

Section III
ARMAMENT

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12. GUN MOUNTS.

The 75-mm and 37-mm combination gun mounts, although given individual model numbers, are considered component parts of the tank. For more detailed instructions on operation, care, and preservation of the guns and their mounts, refer to the corresponding Technical Manuals. The ammunition stowage chart gives the location of ammunition (fig. 11). The stabilizer equipment is installed on the 75-mm and combination gun mounts to keep the gun sufficiently close to a fixed elevation while the tank is in motion so that the gunner may accurately aim the gun. Refer to section XXV for the operation and maintenance of this equipment.

a. 75-mm gun and mount (fig. 12).

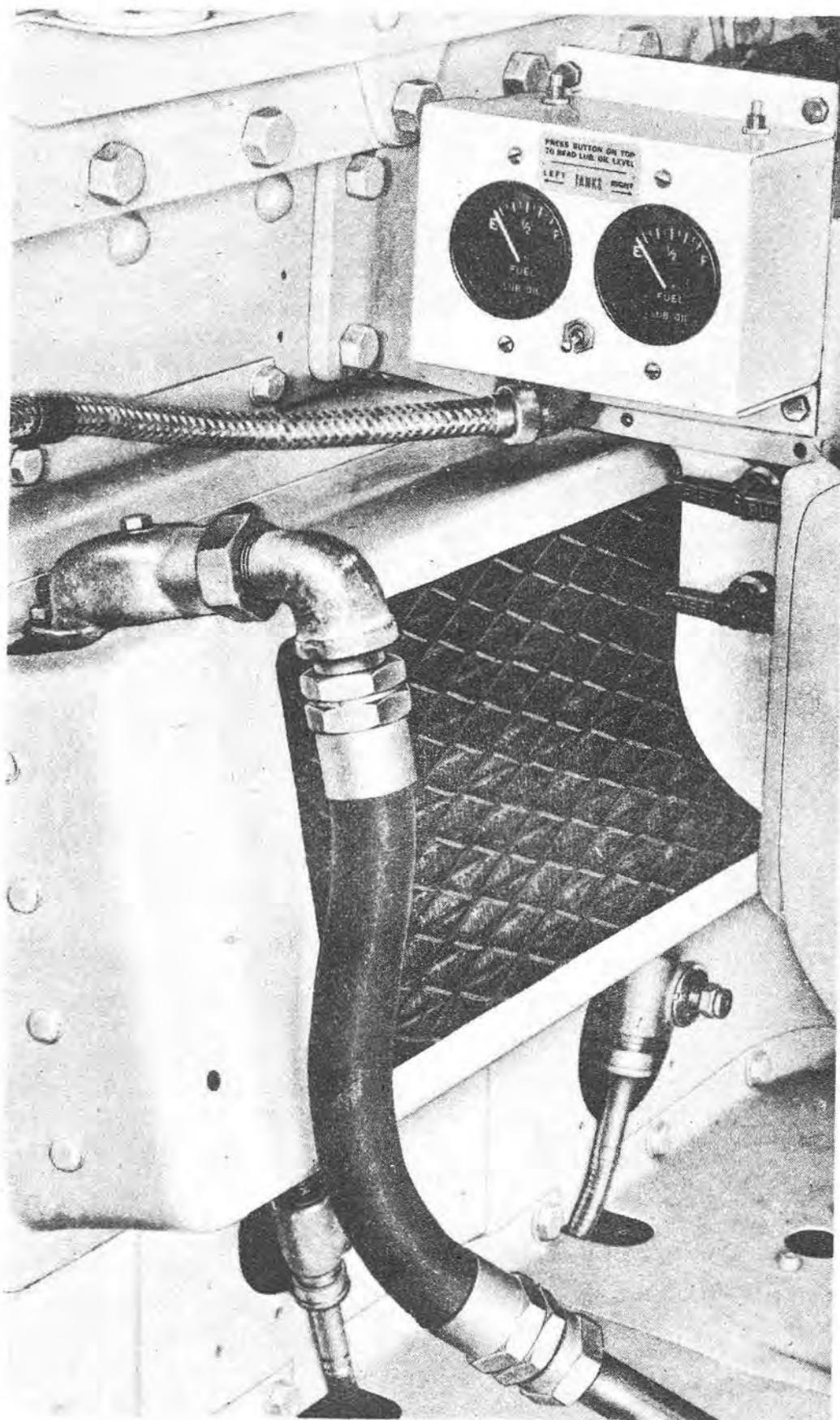
(1) This gun mount is located in the right front of the crew compartment and mounts the 75-mm tank gun M2. The gun and mount are so designed as to provide protection to the tank personnel under all conditions of traverse and elevation.

