

Armor in detail n° 2 :

PANTHER Ausf. A (Sd.Kfz. 171)

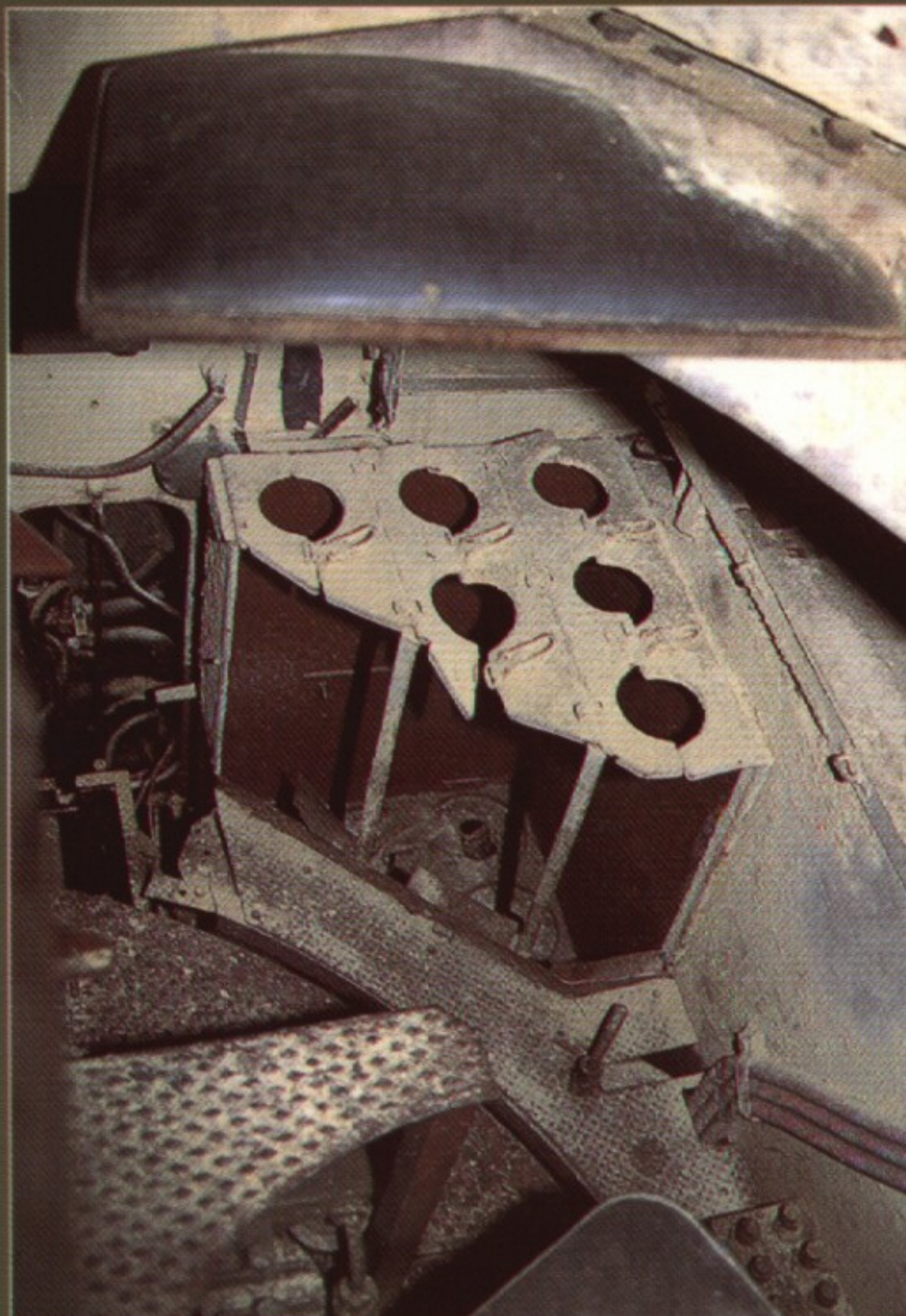
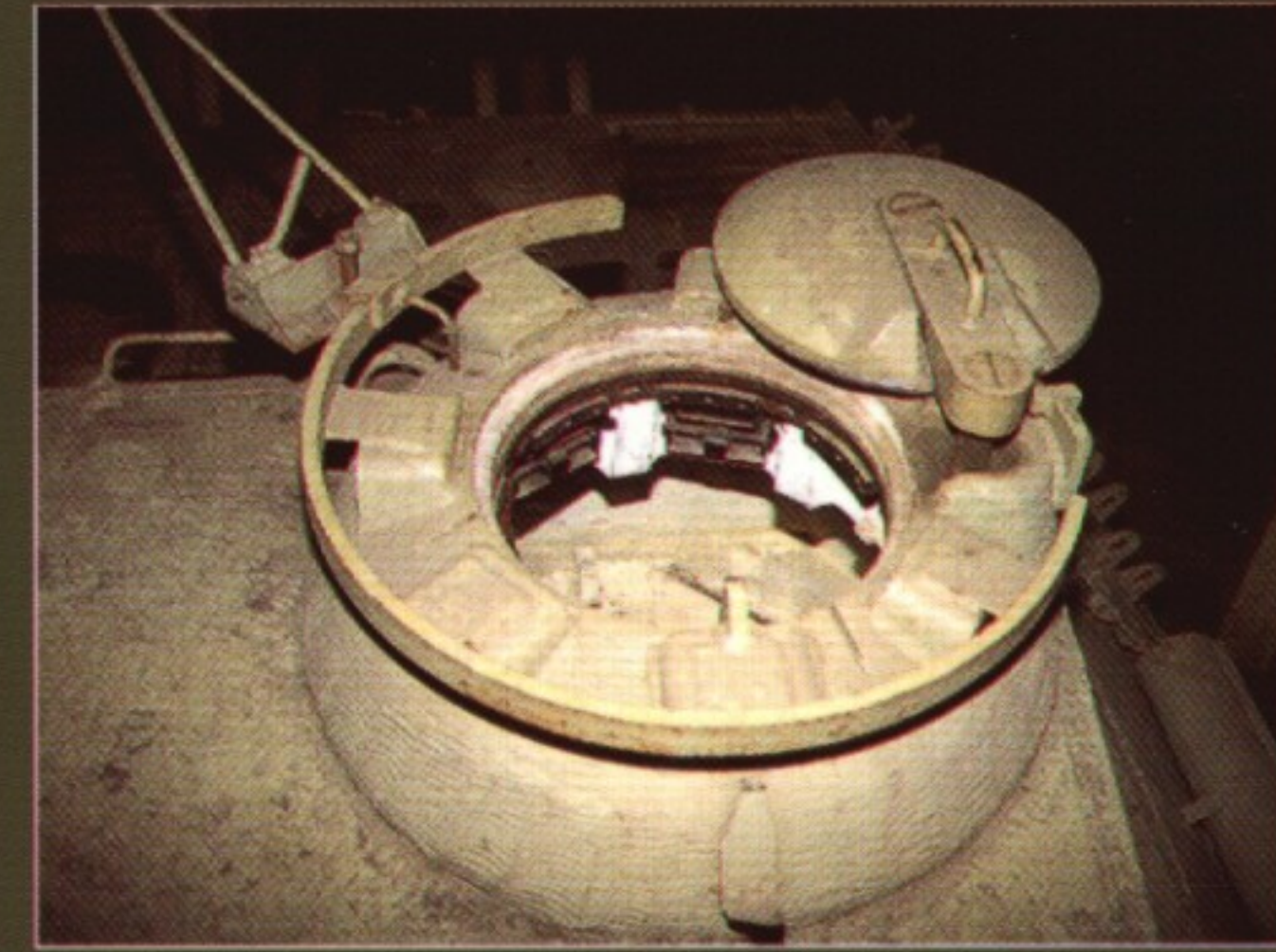
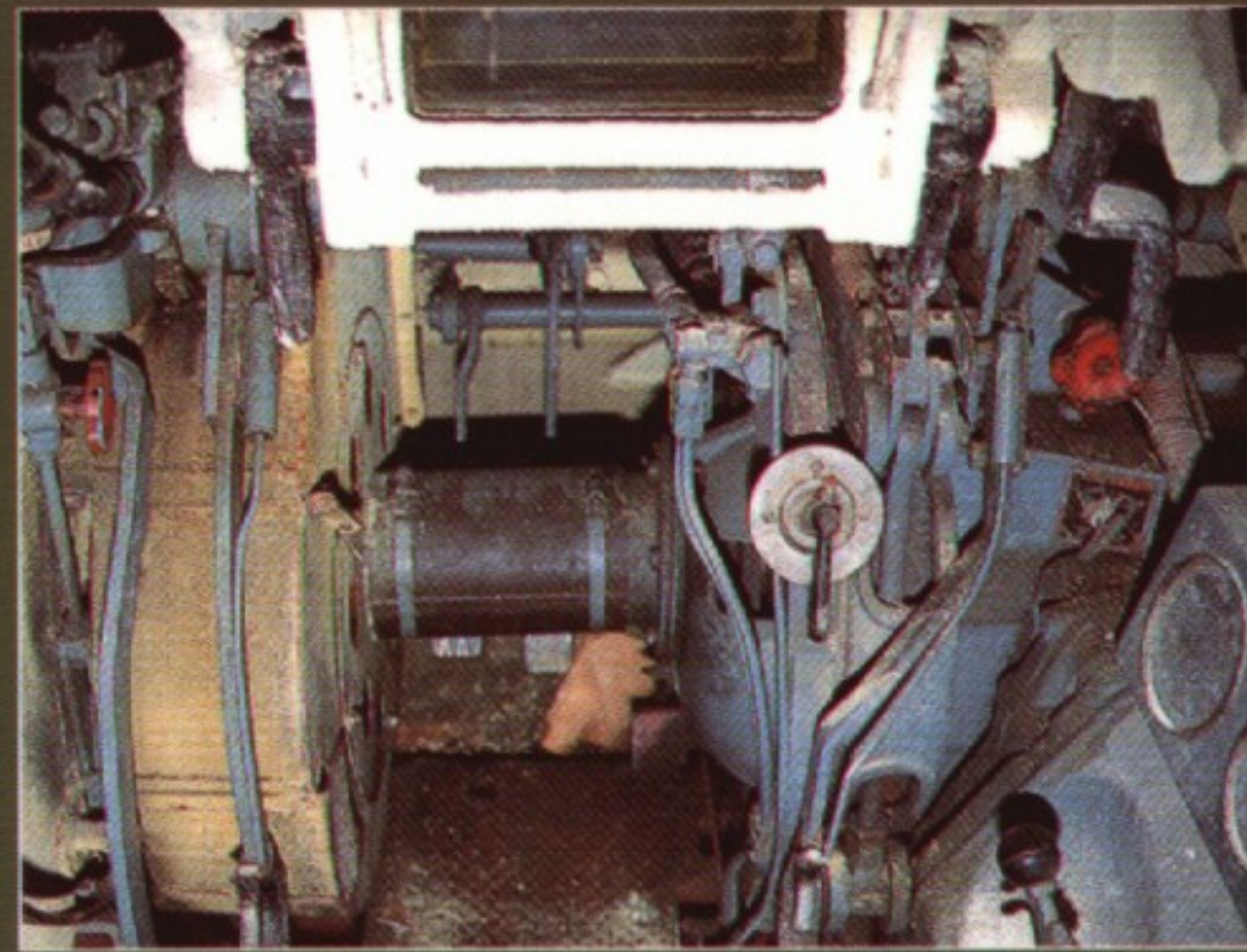
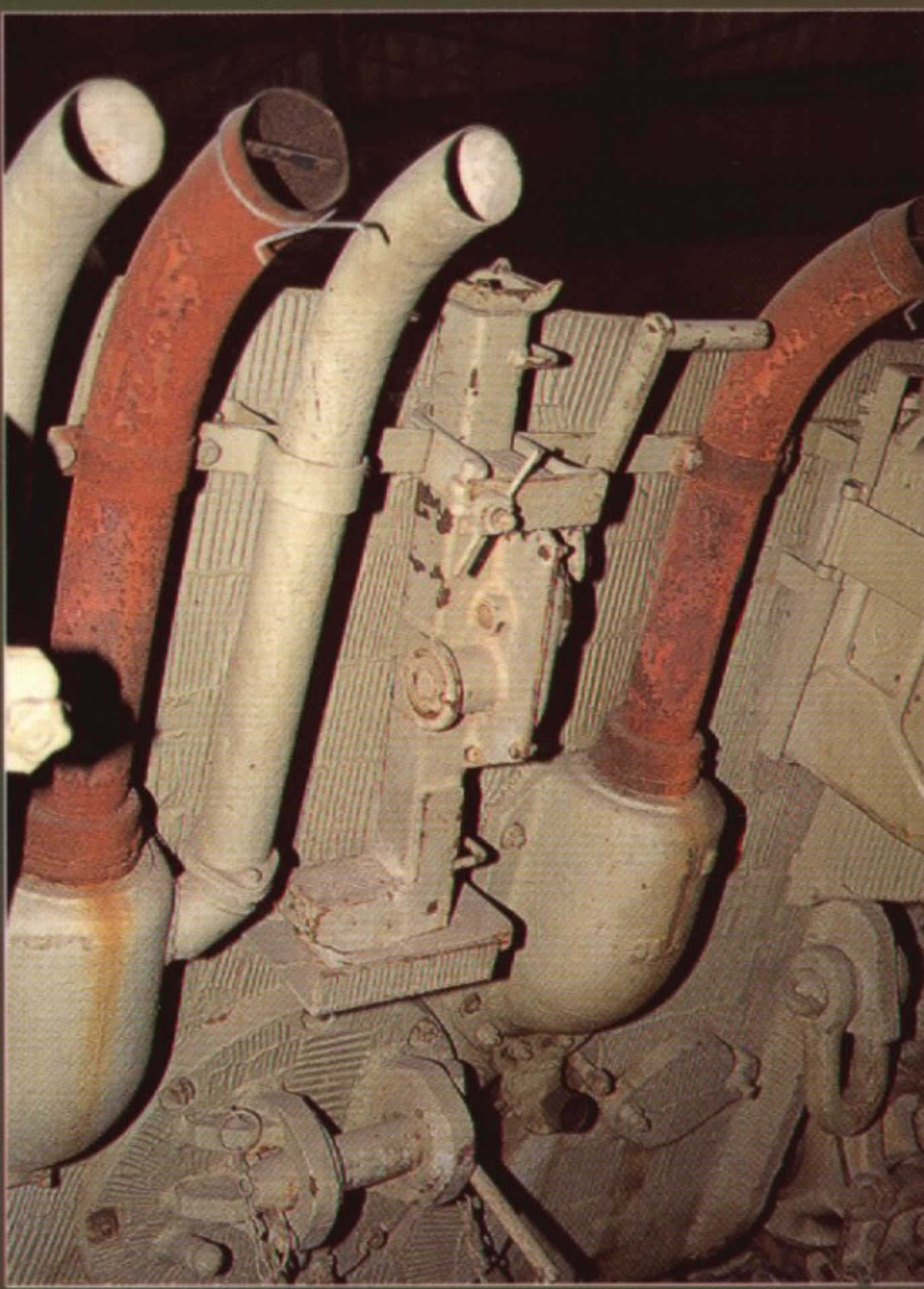
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INTRODUCTION

