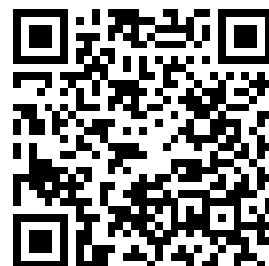

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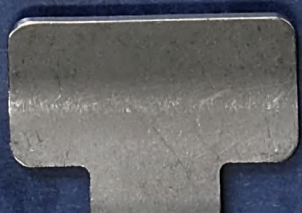
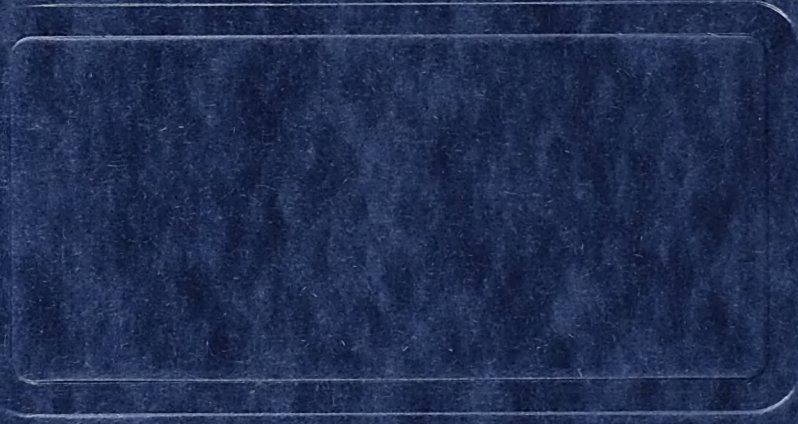


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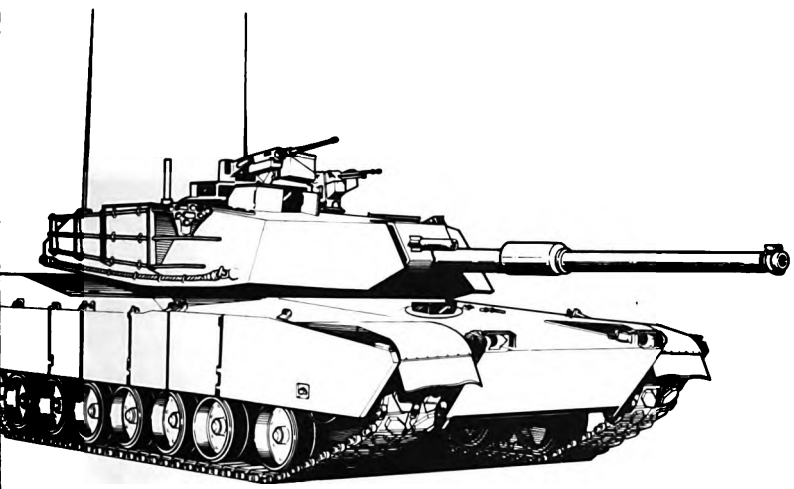




TECHNICAL MANUAL

**ORGANIZATIONAL MAINTENANCE
MANUAL**

**VOLUME III
PART 2 OF 3**



**TANK, COMBAT, FULL-TRACKED:
105-MM GUN, M1
(2350-01-061-2445)
GENERAL ABRAMS**

TURRET

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TURRET HYDRAULIC SYSTEM MAINTENANCE	4-1
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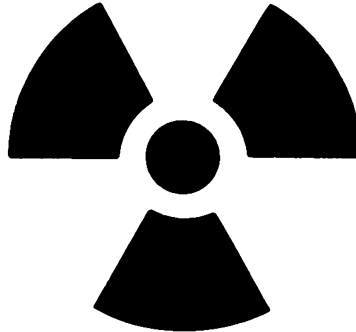
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**NOTE:
THE STYLE OF THIS TM IS
EXPERIMENTAL. IT IS BEING TRIED
BY THE ARMY ONLY ON
A LIMITED BASIS**

ARR82-1307

**WARNING
RADIOACTIVE MATERIAL**

HANDLE CAREFULLY**RADIOACTIVE**

The M1 Collimator (Muzzle Reference Sensor) used to compensate for gun tube bend contains the radioactive isotope tritium (H-3).

The radioactive material is completely encased within the unit and poses no external radiation threat to the user.

The radioactive material is licensed under Federal Law by the Nuclear Regulatory Commission. The licensee is HQ, US Army ARRCOM, Rock Island, IL 61299. The licensed Health Physicist may be contacted at AUTOVON 793-6982/6989/5843 or commercial (309) 794-6982/6989/5843. Material pertaining to the NRC license, information concerning the safe use and storage of the radioactive material, and fire or other emergencies should be referred to the licensed Health Physicist.

WARNING

The antireflective coating on all infrared optics contains thorium fluoride which is slightly radioactive. The only potential hazard involves ingestion (swallowing or inhaling) of this material. Dispose of broken lens, etc. in accordance with AR 385-11.

DON'T TAKE CHANCES**WARNING**

Ammunition containing explosives must be handled with care at all times. The explosive in primers and fuses is very sensitive to shock and high temperature. If ammunition is dropped, thrown, tumbled, or dragged, an explosion may result, causing death or injury and destruction of equipment. Disassembly of ammunition is not authorized.



WARNING

You can be blinded if you look into a laser beam when you are not wearing laser safety goggles. Never aim the laser rangefinder at personnel.

If laser beam reflects from a flat, mirror-like surface, it can blind you unless you are wearing laser safety goggles.

All people who work downrange of the laser must wear laser safety goggles. Laser safety goggles, NSN 4240-00-258-2054, will protect you.

Treat the laser rangefinder as a direct-fire weapon, with hazardous range of 8000 meters. Observe the following precautions when the laser rangefinder is being used:

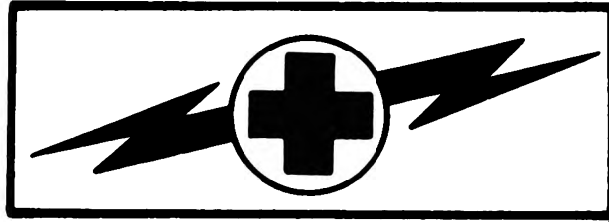
1. Never fire the laser rangefinder at a target less than 10 meters away.
2. Never fire the laser rangefinder at flat glass or mirror-like targets.
3. Fire the laser rangefinder only at approved laser targets on an approved laser-firing range.
4. Report through the chain of command if:
 - (a) An unprotected person may have been in the beam path and closer than 8000 meters when the laser rangefinder was fired.
 - (b) An unprotected person was looking at a flat glass or mirror-like surface when the laser rangefinder was fired at it.

NOTE

Person in charge must arrange for necessary eye examination and report in accordance with AR 385-40 and AR 385-63.

5. Make sure you get laser safety training before you work near an operating laser.

b

**WARNING****HIGH VOLTAGE**

is used in the operation of this equipment.

DEATH ON CONTACT

may result if personnel fail to observe safety precautions.

Never work on electronic equipment unless there is at least one other person nearby who is familiar with the operation and hazards of that equipment. That person should also be competent in giving first aid. When operators help a technician, they must be warned about dangerous areas.

Whenever possible, shut off the power supply to equipment before beginning work. When working inside the equipment with power off, take special care to ground capacitors likely to hold a dangerous potential.

Be careful not to contact high-voltage connections when installing or operating this equipment.

Whenever possible, keep one hand away from the equipment to reduce the hazard of current flowing through vital organs of the body.

WARNING

Do not be misled by the term low voltage. Voltages as low as 50 volts may cause death.

For artificial respiration, refer to FM 21-11.

WARNING

Remove rings, bracelets, wristwatches, and neck chains before working around the tank or other vehicles. Jewelry can catch on equipment and cause injury, or may short across an electrical circuit and cause severe burns or electrical shock.



WARNING

CARBON MONOXIDE (EXHAUST GAS) CAN KILL YOU

Carbon monoxide is without color or smell, but can kill you. Breathing air with carbon monoxide produces symptoms of headache, dizziness, loss of muscular control, a sleepy feeling, and coma. Brain damage or death can result from heavy exposure. Carbon monoxide occurs in the exhaust fumes of fuel-burning heaters and internal combustion engines. Carbon monoxide can become dangerously concentrated under conditions of no air movement. Precautions must be followed to insure crew safety when the personnel heater or main or auxiliary engine of any vehicle is operated for any purpose.

1. **DO NOT** operate personnel heater or engine of vehicle in a closed place unless the place has a lot of moving air.
2. **DO NOT** idle engine for long periods without ventilator blower operation. If tactical situation permits, open hatches.
3. **DO NOT** drive any vehicle with inspection plates, cover plates, or engine compartment doors removed unless necessary for maintenance purposes.
4. **BE ALERT** at all times during vehicle operation for exhaust odors and exposure symptoms. If either is present, **IMMEDIATELY VENTILATE** personnel compartments. If symptoms persist, remove affected crew to fresh air; keep warm; **DO NOT PERMIT PHYSICAL EXERCISE**; if necessary, give artificial respiration, and get immediate medical attention.
5. **BE AWARE**; neither the gas particulate filter unit nor the field protection mask for nuclear-biological-chemical (NBC) protection will protect you from carbon monoxide poisoning.

**THE BEST DEFENSE AGAINST CARBON MONOXIDE POISONING
IS GOOD VENTILATION.**

WARNING

Use adhesives, cleaning solvents, and sealing compounds in a well-ventilated area away from open flames. Adhesives, cleaning solvents, and sealing compounds are harmful to skin and clothing, can burn easily, and may give off harmful vapors.

WARNING

Do not get lubricating oil on skin or clothing. Lubricating oil may cause skin rash. If oil gets on skin or clothing, wash immediately with soap and water.

WARNING

Do not run bare hand on metal braided cables or hoses. Wires on cables or hoses can cut you. Wear protective gloves.

WARNING

Be sure vehicle master power is off before you work on any part of the electrical system. You can get electrical shock or burns if power is on.

WARNING

Follow the safety precautions listed in TM 9-1005-213-10 when you handle or remove commander's weapon. Commander's weapon may fire and cause injury or death if you do not follow precautions.

WARNING

Wear protective clothing when you handle contaminated nuclear/biological/chemical filters. Contaminated nuclear/biological/chemical filters can cause serious illness or death.

TECHNICAL MANUAL

No. 9-2350-255-20-2-3-2

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 7 January 1983**Organizational Maintenance Manual****TANK, COMBAT, FULL-TRACKED: 105-MM GUN, M1 TURRET****(2350-01-061-2445)****GENERAL ABRAMS****Reporting Errors and Recommending Improvements**

You can help improve this manual. If you find any mistake or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publication and Blank Forms), or DA Form 2028-2 located in the back of this manual, direct to: Commander, U S Army Armament Material Readiness Command, ATTN: DRSAR-MAO, Rock Island, IL 61299. A reply will be furnished to you.

NOTE

This volume is divided into three parts: Chapters 3, 4, and 5 are contained in this part. Chapters 1 and 2 are in TM 9-2350-255-20-2-3-1. Chapters 6, 7, 8, and 9 are in TM 9-2350-255-20-2-3-3.

Part 2

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CHAPTER 3

TURRET ASSEMBLY MAINTENANCE

3-1. General. This chapter tells you how to fix the M1 turret assembly. The chapter is divided into paragraphs and then into tasks. Each task explains how to take a part off the tank and then put it back on the tank. Any bad parts are replaced with good parts.

3-2. Equipment Items Covered. Each paragraph, starting with paragraph 3-4, lists the tasks which take parts off or put them back on the tank. The equipment items covered in this chapter are listed in table 3-1 with their paragraph and page numbers.

Table 3-1. Equipment Items Covered

Paragraph	Title	Page
3 - 4	Turret Lock Assembly	3 - 2
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3-3. Equipment Items Not Covered. None

3-4. Turret Lock Assembly

Task	Title	Frames
1	Remove Turret Actuating Shaft	1
2	Remove Locking Handle, Lever Assembly, and Compression Helical Spring	2
3	Remove Turret Lock Assembly	3
4	Install Turret Lock Assembly	4
5	Install Locking Handle, Lever Assembly, and Compression Helical Spring	5
6	Install Turret Actuating Shaft	6
7	Replace Access Cover	7

TASK 1. Remove Turret Actuating Shaft

Applicability: All Models

Common Tools:

- Hammer, ball peen
- Handle, socket wrench, ratchet, 3/8-inch square drive
- Socket, socket wrench, 3/8-inch square drive, 7/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Reduce system hydraulic pressure to zero; refer to TM 9-2350-255-20-2-3-2, para. 4-4.

FRAME 1**Remove Actuating Shaft:**

1. Loosen, but do not take off, nut (1) and two washers (2) from shaft (3) on bottom of lock assembly (4) with socket and handle.
2. Move handle (5) to center position.
3. Tap nut (1) lightly with hammer until shaft (3) pops out. Unscrew and take off nut (1) and washers (2).

CAUTION

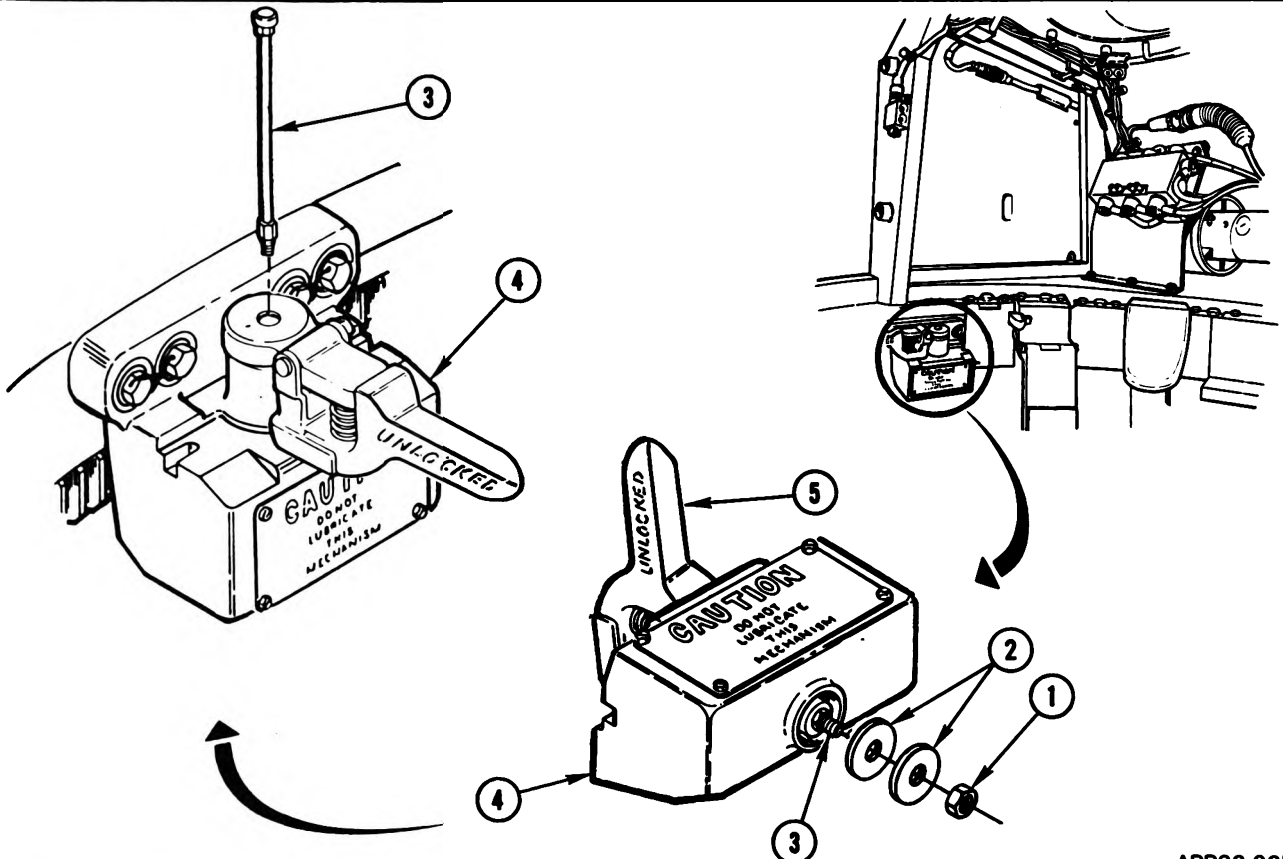
Be careful not to move parts inside lock assembly (4) when taking out shaft (3). If parts move, lock assembly (4) will be damaged.

4. Pull shaft (3) out of lock assembly (4).
5. Look at shaft (3) for bends or breaks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install turret actuating shaft, refer to task 6.

TASK 1 ENDS HERE



ARR82-0257

TASK 2. Remove Locking Handle, Lever Assembly, and Compression Helical Spring

Applicability: All Models

Common Tools:

- Hammer, ball peen
- Pliers, slip joint
- Punch, drive pin, 1/4-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Reduce system hydraulic pressure to zero; refer to TM 9-2350-255-20-2-3-2, para. 4-4.
2. Remove turret actuating shaft; refer to task 1.

FRAME 2

Remove Handle, Lever, and Spring:

NOTE

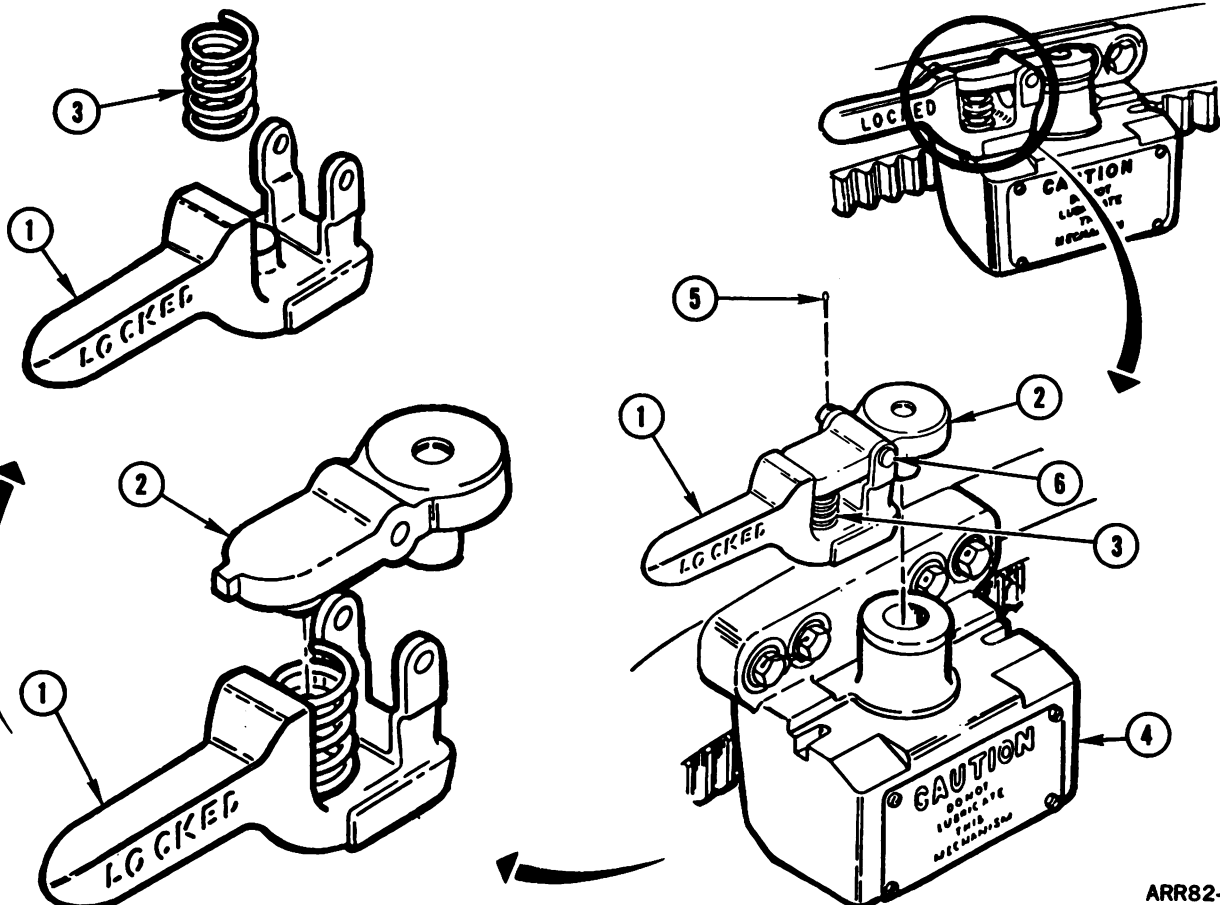
Handle (1) and lever (2) will rise up until tension on spring (3) is gone.

1. Pull handle (1) and lever (2) off lock assembly (4).
2. Pull out cotter pin (5) with pliers. Get rid of cotter pin (5).
3. Tap pin (6) out of handle (1) with hammer and punch. Lift lever (2) off handle (1).
4. Take spring (3) off handle (1). Look at spring (3) for cracks or breaks. If bad turn in. If OK set aside for later use.
5. Look at handle (1), lever (2), and pin (6) for cracks, gouges, or bends. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install locking handle, lever assembly, and compression helical spring, refer to task 5.

TASK 2 ENDS HERE



ARR82-0258

TASK 3. Remove Turret Lock Assembly

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/4-inch square drive, 8-inch
Hammer, ball peen
Handle, socket wrench, ratchet, 3/4-inch square drive
Pliers, diagonal cutting
Punch, drive pin, 1/4-inch
Socket, socket wrench, 3/4-inch square drive, 15/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Dry Cleaning Solvent (Item 21)
Rag, wiping (Item 45)

Personnel: Two

Soldier A: Removes turret lock assembly.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Reduce system hydraulic pressure to zero; refer to TM 9-2350-255-20-2-3-2, para. 4-4.
2. Remove turret actuating shaft; refer to task 1.
3. Remove locking handle, lever assembly, and compression helical spring; refer to task 2.

FRAME 3

Remove Turret Lock Assembly:

Soldier A: 1. Cut off safety wire (1) with pliers. Get rid of safety wire (1).

WARNING

Lock assembly (2) weighs 32 pounds. If it falls, you could be injured.

Soldier B: 2. Hold lock assembly (2).

Soldier A: 3. Unscrew and take out four bolts (3) and coned washers (4) with socket, extension, and handle. Get rid of washers (4).

Soldier A: 4. Look at lock assembly (2) for cracks, breaks, or dents. If bad turn in and TASK 3 ENDS HERE. If OK go to step 5.

Soldier A: 5. Drive out four tapered bushings (5) with hammer and punch.

WARNING

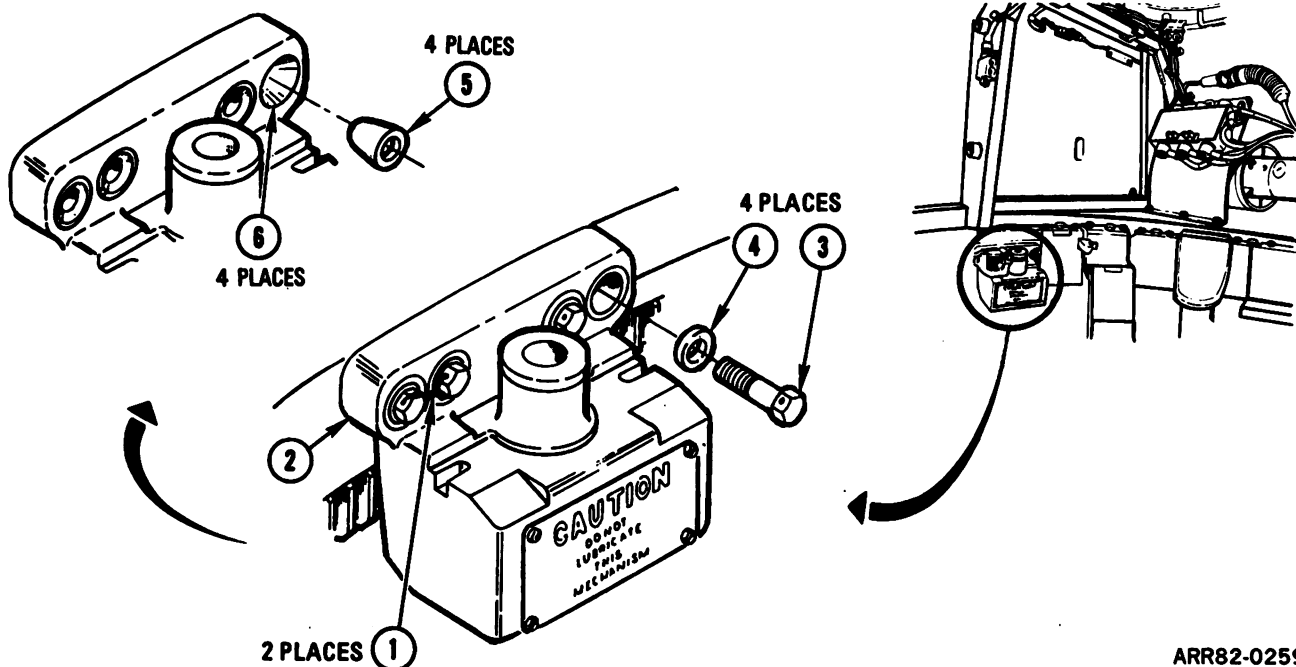
Solvent burns easily. To avoid injury, do not use near open fire.