(2) The gunner sits in a seat on the left side of the gun mount. His position in relation to the gun does not change when the gun is elevated or traversed.

AMMUNITION STOWAGE CHART

Type	No. of rounds	Location
75-mm	41	Box on floor crew compartment, right side, directly behind 75-mm gun.
	9	Carried in cartons (portable).
	50	
<hr/>		
37-mm	42	Box rear left corner (17).
	42	Box rear right corner (24).
	19	Box on floor, directly behind radio operator (19).
	51	3 rows mounted on racks on turret wall (14).

LUBRICATION



RA PD 11011

Figure 19—Transmission Oil Cooler

ENGINE AND ACCESSORIES

cylindrical surface which bears directly on the end of the valve stem. The rocker arms are operated from the camshaft through short push rods and cam followers.

(2) Contact between the cam follower and the cam is effected by a roller, equipped with needle bearings. A steel guide is provided for each set of three cam followers. This guide, bolted to the bottom of the cylinder head, keeps the follower rollers in line with the cams and also serves as a retainer during assembly and disassembly. A spring, located inside of the hollow cam follower, is held in place by a retainer washer and wire locking ring in the cylinder head follower holes.

(3) Valve springs are held in place by retainers and tapered two-piece seat locks (fig. 36). The lower spring seat, as well as the retainer, has features to prevent spinning of the exhaust valves. The cylinder head is drilled to engage the lower spring seat, while the flange is sheared to prevent the spring from rotating.

b. Maintenance. Several operations on the valve mechanism may be performed without removing the cylinder head. These are:

- (1) Adjustment of valve tappets (valve clearance) (par. 62 c).
- (2) Remove or replace a valve spring (par. 62 d).