Perhaps not as illustrious as its counterpart the TIGER, the PANTHER, developed by MAN, Nürnberg was equally important to many German victories on the battlefield. Development started in May 1942 and the first production Panther A's reached the battlefield in 1943.

Many problems with the sprocket wheel and running gear and the delay in turret deliveries from sub contractors (the Daimler Benz turret was scrapped completely) prevented earlier engagement. It was estimated MAN should have its first 14 Panthers delivered by the end of January 1943 and Henschel had at that time six Panthers on the production line.

The first of these were handed over without winterization and fording equipment. Contrary to common practice, the first

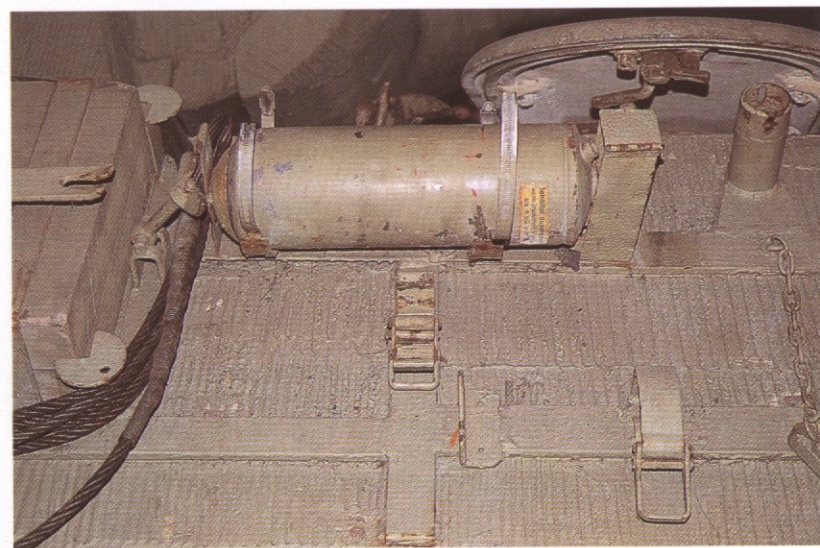
production Panthers were designated Ausf. D with the Ausf. A being the improved version.

The Panther Ausf. A is equipped with a 7,5cm KwK 42 L/70 main gun and has two additional MG34 machineguns to defend itself. It is powered by a Maybach "HL 230 P30" 12-cylinder engine and weighs as much as 44.800 kilograms in battle configuration.

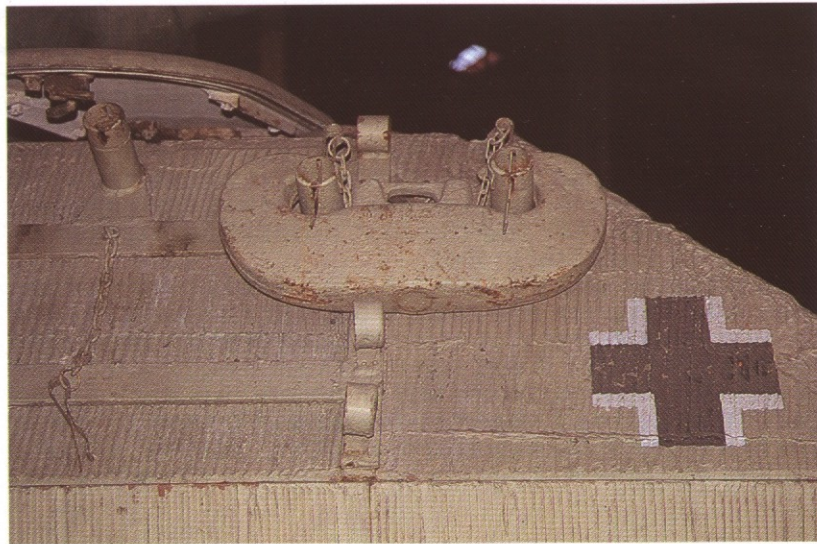
It could carry 720 liters of fuel and used 280 liters to travel a distance of 100 km on the street. This could increase to as much as 700 liters when crossing the field, which meant regular fuel stops had to be made. This explains why fuel supplies were so important for all combatants in the conflict.



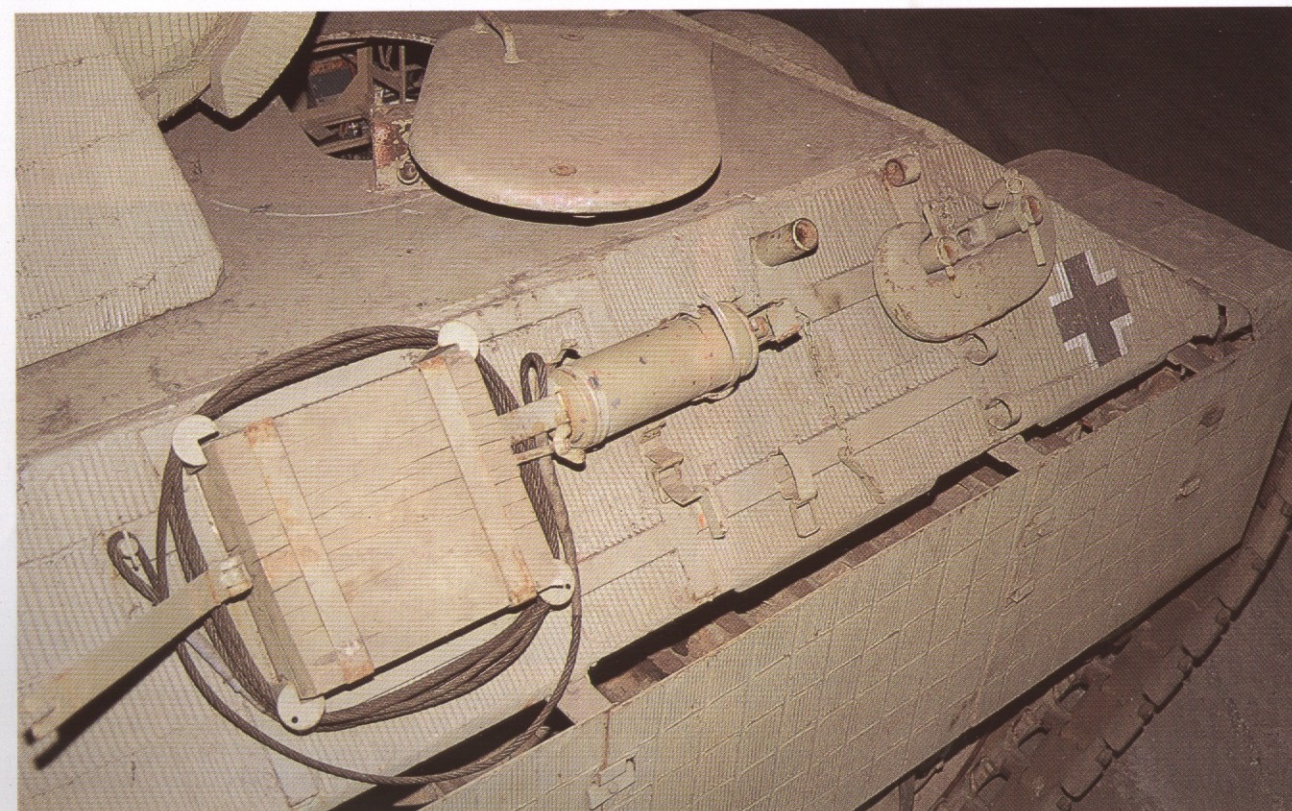
View on the frontal hull and front starboard side. Bottom hull plate is 60mm armor plate, sloped 56° from the vertical; upper hull armor plate is 80mm thick and sloped 55° from the vertical. Note the towing hooks next to the tracks.



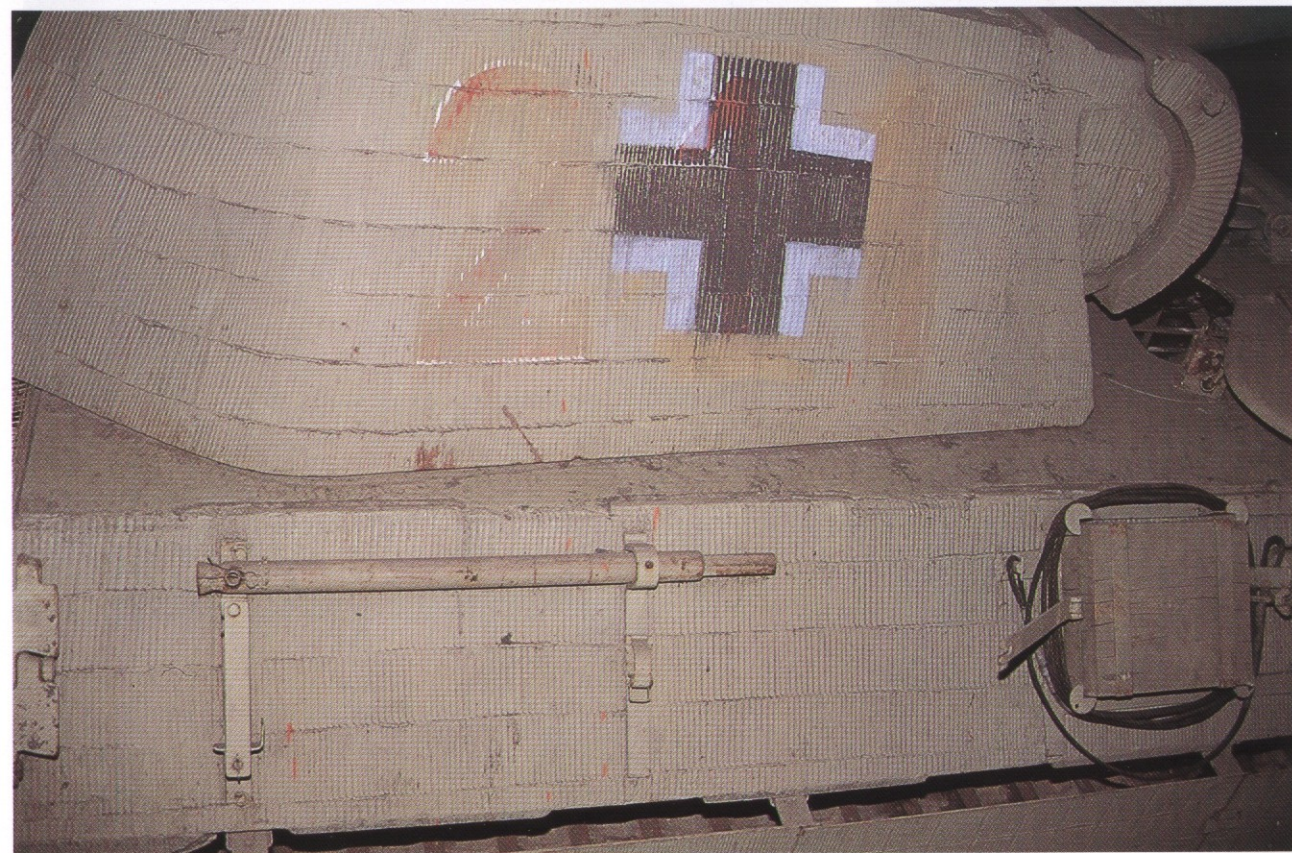
Close-up of the fire extinguisher inside its mounting bracket (metal bands are not original fasteners), starter crank handle bracket and (at the bottom) wire cutter bracket.



