COMPONENT MAINTENANCE MANUAL WITH ILLUSTRATED PARTS LIST

CONTROL STAND THRUST LEVER ASSEMBLY

PART NUMBER 254A1240–1, –10, –2, –3, –4, –7, –8, –9

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COMPONENT MAINTENANCE MANUAL

Revision No. 13
Jul 01/2009

To: All holders of CONTROL STAND THRUST LEVER ASSEMBLY 76-11-07.

Attached is the current revision to this COMPONENT MAINTENANCE MANUAL

The COMPONENT MAINTENANCE MANUAL is furnished either as a printed manual, on microfilm, or digital products, or any combination of the three. This revision replaces all previous microfilm cartridges or digital products. All microfilm and digital products are reissued with all obsolete data deleted and all updated pages added.

For printed manuals, changes are indicated on the List of Effective Pages (LEP). The pages which are revised will be identified on the LEP by an R (Revised), A (Added), O (Overflow, i.e. changes to the document structure and/or page layout), or D (Deleted). Each page in the LEP is identified by Chapter-Section-Subject number, page number and page date.

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Location of Change	Description of Change
76-11-07	
TESTING AND FAULT ISOLATION	Changed the continuity from between pins 1 and 5 to pins 4 and 5.
	Changed Fig. 102 to show that the wire connects to the common contact.
ILLUSTRATED PARTS LIST	Changed the data in the NUMERICAL INDEX list.
	Changed Usage Code.

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TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
		PRR 38040-21	JUL 01/98

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Revision		Filed	
Number	Date	Date	Initials

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Temporary Revision		Inserted		Removed	
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INTRODUCTION

1. General

A. The instructions in this manual supply the data necessary to do the maintenance functions together with the test, fault isolation, repair, and replacement of the defective parts.

B. This manual is divided into different parts:

(1) Title Page

(2) Transmittal Letter

(3) Highlights

(4) List of Effective Pages

(5) Table of Contents

(6) Temporary Revision & Service Bulletin Record

(7) Record of Revisions

(8) Record of Temporary Revisions

(9) Introduction

(10) Procedures & IPL Sections

C. Components that can be repaired have a different repair number for each specified repair. To find the repair number location of a component, look in the Repair-General procedure at the beginning of the REPAIR section. The Repair-General procedure also has an explanation of the True Position Dimension symbols used.

D. All dimensions, measures, quantities and weights included are in English units. When metric equivalents are given they will be in the parentheses that follow the English units.

E. The introduction to the Illustrated Parts List (IPL) shows how the IPL data is used.

F. Design changes, optional parts, configuration differences and Service Bulletin modifications may cause different part numbers. These part numbers are identified in the IPL with an alphabetical letter which is added to the end of the basic item number. This new item number is referred to as an alpha-variant. Throughout the manual, IPL basic item number references also apply to alpha-variants unless shown differently.

G. The tool reference numbers found in the individual procedures and in the Special Tools, Fixtures, and Equipment section are used to identify if a tool is a standard tool (STD-XXXX), a commercial tool (COM-XXXX), or a Special Tool (SPL-XXXX). This reference number is also used to distinguish between tools with similar names in the same procedure. These reference numbers are for use in the documentation only. They are not to be used for ordering tools.

CONTROL STAND THRUST LEVER - DESCRIPTION AND OPERATION

1. Description

A. The control stand thrust lever assembly is an electromechanical assembly that controls the direction and the amount of engine thrust.

B. The thrust lever assembly is made up of a left-engine and a right-engine thrust lever assembly, which are both co-located on the control stand inside the flight deck.

C. Each lever assembly is made from the basic parts that follow:

(1) A forward thrust select handle

(2) A reverse thrust select handle

(3) A number of internally mounted electric control switches

(4) A wire bundle assembly connector.

D. Each lever assembly is connected at the auto-throttle brake assemblies through an output crank and a control rod assembly.

2. Operation

A. During normal operation, forward thrust of the engine occurs when the thrust levers are moved to the forward position.

B. Reverse thrust of the engine occurs when the thrust levers are moved to the aft position, which then operates the deployment of the thrust reverser and controls reverse thrust power.

C. During forward thrust mode, the reverse thrust levers are mechanically locked in the stowed position in relation to the forward thrust lever, and cannot be moved.

D. When the reverse thrust lever is deployed, the forward thrust lever cannot be moved independently because it is held in the idle position.

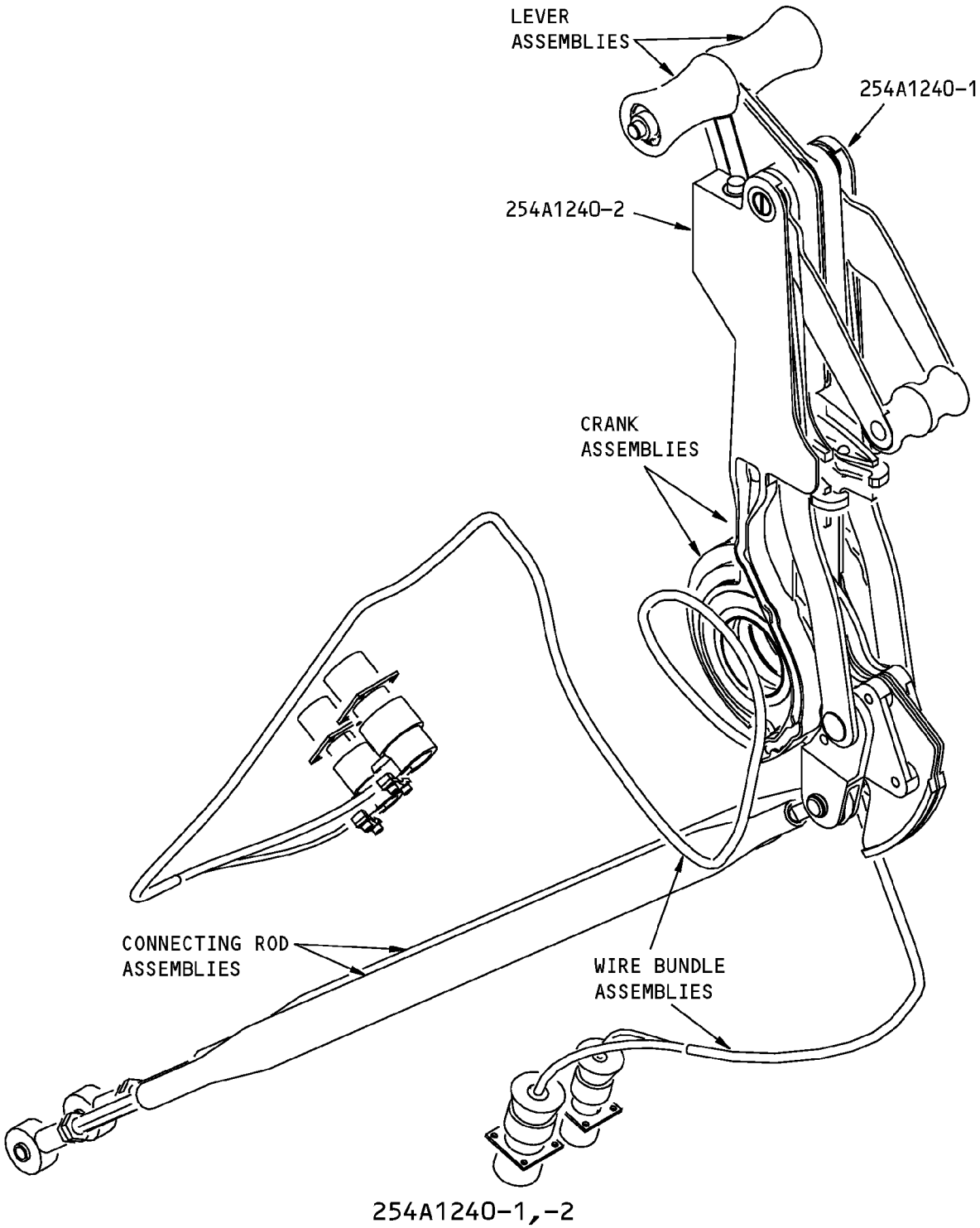
3. Leading Particulars (Approximate)

A. Length – 18 inches

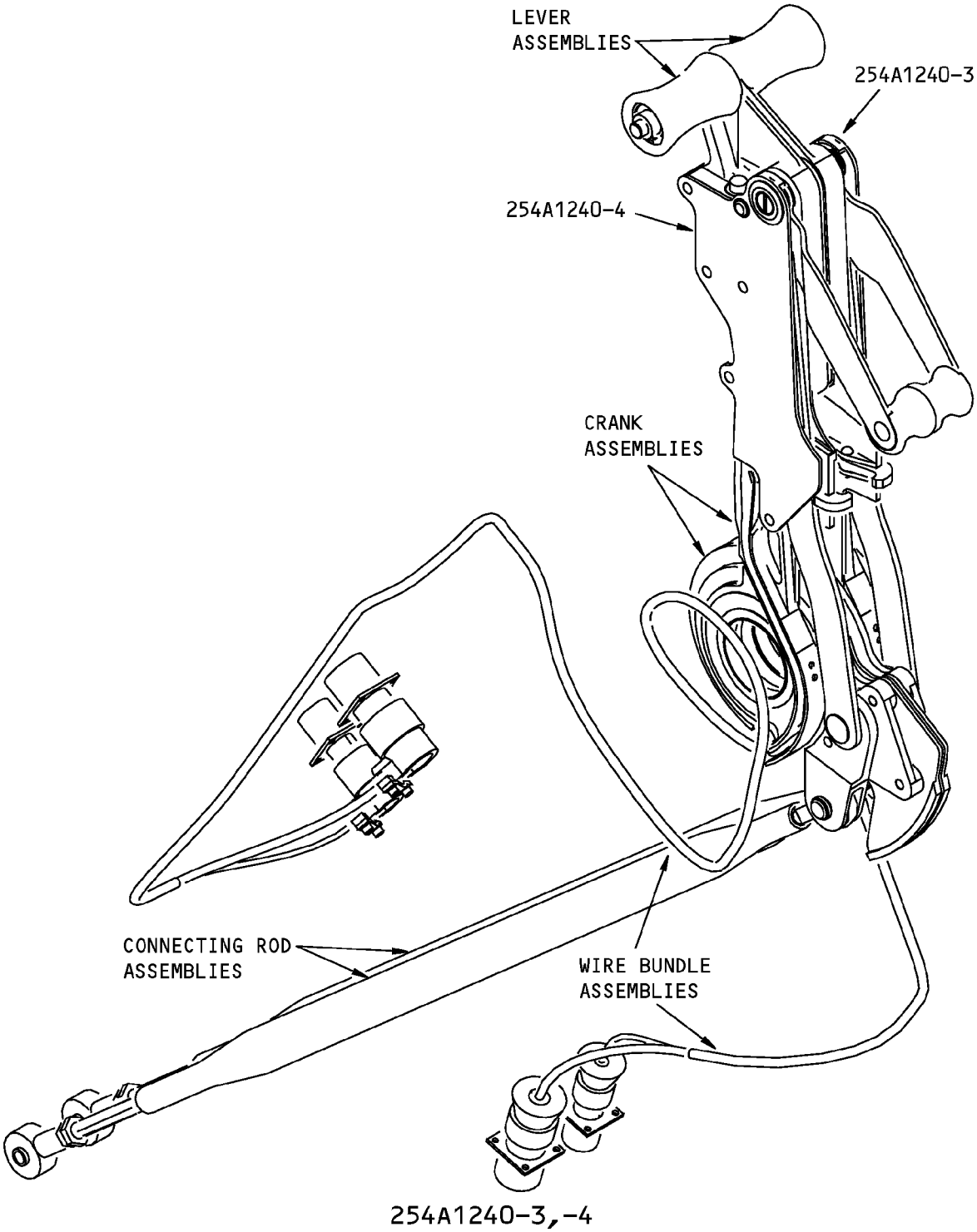
B. Width – 2 inches

C. Height – 4 inches

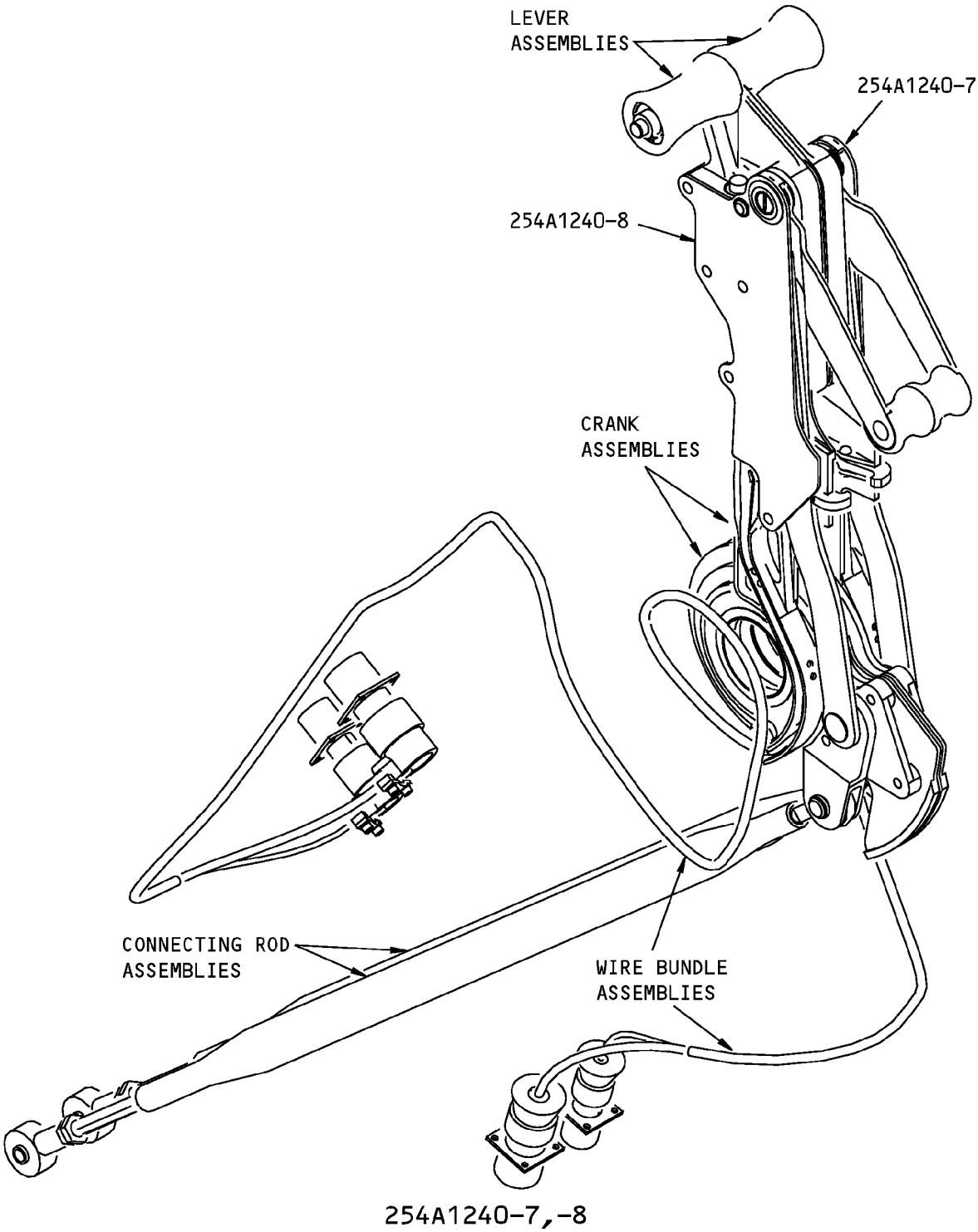
D. Weight – 8.5 pounds



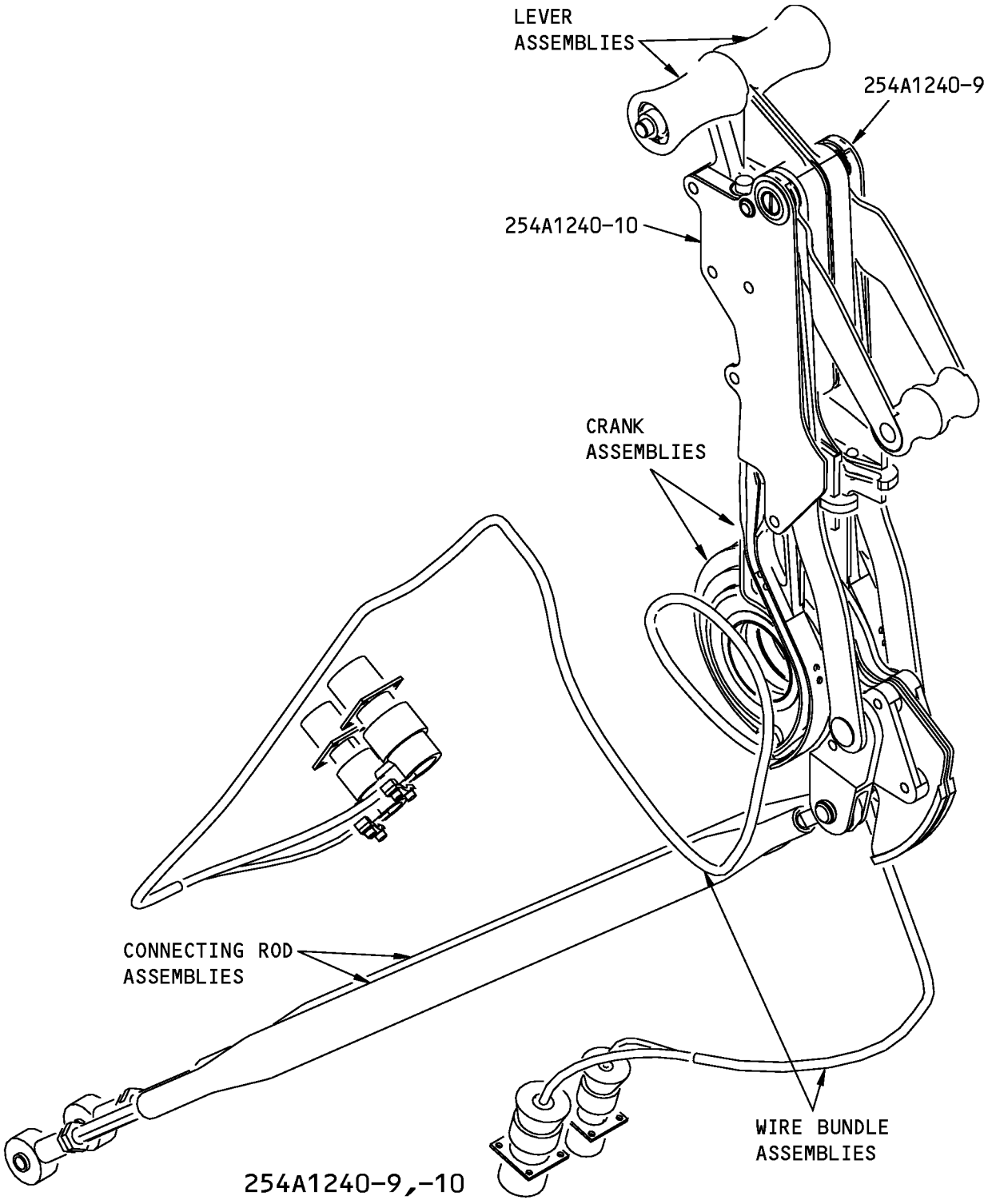
Control Stand Thrust Lever Assembly
Figure 1 (Sheet 1 of 4)



Control Stand Thrust Lever Assembly
Figure 1 (Sheet 2 of 4)



Control Stand Thrust Lever Assembly
Figure 1 (Sheet 3 of 4)



1654082 S0000236957_V1

Control Stand Thrust Lever Assembly
Figure 1 (Sheet 4 of 4)

TESTING AND FAULT ISOLATION

1. General

A. Use this procedure to test the control stand thrust lever assembly after an overhaul or for fault isolation.

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to IPL Figure 1 and IPL Figure 2 for the applicable item numbers.

2. Test and Fault Isolation

A. Tools/Equipment

NOTE: Equivalent substitutes may be used.

Reference	Description
SPL-706	Protractor - Thrust Reverser Levers, Digital Readout (Part #: G76002-15, Supplier: 81205) (Opt Part #: G76002-14, Supplier: 81205)
SPL-2410	Adapter - Protractor - Thrust Reverser Levers, Digital Readout (Part #: G76002-15, Supplier: 81205) (Opt Part #: G76002-14, Supplier: 81205)

B. Procedure

(1) Do an adjustment test of the control stand thrust lever assembly (1, 5).

(a) Attach thrust reverser levers, digital readout protractor, SPL-706 (G76002-15) or protractor adapter, SPL-2410 (TEFT1U7834PR0-1) to the reverse lever (60, 65). See TESTING AND FAULT ISOLATION, Figure 101.

(b) Move the reverse lever (60, 65) between 0 and 16 degrees of travel.

(c) Adjust the nut assembly (205) to get continuity between pin 1 and pin 4 of connector D10171J (for 254A1240-1, -3, -7, -9) or D10173J (for 254A1240-2, -4, -8, -10) for all values of the reverse lever (60, 65) travel between 0 and 16 degrees. See TESTING AND FAULT ISOLATION, Figure 102.

NOTE: The switch changes state between 16 and 19 degrees of travel of the reverse lever (60, 65).

(d) Move the reverse lever (60, 65) from 19 to 135 degrees. Make sure there is continuity between pin 4 and pin 5 of connector D10171J or D10173J for all values of the reverse lever (60, 65) travel between 19 and 135 degrees.

NOTE: The protractor adapter, SPL-2410 is not accurate on readings more than 90 degrees. If the switch maintains continuity to the end of travel of the reverse lever at 135 degrees, it operates correctly.

(e) Put the nut (IPL Figure 1, 220B; IPL Figure 2, 220) against the nut assembly (205) and tighten the nut to 6-8 pound-inches.

(f) Remove the reverse lever from the control stand thrust lever assembly.

(2) Do a functional test for the autothrottle disconnect switches (S113 and S114).

(a) Press and release each switch independently. Make sure that each switch moves smoothly and returns to the original "Free" or "Hands Off" position.

(b) With the two S113 and S114 switches in the "Free" position, make sure that pins 5 and 8 are closed on connectors D8313J and D8315J. Also make sure that pins 6 and 7 are open on the same connectors D8313J and D8315J.

(c) Press and hold the S113 switch in the left thrust lever. Make sure that pins 5 and 8 are open and that pins 6 and 7 are closed.

(d) Release the S113 switch and make sure that pins 5 and 8 are closed. Also make sure that pins 6 and 7 are open.

(e) Press and hold the S114 switch in the right thrust lever. Make sure that pins 5 and 8 are open. Also make sure that pins 6 and 7 are closed.

(f) Release the S114 switch and make sure that pins 5 and 8 are closed. Also make sure pins 6 and 7 are open.

(3) Do a functional test for the take off/go around switches (S786A/B and S787A/B).

(a) Press and release each switch independently. Make sure that each switch moves smoothly and returns to original "Free" or "Hands Off" position.

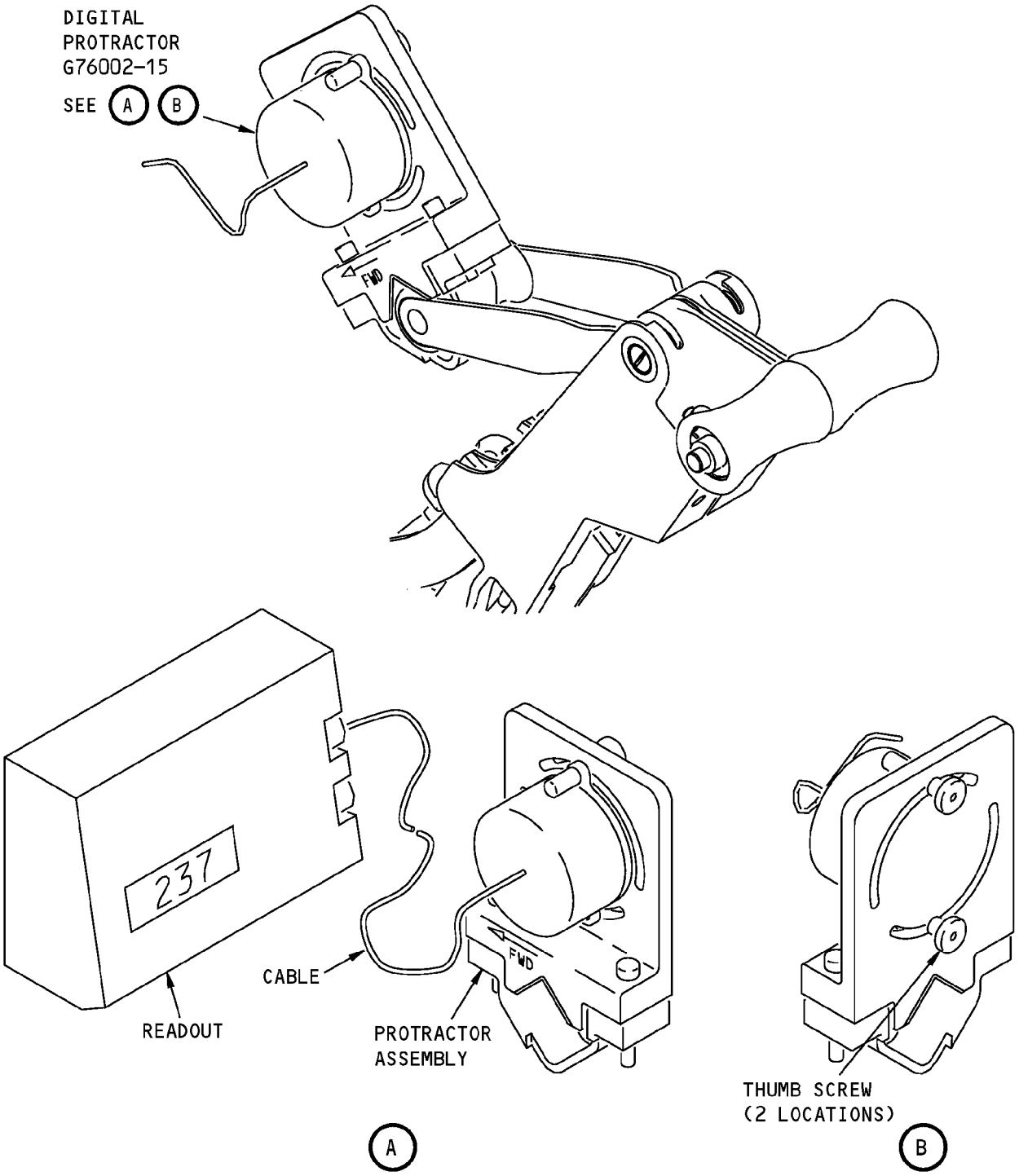
(b) With the two switches in the "Free" position, make sure that pins 1 and 2 are open for connectors D8313J and D8315J. Make sure that pins 11 and 12 are also open for the same connectors.

(c) Press and hold the S786A/B switch in the left thrust lever. Make sure that pins 1 and 2 are closed for connectors D8313J and D8315J.

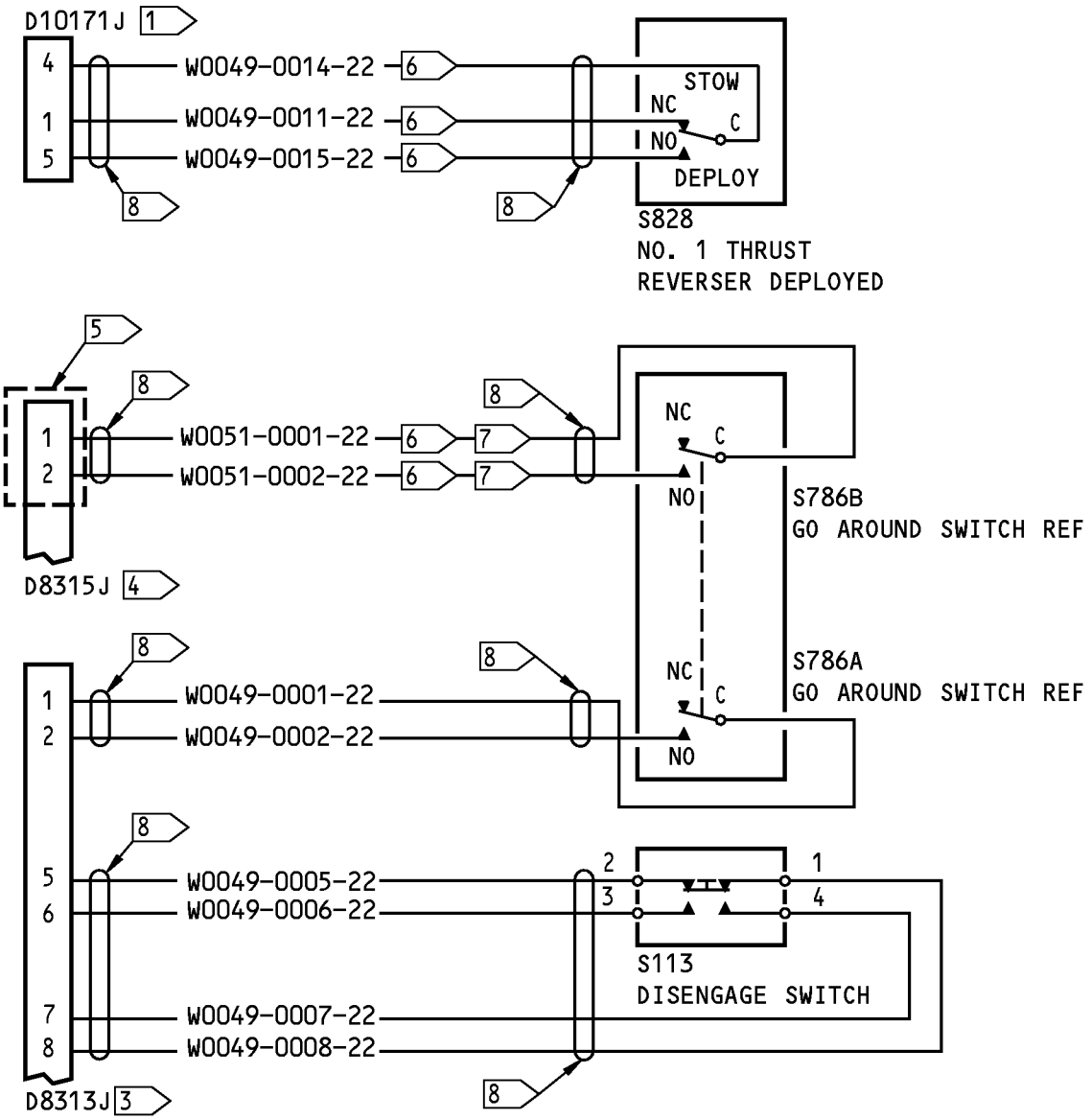
(d) Release the S786A/B switch and make sure that pins 1 and 2 are open.

(e) Press and hold the S787A/B switch and make sure that pins 11 and 12 are closed.

(f) Release the S787A/B switch and make sure that pins 11 and 12 are open.



Thrust Reverser Lever Protractor Installation
Figure 101



CONTROL STAND THRUST LEVER ASSEMBLY (1)

NOTE: ALL WIRES ARE BMS 13-60,
TYPE 1, CLASS 1, 22 AWG

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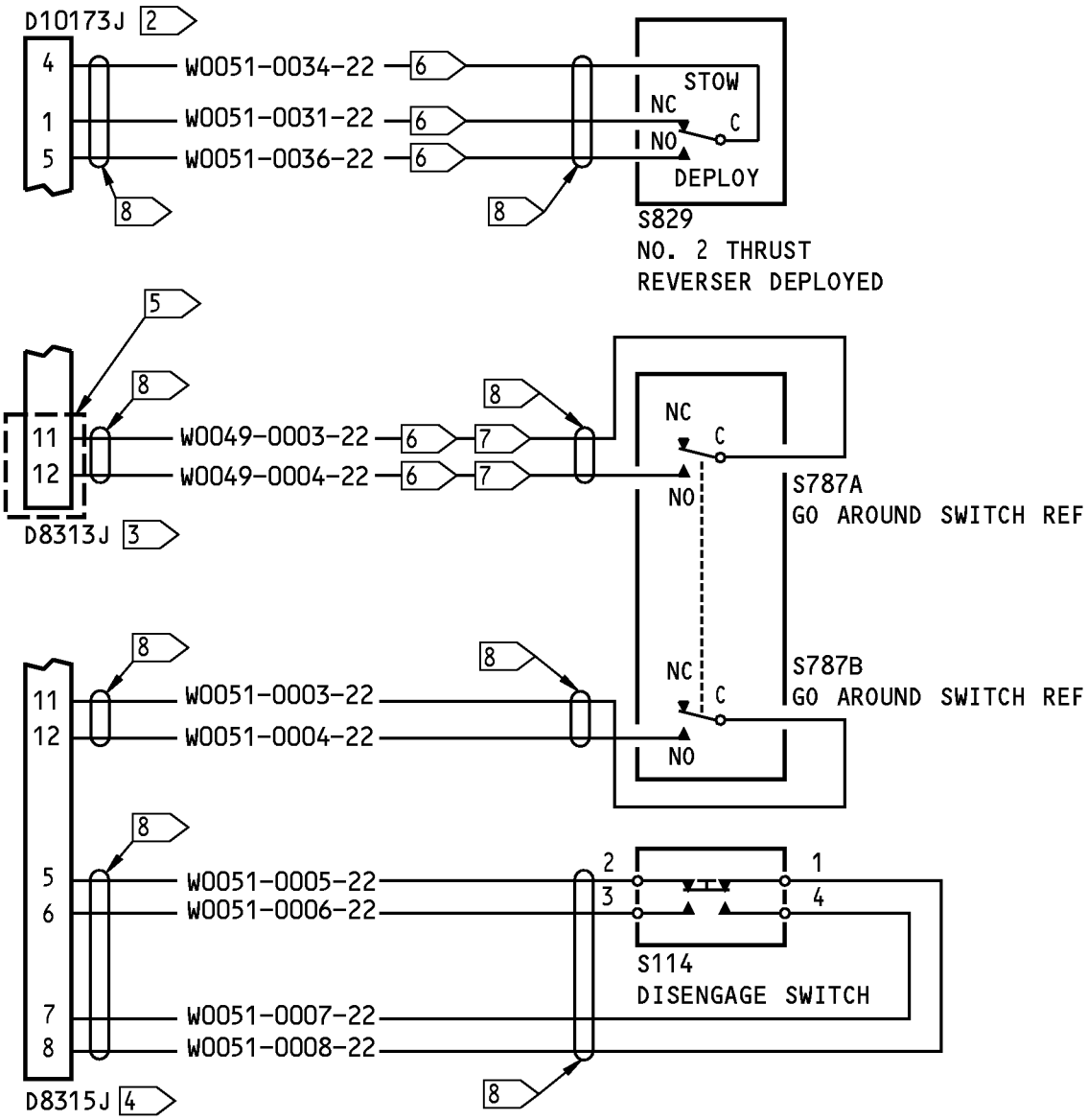
Control Stand Thrust Lever Assembly Wiring Schematic
Figure 102 (Sheet 1 of 3)



CONTROL STAND THRUST LEVER ASSEMBLY (5)

NOTE: ALL WIRES ARE BMS 13-60, TYPE 1,
CLASS 1, 22 AWG

G53146 S00041008659_V3

Control Stand Thrust Lever Assembly Wiring Schematic
Figure 102 (Sheet 2 of 3)

1. MATES WITH SHIP'S CONNECTOR D10171P
2. MATES WITH SHIP'S CONNECTOR D10173P
3. MATES WITH SHIP'S CONNECTOR D8313P
4. MATES WITH SHIP'S CONNECTOR D8315P
5. TERMINATE WIRES AS SHOWN IN NEXT HIGHER ASSEMBLY
6. HEAT SHRINK SLEEVE OVER CONTACTS AND SOLDER JOINTS. SLEEVE TO EXTEND 0.1300 TO 0.3700 INCH OVER THE WIRE.
7. HEAT SHRINK OVER TERMINALS THAT ARE NOT USED.
8. HEAT SHRINK SLEEVE THESE WIRES FROM SWITCHES TO BACKSHELL SURFACE OF CONNECTOR INSERT USING RT876 HEAT SHRUNK TUBING (YELLOW). LEAVE SUFFICIENT ROOM AT SWITCH FOR TRANSITION FROM BUNDLE TO SWITCH TERMINALS

G54174 S00041008660_V2

Control Stand Thrust Lever Assembly Wiring Schematic
Figure 102 (Sheet 3 of 3)

DISASSEMBLY

1. General

A. This procedure has the data necessary to disassemble the control stand thrust lever assembly.

B. Disassemble this component sufficiently to isolate the defects, do the necessary repairs, and put the component back to a serviceable condition.

C. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.

D. Refer to IPL Figure 1 and IPL Figure 2 for the applicable item numbers.

2. Disassembly

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
G02436	Lockwire - Monel (0.040 In. Dia.)	NASM20995N˜ C40

B. References

Reference	Title
SOPM 20-50-02	INSTALLATION OF SAFETYING DEVICES

C. Procedure

CAUTION: THE CRANK ASSEMBLY (FIG. 1, 365, 370; FIG. 2, 370, 375) IS ROLLER SWAGED ON THE LEVER ASSEMBLY (FIG.1, 270, 275; FIG. 2, 280, 285). DO NOT REMOVE THE BEARING (FIG. 1, 395; FIG. 2, 400).