Soldier A: 6. Wipe four holes (6) and bushings (5) with solvent and rag. Look at bushings (5) for dents, cracks, or bends. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install turret lock assembly, refer to task 4.

TASK 3 ENDS HERE



ARR82-0259

TASK 4. Install Turret Lock Assembly

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/4-inch square drive, 8-inch
Handle, socket wrench, ratchet, 3/4-inch square drive
Pliers, slip joint
Socket, socket wrench, 3/4-inch square drive, 15/16-inch
Wrench, torque, 0 to 600 foot-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Washer, coned (19207) 12282095 (four required)
Wire, nonelectric (safety) 0.051-inch diameter (Item 63)

Personnel: Two

Soldier A: Installs turret lock assembly.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove turret lock assembly; refer to task 3.

FRAME 4

Install Turret Lock Assembly:

Soldier A: 1. Put four tapered bushings (1) in lock assembly (2).

WARNING

Lock assembly (2) weighs 32 pounds. If it falls, you could be injured.

Soldier B: 2. Line up lock assembly (2) with holes in turret ring (3).

NOTE

Wider side of coned washer (4) goes next to head of bolt (5).

Soldier A: 3. Screw in and tighten four bolts (5) and new coned washers (4) with socket, extension, and handle.

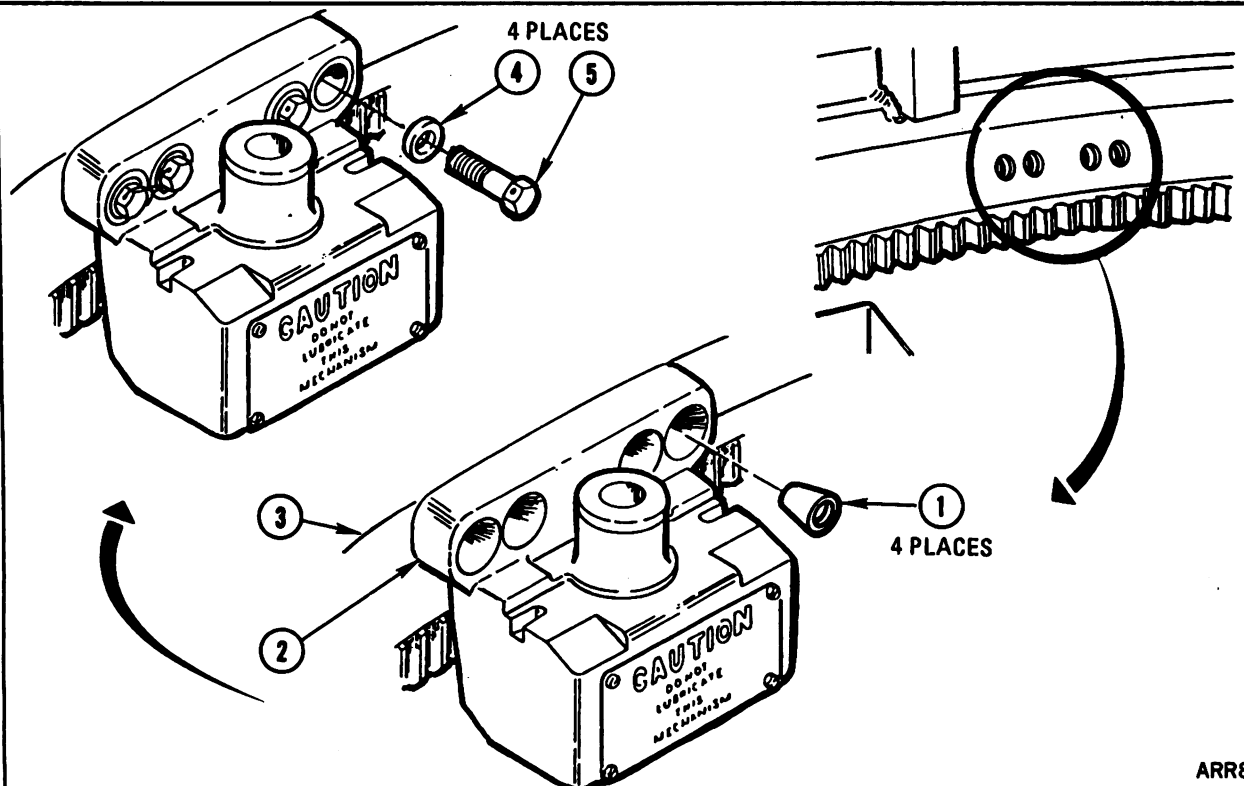
Soldier A: 4. Torque four bolts (5) between 200 and 220 pound feet (271 and 298 Newton meters).

Soldier A: 5. Safety wire bolts (5) with pliers.

Follow-on Maintenance:

1. Install locking handle, lever assembly, and compression helical spring; refer to task 5.
2. Install turret actuating shaft; refer to task 6.

TASK 4 ENDS HERE



ARR82-0260

TASK 5. Install Locking Handle, Lever Assembly, and Compression Helical Spring

Applicability: All Models

Common Tools:

Pliers, slip joint

Special Tools: None

Supplies:

Pin, cotter (96906) MS24665-283

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove locking handle, lever assembly, and compression helical spring; refer to task 2.

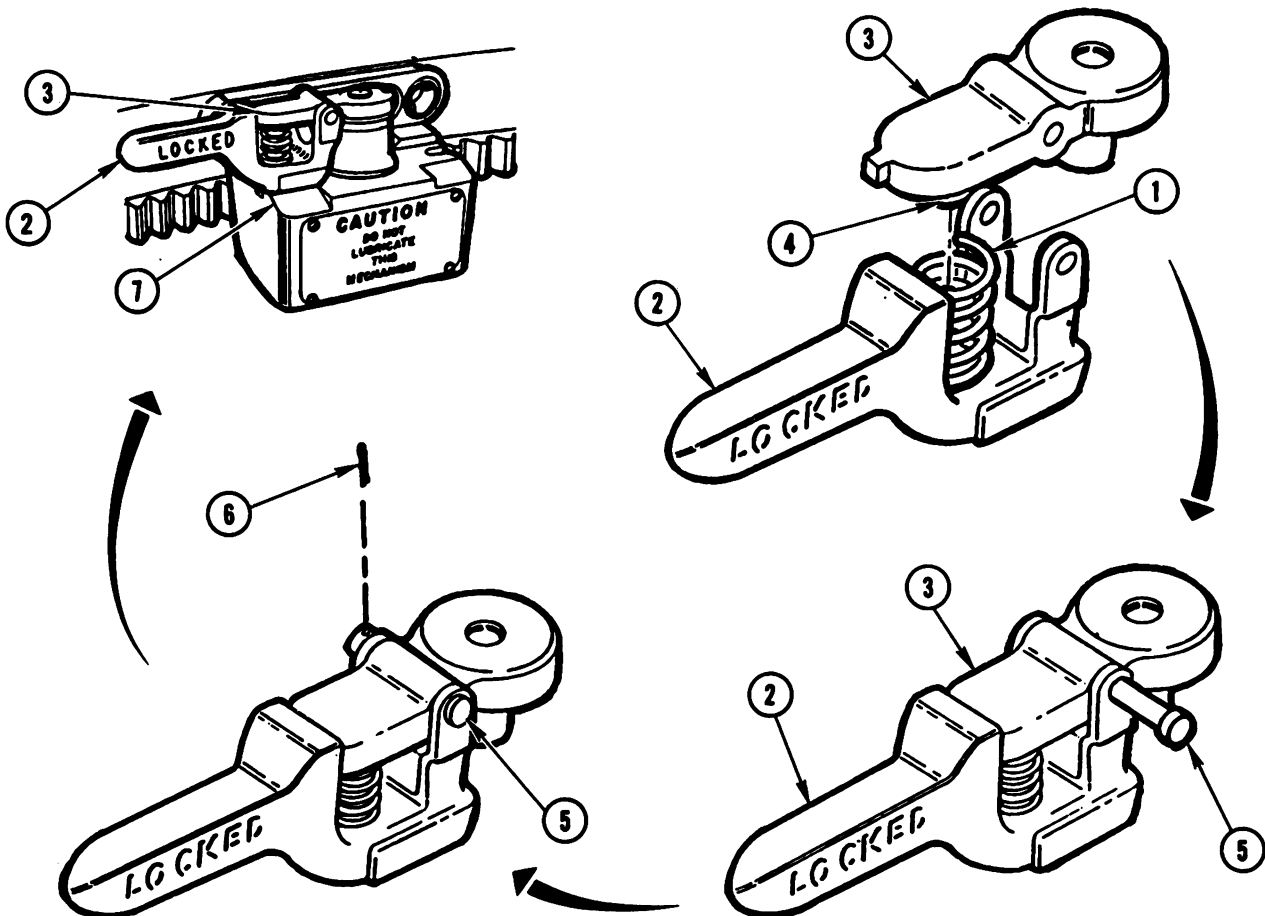
FRAME 5**Install Handle, Lever, and Spring:**

1. Put spring (1) on handle (2). Put lever (3) in handle (2) so that retainer (4) fits in spring (1).
2. Line up holes in lever (3) and handle (2). Put pin (5) in lever (3) and handle (2). Put new cotter pin (6) in hole of pin (5) with pliers.
3. Put handle (2) and lever (3) on lock assembly (7). Make sure handle (2) is in LOCKED position.

Follow-on Maintenance:

Install turret actuating shaft; refer to task 6.

TASK 5 ENDS HERE



ARR82-0261

TASK 6. Install Turret Actuating Shaft

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

Nut, self-locking (96906) MS51943-32

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove turret actuating shaft; refer to task 1.

FRAME 6

Install Actuating Shaft:

CAUTION

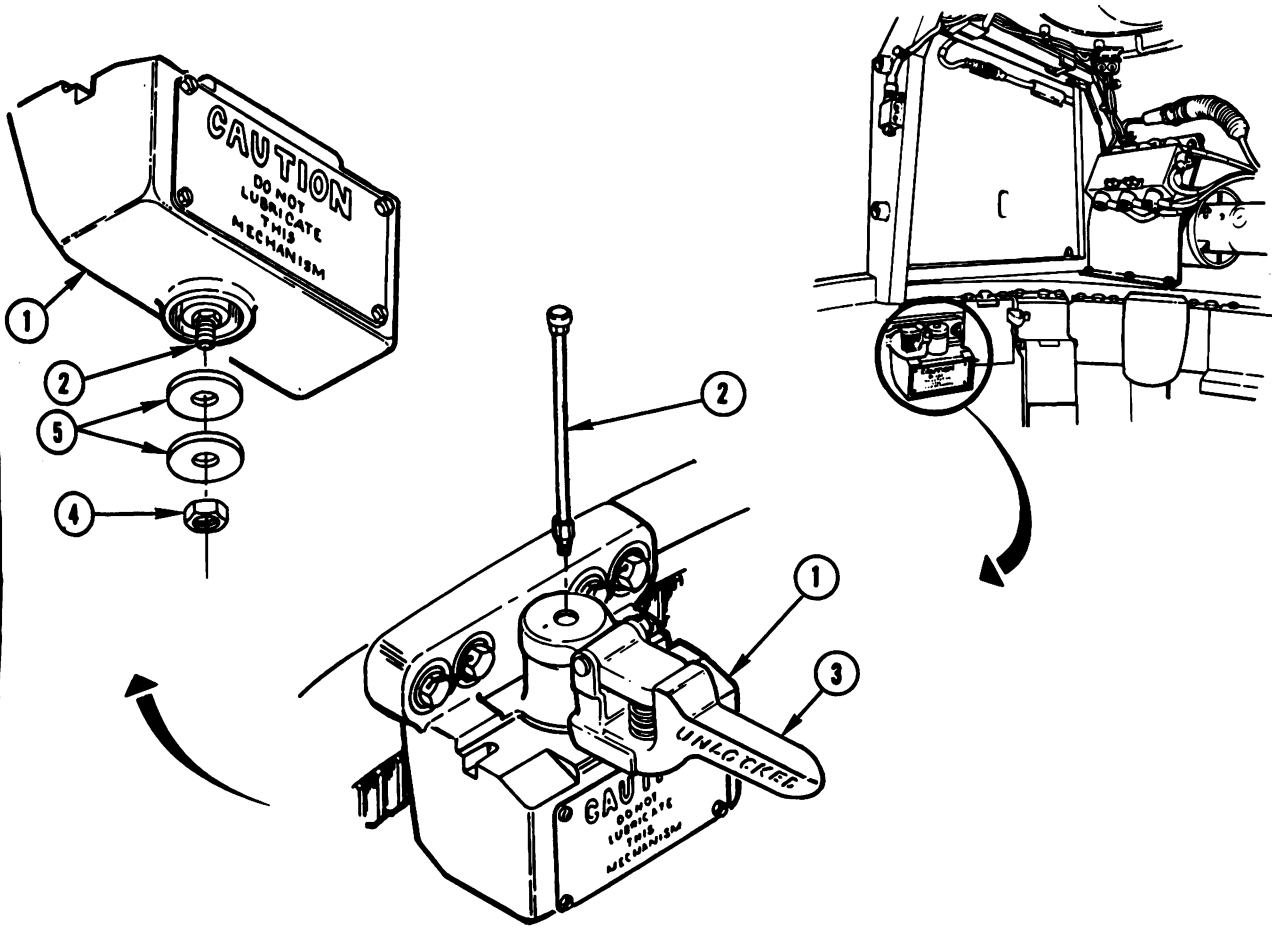
Be careful not to move parts inside lock assembly (1) when putting in shaft (2). If parts move, lock assembly (1) will be damaged.

1. Put handle (3) in center position.
2. Line up shaft (2) with parts of lock assembly (1). Slide shaft (2) in lock assembly (1).
3. Screw nut (4) and two washers (5) on shaft (2) with socket and handle.
4. Torque nut (4) between 95 and 120 pound inches (11 and 14 Newton meters).

Follow-on Maintenance:

Lock turret; refer to TM 9-2350-255-10.

TASK 6 ENDS HERE



ARR82-0262

TASK 7. Replace Access Cover

Applicability: All Models

Common Tools:

Screwdriver, flat tip

Special Tools: None

Supplies:

Cover, access (19207) 7953783

Lockwasher (96906) MS35333-39 (four required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

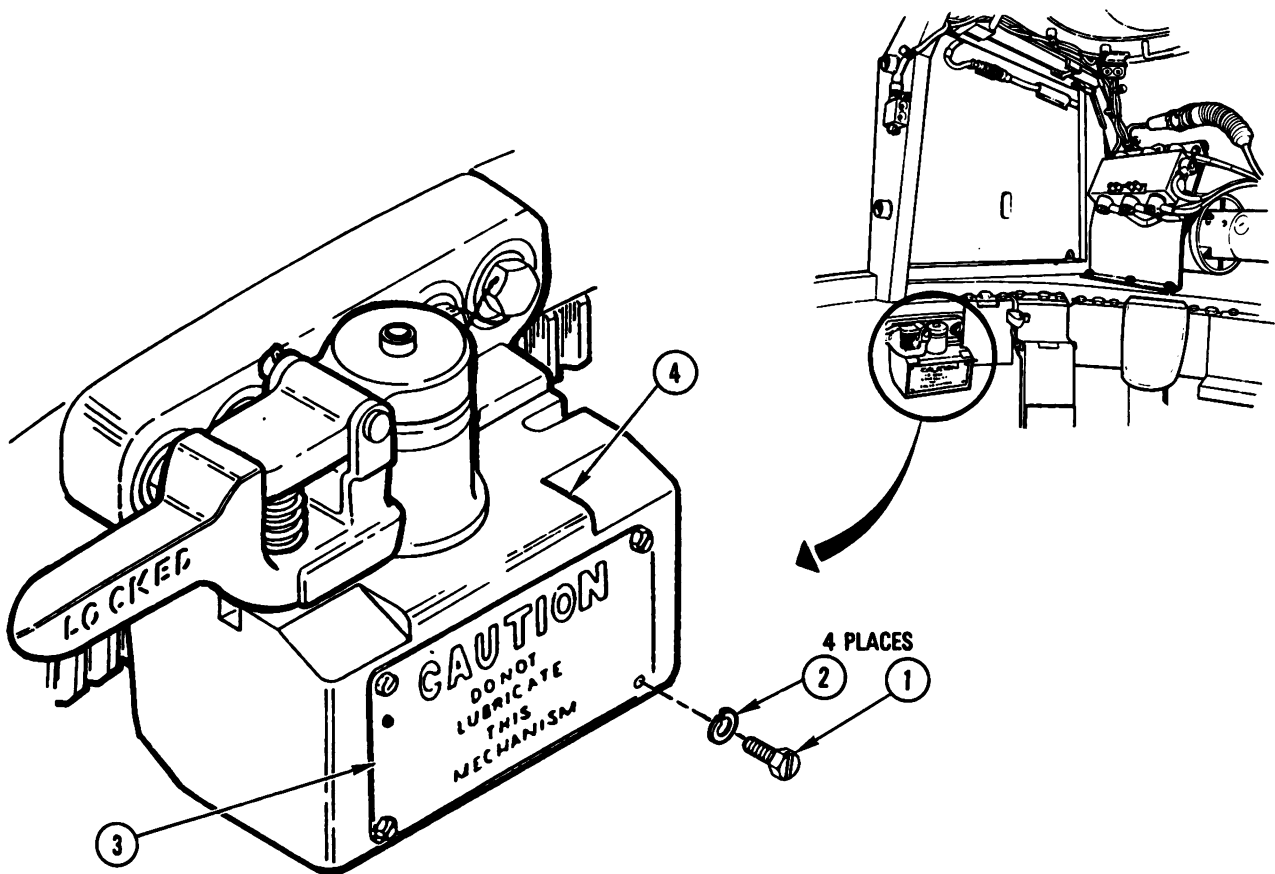
FRAME 7**Remove Access Cover:**

1. Unscrew and take out four screws (1) and lockwashers (2) with screwdriver. Get rid of lockwashers (2).
2. Take access cover (3) off lock assembly (4). Turn in cover (3).

Install Access Cover:

3. Put new cover (3) on lock assembly (4).
4. Screw in and tighten four screws (1) and new lockwashers (2) with screwdriver.

Follow-on Maintenance: None

END OF TURRET LOCK ASSEMBLY MAINTENANCE

ARR82-0263

3-5. Commander's Seat

Task	Title	Frames
1	Remove Commander's Seat, Post, and Retainer Assembly	1 - 2
2	Remove Seat Back and Pad	3
3	Remove Seat Pan	4
4	Remove Seat Assembly, Seat Back Assembly, and Spring	5 - 6
5	Remove Hinge Bracket	7
6	Remove Intermediate Platform and Spring	8
7	Remove Lower Platform and Footrest	9
8	Remove Height Adjustment Locking Pin	10 - 11
9	Remove Platform Support and Spring Tube	12 - 13
10	Install Platform Support and Spring Tube	14 - 15
11	Install Height Adjustment Locking Pin	16
12	Install Lower Platform and Footrest	17
13	Install Intermediate Platform and Spring	18
14	Install Hinge Bracket	19
15	Install Seat Assembly, Seat Back Assembly, and Spring	20 - 23
16	Install Seat Pan	24
17	Install Seat Back and Pad	25
18	Install Commander's Seat, Post, and Retainer Assembly	26 - 27

TASK 1. Remove Commander's Seat, Post, and Retainer Assembly

Applicability: All Models

Common Tools:

- Drift Pin, 1/2-inch
- Extension, socket wrench, 3/8-inch square drive, 5-inch
- Hammer, ball peen
- Handle, socket wrench, ratchet, 3/8-inch square drive
- Handle, socket wrench, hinged, 1/2-inch square drive
- Socket, socket wrench, 3/8-inch square drive, 9/16-inch
- Socket, socket wrench, 1/2-inch square drive, 15/16-inch

Special Tools: None

Supplies: None

Personnel: Three

- Soldier A: Removes seat.
- Soldier B: Helps Soldier A.
- Soldier C: Helps Soldier A.

NOTE

Soldiers A and C work in turret. Soldier B works in driver's compartment and outside tank.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Traverse turret until commander's seat can be reached from driver's compartment, then lock turret; refer to TM 9-2350-255-10.
2. Remove commander's screen; refer to para. 3-16, task 1.

FRAME 1

Remove Seat, Post, and Retainer:

Soldier A: 1. Unscrew and take out two screws (1) and washers (2) from seat post assembly (3) with 15/16-inch socket and hinged handle.

Soldier A: 2. Raise commander's seat platform (4) to full up position.

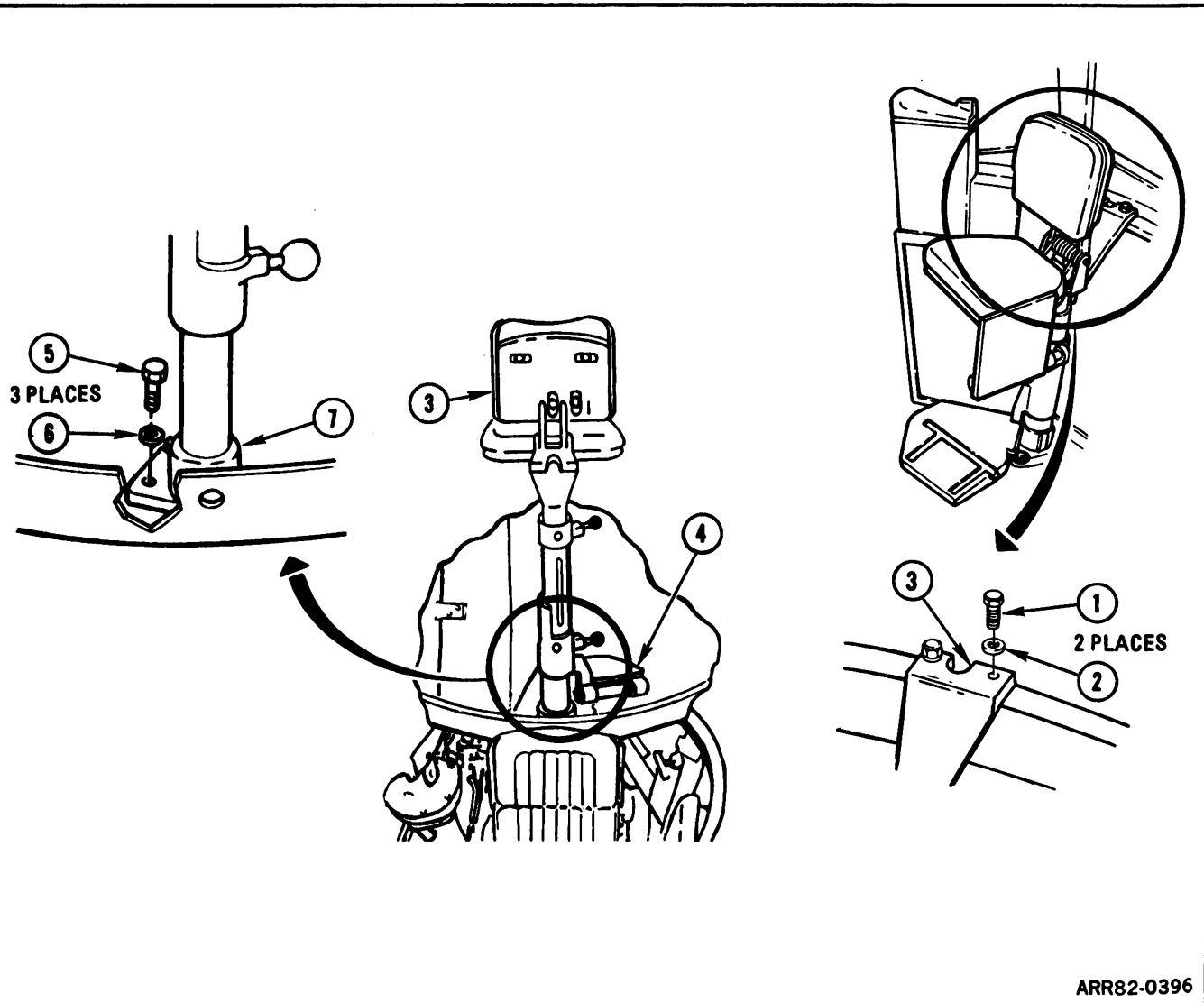
Soldier B: 3. Go to driver's compartment. Unscrew and take out three screws (5) and washers (6) from retainer (7) with 9/16-inch socket, extension, and handle. Go to top of turret.