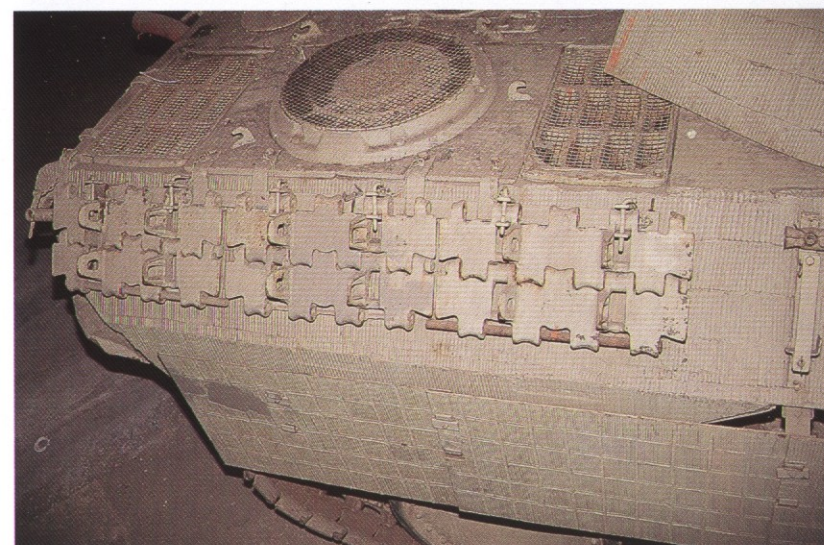
At glacis plate height is the stowage for a towing clevis. Note the method of securing the clevis to the hull.



Further aft on the side slope rests a large wooden block which is used to support the jack. Note the cable encircling the block and the unsecured retaining bracket.



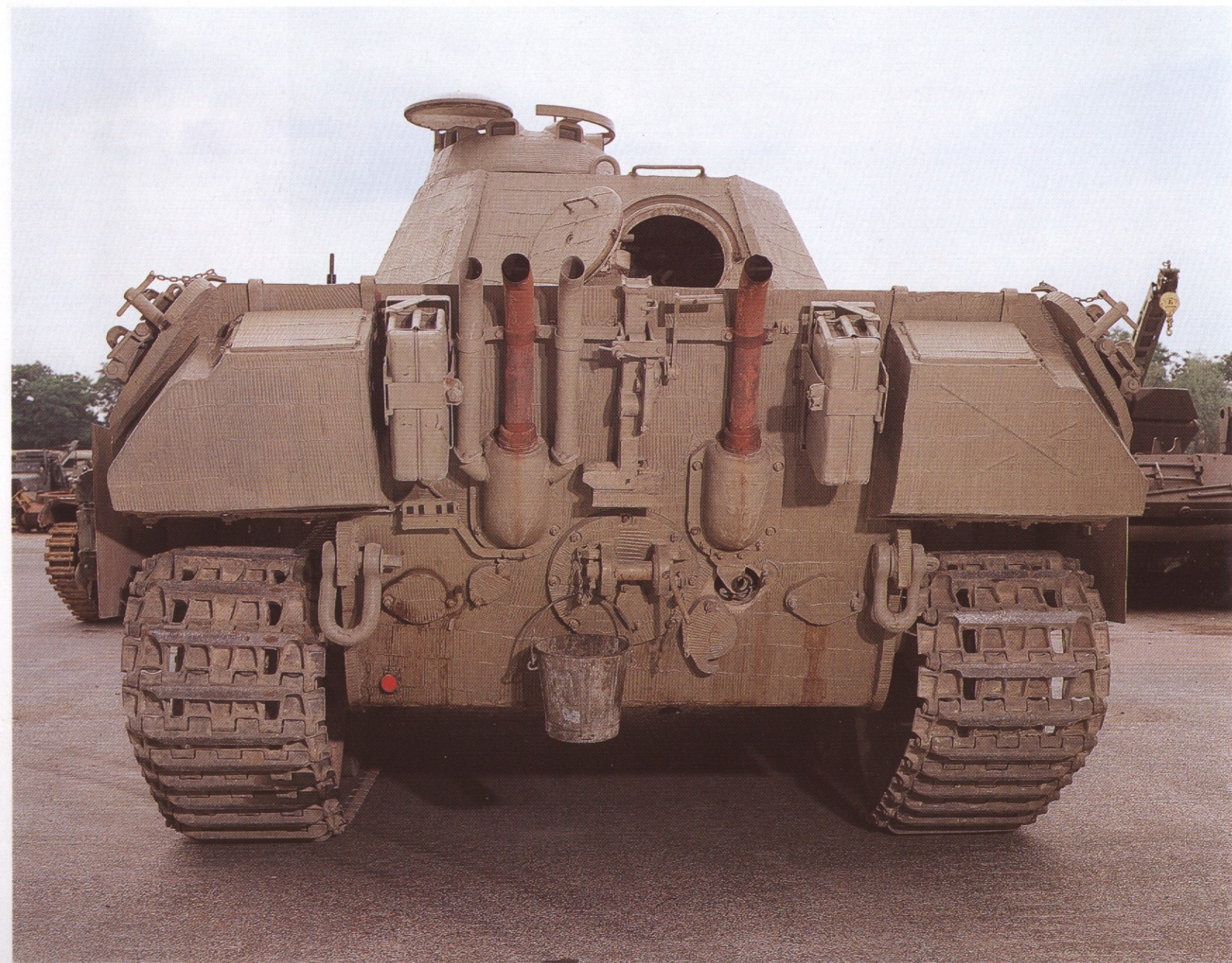
To the rear of the jack rest is stored the hexagon wrench for track tension adjustment (installed) and the hammer bracket.



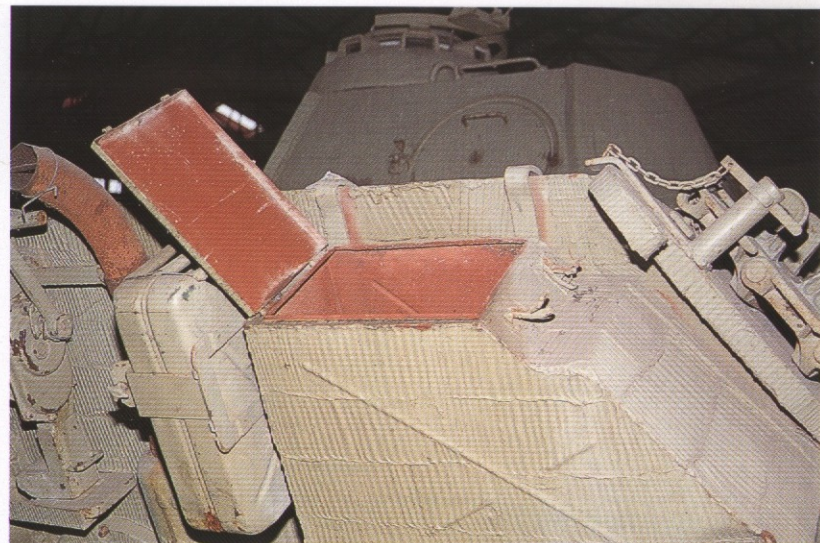
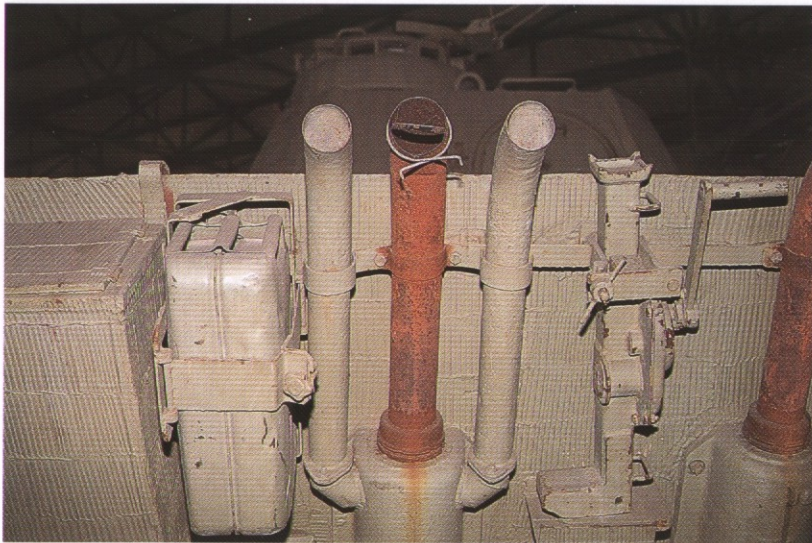
Three spare track links stowed aside the engine compartment on starboard side. Note the distance between side skirt and hull.



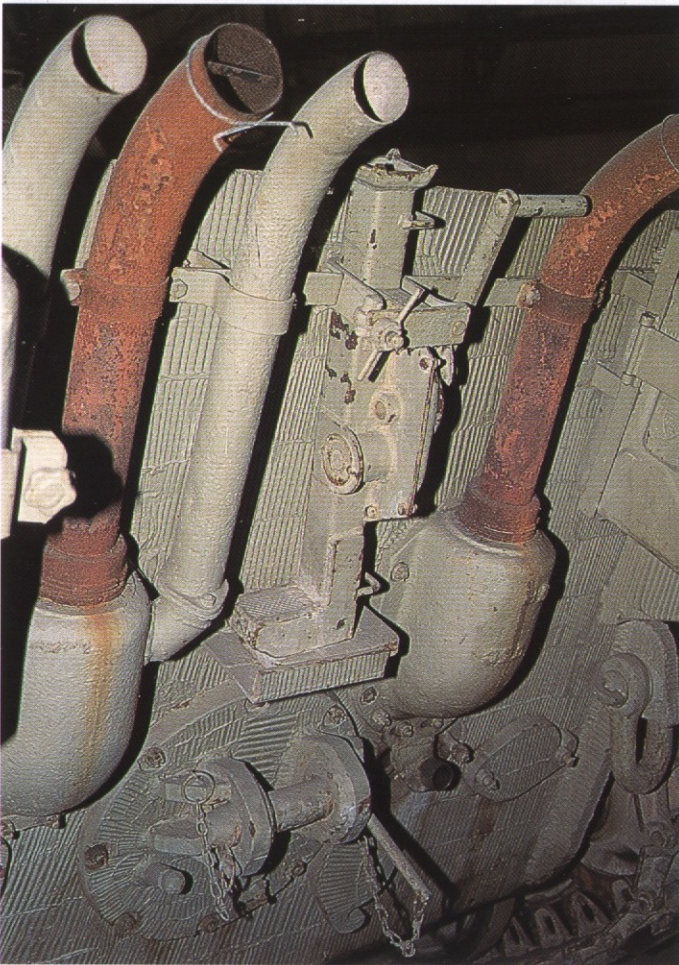
A view of the same area without the side skirts installed reveals the welding seams and the sloped bottom.



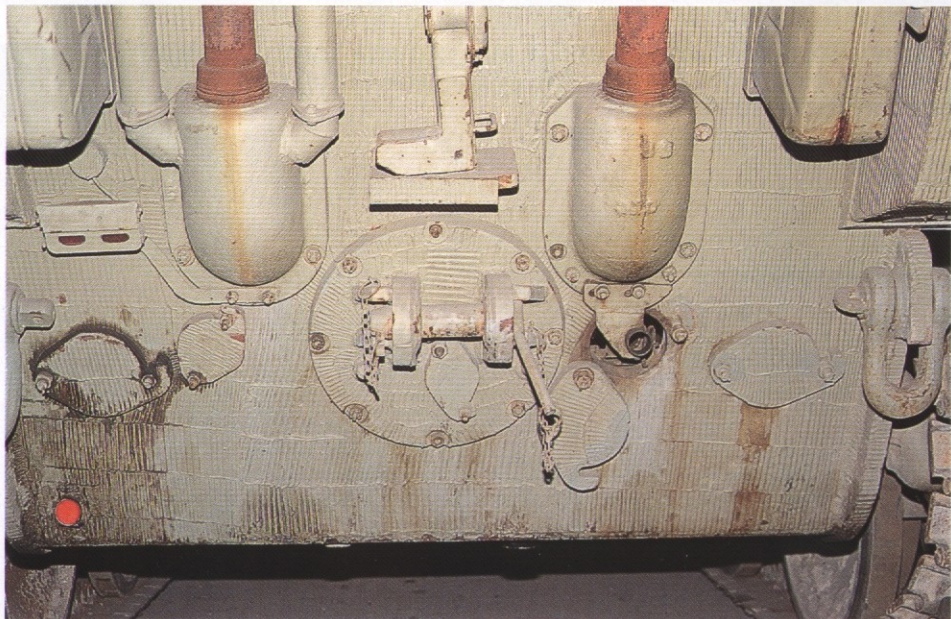
Overall rear view for orientation. The starter crank handle connection hole can be seen immediately below the right exhaust pipe. Note the towing hook up on the main rear engine access plate just below the jack.



Open stowage bin on starboard side. Note the track links stowage bracket and the thickness of the side slope armor.