(1) Use standard industry procedures and the steps given below to disassemble this component.

NOTE: Do not remove the wire bundle assembly unless replacement is necessary.

(2) Remove the nut (IPL Figure 1, 475; IPL Figure 2, 470), washers (IPL Figure 1, 460, 465; IPL Figure 2, 455A, 460), bushing (IPL Figure 1, 470; IPL Figure 2, 465), bolt (IPL Figure 1, 455; IPL Figure 2, 450) and the control rod assembly (IPL Figure 1, 480; IPL Figure 2, 475) from the crank assembly (IPL Figure 1, 365, 370; IPL Figure 2, 370, 375).

NOTE: Do not disassemble the crank assembly (IPL Figure 1, 365, 370; IPL Figure 2, 370, 375) unless repair or replacement is necessary.

(3) Remove the screws (IPL Figure 1, 10C; IPL Figure 2, 10A) and cover (IPL Figure 1, 15, 20; IPL Figure 2, 15, 20) from the lever assembly (IPL Figure 1, 270, 275; IPL Figure 2, 280, 285). Remove the cam assembly (IPL Figure 1, 40, 45; IPL Figure 2, 40, 45), screw (IPL Figure 1, 25; IPL Figure 2, 25), bearing (IPL Figure 1, 30; IPL Figure 2, 30) from the lever (IPL Figure 1, 290, 292; IPL Figure 2, 300A, 302).

NOTE: Do not remove the insert (IPL Figure 1, 50; IPL Figure 2, 50) unless replacement is necessary.

(4) For 254A1240-3, -4, -7, -8, -9 and -10 only, remove the washer (35) from the lever assembly (IPL Figure 2, 280, 285).

(5) For 254A1240-3, -4, -7, -8, -9 and -10 only, remove the screws (IPL Figure 2, 530A, 530B) and the cover assembly (535, 540) from the lever assembly (IPL Figure 2, 280, 285).

(6) Remove the screws (IPL Figure 1, 100; IPL Figure 2, 100) and the knob (IPL Figure 1, 105, 110; IPL Figure 2, 105, 110) from the reverse lever (IPL Figure 1, 60, 65; IPL Figure 2, 60, 65).

(7) Turn the link (IPL Figure 1, 75, 80; IPL Figure 2, 75, 80) and the reverse lever (IPL Figure 1, 60, 65; IPL Figure 2, 60, 65) away from the lever assembly (IPL Figure 1, 270, 275; IPL Figure 2, 280, 285).

(8) Remove the lockwire, G02436 (SOPM 20-50-02), nut (IPL Figure 1, 360; IPL Figure 2, 365), washer (IPL Figure 1, 355; IPL Figure 2, 360), special bolt (IPL Figure 1, 350 ; IPL Figure 2, 355), link (IPL Figure 1, 75, 80; IPL Figure 2, 75, 80) and reverse lever (IPL Figure 1, 60, 65; IPL Figure 2, 60, 65) from the crank assembly (IPL Figure 1, 365, 370; IPL Figure 2, 370, 375).

NOTE: Do not disassemble the link (IPL Figure 1, 75, 80; IPL Figure 2, 75, 80) and the reverse lever assembly (IPL Figure 1, 60, 65; IPL Figure 2, 60, 65) unless repair or replacement is necessary.

(9) Remove the screws (IPL Figure 1, 115C; IPL Figure 2, 115B) and the pin plate assembly (IPL Figure 1, 120, 125; IPL Figure 2, 120, 125) from the lever assembly (IPL Figure 1, 270, 275; IPL Figure 2, 280, 285).

NOTE: Do not remove the insert (IPL Figure 1, 130; IPL Figure 2, 130) from the doubler (IPL Figure 1, 135; IPL Figure 2, 135) unless repair or replacement is necessary.

NOTE: Do not disassemble the doubler (IPL Figure 1, 135; IPL Figure 2, 135) from the pin plate (IPL Figure 1, 140, 142; IPL Figure 2, 140, 142) unless repair or replacement is necessary.

(10) Remove the nut assembly (IPL Figure 1, 205; IPL Figure 2, 205), nut (IPL Figure 1, 220B; IPL Figure 2, 220), washers (IPL Figure 2, 197 if installed) and spacer (IPL Figure 1, 200; IPL Figure 2, 200) from the spring plunger (IPL Figure 1, 175; IPL Figure 2, 175).

(11) Remove the spring plunger (IPL Figure 1, 175; IPL Figure 2, 175) and the spring (IPL Figure 1, 195; IPL Figure 2, 195) from the lever (IPL Figure 1, 165, 167; IPL Figure 2, 165, 167).

(12) Remove the roller assembly (IPL Figure 1, 150, 155; IPL Figure 2, 150, 155), spacer (IPL Figure 1, 200; IPL Figure 2, 200), spring (IPL Figure 1, 190; IPL Figure 2, 190) and washer (IPL Figure 1, 185; IPL Figure 2, 185) from the lever (IPL Figure 1, 165, 167; IPL Figure 2, 165, 167).

NOTE: Do not disassemble the roller assembly (IPL Figure 1, 150, 155; IPL Figure 2, 150, 155) unless repair or replacement is necessary.

(13) Remove the screws (IPL Figure 1, 250A; IPL Figure 2, 259), switch plates (IPL Figure 1, 255; IPL Figure 2, 265) and switch (IPL Figure 1, 260; IPL Figure 2, 270) from the lever assembly (IPL Figure 1, 270, 275; IPL Figure 2, 280, 285).

NOTE: For 254A1240-1 and -2 only, do not remove the bollard (IPL Figure 1, 245) from the lever assembly (IPL Figure 1, 270, 275).

(14) For 254A1240-3, -4, -7, -8, -9 and -10 only, do not remove the rivets (IPL Figure 2, 222) and the housing assembly (225A, 228) from the lever assembly (IPL Figure 2, 280, 285) unless repair or replacement is necessary.

(15) Remove the two screws (IPL Figure 1, 225B; IPL Figure 2, 240A), the switch mount (IPL Figure 1, 230, 235; IPL Figure 2, 245, 250), and the switch (IPL Figure 1, 240; IPL Figure 2, 255) from the lever assembly (IPL Figure 1, 270, 275; IPL Figure 2, 280, 285).

(16) Do not remove the rivet (IPL Figure 1, 85; IPL Figure 2, 85), washer (IPL Figure 1, 90; IPL Figure 2, 90), and the pawl (IPL Figure 1, 95; IPL Figure 2, 95) unless repair or replacement is necessary.

(17) Do not remove the bearings (IPL Figure 1, 310; IPL Figure 2, 320) or the clamp-up spacer (IPL Figure 1, 305; IPL Figure 2, 315) from the crank assembly (IPL Figure 1, 365, 370; IPL Figure 2, 370, 375) unless repair or replacement is necessary.

CLEANING

1. General

A. This procedure has the data necessary to clean the control stand thrust lever assembly.

B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.

2. Cleaning

A. References

Reference	Title
SOPM 20-30-03	GENERAL CLEANING PROCEDURES

B. Procedure

(1) Use standard industry procedures and refer to SOPM 20-30-03 to clean all parts.

CHECK

1. General

A. This procedure has the data necessary to find defects in the material of the specified parts.

B. Refer to FITS AND CLEARANCES for the design dimension and wear limits.

C. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.

D. Refer to IPL Figure 1 and IPL Figure 2 for the applicable item numbers.

2. Check

A. References

Reference	Title
SOPM 20-20-01	MAGNETIC PARTICLE INSPECTION
SOPM 20-20-02	PENETRANT METHODS OF INSPECTION

B. Procedure

(1) Use standard industry procedures to do a visual check of all the parts for defects. Do the penetrant or magnetic particle check if the visual check shows possible damage or if you suspect possible damage on the parts listed below:

(2) Do a magnetic particle check, Class B, (SOPM 20-20-01) of these parts:

(a) Pawl (IPL Figure 1, 95; IPL Figure 2, 95)

(b) Pin Plate (IPL Figure 1, 140; IPL Figure 2, 140)

(c) Dowel (IPL Figure 1, 145; IPL Figure 2, 145)

(d) Pin (IPL Figure 1, 160; IPL Figure 2, 160)

(e) Roller (IPL Figure 1, 170; IPL Figure 2, 170)

(f) Cam (IPL Figure 1, 380; IPL Figure 2, 385)

(g) Fitting (IPL Figure 1, 515; IPL Figure 2, 510)

(h) Spring (IPL Figure 1, 195; IPL Figure 2, 195)

(i) Housing (IPL Figure 2, 235A, 237)

(3) Do a magnetic particle check, Class C, (SOPM 20-20-01) of these parts:

(a) Switch Mount (IPL Figure 1, 230, 235; IPL Figure 2, 252, 253)

(4) Do a penetrant check (SOPM 20-20-02) of these parts:

(a) Cover (IPL Figure 1, 15, 20; IPL Figure 2, 15, 20)

(b) Bearing (IPL Figure 1, 30; IPL Figure 2, 30)

(c) Lever (IPL Figure 1, 165; IPL Figure 2, 165)

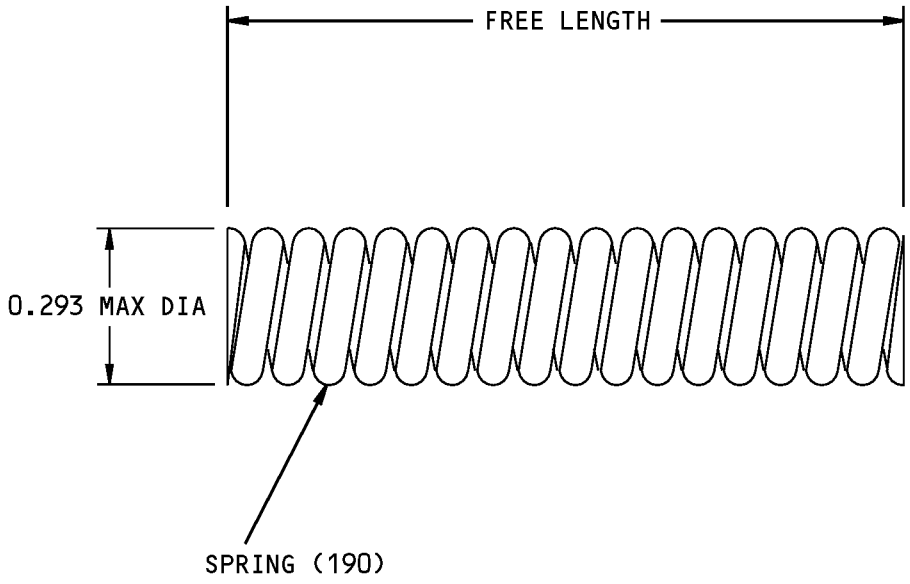
(d) Nut (IPL Figure 1, 215; IPL Figure 2, 215)

(e) Rod End (IPL Figure 1, 500; IPL Figure 2, 495)

(5) Do a spring displacement check (CHECK, Figure 501).

(a) Spring (IPL Figure 1, 190; IPL Figure 2, 190)

ITEM NO. IPL FIG. 1 AND 2	FREE LENGTH (INCHES)	TEST LENGTH (INCHES)	PERMITTED LOAD LIMIT (POUNDS)
190	1.554	1.093 1.300	24.75–30.25 13.630–16.650



ALL DIMENSIONS ARE IN INCHES

69-73827-1 Spring Check Details
Figure 501

REPAIR

1. General

A. Instructions for repair, refinish, and replacement of the specified subassembly parts are included in each REPAIR when applicable:

Table 601:

PART NUMBER	NAME	REPAIR
—	REFINISH OF OTHER PARTS	1-1
250N2004	CONTROL ROD ASSEMBLY	2-1, 2-2
254A1242	CRANK ASSEMBLY	3-1
254A1243	CRANK	3-2
254A1244	CAM	3-3
254A1246	RETAINER	3-4
65C37366	LEVER ASSEMBLY	4-1, 4-2
254A1247	LEVER ASSEMBLY	5-1, 5-2
254A1253	COVER ASSEMBLY	6-1

2. Dimensioning Symbols

A. Standard True Position Dimensioning Symbols that are given in the applicable repair procedures are shown in REPAIR-GENERAL, Figure 601.

—	STRAIGHTNESS
▱	FLATNESS
⊥	PERPENDICULARITY (OR SQUARENESS)
//	PARALLELISM
○	ROUNDNESS
⌭	CYLINDRICITY
⌒	PROFILE OF A LINE
⌓	PROFILE OF A SURFACE
◎	CONCENTRICITY
⌯	SYMMETRY
∠	ANGULARITY
↗	RUNOUT
↗↗	TOTAL RUNOUT
⌴	COUNTERBORE OR SPOTFACE
∨	COUNTERSINK
⌖	THEORETICAL EXACT POSITION OF A FEATURE (TRUE POSITION)
∅	DIAMETER
S ∅	SPHERICAL DIAMETER
R	RADIUS
SR	SPHERICAL RADIUS
()	REFERENCE
BASIC (BSC) OR [DIM]	A THEORETICALLY EXACT DIMENSION USED TO DESCRIBE SIZE, SHAPE OR LOCATION OF A FEATURE. FROM THIS FEATURE PERMISSIBLE VARIATIONS ARE ESTABLISHED BY TOLERANCES ON OTHER DIMENSIONS OR NOTES.
[-A-]	DATUM
Ⓜ	MAXIMUM MATERIAL CONDITION (MMC)
Ⓛ	LEAST MATERIAL CONDITION (LMC)
Ⓢ	REGARDLESS OF FEATURE SIZE (RFS)
Ⓟ	PROJECTED TOLERANCE ZONE
FIM	FULL INDICATOR MOVEMENT

EXAMPLES

[— | 0.002]	STRAIGHT WITHIN 0.002
[⊥ | 0.002 | B]	PERPENDICULAR TO DATUM B WITHIN 0.002
[// | 0.002 | A]	PARALLEL TO DATUM A WITHIN 0.002
[○ | 0.002]	ROUND WITHIN 0.002
[⌭ | 0.010]	CYLINDRICAL SURFACE MUST LIE BETWEEN TWO CONCENTRIC CYLINDERS, ONE OF WHICH HAS A RADIUS 0.010 INCH GREATER THAN THE OTHER
[⌒ | 0.006 | A]	EACH LINE ELEMENT OF THE SURFACE AT ANY CROSS SECTION MUST LIE BETWEEN TWO PROFILE BOUNDARIES 0.006 INCH APART RELATIVE TO DATUM A
[⌓ | 0.020 | A]	SURFACES MUST LIE WITHIN PARALLEL BOUNDARIES 0.020 INCH APART AND EQUALLY DISPOSED ABOUT TRUE PROFILE
[◎ | ∅ 0.0005 | C]	CONCENTRIC TO DATUM C WITHIN 0.0005 DIAMETER
[⌯ | 0.010 | A]	SYMMETRICAL WITH DATUM A WITHIN 0.010
[∠ | 0.005 | A]	ANGULAR TOLERANCE 0.005 WITH DATUM A
[⌖ | ∅ 0.002 Ⓢ | B]	LOCATED AT TRUE POSITION WITHIN 0.002 DIA RELATIVE TO DATUM B, REGARDLESS OF FEATURE SIZE
[⊥ | ∅ 0.010 Ⓜ | A] [0.510 Ⓟ]	AXIS IS TOTALLY WITHIN A CYLINDER OF 0.010 INCH DIAMETER, PERPENDICULAR TO DATUM A, AND EXTENDING 0.510 INCH ABOVE DATUM A, MAXIMUM MATERIAL CONDITION
[2.000] OR 2.000 BSC	THEORETICALLY EXACT DIMENSION IS 2.000

True Position Dimensioning Symbols
Figure 601

REFINISH OF OTHER PARTS - REPAIR 1-1

1. General

A. This procedure has the data necessary to refinish the parts which are not given in the specified repairs.

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to IPL Figure 1 and IPL Figure 2 for the applicable item numbers.

2. Refinish of other parts

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I
C00260	Coating - Chemical And Solvent Resistant Finish, Epoxy Resin Enamel	BMS10-11, Type II
C00957	Finish - Hi-Speed Lacquer, Flat	BAC5755

B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-41-04	APPLICATION OF INTERIOR DECORATIVE FINISHES
SOPM 20-60-02	FINISHING MATERIALS

C. Procedure

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Instructions for the repair of the parts listed in REPAIR 1-1, Table 601 is for repair of the initial finish.

Table 601: Refinish Details

IPL FIG. & ITEM	MATERIAL	FINISH
IPL Fig. 1		
Cover (15,20)	321PH CRES	Apply matte finish chrome plate all over (F-14.111).
Cam (55) Roller (170)	440C Steel Rockwell RC57 Minimum	Prepare the surface and passivate (F-17.09).
Reverse Lever (60,65)	15-5PH CRES 150-170 ksi	Apply matte finish chrome plate all over (F-14.111).
Pawl (95)	17-4PH CRES 160-220 ksi	Apply cadmium plate (F-1.20) or apply zinc plate (F-1.205).

Table 601: Refinish Details (Continued)

IPL FIG. & ITEM	MATERIAL	FINISH
Doubler (135)	15-5PH CRES 150-170 ksi	Prepare the surface and passivate (F-17.09).
Pin Plate (140,142) Spring Plunger (175)	17-4PH CRES 180-200 ksi	Prepare the surface and passivate (F-17.09).
Spring (195)	1095 Steel Rockwell C47 to C52	Apply cadmium-titanium plate, bake 12 hours minimum at 350-400°F, and apply chromate post-plate treatment (F-15.01).
Switch Mount (230,235)	15-5PH CRES 180-200 ksi	Passivate (F-17.25).
Clamp-up Spacer (305)	4130 Steel 125-145 ksi	Apply cadmium plate (F-15.06).
Retainer (330)	2024-T4 Al Alloy	Chemical treat and apply primer, C00259 (F-2.31). Prepare the surface and apply two layers of Hi-Speed lacquer, flat (F-14.903-705).
IPL Fig. 2		
Cover (15,20)	321PH CRES	Apply matte finish chrome plate all over (F-14.111).
Cam (55) Roller (170)	440C Steel Rockwell RC57 Minimum	Prepare the surface and passivate (F-17.09).
Reverse Lever (60,65)	15-5PH CRES 150-170 ksi	Apply matte finish chrome plate all over (F-14.111).
Pawl (95)	17-4PH CRES 160-220 ksi	Apply cadmium plate (F-1.20) or apply zinc plate (F-1.205).
Doubler (135)	15-5PH CRES 150-170 ksi	Prepare the surface and passivate (F-17.09).
Pin Plate (140,142) Spring Plunger (175)	17-4PH CRES 180-200 ksi	Prepare the surface and passivate (F-17.09).
Spring (195)	1095 Steel Rockwell C47 to C52	Apply cadmium-titanium plate, bake 12 hours minimum at 350-400°F, and apply chromate post-plate treatment (F-15.01).
Housing (235A,237)	15-5PH CRES 150-170 ksi	Cadmium plate (F-15.06), Type II, Class 2.
Switch Mount (245,250)	15-5PH CRES 180-200 ksi	Passivate (F-17.25).
Clamp-up Spacer (315)	4130 Steel 125-145 ksi	Apply cadmium plate (F-15.06).
Retainer (340)	2024-T4 Al Alloy	Chemical treat and apply primer, C00259 (F-2.31). Prepare the surface and apply finish, C00957, flat as shown in SOPM 20-41-04 (F-14.903-705).

Table 601: Refinish Details (Continued)

IPL FIG. & ITEM	MATERIAL	FINISH
Cover (550,555)	Al alloy	Boric acid-sulfuric acid anodize, Class 1 or 5, or Chromic acid anodize at 22 volts, Class 1 or 3 (F-17.31). Apply primer, C00259 (F-20.03). Apply enamel coating, C00260 (SRF 14.903.705) color 705.

CONTROL ROD ASSEMBLY - REPAIR 2-1

250N2004–115

1. General

A. This procedure has the data necessary to repair the control rod assembly (IPL Figure 1, 480; IPL Figure 2, 475).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 shown in the repair.

D. Refer to IPL Figure 1 and IPL Figure 2 for item numbers.

2. Rod End Bearing

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
B50080	Compound - Corrosion Preventive, Solvent Cutback, Cold-Application (Grade 2 - Soft Film)	MIL-PRF-16173, Grade 2 (Supersedes MIL-C-16173, Grade 2)

B. References

Reference	Title
SOPM 20-41-05	APPLICATION OF CORROSION INHIBITING COMPOUNDS

C. Procedure (IPL Figure 1, 520; IPL Figure 2, 515) Replacement

(1) Remove the rod end bearing (IPL Figure 1, 520; IPL Figure 2, 515) from the control rod fitting (IPL Figure 1, 515; IPL Figure 2, 510).

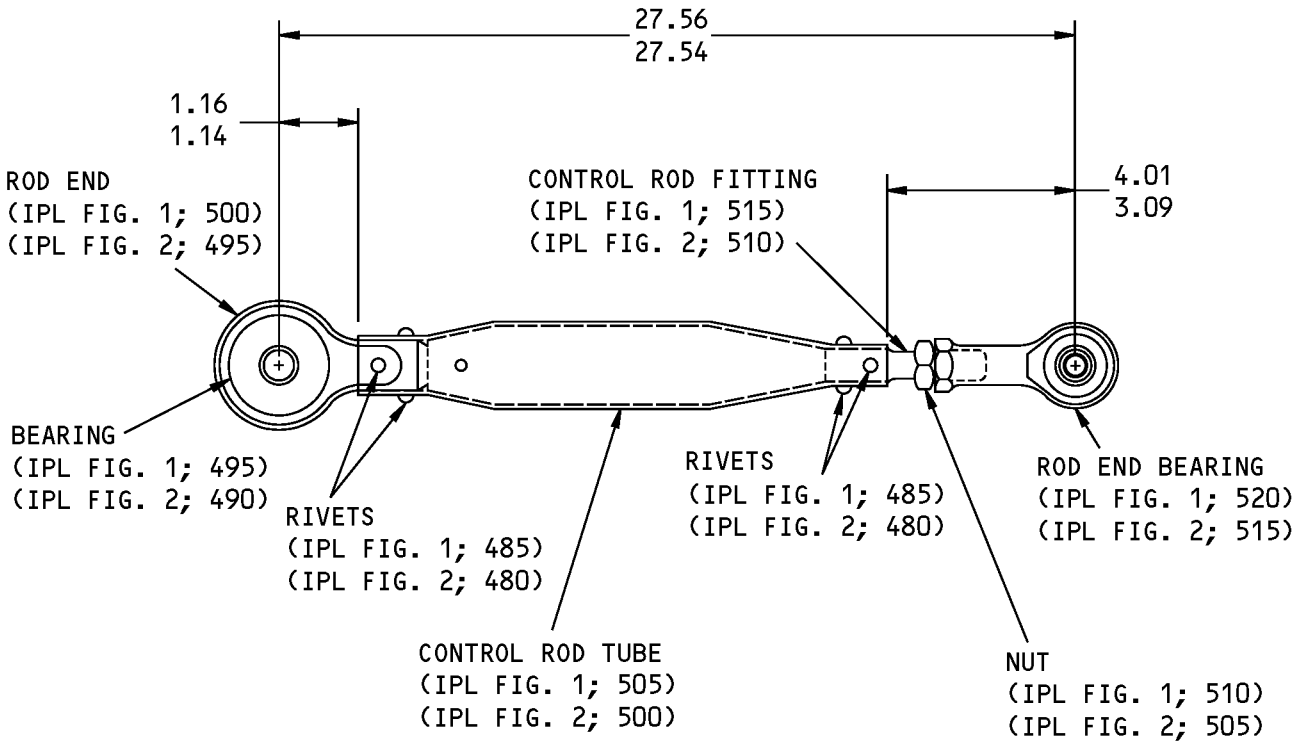
(2) Install a rod end bearing (IPL Figure 1, 520; IPL Figure 2, 515) on the control rod fitting (IPL Figure 1, 515; IPL Figure 2, 510) as follows:

(a) Apply a thin layer of compound, B50080 onto the mating threads of the nut (IPL Figure 1, 510; IPL Figure 2, 505), the control fitting (IPL Figure 1, 515; IPL Figure 2, 510), and the rod end bearing (IPL Figure 1, 520; IPL Figure 2, 515) (SOPM 20-41-05).

(b) Install the nut (IPL Figure 1, 510; IPL Figure 2, 505) onto the control rod fitting (IPL Figure 1, 515; IPL Figure 2, 510).

(c) Install the rod end bearing (IPL Figure 1, 520; IPL Figure 2, 515) onto the control rod fitting (IPL Figure 1, 515; IPL Figure 2, 510) to the dimension and with the rod end aligned as shown in REPAIR 2-1, Figure 601.

(d) Tighten the nut (IPL Figure 1, 515; IPL Figure 2, 510) to the rod end bearing (IPL Figure 1, 520; IPL Figure 2, 515).



ALL DIMENSIONS ARE IN INCHES.

250N2004-115 Control Rod Assembly Repair
Figure 601

CONTROL ROD ASSEMBLY - REPAIR 2-2

250N2004–115

1. General

A. This procedure has the data necessary to refinish the control rod assembly (IPL Figure 1, 480; IPL Figure 2, 475).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 shown in the repair.

D. Refer to IPL Figure 1 and IPL Figure 2 for the applicable item numbers.

E. General repair details:

(1) Material:

(a) Rod end (IPL Figure 1, 500; IPL Figure 2, 495) – 7075-T73511 Al Alloy

(b) Control Rod Tube (IPL Figure 1, 505; IPL Figure 2, 500) – 2024-0 Al Alloy Heat treat T42

2. Control Rod Tube

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I

B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-41-02	APPLICATION OF CHEMICAL AND SOLVENT RESISTANT FINISHES
SOPM 20-60-02	FINISHING MATERIALS

C. Procedure (IPL Figure 1, 505; IPL Figure 2, 500) Refinish

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Chemical treat exterior surface (F-17.08) of the control rod tube.

(2) Apply primer, C00259 (F-20.03) to the control rod tube as shown in SOPM 20-41-02.

3. Rod End

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I

B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-41-02	APPLICATION OF CHEMICAL AND SOLVENT RESISTANT FINISHES
SOPM 20-43-01	CHROMIC ACID ANODIZING
SOPM 20-60-02	FINISHING MATERIALS

C. Procedure (IPL Figure 1, 500; IPL Figure 2, 495) Refinish

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Chromate acid anodize (F-18.13) but seal in a mixed chromate solution as shown in SOPM 20-43-01 to the surface of the rod end you can access.

(2) Apply one layer of primer, C00259 to the surface of the rod end you can access as shown in SOPM 20-41-02. Do not apply primer in the hole for the bearing (IPL Figure 1, 495; IPL Figure 2, 490).

CRANK ASSEMBLY - REPAIR 3-1

254A1242–1, –2

1. General

A. This procedure has the data necessary to repair the crank assembly (IPL Figure 1, 365, 370; IPL Figure 2, 370, 375).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 shown in the repair.

D. Refer to IPL Figure 1 and IPL Figure 2 for the applicable item numbers.

2. Bearing

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I
C00528	Compound - Corrosion Preventive, Petroleum Hot Application (Soft Film)	MIL-C-11796, Class III

B. References

Reference	Title
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-60-02	FINISHING MATERIALS
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Procedure (IPL Figure 1, 390; IPL Figure 2, 395) Replacement

CAUTION: THE CRANK ASSEMBLY (FIG. 1, 365, 370; FIG. 2, 370, 375) IS ROLLER SWAGED ON THE LEVER ASSEMBLY (FIG.1, 270, 275; FIG. 2, 280, 285). DO NOT REMOVE THE BEARING (FIG. 1, 395; FIG. 2, 400).

NOTE: For finishing materials, refer to SOPM 20-60-02. For miscellaneous materials, refer to SOPM 20-60-04.

(1) Remove the bolts (IPL Figure 1, 375; IPL Figure 2, 380), cam (IPL Figure 1, 380; IPL Figure 2, 385) and the retainer (IPL Figure 1, 385; IPL Figure 2, 390) from the crank (IPL Figure 1, 400; IPL Figure 2, 405).

NOTE: Do not remove the inserts (IPL Figure 1, 398; IPL Figure 2, 402) unless replacement is necessary.

(2) Remove the bearing (IPL Figure 1, 390A; IPL Figure 2, 395A) from the crank (IPL Figure 1, 400; IPL Figure 2, 405).

(3) Install the bearing (IPL Figure 1, 390A; IPL Figure 2, 395A) in the crank (IPL Figure 1, 400; IPL Figure 2, 405) with sealant, A00247 (primer, C00259 optional) as shown in SOPM 20-50-03, press-fit procedure, and REPAIR 3-1, Figure 601.

(4) Install the retainer (IPL Figure 1, 385; IPL Figure 2, 390), cam (IPL Figure 1, 380; IPL Figure 2, 385), and bolts (IPL Figure 1, 375; IPL Figure 2, 380) onto the crank (IPL Figure 1, 400; IPL Figure 2, 405). Install the bolts with compound, C00528 (F-19.11), and tighten 18-25 pound inches.

3. Cam Replacement

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00528	Compound - Corrosion Preventive, Petroleum Hot Application (Soft Film)	MIL-C-11796, Class III

B. References

Reference	Title
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-60-02	FINISHING MATERIALS

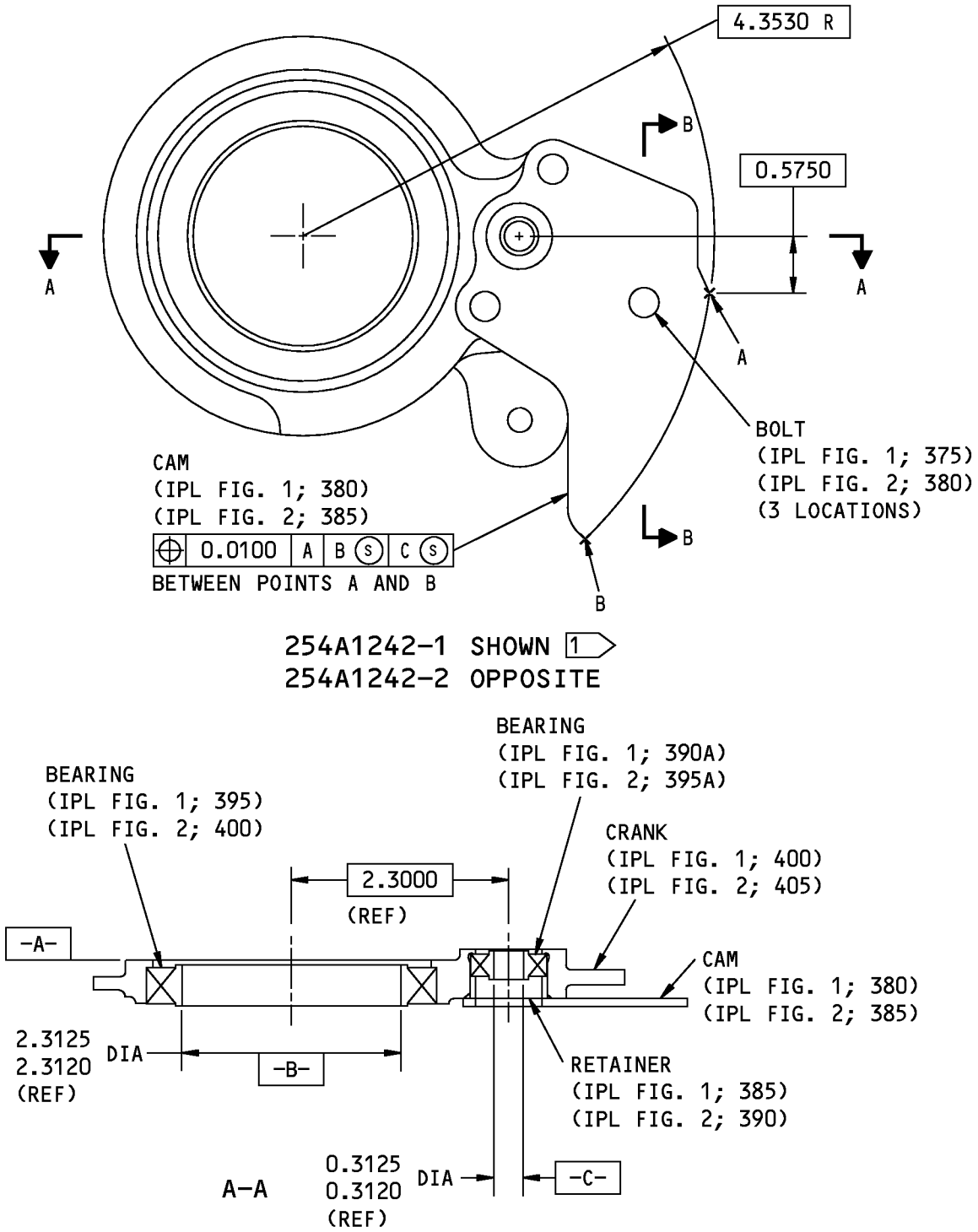
C. Procedure

NOTE: For decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Remove the bolts (IPL Figure 1, 375; IPL Figure 2, 380) and the cam (IPL Figure 1, 380; IPL Figure 2, 385) from the crank (IPL Figure 1, 400; IPL Figure 2, 405).

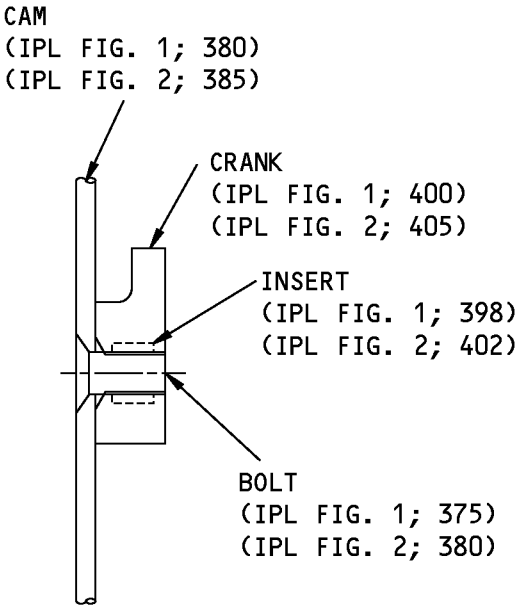
(2) Apply compound, C00528, (F-19.11) on the bolts (IPL Figure 1, 375; IPL Figure 2, 380).

(3) Install the cam (IPL Figure 1, 380; IPL Figure 2, 385) on the crank (IPL Figure 1, 400; IPL Figure 2, 405) with the bolts (IPL Figure 1, 375; IPL Figure 2, 380) as shown in REPAIR 3-1, Figure 601 and tighten 18-25 pound inches.



F78623 S00041008677_V2

254A1242-1,-2 Crank Assembly Repair
Figure 601 (Sheet 1 of 2)



B–B

1 THE LEVER ASSEMBLY IS REMOVED FROM THIS FIGURE TO MAKE IT CLEAR

ALL DIMENSIONS ARE IN INCHES.

H47133 S00041008678_V2

254A1242-1,-2 Crank Assembly Repair
Figure 601 (Sheet 2 of 2)

CRANK REPAIR - 3-2

254A1243–1, –2

1. General

A. This procedure has the data necessary to refinish the crank (IPL Figure 1, 400, 402; IPL Figure 2, 405, 410).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 shown in the repair.

D. Refer to IPL Figure 1 and IPL Figure 2 for the applicable item numbers.

E. General repair details:

(1) Material: 7075-T7351 Aluminum alloy

2. Crank

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I

B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-41-02	APPLICATION OF CHEMICAL AND SOLVENT RESISTANT FINISHES
SOPM 20-43-01	CHROMIC ACID ANODIZING
SOPM 20-60-02	FINISHING MATERIALS

C. Procedure (IPL Figure 1, 400, 402; IPL Figure 2, 405, 410) Refinish

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Boric acid-sulfuric acid anodize, Class 1 or 5, or chromic acid anodize, Class 3 or 5 (F-17.31) as shown in SOPM 20-43-01.

(2) Apply primer, C00259 (F-20.03) as shown in SOPM 20-41-02.