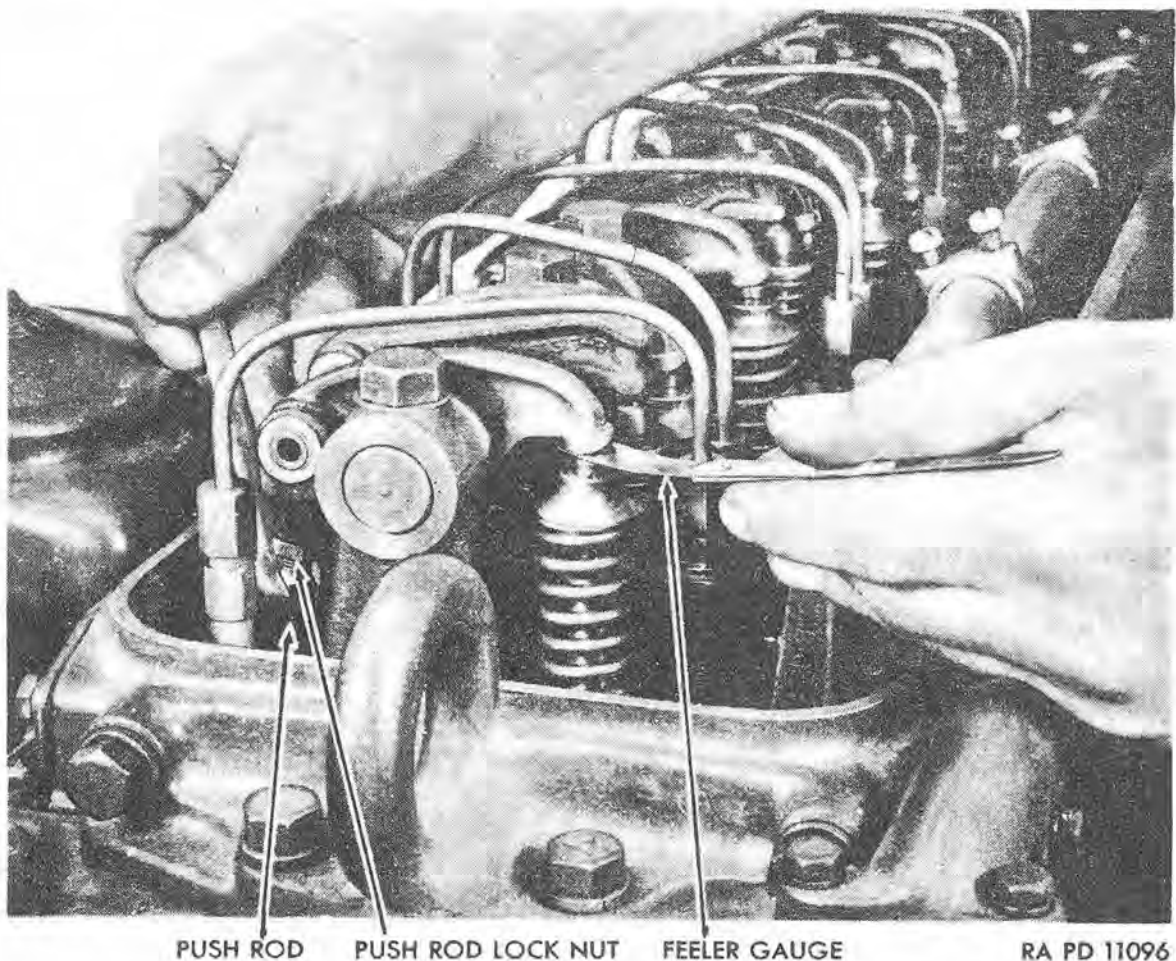


Figure 35—Valve Tappet Adjustment

TRACKS AND SUSPENSIONS

(a) Place bearing in one side of wheel.

(b) Place spacer in wheel.

(c) Push other bearing in wheel until it rests against spacer.

(d) With two oil seals in place on each spacer (leather portion nearest center line of the wheel) place one spacer in each side of wheel. **CAUTION:** Make sure oil seals are placed correctly on spacer.

e. Removal of volute springs (figs. 114, 115, and 116).

Bars, two

Block, wood

Drift, brass, 1/2-in.

Hammer

Jack, hydraulic, 10-ton

Puller, gudgeon

Sledge, 6-pound

Wrench, box or open-end,
1 1/8-in.

Wrench, box or open-end,
1 1/8-in.

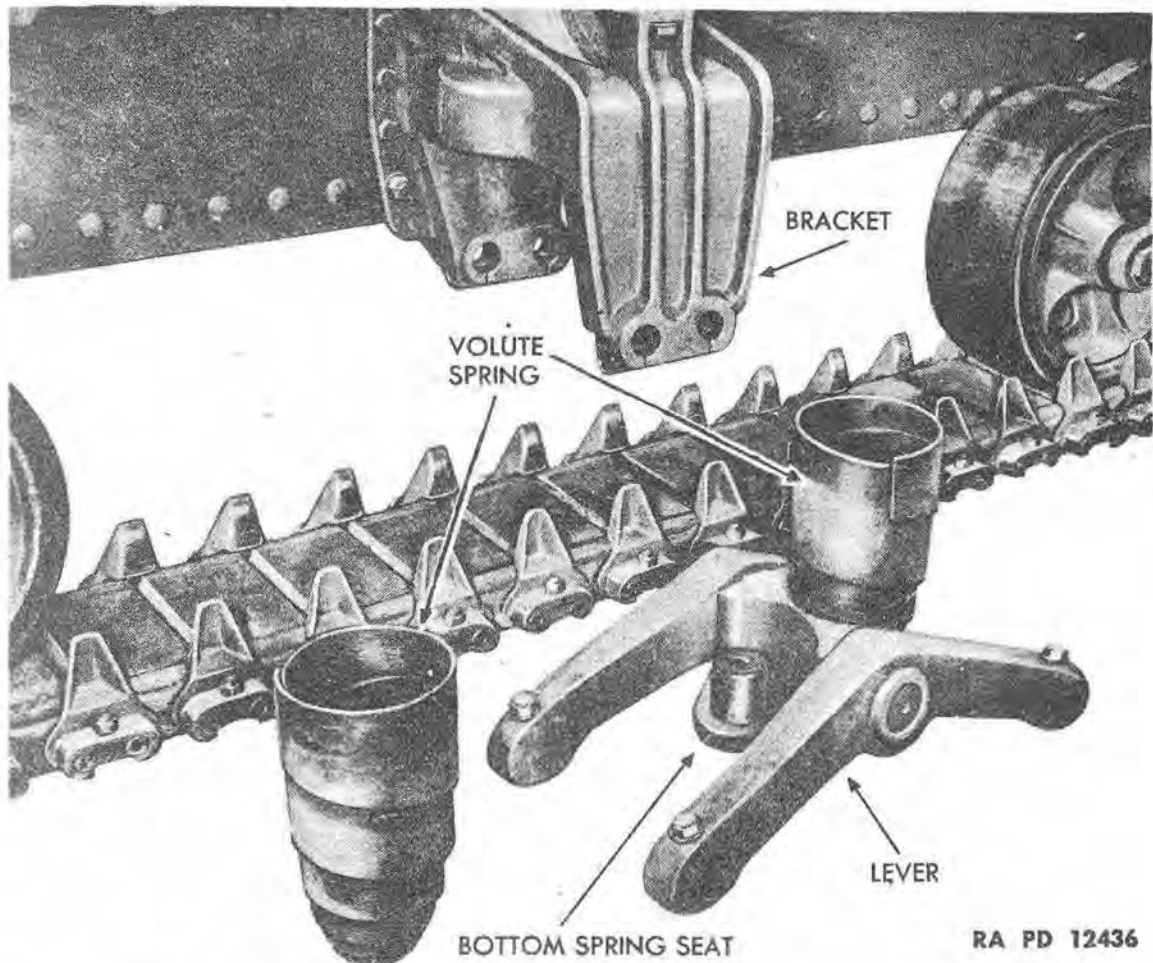


Figure 116—Volute Springs, Levers and Bottom Seat Removed and Partially Disassembled