At left can be seen both exhaust pipes. The two extra pipes aside the port one are coolant air intakes running along the engine exhaust tunnel. The small oval hatch on the access plate covers the hole for engine cranking with an external starter unit (driven by a Kübelwagen). Mounting pins for the adapter are on either side of the tow hook mount.





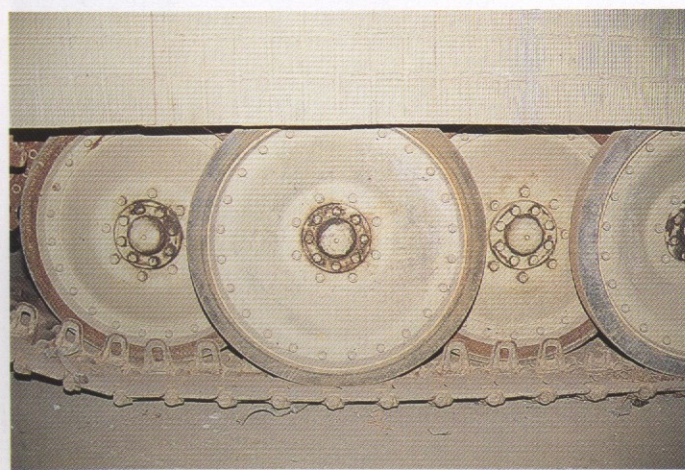
(Left) The port side stowage bin is a mirror image of the starboard one. Note the towing hook on the bottom next to the track.

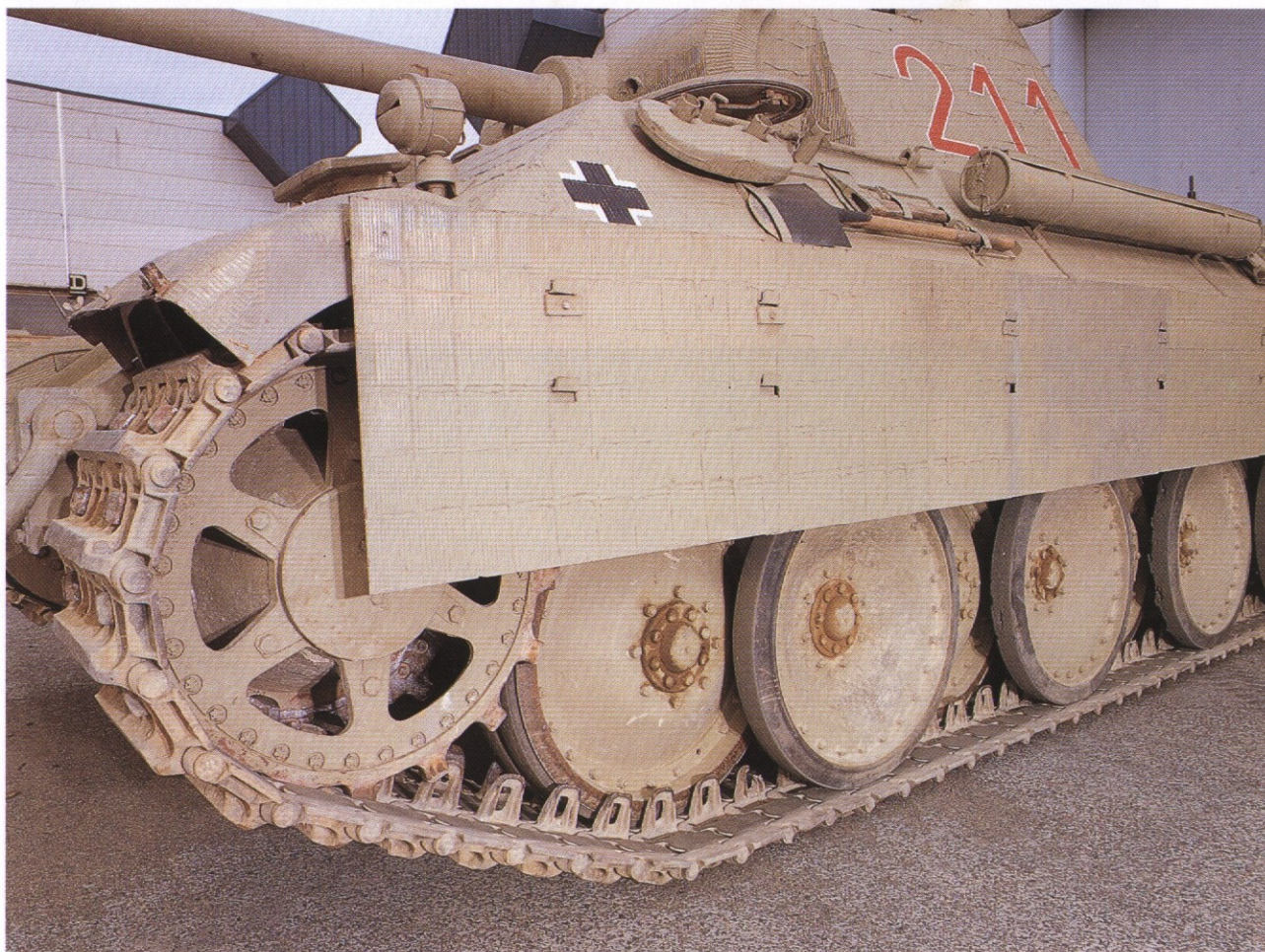
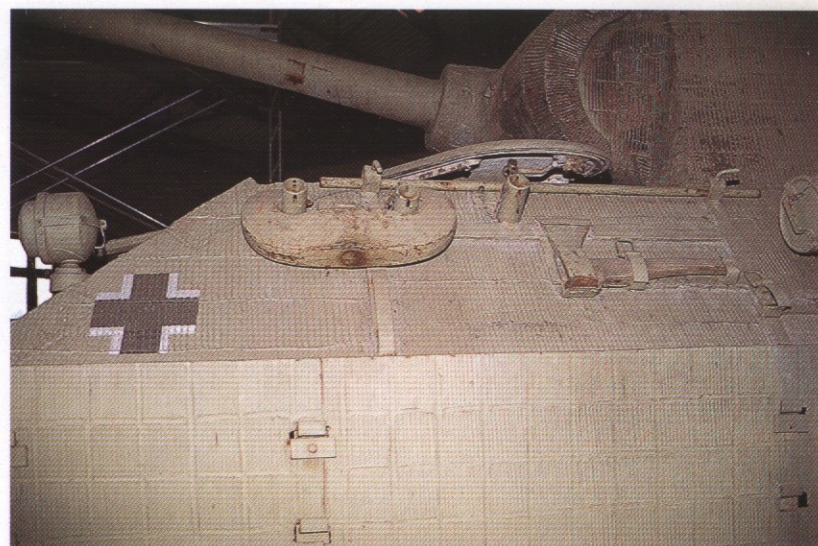
(Below) Installation of the idler wheel on port side.

(Bottom) Barrel cleaning rods and a spare aerial are carried inside a tube on the port side slope.



Rubber-lined roadwheels inside and outside track guidance pins. Note the position of the side skirts in relation to the road wheels.

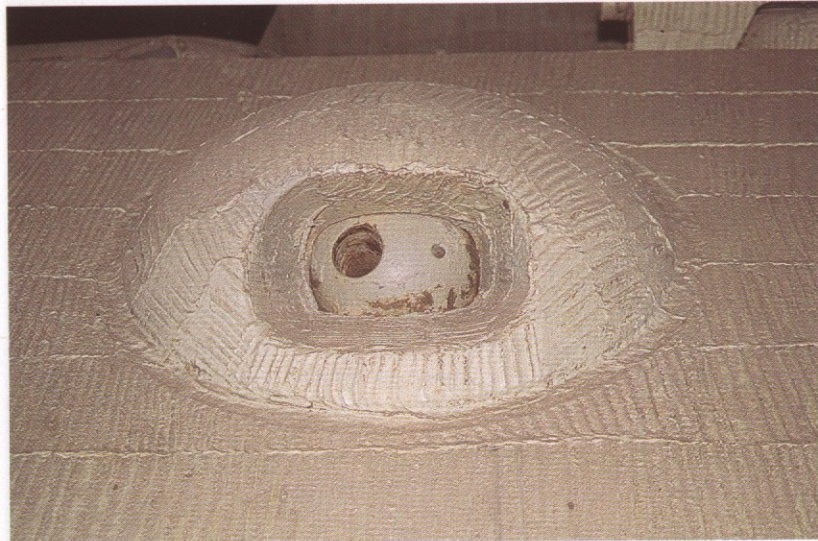




(Top left) Front view of the tube and close-up of the shovel and axe bracket.

(Above) A second towing clevis is hooked to the hull on port side. Note the axe inside its bracket and the absence of the shovel in this view.

(Left) Overall view of the port side sprocket wheel installation, mud guard and side skirt.



Looking into the bow machinegun ball mount without the MG which, when installed, is fired by the radio operator.

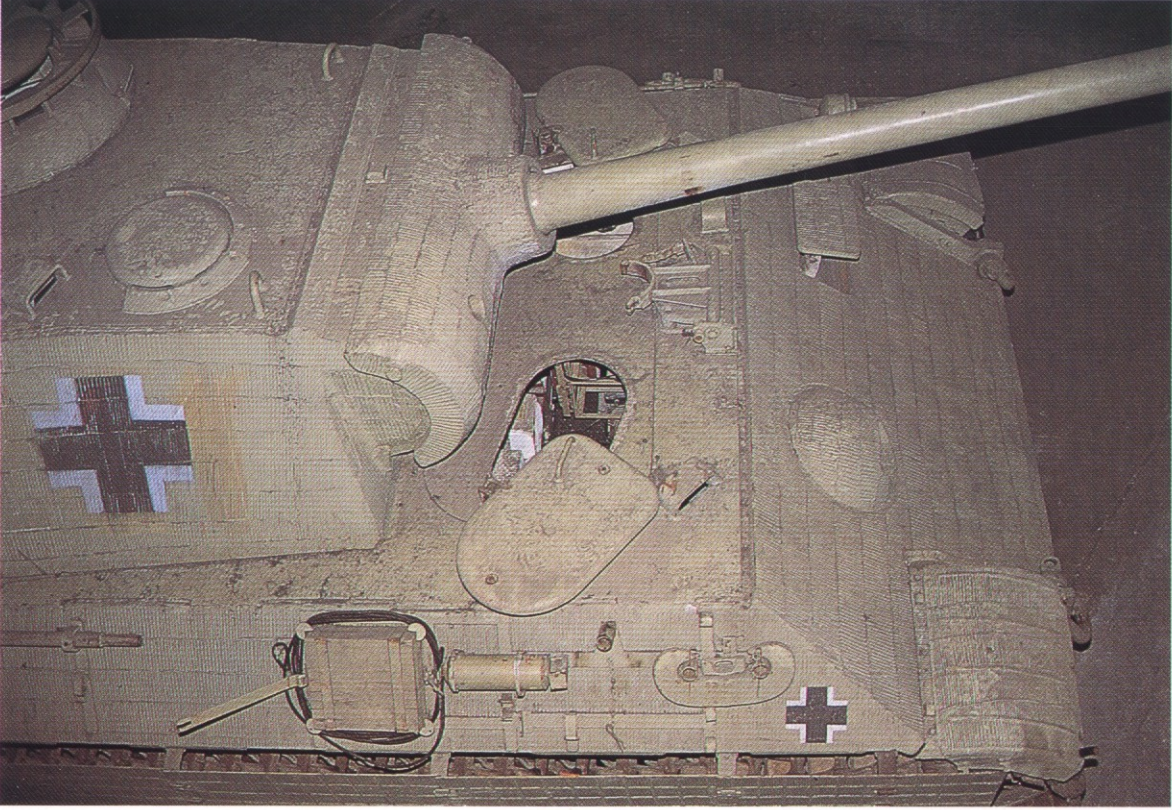


Driver's vision slot with protective hatch which can be opened or closed from inside the driver's compartment.



Closer look at the final drive gear housing. Note the application of the zimmeritt paste. At right can be seen the black out light, installed on port side only.





Pivoting driver's hatch in locked position. Note the periscope protective covers.

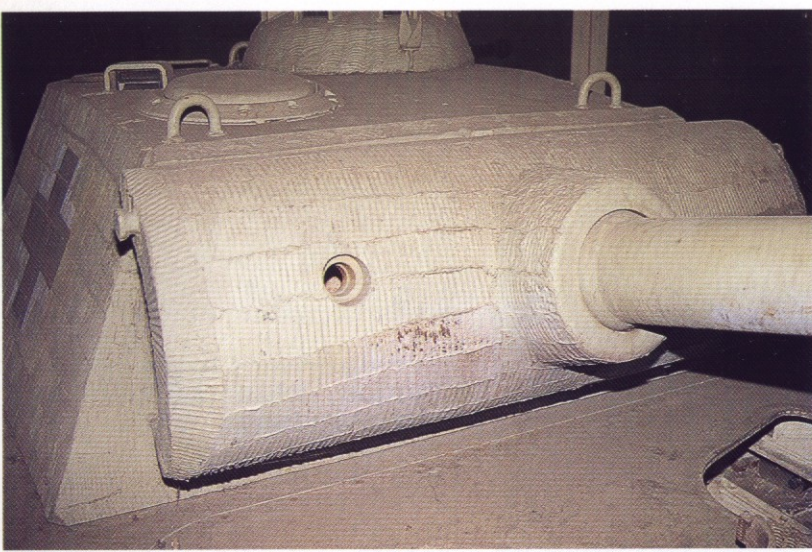
General orientation view of the driver's and radio operator's hull position and top view of the gun mantlet.