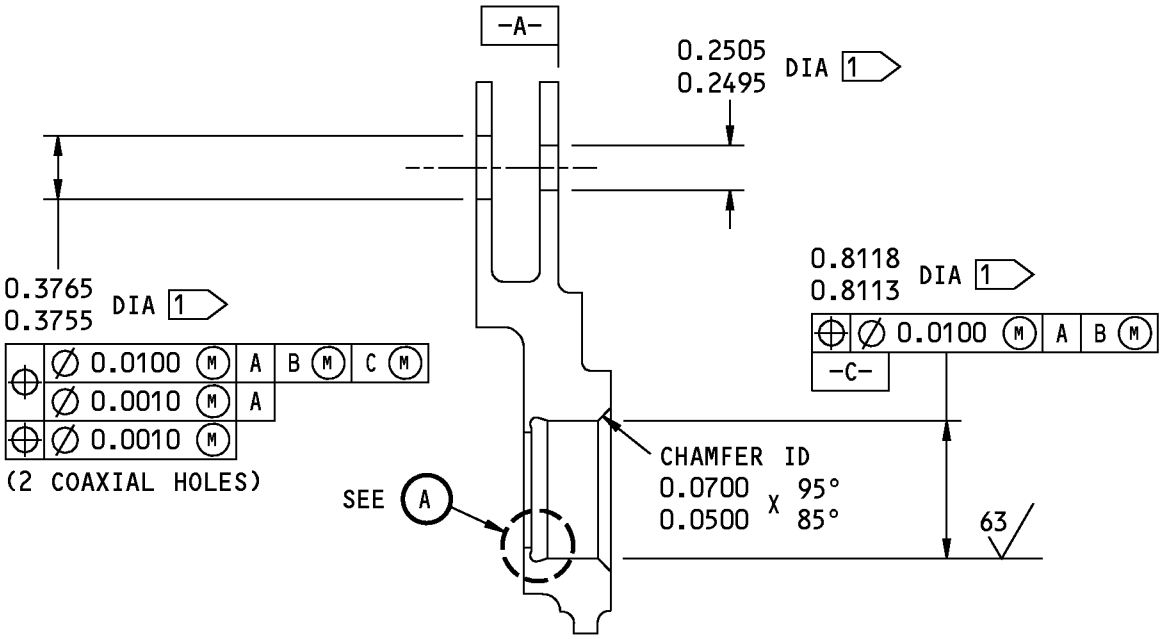
(a) Do not anodize (F-17.31) or apply primer, C00259 (F-20.03) to the surfaces of the crank (IPL Figure 1, 400, 402; IPL Figure 2, 405, 410) as shown in REPAIR 3-2, Figure 601.

D. Procedure (IPL Figure 1, 398; IPL Figure 2, 402) Replacement

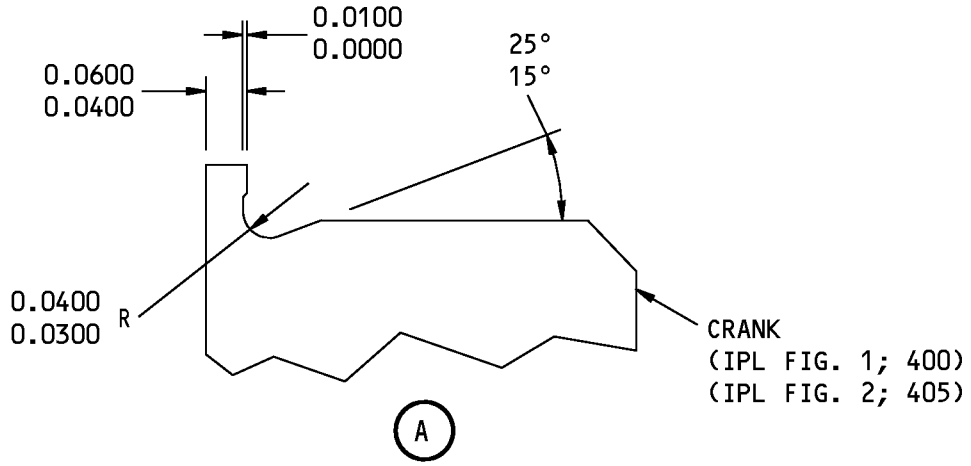
NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Remove the inserts (IPL Figure 1, 398; IPL Figure 2, 402).

(2) Install the inserts (IPL Figure 1, 398; IPL Figure 2, 402) in the crank (IPL Figure 1, 400, 402; IPL Figure 2, 405, 410) with primer, C00259 (F-20.20) and seat with thread gage while primer is still wet.



254A1243-1 SHOWN
254A1243-2 OPPOSITE



1 DO NOT ANODIZE (F-17.31) OR APPLY PRIMER (F-20.03) ON THIS SURFACE

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ALL DIMENSIONS ARE IN INCHES

H47146 S00041008680_V2

254A1243-1,-2 Crank Refinish
Figure 601

CAM - REPAIR 3-3

254A1244–1, –2

1. General

A. This procedure has the data necessary to refinish the cam (IPL Figure 1, 380, 382; IPL Figure 2, 385, 387).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 shown in the repair.

D. Refer to IPL Figure 1 and IPL Figure 2 for the applicable item numbers.

E. General repair details:

(1) Material:

- 15-5 PH CRES
- 180-200 ksi

2. Cam

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I

B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-41-02	APPLICATION OF CHEMICAL AND SOLVENT RESISTANT FINISHES
SOPM 20-60-02	FINISHING MATERIALS

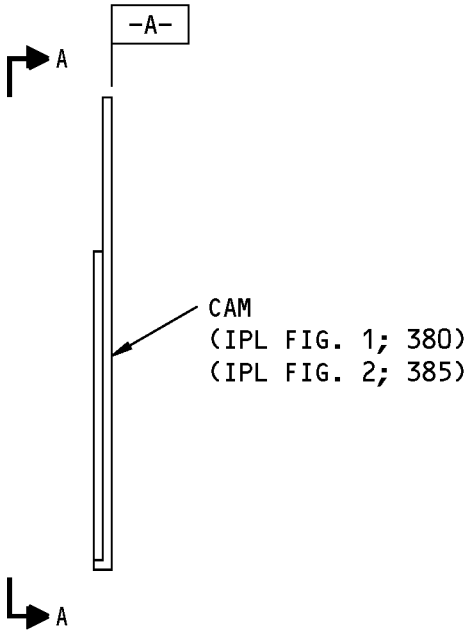
C. Procedure (IPL Figure 1, 380, 382; IPL Figure 2, 385, 387) Refinish

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

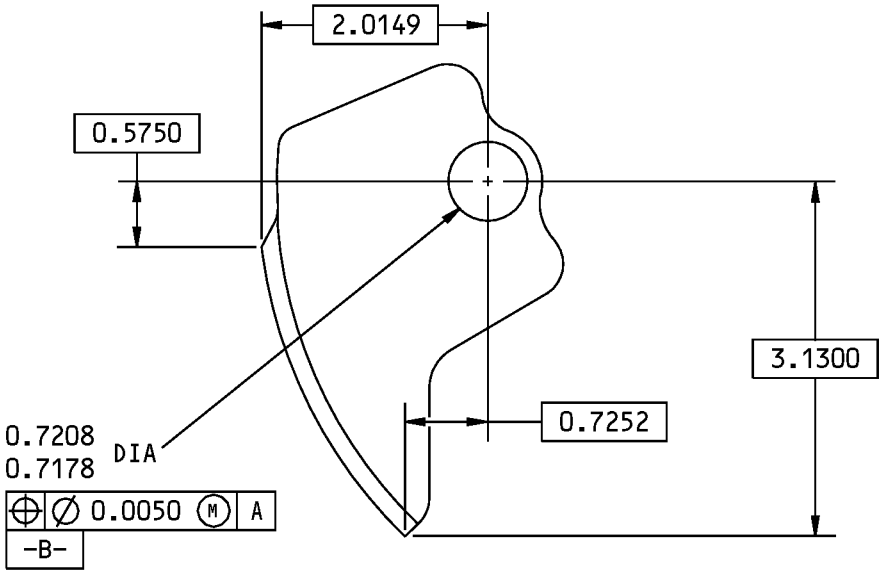
(1) Apply cadmium plate (F-16.06), Type 2, Class 2.

(2) Apply primer, C00259 (F-20.02) as shown in SOPM 20-41-02.

(a) Do not apply primer, C00259 (F-20.02) to the surface of the cam (IPL Figure 1, 380, 382; IPL Figure 2, 385, 387) as shown in REPAIR 3-3, Figure 601.

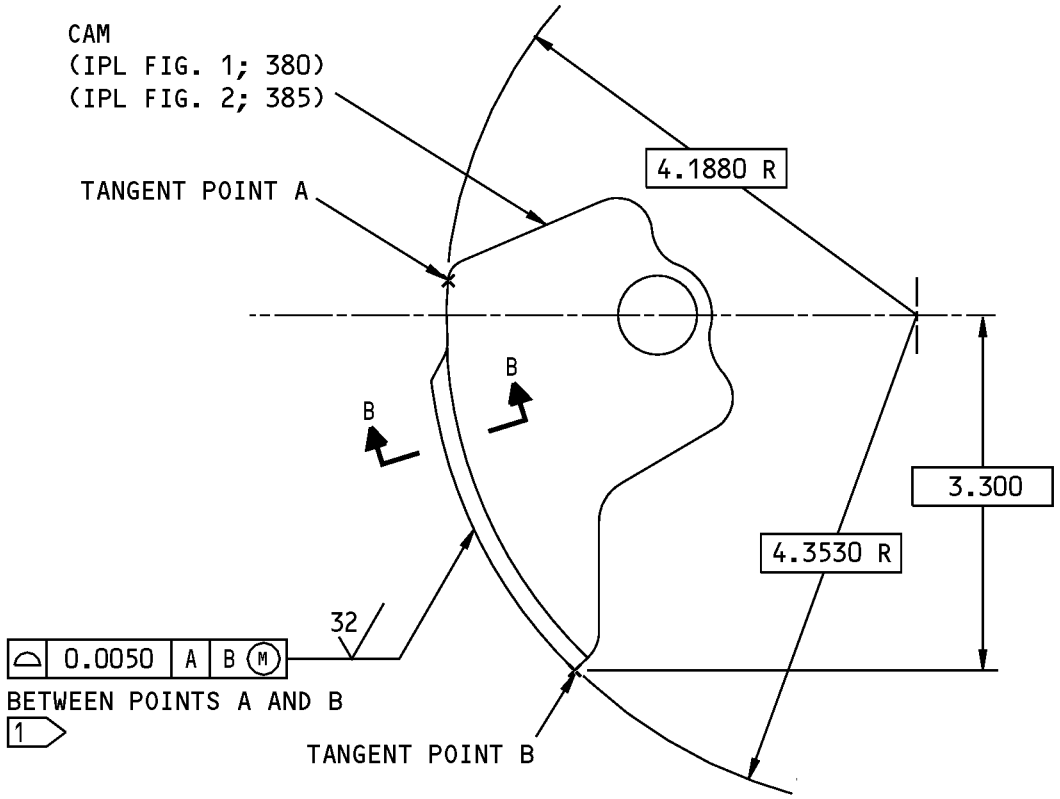


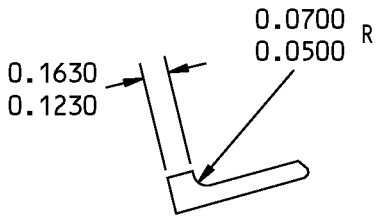
254A1244-1 SHOWN
254A1244-2 OPPOSITE



A-A

254A1244-1,-2 Cam Refinish
Figure 601 (Sheet 1 of 2)





1 DO NOT APPLY PRIMER (F-20.02) ON THIS SURFACE.

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ALL DIMENSIONS ARE IN INCHES

254A1244-1,-2 Cam Refinish
Figure 601 (Sheet 2 of 2)

RETAINER - REPAIR 3-4

254A1246–1

1. General

A. This procedure has the data necessary to refinish the retainer (IPL Figure 1, 385; IPL Figure 2, 390).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 shown in the repair.

D. Refer to IPL Figure 1 and IPL Figure 2 for the applicable item numbers.

E. General repair details:

(1) Material: 2024-T4 Al alloy

2. Retainer

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I

B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-41-02	APPLICATION OF CHEMICAL AND SOLVENT RESISTANT FINISHES
SOPM 20-60-02	FINISHING MATERIALS

C. Procedure (IPL Figure 1, 385; IPL Figure 2, 390) Refinish

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Sulfuric acid anodize (F-17.03).

(2) Apply primer, C00259 (F-20.02) as shown in SOPM 20-41-02.

LEVER ASSEMBLY - REPAIR 4-1

65C37366–1, –2

1. General

A. This procedure has the data necessary to repair and refinish the lever assembly (270, 275).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 shown in the repair.

D. Refer to IPL Figure 1 for the applicable item numbers.

2. Bearing (310) Replacement

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
D00013	Grease - Aircraft And Instrument Grease	MIL-PRF-23827 (NATO G-354) (Supersedes MIL-G-23827)

B. References

Reference	Title
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-60-02	FINISHING MATERIALS

C. Procedure

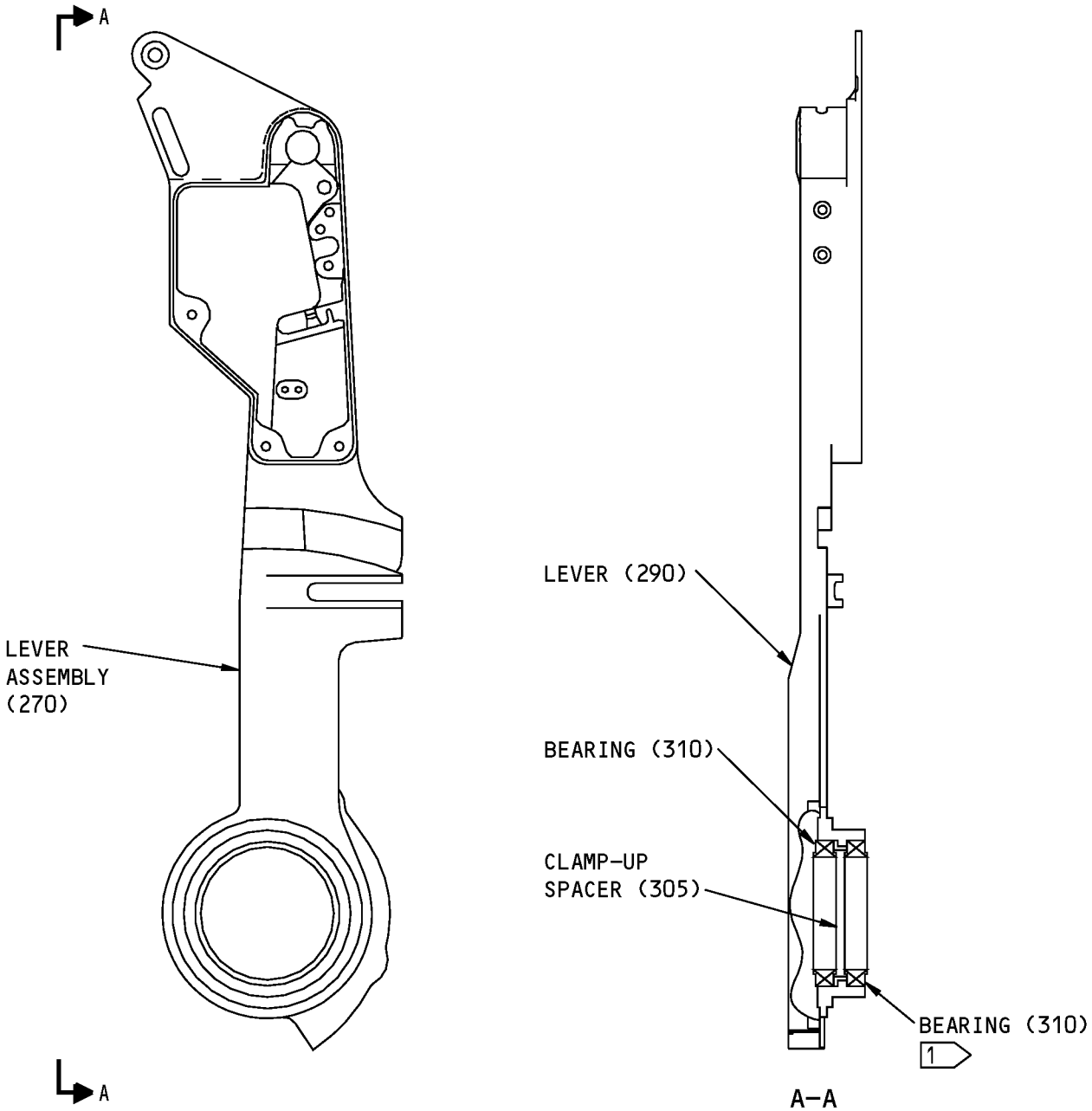
CAUTION: DO NOT REMOVE THE SWAGED BEARING (310) IDENTIFIED IN FIG. 601.

NOTE: For finishing materials, refer to SOPM 20-60-02.

(1) Remove the press-fitted bearing (310) from the lever assembly (270, 275).

(2) Make sure that the clamp-up spacer (305) is installed.

(3) Install a bearing (310) in the lever assembly (270, 275) by the press-fit procedure with grease, D00013 as shown in SOPM 20-50-03.



1 LEVER (290) IS ROLLER SWAGED OVER THE BEARING (310)

ITEM NUMBERS FEFER TO IPL FIG. 1

65C37366-1,-2 Lever Assembly Repair
Figure 601

LEVER - REPAIR 4-2

65C37366–3, –4

1. General

A. This procedure has the data necessary to refinish the lever (290, 292).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 shown in the repair.

D. Refer to IPL Figure 1 for the applicable item numbers.

E. General repair details:

(1) Material: 15-5PH CRES Heat treat H935

2. Lever (290, 292) Refinish

A. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES

B. Procedure

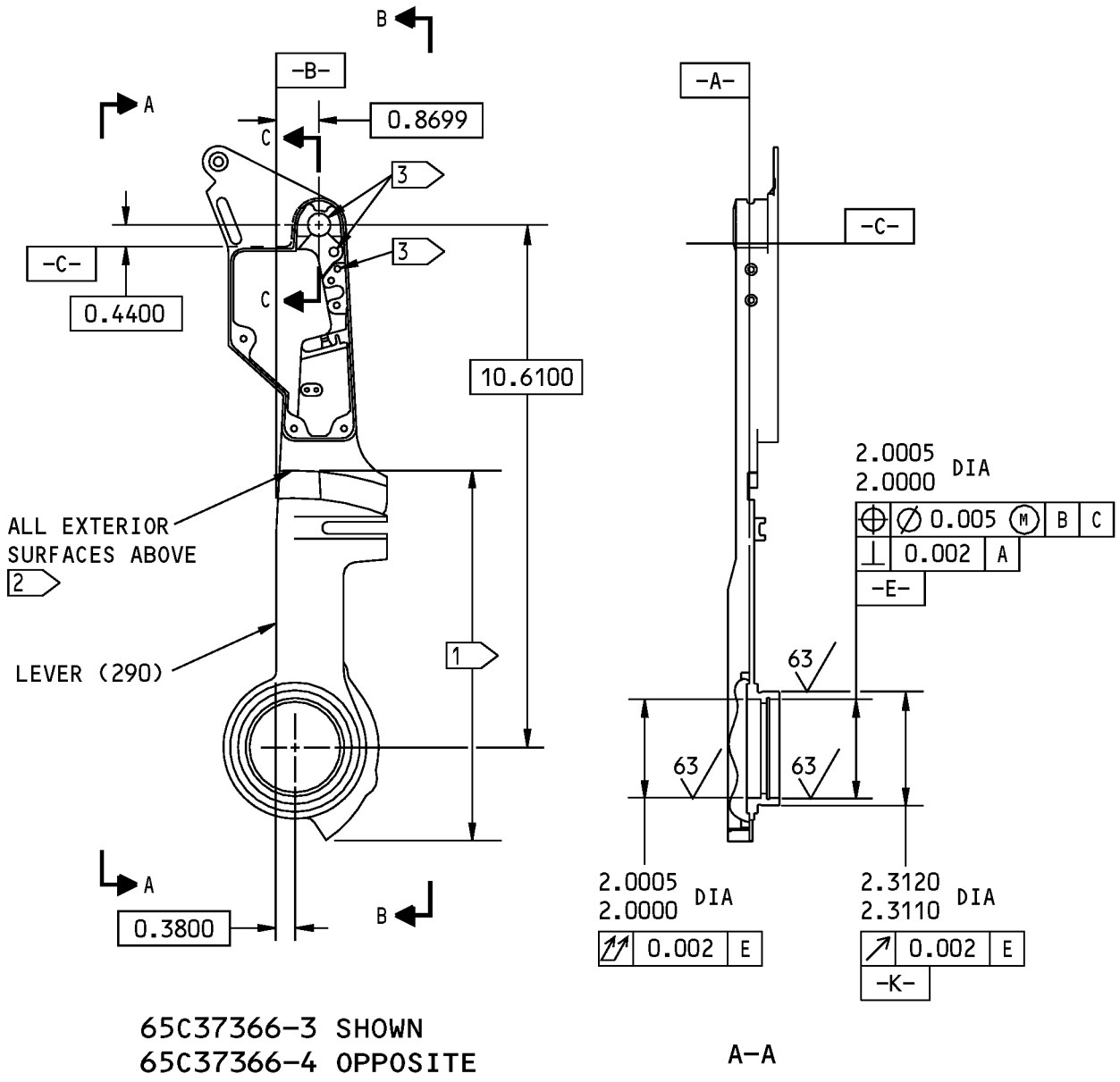
NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For decoding table for Boeing finish codes, refer to SOPM 20-41-01.

(1) Passivate (F-17.25) all surfaces.

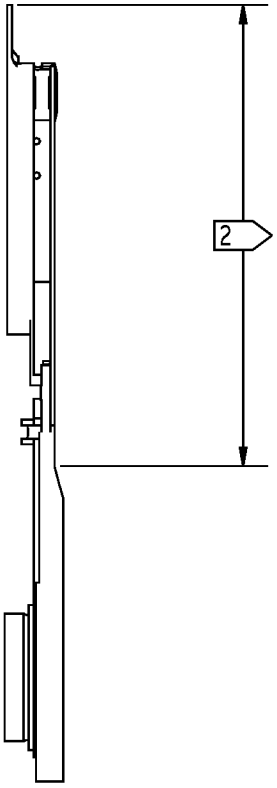
(2) Apply a matte chromium plate finish (F-14.111) on the external surfaces of the lever (290, 292), except as shown in REPAIR 4-2, Figure 601.

(a) Matte chromium plate (F-14.111) is permitted, but not necessary on the external surface as shown in REPAIR 4-2, Figure 601.

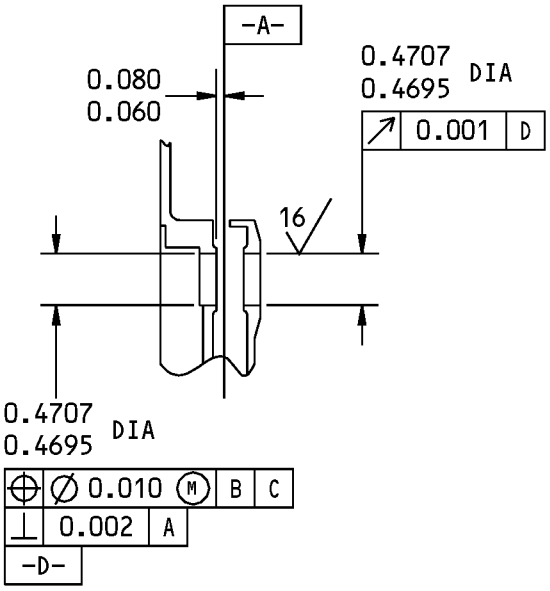
(b) All external surfaces must be free of visual defects on the finish (F-14.111) as shown in REPAIR 4-2, Figure 601.



65C37366-3,-4 Lever Refinish
Figure 601 (Sheet 1 of 2)



B–B



C–C

1 FINISH (F–14.111) PERMITTED BUT NOT NECESSARY ON THIS EXTERIOR SURFACE

2 SURFACE MUST BE FREE OF VISUAL DEFECTS ON THE FINISH (F–14.111)

3 DO NOT APPLY FINISH TO THIS AREA

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 1

ALL DIMENSIONS ARE IN INCHES

65C37366-3,-4 Lever Refinish
Figure 601 (Sheet 2 of 2)

LEVER ASSEMBLY - REPAIR 5-1

254A1247–1, –2, –5, –6, –11, –12

1. General

A. This procedure has the data necessary to repair the lever assembly (280, 285).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 given in the repair procedures.

D. Refer to IPL Figure 2 for the applicable item numbers.

2. Bearing (320) Replacement

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
D00633	Grease - Aircraft General Purpose	BMS3-33

B. References

Reference	Title
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-60-03	LUBRICANTS

C. Procedure

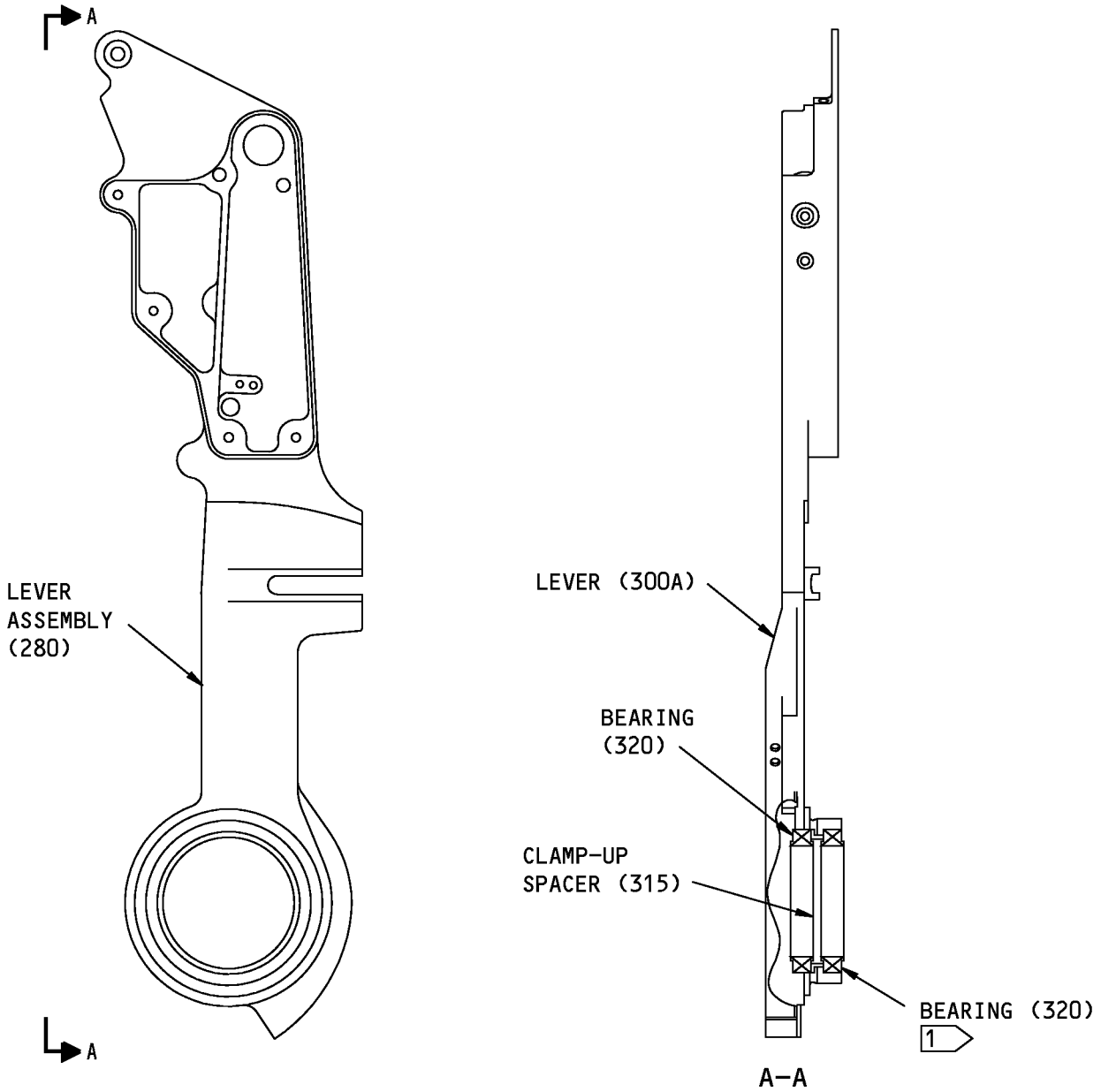
CAUTION: DO NOT REMOVE THE SWAGED BEARING (320) IDENTIFIED IN FIG. 601.

NOTE: For lubricants, refer to SOPM 20-60-03.

(1) Remove the press-fitted bearing (320) from the lever assembly (280, 285).

(2) Make sure that the clamp-up spacer (315) is installed.

(3) Install the bearing (320) in the lever assembly (280, 285) with grease, D00633 by the press-fit procedure (SOPM 20-50-03).



254A1247-1 SHOWN
254A1247-2 OPPOSITE
254A1247-5,-6,-11,-12 SIMILAR

1 LEVER (300A) IS ROLLER SWAGED OVER BEARING (320)

ITEM NUMBERS REFER TO IPL FIG. 2

H47334 S00041008691_V2

254A1247-1,-2,-5,-6,-11,-12 Lever Assembly Repair
Figure 601

LEVER - REPAIR 5-2

254A1247–3, –4, –7, –8, –9, –10, –13, –14

1. General

A. This procedure has the data necessary to refinish the lever (300A, 302).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 given in the repair procedures.

D. Refer to IPL Figure 2 for the applicable item numbers.

E. General repair details:

(1) Material: 15-5PH CRES Heat treat H935, Aluminum Alloy

2. Lever (300A, 302) Refinish

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I
C50089	Coating - Flat Black Enamel	BMS10-11, Type II

B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-41-02	APPLICATION OF CHEMICAL AND SOLVENT RESISTANT FINISHES
SOPM 20-60-02	FINISHING MATERIALS

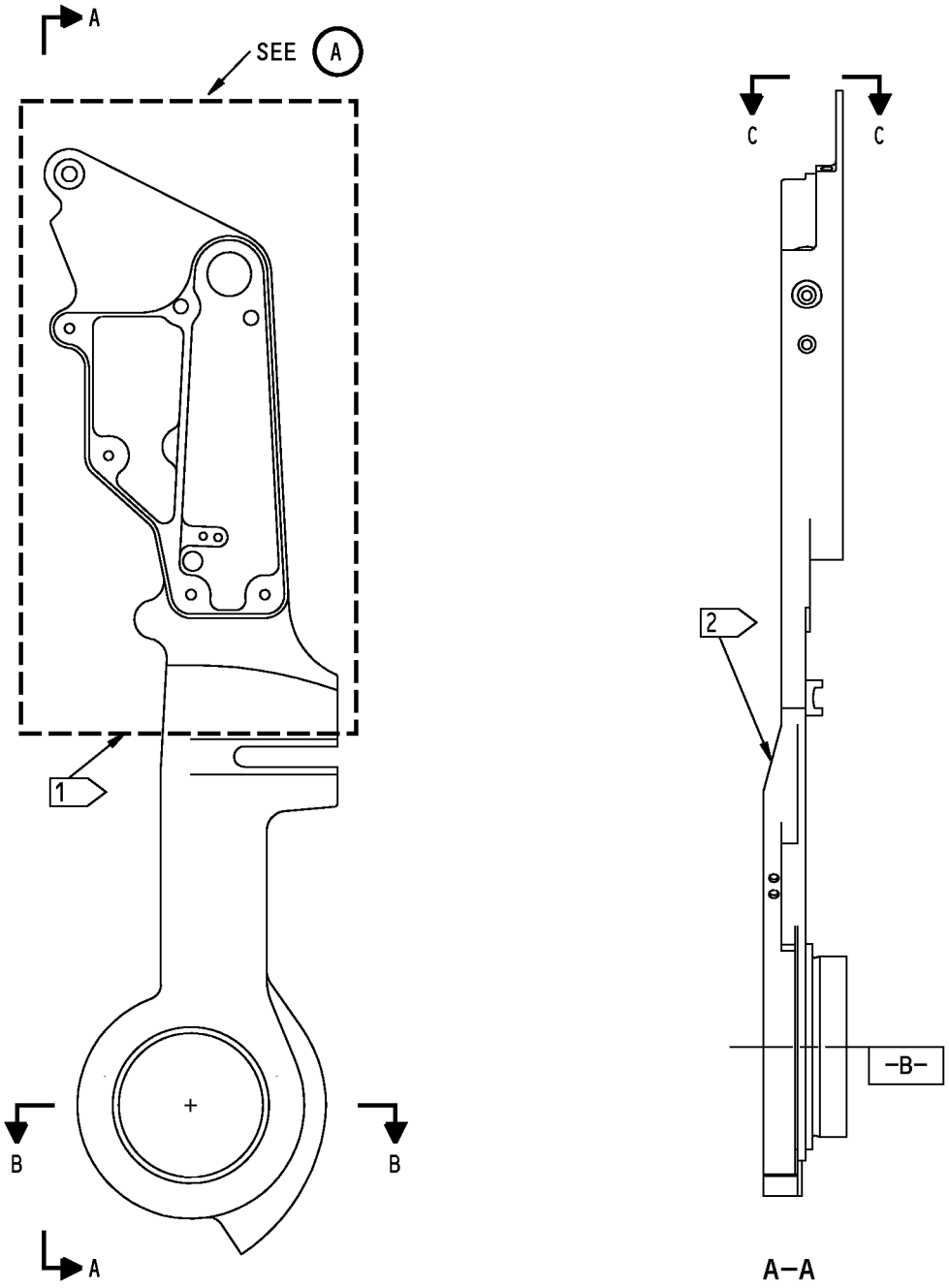
C. Procedure

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02.

(1) Boric acid-sulfuric acid anodize, Class 1 or 5, or chromic acid anodize, Class 3 or 5 (F-17.31) all over.

(2) Apply primer, C00259 (F-20.02) as shown in SOPM 20-41-02, except for surfaces identified by flagnote 2 in REPAIR 5-2, Figure 601.

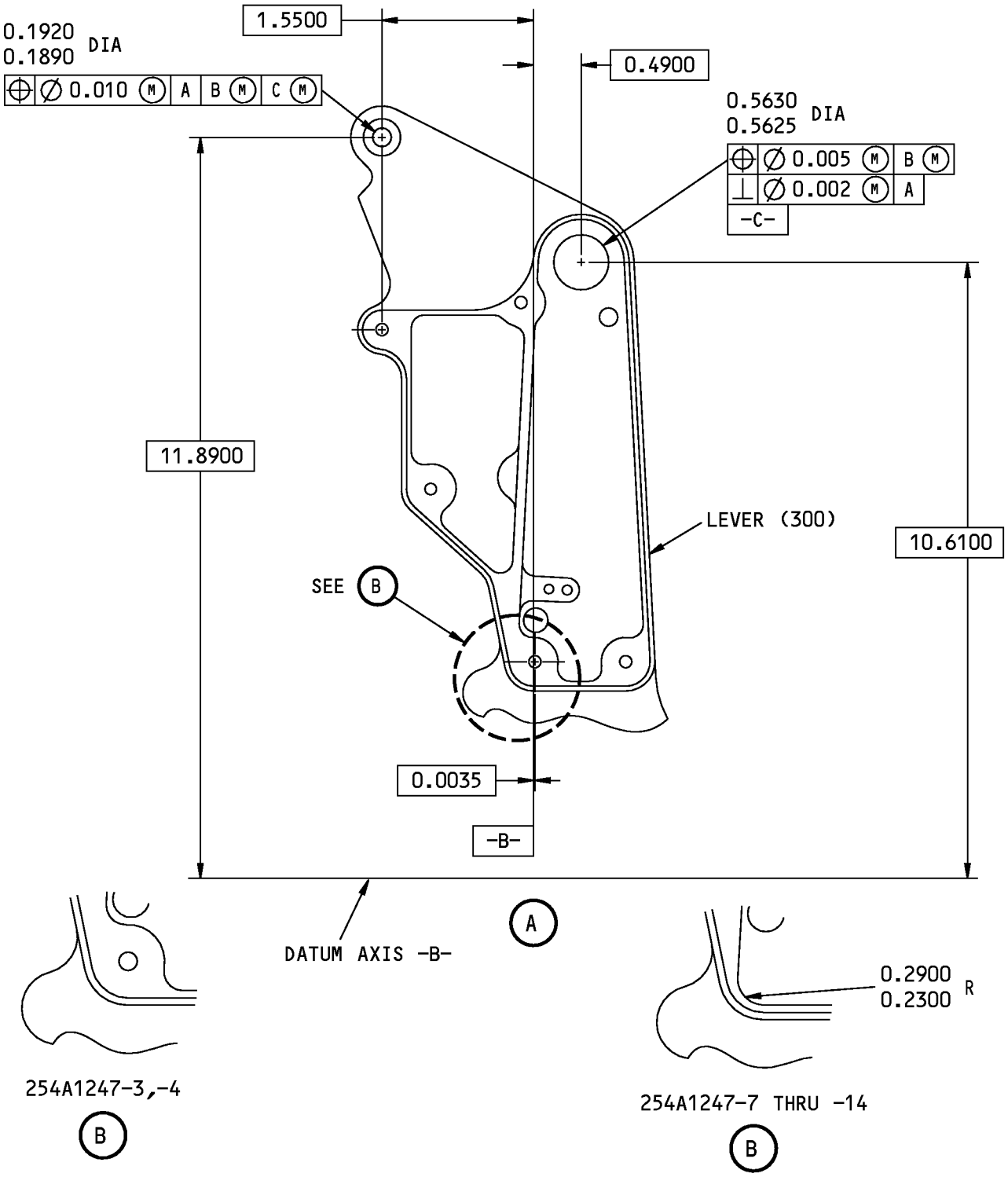
(3) Apply enamel flat black coating, C50089 (F-21.26-705), color 705 as shown in SOPM 20-41-02.



