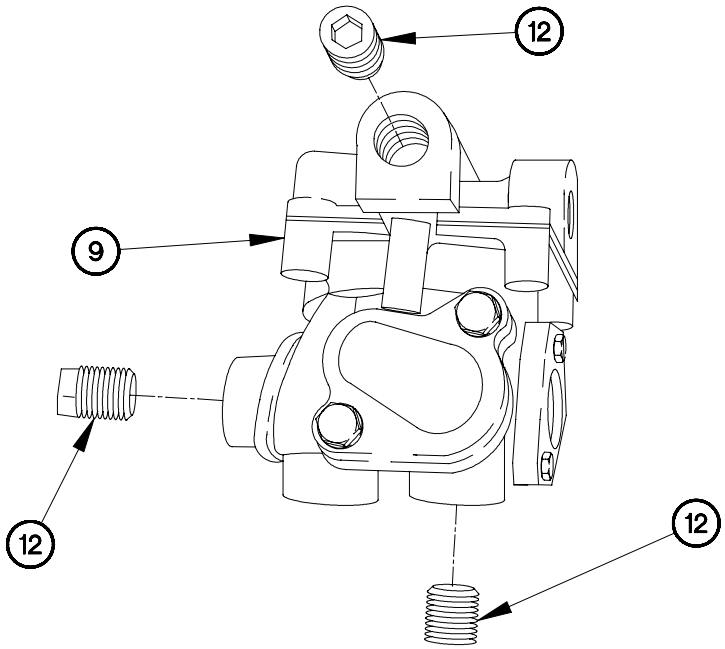
6400E10

INSTALLATION - Continued

NOTE

Perform step (4) on LMTVT.

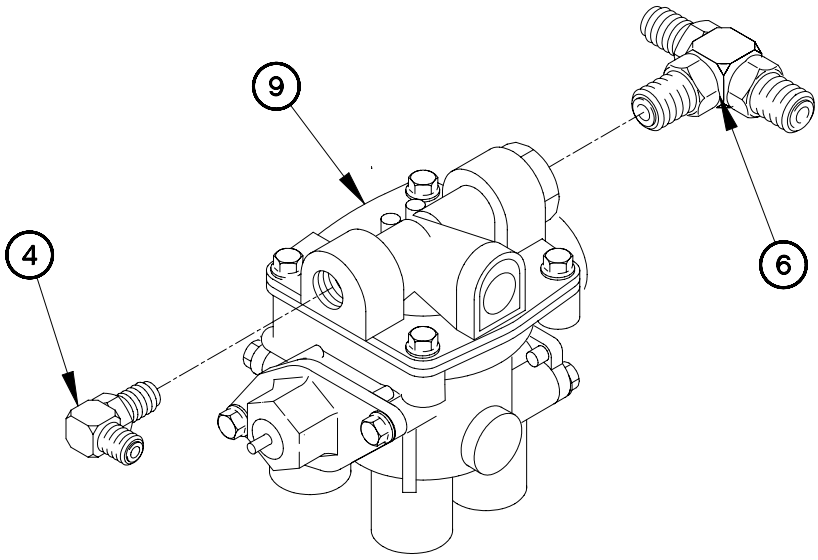
4. Install three plugs (12) in spring brake valve (9).



6400D09

5. Install tee fitting (6) in spring brake valve (9).

6. Install 90-degree fitting (4) in spring brake valve (9).



6400F08

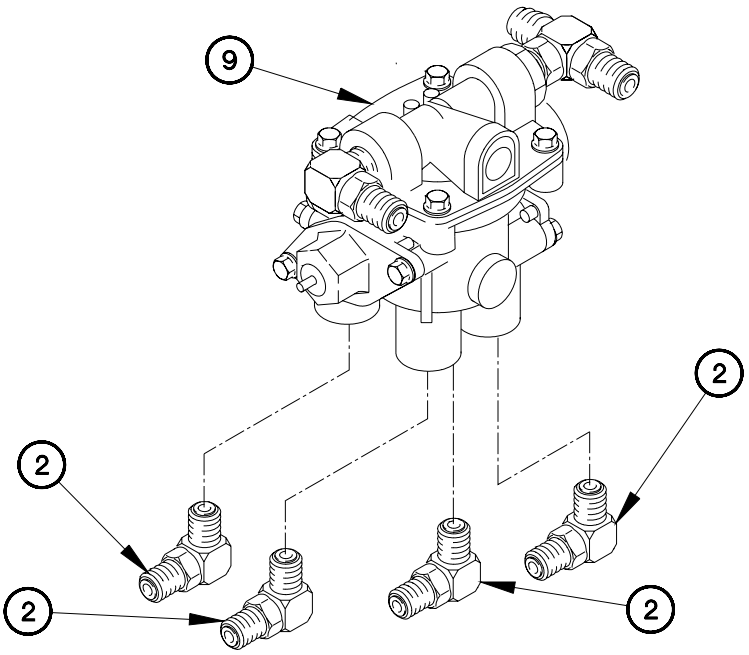
SPRING BRAKE VALVE REPLACEMENT - Continued 0063 00

INSTALLATION - Continued

NOTE

Perform step (7) on MTVT.

7. Install four 90-degree fittings (2) in spring brake valve (9).



6400E07

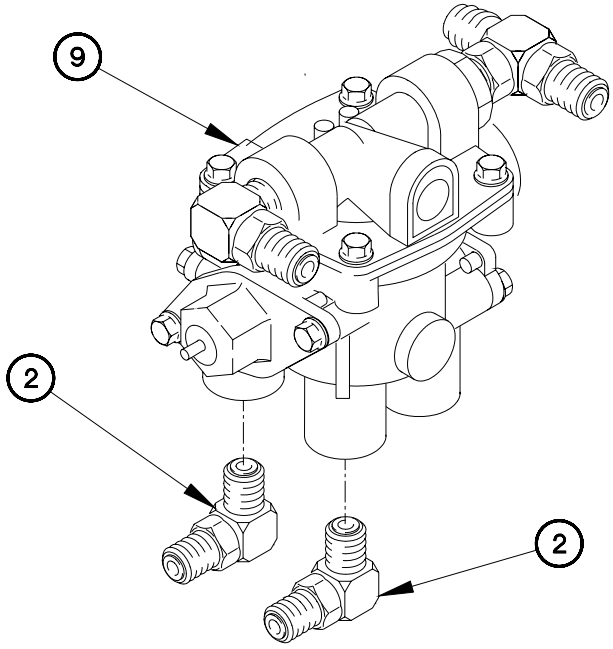
SPRING BRAKE VALVE REPLACEMENT - Continued 0063 00

INSTALLATION - Continued

NOTE

Perform step (8) on LMTVT.

8. Install two 90-degree fittings (2) in spring brake valve (9).



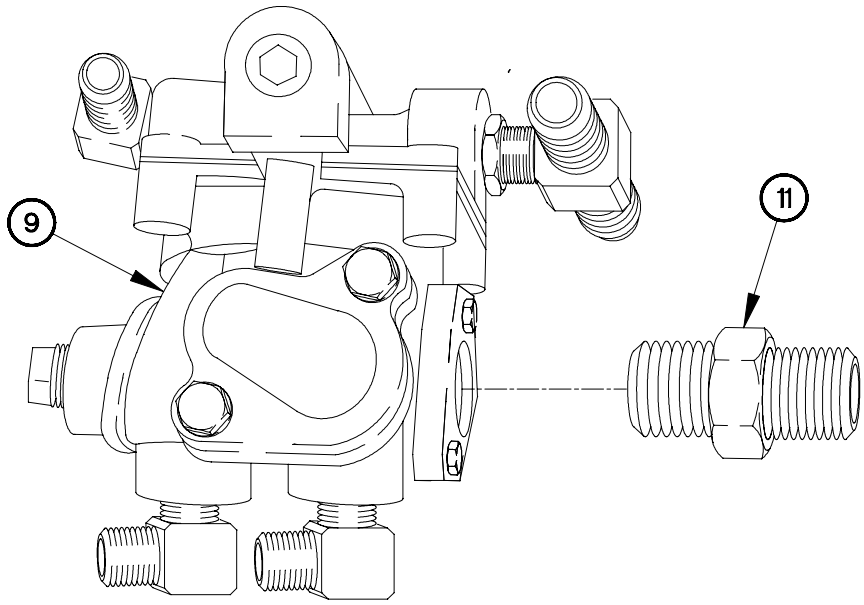
6400F06

INSTALLATION - Continued

NOTE

Install fitting, spring brake valve, and air hose the same way on LMTVT and MTVT. The MTVT shown.

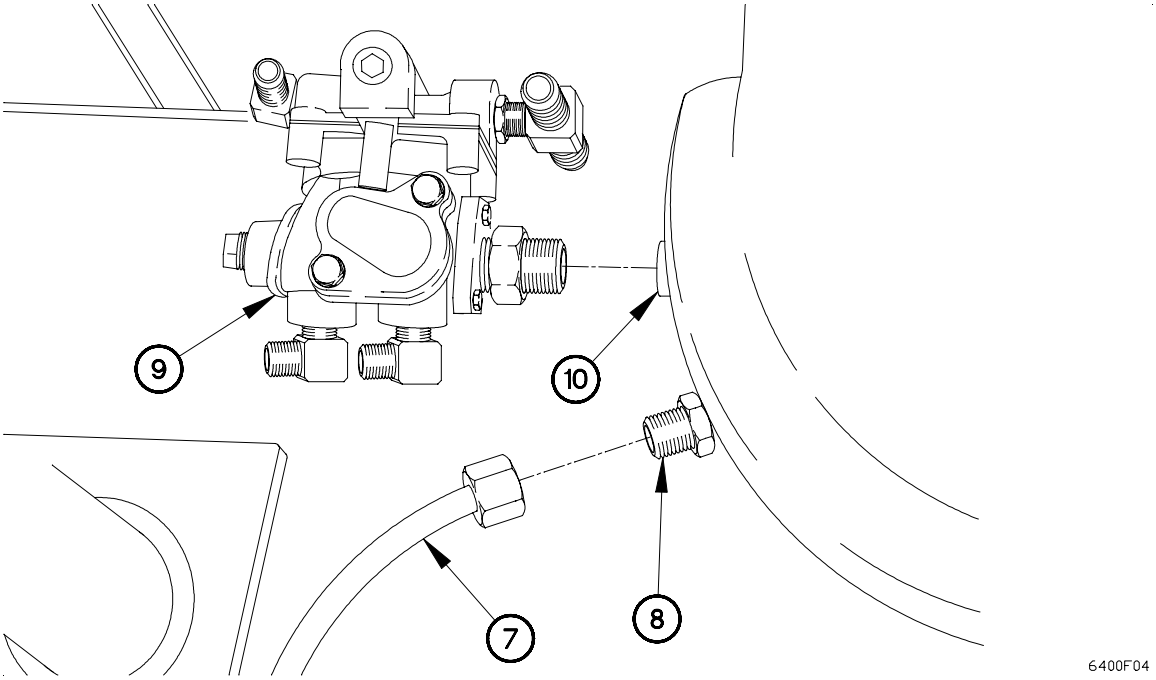
9. Install fitting (11) in spring brake valve (9).



6400F05

10. Install spring brake valve (9) in air tank (10).

11. Connect air hose (7) to fitting (8).



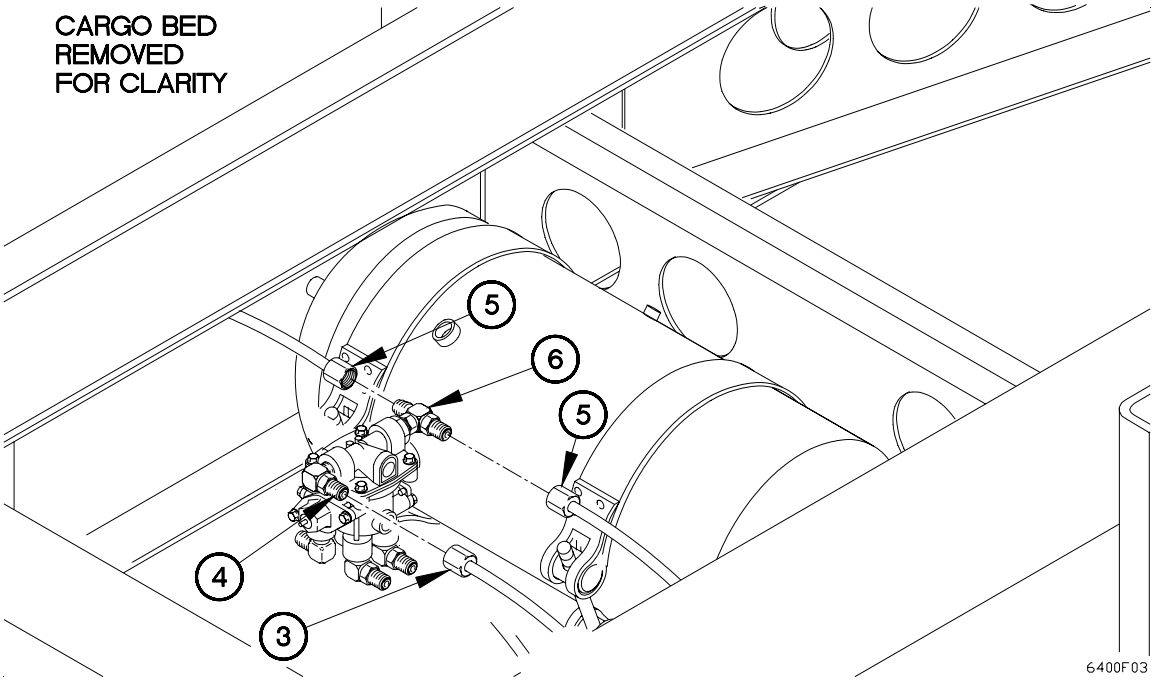
6400F04

SPRING BRAKE VALVE REPLACEMENT - Continued 0063 00

INSTALLATION - Continued

12. Connect two air hoses (5) to tee fitting (6).

13. Connect air hose (3) to 90-degree fitting (4).



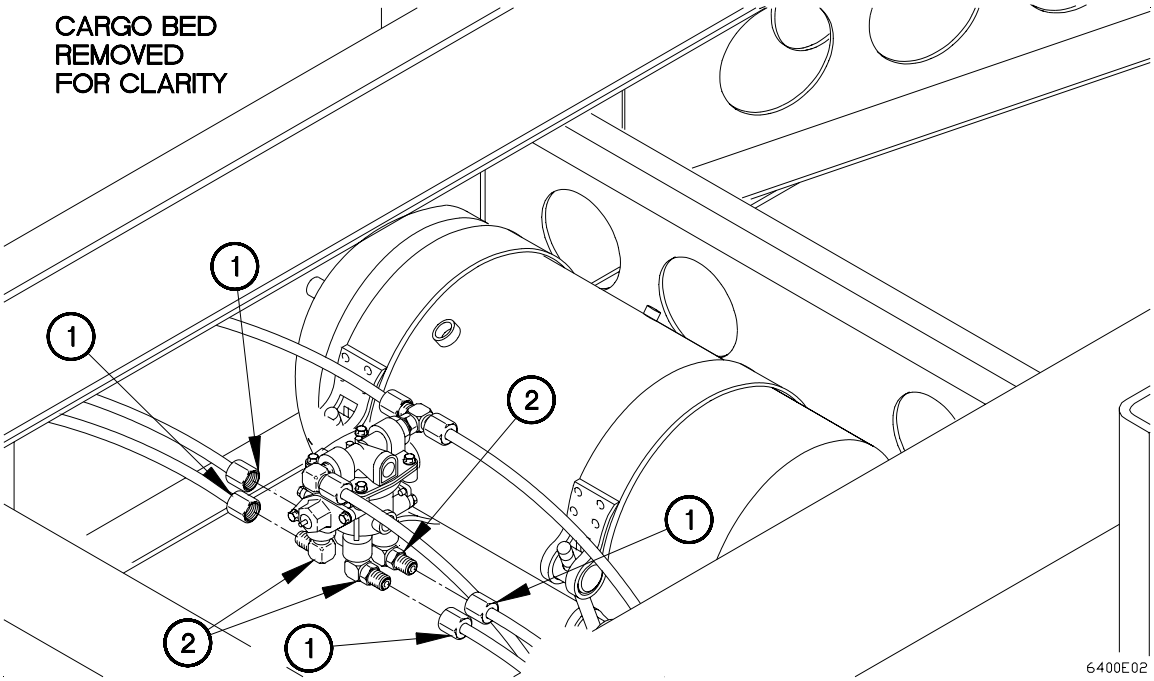
SPRING BRAKE VALVE REPLACEMENT - Continued 0063 00

INSTALLATION - Continued

NOTE

Perform step (14) on MTVT.

14. Connect four air hoses (1) to 90-degree fittings (2).



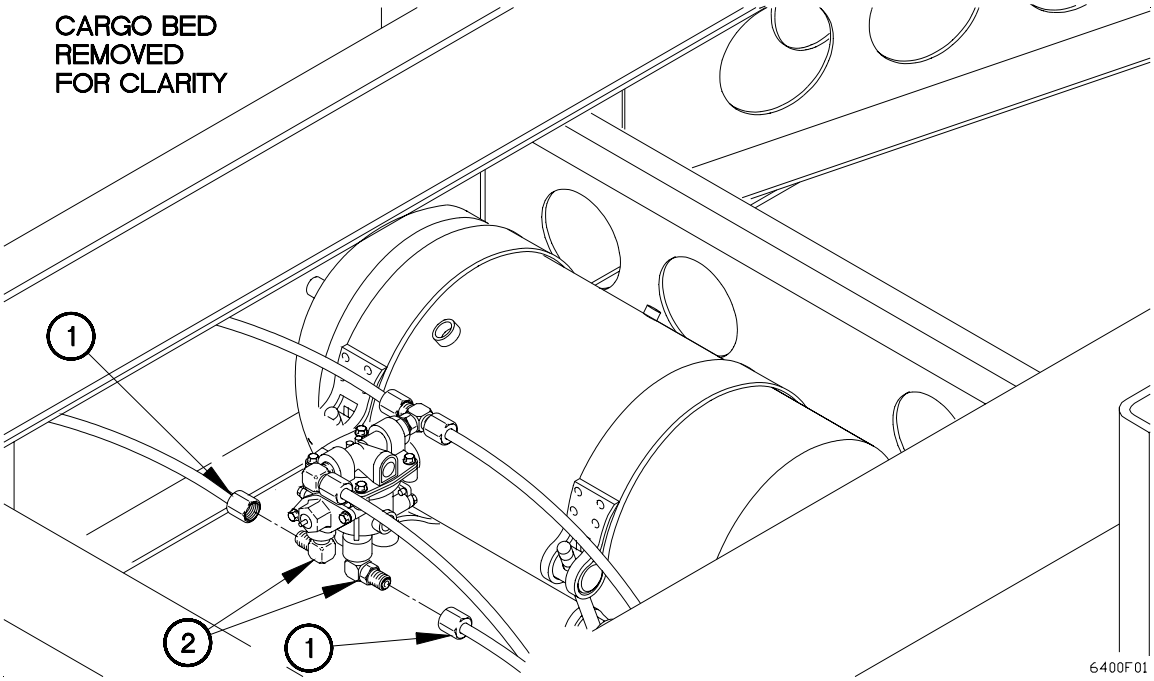
SPRING BRAKE VALVE REPLACEMENT - Continued 0063 00

INSTALLATION - Continued

NOTE

Perform step (15) on MTVT.

15. Connect two air hoses (1) to 90-degree fittings (2).



OPERATIONAL CHECK

1. Couple trailer to towing vehicle (WP 0009 00, Coupling Trailer). Allow towing vehicle engine time for air pressure to reach normal operating pressure.

NOTE

Do not drain air tank as part of trailer uncoupling task.

2. Uncouple trailer (WP 0012 00, Uncoupling Trailer).
3. Check around air supply valve and hoses for air leaks.
4. Couple trailer (WP 0009 00, Coupling Trailer).
5. Road test trailer and check for proper brake operation.
6. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

AIR TANK REPLACEMENT 0064 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Goggles, Industrial (Item 8, WP 0178 00)
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-300 lb-in (Item 51, WP 0178 00)

Materials/Parts
Dispenser, Pressure Sensitive AdhesiveTape (Item 10, WP 0176 00)
Antiseize Compound (Item 3, WP 0176 00)
Nut, Self-locking (2) (Item 14, WP 0181 00)

References
Towing vehicle Operator manual
WP 0009 00
WP 0012 00
WP 0063 00

Equipment Conditions
Spring brake valve removed (WP 0063 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

REMOVAL

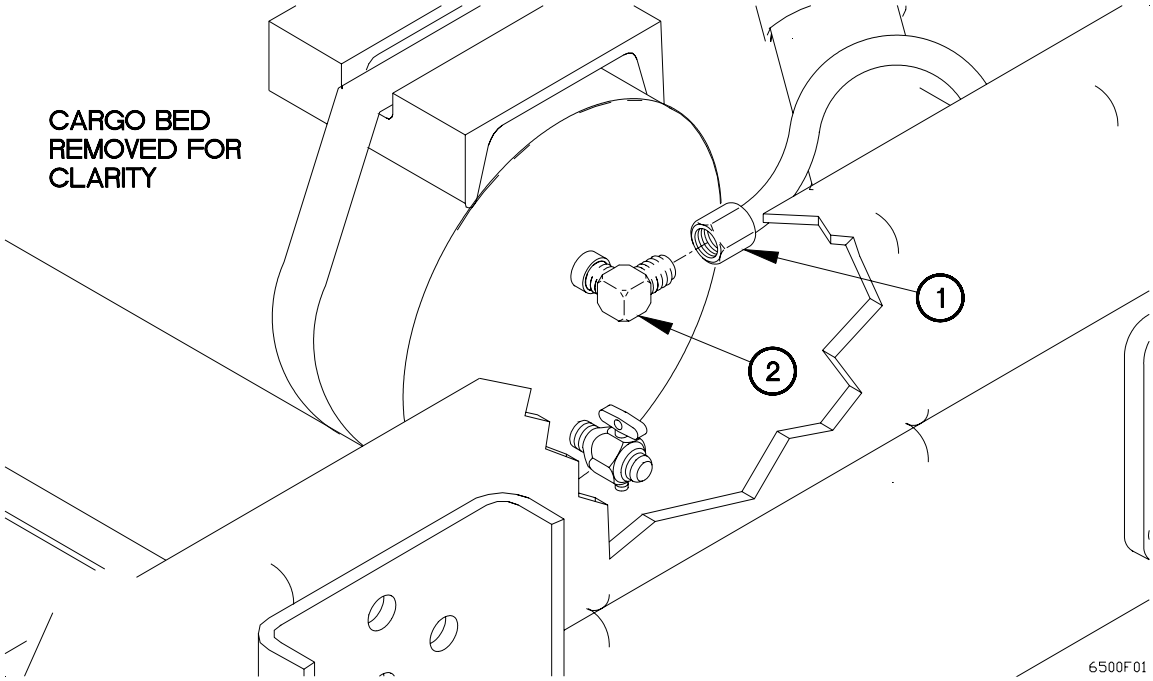
NOTE

Tag air hoses and connection points prior to disconnecting.

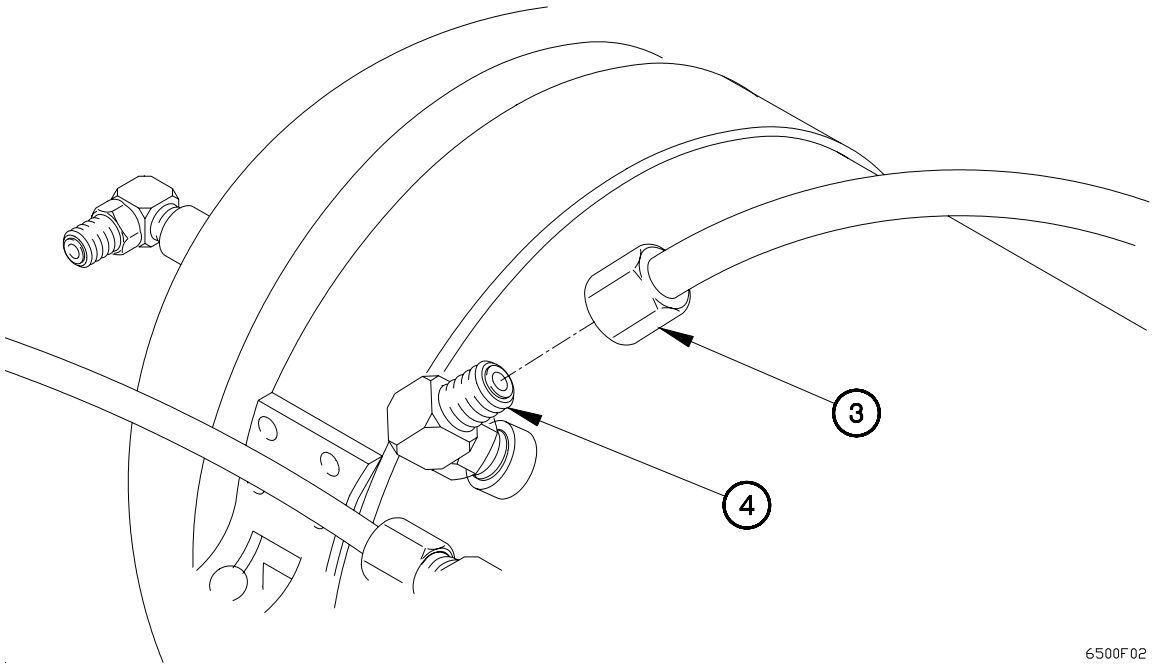
AIR TANK REPLACEMENT - Continued 0064 00

REMOVAL - Continued

1. Disconnect air hose (1) from 90-degree fitting (2).



2. Disconnect air hose (3) from 90-degree fitting (4).

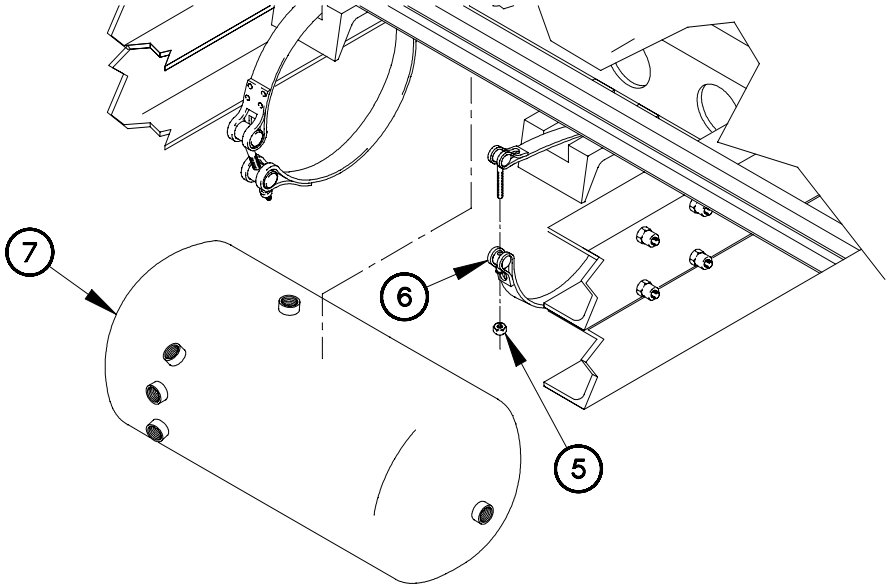


AIR TANK REPLACEMENT - Continued 0064 00

REMOVAL - Continued

3. Remove two self-locking nuts (5) from clamps (6). Discard self-locking nuts.

4. Remove air tank (7) from clamps (6).



6500F04

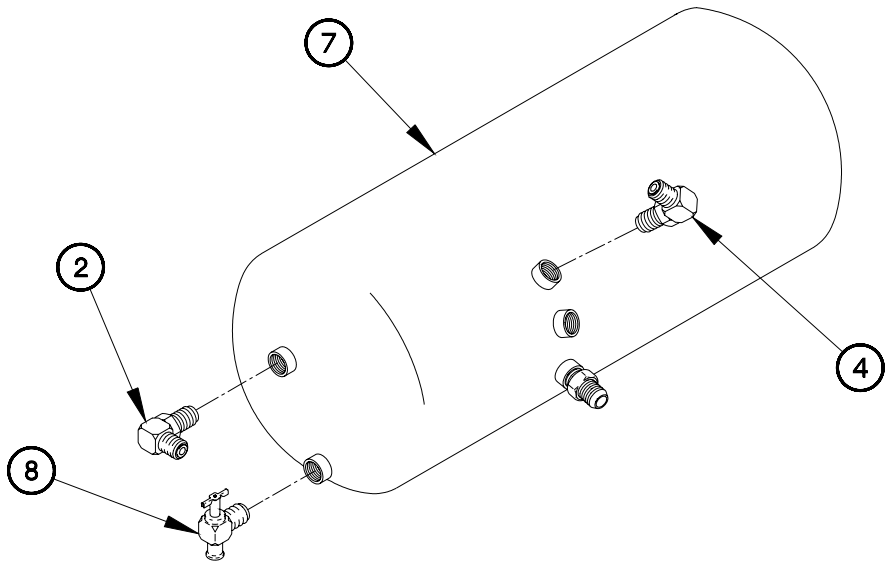
AIR TANK REPLACEMENT - Continued 0064 00

REMOVAL - Continued

NOTE

Note orientation of fittings prior to removal.

5. Remove 90-degree fitting (2) from air tank (7).
6. Remove 90-degree fitting (4) from air tank (7).
7. Remove drain valve (8) from air tank (7).

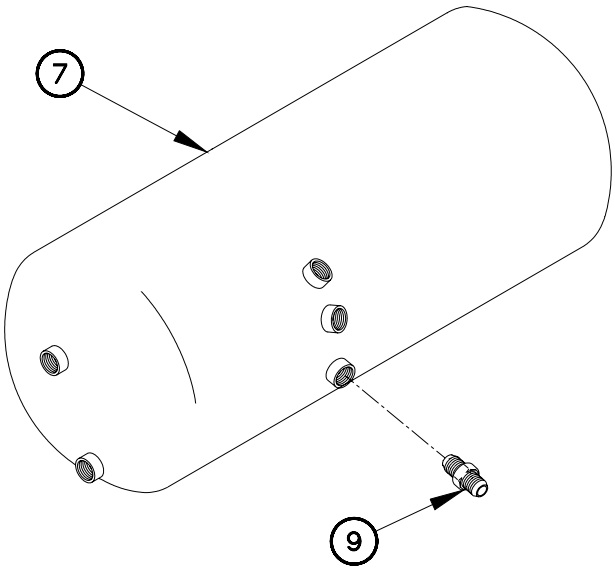


6500F05

AIR TANK REPLACEMENT - Continued 0064 00

REMOVAL - Continued

8. Remove fitting (9) from air tank (7).



6500F06

AIR TANK REPLACEMENT - Continued 0064 00

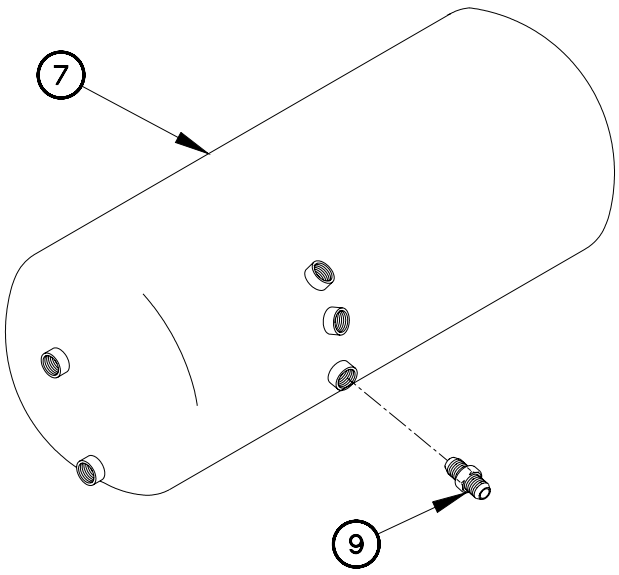
INSTALLATION

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

1. Apply antiseize compound to threads of fitting (9).

2. Install fitting (9) in air tank (7).



6500F06

AIR TANK REPLACEMENT - Continued 0064 00

INSTALLATION - Continued

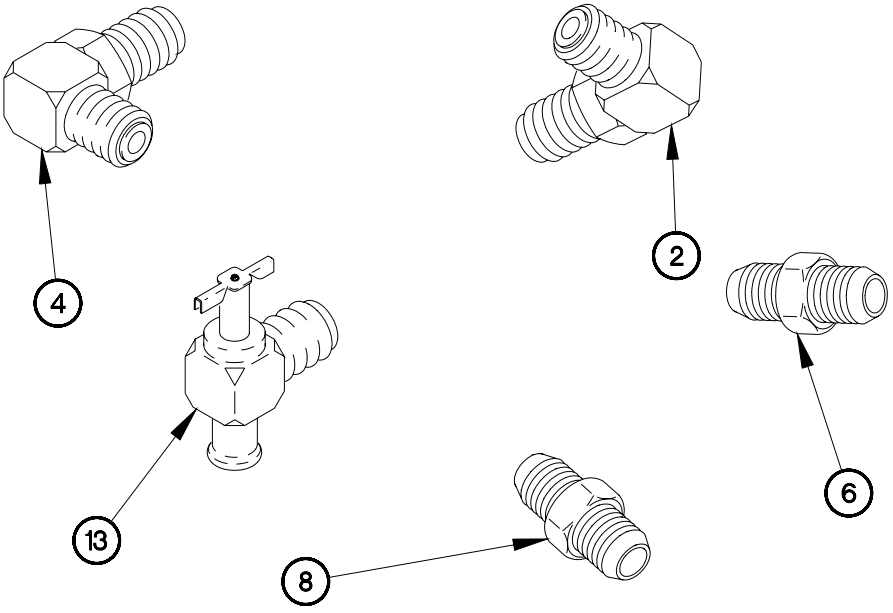
WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

3. Apply antiseize compound to threads of drain valve (9) and 90-degree fittings (2 and 4).

4. Install drain valve (8) in air tank (7).

5. Install 90-degree fittings (2 and 4) in air tank (7).



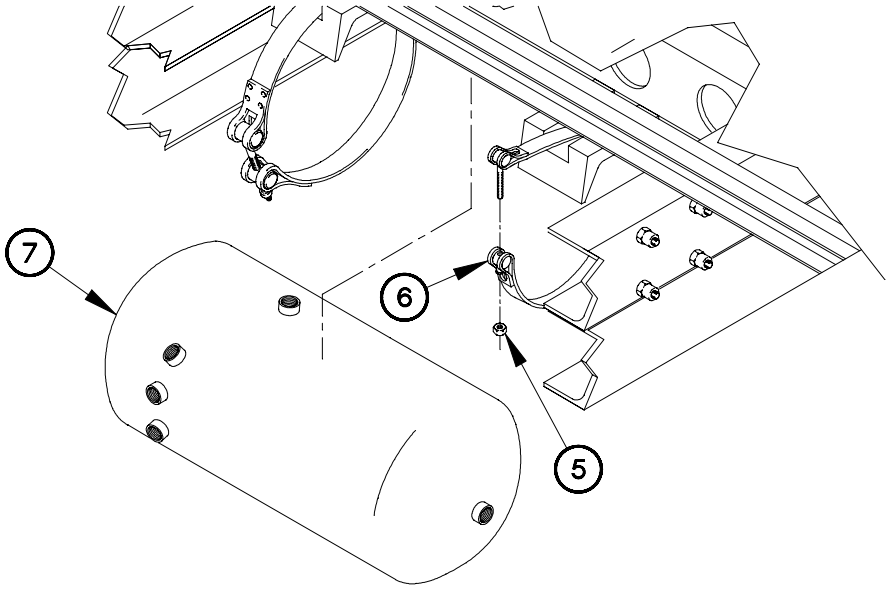
6500F07

AIR TANK REPLACEMENT - Continued 0064 00

INSTALLATION - Continued

6. Position air tank (7) in two clamps (6) with two self-locking nuts (5).

7. Tighten two self-locking nuts (5) to 61-79 lb-in. (7-9 N•m).

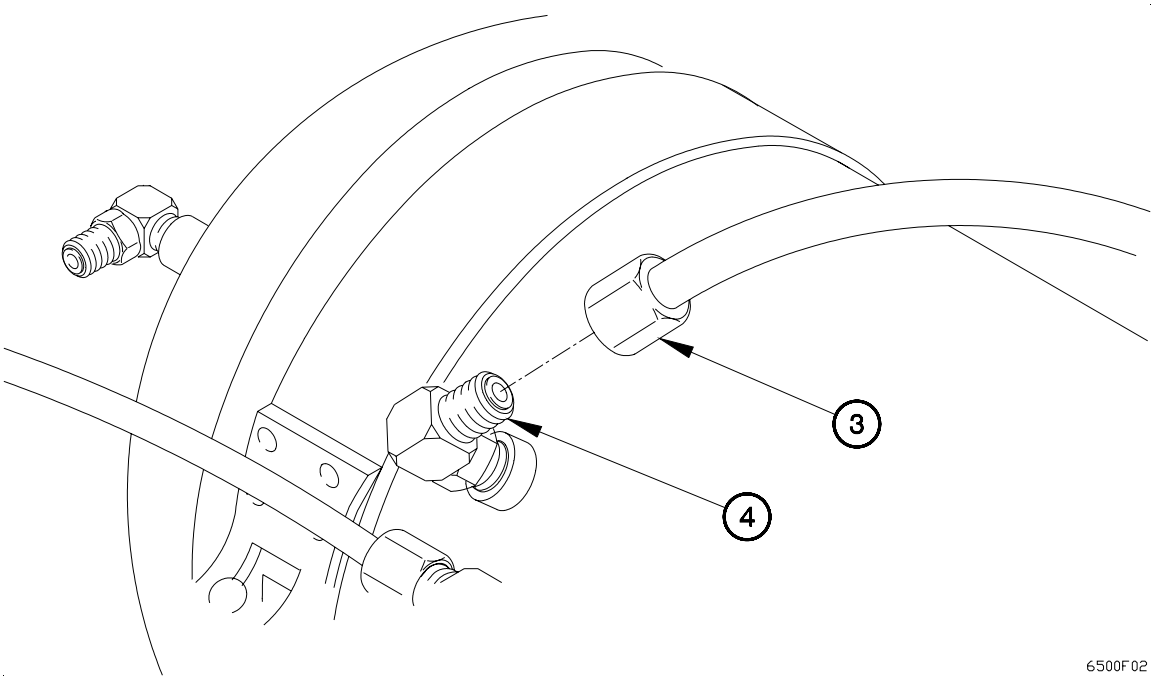


6500F04

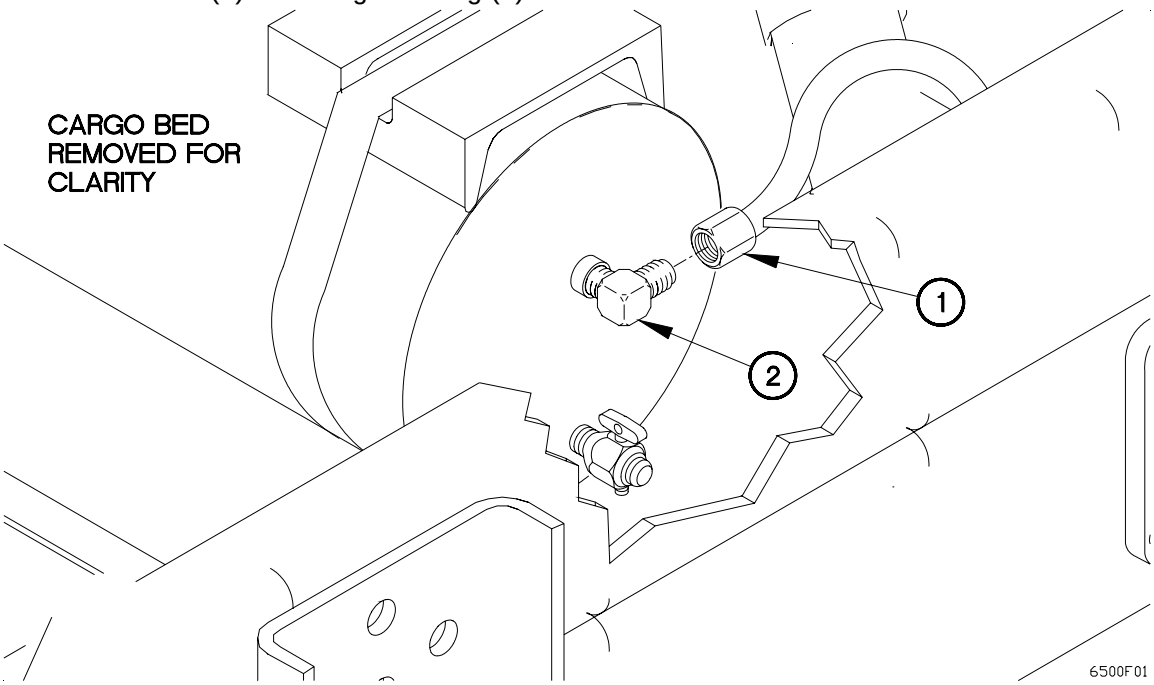
AIR TANK REPLACEMENT - Continued 0064 00

INSTALLATION - Continued

8. Connect air hose (3) to 90-degree fitting (4).



9. Connect air hose (1) to 90-degree fitting (2).



AIR TANK REPLACEMENT 0064 00

OPERATIONAL CHECK

1. Install spring brake valve (WP 0063 00, Installation).
2. Couple trailer (WP 0009 00).
3. Start towing vehicle engine and allow time for air pressure to reach normal operating pressure.
4. Shut down towing vehicle engine.
5. Check around air hoses, fittings, and valve for air leaks.
6. Start towing vehicle engine.
7. Road test trailer and check for proper brake operation.
8. Uncouple trailer (WP 0012 00).

END OF WORK PACKAGE.

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) 0065 00

THIS WORK PACKAGE COVERS:

Removal, MTVT; Installation, MTVT; Removal, LMTVT; Installation, LMTVT; Operational Check

INITIAL SETUP:

Maintenance Level

Field

Tools and Special Tools

Tool Kit, Genl Mech (Item 37, WP 0178 00)
Tool Kit, Electrical Contact Repair (Item 36, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench, Torque, 0-300 lb-in (Item 51, WP 0178 00)

Materials/Parts

Dispenser, Pressure Sensitive Adhesive Tape (Item 10, WP 0176 00)
Antiseize Compound (Item 3, WP 0176 00)
Ties, Cable, Plastic (Item 37, WP 0176 00)

References

WP 0009 00
Towing vehicle Operator manual

Equipment Conditions

Trailer uncoupled (WP 0012 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

Trailer must be uncoupled from towing vehicle prior to performing this task to avoid risk of electrocution. Failure to comply may result in injury to personnel.

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) - Continued 0065 00

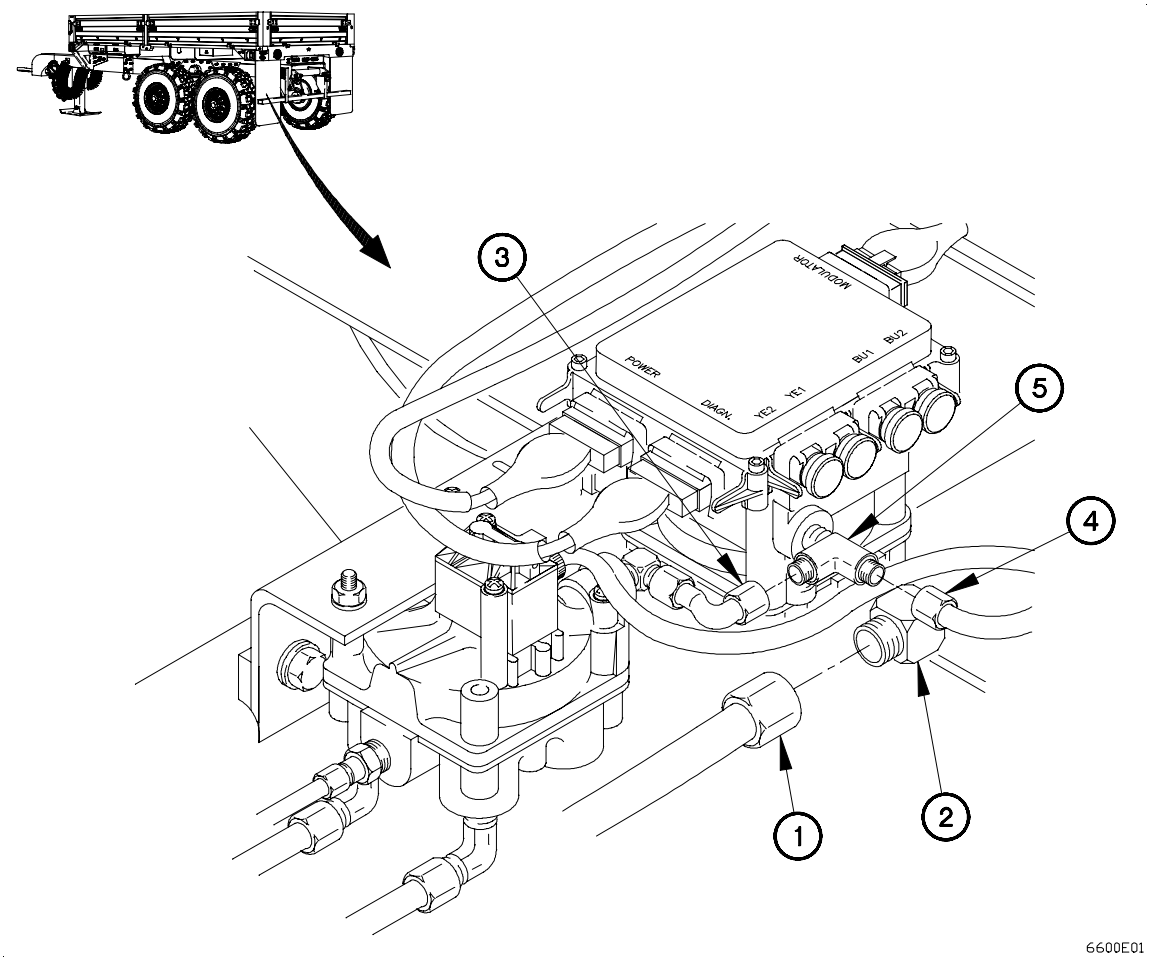
REMOVAL, MTVT

NOTE

Tag air hoses, electrical cables, and connection points prior to disconnecting.

Remove plastic cable ties as required.

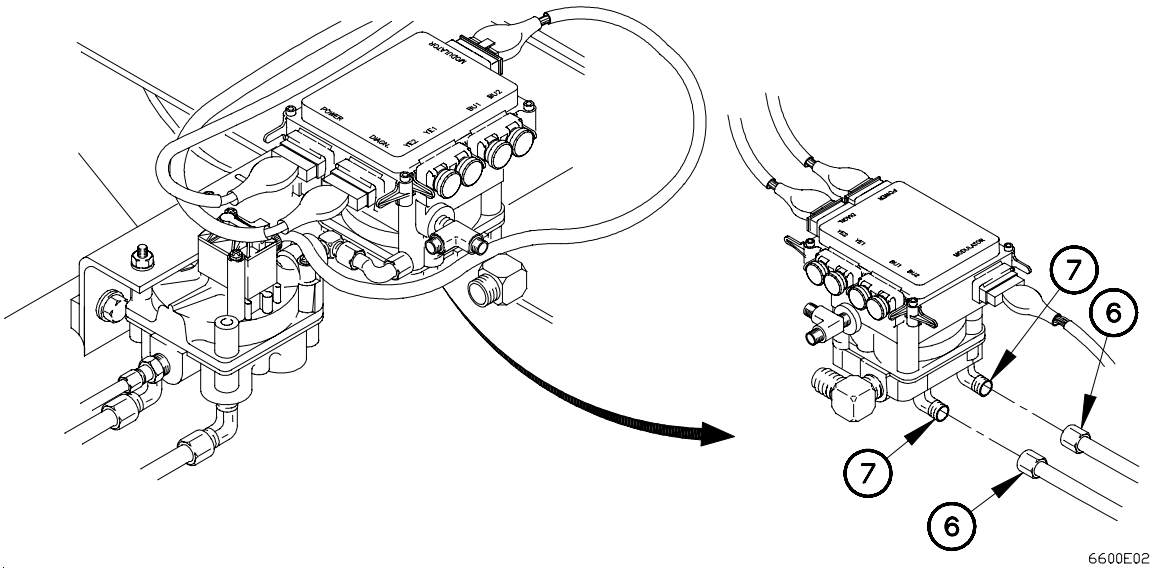
1. Disconnect air hose (1) from 90-degree fitting (2).
2. Disconnect air hoses (3 and 4) from tee fitting (5).



ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) - Continued 0065 00

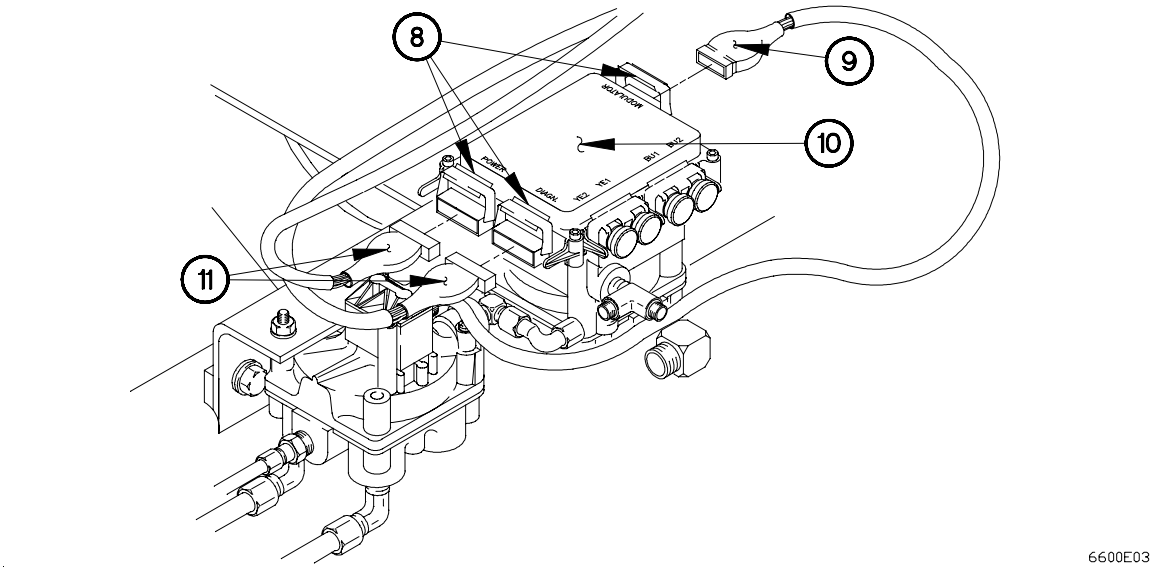
REMOVAL, MTVT - Continued

3. Disconnect two air hoses (6) from 90-degree fittings (7).



4. Push connector retainer clip (8) up and disconnect connector (9) from Anti-Lock Braking System (ABS) ECU valve (10).

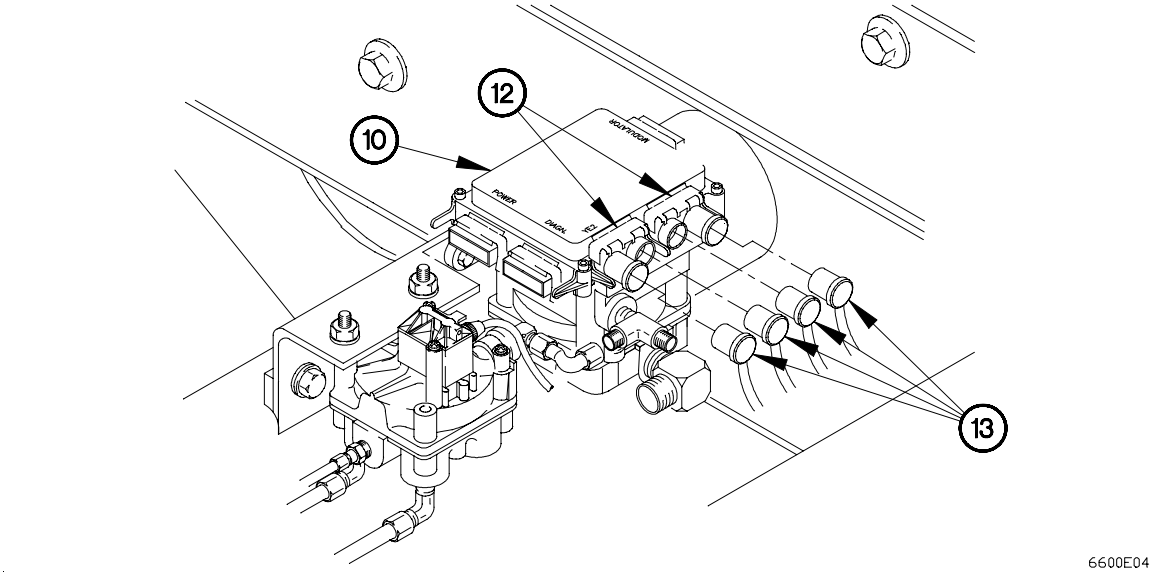
5. Push two connector retainer clips (8) up and disconnect connectors (11) from ABS ECU valve (10).



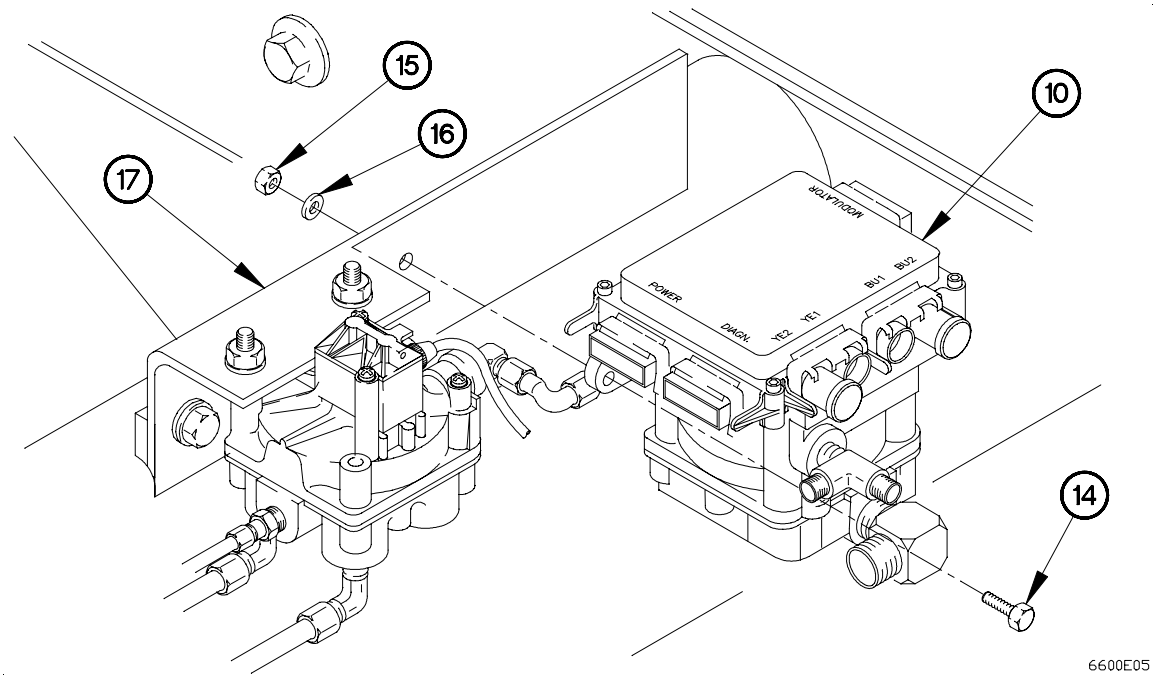
ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - 0065 00 (VEHICLES S/N 11,438 to 15,675) - Continued

REMOVAL, MTVT - Continued

6. Push two connector retainer clips (12) up and disconnect four connectors (13) from ABS ECU valve (10).



7. Remove two bolts (14), nuts (15), washers (16), and ABS ECU valve (10) from ABS control assembly bracket (17).



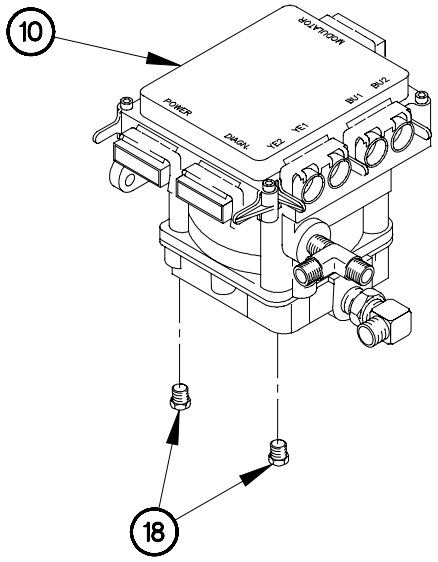
ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) - Continued 0065 00

REMOVAL, MTVT - Continued

NOTE

Note orientation of fittings prior to removal.

8. Remove two plugs (18) from ABS ECU valve (10).

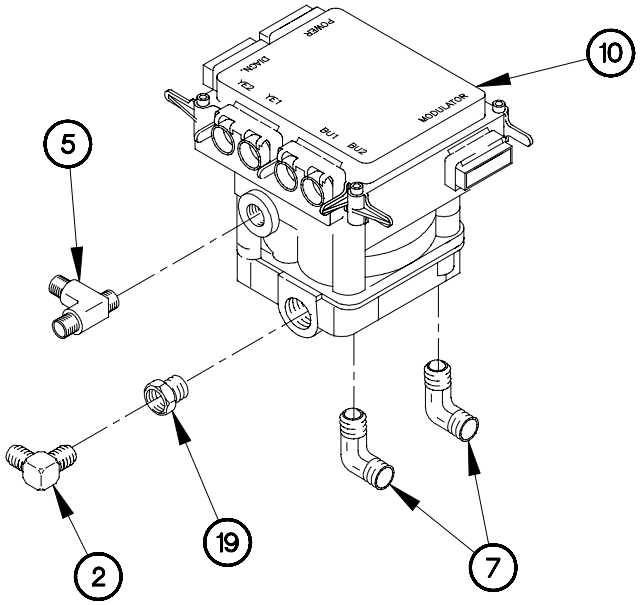


6600E06

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) - Continued 0065 00

REMOVAL, MTVT - Continued

9. Remove 90-degree fitting (2) from bushing (19).
10. Remove bushing (19) from ABS ECU valve (10).
11. Remove tee fitting (5) from ABS ECU valve (10).
12. Remove two 90-degree fittings (7) from ABS ECU valve (10).



6600E07

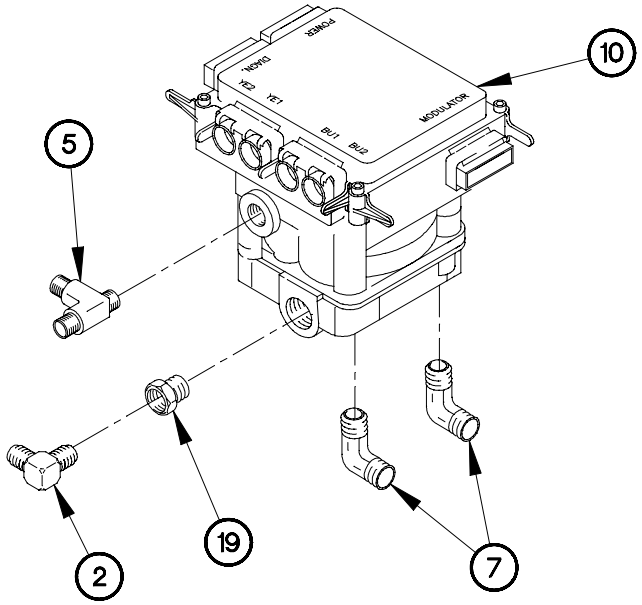
ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) - Continued 0065 00

INSTALLATION, MTVT

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

1. Apply antiseize compound to threads of 90-degree fittings (2 and 7), bushing (19), and tee fitting (5).
2. Install bushing (19) in ABS ECU valve (10).
3. Install 90-degree fitting (2) in bushing (19).
4. Install tee fitting (5) in ABS ECU valve (10).
5. Install two 90-degree fittings (7) in ABS ECU valve (10).



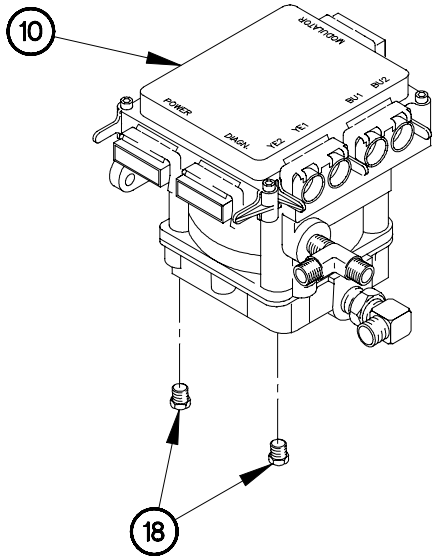
6600E07

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) - Continued 0065 00

INSTALLATION, MTVT - Continued

6. Apply antiseize compound to threads of two plugs (18).

7. Install two plugs (18) in ABS ECU valve (10).



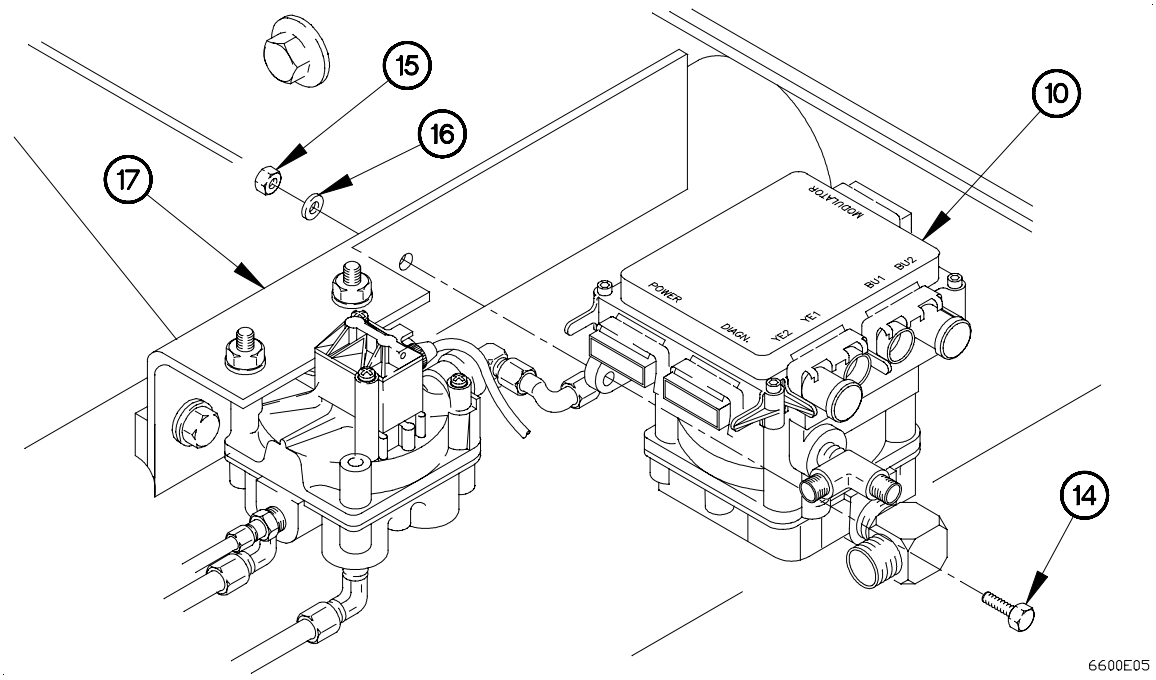
6600E06

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) - Continued 0065 00

INSTALLATION, MTVT - Continued

8. Position ABS ECU valve (10) on ABS control assembly bracket (17) with two bolts (14), washers (16), and nuts (15).

9. Tighten two nuts (15) to 156-192 lb-in (18-22 N•m).



ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) - Continued 0065 00

INSTALLATION, MTVT - Continued

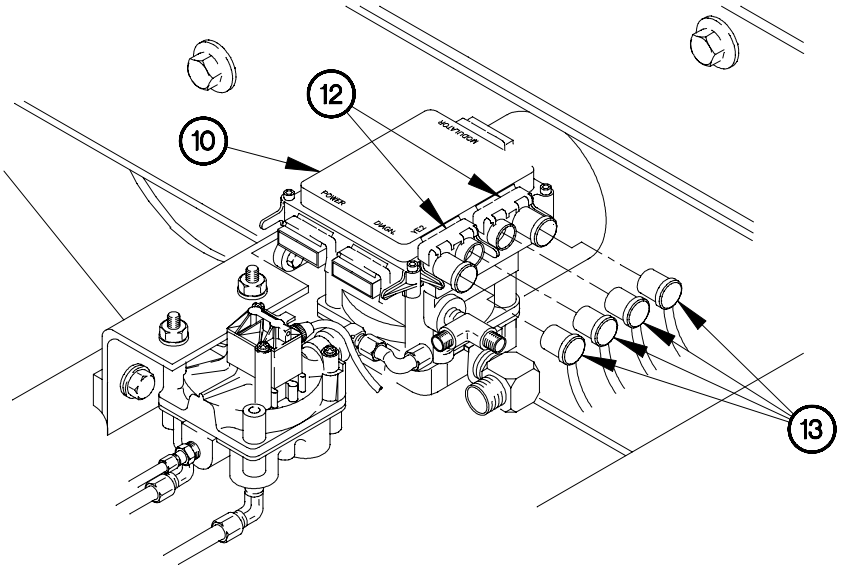
CAUTION

Do not overtighten tie wraps on a cable. Overtightening can damage the cable. Failure to comply may result in damage to equipment.

NOTE

Install plastic tie wraps as required.

10. Connect four connectors (13) to ABS ECU valve (10), and push connector retainer clips (12) down to secure.



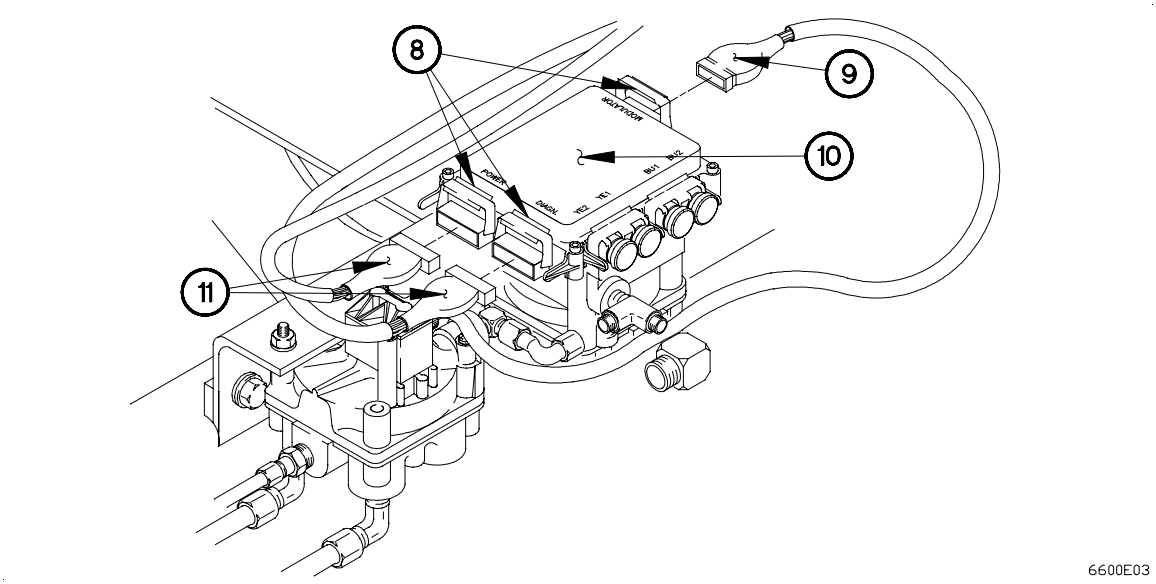
6600E04

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - 0065 00 (VEHICLES S/N 11,438 to 15,675) - Continued

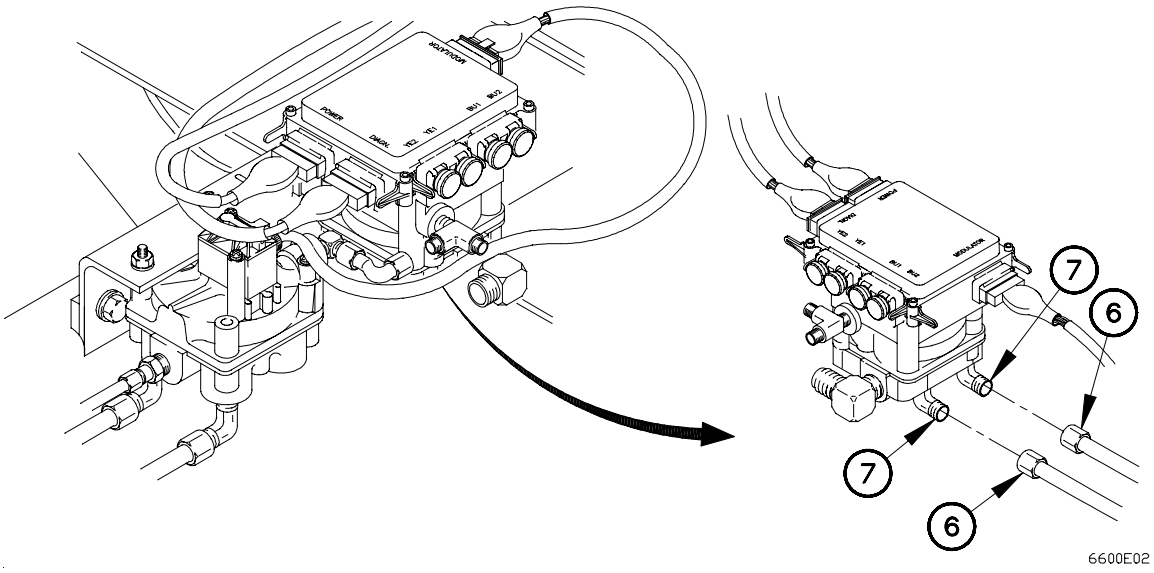
INSTALLATION, MTVT - Continued

11. Connect two connectors (11) to ABS ECU valve (10) and push connector retainer clips (8) down to secure.

12. Connect connector (9) to ABS ECU valve (10) and push connector retainer clip (8) down to secure.



13. Connect two air hoses (6) to 90-degree fittings (7).

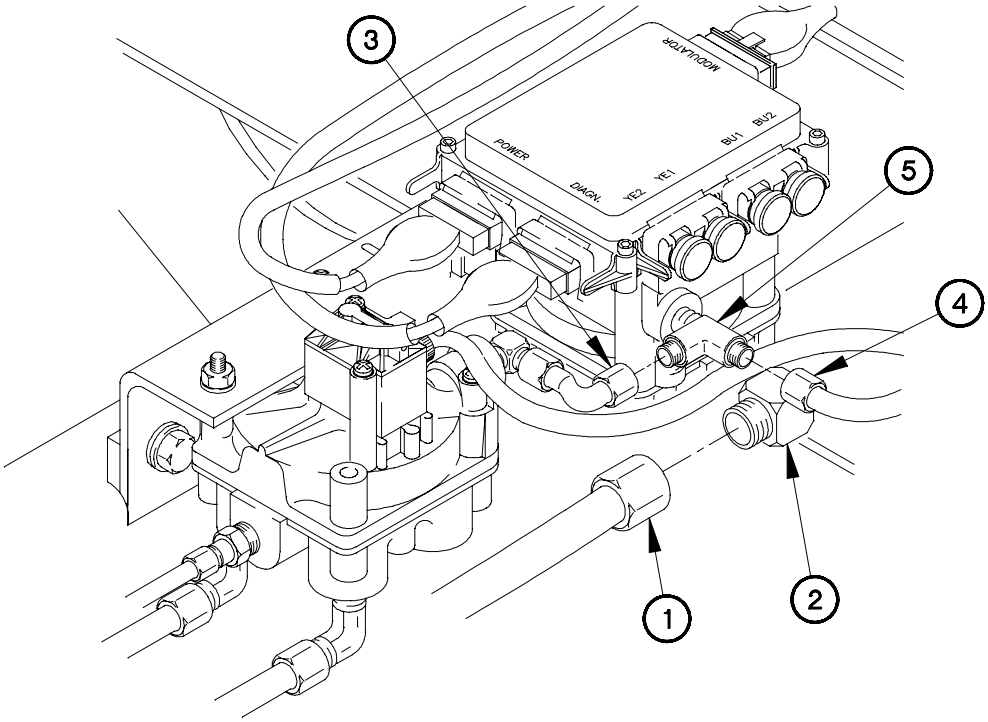


ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) - Continued 0065 00

INSTALLATION, MTVT - Continued

14. Connect air hoses (3 and 4) to tee fitting (5).

15. Connect air hose (1) to 90-degree fitting (2).



6600E08

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) - Continued 0065 00

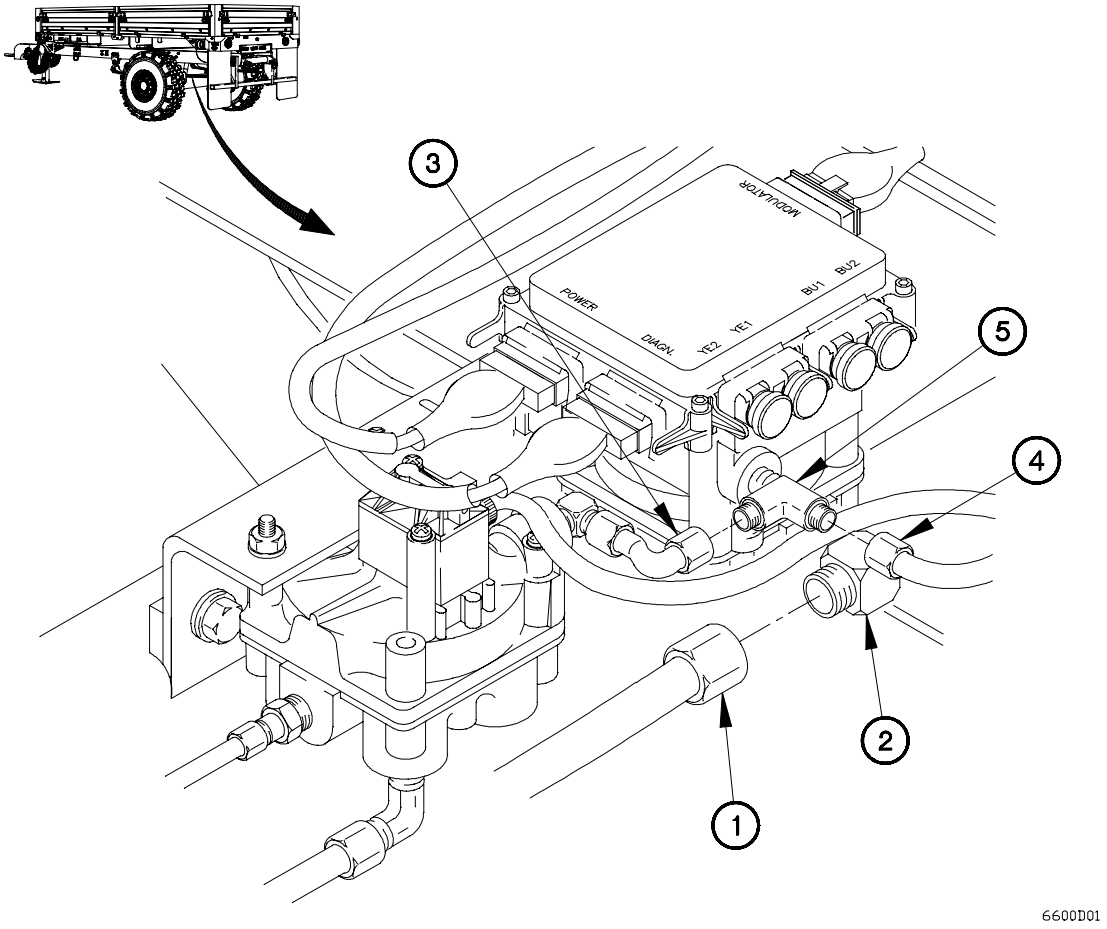
REMOVAL, LMTVT

NOTE

Tag air hoses, electrical cables, and connection points prior to disconnecting.

Remove plastic cable ties as required.

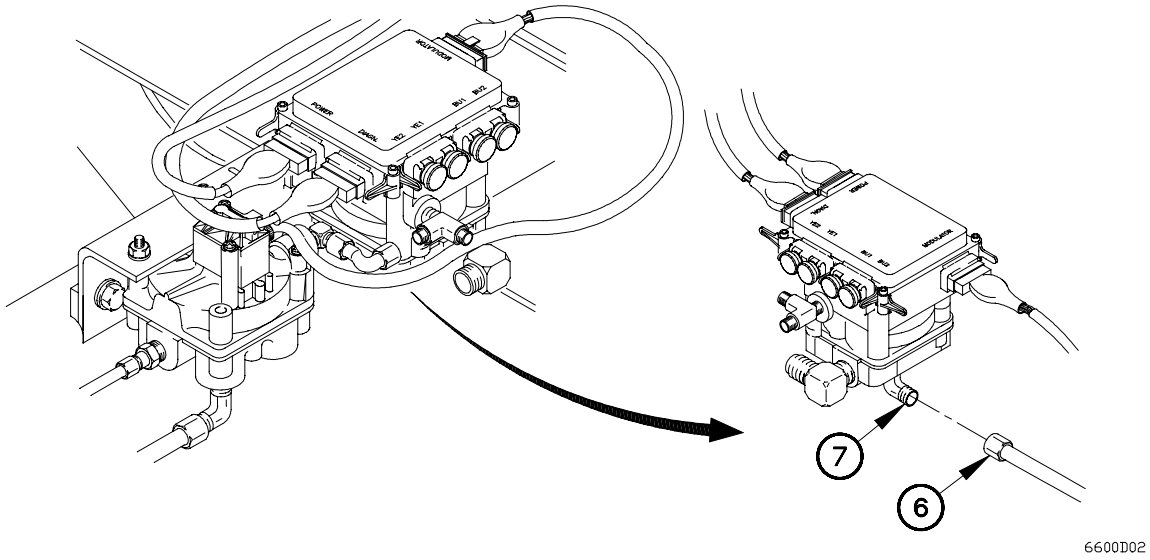
1. Disconnect air hose (1) from 90-degree fitting (2).
2. Disconnect air hoses (3 and 4) from tee fitting (5).



ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) - Continued 0065 00

REMOVAL, LMTVT - Continued

3. Disconnect air hose (6) from 90-degree fitting (7).

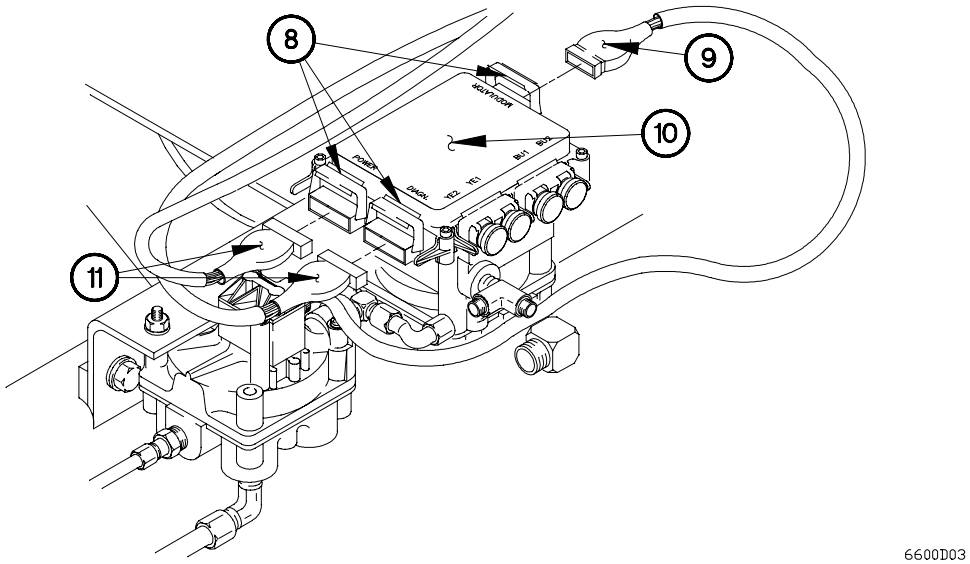


NOTE

Remove plastic cable ties as required.

4. Push connector retainer clip (8) up and disconnect connector (9) from Anti-Lock Braking System (ABS) ECU valve (10).

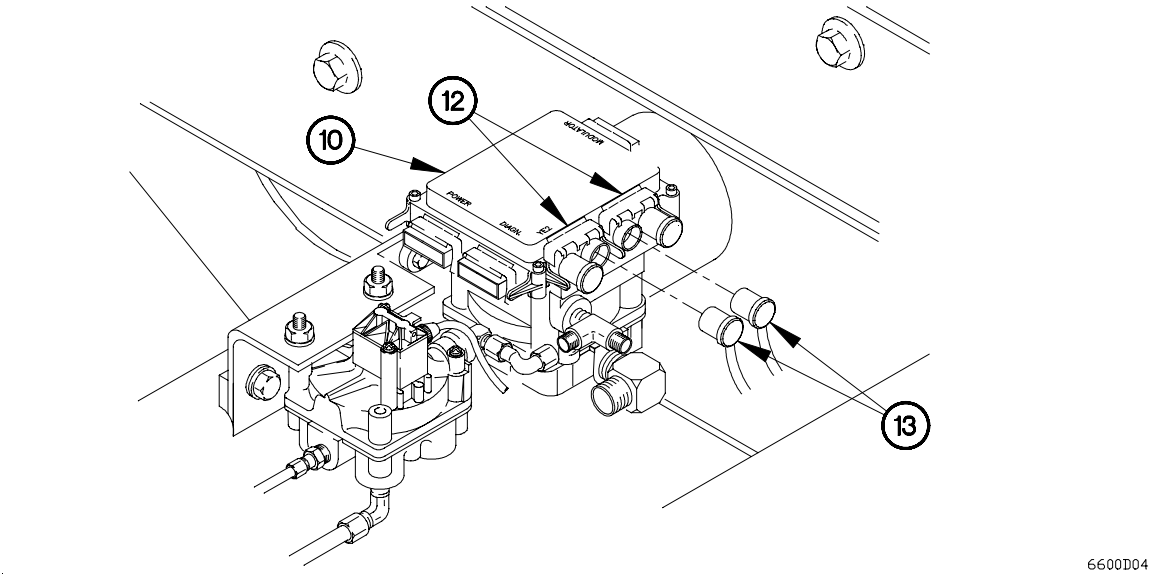
5. Push two connector retainer clips (8) up and disconnect connectors (11) from ABS ECU valve (10).



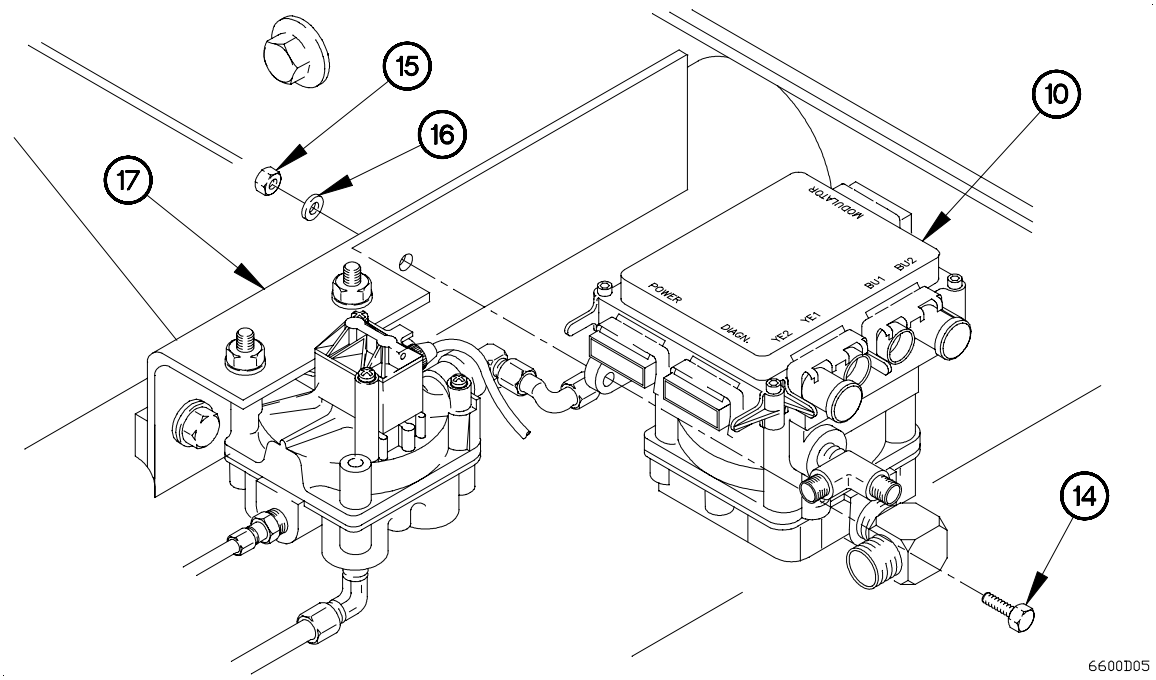
ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) - Continued 0065 00

REMOVAL, LMTVT - Continued

6. Push two connector retainer clips (12) up and disconnect two connectors (13) from ABS ECU valve (10).



7. Remove two bolts (14), nuts (15), washers (16), and ABS ECU valve (10) from ABS control assembly bracket (17).



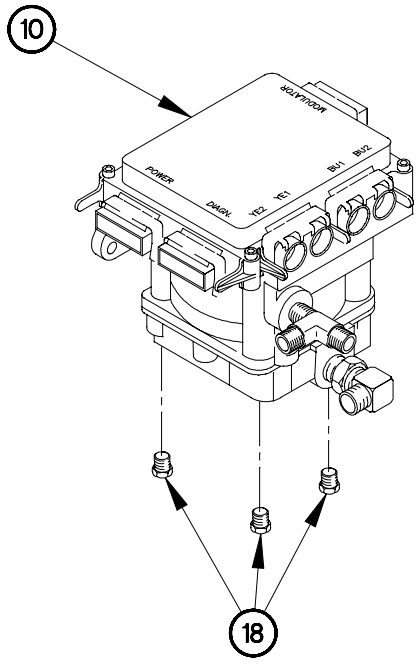
ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) - Continued 0065 00

REMOVAL, LMTVT - Continued

NOTE

Note orientation of fittings prior to removal.

8. Remove three plugs (18) from ABS ECU valve (10).

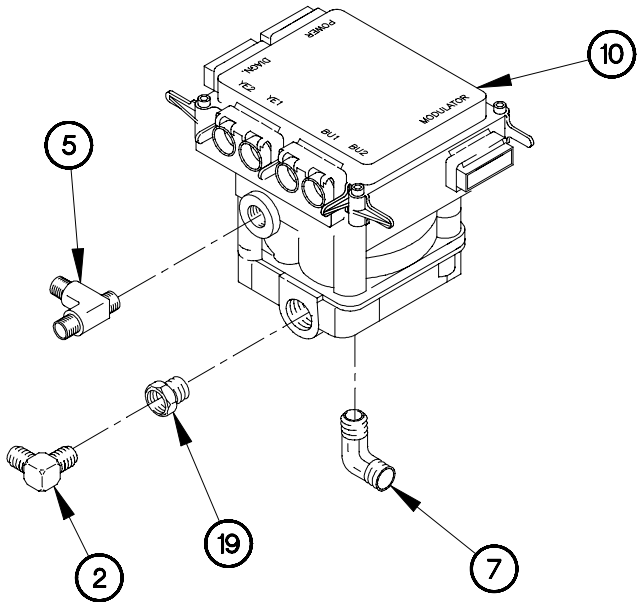


6600D06

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) - Continued 0065 00

REMOVAL, LMTVT - Continued

9. Remove 90-degree fitting (2) from bushing (19).
10. Remove bushing (19) from ABS ECU valve (10).
11. Remove tee fitting (5) from ABS ECU valve (10).
12. Remove 90-degree fitting (7) from ABS ECU valve (10).



6600D07

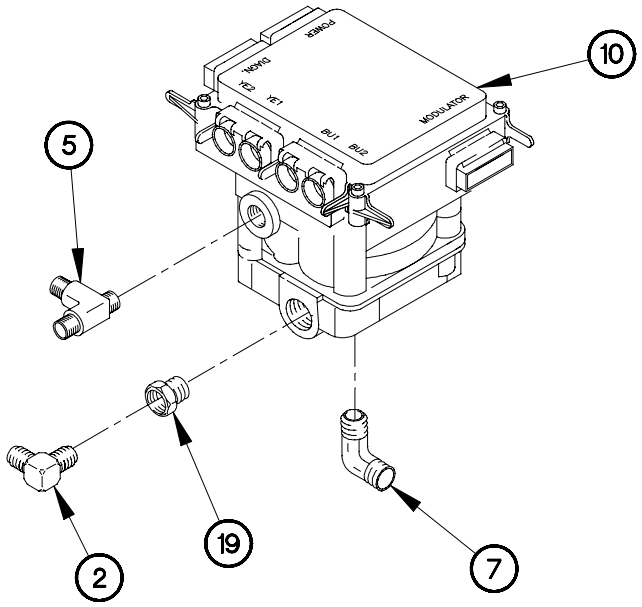
ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) - Continued 0065 00

INSTALLATION, LMTVT

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

1. Apply antiseize compound to threads of 90-degree fittings (2 and 7), bushing (19), and tee fitting (5).
2. Install bushing (19) in ABS ECU valve (10).
3. Install 90-degree fitting (2) in bushing (19).
4. Install tee fitting (5) in ABS ECU valve (10).
5. Install 90-degree fitting (7) in ABS ECU valve (10).



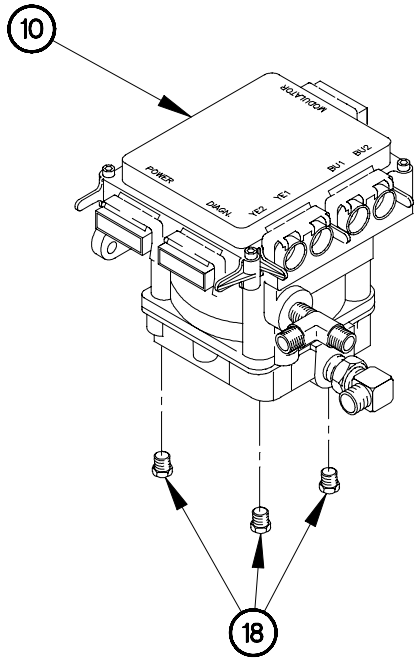
6600D07

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) - Continued 0065 00

INSTALLATION, LMTVT - Continued

6. Apply antiseize compound to threads of three plugs (18).

7. Install three plugs (18) in ABS ECU valve (10).



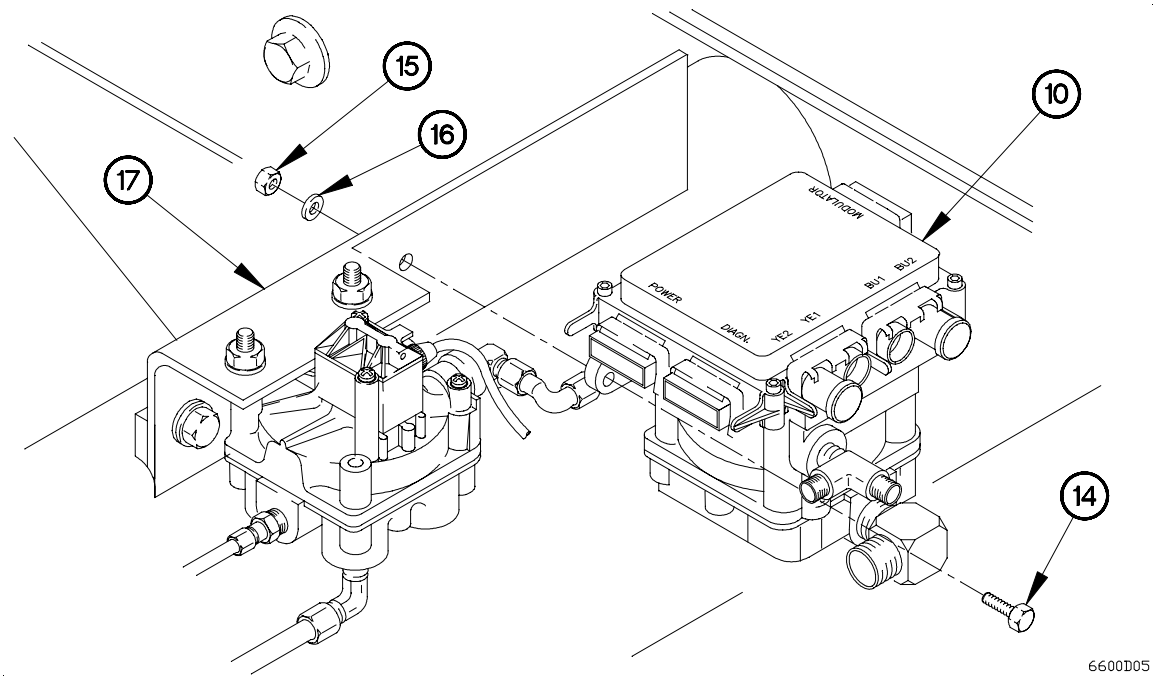
6600D06

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) - Continued 0065 00

INSTALLATION, LMTVT

8. Position ABS ECU valve (10) on ABS control assembly bracket (17) with two bolts (14), washers (16), and nuts (15).

9. Tighten two nuts (15) to 156-192 lb-in (18-22 N•m).



ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - 0065 00 (VEHICLES S/N 11,438 to 15,675) - Continued

INSTALLATION, LMTVT - Continued

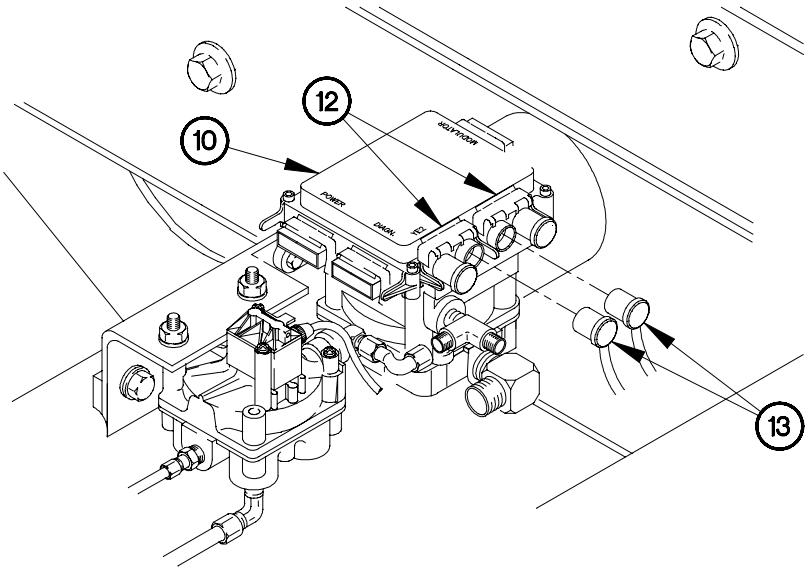
CAUTION

Do not overtighten tie wraps on a cable. Overtightening can damage the cable. Failure to comply may result in damage to equipment.

NOTE

Install plastic cable ties as required.

10. Connect two connectors (13) to ABS ECU valve (10), and push connector retainer clips (12) down to secure.



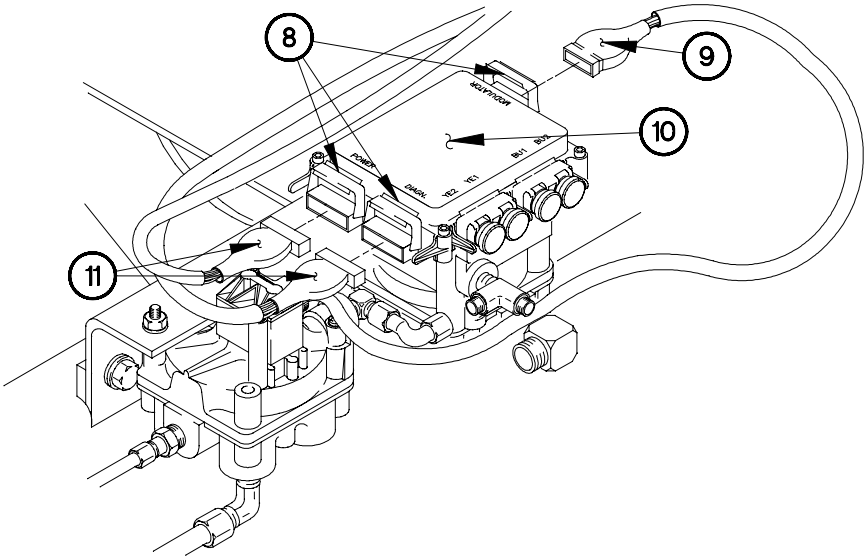
6600D04

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - 0065 00 (VEHICLES S/N 11,438 to 15,675) - Continued

INSTALLATION, LMTVT - Continued

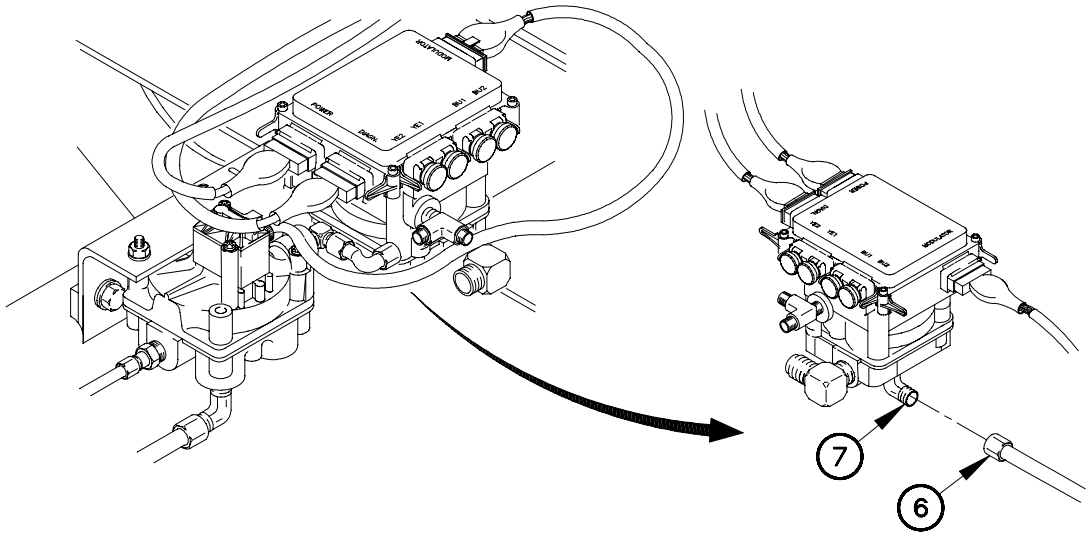
11. Connect two connectors (11) to ABS ECU valve (10) and push connector retainer clips (8) down to secure.

12. Connect connector (9) to ABS ECU valve (10) and push connector retainer clip (8) down to secure.



6600D03

13. Connect air hose (6) to 90-degree fitting (7).



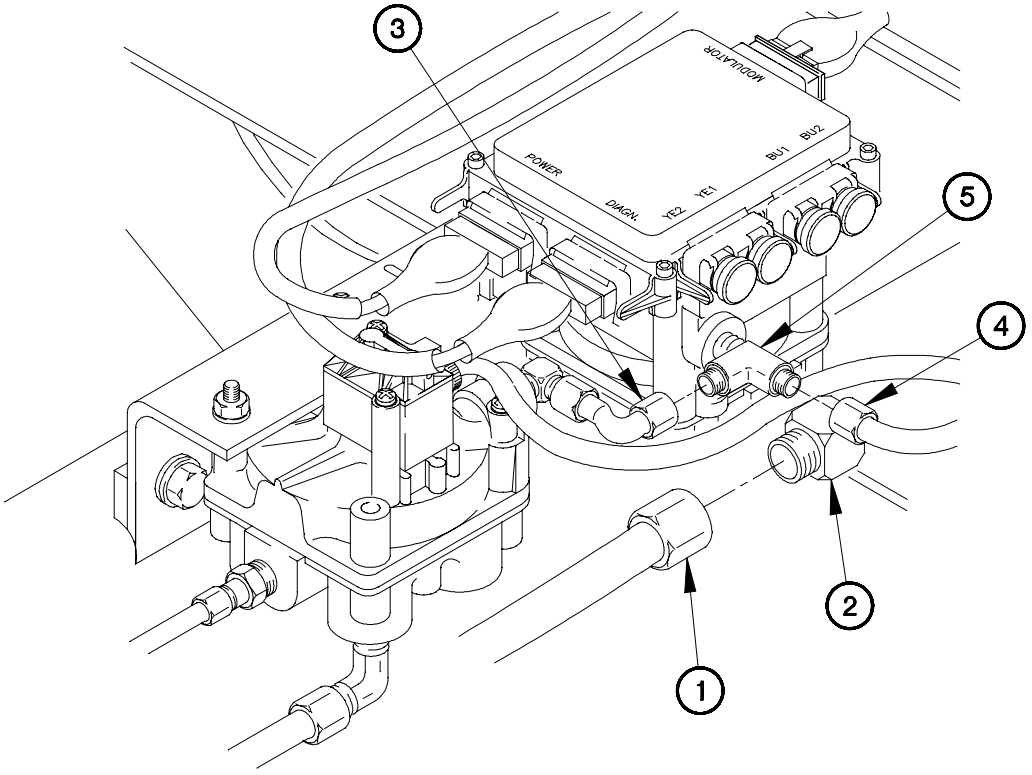
6600D02

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) - Continued 0065 00

INSTALLATION, LMTVT - Continued

14. Connect air hoses (3 and 4) to tee fitting (5).

15. Connect air hose (1) to 90-degree fitting (2).



6600D08

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE REPLACEMENT - (VEHICLES S/N 11,438 to 15,675) - Continued 0065 00

OPERATIONAL CHECK

1. Couple trailer (WP 0009 00, Coupling Trailer).
2. Start towing vehicle engine and allow time for air pressure to reach normal operating air pressure.
3. Check around ABS ECU valve and hoses for air leaks.
4. Road test trailer and check for proper brake operation.
5. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE.

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

THIS WORK PACKAGE COVERS:

Removal, MTVT; Installation, MTVT; Removal, LMTVT; Installation, LMTVT; Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Tool Kit, Electrical Contact Repair (Item 36, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench, Torque, 0-150 lb-ft (Item 49, WP 0178 00)
Wrench, Torque, 0-300 lb-in (Item 51, WP 0178 00)

Materials/Parts
Dispenser, Pressure Sensitive Adhesive Tape (Item 10, WP 0176 00)
Antiseize Compound (Item 3, WP 0176 00)
Ties, Cable, Plastic (Item 37, WP 0176 00)

References
WP 0009 00
Towing vehicle Operator manual

Equipment Conditions
Trailer uncoupled (WP 0012 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

Trailer must be uncoupled from towing vehicle prior to performing this task to avoid risk of electrocution. Failure to comply may result in injury to personnel.

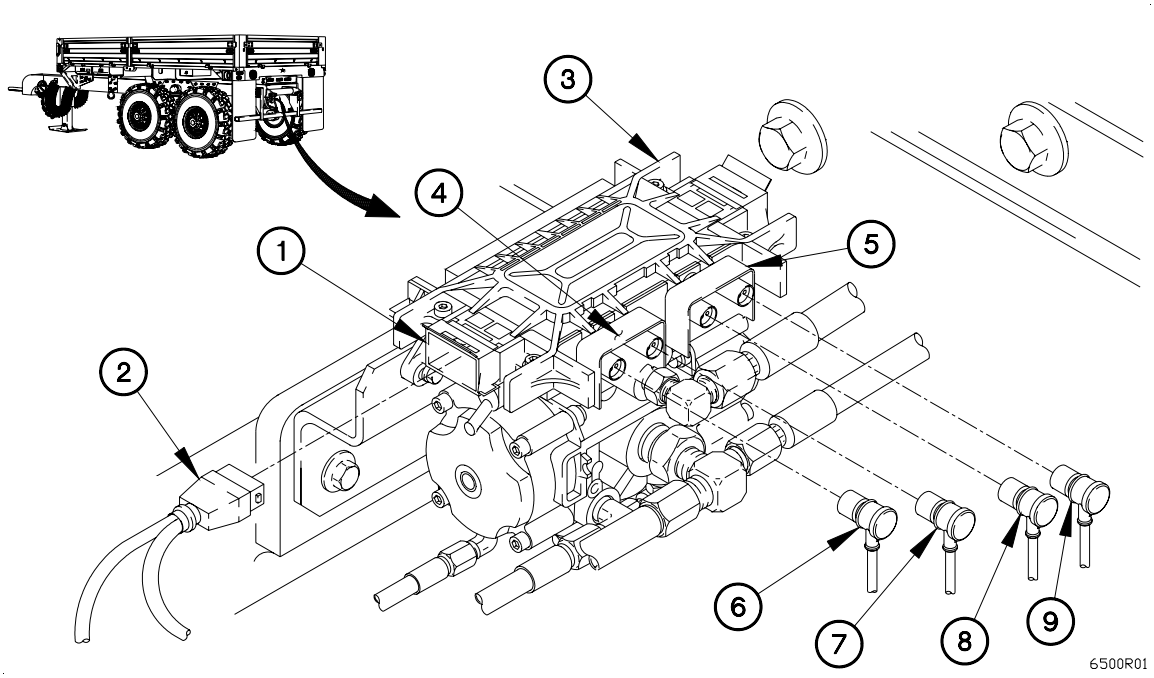
ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

REMOVAL, MTVT

NOTE

Tag air hoses, electrical cables, and connection points prior to disconnecting.
Remove plastic cable ties as required.

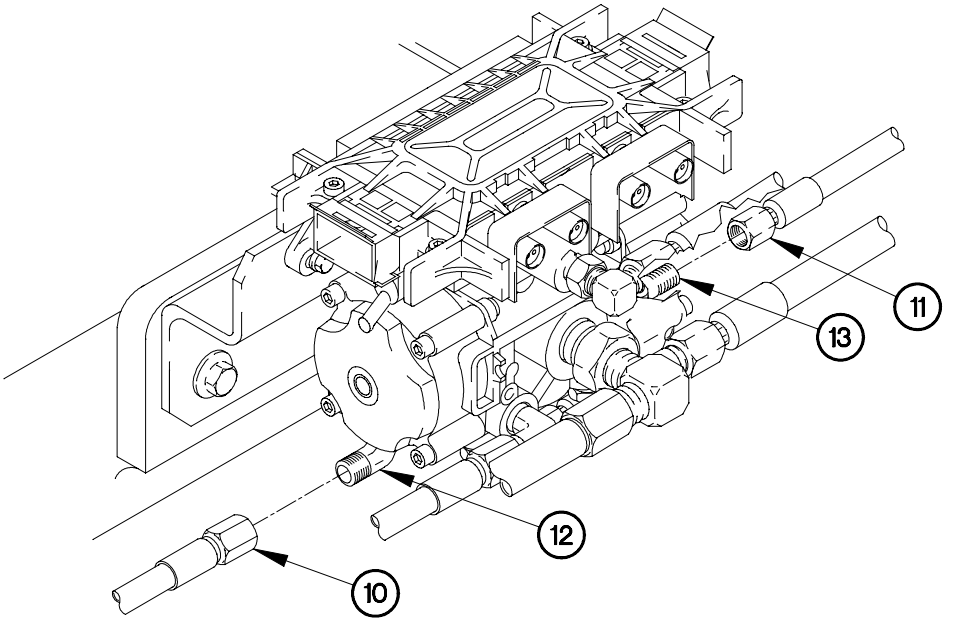
1. Push up on connector retainer clip (1).
2. Disconnect power and diagnostic cable connector (2) from Anti-Lock Braking System (ABS) ECU valve (3).
3. Push up on connector retainer clips (4 and 5).
4. Disconnect sensor connectors YE2, YE1, BU1, and BU2 (6, 7, 8, and 9) from ABS ECU valve (3).



ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

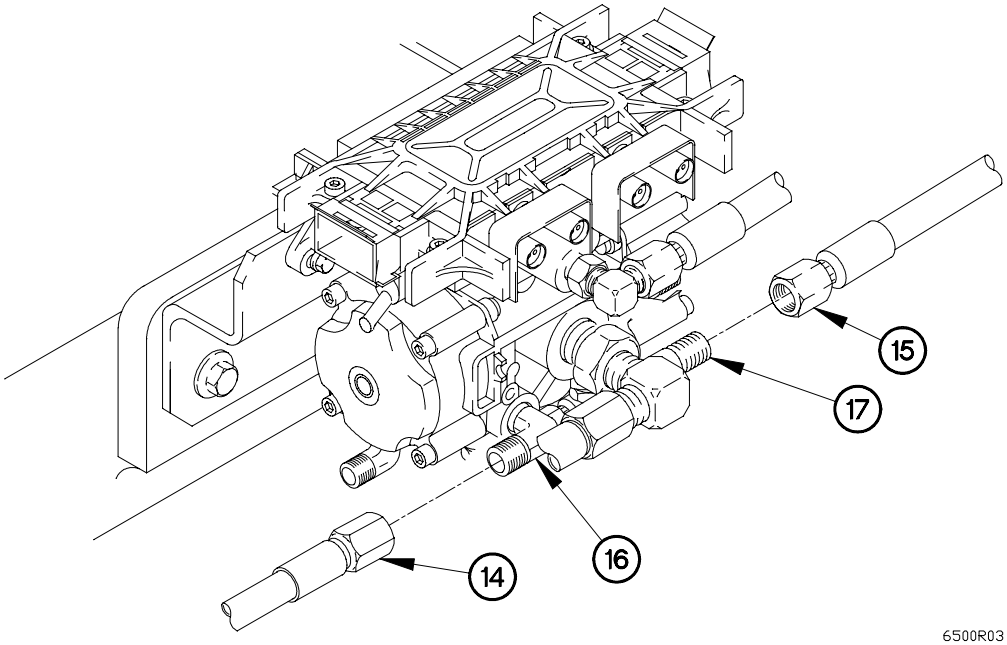
REMOVAL, MTVT - Continued

5. Disconnect air hoses (10 and 11) from 90-degree fittings (12 and 13).



6500R02

6. Disconnect air hoses (14 and 15) from 90-degree fittings (16 and 17).

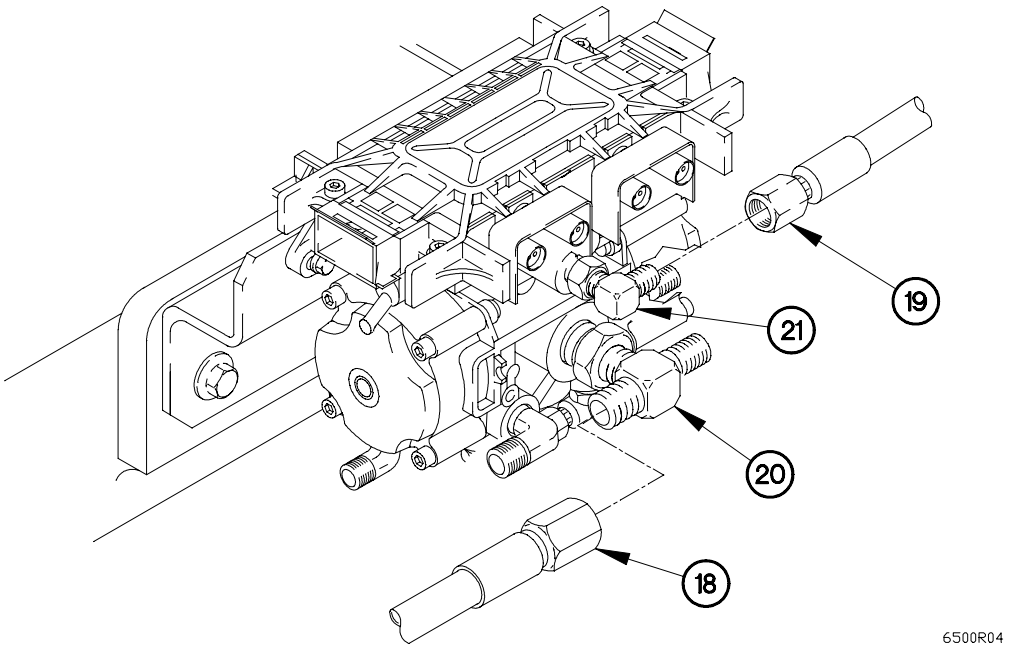


6500R03

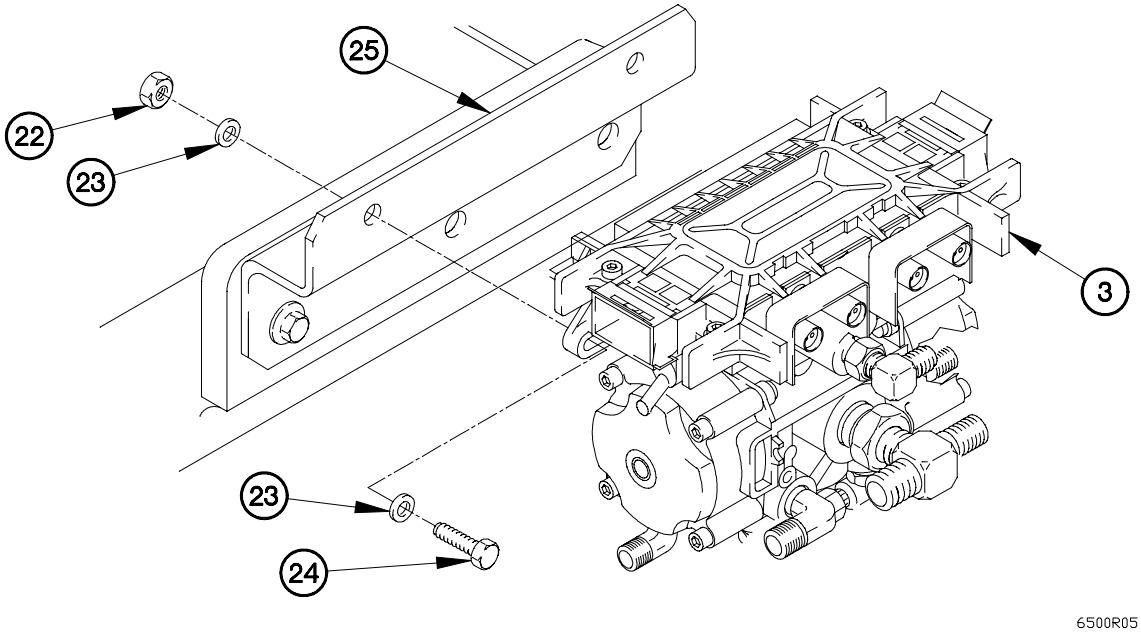
ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

REMOVAL, MTVT - Continued

7. Disconnect air tubes (18 and 19) from 90-degree fittings (20 and 21).



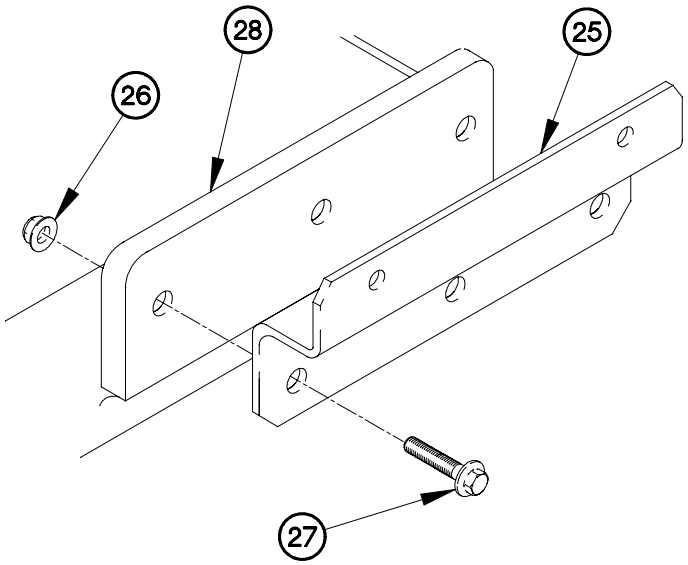
8. Remove two nuts (22), washers (23), bolts (24), washers (23), and ABS ECU valve (3) from ABS control assembly bracket (25).



ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

REMOVAL, MTVT - Continued

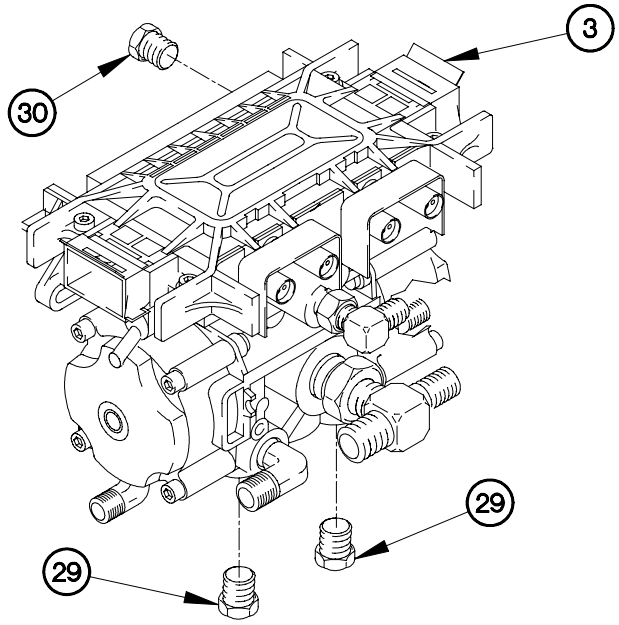
9. Remove three self-locking nuts (26), screws (27), and ABS control assembly bracket (25) from crossmember (28). Discard self-locking nuts.



6500R06

10. Remove two plugs (29) from ABS ECU valve (3).

11. Remove plug (30) from ABS ECU valve (3).



6500R07

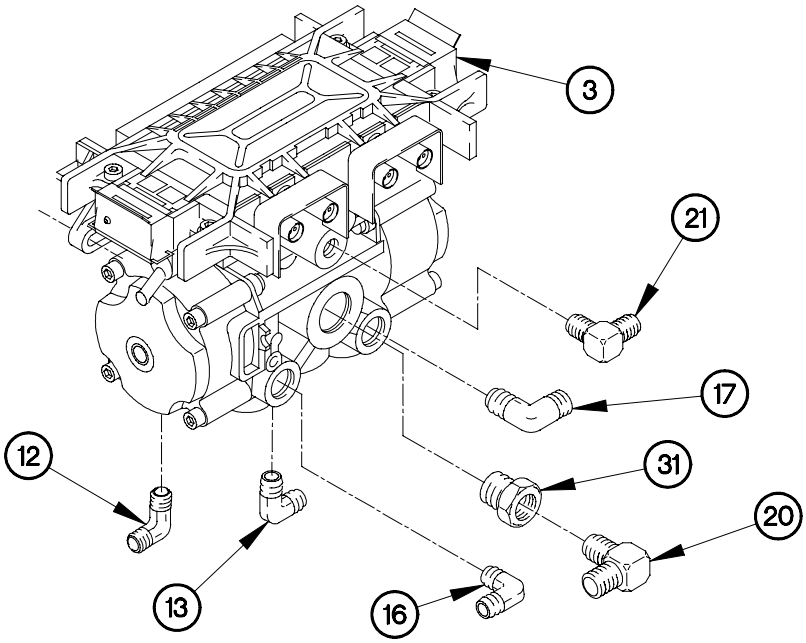
ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

REMOVAL, MTVT - Continued

NOTE

Note orientation of fittings prior to removal.

12. Remove 90-degree fitting (20) from bushing (31).
13. Remove bushing (31) from ABS ECU valve (3).
14. Remove 90-degree fittings (12 and 13) from ABS ECU valve (3).
15. Remove 90-degree fittings (16 and 17) from ABS ECU valve (3).
16. Remove 90-degree fitting (21) from ABS ECU valve (3).



6500R08

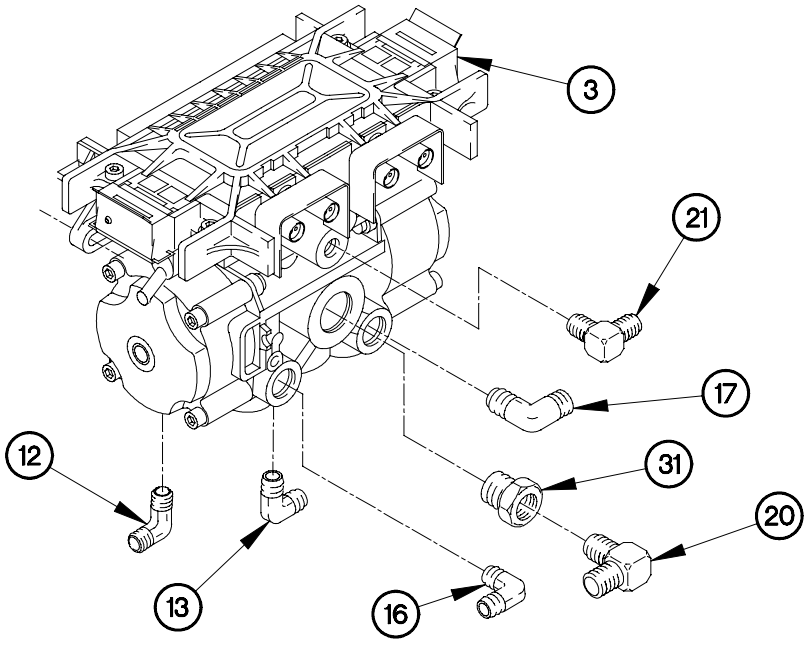
ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

INSTALLATION, MTVT

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use ion well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

1. Apply sealing compound to threads of 90-degree fittings (21, 17, 16, 13, and 12), bushing (31), and 90-degree fitting (20).
2. Install 90-degree fitting (21) in ABS ECU valve (3).
3. Install 90-degree fittings (16 and 17) in ABS ECU valve (3).
4. Install 90-degree fittings (12 and 13) in ABS ECU valve (3).
5. Install bushing (31) in ABS ECU valve (3).
6. Install 90-degree fitting (20) in bushing (31).



6500I01

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

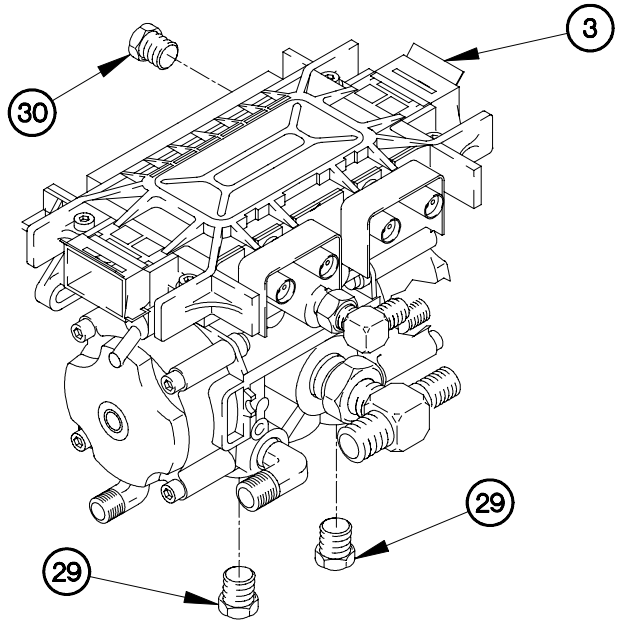
INSTALLATION, MTVT – Continued

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use ion well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

7. Apply sealing compound to threads of two plugs (29) and plug (30).

8. Install two plugs (29) and plug (30) in ABS ECU valve (3).



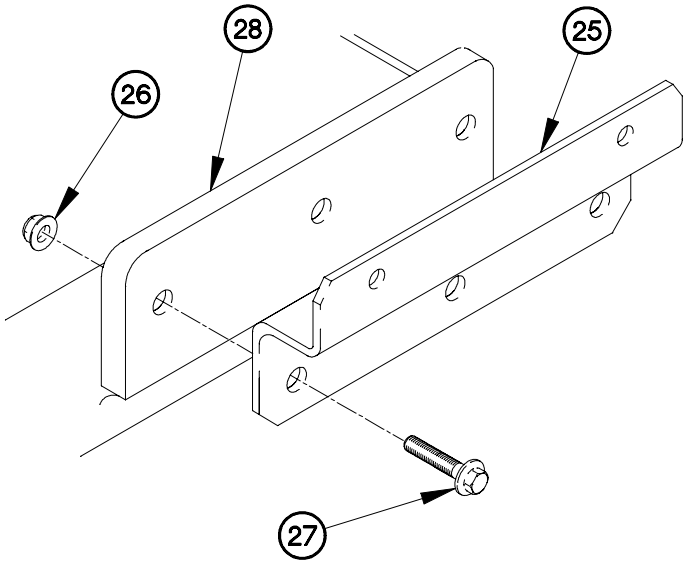
6500I02

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

INSTALLATION, MTVT – Continued

9. Position ABS control assembly bracket (25) on crossmember (28) with three screws (27) and self-locking nuts (26).

10. Tighten three self-locking nuts (26) to 62-76 lb-ft (84-103 N•m).



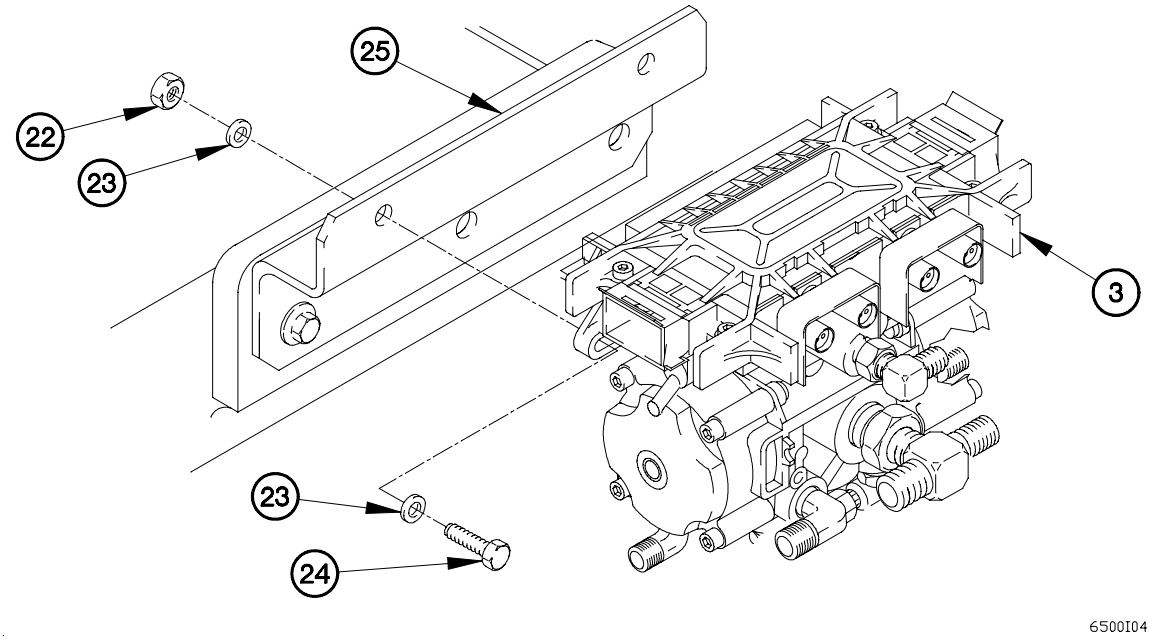
6500I03

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

INSTALLATION, MTVT – Continued

11. Position ABS ECU valve (3) on ABS control assembly bracket (25) with two washers (23), bolts (24), washers (23), and nuts (22).

12. Tighten two nuts (22) to 156-192 lb-in. (18-22 N•m).



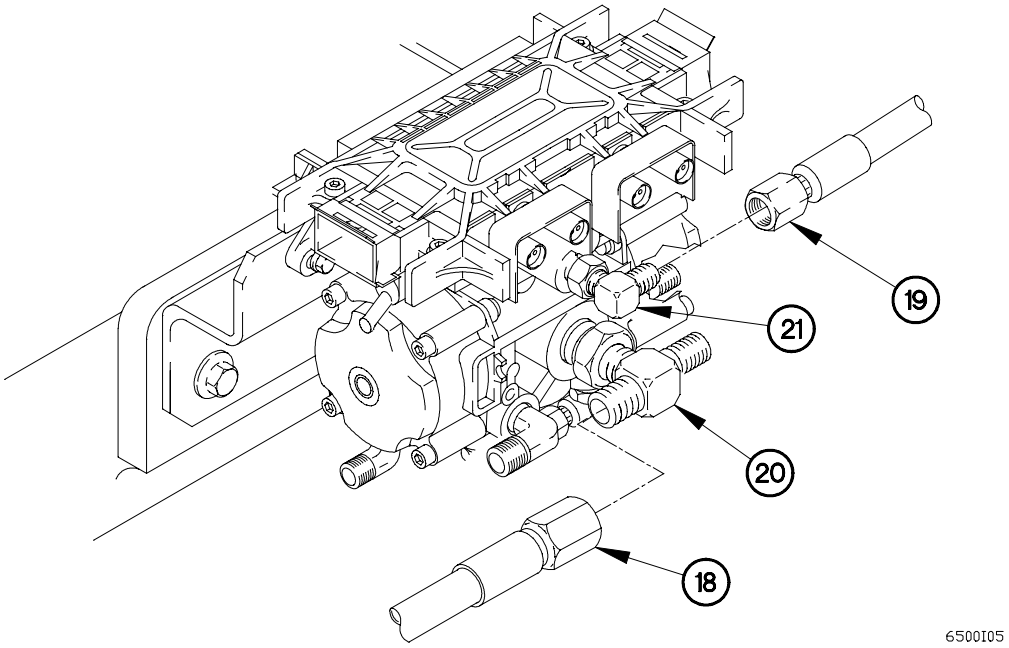
ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

INSTALLATION, MTVT – Continued

NOTE

Install plastic cable ties as required.

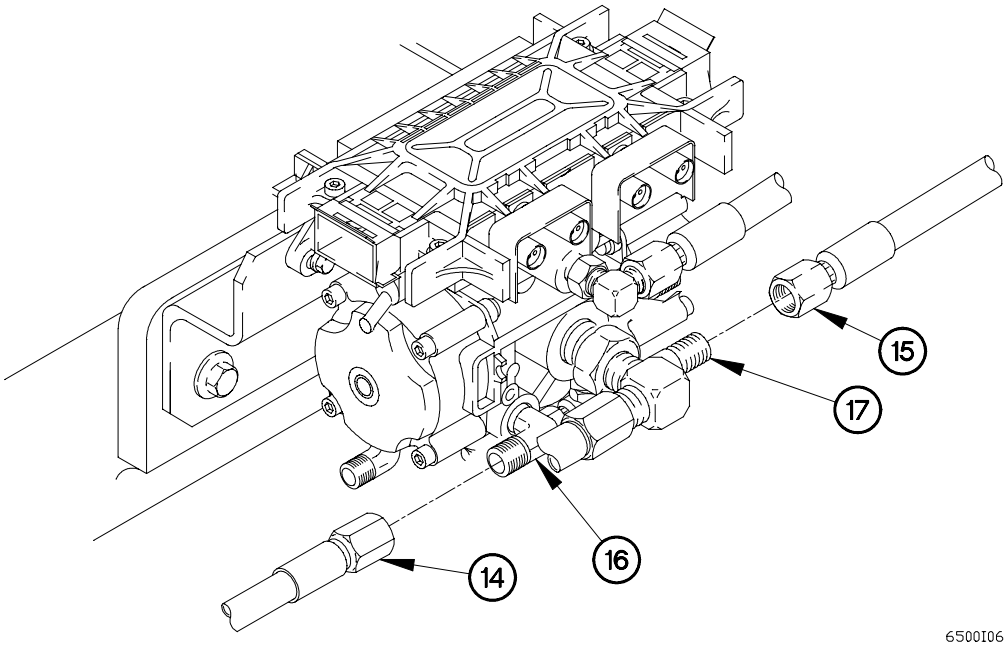
13. Connect air tubes (18 and 19) to 90-degree fittings (20 and 21).



ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

INSTALLATION, MTVT – Continued

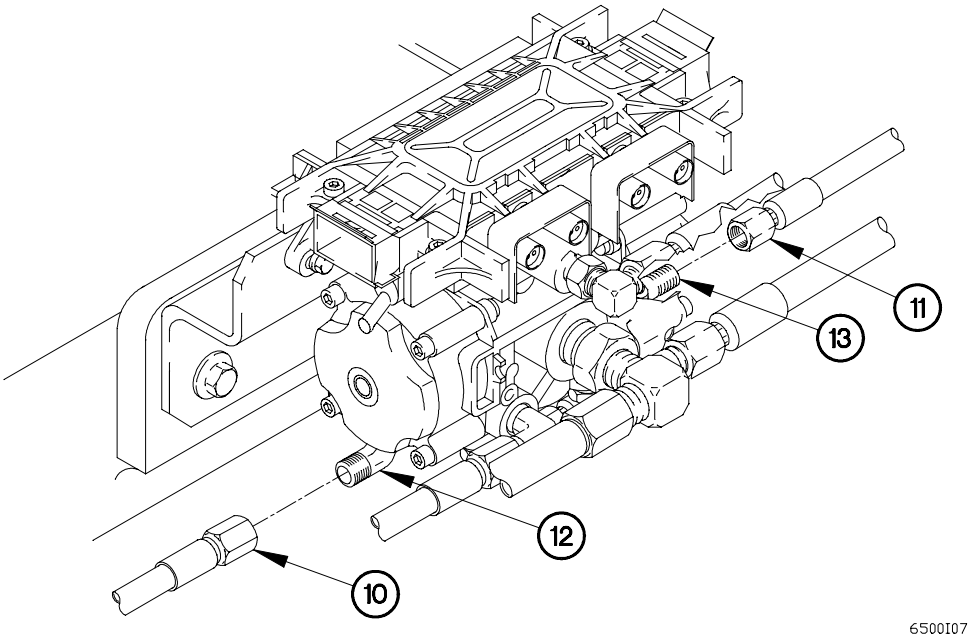
14. Connect air hoses (14 and 15) to 90-degree fittings (16 and 17).



ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

INSTALLATION, MTVT – Continued

15. Connect air hoses (10 and 11) to 90-degree fittings (12 and 13).



ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

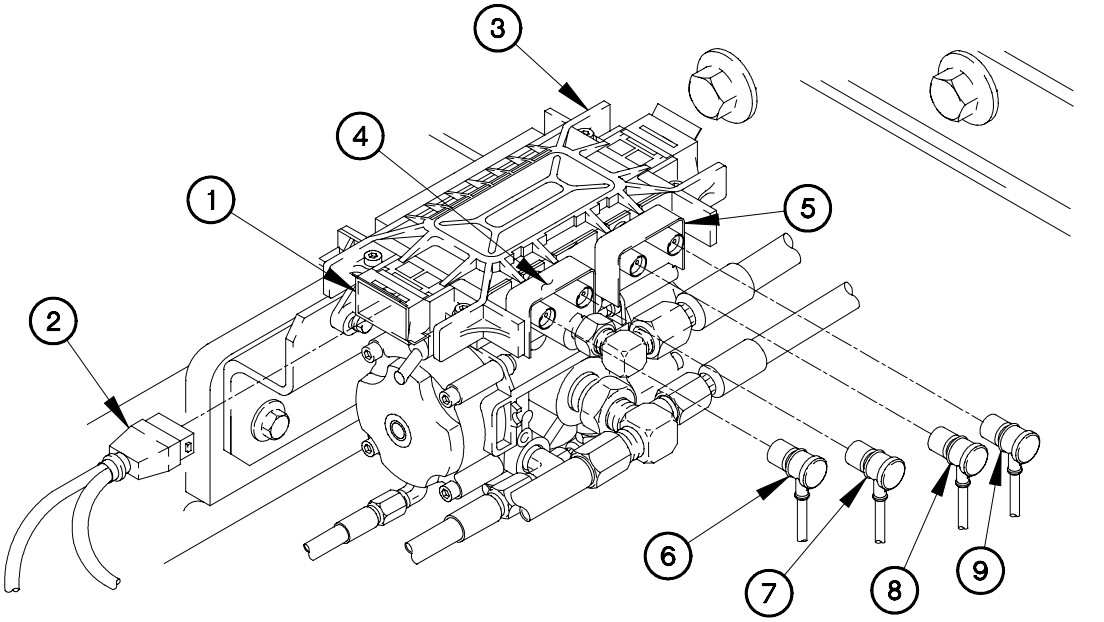
INSTALLATION, MTVT – Continued

16. Connect four sensor connectors YE2, YE1, BU1 and BU2 (6, 7, 8 and 9) to ABS ECU valve (3).

17. Push down on connector retainer clips (4 and 5) to secure.

18. Connect power and diagnostic cable connector (2) to ABS ECU valve (3).

19. Push down on connector retainer clip (1) to secure.



6500I08

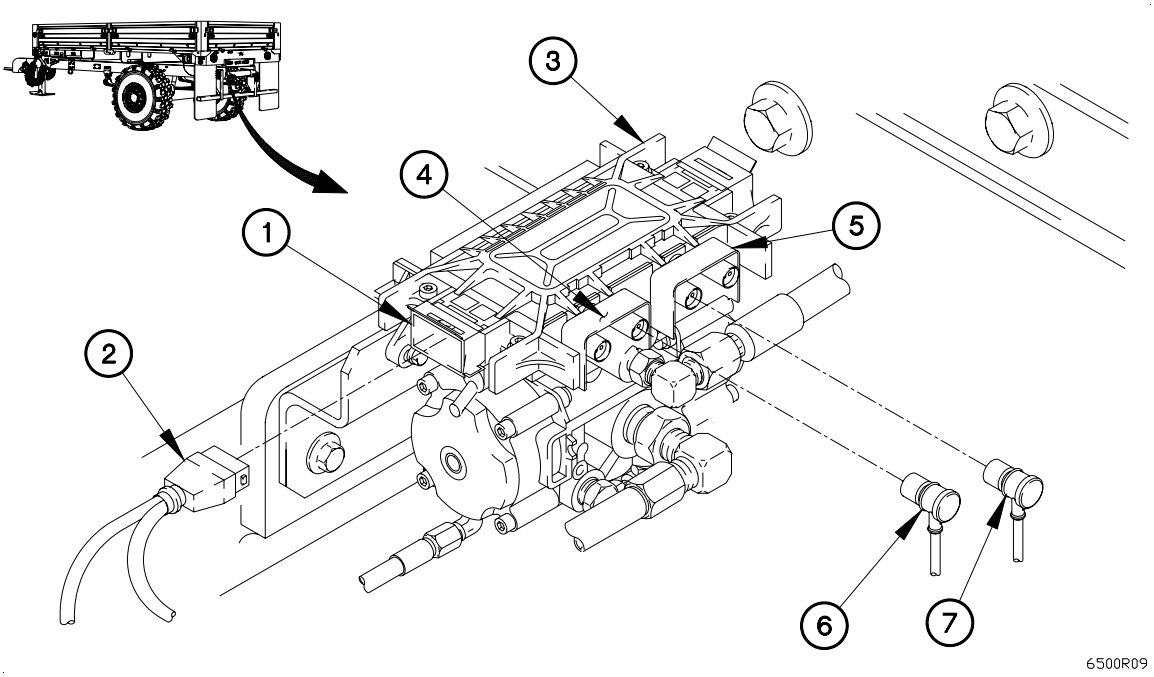
ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

REMOVAL, LMTVT

NOTE

Tag air hoses, electrical cables, and connection points prior to disconnecting.
Remove plastic cable ties as required.

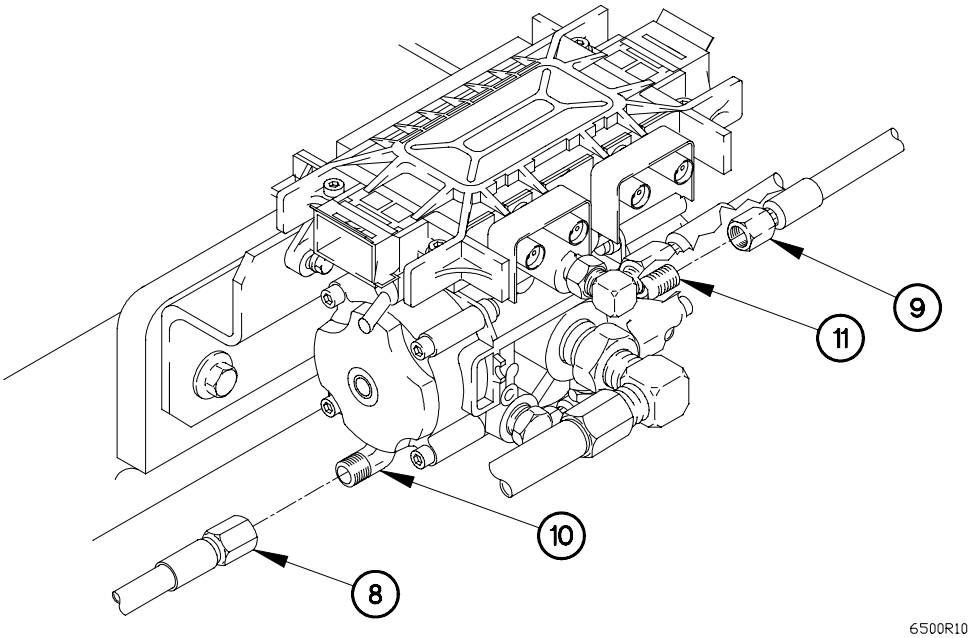
1. Push up on connector retainer clip (1).
2. Disconnect power and diagnostic cable connector (2) from ABS ECU valve (3).
3. Push up on connector retainer clips (4 and 5).
4. Disconnect sensor connectors YE1 and BU1 (6 and 7) from ABS ECU valve (3).



ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

REMOVAL, LMTVT - Continued

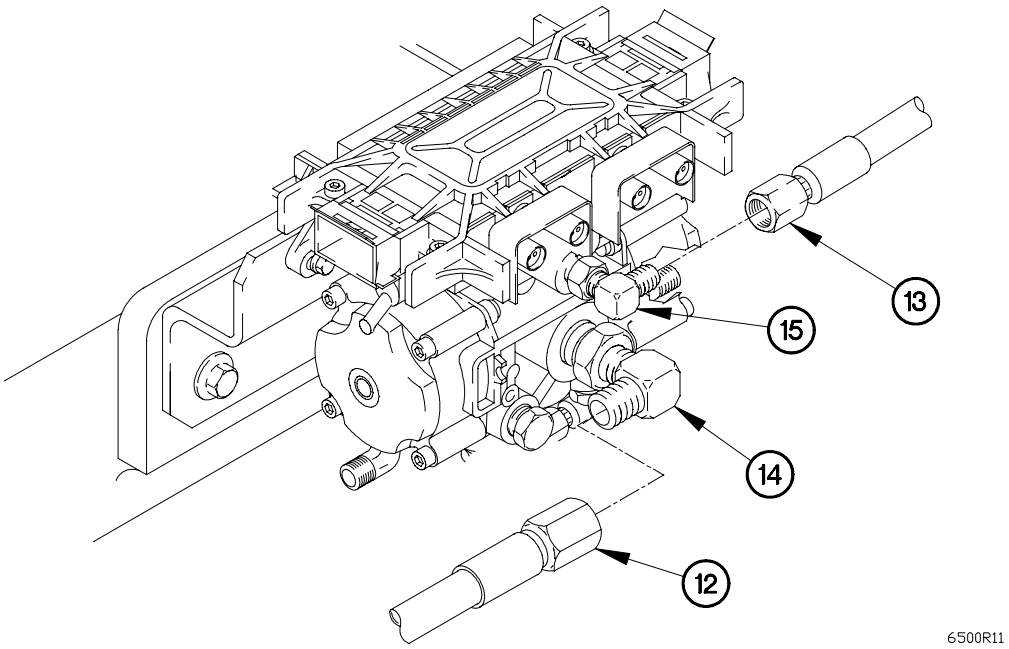
5. Disconnect air hoses (8 and 9) from 90-degree fittings (10 and 11).



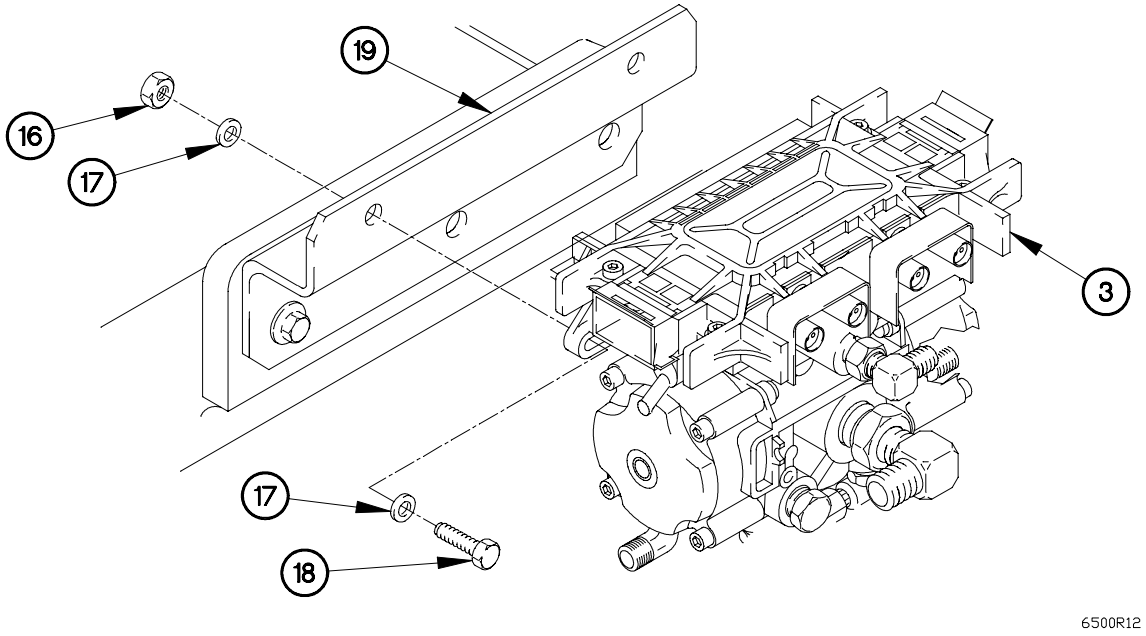
ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

REMOVAL, LMTVT – Continued

6. Disconnect air tubes (12 and 13) from 90-degree fittings (14 and 15).



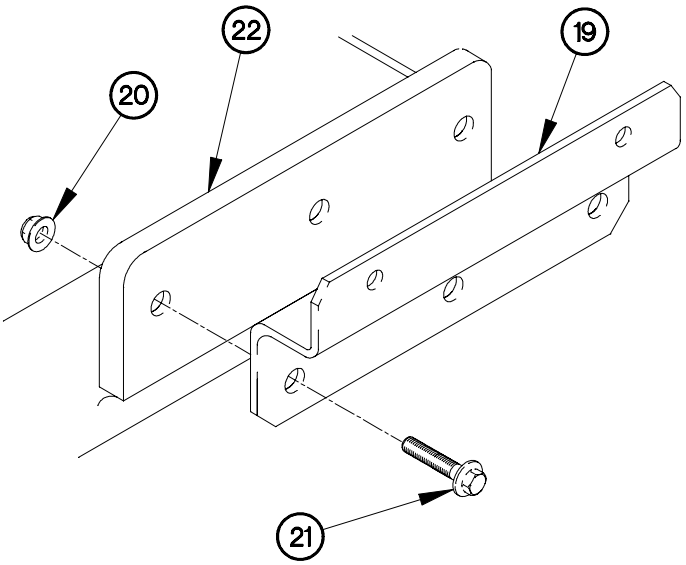
7. Remove two nuts (16), washers (17), bolts (18), washers (17), and ABS ECU valve (3) from ABS control assembly bracket (19).



ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

REMOVAL, LMTVT – Continued

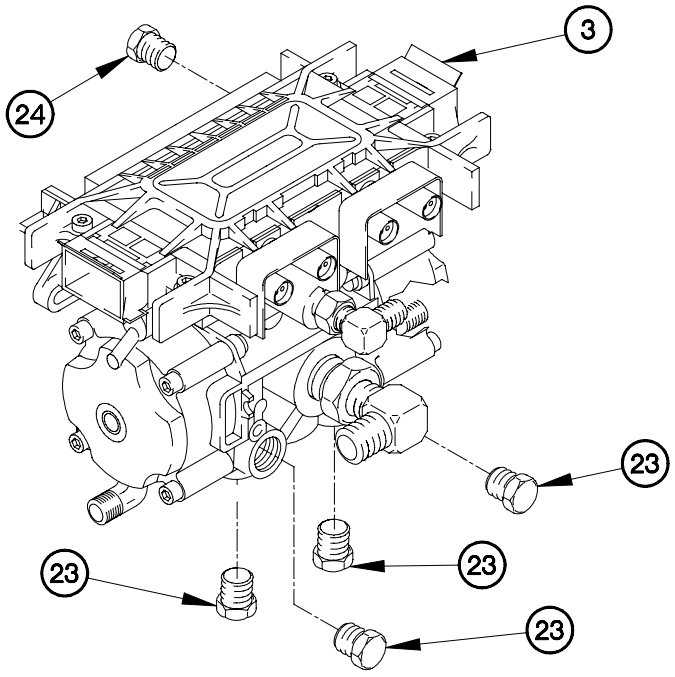
8. Remove three self-locking nuts (20), screws (21), and ABS control assembly bracket (19) from crossmember (22). Discard self-locking nuts.



6500R13

9. Remove four plugs (23) from ABS ECU valve (3).

10. Remove plug (24) from ABS ECU valve (3).



6500R14

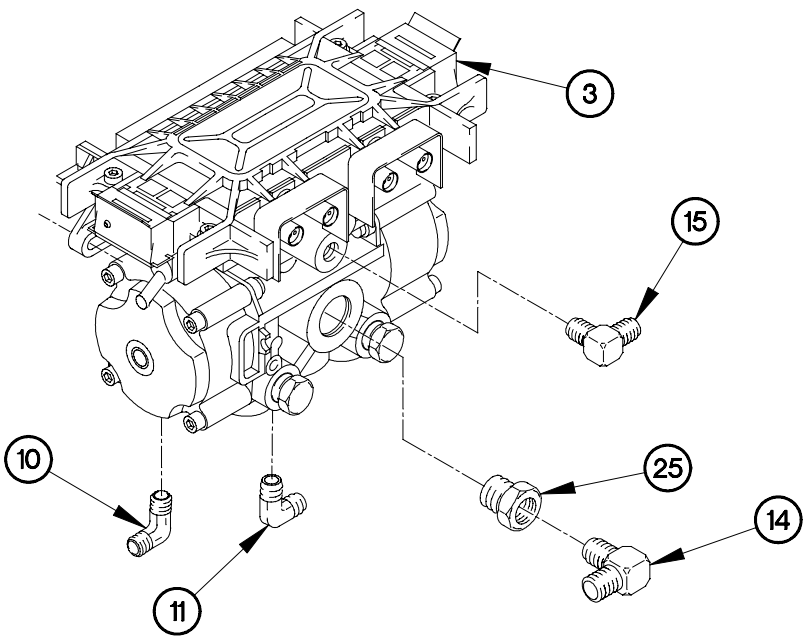
ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

REMOVAL, LMTVT – Continued

NOTE

Note orientation of fittings prior to removal.

11. Remove 90-degree fitting (14) from bushing (25).
12. Remove bushing (25) from ABS ECU valve (3).
13. Remove 90-degree fittings (10 and 11) from ABS ECU valve (3).
14. Remove 90-degree fitting (15) from ABS ECU valve (3).



6500R15

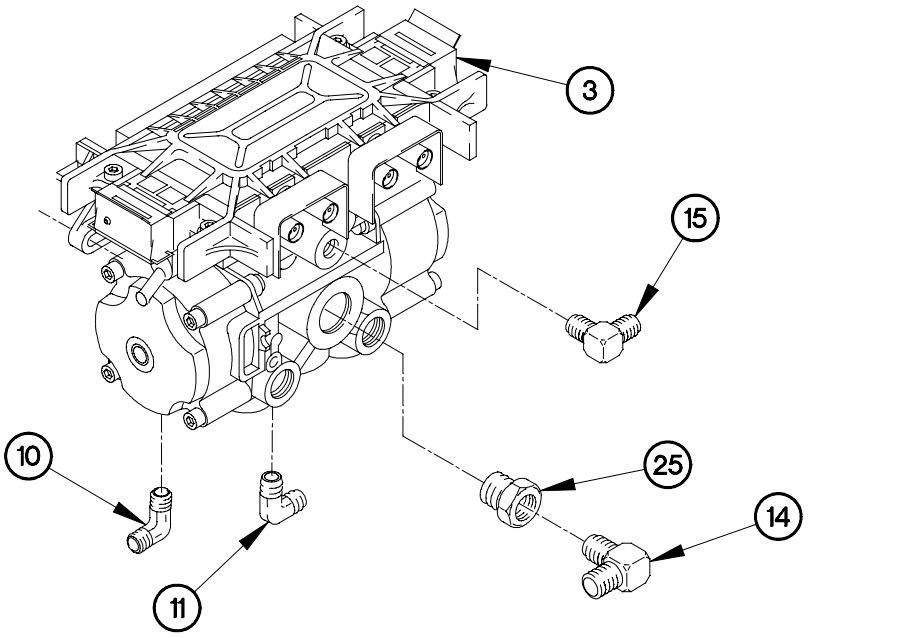
ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

INSTALLATION, LMTVT

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use ion well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

1. Apply sealing compound to threads of 90-degree fittings (10, 11, and 15), bushing (25), and 90-degree fitting (14).
2. Install 90-degree fitting (15) in ABS ECU valve (3).
3. Install 90-degree fittings (10 and 11) in ABS ECU valve (3).
4. Install bushing (25) in ABS ECU valve (3).
5. Install 90-degree fitting (14) in busing (25).



6500I09

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

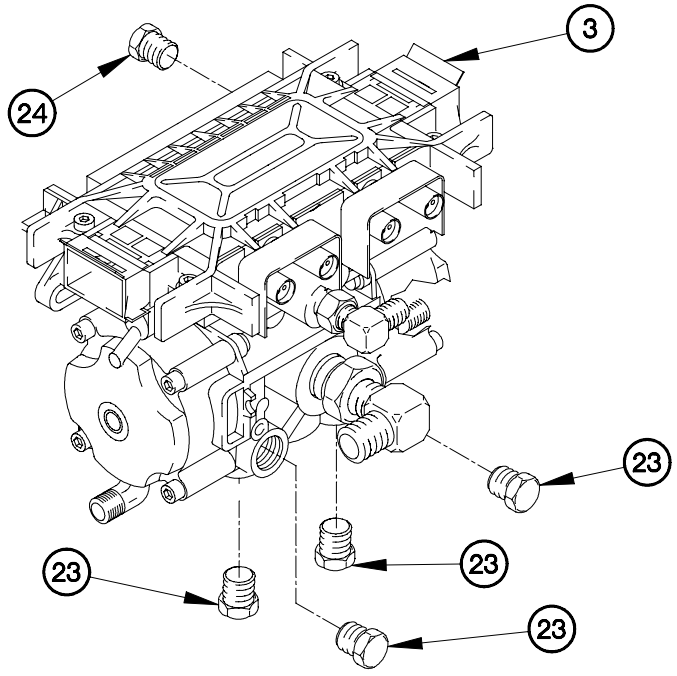
INSTALLATION, LMTVT - Continued

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use ion well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

6. Apply sealing compound to threads of four plugs (23) and plug (24).

7. Install four plugs (23) and plug (24) in ABS ECU valve (3).

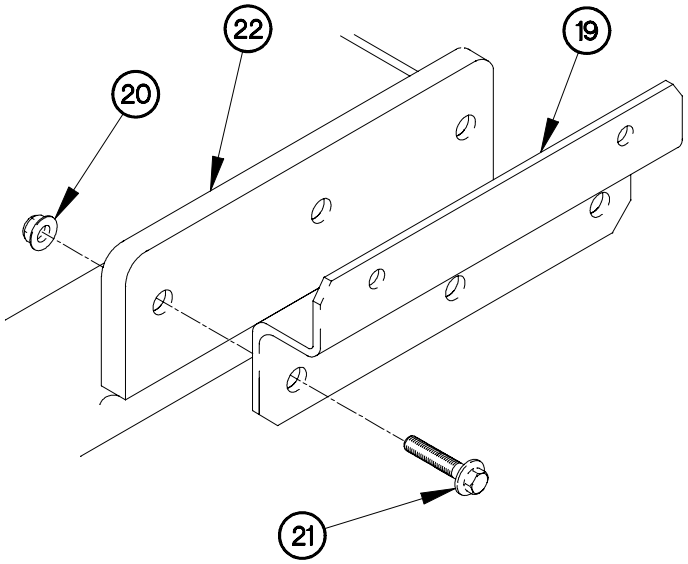


ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

INSTALLATION, LMTVT - Continued

8. Position ABS control assembly bracket (19) on crossmember (22) with three screws (21) and self-locking nuts (20).

9. Tighten three self-locking nuts (20) to 62-76 lb-ft (84-103 N•m).



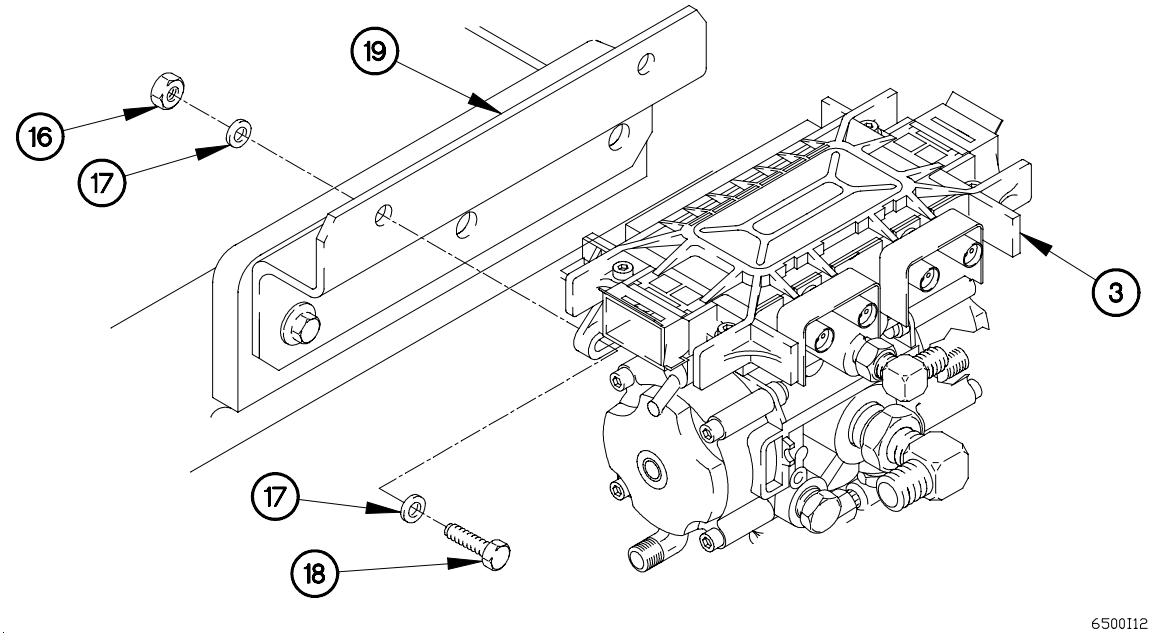
6500I11

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

INSTALLATION, LMTVT - Continued

10. Position ABS ECU valve (3) on ABS control assembly bracket (19) with two washers (17), bolts (18), washers (17), and nuts (16).

11. Tighten two nuts (16) to 156-192 lb-in. (18-22 N•m).

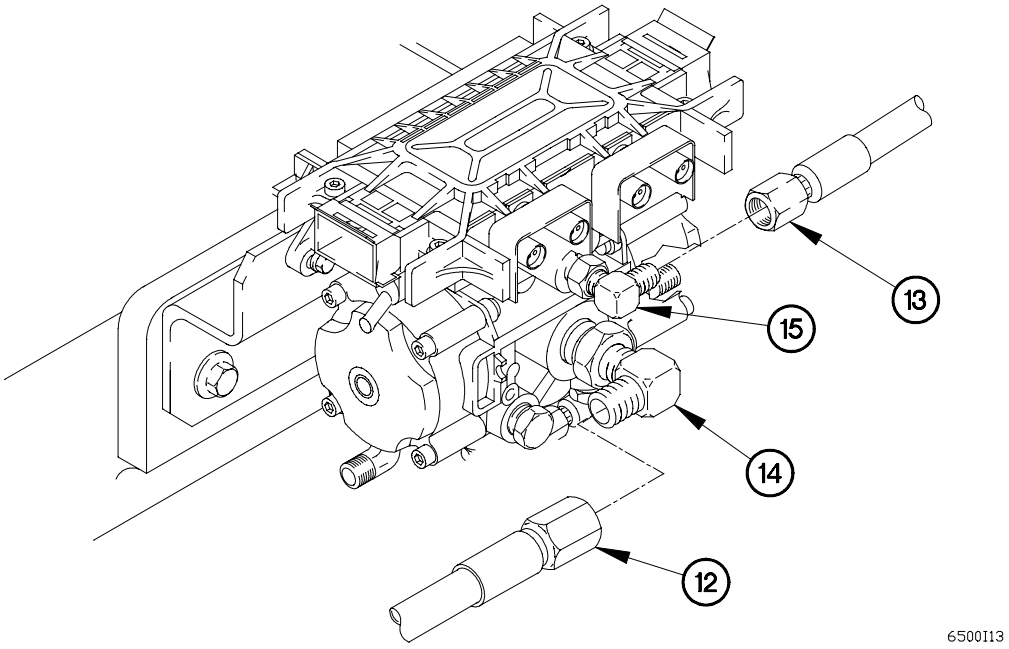


ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

INSTALLATION, LMTVT - Continued

NOTE
Install plastic cable ties as required.

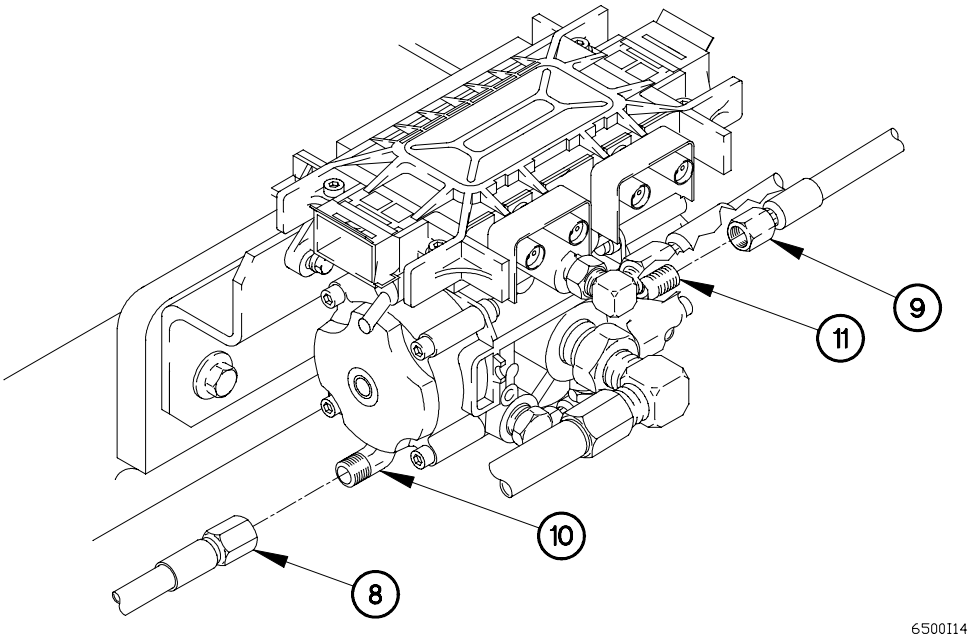
12. Connect air tubes (12 and 13) to 90-degree fittings (14 and 15).



ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

INSTALLATION, LMTVT - Continued

13. Connect air hoses (8 and 9) to 90-degree fittings (10 and 11).



ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

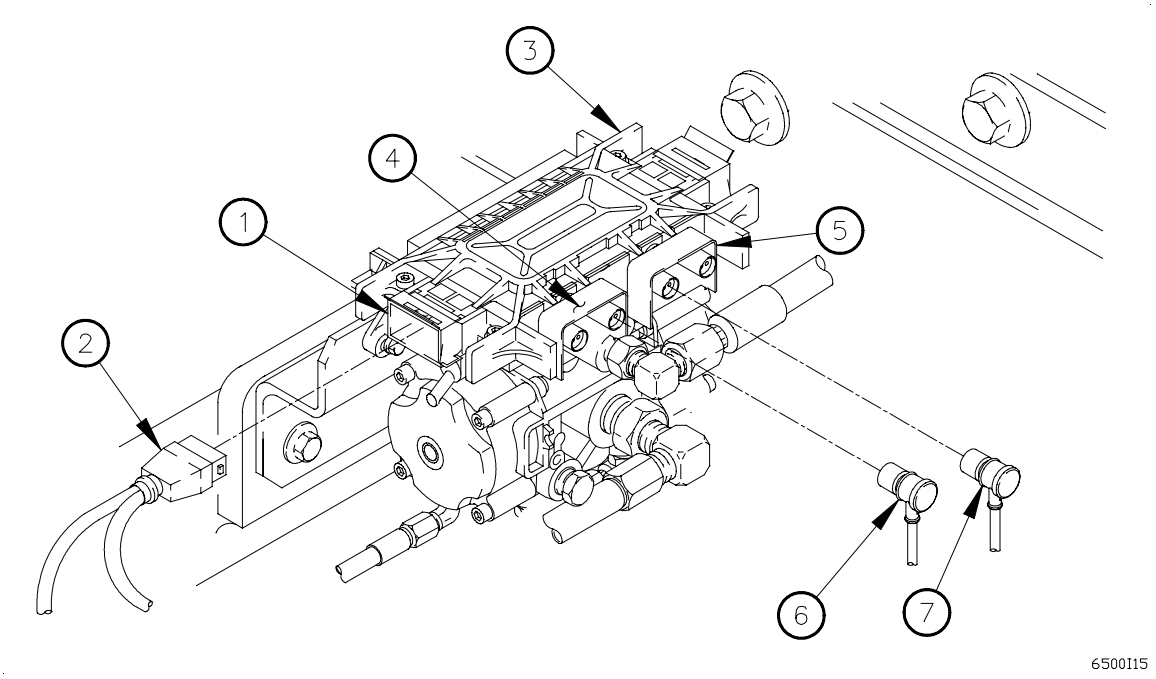
INSTALLATION, LMTVT - Continued

14. Connect sensor connectors YE1 and BU1 (6 and 7) to ABS ECU valve (3).

15. Push down on connector retainer clips (4 and 5) to secure.

16. Connect power and diagnostic cable connector (2) to ABS ECU valve (3).

17. Push down on connector retainer clip (1) to secure.



ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE - REPLACEMENT (VEHICLES S/N 15,676 and HIGHER) 0066 00

OPERATIONAL CHECK

1. Couple trailer (WP 0009 00, Coupling Trailer).
2. Start towing vehicle engine and allow time for air pressure to reach normal operating air pressure.
3. Check around ABS ECU valve and hoses for air leaks.
4. Road test trailer and check for proper brake operation.
5. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE.

ANTI-LOCK BRAKING SYSTEM (ABS) RELAY VALVE REPLACEMENT 0067 00

THIS WORK PACKAGE COVERS:

Removal, MTVT; Installation, MTVT; Removal, LMTVT; Installation, LMTVT; Operational Check

INITIAL SETUP:

Maintenance Level

Field

Tools and Special Tools

Tool Kit, Genl Mech (Item 37, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench, Torque, 0-300 lb-in. (Item 51, WP 0178 00)

Materials/Parts

Antiseize Compound (Item 3, WP 0176 00)
Ties, Cable, Plastic (Item 37, WP 0176 00)

References

WP 0009 00
Towing vehicle Operator manual

Equipment Conditions

Trailer uncoupled (WP 0012 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

ANTI-LOCK BRAKING SYSTEM (ABS) RELAY VALVE REPLACEMENT - Continued 0067 00

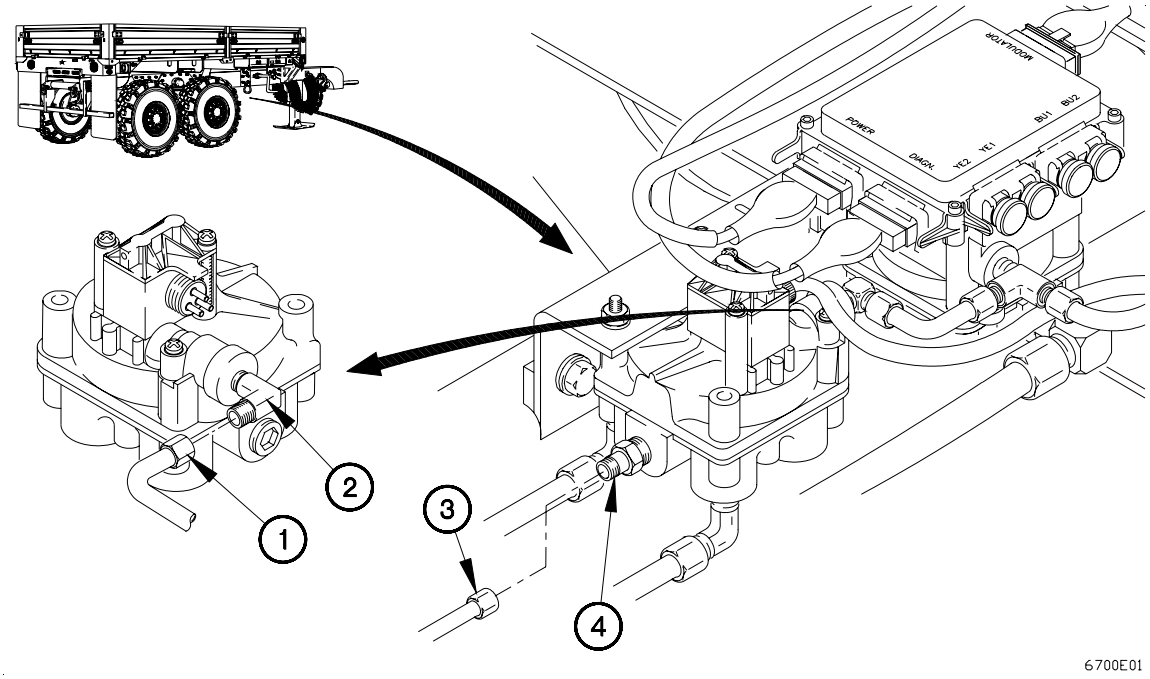
REMOVAL, MTVT

NOTE

Tag air hoses, electrical cables, and connection points prior to disconnecting.

Remove plastic cable ties as required.

1. Disconnect air hose (1) from 90-degree fitting (2).
2. Disconnect air hose (3) from fitting (4).

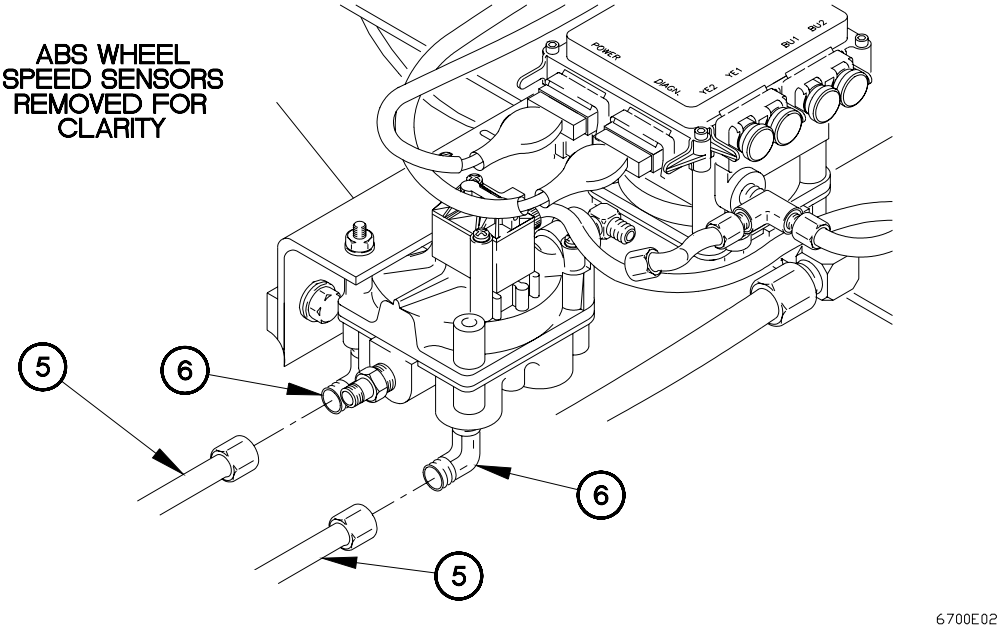


ANTI-LOCK BRAKING SYSTEM (ABS) RELAY VALVE REPLACEMENT - Continued

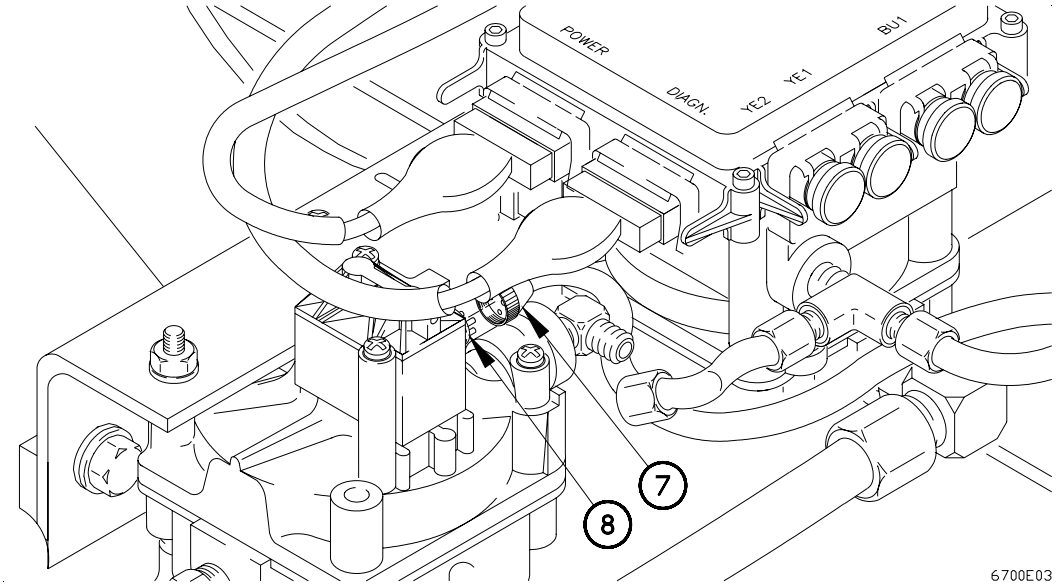
0067 00

REMOVAL, MTVT - Continued

3. Disconnect two air hoses (5) from 90-degree fittings (6).



4. Disconnect ECU to relay valve cable connector (7) from Anti-Lock Braking System (ABS) relay valve (8).

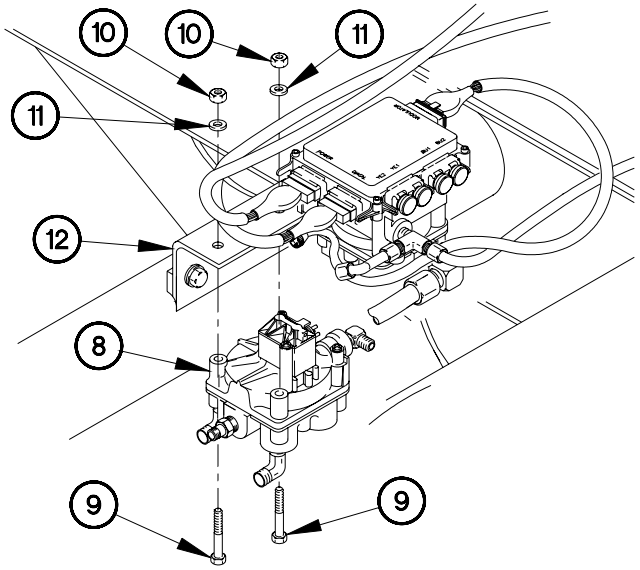


ANTI-LOCK BRAKING SYSTEM (ABS) RELAY VALVE REPLACEMENT - Continued 0067 00

REMOVAL, MTVT - Continued

5. Remove two bolts (9), nuts (10), and washers (11) from ABS control assembly bracket (12).

6. Remove ABS relay valve (8) from ABS control assembly bracket (12).

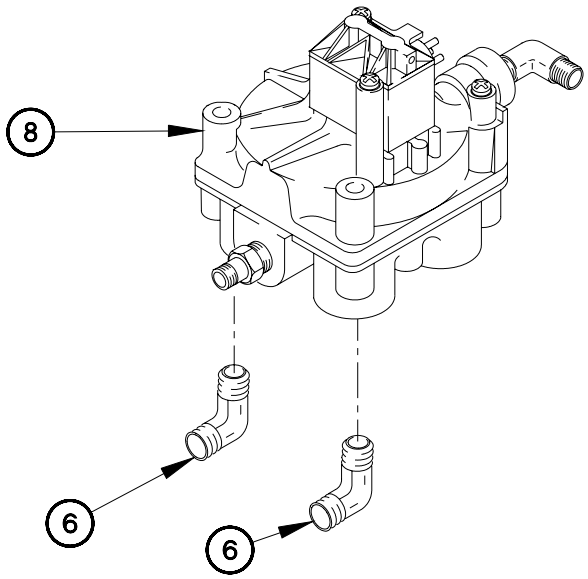


6700E04

NOTE

Note orientation of fittings prior to removal.

7. Remove two 90-degree fittings (6) from ABS relay valve (8).



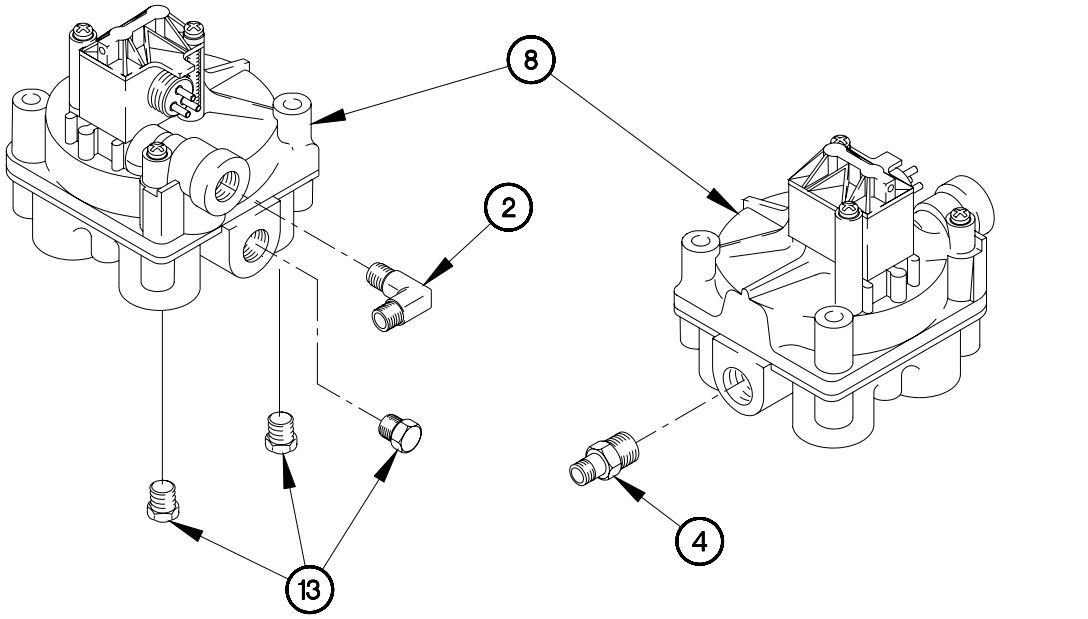
6700E05

ANTI-LOCK BRAKING SYSTEM (ABS) RELAY VALVE REPLACEMENT - Continued

0067 00

REMOVAL, MTVT - Continued

8. Remove three plugs (13) from ABS relay valve (8).
9. Remove 90-degree fitting (2) from ABS relay valve (8).
10. Remove fitting (4) from ABS relay valve (8).



6700E06

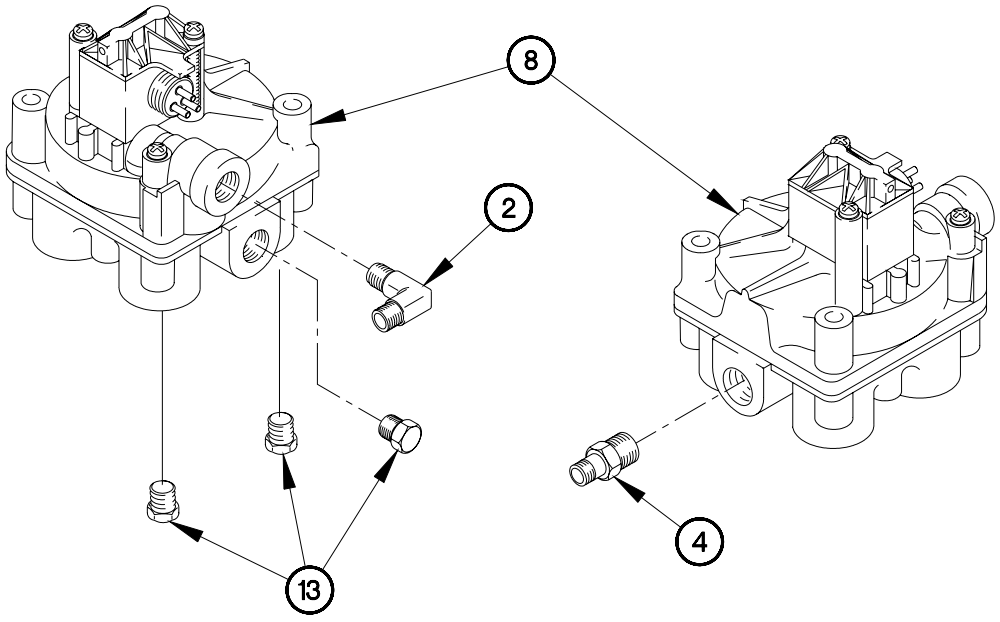
ANTI-LOCK BRAKING SYSTEM (ABS) RELAY VALVE REPLACEMENT - Continued 0067 00

INSTALLATION, MTVT

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

1. Apply antiseize compound to threads of three plugs (13), 90-degree fitting (2), and fitting (4).
2. Install three plugs (13) in ABS relay valve (8).
3. Install 90-degree fitting (2) in ABS relay valve (8).
4. Install fitting (4) in ABS relay valve (8).



6700E06

ANTI-LOCK BRAKING SYSTEM (ABS) RELAY VALVE REPLACEMENT - Continued

0067 00

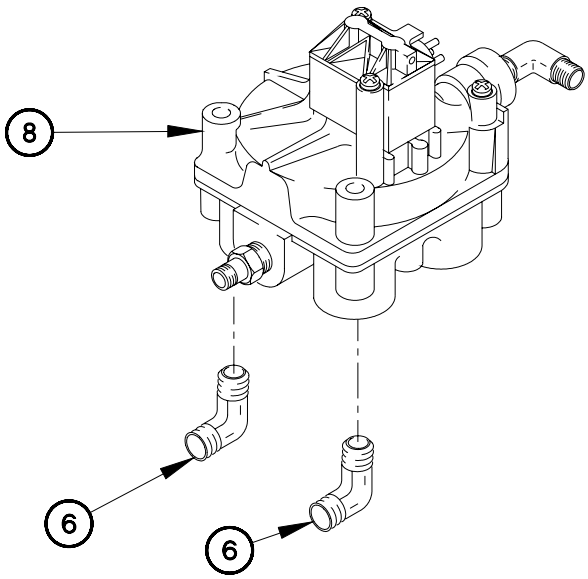
INSTALLATION, MTVT - Continued

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

5. Apply antiseize compound to threads of two 90-degree fittings (6).

6. Install 90-degree fittings (6) in ABS relay valve (8).



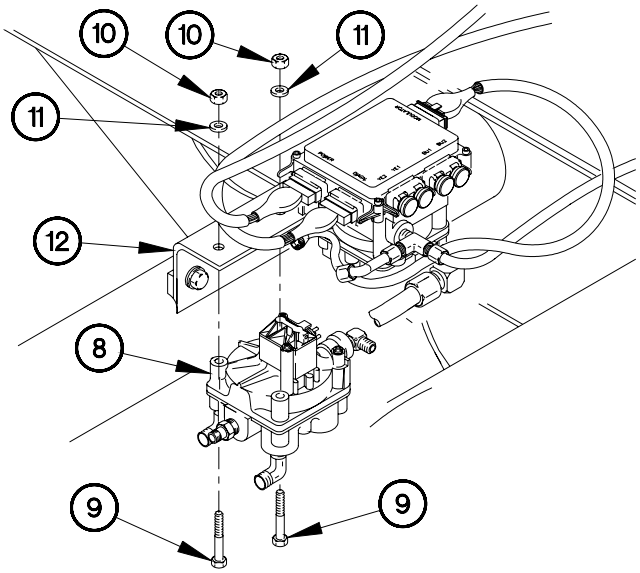
6700E05

ANTI-LOCK BRAKING SYSTEM (ABS) RELAY VALVE REPLACEMENT - Continued 0067 00

INSTALLATION, MTVT - Continued

7. Position ABS relay valve (8) on ABS control assembly bracket (12) with two bolts (9), washers (11), and nuts (10).

8. Tighten two nuts (10) to 156-192 lb-in. (18-22 N•m).

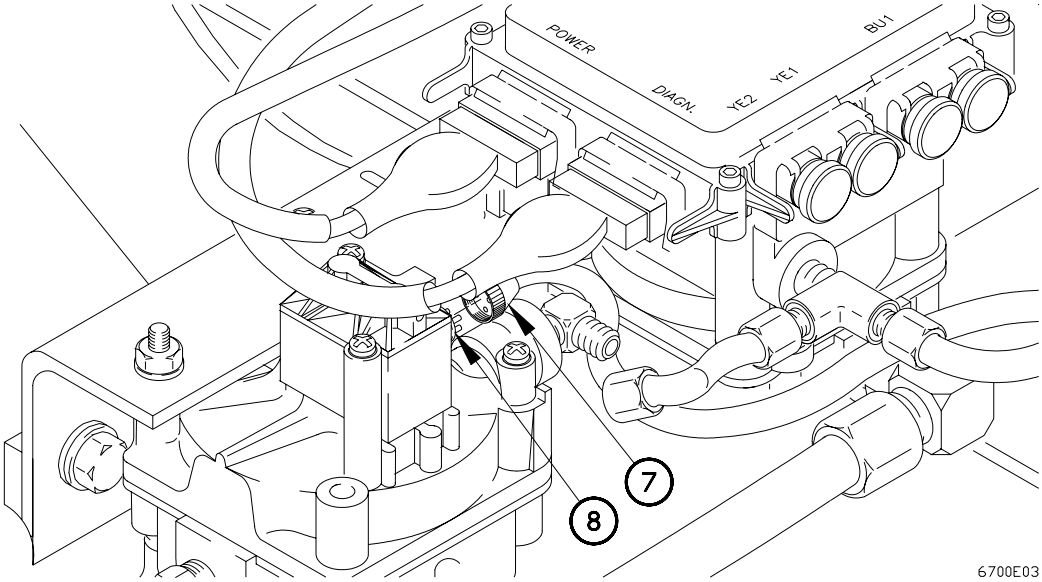


6700E04

NOTE

Install plastic cable ties as required.

9. Connect ECU to relay valve cable connector (7) to ABS relay valve (8).



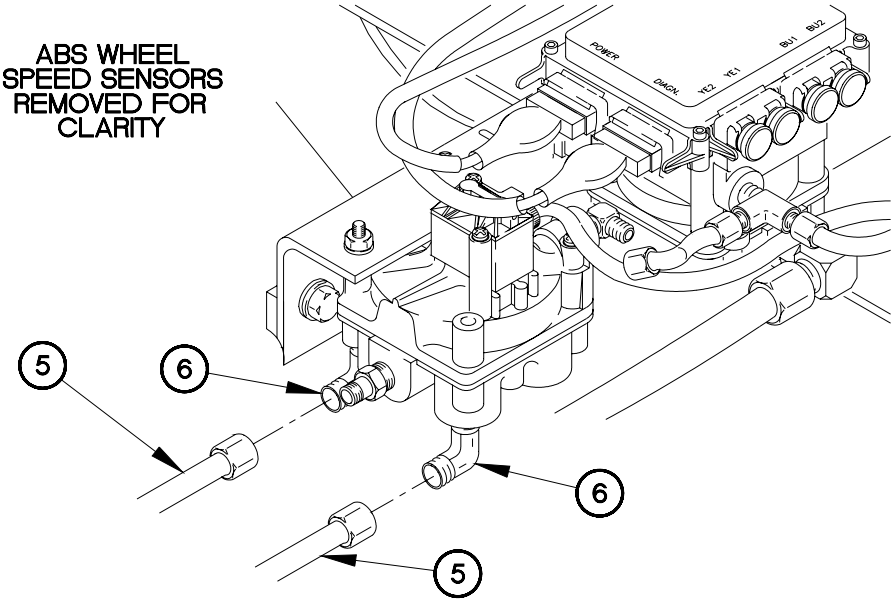
6700E03

ANTI-LOCK BRAKING SYSTEM (ABS) RELAY VALVE REPLACEMENT - Continued

0067 00

INSTALLATION, MTVT - Continued

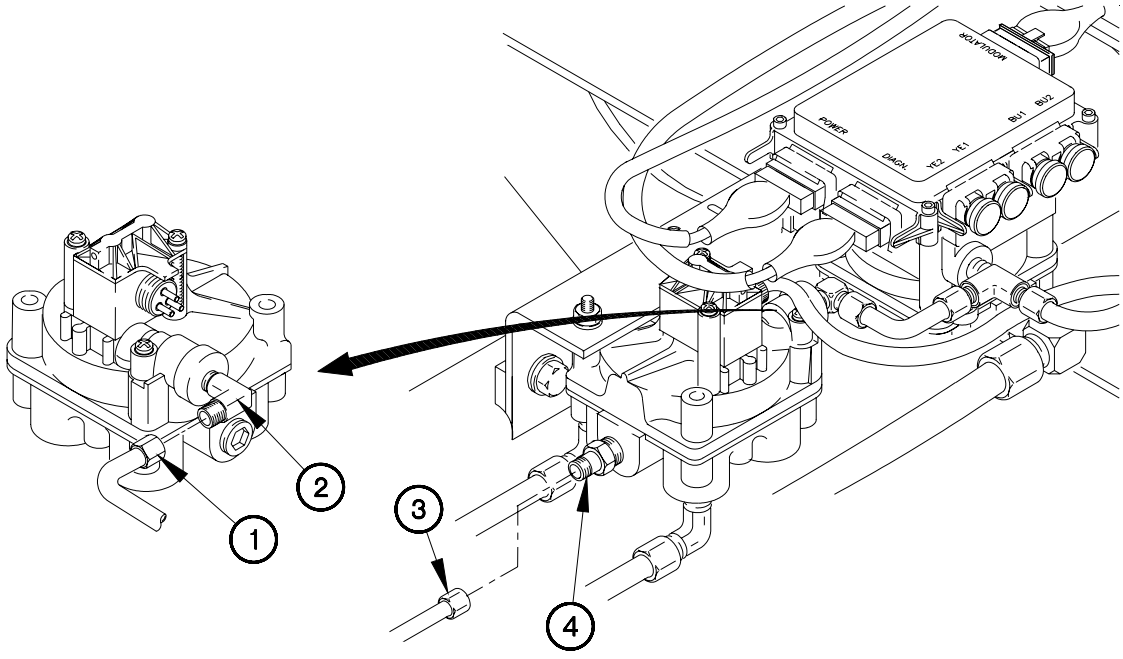
10. Connect two air hoses (5) to 90-degree fittings (6).



6700E02

11. Connect air hose (1) to 90-degree fitting (2).

12. Connect air hose (3) to fitting (4).



6700E07

ANTI-LOCK BRAKING SYSTEM (ABS) RELAY VALVE REPLACEMENT - Continued 0067 00

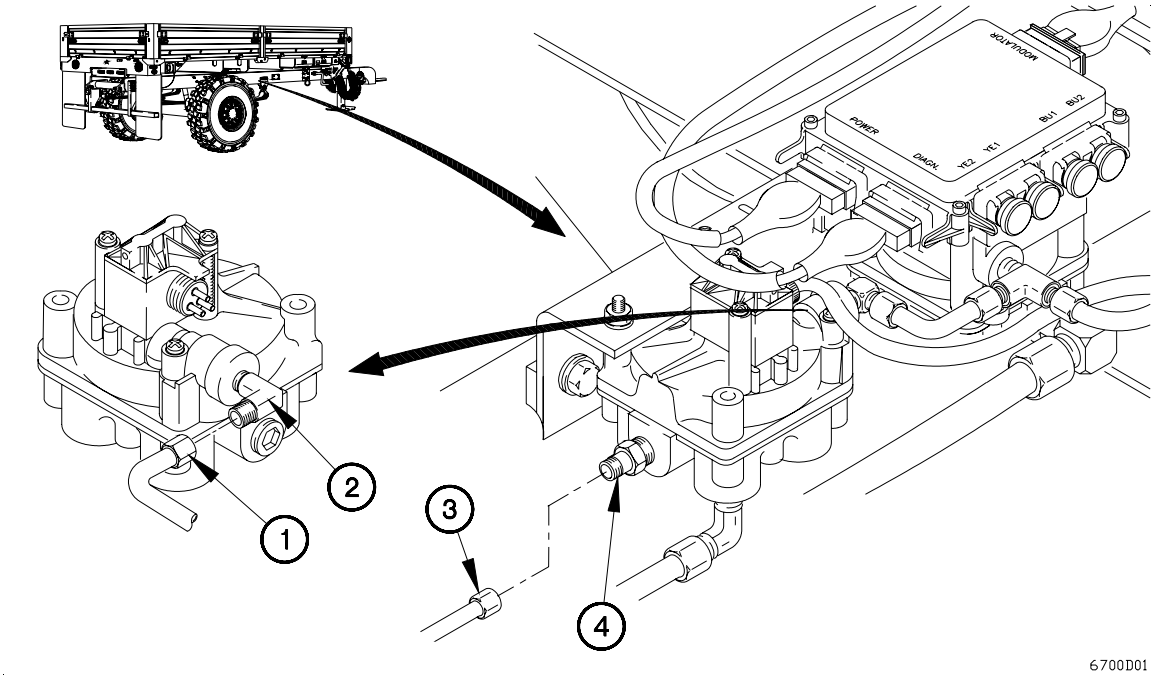
REMOVAL, LMTVT

NOTE

Tag air hoses, electrical cables, and connection points prior to disconnecting.

Remove plastic cable ties as required.

1. Disconnect air hose (1) from 90-degree fitting (2).
2. Disconnect air hose (3) from fitting (4).

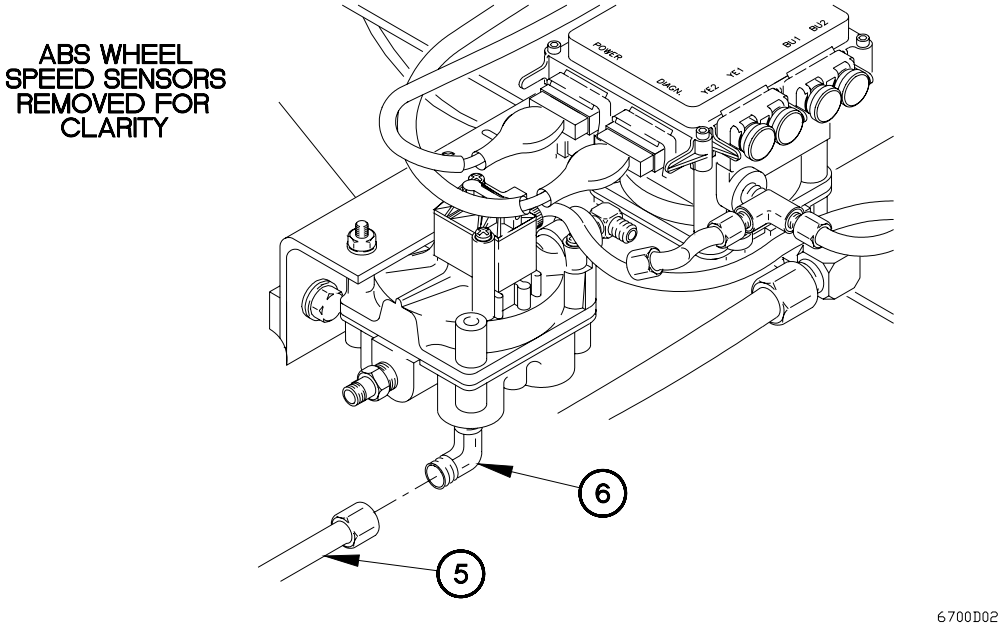


ANTI-LOCK BRAKING SYSTEM (ABS) RELAY VALVE REPLACEMENT - Continued

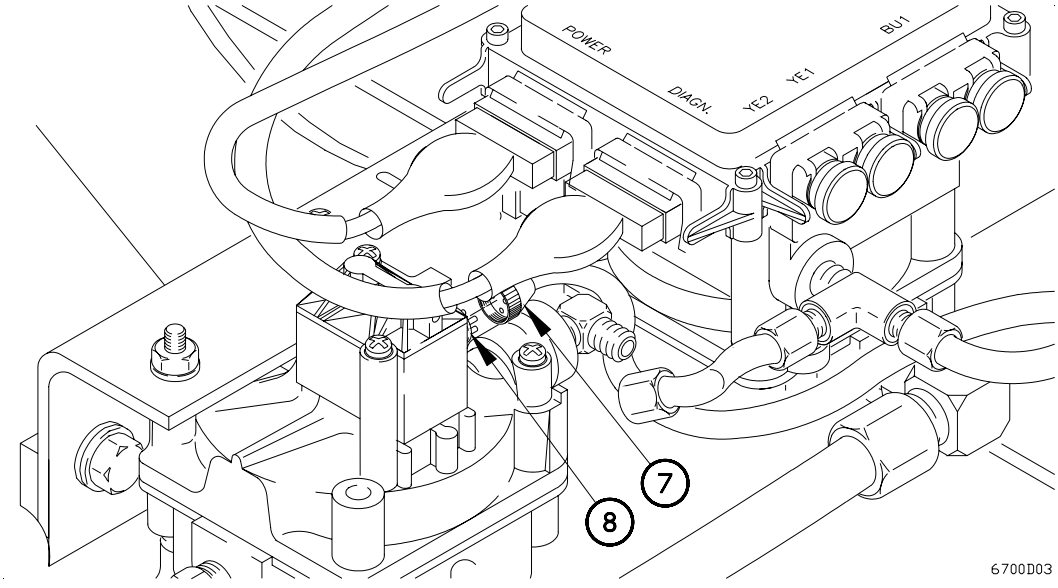
0067 00

REMOVAL, LMTVT - Continued

3. Disconnect air hose (5) from 90-degree fitting (6).



4. Disconnect ECU to relay valve cable connector (7) from Anti-Lock Braking System (ABS) relay valve (8).

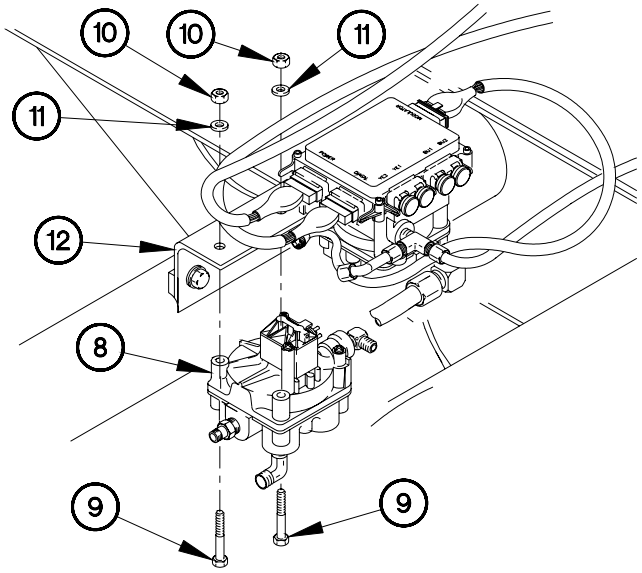


ANTI-LOCK BRAKING SYSTEM (ABS) RELAY VALVE REPLACEMENT - Continued 0067 00

REMOVAL, LMTVT - Continued

5. Remove two bolts (9), nuts (10), and washers (11) from ABS control assembly bracket (12).

6. Remove ABS relay valve (8) from ABS control assembly bracket (12).

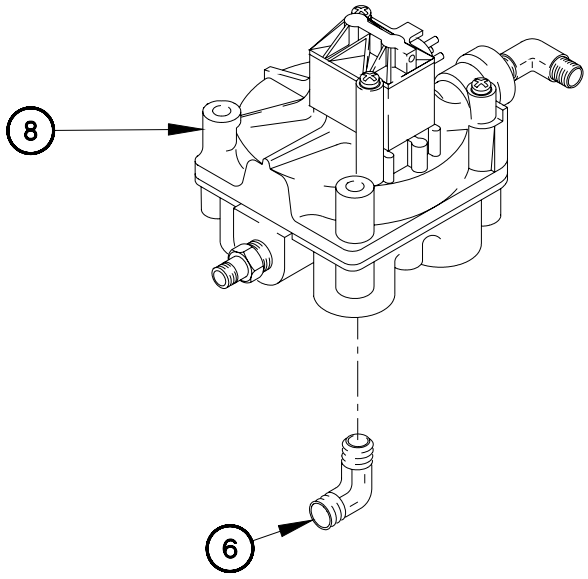


6700D04

NOTE

Note orientation of fittings prior to removal.

7. Remove 90-degree fitting (6) from ABS relay valve (8).



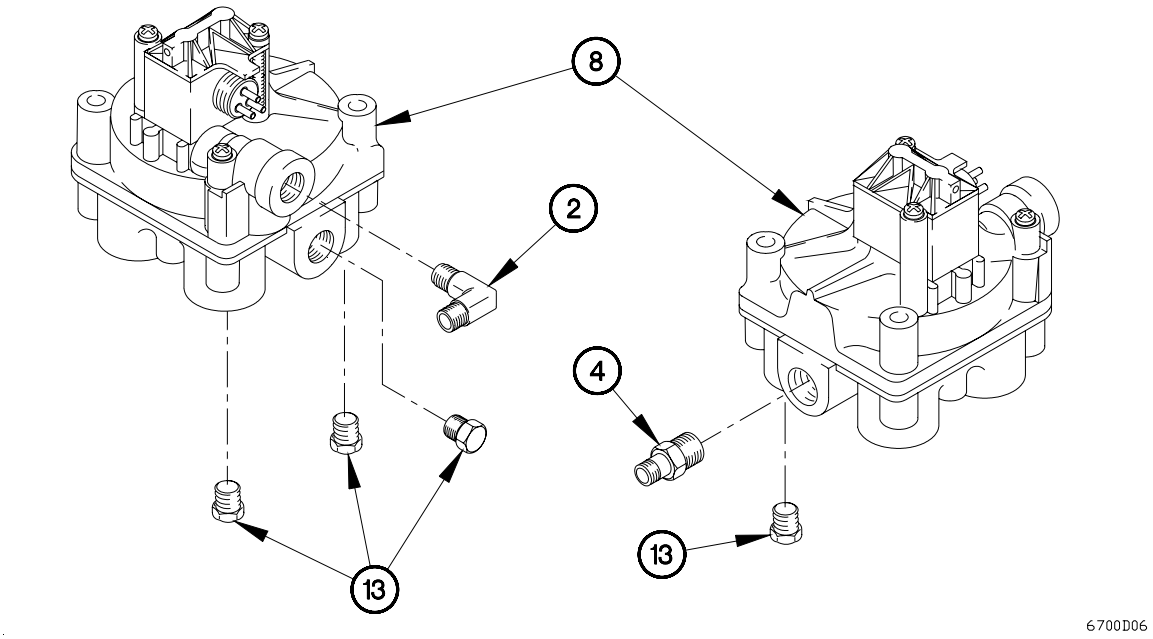
6700D05

ANTI-LOCK BRAKING SYSTEM (ABS) RELAY VALVE REPLACEMENT - Continued

0067 00

REMOVAL, LMTVT - Continued

8. Remove four plugs (13) from ABS relay valve (8).
9. Remove 90-degree fitting (2) from ABS relay valve (8).
10. Remove fitting (4) from ABS relay valve (8).



6700D06

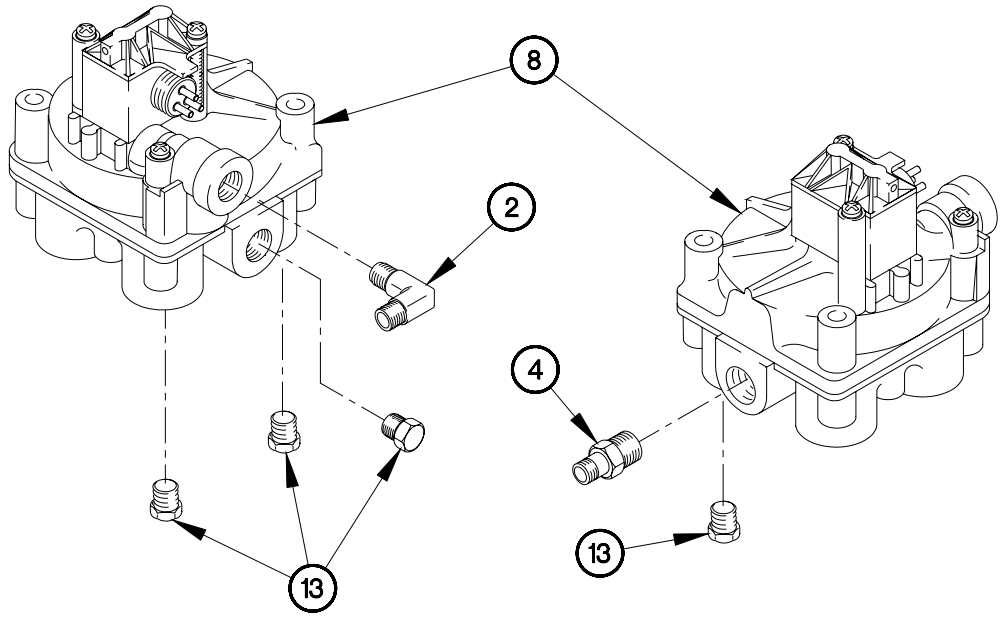
ANTI-LOCK BRAKING SYSTEM (ABS) RELAY VALVE REPLACEMENT - Continued 0067 00

INSTALLATION, LMTVT

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

1. Apply antiseize compound to threads of four plugs (13), 90-degree fitting (2), and fitting (4).
2. Install four plugs (13) in ABS relay valve (8).
3. Install 90-degree fitting (2) in ABS relay valve (8).
4. Install fitting (4) in ABS relay valve (8).



6700D06

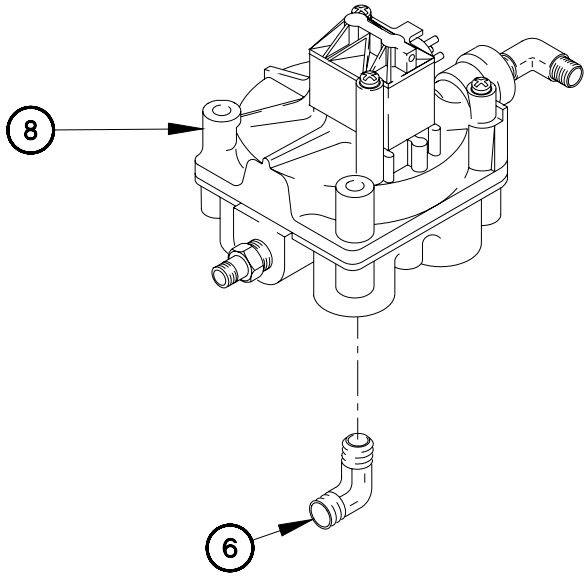
ANTI-LOCK BRAKING SYSTEM (ABS) RELAY VALVE REPLACEMENT - Continued

0067 00

INSTALLATION, LMTVT - Continued

5. Apply antiseize compound to threads of 90-degree fitting (6).

6. Install 90-degree fitting (6) in ABS relay valve (8).



6700D05

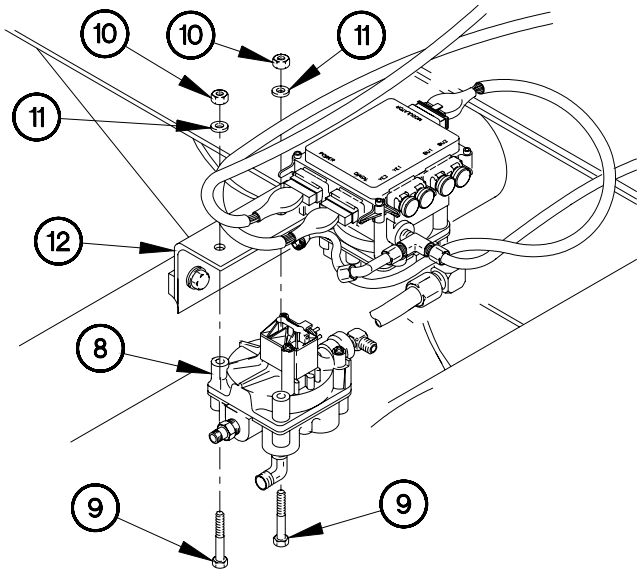
ANTI-LOCK BRAKING SYSTEM (ABS) RELAY VALVE REPLACEMENT - Continued

0067 00

INSTALLATION, LMTVT - Continued

7. Position ABS relay valve (8) on ABS control assembly bracket (12) with two bolts (9), washers (11), and nuts (10).

8. Tighten two nuts (10) to 156-192 lb-in. (18-22 N•m).



6700D04

ANTI-LOCK BRAKING SYSTEM (ABS) RELAY VALVE REPLACEMENT - Continued

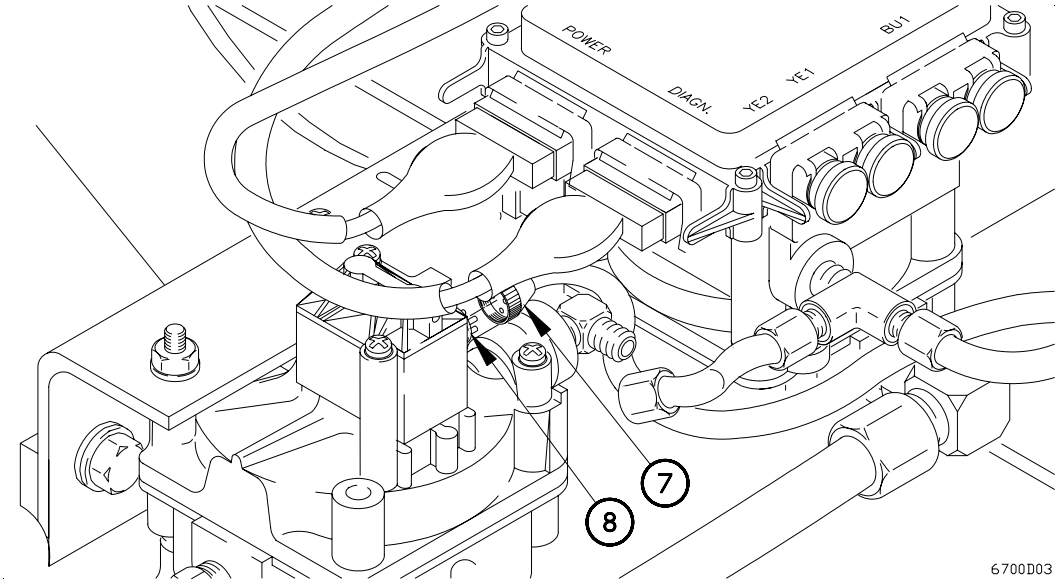
0067 00

INSTALLATION, LMTVT - Continued

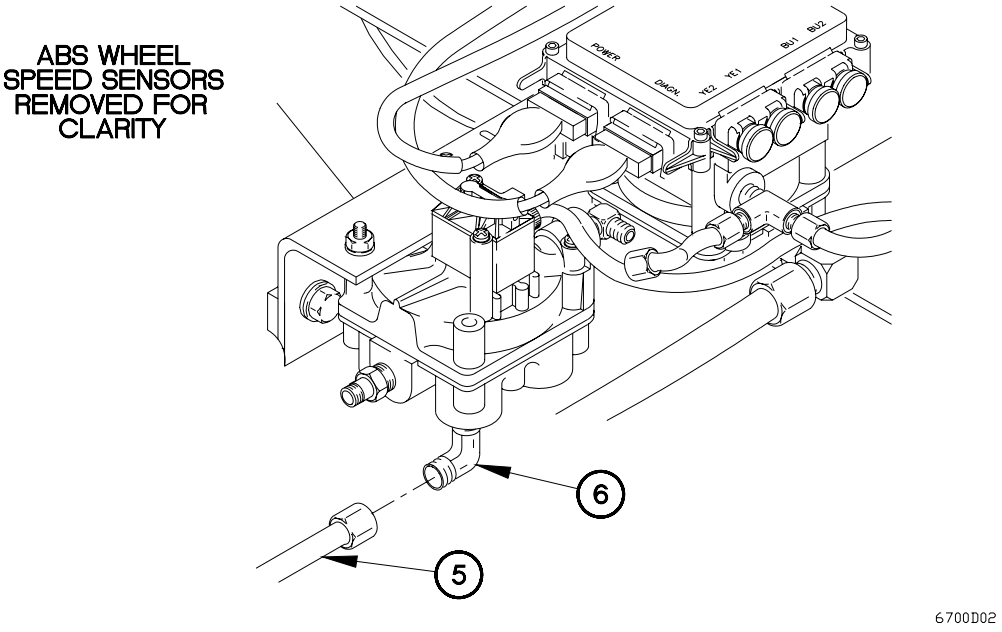
NOTE

Install plastic cable ties as required.

9. Connect ECU to relay valve cable connector (7) to ABS relay valve (8).



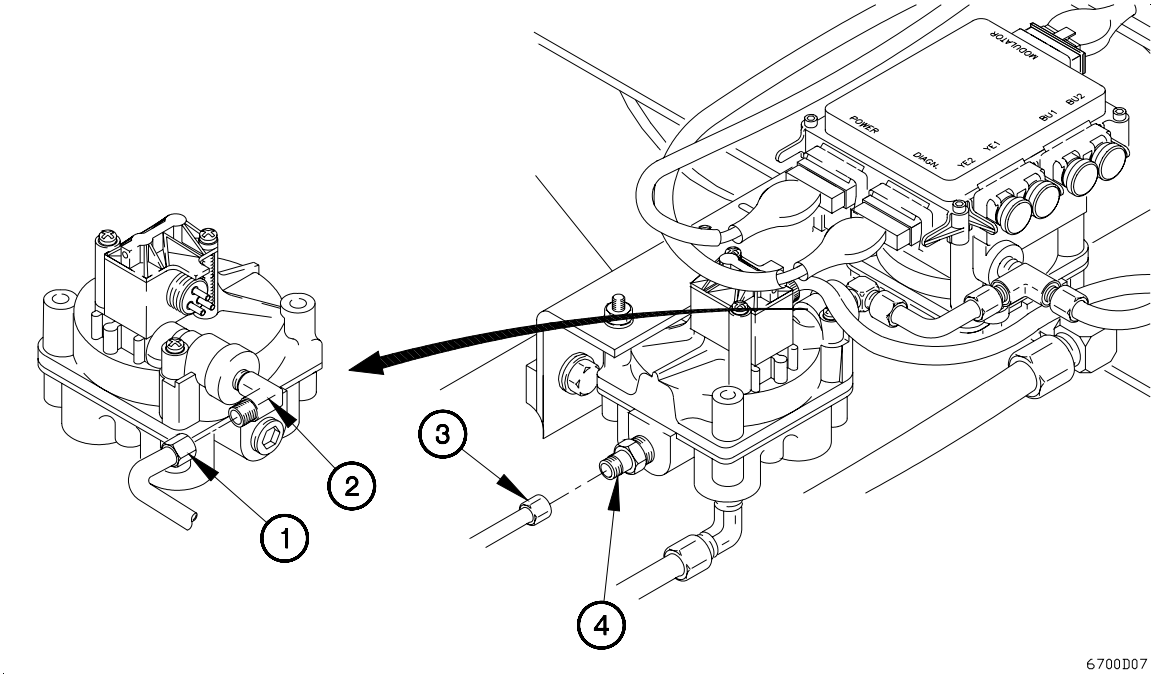
10. Connect air hose (5) to 90-degree fittings (6).



ANTI-LOCK BRAKING SYSTEM (ABS) RELAY VALVE REPLACEMENT - Continued 0067 00

INSTALLATION, LMTVT - Continued

11. Connect air hose (1) to 90-degree fitting (2).
12. Connect air hose (3) to fitting (4).



OPERATIONAL CHECK

1. Couple trailer (WP 009 00, Coupling Trailer).
2. Start towing vehicle and allow time for air pressure to reach normal operating air pressure.
3. Check around ABS relay valve and hoses for air leaks.
4. Road test trailer and check for proper brake operation.
5. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE.

ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL POWER HARNESS REPLACEMENT

0068 00

THIS WORK PACKAGE COVERS:

Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level

Field

Tools and Special Tools

Tool Kit, Electrical Contact Repair (Item 36, WP 0178 00)
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench, Torque, 0-300 lb-in (Item 51, WP 0178 00)

Materials/Parts

Antiseize Compound (Item 3, WP 0176 00)
Ties, Cable, Plastic (Item 37, WP 0176 00)

Materials/Parts (Cont)

Terminal, Lug (Item 5, WP 0181 00)
Nut, Self-Locking (3) (LMTVT) (Item 37, WP 0181 00)
Nut, Self-Locking (4) (MTVT) (Item 37, WP 0181 00)
Insulation Sleeving (Item 19, WP 0176 00)
Cap and Plug Set (Item 6, WP 0176 00)

References

WP 0009 00
Towing vehicle Operator manual
WP 0096 00

Equipment Conditions

Trailer uncoupled (WP 0012 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL POWER HARNESS REPLACEMENT - Continued

0068 00

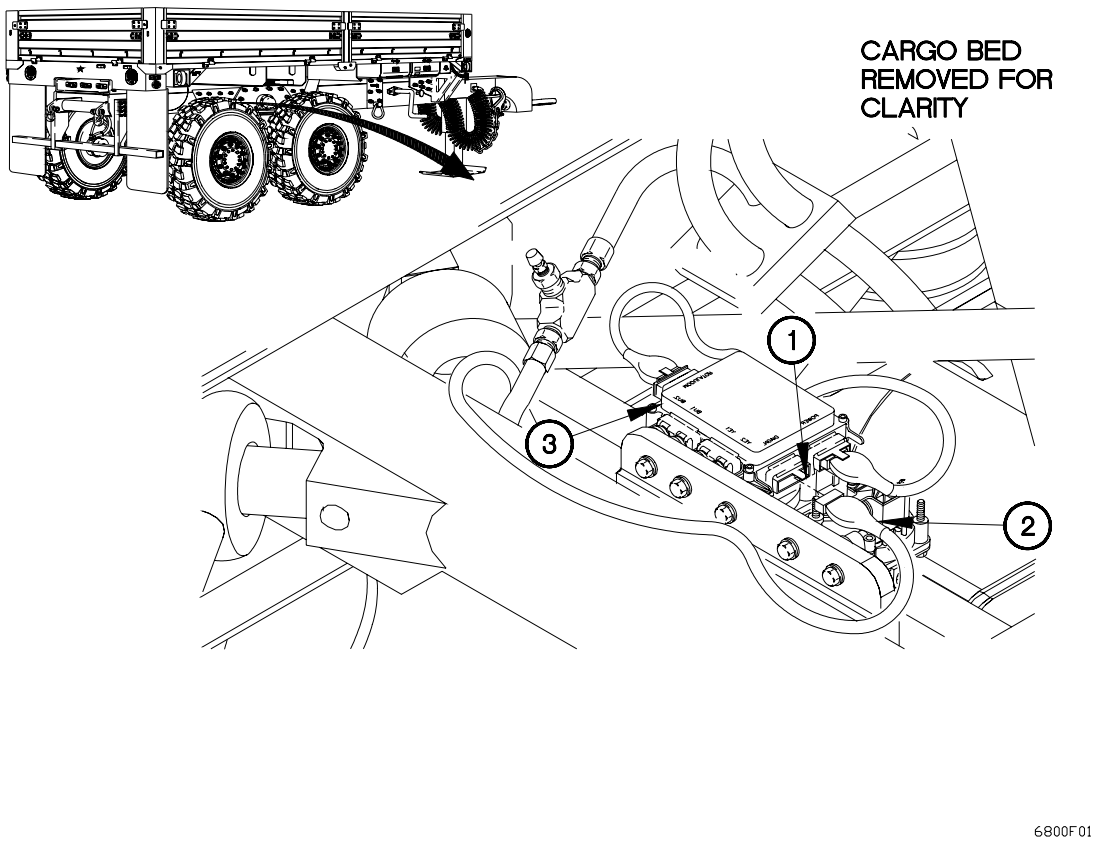
REMOVAL

NOTE

Note routing of Anti-Lock Braking System (ABS) control power harness prior to removal.

Remove plastic cable ties as required.

1. Push up on connector retainer clip (1).
2. Disconnect connector (2) from ABS control assembly (3).



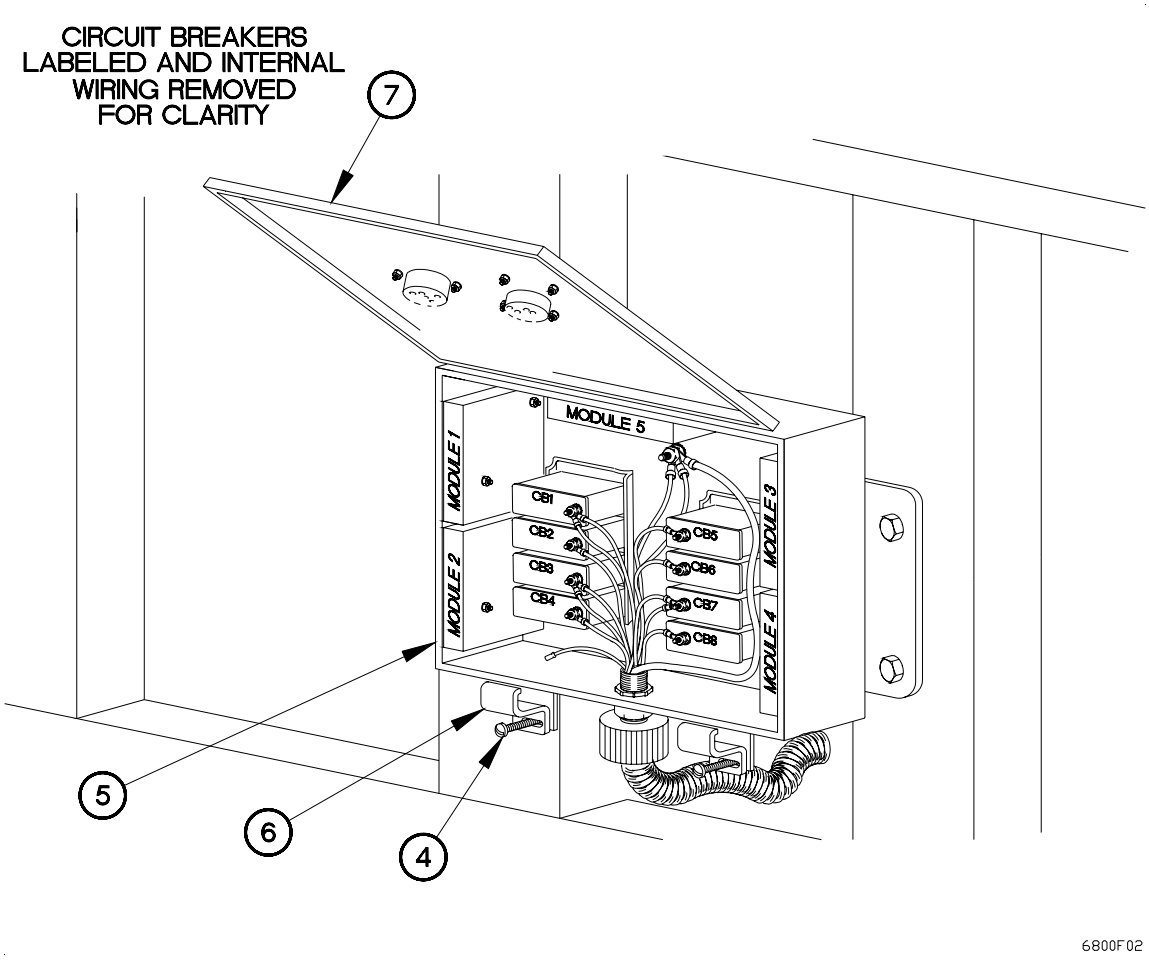
6800F01

ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL POWER HARNESS REPLACEMENT - Continued

0068 00

REMOVAL - Continued

3. Loosen two screws (4) on voltage converter box (5) and disconnect latches (6).
4. Open cover (7) on voltage converter box (5).



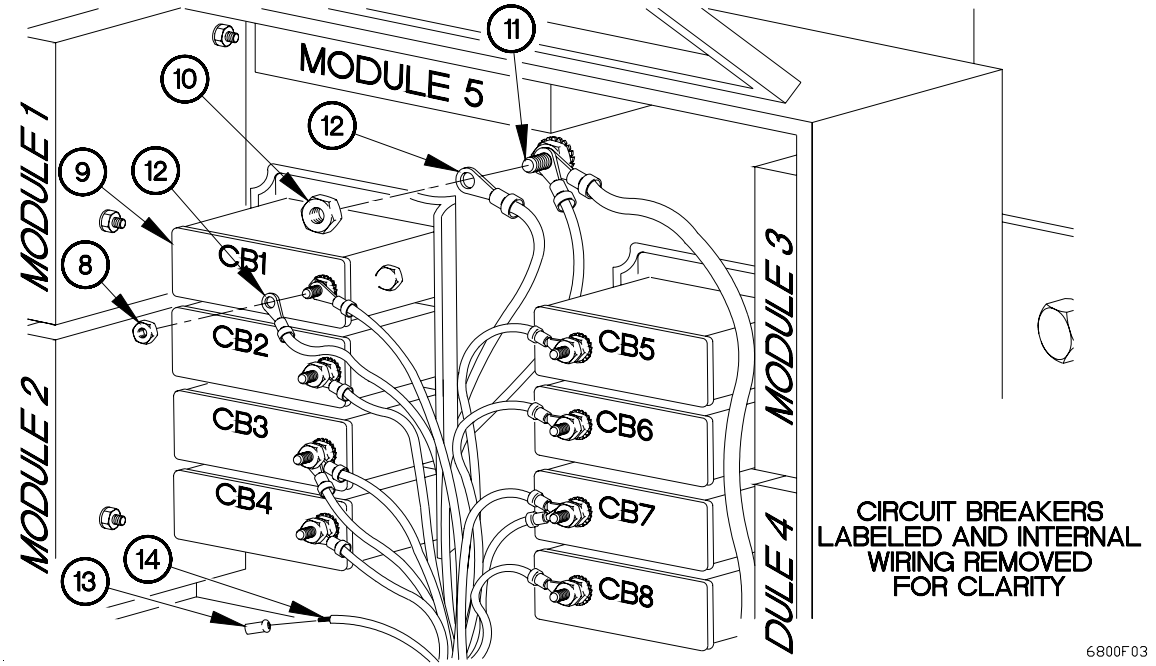
ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL POWER HARNESS REPLACEMENT - Continued 0068 00

REMOVAL - Continued

NOTE

Tag wires and connection points prior to disconnecting.

5. Remove nut (8) from circuit breaker CB1 (9).
6. Remove nut (10) and ABS control power harness wires (12) from circuit breaker CB1 (9) and from ground stud (11).
7. Remove wire nut (13) from ABS warning lamp wire (14).

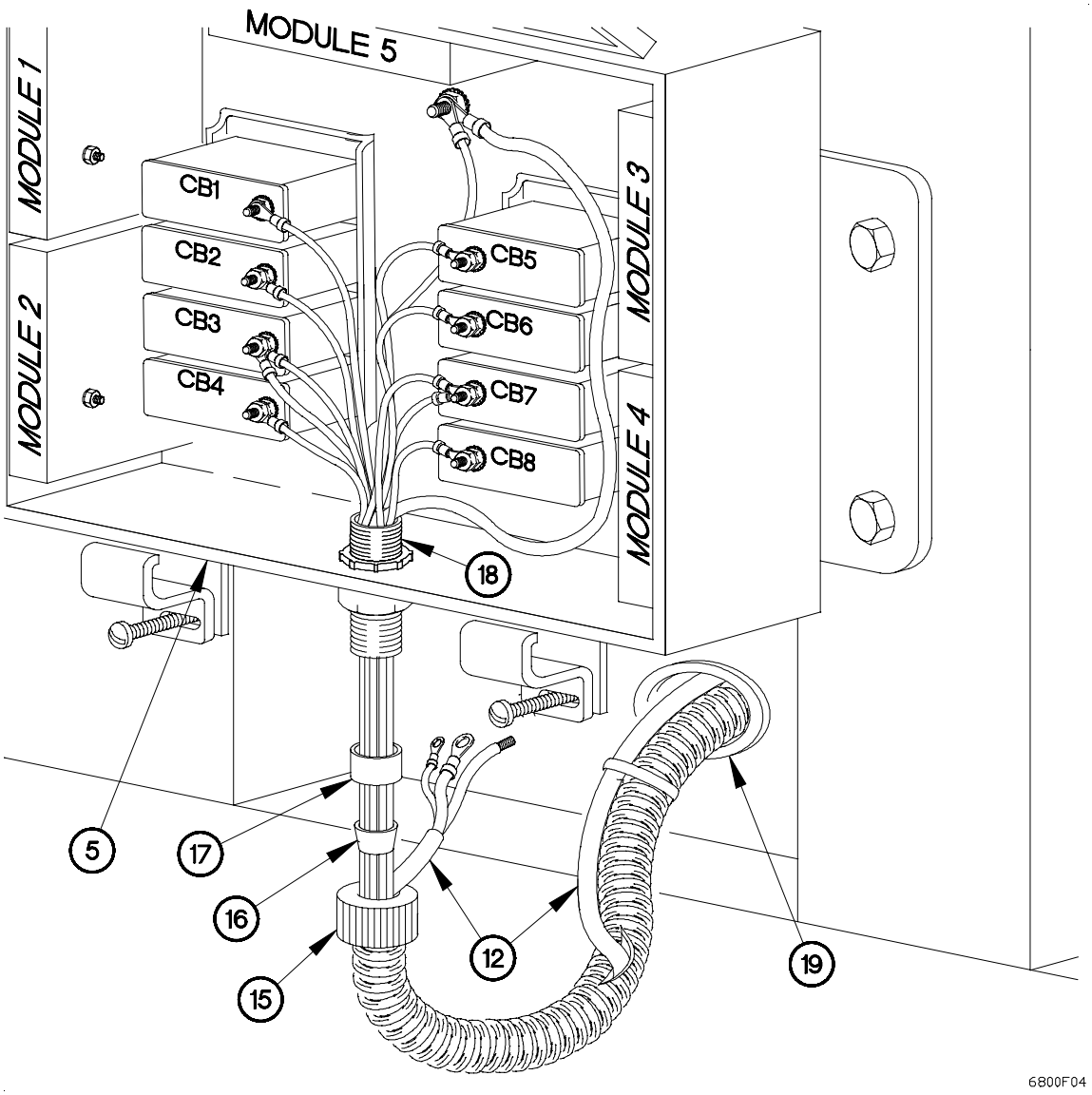


ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL POWER HARNESS REPLACEMENT - Continued

0068 00

REMOVAL - Continued

8. Loosen fitting collar (15), swedge (16), and protector (17).
9. Remove ABS control power harness (12) from voltage converter box (5).
10. Pull ABS control power harness (12) through fitting (18) and bulkhead opening (19).



ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL POWER HARNESS REPLACEMENT - Continued 0068 00

REMOVAL - Continued

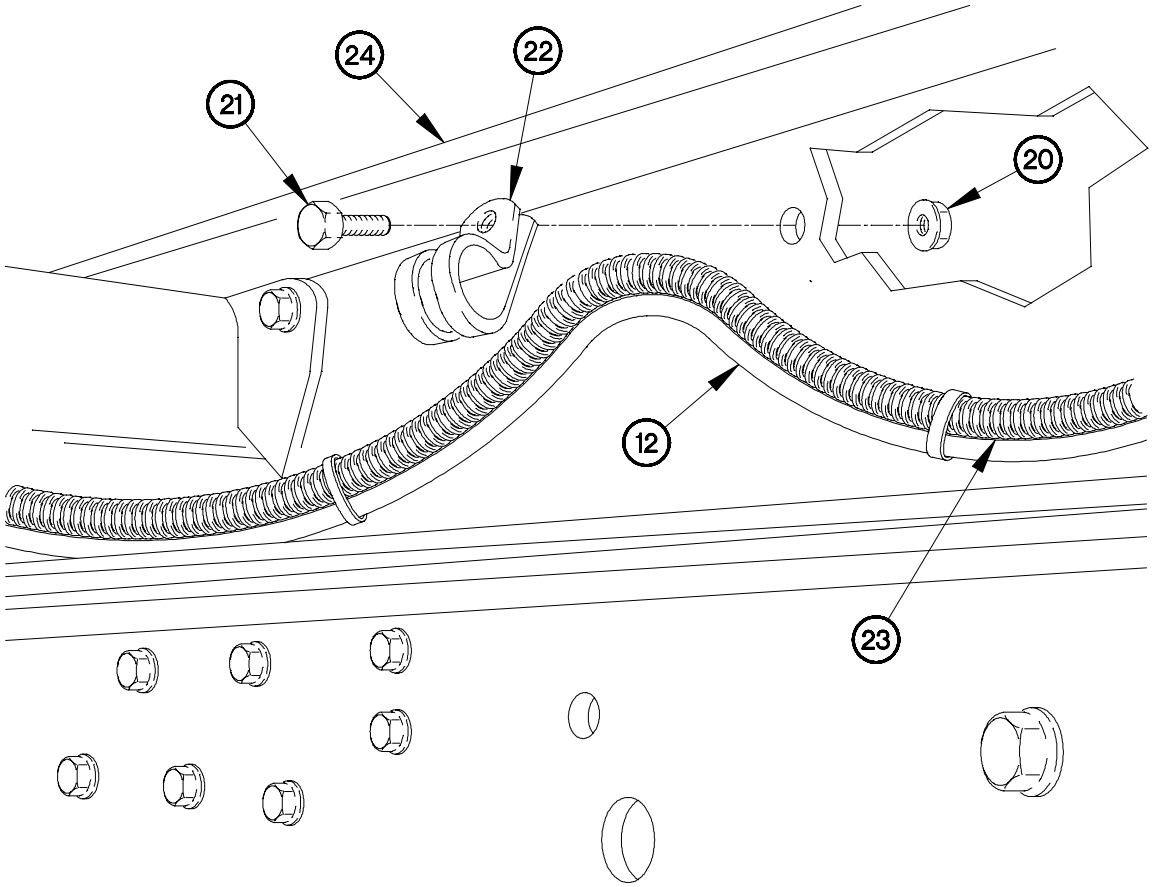
NOTE

Perform steps (11) and (12) on LMTVT.

ABS control power harness is routed along interior right frame rail with electrical cable assembly which, in turned, is secured with plastic cable ties to brake air hoses.

11. Remove three self-locking nuts (20), screws (21), clamps (22), ABS control power harness (12), and electrical cable assembly (23) from right frame rail (24). Discard self-locking nuts.

12. Remove three clamps (22) from electrical cable assembly (23).



6800F05

ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL POWER HARNESS REPLACEMENT - Continued

0068 00

REMOVAL - Continued

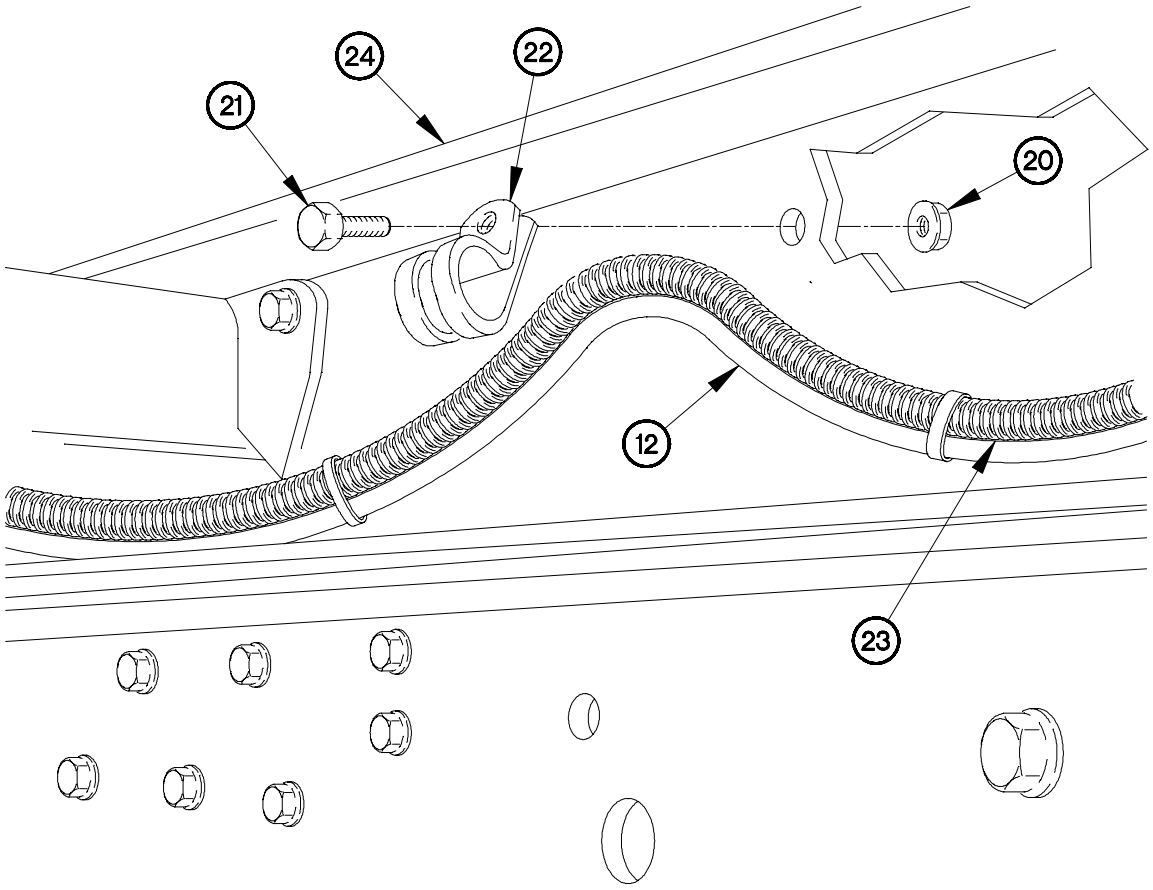
NOTE

Perform steps (13) and (14) on MTVT.

ABS control power harness is routed along interior right frame rail with electrical cable assembly which is secured with plastic cable ties to brake air hoses.

13. Remove four self-locking nuts (20), screws (21), clamps (22), ABS control power harness (12), and electrical cable assembly (23) from right frame rail (24). Discard self-locking nuts.

14. Remove four clamps (22) from electrical cable assembly (23).



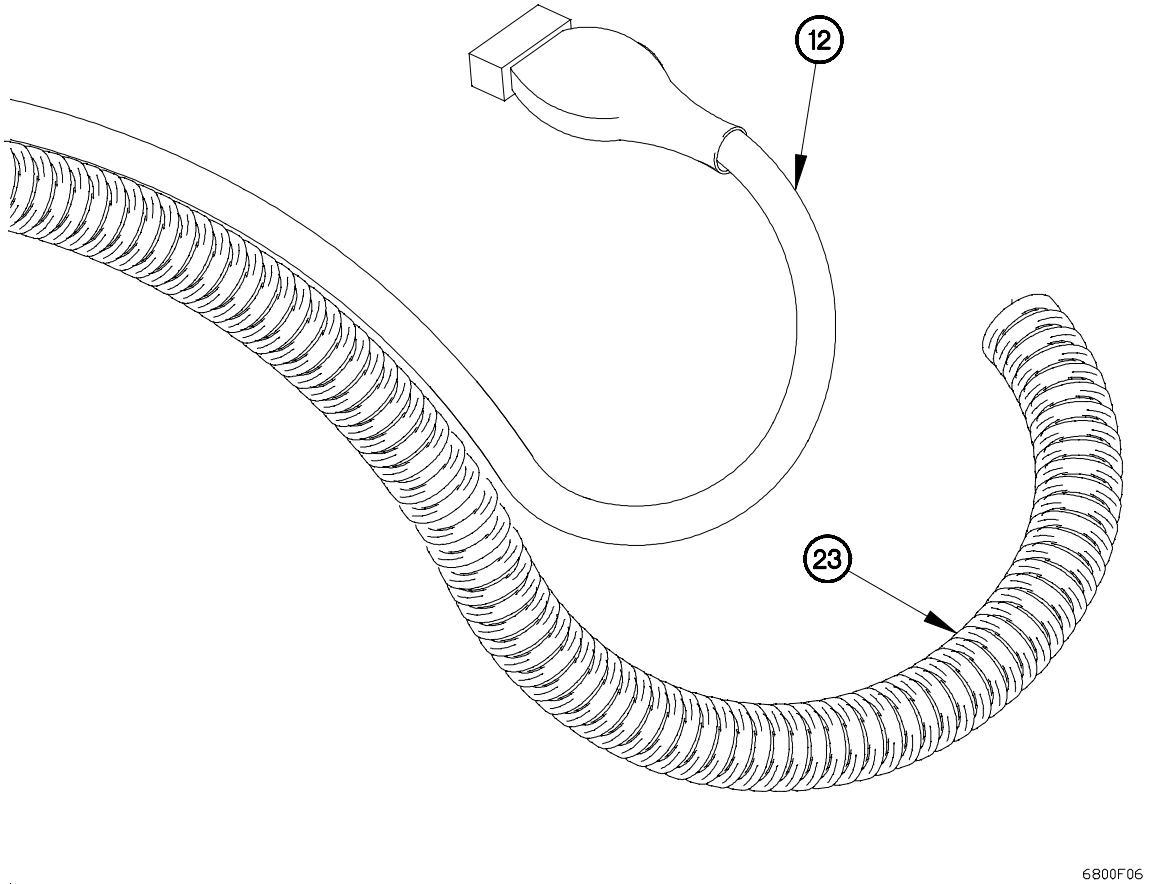
6800F05

ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL POWER HARNESS REPLACEMENT - Continued

0068 00

REMOVAL - Continued

15. Remove ABS control power harness (12) from electrical cable assembly (23).



ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL POWER HARNESS REPLACEMENT - Continued

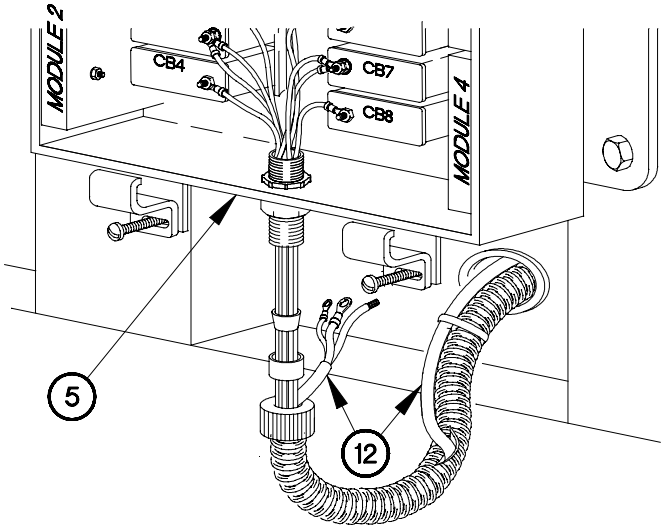
0068 00

INSTALLATION

NOTE

Install plastic cable ties as required.