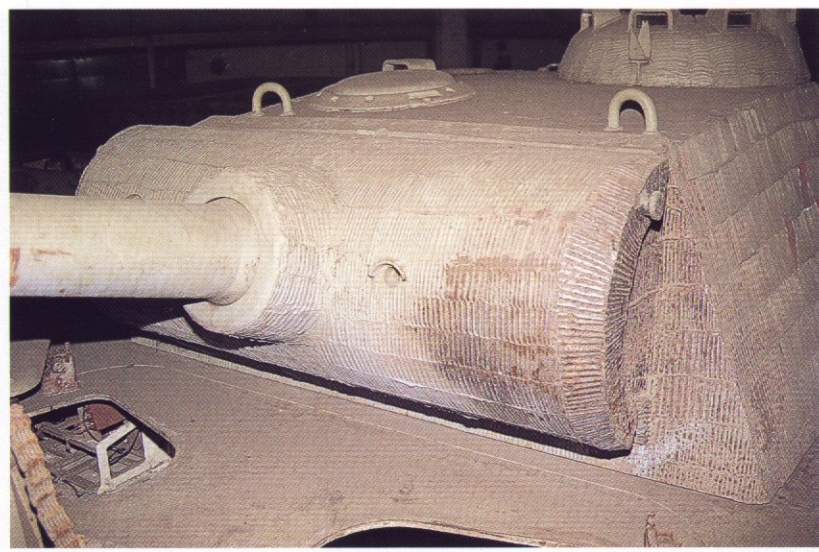
Gun tube travel lock with securing chain on the front upper hull.



When not engaged, the lock is stowed on the armored protective cover of the hull ventilator fan.



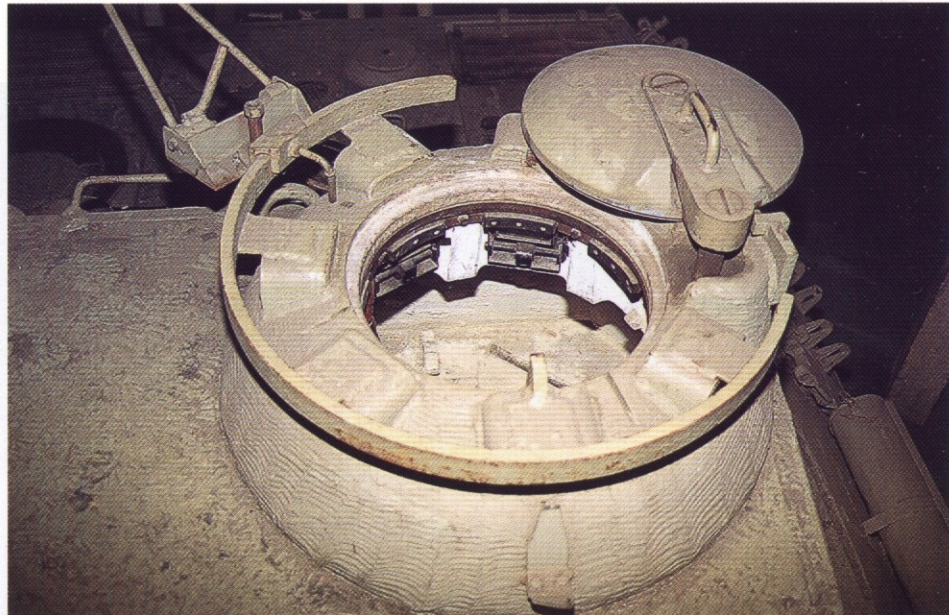
The 100mm thick gun mantlet features a coaxial gun port, again with the actual MG missing. Note the gun mantlet lifting pin on the side.



The same gun mantlet viewed from the left with the sighting telescope port and its rain deflection shield. Again note the gun mantlet lifting pin.



Upper turret detail with lifting hook, ventilator fan cover with protective side rim, loader's periscope cover and S-mine thrower port.



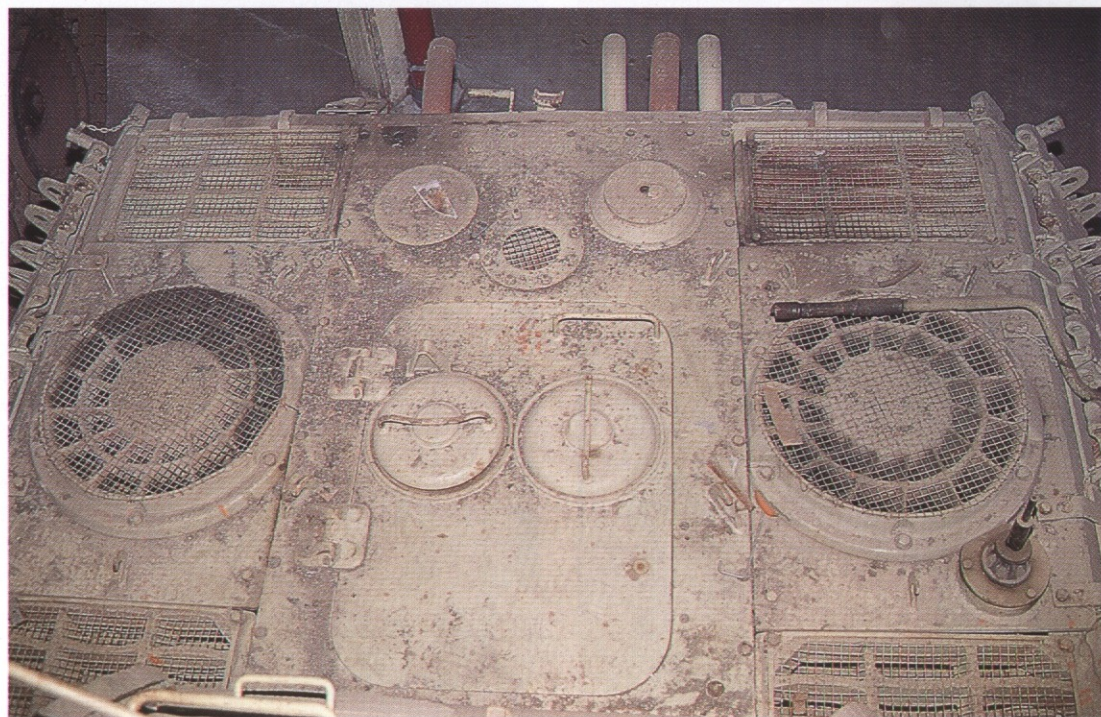
Commander's cupola with open, sideways stowed hatch. Note the MG mount travel ring is welded to the periscope covers.



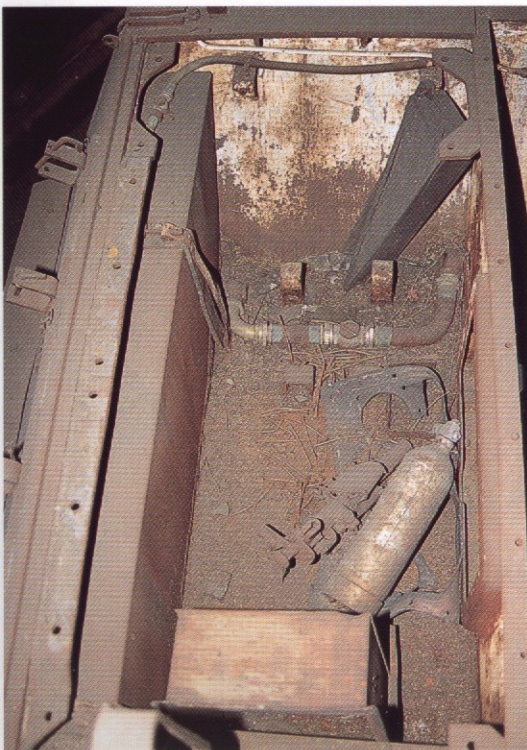
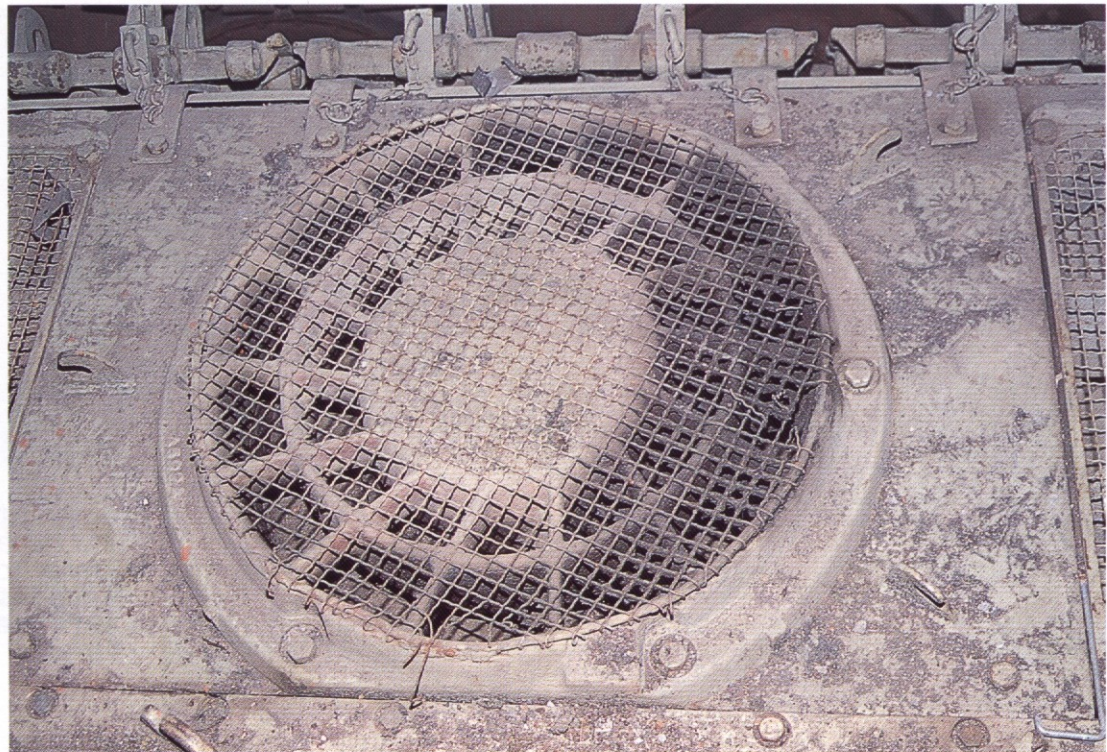
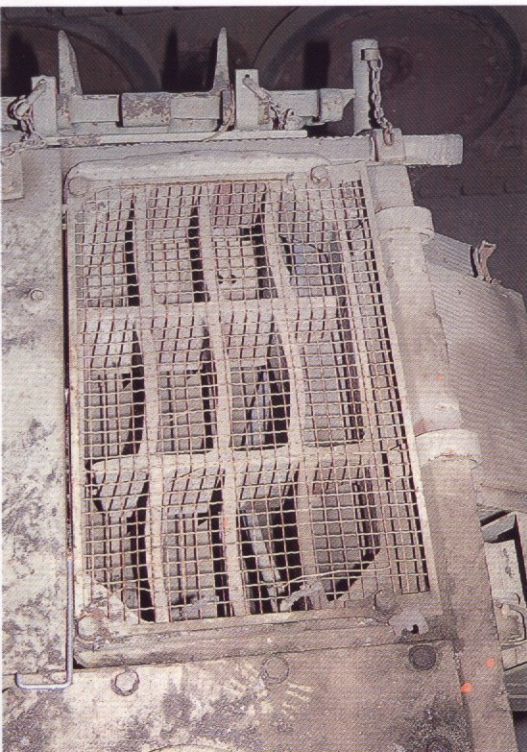
The rear turret escape hatch seen here in both open and closed position is also used for loading ammo. Similar to the sighting telescope port, the escape hatch has a rain deflection shield on the upper side. Note the 45mm armor plate on the side of the turret.