254A1247-3 SHOWN
254A1247-4 OPPOSITE
254A1247-7 THRU -14 SIMILAR

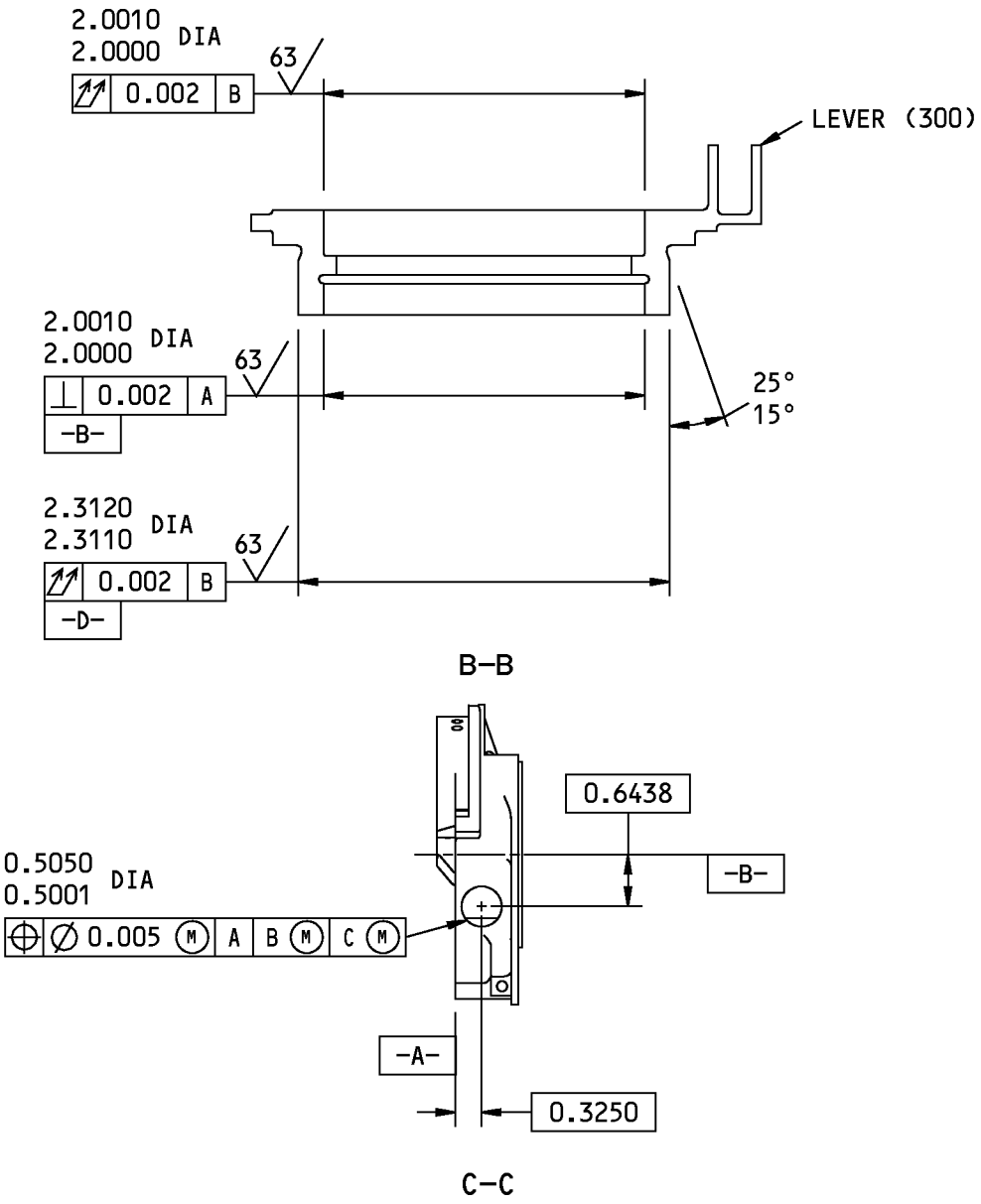
H47391 S00041008693_V2

254A1247-3,-4,-7 Thru -14 Lever Refinish
Figure 601 (Sheet 1 of 3)



H47483 S00041008694_V2

254A1247-3,-4,-7 Thru -14 Lever Refinish
Figure 601 (Sheet 2 of 3)



1 APPLY FINISH (F-17.31 + F-20.02 + F-21.26-705) AT THIS EXTERIOR SURFACE

2 FINISH (F-17.31 + F-20.02 + F-21.26.705) PERMITTED BUT NOT NECESSARY ON THIS EXTERIOR SURFACE

125 ALL MACHINED SURFACES UNLESS SHOWN DIFFERENTLY

BREAK ALL SHARP EDGES

ITEM NUMBERS REFER TO IPL FIG. 2

ALL DIMENSIONS ARE IN INCHES

H47489 S00041008695_V2

254A1247-3,-4,-7 Thru -14 Lever Refinish
Figure 601 (Sheet 3 of 3)

COVER ASSEMBLY - REPAIR 6-1

254A1253–1, –2

1. General

A. This procedure has the data necessary to repair the cover assembly (535, 540).

B. Refer to the Standard Overhaul Practice Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to REPAIR-GENERAL, Figure 601 given in the repair procedures.

D. Refer to IPL Figure 2 for the applicable item numbers.

2. Bushing Replacement

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
C00259	Primer - Chemical And Solvent Resistant Finish, Epoxy Resin	BMS10-11, Type I
C00260	Coating - Chemical And Solvent Resistant Finish, Epoxy Resin Enamel	BMS10-11, Type II

B. References

Reference	Title
SOPM 20-30-02	STRIPPING OF PROTECTIVE FINISHES
SOPM 20-41-01	DECODING TABLE FOR BOEING FINISH CODES
SOPM 20-41-02	APPLICATION OF CHEMICAL AND SOLVENT RESISTANT FINISHES
SOPM 20-50-03	BEARING AND BUSHING REPLACEMENT
SOPM 20-60-02	FINISHING MATERIALS
SOPM 20-60-04	MISCELLANEOUS MATERIALS

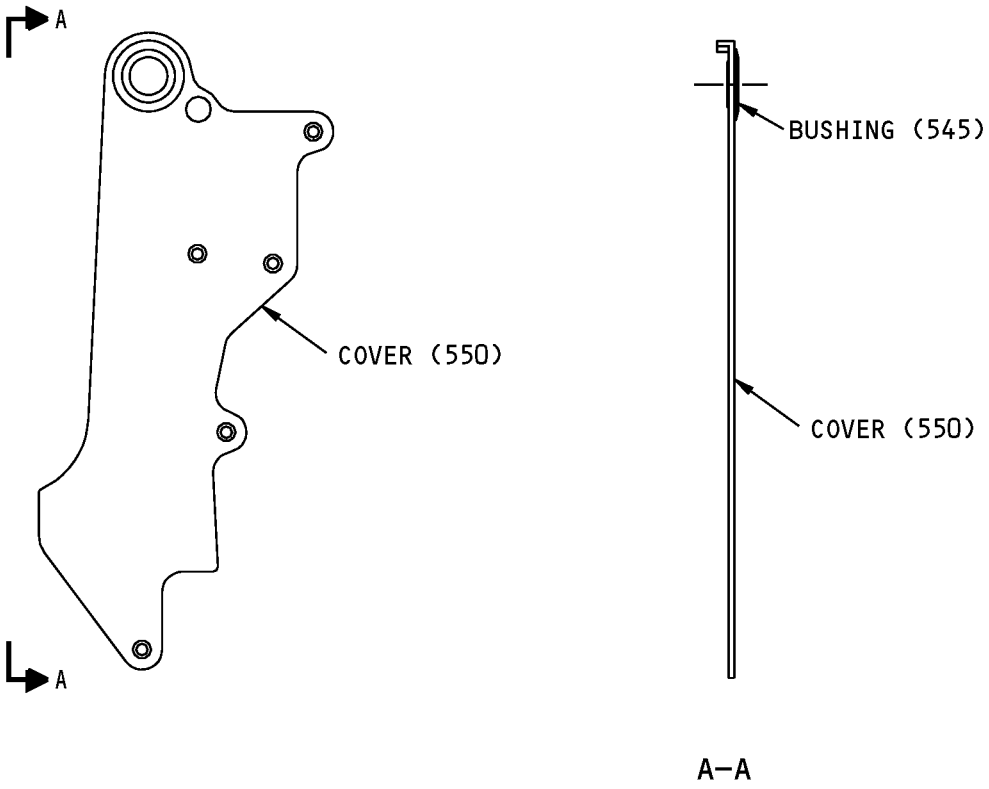
C. Procedure

NOTE: For stripping of protective finishes, refer to SOPM 20-30-02. For decoding table for Boeing finish codes, refer to SOPM 20-41-01. For finishing materials, refer to SOPM 20-60-02. For miscellaneous materials, refer to SOPM 20-60-04

(1) Remove the bushing (545) from the cover (550, 555) as shown in REPAIR 6-1, Figure 601.

(2) Install the new bushing (545) onto the cover (550, 555) by the shrink-fit method with sealant, A00247 as shown in SOPM 20-50-03.

(3) Touch up the bushing flange and sealant, A00247 with primer, C00259 (F-20.02) and enamel coating, C00260 (SRF 14.903.705), color 705 as specified in SOPM 20-41-02.



254A1253–1 SHOWN
254A1253–2 OPPOSITE

ITEM NUMBERS REFER TO IPL FIG. 2

254A1253-1,-2 Cover Assembly Repair
Figure 601

ASSEMBLY

1. General

A. This procedure has the data necessary to assemble the control stand thrust lever assembly.

B. Refer to the Standard Overhaul Practices Manual (SOPM) for the SOPM subjects identified in this procedure.

C. Refer to IPL Figure 1 and IPL Figure 2 for the applicable item numbers.

2. Assembly

A. Consumable Materials

NOTE: Equivalent substitutes may be used.

Reference	Description	Specification
A00028	Adhesive - Modified Epoxy For Rigid PVC, Foam Cored Sandwiches	BAC5010, Type 70 (BMS5-92, Type 1)
A00230	Compound - Electrical Insulating Coating	BMS 5-37
A00279	Adhesive - Fast-Setting Epoxy	BMS5-123 or BAC5010, Type 71
A00551	Sealant - Fuel Tank	BAC5010, Type 44 (BMS5-44, BMS5-45)
D00013	Grease - Aircraft And Instrument Grease	MIL-PRF-23827 (NATO G-354) (Supersedes MIL-G-23827)
G02436	Lockwire - Monel (0.040 In. Dia.)	NASM20995N˜ C40
G50406	Tape - Flat Braid	MIL-T-43435, Type 2, Finish C, Size 3

B. References

Reference	Title
SOPM 20-50-01	BOLT AND NUT INSTALLATION
SOPM 20-50-02	INSTALLATION OF SAFETYING DEVICES
SOPM 20-50-12	APPLICATION OF ADHESIVES
SOPM 20-60-03	LUBRICANTS
SOPM 20-60-04	MISCELLANEOUS MATERIALS

C. Procedure (ASSEMBLY, Figure 701 thru ASSEMBLY, Figure 703)

NOTE: For bolt and nut installation, refer to SOPM 20-50-01. For lubricants, refer to SOPM 20-60-03. For miscellaneous materials, refer to SOPM 20-60-04.

(1) Use standard industry procedures and the steps shown below to assemble this component.

(2) Install the pawl on the lever assembly as follows:

(a) For 254A1240-1 and -2, install the pawl (IPL Figure 1, 95) onto the lever (290, 292) with the special rivet (85) and washer (90) as shown in ASSEMBLY, Figure 701, Section B-B.

(b) For 254A1240-3, -4, -7, -8, -9 and -10 install the pawl (IPL Figure 2, 95) onto the lever (300A, 302) with the special rivet (85) and washer (90) as shown in ASSEMBLY, Figure 702, Section B-B.

(3) Install the switch mount on the lever assembly as follows:

(a) For 254A1240-1 and -2, install the switch mount (IPL Figure 1, 230, 235) onto the lever assembly (270, 275) with the screws (225B) as shown in ASSEMBLY, Figure 701, Section C-C.

(b) For 254A1240-3, -4, -7, -8, -9 and -10, install the switch mount (IPL Figure 2, 245, 250) onto the lever assembly (IPL Figure 2, 280, 285) with the screws (240A) as shown in ASSEMBLY, Figure 702, Section C-C.

(4) Install the switch (IPL Figure 1, 240; IPL Figure 2, 255) on the switch mount (IPL Figure 1, 230, 235; IPL Figure 2, 245, 250) with the nut and lockwasher supplied with the switch (IPL Figure 1, 240; IPL Figure 2, 255). Discard all other parts supplied with the switch (IPL Figure 1, 240; IPL Figure 2, 255).

(5) For 254A1240-1 and -2 only, bond the bollard (IPL Figure 1, 245) onto the lever assembly (IPL Figure 1, 270, 275) with adhesive, A00028 or adhesive, A00279 (SOPM 20-50-12) as identified by flagnote 1 in ASSEMBLY, Figure 701.

(6) Install the switch plates (IPL Figure 1, 255; IPL Figure 2, 265) and the switch (IPL Figure 1, 260; IPL Figure 2, 270) on the lever assembly (IPL Figure 1, 270, 275; IPL Figure 2, 280, 285) with the screws (IPL Figure 1, 250A; IPL Figure 2, 260).

(7) Install the markers onto the lever assembly as follows:

(a) For 254A1240-1 and -2, install the markers (IPL Figure 1, 525, 530, 535, 540) onto the lever assembly (270, 275) as shown in ASSEMBLY, Figure 701, Section C-C.

(b) For 254A1240-3, -4, -7, -8, -9 and -10, install the markers (IPL Figure 2, 560, 565, 570, 575) onto the lever assembly (IPL Figure 2, 280, 285) as shown in ASSEMBLY, Figure 702, Section C-C.

WARNING: THE LEVER (FIG. 1, 165, 167; FIG. 2, 165, 167) IS MADE OF A BERYLLIUM-COPPER ALLOY. REFER TO SOPM 20-10-09.

(8) For 254A1240-3, -4, -7, -8, -9 and -10 only, install the housing assembly (225A, 228) onto the lever assembly (IPL Figure 2, 280, 285) with the rivets (222).

(9) Put the roller (IPL Figure 1, 170; IPL Figure 2, 170) and the spring plunger (IPL Figure 1, 175, 175A; IPL Figure 2, 175, 175A) on the lever (IPL Figure 1, 165, 167; IPL Figure 2, 165, 167). Apply grease, D00013 (SOPM 20-60-03) to the holes. Install the pins (IPL Figure 1, 160; IPL Figure 2, 160). The spring plunger (IPL Figure 1, 175, 175A; IPL Figure 2, 175, 175A) must move freely and the roller (IPL Figure 1, 170; IPL Figure 2, 170) must turn freely.

(10) Install the spring (IPL Figure 1, 190; IPL Figure 2, 190) on the spring plunger (IPL Figure 1, 175, 175A; IPL Figure 2, 175, 175A). Install the roller assembly (IPL Figure 1, 150, 155; IPL Figure 2, 150, 155) with the spring (IPL Figure 1, 190; IPL Figure 2, 190) in the lever assembly (IPL Figure 1, 270, 275; IPL Figure 2, 280, 285) with grease, D00013 (SOPM 20-60-03).

(11) Install the spring (IPL Figure 1, 190, 195; IPL Figure 2, 190, 195), the spacer (IPL Figure 1, 200B; IPL Figure 2, 200), the washers IPL Figure 2, 197 (if installed), the nut assembly (IPL Figure 1, 205; IPL Figure 2, 205) and the nut (IPL Figure 1, 220B; IPL Figure 2, 220) on the end of the spring plunger (IPL Figure 1, 175, 175A; IPL Figure 2, 175, 175A). Make sure the insert (IPL Figure 1, 210; IPL Figure 2, 210) of the nut assembly (IPL Figure 1, 205; IPL Figure 2, 205) is down. Assemble the nuts (IPL Figure 1, 215, 220B; IPL Figure 2, 215, 220) loosely.

(12) Align the hole in the roller assembly (IPL Figure 1, 150, 155; IPL Figure 2, 150, 155) with the hole in the lever assembly (IPL Figure 1, 270, 275; IPL Figure 2, 280, 285) with the washer (IPL Figure 1, 185; IPL Figure 2, 185) between the roller assembly and the lever assembly (for 254A1240-1 and -2) or the housing assembly (for 254A1240-3, -4, -7, -8, -9 and -10).

(13) Install the dowel (IPL Figure 1, 145; IPL Figure 2, 145) in the pin plate assembly (IPL Figure 1, 120, 125; IPL Figure 2, 120, 125) by the shrink-fit method with grease, D00013 (SOPM 20-60-03). Install the dowel (IPL Figure 1, 145; IPL Figure 2, 145) to within 0.0000-0.0030 inch above the pin plate assembly (IPL Figure 1, 120, 125; IPL Figure 2, 120, 125).

(14) Install the pin plate assembly (IPL Figure 1, 120, 125; IPL Figure 2, 120, 125) and the shim (IPL Figure 1, 180; IPL Figure 2, 180) on the lever assembly (IPL Figure 1, 270, 275; IPL Figure 2, 280, 285) through the roller assembly (IPL Figure 1, 150, 155; IPL Figure 2, 150, 155) with the screws (IPL Figure 1, 115C; IPL Figure 2, 115B) as shown in ASSEMBLY, Figure 701, Section F-F and ASSEMBLY, Figure 702, Section E-E.

(15) Adjust the laminations of the shim (IPL Figure 1, 180; IPL Figure 2, 180) as necessary to get axial movement of 0.002-0.005 inch.

(16) Attach the link (IPL Figure 1, 75, 80; IPL Figure 2, 75, 80) onto the reverse lever (IPL Figure 1, 60, 65; IPL Figure 2, 60, 65) with the special rivet (IPL Figure 1, 70; IPL Figure 2, 70). The rivet form head must be flush to 0.0050 inch as identified by flagnote 6 in ASSEMBLY, Figure 701 and flagnote 4 in ASSEMBLY, Figure 702.

(17) Attach the link (IPL Figure 1, 75, 80; IPL Figure 2, 75, 80) and reverse lever (IPL Figure 1, 60, 65; IPL Figure 2, 60, 65) to the crank assembly (IPL Figure 1, 365, 370; IPL Figure 2, 370, 375) with the special bolt (IPL Figure 1, 350; IPL Figure 2, 355), washer (IPL Figure 1, 355; IPL Figure 2, 360), and nut (IPL Figure 1, 360; IPL Figure 2, 365) as shown in ASSEMBLY, Figure 701, Section G-G and ASSEMBLY, Figure 702, Section G-G.

   (a) Install the quantity of washers (IPL Figure 1, 355; IPL Figure 2, 360) as necessary to have smooth operation of the link (IPL Figure 1, 75, 80; IPL Figure 2, 75, 80) and the crank assembly (IPL Figure 1, 365, 370; IPL Figure 2, 370, 375) when operated with the reverse lever (IPL Figure 1, 60, 65; IPL Figure 2, 60, 65).

   (b) The head of the special bolt (IPL Figure 1, 350; IPL Figure 2, 355) must not be more than 0.0550 inch above the link (IPL Figure 1, 75, 80; IPL Figure 2, 75, 80). Safety the nut (IPL Figure 1, 360; IPL Figure 2, 365) with lockwire, G02436 (SOPM 20-50-02) by the single-twist method.

(18) Install the reverse lever (IPL Figure 1, 60, 65; IPL Figure 2, 60, 65) and the link (IPL Figure 1, 75, 80; IPL Figure 2, 75, 80) in the lever assembly (IPL Figure 1, 270, 275; IPL Figure 2, 280, 285) as follows:

   (a) Move the cam assembly (IPL Figure 1, 40, 45; IPL Figure 2, 40, 45) through the lever assembly (IPL Figure 1, 270, 275; IPL Figure 2, 280, 285) and the bearing (IPL Figure 1, 30; IPL Figure 2, 30). Use grease, D00013 (SOPM 20-60-03) and the cam assembly (IPL Figure 1, 40, 45; IPL Figure 2, 40, 45).

(b) For 254A1240-3, -4, -7, -8, -9 and -10 only, install the washer (IPL Figure 2, 35) between the reverse lever (60, 65) and the housing assembly (225A, 228).

(c) Install the other bearing (IPL Figure 1, 30; IPL Figure 2, 30) in the lever assembly (IPL Figure 1, 270, 275; IPL Figure 2, 280, 285) with the counterbore out. Make sure the splines on the bearing (IPL Figure 1, 30; IPL Figure 2, 30) and the splines on the cam assembly (IPL Figure 1, 40, 45; IPL Figure 2, 40, 45) are engaged.

(d) Install the screw (IPL Figure 1, 25; IPL Figure 2, 25) and remove the unwanted grease, D00013 (SOPM 20-60-03).

(19) Install the wire bundles as shown in TESTING AND FAULT ISOLATION, Figure 101 and ASSEMBLY, Figure 702 thru ASSEMBLY, Figure 703.

(a) Attach the wire bundle to switch (IPL Figure 1, 340; IPL Figure 2, 350A) as shown in ASSEMBLY, Figure 701, Section J-J and ASSEMBLY, Figure 702, Section J-J.

(b) Apply the RT876 sleeve (SOPM 20-60-04) onto the wire bundle assembly from point "B" to the switch (IPL Figure 1, 340; IPL Figure 2, 350A) as shown in ASSEMBLY, Figure 701, Section C-C and H-H or ASSEMBLY, Figure 702, Section K-K.

(c) Put the wire bundles in the lever assembly (IPL Figure 1, 270, 275; IPL Figure 2, 280, 285) as shown in ASSEMBLY, Figure 701, Section C-C and K-K or in ASSEMBLY, Figure 702, Section C-C and K-K.

(d) For 254A1240-1 and -2 only, apply sealant, A00551 or compound, A00230 in the hole identified by flagnote 7 in ASSEMBLY, Figure 701, Section C-C.

(e) Attach the wire bundles to switch (IPL Figure 1, 240, 260 ; IPL Figure 2, 255, 270) as shown in ASSEMBLY, Figure 701, Section C-C or IPL Figure 2, Section C-C.

(f) For 254A1240-1 and -2 only, safety the wire bundle to the bollard (IPL Figure 1, 245) with lacing tape, G50406 as identified by flagnote 1 in ASSEMBLY, Figure 701, Section C-C.

(g) For 2541240-1 and -2 only, put the wire bundle through the hole as shown in ASSEMBLY, Figure 701, Section H-H. Do not apply the RT876 sleeve (SOPM 20-60-04) to this location as identified by flagnote 4.

(h) Apply the RT876 sleeve (SOPM 20-60-04) from the switch (IPL Figure 1, 260; IPL Figure 2, 270) contacts and solder joints to point "B". The sleeve must be +0.2500 or -0.1200 inch above the wire bundle as shown in ASSEMBLY, Figure 701, Section C-C or ASSEMBLY, Figure 702, Section C-C.

(i) Apply the RT876 sleeve (SOPM 20-60-04) from point "A" to the full length of the wire bundle as shown in ASSEMBLY, Figure 701 and ASSEMBLY, Figure 702.

(j) Put the wire bundle around the crank assembly (IPL Figure 1, 365; IPL Figure 2, 370) as shown in ASSEMBLY, Figure 701 or ASSEMBLY, Figure 703.

(k) For 254A1240-1 and -2 only, apply sealant, A00551 or compound, A00230(SOPM 20-60-04) to the area between point "A" and point "D" as shown in ASSEMBLY, Figure 701.

(l) For 254A1240-3, -4, -7, -8, -9 and -10 only, safety the wire bundle onto the lever assembly (IPL Figure 2, 280, 285) with lacing tape, G50406 tape MIL-T-43455 at locations identified by flagnote 6 in ASSEMBLY, Figure 702.

(20) Install the cover (IPL Figure 1, 15, 20; IPL Figure 2, 15, 20) onto the lever assembly (IPL Figure 1, 270, 275; IPL Figure 2, 280, 285) with the screws (IPL Figure 1, 10C; IPL Figure 2, 10A, 10B) as shown in ASSEMBLY, Figure 701, Section C-C or ASSEMBLY, Figure 702, Section C-C.

(21) For 254A1240-3, -4, -7, -8, -9 and -10 only, install the cover assembly (IPL Figure 2, 535, 540) onto the lever assembly (IPL Figure 2, 280, 285) with the screws (530A, 530B) as shown in ASSEMBLY, Figure 702.

(22) Install the knob (IPL Figure 1, 105, 110; IPL Figure 2, 105, 110) onto the reverse lever (IPL Figure 1, 60, 65; IPL Figure 2, 60, 65) with the screws IPL Figure 1, 100; IPL Figure 2, 100) as shown in ASSEMBLY, Figure 701, Section I-I on ASSEMBLY, Figure 702, Section I-I.

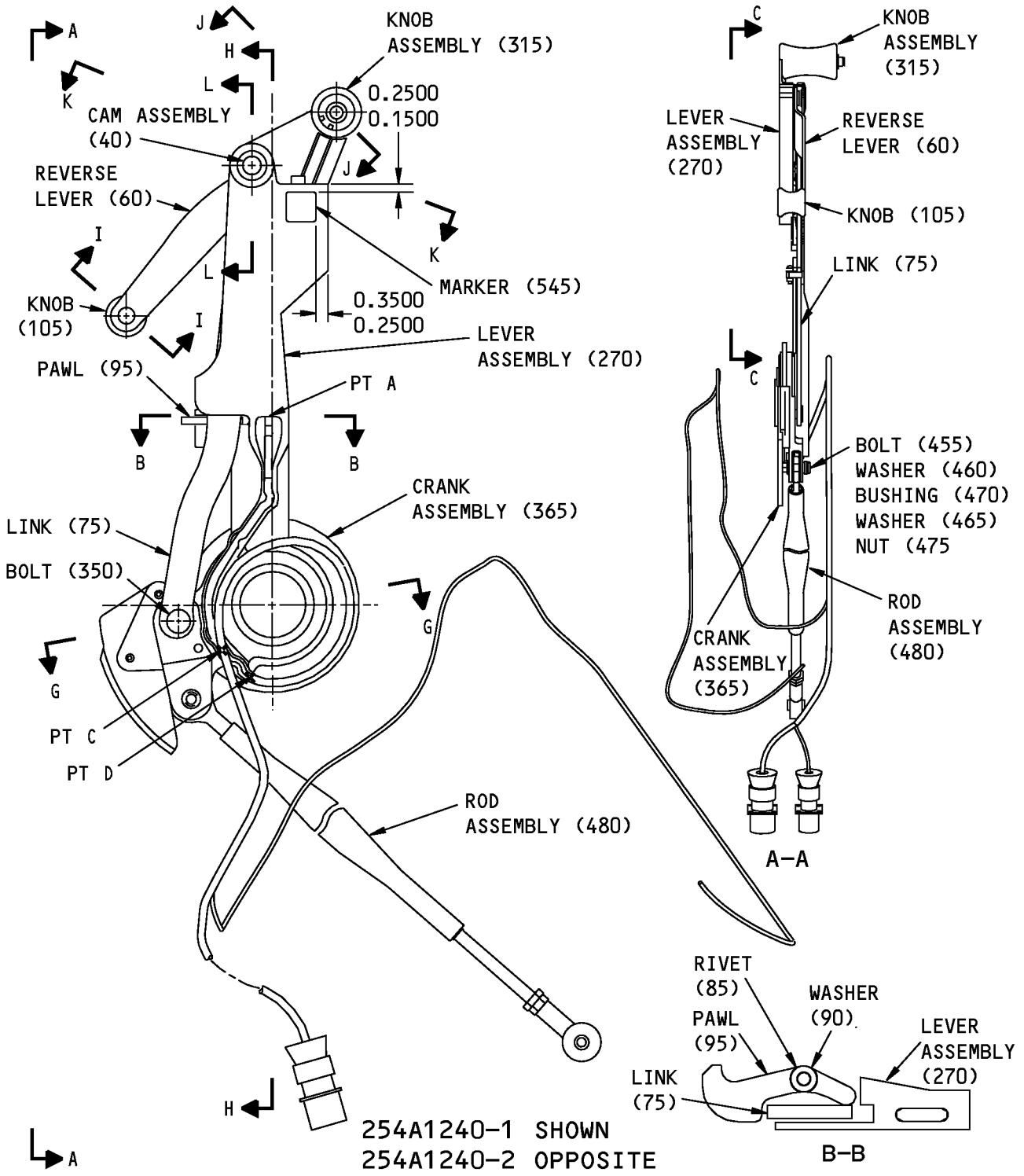
(23) Attach the wire bundle to the switch (IPL Figure 1, 340; IPL Figure 2, 350A). Install the insulating disc (IPL Figure 1, 325; IPL Figure 2, 335), the switch (IPL Figure 1, 340; IPL Figure 2, 350A), the packing (IPL Figure 1, 300; IPL Figure 2, 310), the retainer (IPL Figure 1, 330; IPL Figure 2, 340), and the ring (IPL Figure 1, 335; IPL Figure 2, 345) into the knob assembly (IPL Figure 1, 315, 320; IPL Figure 2, 325, 330) as shown in ASSEMBLY, Figure 701, Section J-J or ASSEMBLY, Figure 702, Section J-J.

(24) Install the rod assembly (IPL Figure 1, 480; IPL Figure 2, 475) onto the crank assembly (IPL Figure 1, 365, 370; IPL Figure 2, 370, 375) with the bolt (IPL Figure 1, 455; IPL Figure 2, 450), the washers (IPL Figure 1, 460, 465; IPL Figure 2, 455A, 460), the bushing (IPL Figure 1, 470; IPL Figure 2, 465), and the nut (IPL Figure 1, 475; IPL Figure 2, 470) as shown in ASSEMBLY, Figure 701, Section A-A or ASSEMBLY, Figure 702, Section A-A.

(25) Install the marker (IPL Figure 1, 545; IPL Figure 2, 580) onto the lever assembly (IPL Figure 1, 270, 275; IPL Figure 2, 280, 285) at the location shown in ASSEMBLY, Figure 701 or ASSEMBLY, Figure 702.

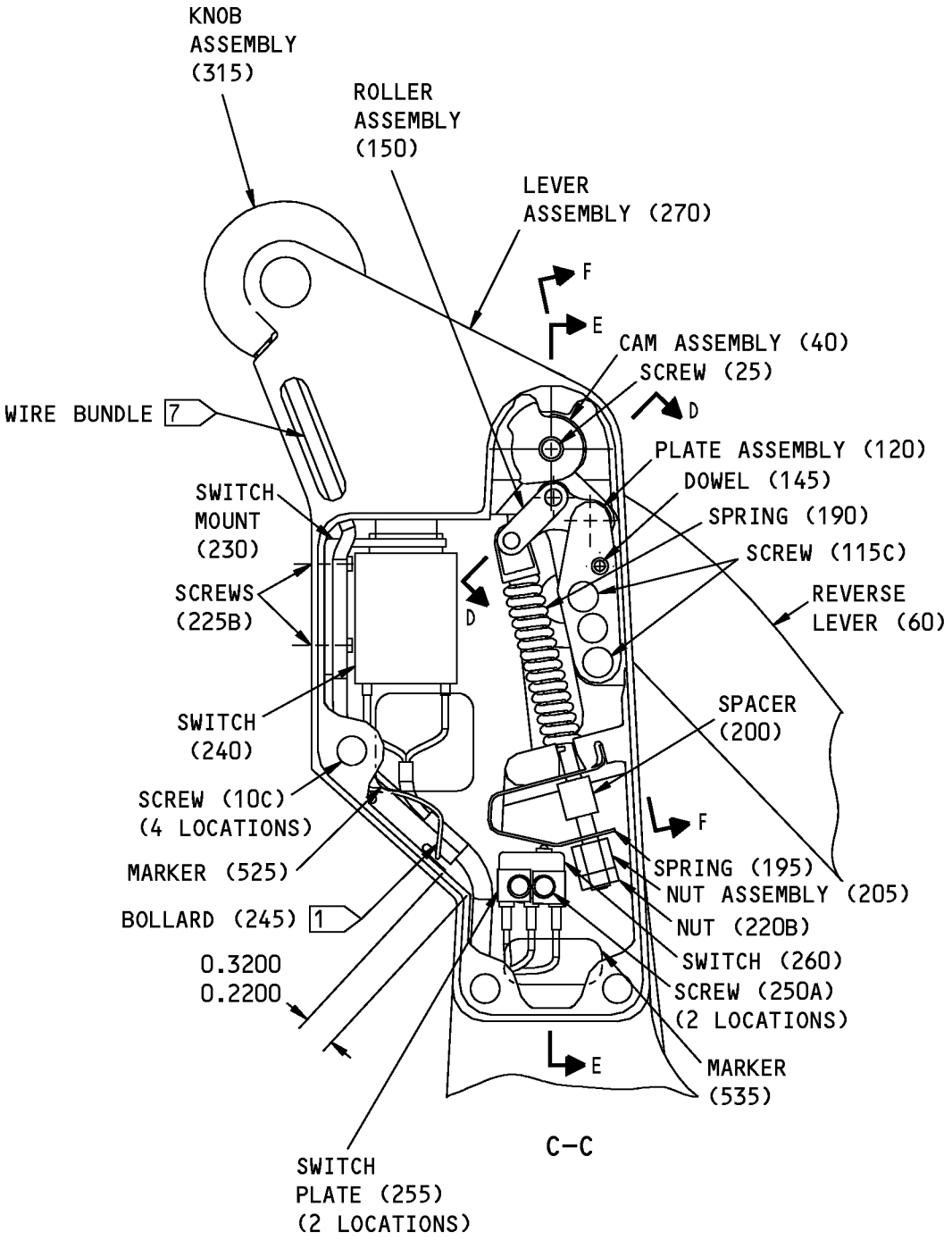
(26) Do the adjustment test as shown in TESTING AND FAULT ISOLATION.

(27) Do the functional test as shown in TESTING AND FAULT ISOLATION.