1. Pull ABS control power harness (12) to voltage converter box (5).



6800F07

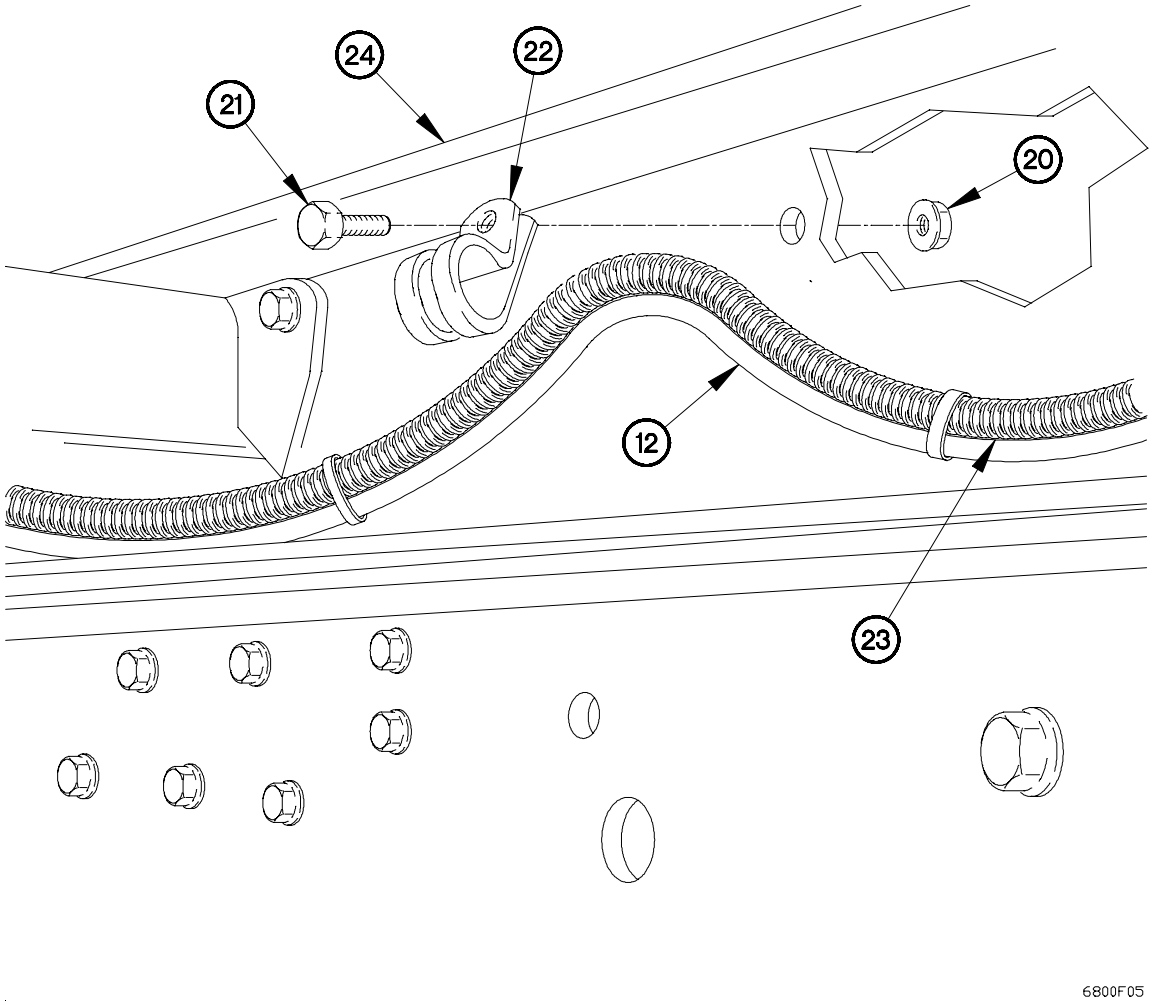
ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL POWER HARNESS REPLACEMENT - Continued

INSTALLATION - Continued

NOTE

Perform steps (2) through (4) on LMTVT.

2. Position three clamps (22) on electrical cable assembly (23) and ABS control power harness (12).
3. Position clamps (22) on right frame rail (24) with three screws (21) and self-locking nuts (20).
4. Tighten three self-locking nuts (20) to 60-72 lb-in (7-9 N•m).



6800F05

ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL POWER HARNESS REPLACEMENT - Continued

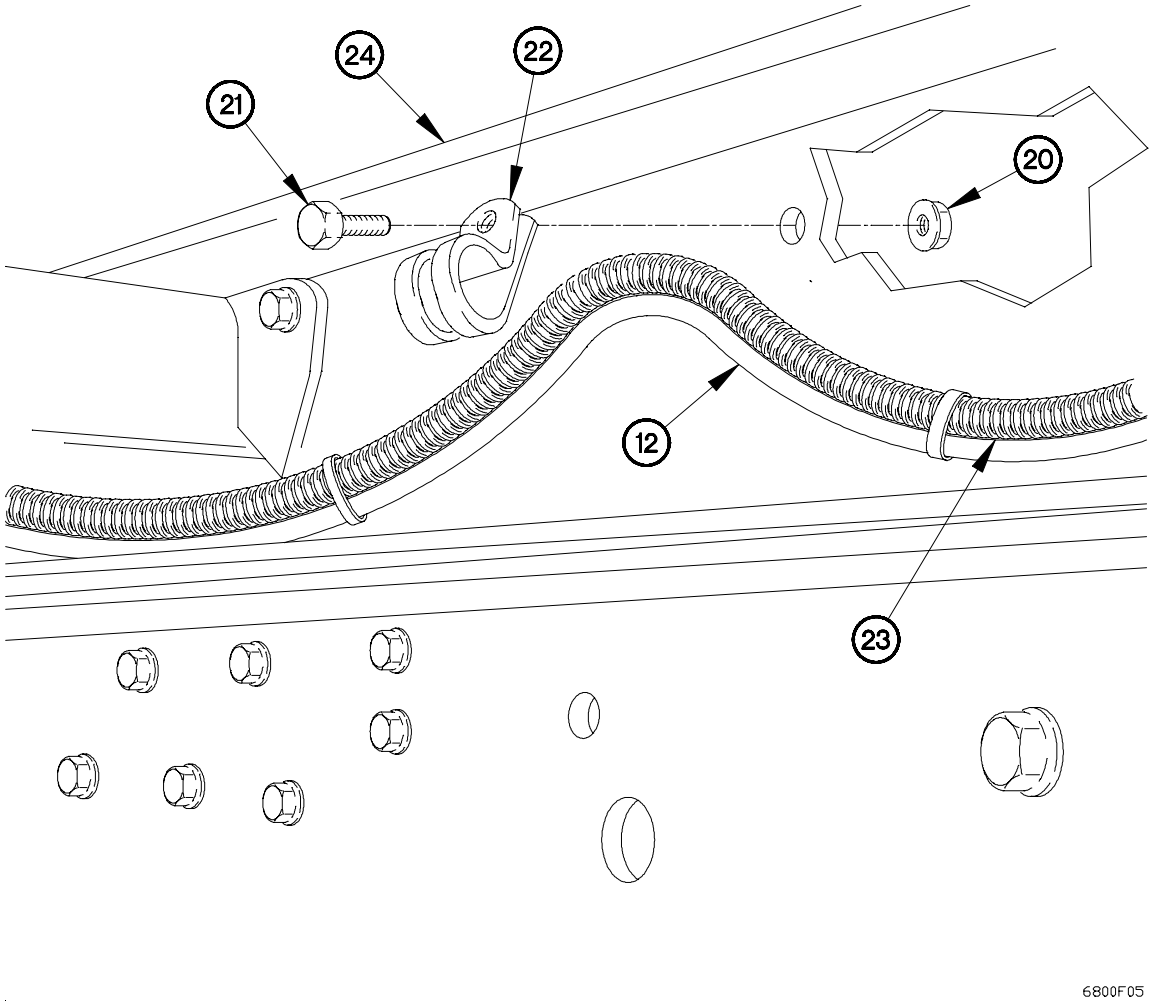
0068 00

INSTALLATION - Continued

NOTE

Perform steps (5) through (7) on MTVT.

5. Position four clamps (22) on electrical cable assembly (23) and ABS control power harness (12).
6. Position clamps (22) on right frame rail (24) with four screws (21) and self-locking nuts (20).
7. Tighten four self-locking nuts (20) to 60-72 lb-in (7-9 N•m).



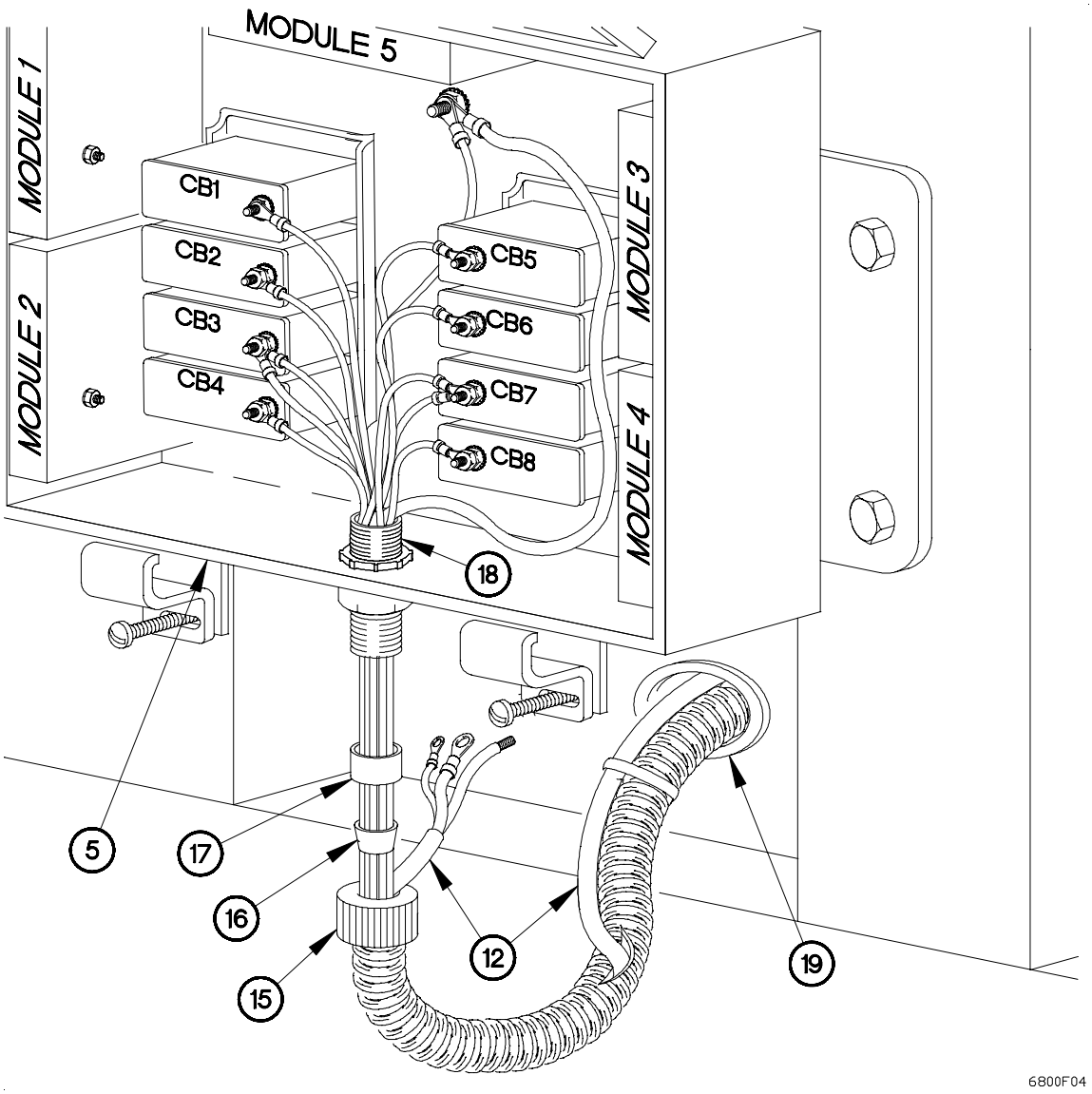
6800F05

ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL POWER HARNESS REPLACEMENT - Continued

0068 00

INSTALLATION - Continued

8. Route ABS control power harness (12) through front bulkhead opening (19).
9. Route ABS control power harness (12) through fitting (18) in bottom of voltage converter box (5).
10. Tighten protector (17), swedge (16), and collar (15) on fitting (18).



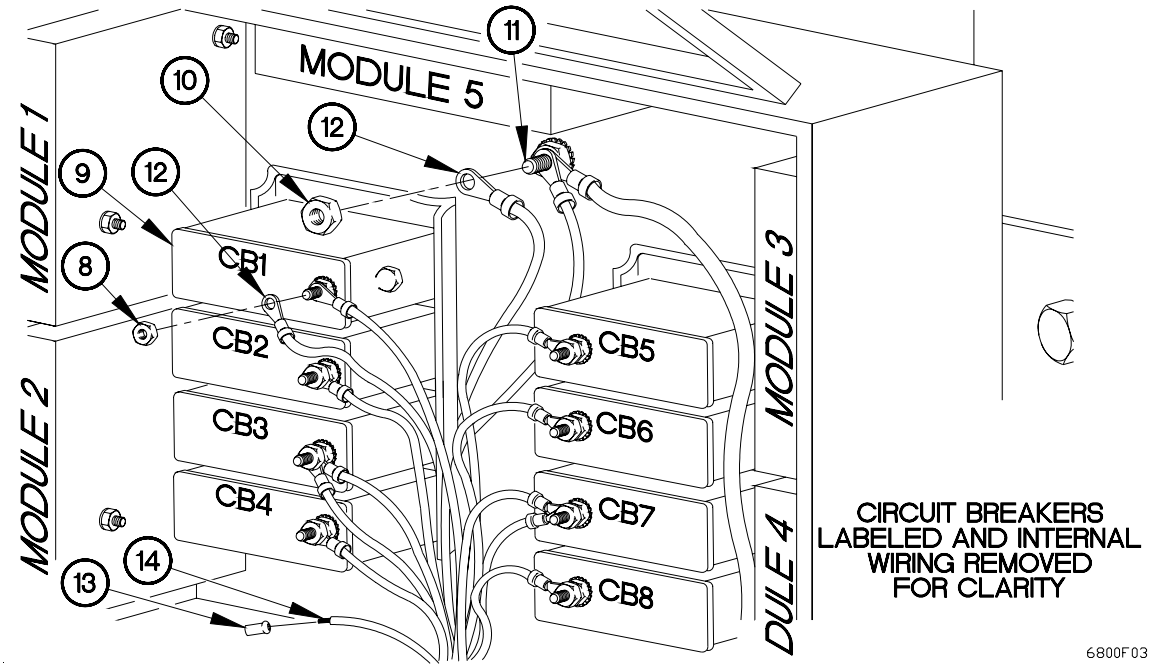
ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL POWER HARNESS REPLACEMENT - Continued 0068 00

INSTALLATION - Continued

NOTE

Refer to WP 0094 00, Electrical Wire and Cable Repair for terminal lug installation instructions.

11. Install wire nut (13) on ABS warning lamp wire (14) and fold out of way.
12. Connect ABS control power harness (12) wires to ground stud (11) and circuit breaker CB1 (9).
13. Install nut (10) on ground stud (11).
14. Install nut (8) on circuit breaker CB1 (9).

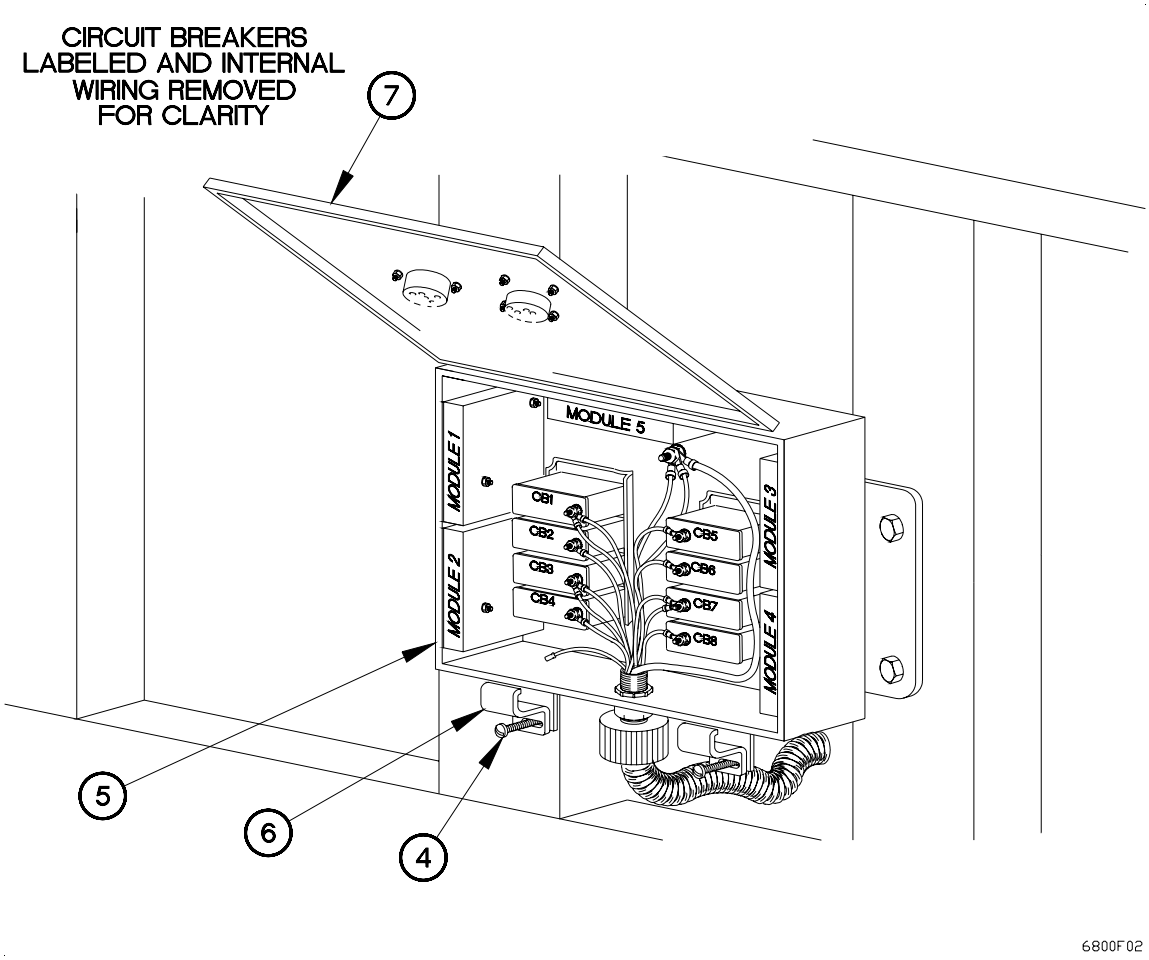


ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL POWER HARNESS REPLACEMENT - Continued

0068 00

INSTALLATION - Continued

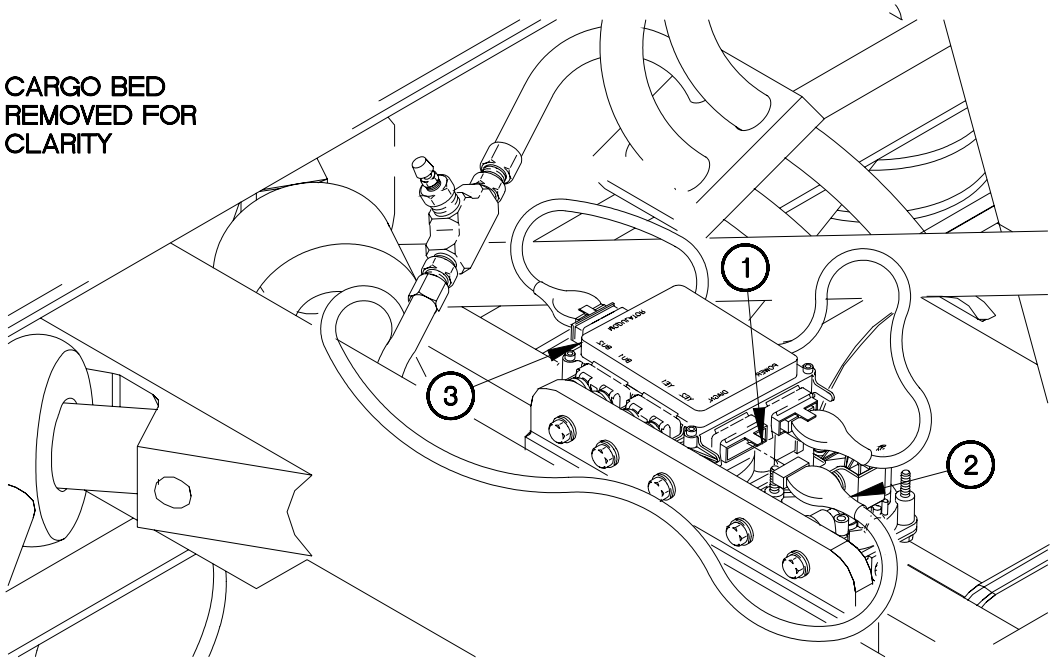
15. Close cover (7) on voltage converter box (5).
16. Position two latches (6) on voltage converter box (5) with screws (4).
17. Tighten two screws (4) to 96-120 lb-in (11-14 N•m).



ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL POWER HARNESS REPLACEMENT - Continued 0068 00

INSTALLATION - Continued

18. Connect connector (2) to ABS control assembly (3) and push down on connector retainer clip (1) to secure.



6800F08

OPERATIONAL CHECK

1. Couple trailer (WP 009 00, Coupling Trailer).
2. Start towing vehicle engine and allow for air pressure to reach normal operating air pressure.
3. Road test trailer and check for proper brake operation.
4. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL SENSOR HARNESS (MTVT) REPLACEMENT 0069 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)

Materials/Parts
Dispenser, Pressure Sensitive Adhesive Tape (Item 10, WP 0176 00)
Ties, Cable, Plastic (Item 37, WP 0176 00)

References
WP 0009 00
Towing vehicle Operator manual

Equipment Conditions
Trailer uncoupled (WP 0012 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

NOTE

All Anti-Lock Braking System (ABS) control sensor harnesses are removed the same way. Right rear shown.

ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL SENSOR HARNESS (MTVT) REPLACEMENT - Continued

0069 00

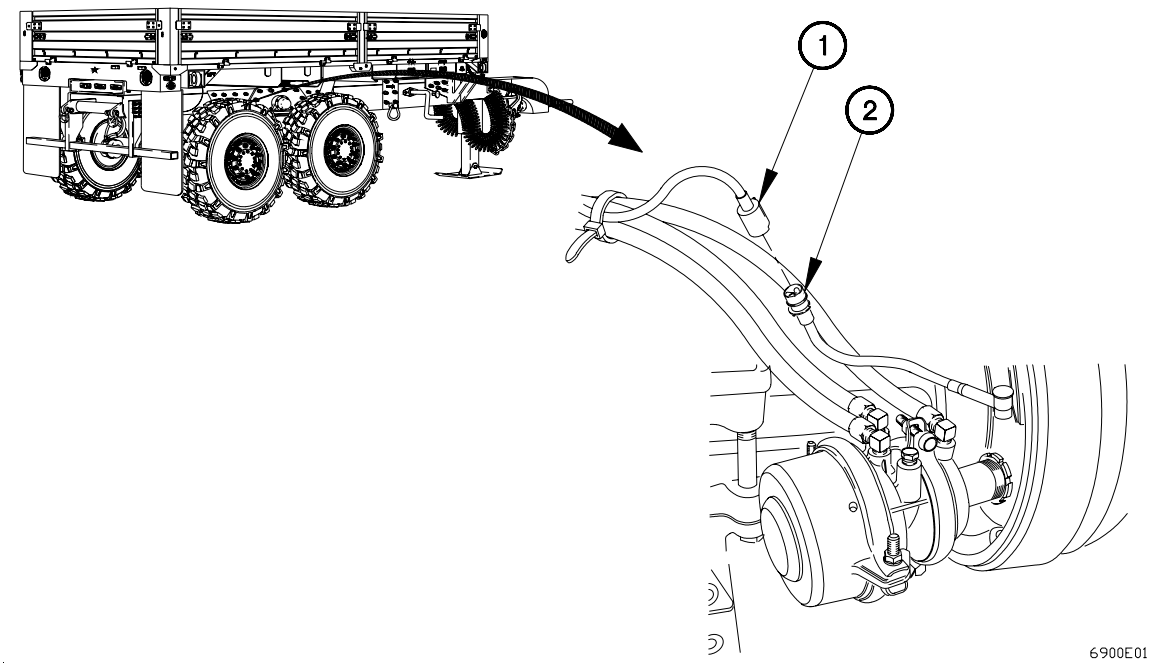
REMOVAL

NOTE

- Note routing of ABS control sensor harness prior to removal.
- Remove plastic cable ties as required.
- Control sensor harness connectors correspond to the following ABS wheel speed sensor lead connectors:

Right side front:	J250/TL255
Right side rear:	J255/TL250
Left side front:	J251/TL255
Left side rear:	J256/TL250

1. Disconnect ABS control sensor harness connector (1) from ABS wheel speed sensor lead connector (2).



ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL SENSOR HARNESS (MTVT) REPLACEMENT - Continued

0069 00

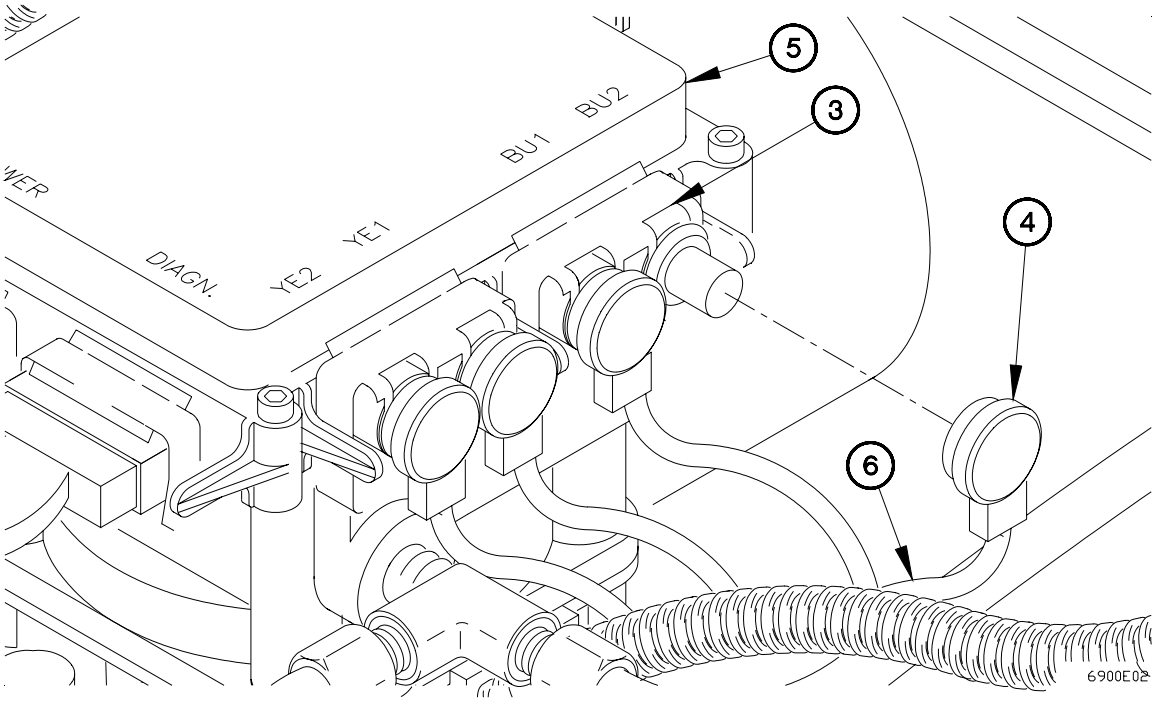
REMOVAL - Continued

NOTE

ABS control sensor harness connectors correspond to the following ports in the ABS control assembly:

Right side front:	YE1
Right side rear:	YE2
Left side front:	BU1
Left side rear:	BU2

2. Push up on connector retainer clip (3).
3. Disconnect ABS control sensor harness connector (4) from ABS control assembly (5).
4. Remove ABS control sensor harness (6) from trailer.



ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL SENSOR HARNESS (MTVT) REPLACEMENT - Continued

0069 00

INSTALLATION

1. Position ABS control sensor harness (6) on trailer.

NOTE

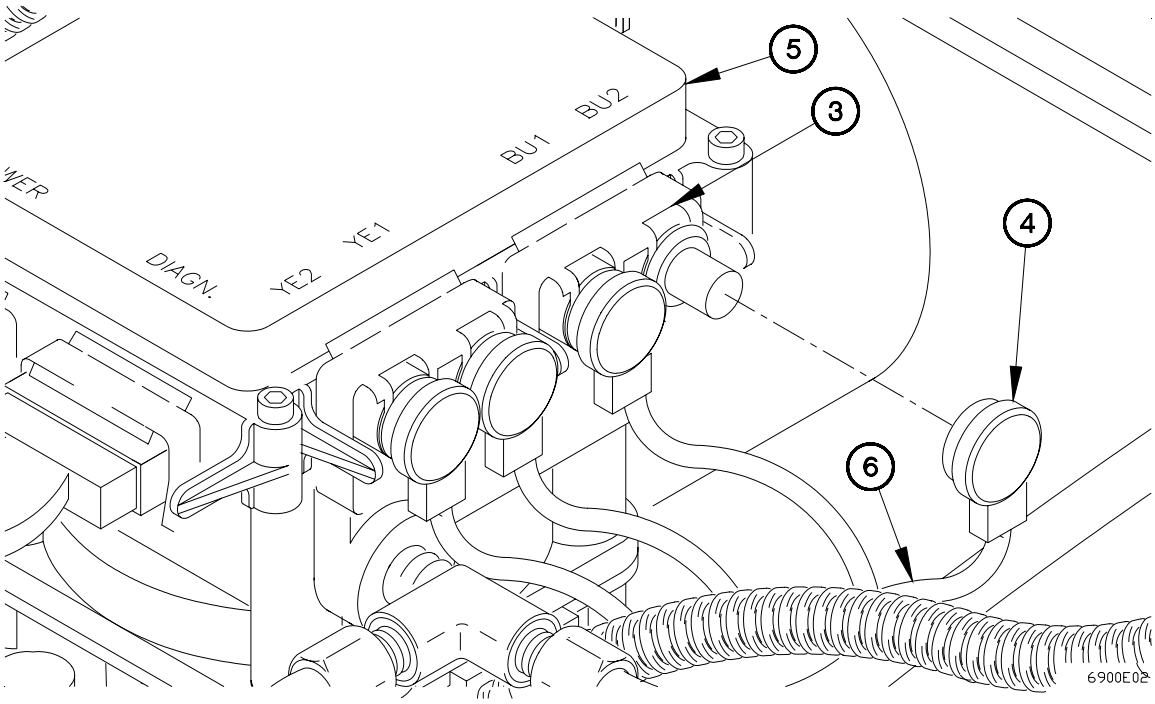
- Install plastic cable ties as required.

- ABS control sensor harness connectors correspond to the following ports in the ABS control assembly:

Right side front:	YE1
Right side rear:	YE2
Left side front:	BU1
Left side rear:	BU2

2. Connect ABS control sensor harness connector (4) to ABS control assembly (5).

3. Push down on connector retainer clip (3) to secure.



ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL SENSOR HARNESS (MTVT) REPLACEMENT - Continued

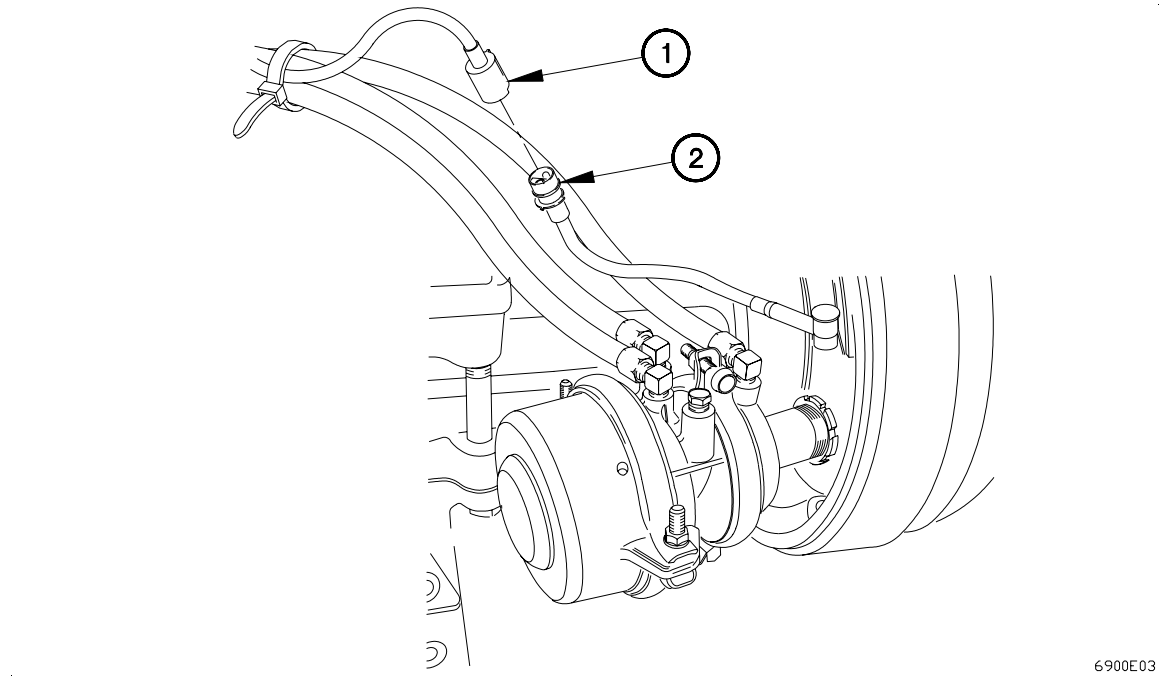
INSTALLATION - Continued

NOTE

ABS control sensor harness connectors correspond to the following ABS wheel speed sensor lead connectors:

Right side front:	J250/TL255
Right side rear:	J255/TL250
Left side front:	J251/TL255
Left side rear:	J256/TL250

4. Connect ABS control sensor harness connector (1) to ABS wheel speed sensor lead connector (2).



OPERATIONAL CHECK

1. Couple trailer (WP 009 00, Coupling Trailer).
2. Start towing vehicle engine.
3. Road test trailer and check for proper brake operation.
4. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL SENSOR HARNESS (LMTVT) REPLACEMENT 0070 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)

Materials/Parts
Dispenser, Pressure Sensitive Adhesive Tape (Item 10, WP 0176 00)

Materials/Parts (Cont)
Ties, Cable, Plastic (Item 37, WP 0176 00)

References
WP 0009 00
Towing vehicle Operator manual

Equipment Conditions
Trailer uncoupled (WP 0012 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL SENSOR HARNESS (LMTVT) REPLACEMENT - Continued 0070 00

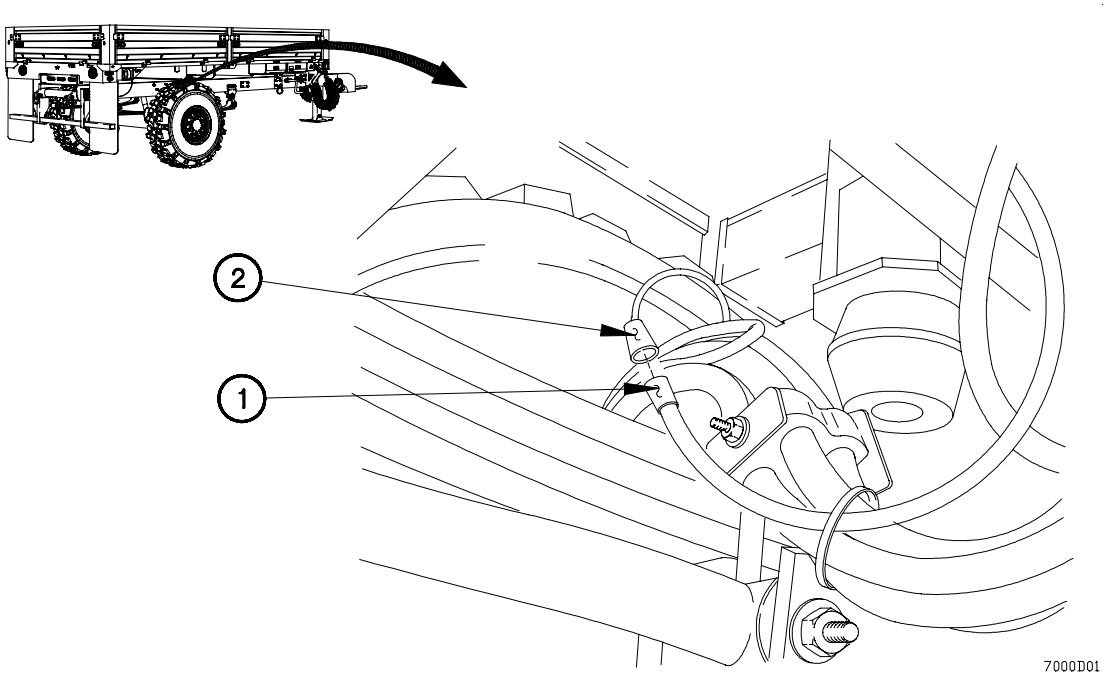
REMOVAL

NOTE

- Note routing of Anti Lock Braking System (ABS) control sensor harness prior to removal.
- Remove plastic cable ties as required.
- ABS control sensor harness connectors correspond to the following ABS wheel speed sensor lead connectors:

  Right side: J250/TL255
  Left side: J251/TL255

1. Disconnect ABS control sensor harness connector (1) from ABS wheel speed sensor lead connector (2).



ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL SENSOR HARNESS (LMTVT) REPLACEMENT - Continued

0070 00

REMOVAL - Continued

NOTE

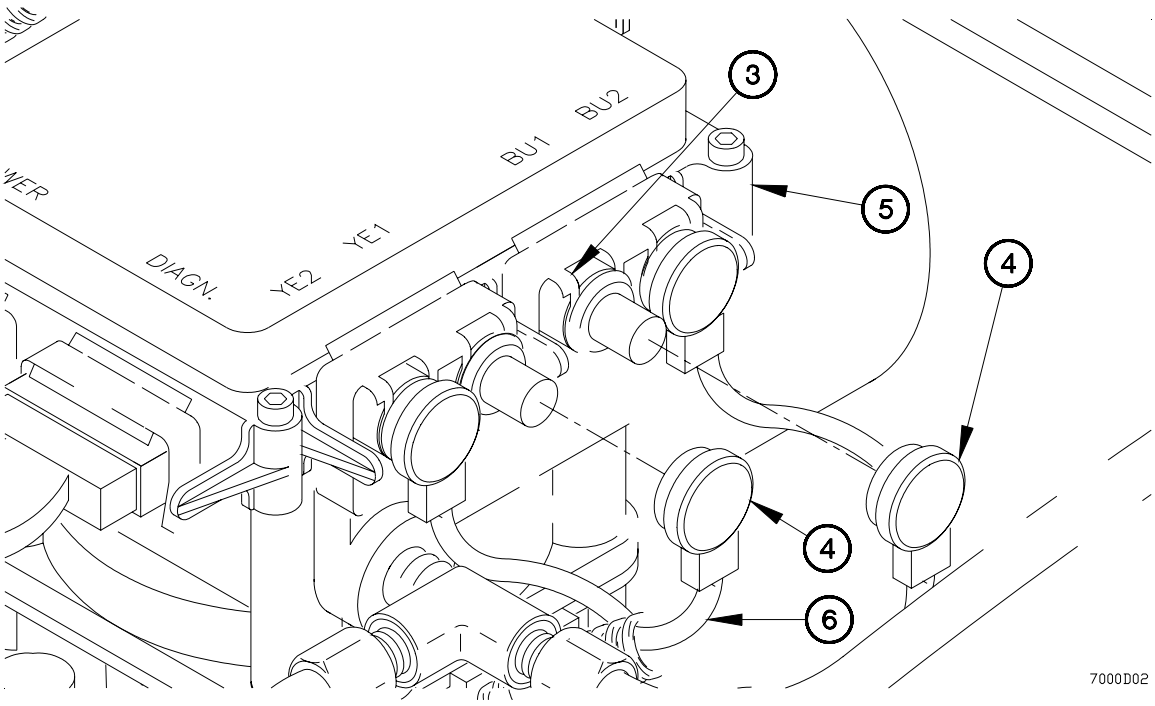
ABS control sensor harness connectors correspond to the following ports in the ABS control assembly:

Right side: YE1
Left side: BU1

2. Push up on connector retainer clip (3).

3. Disconnect ABS control sensor harness connector (4) from ABS control assembly (5).

3. Remove ABS control sensor harness (6) from trailer.



ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL SENSOR HARNESS (LMTVT) REPLACEMENT - Continued

0070 00

INSTALLATION

1. Position ABS control sensor harness (6) on trailer.

NOTE

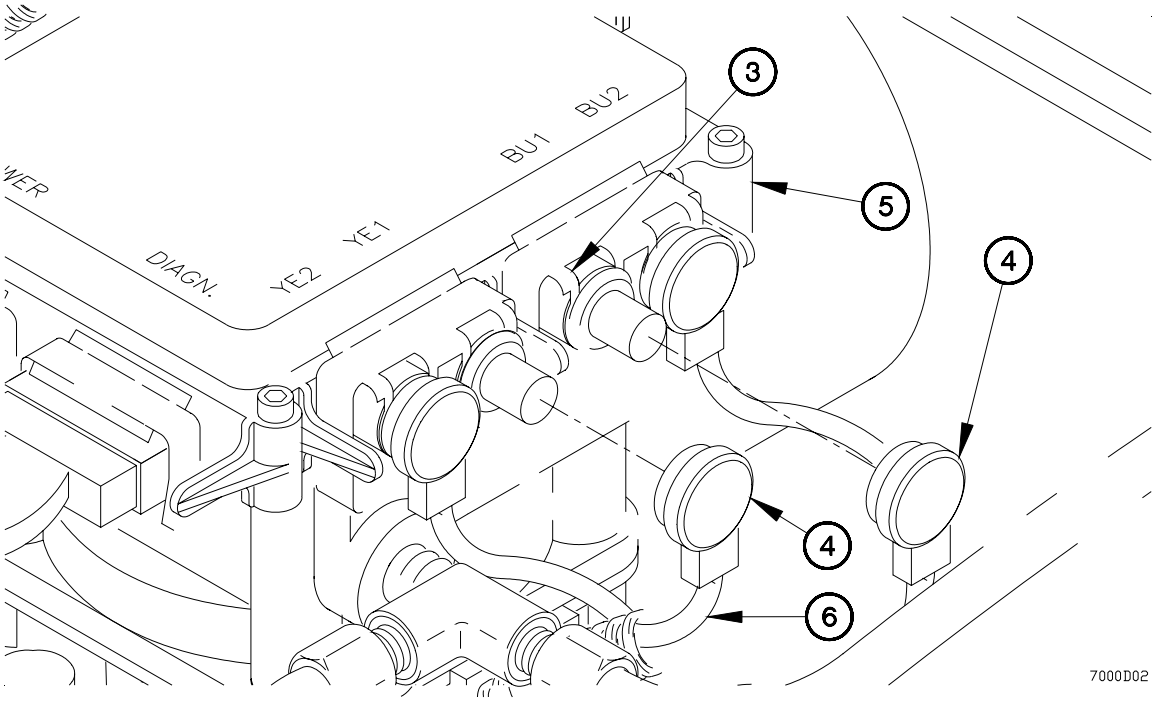
- Install plastic cable ties as required.

- ABS control sensor harness connectors correspond to the following ports in the ABS control assembly:

  Right side: YE1
  Left side: BU1

2. Connect ABS control sensor harness connector (4) to ABS control assembly (5).

3. Push down on connector retainer clip (3) to secure.



ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL SENSOR HARNESS (LMTVT) REPLACEMENT - Continued

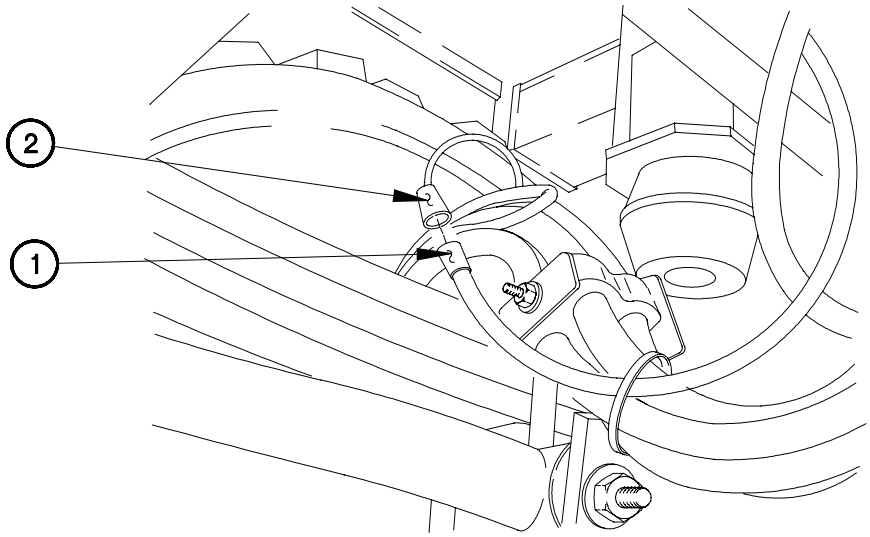
INSTALLATION - Continued

NOTE

ABS control sensor harness connectors correspond to the following ABS wheel speed sensor lead connectors:

Right side: J250/TL255
Left side: J251/TL255

3. Connect ABS control sensor harness connector (1) to ABS wheel speed sensor lead connector (2).



7000D03

OPERATIONAL CHECK

1. Couple trailer (WP 009 00, Coupling Trailer).
2. Start towing vehicle engine.
3. Road test trailer and check for proper brake operation.
4. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE TO ABS RELAY VALVE CABLE REPLACEMENT 0071 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)

Materials/Parts
Ties, Cable, Plastic (Item 37, WP 0176 00)

References
WP 0009 00
Towing vehicle Operator manual

Equipment Conditions
Trailer uncoupled (WP 0012 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

Trailer must be uncoupled from towing vehicle prior to performing this task to avoid risk of electrical shock. Failure to comply may result in serious injury or death to personnel.

ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE TO ABS RELAY VALVE CABLE REPLACEMENT - Continued 0071 00

REMOVAL

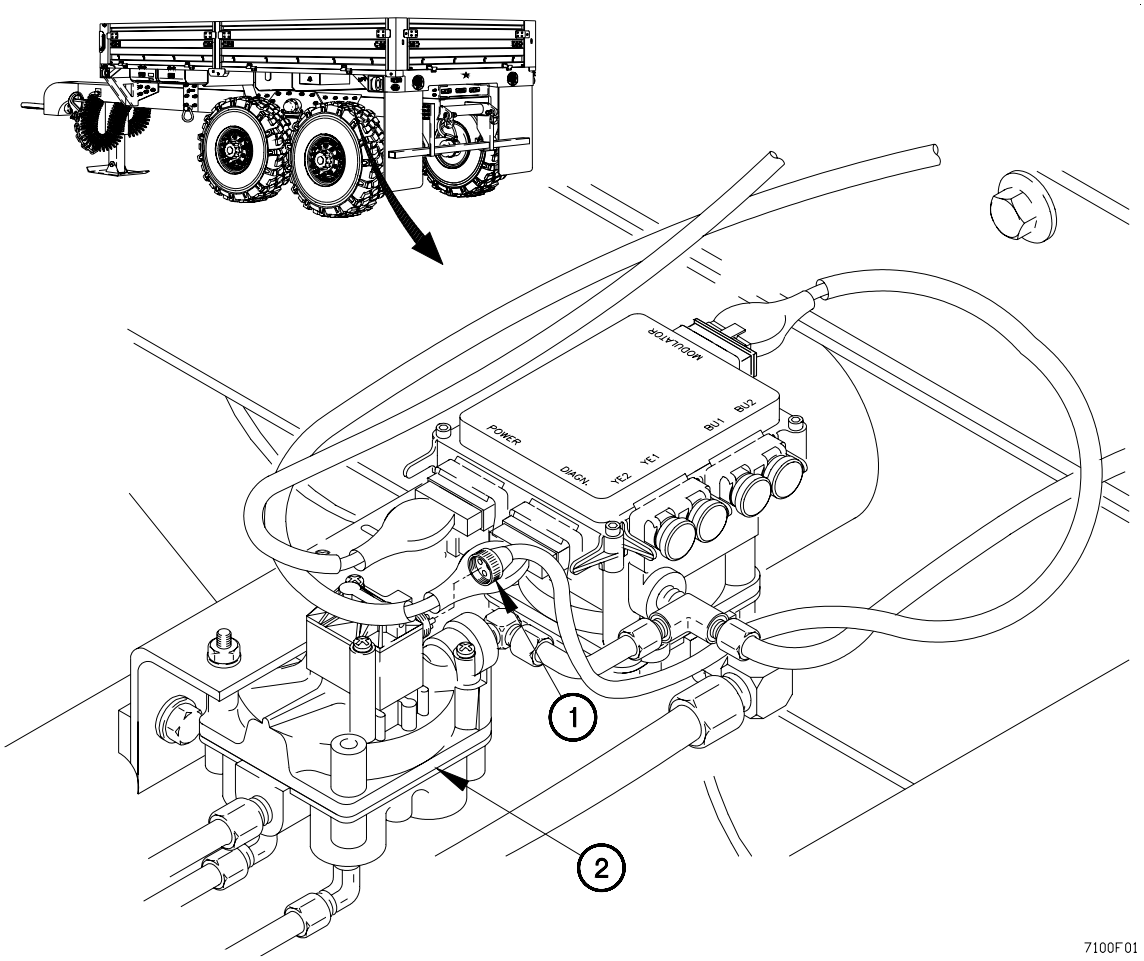
NOTE

ABS ECU valve to ABS relay valve cable removal is the same for both LMTVT and MTVT. MTVT shown.

Note routing of cable prior to removal.

Remove plastic cable ties as required.

1. Disconnect cable connector (1) from Anti-Lock Braking System (ABS) relay valve (2).



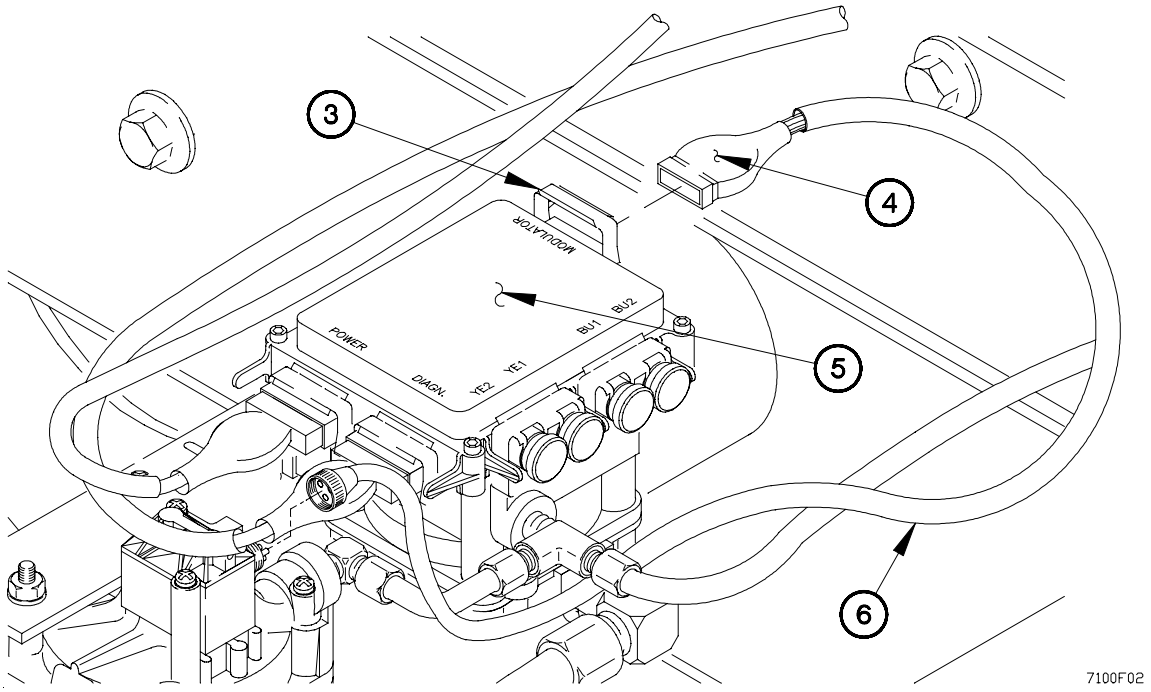
ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE TO ABS RELAY VALVE CABLE REPLACEMENT - Continued 0071 00

REMOVAL - Continued

2. Push up on connector retainer clip (3).

3 Disconnect cable connector (4) from ABS ECU valve (5).

4. Remove ABS ECU valve to ABS relay valve cable (6) from trailer.



ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE TO ABS RELAY VALVE CABLE REPLACEMENT - Continued 0071 00

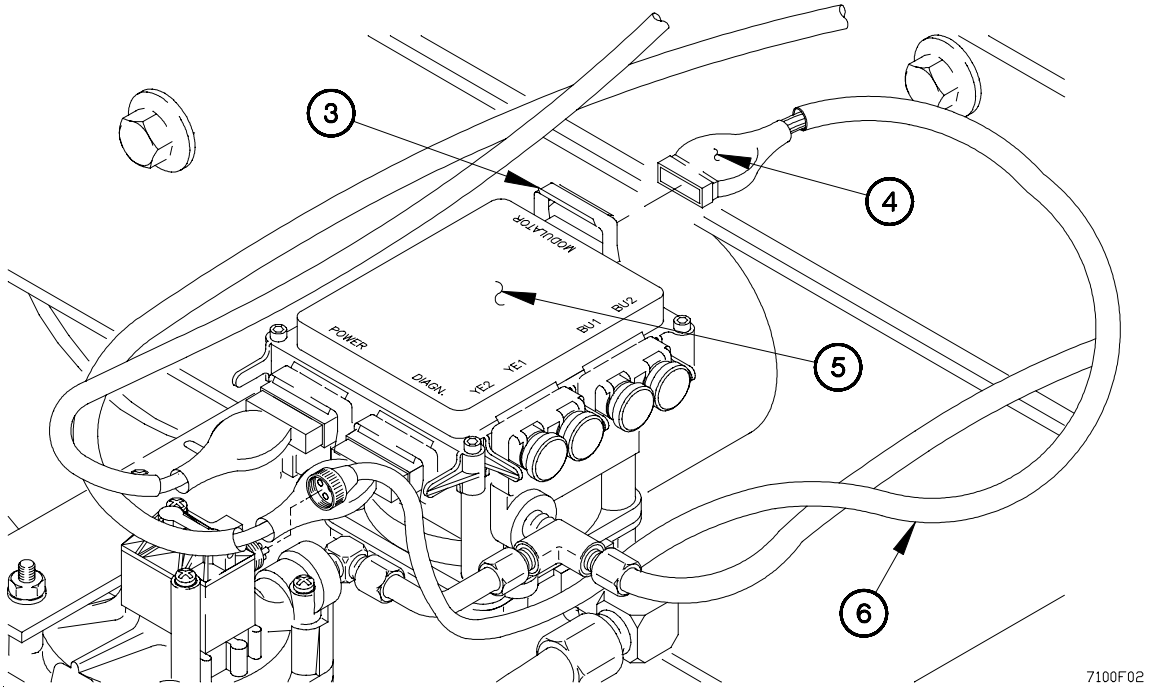
INSTALLATION

NOTE

ABS ECU valve to ABS relay valve cable installation is the same for both LMTVT and MTVT. MTVT shown.

Install plastic cable ties as required.

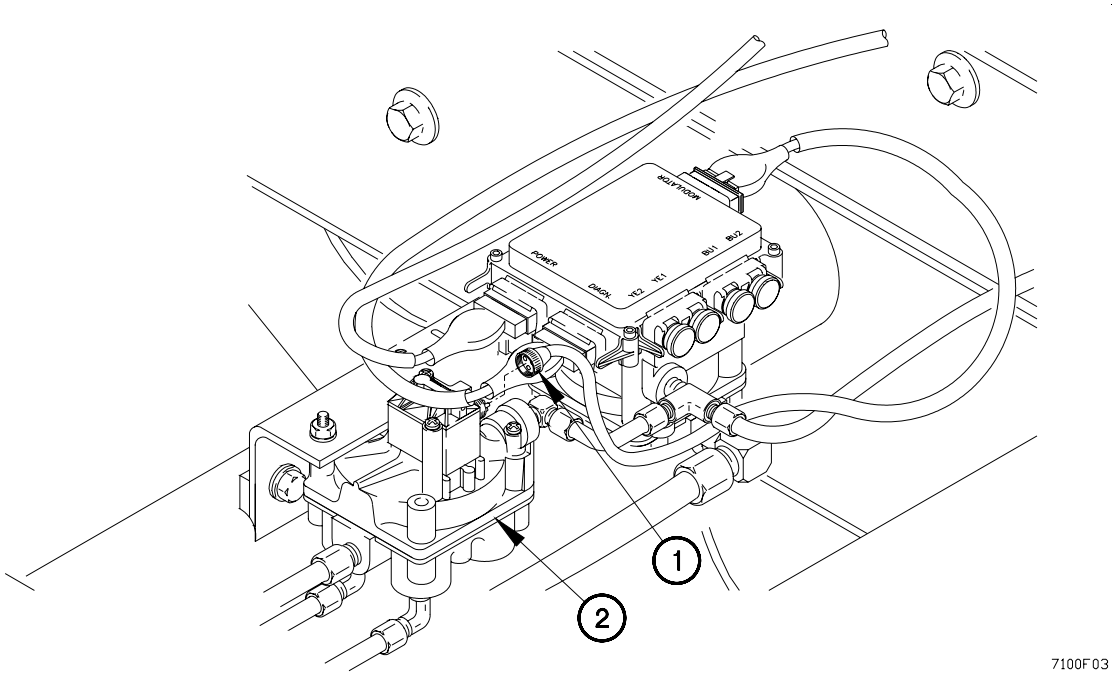
1. Position ABS ECU valve to ABS relay valve cable (6) on trailer.
2. Connect cable connector (4) to ABS ECU valve (5).
3. Push down on connector retainer clip (3) to secure.



ANTI-LOCK BRAKING SYSTEM (ABS) ECU VALVE TO ABS RELAY VALVE CABLE REPLACEMENT - Continued 0071 00

INSTALLATION - Continued

4. Connect cable connector (1) to ABS relay valve (2).



OPERATIONAL CHECK

1. Couple trailer (WP 009 00, Coupling Trailer).
2. Start towing vehicle engine.
3. Road test trailer and check for proper brake operation.
4. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL TO DIAGNOSTIC CABLE REPLACEMENT 0072 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench, Torque, 0-300 lb-in. (Item 51, WP 0178 00)
Wrench, Torque, 0-75 lb-in. (Item 53, WP 0178 00)

Materials/Parts
Ties, Cable, Plastic (Item 37, WP 0176 00)
Lockwasher (4) (Item 9, WP 0181 00)
Nut, Self-Locking (Item 37, WP 0181 00)

References
WP 0009 00
WP 0012 00
Towing vehicle Operator manual

Equipment Conditions
Trailer uncoupled (WP 0012 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL TO DIAGNOSTIC CABLE REPLACEMENT - Continued 0072 00

REMOVAL

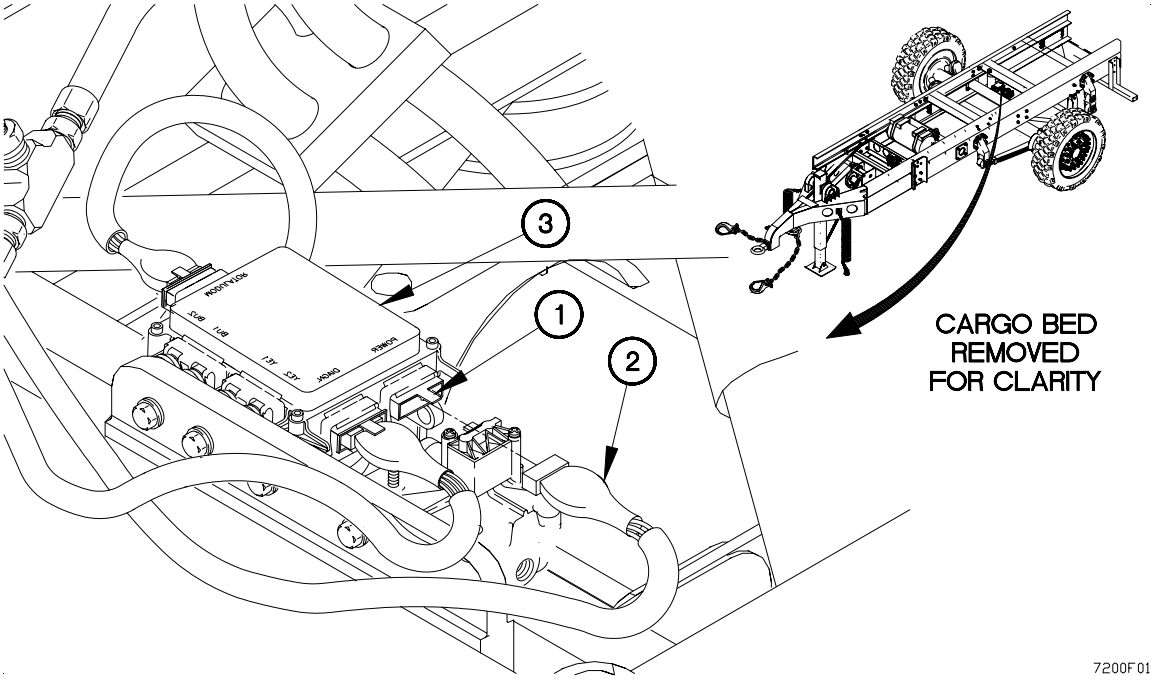
NOTE

Note routing of cable prior to removal.

Remove plastic cable ties as required.

LMTVT and MTVT ABS control to diagnostic cables are removed the same way. MTVT shown.

1. Push up on connector retainer clip (1).
2. Disconnect cable connector (2) from Anti-Lock Braking System (ABS) ECU valve (3).

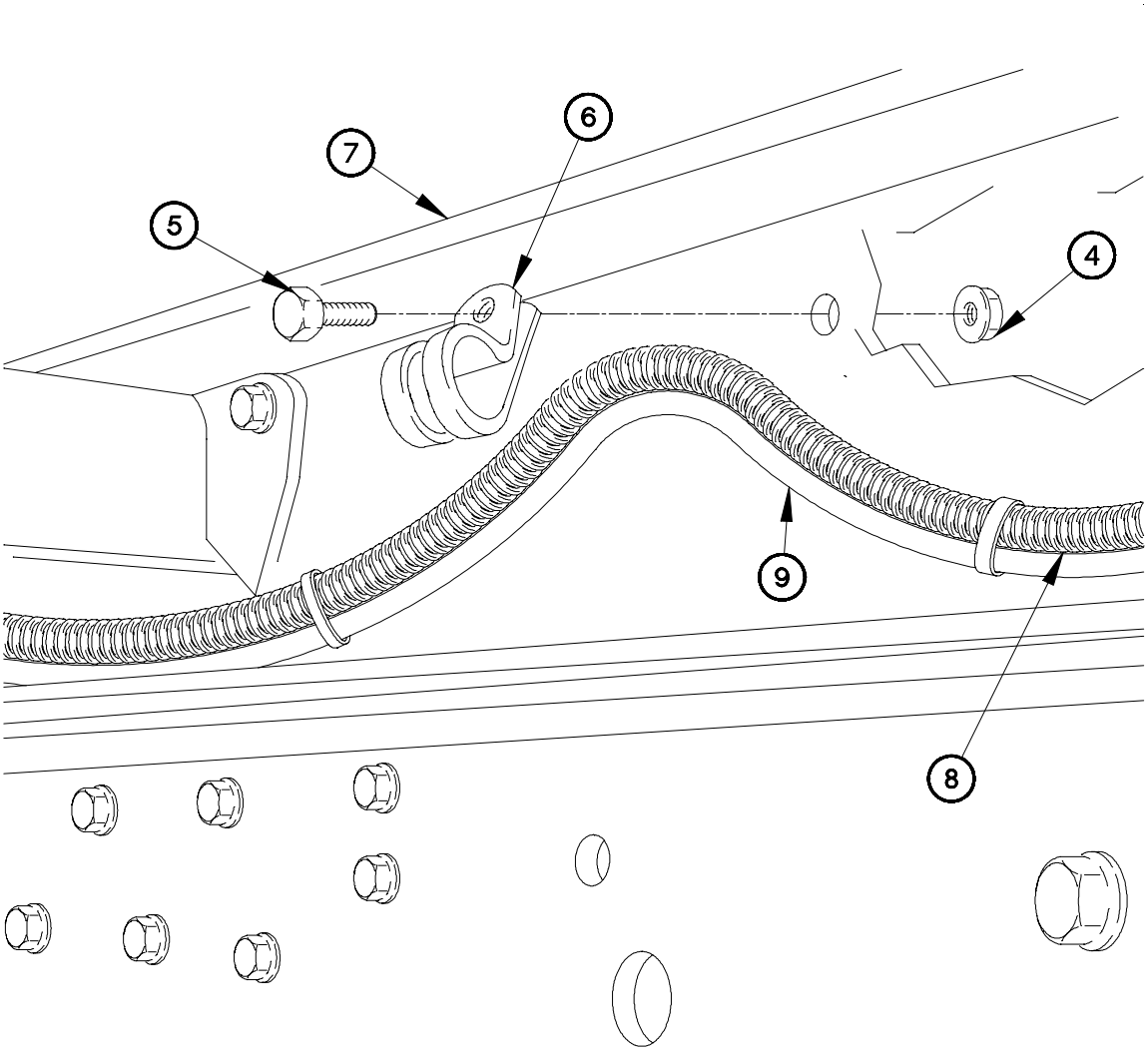


ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL TO DIAGNOSTIC CABLE REPLACEMENT - Continued 0072 00

REMOVAL - Continued

3. Remove self-locking nut (4), screw (5), and clamp (6) from right frame rail (7). Discard self-locking nut.

4. Remove clamp (6) from electrical cable assembly (8) and ABS diagnostic cable (9).



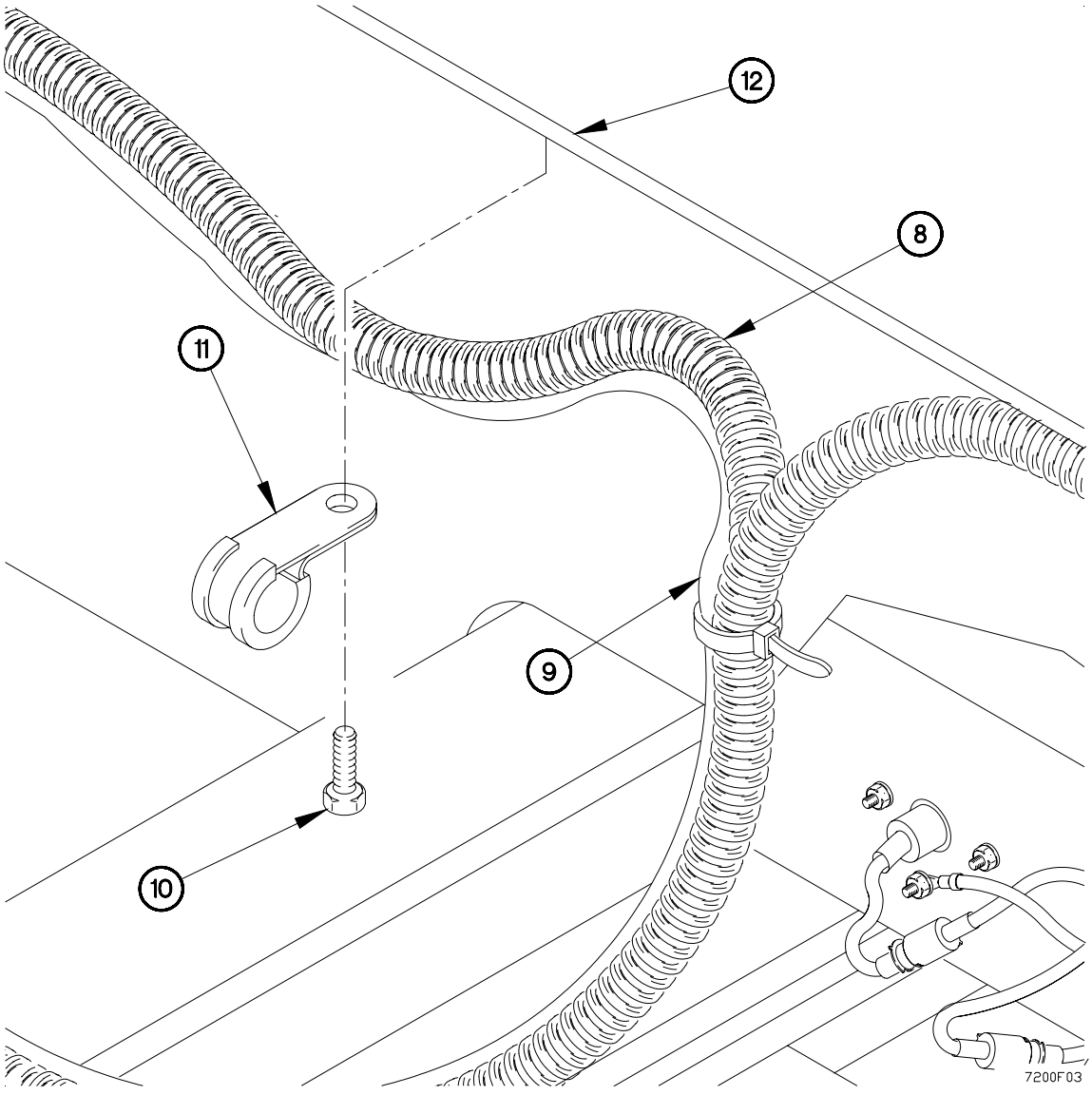
7200F02

ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL TO DIAGNOSTIC CABLE REPLACEMENT - Continued 0072 00

REMOVAL - Continued

5. Remove two screws (10) and clamps (11) from rear frame rail (12).

6. Remove two clamps (11) from electrical cable assembly (8) and ABS diagnostic cable (9).



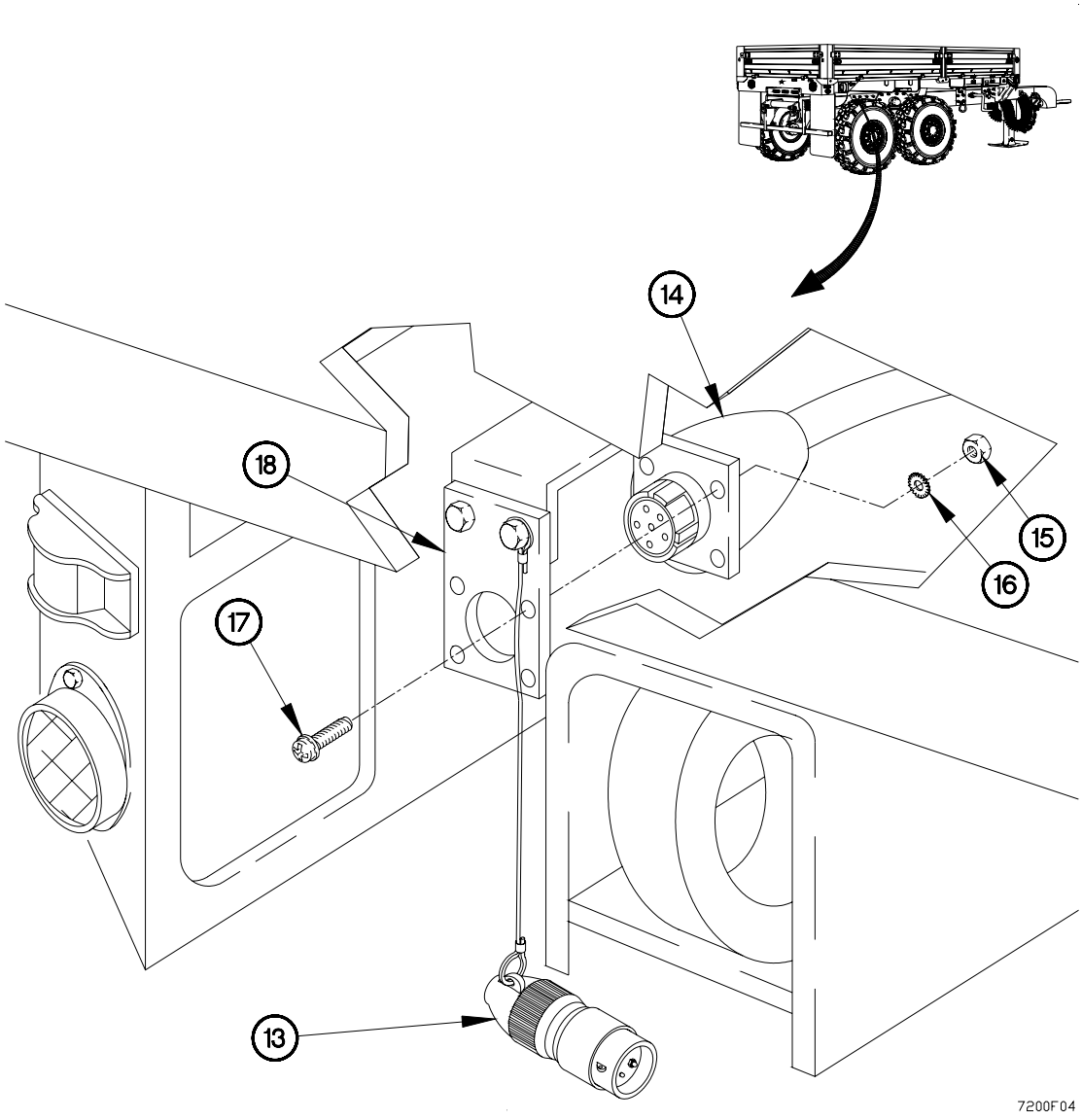
ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL TO DIAGNOSTIC CABLE REPLACEMENT - Continued 0072 00

REMOVAL - Continued

7. Remove ABS diagnostic tool (13) from ABS diagnostic plug (14).

8. Remove four nuts (15), lockwashers (16), and screws (17) from ABS diagnostic cable mount bracket (18). Discard lockwashers.

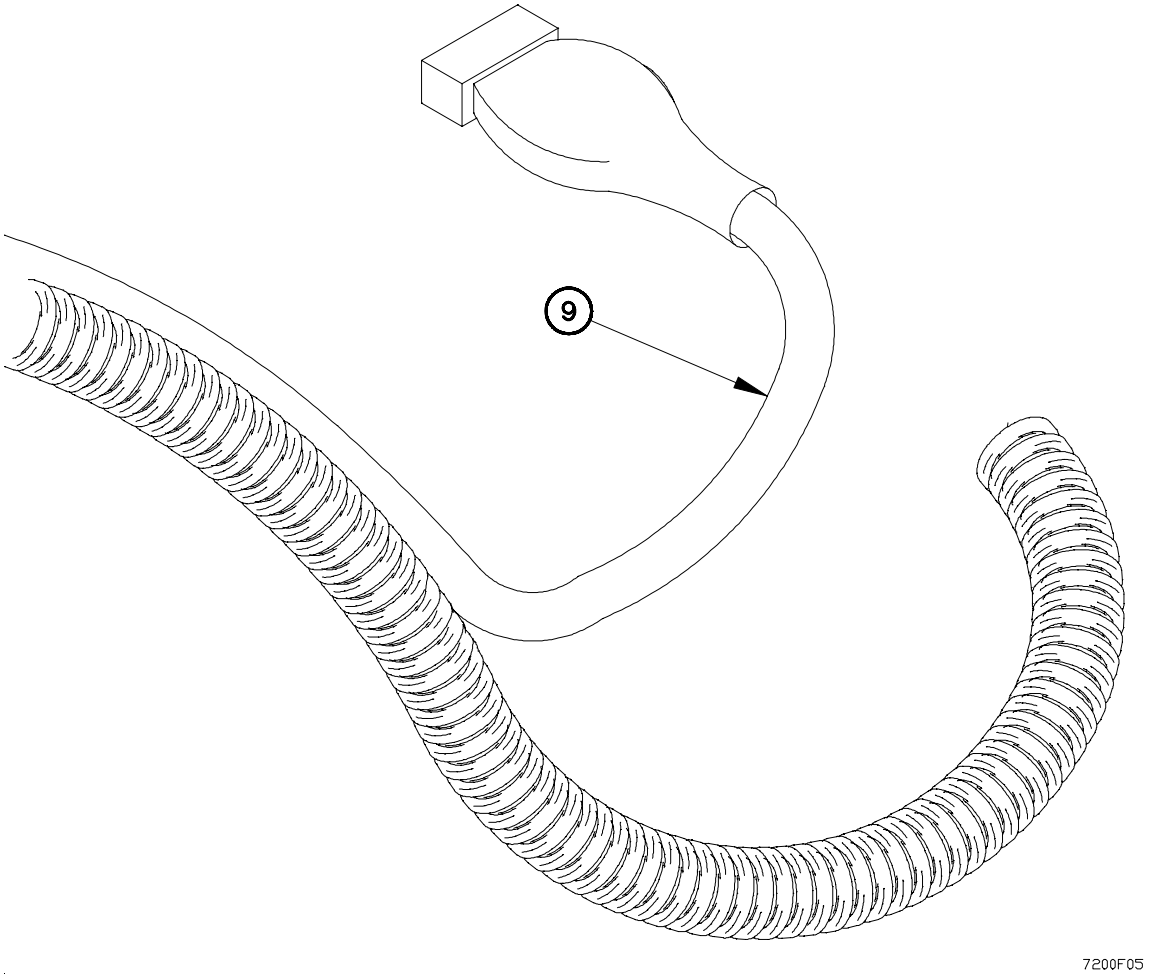
9. Remove ABS diagnostic plug (14) from bracket (18).



ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL TO DIAGNOSTIC CABLE REPLACEMENT - Continued 0072 00

REMOVAL - Continued

10. Remove ABS diagnostic cable (9) from trailer.



ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL TO DIAGNOSTIC CABLE REPLACEMENT - Continued 0072 00

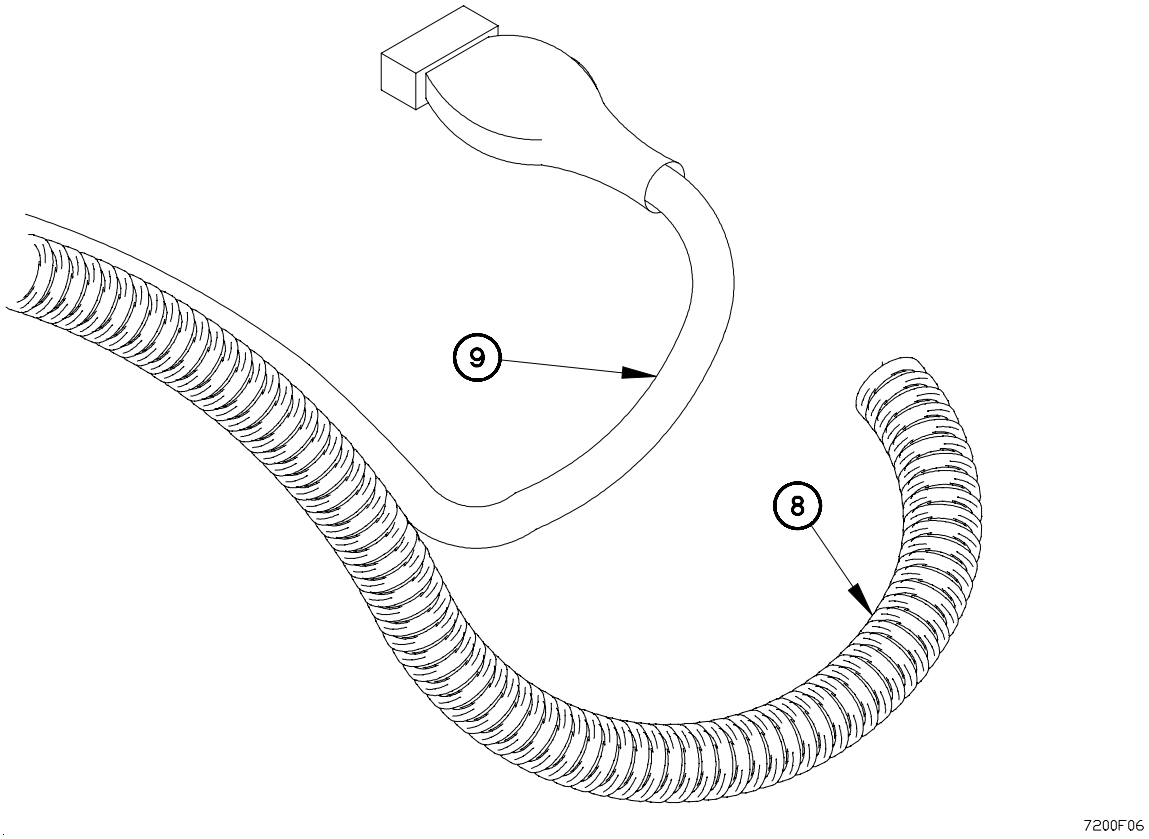
INSTALLATION

NOTE

Install plastic cable ties as required.

LMTVT and MTVT ABS control to diagnostic cables are installed the same way. MTVT shown.

1. Position ABS diagnostic cable (9) on trailer.
2. Route ABS diagnostic cable (9) along electrical cable assembly (8).



ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL TO DIAGNOSTIC CABLE REPLACEMENT - Continued 0072 00

INSTALLATION - Continued

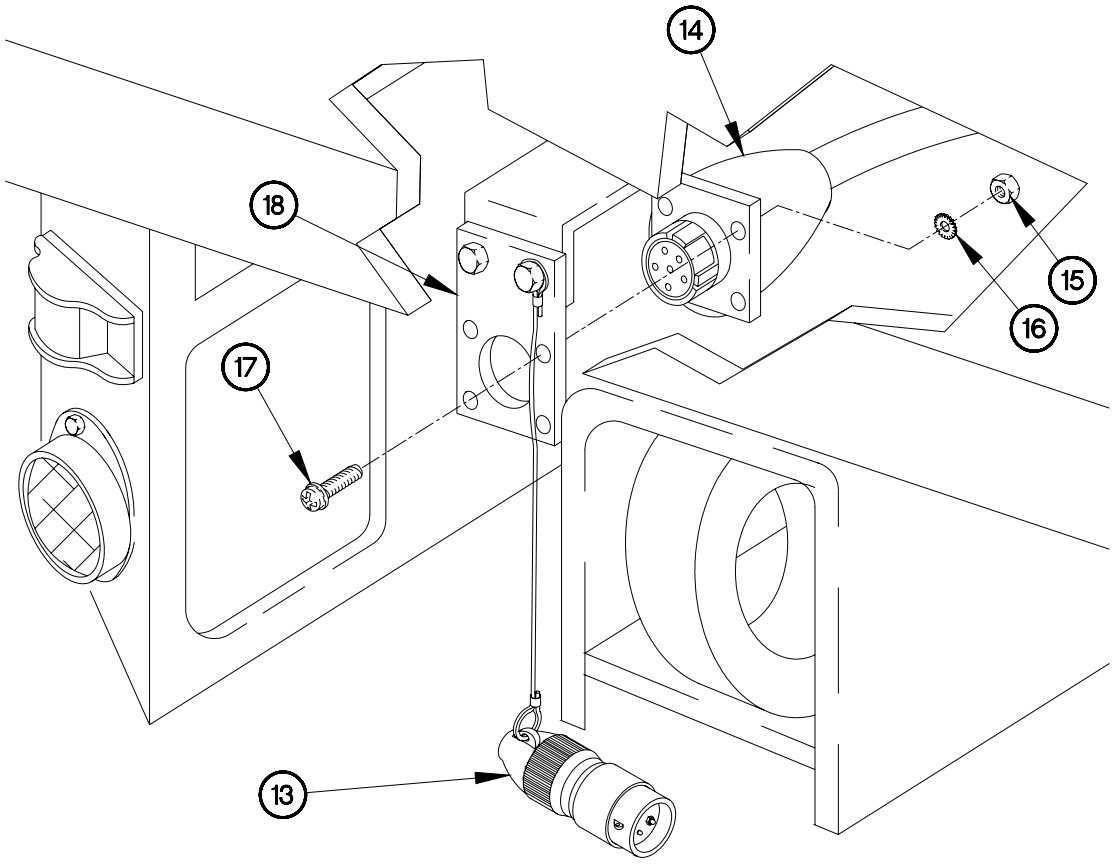
NOTE

Ensure ridge on top of ABS diagnostic plug is aligned with slot on ABS cable mount bracket.

3. Position ABS diagnostic plug (14) on ABS diagnostic cable mount bracket (18) with four screws (17), lockwashers (16), and nuts (15).

4. Tighten four nuts (15) to 18-22 lb-in. (2-3 N•m).

5. Install ABS diagnostic tool (13) on ABS diagnostic plug (14).

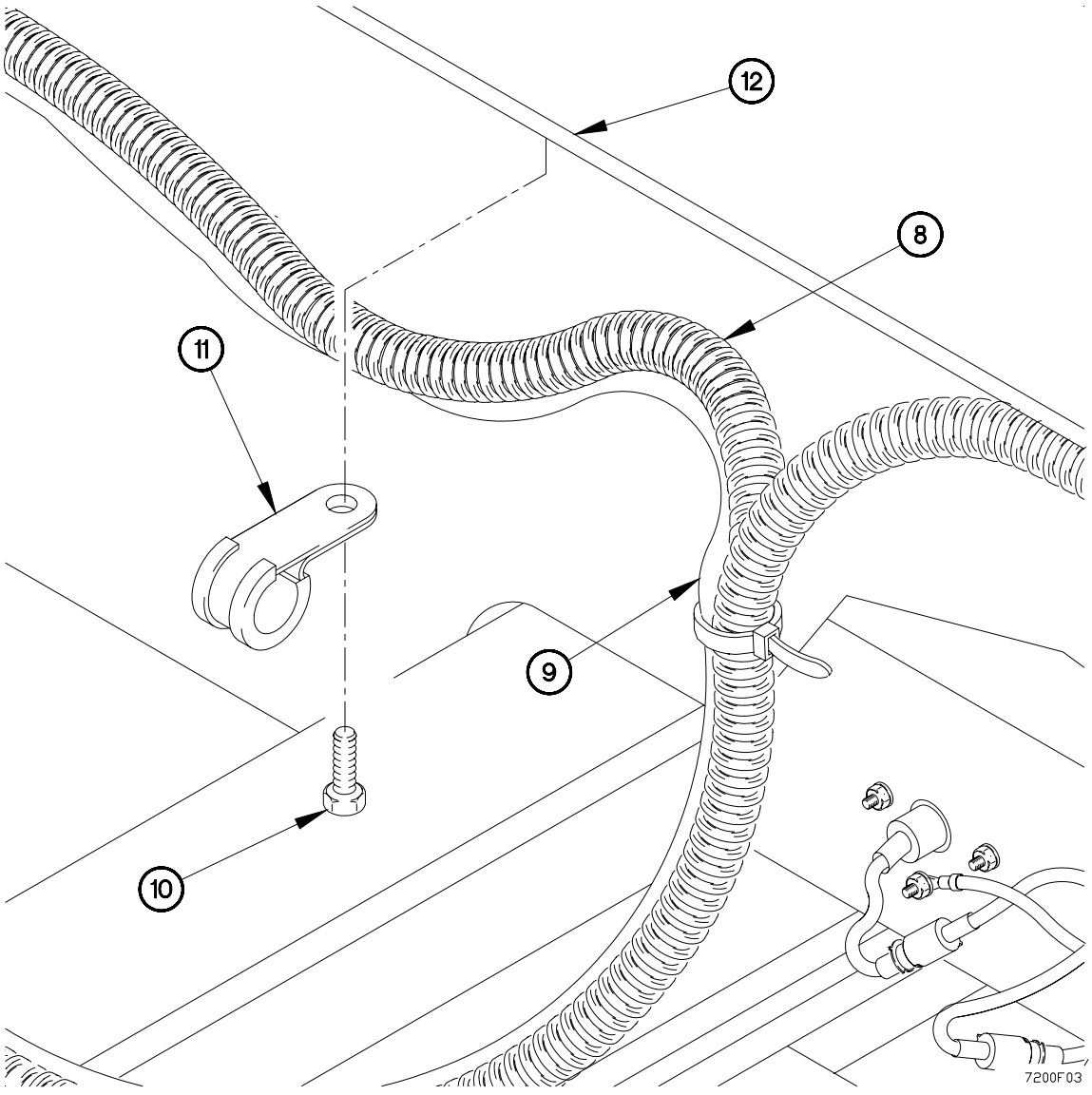


7200F07

ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL TO DIAGNOSTIC CABLE REPLACEMENT - Continued 0072 00

INSTALLATION - Continued

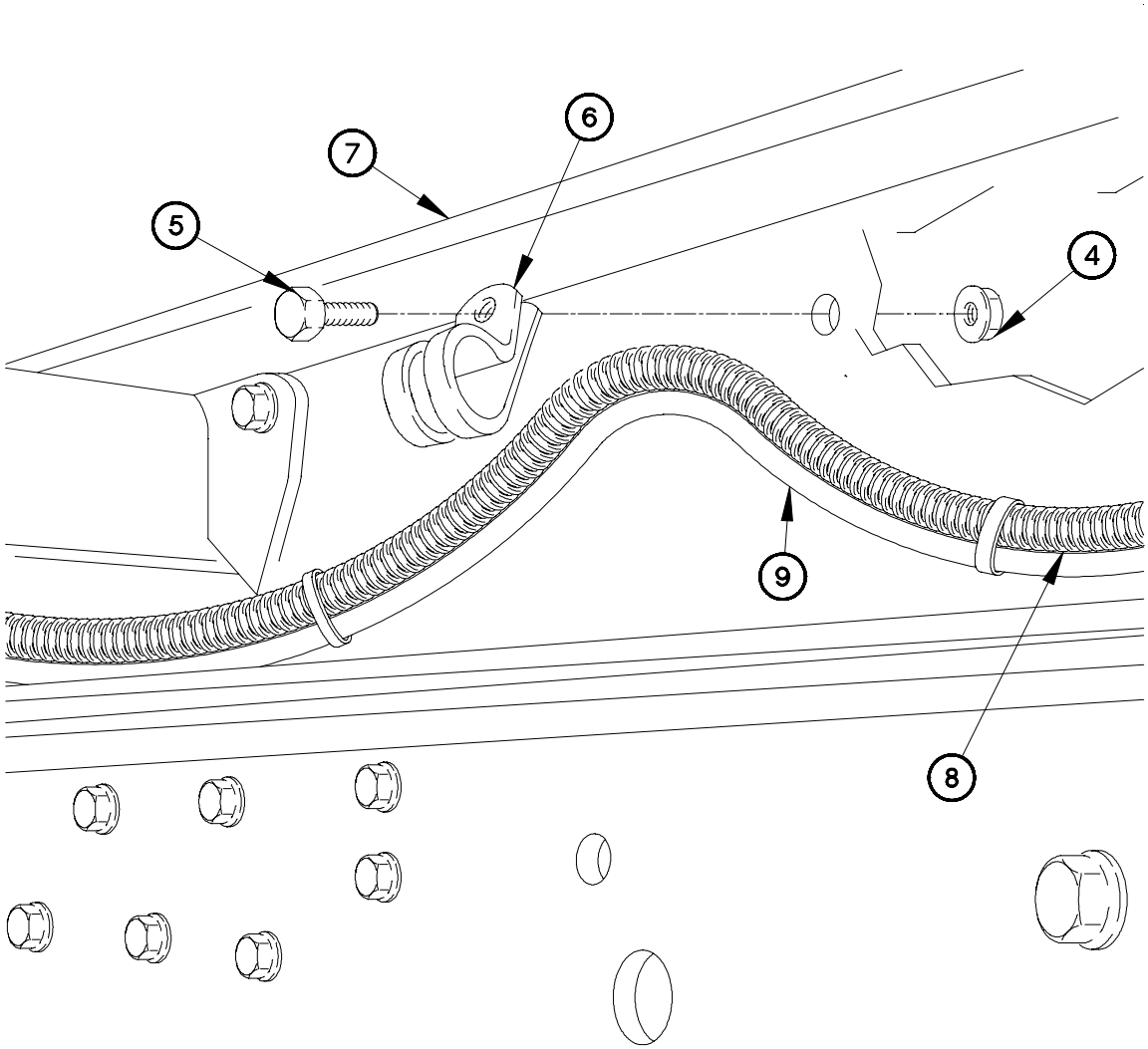
6. Position two clamps (11) on ABS diagnostic cable (9) and electrical cable assembly (8).
7. Position two clamps (11) on rear frame rail (12) with two screws (10).
8. Tighten two screws (10) to 60-72 lb-in (7-9 N•m).



ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL TO DIAGNOSTIC CABLE REPLACEMENT - Continued 0072 00

INSTALLATION - Continued

9. Position clamp (6) on ABS diagnostic cable (9) and electrical cable assembly (8).
10. Position clamp (6) on right frame rail (7) with screw (5) and self-locking nut (4).
11. Tighten self-locking nut (4) to 60-72 lb-in (7-9 N•m).

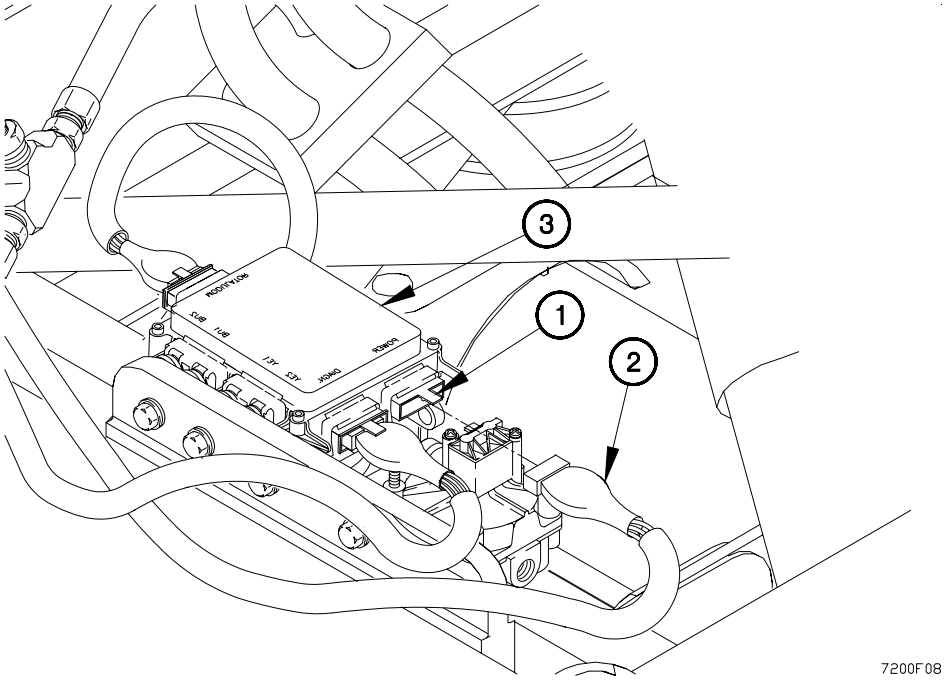


7200F02

ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL TO DIAGNOSTIC CABLE REPLACEMENT - Continued 0072 00

INSTALLATION - Continued

12. Connect cable connector (2) to ABS ECU valve (3).
13. Push down on connector retainer clip (1) to secure.



OPERATIONAL CHECK

1. Couple trailer (WP 009 00, Coupling Trailer).
2. Start towing vehicle engine.
3. Road test trailer and check for proper brake operation (WP 0011 00, Towing Trailer).
4. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

ANTI-LOCK BRAKING SYSTEM (ABS) POWER AND DIAGNOSTIC CABLE REPLACEMENT (Vehicles S/N 15,676 and Higher) 0073 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Goggles, Industrial (Item 8, WP 0178 00)
Tool Kit, Electrical Contact Repair (item 36, WP 0178 00)
Tool Kit, General Mechanic's (Item 37, WP 0178 00)
Wrench Set, Socket (Item 50, WP 0178 000)
Wrench, Torque 0-300 lb-in. (Item 51, WP 0178 00)

Material/Parts
Cap and Plug Set (19207) 10935405 (Item 6, WP 0176 00)
Dispenser, Pressure Sensitive Adhesive Tape (Item 10, WP 0176 00)

Materials/Parts (Cont)
Insulation Sleeving, Plastic, 1/4" (06090)
ATUMI-4 (Item 19, WP 0176 00)
Ties, Cable, Plastic (Item 37, WP 0176 00)
Lockwasher (4) (Item 9, WP 0181 00)
Nut, Self-Locking (5) (Item 37, WP 0181 00)

Personnel Required
Two

References
Towing vehicle Operator
WP 0009 00

Equipment Conditions
Trailer uncoupled (WP 0012 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

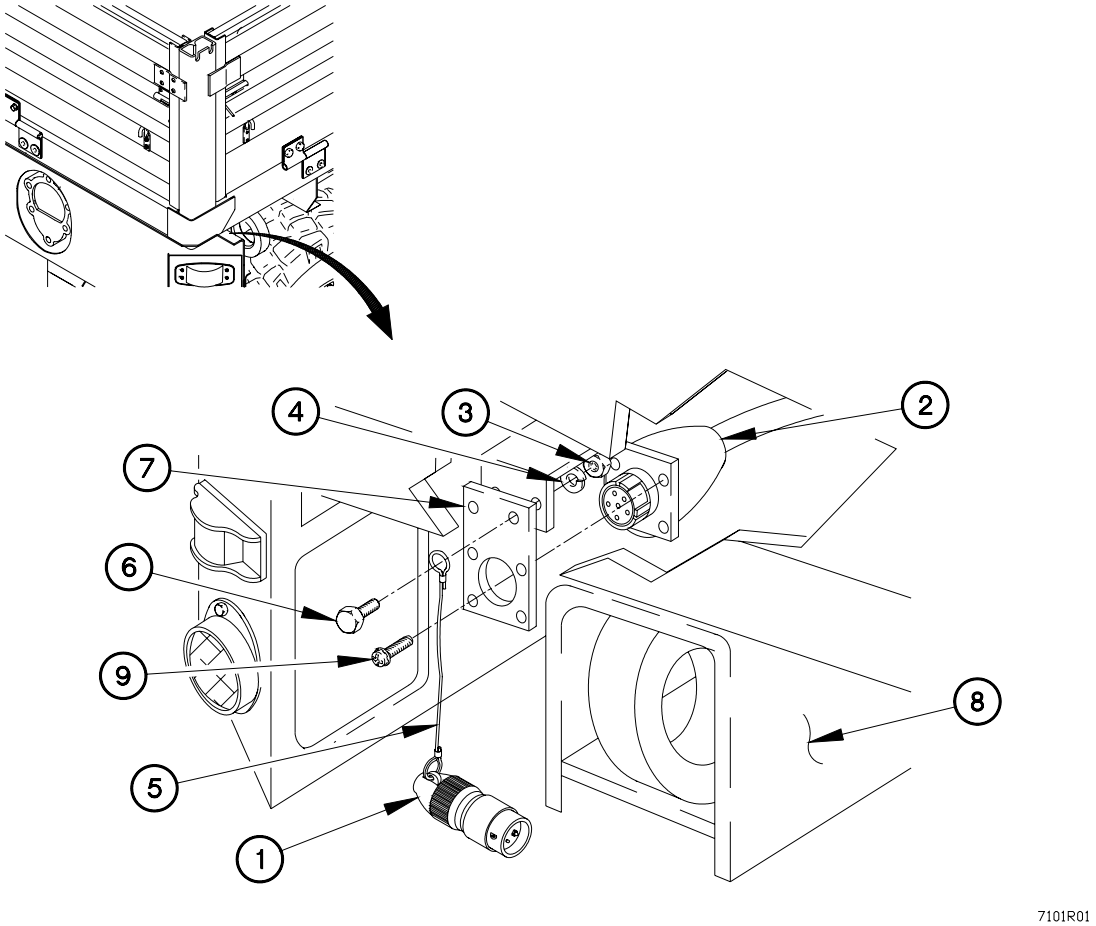
Trailer must be uncoupled from towing vehicle prior to performing this task to avoid risk of electrical shock. Failure to comply may result in serious injury or death to personnel.

REMOVAL

NOTE

ABS power and diagnostic cable removal is the same for both LMTVT and MTVT. MTVT shown.

1. Remove ABS diagnostic tool (1) from ABS diagnostic plug (2).
2. Remove two nuts (3), lockwashers (4), lanyard (5), two bolts (6) and mounting bracket (7) from trailer (8). Discard lockwashers.
3. Remove four screws (9) and ABS diagnostic plug (2) from mounting bracket (7).
4. Remove ABS diagnostic plug (2) from mounting bracket (7).

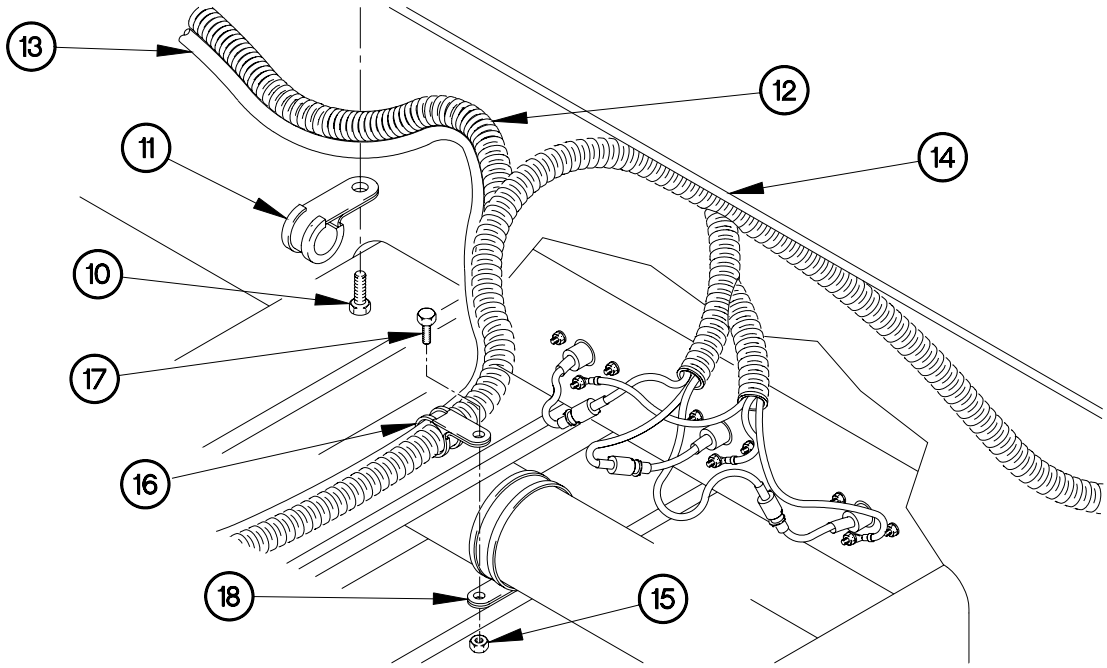


REMOVAL - Continued

NOTE

ABS power and diagnostic cable is routed with, and plastic cable tied to, electrical cable assembly. Remove plastic cable ties as required.

5. Remove two screws (10), clamps (11), electrical cable assembly (12), and ABS power and diagnostic cable (13) from rear frame rail (14).
6. Remove ABS power and diagnostic cable (13) from clamp (11).
7. Remove self-locking nut (15), clamp (16), and screw (17) from clamp (18). Discard self-locking nut.
8. Remove ABS power and diagnostic cable (13) from clamp (16).

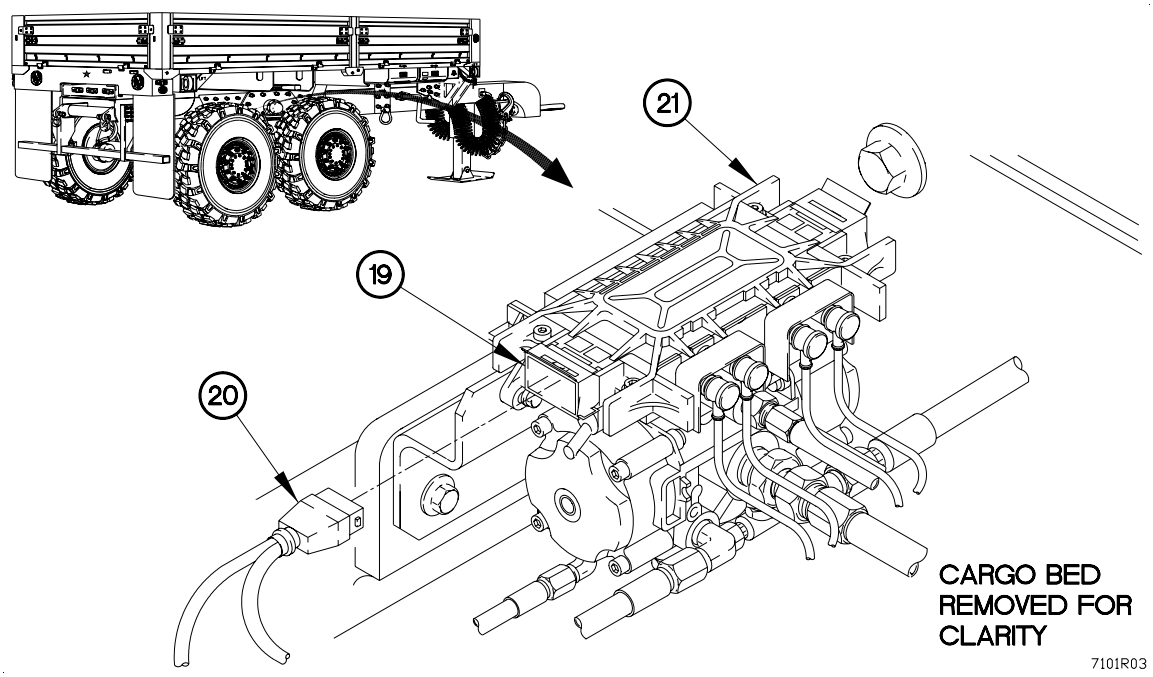


7101R02

REMOVAL - Continued

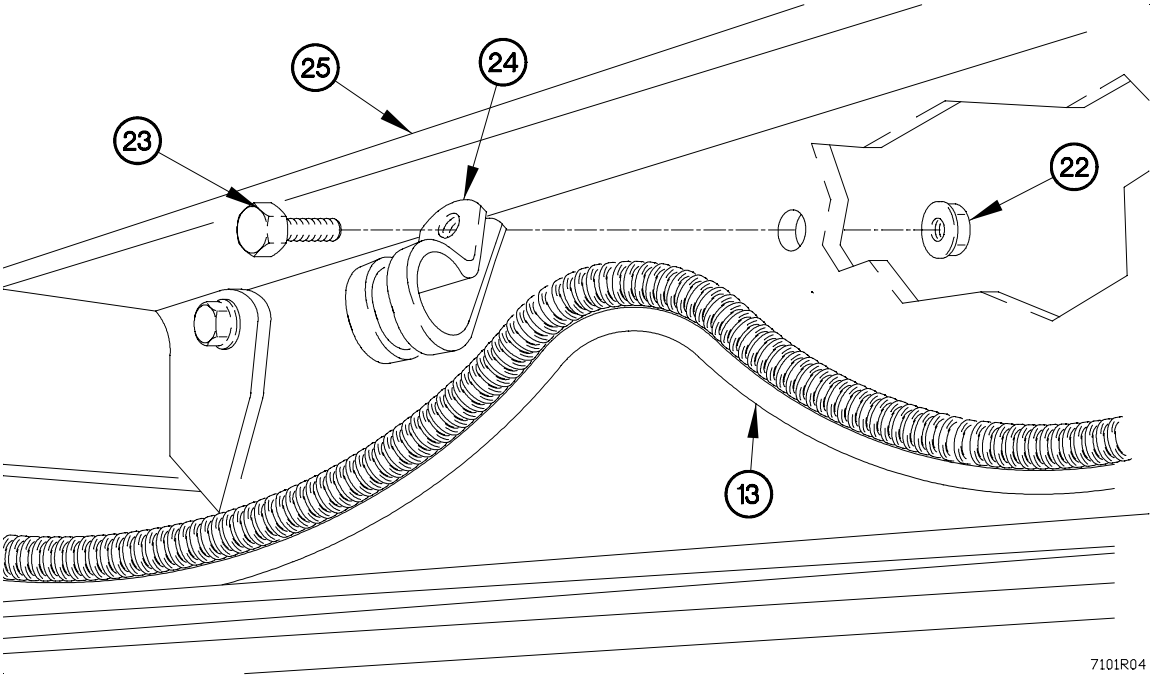
9. Push up on connector retainer clip (19).

10. Disconnect connector (20) from ABS ECU (21).



11. Remove four self-locking nuts (22), screws (23), and clamps (24) from right frame rail (25). Discard self-locking nuts.

12. Remove ABS power and diagnostic cable (13) from four clamps (24).

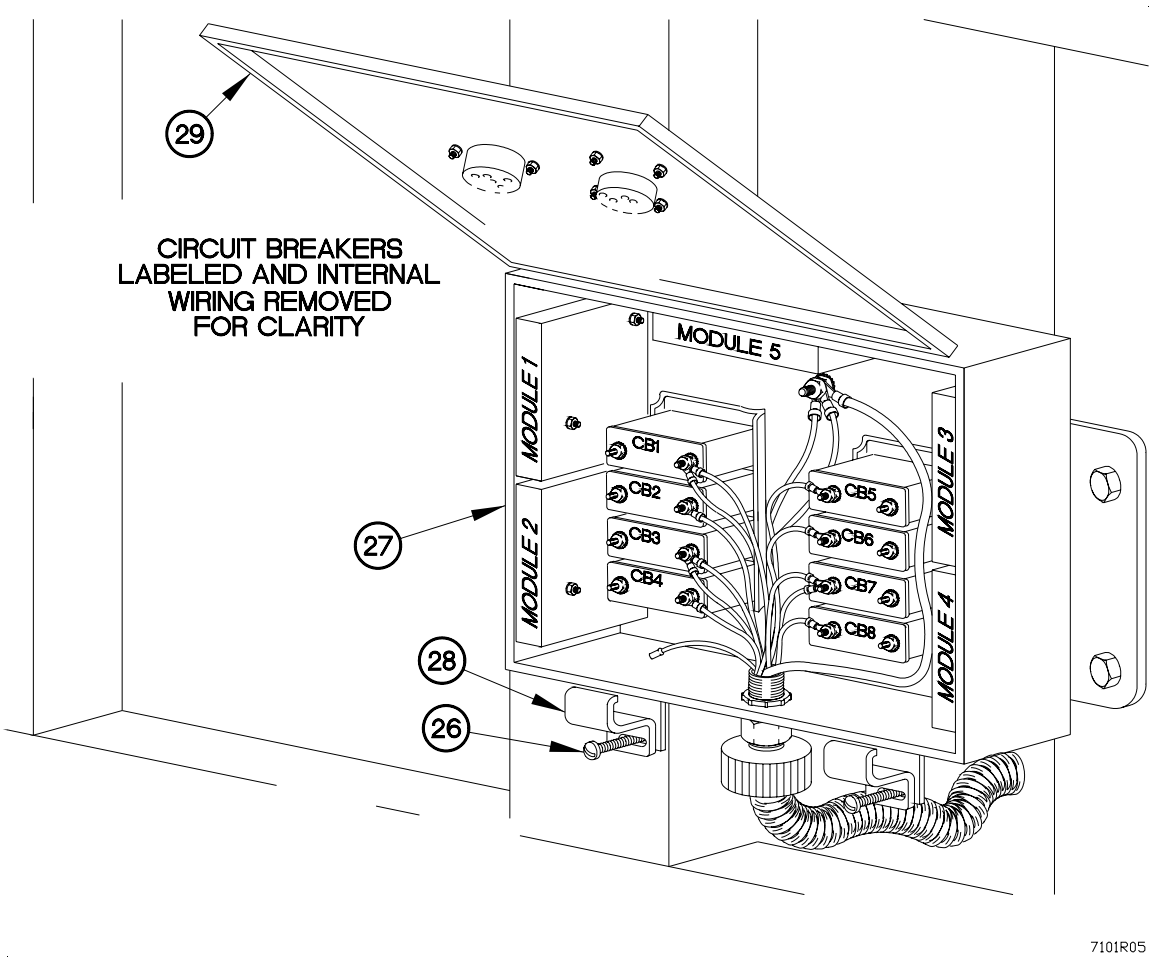


REMOVAL – Continued

13. Loosen two screws (26) on voltage converter box (27).

14. Disconnect latches (28) from cover (29).

15. Open cover (29) on voltage converter box (27).



REMOVAL – Continued

NOTE

Tag electrical connections and connection points prior to disconnecting.

Refer to **Table 1. ABS Power and Diagnostic Cable Connections** for details.

ABS Power and Diagnostic Cable Connections

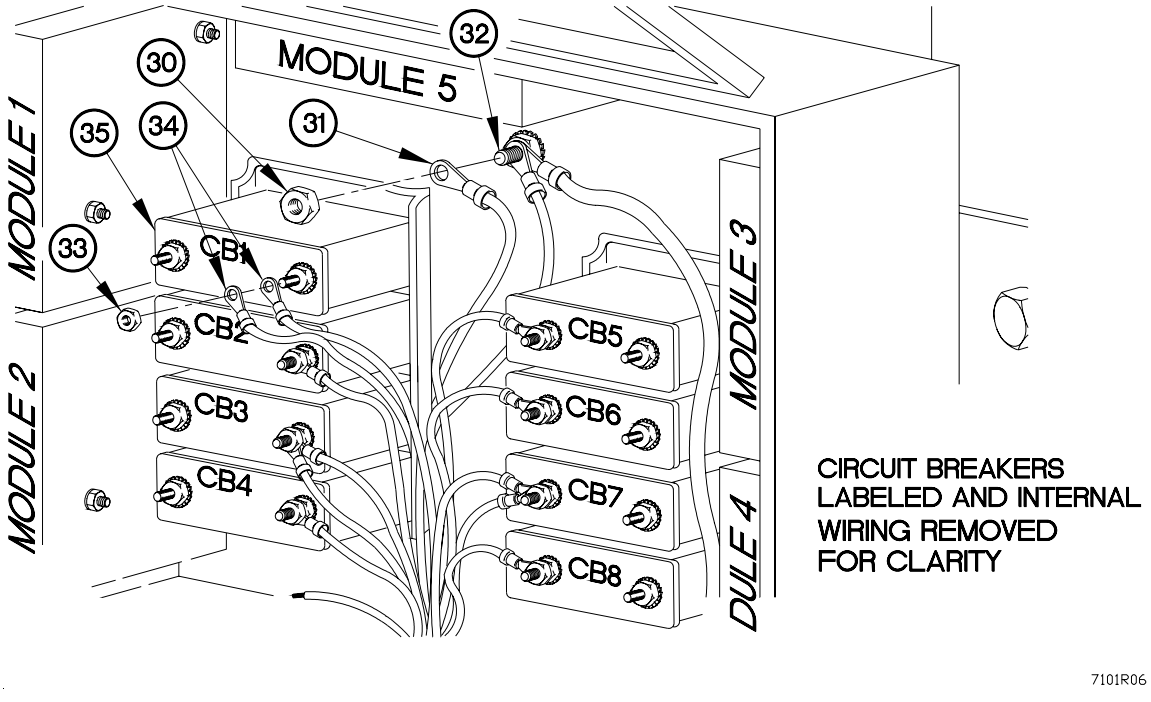
Voltage Conversion Box Locations	ABS power and diagnostic cable wire colors
CB1	Red and Blue
Ground Stud	White

16. Remove nut (30) and ABS power cable terminal lug (31) from ground stud (32).

NOTE

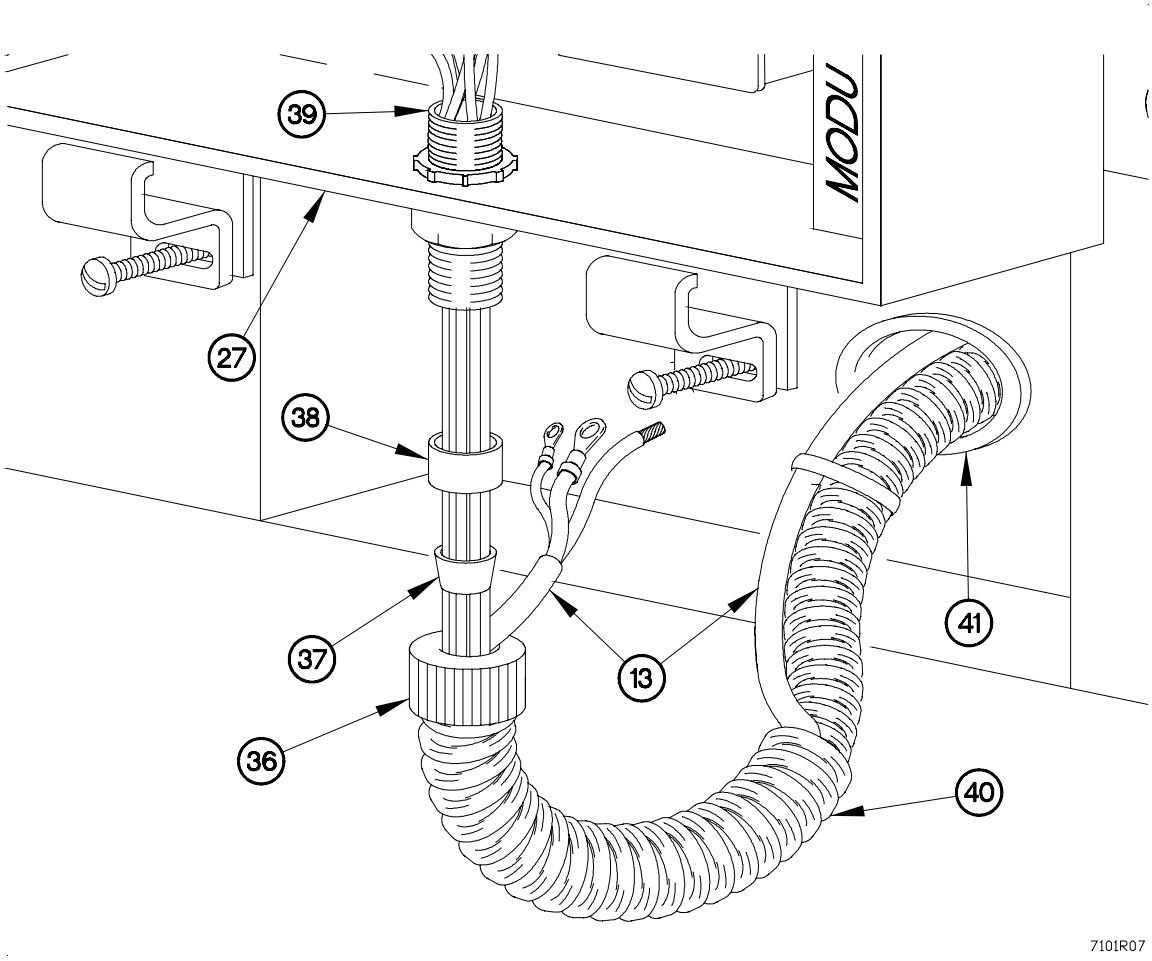
Other terminal lugs are present at this location.

17. Remove nut (33) and two ABS power cable terminal lugs (34) from circuit breaker CB1 (35).



REMOVAL – Continued

18. Remove compression fitting collar (36) and choke seals (37 and 38) from compression fitting (39).
19. Remove ABS power and diagnostic cable (13) from voltage converter box (27).
20. Remove choke seals (37 and 38) and compression fitting collar (36) from ABS power and diagnostic cable (13).
21. Remove ABS power and diagnostic cable (13) from convoluted tubing (40).
22. Remove ABS power and diagnostic cable (13) from bulkhead opening (41).



INSTALLATION

NOTE

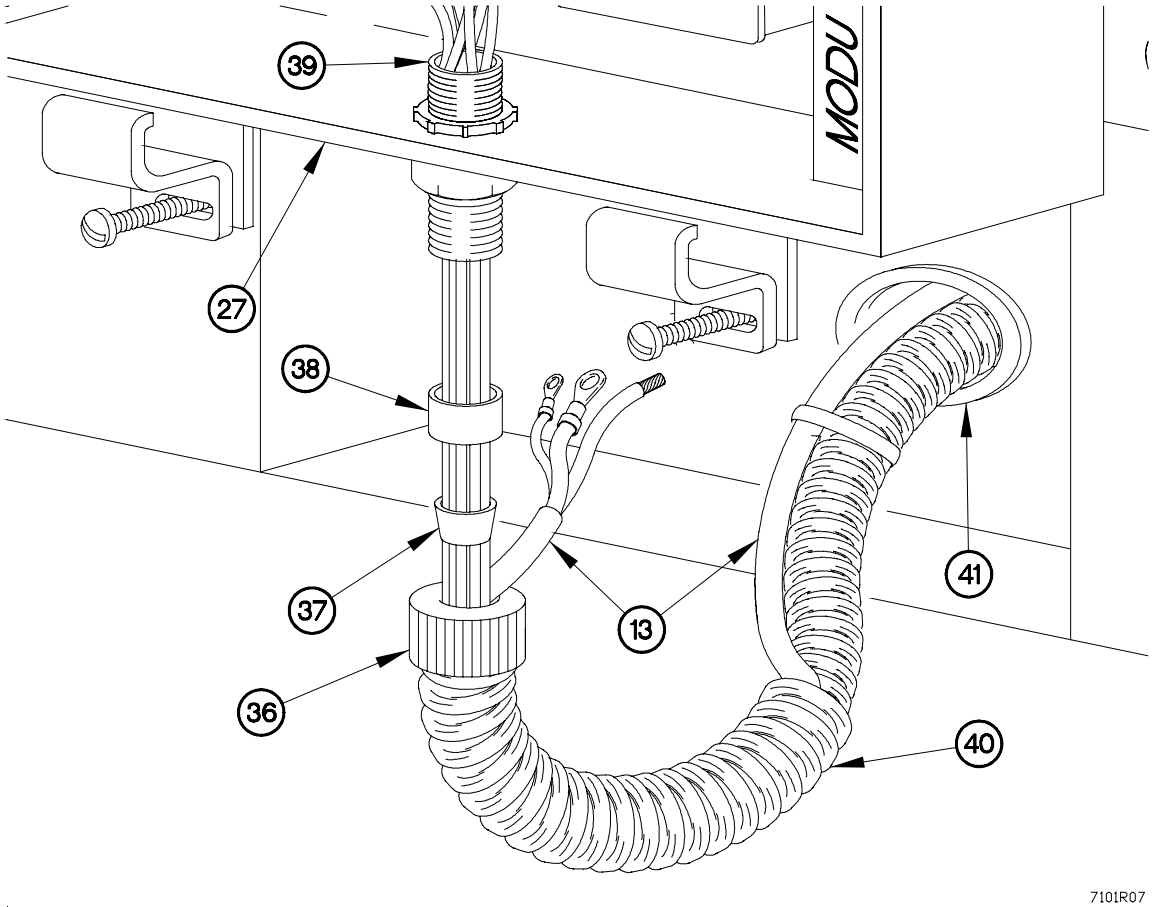
ABS power and diagnostic cable is routed with, and plastic cable tied to, electrical cable assembly. Install plastic cable ties as required.

1. Route ABS power and diagnostic cable (13) through bulkhead opening (41).
2. Position ABS power and diagnostic cable (13) in convoluted tubing (40).
3. Position compression fitting collar (36) and choke seals (37 and 38) on ABS power and diagnostic cable (13).
4. Position ABS power and diagnostic cable (13) in voltage converter box (27).

NOTE

Do not tighten compression collar at this time.

5. Position choke seals (37 and 38) in compression fitting (39) with compression collar (36).



INSTALLATION - Continued

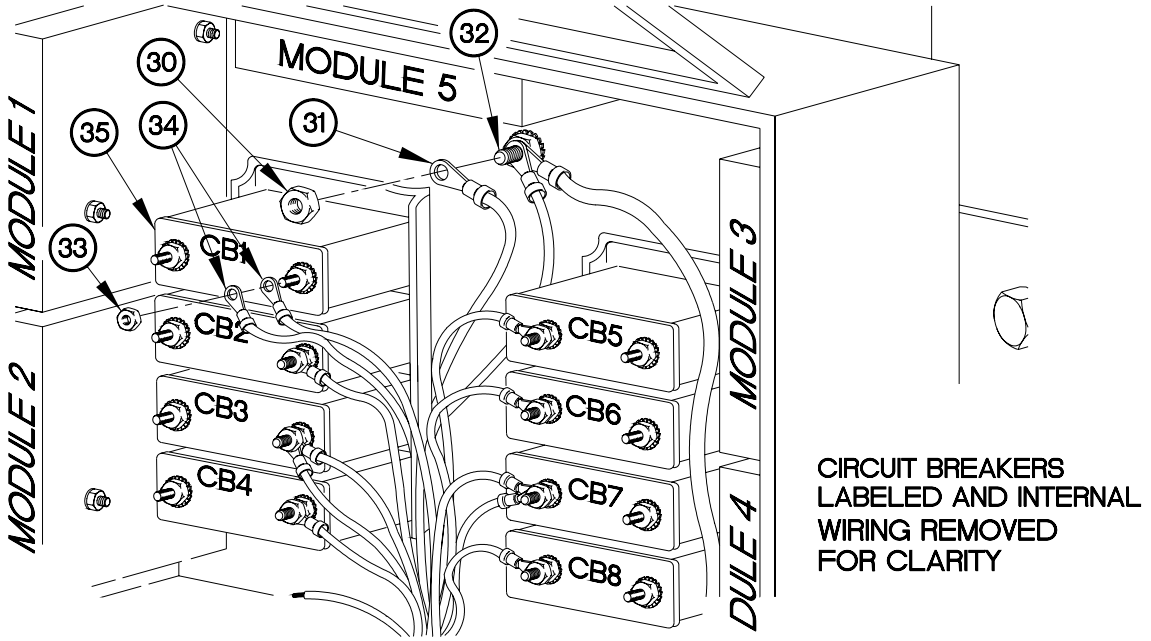
NOTE

Refer to Electrical Wire and Cable Repair for terminal lug installation instructions.
Refer to ***Table 1. ABS Power and Diagnostic Cable Connections*** for details.

Other terminal lugs are present at this location.

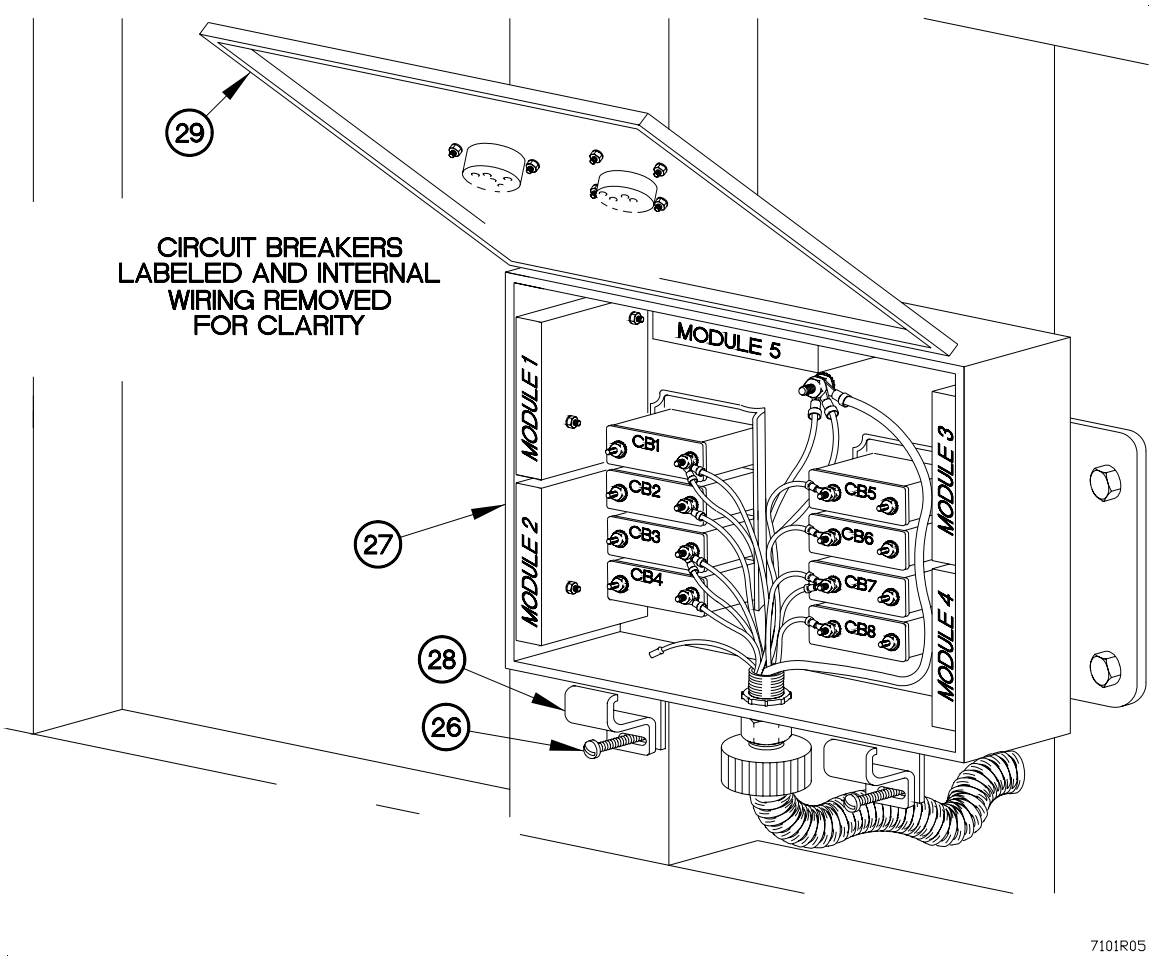
6. Install two ABS power cable terminal lugs (34) on circuit breaker CB1 (35) with nut (33).

7. Install ABS power cable terminal lug (31) on ground stud (32) with nut (30).



INSTALLATION - Continued

8. Hand-tighten compression collar (36) on compression fitting (39).
9. Close cover (29) on voltage converter box (27).
10. Position two latches (28) on voltage converter box (27) with two screws (26).
11. Tighten two screws (26) to 96-120 lb-in. (11-14 N•m).



INSTALLATION - Continued

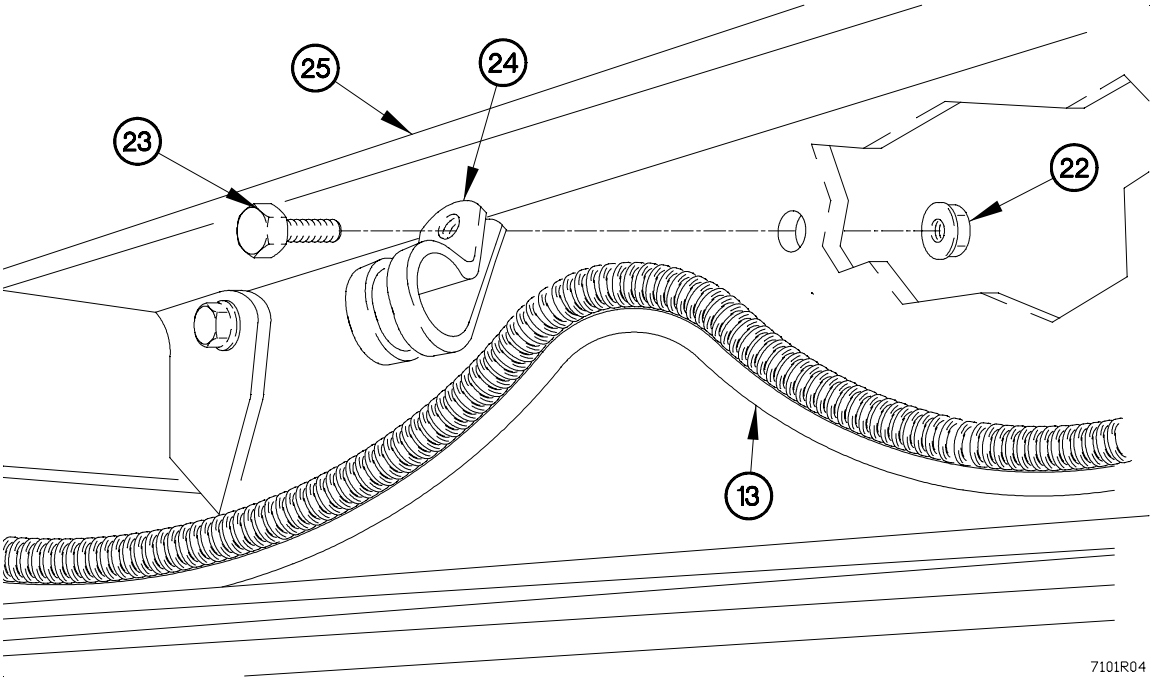
12. Position ABS power and diagnostic cable (13) in four clamps (24).

NOTE

The following two steps require the aid of an assistant.

13. Position four clamps (24) on right frame rail (25) with four screws (23) and self-locking nuts (22).

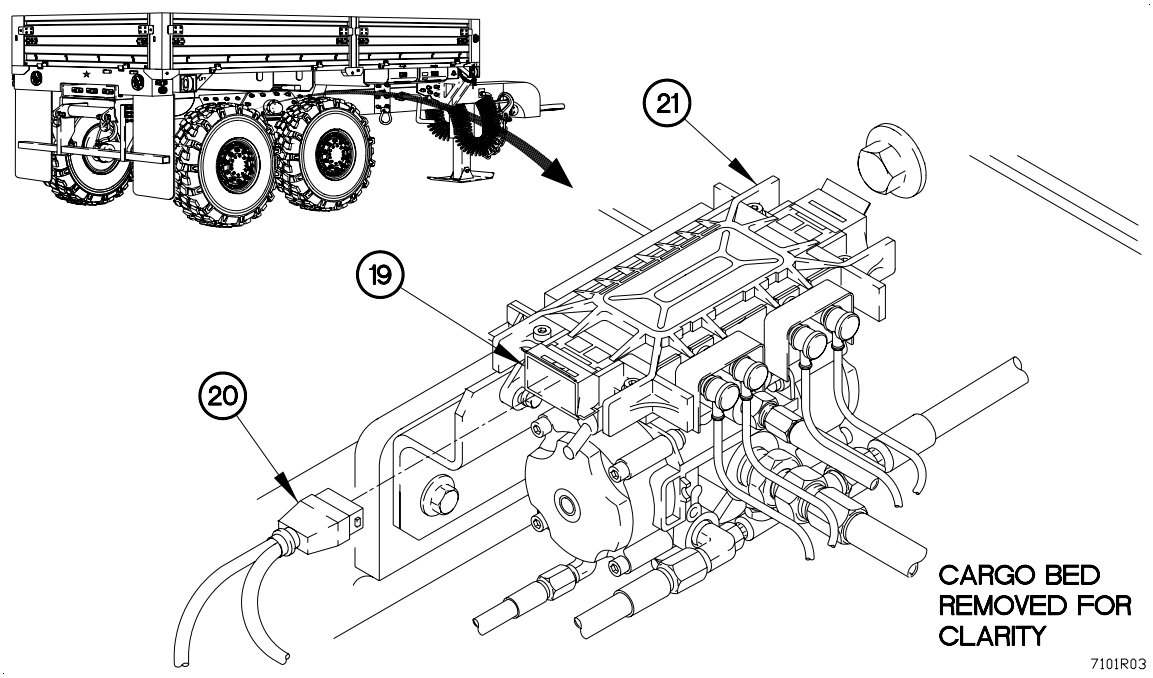
14. Tighten four self-locking nuts (22) to 60-72 lb-in. (7-9 N•m).



INSTALLATION - Continued

15. Connect connector (20) to ABS ECU (21).

16. Push connector retainer clip (19) down to secure.

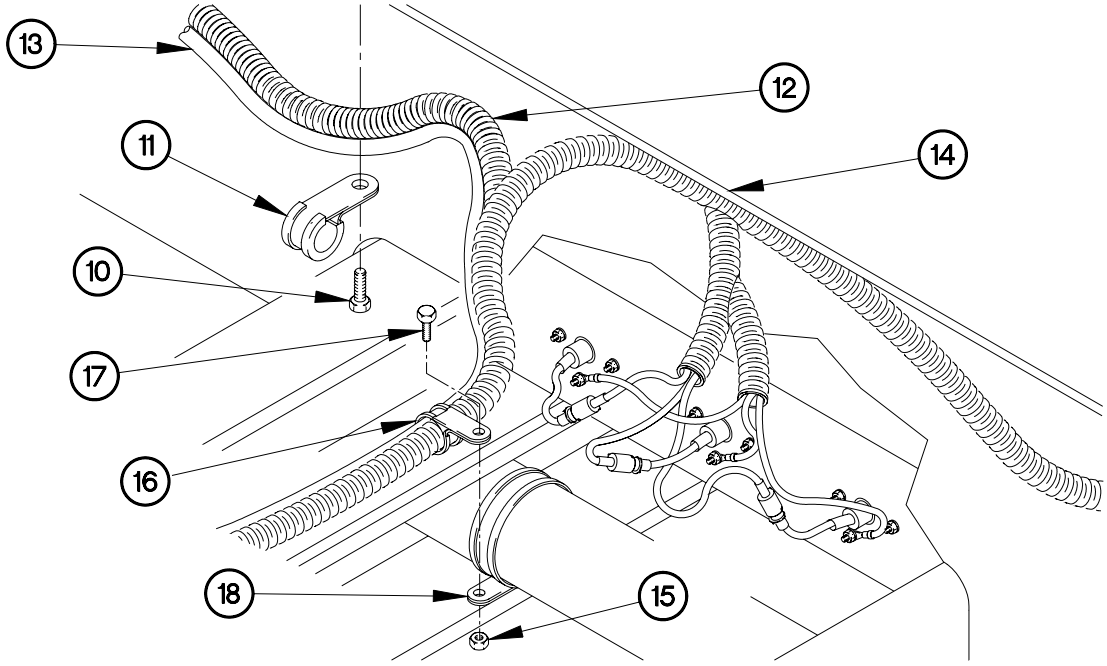


INSTALLATION - Continued

NOTE

The following four steps require the aid of an assistant.

17. Position clamp (16) on clamp (18) with screw (17) and self-locking nut (15).
18. Position ABS power and diagnostic cable (13) and electrical cable assembly (12) in two clamps (11).
19. Install two clamps (11) on rear frame rail (14) with two screws (10).
20. Tighten self-locking nut (15) to 60-72 lb-in. (7-9 N•m).



7101R02

INSTALLATION - Continued

21. Position ABS diagnostic plug (2) in mounting bracket (6) with ridge on top of ABS diagnostic plug aligned with slot in mounting bracket.

NOTE

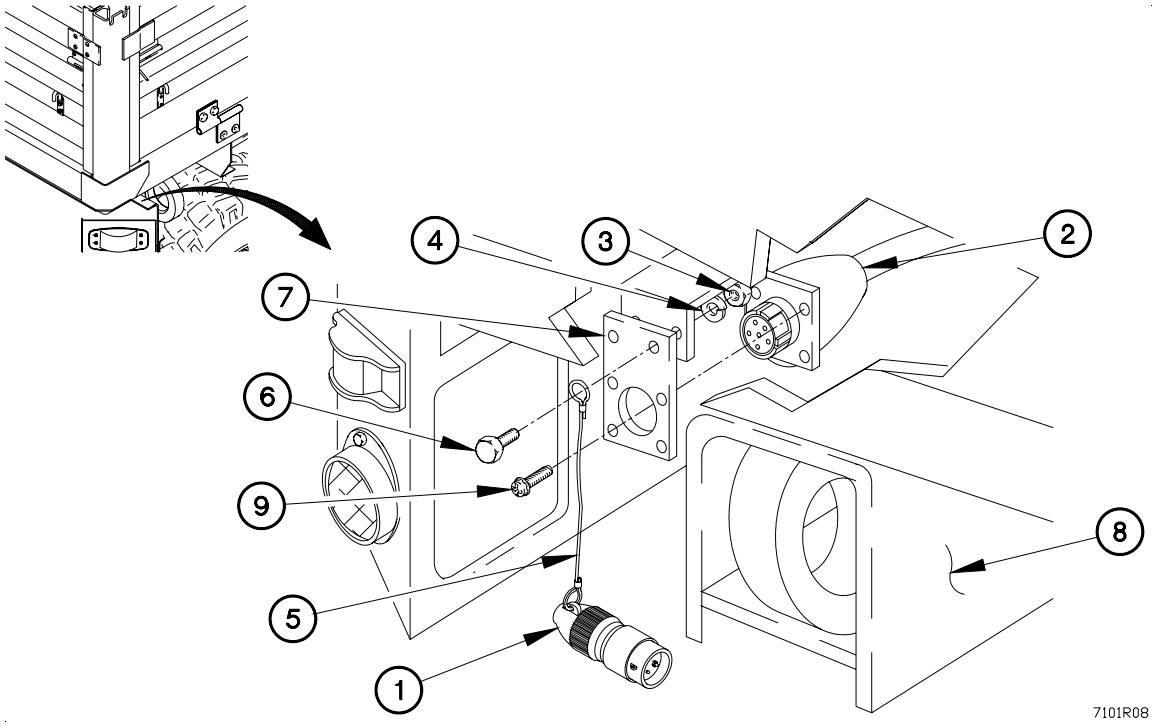
The following two steps require the aid of an assistant.

22. Install ABS diagnostic plug (2) in mounting bracket (7) with four screws(9).

23. Position mounting bracket (7) on trailer (8) with two bolts (6), lanyard (5), lockwashers (4), and nuts (3).

24. Tighten two nuts (3) to 48 lb-in (6 N·m).

25. Install ABS diagnostic tool (1) on ABS diagnostic plug (2).



OPERATIONAL CHECK

1. Couple trailer. (WP 0009 00, Coupling Trailer).

2. Road test trailer and check for proper brake operation.

3. Perform Brake System Troubleshooting and check for diagnostic codes.

END OF WORK PACKAGE

ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC BRACKETS REPLACEMENT

0074 00

THIS WORK PACKAGE COVERS:

Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level

Field

Tools and Special Tools

Tool Kit, Genl Mech (Item 37, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench, Torque, 0-75 lb-in. (Item 53, WP 0178 00)

Materials/Parts

Lockwasher (2) (Item 41, WP 0181 00)
Lockwasher (4) (Item 9, WP 0181 00)

References

WP 0009 00
Towing vehicle Operator manual

Equipment Conditions

Trailer uncoupled (WP 0012 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

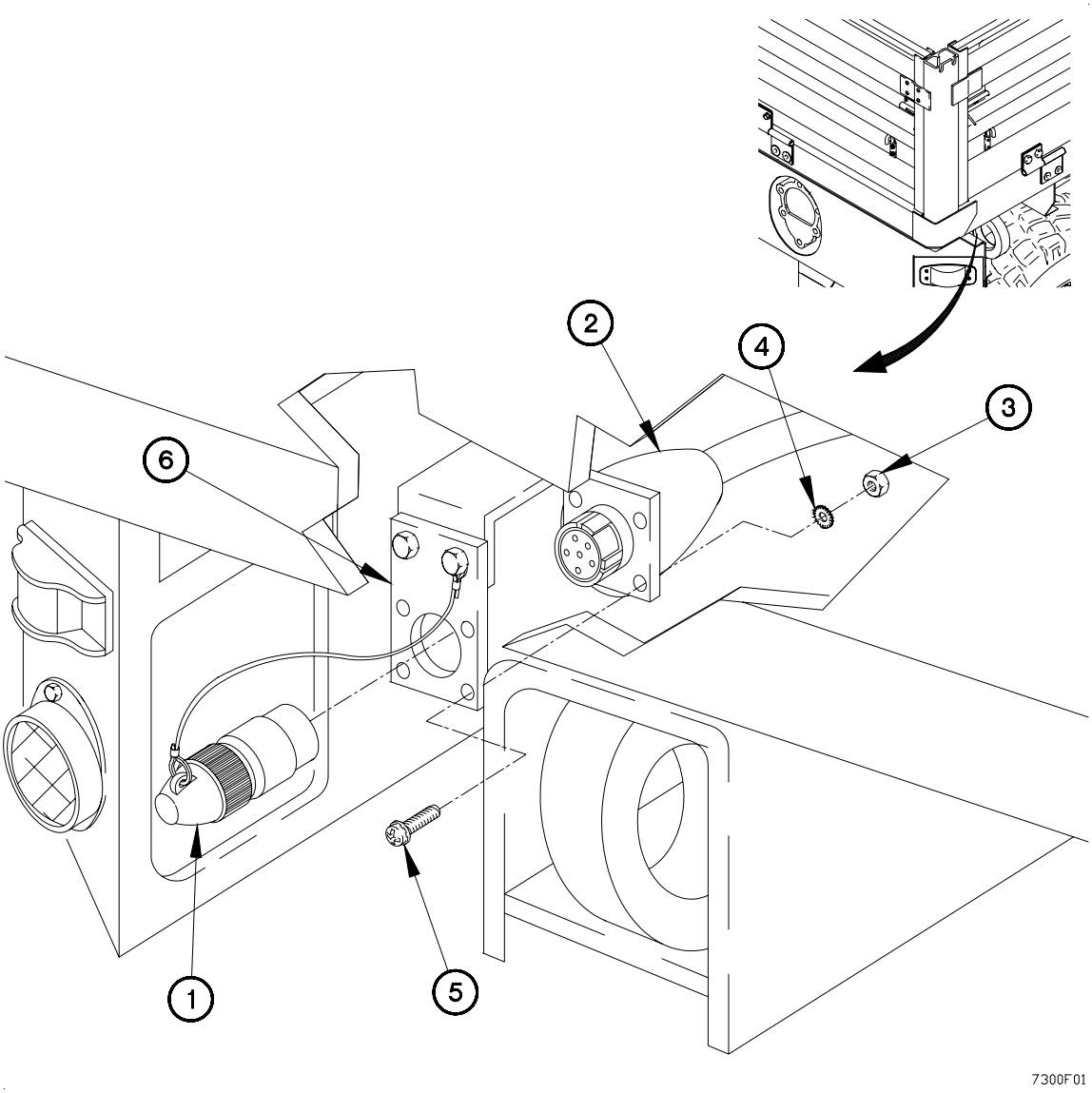
ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC BRACKETS REPLACEMENT - Continued

0074 00

REMOVAL

1. Remove ABS diagnostic tool (1) from Anti-Lock Braking System (ABS) diagnostic plug (2).

2. Remove four nuts (3), lockwashers (4), screws (5) and ABS diagnostic plug (2) from ABS diagnostic cable mount bracket (6). Discard lockwashers.



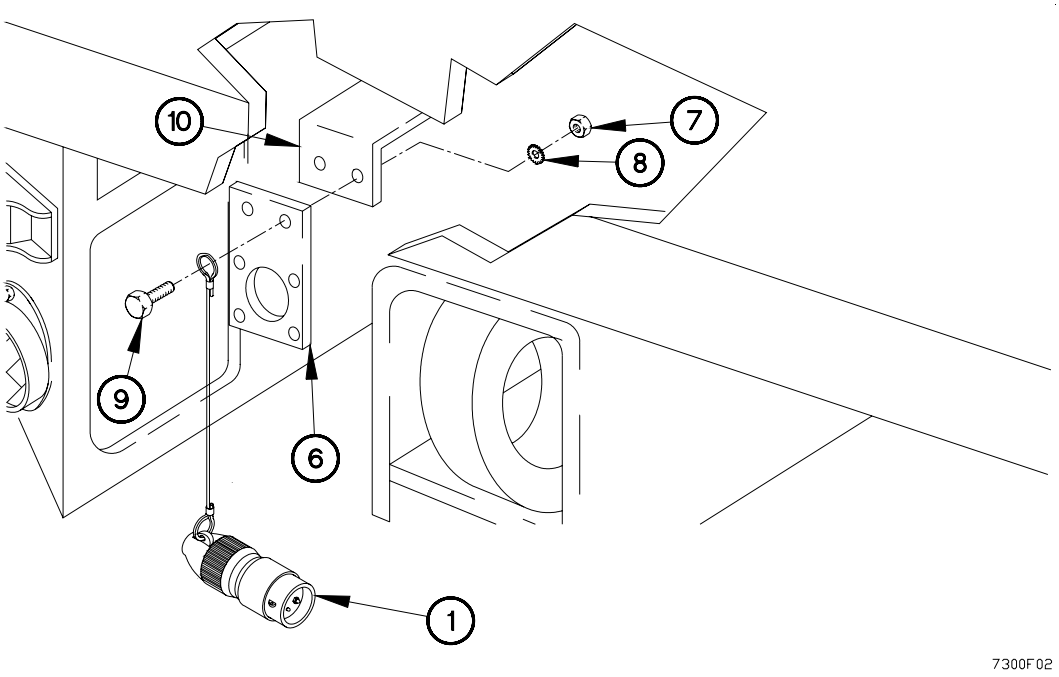
ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC BRACKETS REPLACEMENT - Continued

0074 00

REMOVAL - Continued

3. Remove nut (7), lockwasher (8), screw (9) and ABS diagnostic tool (1) from ABS diagnostic cable mount bracket (6). Discard lockwasher.

4. Remove nut (7), lockwasher (8), screw (9) and ABS diagnostic cable mount bracket (6) from ABS diagnostic bracket (10). Discard lockwashers.



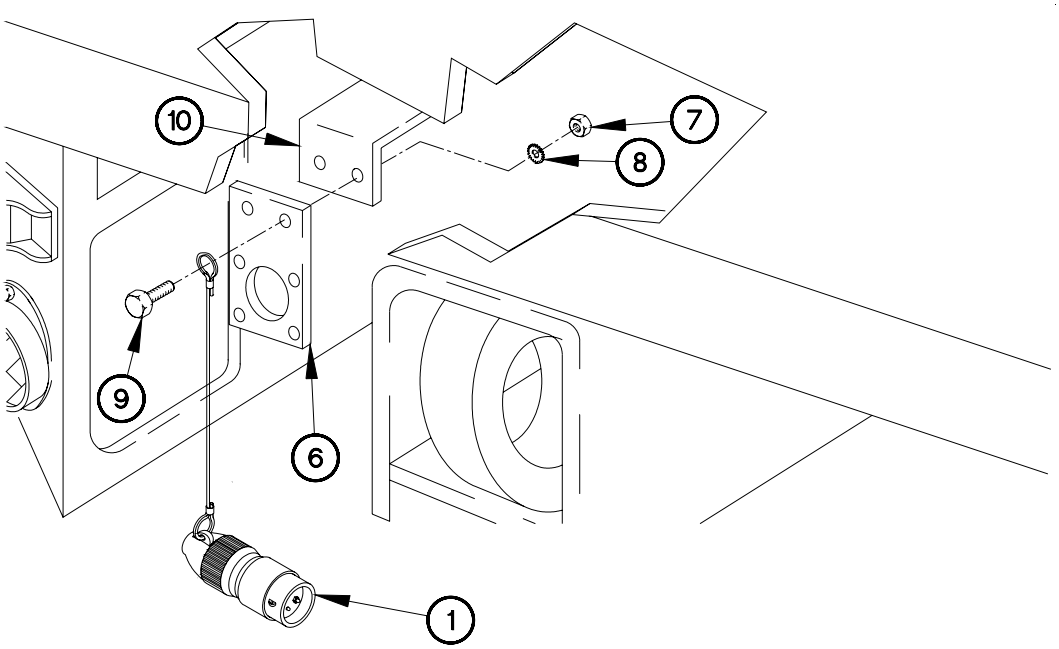
ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC BRACKETS REPLACEMENT - Continued

INSTALLATION

1. Position ABS diagnostic cable mount bracket (6) on ABS diagnostic bracket (10) with screw (9), lockwasher (8), and nut (7).

2. Position ABS diagnostic tool (1) on ABS diagnostic cable mount bracket (6) with screw (9), lockwasher (8), and nut (7).

3. Tighten two nuts (7) to 36-44 lb-in. (4-5 N•m).



7300F02

ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC BRACKETS REPLACEMENT - Continued

0074 00

INSTALLATION - Continued

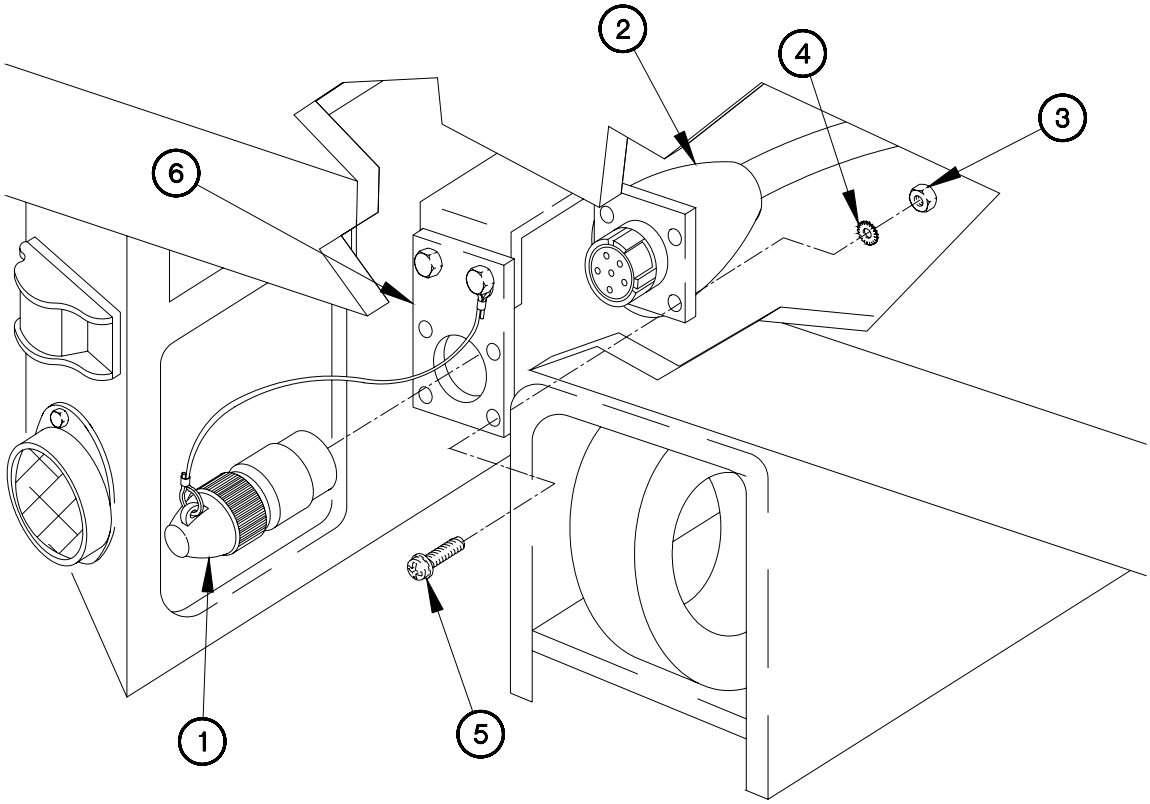
NOTE

Ensure ridge on top of ABS diagnostic plug is aligned with slot on ABS cable mount bracket.

4. Position ABS diagnostic plug (2) on ABS diagnostic cable mount bracket (6) with four screws (5), lockwashers (4), and nuts (3).

5. Tighten four nuts (3) to 18-22 lb-in. (2-3 N•m).

6. Install ABS diagnostic tool (1) on ABS diagnostic plug (2).



7300F04

ANTI-LOCK BRAKING SYSTEM (ABS) DIAGNOSTIC BRACKETS REPLACEMENT - Continued

0074 00

OPERATIONAL CHECK

1. Couple trailer (WP 009 00, Coupling Trailer).
3. Start towing vehicle engine.
4. Road test trailer and check that brackets are not loose.
5. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

SHOCK ABSORBER REPLACEMENT 0075 00

THIS WORK PACKAGE COVERS:

Removal, MTVT; Installation, MTVT; Operational Check, MTVT; Removal, LMTVT; Installation, LMTVT; Operational Check, LMTVT

INITIAL SETUP:

Maintenance Level

Field

Tools and Special Tools

Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Goggles, Industrial (Item 7, WP 0178 00)

Tools and Special Tools (Cont)

Socket Set, Impact (Item 28, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)

Materials/Parts

Nut, Self-Locking (2) (Item 35, WP 0181 00)

Equipment Conditions

Wheels chocked (WP 0011 00).

REMOVAL, MTVT

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

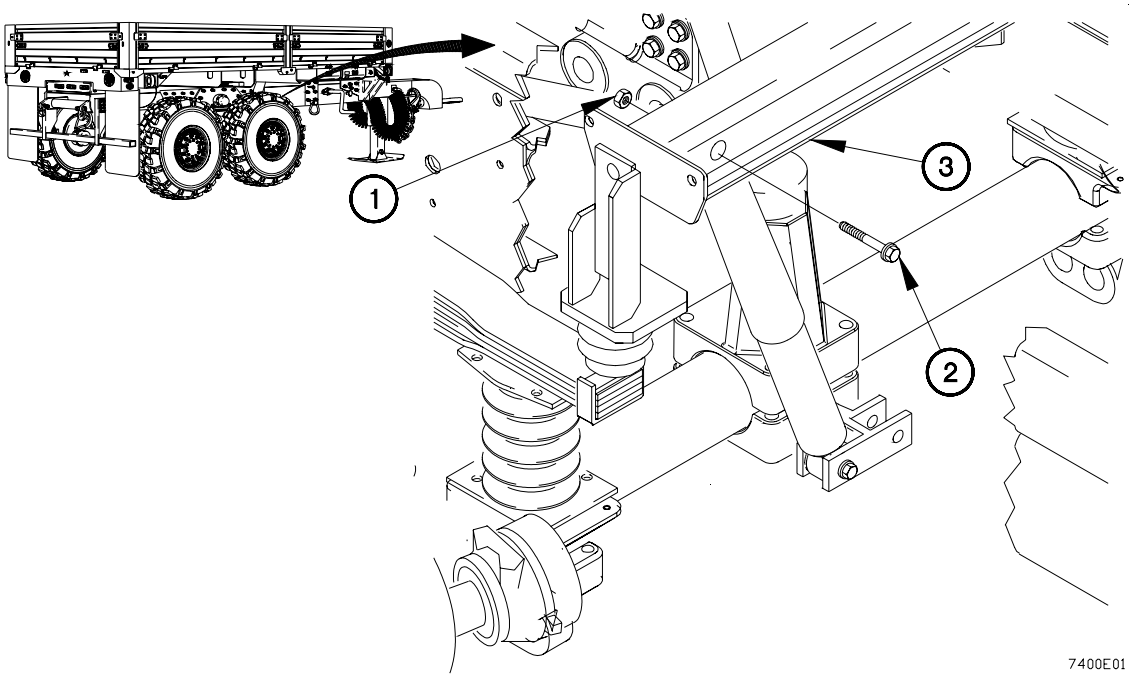
NOTE

All shock absorbers are removed the same way. Right side front shown.

SHOCK ABSORBER REPLACEMENT - Continued 0075 00

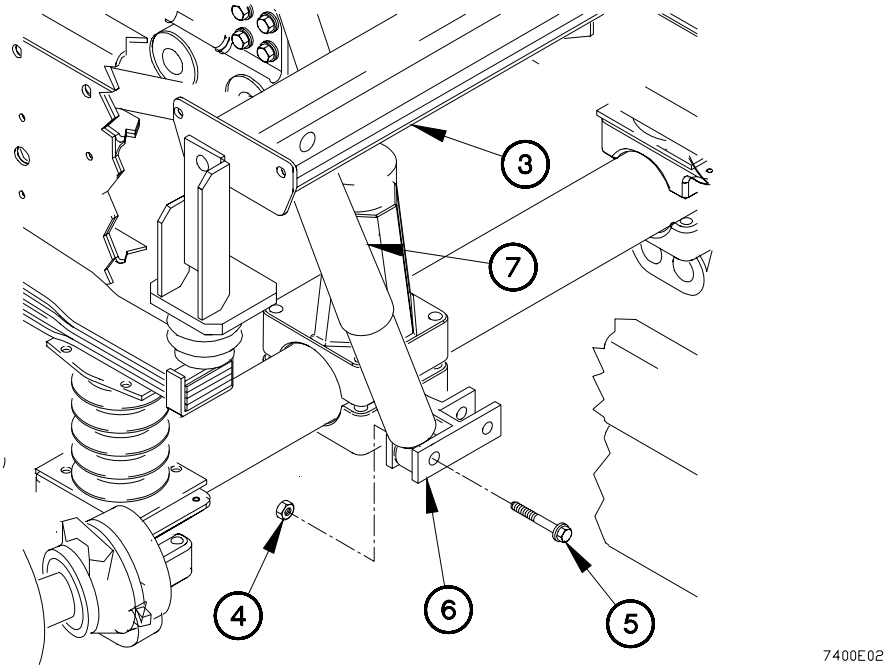
REMOVAL, MTVT - Continued

1. Remove self-locking nut (1) and bolt (2) from upper bracket (3). Discard self-locking nut.



2. Remove self-locking nut (4) and bolt (5) from lower bracket (6). Discard self-locking nut.

3. Remove shock absorber (7) from upper bracket (3) and lower bracket (6).



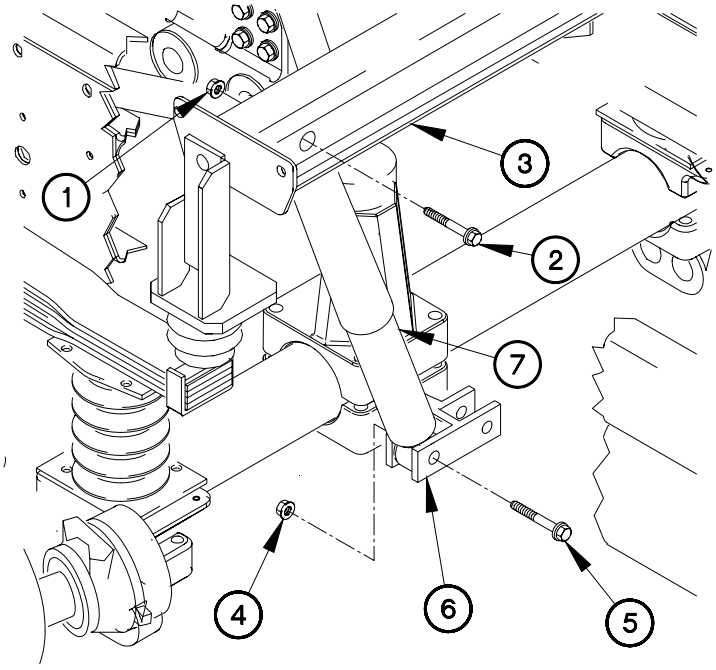
SHOCK ABSORBER REPLACEMENT - Continued 0075 00

INSTALLATION, MTVT

NOTE

All shock absorbers are installed the same way. Right side front shown.

1. Position shock absorber (7) in upper bracket (3) and lower bracket (6).
2. Position shock absorber (7) on lower bracket (6) with bolt (5) and self-locking nut (4).
3. Extend or compress shock absorber (7) length to align with holes in upper bracket (3).
4. Position shock absorber (7) on upper bracket (3) with bolt (2) and self-locking nut (1).
5. Tighten self-locking nuts (4 and 1) to 135-164 lb-ft (183-223 N•m).



7400E05

OPERATIONAL CHECK, MTVT

Unchock wheels (WP 0008 00, Unchocking Wheels).

REMOVAL, LMTVT

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

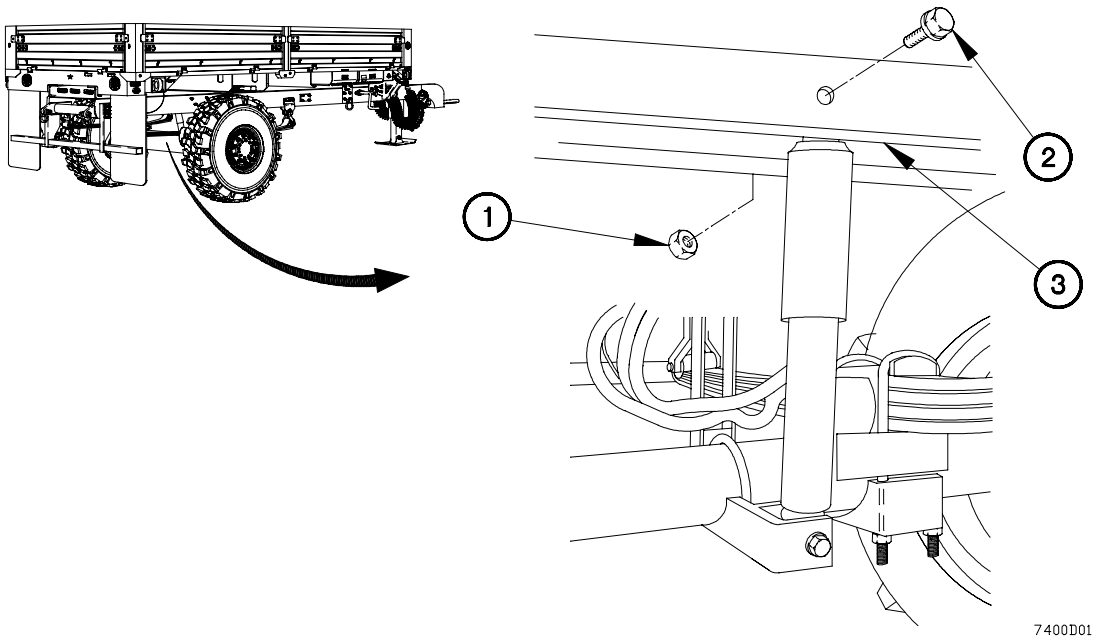
NOTE

Left and right side shock absorbers are removed the same way. Right side shown.

SHOCK ABSORBER REPLACEMENT - Continued 0075 00

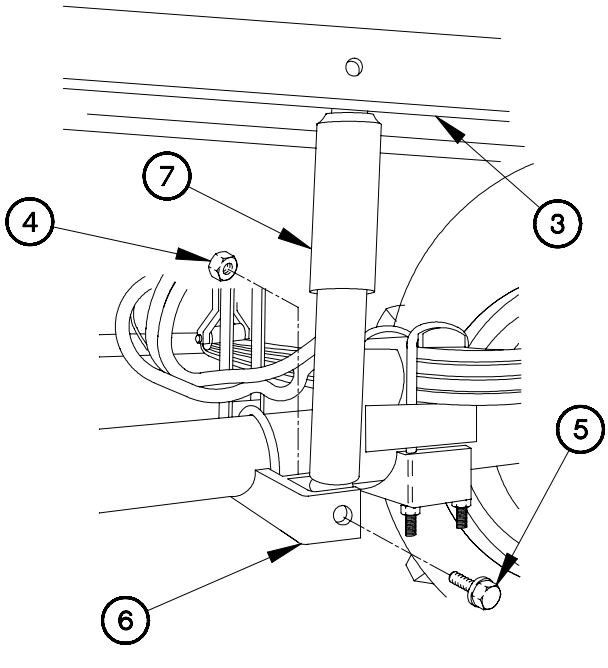
REMOVAL, LMTVT - Continued

1. Remove self-locking nut (1) and bolt (2) from upper bracket (3). Discard self-locking nut.



2. Remove self-locking nut (4) and bolt (5) from lower bracket (6). Discard self-locking nut.

3. Remove shock absorber (7) from upper bracket (3) and lower bracket (6).



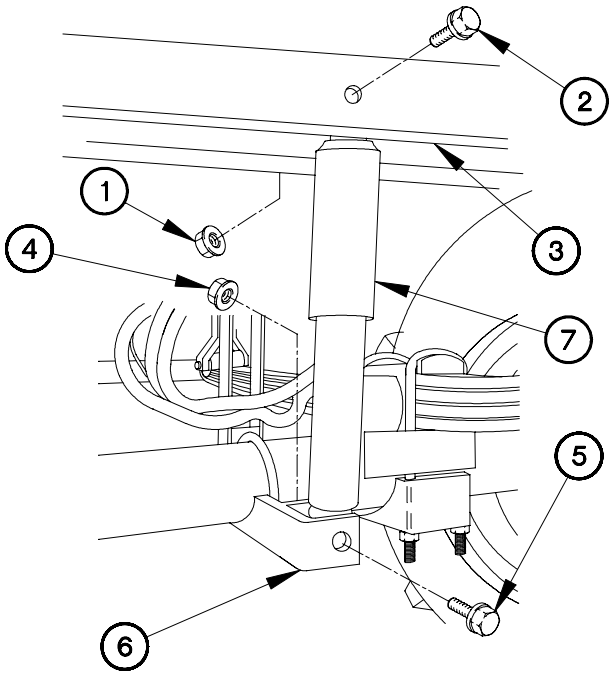
SHOCK ABSORBER REPLACEMENT - Continued 0075 00

INSTALLATION, LMTVT

NOTE

Left and right side shock absorbers are installed the same way. Right side shown.

1. Position shock absorber (7) in upper bracket (3) and lower bracket (6).
2. Position shock absorber (7) on lower bracket (6) with bolt (5) and self-locking nut (4).
3. Extend or compress shock absorber (7) length to align with holes in upper bracket (3).
4. Position shock absorber (7) on upper bracket (3) with bolt (2) and self-locking nut (1).
5. Tighten self-locking nuts (4 and 1) to 196-240 lb-ft (265-325 N•m).



7400D04

OPERATIONAL CHECK, LMTVT

1. Unchock wheels (WP 0008 00, Unchocking Wheels).

END OF WORK PACKAGE

MECHANICAL STOP AND RESILIENT MOUNT REPLACEMENT 0076 00

THIS WORK PACKAGE COVERS:

Mechanical Stop Removal, MTVT; Mechanical Stop Installation, MTVT; Resilient Mount Removal, MTVT; Resilient Mount Installation, MTVT; Resilient Mount Removal, LMTVT; Resilient Mount Installation, LMTVT

INITIAL SETUP:

Maintenance Level

Field

Tools and Special Tools

Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-175 lb-ft (Item 49, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Crowfoot Attachment, Socket Wrench (Item 1, Table 2, WP 0124 00)

Tools and Special Tools (Cont)

Vise, Machinist (Item 39, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)

Materials/Parts

Nut, Self-Locking (2) (MTVT) (Item 35, WP 0181 00)
Lockwasher (MTVT) (Item 40, WP 0181 00)

Equipment Conditions

Trailer uncoupled (WP 0012 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

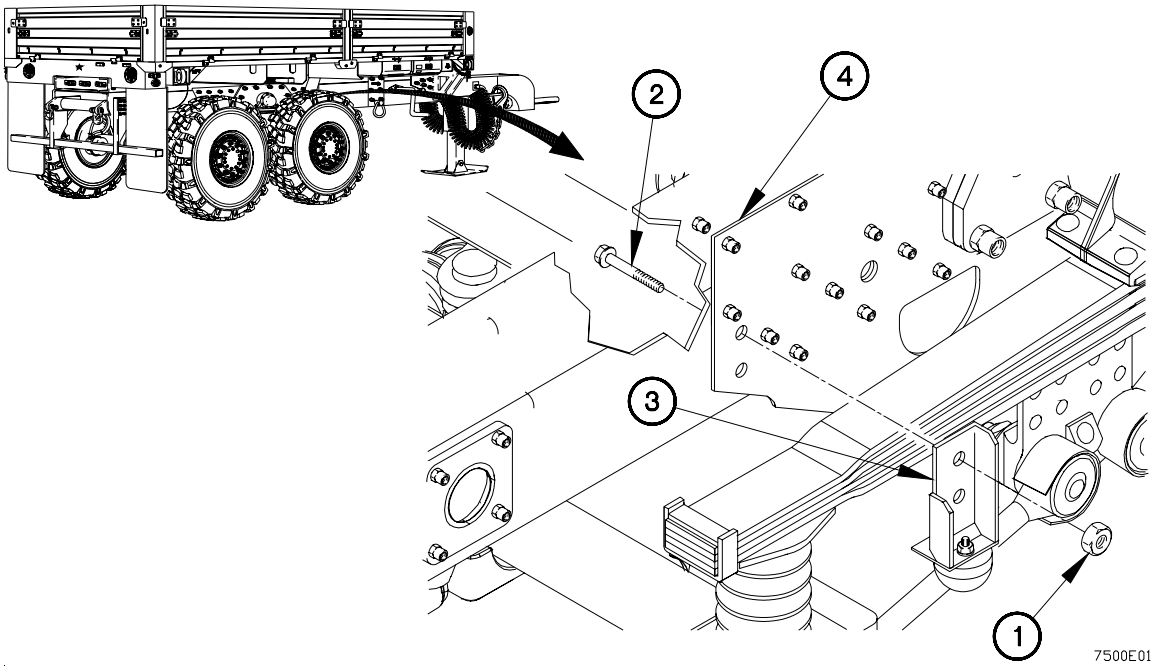
MECHANICAL STOP AND RESILIENT MOUNT REPLACEMENT - Continued 0076 00

MECHANICAL STOP REMOVAL, MTVT

NOTE

All mechanical stops are removed the same way. Right side front shown.

Remove two self-locking nuts (1), bolts (2), and mechanical stop (3) from frame plate (4). Discard self-locking nuts.



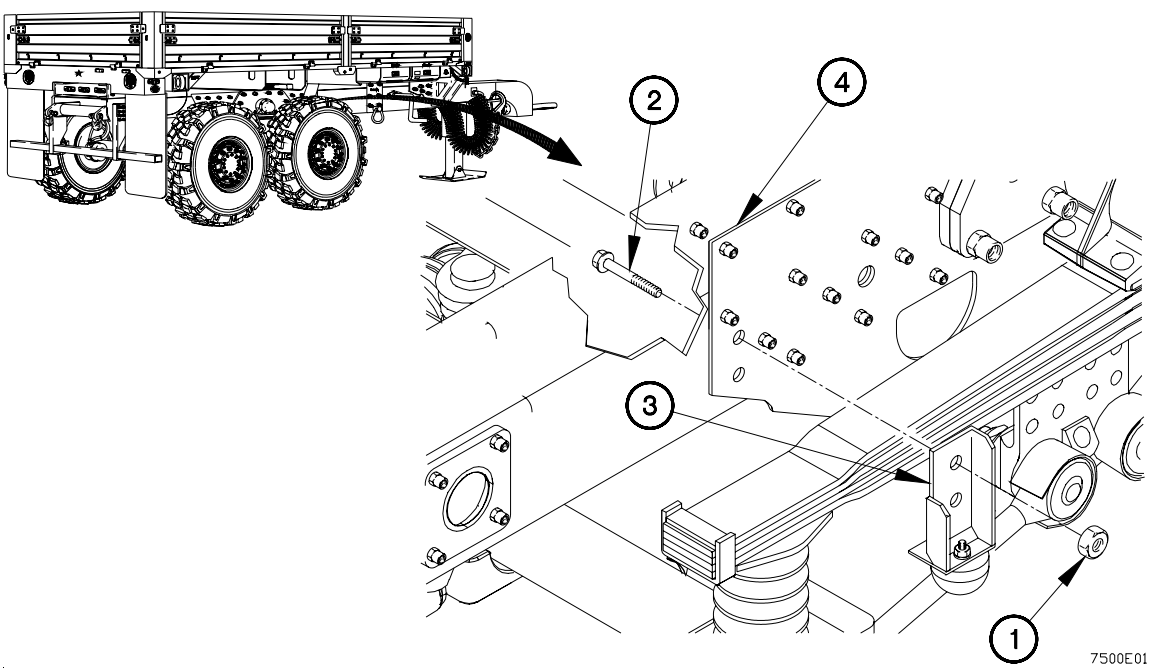
MECHANICAL STOP AND RESILIENT MOUNT REPLACEMENT - Continued 0076 00

MECHANICAL STOP INSTALLATION, MTVT

NOTE

All mechanical stops are installed the same way. Right side front shown.

1. Position mechanical stop (3) on frame plate (4) with two bolts (2) and self-locking nuts (1).
2. Tighten two self-locking nuts (1) to 148-185 lb-ft (200-250 N•m).



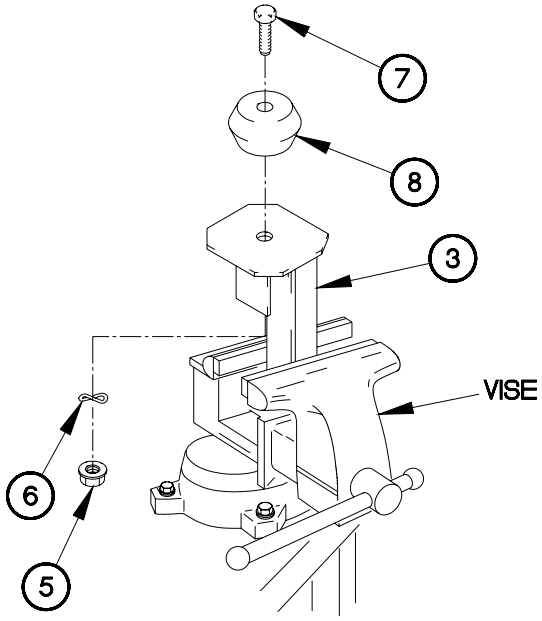
MECHANICAL STOP AND RESILIENT MOUNT REPLACEMENT - Continued 0076 00

RESILIENT MOUNT REMOVAL, MTVT

1. Position mechanical stop (3) in vise.
2. Remove nut (5), lockwasher (6), bolt (7), and resilient mount (8) from mechanical stop (3). Discard lockwasher.

RESILIENT MOUNT INSTALLATION, MTVT

1. Position resilient mount (8) on mechanical stop (3) with bolt (7), lockwasher (6), and nut (5).
2. Tighten nut (5) to 35-46 lb-ft (47-63 N•m).
3. Remove mechanical stop (3) from vise.



7500E02

MECHANICAL STOP AND RESILIENT MOUNT REPLACEMENT - Continued 0076 00

RESILIENT MOUNT REMOVAL, LMTVT

NOTE

Left and right side resilient mounts are removed the same way. Right side shown.

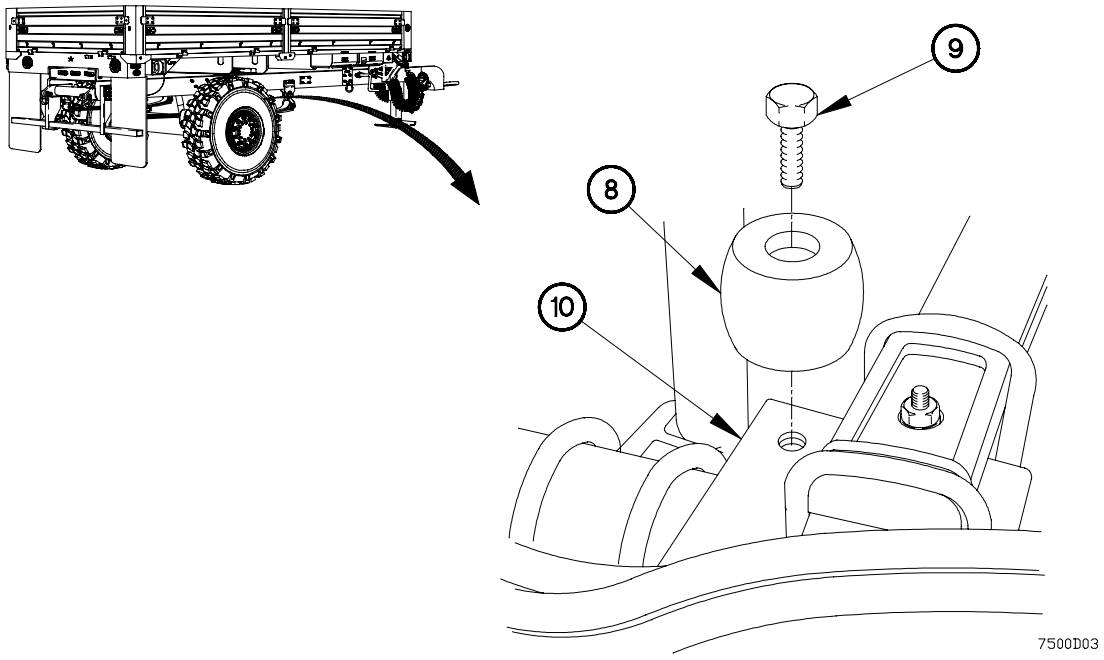
Remove bolt (9) and resilient mount (8) from leaf spring plate (10).

RESILIENT MOUNT INSTALLATION, LMTVT

NOTE

Left and right side resilient mounts are installed the same way. Right side shown.

1. Position resilient mount (8) on leaf spring plate (10) with bolt (9).
2. Tighten bolt (9) to 77-94 lb-ft (104-127 N•m).



END OF WORK PACKAGE

WHEEL STUD REPLACEMENT 0077 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Personnel Required
Two

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Respirator, Air Filter (Item 23, WP 0178 00)

Equipment Conditions
Brake shoes removed (WP 0055 00).

REMOVAL

WARNING

Spring brakes must be caged before attempting replacement of a rear wheel stud. Failure to comply may result in severe injury to personnel.

Wheel drum weighs approximately 90 lbs (41 kgs). Use the aid of an assistant to help remove wheel drum. Failure to comply may result in injury to personnel.

Brake shoes may be covered with dust. Breathing this dust may be harmful to your health. Do not use compressed air to clean brake shoes. Wear a filter mask approved for use against brake dust. Failure to comply may result in injury to personnel.

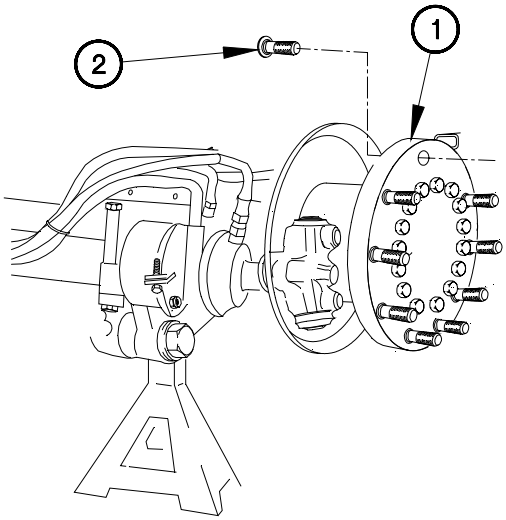
CAUTION

Wheel studs and nuts on left side of trailer have left hand threads. Nuts must be turned clockwise to loosen. Wheel studs and nuts on right side of trailer have right hand threads. Nuts must be turned counterclockwise to loosen. Failure to comply may result in damage to equipment.

WHEEL STUD REPLACEMENT - Continued 0077 00

REMOVAL - Continued

1. Turn wheel hub (1) to position wheel stud (2), to be replaced, at top or bottom position.
2. Knock wheel stud (2) out through back side of wheel hub (1).



7600F01

WHEEL STUD REPLACEMENT - Continued 0077 00

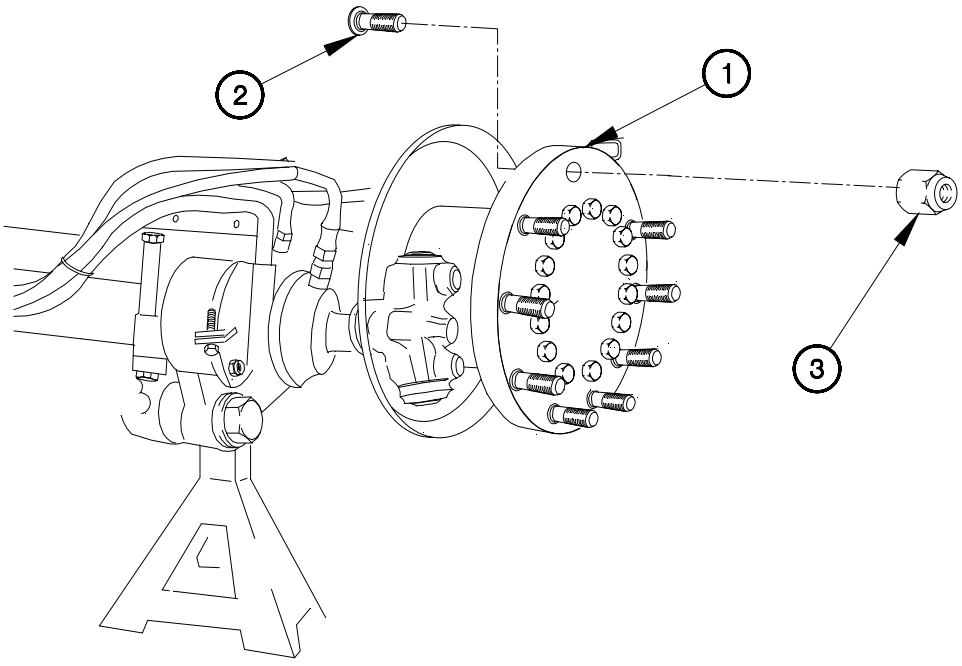
INSTALLATION

1. Install wheel stud (2) in wheel hub (1).

NOTE

Use a nut that was removed during wheel removal to perform steps (2) through (7).

2. Install nut (3) on wheel stud (2) with flat side of nut toward wheel hub (1).
3. Tighten nut (3) until wheel stud (2) is seated in wheel hub (1) as far as threads will allow.
4. Remove nut (3) from wheel hub (1).
5. Install nut (3) on wheel stud (2) with beveled side of nut (3) toward wheel hub (1).
6. Tighten nut (3) until wheel stud (2) is seated in wheel hub (1).
7. Remove nut (3) from wheel hub (1).



7600F02

OPERATIONAL CHECK

1. Install brake shoes (WP 0055 00, Brake Shoe Installation).
2. Couple trailer (WP 0009 00, Coupling Trailer).
3. Operate trailer and check for normal operation (WP 0011 00, Towing Trailer).
4. Trailer uncoupled (WP 0012 00, Uncoupling Trailer).
5. Inspect wheel studs for looseness.

END OF WORK PACKAGE

WHEEL NUTS TIGHTENING SEQUENCE 0078 00

THIS WORK PACKAGE COVERS:
Tightening Sequence

INITIAL SETUP:

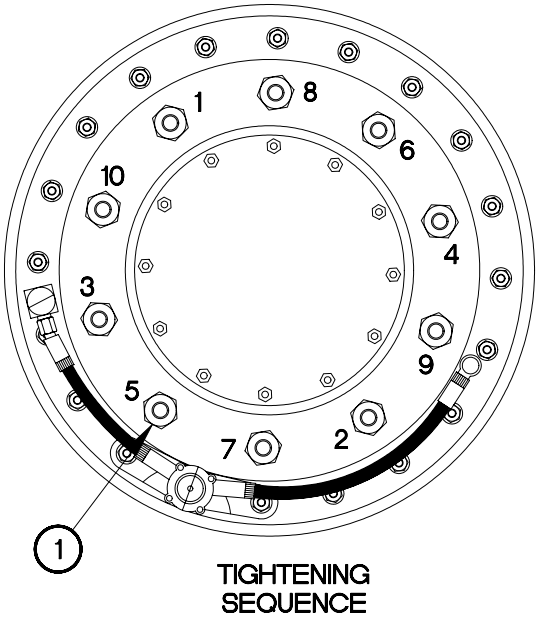
Maintenance Level
Field

Tools and Special Tools
Wrench, Torque, 0-600 (Item 52, WP 0178 00)

Tools and Special Tools (Cont)
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)

TIGHTENING SEQUENCE

Tighten 10 nuts (1) to 415-475 lb-ft (563-644 N•m) in sequence shown.



TIGHTENING SEQUENCE

7700F01

END OF WORK PACKAGE

WHEEL REPAIR 0079 00

THIS WORK PACKAGE COVERS:
Disassembly, Assembly, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Iron, Tire (Item 13, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)

Materials/Parts
Packing, Preformed (Item 13, WP 0181 00)
Nut, Self-Locking (20) (Item 19, WP 0181 00)
Nut, Self-Locking (4) (Item 39, WP 0181 00)

Personnel Required
Two

References
WP 0044 00
WP 0076 00
TM 9-2610-200-14

Equipment Conditions
Tire removed (WP 0045 00).
CTIS hose assemblies, valves, and bracket removed.

DISASSEMBLY

WARNING

Ensure that tire is totally deflated before removing self-locking nuts. Failure to comply may result in serious injury or death to personnel.

Always use an inflation safety cage to inflate tires mounted on multipiece rims, and tire/rim assemblies not mounted on a tire changing machine that has a positive lock down device designed to hold the assembly during inflation (TM 9-2610-200-14). When using a tire changing machine, always follow manufacturer's mounting and safety instructions. Always inflate tires that are mounted with demountable side ring flanges or lockrings in an inflation safety cage. Failure to comply may result in serious injury or death to personnel.

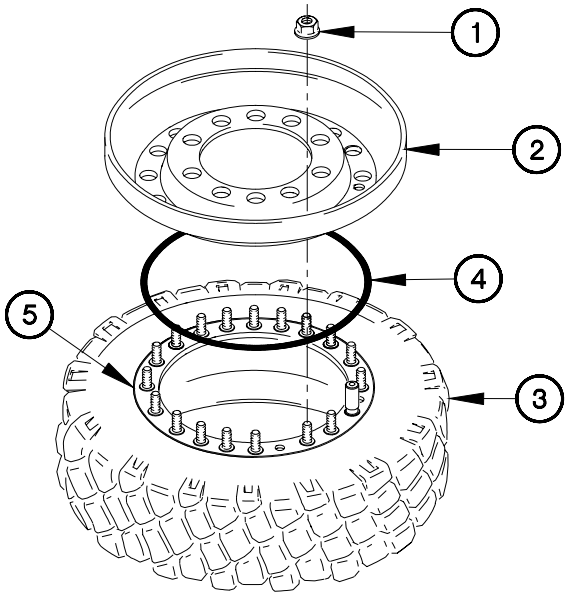
CAUTION

Loosen self-locking nuts no more than 1/2 in. (1.27 cm) at a time. Failure to comply may result in damage to equipment.

WHEEL REPAIR - Continued 0079 00

DISASSEMBLY - Continued

1. Loosen 20 self-locking nuts (1) approximately 1/2 in. (1.27 cm) at a time.
2. Remove 20 self-locking nuts (1) from outside wheel section (2). Discard self-locking nuts.
3. Remove outside wheel section (2) from tire (3).
4. Remove preformed packing (4) from inside wheel section (5). Discard preformed packing.



7800F01

WHEEL REPAIR - Continued 0079 00

DISASSEMBLY - Continued

WARNING

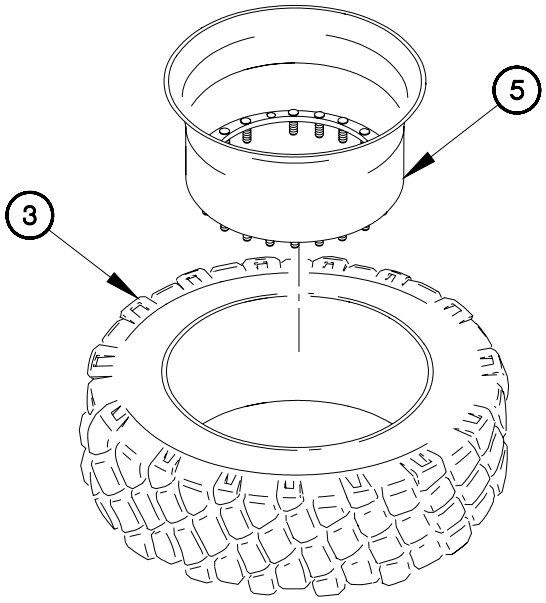
Wheel and tire assembly weighs approximately 350 lbs (159 kgs). Use caution when handling tire. Failure to comply may result in injury to personnel.

NOTE

Steps (5) through (10) require the aid of an assistant.

5. Turn tire (3) over to gain access to inside wheel section (5).

6. Remove inside wheel section (5) from tire (3).



7800F02

WHEEL REPAIR - Continued 0079 00

DISASSEMBLY - Continued

7. Stand tire (3) on end with beadlock bolts (6) facing up.

8. Push down on beadlock (7) to gain access to four self-locking nuts (8).

9. Remove four self-locking nuts (8), bolts (6), and two clips (9) from beadlock (7). Discard self-locking nuts.

10. Remove beadlock (7) from tire (3).

ASSEMBLY

WARNING

Wheel and tire assembly weighs approximately 350 lbs (159 kgs). Use caution when handling tire. Failure to comply may result in injury to personnel.

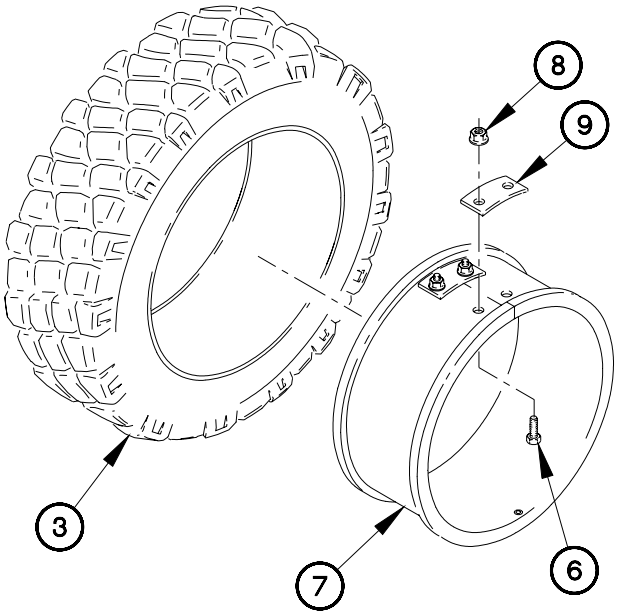
NOTE

Steps (1) through (6) require the aid of an assistant.

1. Open tire (3) and install beadlock (7) inside tire (3).

2. Install two clips (9) in beadlock (7) with four screws (6) and self-locking nuts (8).

3. Center beadlock (7) in tire (3).



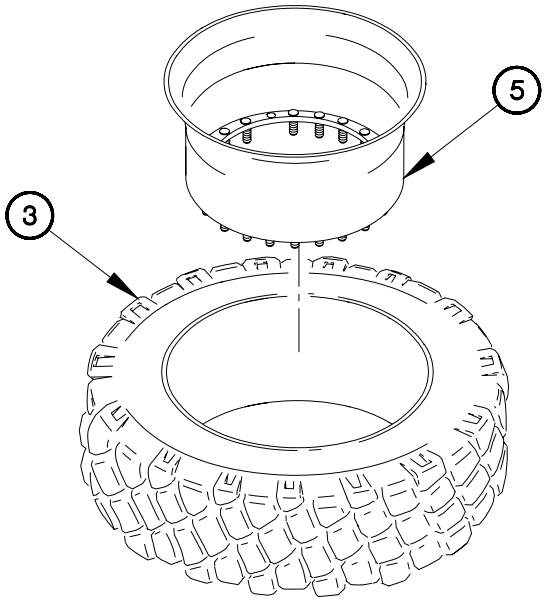
7800F03

WHEEL REPAIR - Continued 0079 00

ASSEMBLY - Continued

4. Lay tire (3) on its side.

5. Install inside wheel section (5) in tire (3).

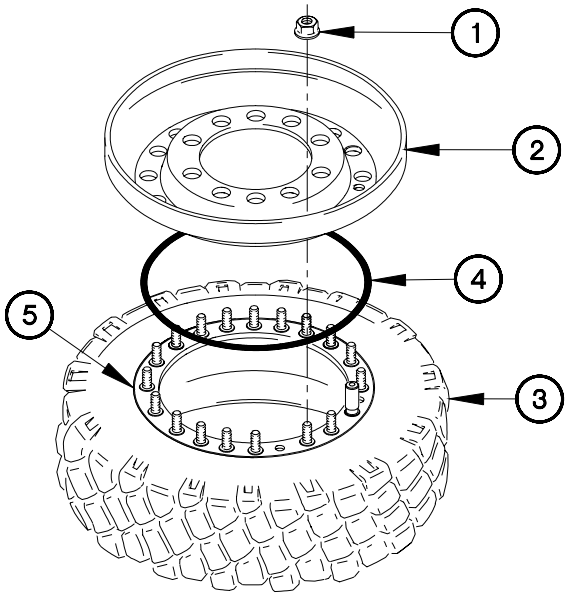


7800F02

WHEEL REPAIR - Continued 0079 00

ASSEMBLY - Continued

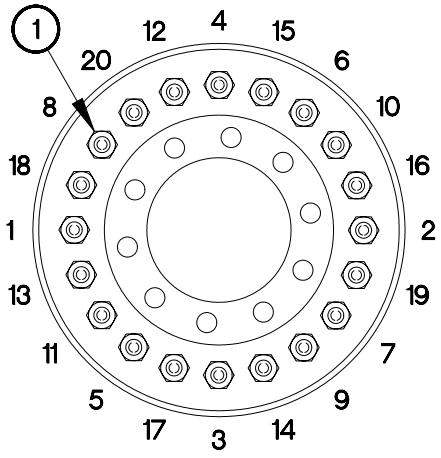
6. Turn tire (3) over.
7. Install preformed packing (4) in groove on inside wheel section (5).
8. Install outside wheel section (2) on inside wheel section (5).
9. Position 20 self-locking nuts (1) on wheel section (2).



7800F01

ASSEMBLY - Continued

10. Tighten 20 self-locking nuts (1) to 210-240 lb-ft (285-325 N·m) in sequence shown.



TIGHTENING SEQUENCE

7800F07

OPERATIONAL CHECK

1. Inflate tire to correct pressure in an inflation safety cage (WP 0044 00, Checking Tire Pressures, Manually Inflating Tires).

2. Install tire (WP 0045 00, Tire Installation).

3. Install CTIS hose assemblies, valves, and bracket.

END OF WORK PACKAGE

WHEEL BEARING/HUB SEAL REPLACEMENT 0080 00

THIS WORK PACKAGE COVERS:

Removal, Cleaning/Inspection, Installation, Operational Check

INITIAL SETUP:

Maintenance Level

Field

Tools and Special Tools

Tool Kit, Genl Mech (Item 37, WP 0178 00)
Gloves, Rubber (Item 6, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wheel Hub Grease Seal Driver (Figure 5, WP 01179 00)
Jack, Hydraulic, Hand (Item 14, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Wrench, Torque, 0-175 lb-ft (Item 49, WP 0178 00)
Socket, Socket Wrench (Item 32, WP 0178 00)
Wrench, Torque, 0-300 lb-in (Item 51, WP 0178 00)

Materials/Parts

Rag, Wiping (Item 25, WP 0176 00)
Solvent, Dry Cleaning (Item 32, WP 0176 00)
Grease, Automotive and Artillery (GAA) (Item 11, WP 0176 00)
Tape, Duct (Item 35, WP 0176 00)
Gasket, Wheel End Plate (Item 53, WP 0181 00)
Lockwasher (12) (Item 1, WP 0181 00)

Personnel Required

Two

References

WP 0009 00

Equipment Conditions

Brake shoes removed (WP 0055 00).
ABS wheel speed sensor removed (WP 0054 00).

REMOVAL

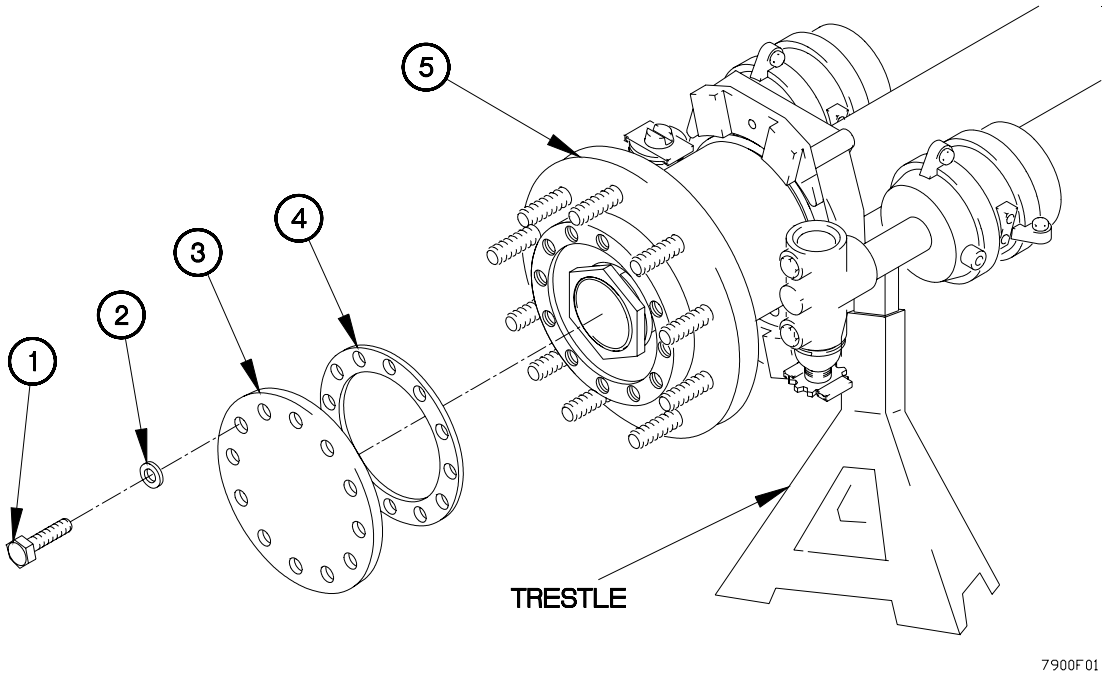
NOTE

All MTVT and LMTVT axle wheel bearings and hub seals are removed the same way. Right side MTVT shown.

WHEEL BEARING/HUB SEAL REPLACEMENT - Continued 0080 00

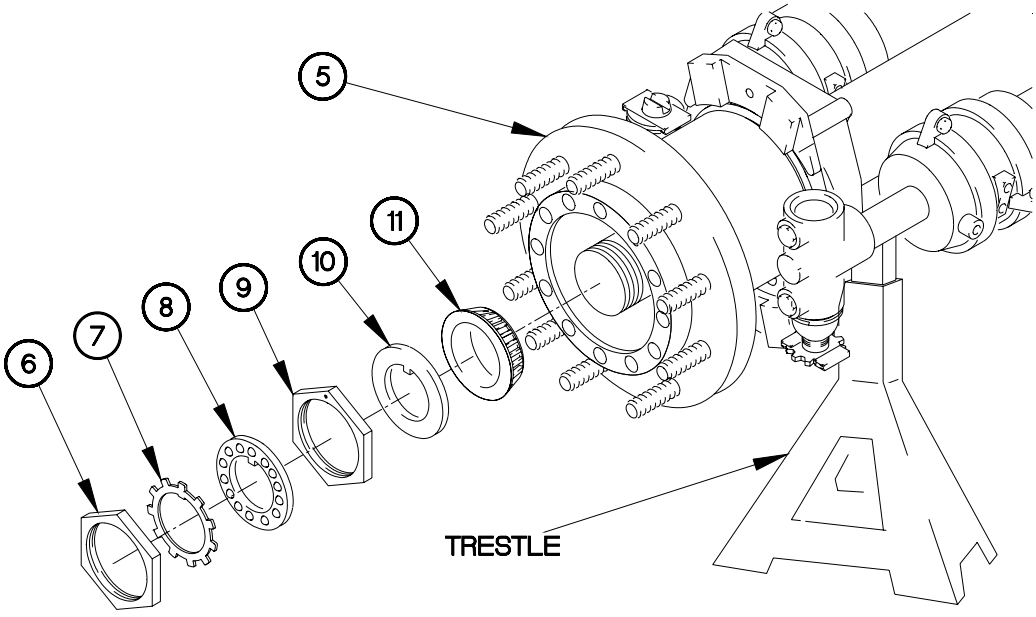
REMOVAL - Continued

1. Remove 12 bolts (1) and lockwashers (2) from wheel end plate (3). Discard lockwashers.
2. Remove wheel end plate (3) and gasket (4) from wheel end hub (5). Discard gasket.



7900F01

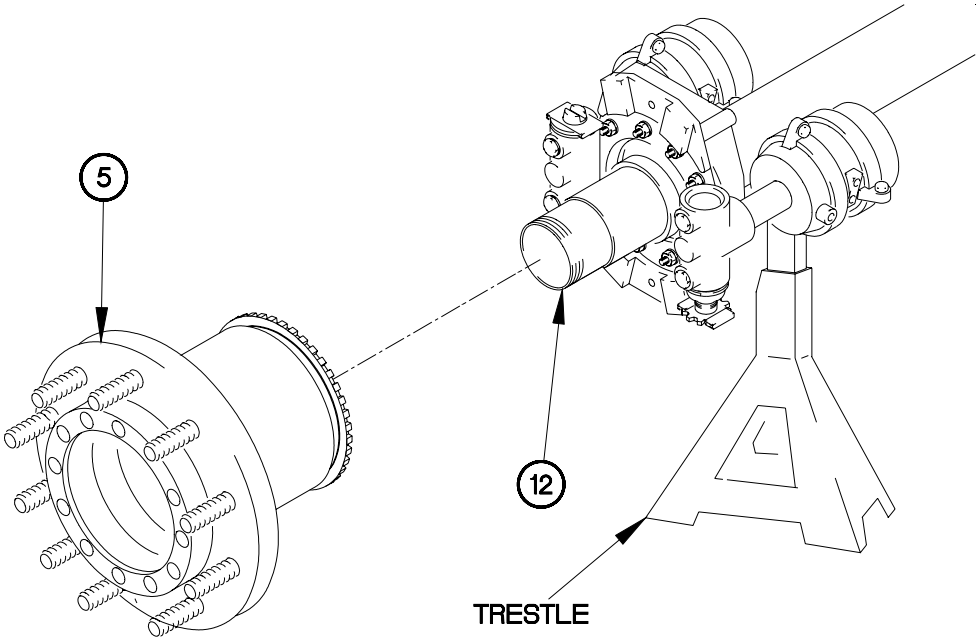
3. Remove outer wheel bearing nut (6), locking tang washer (7), tab lockwasher (8), inner wheel bearing nut (9), backing plate (10), and outer wheel bearing cone (11) from wheel end hub (5).



7900F03

REMOVAL - Continued

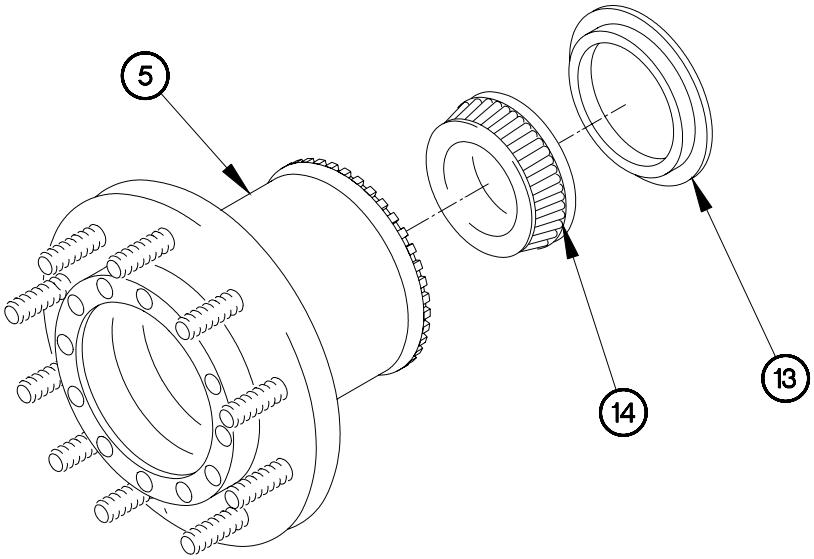
5. Remove wheel end hub (5) from spindle (12).



7900F04

6. Remove hub seal (13) from wheel end hub (5). Discard hub seal.

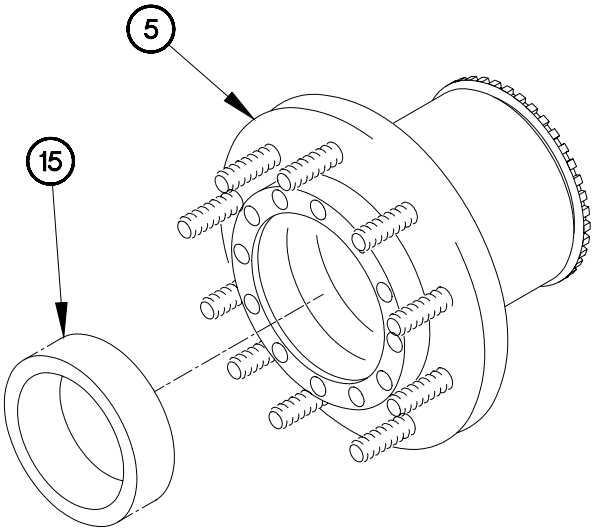
7. Remove inner wheel bearing cone (14) from wheel end hub (5).



7900F05

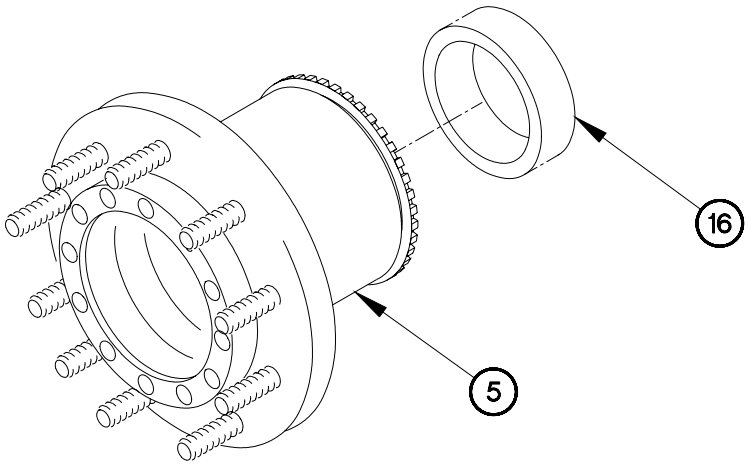
REMOVAL – Continued

8. Remove cup (15) from wheel end hub (5).



7900F06

9. Remove cup (16) from wheel end hub (5).



7900F07

CLEANING/INSPECTION

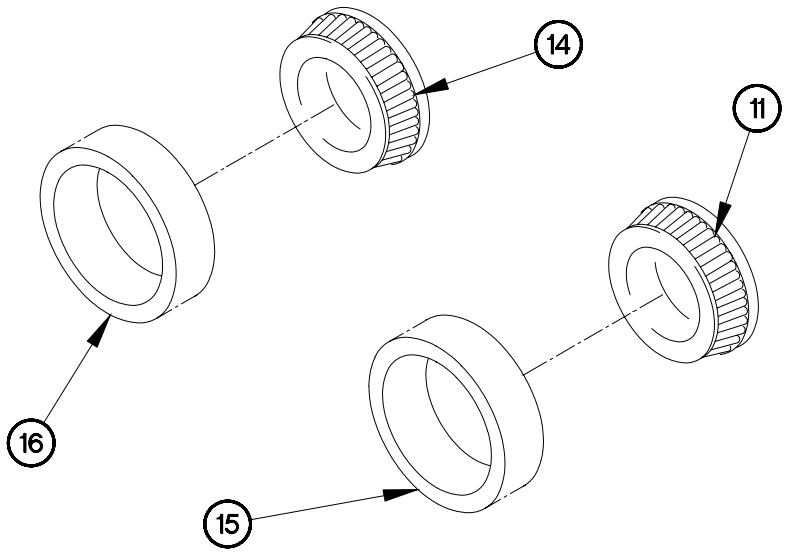
WARNING

Dry Cleaning Solvent (P-D-680) is TOXIC and flammable. Wear protective goggles and gloves; use only in well-ventilated area; avoid contact with skin, eyes, and clothes, and do not breath vapors. Keep away from heat or flame. Never smoke when using Dry Cleaning Solvent; the flashpoint for Type I Dry Cleaning Solvent is 100 °F (38 °C) and for Type II is 138 °F (50 °C). Failure to comply may result in serious injury or death to personnel.

If personnel become dizzy while using Dry Cleaning Solvent, immediately get fresh air and medical help. If Dry Cleaning Solvent contacts skin or clothes, flush with cold water. If Dry Cleaning Solvent contacts eyes, immediately flush eyes with water and get medical attention. Failure to comply may result in serious injury or death to personnel.

1. Thoroughly clean all metal parts with Dry Cleaning Solvent and dry with wiping rag prior to inspection.

2 Inspect inner wheel bearing cone (14), outer wheel bearing cone (11), cup (16), and cup (15) for scoring, pitting, corrosion, and excessive wear. Replace both wheel bearing cones and cups if either fails visual inspection.



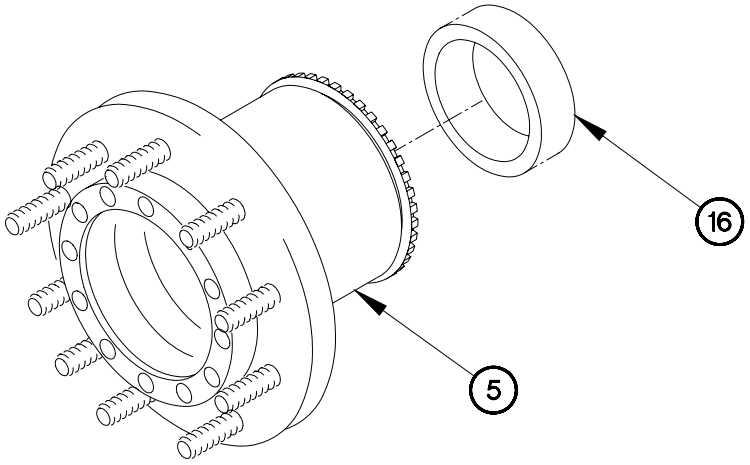
7900F08

INSTALLATION

NOTE

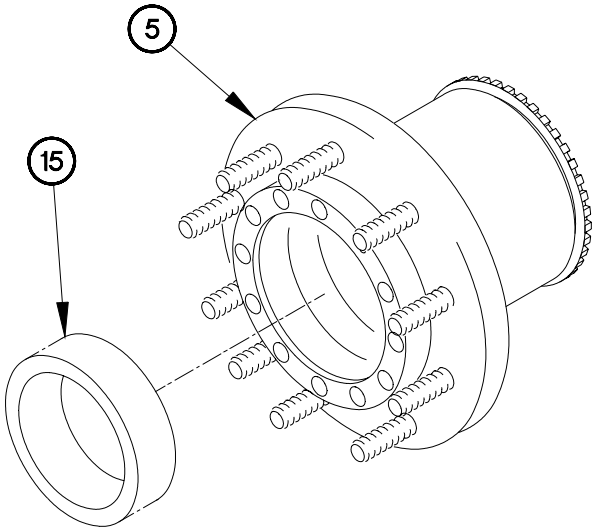
All MTVT and LMTVT axle wheel bearings and hub seals are installed the same way. Right side MTVT shown.

1. Install cup (16) in wheel end hub (5).



7900F07

2. Install cup (15) in wheel end hub (5).

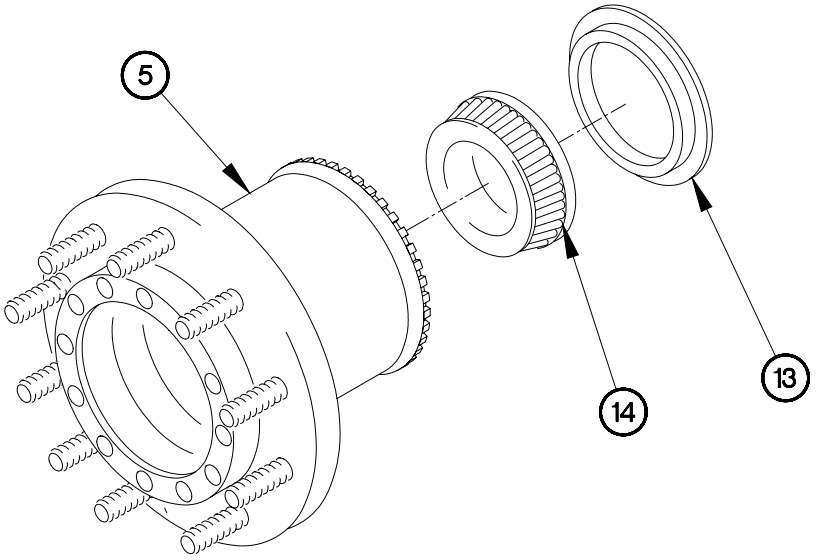


7900F06

WHEEL BEARING/HUB SEAL REPLACEMENT - Continued 0080 00

INSTALLATION - Continued

3. Pack inner wheel bearing cone (14) with grease.
4. Install inner wheel bearing cone (14) in wheel end hub (5).
5. Install hub seal (13) into wheel end hub (5).



7900F05

INSTALLATION - Continued

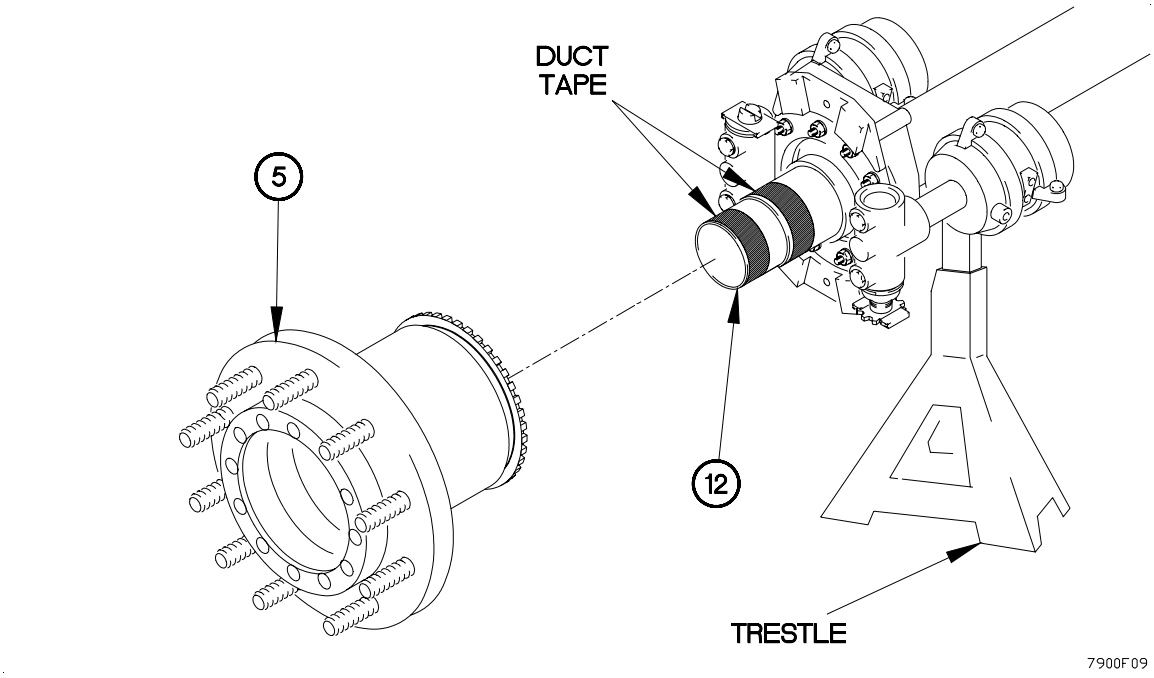
6. Apply two wraps of duct tape on splined and threaded portions of spindle (12).

CAUTION

Use care when installing wheel end hub on spindle. Failure to comply may damage hub seal and cause early failure of hub seal.

7. Install wheel end hub (5) on spindle (12).

8. Remove duct tape from spindle (12).



INSTALLATION - Continued

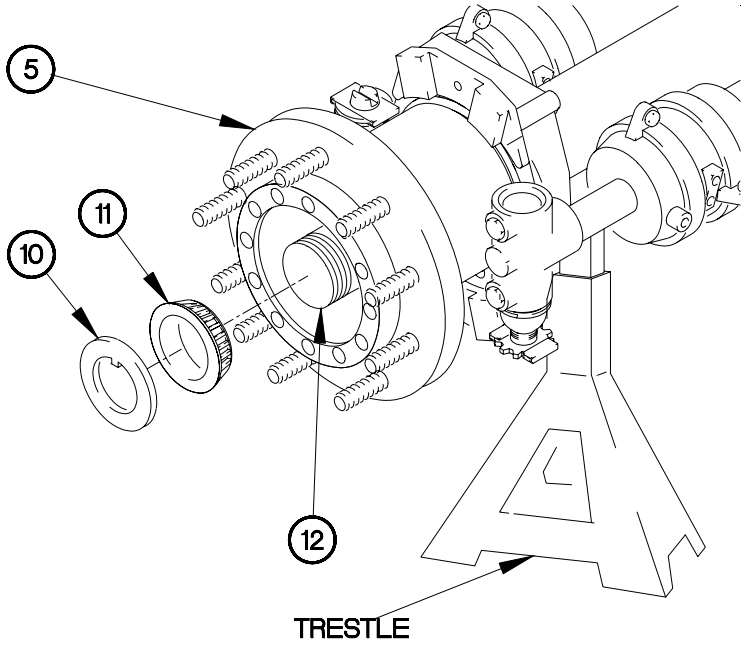
9. Pack outer wheel bearing cone (11) with grease.

10. Install outer wheel bearing cone (11) in wheel end hub (5).

NOTE

Ensure backing plate is installed on spindle with tab inserted in spindle groove.

11. Install backing plate (10) on spindle (12).



INSTALLATION - Continued

NOTE

Ensure inner wheel bearing nut is installed on spindle with nub facing out from wheel end hub.

12. Position inner wheel bearing nut (9) on spindle (12).

CAUTION

Rotate wheel end hub to the left and to the right while tightening wheel bearing nut. Failure to comply may result in damage to equipment.

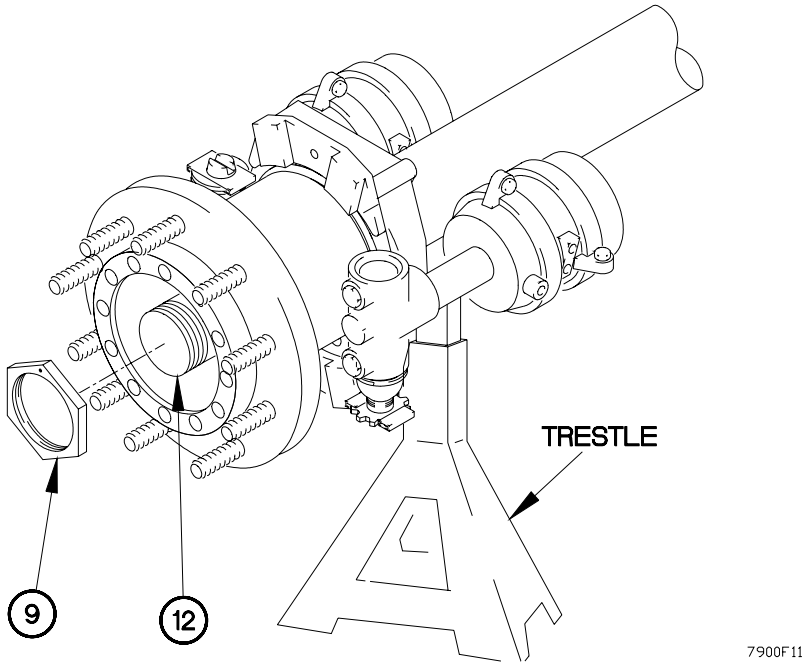
13. Tighten inner wheel bearing nut (9) to 200 lb-ft (271 N•m).

14. Loosen inner wheel bearing nut (9) one full turn (360 degrees).

CAUTION

Do not over tighten inner wheel bearing nut. Failure to comply may result in damage to equipment.

15. Tighten inner wheel bearing nut (9) to 50 lb-ft (68 N•m).



INSTALLATION - Continued

NOTE

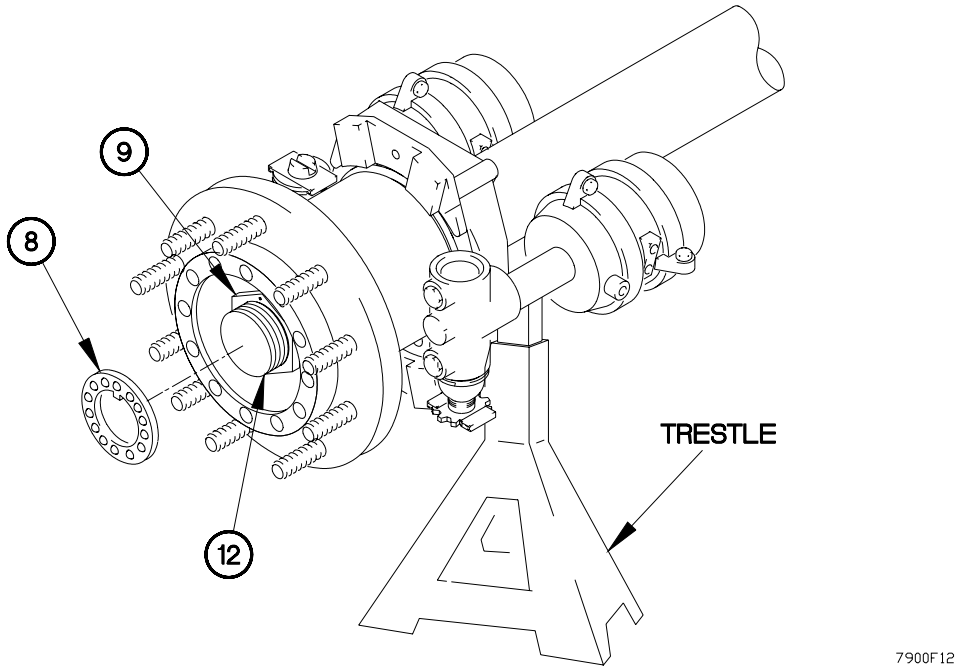
Install tab lockwasher on spindle with tab inserted in spindle groove.

Loosen inner wheel bearing nut only enought to align nub of inner wheel bearing nut with hole in tab lockwasher but no more than 1/4 turn.

16. Position tab lockwasher (8) on spindle (12).

17. Loosen inner wheel bearing nut (9) to align nub with hole in tab lockwasher (8).

18. Install tab lockwasher (8) over nub on inner wheel bearing nut (9).



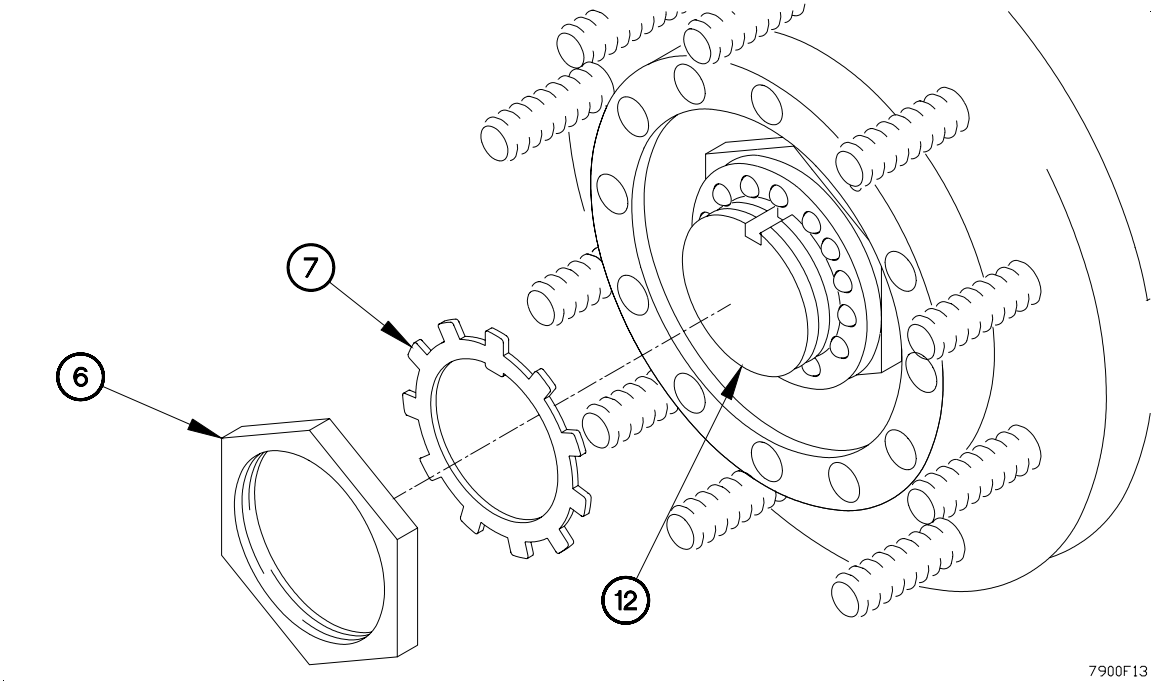
INSTALLATION - Continued

19. Position locking tang washer (7) and outer wheel bearing nut (6) on spindle (12).

NOTE

Position outer wheel bearing nut so that one of the two screw holes at the top of the tab lockwasher is visible to the left of a knuckle on the outer wheel bearing nut.

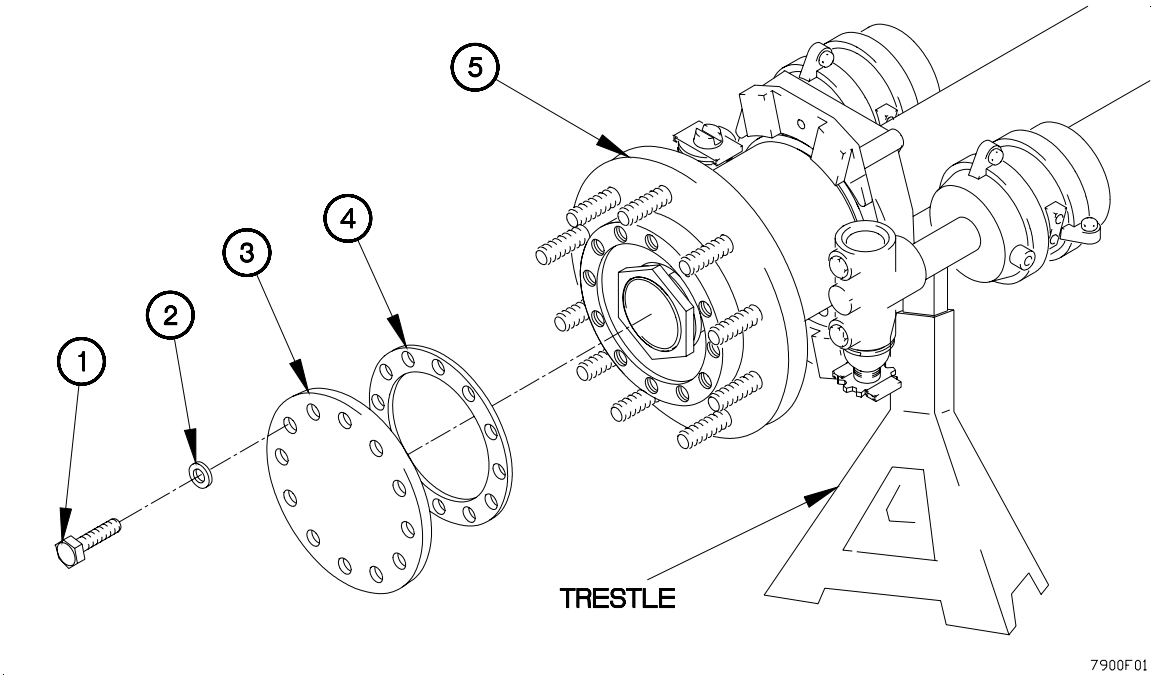
20. Tighten outer wheel bearing nut (6) to 300-400 lb-ft (407-542 N•m).



INSTALLATION - Continued

22. Position gasket (4) and wheel end plate (3) on wheel end hub (5) with 12 lockwashers (2) and bolts (1).

23. Tighten 12 bolts (1) to 120-180 lb-in (13-20 N•m).



OPERATIONAL CHECK

1. Install ABS speed sensor (WP 0054 00, ABS Speed Sensor Installation).

2. Install brake shoes (WP 0055 00, Shoes Installation).

3. Couple trailer (WP 009 00, Coupling Trailer).

4. Road test trailer and check for proper tracking and excessive wheel end vibration (WP 0011 00, Towing Trailer).

5. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

INNER WHEEL HOUSING REPLACEMENT 0081 00

THIS WORK PACKAGE COVERS:
Inner Wheel Housing Removal, Inner Wheel Housing Installation

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)

Tools and Special Tools Cont)
Goggles, Industrial (Item 8, WP 0178 00)

Equipment Conditions
Trailer uncoupled (WP 0012 00).
Wheel hub removed (WP 0080 00).

WARNING

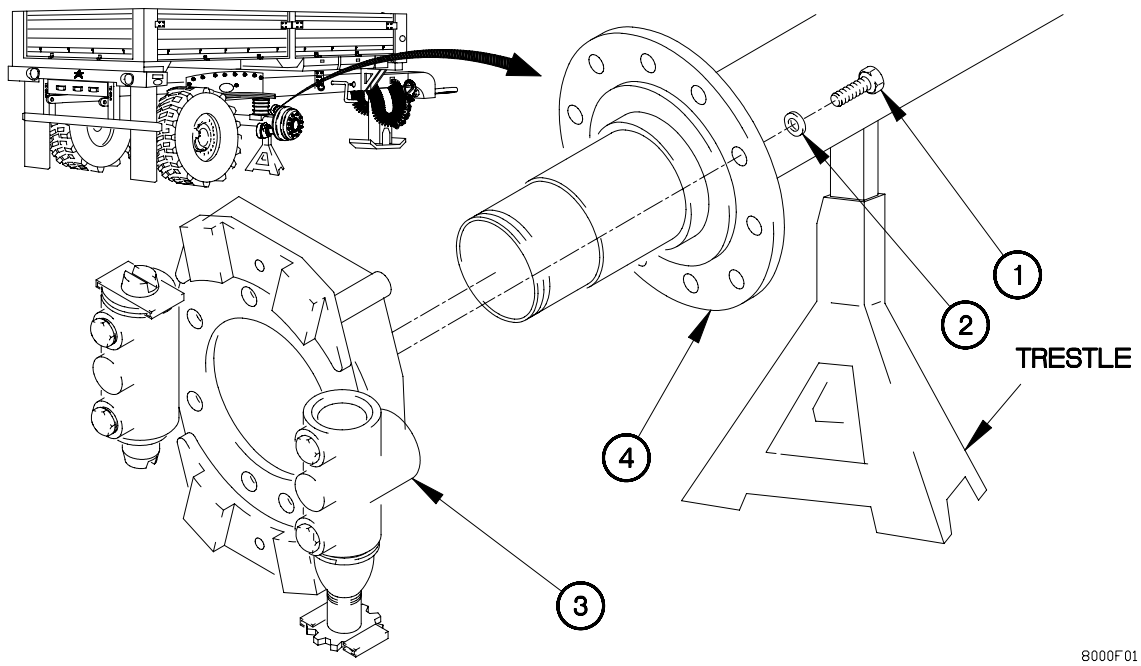
Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

INNER WHEEL HOUSING REMOVAL

NOTE

All MTVT and LMTVT inner wheel housings are removed the same way. Right side MTVT shown.

1. Remove 10 bolts (1) and washers (2) from inner wheel housing (3).
2. Remove inner wheel housing (3) from axle assembly (4).

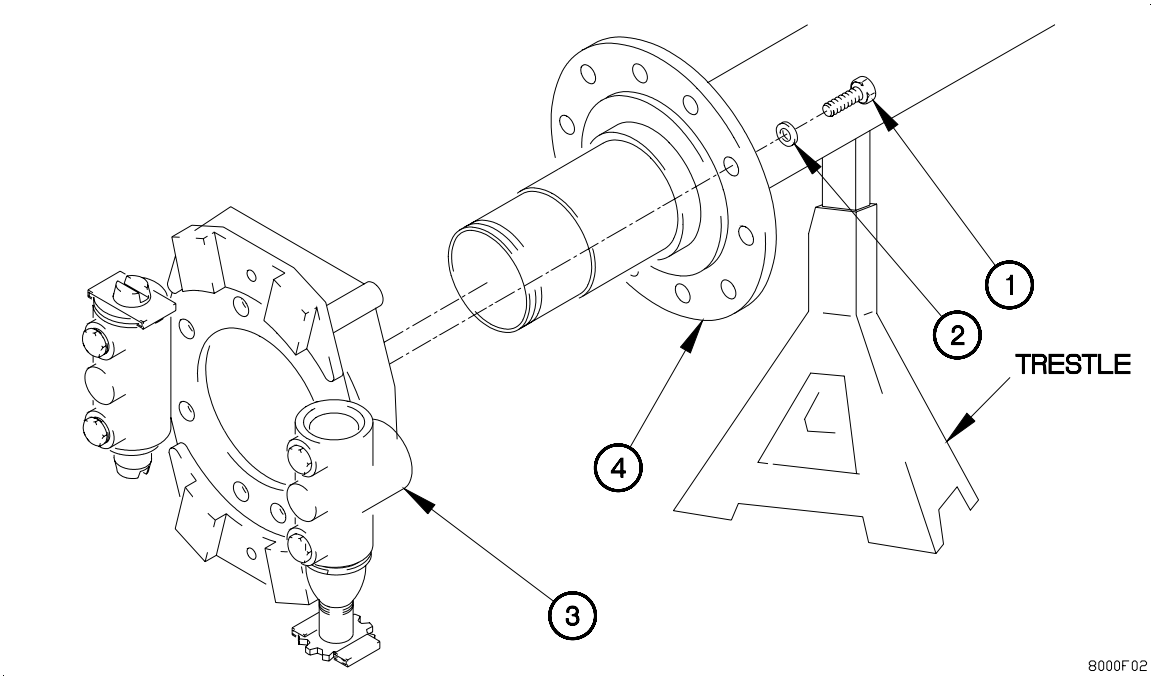


INNER WHEEL HOUSING INSTALLATION

NOTE

All inner wheel housings are installed the same way. Right side MTVT shown.

1. Install inner wheel housing (3) on axle assembly (4).
2. Position 10 washers (2) and bolts (1) on inner wheel housing (3).
3. Tighten 10 bolts (1) to 190-210 lb-ft (258-285 N•m).



OPERATIONAL CHECK

1. Install wheel hub (WP 0080 00, Wheel Hub Installation).
2. Couple trailer (WP 0009 00, Coupling Trailer).
3. Road test trailer and check for unusual noise or vibration from axles.
4. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

AXLE BOGIE (MTVT) SERVICE 0082 00

THIS WORK PACKAGE COVERS:
Draining, Filling, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench, Torque, 0-175 lb-ft (Item 49, WP 0178 00)
Pan, Drain (Item 18, WP 0178 00)

Materials/Parts
Sealing Compound (Item 29, WP 0176 00)

Materials/Parts (Cont)
Oil, Lubricating, Gear, GO 75W (Item 23, WP 0176 00)
Sealing Compound (Item 30, WP 0176 00)

References
WP 0008 00
WP 0009 00
WP 0042 00

Equipment Conditions
Wheels chocked (WP 0011 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

DRAINING

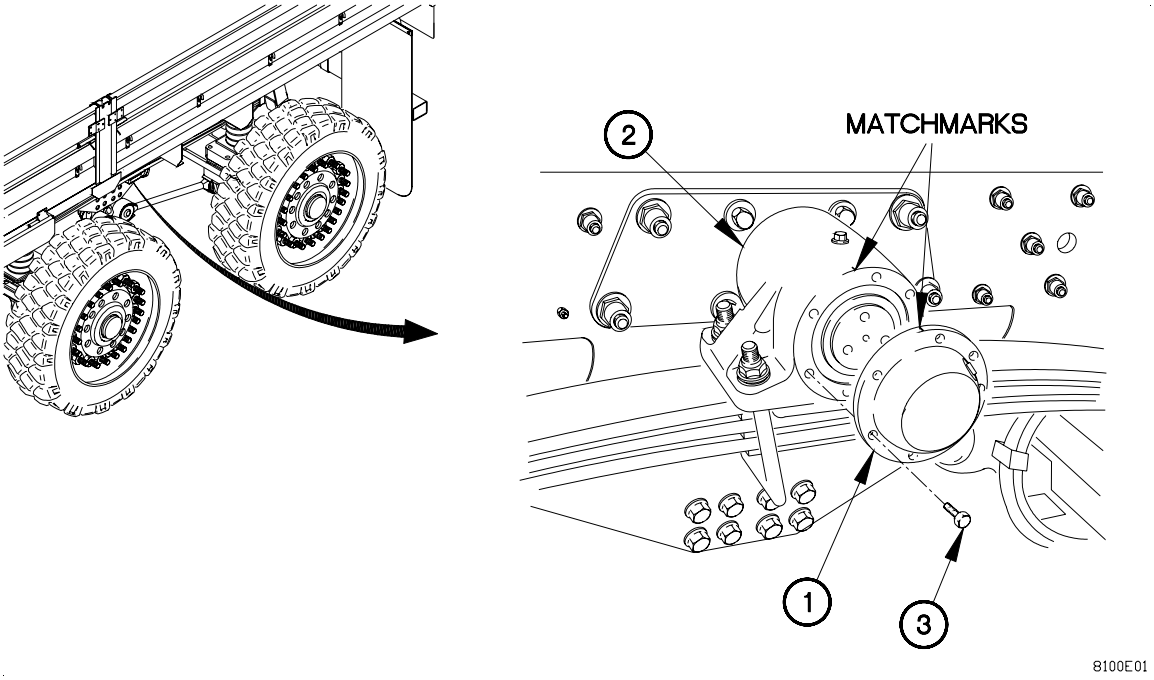
NOTE

Left and right bogie covers are removed the same way. Left cover shown.

AXLE BOGIE (MTVT) SERVICE - Continued 0082 00

DRAINING - Continued

1. Match mark cover (1) to bogie housing (2).
2. Place drain pan under bogie housing (2).
3. Remove six screws (3) and cover (1) from bogie housing (2).