Soldier A,

Soldier C: 4. Hand seat (3) to Soldier B through loader's hatch.

Soldier B: 5. Set seat (3) on clean, flat work surface.

GO TO FRAME 2



ARR82-0396

FRAME 2

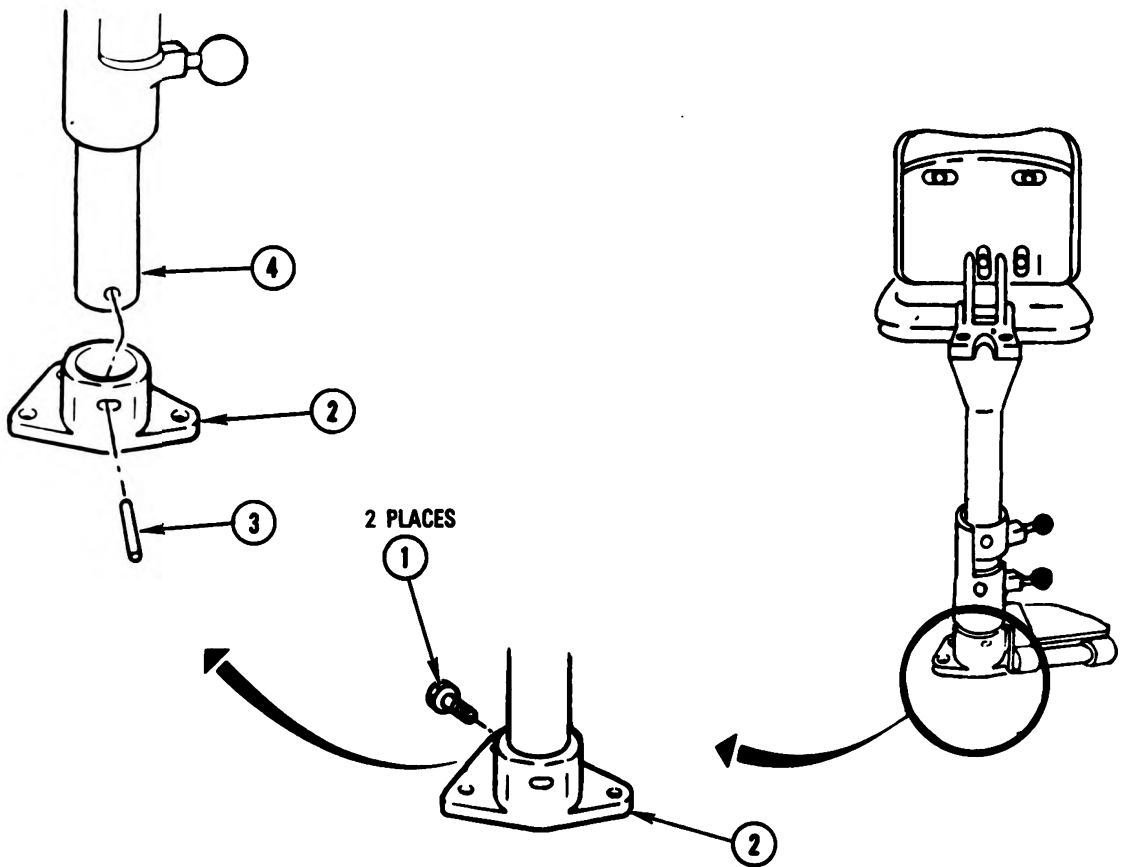
Remove Retainer:

- Soldier A:** 1. Unscrew and take out two screws (1) from retainer (2) with 9/16-inch socket and handle.
- Soldier A:** 2. Drive out pin (3) with hammer and drift pin. Get rid of pin (3). Take retainer (2) off post (4).
- Soldier A:** 3. Look at retainer (2) for cracks, bends, or stripped threads. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install commander's seat, post, and retainer assembly, refer to task 18.

TASK 1 ENDS HERE



ARR82-0397

TASK 2. Remove Seat Back and Pad

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 3**Remove Seat Back and Pad:**

1. Fold seat back assembly (1) down on seat assembly (2).

NOTE

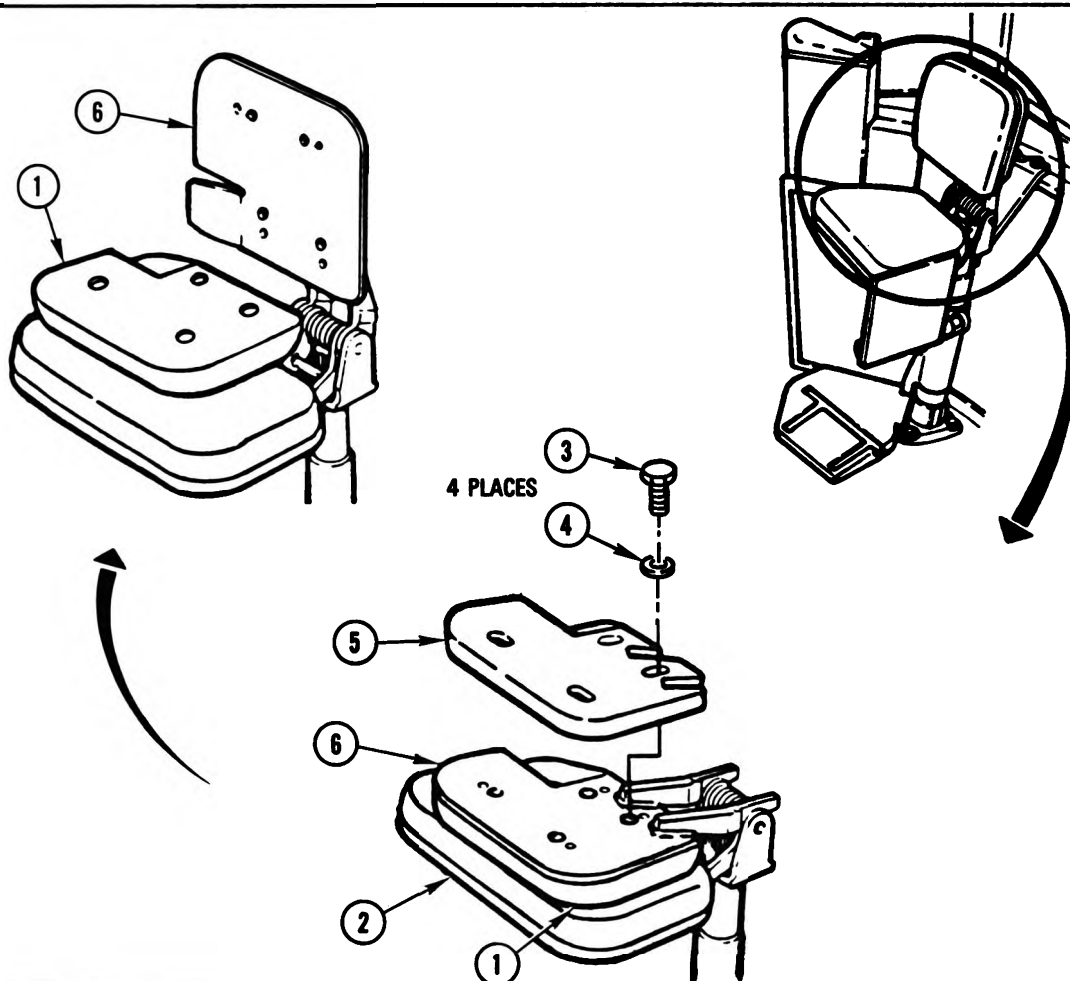
Seat back assembly (1) may have nuts in place of screws (3).

2. Unscrew and take out four screws (3) and lockwashers (4) with socket and handle. Get rid of lockwashers (4).
3. Take pad (5) off seat back frame (6).
4. Lift up seat back frame (6) and take off seat back (1).
5. Look at pad (5) and seat back (1) for cuts, rips, holes, or cracks. Turn in bad parts. Set good parts aside for later use.
6. Look at frame (6) for bends or cracks. If bad, remove and turn in; refer to task 4.

Follow-on Maintenance:

NOTE: To install seat back and pad, refer to task 17.

TASK 2 ENDS HERE



ARR82-0398

TASK 3. Remove Seat Pan

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

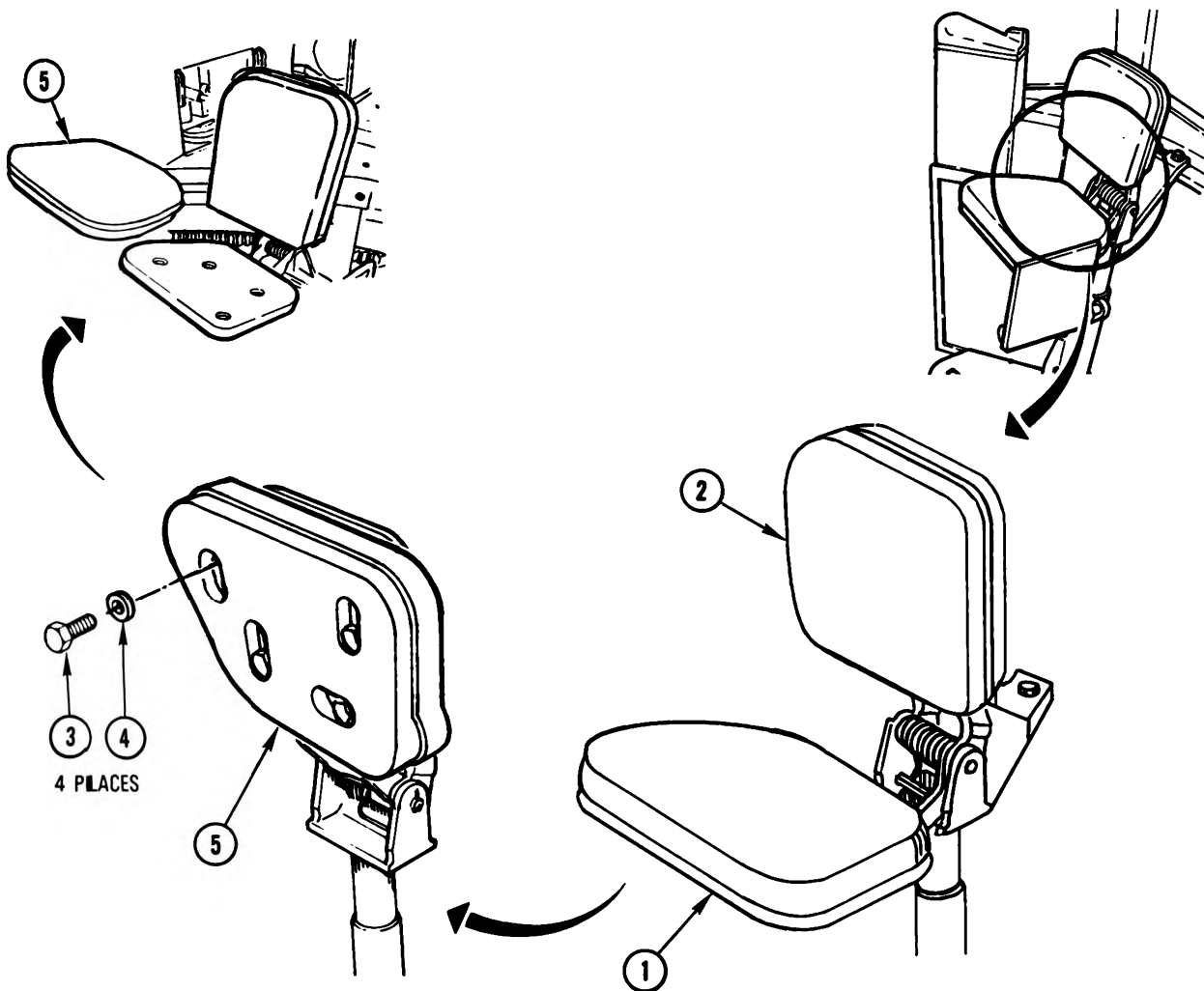
FRAME 4**Remove Seat Pan:**

1. Fold seat assembly (1) up against seat back assembly (2).
2. Unscrew and take out four screws (3) and lockwashers (4) with socket, extension, and handle. Get rid of lockwashers (4).
3. Fold down seat assembly (1) and lift off seat pan (5).
4. Look at seat pan (1) for cuts, rips, holes, or cracks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install seat pan, refer to task 16.

TASK 3 ENDS HERE



ARR82-0399

TASK 4. Remove Seat Assembly, Seat Back Assembly, and Spring

Applicability: All Models

Common Tools:

- Hammer, ball peen
- Punch, drive pin, 3/32-inch
- Punch, drive pin, 3/8-inch

Special Tools: None

Supplies: None

Personnel: Two

- Soldier A: Removes seat assembly, seat back assembly, and spring.
- Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 5

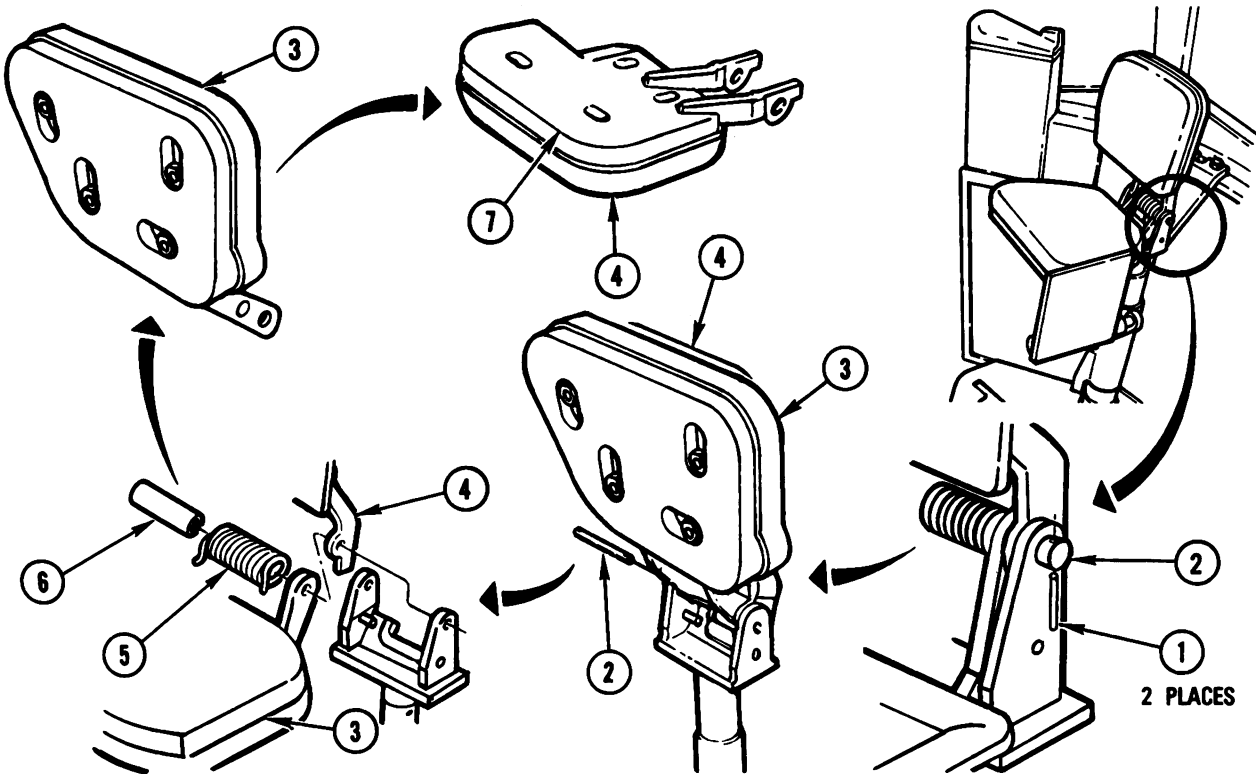
Remove Seat Assembly, Seat Back Assembly, and Spring:

- Soldier A:** 1. Drive two spring pins (1) out of hinge pin (2) with hammer and 3/32-inch punch. Get rid of pins (1).
- Soldier B:** 2. Fold seat assembly (3) up against seat back assembly (4) and hold together.
- Soldier B:** 3. Support seat assembly (3), seat back assembly (4), spring (5), and sleeve bushing (6) while Soldier A drives out hinge pin (2).
- Soldier A:** 4. Drive out hinge pin (2) with hammer and 3/8-inch punch. Look at hinge pin (2) for cracks. If bad turn in. If OK set aside for later use.
- Soldier B:** 5. Lift off seat assembly (3), seat back assembly (4), with pad (7), spring (5), and sleeve bushing (6).

NOTE

Soldier B is no longer needed in this task.

GO TO FRAME 6



ARR82-0400

FRAME 6

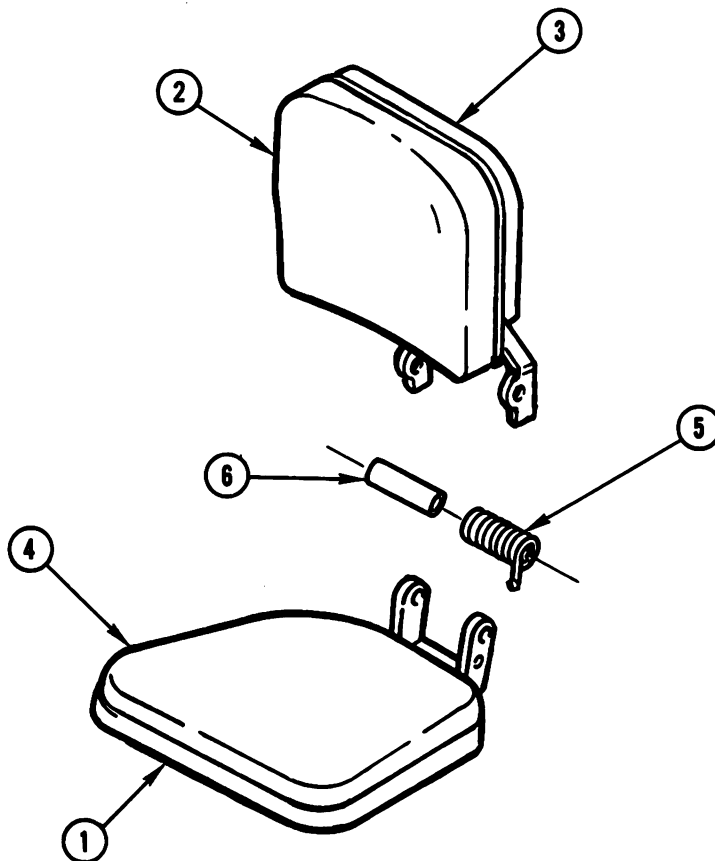
Remove Seat Assembly, Seat Back Assembly, and Spring (Continued):

1. Look at seat assembly (1), seat back (2), and pad (3) for cracks, holes, or tears. If seat pan (4) only is bad, remove seat pan; refer to task 3. If rest of seat assembly (1) is bad, turn in seat assembly (1) with seat pan (4).
2. If pad (3) or seat back (2) is bad, remove seat back and pad; refer to task 2. Turn in bad parts. Set good parts aside for later use.
3. Look at spring (5) and sleeve bushing (6) for breaks or bends. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install seat assembly, seat back assembly, and spring, refer to task 15.

TASK 4 ENDS HERE



ARR82-0401

TASK 5. Remove Hinge Bracket

Applicability: All Models

Common Tools:

Hammer, ball peen
Punch, drive pin, tapered, 5/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove seat assembly, seat back assembly, and spring; refer to task 4.

FRAME 7

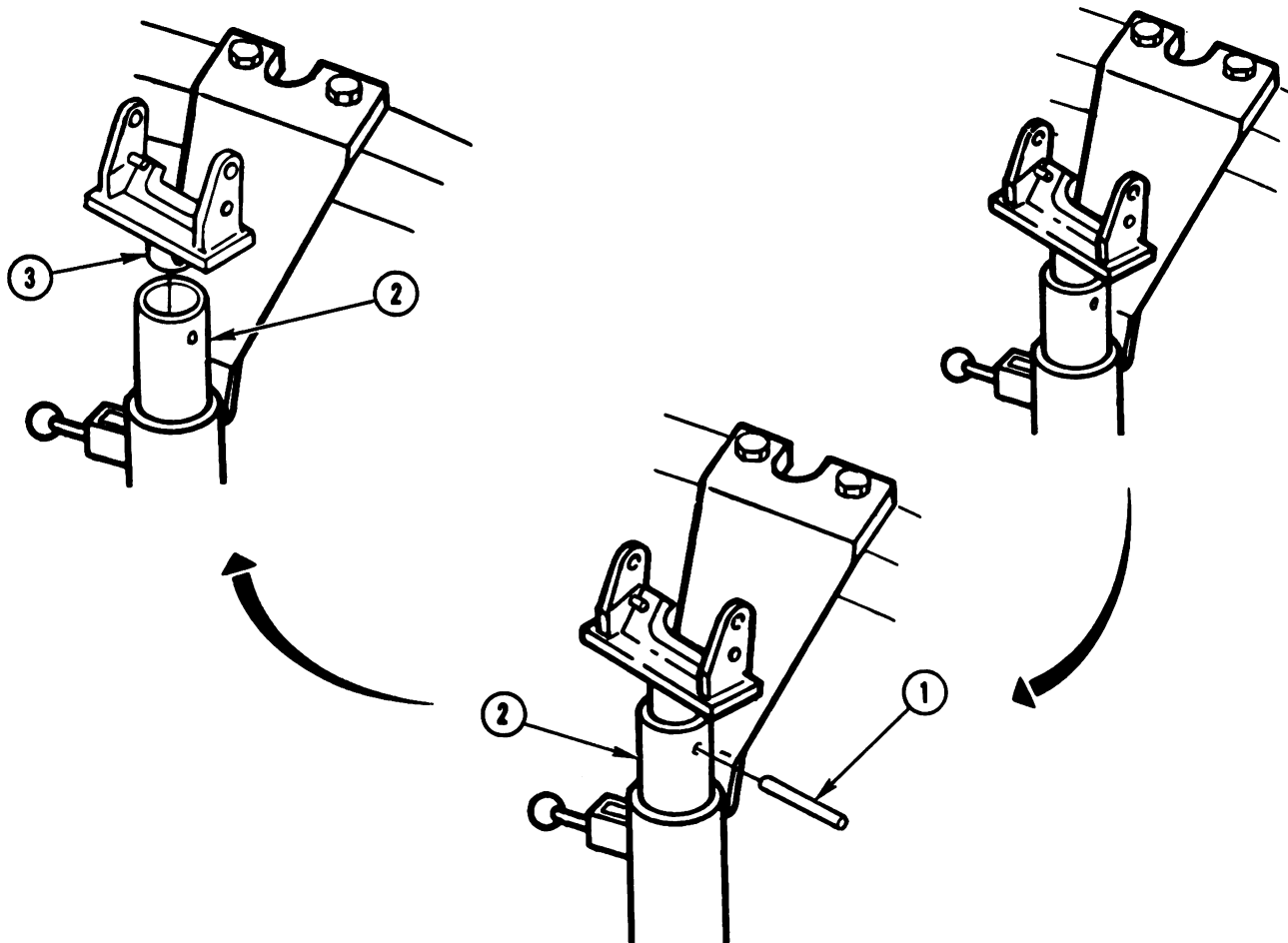
Remove Bracket:

1. Drive pin (1) out of tube (2) with hammer and punch. Look at pin (1) for cracks or bends. If bad turn in. If OK set aside for later use.
2. Lift bracket (3) out of tube (2). If necessary, tap bracket (3) up and out with hammer.
3. Look at bracket (3) for cracks or bends. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install hinge bracket, refer to task 14.