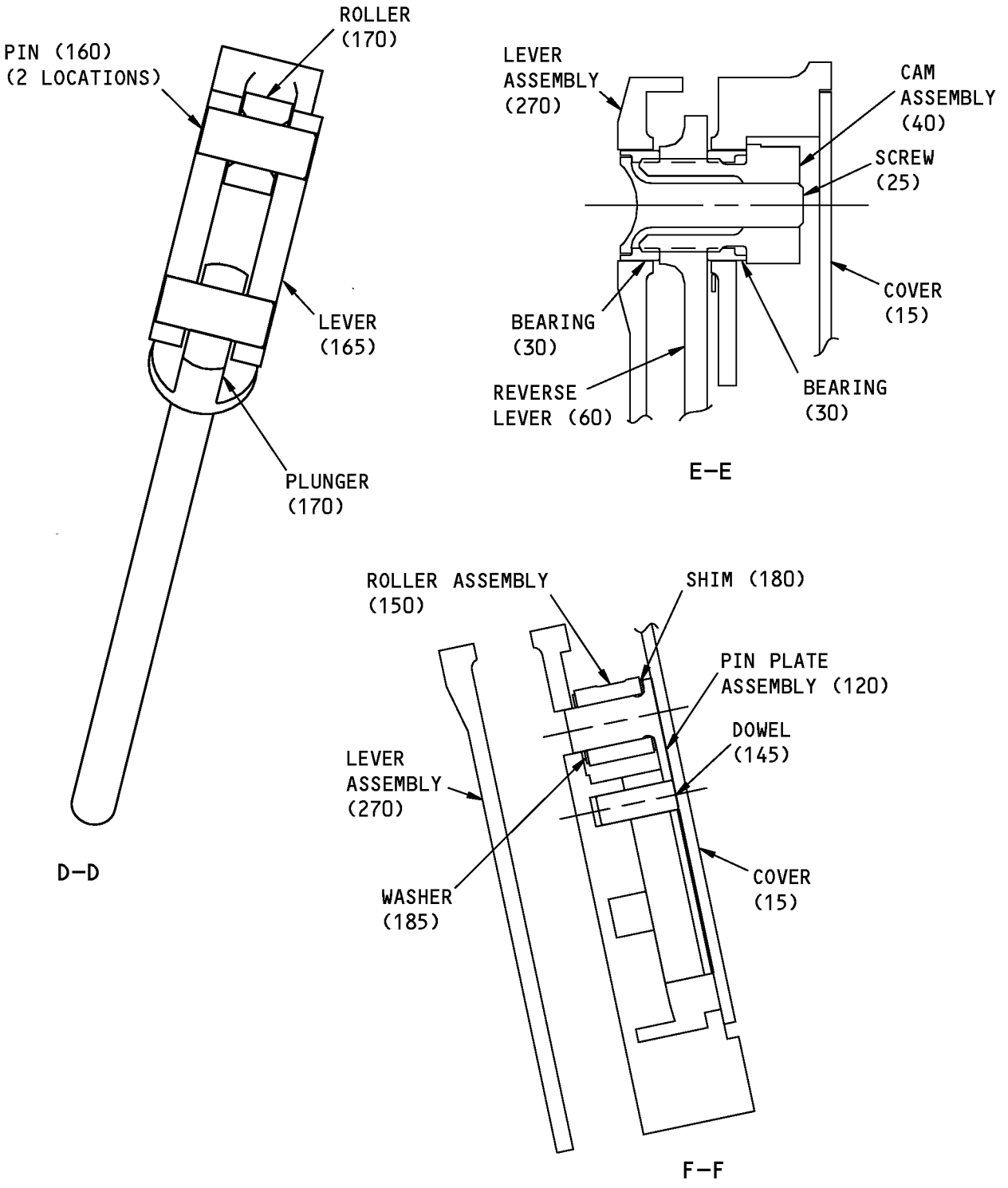
G57795 S00041008699_V2

254A1240-1,-2 Control Stand Thrust Lever Assembly
Figure 701 (Sheet 1 of 5)



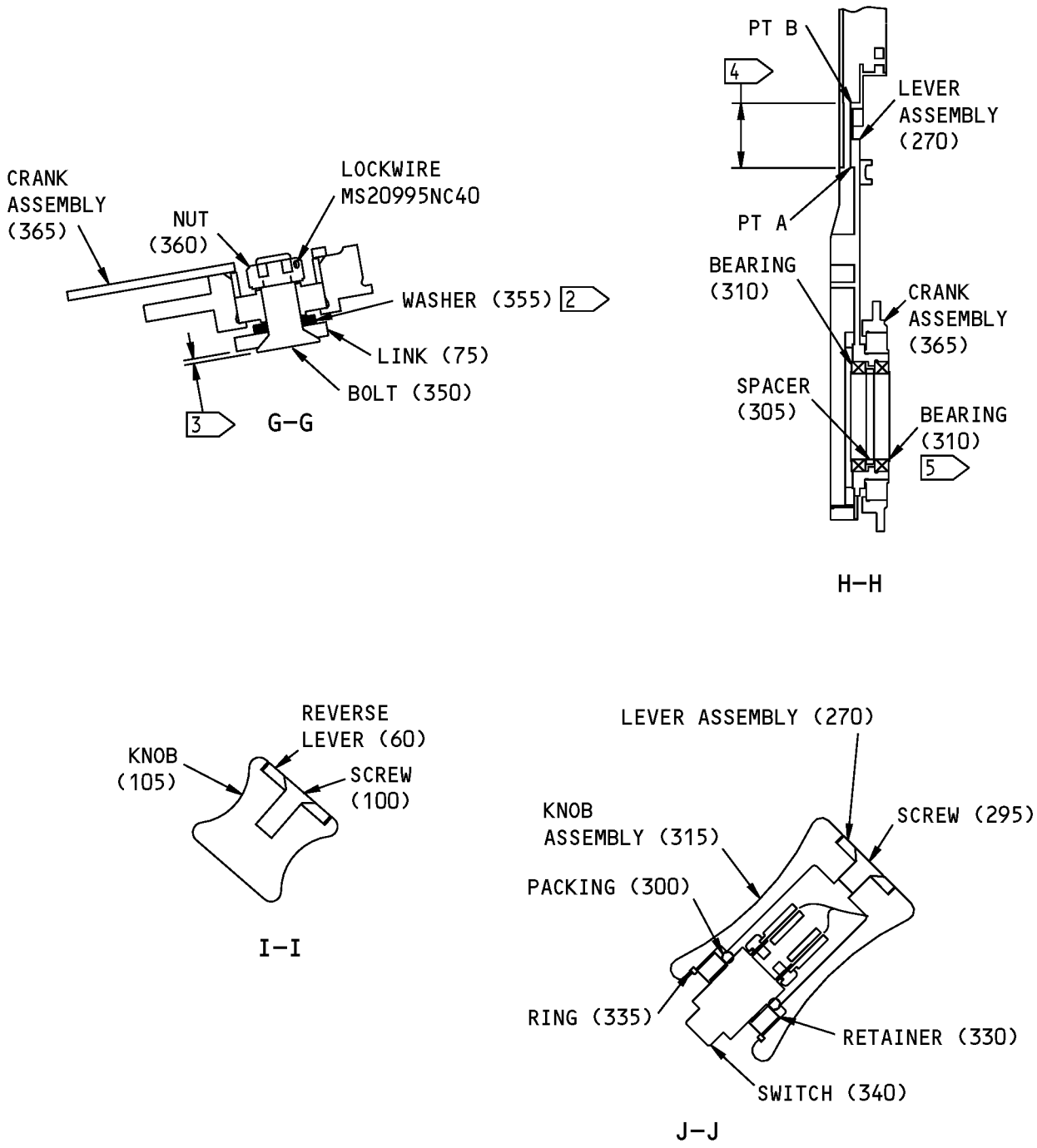
G58196 S00041008700_V2

254A1240-1,-2 Control Stand Thrust Lever Assembly
Figure 701 (Sheet 2 of 5)

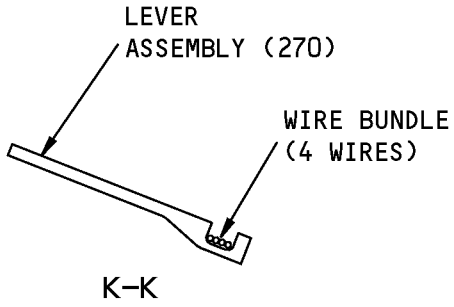


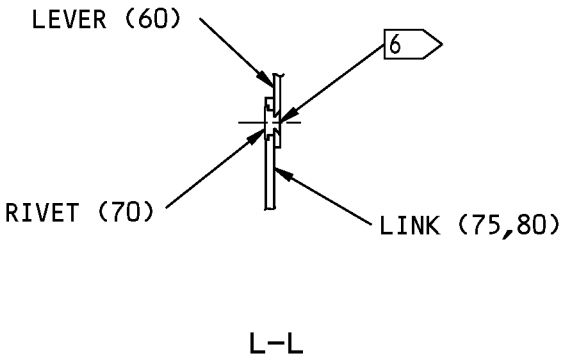
G58213 S00041008701_V2

254A1240-1,-2 Control Stand Thrust Lever Assembly
Figure 701 (Sheet 3 of 5)



254A1240-1,-2 Control Stand Thrust Lever Assembly
Figure 701 (Sheet 4 of 5)





1 MIL-T-43435, TYPE 1, CLASS B TAPE AT THIS LOCATION

2 INSTALL THE QUANTITY OF WASHERS THAT IS NECESSARY TO HAVE A SMOOTH OPERATION AT THIS LOCATION

3 THE BOLT HEAD MUST NOT BE MORE THAN 0.0550 INCH ABOVE THE LINK

4 NO RT876 SLEEVE AT THIS LOCATION

5 DO NOT REMOVE THIS BEARING

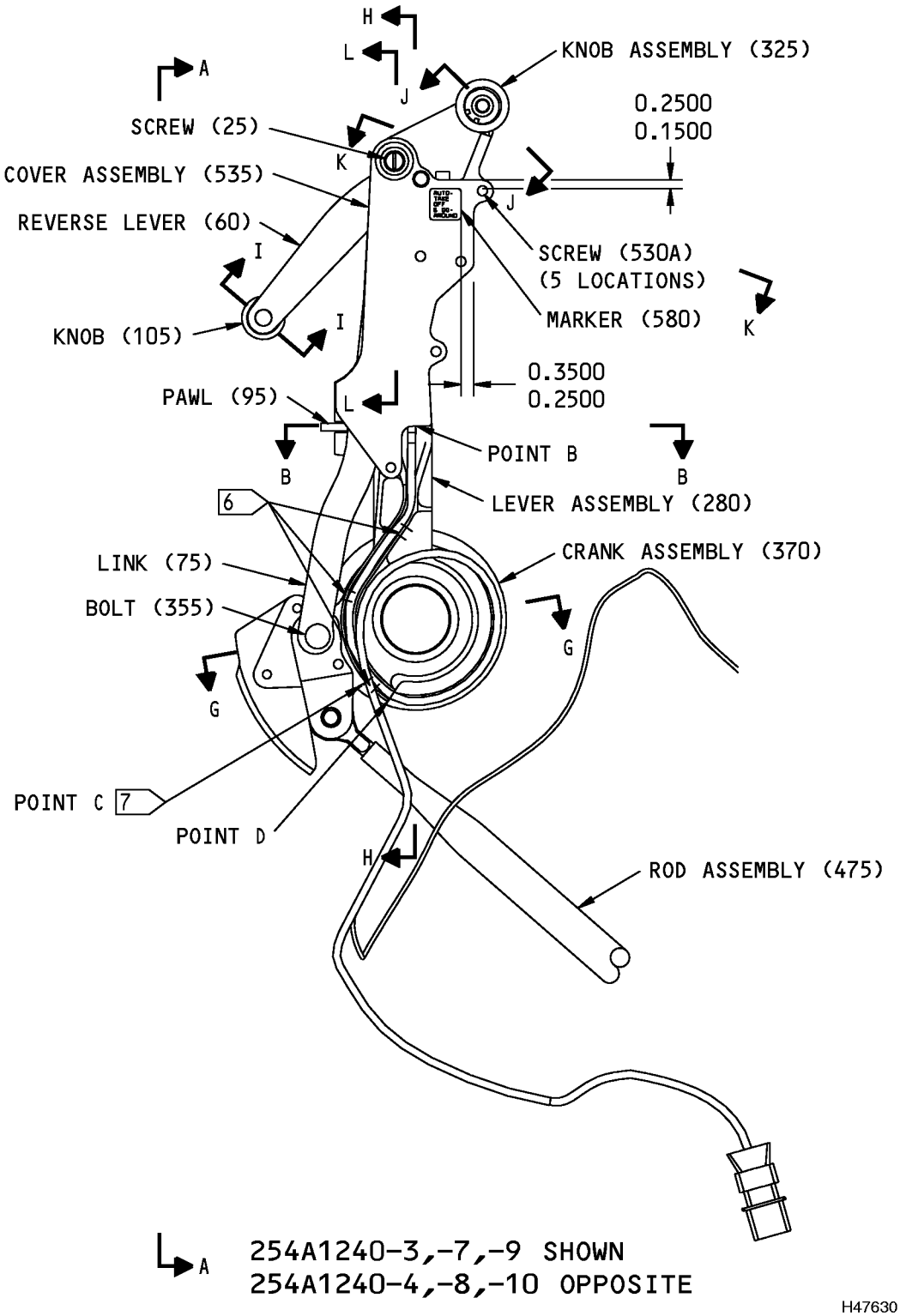
6 THE RIVET FORM HEAD MUST BE FLUSH TO 0.0050 INCH AT THIS LOCATION

7 BMS 5-26 OR BMS 5-37 AT THIS HOLE

ITEM NUMBER REFER TO IPL FIG 1.

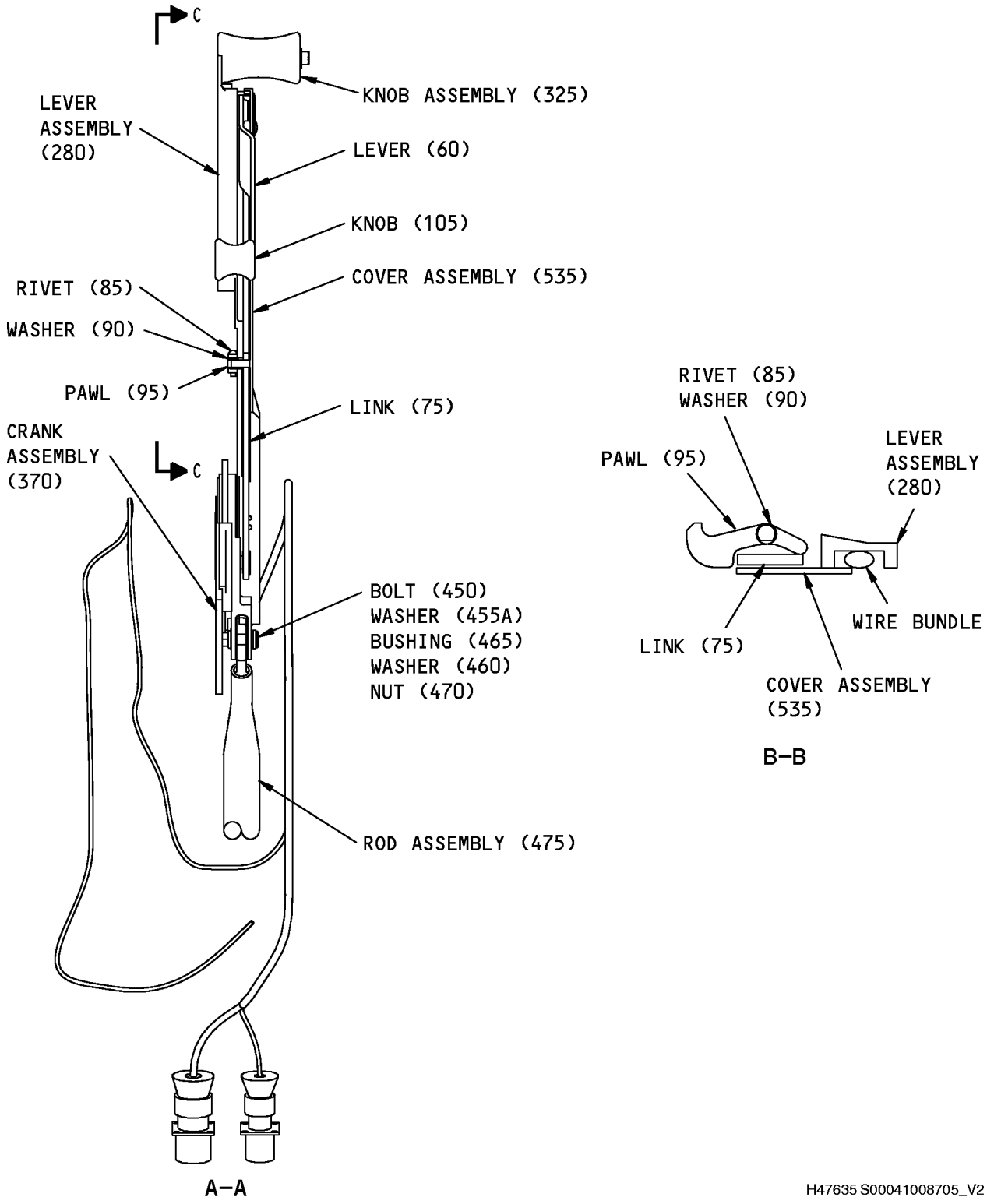
ALL DIMENSIONS ARE IN INCHES

254A1240-1,-2 Control Stand Thrust Lever Assembly
Figure 701 (Sheet 5 of 5)

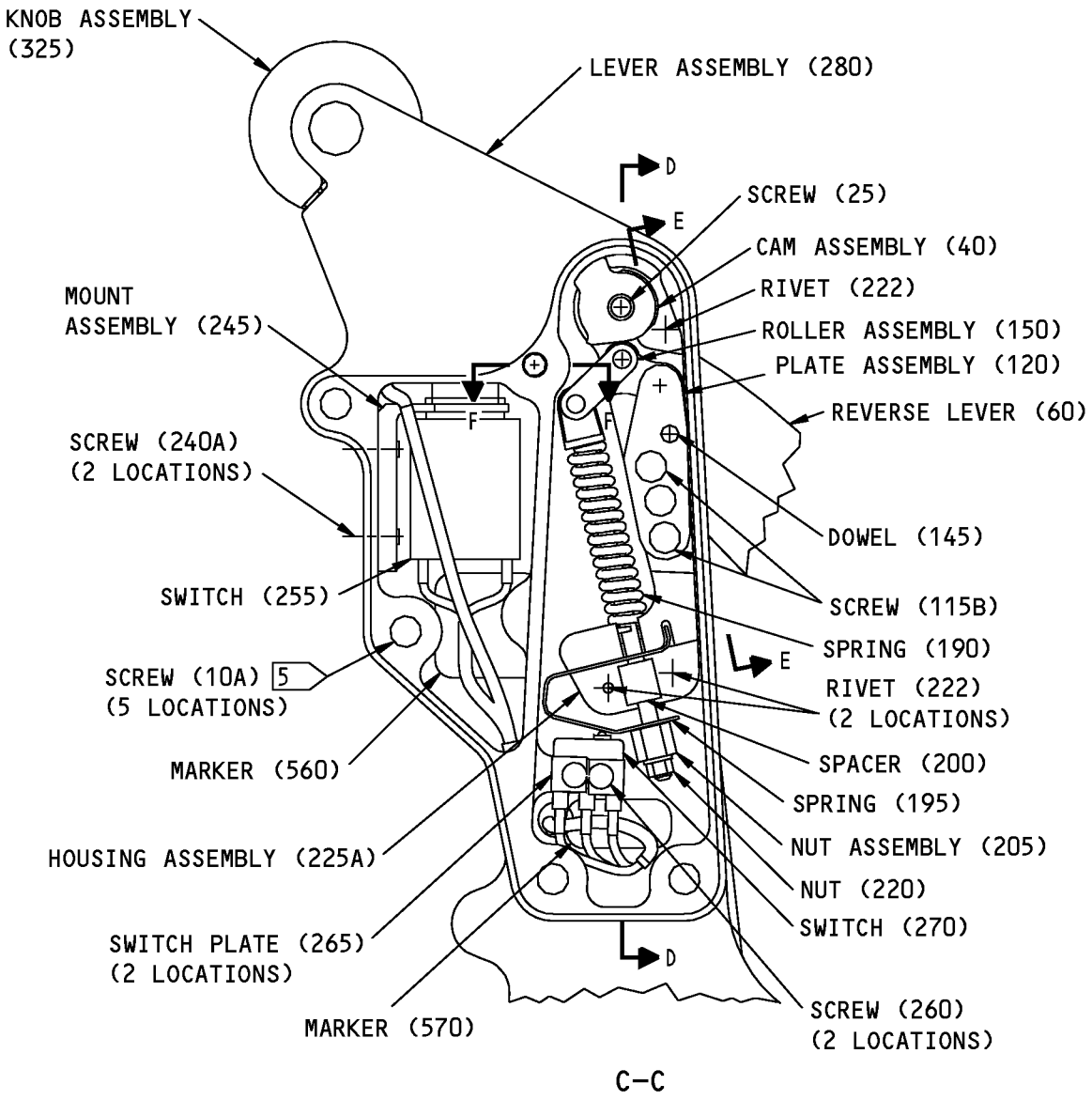


H47630 S00041008704_V2

254A1240-3,-4,-7,-8,-9,-10 Control Thrust Lever Assembly
Figure 702 (Sheet 1 of 6)

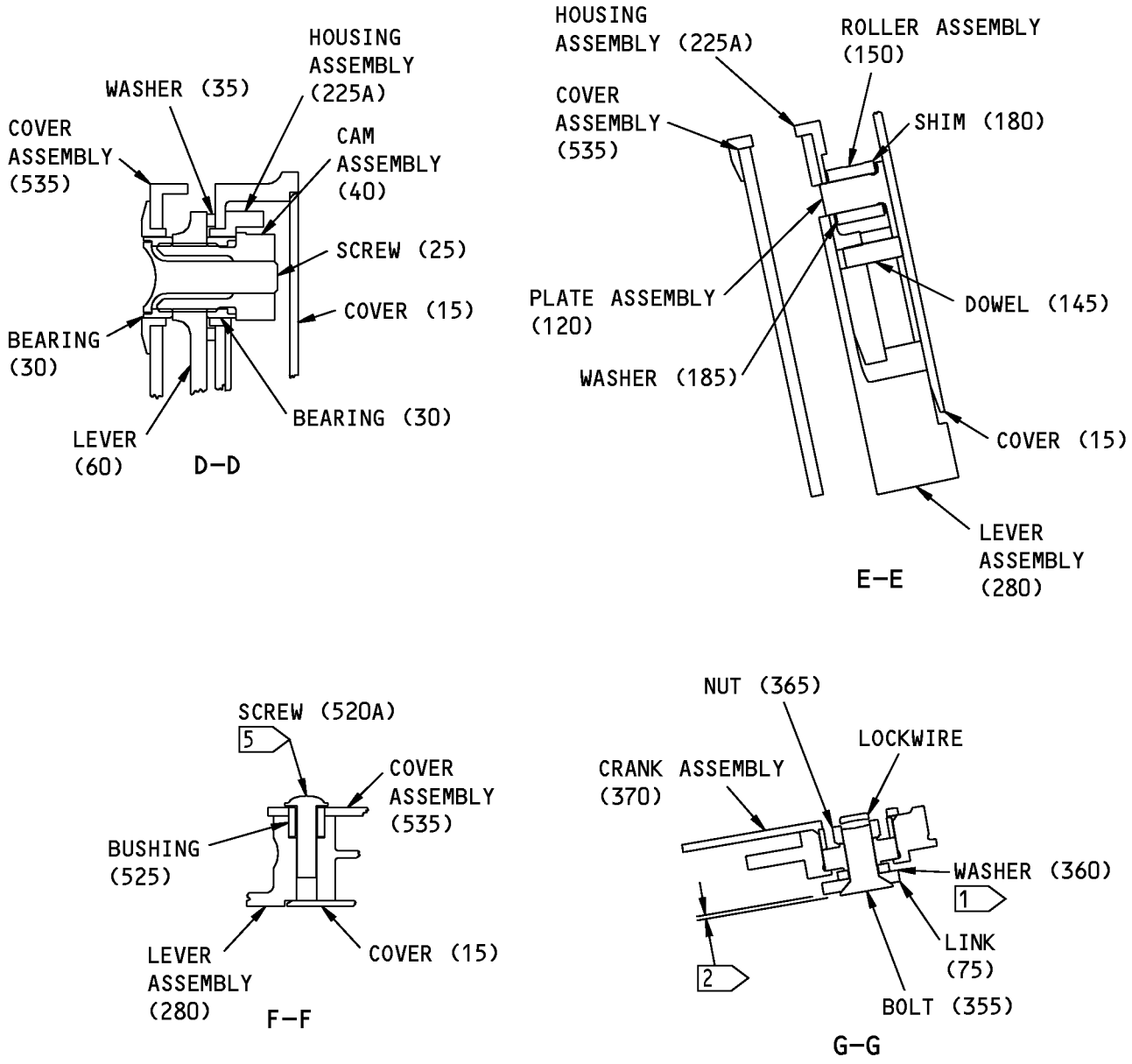


254A1240-3,-4,-7,-8,-9,-10 Control Thrust Lever Assembly
Figure 702 (Sheet 2 of 6)



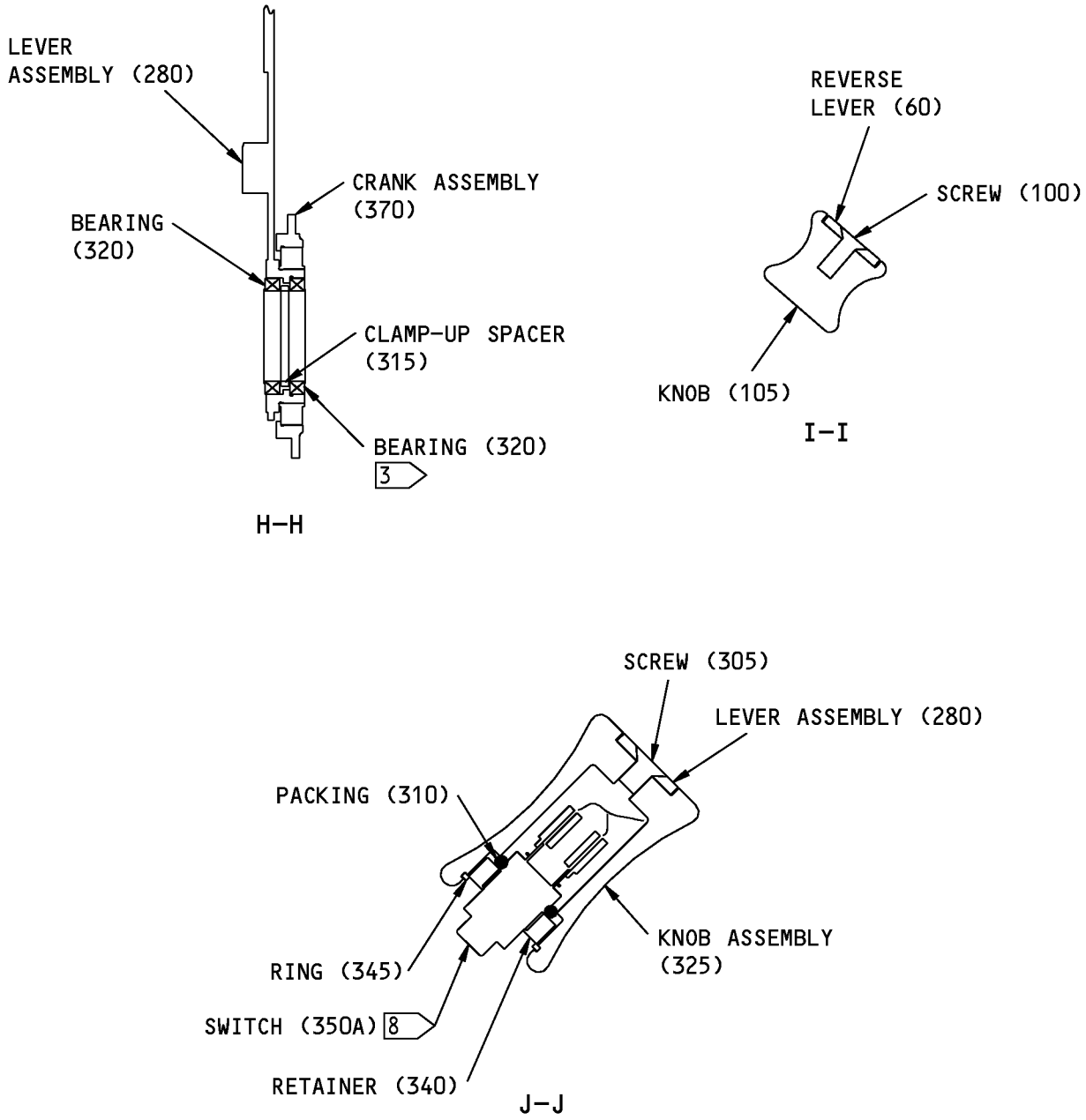
H47907 S00041008706_V2

254A1240-3,-4,-7,-8,-9,-10 Control Thrust Lever Assembly
Figure 702 (Sheet 3 of 6)



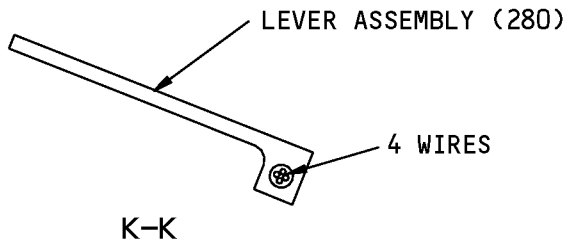
H47657 S00041008707_V2

254A1240-3,-4,-7,-8,-9,-10 Control Thrust Lever Assembly
Figure 702 (Sheet 4 of 6)

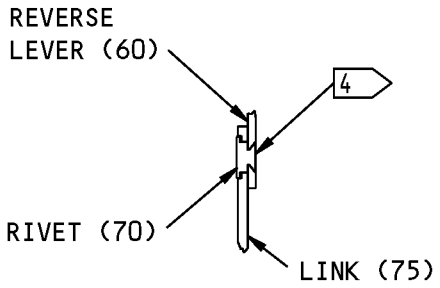


H47696 S00041008708_V2

254A1240-3,-4,-7,-8,-9,-10 Control Thrust Lever Assembly
Figure 702 (Sheet 5 of 6)



K-K



L-L

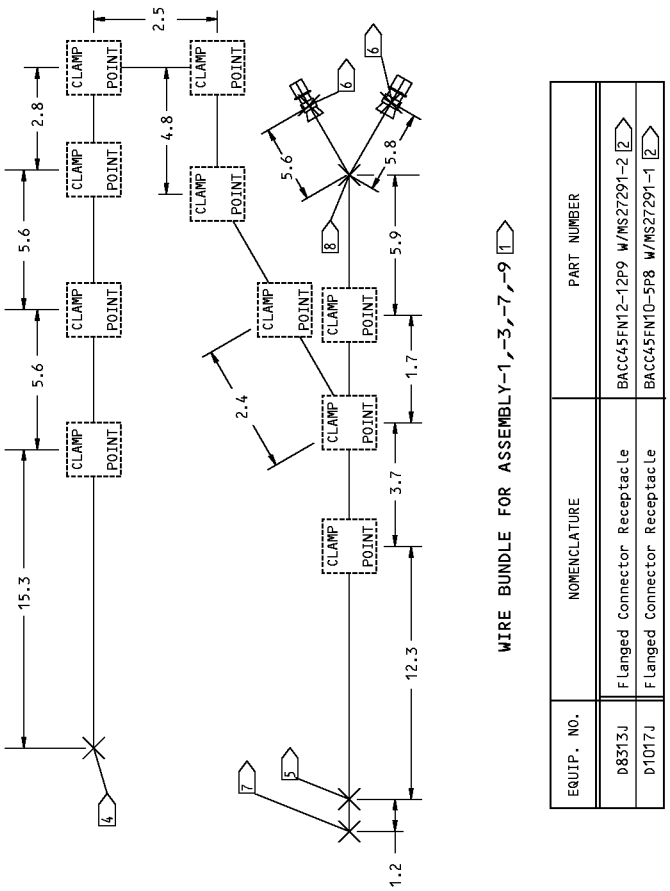
1. INSTALL THE QUANTITY OF WASHERS THAT IS NECESSARY TO HAVE A SMOOTH OPERATION AT THIS LOCATION
2. THE BOLT HEAD MUST NOT BE MORE THAN 0.0550 INCH ABOVE THE LINK
3. DO NOT REMOVE THIS BEARING
4. THE RIVET FORM HEAD MUST BE FLUSHED TO -0.0050 INCH OF THE REVERSE LEVER
5. TOUCH UP THE HEAD OF THIS FASTENER WITH PRIMER (F-20.02) AND FLAT EPOXY ENAMEL (SRF-14.903.705)
6. MIL-T-43435 TYPE I, CLASS B TAPE AT THIS LOCATION
7. FOR 254A1240-3, USE BMS 13-52, TYPE 4 EXPANDABLE TEFLON SLEEVING AT THIS LOCATION. FOR 254A1240-4, USE HT 0.25 NYLON SPIRAL WRAP AT THIS LOCATION
8. REFER TO FIGURE 703 FOR WIRING DIAGRAM

ITEM NUMBERS REFER TO IPL FIG. 2

ALL DIMENSIONS ARE IN INCHES

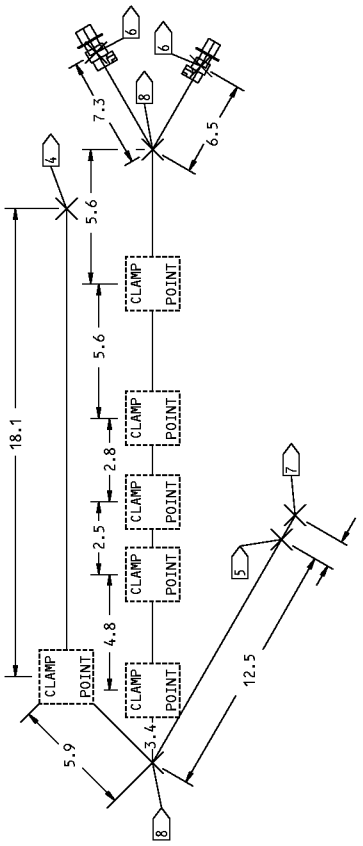
254A1240-3,-4,-7,-8,-9,-10 Control Thrust Lever Assembly
Figure 702 (Sheet 6 of 6)

H47986 S00041008710_V2



254A1240-1 thru -4,-7,-8,-9,-10 Wire Bundle Wire Lengths
Figure 703 (Sheet 1 of 2)

H48017 S0004100871 1_V2



WIRE BUNDLE FOR ASSEMBLY-2,-4,-8,-10 1

EQUIP. NO.	NOMENCLATURE	PART NUMBER
D10173J	Flanged Connector Receptacle	BACC45FN10-5P9 W/MS27559-2 2 3
D8315J	Flanged Connector Receptacle	BACC45FN12-12P6 W/MS27559-3 2 3

ALL DIMENSIONS ARE IN INCHES
NUMBERS REFER TO LENGTH OF WIRE

1 DIAGRAM DOES NOT INCLUDE WIRING WITHIN THE LEVER

2 CONNECTOR ACCEPTS BACC47CN1 PIN CONTACTS

3 ASSEMBLE BACKSHELL WITH RECEPTACLE KEYWAY AT AT 2 O'CLOCK POSITION

4 WIRE TERMINATED FROM NEXT HIGHER ASSEMBLY

5 INTERNAL THRUST LEVER WIRING BEYOND THIS POINT TO BE DETERMINED AT ASSEMBLY

6 SLEEVE THESE WIRES FROM SWITCH TO BACKSHELL SURFACE OF CONNECTOR INSERT WITH YELLOW RT876 HEAT SHRINK TUBING

7 SLEEVE ALL WIRE BUNDLES FROM POINT C TO 1 INCH MINIMUM BEYOND FIRST CLAM LOCATION WITH BMS 13-52, TYPE 4 EXPANDABLE TEFLON SLEEVING FOR LEFTHAND THRUST REVERSER. USE HT 0.24 NYLON SPIRAL WRAP FOR

8 SLEEVE WIRE BUNDLE TOGETHER FROM 1 INCH MINIMUM BEFORE POINT E TO POINT F WITH YELLOW RT876 HEAT SHRINK TUBING

254A1240-1 thru -4,-7,-8,-9,-10 Wire Bundle Wire Lengths
Figure 703 (Sheet 2 of 2)

FITS AND CLEARANCES

REF IPL		NAME	TORQUE	
FIG. NO.	ITEM NO.		POUND-INCHES	POUND-FEET
1	220B	Nut	6-8	
1	375	Bolt	18-25	
2	220	Nut	6-8	
2	380	Bolt	18-25	

F81442 S00041008713_V2

Torque Table
Figure 801

SPECIAL TOOLS, FIXTURES, AND EQUIPMENT

1. General

A. This section lists the special tools, fixtures, and equipment necessary for maintenance.

NOTE: Equivalent substitutes may be used.

Special Tools

Reference	Description	Part Number	Supplier
SPL-706	Protractor - Thrust Reverser Levers, Digital Readout	G76002-15 Opt: G76002-14	81205 81205
SPL-2410	Adapter - Protractor - Thrust Reverser Levers, Digital Readout	G76002-15 Opt: G76002-14	81205 81205

Tool Supplier Information

CAGE Code	Supplier Name	Supplier Address
81205	THE BOEING COMPANY	17930 INTERNATIONAL BLVD. SOUTH SEATAC, WA 98188-4321 Telephone: 206-662-6650 Facsimile: 206-662-7145

ILLUSTRATED PARTS LIST

1. Introduction

A. The Illustrated Parts List (IPL) contains an illustration and a list of component parts you can repair or replace. The Illustrated Parts Catalog (IPC) shows how to use the Boeing part number system.

B. This shows how parts are related: The relation of each item to its next higher assembly (NHA) is shown in the NOMENCLATURE column. Use the indenture system that follows:

1 2 3 4 5 6 7

. Assembly

. Attaching parts for assembly

. . Detail parts for assembly

. . Subassembly

. . Attaching parts for subassembly

. . . Detail parts for subassembly

. . . Sub-subassembly

. . . Attaching parts for subassembly

. . . . . Details parts for sub-subassembly

Detail Installation Parts (Included only if installation parts may be sent to the shop as part of assembly)

C. Each top assembly is given one use code letter (A, B, C, etc.) in the USAGE CODE column. All subsequent component parts in the list can have one or more of the use code letters to show effectivity to top assemblies. A component part without a use code applies to all top assemblies.

D. An alphabetical letter is added after the item number for optional parts, parts changed by a Service Bulletin, configuration differences (except left-handed and right-handed parts), last engineering releases, and parts added between item numbers in a sequence. The alphabetical letter will not be shown on the illustration for equivalent parts of the same part number.

E. Color-coded parts are identified with a single digit alpha following the dash number or with ''SP'' suffix. If the ''SP'' suffix is used, it represents consolidation of all color codes applicable for a given usage which are not separately listed. Orders for color-coded parts should include the registry number of the airplane for which the parts are ordered.

F. If a part number is 15 characters long but will not fit in the part number column, the part number will be displayed with a ''~'' at the end of the line and will be continued on the next line. The ''~'' denotes that the part number continues on the next line.

G. Parts changed by a Service Bulletin are shown by PRE SB XXXX and POST SB XXXX added to the NOMENCLATURE column.

(1) When a new top assembly is added by a Service Bulletin, PRE SB XXXX and POST SB XXXX will be added at the top assembly level only. The configuration differences at the detail part level are shown by use code letters.

(2) When the top assembly part number is not changed by the Service Bulletin, PRE SB XXXX and POST SB XXXX will be added at the detail level.

H. Interchangeable Parts

Optional (OPT)	The part is optional to and interchangeable with other parts that have the same item number.
Replaces, Replaced by and not interchangeable with (REPLACES, REPLACED BY AND NOT INTCHG/W)	The part replaces and is not interchangeable with the initial part.
Replaces, Replaced by (REPLACES, REPLACED BY)	The part replaces and is interchangeable with, or is an alternative to, the initial part.