FILLING

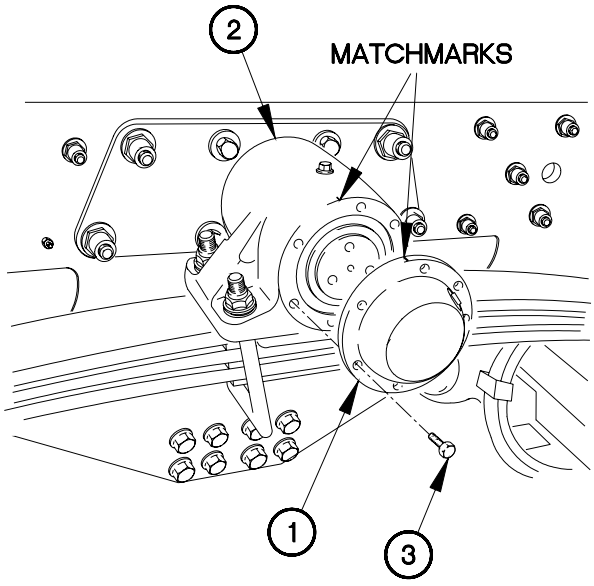
WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

NOTE

Left and right bogie covers are installed the same way. Left cover shown.

1. Apply light bead of sealing compound to seating surface of bogie housing (2).
2. Install cover (1) on bogie housing (2) with matchmarks aligned.
3. Position six screws (3) in cover (1).
4. Tighten six screws (3) to 24 lb-ft (33 N•m).



8100E02

AXLE BOGIE (MTVT) SERVICE - Continued 0082 00

FILLING - Continued

5. Remove plugs (4 and 5) from bogie housing (2) and cover (1).

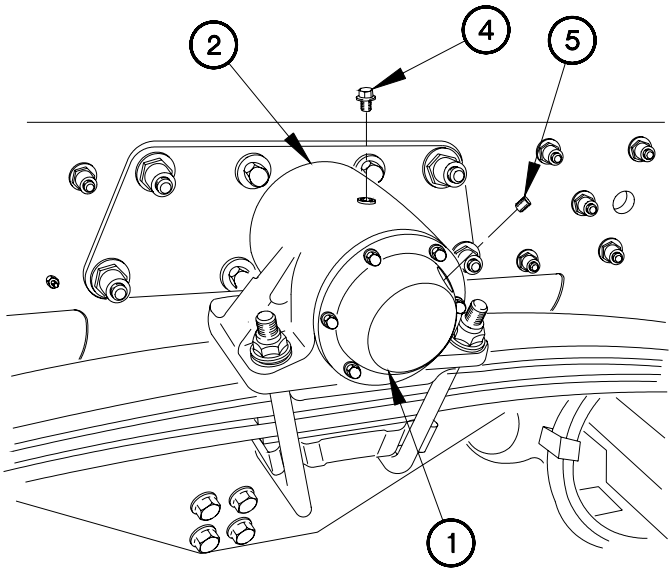
6. Fill bogie housing (2) with lubricating gear oil (WP 0042 00, PMCS Procedures).

WARNING

Adhesive sealant MIL-S-46163 can damage your eyes. Wear safety goggles/glasses when using; avoid contact with eyes. If sealant contacts eyes, flush eyes with water and get immediate medical attention. Failure to comply may result in injury to personnel.

7. Apply sealing compound to threads of plugs (4 and 5).

8. Install plugs (4 and 5) in bogie housing (2) and cover (1).



8100E03

OPERATIONAL CHECK

1. Couple trailer to towing vehicle (WP 0009 00, Coupling Trailer).

2. Unchock wheels (WP 0008 00, Unchocking Wheels).

3. Road test trailer and check axle bogie for oil leaks.

4. Uncouple trailer (WP 0012 00 Uncoupling Trailer).

END OF WORK PACKAGE

DRAWBAR REPLACEMENT 0083 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrecking Bar (Item 3, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Multiplier, Torque Wrench (Item 17, WP 0178 00)

Materials/Parts
Pin, Cotter (Item 16, WP 0181 00)
Grease, Automotive and Artillery (GAA) (Item 11, WP 0176 00)

Personnel Required
Two

References
WP 0009 00
WP 0011 00
WP 0042 00

Equipment Conditions
Trailer uncoupled (WP 0012 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

DRAWBAR REPLACEMENT - Continued 0083 00

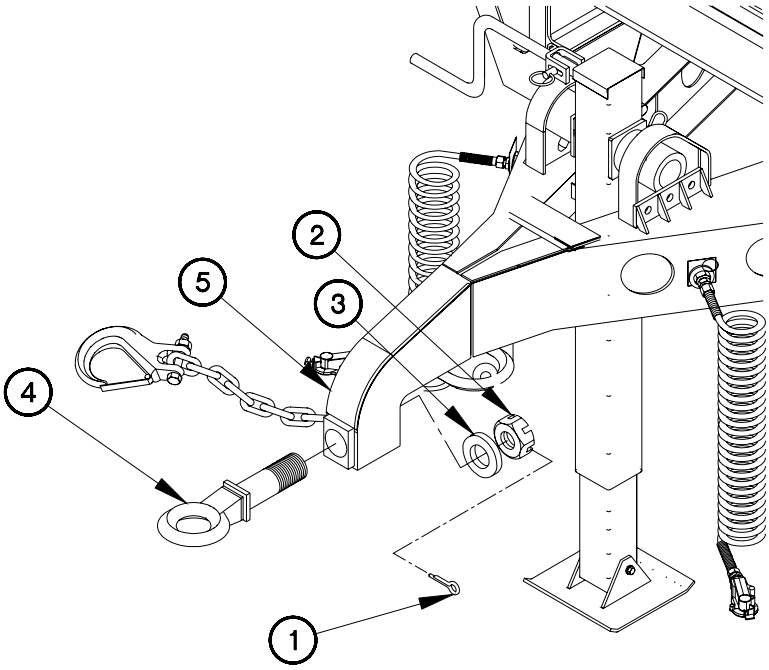
REMOVAL

1. Remove cotter pin (1) from nut (2). Discard cotter pin.

NOTE

Step (2) requires an assistant.

2. Remove nut (2), washer (3), and drawbar (4) from trailer tongue (5).



8200F01

DRAWBAR REPLACEMENT - Continued 0083 00

INSTALLATION

1. Position drawbar (4) to trailer tongue (5) with washer (3) and nut (2).

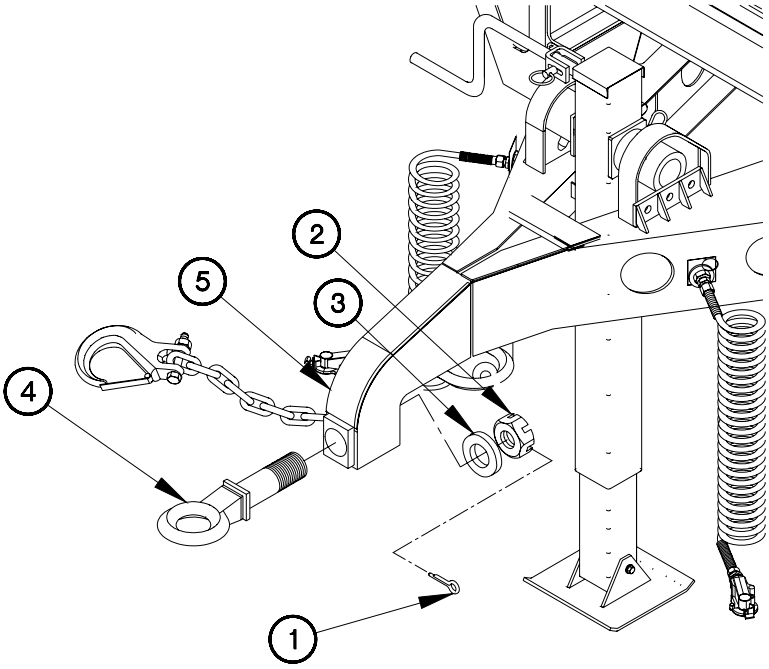
NOTE

Ensure slot in nut aligns to hole in drawbar while tightening to proper torque to allow cotter pin to be inserted.

Step (2) requires the aid of an assistant.

2. Tighten nut (2) to 450-657 lb-ft (610-890 N•m).

3. Install cotter pin (1) in nut (2).



8200F01

OPERATIONAL CHECK

1. Couple trailer (WP 0009 00, Coupling Trailer).

2. Tow trailer (WP 0011 00, Towing Trailer) and check for proper operation.

3. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

SAFETY CHAIN ASSEMBLY REPLACEMENT 0084 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP:

Maintenance Level
Field

Equipment Conditions
Trailer Uncoupled
(WP 0012 00).

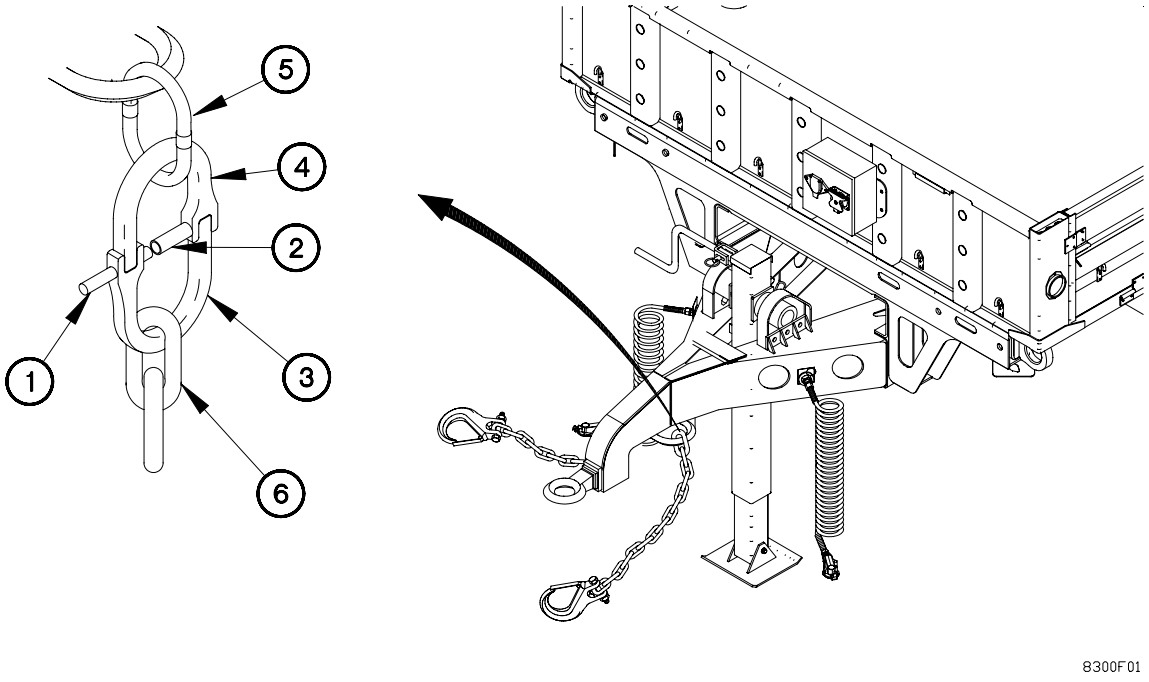
Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)

REMOVAL

NOTE

Left and right safety chain assemblies are removed the same way. Left safety chain assembly shown.

1. Remove pin (1), spring collar (2), and clamp half (3) from clamp half (4).
2. Remove clamp half (4) from chain link (5).
3. Remove clamp half (3) from safety chain assembly (6).



8300F01

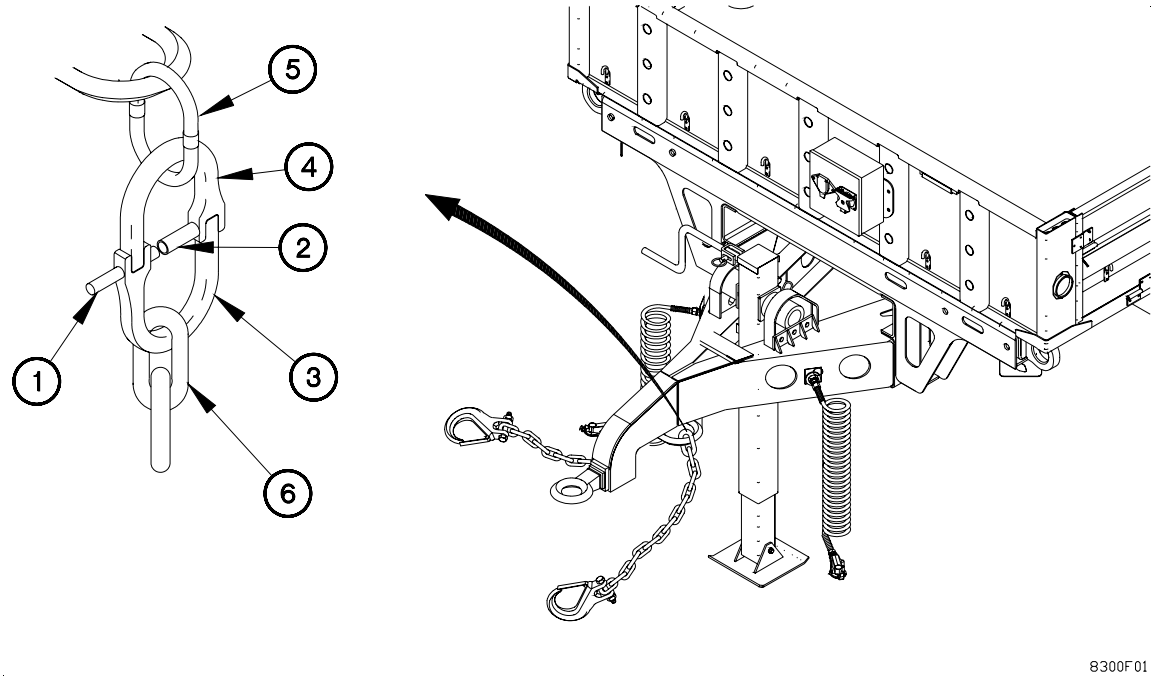
SAFETY CHAIN ASSEMBLY REPLACEMENT - Continued 0084 00

INSTALLATION

NOTE

Left and right safety chain assemblies are installed the same way. Left safety chain assembly shown.

1. Position clamp half (3) in safety chain assembly (6).
2. Position clamp half (4) in chain link (5).
3. Install clamp half (4) in clamp half (3) with spring collar (2) and pin (1).



8300F01

END OF WORK PACKAGE

LADDER REPAIR 0085 00

THIS WORK PACKAGE COVERS:
Ladder Disassembly, Ladder Assembly

INITIAL SETUP:

Maintenance Level
Field

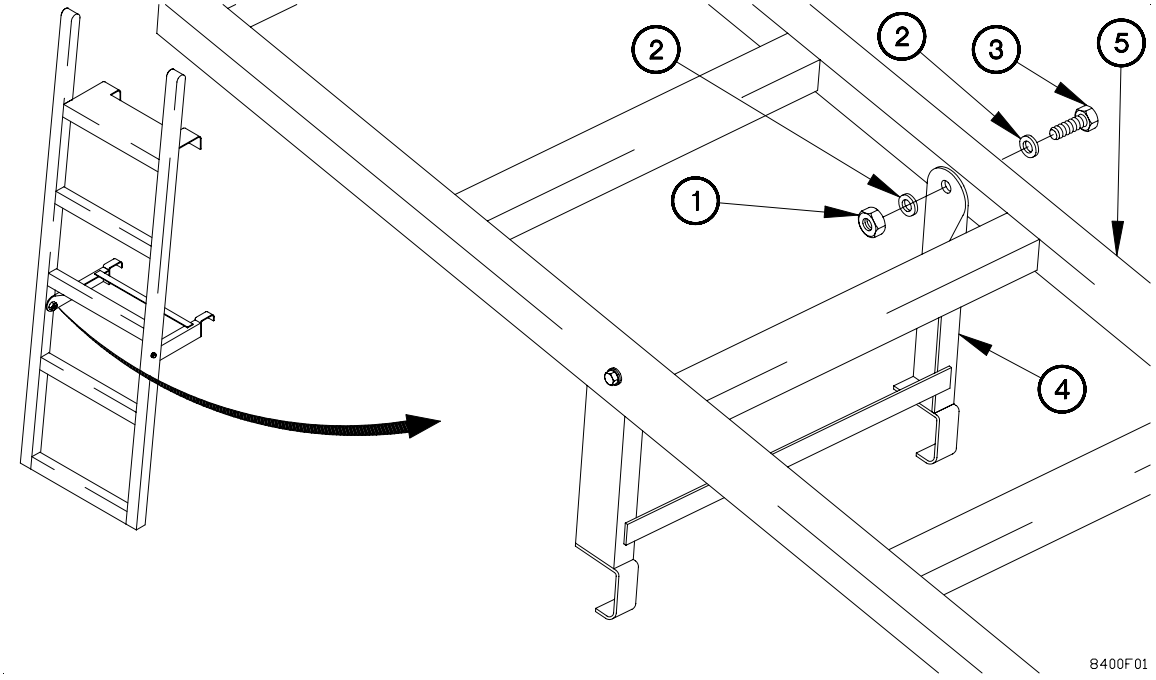
Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-175 lb-ft (Item 49, WP 0178 00)

Materials/Parts
Nut, Self-Locking (2) (Item 39, WP 0181 00)

Equipment Conditions
Ladder lowered (WP 0010 00).
Trailer uncoupled (WP 0012 00).

LADDER DISASSEMBLY

Remove two self-locking nuts (1), four washers (2), two screws (3), and ladder support (4) from ladder (5). Discard self-locking nuts.

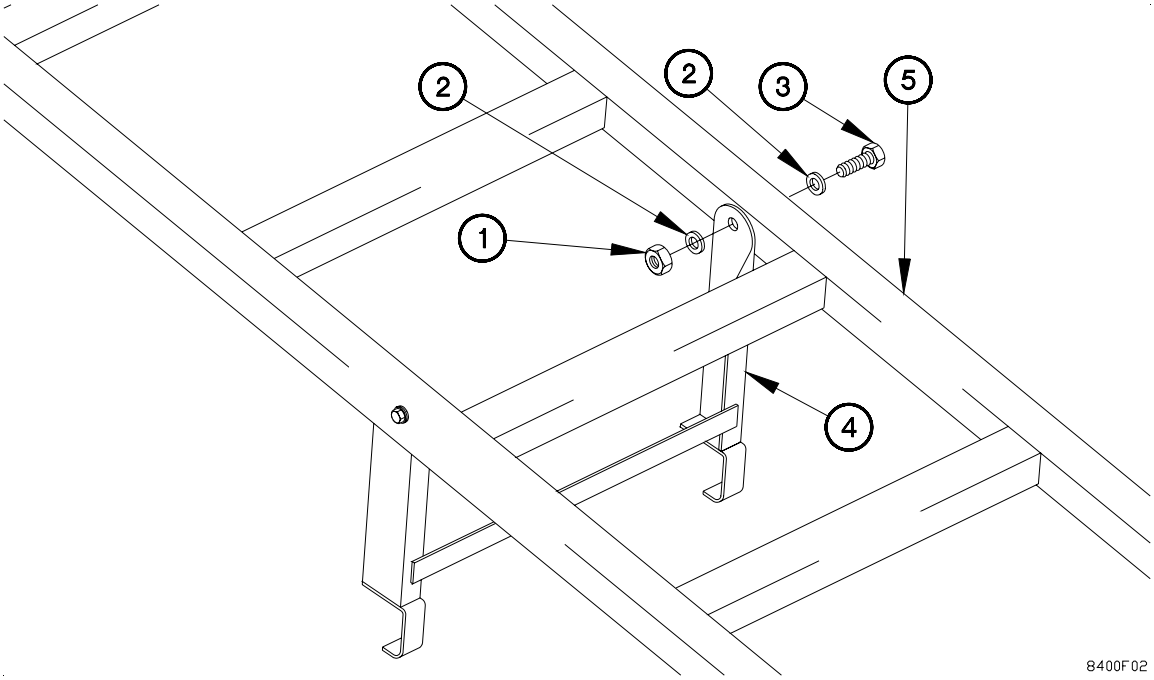


LADDER REPAIR - Continued 0085 00

LADDER ASSEMBLY

1. Position ladder support (4) on ladder (5) with two bolts (3), four washers (2), and two self-locking nuts (1).

2. Tighten two self-locking nuts (1) to 17-19 lb-ft (23-26 N•m).



OPERATIONAL CHECK

Stow ladder (WP 0010 00, Stow Ladder).

END OF WORK PACKAGE

LANDING GEAR WINCH CABLE REPLACEMENT 0086 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Gloves, Welder's (Item 7, WP 0178 00)

Materials/Parts
Pin, Cotter (Item 7, WP 0181 00)

References
WP 0013 00

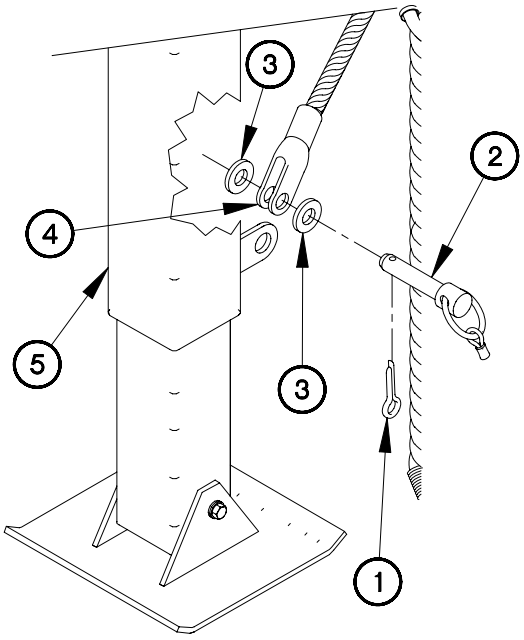
Equipment Conditions
Trailer uncoupled (WP 0012 00).

REMOVAL

WARNING

Wear heavy leather-palmed work gloves when handling cable. Cables can become frayed or contain broken wires. Never let moving cable slide through hands, even when wearing gloves. Failure to comply may result in injury to personnel.

1. Remove cotter pin (1) from clevis pin (2).
2. Remove clevis pin (2), two washers (3), and clevis (4) from landing gear (5).



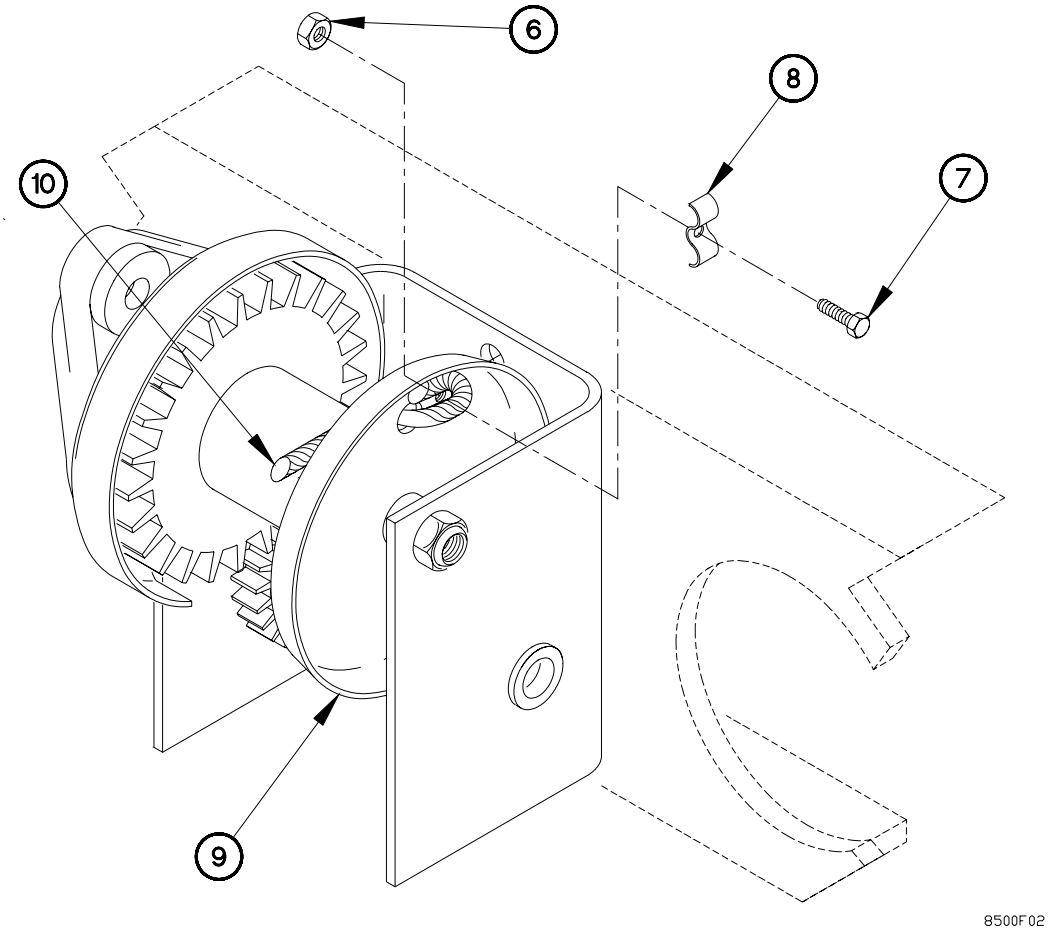
8500F01

LANDING GEAR WINCH CABLE REPLACEMENT - Continued 0086 00

REMOVAL - Continued

3. Remove nut (6), bolt (7), and cable retainer plate (8) from landing gear winch (9).

4. Remove landing gear winch cable (10) from landing gear winch (9).



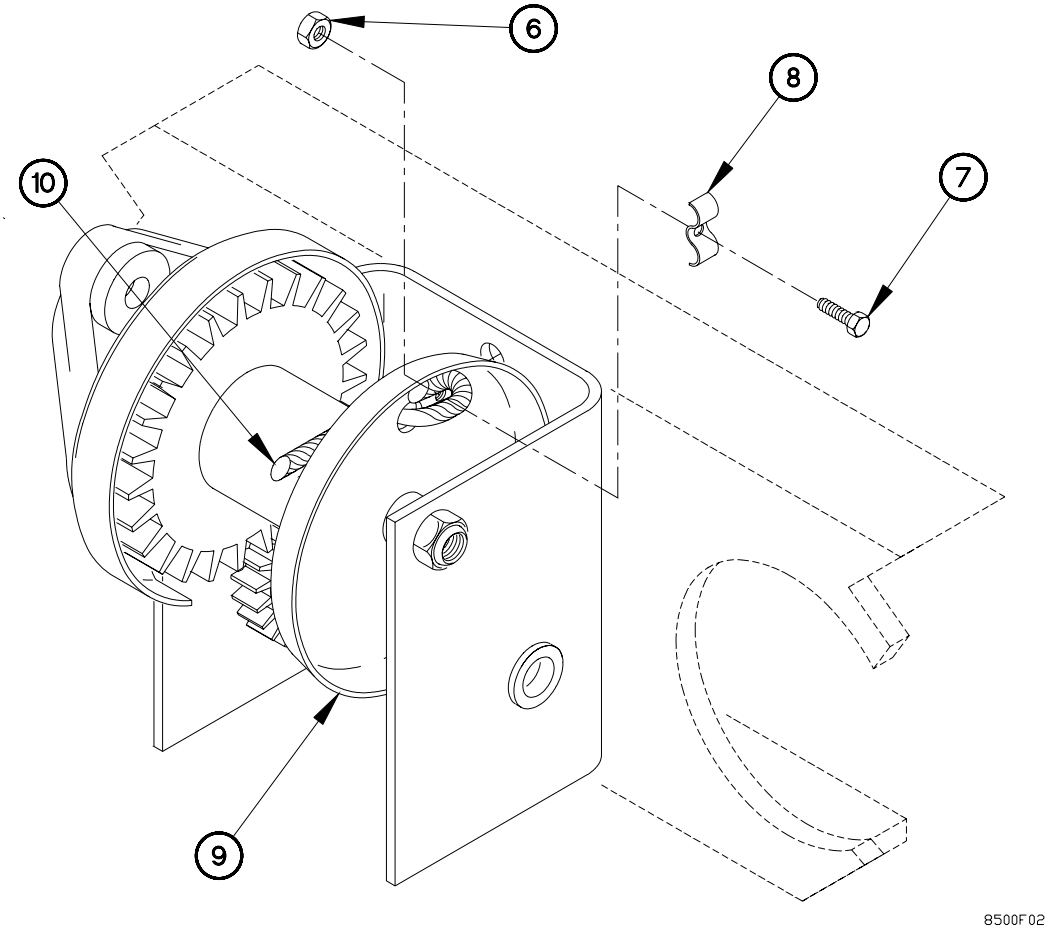
INSTALLATION

NOTE

After one complete layer of landing gear winch cable is on drum, provide tension on cable by physically pulling on cable so that cable spools tightly. Leave enough cable unspooled to allow installation of clevis on landing gear.

1. Install end of landing gear winch cable (10) under cable retainer plate (8) with bolt (7) and nut (6).

2. Operate landing gear winch (9) (WP 0013 00, Raising Landing Gear), winding landing gear winch cable (10) on landing gear winch (9).

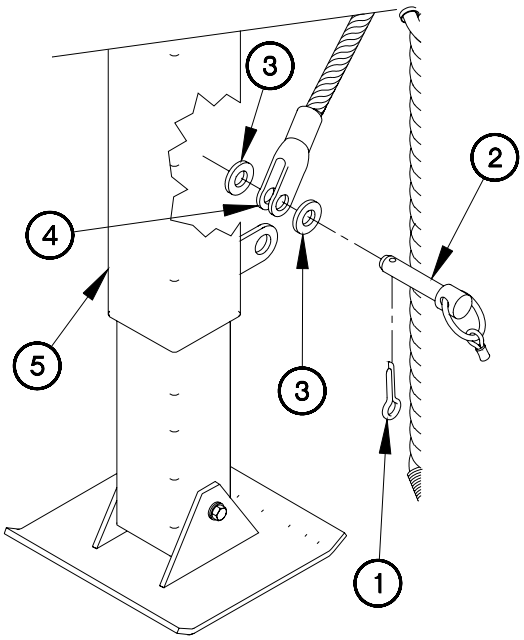


LANDING GEAR WINCH CABLE REPLACEMENT - Continued 0086 00

INSTALLATION - Continued

4. Install clevis (4), two washers (3), and clevis pin (2) on landing gear (5).

5. Install cotter pin (1) in end of clevis pin (2).



8500F01

OPERATIONAL CHECK

1. Couple trailer (WP 009 00 Coupling Trailer).

2. Operate landing gear winch (WP 0013 00, Raising Landing Gear/Lowering Landing Gear).

3. Uncouple trailer (WP 0012 00 Uncoupling Trailer).

END OF WORK PACKAGE

PANEL STOWAGE DOOR/STOWAGE BOX ASSEMBLY/CHOCK BLOCK STOWAGE BOX ASSEMBLY REPLACEMENT/REPAIR 0087 00

THIS WORK PACKAGE COVERS:

Removal, Panel Stowage Door; Disassembly, Panel Stowage Door; Assembly, Panel Stowage Door; Installation; Panel Stowage Door; Removal, Stowage Box; Removal, Stowage Box Door; Disassembly, Stowage Box Door; Assembly, Stowage Box Door; Installation; Stowage Box Door; Installation, Stowage Box

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Drill Set, Twist (Item 5, WP 0178 00)
Drill, Portable, Electric (Item 4, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench, Torque 0-300 lb-in. (Item 51, WP 0178 00)
Wrench, Torque 0-75 lb-in. (Item 53, WP 0178 00)

Tools and Special Tools (Cont)
Tool Kit, Blind Rivet (Item 35, WP 0178 00)

Materials/Parts
Nut, Self-Locking (4) (Item 6, WP 0181 00)
Rivet, Blind (10) (Item 47, WP 0181 00)
Seal, Strip, Adhesive (Item 48, WP 0181 00)
Nut, Self-locking (4) (Item 30, WP 0181 00)

Equipment Conditions
Trailer uncoupled (WP 0012 00).

REMOVAL, PANEL STOWAGE DOOR

WARNING

Wear appropriate eye protection when drilling out rivets. Failure to comply may result in injury to personnel.

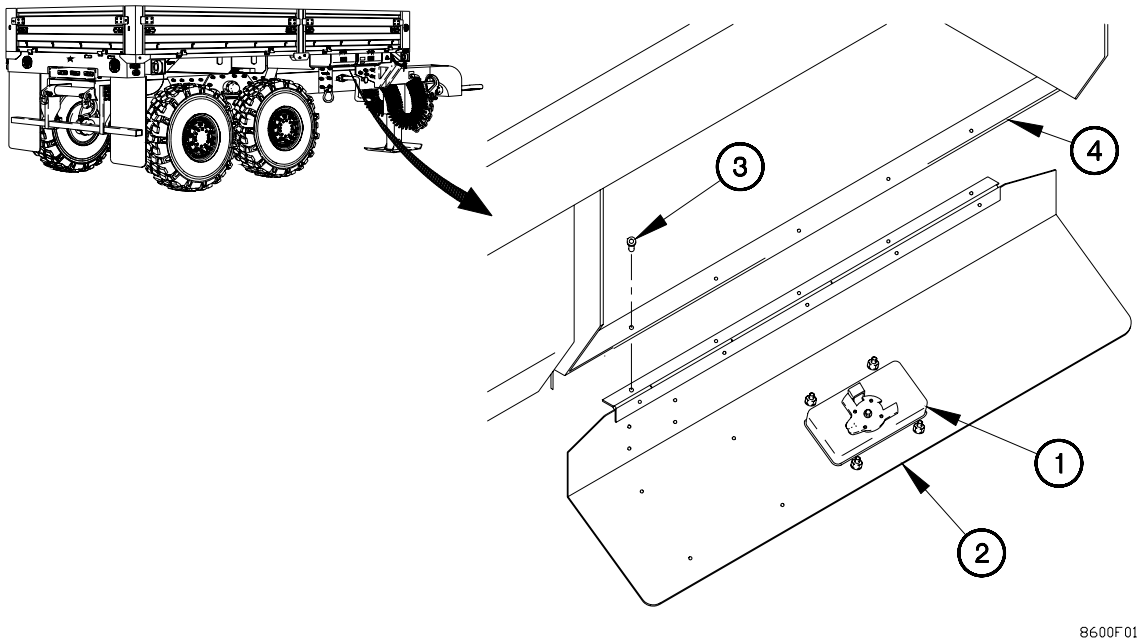
NOTE

All panel stowage doors are removed the same way. Right front panel stowage door shown.

PANEL STOWAGE DOOR/STOWAGE BOX ASSEMBLY/CHOCK BLOCK STOWAGE BOX ASSEMBLY REPLACEMENT/REPAIR - Continued 0087 00

REMOVAL, PANEL STOWAGE DOOR - Continued

1. Unlatch panel stowage door latch (1).
2. Open panel stowage door (2).
3. Remove five rivets (3) and door (2) from panel stowage box (4).



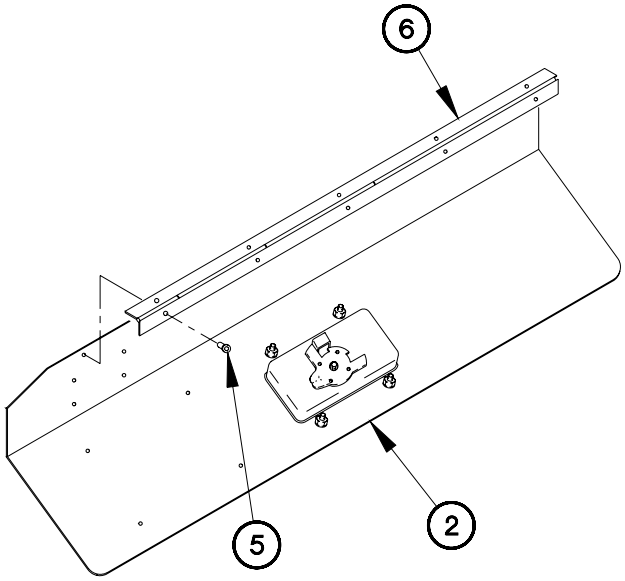
PANEL STOWAGE DOOR/STOWAGE BOX ASSEMBLY/CHOCK BLOCK STOWAGE BOX ASSEMBLY REPLACEMENT/REPAIR - Continued 0087 00

DISASSEMBLY, PANEL STOWAGE DOOR

NOTE

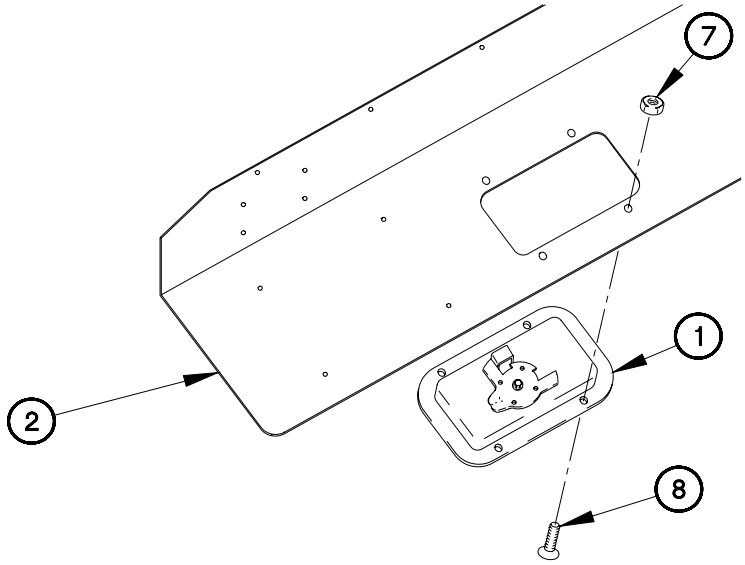
All panel stowage doors are disassembled the same way. One panel stowage door shown.

1. Remove five rivets (5) and hinge (6) from door (2).



8600F02

2. Remove four self-locking nuts (7), screws (8), and door latch (1) from door (2). Discard self-locking nuts.



8600F03

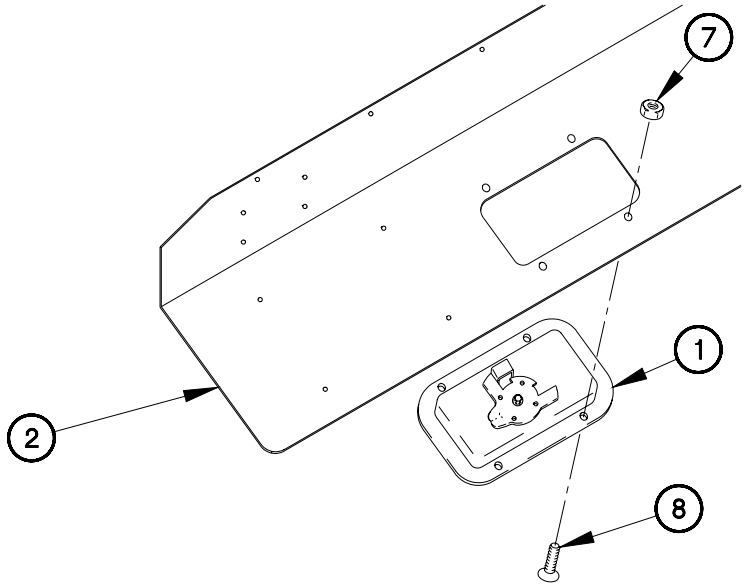
PANEL STOWAGE DOOR/STOWAGE BOX ASSEMBLY/CHOCK BLOCK STOWAGE BOX ASSEMBLY REPLACEMENT/REPAIR - Continued 0087 00

ASSEMBLY, PANEL STOWAGE DOOR

NOTE

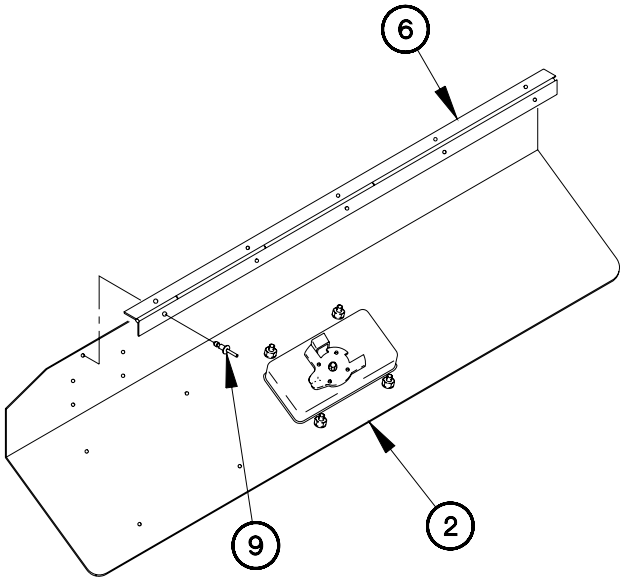
All panel stowage doors are assembled the same way. One panel stowage door shown.

1. Install door latch (1) on door (2) with four screws (8) and self-locking nuts (7).



8600F03

2. Install hinge (6) on door (2) with five rivets (9).



8600F04

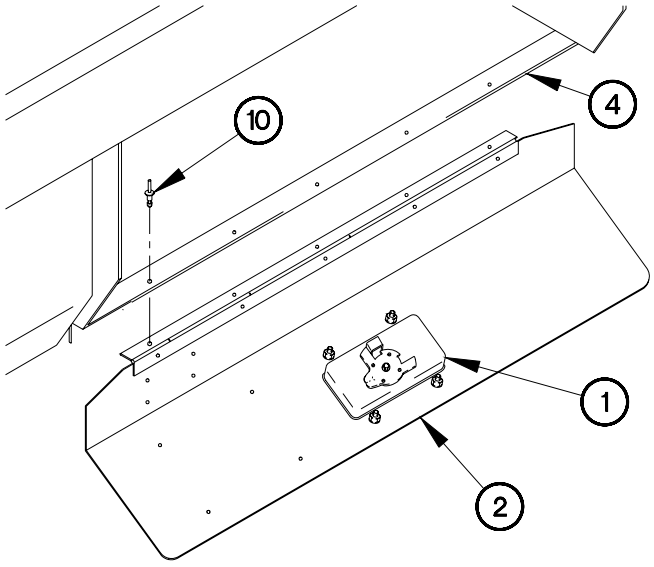
PANEL STOWAGE DOOR/STOWAGE BOX ASSEMBLY/CHOCK BLOCK STOWAGE BOX ASSEMBLY REPLACEMENT/REPAIR - Continued 0087 00

INSTALLATION, PANEL STOWAGE DOOR

NOTE

All panel stowage doors are installed the same way. Right front panel stowage door shown.

1. Install door (2) on panel stowage box (4) with five rivets (10).
2. Close panel stowage door (2).
3. Latch panel stowage door latch (1).

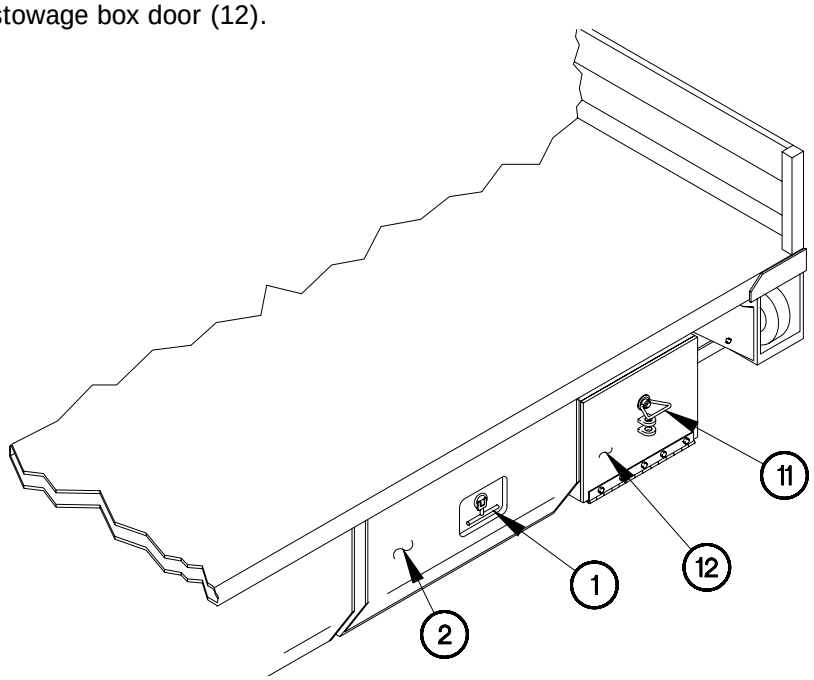


8600F05

PANEL STOWAGE DOOR/STOWAGE BOX ASSEMBLY/CHOCK BLOCK 0087 00
STOWAGE BOX ASSEMBLY REPLACEMENT/REPAIR - Continued

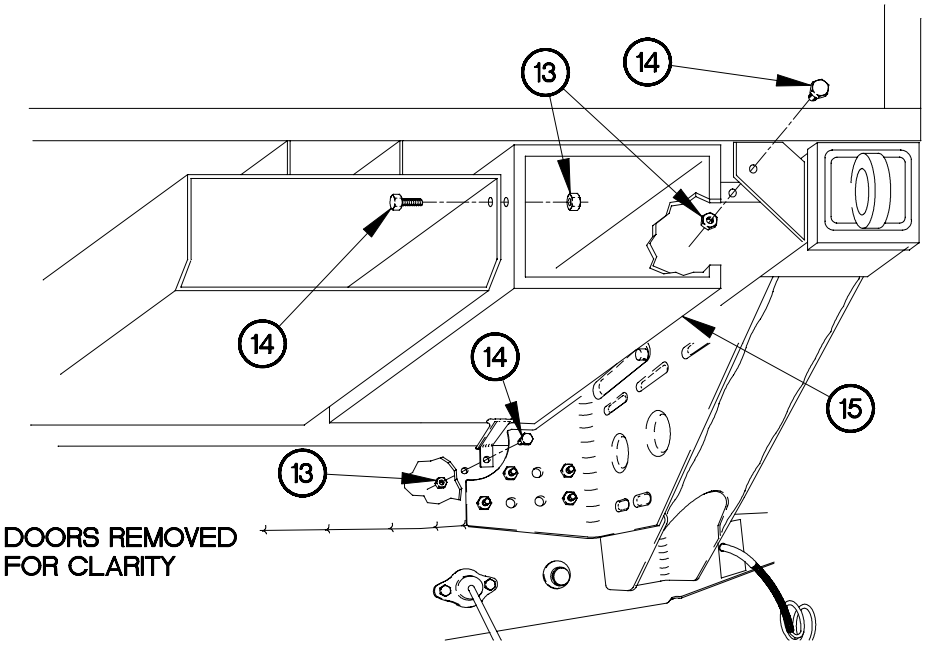
REMOVAL, STOWAGE BOX

1. Unlatch front panel stowage door latch (1).
2. Open front panel stowage door (2).
3. Unlatch stowage box door latch (11).
4. Open stowage box door (12).



8600f06

5. Remove three nuts (13), screws (14) and stowage box (15) from trailer.

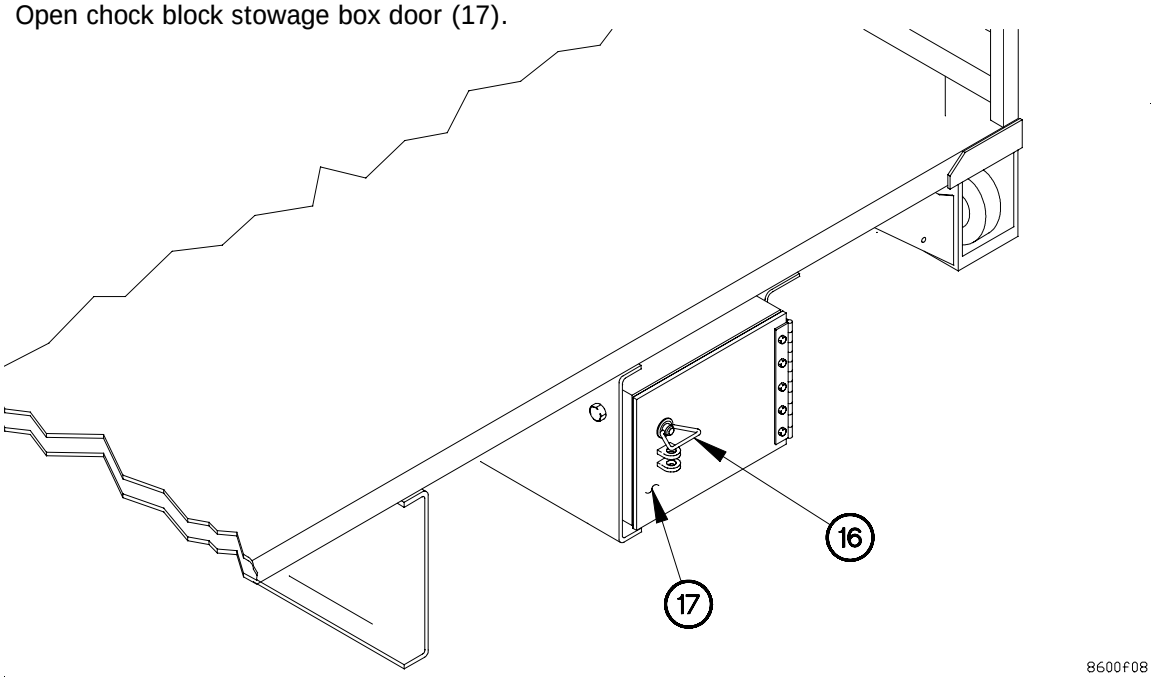


8600f07

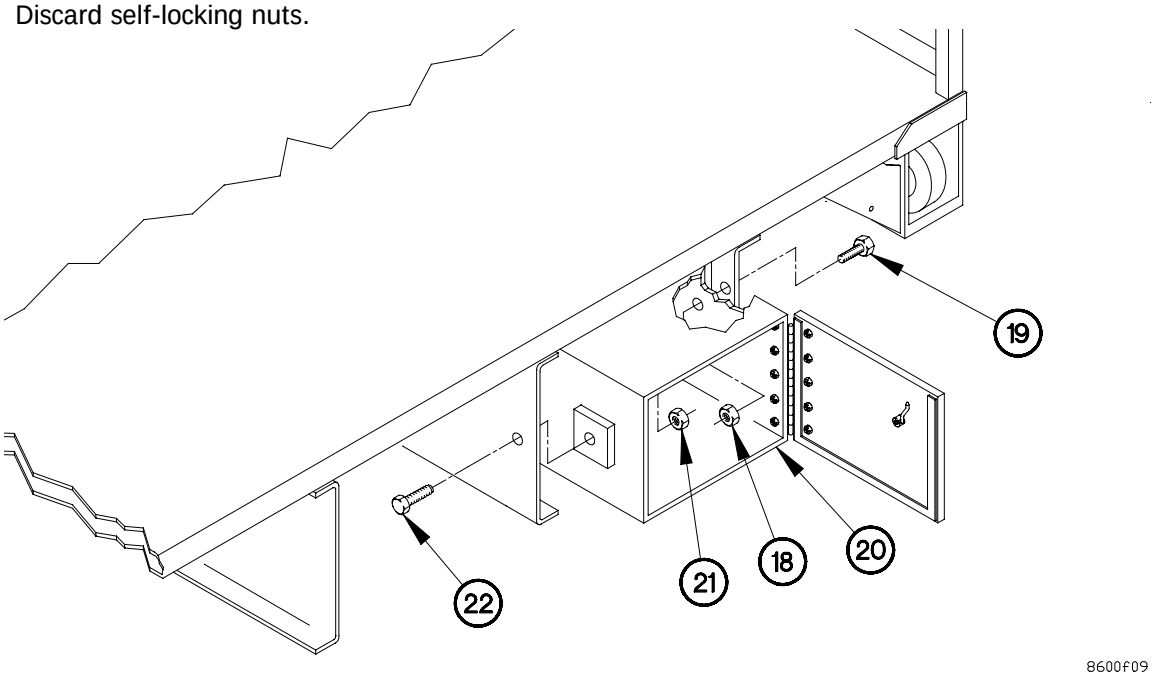
PANEL STOWAGE DOOR/STOWAGE BOX ASSEMBLY/CHOCK BLOCK STOWAGE BOX ASSEMBLY REPLACEMENT/REPAIR - Continued 0087 00

REMOVAL, CHOCK BLOCK STOWAGE BOX

1. Unlatch chock block stowage box latch (16).
2. Open chock block stowage box door (17).



3. Remove two self-locking nuts (18) and screws (19) from chock block stowage box (20). Discard self-locking nuts.
4. Remove two self-locking nuts (21), screws (22) and chock block stowage box (20) from trailer. Discard self-locking nuts.



PANEL STOWAGE DOOR/STOWAGE BOX ASSEMBLY/CHOCK BLOCK STOWAGE BOX ASSEMBLY REPLACEMENT/REPAIR - Continued 0087 00

REMOVAL, STOWAGE BOX DOOR AND CHOCK BLOCK STOWAGE BOX DOOR

NOTE

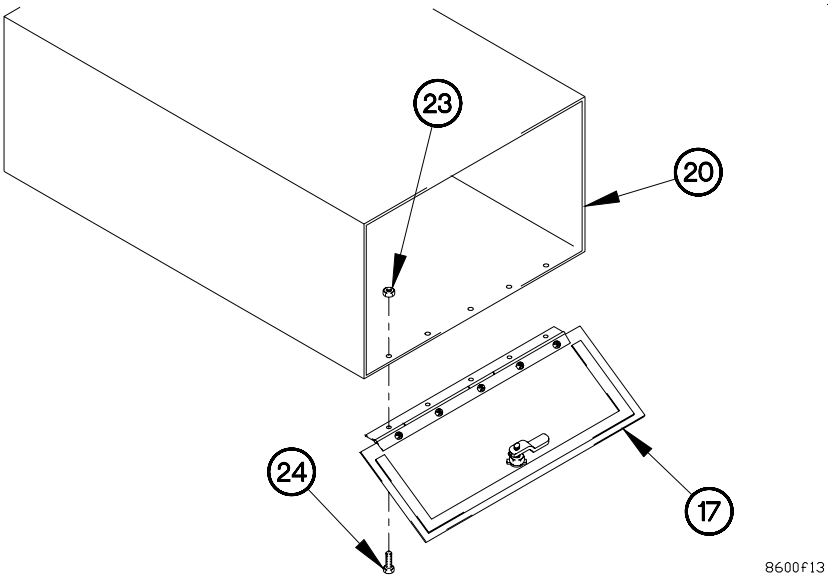
Stowage box door is hinged on bottom and chock block stowage box door is hinged on right hand side. Stowage box door shown.

1. Remove five nuts (23), screws (24), and door (17) from stowage box (20).

NOTE

Perform step (2) on chock block stowage box door.

2. Remove four nuts (23), screws (24) and door (17) from chock block stowage box (20).



PANEL STOWAGE DOOR/STOWAGE BOX ASSEMBLY/CHOCK BLOCK STOWAGE BOX ASSEMBLY REPLACEMENT/REPAIR - Continued 0087 00

DISASSEMBLY, STOWAGE BOX DOOR AND CHOCK BLOCK STOWAGE BOX DOOR

NOTE

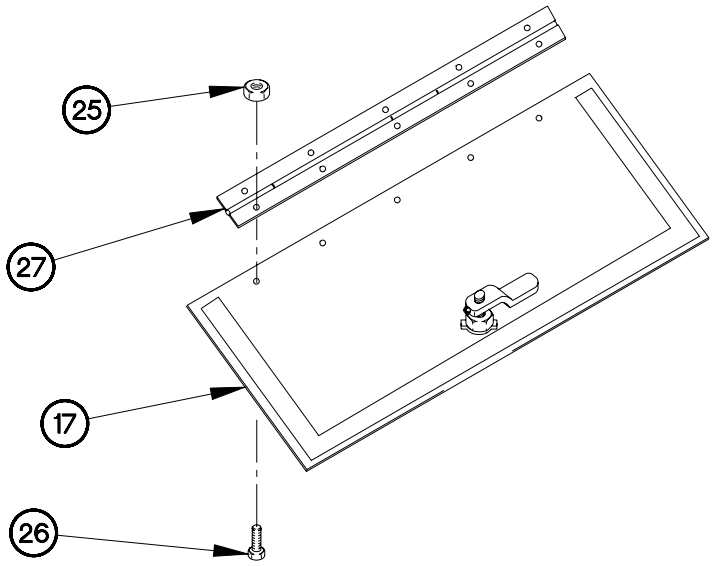
Both stowage box doors are disassembled the same way. Stowage box door shown.

1. Remove five nuts (25), screws (26), and hinge (27) from door (17).

NOTE

Perform step (2) on chock block stowage box door.

2. Remove four nuts (25), screws (26) and hinge (27) from door (17).

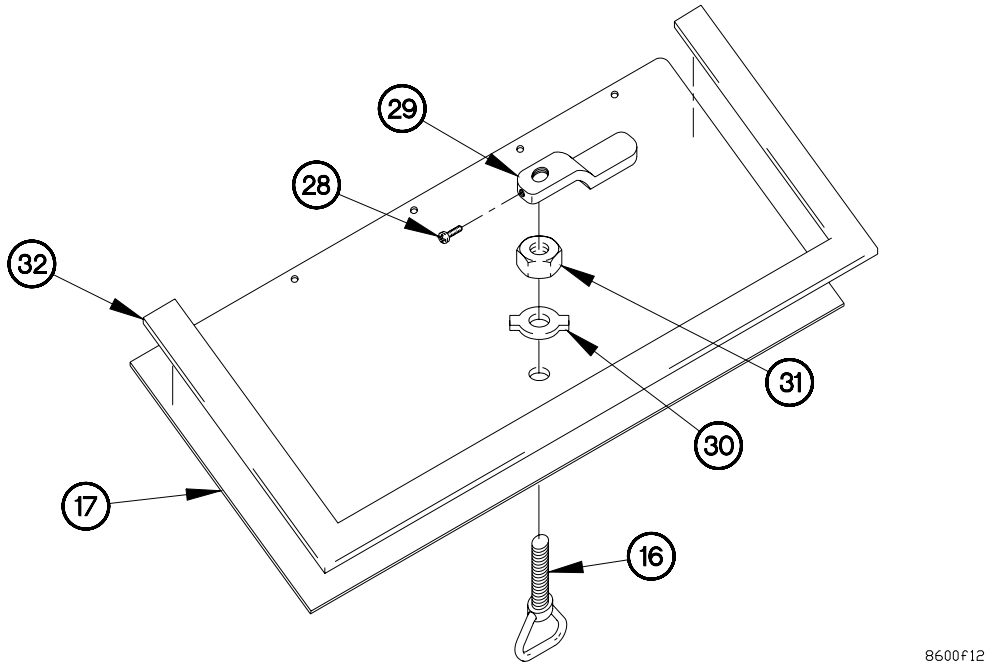


8600f10

PANEL STOWAGE DOOR/STOWAGE BOX ASSEMBLY/CHOCK BLOCK STOWAGE BOX ASSEMBLY REPLACEMENT/REPAIR - Continued 0087 00

DISASSEMBLY, STOWAGE BOX DOOR AND CHOCK BLOCK STOWAGE BOX DOOR - Continued

3. Remove setscrew (28) and setscrew bracket (29) from threaded shaft of door latch (16).
4. Bend tabs of washer (30) down.
5. Remove nut (31), tab washer (30), and door latch (16) from door (17).
6. Remove gasket (32) from door (17). Discard gasket.



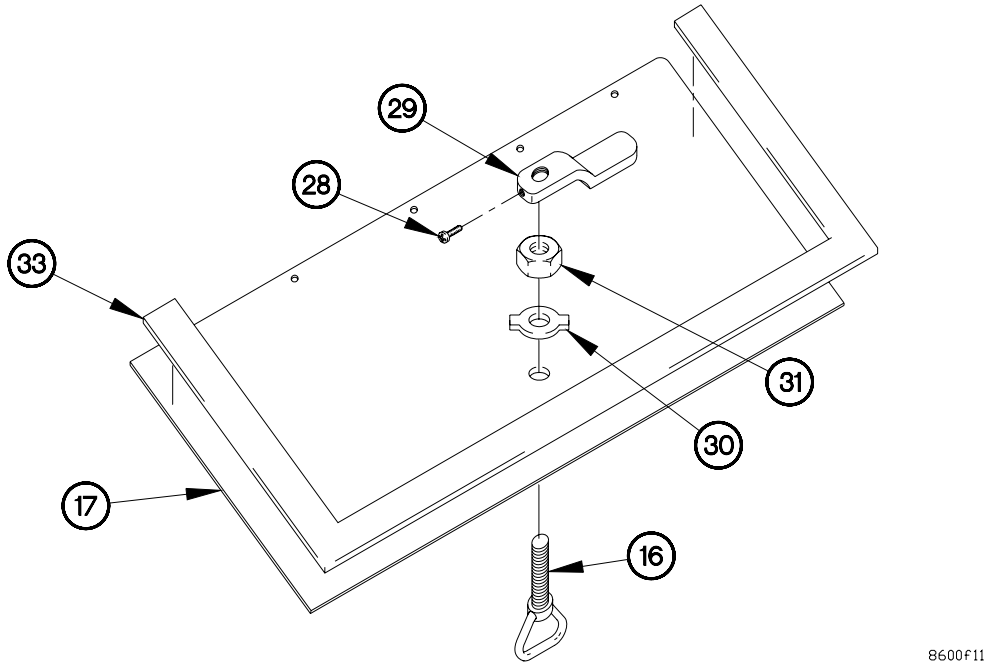
PANEL STOWAGE DOOR/STOWAGE BOX ASSEMBLY/CHOCK BLOCK STOWAGE BOX ASSEMBLY REPLACEMENT/REPAIR - Continued 0087 00

ASSEMBLY, STOWAGE BOX DOOR AND CHOCK BLOCK STOWAGE BOX DOOR

NOTE

Both stowage box doors are assembled the same way. One stowage box door shown.

1. Install gasket (33) on door (17).
2. Position door latch (16) on door (17) with tab washer (30), nut (31), setscrew bracket (29) and setscrew (28).
3. Tighten setscrew (29) until door latch (16) is snug.
4. Tighten nut (32) to 10 lb-in. (1 N•m).
5. Bend tabs of tab washer (31) up.



PANEL STOWAGE DOOR/STOWAGE BOX ASSEMBLY/CHOCK BLOCK STOWAGE BOX ASSEMBLY REPLACEMENT/REPAIR - Continued 0087 00

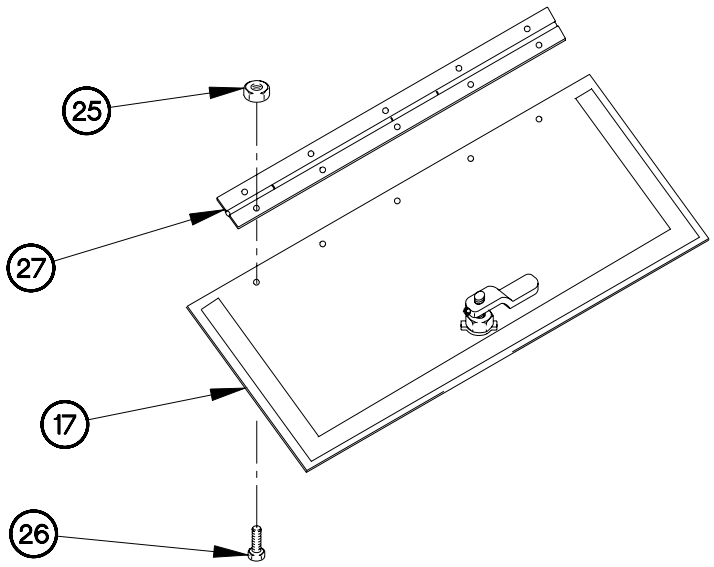
ASSEMBLY, STOWAGE BOX DOOR AND CHOCK BLOCK STOWAGE BOX DOOR - Continued

6. Position hinge (27) on door (17) with five screws (26) and nuts (25).
7. Tighten five nuts (25) to 20-30 lb-in. (2-3 N•m).

NOTE

Perform steps (8) and (9) on chock block stowage box door.

8. Position hinge (27) on door (17) with four screws (26) and nuts (25).
9. Tighten four nuts (25) to 20-30 lb-in. (2-3 N•m).



8600f10

PANEL STOWAGE DOOR/STOWAGE BOX ASSEMBLY/CHOCK BLOCK STOWAGE BOX ASSEMBLY REPLACEMENT/REPAIR - Continued 0087 00

INSTALLATION, STOWAGE BOX DOOR AND CHOCK BLOCK STOWAGE DOOR

NOTE

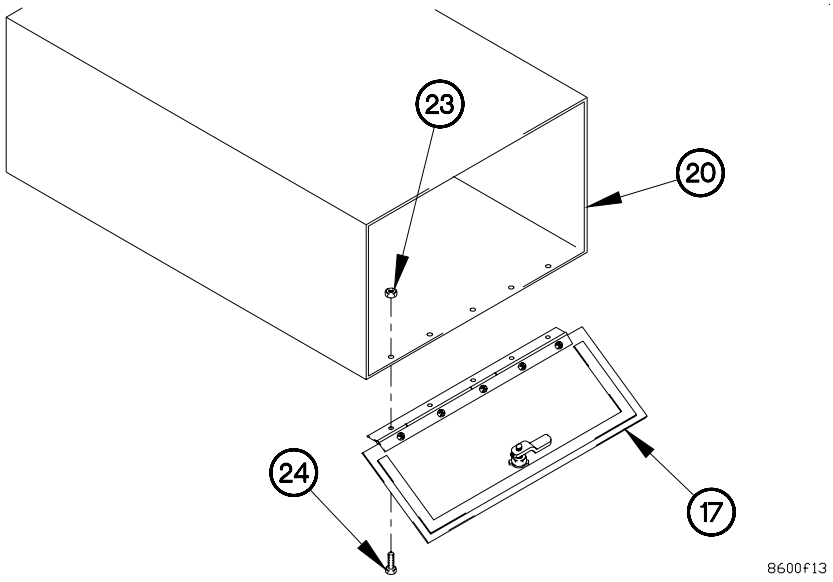
Stowage box door is hinged on bottom and chock block stowage box door is hinged on right hand side. Stowage box door shown.

1. Position door (17) on stowage box (20) with five screws (24) and nuts (23).
2. Tighten five nuts (23) to 20-30 lb-in. (2-3 N•m).

NOTE

Perform steps (3) and (4) on chock block stowage box door.

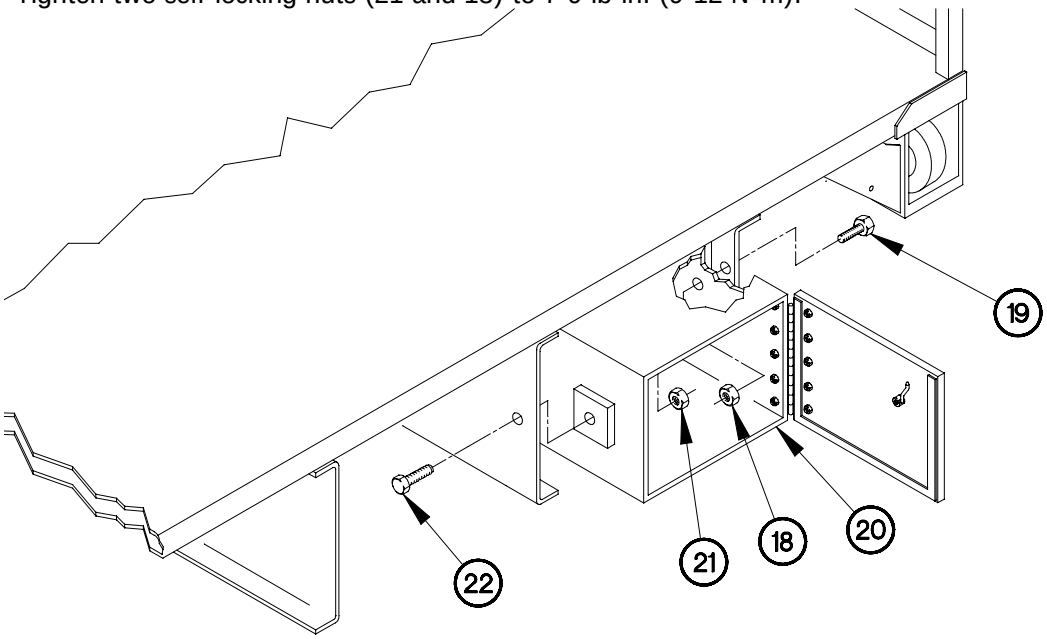
3. Position door (17) on stowage box (20) with four screws (24) and nuts (23).
4. Tighten four nuts (23) to 20-30 lb-in. (2-3 N•m).



PANEL STOWAGE DOOR/STOWAGE BOX ASSEMBLY/CHOCK BLOCK STOWAGE BOX ASSEMBLY REPLACEMENT/REPAIR - Continued 0087 00

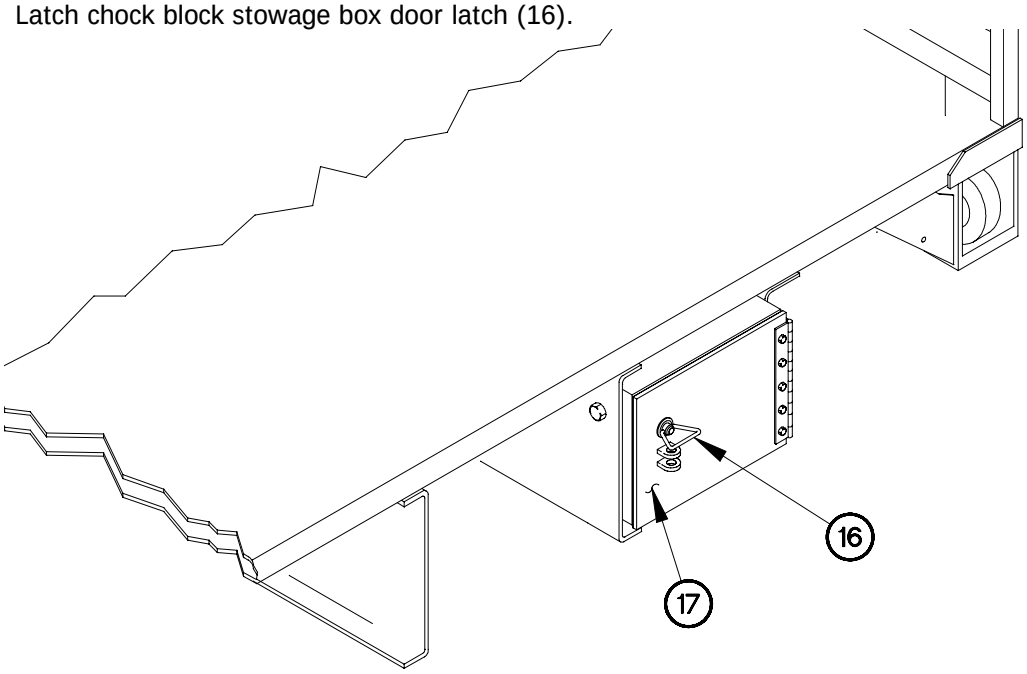
INSTALLATION, CHOCK BLOCK STOWAGE BOX

1. Position chock block stowage box (20) on trailer with two screws (22) and self-locking nuts (21).
2. Position two screws (19) and self-locking nuts (18) in chock block stowage box (20).
3. Tighten two self-locking nuts (21 and 18) to 7-9 lb-in. (9-12 N•m).



8600f09

4. Close chock block stowage box door (17).
5. Latch chock block stowage box door latch (16).

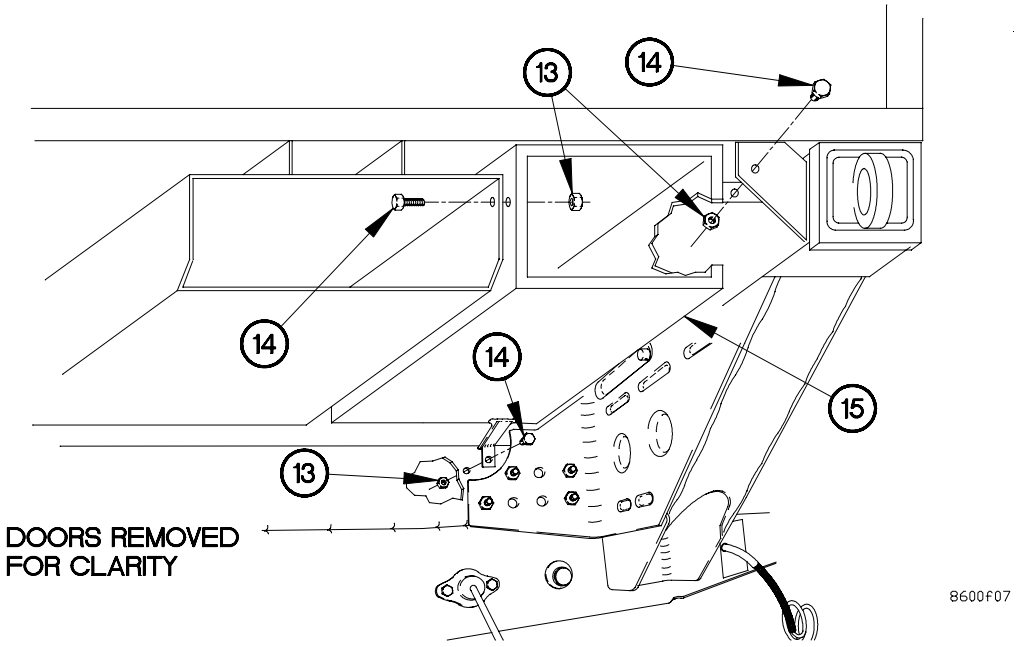


8600f08

PANEL STOWAGE DOOR/STOWAGE BOX ASSEMBLY/CHOCK BLOCK STOWAGE BOX ASSEMBLY REPLACEMENT/REPAIR - Continued 0087 00

INSTALLATION, STOWAGE BOX

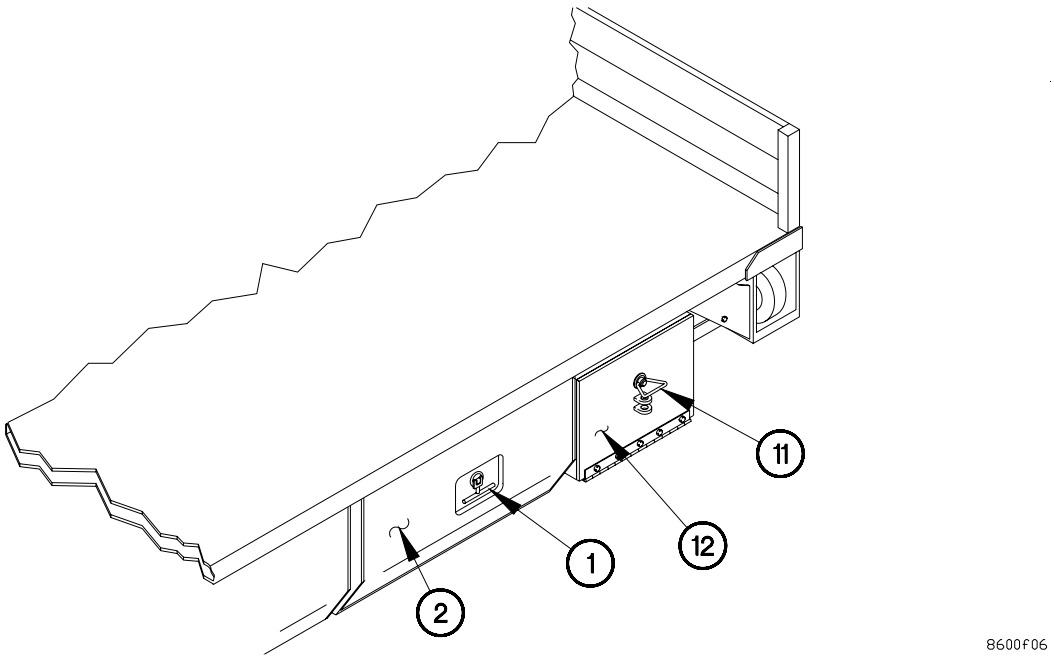
1. Position stowage box (15) on trailer with three screws (14) and nuts (13).
2. Tighten three nuts (13) to 84-108 lb-in (9-12 N•m).



PANEL STOWAGE DOOR/STOWAGE BOX ASSEMBLY/CHOCK BLOCK STOWAGE BOX ASSEMBLY REPLACEMENT/REPAIR - Continued 0087 00

INSTALLATION, STOWAGE BOX - Continued

3. Close stowage box door (12).
4. Latch stowage box door latch (11).
5. Close front panel stowage door (2).
6. Latch front panel stowage door latch (1).



END OF WORK PACKAGE

TIEDOWN RING REPLACEMENT 0088 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP:

Maintenance Level
Field

Personnnel Required
Two

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-175 lb-ft (Item 49, WP 0178 00)
Socket Set, Socket Wrench (Item 32, WP 0178 00)

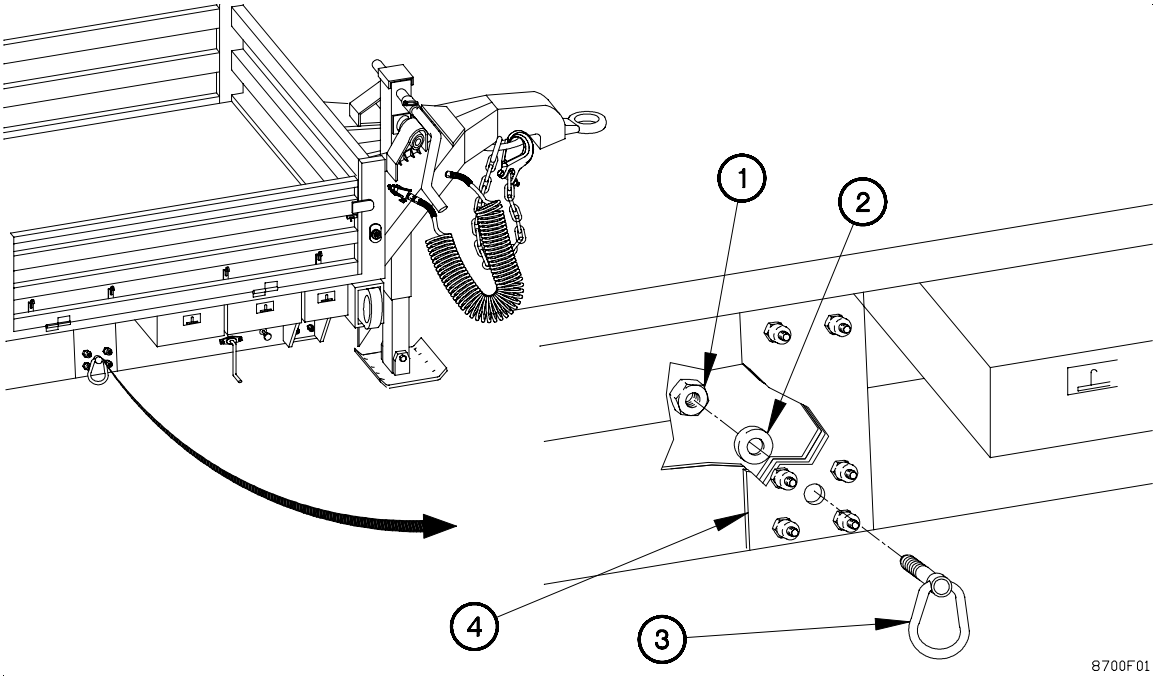
Equipment Conditions
Trailer uncoupled (WP 0012 00).

REMOVAL

NOTE

Left and right tiedown rings are removed the same way. Right side shown.

Remove nut (1), spacer (2) and tiedown ring (3) from tiedown ring bracket (4).



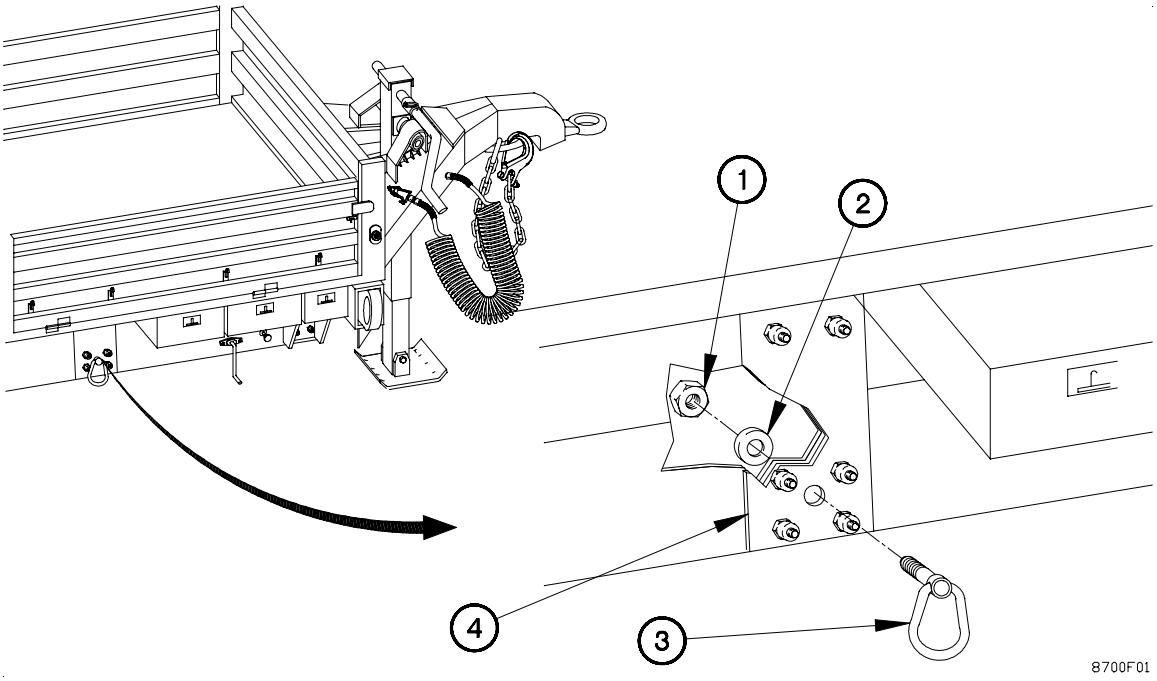
TIEDOWN RING REPLACEMENT - Continued 0088 00

INSTALLATION

NOTE

Left and right tiedown rings are installed the same way. Right side shown.

1. Position tiedown ring (3) in tiedown ring bracket (4) with spacer (2) and nut (1).
2. Tighten nut (1) to 104-140 lb-ft (141-190 N•m).



END OF WORK PACKAGE

REFLECTORS REPLACEMENT 0089 00

THIS WORK PACKAGE COVERS:

Removal, Side; Installation, Side; Removal, Rear; Installation, Rear

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-300 lb-in.
(Item 51, WP 0178 00)

Materials/Parts
Lockwashers (2) (Item 9, WP 0181 00)

Equipment Conditions
Trailer uncoupled (WP 0012 00).

NOTE

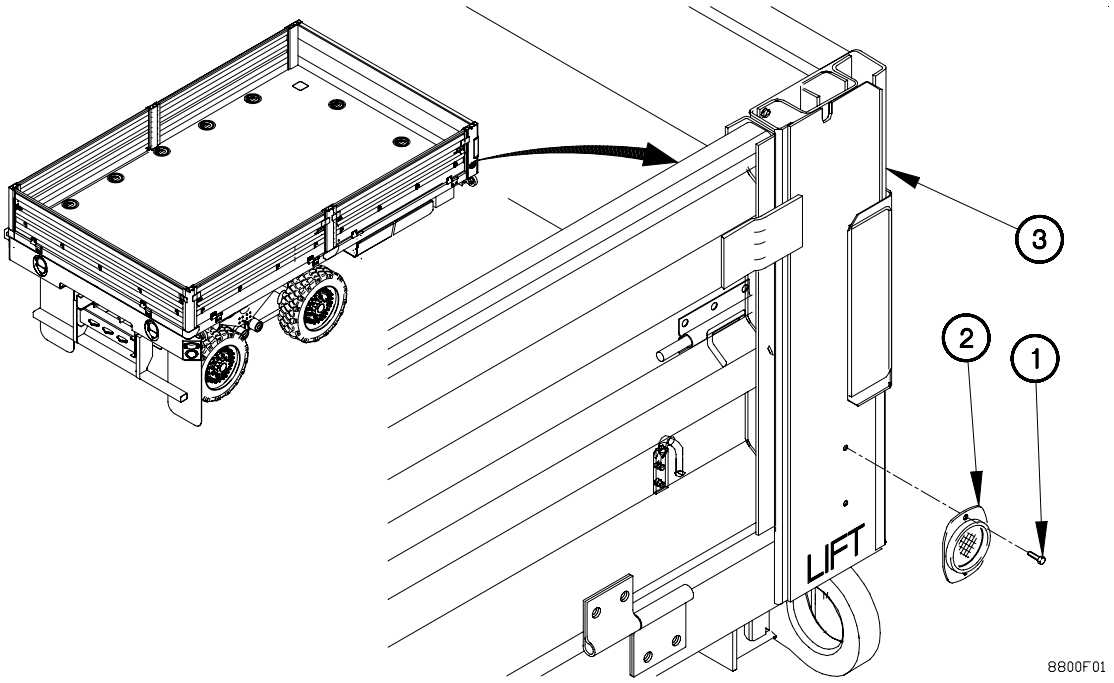
LMTVT and MTVT reflectors are replaced the same way. MTVT shown.

SIDE REFLECTOR REMOVAL

NOTE

Left and right reflectors are removed the same way. Right side shown.

Remove two screws (1) and reflector (2) from forward stake post (3).



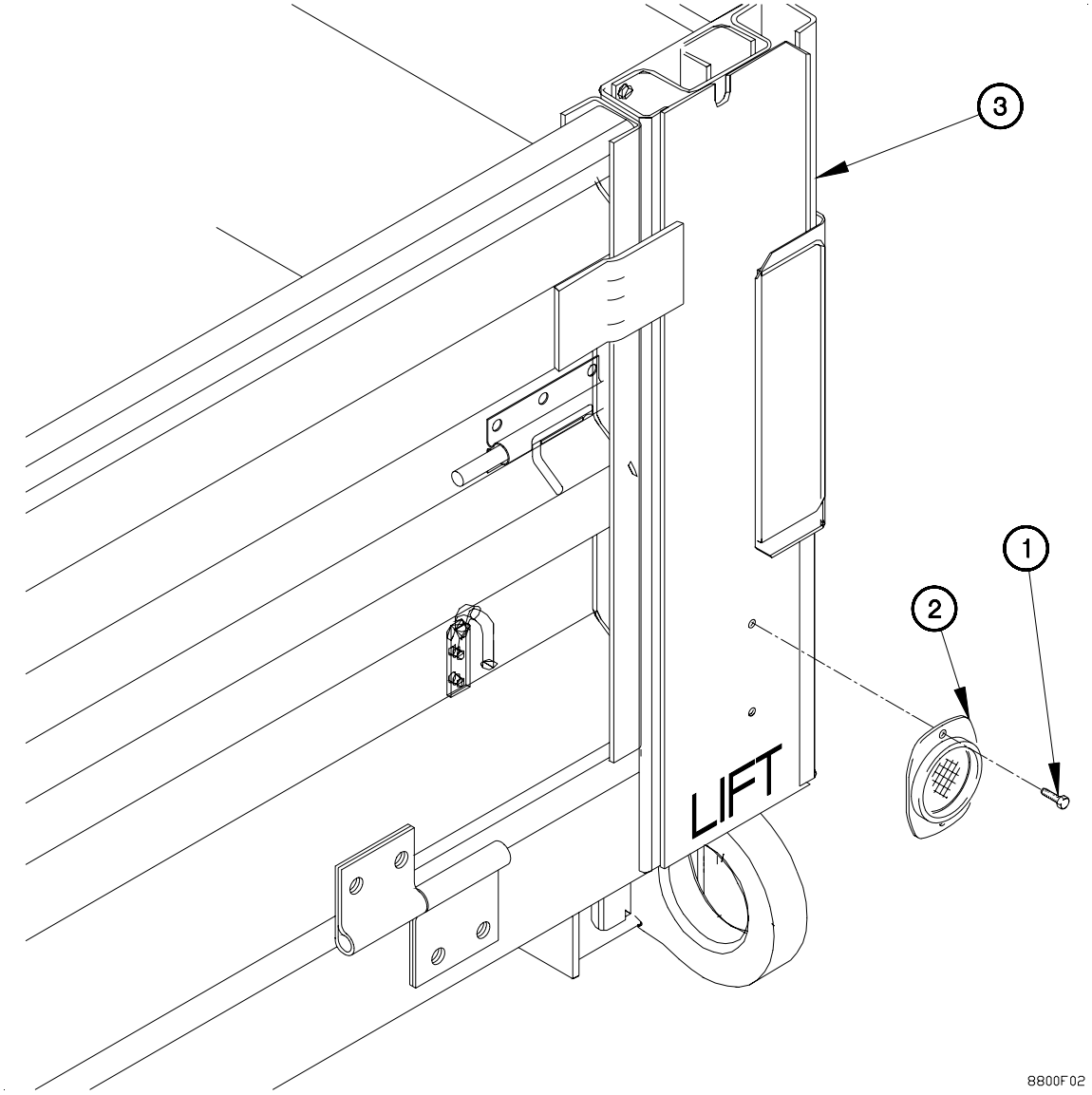
REFLECTORS REPLACEMENT - Continued 0089 00

SIDE REFLECTOR INSTALLATION

NOTE

Left and right reflectors are installed the same way. Right side shown.

1. Position reflector (2) on forward stake post (3) with two screws (1).
2. Tighten two screws (1) to 82-105 lb-in. (9-12 N•m).



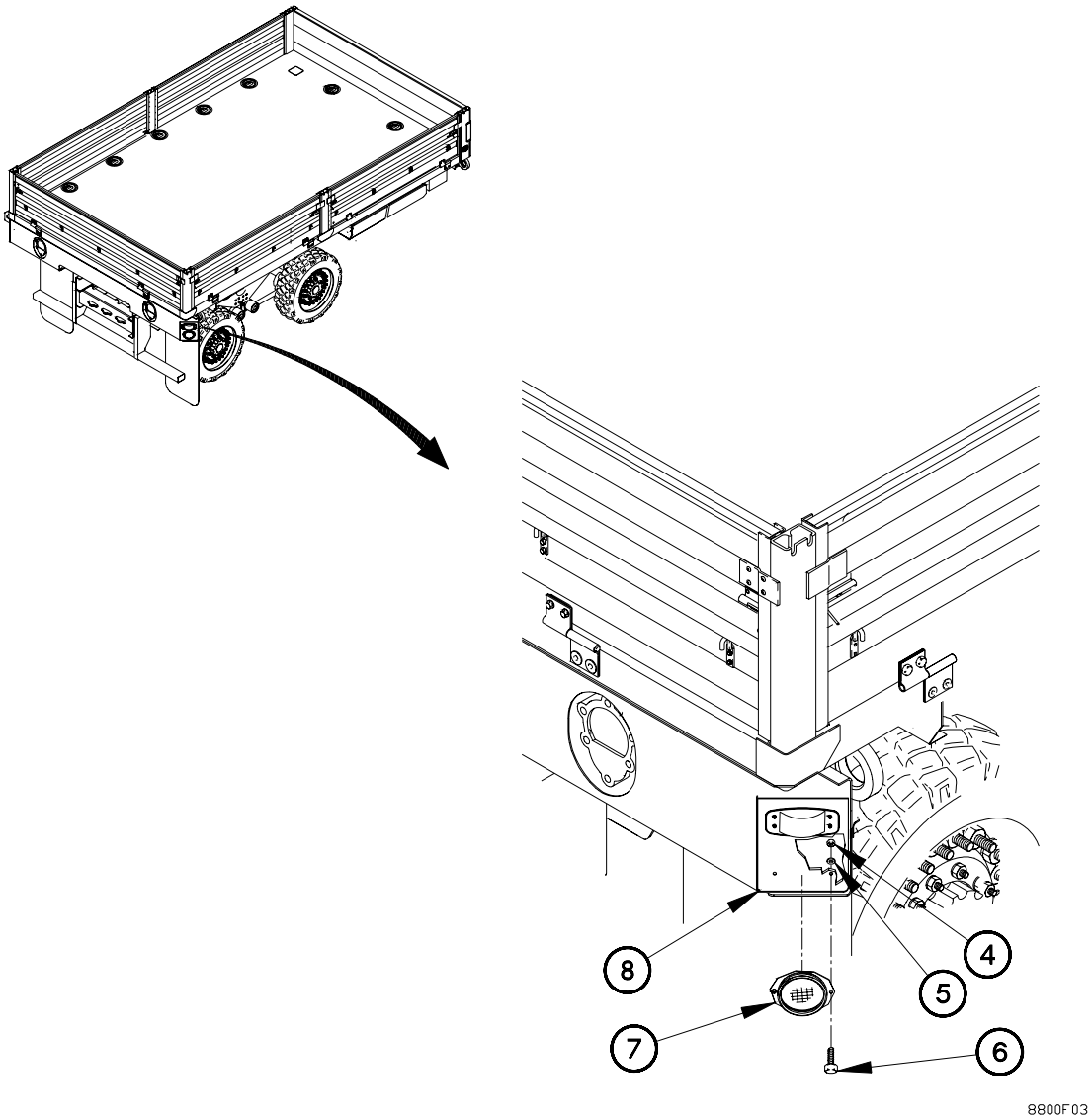
REFLECTORS REPLACEMENT - Continued 0089 00

REAR REFLECTOR REMOVAL

NOTE

Left and right rear reflectors are removed the same way. Right side shown.

Remove two nuts (4), lockwashers (5), screws (6), and reflector (7) from rear crossmember (8). Discard lockwashers.



REFLECTORS REPLACEMENT - Continued 0089 00

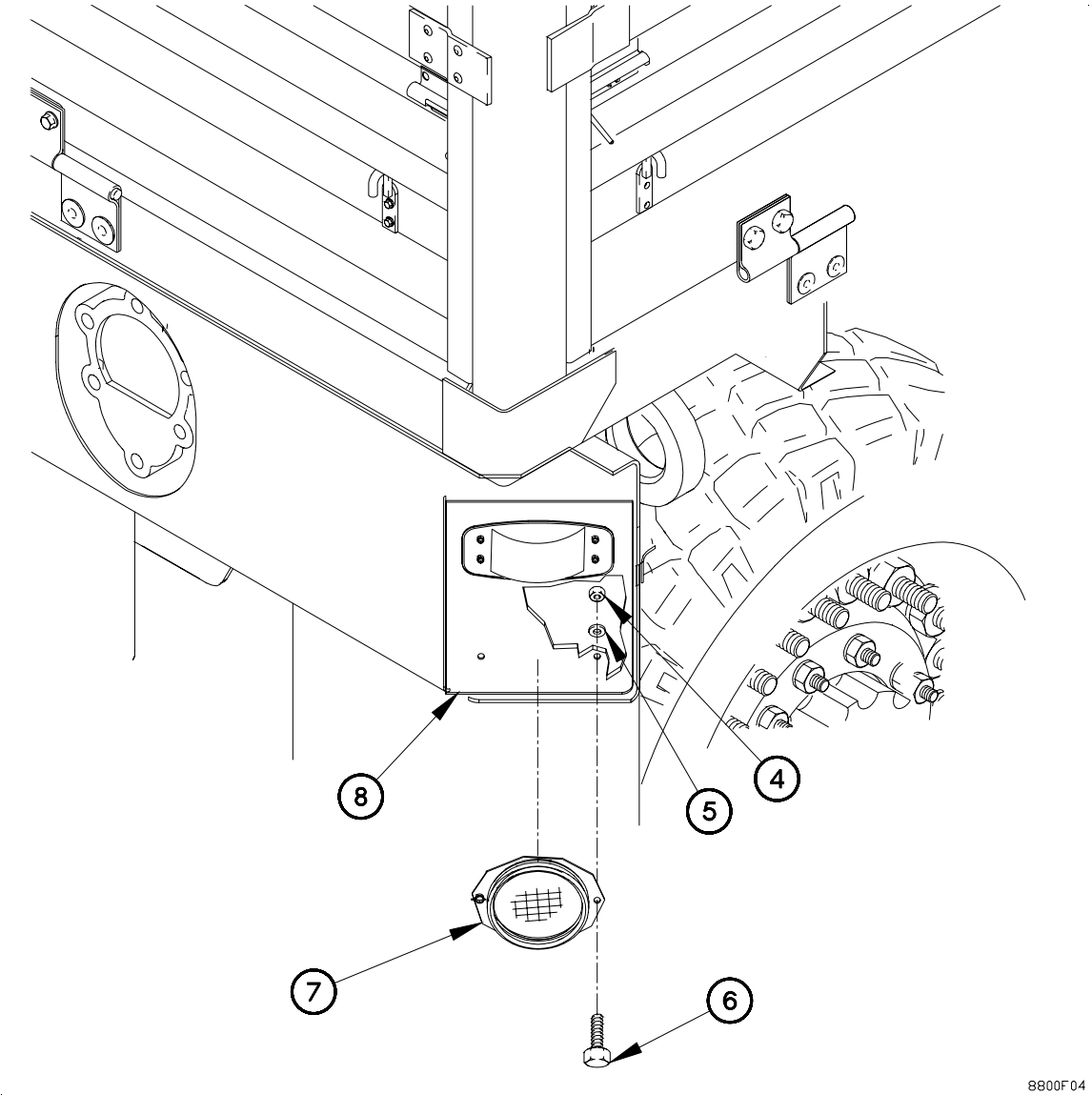
REAR REFLECTOR INSTALLATION

NOTE

Left and right rear reflectors are installed the same way. Right side shown.

1. Position reflector (7) on rear crossmember (8) with two screws (6), lockwashers (5), and nuts (4).

2. Tighten two nuts (4) to 42-54 lb-in. (5-6 N•m).



END OF WORK PACKAGE

SPLASH GUARD REPLACEMENT 0090 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP:

Maintenance Level
Field

Equipment Conditions
Trailer uncoupled (WP 0012 00).

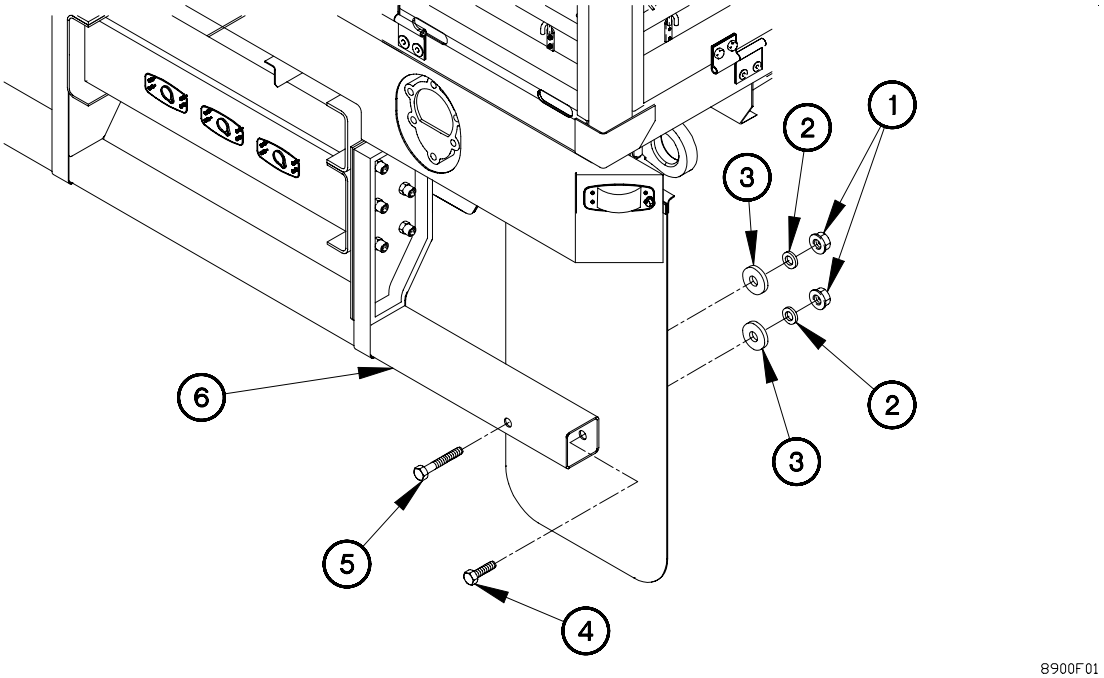
Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-175 lb-ft
(Item 49, WP 0178 00)

REMOVAL

NOTE

Left and right splash guards are removed the same way. Right side shown.

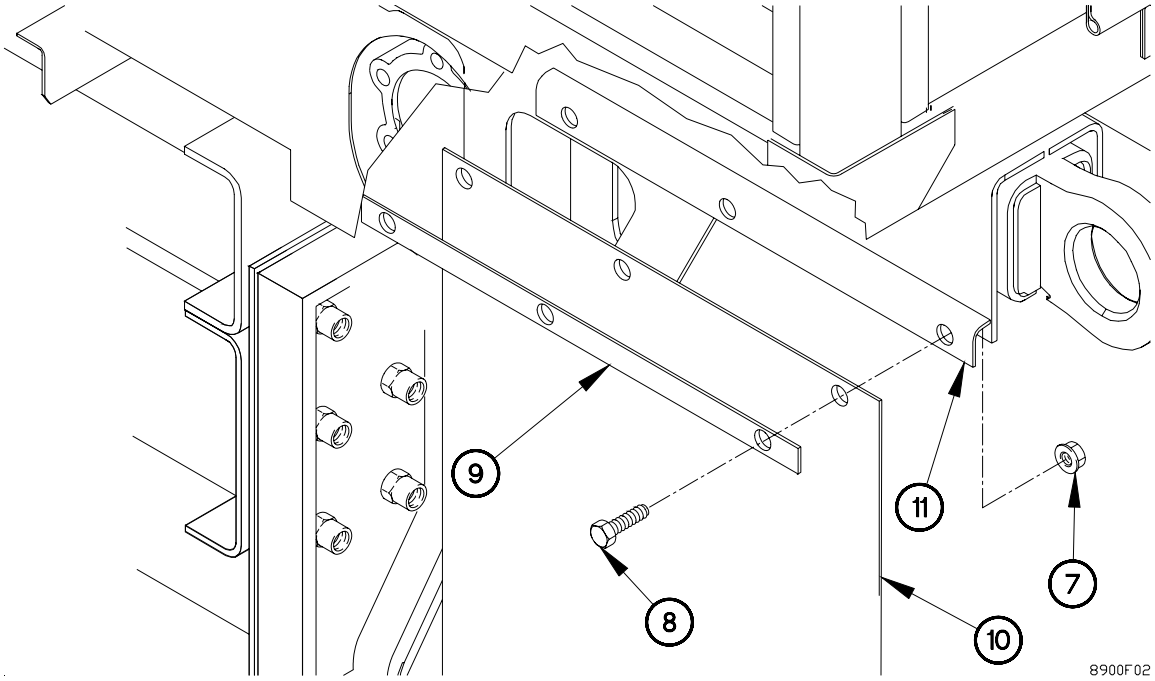
1. Remove two nuts (1), washers (2), resilient mounts (3), and screws (4 and 5) from rear bumper (6).



SPLASH GUARD REPLACEMENT - Continued 0090 00

REMOVAL - Continued

2. Remove three nuts (7), bolts (8), mounting plate (9) and splash guard (10) from bracket (11).

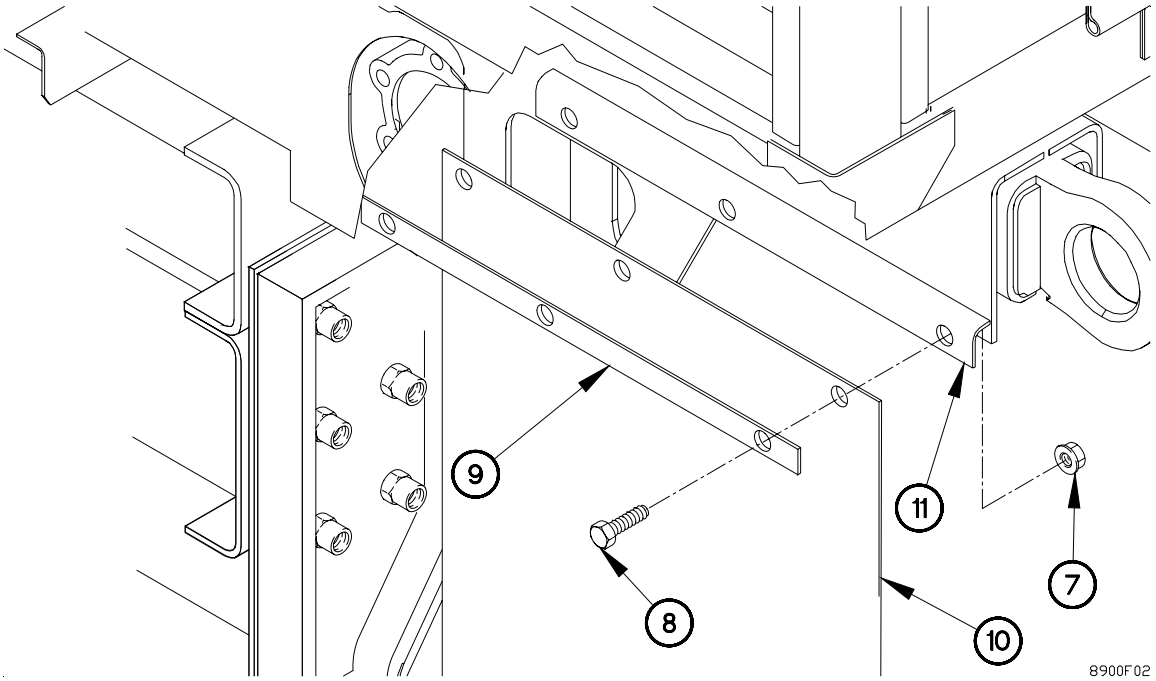


INSTALLATION

NOTE

Left and right splash guards are installed the same way. Right side shown.

1. Position splash guard (10) and mounting plate (9) on bracket (11) with three bolts (8) and nuts (7).

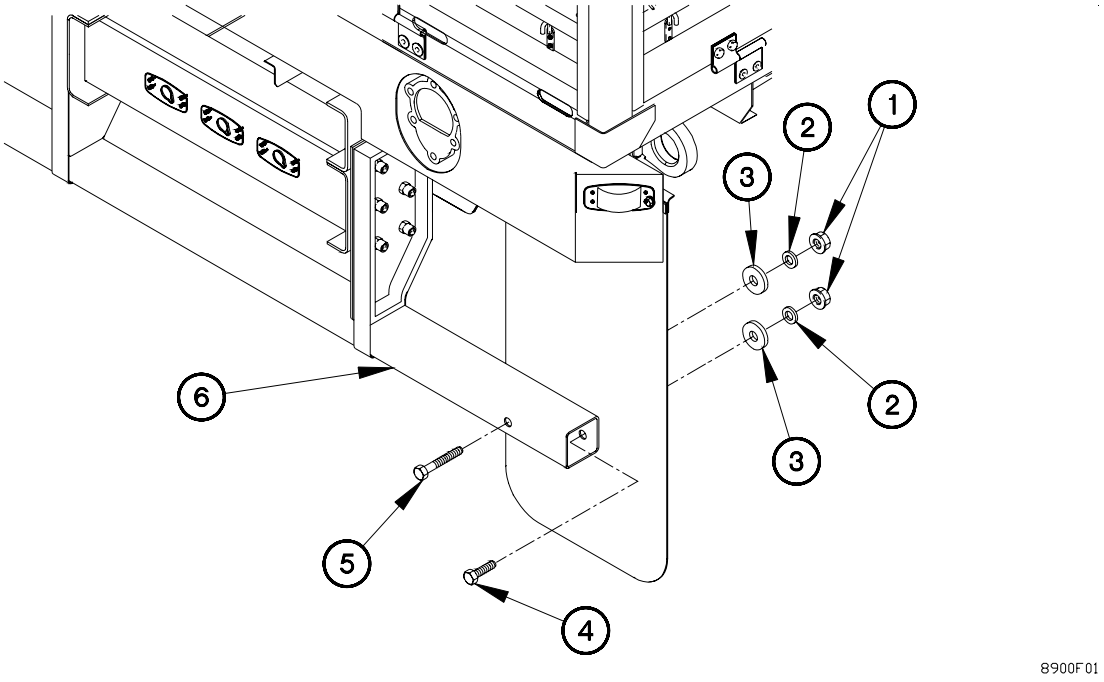


SPLASH GUARD REPLACEMENT - Continued 0090 00

INSTALLATION - Continued

2. Position two screws (4 and 5), resilient mounts (3), washers (2), and nuts (1) on rear bumper (6).

3. Tighten two nuts (1) and three (7) to 22-28 lb-ft (30-38 N•m).



8900F01

END OF WORK PACKAGE

STABILIZER BAR REPLACEMENT 0091 00

THIS WORK PACKAGE COVERS:

Removal, MTVT; Removal, LMTVT; Disassembly; Inspection; Assembly; Installation, MTVT; Installation, LMTVT; Operational Check

INITIAL SETUP:

Maintenance Level

Field

Tools and Special Tools

Tool Kit, Genl Mech (Item 37, WP 0178 00)
Trestle, Motor Vehicle Maintenance (2) (Item 38, WP 0178 00)
Wrench, Torque, 50-250 lb-ft (Item 50, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Socket, Socket Wrench (Item 3, Table 2 WP 0124 00)
Wrench Set, Socket (Item 46, WP 0178 00)

Materials/Parts

Solvent, Dry Cleaning (Item 32, WP 0176 00)
Grease, Automotive and Artillery (GAA) (Item 11, WP 0176 00)
Nut, Self-Locking (4) (Item 34, WP 0181 00)
Nut, Self-Locking (2, LMTVT; 4, MTVT) (Item 36, WP 0181 00)

Personnel Required

Two

Equipment Conditions

Wheels chocked (WP 0011 00).

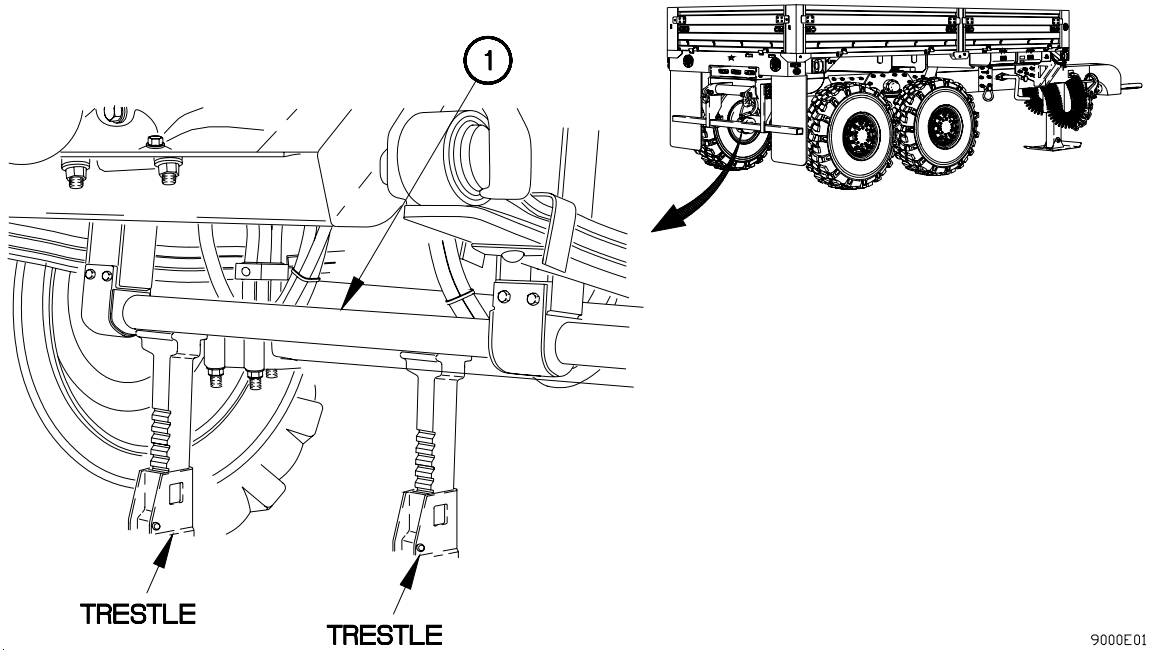
WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

STABILIZER BAR REPLACEMENT - Continued 0091 00

REMOVAL, MTVT

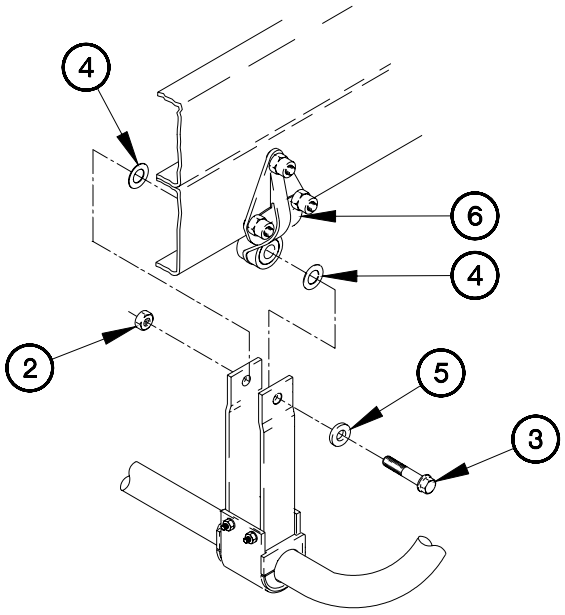
1. Position two trestles under stabilizer bar (1).



NOTE

Both stabilizer bar attachments are removed the same way. Right side shown.

2. Remove self-locking nut (2), bolt (3), two washers (4), and washer (5) from stabilizer mounting bracket (6). Discard self-locking nut.



STABILIZER BAR REPLACEMENT - Continued 0091 00

REMOVAL, MTVT - Continued

3. Remove self-locking nut (7) and bolt (8) from axle bracket (9). Discard self-locking nut.

WARNING

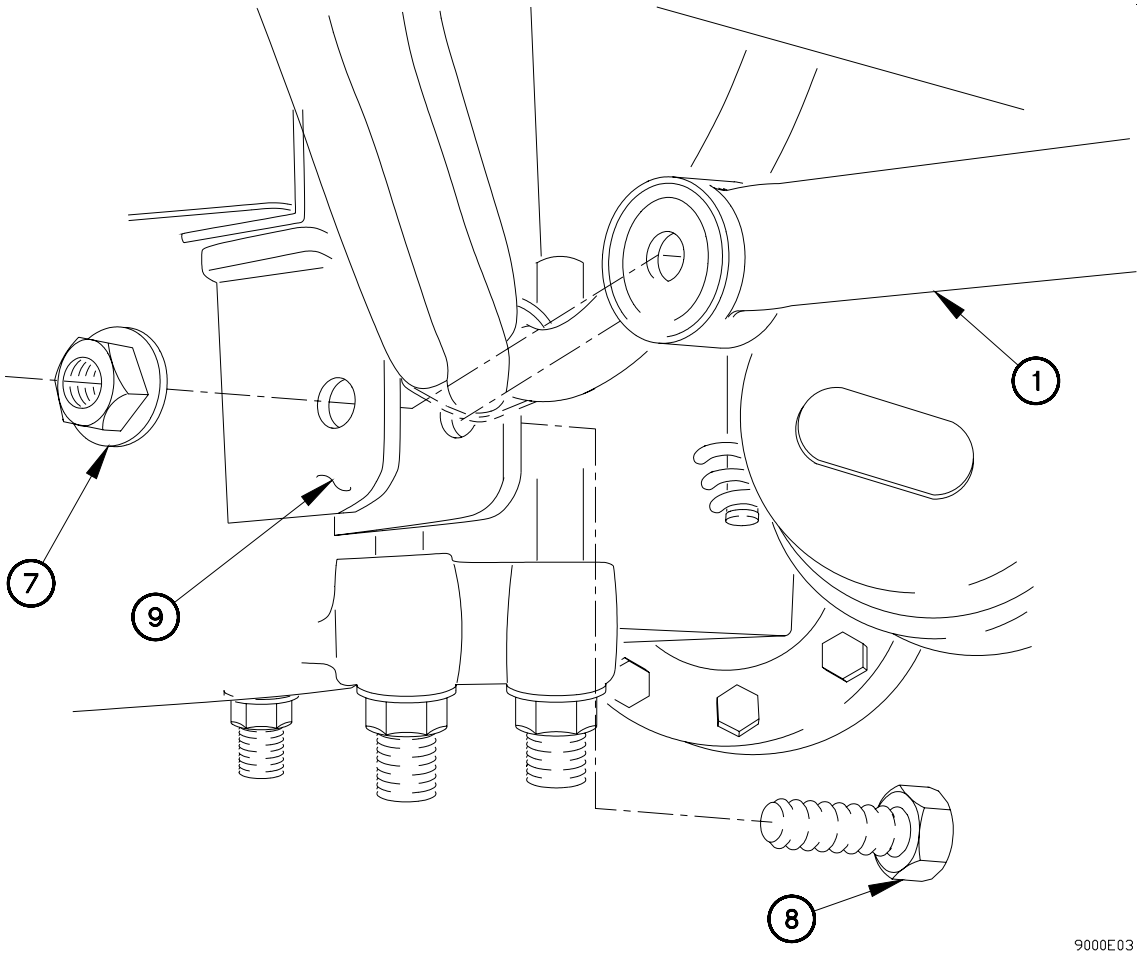
Stabilizer bar weighs approximately 50 lbs (22 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

4. Perform steps (2) and (3) on left side of stabilizer bar.

NOTE

Step (5) requires the aid of an assistant.

5. Remove stabilizer bar (1) from trailer.



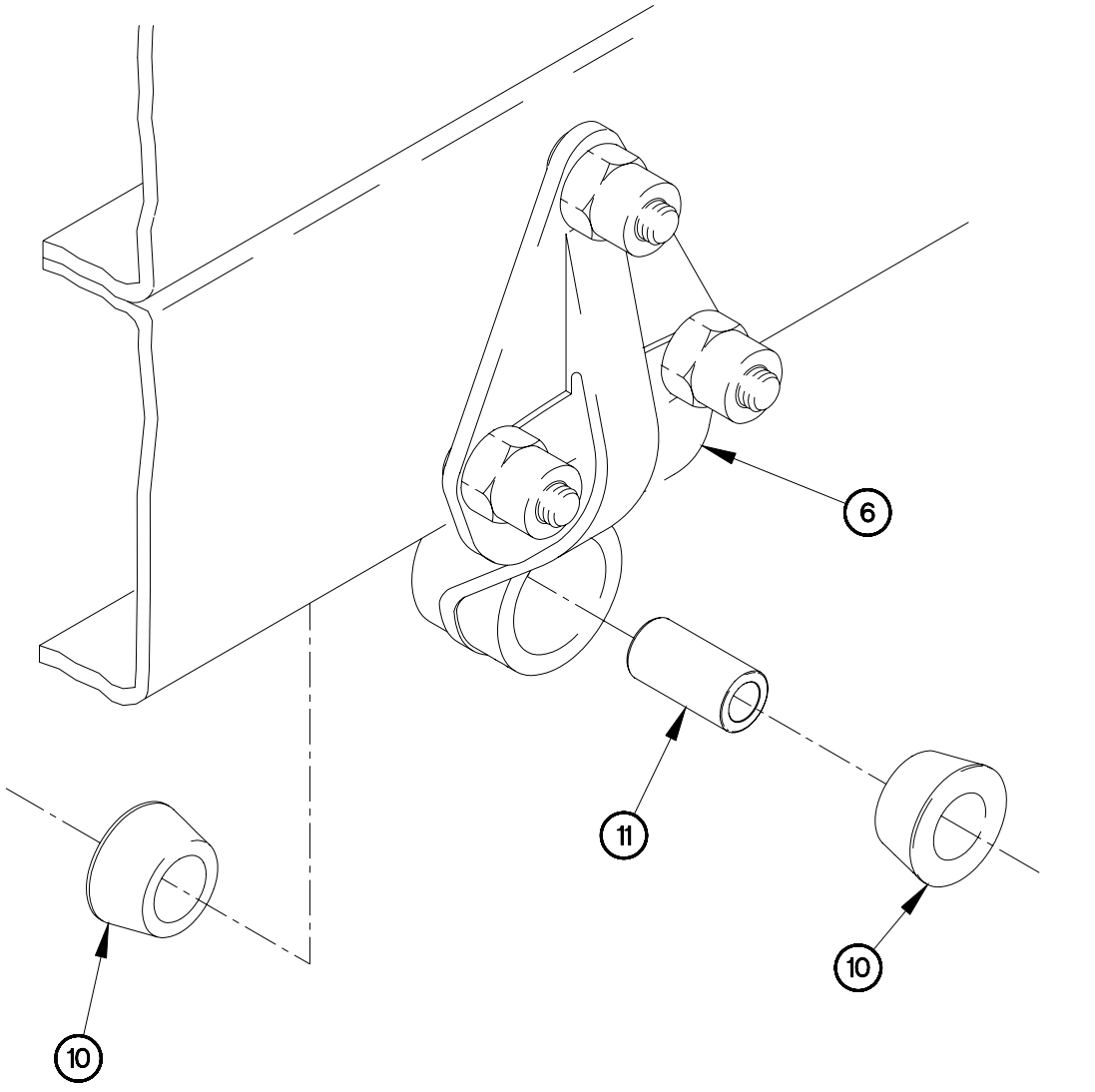
STABILIZER BAR REPLACEMENT - Continued 0091 00

REMOVAL, MTVT - Continued

NOTE

Left and right grommets and sleeves are removed the same way. Right side shown.

6. Remove two grommets (10) and sleeve (11) from stabilizer mounting bracket (6).

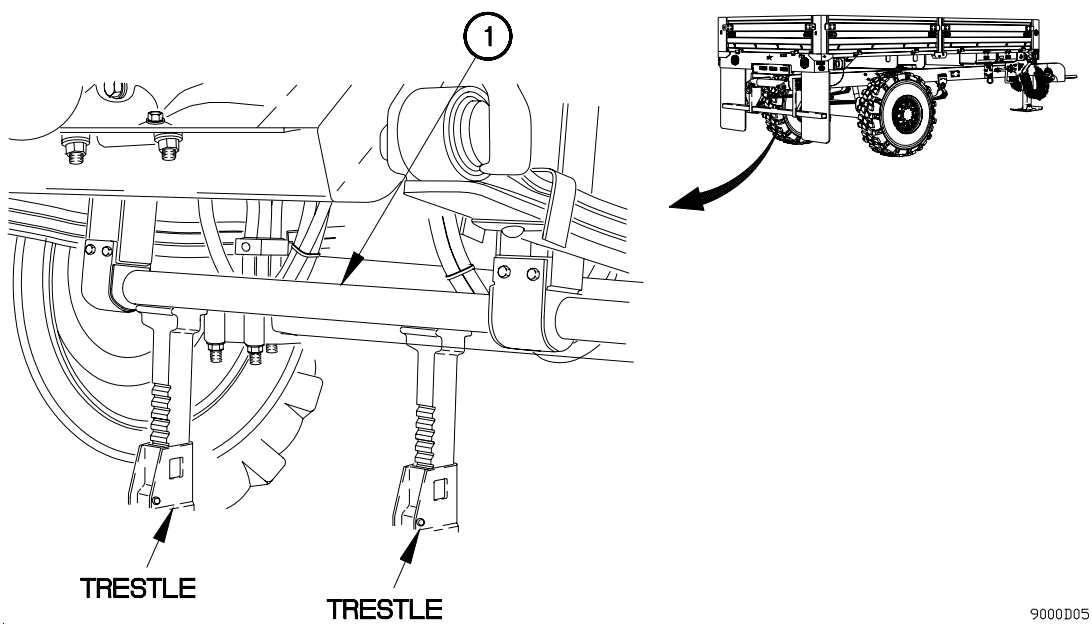


9000F04

STABILIZER BAR REPLACEMENT - Continued 0091 00

REMOVAL, LMTVT

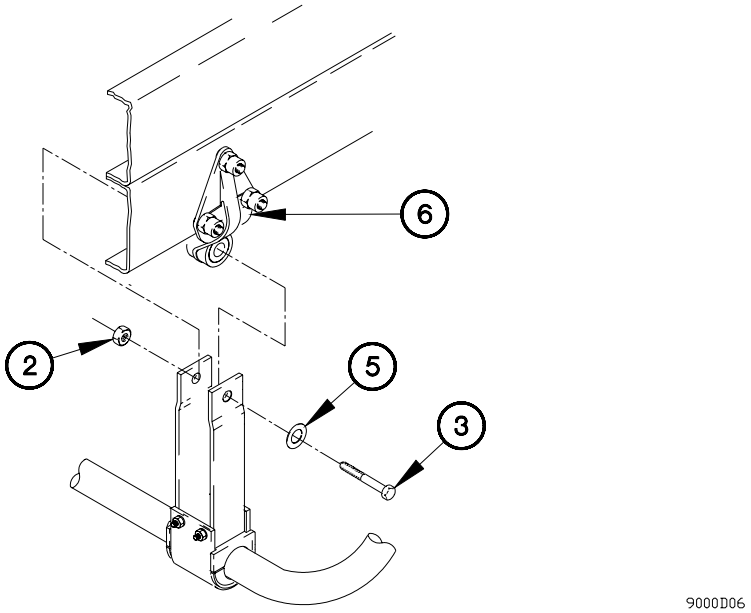
1. Position two trestles under stabilizer bar (1).



NOTE

Both stabilizer bar attachments are removed the same way. Right side shown.

2. Remove self-locking nut (2), bolt (3), and washer (5) from stabilizer mounting bracket (6). Discard self-locking nut.



STABILIZER BAR REPLACEMENT - Continued 0091 00

REMOVAL, LMTVT - Continued

3. Remove nut (12), washer (13), and bolt (14) from axle bracket (9).

4. Perform steps (2) and (3) on left side of stabilizer bar.

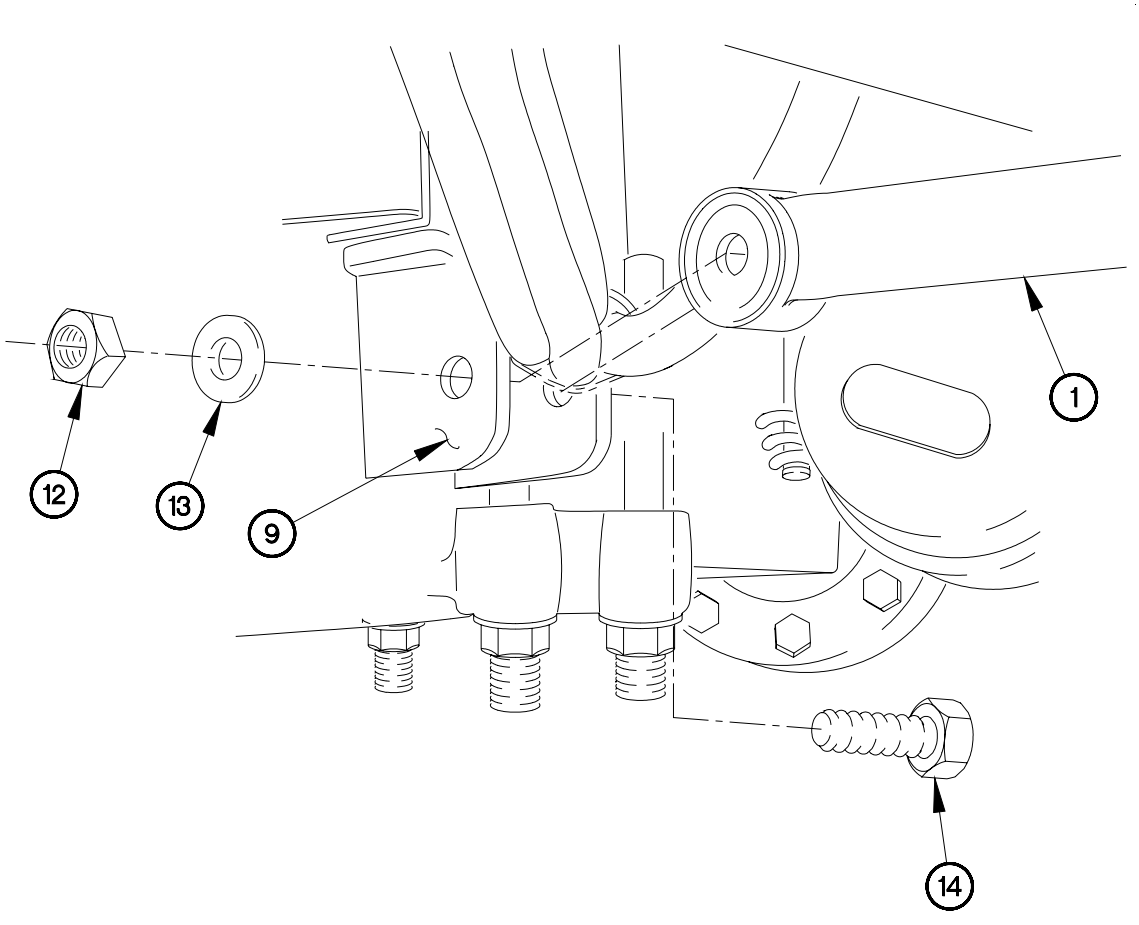
WARNING

Stabilizer bar weighs approximately 50 lbs (22 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

Step (5) requires the aid of an assistant.

5. Remove stabilizer bar (1) from trailer.



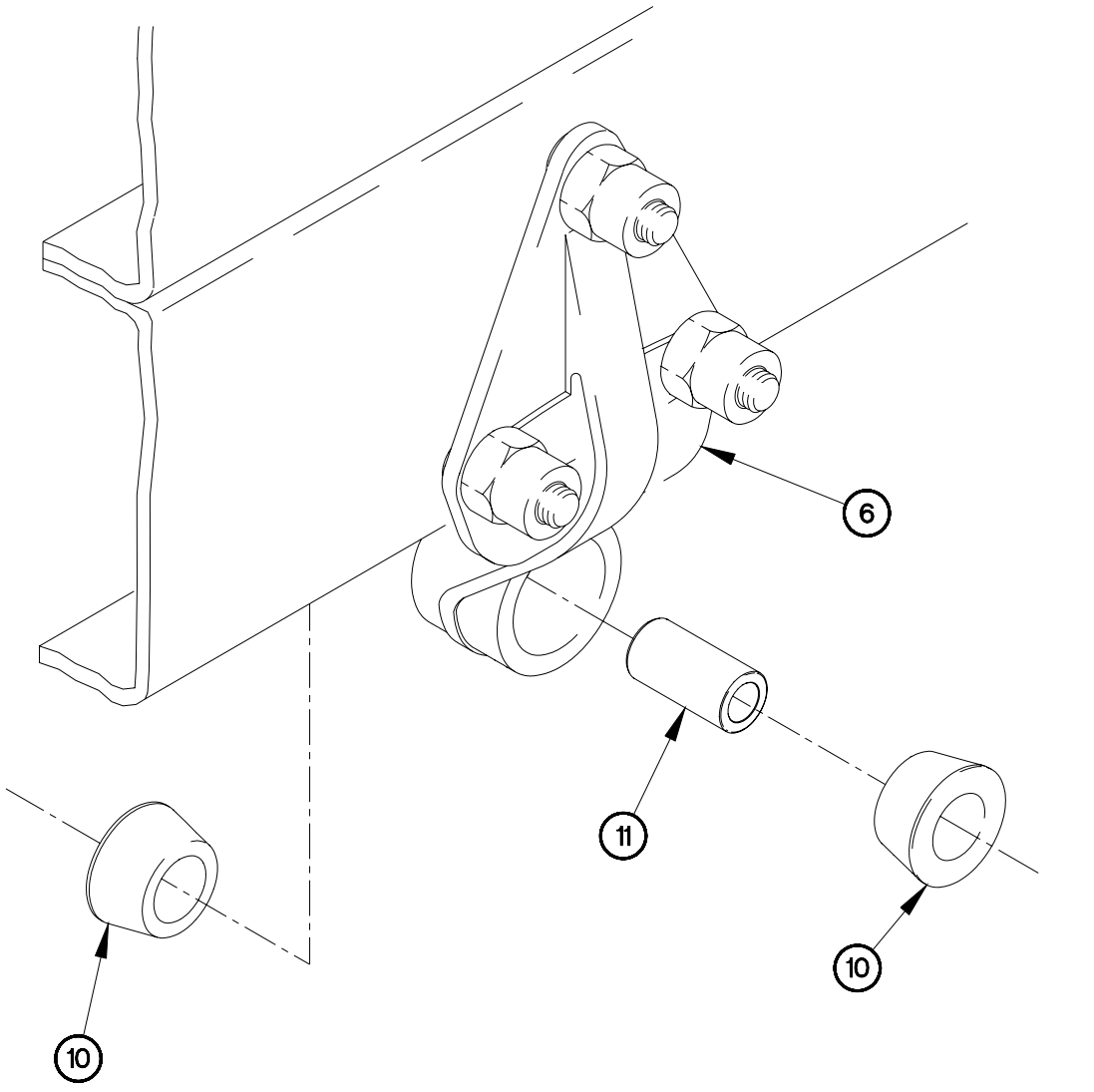
STABILIZER BAR REPLACEMENT - Continued 0091 00

REMOVAL, LMTVT - Continued

NOTE

Left and right grommets and sleeves are removed the same way. Right side shown.

6. Remove two grommets (10) and sleeve (11) from stabilizer mounting bracket (6).



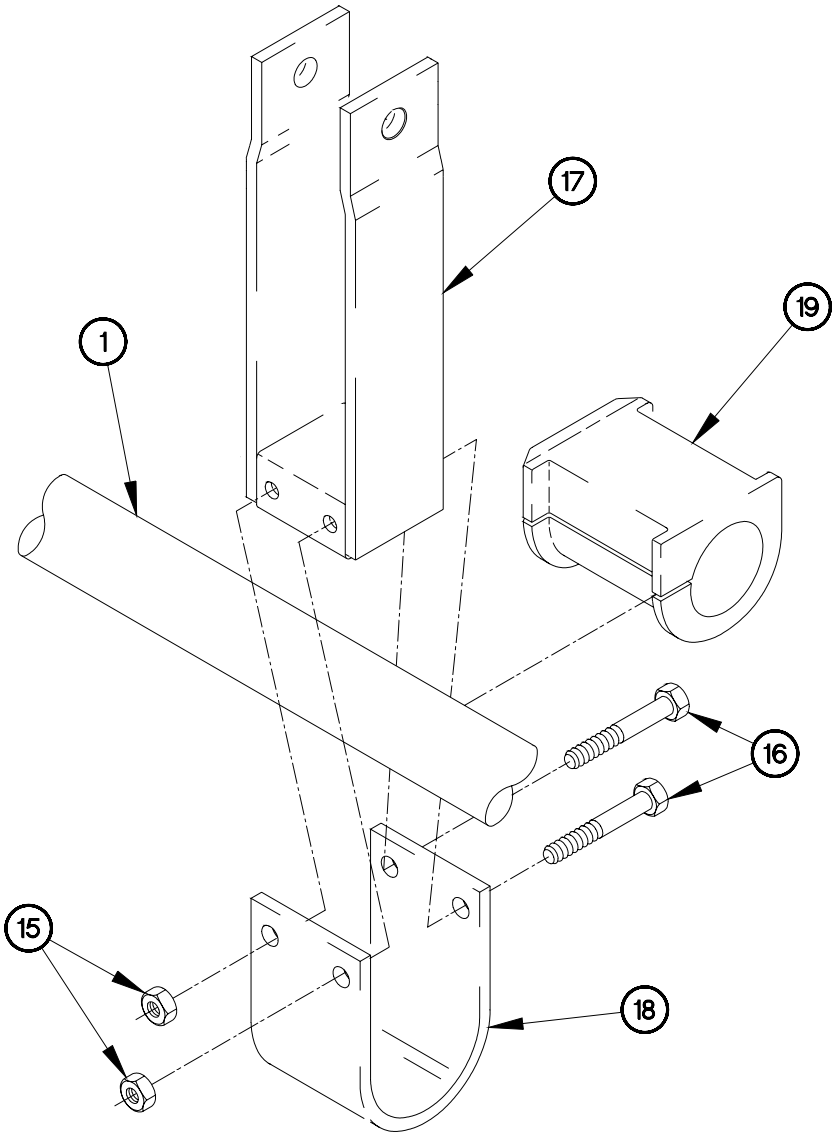
STABILIZER BAR REPLACEMENT - Continued 0091 00

DISASSEMBLY

NOTE

Left and right bracket assemblies are removed the same way. Right side shown.

1. Remove two self-locking nuts (15), bolts (16), and bracket assembly (17) from bracket (18). Discard self-locking nuts.
2. Remove bracket (18) from resilient mount (19).
3. Remove resilient mount (19) from stabilizer bar (1).
4. Perform steps (1) through (3) on left side bracket assembly.



STABILIZER BAR REPLACEMENT - Continued 0091 00

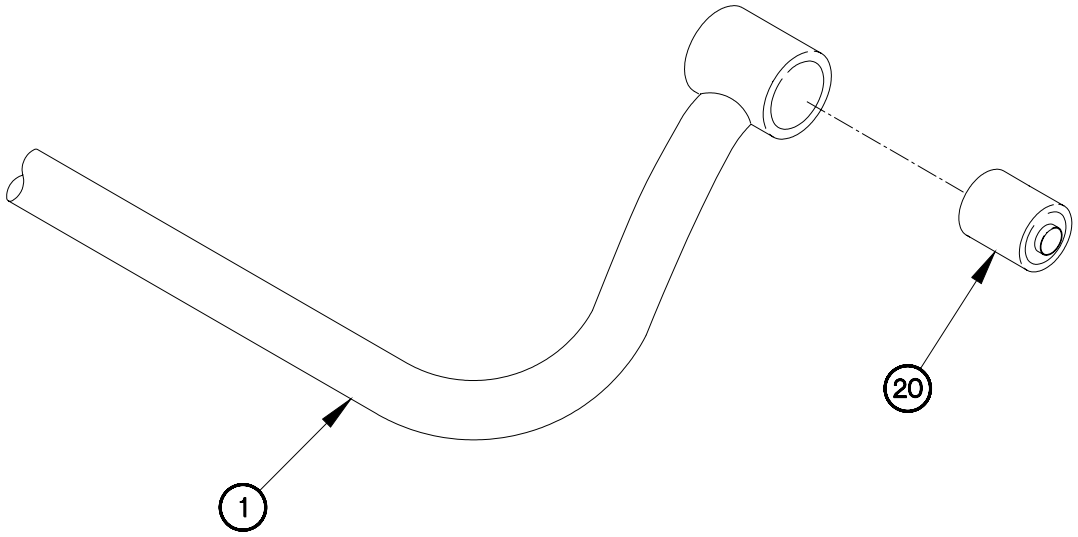
DISASSEMBLY - Continued

NOTE

Left and right bushings are removed the same way. Right side shown.

5. Remove bushing (20) from stabilizer bar (1).

6. Perform step (5) on left side of stabilizer bar.



9000F05

STABILIZER BAR REPLACEMENT - Continued 0091 00

INSPECTION

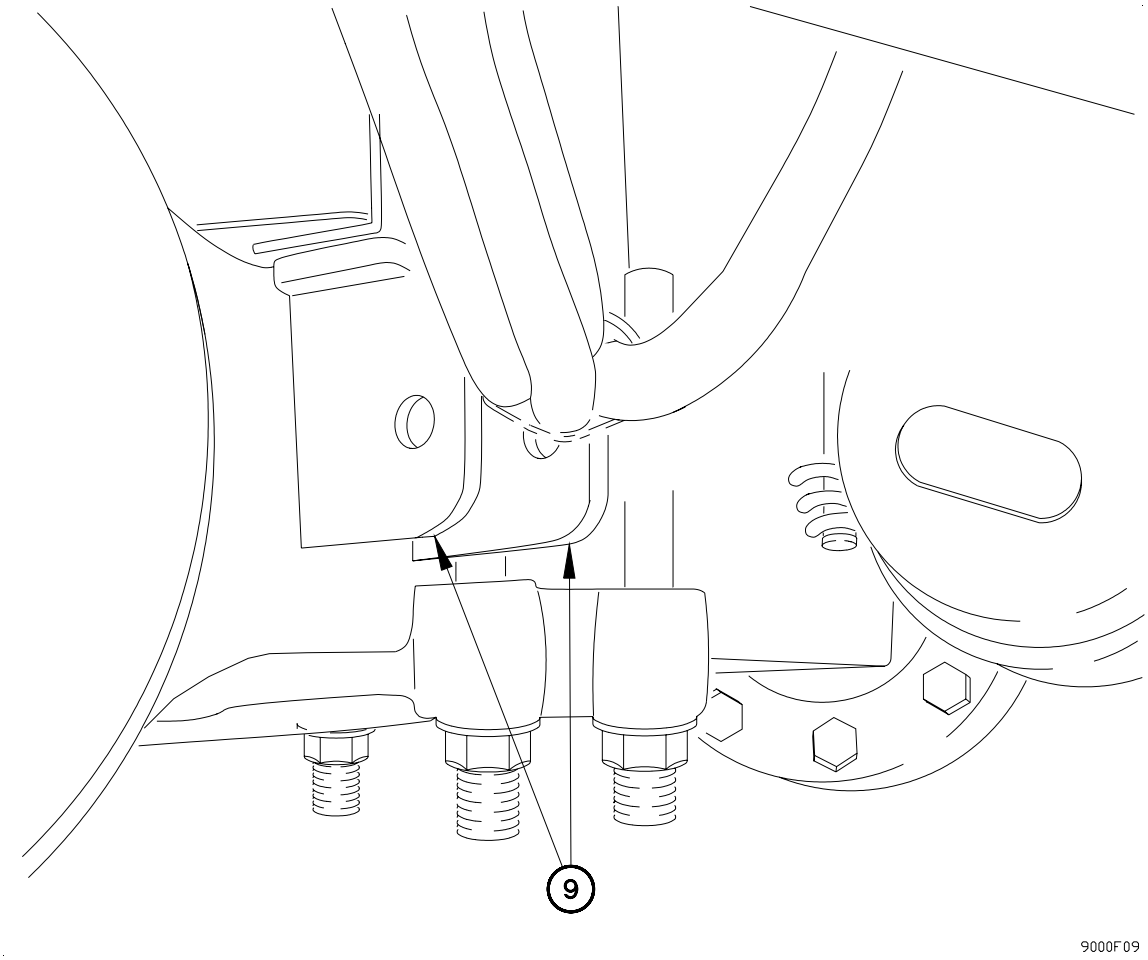
NOTE

If axle brackets fail visual inspection, notify DS Maintenance.

Replace any part that fails visual inspection.

Perform step (1) on both sides of trailer.

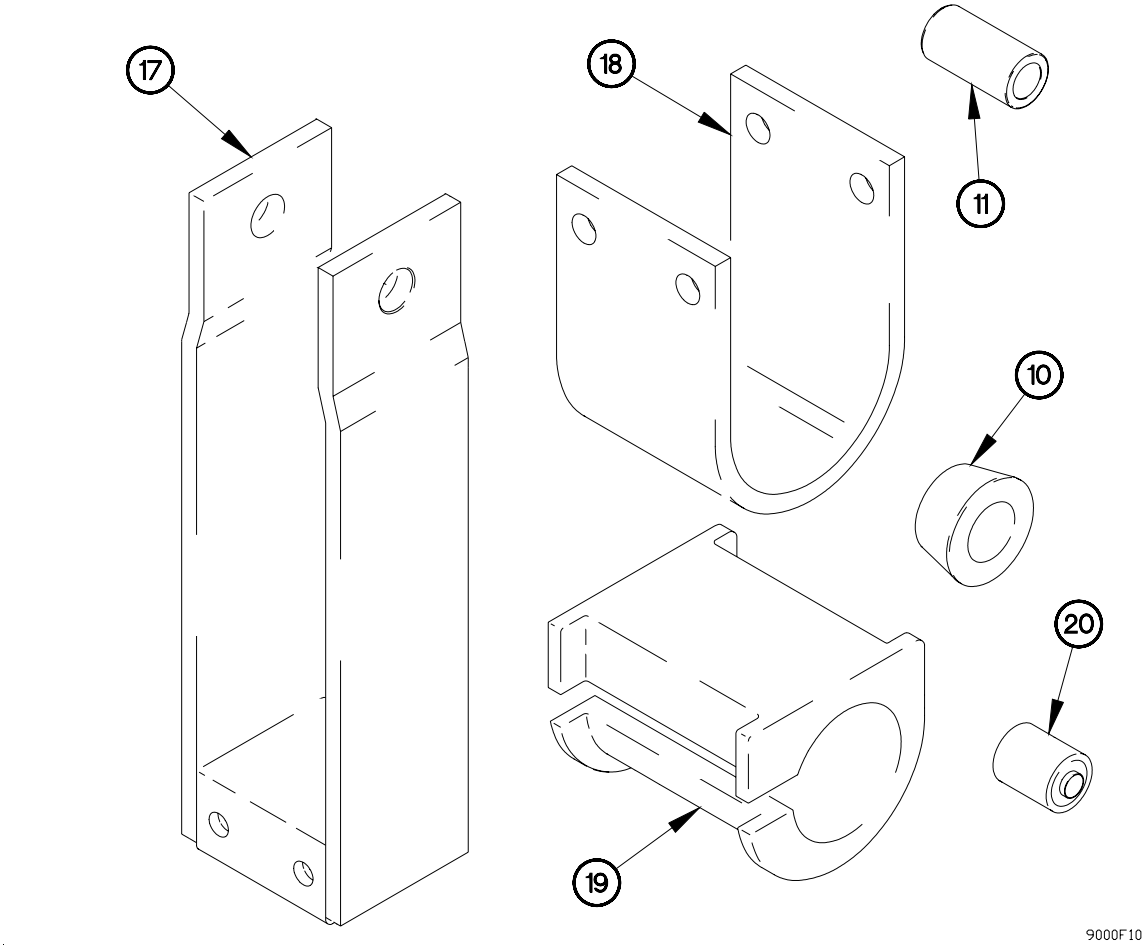
1. Inspect axle brackets (9) and welds around axle brackets for cracks and corrosion.



STABILIZER BAR REPLACEMENT - Continued 0091 00

INSPECTION - Continued

2. Inspect two resilient mounts (19) for cracks, breaks, or deterioration.
3. Inspect two sleeves (11) for cracks, breaks, or deterioration.
4. Inspect four grommets (10) for cracks, breaks, or deterioration.
5. Inspect two brackets (18) for cracks, breaks, or deterioration.
6. Inspect two bracket assemblies (17) for cracks, breaks, or deterioration.
7. Inspect two bushings (20) for cracks, breaks, or deterioration.



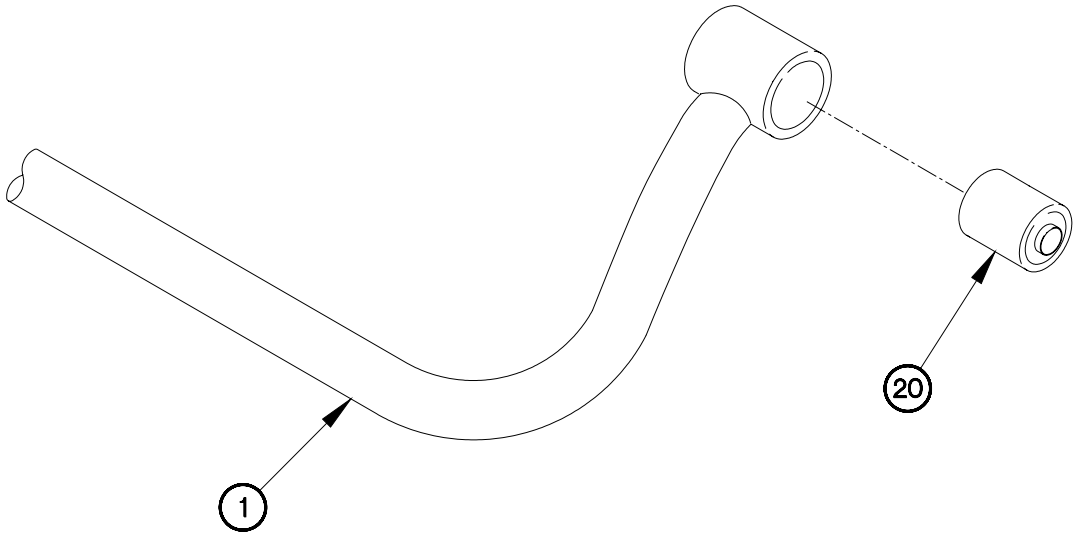
STABILIZER BAR REPLACEMENT - Continued 0091 00

ASSEMBLY

NOTE

Left and right bushings are installed the same way. Right side shown.

1. Install bushing (20) on stabilizer bar (1).
2. Perform step (1) on left side of stabilizer bar.



9000F05

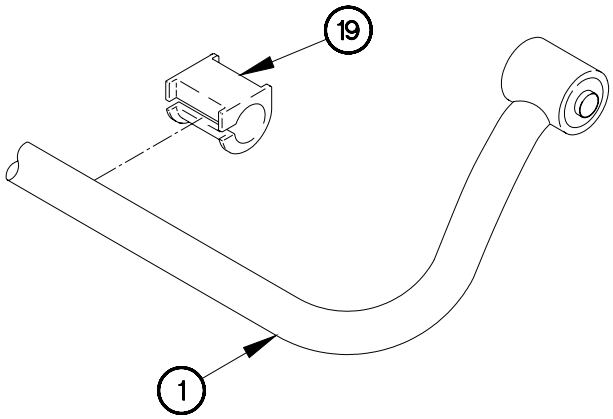
STABILIZER BAR REPLACEMENT - Continued 0091 00

ASSEMBLY - Continued

NOTE

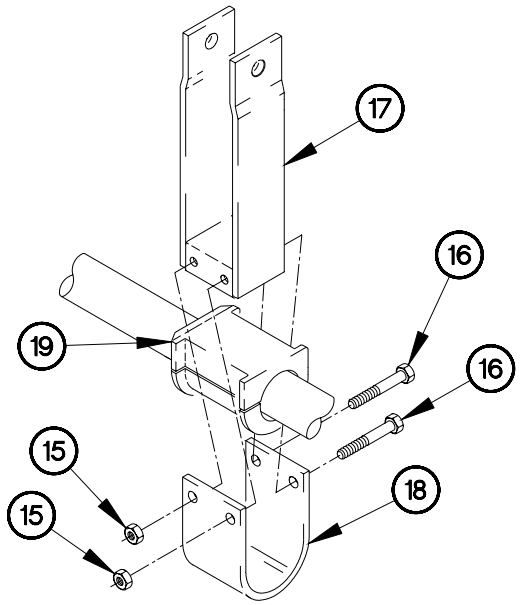
Left and right bracket assemblies are installed the same way. Right side shown.

3. Install resilient mount (19) on stabilizer bar (1).



9000F11

4. Install bracket (18) on resilient mount (19).
5. Position bracket assembly (17) on bracket (18) with two bolts (16) and self-locking nuts (15).
6. Perform steps (3 through 5) on left side of stabilizer bar.



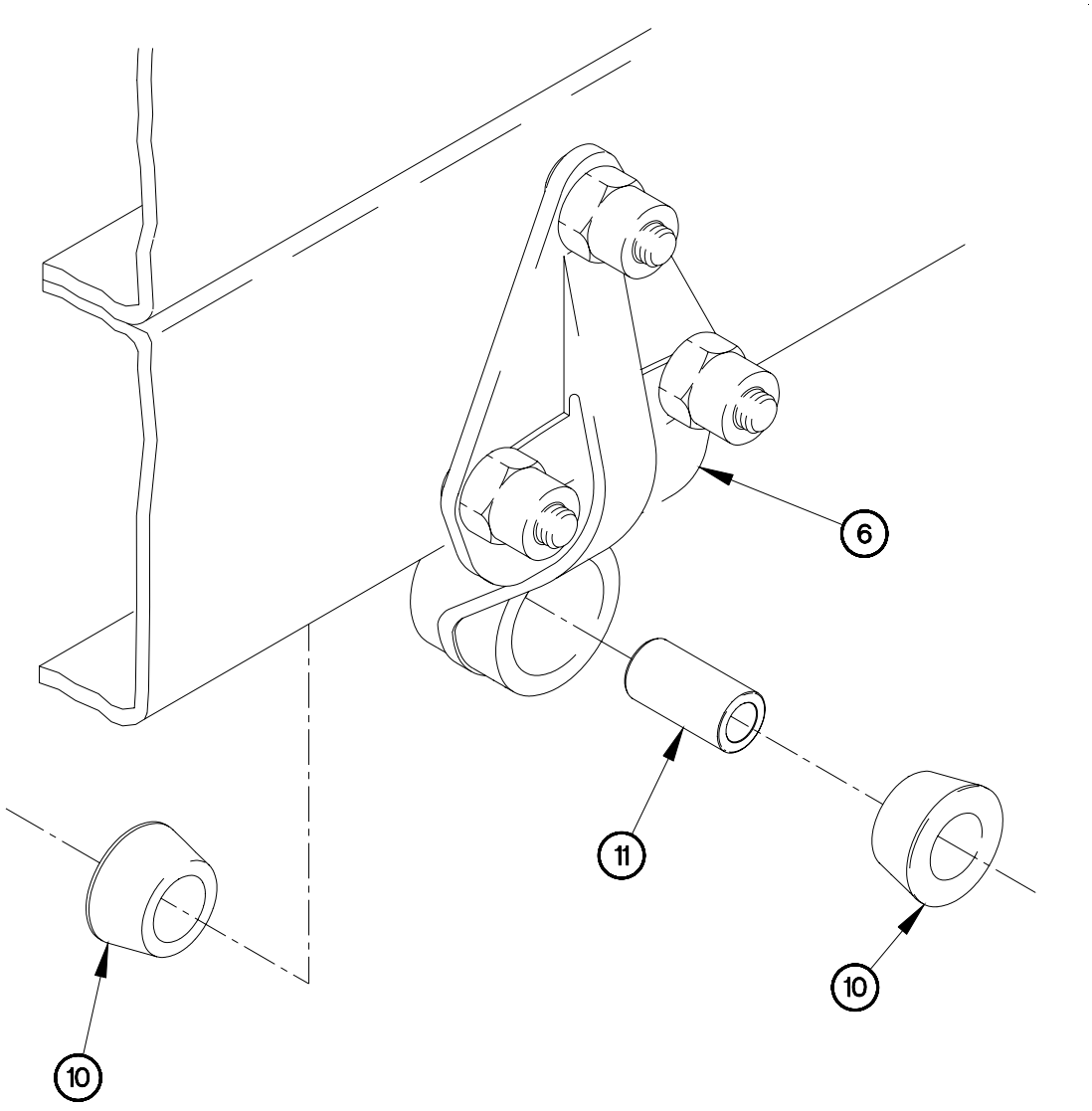
9000F12

INSTALLATION, MTVT

NOTE

Left and right grommets and sleeves are installed the same way. Right side shown.

1. Install two grommets (10) and sleeve (11) in stabilizer mounting bracket (6).



INSTALLATION, MTVT - Continued

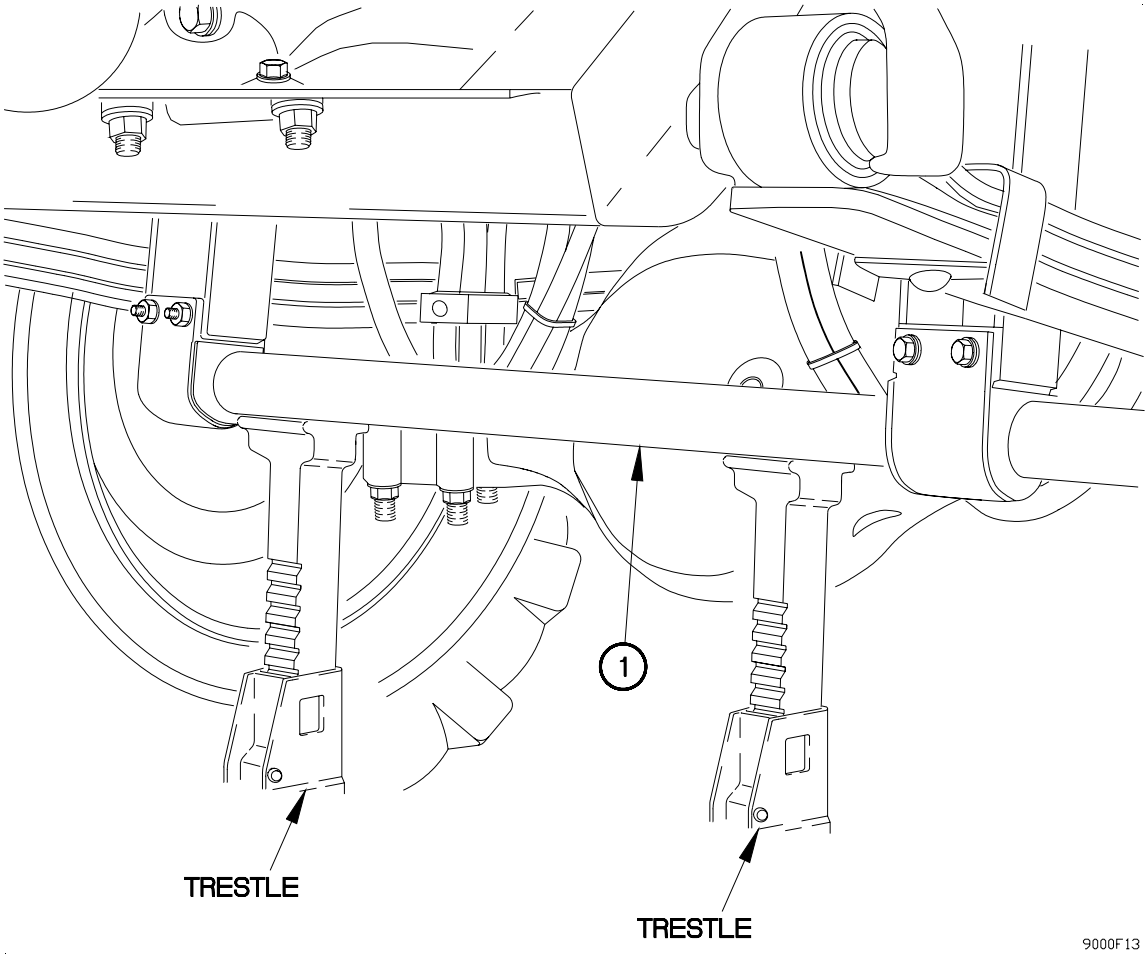
WARNING

Stabilizer bar weighs approximately 50 lbs (22 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

Step (2) requires the aid of an assistant.

2. Position stabilizer bar (1) under trailer and support with two trestles.



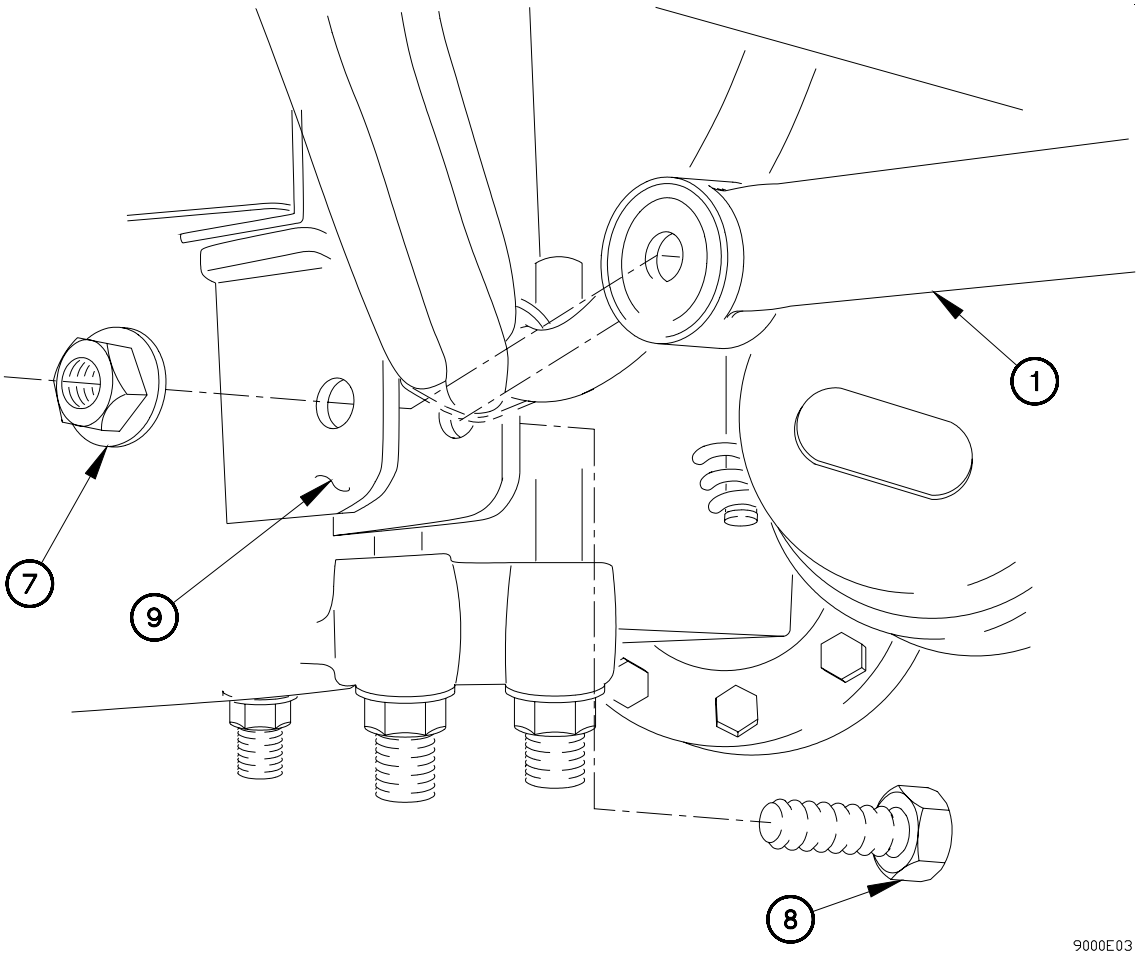
STABILIZER BAR REPLACEMENT - Continued 0091 00

INSTALLATION, MTVT - Continued

NOTE

Both stabilizer bar attachments are installed the same way. Right side shown.

3. Position stabilizer bar (1) in axle bracket (9) with bolt (8) and self-locking nut (7).



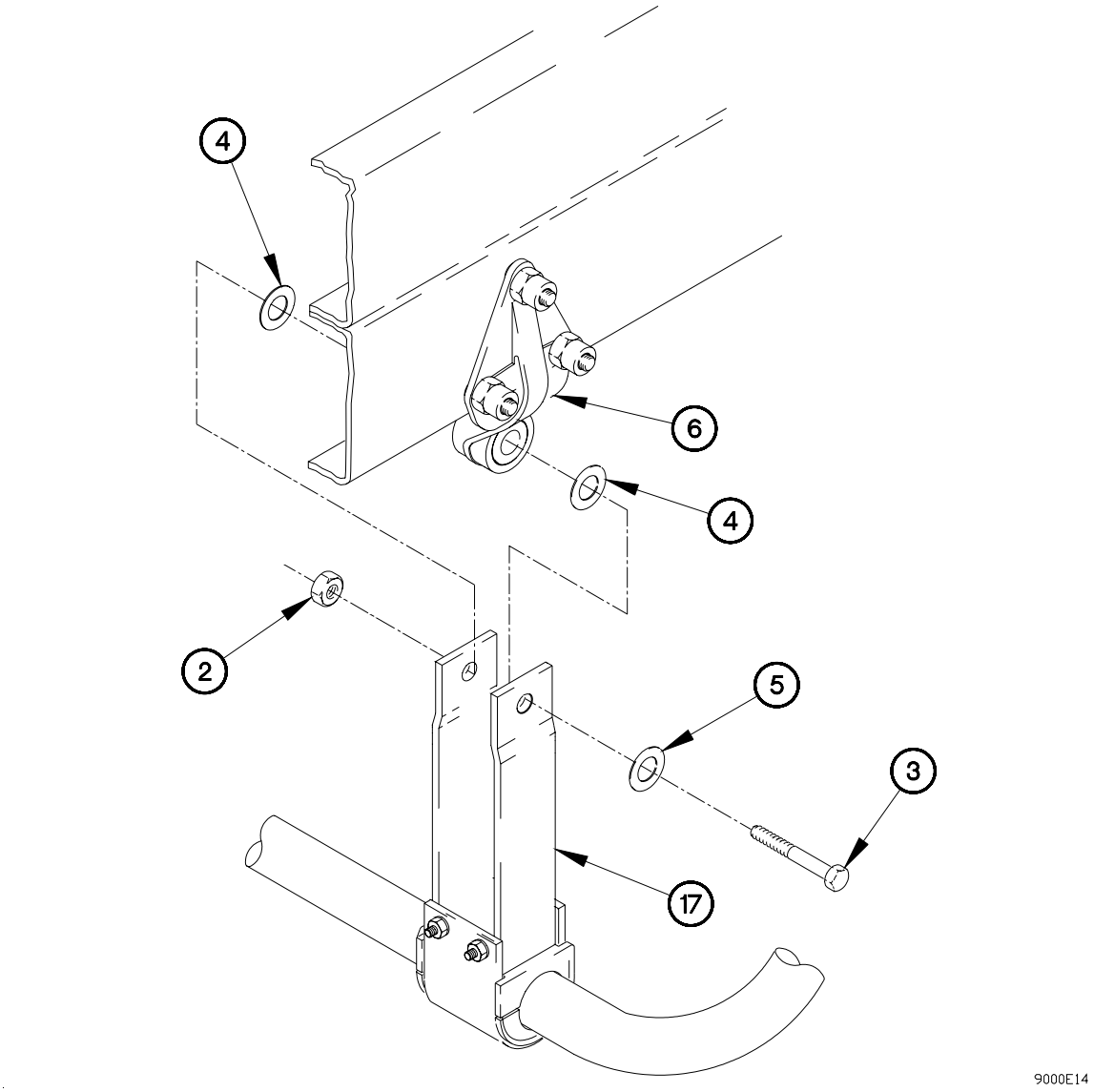
STABILIZER BAR REPLACEMENT - Continued 0091 00

INSTALLATION, MTVT - Continued

NOTE

Bracket assembly may require adjustment to align with stabilizer mounting bracket.

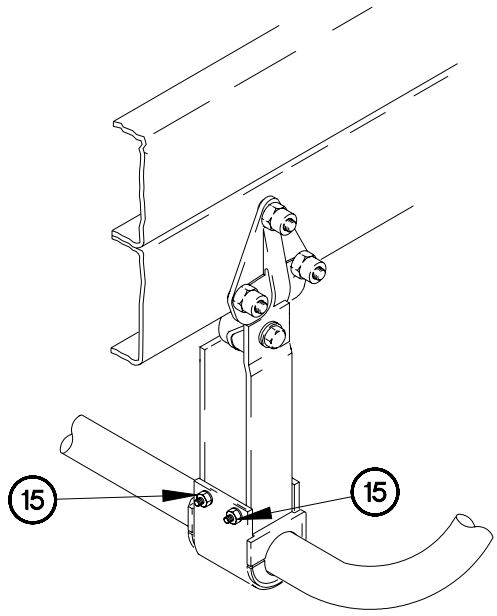
4. Position bracket assembly (17) on stabilizer mounting bracket (6) with two washers (4), washer (5), bolt (3), and self-locking nut (2).



STABILIZER BAR REPLACEMENT - Continued 0091 00

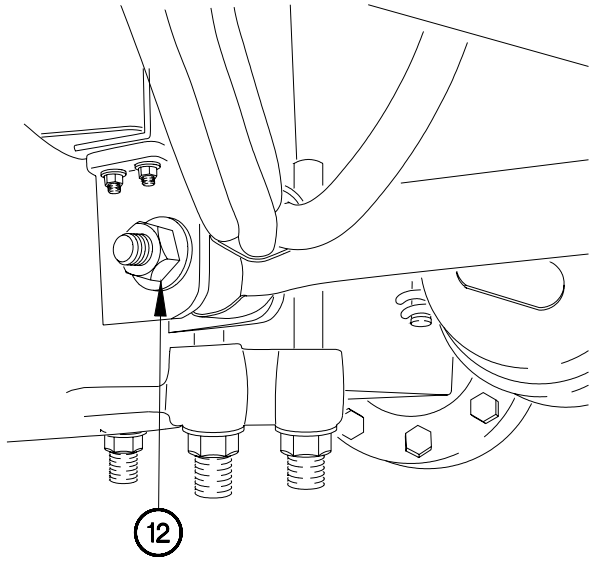
INSTALLATION, MTVT - Continued

5. Tighten two self-locking nuts (15) to 62-76 lb-ft (84-103 N•m).



9000F15

6. Tighten self-locking nut (7) to 300-366 lb-ft (406-496 N•m).

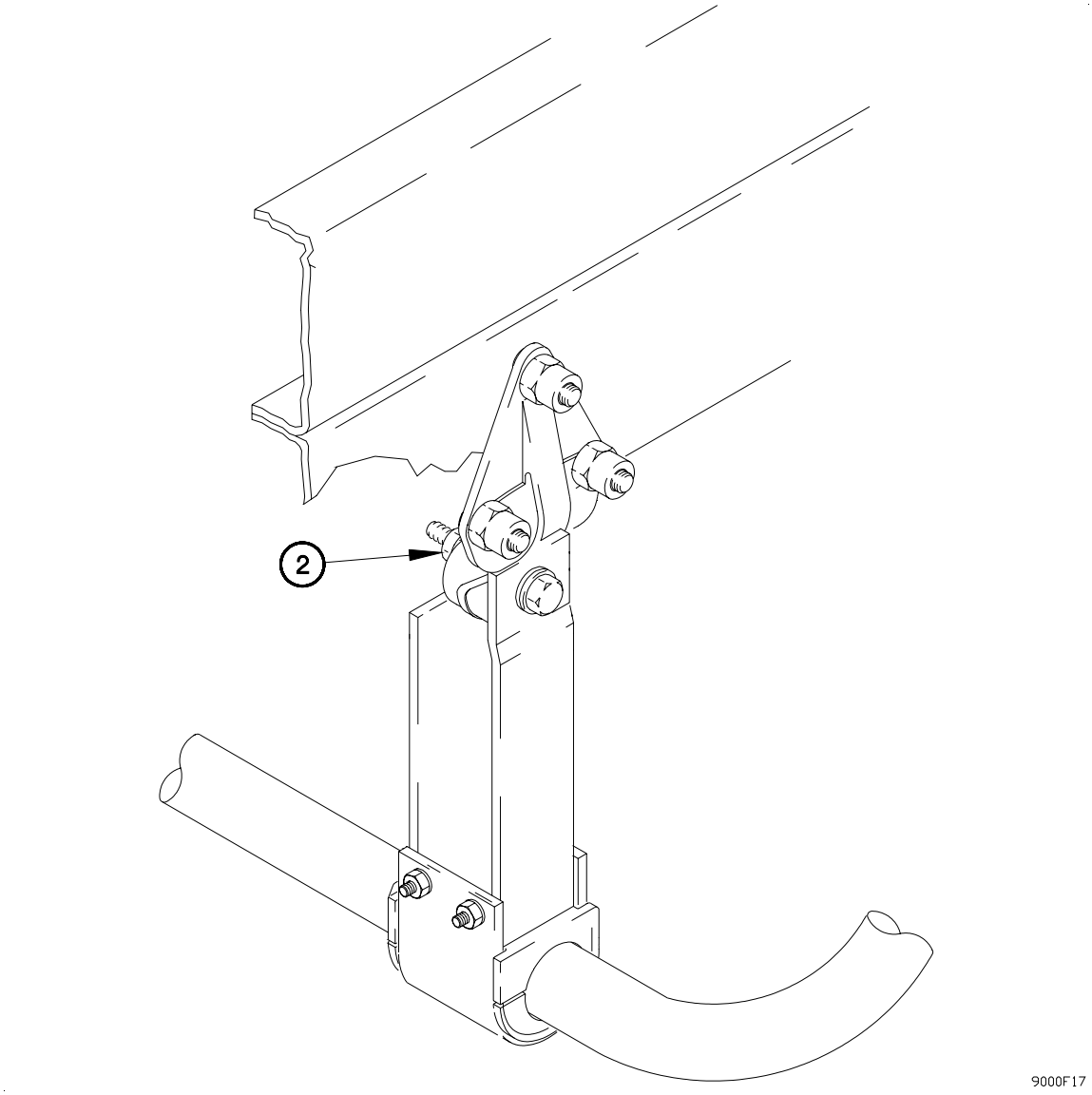


9000F16

STABILIZER BAR REPLACEMENT - Continued 0091 00

INSTALLATION, MTVT - Continued

7. Tighten self-locking nut (2) to 300-366 lb-ft (406-496 N•m).
8. Perform steps (3) through (7) on left side of stabilizer bar.
9. Remove two trestles from under trailer.



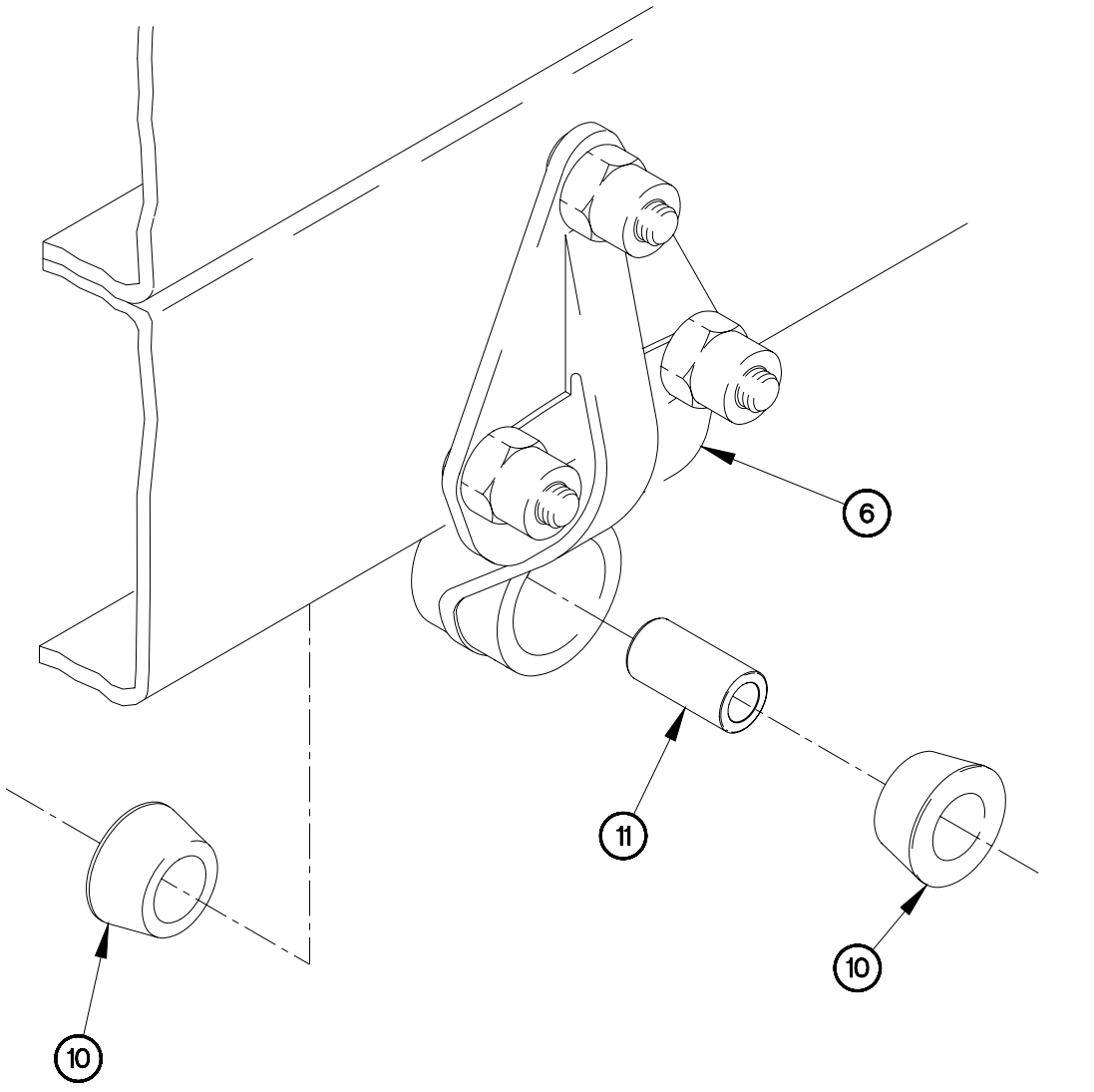
STABILIZER BAR REPLACEMENT - Continued 0091 00

INSTALLATION, LMTVT

NOTE

Left and right grommets and sleeves are installed the same way. Right side shown.

1. Install two grommets (10) and sleeve (11) in stabilizer mounting bracket (6).



INSTALLATION, LMTVT - Continued

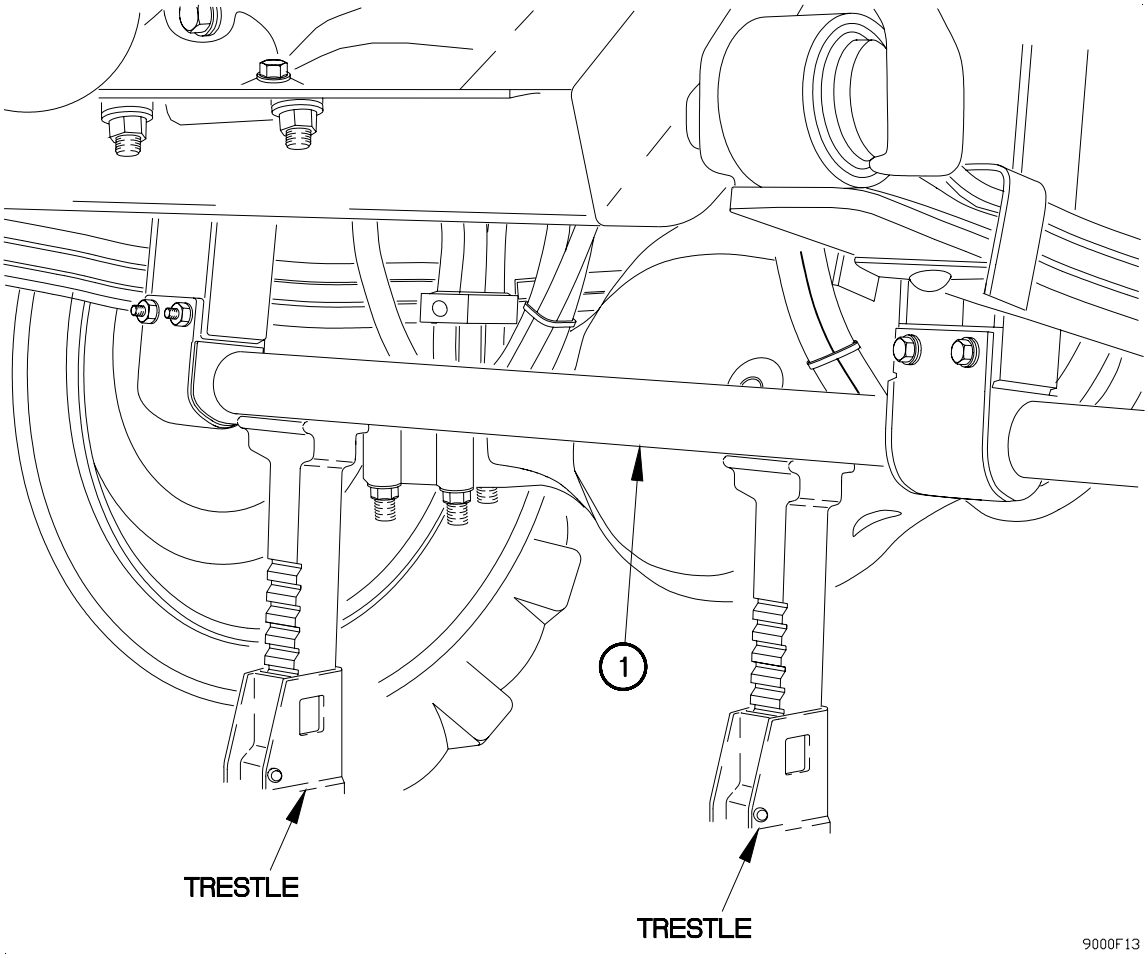
WARNING

Stabilizer bar weighs approximately 50 lbs (22 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

Step (2) requires the aid of an assistant.

2. Position stabilizer bar (1) under trailer and support with two trestles.



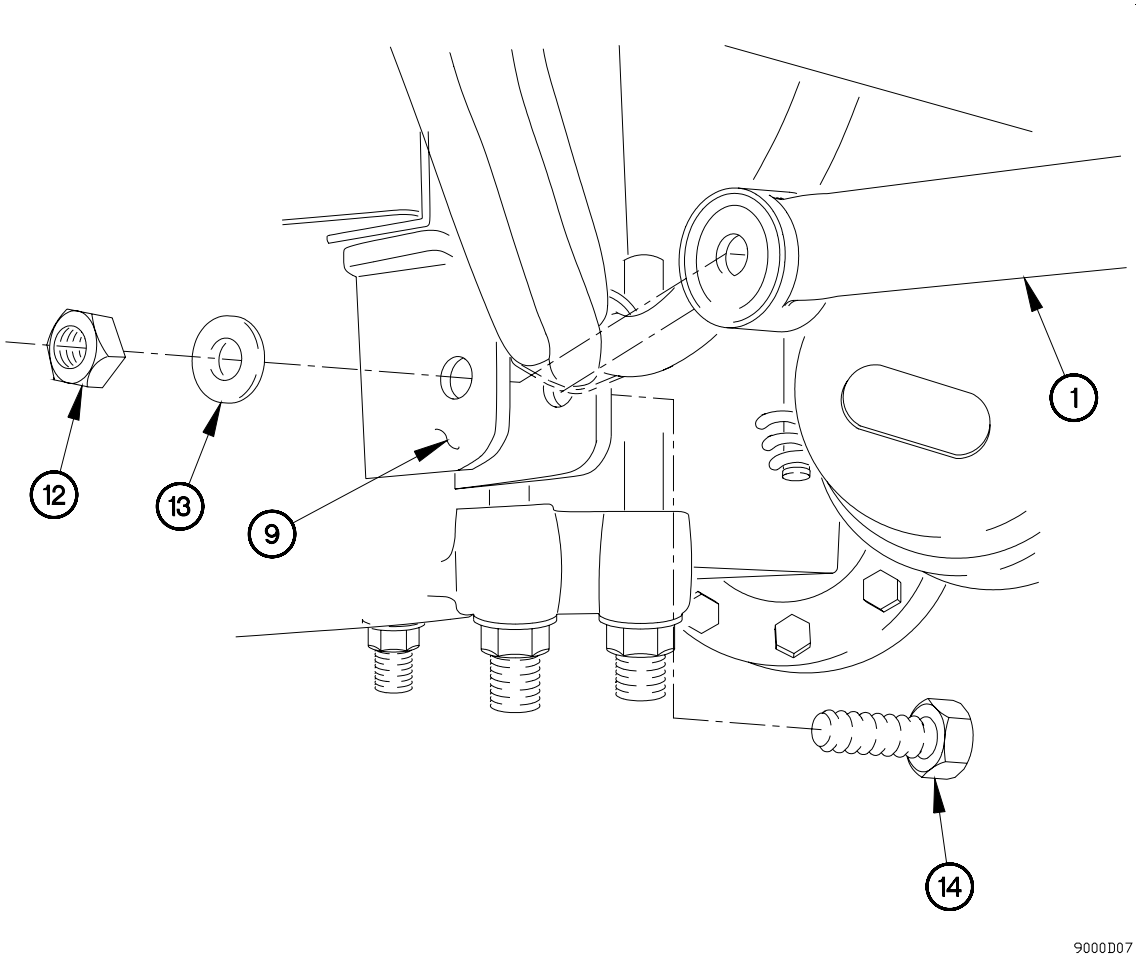
STABILIZER BAR REPLACEMENT - Continued 0091 00

INSTALLATION, LMTVT - Continued

NOTE

Both stabilizer bar attachments are installed the same way. Right side shown.

3. Position stabilizer bar (1) in axle bracket (9) with washer (13), bolt (14) and self-locking nut (12).

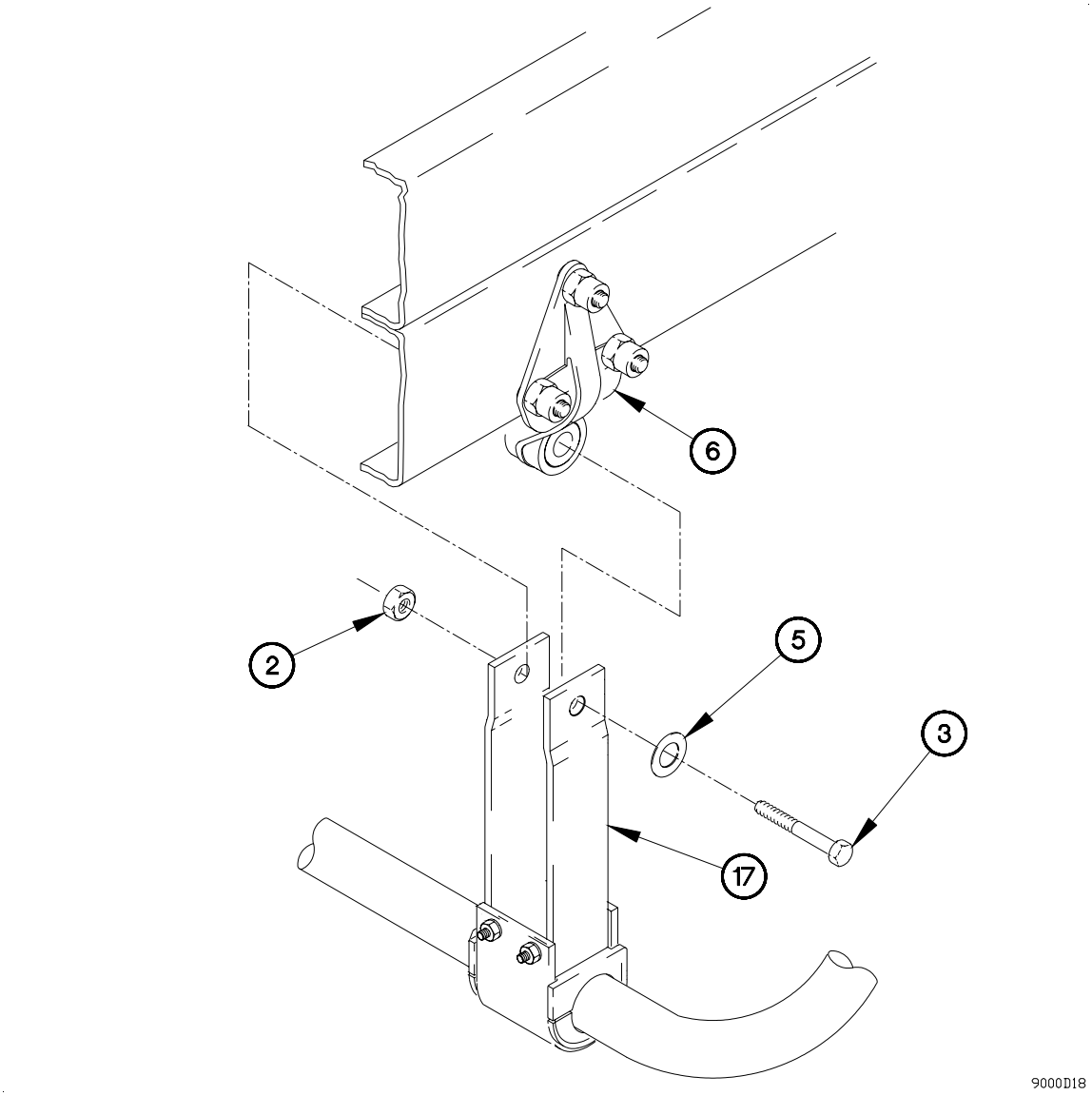


INSTALLATION, LMTVT - Continued

NOTE

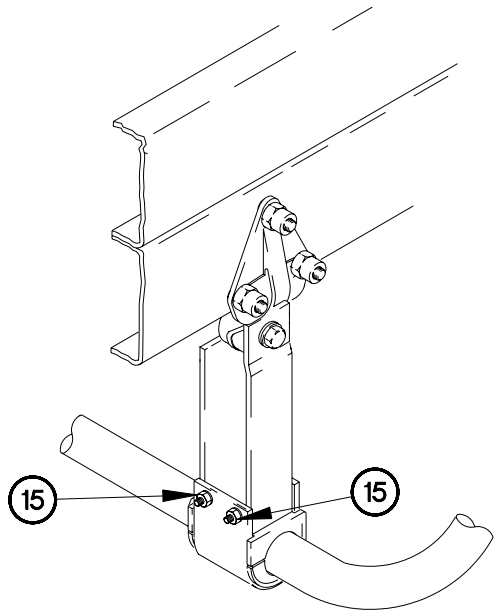
Bracket assembly may require adjustment to align with stabilizer mounting bracket.

4. Position bracket assembly (17) on stabilizer mounting bracket (6) with washer (5), bolt (3), and self-locking nut (2).



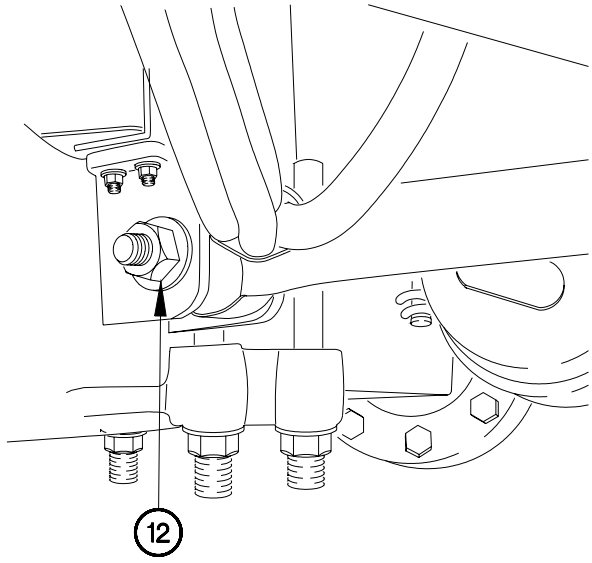
INSTALLATION, LMTVT - Continued

5. Tighten two self-locking nuts (15) to 62-76 lb-ft (84-103 N•m).



9000F15

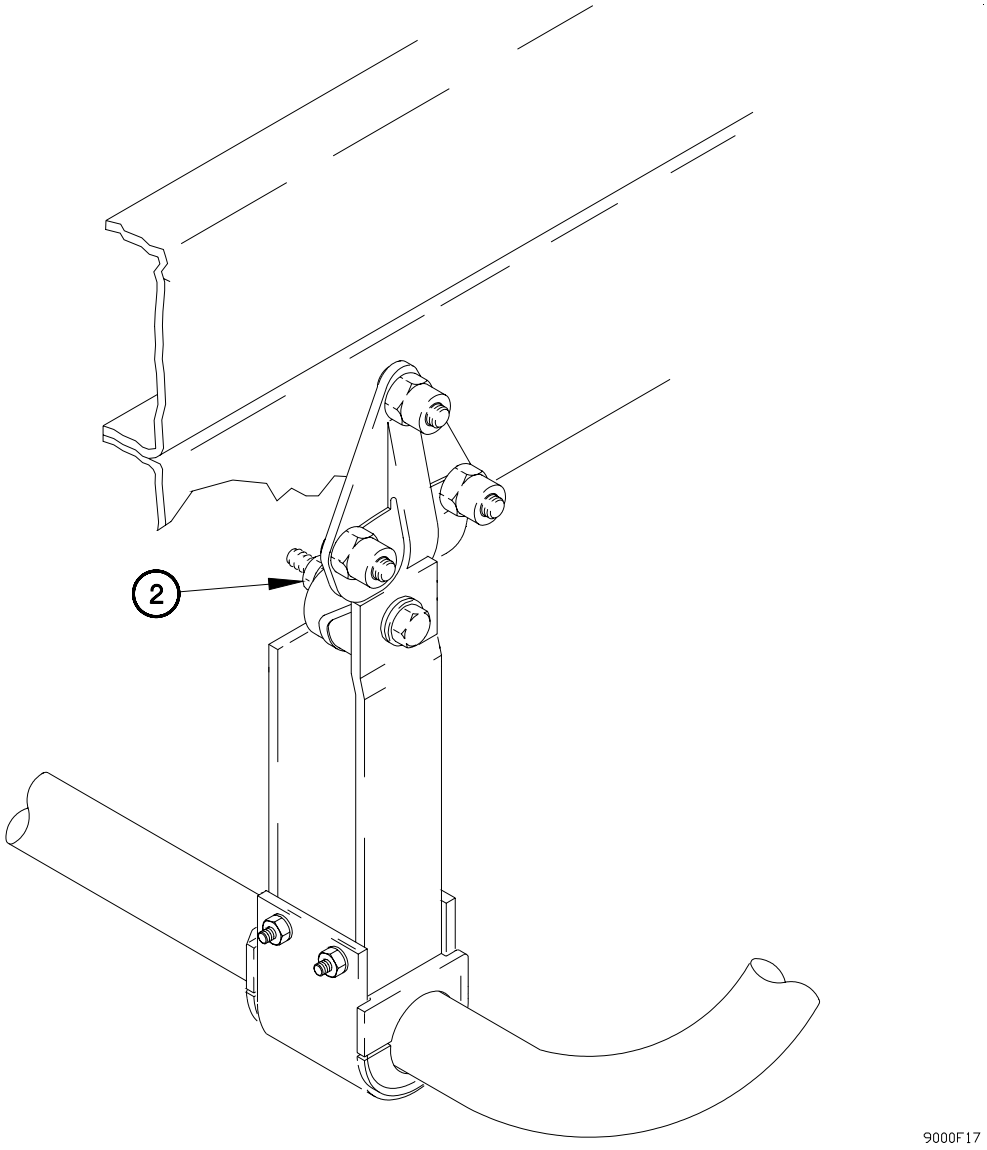
6. Tighten self-locking nut (12) to 300-366 lb-ft (406-496 N•m).



9000F16

INSTALLATION, LMTVT - Continued

7. Tighten self-locking nut (2) to 300-366 lb-ft (406-496 N•m).
8. Perform steps (3) through (7) on left side of stabilizer bar.
9. Remove two trestles from under trailer.



OPERATIONAL CHECK

Operate trailer and check for normal operation (WP 0011 00, Towing Trailer).

END OF WORK PACKAGE

STABILIZER MOUNTING BRACKET REPLACEMENT 0092 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque,0-600 lb-ft (Item 52, WP 0178 00
Goggles, Industrial (Item 8, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Wrench, Impact, Electric (Item 42, WP 0178 00)

Tools and Special Tools (Cont)
Socket Set, Impact (Item 28, WP 0178 00)

Materials/Parts
Bolt (3) (Item 26, WP 0181 00)
Nut, Self-Locking (3) (Item 35, WP 0181 00)

Personnel Required
Two

Equipment Conditions
Stabilizer bar removed (WP 0091 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

REMOVAL

STABILIZER MOUNTING BRACKET REPLACEMENT - Continued 0092 00

REMOVAL - Continued

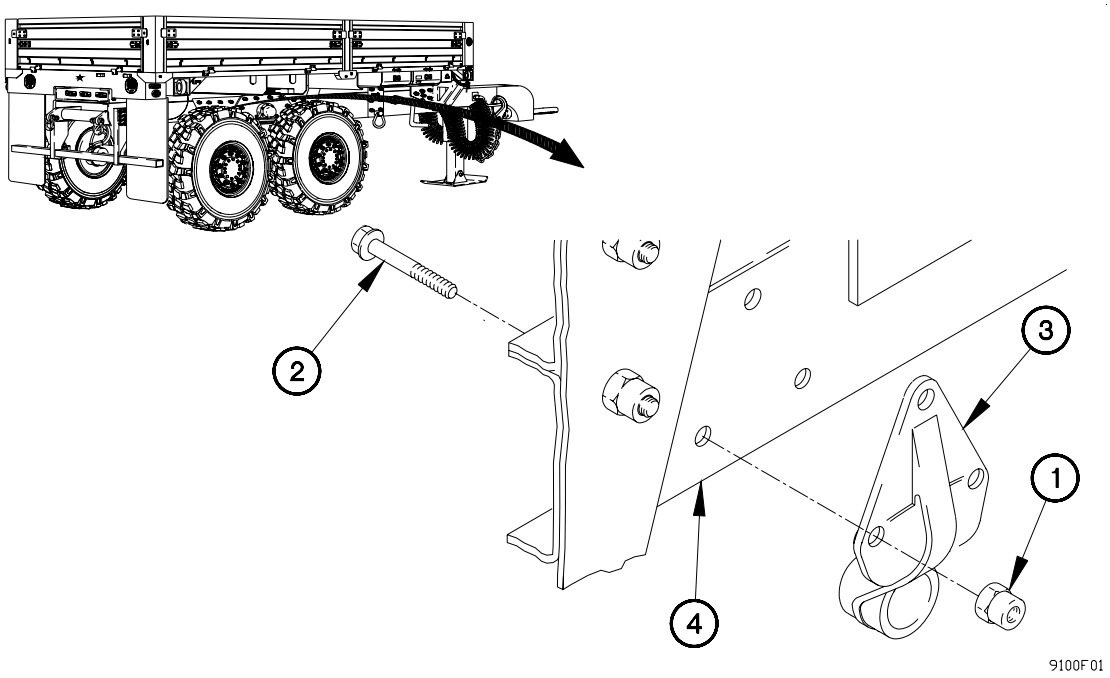
CAUTION

When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

NOTE

Left and right side stabilizer mounting brackets are removed the same way. Right side shown.

Remove three collars (1), bolts (2), and mounting bracket (3) from frame rail (4). Discard collars and bolts.



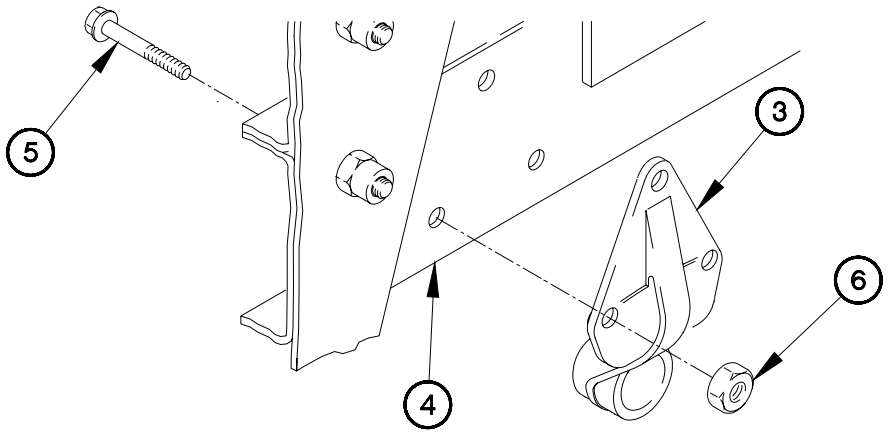
STABILIZER MOUNTING BRACKET REPLACEMENT - Continued 0092 00

INSTALLATION

NOTE

Left and right side stabilizer mounting brackets are installed the same way. Right side shown.

1. Position mounting bracket (3) on frame rail (4) with three bolts (5) and self-locking nuts (6).
2. Tighten three self-locking nuts (6) to 285-305 lb-ft (386-414 N•m).



9100F02

OPERATIONAL CHECK

Install stabilizer bar (WP 0091 00, Installation).

END OF WORK PACKAGE

AIR TANK DRAIN VALVE REPLACEMENT 0093 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)

Materials/Parts
Antiseize Compound (Item 3, WP 0176 00)

References
WP 0009 00
WP 0012 00

Equipment Conditions
Trailer uncoupled (WP 0012 00).

REMOVAL

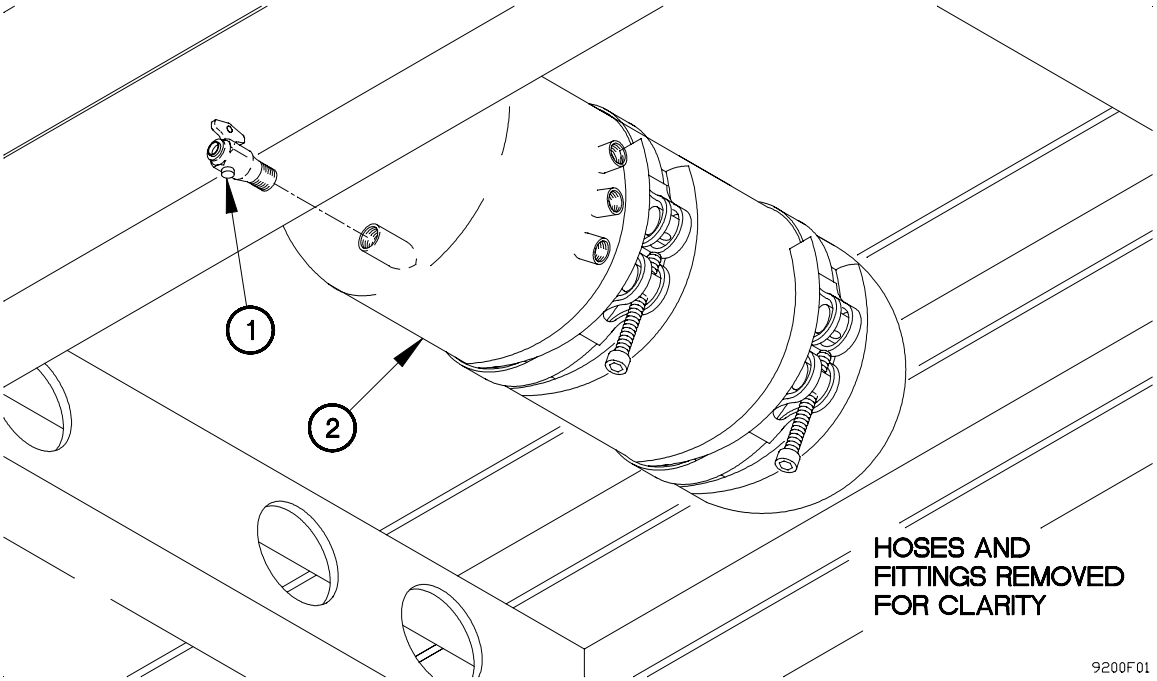
WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

AIR TANK DRAIN VALVE REPLACEMENT - Continued 0093 00

REMOVAL - Continued

Remove drain valve (1) from air tank (2).



AIR TANK DRAIN VALVE REPLACEMENT - Continued 0093 00

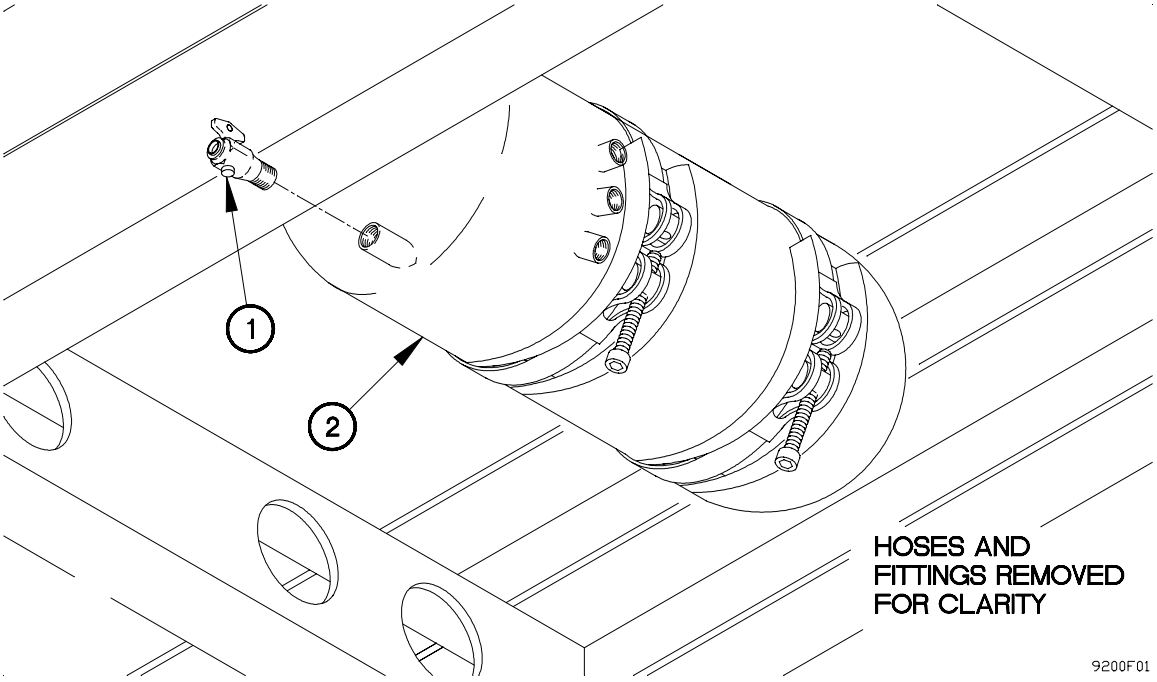
INSTALLATION

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

1. Apply antiseize compound to threads of drain valve (1).

2. Install drain valve (1) in air tank (2).



OPERATIONAL CHECK

1. Couple trailer (WP 0009 00, Coupling Trailer). Allow towing vehicle time for air pressure to reach normal operating pressure.
2. Uncouple trailer (WP 0012 00, Uncoupling Trailer). Do not drain air tank as part of trailer uncoupling task.
3. Check around drain valve for air leaks.
4. Couple trailer (WP 0009 00, Coupling Trailer).
5. Road test trailer and check for proper brake operation.
6. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL ASSEMBLY BRACKET REPLACEMENT

0094 00

THIS WORK PACKAGE COVERS:

Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level

Field

Tools and Special Tools

Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-175 lb-ft (Item 49, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench, Torque, 0-300 lb-in (Item 51, WP 0178 00)

Materials/Parts

Nut, Self-Locking (3) (Item 32, WP 0181 00)

References

WP 0009 00
Towing vehicle Operator manual

Equipment Conditions

Trailer uncoupled (WP 0012 00).

WARNING

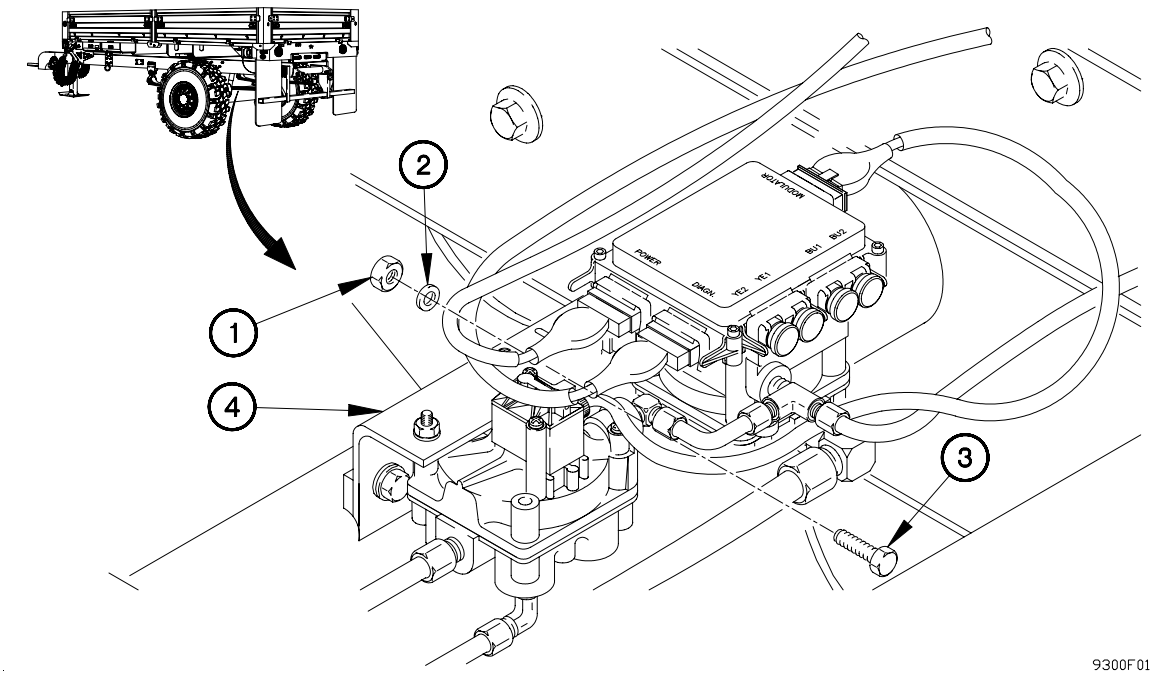
Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

NOTE

ABS Control Assembly bracket removal is the same for both LMTVT and MTVT. LMTVT shown.

REMOVAL

1. Remove two nuts (1), washers (2), and bolts (3) from ABS control assembly bracket (4).

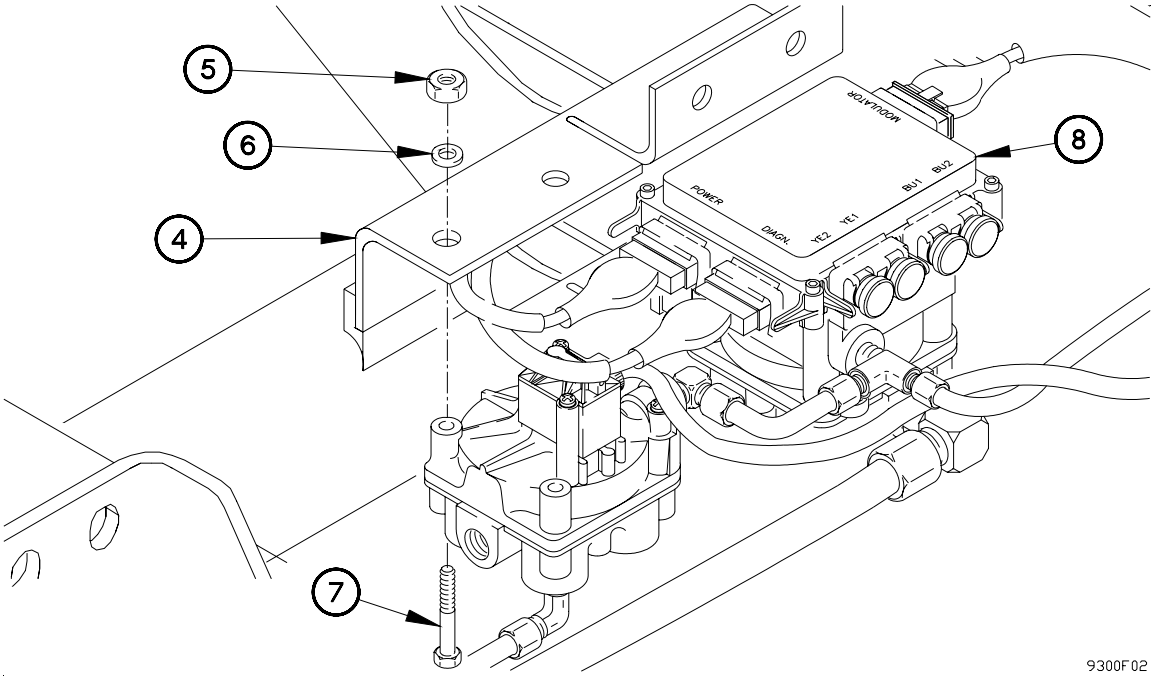


ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL ASSEMBLY BRACKET REPLACEMENT - Continued

0094 00

REMOVAL - Continued

2. Remove two nuts (5), washers (6), and bolts (7) from ABS control assembly bracket (4).
3. Remove ABS control assembly (8) from ABS control assembly bracket (4).



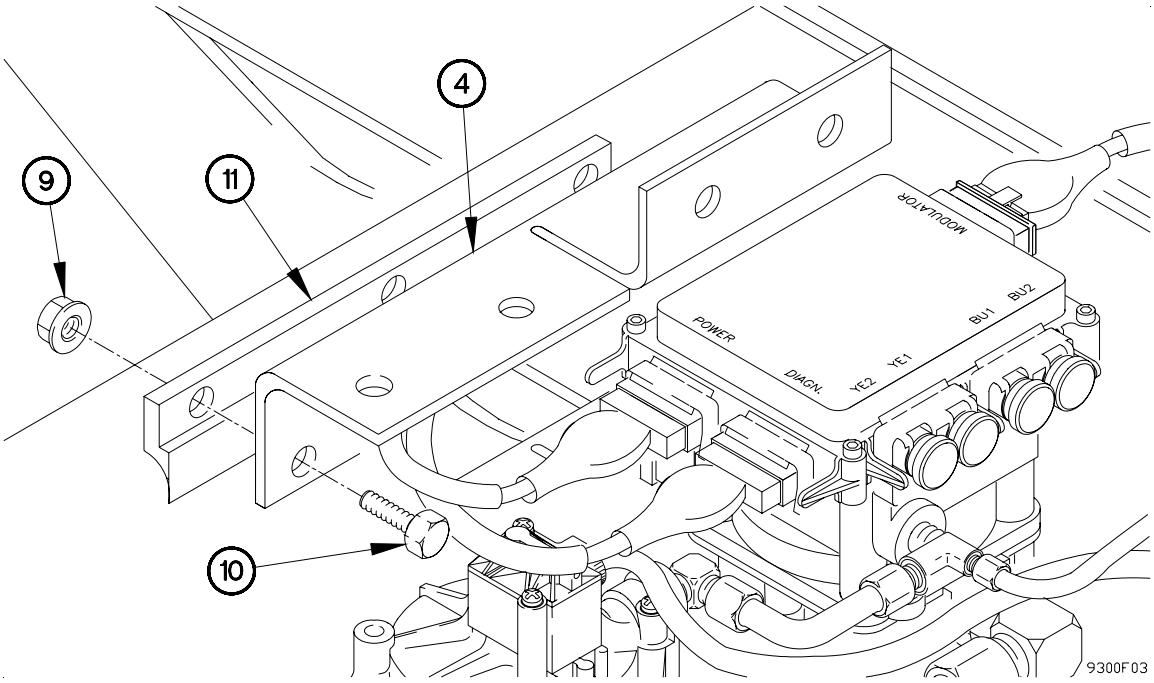
ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL ASSEMBLY BRACKET REPLACEMENT - Continued

0094 00

REMOVAL - Continued

4. Remove three self-locking nuts (9) and bolts (10) from ABS control assembly bracket (4). Discard self-locking nuts.

5. Remove ABS control assembly bracket (4) from crossmember (11).



ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL ASSEMBLY BRACKET REPLACEMENT - Continued

0094 00

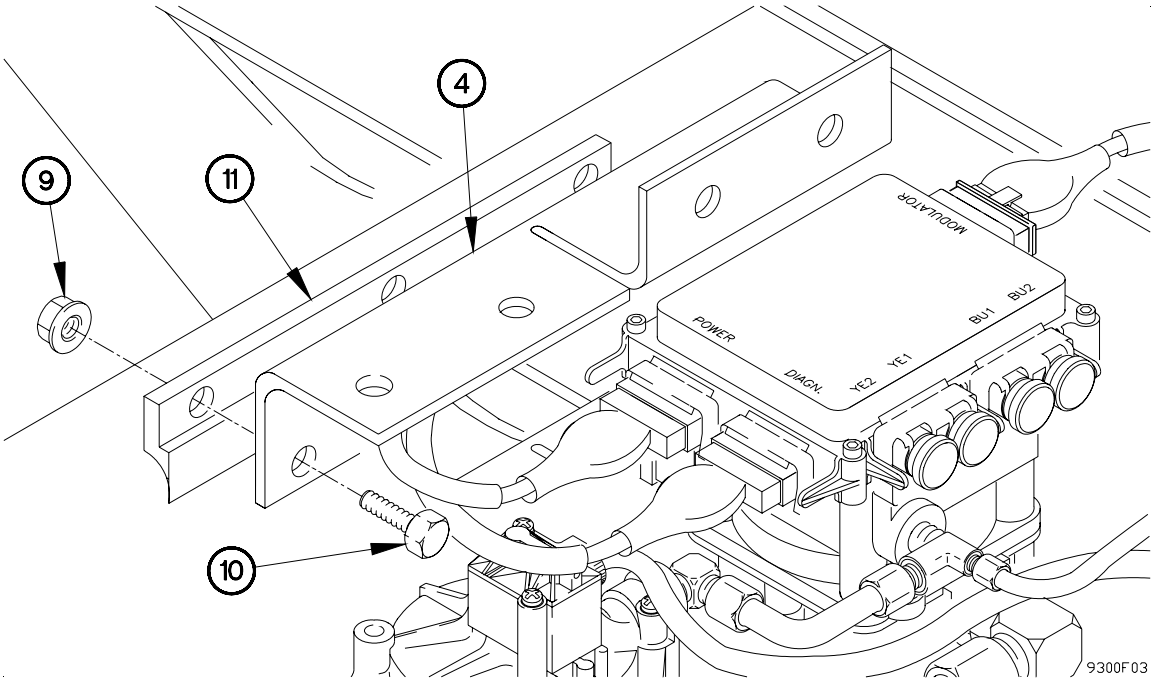
INSTALLATION

NOTE

ABS Control Assembly installation is the same for both LMTVT and MTVT. LMTVT shown.

1. Position ABS control assembly bracket (4) on crossmember (11) with three bolts (10) and self-locking nuts (9).

2. Tighten three self-locking nuts (9) to 62-76 lb-ft (84-103 N•m).



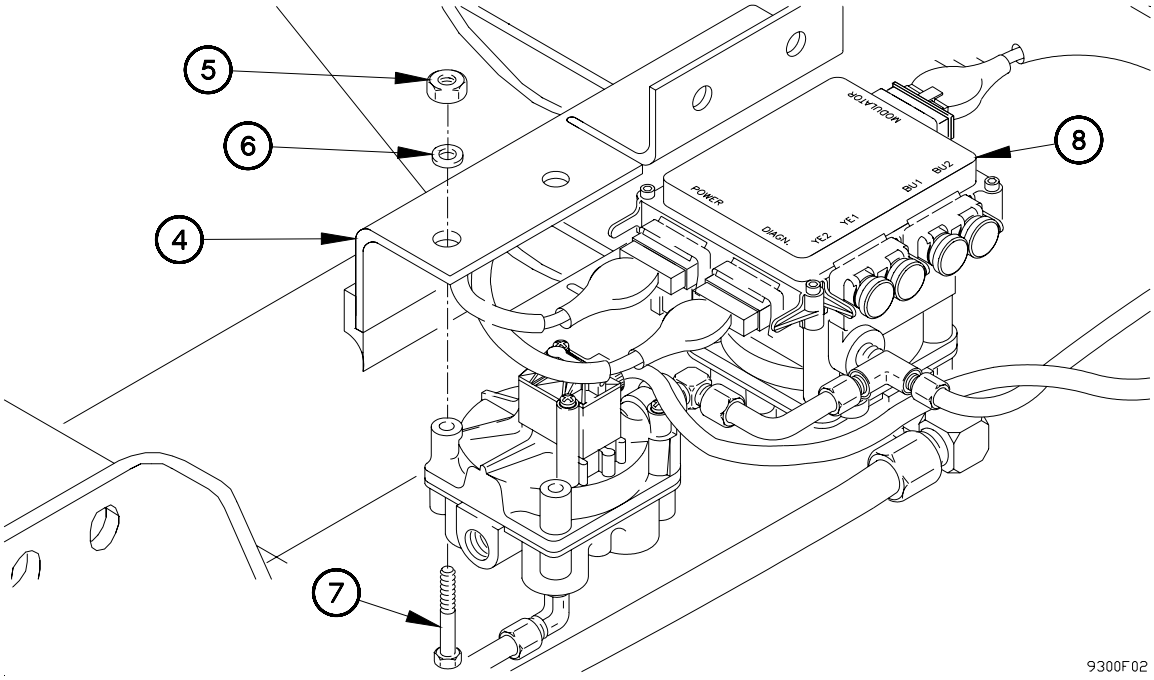
ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL ASSEMBLY BRACKET REPLACEMENT - Continued

0094 00

INSTALLATION - Continued

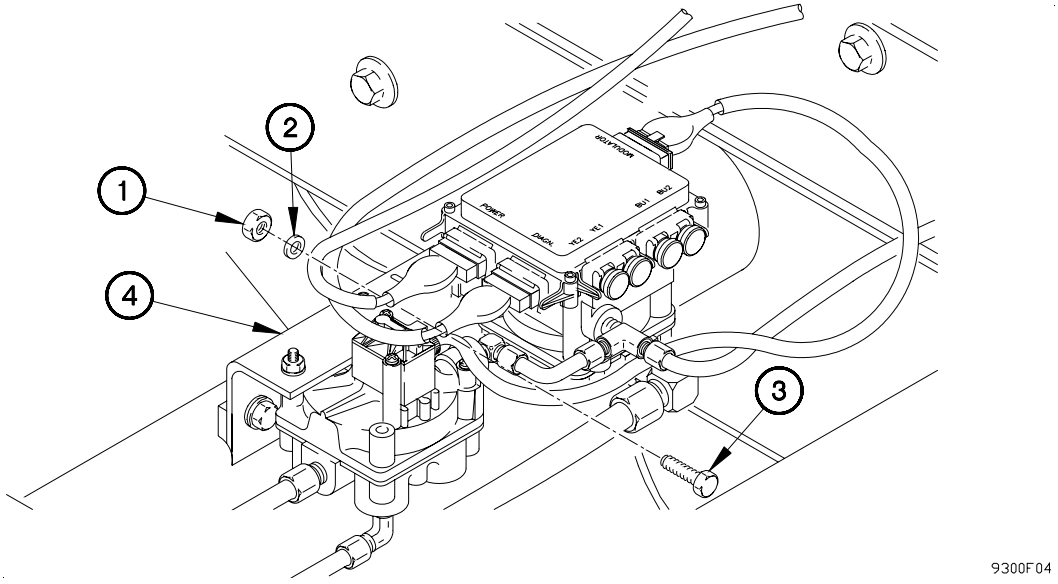
3. Position ABS control assembly (8) on ABS control assembly bracket (4) with two bolts (7), washers (6), and nuts (5).

4. Tighten two nuts (5) to 156-192 lb-in (18-22 N•m).



5. Position two bolts (3), washers (2), and nuts (1) on ABS control assembly bracket (4).

6. Tighten two nuts (1) to 156-192 lb-ft (18-22 N•m).



ANTI-LOCK BRAKING SYSTEM (ABS) CONTROL ASSEMBLY BRACKET REPLACEMENT - Continued

0094 00

OPERATIONAL CHECK

1. Couple trailer (WP 009 00, Coupling Trailer).
2. Start towing vehicle engine and allow time for air pressure to reach normal operating air pressure.
3. Check around relay and ECU valve assemblies and hoses for air leaks.
4. Road test trailer and check for proper brake operation.
5. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

VENT VALVE ASSEMBLY REPLACEMENT 0095 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Vise, Machinist's (Item 39, WP 0178 00)

Materials/Parts (Cont)
Antiseize Compound (Item 3, WP 0176 00)
Dispenser, Pressure Sensitive Adhesive Tape (Item 10, WP 0176 00)

References
WP 0009 00
WP 0012 00

Equipment Conditions
Trailer uncoupled (WP 0012 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

REMOVAL

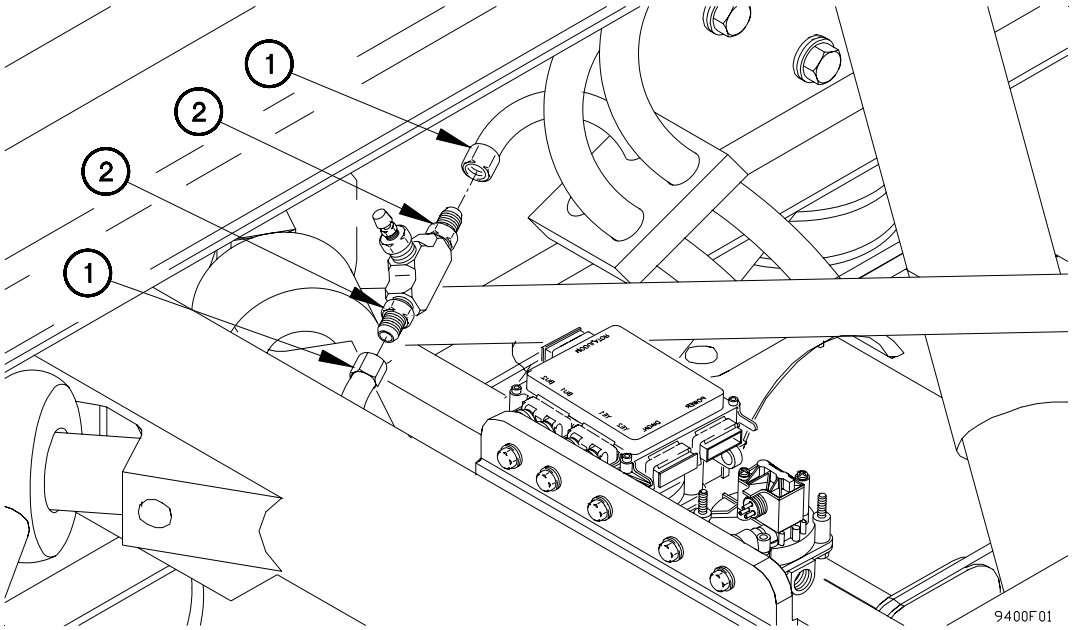
NOTE

Tag air hoses and connection points prior to disconnecting.

VENT VALVE ASSEMBLY REPLACEMENT - Continued 0095 00

REMOVAL - Continued

1. Disconnect two air hoses (1) from fittings (2).

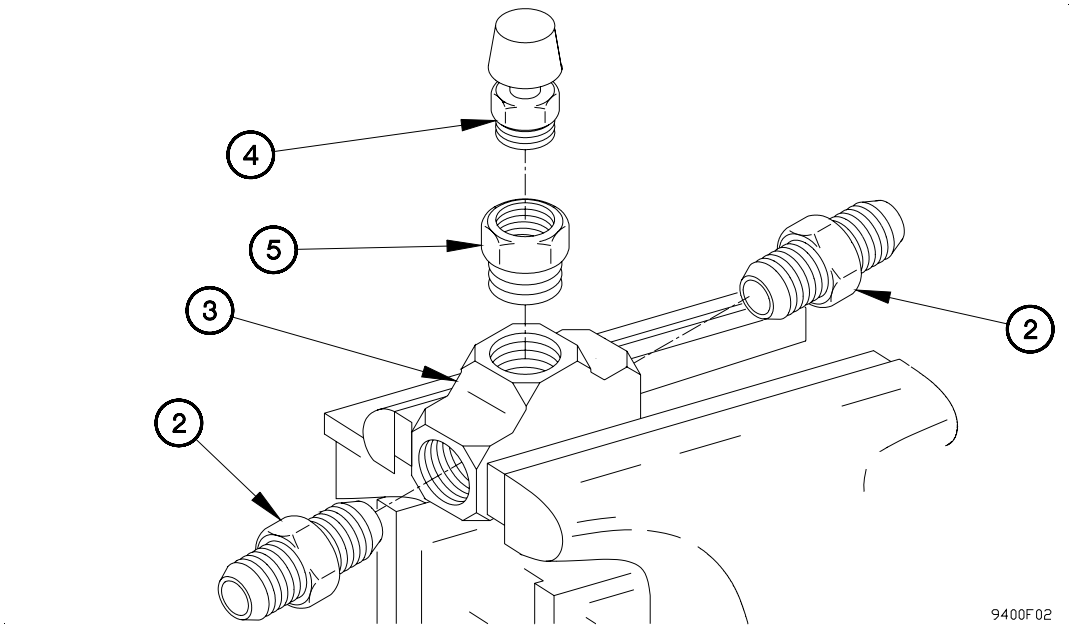


NOTE

Note orientation of fittings prior to removal.

2. Position tee fitting (3) in vise.

3. Remove two fittings (2), vent valve (4), and reducer bushing fitting (5) from tee fitting (3).



VENT VALVE ASSEMBLY REPLACEMENT - Continued 0095 00

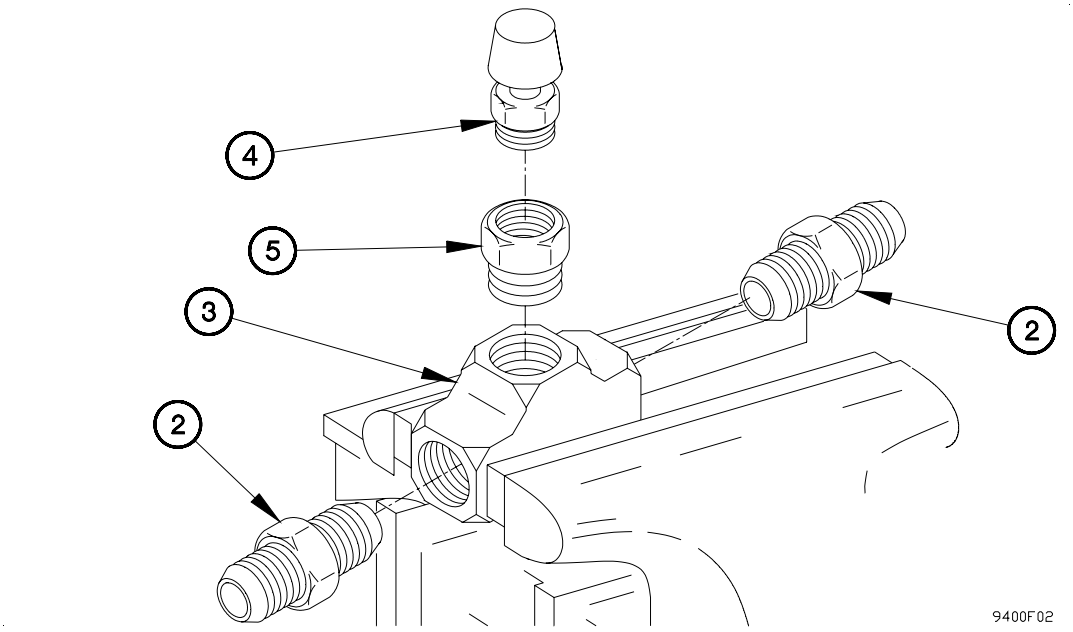
INSTALLATION

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in a well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

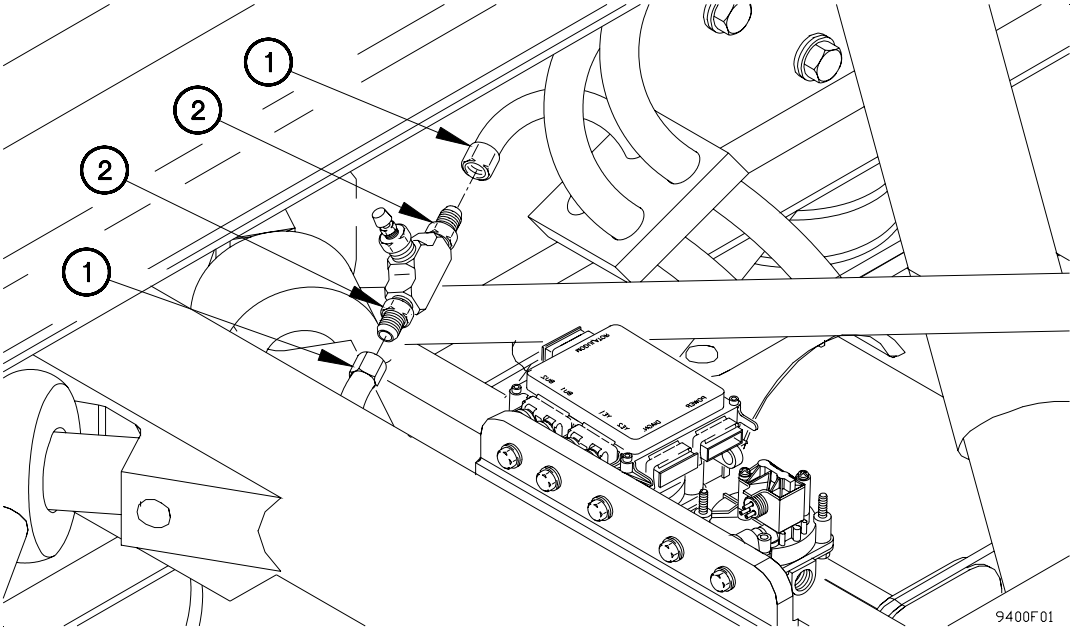
1. Apply antiseize compound to threads of reducer bushing fitting (5), vent valve (4), and two fittings (2).

2. Install reducer bushing fitting (5), vent valve (4), and two fittings (2) in tee fitting (3).



INSTALLATION - Continued

3. Connect two air hoses (1) to fittings (2).



OPERATIONAL CHECK

1. Couple trailer (WP 0009 00, Coupling Trailer). Allow towing vehicle time for air pressure to reach normal operating pressure.

2. Uncouple trailer (WP 0012 00, Uncoupling Trailer). Do not drain air tank as part of trailer uncoupling task.

3. Check around vent valve and hoses for air leaks.

4. Couple trailer (WP 0009 00, Coupling Trailer).

5. Road test trailer and check for proper brake operation.

6. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

ELECTRICAL WIRE AND CABLE REPAIR 0096 00

THIS WORK PACKAGE COVERS:

Repair of Wires with Female Sockets, Repair of Wires with Male Plugs, Repair of Wires with Terminals of Various Configurations, Repair of Cables with Multiple Conductor Receptacle Connectors, Repair of Cables with Multiple Conductor Plug Connectors, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Tool Kit, Electrical Contact Repair (Item 36, WP 0178 00)

Materials/Parts
Insulation Sleeving, Electrical (Item 19, WP 0176 00)
Insulation Sleeving, Electrical (Item 18, WP 0176 00)

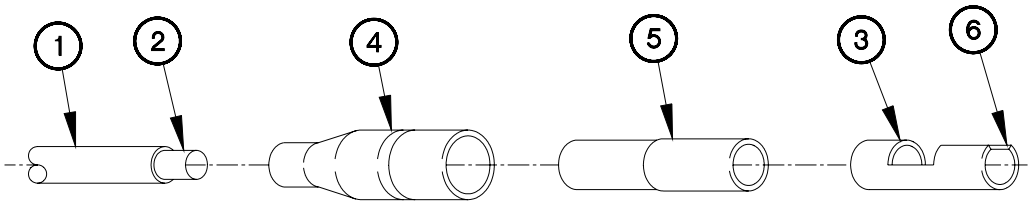
Materials/Parts (Cont)
Insulation Sleeving, Electrical (Item 17, WP 0176 00)

References
WP 0008 00
WP 0009 00
WP 0011 00

Equipment Conditions
Trailer uncoupled (WP 0012 00).

REPAIR OF WIRES WITH FEMALE SOCKETS

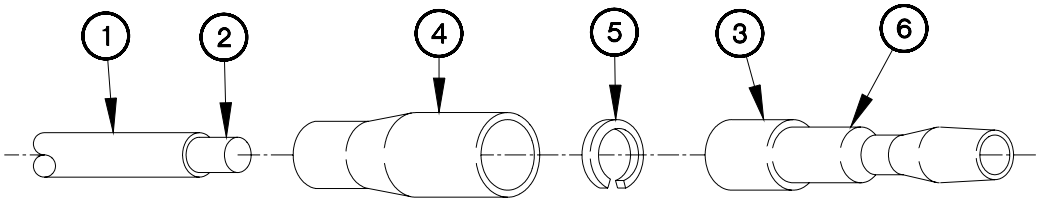
1. Strip cable insulation (1) from wire (2) to equal depth of terminal well (3).
2. Slide shell (4) and sleeve (5) over wire insulation (1).
3. Insert wire (2) into terminal well (3).
4. Crimp terminal well (3) on wire (2)
5. Slide sleeve (5) and shell (4) over terminal (6).



9500F01

REPAIR OF WIRES WITH MALE PLUGS

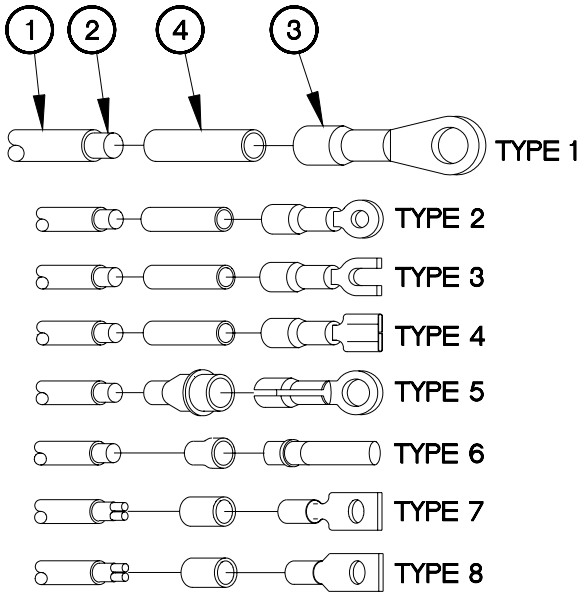
1. Strip insulation (1) from wire (2) to equal depth of terminal well (3).
2. Slide shell (4) over wire insulation (1).
3. Insert wire (2) into terminal well (3).
4. Crimp terminal well (3) on wire (2).
5. Place slotted washer (5) over crimped terminal well (3).
6. Slide shell (4) over slotted washer (5) and terminal (6).



9500F02

REPAIR OF WIRES WITH TERMINALS OF VARIOUS CONFIGURATIONS

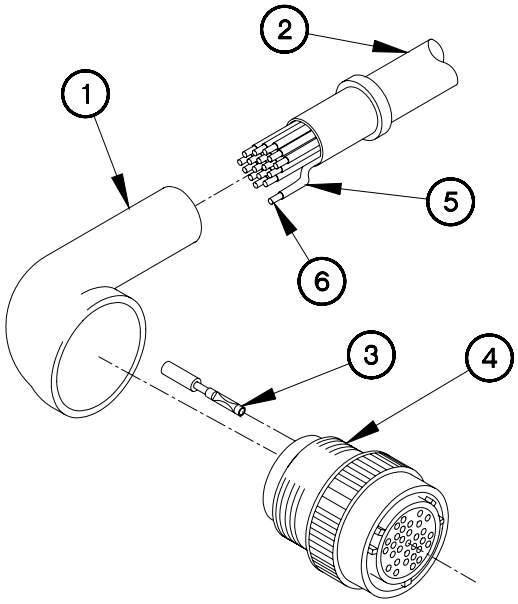
1. Strip insulation (1) from wire (2) to equal depth of terminal well (3).
2. Slide insulator (4) over insulation (1).
3. Insert wire (2) into terminal well (3).
4. Crimp terminal well (3) on wire (2).
5. Slide insulator (4) over crimped terminal well (3).



9500F03

REPAIR OF CABLES WITH MULTIPLE CONDUCTOR RECEPTACLE CONNECTORS

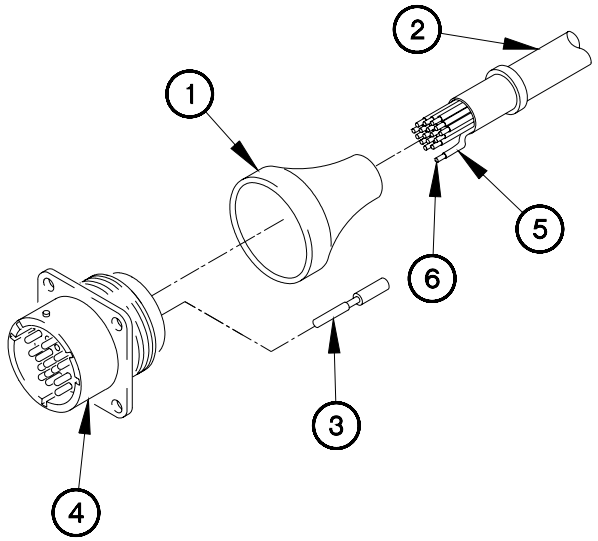
1. Remove insulation sleeving (1) from cable (2). Discard insulation sleeving.
2. Extract electrical contact (3) from receptacle body (4).
3. Strip insulation (5) from wire (6) to equal depth of well in electrical contact (3).
4. Position insulation sleeving (1) on cable (2).
5. Crimp electrical contact (3) on wire (6).
6. Install electrical contact (3) in receptacle body (4).
7. Heat shrink insulation sleeving (1).



9500F04

REPAIR OF CABLES WITH MULTIPLE CONDUCTOR PLUG CONNECTORS

1. Remove insulation sleeving (1) from cable (2). Discard insulation sleeving.
2. Extract electrical contact (3) from plug body (4).
3. Strip insulation (5) from wire (6) to equal depth of well in electrical contact (3).
4. Position insulation sleeving (1) on cable (2).
5. Crimp electrical contact (3) on wire (6).
6. Install electrical contact (3) in plug body (4).
7. Heat shrink insulation sleeving (1).



9500F05

OPERATIONAL CHECK

1. Couple trailer (WP 0009 00, Coupling Trailer).
2. Operate trailer and check for normal operation (WP 0011 00, Towing Trailer).
3. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

TORQUE ROD (MTVT) REPLACEMENT 0097 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque 0-600 lb-ft (Item 52, WP 0178 00)
Jack, Dolly Type, Hydraulic (Item 14, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Trestle, Motor Vehicle Maintenance (2) (Item 38, WP 0178 00)
Multiplier, Torque Wrench (Item 17, WP 0178 00)

Tools and Special Tools (Cont)
Wrecking Bar (Item 3, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)

Materials/Parts
Nut, Self-Locking (2) (Item 43, WP 0181 00)

References
WP 0008 00
WP 0009 00
WP 0011 00
WP 0012 00

Equipment Conditions
Tires removed (side being worked) (WP 0045 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

CAUTION

If replacing a 1.25 in. (32 mm) diameter torque rod with a 1.75 in. (44 mm) diameter torque rod, both sides must be replaced with a 1.75 in. (44 mm) diameter torque rod. Failure to comply may result in damage to equipment.

TORQUE ROD (MTVT) REPLACEMENT - Continued 0097 00

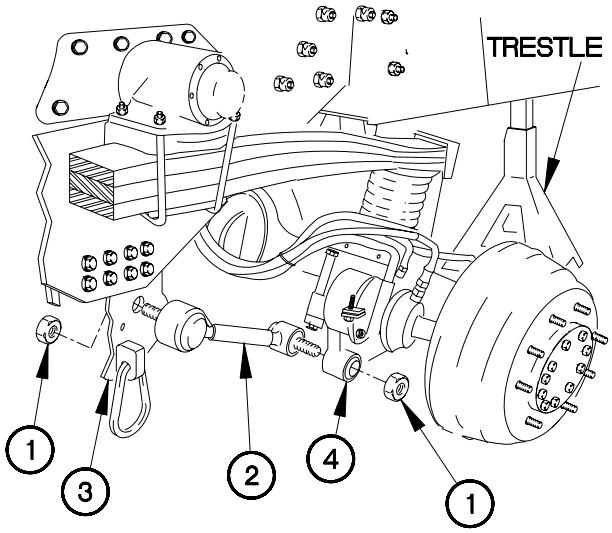
REMOVAL

NOTE

Left and right side torque rod are removed the same way. Right side rear shown.

Steps (1) through (3) require the aid of an assistant.

1. Raise rear of trailer on right side and place trestles under frame.
2. Remove two self-locking nuts (1) from torque rod (2). Discard self-locking nuts.
3. Remove torque rod (2) from mounting bracket (3) and torque rod bracket (4).