TASK 5 ENDS HERE



ARR82-0402

TASK 6. Remove Intermediate Platform and Spring

Applicability: All Models

Common Tools:

- Hammer, ball peen
- Handle, socket wrench, ratchet, 3/8-inch square drive
- Punch, drive pin, tapered, 1/4-inch
- Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 8

Remove Platform and Spring:

1. Unscrew and take out four screws (1) and spacers (2) from platform (3) with socket and handle.

WARNING

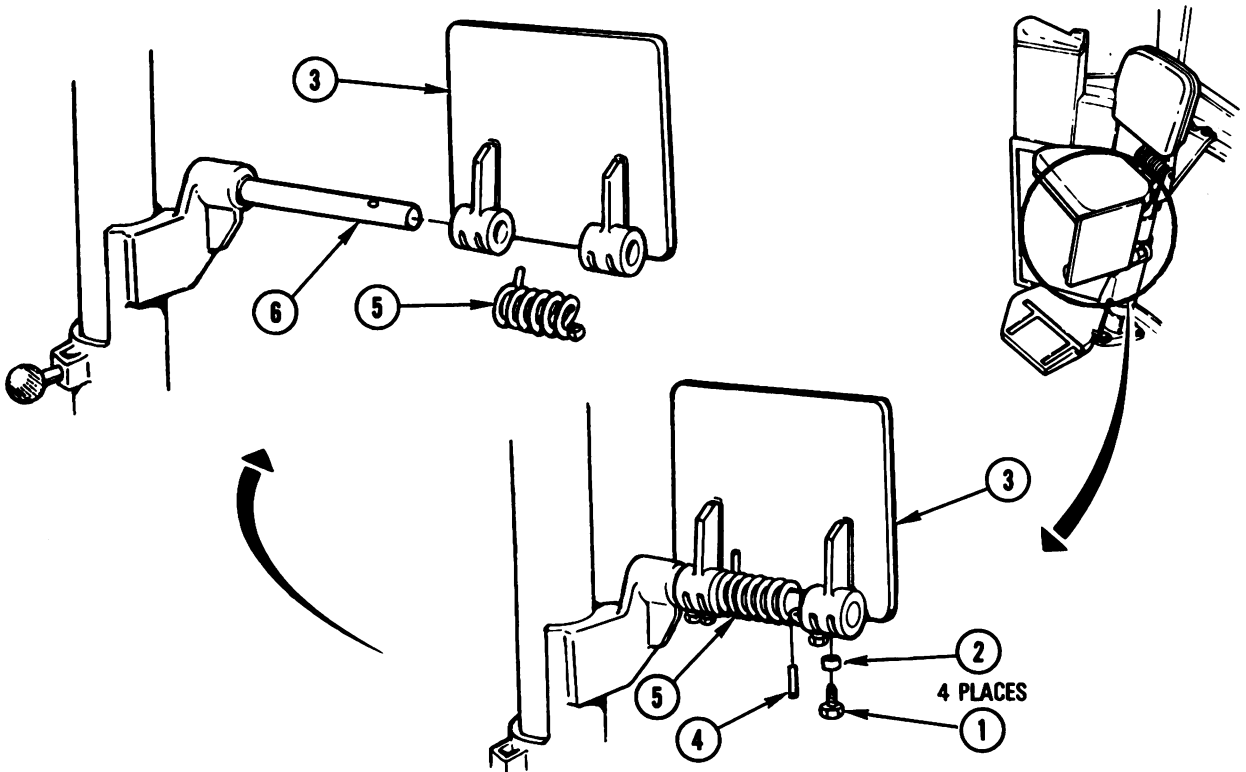
When pin (4) is punched out, spring (5) will unwind and may cause platform (3) to fall. Use care when taking out pin (4) to prevent injury or damage to equipment.

2. Drive out pin (4) with hammer and punch. Get rid of pin (4).
3. Slide platform (3) and spring (5) off support (6).
4. Look at platform (3) and spring (5) for cracks or bends. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install intermediate platform and spring, refer to task 13.

TASK 6 ENDS HERE



ARR82-0403

TASK 7. Remove Lower Platform and Footrest

Applicability: All Models

Common Tools:

- Drift Pin, 1/2-inch
- Hammer, ball peen
- Pliers, long round nose

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Raise commander's platform support to its highest position; refer to TM 9-2350-255-10.

FRAME 9

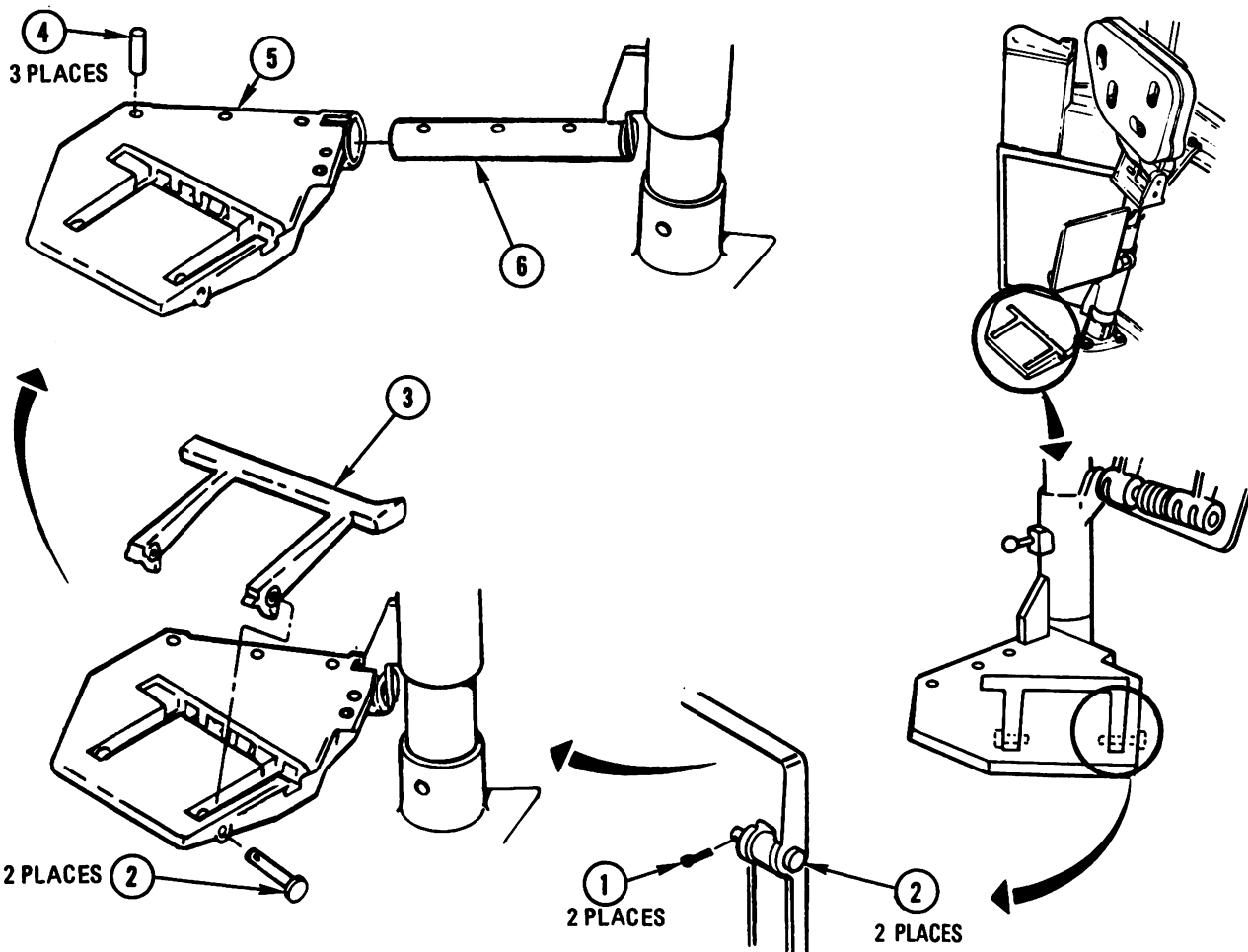
Remove Platform and Footrest:

1. Pull out two cotter pins (1) from straight pins (2) with pliers. Get rid of cotter pins (1).
2. Tap out two pins (2) with hammer. Pull out pins (2) with pliers. Lift out footrest (3).
3. Drive out three spring pins (4) from platform (5) with hammer and drift pin. Get rid of pins (4). Slide platform (5) off support arm (6).
4. Look at footrest (3), pins (2), and platform (5) for cracks or bends. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install lower platform and footrest, refer to task 12.

TASK 7 ENDS HERE



ARR82-0404

TASK 8. Remove Height Adjustment Locking Pin

Applicability: All Models

Common Tools:

Hammer, ball peen
Punch, drive pin, tapered, 3/32-inch
Screwdriver, flat tip

Special Tools: None

Supplies: None

Personnel: Two

Soldier A: Removes height adjustment locking pin.

Soldier B: Helps Soldier A:

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Raise commander's seat to highest position and set lower platform to lowest setting; refer to TM 9-2350-255-10.

FRAME 10

Remove Pin:

NOTE

There are two locking pins (1) in commander's seat assembly (2). Use this task to take off either locking pin (1).

Soldier B: 1. Compress spring (3) and washer (4) with screwdriver.

Soldier A: 2. Drive out spring pin (5) with hammer and punch. Get rid of spring pin (5).

WARNING

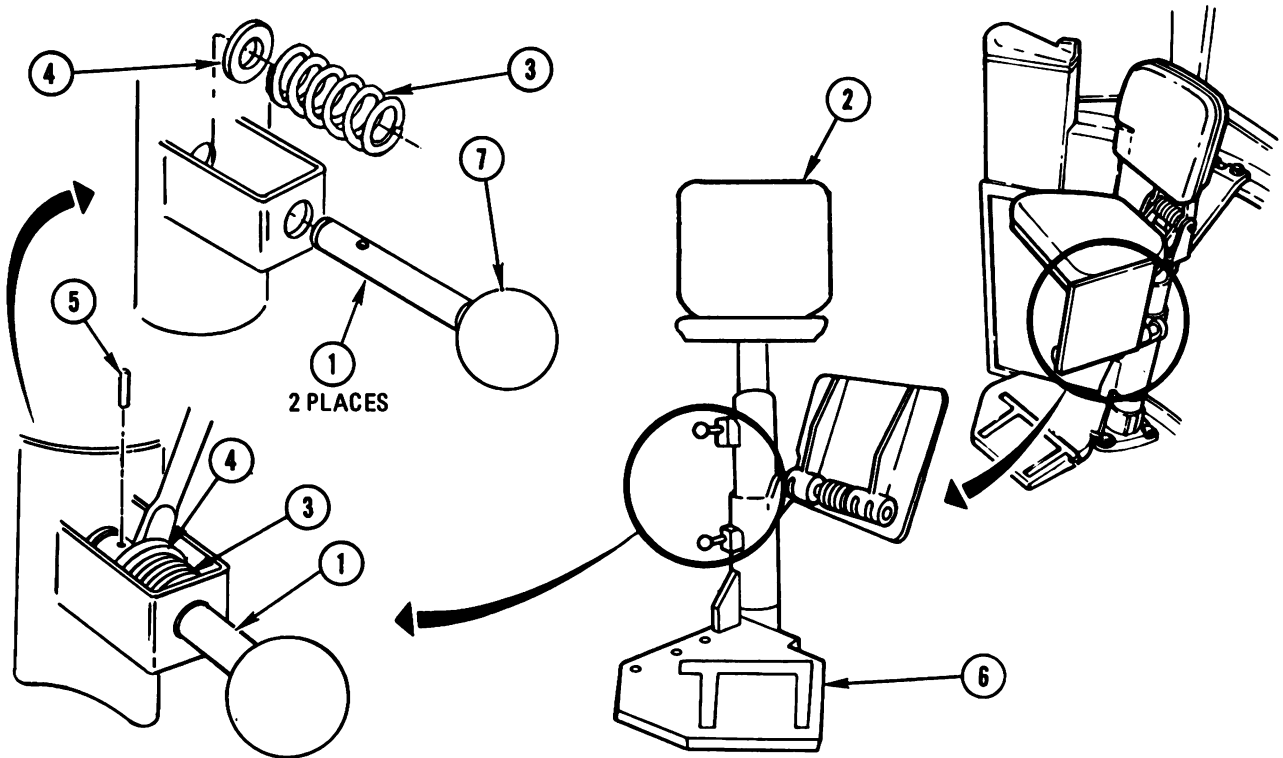
Lower platform (6) will drop and seat (2) will go up one or two inches when locking pin (1) is taken out. Stay out of the way of platform (6) and seat (2) or you can be injured.

Soldier A: 3. Hold hand under spring (3) and washer (4). Pull knob (7) straight back and take out locking pin (1), spring (3), and washer (4).

NOTE

Soldier B is no longer needed in this task.

GO TO FRAME 11



ARR82-0405

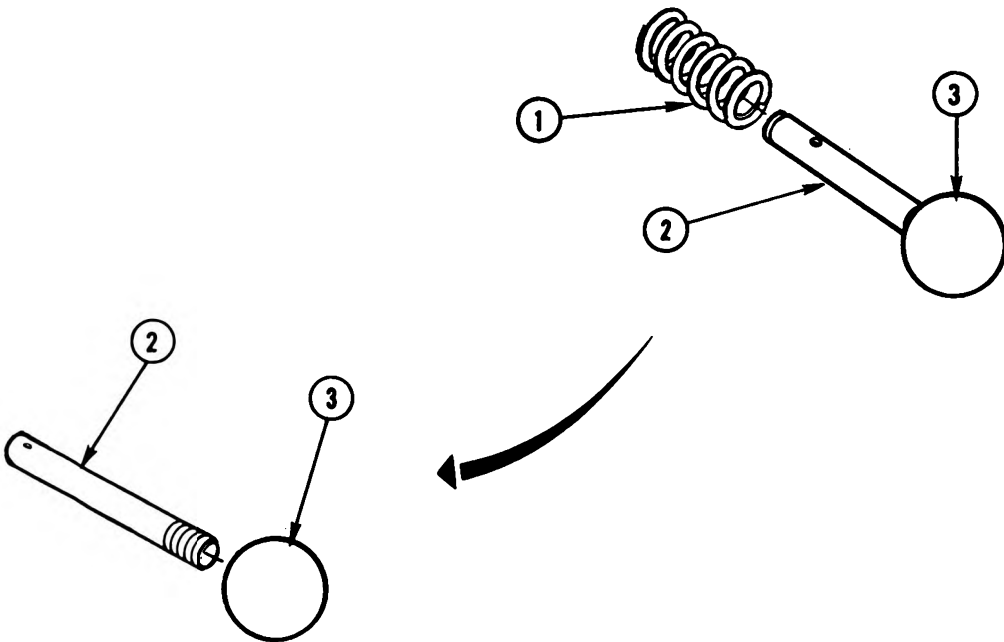
FRAME 11**Inspect Pin and Spring:**

1. Look at spring (1) and locking pin (2) for cracks or bends. If bad turn in. If OK set aside for later use.
2. Look at knob (3) for cracks or looseness. If bad do steps 3 and 4. If OK set aside for later use and go to follow-on maintenance.
3. Unscrew knob (3) from locking pin (2).
4. Check threads on locking pin (2) and knob (3) for wear or stripped threads. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install height adjustment locking pin, refer to task 11.

TASK 8 ENDS HERE



ARR82-0406

TASK 9. Remove Platform Support and Spring Tube

Applicability: All Models

Common Tools:

Hammer, ball peen
Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, slip joint
Punch, drive pin, 3/16-inch
Punch, drive pin, 5/16-inch
Socket, socket wrench, 3/8-inch square drive, 3/4-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Cloth, abrasive (crocus) (Item 17)

Personnel: Two

Soldier A: Removes post, platform support, and spring tube.
Soldier B: Helps Soldier A:

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's seat, post, and retainer assembly; refer to task 1.
2. Remove intermediate platform and spring; refer to task 6.
3. Remove lower platform and footrest; refer to task 7.
4. Remove height adjustment locking pins; refer to task 8.

FRAME 12**Remove Seat:**

Soldier A: 1. Drive out pin (1) part way with hammer, pliers, and 5/16-inch punch.

Soldier A: 2. Drive out pin (1) with 3/16-inch punch. Get rid of pin (1).

Soldier A: 3. Take off seat assembly (2) and set aside for later use.

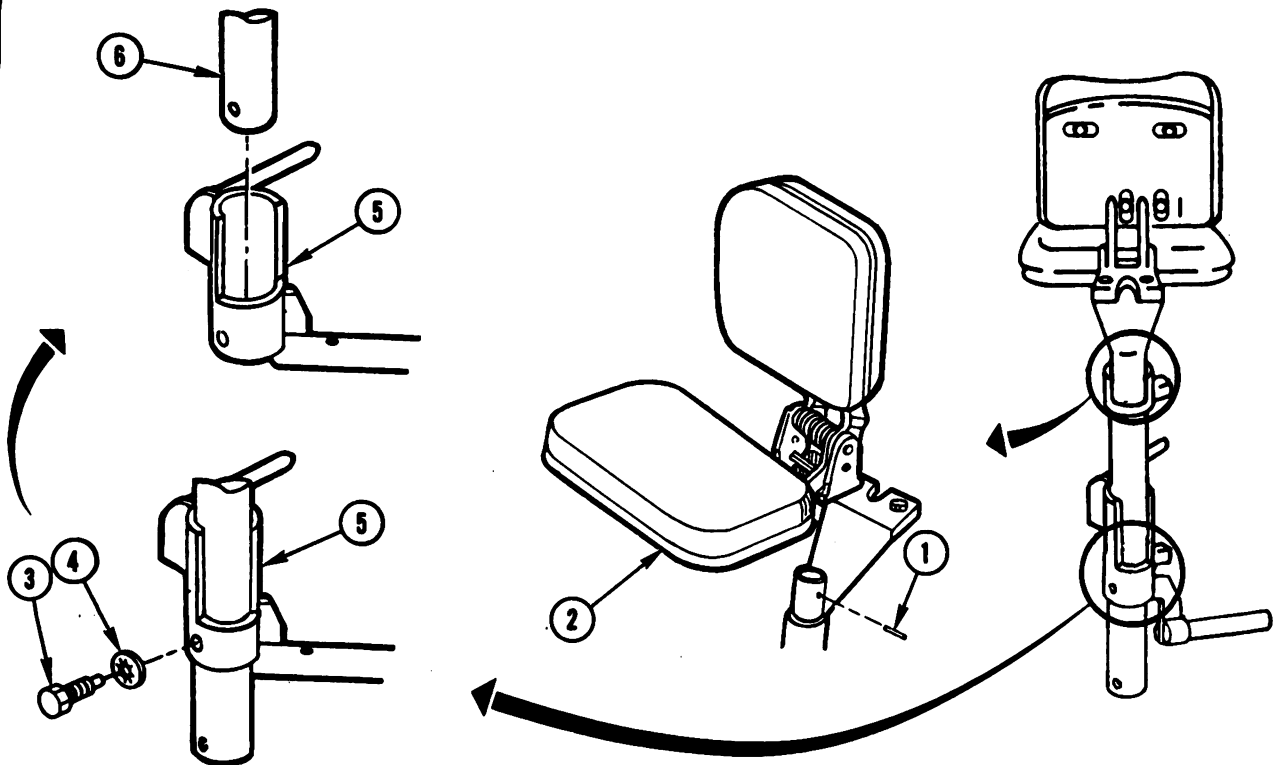
Remove Support:

Soldier A: 4. Unscrew and take out setscrew (3) and lockwasher (4) with socket and handle. Get rid of lockwasher (4).

Soldier A: 5. Slide support (5) off bottom end of post (6).

Soldier A: 6. Look at support (5) for cracks or rust. If cracked turn in. If rusted, clean with crocus cloth and set aside for later use.

GO TO FRAME 13



ARR82-0407

FRAME 13

Remove Springs, Spacers, and Tube from Post:

Soldier B: 1. Push end of tube (1) down until spring pressure is off setscrew (2).

Soldier A: 2. Unscrew and take out setscrew (2) and lockwasher (3) with socket and handle. Get rid of lockwasher (3).

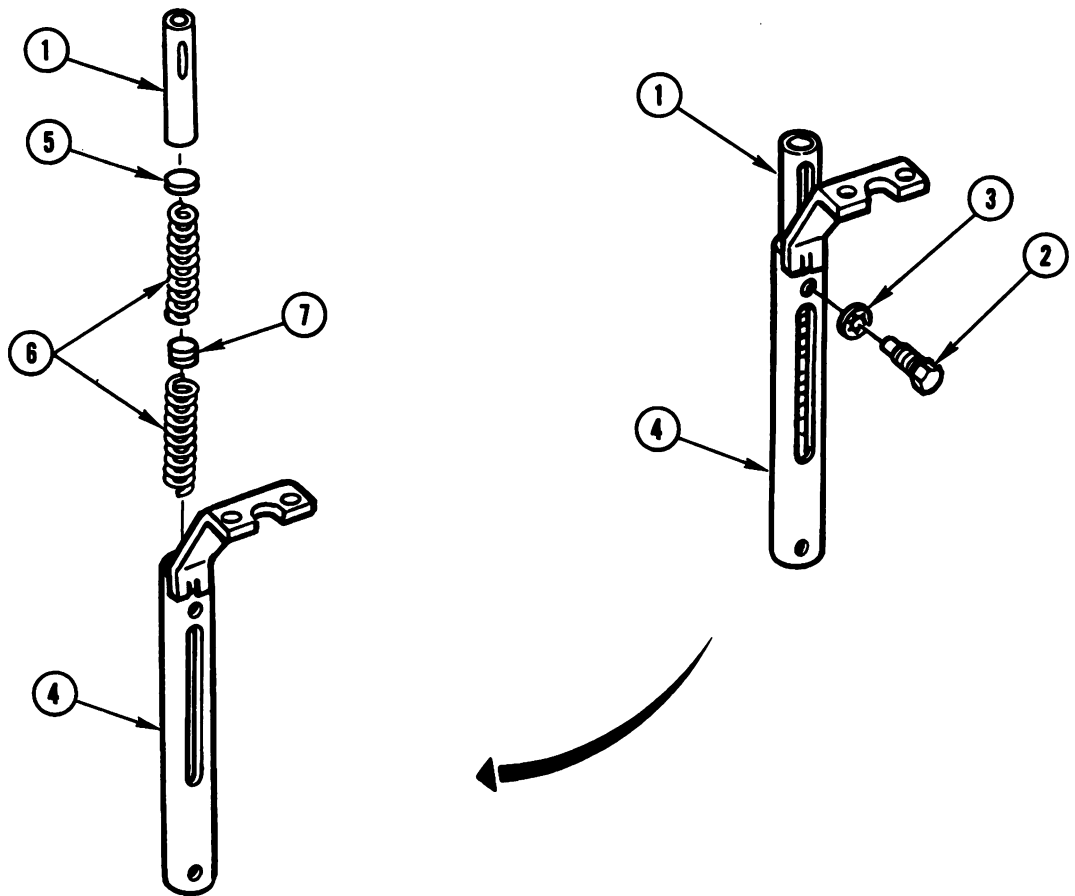
Soldier B: 3. Tip bottom of post (4) up and slide out tube (1), stop (5), two springs (6), and guide (7).

Soldier A: 4. Look for cracks and rust on all parts. If cracked turn in. If rusted, clean with crocus cloth and set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install platform support and spring tube, refer to task 10.