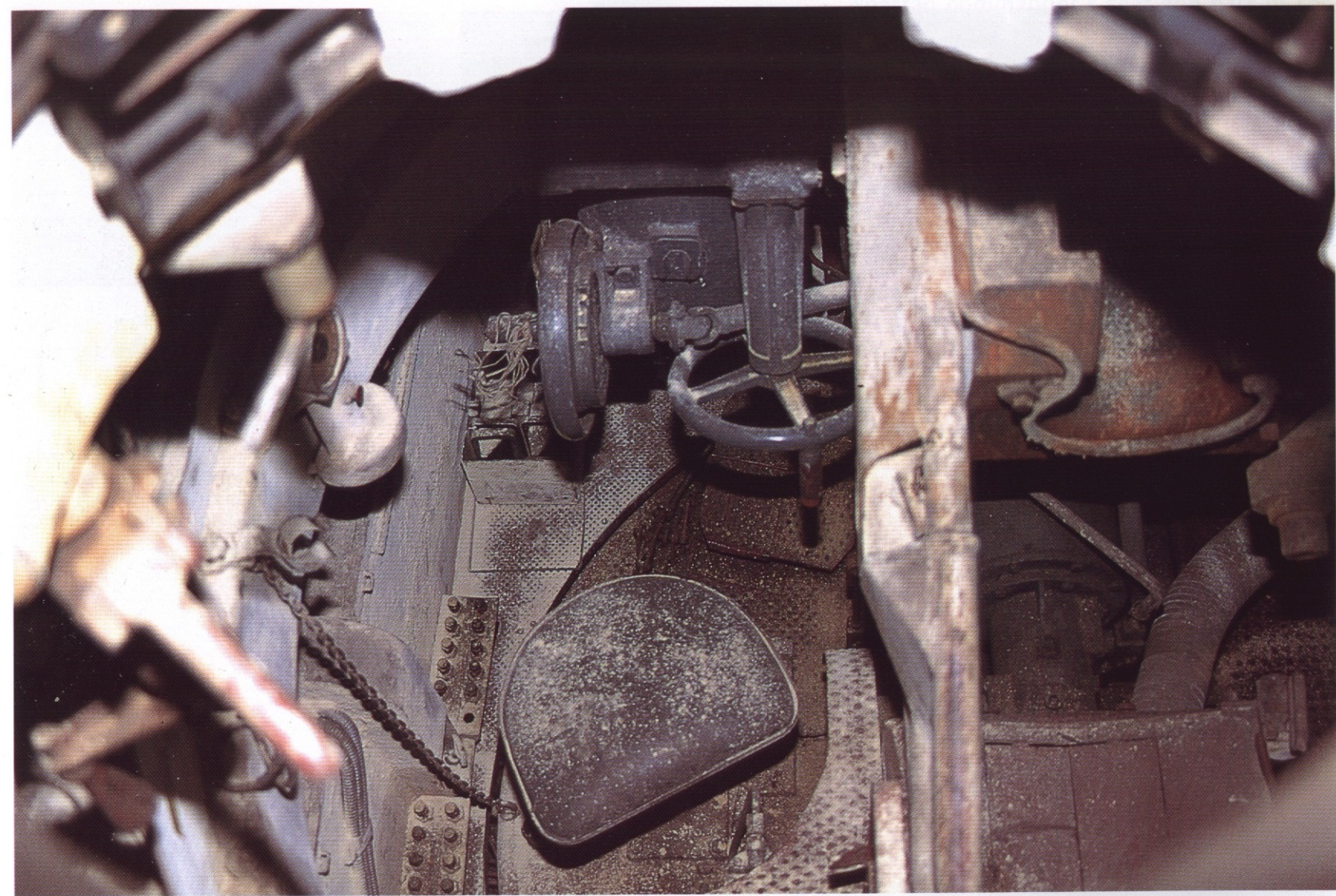


Inside detail shot of the escape/ammo loading hatch with hinge and securing bracket. Note the handhold on top of the turret above the hatch.



(Right) Overall view of the rear engine deck with various inspection hatches, cooling air inlets and two large outboard radiator cooling fans.





(Previous page) Two cooling outlet ducts are provided for each radiator at front and rear of the cooling fan ventilator. Mesh wire is installed over these ducts to keep out leaves and other foreign objects. Likewise, the cooling fan intake is covered with mesh wire for the same purpose.

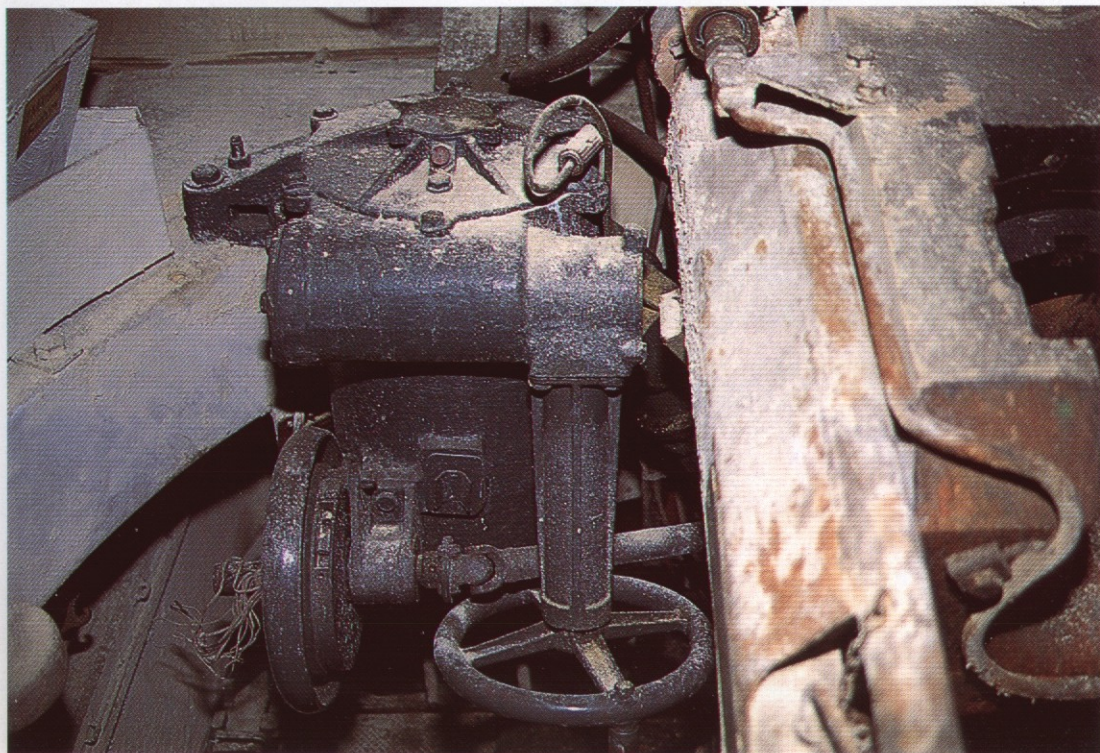
The bottom pictures give an impression of what lies beneath these covers, the starboard side cooling equipment bay (left photo), the engine compartment (center photo) and the port cooling equipment bay.

Looking down through the commander's hatch at the gunner's station. Note the absence of a seat backrest.



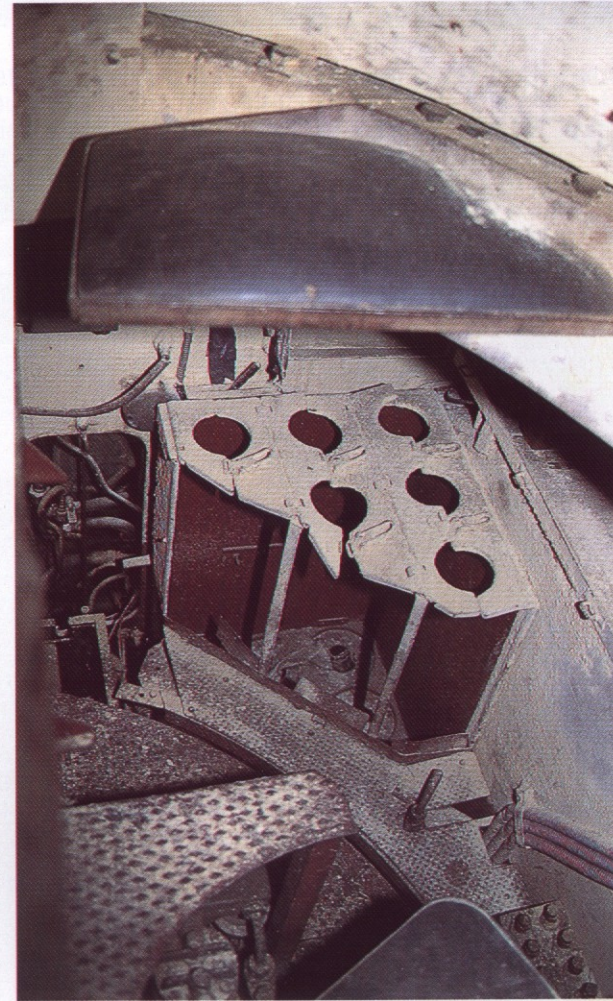
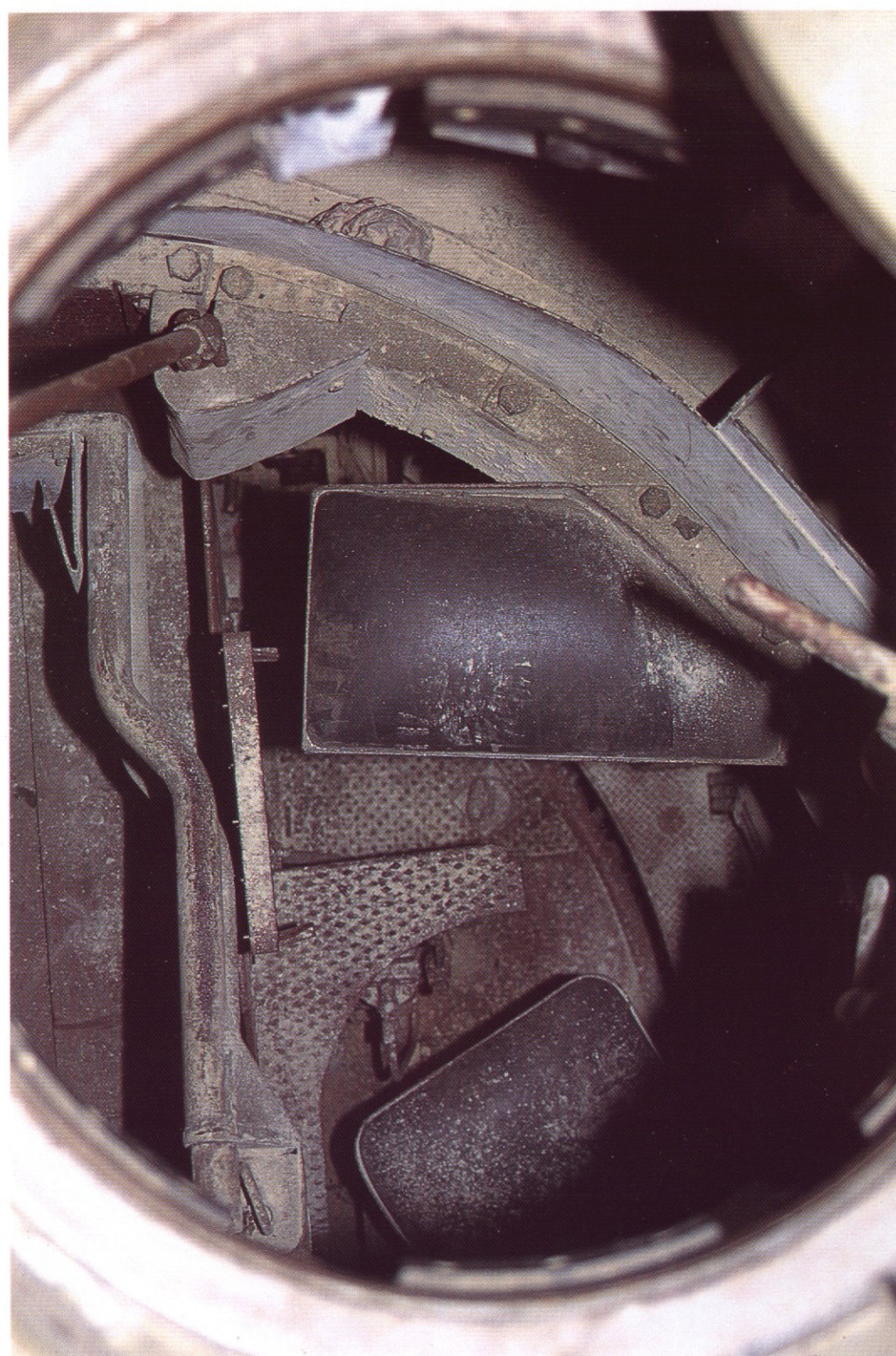
(Above) A look at some of the interior lighting domes and part of the gun sight mount at the front of the turret.

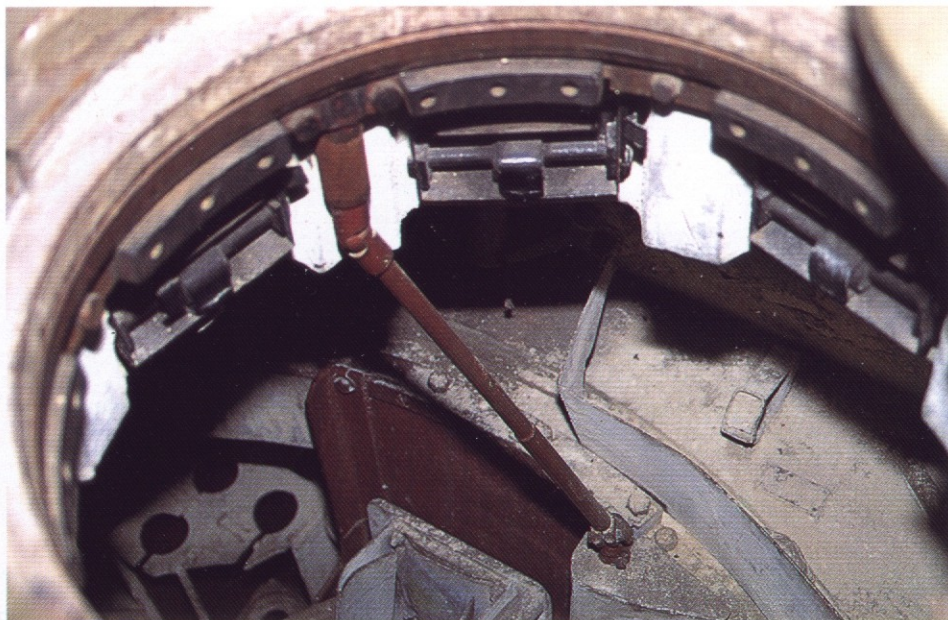
(Left) Port side turret sidewall with headphone stowage bin up front, turret traverse position indicator, hatch cover operating handle (top left) and scissors telescope mount (top right).