9600F01

TORQUE ROD (MTVT) REPLACEMENT - Continued 0097 00

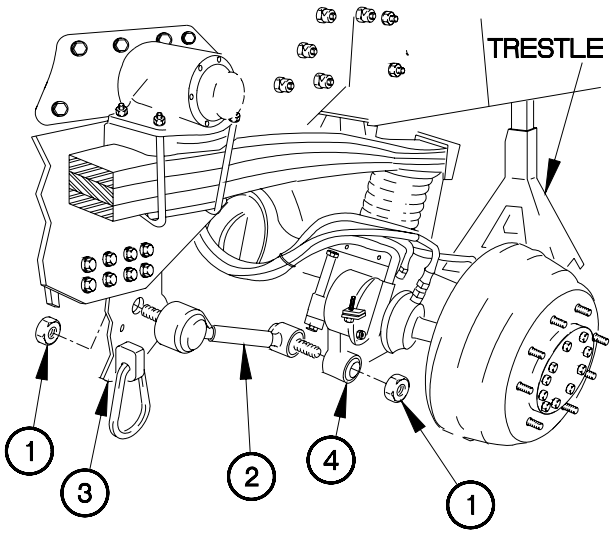
INSTALLATION

NOTE

Left and right side torque rod are installed the same way. Right side rear shown.

Steps (1) through (4) require the aid of an assistant.

1. Install torque rod (2) in mounting bracket (3) and torque rod bracket (4).
2. Position two self-locking nuts (1) on torque rod (2).
3. Tighten two self-locking nuts (1) to 598-730 lb-ft (810-990 N•m).
4. Remove trestles from trailer.



9600F01

OPERATIONAL CHECK

1. Install tires (on side worked) (WP 0045 00, Tire Installation).
2. Couple trailer (WP 0009 00, Coupling Trailer).
3. Operate trailer and check for normal operation (WP 0011 00, Towing Trailer).
4. Uncouple trailer (WP 0012 00, Uncoupling Trailer).
5. Inspect torque rod for secure installation.

END OF WORK PACKAGE

V-ROD CONTROL ARM (MTVT) REPLACEMENT 0098 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque 0-600 lb-ft (Item 52, WP 0178 00)
Jack, Dolly Type, Hydraulic (Item 14, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Trestle, Motor Vehicle Maintenance (2) (Item 38, WP 0178 00)
Hammer, Soft Head (Item 10, WP 0178 00)
Wrecking Bar (Item 3, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Multiplier, Torque Wrench (Item 17, WP 0178 00)

Materials/Parts
Nut, Self-Locking (Item 43, WP 0181 00)

Personnel Required
Two

References
WP 0008 00
WP 0009 00
WP 0012 00

Equipment Conditions
Trailer coupled (WP 0009 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

V-ROD CONTROL ARM (MTVT) REPLACEMENT - Continued 0098 00

REMOVAL

CAUTION

Do not remove more than one V-rod control arm at a time.
Failure to comply may result in damage to equipment.

NOTE

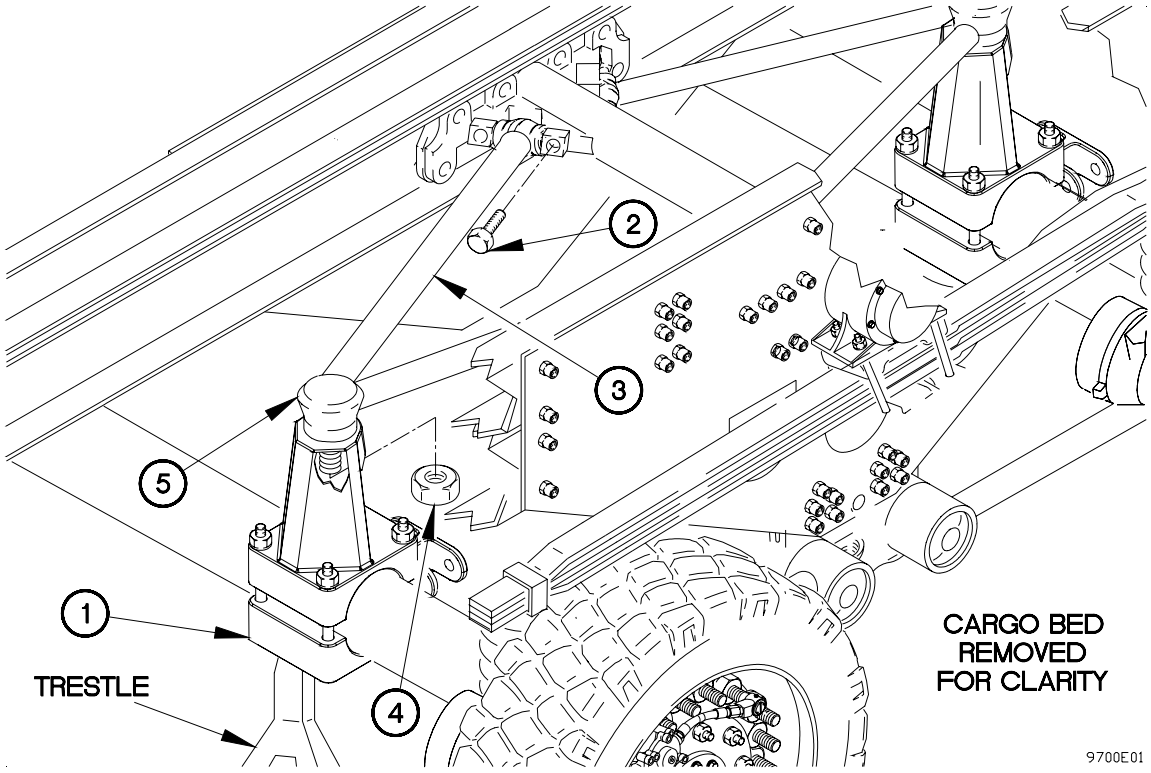
Front and rear V-rod control arms are removed the same way. Rear shown.

1. Raise rear of trailer and place trestles under axle brackets (1).

NOTE

Steps (2) through (4) require the aid of an assistant.

2. Remove four bolts (2) from two ends of V-rod control arm (3).
3. Remove self-locking nut (4) from V-rod control arm fitting (5). Discard self-locking nut.
4. Remove V-rod control arm (3) from trailer.



V-ROD CONTROL ARM (MTVT) REPLACEMENT - Continued 0098 00

INSTALLATION

NOTE

Front and rear V-rod control arms are installed the same way. Rear shown.

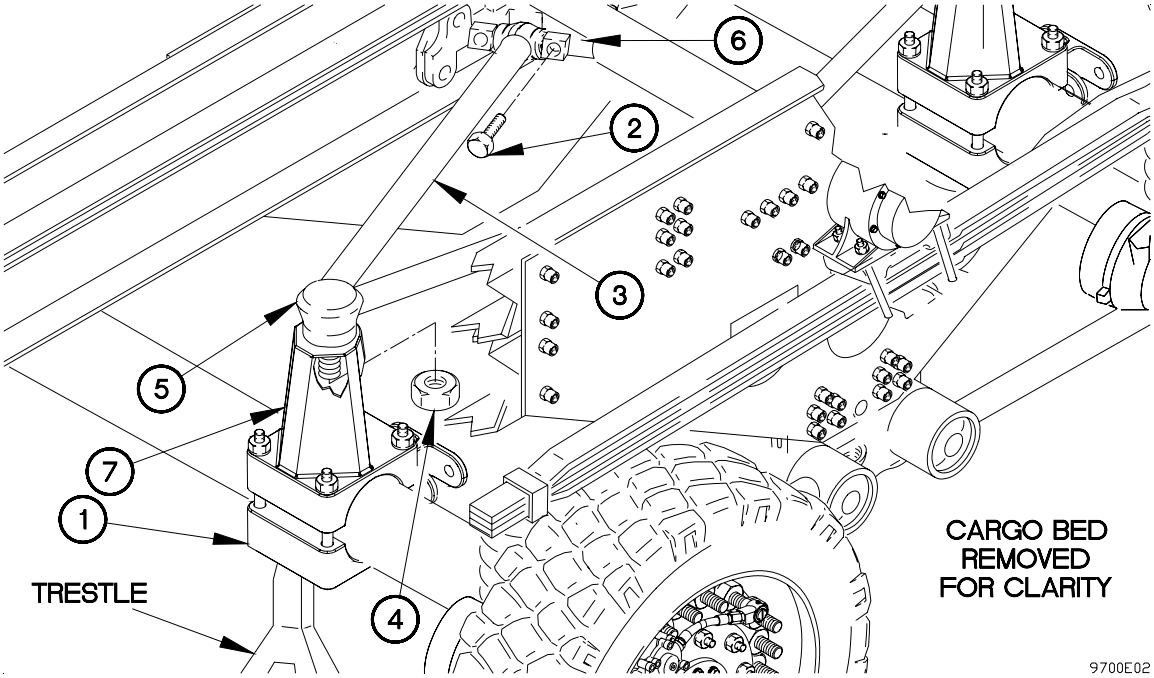
Steps (1) and (2) require the aid of an assistant.

1. Position V-rod control arm (3) to align with two brackets (6) and V-rod bracket (7).

CAUTION

A soft-headed hammer must be used to seat V-rod control arm fitting. Failure to comply may result in damage to equipment.

2. Seat V-rod control arm fitting (5) on V-rod bracket (7) and install self-locking nut (4).
3. Install four bolts (2) securing ends of V-rod control arm (3) to brackets (6).
4. Tighten self-locking nut (4) to 598-731 lb-ft (810-990 N•m).
5. Tighten bolts (2) to 399-487 lb-ft (541-660 N•m).
6. Remove trestles from trailer.



V-ROD CONTROL ARM (MTVT) REPLACEMENT - Continued 0098 00

OPERATIONAL CHECK

1. Couple trailer (WP 0009 00, Coupling Trailer).
2. Operate trailer and check for normal operation (WP 0011 00, Towing Trailer).
3. Uncouple trailer (WP 0012 00, Uncoupling Trailer).
4 Inspect V-rod control arms for secure installation.

END OF WORK PACKAGE

LEAF SPRING (MTVT) REPLACEMENT 0099 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-175 lb-ft (Item 49, WP 0178 00
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Jack, Dolly Type, Hydraulic (2) (Item 14, WP 0178 00)

Tools and Special Tools (Cont)
Trestle, Motor Vehicle Maintenance (2) (Item 38, WP 0178 00)

Materials/Parts
Nut, Self-Locking (4) (Item 46, WP 0181 00)
Nut, Self-Locking (8) (Item 33, WP 0181 00)
U-Bolt (2) (item 44, WP 0181 00)

Personnel Required
Two

Equipment Conditions
Both tires removed (from side being worked) (WP 0045 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

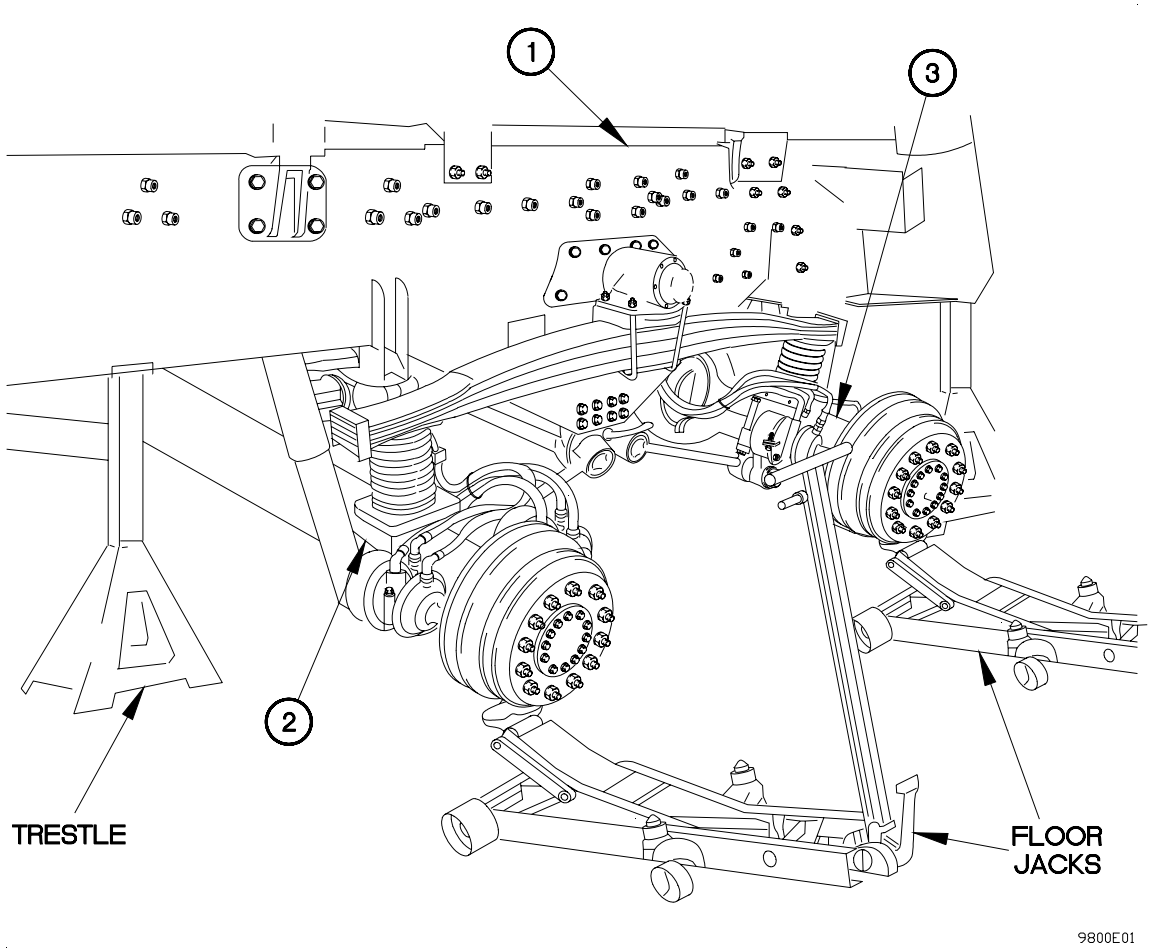
NOTE

Left and right side leaf springs are removed the same way. Left side leaf spring shown.

LEAF SPRING (MTVT) REPLACEMENT - Continued 0099 00

REMOVAL

1. Place two trestles under frame rail (1).
2. Place floor jacks under front axle (2) and rear axle (3).

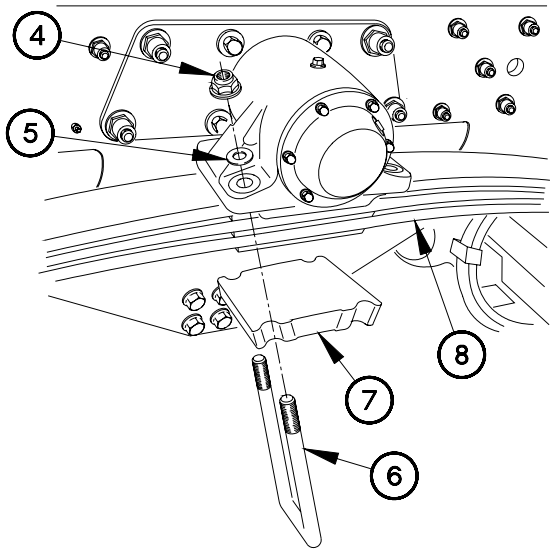


LEAF SPRING (MTVT) REPLACEMENT - Continued 0099 00

REMOVAL - Continued

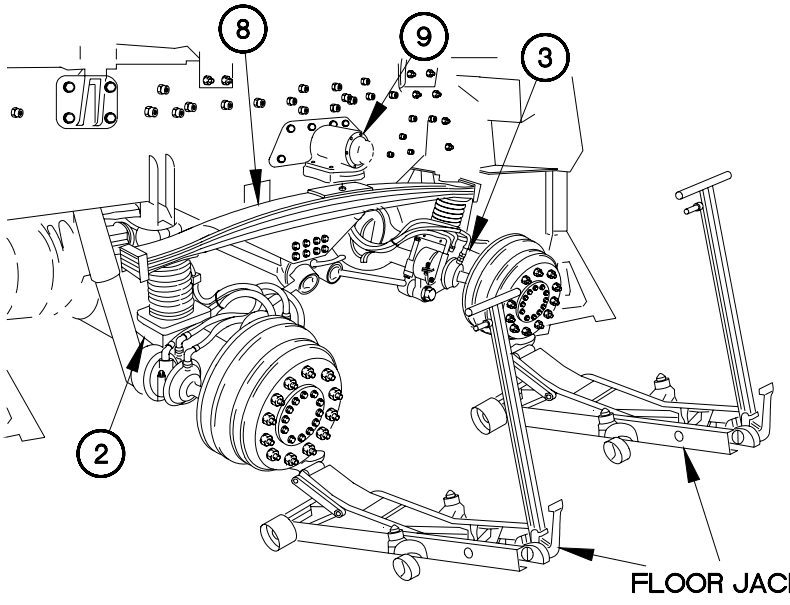
3. Remove four self-locking nuts (4) and washers (5) from two U-bolts (6). Discard self-locking nuts.

4. Remove two U-bolts (6) and clamp plate (7) from leaf spring (8). Discard U-bolts.



9800E02

5. Lower front axle (2) and rear axle (3) until leaf spring (8) is free of axle bogie (9).



9800E03

LEAF SPRING (MTVT) REPLACEMENT - Continued 0099 00

REMOVAL - Continued

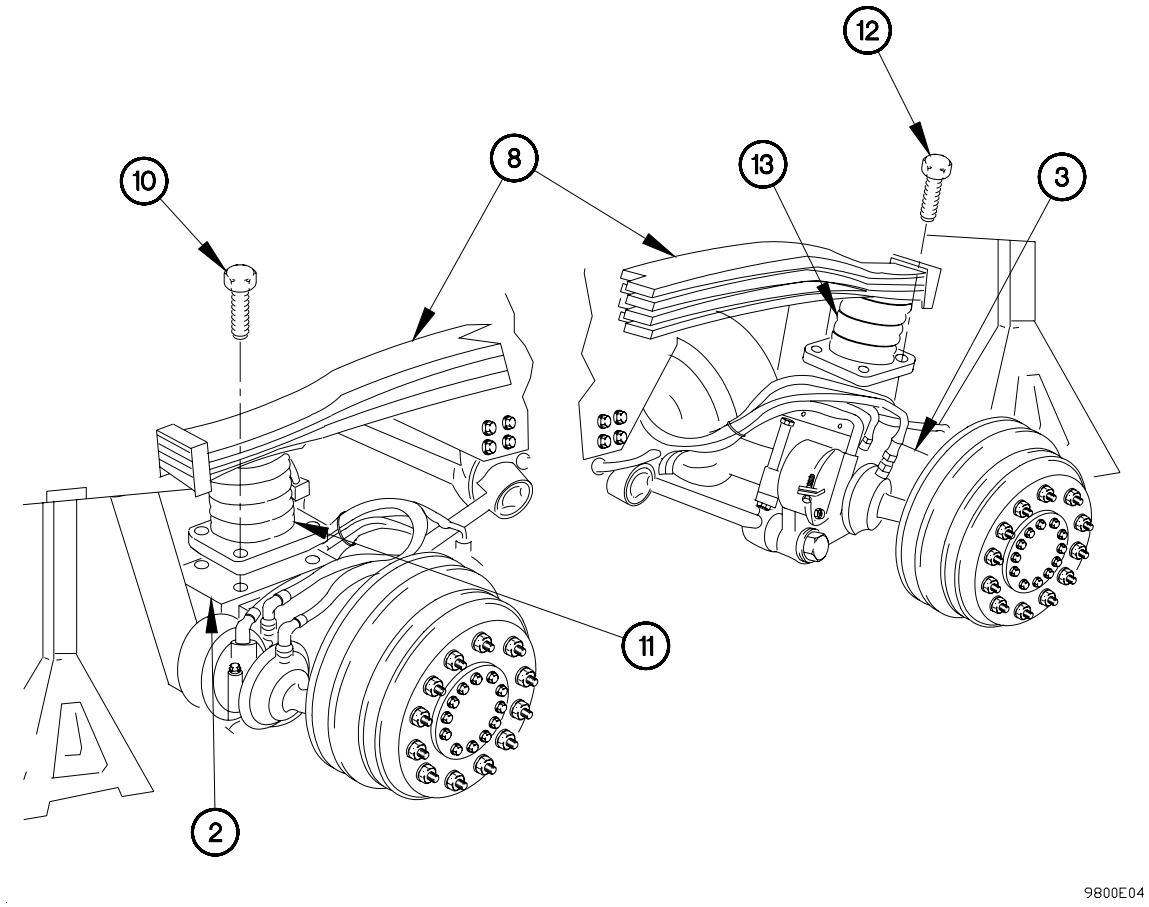
6. Remove four bolts (10) from front spring mount (11).

7. Remove four bolts (12) from rear spring mount (13).

NOTE

Step (8) requires the aid of an assistant.

8. Remove leaf spring (8) from front axle (2) and rear axle (3).



LEAF SPRING (MTVT) REPLACEMENT - Continued 0099 00

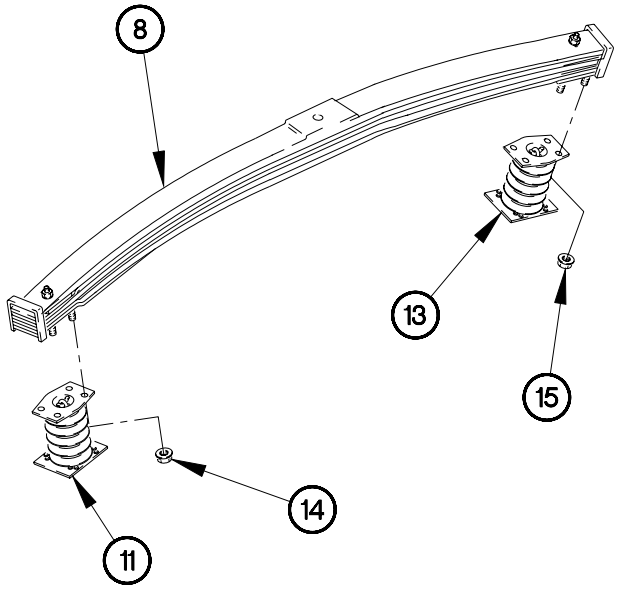
REMOVAL - Continued

WARNING

Do not attempt to repair or disassemble leaf springs. Leaf springs are under extreme tension. Failure to comply may result in serious injury or death to personnel.

9. Remove four self-locking nuts (14) and forward spring mount (11) from leaf spring (8).

10. Remove four self-locking nuts (15) and rear spring mount (13) from leaf spring (8).



9800E05

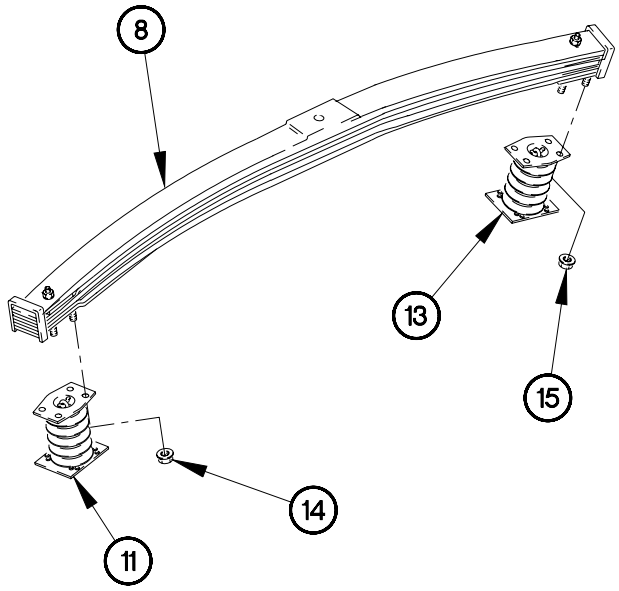
LEAF SPRING (MTVT) REPLACEMENT - Continued 0099 00

INSTALLATION

NOTE

Left and right side leaf springs are installed the same way. Left side leaf spring shown.

1. Position rear spring mount (13) on leaf spring (8) with four self-locking nuts (15).
2. Position front spring mount (11) on leaf spring (8) with four self-locking nuts (14).
3. Tighten four self-locking nuts (14 and 15) to 32-39 lb-ft (43-53 N•m).



9800E05

LEAF SPRING (MTVT) REPLACEMENT - Continued 0099 00

INSTALLATION - Continued

NOTE

Step (4) requires the aid of an assistant.

4. Install leaf spring (8) on front axle (2) and rear axle (3).

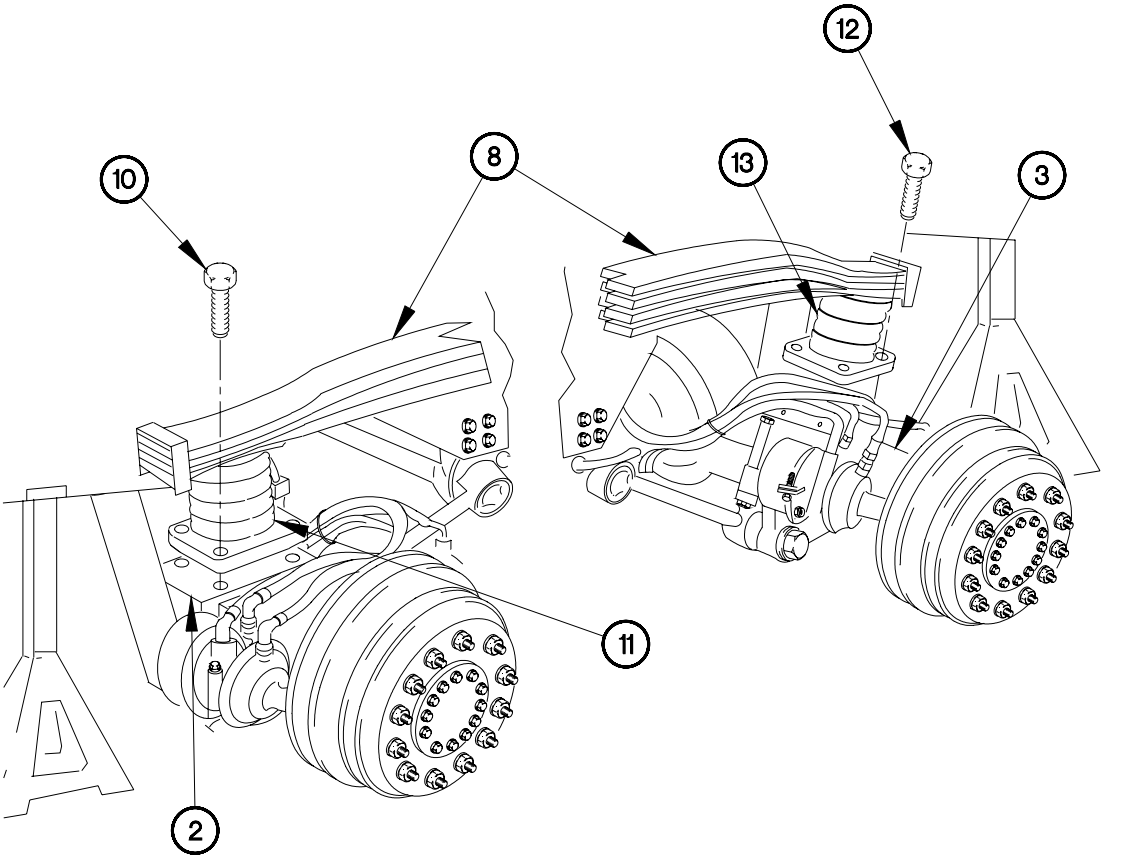
NOTE

It may be necessary to raise or lower floor jack slightly to properly align leaf spring with axles.

5. Position four bolts (10) on front spring mount (11).

6. Position four bolts (12) on rear spring mount (13).

7. Tighten four bolts (10 and 12) to 32-39 lb-ft (43-53 N•m).



9800E04

LEAF SPRING (MTVT) REPLACEMENT - Continued 0099 00

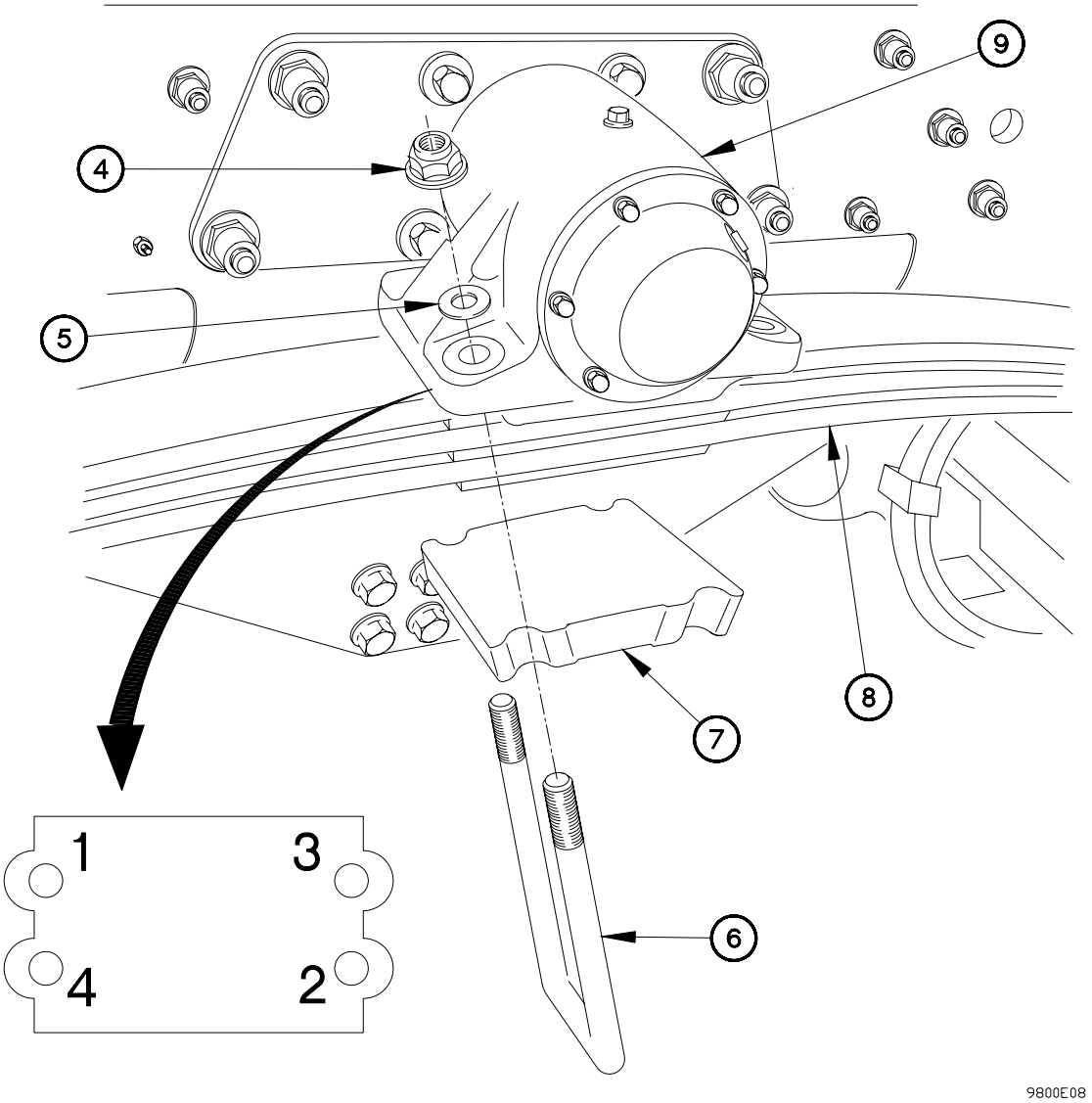
INSTALLATION - Continued

8. Raise leaf spring (8) against axle bogie (9).

9. Position clamp plate (7), two U-bolts (6), four washers (5), and self-locking nuts (4) on axle bogie (9).

10. Tighten four self-locking nuts (4) to 200 lb-ft (271 N•m) in sequence shown.

11. Re-tighten four self-locking nuts (4), in increments of 50 lb-ft (68 N•m), to 390-510 lb-ft (530-690 N•m) in sequence shown.

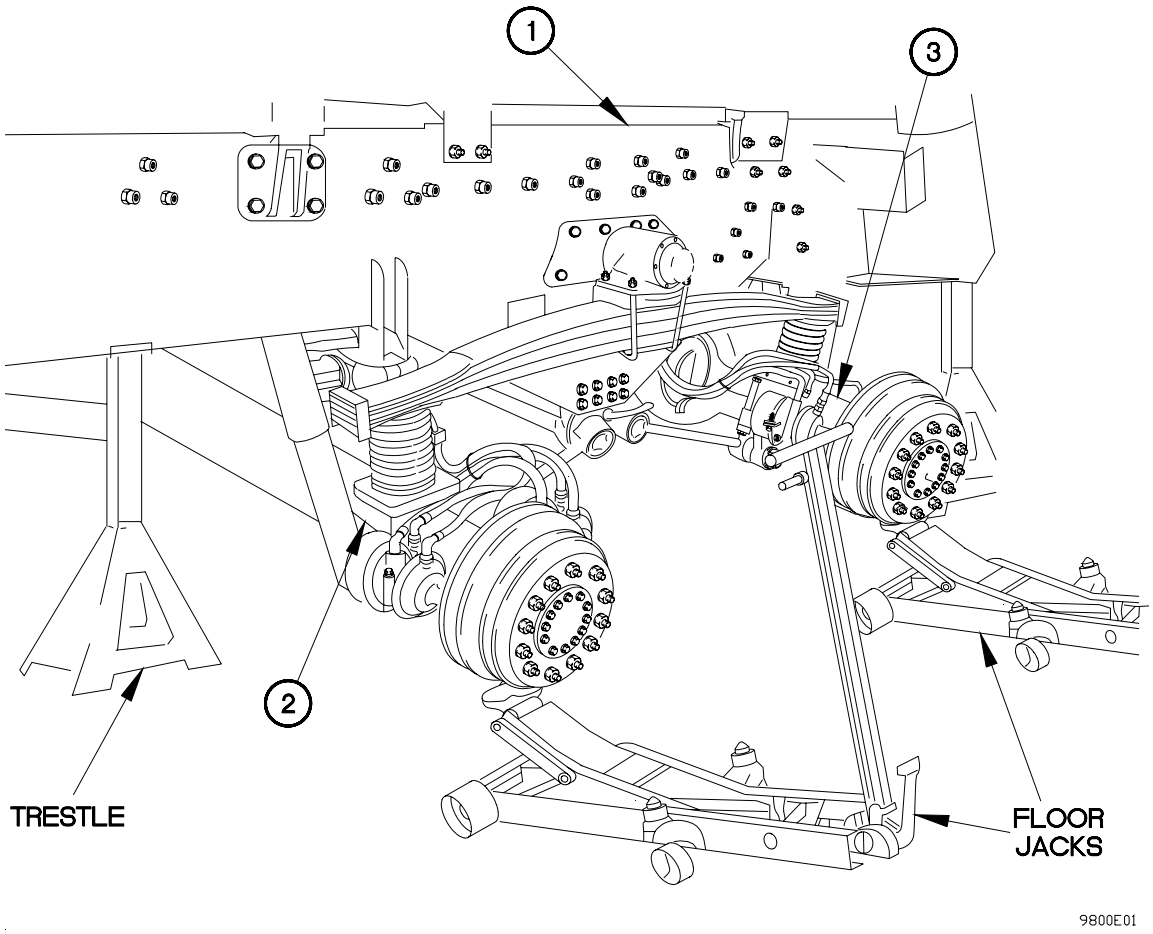


LEAF SPRING (MTVT) REPLACEMENT - Continued 0099 00

INSTALLATION - Continued

12. Remove floor jacks from rear axle (3) and front axle (2).

13. Remove trestles from frame rail (1).



OPERATIONAL CHECK

1. Install tires (WP 0045 00, Tire Installation).

2. After first three months of trailer operation, tighten self-locking nuts on U-bolts to 390-510 lb-ft (530-690 N•m), in sequence increments of 50 lb-ft (68 N•m) in crisscross pattern.

END OF WORK PACKAGE

LEAF SPRING (LMTVT) REPLACEMENT 0100 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-175 lb-ft (Item 49, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Jack, Dolly Type, Hydraulic (2) (Item 14, WP 0178 00)
Trestles, Motor Vehicle Maintenance (2) (Item 38, WP 0178 00)

Materials/Parts
Nut, Self-Locking (4) (Item 46, WP 0181 00)
Grease, Automotive and Artillery (GAA) (Item 11, WP 0176 00)
U-Bolt (2) (item 51, WP 0181 00)

Personnel Required
Two

Equipment Conditions
Tire removed (from side being worked) (WP 0045 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

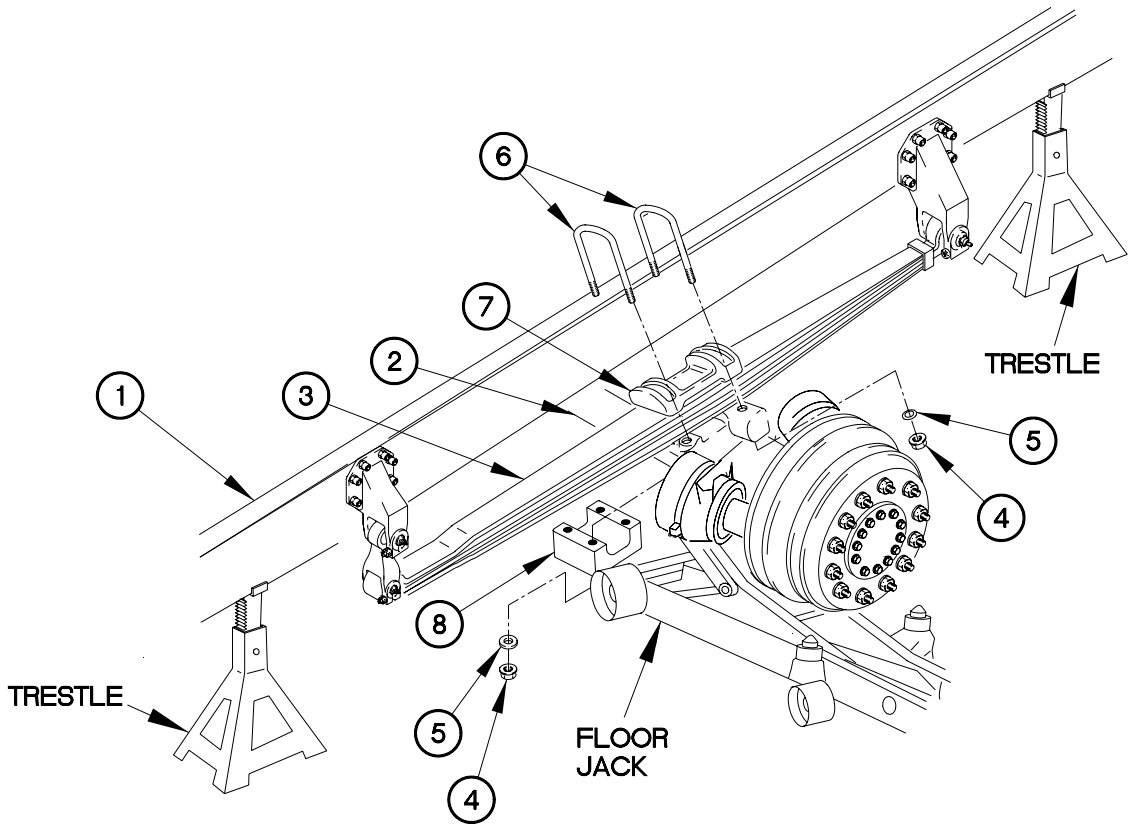
LEAF SPRING (LMTVT) REPLACEMENT - Continued 0100 00

REMOVAL

NOTE

Left and right side leaf springs are removed the same way. Right side leaf spring shown.

1. Place two trestles under frame rail (1).
2. Place floor jack under axle (2).
3. Raise floor jack enough to take weight of axle (2) off leaf spring (3).
4. Remove four self-locking nuts (4), washers (5), and two U-bolts (6) from leaf spring (3). Discard self-locking nuts and U-bolts.
5. Remove plate (7) from leaf spring (3).
6. Remove lower spring mount (8) from axle (2).
7. Lower axle (2) until there is a gap between axle and leaf spring (3).



9900D01

LEAF SPRING (LMTVT) REPLACEMENT - Continued 0100 00

REMOVAL - Continued

8. Remove nut (9) and screw (10) from front bracket (11).

9. Remove lubrication fitting (12) from spring pin (13).

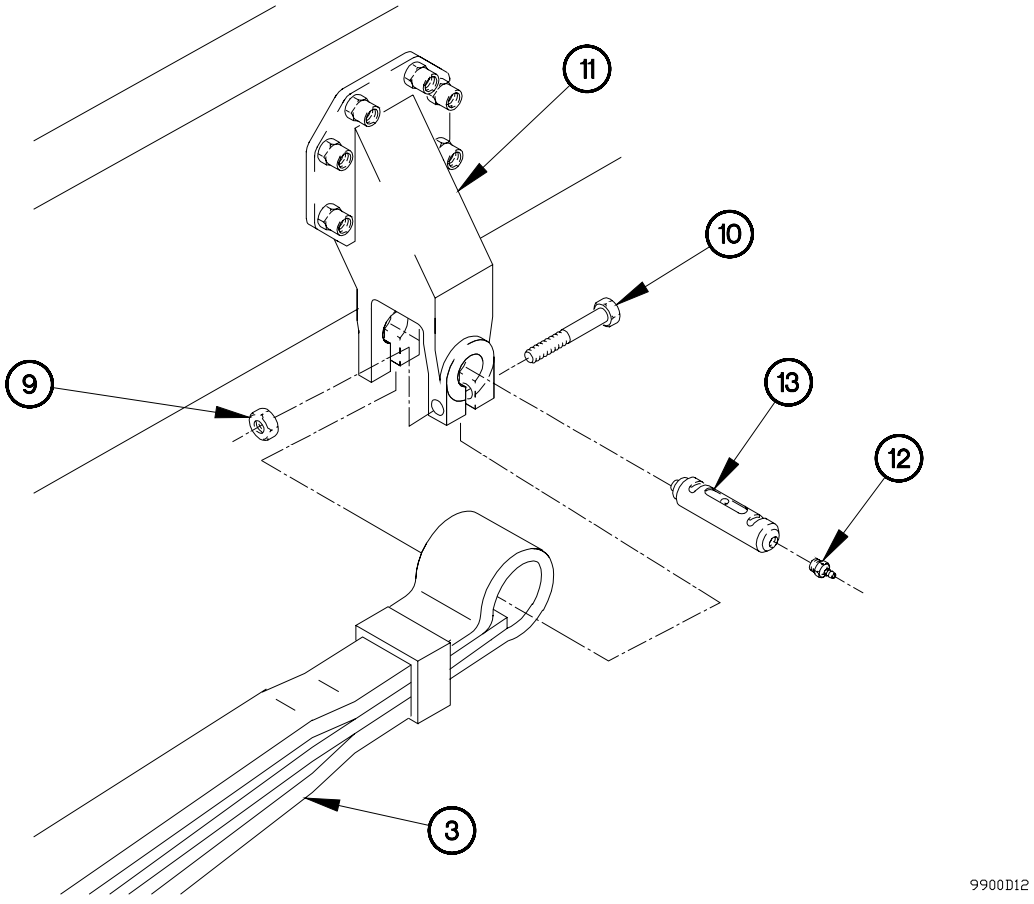
CAUTION

Use care when removing spring pin to prevent damage to lubrication fitting hole threads. Failure to comply may result in damage to equipment.

NOTE

Step (10) requires the aid of an assistant.

10. Remove spring pin (13) and leaf spring (3) from front bracket (11).



LEAF SPRING (LMTVT) REPLACEMENT - Continued 0100 00

REMOVAL - Continued

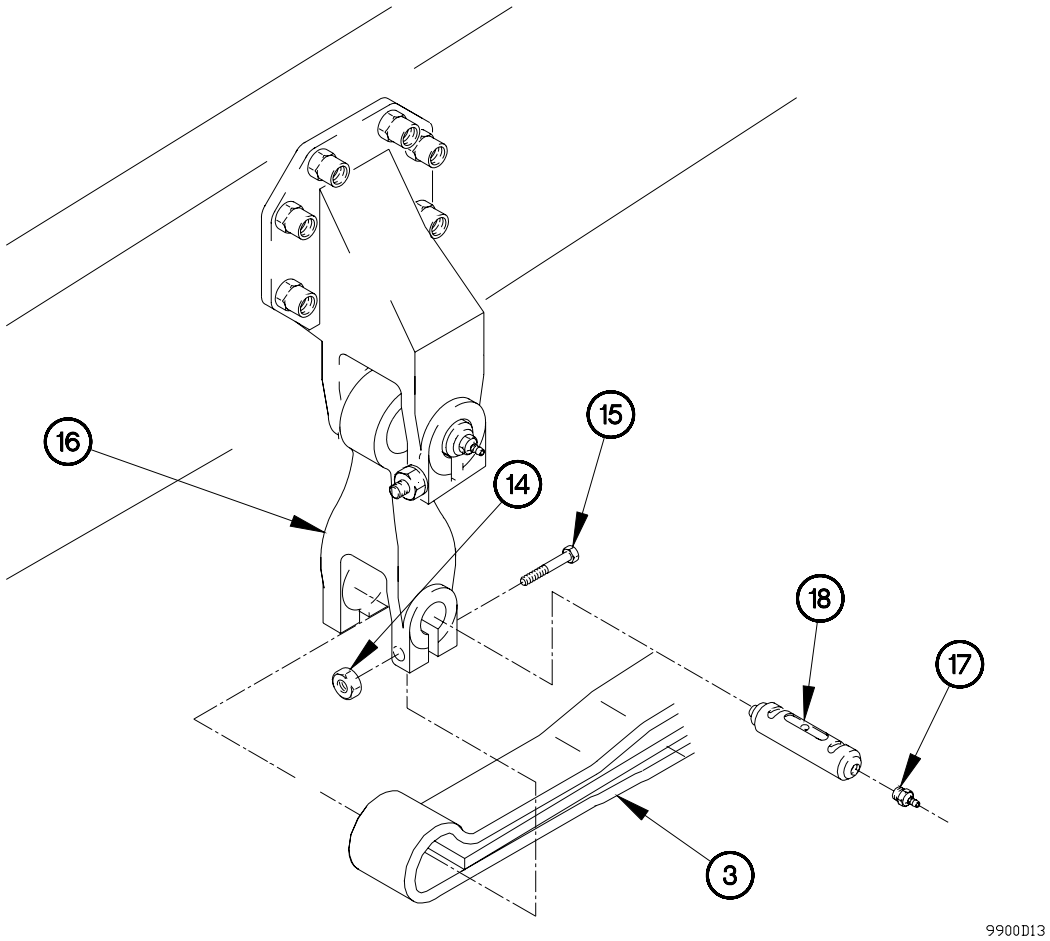
11. Remove nut (14) and screw (15) from rear bracket shackle (16).

12. Remove lubrication fitting (17) from spring pin (18).

CAUTION

Use care when removing spring pin to prevent damage to lubrication fitting hole threads. Failure to comply may result in damage to equipment.

13. Remove spring pin (18) and leaf spring (3) from rear bracket shackle (16).



LEAF SPRING (LMTVT) REPLACEMENT - Continued 0100 00

REMOVAL - Continued

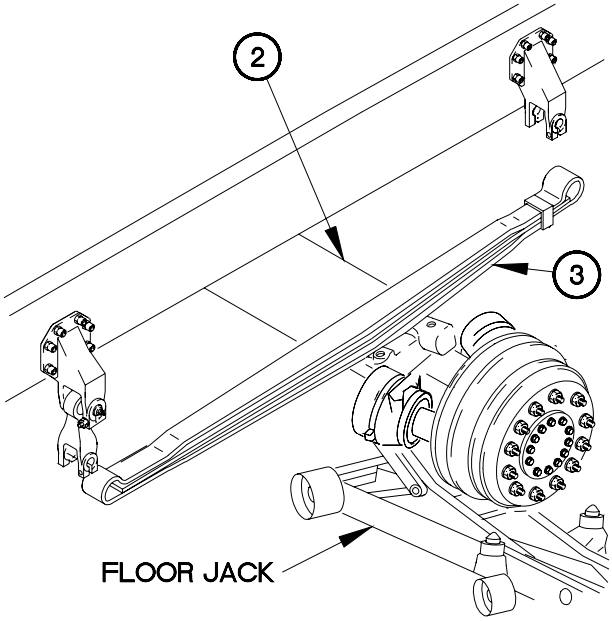
WARNING

Do not attempt to repair or disassemble leaf springs. Leaf springs are under extreme tension. Failure to comply may result in serious injury or death to personnel.

NOTE

Step (14) requires the aid of an assistant.

14. Remove leaf spring (3) from axle (2).



9900D04

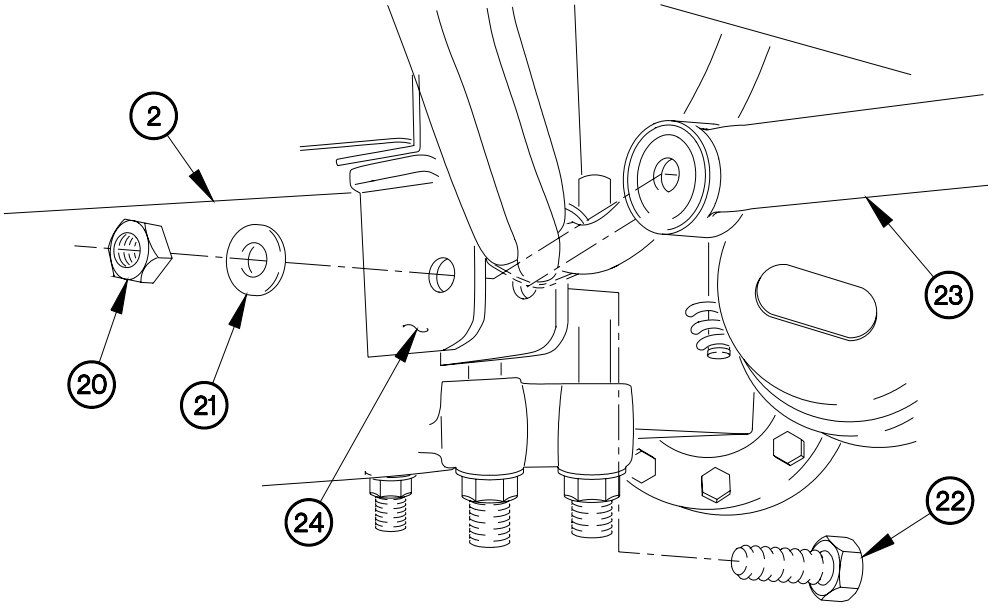
LEAF SPRING (LMTVT) REPLACEMENT - Continued 0100 00

REMOVAL - Continued

NOTE

Both stabilizer bar attachments are removed the same way. Left side shown.

15. Remove nut (20), washer (21), bolt (22), and stabilizer bar (23) from upper spring mount plate (24).
16. Remove upper spring mount plate (24) from axle (2).



9900D09

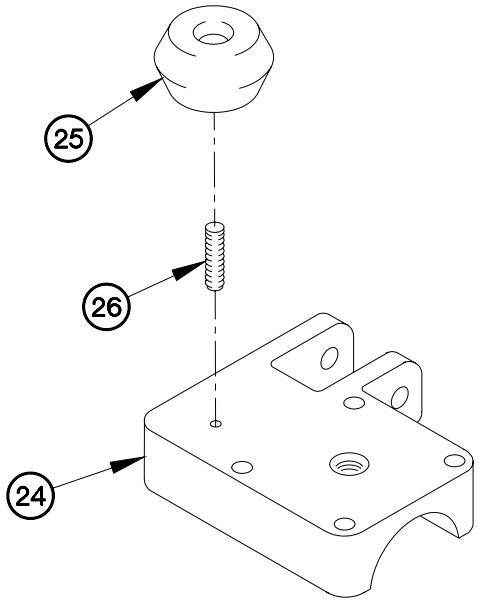
LEAF SPRING (LMTVT) REPLACEMENT - Continued 0100 00

REMOVAL - Continued

17. Remove resilient mount (25) and stud (26) from upper spring mount plate (24).

NOTE

Left and right resilient mounts are removed the same way. Right side shown.



9900D10

INSTALLATION

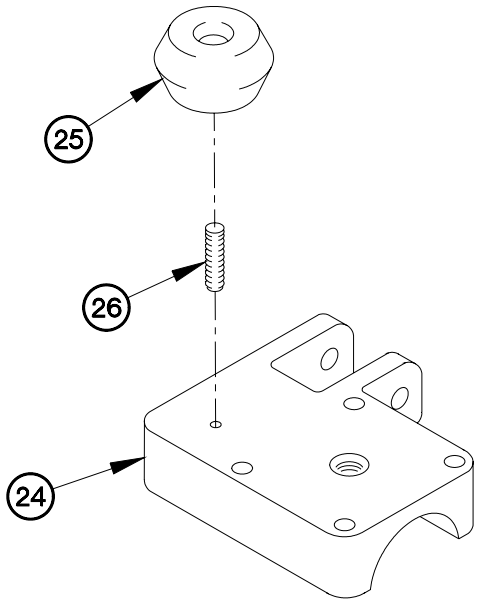
NOTE

Left and right side resilient mounts are installed the same way. Right side shown.

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. To avoid injury or death, keep away from open fire and use in a well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

1. Apply sealant to threads of stud (26).
2. Position stud (26) in upper spring mount plate (24).
3. Position resilient mount (25) on stud (26).
4. Tighten resilient mount (25) 1 ½ turns after contact with upper spring mount plate (24).

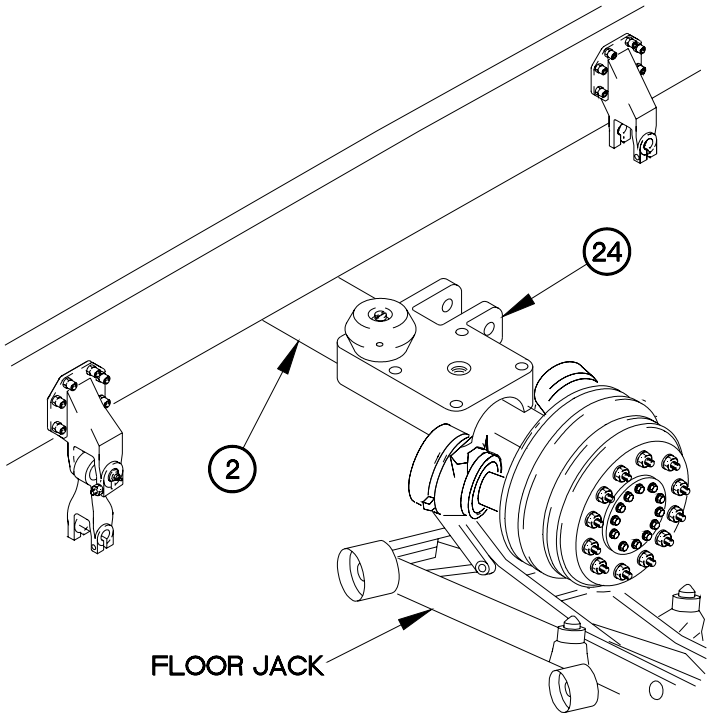


9900D10

LEAF SPRING (LMTVT) REPLACEMENT - Continued 0100 00

INSTALLATION - Continued

5. Position upper spring mount plate (24) on axle (2) so that the resilient mount sits inside the frame rail as shown.



9900A01

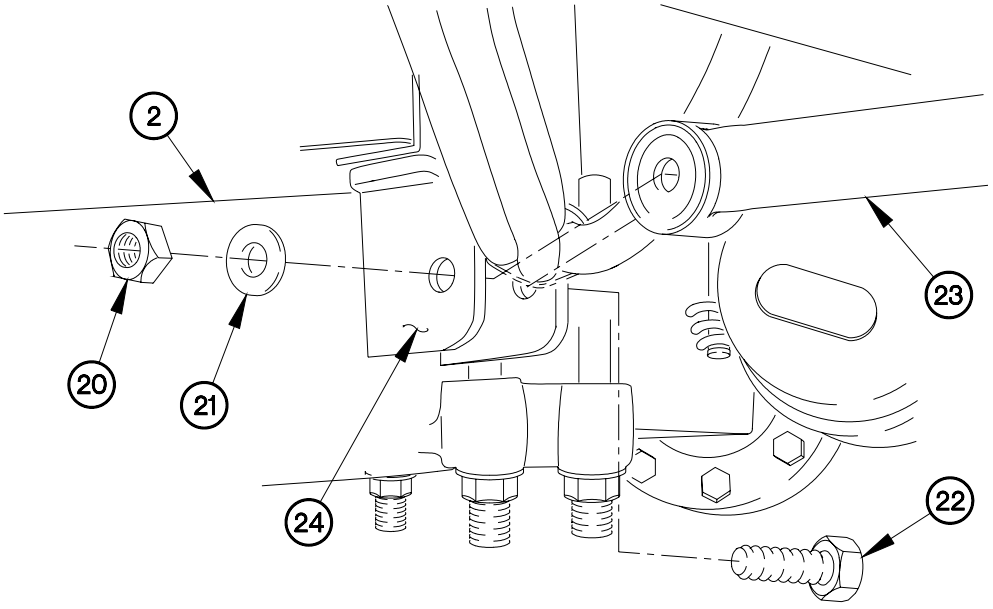
LEAF SPRING (LMTVT) REPLACEMENT - Continued 0100 00

INSTALLATION - Continued

NOTE

Both stabilizer bar attachments are installed the same way. Right side shown.

6. Position stabilizer bar (23) in upper spring mount plate (24) with washer (21), bolt (22), and self-locking nut (20).



9900D09

LEAF SPRING (LMTVT) REPLACEMENT - Continued 0100 00

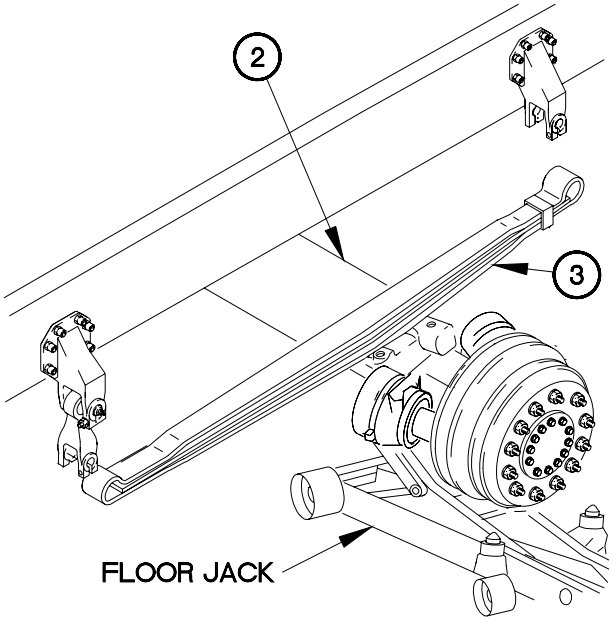
INSTALLATION - Continued

NOTE

Left and right side leaf springs are installed the same way. Right side shown.

Step (7) requires the aid of an assistant.

7. Position leaf spring (3) on axle (2).



9900D04

INSTALLATION - Continued

CAUTION

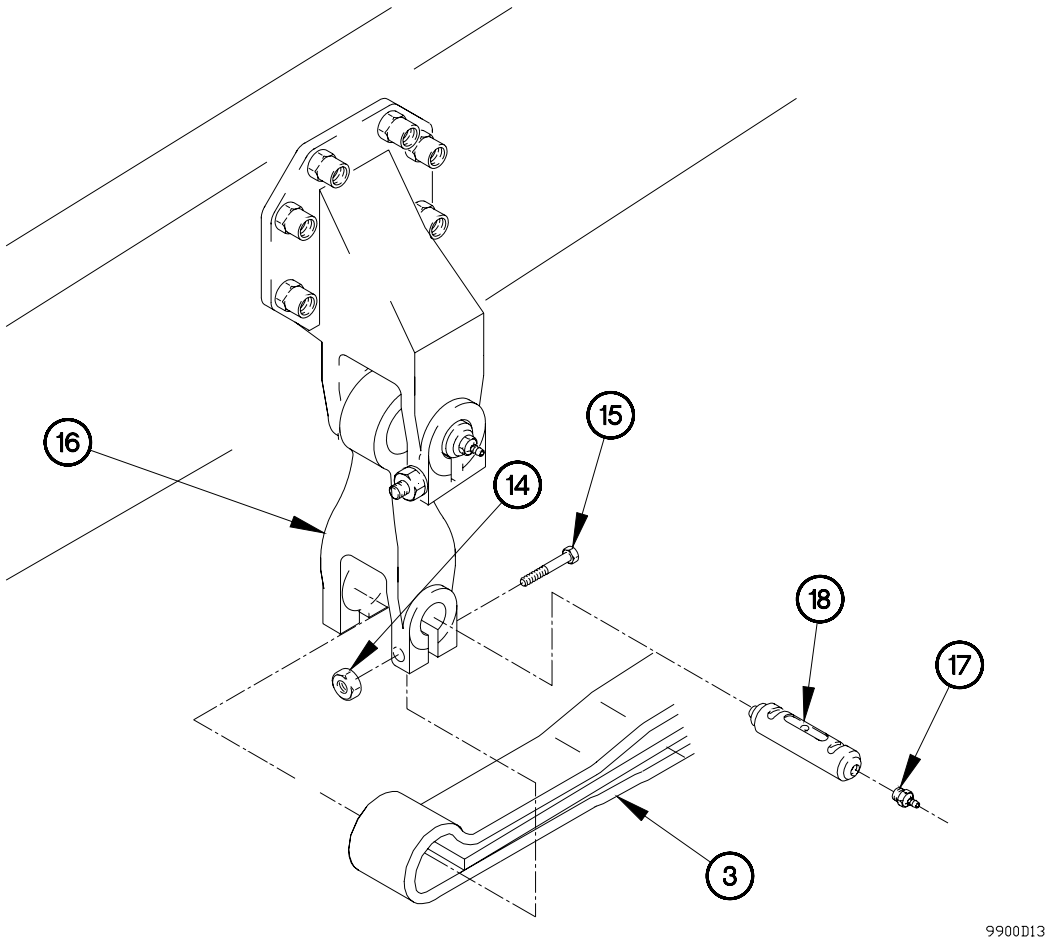
Ensure spring pin is positioned so groove faces slot in rear bracket shackle. Failure to comply may result in damage to equipment.

NOTE

Step 8 requires the aid of an assistant.

Lubricate pin before installation.

8. Install leaf spring (3) in rear bracket shackle (16) with spring pin (18).
9. Install lubrication fitting (17) in spring pin (18).
10. Position screw (15) and nut (14) in shackle (16).
11. Tighten nut (14) to 76-94 lb-ft (103-127 N•m).



LEAF SPRING (LMTVT) REPLACEMENT - Continued 0100 00

INSTALLATION - Continued

CAUTION

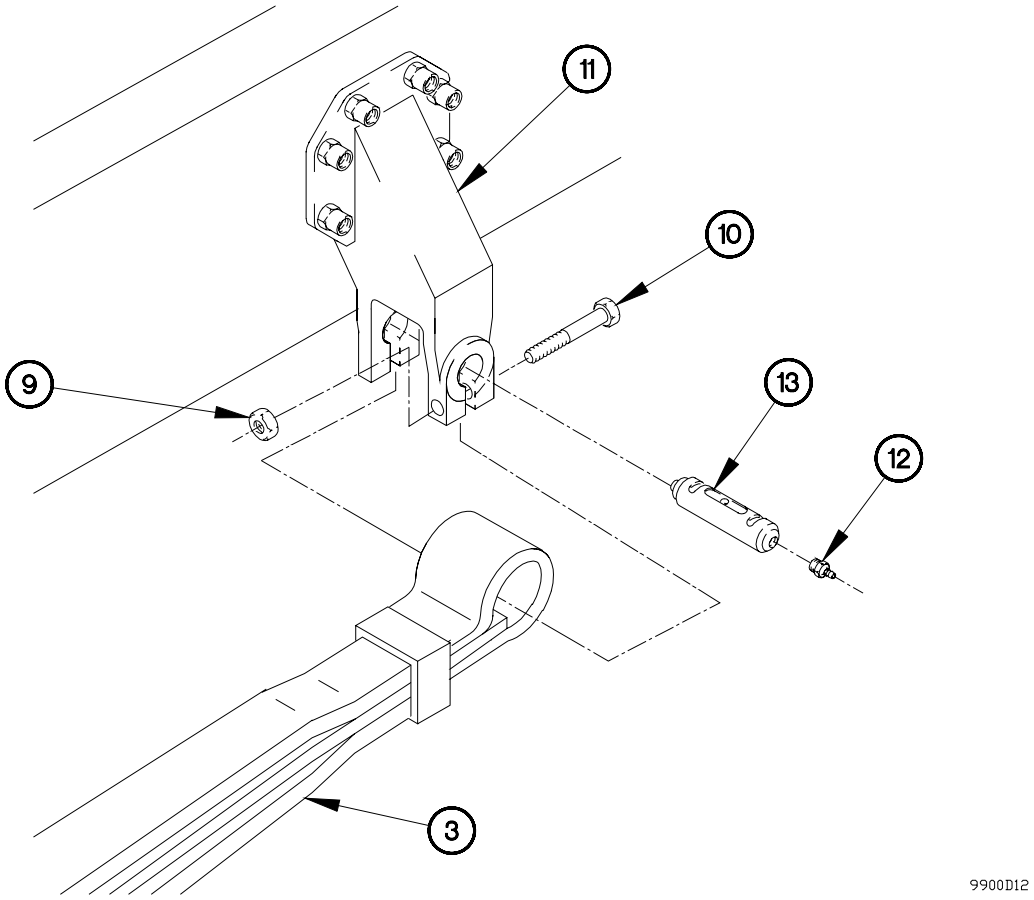
Ensure spring pin is positioned so groove faces slot in front bracket. Failure to comply may result in damage to equipment.

NOTE

Step (12) requires the aid of an assistant.

Lubricate spring pin prior to installation.

12. Install leaf spring (3) in front bracket (11) with spring pin (13).
13. Install lubrication fitting (12) in spring pin (13).
14. Position screw (10) and nut (9) in front bracket (11).
15. Tighten nut (9) to 76-94 lb-ft (103-127 N•m).



LEAF SPRING (LMTVT) REPLACEMENT - Continued 0100 00

INSTALLATION - Continued

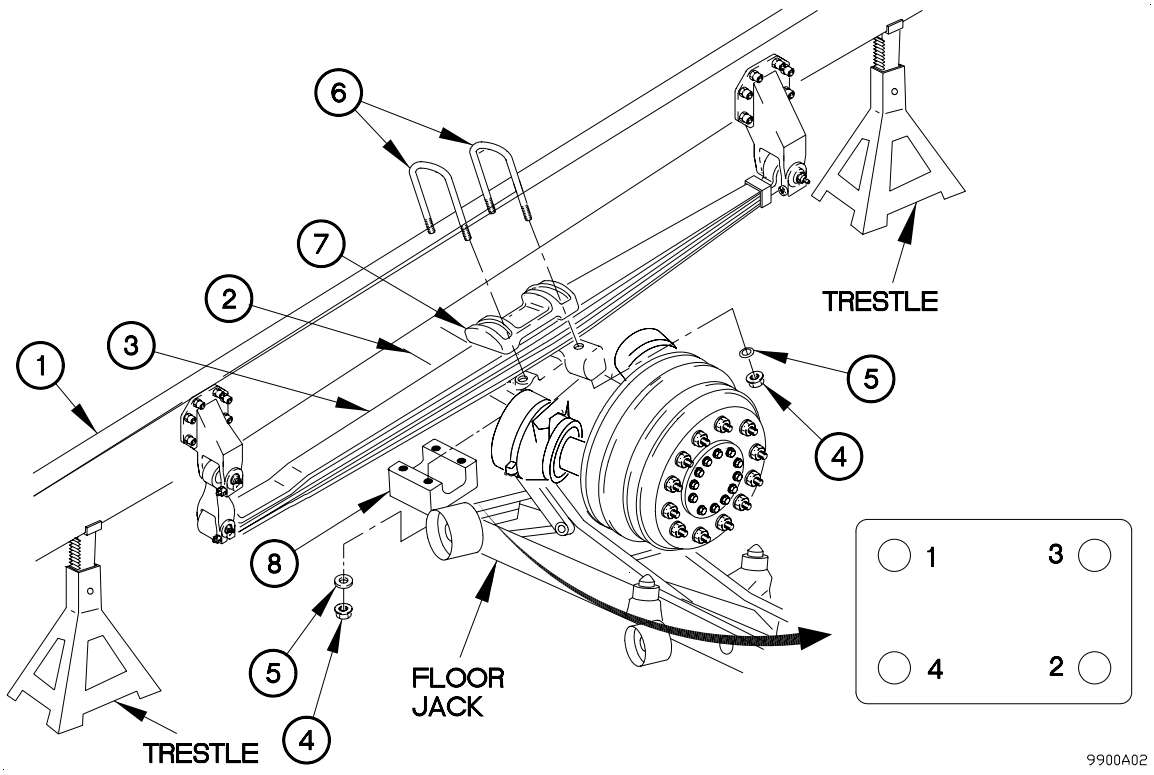
16. Place floor jack under axle (2).

17. Raise axle (2) until leaf spring (3) is in mounting position.

18. Install plate (7) on leaf spring (3).

19. Position two U-bolts (6) on leaf spring (3) and upper and lower spring plates (8 and 19) with four washers (5) and nuts (4).

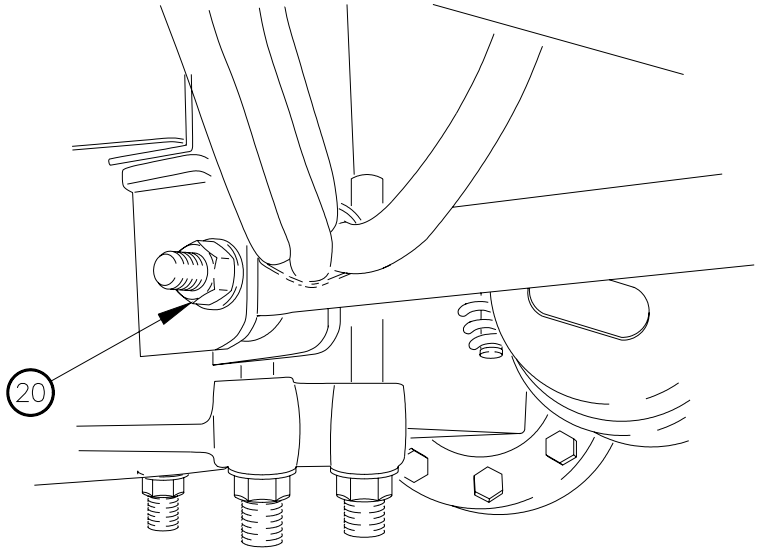
20. Tighten self-locking nuts (4) on U-bolts (6) to 390-510 lb-ft (530-690 N•m), in sequence increments of 50 lb-ft (68 N•m) in pattern shown.



LEAF SPRING (LMTVT) REPLACEMENT - Continued 0100 00

INSTALLATION - Continued

21. Tighten self-locking nut (20) to 300-366 lb-ft (406-496 N•m).

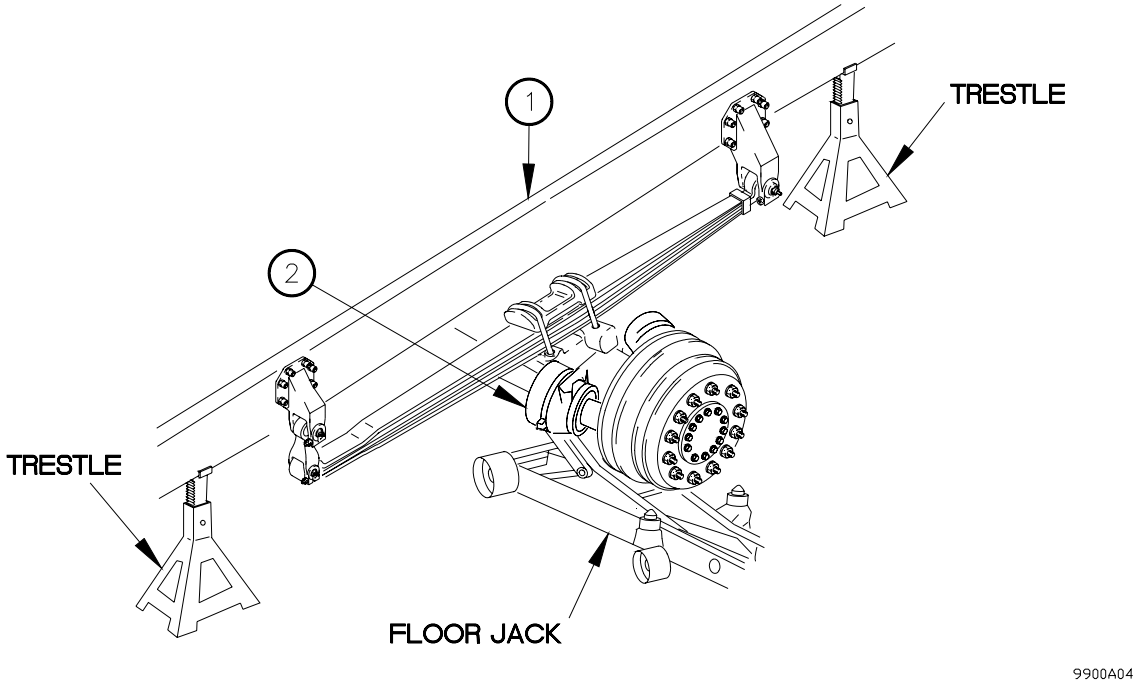


9900A11

INSTALLATION - Continued

22. Remove floor jack from axle (2).

23. Remove trestles from frame rail (1).



OPERATIONAL CHECK

1. Install tire (WP 0045 00, Tire Installation).

2. After first three months of trailer operation, tighten self-locking nuts on U-bolts to 390-510 lb-ft (530-690 N•m), in sequence increments of 50 lb-ft (68 N•m) in crisscross pattern.

END OF WORK PACKAGE

AXLE ASSEMBLY (MTVT) REPLACEMENT 0101 00

THIS WORK PACKAGE COVERS:

Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level

Field

Tools and Special Tools

Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-175 lb-ft (Item 49, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Multiplier, Torque Wrench (Item 17, WP 0178 00)
Jack, Leveling Support, Vehicle (Item 15, WP 0178 00)
Jack, Dolly Type, Hydraulic (2) (Item 14, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Wrench Set, Crowfoot, Ratcheting (Item 6, Table 2, WP 0124 00)

Materials/Parts

Nut, Self-Locking (2) (Item 35, WP 0181 00)
Sealing Compound (Item 25, WP 0176 00)

Materials/Parts (Cont)

Dispenser, Pressure Sensitive Adhesive Tape (Item 10, WP 0176 00)

Personnel Required

Three

References

WP 0008 00
WP 0009 00
WP 0012 00
WP 0045 00
WP 0104 00

Equipment Conditions

Torque rods removed (from axle being worked) (WP 0097 00).
Stabilizer bar removed (rear axle) (WP 0091 00).
ABS wheel speed sensors removed (from axle being worked) (WP 0054 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

REMOVAL

NOTE

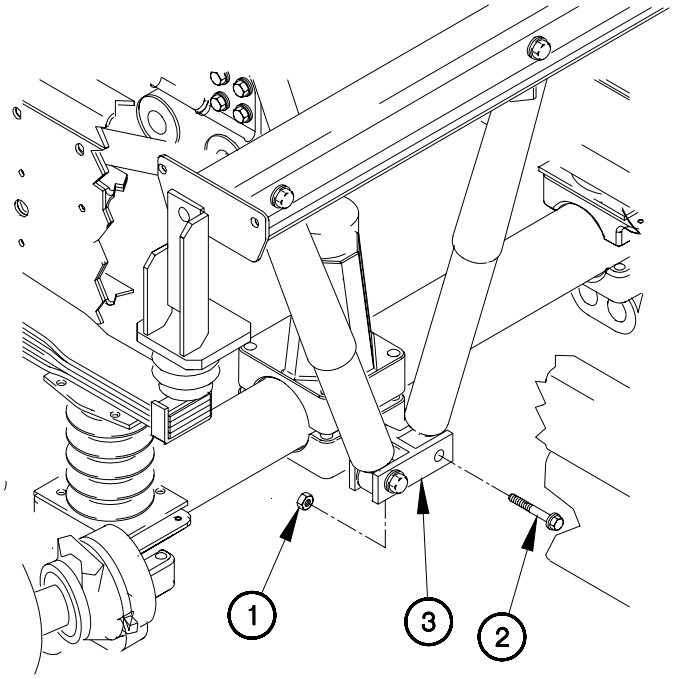
Both axle assemblies are removed the same way. Front axle assembly shown.

Left and right side of axle assembly are removed the same way. Left side shown.

Left and right side shock absorbers are disconnected the same way. Left side shown.

1. Remove self-locking nut (1) and bolt (2) from shock mounting plate (3). Discard self-locking nut (1).

2. Perform step (1) on right side of shock mounting plate.



K000E01

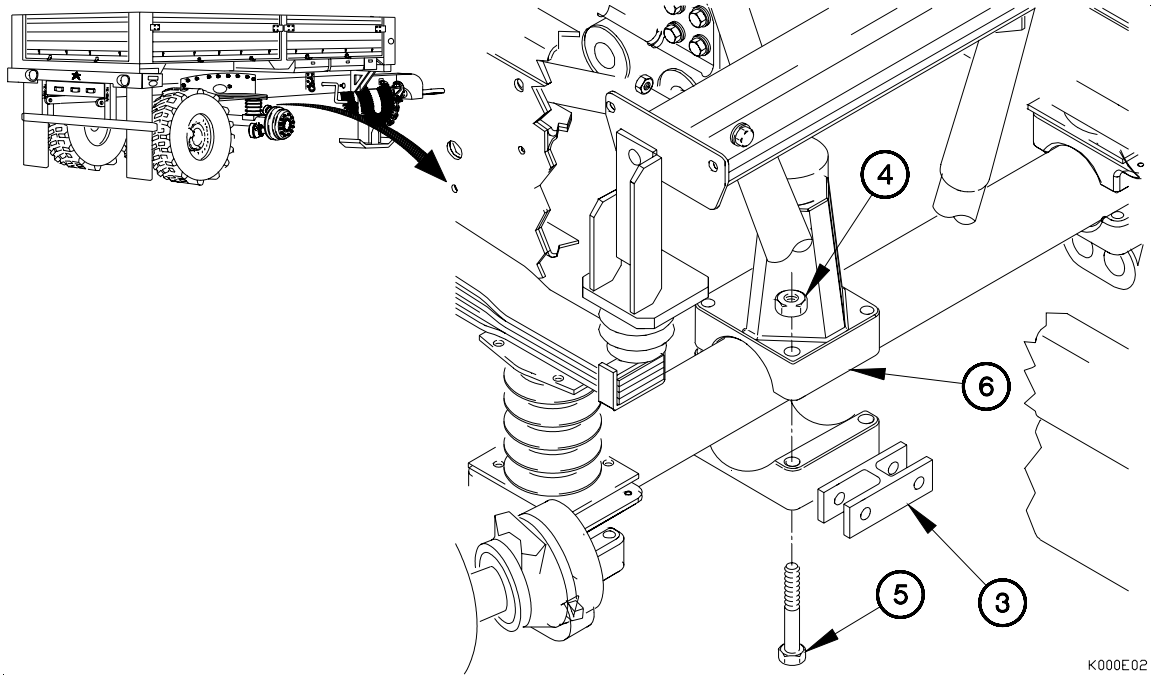
AXLE ASSEMBLY (MTVT) REPLACEMENT - Continued 0101 00

REMOVAL - Continued

NOTE

Front and rear shock mounting plates are removed the same way. Front shown.

3. Remove four nuts (4), bolts (5), and shock mounting plate (3) from axle bracket (6).



REMOVAL - Continued

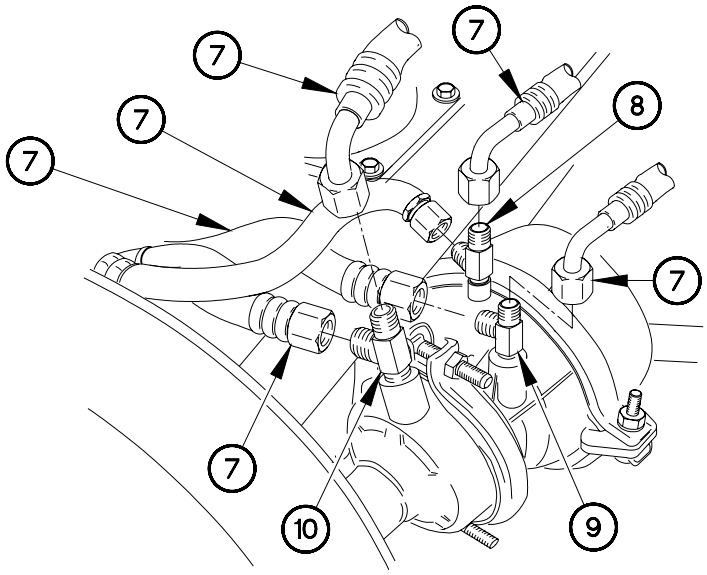
CAUTION

Cap or plug air hoses and fittings to prevent contamination of air system. Failure to comply may result in damage to equipment.

NOTE

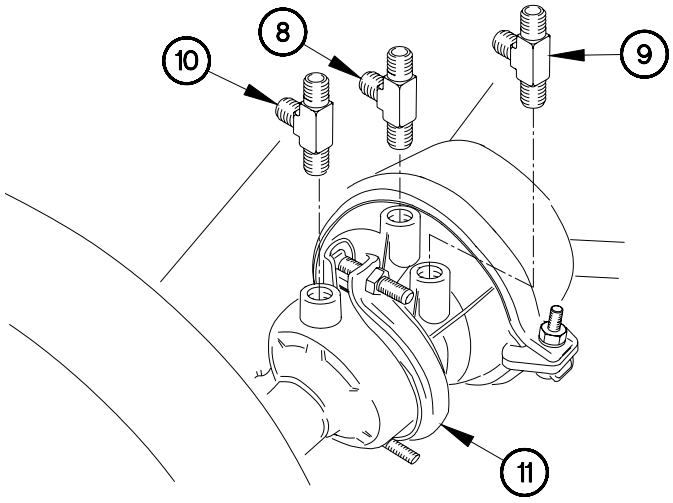
Tag air hoses and connection points prior to disconnecting.

4. Disconnect six air hoses (7) from tee fittings (8, 9, and 10).



K000E03

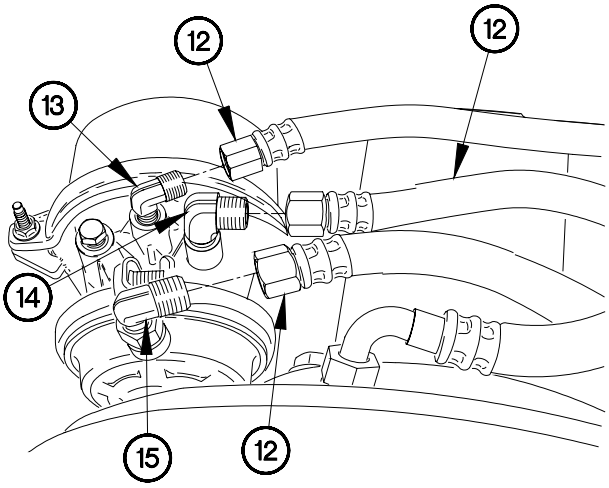
5. Remove tee fittings (8, 9, and 10) from brake air chamber (11).



K000E04

REMOVAL - Continued

6. Disconnect three air hoses (12) from 90-degree fittings (13, 14, and 15).



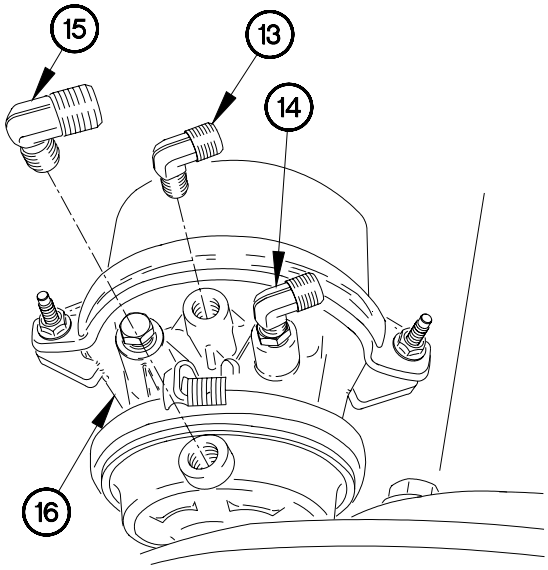
K000E05

NOTE

Note orientation of fittings prior to removal.

7. Remove three 90-degree fittings (13, 14, and 15) from brake air chamber (16).

8. Perform steps (4) through (7) on right side brake air chambers.



K000E06

AXLE ASSEMBLY (MTVT) REPLACEMENT - Continued 0101 00

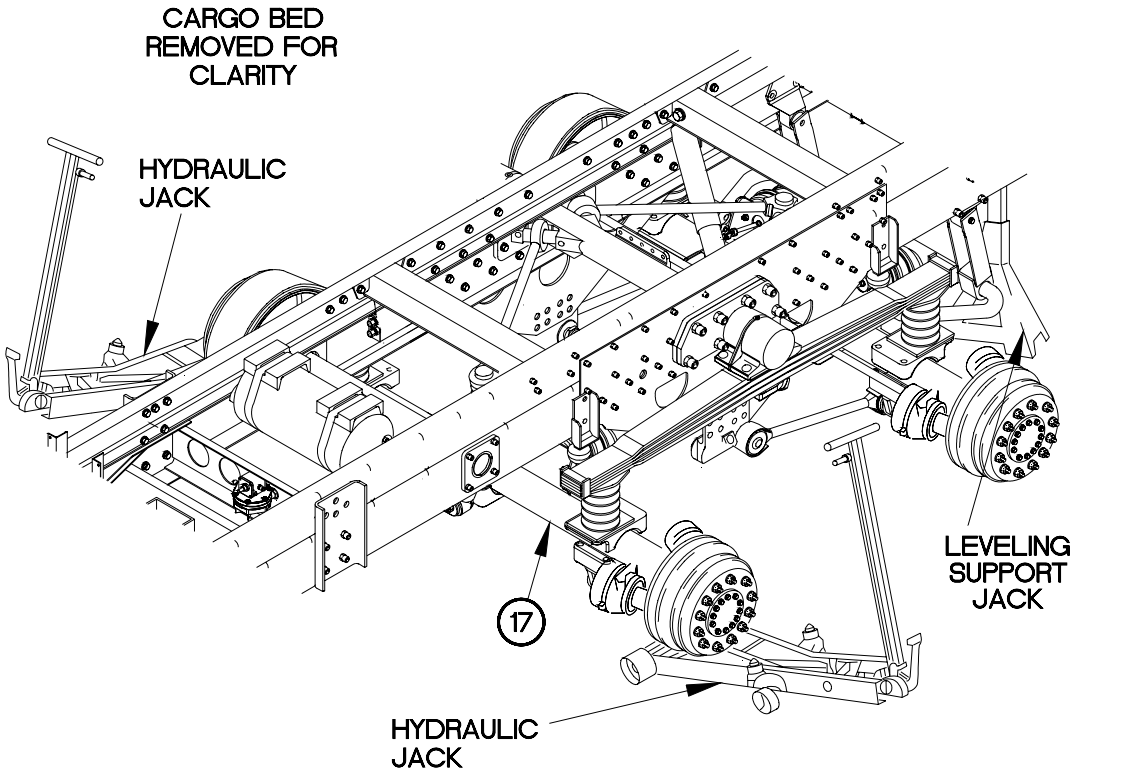
REMOVAL - Continued

WARNING

Axle assembly weighs approximately 1580 lbs (717 kgs). Axle assembly must be supported during removal. Failure to comply may result in injury to personnel or damage to equipment.

9. Position two hydraulic jacks under axle assembly (17).

10. Position two leveling support jacks under vehicle.



AXLE ASSEMBLY (MTVT) REPLACEMENT - Continued 0101 00

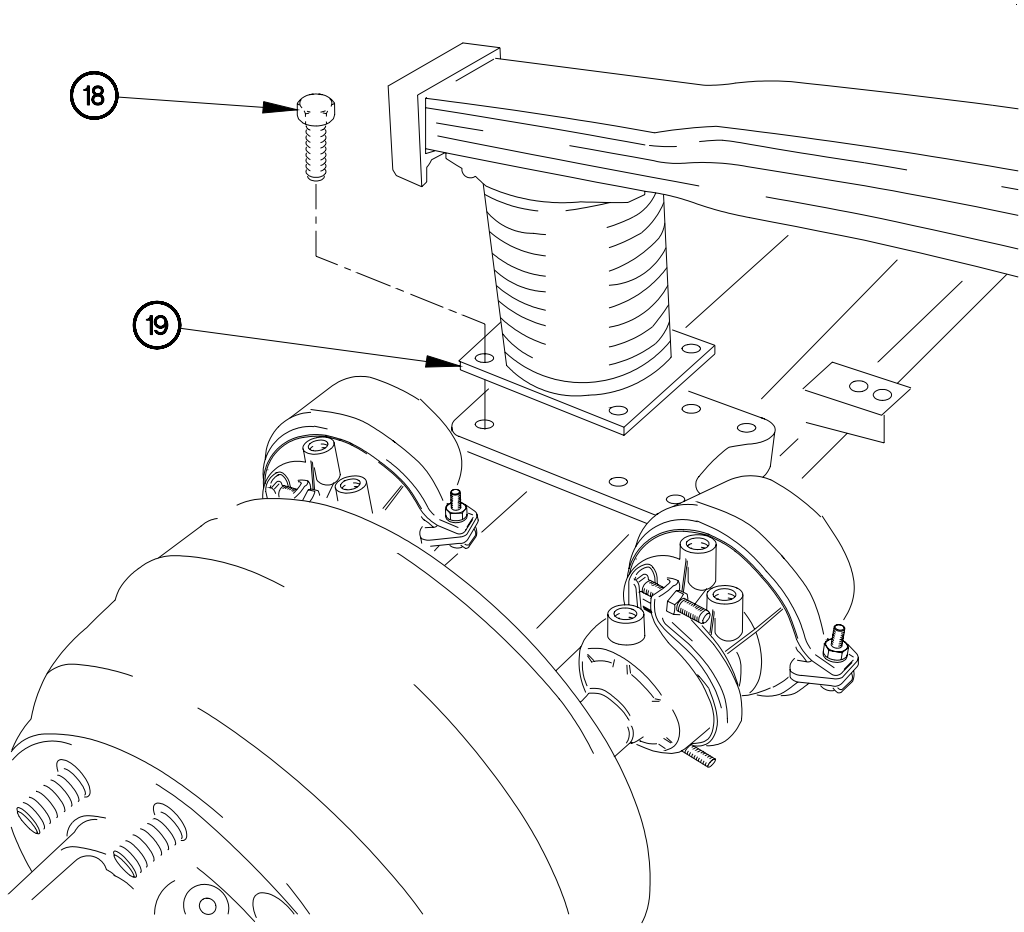
REMOVAL - Continued

NOTE

Left and right side spring mounts are removed the same way. Left front spring mount shown.

11. Remove four bolts (18) from spring mount (19).

12. Perform step (11) on right side spring mount.

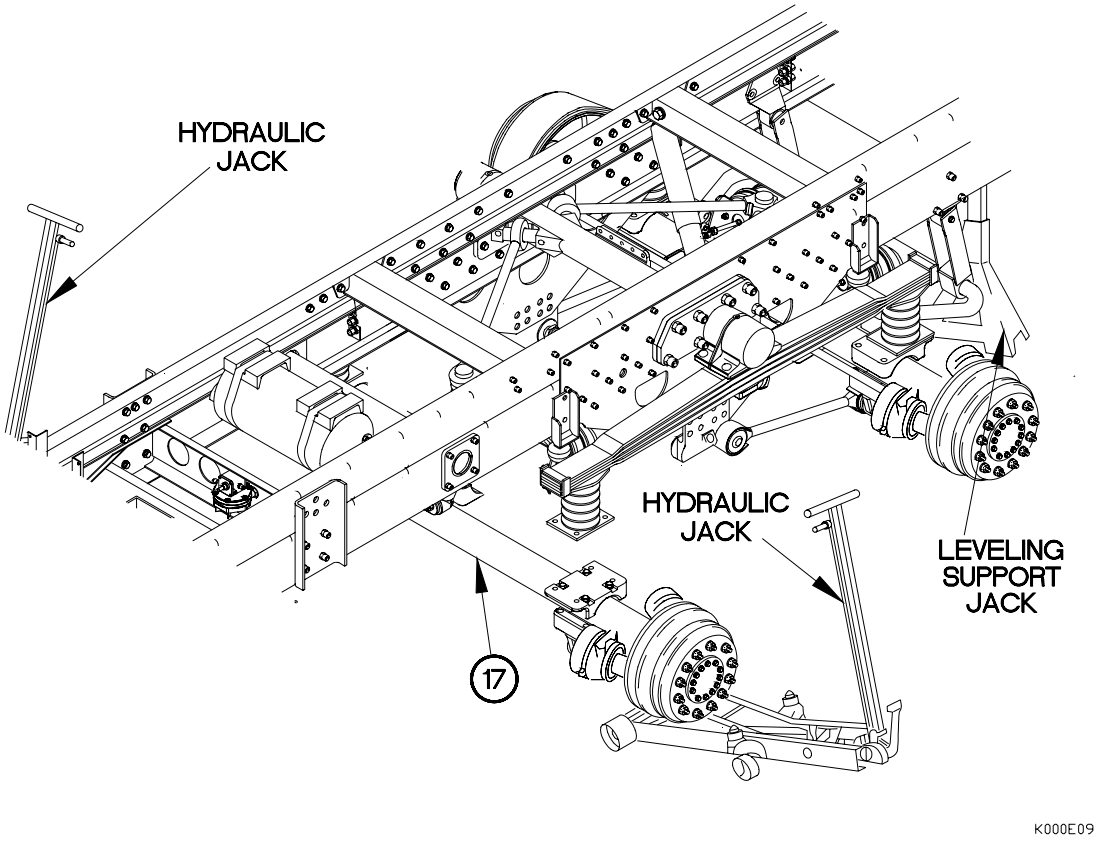


REMOVAL - Continued

NOTE

Step (13) requires the aid of two assistants.

13. Remove axle assembly (17) from trailer.



AXLE ASSEMBLY (MTVT) REPLACEMENT - Continued 0101 00

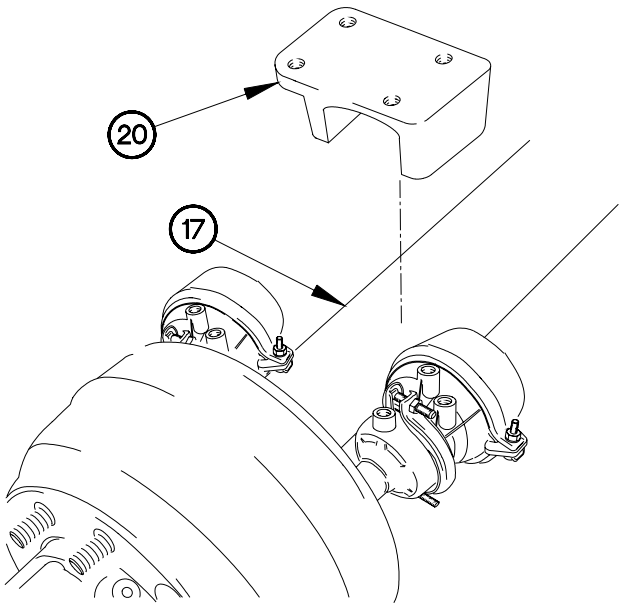
REMOVAL - Continued

NOTE

Left and right side spring mount brackets are removed the same way. Left side shown.

14. Remove spring mount bracket (20) from axle assembly (17).

15. Perform step (14) on right side of axle assembly.



K000E10

AXLE ASSEMBLY (MTVT) REPLACEMENT - Continued 0101 00

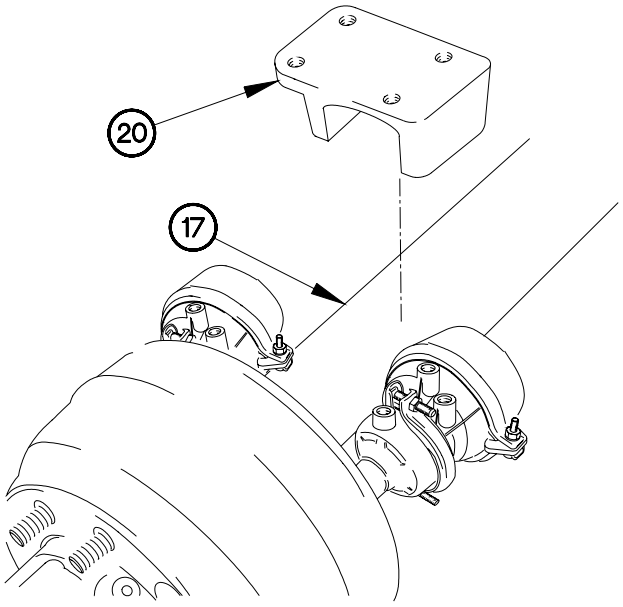
INSTALLATION

NOTE

Left and right side spring mount brackets are installed the same way. Left side shown.

1. Install spring mount bracket (20) on axle assembly (17).

2. Perform step (1) on right side of axle assembly.



K000E10

AXLE ASSEMBLY (MTVT) REPLACEMENT - Continued 0101 00

INSTALLATION - Continued

WARNING

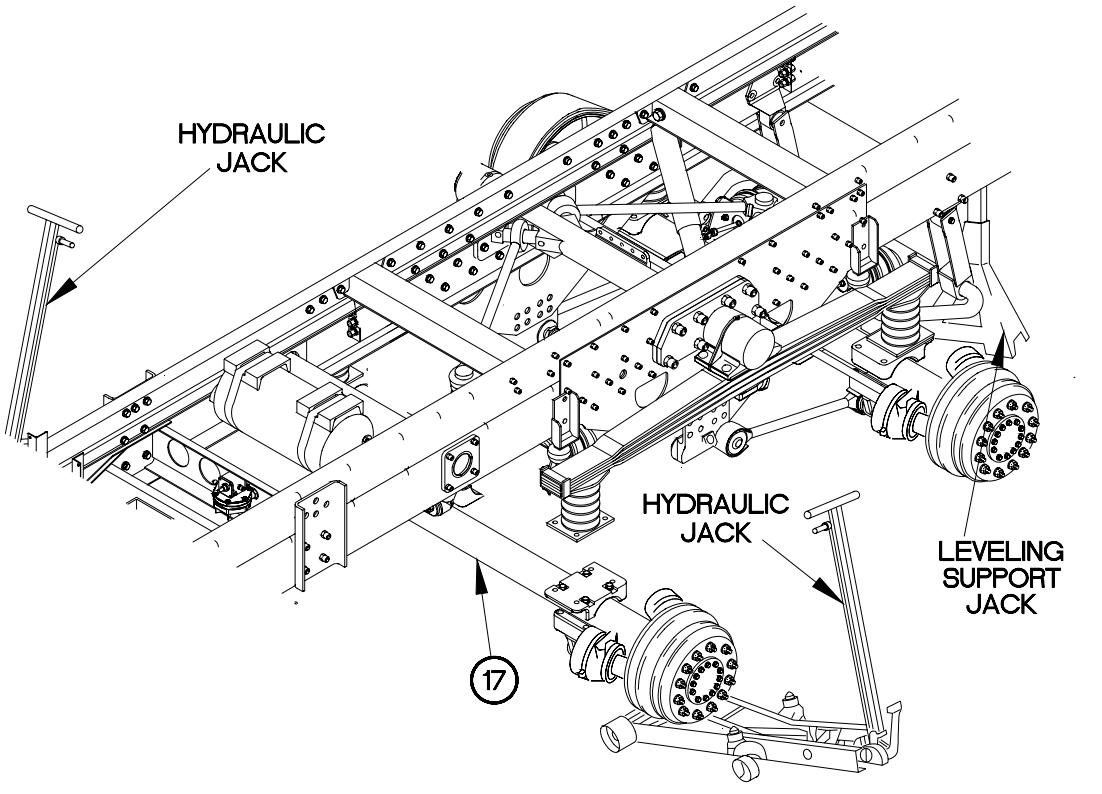
Axle assembly weighs approximately 1580 lbs (717 kgs). Axle assembly must be supported during installation. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

Steps (3) and (4) require the aid of two assistants.

3. Install axle assembly (17) on two hydraulic jacks.

4. Install axle assembly (17) under trailer.



AXLE ASSEMBLY (MTVT) REPLACEMENT - Continued 0101 00

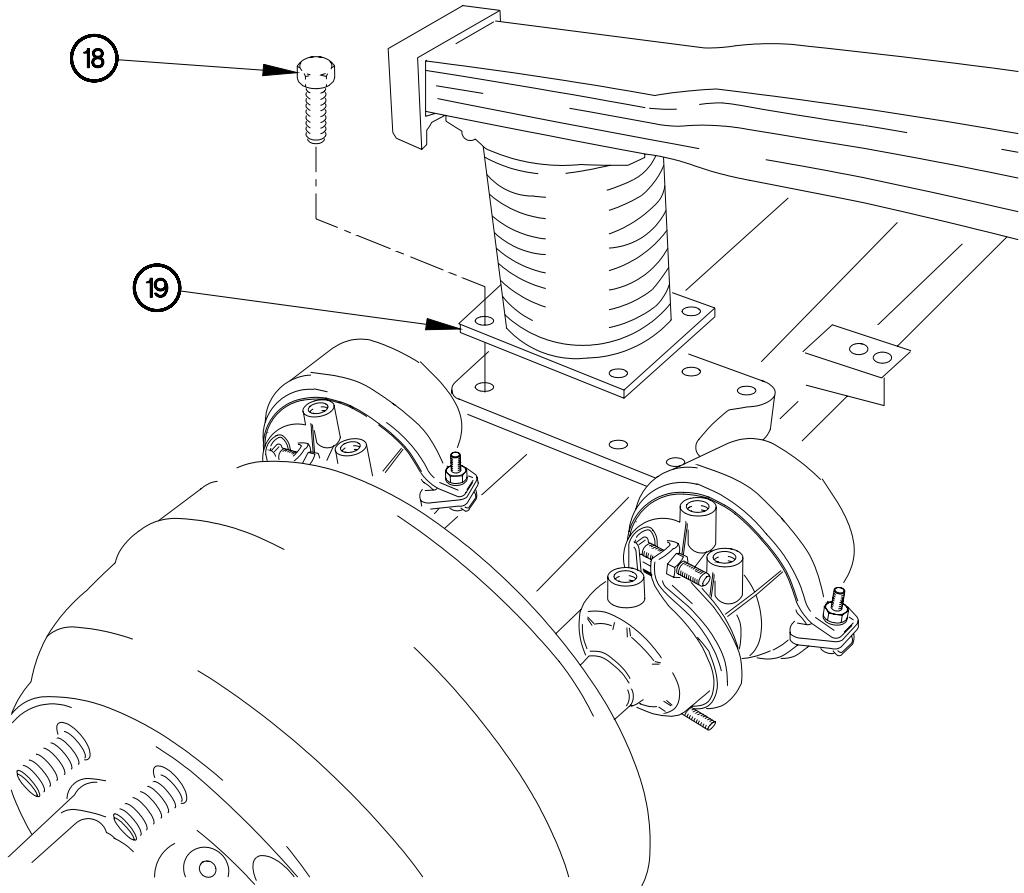
INSTALLATION - Continued

NOTE

Left and right side spring mounts are installed the same way. Left front spring mount shown.

5. Position four bolts (18) on spring mount (19).

6. Tighten four bolts (18) to 43-51 lb-ft (58-70 N•m).

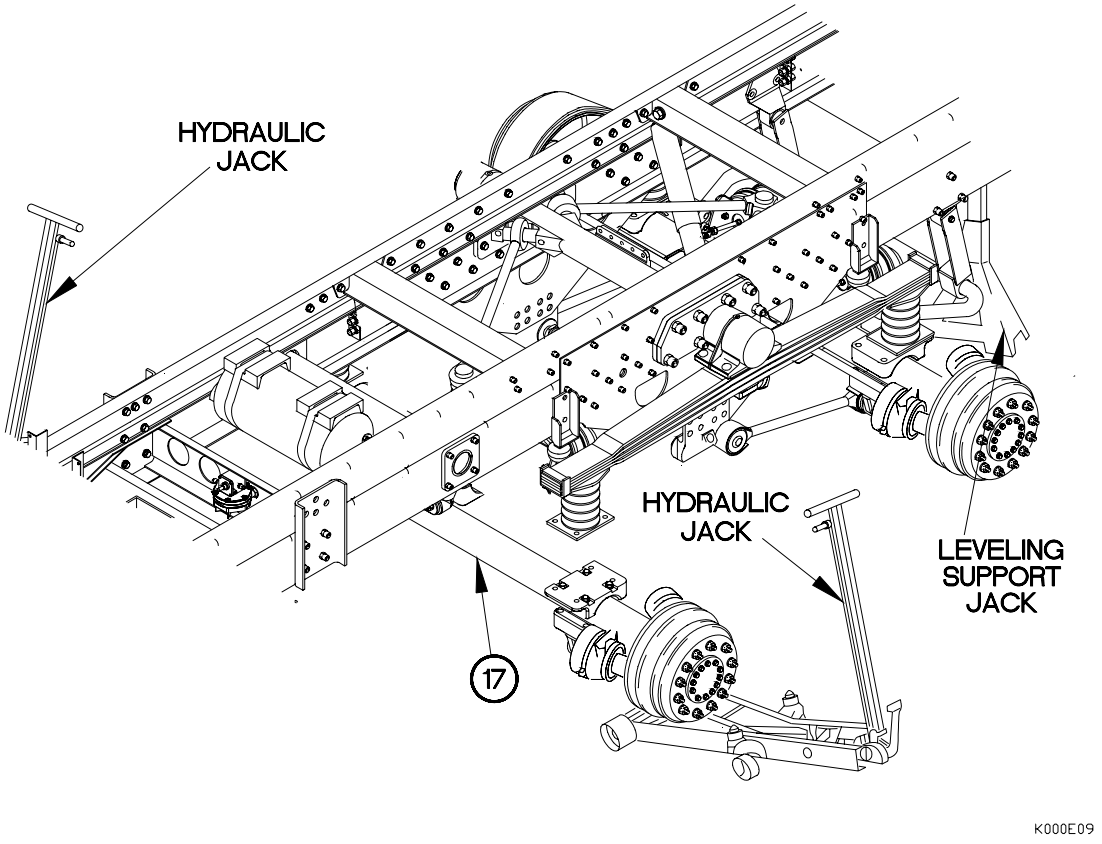


AXLE ASSEMBLY (MTVT) REPLACEMENT - Continued 0101 00

INSTALLATION - Continued

7. Remove two leveling support jacks from under vehicle.

8. Remove two hydraulic jacks from under axle assembly (17).



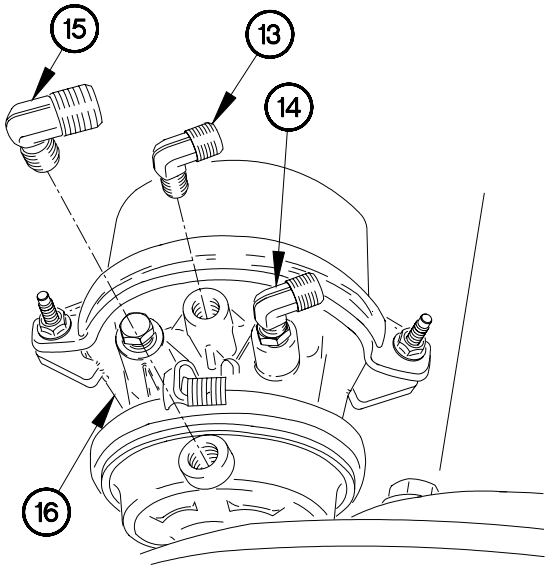
INSTALLATION - Continued

WARNING

Adhesive sealant MIL-S-46163 can damage your eyes. Wear safety goggles/glasses when using; avoid contact with eyes. If sealant contacts eyes, flush eyes with water and get immediate medical attention. Failure to comply may result in injury to personnel.

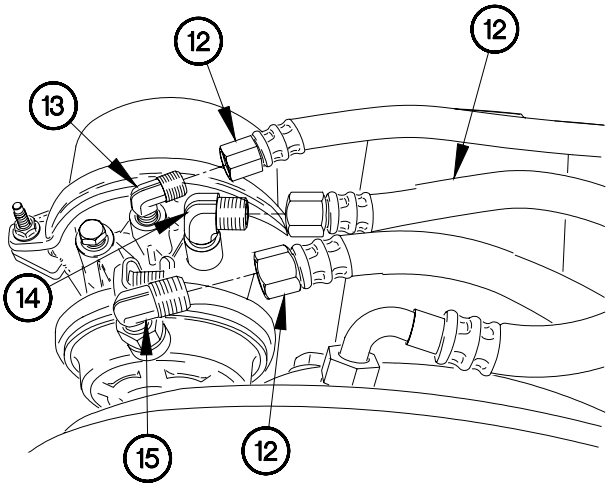
9. Apply sealing compound to threads of three 90-degree fittings (13, 14, and 15).

10. Install three 90-degree fittings (13, 14, and 15) in brake air chamber (16).



K000E06

11. Connect three air hoses (12) to 90-degree fittings (13, 14, and 15).



K000E05

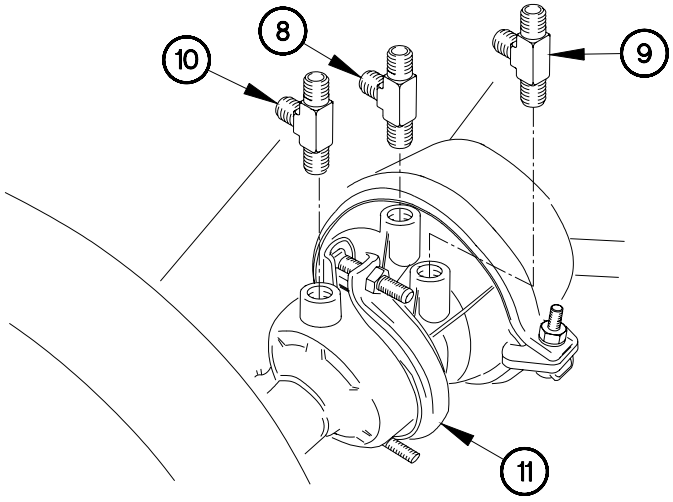
AXLE ASSEMBLY (MTVT) REPLACEMENT - Continued 0101 00

INSTALLATION - Continued

WARNING

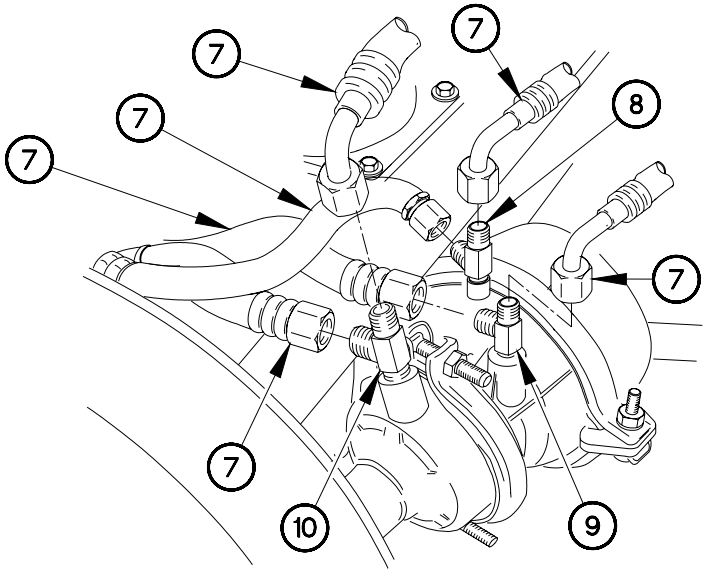
Adhesive sealant MIL-S-46163 can damage your eyes. Wear safety goggles/glasses when using; avoid contact with eyes. If sealant contacts eyes, flush eyes with water and get immediate medical attention. Failure to comply may result in injury to personnel.

12. Apply sealing compound to threads of three tee fittings (8, 9, and 10).
13. Install three tee fittings (8, 9, and 10) in brake air chamber (11).



K000E04

14. Connect six air hoses (7) to tee fittings (8, 9, and 10).
15. Perform steps (7) through (14) on right side brake air chambers.



K000E03

AXLE ASSEMBLY (MTVT) REPLACEMENT - Continued 0101 00

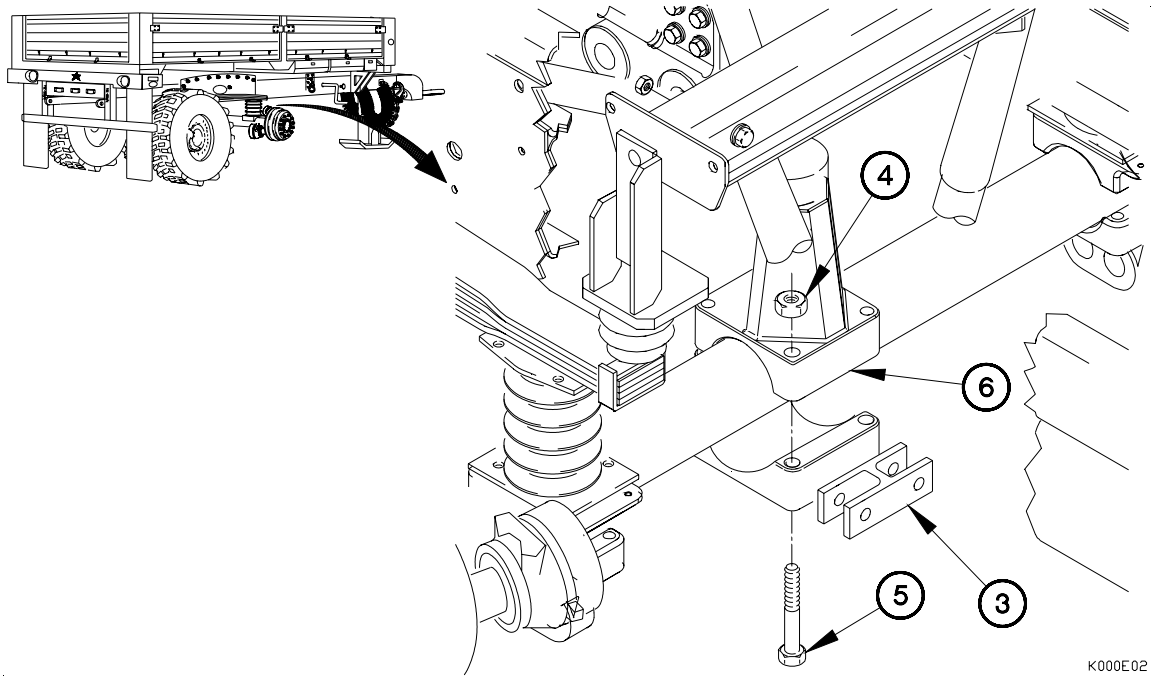
INSTALLATION - Continued

NOTE

Front and rear shock mounting plates are installed the same way. Front shown.

16. Position shock mounting plate (3) on axle bracket (6) with four bolts (5) and nuts (4).

17. Tighten four nuts (4) to 391-509 lb-ft (530-690 N•m).

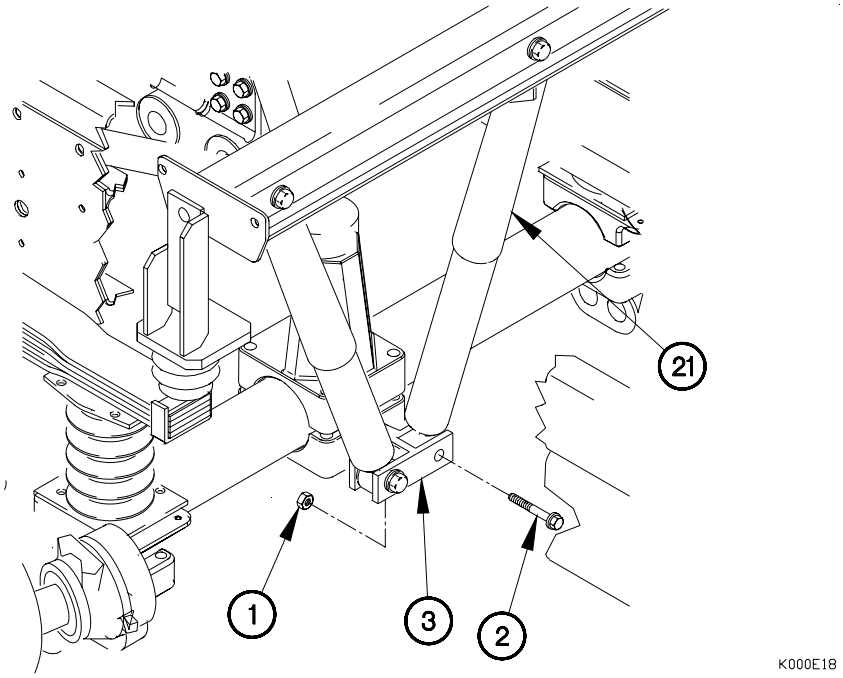


INSTALLATION - Continued

NOTE

Left and right side shock absorbers are connected the same way. Left side shown.

18. Position shock absorber (21) in shock mounting plate (3) with bolt (2) and self-locking nut (1).
19. Tighten self-locking nut (1) to 135-164 lb-ft (183-223 N•m).
20. Perform steps (18) and (19) on right side of shock mounting plate.



OPERATIONAL CHECK

1. Install torque rods (on axle being worked) (WP 0097 00, Installation).
2. Install ABS wheel speed sensors (on axle being worked) (WP 0054 00, Installation).
3. Install stabilizer bar (rear axle) (WP 0091 00, Installation.
4. Couple trailer (WP 0009 00, Coupling Trailer).
5. Operate trailer and check for normal operation (WP 0011 00, Towing Trailer).
6. Uncouple trailer (WP 0012 00, Uncoupling Trailer).
7. Inspect axle assembly for secure installation.

END OF WORK PACKAGE

AXLE ASSEMBLY (LMTVT) REPLACEMENT 0102 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 50-250 lb-ft (Item 50, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Multiplier, Torque Wrench (Item 17, WP 0178 00)
Jack, Leveling Support, Vehicle (2) (Item 15, WP 0178 00)
Jack, Dolly Type, Hydraulic (2) (Item 14, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Wrench Set, Crowfoot, Ratcheting (Item 6, Table 2, WP 0124 00)

Materials/Parts
Nut, Self-locking (2) (Item 35, WP 0181 00)
Sealing compound (Item 30, WP 0176 00)
Dispenser, Pressure Sensitive Adhesive Tape (Item 10, WP 0176 00)
Nut, Self-locking (4) (item 45, WP 0181 00)
U-Bolt (4) (item 51, WP 0181 00)

Personnel Required
Three

References
WP 0008 00
WP 0009 00
WP 0012 00
WP 0045 00
WP 0106 00

Equipment Conditions
Leaf springs removed (WP 0100 00).
Stabilizer bar removed (WP 0091 00).
ABS wheel speed sensors removed (WP 0054 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

AXLE ASSEMBLY (LMTVT) REPLACEMENT - Continued 0102 00

REMOVAL

1. Place trestles under rear of trailer.

CAUTION

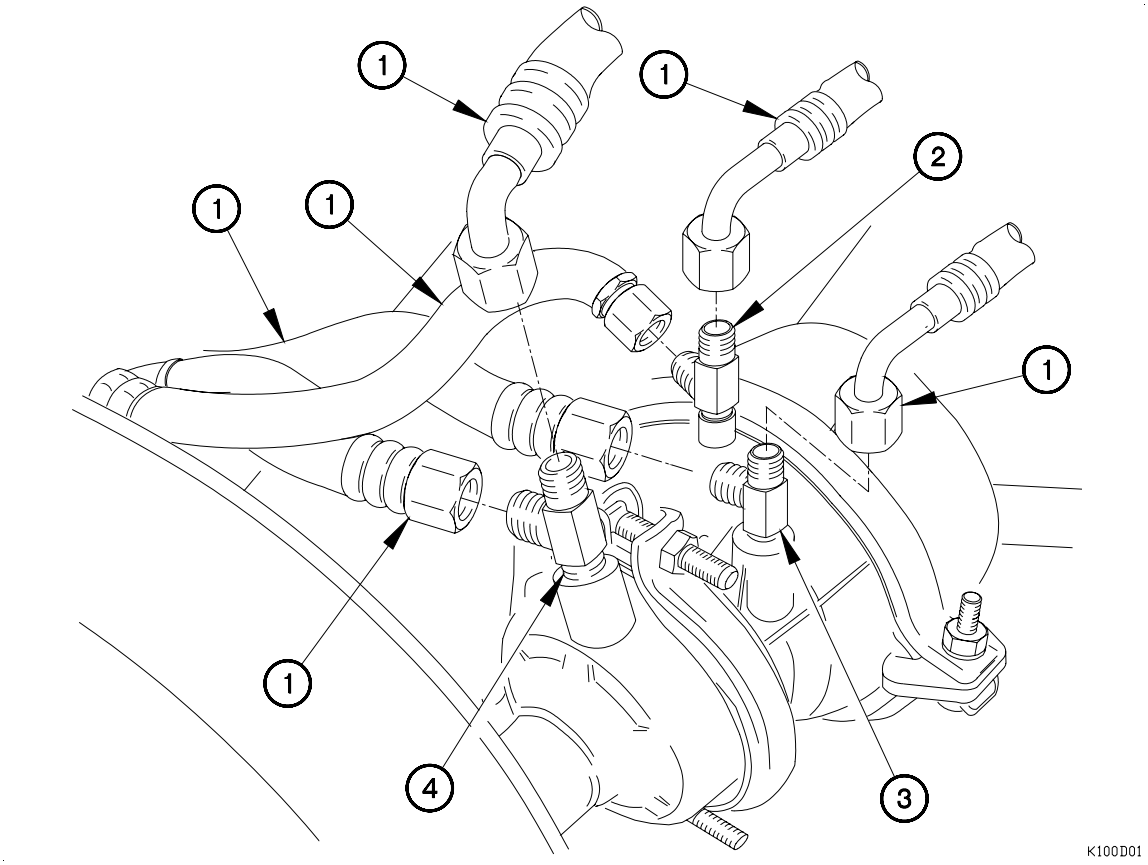
Cap or plug air hoses and fittings to prevent contamination of air system. Failure to comply may result in damage to equipment.

NOTE

Left and right side brake air chambers are disconnected the same way. Left side shown.

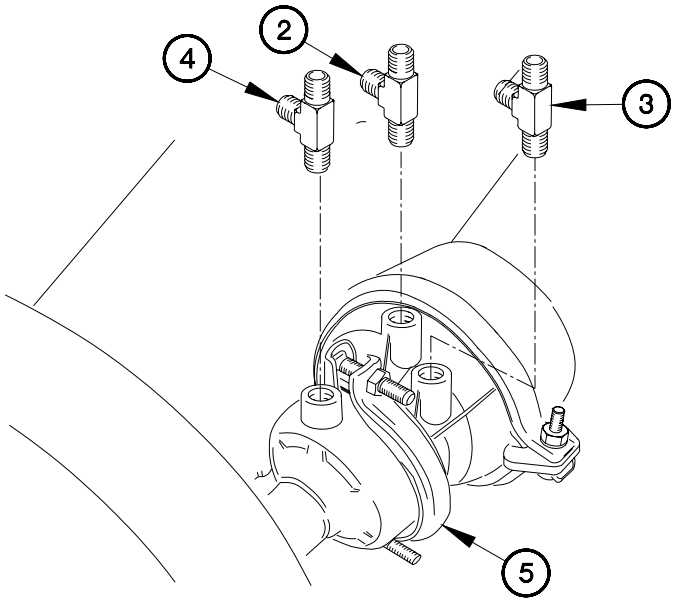
Tag air hoses and connection points prior to disconnecting.

2. Disconnect six air hoses (1) from tee fittings (2, 3, and 4).



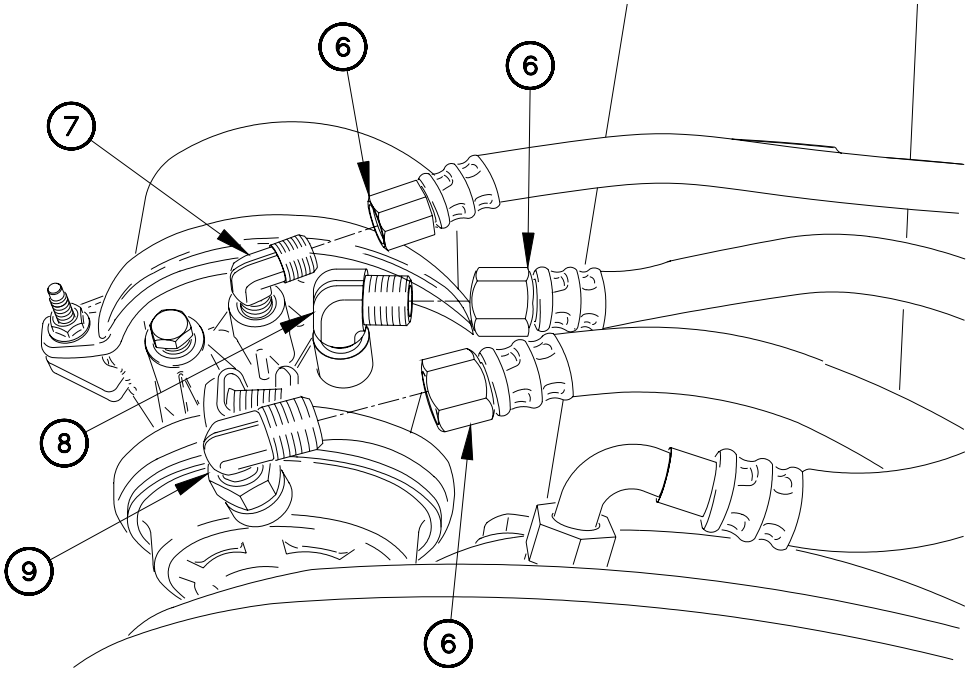
REMOVAL - Continued

3. Remove tee fittings (2, 3, and 4) from brake air chamber (5).



K100D02

4. Disconnect three air hoses (6) from 90-degree fittings (7, 8, and 9).



K100D03

AXLE ASSEMBLY (LMTVT) REPLACEMENT - Continued 0102 00

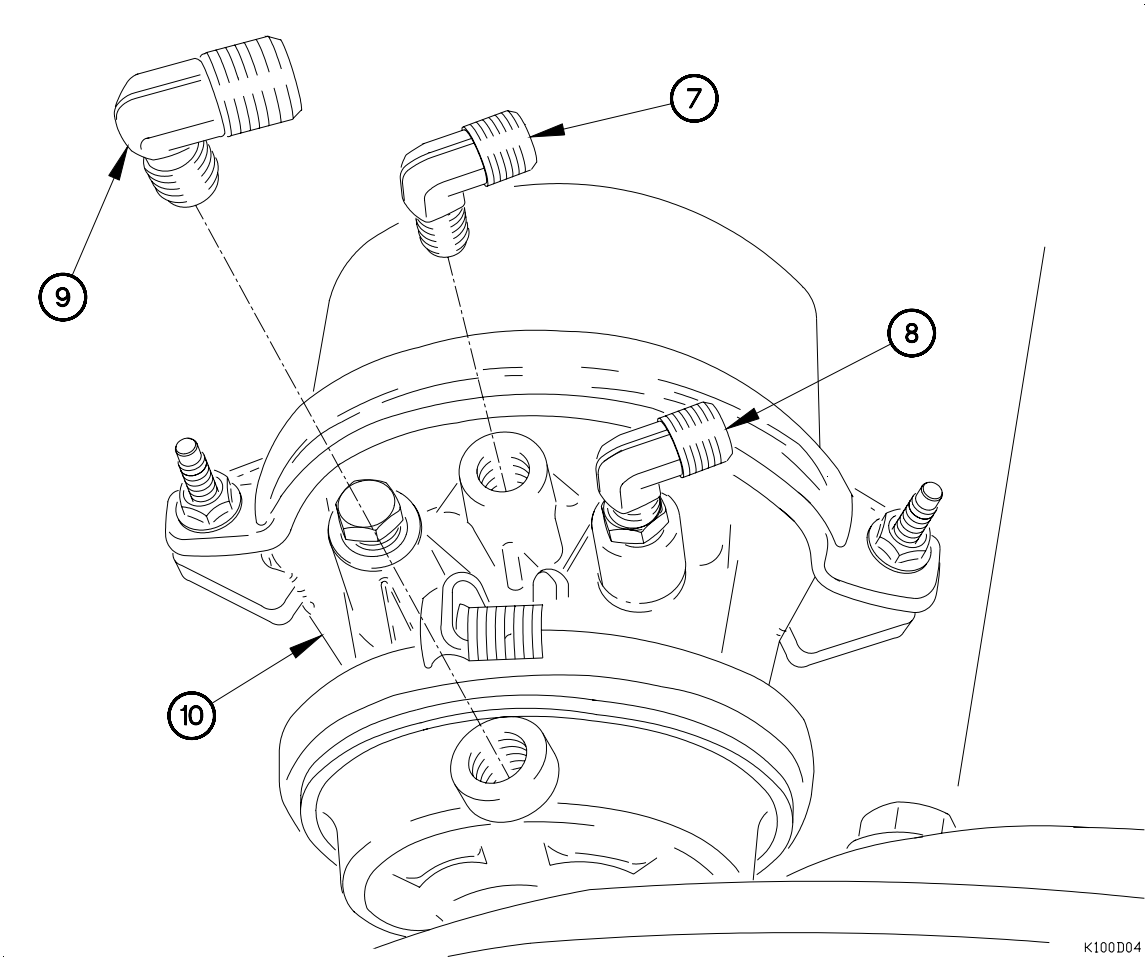
REMOVAL - Continued

NOTE

Note orientation of fittings prior to removal.

5. Remove 90-degree fittings (7, 8, and 9) from brake air chamber (10).

6. Perform steps (2) through (5) on right side brake air chambers.



AXLE ASSEMBLY (LMTVT) REPLACEMENT - Continued 0102 00

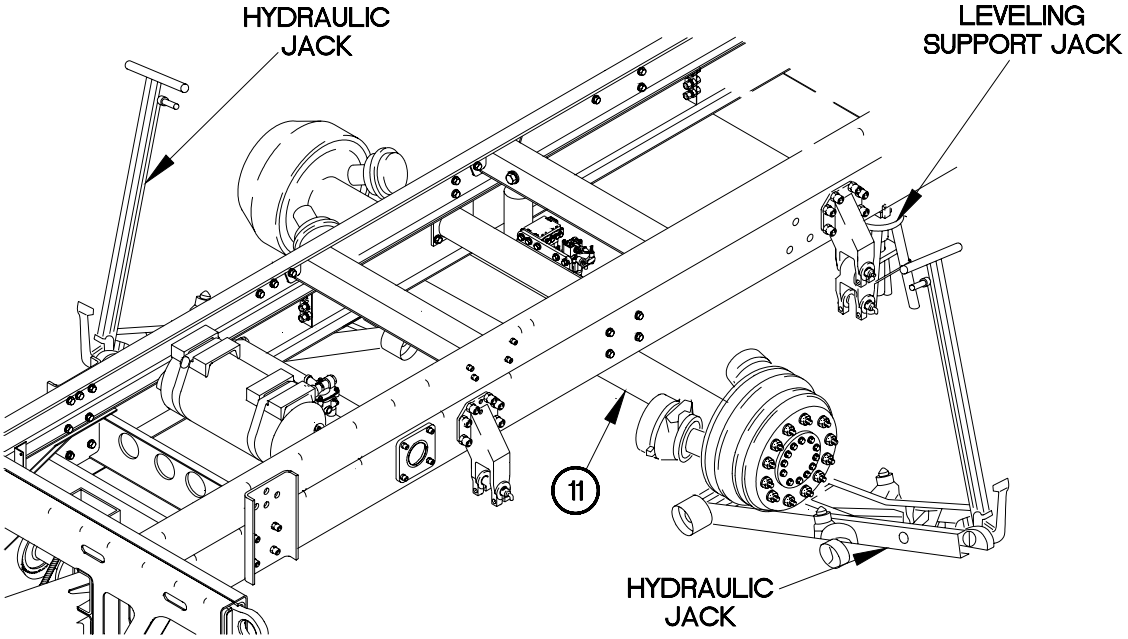
REMOVAL - Continued

WARNING

Axle assembly weighs approximately 1580 lbs (717 kgs). Axle assembly must be supported during removal. Failure to comply may result in injury to personnel or damage to equipment.

7. Position two hydraulic jacks under axle assembly (11).

8. Position two leveling support jacks under trailer.



K100D05

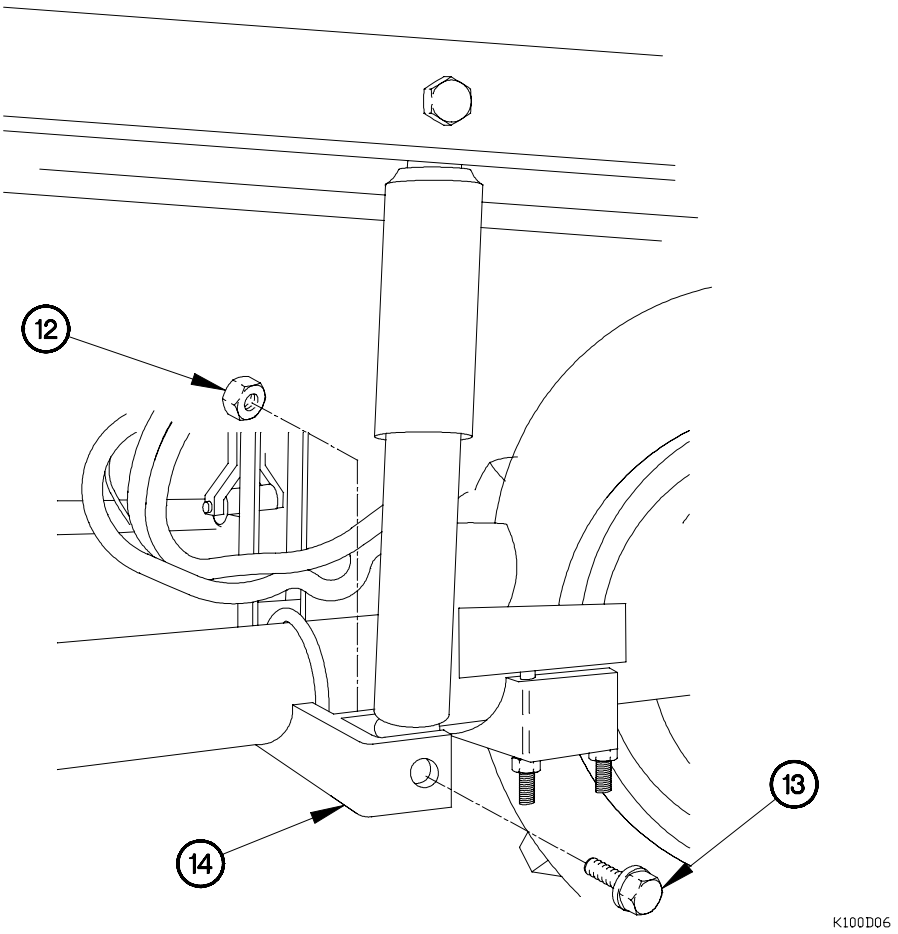
AXLE ASSEMBLY (LMTVT) REPLACEMENT - Continued 0102 00

REMOVAL - Continued

NOTE

Left and right side shock mounting plates are removed the same way. Left side shown

9. Remove self-locking nut (12) and bolt (13) from shock mounting plate (14). Discard self-locking nut.

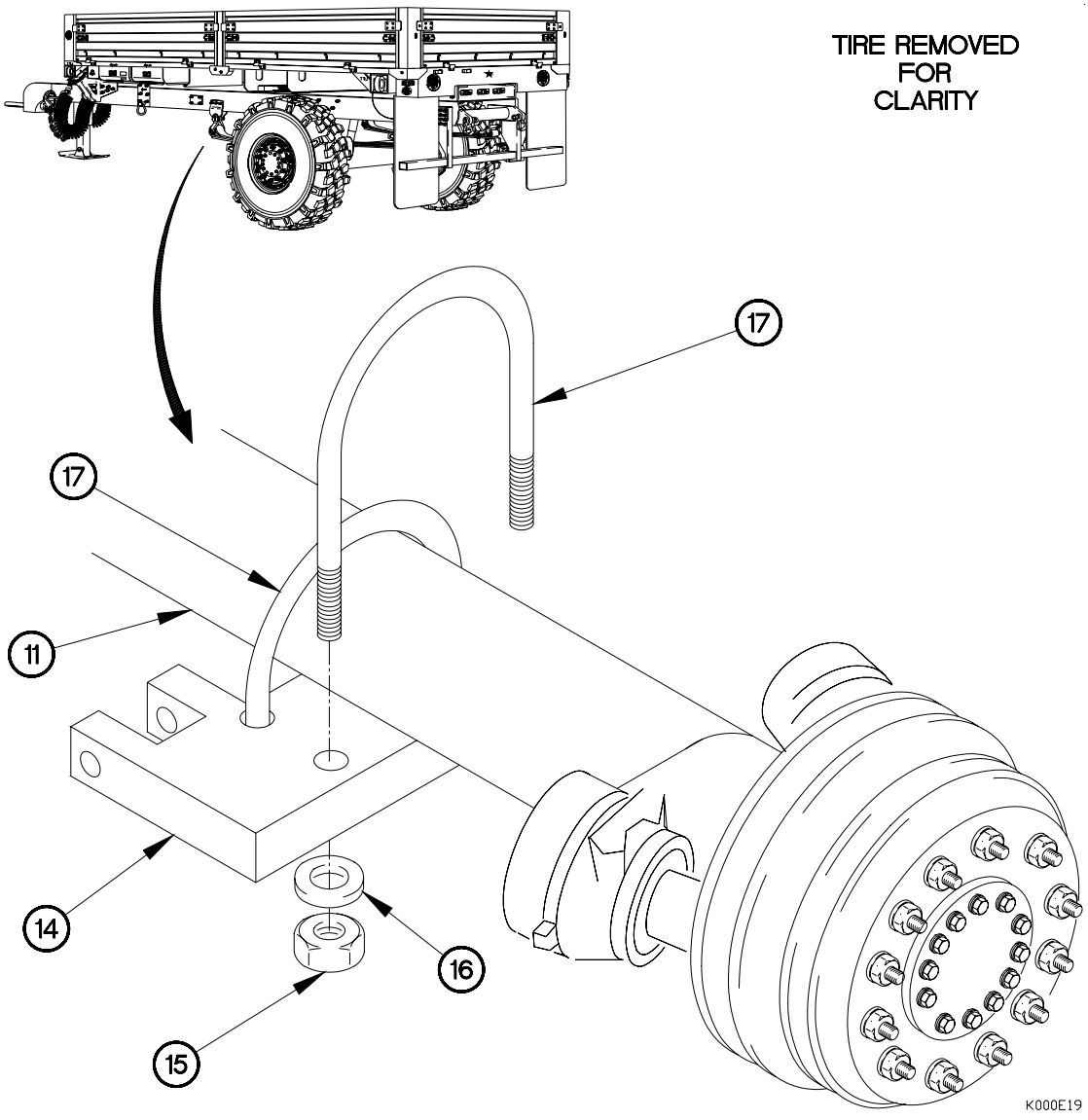


AXLE ASSEMBLY (LMTVT) REPLACEMENT - Continued 0102 00

REMOVAL - Continued

10. Remove four self-locking nuts (15), washers (16), two U-bolts (17), and shock mounting plate (14) from axle assembly (11). Discard self-locking nuts and u-bolts.

11. Perform steps (9) and (10) on right side shock mounting plate.

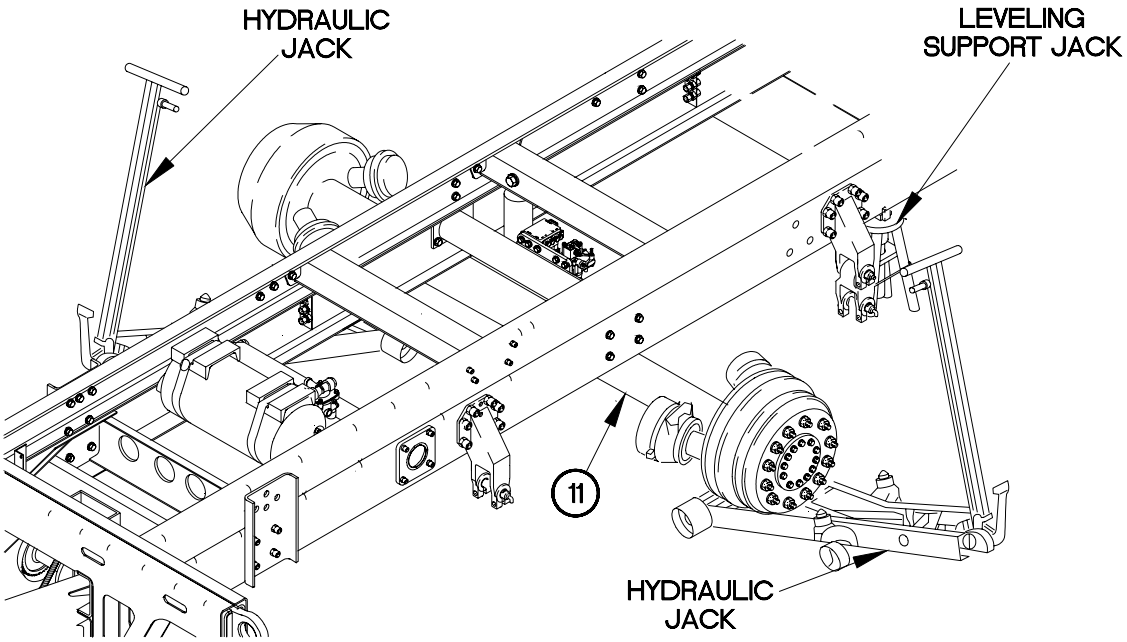


REMOVAL - Continued

NOTE

Step (12) requires the aid of two assistants.

12. Remove axle assembly (11) from trailer.



K100D05

AXLE ASSEMBLY (LMTVT) REPLACEMENT - Continued 0102 00

REMOVAL - Continued

INSTALLATION

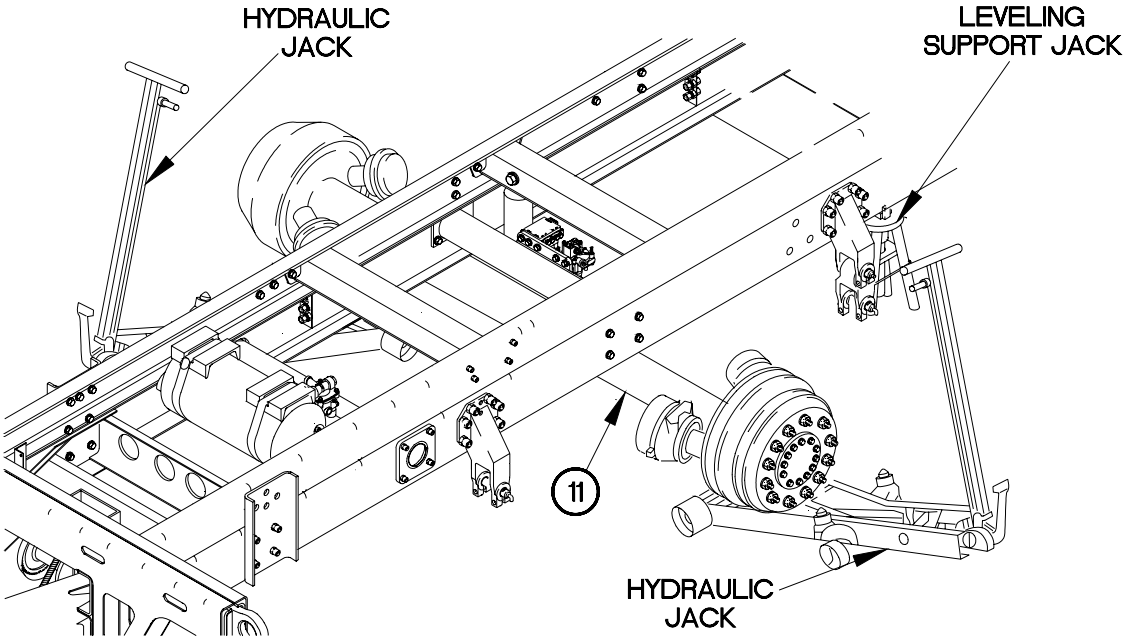
WARNING

Axle assembly weighs approximately 1580 lbs (717 kgs). Axle assembly must be supported during installation. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

Steps (3) and (4) requires the aid of two assistants.

1. Position axle assembly (11) on two hydraulic jacks.
2. Position axle assembly (11) under trailer.



K100D05

INSTALLATION - Continued

WARNING

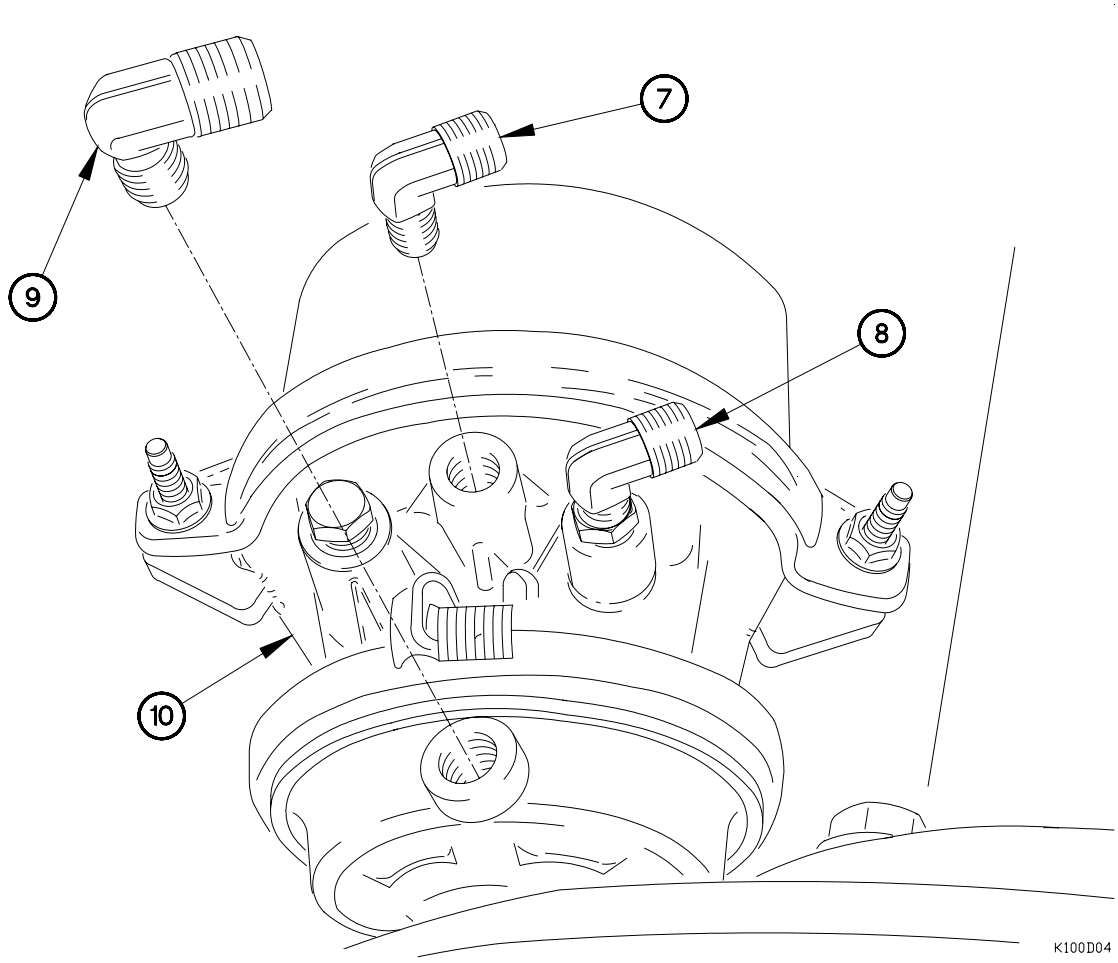
Adhesive sealant MIL-S-46163 can damage your eyes. Wear safety goggles/glasses when using; avoid contact with eyes. If sealant contacts eyes, flush eyes with water and get immediate medical attention. Failure to comply may result in injury to personnel.

NOTE

Left and right side brake air chambers are connected the same way. Left side shown.

3. Apply sealing compound to threads of 90-degree fittings (7, 8, and 9).

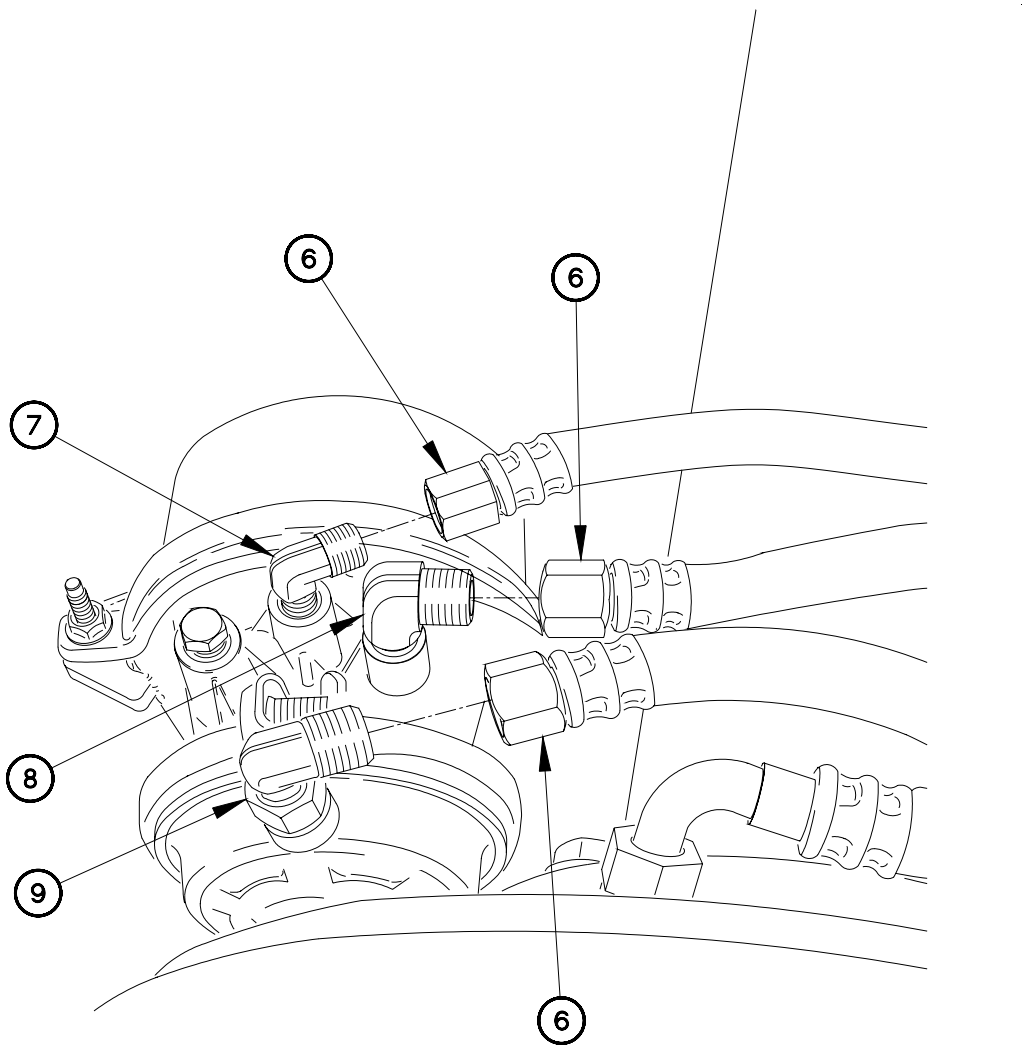
4. Install 90-degree fittings (7, 8, and 9) in brake air chamber (10).



AXLE ASSEMBLY (LMTVT) REPLACEMENT - Continued 0102 00

INSTALLATION - Continued

5. Connect air hoses (6) to 90-degree fittings (7, 8, and 9).



K100i01

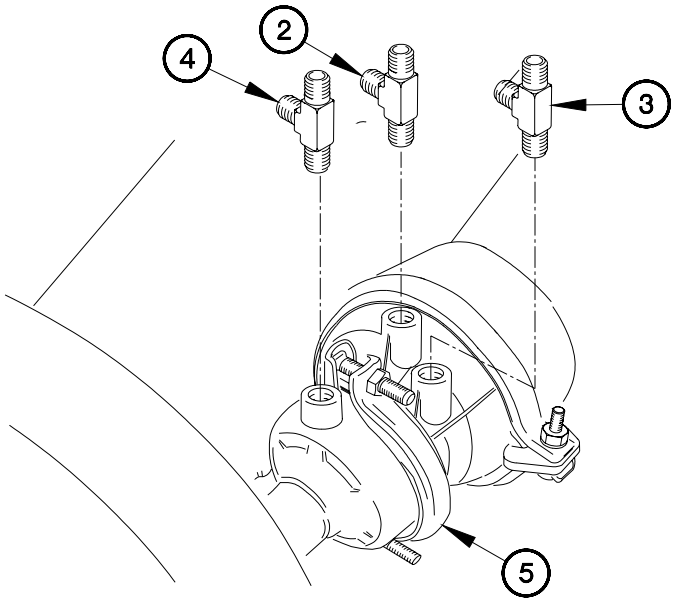
INSTALLATION - Continued

WARNING

Adhesive sealant MIL-S-46163 can damage your eyes. Wear safety goggles/glasses when using; avoid contact with eyes. If sealant contacts eyes, flush eyes with water and get immediate medical attention. Failure to comply may result in injury to personnel.

6. Apply sealing compound to threads of tee fittings (2, 3, and 4).

7. Install tee fittings (2, 3, and 4) in brake air chamber (5).



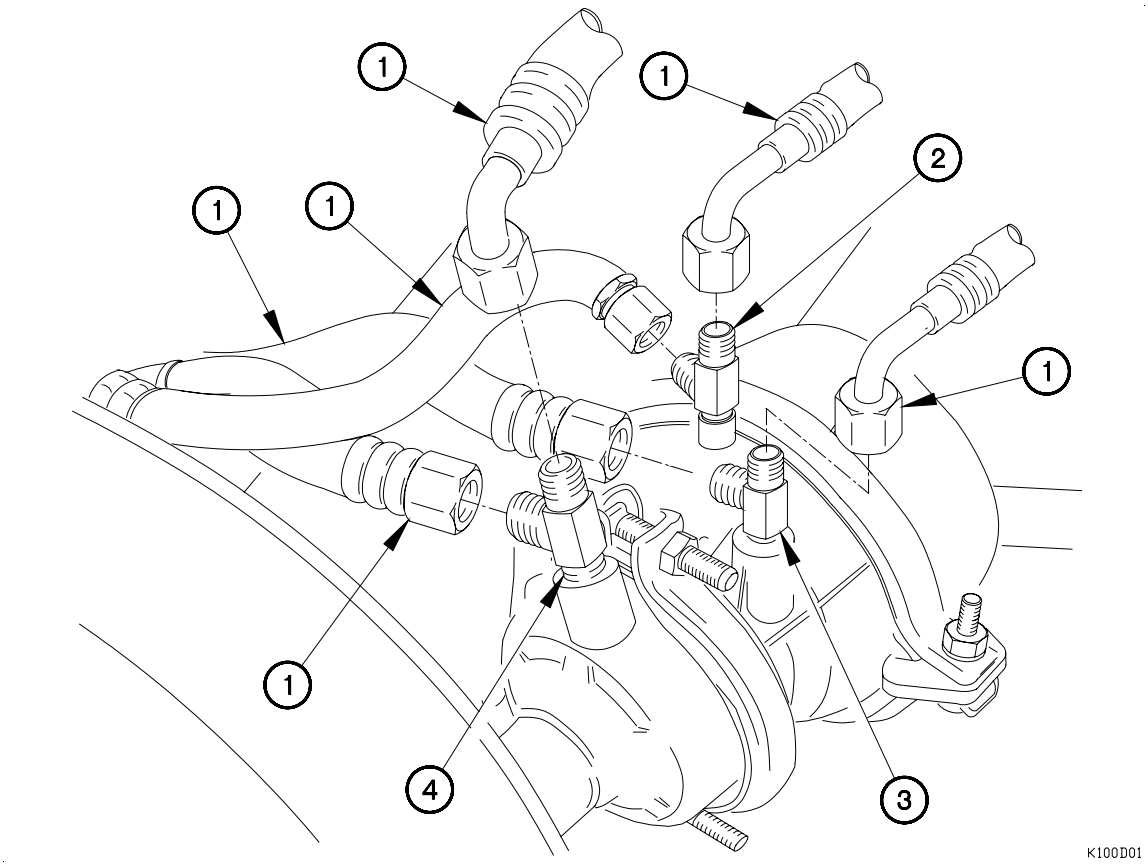
K100D02

AXLE ASSEMBLY (LMTVT) REPLACEMENT - Continued 0102 00

INSTALLATION - Continued

8. Connect six air hoses (1) to tee fittings (2, 3, and 4).

9. Perform steps (5) through (10) on right side brake air chambers.



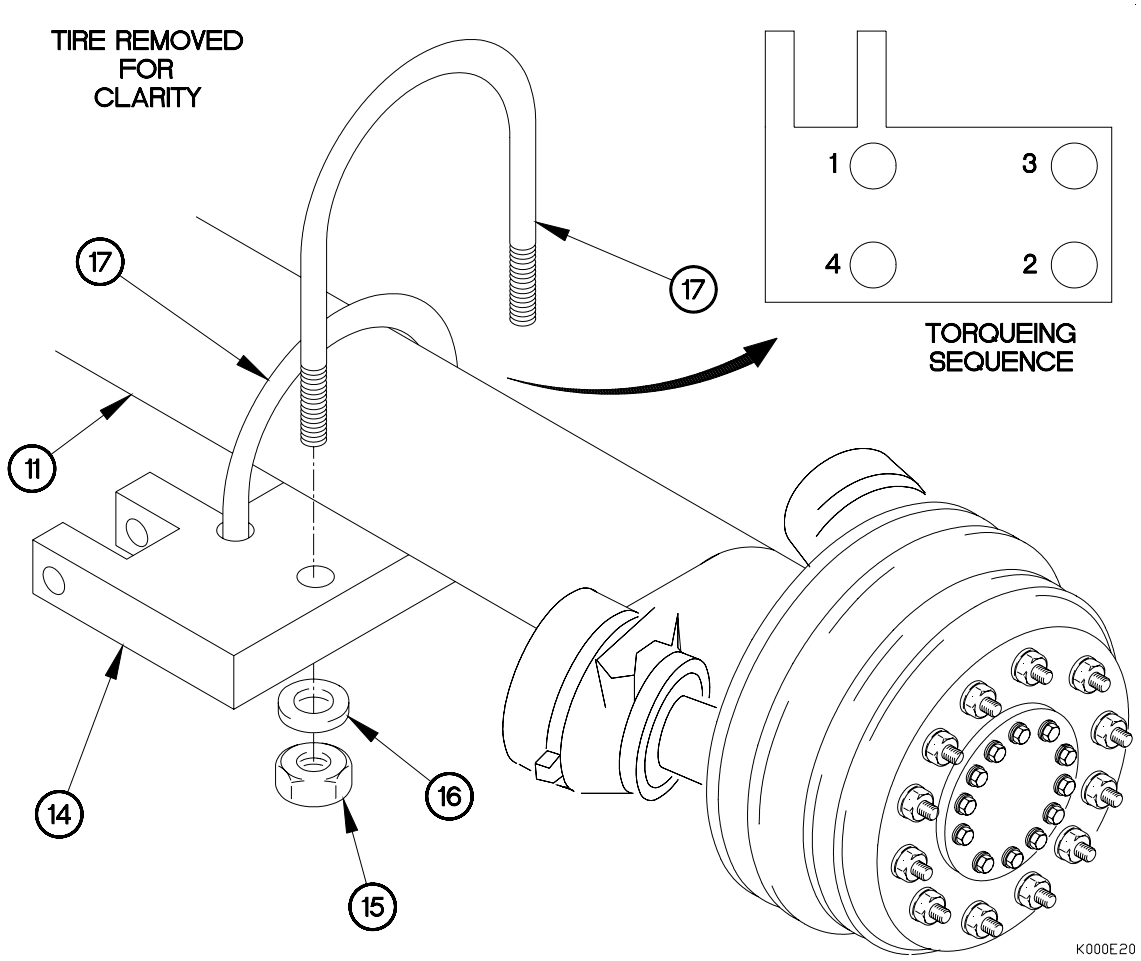
INSTALLATION - Continued

NOTE

Left and right side shock mounting plates are installed the same way. Left side shown.

10. Position shock mounting plate (14) on axle assembly (11) with two U-bolts (17), four washers (16), and self-locking nuts (15).

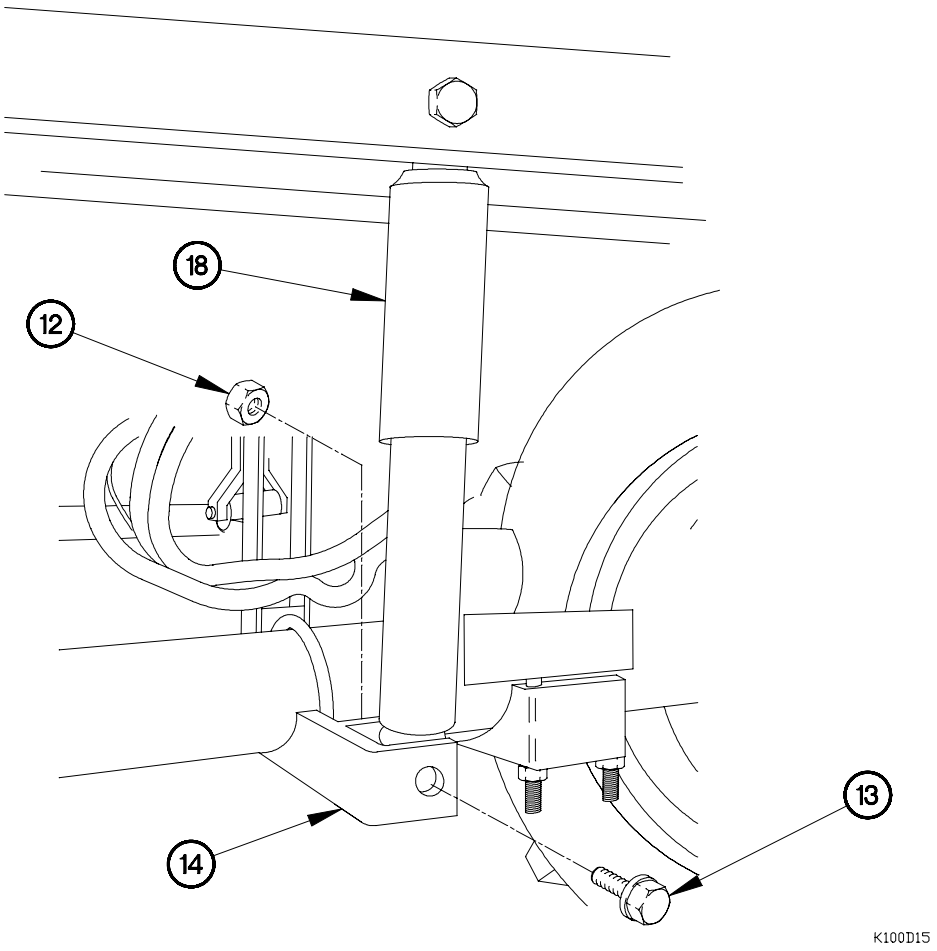
11. Tighten four self-locking nuts (15) to 263-322 lb-ft (356-436 N•m).



AXLE ASSEMBLY (LMTVT) REPLACEMENT - Continued 0102 00

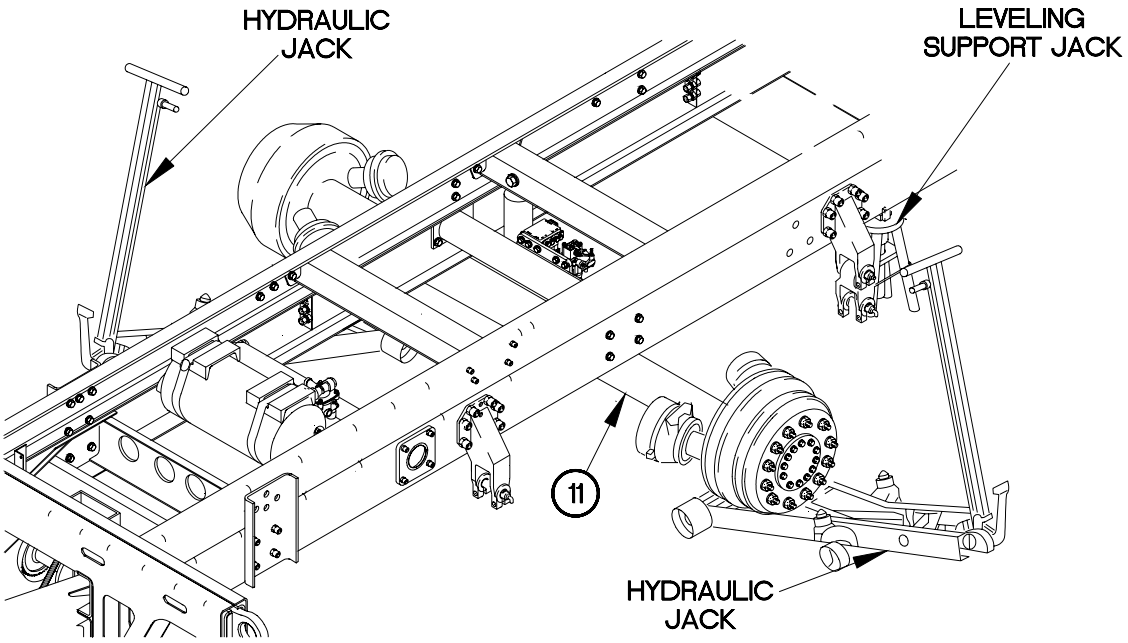
INSTALLATION - Continued

12. Position shock absorber (18) in shock mounting plate (14) with bolt (13) and self-locking nut (12).
13. Tighten self-locking nut (12) to 135-164 lb-ft (183-223 N•m).
14. Perform steps (12) through (15) on right shock mounting plate.



INSTALLATION - Continued

15. Remove two hydraulic jacks from under axle assembly (11).
16. Remove two leveling support jacks from under trailer.



K100D05

OPERATIONAL CHECK

1. Install ABS wheel speed sensors (WP 0054 00, Installation).
2. Install stabilizer bar (WP 0091 00, Installation).
3. Install leaf springs (WP 0100 00, Installation).
4. Couple trailer (WP 0009 00, Coupling Trailer).
5. Operate trailer and check for normal operation (WP 0011 00, Towing Trailer).
6. Uncouple trailer (WP 0012 00, Uncoupling Trailer).
7. Inspect axle assembly for secure installation.

END OF WORK PACKAGE

CARGO BED REPLACEMENT 0103 00

THIS WORK PACKAGE COVERS:
Removal, Installation

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench, Torque, 0-175 lb-ft. (Item 49, WP 0178 00)
Wrench, Impact, Electric (Item 42, WP 0178 00)
Socket Set, Impact (Item 28, WP 0178 00)
Sling Cargo (2) (Item 27, WP 0178 00)

Materials/Parts
Bolt, Hex Flange (8) (Item 25, WP 0181 00)
Bolt, Hex Flange (60) (Item 26, WP 0181 00)
Bolt, Hex Flange (8) (Item 28, WP 0181 00)

Materials/Parts (Cont)
Nut, Self-Locking (72) (Item 35, WP 0181 00)

Personnel Required
Four

Equipment Conditions
Ladder removed (WP 0010 00).
Cargo cover removed, if equipped (WP 0014 00).
Cargo bed side panels and stakes removed, if equipped (WP 0010 00).
ABS diagnostic brackets removed (WP 0074 00).
Air tank removed (WP 0064 00).
Splash guards removed (WP 0090 00).
Voltage converter box removed (WP 0052 00).
Composite taillights removed (WP 0049 00).
Clearance and marker lights removed (WP 0050 00).
Retractable support winch handle removed (WP 0013 00).
Electrical Cable Assembly Removed (WP 0051 00)
Stowage Box Removed (WP 0087 00)
Chock Block Stowage Box Removed (WP 0087 00)
Lifting Beams Removed (WP 010500)

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

CARGO BED REPLACEMENT - Continued 0103 00

REMOVAL

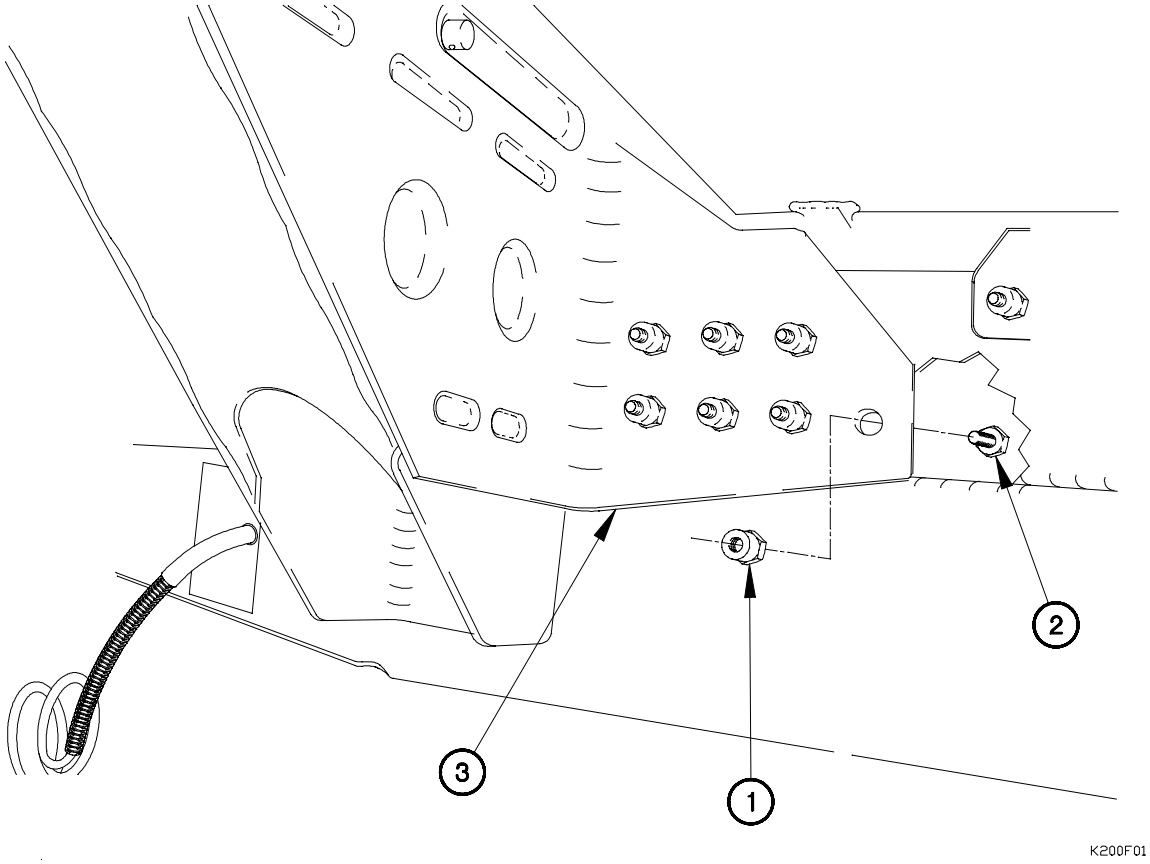
CAUTION

When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

NOTE

Perform steps (1 through 3) on left side of front lifting beam.

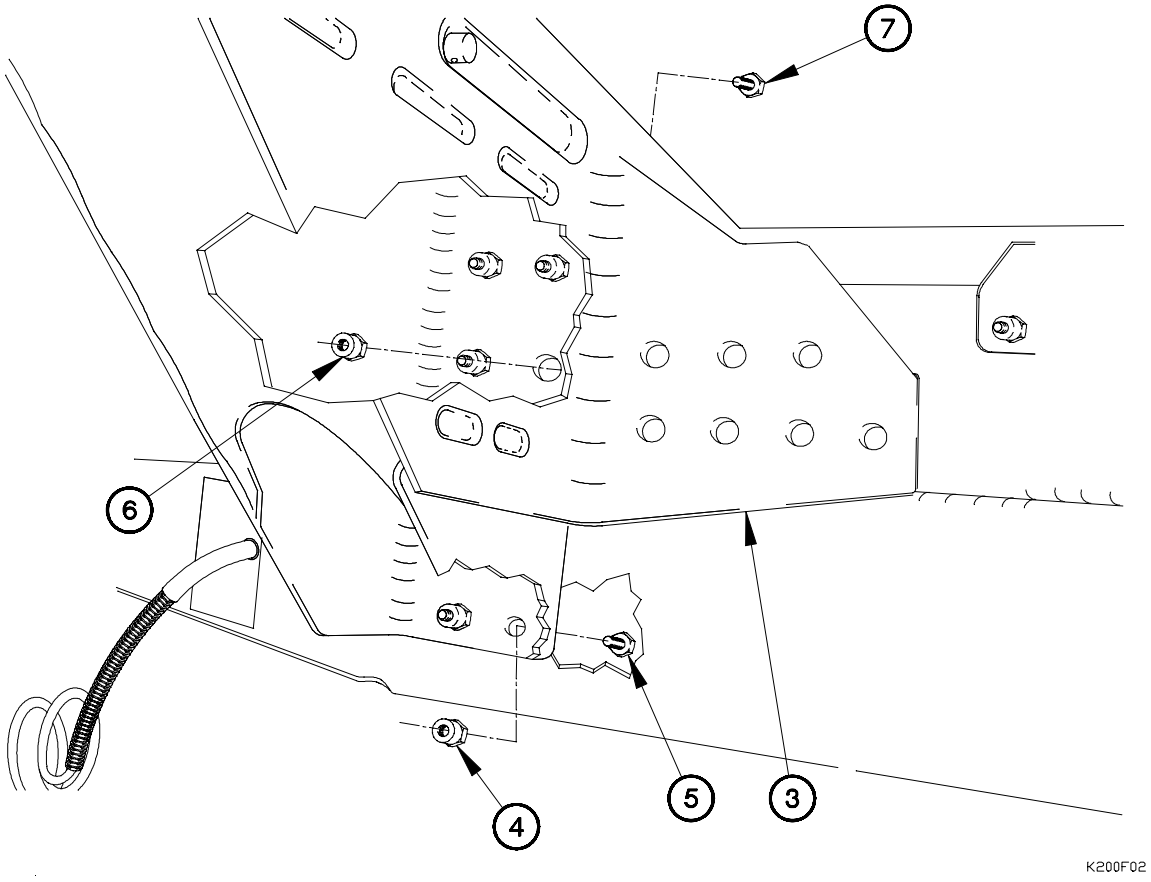
1. Remove seven collars (1) and bolts (2) from front lifting beam (3). Discard collars and bolts.



CARGO BED REPLACEMENT - Continued 0103 00

REMOVAL - Continued

2. Remove four collars (4) and bolts (5) from front lifting beam (3). Discard collars and bolts.
3. Remove four collars (6) and bolts (7) from front lifting beam (3). Discard collars and bolts.
4. Perform Steps 1 through 3 on right side of front lifting beam (3).



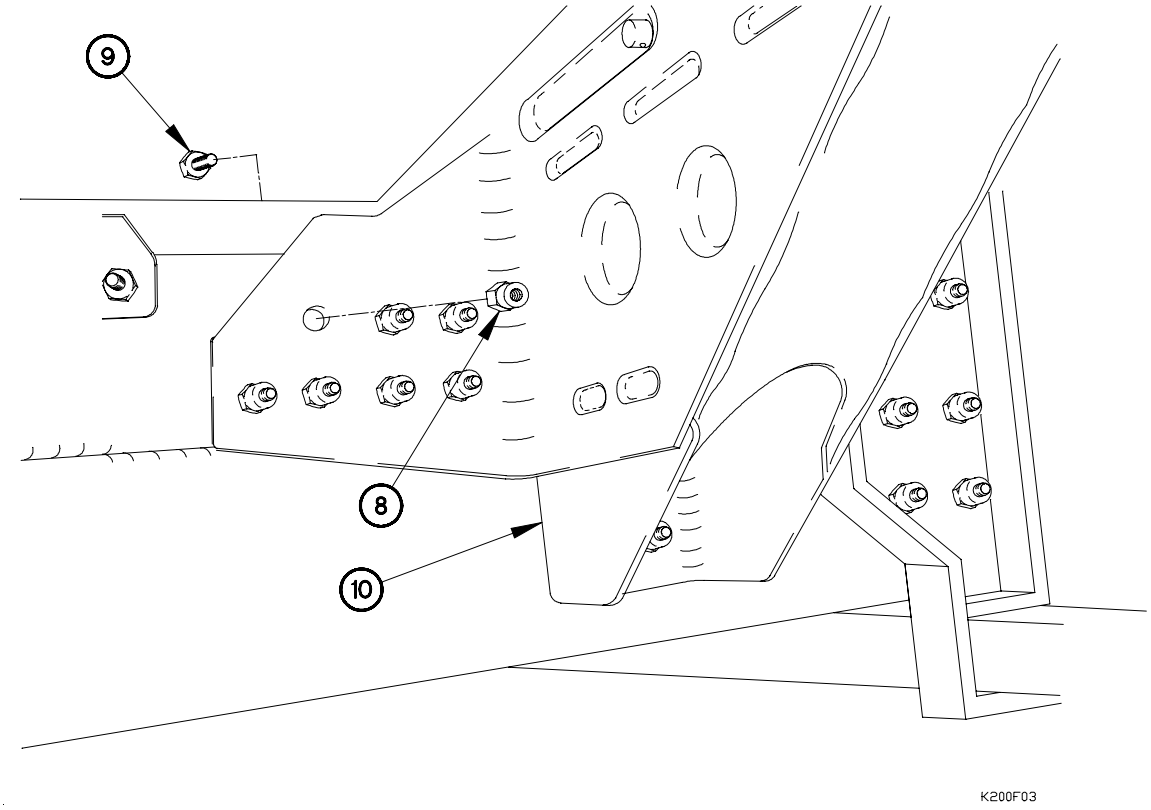
CARGO BED REPLACEMENT - Continued 0103 00

REMOVAL - Continued

NOTE

Perform steps (5 through 7) on left side of rear lifting beam.

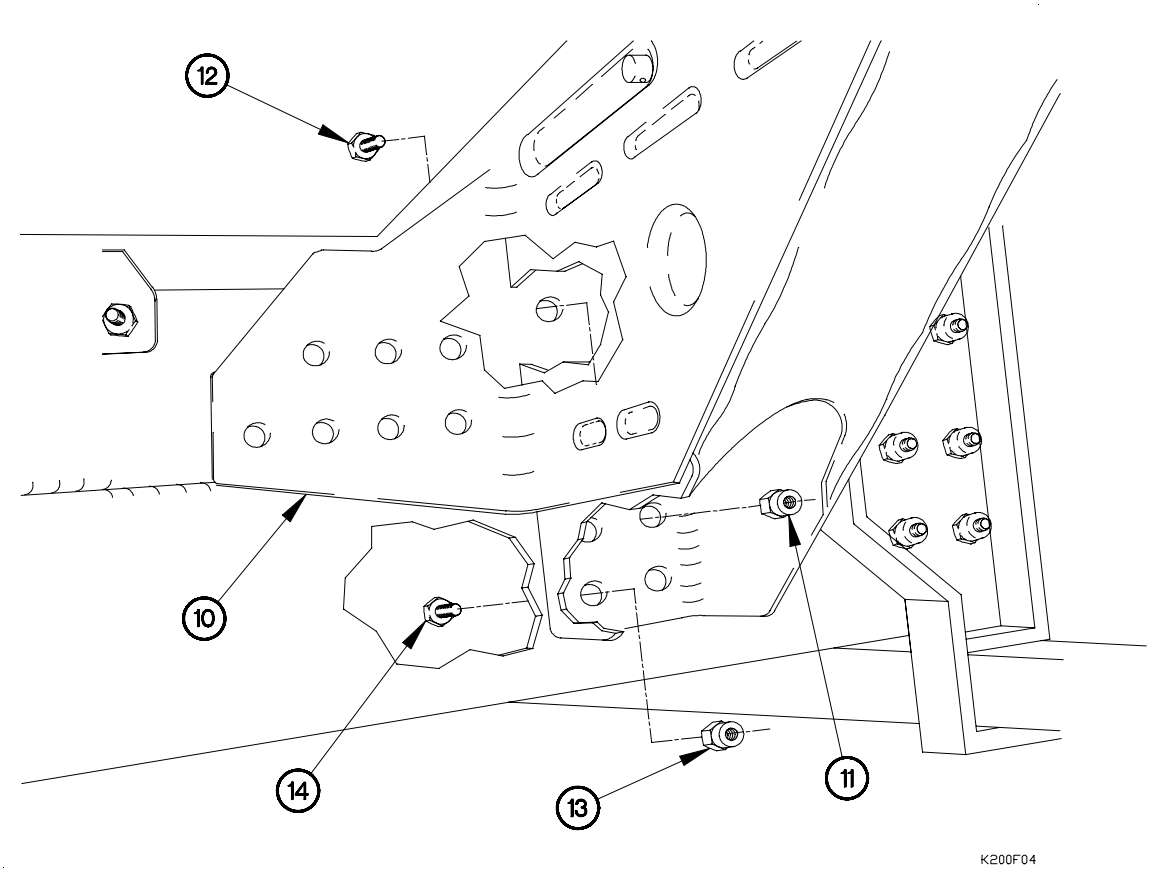
5. Remove seven collars (8) and bolts (9) from rear lifting beam (10). Discard collars and bolts.



CARGO BED REPLACEMENT - Continued 0103 00

REMOVAL - Continued

6. Remove four collars (11) and bolts (12) from rear lifting beam (10). Discard collars and bolts
7. Remove four collars (13) and bolts (14) from rear lifting beam (10). Discard collars and bolts.
8. Perform Steps (5 through 7) on right side of rear lifting beam (10).



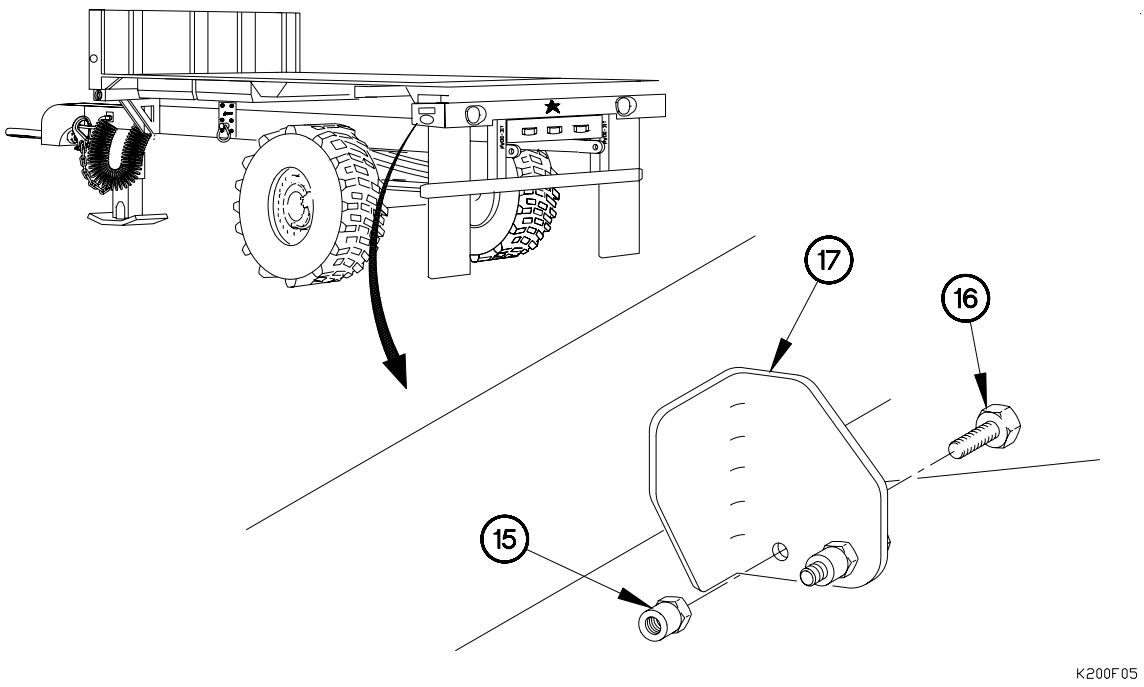
CARGO BED REPLACEMENT - Continued 0103 00

REMOVAL - Continued

CAUTION

When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

9. Remove 16 collars (15) and bolts (16) from eight brackets (17). Discard collars and bolts.



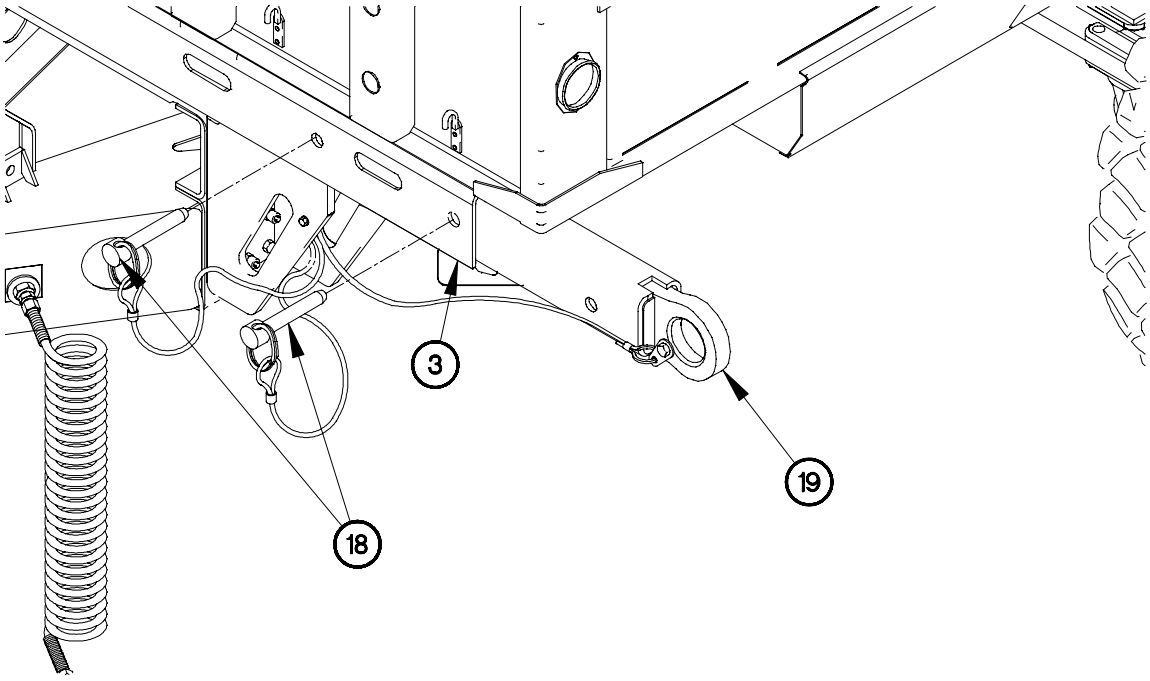
CARGO BED REPLACEMENT - Continued 0103 00

REMOVAL - Continued

NOTE

All four lifting beam arms are extended the same way. Left front shown.

10. Remove two pins (18) from front lifting beam (3).
11. Extend lifting beam arm (19) from front lifting beam (3).
12. Install two pins (18) in front lifting beam (3).
13. Perform Steps (10 through 12) on three remaining lifting beam arms (19).



K200F07

CARGO BED REPLACEMENT - Continued 0103 00

REMOVAL - Continued

WARNING

Cargo bed weighs approximately 2900 lbs (1317 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

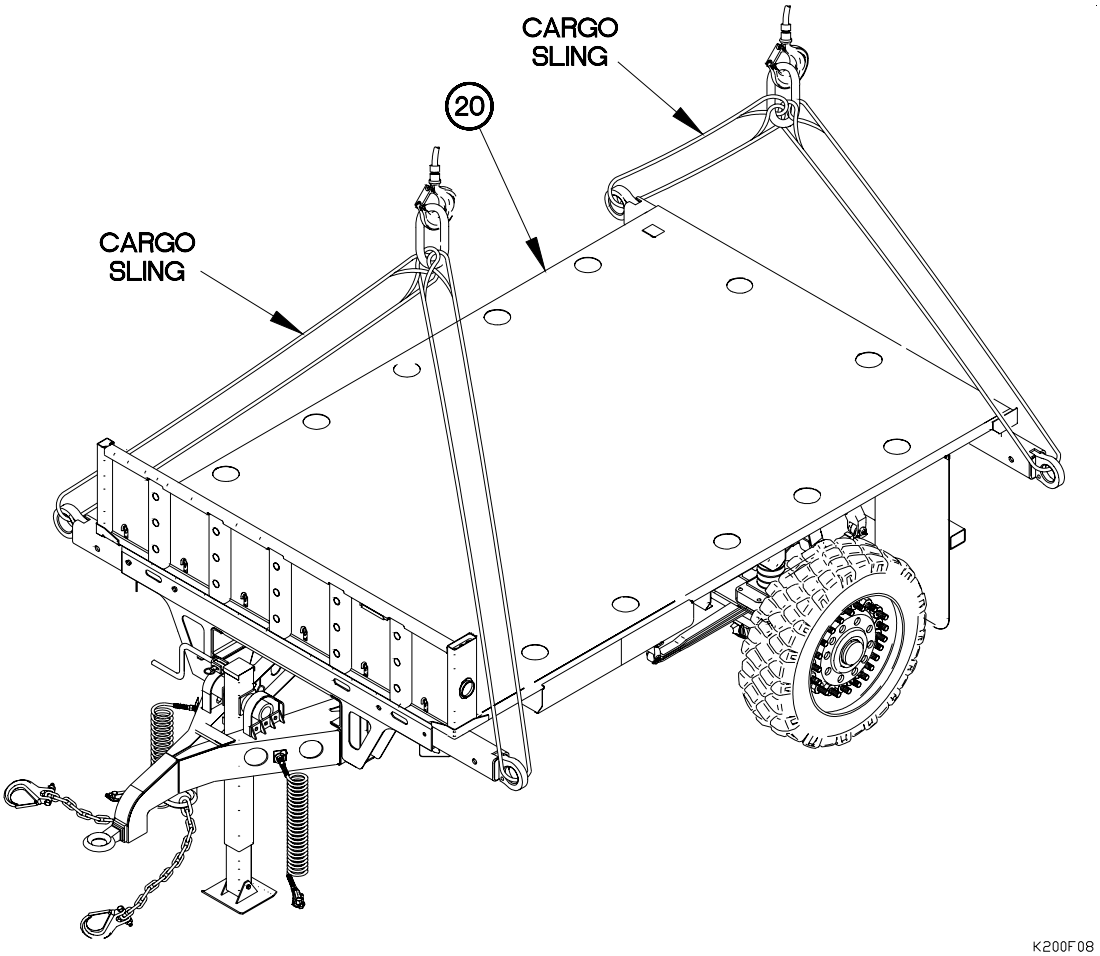
CAUTION

Prior to cargo bed removal, ensure that all electrical cables, connectors, and air lines are clear of cargo bed. Failure to comply may result in damage to equipment.

NOTE

Step (14) requires the aid of three assistants.

14. Remove cargo bed (20) from trailer.



CARGO BED REPLACEMENT - Continued 0103 00

REMOVAL - Continued

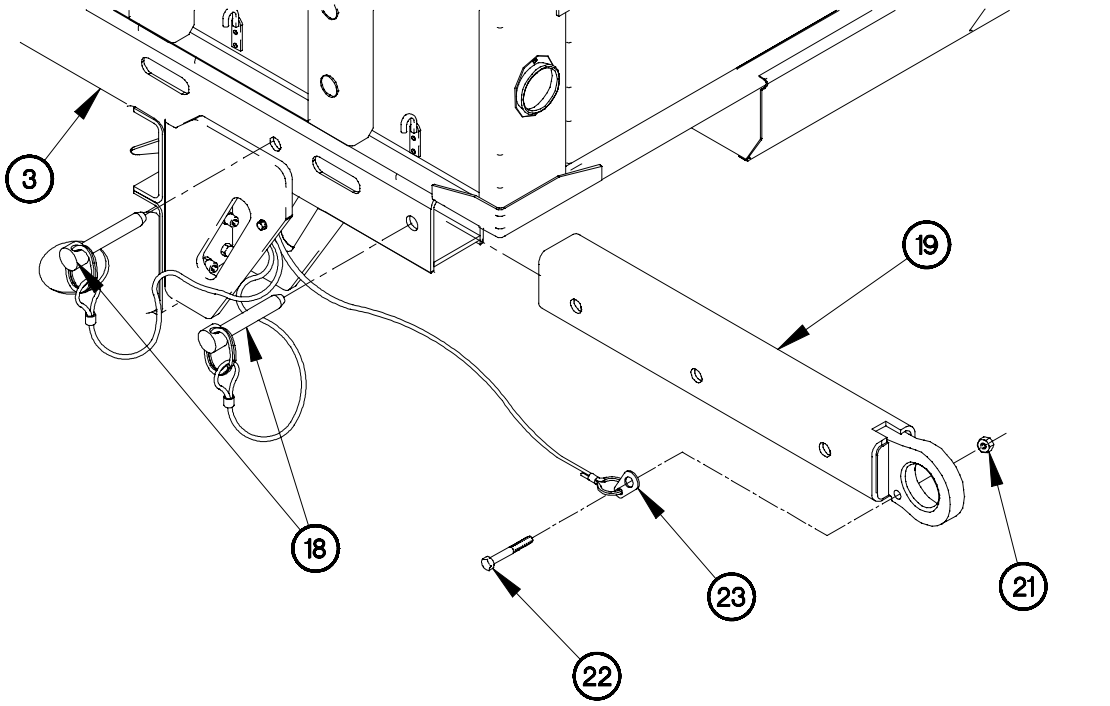
WARNING

Lifting beam arms weigh approximately 75 lbs (34 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

All four lifting beam arms are removed the same way. Left front shown.

15. Remove nut (21), bolt (22), and lanyard (23) from lifting beam arm (19).
16. Remove two pins (18) and lifting beam arm (19) from front lifting beam (3).
17. Perform Steps (15 and 16) on three remaining lifting beam arms (19).



K200F09

CARGO BED REPLACEMENT - Continued 0103 00

INSTALLATION

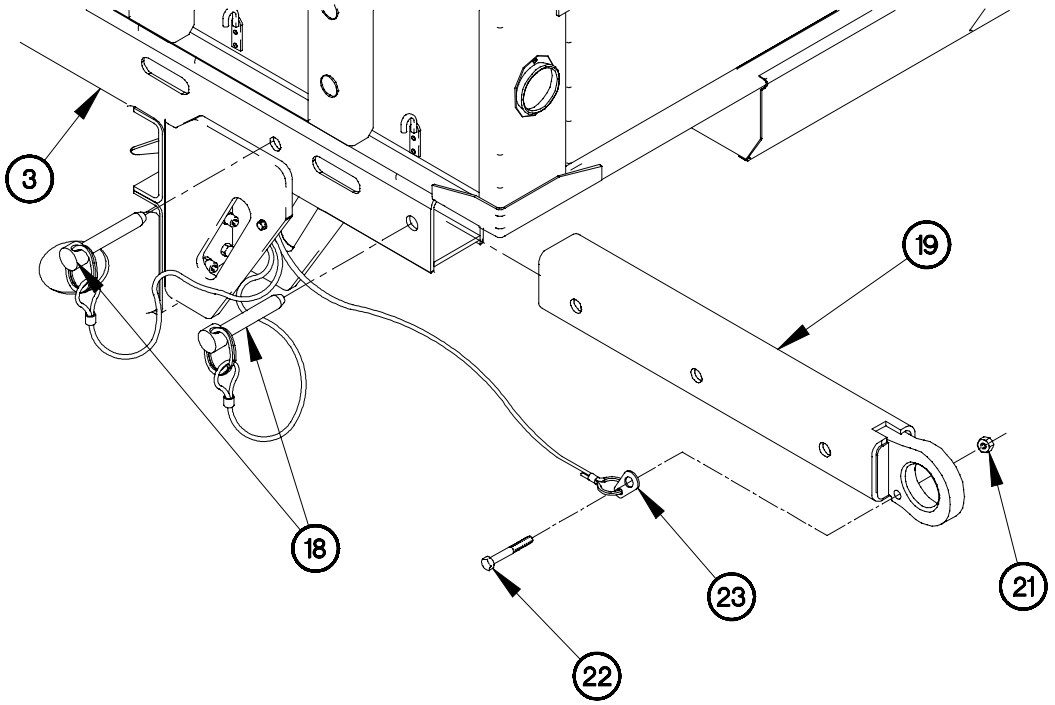
WARNING

Lifting beam arms weigh approximately 75 lbs (34 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

All four lifting beams are installed the same way. Left front shown.

1. Position lifting beam arm (19) in front lifting beam (3).
2. Position lanyard (23) on lifting beam arm (19) with bolt (22) and nut (21).
3. Tighten nut (21) to 23-29 lb-ft (31-39 N•m).
4. Install two pins (18) in front lifting beam (3).
5. Perform Steps (1 through 4) on three remaining lifting beam arms (19).



K200F09

CARGO BED REPLACEMENT - Continued 0103 00

INSTALLATION - Continued

WARNING

Cargo bed weighs approximately 2900 lbs (1317 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

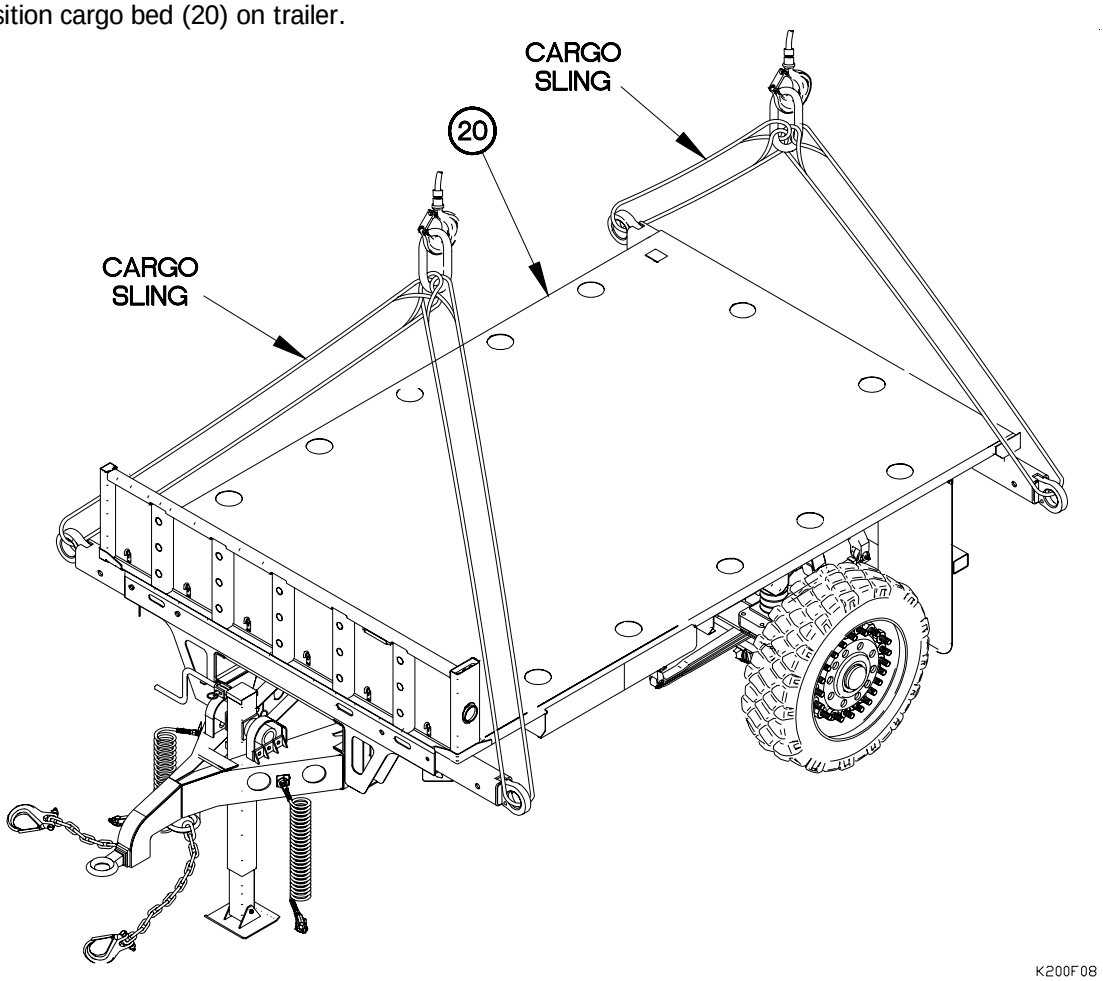
CAUTION

Prior to installing cargo bed, ensure that all electrical cables, connectors, and air lines are clear of cargo bed. Failure to comply may result in damage to equipment.

NOTE

Step (6) requires the aid of three assistants.

6. Position cargo bed (20) on trailer.

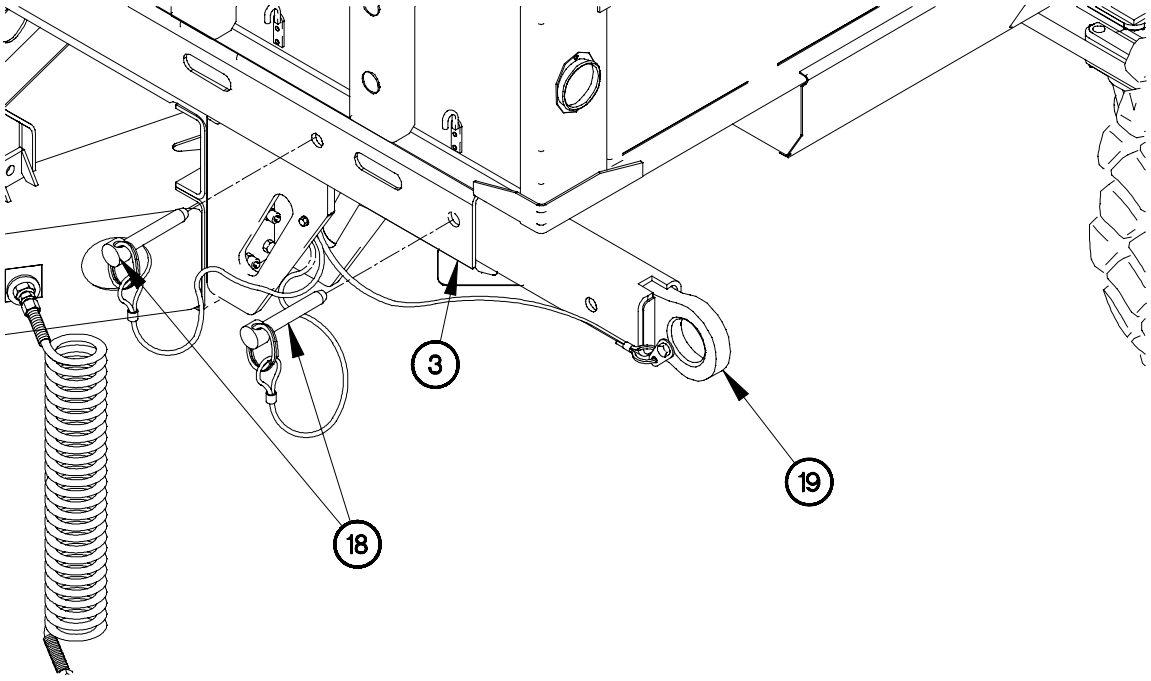


CARGO BED REPLACEMENT - Continued 0103 00

INSTALLATION - Continued

All four lifting beam arms are secured the same way. Left front shown.

7. Remove two pins (18) from front lifting beam (3).
8. Push lifting beam arm (19) into stowed position.
9. Install two pins (18) in lifting beam (3).
10. Perform Steps (7 through 9) on three remaining lifting beam arms (19).



K200F07

CARGO BED REPLACEMENT - Continued 0103 00

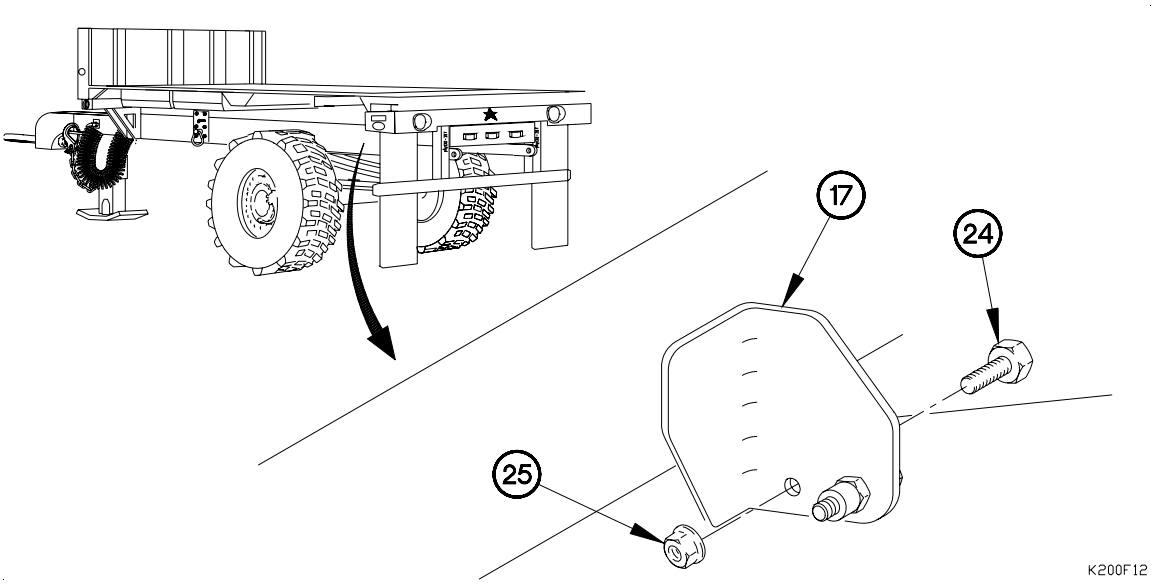
INSTALLATION - Continued

NOTE

Steps (11 and 12) require the aid of an assistant.

11. Position 16 bolts (24) and self-locking nuts (25) on eight brackets (17).

12. Tighten 16 self-locking nuts (25) to 210-225 lb-ft (285-305 N•m).



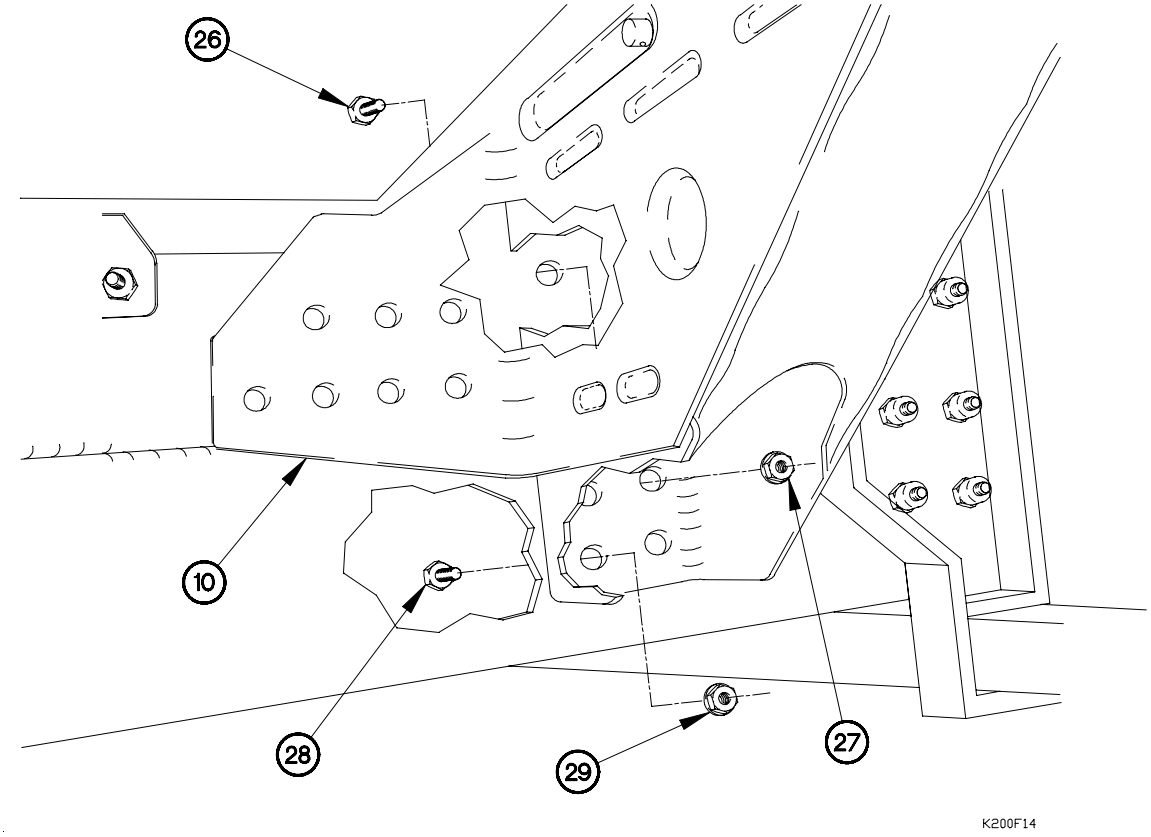
CARGO BED REPLACEMENT - Continued 0103 00

INSTALLATION - Continued

NOTE

Perform Steps (13 through 17) on right side of rear lifting beam.

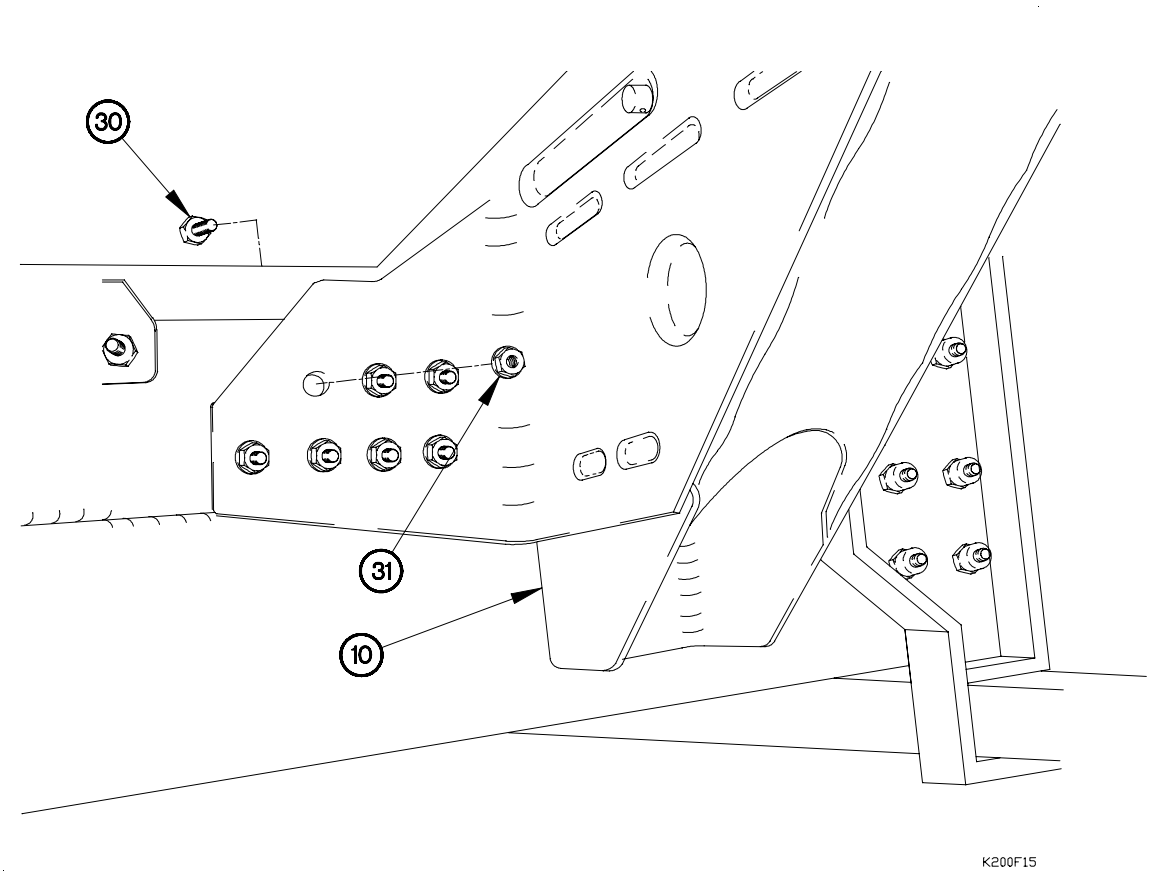
13. Position four bolts (26) and self-locking nuts (27) on rear lifting beam (10).
14. Position four bolts (28) and self-locking nuts (29) on rear lifting beam (10).
15. Tighten eight self-locking nuts (27 and 29) to 210-225 lb-ft (285-305 N•m).



CARGO BED REPLACEMENT - Continued 0103 00

INSTALLATION - Continued

16. Position seven bolts (30) and self-locking nuts (31) on rear lifting beam (10).
17. Tighten seven self-locking nuts (31) to 210-225 lb-ft (285-305 N•m).
18. Perform Steps (13 through 17) on left side of rear lifting beam.



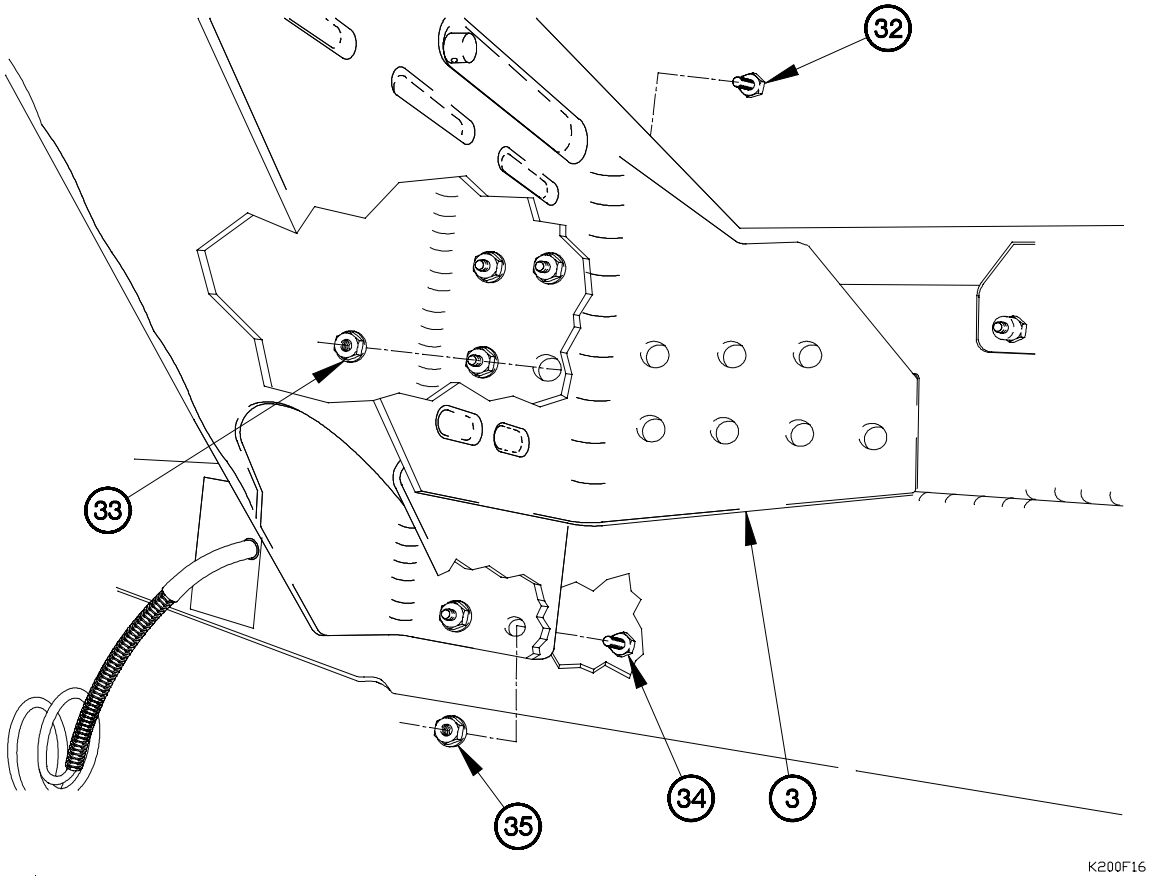
CARGO BED REPLACEMENT - Continued 0103 00

INSTALLATION - Continued

NOTE

Perform Steps (19 through 23) on right side of front lifting beam.

19. Position four bolts (32) and self-locking nuts (33) in front lifting beam (3).
20. Position four bolts (34) and self-locking nuts (35) in front lifting beam (3).
21. Tighten eight self-locking nuts (33 and 35) to 210-225 lb-ft (285-305 N•m).

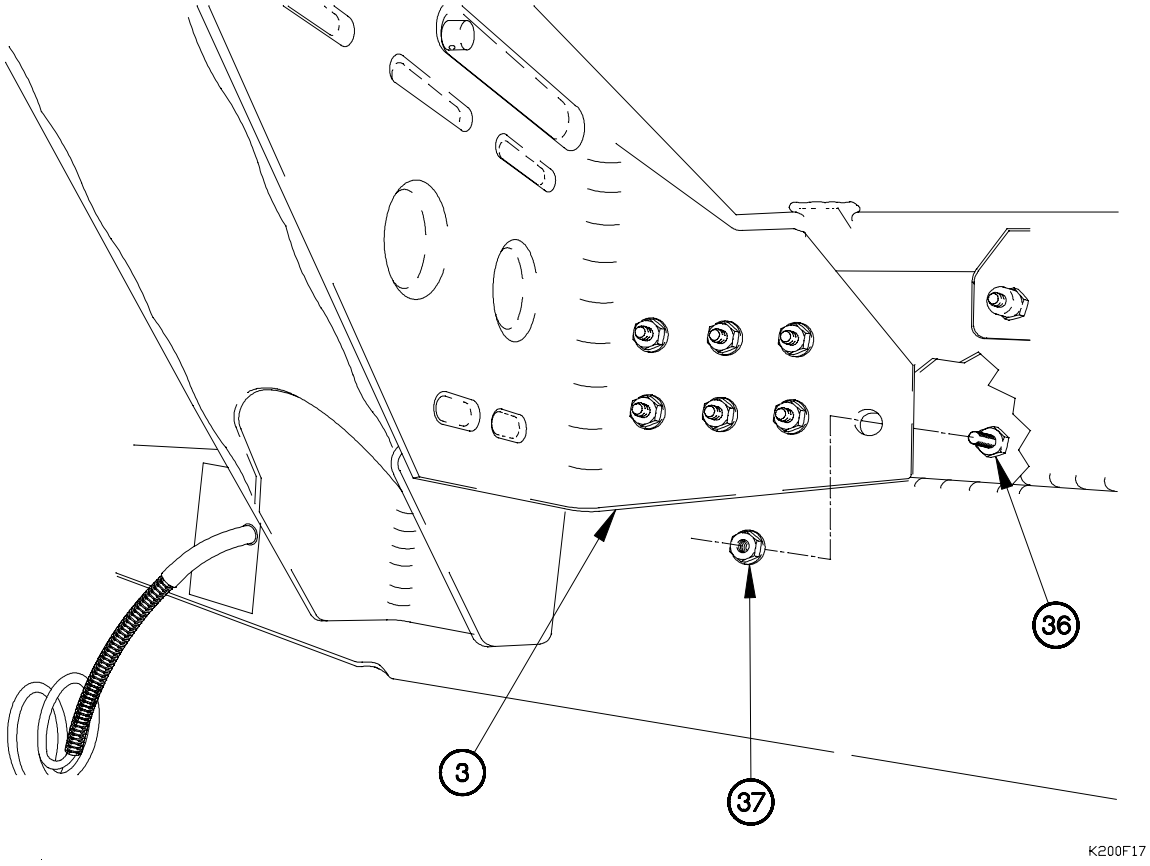


CARGO BED REPLACEMENT - Continued 0103 00

INSTALLATION - Continued

22. Position seven bolts (36) and self-locking nuts (37) front lifting beam (3).

23. Tighten seven self-locking nuts (37) to 210-225 lb-ft (285-305 N•m).



OPERATIONAL CHECK

1. Install Chock Block Stowage Box (WP 0087 00).
2. Install Stowage Box (WP 0087 00)
3. Install Electrical Cable Assembly (WP 0051 00)
4. Install retractable support winch handle (WP 0013 00, Raising Foot Plate).
5. Install ABS diagnostic brackets (WP 0074 00, Installation).
6. Install clearance and marker lights (WP 0050 00, Clearance and Marker Light Installation).
7. Install composite taillights (WP 0049 00, Installation).
8. Install voltage converter box (WP 0052 00, Installation).
9. Install splash guards (WP 0090 00, Installation).
10. Install air tank (WP 0064 00, Installation).
11. Install lifting beams (WP 0105 00, Lifting Beam Installation).
12. Install stakes and cargo bed side panels, if equipped (WP 0010 00, Install Cargo Bed Side Panel).
13. Install cargo cover, if equipped (WP 0014 00, Installation).
14. Install ladder (WP 0010 00, Stow Ladder).

END OF WORK PACKAGE

LANDING GEAR AND WINCH REPLACEMENT/REPAIR 0104 00

THIS WORK PACKAGE COVERS:

Landing Gear Removal, Landing Gear Disassembly, Cleaning/Inspection, Landing Gear Assembly, Landing Gear Installation, Winch Removal, Winch Installation, Operational Check

INITIAL SETUP:

Maintenance Level

Field

Tools and Special Tools

Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-175 lb-ft (Item 49, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Sling, Cargo (2) (Item 27, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Trestle, Motor Vehicle Maintenance (2) (Item 38, WP 0178 00)

Materials/Parts

Nut, Self-Locking (2) (Item 37.3, WP 0181 00)
Nut, Self-Locking (6) (Item 35, WP 0181 00)
Screw, Self-tapping (Item 15, WP 0181 00)
Pin, Cotter (Item 37.4, WP 0181 00)
Grease, Automotive and Artillery (GAA) (Item 11, WP 0176 00)

Personnel Required

Two

Equipment Conditions

Trailer uncoupled (WP 0012 00)

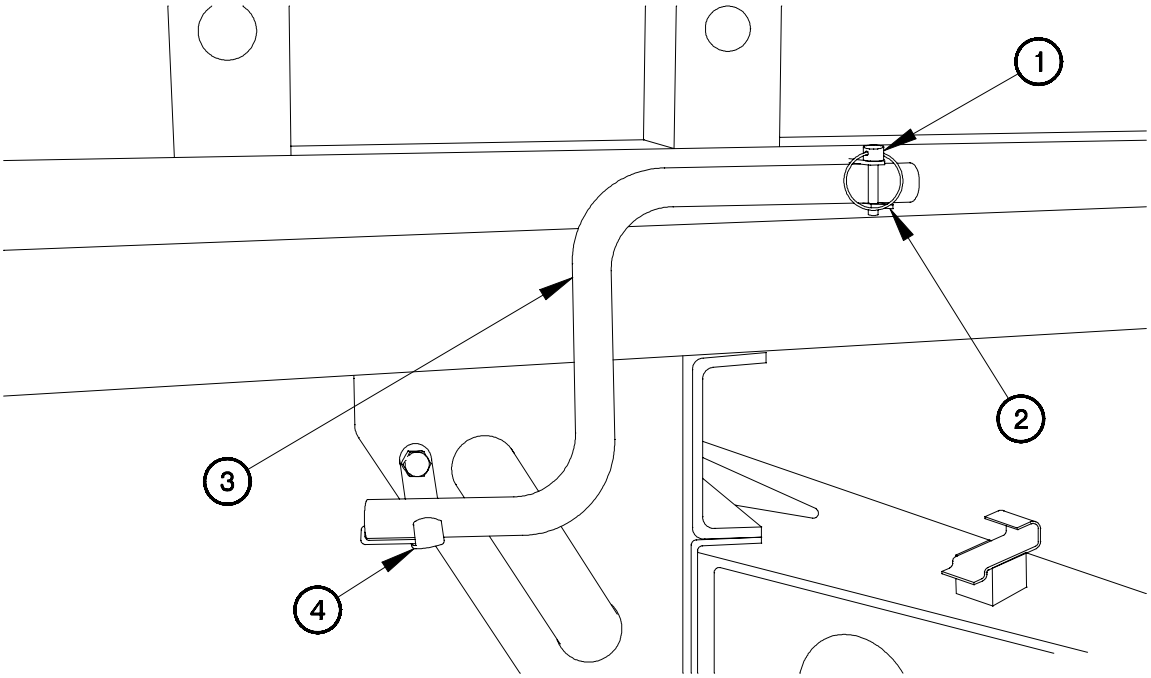
WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

LANDING GEAR AND WINCH REPLACEMENT/REPAIR - Continued 0104 00

LANDING GEAR REMOVAL

1. Remove pin (1) from stowage bracket (2).
2. Remove retractable support winch handle (3) from bracket (4).



K300F01A

LANDING GEAR AND WINCH REPLACEMENT/REPAIR - Continued 0104 00

LANDING GEAR REMOVAL - Continued

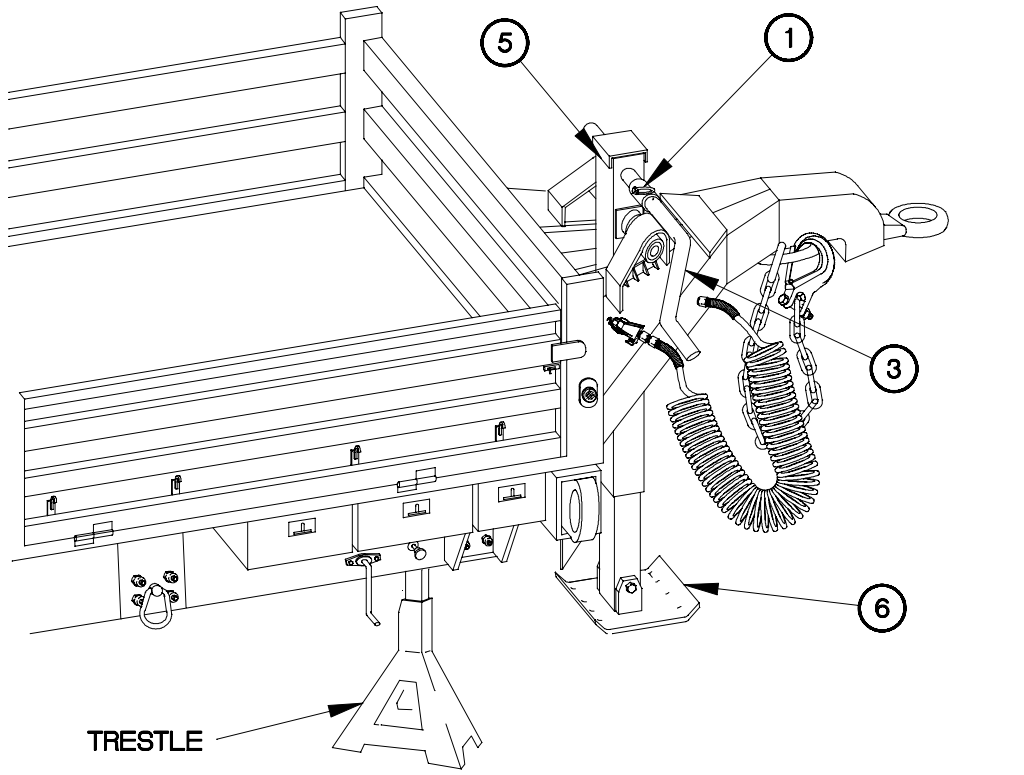
3. Position two trestles under trailer.

4. Install retractable support winch handle (3) on gearbox (5) with pin (1).

NOTE

Turn retractable support winch handle clockwise to raise foot plate.

5. Raise foot plate (6) from ground.

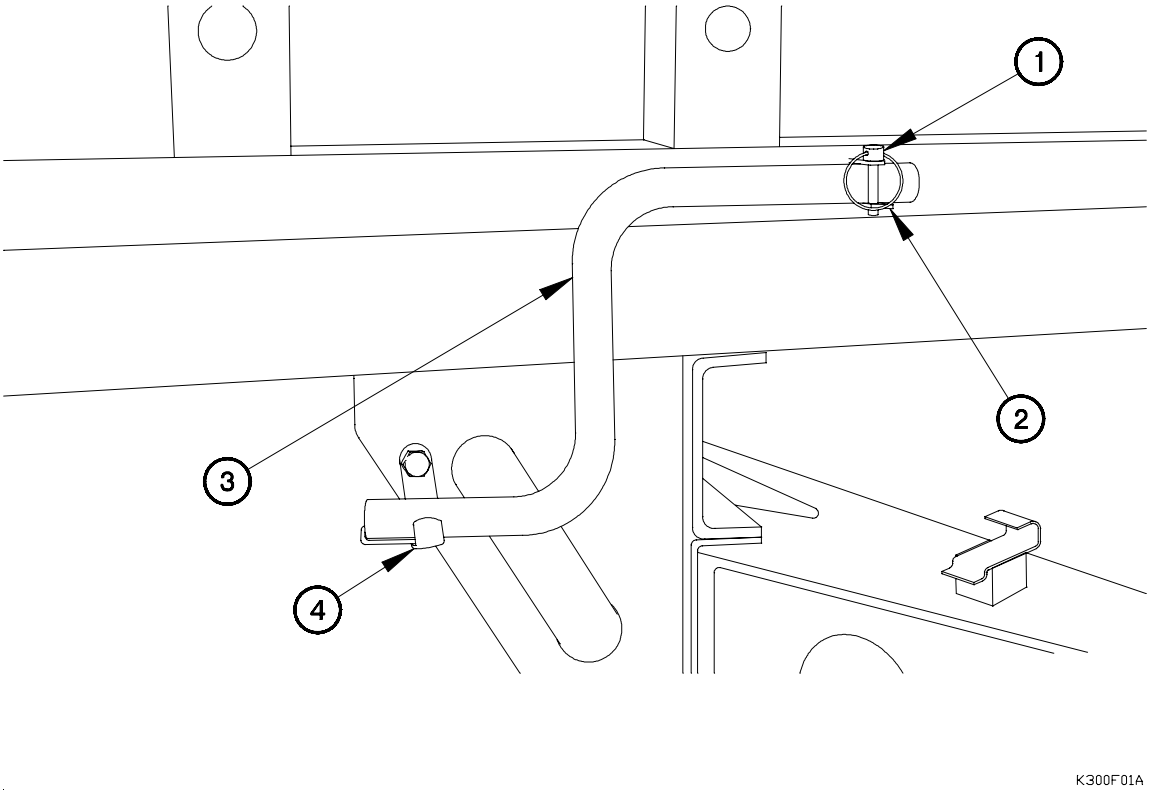


LANDING GEAR AND WINCH REPLACEMENT/REPAIR - Continued 0104 00

LANDING GEAR REMOVAL - Continued

6. Attach retractable support winch handle (3) to bracket (4).

7. Install pin (1) in stowage bracket (2).

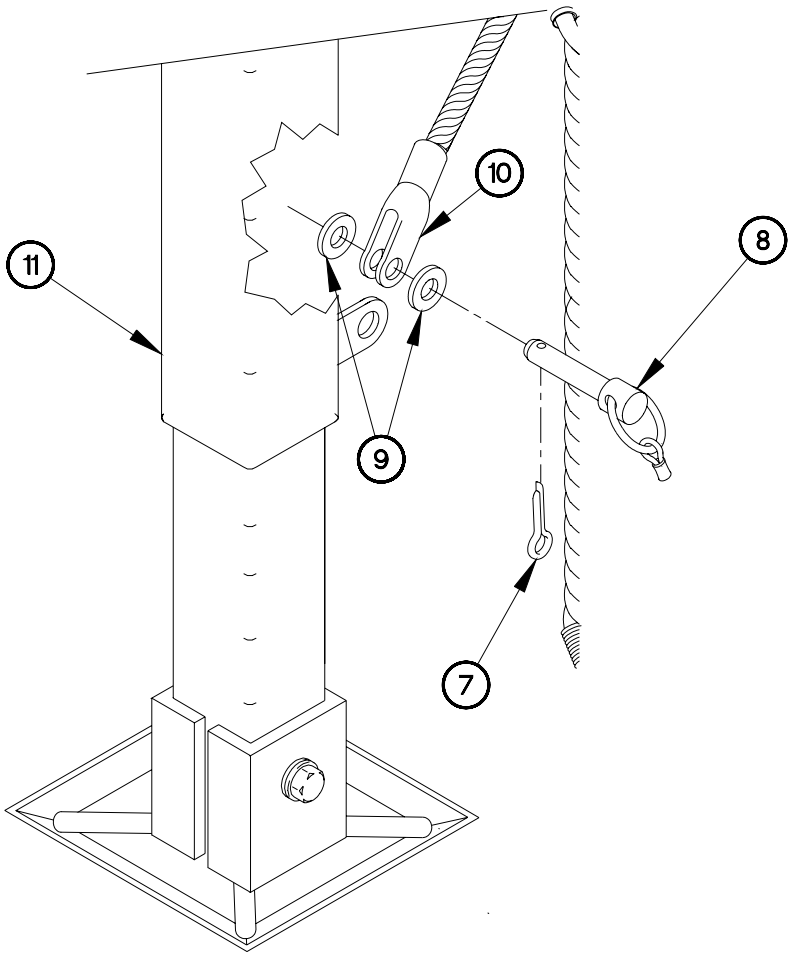


K300F01A

LANDING GEAR REMOVAL - Continued

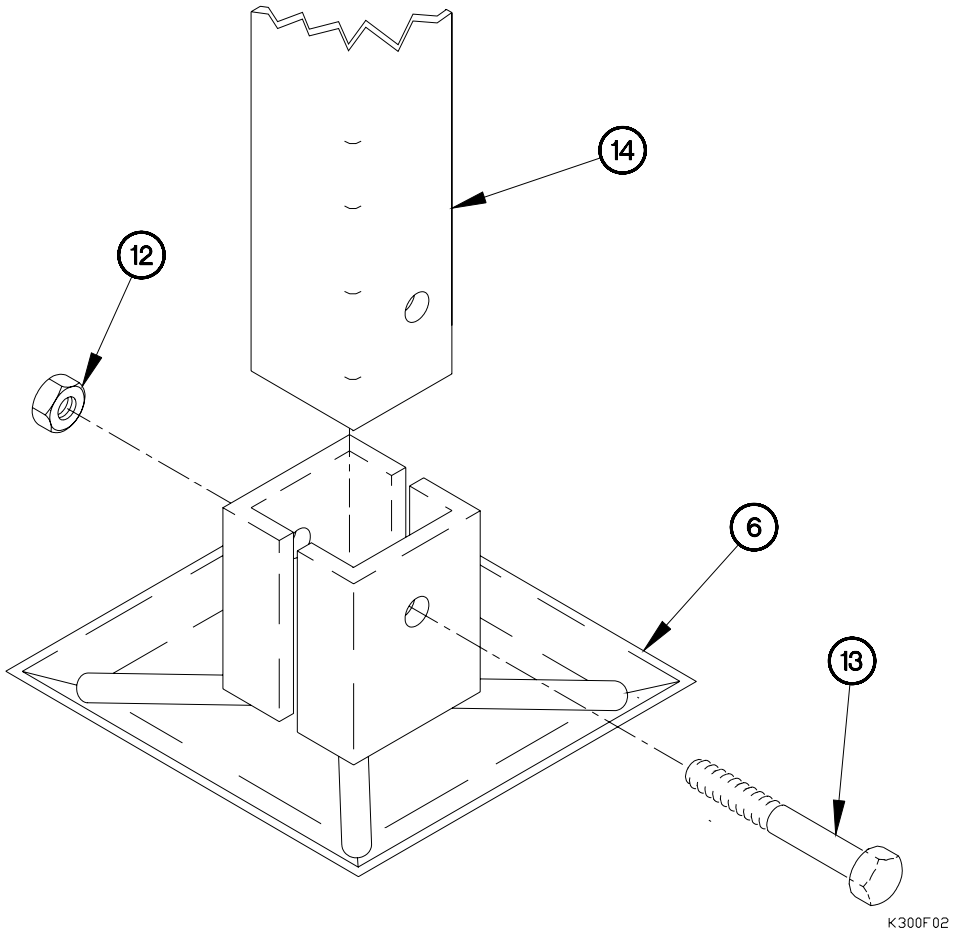
8. Remove cotter pin (7) from clevis pin (8). Discard cotter pin.

9. Remove clevis pin (8), two washers (9), and clevis (10) from landing gear (11).



LANDING GEAR REMOVAL - Continued

10. Remove self-locking nut (12), bolt (13), and foot plate (6) from retractable tube assembly (14). Discard self-locking nut.



LANDING GEAR REMOVAL - Continued

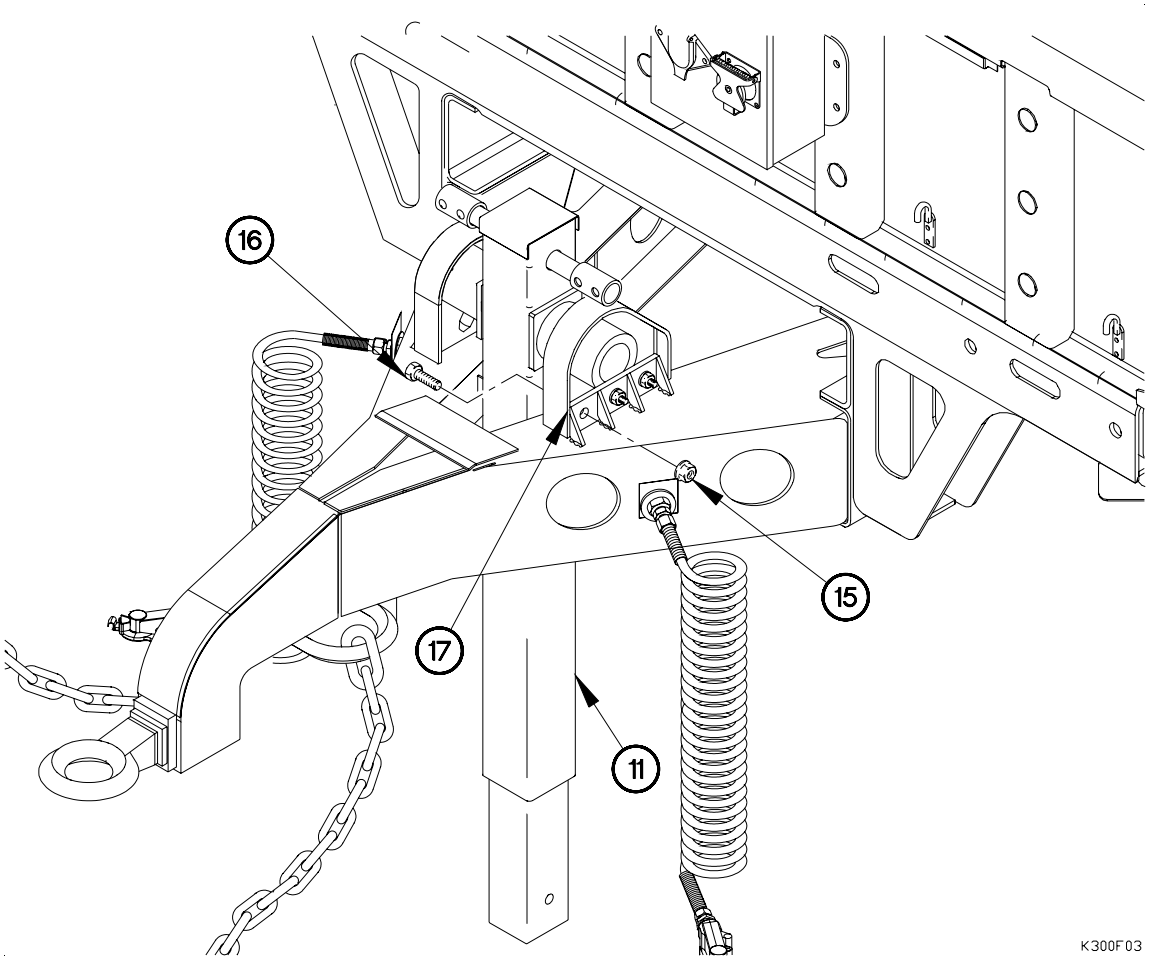
WARNING

Landing gear weighs approximately 80 lbs (36 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

Left and right sides of landing gear are removed the same way. Left side shown.

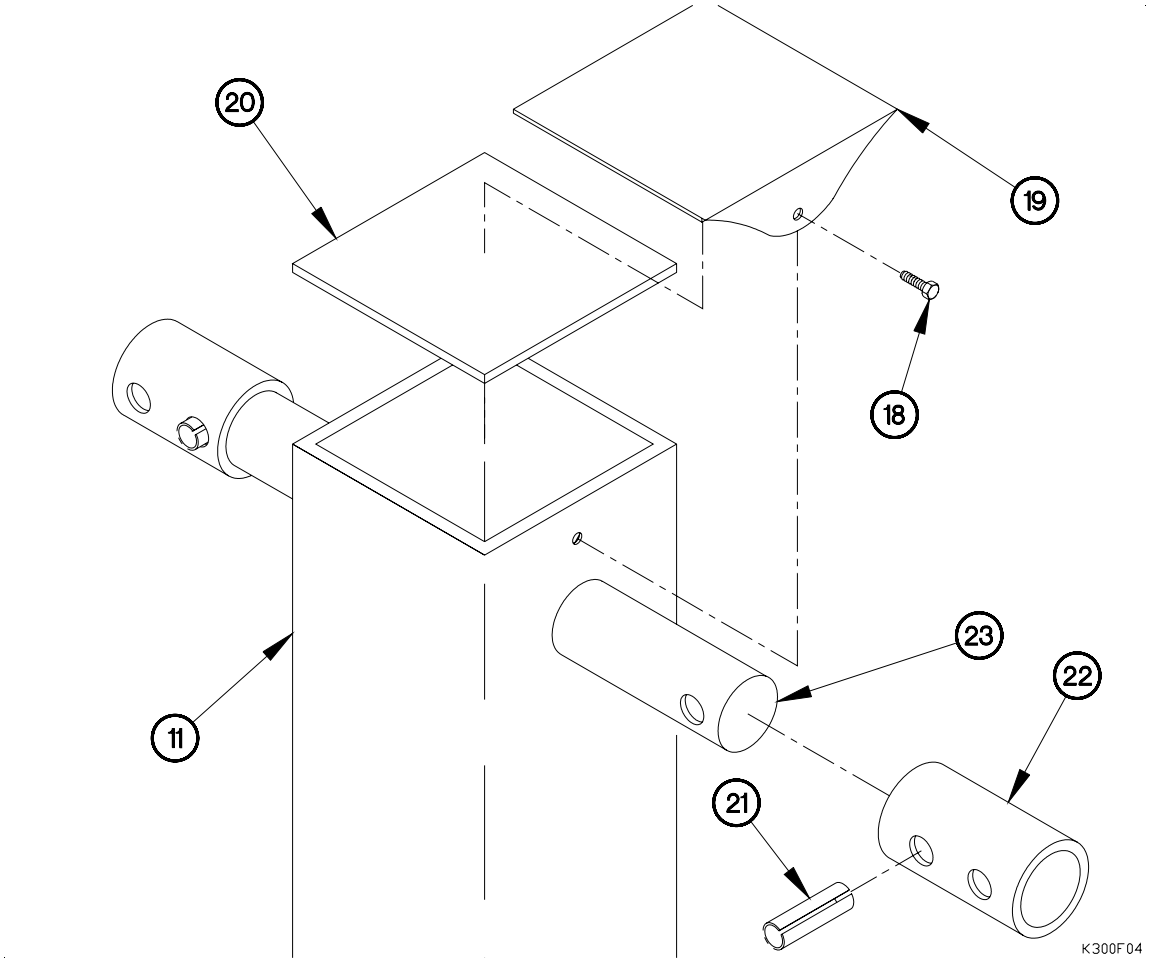
11. Remove three self-locking nuts (15) and bolts (16) from mount (17). Discard self-locking nuts.
12. Perform step (11) on right side of trailer.
13. Remove mounts (17) and landing gear (11) from trailer.