TASK 9 ENDS HERE



ARR82-0408

TASK 10. Install Platform Support and Spring Tube**Applicability:** All Models**Common Tools:**

Hammer, ball peen
Handle, socket wrench, ratchet, 3/8-inch square drive
Punch, drive pin, tapered, 5/16-inch
Socket, socket wrench, 3/8-inch square drive, 3/4-inch
Socket, socket wrench, deep style, 1/2-inch square drive, 3/4-inch
Wrench, torque, 0 to 175 foot-pounds

Special Tools: None**Supplies:**

Lockwasher (96909) MS35333-44 (two required)
Pin (19207) 12280435

Personnel: Two

Soldier A: Installs post, platform support, and spring tube.
Soldier B: Helps Soldier A:

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove platform support and spring tube; refer to task 9.

FRAME 14

Install Tube Assembly and Support:

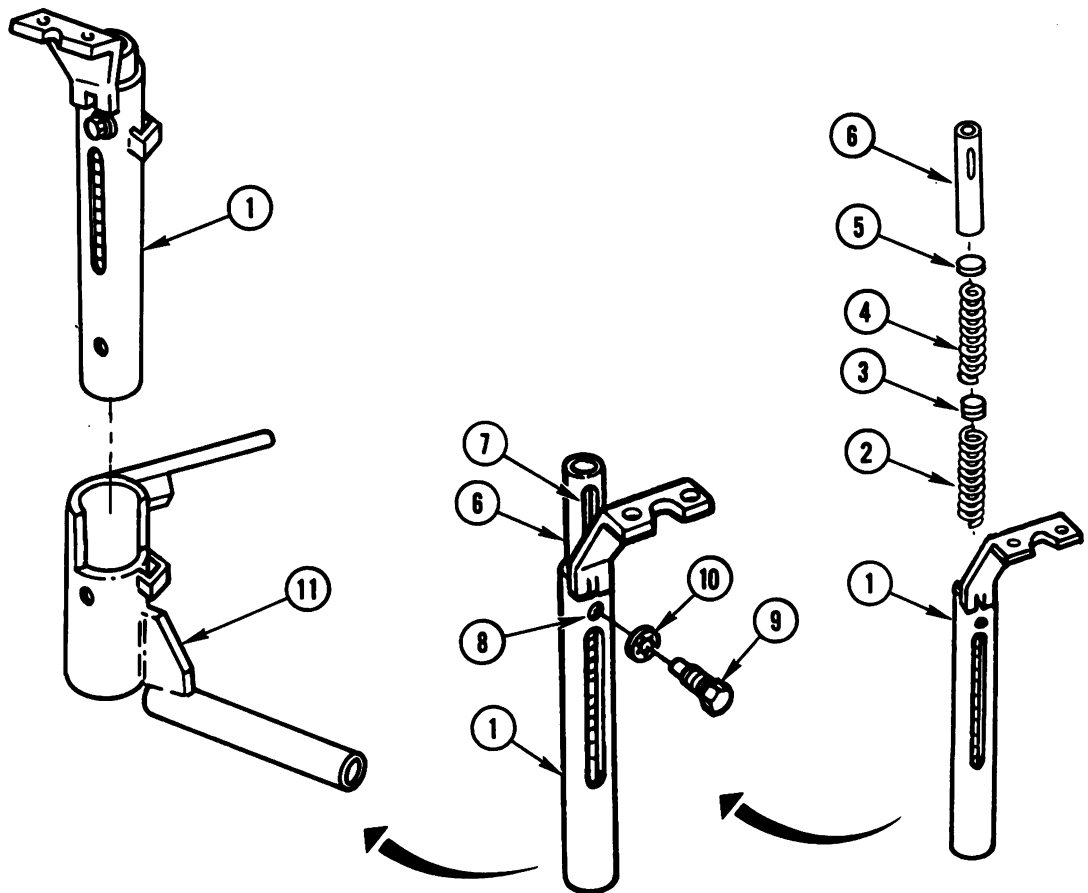
Soldier B: 1. Hold post (1) straight up. Drop spring (2), guide (3), spring (4), stop (5), and tube (6) in post (1).

Soldier B: 2. Push tube (6) down and line up slot (7) in tube (6) and setscrew hole (8) in post (1).

Soldier A: 3. Screw in setscrew (9) and new lockwasher (10) with socket and handle. Torque setscrew (9) between 70 and 84 pound feet (95 and 114 Netwon meters) with deep style socket and wrench.

Soldier A: 4. Slide support (11) on bottom end of post (1) and line up hole in support (11) with hole in post (1).

GO TO FRAME 15



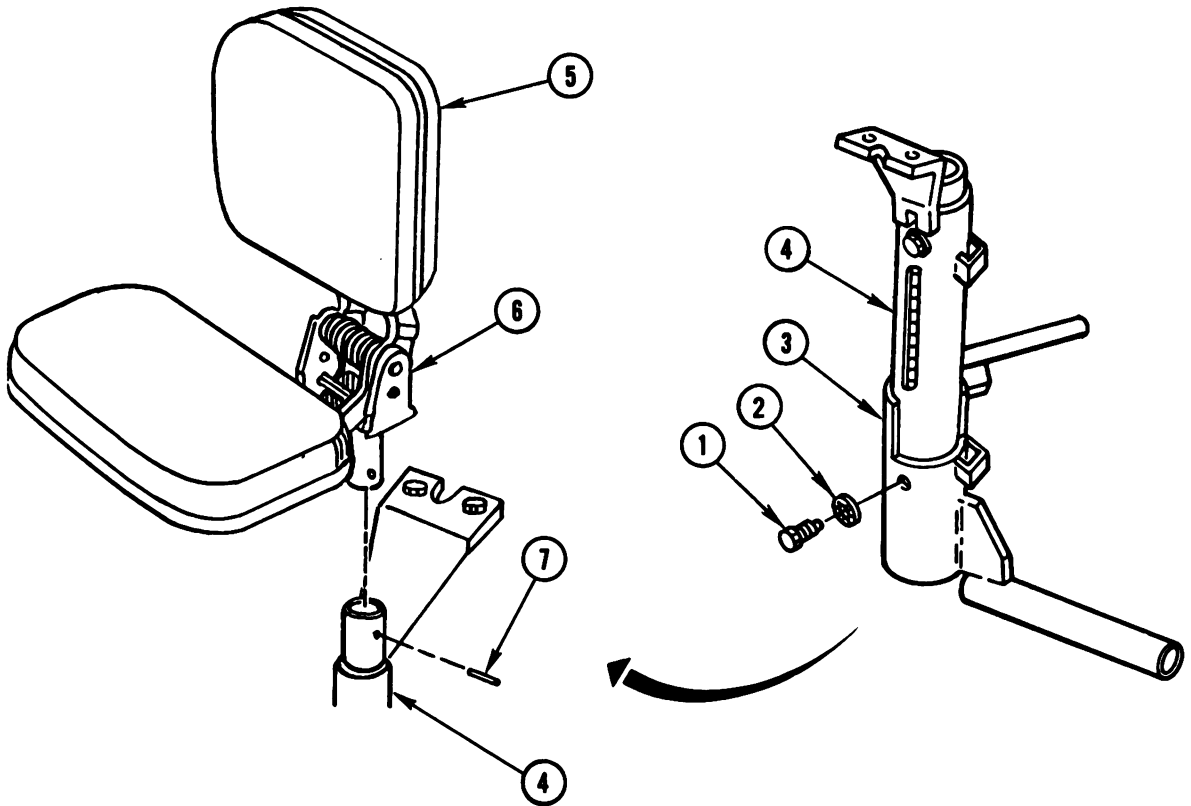
ARR82-0409

FRAME 15**Install Seat:**

- Soldier A:** 1. Screw setscrew (1) and new lockwasher (2) in support (3) and post (4) with socket and handle. Torque setscrew (1) between 70 and 84 pound feet (95 and 114 Newton meters) with deep style socket and wrench.
- Soldier A:** 2. Put seat (5) on post (4). Line up hole in hinge bracket (6) with hole in post (4). Drive new pin (7) in hinge bracket (6) and post (4) with hammer and punch.

Follow-on Maintenance:

1. Install height adjustment locking pins; refer to task 11.
2. Install lower platform and footrest; refer to task 12.
3. Install intermediate platform and spring; refer to task 13.
4. Install commander's seat, post, and retainer assembly; refer to task 18.

TASK 10 ENDS HERE

ARR82-0410

TASK 11. Install Height Adjustment Locking Pin

Applicability: All Models

Common Tools:

Hammer, ball peen
Pliers, long round nose
Punch, drive pin, tapered, 3/32-inch
Screwdriver, flat tip

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Brush, acid swabbing (Item 13)
Pin, spring (96906) MS9048-108
Sealing Compound, MIL-S-46163 (Item 49)

Personnel: Two

Soldier A: Installs height adjustment pin.
Soldier B: Helps Soldier A:

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove height adjustment locking pin; refer to task 8.

FRAME 16

Install Pin:

NOTE

- There are two locking pins (1) in commander's seat assembly (2). Use this task to put in either locking pin (1).
- If knob (3) was taken off locking pin (1), do step 1. If knob (3) was not taken off locking pin (1), go to step 2.

Soldier A: 1. Spread sealing compound on threads (4) of locking pin (1) with brush. Screw on and tighten knob (3) to locking pin (1).

Soldier B: 2. Put washer (5) and spring (6) in retainer (7) and hold in place.

Soldier A: 3. Slide locking pin (1) through hole in retainer (7), spring (6), and washer (5). Stop when hole in locking pin (1) is through washer (5).

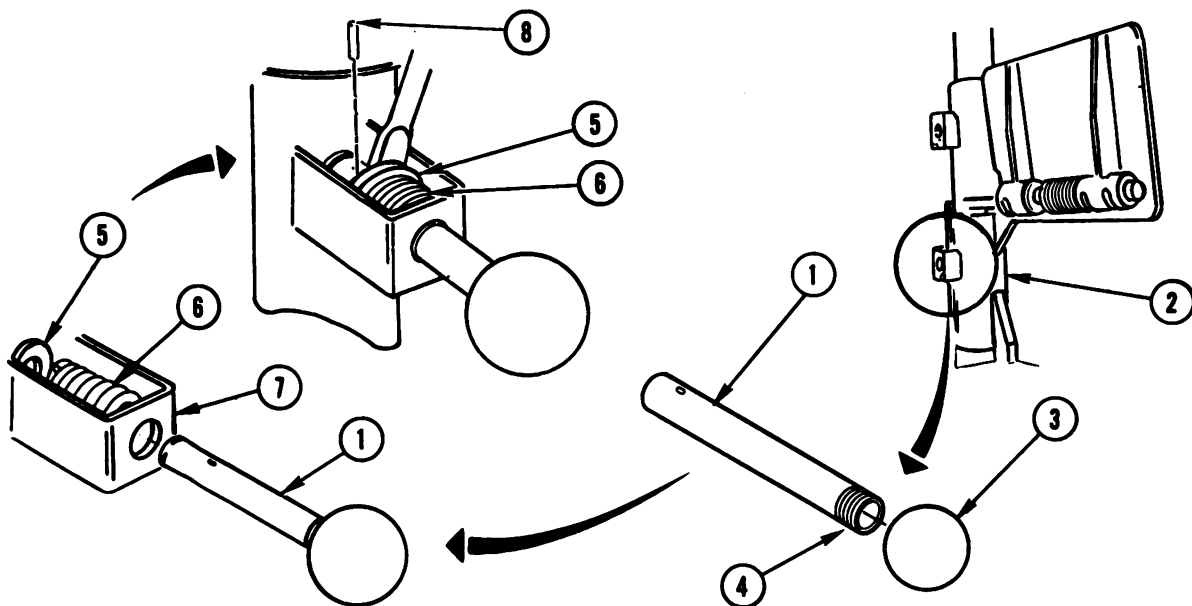
Soldier B: 4. Hold washer (5) and spring (6) back with screwdriver.

Soldier A: 5. Put new spring pin (8) part way in hole of locking pin (1) with pliers.

Soldier A: 6. Drive spring pin (8) in hole of locking pin (1) with hammer and punch. Spring pin (8) should stick out the same length on both sides of locking pin (1).

Follow-on Maintenance: None

TASK 11 ENDS HERE



ARR82-0411

TASK 12. Install Lower Platform and Footrest

Applicability: All Models

Common Tools:

Drift pin, 1/2-inch
Hammer, ball peen
Pliers, long round nose

Special Tools: None

Supplies:

Pin, cotter (96906) MS24665-283 (two required)
Pin, spring (96906) MS39086-289 (three required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove lower platform and footrest; refer to task 7.

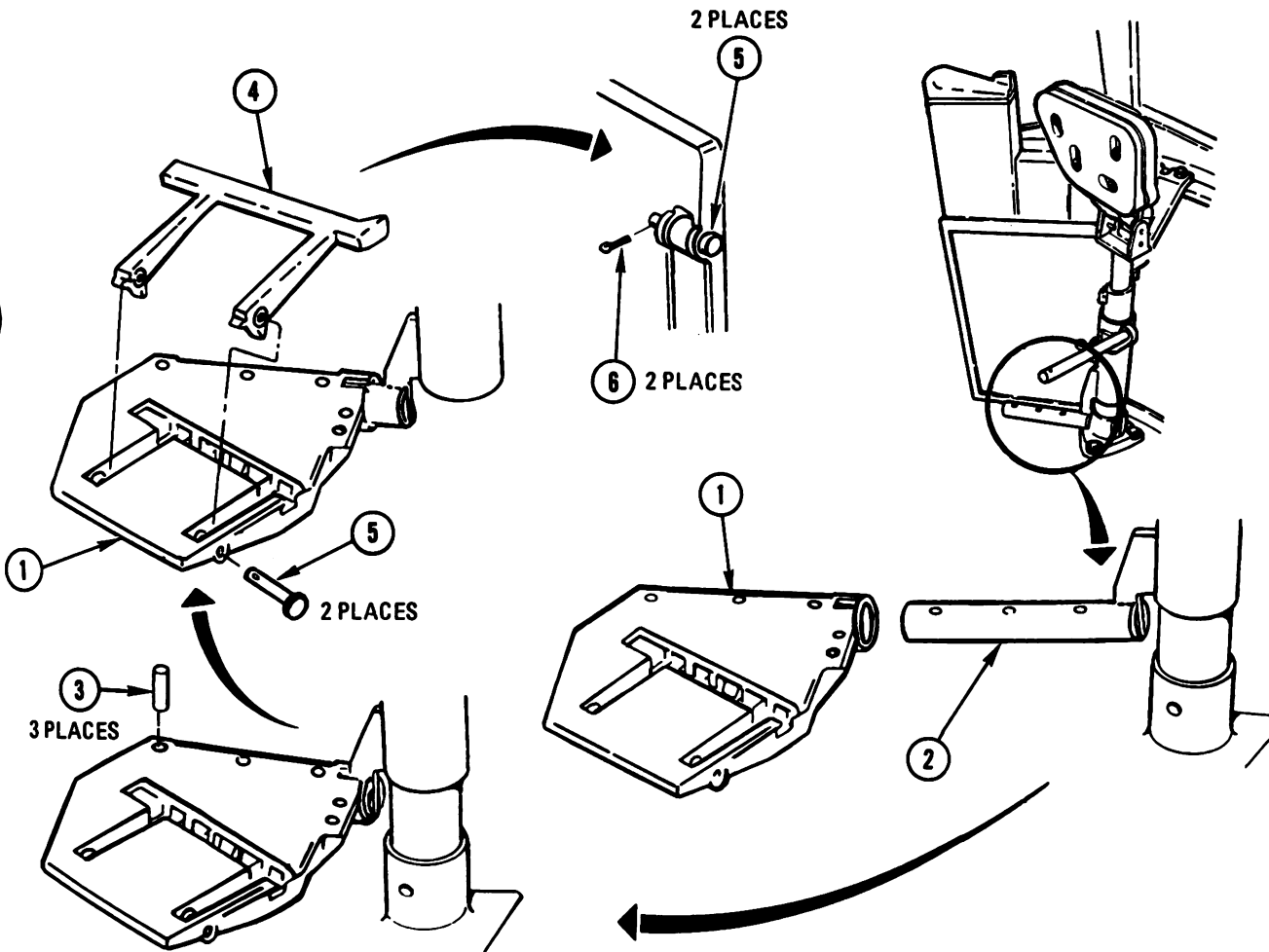
FRAME 17

Install Lower Platform and Footrest:

1. Slide platform (1) on support arm (2).
2. Line up holes in platform (1) with holes in arm (2). Drive in three new spring pins (3) with hammer and drift pin.
3. Line up footrest (4) inside platform (1) and put in two straight pins (5).
4. Put two new cotter pins (6) in straight pins (5) with pliers.

Follow-on Maintenance: None

TASK 12 ENDS HERE



ARR82-0412

TASK 13. Install Intermediate Platform and Spring

Applicability: All Models

Common Tools:

Bar, pry
Hammer, ball peen
Handle, socket wrench, ratchet, 3/8-inch square drive
Punch, drive pin, tapered, 1/4-inch
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

Pin, spring (96906) MS39086-172

Personnel: Two

Soldier A: Installs intermediate platform and spring.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove intermediate platform and spring; refer to task 6.

FRAME 18

Install Platform:

Soldier A: 1. Put spring (1) in place on platform (2).

Soldier A: 2. Slide platform (2) and spring (1) on support arm (3).

Soldier A,
Soldier B: 3. Fold platform (2) down and to the right. Tap in new pin (4) with hammer and punch until pin (4) engages hook in end of spring (1) and bottoms on platform (2).

Soldier A,
Soldier B: 4. Fold platform (2) up and to the left until screws (5) and spacers (6) in four places can be put in. Screw in and tighten four screws (5) and spacers (6) with socket and handle.

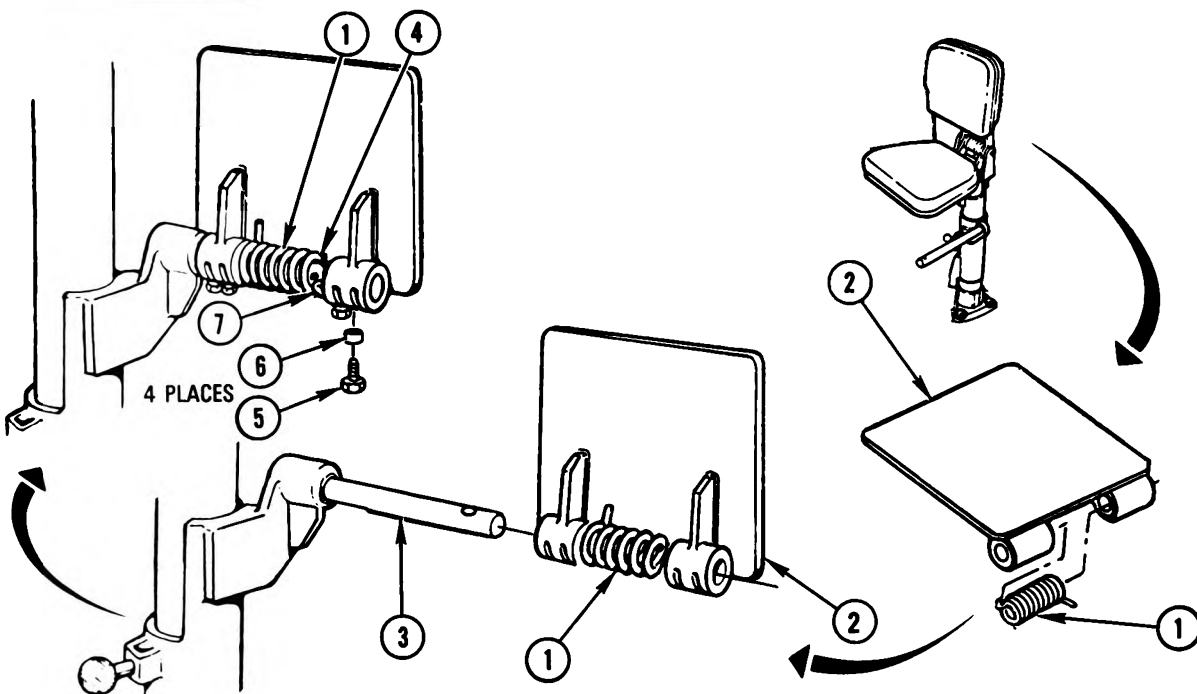
Soldier A: 5. Torque four screws (5) between 360 and 420 pound inches (40 and 47 Newton meters).

Soldier A,
Soldier B: 6. Wind spring (1) around support arm (3) until tight. Put hook (7) on spring (1) over pin (4) with pry bar.

Soldier A: 7. Fold platform (2) up and down two or three times. Make sure that spring (1) holds platform (2) up. If not, do steps 6 and 7 again.

Follow-on Maintenance: None

TASK 13 ENDS HERE



ARR82-0413

TASK 14. Install Hinge Bracket

Applicability: All Models

Common Tools:

Hammer, ball peen

Oiler, hand

Punch, drive pin, tapered, 5/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Lubricating Oil, VV-L-800 (Item 65)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove hinge bracket; refer to task 5.

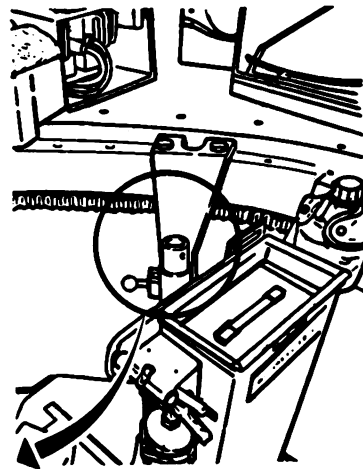
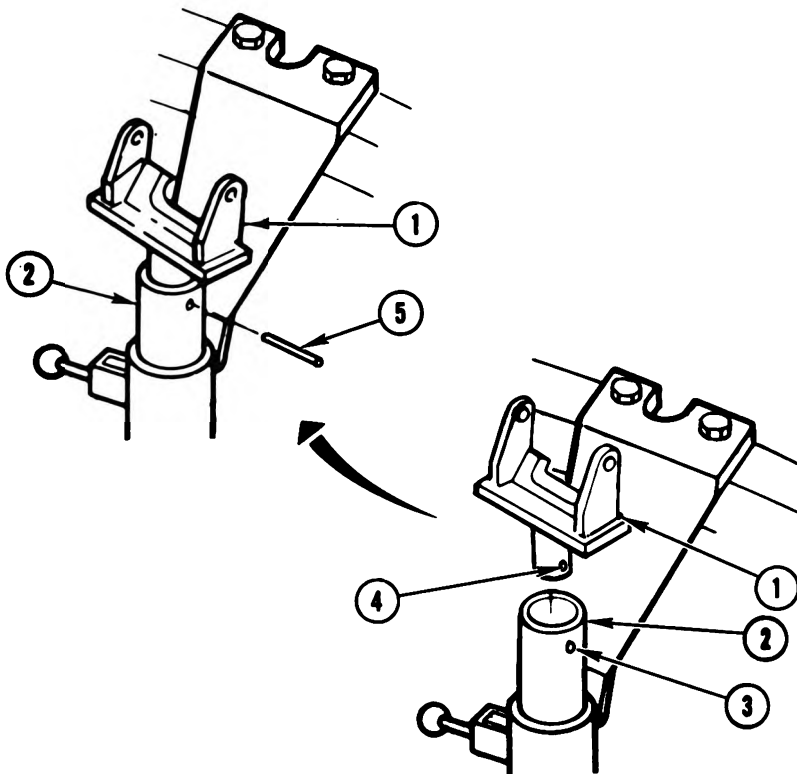
FRAME 19**Install Bracket:**

1. Slide hinge bracket (1) in tube (2). Line up tube hole (3) with hinge hole (4).
2. Drive pin (5) in tube (2) and bracket (1) with hammer and punch.
3. Raise tube (2) to full up position. Spread a light coat of oil to entire surface of tube (2) with oiler. Lower tube (2).

Follow-on Maintenance:

Install seat assembly, seat back assembly, and spring; refer to task 15.

TASK 14 ENDS HERE



ARR82-0414

TASK 15. Install Seat Assembly, Seat Back Assembly, and Spring

Applicability: All Models

Common Tools:

Hammer, ball peen
Oiler, hand
Punch, drive pin, 3/32-inch
Punch, drive pin, 5/16-inch
Punch, drive pin, 3/8-inch
Vise, machinist's

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lubricating Oil, VV-L-800 (Item 65)
Pin, spring (96906) MS16562-38 (two required)

Personnel: Two

Soldier A: Installs seat assembly, seat back assembly, and spring.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove seat assembly, seat back assembly, and spring; refer to task 4.