VENDOR CODES

Code	Name
00779	TYCO ELECTRONICS CORP 2800 FULLING MILL ROAD PO BOX 3608 MIDDLETOWN, PENNSYLVANIA 17057 FORMERLY AMP INC; FORMERLY V04618 FORMERLY GENICOM COMP V01526
02660	AMPHENOL CORP INDUSTRIAL TECHNOLOGY DIV 358 HALL AVENUE PO BOX 384 WALLINGFORD, CONNECTICUT 06492 FORMERLY BUNKER RAMO CORP, ELTRA CORP AMPHENOL AND AMPHENOL CORP COMM AND IND DIV
06144	INDUSTRIAL TECTONICS BEARING CORP 18301 SOUTH SANTA FE AVENUE RANCHO DOMINGUEZ, CALIFORNIA 90221 FORMERLY IN COMPTON, CALIFORNIA
06725	AIR INDUSTRIES CORPORATION 12570 KNOTT STREET GARDEN GROVE, CALIFORNIA 92641-3932 FORMERLY AIR INDUSTRIES OF CALIF IN GARDENA, CALIF.
09922	SOURIAU USA INC 25 GRUMBACHER DR YORK, PENNSYLVANNIA 17402-9417 FORMERLY FRAMATOME CONNECTORS FRANCE FORMERLY V59610 IIIN VALENCIA, CALIFORNIA
0PTK6	SPS TECHNOLOGIES INC AEROSPACE PRODUCTS DIV 5195 W 4700 SALT LAKE CITY, UTAH 94118 SEE V56878 SPS TECHNOLOGIES INC

Code	Name
13556	LABINAL COMPONENTS AND SYS CINCH MILITARY AEROSPACE DIV 8821 SCIENCE CENTER DRIVE MINNEAPOLIS, MINNESOTA 55428-3619 FORMERLY TRW CINCH MFG CO, FORMERLY IN NEW HOPE, MINNESOTA FORMERLY CINCH CYLINDRICAL DIV OF LABINAL COMP & SYS
15653	ALCOA GLOBAL FASTENERS INC DIV KAYNAR PRODUCTS 800 S STATE COLLEGE BLVD FULLERTON, CALIFORNIA 92831-3001 FORMERLY VK6405 MICRODOT AEROSP LTD; FORMERLY KAYNAR TECH FORMERLY FAIRCHILD FASTENERS KAYNAR DIV
18342	Replaced: [V18342] AMP INC SYSCOM DIV by Code: Name and Address below 00779: TYCO ELECTRONICS CORP 2800 FULLING MILL ROAD PO BOX 3608 MIDDLETOWN, PENNSYLVANIA 17057 FORMERLY AMP INC V18342; FORMERLY V04618 FORMERLY GENICOM COMP V01526
21335	TIMKEN US CORPORATION DIV FAFNIR 336 MECHANIC STREET LEBANON, NH 03766-0267 FORMERLY FAFNIR BRG AND TEXTRON INC FAFNIR DIV IN NEW BRITAIN, CONNECTICUT ; FORMERLY TORRINGTON CO THE SPECIAL PRODUCTS DIV SUB OF THE INGERSOLL-RAND CO V8D210 FORMERLY TORRINGTON CO FAFNIR BEARING DIV IN TORRINGTON, CT
21649	OTTO CONTROLS DIV OF OTTO ENGRG INC 2 EAST MAIN STREET CARPENTERSVILLE, ILLINOIS 60110
30163	VALENTEC DAYRON INC 333 MAGUIRE BLVD PO BOX 140394 ORLANDO, FLORIDA 32814-0394
38443	MRC BEARINGS 402 CHANDLER STREET JAMESTOWN, NEW YORK 14701-3802 FORMERLY MARLIN-ROCKWELL CORP DIV TRW AND TRW INC

Code	Name
40920	MPB MINIATURE PRECISION BEARING DIV PRECISION PARK PO BOX 547 KEENE, NEW HAMPSHIRE 03431 FORMERLY MPB CORP AND MINIATURE BRG DIV MPB CORP
43991	FAG BEARING INCORPORATED 118 HAMILTON AVENUE STAMFORD, CONNECTICUT 06904 FORMERLY NORMA-HOFFMAN BEARING CORPORATION FORMERLY NORMA FAG BEARINGS CORPORATION
49367	AMPHENOL CORP AMPHENOL AEROSPACE PYLE-NATIONAL CONNECTORS 40-60 DELAWARE AVE SIDNEY, NEW YORK 13838-1395
55104	TRI-STAR ELECTRONICS INC 2201 ROSECRANS AVENUE EL SEGUNDO, CALIFORNIA 90245 FORMERLY IN VENICE, CA; FORMERLY V71771 CORY COMPONENTS
56878	SPS TECHNOLOGIES INC AEROSPACE AND INDUSTRIAL PRODUCTS DIV 301 HIGHLAND AVE JENKINTOWN, PENNSYLVANIA 19046 FORMERLY STANDARD PRESSED STEEL FORMERLY IN SALT LAKE, UTAH
62554	SIMMONDS MECAERO FASTENERS INC 1734 SEQUOIA AVENUE ORANGE, CALIFORNIA 92668
73197	HI-SHEAR TECHNOLOGY CORP 2600 SKYPARK DRIVE TORRANCE, CALIFORNIA 90509
77820	ALLIED AMPHENOL PRODUCTS BENDIX CONNECTOR OPERATIONS 40-60 DELAWARE ST SIDNEY, NEW YORK 13838 FORMERLY BENDIX CORP THE SCINTILLA DIV AND ELECT COMP DIV FORMERLY BENDIX CORP ELECT CMPNT DIV SANTA ANA PLANT V12143

Code	Name
83086	NEW HAMPSHIRE BALL BEARING, INC HITECH DIVISION 172 JAFFREY ROAD PETERBOROUGH, NEW HAMPSHIRE 03458
83553	ASSOCIATED SPRING CORP BARNES GROUP 15001 SOUTH BROADWAY PO BOX 231 GARDENA, CALIFORNIA 90248-1819 FORMERLY V0389B
86928	SEASTROM MFG CO INC 701 SONORA AVENUE GLENDALE, CALIFORNIA 91201-2431 FORMERLY ELECTRONIC HARDWARE VB0135
91929	HONEYWELL INC MICRO SWITCH DIV 11 WEST SPRING STREET FREEPORT, ILLINOIS 61032 FORMERLY MICRO SWITCH A DIV OF HONEYWELL FORMERLY V74059 AND V40228
K8455	RHP BEARINGS PLC RHP AEROSPACE OLDENDS LANE STONEHOUSE GL10 3RM UK
S0350	NIKKEN KOSAKUSHO WORKS OSAKA HIGASHI CITY, JAPAN

NUMERICAL INDEX

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
1SX1H58		1	260	1
		2	270	1
250N2004-115		1	480	1
		2	475	1
250N2005-115		1	505	1
		2	500	1
253T1224-1		1	490	1
		2	485	1
253T1224-2		1	500	1
		2	495	1
254A1240-1		1	1	RF
254A1240-10		1	5C	RF
		2	5B	RF
254A1240-2		1	5	RF
254A1240-3		1	1B	RF
		2	1	RF
254A1240-4		1	5A	RF
		2	5	RF
254A1240-5		2	260B	2
254A1240-7		1	1C	RF
		2	1A	RF
254A1240-8		1	5B	RF
		2	5A	RF
254A1240-9		1	1D	RF
		2	1B	RF
254A1241-1		1	150	1
		2	150	1
254A1241-2		1	155	1
		2	155	1
254A1242-1		1	365	1
		2	370	1
254A1242-2		1	370	1
		2	375	1
254A1243-1		1	400	1

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
		2	405	1
254A1243-2		1	402	1
		2	410	1
254A1244-1		1	380	1
		2	385	1
254A1244-2		1	382	1
		2	387	1
254A1246-1		1	385	1
		2	390	1
254A1247-1		2	280	1
254A1247-10		2	302B	1
254A1247-11		2	280B	1
254A1247-12		2	285B	1
254A1247-13		2	302F	1
254A1247-14		2	302C	1
254A1247-2		2	285	1
254A1247-3		2	300A	1
254A1247-4		2	300E	1
254A1247-5		2	280A	1
254A1247-6		2	285A	1
254A1247-7		2	302D	1
254A1247-8		2	302A	1
254A1247-9		2	302E	1
254A1248-1		1	515	1
		2	510	1
254A1253-1		2	535	1
254A1253-2		2	540	1
2PB11T2		1	240	1
		2	255	1
323912		1	345	4
417-2020-901		1	450	11
		2	445	11
48-2335-02		1	450	11
		2	445	11
48-2335-09		1	450	11

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
		2	445	11
4AFS428		1	495	1
		2	490	1
5804-8-2		1	90	1
		2	90	1
60789-2		1	265A	3
		1	267A	1
		2	275B	3
63-1440		1	85	1
		2	85	1
63-9263		1	245	1
640024-1		1	265	3
		1	267	1
		2	275	3
		2	275A	3
65-45117-13		1	315	1
		2	325	1
65-45117-14		1	320	1
		2	330	1
65C14183-15		1	105	1
		2	105	1
65C14183-16		1	110	1
		2	110	1
65C18252-31		2	225A	1
65C18252-32		2	228	1
65C18252-33		2	235A	1
65C18252-34		2	237	1
65C18252-35		2	225B	1
65C18252-36		2	228A	1
65C18252-37		2	237A	1
65C18252-38		2	237B	1
65C18271-17		1	40	1
		2	40	1
65C18271-18		1	45	1
		2	45	1

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
65C18271-19		1	55	1
		2	55	1
65C37366-1		1	270	1
65C37366-2		1	275	1
65C37366-3		1	290	1
65C37366-4		1	292	1
66-11520		1	70	1
		2	70	1
66-25938-2		2	545	1
66-25940-1		1	170	1
		2	170	1
66-25941-1		1	160	2
		2	160	2
66-25942-1		1	185	1
		2	185	1
66-25943-2		1	145	1
		2	145	1
66-25945-1		1	180	AR
		2	180	AR
66-25974-1		1	25	1
		2	25	1
66-26135-1		1	350	1
		2	355	1
69-1066-2		1	95	1
		2	95	1
69-1819-45		1	60	1
69-1819-46		1	65	1
69-1819-47		2	60	1
		2	60A	1
69-1819-48		2	65	1
		2	65A	1
69-1819-49		2	60B	1
69-1819-50		2	65B	1
69-35353-1		1	330	1
		2	340	1

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
69-40892-1		1	325	1
		2	335	1
69-69981-5		1	165	1
		2	165	1
69-69981-6		1	167	1
		2	167	1
69-69983-2		1	30	2
		2	30	2
69-69984-11		1	120	1
69-69984-12		1	125	1
69-69984-15		1	140	1
		2	140	1
69-69984-16		1	142	1
		2	142	1
69-69984-17		1	135	1
		2	135	1
69-69984-19		1	120A	1
		2	120	1
69-69984-20		1	125A	1
		2	125	1
69-73206-1		1	175	1
		2	175	1
69-73206-3		1	175A	1
		2	175A	1
69-73212-3		1	75	1
69-73212-4		1	80	1
69-73212-5		2	75	1
69-73212-6		2	80	1
69-73217-1		2	205B	1
69-73217-3		1	205	1
		2	205	1
		2	205C	1
69-73217-4		1	215	1
		2	215	1
69-73217-5		2	205A	1

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
		2	205D	1
69-73217-6		2	215A	1
69-73300-1		1	255	2
		2	265	1
69-73369-1		1	200	1
		2	200	1
69-73827-1		1	190	1
		2	190	1
69-76350-2		1	305	1
		2	315	1
69-78782-2		1	195	1
		2	195	1
69-78783-1		1	15	1
69-78783-2		1	20	1
69-78783-3		2	15	1
69-78783-4		2	20	1
69-78783-5		2	550	1
69-78783-6		2	555	1
69-78783-7		2	15A	1
69-78783-8		2	20A	1
69-78784-1		1	230	1
69-78784-2		1	235	1
69-78784-3		2	245	1
		2	250	1
69-78784-4		2	252	1
69-78784-5		2	245A	1
		2	250A	1
69-78784-6		2	253	1
ABR4F6G		1	520	1
		2	515	1
AN316-5R		1	510	1
		2	505	1
BAC27DCT290		1	545	1
		2	580	1
BAC27DEL1263		1	525	1

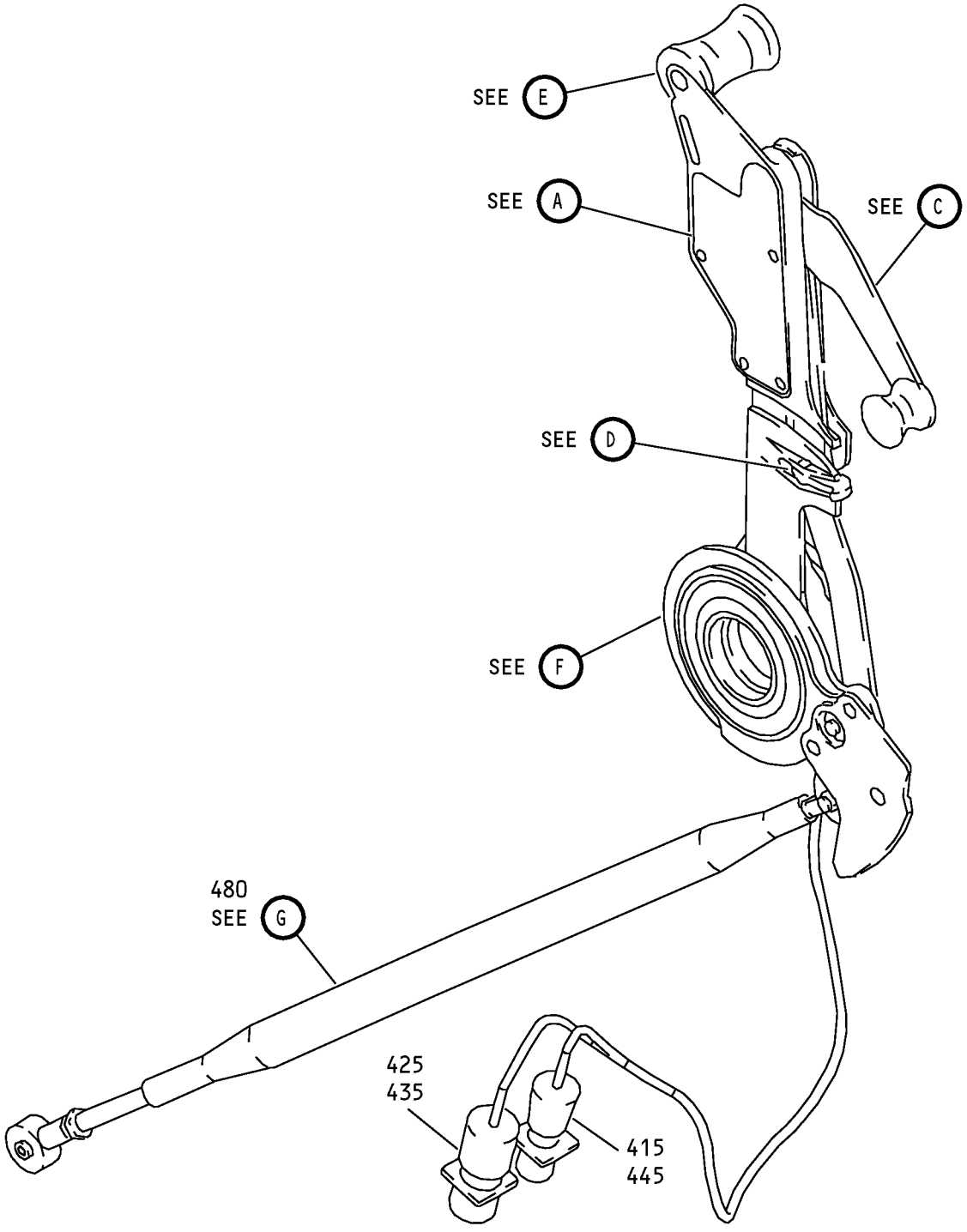
PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
		2	560	1
BAC27DEL1264		1	530	1
		2	565	1
BAC27DEL1265		1	535	1
		2	570	1
BAC27DEL1266		1	540	1
		2	575	1
BACB10AC4A		1	495	1
		2	490	1
BACB10AE4		1	520	1
		2	515	1
BACB10AS25		1	310A	2
BACB10AU37		1	395	1
		2	400	1
BACB10BX05		1	390A	1
		2	395A	1
BACB10FU25RJ		2	320B	2
BACB28BA0406013		1	470	1
		2	465	1
BACB28U3C025		2	525	1
BACB30VF3K1		1	375	3
		2	380	3
BACB30VT8K9		1	455	1
		2	450	1
BACC45FN10-5P8		1	425	1
		2	430	1
BACC45FN10-5P9		1	430	1
		2	435	1
BACC45FN12-12P6		1	420	1
		2	425	1
BACC45FN12-12P9		1	415	1
		2	420	1
BACC47CN1		1	450	11
		2	445	11
BACN10JD105		1	360	1

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
		2	365	1
BACN10YR4CD		1	475	1
		2	470	1
BACR15BA3D2C		2	222	3
BACR15BB4D		1	485	2
		2	480	2
BACS12BE02-5		2	259	2
BACS12BP02CF6		1	250A	2
BACS12BP02HF6		2	262	1
BACS12BP04AF5		1	10C	4
BACS12BP04AP6		1	115C	2
BACS12BP04F4		2	10A	4
		2	240A	2
		2	530A	5
BACS12BP04F6		2	115C	2
BACS12BP04HF6		2	115A	2
BACS12BP04P4		1	225B	2
		2	12	1
BACS12BP3P5		1	295	1
		2	305	1
BACS12BP3P8		1	100	1
		2	100	1
BACS12FA08K10		2	520A	1
BACT12AC43		1	345	4
		2	351	4
BACW10CT8C		1	460	1
		2	455B	1
BACW10EG8C		2	455A	1
C48-2335-02		1	450	11
		2	445	11
H52732-4CD		1	475	1
		2	470	1
HHKSP4A		1	495	1
		2	490	1
HHRE4F5-1		1	520	1

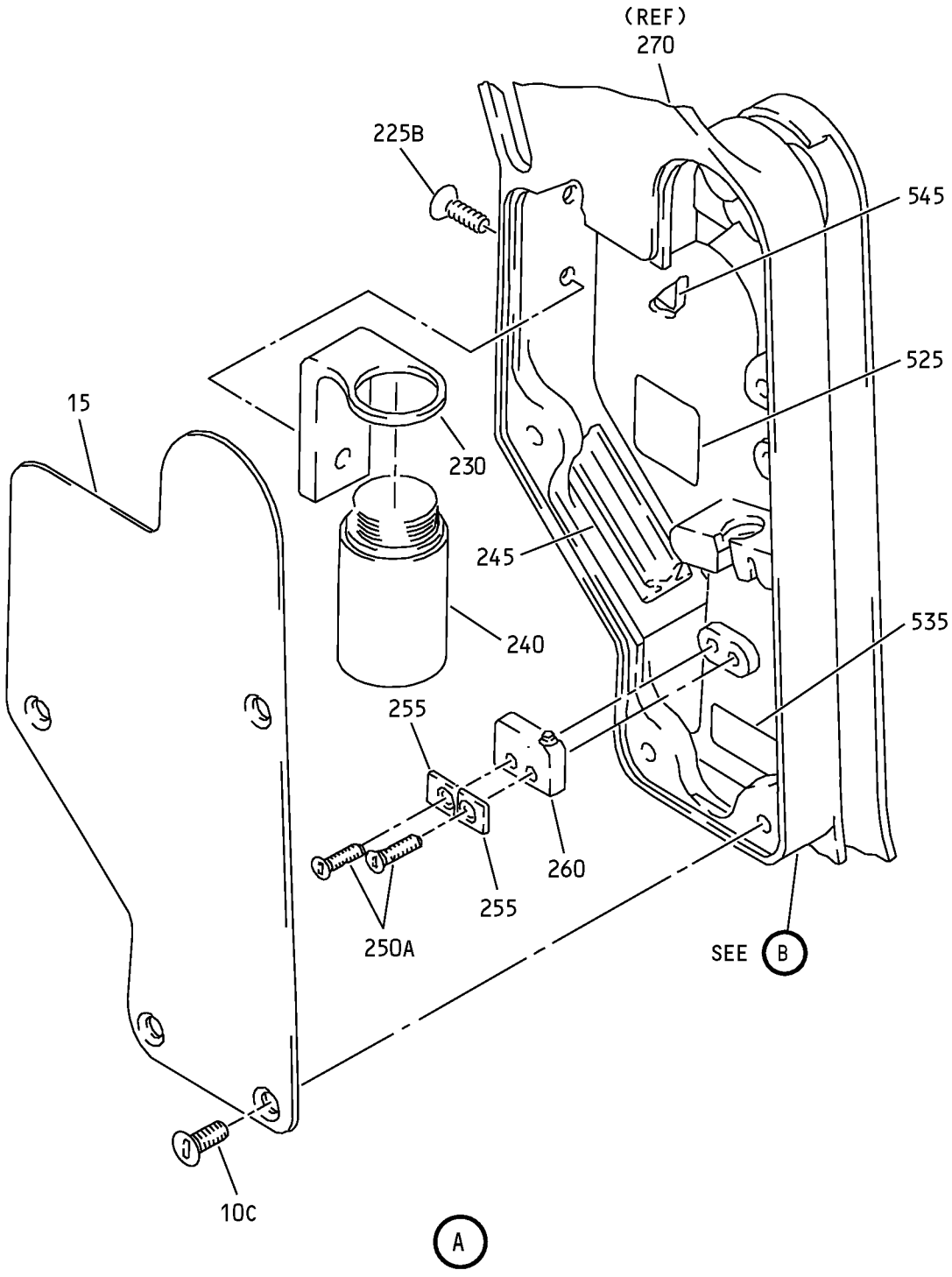
PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
		2	515	1
HST10AG8-9		1	455	1
		1	455	1
		1	455	1
		1	455	1
		2	450	1
		2	450	1
		2	450	1
		2	450	1
KSP4A2TS		1	495	1
		2	490	1
KSP4AE9440A		1	495	1
		2	490	1
KSP4AFS428		1	495	1
		2	490	1
KSP4AG27		1	495	1
		2	490	1
KSP4ASD610		1	495	1
		2	490	1
LLMB543		1	310A	2
LLMKP37B1		1	395	1
		2	400	1
LRM20W16F74		1	450	11
		2	445	11
M83461-1-114		1	300	1
		2	310	1
MB543-2TS		1	310A	2
MB543DD		1	310A	2
MB543DDFS428		1	310A	2
MB543DDG20		1	310A	2
MB543DDLY196		1	310A	2
MB543DDSD610		1	310	2
		1	310A	2
		2	320	2
MB543TT		1	310A	2

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
MKP16BE9273-37		1	395	1
		2	400	1
MKP37B		1	395	1
		2	400	1
MKP37B2TS		1	395	1
		2	400	1
MKP37B3G20		1	395	1
		2	400	1
MKP37BFS428		1	395	1
		2	400	1
MKP37BLY196		1	395	1
		2	400	1
MKP37BSD610		1	395	1
		2	400	1
MKP37BTT		1	395	1
		2	400	1
MS16625-4086		1	335	1
		2	345	1
MS21042L04		1	220B	1
		2	220	1
MS21209C0210		1	285	2
MS21209C0210P		2	295A	2
MS21209C0410		1	130	1
		1	210	1
		1	280	5
		2	130	1
		2	210	1
MS21209C0410L		2	230	2
MS21209C0410P		2	251	2
		2	290A	8
		2	292A	1
MS21209C0820P		2	287	1
MS21209F1-10		1	50	1
		2	50	1
MS21209F1-10P		1	398	3

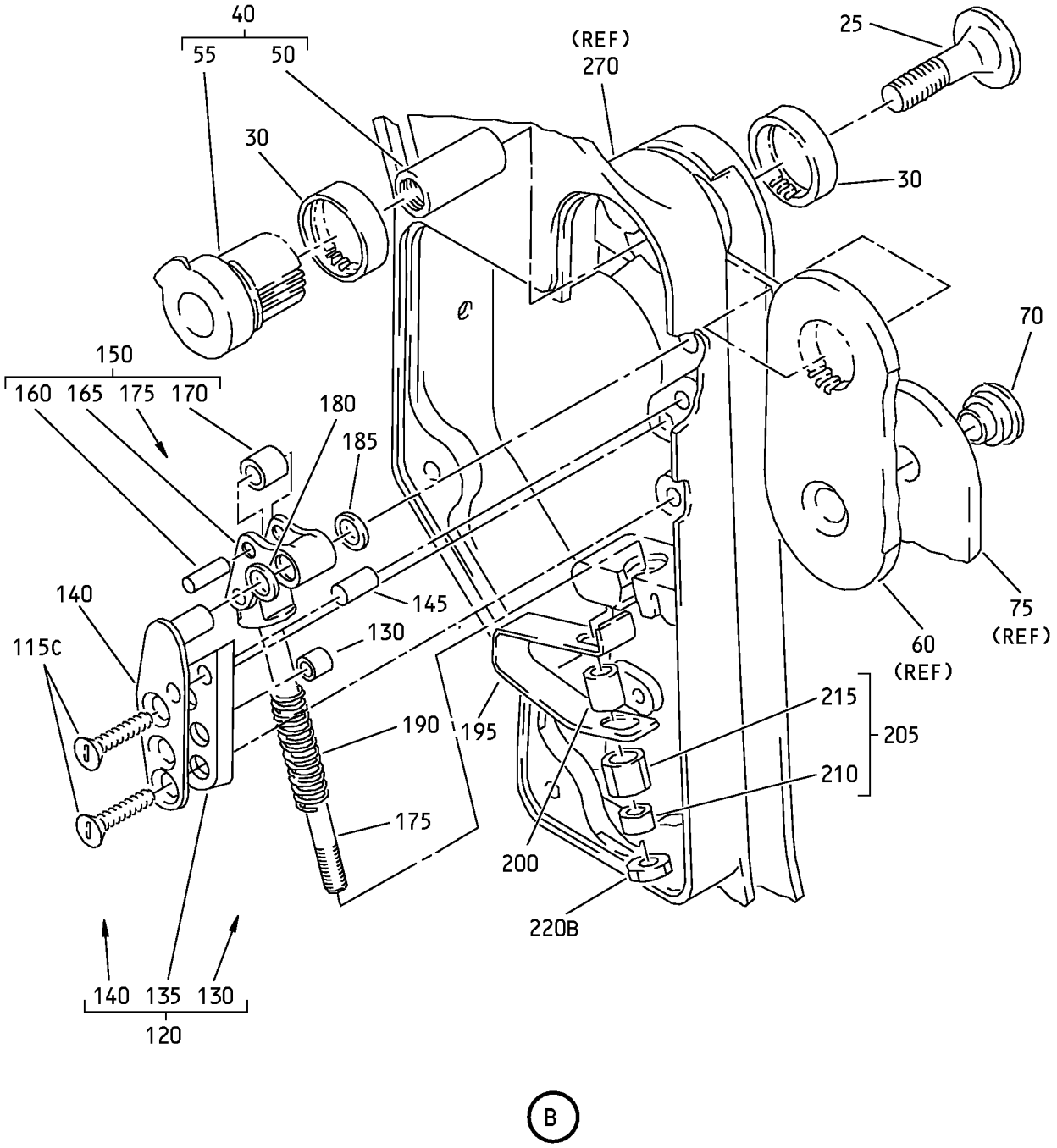
PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
		2	402	3
MS27291-1		1	435	1
		2	442	1
MS27291-2		1	445	1
		2	440	1
MS27291-3		1	440	1
MS27559-2		2	442A	1
MS27559-3		2	440A	1
MT343E		1	310A	2
NAS1149D0416J		1	465	1
		2	460	1
NAS1149D0516J		1	355	1
		2	360	1
NAS514P440-4		2	10B	4
		2	12A	1
		2	240B	2
		2	530B	5
NAS514P440-6P		2	115B	2
NAS620C5L		2	197	AR
P8-400000-3		1	340	1
P8-4000003		2	350A	1
PLH54CD		1	475	1
		2	470	1
REP4F5-3		1	520	1
		2	515	1
REP4F5E9171		1	520	1
		2	515	1
REP4F5FS428		1	520	1
		2	515	1
W0731-009		2	35	1
ZZL4020-36LT		1	450	11
		2	445	11



Control Stand Thrust Lever Assembly
IPL Figure 1 (Sheet 1 of 7)

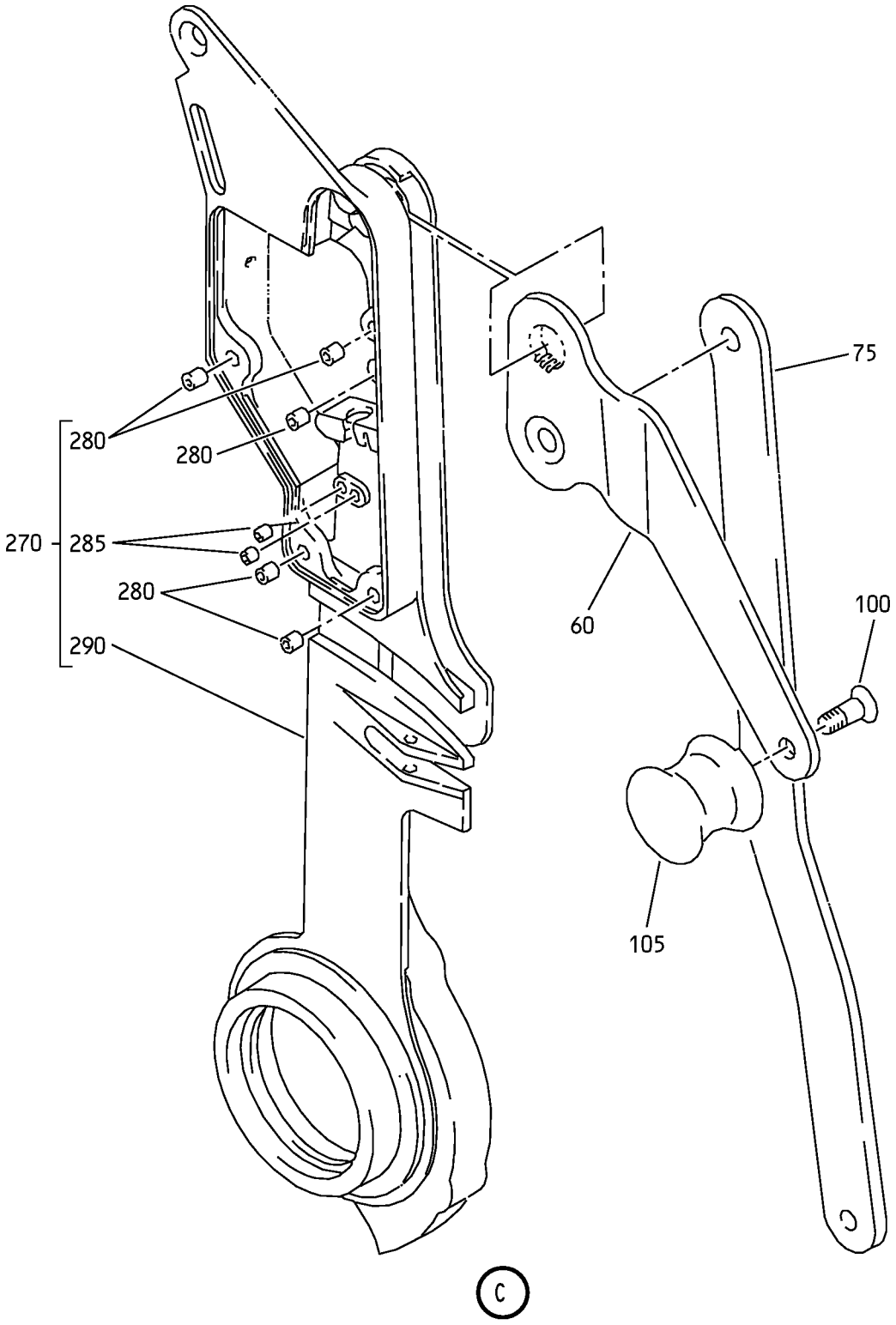


Control Stand Thrust Lever Assembly
IPL Figure 1 (Sheet 2 of 7)

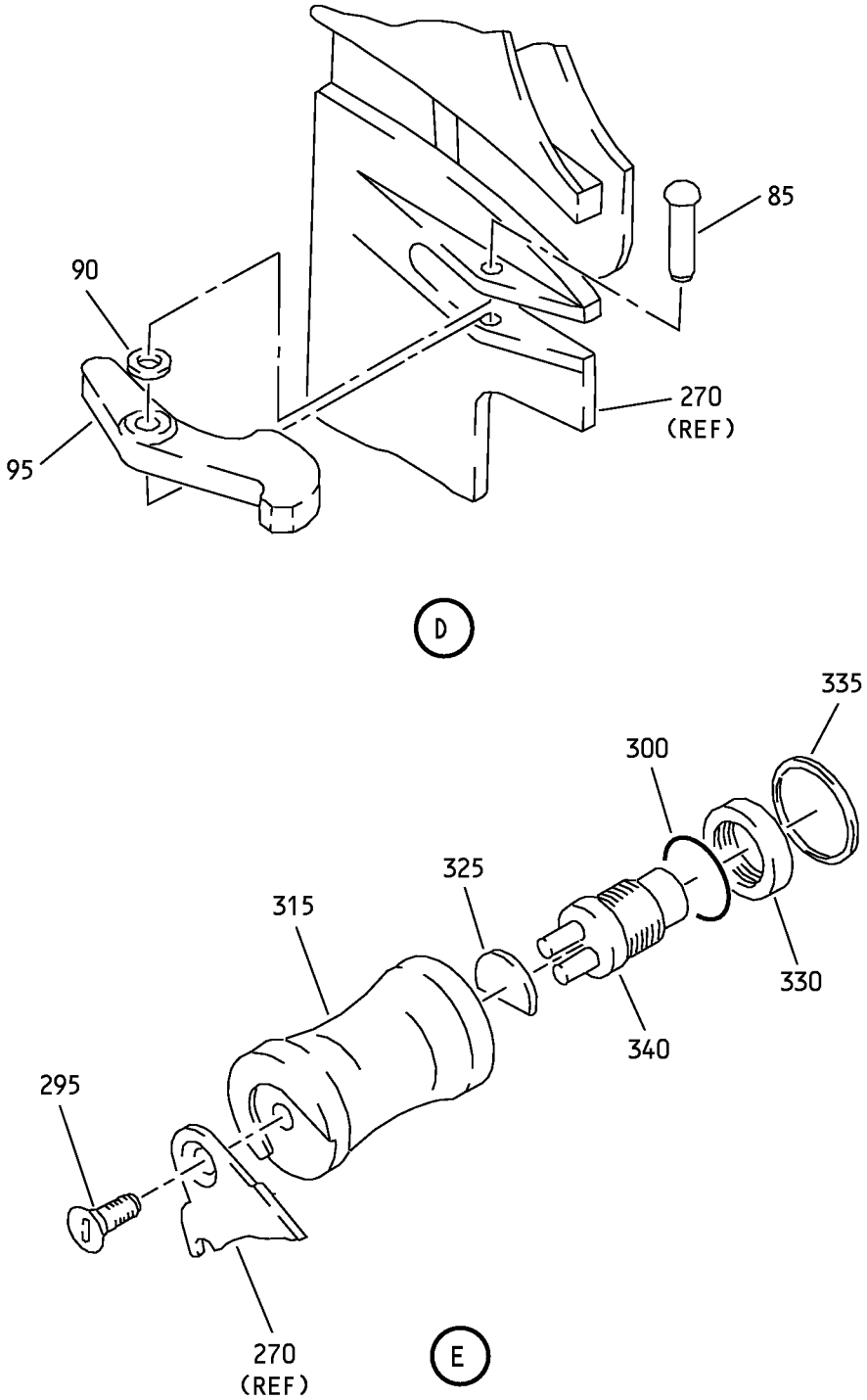


F73011 S00041008719_V2

Control Stand Thrust Lever Assembly
IPL Figure 1 (Sheet 3 of 7)