LANDING GEAR AND WINCH REPLACEMENT/REPAIR - Continued 0104 00

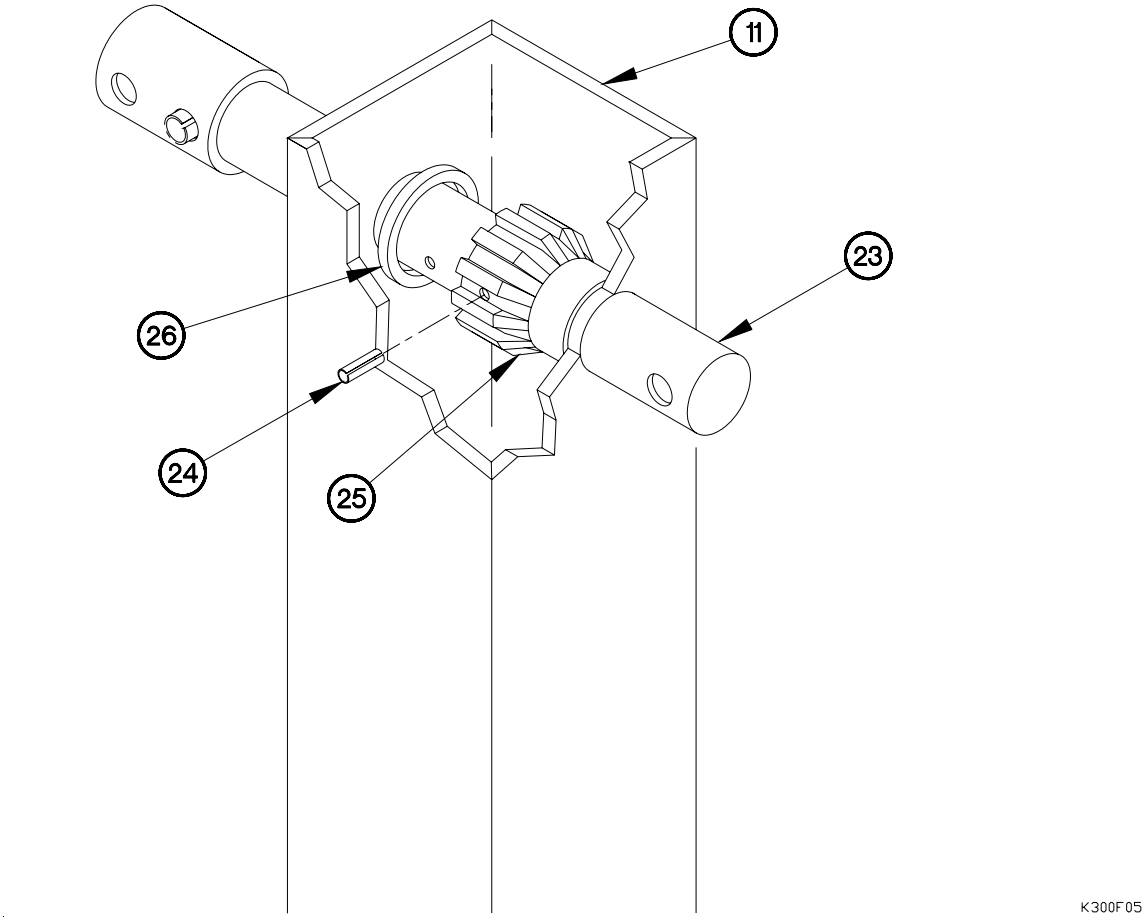
LANDING GEAR DISASSEMBLY

1. Remove two screws (18) from cover (19).
2. Remove cover (19) and gasket (20) from landing gear (11).
3. Remove roll pin (21) from crank adapter (22).
4. Remove crank adapter (22) from drive shaft (23).



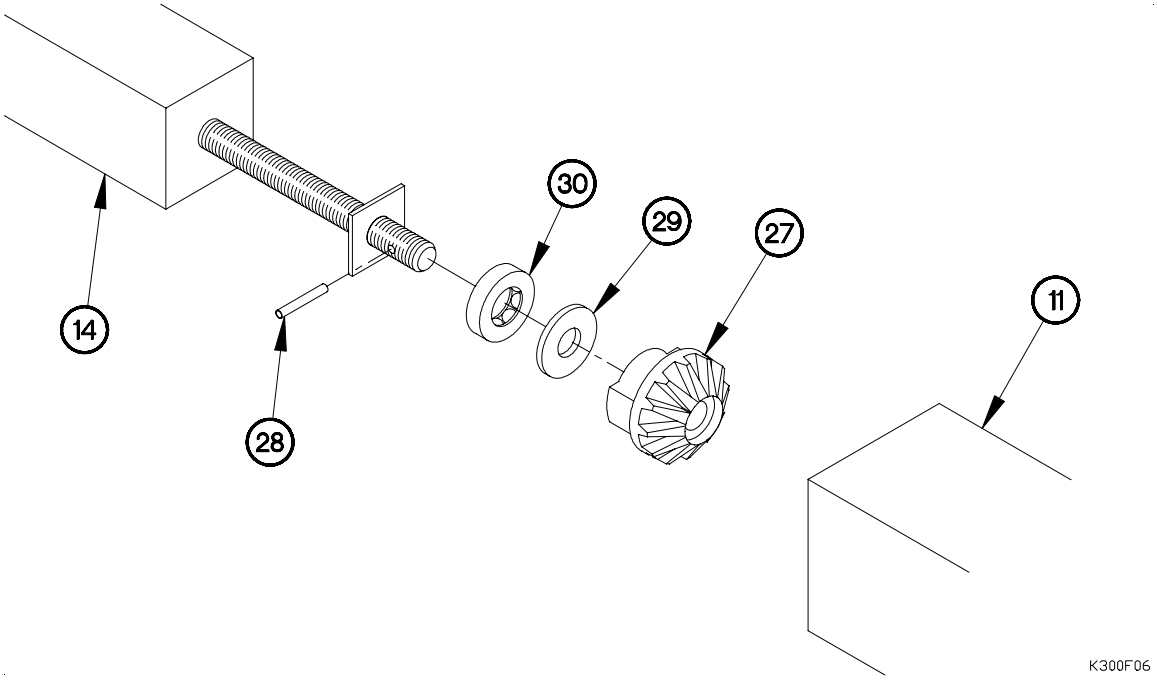
LANDING GEAR DISASSEMBLY - Continued

5. Remove roll pin (24) from pinion gear (25).
6. Remove pinion gear (25) and washer (26) from drive shaft (23).
7. Remove drive shaft (23) from landing gear (11).

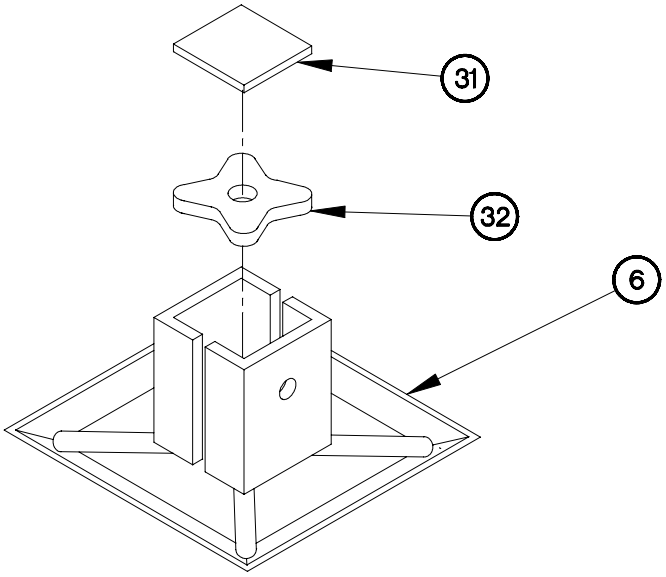


LANDING GEAR DISASSEMBLY - Continued

8. Remove bevel gear (27), pin (28), and washer (29) from retractable tube assembly (14).
9. Remove retractable tube assembly (14) from landing gear (11).
10. Remove thrust bearing (30) from retractable tube assembly (14).



11. Remove cushion plate (31) and cushion (32) from foot plate (6).



CLEANING/INSPECTION

WARNING

Dry Cleaning Solvent (P-D-680) is TOXIC and flammable. Wear protective goggles and gloves; use only in well-ventilated area; avoid contact with skin, eyes, and clothes, and do not breath vapors. Keep away from heat or flame. Never smoke when using Dry Cleaning Solvent; the flashpoint for Type I Dry Cleaning Solvent is 100 °F (38 °C) and for Type II is 138 °F (50 °C). Failure to comply may result in serious injury or death to personnel.

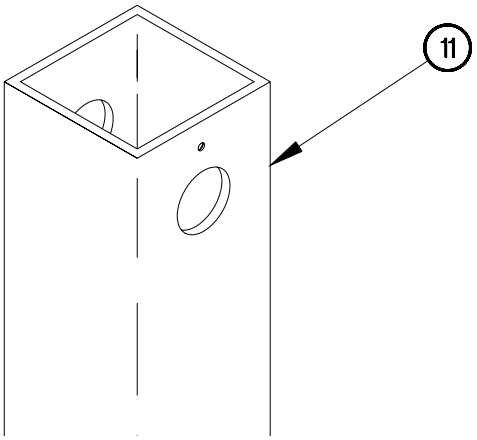
If personnel become dizzy while using Dry Cleaning Solvent, immediately get fresh air and medical help. If solvent contacts skin or clothes, flush with cold water. If Dry Cleaning Solvent contacts eyes, immediately flush eyes with water and get medical attention. Failure to comply may result in serious injury or death to personnel.

Compressed air used for cleaning purposes will not exceed 30 psi (207 kPa). Use only with effective chip guarding and personal protective equipment (goggles/shield, gloves, etc). Failure to comply may result in injury to personnel.

NOTE

Replace any part that fails visual inspection.

1. Clean all metal parts with Dry Cleaning Solvent.
2. Dry metal parts with compressed air.
3. Inspect landing gear (11) and welds around landing gear for cracks and corrosion.

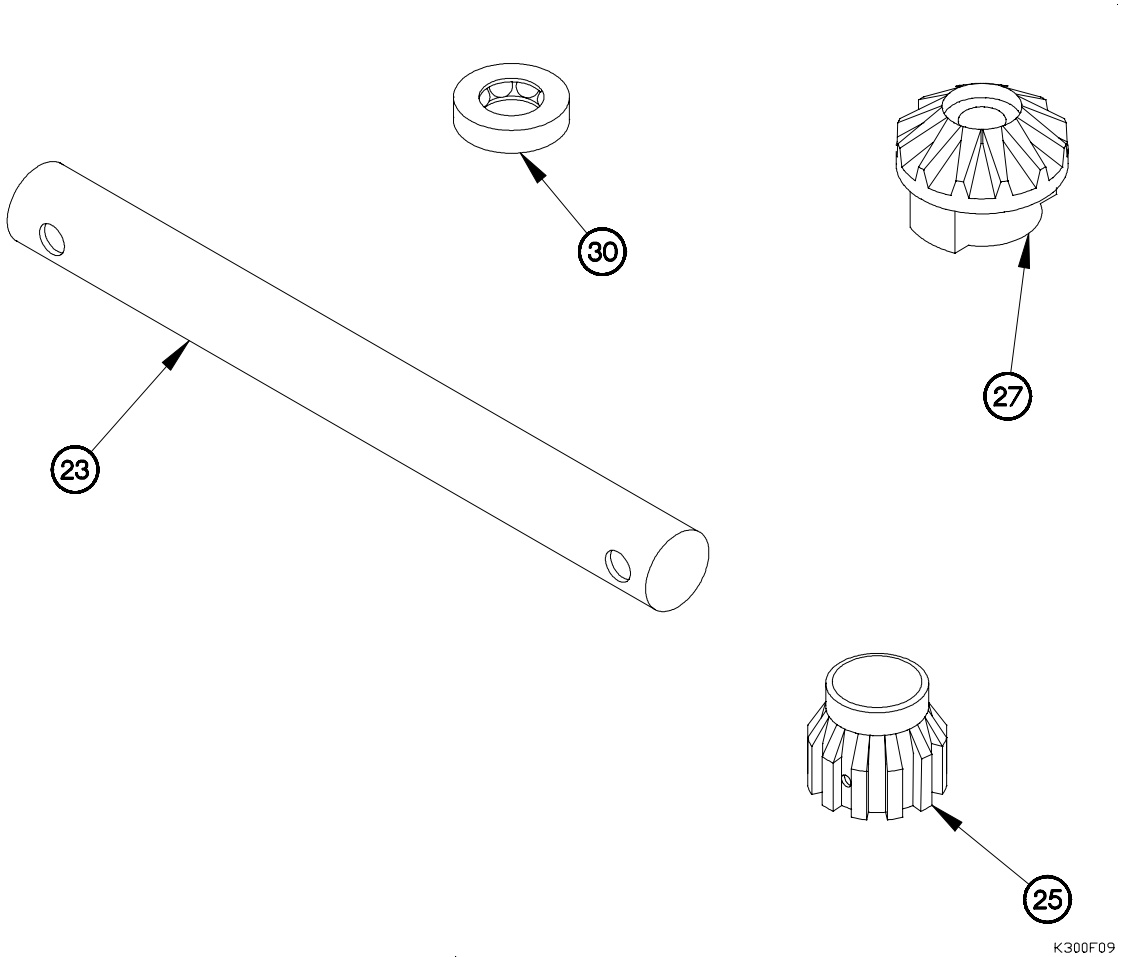


K300F08

LANDING GEAR AND WINCH REPLACEMENT/REPAIR - Continued 0104 00

CLEANING/INSPECTION - Continued

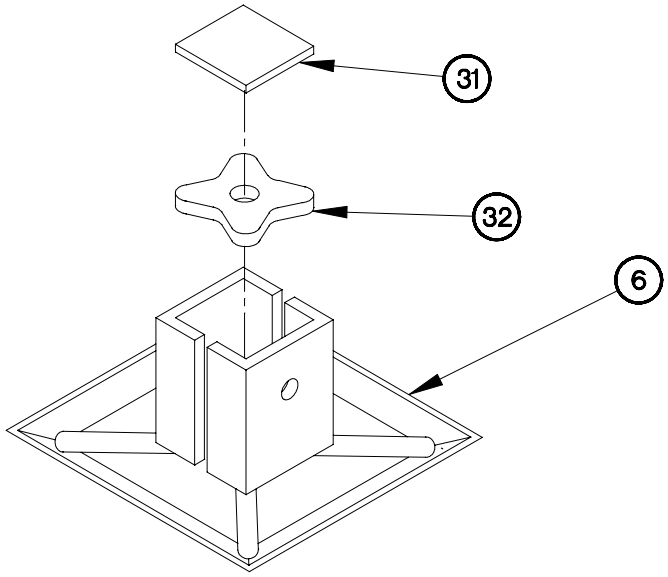
4. Inspect drive shaft (23) for bends or breaks.
5. Inspect pinion gear (25) for wear, pitting, or broken teeth.
6. Inspect bevel gear (27) for wear, pitting, or broken teeth.
7. Inspect thrust bearing (30) for free rotation of inner race to outer race.
8. Inspect thrust bearing (30) for pitting and corrosion.



CLEANING/INSPECTION - Continued

9. Inspect foot plate (6) and cushion plate (31) for bends or breaks.

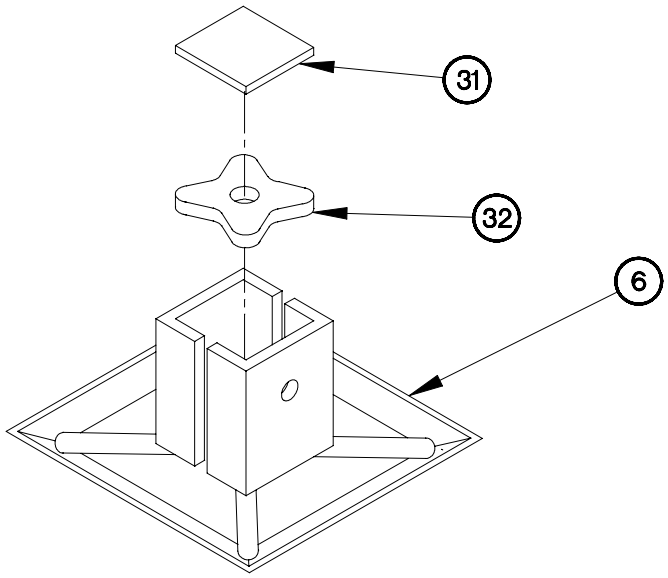
10. Inspect cushion (32) for cracks, breaks, or deterioration.



K300F07

LANDING GEAR ASSEMBLY

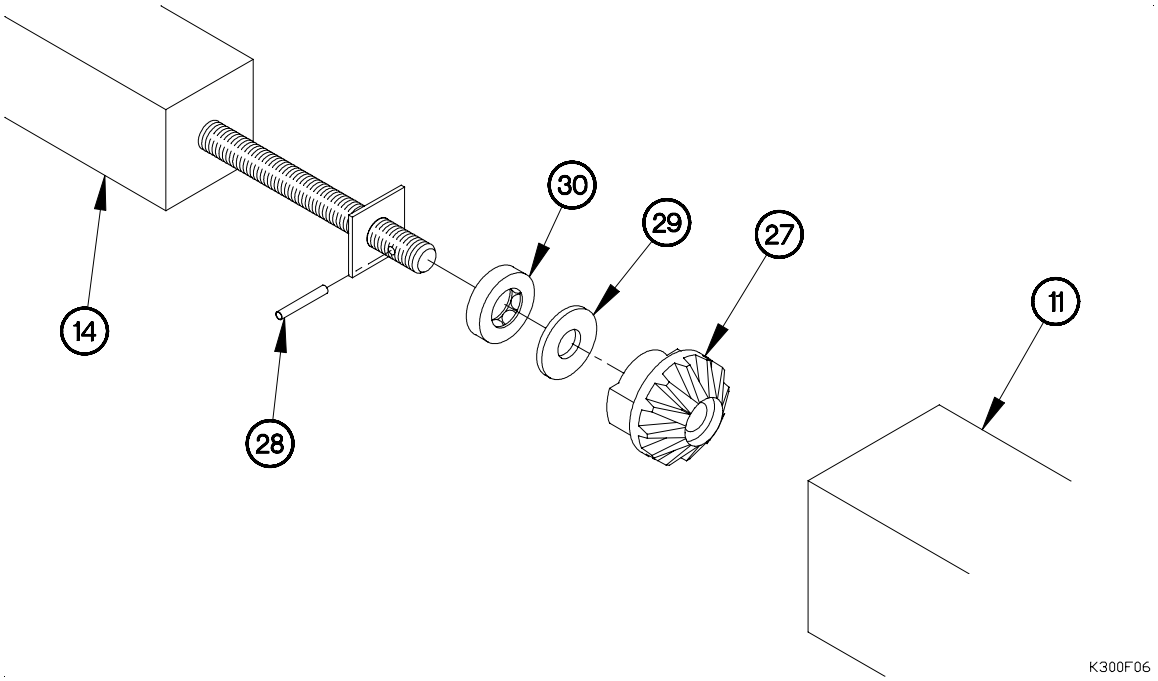
1. Install cushion (32) and cushion plate (31) in foot plate (6).



K300F07

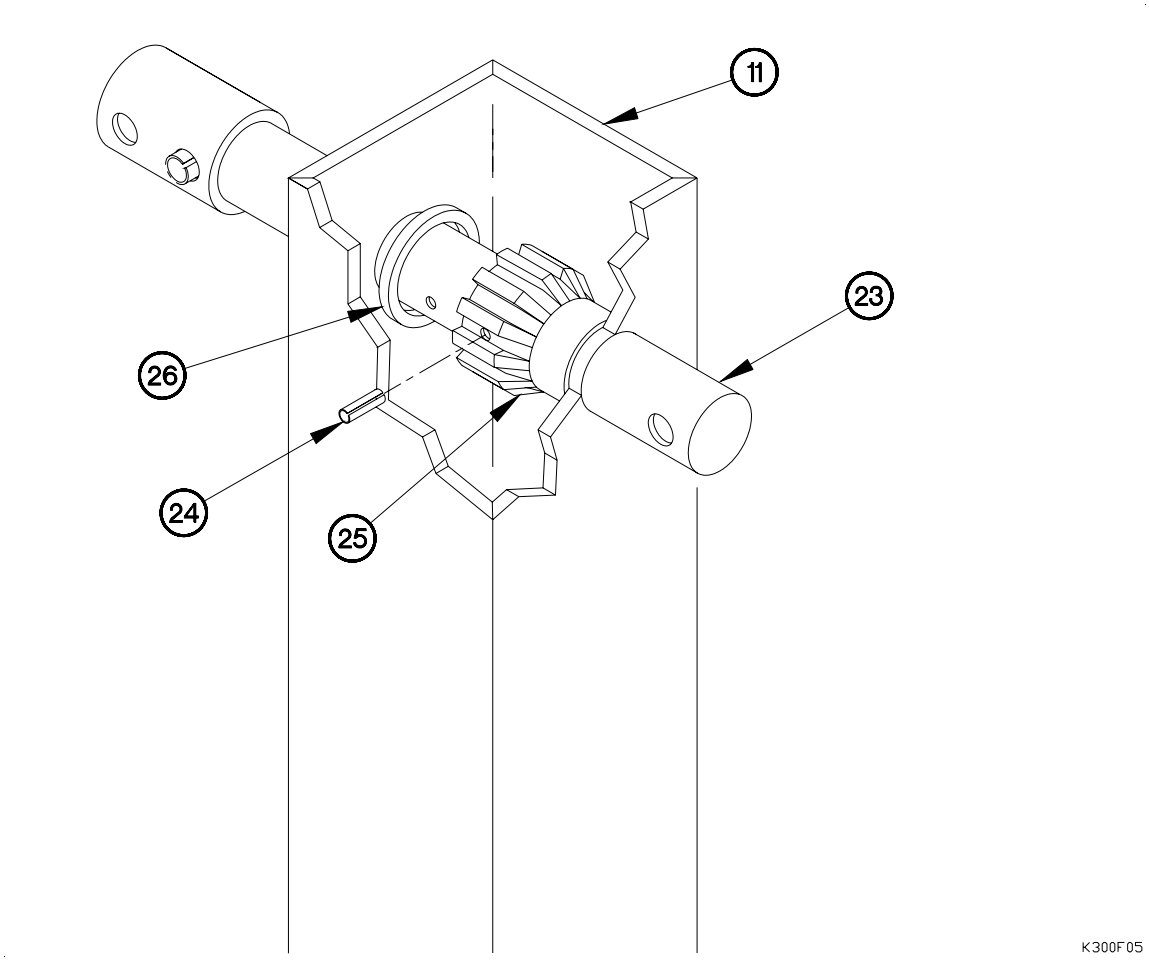
LANDING GEAR ASSEMBLY - Continued

2. Install thrust bearing (30) in retractable tube assembly (14).
3. Install retractable tube assembly (14) in landing gear (11).
4. Install washer (29), pin (28), and bevel gear (27) in retractable tube assembly (14).



LANDING GEAR ASSEMBLY - Continued

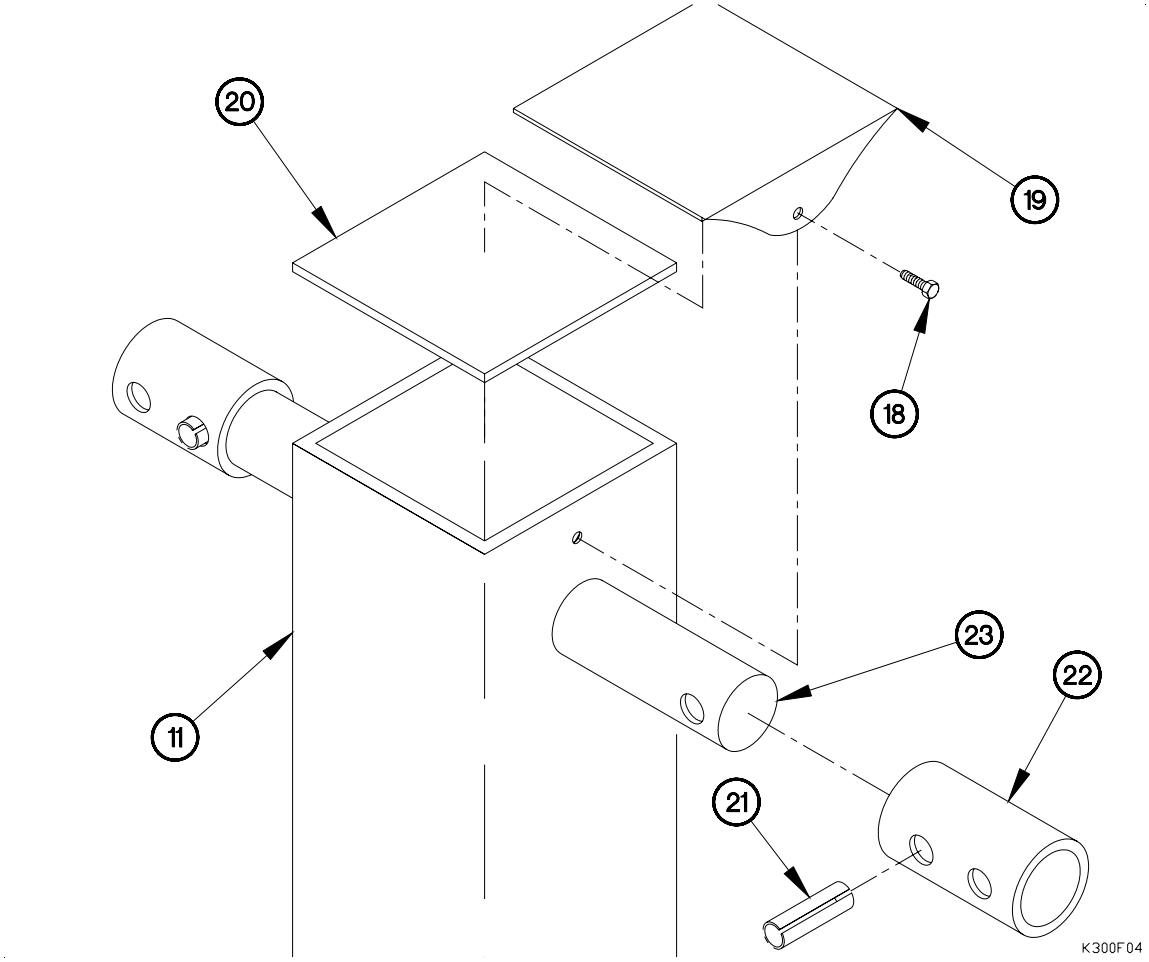
5. Install drive shaft (23) in landing gear (11).
6. Install washer (26) and pinion gear (25) on drive shaft (23).
7. Install roll pin (24) in pinion gear (25).



LANDING GEAR AND WINCH REPLACEMENT/REPAIR - Continued 0104 00

LANDING GEAR ASSEMBLY - Continued

8. Position crank adapter (22) on drive shaft (23) with roll pin (21).
9. Pack top of landing gear (11) with grease.
10. Install gasket (20) on landing gear (11).
11. Install cover (19) on landing gear (11) with two screws (18).



LANDING GEAR INSTALLATION

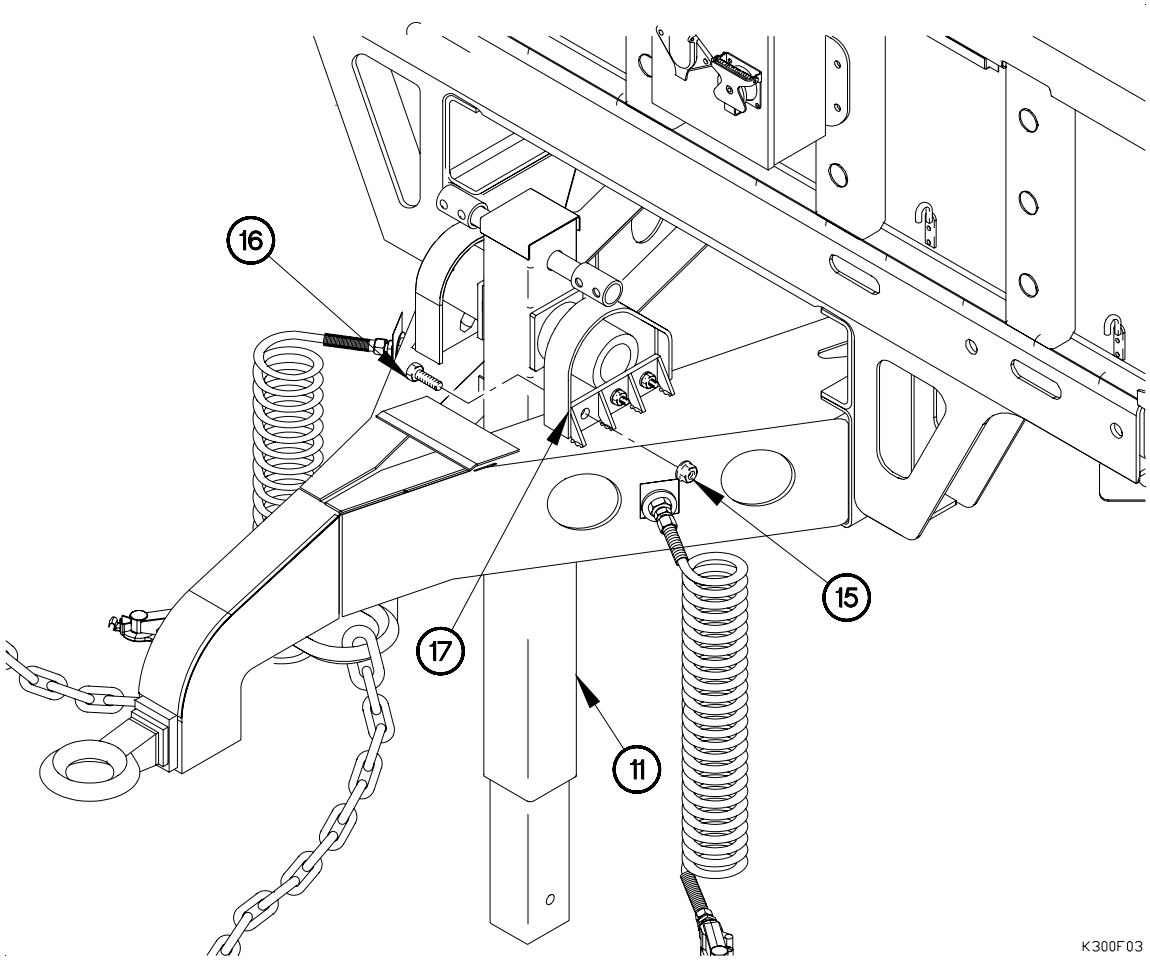
WARNING

Landing gear weighs approximately 80 lbs (36 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

Left and right sides of landing gear are installed the same way. Left side shown.

1. Position landing gear (11) and mount (17) on trailer with three bolts (16) and self-locking nuts (15).
2. Tighten three self-locking nuts (15) to 190-240 lb-ft (255-325 N•m).
3. Perform steps (1) and (2) on right side of trailer.

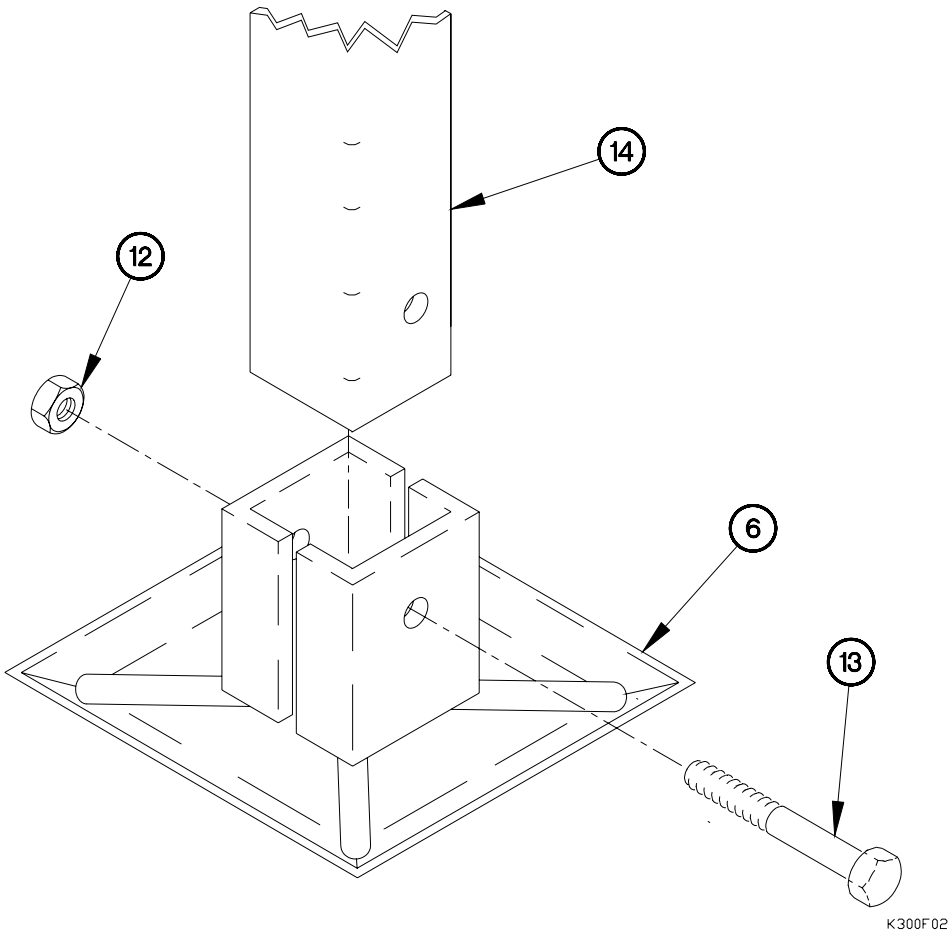


LANDING GEAR AND WINCH REPLACEMENT/REPAIR - Continued 0104 00

LANDING GEAR INSTALLATION - Continued

4. Install foot plate (6) on retractable tube assembly (14) with bolt (13) and self-locking nut (12).

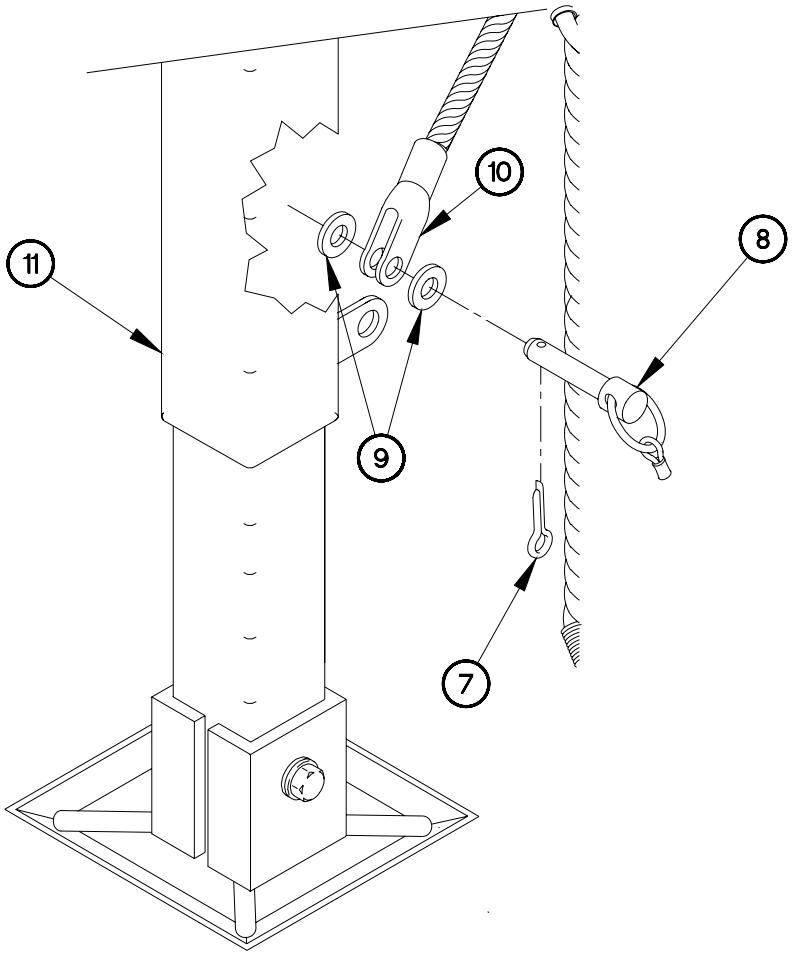
5. Tighten self-locking nut (12) until foot plate (6) is engaged, then ½ turn more.



LANDING GEAR INSTALLATION - Continued

6. Install clevis pin (8), two washers (9), and clevis (10) on landing gear (11).

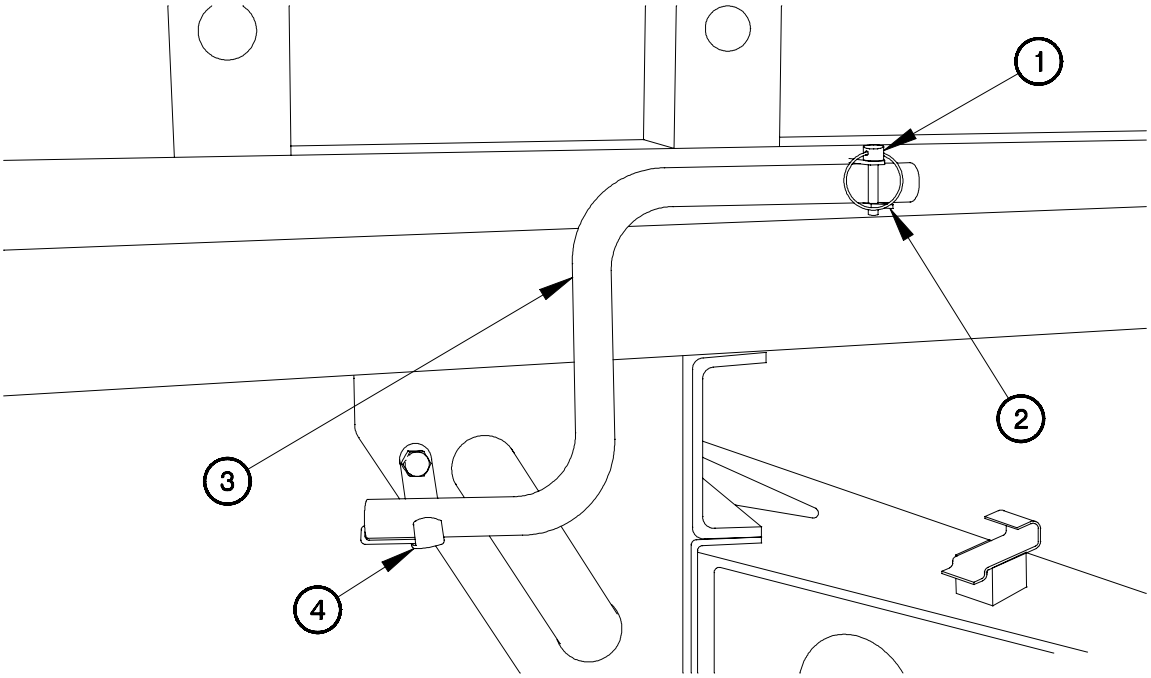
7. Install cotter pin (7) in end of clevis pin (8).



LANDING GEAR INSTALLATION - Continued

8. Remove pin (1) from stowage bracket (2).

9. Remove retractable support winch handle (3) from bracket (4).



K300F01A

LANDING GEAR AND WINCH REPLACEMENT/REPAIR - Continued 0104 00

LANDING GEAR INSTALLATION - Continued

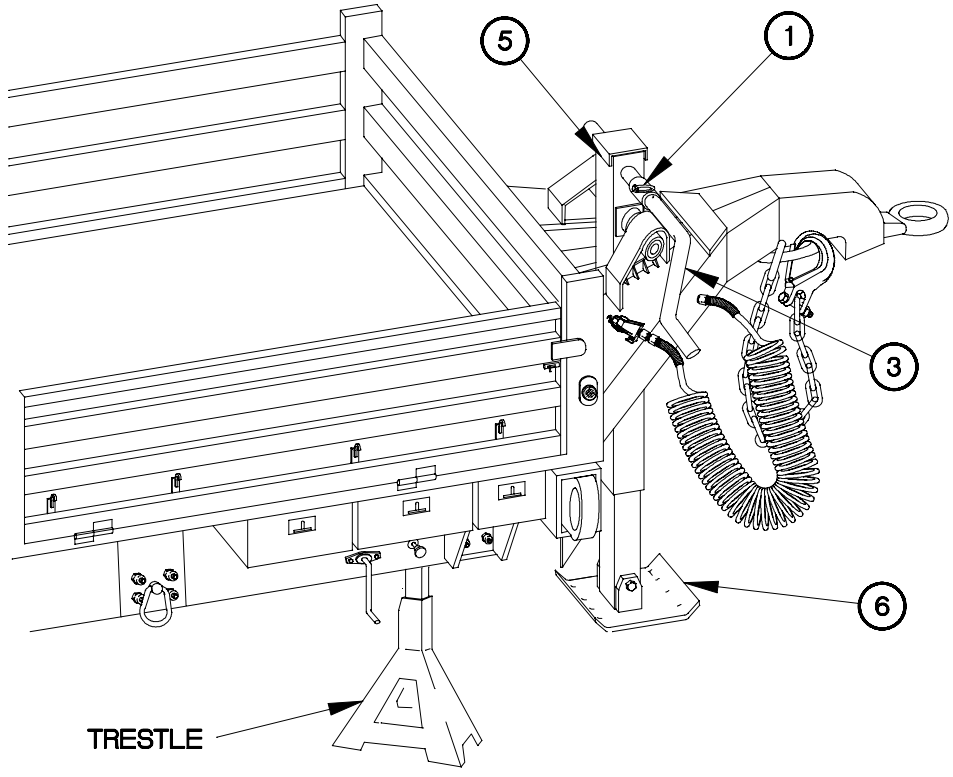
10. Install retractable support winch handle (3) on gearbox (5) with pin (1).

NOTE

Turn retractable support winch handle counterclockwise to lower foot plate.

11. Lower foot plate (6) to ground.

12. Remove two trestles from under trailer.

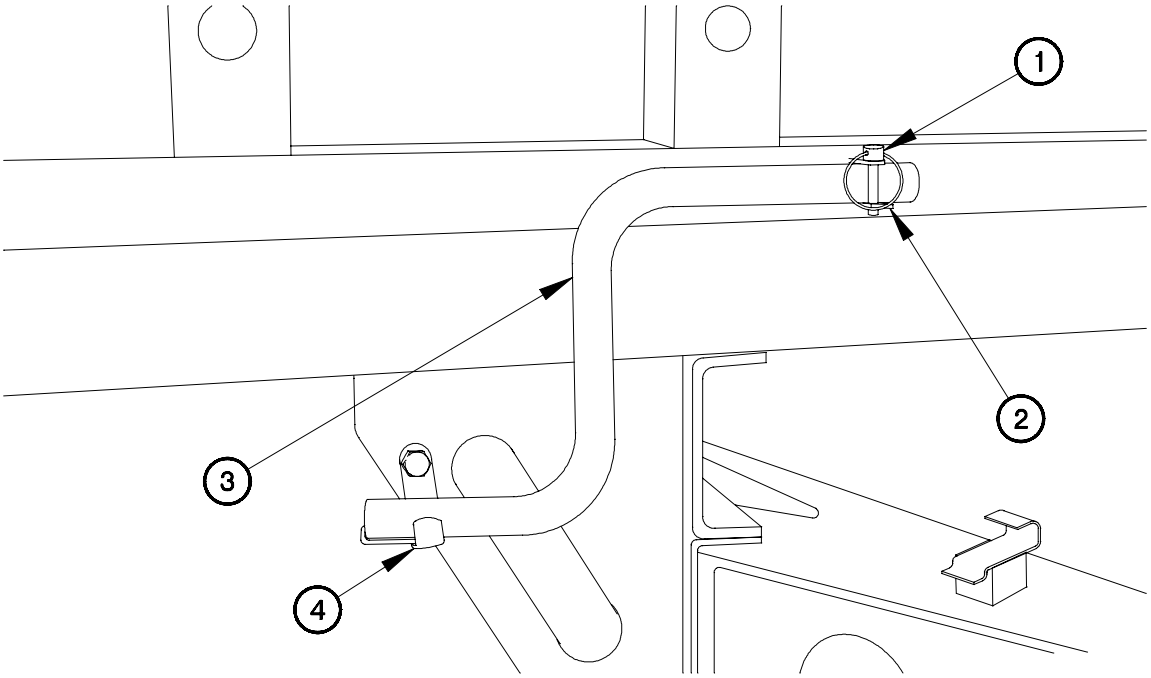


K300F01B

LANDING GEAR INSTALLATION - Continued

13. Attach retractable support winch handle (3) to bracket (4).

14. Install pin (1) in stowage bracket (2).



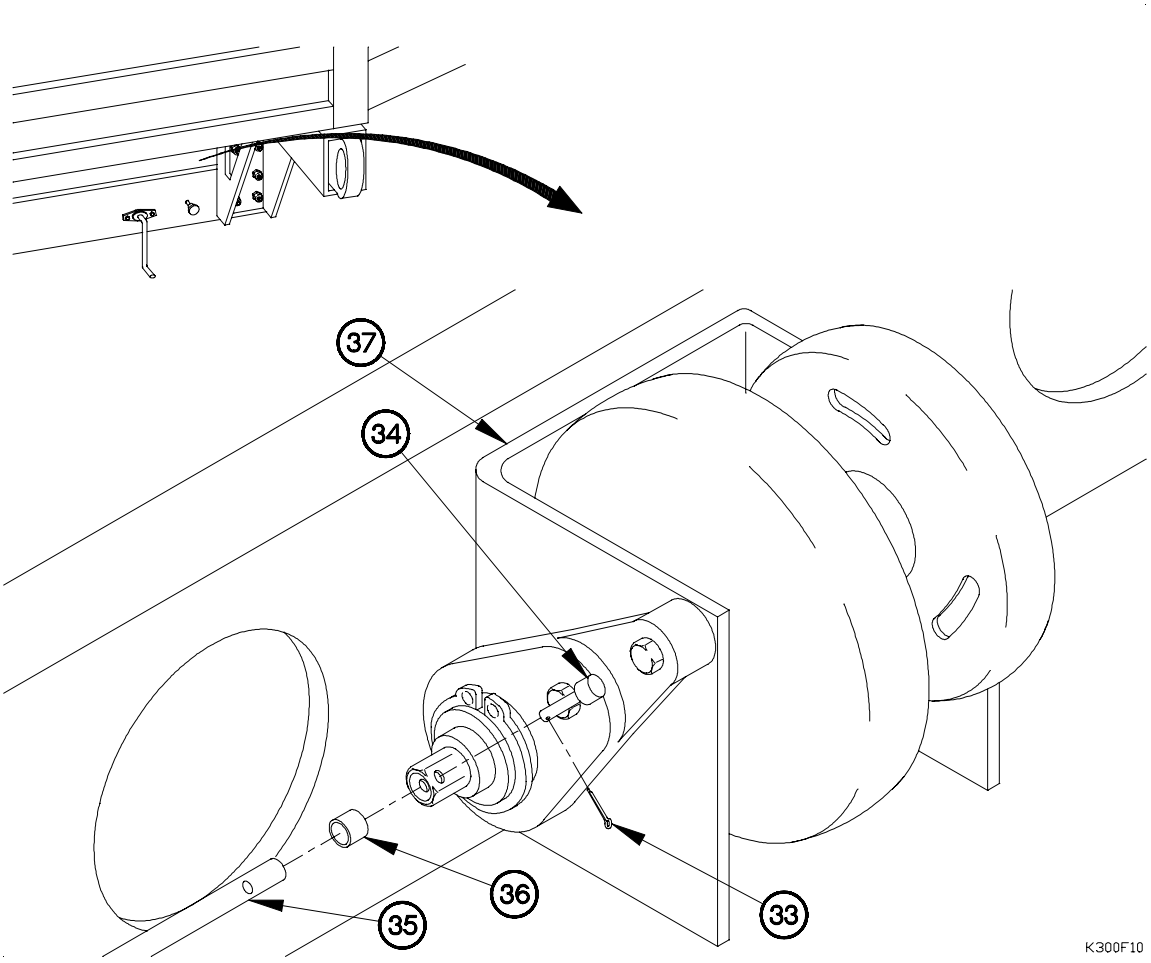
K300F01A

WINCH REMOVAL

WARNING

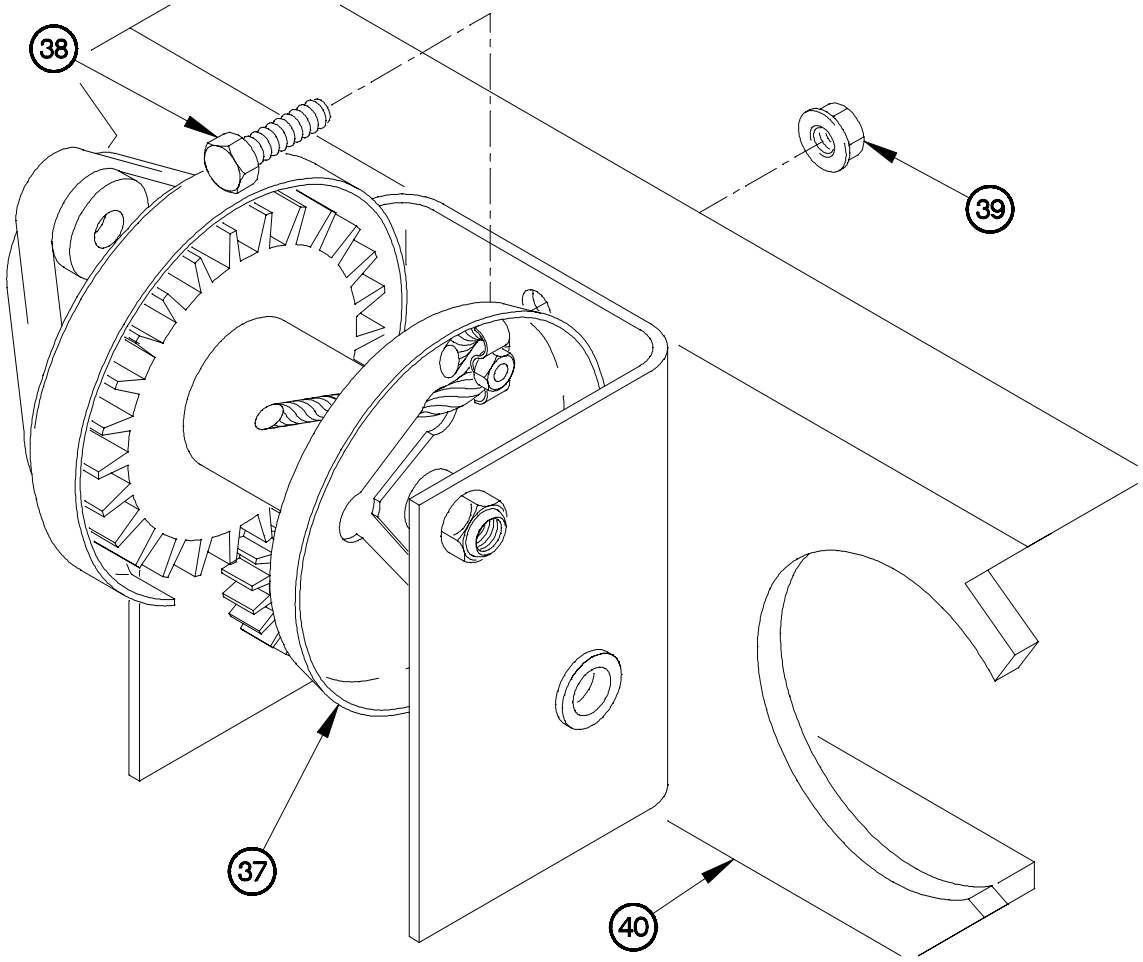
Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

1. Remove landing gear winch cable (WP 0086 00, Removal).
2. Remove cotter pin (33) from clevis pin (34). Discard cotter pin.
3. Remove clevis pin (34) from winch handle (35).
4. Remove winch handle (35) and bushing (36) from winch (37).



WINCH REMOVAL - Continued

5. Remove two screws (38), nuts (39) and winch (37) from tongue assembly (40).

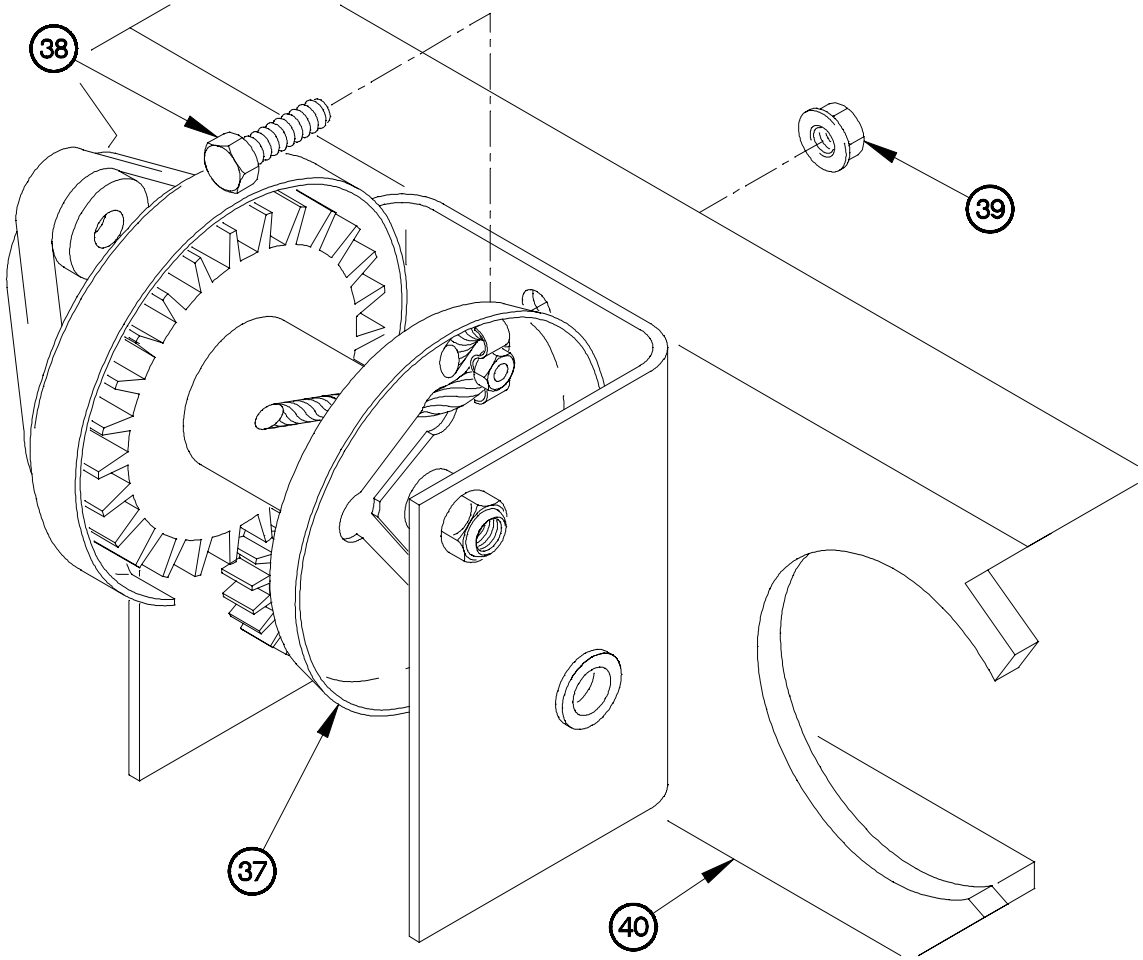


WINCH INSTALLATION

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

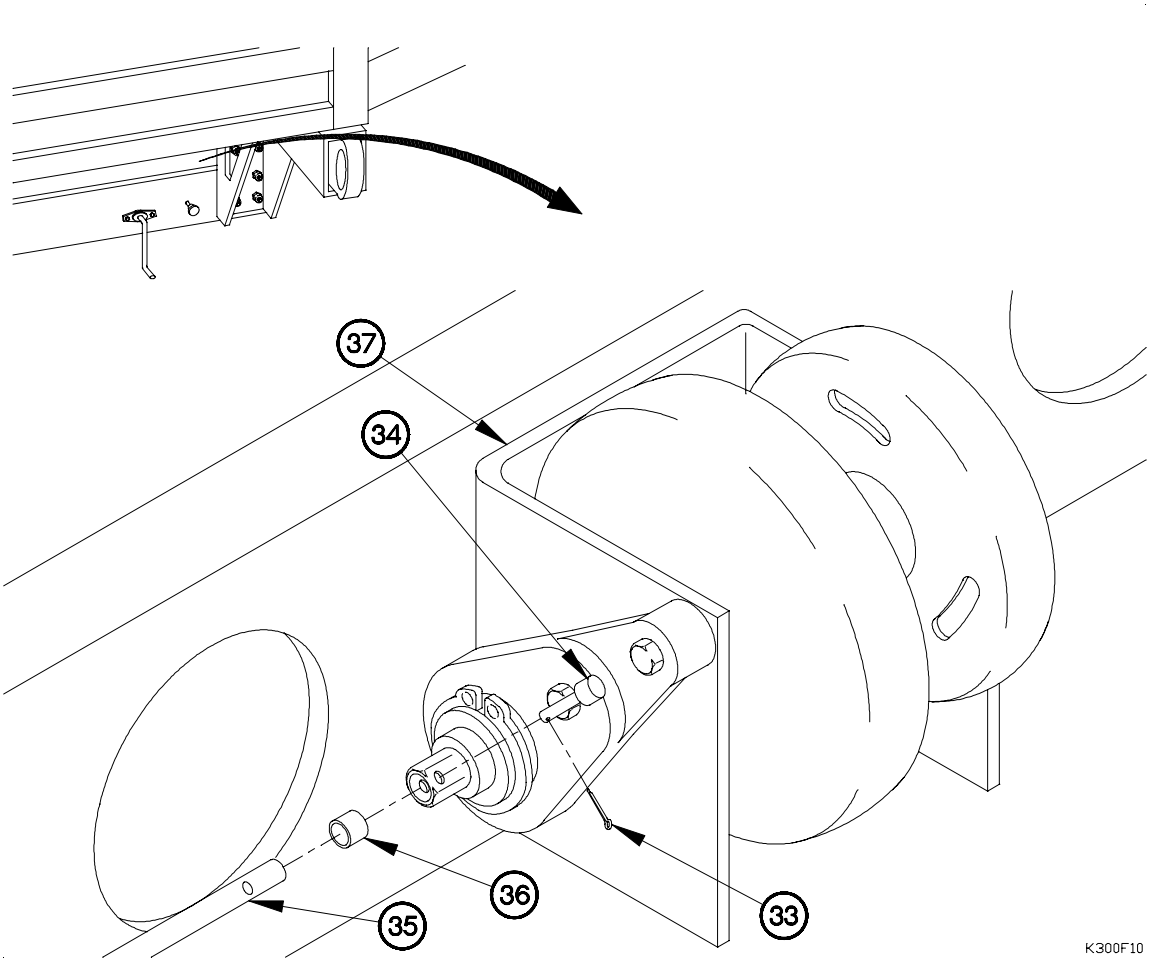
1. Position winch (37) on tongue assembly (40) with two screws (38) and nuts (39).
2. Tighten two nuts (39) to 18-22 lb-ft (25-30 N•m).



K300F11

WINCH INSTALLATION - Continued

3. Position bushing (36) and winch handle (35) in winch (37) with clevis pin (34).
4. Install cotter pin (33) in clevis pin (34).
5. Install landing gear winch cable (WP 0086 00, Installation).



OPERATIONAL CHECK

1. Couple trailer (WP 0009 00, Coupling Trailer).
2. Check landing gear for proper operation (WP 0013 00, General).
3. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

LIFTING BEAM ARM REPLACEMENT 0105 00

THIS WORK PACKAGE COVERS:

Lifting Beam Arm Removal, Lifting Beam Arm Installation

INITIAL SETUP:

Maintenance Level
Field

Personnel Required
Two

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-175 lb-ft (Item 49, WP 0178 00)
Wrench Set, Socket (Item 47, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Sling, Cargo (Item 27, WP 0178 00)

Equipment Conditions
Trailer uncoupled (WP 0012 00).

Material/Parts
Nut, self-locking (Item 30, WP 0181 00)

LIFTING BEAM ARM REPLACEMENT - Continued 0105 00

LIFTING BEAM ARM REMOVAL

WARNING

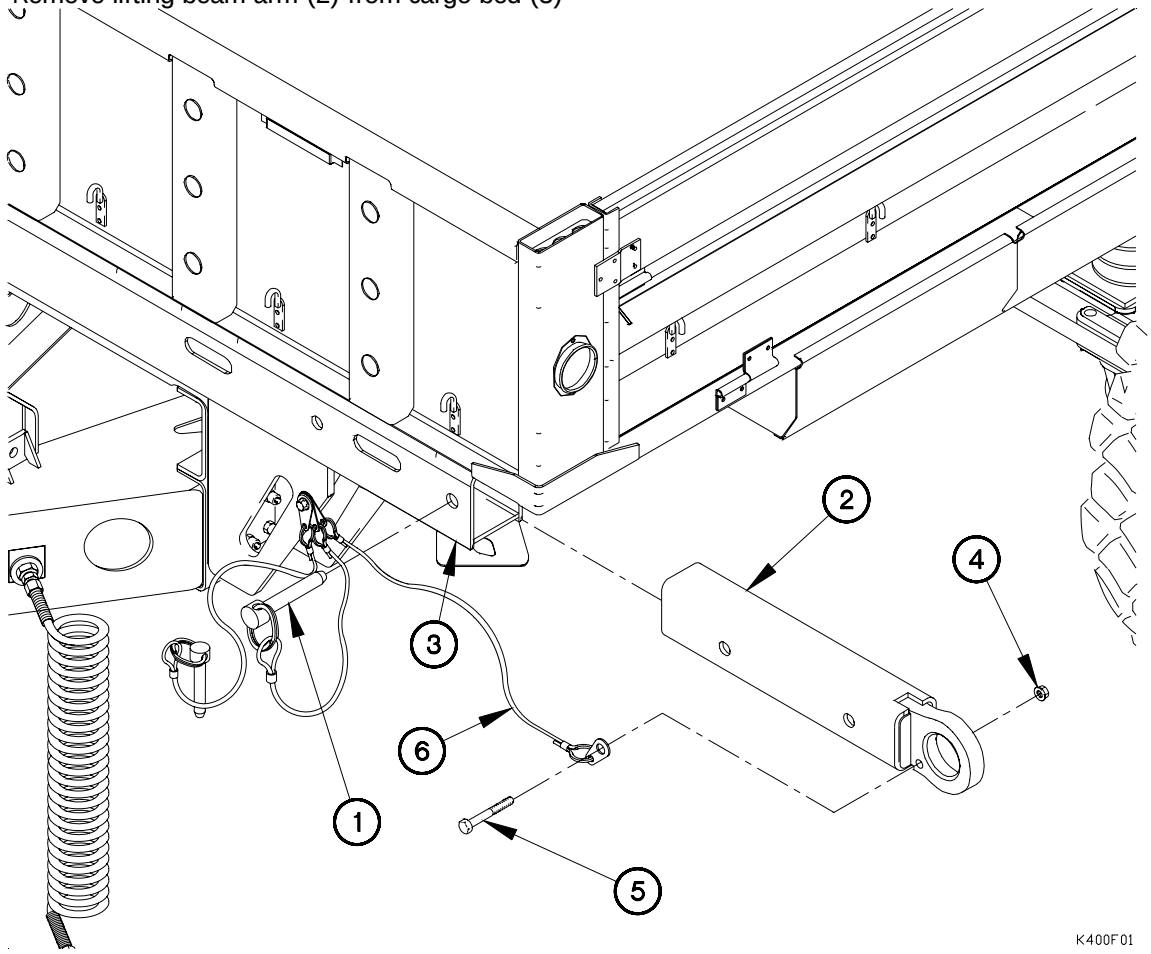
Lifting beam arms weigh approximately 75 lbs (34 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

All four lifting beam arms are removed the same way. Left front shown.

Step (1) requires the aid of an assistant.

1. Remove two pins (1) and extend lifting beam arm (2) from cargo bed (3).
2. Remove self-locking nut (4), bolt (5) and lanyard (6) from lifting beam arm (2). Discard self-locking nut.
3. Remove lifting beam arm (2) from cargo bed (3)



LIFTING BEAM ARM REPLACEMENT - Continued 0105 00

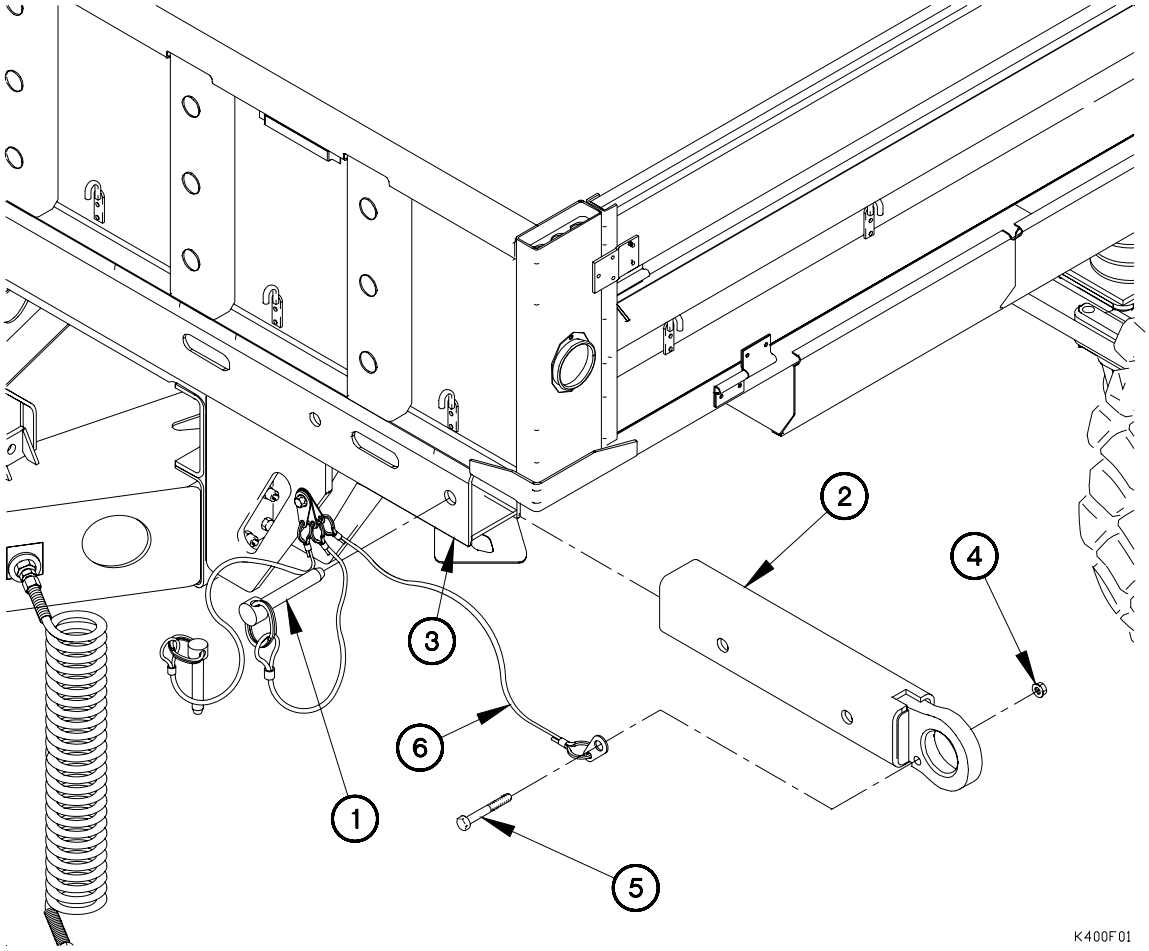
LIFTING BEAM ARM INSTALLATION

NOTE

All four lifting beam arms are installed the same way. Left front shown.

Step (1) requires the aid of an assistant.

1. Position lifting beam arm (2) in cargo bed (3).
2. Install lanyard (6) on lifting beam arm (2) with bolt (5) and self-locking nut (4).
3. Install lifting beam (2) on cargo bed (3) with two pins (1).
4. Tighten self-locking nut (4) to 23-29 lb-ft (31-39 N•m).



END OF WORK PACKAGE

SHOCK MOUNTING PLATE REPLACEMENT 0106 00

THIS WORK PACKAGE COVERS:

Removal, MTVT; Installation, MTVT; Removal LMTVT; Installation, LMTVT; Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Socket Set, Impact (Item 28, WP 0178 00)

Tools and Special Tools (Cont)
Wrench Set, Socket (Item 46, WP 0178 00)

Materials/Parts
Nut, self-locking (4) (Item 46, WP 0181 00)
U-Bolt (2) (Item 51, WP 0181 00)

Equipment Conditions
Shock absorbers removed (from plate being replaced) (WP 0075 00).

WARNING

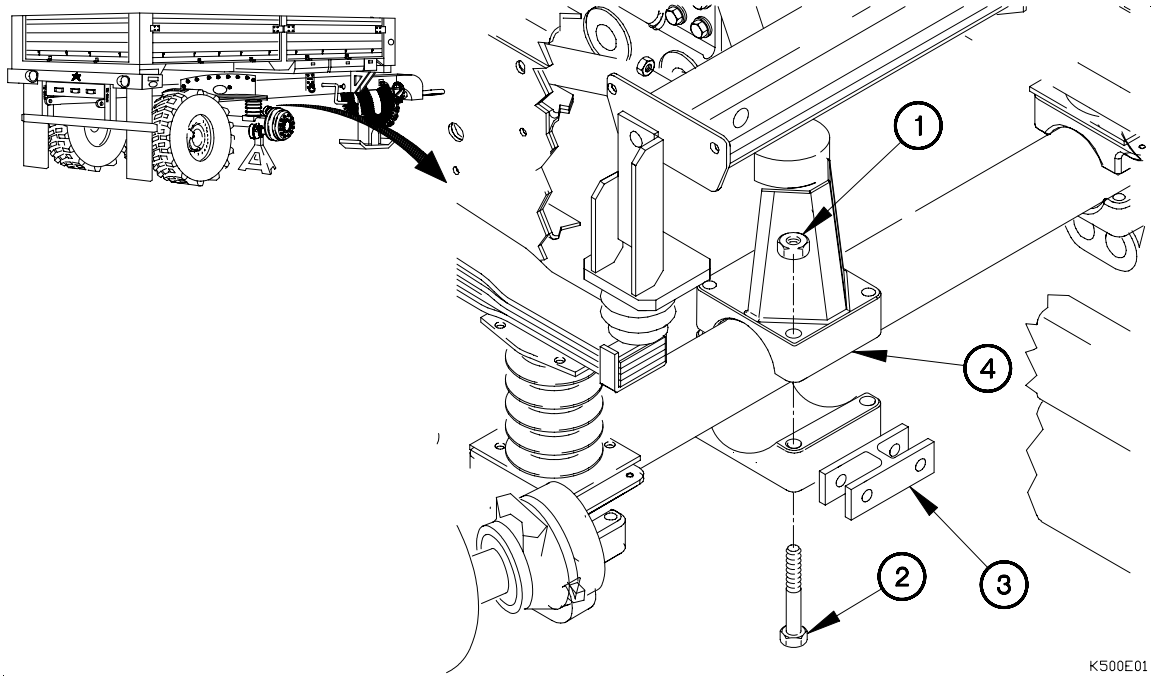
Wear appropriate eye protection when working under trailer. Falling debris may cause eye injury. Failure to comply may result in injury to personnel.

REMOVAL, MTVT

NOTE

Front and rear shock mounting plates are removed the same way. Rear shown.

Remove four nuts (1), bolts (2), and shock mounting plate (3) from axle bracket (4).



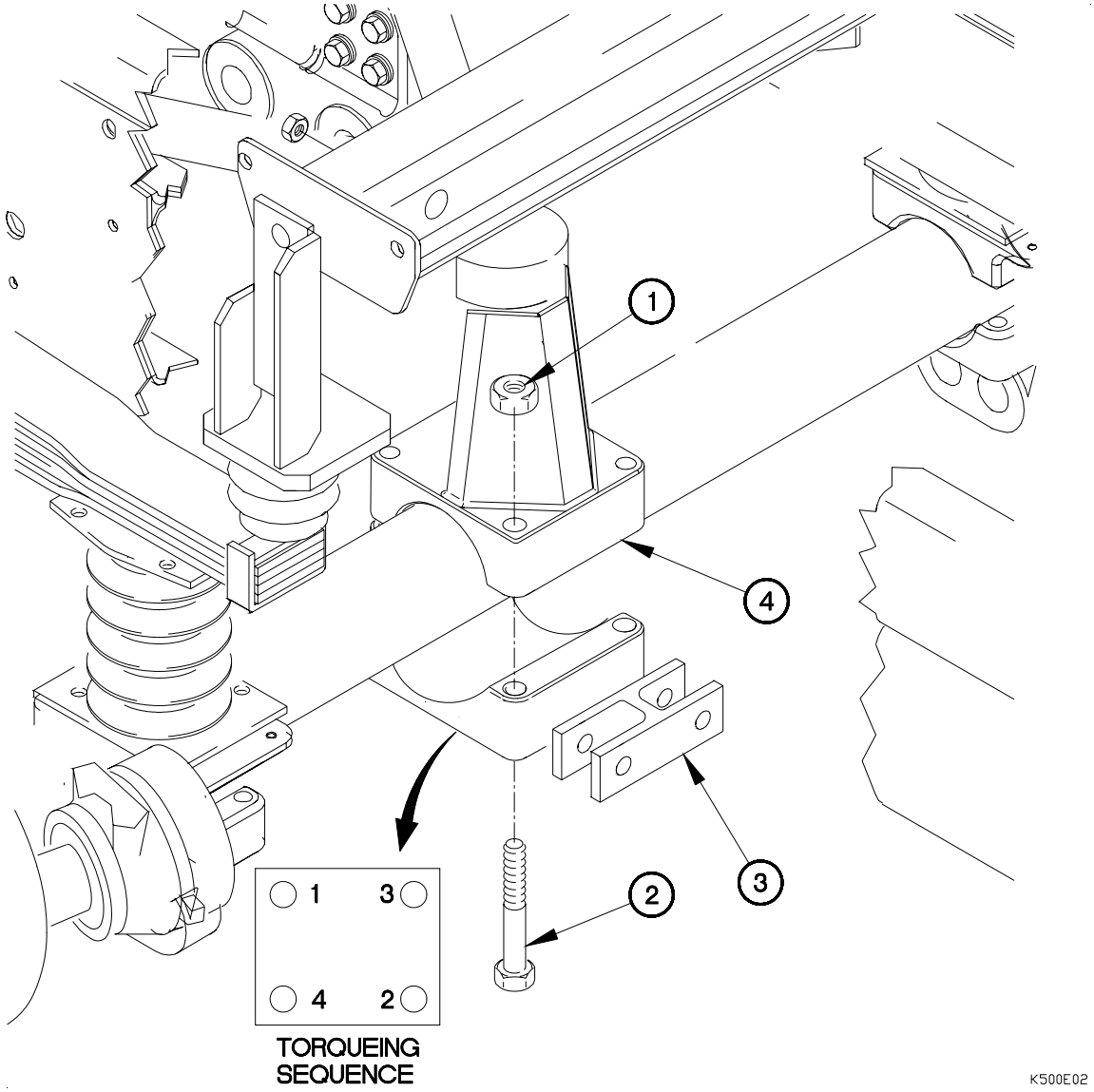
SHOCK MOUNTING PLATE REPLACEMENT - Continued 0106 00

INSTALLATION, MTVT

NOTE

Front and rear shock mounting plates are installed the same way. Rear shown.

1. Position shock mounting plate (3) on axle bracket (4) with four bolts (2) and nuts (1).
2. Tighten four nuts (1) to 391-509 lb-ft (530-690 N•m).



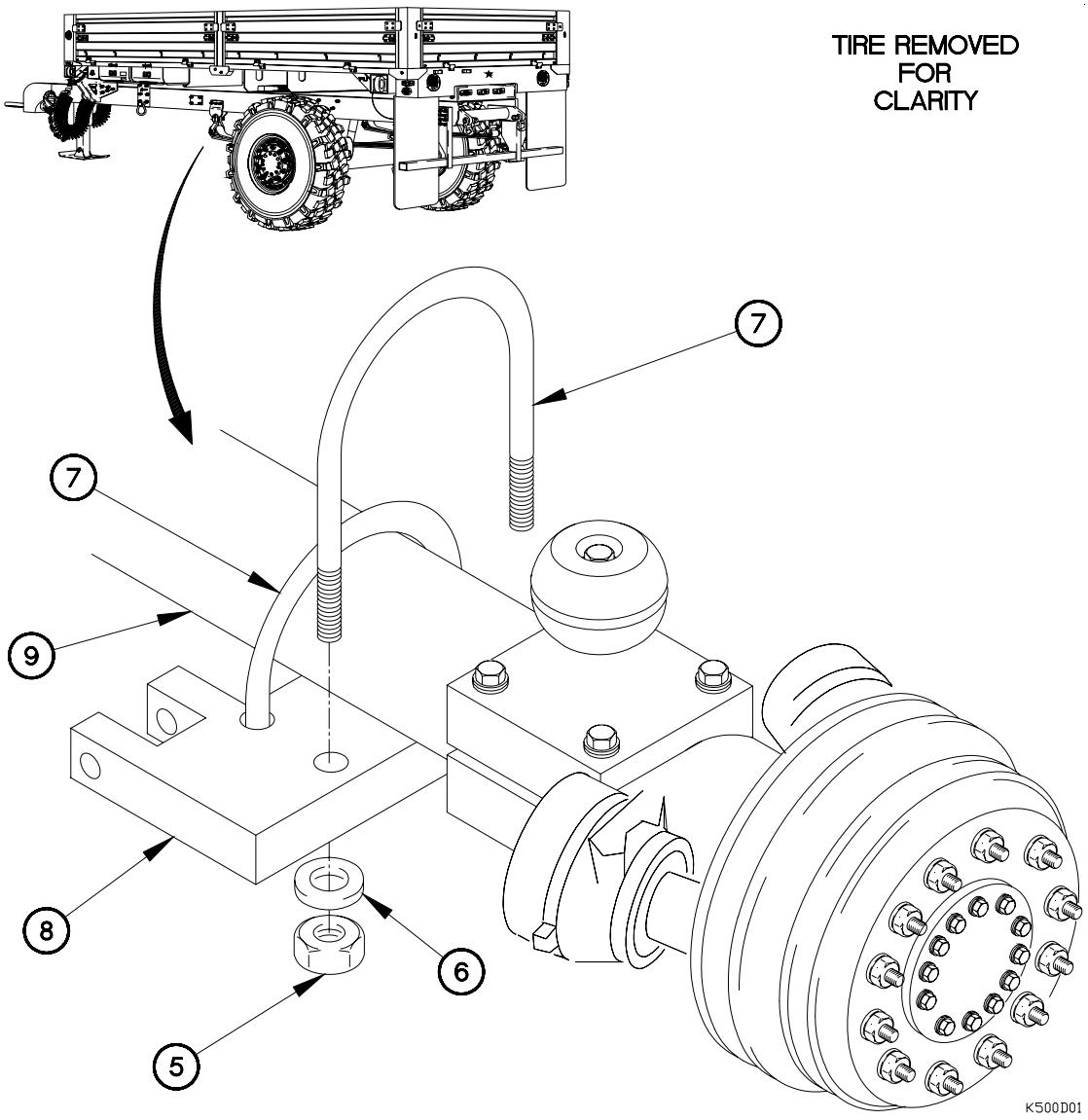
SHOCK MOUNTING PLATE REPLACEMENT - Continued 0106 00

REMOVAL, LMTVT

NOTE

Left and right side shock mounting plates are removed the same way. Left side shown.

Remove four self-locking nuts (5), washers (6), two U-bolts (7), and shock mounting plate (8) from axle (9). Discard self-locking nuts and U-bolts.



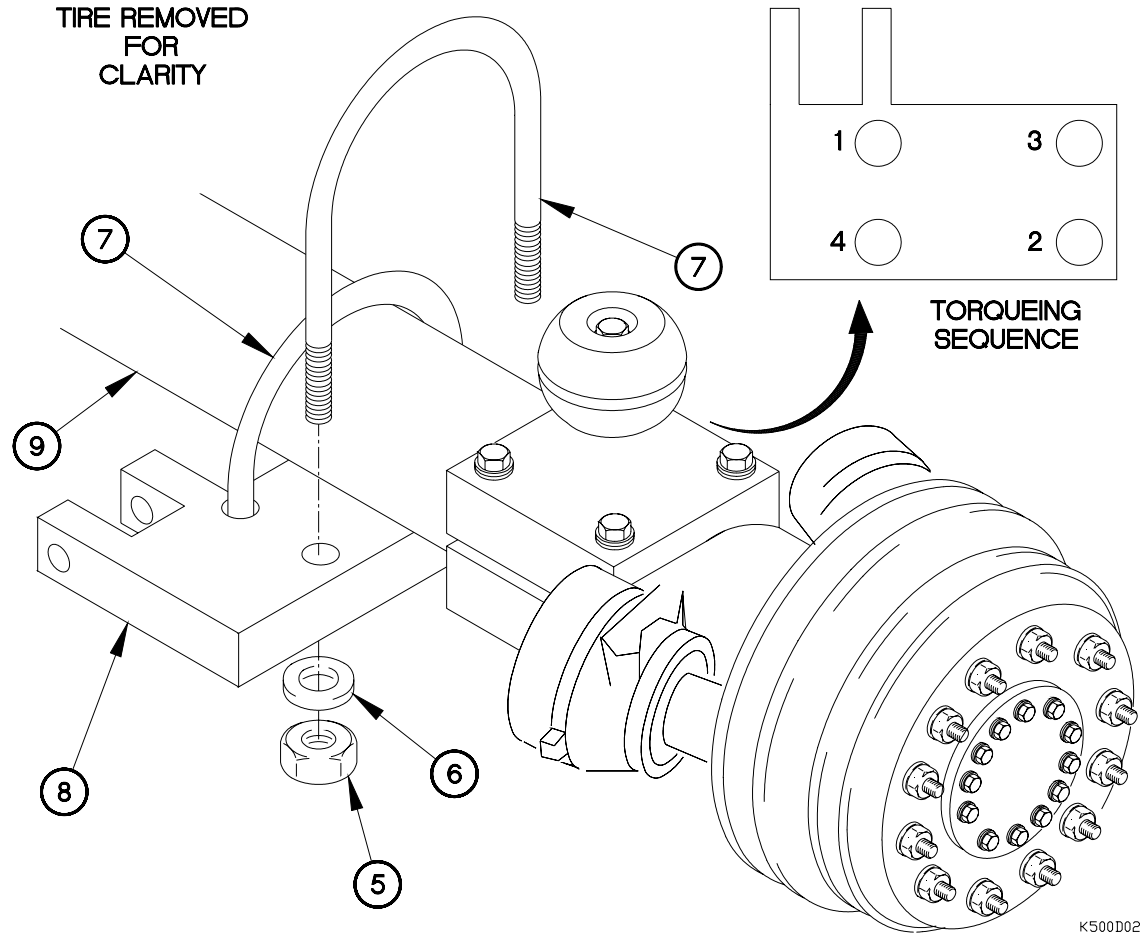
SHOCK MOUNTING PLATE REPLACEMENT - Continued 0106 00

INSTALLATION, LMTVT

NOTE

Left and right side shock mounting plates are installed the same way. Left side shown.

1. Position shock mounting plate (8) on axle (9) with two U-bolts (7), four washers (6), and self-locking nuts (5).
2. Tighten four self-locking nuts (5) to 200 lb-ft (271 N•m).
3. Retighten four self-locking nuts (5) in increments of 50 lb-ft (67 N•m) to 390-510 lb-ft (530-690 N•m) in sequence shown.



OPERATIONAL CHECK

Install shock absorbers (WP 0075 00, Installation).

END OF WORK PACKAGE

SHOCK MOUNT CROSSMEMBER REPLACEMENT 0107 00

THIS WORK PACKAGE COVERS:

Front Shock Mount Crossmember Removal, MTVT; Rear Shock Mount Crossmember Removal, MTVT; Rear Shock Mount Crossmember Installation, MTVT; Front Shock Mount Crossmember Installation, MTVT; Removal, LMTVT; Installation, LMTVT; Operational Check

INITIAL SETUP:

Maintenance Level

Field

Tools and Special Tools

Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Sling, Cargo (Item 27, WP 0178 00)
Wrench, Impact, Electric (Item 42, WP 0178 00)
Socket Set, Impact (Item 28, WP 0178 00)
Wrench, Torque, 0-300 lb-in (Item 51, WP 0178 00)

Materials/Parts

Bolt (20) (MTVT) (Front) (Item 26, WP 0181 00)
Nut, Self-Locking (28) (MTVT) (Front), (Item 35, WP 0181 00)
Nut, Self-Locking (2) (MTVT) (Front) (Item 37, WP 0181 00)
Bolt (9) (MTVT) (Rear) (Item 26, WP 0181 00)
Bolt (8) (MTVT) (Rear) (Item 27, WP 0181 00)
Nut, Self-Locking (17) (MTVT) (Rear) (Item 35, WP 0181 00)
Lockwasher (6) (MTVT) (Rear) (Item 10, WP 0181 00)
Nut, Self-Locking (MTVT) (Rear) (Item 37, WP 0181 00)
Bolt (8) (MTVT) (Front) (Item 27, WP 0181 00)

Materials/Parts (Cont)

Bolt (12) (LMTVT) (Item 26, WP 0181 00)
Bolt (14) (LMTVT) (Item 27, WP 0181 00)
Nut, Self-Locking (26) (LMTVT) (Item 35, WP 0181 00)
Lockwasher (6) (LMTVT) (Item 10, WP 0181 00)
Nut, Self-Locking (LMTVT) (Item 37, WP 0181 00)
Oil, Lubricating (Item 22, WP 0176 00)
Cloth, Cleaning (Item 8, WP 0176 00)
Solvent, Dry Cleaning (Item 32, WP 0176 00)

Personnel Required

Two

Equipment Conditions

Trailer uncoupled (WP 0012 00).
Shock absorbers removed (WP 0075 00).
Air tank removed (MTVT) (WP 0064 00) (for front shock mount crossmember).
Tongue assembly removed (MTVT). (WP 0113 00)(for front shock mount crossmember).
ABS control assembly bracket removed (LMTVT) (WP 0094 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel or damage to equipment.

SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

FRONT SHOCK MOUNT CROSSMEMBER REMOVAL, MTVT

CAUTION

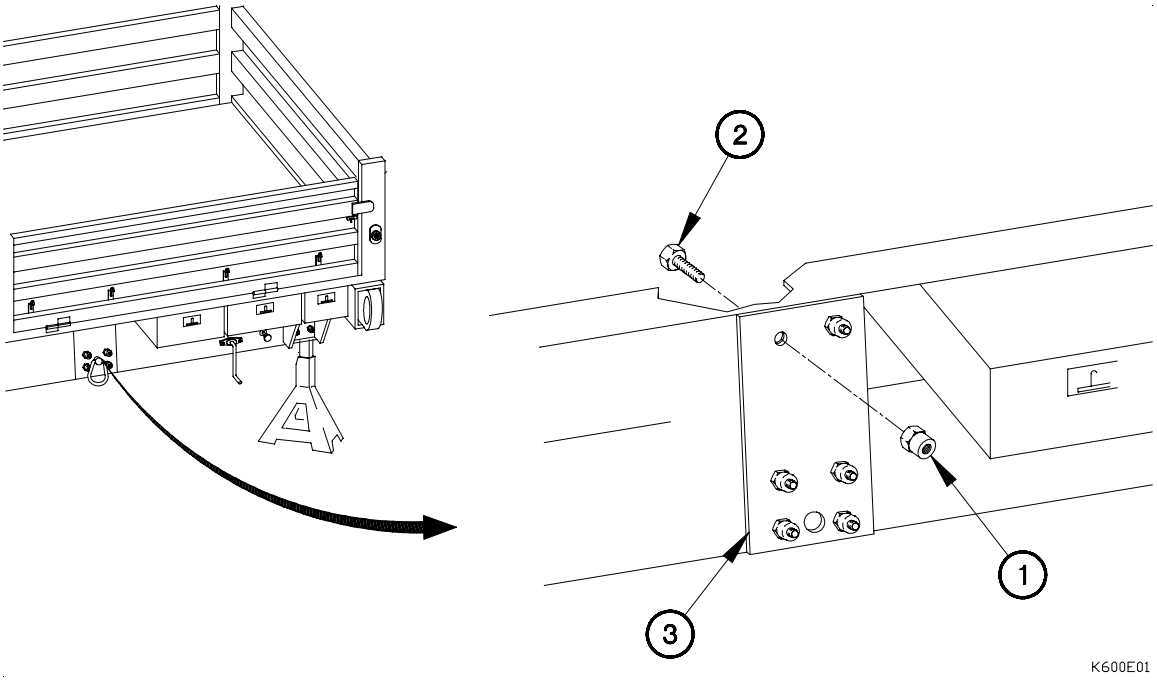
When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

NOTE

Left and right sides of front shock mount crossmember are removed the same way. Right side shown.

Steps (1) and (2) require the aid of an assistant.

1. Remove two collars (1) and bolts (2) from tiedown ring bracket (3). Discard collars and bolts.

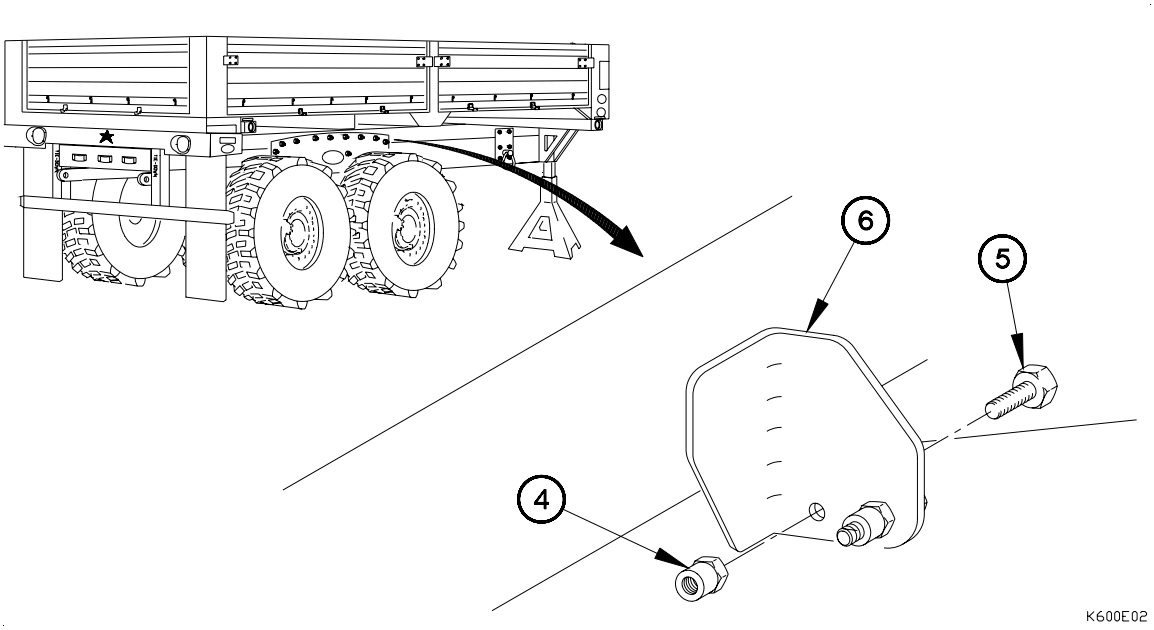


SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

FRONT SHOCK MOUNT CROSSMEMBER REMOVAL, MTVT - Continued

2. Remove four collars (4) and bolts (5) from two front brackets (6). Discard collars and bolts.

3. Perform steps (1 and 2) on left side of trailer.



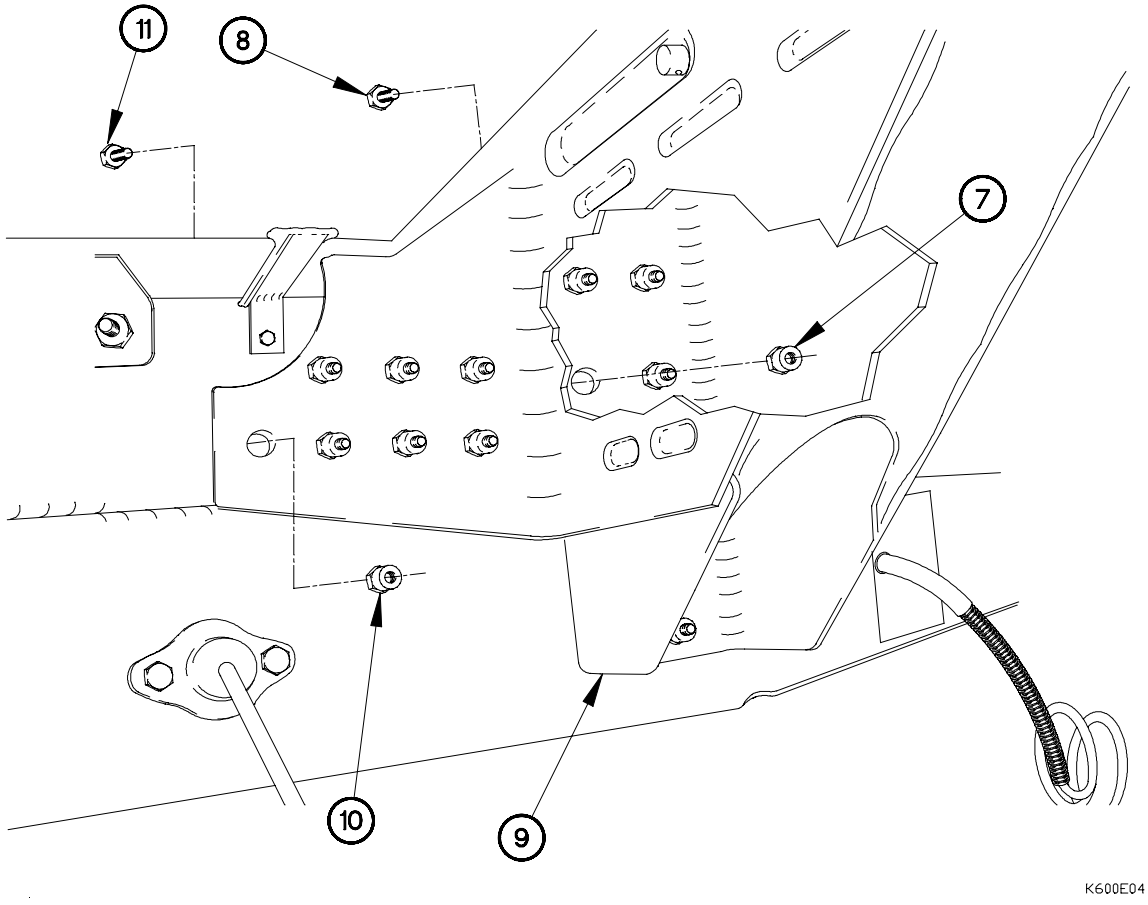
SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

FRONT SHOCK MOUNT CROSSMEMBER REMOVAL, MTVT - Continued

CAUTION

When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

4. Remove four collars (7) and bolts (8) from front lifting beam (9). Discard collars and bolts.
5. Remove seven collars (10) and bolts (11) from front lifting beam (9). Discard collars and bolts.
6. Perform Steps (4) and (5) on left side of front lifting beam (9).



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

FRONT SHOCK MOUNT CROSSMEMBER REMOVAL, MTVT - Continued

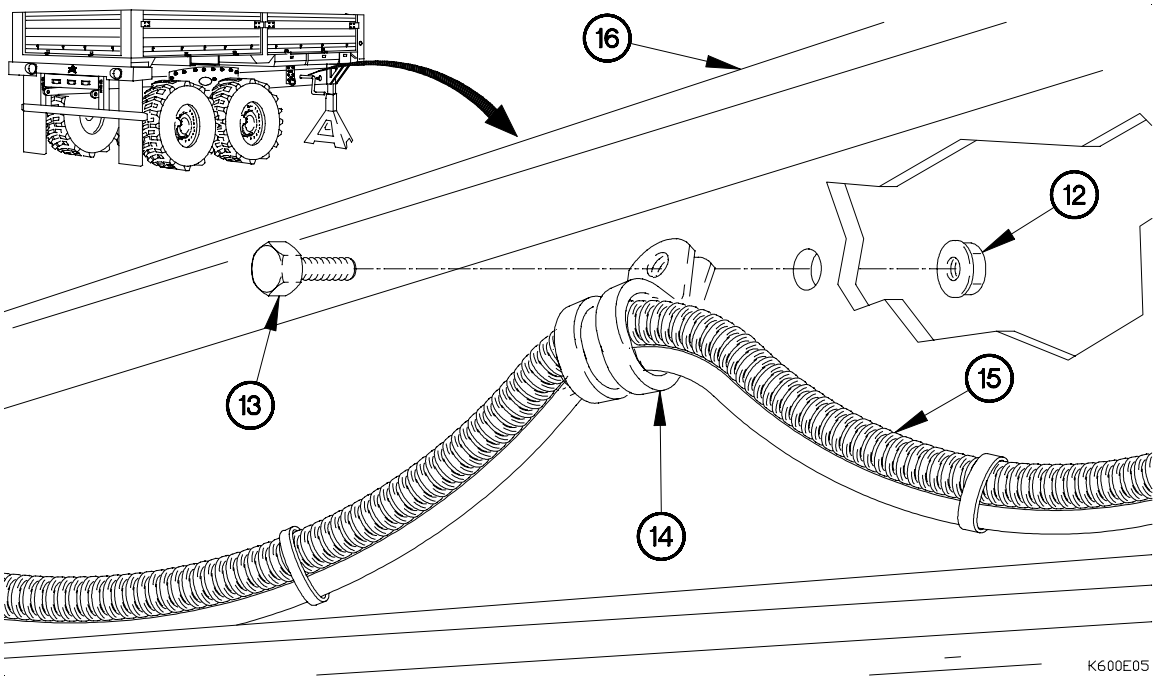
CAUTION

Ensure clamp and attached cable assembly forward of the front shock mount crossmember are positioned clear of the frame rail prior to removal of front shock mount crossmember. Failure to comply may result in damage to equipment.

NOTE

Perform step (7) on right side of trailer.

7. Remove two self-locking nuts (12), screws (13), clamps (14), and electrical cable assembly (15) from frame rail (16). Discard self-locking nuts.



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

FRONT SHOCK MOUNT CROSSMEMBER REMOVAL, MTVT - Continued

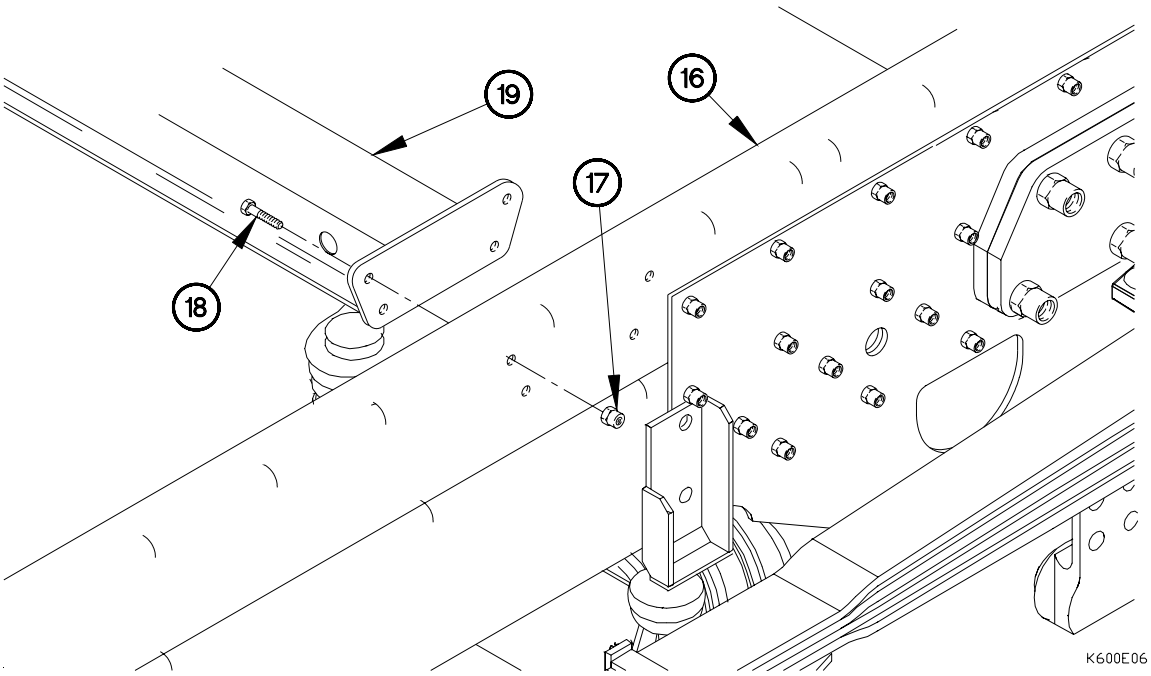
CAUTION

When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

8. Remove four collars (17) and bolts (18) from front shock mount crossmember (19). Discard collars and bolts.

9. Perform step (8) on left side of front shock mount crossmember (19).

10. Remove front shock mount crossmember (19) from frame rails (16).



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

REAR SHOCK MOUNT CROSSMEMBER REMOVAL, MTVT - Continued

CAUTION

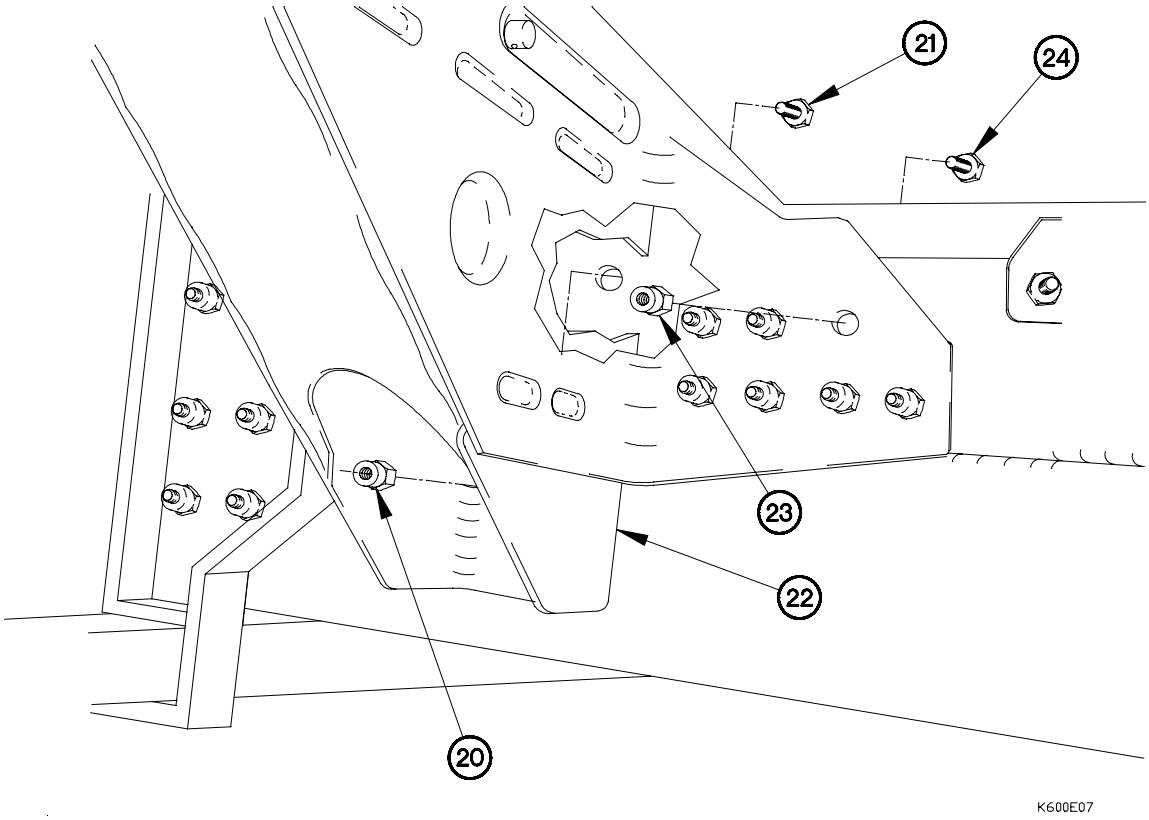
When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

NOTE

Left and right sides of rear shock mount crossmember are removed the same way. Right side shown.

Steps (1) and (2) require the aid of an assistant.

1. Remove four collars (20) and bolts (21) from rear lifting beam (22). Discard collars and bolts.
2. Remove seven collars (23) and bolts (24) from rear lifting beam (22). Discard collars and bolts.

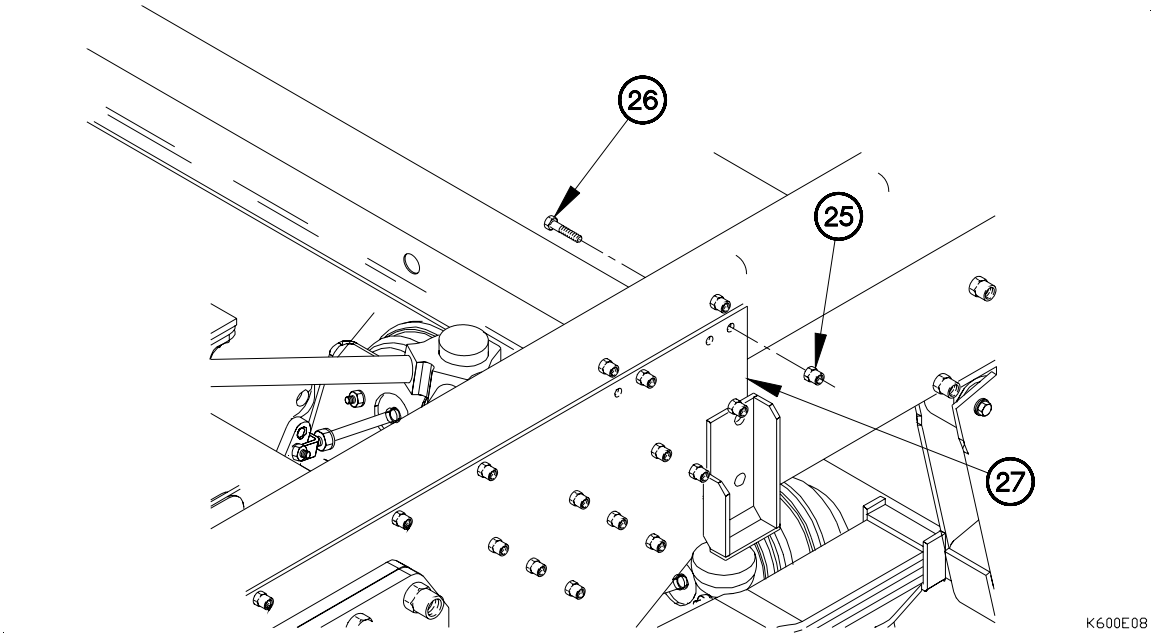


SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

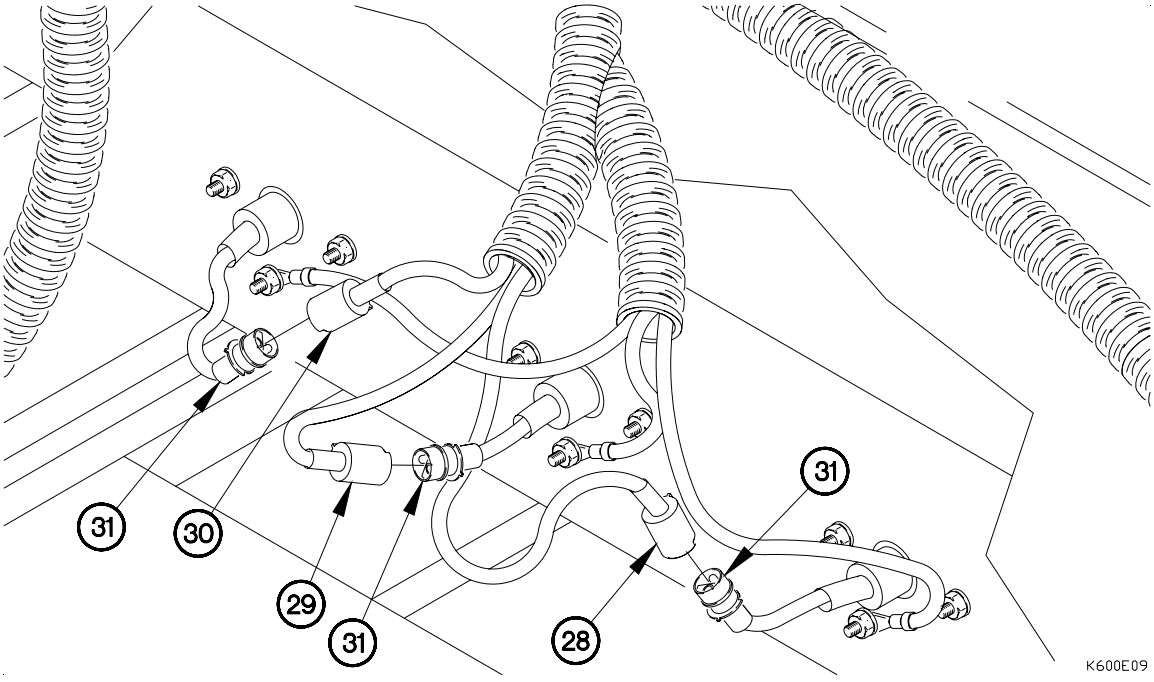
REAR SHOCK MOUNT CROSSMEMBER REMOVAL, MTVT - Continued

3. Remove collar (25) and bolt (26) from frame plate (27). Discard collar and bolt.

4. Perform steps (1 through 3) on left side of trailer.



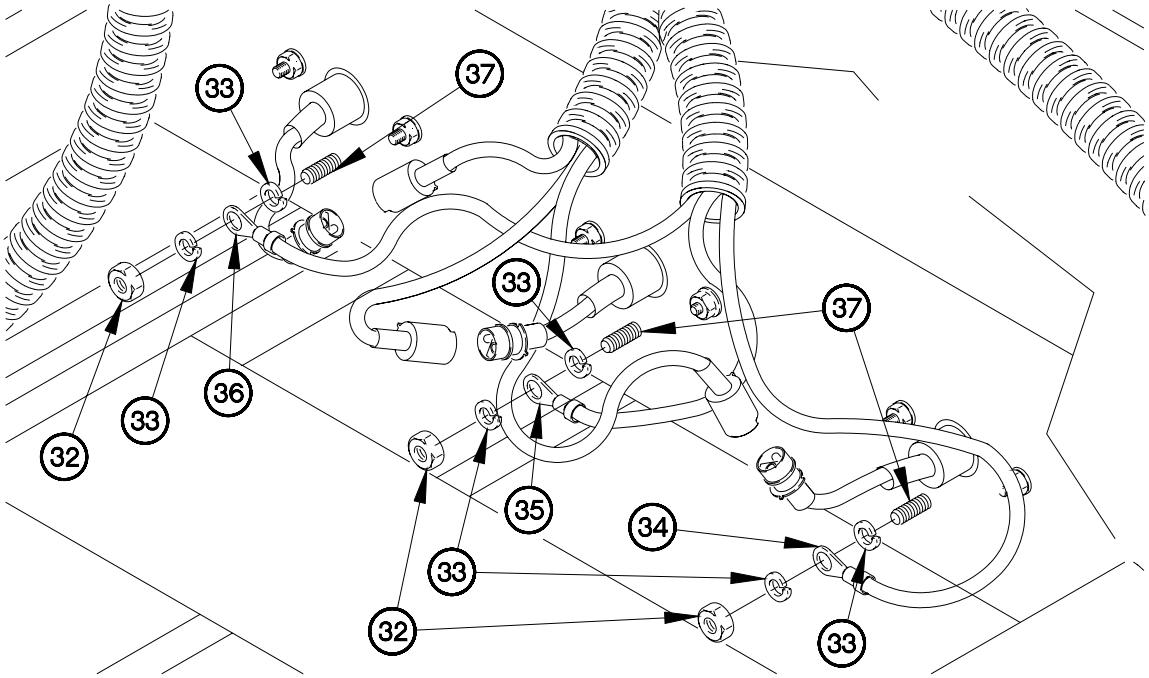
5. Disconnect connectors J252 (28), J253 (29), and J254 (30) from three rear marker light connectors 489 (31).



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

REAR SHOCK MOUNT CROSSMEMBER REMOVAL, MTVT - Continued

6. Remove three nuts (32), six lockwashers (33), terminal lugs TL264 (34), TL265 (35), and TL266 (36) from three rear marker light studs (37). Discard lockwashers.



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SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

REAR SHOCK MOUNT CROSSMEMBER REMOVAL, MTVT - Continued

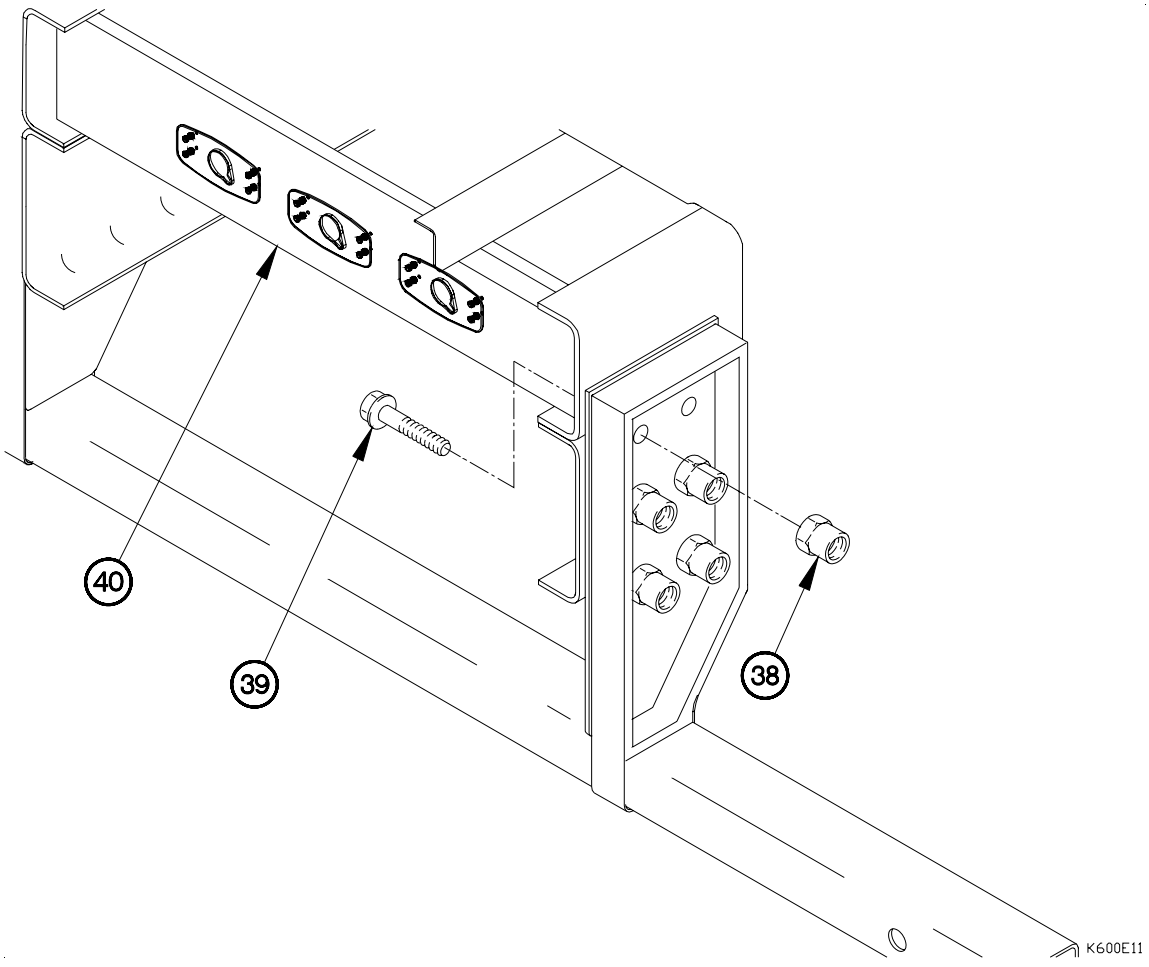
CAUTION

When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

NOTE

Steps (7) through (9) require the aid of an assistant.

7. Remove two collars (38) and bolts (39) from rear marker light bracket (40). Discard collars and bolts.
8. Perform step (7) on left side of rear marker light bracket (40).
9. Remove rear marker light bracket (40) from trailer.



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

REAR SHOCK MOUNT CROSSMEMBER REMOVAL, MTVT - Continued

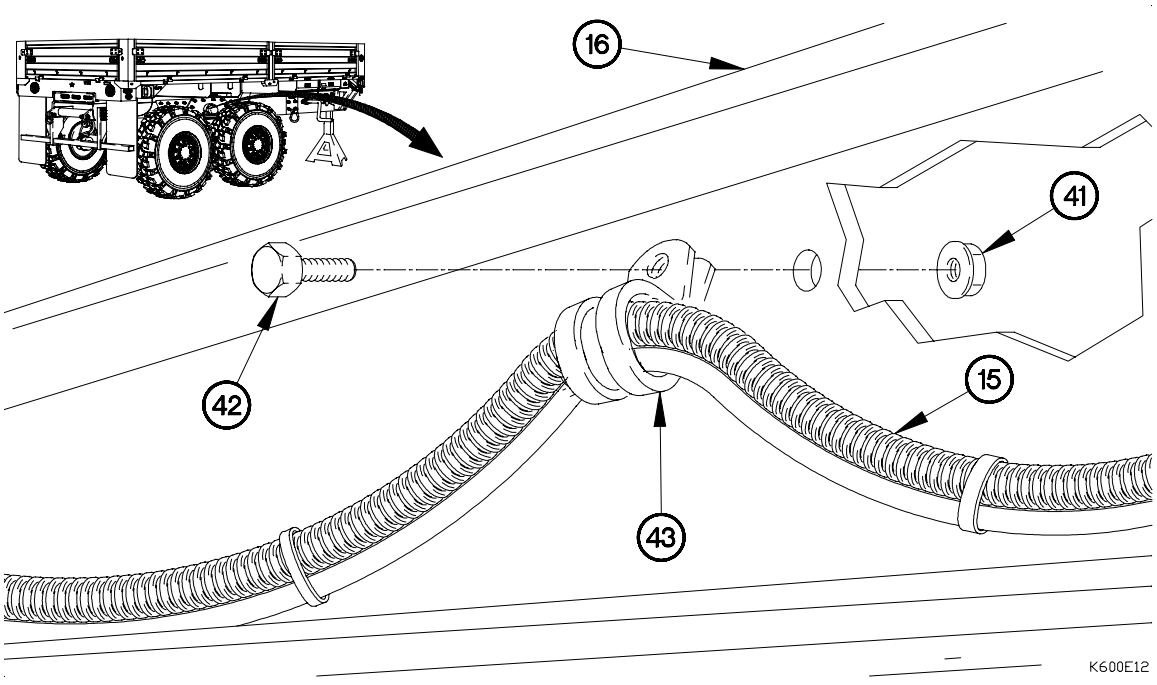
CAUTION

Ensure clamp and attached cable assembly rearward of the rear shock mount crossmember are positioned clear of the frame rail prior to removal of rear shock mount crossmember. Failure to comply may result in damage to equipment.

NOTE

Perform step (10) on right side of trailer.

10. Remove self-locking nut (41), screw (42), clamp (43), and electrical cable assembly (15) from frame rail (16). Discard self-locking nuts.



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

REAR SHOCK MOUNT CROSSMEMBER REMOVAL, MTVT - Continued

CAUTION

When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

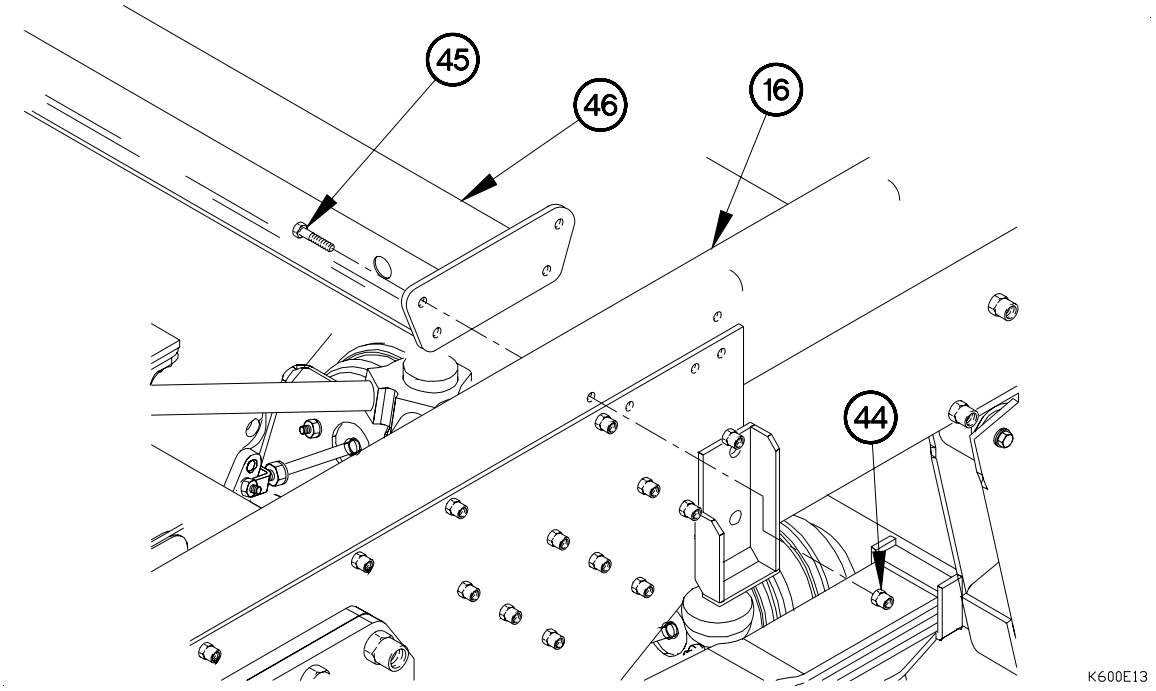
NOTE

Steps (11) through (13) require the aid of an assistant.

11. Remove three collars (44) and bolts (45) from rear shock mount crossmember (46). Discard collars and bolts.

12. Perform step (11) on left side of rear shock mount crossmember (46).

13. Remove rear shock mount crossmember (46) from frame rails (16).



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

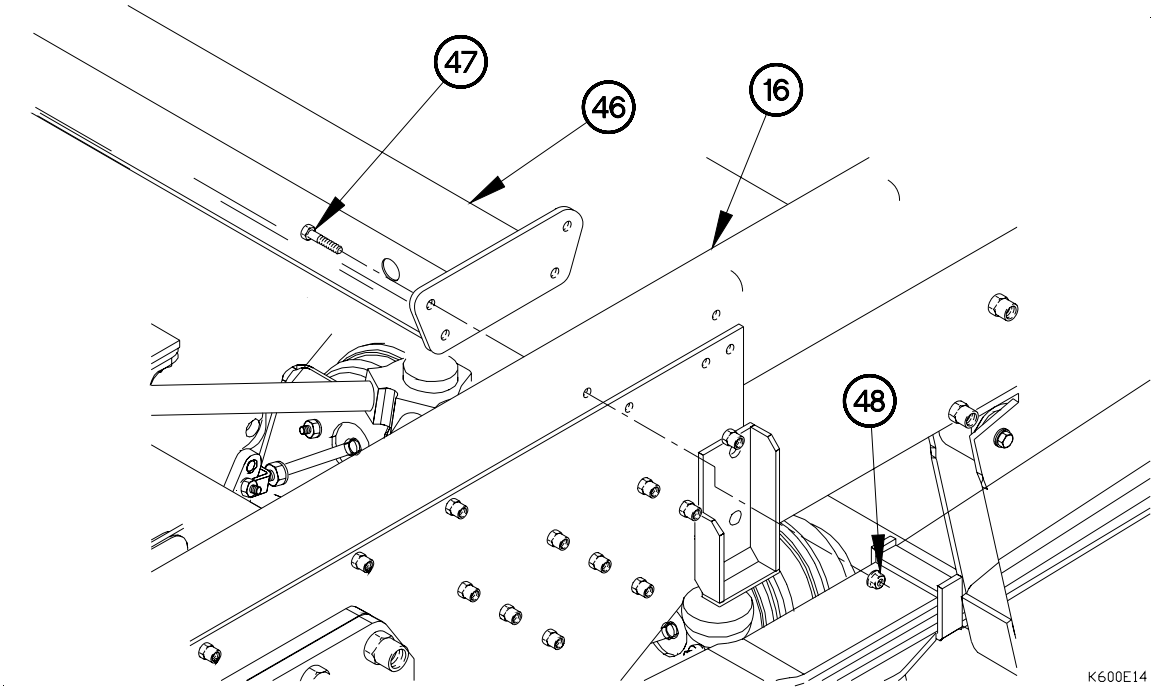
REAR SHOCK MOUNT CROSSMEMBER INSTALLATION, MTVT

NOTE

Left and right sides of rear shock mount crossmember are installed the same way. Right side shown.

Steps (1) through (3) require the aid of an assistant.

1. Position rear shock mount crossmember (46) on frame rails (16) with three bolts (47) and self-locking nuts (48).
2. Tighten three self-locking nuts (48) to 210-225 lb-ft (285-305 N•m).
3. Perform steps (1 and 2) on left side of rear shock mount crossmember (46).



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

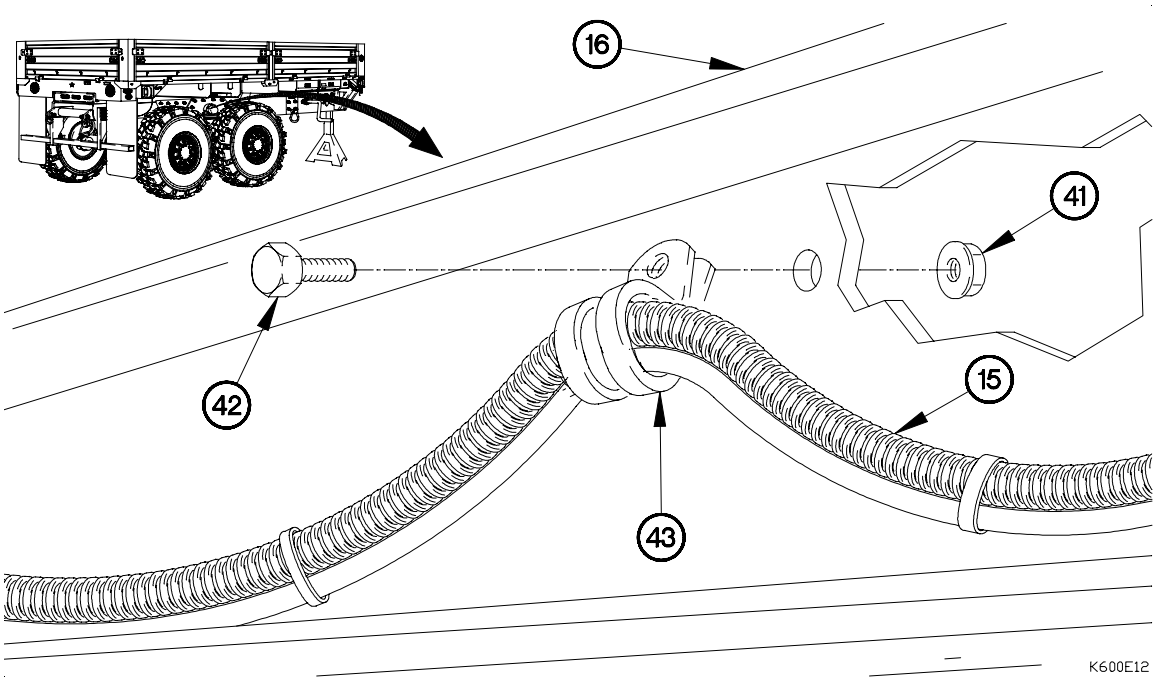
REAR SHOCK MOUNT CROSSMEMBER INSTALLATION, MTVT - Continued

NOTE

Perform steps (4 and 5) on right side of trailer.

4. Position electrical cable assembly (15) on frame rail (16) with clamp (43), screw (42) and self-locking nut (41).

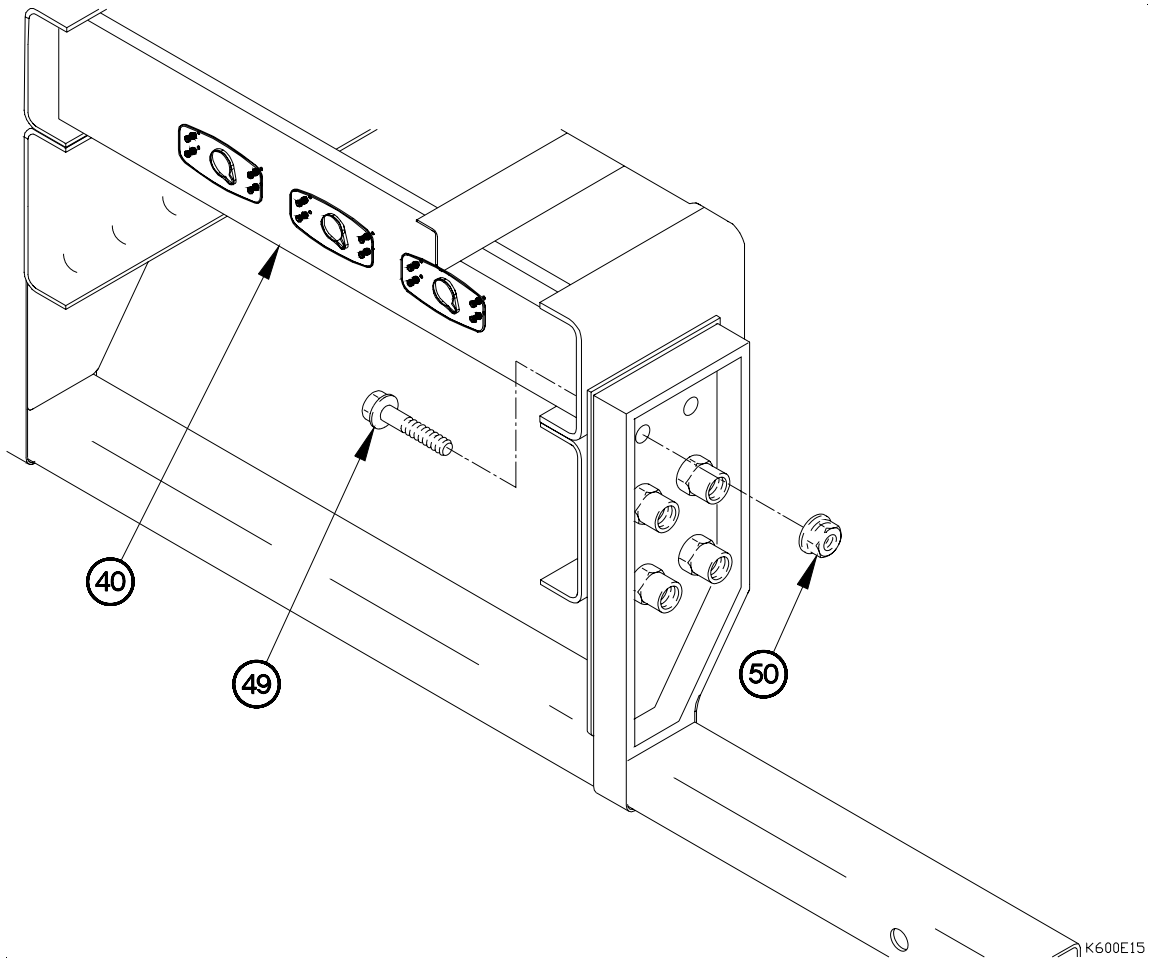
5. Tighten self-locking nut (41) to 60-72 lb-in (7-9 N•m).



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

REAR SHOCK MOUNT CROSSMEMBER INSTALLATION, MTVT - Continued

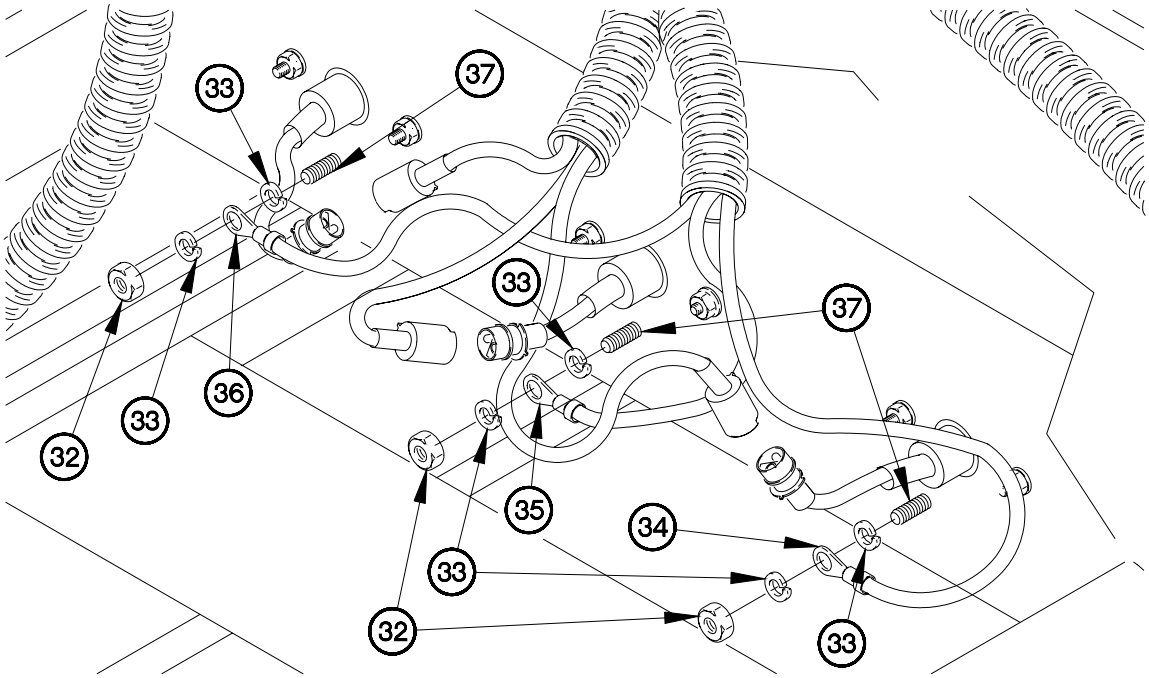
6. Position rear marker light bracket (40) on trailer with two bolts (49) and self-locking nuts (50).
7. Tighten two self-locking nuts (50) to 210-225 lb-ft (285-305 N•m).
8. Perform steps (6 and 7) on left side of rear marker light bracket (40).



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

REAR SHOCK MOUNT CROSSMEMBER INSTALLATION, MTVT - Continued

9. Install terminal lugs TL266 (36), TL265 (35), and TL264 (34) on three rear marker light studs (37) with six lockwashers (33) and three nuts (32).

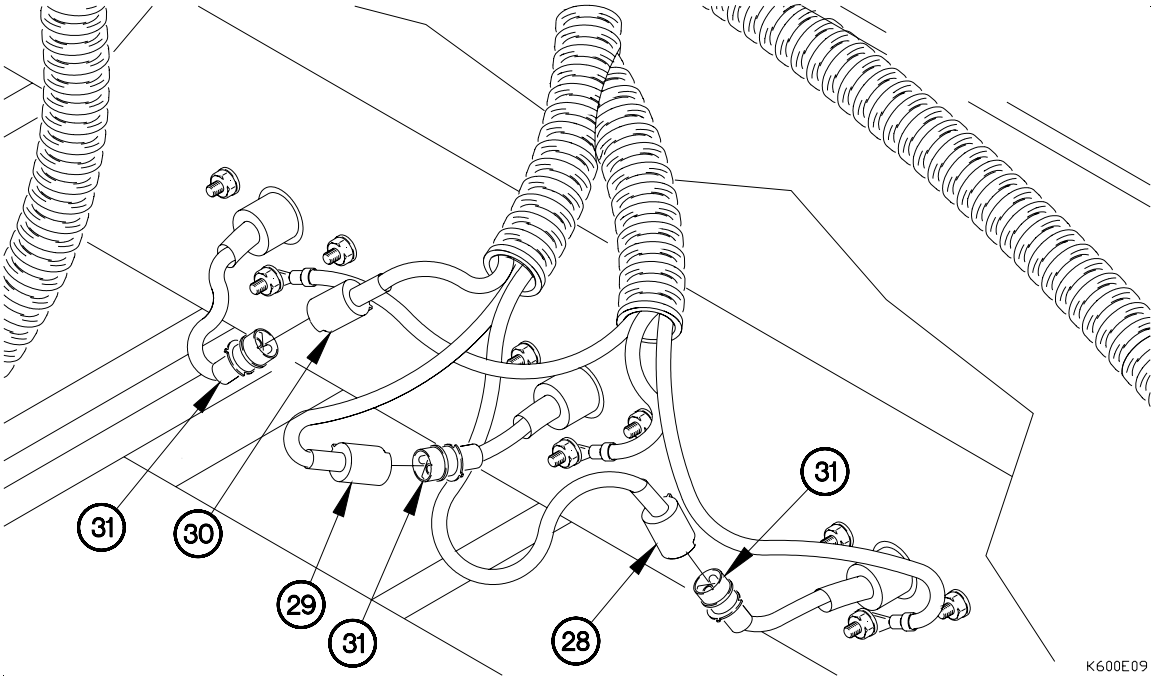


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SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

REAR SHOCK MOUNT CROSSMEMBER INSTALLATION, MTVT - Continued

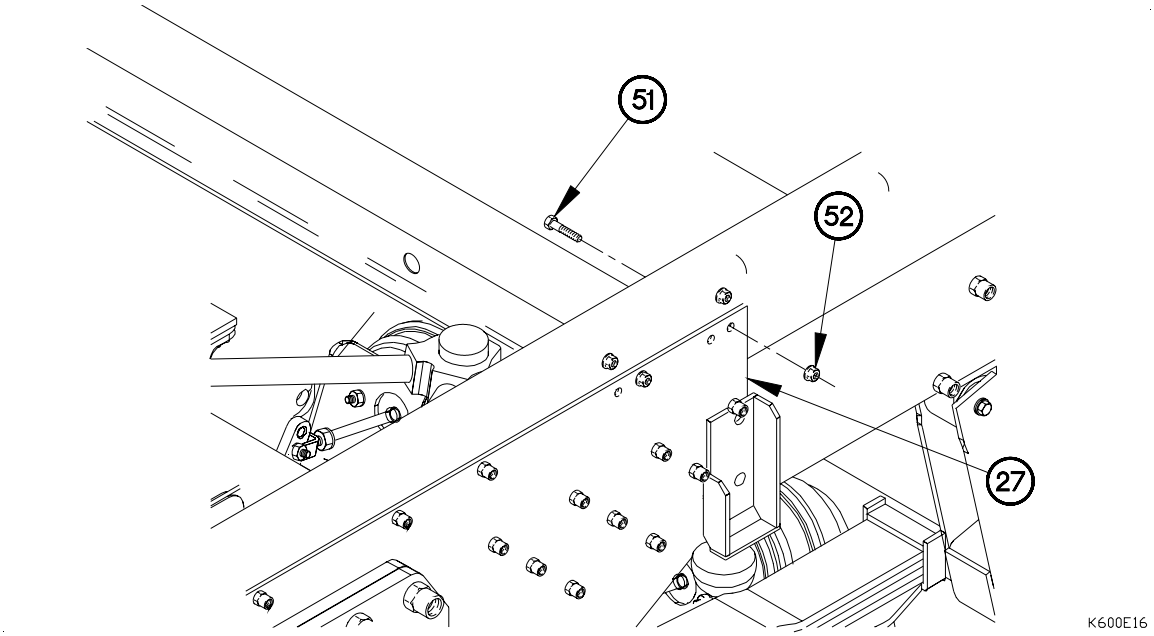
10. Connect rear marker light connectors 489 (31) to connectors J254 (30), J253 (29), and J252 (28).



11. Position bolt (51) and self-locking nuts (52) on frame plate (27).

12. Tighten self-locking nut (52) to 210-225 lb-ft (285-305 N•m).

13. Perform steps (11 and 12) on left side of trailer.



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

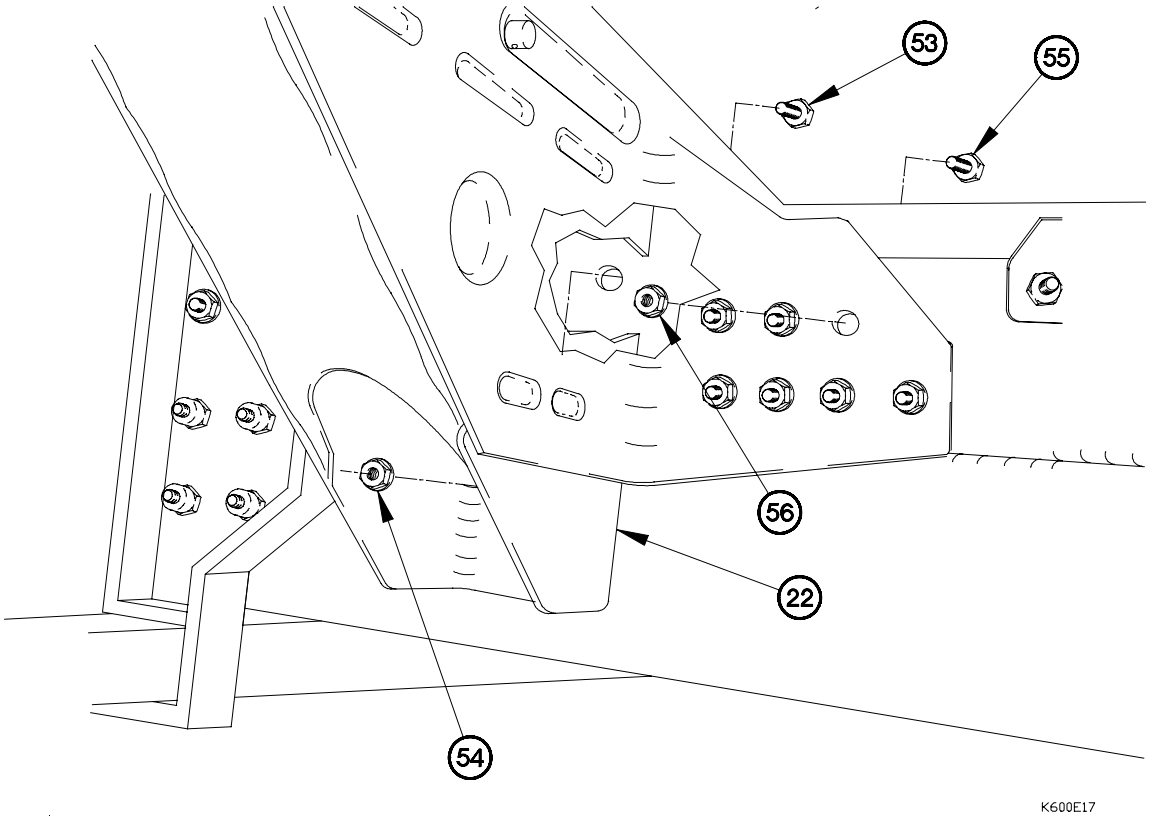
REAR SHOCK MOUNT CROSSMEMBER INSTALLATION, MTVT - Continued

14. Position four bolts (53) and self-locking nuts (54) on rearlifting beam (22).

15. Position seven bolts (55) and self-locking nuts (56) on rear lifting beam (22).

16. Tighten self-locking nuts (54 and 56) to 210-225 lb-ft (285-305 N•m).

17. Perform steps (14 through 16) on left side of trailer.



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

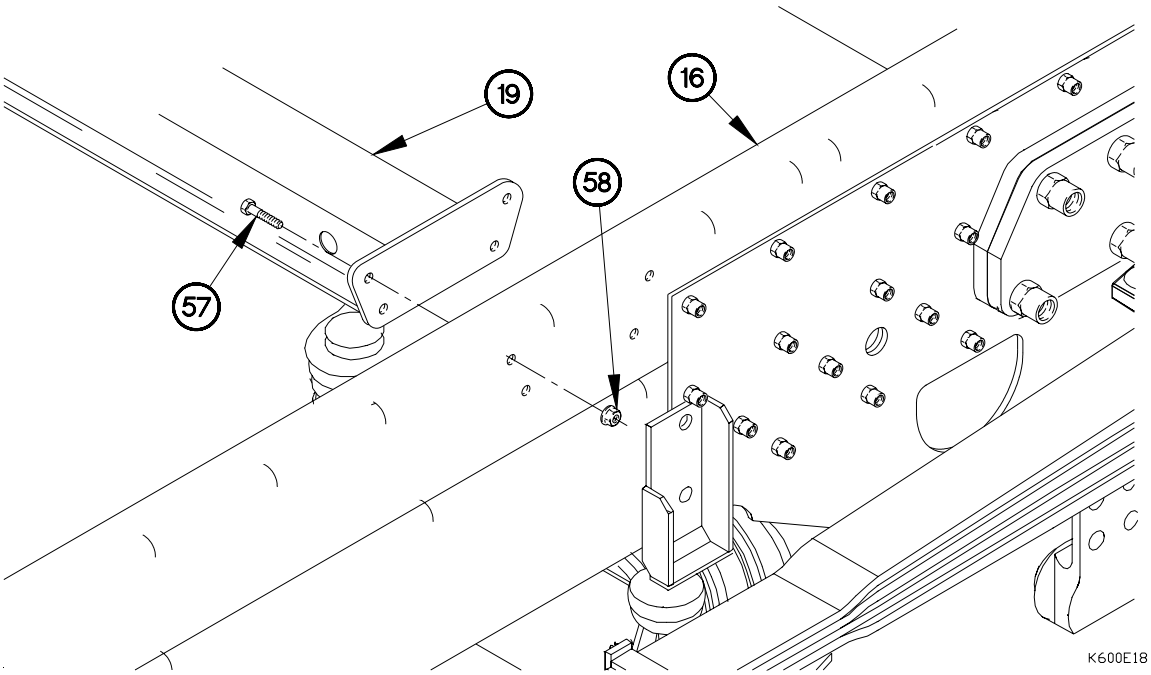
FRONT SHOCK MOUNT CROSSMEMBER INSTALLATION, MTVT

NOTE

Left and right sides of front shock mount crossmember are installed the same way. Right side shown.

Steps (1) through (3) require the aid of an assistant.

1. Position front shock mount crossmember (19) on frame rails (16) with four bolts (57) and self-locking nuts (58).
2. Tighten four self-locking nuts (58) to 210-225 lb-ft (285-305 N•m).
3. Perform steps (1 and 2) on left side of front shock mount crossmember.



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

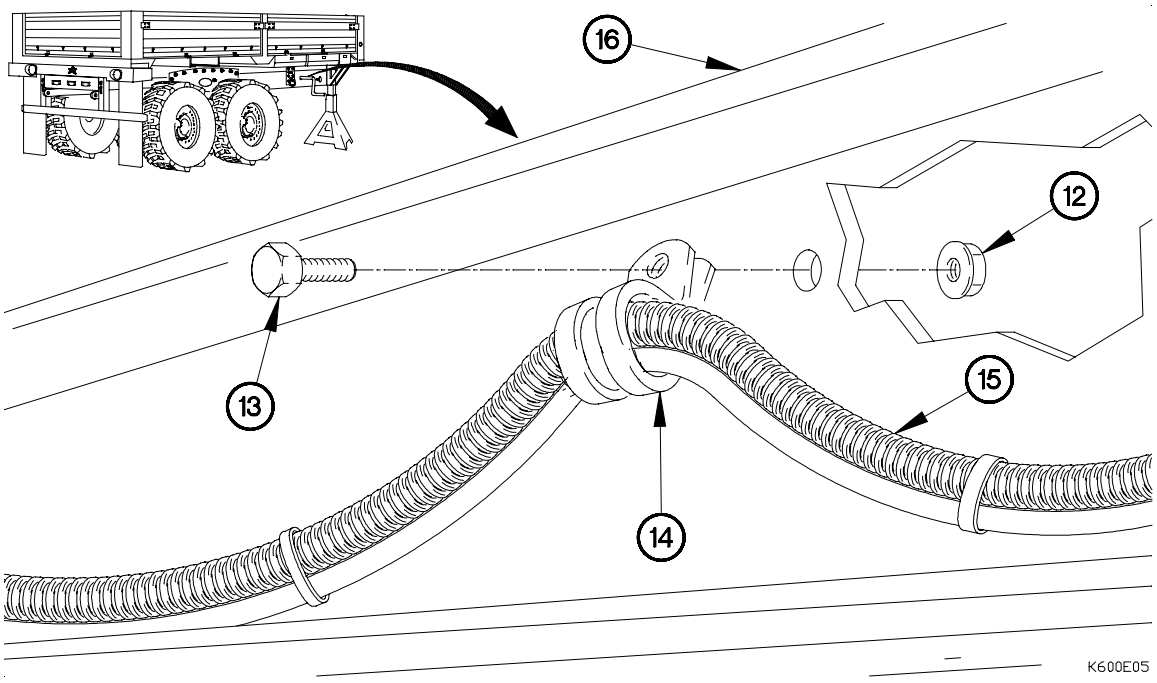
FRONT SHOCK MOUNT CROSSMEMBER INSTALLATION, MTVT - Continued

NOTE

Perform steps (4 and 5) on right side of trailer.

4. Position electrical cable assembly (15) on frame rail (16) with two clamps (14), screws (13) and self-locking nuts (12).

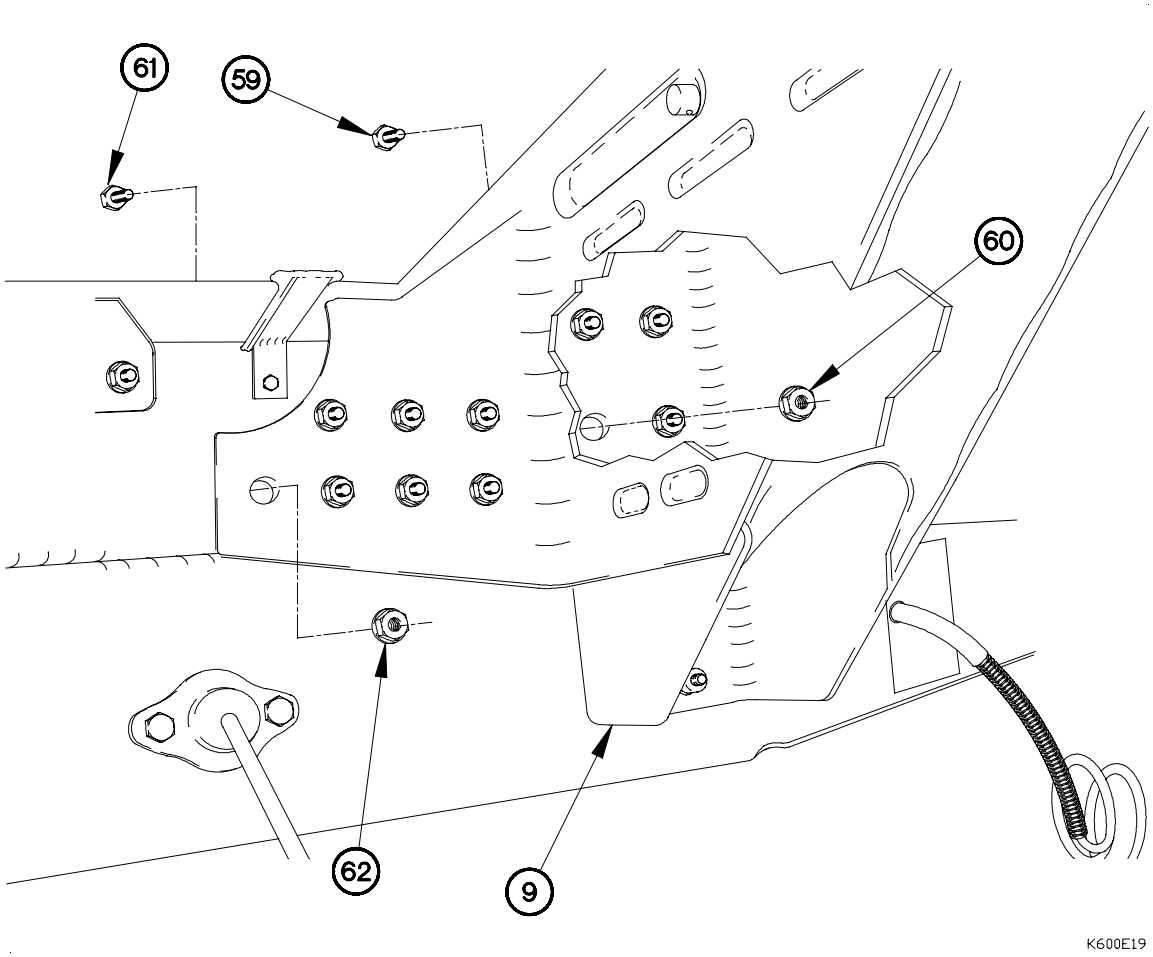
5. Tighten self-locking nuts (12) to 60-72 lb-in (7-9 N•m).



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

FRONT SHOCK MOUNT CROSSMEMBER INSTALLATION, MTVT - Continued

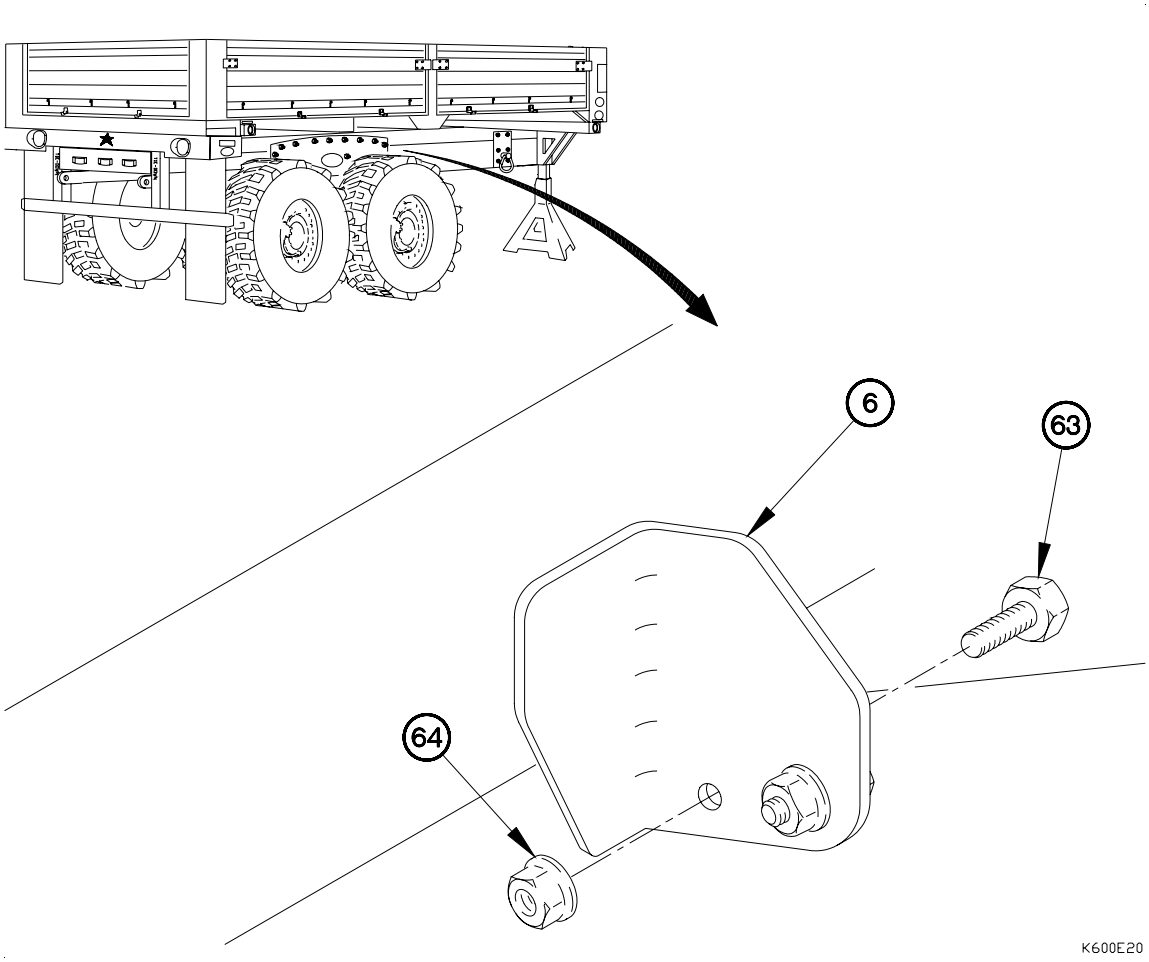
6. Position four bolts (59) and self-locking nuts (60) on front lifting beam (9).
7. Position seven bolts (61) and self-locking nuts (62) on front lifting beam (9).
8. Tighten self-locking nuts (60 and 62) to 210-225 lb-ft (285-305 N•m).
9. Perform steps (6 through 8) on left side of trailer.



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

FRONT SHOCK MOUNT CROSSMEMBER INSTALLATION, MTVT - Continued

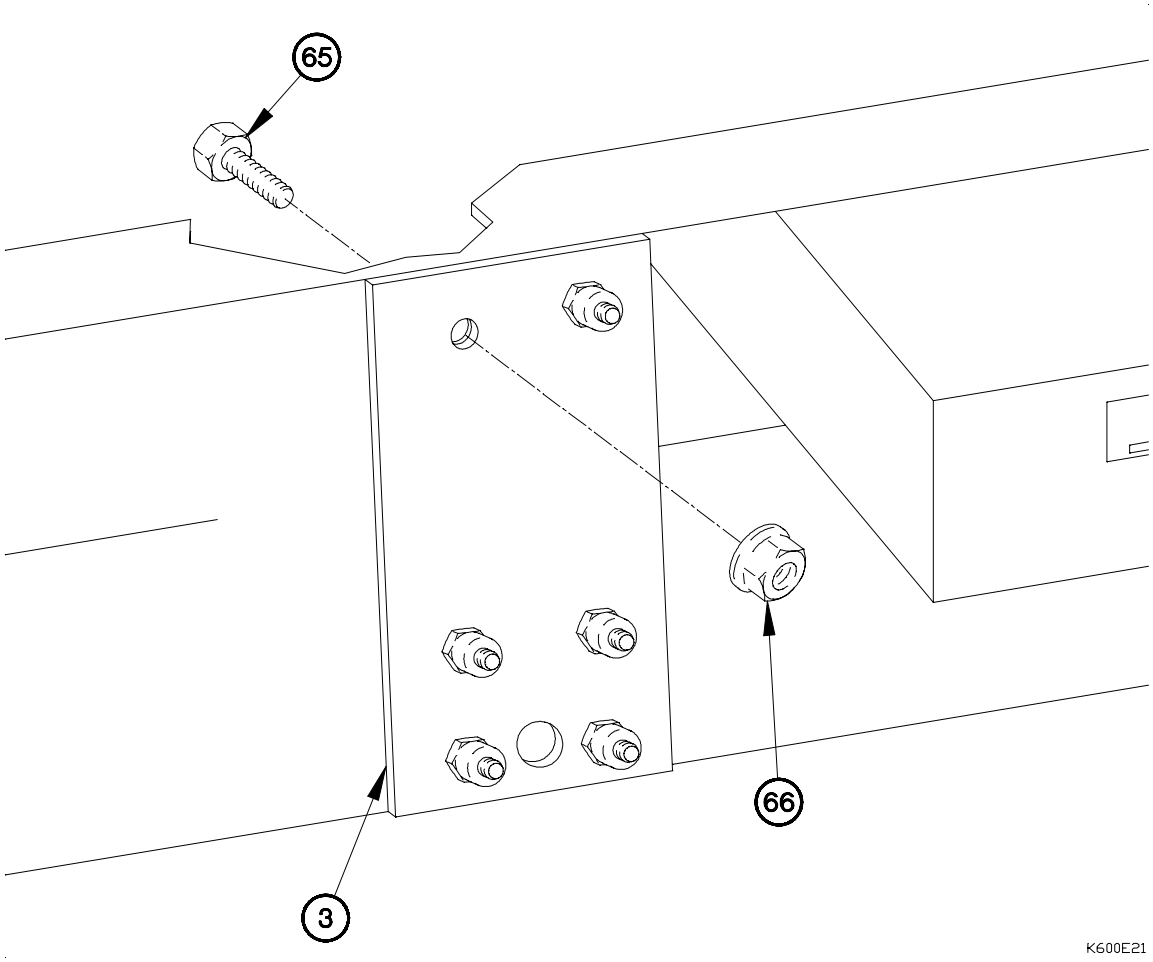
10. Position four bolts (63) and self-locking nuts (64) on two front brackets (6).
11. Tighten four self-locking nuts (64) to 210-225 lb-ft (285-305 N•m).
12. Perform steps (10 and 11) on left side of trailer.



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

FRONT SHOCK MOUNT CROSSMEMBER INSTALLATION, MTVT - Continued

13. Position two bolts (65) and self-locking nuts (66) on tiedown ring bracket (3).
14. Tighten two self-locking nuts (66) to 210-225 lb-ft (285-305 N•m).
15. Perform steps (13 and 14) on left side of trailer.



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

REMOVAL, LMTVT

CAUTION

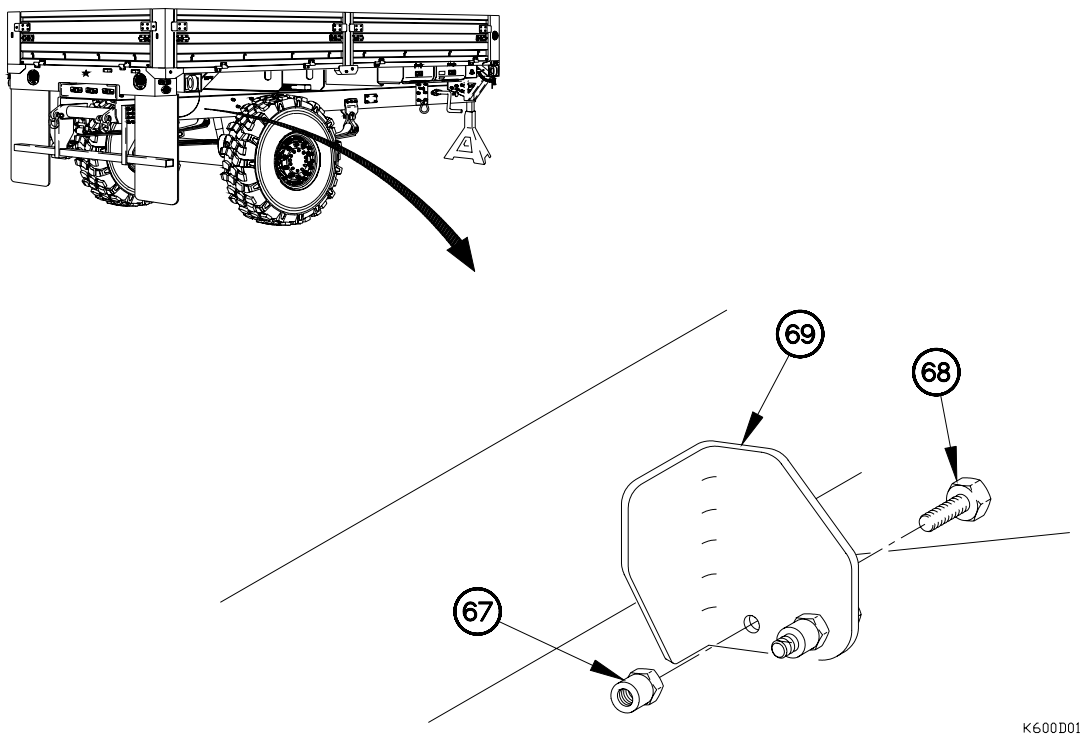
When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

NOTE

Left and right sides of shock mount crossmember are removed the same way. Right side shown.

Steps (1) through (3) require the aid of an assistant.

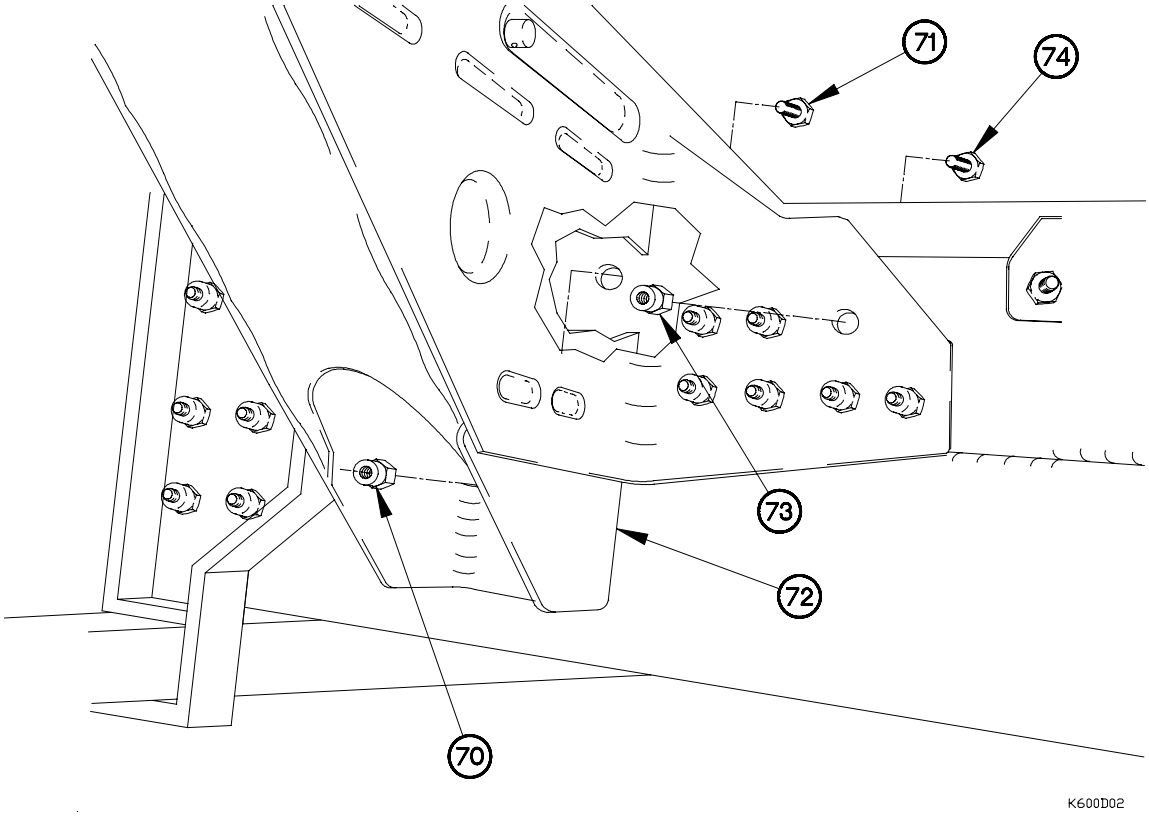
1. Remove four collars (67) and bolts (68) from two rear brackets (69). Discard collars and bolts.



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

REMOVAL, LMTVT - Continued

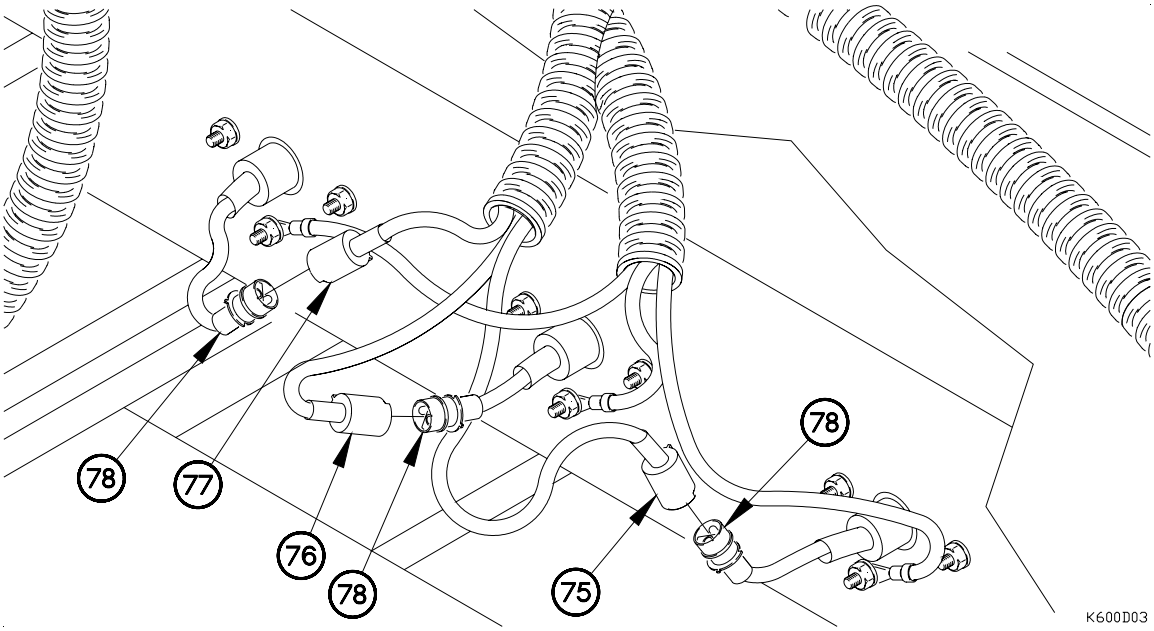
2. Remove four collars (70) and bolts (71) from rear lifting beam (72). Discard collars and bolts.
3. Remove seven collars (73) and bolts (74) from rear lifting beam (72). Discard collars and bolts.
4. Perform steps (1 through 3) on left side of trailer.



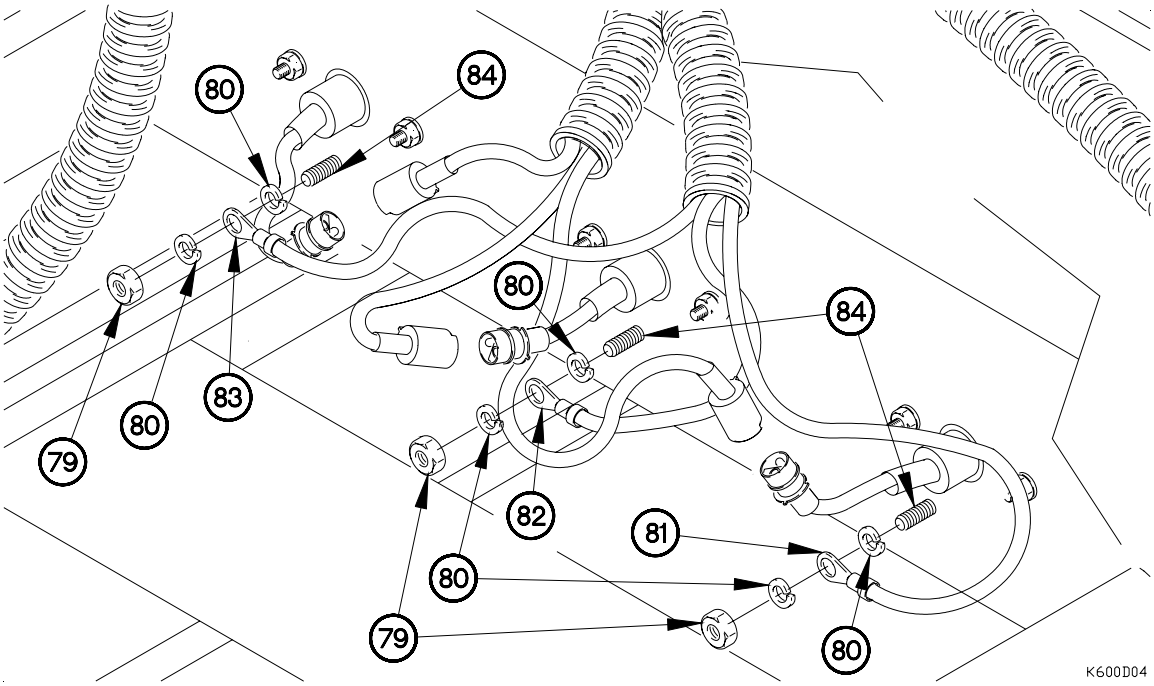
SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

REMOVAL, LMTVT - Continued

5. Disconnect connectors J252 (75), J253 (76), and J254 (77) from three rear marker light connectors 489 (78).



6. Remove three nuts (79), six lockwashers (80), terminal lugs TL 264 (81), TL265 (82), and TL266 (83) from three rear marker light studs (84). Discard lockwashers.



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

REMOVAL, LMTVT - Continued

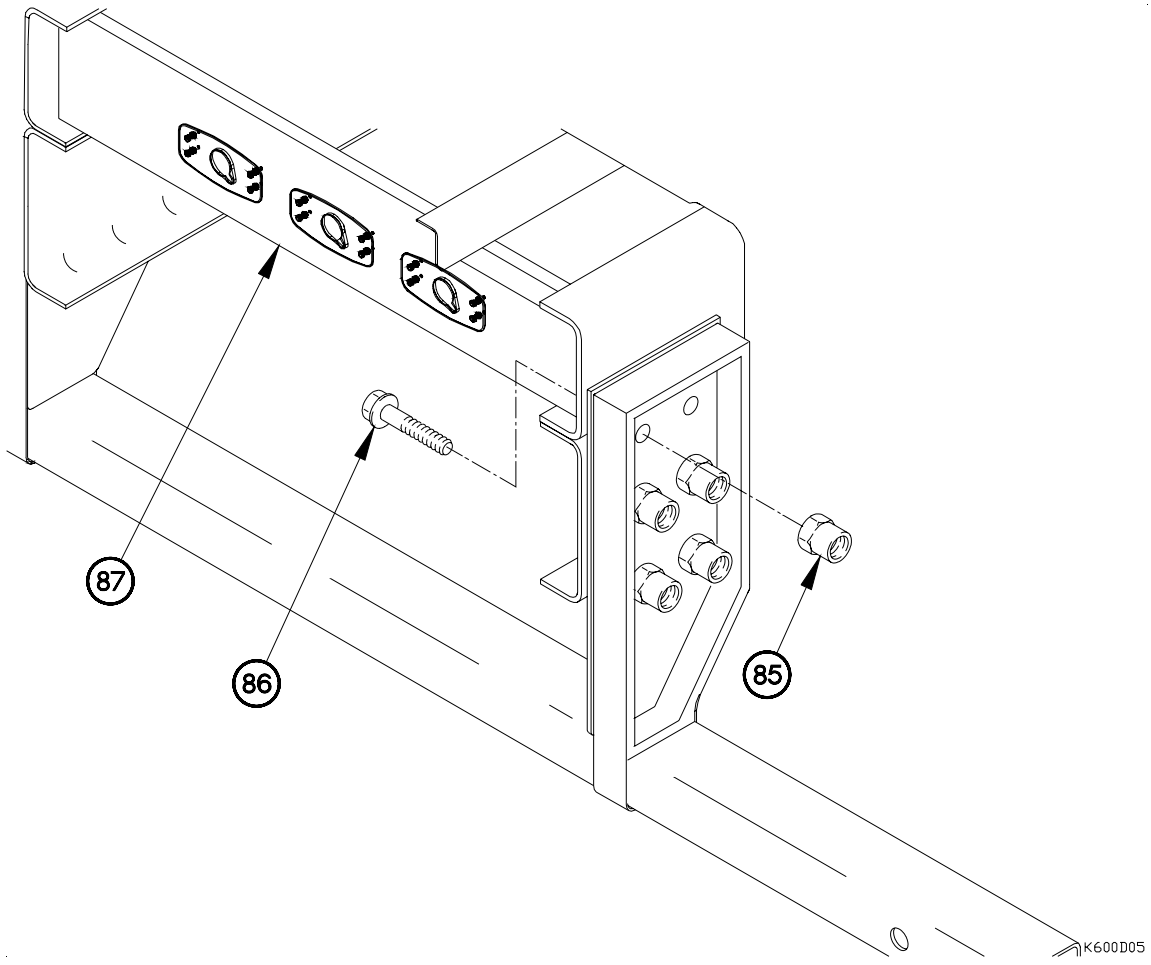
CAUTION

When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

NOTE

Steps (7) through (9) require the aid of an assistant.

7. Remove two collars (85) and bolts (86) from rear marker light bracket (87). Discard collars and bolts.
8. Perform step (7) on left side of rear marker light bracket.
9. Remove rear marker light bracket (87) from trailer.



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

REMOVAL, LMTVT - Continued

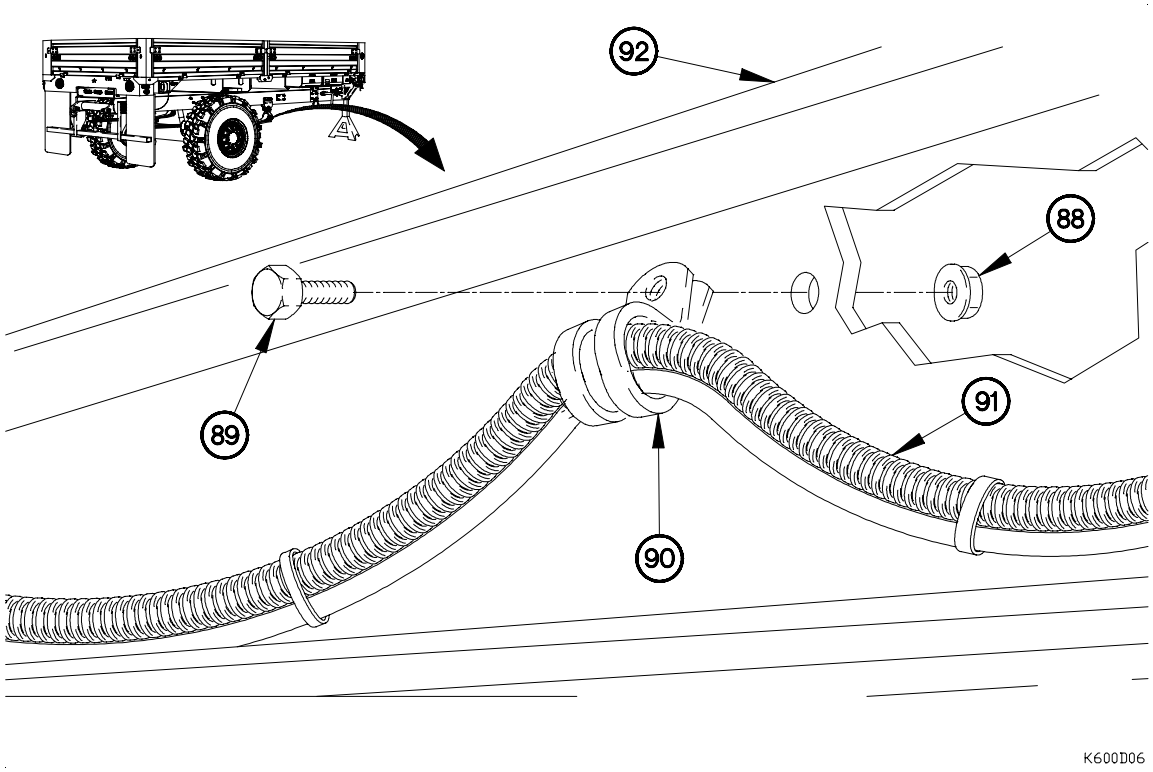
CAUTION

Ensure clamp and attached cable assembly rearward of the shock mount crossmember are positioned clear of the frame rail prior to removal of shock mount crossmember. Failure to comply may result in damage to equipment.

NOTE

Perform step (10) on right side of trailer.

10. Remove self-locking nut (88), screw (89), clamp (90), and electrical cable assembly (91) from frame rail (92). Discard self-locking nuts.



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

REMOVAL, LMTVT - Continued

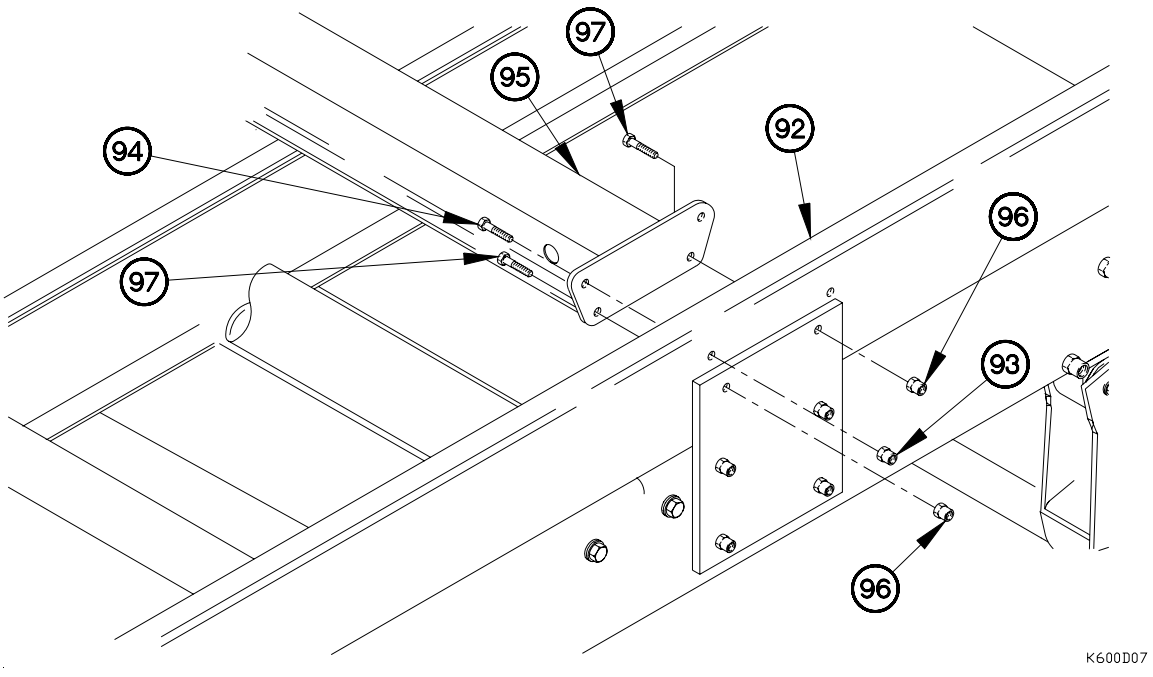
CAUTION

When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

NOTE

Steps (11) through (14) require the aid of an assistant.

11. Remove collar (93) and bolt (94) from shock mount crossmember (95). Discard collar and bolt.
12. Remove two collars (96) and bolts (97) from shock mount crossmember (95). Discard collars and bolts.
13. Perform steps (11 and 12) on left side of shock mount crossmember.
14. Remove shock mount crossmember (95) from frame rail (92).



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

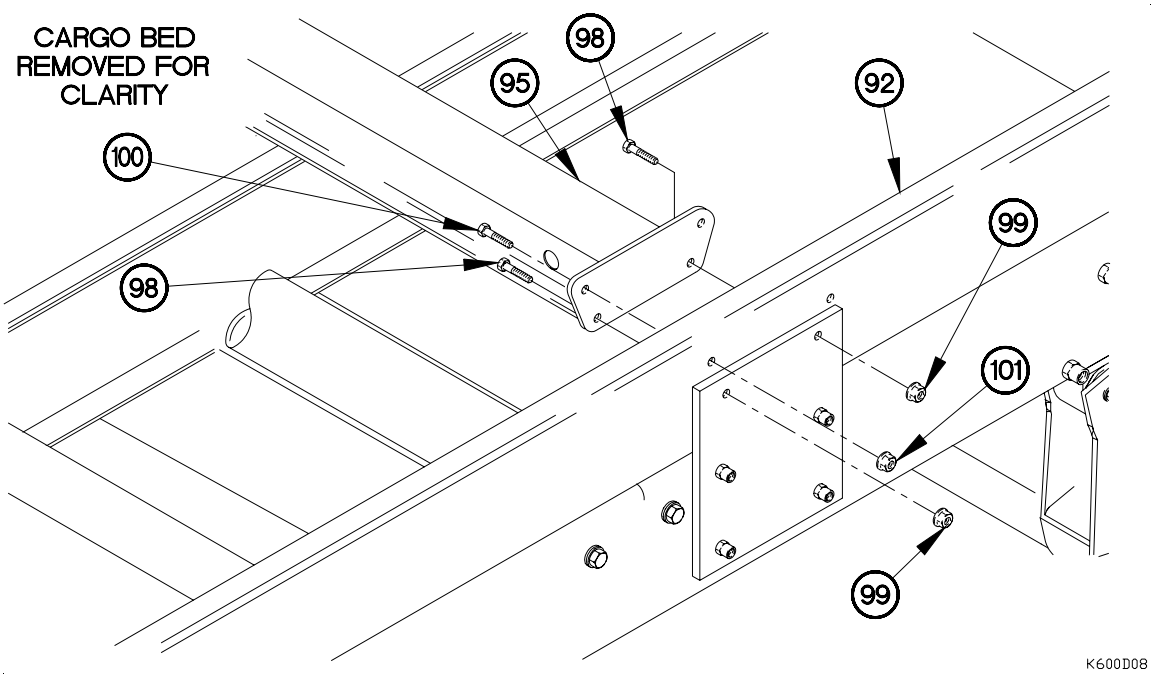
INSTALLATION, LMTVT

NOTE

Left and right sides of shock mount crossmember are installed the same way. Right side shown.

Steps (1) through (4) require the aid of an assistant.

1. Position shock mount crossmember (95) on frame rails (92) with two bolts (98) and self-locking nuts (99).
2. Position bolt (100) and self-locking nut (101) on shock mount crossmember (95).
3. Tighten self-locking nuts (99 and 101) to 210-225 lb-ft (285-305 N•m).
4. Perform steps (1 through 3) on left side of shock mount crossmember.



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

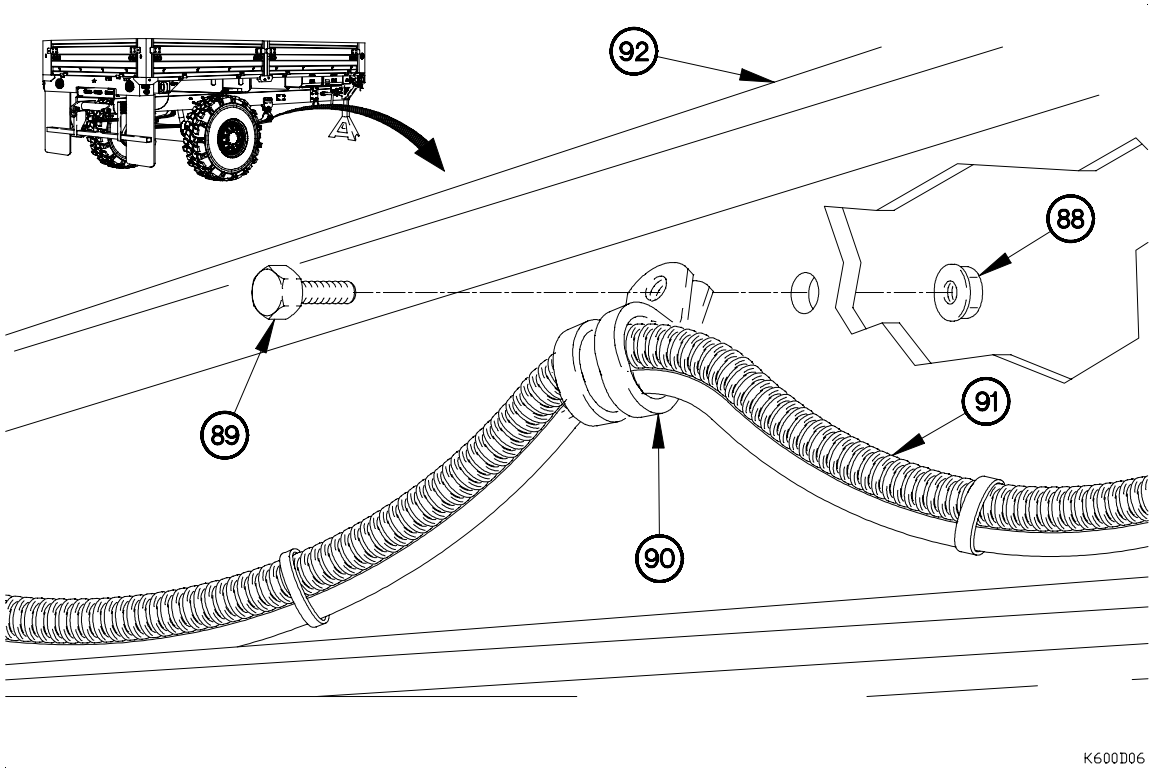
INSTALLATION, LMTVT - Continued

NOTE

Perform steps (5 and 6) on right side of trailer.

5. Position electrical cable assembly (91) on frame rail (92) with clamp (90), screw (89) and self-locking nut (88).

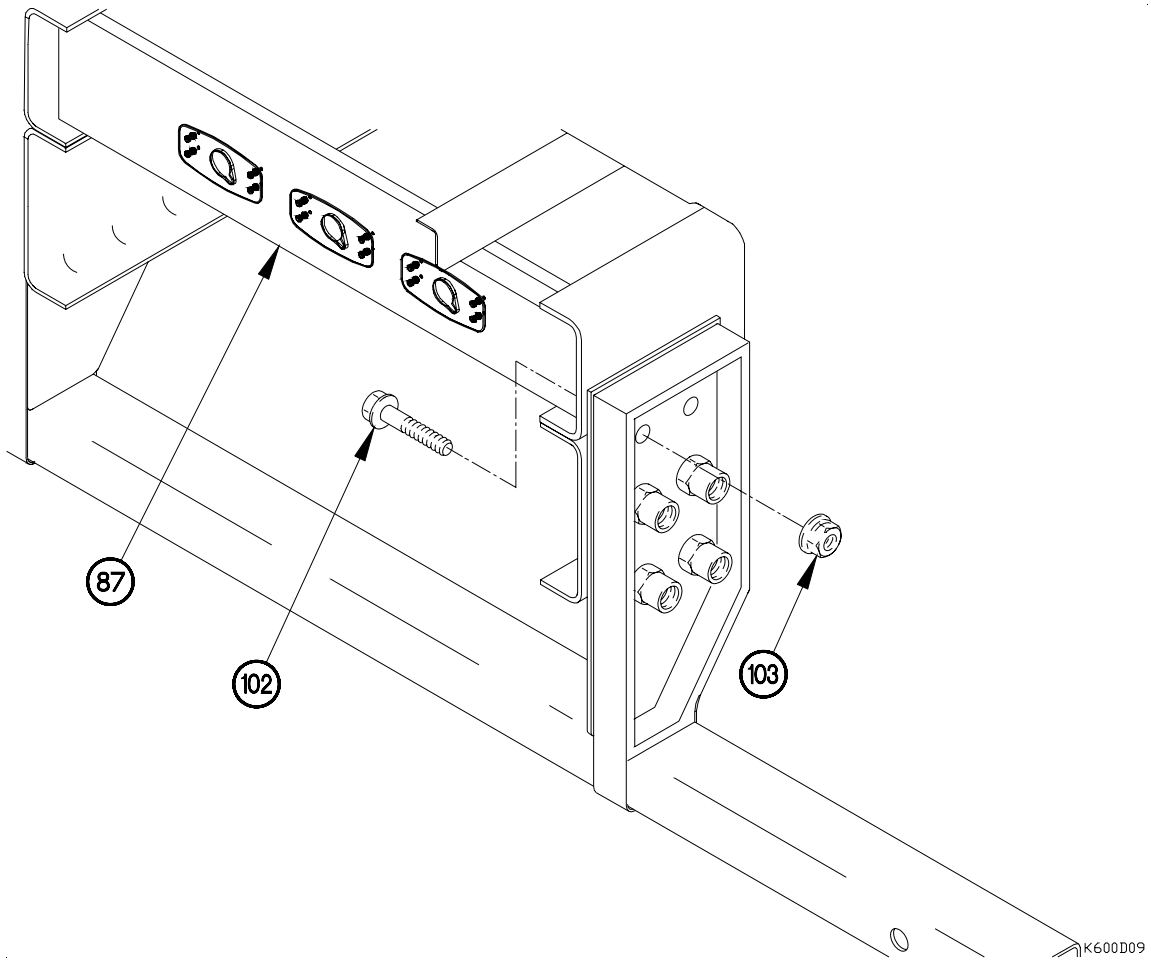
6. Tighten self-locking nut (88) to 60-72 lb-in (7-9 N•m).



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

INSTALLATION, LMTVT - Continued

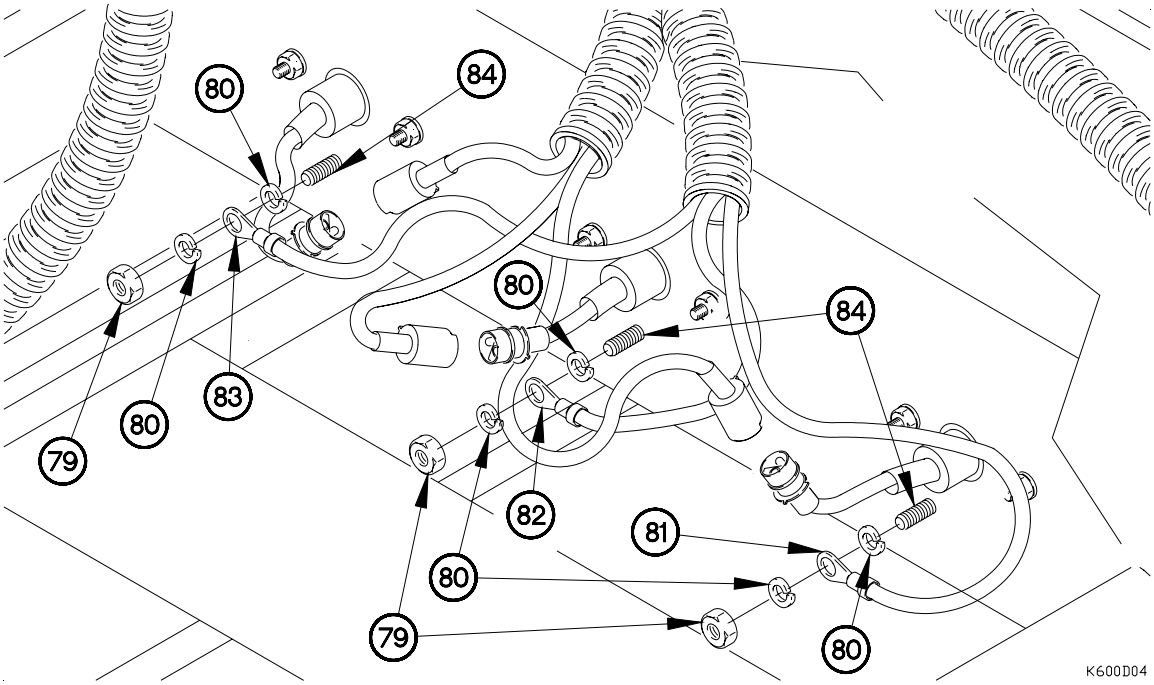
7. Position rear marker light bracket (87) on trailer with two bolts (102) and self-locking nuts (103).
8. Tighten two self-locking nuts (103) to 210-225 lb-ft (285-305 N•m).
9. Perform steps (7 and 8) on left side of rear marker light bracket.



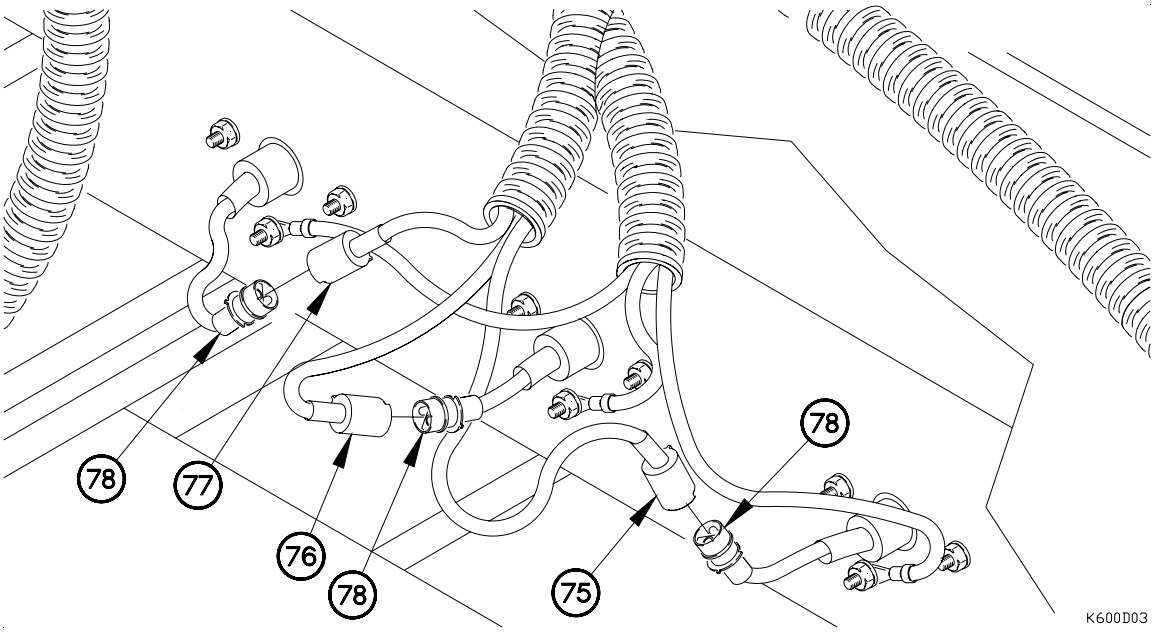
SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

INSTALLATION, LMTVT - Continued

10. Install terminal lugs TL266 (83), TL265 (82), and TL264 (81) on three rear marker light studs (84) with six lockwashers (80) and three nuts (79).



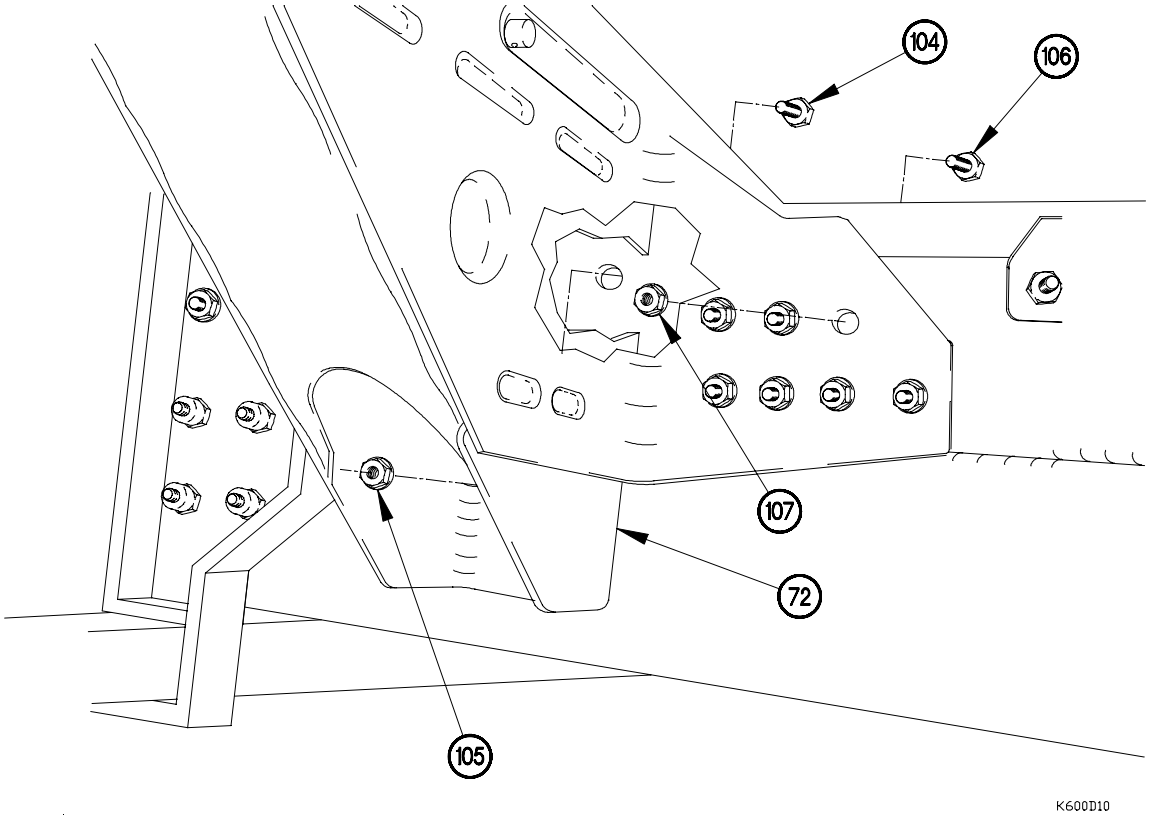
11. Connect rear marker light connectors 489 (78) to connectors J254 (77), J253 (76), and J252 (75).



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

INSTALLATION, LMTVT - Continued

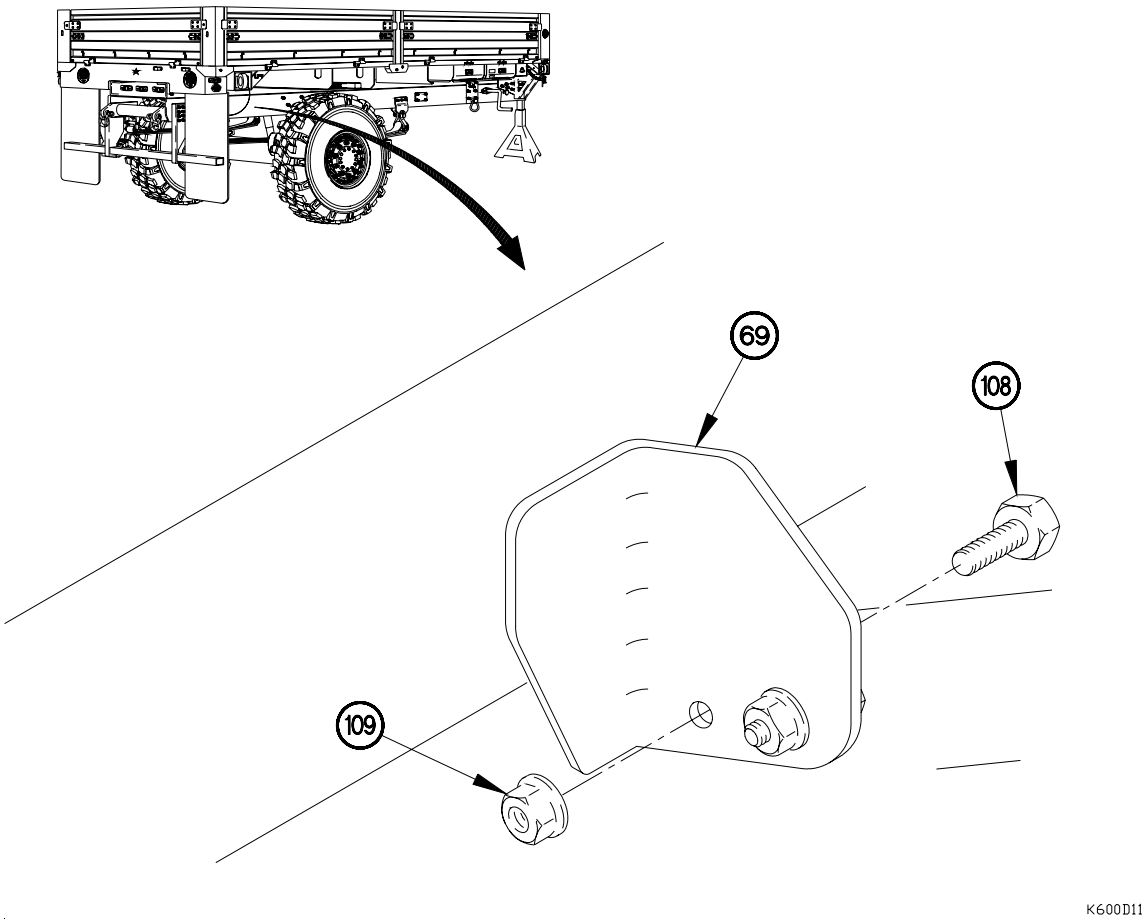
12. Position four bolts (104) and self-locking nuts (105) on rear lifting beam (72).
13. Position seven bolts (106) and self-locking nuts (107) on rear lifting beam (72).
14. Tighten self-locking nuts (105 and 108) to 210-225 lb-ft (285-305 N•m).
15. Perform steps (12 through 14) on left side of trailer.



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

INSTALLATION, LMTVT - Continued

16. Position four bolts (108) and self-locking nuts (109) on two rear brackets (69).
17. Tighten four self-locking nuts (109) to 210-225 lb-ft (285-305 N•m).
18. Perform steps (16 and 17) on left side of trailer.



SHOCK MOUNT CROSSMEMBER REPLACEMENT - Continued 0107 00

OPERATIONAL CHECK

1. Install tongue assembly (MTVT) (WP 0113 00, Installation).
2. Install air tank (MTVT) (WP 0064 00, Installation).
1. Install shock absorbers (WP 0075 00, Installation, MTVT/ Installation, LMTVT).

END OF WORK PACKAGE

REAR CROSSMEMBER REPLACEMENT 0108 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools

Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)

Materials/Parts
Nut, Self-Locking (8) (Item 35, WP 0181 00)
Bolt (8) (Item 29, WP 0181 00) (S/N 11,438-99,999)
Bolt (8) (Item 58, WP 0181 00) (S/N 200,001-299,999)

Personnel Required
Two

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

REAR CROSSMEMBER REPLACEMENT - Continued 0108 00

REMOVAL

NOTE

The rear crossmember is removed the same way from both trailers. The LMTVT shown.

Left and right sides of rear crossmember are removed the same way. Right side shown.

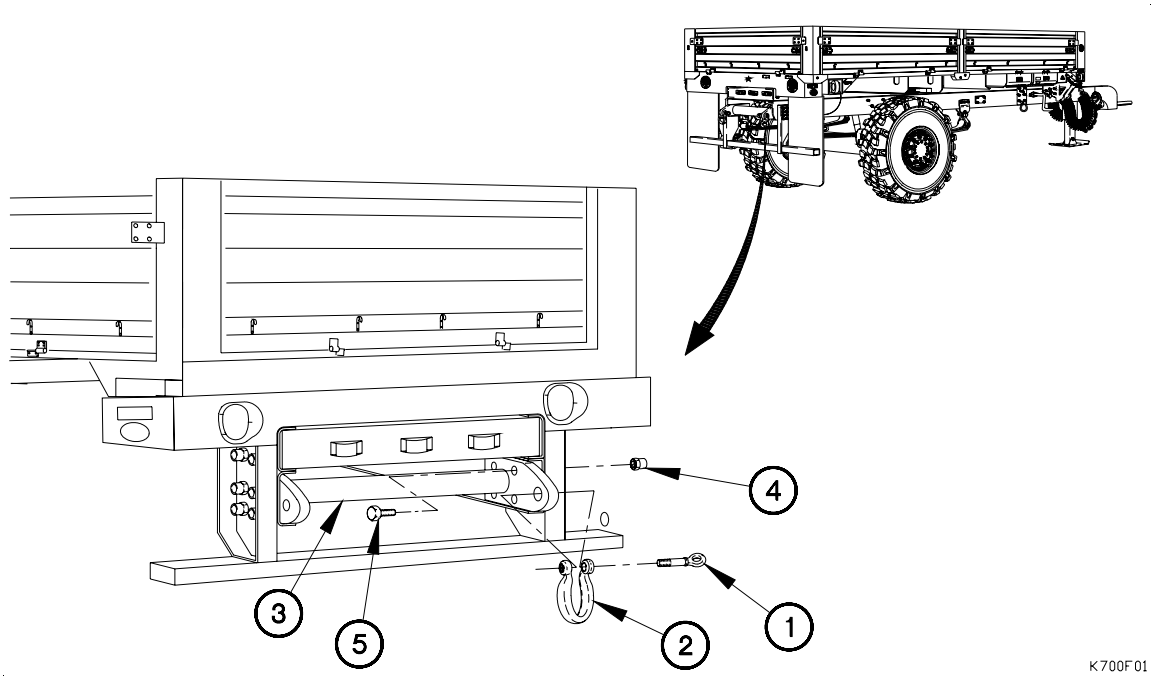
Steps (1) through (3) require the aid of an assistant.

1. Remove two pins (1) and shackles (2) from rear crossmember (3).

CAUTION

When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

2. Remove four collars (4) and bolts (5) from rear crossmember (3). Discard collars and bolts.
3. Perform step (2) on left side of rear crossmember (3).
4. Remove rear crossmember (3) from trailer.



REAR CROSSMEMBER REPLACEMENT - Continued 0108 00

INSTALLATION

NOTE

The rear crossmember is installed the same way on both trailers. The LMTVT shown.

Left and right sides of rear crossmember are installed the same way. Right side shown.

Steps (1) through (4) require the aid of an assistant.

1. Position rear crossmember (3) on trailer with four bolts (6) and self-locking nuts (7).

NOTE

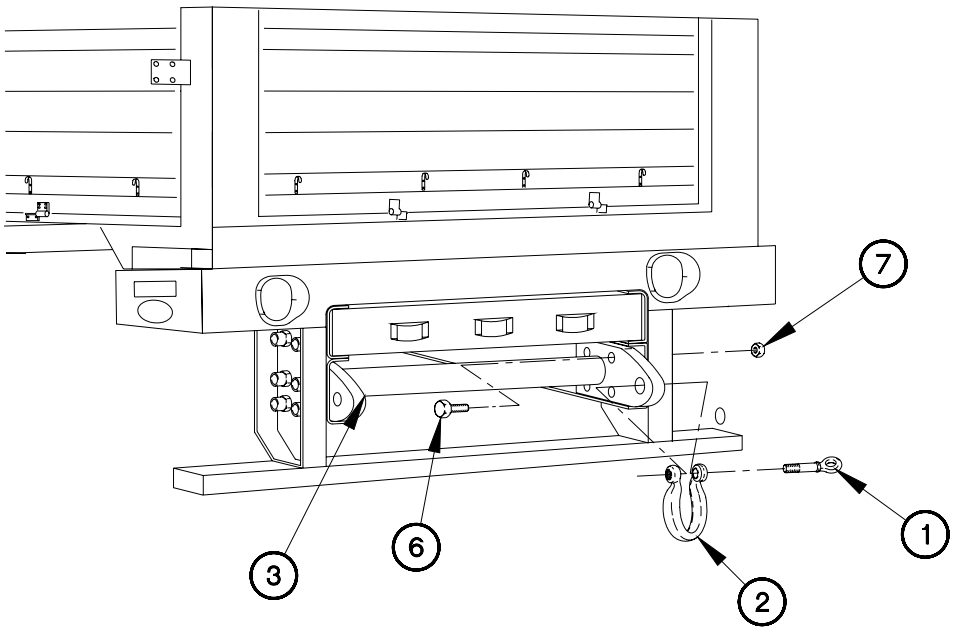
Perform the following step on trailer S/N 11,438 to 99,999.

2. Tighten two self-locking nuts (11) to 210-225 lb-ft (285-305 N•m).

NOTE

Perform the following step on trailer S/N 200,001 to 299,999.

3. Tighten four self-locking nuts (7) to 158-210 lb-ft (214-286 N•m).
4. Perform step (1) and step (2) or step (3) on left side of rear crossmember (3).
5. Install two shackles (2) on rear crossmember (3) with two pins (1).



K700F02

END OF WORK PACKAGE

FRONT CROSSMEMBER REPLACEMENT 0109 00

THIS WORK PACKAGE COVERS:

Removal, MTVT; Installation, MTVT; Removal, LMTVT; Installation, LMTVT; Operational Check

INITIAL SETUP:

Maintenance Level

Field

Tools and Special Tools

Tool Kit, Genl Mech (Item 37, WP 0178 00)
Socket Set, Impact (Item 28, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Wrench, Impact, Electric (Item 42, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Gloves, Rubber (Item 6, WP 0178 00)

Materials/Parts

Oil, Lubricating (Item 22, WP 0176 00)
Cloth, Cleaning (Item 8, WP 0176 00)
Solvent, Dry Cleaning (Item 32, WP 0176 00)
Bolts (12) (LMTVT) (Item 21, WP 0181 00)
Bolts (8) (MTVT) (Item 20, WP 0181 00)

Materials/Parts (Cont)

Nut, Self-Locking (12) (LMTVT) (Item 35, WP 0181 00)
Nut, Self-Locking (8) (MTVT) (Item 35, WP 0181 00)
Nut, Self-Locking (Item 37, WP 0181 00)

Personnel Required

Two

References

WP 0046 00

Equipment Conditions

Trailer uncoupled (WP 0012 00).
Air tank removed (WP 0064 00).
Leaf springs removed, (LMTVT) (WP 0100 00).
Tongue assembly removed (WP 0113 00).

REMOVAL, MTVT

FRONT CROSSMEMBER REPLACEMENT - Continued 0109 00

REMOVAL, MTVT - Continued

WARNING

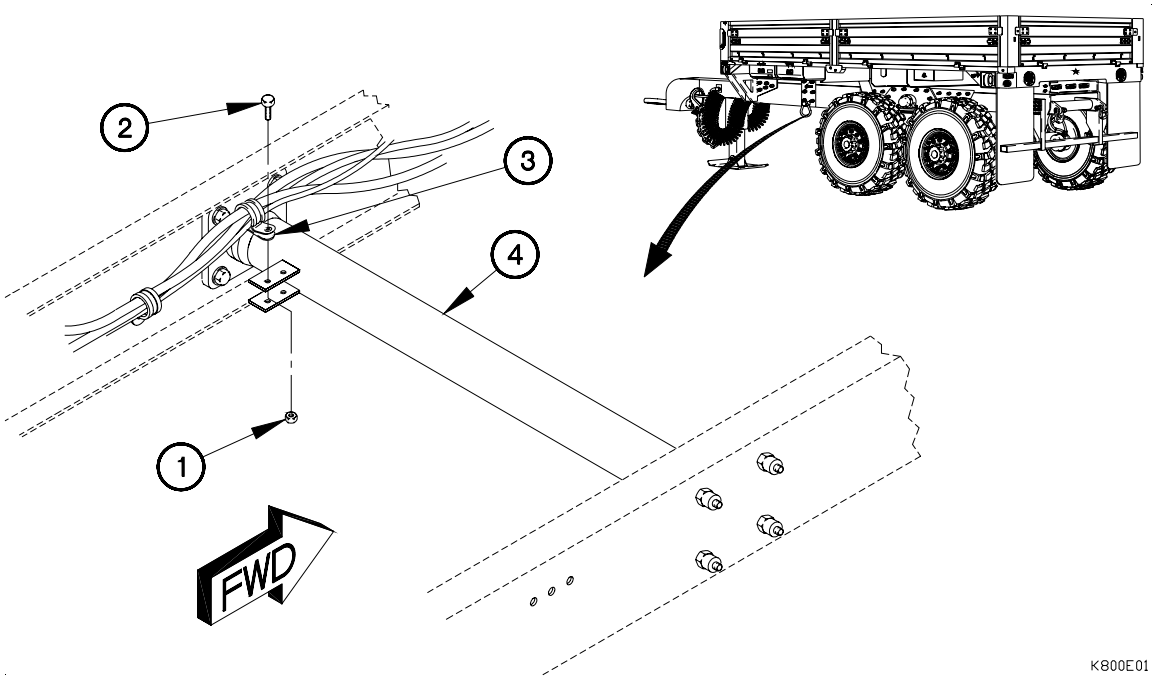
Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

NOTE

Step (1) applies to left side only.

Remove plastic cable ties as required.

1. Remove self-locking nut (1), screw (2), and clamp (3) from front crossmember (4). Discard self-locking nut.



FRONT CROSSMEMBER REPLACEMENT - Continued 0109 00

REMOVAL, MTVT - Continued

CAUTION

When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

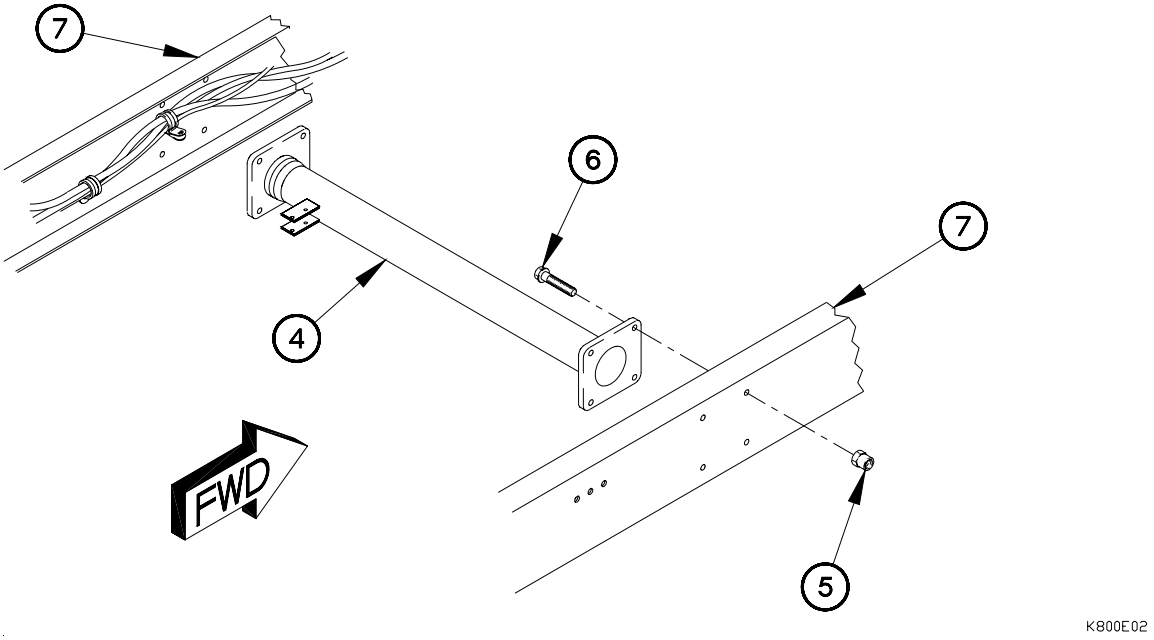
Ensure clamp and attached cable assembly forward of the front crossmember are positioned clear of the frame rail prior to removal of front crossmember. Failure to comply may result in damage to equipment.

NOTE

Left and right sides of front crossmember are removed the same way. Right side shown.

Steps (2) through (4) require the aid of an assistant.

2. Remove four collars (5) and bolts (6) from front crossmember (4). Discard collars and bolts.
3. Perform step (2) on left side of front crossmember (4).
4. Slide front crossmember (4) forward along frame rails (7) and remove from trailer.



FRONT CROSSMEMBER REPLACEMENT - Continued 0109 00

INSTALLATION, MTVT

WARNING

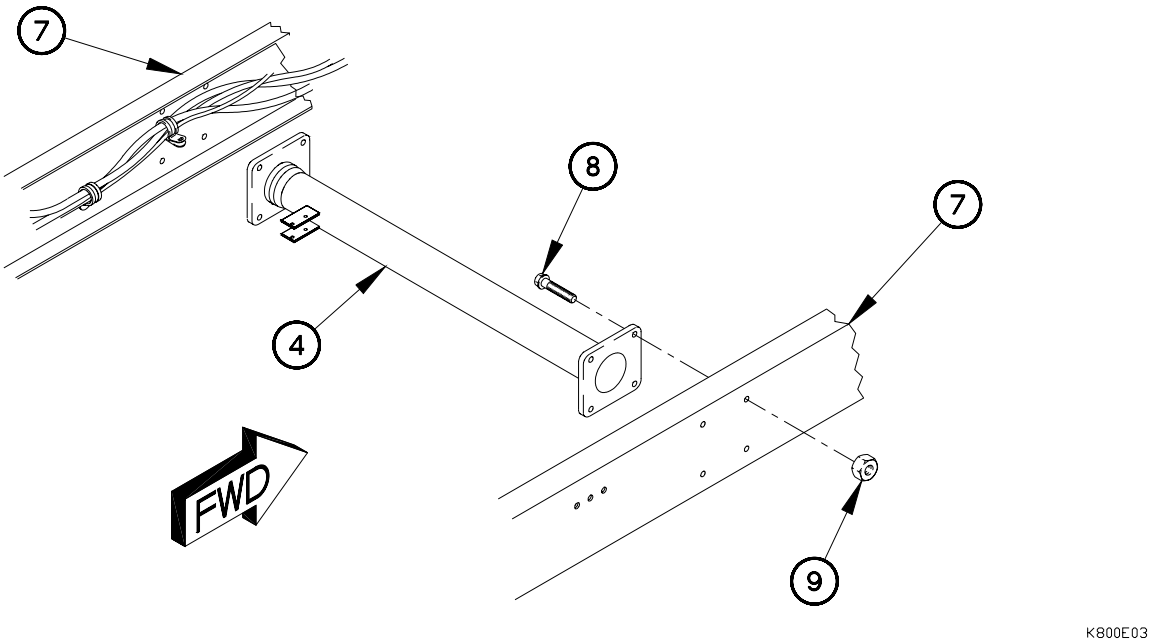
Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

NOTE

Left and right sides of front crossmember are installed the same way. Right side shown.

Steps (1) through (3) require the aid of an assistant.

1. Position front crossmember (4) on frame rails (7) with four bolts (8) and self-locking nuts (9).
2. Tighten four self-locking nuts (9) to 210-225 lb-ft (285-305 N•m).
3. Perform steps (1) and (2) on left side of front crossmember (4).



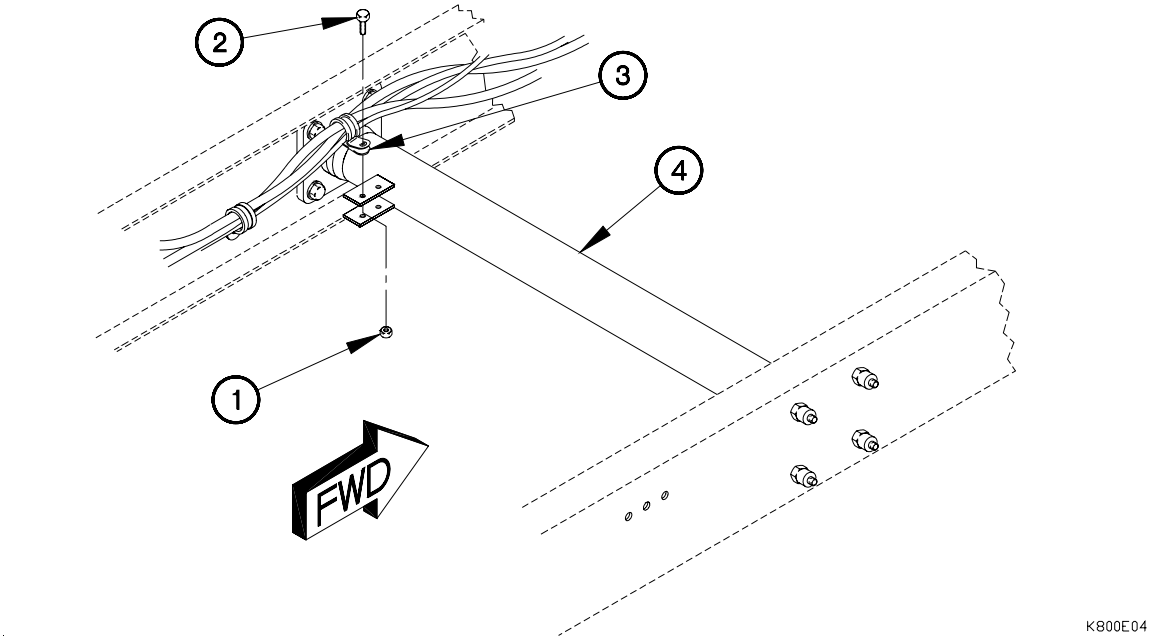
INSTALLATION, MTVT - Continued

NOTE

Step (4) applies to left side only.

Install plastic cable ties as needed.

4. Install clamp (3), screw (2), and self-locking nut (1) on front crossmember (4).



FRONT CROSSMEMBER REPLACEMENT - Continued 0109 00

REMOVAL, LMTVT

WARNING

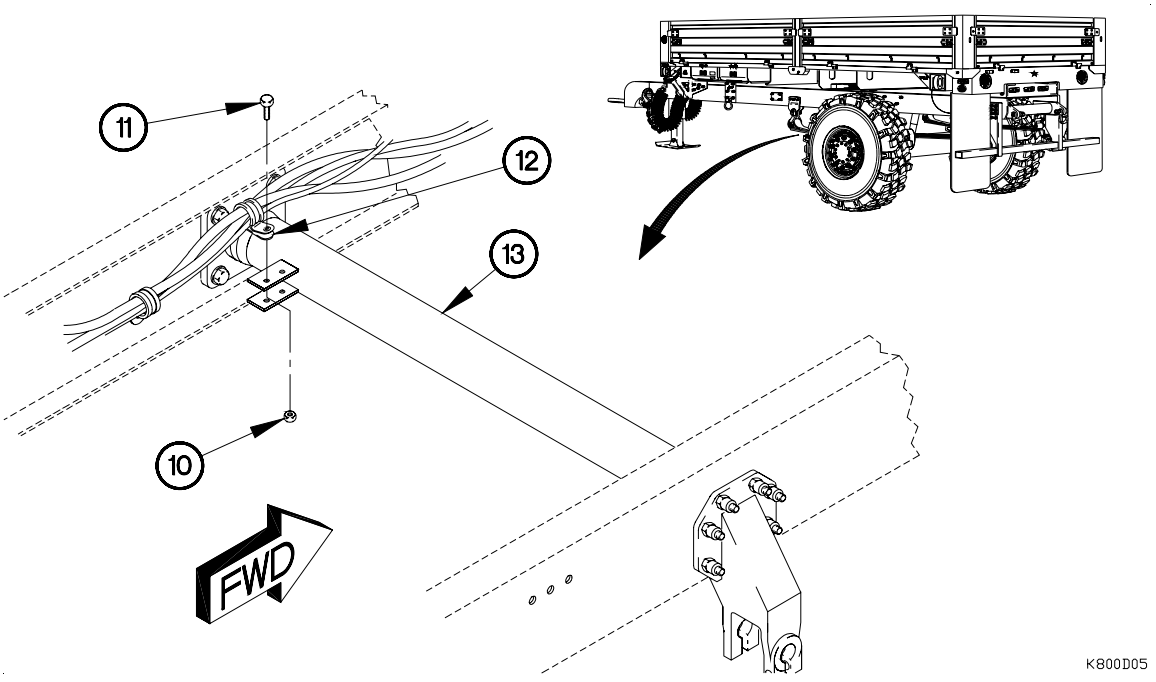
Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

NOTE

Step (1) applies to left side only.

Remove plastic cable ties as needed.

1. Remove self-locking nut (10), screw (11), and clamp (12) from front crossmember (13). Discard self-locking nut.



FRONT CROSSMEMBER REPLACEMENT - Continued 0109 00

REMOVAL, LMTVT - Continued

CAUTION

When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

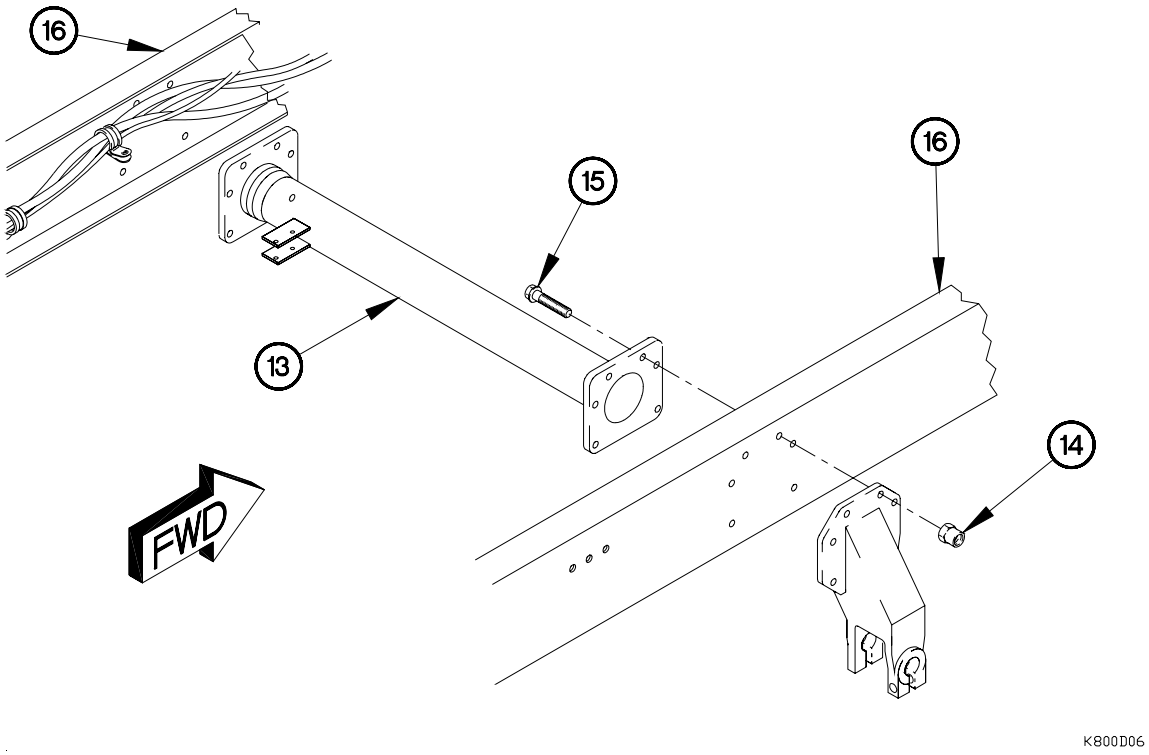
Ensure clamp and attached cable assembly forward of the front crossmember are positioned clear of the frame rail prior to removal of front crossmember. Failure to comply may result in damage to equipment.

NOTE

Left and right sides of front crossmember are removed the same way. Right side shown.

Steps (2) through (4) require the aid of an assistant.

2. Remove six collars (14) and bolts (15) from front crossmember (13). Discard collars and bolts.
3. Perform step (2) on left side of front crossmember (13).
4. Slide front crossmember (13) forward along frame rails (16) and remove from trailer.



FRONT CROSSMEMBER REPLACEMENT - Continued 0109 00

INSTALLATION, LMTVT

WARNING

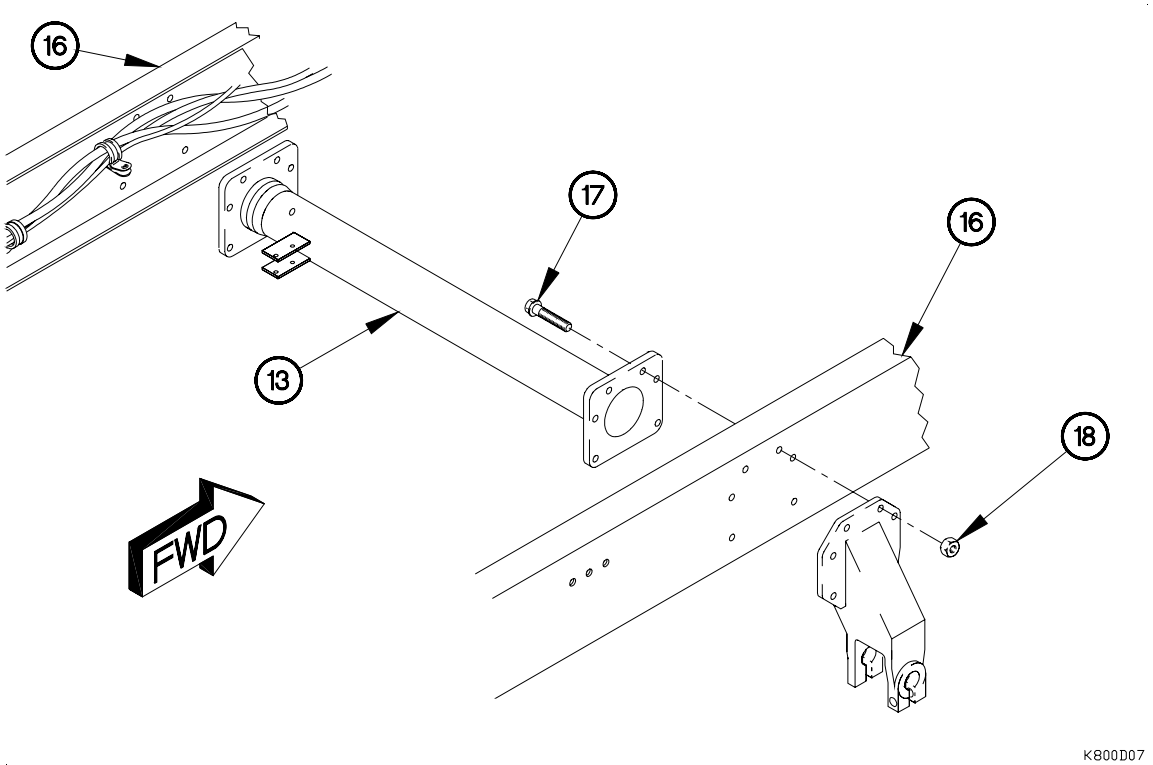
Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

NOTE

Left and right sides of front crossmember are installed the same way. Right side shown.

Steps (1) through (3) require the aid of an assistant.

1. Position front crossmember (13) on frame rails (16) with six bolts (17) and self-locking nuts (18).
2. Tighten six self-locking nuts (18) to 210-225 lb-ft (285-305 N•m).
3. Perform steps (1) and (2) on left side of front crossmember (13).



FRONT CROSSMEMBER REPLACEMENT - Continued 0109 00

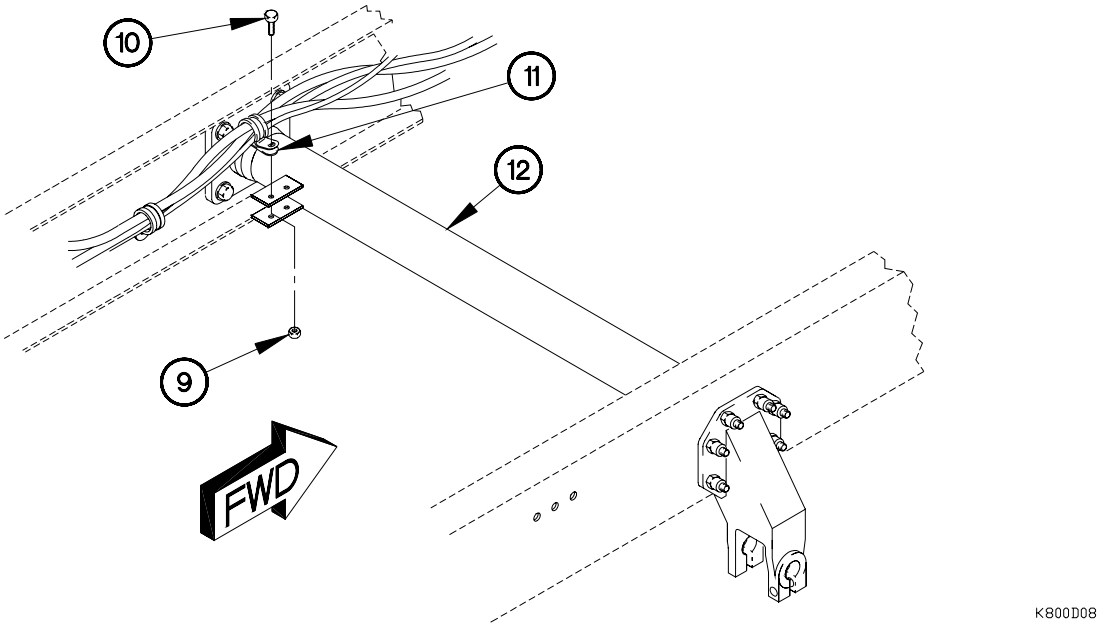
INSTALLATION, LMTVT - Continued

NOTE

Step (4) applies to left side only.

Install plastic cable ties as needed.

4. Install clamp (12), screw (11), and self-locking nut (10) on front crossmember (13).



OPERATIONAL CHECK

1. Install tongue assembly (WP 0113 00, Installation).
2. Install leaf springs, (LMTVT) (WP 0100 00, Installation).
3. Install air tank (WP 0064 00, Installation).
4. Couple trailer (WP 0009 00, Coupling Trailer).
5. Road test trailer.
6. Uncouple trailer (WP 0012 00, Uncoupling Trailer).

END OF WORK PACKAGE

SUBFRAME RAIL (MTVT) REPLACEMENT 0110 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Socket Set, Impact (Item 28, WP 0178 00)
Wrench, Impact, Electric (Item 42, WP 0178 00)
Wrench, Torque, 0-300 lb-in. (Item 51, WP 0178 00)

Materials/Parts
Nut, Self-Locking (15) (Item 35, WP 0181 00)
Bolt (11), (Item 25, WP 0181 00)
Bolt (4), (Item 26, WP 0181 00)
Nut, Self-Locking (4) (Item 37, WP 0181 00)

Personnel
Three

Equipment Conditions
Trailer uncoupled (WP 0012 00).
Cargo bed removed (WP 0103 00).
Front shockmount crossmember removed (WP 0107 00).
Rear shockmount crossmember removed (WP 0107 00).
Rear crossmember removed (WP 0108 00).
Bumper removed (WP 0114 00).

REMOVAL

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

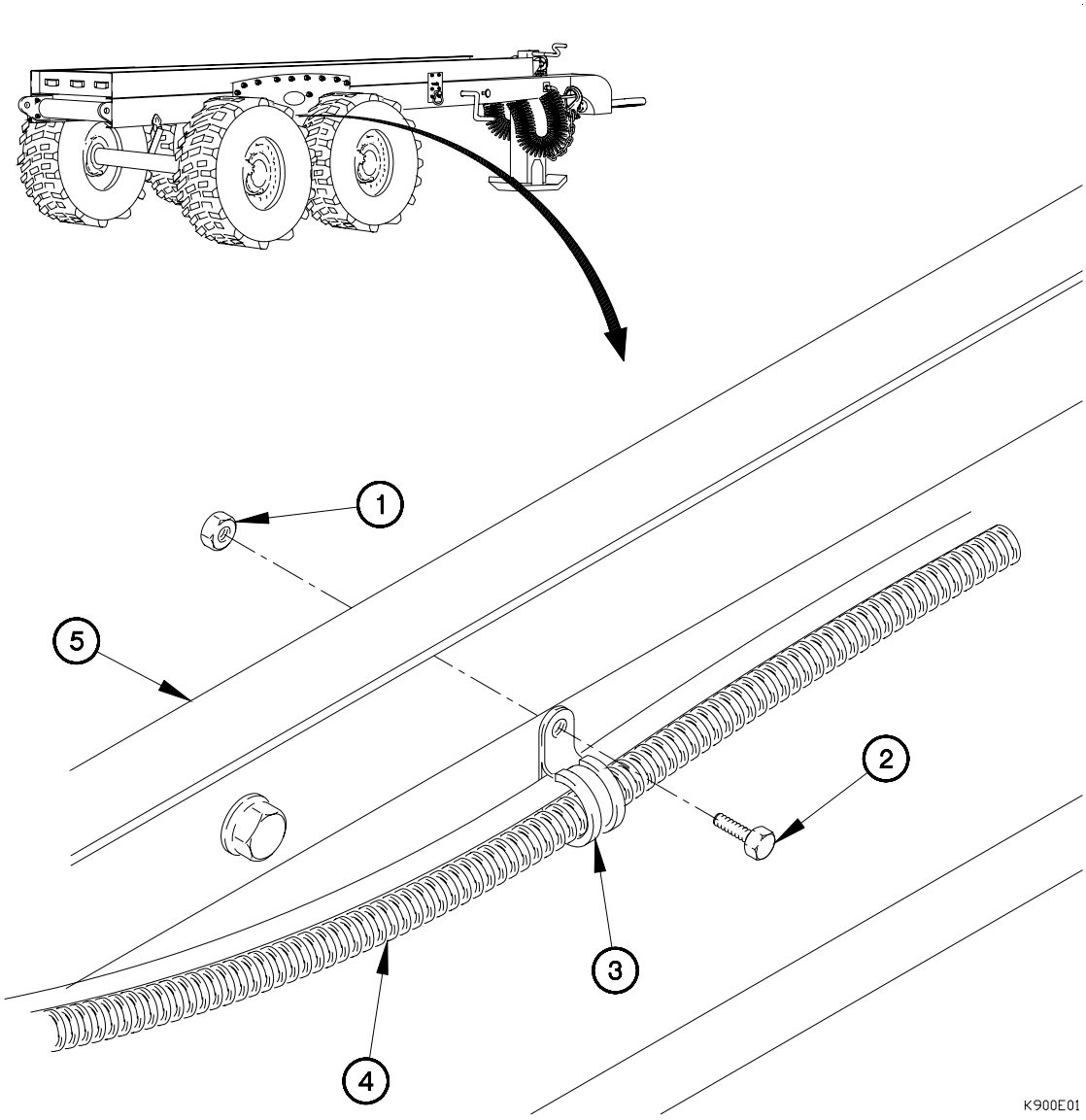
SUBFRAME RAIL (MTVT) REPLACEMENT - Continued 0110 00

REMOVAL - Continued

NOTE

Left and right side subframe rails are removed the same way. Right side shown.

1. Remove four self-locking nuts (1), screws (2), clamps (3), and electrical cable assembly (4) from subframe rail (5). Discard self-locking nuts.



SUBFRAME RAIL (MTVT) REPLACEMENT - Continued 0110 00

REMOVAL - Continued

WARNING

Subframe rail weighs approximately 170 lbs (78 kgs). Attach a suitable lifting device prior to removal of collars and bolts. Failure to comply may result in injury to personnel or damage to equipment.