FRAME 20

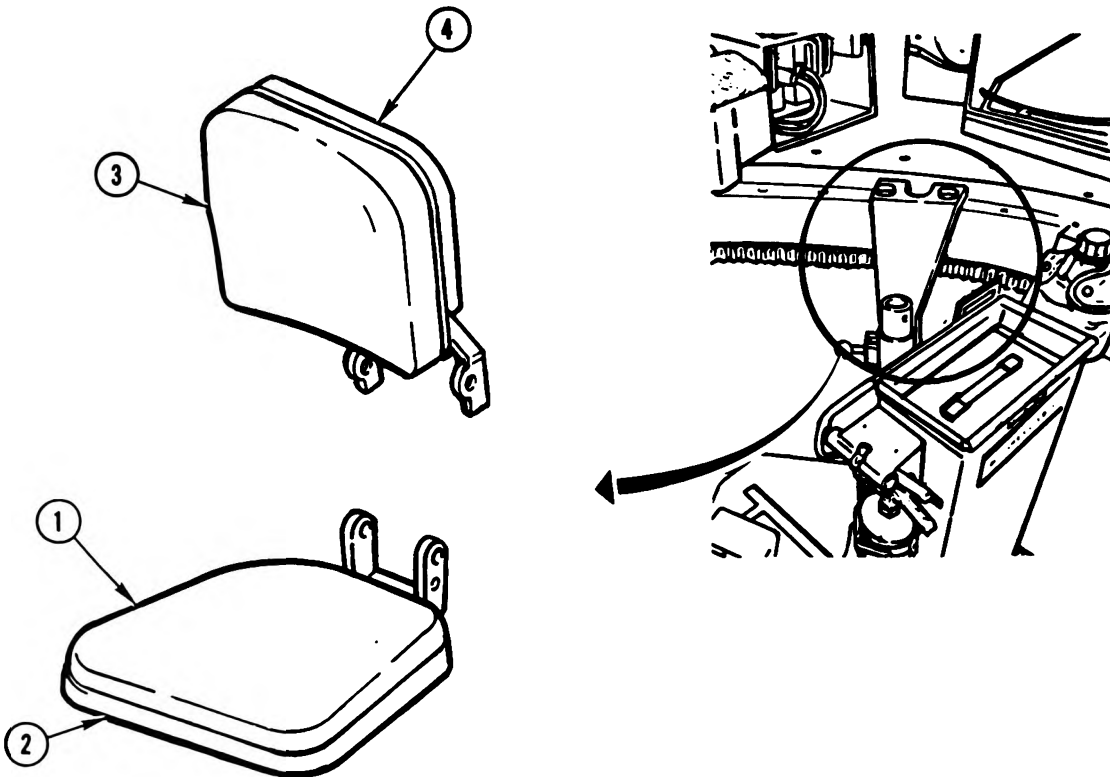
Install Seat Assembly, Seat Back Assembly, and Spring:

NOTE

- If seat pan (1) was taken off seat assembly (2), do step 1.
- If seat back (3) and pad (4) were taken off, do step 2.

1. Install seat pan; refer to task 16. Then go to frame 21.
2. Install seat back and pad; refer to task 17. Then go to frame 21.

GO TO FRAME 21



ARR82-0415

FRAME 21

Install Seat Assembly, Seat Back Assembly, and Spring (Continued):

Soldier A: 1. Remove hinge bracket (1); refer to task 5.

Soldier A: 2. Put hinge bracket (1) in vise.

Soldier A: 3. Drive two pins (2) partway out of hinge bracket (1) with hammer and 3/32-inch punch until pins (2) are even with inside surface of hinge bracket (1).

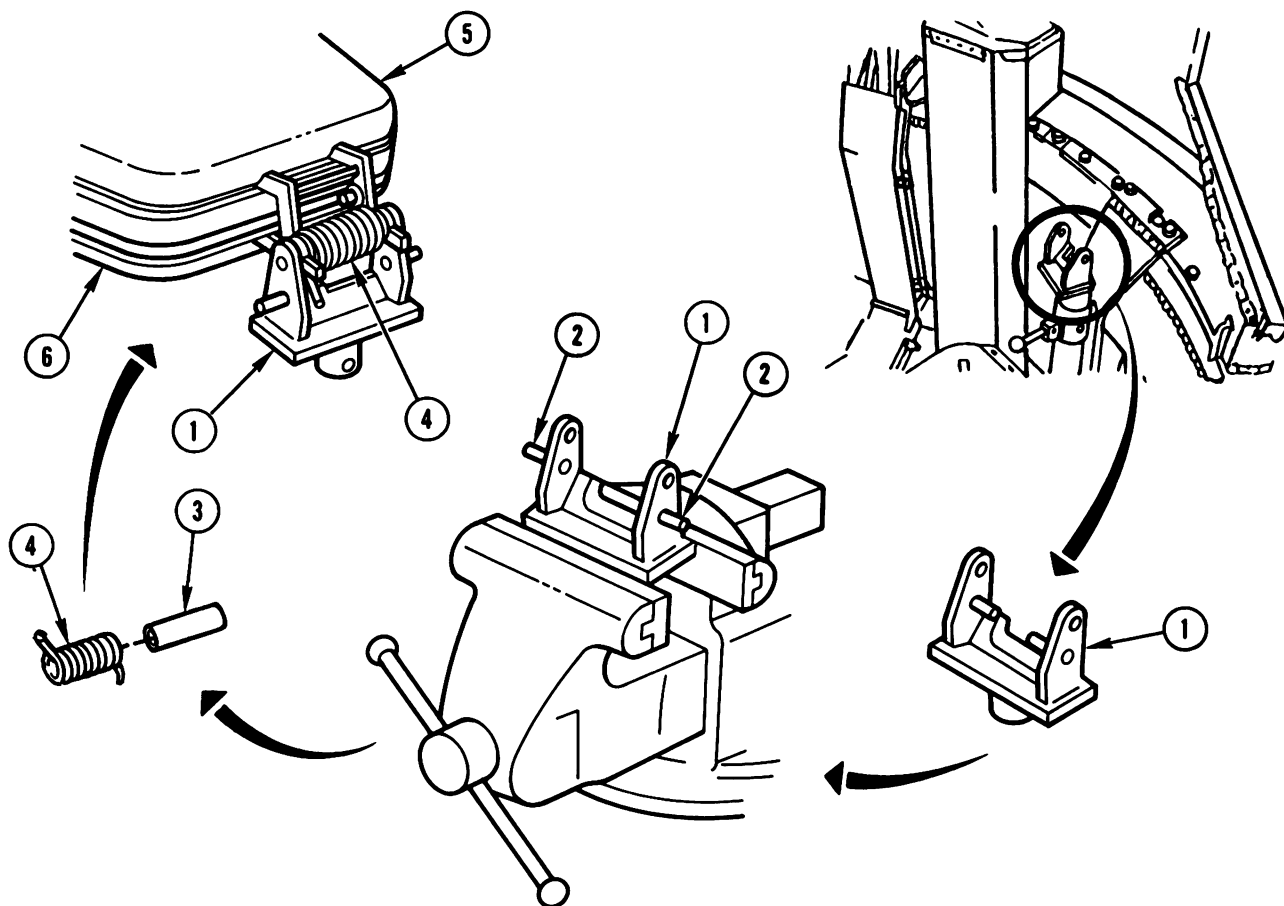
Soldier A: 4. Take hinge bracket (1) out of vise.

Soldier A: 5. Put sleeve bushing (3) inside of spring (4).

Soldier A,

Soldier B: 6. Put spring (4), sleeve bushing (3), seat back assembly (5), and seat assembly (6) inside hinge bracket (1).

GO TO FRAME 22



ARR82-0416

FRAME 22

Install Seat Assembly, Seat Back Assembly, and Spring (Continued):

Soldier A,

Soldier B: 1. Put straight end (1) of spring (2) against surface of hinge bracket (3).

Soldier A,

Soldier B: 2. Put hooked end (4) of spring (2) around pin (5) on seat back assembly (6).

Soldier A:

3. Align pin (7) with holes in hinge bracket (3), seat back assembly (6), and seat assembly (8).

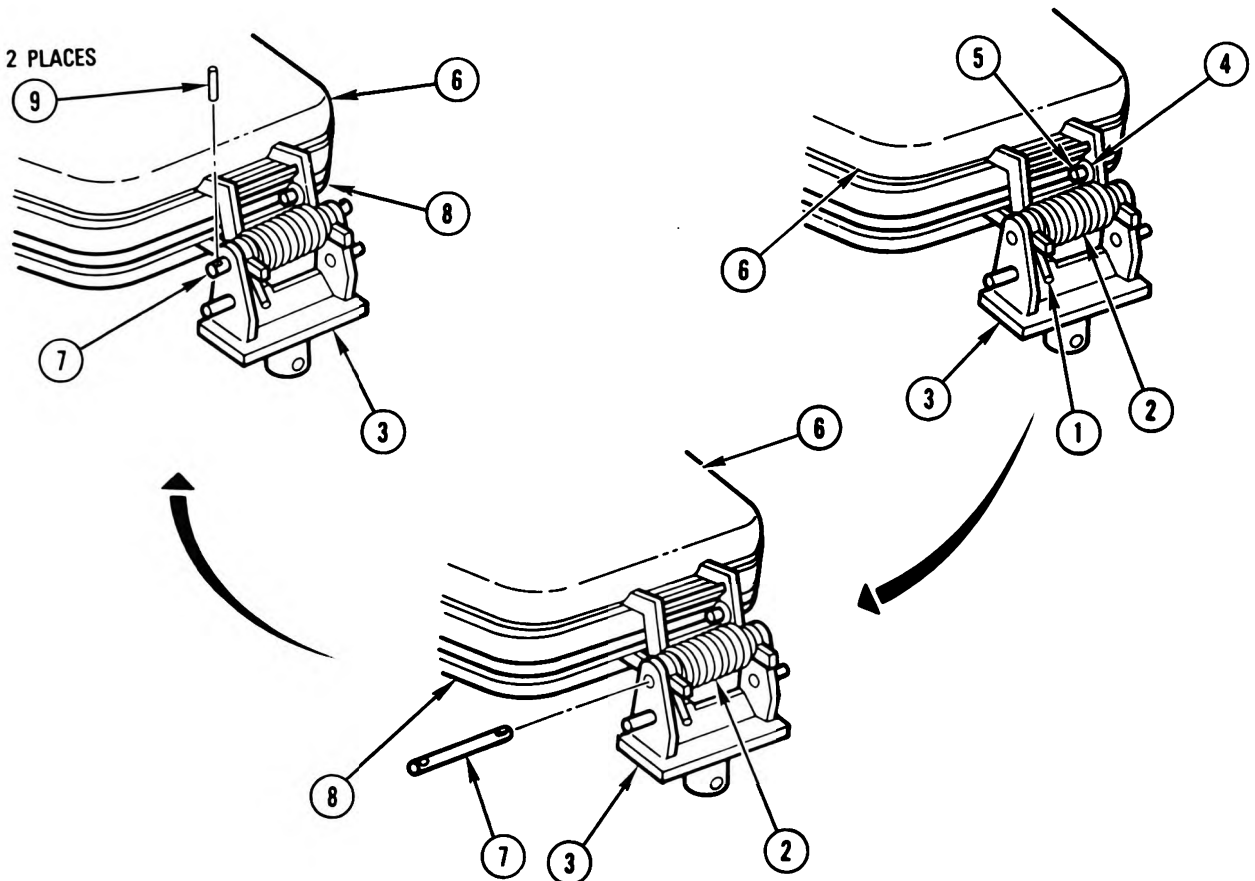
Soldier A:

4. Drive pin (7) through hinge bracket (3), seat back assembly (6), seat assembly (8), and spring (2) with hammer and 3/8-inch punch.

Soldier A:

5. Drive two new spring pins (9) in pin (7) with hammer and 3/32-inch punch.

GO TO FRAME 23



ARR82-0417

FRAME 23

Install Seat Assembly, Seat Back Assembly, and Spring (Continued):

Soldier A: 1. Put seat assembly (1) on flat surface.

Soldier B: 2. Pull up on hinge bracket (2) and hold in up position.

Soldier A: 3. Drive in two pins (3) with hammer and 3/32-inch punch.

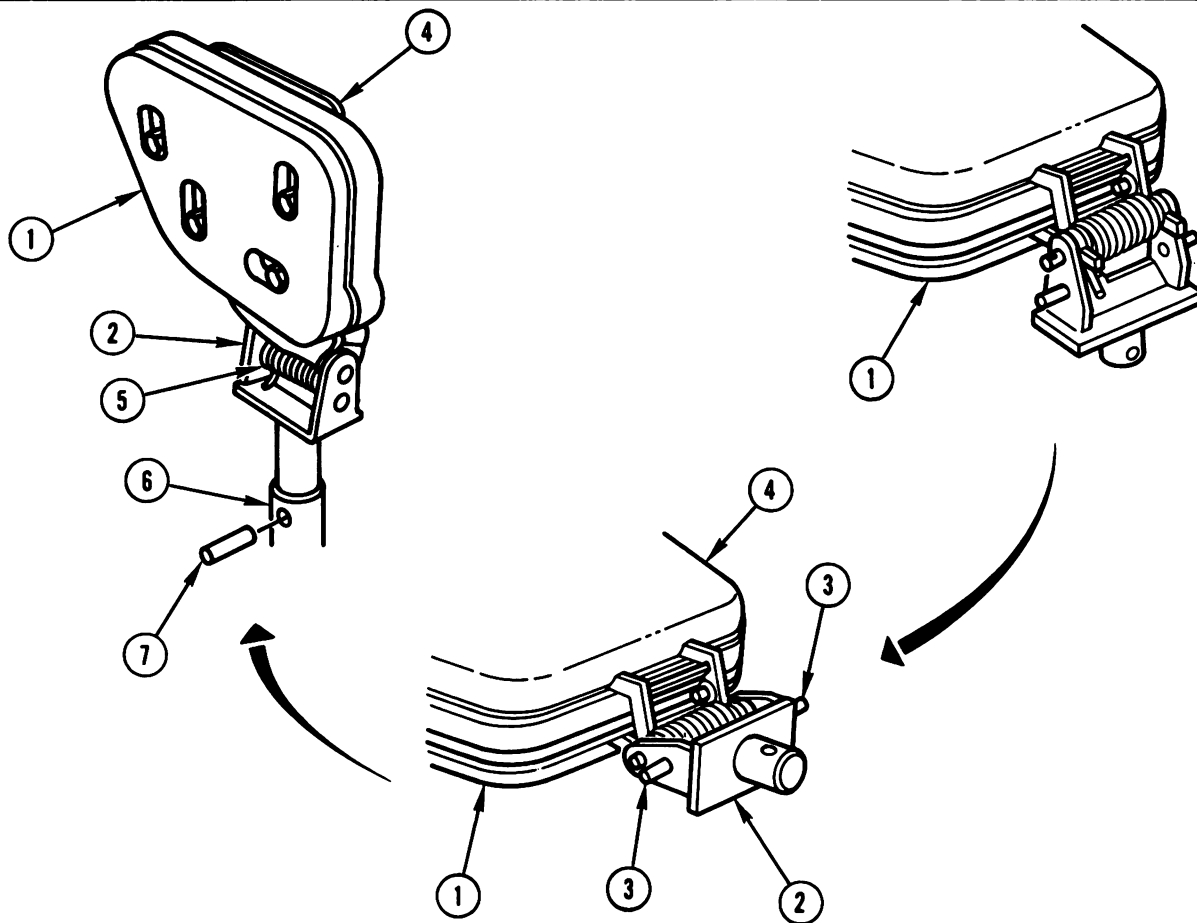
Soldier A: 4. Put seat assembly (1), seat back assembly (4), spring (5), and hinge bracket (2) in commander's seat tube (6).

Soldier A: 5. Drive pin (7) through holes in hinge bracket (2) and seat tube (6) with hammer and 5/16-inch punch.

Soldier A: 6. Raise tube (6) to full up position. Spread a light coat of oil to entire surface of tube (6) with oiler. Lower tube (6).

Follow-on Maintenance: None

TASK 15 ENDS HERE



ARR82-0418

TASK 16. Install Seat Pan

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch

Special Tools: None

Supplies:

Lockwasher (96906) MS35333-40 (four required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove seat pan; refer to task 3.

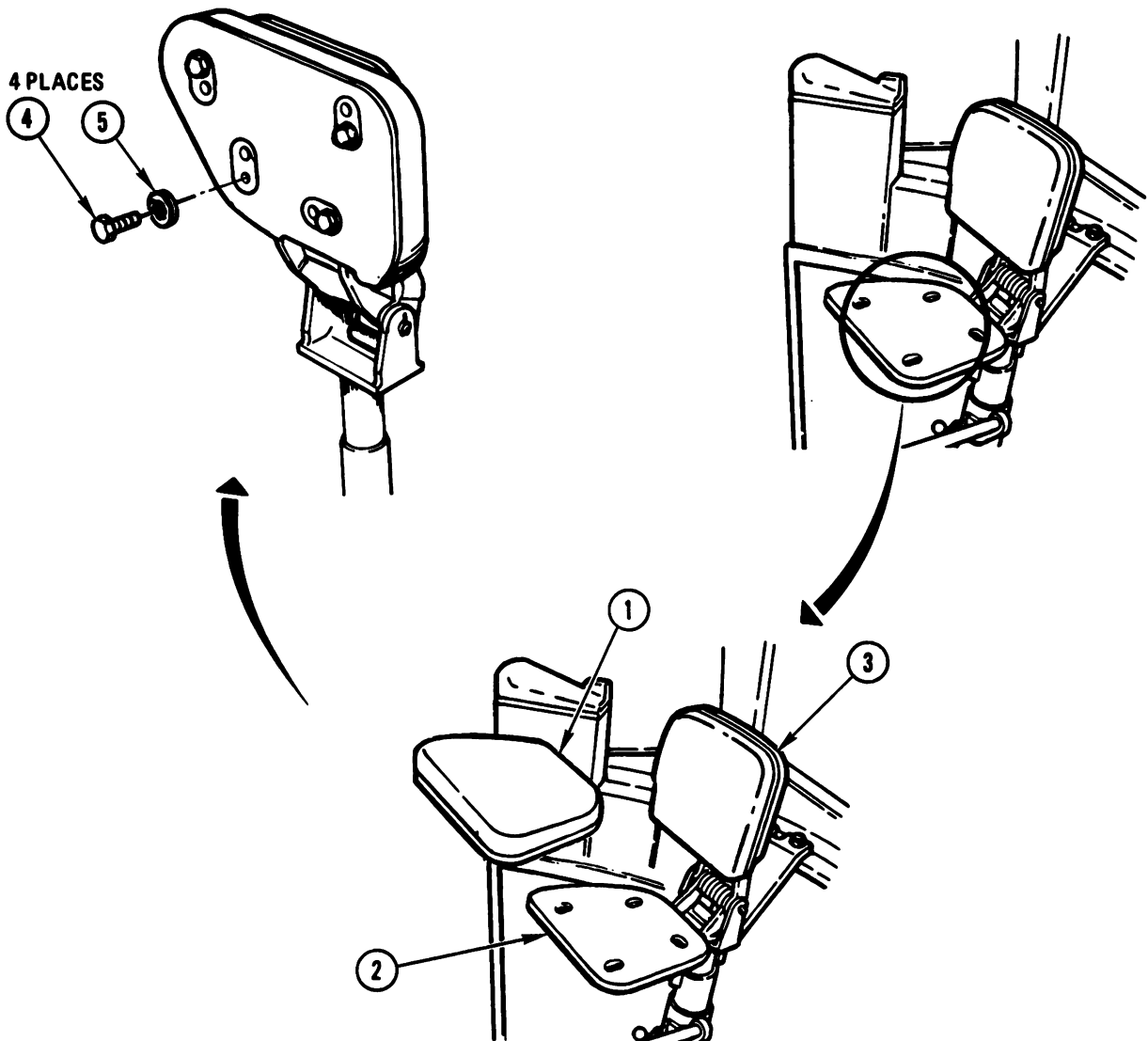
FRAME 24

Install Seat:

1. Put seat pan (1) on seat pan frame (2).
2. Fold seat pan (1) and seat pan frame (2) up against seat back assembly (3).
3. Screw in and tighten four screws (4) and new lockwashers (5) with socket, extension, and handle.

Follow-on Maintenance: None

TASK 16 ENDS HERE



ARR82-0419

TASK 17. Install Seat Back and Pad

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

Lockwasher (96906) MS35333-40 (four required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove seat back and pad; refer to task 2.

FRAME 25

Install Seat Back and Pad:

1. Put seat back (1) on seat assembly (2).
2. Fold seat back frame (3) down on seat back (1).
3. Put pad (4) on seat back frame (3).

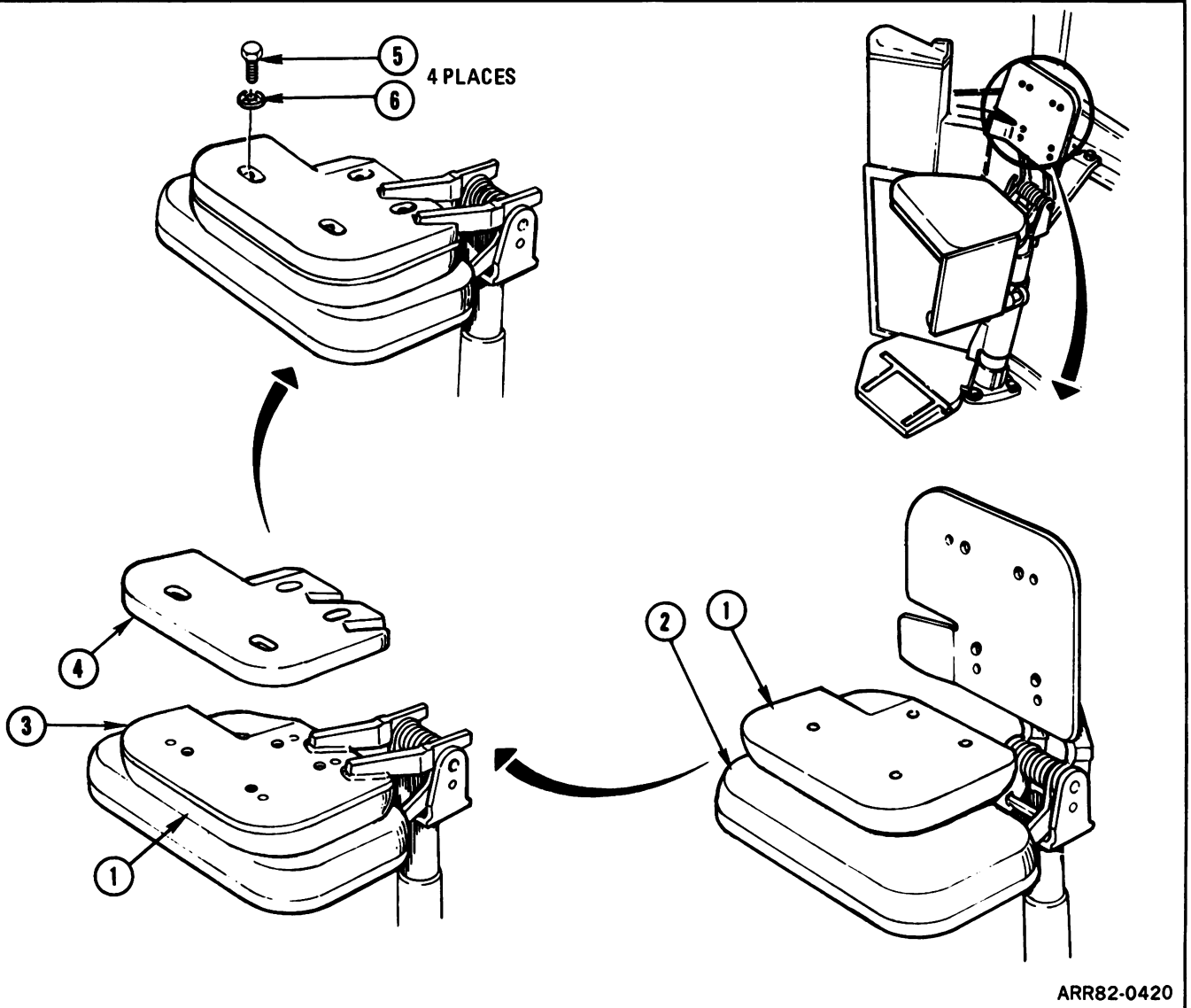
NOTE

Seat back assembly (2) may have nuts in place of screws (5).