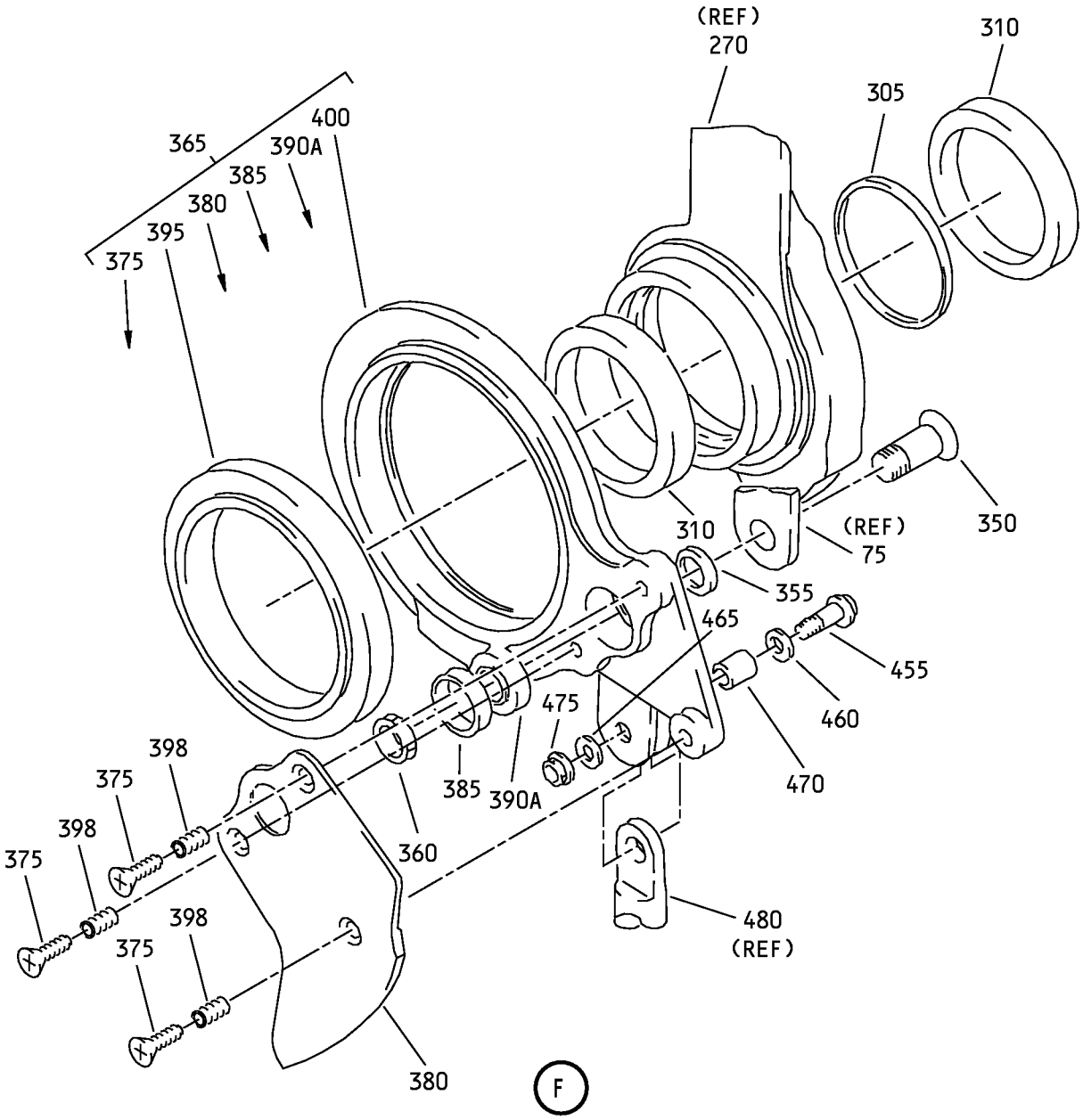


Control Stand Thrust Lever Assembly
IPL Figure 1 (Sheet 4 of 7)



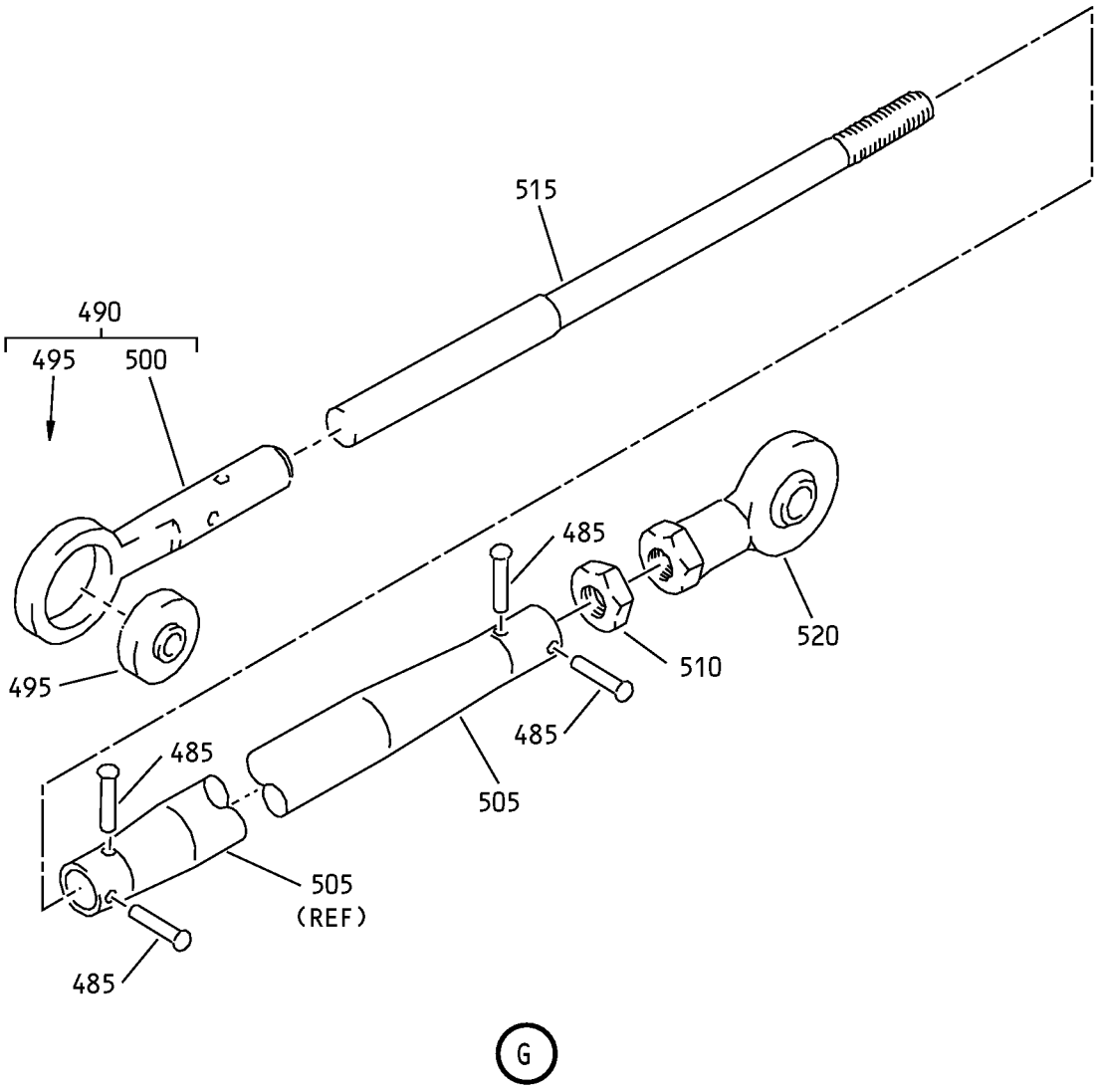
F73021 S00041008721_V2

Control Stand Thrust Lever Assembly
IPL Figure 1 (Sheet 5 of 7)



F73023 S00041008722_V2

Control Stand Thrust Lever Assembly
IPL Figure 1 (Sheet 6 of 7)



Control Stand Thrust Lever Assembly
IPL Figure 1 (Sheet 7 of 7)

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–1	254A1240-1		THRUST LEVER ASSY-CONTROL STAND	A	RF
–1B	254A1240-3		THRUST LEVER ASSY-CONTROL STAND (FOR DETAILS SEE FIG. 2)	C	RF
–1C	254A1240-7		THRUST LEVER ASSY-CONTROL STAND (FOR DETAILS SEE FIG. 2)	E	RF
–1D	254A1240-9		THRUST LEVER ASSY-CONTROL STAND (FOR DETAILS SEE FIG. 2)	G	RF
–5	254A1240-2		THRUST LEVER ASSY-CONTROL STAND	B	RF
–5A	254A1240-4		THRUST LEVER ASSY-CONTROL STAND (FOR DETAILS SEE FIG. 2)	D	RF
–5B	254A1240-8		THRUST LEVER ASSY-CONTROL STAND (FOR DETAILS SEE FIG. 2)	F	RF
–5C	254A1240-10		THRUST LEVER ASSY-CONTROL STAND (FOR DETAILS SEE FIG. 2)	H	RF
10	BACS12BP04HF4		DELETED		
10A	BACS12BP04AF4		DELETED		
–10B	BACS12BP04AP5		DELETED		
10C	BACS12BP04AF5		. SCREW	A, B	4
15	69-78783-1		. COVER	A	1
–15A	69-78783-3		DELETED		
–20	69-78783-2		. COVER	B	1
–20A	69-78783-4		DELETED		
25	66-25974-1		. SCREW	A, B	1
30	69-69983-2		. BEARING	A, B	2
35	W0731-009		DELETED		
40	65C18271-17		. CAM ASSY	A	1
–45	65C18271-18		. CAM ASSY	B	1
50	MS21209F1-10		. . INSERT	A, B	1
55	65C18271-19		. . CAM	A, B	1
60	69-1819-45		. LEVER-REVERSE	A	1
–65	69-1819-46		. LEVER-REVERSE	B	1
70	66-11520		. RIVET-SPECIAL	A, B	1
75	69-73212-3		. LINK	A	1

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–80	69-73212-4		. LINK	B	1
85	63-1440		. RIVET-SPECIAL	A, B	1
90	5804-8-2		. WASHER (V86928)	A, B	1
95	69-1066-2		. PAWL	A, B	1
100	BACS12BP3P8		. SCREW	A, B	1
105	65C14183-15		. KNOB	A	1
–110	65C14183-16		. KNOB	B	1
115	BACS12BP04HF5		DELETED		
115A	BACS12BP04AF5		DELETED		
–115B	BACS12BP04AP5		DELETED		
115C	BACS12BP04AP6		. SCREW	A, B	2
120	69-69984-11		. PLATE ASSY-PIN (OPT ITEM 120A)	A	1
–120A	69-69984-19		. PLATE ASSY-PIN (OPT ITEM 120)	A	1
–125	69-69984-12		. PLATE ASSY-PIN (OPT ITEM 125A)	B	1
–125A	69-69984-20		. PLATE ASSY-PIN (OPT ITEM 125)	B	1
130	MS21209C0410		. . INSERT	A, B	1
135	69-69984-17		. . DOUBLER	A, B	1
140	69-69984-15		. . PLATE	A	1
–142	69-69984-16		. . PLATE	B	1
145	66-25943-2		. DOWEL	A, B	1
150	254A1241-1		. ROLLER ASSY	A	1
–155	254A1241-2		. ROLLER ASSY	B	1
160	66-25941-1		. . PIN	A, B	2
165	69-69981-5		. . LEVER	A	1
–167	69-69981-6		. . LEVER	B	1
170	66-25940-1		. . ROLLER	A, B	1
175	69-73206-1		. . PLUNGER-SPRING (OPT ITEM 175A)	A, B	1

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–175A	69-73206-3		. . PLUNGER-SPRING (OPT ITEM 175)	A, B	1
180	66-25945-1		. SHIM	A, B	AR
185	66-25942-1		. WASHER	A, B	1
190	69-73827-1		. SPRING	A, B	1
195	69-78782-2		. SPRING	A, B	1
200	69-73369-1		. SPACER	A, B	1
205	69-73217-3		. NUT ASSY	A, B	1
210	MS21209C0410		. . INSERT	A, B	1
215	69-73217-4		. . NUT	A, B	1
220	BRH10C04D		DELETED		
–220A	H10-04BAC		DELETED		
220B	MS21042L04		. NUT	A, B	1
225	BACS12BP04P3		DELETED		
225A	BACS12BP04P5		DELETED		
225B	BACS12BP04P4		. SCREW	A, B	2
230	69-78784-1		. MOUNT-SWITCH	A	1
–230A	69-78784-3		DELETED		
–235	69-78784-2		. MOUNT-SWITCH	B	1
–235A	69-78784-3		DELETED		
240	2PB11T2		. SWITCH (V91929)	A, B	1
245	63-9263		. BOLLARD	A, B	1
250	BACS12BP02HF6		DELETED		
250A	BACS12BP02CF6		. SCREW	A, B	2
–250B	BACS12BP02AF6		DELETED		
255	69-73300-1		. PLATE-SWITCH	A, B	2
260	1SX1H58		. SWITCH (V91929)	A, B	1
–265	640024-1		. PIN (V18342) (OPT ITEM 265A)	A, B	3

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
–265A	60789-2		. PIN (V18342) (OPT ITEM 265)	A, B	3
–267	640024-1		. PIN (V18342) (OPT ITEM 267A)	A, B	1
–267A	60789-2		. PIN (V18342) (OPT ITEM 267)	A, B	1
270	65C37366-1		. LEVER ASSY	A	1
–270A	254A1247-1		DELETED		
–275	65C37366-2		. LEVER ASSY	B	1
–275A	254A1247-2		DELETED		
280	MS21209C0410		. . INSERT	A, B	5
285	MS21209C0210		. . INSERT	A, B	2
290	65C37366-3		. . LEVER	A	1
–292	65C37366-4		. . LEVER	B	1
295	BACS12BP3P5		. SCREW	A, B	1
300	M83461-1-114		. PACKING	A, B	1
305	69-76350-2		. SPACER-CLAMP-UP	A, B	1
310	MB543DDSD610		. BEARING (V83086) (OPT ITEM 310A)	A, B	2
–310A	MB543DDSD610		. BEARING (V83086) (SPEC BACB10AS25) (OPT LLMB543 (V38443)) (OPT MB543-2TS (V43991)) (OPT MB543DDFS428 (V21335)) (OPT MB543TT (V43991)) (OPT MB543DDG20 (V38443)) (OPT MT343E (VK8455)) (OPT MB543DDLY196 (V40920)) (OPT MB543DD (V06144)) (OPT ITEM 310)	A, B	2
315	65-45117-13		. KNOB ASSY	A	1
–320	65-45117-14		. KNOB ASSY	B	1
325	69-40892-1		. . DISC-INSULATING	A, B	1

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
330	69-35353-1		. RETAINER	A, B	1
335	MS16625-4086		. RING	A, B	1
340	P8-400000-3		. SWITCH (V21649)	A, B	1
–345	323912		. TERMINAL (V00779) (SPEC BACT12AC43)	A, B	4
350	66-26135-1		. BOLT-SPECIAL	A, B	1
355	NAS1149D0516J		. WASHER	A, B	1
360	BACN10JD105		. NUT	A, B	1
365	254A1242-1		. CRANK ASSY	A	1
–370	254A1242-2		. CRANK ASSY	B	1
375	BACB30VF3K1		. . BOLT	A, B	3
380	254A1244-1		. . CAM	A	1
–382	254A1244-2		. . CAM	B	1
385	254A1246-1		. . RETAINER	A, B	1
390	KP5AFS428		DELETED		
390A	BACB10BX05		. . BEARING	A, B	1
395	MKP37BSD610		. . BEARING (V83086) (SPEC BACB10AU37) (OPT MKP37BLY196 (V40920)) (OPT MKP37BTT (V43991)) (OPT MKP37B2TS (V43991)) (OPT MKP16BE9273-37 (V21335)) (OPT LLMKP37B1 (V38443)) (OPT MKP37BFS428 (V21335)) (OPT MKP37B3G20 (V38443)) (OPT MKP37B (V06144))	A, B	1
398	MS21209F1-10P		. . INSERT	A, B	3
400	254A1243-1		. . CRANK	A	1
–402	254A1243-2		. . CRANK	B	1
405	254A1249-1		DELETED		
–410	254A1249-2		DELETED		
415	BACC45FN12-12P9		. CONNECTOR	A	1
–420	BACC45FN12-12P6		. CONNECTOR	B	1

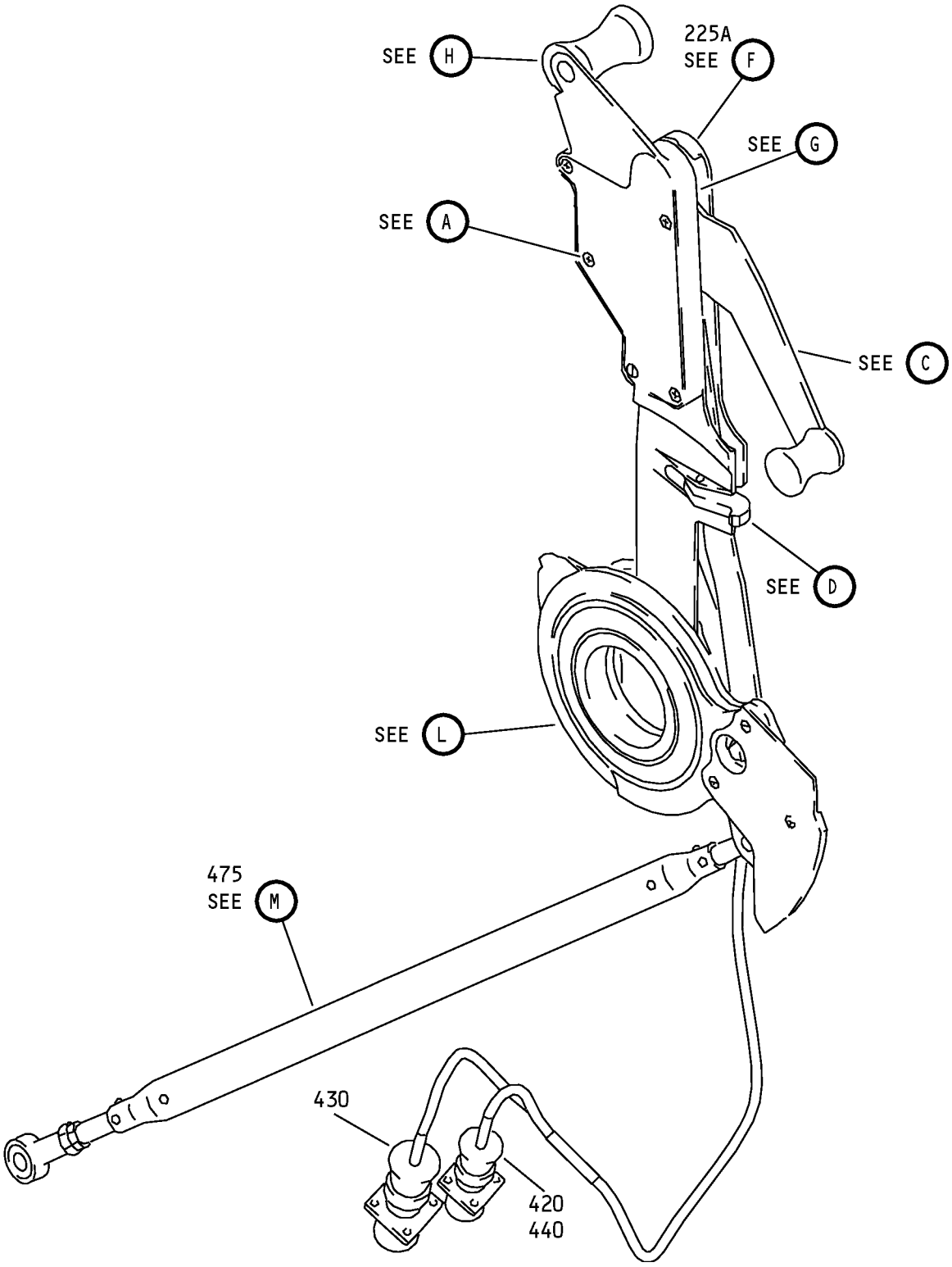
–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
425	BACC45FN10-5P8		. CONNECTOR	A	1
–430	BACC45FN10-5P9		. CONNECTOR	B	1
435	MS27291-1		. STRAIN	A	1
–440	MS27291-3		. CLAMP	B	1
445	MS27291-2		. CLAMP	A, B	1
–450	C48-2335-02		. CONTACT (V13556) (SPEC BACC47CN1) (OPT LRM20W16F74 (V09922)) (OPT ZZL4020-36LT (V49367)) (OPT 48-2335-02 (V02660)) (OPT 417-2020-901 (V55104)) (OPT 48-2335-09 (V77820))	A, B	11
455	HST10AG8-9		. BOLT (V0PTK6) (SPEC BACB30VT8K9) (OPT HST10AG8-9 (V06725)) (OPT HST10AG8-9 (V56878)) (OPT HST10AG8-9 (V73197))	A, B	1
460	BACW10CT8C		. WASHER	A, B	1
465	NAS1149D0416J		. WASHER	A, B	1
470	BACB28BA0406013		. BUSHING	A, B	1
475	H52732-4CD		. NUT (V15653) (SPEC BACN10YR4CD) (OPT PLH54CD (V62554))	A, B	1
480	250N2004-115		. ROD ASSY-CONN.	A, B	1
485	BACR15BB4D		. . RIVET	A, B	2
490	253T1224-1		. . ROD END ASSY	A, B	1
495	KSP4ASD610		. . . BEARING (V83086) (SPEC BACB10AC4A) (OPT HHKSP4A (V38443)) (OPT KSP4AE9440A (V21335)) (OPT KSP4AFS428 (V21335)) (OPT KSP4A2TS (V43991)) (OPT KSP4AG27 (V30163)) (OPT 4AFS428 (V21335))	A, B	1
500	253T1224-2		. . . END	A, B	1

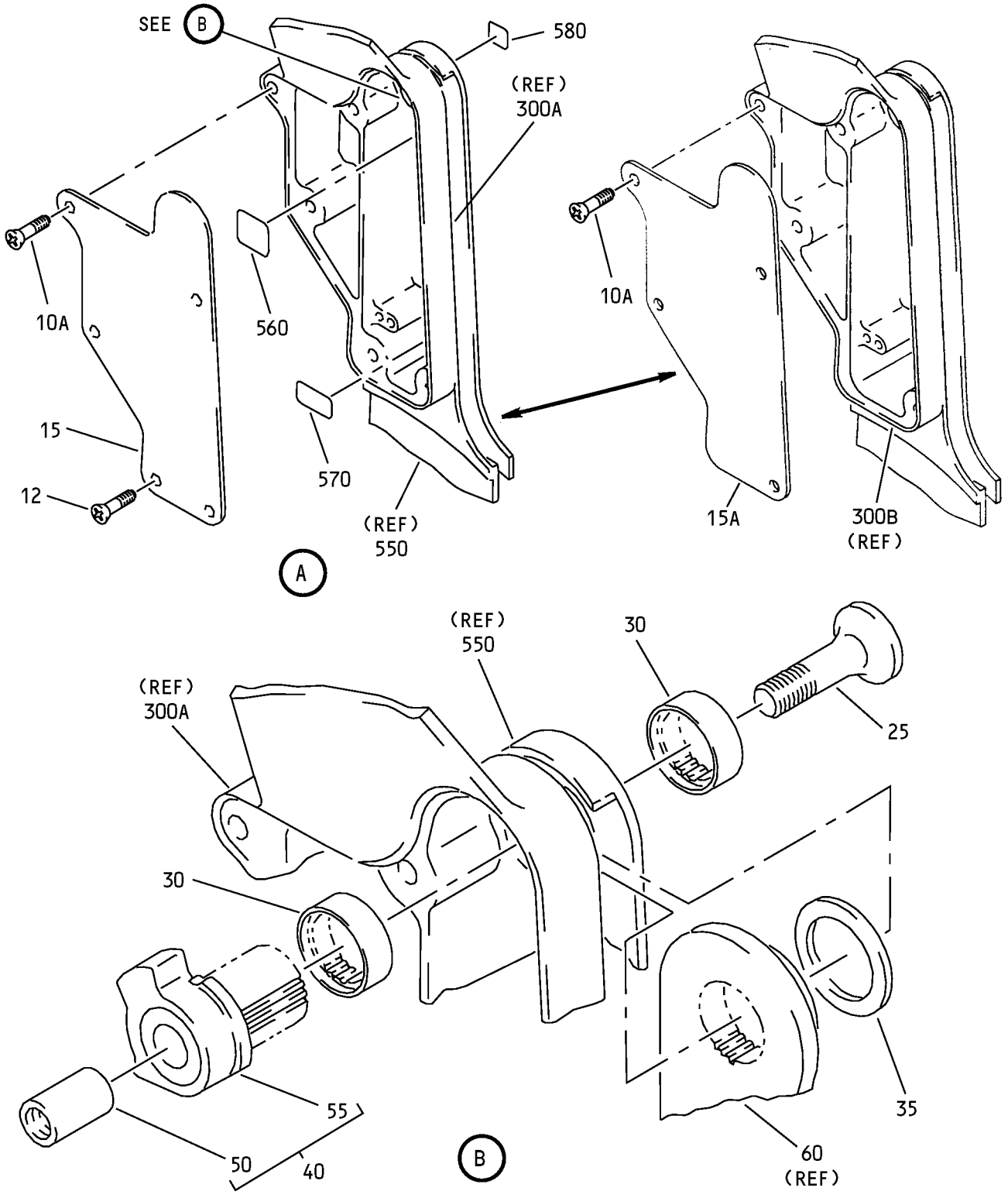
–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
505	250N2005-115		. . TUBE	A, B	1
510	AN316-5R		. . NUT	A, B	1
515	254A1248-1		. . FITTING	A, B	1
520	REP4F5FS428		. . BEARING (V21335) (SPEC BACB10AE4) (OPT REP4F5-3 (V38443)) (OPT REP4F5E9171 (V21335)) (OPT HHRE4F5-1 (V38443)) (OPT ABR4F6G (VS0350))	A, B	1
525	BAC27DEL1263		. MARKER-S786A & S786B	A	1
–530	BAC27DEL1264		. MARKER-S787A & S787B	B	1
535	BAC27DEL1265		. MARKER-S828	A	1
–540	BAC27DEL1266		. MARKER-S829	B	1
545	BAC27DCT290		. MARKER-ALUMINUM FOIL-AUTO-TAKE OFF AND GO-AROUND	A, B	1

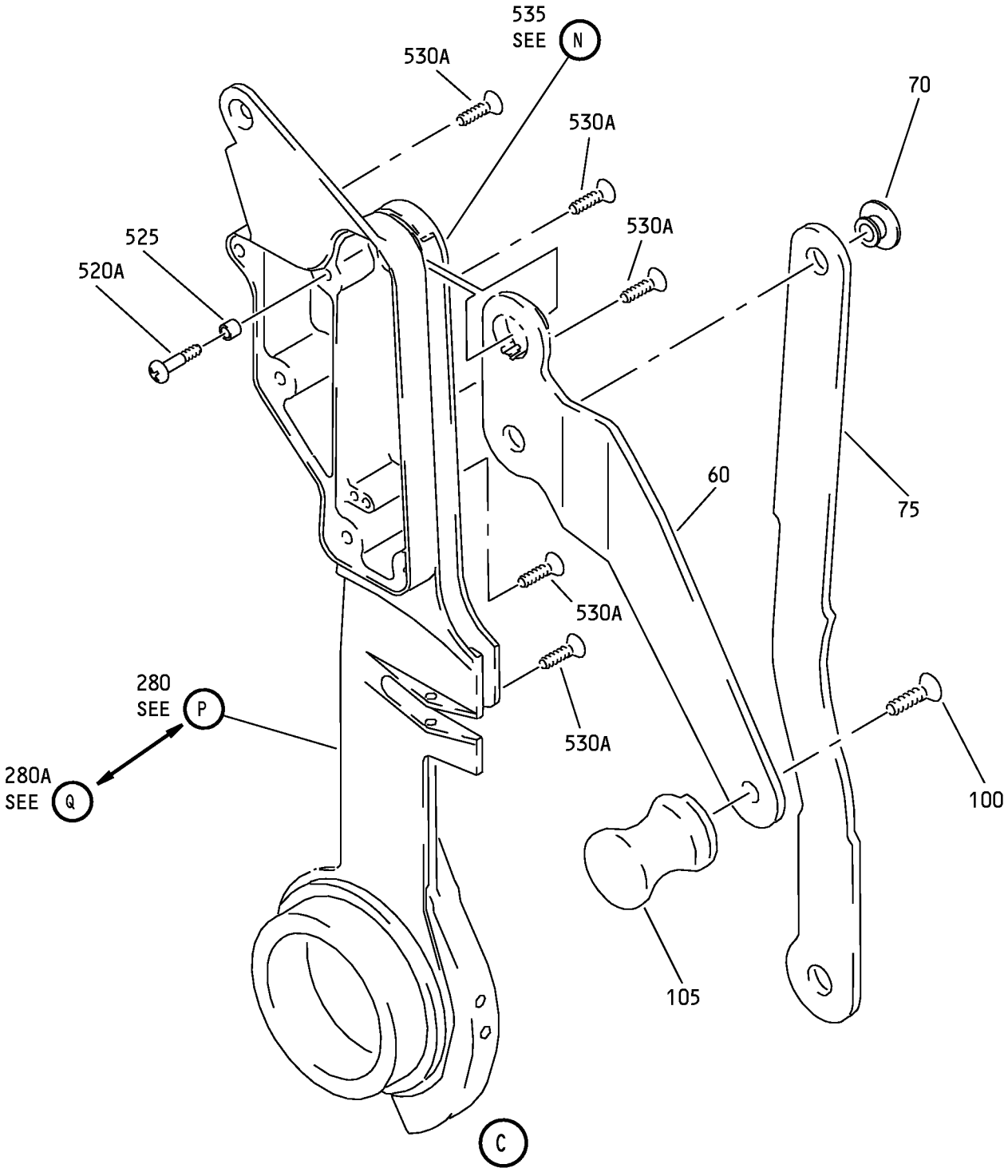
–Item not Illustrated



Control Stand Thrust Lever Assembly
IPL Figure 2 (Sheet 1 of 11)

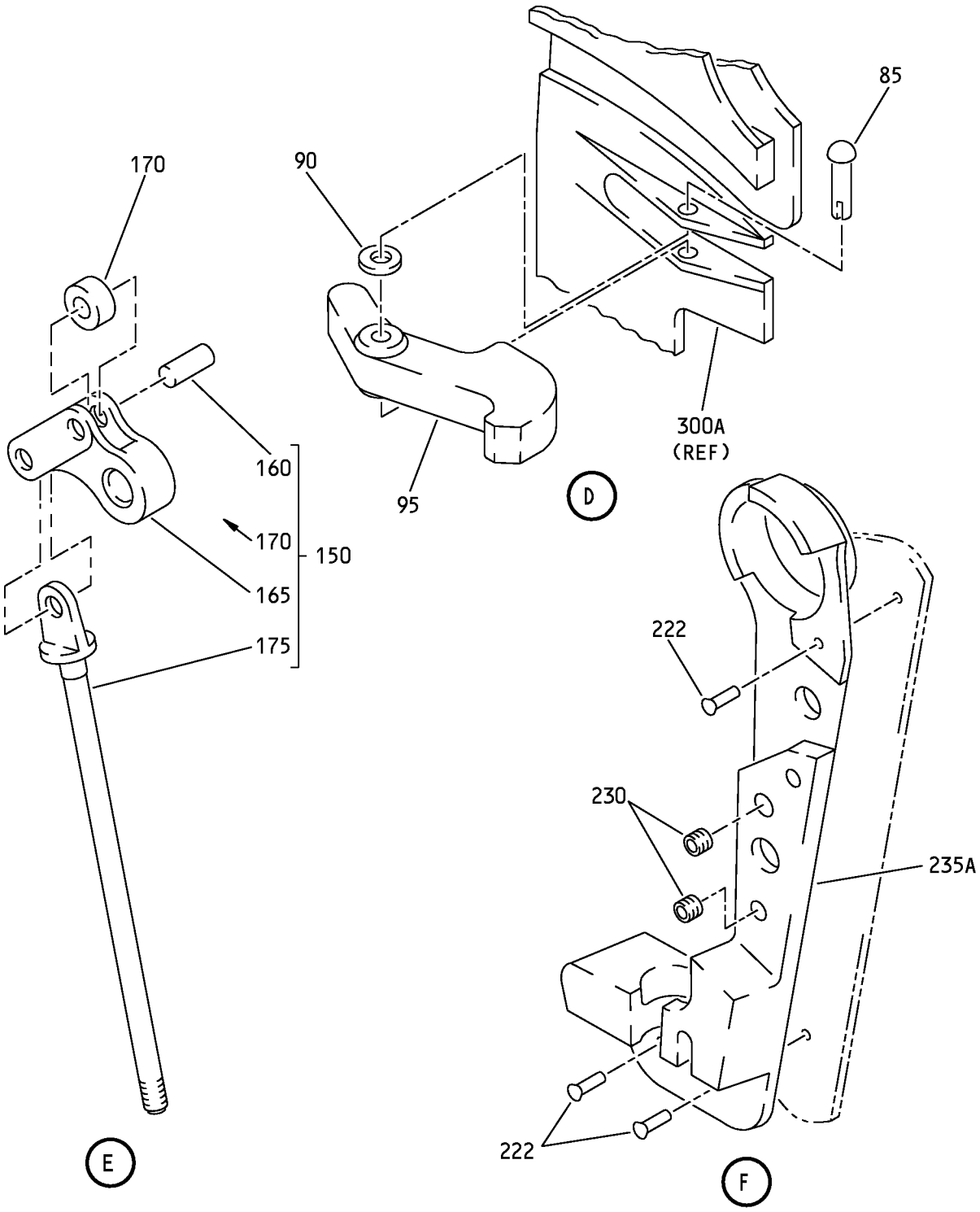


Control Stand Thrust Lever Assembly
IPL Figure 2 (Sheet 2 of 11)



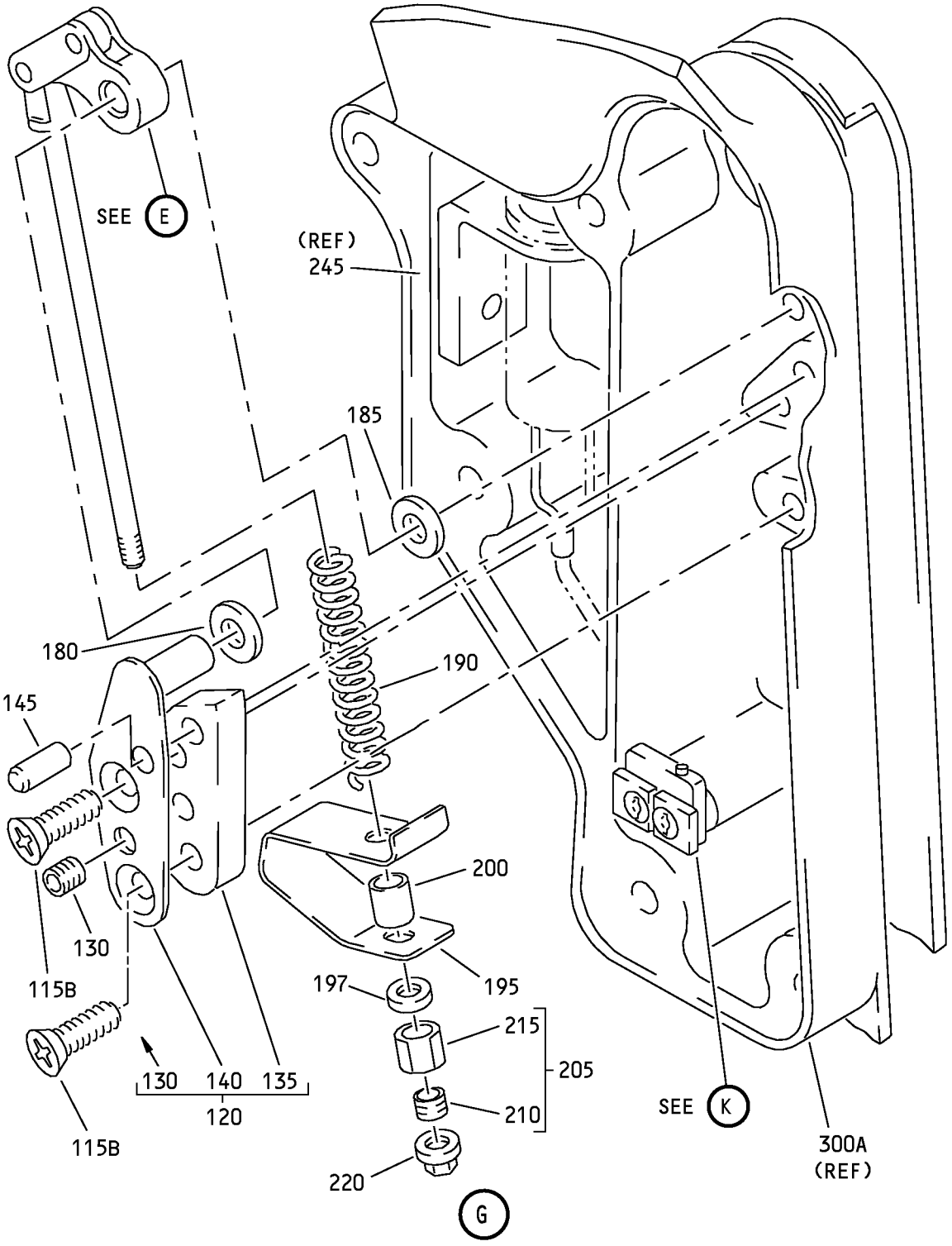
H48100 S00041008728_V2

Control Stand Thrust Lever Assembly
IPL Figure 2 (Sheet 3 of 11)