CAUTION

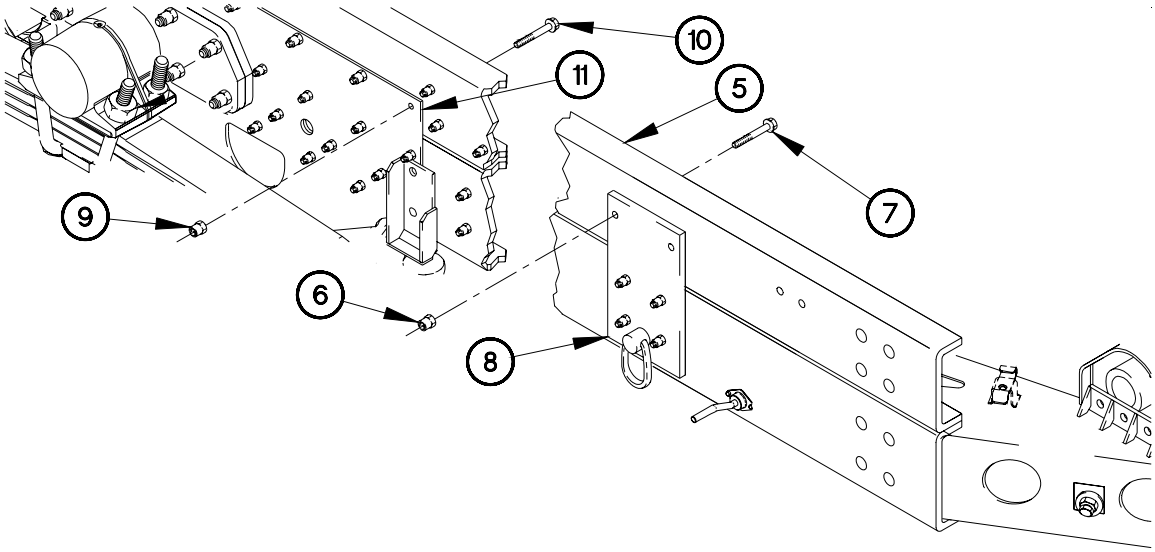
When removing bolts, continuous removal of collars is mandatory. Failure to comply may result in seizing of collar to bolt.

NOTE

Steps (2) through (4) require the aid of an assistant.

2. Remove two collars (6) and bolts (7) from front mounting plate (8). Discard collars and bolts.

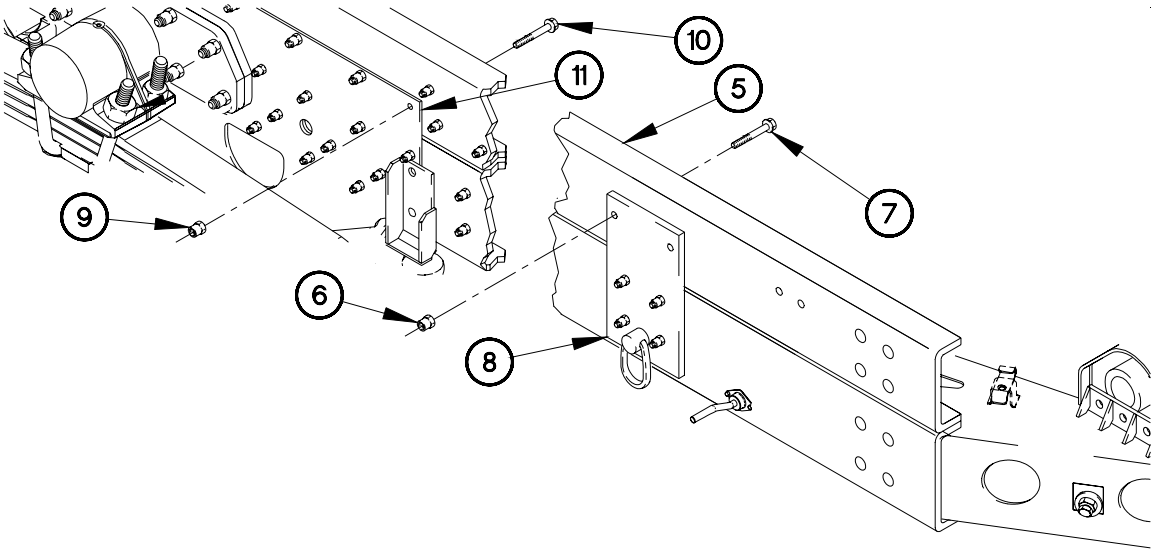
3. Remove nine collars (9) and bolts (10) from frame plate (11). Discard collars and bolts.



K900E02

Removal - Continued

4. Remove subframe rail (5) from main frame rail (12).



K900E02

INSTALLATION

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

Subframe rail weighs approximately 170 lbs (78 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

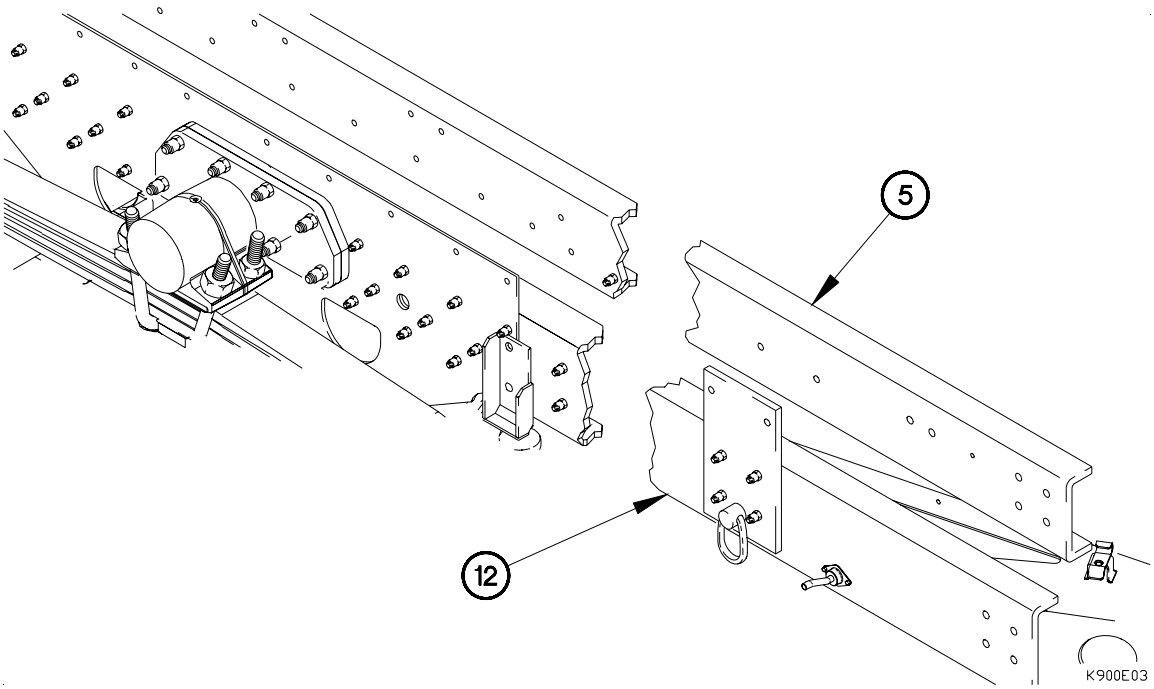
Left and right side subframe rails are installed the same way. Right side shown.

Steps (1) through (4) requires the aid of two assistants.

SUBFRAME RAIL (MTVT) REPLACEMENT - Continued 0110 00

INSTALLATION - Continued

1. Position subframe rail (5) on main frame rail (12).



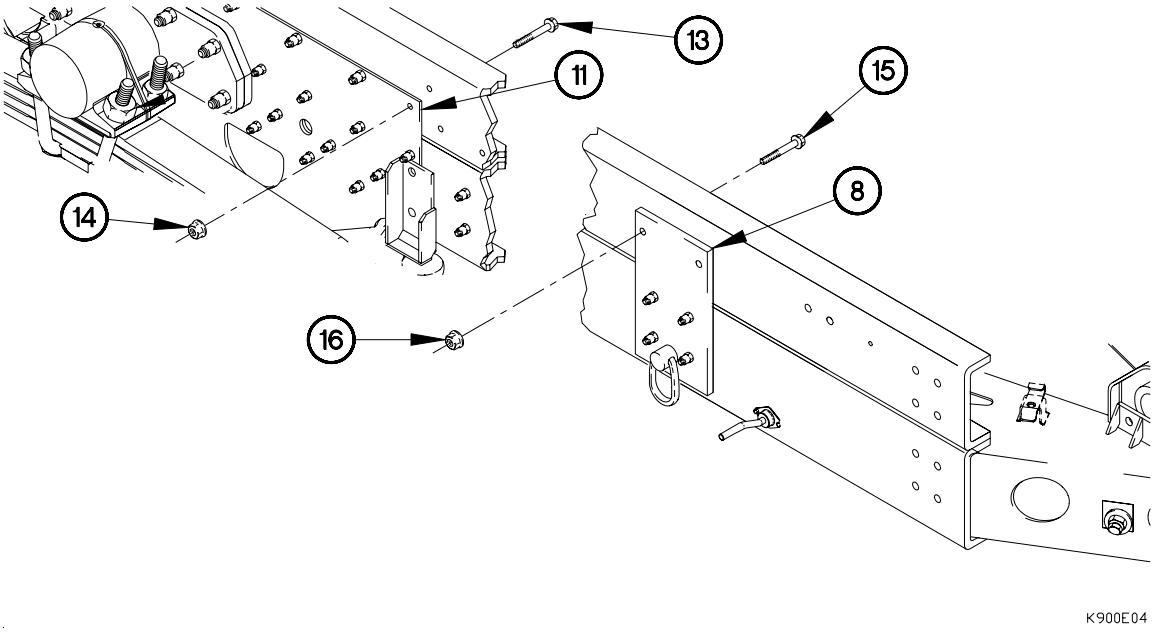
CAUTION

Ensure subframe rail flange is fully in contact with main frame rail flange. Failure to comply may result in damage to equipment.

SUBFRAME RAIL (MTVT) REPLACEMENT - Continued 0110 00

INSTALLATION - Continued

2. Position nine bolts (13) and self-locking nuts (14) in frame plate (11).
3. Position two bolts (15) and self-locking nuts (16) in front mounting plate (8).
4. Tighten self-locking nuts (14 and 16) to 210-225 lb-ft (285-305 N•m).



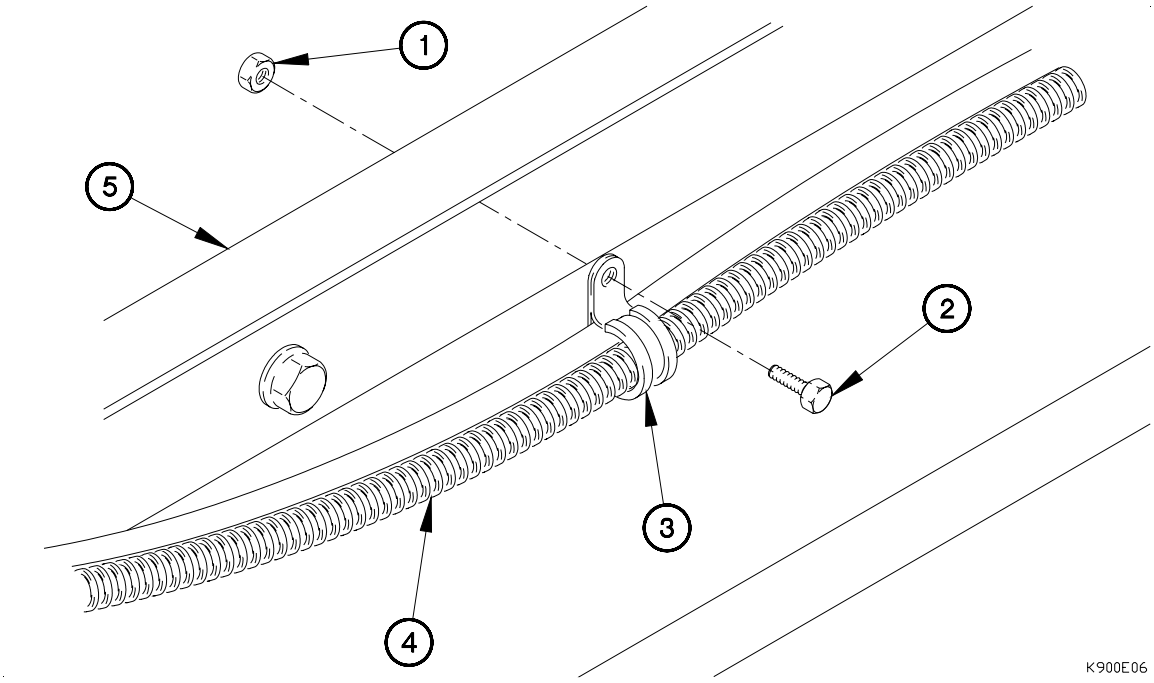
INSTALLATION - Continued

NOTE

Steps (5) and (6) apply to right side of trailer.

5. Install clamps (3) on subframe rail (5) with four screws (2) and self-locking nuts (1).

6. Tighten four self-locking nuts (1) to 60-72 ft lb-in. (7-9 N•m).



OPERATIONAL CHECK

1. Install bumper (WP 0114 00, Installation).

2. Install rear crossmember (WP 0108 00, Installation).

3. Install rear shockmount crossmember (WP 0107 00, Rear Shock Mount Crossmember Installation, MTVT).

4. Install front shockmount crossmember (WP 0107 00, Front Shock Mount Crossmember Installation, MTVT).

5. Install cargo bed (WP 0103 00, Installation).

6. Couple trailer (WP 0009 00, Coupling Trailer).

7. Road test trailer.

END OF WORK PACKAGE

SUBFRAME RAIL (LMTVT) REPLACEMENT 0111 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Impact, Electric (Item 42, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Wrench, Torque, 0-300 lb-in. (Item 51, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Socket Set, Impact (Item 28, WP 0178 00)

Materials/Parts
Nuts, Self-Locking (10) (Item 35, WP 0181 00)
Bolts (2), (Item 25, WP 0181 00)
Bolts (8) (Item 26, WP 0181 00)
Nut, Self-Locking (3) (Item 37, WP 0181 00)

Personnel
Three

Equipment Conditions
Trailer uncoupled (WP 0012 00).
Cargo bed removed (WP 0103 00).
Shockmount crossmember removed (WP 0107 00).
Rear crossmember removed (WP 0108 00).
Bumper removed (WP 0114 00).

REMOVAL

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

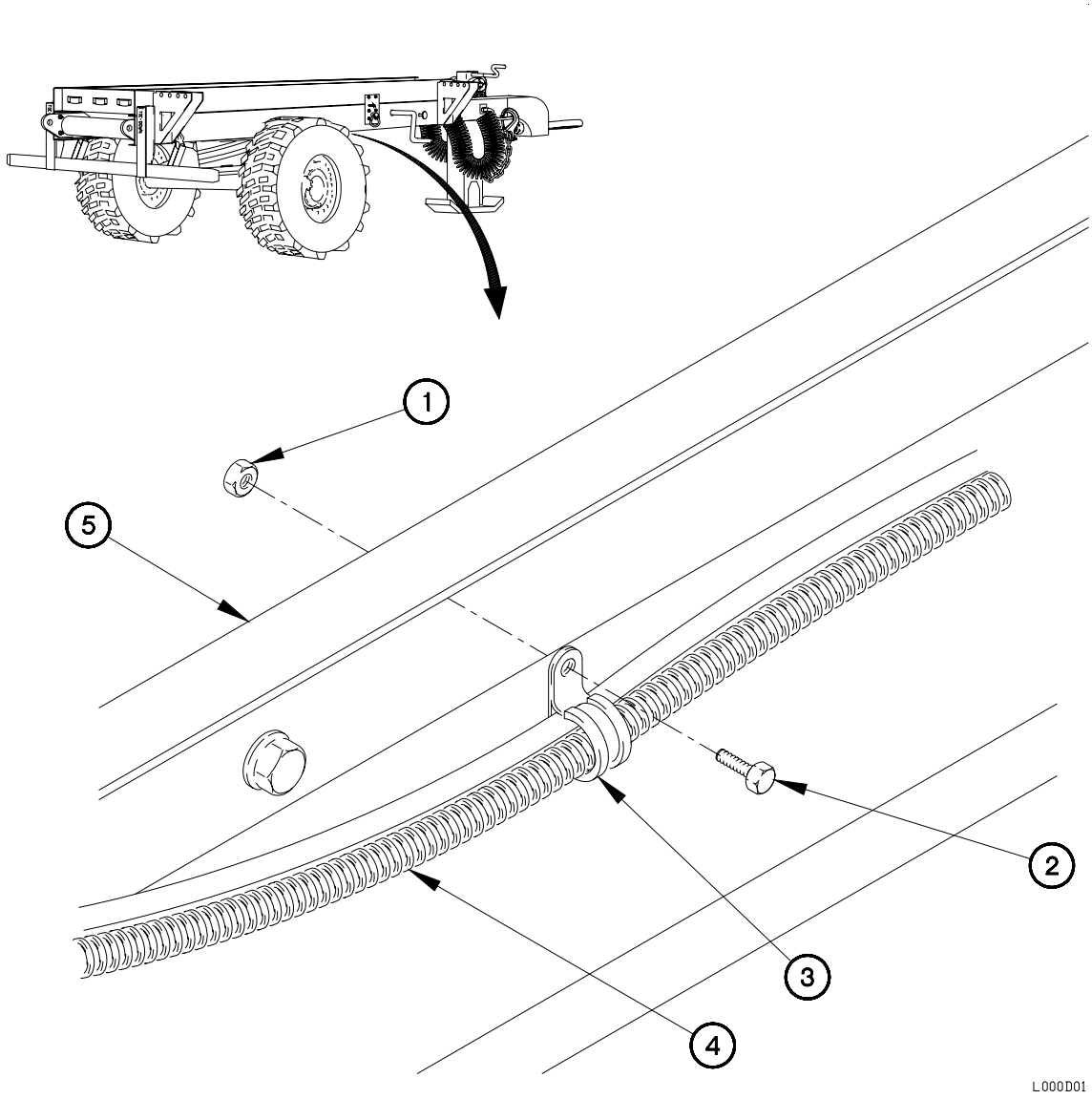
SUBFRAME RAIL (LMTVT) REPLACEMENT - Continued 0111 00

REMOVAL - Continued

NOTE

Left and right side subframe rails are removed the same way. Right side shown.

1. Remove three self-locking nuts (1), screws (2), clamps (3), and electrical cable assembly (4) from subframe rail (5). Discard self-locking nuts.



SUBFRAME RAIL (LMTVT) REPLACEMENT - Continued 0111 00

REMOVAL - Continued

WARNING

Subframe rail weighs approximately 150 lbs (69 kgs). Attach a suitable lifting device prior to removal of collars and bolts. Failure to comply may result in injury to personnel or damage to equipment.

CAUTION

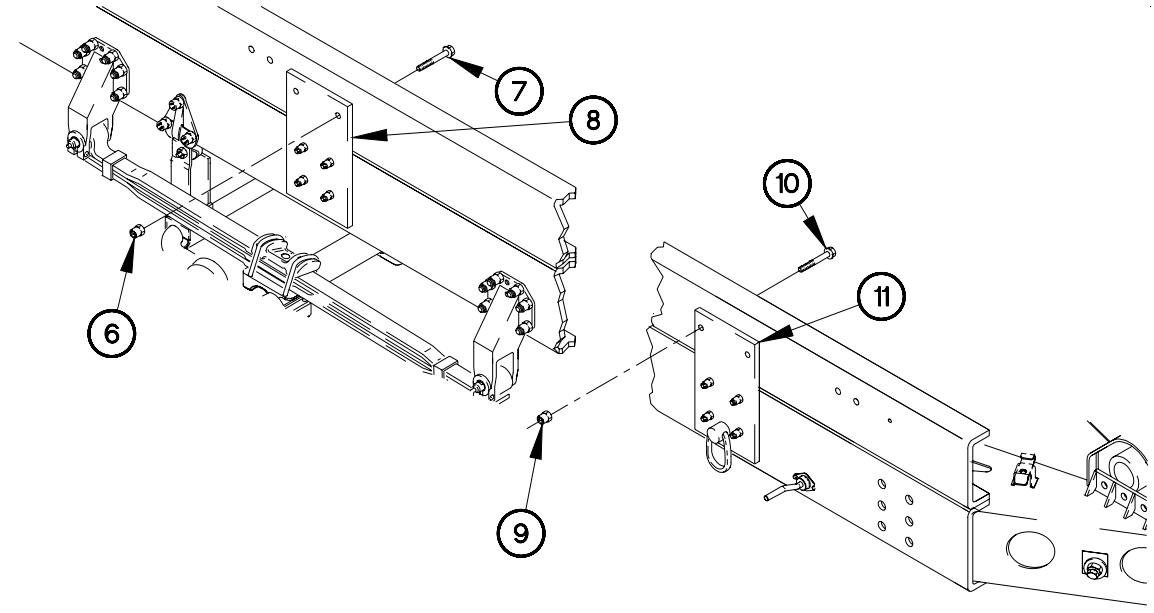
When removing bolts, continuous removal of collars is mandatory. Failure to comply may result in seizing of collar to bolt.

NOTE

Steps (2) and (3) require the aid of an assistant.

2. Remove two collars (6) and bolts (7) from center mounting plate (8). Discard collars and bolts.

3. Remove two collars (9) and bolts (10) from front mounting plate (11). Discard collars and bolts.



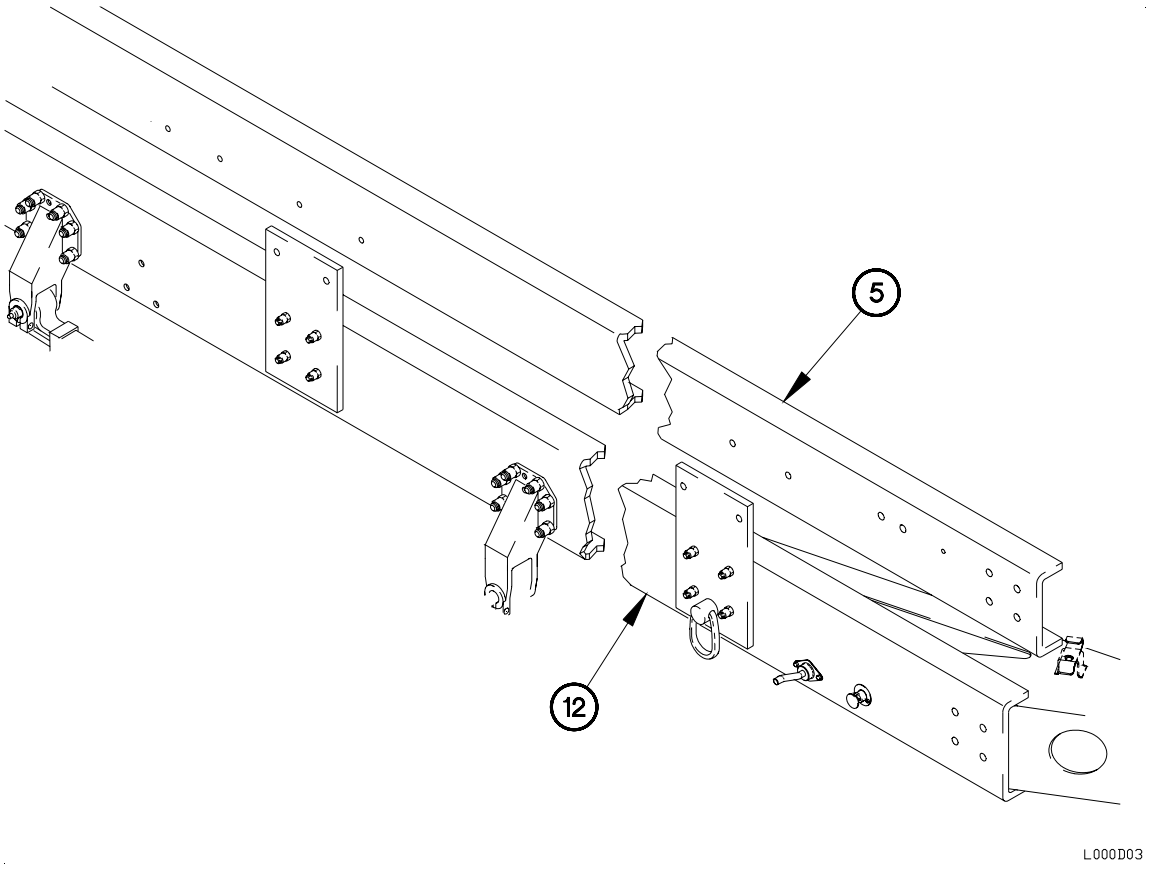
SUBFRAME RAIL (LMTVT) REPLACEMENT - Continued 0111 00

REMOVAL - Continued

NOTE

Step (4) requires the aid of two assistants.

4. Remove subframe rail (5) from main frame rail (12).



SUBFRAME RAIL (LMTVT) REPLACEMENT - Continued 0111 00

INSTALLATION

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

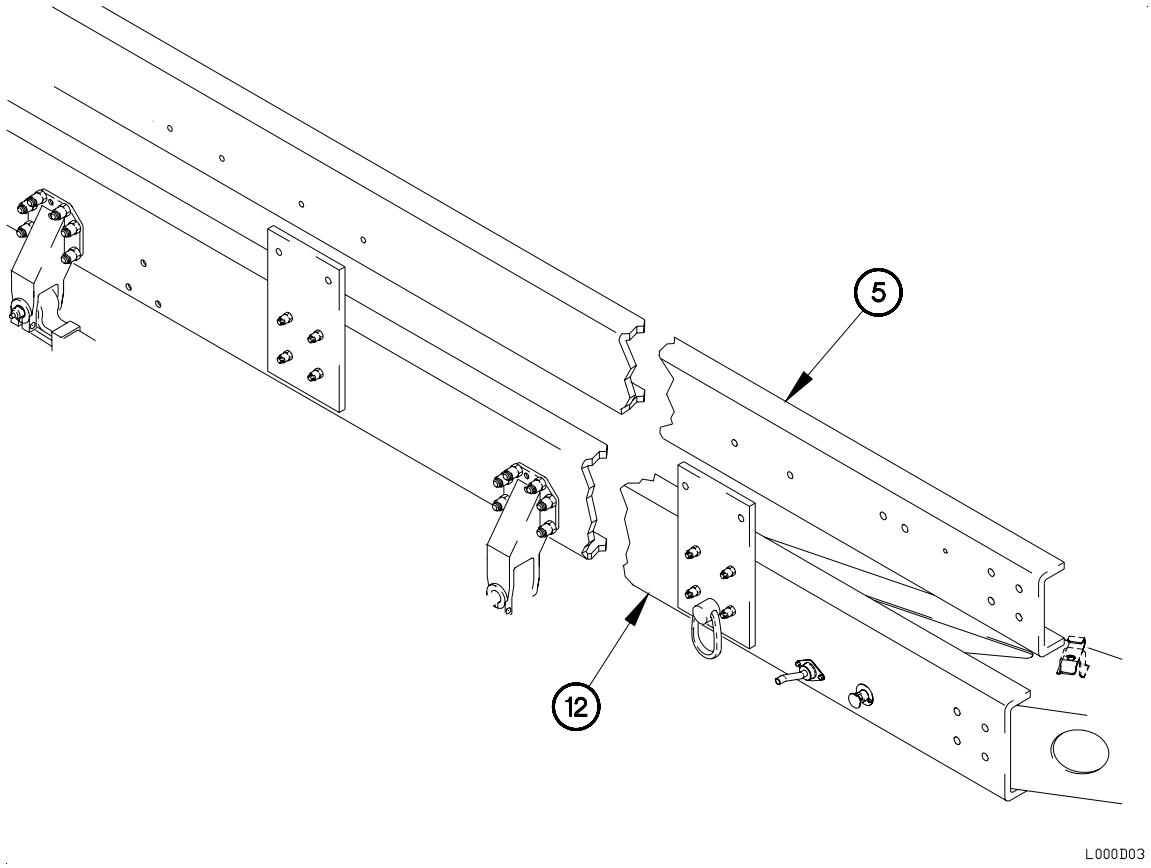
Subframe rail weighs approximately 150 lbs (69 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

Left and right side subframe rails are installed the same way. Right side shown.

Step (1) requires the aid of two assistants.

1. Position subframe rail (5) on main frame rail (12).



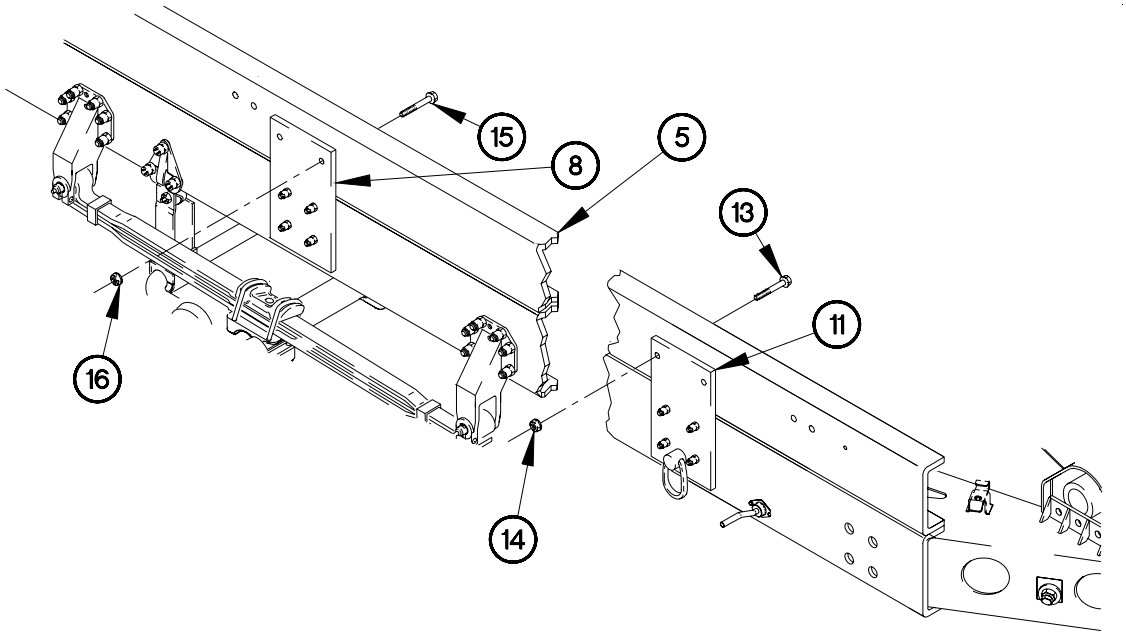
SUBFRAME RAIL (LMTVT) REPLACEMENT - Continued 0111 00

INSTALLATION - Continued

NOTE

Steps (2) through (5) require the aid of an assistant.

2. Position two bolts (13) and self-locking nuts (14) in front mounting plate (11).
3. Tighten two self-locking nuts (14) to 210-225 lb-ft (285-305 N•m).
4. Position two bolts (15) and self-locking nuts (16) in center mounting plate (8).
5. Tighten two self-locking nuts (16) to 210-225 lb-ft (285-305 N•m).



L000D04

SUBFRAME RAIL (LMTVT) REPLACEMENT - Continued 0111 00

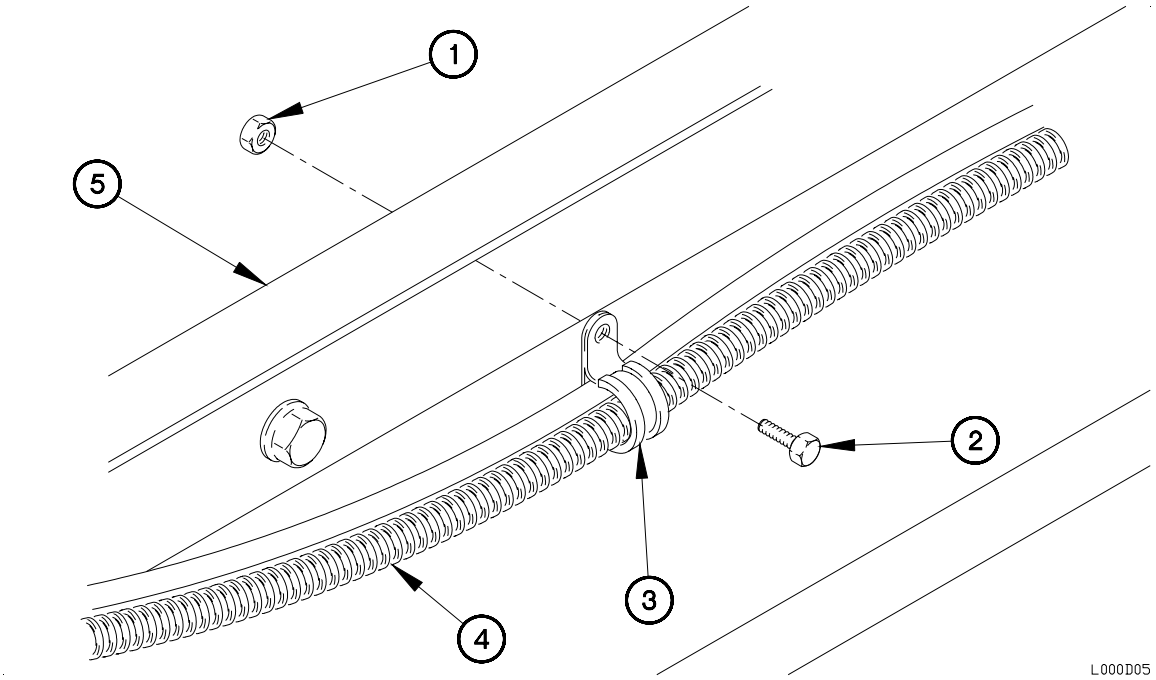
INSTALLATION - Continued

NOTE

Steps (6) and (7) apply to right side of trailer.

6. Position clamps (3) and electrical cable assembly (4) on subframe rail (5) with three screws (2) and self-locking nuts (1).

7. Tighten three self-locking nuts (1) to 60-72 lb-in (7-9 N•m).



OPERATIONAL CHECK

1. Install bumper (WP 0114 00, Installation).
2. Install rear crossmember (WP 0108 00, Installation).
3. Install shockmount crossmember (WP 0107 00, Installation, LMTVT).
4. Install cargo bed (WP 0103 00, Installation).
5. Couple trailer (WP 0009 00, Coupling Trailer).
6. Road test trailer.

END OF WORK PACKAGE

TIEDOWN RING BRACKET REPLACEMENT 0112 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Socket Set, Impact (Item 28, WP 0178 00)

Materials/Parts
Nut, Self-Locking (6) (Item 35, WP 0181 00)
Bolt (2) (Item 25, WP 0181 00)
Bolt (4) (Item 26, WP 0181 00) (LMTVT)
Bolt (4) (Item 27, WP 0181 00) (MTVT)

Personnel Required
Two

Equipment Conditions
Tiedown ring removed (WP 0088 00).

REMOVAL

CAUTION

When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

NOTE

Left and right side tiedown ring brackets are removed the same way. Right side shown.

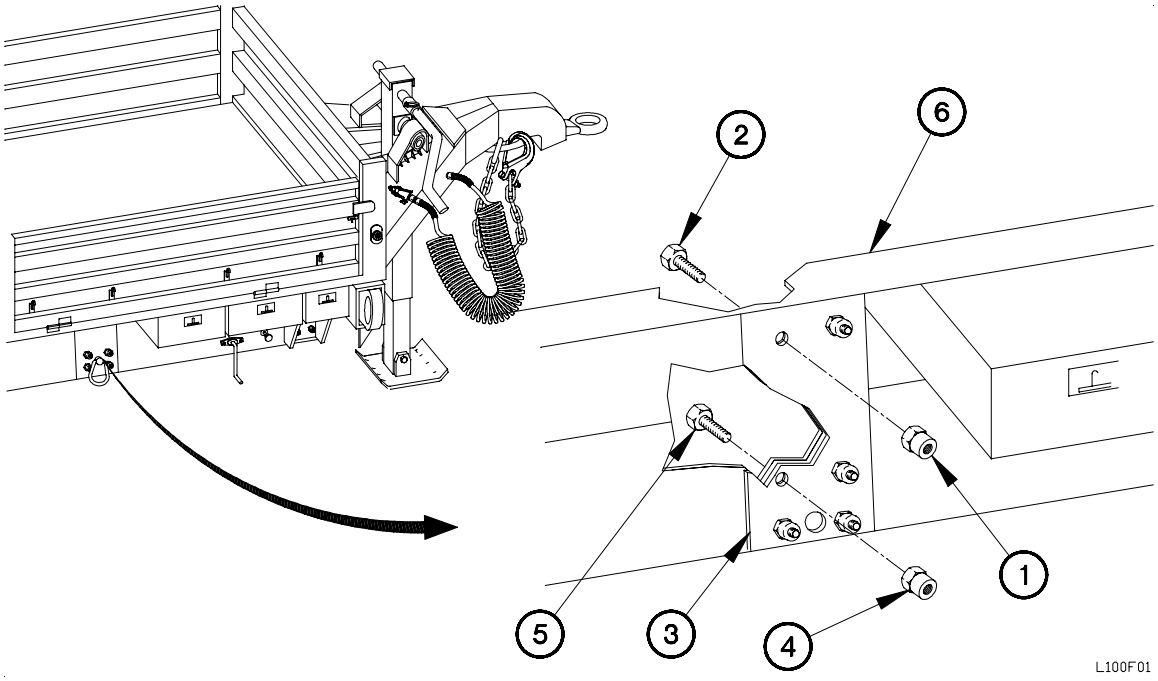
Steps (1) and (2) require the aid of an assistant.

TIEDOWN RING BRACKET REPLACEMENT - Continued 0112 00

REMOVAL - Continued

1. Remove two collars (1) and bolts (2) from tiedown ring bracket (3). Discard collars and bolts.

2. Remove four collars (4) and bolts (5) and tiedown ring bracket (3) from frame rail (6). Discard collars and bolts.



TIEDOWN RING BRACKET REPLACEMENT -Continued 0112 00

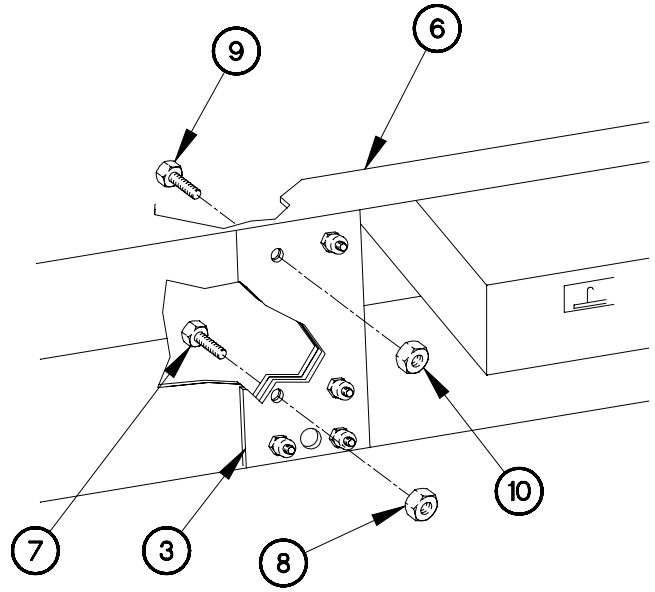
INSTALLATION

NOTE

Left and right side tiedown ring brackets are installed the same way. Right side shown.

Steps (1) through (3) require the aid of an assistant.

1. Position tiedown ring bracket (3) on frame rail (6) with four bolts (7) and self-locking nuts (8).
2. Position two bolts (9) and self-locking nuts (10) in tiedown ring bracket (3).
3. Tighten four self-locking nuts (8) and two self-locking nuts (10) to 210-225 lb-ft (285-305 N•m).



L100F02

OPERATIONAL CHECK

Install tiedown ring (WP 0088 00, Installation)

END OF WORK PACKAGE

TONGUE ASSEMBLY REPLACEMENT 0113 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Jack, Dolly Type, Hydraulic (2) (Item 14, WP 0178 00)
Trestle, Motor Vehicle Maintenance (2) (Item 38, WP 0178 00)
Sling, Cargo (2) (Item 27, WP 0178 00)
Socket Set, Impact (Item 28, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Wrench, Impact, Electric (Item 42, WP 0178 00)

Materials/Parts
Bolt (8) (LMTVT) (Item 26, WP 0181 00)
Bolt (8) (LMTVT) (Item 28, WP 0181 00)
Bolt (8) (MTVT) (Item 27, WP 0181 00)

Materials/Parts (Cont)
Bolt (8) (MTVT) (Item 28, WP 0181 00)
Nut, Self-Locking (16) (LMTVT) (Item 35, WP 0181 00)
Nut, Self-Locking (16) (MTVT) (Item 35, WP 0181 00)

Personnel Required
Two

References
WP 0013 00

Equipment Conditions
Push-pull/air supply valve removed (WP 0062 00).
EMERGENCY/SERVICE gladhand hoses removed (WP 0058 00).
Landing gear removed (WP 0104 00).

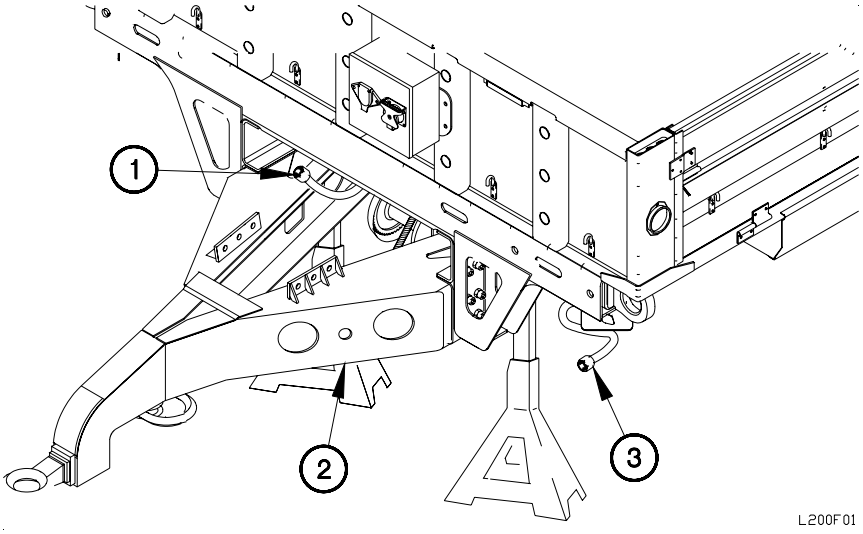
WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

TONGUE ASSEMBLY REPLACEMENT - Continued 0113 00

REMOVAL

1. Pull emergency air hose (1) through tongue assembly (2).
2. Pull service air hose (3) through tongue assembly (2).



TONGUE ASSEMBLY REPLACEMENT - Continued 0113 00

REMOVAL - Continued

WARNING

Tongue assembly weighs approximately 290 lbs (130 kgs). Attach a suitable lifting device prior to removal of collars and bolts. Failure to comply may result in injury to personnel or damage to equipment.

CAUTION

Attach sling prior to removal of collars and bolts. Failure to comply may result in damage to equipment.

When removing bolts, continuous removal of collars is mandatory. Failure to comply may result in seizing of collar to bolt.

NOTE

Left and right side tongue assembly are removed the same way. Left side shown.

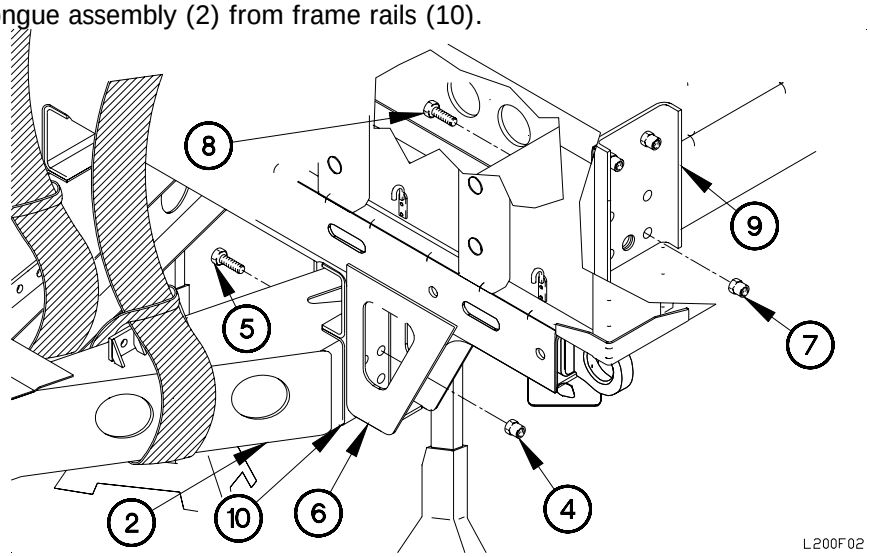
Steps (3 and 4) require the aid of an assistant.

3. Remove four collars (4) and bolts (5) from lifting beam (6). Discard collars and bolts.
4. Remove four collars (7) and bolts (8) from front mounting plate (9). Discard collars and bolts.
5. Perform steps (3 and 4) on right side of trailer.

NOTE

Step (6) requires the aid of two assistants.

6. Remove tongue assembly (2) from frame rails (10).



TONGUE ASSEMBLY REPLACEMENT - Continued 0113 00

INSTALLATION

WARNING

Tongue assembly weighs approximately 290 lbs (130 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

Left and right side tongue assembly are installed the same way. Left side shown.

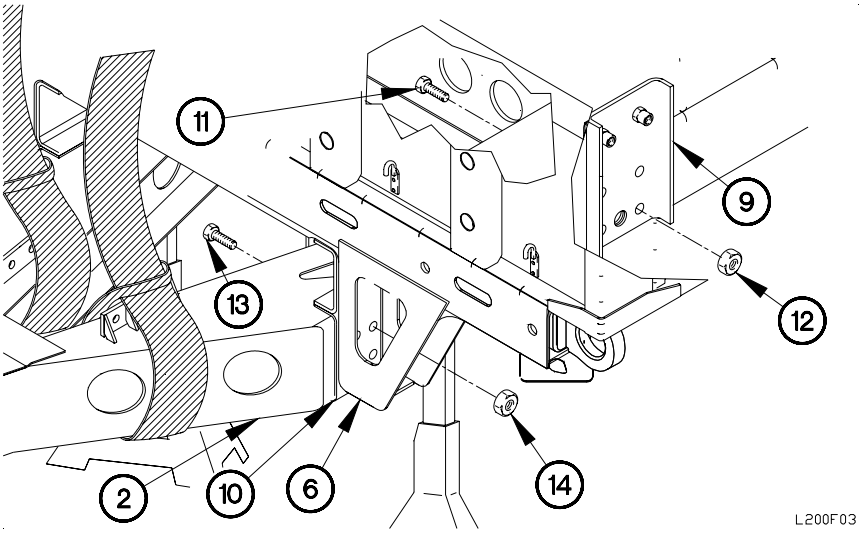
Step (1) requires the aid of two assistants.

1. Install tongue assembly (2) on frame rails (10).

NOTE

Steps (2 through 5) require the aid of an assistant.

2. Position tongue assembly (2) on front mounting plate (9) with four bolts (11) and self-locking nuts (12).
3. Position tongue assembly (2) on lifting beam (6) with four bolts (13) and self-locking nuts (14).
4. Tighten four self-locking nuts (12) and (14) to 210-225 lb-ft (285-305 N•m).
5. Perform steps (2 through 4) on right side of trailer.

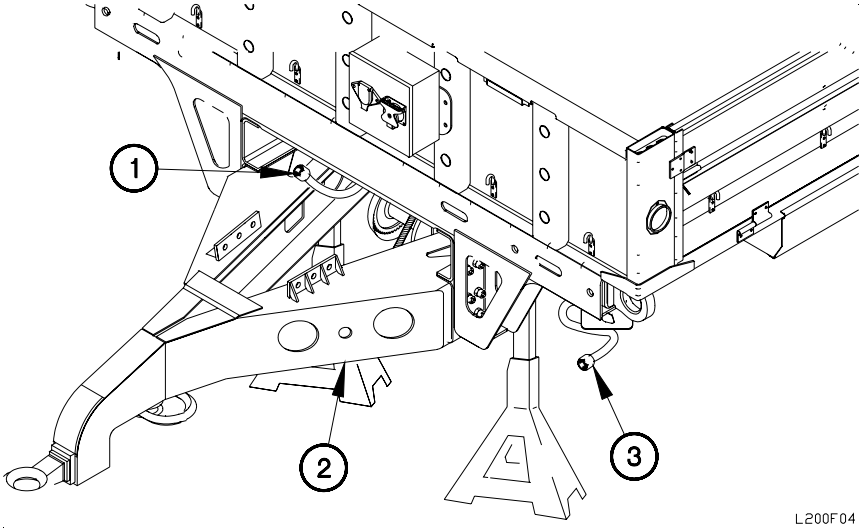


TONGUE ASSEMBLY REPLACEMENT - Continued 0113 00

INSTALLATION - Continued

5. Pull service air hose (3) through tongue assembly (2).

6. Pull emergency air hose (1) through tongue assembly (2).



OPERATIONAL CHECK

1. Install landing gear (WP 0104 00, Landing Gear Installation).

2. Install EMERGENCY/SERVICE gladhand hoses (WP 0058 00, Installation).

3. Install push-pull/air supply valve (WP 0062 00, Installation).

4. Couple trailer (WP 0009 00, Coupling Trailer).

5. Road test trailer.

END OF WORK PACKAGE

REAR BUMPER REPLACEMENT 0114 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench, Impact, Electric (Item 42, WP 0178 00)
Socket Set, Impact (Item 28, WP 0178 00)
Sling, Cargo (Item 27, WP 0178 00)

Materials/Parts
Bolt (4) (Item 25, WP 0181 00)
Nut, Self-Locking (4) (Item 35, WP 0181 00)

Personnel Required
Two

Equipment Conditions
Rear crossmember removed (WP 0108 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

NOTE

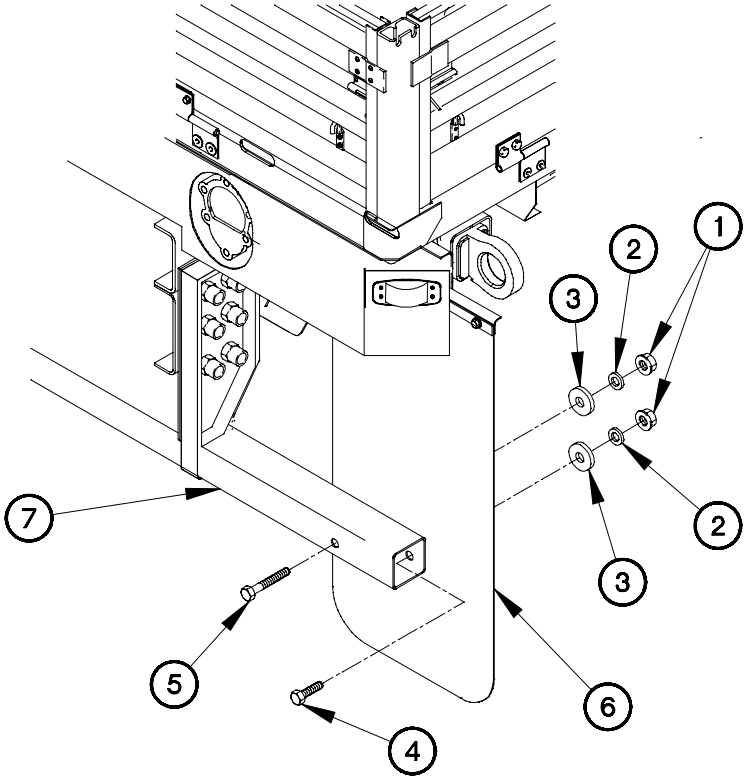
Left and right sides of rear bumper are removed the same way. Right side shown.

REAR BUMPER REPLACEMENT - Continued 0114 00

REMOVAL

1. Remove two nuts (1), washers (2), resilient mounts (3), and screws (4 and 5) from splash guard (6).

2. Remove splash guard (6) from rear bumper (7).



L300F01

REAR BUMPER REPLACEMENT - Continued 0114 00

REMOVAL - Continued

WARNING

Bumper weighs approximately 75 lbs (34 kgs). Attach a suitable lifting device prior to removal of collars and bolts. Failure to comply may result in injury to personnel or damage to equipment.

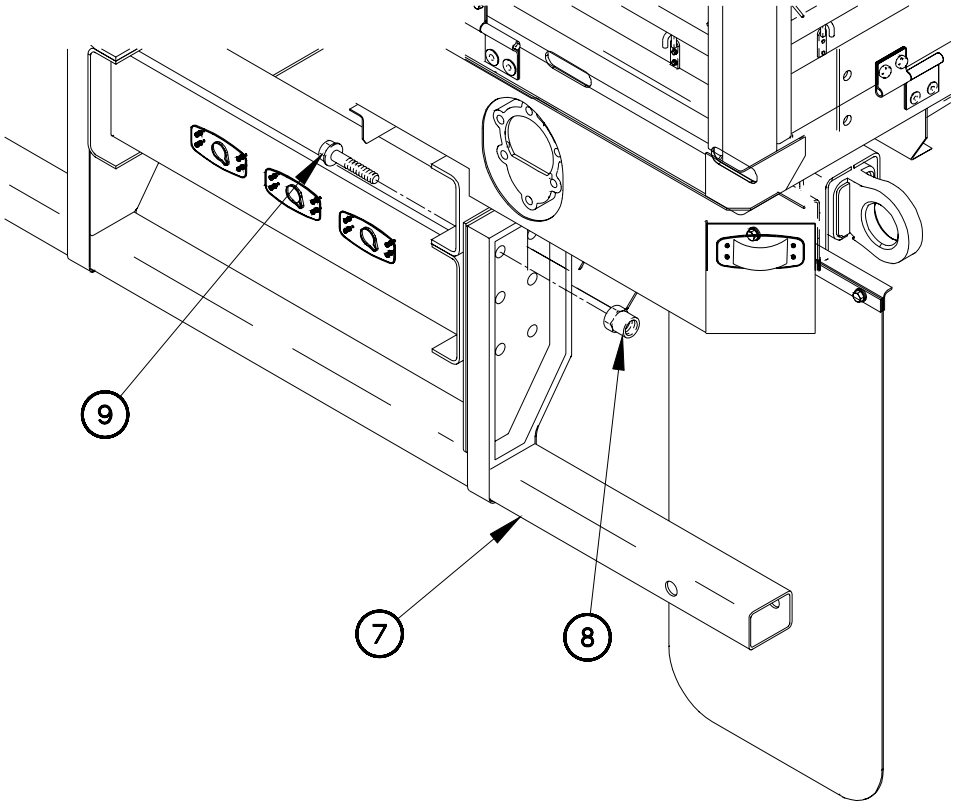
CAUTION

When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

NOTE

Steps (3) through (5) require the aid of an assistant.

3. Remove two collars (8) and bolts (9) from rear bumper (7). Discard collars and bolts.
4. Perform steps (1) through (3) on left side of rear bumper.
5. Remove rear bumper (7) from trailer.



L300F02

REAR BUMPER REPLACEMENT - Continued 0114 00

INSTALLATION

NOTE

Left and right sides of rear bumper are installed the same way. Right side shown.

Steps (1) through (6) require the aid of an assistant.

1. Position rear bumper (7) on trailer with two bolts (10) and self-locking nuts (11).

NOTE

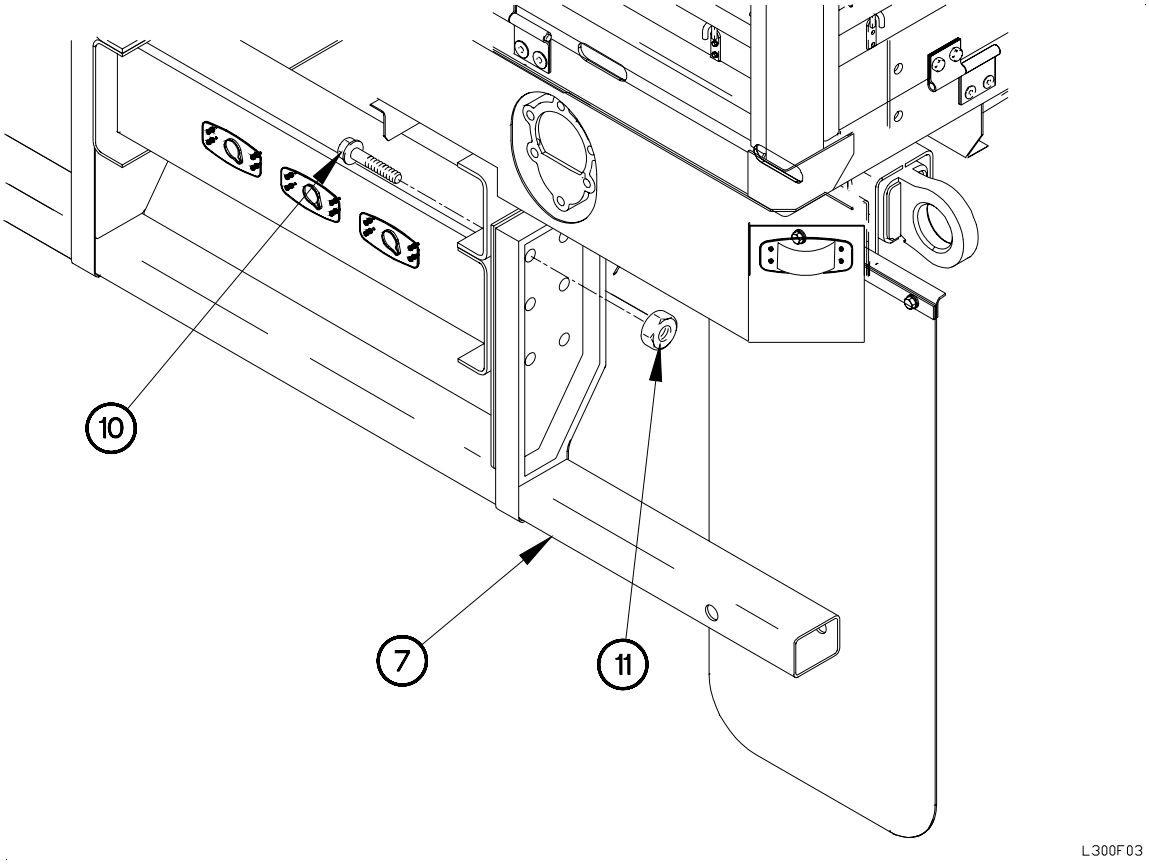
Perform the following step on trailer S/N 11,438 to 99,999.

2. Tighten two self-locking nuts (11) to 210-225 lb-ft (285-305 N•m).

NOTE

Perform the following step on trailer S/N 200,0001 to 299,999.

3. Tighten two self-locking nuts (11) to 158-210 lb-ft (214-286 N•m).

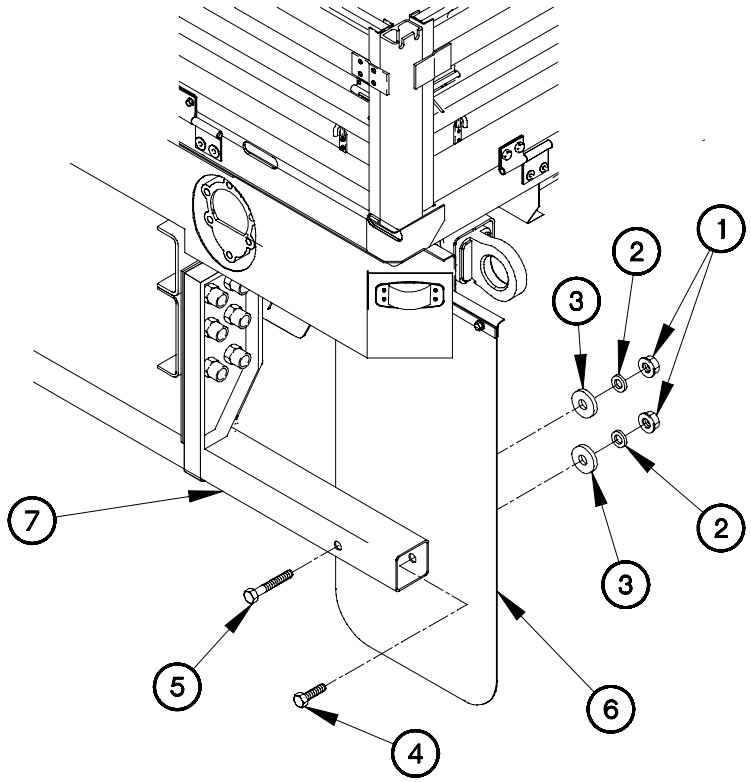


INSTALLATION - Continued

4. Position splash guard (6) on rear bumper (7) with two screws (4 and 5), resilient mounts (3), washers (2), and nuts (1).

5. Tighten two nuts (1) to 18-22 lb-ft (24-30 N•m).

6. Perform step (1), step (2) or step (3), and steps (4) and (5) on left side of rear bumper.



L300F01

OPERATIONAL CHECK

1. Install rear crossmember (WP 0108 00, Installation).

END OF WORK PACKAGE

FRAME RAIL (LMTVT) REPLACEMENT 0115 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Jack, Leveling Support, Vehicle (2) (Item 15, WP 0178 00)
Sling, Cargo (Item 27, WP 0178 00)
Socket Set, Impact (Item 28, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Wrench, Torque, 0-300 lb-in. (Item 51, WP 0178 00)
Wrench, Impact, Electric (Item 42, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)

Materials/Parts
Bolts (8) (Item 26, WP 0181 00)
Bolts (12) (Item 49, WP 0181 00)
Nuts, Self-Locking (2) (Item 37, WP 0181 00)

Materials/Parts (Cont)
Nuts, Self-Locking (20) (Item 35, WP 0181 00)
Antiseize Compound (Item 3, WP 0176 00)

Personnel Required
Two

Equipment Conditions
Electrical cable assembly removed (WP 0051 00).
Sub frame removed (WP 0111 00).
Tongue assembly removed (WP 0113 00).
Stabilizer bar removed (WP 0091 00).
Stabilizer mounting bracket removed (WP 0092 00).
Leaf springs removed (WP 0100 00).
Push-pull/air supply valve removed (WP 0062 00).

REMOVAL

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

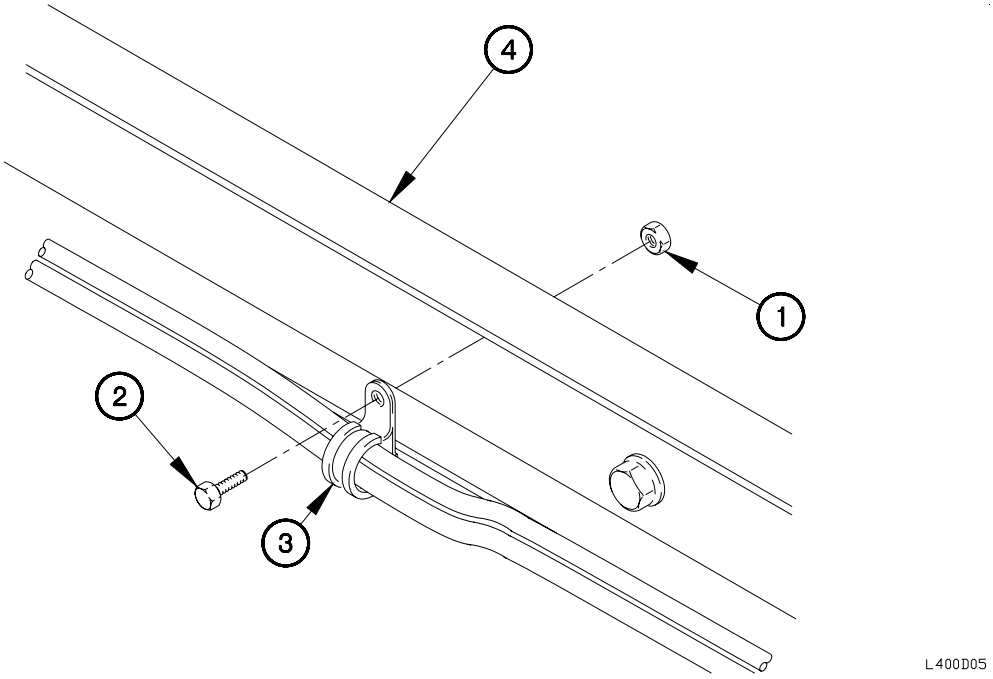
NOTE

Left and right frame rails are removed the same way. Left frame rail shown.

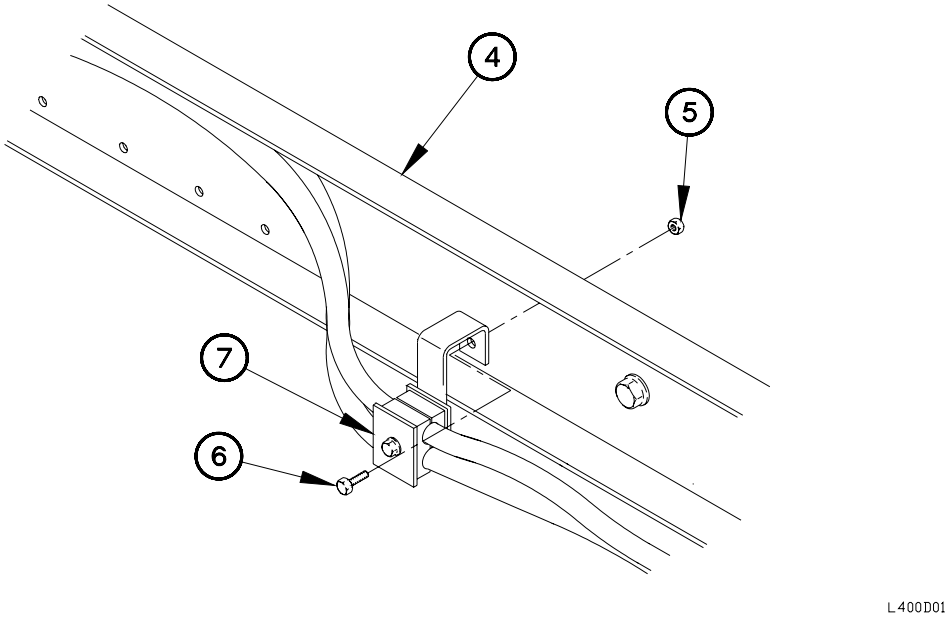
FRAME RAIL (LMTVT) REPLACEMENT - Continued 0115 00

REMOVAL - Continued

1. Remove self-locking nut (1), screw (2), and clamp (3) from frame rail (4). Discard self-locking nut.



2. Remove self-locking nut (5), screw (6), and bracket (7) from frame rail (4). Discard self-locking nut.



FRAME RAIL (LMTVT) REPLACEMENT - Continued 0115 00

REMOVAL – Continued

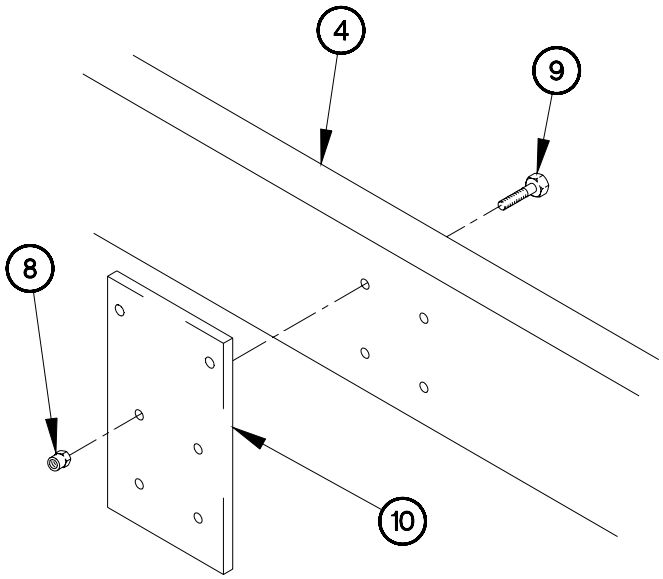
CAUTION

When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

NOTE

Steps (3) and (4) require the aid of an assistant.

3. Remove four collars (8), bolts (9), and center frame plate (10) from frame rail (4). Discard collars and bolts.



L400D02

FRAME RAIL (LMTVT) REPLACEMENT - Continued 0115 00

REMOVAL - Continued

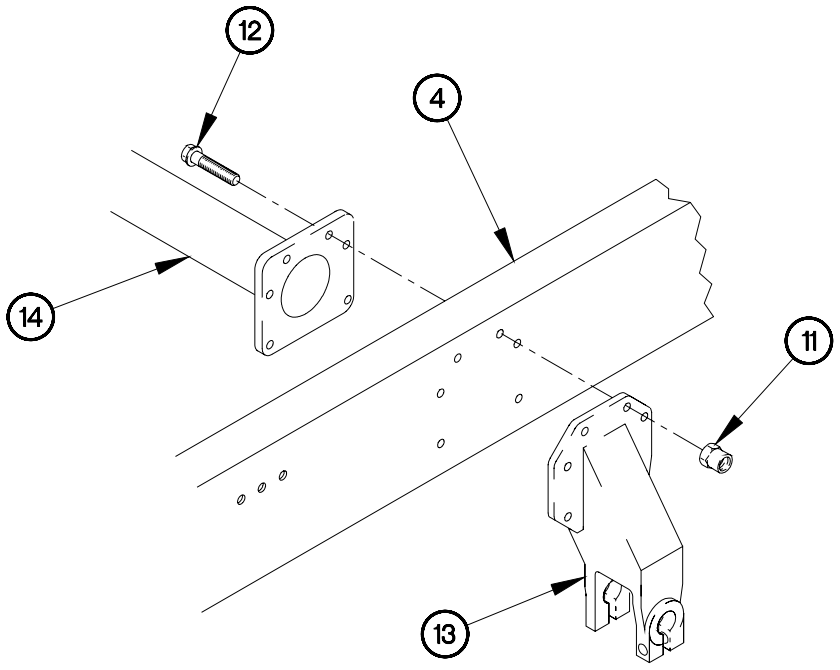
WARNING

Frame rail (LMTVT) weighs approximately 155 lbs (71 kgs). Attach a suitable lifting device prior to removal or collars and bolts. Failure to comply may result to injury to personnel or damage to equipment.

CAUTION

When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

4. Remove 12 collars (11) and bolts (12), two leaf spring brackets (13), and frame rail (4) from crossmember (14). Discard collars and bolts.



L400D04

INSTALLATION

WARNING

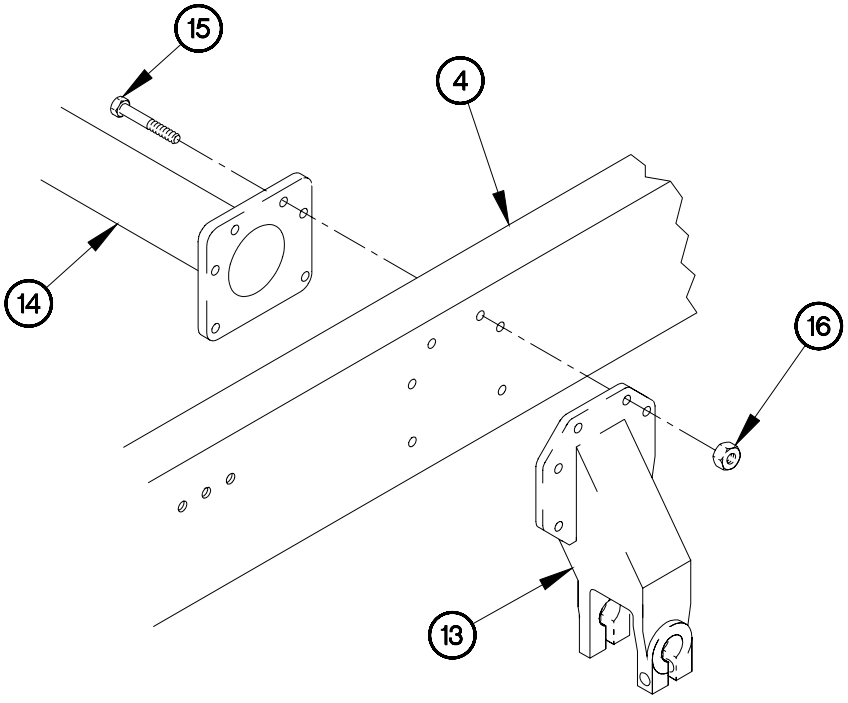
Frame rail weighs approximately 155 lbs (71 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

Left and right frame rails are installed the same way. Left frame rail shown.

Steps (1) through (6) require the aid of an assistant.

1. Position frame rail (4) on two crossmembers (14) with leaf spring brackets (13), 12 bolts (15), and self-locking nuts (16).



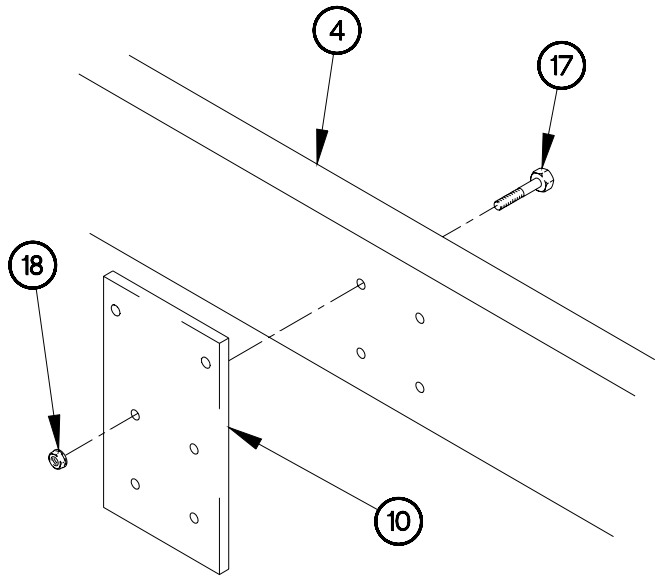
L400D06

FRAME RAIL (LMTVT) REPLACEMENT - Continued 0115 00

INSTALLATION - Continued

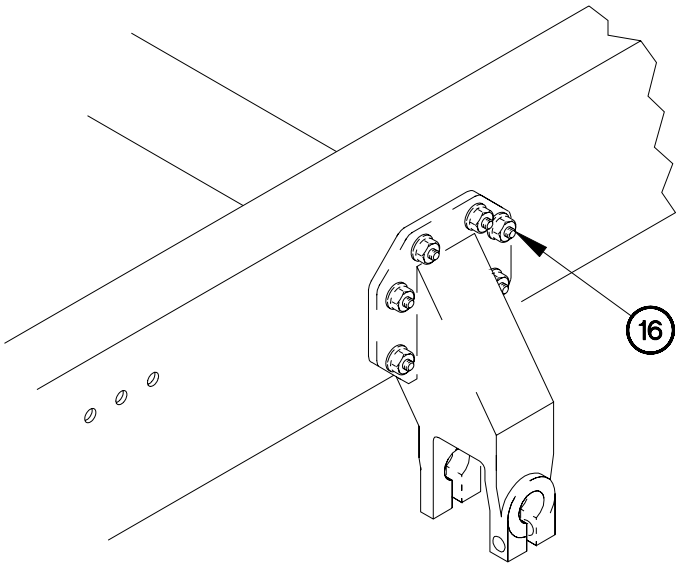
2. Position center frame plate (10) on frame rail (4) with four bolts (17) and self-locking nuts (18).

3. Tighten four self-locking nuts (18) to 210-225 lb-ft (285-305 N•m).



L400D08

4. Tighten 12 self-locking nuts (16) to 210-225 lb-ft (285-305 N•m).



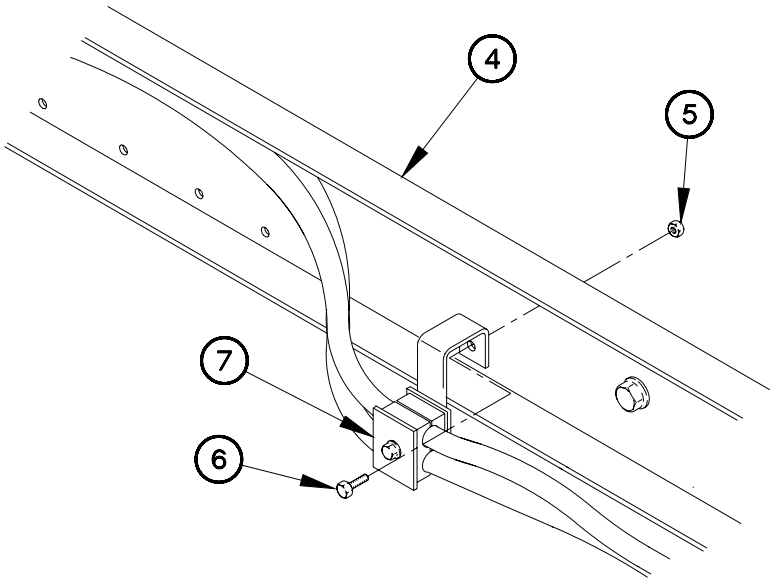
L400D10

FRAME RAIL (LMTVT) REPLACEMENT - Continued 0115 00

INSTALLATION – Continued

5. Position bracket (7) on frame rail (4) with bolt (6) and self-locking nut (5).

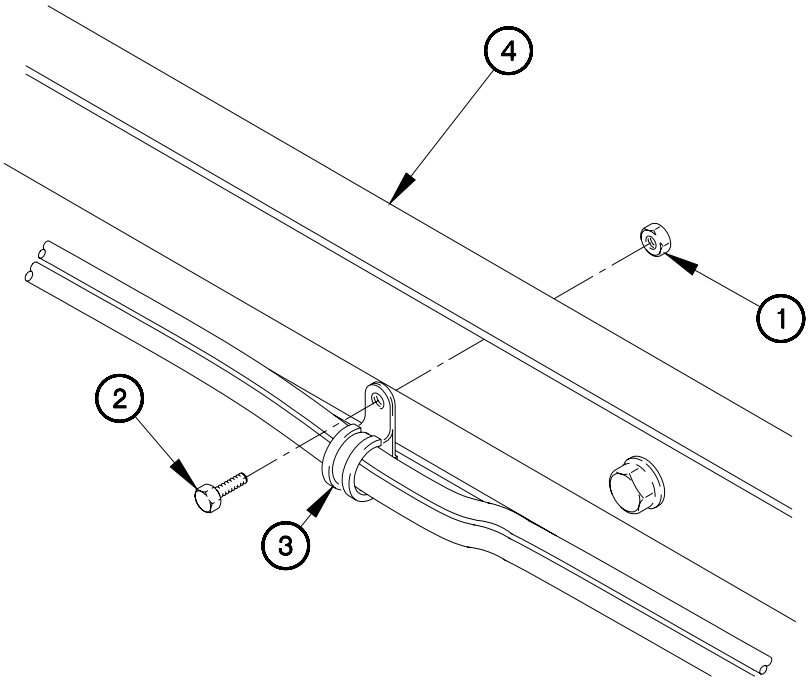
6. Tighten self-locking nut (5) to 156-192 lb-in (18-22 N•m).



L400D01

7. Position clamp (3) on frame rail (4) with screw (2) and self-locking nut (1).

8. Tighten self-locking nut (1) to 60-72 lb-in.(7-9 N•m).



L400D05

OPERATIONAL CHECK

1. Install push-pull/air supply valve (WP 0062 00, Installation).
2. Install leaf springs (WP 0100 00, Installation).
3. Install stabilizer mounting bracket (WP 0092 00, Installation).
4. Install stabilizer bar (WP 0091 00, Installation).
5. Install tongue assembly (WP 0113 00, Installation).
6. Install subframe (WP 0111 00, Installation).
7. Install electrical cable assembly (WP 0051 00, Installation).

END OF WORK PACKAGE

FRAME RAIL (MTVT) REPLACEMENT 0116 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Goggles, Industrial (Item 8, WP 0178 00)
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Sling, Cargo (Item 27, WP 0178 00)
Socket Set, Impact (Item 28, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Wrench, Impact Electric (Item 42, WP 0178 00)
Wrench, Torque, 0-300 lb-in. (Item 51, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)

Material/Parts
Bolt (4) (Item 49, WP 0181 00)
Bolt (20) (Item 23, WP 0181 00)
Nut, Self-Locking (6) (Item 37, WP 0181 00) (LH Side)
Nut, Self-Locking (3) (Item 37, WP 0181 00) (RH Side)
Nut, Self-Locking (20) (Item 31, WP 0181 00)

Materials/Parts (Cont)
Nut, Self-Locking (4) (Item 35, WP 0181 00)
Antiseize Compound (Item 3, WP 0176 00)

Personnel Required
Two

Equipment Conditions
Electrical cable assembly removed (WP 0051 00).
Subframe removed (WP 0110 00).
Tongue assembly removed (WP 0113 00).
Push-pull/air supply valve removed (WP 0062 00).
V-rod control arms removed (WP 0098 00).
Stabilizer mounting bracket removed (WP 0092 00).
Leaf springs removed (WP 099 00).
` Mechanical stop and resilient mount (WP 0076 00).
Axle bogie shaft removed (WP 0121 00).

REMOVAL

WARNING

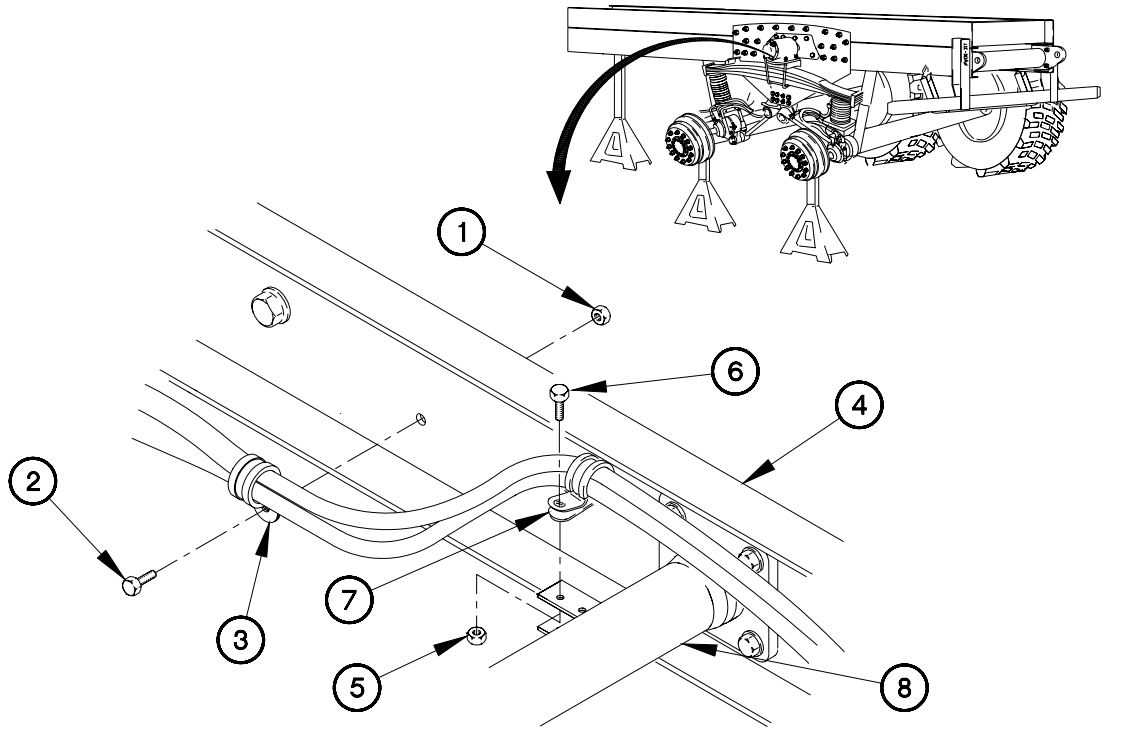
Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

FRAME RAIL (MTVT) REPLACEMENT - Continued 0116 00

REMOVAL - Continued

1. Remove three self-locking nuts (1), screws (2), and clamps (3) from frame rail (4). Discard self-locking nut.

2. Remove self-locking nut (5), screw (6), and bracket (7) from front crossmember (8). Discard self-locking nut.

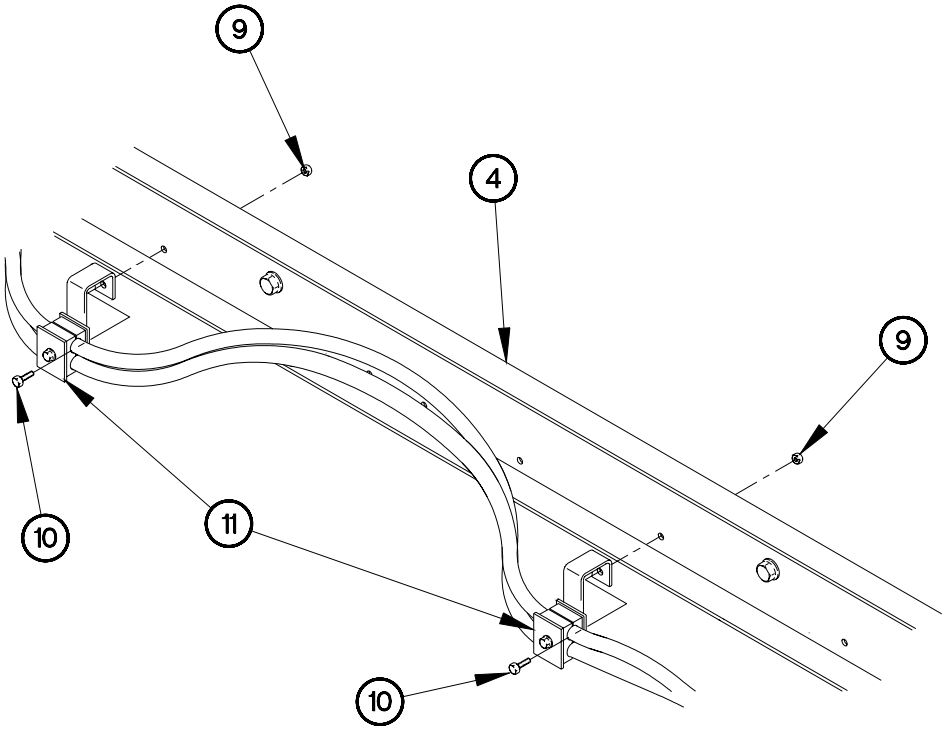


L500E01

FRAME RAIL (MTVT) REPLACEMENT - Continued 0116 00

REMOVAL - Continued

3. Remove two self-locking nuts (9), screws (10), and brackets (11) from frame rail (4). Discard self-locking nuts.



L500E02

FRAME RAIL (MTVT) REPLACEMENT - Continued 0116 00

REMOVAL - Continued

WARNING

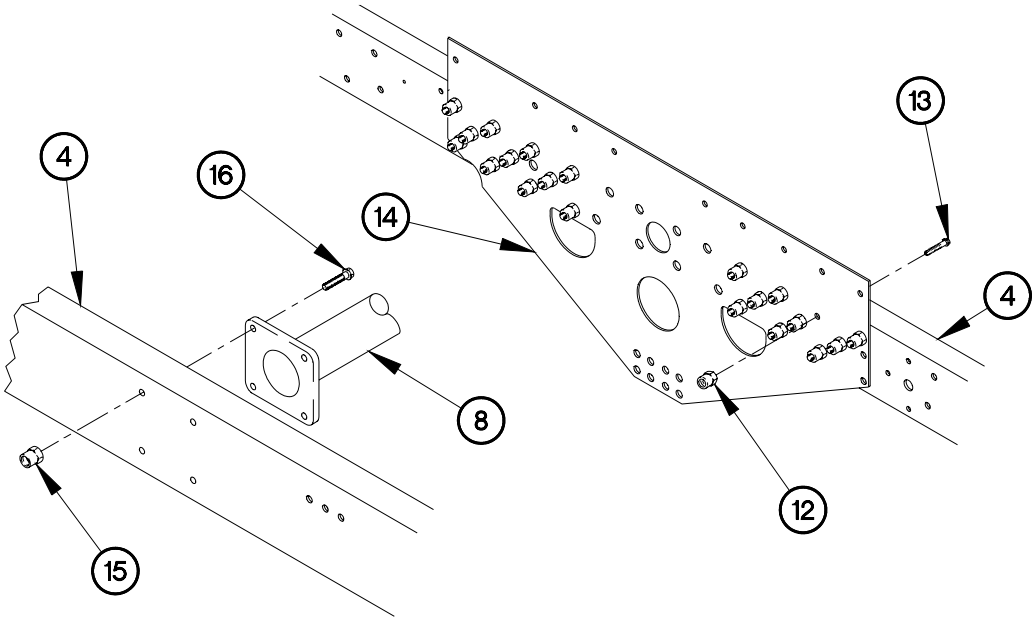
Frame rail weighs approximately 180 lbs (81 kgs). Attach a suitable lifting device prior to removal of collars and bolts. Failure to comply may result in injury to personnel or damage to equipment.

CAUTION

When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

4. Remove 20 collars (12) and bolts (13) and frame plate (14) from frame rail (4). Discard collars and bolts.

5. Remove four collars (15), bolts (16), and frame rail (4) from front crossmember (8). Discard collars and bolts.



L500e03

FRAME RAIL (MTVT) REPLACEMENT - Continued 0116 00

INSTALLATION

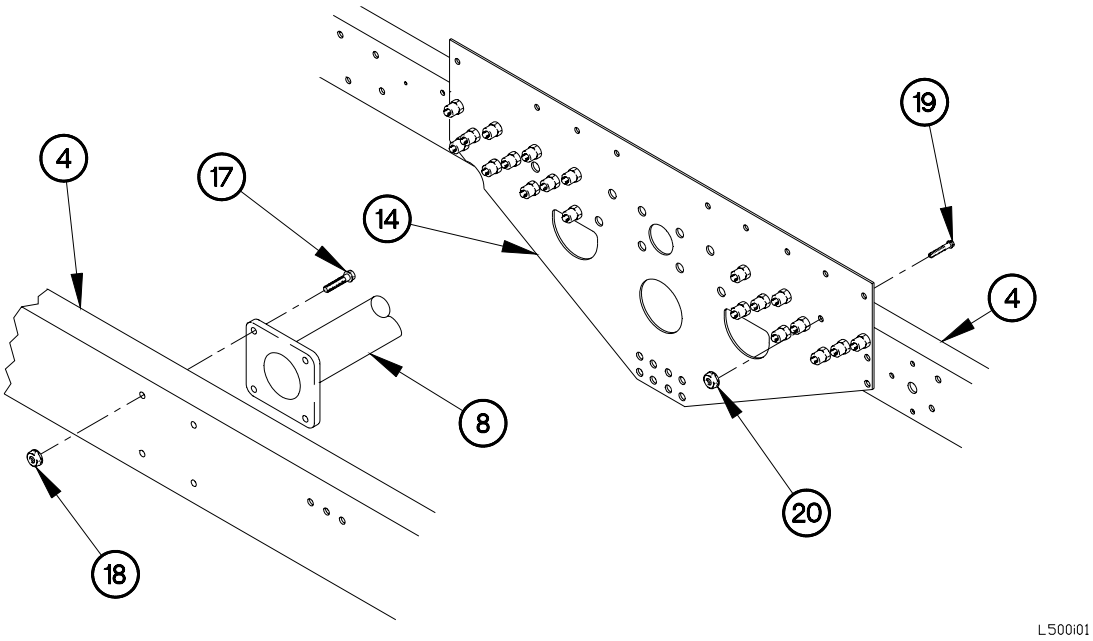
WARNING

Frame rail weighs approximately180 lbs (81 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

NOTE

Steps (1) through (4) require the aid of an assistant.

1. Position frame rail (4) on front crossmember (8) with four screws (17) and self-locking nuts (18).
2. Position frame plate (14) on frame rail (4) with 20 screws (19) and self-locking nuts (20).
3. Tighten 20 self-locking nuts (20) to 77-92 lb-ft (105-125 N•m).
4. Tighten four self-locking nuts (18) to 210-225 lb-ft (285-305 N•m).

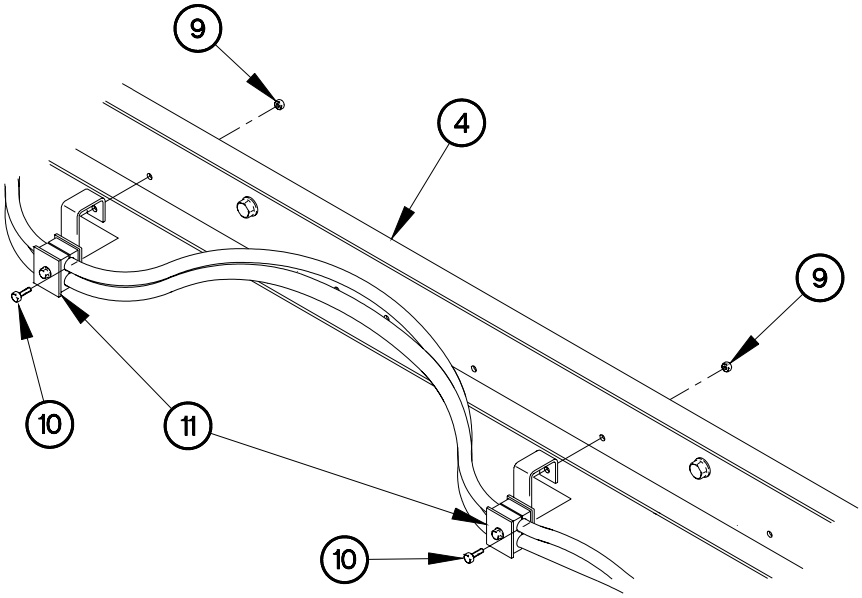


FRAME RAIL (MTVT) REPLACEMENT - Continued 0116 00

INSTALLATION - Continued

5. Position two brackets (11) on frame rail (4) with two screws (10) and self-locking nut (9).

6. Tighten two self-locking nuts (9) to 156-192 lb-in. (17-21 N•m).



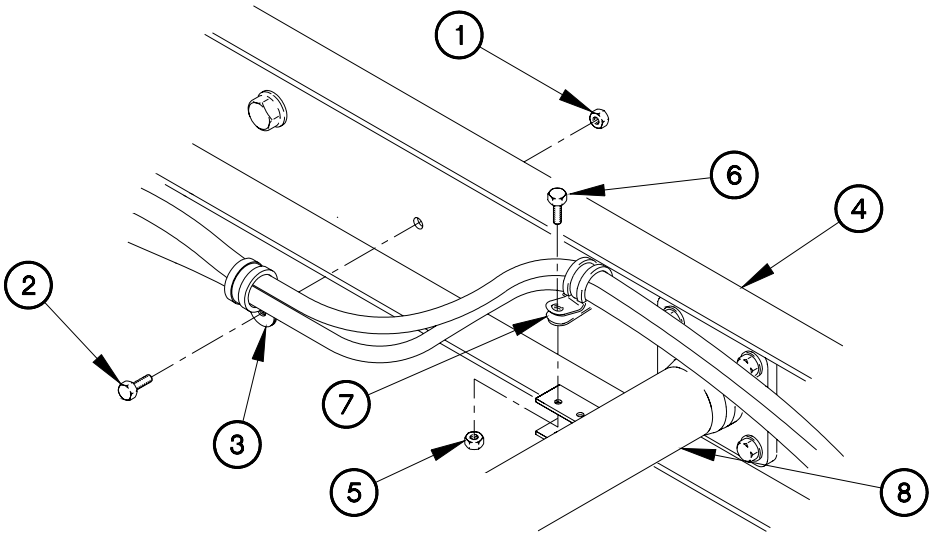
I500102

FRAME RAIL (MTVT) REPLACEMENT - Continued 0116 00

INSTALLATION - Continued

7. Position two clamps (7 and 3) on frame rail (4) with two screws (2 and 6) and self-locking nuts (1 and 5).

8. Tighten two self-locking nuts (1 and 5) to 156-192 lb-in. (17-21 N•m).



L500I03

OPERATIONAL CHECK

1. Install axle bogie shaft (WP 0121 00, Assembly).
2. Install mechanical stop and resilient mount (WP 0076 00, Resilient Mount Installation, Mechanical Stop Installation).
3. Install leaf springs (WP 0099 00, Installation).
4. Install stabilizer mounting bracket (WP 0092 00, Installation).
5. Install V-rod control arms (WP 0098 00, Installation).
6. Install push-pull/air supply valve (WP 0062 00, Installation).
7. Install tongue assembly (WP 0113 00, Installation).
8. Install sub frame (WP 0110 00, Installation).
9. Install electrical cable assembly (WP 0051 00, Installation).
10. Couple trailer (WP 0009 00, Coupling Trailer).
11. Road test trailer.

END OF WORK PACKAGE

SPRING BRACKETS (LMTVT) REPLACEMENT 0117 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Trestle, Motor Vehicle Maintenance (2) (Item 38, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Jack, Dolly Type, Hydraulic (Item 14, WP 0178 00)

Materials/Parts
Bolt (6) (Item 21, WP 0181 00)
Nut, Self-Locking (6) (Item 35, WP 0181 00)
Grease, Automotive and Artillery (GAA) (Item 11, WP 0176 00)

Personnel Required
Two

Equipment Conditions
Tire removed (from side worked) (WP 0045 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

SPRING BRACKETS (LMTVT) REPLACEMENT - Continued 0117 00

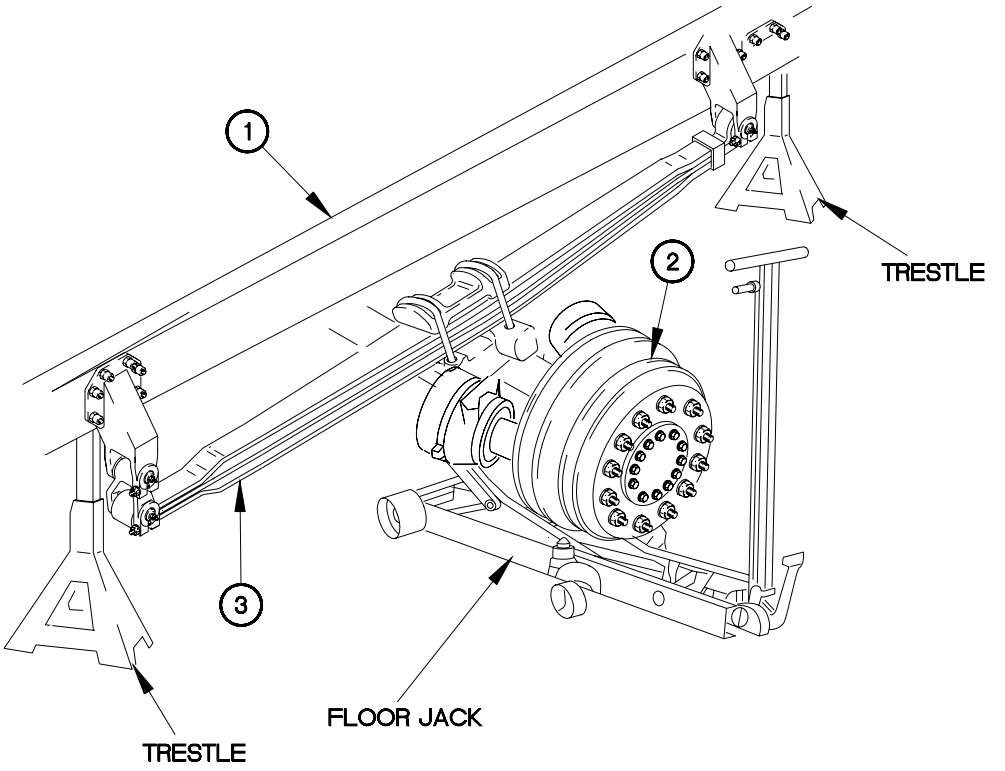
REMOVAL

NOTE

Left and right side spring brackets are removed the same way. Right side shown.

Steps (1) through (6) require the aid of an assistant.

1. Place two trestles under frame rail (1).
2. Position floor jack under axle (2) and lift enough to take weight off leaf spring (3).



SPRING BRACKETS (LMTVT) REPLACEMENT - Continued 0117 00

REMOVAL - Continued

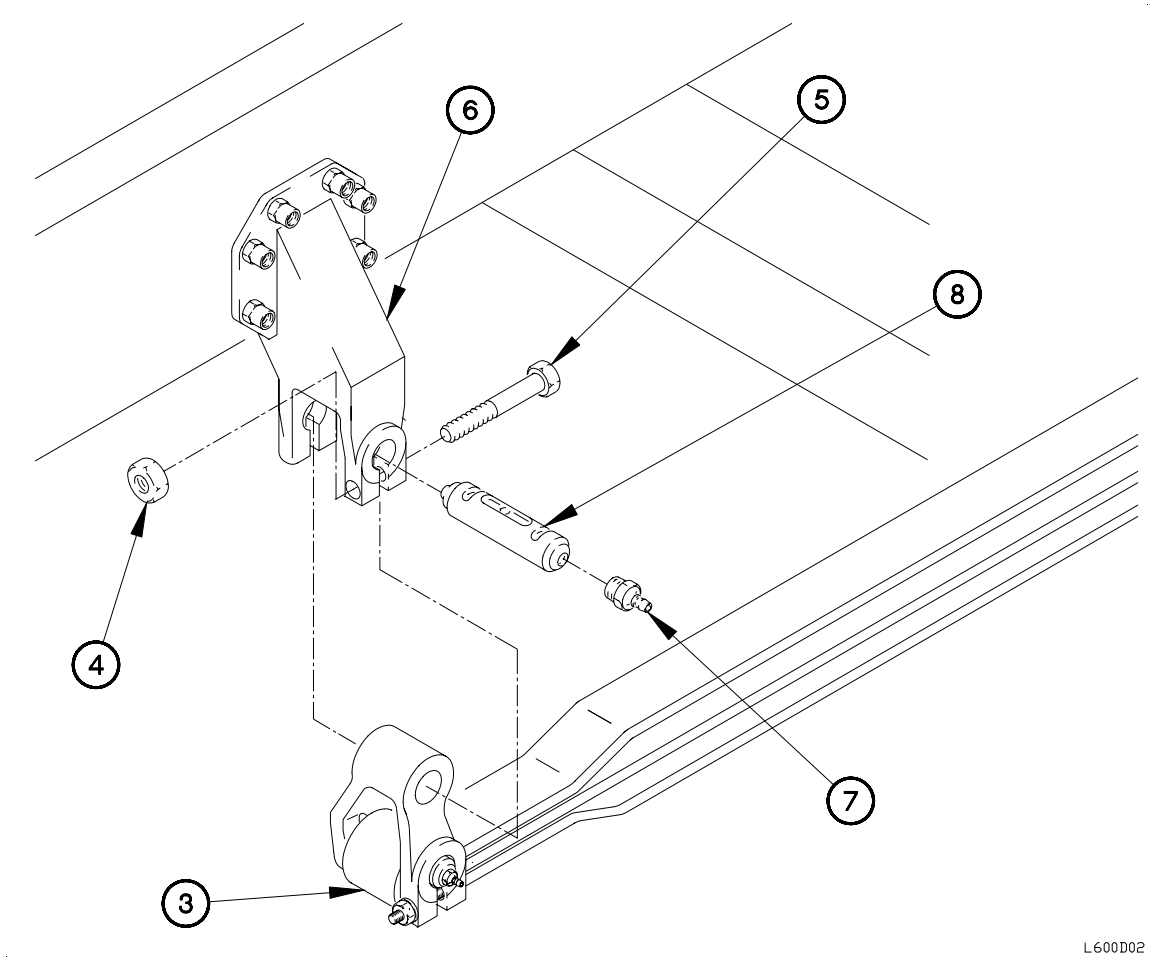
3. Remove nut (4) and screw (5) from spring bracket (6)

4. Remove lubrication fitting (7) from spring pin (8).

CAUTION

Use care when removing spring pin to prevent damage to lubrication fitting hole threads. Failure to comply may result in damage to equipment.

5. Remove spring pin (8) and leaf spring (3) from spring bracket (6).



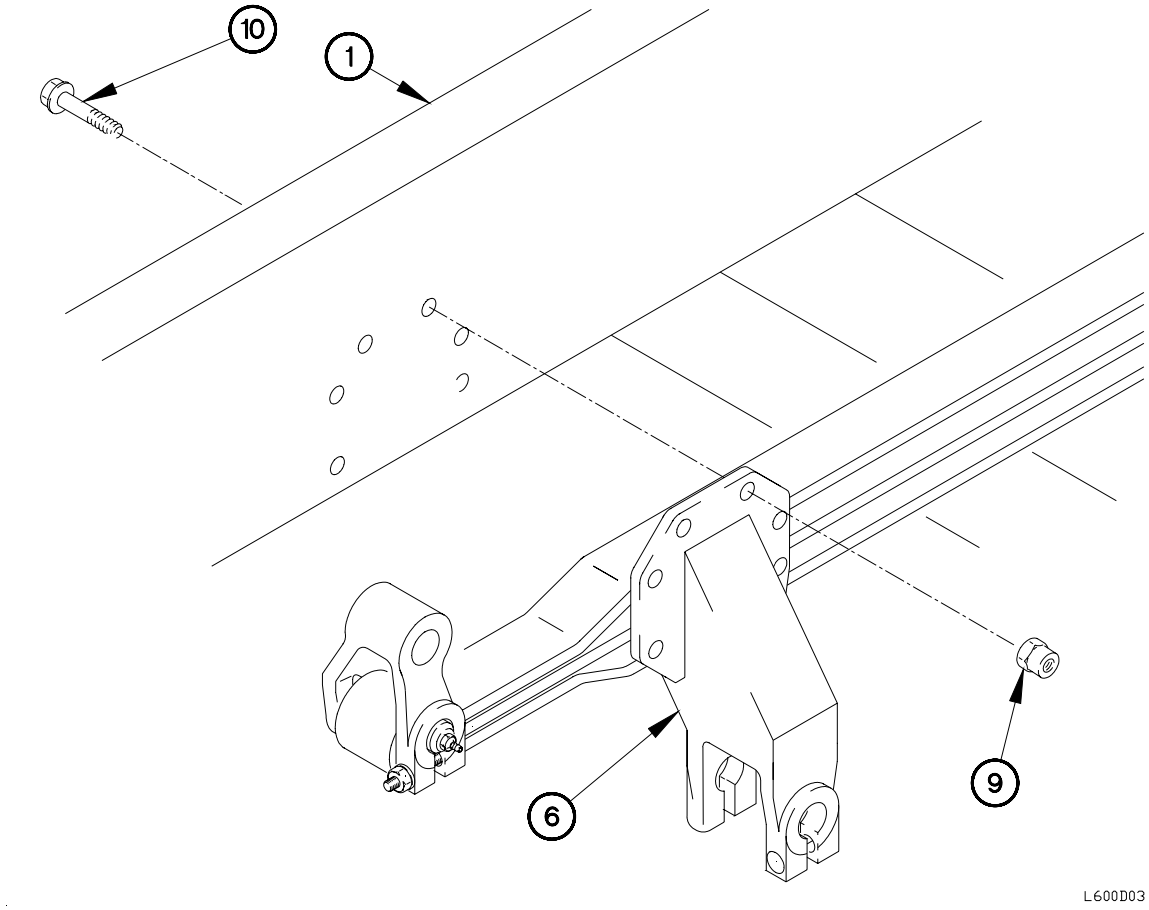
SPRING BRACKETS (LMTVT) REPLACEMENT - Continued 0117 00

REMOVAL - Continued

CAUTION

When removing bolts, continuous removal of collar is mandatory. Failure to comply will result in seizing of collar to bolt.

6. Remove six collars (9), bolts (10), and spring bracket (6) from frame rail (1). Discard collars and bolts.



SPRING BRACKETS (LMTVT) REPLACEMENT - Continued 0117 00

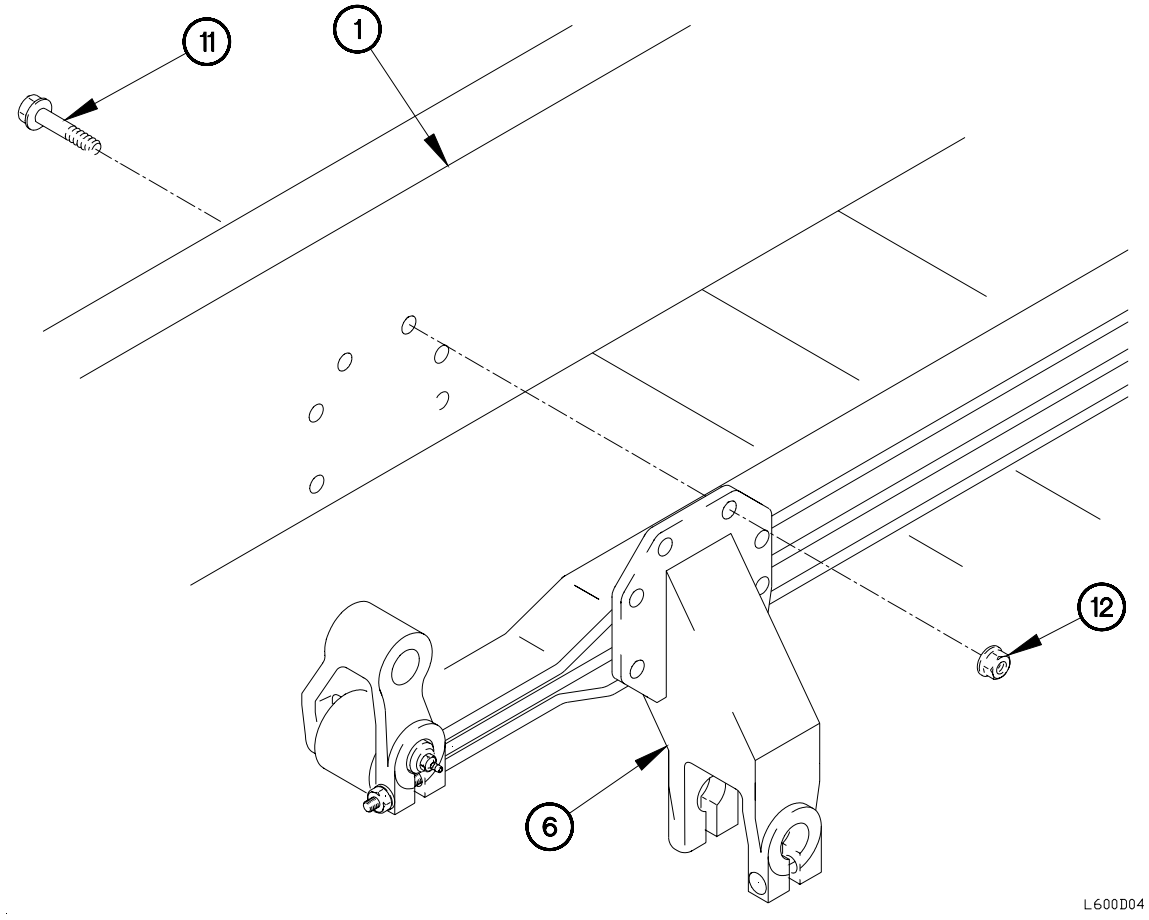
INSTALLATION

NOTE

Left and right side spring brackets are installed the same way. Right side shown.

Steps (1) through (8) require the aid of an assistant.

1. Position spring bracket (6) on frame rail (1) with six bolts (11) and self-locking nuts (12).
2. Tighten six self-locking nuts (12) to 210-225 lb-ft (285-305 N•m).



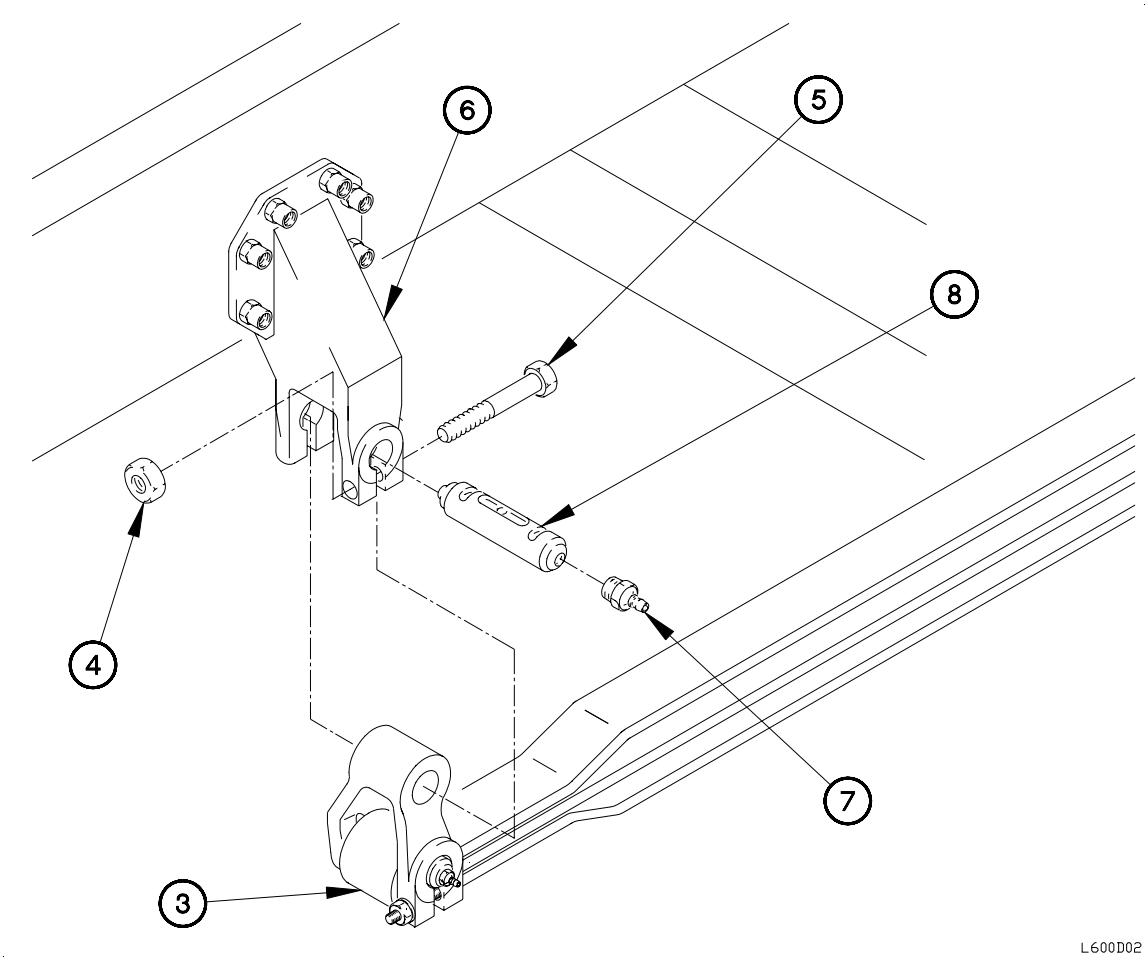
SPRING BRACKETS (LMTVT) REPLACEMENT - Continued 0117 00

INSTALLATION - Continued

NOTE

Lubricate spring pin before installation.

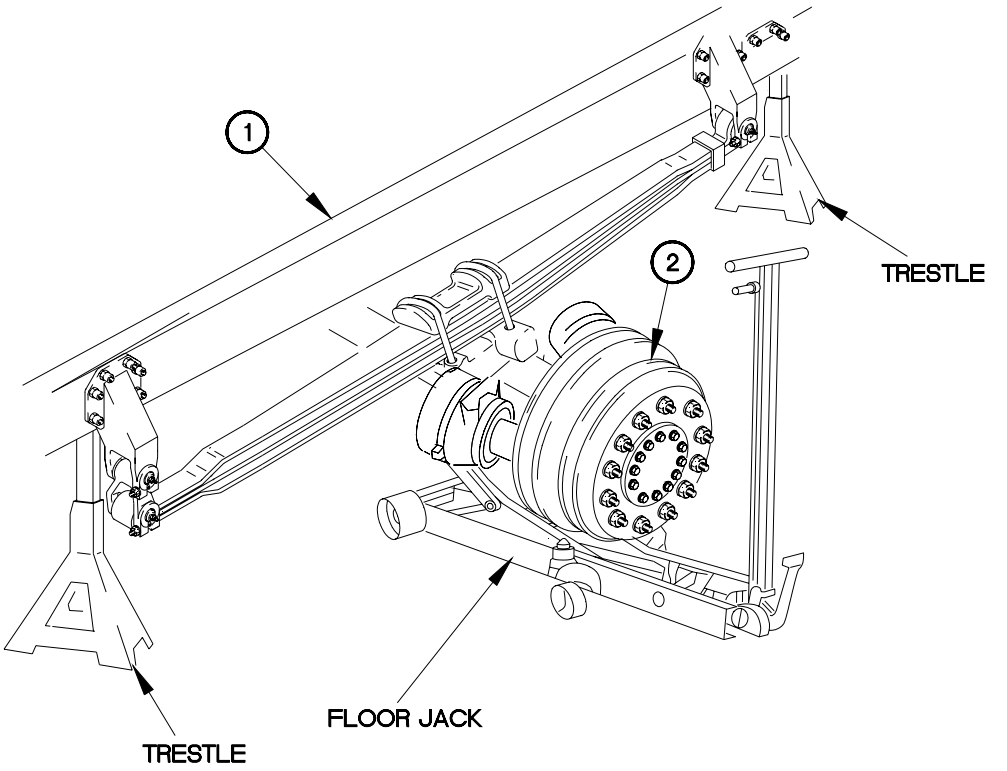
3. Install leaf spring (3) in spring bracket (6) with spring pin (8).
4. Install lubrication fitting (7) in spring pin (8).
5. Position screw (5) and nut (4) in spring bracket (6).
6. Tighten nut (4) to 76-94 lb-ft (103-127 N•m).



SPRING BRACKETS (LMTVT) REPLACEMENT - Continued 0117 00

INSTALLATION - Continued

7. Remove floor jack from axle (2).
8. Remove trestles from frame rail (1).



OPERATIONAL CHECK

Install tire (WP 0045 00, Tire Installation).

END OF WORK PACKAGE

LEAF SPRING SHACKLE AND PIN (LMTVT) REPLACEMENT 0118 00

THIS WORK PACKAGE COVERS:
Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level
Field

Tools and Special Tools
Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-175 lb-ft (Item 49, WP 0178 00)
Jack, Dolly Type, Hydraulic (Item 14, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)

Tools and Special Tools (Cont)
Trestle, Motor Vehicle Maintenance (2) (Item 36, WP 0178 00)

Materials/Parts
Grease, Automotive and Artillery (GAA) (Item 11, WP 0176 00)

Personnel Required
Two

Equipment Conditions
Tire removed (from side being worked) (WP 0045 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

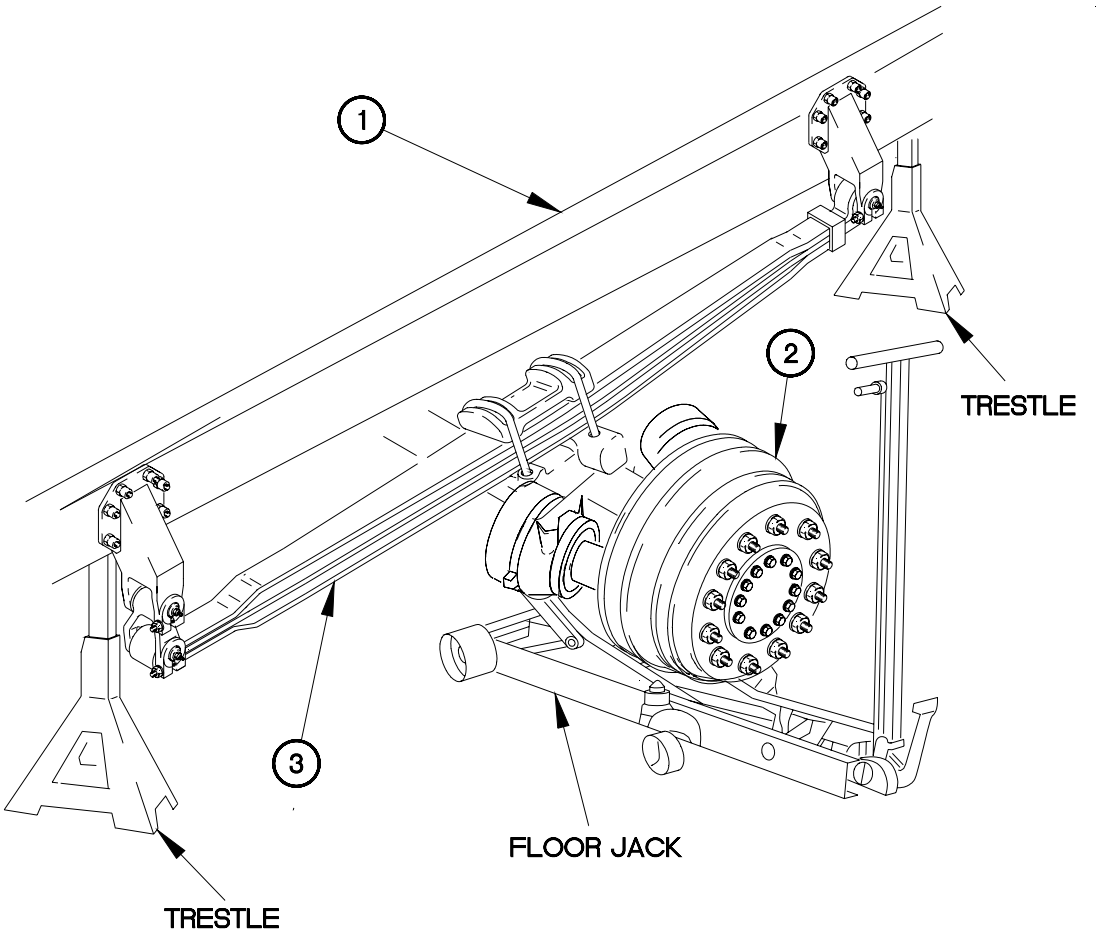
LEAF SPRING SHACKLE AND PIN (LMTVT) REPLACEMENT - Continued 0118 00

REMOVAL

NOTE

Left and right side shackles and pins are removed the same way. Right side shown.

1. Place two trestles under frame rail (1).
2. Position floor jack under axle (2) and lift enough to take weight off leaf spring (3).



LEAF SPRING SHACKLE AND PIN (LMTVT) REPLACEMENT - Continued 0118 00

REMOVAL - Continued

3. Remove nut (4) and screw (5) from front bracket (6).

4. Remove lubrication fitting (7) from spring pin (8).

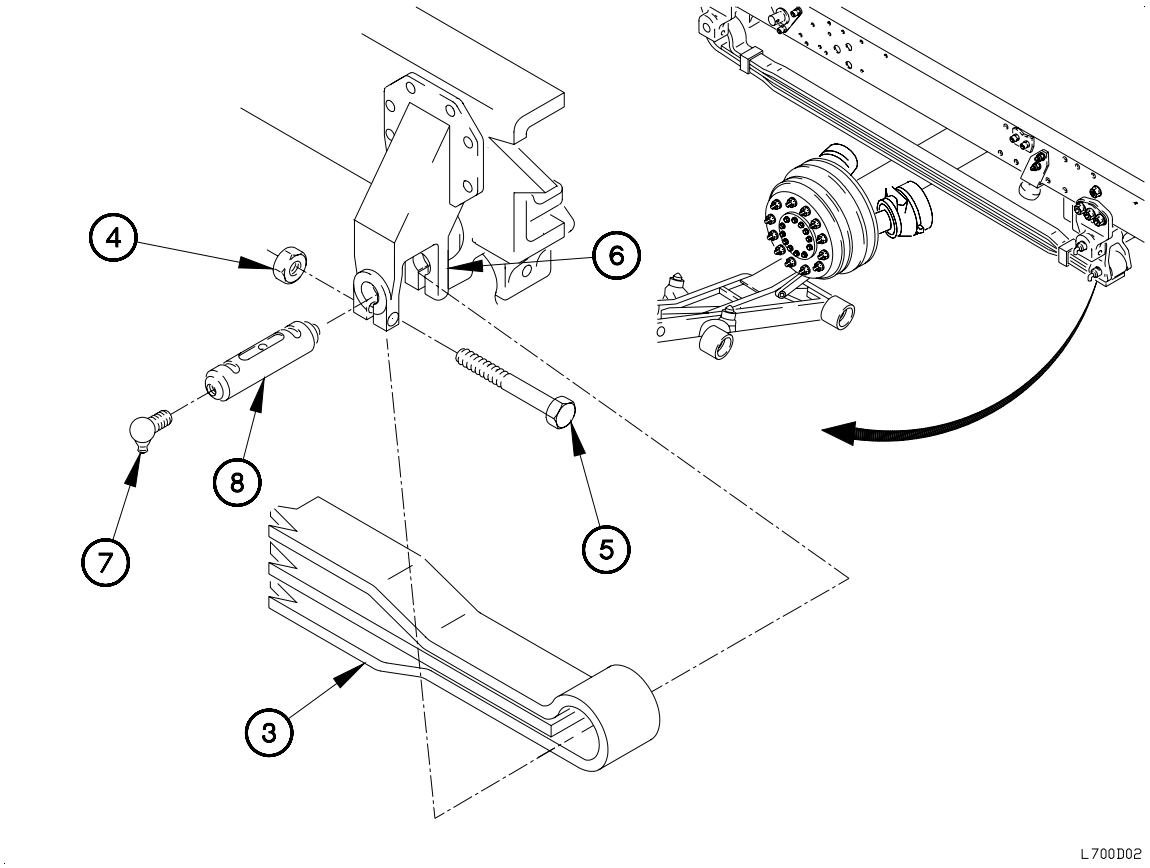
CAUTION

Use care when removing spring pin to prevent damage to lubrication fitting hole threads. Failure to comply may result in damage to equipment.

NOTE

Step (5) requires the aid of an assistant.

5. Remove spring pin (8) and leaf spring (3) from front bracket (6).



LEAF SPRING SHACKLE AND PIN (LMTVT) REPLACEMENT - Continued 0118 00

REMOVAL - Continued

6. Remove nut (9) and screw (10) from rear bracket shackle (11).

7. Remove lubrication fitting (12) from spring pin (13).

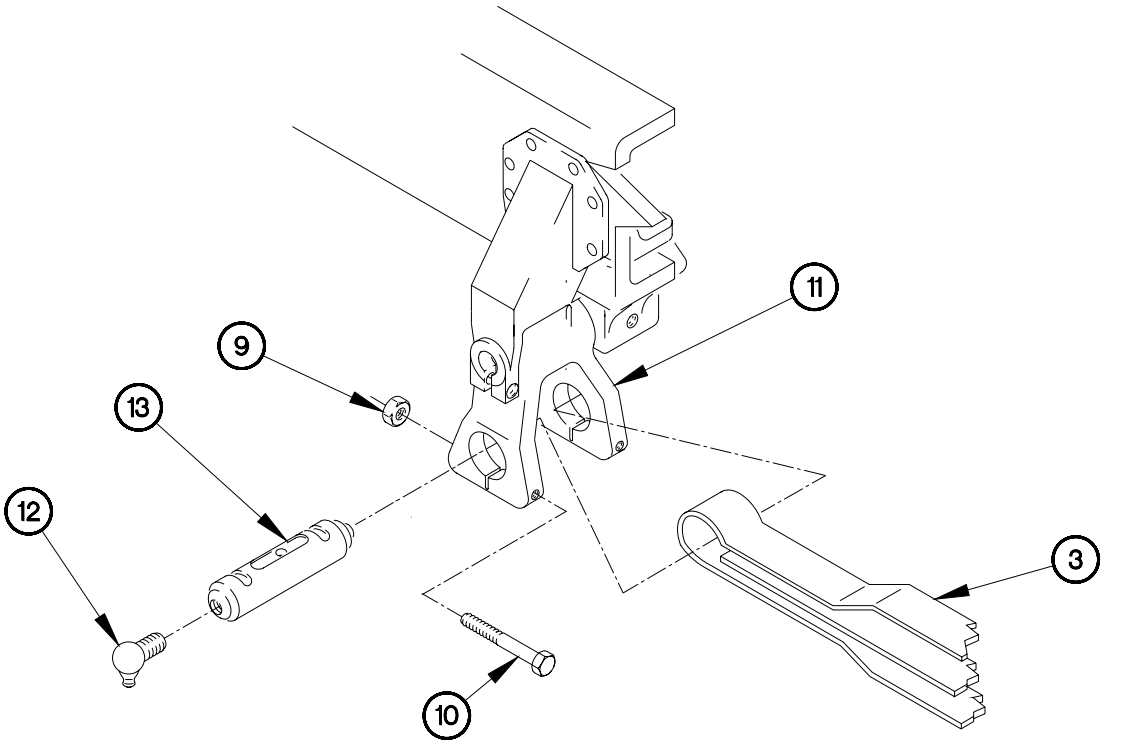
CAUTION

Use care when removing spring pin to prevent damage to lubrication fitting hole threads. Failure to comply may result in damage to equipment.

NOTE

Step (8) requires the aid of an assistant.

8. Remove spring pin (13) and leaf spring (3) from rear bracket shackle (11).



LEAF SPRING SHACKLE AND PIN (LMTVT) REPLACEMENT - Continued 0118 00

REMOVAL - Continued

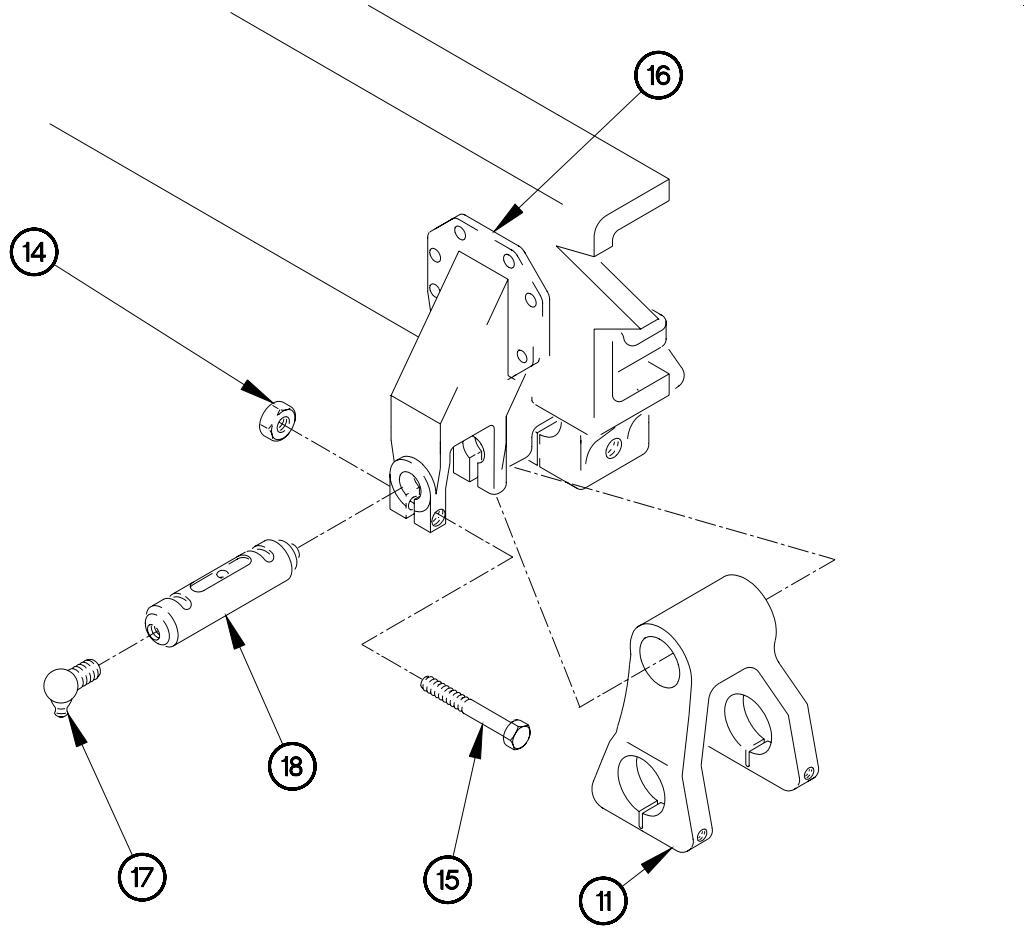
9. Remove nut (14) and screw (15) from rear bracket (16).

10. Remove lubrication fitting (17) from spring pin (18).

CAUTION

Use care when removing spring pin to prevent damage to lubrication fitting hole threads. Failure to comply may result in damage to equipment.

11. Remove spring pin (18) and shackle (11) from rear bracket (16).



LEAF SPRING SHACKLE AND PIN (LMTVT) REPLACEMENT - Continued 0118 00

INSTALLATION

CAUTION

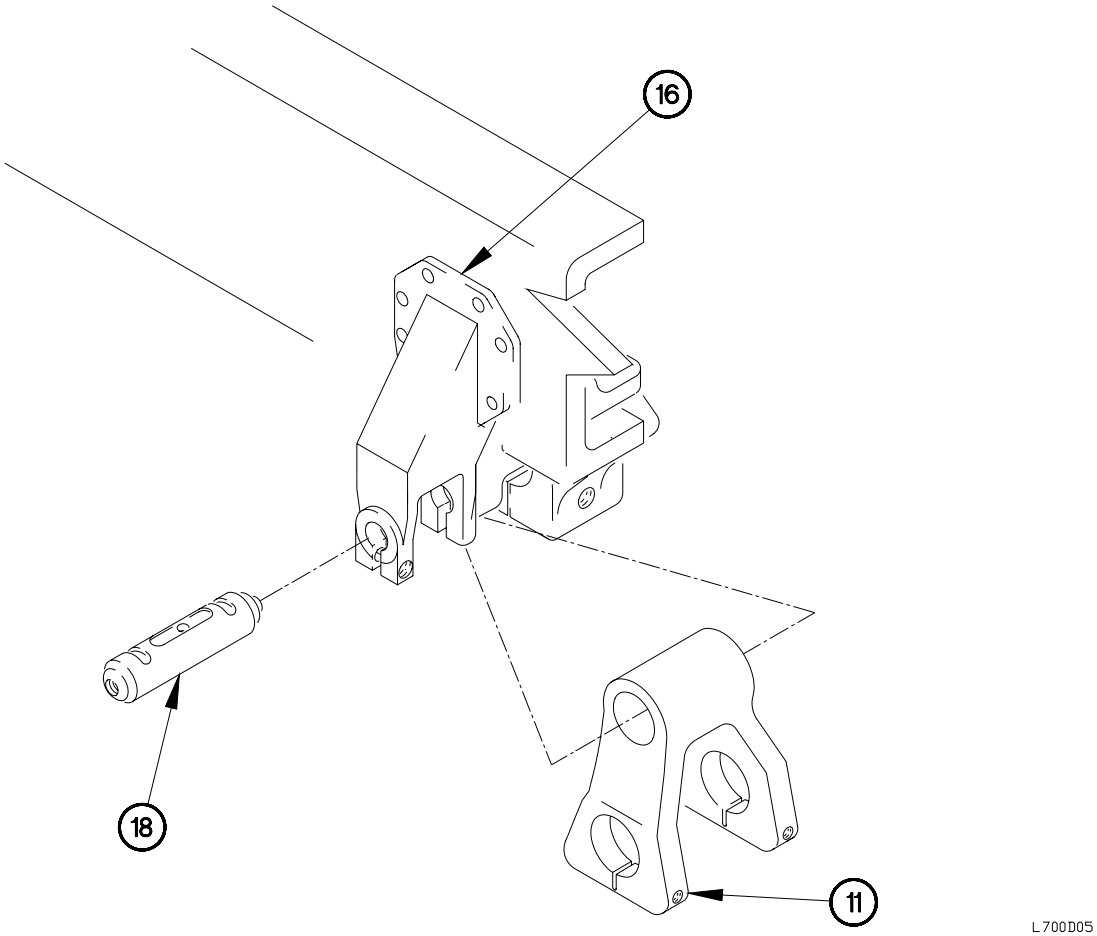
Ensure spring pin is positioned so groove faces slot in rear shackle. Failure to comply may result in damage to equipment.

Use care when installing spring pin to prevent damage to lubrication fitting hole threads. Failure to comply may result in damage to equipment.

NOTE

Lubricate spring pin and spacers prior to installation.

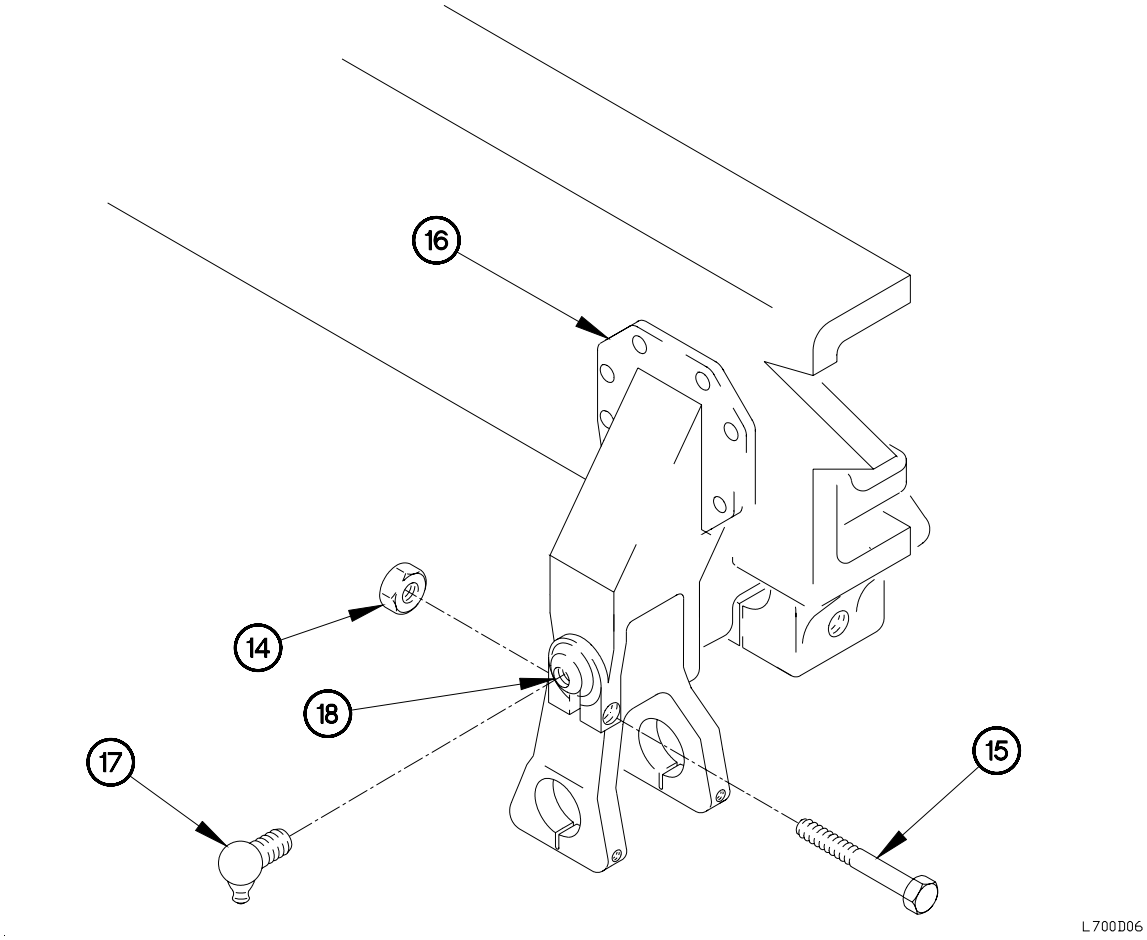
1. Install rear bracket shackle (11) in rear bracket (16) with spring pin (18).



LEAF SPRING SHACKLE AND PIN (LMTVT) REPLACEMENT - Continued 0118 00

INSTALLATION - Continued

2. Install lubrication fitting (17) in spring pin (18).
3. Position screw (15) and nut (14) in rear bracket (16).
4. Tighten nut (14) to 76-94 lb-ft (103-127 N•m).



LEAF SPRING SHACKLE AND PIN (LMTVT) REPLACEMENT - Continued 0118 00

INSTALLATION - Continued

CAUTION

Ensure spring pin is positioned so groove faces slot in rear bracket. Failure to comply may result in damage to equipment.

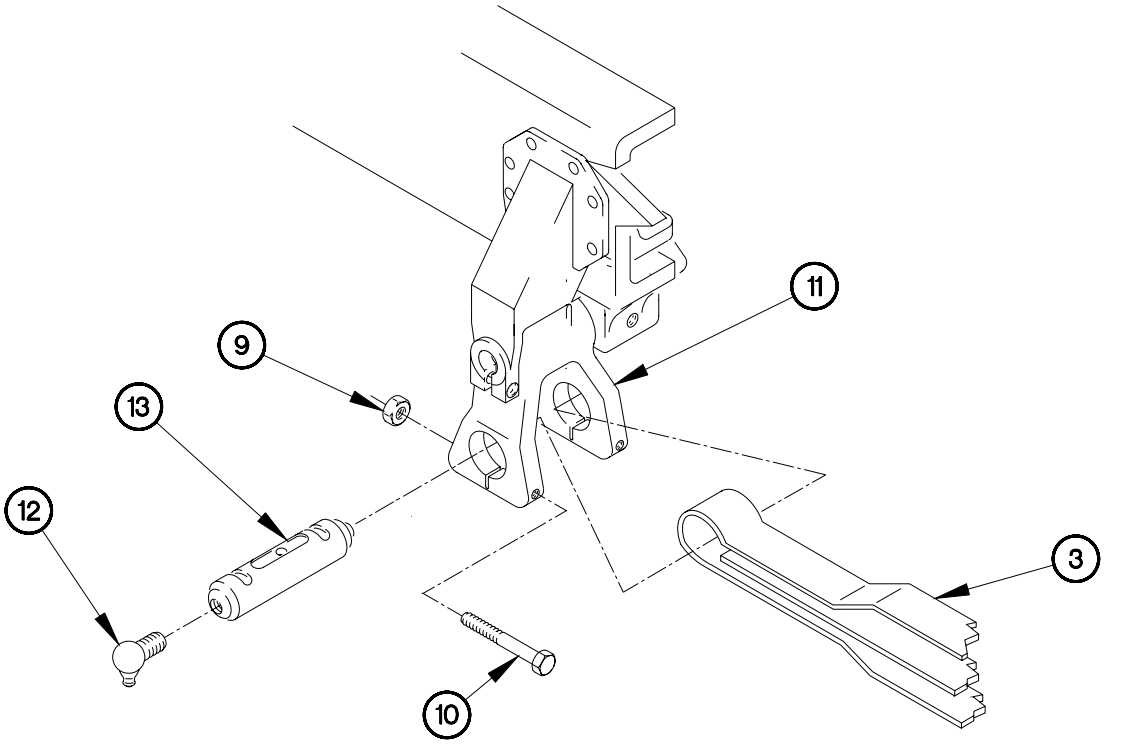
Use care when installing spring pin to prevent damage to lubrication fitting hole threads. Failure to comply may result in damage to equipment.

NOTE

Step (5) requires the aid of an assistant.

Lubricate spring pin and spacers prior to installation.

5. Install leaf spring (3) on rear bracket shackle (11) with spring pin (13).
6. Install lubrication fitting (12) in spring pin (13).
7. Position screw (10) and nut (9) in rear bracket shackle (11).
8. Tighten nut (9) to 76-94 lb-ft (103-127 N•m).



L700D03

LEAF SPRING SHACKLE AND PIN (LMTVT) REPLACEMENT - Continued 0118 00

INSTALLATION - Continued

CAUTION

Ensure spring pin is positioned so groove faces slot in front bracket. Failure to comply may result in damage to equipment.

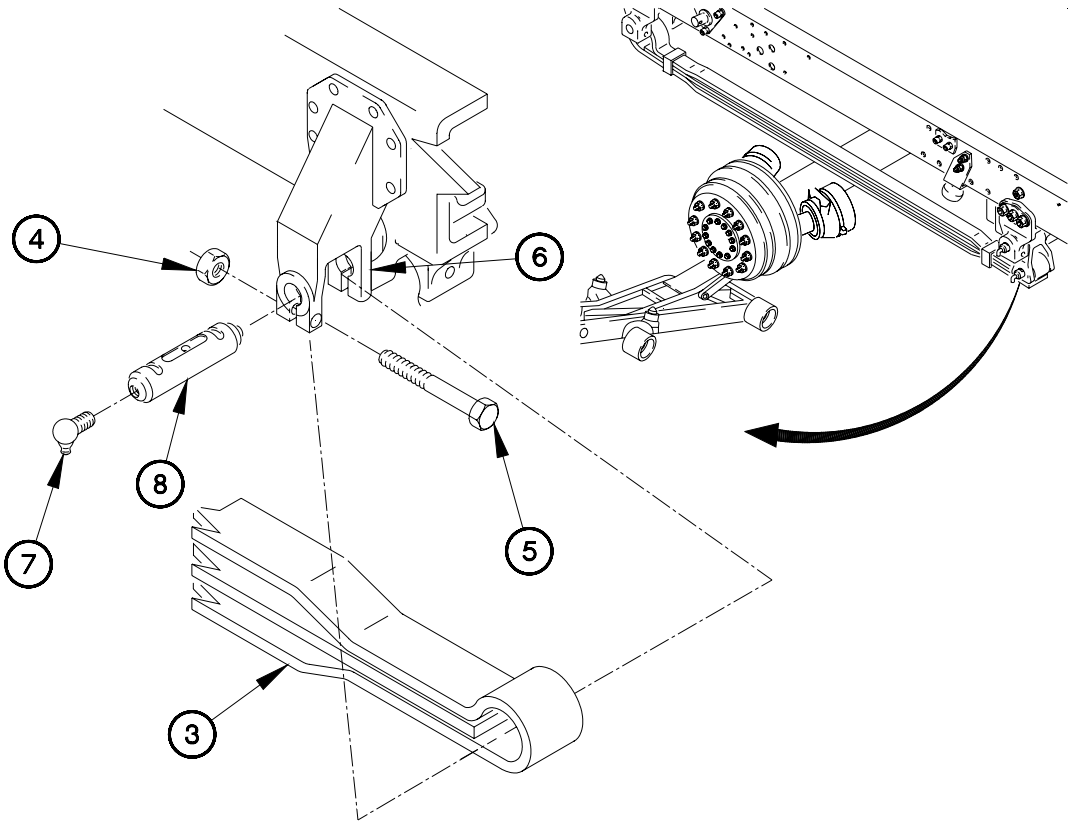
Use care when installing lubrication fitting to prevent damage to spring pin hole threads. Failure to comply may result in damage to equipment.

NOTE

Step (9) requires the aid of an assistant.

Lubricate spring pin and spacers prior to installation.

9. Install leaf spring (3) on front bracket (6) with spring pin (8).
10. Install lubrication fitting (7) in spring pin (8).
11. Position screw (5) and nut (4) in front bracket (6).
12. Tighten nut (4) to 76-94 lb-ft (103-127 N•m).



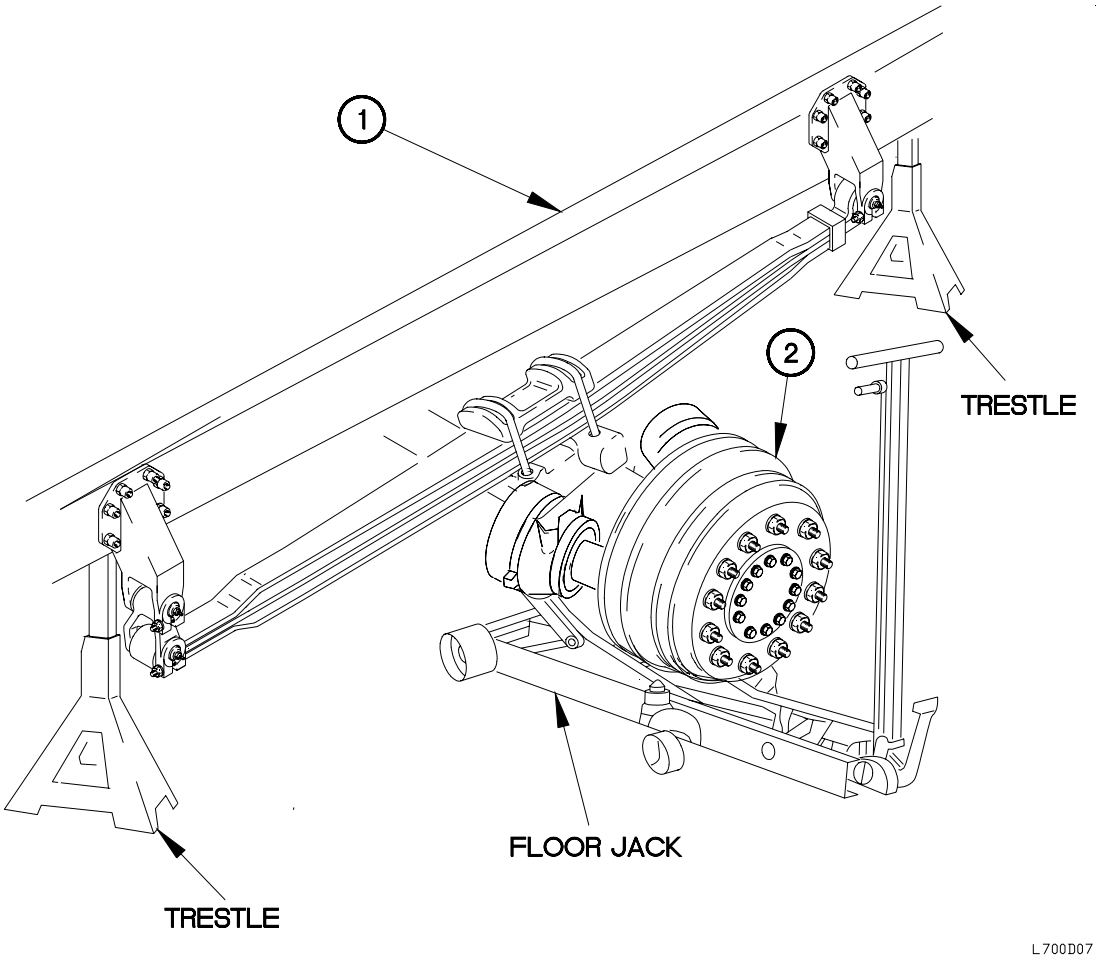
L700D02

LEAF SPRING SHACKLE AND PIN (LMTVT) REPLACEMENT - Continued 0118 00

INSTALLATION - Continued

13. Remove two trestles from under frame rail (1).

14. Remove floor jack from under axle (2).



OPERATIONAL CHECK

1. Install wheel (WP 0045 00, Tire Installation).

END OF WORK PACKAGE

CENTER CROSSMEMBER REPLACEMENT 0119 00

THIS WORK PACKAGE COVERS:

Removal, MTVT; Installation, MTVT; Operational Check, MTVT; Removal, LMTVT; Installation, LMTVT; Operational Check, LMTVT

INITIAL SETUP:

Maintenance Level

Field

Tools and Special Tools

Tool Kit, Genl Mech (Item 37, WP 0178 00)
Socket Set, Impact (Item 28, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Wrench Set, Socket (Item 47, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench, Impact, Electric (Item 42, WP 0178 00)
Wrench, Torque, 50-250 lb-ft (Item 50, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Trestle, Motor Vehicle Maintenance (2) (Item 38, WP 0178 00)

Materials/Parts

Bolt (8) (LMTVT) (Item 26, WP 0181 00)
Bolt (8) (LMTVT) (Item 29, WP 0181 00)
Bolt (12) (LMTVT) (Item 21, WP 0181 00)

Materials/Parts (Cont)

Nut, Self-Locking (24) (LMTVT) (Item 35, WP 0181 00)
Ties, Cable, Plastic (Item 37, WP 0176 00)

Personnel Required

Two

Equipment Conditions

Frame rail removed (from side being worked) (MTVT) (WP 0116 00).
Axle bogie shaft removed (opposite side being worked) (MTVT) (WP 0122 00).
ABS ECU valve removed (MTVT) (WP 0065 00/WP0066 00).
ABS relay valve removed (MTVT) (WP 0067 00).
ABS control assembly bracket removed (MTVT) (WP 0094 00).
Leaf spring removed (from side being worked) (LMTVT) (WP 0100 00).
Cargo bed removed (WP 0103 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

CENTER CROSSMEMBER REPLACEMENT - Continued 0119 00

REMOVAL, MTVT

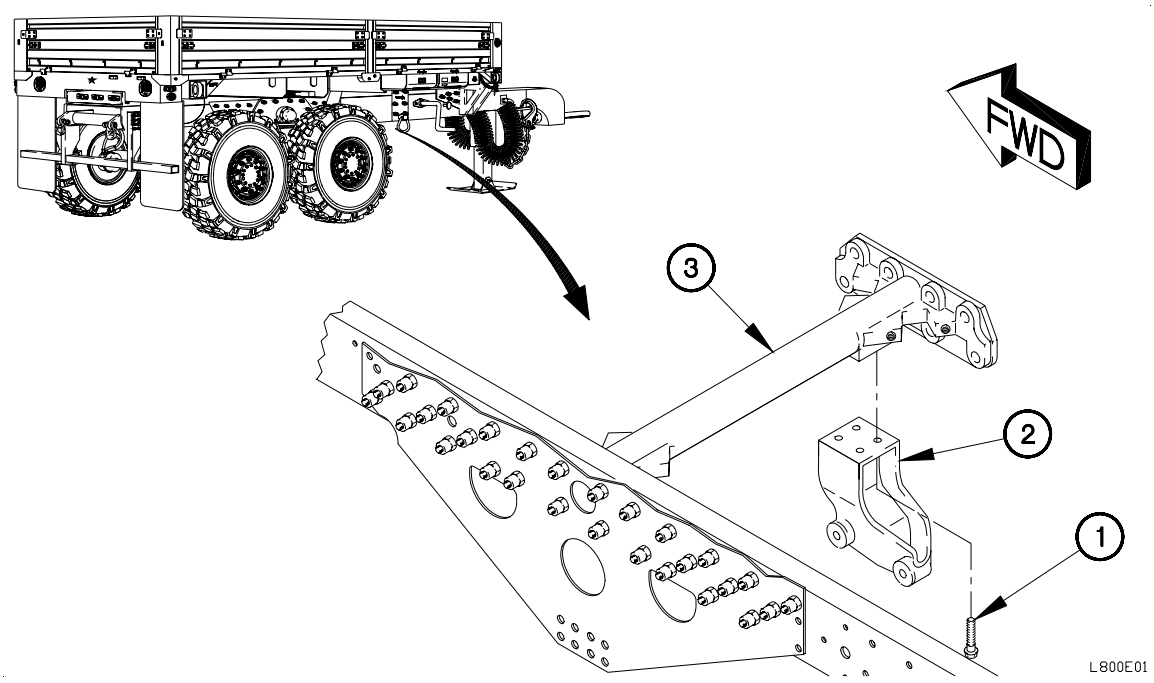
NOTE

Left and right sides of center crossmember are removed the same way. Right side shown.

Remove plastic cable ties as required.

Steps (1) through (3) require the aid of an assistant.

1. Remove four bolts (1) from support link (2).
2. Perform step (1) on left side of center crossmember (3).
3. Remove center crossmember (3) from trailer.



CENTER CROSSMEMBER REPLACEMENT - Continued 0119 00

INSTALLATION, MTVT

CAUTION

Do not overtighten plastic cable ties on a cable. Overtightening can damage cable. Failure to comply may result in damage to equipment.

NOTE

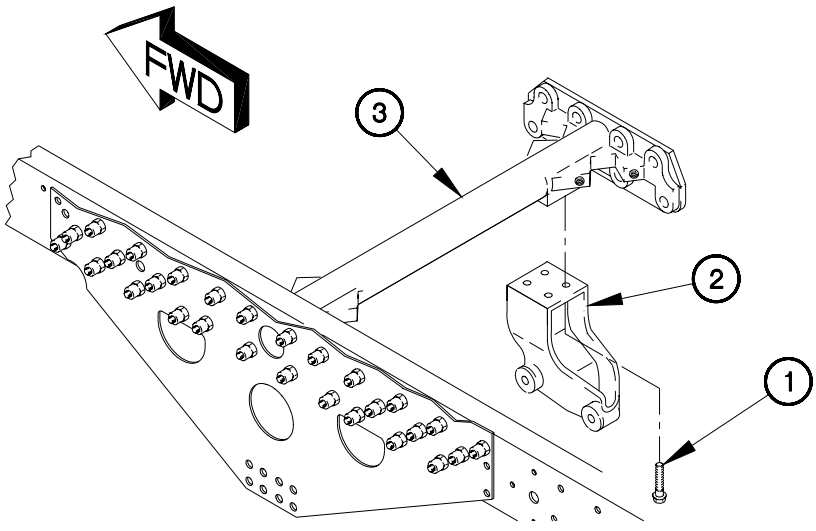
Left and right sides of center crossmember are installed the same way. Right side shown.

Bundle any excess cable in a loop, and secure excess cable on center crossmember with plastic cable ties. Excess cable should not exceed two feet (61 cm).

Install plastic cable ties as required.

Steps (1) through (3) require the aid of an assistant.

1. Position center crossmember (3) on support link (2) with four bolts (1).
2. Tighten four bolts (1) to 135-165 lb-ft (183-223 N•m).
3. Perform steps (1) and (2) on left side of center crossmember (3).



L800E02

OPERATIONAL CHECK, MTVT

1. Install ABS control assembly bracket (WP 0094 00, Installation).
2. Install ABS relay valve (WP 0067 00, Installation).
3. Install ABS ECU valve (WP 0065 00/WP0066 00, Installation).
4. Install axle bogie shaft (opposite side being worked) (WP 0122 00, Installation).
5. Install frame rail (side being worked) WP 0116 00, Installation).
6. Install cargo bed (WP 0103 00, Installation).
7. Couple trailer (WP 0009 00, Coupling Trailer).
8. Unchock wheels (WP 0008 00, Unchocking Wheels).
9. Operate trailer and check for normal operation (WP 0011 00, Towing Trailer).
10. Uncouple trailer (WP 0012 00, Uncoupling Trailer).
11. Inspect center crossmember for secure installation.

CENTER CROSSMEMBER REPLACEMENT - Continued 0119 00

REMOVAL, LMTVT

CAUTION

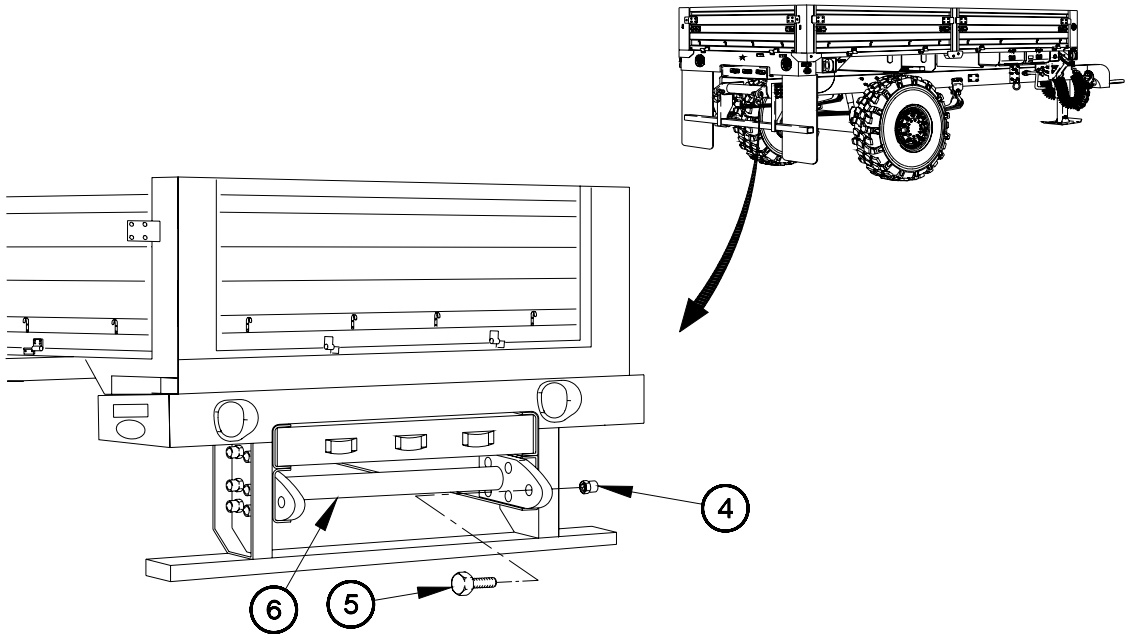
When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

NOTE

Left and right sides of center crossmember are removed the same way. Right side shown.

Step (1) requires the aid of an assistant.

1. Remove four collars (4) and bolts (5) from rear crossmember (6). Discard collars and bolts.
2. Perform step (1) on left side of rear crossmember (6).
3. Remove rear crossmember (6) from trailer.

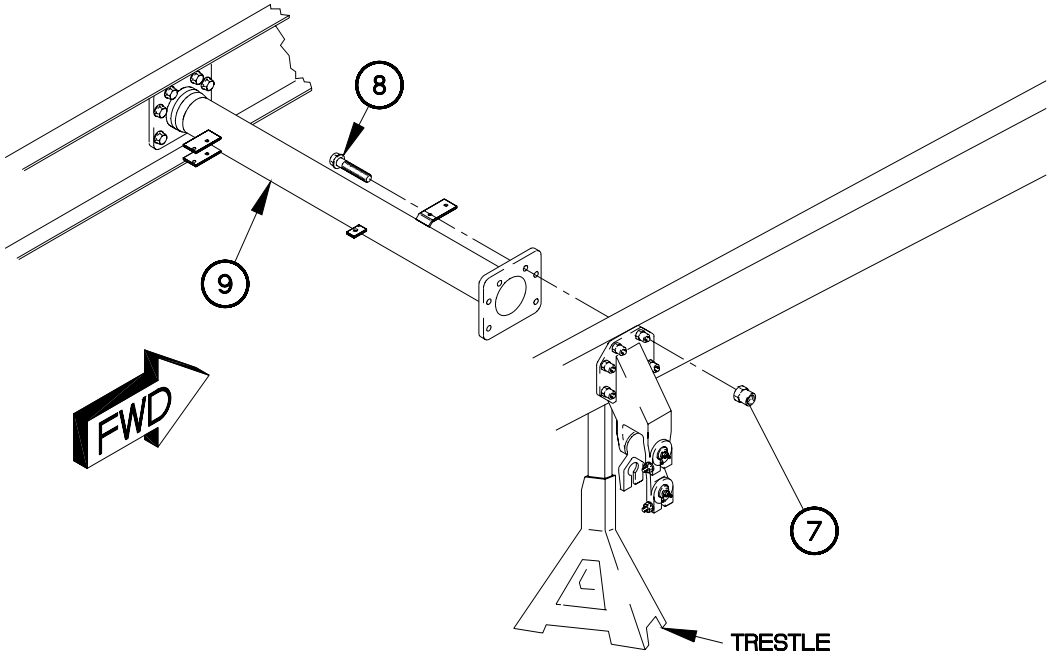


L800D02

CENTER CROSSMEMBER REPLACEMENT - Continued 0119 00

REMOVAL, LMTVT - Continued

4. Remove six collars (7) and bolts (8) from center crossmember (9). Discard collars and bolts.
5. Perform step (4) on left side of center crossmember (9).
6. Remove center crossmember (9) from trailer.



L800D03

CENTER CROSSMEMBER REPLACEMENT - Continued 0119 00

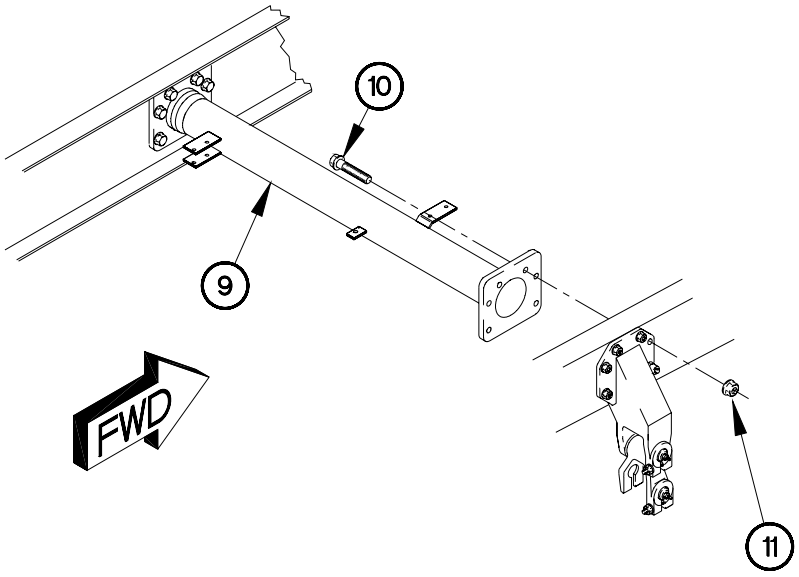
INSTALLATION, LMTVT

NOTE

Left and right sides of center crossmember are installed the same way. Right side shown.

Steps (1) through (6) require the aid of an assistant.

1. Position center crossmember (9) on trailer with six bolts (10) and self-locking nuts (11).
2. Tighten six self-locking nuts (11) to 210-225 lb-ft (285-305 N•m).
3. Perform steps (1) and (2) on left side of center crossmember (12).

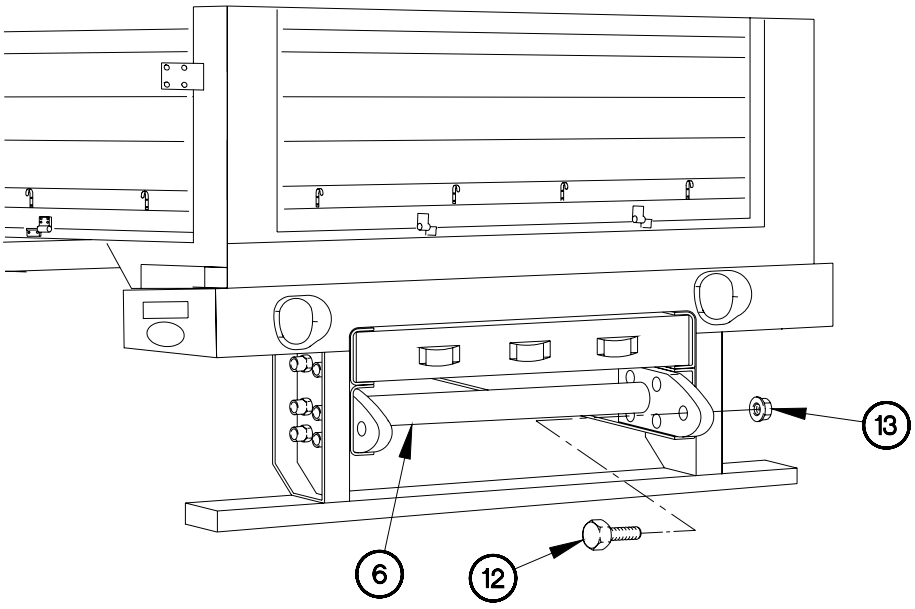


L800D04

CENTER CROSSMEMBER REPLACEMENT - Continued 0119 00

INSTALLATION, LMTVT - Continued

4. Position rear crossmember (6) on trailer with four bolts (12) and self-locking nuts (13).
5. Tighten four self-locking nuts (13) to 210-225 lb-ft (285-305N•m).
6. Perform steps (4) and (5) on left side of rear crossmember (6).



L800D05

OPERATIONAL CHECK, LMTVT

1. Install leaf spring (side being worked) (WP 0100 00, Installation).
2. Install cargo bed (WP 0101 00, Installation).
3. Couple trailer (WP 0009 00, Coupling Trailer).
4. Unchock wheels (WP 0008 00, Unchocking Wheels).
5. Operate trailer and check for normal operation (WP 0011 00, Towing Trailer).
6. Uncouple trailer (WP 0012 00, Uncoupling Trailer).
7. Inspect center crossmember for secure installation.

END OF WORK PACKAGE

FRAME PLATE (MTVT) REPLACEMENT 0120 00

THIS WORK PACKAGE COVERS:

Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level

Field

Tools and Special Tools

Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-300 lb-in (Item 51, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Wrench Set, Socket (Item 47, WP 0178 00)

Materials/Parts

Nut, Self-locking (2) (Item 37, WP 0181 00)
Nut, Self-locking (8) (Item 36, WP 0181 00)
Nut, Self-locking (9) (Item 35, WP 0181 00)
Bolt (9) (Item 25, WP 0181 00)
Nut, Self-locking (20) (Item 31, WP 018100)
Bolt (20) (Item 23, WP 0181 00)

Personnel Required

Two

Equipment Conditions

Resilient mount and mechanical stops removed (WP 0076 00).
Axle bogie shaft removed (WP 0122 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

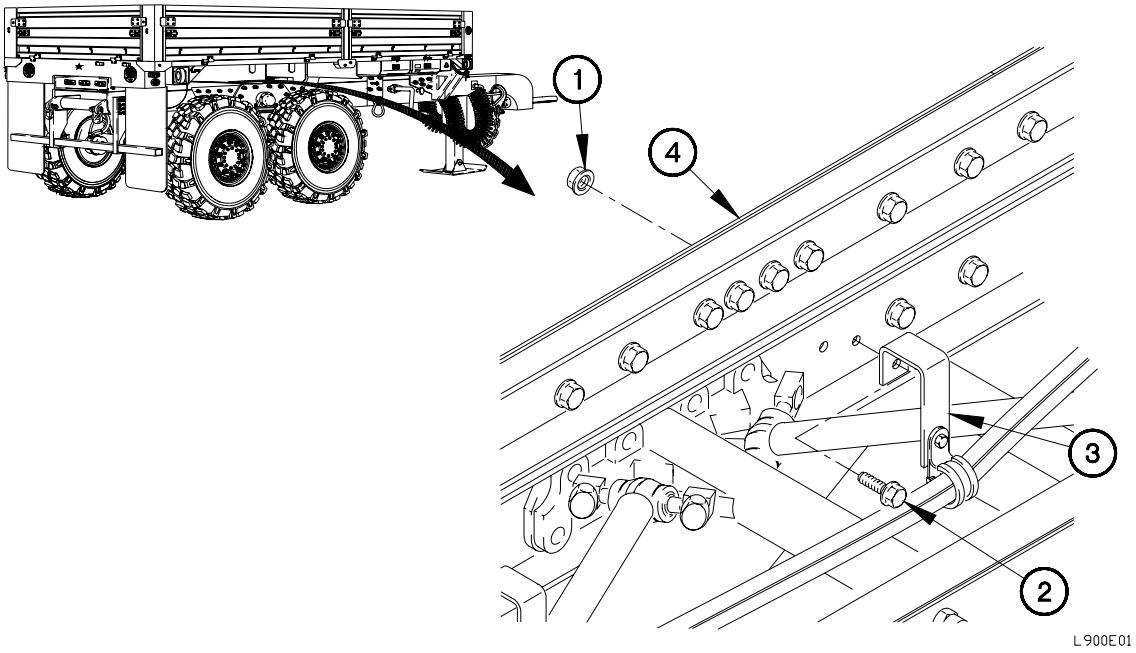
NOTE

Left and right side frame plates are removed the same way. Right side shown.

FRAME PLATE (MTVT) REPLACEMENT - Continued 0120 00

REMOVAL

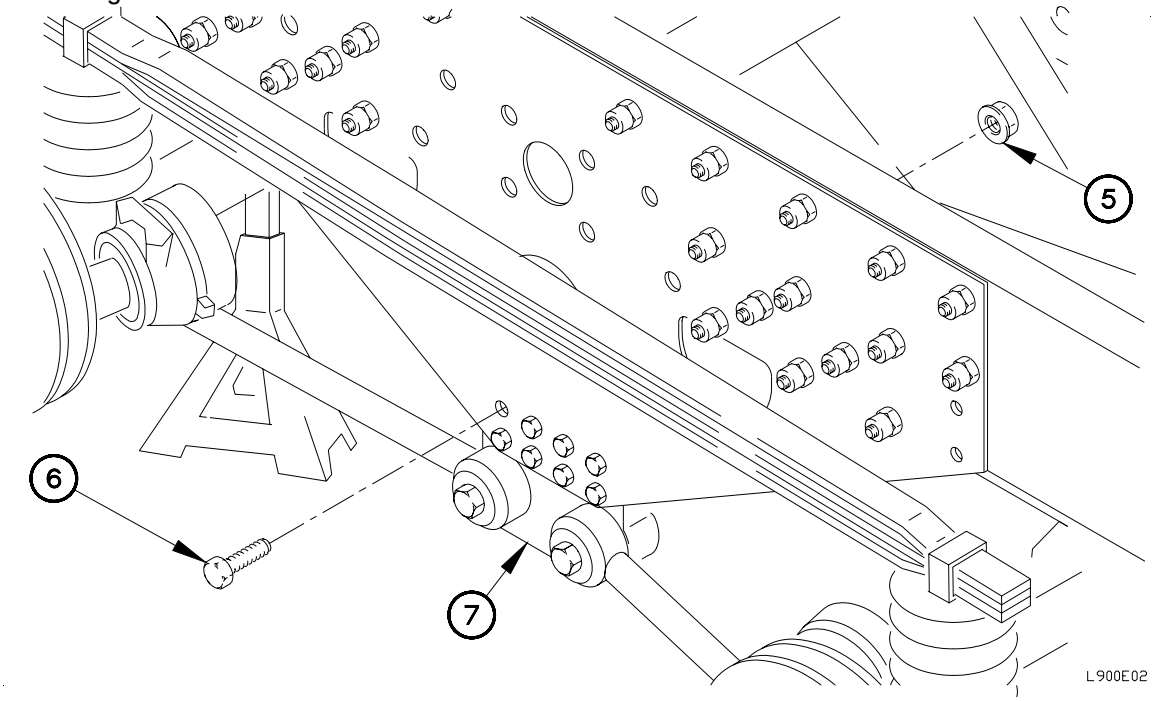
1. Remove two self-locking nuts (1), bolts (2), and brackets (3) from frame plate (4). Discard self-locking nuts.



NOTE

Steps (2) through (4) require the aid of an assistant.

2. Remove eight self-locking nuts (5) and bolts (6) from control arm bracket (7). Discard self-locking nuts.



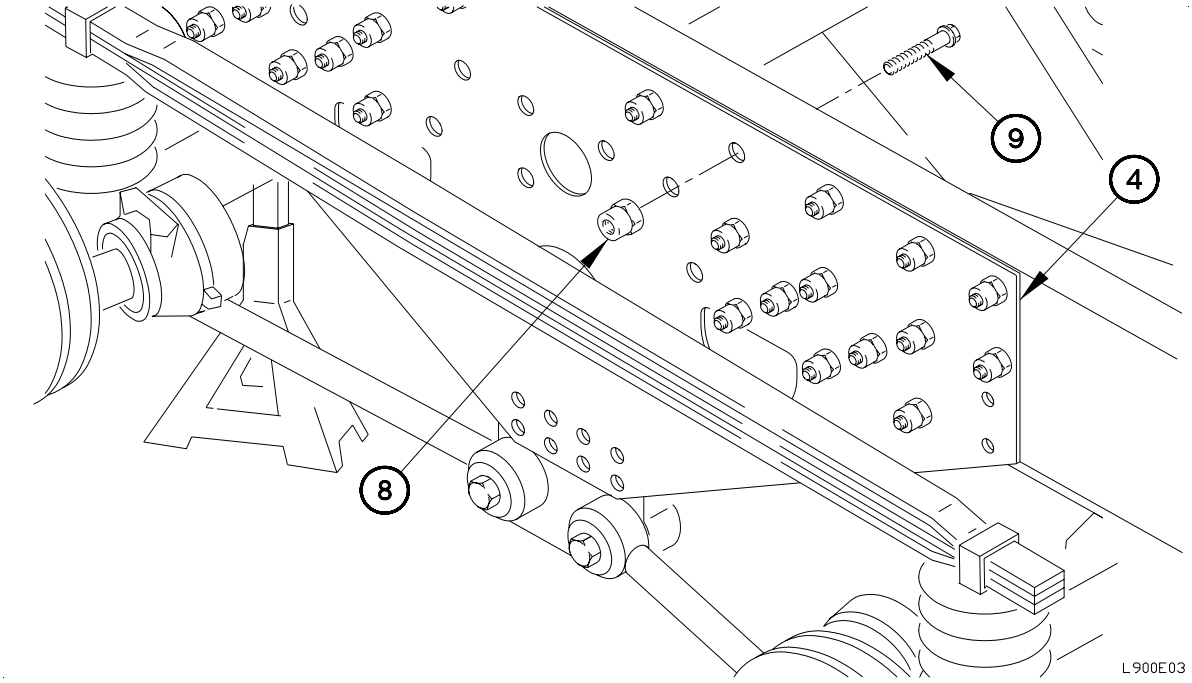
FRAME PLATE (MTVT) REPLACEMENT - Continued 0120 00

REMOVAL - Continued

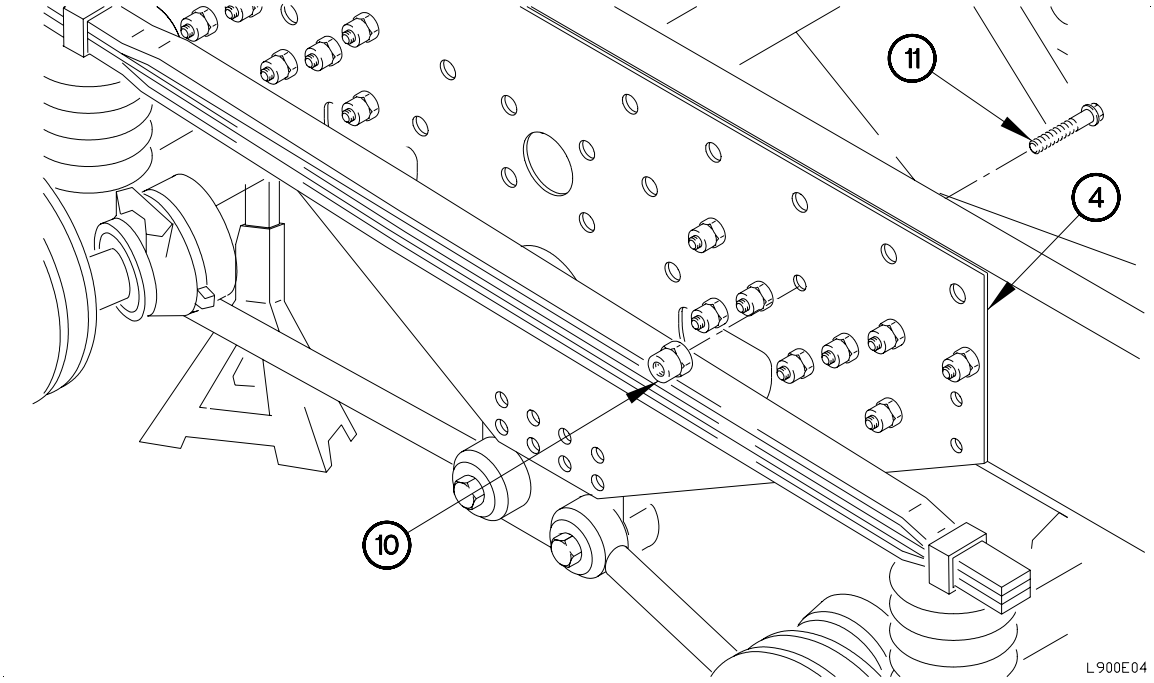
CAUTION

When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

3. Remove nine collars (8) and bolts (9) from frame plate (4). Discard collars and bolts.



4. Remove 20 collars (10), bolts (11), and frame plate (4) from trailer. Discard collars and bolts.



FRAME PLATE (MTVT) REPLACEMENT - Continued 0120 00

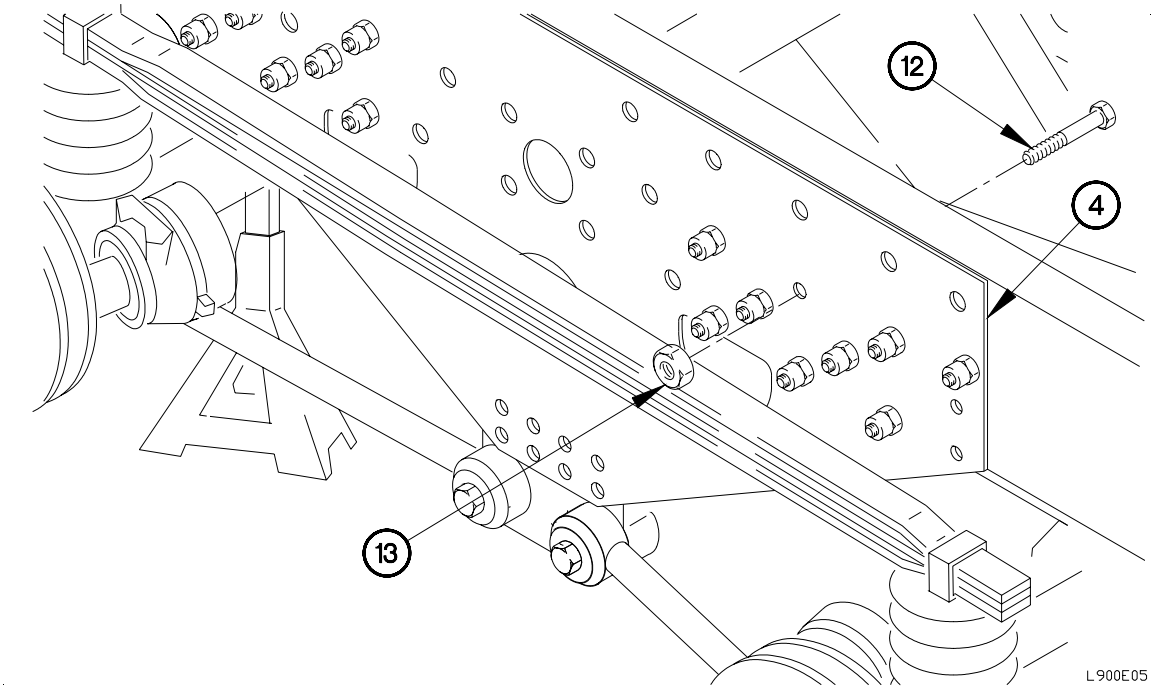
INSTALLATION

NOTE

Left and right side frame plates are installed the same way. Right side shown.

Steps (1) through (6) require the aid of an assistant.

1. Position frame plate (4) on trailer with 20 bolts (12) and self-locking nuts (13).
2. Tighten 20 self-locking nuts (13) to 210-225 lb-ft (285-305 N•m).

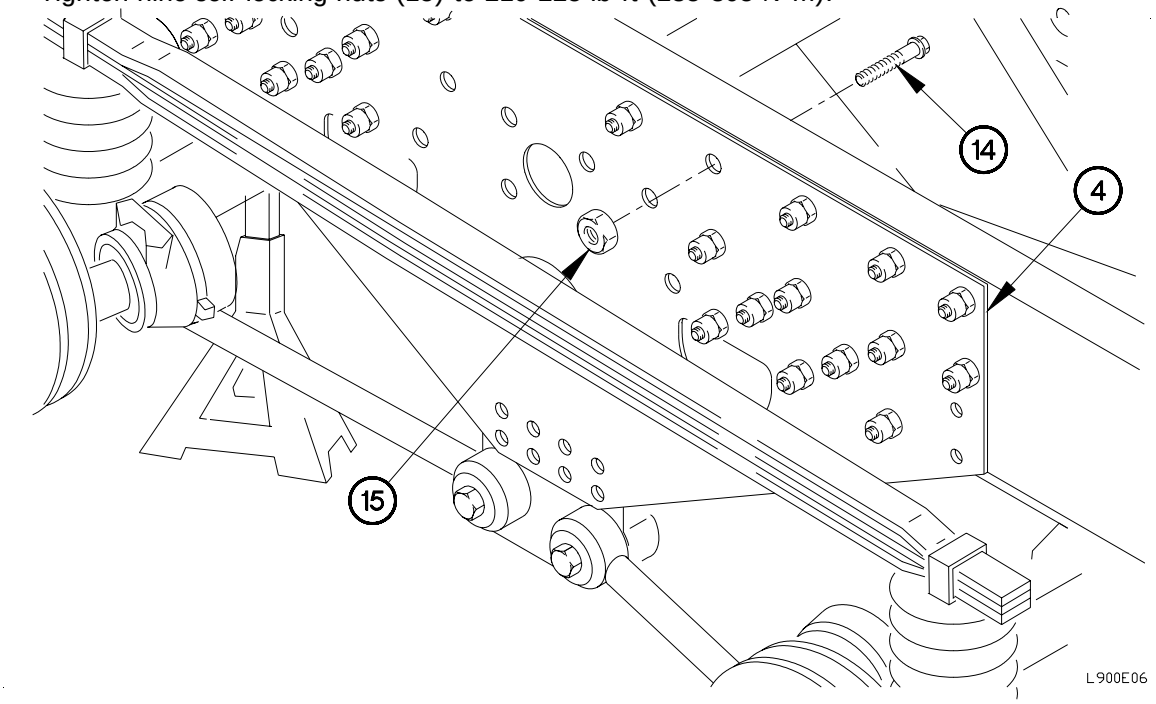


FRAME PLATE (MTVT) REPLACEMENT - Continued 0120 00

INSTALLATION - Continued

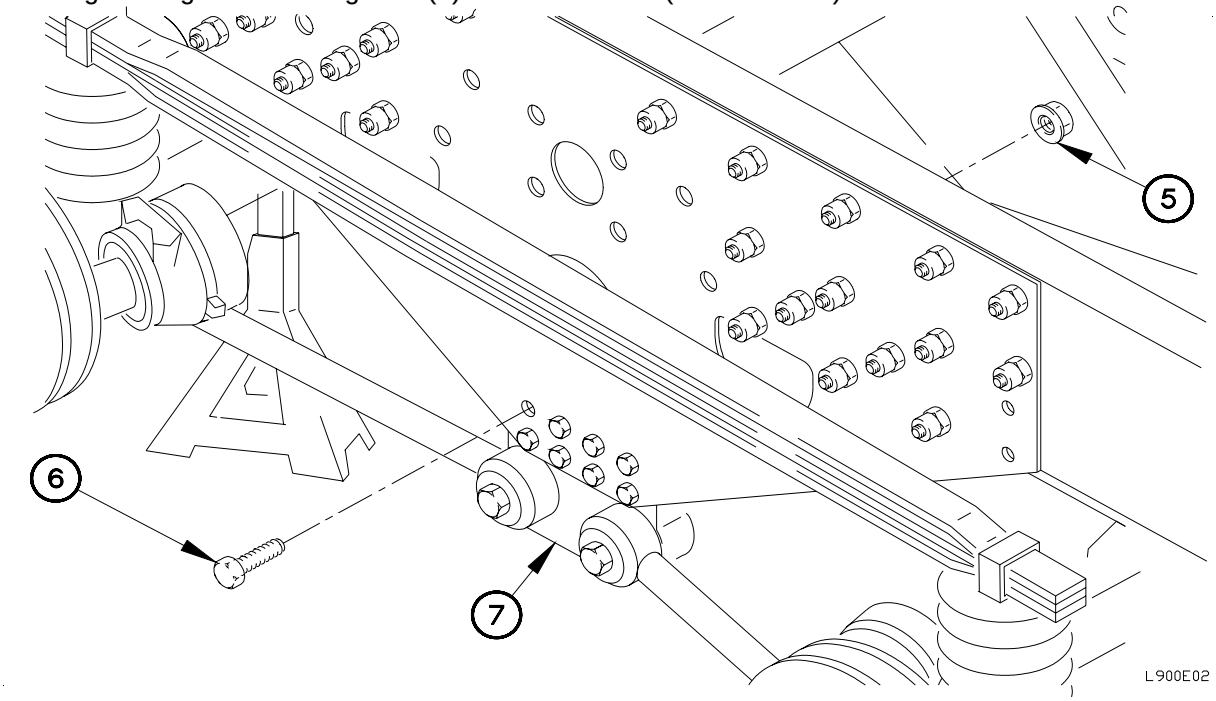
3. Position nine bolts (14) and self-locking nuts (15) in frame plate (4).

4. Tighten nine self-locking nuts (15) to 210-225 lb-ft (285-305 N•m).



5. Position eight bolts (6) and self-locking nuts (5) in control arm bracket (7).

6. Tighten eight self-locking nuts (5) to 236-280 lb-ft (320-380 N•m).

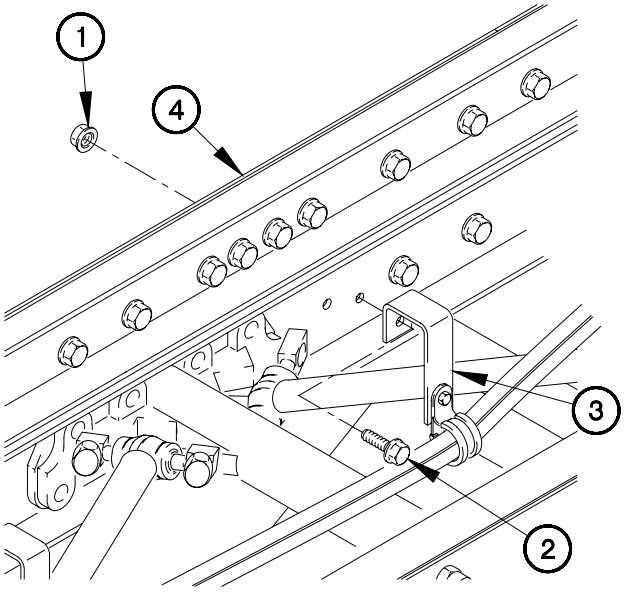


FRAME PLATE (MTVT) REPLACEMENT - Continued 0120 00

INSTALLATION - Continued

7. Position two brackets (3) on frame plate (4) with two bolts (2) and self-locking nuts (1)

8. Tighten two self-locking nuts (1) to 60-72 lb-in (7-9 N•m).



L900E07

OPERATIONAL CHECK

1. Install axle bogie shaft (WP 0122 00, Installation).

2. Install resilient mount and mechanical stops (WP 0076 00, Resilient Mount Installation, MTVT; Mechanical Stop Installation, MTVT).

END OF WORK PACKAGE

AXLE BOGIE (MTVT) REPAIR 0121 00

THIS WORK PACKAGE COVERS:

Disassembly, Cleaning/Inspection, Assembly, Operational Check

INITIAL SETUP:

Maintenance Level

Field

Tools and Special Tools

Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Torque, 0-175 lb-ft (Item 49, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)
Wrench, Impact, Electric (Item 42, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Goggles, Industrial (Item 8, WP 0178 00)
Jack, Dolly Type, Hydraulic (Item 14, WP 0178 00)
Socket, Socket Wrench (Item 33, WP 0178 00)
Socket Set, Impact (Item 28, WP 0178 00)
Pan, Drain (Item 18, WP 0178 00)
Puller, Kit Universal (Item 22, WP 0178 00)
Gloves, Rubber (Item 6, WP 0178 00)
Trestle, Motor Vehicle Maintenance (2) (Item 38, WP 0178 00)
Indicator, Dial (Item 11, WP 0178 00)
Press, Arbor, Hand Operated (Item 21, WP 0178 00)

Materials/Parts

Adhesive (Item 3, WP 0176 00)
Sealing Compound (Item 29, WP 0176 00)
Sealing Compound (Item 30, WP 0176 00)
Oil, Lubricating Gear (Item 24, WP 0176 00)
Packing, Preformed (Item 2, WP 0181 00)
Seal, Plain Encased (Item 44, WP 0181 00)
Seal, Plain Encased (Item 42, WP 0181 00)
Nut, Self-Locking (4)(Item 46, WP 0181 00)
Rag, Wiping (Item 25, WP 0176 00)
Solvent, Dry Cleaning (Item 31, WP 0176 00)
Bolt, U (Item 44, WP 0181 00)

Personnel Required

Two

References

WP 0008 00
WP 0009 00
WP 0011 00

Equipment Conditions

Tires removed (from side being worked) (WP 0045 00).

WARNING

Wear appropriate eye protection when working under trailer due to the possibility of falling debris. Failure to comply may result in injury to personnel.

AXLE BOGIE (MTVT) REPAIR - Continued 0121 00

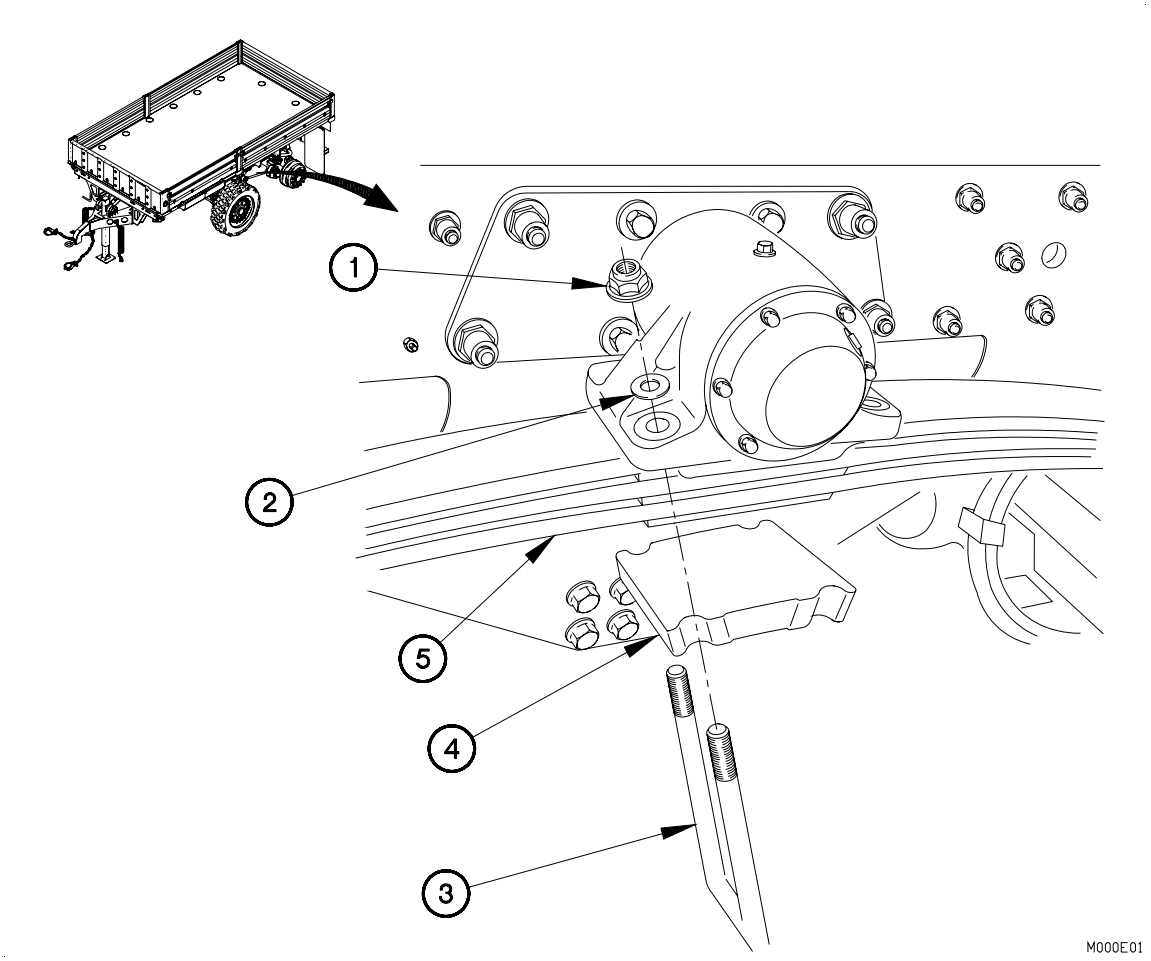
DISASSEMBLY

1. Place trestles under trailer.

NOTE

Left and right side axle bogies are disassembled the same way. Right side shown.

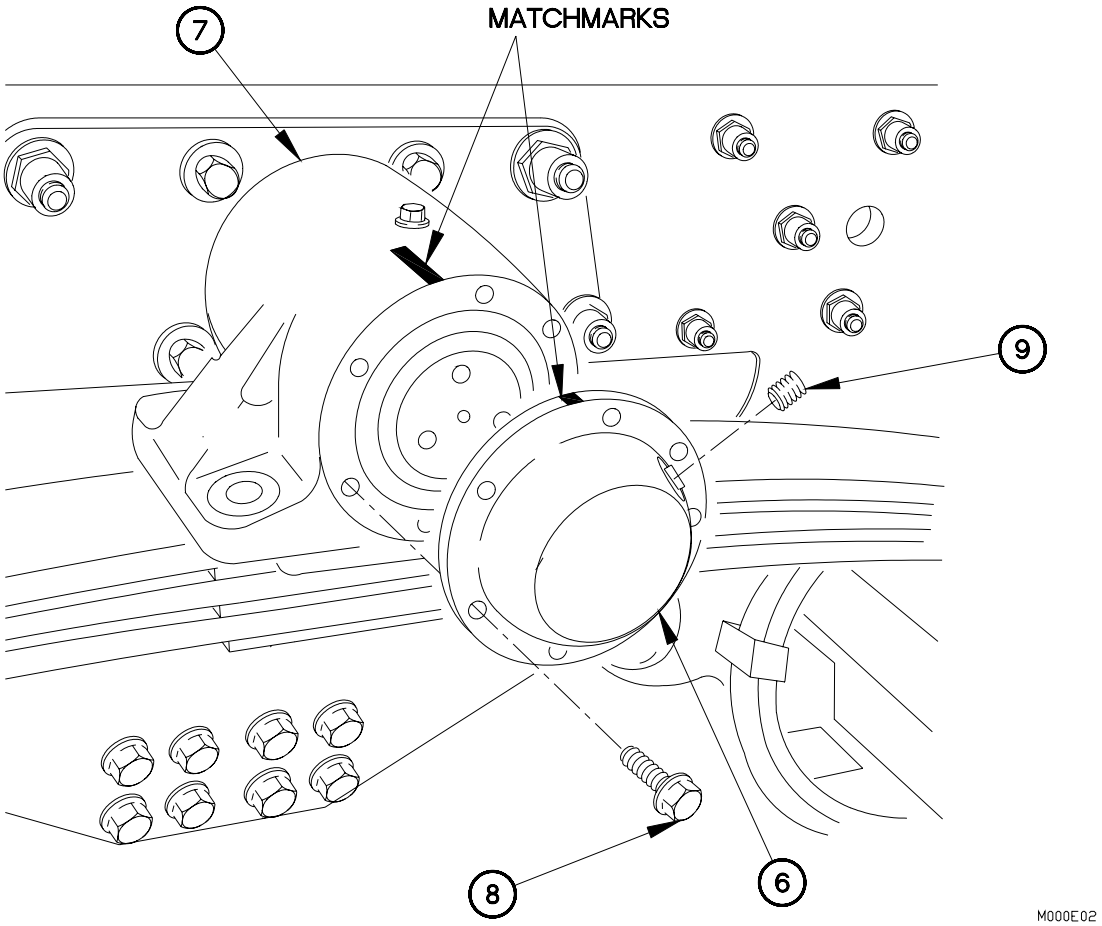
2. Remove four self-locking nuts (1), washers (2), two U-bolts (3), and spring holder (4) from spring (5). Discard self-locking nuts and U-bolts.



AXLE BOGIE (MTVT) REPAIR - Continued 0121 00

DISASSEMBLY - Continued

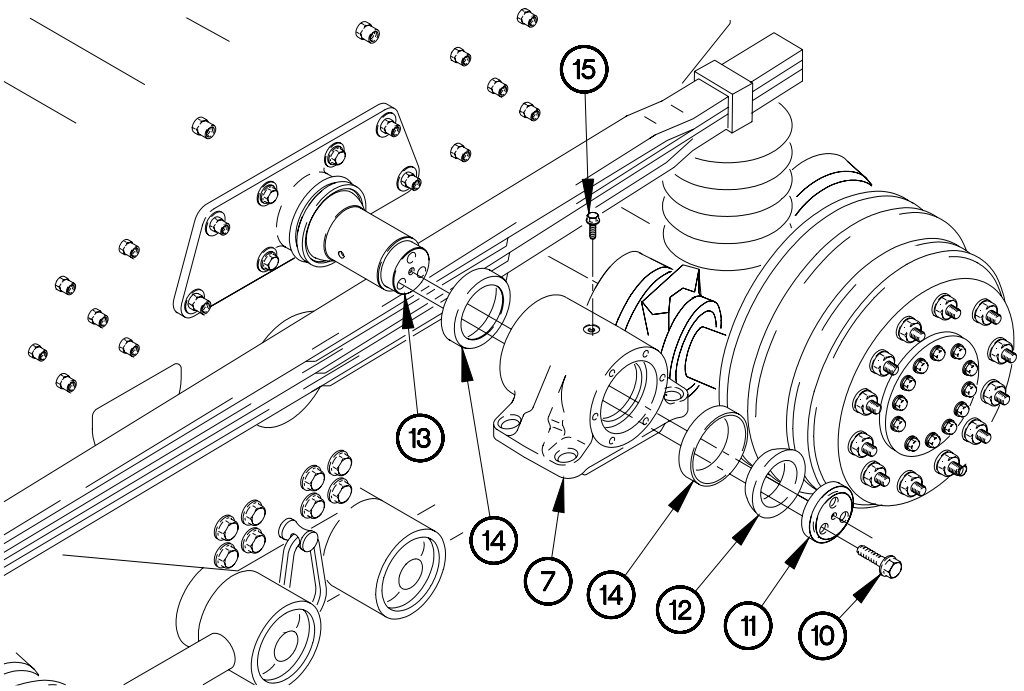
3. Match mark access cover (6) to housing (7).
4. Place drain pan under housing (7).
5. Remove six screws (8) and access cover (6) from housing (7).
6. Remove plug (9) from access cover (6).



AXLE BOGIE (MTVT) REPAIR - Continued 0121 00

DISASSEMBLY - Continued

7. Remove three screws (10) and mounting plate (11) from housing (7).
8. Remove housing (7) and bearing cone (12) from shaft (13).
9. Remove two bearing races (14) from housing (7).
10. Remove bolt (15) from housing (7).



M000E03

DISASSEMBLY - Continued

11. Remove ring spacer(s) (16) and sleeve spacer (17) from shaft (13).

12. Remove bearing cone (18) from shaft (13).

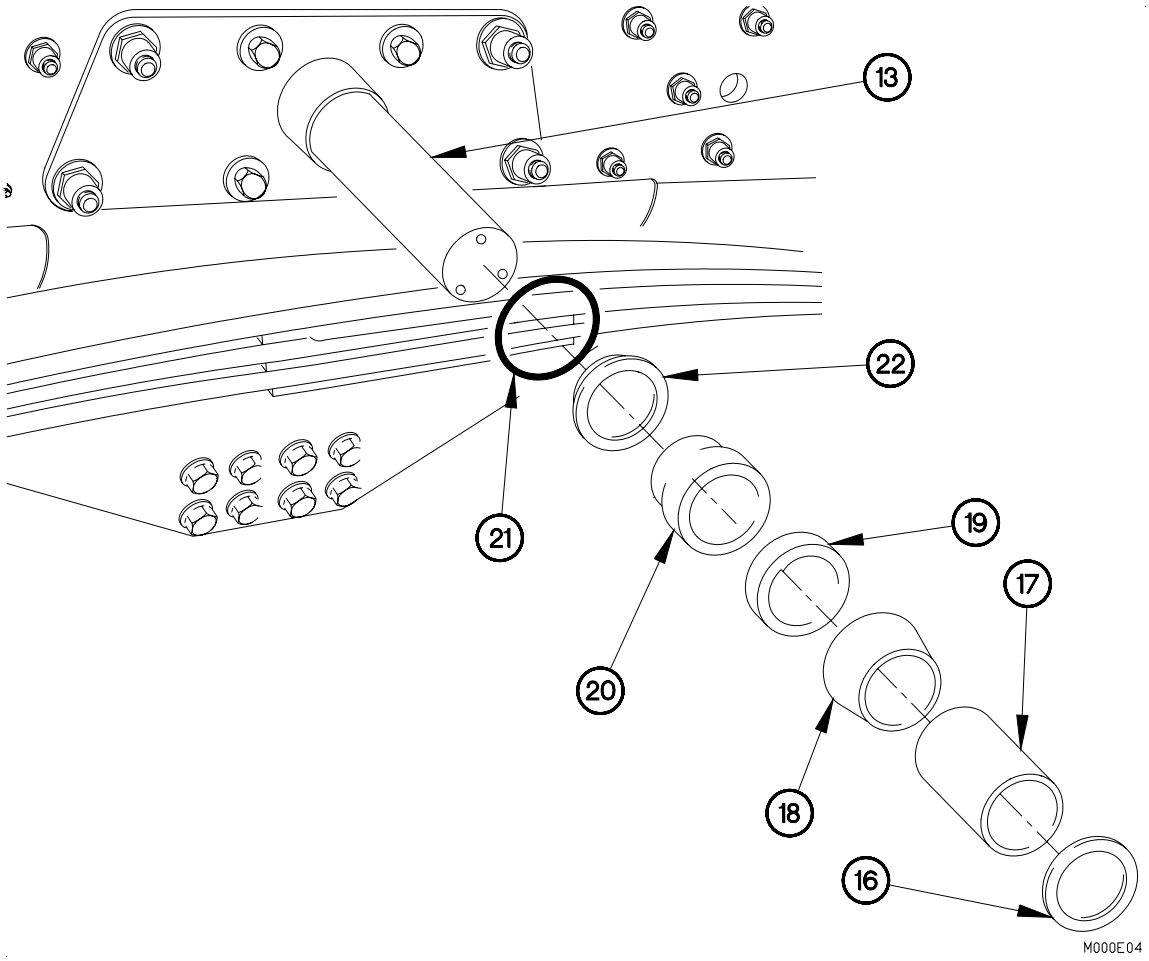
NOTE

Note position of seals prior to disassembly.

13. Remove seal (19) from sleeve spacer (20). Discard seal.

14. Remove sleeve spacer (20) and preformed packing (21) from shaft (13). Discard preformed packing.

15. Remove seal (22) from sleeve spacer (20). Discard seal.



CLEANING/INSPECTION

WARNING

Dry Cleaning Solvent (P-D-680) is TOXIC and flammable. Wear protective goggles and gloves; use only in well-ventilated area; avoid contact with skin, eyes, and clothes, and do not breath vapors. Keep away from heat or flame. Never smoke when using Dry Cleaning Solvent; the flashpoint for Type I Dry Cleaning Solvent is 100 °F (38 °C) and for Type II is 138 °F (50 °C). Failure to comply may result in serious injury or death to personnel.

If personnel become dizzy while using Dry Cleaning Solvent, immediately get fresh air and medical help. If Dry Cleaning Solvent contacts skin or clothes, flush with cold water. If Dry Cleaning Solvent contacts eyes, immediately flush eyes with water and get medical attention. Failure to comply may result in serious injury or death to personnel.

1. Clean all metal parts with Dry Cleaning Solvent.

NOTE

Replace any part that fails to pass visual inspection.

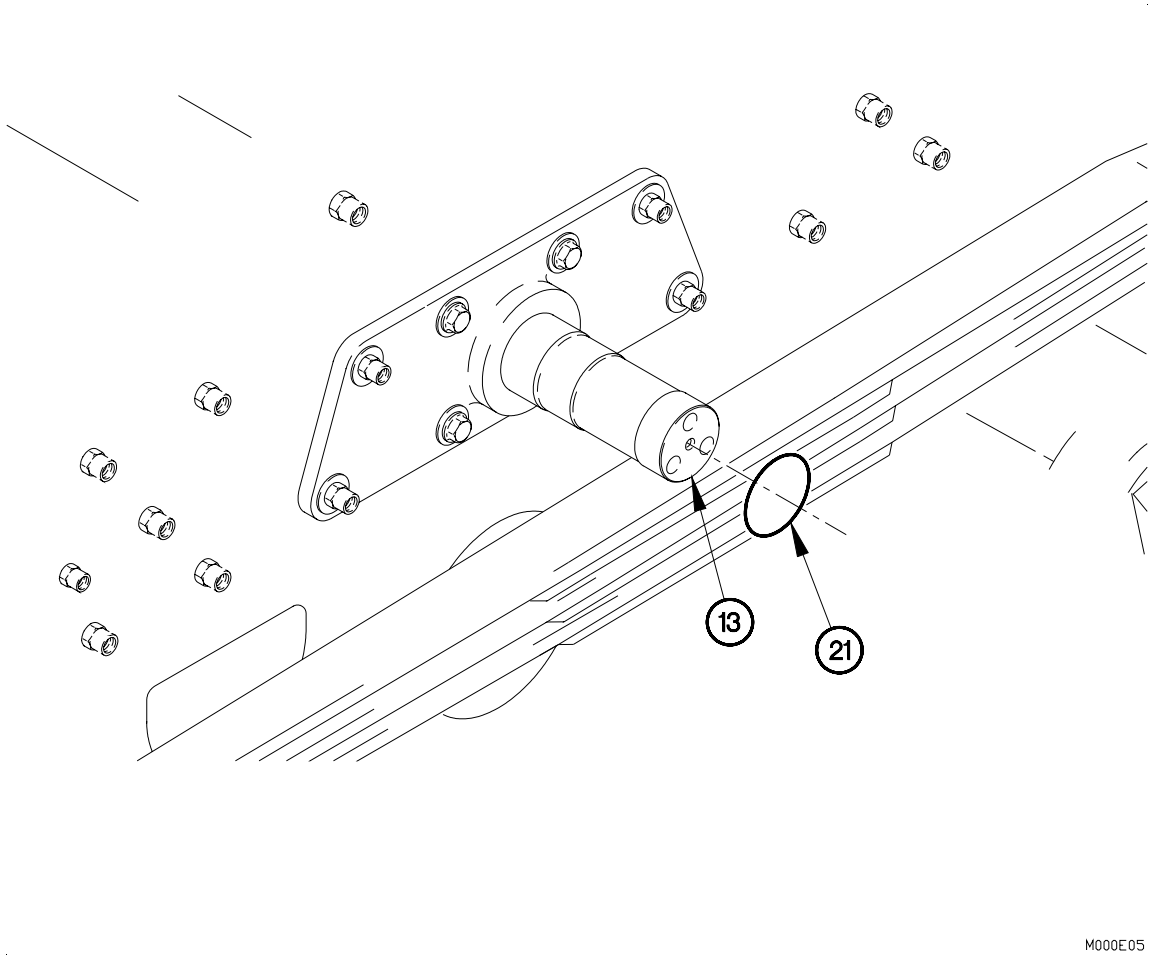
2. Inspect all metal parts for pitting, corrosion, or signs of wear.

ASSEMBLY

NOTE

Apply lubricating oil to all parts during assembly.

1. Install preformed packing (21) on shaft (13).

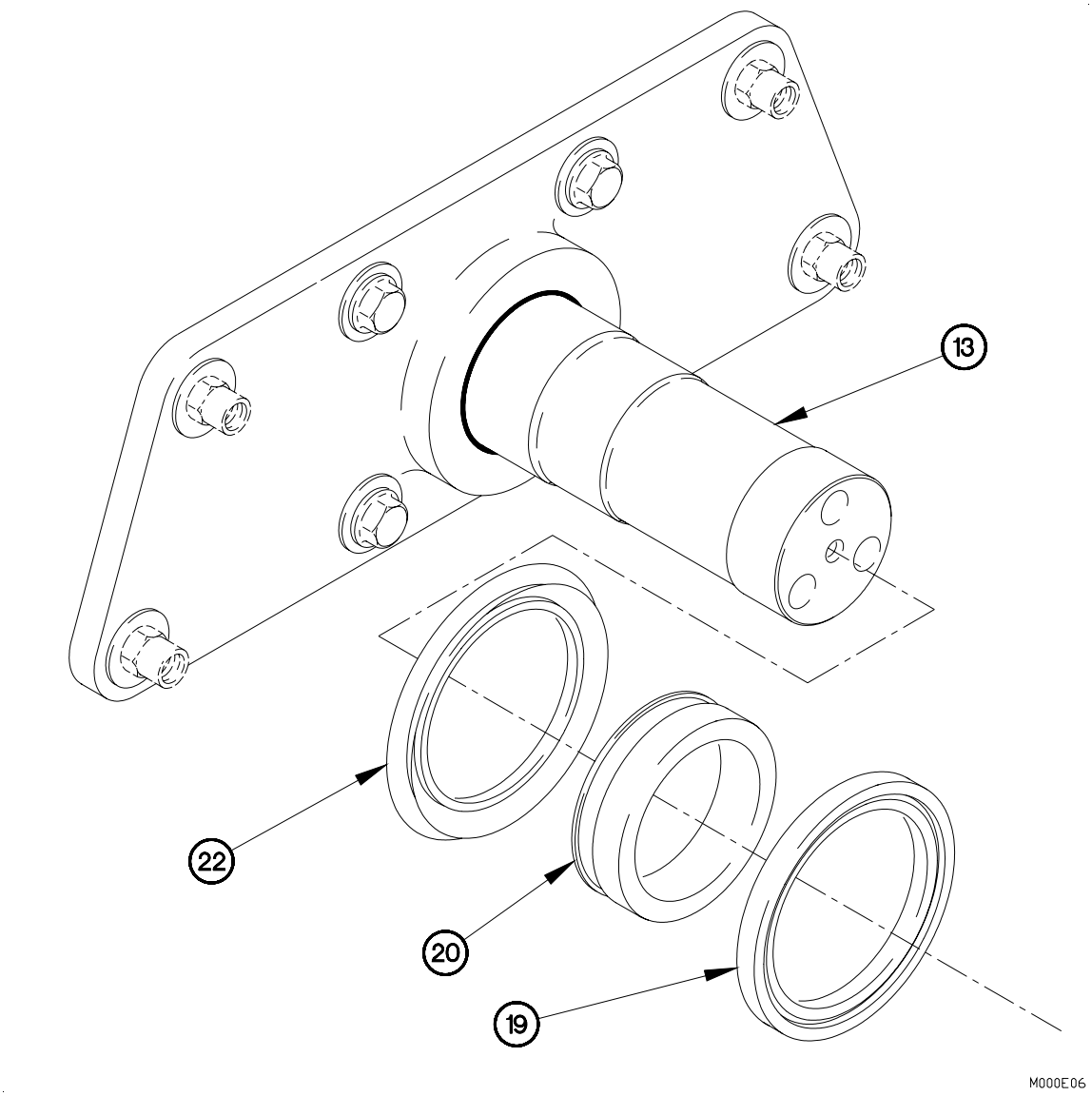


M000E05

AXLE BOGIE (MTVT) REPAIR - Continued 0121 00

ASSEMBLY - Continued

2. Install seals (22 and 19) on sleeve spacer (20).
3. Install spacer (20) on shaft (13).

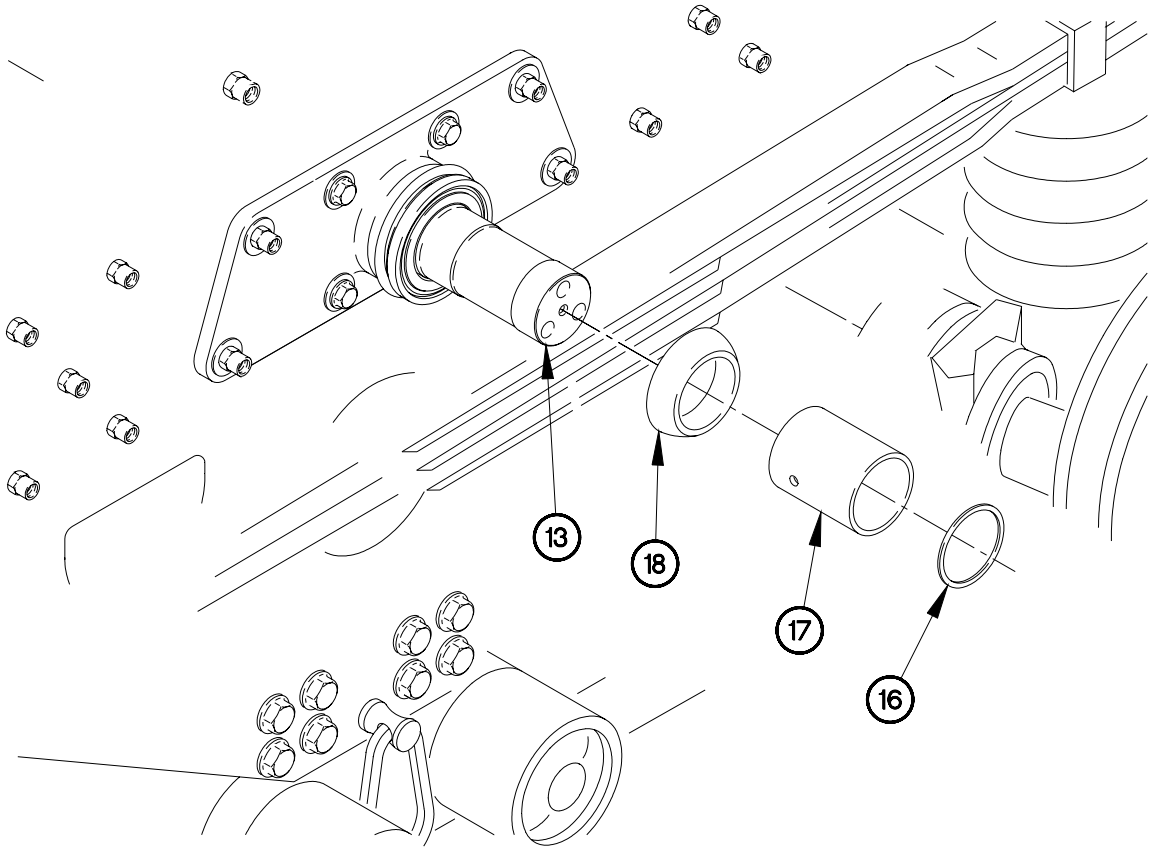


AXLE BOGIE (MTVT) REPAIR - Continued 0121 00

ASSEMBLY - Continued

4. Install bearing cone (18) on shaft (13).

5. Install sleeve spacer (17) and ring spacer(s) (16) on shaft (13).



M000E07

AXLE BOGIE (MTVT) REPAIR - Continued 0121 00

ASSEMBLY - Continued

6. Press two bearing races (14) in housing (7).

CAUTION

Use care when installing housing. Seals are easily damaged. Failure to comply may result in damage to equipment.

7. Install housing (7) on shaft (13).

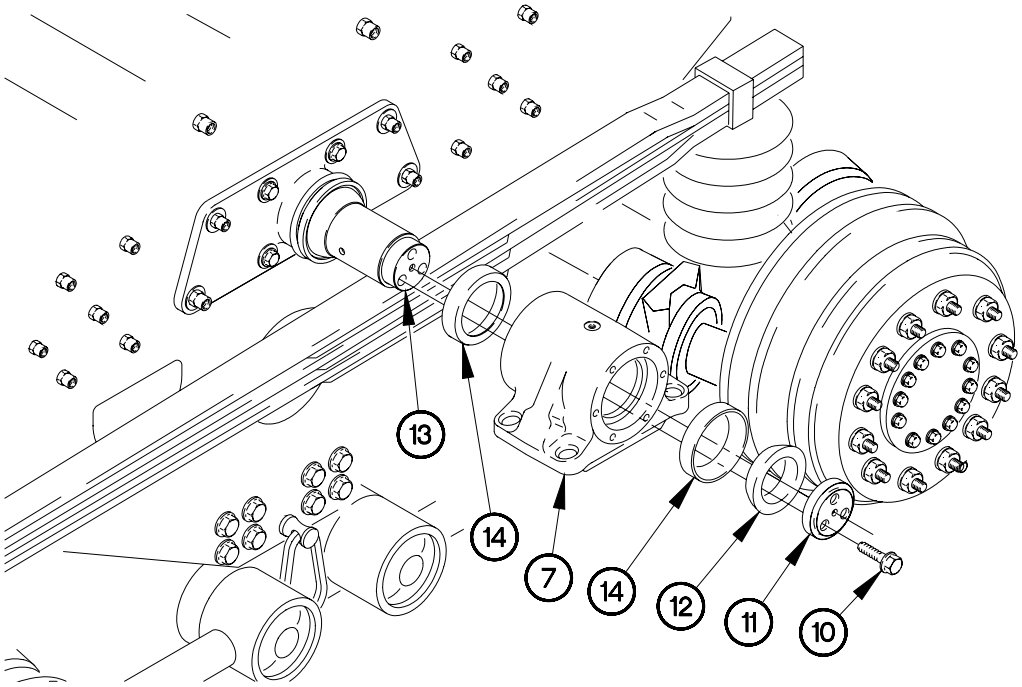
8. Position cone (12) in housing (7).

9. Position mounting plate (11) on shaft (13) with three screws (10).

NOTE

Axle bogie components have very close tolerances. It may be necessary to seat housing on shaft with a deadblow hammer prior to tightening screws.

10. Tighten three screws (10) to 150 lb-ft (203 N•m).



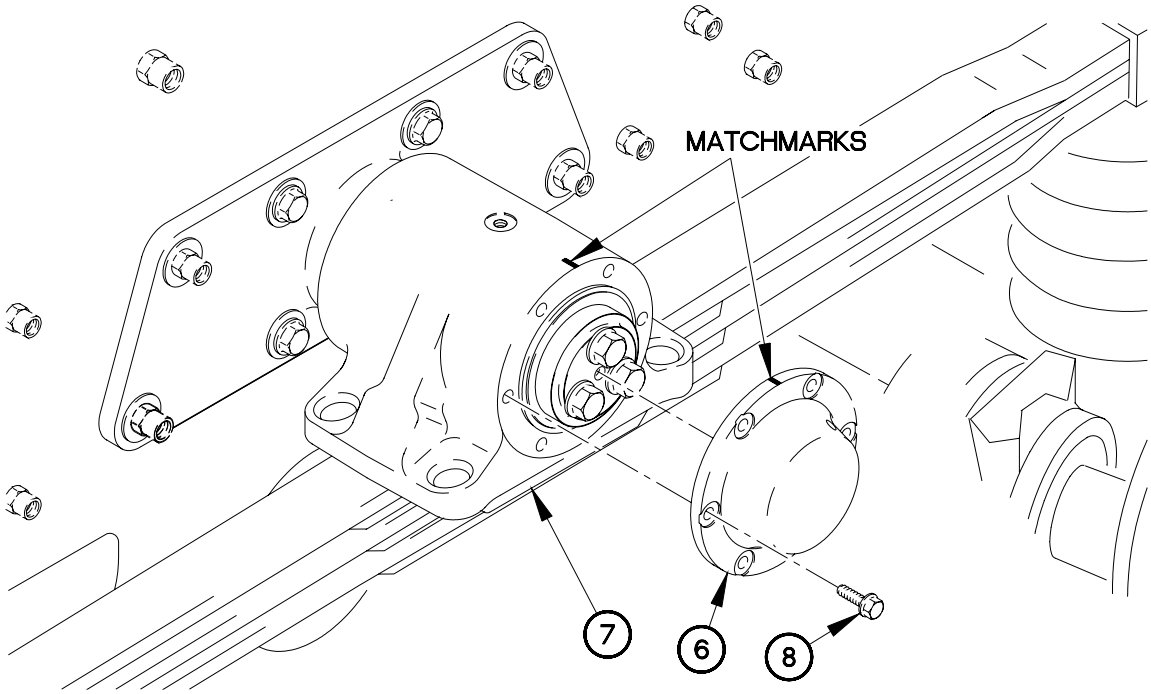
M000E08

ASSEMBLY - Continued

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in a well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in serious injury to personnel.

11. Apply a thin bead of adhesive to sealing surface of housing (7).
12. Align matchmarks on access cover (6) and housing (7).
13. Position access cover (6) on housing (7) with six screws (8).
14. Tighten six screws (8) to 22-26 lb-ft (30-35 N•m).



M000E09

ASSEMBLY - Continued

CAUTION

Acceptable bearing backlash is 0.002-0.012 in. (0.05-0.30 mm). Failure to achieve acceptable bearing backlash may result in damage to equipment.

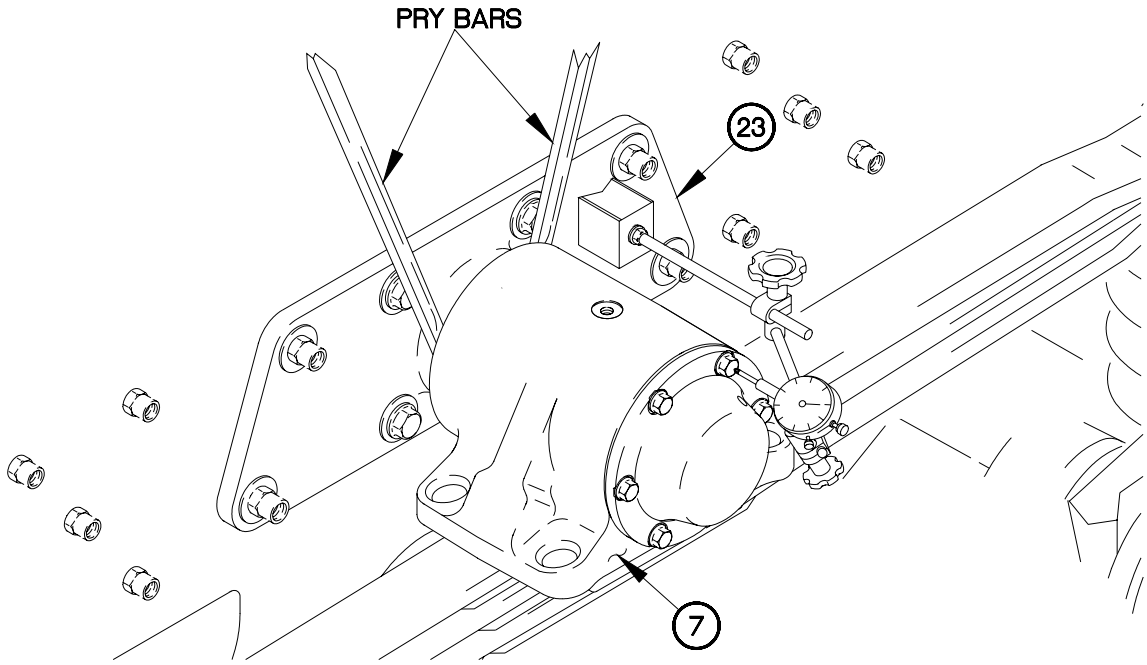
Housing must rotate by hand without binding. Failure to comply may result in damage to equipment.

NOTE

Use two pry bars to move housing to move housing on shaft when measuring bearing backlash.

Record bearing backlash measurement.

15. Measure bearing backlash from frame rail (23) to front side of housing (7).



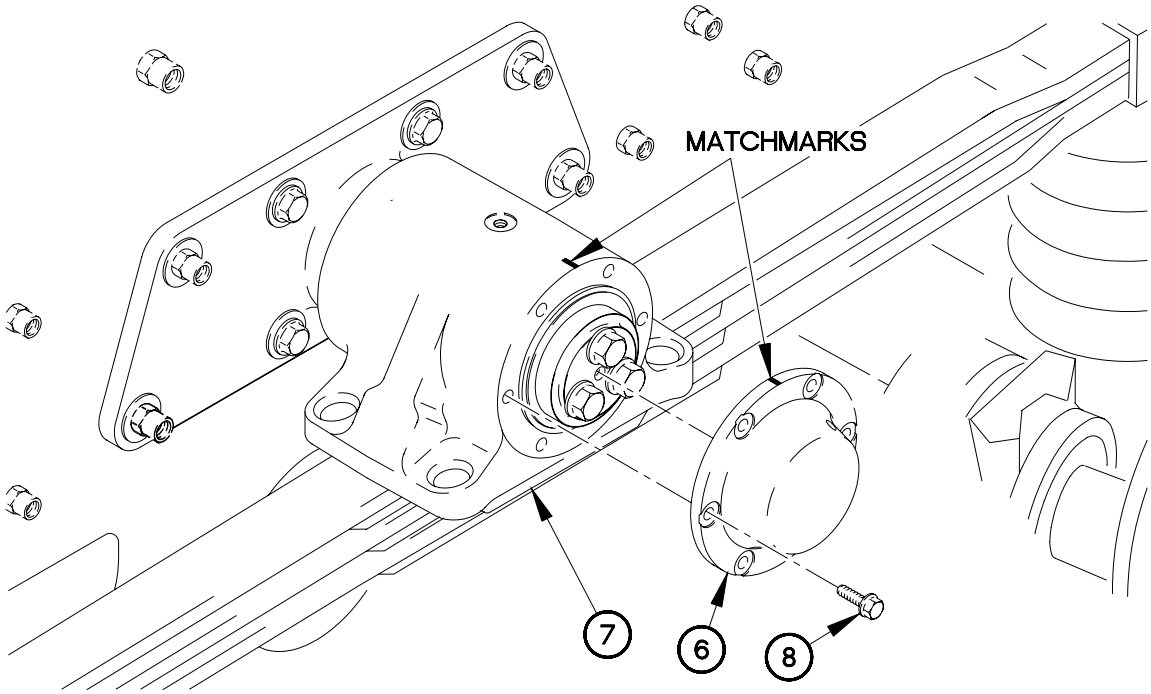
M000E10

ASSEMBLY - Continued

NOTE

Perform steps (16) through (26) if bearing backlash measurement was not between 0.002-0.012 in. (0.05-0.30 mm).

16. Remove six screws (8) and access cover (6) from housing (7).



M000E09

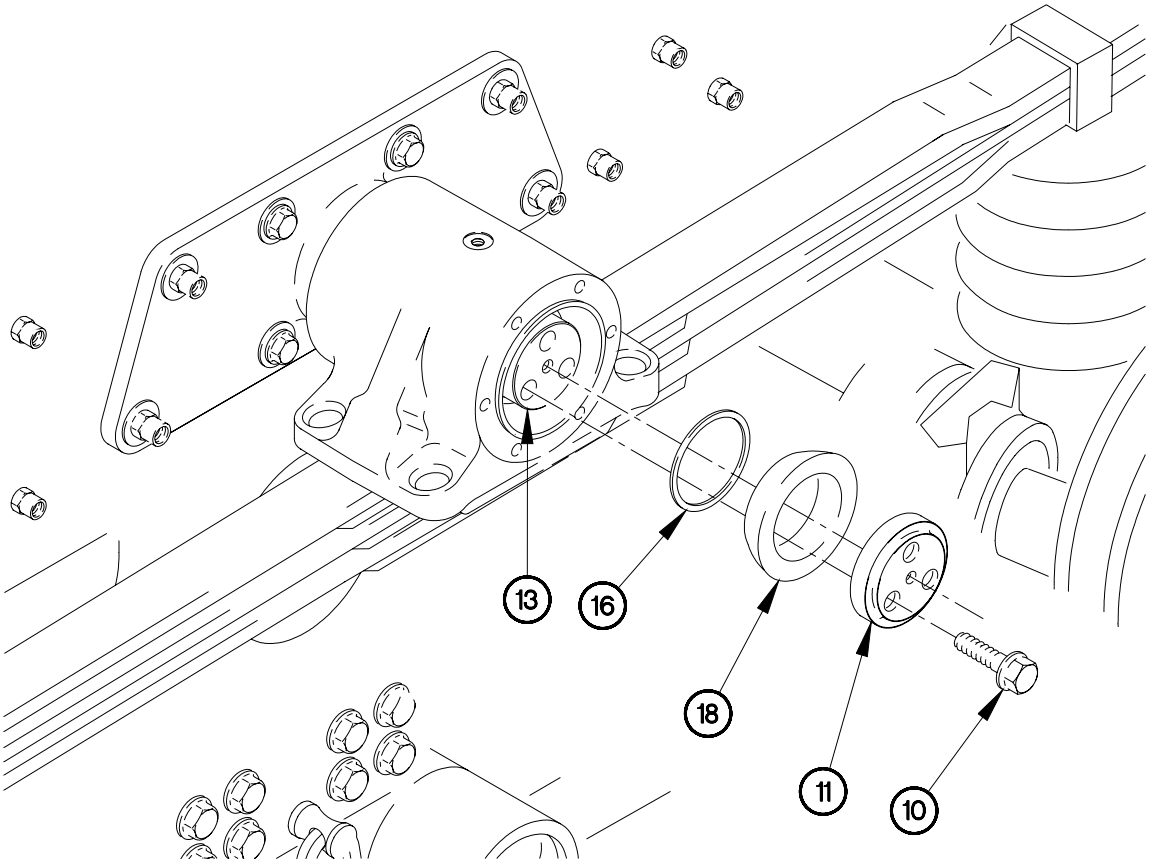
ASSEMBLY - Continued

17. Remove three screws (10) and mounting plate (11) from shaft (13).

18. Remove bearing cone (18) from shaft (13).

19. Add or remove ring spacer(s) (16) as required to obtain bearing backlash measurement of 0.002-0.012 in. (0.05-0.30 mm).

20. Install bearing cone (18) on shaft (13).



M000E11

ASSEMBLY - Continued

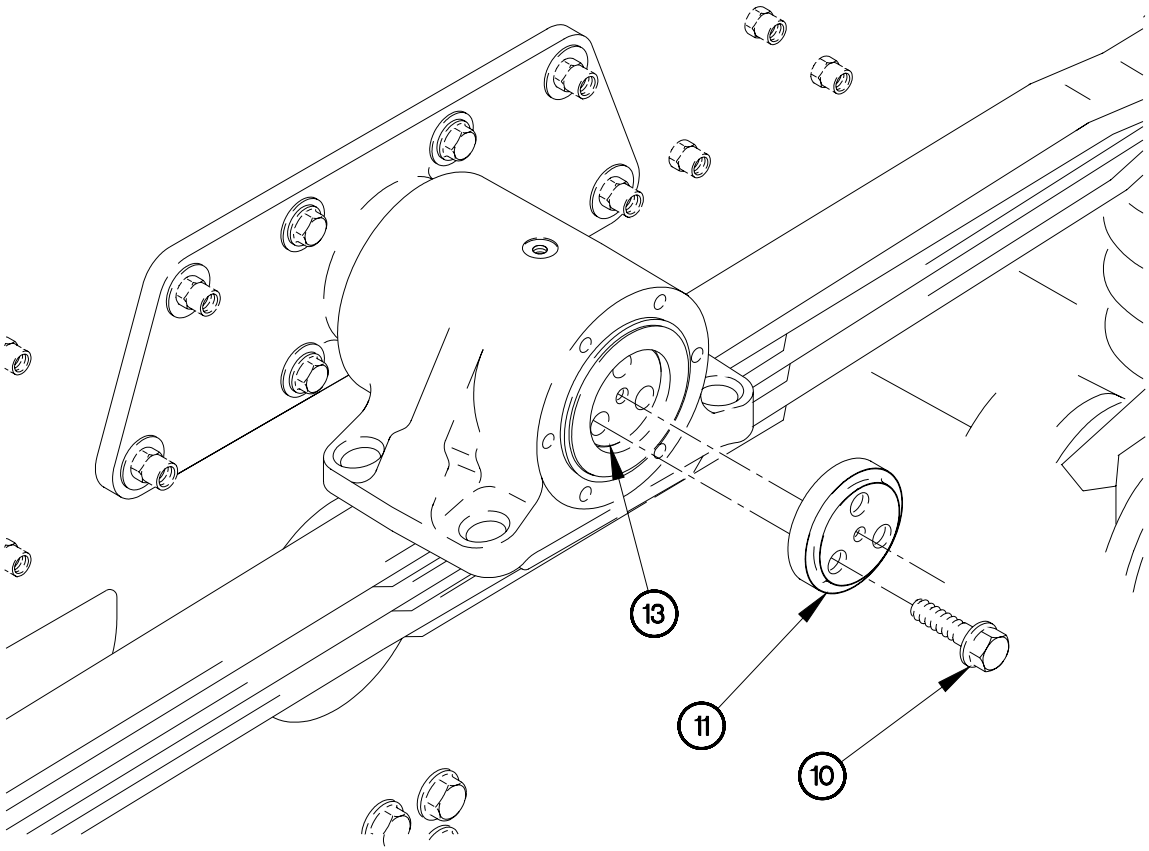
WARNING

Adhesive sealant MIL-S-46163 can damage your eyes. Wear safety goggles/glasses when using; avoid contact with eyes. If sealant contacts eyes, flush eyes with water and get immediate medical attention. Failure to comply may result in injury to personnel.

21. Apply sealing compound to threads of three screws (10).

22. Position mounting plate (11) on shaft (13) with three screws (10).

23 Tighten three screws (13) to 196-240 lb-ft (266-325 N•m).



M000E12

ASSEMBLY - Continued

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

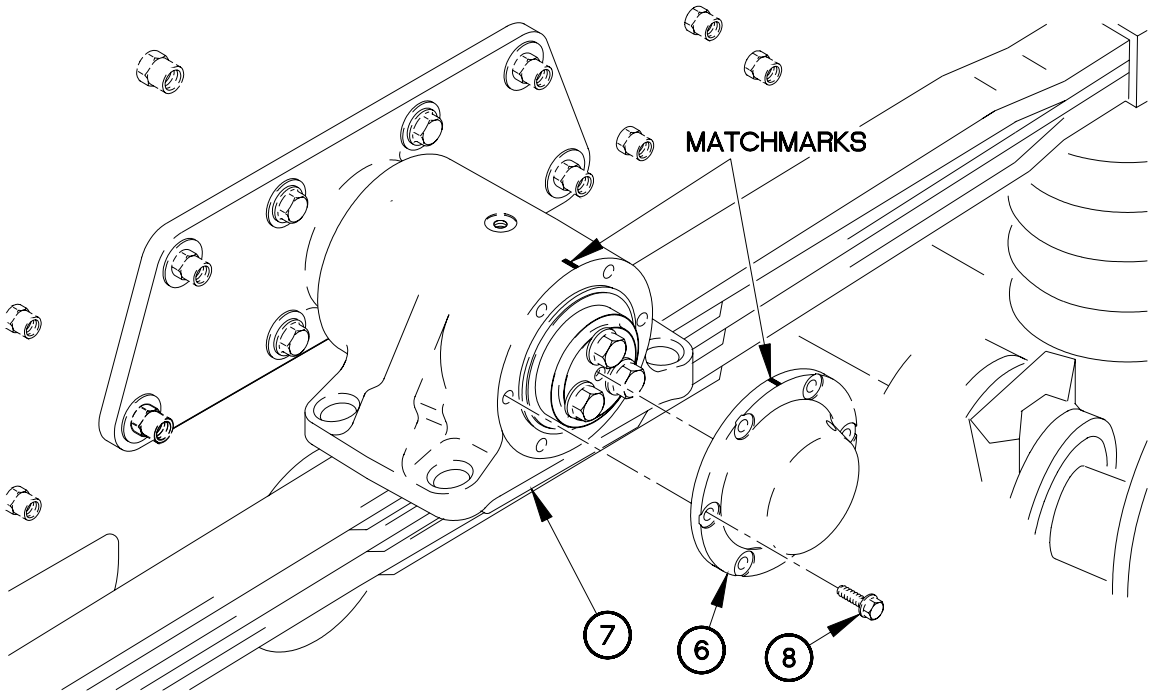
24. Apply light bead of adhesive to seating surface of housing (7).

NOTE

Align matchmarks on access cover and housing when installing access cover.

25. Position access cover (6) on housing (7) with six screws (8).

26. Tighten six screws (8) to 22-26 lb-ft (30-35 N•m).



M000E09

ASSEMBLY - Continued

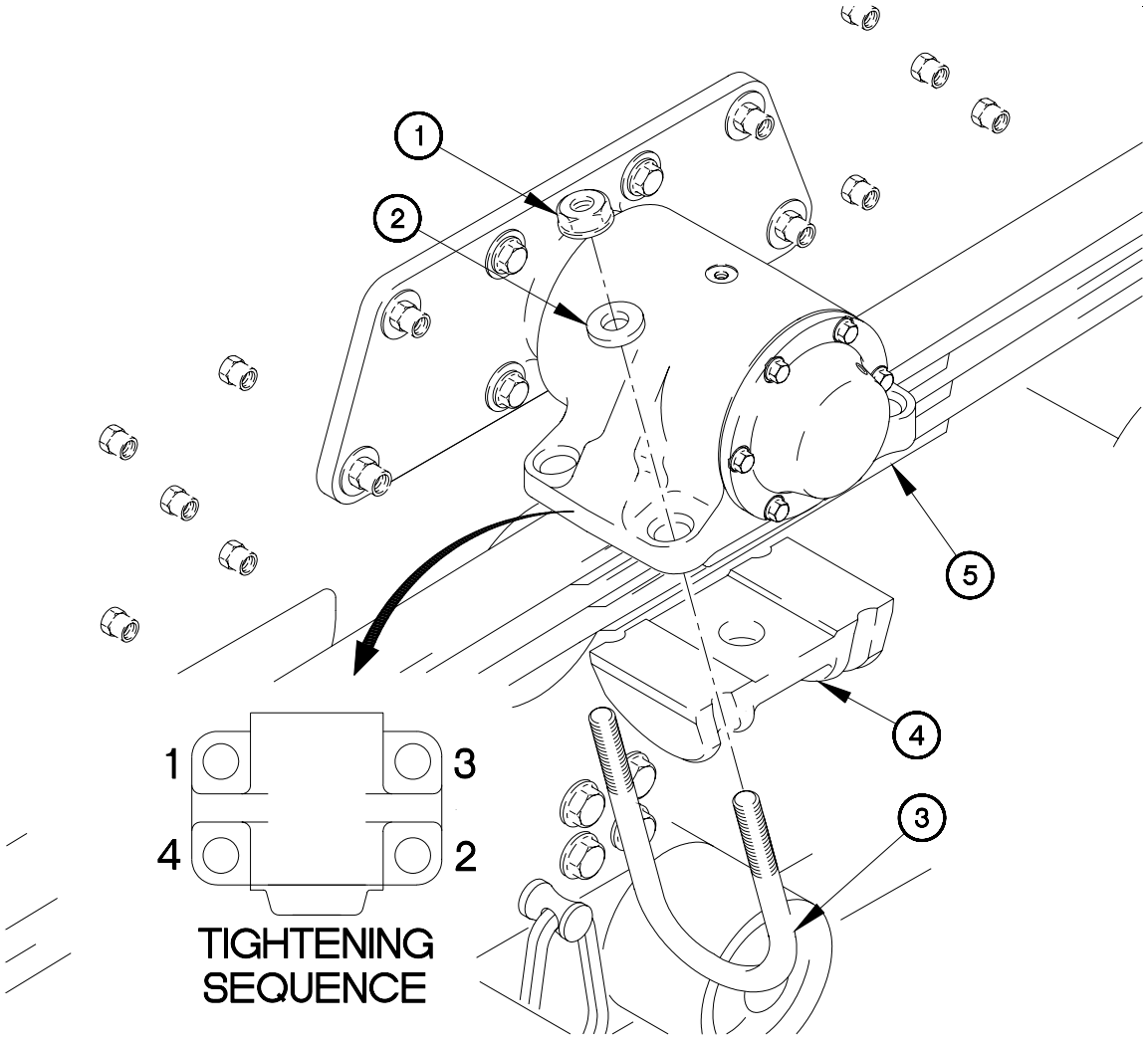
NOTE

It may be necessary to raise or lower axles to align holes in housing with spring.

27. Position spring holder (4) on spring (5) with two U-bolts (3), four washers (2), and self-locking nuts (1).

28. Tighten four self-locking nuts (1) to 200 lb-ft (271 N•m), in sequence shown.

29. Re-tighten four self-locking nuts (1), in increments of 50 lb-ft (67 N•m), to 390-510 lb-ft (530-690 N•m) in sequence shown.



M000E13

AXLE BOGIE (MTVT) REPAIR - Continued 0121 00

ASSEMBLY - Continued

30. Fill housing (7) with lubricating gear oil.

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in injury to personnel.