TURRET

should be maintained at all times and the mechanism should not be operated without oil, since it acts also as a lubricant as well as a power-transmitting medium. In an emergency, OIL, lubricating, SAE 20, may be used; however, it should be replaced with the proper oil at the earliest opportunity.

(6) Incorporated in the hydraulic control valve is a relief valve which determines the system pressure. A breather cap takes care of the expansion of the oil. Attached to the handle of the operating valve are two toggle switches which control the firing of the 37-mm gun and cal. .30 machine gun. Lubricating fittings for turret race are shown in figure 131.

153. ELECTRICAL SYSTEM (fig. 127).

Electrical power is transferred from the battery in the hull section to the turret by means of a collector ring assembly. The guns in the turret are fired from the switches on the hydraulic control handle by solenoids, which operate the firing levers. A safety switch is incorporated in the operating handle. The power lead from the collector ring assembly goes through the motor switch and electric motor. The inter-phone system take-off leads come off the collector ring to a junction box.

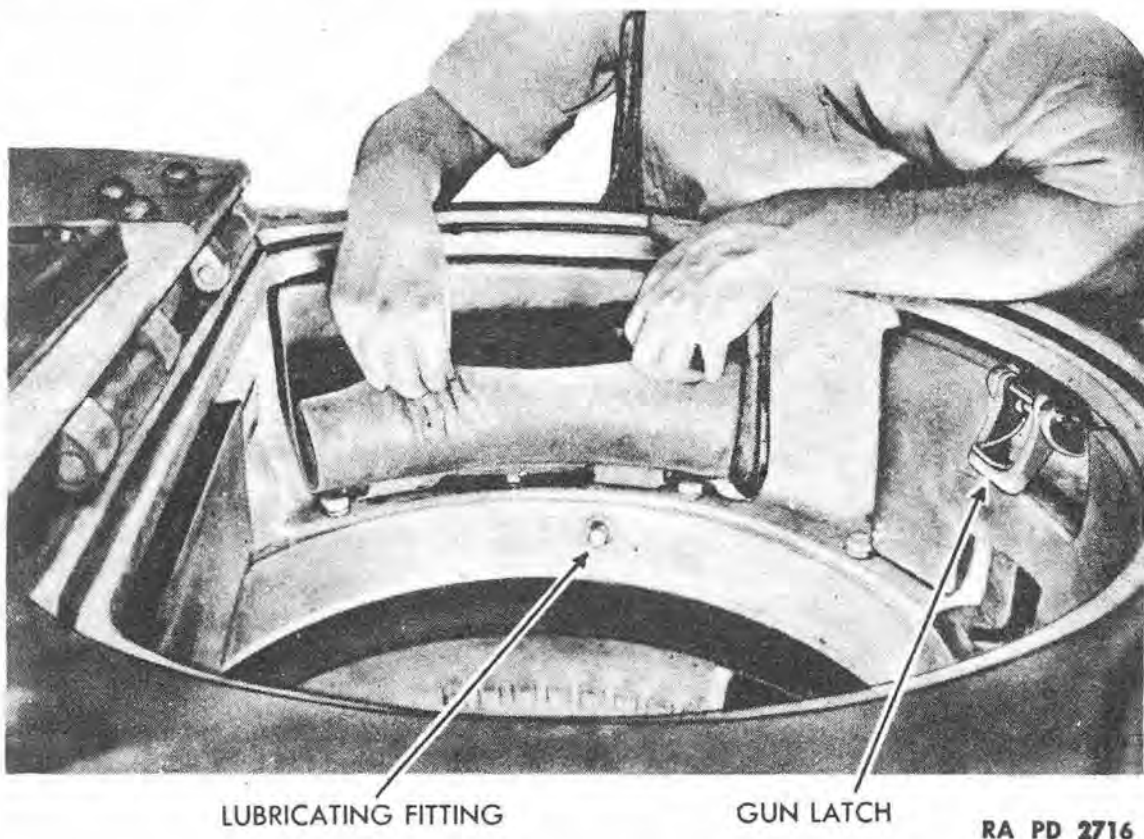


Figure 133—Lubrication Fitting in Cupola