4. Screw on four screws (5) and new lockwashers (6) with socket and handle.
5. Torque four screws (5) between 90 and 100 pound inches (10 and 11 Newton meters).

Follow-on Maintenance: None

TASK 17 ENDS HERE



ARR82-0420

TASK 18. Install Commander's Seat, Post, and Retainer Assembly**Applicability:** All Models**Common Tools:**

Drift Pin, 1/2-inch
 Extension, socket wrench, 3/8-inch square drive, 5-inch
 Hammer, ball peen
 Handle, socket wrench, ratchet, 3/8-inch square drive
 Handle, socket wrench, ratchet, 1/2-inch square drive
 Oiler, hand
 Socket, socket wrench, 3/8-inch square drive, 9/16-inch
 Socket, socket wrench, 1/2-inch square drive, 15/16-inch
 Wrench, torque, 0 to 175 foot-pounds
 Wrench, combination, 9/16-inch

Special Tools: None**Supplies:**

NOTE: Expendable supplies defined in appendix A.
 Lubricating Oil, VV-L-800 (Item 65)
 Pin (96906) MS39086-351

Personnel: Three

Soldier A: Installs seat.
 Soldier B: Helps Soldier A.
 Soldier C: Helps Soldier A.

NOTE

Soldiers A and C work in turret. Soldier B works in driver's compartment and outside tank.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove commander's seat, post, and retainer assembly; refer to task 1.

FRAME 26

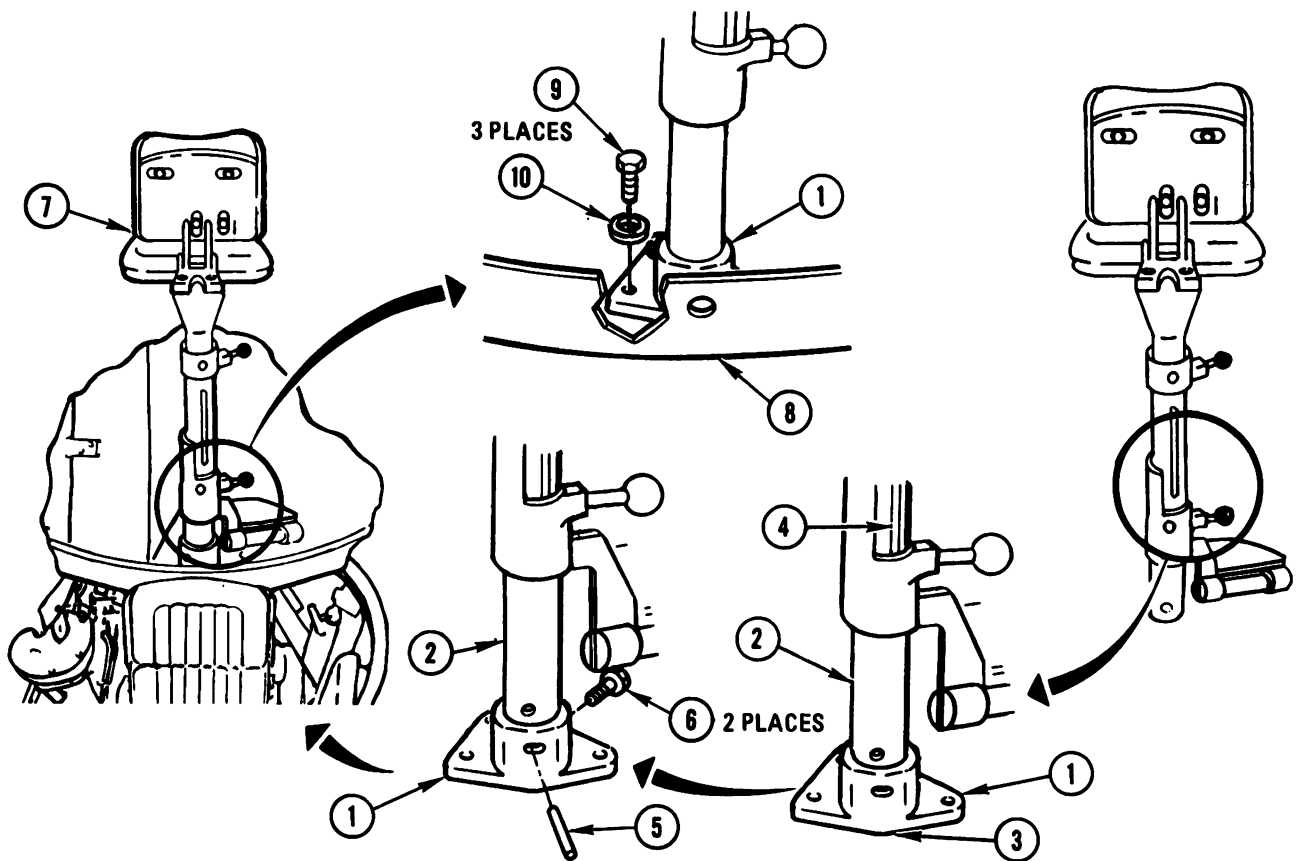
Install Retainer:

- Soldier A: 1. Put retainer (1) on post (2) with curved side (3) on same side of post (2) as slot (4).
- Soldier A: 2. Line up hole in retainer (1) with hole in post (2). Drive new pin (5) through retainer (1) and post (2) with hammer and drift pin.
- Soldier A: 3. Screw in, but do not tighten, two screws (6).

Install Seat and Post:

- Soldier B: 4. Hand seat (7) to Soldiers A and C through loader's hatch then go to driver's compartment.
- Soldier A: 5. Line up holes in retainer (1) with holes in floor (8).
- Soldier B: 6. Screw in but do not tighten three screws (9) and washers (10) with 9/16-inch socket, extension, and handle. Apply a light coat of oil to threads of three screws (9) with oiler.

GO TO FRAME 27



ARR82-0421

FRAME 27

Install Seat and Post (Continued):

Soldier A: 1. Apply a light coat of oil to threads of two screws (1) with oiler.

Soldier A: 2. Screw in and tighten two screws (1) and washers (3) in bracket (4) with 15/16-inch socket and handle. Torque two screws (1) between 150 and 160 pound feet (203 and 217 Newton meters).

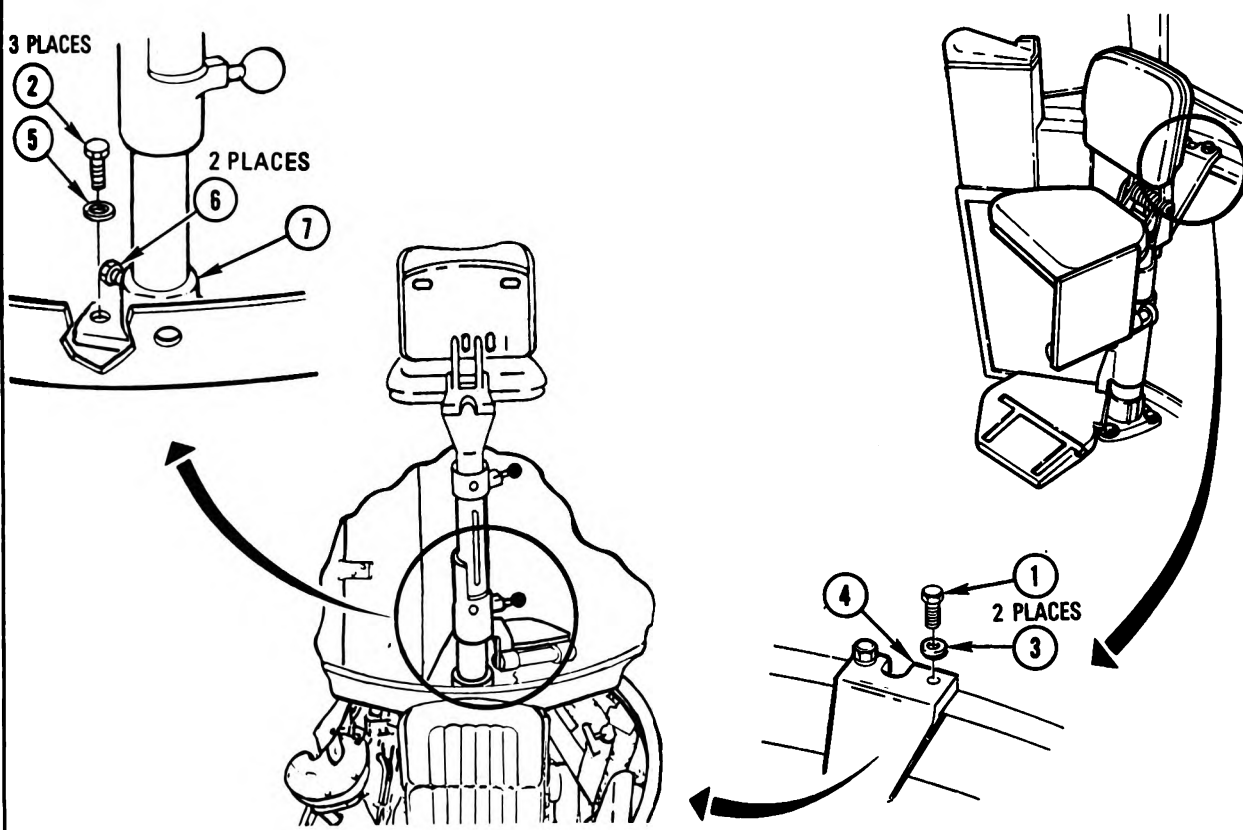
Soldier B: 3. Tighten three screws (2) and washers (5) with 9/16-inch socket, extension, and handle.

Soldier A: 4. Tighten two screws (6) in retainer (7) with 9/16-inch wrench.

Follow-on Maintenance:

Install commander's screen; refer to para. 3-16, task 18.

END OF COMMANDER'S SEAT MAINTENANCE



ARR82-0422

3-6. Gunner's Seat Assembly

Task	Title	Frames
1	Remove Gunner's Seat Assembly	1
2	Remove Seat Back Cushion and Seat	2
3	Remove Seat Frame	3
4	Remove Adjusters	4
5	Remove Seat Support	5
6	Remove Seat, Spring, and Height Adjustment Handle	6 - 7
7	Remove Pedestal	8
8	Install Pedestal	9
9	Install Seat, Spring, and Height Adjustment Handle	10 - 11
10	Install Seat Support	12
11	Install Adjusters	13
12	Install Seat Frame	14
13	Install Seat Back Cushion and Seat	15
14	Replace Adjuster Handle	16
15	Install Gunner's Seat Assembly	17

TASK 1. Remove Gunner's Seat Assembly

Applicability: All models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch Handle, socket wrench, ratchet, 3/8-inch square drive Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies: None

Personnel: Two

Soldier A: Takes out seat assembly.
 Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 1

Remove Seat Assembly:

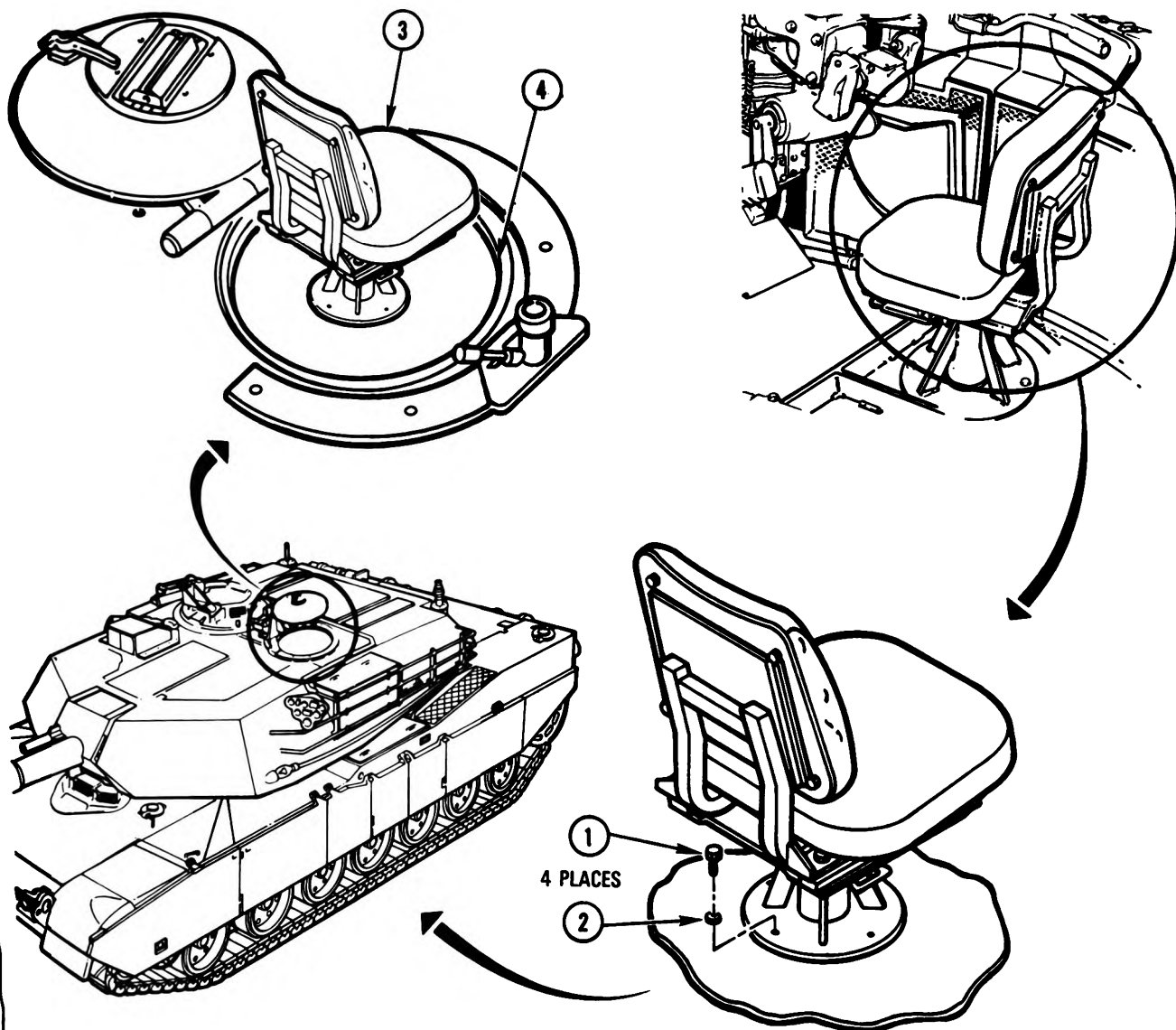
Soldier A: 1. Unscrew and take out four screws (1) and washers (2) with socket, extension, and handle.

Soldier A,
Soldier B: 2. Lift seat (3) up through loader's hatch opening (4) and place on clean work surface.

Follow-on Maintenance:

NOTE: To install gunner's seat assembly, refer to task 15.

TASK 1 ENDS HERE



ARR82-0574

TASK 2. Remove Seat Back Cushion and Seat

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 3/8-inch
Socket, socket wrench, 3/8-inch square drive, 7/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 2

Remove Seat Back Cushion:

1. Move seat to rear position; refer to TM 9-2350-255-10.
2. Unscrew and take off four screws (1), lockwashers (2), and washers (3) with 7/16-inch socket, extension, and handle. Get rid of lockwashers (2). Pull seat back cushion (4) out of seat frame (5).
3. Look at cushion (4) for cracks and tears. If bad turn in. If OK set aside for later use.

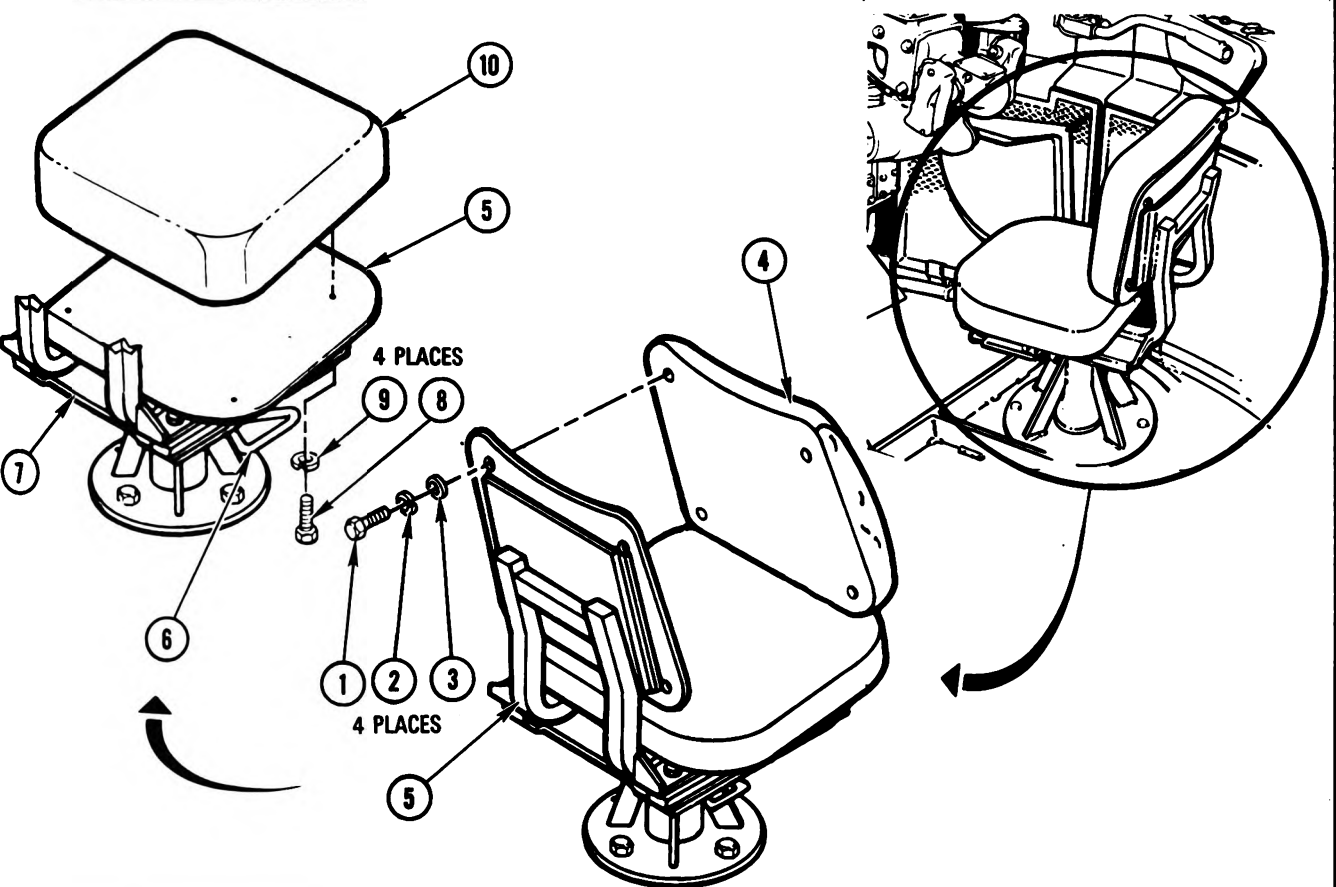
Remove Seat:

4. Lift height adjustment handle (6) and let seat support (7) come up to highest position.
5. Unscrew and take off four screws (8) and lockwashers (9) with 3/8-inch socket, extension, handle, and wrench. Pull seat (10) out of frame (5). Get rid of lockwashers (9).
6. Look at seat (10) for rips and tears. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install seat back cushion and seat, refer to task 13.

TASK 2 ENDS HERE



ARR82-0575

TASK 3. Remove Seat Frame

Applicability: All Models

Common Tools:

Wrench, combination, 9/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove seat back cushion and seat; refer to task 2.

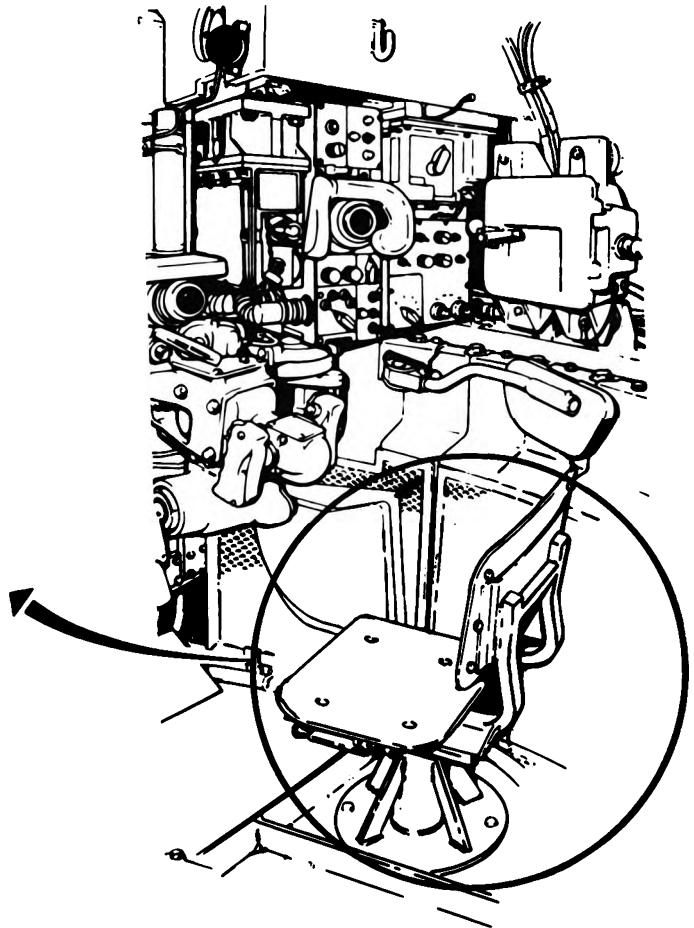
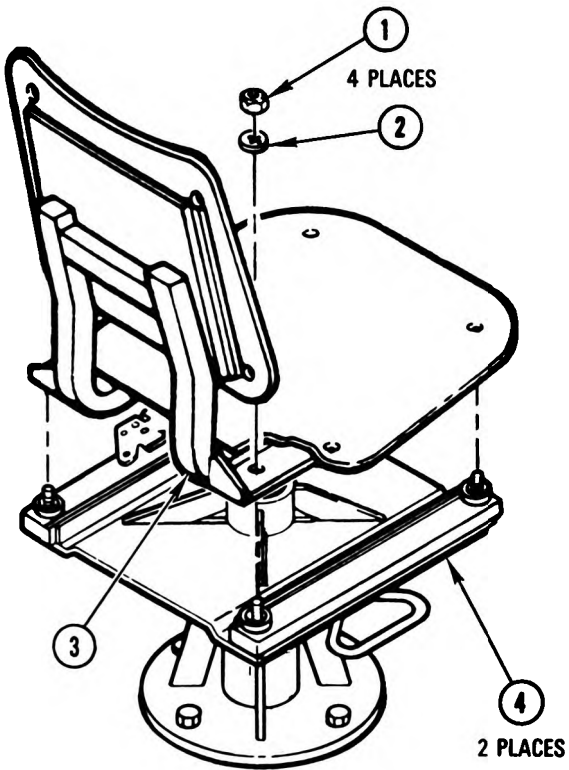
FRAME 3**Remove Frame:**

1. Unscrew and take out four nuts (1) and lockwashers (2) from frame (3) with wrench. Get rid of lockwashers (2).
2. Lift frame (3) off adjusters (4).
3. Look at frame (3) for cracks or bends. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install seat frame, refer to task 12.

TASK 3 ENDS HERE



ARR82-0576

TASK 4. Remove Adjusters

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, combination, 9/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 4

Remove Seat Frame:

1. Unscrew and take off four nuts (1) and lockwashers (2) from seat frame (3) with wrench. Get rid of lockwashers (2).
2. Lift frame (3) off adjusters (4). Set frame (3) aside for later use.