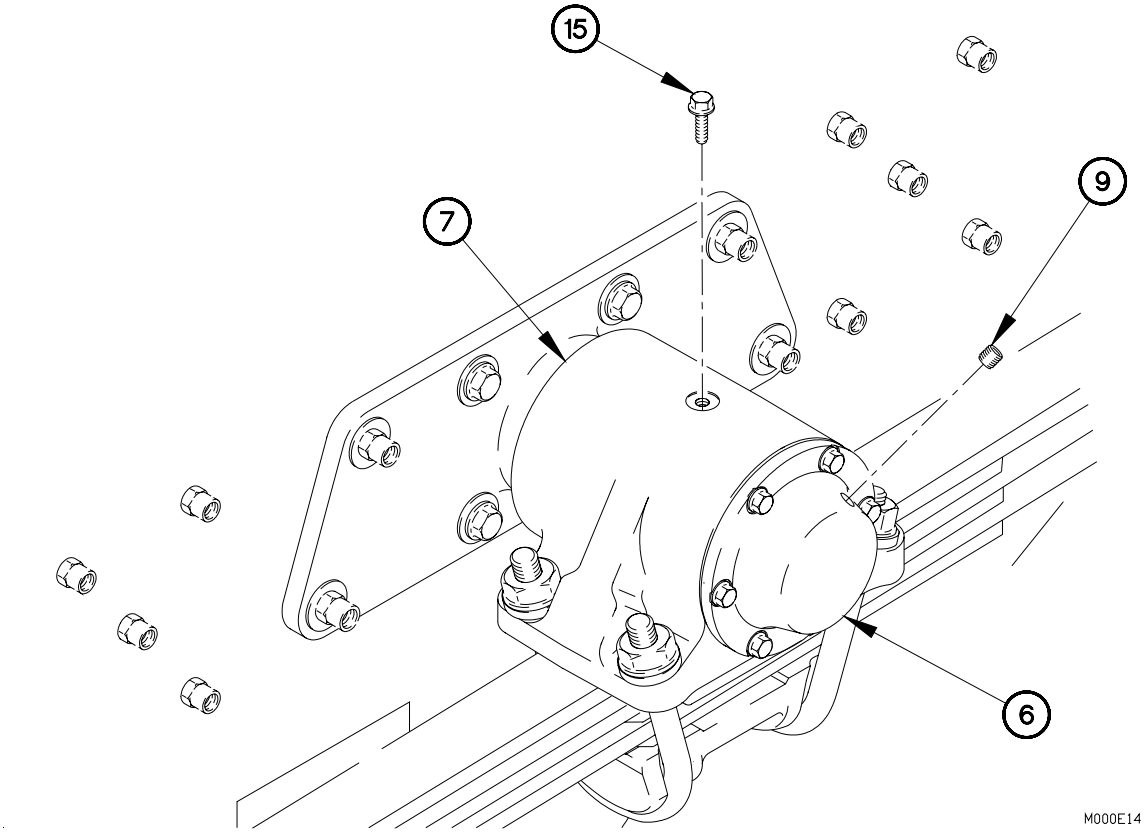
31. Apply teflon pipe sealant to threads of bolt (15) and plug (9).

32. Position bolt (15) in housing (7).

33. Tighten bolt (15) to 22-26 lb-ft (30-35 N•m).

34. Install plug (9) in access cover (6).

35. Remove trestles from trailer.



OPERATIONAL CHECK

1. Install tires (side being worked) (WP 0045 00, Tire Installation).
2. Couple trailer (WP 0009 00, Coupling Trailer).
3. Operate trailer (WP 0011 00, Towing Trailer).
4. Check axle bogie for oil leaks.
5. After first three months of trailer operation, tighten self-locking nuts on U-bolts in increments of 50 lb-ft (68 N•m) to 390-510 lb-ft (530-690 N•m) in sequence shown.

END OF WORK PACKAGE

AXLE BOGIE SHAFT (MTVT) REPLACEMENT 0122 00

THIS WORK PACKAGE COVERS:

Removal, Installation, Operational Check

INITIAL SETUP:

Maintenance Level

Field

Tools and Special Tools

Tool Kit, Genl Mech (Item 37, WP 0178 00)
Wrench, Impact, Electric (Item 42, WP 0178 00)
Socket Set, Impact (Item 28, WP 0178 00)
Wrench Set, Socket (Item 46, WP 0178 00)
Wrench, Torque, 0-600 lb-ft (Item 52, WP 0178 00)

Materials/Parts

Nut, Self-Locking (8) (Item 35, WP 0181 00)
Bolt (4) (Item 22, WP 0181 00)
Grease, Automotive and Artillery (GAA) (Item 11, WP 0176 00)

Personnel Required

Two

Equipment Conditions

Axle bogie disassembled (WP 121 00).

REMOVAL

CAUTION

When removing bolts, continuous removal of collars is mandatory. Failure to comply will result in seizing of collar to bolt.

NOTE

Left and right side axle bogie shafts are removed the same way. Right side shown.

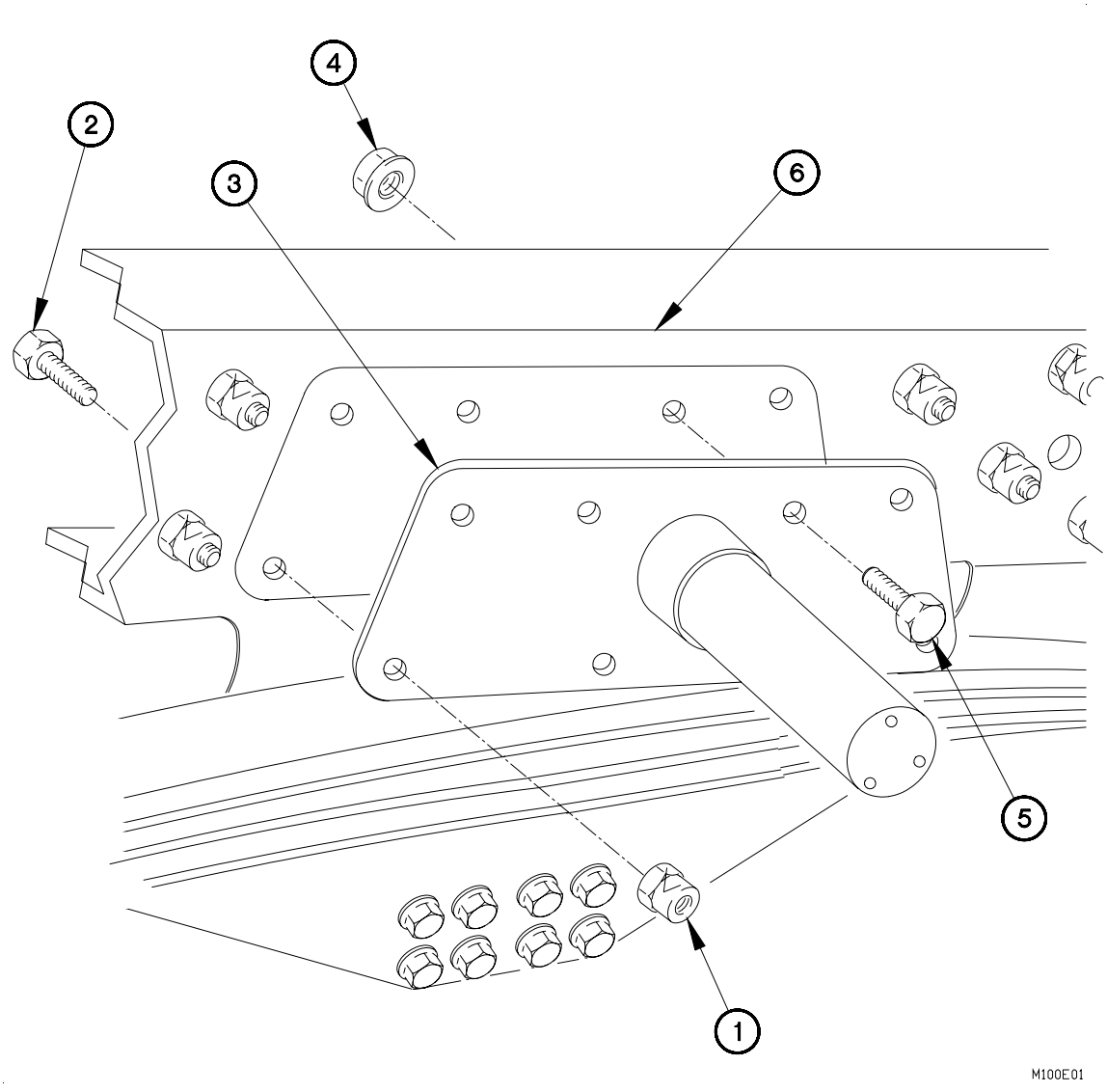
Steps (1) and (2) require the aid of an assistant.

AXLE BOGIE SHAFT (MTVT) REPLACEMENT - Continued 0122 00

REMOVAL - Continued

1. Remove four collars (1) and bolts (2) from axle bogie shaft (3). Discard collars and bolts.

2. Remove four self-locking nuts (4), bolts (5), and axle bogie shaft (3) from frame rail (6). Discard self-locking nuts.



AXLE BOGIE SHAFT (MTVT) REPLACEMENT - Continued 0122 00

INSTALLATION

NOTE

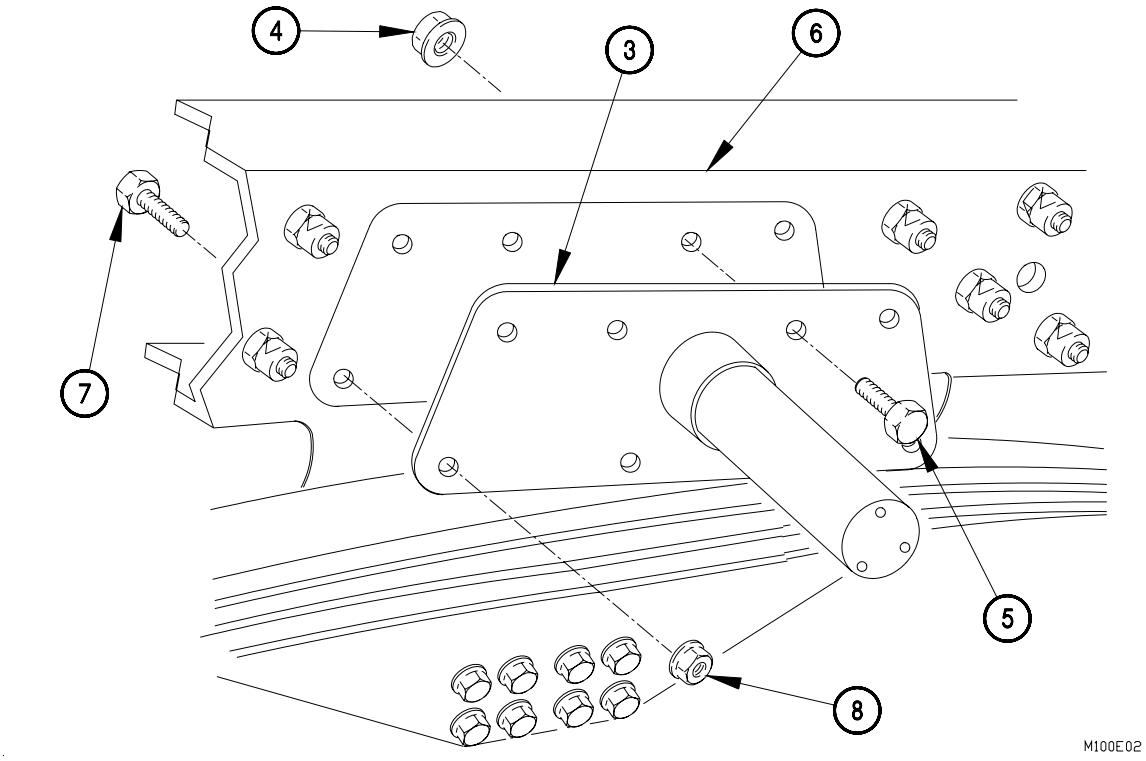
Left and right side axle bogie shafts are installed the same way. Right side shown.

1. Apply light coat of grease to axle bogie shaft (3).

NOTE

Steps (2) through (4) require the aid of an assistant.

2. Position axle bogie shaft (3) on frame rail (6) with four bolts (5) and self-locking nuts (4).
3. Position four bolts (7) and self-locking nuts (8) in axle bogie shaft (3).
4. Tighten four self-locking nuts (4 and 8) to 210-225 lb-ft (285-305 N•m).



OPERATIONAL CHECK

Assemble axle bogie (WP 0121 00, Assembly).

END OF WORK PACKAGE

REFERENCES 0123 00

SCOPE

This appendix lists all forms, field manuals, technical manuals, and other publications referenced in this manual. Publications that should be consulted for additional information about vehicle operations are also listed.

PUBLICATIONS INDEX

The following index should be consulted frequently for latest changes or revisions and for new publications relating to material covered in this technical manual.

Consolidated Index of Army Publications and Blank Forms.....DA PAM 25-30

FORMS

The following forms pertain to this manual. See DA PAM 25-30 for index of blank forms. See DA PAM 738-750, The Army Maintenance Management System (TAMMS), for instructions on the use of maintenance forms pertaining to this material.

Recommended Changes to DA Publications and Blank Forms.....DA FORM 2028
Equipment Inspection and Maintenance Worksheet .....DA FORM 2404
Maintenance Request.....DA FORM 2407
Equipment Control Record.....DA FORM 2408-9
Processing and Deprocessing Record of Shipping, Storage, and Issue of Vehicles and Packaging Improvement Report.....DD FORM 6
Report of Item Discrepancy (ROID) .....SF 364
Product Quality Deficiency Report .....SF 368

OTHER PUBLICATIONS

The following publications contain information pertinent to the FMTVT and associated equipment.

Safety

Security of Tactical Wheeled Vehicles..... TB 9-2300-422-20

MTV

Operator's Manual for M1083 Series, 5-Ton, 6x6, Medium Tactical Vehicle (MTV) .....TM 9-2320-366-10
Operator's Manual for M1083A1 Series, 5-Ton, 6x6, Medium Tactical Vehicle (MTV).....TM 9-2320-392-10

LMTV

Operator's Manual for M1078 Series, 2 1/2-Ton, 4x4, Light Medium Tactical Vehicle (LMTV).....TM 9-2320-365-10
Operator's Manual for M1078A1 Series, 2 1/2-Ton, 4x4, Light Medium Tactical Vehicle (LMTV).....TM 9-2320-391-10

REFERENCES 0123 00

OTHER PUBLICATIONS - Continued

General Vehicle Operation

Operator's, Unit, and Direct Support Manual for the M1082
Series, 2 1/2 Ton, Light Medium Tactical Vehicle Trailer (LMTVT) and M1095 Series,
5 Ton, Medium Tactical Vehicle Trailer (MTVT) ..... TM 9-2330-394-13&P

General Maintenance and Repair

Corrosion Prevention and Control Including Rustproofing Procedures for
Tactical Vehicles and Trailers ..... TB 43-0213
Rigging ..... FM 5-725
Materials Used for Cleaning, Preserving, Abrading, and Cementing Ordnance Materiel
and Related Materials Including Chemicals ..... TM 9-247
Camouflage Pattern Painting ..... FM 5-20
Repair of Tents, Canvas, and Webbing ..... FM 10-16
Metal Body Repair and Related Operations ..... FM 43-2
Description, Use, Bonding Techniques, and Properties of Adhesives ..... TB ORD 1032
Equipment Improvement Report and Maintenance Digest: TACOM Equipment ..... TB 43-0001-39-1
Color, Marking, and Camouflage Painting of Military Vehicles ..... TB 43-0209
CARC Spot Painting ..... TB 43-0242
Painting Instructions for Field Use ..... TM 43-0139
Equipment Improvement Report and Maintenance Summary ..... TM 43-0143
Welding Theory and Application ..... TM 9-237
Organizational Care, Maintenance, and Repair of Pneumatic Tires and Inner Tubes ..... TM 9-2610-200-14

Cold Weather Operation

Basic Cold Weather Manual ..... FM 31-70
Northern Operations ..... FM 31-71

Decontamination

Decontamination Operations Facilities & Equipment ..... TB 700-4
NBC Protection ..... FM 3-4
NBC Decontamination ..... FM 3-5

General

Procedures for Destruction of Tank-Automotive Equipment to Prevent Enemy Use
(US Army Tank-Automotive and Armaments Command) ..... TM 750-244-6
The Army Maintenance Management System (TAMMS) ..... DA PAM 738-750

REFERENCES 0123 00

OTHER PUBLICATIONS - Continued

Land, Sea, and Air Shipment

Marine Terminal Lifting Guidance ..... MTMCTEA PAM 56-1
Standard Characteristics (Dimensions, Weight, and Cube) for Transportability of Military Vehicles and Other Outsize/Overweight Equipment (in TOE Line Sequence) ..... TB 55-46-1
Tiedown Handbook for Rail Movements ..... MTMCTEA PAM 55-19
Tiedown Handbook for Truck Movements ..... MTMCTEA Ref 92-55-20
Marine Lifting and Lashing Handbook ..... MTMCTEA Ref 95-55-22
Containerization of Military Vehicles ..... MTMCTEA Ref 95-55-23

MAINTENANCE ALLOCATION CHART (MAC) 0124 00

INTRODUCTION

The Army Maintenance System MAC

This introduction provides a general explanation of all maintenance and repair functions authorized at various maintenance levels under the standard Army Maintenance System concept.

The Maintenance Allocation Chart (MAC) designates overall authority and responsibility for the performance of maintenance functions on the identified end item or component. The application of the maintenance functions to the end item or component will be consistent with the capacities and capabilities of the designated maintenance levels, which are shown on the MAC in column (4) as:

Field (Unit) –- includes two subcolumns, C (Operator/Crew) and O (Field Level) maintenance.

Sustainment (Direct Support) –- includes an F subcolumn.

Sustainment (General Support) –- includes an H subcolumn.

Depot –- includes a D subcolumn.

The tools and test equipment requirements (immediately following the MAC) list the tools and test equipment (both special tools and common tool sets) required for each maintenance function as referenced from the MAC.

The remarks (immediately following the tools and test equipment requirements) contain supplemental instructions and explanatory notes for a particular maintenance function.

Maintenance Functions

Maintenance functions are limited to and defined as follows:

1. Inspect. To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination (e.g. by sight, sound, or feel).

2. Test. To verify serviceability by measuring the mechanical, pneumatic, or electrical characteristics of an item and comparing those characteristics with prescribed standards.

3. Service. Operations required periodically to keep an item in proper operating condition; e.g. to clean (includes decontaminate, when required), to preserve, to drain, to paint, or to replenish lubricants, chemicals, or fluids.

4. Adjust. To maintain or regulate, within prescribed limits, by bringing into proper position, or by setting the operating characteristics to specified parameters.

5. Align. To adjust specified variable elements of an item to bring about optimum or desired performance.

MAINTENANCE ALLOCATION CHART (MAC) - CONTINUED 0124 00

Maintenance Functions - Continued

6. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments or Test, Measurement, and Diagnostic Equipment (TMDE) used in precision measurement. Consists of comparison of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.

7. Remove/Install. To remove and install the same item when required to perform service or other maintenance functions. Install may be the act of emplacing, seating, or fixing into position a spare, repair part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.

8. Replace. To remove an unserviceable item and install a serviceable counterpart in its place. "Replace " is authorized by the MAC and assigned maintenance level is shown as the 3d position code of the SMR code.

9. Repair. The application of maintenance services including fault location/troubleshooting, removal/installation, and disassembly/assembly procedures, and maintenance actions to identify troubles and restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

NOTE

The following definitions are applicable to the “repair” maintenance function:

Services –- Inspect, test, service, adjust, align, calibrate, and/or replace.

Fault location/troubleshooting –- The process of investigating and detecting the cause of equipment malfunctioning; the act of isolating a fault within a system or Unit Under Test (UUT).

Disassembly/assembly –- The step-by-step breakdown (taking apart) of a spare/functional group coded item to the level of its least component, that is assigned a SMR code for the level of maintenance under consideration (i.e., identified as maintenance significant).

Actions –- Welding, grinding, riveting, straightening, facing, machining, and/or resurfacing.

10. Overhaul. That maintenance effort (service/action) prescribed to restore an item to a completely serviceable/operational condition as required by maintenance standards in appropriate technical publications (i.e., DMWR). Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.

11. Rebuild. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of material maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (e.g., hours/miles) considered in classifying Army equipment/components.

MAINTENANCE ALLOCATION CHART (MAC) - CONTINUED 0124 00

Explanation of Columns in the MAC

Column (1) — Group Number. Column (1) lists functional group code numbers, the purpose of which is to identify maintenance significant components, assemblies, subassemblies, and modules with the next higher assembly.

Column (2) –- Component/Assembly. Column (2) contains the item names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

Column (3) –- Maintenance Function. Column (3) lists the functions to be performed on the items listed in column (2). (For a detailed explanation of these functions, refer to “Maintenance Functions” outlined above.)

Column (4) –- Maintenance Level. Column (4) specifies each level of maintenance authorized to perform each function listed in Column (3), by indicating work time required (expressed in manhours in whole hours or decimals) in the appropriate subcolumn. This work time figure represents the active time required to perform that maintenance function at the indicated level of maintenance. If the number or complexity of the tasks within the listed maintenance function vary at different maintenance levels, appropriate work time figures are to be shown for each level. The work time figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time (including any necessary disassembly/assembly time), troubleshooting/fault location time, and quality assurance time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the MAC. The symbol designations for the various maintenance levels are as follows:

C –- Operator or crew maintenance

O – Field Level (Unit) maintenance

F Sustainment (Direct Support) maintenance

L Specialized Repair Activity (SRA)

H Sustainment (General Support) maintenance

D Depot maintenance

NOTE

The “L” maintenance level is not included in column (4) of the MAC. Functions to this level of maintenance are identified by a work time figure in the “H” column of column (4), and an associated reference code is used in the REMARKS column (6). This code is keyed to the remarks and the SRA complete repair application is explained there.

Column (5) –- Tools and Test Equipment Reference Code. Column (5) specifies, by code, those common tools sets (not individual tools), common TMDE, and special tools, special TMDE, and special support equipment required to perform the designated functions. Codes are keyed to the tools and test equipment table.

MAINTENANCE ALLOCATION CHART (MAC) - CONTINUED 0124 00

Explanation of Columns in the MAC - Continued

Column (6) —- Remarks Code. When applicable, this column contains a letter code, in alphabetical order, which is keyed to the remarks table entries.

Explanation of Columns in Tool and Test Equipment Requirements

Column (1) — Reference Code. The tool and test equipment reference code correlates with a code used in column (5) of the MAC.

Column (2) — Maintenance Level. The lowest level of maintenance authorized to use the tool or test equipment.

Column (3) —- Nomenclature. Name or identification of the tool or test equipment.

Column (4) —- National Stock Number. The National Stock Number of tool or test equipment.

Column (5) —- Tool Number. The manufacturer's part number, model number, or type number.

Explanation of Columns in the Remarks

Column (1) —- Remarks Code. The code recorded in column (6) of the MAC.

Column (2) —- Remarks. This column lists information pertinent to the maintenance function being performed as indicated in the MAC.

MAINTENANCE ALLOCATION CHART (MAC) - CONTINUED 0124 00

MAINTENANCE ALLOCATION CHART FOR THE FMTVT

Table 1. MAC FOR FMTVT.

(1) Group Number	(2) Component / Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools and Equipment Ref Code	(6) Remarks Code
			Field			Sustainment			
			Unit		Direct Support	General Support	Depot		
			C	O	F	H	D		
06	ELECTRICAL SYSTEM								
		Test		1.5	0.3				
		Adjust			3.0				
		Service		0.8					
		Replace			3.0				
		Repair		0.4	4.9				
0608	VOLTAGE CONVERTOR BOX	Inspect	0.1		0.3				
		Replace		1.5					
		Repair		1.5	0.3				
0609	LIGHT ASSEMBLY, BACKUP	Inspect	0.1						
		Replace		0.8					
		Repair		0.3					
0609	TAILLIGHT ASSEMBLY, COMPOSITE	Inspect	0.1						
		Replace		0.8					
		Repair		0.5					
0613	CABLE ASSEMBLY, CLEARANCE AND MARKER LIGHTS	Inspect	0.1						
		Replace		1.2					
		Repair		0.5					

MAINTENANCE ALLOCATION CHART (MAC) - CONTINUED 0124 00

MAINTENANCE ALLOCATION CHART FOR THE FMTVT - Continued

Table 1. MAC FOR FMTVT (Cont).

(1) Group Number	(2) Component/ Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools and Equipment Ref Code	(6) Remarks Code
			Field			Sustainment			
			Unit		Direct Support	General Support	Depot		
			C	O	F	H	D		
0613	CABLE ASSEMBLY, INTERVEHICULAR, 12 VDC	Replace		0.8					
		Repair		0.2	1.3				
0613	HARNESS ASSEMBLY, INTERVEHICULAR, 24 VDC	Replace		0.6					
		Repair		0.5	0.8				
1311	WHEEL ASSEMBLY, PNEUMATIC TIRE	Inspect	0.1						
		Replace	1.0	1.2					
		Repair		2.0					A
1313	TIRE, PNEUMATIC	Replace		2.0					A
1501	FRAME ASSEMBLY	Inspect	.01	.03					
		Repair		.08	14.0				
1507	LANDING GEAR	Inspect	0.1						
		Repair		0.5					
		Replace			1.5				
1601	LEAF SPRING ASSEMBLIES	Inspect	0.1	0.2					
		Service		0.3					
		Replace		2.7					
1604	SHOCK ABSORBERS	Inspect	0.1	0.3					
		Replace		0.5					
1605	STABILIZER BAR, REAR	Inspect		0.2					
		Replace		2.0					
		Repair		1.5					

MAINTENANCE ALLOCATION CHART (MAC) - CONTINUED 0124 00

MAINTENANCE ALLOCATION CHART FOR THE FMTVT - Continued

Table 1. MAC FOR FMTVT (Cont).

(1) Group Number	(2) Component/ Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools and Equipment Ref Code	(6) Remarks Code
			Field			Sustainment			
			Unit		Direct Support	General Support	Depot		
			C	O	F	H	D		
1808	STOWAGE BOX	Replace		0.8					
		Repair		0.5					
1810	BODY, CARGO	Inspect	0.1						
		Replace			4.0				
		Repair		0.5					
2210	DECALS	Inspect	0.1						
		Replace		1.0					
3307	COVER KIT, CARGO SOFT TOP	Remove/Install	1.5						
		Inspect	0.1						
		Replace		2.0					
		Repair		0.5					

MAINTENANCE ALLOCATION CHART FOR THE FMTVT - Continued

Table 2. Tools and Test Equipment for LMTV and MTVT.

Tool or Test Equipment REF Code	Maintenance Level	Nomenclature	National Stock Number	Tool Number
1	F	CROWFOOT ATTACHMENT, SOCKET WRENCH	5120-00-078-3809	10935497
2	O	SOCKET, SOCKET WRENCH	5120-01-161-5907	GLDH382
3	F	SOCKET, SOCKET WRENCH	5120-01-335-0784	
4	O	TOOL KIT, GENERAL MECHANIC'S	5180-00-177-7033	SC 5180-90-N26
6	F	WRENCH SET, CROWFOOT RATCHETING	5120-00-293-0013	GGG-W-646

REMARKS FOR THE LMTVT AND MTVT

Table 3. Remarks for the LMTVT and MTVT.

Remarks Code	Remarks
A	Repair of tires will be in accordance with TM 9-2610-200-14.

INTRODUCTION 0125 00

SCOPE

This RPSTL lists and authorizes spares and repair parts; special tools; special test, measurement, diagnostic equipment (TMDE); and other special support equipment required for performance of field and sustainment level maintenance of the M1082 LMTVT and M1095 MTVT Trailer. It authorizes the requisitioning, issue, and disposition of spares, repair parts and special tools as indicated by the source, maintenance and recoverability (SMR) codes.

GENERAL

In addition to the Introduction work package, this RPSTL is divided into the following work packages.

1. Repair Parts List Work Packages. Work packages containing lists of spare parts authorized by the RPSTL for use in the performance of maintenance. These work packages also include parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Sending units, brackets, filters, and bolts are listed with the component they mount on. Bulk materials are listed by item name in FIG. BULK at the end of the work packages. Repair parts kits are listed separately in the their own functional group and work package. Repair parts for reparable special tools are also listed in a separate work package. Items listed are shown on the associated illustrations.

2. Special Tools List Work Packages. Work packages containing lists of special tools, special TMDE, and special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in the DESCRIPTION AND USABLE ON CODE (UOC) column). Tools that components of common tool sets and/or Class VII are not listed.

3. Cross-Reference Index Work Packages. There are two cross-reference indexes work packages in this RPSTL. The National Stock Number (NSN) Index and the Part Number (P/N) Index work packages. The National Stock Number Index work package refers you to the figure and item number. The Part Number Index work package refers you to the figure and item number.

INTRODUCTION - Continued 0125 00

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES

ITEM NO. (Column (1)). Indicates the number used to identify items called out in the illustration.

SMR CODE (Column (2)). The SMR code containing supply/requisitioning information, maintenance level authorization criteria, and disposition instruction, as shown in the following breakout:

Source Code	Maintenance Code		Recoverability Code
xx	xx		x
1st two positions: How to get an item.	3rd position: Who can install, replace, or use the item.	4th position: Who can do complete repair* on the item.	5th position: Who determines disposition action on unserviceable items.

*Complete Repair: Maintenance capacity, capability, and authority to perform all corrective maintenance tasks of the "Repair" function in a use/user environment in order to restore serviceability to a failed item.

Source Code. The source code tells you how you get an item needed for maintenance, repair, or overhaul of an end item/equipment. Explanation of source codes follows:

Source Code	Application/Explanation
PA PB PC PD PE PF PG	Stocked items; use the applicable NSN to requisition /request items with these source codes. They are authorized to the level indicated by the code entered in the 3rd position of the SMR code. **NOTE** Items coded PC are subject to deterioration.
KD KF KB	Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance level indicated in the 3rd position of the SMR code. The complete kit must be requisitioned and applied.

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES - Continued

Source Code	Application/Explanation
MO-Made at Field/ AVUM level MF-Made at Field/ AVIM level MH-Made at Sustainment level ML-Made at SRA MD-Made at depot	Items with these codes are not to be requisitioned/requested individually. They must be made from bulk material which is identified by the P/N in the DESCRIPTION AND USABLE ON CODE (UOC) column and listed in the Bulk Material group work package of the RPSTL. If the item is authorized to you by the 3rd position of the SMR code, but the source code indicates it is made at higher level, order the item from the higher level of maintenance.
AO-Assembled by Field/AVUM level AF- Assembled by Field/AVIM level AH-Assembled by Sustainment level AL-Assembled by SRA AD-Assembled by depot	Items with these codes are not to be requested/requisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the level of maintenance indicated by the source code. If the 3rd position of the SMR code authorizes you to replace the item, but the source code indicates the item is assembled at a higher level, order the item from the higher level of maintenance.
XA	Do not requisition an "XA"-coded item. Order its next higher assembly. (Refer to NOTE below.)
XB	If an item is not available from salvage, order it using the CAGEC and P/N.
XC	Installation drawings, diagrams, instruction sheets, field service drawings; identified by manufacturer's P/N.
XD (normal NSN is)	Item is not stocked. Order an XD-coded item through supply channels using the CAGEC and P/N given, if no available.

NOTE

Cannibalization or controlled exchange, when authorized, may be used as a source of supply for items with the above source codes, except for those items source coded "XA" or those aircraft support items restricted by requirements of AR 750-1.

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES - Continued

Maintenance Code. Maintenance codes tell you the level(s) of maintenance authorized to use and repair support items. The maintenance codes are entered in the third and fourth positions of the SMR code as follows:

Third Position. The maintenance code entered in the third position tells the lowest maintenance level authorized to remove, replace, and use an item. The maintenance code entered in the third position will indicate authorization to one of the following levels of maintenance:

Maintenance Code	Application/Explanation
C	Crew or operator maintenance done within field level/AVUM maintenance.
O	Field level/AVUM maintenance can remove, replace, and use the item.
F	Sustainment Level/AVIM maintenance can remove, replace, and use the item.
H	Sustainment Level maintenance can remove, replace, and use the item.
L	Specialized repair activity can remove, replace and use the item.
D	Depot can remove, replace, and use the item.

Fourth Position. The maintenance code entered in the fourth position tells whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (perform all authorized repair functions).

NOTE

Some limited repair may be done on the item at a lower level of maintenance, if authorized by the Maintenance Allocation Chart (MAC) and SMR codes.

Maintenance Code	Application/Explanation
O	Field/AVUM is the lowest level that can do complete repair of the item.
F	Sustainment Level/AVIM is the lowest level that can do complete repair of the item.
H	Sustainment Level is the lowest level that can do complete repair of the item.
L	Specialized repair activity is the lowest level that can do complete repair of the item.
D	Depot is the lowest level that can do complete repair of the item.
Z	Nonreparable. No repair is authorized.

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES - Continued

Maintenance Code	Application/Explanation
B	No repair is authorized. No parts or special tools are authorized for the maintenance of "B" coded item. However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

Recoverability Code. Recoverability codes are assigned to items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the SMR Code as follows:

Recoverability Code	Application/Explanation
Z	Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in the third position of the SMR Code.
O	Reparable item. When uneconomically reparable, condemn and dispose of the item at the field level.
F	Reparable item. When uneconomically reparable, condemn and dispose of the item at the Sustainment level.
H	Reparable item. When uneconomically reparable, condemn and dispose of the item at the Sustainment level.
D	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item not authorized below depot level.
L	Reparable item. Condemnation and disposal not authorized below Specialized Repair Activity (SRA).
A	Item requires special handling or condemnation procedures because of specific reasons (such as precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

NSN (Column (3)). The NSN for the item is listed in this column.

CAGEC (Column (4)). The Commercial and Government Entity Code (CAGEC) is a five-digit code which is used to identify the manufacturer, distributor, or Government agency/activity, that supplies the item.

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES - Continued

PART NUMBER (Column (5)). Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards, and inspection requirements to identify an item or range of items.

NOTE

When you use an NSN to requisition an item, the item received may have a different P/N from the number listed.

DESCRIPTION AND USABLE ON CODE (UOC) (Column (6)). This column includes the following information:

1. The Federal item name, and when required, a minimum description to identify the item.

2. P/Ns of bulk materials are referenced in this column in the line item to be manufactured or fabricated.

3. Hardness Critical Item (HCI). A support item that provides the equipment with special protection from electromagnetic pulse (EMP) damage during a nuclear attack.

4. The statement "END OF FIGURE" appears just below the last item description in Column (6) for a given figure in both the repair parts list and special tools list work packages.

QTY (Column (7)). The QTY (quantity per figure) column indicates the quantity of the item used in the breakout shown on the illustration figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column instead of a quantity indicates that the quantity is variable and quantity may change from application to application.

EXPLANATION OF CROSS-REFERENCE INDEXES WORK PACKAGES FORMAT AND COLUMNS

1. National Stock Number (NSN) Index Work Package.

STOCK NUMBER Column. This column lists the NSN by National item identification number (NIIN) sequence. The NIIN consists of the last nine digits of the NSN

NSN (e.g., 5305-01-674-1467). NIIN	When using this column to locate an item, ignore the first four digits of the NSN. However, the complete NSN should be used when ordering items by stock number.

FIG. Column. This column lists the number of the figure where the item is identified/located. The figures are in numerical order in the repair parts list and special tools list work packages.

ITEM Column. The item number identifies the item associated with the figure listed in the adjacent FIG. column. This item is also identified by the NSN listed on the same line.

EXPLANATION OF CROSS-REFERENCE INDEXES WORK PACKAGES FORMAT AND COLUMNS - Continued

2. Part Number (PN) Index Work Package. P/Ns in this index are listed in ascending alphanumeric sequence (vertical arrangement of letter and number combinations which places the first letter or digit of each group in order A through Z, followed by the numbers 0 through 9 and each following letter or digit in like order).

PART NUMBER Column. Indicates the P/N assigned to the item.

FIG. Column. This column lists the number of the figure where the item is identified/located in the repair parts list and special tools list work packages.

ITEM Column. The item number is that number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

SPECIAL INFORMATION

UOC. The UOC appears in the lower left corner of the Description Column heading. Usable on codes are shown as "UOC: . . ." in the Description Column (justified left) on the first line under the applicable item/nomenclature. Uncoded items are applicable to all models. Identification of UOC's used in the RPSTL are:

Code	Used On
LTA	Model M1082
MTA	Model M1095

Fabrication Instructions. Bulk materials required to manufacture items are listed in the bulk material functional group of this RPSTL. Part numbers for bulk materials are also referenced in the Description Column of the line item entry for the item to be manufactured/fabricated. Detailed fabrication instructions for items source coded to be manufactured or fabricated are found in TM 9-2330-394-13&P.

Index Numbers. Items which have the word BULK in the figure column will have an index number shown in the item number column. This index number is a cross-reference between the NSN/P/N index work packages and the bulk material list in the repair parts list work package.

HOW TO LOCATE REPAIR PARTS

1. When NSNs or P/Ns Are Not Known.

First. Using the table of contents, determine the assembly group to which the item belongs. This is necessary since figures are prepared for assembly groups and subassembly groups, and lists are divided into the same groups.

Second. Find the figure covering the functional group or the subfunctional group to which the item belongs.

Third. Identify the item on the figure and note the number(s).

HOW TO LOCATE REPAIR PARTS - Continued

Fourth. Look in the repair parts list work packages for the figure and item numbers. The NSNs and part numbers are on the same line as the associated item numbers.

When NSN Is Known.

First. If you have the NSN, look in the STOCK NUMBER column of the NSN index work package. The NSN is arranged in NIIN sequence. Note the figure and item number next to the NSN.

Second. Turn to the figure and locate the item number. Verify that the item is the one you are looking for.

When P/N Is Known.

First. If you have the P/N and not the NSN, look in the PART NUMBER column of the P/N index work package. Identify the figure and item number.

Second. Look up the item on the figure in the applicable repair parts list work package.

ABBREVIATIONS

Abbreviation	Explanation
ABS	Anti-Lock Braking System
ECU	Electronic Control Unit
LMTVT	Light Medium Tactical Vehicle Trailer
MTVT	Medium Tactical Vehicle Trailer
VCB	Voltage Converter Box

REPAIR PARTS LIST WORK PACKAGES

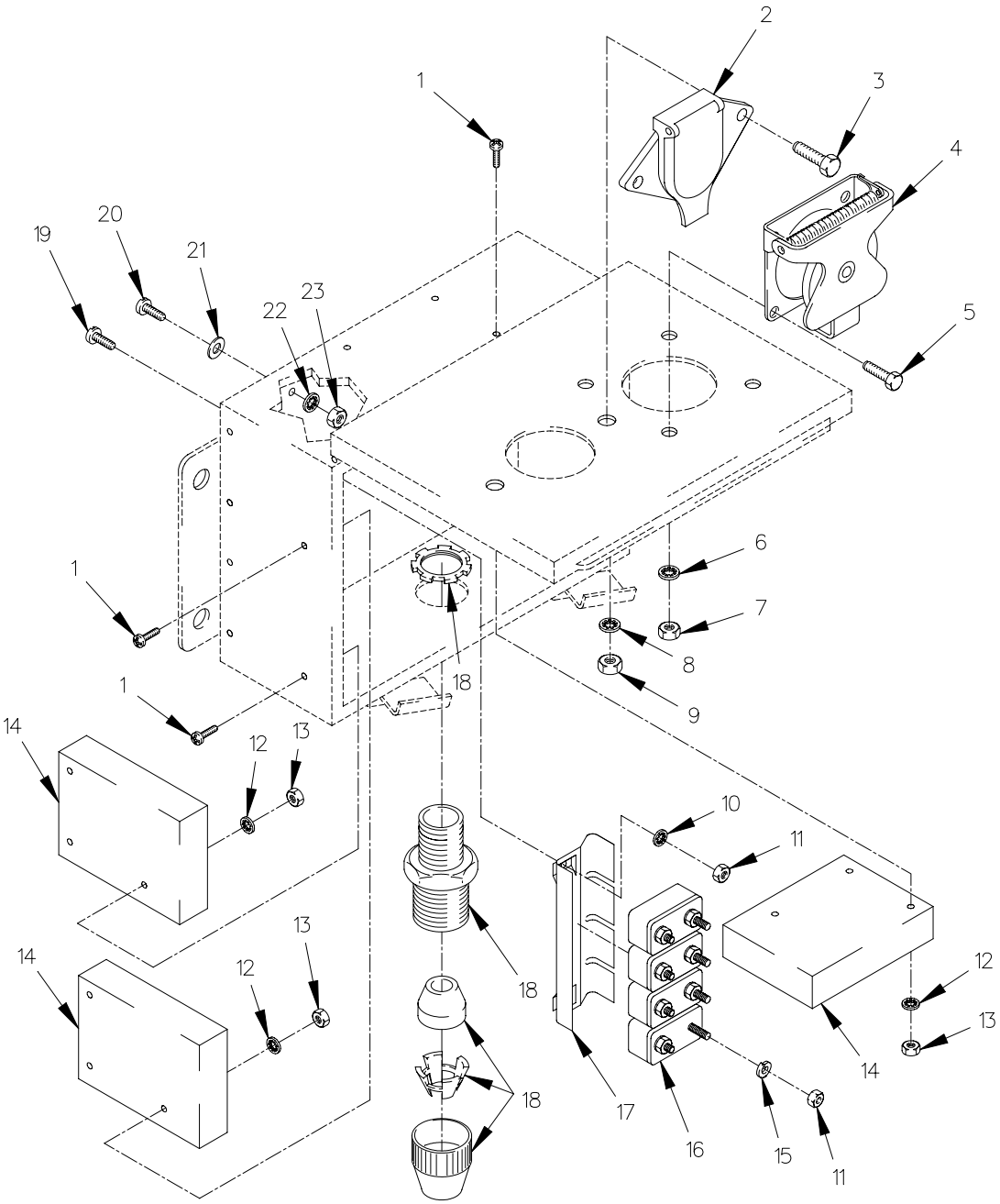


Figure 1. Group 0608 Voltage Converter Box

GROUP 0608 VOLTAGE CONVERTER BOX – Continued 0126 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0608: MISCELLANEOUS ITEMS FIG.1 M1082 AND M1095 VOLTAGE CONVERTER BOX	
1	PAOZZ	5305-00-984-4980	96906	MS35206-223	SCREW,MACHINE #4 - 40 X 1.500	15
2	PAOZZ	5935-00-856-3513	81343	SAEJ560	CONNECTOR,PLUG,ELEC	1
3	PAOZZ	5306-00-226-4825	80204	B1821BH031C075N	BOLT,MACHINE 5/16-18 X 3/4	2
4	PAOZZ	5935-00-846-3884	96906	MS75021-2	CONNECTOR,RECEPTACL	1
5	PAOZZ	5305-00-068-0502	96906	MS90725-6	SCREW,CAP,HEXAGON H 1/4-20 X 3/4	4
6	PAOZZ	5310-00-550-1130	96906	MS35333-40	WASHER,LOCK 1/4	4
7	PAOZZ	5310-01-102-7358	96906	MS51967-2	NUT,PLAIN,HEXAGON 1/4-20	4
8	PAOZZ	5310-00-167-0721	96906	MS35333-41	WASHER,LOCK 5/16	2
9	PAOZZ	5310-01-478-3126	96906	MS51967-5	NUT,PLAIN,HEXAGON 5/16-18	2
10	PAOZZ	5310-00-559-0070	96906	MS35333-38	WASHER,LOCK # 8	4
11	PAOZZ	5310-00-934-9757	96906	MS35649-282	NUT,PLAIN,HEXAGON 8-32	12
12	PAOZZ	5310-00-193-7577	96906	MS35333-36	WASHER,LOCK # 4	15
13	PAOZZ	5310-00-934-9739	96906	MS35649-242	NUT,PLAIN,HEXAGON # 4	15
14	PAOZZ	6110-01-479-8558	4J564	DT-VR(SS)	REGULATOR,VOLTAGE	5
15	PAOZZ	5310-00-045-3299	96906	MS35338-42	WASHER,LOCK #8	8
16	PAOZZ	5925-00-900-1904	13445	30056-10	CIRCUIT BREAKER	8
17	PAOZZ	5925-01-214-3228	98343	1512-0-4	BASE,CIRCUIT BREAKE	2
18	PAOZZ	5975-01-480-5396	56501	2678	BOX CONNECTOR,ELECT	1
19	PAOZZ	5305-00-984-6191	80205	MS35206-243	SCREW,MACHINE #8 - 32 X 3/8	4
20	PAOZZ	5305-00-995-3442	96906	MS35207-268	SCREW,MACHINE 10 - 32 X 1 1/4	3
21	PAOZZ	5310-00-809-8544	96906	MS27183-7	WASHER,FLAT #10	4
22	PAOZZ	5310-00-576-5752	96906	MS35333-39	WASHER,LOCK # 10	3
23	PAOZZ	5310-00-852-8593	96906	MS35649-103	NUT,PLAIN,HEXAGON 10-32	3
					END OF FIGURE	

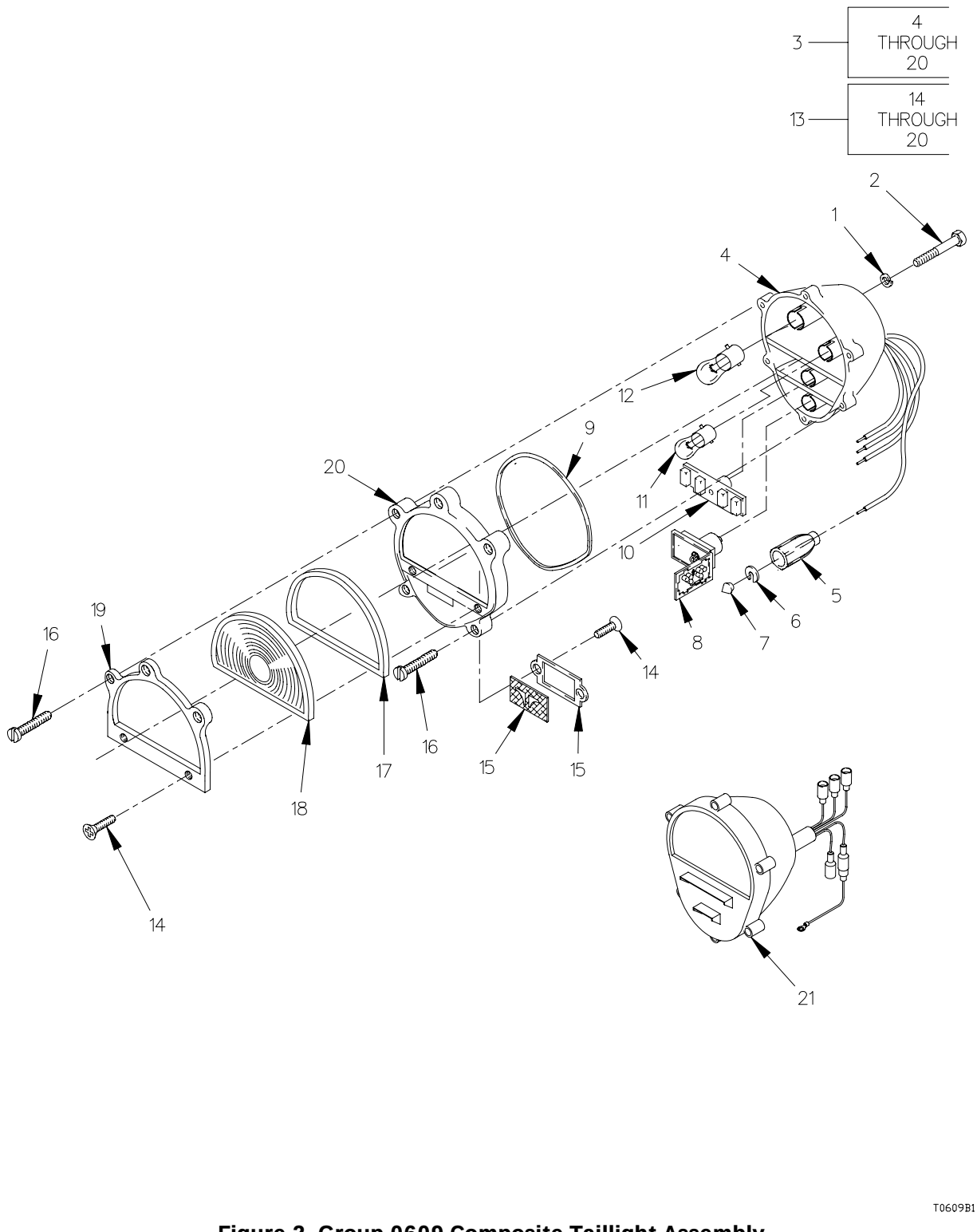


Figure 2. Group 0609 Composite Taillight Assembly

GROUP 0609 COMPOSITE TAILLIGHT ASSEMBLY - Continued 0127 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0609: LIGHTS FIG.2 M1082 AND M1095 COMPOSITE TAILLIGHT ASSEMBLY	
1	PAOZZ	5310-00-637-9541	96906	MS35338-46	WASHER,LOCK 25/64	4
2	PAOZZ	5305-01-140-9118	80204	B1821BH038C088N	SCREW,CAP,HEXAGON H 3/8 X 7/8	4
3	PAOOO	6220-00-134-9098	96906	MS52125-1	STOP LIGHT-TAILLIGH	2
4	PAOZZ	6220-01-067-4717	19207	11639520	.HOUSING,LIGHT	1
5	PAOZZ	5935-00-572-9180	19207	8338566	.SHELL,ELECTRICAL CO	4
6	PAOZZ	5310-00-833-8567	19207	8338567	.WASHER,SLOTTED 6	4
7	PAOZZ	5999-00-057-2929	19204	572929	.CONTACT,ELECTRICAL	4
8	PAOZZ	6220-01-293-2627	19207	12360870-1	.STOP LIGHT,VEHICULA	1
9	PAOZZ	5331-00-462-0907	19207	11639519-2	.O-RING	1
10	PAOZZ	6220-01-387-4250	19207	12360850-2	.LIGHT,MARKER,CLEARA	1
11	PAOZZ	6240-00-617-0991	58536	A52463-2-13	.LAMP,INCANDESCENT	1
12	PAOZZ	6240-00-143-3159	81348	W-L-00111/66	.LAMP,INCANDESCENT	1
13	PAOZZ	6220-00-179-4324	19207	11639535	.LENS,LIGHT	1
14	PAOZZ	5305-00-984-6210	96906	MS35206-263	..SCREW,MACHINE 10-24 X ½	4
15	PAOZZ	6220-00-346-8943	19207	7526015	..LENS,LIGHT	1
16	PAOZZ	5305-01-367-9250	19207	7972328-1	..SCREW,EXTERNALLY RE 7/32-24 X 1.25	5
17	PAOZZ	6220-01-319-5509	19207	12357897	..RETAINER,LENS	1
18	PAOZZ	6220-01-210-3225	19207	11639538-1	..LENS,LIGHT	1
19	PAOZZ	6695-01-326-4706	19207	12357896	..BEZEL,INSTRUMENT MO	1
20	PAOZZ	6220-01-108-5105	19207	11639537	..RETAINER,LENS	1
21	PAOZZ		0FW39	12422958	LIGHT,COMPOSITE LED	2
					END OF FIGURE	

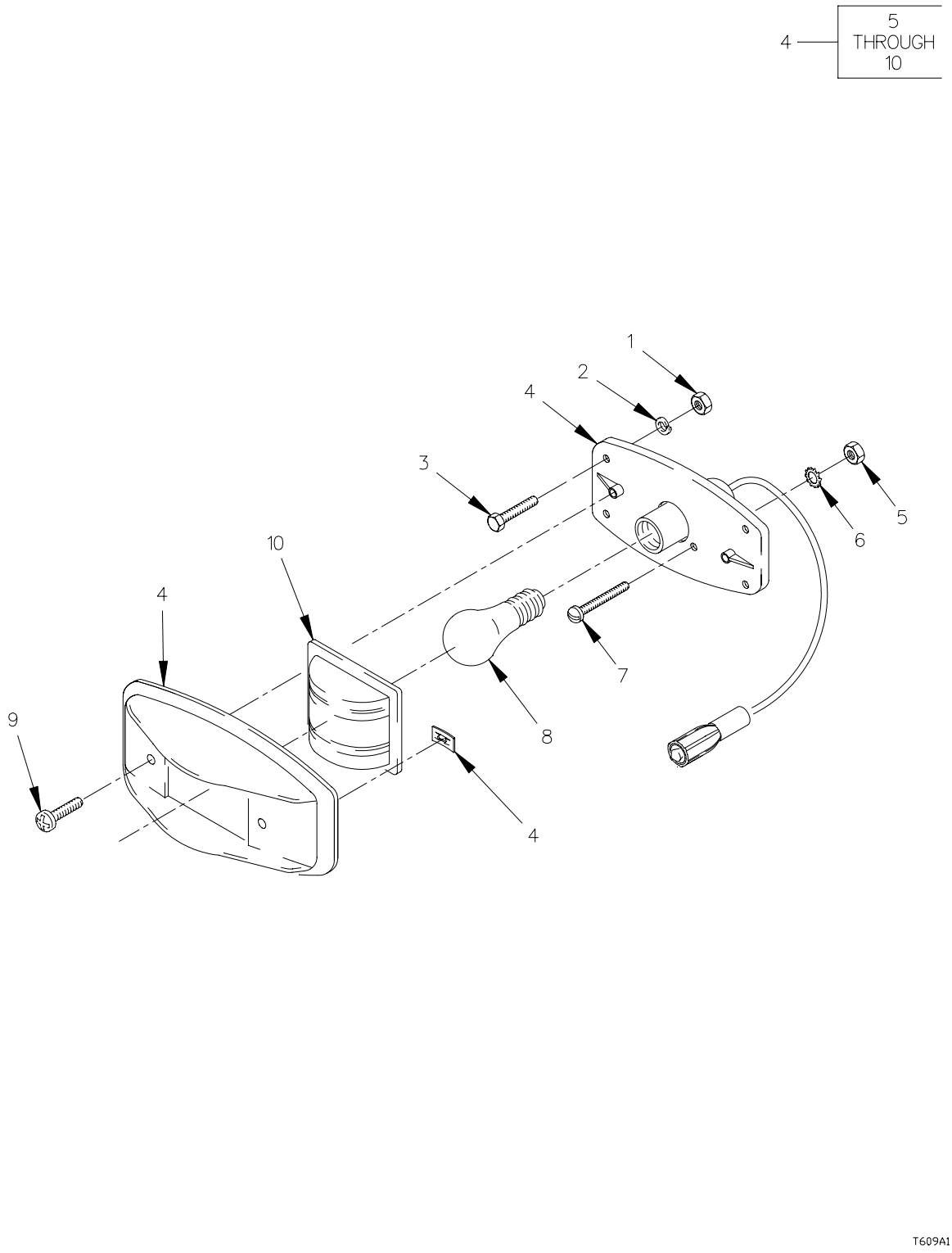


Figure 3. Group 0609 Clearance/Marker Light Assembly

GROUP 0609 CLEARANCE/MARKER LIGHT ASSSEMBLY - Continued 0128 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0609: LIGHTS FIG.3 MARKER LIGHTS	
1	PAOZZ	5310-01-374-1381	19207	12414315-002	NUT,PLAIN,HEXAGON M4	28
2	PAOZZ	5310-01-374-3292	19207	12414570-011	WASHER,LOCK 4.3MM	28
3	PAOZZ	5305-01-372-1266	19207	12414419-042	SCREW,MACHINE M16 X 1.5	28
4	PAOOO	6220-01-375-3532	0FW39	12417654-004	LIGHT,MARKER,CLEARA RED	5
4	PAOOO	6220-01-383-0792	0FW39	12417654-003	LIGHT,MARKER,CLEARA AMBER	2
5	PAOZZ	5310-00-934-9761	96906	MS35649-264	.NUT,PLAIN,HEXAGON	2
6	PAOZZ	5310-00-209-1366	96906	MS35335-58	.WASHER,LOCK	2
7	PAOZZ	5305-00-984-4993	96906	MS35206-233	.SCREW,MACHINE 9/64 X 7/8	1
8	PAOZZ	6240-00-143-3159	81348	W-L-00111/66	.LAMP,INCANDESCENT	1
9	PAOZZ	5305-00-984-6208	96906	MS35206-261	.SCREW,MACHINE #10-24 X .375	2
10	PAOZZ	6220-00-299-7426	96906	MS35421-1	.LENS,LIGHT AMBER	1
10	PAOZZ	6220-00-299-7425	96906	MS35421-2	.LENS,LIGHT RED	1
					END OF FIGURE	

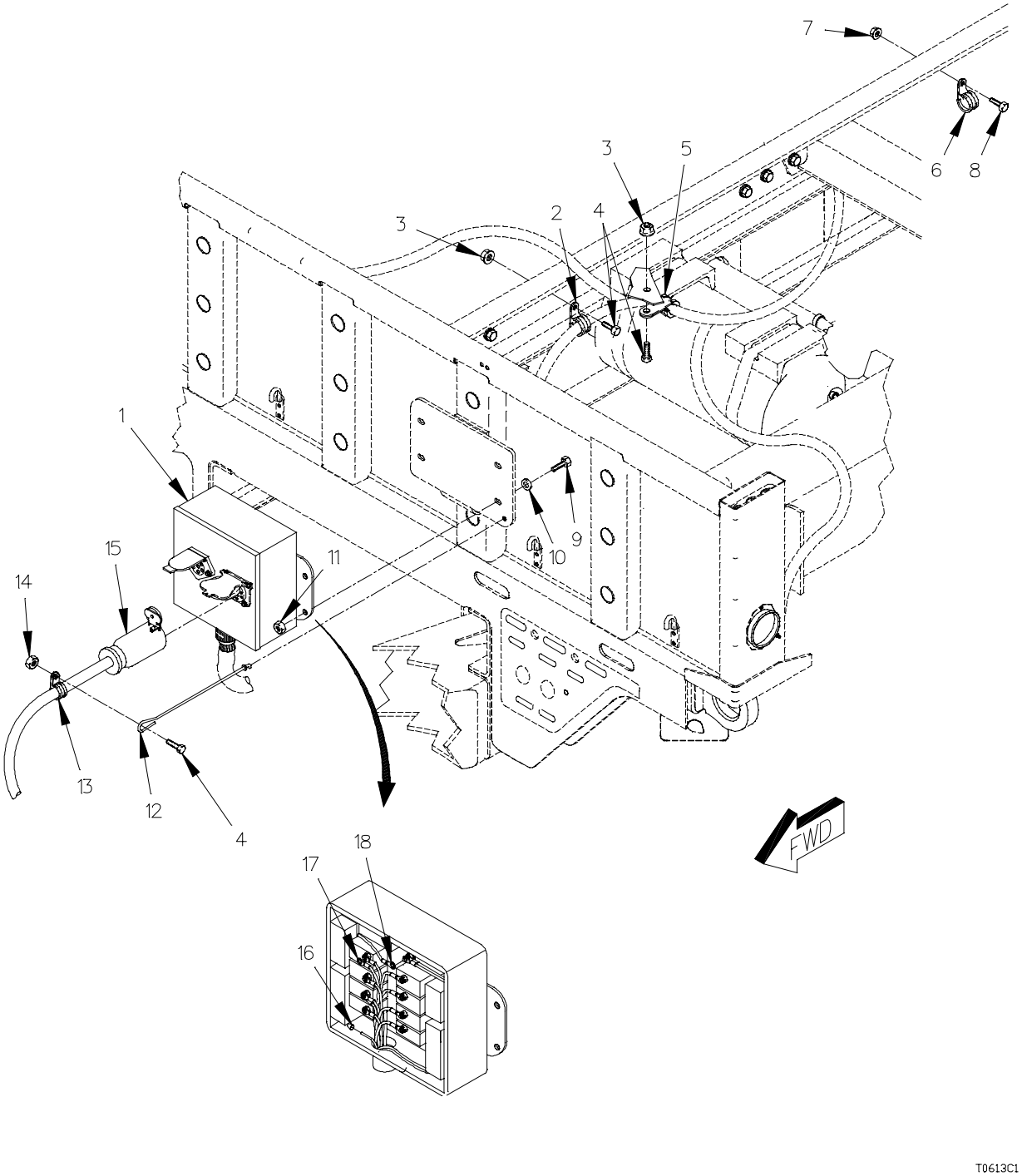


Figure 4. Group 0613 Electrical cables, Cable Box And Clamps (Sheet 1 of 2)

GROUP 0613 ELECTRICAL CABLES, CABLE BOX AND CLAMPS - Continued 0129 00

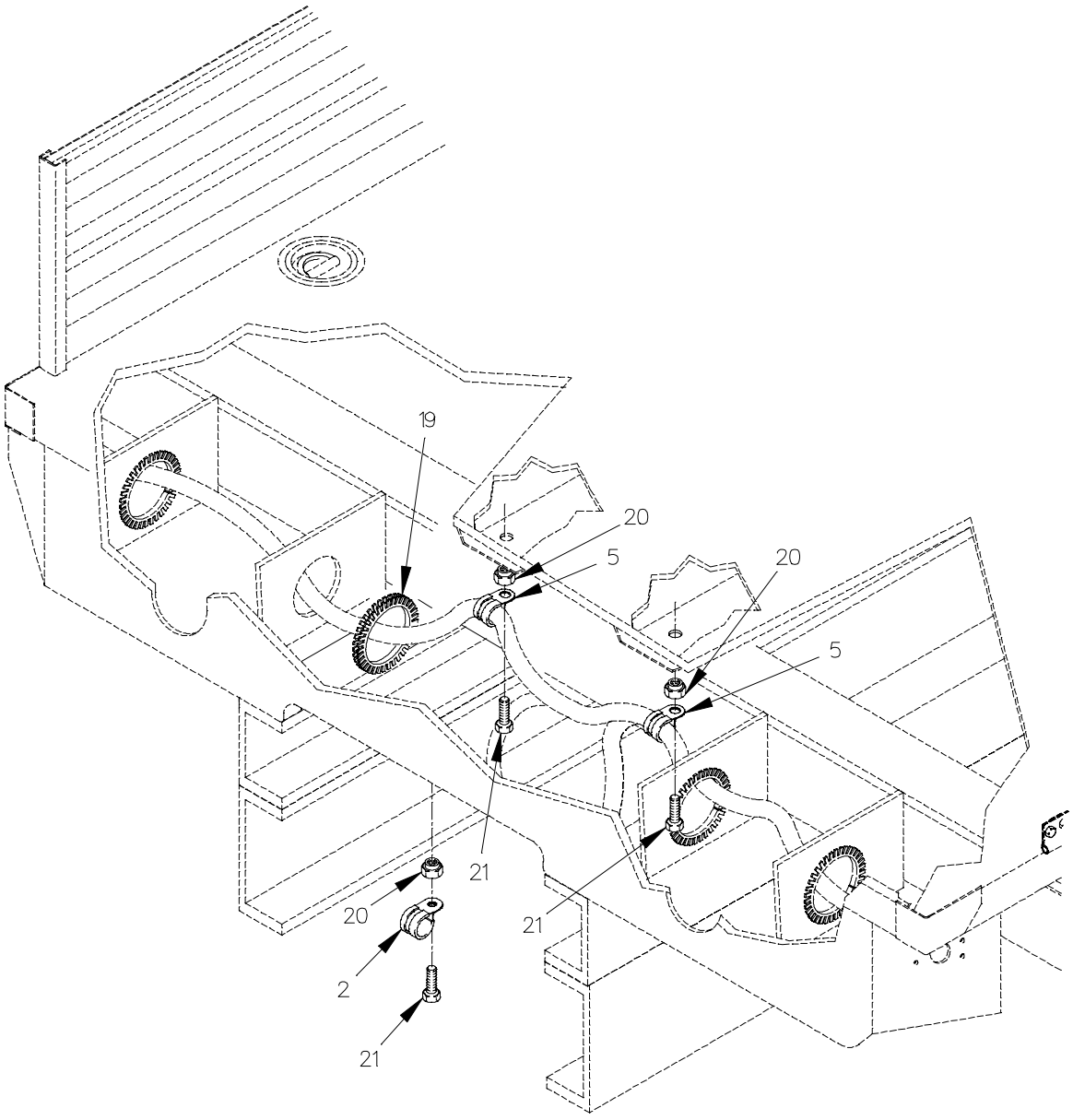


Figure 4. Group 0613 Electrical cables, Cable Box and Clamps (Sheet 2 of 2)

GROUP 0613 ELECTRICAL CABLES, CABLE BOX AND CLAMPS - Continued 0129 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0613: HULL OR CHASSIS WIRING HARNESS FIG.4 ELECTRICAL CABLES, CABLE BOX AND CLAMPS	
1	PAOOO	6130-01-479-6012	19207	12442971	POWER SUPPLY (FOR COMPONENT PARTS SEE FIG. 1)	1
2	PAOZZ		18076	S630H-24	CLAMP,LOOP,HVY DUTY	3
3	PAOZZ	5310-01-437-8728	80204	B18244B06	NUT,PLAIN,EXTENDED	2
4	PAOZZ		0FW39	12414307-003	BOLT,MACHINE M5 X .8 X 16	1
5	PAOZZ	5340-01-390-2959	18076	S630H-16	CLAMP,LOOP	5
6	PAOZZ		18076	S630H-20	CLAMP,LOOP	1
7	PAOZZ	5310-01-342-2739	15526	DIN 934 ST M6	NUT,SELF-LOCKING,HE	1
8	PAOZZ	5305-01-178-7349	56161	10503805	SCREW,CAP,HEXAGON H M6 X 1 X 20	1
9	PAOZZ	5305-01-268-3656	I9008	ISO4017-M6X16-8. 8-A4C	SCREW,CAP,HEXAGON H M6 X 1.0 X 16	4
10	PAOZZ	5310-00-582-5965	96906	MS35338-44	WASHER,LOCK M6	4
11	PAOZZ	5310-01-370-7447	19207	12414474-010	NUT,PLAIN,HEXAGON M6 X 1.0	4
12	PAOZZ	5340-01-479-5497	19207	12443108	CLAMP,LOOP	1
13	PAOZZ	5340-01-479-5504	19207	12443106	CLAMP,LOOP	1
14	PAOZZ	5310-01-374-1382	19207	12414315-003	NUT,PLAIN,HEXAGON	1
15	PAOZZ	5995-00-038-3914	96521	490630	CABLE ASSEMBLY,SPEC	1
16	PAOZZ	5999-00-729-1628	96906	MS25274-3	CAP,ELECTRICAL	1
17	PAOZZ	5940-00-107-1481	96906	MS20659-104	TERMINAL,LUG	2
18	PAOZZ	5940-00-114-1300	96906	MS20659-105	TERMINAL,LUG	1
19	PAOZZ	5325-00-783-4754	80205	MS21266-5N	GROMMET,NONMETALLIC	4
20	PAOZZ	5310-01-479-5599	19207	12419169-003	NUT,PLAIN,CLINCH	5
21	PAOZZ	5306-01-480-3790	80204	B18234B05020N	BOLT,MACHINE	5
					END OF FIGURE	

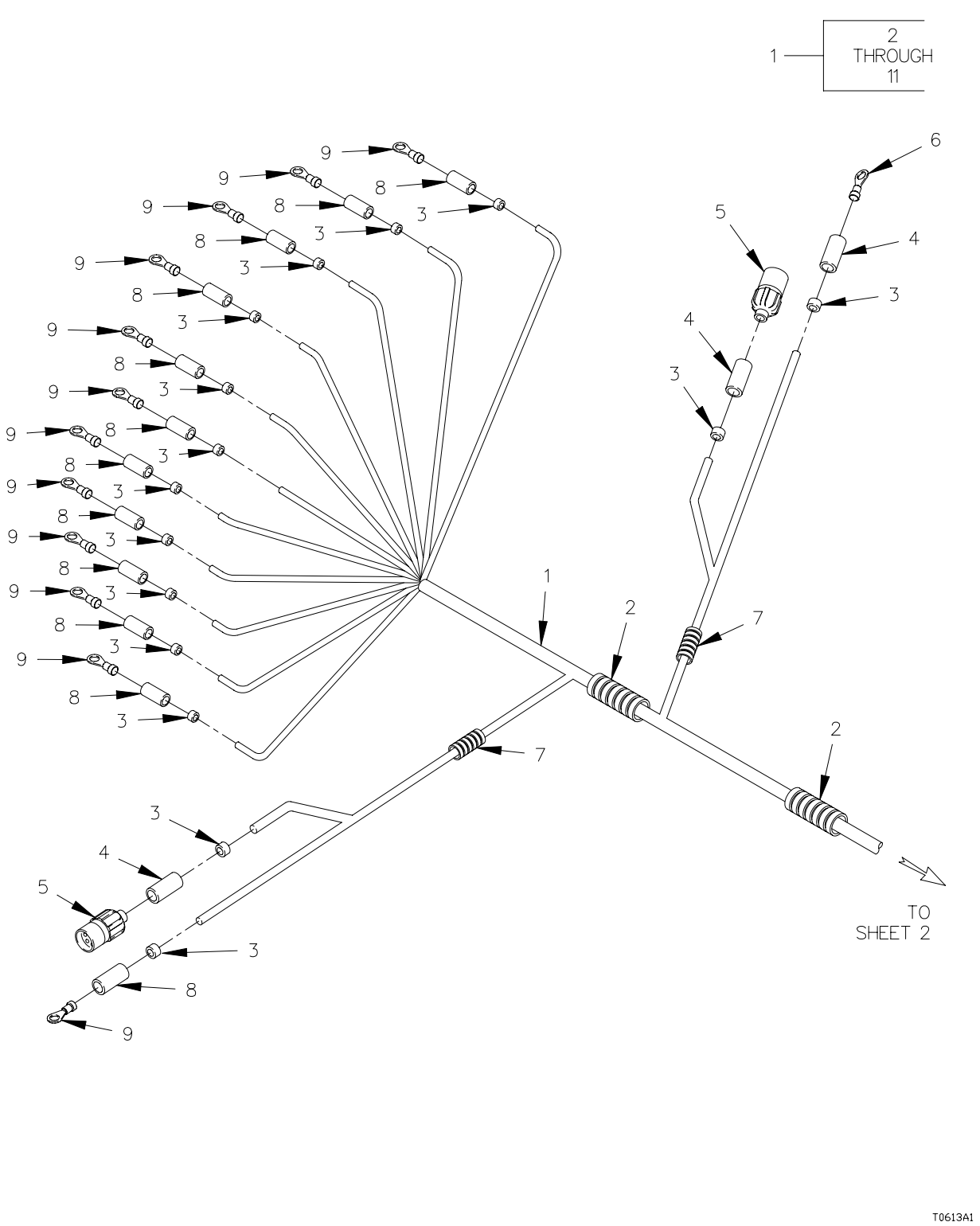


Figure 5. Group 0613 Cable Assembly (Sheet 1 Of 2)

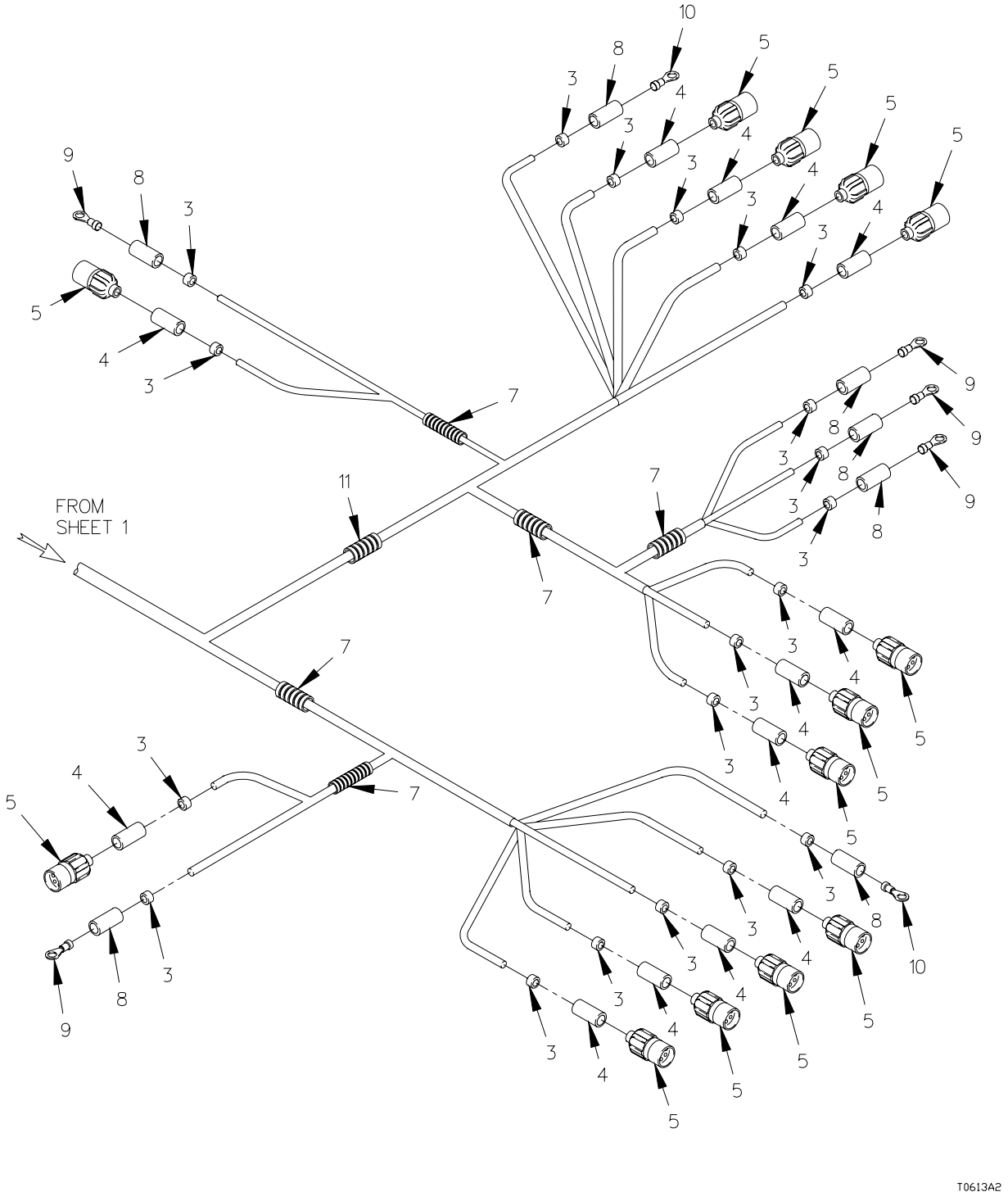


Figure 5. Group 0613 Cable Assembly (Sheet 2 Of 2)

GROUP 0613 CABLE ASSEMBLY - Continued 0130 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 0613: HULL OR CHASSIS WIRING HARNESS FIG.5 M1082 AND M1095 CABLE ASSEMBLY	
1	PAOOO	6150-01-483-2388	19207	12442794-001	CABLE ASSEMBLY UOC:LTA,	1
1	PAOOO	6150-01-479-5781	19207	12442794-002	CABLE ASSEMBLY UOC:MTA,	1
2	MOOZZ		0FW39	12420924-005X	.TUBING,NONMETALLIC MAKE FROM TUBING P/N 12420924-005 (0FW39) CUT TO REQUIRED LENGTH	V
3	PAOZZ	9905-00-752-4649	81349	M43436/1-1	.BAND,MARKER	35
4	MOOZZ		7V059	EPS300-3/16X	.INSULATION SLEEVING MAKE FROM INSULATION SLEEVING P/N EPS-300 3/16 BLACK (7V059)	V
5	PAOZZ	5935-00-115-2307	96906	MS27144-2	.CONNECTOR,PLUG,ELEC	15
6	PAOZZ	5940-00-114-1300	96906	MS20659-105	.TERMINAL,LUG	1
7	MOOZZ		19207	12420924-001X	.TUBING,FLEXIBLE MAKE FROM TUBING P/N 12420924-001 (0FW39) CUT TO REQUIRED LENGTH	V
8	MOOZZ		06090	ATUM-1/4-0-4FTX	.INSULATION SLEEVING MAKE FROM INSULATION SLEEVING P/N ATUM-1/4-0-4FT (06090)	V
9	PAOZZ	5940-00-107-1481	96906	MS20659-104	.TERMINAL,LUG	17
10	PAOZZ	5940-00-113-9820	96906	MS20659-128	.TERMINAL,LUG	2
11	MOOZZ		77060	R-67587X	.TUBING,NONMETALLIC MAKE FROM TUBING P/N 12420924-003 (0FW39) CUT TO REQUIRED LENGTH	V
					END OF FIGURE	

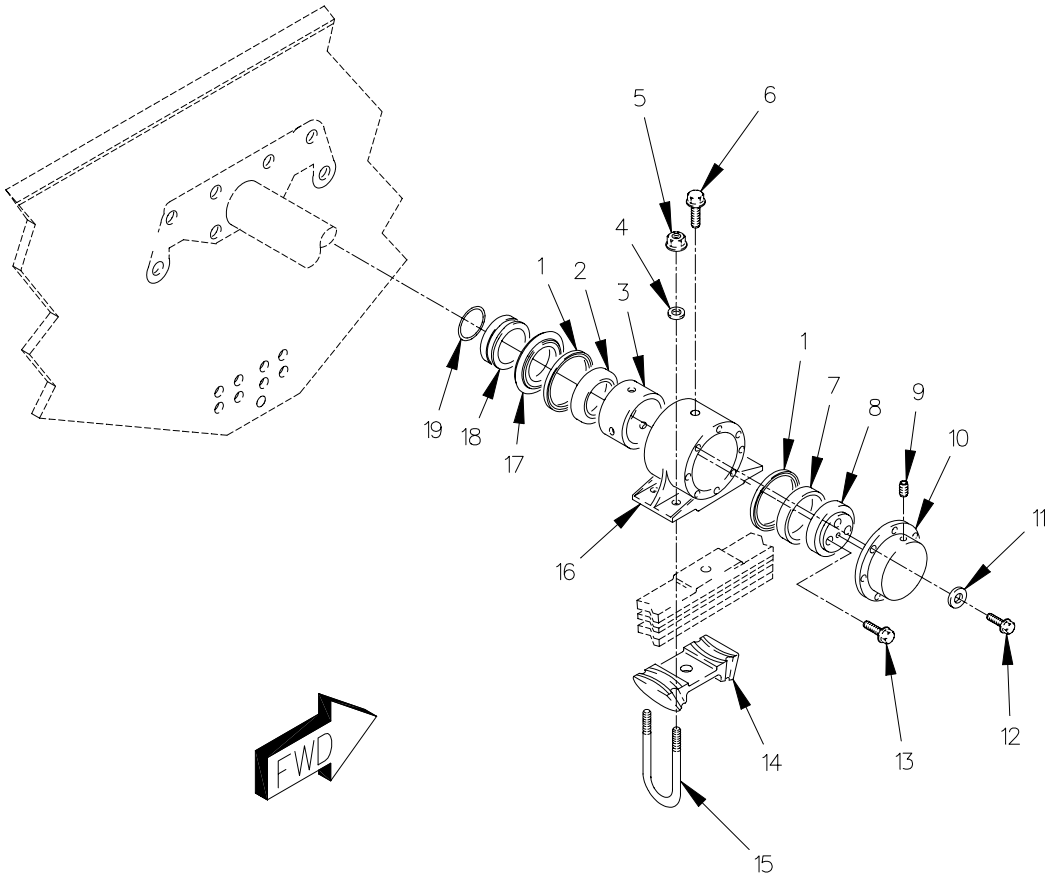


Figure 6. Group 1100 Bogie Axle

GROUP 1100 BOGIE AXLE - Continued 0131 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1100: REAR AXLE ASSEMBLY FIG.6 M1095 BOGIE AXLE	
1	PAFZZ	5330-01-372-0298	48482	S-19751	SEAL,PLAIN ENCASED UOC:MTA,	2
2	PAFZZ	5365-01-368-9143	19207	12418029-001	SPACER,RING DIA 1.6 MM UOC:MTA,	V
2	PAFZZ	5365-01-369-6240	19207	12418029-002	SPACER,RING DIA 2.0 MM UOC:MTA,	V
2	PAFZZ	5365-01-368-8943	19207	12418029-003	SPACER,RING DIA 2.2 MM UOC:MTA,	V
2	PAFZZ	5365-01-368-8944	19207	12418029-004	SPACER,RING DIA 2.4 MM UOC:MTA,	V
2	PAFZZ	5365-01-368-8945	19207	12418029-005	SPACER,RING DIA 1.8 MM UOC:MTA,	V
2	PAFZZ	5365-01-387-7430	19207	12418029-006	SPACER,RING DIA .95 MM UOC:MTA,	V
3	PAFZZ	5365-01-368-8866	19207	12418024	SPACER,SLEEVE UOC:MTA,	2
4	PAFZZ	5310-01-391-7887	81349	D63546/8-06G	WASHER,CONCAVE UOC:MTA,	8
5	PAFZZ	5310-01-371-8419	19207	12418084	NUT,SELF-LOCKING,EX M18 UOC:MTA,	8
6	PAFZZ		19207	12417958-004	SCREW,CAP,HEXAGON M8 X 1.25 X 10 UOC:MTA,	2
7	PAFZZ	3120-01-372-3030	3K155	X1658	BEARING,SLEEVE UOC:MTA,	4
8	PAFZZ	5340-01-369-5627	19207	12418018	PLATE,MOUNTING UOC:MTA,	2
9	PAOZZ	4730-01-460-6478	19207	12417953-015	PLUG,PIPE UOC:MTA,	2
10	PAFZZ	5340-01-387-1172	19207	12417406	COVER,ACCESS UOC:MTA,	2
11	PAOZZ	5310-01-155-1911	34914	990 3861	WASHER,FLAT UOC:MTA,	12
12	PAOZZ	5306-01-3741078	19207	12414307-023	BOLT,MACHINE M8 X 1.0 X 18 UOC:MTA,	12
13	PAFZZ	5306-01-372-3537	19207	12414307-142	BOLT,MACHINE M16 X 1.5 X 55 UOC:MTA,	6
14	PAFZZ	5340-01-369-1399	19207	12417394	HOLDER,SPRING UOC:MTA,	2
15	PAFZZ	5306-01-369-3500	19207	12418027-002	BOLT,U UOC:MTA,	4
16	PAFZZ	2510-01-370-4790	0FW39	12417398	FRAME SECTION,STRUC UOC:MTA,	2
17	PAFZZ	5330-01-459-8205	48482	S-19750	SEAL,PLAIN UOC:MTA,	2
18	PAFZZ	5365-01-368-8867	19207	12418025	SPACER,SLEEVE UOC:MTA,	2
19	PAFZZ	5331-01-030-1825	02697	2-232-N674-70	O-RING UOC:MTA,	2
					END OF FIGURE	

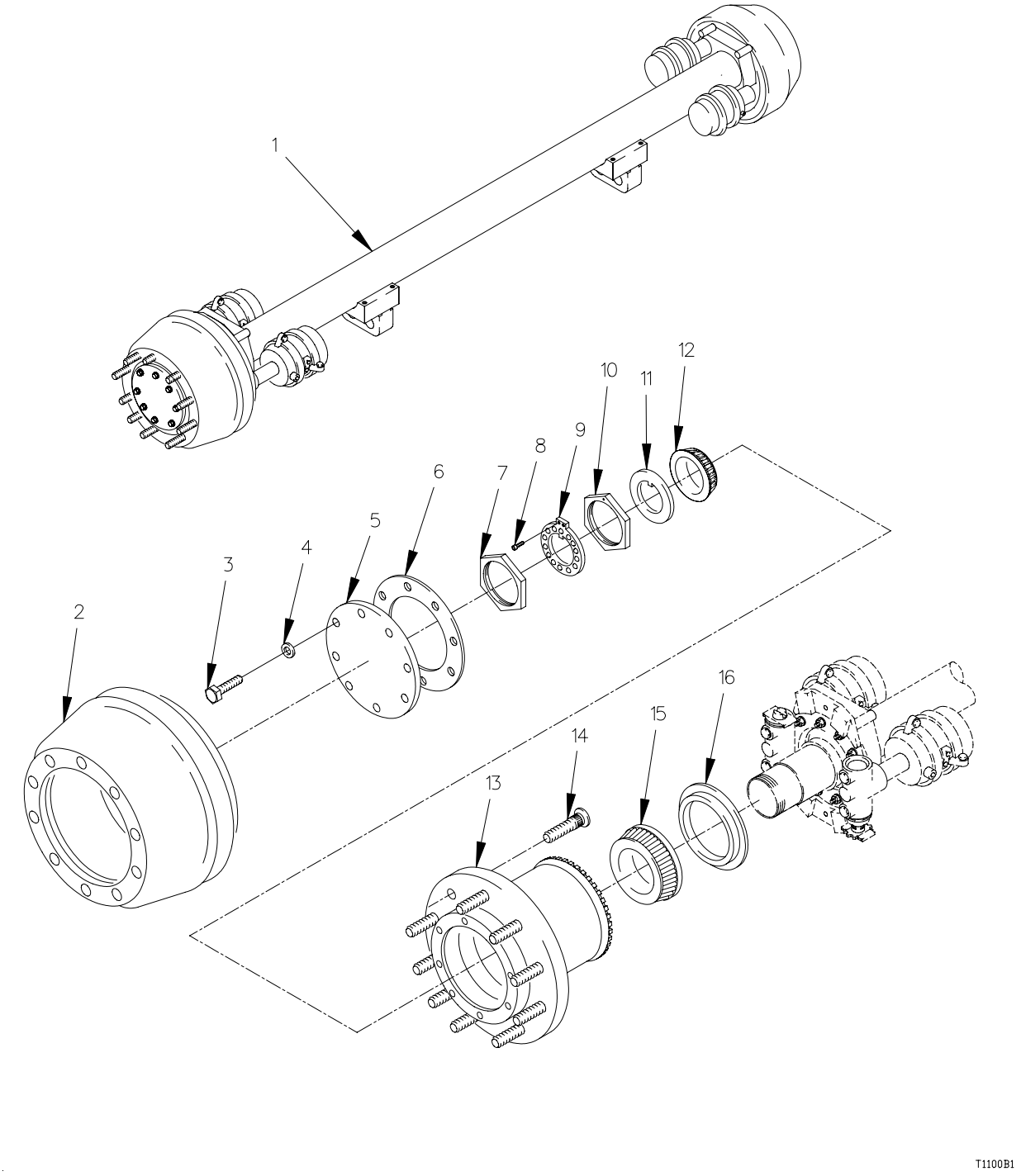


Figure 7. Group 1100 Axle Assembly

GROUP 1100 AXLE ASSEMBLY - Continued 0132 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1100: REAR AXLE ASSEMBLY FIG.7 M1082 AND M1095 AXLE ASSEMBLY	
1	PAFFF	2530-01-485-6186	19207	12441145-001	AXLE ASSEMBLY,VEHIC UOC:LTA,	1
1	PAFFF	2530-01-479-5955	19207	12441145-002	AXLE ASSEMBLY,VEHIC UOC:MTA,	2
2	PAFZZ	2530-01-360-5954	78500	3219-W-4833	.BRAKE DRUM	2
3	PAFZZ	5305-00-017-9837	63734	S-266	.BOLT 3/8-16 X 3/4"	20
4	PAFZZ	5310-00-261-7340	81996	A2303-12-51PC6	.WASHER,LOCK	20
5	PAFZZ	2530-01-497-7003	78500	3262-X-1246	.CAP,HUB	2
6	PAFZZ	5330-01-497-8072	78500	2208-H-1126	.GASKET	2
7	PAFZZ	5310-01-254-4255	78500	1227-R-330	.NUT,PLAIN,HEXAGON	2
8	PAOZZ	5305-01-493-6139	78500	26-X-1002	.SCREW,SET	2
9	PAOZZ	5310-01-494-0149	78500	1229-S-4179	.WASHER,OUTER	2
10	PAFZZ	2520-00-917-7434	78500	1227W517	.NUT,WHEEL BEARING	2
11	PAOZZ	5310-01-494-0154	78500	1229-Y-3119	.WASHER,INNER	2
12	PAFZZ	3110-00-100-3611	60038	47686	.CONE AND ROLLERS,TA	2
13	PAOZZ		78500	A-333-W-4235	.HUB BODY	2
14	PAOZZ	5307-01-277-2302	78500	20-X-1812	.STUD,WHEEL RIGHT HAND	10
14	PAOZZ	5307-01-493-5858	78500	20-X-1577-Z	.STUD,WHEEL LEFT HAND	10
15	PAOZZ	3110-00-144-9793	60038	JM716649	.CONE AND ROLLERS,TA	2
16	PAFZZ	5330-01-360-5252	78500	A-1205-R-2254	.SEAL,PLAIN ENCASED	1
					END OF FIGURE	

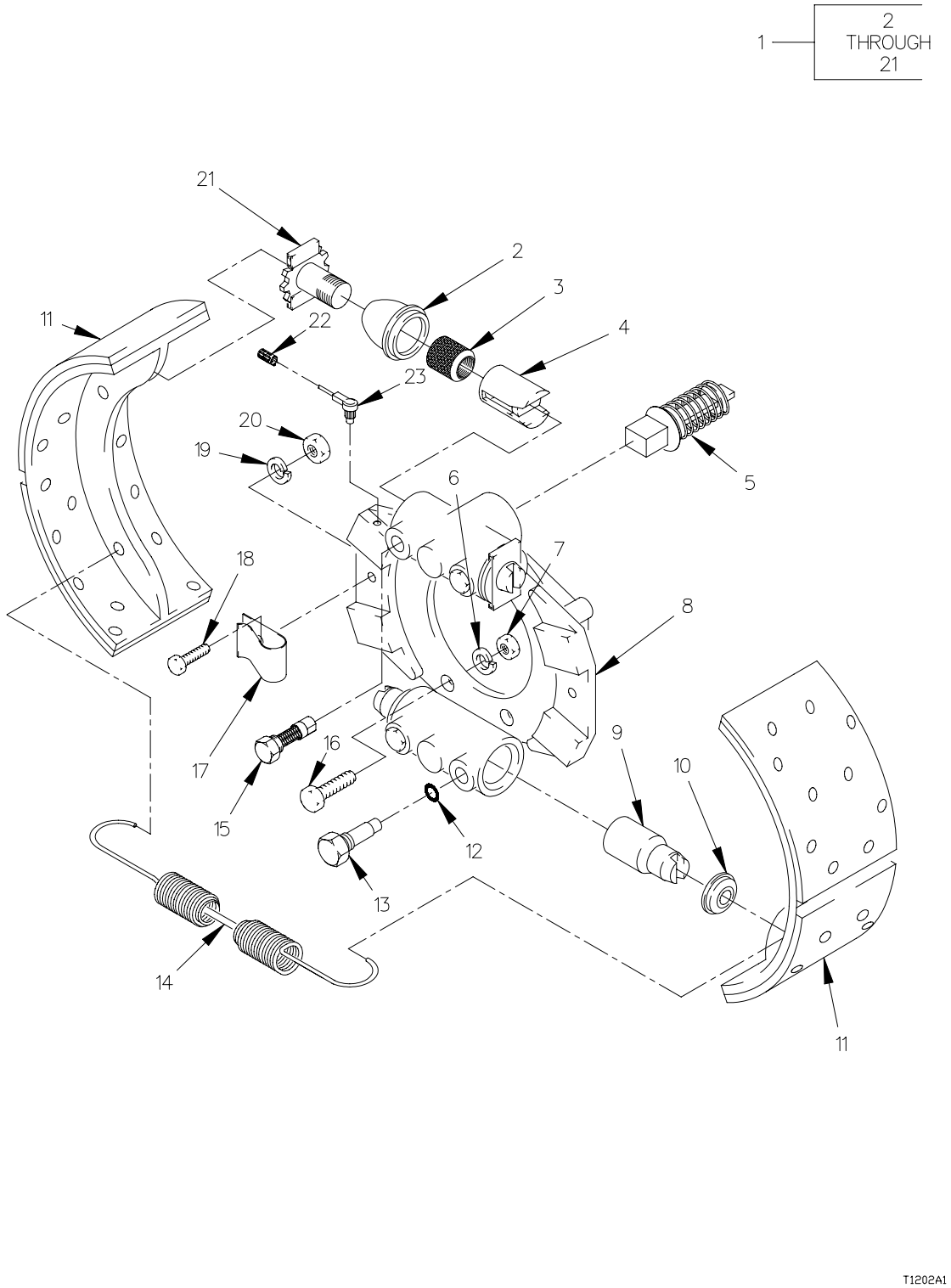


Figure 8. Group 1202 Brake Assembly

GROUP 1202 BRAKE ASSEMBLY - Continued 0133 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1202: SERVICE BRAKES FIG.8 M1082 AND M1095 BRAKE ASSEMBLY	
1	AOOOO		78500	RDA-1550-877	BRAKE ASSEMBLY LEFT HAND	1
1	AOOOO		78500	RDA-1550-878	BRAKE ASSEMBLY RIGHT HAND	1
2	KFOZZ	5330-01-271-9347	78500	1205-C-2005	.SEAL,PLAIN ENCASED PART OF KIT P/N MPS4012	4
3	PAOZZ		78500	3280K8175	.ACTUATOR	2
4	PAOZZ	2530-01-391-0773	78500	A3280W87	.PLUNGER ACTUATOR AS PART OF KIT P/N MPS4012	4
5	PAOZZ	2530-01-389-0350	78500	A-2247-E-1019	.WEDGE,BRAKE EXPANDE	4
6	PAOZZ	5310-01-062-3384	78500	1229-S-513-C	.WASHER,LOCK 5/16	8
7	PAOZZ	5310-01-391-5248	78500	1227E1487	.NUT,SELF-LOCKING,HE	8
8	PAOZZ	2530-01-467-4098	78500	3211T6000	.SPIDER,BRAKE	2
9	PAOZZ	2530-01-330-5049	78500	2297-A-5331	.PISTON,HYDRAULIC BR LEFT SIDE	4
9	PAOZZ		78500	2297-B-5332	.PISTON,HYDRAULIC BR RIGHT SIDE	4
10	PAOZZ	5330-01-292-9573	78500	1205-B-2004	.SEAL,PLAIN ENCASED PART OF KIT P/N MPS4012	2
11	KFOZZ		78500	A1-3222-V-2232	.BRAKE SHOE ASSY PART OF KIT P/N MPS-4285	2
12	PAOZZ	5310-00-964-7811	78500	1729B262	.WASHER,LOCK 19/32	8
13	PAOZZ	2530-01-271-7006	78500	A-3280-Z-8190	.GUIDE,PLUNGER	4
14	KFOZZ	5360-00-482-4422	78500	2758W127	.SPRING PART OF KIT P/N MPS-4285 PA	4
15	KFOZZ	2530-01-367-2382	78500	A1-2297U4597	.GUIDE ASSEMBLY,PAWL	4
16	PAOZZ	5305-01-357-1656	78500	S255Z	.SCREW,CAP,HEXAGON H	8
17	KFOZZ	5340-01-292-5552	78500	2257-M-1001	.CLIP,SPRING TENSION PART OF KIT P/N MPS-4285	4
18	KFOZZ		78500	MS208020-1	.SCREW,CAP PART OF KIT P/N MPS-4285,MPS4012	4
19	KFOZZ		78500	42X1064	.WASHER,LOCK PART OF KIT P/N MPS-4285,MPS4012	4
20	KFOZZ		78500	MN308-1	.NUT PART OF KIT P/N MPS-4285,MPS4012	4
21	PAOZZ	2530-01-271-7084	78500	A-2297-V-5326	.ADJUSTING SCREW	4
22	PAFZZ		0FW39	12443611	.CONTROL,ANTI-LOCK	2
23	PAOZZ		0FW39	12443613	.SENSOR W/SOCKET UOC:LTA,	2
					END OF FIGURE	

GROUP 1208 M1082 ABS CONTROL ASSEMBLY 0134 00

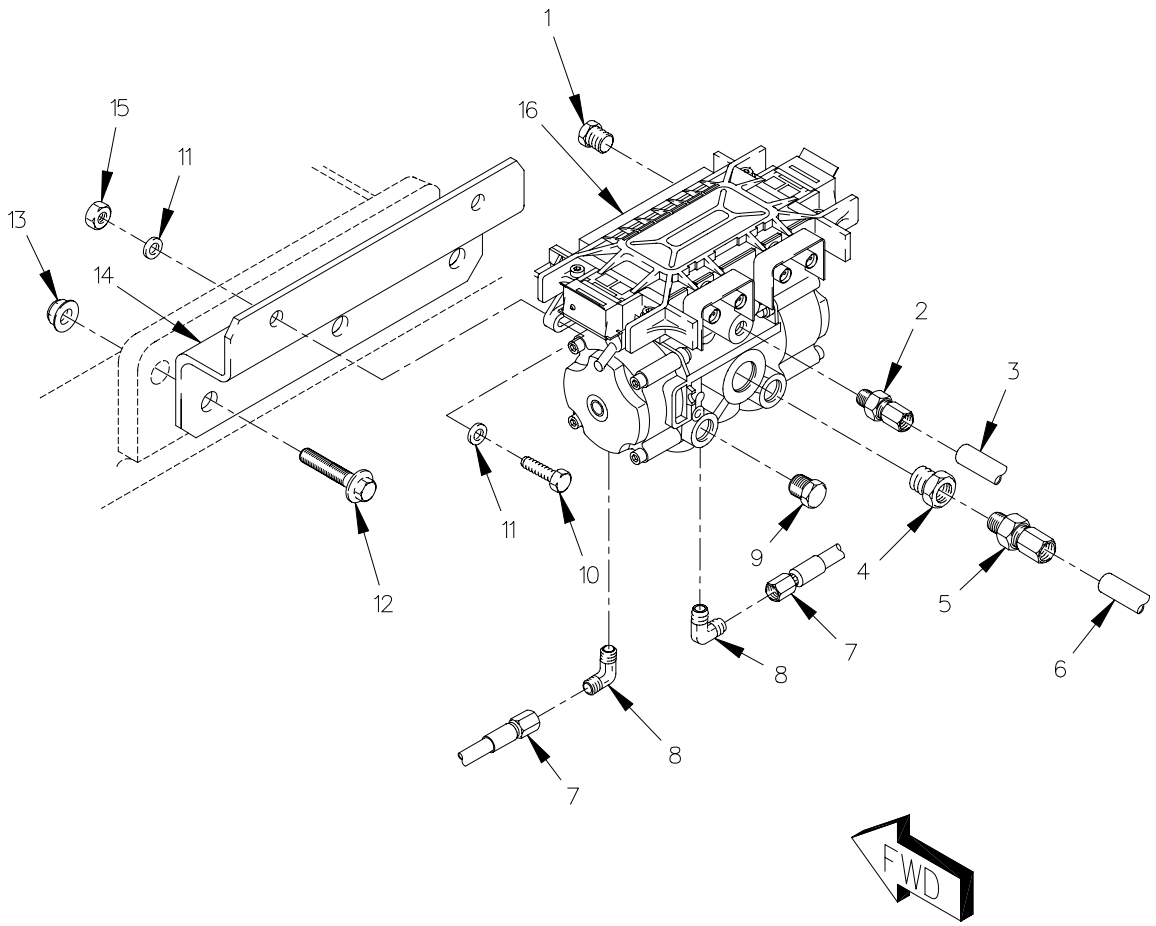


Figure 9. Group 1208 M1082 ABS Control Assembly (Sheet 1 of 2)

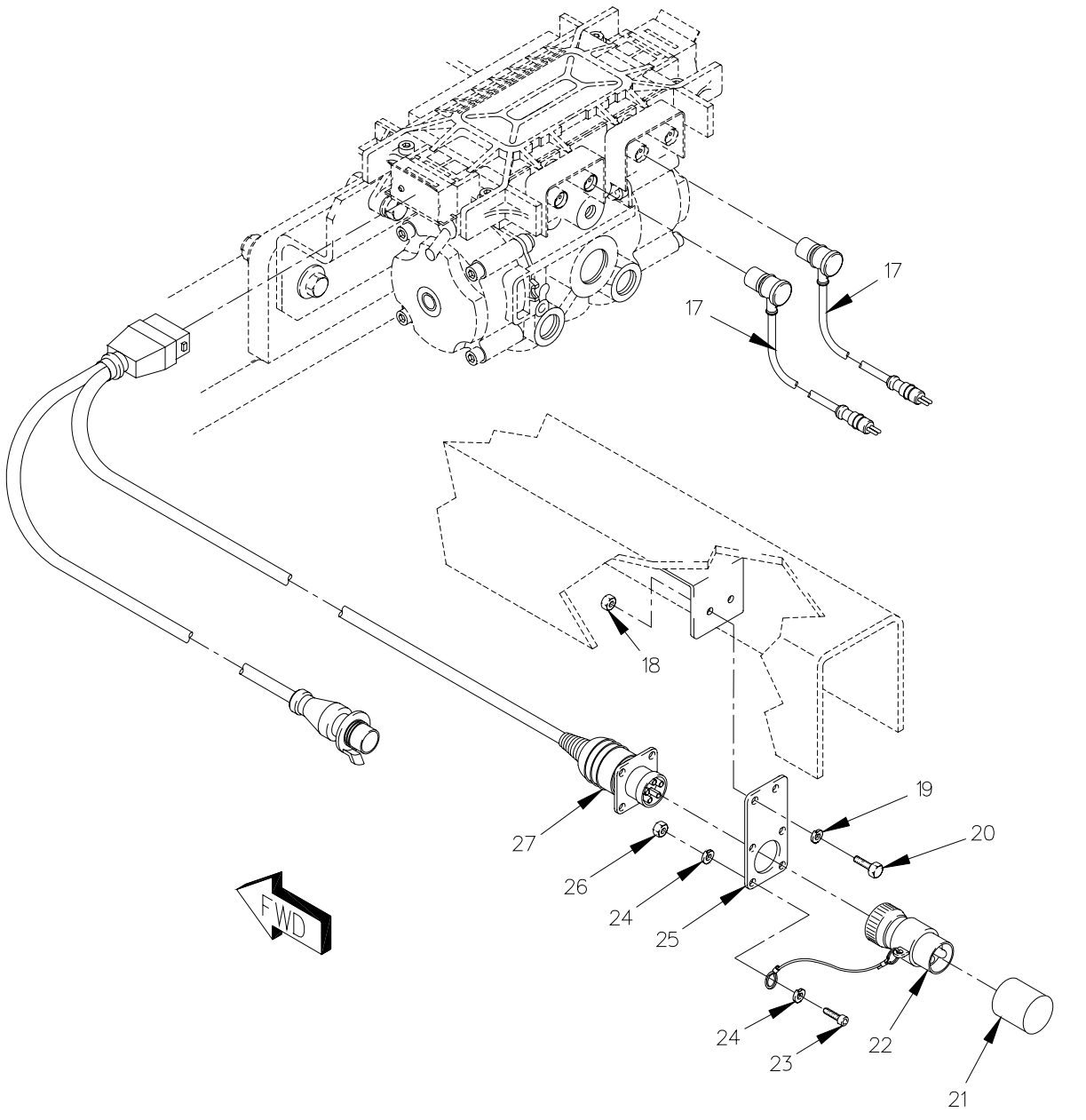


Figure 9. Group 1208 M1082 ABS Control Assembly (Sheet 2 of 2)

GROUP 1208 ABS M1082 CONTROL ASSEMBLY - Continued 0134 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1208: AIR BRAKE SYSTEM FIG.9 M1082 ABS VALVE ASSEMBLY	
1	PAOZZ	4730-01-114-7131	81343	12 130109AS	PLUG,PIPE UOC: LTA	1
2	PAOZZ	4730-00-069-1187	81343	6-4 100202BA	ELBOW,PIPE TO TUBE UOC: LTA	1
3	MOOZZ		0FW39	12420572-006X	TUBE,NONMETALLIC UOC: LTA	1
4	PAOZZ	4730-00-278-3167	81343	12-8 130140BA	BUSHING,PIPE UOC: LTA	1
5	PAOZZ	4730-01-115-6643	81343	8-8 100202BA	ELBOW,PIPE TO TUBE UOC: LTA	1
6	MOOZZ		0FW39	12420572-008X	HOSE,NONMETALLIC MAKE FROM HOSE P/N PFT-8B-BLK-100 (61424) CUT TO LENGTH UOC: LTA	1
7	PAOZZ	4720-01-483-2948	19207	12443181-002	HOSE ASSEMBLY,NONME UOC: LTA	2
8	PAOZZ	4730-00-254-6228	81343	6-6 010202B(E1)	ELBOW,PIPE TO TUBE UOC: LTA	2
9	PAOZZ	4730-01-213-7733	81343	6 130109AB	PLUG,PIPE UOC: LTA	2
10	PAOZZ		0FW39	12419953-028	PLATE,EMERGENCY M8 X 1.25 X 35 UOC: LTA	2
11	PAOZZ	5310-01-376-5302	19207	12417975-008	WASHER,FLAT M8.4 UOC: LTA	4
12	PAOZZ	5306-01-382-5019	19207	12414307-093	BOLT,MACHINE M12 X 1.75 X 30 UOC: LTA	3
13	PAOZZ	5310-01-479-5595	19207	12414308-008	NUT,PLAIN,PLATE M12 X 1.75 X 8 UOC: LTA	3
14	PAOZZ		19207	12443605	BRACKET,SUPPORT PNE UOC: LTA	1
15	PAOZZ	5310-01-470-2361	0FW39	12414474-012	NUT,PLAIN,HEXAGON M8 X 1.25 UOC: LTA	2
16	PAOZZ	5963-01-500-2303	0FW39	12443610	ELECT.CONTROL UNIT UOC: LTA	1
17	PAOOO		0FW39	12443614	SENSOR EXTENSION UOC: LTA	4
18	PAOZZ	5310-01-374-1382	19207	12414315-003	NUT,PLAIN,HEXAGON M5 UOC: LTA	2
19	PAOZZ	5310-01-374-4515	19207	12414570-013	WASHER,LOCK M5.3 UOC: LTA	2
20	PAOZZ	5305-01-356-9468	44940	800-2010	SCREW,CAP,HEXAGON H M6 X 1 X 13.5 UOC: LTA	14
21	PAOZZ	5340-01-512-9064	78500	2237M1235	CAP,PROTECTIVE,DUST UOC: LTA	1
22	PAOZZ		0FW39	12443615	SWITCH,DIAGNOSTIC UOC: LTA	1
23	PAOZZ	5305-00-889-3000	80103	JBD10-081	SCREW,MACHINE 6-32 X 1/2 UOC: LTA	4
24	PAOZZ	5310-00-209-0788	96906	MS35335-30	WASHER,LOCK 9/64 UOC: LTA	4
25	PAOZZ		78500	3155-L-1234	PLATE UOC: LTA	1
26	PAOZZ	5310-00-934-9747	96906	MS35649-262	NUT,PLAIN,HEXAGON 9/64 UOC: LTA	4

GROUP 1208 M1082 ABS CONTROL ASSEMBLY - Continued 0134 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1208: AIR BRAKE SYSTEM FIG.9 M1082 ABS VALVE ASSEMBLY	
27	PAOOO		0FW39	12443612	CABLE,DIAGNOSTIC UOC:LTA,	1
					END OF FIGURE	

GROUP 1208 M1095 ABS CONTROL ASSEMBLY 0135 00

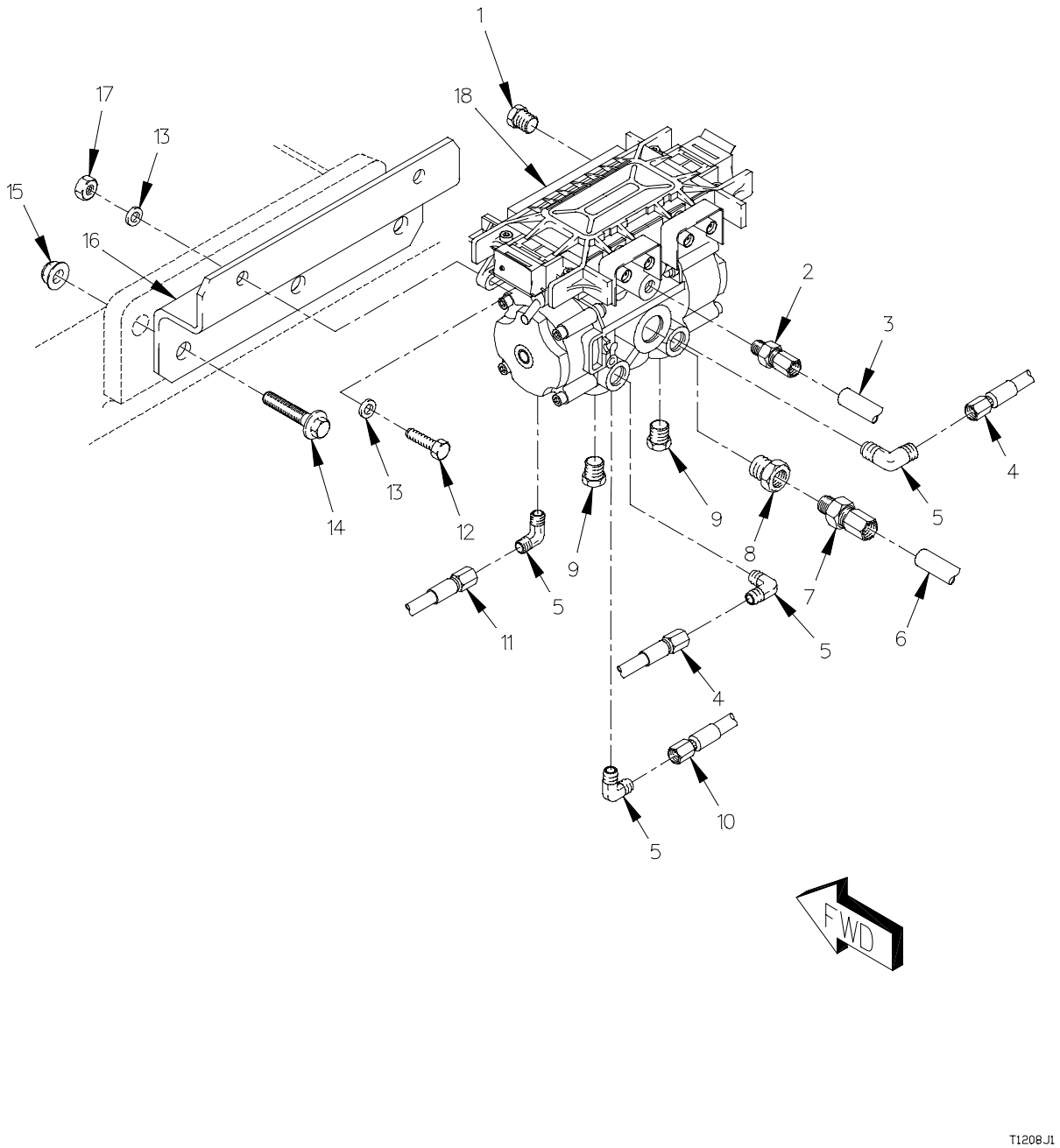


Figure 10. Group 1208 M1095 ABS Control Assembly (Sheet 1 of 2)

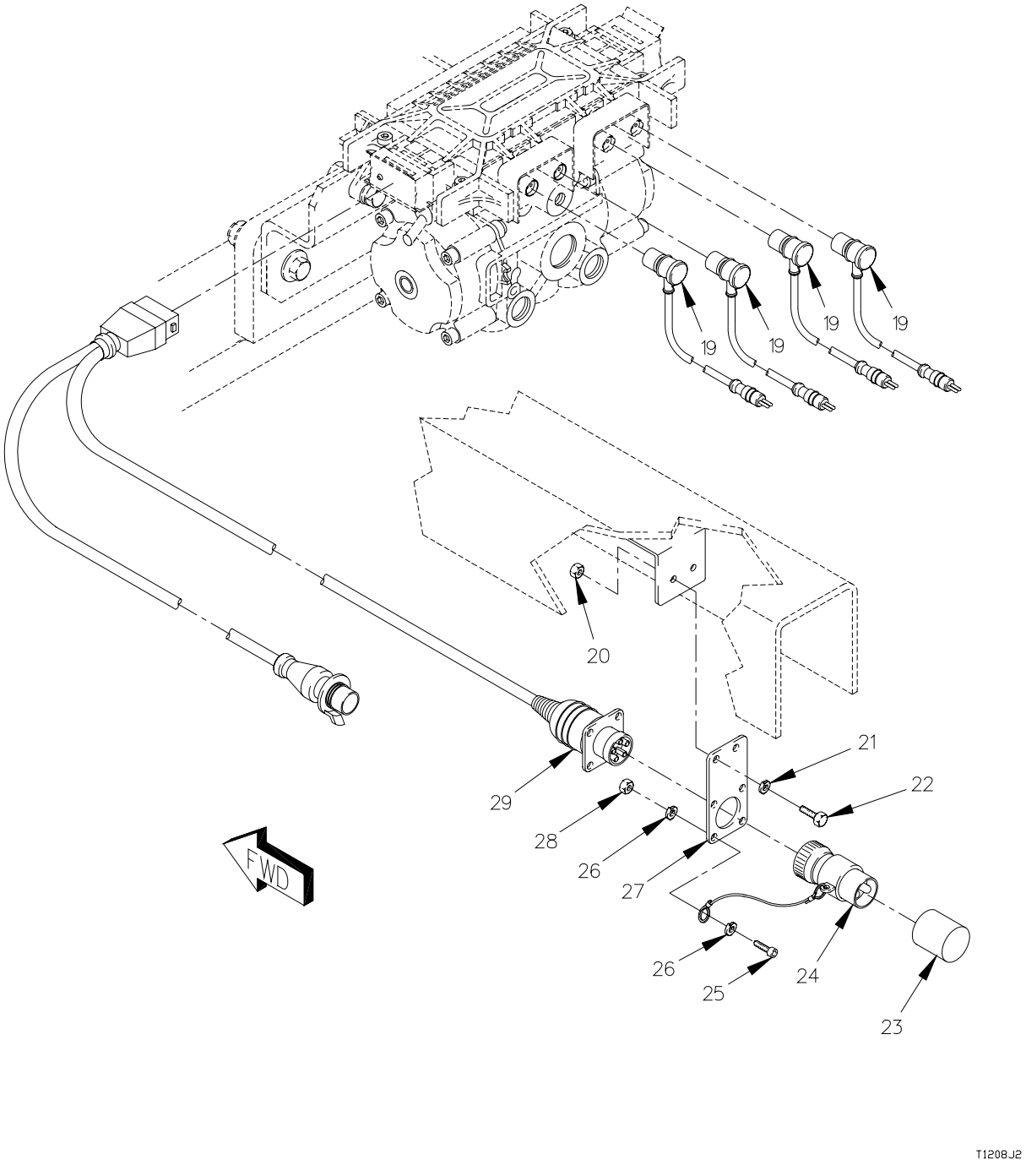


Figure 10. Group M1095 1208 ABS Control Assembly (Sheet 2 of 2)

GROUP 1208 M1095 ABS CONTROL ASSEMBLY CONTINUE 0135 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1208: AIR BRAKE SYSTEM FIG.10 M1095 ABS VALVE ASSEMBLY	
1	PAOZZ		81343	12 130109SB	FITTING,PIPE UOC: MTA	1
2	PAOZZ	4730-00-069-1187	81343	6-4 100202BA	ELBOW,PIPE TO TUBE UOC: MTA	1
3	MOOZZ		0FW39	12420572-006X	TUBE,NONMETALLIC MAKE FROM HOSE P/N J844TYBSIZE 3/8 BLACK (81343) CUT TO LENGTH UOC: MTA	0
4	PAOZZ	4720-01-429-9897	19207	12420062-003	HOSE ASSEMBLY,NONME UOC: MTA	2
5	PAOZZ	4730-00-254-6228	81343	6-6 010202B(E1)	ELBOW,PIPE TO TUBE UOC: MTA	4
6	MOOZZ		0FW39	12420572-008X	HOSE,NONMETALLIC MAKE FROM HOSE P/N PFT-8B-BLK-100 (61424) CUT TO LENGTH UOC: MTA	0
7	PAOZZ	4730-01-115-6643	81343	8-8 100202BA	ELBOW,PIPE TO TUBE UOC: MTA	1
8	PAOZZ	4730-00-278-3167	81343	12-8 130140BA	BUSHING,PIPE UOC: MTA	1
9	PAOZZ	4730-01-465-5486	81343	6 130109B	PLUG,PIPE UOC: MTA	2
10	PAOZZ	4720-01-479-5967	19207	12443181-003	HOSE ASSEMBLY,NONME UOC: MTA	2
11	PAOZZ	4720-01-479-5909	19207	12443181-001	HOSE ASSEMBLY,NONME UOC: MTA	1
12	PAOZZ	5305-01-453-9537	19207	12414419-095	SCREW,CAP,HEXAGON H M8 X 1.25 X 35 UOC: MTA	2
13	PAOZZ	5310-01-376-5302	19207	12417975-008	WASHER,FLAT M8.4 UOC: MTA	4
14	PAOZZ	5306-01-382-5019	19207	12414307-093	BOLT,MACHINE UOC: MTA	3
15	PAOZZ	5310-01-479-5595	19207	12414308-008	NUT,PLAIN,PLATE UOC: MTA	3
16	PAOZZ		19207	12443605	BRACKET,SUPPORT PNE UOC: MTA	1
17	PAOZZ	5310-01-470-2361	0FW39	12414474-012	NUT,PLAIN,HEXAGON UOC: MTA	2
18	PAOZZ	5963-01-500-2303	0FW39	12443610	ELECT CONTROL UNIT UOC: MTA	1
19	PAOOO		0FW39	12443614	SENSOR EXTENSION UOC: MTA	4
20	PAOZZ	5310-01-366-3540	80204	B18241B050	NUT,PLAIN,HEXAGON UOC: MTA	2
21	PAOZZ	5310-01-374-4515	19207	12414570-013	WASHER,LOCK M5.4 UOC: MTA	2
22	PAOZZ	5305-01-356-9468	44940	800-2010	SCREW,CAP,HEXAGON H UOC: MTA	2
23	PAOZZ	5340-01-512-9064	78500	2237M1235	CAP,PROTECTIVE,DUST UOC: MTA	1
24	PAOZZ		0FW39	12443615	SWITCH,DIAGNOSTIC UOC: MTA	1
25	PAOZZ	5305-00-889-3000	80103	JBD10-081	SCREW,MACHINE UOC: MTA	4
26	PAOZZ	5310-00-209-0788	96906	MS35335-30	WASHER,LOCK UOC: MTA	4
27	PAOZZ		78500	3155-L-1234	PLATE UOC: MTA	1
28	PAOZZ	5310-00-934-9747	96906	MS35649-262	NUT,PLAIN,HEXAGON UOC: MTA	4

GROUP 1208 M1095 ABS CONTROL ASSEMBLY CONTINUE 0135 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1208: AIR BRAKE SYSTEM FIG.10 M1095 ABS VALVE ASSEMBLY	
29	PAOOO		0FW39	12443612	CABLE,DIAGNOSTIC UOC: MTA	1
					END OF FIGURE	

GROUP 1208 M1095 BRAKE HOSES AND FITTINGS 0136 00

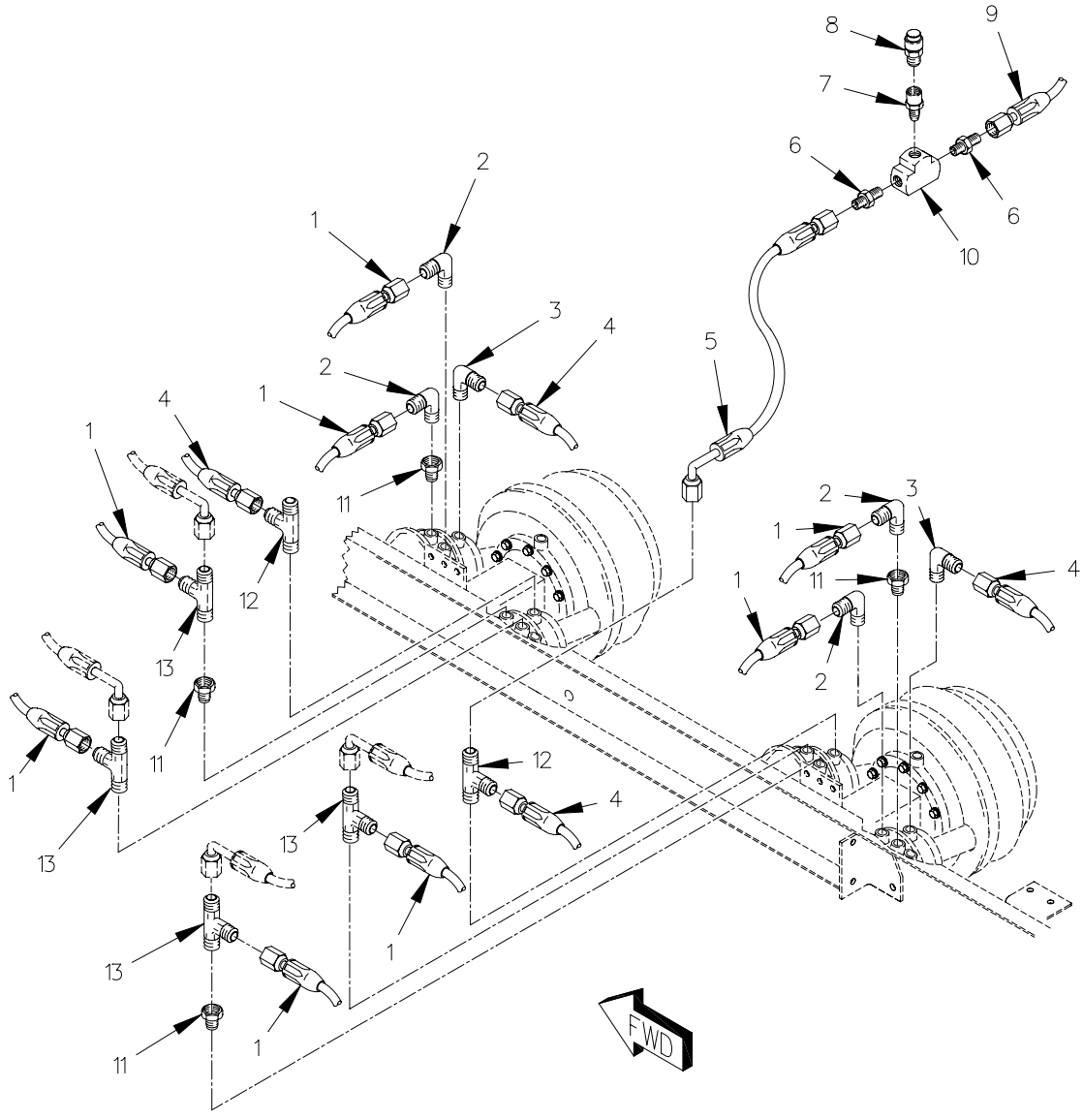


Figure 11. Group 1208 M1095 Brake Hoses and Fittings (Sheet 1 of 2)

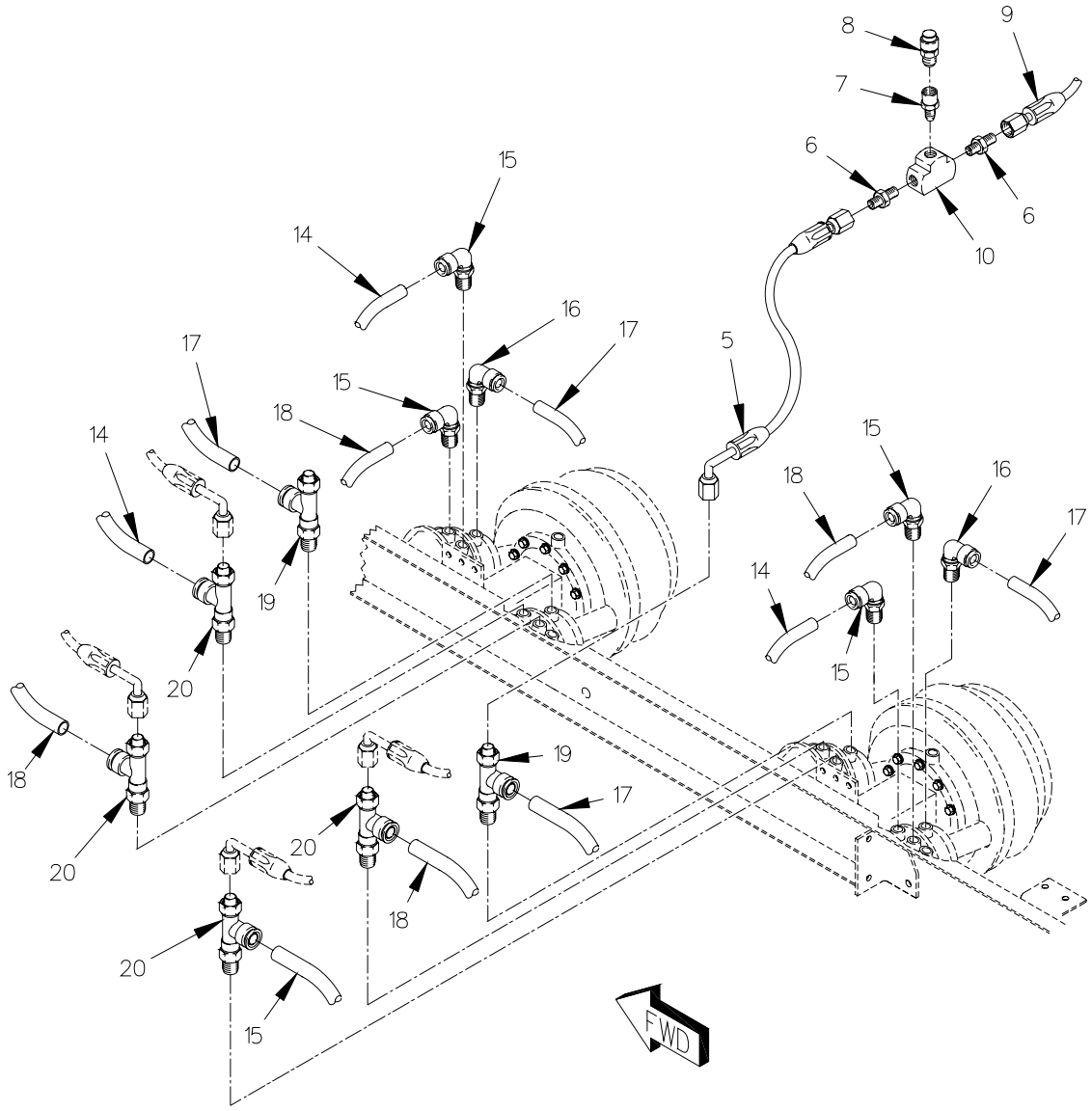


Figure 11. Group 1208 M1095 Brake Hoses and Fittings (Sheet 2 of 2)
0136 00-2

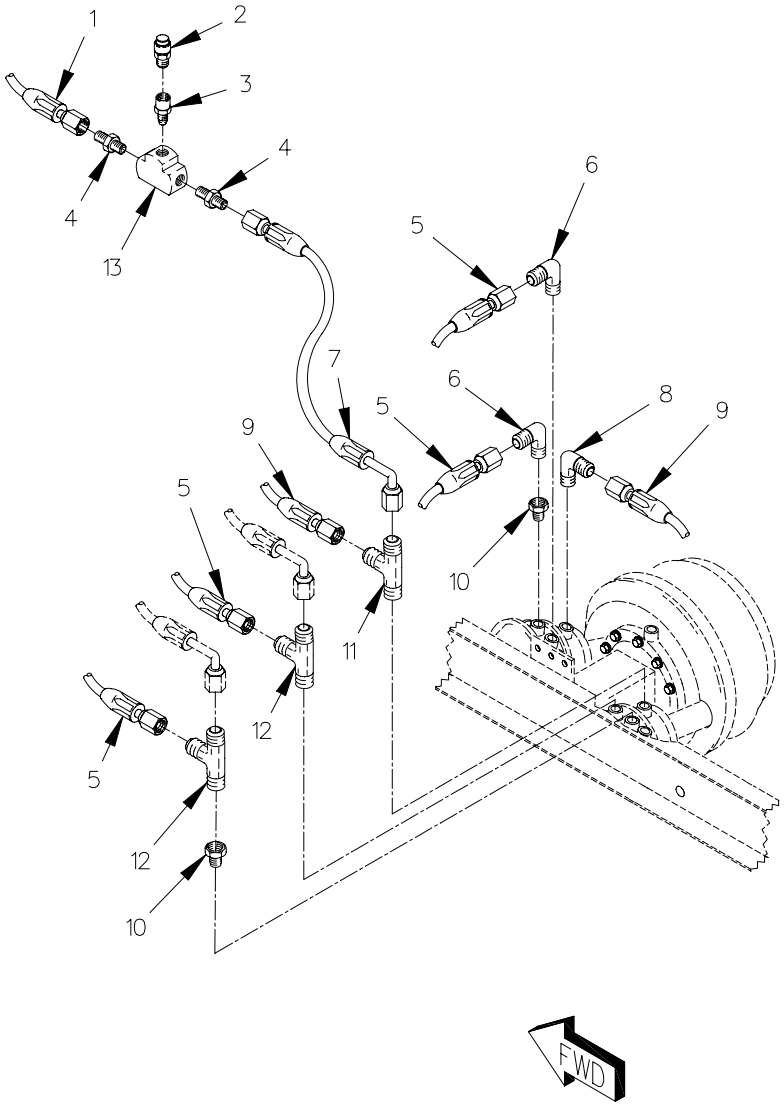
GROUP 1208 M1095 BRAKE HOSES AND FITTINGS- CONTINUED 0136 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1208: AIR BRAKE SYSTEM FIG.11 M1095 BRAKE LINES AND FITTINGS	
1	PAOZZ		19207	12420064-007	HOSE ASSEMBLY,NONME (USED ON TRAILER S/N PRIOR TO 200001) UOC: MTA	8
2	PAOZZ		81343	6-4 010202BA	ELBOW,PIPE TO TUBE (USED ON TRAILER S/N PRIOR TO 200001) UOC: MTA	8
3	PAOZZ	4730-00-254-6215	81343	8-6 010202BA(E1)	ELBOW,PIPE TO TUBE (USED ON TRAILER S/N PRIOR TO 200001) UOC: MTA	4
4	PAOZZ	4720-01-439-6769	19207	12420064-006	HOSE ASSEMBLY,NONME (USED ON TRAILER S/N PRIOR TO 200001) UOC: MTA	4
5	PAOZZ	4720-01-428-6935	0FW39	12420062-014	HOSE ASSEMBLY,NONME UOC: MTA	2
6	PAOZZ	4730-01-226-3705	81343	8-6 010102B	ADAPTER,STRAIGHT,PI UOC: MTA	4
7	PAOZZ		81343	6-2 130140BA	BUSHING,PIPE UOC: MTA	2
8	PAOZZ	4820-01-359-6361	06721	N-20455	VALVE,BLEEDER,HYDRA UOC: MTA	2
9	PAOZZ	4720-01-479-6005	19207	12420062-007	HOSE ASSEMBLY,NONME UOC: MTA	2
10	PAOZZ	4730-00-277-7331	21450	444530	TEE,PIPE UOC: MTA	2
11	PAOZZ	4730-00-301-7470	81343	4-4 130139B	COUPLING,PIPE UOC: MTA	8
12	PAOZZ	4730-01-378-8084	81343	8-6-8 010424BA	TEE,PIPE TO TUBE (USED ON TRAILER S/N PRIOR TO 200001) UOC: MTA	4
13	PAOZZ		81343	6-4-6 010424B	TEE,PIPE TO TUBE (USED ON TRAILER S/N PRIOR TO 200001) UOC: MTA	8
14	MOOZZ		0FW39	12420572-008X15	TUBING,NONMETALLIC (USED ON TRAILER S/N 200001 AND SUBSEQUENT) MAKE FROM TUBING P/N 12420572-008 (0FW39) X 15IN UOC: MTA	1
15	PAOZZ		0FW39	12423178-001	ELBOW,PIPE TO TUBE (USED ON TRAILER S/N 200001 AND SUBSEQUENT) UOC: MTA	8
16	PAOZZ		0FW39	12423178-002	ELBOW,PIPE TO TUBE (USED ON TRAILER S/N 200001 AND SUBSEQUENT) UOC: MTA	4
17	MOOZZ		0FW39	12420572-008X13. 5	TUBING,NONMETALLIC (USED ON TRAILER S/N 200001 AND SUBSEQUENT) MAKE FROM TUBING P/N 12420572-008 (0FW39) X 13.5IN UOC: MTA	1
18	MOOZZ		0FW39	12420572-008X14	TUBING,NONMETALLIC (USED ON TRAILER S/N 200001 AND SUBSEQUENT) MAKE FROM TUBING P/N 12420572-008 (0FW39) X 14IN UOC: MTA	1
19	PAOZZ		0FW39	12423238-003	FITTING,TUBE (USED ON TRAILER S/N 200001 AND SUBSEQUENT) UOC: MTA	4

GROUP 1208 M1095 BRAKE HOSES AND FITTINGS-CONTINUED 0136 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1208: AIR BRAKE SYSTEM FIG.11 M1095 BRAKE LINES AND FITTINGS	
20	PAOZZ		0FW39	12423238-001	FITTING,TUBE (USED ON TRAILER S/N 200001 AND SUBSEQUENT	8
					END OF FIGURE	

GROUP 1208 M1082 BRAKE HOSES AND FITTINGS 0137 00



T1208F1

Figure 12. Group 1208 M1082 Brake Hoses and Fittings (Sheet 1 of 2)

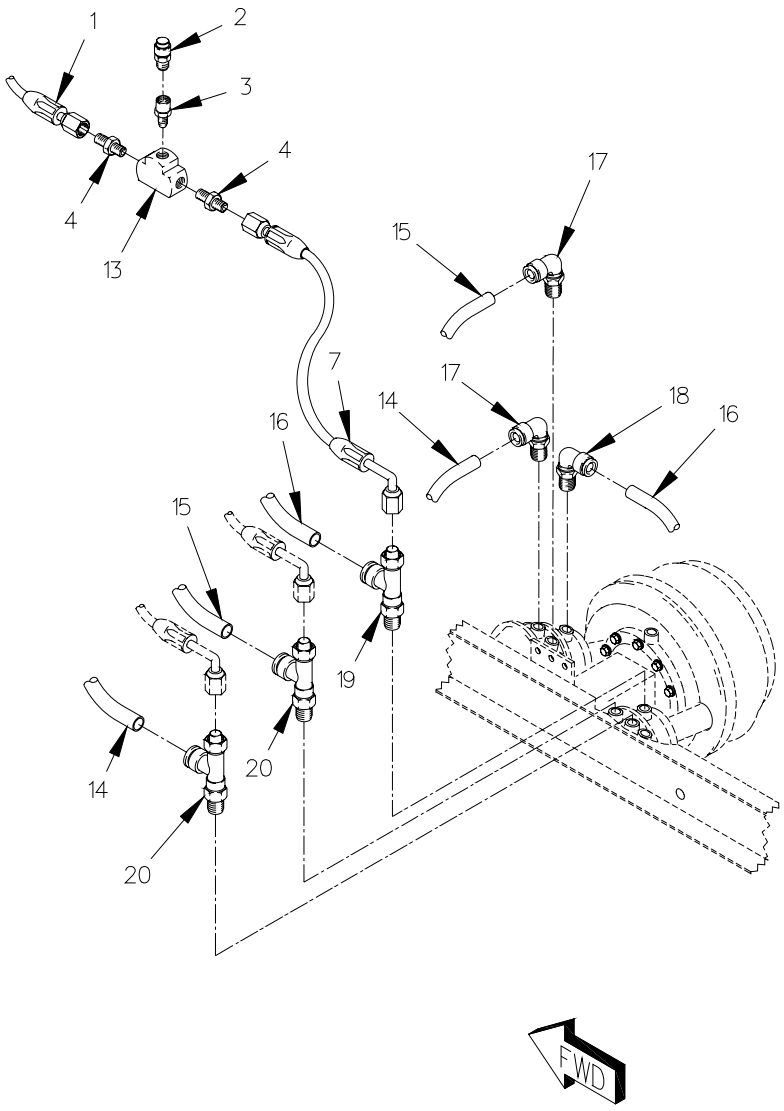


Figure 12. Group 1208 M1082 Brake Hoses and Fittings (Sheet 2 of 2)

GROUP 1208 M1082 BRAKE HOSES AND FITTINGS- CONTINUED 0137 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1208: AIR BRAKE SYSTEM FIG.12 M1082 BRAKE LINES AND FITTINGS	
1	PAOZZ	4720-01-445-4639	19207	12420062-009	HOSE ASSEMBLY,NONME UOC: LTA	1
2	PAOZZ	4820-01-359-6361	06721	N-20455	VALVE,BLEEDER,HYDRA UOC: LTA	1
3	PAOZZ		81343	6-2 130140BA	BUSHING,PIPE UOC: LTA	2
4	PAOZZ	4730-01-226-3705	81343	8-6 010102B	ADAPTER,STRAIGHT,PI UOC: LTA	2
5	PAOZZ		19207	12420064-007	HOSE ASSEMBLY,NONME UOC: LTA	4
6	PAOZZ		81343	6-4 010202BA	ELBOW,PIPE TO TUBE (USED ON TRAILER S/N PRIOR TO 200001) UOC: LTA	4
7	PAOZZ	4720-01-428-6935	0FW39	12420062-014	HOSE ASSEMBLY,NONME UOC: LTA	1
8	PAOZZ	4730-00-254-6215	81343	8-6 010202BA(E1)	ELBOW,PIPE TO TUBE (USED ON TRAILER S/N PRIOR TO 200001) UOC: LTA	2
9	PAOZZ	4720-01-439-6769	19207	12420064-006	HOSE ASSEMBLY,NONME UOC: LTA	2
10	PAOZZ	4730-00-301-7470	81343	4-4 130139B	COUPLING,PIPE UOC: LTA	4
11	PAOZZ	4730-01-378-8084	81343	8-6-8 010424BA	TEE,PIPE TO TUBE (USED ON TRAILER S/N PRIOR TO 200001) UOC: LTA	2
12	PAOZZ		93061	6-4-6 010424BA	TEE,PIPE TO TUBE (USED ON TRAILER S/N PRIOR TO 200001) UOC: LTA	4
13	PAOZZ	4730-00-277-7331	21450	444530	TEE,PIPE UOC: LTA	1
14	MOOZZ		0FW39	12420572-008X14	TUBING,NONMETALLIC (USED ON TRAILER S/N 200001 AND SUBSEQUENT) MAKE FROM TUBING P/N 12420572-008 (0FW39) X 14IN UOC: LTA	1
15	MOOZZ		0FW39	12420572-008X15	TUBING,NONMETALLIC (USED ON TRAILER S/N 200001 AND SUBSEQUENT) MAKE FROM TUBING P/N 12420572-008 (0FW39) X 15IN UOC: LTA	1
16	MOOZZ		0FW39	12420572-008X13. 5	TUBING,NONMETALLIC (USED ON TRAILER S/N 200001 AND SUBSEQUENT) MAKE FROM TUBING P/N 12420572-008 (0FW39) X 13.5IN UOC: LTA	1
17	PAOZZ		0FW39	12423178-001	ELBOW,PIPE TO TUBE (USED ON TRAILER S/N 200001 AND SUBSEQUENT) UOC: LTA	4
18	PAOZZ		0FW39	12423178-002	ELBOW,PIPE TO TUBE (USED ON TRAILER S/N 200001 AND SUBSEQUENT) UOC: LTA	2

GROUP 1208 M1082 BRAKE HOSES AND FITTINGS-CONTINUED 0137 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1208: AIR BRAKE SYSTEM FIG.12 M1082 BRAKE LINES AND FITTINGS	
19	PAOZZ		0FW39	12423238-003	FITTING,TUBE (USED ON TRAILER S/N 200001 AND SUBSEQUENT) UOC: LTA	2
20	PAOZZ		0FW39	12423238-001	FITTING,TUBE (USED ON TRAILER S/N 200001 AND SUBSEQUENT	8
					END OF FIGURE	

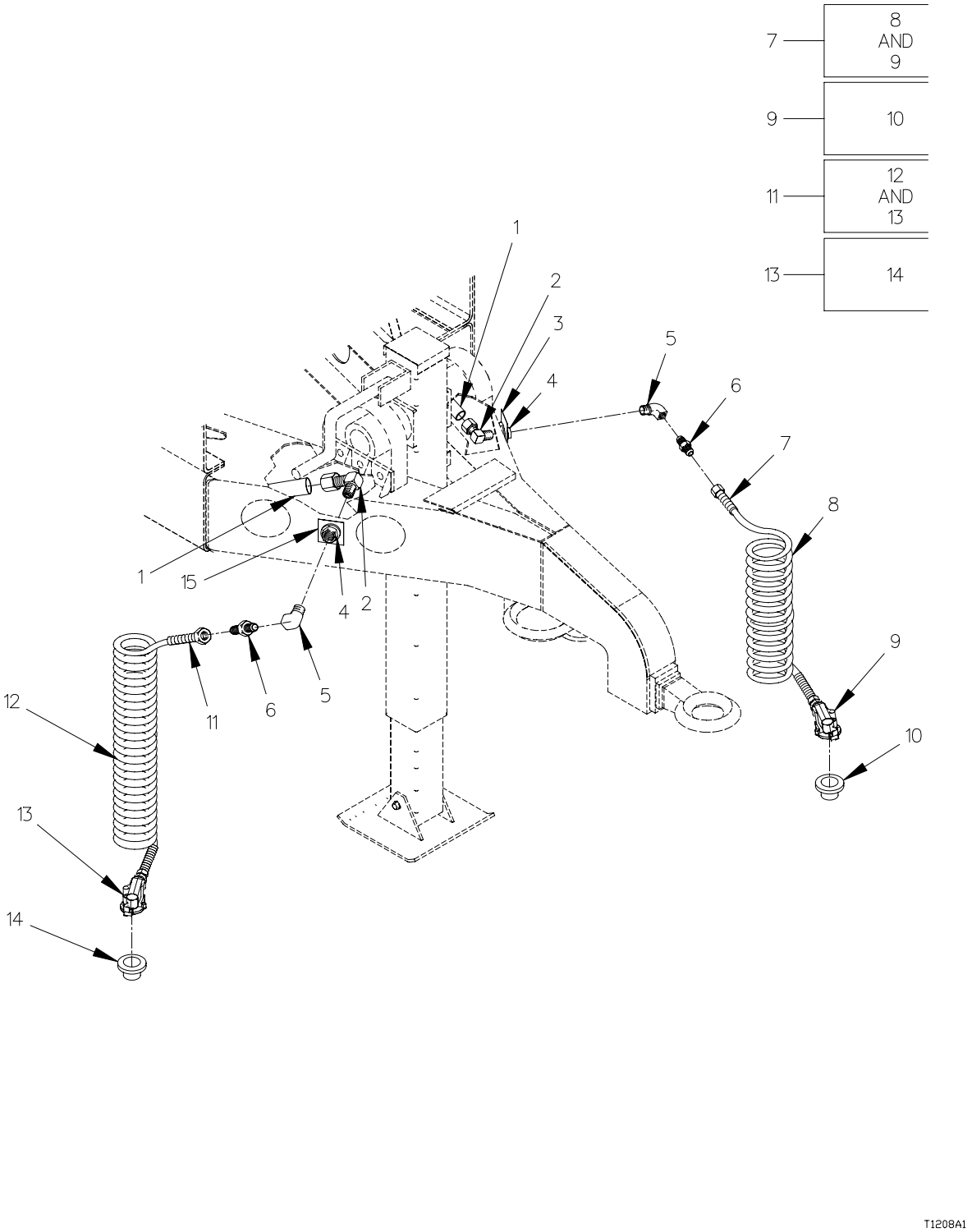


Figure 13. Group 1208 Gladhands

GROUP 1208 M1082 AND M1095 GLADHANDS - Continued 0138 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1208: AIR BRAKE SYSTEM FIG.13 M1082 AND M1095 GLADHANDS	
1	MOOZZ		0FW39	12420572-006X	TUBE,NONMETALLIC MAKE FROM HOSE P/N J844TYBSIZE 3/8 BLACK (81343) CUT TO LENGTH	2
2	PAOZZ	4730-01-274-1825	81343	6-6 100202BA	ELBOW,PIPE TO TUBE	2
3	PAOZZ	9905-01-447-1354	06721	201124	PLATE,IDENTIFICATIO	1
4	PAOZZ	4730-00-511-1677	93061	207ACBH-6	COUPLING,PIPE	2
5	PAOZZ	4730-00-231-5603	88044	AN914-3	ELBOW,PIPE	2
6	PAOZZ		81343	1468X8	ADAPTER,STRAIGHT,PI	2
7	PAOOO	4720-01-479-6013	19207	12442819-001	HOSE ASSEMBLY,NONME	1
8	PAOZZ	4720-01-479-7709	19207	12419965-001	.HOSE ASSEMBLY,NONME	1
9	PAOZZ	4730-00-595-0083	58536	A52484-1	.COUPLING HALF,QUICK	1
10	PAOZZ	5330-00-090-2128	06853	213630	..PACKING,PREFORMED	1
11	PAOOO	4720-01-479-6356	19207	12442819-002	HOSE ASSEMBLY,NONME	1
12	PAOZZ	4720-01-479-7711	19207	12419965-002	.HOSE ASSEMBLY,NONME	1
13	PAOZZ	4730-00-595-0083	58536	A52484-1	.COUPLING HALF,QUICK	1
14	PAOZZ	5330-00-090-2128	06853	213630	..PACKING,PREFORMED	1
15	PAOZZ		19207	12378849-001	PLATE,IDENTIFICATIO	1
					END OF FIGURE	

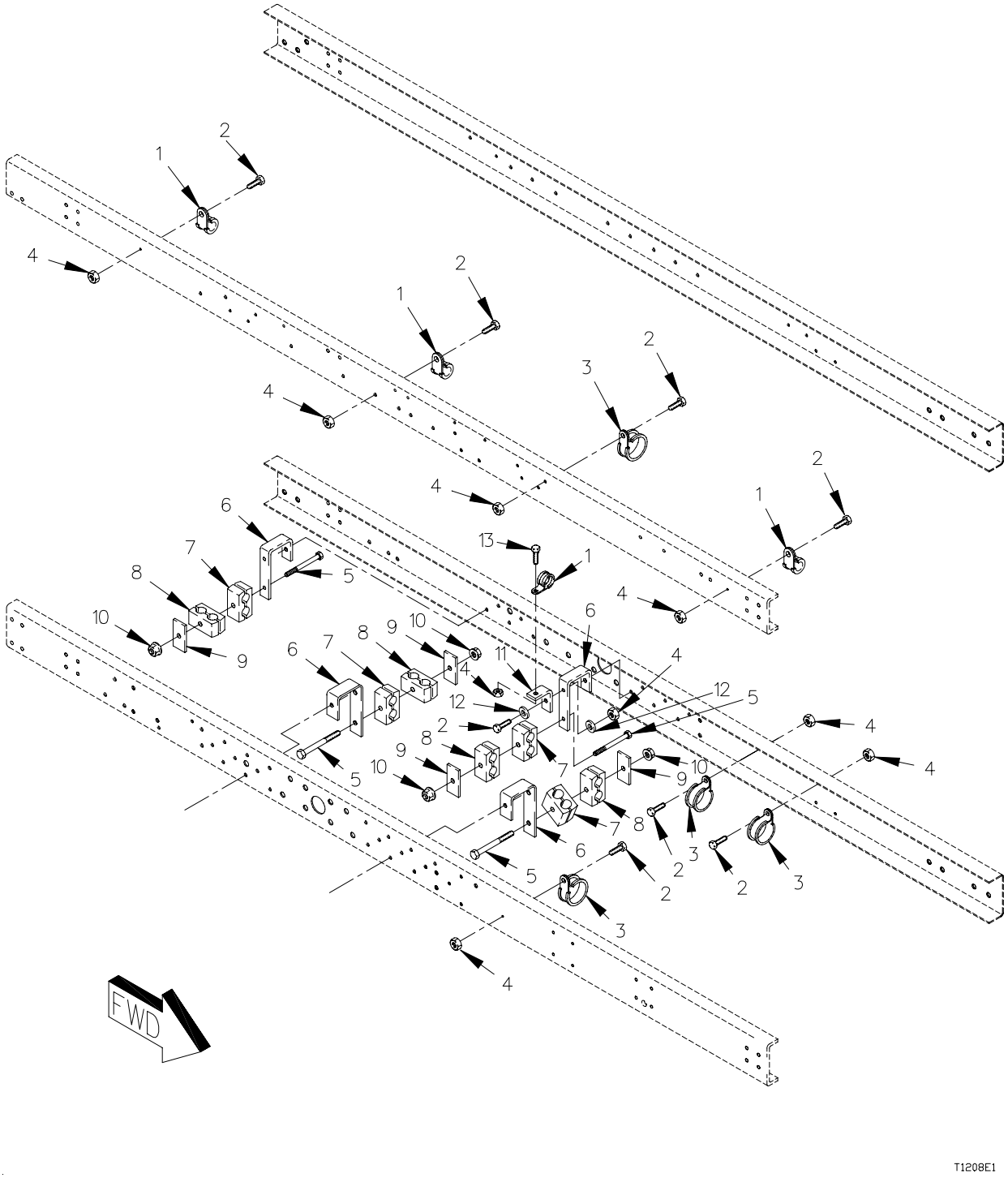


Figure 14. Group 1208 M1095 Hose Clamps And Brackets

GROUP 1208 M1095 HOSE CLAMPS AND BRACKETS - Continued 0139 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1208: AIR BRAKE SYSTEM FIG.14 M1095 HOSE CLAMPS AND BRACKETS	
1	PAOZZ	5340-01-390-2959	18076	S630H-16	CLAMP,LOOP UOC:MTA,	4
2	PAOZZ	5305-01-299-4602	64678	000933 006058	SCREW,CAP,HEXAGON H UOC:MTA,	8
3	PAOZZ	5340-00-727-2831	18076	S630H-24	CLAMP,LOOP,HVY DUTY UOC:MTA,	4
4	PAOZZ	5310-01-342-2739	15526	DIN 934 ST M6	NUT,PLAIN,HEXAGON M6 X 1.00 UOC:MTA,	10
5	PAOZZ	5306-01-439-0022	19207	12414551-010	BOLT,MACHINE M8 X 1.0 X 22 UOC:MTA,	4
6	PAOZZ	5340-01-377-0893	19207	12419910	BRACKET,DOUBLE ANGL UOC:MTA,	4
7	PAOZZ	5340-01-395-8022	0TE27	3222/190PPH	CLAMP,LOOP UOC:MTA,	4
8	PAOZZ	5340-01-378-2475	0TE27	3222/222PAH	CLAMP,BLOCK UOC:MTA,	4
9	PAOZZ	5340-01-372-0376	0TE27	CPT3	STRAP,RETAINING UOC:MTA,	4
10	PAOZZ	5310-01-381-9830	19207	12414308-017	NUT,SELF-LOCKING,E M8 X 1.0 UOC:MTA,	4
11	PAOZZ	5340-01-479-5447	19207	12443183	BRACKET,MOUNTING UOC:MTA,	2
12	PAOZZ	5365-01-374-6928	0FW39	12417975-006	SPACER,RING UOC:MTA,	4
13	PAOZZ	5305-01-178-7349	56161	10503805	SCREW,CAP,HEXAGON M6 X 1.0 X M18 UOC:MTA,	2
					END OF FIGURE	

GROUP 1208 M1095 AIR TANK, SPRING BRAKE VALVE, HOSES AND FITTINGS 0140 00

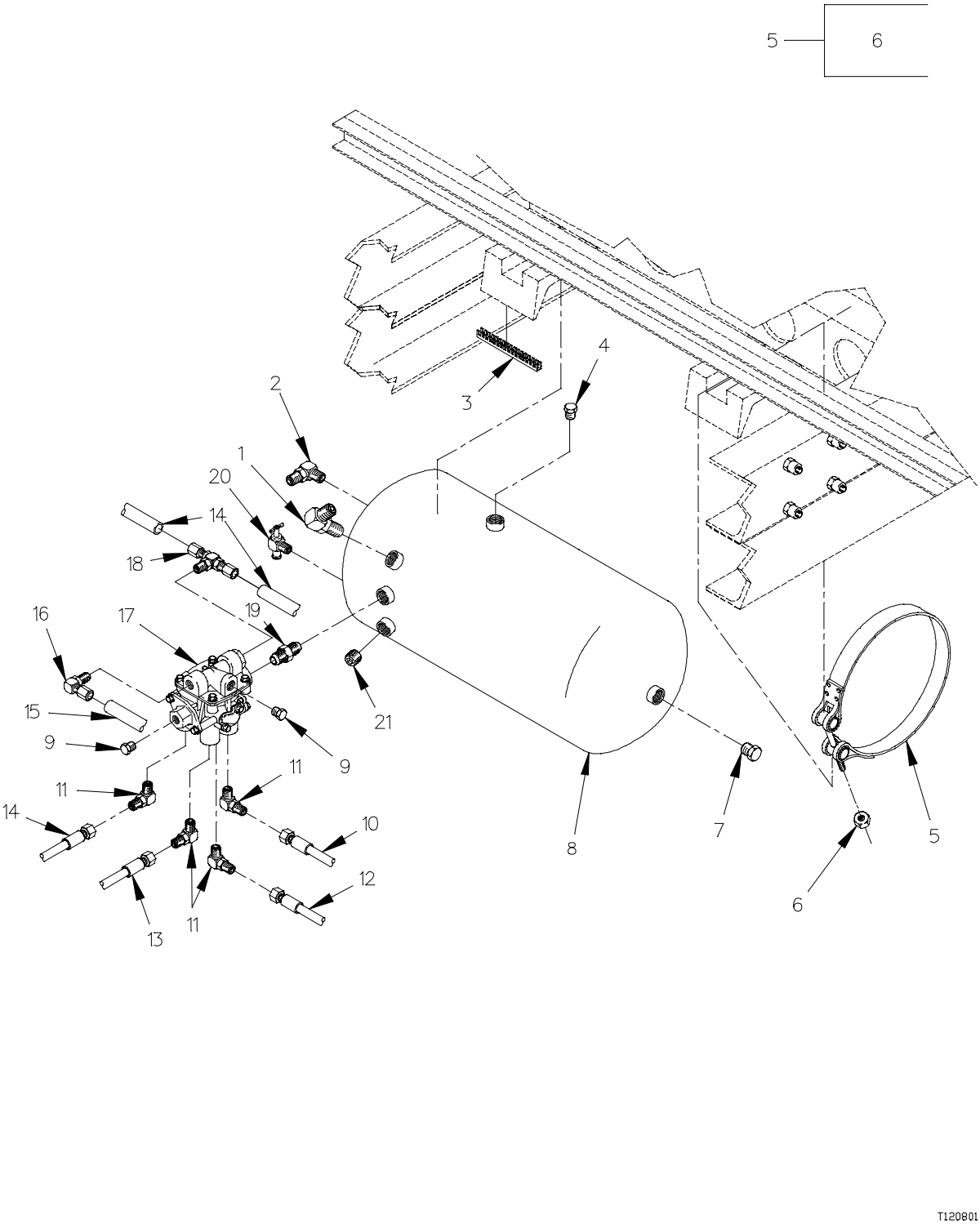


Figure 15. Group 1208 M1095 Air Tank, Spring Valve, And Fittings

GROUP 1208 M1095 AIR TANK, SPRING BRAKE VALVE, HOSES AND FITTINGS - Continued

0140 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1208: AIR BRAKE SYSTEM FIG.15 M1082 AND M1095 AIR TANK SPRING BRAKE VALVE, HOSES AND FITTINGS	
1	PAOZZ	4730-00-069-1187	81343	6-4 100202BA	ELBOW,PIPE TO TUBE UOC:MTA,	1
2	PAOZZ	4730-01-095-7717	81343	8-6 100202BA	ELBOW,PIPE TO TUBE UOC:MTA,	1
3	PAOZZ	5325-00-783-4754	96906	MS21266-5N	GROMMET,NONMETALLIC UOC:MTA,	4
4	PAOZZ	4730-01-138-1968	81343	4-130109NS	FITTING,AUTOMOTIVE UOC:MTA,	1
5	PAOZZ		19207	12421379-010	STRAP,RETAINING UOC:MTA,	2
6	PAOZZ	5310-01-303-8656	97393	SL52-4	.NUT,SELF-LOCKING,RO UOC:MTA,	1
7	PAOZZ	4730-01-386-8368	81343	6-130109NS	FITTING,PIPE PLUG UOC:MTA,	1
8	PAOZZ	5430-01-479-5606	19207	12442962	TANK,AIR RESERVOIR UOC:MTA,	1
9	PAOZZ	4730-01-465-5486	81343	6 130109B	PLUG,PIPE UOC:MTA,	2
10	PAOZZ	4720-01-479-5981	19207	12443181-004	HOSE ASSEMBLY,NONME UOC:MTA,	1
11	PAOZZ	4730-01-254-6228	81343	6-6 010202B(E1)	ELBOW,PIPE TO TUBE UOC:MTA,	4
12	PAOZZ		0FW39	12443181-006	HOSE ASSEMBLY UOC:MTA,	1
13	PAOZZ	4720-01-428-6936	19207	12420062-016	HOSE ASSEMBLY,NONME UOC:MTA,	1
14	PAOZZ	4720-01-432-4745	19207	12420062-011	HOSE ASSEMBLY,NONME UOC:MTA,	2
15	MOOZZ		0FW39	12420572-006X	TUBE,NONMETALLIC MAKE FROM P/N J844TYBSIZE 3/8 BLACK (81343) CUT TO REQUIRED LENGTH UOC:MTA,	V
16	PAOZZ	4730-01-274-1825	81343	6-6 100202BA	ELBOW,PIPE TO TUBE UOC:MTA,	1
17	PAOZZ	4820-01-359-6577	19207	12442787	VALVE,SPRING BRAKE UOC:MTA,	1
18	PAOZZ	4730-01-283-1877	81343	6-6-6 100425BA 1)	TEE,PIPE TO TUBE UOC:MTA,	1
19	PAOZZ	4730-00-595-3108	93061	216P-8	ADAPTER,STRAIGHT,PI UOC:MTA,	1
20	PAOZZ	4820-01-363-2117	06721	N-30256-C	COCK,SHUTOFF,SCREW UOC:MTA,	1
21	PAOZZ		81343	8 130109SB	ADAPTER,STRAIGHT,PI UOC:MTA,	1
					END OF FIGURE	

GROUP 1208 M1082 AIR TANK, SPRING BRAKE VALVE, HOSES AND FITTINGS 0141 00

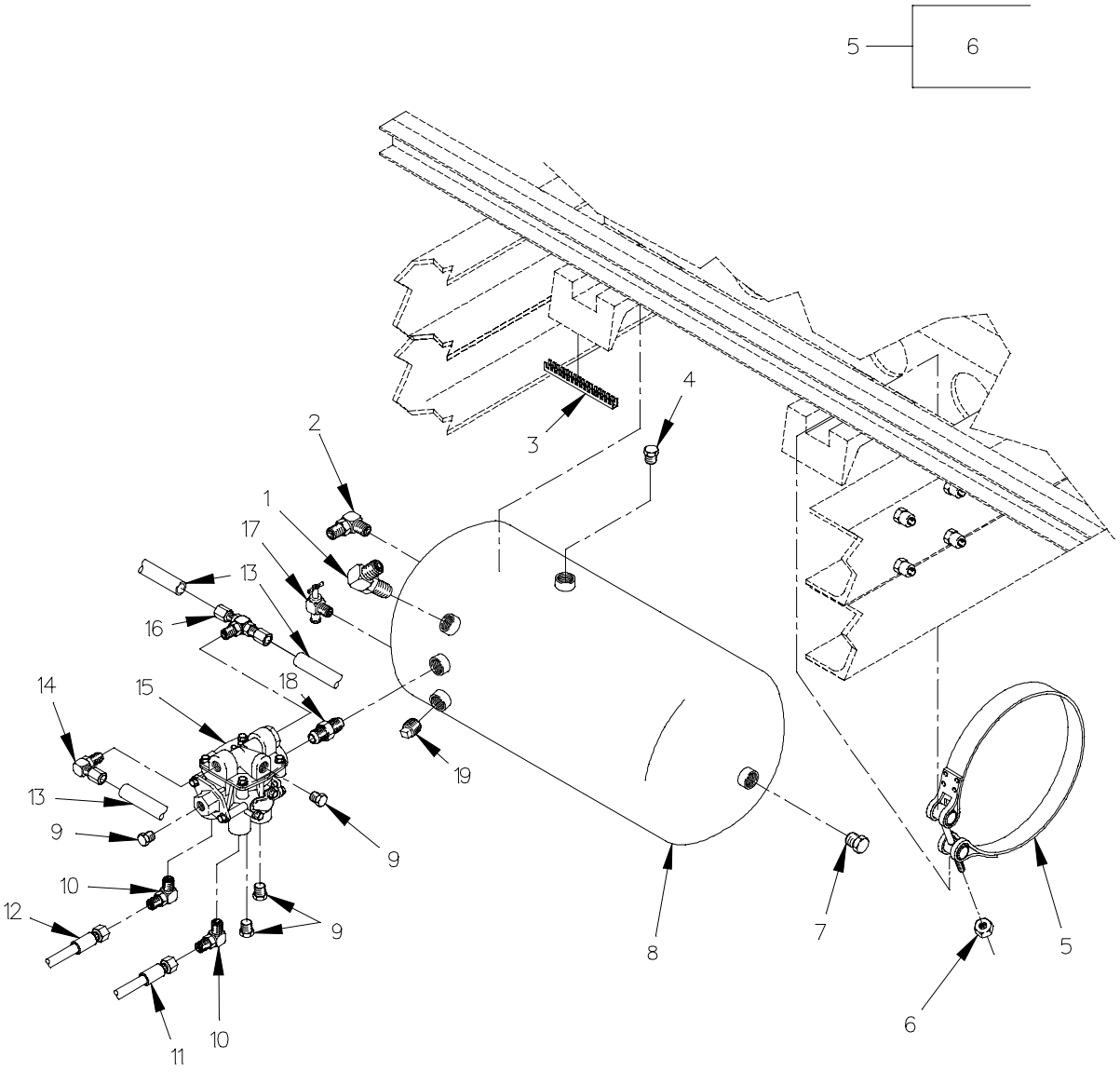


Figure 16. Group 1208 M1082 Air Tank, Spring Brake Valve , Hoses and Fittings

GROUP 1208 M1082 AIR TANK, SPRING BRAKE VALVE, HOSES AND FITTINGS - Continued

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1208: AIR BRAKE SYSTEM FIG.16 M1082 AND M1095 AIR TANK SPRING BRAKE VALVE, HOSES AND FITTINGS	
1	PAOZZ	4730-00-069-1187	81343	6-4 100202BA	ELBOW,PIPE TO TUBE UOC:LTA,	1
2	PAOZZ	4730-01-095-7717	81343	8-6 100202BA	ELBOW,PIPE TO TUBE UOC:LTA,	1
3	PAOZZ	5325-00-783-4754	96906	MS21266-5N	GROMMET,NONMETALLIC UOC:LTA,	4
4	PAOZZ	4730-01-138-1968	81343	4-130109NS	FITTING,AUTOMOTIVE UOC:LTA,	1
5	PAOZZ		19207	12421379-010	STRAP,RETAINING UOC:LTA,	2
6	PAOZZ	5310-01-303-8656	97393	SL52-4	NUT,SELF-LOCKING,RO UOC:LTA,	1
7	PAOZZ	4730-01-386-8368	81343	6-130109NS	FITTING,PIPE PLUG UOC:LTA,	1
8	PAOZZ	5430-01-479-5606	19207	12442962	TANK,AIR RESERVOIR UOC:LTA,	1
9	PAOZZ	4730-01-213-7733	81343	6 130109AB	PLUG,PIPE UOC:LTA,	4
10	PAOZZ	4730-01-254-6228	81343	6-6 010202B(E1)	ELBOW,PIPE TO TUBE UOC:LTA,	2
11	PAOZZ	4720-01-428-6934	19207	12420062-013	HOSE ASSEMBLY,NONME UOC:LTA,	2
12	PAOZZ		0FW39	12443181-005	HOSE ASSEMBLY UOC:LTA,	1
13	MOOZZ		0FW39	12420572-006X	TUBE,NONMETALLIC MAKE FROM P/N J844TYBSIZE 3/8 BLACK (81343) CUT TO REQUIRED LENGTH UOC:LTA,	V
14	PAOZZ	4730-01-274-1825	81343	6-6 100202BA	ELBOW,PIPE TO TUBE UOC:LTA,	3
15	PAOZZ	4820-01-359-6577	19207	12442787	VALVE,SPRING BRAKE UOC:LTA,	1
16	PAOZZ	4730-01-283-1877	81343	6-6-6 100425BA	TEE,PIPE TO TUBE UOC:LTA,	1
17	PAOZZ	4820-01-363-2117	06721	N-30256-C	COCK,SHUTOFF,SCREW UOC:LTA,	1
18	PAOZZ	4730-00-595-3108	93061	216P-8	ADAPTER,STRAIGHT,PI UOC:LTA,	1
19	PAOZZ		81343	8 130109SB	ADAPTER,STRAIGHT,PI UOC:LTA,	1
					END OF FIGURE	

GROUP 1208 M1082 HOSE CLAMPS AND BRACKETS 0142 00

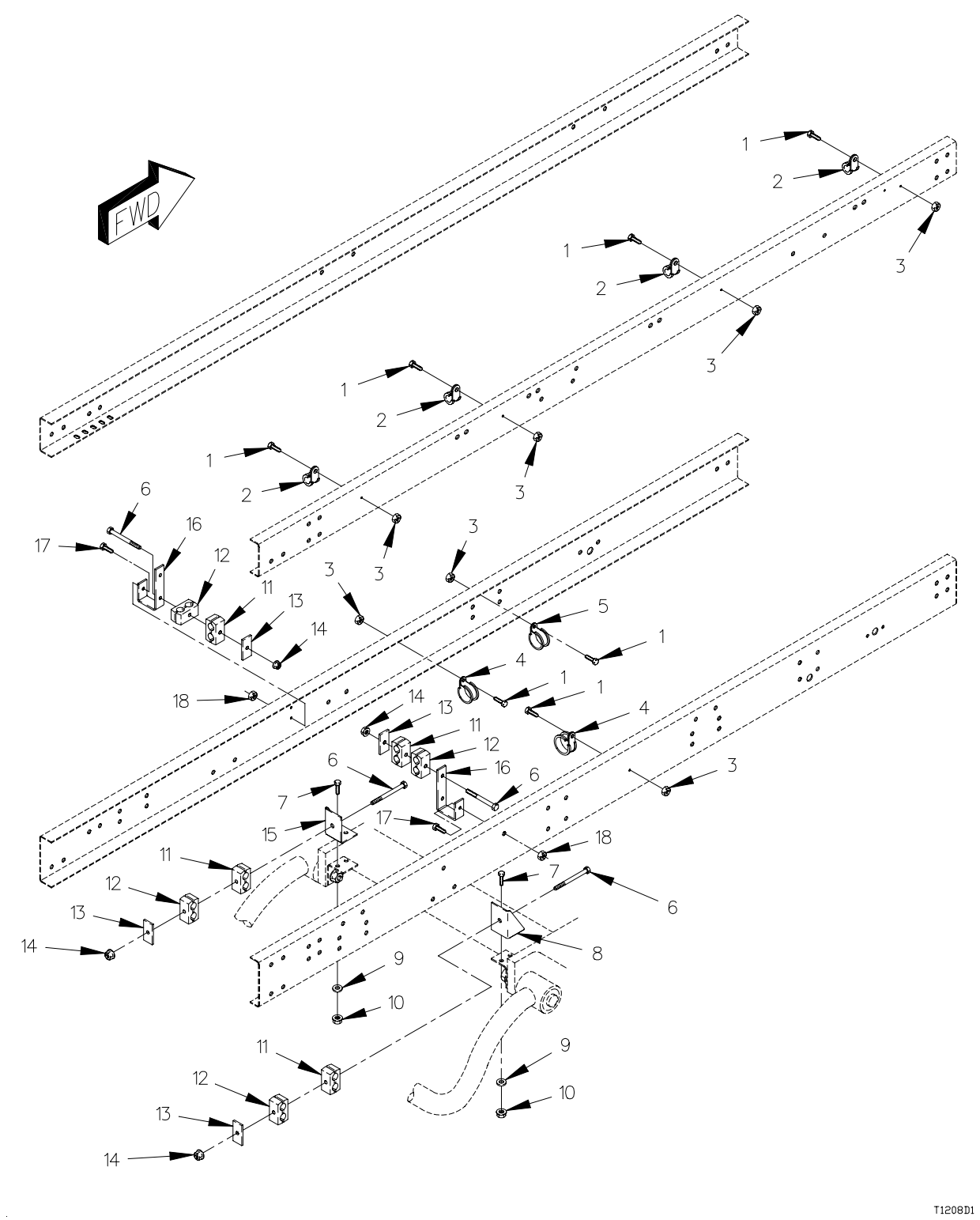


Figure 17. Group M1082 1208 Hose Clamps And Brackets

GROUP 1208 M1082 HOSE CLAMPS AND BRACKETS - Continued 0142 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1208: AIR BRAKE SYSTEM FIG.17 M1082 HOSE CLAMPS AND BRACKETS	
1	PAOZZ	5305-01-299-4602	64678	000933 006058	SCREW,CAP,HEXAGON H UOC:LTA,	8
2	PAOZZ	5340-01-390-2959	18076	S630H-16	CLAMP,LOOP UOC:LTA,	4
3	PAOZZ	5310-01-342-2739	15526	DIN 934 ST M6	NUT,PLAIN,HEXAGON M6 X 1.00 UOC:LTA,	9
4	PAOZZ	5340-01-377-2686	18076	S630H-12	CLAMP,LOOP,HVY DUTY UOC:LTA,	2
5	PAOZZ	5340-00-727-2831	18076	S630H-24	CLAMP,LOOP,HVY DUTY UOC:LTA,	4
6	PAOZZ	5306-01-439-0022	19207	12414551-010	BOLT,MACHINE M8 X 1.0 X 22 UOC:LTA,	4
7	PAOZZ	5306-01-266-7779	81495	071 408 32	BOLT,MACHINE M8 X 1.25 X 25 UOC:LTA,	4
8	PAOZZ	5340-01-377-2804	19207	12419914	PLATE,MOUNTING UOC:LTA,	1
9	PAOZZ	5310-01-372-3025	19207	12417963-006	WASHER,FLAT M8 UOC:LTA,	8
10	PAOZZ	5310-01-369-3332	19207	12414315-006	NUT,SELF-LOCKING,HE M8 UOC:LTA,	4
11	PAOZZ	5340-01-378-2475	0TE27	3222/222PPH	CLAMP,BLOCK UOC:LTA,	4
12	PAOZZ	5340-01-395-8022	0TE27	3222/190PPH	CLAMP,LOOP UOC:LTA,	4
13	PAOZZ	5340-01-372-0376	0TE27	CPT3	STRAP,RETAINING UOC:LTA,	4
14	PAOZZ	5310-01-381-9830	19207	12414308-017	NUT,SELF-LOCKING,E M8 X 1.0 UOC:LTA,	4
15	PAOZZ	5340-01-377-1643	19207	12419915	BRACKET,ANGLE UOC:LTA,	1
16	PAOZZ	5340-01-377-0893	19207	12419910	BRACKET,DOUBLE ANGL UOC:LTA,	2
17	PAOZZ	5306-01-381-9869	0FW39	12414307-083	BOLT,MACHINE UOC:LTA,	2
18	PAOZZ	5310-01-369-6706	19207	12414308-025	NUT,SELF-LOCKING,EX UOC:LTA,	2
					END OF FIGURE	

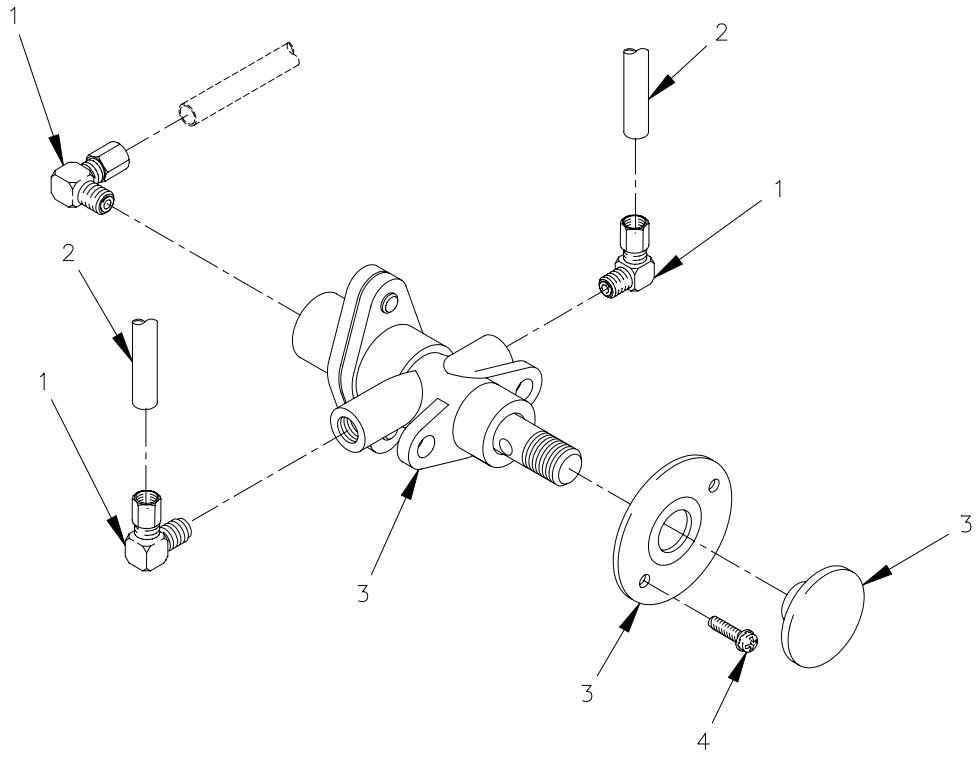
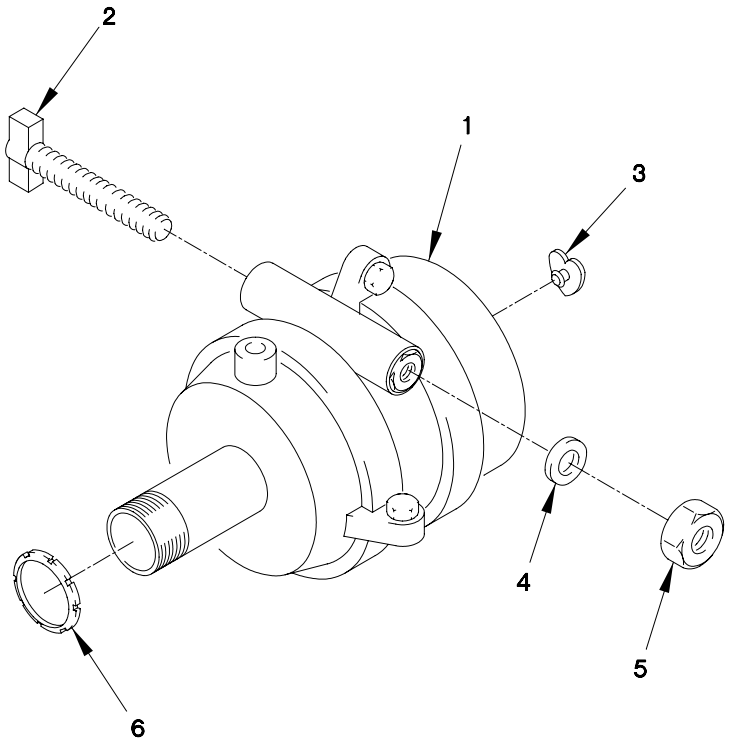


Figure 18. Group 1208 Push Pull Release Valve

GROUP 1208 PUSH/PULL RELEASE VALVE - Continued 0143 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1208: AIR BRAKE SYSTEM FIG.18 M1082 AND M1095 PUSH/PULL RELEASE VALVE	
1	PAOZZ	4730-00-069-1187	81343	6-4 100202BA	ELBOW,PIPE TO TUBE	3
2	MOOZZ		0FW39	12420572-006X	TUBE,NONMETALLIC MAKE FROM P/N J844TYBSIZE 3/8 BLACK (81343) CUT TO REQUIRED LENGTH	V
3	PAOZZ	4820-00-466-1945	06721	N14488R	VALVE,TEE	1
4	PAOZZ	5305-00-179-8946	96906	MS51849-66	SCREW,MACHINE	2
					END OF FIGURE	



T1208G-1

Figure 19. Group 1208 Air Brake Chamber

GROUP 1208 AIR BRAKE CHAMBER - Continued 0144 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1208: AIR BRAKE SYSTEM FIG.19 M1082 AND M1095 AIR BRAKE CHAMBERS	
1	PAOZZ	2530-01-394-8332	78500	X24-3276J-10	CHAMBER,AIR BRAKE UOC: MTA	8
1	PAOZZ	2530-01-394-8332	78500	X24-3276J-10	CHAMBER,AIR BRAKE UOC: LTA	4
2	PAOZZ	2530-01-095-3561	45152	1AL60	.STUD ASSEMBLY,RELEA	1
3	PAOZZ	2530-01-084-6975	98171	9999039	.PLUG,CHAMBER TOP	1
4	PAOZZ	5310-00-809-5998	96906	MS27183-18	.WASHER,FLAT 1/2	1
5	PAOZZ	5310-00-808-8019	96906	MS35690-804	.NUT,PLAIN,HEXAGON 1/2	1
6	PAOZZ	5310-00-123-2572	78500	1727N40	NUT,PLAIN,ROUND UOC: LTA	4
6	PAOZZ	5310-00-123-2572	78500	1727N40	NUT,PLAIN,ROUND UOC: MTA	8
					END OF FIGURE	

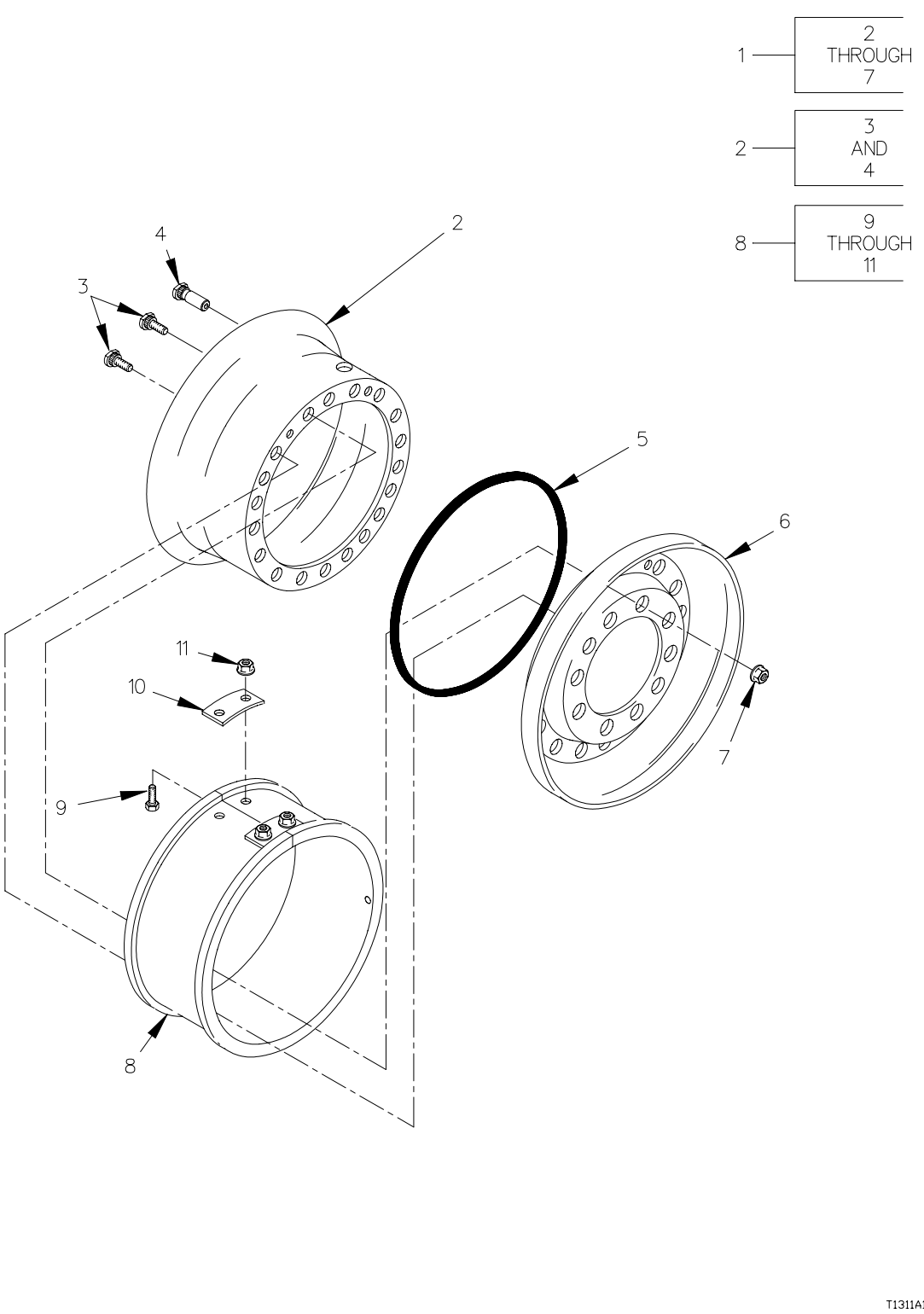


Figure 20. Group 1311 Wheel Assembly And Fittings (Sheet 1 Of 2)

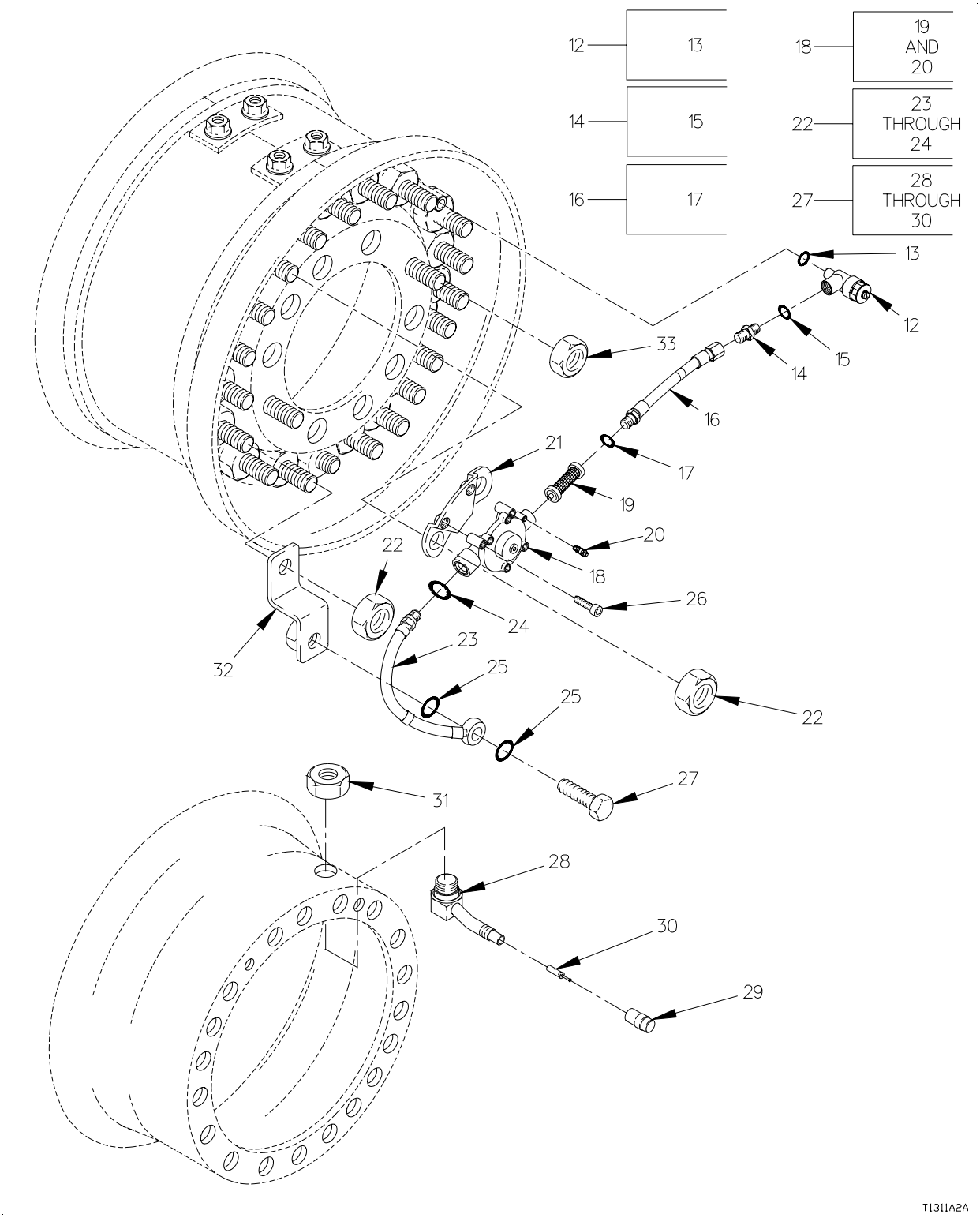


Figure 20. Group 1311 Wheel Assembly And Fittings (Sheet 2 Of 2)
0145 00-2

GROUP 1311 WHEEL ASSEMBLY AND FITTINGS - Continued 0145 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1311: WHEEL ASSEMBLY FIG.20 M1082 AND M1095 WHEEL ASSEMBLY AND FITTINGS	
1	AOOOF	2530-01-370-5530	20076	05-10058-00	WHEEL,PNEUMATIC TIR	1
2	PAOZZ	2530-01-371-1488	20076	05-10110-00	.WHEEL,PNEUMATIC TIR	1
3	PAOZZ	5306-01-369-8893	0FW39	12417332-001	..BOLT,ECCENTRIC HEAD 5/8-18 X 7/16	18
4	PAOZZ	5306-01-369-8892	19207	12417332-002	..BOLT,ECCENTRIC HEAD 5/8-18 X 1 9/16	2
5	PAOZZ	5331-01-389-6028	20076	52496100	.O-RING	1
6	PAOZZ	2530-01-371-5836	20076	05-10107-00	.WHEEL SEGMENT,PNEUM	1
7	PAOZZ	5310-01-210-0199	19207	12301125	.NUT,SELF-LOCKING,EX	20
8	PAOOO	2530-01-370-5462	62161	T100201	BEADLOCK,PNEUMATIC	1
9	PAOZZ	5305-00-269-2801	96289	A1326	.SCREW,CAP,HEXAGON H 3/8-24 X 3/4	4
10	PAOZZ	5340-01-388-9103	19207	12414420-002	.PLATE,MENDING	2
11	PAOZZ	5310-01-370-0010	19207	12414420-004	.NUT,SELF-LOCKING,HE 3/8-24 (NYLON INSERT)	4
12	PAOZZ	4730-01-370-5378	19207	12417916	ELBOW,TUBE TO HOSE	1
13	PAOZZ	5331-01-456-9156	52304	599807	O-RING	1
14	PAOZZ	4730-01-487-5772	1MVZ1	673995	ADAPTER,STRAIGHT,TU	1
15	PAOZZ		52304	673268	.SEAL,NONMETALLIC RO	1
16	PAOZZ	4720-01-389-7790	1MVZ1	676200	HOSE ASSEMBLY,NONME	1
17	PAOZZ		52304	673268	.SEAL,NONMETALLIC RO	1
18	PAOZZ	4820-01-363-3743	1MVZ1	673217	VALVE,PNEUMATIC	1
19	PAOZZ	4460-01-284-2344	52304	599791	.FILTER ELEMENT,FLUI	1
20	PAOZZ	4820-01-475-4873	1MVZ1	673215	.VALVE,PNEUMATIC TAN	1
21	PAOZZ	5340-01-369-3358	52304	673222	BRACKET,MOUNTING	1
22	PAOZZ	5310-00-835-2037	96906	MS35691-53	NUT,PLAIN,HEXAGON	2
23	PAOOO	4720-01-453-2027	1MVZ1	673997	HOSE ASSEMBLY,NONME	1
24	PAOZZ	5331-01-395-1252	52304	673269	.O-RING	1
25	PAOZZ	5310-01-454-5553	1MVZ1	673999	.WASHER,SEAL	2
26	PAOZZ	5305-01-460-0695	19207	12414475-224	SCREW,CAP,SOCKET HE M8 X 1.25 X 30	2
27	PAOZZ	5305-00-727-2283	80204	B1821BH063F150N	SCREW,CAP,HEXAGON H 5/8-18 X 1 1/2 (SPARE TIRE ONLY)	1
28	PAOOO	2640-01-367-5015	17875	VS-1090-ALT	VALVE,PNEUMATIC TIR	1
29	PAOZZ	2640-01-098-2029	81348	TYIV/CL1/TRVC8	.CAP,PNEUMATIC VALVE SPARE TIRE ONLY	1
30	PAOZZ	2640-00-050-1229	81348	TYV/CL2/TR C1	.VALVE CORE	1
31	PAOZZ	5310-01-271-5758	17875	265	.NUT,PLAIN,HEXAGON 11/16-16 (SPARE TIRE ONLY)	1
32	PAOZZ	2590-01-490-4392	19207	12443040	BRACKET,VEHICULAR C	1
33	PAOZZ	5310-00-273-7771	78500	1199G111	NUT,PLAIN,SINGLE BA LEFT HAND UOC: MTA	20
33	PAOZZ	5310-01-375-3107	2Y614	3A7313	NUT,PLAIN,HEXAGON RIGHT HAND UOC: LTA	10
33	PAOZZ	5310-01-375-3107	2Y614	3A7313	NUT,PLAIN,HEXAGON RIGHT HAND UOC: MTA	20
33	PAOZZ	5310-00-273-7771	78500	1199G111	NUT,PLAIN,SINGLE BA LEFT HAND UOC: LTA	10
					END OF FIGURE	

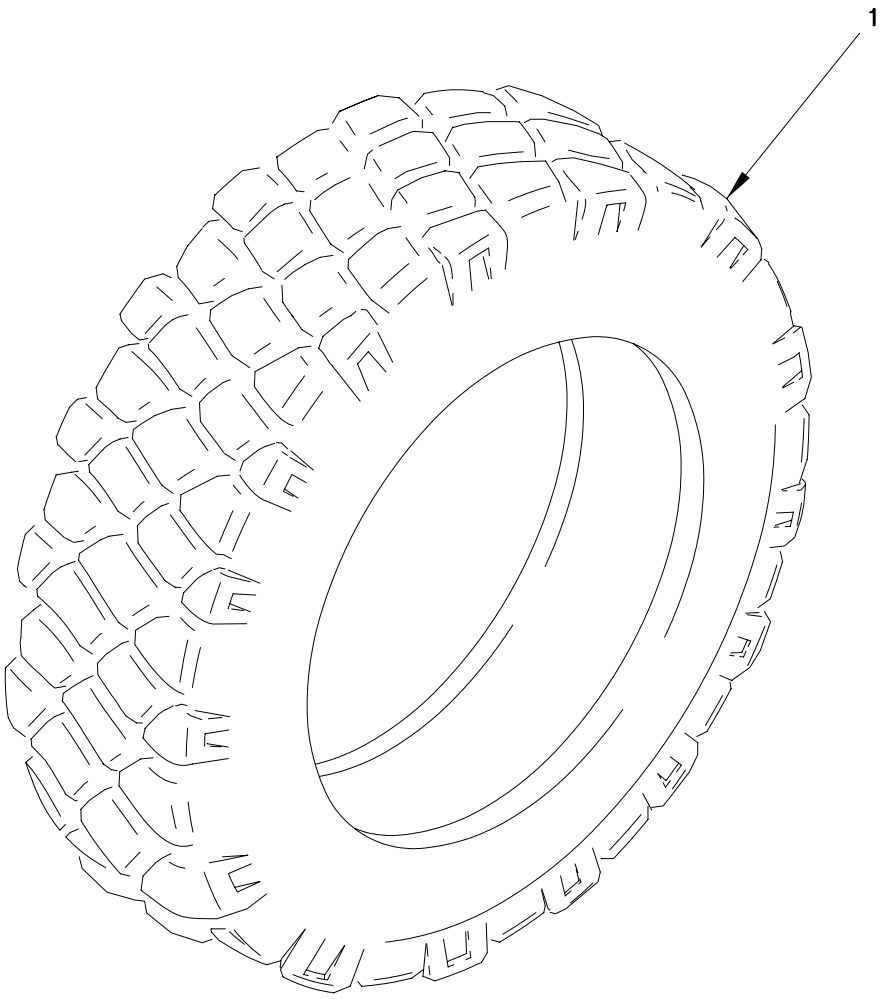


Figure 21. Group 1313 TIRE

GROUP 1313 TIRE - Continued 0146 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1313: TIRES, TUBES, TIRE CHAINS FIG.21 M1082 AND M1095 TIRE	
1	PCOFF	2610-01-356-9098	12195	MSPN32764	TIRE,PNEUMATIC,VEHI TIRE SIZE LT395/85R20 P-METRIC UOC:LTA,	2
1	PCOFF	2610-01-356-9098	12195	MSPN32764	TIRE,PNEUMATIC,VEHI TIRE SIZE LT395/85R20 P-METRIC UOC:MTA,	4
					END OF FIGURE	

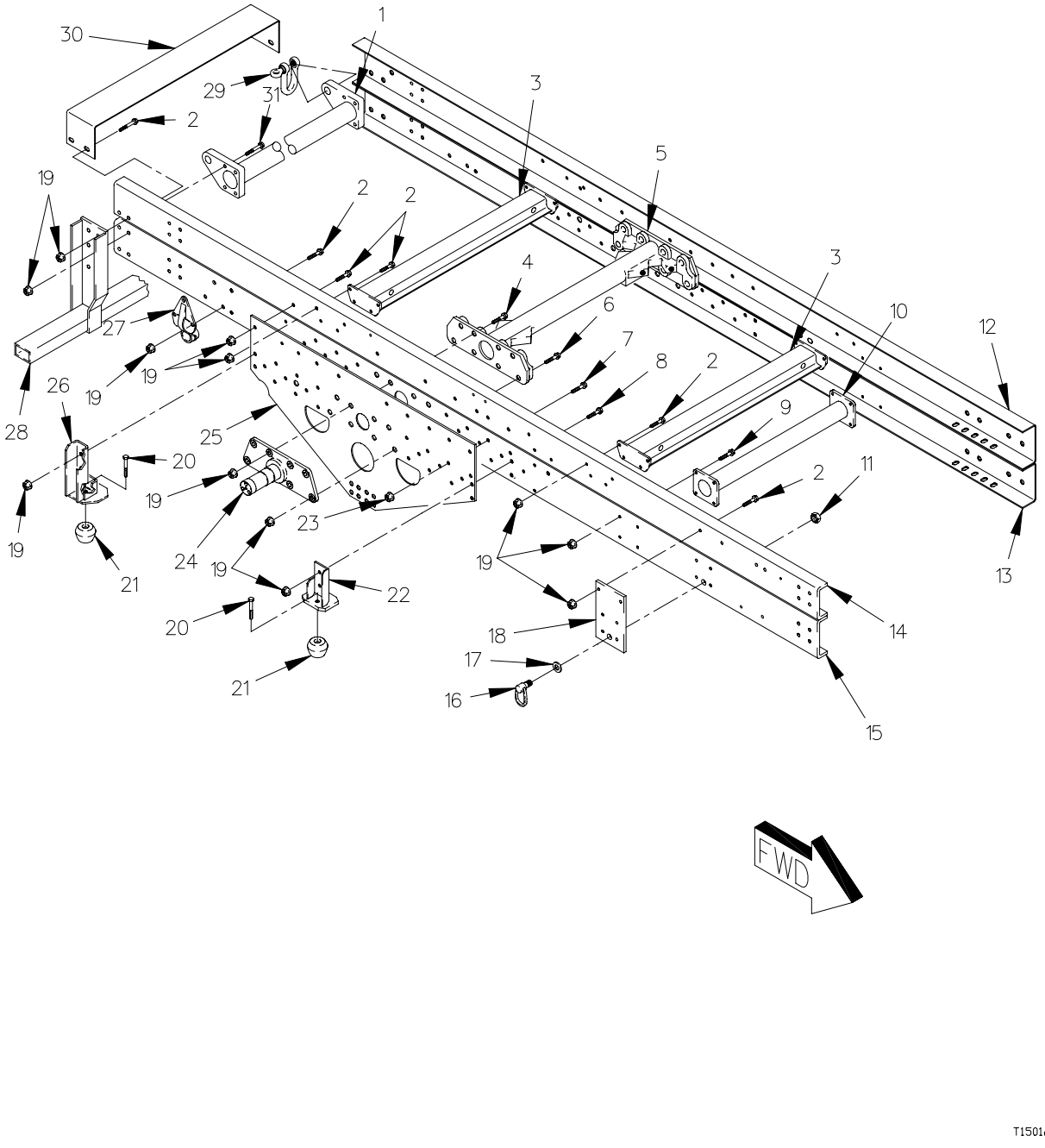


Figure 22. Group 1501 M1095 Frame Assembly

GROUP 1501 M1095 FRAME ASSEMBLY - Continued 0147 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1501: FRAME ASSEMBLY FIG.22 M1095 FRAME ASSEMBLY	
1	PAFZZ	2510-01-483-2597	19207	12443014	FRAME SECTION,STRUC UOC: MTA	1
2	PAFZZ	5306-01-371-7161	19207	12414307-141	BOLT,MACHINE M16 X 1.5 X 50 UOC: MTA	84
3	PAFZZ	5340-01-479-5475	19207	12441170	BRACKET,MOUNTING UOC: MTA	2
4	PAOZZ	5306-01-381-9797	19207	12414307-146	BOLT,MACHINE UOC: MTA	8
5	PAFZZ	2510-01-378-7513	19207	12414567	FRAME SECTION,STRUC UOC: MTA	1
6	PAFZZ	5306-01-444-8364	19207	12421697-005	BOLT,SHOULDER M16 X 1.5 X 82 UOC: MTA	8
7	PAFZZ	5306-01-381-9928	19207	12414307-080	BOLT,MACHINE M12 X 1.5 X 40 UOC: MTA	40
8	PAFZZ	5306-01-386-7853	19207	12414307-139	BOLT,MACHINE M16 X 1.5 X 40 UOC: MTA	8
9	PAFZZ	5306-01-444-7489	19207	12421697-001	BOLT,SHOULDER M16 X 1.5 X 47 UOC: MTA	8
10	PAFZZ	2510-01-377-3043	19207	12414514	FRAME SECTION,STRUC UOC: MTA	1
11	PAOZZ	5310-00-241-6666	96906	MS51943-52	NUT,SELF-LOCKING,HE 1-1/8 UOC: MTA	2
11	PAOZZ		81349	M45913/3-20FG8C	NUT,SELF-LOCKING,HE UOC: MTA	2
12	PAFZZ	2510-01-479-5787	19207	12441178	FRAME SECTION,STRUC UOC: MTA	1
13	PAFZZ	2510-01-479-5770	19207	12441175	FRAME SECTION,STRUC (USED ON TRAILER PRIOR TO S/N 200001) UOC: MTA	1
13	PAFZZ		19207	12423331	FRAME SECTION,LEFT (USED ON TRAILER S/N 200001 AND SUBSEQUENT) UOC: MTA	1
14	PAFZZ	2510-01-479-5783	19207	12441177	FRAME SECTION,STRUC UOC: MTA	1
15	PAFZZ	2510-01-479-5777	19207	12441174	FRAME SECTION,STRUC (USED ON TRAILER PRIOR TO S/N 200001) UOC: MTA	1
15	PAFZZ		19207	12423330	FRAME SECTION,RIGHT (USED ON TRAILER S/N 200001 AND SUBSEQUENT) UOC: MTA	1
16	PAOZZ	5306-01-439-3754	4368	PMP35360	BOLT,SWIVEL HANDLE UOC: MTA	2
16	PAOZZ		0FW39	12423329	BOLT,SWIVEL HANDLE UOC: MTA	2
17	PAOZZ	5365-01-479-5767	19207	12443169	SPACER,SLEEVE 32.5 MM UOC: MTA	2
17	PAOZZ		19207	12417963-025	SPACER UOC: MTA	2
18	PAFZZ	5340-01-479-5461	19207	12443016	PLATE,MOUNTING UOC: MTA	2
18	PAFZZ		19207	12443016-001	PLATE,MOUNTING, A1R UOC: MTA	2
19	PAFZZ	5310-01-369-6706	19207	12414308-025	NUT,SELF-LOCKING,EX M16 X 1.5 UOC: MTA	6
20	PAFZZ	5306-01-492-5267	19207	12422594	BOLT,MACHINE M14 X 1.5 X 25 UOC: MTA	4

GROUP 1501 M1095 FRAME ASSEMBLY – Continued 0147 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1501: FRAME ASSEMBLY FIG.22 M1095 FRAME ASSEMBLY	
21	PAFZZ	5340-01-495-5767	0FW39	12422593	PLATE,MOUNTING UOC: MTA	4
22	PAFZZ	5340-01-479-5592	19207	12443602-001	STOP,MECHANICAL RIGHT SIDE UOC: MTA	1
22	PAFZZ	5340-01-479-8546	19207	12443602-002	STOP,MECHANICAL LEFT SIDE UOC: MTA	1
23	PAFZZ	5310-01-369-6073	19207	12414308-007	NUT,SELF-LOCKING,EX M12 UOC: MTA	40
24	PAFZZ	2530-01-377-8932	0FW39	12417415	AXLE,VEHICULAR,NOND UOC: MTA	2
25	PAFZZ	2510-01-378-7192	19207	12414543	FRAME SECTION,STRUC UOC: MTA	2
26	PAFZZ	5340-01-479-5594	19207	12443603-001	STOP,MECHANICAL RIGHT SIDE UOC: MTA	1
26	PAFZZ	5340-01-479-8540	19207	12443603-002	STOP,MECHANICAL LEFT SIDE UOC: MTA	1
27	PAFZZ	2590-01-377-6605	19207	12417391	BRACKET,VEHICULAR C UOC: MTA	2
28	PAFZZ		19207	12423338-001	BUMPER UOC: MTA	1
29	PAOZZ	4030-01-391-9599	19207	12378642-004	SHACKLE (USED ON TRAILER UOC: MTA	2
29	PAOZZ	4030-01-521-2308	0FW39	12423327	SHACKLE (USED ON TRAILER S/N 200001 AND SUBSEQUENT) UOC: MTA	2
30	PAFZZ	2510-01-479-5764	19207	12441173	FRAME SECTION,STRUC UOC: MTA	1
31	PAFZZ	5306-01-453-8618	19207	12414307-148	BOLT,MACHINE M16 X 1.5 X 80 UOC: MTA	16
					END OF FIGURE	

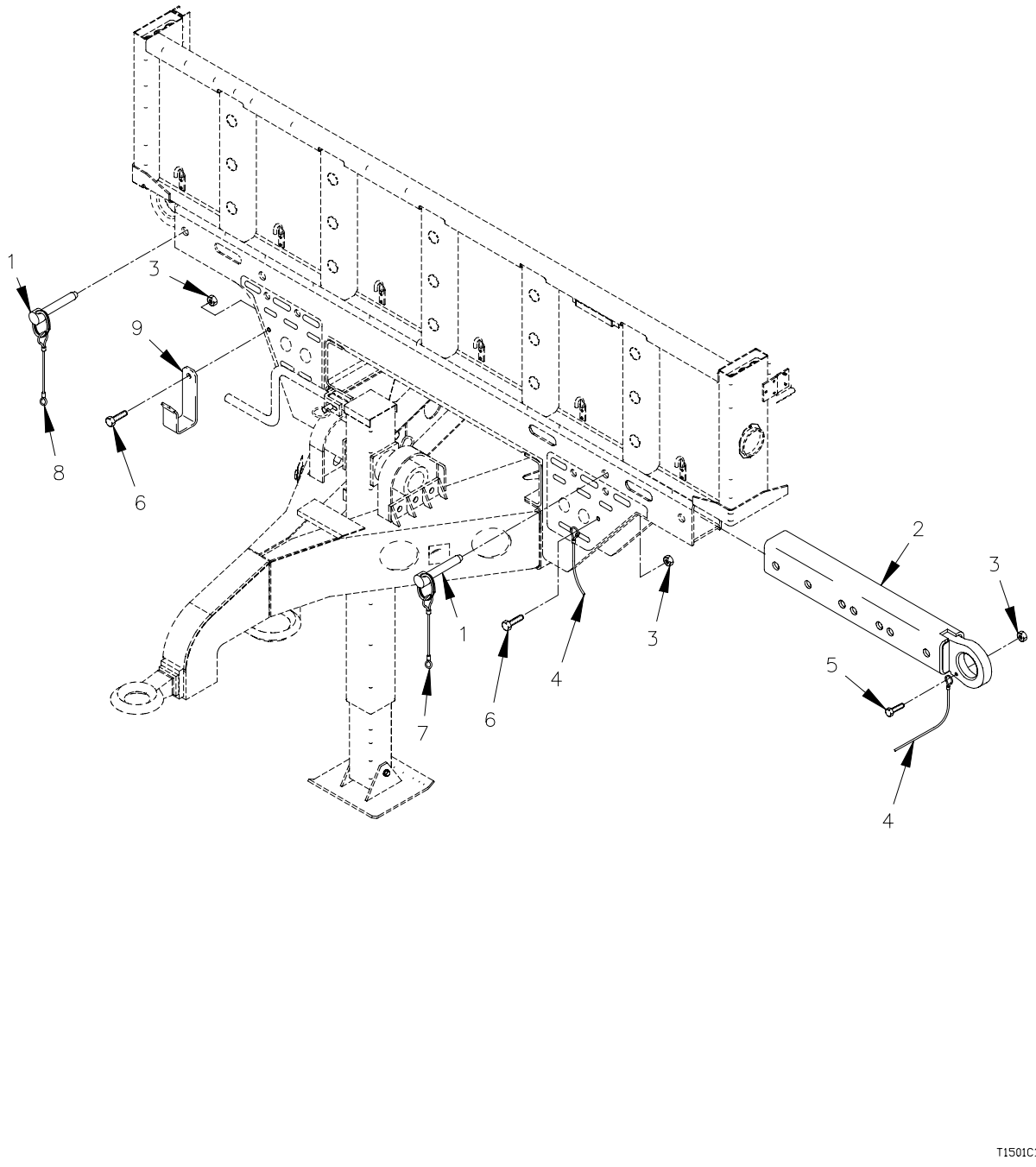


Figure 23. Group 1501 Front And Rear Lift Beams

GROUP 1501 FRONT AND REAR LIFT BEAMS CONTINUED – 0148 01

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1501: FRAME ASSEMBLY FIG.23 FRONT AND REAR LIFT BEAMS	
1	PAOZZ	5315-01-480-2880	81349	M45952/1-C12-65	PIN,QUICK RELEASE	8
2	PAOZZ	2590-01-479-5986	19207	12442871	ARM ASSEMBLY,LIFT B	4
3	PAOZZ	5310-01-369-5703	19207	12414308-004	NUT,SELF-LOCKING,EX M8 X 1.25	4
4	PAOZZ	4010-01-479-5567	19207	12442916-003	LANYARD ASSEMBLY,	4
5	PAOZZ	5306-01-470-6596	0FW39	12414309-032	BOLT,MACHINE M8 X 1.25 X 55	4
6	PAOZZ	5306-01-453-9133	19207	12414307-040	BOLT,MACHINE M8 X 1.25 X 40	6
7	PAOZZ	4010-01-479-5560	19207	12442916-002	LANYARD ASSEMBLY,	4
8	PAOZZ	4010-01-479-5563	19207	12442916-001	LANYARD ASSEMBLY,	4
9	PAOZZ	5340-01-479-5442	19207	12443080	BRACKET,DOUBLE ANGL	1
					END OF FIGURE	

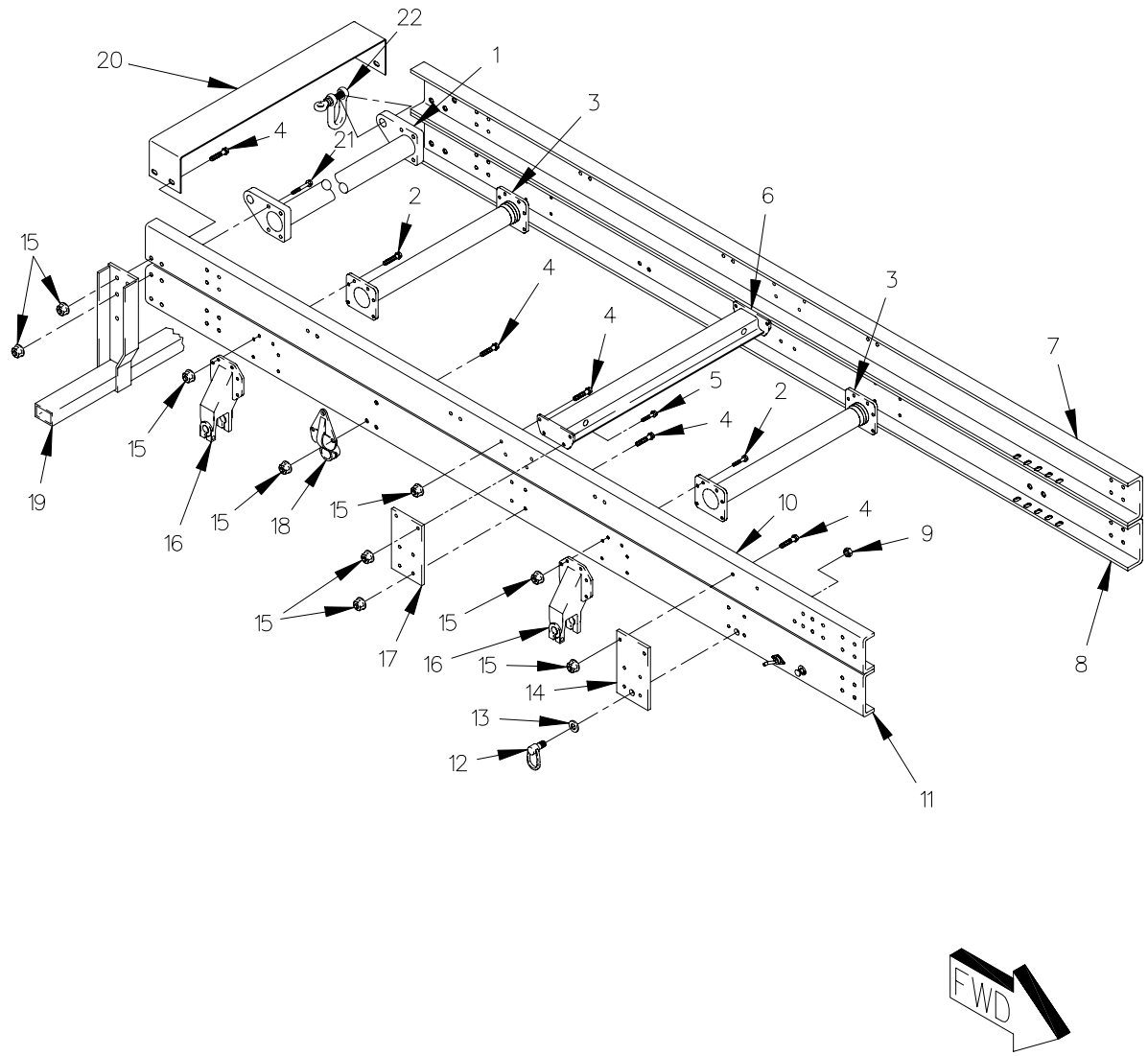


Figure 24. Group 1501 M1082 Frame Assembly

GROUP 1501 M1082 FRAME ASSEMBLY - Continued 0149 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1501: FRAME ASSEMBLY FIG.24 M1082 FRAME ASSEMBLY	
1	PAFZZ	2510-01-483-2597	19207	12443014	FRAME SECTION,STRUC UOC: LTA	1
2	PAFZZ	5306-01-377-0750	19207	12414307-147	BOLT,MACHINE UOC: LTA	24
3	PFFZZ	2510-01-377-3124	19207	12414511	FRAME SECTION,STRUC UOC: LTA	2
4	PAFZZ	5306-01-371-7161	19207	12414307-141	BOLT,MACHINE M16 X 1.5 X 45 UOC: LTA	24
5	PAOZZ	5306-01-387-0075	0FW39	12414307-144	BOLT,MACHINE UOC: LTA	4
6	PAFZZ	5340-01-479-5475	19207	12441170	BRACKET,MOUNTING UOC: LTA	1
7	PAFZZ	2590-01-483-2630	0FW39	12441151	BRACKET,VEHICULAR C UOC: LTA	1
8	PAFZZ	2510-01-483-2326	0FW39	12441144	FRAME SECTION,STRUC (USED ON TRAILER PRIOR TO S/N 200001) UOC: LTA	1
8	PAFZZ		0FW39	12423333	FRAME SECTION,STRUC (USED ON TRAILER S/N 200001 AND SUBSEQUENT) UOC: LTA	1
9	PAFZZ	5310-00-241-6666	96906	MS51943-52	NUT,SELF-LOCKING,HE 1-1/8 (USED ON TRAILER S/N PRIOR TO 200001) UOC: LTA	2
9	PAFZZ		81349	M45913/3-20FG8C	NUT,SELF-LOCKING,HE (USED ON TRAILER S/N 200001 AND SUBSEQUENT) UOC: LTA	2
10	PAFZZ	2590-01-483-2629	0FW39	12441150	BRACKET,VEHICULAR C UOC: LTA	1
11	PAFZZ	2510-01-483-2589	0FW39	12441143	FRAME SECTION,STRUC (USED ON TRAILER PRIOR TO S/N 200001) UOC: LTA	1
11	PAFZZ		0FW39	12423332	FRAME SECTION,STRUC (USED ON TRAILER S/N 200001 AND SUBSEQUENT) UOC: LTA	1
12	PAFZZ	5306-01-439-3754	4368	PMP35360	BOLT,SWIVEL HANDLE (USED ON TRAILER S/N PRIOR TO 200001) UOC: LTA	2
12	PAFZZ		0FW39	12423329	BOLT,SWIVEL HANDLE (USED ON TRAILER S/N 200001 AND SUBSEQUENT) UOC: LTA	2
13	PAFZZ	5365-01-479-5767	19207	12443169	SPACER,SLEEVE 32.5 MM (USED ON TRAILER S/N 200001 AND SUBSEQUENT) UOC: LTA	2
13	PAFZZ		19207	12417963-025	SPACER (USED ON TRAILER S/N PRIOR TO 200001) UOC: LTA	2

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1501: FRAME ASSEMBLY FIG.24 M1082 FRAME ASSEMBLY	
14	PAFZZ	5340-01-479-5461	19207	12443016	PLATE,MOUNTING (USED ON TRAILER PRIOR TO S/N 200001) UOC: LTA	2
14	PAFZZ		19207	12443016-001	PLATE,MOUNTING, (USED ON TRAILER S/N 200001 AND SUBSEQUENT) UOC: LTA	2
15	PAFZZ	5310-01-369-6706	19207	12414308-025	NUT,SELF-LOCKING,EX M16 X 1.5 UOC: LTA	88
16	PAFZZ	2510-01-377-3040	19207	12417403	FRAME SECTION,STRUC UOC: LTA	4
17	PAFZZ	5340-01-483-1169	19207	12441176	PLATE,MOUNTING UOC: LTA	2
18	PAFZZ	2590-01-377-6605	19207	12417391	BRACKET,VEHICULAR C UOC: LTA	2
19	PAFZZ		19207	12423338-001	BUMPER UOC: LTA	1
20	PAFZZ	2510-01-479-5764	19207	12441173	FRAME SECTION,STRUC UOC: LTA	1
21	PAFZZ	5306-01-453-8618	19207	12414307-148	BOLT,MACHINE M16 X 1.5 X 80 UOC: LTA	8
22	PAFZZ	4030-01-391-9599	19207	12378642-004	SHACKLE (USED ON TRAILER PRIOR TO S/N 200001) UOC: LTA	2
22	PAFZZ	4030-01-521-2308	0FW39	12423327	SHACKLE (USED ON TRAILER S/N 200001 AND SUBSEQUENT) UOC: LTA	2
					END OF FIGURE	

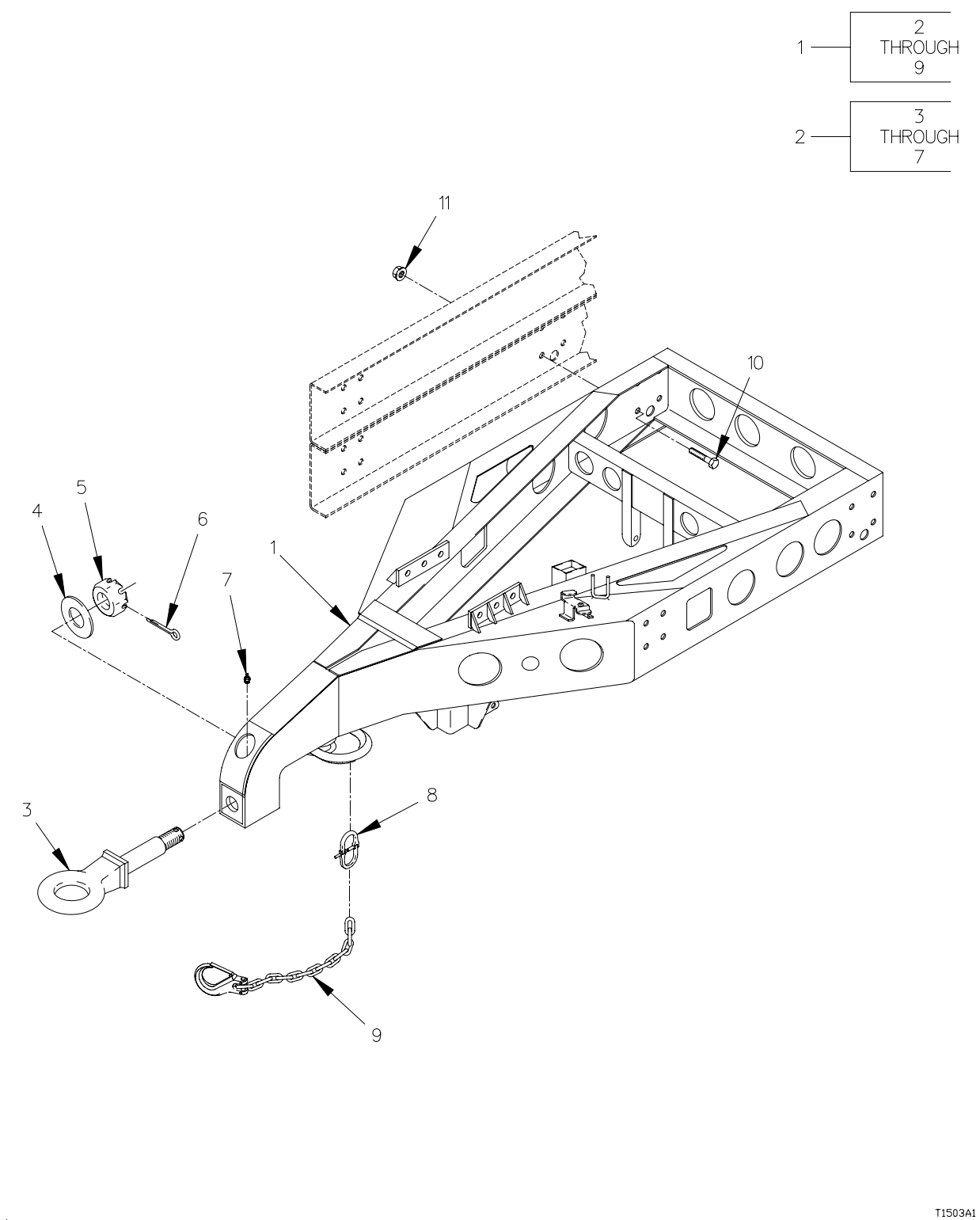


Figure 25. Group 1503 Drawbar Assembly

GROUP 1503 DRAWBAR ASSEMBLY - Continued 0150 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1503: PINTLES AND TOWING ATTACHMENTS FIG.25 M1082 AND M1095 DRAWBAR ASSEMBLY	
1	XDOOO		19207	12441126	TONGUE ASSEMBLY,TR (USED ON TRAILER S/N PRIOR TO 200001)	1
1	XDOOO		19207	12441126-001	TONGUE ASSEMBLY,TR (USED ON TRAILER S/N 200001 AND SUBSEQUENT)	1
2	PAOOO	2540-01-488-6221	19207	12441152	.COUPLER,DRAWBAR,RIN	1
3	PAOZZ	2540-01-484-7235	74410	XA-1249-49-10	..COUPLER,DRAWBAR,RIN	1
4	PAOZZ	5310-01-383-8880	74410	XB-T-318	..WASHER,FLAT	1
5	PAOZZ	5310-01-488-4063	74410	XB-T-316-A	..NUT,PLAIN,HEXAGON	1
6	PAOZZ	5315-01-383-0048	74410	XB-121	..PIN,COTTER	1
7	PAOZZ	4730-00-050-4203	74410	XB-767	..FITTING,LUBRICATION	1
8	PAOZZ	2040-01-442-4055	19207	12443057	.CONNECTING,LINK	2
9	PAOOO	4010-01-483-2304	19207	12441163	.CHAIN ASSEMBLY,SING	2
					END OF FIGURE	

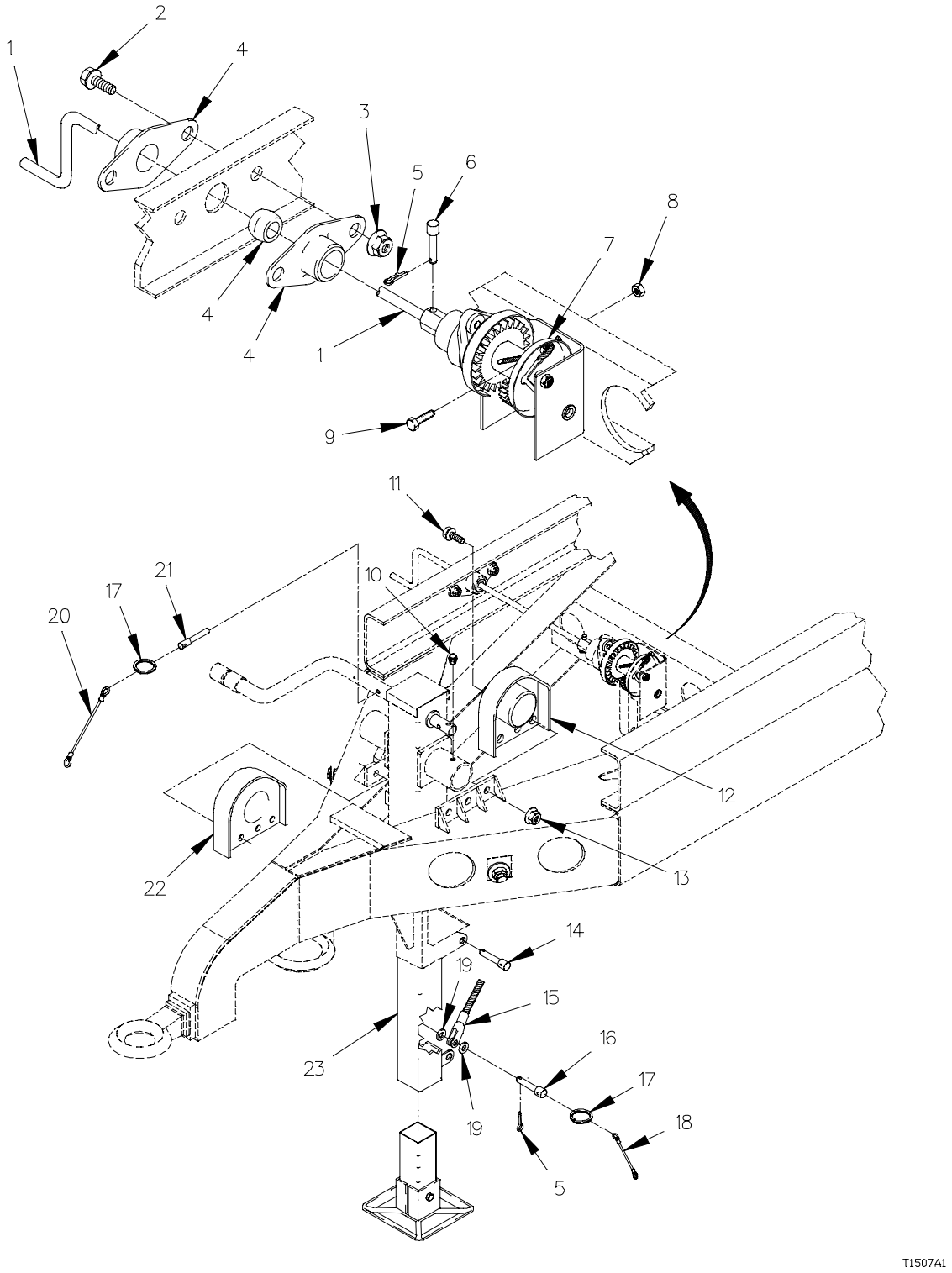


Figure 26. Group 1507 Landing Gear (Sheet 1 Of 2)

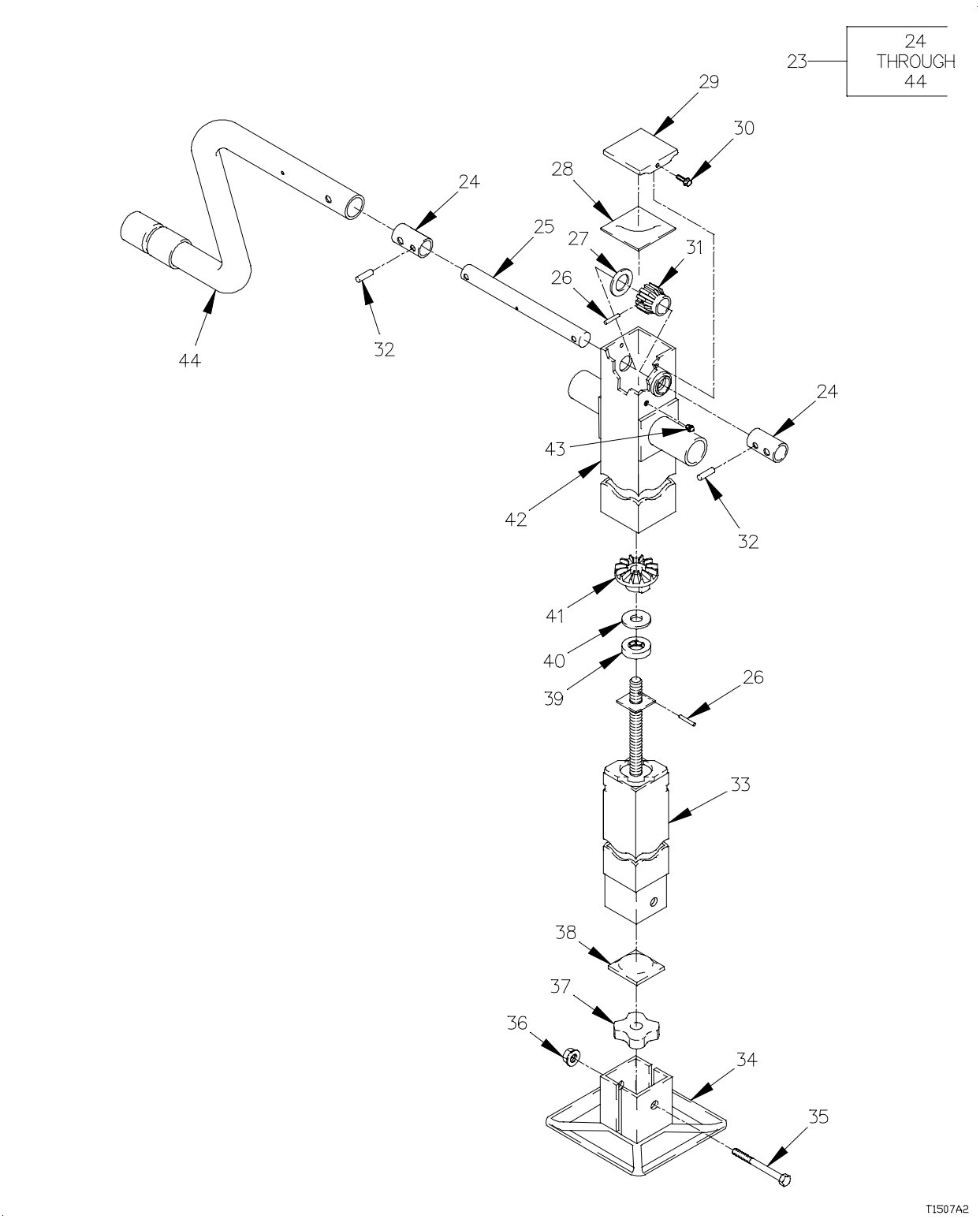


Figure 26. Group 1507 Landing Gear (Sheet 2 Of 2)
0151 00-2

GROUP 1507 LANDING GEAR - Continued 0151 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1507: LANDING GEAR, LEVELING JACKS FIG.26 M1082 AND M1095 LANDING GEAR	
1	PAOZZ	5340-01-479-5602	19207	12443019	HANDLE,WINCH	1
2	PAOZZ	5306-01-435-6042	80204	B18234B10025N	BOLT M10 X 1.5 X 24.3	2
3	PAOZZ	5310-01-463-1058	80204	B18244B10	NUT M10	2
4	PAOZZ	3120-01-479-5627	19207	12443018	BUSHING,HANDLE	1
5	PAOZZ	5315-00-234-1854	10001	AN381-2-12	PIN,COTTER (SPLIT)	2
6	PAOZZ	5315-01-338-8400	81349	D63479/1-27Z	PIN,STRAIGHT	1
7	PAOZZ	3950-01-479-5871	19207	12443027	WINCH,LANDING GEAR	1
8	PAOZZ	5310-01-433-8484	80204	B18244B08	NUT M8 X 1.25	2
9	PAOZZ	5310-01-435-2925	80204	B18234B08025N	BOLT M8 X 1.25 X 24.6	2
10	PAOZZ	4730-00-050-4208	96906	MS15003-1	FITTING,LUBRICATION	2
11	PAOZZ	5306-01-372-3536	19207	12414307-140	BOLT,MACHINE M16 X 1.5 X 45	6
12	PAOOO	5340-01-479-5446	19207	12442795	MOUNT,LANDING GEAR	1
13	PAOZZ	5310-01-369-6706	19207	12414308-025	NUT,SELF-LOCKING,EX M16	6
14	PAOZZ	5315-01-480-2880	81349	M45952/1-C12-65	PIN,QUICK-RELEASE	1
15	PAOOO	4010-01-479-5597	19207	12443028	CABLE ASSEMBLY, WIN	1
16	PAOZZ	5315-01-480-3091	81348	D63479/1-25Z	PIN,STRAIGHT,HEAD	1
17	PAOZZ	5325-01-283-6518	84256	19-4CD	RING,RETAINING	1
18	PAOZZ	4010-01-479-5560	19207	12442916-002	LANYARD ASSEMBLY	1
19	PAOZZ	5310-01-115-0762	19200	12524631-1	WASHER,FLAT	2
20	PAOZZ	4010-01-458-6698	19207	12418763-002	LANYARD ASSEMBLY	1
21	PAOZZ	5315-00-973-0844	81349	M45952/1-C6-15	PIN,QUICK-RELEASE	1
22	PAOZZ	5340-01-479-5439	19207	12442796	MOUNT,LANDING GEAR	1
23	PFOZZ	2590-01-490-4398	19207	12441149	SUPPORT,RETRACTABLE	1
24	PAOZZ	3010-01-487-5255	74410	LG0172	.ADAPTOR,CRANK	2
25	PAOZZ	3040-01-479-8411	74410	LG2020-10	.SHAFT DRIVE	1
26	PAOZZ	5315-01-479-8481	74410	XB-GP-014-07	.PIN,GROOVE TYPE E	2
27	PAOZZ	5310-01-479-8535	74410	XB-PW-016-73	.WASHER,PLAIN,THRUST	1
28	PAOZZ	5330-01-479-8413	74410	XB-LG0893	.GASKET	1
29	PAOZZ	5340-01-479-8405	74410	XB-LG0880	.COVER	1
30	PAOZZ	5305-01-479-8463	74410	XB-STS-008-11	.SCREW,SELF TAP	2
31	PAOZZ	3020-01-479-8321	74410	XB-LG2026	.GEAR,PINION	1
32	PAOZZ	5315-01-479-8472	74410	XB-GP-052-11	.PIN,DRIVE,LOCK	2
33	PAOZZ	2590-01-479-8424	74410	LG0174	.ASSEMBLY,RETRACT TU	1
34	PAOZZ	2590-01-479-8427	74410	LG0732-01	.SHOE	1
35	PAOZZ	5306-01-479-8510	74410	XB-HHB-050-70	.BOLT,HEXAGON 5/8-11 X 1/2	1
36	PAOZZ	5310-01-479-8426	74410	XB-SP0-012-10	.NUT,HEXAGON,SELF LO	1
37	PAOZZ	2590-01-484-7220	74410	XB-LG0726	.CUSHION,RUBBER	1
38	PAOZZ	2590-01-484-7234	74410	LG0725	.SHOE,JACK SUPPORT	1
39	PAOZZ	3120-01-479-7814	74410	XB-BRG-013-70	.BEARING,THRUST	1
40	PAOZZ	5310-01-479-8528	74410	XB-PW-016-51	.WASHER,PLAIN	1
41	PAOZZ	3020-01-479-8412	74410	XB-LG2027	.GEAR,BEVEL	1
42	PAOZZ	2590-01-479-8433	74410	LG0173	.UPPER HOUSING	1
43	PAOZZ	4730-01-479-8442	74410	XB-GRF-022-16	.FITTING,GREASE	1
44	PAOZZ	5340-01-484-2957	74410	LG0176	HANDLE,CRANK	1
					END OF FIGURE	

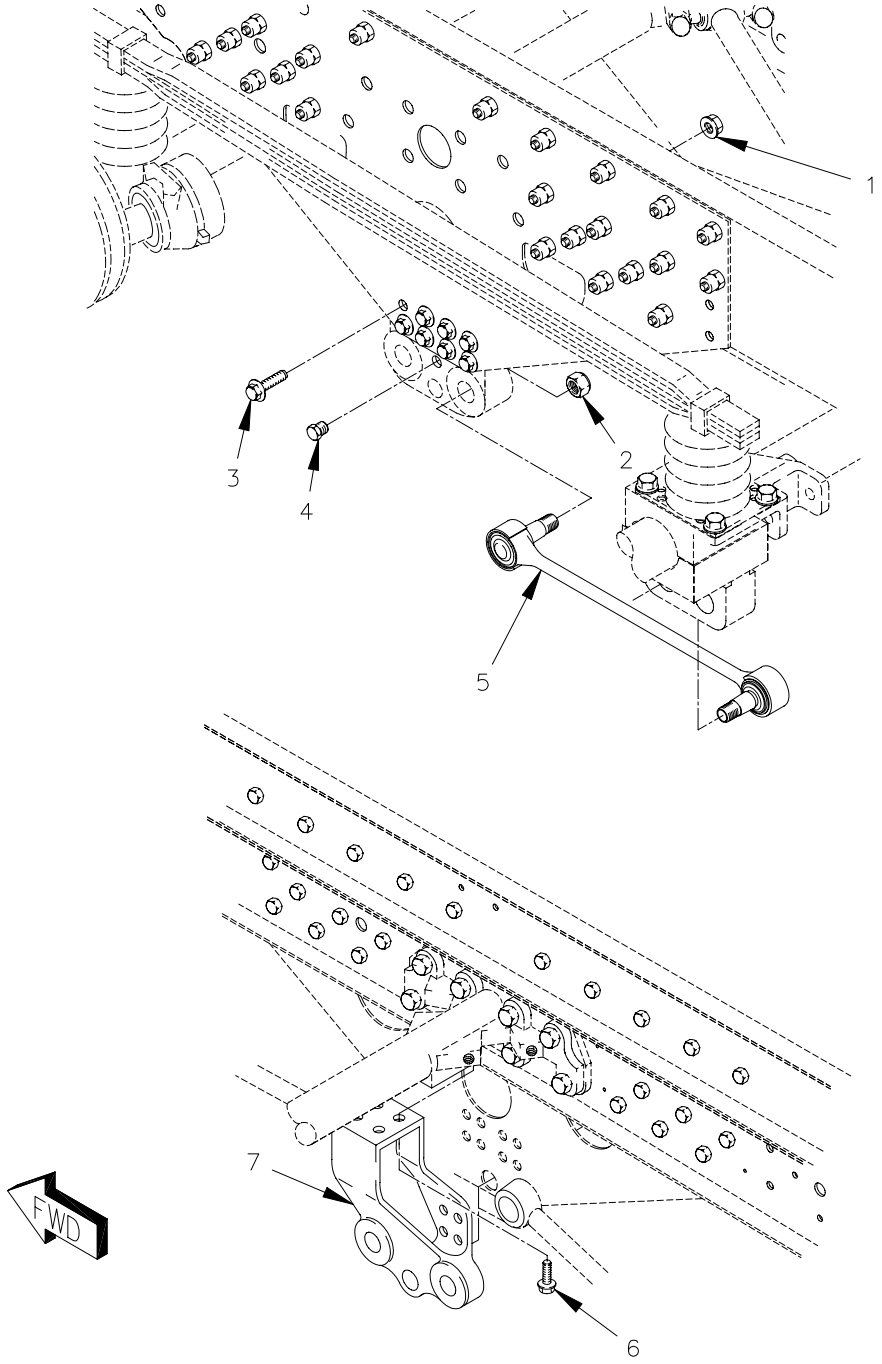


Figure 27. Group 1601 M1095 Leaf Springs And Torque Rods (Sheet 1 Of 2)

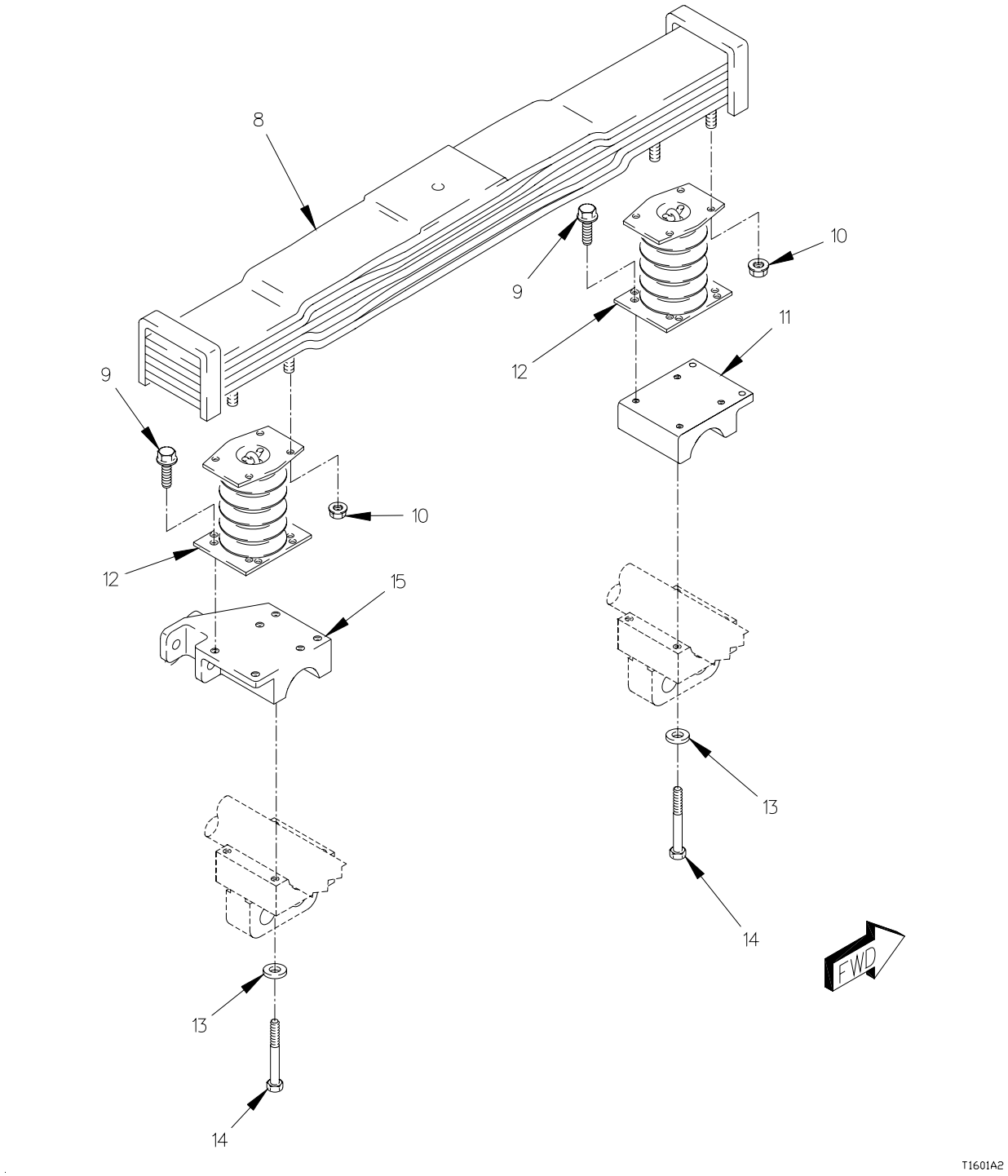


Figure 27. Group 1601 M1095 Leaf Springs And Torque Rods (Sheet 2 Of 2)

GROUP 1601 M1095 LEAF SPRINGS AND TORQUE RODS - Continued 0152 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1601: SPRINGS FIG.27 M1095 LEAF SPRINGS AND TORQUE RODS	
1	PAFZZ	5310-01-369-3339	19207	12414308-027	NUT,SELF-LOCKING,EX M20 UOC: MTA	16
2	PAFZZ	5310-01-434-0078	93019	15635-93M	.NUT,SELF-LOCKING,HE UOC: MTA	8
3	PAFZZ	5306-01-382-7538	19207	12414307-173	BOLT,MACHINE M20 X 1.5 X 42 UOC: MTA	16
4	PAOZZ	4730-01-460-6502	0FW39	12420767	PLUG,PIPE UOC: MTA	2
5	PAFZZ	2530-01-395-8774	93019	BB-3019-1X	ARM,CONTROL,VEHICUL UOC: MTA	4
6	PAFZZ	5306-01-386-7853	19207	12414307-139	BOLT,MACHINE M16 X 1.5 X 40 UOC: MTA	8
7	PAFZZ	2530-01-369-4933	0FW39	12414277	SUPPORT,AXLE,VEHICU UOC: MTA	2
8	PAFZZ	2510-01-494-1013	3AD05	12422507	SPRING ASSEMBLY,LEA UOC: MTA	2
9	PAFZZ	5306-01-369-8191	0FW39	12414307-063	BOLT,MACHINE M10 X 1.5 X 25 UOC: MTA	16
10	PAFZZ	5310-01-369-9522	19207	12414308-019	NUT,SELF-LOCKING,EX M10 X 1.5 UOC: MTA	16
11	PAFZZ	5340-01-479-5466	19207	12442829	BRACKET,MOUNTING UOC: MTA	2
12	PAFZZ	5342-01-369-0894	0FW39	12417625	MOUNT,RESILIENT,WEA UOC: MTA	4
13	PAFZZ	5365-01-387-1237	19207	12418350-003	SPACER,RING UOC: MTA	16
14	PAFZZ		19207	12414551-108	BOLT,HEXAGON HEAD M18 X 2 X 160 UOC: MTA	16
15	PAFZZ	5340-01-479-5493	19207	12442828-001	BRACKET,MOUNTING RIGHT HAND SIDE UOC: MTA	1
15	PAFZZ	5340-01-479-5489	19207	12442828-002	BRACKET,MOUNTING LEFT HAND SIDE UOC: MTA	1
					END OF FIGURE	