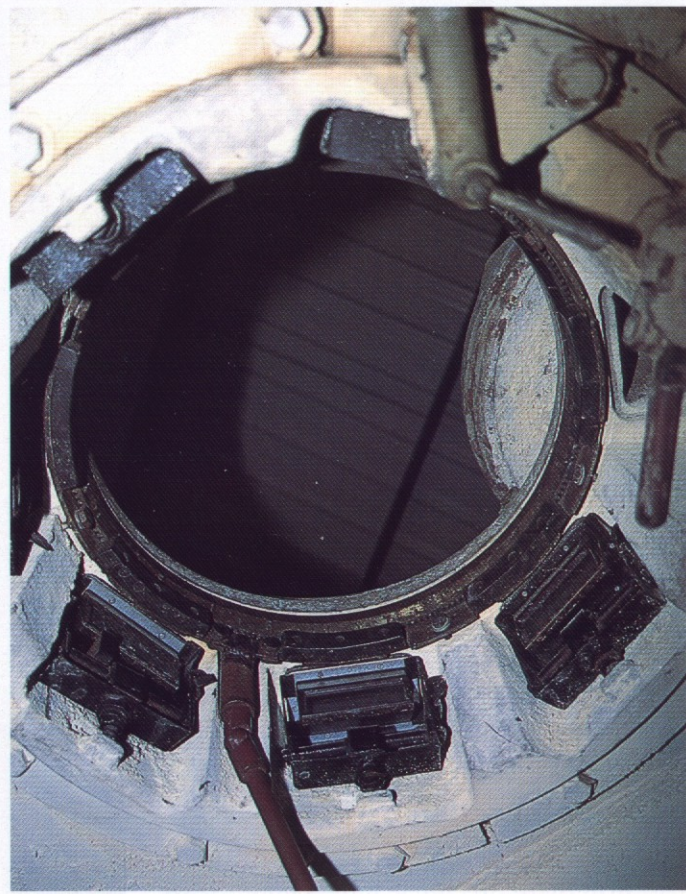
The gunner also operates the gun elevation hand wheel (left, facing outward) and the turret traverse hand wheel (right, facing down). Complete 360° rotation of the turret requires some 1,000 turns of the hand wheel. Note the protective shield aside the main gun.

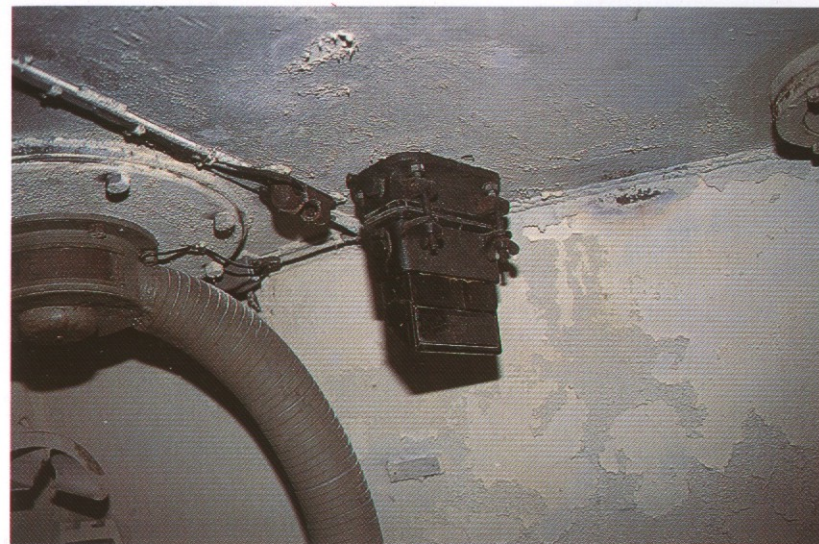
Spartan commander's seat and part of the turret traverse ring. The rod at left connects the turret ring with the commander's cupola counter-rotating scale clock ring. A vertical ammo stowage bin for six rounds is secured below the commander's seat. Note the split covers with latches. Also note the treadplate bottom of the turret.



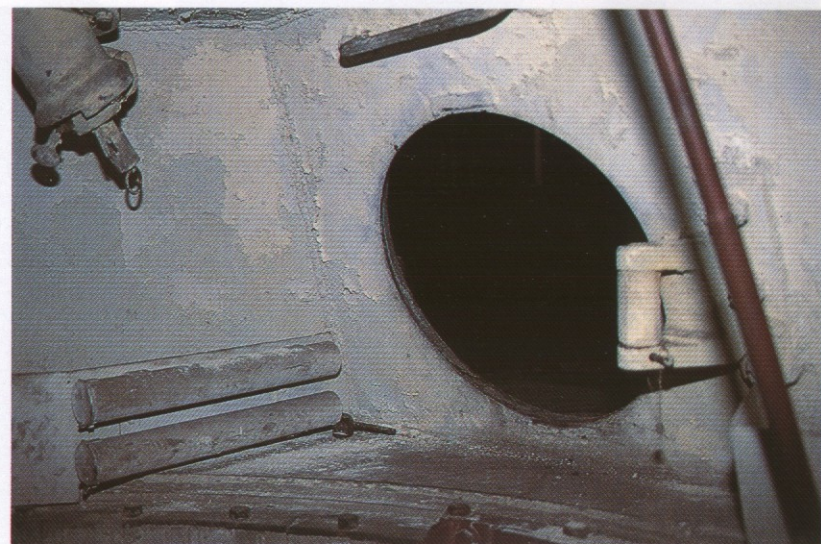


Commander's cupola featuring seven periscopes, providing 360° field of view. Note the drive shaft linkage between two persicopes.

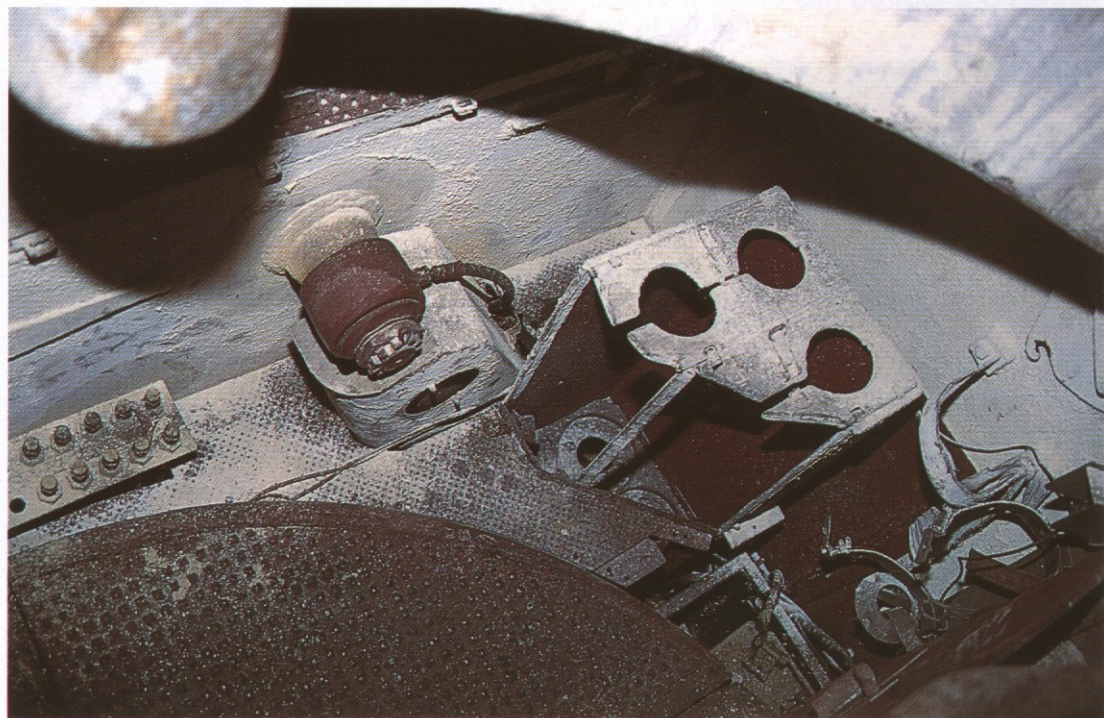




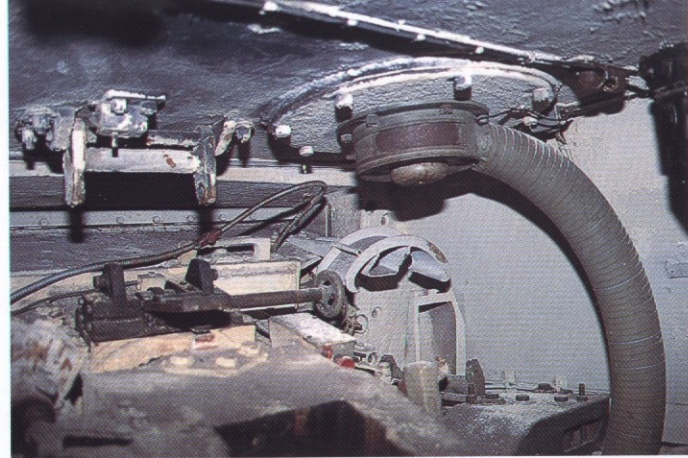
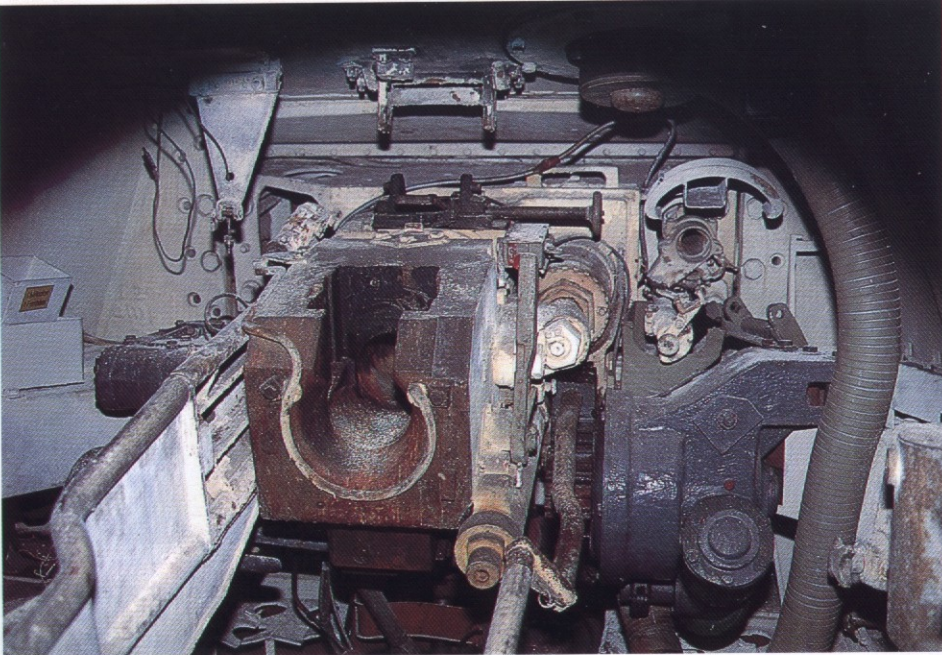
Loader's periscope at front right of the turret. Note the chipped paint of the turret sidewall, most likely as it was during the war when these Panthers were engaged in combat.



The rear turret escape hatch (or supply loading hatch) with part of the mounting bracket visible at right. At left is the anti-personnel S-Mine launch port (at roof) and a breathing slot (on turret traverse ring).

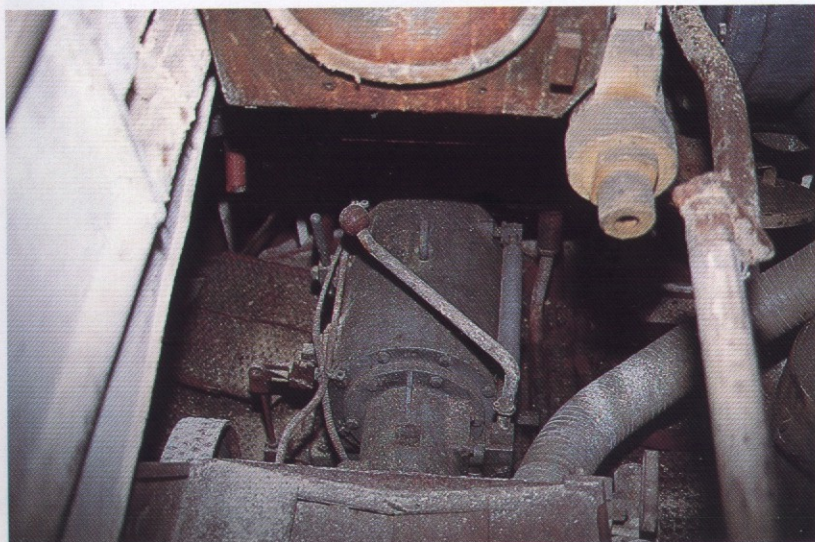


Aft side of the loader's position with fire extinguisher bracket at far right, next to another vertical stowage bin for three rounds.