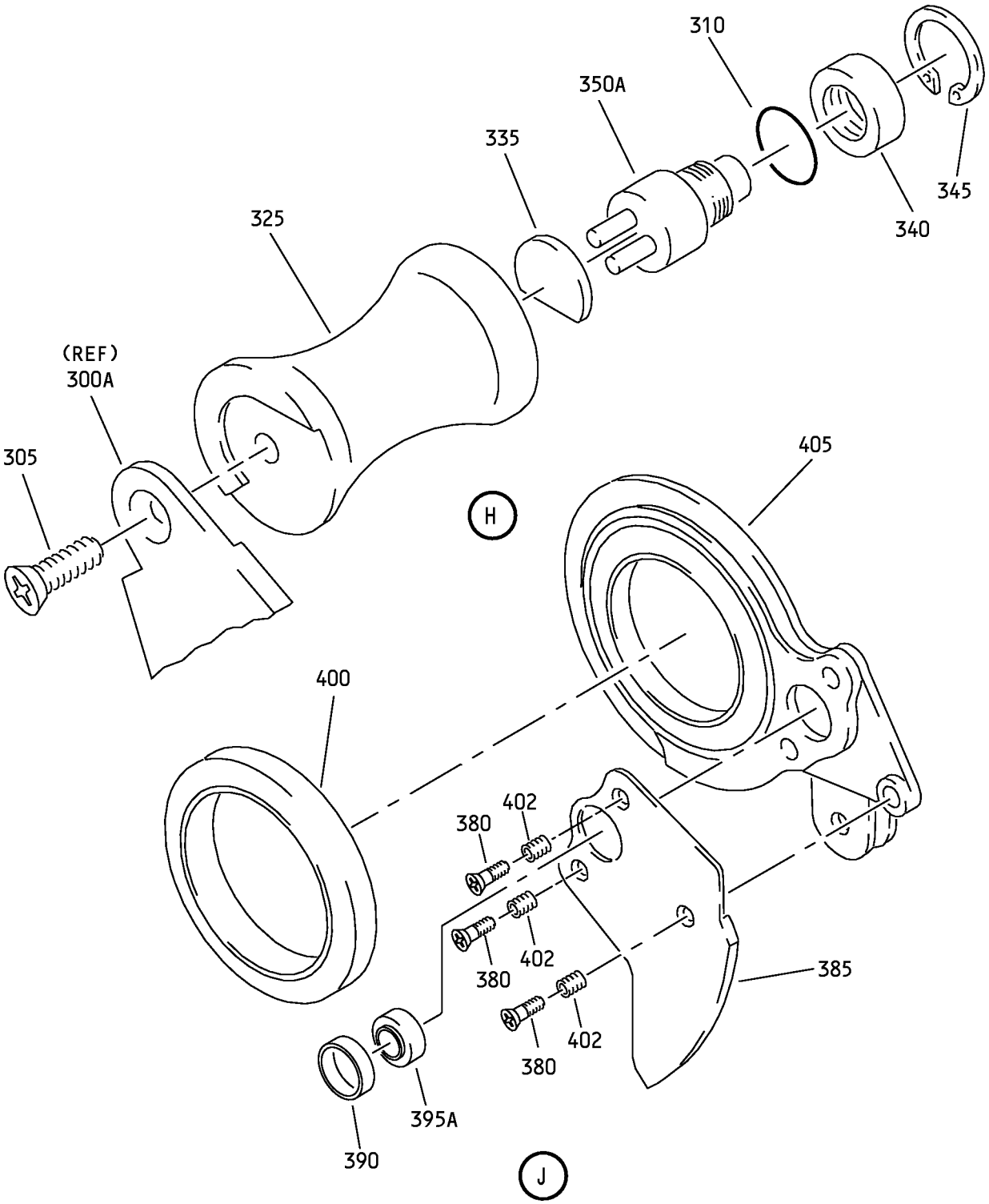
H48105 S00041008729_V2

Control Stand Thrust Lever Assembly
IPL Figure 2 (Sheet 4 of 11)



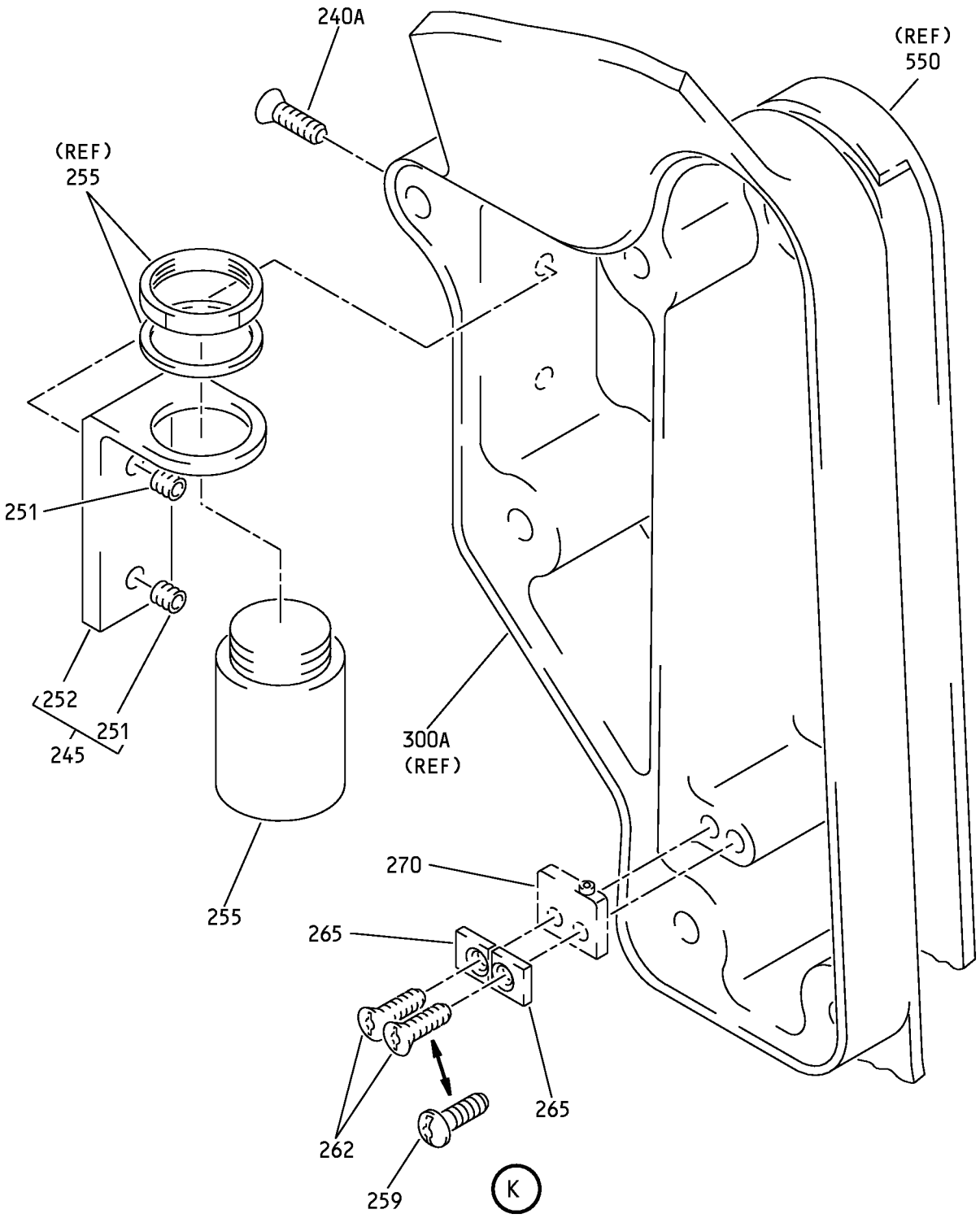
H48110 S00041008730_V2

Control Stand Thrust Lever Assembly
IPL Figure 2 (Sheet 5 of 11)



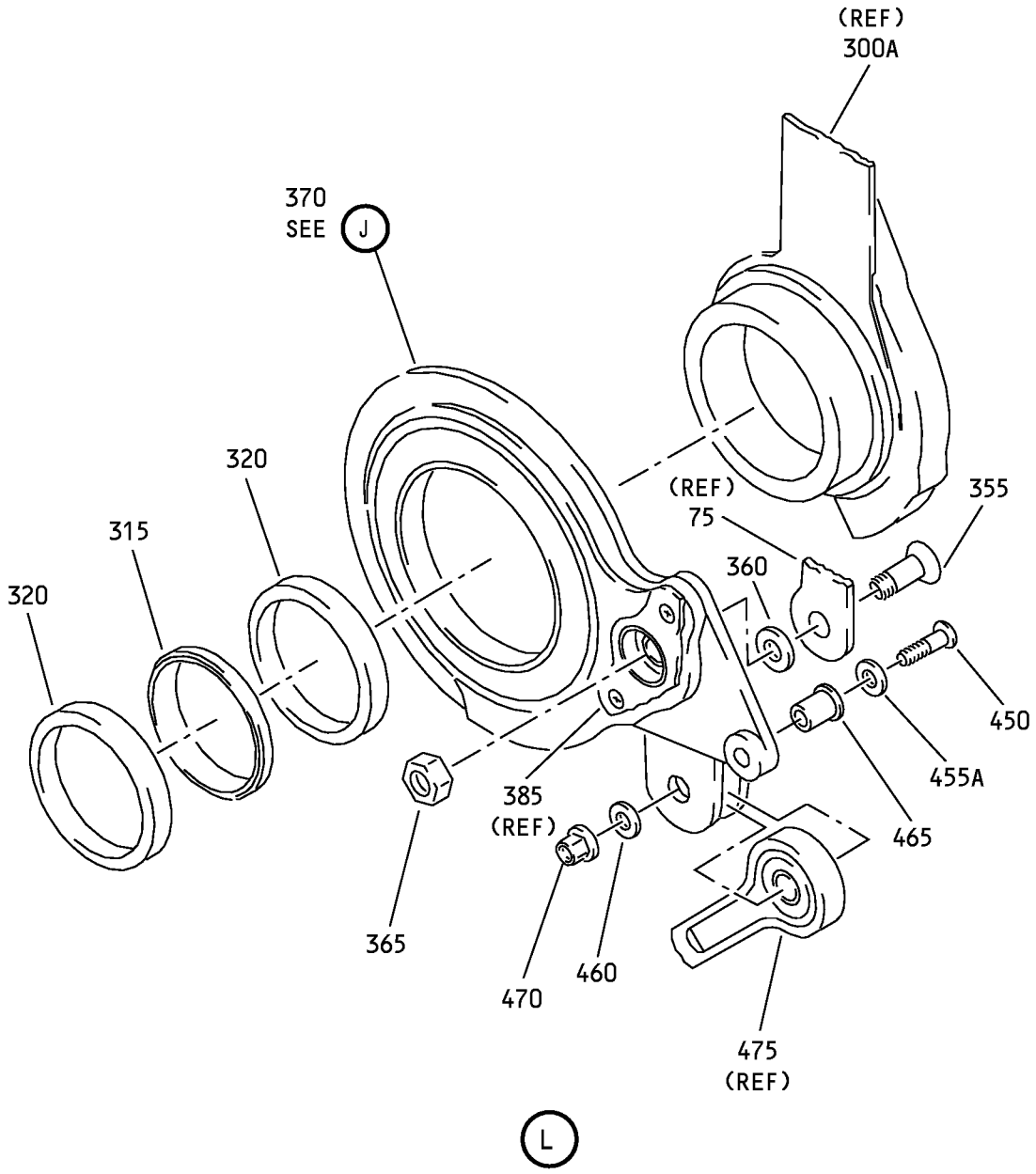
H48122 S00041008731_V2

Control Stand Thrust Lever Assembly
IPL Figure 2 (Sheet 6 of 11)



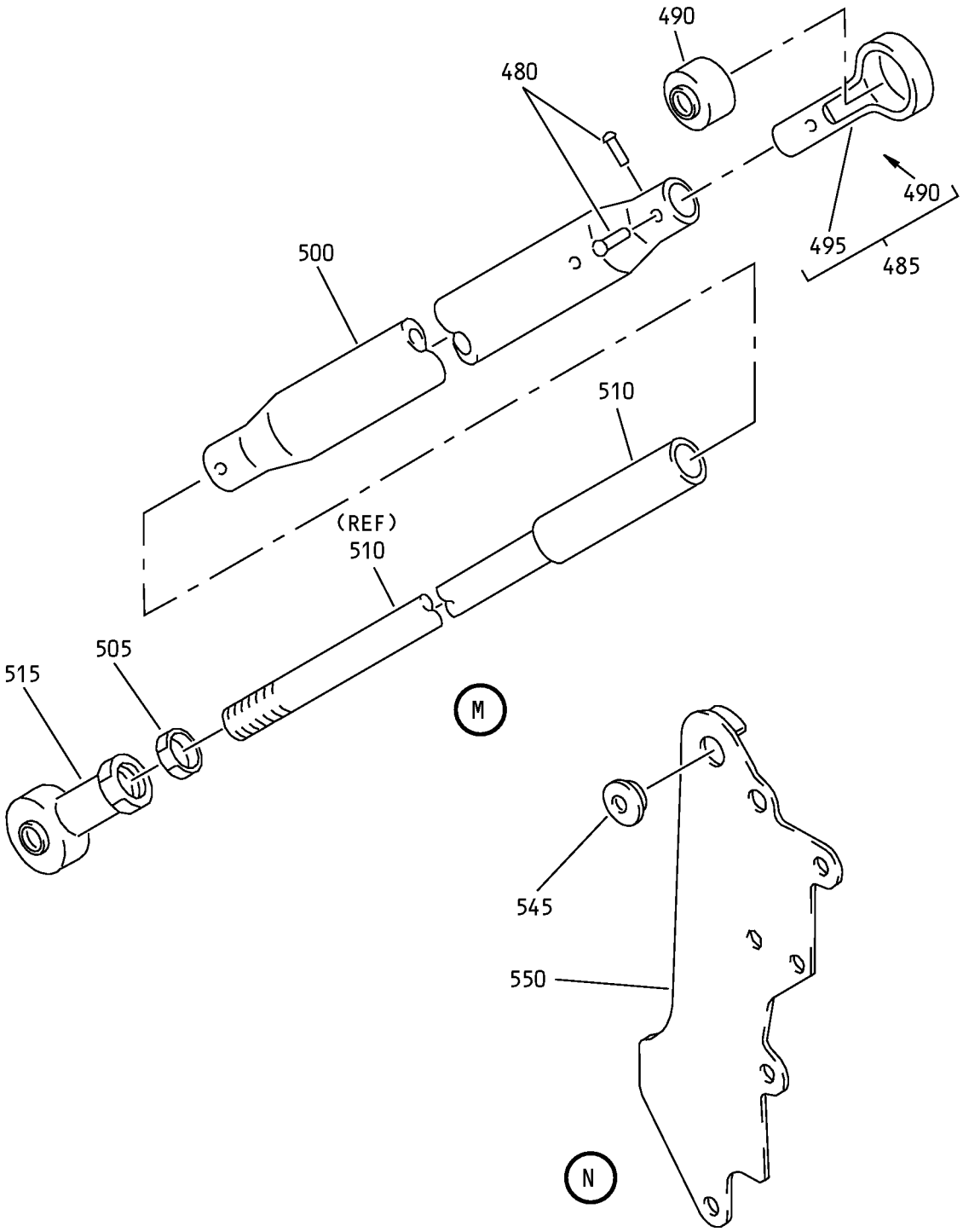
H48124 S00041008732_V2

Control Stand Thrust Lever Assembly
IPL Figure 2 (Sheet 7 of 11)

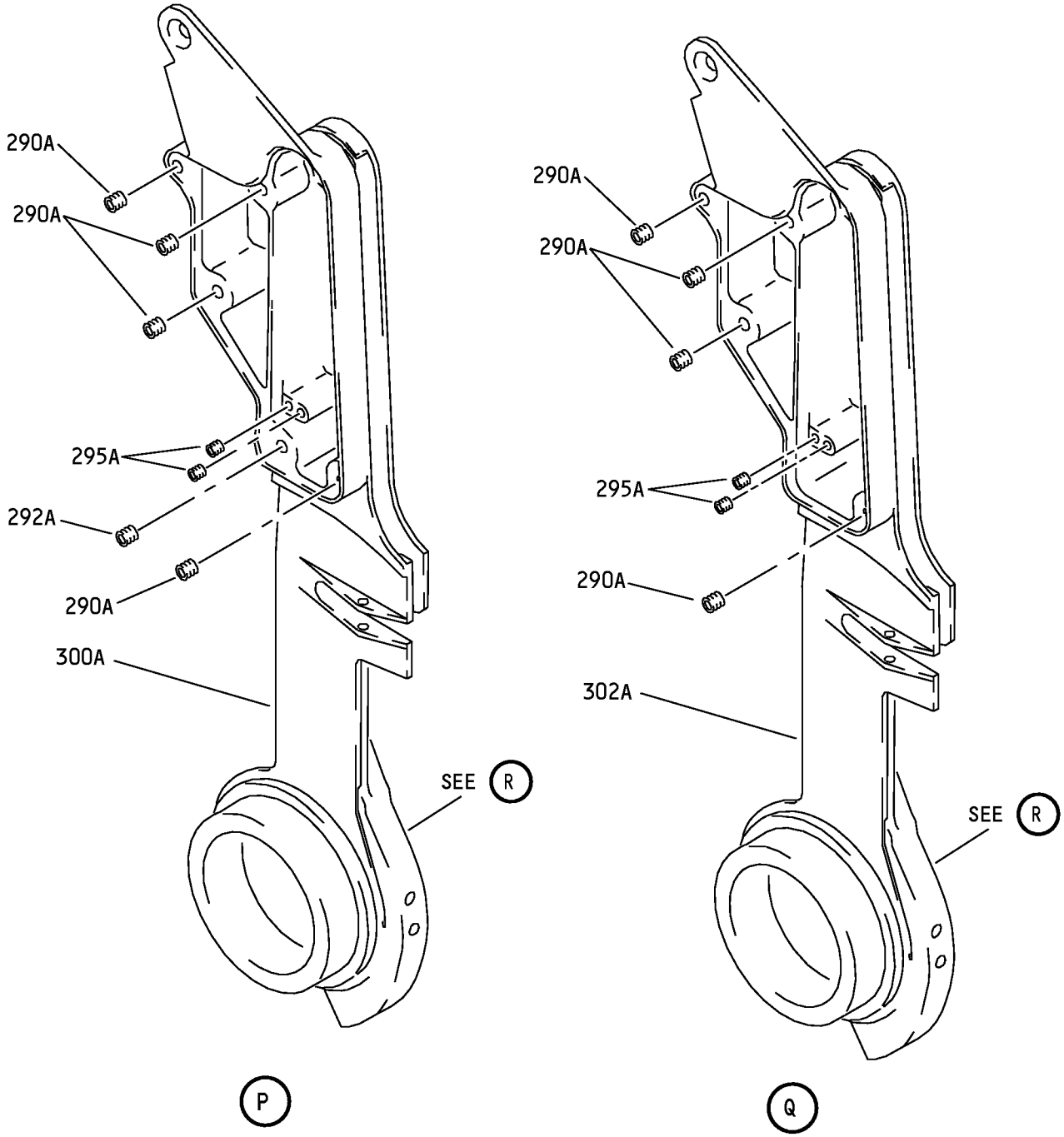


H48129 S00041008733_V2

Control Stand Thrust Lever Assembly
IPL Figure 2 (Sheet 8 of 11)

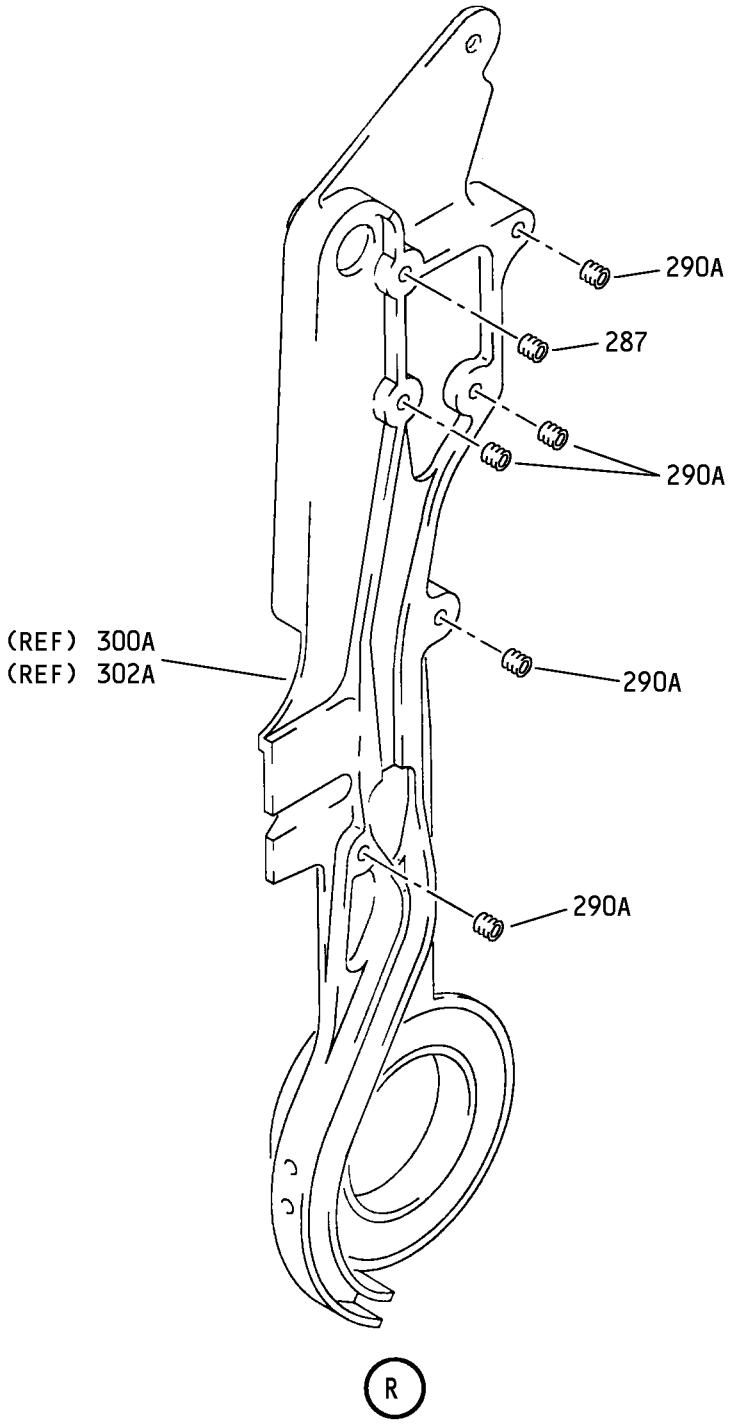


Control Stand Thrust Lever Assembly
IPL Figure 2 (Sheet 9 of 11)



H48134 S00041008735_V2

Control Stand Thrust Lever Assembly
IPL Figure 2 (Sheet 10 of 11)



L41715 S00041008736_V2

Control Stand Thrust Lever Assembly
IPL Figure 2 (Sheet 11 of 11)

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
2–					
–1	254A1240-3		THRUST LEVER ASSY-CONTROL STAND	C	RF
–1A	254A1240-7		THRUST LEVER ASSY-CONTROL STAND	E	RF
–1B	254A1240-9		THRUST LEVER ASSY-CONTROL STAND	G	RF
–5	254A1240-4		THRUST LEVER ASSY-CONTROL STAND	D	RF
–5A	254A1240-8		THRUST LEVER ASSY-CONTROL STAND	F	RF
–5B	254A1240-10		THRUST LEVER ASSY-CONTROL STAND	H	RF
10	BACS12BP04P4		DELETED		
10A	BACS12BP04F4		. SCREW (OPT ITEM 10B)	C-H	4
–10B	NAS514P440-4		. SCREW (OPT ITEM 10A)	C-F	4
12	BACS12BP04P4		. SCREW	C, D	1
–12A	NAS514P440-4		. SCREW	C, D	1
15	69-78783-3		. COVER	C	1
15A	69-78783-7		. COVER	E, G	1
–20	69-78783-4		. COVER	D	1
–20A	69-78783-8		. COVER	F, H	1
25	66-25974-1		. SCREW	C-H	1
30	69-69983-2		. BEARING	C-H	2
35	W0731-009		. WASHER (V83553)	C-H	1
40	65C18271-17		. CAM ASSY	C, E, G	1
–45	65C18271-18		. CAM ASSY	D, F, H	1
50	MS21209F1-10		. . INSERT	C-F	1
55	65C18271-19		. . CAM	C-F	1
60	69-1819-47		. LEVER-REVERSE	C	1
–60A	69-1819-47		. LEVER-REVERSE (OPT ITEM 60B)	E, G	1
–60B	69-1819-49		. LEVER-REVERSE (OPT ITEM 60A)	E, G	1
–65	69-1819-48		. LEVER-REVERSE	D	1
–65A	69-1819-48		. LEVER-REVERSE (OPT ITEM 65B)	F, H	1

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
2–					
–65B	69-1819-50		. LEVER-REVERSE (OPT ITEM 65A)	F, H	1
70	66-11520		. RIVET-SPECIAL	C-H	1
75	69-73212-5		. LINK	C, E, G	1
–80	69-73212-6		. LINK	D, F, H	1
85	63-1440		. RIVET-SPECIAL	C-H	1
90	5804-8-2		. WASHER (V86928)	C-H	1
95	69-1066-2		. PAWL	C-H	1
100	BACS12BP3P8		. SCREW	C-H	1
105	65C14183-15		. KNOB	C, E, G	1
–110	65C14183-16		. KNOB	D, F, H	1
115	BACS12BP04HF5		DELETED		
115A	BACS12BP04HF6		. SCREW (OPT ITEM 155B)	C-H	2
–115B	NAS514P440-6P		. SCREW (OPT ITEM 155C)	C-H	2
–115C	BACS12BP04F6		. SCREW (OPT ITEM 155B)	C-H	2
120	69-69984-19		. PLATE ASSY-PIN	C, E, G	1
–120A	69-69984-11		DELETED		
–125	69-69984-20		. PLATE ASSY-PIN	D, F, H	1
–125A	69-69984-12		DELETED		
130	MS21209C0410		. . INSERT	C-H	1
135	69-69984-17		. . DOUBLER	C-H	1
140	69-69984-15		. . PLATE	C, E, G	1
–142	69-69984-16		. . PLATE	D, F, H	1
145	66-25943-2		. DOWEL	C-H	1
150	254A1241-1		. ROLLER ASSY	C, E, G	1
–155	254A1241-2		. ROLLER ASSY	D, F, H	1
160	66-25941-1		. . PIN	C-H	2
165	69-69981-5		. . LEVER	C, E, G	1
–167	69-69981-6		. . LEVER	D, F, H	1

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
2–					
170	66-25940-1		. . ROLLER	C-H	1
175	69-73206-1		. . PLUNGER-SPRING (OPT ITEM 175A)	C-H	1
–175A	69-73206-3		. . PLUNGER-SPRING (OPT ITEM 175)	C-H	1
180	66-25945-1		. SHIM	C-H	AR
185	66-25942-1		. WASHER	C-H	1
190	69-73827-1		. SPRING	C-H	1
195	69-78782-2		. SPRING	C-H	1
197	NAS620C5L		. WASHER	G, H	AR
200	69-73369-1		. SPACER	C-H	1
205	69-73217-3		. NUT ASSY (OPT ITEM 205A)	C-F	1
–205A	69-73217-5		. NUT ASSY (OPT ITEM 205)	C-F	1
–205B	69-73217-1		. NUT ASSY (OPT ITEM 205C, 205D)	G, H	1
–205C	69-73217-3		. NUT ASSY (OPT ITEM 205B, 205D)	G, H	1
–205D	69-73217-5		. NUT ASSY (OPT ITEM 205B, 205C)	G, H	1
210	MS21209C0410		. . INSERT	C-F	1
215	69-73217-4		. . NUT (USED ON ITEM 205)	C-F	1
–215A	69-73217-6		. . NUT (USED ON ITEM 205A)	C-F	1
220	MS21042L04		. NUT	C-H	1
222	BACR15BA3D2C		. RIVET	C-H	3
225	65C18252-27		DELETED		
225A	65C18252-31		. HOUSING ASSY	C, E	1
225B	65C18252-35		. HOUSING ASSY	G	1
–227Z	65C18252-32		DELETED		
228	65C18252-32		. HOUSING ASSY	D, F	1
–228A	65C18252-36		. HOUSING ASSY	H	1

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
2–					
230	MS21209C0410L		. . INSERT	C-F	2
235	65C18252-29		DELETED		
235A	65C18252-33		. . HOUSING	C, E	1
–237	65C18252-34		. . HOUSING	D, F	1
–237A	65C18252-37		. . HOUSING	G	1
–237B	65C18252-38		. . HOUSING	H	1
240	BACS12BP04P4		DELETED		
240A	BACS12BP04F4		. SCREW (OPT ITEM 240B)	C-H	2
–240B	NAS514P440-4		. SCREW (OPT ITEM 240A)	C-H	2
245	69-78784-3		. MOUNT ASSY-SWITCH (OPT ITEM 245A)	C, E, G	1
–245A	69-78784-5		. MOUNT ASSY-SWITCH (OPT ITEM 245)	C, E, G	1
–250	69-78784-3		. MOUNT ASSY-SWITCH (OPT ITEM 250A)	D, F, H	1
–250A	69-78784-5		. MOUNT ASSY-SWITCH (OPT ITEM 250)	D, F, H	1
251	MS21209C0410P		. . INSERT	C-H	2
252	69-78784-4		. . MOUNT (USED ON ITEMS 245,250)	C-H	1
–253	69-78784-6		. . MOUNT (USED ON ITEMS 245A,250A)	C-H	1
255	2PB11T2		. SWITCH (V91929)	C-H	1
259	BACS12BE02-5		. SCREW (OPT ITEM 260B)	C-H	2
260	BACS12BP02HF6		DELETED		
260A	BACS12BP02-5		DELETED		
–260B	254A1240-5		. KIT ASSY-SUBSTITUTE (OPT ITEM 260A)	C-H	2
262	BACS12BP02HF6		. . SCREW	C-F	1
265	69-73300-1		. . PLATE-SWITCH	C-F	1

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
2–					
270	1SX1H58		. SWITCH (V91929)	C-F	1
–275	640024-1		. PIN (V00779)	C, D	3
–275A	640024-1		. PIN (V00779) (OPT ITEM 275B)	E-H	3
–275B	60789-2		. PIN (V00779) (OPT ITEM 275A)	E-H	3
280	254A1247-1		. LEVER ASSY	C	1
280A	254A1247-5		. LEVER ASSY	E	1
–280B	254A1247-11		. LEVER ASSY	G	1
–285	254A1247-2		. LEVER ASSY	D	1
–285A	254A1247-6		. LEVER ASSY	F	1
–285B	254A1247-12		. LEVER ASSY	H	1
287	MS21209C0820P		. . INSERT	C-H	1
290	MS21209C0410		DELETED		
290A	MS21209C0410P		. . INSERT	C-H	8
292	MS21209C0410		DELETED		
292A	MS21209C0410P		. . INSERT	C, D	1
295	MS21209C0210		DELETED		
295A	MS21209C0210P		. . INSERT	C-H	2
300	65C37366-3		DELETED		
300A	254A1247-3		. . LEVER	C	1
–300B	254A1247-7		DELETED		
–300C	254A1247-9		DELETED		
–300D	254A1247-13		DELETED		
–300E	254A1247-4		. . LEVER	D	1
–302	254A1247-4		DELETED		
–302A	254A1247-8		. . LEVER (OPT ITEM 302B)	F	1
–302B	254A1247-10		. . LEVER (OPT ITEM 302A)	F	1

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
2–					
–302C	254A1247-14		. . LEVER	H	1
–302D	254A1247-7		. . LEVER (OPT ITEM 302E)	E	1
–302E	254A1247-9		. . LEVER (OPT ITEM 302D)	E	1
–302F	254A1247-13		. . LEVER (OPT ITEM 302A)	G	1
305	BACS12BP3P5		. SCREW	C-H	1
310	M83461-1-114		. PACKING	C-H	1
315	69-76350-2		. SPACER-CLAMP-UP	C-H	1
320	MB543DDSD610		. BEARING (V83086) (OPT ITEM 320B)	C-H	2
–320A	MB543DDSD610		DELETED		
–320B	BACB10FU25RJ		. BEARING (OPT ITEM 320)	C-H	2
325	65-45117-13		. KNOB ASSY	C, E, G	1
–330	65-45117-14		. KNOB ASSY	D, F, H	1
335	69-40892-1		. . DISC-INSULATING	C-H	1
340	69-35353-1		. RETAINER	C-H	1
345	MS16625-4086		. RING	C-H	1
350	P8-400000-3		DELETED		
350A	P8-4000003		. SWITCH (V21649)	C-H	1
351	BACT12AC43		. TERMINAL	C-H	4
355	66-26135-1		. BOLT-SPECIAL	C-H	1
360	NAS1149D0516J		. WASHER	C-H	1
365	BACN10JD105		. NUT	C-H	1
370	254A1242-1		. CRANK ASSY	C, E, G	1
–375	254A1242-2		. CRANK ASSY	D, F, H	1
380	BACB30VF3K1		. . BOLT	C-H	3
385	254A1244-1		. . CAM	C, E, G	1
–387	254A1244-2		. . CAM	D, F, H	1
390	254A1246-1		. . RETAINER	C-H	1

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
2–					
395	KP5AFS428		DELETED		
395A	BACB10BX05		. . BEARING	C-H	1
400	MKP37BSD610		. . BEARING (V83086) (SPEC BACB10AU37) (OPT MKP37BLY196 (V40920)) (OPT MKP37BTT (V43991)) (OPT MKP37B2TS (V43991)) (OPT MKP16BE9273-37 (V21335)) (OPT LLMKP37B1 (V38443)) (OPT MKP37BFS428 (V21335)) (OPT MKP37B3G20 (V38443)) (OPT MKP37B (V06144))	C-H	1
402	MS21209F1-10P		. . INSERT	C-H	3
405	254A1243-1		. . CRANK	C, E, G	1
–410	254A1243-2		. . CRANK	D, F, H	1
420	BACC45FN12-12P9		. CONNECTOR	C, E, G	1
–425	BACC45FN12-12P6		. CONNECTOR	D, F, H	1
430	BACC45FN10-5P8		. CONNECTOR	C, E, G	1
–435	BACC45FN10-5P9		. CONNECTOR	D, F, H	1
440	MS27291-2		. CLAMP	C, E, G	1
–440A	MS27559-3		. SUPPORT	D, F, H	1
442	MS27291-1		. STRAIN	C, E, G	1
–442A	MS27559-2		. BACKSHELL	D, F, H	1
–445	C48-2335-02		. CONTACT (V13556) (SPEC BACC47CN1) (OPT LRM20W16F74 (V09922)) (OPT ZZL4020-36LT (V49367)) (OPT 48-2335-02 (V02660)) (OPT 417-2020-901 (V55104)) (OPT 48-2335-09 (V77820))	C-H	11
450	HST10AG8-9		. BOLT (V0PTK6) (SPEC BACB30VT8K9) (OPT HST10AG8-9 (V06725)) (OPT HST10AG8-9 (V56878)) (OPT HST10AG8-9 (V73197))	C-H	1
455	BACW10CT8C		DELETED		

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
2–					
455A	BACW10EG8C		. WASHER	C-D	1
455B	BACW10CT8C		. WASHER	E-H	1
460	NAS1149D0416J		. WASHER	C-H	1
465	BACB28BA0406013		. BUSHING	C-H	1
470	H52732-4CD		. NUT (V15653) (SPEC BACN10YR4CD) (OPT PLH54CD (V62554))	C-H	1
475	250N2004-115		. ROD ASSY-CONN.	C-H	1
480	BACR15BB4D		. . RIVET	C-H	2
485	253T1224-1		. . ROD END ASSY	C-H	1
490	KSP4ASD610		. . . BEARING (V83086) (SPEC BACB10AC4A) (OPT HHKSP4A (V38443)) (OPT KSP4AE9440A (V21335)) (OPT KSP4AFS428 (V21335)) (OPT KSP4A2TS (V43991)) (OPT KSP4AG27 (V30163)) (OPT 4AFS428 (V21335))	C-H	1
495	253T1224-2		. . . END	C-H	1
500	250N2005-115		. . TUBE	C-H	1
505	AN316-5R		. . NUT	C-H	1
510	254A1248-1		. . FITTING	C-H	1
515	REP4F5FS428		. . BEARING (V21335) (SPEC BACB10AE4) (OPT REP4F5-3 (V38443)) (OPT REP4F5E9171 (V21335)) (OPT HHRE4F5-1 (V38443)) (OPT ABR4F6G (VS0350))	C-H	1
520	BACS10FA08K10		DELETED		
520A	BACS12FA08K10		. SCREW	C-H	1
525	BACB28U3C025		. BUSHING	C-H	1
530	BACS12BP04P4		DELETED		
530A	BACS12BP04F4		. SCREW (OPT ITEM 530B)	C-H	5

–Item not Illustrated

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
2–					
–530B	NAS514P440-4		. SCREW (OPT ITEM 530A)	C-H	5
535	254A1253-1		. COVER ASSY	C, E, G	1
–540	254A1253-2		. COVER ASSY	D, F, H	1
545	66-25938-2		. . BUSHING	C-H	1
550	69-78783-5		. . COVER	C, E, G	1
–555	69-78783-6		. . COVER	D, F, H	1
560	BAC27DEL1263		. MARKER-S786A & S786B	C, E, G	1
–565	BAC27DEL1264		. MARKER-S787A & S787B	D, F, H	1
570	BAC27DEL1265		. MARKER-S828	C, E, G	1
–575	BAC27DEL1266		. MARKER-S829	D, F, H	1
580	BAC27DCT290		. MARKER-ALUMINUM FOIL-AUTO-TAKE OFF AND GO-AROUND	C-H	1

–Item not Illustrated