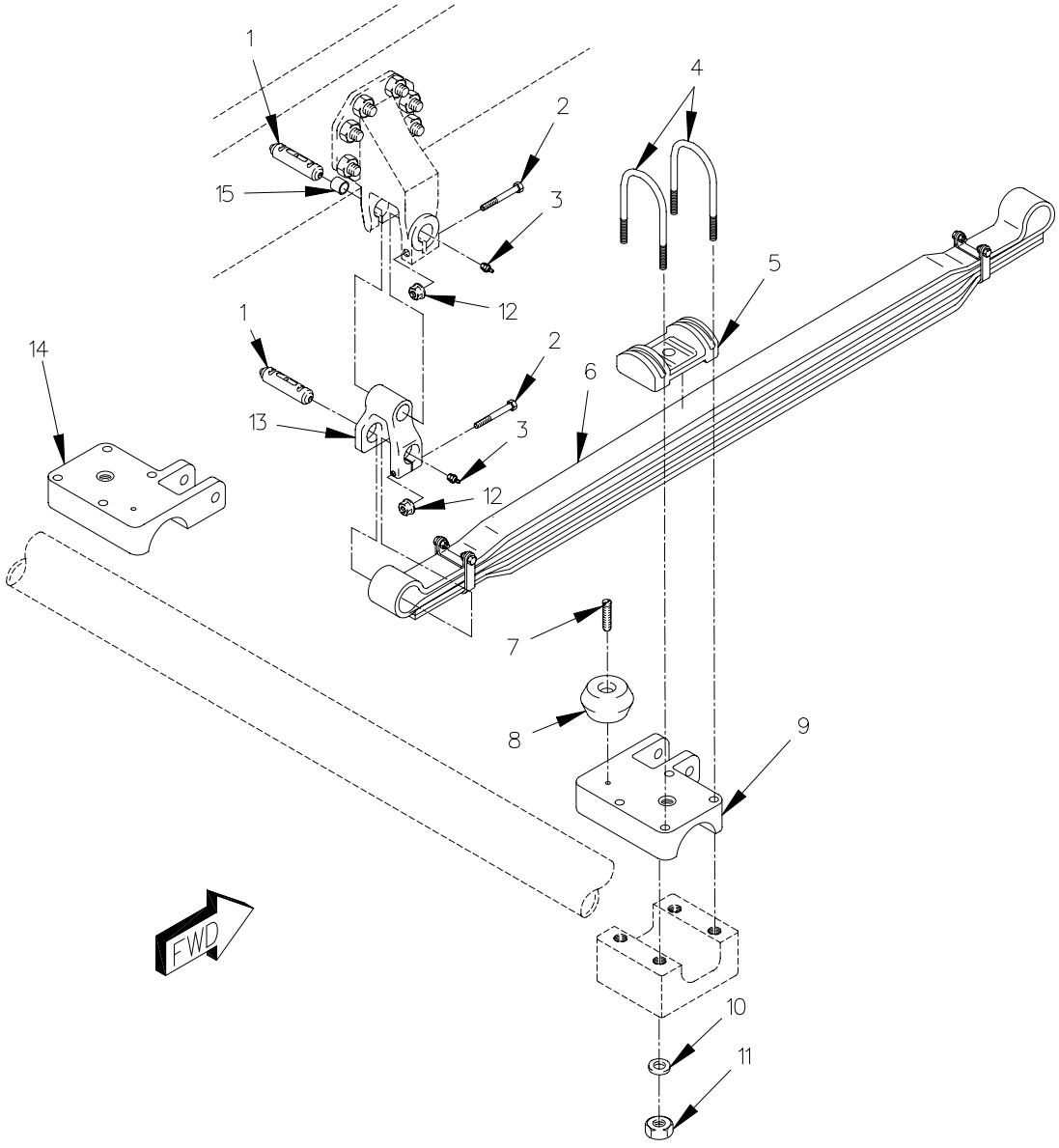


Figure 28. Group 1601 M1082 Leaf Springs

GROUP 1601 M1082 Leaf Springs - Continued 0153 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1601: SPRINGS FIG.28 M1082 LEAF SPRINGS	
1	PAFZZ	2590-01-374-1844	19207	12417921	PIN,STRAIGHT,HEADL UOC:LTA,	6
2	PAFZZ	5306-01-369-7504	19207	12414551-052	BOLT,MACHINE M12 X 1.5 X 70 UOC:LTA,	6
3	PAFZZ	4730-00-050-4208	96906	MS15003-1	FITTING,LUBRICATION UOC:LTA,	6
4	PAFZZ	5306-01-369-8889	19207	12417904-003	BOLT, U UOC:LTA,	4
5	PAFZZ	5340-01-371-1077	0FW39	12417393	SEAT,HELICAL COMPRE UOC:LTA,	2
6	PAFZZ	2510-01-483-3323	0FW39	12441147	SPRING ASSEMBLY UOC:LTA,	2
7	PAFZZ		0FW39	12443601	BOLT UOC:LTA,	2
8	PAFZZ	5340-01-495-5767	0FW39	12422593	MOUNT,RESILIENT UOC:LTA,	2
9	PAFZZ		0FW39	12443604-002	PLATE UOC:LTA,	1
10	PAFZZ	5310-01-370-0012	0FW39	12414473-018	WASHER M19 UOC:LTA,	8
11	PAFZZ	5310-01-371-8419	19207	12418084	NUT,SELF-LOCKING,EX M18 UOC:LTA,	8
12	PAFZZ	5310-01-368-8667	19207	12414315-011	NUT,SELF-LOCKING,HE M12 UOC:LTA,	6
13	PAFZZ	2510-01-372-8454	19207	12417925	SHACKLE,LEAF SPRING UOC:LTA,	2
14	PAFZZ		0FW39	12443604-001	PLATE UOC:LTA,	1
15	PAFZZ	3120-01-369-8978	0FW39	12417918	BUSHING,SLEEVE UOC:LTA,	2
					END OF FIGURE	

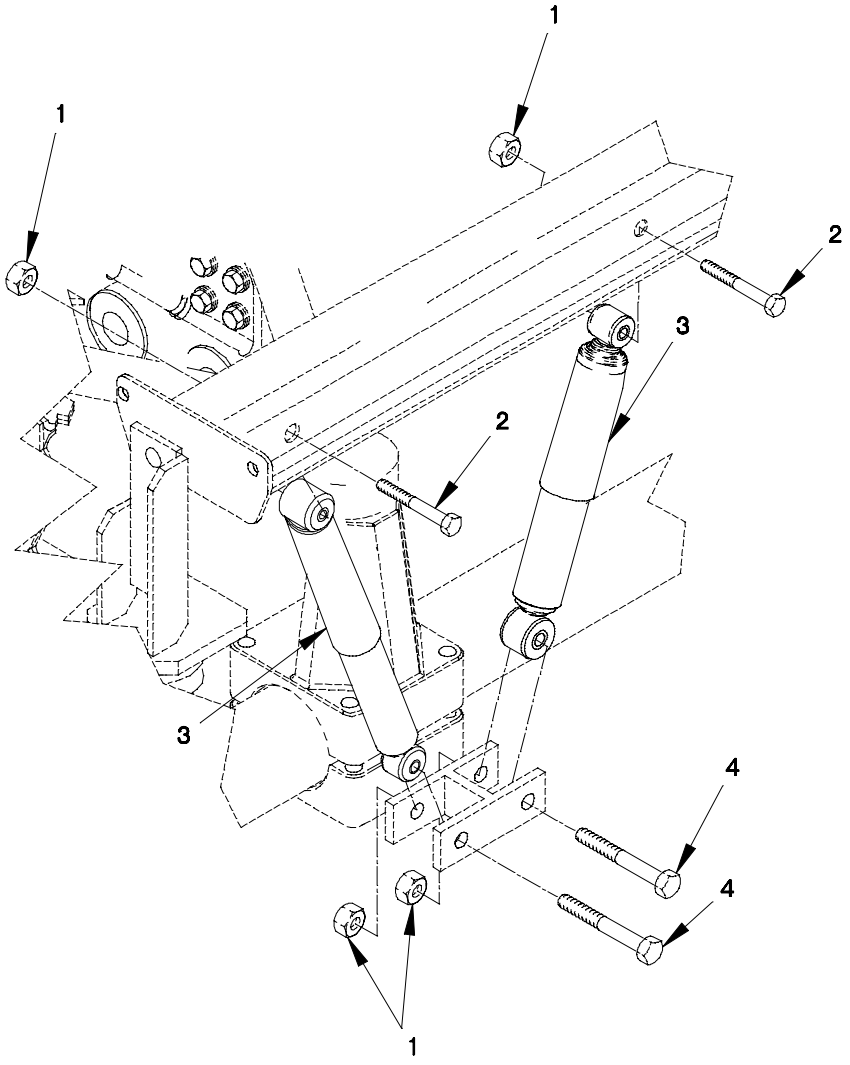


Figure 29. Group 1604 M1095 Shock Absorbers

GROUP 1604 M1095 SHOCK ABSORBERS - Continued 0154 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1604: M1095 SHOCK ABSORBERS FIG.29 M1095 SHOCK ABSORBERS	
1	PAOZZ	5310-01-369-6706	19207	12414308-025	NUT,SELF-LOCKING M16 UOC:MTA,	8
2	PAOZZ	5306-01-390-1141	19207	12414307-150	BOLT,MACHINE M16 X 1.5 X 120 UOC:MTA,	4
3	PAOZZ	2510-01-483-3000	19207	12441168	SHOCK ABSORBER UOC:MTA,	4
4	PAOZZ	5306-01-453-8618	19207	12414307-148	BOLT,MACHINE M16 X 1.5 X 99.3 UOC:MTA,	4
					END OF FIGURE	

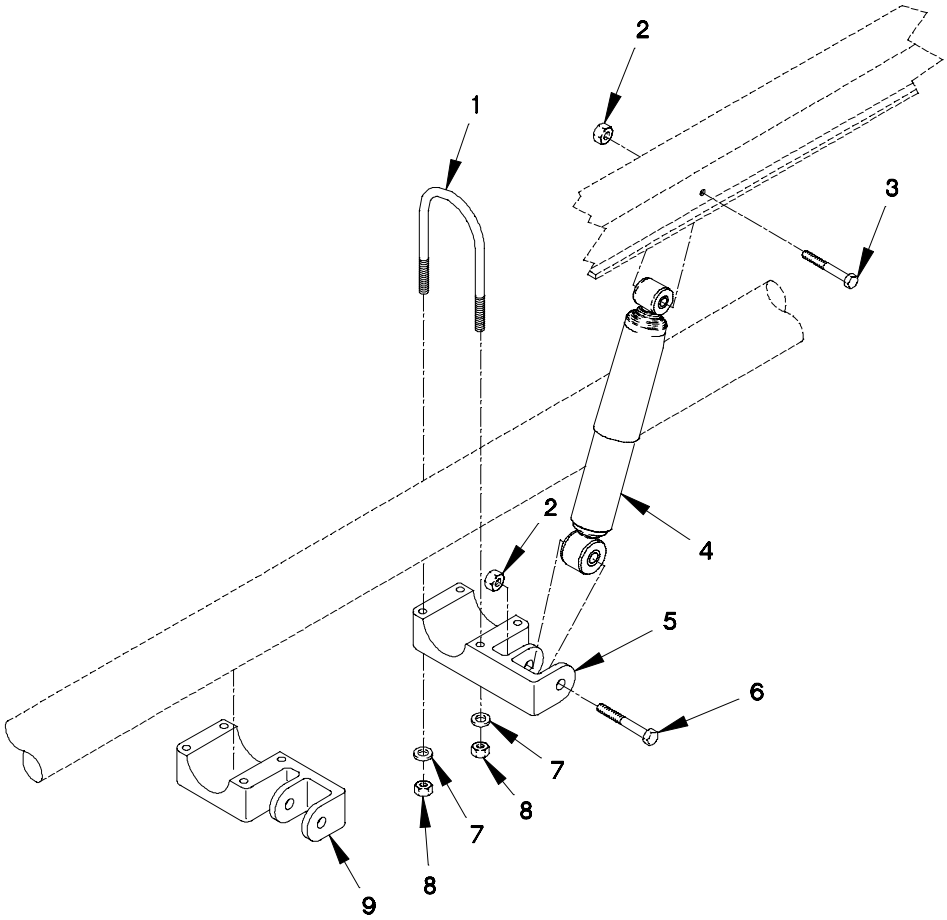


Figure 30. Group 1604 M1082 Shock Absorbers

GROUP 1604 M1082 SHOCK ABSORBERS - Continued 0155 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1604: M1082 SHOCK ABSORBERS FIG.30 M1082 SHOCK ABSORBERS	
1	PAOZZ	5306-01-483-1233	0FW39	12442826	BOLT, U UOC:LTA,	4
2	PAOZZ	5310-01-369-6706	19207	12414308-025	NUT,SELF-LOCKING M16 UOC:LTA,	4
3	PAOZZ	5306-01-390-1141	19207	12414307-150	BOLT,MACHINE M16 X 1.5 X 120 UOC:LTA,	2
4	PAOZZ	2510-01-483-3000	19207	12441168	SHOCK ABSORBER UOC:LTA,	2
5	PAOZZ	5340-01-483-1532	0FW39	12443094-002	SHOCKMOUNT UOC:LTA,	1
6	PAOZZ	5306-01-453-8618	19207	12414307-148	BOLT,MACHINE M16 X 1.5 X 99.3 UOC:LTA,	2
7	PAOZZ	5310-01-370-0012	0FW39	12414473-018	WASHER M19 UOC:LTA,	8
8	PAOZZ	5310-01-368-8065	19207	12414315-017	NUT,PLAIN,HEXAGON M18 X 1.5 UOC:LTA,	8
9	PAOZZ	2590-01-483-2609	0FW39	12443094-001	SHOCKMOUNT UOC:LTA,	1
					END OF FIGURE	

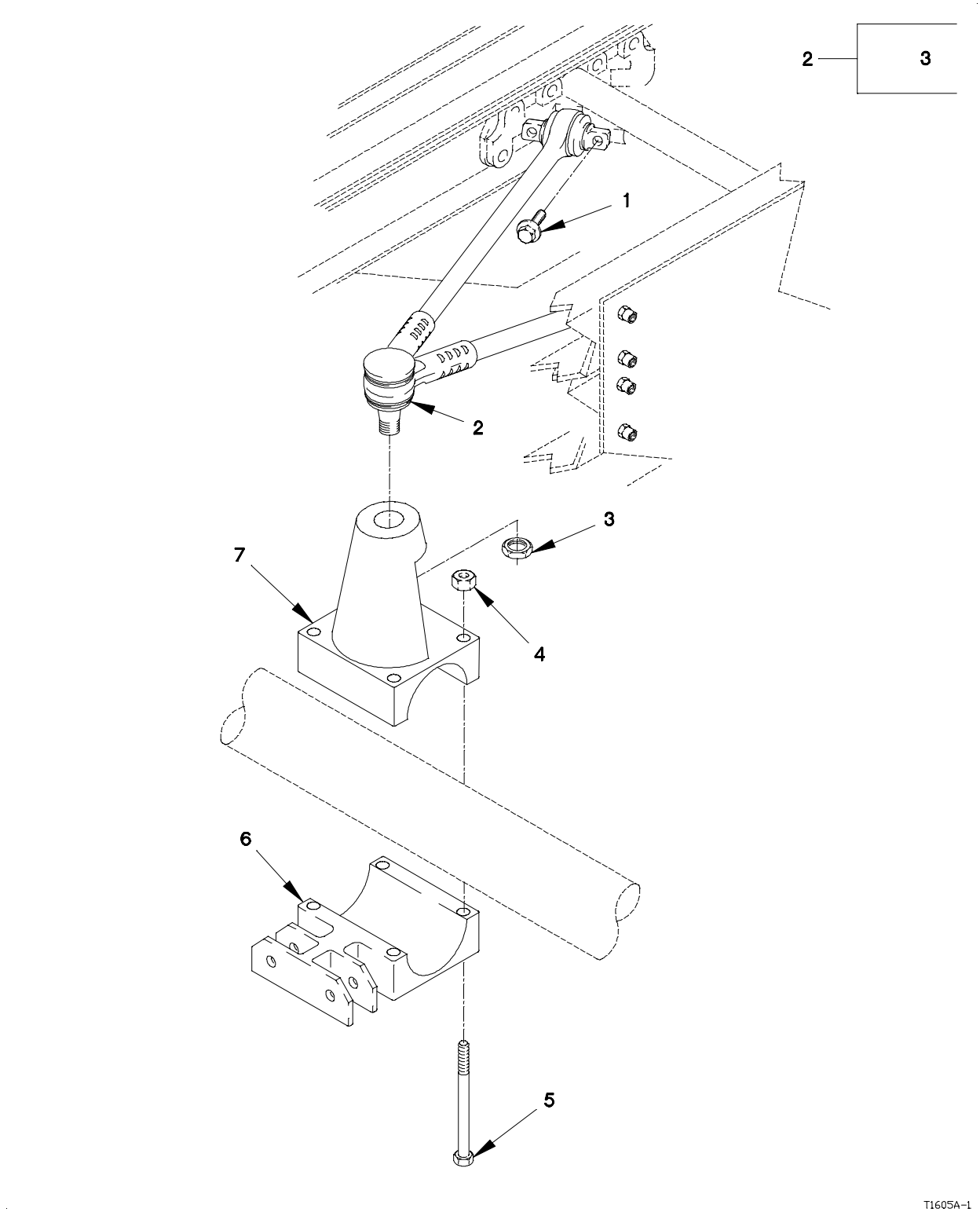


Figure 31. Group 1605 M1095 Control Arms, Mounts And Brackets

GROUP 1605 M1095 CONTROL ARMS, MOUNTS AND BRACKETS - Continued 0156 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1605: TORQUE, RADIUS AND STABILIZER RODS FIG.31 M1095 CONTROL ARMS,MOUNTS AND BRACKETS	
1	PAFZZ	5306-01-387-0097	19207	12414307-174	BOLT,MACHINE M20 X 1.5 X 50 UOC:MTA,	8
2	PAFZZ	2530-01-363-4345	93019	SSB-507-1X	ROD,ALIGNING,VEHICU UOC:MTA,	2
3	PAFZZ	5310-01-434-0078	93019	15635-93M	.NUT,SELF-LOCKING,HE M39 X 1.5 UOC:MTA,	1
4	PAFZZ	5310-01-368-8065	19207	12414315-017	NUT,PLAIN,HEXAGON M18 X 1.5 UOC:MTA,	8
5	PAFZZ	5306-01-369-1743	19207	12414551-110	BOLT,MACHINE M18 X 1.5 X 180 UOC:MTA,	8
6	PAFZZ	5340-01-479-5463	19207	12442825	SHOCKMOUNT,AXLE UOC:MTA,	2
7	PAFZZ	5340-01-479-5470	19207	12442827	BRACKET, V-ROD UOC:MTA,	2
					END OF FIGURE	

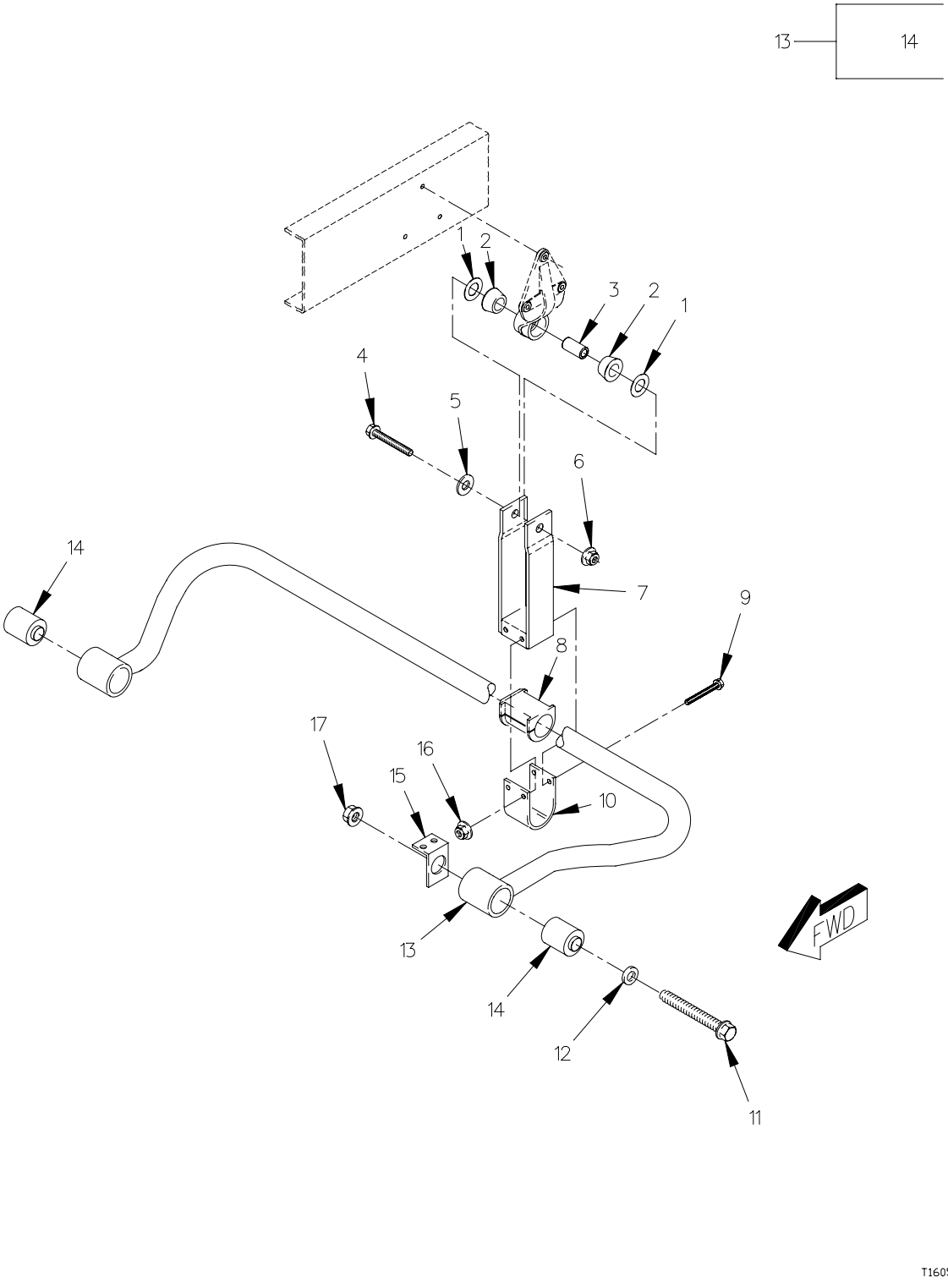


Figure 32. Group 1605 Stabilizer Bar

GROUP 1605 STABILIZER BAR - Continued 0157 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1605: TORQUE, RADIUS AND STABILIZER RODS FIG.32 M1082 AND M1095 STABILIZER BAR	
1	PAOZZ	5310-01-370-0596	19207	12419029	WASHER,FLAT M20	4
2	PAOZZ	5342-01-370-0643	81860	25951-1	MOUNT,RESILIENT	4
3	PAOZZ	3120-01-369-8361	19207	12419026	BUSHING,SLEEVE	2
4	PAOZZ	5306-01-369-8192	19207	12414551-124	BOLT,MACHINE M20 X .5 X 110	2
5	PAOZZ	5310-01-155-0057	19207	12417963-014	WASHER,FLAT M22	2
6	PAOZZ	5310-01-369-3339	19207	12414308-027	NUT,SELF-LOCKING M20	2
7	PAOZZ	5340-01-431-8755	19207	12419032	BRACKET,DOUBLE ANGL	2
8	PAOZZ	5342-01-483-2293	0FW39	12442831	MOUNT UOC:LTA,	2
8	PAOZZ	5342-01-369-0893	0FW39	12417623	MOUNT,RESILIENT UOC:MTA,	2
9	PAOZZ	5305-01-373-4832	19207	12414307-088	SCREW,CAP,HEXAGON M12 X 1.5 X 100	4
10	PAOZZ	5340-01-370-7066	19207	12378772	BRACKET,DOUBLE ANGL	2
11	PAOZZ		19207	12414551-128	BOLT,HEX HEAD M20 X 1.5 X 130 UOC:MTA,	2
11	PAOZZ	5305-00-947-4363	80204	B1821BH075C550N	BOLT 3/4 X 5 1/2 MAX UOC:LTA,	2
12	PAOZZ	5310-00-167-0826	88044	AN960-1216	WASHER,FLAT 3/4 UOC:LTA,	2
13	PAOZZ	2510-01-369-2054	19207	12417652	BAR,STABILIZER UOC:MTA,	1
13	PAOZZ	2510-01-483-3616	0FW39	12442832	BAR,STABILIZER UOC:LTA,	1
14	PAOZZ	3120-01-457-9719	19207	12378806	.BUSHING,STABILIZER UOC:MTA,	2
15	PAOZZ	5340-01-483-1186	0FW39	12442911	BRACKET UOC:LTA,	2
16	PAOZZ	5310-01-369-3338	19207	12414308-021	NUT,SELF-LOCKING M12	4
17	PAOZZ	5310-01-369-3339	80204	12414308-027	NUT 3/4 UOC:LTA	2
					END OF FIGURE	

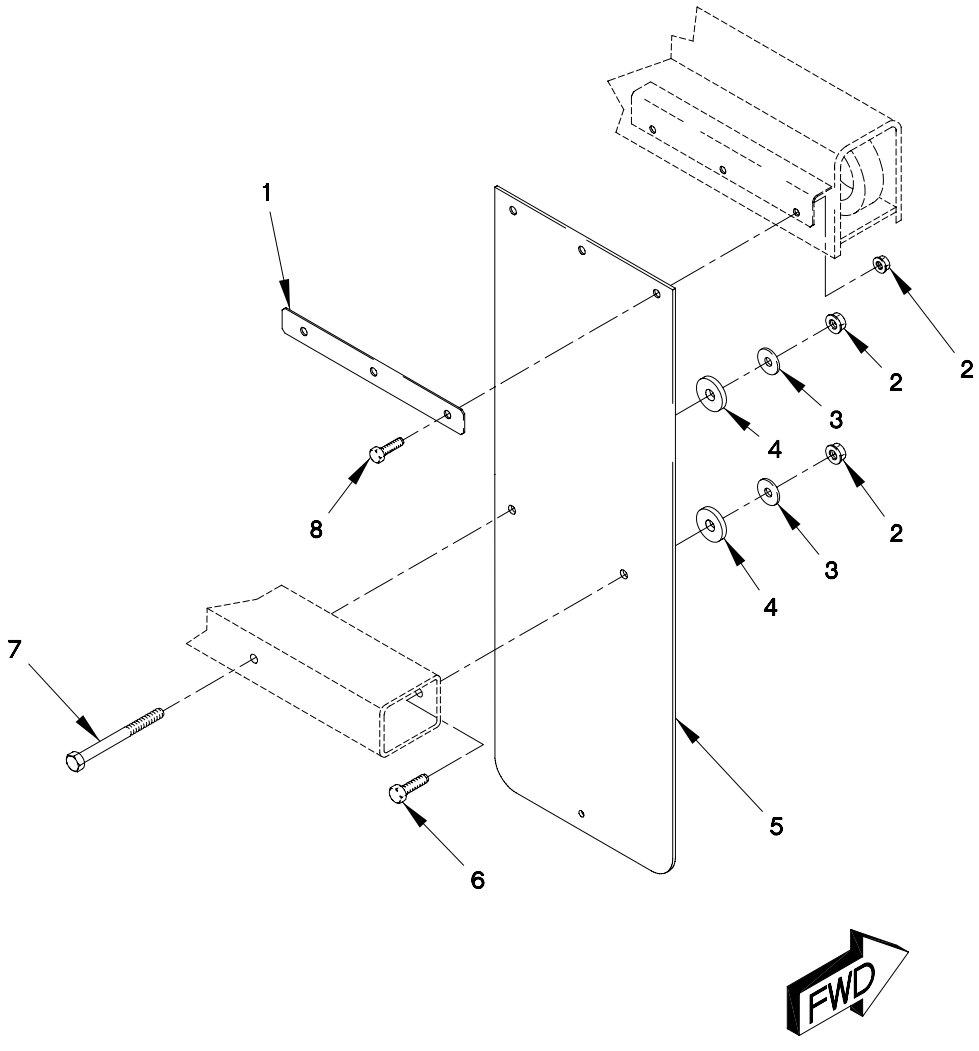


Figure 33. Group 1802 Splash Shields

GROUP 1802 SPLASH SHIELDS - Continued 0158 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1802: FENDERS, RUNNING BOARDS AND SPLASH SHIELDS FIG.33 M1082 AND M1095 SPLASH SHIELDS	
1	PAOZZ	5340-01-479-5456	19207	12442914	PLATE,MOUNTING	2
2	PAOZZ	5310-01-463-1058	80204	B18244B10	NUT	10
3	PAOZZ	5365-01-436-8308	19207	12417948-004	SPACER,SLEEVE	4
4	PAOZZ	5340-01-377-0693	19207	12418476	PAD,CUSHIONING	2
5	PAOZZ	2540-01-479-5790	19207	12442913	GUARD,SPLASH	2
6	PAOZZ	5305-01-479-5608	0FW39	12414419-127	SCREW,HEXAGON HEAD M10 X 1.5 X 130.	2
7	PAOZZ	5305-01-274-1264	15526	DIN933-M10X35-8.8-A4C	SCREW,CAP,HEXAGON H M10 X 1.5 X 35.	2
8	PAOZZ	5306-01-435-6042	80204	B18234B10025N	BOLT M10 X 1.5 X 24.3	6
					END OF FIGURE	

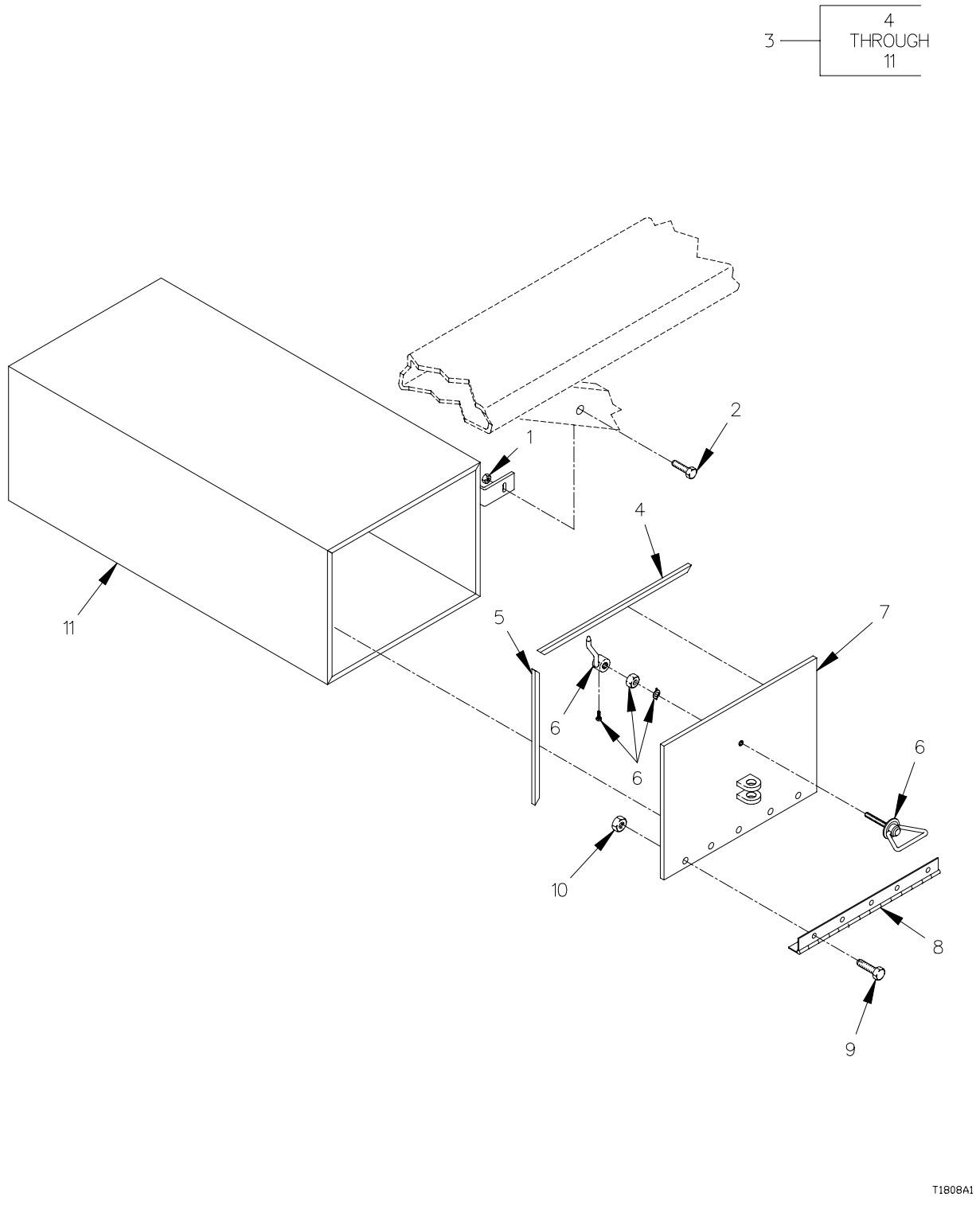


Figure 34. Group 1808 Stowage Box (Sheet 1 Of 2)

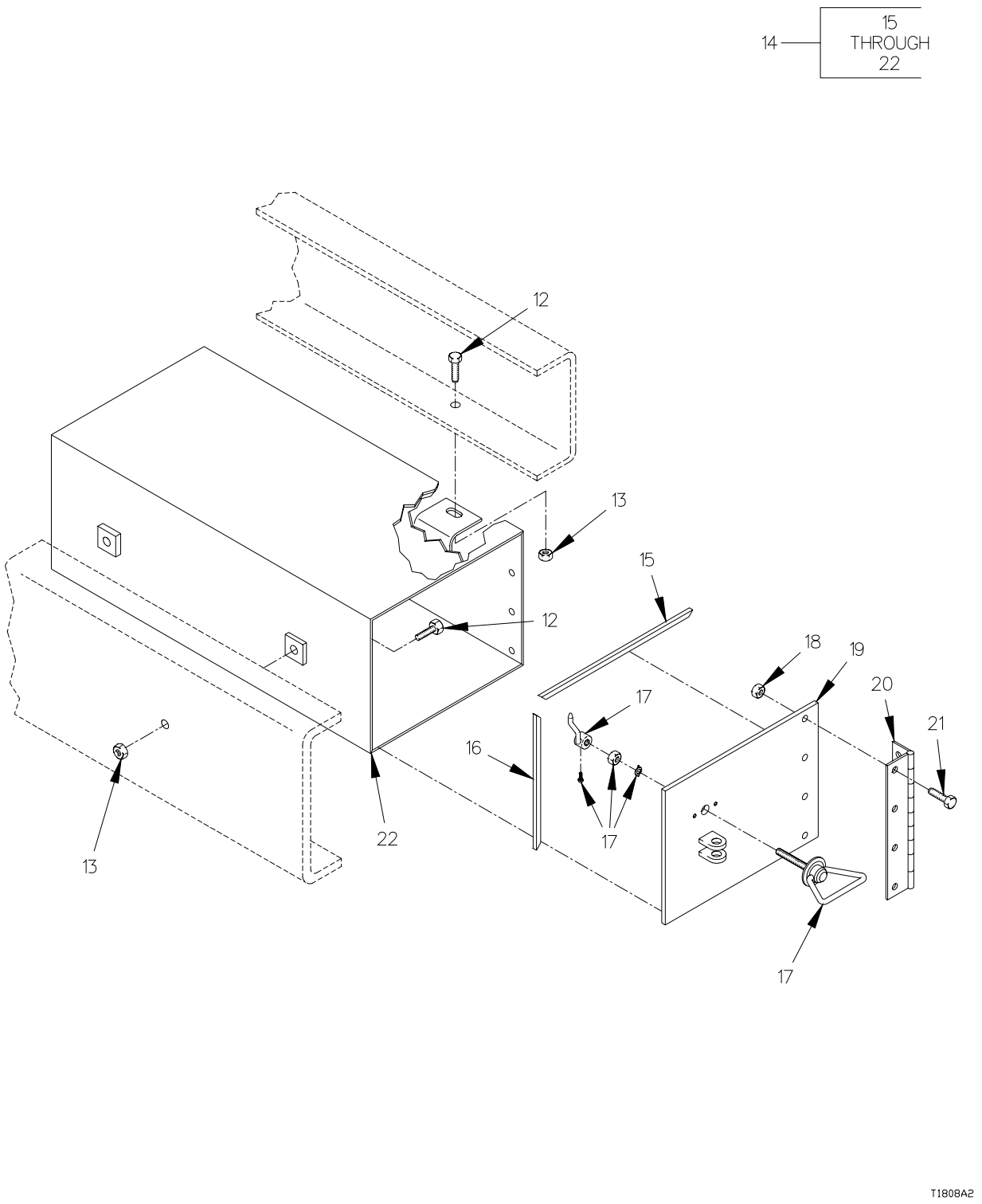


Figure 34. Group 1808 Stowage Box (Sheet 2 Of 2)
0159 00-2

GROUP 1808 STOWAGE BOX - Continued 0159 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1808: STOWAGE RACKS AND BOXES FIG.34 M1082 AND M1095 STOWAGE BOX	
1	PAOZZ	5310-01-381-9819	19207	12414308-002	NUT,SELF-LOCKING,EX M6	3
2	PAOZZ	5306-01-492-5708	19207	12414307-013	BOLT,MACHINE M6 X 1 X 20	3
3	PAOOO	2540-01-479-5992	19207	12443095	BOX,ACCESSORIES STO	1
4	MOOZZ		0MHJ9	CC3350X243	.SEAL,NONMETALLIC ST MAKE FROM SEAL P/N CC3350 (0MHJ9) CUT TO REQUIRED LENGTH	1
5	MOOZZ		0MHJ9	CC3350X164	.SEAL,NONMETALLIC ST MAKE FROM SEAL P/N CC3350 (0MHJ9) CUT TO REQUIRED LENGTH	1
6	PAOZZ	2540-01-461-0607	94222	68-99-216N	.LATCH,DOOR,VEHICULA	1
7	PAOZZ		0FW39	12443097-007	.DOOR	1
8	PAOOO	5340-01-479-5485	19207	12443100	.HINGE,BUTT	1
9	PAOZZ	5305-01-375-2855	0FW39	12414419-056	.SCREW,CAP,HEXAGON H M5 X .8 X 10	10
10	PAOZZ	5310-01-374-1382	19207	12414315-003	.NUT,PLAIN,HEXAGON M5	10
11	XAOZZ		0FW39	12443097-001	.STOWAGE BOX	1
12	PAOZZ	5306-01-330-8490	75755	19M7867	BOLT,MACHINE M8 X 22.5	4
13	PAOZZ	5310-01-369-5703	19207	12414308-004	NUT,SELF-LOCKING,EX M8 X 1.25	4
14	PAOOO		0FW39	12443596	STOWAGE BOX ASSEMBL	1
15	MOOZZ		0MHJ9	CC3350X261	.SEAL,NONMETALLIC ST MAKE FROM SEAL P/N CC335 (0MHJ9) CUT TO 261MM	1
16	MOOZZ		0MHJ9	CC3350X148	.SEAL,NONMETALLIC ST MAKE FROM SEAL P/N CC3350 (0MHJ9) CUT TO 148MM	1
17	PAOZZ		0FW39	12417944	.LATCH	1
18	PAOZZ	5310-01-374-1382	19207	12414315-003	.NUT,PLAIN,HEXAGON	8
19	PAOZZ	5340-01-514-6607	0FW39	12443595-009	.DOOR,ACCESS,GENERAL	1
20	PAOZZ		0FW39	12443598	.HINGE	1
21	PAOZZ	5305-01-375-2855	0FW39	12414419-056	.SCREW,CAP,HEXAGON H M5 X 16 X 10	8
22	XAOZZ		0FW39	12443595-010	.BOX,STOWAGE	1
					END OF FIGURE	

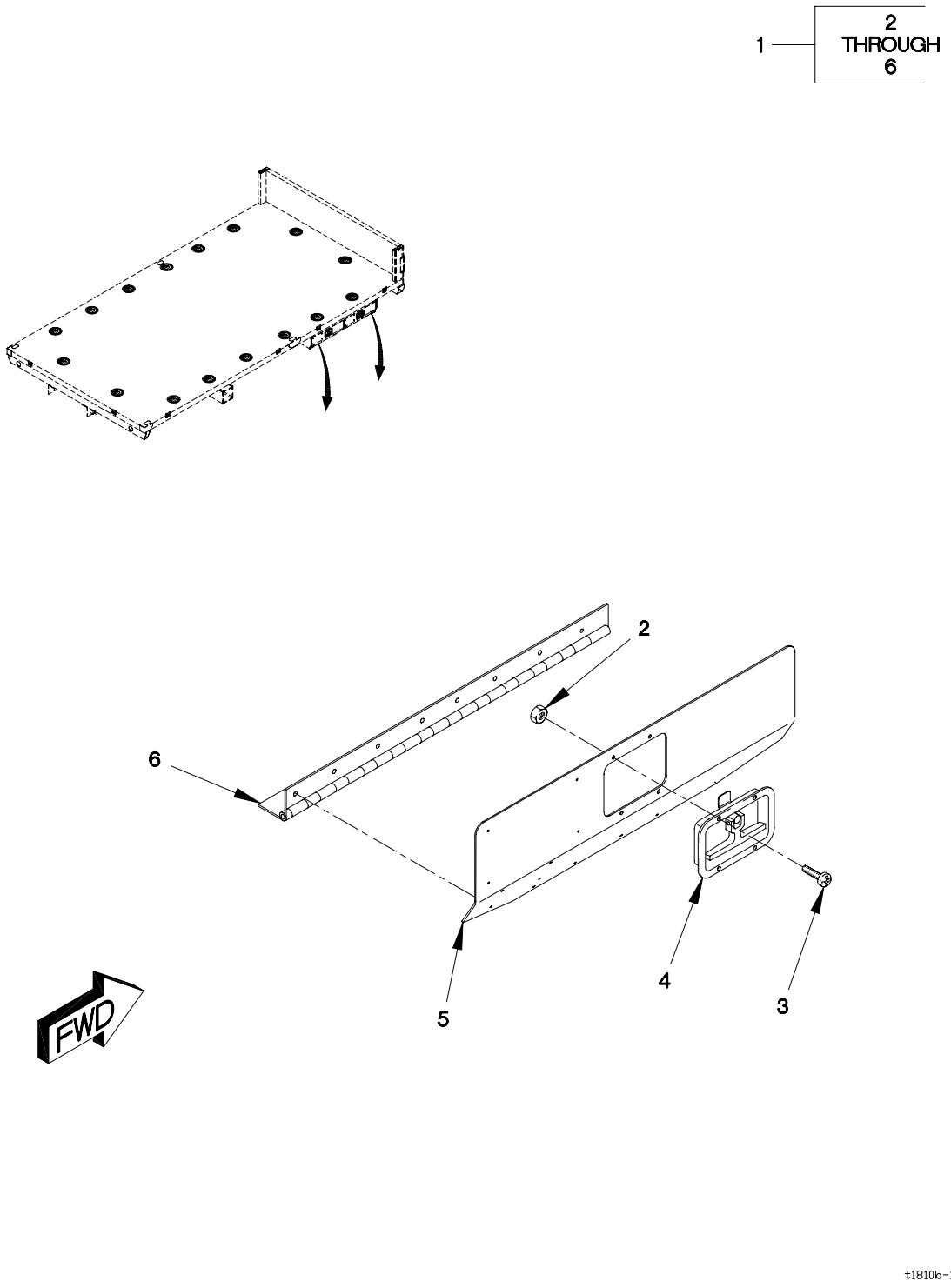


Figure 35. Group 1810 Stowage Door Assembly

GROUP 1810 STOWAGE DOOR ASSEMBLY - Continued 0160 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1810: CARGO BODY FIG.35 M1082 AND M1095 STOWAGE DOOR ASSEMBLY	
1	PAOZZ	5340-01-438-8908	19207	12414743	COVER,ACCESS	2
2	PAOZZ	5310-00-941-6019	96906	MS21083N08	.NUT,SELF-LOCKING HD 10-32	4
3	PAOZZ	5305-00-984-6193	96906	MS35206-245	.SCREW,MACHINE 10-32 X 1/2	4
4	PAOZZ	5340-01-460-0750	19207	12418568-001	.LATCH,MORTISE	1
5	PAOZZ	2510-01-454-4166	19207	12418597-001	.PANEL,DOOR	1
6	PAOZZ	5340-01-429-0964	19207	12418595	.HINGE,BUTT	1
					END OF FIGURE	

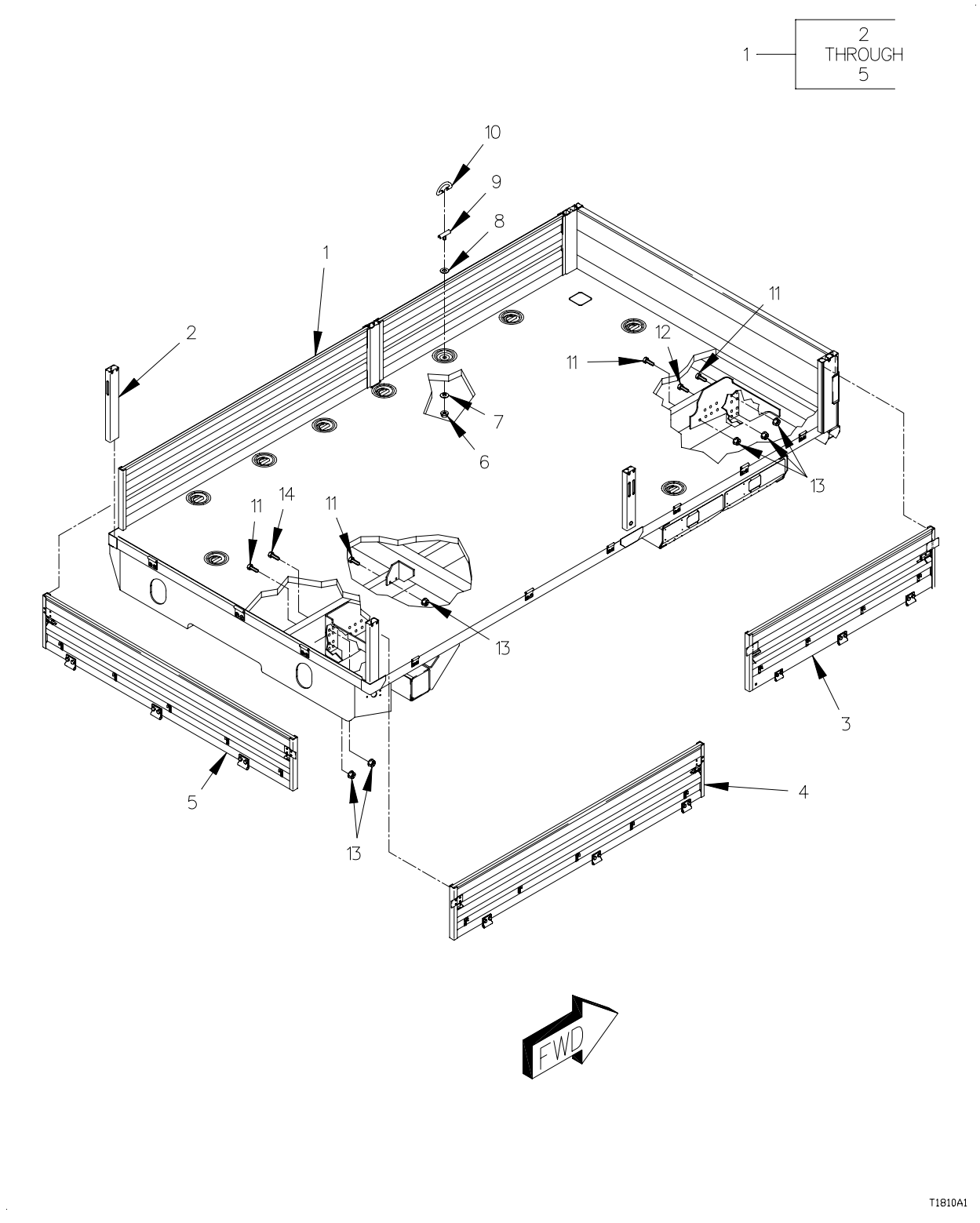


Figure 36. Group 1810 Cargo Bed And Dropside Assembly

GROUP 1810 CARGO BED AND DROPSIDE ASSEMBLY - Continued 0161 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1810: CARGO BODY FIG.36 M1082 AND M1095 CARGO BED AND DROPSIDE ASSEMBLY	
1	PAFFF	2510-01-483-2697	0FW39	12442872	BODY,CARGO TRAILER UOC: LTA	1
1	PAFFF	2510-01-479-5991	19207	12442875	BODY,CARGO TRAILER UOC: MTA	1
1	PAFFF		0FW39	12423313	BODY,CARGO,MTVT (USED ON TRAILER S/N 200001 AND SUBSEQUENT) UOC: MTA	1
2	PAOZZ	2510-01-375-8327	19207	12417248	.STAKE,VEHICLE BODY	4
3	PAOOO	2510-01-374-3119	19207	12417337-001	.SIDE RACK,VEHICLE B 70 IN. (FOR COMPONENT PARTS SEE FIG. 37) UOC: MTA	2
3	PAOOO	2510-01-374-3119	19207	12417337-001	.SIDE RACK,VEHICLE B 70 IN. (FOR COMPONENT PARTS SEE FIG. 37) UOC: LTA	4
4	PAOOO	2510-01-374-3118	19207	12417336-001	.SIDE RACK,VEHICLE B 91 IN. (FOR COMPONENT PARTS SEE FIG. 37) UOC: MTA	2
5	PAOOO	2510-01-374-3118	19207	12417336-001	.SIDE RACK,VEHICLE B 91 IN. (FOR COMPONENT PARTS SEE FIG. 37)	1
6	PAOZZ	5310-01-500-1793	94658	PNT115-34-14N	NUT,PLAIN,EXTENDED	1
7	PAOZZ		94658	PH3777-1-1	SPACER	1
8	PAOZZ	5310-01-500-2108	94658	PWS200-32N-062	WASHER,FLAT	1
9	PAOZZ	2590-01-500-8746	94658	PH3764-1-1	BRACKET,VEHICULAR C	1
10	PAOZZ		94658	PH3765-1-1	D-RING	1
11	PAOZZ	5306-01-371-7161	19207	12414307-141	BOLT,MACHINE M16 X 1.5 X 50	60
12	PAOZZ	5306-01-387-0075	0FW39	12414307-144	BOLT,MACHINE	8
13	PAOZZ	5310-01-369-6706	19207	12414308-025	NUT,SELF-LOCKING,EX M16 X 1.5	76
14	PAOZZ	5306-01-372-3536	19207	12414307-140	BOLT,MACHINE M16 X 1.5 X 45	8
					END OF FIGURE	

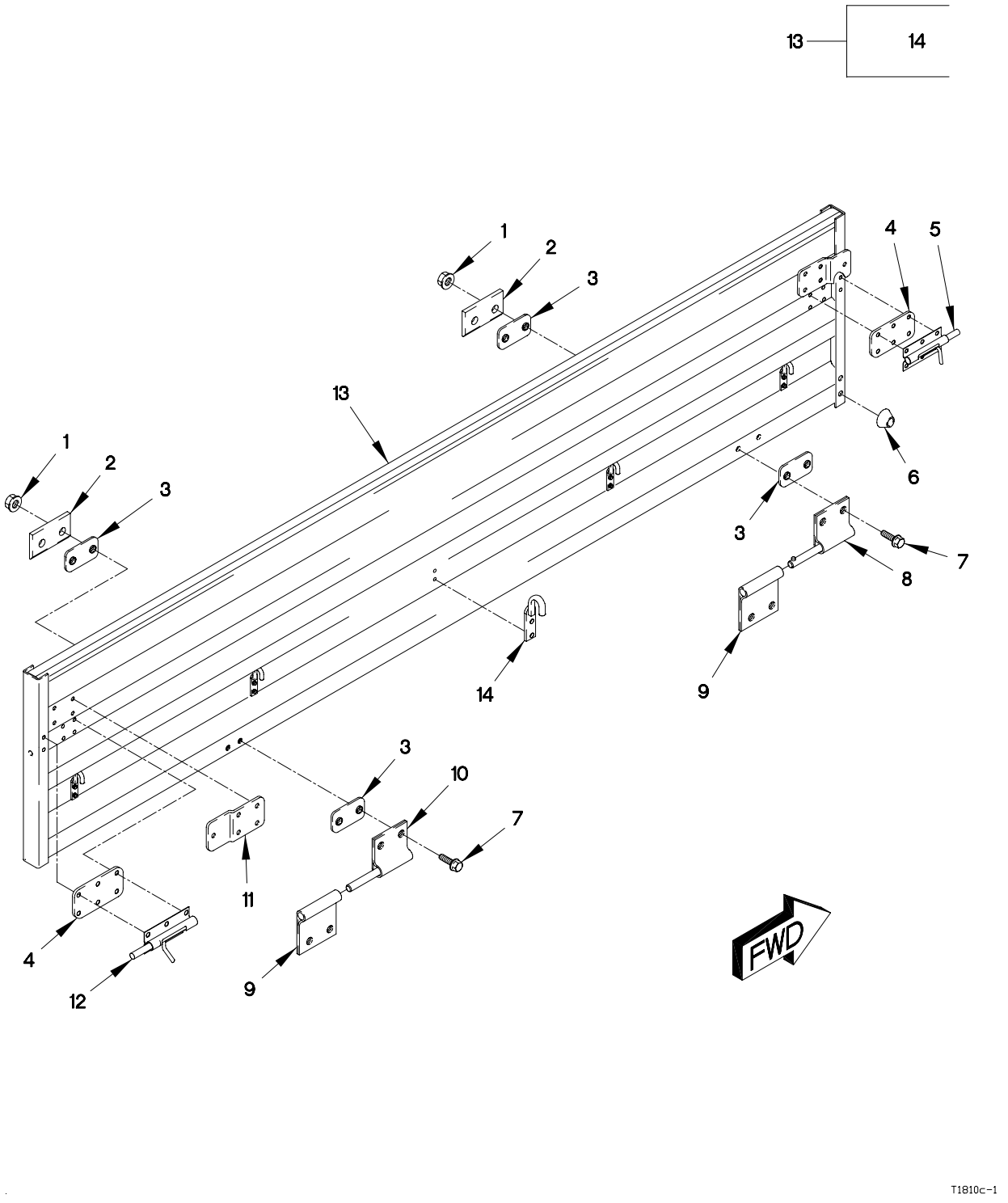


Figure 37. Group 1810 Dropside Assembly

GROUP 1810 DROPSIDE ASSEMBLY - Continued 0162 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1810: CARGO BODY FIG.37 M1082 AND M1095 DROPSIDE ASSEMBLY	
1	PAOZZ	5310-00-159-1577	96906	MS51988-3	NUT,SELF-LOCKING,EX 1/4-20	4
2	PAOZZ	5340-01-410-9096	19207	12418704	BRACKET,MOUNTING	2
3	PAOZZ	5330-01-444-2514	19207	12418633	GASKET	4
4	PAOZZ	5330-01-377-5224	19207	12418632	GASKET	2
5	PAOZZ	5340-01-376-1830	19207	12418665-001	BOLT,BARREL	1
6	PAOZZ	5340-01-058-7384	70485	18-W	BUMPER,NONMETALLIC	2
7	PAOZZ	5305-00-068-0509	80204	B1821BH025C125N	SCREW,CAP,HEXAGON H 1/4-20 X 1 1/4	4
8	PAOZZ	5340-01-393-8500	19207	12418630	HINGE,BUTT	1
9	PAOZZ	5340-01-420-3525	19207	12418960	HINGE,BUTT	15
10	PAOZZ	5340-01-389-6992	0FW39	12418631	HINGE,BUTT	1
11	PAOZZ	5340-01-389-9118	19207	12418628	STOP,MECHANICAL FOR 70 INCH PANEL (SIDES)	2
11	PAOZZ	2510-01-395-1188	19207	12418938	STOP PLATE,SIDE RAC FOR 91 INCH PANEL (REAR)	2
12	PAOZZ	5340-01-376-1829	19207	12418665-002	BOLT,BARREL	1
13	XAOZZ		19207	12417246	PANEL ASSY,70 IN 70 INCH PANEL	1
13	XAOZZ		19207	12417247	PANEL ASSY,91 IN FOR 91 INCH PANEL	1
14	PAOZZ	5340-01-396-7237	19207	12418609	HOOK,SUPPORT	5
					END OF FIGURE	

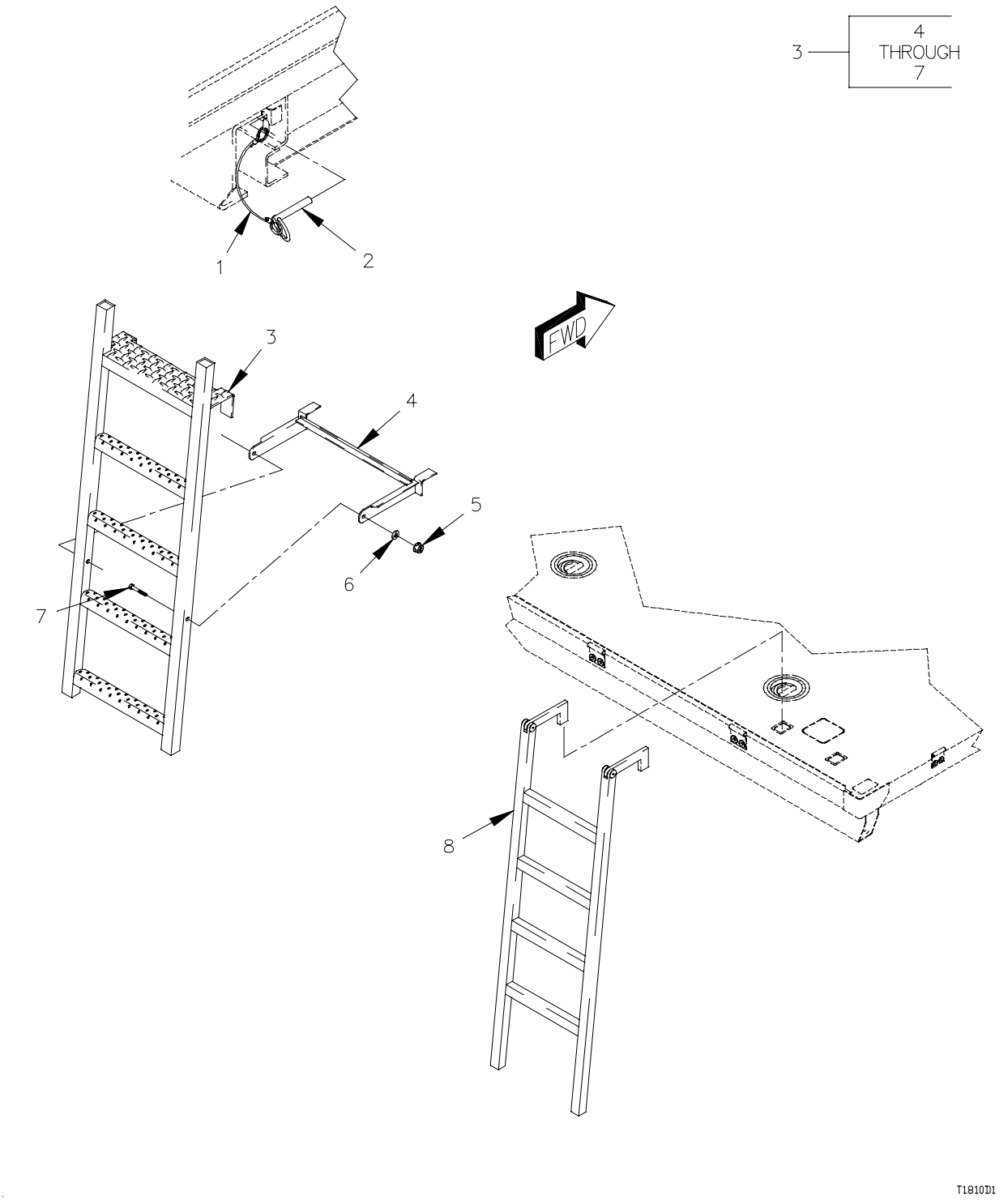


Figure 38. Group 1810 Ladder Assembly

GROUP 1810 LADDER ASSEMBLY - Continued 0163 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 1810: CARGO BODY FIG.38 M1082 AND M1095 LADDER ASSEMBLY	
1	PAOZZ		19207	12418763-002	LANYARD ASSEMBLY	1
2	PAOZZ	5315-01-453-3808	19207	12418774	PIN,QUICK RELEASE	1
3	PAOOO	2541-01-479-5953	19207	12442968	LADDER,VEHICLE BOAR (USED ON TRAILER S/N PRIOR TO 200001)	1
4	PAOZZ	2590-01-479-5957	19207	12442969	.BRACKET,VEHICULAR C	1
5	PAOZZ	5310-01-365-7236	19207	12414315-009	.NUT,SELF-LOCKING,HE M10 X 1.5	2
6	PAOZZ	5310-01-167-4064	21969	A 13 DIN125-ST	.WASHER,FLAT M13	4
7	PAOZZ	5306-01-479-5468	19207	12417951-029	.BOLT,SHOULDER M10 X 65 X 65	2
8	PAOZZ		0FW39	12423252	LADDER,BOARDING (USED ON TRAILER S/N 200001 AND SUBSEQUENT)	1
					END OF FIGURE	

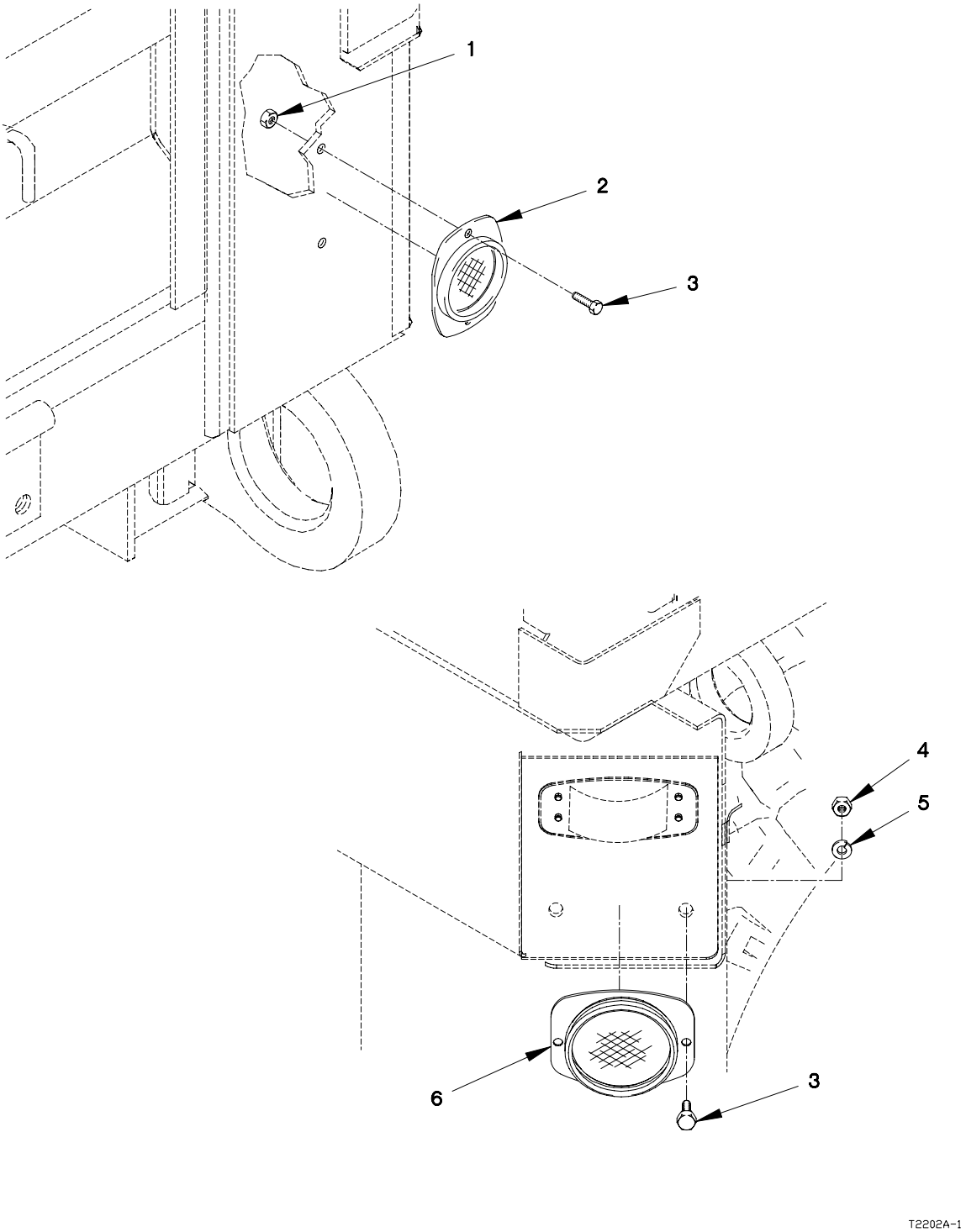


Figure 39. Group 2202 Reflectors

GROUP 2202 REFLECTORS - Continued 0164 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 2202: ACCESSARY ITEMS FIG.39 M1082 AND M1095 REFLECTORS	
1	PAOZZ	5310-01-479-5599	19207	12419169-003	NUT,PLAIN,CLINCH	4
2	PAOZZ	9905-00-202-3639	81336	D7740-3-3	REFLECTOR,INDICATIN AMBER	2
3	PAOZZ	5305-01-356-9468	44940	800-2010	SCREW,CAP,HEXAGON H	8
4	PAOZZ	5310-01-374-1382	19207	12414315-003	NUT,PLAIN,HEXAGON	4
5	PAOZZ	5310-01-374-4515	19207	12414570-013	WASHER,LOCK M5.3	4
6	PAOZZ	9905-00-205-2795	97783	GR011RED	REFLECTOR,INDICATIN RED	2
					END OF FIGURE	

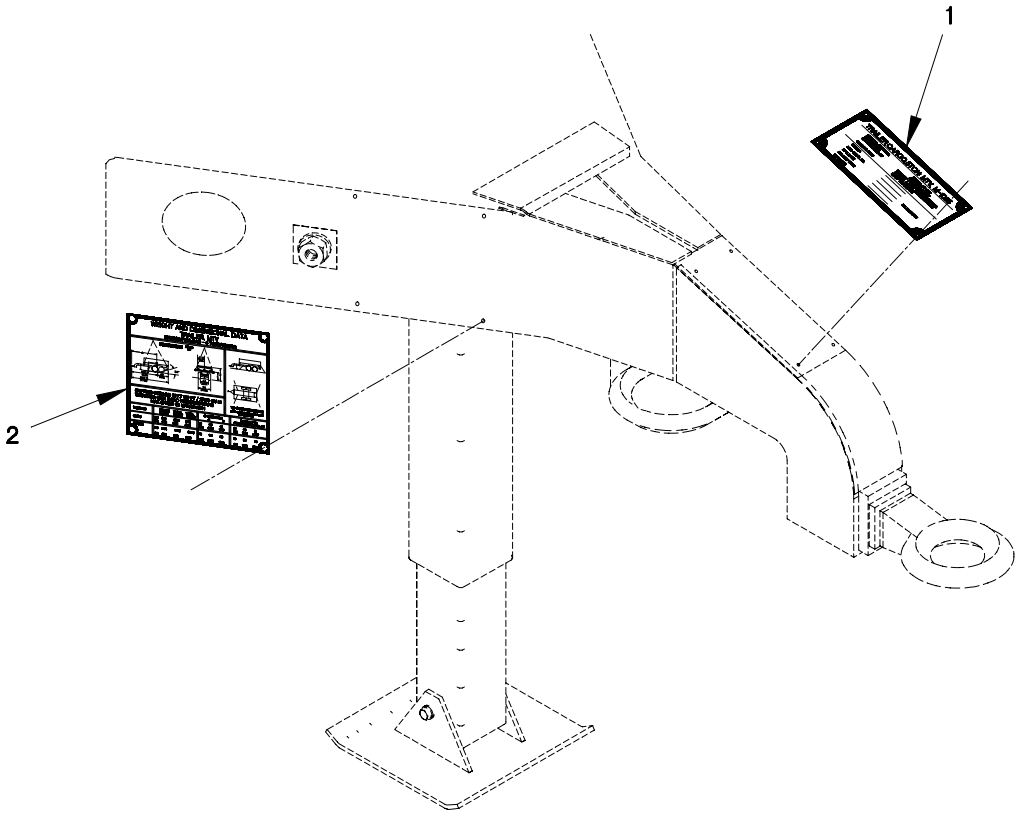


Figure 40. Group 2210 Data And Identification Plates

GROUP 2210 DATA AND INSTRUCTION PLATES - Continued 0165 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 2210: DATA PLATES FIG.40 M1082 AND M1095 DATA AND IDENTIFICATION PLATES	
1	PAOZZ	9905-01-483-5212	0FW39	12442912	PLATE, ID UOC:LTA,	1
1	PAOZZ	9905-01-479-7881	19207	12443073	PLATE, IDENT, MTVT UOC:MTA,	1
2	PAOZZ	9905-01-479-7880	19207	12443090	PLATE, SHIPPING DAT UOC:MTA,	1
2	PAOZZ	9905-01-483-5215	0FW39	12443091	PLATE,SHIPPING UOC:LTA,	1
					END OF FIGURE	

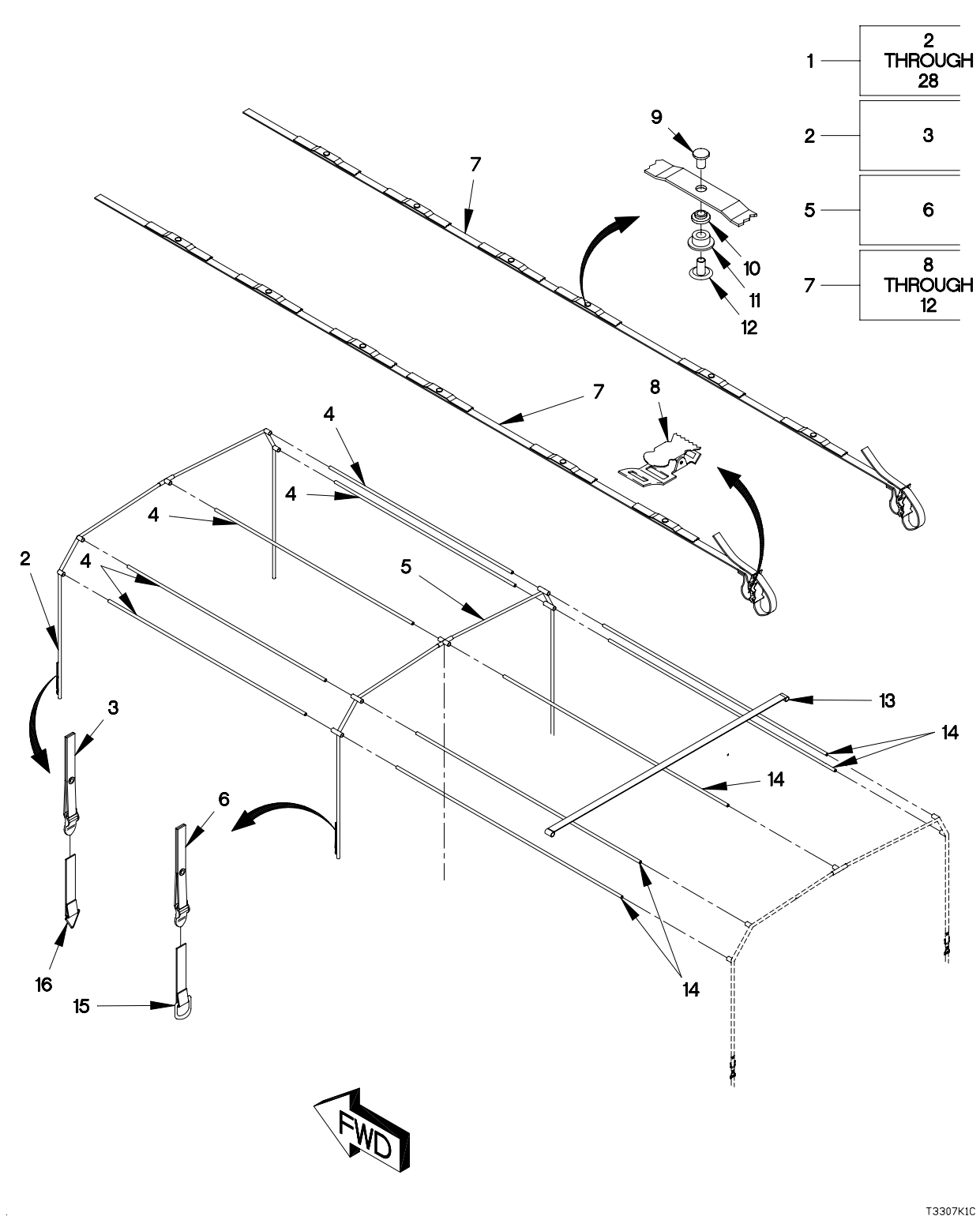


Figure 41. Group 3307 M1082 Soft Top Cover Kit (Sheet 1 of 2)

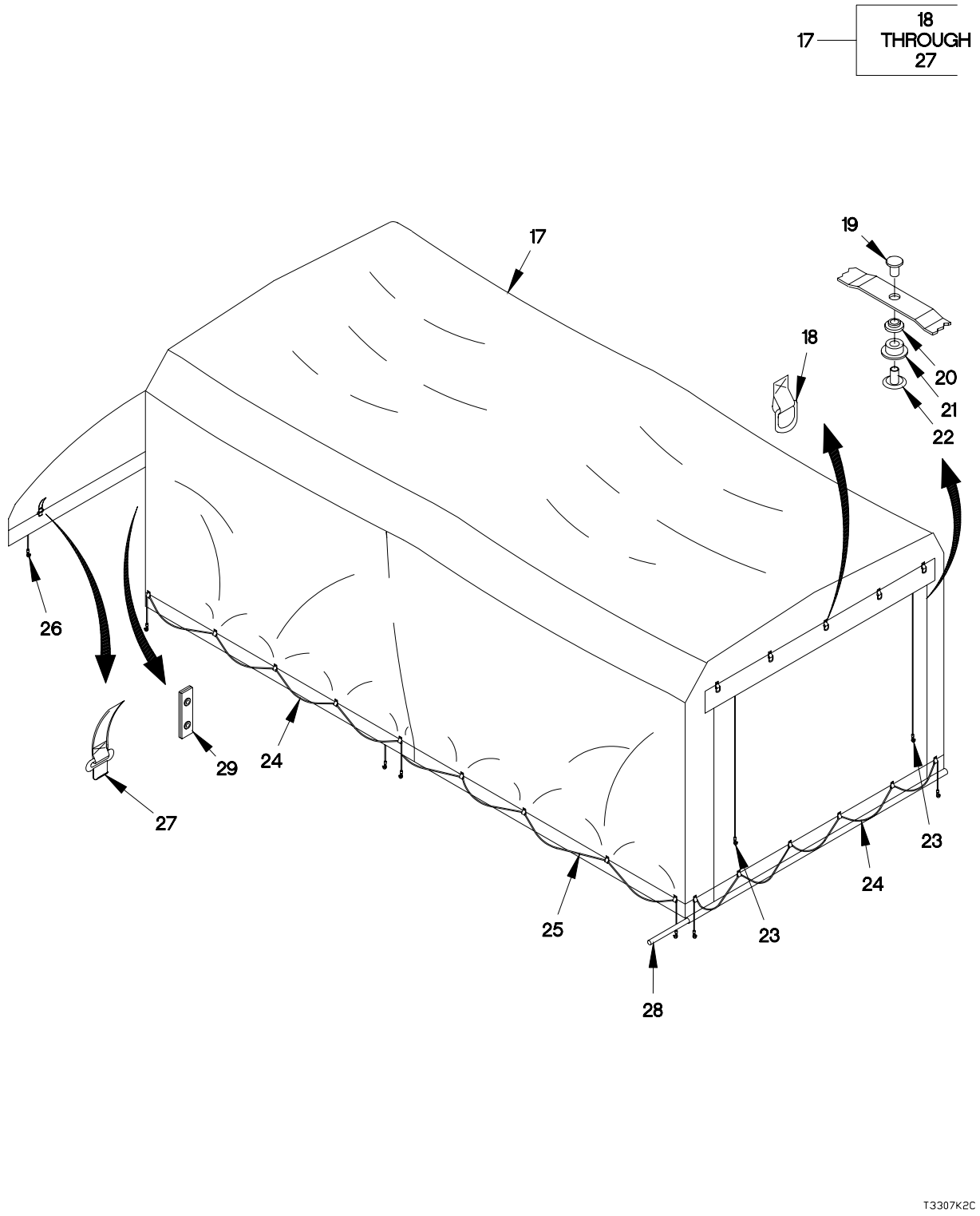


Figure 41. Group 3307 M1082 Soft Top Cover Kit (Sheet 2 of 2)

GROUP 3307 M1082 SOFT TOP COVER KIT - Continued 0166 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 3307: SPECIAL PURPOSE KITS FIG.41 (M1082) SOFT TOP COVER KITS	
1	PDOZZ	2540-01-385-9462	19207	57K1898	KIT,COVER,SOFT TOP GREEN UOC:LTA,	1
1	PDOZZ	2540-01-459-0365	0FW39	57K1923	KIT,COVER,SOFT TOP, ARCTIC UOC:LTA,	1
1	PDOZZ	2540-01-437-1463	19207	57K1925	KIT,COVER,SOFT TOP TAN UOC:LTA,	1
2	PAOOO	2540-01-460-3044	19207	12422279-001	.BOW,SOFT TOP,FRONT AND REAR, UOC:LTA,	2
3	PAOZZ	5340-01-460-6627	19207	12421717	..STRAP TIEDOWN, BOW UOC:LTA,	2
4	PAOZZ	4710-01-461-9274	19207	12422280-002	.TUBE,HORIZONTAL UOC:LTA,	5
5	PAOOO	2540-01-460-4040	19207	12422279-002	.BOW,SOFT TOP,CENTER UOC:LTA,	1
6	PAOZZ	5340-01-460-6627	19207	12421717	..STRAP TIEDOWN, BOW UOC:LTA,	2
7	PAOOO	5340-01-461-1429	19207	12422305	.STRAP,SUPPORT UOC:LTA,	2
8	PAOZZ	5340-00-297-6637	96906	MS51929-3	..BUCKLE,SPRING ACTI UOC:LTA,	2
9	PAOZZ	5325-00-285-6250	88044	AN227-7B	..SOCKET,SNAP FASTENE UOC:LTA,	6
10	PAOZZ	5325-00-359-6844	96906	MS27980-1B	..CAP,SNAP FASTENER UOC:LTA,	6
11	PAOZZ	5325-00-842-1879	96906	MS27980-7B	..STUD,SNAP FASTENER UOC:LTA,	6
12	PAOZZ	5325-01-005-0600	96906	MS27980-9B	..POST,SNAP FASTENER UOC:LTA,	6
13	PAOZZ	2540-01-461-0106	19207	12422292	.BRACE,BOW SUPPORT UOC:LTA,	4
14	PAOZZ	4710-01-461-9189	19207	12422280-003	.TUBE,HORIZONTAL UOC:LTA,	5
15	PAOZZ	5340-01-451-8966	19207	12420291	.STRAP,WEBBING UOC:LTA,	1
16	PAOZZ	5340-01-436-7620	19207	12420291-001	.STRAP,WEBBING, UOC:LTA,	1
17	PAOOO	2540-01-460-3487	19207	12420281-016	.COVER,FITTED,VEHICU USED ON KIT P/N 57K1898 UOC:LTA,	1
17	PAOOO	2540-01-460-2337	0FW39	12420281-015	.COVER,ASSEMBLY,FITT USED ON KIT P/N 57K1925 UOC:LTA,	1
17	PAOOO	2540-01-387-3987	19207	12420288	.COVER,FITTED,ARCTIC USED ON KIT P/N 57K1923 UOC:LTA,	1
18	PAOZZ	5365-01-438-2640	81348	MIL-R-3990 CL5-1 IN	..RING,DEE UOC:LTA,	97
19	PAOZZ	5325-00-285-6250	88044	AN227-7B	..SOCKET,SNAP FASTENE UOC:LTA,	52
20	PAOZZ	5325-00-359-6844	96906	MS27980-1B	..CAP,SNAP FASTENER UOC:LTA,	52
21	PAOZZ	5325-00-842-1879	96906	MS27980-7B	..STUD,SNAP FASTENER UOC:LTA,	52

GROUP 3307 M1082 SOFT TOP COVER KIT - Continued 0166 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 3307: SPECIAL PURPOSE KITS FIG.41 (M1082) SOFT TOP COVER KITS	
22	PAOZZ	5325-01-005-0600	96906	MS27980-9B	..POST,SNAP FASTENER UOC:LTA,	52
23	PAOZZ	4020-00-180-6680	81349	MILC43256X360	CORD,FIBROUS MAKE FROM P/N MILC43256 (81349) CUT TO REQUIRED LENGTH UOC:LTA,	V
24	PAOZZ	4020-01-444-9193	19207	12420277-007	..CORD ASSEMBLY,FIBRO UOC:LTA,	3
25	PAOZZ	4020-01-386-8148	0FW39	12420277-008	..CORD ASSEMBLY,ELAST UOC:LTA,	2
26	PAOZZ	4020-01-444-9254	19207	12420277-009	..CORD ASSEMBLY,FIBRO UOC:LTA,	2
27	PAOZZ	5340-01-460-6616	19207	12421716	..STRAP,TIEDOWN UOC:LTA,	3
28	PAOZZ	4710-01-391-3192	19207	12420275	.TUBE,METALLIC UOC:LTA,	1
29	PAOZZ	5325-01-460-7431	19207	12421821	.EXTENSION,SNAP UOC:LTA,	24
					END OF FIGURE	

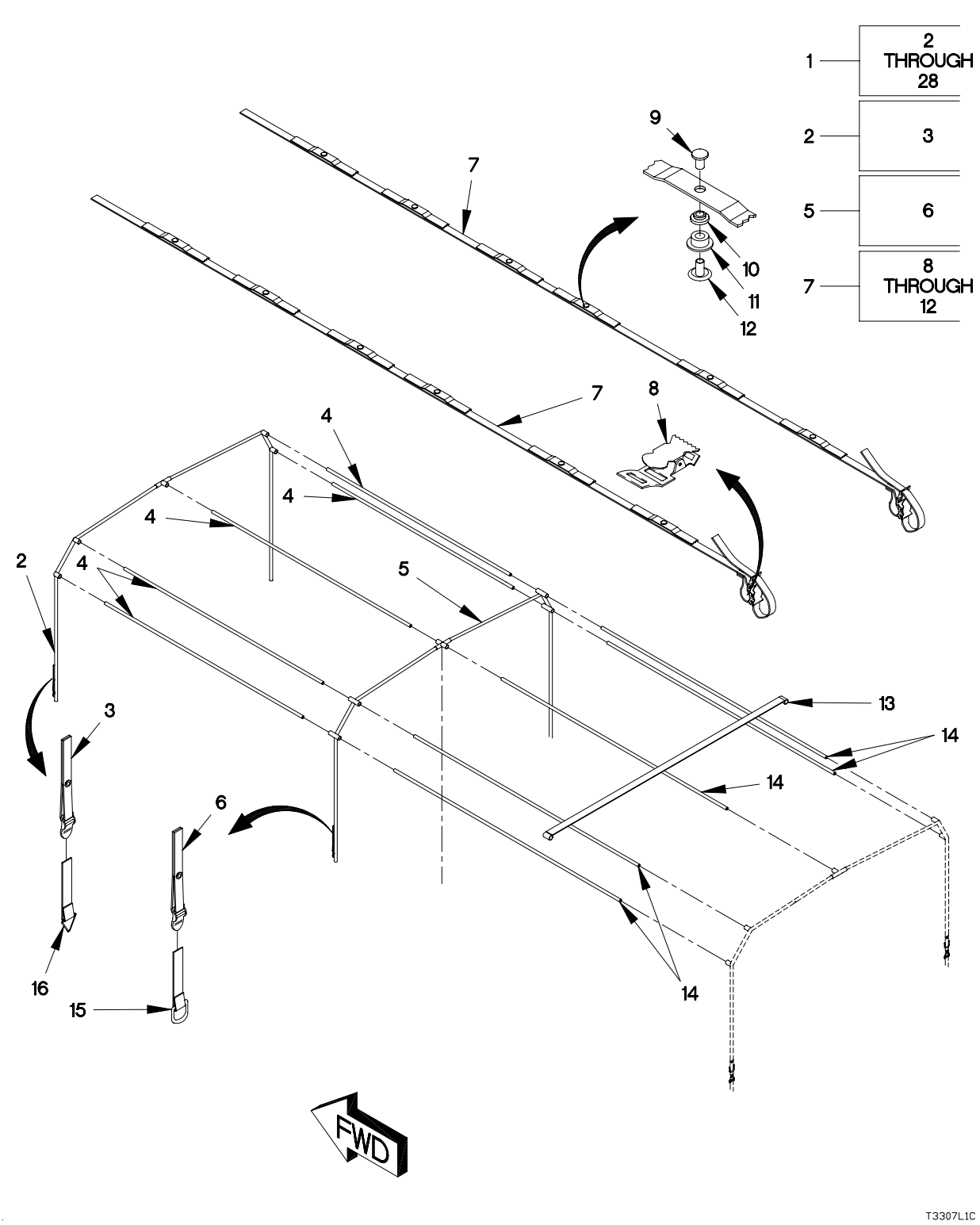


Figure 42. Group 3307 M1095 Soft Top Cover Kit (Sheet 1 of 2)
0167 00-1

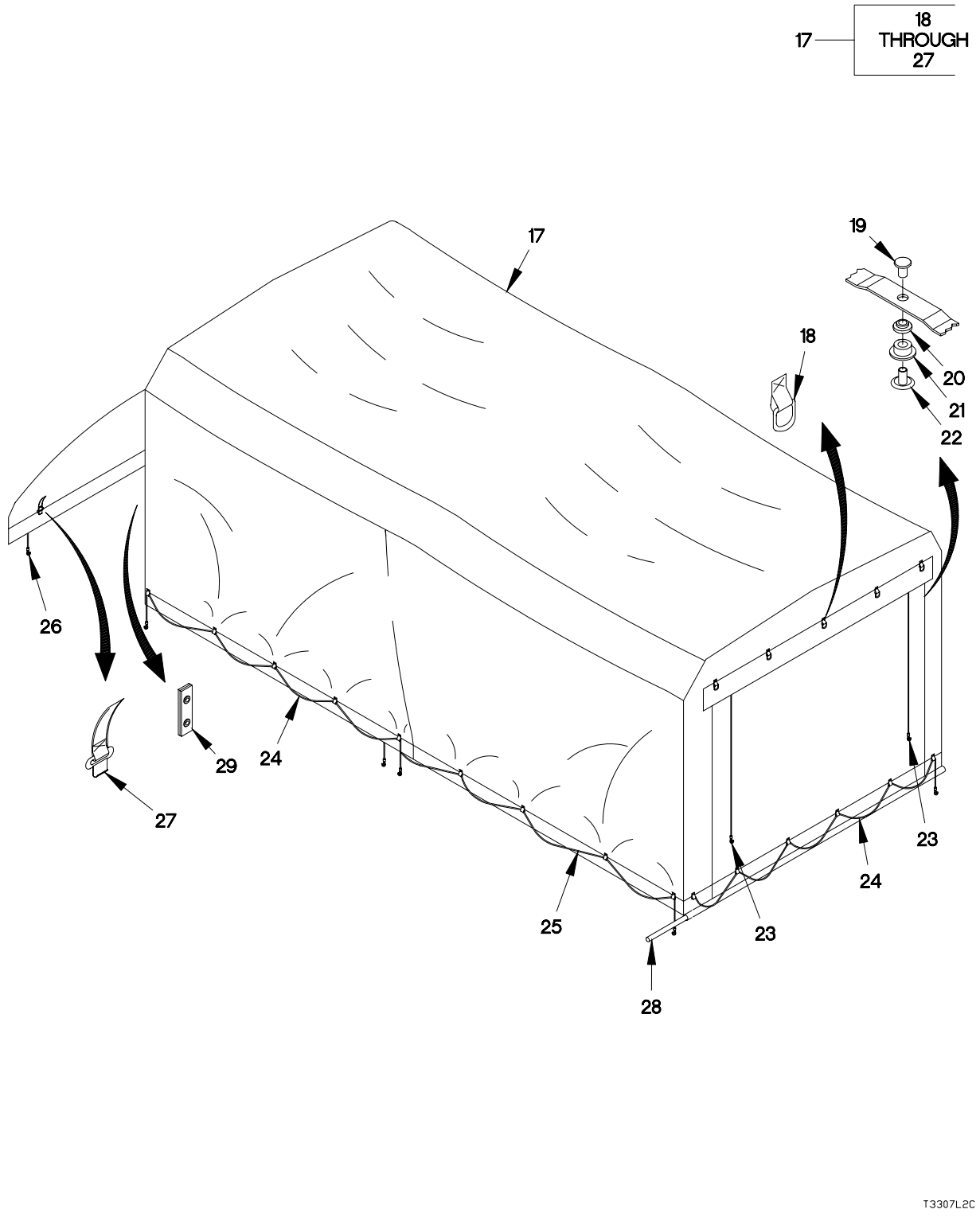


Figure 42. Group 3307 M1095 Soft Top Cover Kit (Sheet 2 of 2)
0167 00-2

GROUP 3307 M1095 SOFT TOP COVER KIT - Continued 0167 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 3307: SPECIAL PURPOSE KITS FIG.42 (M1095) SOFT TOP COVER KITS	
1	PDOZZ	2540-01-459-6479	19207	57K1899	KIT,COVER,SOFT TOP, UOC:MTA,	1
1	PDOZZ	2540-01-436-9658	19207	57K1924	KIT,COVER,SOFT TOP, ARCTIC UOC:MTA,	1
1	PDOZZ	2540-01-386-2952	19207	57K1926	KIT,COVER,SOFT TOP, TAN UOC:MTA,	1
2	PAOOO	2540-01-460-3044	19207	12422279-001	.BOW,SOFT TOP,FRONT UOC:MTA,	2
3	PAOZZ	5340-01-460-6627	19207	12421717	..STRAP TIEDOWN, BOW UOC:MTA,	2
4	PAOZZ	4710-01-461-9274	19207	12422280-002	.TUBE,HORIZONTAL UOC:MTA,	5
5	PAOOO	2540-01-460-4040	19207	12422279-002	.BOW,SOFT TOP,CENTER UOC:MTA,	1
6	PAOZZ	5340-01-460-6627	19207	12421717	..STRAP TIEDOWN, BOW UOC:MTA,	2
7	PAOOO	5340-01-461-1429	19207	12422305	.STRAP,SUPPORT UOC:MTA,	2
8	PAOZZ	5340-00-297-6637	96906	MS51929-3	..BUCKLE,SPRING ACTI UOC:MTA,	2
9	PAOZZ	5325-00-285-6250	88044	AN227-7B	..SOCKET,SNAP FASTENE UOC:MTA,	6
10	PAOZZ	5325-00-359-6844	96906	MS27980-1B	..CAP,SNAP FASTENER UOC:MTA,	6
11	PAOZZ	5325-00-842-1879	96906	MS27980-7B	..STUD,SNAP FASTENER UOC:MTA,	6
12	PAOZZ	5325-01-005-0600	96906	MS27980-9B	..POST,SNAP FASTENER UOC:MTA,	6
13	PAOZZ	2540-01-461-0106	19207	12422292	.BRACE,BOW SUPPORT UOC:MTA,	4
14	PAOZZ	4710-01-460-9522	19207	12422280-001	.TUBE,HORITONTAL UOC:MTA,	5
15	PAOZZ	5340-01-451-8966	19207	12420291	.STRAP,WEBBING UOC:MTA,	1
16	PAOZZ	5340-01-436-7619	19207	12420291-001	.STRAP,WEBBING, (USED ON KITS 57K1924 AND 57K1899) UOC:MTA,	6
16	PAOZZ	5340-01-436-7620	19207	12420291-002	.STRAP,WEBBING (USED ON KIT 57K1926) UOC:MTA,	6
17	PAOOO	2540-01-460-0898	19207	12420283-016	.COVER,FITTED,VEHICU (USED ON KIT 57K1899) UOC:MTA,	1
17	PAOOO	2540-01-460-1075	19207	12420283-015	.COVER,FITTED,VEHICU (USED ON KIT 57K1926) UOC:MTA,	1
17	PAOOO	2540-01-391-3195	19207	12420289	.COVER,FITTED,VEHICU USED ON KIT 57K1924 UOC:MTA,	1
18	PAOZZ	5365-01-438-2640	81348	MIL-R-3990 CL5-1 IN	..RING,DEE UOC:MTA,	103

GROUP 3307 M1095 SOFT TOP COVER KIT - Continued 0167 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 3307: SPECIAL PURPOSE KITS FIG.42 (M1095) SOFT TOP COVER KITS	
19	PAOZZ	5325-00-285-6250	88044	AN227-7B	..SOCKET,SNAP FASTENE UOC:MTA,	52
20	PAOZZ	5325-00-359-6844	96906	MS27980-1B	..CAP,SNAP FASTENER UOC:MTA,	52
21	PAOZZ	5325-00-842-1879	96906	MS27980-7B	..STUD,SNAP FASTENER UOC:MTA,	52
22	PAOZZ	5325-01-005-0600	96906	MS27980-9B	..POST,SNAP FASTENER UOC:MTA,	52
23	PAOZZ	4020-00-180-6680	81349	MILC43256X360	CORD,FIBROUS MAKE FROM P/N MILC43256 (81349) CUT TO REQUIRED LENGTH UOC:MTA,	V
24	PAOZZ	4020-01-444-9193	19207	12420277-007	..CORD ASSEMBLY,FIBRO UOC:MTA,	2
25	PAOZZ	4020-01-386-8148	0FW39	12420277-008	..CORD ASSEMBLY,ELAST UOC:MTA,	2
26	PAOZZ	4020-01-444-9254	19207	12420277-009	..CORD ASSEMBLY,FIBRO UOC:MTA,	4
27	PAOZZ	5340-01-460-6616	19207	12421716	..STRAP,TIEDOWN UOC:MTA,	3
28	PAOZZ	4710-01-391-3192	19207	12420275	.TUBE,METALLIC UOC:MTA,	1
29	PAOZZ	5325-01-460-7431	19207	12421821	.EXTENSION,SNAP UOC:MTA,	24
					END OF FIGURE	

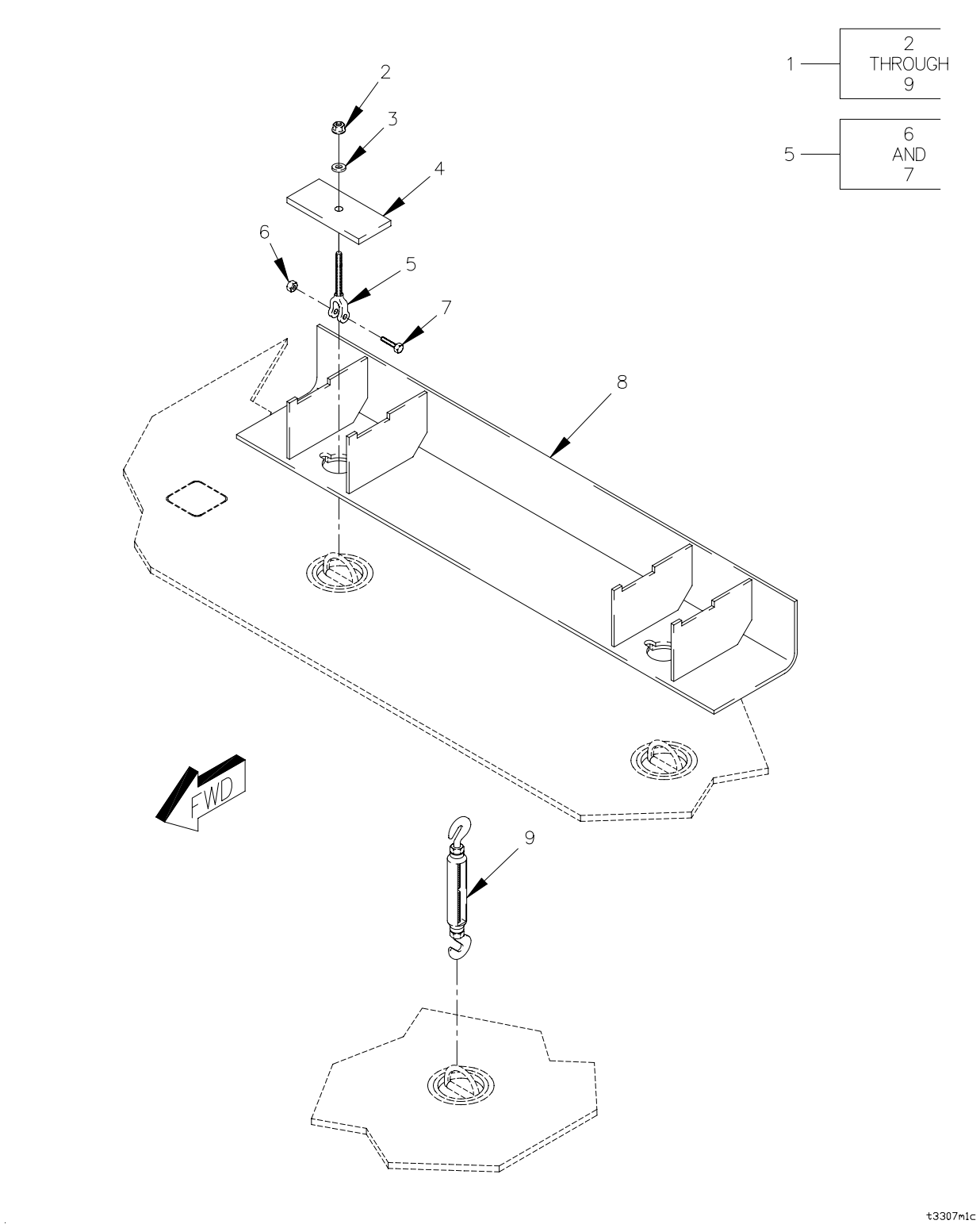


Figure 43. Group 3307 M1095 Tank and Pump Unit Mounting Kit
0168 00-1 Blank/2

GROUP 3307 M1095 TANK AND PUMP UNIT MOUNTING KIT – CONTINUED 0168 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 3307: SPECIAL PURPOSE KITS FIG.43 M1095 TANK AND PUMP UNIT MOUNTING KIT	
1	PAOOO	2540-01-497-7511	19207	57K2018	KIT,TANK,PUMP UNIT UOC: MTA	1
2	PAOZZ	5310-01-407-7178	19207	12412476-11	.NUT,SELF-LOCKING,HE UOC: MTA	2
3	PAOZZ	5310-00-809-5998	96906	MS27183-18	.WASHER,FLAT UOC: MTA	2
4	PAOZZ	3040-01-500-6452	19207	12443627	.PLATE,RETAINING,SHA UOC: MTA	1
5	PAOZZ	5340-01-500-6076	75535	12443626	.CLEVIS,ROD END UOC: MTA	2
6	PAOZZ	5310-00-087-4652	81349	M45913/1-6CG5C	..NUT,SELF-LOCKING,HE UOC: MTA	1
7	PAOZZ	5305-00-821-3869	80204	B1821BH038C175N	..SCREW,CAP,HEXAGON H UOC: MTA	1
8	PAOZZ	5340-01-500-4214	19207	12443628	.BRACKET,MOUNTING UOC: MTA	1
9	PAOZZ	5340-01-500-6013	19207	12443625	.TURNBUCKLE UOC: MTA	2
					END OF FIGURE	

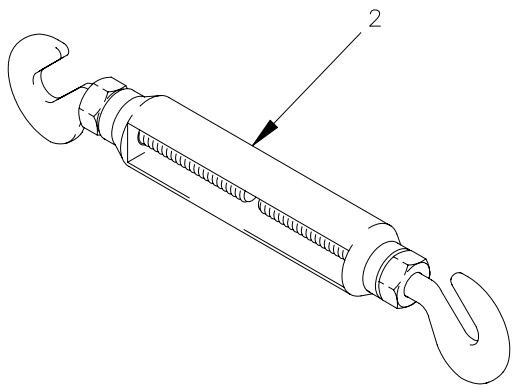


Figure 44. Group 3307 M1095 Single Tank And Pump Unit Kit

GROUP 3307 M1095 SINGLE TANK AND PUMP UNIT KIT 0169 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 3307: SPECIAL PURPOSE KITS FIG.44 M1095 SINGLE TANK AND PUMP UNIT KIT	
1	PAOOO	2540-01-497-7509	19207	57K2019	KIT,TANK,PUMP UNIT UOC: MTA	1
2	PAOZZ	5340-01-500-6013	19207	12443625	.TURNBUCKLE UOC: MTA	2
					END OF FIGURE	

GROUP 9401 REPAIR KITS REPAIR PARTS LIST 0170 00

(1) ITEM NO	(2) SMR CODE	(3) CAGEC	(4) PART NUMBER	(5) DESCRIPTION AND USABLE ON CODE (UOC)			(6) QTY
				GROUP 9401: REPAIR KITS			
				FIG.KITS REPAIR KITS			
	PAOZZ	78500	MPS-4285	BRAKE SHOE SET			2
				CLIP,SPRING TENSION	(4)	8-16	
				SPRING	(4)	8-13	
				WASHER,LOCK	(4)	8-18	
				BRAKE SHOE ASSY	(2)	8-10	
				SCREW,CAP	(4)	8-17	
	PAOZZ	78500	MPS4012	PARTS KIT,BRAKE ADJ			2
				SEAL,PLAIN ENCASED	(4)	8-1	
				PLUNGER ACTUATOR AS	(4)	8-3	
				SEAL,PLAIN ENCASED	(2)	8-9	
				WASHER,LOCK	(4)	8-18	
				END OF FIGURE			

GROUP 9501 BULK MATERIAL REPAIR PARTS LIST - 0171 00

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 9501: HARDWARE SUPPLIES AND BULK COMMON FIG. BULK HARDWARE SUPPLIES AND BULK COMMON	
1	PAOZZ	4020-001-806-6680	81349	MILC43256	CORD,FIBROUS	V
2	PAOZZ	4720-01-014-4915	81343	J844TYBSIZE 3/8 BLACK	TUBING,NONMETALLIC	V
3						
4	PAOZZ	4720-01-003-6706	79470	NT10008BLK	TUBING,NONMETALLIC	V
5	PAOZZ	4720-01-460-9996	19207	12420924-001	TUBING,FLEXIBLE	V
6	PAOZZ	4720-01-421-9718	0FW39	12420924-004	TUBING,NONMETALLIC	V
7	PAOZZ	4720-01-423-2962	0FW39	12420924-005	TUBING,NONMETALLIC	V
8	PAOZZ	5970-01-378-3018	06090	ATUM-1/4-0-4FT	INSULATION SLEEVING	V
9	PAOZZ	5970-01-379-7348	7V059	EPS-300 3/16 BLACK	INSULATION SLEEVING	V
10	PAOZZ	5330-01-431-7575	0MHJ9	CC3350	SEAL,NONMETALLIC ST	V
					END OF FIGURE	

NATIONAL STOCK NUMBER INDEX 0172 00

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5995-00-038-3914	4	15	4730-00-277-7331	11	10
5310-00-045-3299	1	15	4730-00-277-7331	12	13
2640-00-050-1229	20	30	4730-00-278-3167	9	4
4730-00-050-4203	25	7	4730-00-278-3167	10	8
4730-00-050-4208	26	10	5325-00-285-6250	41	19
4730-00-050-4208	28	3	5325-00-285-6250	42	19
5999-00-057-2929	2	7	5325-00-285-6250	41	9
5305-00-068-0502	1	5	5325-00-285-6250	42	9
5305-00-068-0509	37	7	5340-00-297-6637	41	8
4730-00-069-1187	9	2	5340-00-297-6637	42	8
4730-00-069-1187	10	2	6220-00-299-7425	3	10
4730-00-069-1187	16	1	6220-00-299-7426	3	10
4730-00-069-1187	15	1	4730-00-301-7470	12	10
4730-00-069-1187	18	1	4730-00-301-7470	11	11
5310-00-087-4652	43	6	6220-00-346-8943	2	15
5330-00-090-2128	13	10	5325-00-359-6844	41	20
5330-00-090-2128	13	14	5325-00-359-6844	42	20
3110-00-100-3611	7	12	5325-00-359-6844	41	10
5940-00-107-1481	4	17	5325-00-359-6844	42	10
5940-00-107-1481	5	9	5331-00-462-0907	2	9
5940-00-113-9820	5	10	4820-00-466-1945	18	3
5940-00-114-1300	4	18	5360-00-482-4422	8	14
5940-00-114-1300	5	6	4730-00-511-1677	13	4
5935-00-115-2307	5	5	5310-00-550-1130	1	6
5310-00-123-2572	19	6	5935-00-572-9180	2	5
5310-00-123-2572	19	6	5310-00-576-5752	1	22
6240-00-143-3159	2	12	5310-00-582-5965	4	10
6240-00-143-3159	3	8	4730-00-595-0083	13	9
3110-00-144-9793	7	15	4730-00-595-0083	13	13
5310-00-159-1577	37	1	6240-00-617-0991	2	11
5310-00-167-0721	1	8	5310-00-637-9541	2	1
6220-00-179-4324	2	13	5310-00-655-9798	32	12
5305-00-179-8946	18	4	5305-00-727-2283	20	27
5310-00-193-7577	1	12	5999-00-729-1628	4	16
9905-00-202-3639	39	2	9905-00-752-4649	5	3
9905-00-205-2795	39	6	2640-00-762-4640	45	5
5310-00-209-0788	10	26	5325-00-783-4754	15	3
5310-00-209-0788	9	24	5325-00-783-4754	16	3
5310-00-209-1366	3	6	5325-00-783-4754	4	19
5306-00-226-4825	1	3	5310-00-808-8019	19	5
4730-00-231-5603	13	5	5310-00-809-5998	19	4
5315-00-234-1854	26	5	5310-00-809-5998	43	3
5310-00-241-6666	22	11	5310-00-809-8544	1	21
5310-00-241-6666	24	9	5305-00-821-3869	43	7
4730-00-254-6215	11	3	5310-00-833-8567	2	6
4730-00-254-6215	12	8	5310-00-835-2037	20	22
4730-00-254-6228	16	10	5325-00-842-1879	41	21
4730-00-254-6228	15	11	5325-00-842-1879	42	21
4730-00-254-6228	9	8	5325-00-842-1879	41	11
4730-00-254-6228	10	5	5325-00-842-1879	42	11
5310-00-261-7340	7	4	5935-00-846-3884	1	4
5305-00-269-2801	20	9	5310-00-852-8593	1	23
5310-00-273-7771	20	33	5935-00-856-3513	1	2
5310-00-273-7771	20	33	5305-00-889-3000	9	23
5995-00-038-3914	4	15	5305-00-889-3000	10	25
5310-00-045-3299	1	15	5925-00-900-1904	1	16

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STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5310-00-934-9739	1	13	4730-01-274-1825	16	14
5310-00-934-9747	9	26	4730-01-274-1825	13	2
5310-00-934-9747	10	28	4730-01-274-1825	15	16
5310-00-934-9757	1	11	4730-01-283-1877	16	16
5310-00-941-6019	35	2	4730-01-283-1877	15	18
5305-00-947-4363	32	11	5325-01-283-6518	26	17
5310-00-964-7811	8	12	4460-01-284-2344	20	19
5315-00-973-0844	26	21	6220-01-284-2709	2	10
5305-00-984-4980	1	1	5340-01-292-5552	8	17
5305-00-984-4993	3	7	5330-01-292-9573	8	10
5305-00-984-6191	1	19	6220-01-297-3217	2	8
5305-00-984-6193	35	3	5305-01-299-4602	14	2
5305-00-984-6208	3	9	5305-01-299-4602	17	1
5305-00-995-3442	1	20	5310-01-303-8656	16	6
5325-01-005-0600	41	22	5310-01-303-8656	15	6
5325-01-005-0600	42	22	6220-01-319-5509	2	17
5325-01-005-0600	41	12	6695-01-326-4706	2	19
5325-01-005-0600	42	12	2530-01-330-5049	8	9
4730-01-008-7827	12	12	5306-01-330-8490	34	12
4730-01-008-7827	11	13	5315-01-338-8400	26	6
5340-01-058-7384	37	6	5310-01-342-2739	4	7
5310-01-062-3384	8	6	5310-01-342-2739	14	4
6220-01-067-4717	2	4	5310-01-342-2739	17	3
2530-01-084-6975	19	3	2610-01-356-9098	21	1
2530-01-095-3561	19	2	2610-01-356-9098	21	1
4730-01-095-7717	16	2	5305-01-356-9468	9	20
4730-01-095-7717	15	2	5305-01-356-9468	10	22
2640-01-098-2029	20	29	5305-01-356-9468	39	3
5310-01-102-7358	1	7	5305-01-357-1656	8	16
6220-01-108-5105	2	20	4820-01-359-6361	11	8
4730-01-114-7131	9	1	4820-01-359-6361	12	2
5310-01-115-0762	26	19	5330-01-360-5252	7	16
4730-01-115-6643	9	5	2530-01-360-5954	7	2
4730-01-115-6643	10	7	2530-01-361-2346	KITS	162
4730-01-138-1968	16	4	4820-01-363-2117	16	17
4730-01-138-1968	15	4	4820-01-363-2117	15	20
5305-01-140-9118	2	2	4820-01-363-3743	20	18
5310-01-155-0057	32	5	2530-01-363-4345	31	2
5310-01-155-1911	6	11	5310-01-365-7236	38	5
5310-01-167-4064	38	6	5310-01-366-3540	10	20
5305-01-178-7349	4	8	2530-01-367-2382	8	15
5305-01-178-7349	14	13	2640-01-367-5015	20	28
5310-01-210-0199	20	7	5305-01-367-9250	2	16
6220-01-210-3225	2	18	5310-01-368-8065	31	4
4730-01-213-7733	16	9	5310-01-368-8065	30	8
4730-01-213-7733	9	9	5310-01-368-8667	28	12
5925-01-214-3228	1	17	5365-01-368-8866	6	3
4730-01-226-3705	11	6	5365-01-368-8943	6	2
4730-01-226-3705	12	4	5365-01-368-8944	6	2
5310-01-254-4255	7	7	5365-01-368-8945	6	2
5306-01-266-7779	17	7	5365-01-368-9143	6	2
5305-01-268-3656	4	9	5342-01-369-0893	32	8
5310-01-271-5758	20	31	5342-01-369-0894	27	12
2530-01-271-7006	8	13	5340-01-369-1399	6	14
5330-01-271-9347	8	2	5306-01-369-1743	31	5
5305-01-274-1264	33	7	2510-01-369-2054	32	13

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STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5310-01-369-3332	17	10	2510-01-372-8454	28	13
5310-01-369-3338	32	16	5305-01-373-4832	32	9
5310-01-369-3339	27	1	5310-01-374-1381	3	1
5310-01-369-3339	32	6	5310-01-374-1382	9	18
5310-01-369-3339	32	17	5310-01-374-1382	39	4
5340-01-369-3358	20	21	5310-01-374-1382	4	14
5306-01-369-3500	6	15	5310-01-374-1382	34	10
2530-01-369-4933	27	7	5310-01-374-1382	34	18
5340-01-369-5627	6	8	2590-01-374-1844	28	1
5310-01-369-5703	34	13	2510-01-374-3118	36	5
5310-01-369-5703	23	3	2510-01-374-3118	36	4
5310-01-369-6073	22	23	2510-01-374-3119	36	3
5365-01-369-6240	6	2	2510-01-374-3119	36	3
5310-01-369-6706	36	13	5310-01-374-3292	3	2
5310-01-369-6706	26	13	5310-01-374-4515	9	19
5310-01-369-6706	22	19	5310-01-374-4515	10	21
5310-01-369-6706	24	15	5310-01-374-4515	39	5
5310-01-369-6706	29	1	5365-01-374-6928	14	12
5310-01-369-6706	30	2	5305-01-375-2855	34	9
5310-01-369-6706	17	18	5305-01-375-2855	34	21
5306-01-369-7504	28	2	5310-01-375-3107	20	33
5306-01-369-8191	27	9	5310-01-375-3107	20	33
5306-01-369-8192	32	4	6220-01-375-3532	3	4
3120-01-369-8361	32	3	2510-01-375-8327	36	2
5306-01-369-8889	28	4	5310-01-376-5302	10	13
5306-01-369-8892	20	4	5310-01-376-5302	9	11
5306-01-369-8893	20	3	5340-01-377-0693	33	4
3120-01-369-8978	28	15	5306-01-377-0750	24	2
5310-01-369-9522	27	10	5340-01-377-0893	14	6
5310-01-370-0010	20	11	5340-01-377-0893	17	16
5310-01-370-0012	28	10	5340-01-377-1643	17	15
5310-01-370-0012	30	7	5340-01-377-2804	17	8
5310-01-370-0596	32	1	2510-01-377-3040	24	16
5342-01-370-0643	32	2	2510-01-377-3043	22	10
2510-01-370-4790	6	16	2510-01-377-3124	24	3
4730-01-370-5378	20	12	5330-01-377-5224	37	4
2530-01-370-5462	20	8	2590-01-377-6605	22	27
2530-01-370-5530	20	1	2590-01-377-6605	24	18
5340-01-370-7066	32	10	2530-01-377-8932	22	24
5310-01-370-7447	4	11	5340-01-378-2475	14	8
5340-01-371-1077	28	5	5340-01-378-2475	17	11
2530-01-371-1488	20	2	2510-01-378-7192	22	25
2530-01-371-5836	20	6	2510-01-378-7513	22	5
5306-01-371-7161	36	11	4730-01-378-8084	11	12
5306-01-371-7161	22	2	4730-01-378-8084	12	11
5306-01-371-7161	24	4	5306-01-381-9797	22	4
5310-01-371-8419	6	5	5310-01-381-9819	34	1
5310-01-371-8419	28	11	5310-01-381-9830	14	10
5340-01-372-0376	14	9	5310-01-381-9830	17	14
5340-01-372-0376	17	13	5306-01-381-9869	17	17
5305-01-372-1266	3	3	5306-01-381-9928	22	7
5310-01-372-3025	17	9	5306-01-382-5019	9	12
3120-01-372-3030	6	7	5306-01-382-5019	10	14
5306-01-372-3536	36	14	5306-01-382-7538	27	3
5306-01-372-3536	26	11	5315-01-383-0048	25	6
5306-01-372-3537	6	13	6220-01-383-0792	3	4

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STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5310-01-383-8880	25	4	5306-01-435-6042	26	2
2540-01-385-9462	41	1	5340-01-436-7619	42	16
2540-01-386-2952	42	1	5340-01-436-7620	41	16
5306-01-386-7853	22	8	5340-01-436-7620	42	16
5306-01-386-7853	27	6	5365-01-436-8308	33	3
4020-01-386-8148	42	25	2540-01-436-9658	42	1
4020-01-386-8148	41	25	2540-01-437-1463	41	1
4730-01-386-8368	16	7	5310-01-437-8728	4	3
4730-01-386-8368	15	7	5340-01-438-8908	35	1
5306-01-387-0075	36	12	5306-01-439-0022	14	5
5306-01-387-0075	24	5	5306-01-439-0022	17	6
5306-01-387-0097	31	1	5306-01-439-3754	22	16
5340-01-387-1172	6	10	5306-01-439-3754	24	12
2540-01-387-3987	41	17	4720-01-439-6769	11	4
5365-01-387-7430	6	2	4720-01-439-6769	12	9
5340-01-388-9103	20	10	2040-01-442-4055	25	8
2530-01-389-0350	8	5	5330-01-444-2514	37	3
5331-01-389-6028	20	5	5306-01-444-7489	22	9
5340-01-389-6992	37	15	5306-01-444-8364	22	6
4720-01-389-7790	20	16	4020-01-444-9193	41	24
5310-01-389-8001	3	5	4020-01-444-9193	42	24
5340-01-389-9118	37	16	4020-01-444-9254	41	26
5306-01-390-1141	29	2	4020-01-444-9254	42	26
5306-01-390-1141	30	3	4720-01-445-4639	12	1
5340-01-390-2959	4	5	9905-01-447-1354	13	3
5340-01-390-2959	14	1	5340-01-451-8966	41	15
5340-01-390-2959	17	2	5340-01-451-8966	42	15
4710-01-391-3192	41	28	4720-01-453-2027	20	23
4710-01-391-3192	42	28	5315-01-453-3808	38	2
2530-01-391-3228	KITS	163	5306-01-453-8608	37	11
5310-01-391-5248	8	7	5306-01-453-8618	22	31
5310-01-391-7887	6	4	5306-01-453-8618	24	21
4030-01-391-9599	22	29	5306-01-453-8618	29	4
4030-01-391-9599	24	22	5306-01-453-8618	30	6
5340-01-393-8500	37	8	5306-01-453-9133	23	6
2530-01-394-8332	19	1	5305-01-453-9537	10	12
2530-01-394-8332	19	1	2510-01-454-4166	35	5
5331-01-395-1252	20	24	5310-01-454-5553	20	25
2530-01-395-8774	27	5	5331-01-456-9156	20	13
5340-01-396-7237	37	14	3120-01-457-9719	32	14
5310-01-407-7178	43	2	2540-01-459-0365	41	1
5340-01-410-9096	37	2	5330-01-459-8204	6	1
5340-01-420-3525	37	9	5330-01-459-8205	6	17
4720-01-428-6934	16	11	5305-01-460-0695	20	26
4720-01-428-6935	11	5	5340-01-460-0750	35	4
4720-01-428-6935	12	7	2540-01-460-0898	42	17
4720-01-428-6936	15	13	2540-01-460-1075	42	17
5340-01-429-0964	35	6	2540-01-460-2337	41	17
4720-01-429-9897	10	4	2540-01-460-3487	41	17
5340-01-431-8755	32	7	4730-01-460-6478	6	9
4720-01-432-4745	15	14	4730-01-460-6502	27	4
5310-01-433-8484	26	8	5340-01-460-6616	41	27
5310-01-434-0078	31	3	5340-01-460-6616	42	27
5310-01-434-0078	27	2	5340-01-460-6627	41	3
5306-01-435-2925	26	9	5340-01-460-6627	41	6
5306-01-435-6042	33	8	5340-01-460-6627	42	3

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STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5340-01-460-6627	42	6	5310-01-479-5595	10	15
5325-01-460-7431	41	29	4010-01-479-5597	26	15
5325-01-460-7431	42	29	5310-01-479-5599	4	20
4710-01-460-9522	42	14	5310-01-479-5599	39	1
2540-01-461-0106	41	13	5340-01-479-5602	26	1
2540-01-461-0106	42	13	5430-01-479-5606	16	8
2540-01-461-0607	34	6	5430-01-479-5606	15	8
5340-01-461-1429	41	7	5305-01-479-5608	33	6
5340-01-461-1429	42	7	3120-01-479-5627	26	4
4710-01-461-9189	41	14	2510-01-479-5764	22	30
4710-01-461-9274	41	4	2510-01-479-5764	24	20
4710-01-461-9274	42	4	5365-01-479-5767	24	13
5310-01-463-1058	33	2	5365-01-479-5767	22	17
5310-01-463-1058	26	3	2510-01-479-5770	22	13
4730-01-465-5486	15	9	2510-01-479-5777	22	15
4730-01-465-5486	10	9	6150-01-479-5781	5	1
2540-01-466-1937	41	2	2510-01-479-5783	22	14
2540-01-466-1937	42	2	2510-01-479-5787	22	12
2540-01-466-1938	41	5	2540-01-479-5790	33	5
2540-01-466-1938	42	5	3950-01-479-5871	26	7
2530-01-467-4098	8	8	4720-01-479-5909	10	11
5310-01-470-2361	10	17	2541-01-479-5953	38	3
5310-01-470-2361	9	15	2530-01-479-5955	7	1
5306-01-470-6596	23	5	2590-01-479-5957	38	4
2540-01-472-5091	42	17	4720-01-479-5967	10	10
4820-01-475-4873	20	20	4720-01-479-5981	15	10
4020-01-475-9242	41	23	2590-01-479-5986	23	2
4020-01-475-9242	42	23	2510-01-479-5991	36	1
5305-01-477-9548	2	14	2540-01-479-5992	34	3
5310-01-478-3126	1	9	4720-01-479-6005	11	9
5340-01-479-5439	26	22	6130-01-479-6012	4	1
5340-01-479-5442	23	9	4720-01-479-6013	13	7
5340-01-479-5446	26	12	4720-01-479-6356	13	11
5340-01-479-5447	14	11	4720-01-479-7709	13	8
5340-01-479-5456	33	1	4720-01-479-7711	13	12
5340-01-479-5461	24	14	3120-01-479-7814	26	39
5340-01-479-5461	22	18	9905-01-479-7880	40	2
5340-01-479-5463	31	6	9905-01-479-7881	40	1
5340-01-479-5466	27	11	3020-01-479-8321	26	31
5306-01-479-5468	38	7	3040-01-479-8411	26	25
5340-01-479-5470	31	7	3020-01-479-8412	26	41
5306-01-479-5472	32	11	5330-01-479-8413	26	28
5340-01-479-5475	22	3	2590-01-479-8424	26	33
5340-01-479-5475	24	6	5310-01-479-8426	26	36
5340-01-479-5485	34	8	2590-01-479-8427	26	34
5340-01-479-5489	27	15	2590-01-479-8433	26	42
5340-01-479-5493	27	15	4730-01-479-8442	26	43
5340-01-479-5497	4	12	5305-01-479-8463	26	30
5340-01-479-5504	4	13	5315-01-479-8472	26	32
4010-01-479-5560	23	7	5315-01-479-8481	26	26
4010-01-479-5560	26	18	5306-01-479-8510	26	35
4010-01-479-5563	23	8	5310-01-479-8528	26	40
4010-01-479-5567	23	4	5310-01-479-8535	26	27
5340-01-479-5592	22	22	5340-01-479-8540	22	26
5340-01-479-5594	22	26	5340-01-479-8546	22	22
5310-01-479-5595	9	13	6110-01-479-8558	1	14

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STOCK NUMBER	FIG.	ITEM
5315-01-480-2880	23	1
5315-01-480-2880	26	14
5315-01-480-3091	26	16
5306-01-480-3790	4	21
5975-01-480-5396	1	18
5305-01-483-1157	6	6
5340-01-483-1169	24	17
5340-01-483-1186	32	15
5306-01-483-1233	30	1
5340-01-483-1532	30	5
5342-01-483-2293	32	8
4010-01-483-2304	25	9
2510-01-483-2326	24	8
6150-01-483-2388	5	1
2510-01-483-2589	24	11
2510-01-483-2597	22	1
2510-01-483-2597	24	1
2590-01-483-2609	30	9
2590-01-483-2629	24	10
2590-01-483-2630	24	7
2510-01-483-2697	36	1
4720-01-483-2944	16	12
4720-01-483-2948	9	7
2510-01-483-3000	29	3
2510-01-483-3000	30	4
2510-01-483-3323	28	6
2510-01-483-3616	32	13
2530-01-483-3949	16	15
2530-01-483-3949	15	17
9905-01-483-5212	40	1
9905-01-483-5215	40	2
5340-01-484-2957	26	44
2590-01-484-7220	26	37
2590-01-484-7234	26	38
2540-01-484-7235	25	3
2530-01-485-6186	7	1
3010-01-487-5255	26	24
5310-01-488-4063	25	5
2540-01-488-6221	25	2
2590-01-490-4392	20	32
2590-01-490-4398	26	23
5330-01-490-5470	45	3
5325-01-490-6543	45	4
2530-01-491-4335	45	2
5306-01-492-5267	22	20
5306-01-492-5708	34	2
2530-01-492-7105	8	9
5307-01-493-5858	7	14
5305-01-493-6139	7	8
5310-01-494-0149	7	9
5310-01-494-0154	7	11
5340-01-495-5767	22	21
5340-01-495-5767	28	8
2530-01-497-7003	7	5
2540-01-497-7509	44	1
2540-01-497-7511	43	1
5330-01-497-8072	7	6
5320-01-497-9959	37	10
5310-01-500-1793	36	6
5310-01-500-2108	36	8
5963-01-500-2303	9	16
5963-01-500-2303	10	18
5340-01-500-4214	43	8
5340-01-500-6013	43	9
5340-01-500-6013	44	2
5340-01-500-6076	43	5
3040-01-500-6452	43	4
2590-01-500-8746	36	9
5365-01-502-2512	6	18
5340-01-512-9064	10	23
5340-01-512-9064	9	21
5340-01-514-6607	34	19
4030-01-521-2308	22	29
4030-01-521-2308	24	22

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PART NUMBER	FIG.	ITEM
000933 006058	14	2
	17	1
05-10058-00	20	1
05-10107-00	20	6
05-10110-00	20	2
071 408 32	17	7
10503805	4	8
	14	13
11639519-2	2	9
11639520	2	4
11639535	2	13
11639537	2	20
11639538-1	2	18
1199G111	20	33
12 130109AS	9	1
12 130109SB	10	1
12-8 130140BA	9	4
	10	8
1205-B-2004	8	10
1205-C-2005	8	2
1227-R-330	7	7
1227E1487	8	7
1229-S-4179	7	9
1229-S-513-C	8	6
1229-Y-3119	7	11
12301125	20	7
12357896	2	19
12357897	2	17
12360850-1	2	10
12360870-2	2	8
12378642-004	22	29
	24	22
12378772	32	10
12378806	32	14
12378849-001	13	15
12414277	27	7
12414307-003	4	4
12414307-013	34	2
12414307-038	37	11
12414307-040	23	6
12414307-063	27	9
12414307-080	22	7
12414307-083	17	17
12414307-088	32	9
12414307-093	9	12
	10	14
12414307-139	22	8
	27	6
12414307-140	26	11
	36	14
12414307-141	22	2
	24	4
	36	11
12414307-142	6	13
12414307-144	24	5
	36	12
12414307-146	22	4
12414307-147	24	2
12414307-148	22	31
	24	21
	29	4
	30	6
12414307-150	29	2
	30	3
12414307-173	27	3
12414307-174	31	1
12414308-002	34	1
12414308-004	23	3
	34	13
12414308-007	22	23
12414308-008	9	13
	10	15
12414308-017	14	10
	17	14
12414308-019	27	10
12414308-021	32	16
12414308-025	17	18
	22	19
	24	15
	26	13
	29	1
	30	2
	36	13
12414308-027	27	1
	32	6
	32	17
12414309-032	23	5
12414315-002	3	1
12414315-003	4	14
	9	18
	34	10
	34	18
	39	4
12414315-006	17	10
12414315-009	38	5
12414315-011	28	12
12414315-017	30	8
	31	4
12414419-042	3	3
12414419-056	34	9
	34	21
12414419-095	10	12
12414419-127	33	6
12414420-002	20	10
12414420-004	20	11
12414473-018	28	10
	30	7
12414474-010	4	11
12414474-012	9	15
	10	17
12414475-224	20	26
12414511	24	3

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PART NUMBER	FIG.	ITEM
12414514	22	10
12414543	22	25
12414551-010	14	5
	17	6
12414551-052	28	2
12414551-108	27	14
12414551-110	31	5
12414551-124	32	4
12414551-128	32	11
12414567	22	5
12414570-011	3	2
12414570-013	9	19
	10	21
	39	5
12414743	35	1
12417246	37	13
12417247	37	13
12417248	36	2
12417332-001	20	3
12417332-002	20	4
12417336-001	36	4
	36	5
12417337-001	36	3
12417391	22	27
	24	18
12417393	28	5
12417394	6	14
12417398	6	16
12417403	24	16
12417406	6	10
12417415	22	24
12417623	32	8
12417625	27	12
12417652	32	13
12417654-003	3	4
12417654-004	3	4
12417904-003	28	4
12417916	20	12
12417918	28	15
12417921	28	1
12417925	28	13
12417944	34	17
12417948-004	33	3
12417951-029	38	7
12417953-015	6	9
12417958-004	6	6
12417963-006	17	9
12417963-014	32	5
12417963-025	22	17
	24	13
12417975-006	14	12
12417975-008	9	11
	10	13
12418018	6	8
12418024	6	3
12418027-002	6	15
12418029-001	6	2
12418029-002	6	2
12418029-003	6	2
12418029-004	6	2
12418029-005	6	2
12418029-006	6	2
12418084	6	5
	28	11
12418350-003	27	13
12418476	33	4
12418568-001	35	4
12418595	35	6
12418597-001	35	5
12418609	37	14
12418628	37	16
12418630	37	8
12418631	37	15
12418632	37	4
12418633	37	3
12418665-001	37	5
12418665-002	37	17
12418704	37	2
12418763-002	26	20
	38	1
12418774	38	2
12418960	37	9
12418960-001	37	9
12419026	32	3
12419029	32	1
12419032	32	7
12419169-003	4	20
	39	1
12419910	14	6
	17	16
12419914	17	8
12419915	17	15
12419953-028	9	10
12419965-001	13	8
12419965-002	13	12
12420062-003	10	4
12420062-007	11	9
12420062-009	12	1
12420062-011	15	14
12420062-013	16	11
12420062-014	11	5
	12	7
12420062-016	15	13
12420064-006	11	4
	12	9
12420064-007	11	1
	12	5
12420572-006X	9	3
	10	3
	13	1
	15	15
	16	13

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PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
	18	2		30	4
12420572-008X	9	6	12441170	22	3
	10	6		24	6
12420572-008X13.5	11	17	12441173	22	30
	12	16		24	20
12420572-008X14	11	18	12441174	22	15
	12	14	12441175	22	13
12420572-008X15	11	14	12441176	24	17
	12	15	12441177	22	14
12420767	27	4	12441178	22	12
12420924-002X	5	7	12442787	15	17
12420924-003X	5	11		16	15
12420924-005X	5	2	12442794-001	5	1
12421379-010	15	5	12442794-002	5	1
	16	5	12442795	26	12
12421697-001	22	9	12442796	26	22
12421697-005	22	6	12442819-001	13	7
12422507	27	8	12442819-002	13	11
12422564	6	18	12442825	31	6
12422593	22	21	12442826	30	1
	28	8	12442827	31	7
12422594	22	20	12442828-001	27	15
12423044	37	12	12442828-002	27	15
12423178-001	11	15	12442829	27	11
	12	17	12442831	32	8
12423178-002	11	16	12442832	32	13
	12	18	12442871	23	2
12423238-001	11	20	12442872	36	1
	12	20	12442875	36	1
12423238-003	11	19	12442911	32	15
	12	19	12442912	40	1
12423252	38	8	12442913	33	5
12423313	36	1	12442914	33	1
12423327	22	29	12442916-001	23	8
	24	22	12442916-002	23	7
12423329	22	16		26	18
	24	12	12442916-003	23	4
12423330	22	15	12442962	15	8
12423331	22	13		16	8
12423332	24	11	12442968	38	3
12423333	24	8	12442969	38	4
12423338-001	22	28	12442971	4	1
	24	19	12443014	22	1
12441126	25	1		24	1
12441126-001	25	1	12443016	22	18
12441143	24	11		24	14
12441144	24	8	12443016-001	22	18
12441145-001	7	1		24	14
12441145-002	7	1	12443018	26	4
12441147	28	6	12443019	26	1
12441149	26	23	12443027	26	7
12441150	24	10	12443028	26	15
12441151	24	7	12443040	20	32
12441152	25	2	12443057	25	8
12441163	25	9	12443073	40	1
12441168	29	3	12443080	23	9

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PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
12443090	40	2	201124	13	3
12443091	40	2	207ACBH-6	13	4
12443094-001	30	9	213630	13	10
12443094-002	30	5		13	14
12443095	34	3	216P-8	15	19
12443097-001	34	11		16	18
12443097-007	34	7	2208-H-1126	7	6
12443100	34	8	2237M1235	9	21
12443106	4	13		10	23
12443108	4	12	2257-M-1001	8	17
12443169	22	17	2297-A-5331	8	9
	24	13	2297-B-5332	8	9
12443181-001	10	11	25951-1	32	2
12443181-002	9	7	26-X-1002	7	8
12443181-003	10	10	265	20	31
12443181-004	15	10	2678	1	18
12443181-005	16	12	2758W127	8	14
12443181-006	15	12	30056-10	1	16
12443183	14	11	3155-L-1234	9	25
12443595-009	34	19		10	27
12443595-010	34	22	3211T6000	8	8
12443596	34	14	3219-W-4833	7	2
12443598	34	20	3222/190PAH	14	7
12443601	28	7		17	12
12443602-001	22	22	3222/222PAH	14	8
12443602-002	22	22		17	11
12443603-001	22	26	3262-X-1246	7	5
12443603-002	22	26	3280K8175	8	3
12443604-001	28	14	343-0586-000	3	9
12443604-002	28	9	3A7313	20	33
12443605	9	14	4-130109NS	15	4
	10	16		16	4
12443610	9	16	4-4 130139B	11	11
	10	18		12	10
12443611	8	22	42X1064	8	19
12443612	9	27	444530	11	10
	10	29		12	13
12443613	8	23	47686	7	12
12443614	9	17	490630	4	15
	10	19	52496100	20	5
12443615	9	22	572929	2	7
	10	24	599791	20	19
12443618	2	3	599807	20	13
12524631-1	26	19	6 130109AB	9	9
1468X8	13	6		16	9
1512-0-4	1	17	6 130109B	10	9
15635-93M	27	2		15	9
	31	3	6-130109NS	15	7
1727N40	19	6		16	7
1729B262	8	12	6-2 130140BA	11	7
18-W	37	6		12	3
19-4CD	26	17	6-4 010202BA	11	2
19M7867	34	12		12	6
1AL60	19	2	6-4 100202BA	9	2
20-X-1577-Z	7	14		10	2
20-X-1812	7	14		15	1

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PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
	16	1	A3280W8187	8	4
	18	1	A52484-1	13	9
6-4-6 010424B	11	13		13	13
	12	12	AN381-2-12	26	5
6-6 010202B(E1)	9	8	AN914-3	13	5
	10	5	AN960-1216	32	12
	15	11	ATUM-1/4-0-4FTX	5	8
	16	10	B1821BH025C125N	37	7
6-6 100202BA	13	2	B1821BH031C075N	1	3
	15	16	B1821BH038C088N	2	2
	16	14	B1821BH063F150N	20	27
6-6-6 100425BA	15	18	B1821BH075C550N	32	11
	16	16	B18234B05020N	4	21
673215	20	20	B18234B08025N	26	9
673217	20	18	B18234B10025N	26	2
673222	20	21		33	8
673268	20	15	B18241B050	10	20
	20	17	B18244B06	4	3
673269	20	24	B18244B08	26	8
673995	20	14	B18244B10	26	3
673997	20	23		33	2
673999	20	25	BB-3019-1X	27	5
676200	20	16	CC3350X148	34	16
68-99-216N	34	6	CC3350X164	34	5
7526015	2	15	CC3350X243	34	4
7972328-1	2	16	CC3350X261	34	15
8 130109SB	15	21	CPT3	14	9
	16	19		17	13
8-6 010102B	11	6	D63479/1-25Z	26	16
	12	4	D63479/1-27Z	26	6
8-6 010202BA(E1)	11	3	D63546/8-06G	6	4
	12	8	D7740-3-3	39	2
8-6 100202BA	15	2	DIN 934 ST M6	4	7
	16	2		14	4
8-6-8 010424BA	11	12		17	3
	12	11	DIN933-M10X35-8.8-A4C	33	7
8-8 100202BA	9	5	DT-VR(SS)	1	14
	10	7	EPS300-3/16X	5	4
800-2010	9	20	GR011RED	39	6
	10	22	ISO4017-M6X16-8.8-A4C	4	9
	39	3	JBD10-081	9	23
8338566	2	5		10	25
8338567	2	6	JM716649	7	15
990 3861	6	11	LG0172	26	24
99131	21	1	LG0173	26	42
9999039	19	3	LG0174	26	33
A 13 DIN125-ST	38	6	LG0176	26	44
A-1205-R-2254	7	16	LG0725	26	38
A-2247-E-1019	8	5	LG0732-01	26	34
A-2297-L-3158	8	21	LG2020-10	26	25
A-3280-Z-8190	8	13	M43436/1-1	5	3
A-333-W-4235	7	13	M45913/3-20FG8C	22	11
A1-2297U4597	8	15		24	9
A1-3222-V-2232	8	11	M45952/1-C12-65	23	1
A1326	20	9		26	14
A2303-12-51PC6	7	4	M45952/1-C6-15	26	21

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PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
MBP-R10-6	37	10	N14488R	18	3
MN308-1	8	20	P49866-11	2	1
MS15003-1	26	10	PH3764-1-1	36	9
	28	3	PH3765-1-1	36	10
MS20659-104	4	17	PH3777-1-1	36	7
	5	9	PMP35360	22	16
MS20659-105	4	18		24	12
	5	6	PNT115-34-14N	36	6
MS20659-128	5	10	PWS200-32N-062	36	8
MS208020-1	8	18	R00203	7	10
MS21083N08	35	2	RDA-1550-877	8	1
MS21266-5N	4	19	RDA-1550-878	8	1
	15	3	S-1073	2	11
	16	3	S-19750	6	17
MS25274-3	4	16	S-19751	6	1
MS27144-2	5	5	S-266	7	3
MS27183-18	19	4	S255Z	8	16
MS27183-7	1	21	S630H-12	17	4
MS35206-223	1	1	S630H-16	4	5
MS35206-233	3	7		14	1
MS35206-243	1	19		17	2
MS35206-245	35	3	S630H-20	4	6
MS35206-263	2	14	S630H-24	4	2
MS35207-268	1	20		14	3
MS35333-36	1	12		17	5
MS35333-38	1	10	SAEJ560	1	2
MS35333-39	1	22	SL52-4	15	6
MS35333-40	1	6		16	6
MS35333-41	1	8	SSB-507-1X	31	2
MS35335-30	9	24	T100201	20	8
	10	26	TYIV/CL1/TRVC8	20	29
MS35335-58	3	6	TYV/CL2/TR C1	20	30
MS35338-42	1	15	VS-1090-ALT	20	28
MS35338-44	4	10	W-L-00111/66	2	12
MS35421-1	3	10		3	8
MS35421-2	3	10	X1658	6	7
MS35649-103	1	23	X24-3276J-10	19	1
MS35649-242	1	13	XA-1249-49-10	25	3
MS35649-262	9	26	XB-121	25	6
	10	28	XB-767	25	7
MS35649-264	3	5	XB-BRG-013-70	26	39
MS35649-282	1	11	XB-GP-014-07	26	26
MS35690-804	19	5	XB-GP-052-11	26	32
MS35691-53	20	22	XB-GRF-022-16	26	43
MS51849-66	18	4	XB-HHB-050-70	26	35
MS51943-52	22	11	XB-LG0726	26	37
	24	9	XB-LG0880	26	29
MS51967-2	1	7	XB-LG0893	26	28
MS51967-5	1	9	XB-LG2026	26	31
MS51988-3	37	1	XB-LG2027	26	41
MS75021-2	1	4	XB-PW-016-51	26	40
MS90725-6	1	5	XB-PW-016-73	26	27
N-20455	11	8	XB-SP0-012-10	26	36
	12	2	XB-STS-008-11	26	30
N-30256-C	15	20	XB-T-316-A	25	5
	16	17	XB-T-318	25	4

PART NUMBER INDEX – Continued **0173 00**

PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
12420275	41	28			
12420277-007	41	24			
12420277-008	41	25			
12420277-009	41	26			
12420281-015	41	17			
12420281-016	41	17			
12420288	41	17			
12420291	41	15			
12420291-001	41	16			
12421716	41	27			
12421717	41	3			
	41	6			
12421821	41	29			
12422279-001	41	2			
12422279-002	41	5			
12422280-002	41	4			
12422280-003	41	14			
12422292	41	13			
12422305	41	7			
57K1898	41	1			
57K1923	41	1			
57K1925	41	1			
AN227-7B	41	9			
	41	19			
MIL-R-3990 CL5-1IN	41	18			
MILC43256X360	41	23			
MS27980-1B	41	10			
	41	20			
MS27980-7B	41	11			
	41	21			
MS27980-9B	41	12			
	41	22			
MS51929-3	41	8			

COMPONENTS OF END ITEM (COEI) AND BASIC ISSUE ITEMS (BII) LISTS 0174 00

SECTION I. INTRODUCTION

SCOPE

This appendix lists COEI and BII for the FMTVT to help you inventory the items for safe and efficient operation of the equipment.

GENERAL

The COEI and BII information is divided into the following lists:

a. Components of End Item (COEI).

This list is for information purposes only and is not authority to requisition replacements. These items are part of the FMTVT. As part of the end item, these items must be with the end item whenever it is issued or transferred between property accounts. Items of COEI are removed and separately packaged for transportation or shipment only when necessary. Illustrations are furnished to help you find and identify the items.

b. Basic Issue Items (BII).

These essential items are required to place the FMTVT in operation, operate it, and to do emergency repairs. Although shipped separately packaged, BII must be with the FMTVT during operation and when it is transferred between property accounts. Listing these items is your authority to request/requisition them for replacement based on authorization of the end item by the TOE/MTOE. Illustrations are furnished to help you find and identify the items.

EXPLANATION OF COLUMNS

Column (1) – Illus Number. Gives you the number of the item illustrated.

Column (2) – National Stock Number. Identifies the stock number of the item to be used for requisitioning purposes.

Column (3) – Description, CAGEC, and Part Number. Identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The stowage location of COEI is also included in this column. The last line below the description is the CAGEC (commercial and Government entity code) (in parentheses) and the part number.

Column (4) – Usable on Code. When applicable, gives you a code if the item you need is not the same for different models of equipment. These codes are identified below:

CODE	USED ON
LTA	Model M1082
MTA	Model M1095

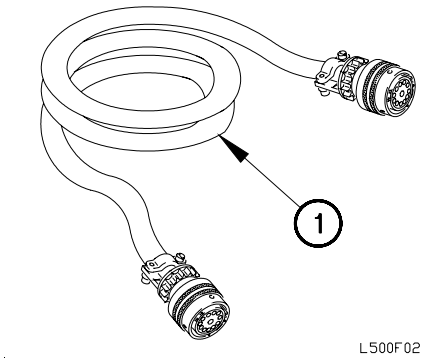
COMPONENTS OF END ITEM (COEI) AND BASIC ISSUE ITEMS (BII) LISTS - Continued 0174 00

SECTION I. INTRODUCTION - Continued

Column (5) – U/M (Unit of measure). Indicates how the item is issued for the National Stock Number shown in column (2).

Column (6) – Qty REQD. Indicates the quantity required.

SECTION II. COMPONENTS OF THE END ITEM (COEI)



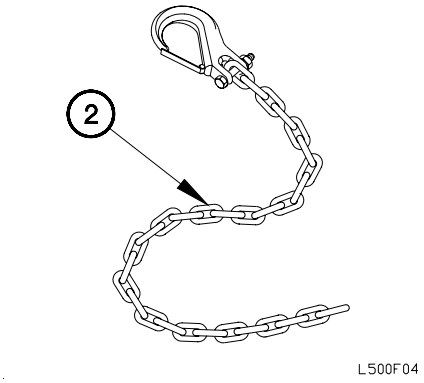
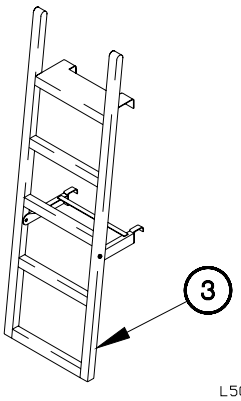


Table 1. Components of End Item List.

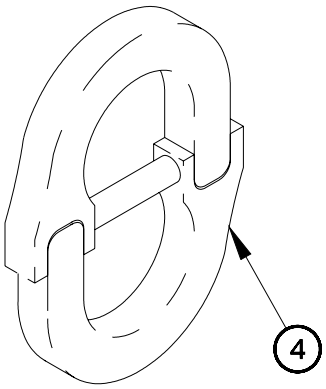
(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION, CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/M	(6) QTY REQD
1	5995-00-038-3914	CABLE ASSEMBLY, ELECTRICAL, 24V, INTERVEHICULAR	LTA MTA	EA	1
2	4010-01-483-2304	CHAIN ASSEMBLY, SAFETY (19207) 12441163	LTA MTA	EA	2

COMPONENTS OF END ITEM (COEI) AND BASIC ISSUE ITEMS (BII) LISTS - Continued 0174 00

SECTION II. COMPONENTS OF THE END ITEM (COEI) - Continued



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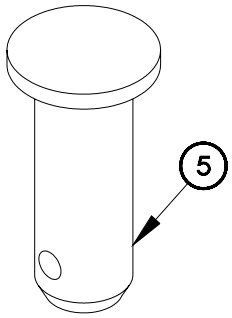


L500F11

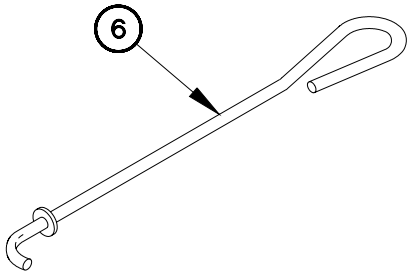
Table 1. Components of End Item List - (Cont).

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION, CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/M	(6) QTY REQD
3	2541-01-479-5953	LADDER ASSEMBLY, VEHICLE BOARDING (19207) 12442968	LTA MTA	EA	1
4	2040-02-442-4055	LINK, CONNECTING, SAFETY CHAIN (19207) 12443057	LTA MTA	EA	2

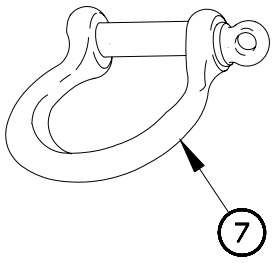
SECTION II. COMPONENTS OF THE END ITEM (COEI) - Continued



L500F



L500F18



L500F19

Table 1. Components of End Item List (Cont).

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION, CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/M	(6) QTY REQD
5	5315-01-338-8400	PIN, STRAIGHT (19207) D63479/1-27Z	LTA MTA	EA	1
6	5340-01-479-5497	ROD, CABLE SUPPORT (19207) 12443108	LTA MTA	EA	1
7	4030-01-391-9599	SHACKLE, ANCHOR TIEDOWN (19207) 12378642-004	LTA MTA	EA	4

COMPONENTS OF END ITEM (COEI) AND BASIC ISSUE ITEMS (BII) LISTS - Continued 0174 00

SECTION II. COMPONENTS OF THE END ITEM (COEI) - Continued

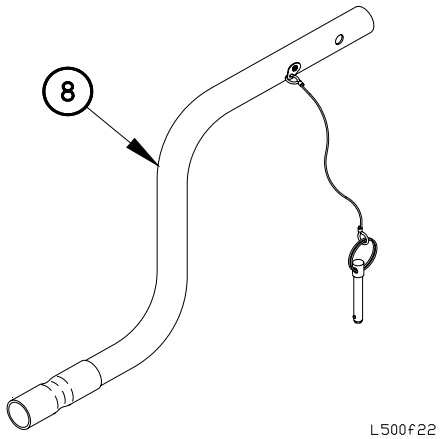
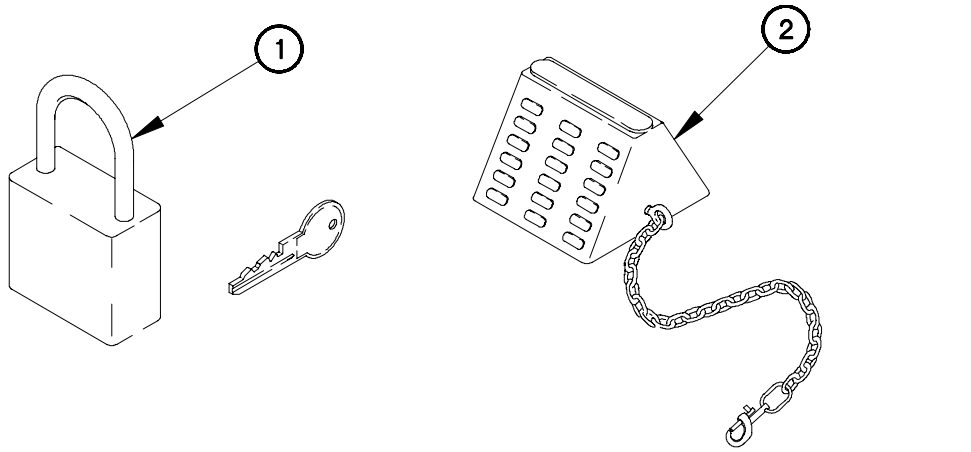


Table 1. Components of End Item List (Cont).

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION, CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/M	(6) QTY REQD
8	5340-01-479-5602	HANDLE, WINCH W/LANYARD AND PIN (19207) 12443019	LTA MTA	EA	4

SECTION III. BASIC ISSUE ITEMS (BII)



L500F23

Table 2. Basic Issue Items List .

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION, CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) U/M	(6) QTY REQD
1	5340-01-468-5390	PADLOCKS SET (19207) 12422368	LTA MTA	EA	1
2	2540-01-500-6119	CHOCK BLOCKS A-52475-2	LTA MTA	EA	2

ADDITIONAL AUTHORIZATION LIST (AAL) 0175 00

SCOPE

This appendix lists additional items you are authorized for the support of the FMTV.

GENERAL

This list identifies items that do not have to accompany the FMTV and that do not have to be turned in with it. These items are all authorized to you by Common Tables of Allowance (CTA), Modification Table of Organization and Equipment (MTOE), Tables of Distribution and Allowances (TDA), or Joint Table of Allowance (JTA).

EXPLANATIONS OF COLUMNS IN THE AAL

Column (1) – National Stock Number (NSN). Identifies the stock number of the item to be used for requisitioning purposes.

Column (2) – Description, Commercial and Government Entity Code (CAGEC), and Part Number. Identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The last line below the description is the CAGEC (in parentheses) and the part number.

Column (3) – Usable On Code. When applicable, gives you a code if the item you need is not the same for different models of equipment.

Column (4) – Unit of Measure (U/M). Indicates the physical measurement or count of the item as issued per the National Stock Number shown in column (1).

Column (5) – QTY Recm. Indicates the quantity recommended.

ADDITIONAL AUTHORIZED LIST ITEMS

Table 1. Additional Authorization List.

(1) NATIONAL STOCK NUMBER	(2) DESCRIPTION, CAGEC, AND PART NUMBER	(3) USABLE ON CODE	(4) U/M	(5) QTY RECM
2540-01-459-0365	ARCTIC CARGO COVER KIT (GREEN) (19207) 57K1923	LMTVT	EA	1
2540-01-385-9462	CARGO COVER KIT (GREEN) (19207) 57K1898	LMTVT	EA	1
2540-01-437-1463	CARGO COVER KIT (TAN) (19207) 57K1925	LMTVT	EA	1
3990-01-500-7345	CARGO RING REPLACEMENT KIT (19207) 57K2017	LMTVT	EA	14
3990-01-500-7345	CARGO RING REPLACEMENT KIT (19207) 57K2017	MTVT	EA	14
2540-01-459-6479	ARCTIC CARGO COVER KIT (GREEN) (19207) 57K1924	MTVT	EA	1

ADDITIONAL AUTHORIZATION LIST (AAL) - Continued 0175 00

ADDITIONAL AUTHORIZED LIST ITEMS - Continued

Table 1. Additional Authorization List (Cont).

(1) NATIONAL STOCK NUMBER	(2) DESCRIPTION, CAGEC, AND PART NUMBER	(3) USABLE ON CODE	(4) U/M	(5) QTY RECM
2540-01-386-2952	CARGO COVER KIT (GREEN) (19207) 57K1899	MTVT	EA	1
2540-01-436-9658	CARGO COVER KIT (TAN) (19207) 57K1926	MTVT	EA	1

EXPENDABLE/DURABLE ITEMS LIST 0176 00

INTRODUCTION

Scope

This work package lists expendable and durable items that you will need to operate and maintain the FMTV trailers. This listing is for information only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, Expendable/Durable Items (except Medical, Class V Repair Parts, and Heraldic Items), or CTA 8-100, Army Medical Department Expendable/Durable Items.

Explanation of Columns in the Expendable/Durable Items List

Column (1) -- Item Number. This number is assigned to each entry in the list and is referenced in the narrative instructions to identify the item (e.g. "Antiseize Compound (Item 2, WP 0176 00)").

Column (2) -- Level. This column identifies the lowest level of maintenance that requires the listed item (C = Operator/Crew, O = Field/AVUM, F = Sustainment/AVIM).

Column (3) -- National Stock Number. This is the NSN assigned to the item which you can use to requisition it.

Column (4) -- Item Name, Commercial and Government Entity Code (CAGEC), and Part Number (P/N). This column provides the other information you need to identify the item.

Column (5) -- Unit of Measure (U/M). This code shows the physical measurement or count of an item, such as gallon, dozen, gross, etc.

EXPENDABLE AND DURABLE ITEMS LIST

Table 1. Expendable and Durable Items List.

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) ITEM NAME, DESCRIPTION, CAGE, PART NUMBER	(5) U/M
1	O	8040-00-117-8510	Adhesive (81349) (MIL-A-46146) RTV Clear	TU
2	O	8040-01-331-7473	Adhesive (81349) (MIL-A-46106) RTV-N06	TU
3	O	8030-00-597-5367	Antiseize Compound (81349) (MIL-A-907E)	Lb
4	C	5977-00-758-9555	Brush Set, (35510) (71035)	EA
5	C	7920-00-291-5815	Brush, Wire (D-1416)	EA
6	O	5340-00-450-5718	Cap and Plug Set (19207) 10935405	EA
7	C	6850-00-926-2275	Cleaning Compound, Windshield (81349) O-C-1901 16 oz bottle	BT
8	C	7920-00-044-9281	Cloth, Cleaning (81349) (MIL-C-85043)	BX

Table 1. Expendable and Durable Items List - (Cont).

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) ITEM NAME, DESCRIPTION, CAGE, PART NUMBER	(5) U/M
9	O		Corrosion Preventive Compound (81349) (MIL-C-16173)	
		8030-00-062-6950	Grade 1 - 1 quart can,	QT
			Grade 2 - 1 quart can,	QT
		8030-01-149-1731	Grade 3 - 1 pint can,	PT
			Grade 4 - 1 pint can	PT
10	O	7520-01-209-1152	Dispenser, pressure sensitive adhesive tape (55203) 5006-0-9	
11	C		Grease, Automotive and Artillery (GAA) (81349) (MIL-G-10924)	
		9150-01-197-7688	2-1/4 oz tube	TU
		9150-01-197-7690	1.75 lb can	CN
		9150-01-197-7689	6.5 lb can	CN
		9150-01-197-7692	35 lb can	CN
12	O	9150-00-180-6382	Grease, General Purpose (81349) MIL-T-24139 6.5 pound can	LB
13	C	9150-00-530-6814	Grease, Wire Rope-Exposed Gear (81349) (MIL-G-18458) 35 lb can	CN
14	O	7510-00-145-0559	Ink, Marking Stencil (81349) (MIL-I-43553)	OZ
15	O	7510-01-386-0787	Inking Pad, Rubber Stamp (88001) 0603A	EA
16	O	5970-01-100-4464	Insulating Compound, Electrical (08800) RTV-102WHITE	TU
17	O	5970-01-379-7348	Insulation Sleeving, 3/16” (7V059) EPS-300BLACK	FT
18	O	5970-01-422-5748	Insulation Sleeving, 3/8” (06090)	FT
19	O	5970-00-378-3018	Insulation Sleeving, 1/4” (06090) ATUMI-4	FT
20	O	5970-00-838-5951	Insulation Sleeving, Electrical (06090) CRN3-16BLACK	FT
21	C		Oil, Lubricating, OE/HD, Arctic , MIL-PRF-46167C	CN
		9150-00-402-4478	1 qt	CN
		99150-00-402-372	5 gal	CN
		9150-00-491-7197	55 gal	

Table 1. Expendable and Durable Items List – (Cont).

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) ITEM NAME, DESCRIPTION, CAGE, PART NUMBER	(5) U/M
22	C		Oil, Lubricating OE/HDO 10, MIL-L-2104	
			bulk	
		9150-00-183-7807	5 gal	CN
		9150-00-186-6668	55 gal	CN
		9150-00-191-2772		
23	C		Oil, Lubricating, Gear, GO 75W (81349) (MIL-L-2105)	
		9150-01-035-5390	1 qt can	CN
		9150-01-035-5391	5 gl can	CN
24	C	9150-01-035-5395	Oil, Lubricating, Gear, GO 85W (81349) MIL-L-2105 85W-140	
			5 gl can	GL
25	C	7920-00-205-1711	Rag, Wiping (64067) 7920-00-205-1711 50 lb bale	EA
26	F	8030-00-148-9833	Sealant, Adhesive (78500) 2297-B-5436	BX
27	O	8030-00-004-4333	Sealing Compound (19200) 10548829-2 4 oz can	OZ
28	O	8030-00-111-2762	Sealing Compound (05972) 290-31	BT
29	O	8030-00-148-9833	Sealing Compound (05972) 271 10 cc bottle	CC
30	O	8030-00-204-9149	Sealing Compound (05972) 592-41 250 cc tube	CC
31	C	7930-00-634-3935	Soap, Laundry (81348) P-S-1792 200 lb drum	LB
32	C		Solvent, Dry Cleaning SD (P-D-680)	
		6850-00-281-1985	1 gl can	CN
		6850-00-664-5685	1 qt can	CN
33	O	5940-01-421-6955	Splice	EA
34	O	8030-00-889-3534	Tape, Antiseizing (81349) (MIL-T-27730)	EA
35	O	5640-00-103-2254	Tape, Duct (39428) 1791K70	EA
36	O	5970-00-644-3167	Tape, Insulation, Electrical (80063) TL83	RO

Table 1. Expendable and Durable Items List - (Cont).

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) ITEM NAME, DESCRIPTION, CAGE, PART NUMBER	(5) U/M
37	O	5975-01-379-4997	Ties, Cable, Plastic (06383) PLT 35-C-O	HD
38	O	6145-01-148-2263	Wire, Electrical (80009) 175-0825-00 50 ft	FT
39	O	6145-01-229-4134	Wire, 14 awg (96906) M16878/14-BKE9 5 lb spool	SL
40	O	9505-00-555-8648	Wire, Nonelectrical (96906) MS20995C47 5 lb spool	SL

STOWAGE AND DECAL/DATA PLATE GUIDE 0177 00

INTRODUCTION

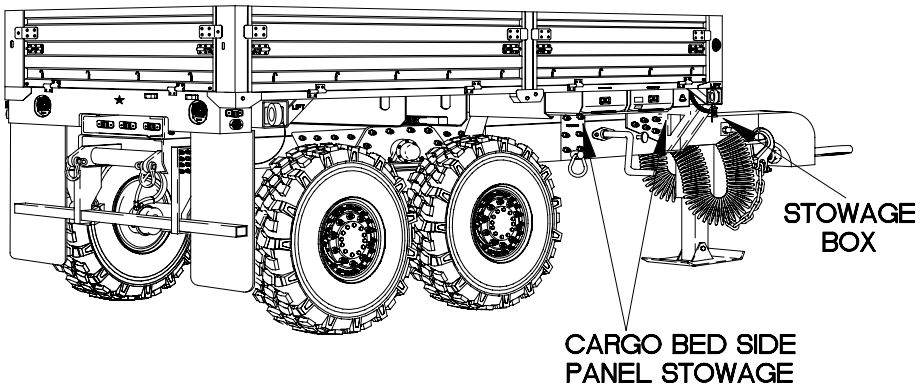
Scope

This work package shows the location for stowage of equipment and material required to be carried on M1082/M1095 series trailers and locations of decals, stencils, and data plates that are required to be in place on the trailer.

General

The equipment stowage locator is designed to help inventory items required for safe and efficient operation. The equipment locator is representative of COEI and applicable AAL stowage on both M1082/M1095 series trailers.

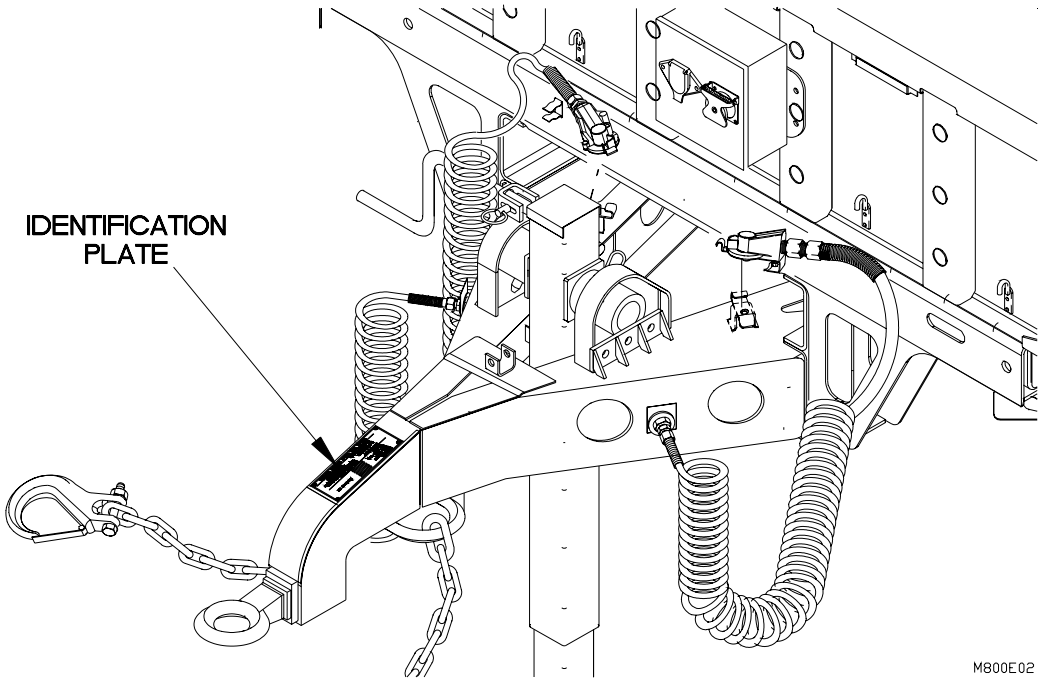
STOWAGE LOCATIONS, BOTH TRAILERS (MTVT SHOWN)

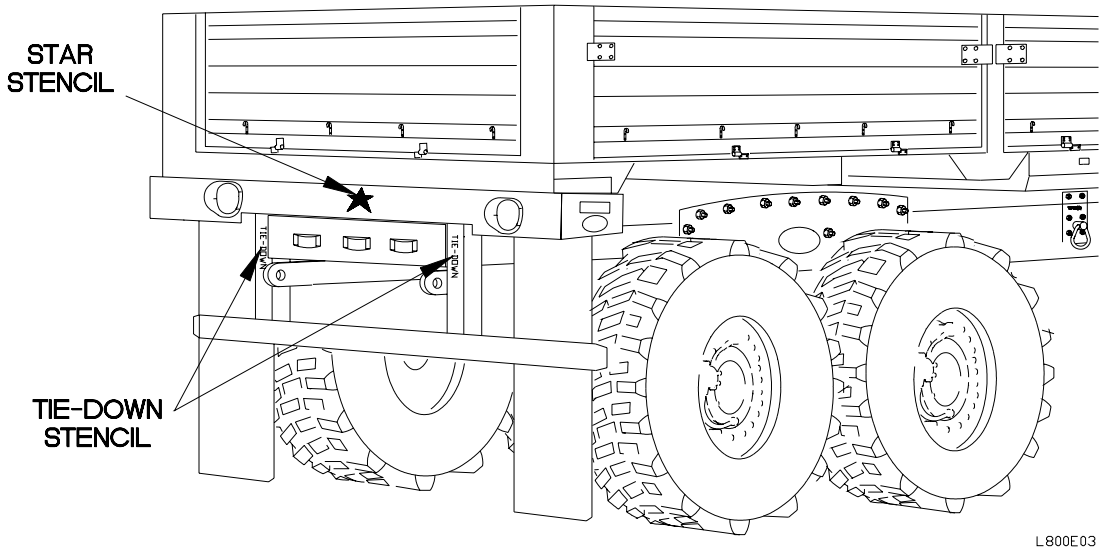


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STOWAGE AND DECAL/DATA PLATE GUIDE - CONTINUED 0177 00

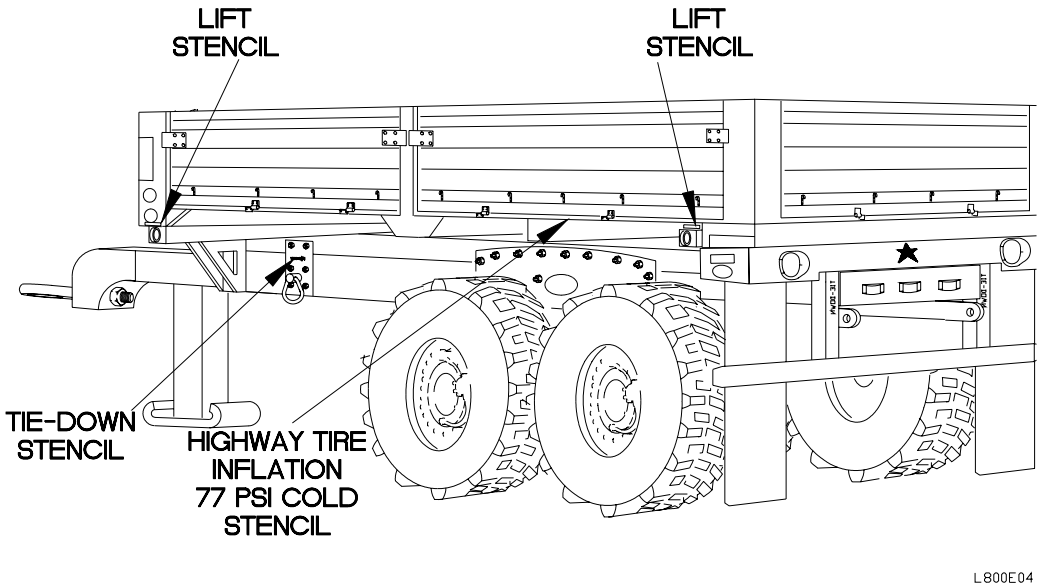
DECALS/STENCILS/DATA PLATES, BOTH TRAILERS (MTVT SHOWN)



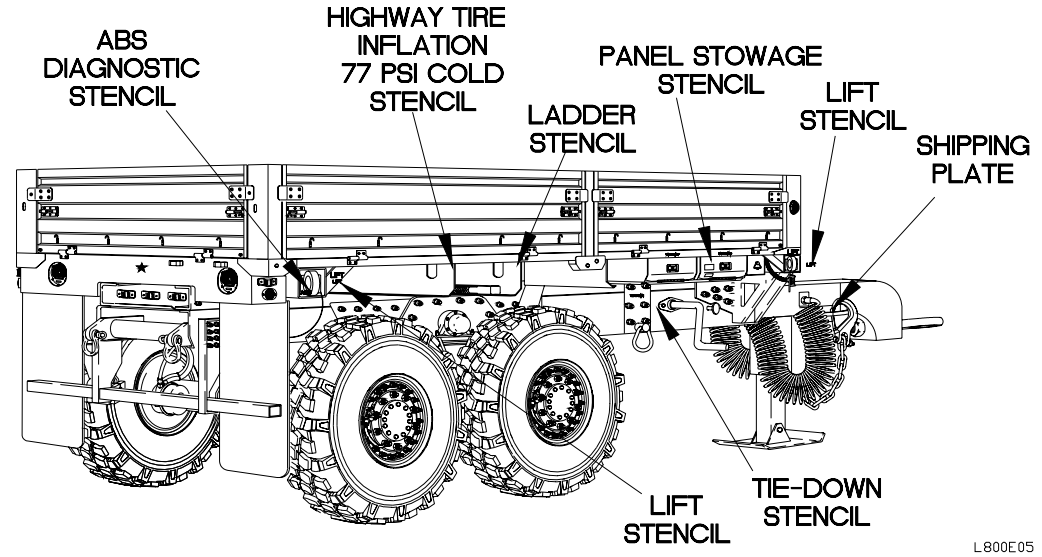


STOWAGE AND DECAL/DATA PLATE GUIDE - CONTINUED 0177 00

DECALS/STENCILS/DATA PLATES, MTVT



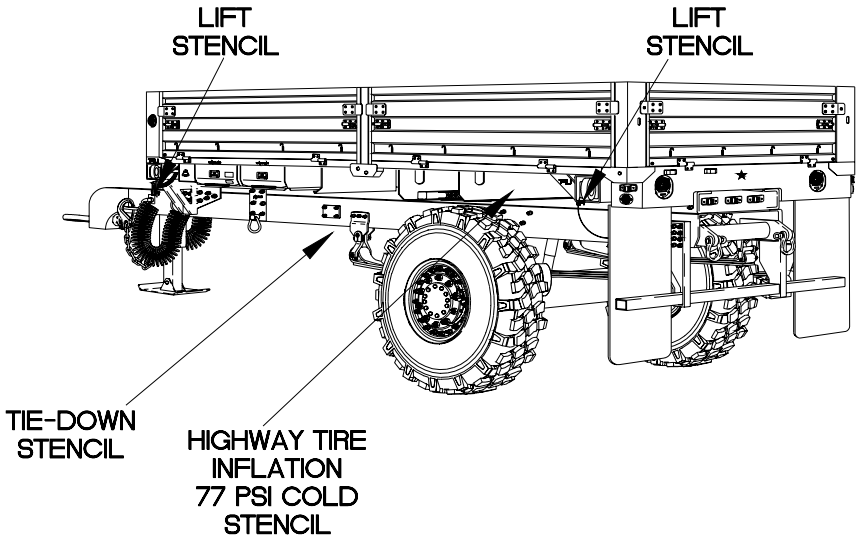
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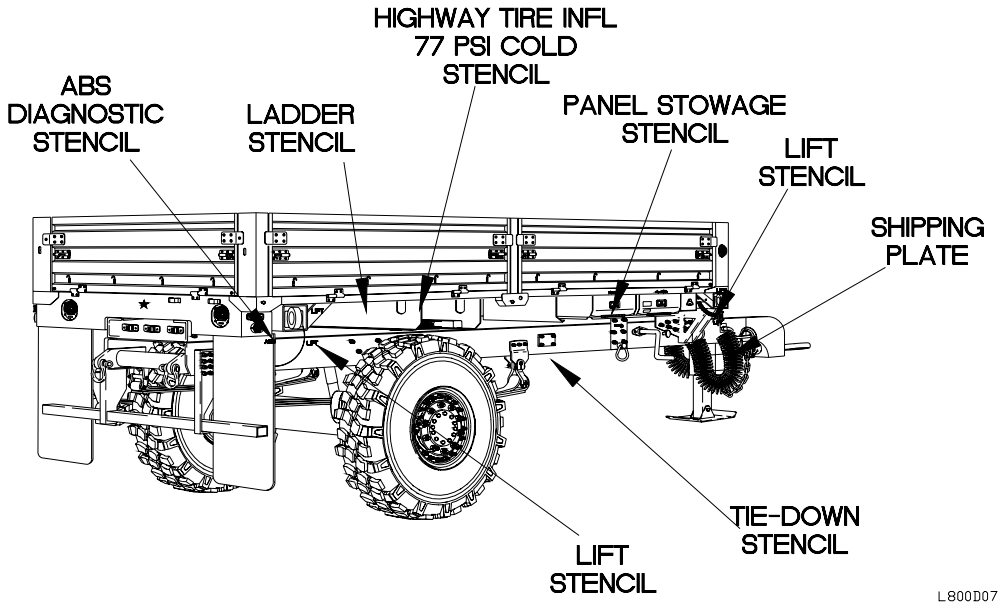
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STOWAGE AND DECAL/DATA PLATE GUIDE - CONTINUED 0177 00

DECALS/STENCILS/DATA PLATES, LMTVT



L800D06



L800D07

TOOL IDENTIFICATION LIST 0178 00

INTRODUCTION

Scope

This work package lists common tools, supplements, special tools/fixtures, and test equipment that are suggested for maintenance tasks performed at Field Level Maintenance.

Explanation of columns in the Tool Identification List

Column (1) -- Item Number. This number is assigned to the entry in the list and is referenced in the initial setup to identify the item (e.g., "Adjusting Tool, Brake Shoe (Item 1, WP 0171 00)").

Column (2) -- Item Name. This column lists the item by noun nomenclature and other descriptive features (e.g., “Gloves, Rubber”).

Column (3) -- National Stock Number. This is the National Stock Number assigned to the item; use it to requisition the item.

Column (4) -- Part Number. Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity) which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements to identify an item or range of items.

Column (5) -- Reference. This column identifies the authorizing supply catalog or RPSTL for items listed in this work package.

TOOL IDENTIFICATION LIST

Table 1. Tool Identification List.

(1) ITEM NUMBER	(2) ITEM NAME	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) REFERENCE
1	ADJUSTING TOOL, BRAKE SHOE	5120-01-154-3029	J34061	SC 4910-95-CL-A74
2	BAR, SOCKET WRENCH HANDLE	5120-00-243-2419	6196147	
3	BAR, WRECKING	5120-00-293-0665	55-130	SC-4910-95-CL-A72
4	DRILL, PORTABLE, ELECTRIC	5130-00-293-1849	W-D-661	SC 4910-95-CL-A74
5	DRILL SET, TWIST	5130-00-293-0983	58	SC 4910-95-CL-A74
6	GLOVES, RUBBER	8415-00-641-4601	ZZ-G-381	SC 4910-95-CL-A74
7	GLOVES, WELDER’S	8415-00-268-7859	A-A-50022	SC 4910-95-CL-A72
8	GOGGLES, INDUSTRIAL	4240-00-052-3776	A-A-1110	SC 4910-95-CL-A74

TOOL IDENTIFICATION LIST - Continued

Table 1. Tool Identification List (Cont).

(1) ITEM NUMBER	(2) ITEM NAME	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) REFERENCE
9	GUN, LUBRICATING	4930-00-253-2478	1142	SC 4910-95-CL-A74
10	HAMMER, HAND, SOFT HEAD	5120-01-065-9037	57-533	SC 5180-90-CL-N05
11	INDICATOR, DIAL	5210-00-277-8840	196A	SC 4940-95-CL-B20
12	INFLATOR-GAGE, TIRE W/HOSE	4910-01-038-2820	11677140-5	
13	IRON, TIRE	5120-00-765-8536	T48A	SC 4910-95-CL-A74
14	JACK, DOLLY TYPE, HYDRAULIC	5120-00-224-7330	D120	SC 4910-95-CL-A74
15	JACK, LEVELING SUPPORT	2590-00-231-7418	108776244	
16	MULTIMETER, DIGITAL	6625-01-139-2512	T00377	SC 4910-95-CL-A74
17	MULTIPLIER, TORQUE WRENCH	5120-00-574-9318	292	SC 4910-95-CL-A72
18	PAN, DRAIN	4910-00-387-9592	450	SC 4910-95-CL-A72
19	PAN, WASH	4940-00-617-9859	5582281	SC 4910-95-CL-A72
20	PLIERS, SLIP JOINT	5120-00-223-7397	11655775-3	
21	PRESS, ARBOR, HAND OPERATED	3444-00-449-7295	A-A-51194	SC 4910-95-A0249
22	PULLER KIT, UNIVERSAL	5180-00-423-1596	PE12	SC 4910-95-A31
23	RESPIRATOR, AIR FILTER	4240-00-022-2524	GGG-M-125/6	SC 4910-95-CL-A72
24	SCREWDRIVER, CROSSTIP	5120-00-234-8912	11655777-9	
25	SCREWDRIVER, CROSSTIP	5120-00-234-8913	11655777-12	
26	SCREWDRIVER, FLATTIP	5120-00-237-6985	11655777-10	
27	SLING, CARGO	1670-00-823-5043	63J426-13	CTA 50-970
28	SOCKET SET, IMPACT	5130-01-117-0466	4151MMY	
29	SOCKET SET, SOCKET WRENCH	5120-01-073-2821	217FMY	SC 4910-95-CL-A74

TOOL IDENTIFICATION LIST - Continued

Table 1. Tool Identification List (Cont).

(1) ITEM NUMBER	(2) ITEM NAME	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) REFERENCE
30	SOCKET SET, SOCKET WRENCH	5120-01-115-1149	315SIMMY	SC 4910-95-CL-A74
31	SOCKET SET, SOCKET WRENCH	5120-01-117-3876	221FSMY	SC 4910-95-CL-A72
32	SOCKET, SOCKET WRENCH	5120-01-090-9319	ANS 1914A	
33	SOCKET, SOCKET WRENCH	5120-01-112-0581	SIMM190	SC 4910-95-CL-A74
34	SOCKET, SOCKET WRENCH	5130-01-112-0558	B107.2	SC 4910-95-A31
35	TOOL KIT, BLIND RIVET	5180-01-201-4978	D-100-MIL-1	SC 4910-95-CL-A72
36	TOOL KIT, ELECTRICAL CONTACT REPAIR	5180-00-876-9336	7550526	SC 4910-95-CL-A72
37	TOOL KIT, GENERAL MECHANIC'S	5180-00-177-7033	SC 5180-90-CL-N26	SC 5180-90-CL-N26
38	TRESTLE, MOTOR VEHICLE MAINTENANCE	4910-00-251-8013	306	SC 4910-95-CL-A72
39	VISE, MACHINIST'S	5120-00-293-1439	504M2	SC 4910-95-CL-A74
40	WRENCH, ADJUSTABLE, 8 IN.	5120-00-240-5328	11655778-3	
41	WRENCH, ADJUSTABLE, 12 IN.	5120-00-264-3796	11655778-5	
42	WRENCH, IMPACT, ELECTRIC	5130-00-221-0607	WW650	
43	WRENCH, PIPE	5120-00-277-1485	5357A123	SC 4910-95-CL-A74
44	WRENCH, PLIER	5120-00-277-4244	GGG-W-00649 TY1CL1STA	
45	WRENCH, PLIER	5120-00-494-1911	GGG-W-00649 TY1CL2STB	
46	WRENCH SET, SOCKET	5120-00-204-1999	GGG-W-641	SC 4910-95-CL-A74

TOOL IDENTIFICATION LIST - Continued

Table 1. Tool Identification List (Cont).

(1) ITEM NUMBER	(2) ITEM NAME	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) REFERENCE
47	WRENCH SET, SOCKET	5120-00-322-6231	51200017510	SC 4910-95-CL-A74
48	WRENCH, SOCKET	5120-00-316-9217	11677000-3	
49	WRENCH, TORQUE, 0-175 lb-ft	5120-00-640-6364	1753LDF	SC 4910-95-CL-A74
50	WRENCH, TORQUE, 50-250 lb-ft	5120-01-042-0982	B107.14M	SC 4910-95-CL-A74
51	WRENCH, TORQUE, 0-300 lb-in.	5120-00-853-4538	F2001	SC 4910-95-CL-A72
52	WRENCH, TORQUE, 0-600 lb-ft	5120-00-221-7983	SW130-301	SC 4910-95-CL-A72
53	WRENCH, TORQUE, 0-75 lb-in.	5120-01-112-9532	TQSC6A	SC-4910-95-CL-A72

ILLUSTRATED LIST OF MANUFACTURED ITEMS 0179 00

INTRODUCTION

Scope

This work package includes complete instructions for making items authorized to be manufactured or fabricated at Field Level maintenance.

How to Use the Index of Manufactured Items

A part number index in alphanumeric order is provided for cross-referencing the part number of the item to be manufactured to the page which covers fabrication criteria.

Explanation of the Illustrations of Manufactured Items

All instructions needed by maintenance personnel to manufacture the item are included on the illustrations. Refer to the RPSTL for further information on all manufactured items. All bulk materials needed for manufacture of an item are listed by part number or specification number in a tabular list on the illustration.

INDEX OF MANUFACTURED ITEMS

Item Name/Part Number	Item Description	Figure No.	Page No.
Brake Adjusting Tool Support		1	0179 00-2
Brake Plunger Seal Driver		2	0179 00-3
Wheel Bearing Shim Tool Rest			0179 00-4
12420062-007	Pneumatic Tube		0179 00-4
12420062-011	Pneumatic Tube		0179 00-4
12420062-014	Pneumatic Tube		0179 00-4
12420062-016	Pneumatic Tube		0179 00-4
12420064-006	Pneumatic Tube		0179 00-4
12420064-007	Pneumatic Tube		0179 00-4
12443181-001	Pneumatic Tube		0179 00-4
12443181-002	Pneumatic Tube		0179 00-4
12443181-003	Pneumatic Tube		0179 00-5
12443181-004	Pneumatic Tube		0179 00-5
12420924-001	Non-Metallic Electrical Cable Conduit		0179 00-5
12420924-004	Non-Metallic Electrical Cable Conduit		0179 00-5
12420924-005	Non-Metallic Electrical Cable Conduit		0179 00-5
12443028	Cable Assembly	3	0179 00-5
12418763	Lanyard Assembly	4	0179 00-7
3256-K-1051	Wheel Hub Grease Seal Driver	5	0179 00-8

ILLUSTRATED LIST OF MANUFACTURED ITEMS - Continued 0179 00

MANUFACTURED ITEMS

Brake Adjusting Tool Support

Make the brake adjusting tool support from 0.134 in. (.34 cm) flat steel stock according to the following instructions. Refer to the parts list and **Figure 1. Brake Adjusting Tool Support** for details.

Item	Part Number	Material Description	Size (L x W x THKNS)	Qty
1	N/A	Steel, ASTM A569 Sheet, Hot Rolled	6.0 in. (15.24 cm) x 6.0 in. (15.24 cm) x 0.134 in. (.34 cm)	2

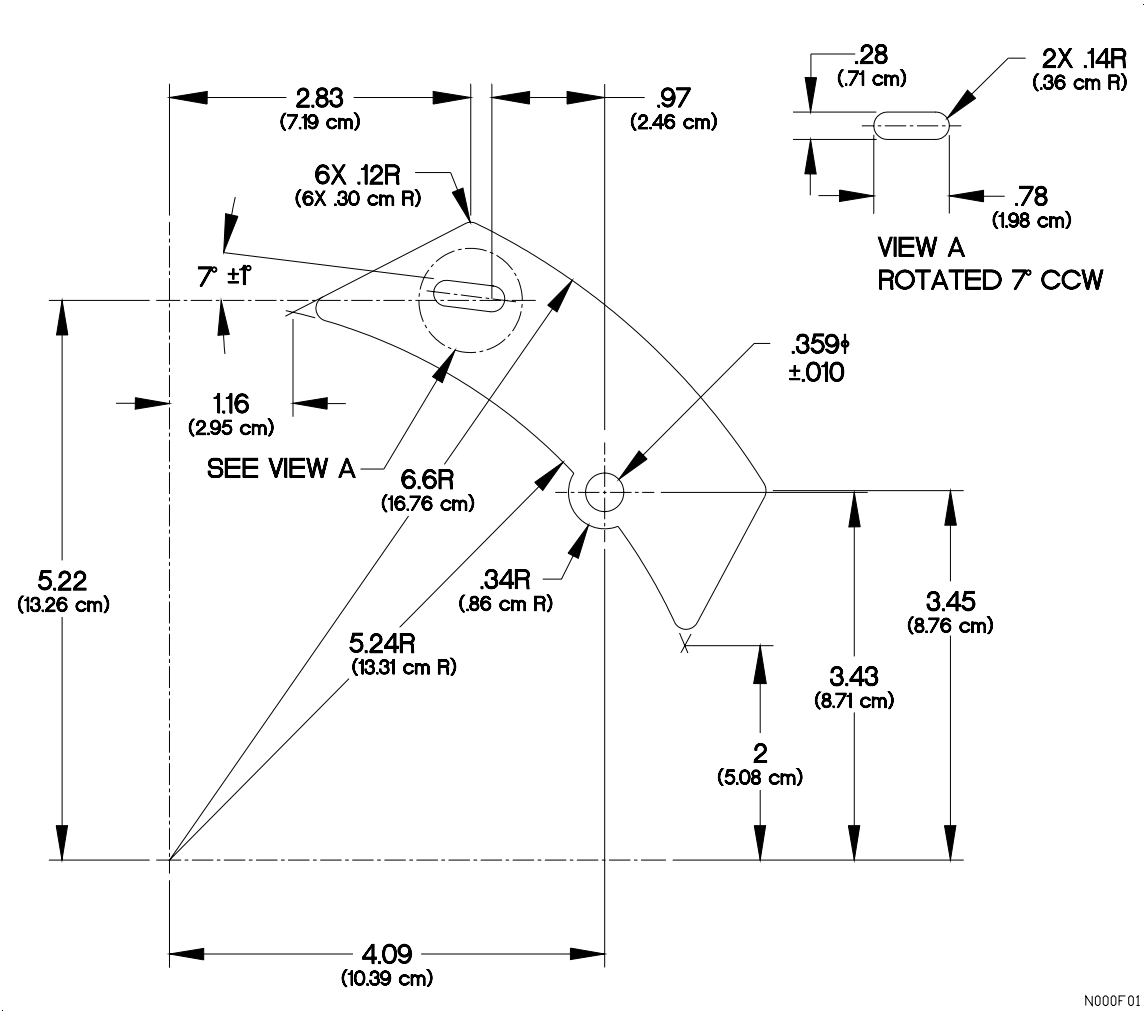


Figure 1. Brake Adjusting Tool Support

a. All dimensions are in inches (centimeters).
b. Cut steel sheet as shown by dimensions on **Figure 1. Brake Adjusting Tool Support.**
c. De-burr and remove sharp edges.

MANUFACTURED ITEMS - Continued

Brake Plunger Seal Driver

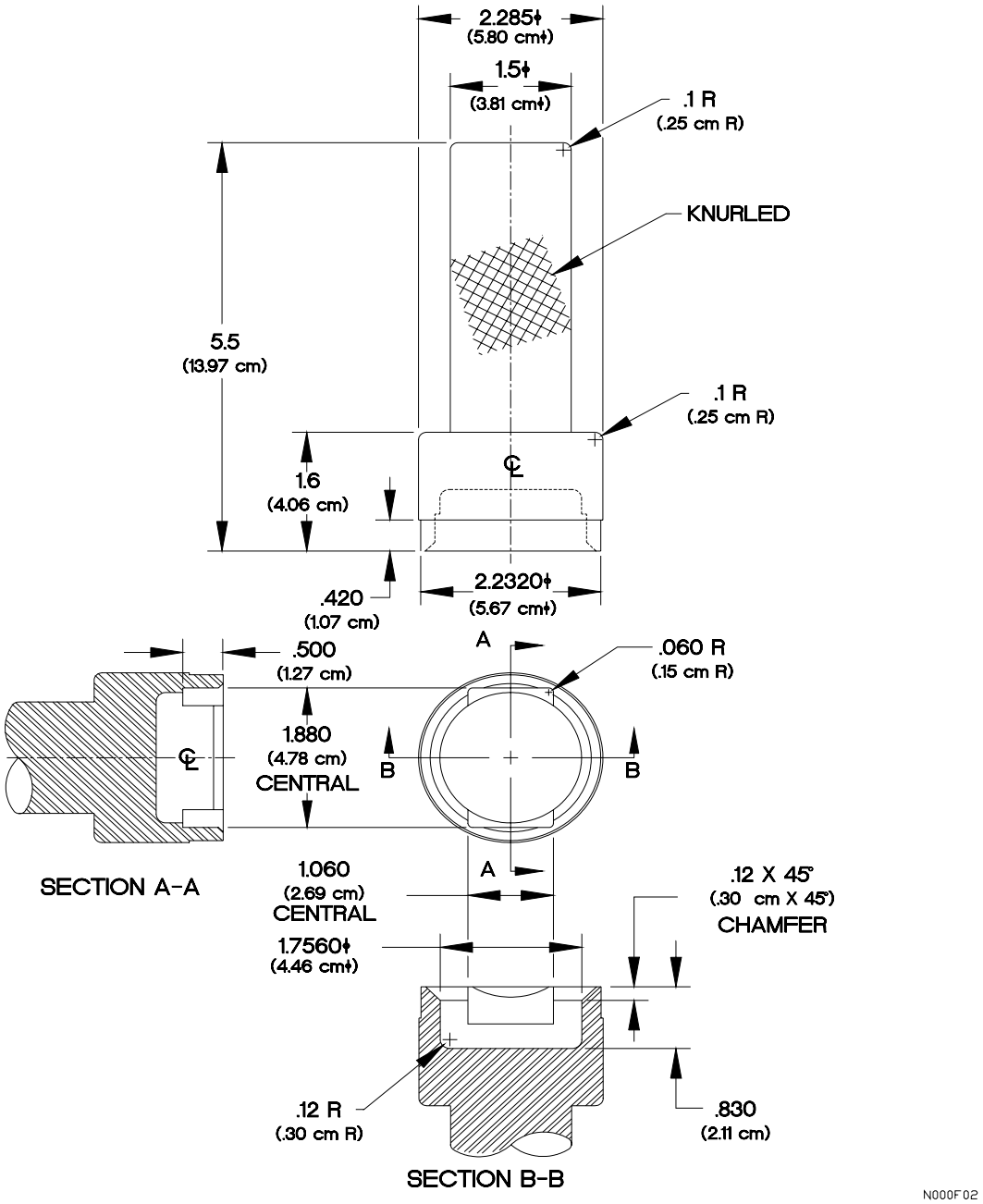


Figure 2. Brake Plunger Seal Driver

a. All dimensions are in inches (centimeters).
b. Manufacture from round steel stock.
c. De-burr and remove sharp edges.

MANUFACTURED ITEMS - Continued

Wheel Bearing Shim Tool Rest

Fabricate the wheel bearing shim tool rest according to the following steps. Refer to the following parts list for materials.

Part Number	National Stock Number	Description
QQ-T-570	9510-00-866-1037	Bar, Metal

a. Dimensions are in inches (centimeters)
b. Cut metal bar to 9.0 inches (22.86 cm) long.
c. De-burr and remove sharp edges from ends of metal bar.

Pneumatic Tubes Fabrication

Cut pneumatic tubes from bulk tubing stock listed in **Table 1. Pneumatic Tube Lengths**. Use a fine-toothed hacksaw or suitable cutting device and cut tubing to required length.

Table 1. Pneumatic Tube Lengths.

Tube Part Number	Bulk Tubing Part Number	Cut Length	
		inches	cm
12420062-007	IAW MIL- H -3992, Type 1, Class 1 (19207)	41	104.14
12420062-009	IAW MIL- H -3992, Type 1, Class 1 (19207)	61	154.94
12420062-011	IAW MIL- H -3992, Type 1, Class 1 (19207)	100	254
12420062-013	IAW MIL- H -3992, Type 1, Class 1 (19207)	120	304.8
12420062-014	IAW MIL- H -3992, Type 1, Class 1 (19207)	58	147.32
12420062-016	IAW MIL- H -3992, Type 1, Class 1 (19207)	128	325.12
12420064-006	IAW MIL- H -3992, Type 1, Class 1 (19207)	13.4	33.97
12420064-007	IAW MIL- H -3992, Type 1, Class 1 (19207)	14.9	37.78
12443181-001	J517-100R1A (19207)	19.5	49.53
12443181-002	J517-100R1A (19207)	54.5	138.4

MANUFACTURED ITEMS - Continued

Table 1. Pneumatic Tube Lengths - Continued.

Tube Part Number	Bulk Tubing Part Number	Cut Length	
		inches	cm
12443181-003	J517-100R1A (19207)	49.5	125.7
12443181-004	J517-100R1A (19207)	65	165.1

Non-Metallic Electrical Cable Conduit Fabrication

Make conduit to cover electrical cables described on 1241638 from bulk tube stock listed in **Table 2. Non-Metallic Electrical Cable Conduit Lengths**. Use a fine-toothed hacksaw or suitable cutting device and cut hose/tube to required length.

Table 2. Non-Metallic Electrical Cable Conduit Lengths.

Tube Part Number	Bulk Tubing Part Number	Cut Length	
		inches	cm
12420924-001	IAW ASTM D4066, PA200 BLK (19207)	120	304.8
12420924-004	IAW ASTM D4066, PA200 BLK (19207)	120	304.8
12420924-005	IAW ASTM D4066, PA200 BLK (19207)	120	304.8

Cable Assembly P/N 12443028 Fabrication

Make the following cable assembly from bulk cable material and tab material and assemble according to **Figure 3. Cable Assembly**. The following parts list identifies part numbers and lengths of cut pieces.

Item	Part Number	Material Description	Cut Length	Qty
1	M83420/2-007	0.188 in. (4.8 cm) Diameter Wire Rope	71.7 - 72.5 in. (182 - 184 cm)	1
2	MS20667-6	Terminal, Wire Rope		1

MANUFACTURED ITEMS - Continued

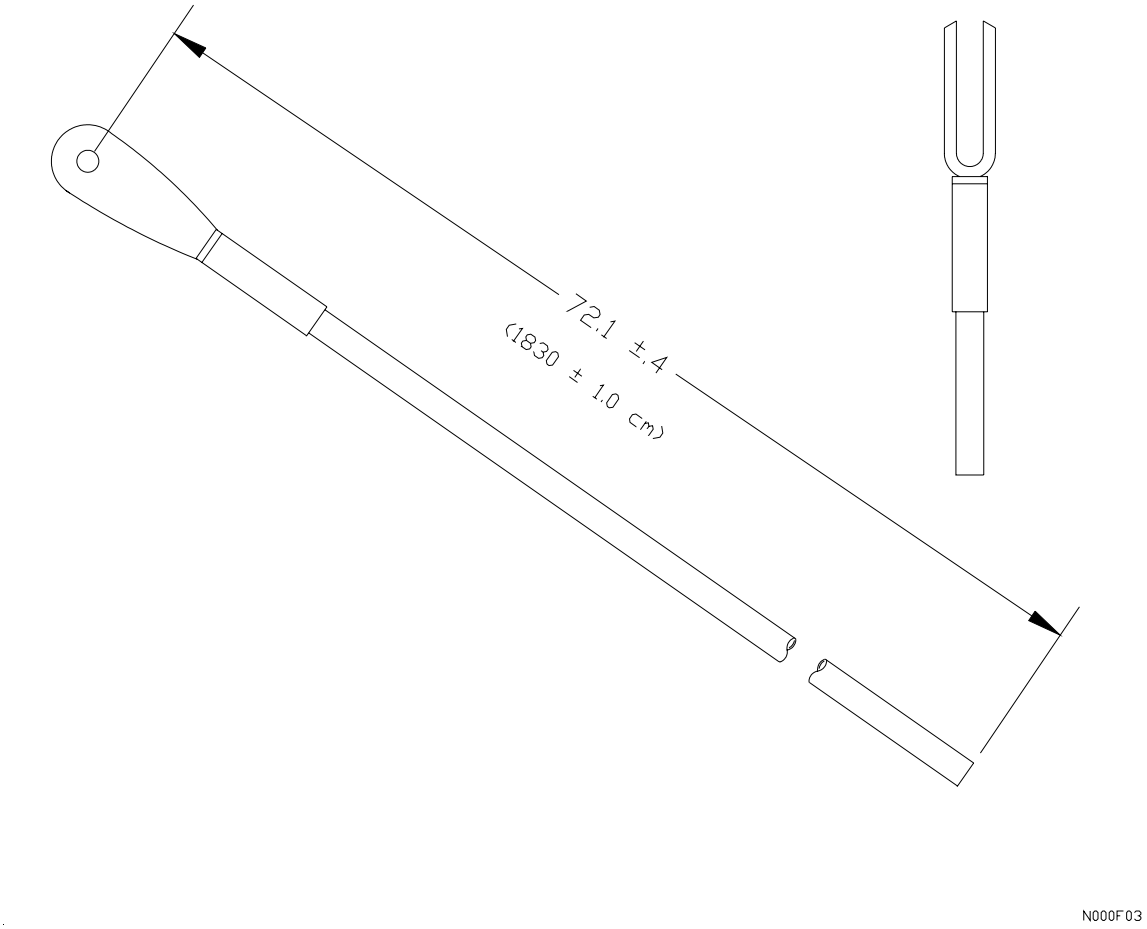


Figure 3. Cable Assembly

a. All dimensions are in inches (centimeters).
b. Make from bulk cable and flat steel material as identified in parts list.
c. Drill two 0.19 in. (.48 cm) diameter holes through tab material as shown on **Figure 3. Cable Assembly**.
d. De-burr and remove sharp edges.
e. Bend tab as shown on **Figure 3. Cable Assembly**.
f. Form loops on cable ends and insert sleeve material over cable on one end of cable and over cable and through sleeve at other end of cable as shown in **Figure 3. Cable Assembly**.
g. Crimp two sleeves over cable ends.

ILLUSTRATED LIST OF MANUFACTURED ITEMS - Continued 0179 00

MANUFACTURED ITEMS - Continued

Lanyard Assembly P/N 12418763 Fabrication

Make the following lanyard assembly from bulk cable material, sleeves, and tab material and assemble according to **Figure 4. Lanyard Assembly**. The following parts list identifies part numbers and lengths of cut pieces.

Item	Part Number	Material Description	Size (L x W x H, except as noted)	Qty
1	MIL-W-83420 Type 1, Comp B	1/16 in. stranded wire cable	4 in. (10.2 cm) long	1
2	MS51844-22	Sleeve, Wire Rope	.44 in. (1.12 cm) X .18 in. (.46 cm) X .27 in. (.69 cm)	2
3	N/A	Tab, Stainless Steel ASTM A617	1.25 in. (3.18 cm) X .37 in. (.94 cm) X .06 in. (.15 cm)	1

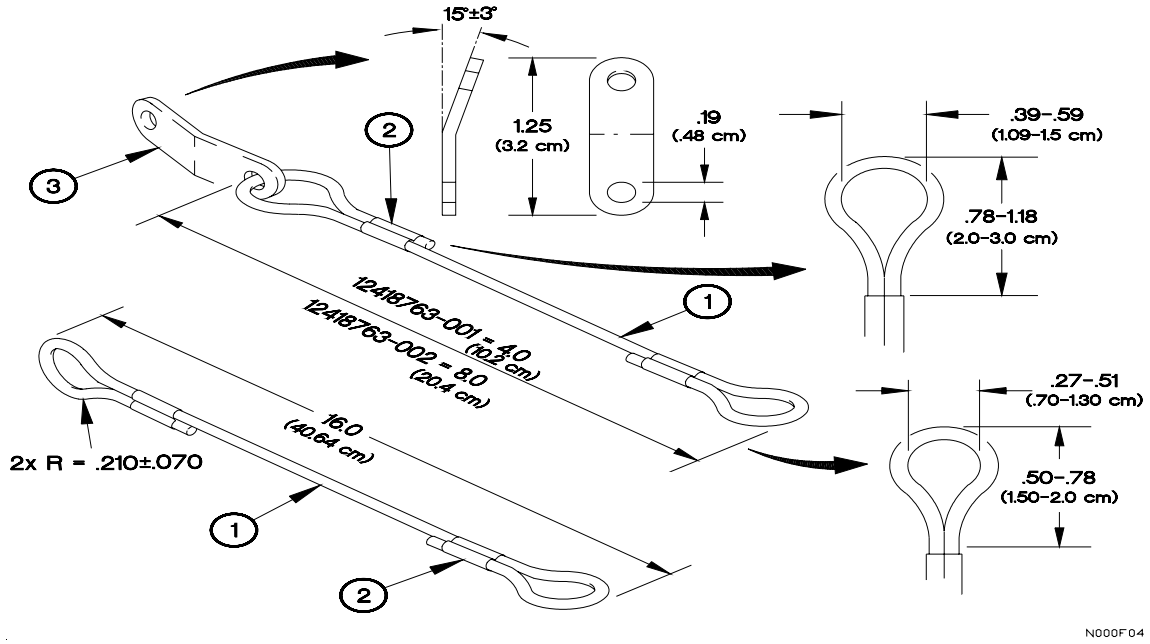


Figure 4. Lanyard Assembly

a. All dimensions are in inches (centimeters).
b. Make from bulk cable and flat steel material as identified in parts list.
c. Drill two 0.19 in. (.48 cm) diameter holes through tab material as shown on **Figure 4. Lanyard Assembly**.
d. De-burr and remove sharp edges.
e. Bend tab as shown on **Figure 4. Lanyard Assembly**.
f. Form loops on cable ends and insert sleeve material over cable on one end of cable and over cable and through sleeve at other end of cable as shown in **Figure 4. Lanyard Assembly**.
g. Crimp two sleeves over cable ends.

MANUFACTURED ITEMS - Continued

WHEEL HUB GREASE SEAL DRIVER 3256-K-1051

NOTES ON USE OF DRIVER

1) SEAL END OF DRIVER TO BE CLEAN OF DEBRIS, DIRT, NICKS AND BURRS
2) DO NOT USE A METAL HAMMER ON DRIVER
   A RUBBER, PLASTIC, WOOD OR SOME OTHER DEAD BLOW TYPE MALLET
   IS TO BE USED
3) SLIGHTLY GREASE SEAL END OF DRIVER PRIOR TO INSTALLING SEAL

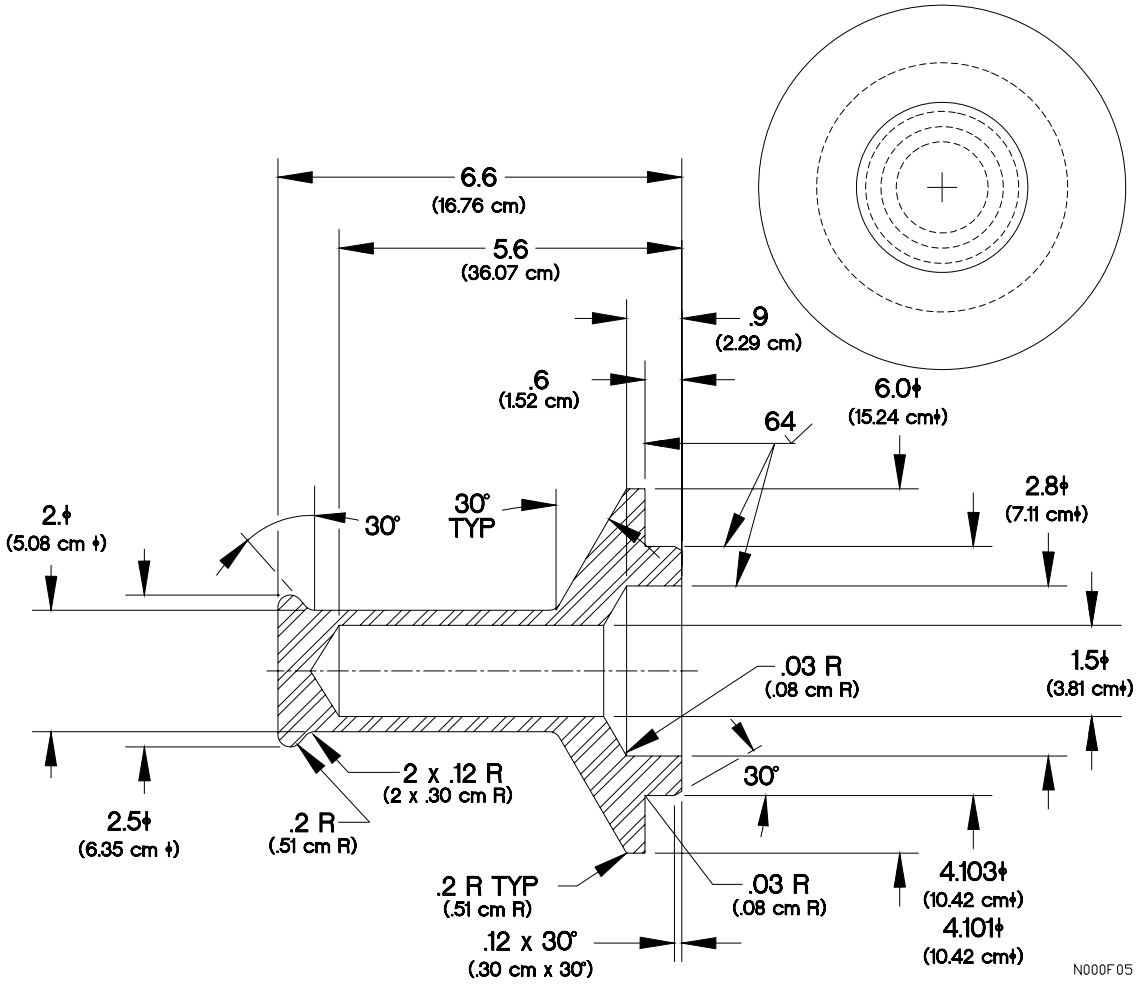


Figure 5. Wheel Hub Grease Seal Driver

a. All dimensions are in inches (centimeters).
b. Manufacture from round steel stock.
c. De-burr and remove sharp edges.

TORQUE LIMITS 0180 00

SCOPE

This work package provides general torque limits for screws and nuts used on the trailer. Special torque limits are shown in the maintenance procedures for applicable components. Use the general torque limit given in this work package when specific torque limits are not given in the maintenance procedure. These general torque limits can not be applied to screws that retain rubber components. The rubber components will be damaged before the torque limit is reached. If a special torque limit is not given in the maintenance instructions for a fastener which retains a rubber component, tighten the screw or nut until it touches metal, then tighten one more turn. Whenever possible, the tightening force (torque) should be applied to the nut side of the fastener group.

TORQUE LIMITS

Refer to Table 1. Dry Torque Limits for SAE and ANSI Fasteners for torque limits on standard (SAE and ANSI) screws and free spinning nuts. Refer to Table 2. Dry Torque Limits for SAE and ANSI Prevailing Torque Nuts for torque limits on standard (SAE and ANSI) self-locking nuts. Refer to Table 3. Dry Torque Limits for Metric Screws and Free Spinning Nuts for torque limits on metric screws and free spinning nuts. Refer to Table 4. Dry Torque Limits for Metric Prevailing Torque Nuts for torque limits on metric self-locking nuts. Refer to Table 5. Wet Torque Limits for SAE and ANSI Screws and Free Spinning Nuts for torque limits on standard (SAE and ANSI) screws and free spinning nuts.

USE OF TORQUE TABLES

1. Measure the diameter of the screw to be installed.

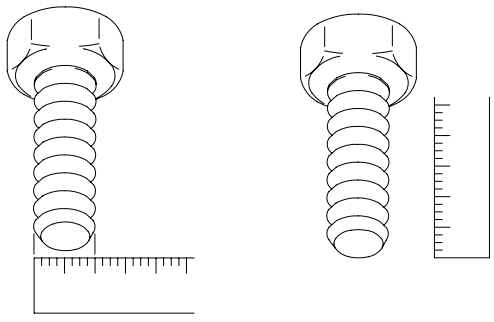
2. Count the number of threads per inch.

3. Under the heading DIAMETER look down the column until the diameter of the screw is found. (There are usually two lines beginning with the same diameter.)

4. Under the heading THREADS PER INCH (SAE and ANSI) or THREAD PITCH (metric), find the number of threads per inch that matches the number counted in step (2).

5. To find the grade of the screw, match the markings on the head to the correct picture under CAPSCREW HEAD MARKINGS on the torque table.

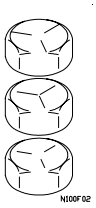
6. Look down the column under the picture found in step (5) until the torque limit (lb-ft or N·m) for the diameter and threads per inch (or thread pitch, in the case of metric fasteners) of the screw are located.



N100F01

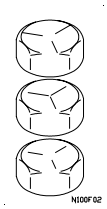
TORQUE LIMITS - Continued 0180 00

Table 1. Dry Torque Limits for SAE and ANSI Screws and Free Spinning Nuts.

		Material Grade Markings					
 NOTE Manufacturer's marks may vary. These are all SAE Grade 5.		 SAE Grade 2		 SAE Grade 5		 SAE Grade 8	
Diameter	Threads per inch	Torque					
inch		lb-ft	N·m	lb-ft	N·m	lb-ft	N·m
1/4	20	3-5	5-7	5-7	8-10	8-10	10-14
1/4	28	4-6	5-7	6-8	9-11	8-12	12-16
1/4	32	4-6	5-7	7-9	9-11	9-13	12-16
5/16	18	7-9	9-13	11-15	15-21	15-21	21-29
5/16	24	8-10	11-15	12-16	17-23	17-23	24-32
5/16	32	9-11	12-16	14-18	18-24	19-25	27-34
3/8	16	13-17	17-23	20-26	27-35	28-38	38-50
3/8	24	15-19	20-26	22-30	31-41	32-42	43-57
3/8	32	15-21	21-27	24-32	33-43	33-45	55-61
7/16	14	20-28	28-38	32-42	43-57	44-60	61-81
7/16	20	23-31	31-41	35-47	48-64	49-67	68-90
7/16	28	25-33	33-45	37-51	51-69	54-72	73-97
1/2	13	32-42	43-57	49-65	66-88	68-92	93-123
1/2	20	35-47	48-64	55-73	74-98	77-103	105-139
1/2	28	38-50	51-67	58-78	79-105	82-110	111-149
9/16	12	55-61	62-82	70-94	95-127	98-132	134-178
9/16	18	50-68	69-91	78-104	105-141	109-147	149-199

TORQUE LIMITS - Continued 0180 00

Table 1. Dry Torque Limits for SAE and ANSI Screws and Free Spinning Nuts (Cont).

		Material Grade Markings					
 NOTE Manufacturer's marks may vary. These are all SAE Grade 5.		 SAE Grade 2		 SAE Grade 5		 SAE Grade 8	
Diameter	Threads per inch	Torque					
inch		lb-ft	N·m	lb-ft	N·m	lb-ft	N·m
9/16	24	53-71	72-96	82-110	111-149	115-155	158-210
5/8	11	62-84	85-113	95-129	131-175	136-182	184-246
5/8	18	70-94	96-128	108-146	148-198	154-206	209-279
5/8	24	73-99	100-134	114-154	155-207	161-217	219-293
11/16	24	99-133	135-181	153-207	209-279	217-291	296-394
3/4	10	110-148	150-200	171-229	232-310	240-324	328-438
3/4	16	123-165	168-224	190-256	259-345	269-361	366-488
3/4	20	127-171	174-232	197-265	268-358	278-374	379-505
13/16	20			252-340	345-459	357-481	487-649
7/8	9			275-369	374-498	387-521	528-704
7/8	14			303-407	413-551	427-575	583-777
7/8	20			319-429	435-579	450-606	614-818
15/16	20			395-531	538-718	558-750	760-1014
1	8			411-553	560-748	581-781	792-1056
1	12			450-606	614-818	636-856	867-1155

TORQUE LIMITS - Continued 0180 00

Table 1. Dry Torque Limits for SAE and ANSI Screws and Free Spinning Nuts (Cont).

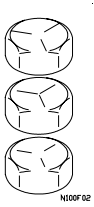
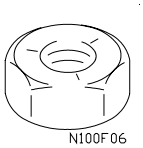
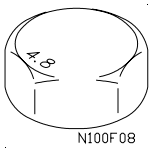
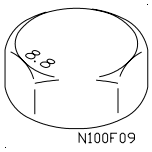
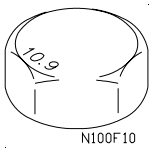
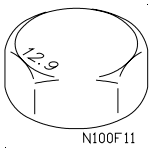
		Material Grade Markings					
 NOTE Manufacturer's marks may vary. These are all SAE Grade 5.		 SAE Grade 2		 SAE Grade 5		 SAE Grade 8	
Diameter	Threads per inch	Torque					
inch		lb-ft	N·m	lb-ft	N·m	lb-ft	N·m
1	20			483-649	658-878	681-917	929-1239
1-1/16	18			576-776	782-1044	813-1095	1109-1479
1-1/8	7			507-683	693-923	824-1108	1123-1497
1-1/8	12			570-766	776-1034	923-1241	1258-1678
1-1/8	18			600-806	817-1089	971-1307	1324-1766
1-3/16	18			709-953	966-1288	1149-1545	1566-2088
1-1/4	7			716-964	976-1302	1161-1563	1584-2112
1-1/4	12			793-1067	1081-1441	1286-1730	1754-2338
1-1/4	18			831-1117	1132-1510	1346-1812	1835-2447
1-5/16	18			965-1299	1316-1754	1565-2105	2134-2846
1-3/8	6			939-1263	1281-1707	1523-2049	2076-2768

Table 2. Dry Torque Limits for SAE and ANSI Prevailing Torque Nuts.

		Material Grade Markings			
		 N100F06 SAE Grade 5		 N100F07 SAE Grade 8	
Hole Diameter	Threads per inch	Torque			
inch		lb-ft	N·m	lb-ft	N·m
1/4	20	10-12	14-16	15-17	20-24
1/4	28	12-14	16-18	14-18	21-25
5/16	18	20-24	27-33	26-32	36-44
5/16	24	22-26	30-36	29-35	40-48
3/8	16	35-41	47-55	48-58	65-77
3/8	24	38-46	53-63	53-63	72-86
7/16	14	55-65	74-88	75-91	103-123
7/16	20	60-70	81-97	80-98	110-132
1/2	13	86-102	116-138	113-137	154-184
1/2	20	92-110	125-149	127-153	177-207
9/16	12	120-144	162-194	168-202	229-273
9/16	18	135-161	183-219	179-217	244-294
5/8	11	165-199	226-270	226-272	306-368
5/8	18	181-219	246-296	244-296	331-401
3/4	10	296-354	402-480	395-479	538-648
3/4	16	310-376	422-508	424-516	576-698
7/8	9	460-554	625-749	612-746	833-1009
7/8	14	503-607	684-822	652-800	888-1082
1	8	686-828	933-1121	941-1141	1280-1544

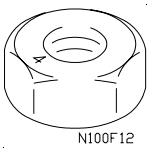
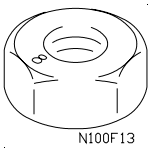
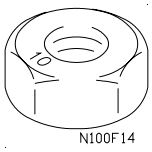
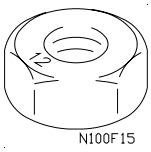
TORQUE LIMITS - Continued 0180 00

Table 3. Dry Torque Limits for Metric Screws and Free Spinning Nuts.

		Material Grade Markings							
		 Metric Grade 4.8		 Metric Grade 8.8		 Metric Grade 10.9		 Metric Grade 12.9	
Diameter	Thread Pitch	Torque							
mm		lb-ft	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft	N·m
6	1	3	4-5	5-7	7-9	7-9	10-13	8-11	11-15
8	1.25	7-9	9-11	13-17	17-23	17-23	23-31	21-27	27-37
8	1	7-9	9-13	14-18	18-24	19-25	25-33	21-29	29-39
10	1.5	13-17	17-23	25-33	33-45	34-46	46-62	40-54	54-72
10	1.25	14-18	18-24	26-34	35-47	36-48	49-65	42-56	57-77
10	0.75	15-19	21-27	29-39	39-53	40-54	54-72	47-63	63-85
12	1.75	22-30	30-40	43-57	58-78	60-80	81-107	69-93	94-126
12	1.5	23-31	32-42	46-60	61-81	63-83	85-113	73-97	99-131
12	1.25	24-32	33-45	47-63	65-85	65-87	88-118	76-102	104-138
12	1	26-34	34-46	49-65	67-89	68-90	93-123	80-106	108-144
14	2	36-48	48-74	69-91	93-125	95-127	129-173	112-148	151-201
14	1.5	39-51	52-70	75-99	99-135	103-137	140-186	120-160	163-217
15	1	51-69	69-93	100-132	135-179	137-183	187-249	160-214	218-290
16	2	55-73	75-99	107-143	145-193	148-198	201-267	173-231	235-313
16	1.5	59-79	80-106	114-152	155-207	158-210	214-286	184-246	250-334
18	1.5			166-222	225-301	230-306	311-415	268-358	364-486
20	2.5			209-279	283-377	289-385	392-522	338-450	458-610
20	1.5			232-308	315-419	321-427	435-579	375-499	508-678
20	1			244-324	330-440	337-449	457-609	394-524	534-712
22	2.5			285-379	387-515	394-524	534-712	461-613	624-832
22	1.5			313-417	424-566	432-576	586-782	664-884	900-1200
24	3			361-481	489-653	499-665	677-903	584-778	791-1055
24	2			394-524	534-712	545-725	738-984	725-965	982-1310
25	1.5			467-621	633-843	645-859	875-1167	754-1004	1023-1363

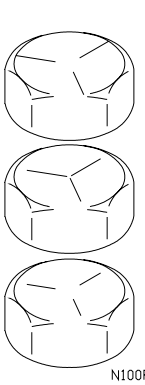
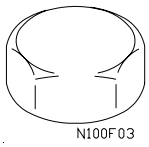
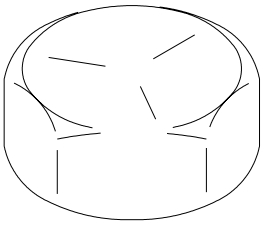
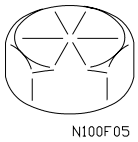
TORQUE LIMITS - Continued 0180 00

Table 4. Dry Torque Limits for Metric Prevailing Torque Nuts.

		Material Grade Markings							
		 Metric Grade 4.8		 Metric Grade 8.8		 Metric Grade 10.9		 Metric Grade 12.9	
Diameter	Thread Pitch	Torque							
mm		lb-ft	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft	N·m
6	1	5-6	7-8	7-9	10-12	10-12	14-17	11-14	15-19
8	1.25	12-14	16-18	18-22	24-30	24-30	32-40	27-33	36-46
8	1	12-14	16-20	19-23	25-31	25-31	34-42	28-36	38-48
10	1.5	21-25	28-34	33-41	44-56	44-56	60-76	50-64	68-86
10	1.25	21-25	29-35	34-42	46-58	46-58	63-79	53-67	71-91
10	0.75	23-27	31-37	37-47	49-63	50-64	68-86	57-73	77-99
12	1.75	33-41	46-56	55-69	74-94	75-95	102-128	85-109	115-147
12	1.5	35-43	47-57	56-72	77-97	78-98	106-134	89-113	120-152
12	1.25	36-44	48-60	58-74	79-101	81-103	109-139	91-117	125-159
12	1	37-45	50-62	61-77	82-104	84-106	114-144	95-121	129-165
14	2	53-65	72-88	87-109	117-149	118-150	160-204	134-172	182-232
14	1.5	57-69	76-94	92-116	125-159	126-160	171-217	143-183	194-248
16	2	79-97	107-131	130-166	177-225	178-228	243-309	204-262	277-355
16	1.5	82-102	112-138	138-176	187-239	189-241	256-328	215-277	292-376
18	1.5			197-253	267-343	271-347	367-471	309-399	420-542
20	2.5			248-318	337-431	342-438	464-594	391-503	530-682
20	1.5			271-349	369-473	374-480	507-651	428-552	580-750
20	1			283-365	384-494	390-502	529-681	447-577	606-784
22	2.5			335-429	455-583	460-592	624-802	526-680	714-922
22	1.5			363-467	492-634	499-643	676-872	730-950	990-1290
24	3			420-540	569-733	577-743	783-1009	662-856	897-1161
24	2			453-583	614-792	622-804	844-1090	803-1043	1088-1416

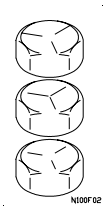
TORQUE LIMITS - Continued 0180 00

Table 5. Wet Torque Limits for SAE and ANSI Screws and Free Spinning Nuts.

		Material Grade Markings					
 N100F02 **NOTE Manufacturer's marks may vary. These are all SAE Grade 5.**		 N100F03 **SAE Grade 2**		 N100F04 **SAE Grade 5**		 N100F05 **SAE Grade 8**	
Diameter	**Threads per inch**	**Torque**					
inch		**lb-ft**	**N·m**	**lb-ft**	**N·m**	**lb-ft**	**N·m**
1/4	20	4	6	6	8	9	12
1/4	28	5	7	7	9	10	14
5/16	18	8	11	13	18	18	24
5/16	24	9	12	14	19	20	27
3/8	16	15	20	23	31	35	47
3/8	24	17	23	25	34	35	47
7/16	14	24	33	35	47	55	75
7/16	20	25	34	40	54	60	81
1/2	13	35	47	55	75	80	108
1/2	20	40	54	65	88	90	122
9/16	12	50	68	80	108	110	149
9/16	18	55	75	90	122	130	176
5/8	11	70	95	110	149	170	231
5/8	18	80	108	130	176	180	244
3/4	10	120	163	200	271	280	380
3/4	16	140	190	220	298	320	434
7/8	9	110	149	300	407	460	624

TORQUE LIMITS - Continued 0180 00

Table 5. Wet Torque Limits for SAE and ANSI Screws and Free Spinning Nuts (Cont).

		Material Grade Markings					
 NOTE Manufacturer's marks may vary. These are all SAE Grade 5.		 SAE Grade 2		 SAE Grade 5		 SAE Grade 8	
Diameter	Threads per inch	Torque					
inch		lb-ft	N·m	lb-ft	N·m	lb-ft	N·m
7/8	14	120	163	320	434	500	678
1	8	160	217	440	597	680	922
1	12	170	231	480	651	740	1003
1-1/8	7	220	298	600	814	960	1302
1-1/8	12	260	353	660	895	1080	1464
1-1/4	7	320	434	840	1139	1360	1844
1-1/4	12	360	488	920	1248	1500	2034
1-3/8	6	420	570	1100	1492	1780	2414
1-3/8	12	460	624	1260	1709	2040	2766

MANDATORY REPLACEMENT PARTS 0181 00

SCOPE

This work package lists mandatory replacement parts you will need to maintain the FMTV trailers.

EXPLANATION OF COLUMNS

Column (1), Item Number. This number is assigned to each entry in the listing and is referenced in the Initial Setup of the applicable task under Materials/Parts.

Column (2), Nomenclature. Name or identification of the part.

Column (3), Part Number. The manufacturer's part number.

Column (4), National Stock Number. Identifies the stock number of the item to be used for requisitioning purposes.

Table 1. Mandatory Replacement Parts List.

ITEM NO. (1)	NOMENCLATURE (2)	PART NUMBER (3)	NSN (4)
1	LOCKWASHER	MS35338-46	5310-00-637-9541
2	PACKING, PREFORMED	2-232-N674-70	5331-01-030-1825
3	PIN, QUICK RELEASE, DETENT	M45952-1-12-65	5315-00-454-0326
4	CORD, FIBROUS	MILC43256	4020-00-180-6680
5	TERMINAL, LUG	MS20659-105	5940-00-114-1300
6	NUT, SELF-LOCKING	MS21083N08	5310-00-941-6019
7	PIN, COTTER	MS24665-153	5315-00-234-1854
8	LOCKWASHER	MS35333-36	5310-00-193-7577
9	LOCKWASHER	MS35335-30	5310-00-209-0788
10	LOCKWASHER	MS35335-58	5310-00-209-1366
11	LOCKWASHER	MS35338-44	5310-00-582-5965
12	LOCKWASHER	MS35338-46	5310-01-334-4710
13	PACKING PREFORMED	OR420A	5330-01-389-6028

Table 1. Mandatory Replacement Parts List (Cont).

ITEM NO. (1)	NOMENCLATURE (2)	PART NUMBER (3)	NSN (4)
14	NUT, SELF-LOCKING	SL-52-4	5310-01-303-8656
15	SCREW, SELF-TAPPING	XB-STS-008-11	5305-01-479-8463
16	PIN, COTTER	XB-121	5315-01-383-0048
17	PACKING, PREFORMED	11639519-2	5331-00-462-0907
18	LOCKWASHER	1229-S-513-C	5310-01-062-3384
19	NUT, SELF-LOCKING	12301125	5310-01-210-0199
20	BOLT, HEX FLANGE	12414307-001	
21	BOLT, HEX FLANGE	12414307-003	
22	BOLT, HEX FLANGE	12414307-005	
23	BOLT, HEX FLANGE	12414307-079	5306-01-381-9941
24	BOLT, HEX FLANGE	12414307-138	5306-01-372-0786
25	BOLT, HEX FLANGE	12414307-140	5306-01-372-3536
26	BOLT, HEX FLANGE	12414307-141	5306-01-371-7161
27	BOLT, HEX FLANGE	12414307-142	5306-01-372-3537
28	BOLT, HEX FLANGE	12414307-143	5306-01-372-0787
29	BOLT, HEX FLANGE	12414307-146	5306-01-381-9797
30	NUT, SELF-LOCKING	12414308-004	5310-01-369-5703
31	NUT, SELF-LOCKING	12414308-007	5310-01-369-6073
32	NUT, SELF-LOCKING	12414308-008	5310-01-479-5595
33	NUT, SELF-LOCKING	12414308-019	5310-01-369-9522
34	NUT, SELF-LOCKING	12414308-021	5310-01-369-3338
35	NUT, SELF-LOCKING	12414308-025	5310-01-369-6706

Table 1. Mandatory Replacement Parts List (Cont).

ITEM NO. (1)	NOMENCLATURE (2)	PART NUMBER (3)	NSN (4)
36	NUT, SELF-LOCKING	12414308-027	5310-01-369-3339
37	NUT, SELF-LOCKING	12414315-004	5310-01-342-2739
38	NUT, HEX HEAD	12414315-009	5310-01-365-7236
39	NUT, SELF-LOCKING	12414420-004	5310-01-370-0010
40	LOCKWASHER	12414559-009	5310-01-246-1387
41	LOCKWASHER	12414570-011	5315-01-374-3292
42	SEAL, PLAIN ENCASED	S-19750	5330-01-459-8205
43	NUT, SELF-LOCKING	12417270-001	5310-01-434-0078
44	BOLT, U	12418027-002	5306-01-369-3500
45	SEAL, PLAIN ENCASED	12418050	5330-01-372-0298
46	NUT, SELF-LOCKING	12418084	5310-01-371-8419
47	RIVET, BLIND	12418648-001	5320-01-397-3347
48	SEAL, STRIP, ADHESIVE	12421181	5330-01-431-7575
49	BOLT	12421697-001	5306-01-444-7489
50	BOLT	12421697-003	5306-01-444-8354
51	BOLT, U	12443015	5306-01-483-1546
52	LOCKWASHER	1729B262	5310-00-964-7811
53	GASKET, WHEEL END PLATE	2208-H-1126	5330-01-497-8072
54	BOLT, U	12417904-003	5306-01-369-8889
55	BOLT, U	12442826	5306-01-483-1233
56	NUT, SELF-LOCKING	XB-SP0-012-10	5310-01-479-8426
57	PIN, COTTER, SPLIT	AN 381-2-12	5315-00-234-1854
58	BOLT, HEX FLANGE	12414307-147	5306-01-377-0750
59	GASKET	12422660-001	5330-01-494-0236
60	GASKET	12422660-002	5330-01-492-6579
61	NUT, SELF-LOCKING	12414315-002	5310-01-374-1381
62	NUT, SELF-LOCKING	12414315-003	5310-01-374-1382
63	LOCKWASHER	12414570-009	5310-01-493-6781

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Replacement	0064 00
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Control Assembly Bracket Replacement	0094 00
Control Power Harness Replacement	0068 00
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Control Sensor Harness Replacement (MTVT)	0069 00
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Diagnostic Brackets Replacement	0074 00
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ECU Valve Replacement (Vehicle S/N 15,676 and Higher)	0066 00
ECU Valve to ABS Relay Valve Cable Replacement	0071 00
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Changing	0045 00

RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS For use of this form, see AR 25-30; the proponent agency is OAASA	Use Part II *(reverse)* for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).	DATE Date you filled out this form
TO: *(Forward to proponent of publication or form) (Include ZIP Code)*	FROM: *(Activity and location) (Include ZIP Code)* Enter your mailing address	

PART I - ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

PUBLICATION/FORM NUMBER	DATE	TITLE
	Publication Date	Publication Title

ITEM	PAGE	PARA-GRAPH	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON
10	15-33 19-6	15-7 19-2		4		Item 10. Change Illustration. Reason: Text calls out 90-degree fitting. Art shows straight fitting. Text is correct. Step (4) of removal says to disconnect four hydraulic hoses from manifold. The correct number of hydraulic hoses is five. correct the text to reflect the actual quantity of hydraulic hoses. The supporting illustration is correct.

SAMPLE

** Reference to line numbers within the paragraph or subparagraph.*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
Your title	Your telephone number	Your signature

TO: *(Forward direct to addressee listed in publication)*	FROM: *(Activity and location) (Include ZIP Code)*	DATE
	Enter your mailing address	Date you filled out this form.

PART II - REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS

PUBLICATION NUMBER	DATE	TITLE
	Publication Date	Your Title

PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION

PART III - REMARKS *(Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
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SAMPLE

RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS For use of this form, see AR 25-30; the proponent agency is OAASA	Use Part II *(reverse)* for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).	DATE
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PART I - ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

PUBLICATION/FORM NUMBER	DATE	TITLE

ITEM	PAGE	PARA-GRAPH	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON

** Reference to line numbers within the paragraph or subparagraph.*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE

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PUBLICATION NUMBER	DATE	TITLE

PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION

PART III - REMARKS *(Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE

By Order of the Secretary of the Army:

PETER J. SCHOOMAKER
General, United States Army
Chief of Staff

*O*fficial:



SANDRA R. RILEY
Administrative Assistant to the
Secretary of the Army
0502502

By Order of the Secretary of the Air Force:

JOHN P. JUMPER
General, United States Air Force
Chief of Staff

*O*fficial:

GREGORY S. MARTIN
General, United States Air Force
Commander, Air Force Materiel Command

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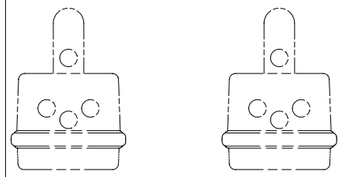
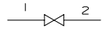
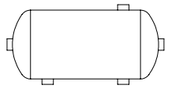
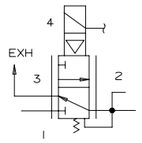
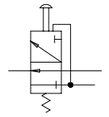
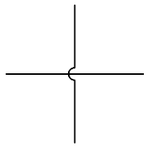
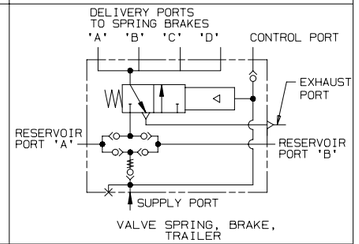
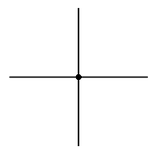
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NOTES:

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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
—	—	PRODUCT BASELINE ERR SSS-R6019	96-01-30	—

LEGEND

 AXLE BRAKE CHAMBER	 HOSE ASSY, GLADHAND	 PNEUMATIC TANK VALVE
 PNEUMATIC TANK ASSY	 MODULATOR CONTROLLER ASSY RELAY VALVE ASSY	 AIR SUPPLY, PUSH/PULL VALVE
SUPPLY AIR LINE	 NO CONNECTION	 VALVE SPRING, BRAKE, TRAILER
DELIVERY AIR LINE	PARK/EMERGENCY AIR LINE	 CONNECTION

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—	—	—	SHEET 2	SHEET 1

REVISION STATUS OF SHEETS

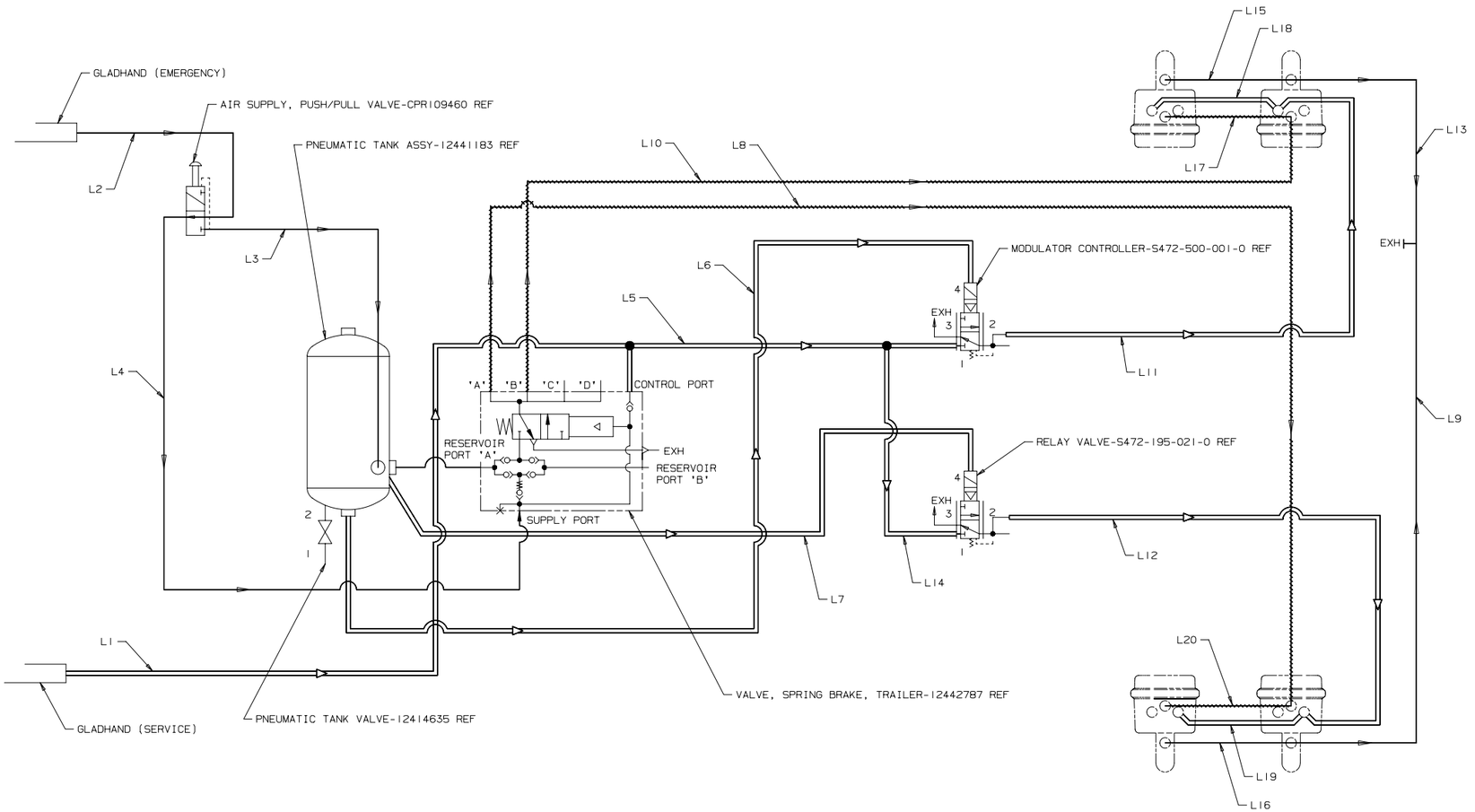
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THIRD ANGLE PROJECTION	12441135 LMTVT; NEXT ASSY USED ON; APPLICATION	QA H.ARGUMEDO; MAT'L ENGR J.FITZGERALD
CONTRACT NUMBER DAAE07-92-C-R087; CONTRACTOR STEWART & STEVENSON SERVICES SEALY TEXAS U.S.A.	DRAWN BY J.MERRY; DATE (YR-MO-DA) 94-07-13; CHECKER F.LEESER; ENGINEER B.BOTELER; DRAWING APPROVAL - GOV'T M.TOMKIW; DESIGN APPROVAL - GOV'T A.AHMAD	DESIGN ACTIVITY: U.S. ARMY, TANK AUTOMOTIVE COMMAND, WARREN, MICHIGAN 48397-5000
SCHEMATIC PNEUMATIC, LMTVT	SIZE E; CAGE CODE 19207; DWG NO 12443044; SCALE NONE; UNIT WT ——; SHEET 1 OF 2	FILE NAME 3044-EM; TACOM-E-METRIC

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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
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YP		THIRD ANGLE PROJECTION	CONTRACTOR STEWART & STEVENSON SERVICES SEALY TEXAS U.S.A.	SCHEMATIC PNEUMATIC, LMTVT	
TS			DRAWN BY: J.MERRY — DATE (YR-MO-DA): 94-07-13		
EL2			CHECKER: F.LEESER — ENGINEER: B.BOTELER		
RA			QA: H.ARGUMEDO — DRAWING APPROVAL - GOV'T: M.TOMKIW	SIZE: E — CAGE CODE: 19207 — DWG NO: 12443044	
BH			MAT'L ENGR: J.FITZGERALD — DESIGN APPROVAL - GOV'T: A.AHMAD	SCALE: NONE — UNIT WT: —— — SHEET: 2	
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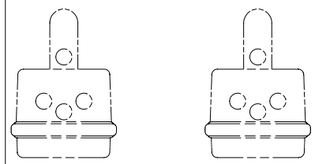
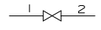
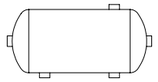
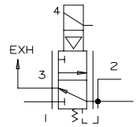
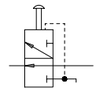
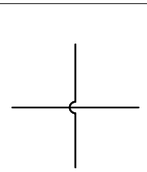
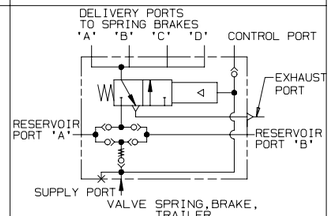
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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
—	—	PRODUCT BASELINE ERR SSS-R6020	96-02-07	—

NOTES:

1. APPLICABLE STANDARDS/SPECIFICATIONS:
   A. DOD-STD-00100D(AR)
   B. ANSI Y14.5M-1982
2. ASTM E380 APPLIES. METHOD B SHALL BE USED IN CONVERTING AND ROUNDING OFF. 1 INCH=25.4mm APPLIES.
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LEGEND

 AXLE BRAKE CHAMBER	 HOSE ASSY, GLADHAND	 PNEUMATIC TANK VALVE
 PNEUMATIC TANK ASSY	 MODULATOR CONTROLLER ASSY RELAY VALVE ASSY	 AIR SUPPLY, PUSH/PULL VALVE
SUPPLY AIR LINE	 NO CONNECTION	 VALVE SPRING,BRAKE, TRAILER
DELIVERY AIR LINE	PARK/EMERGENCY AIR LINE	 CONNECTION

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—	—	—	—	SHEET 2	SHEET 1

REVISION STATUS OF SHEETS

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		THIRD ANGLE PROJECTION	CONTRACTOR: STEWART & STEVENSON SERVICES SEALY TEXAS U.S.A.
			DRAWN BY: J.MERRY; DATE (YR-MO-DA): 94-06-30
			CHECKER: F.LEESER; ENGINEER: B.BOTELER
	12441140 MTVT	QA: H.ARGUMEDO	DRAWING APPROVAL - GOV'T: M.TOMKIW
	NEXT ASSY USED ON	MATL ENGR: J.FITZGERALD	DESIGN APPROVAL - GOV'T: A.AHMAD
	APPLICATION		

DESIGN ACTIVITY: U.S. ARMY, TANK AUTOMOTIVE COMMAND, WARREN, MICHIGAN 48397-5000

PNEUMATIC SCHEMATIC, MTVT

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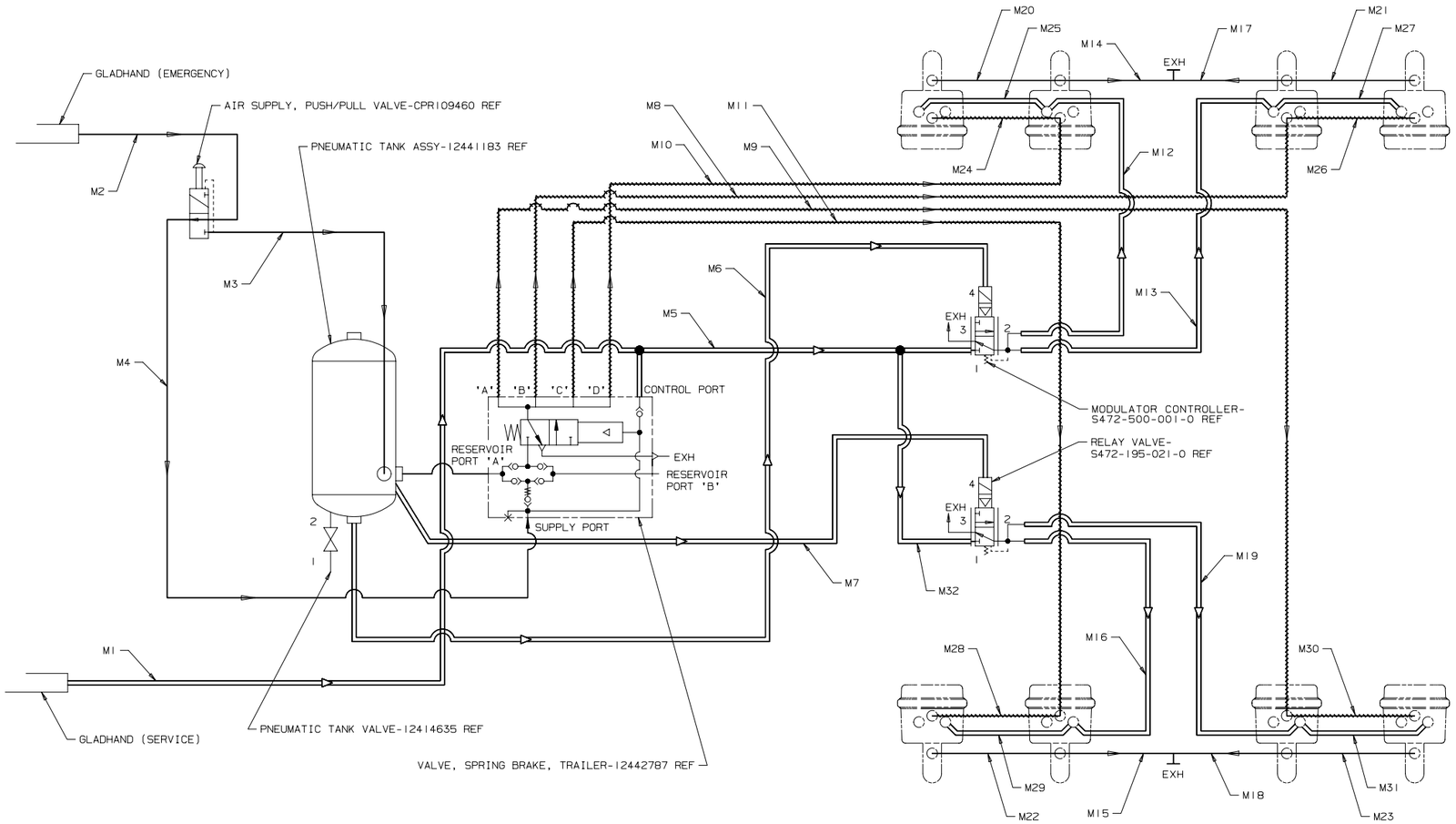
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TACOM-E-METRIC

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TS			CHECKER: F.LEESER — ENGINEER: B.BOTELER	
EL2		QA: H.ARGUMEDO	DRAWING APPROVAL - GOV'T: M.TOMKIW	SIZE: E — CAGE CODE: 19207 — DWG NO: 12443045
RA		MAT'L ENGR: J.FITZGERALD	DESIGN APPROVAL - GOV'T: A.AHMAD	SCALE: NONE — UNIT WT: — — SHEET: 2
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