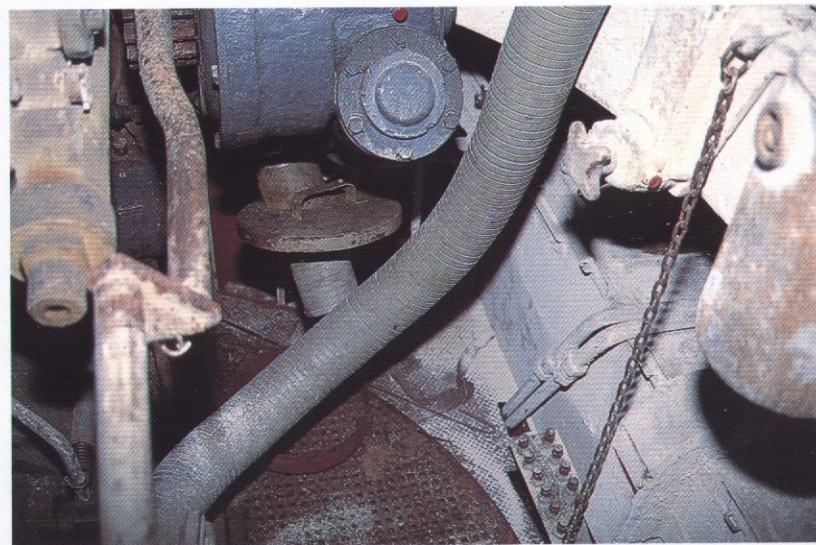


Connecting to the ventilator housing on the upper turret deck is the ventilator fan motor housing seen here in close-up. The bracket at left is the internal gun locking device.

Loader's view on the gun breech and its coaxial MG mount. Below that and to the right of the breech block is the gun elevation gear housing.

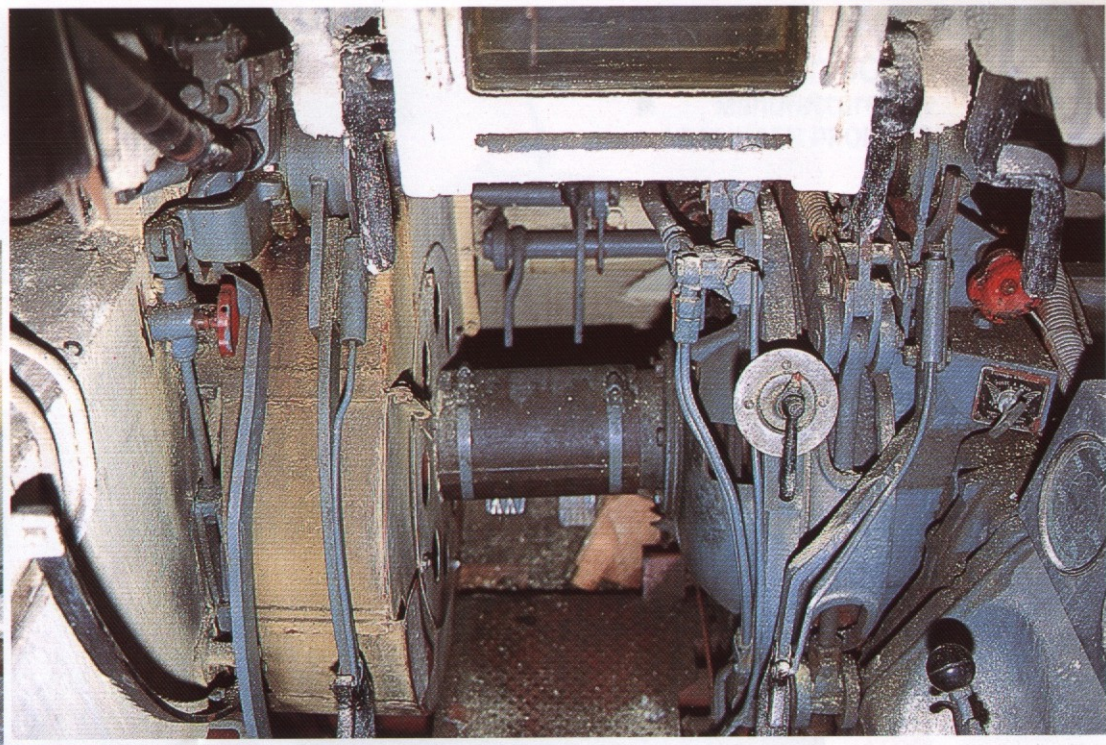


The turret traverse motor is mounted on the turret platform immediately below the gun breech as viewed here from the gunner's position.

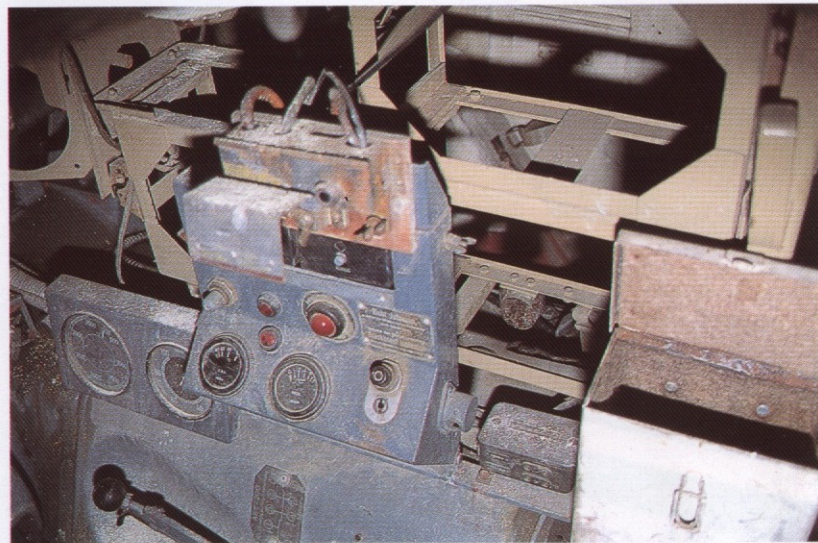
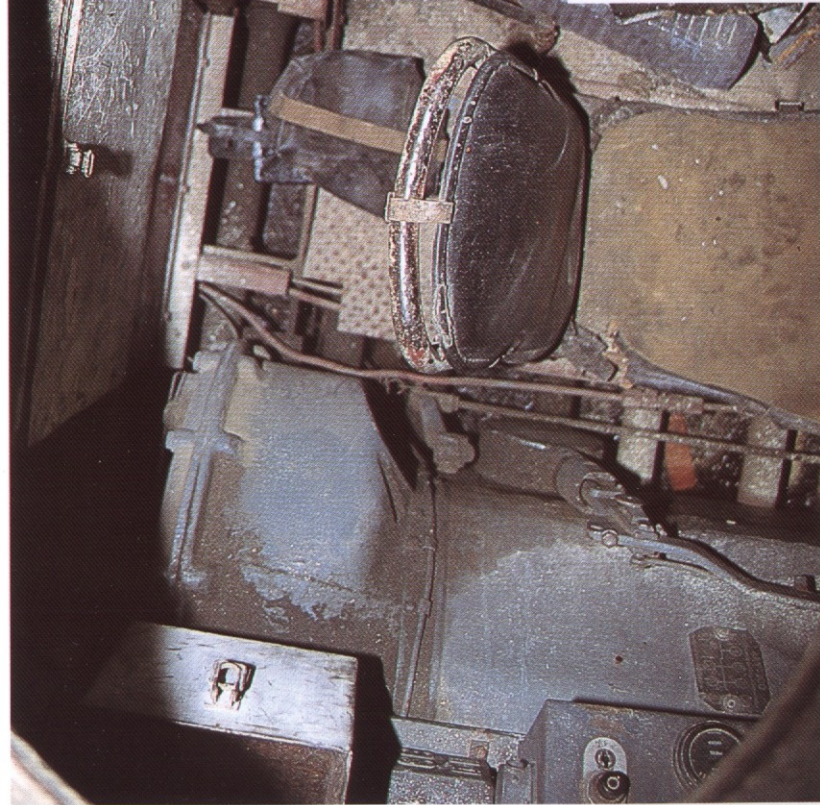


Looking down from the same position but slightly to the right. Apparent is the hydraulic recoil cylinder at the bottom right corner of the breech block.

The driver's position viewed through the entry hatch, forward is to the right.



Driver's station with visor closest to the camera. Operating lever for the armored hatch is barely visible at the top right corner of the picture. Steering levers can be found on either side with hand brake lever at far left.



The gear lever at the bottom enables 7 forward and 1 reverse settings to be engaged. Speed and RPM are monitored on the large dials below the instrument panel.

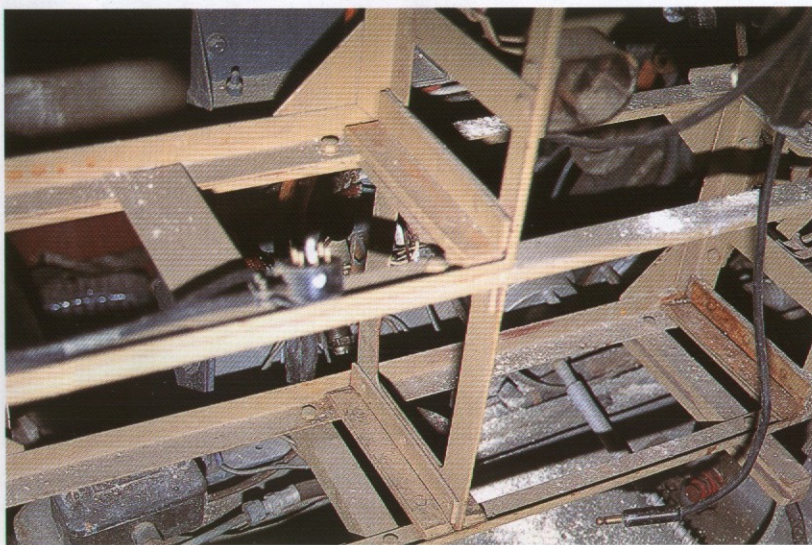


Radio operator's MG ball mount up front.

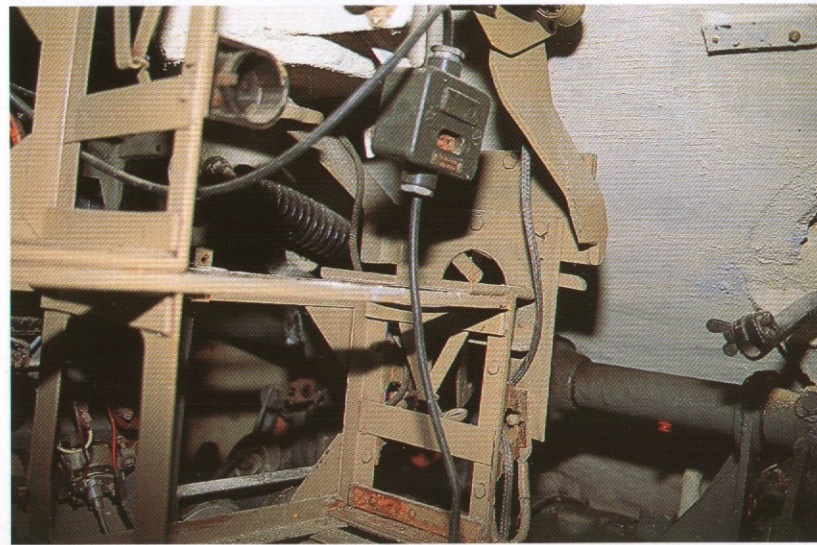


Area to the right.

Empty radio rack on the operator's left side.



Front part of the same rack.



Musée des Blindés SAUMUR, FRANCE

The PANTHER, which was the subject of this monograph, is presently on display at Saumur, a village some 60 kilometers from Angers, Le Mans and Tours.

Today housing the elite of the French armored cavalry it was once the home of the King's musketeers, the Emperor's cavaliers and cavalry cadets in WWII.

In 1965 the High Command itself entrusted Colonel Michel AUBRY the task of collecting these tanks and armored fighting vehicles, witnesses of a



recent past, saving them from the scrapyards or the artillery target area.

Although established as early as 1968, it took until 1987 before the museum was inaugurated and opened to the public, presenting the cream of tank warfare.

The models currently on display are part of the immense C.D.E.B. collection of over 800 vehicles (some 500 tanks), 300 combat vehicles and about 30 artillery pieces.

In comparison with other museums, the most important Allied vehicles have been gathered here but, and that is quite unique, it's the only place in the world to have Germany's PANTHER and KING TIGER (two of an impressive collection of German tanks) in running condition.





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