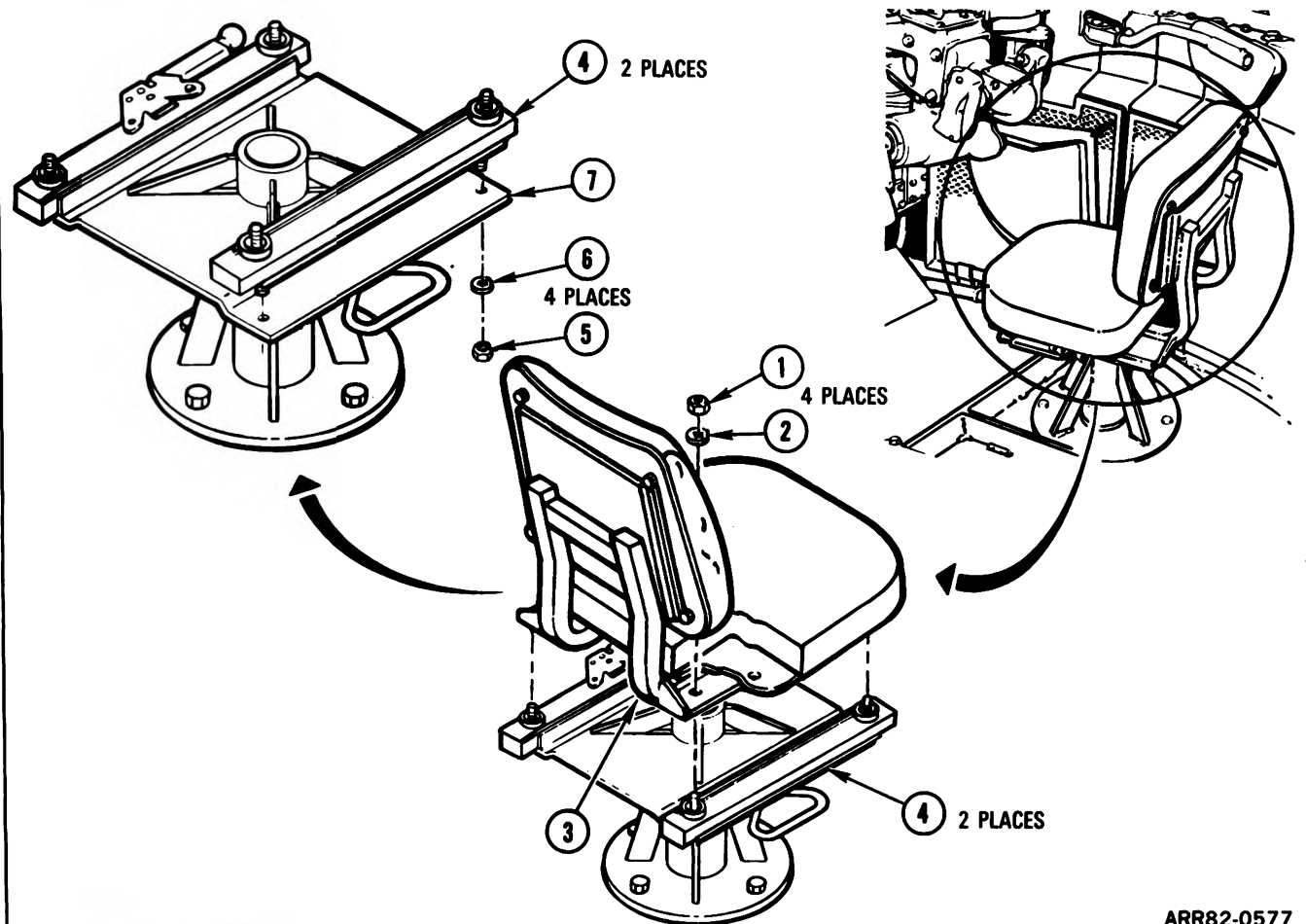
Remove Adjusters:

3. Unscrew and take off four nuts (5) and lockwashers (6) with socket and handle. Get rid of lockwashers (6).
4. Pull two adjusters (4) off seat support (7).
5. Look at adjusters (4) for cracks or bends. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install adjusters, refer to task 11.

TASK 4 ENDS HERE



ARR82-0577

TASK 5. Remove Seat Support

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 3/4-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove adjusters; refer to task 4.

FRAME 5**Remove Support:**

1. Unscrew and take out screw (1) and lockwasher (2) with socket and handle. Get rid of lockwasher (2).

WARNING

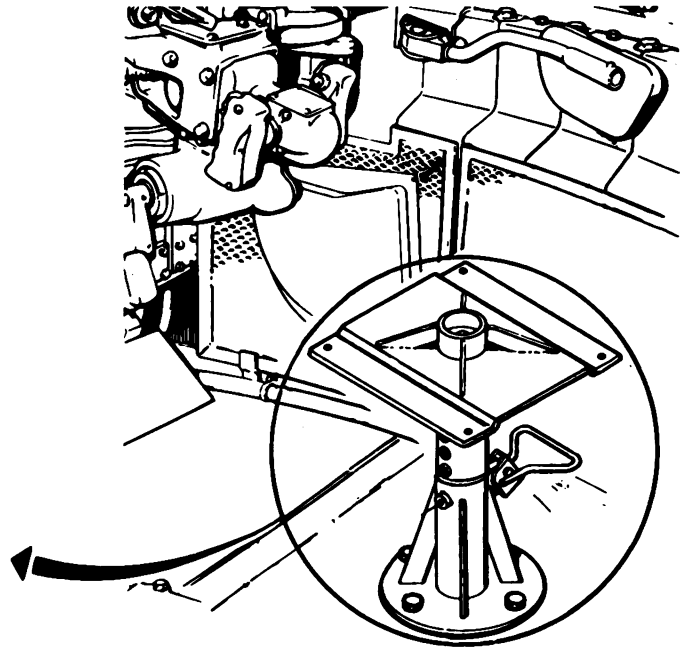
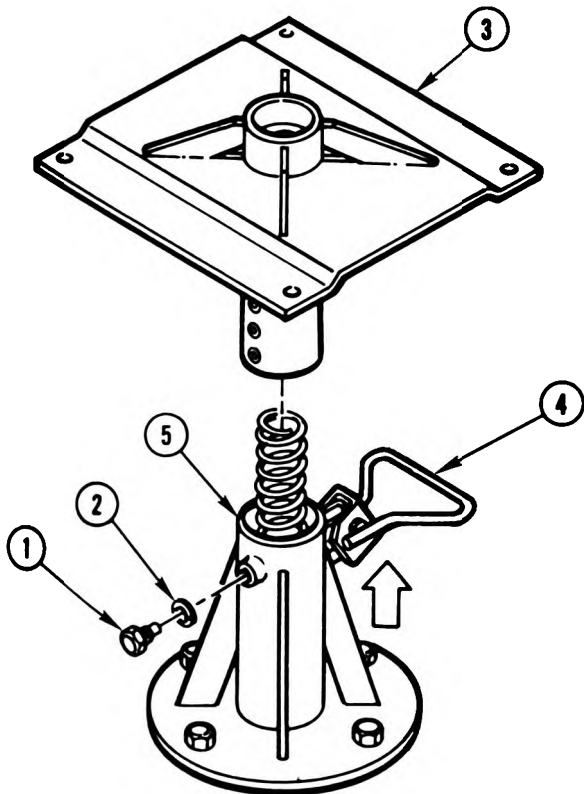
Seat support (3) may spring up when height adjustment handle (4) is pulled up. Hold support (3) in place when lifting handle (4) to avoid personnel injury.

2. Pull handle (4) up and lift support (3) out of pedestal (5).
3. Look at support (3) for cracks or bends. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install seat support, refer to task 10.

TASK 5 ENDS HERE



ARR82-0578

TASK 6. Remove Seat, Spring, and Height Adjustment Handle

Applicability: All Models

Common Tools:

Hammer, ball peen
Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, slip joint
Punch, drive pin, 3/32-inch
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Socket, socket wrench, 3/8-inch square drive, 3/4-inch
Wrench, combination, 7/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 6**Remove Seat and Spring:**

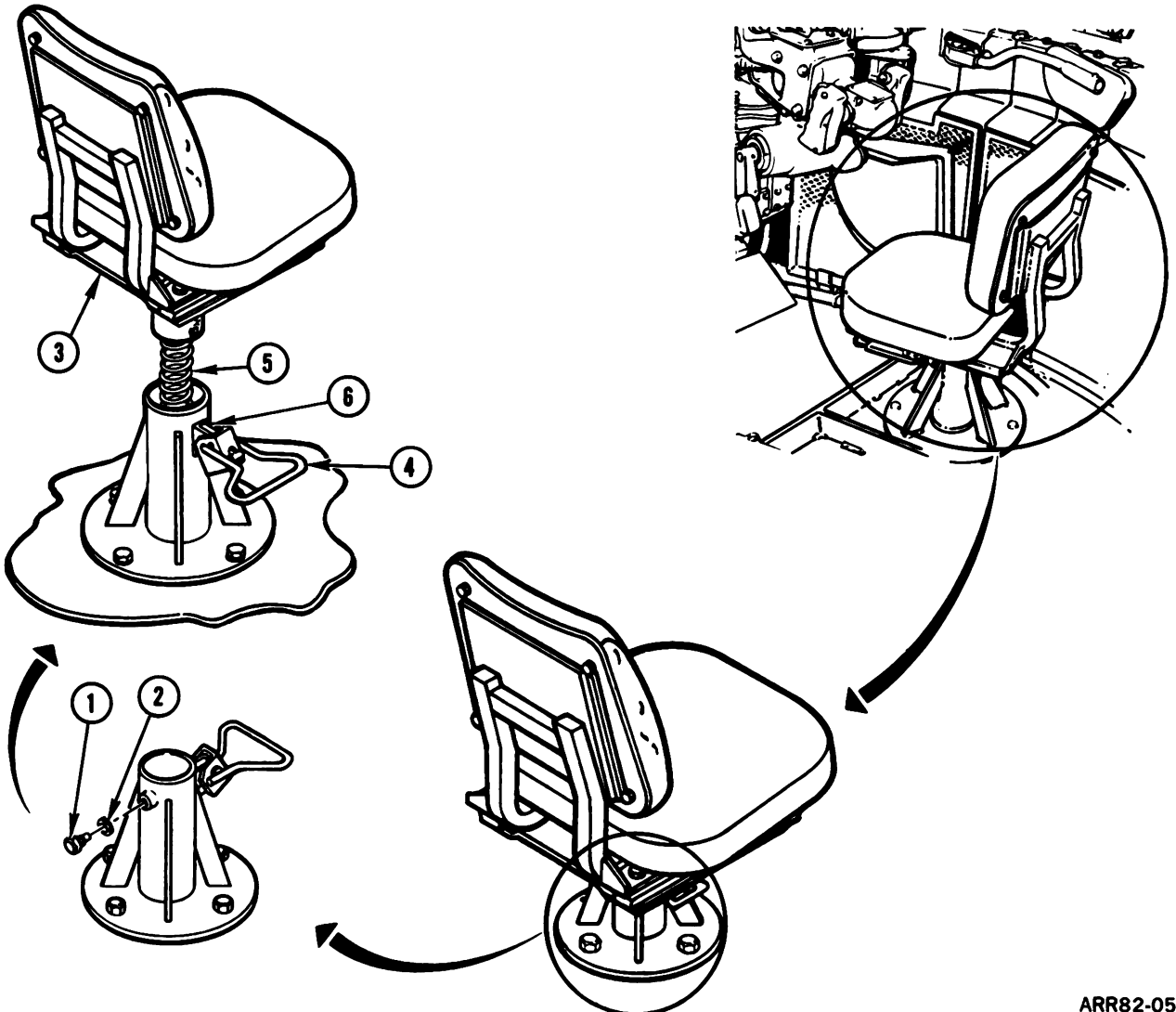
1. Unscrew and take out setscrew (1) and lockwasher (2) with 3/4-inch socket and handle. Get rid of lockwasher (2).

WARNING

Seat frame (3) may spring up when height adjustment handle (4) is pulled up. Hold frame (3) down when pulling handle (4) up to avoid personnel injury.

2. Pull handle (4) up and lift frame (3) and spring (5) out of pedestal (6). Look at frame (3) for cracks and breaks. If bad turn in. If OK set aside for later use.
3. Look at spring (5) for bends or breaks. If bad turn in. If OK set aside for later use.

GO TO FRAME 7



ARR82-0579

FRAME 7

Remove Height Adjustment Handle:

1. Unscrew and take out screw (1), washer (2), and nut (3) with 7/16-inch socket, handle, and wrench.
2. Unhook handle (4) from straight headed pin (5). Take off and look at handle (4) for cracks, bends, and breaks. If bad turn in. If OK set aside for later use.
3. Drive out spring pin (6) with hammer and punch. Get rid of pin (6).

Remove Straight Headed Pin:

4. Pull straight headed pin (5) out of bracket (7) with pliers.

NOTE

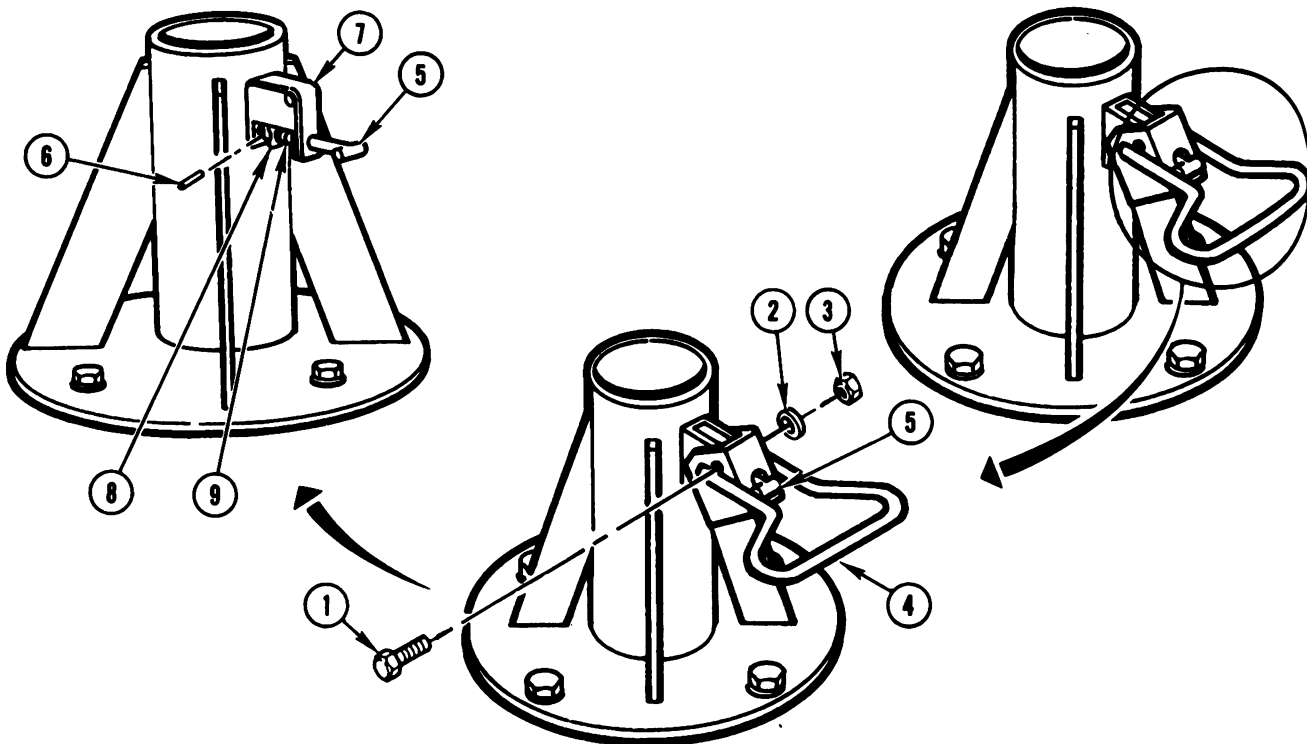
Retainer (8) and spring (9) will fall off as pin (5) comes out.

5. Look at retainer (8), spring (9), and pin (5) for bends or breaks. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install seat, spring, and height adjustment handle, refer to task 9.

TASK 6 ENDS HERE



ARR82-0580

TASK 7. Remove Pedestal

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove seat, spring, and height adjustment handle; refer to task 6.

FRAME 8

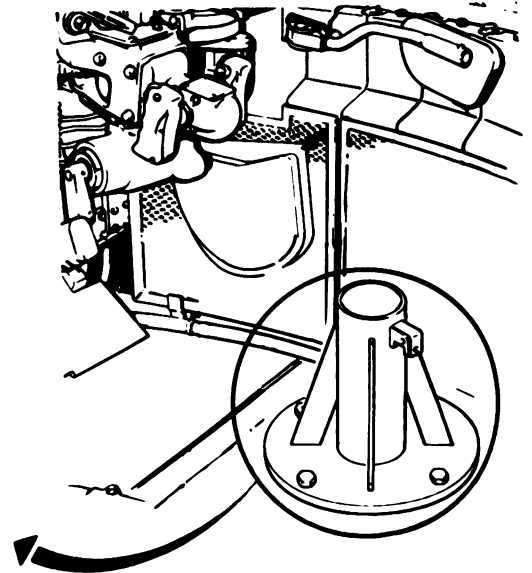
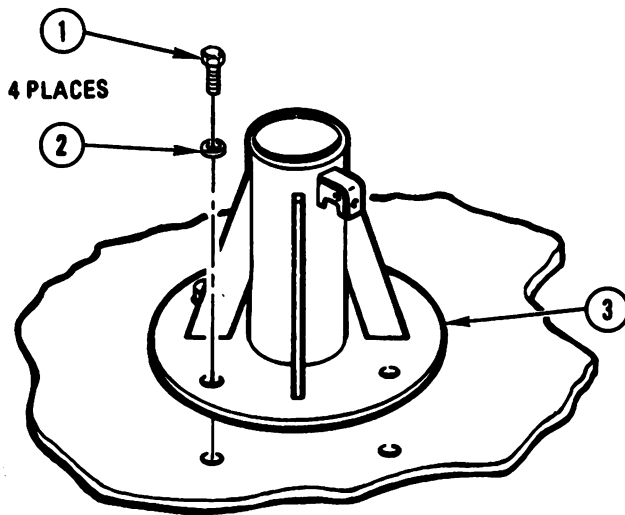
Remove Pedestal:

1. Unscrew and take out four screws (1) and washers (2) from pedestal (3) with socket, extension, and handle. Take out pedestal (3).
2. Look at pedestal (3) for cracks or bends. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install pedestal, refer to task 8.

TASK 7 ENDS HERE



ARR82-0581

TASK 8. Install Pedestal

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove pedestal; refer to task 7.

FRAME 9

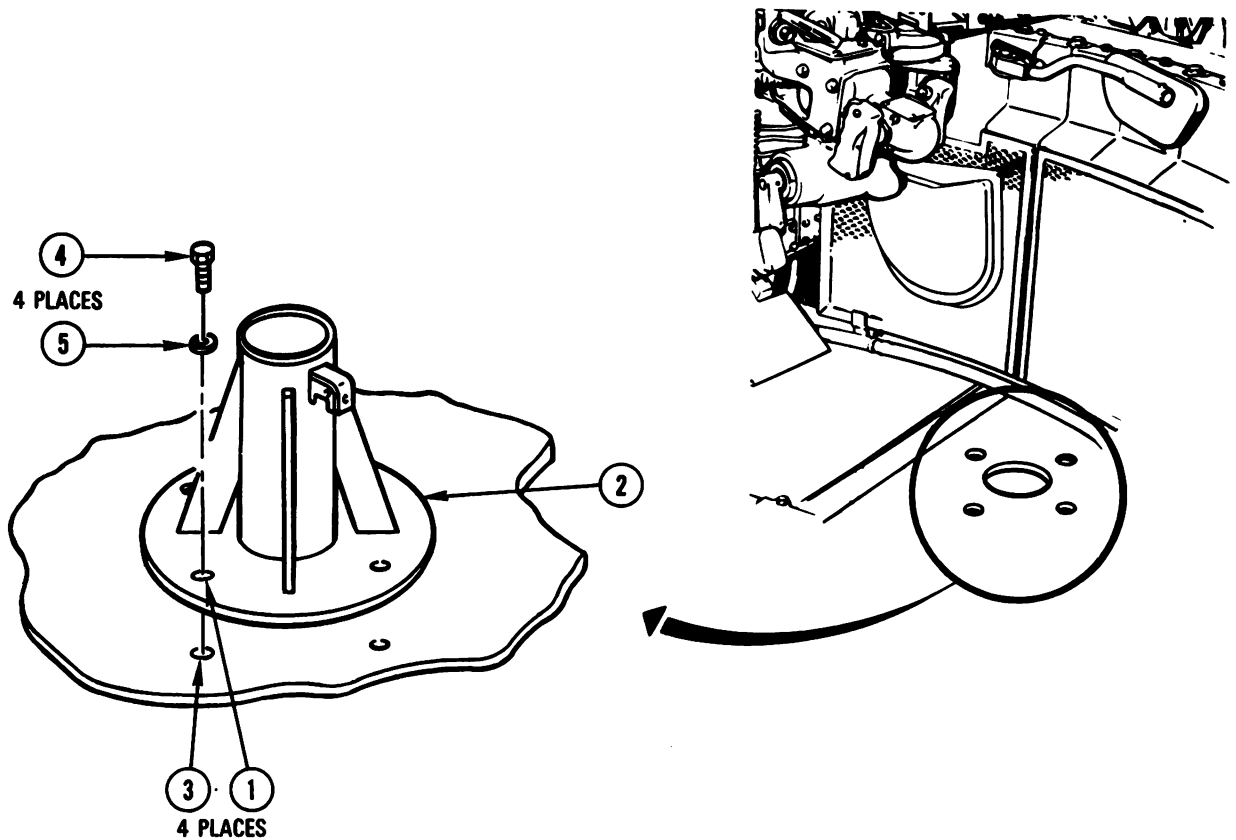
Install Pedestal:

1. Line up four holes (1) in pedestal (2) with mounting holes (3) in turret floor.
2. Screw in four screws (4) and washers (5) with socket, extension, and handle.
3. Torque screws (4) between 360 and 420 pound inches (41 and 47 Newton meters).

Follow-on Maintenance:

NOTE: To install seat, spring, and height adjustment handle, refer to task 9.

TASK 8 ENDS HERE



ARR82-0582

TASK 9. Install Seat, Spring, and Height Adjustment Handle**Applicability:** All Models**Common Tools:**

Hammer, ball peen
Handle, socket wrench, ratchet, 3/8-inch square drive
Punch, drive pin, 3/32-inch point
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Socket, socket wrench, 3/8-inch square drive, 3/4-inch
Wrench, combination, 7/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None**Supplies:**

NOTE: Expendable supplies are defined in appendix A.
Grease, GAA, MIL-G-10924 (Item 24)
Lockwasher (96906) MS 35333-44
Pin, spring (96906) MS 9048-071
Rag, wiping (Item 45)

Personnel: One**Equipment Condition:**

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove seat, spring, and height adjustment handle; refer to task 6.
2. Remove pedestal; refer to task 7.

FRAME 10

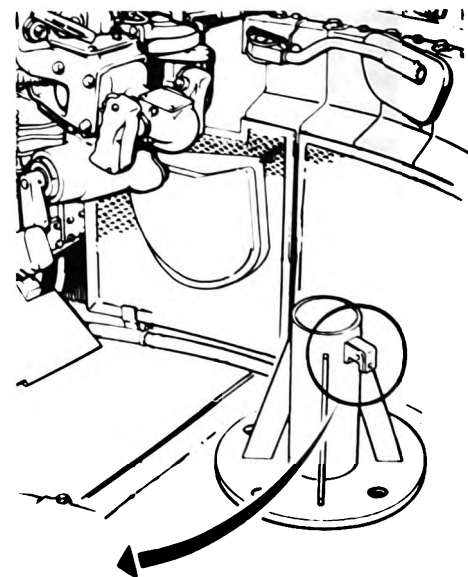
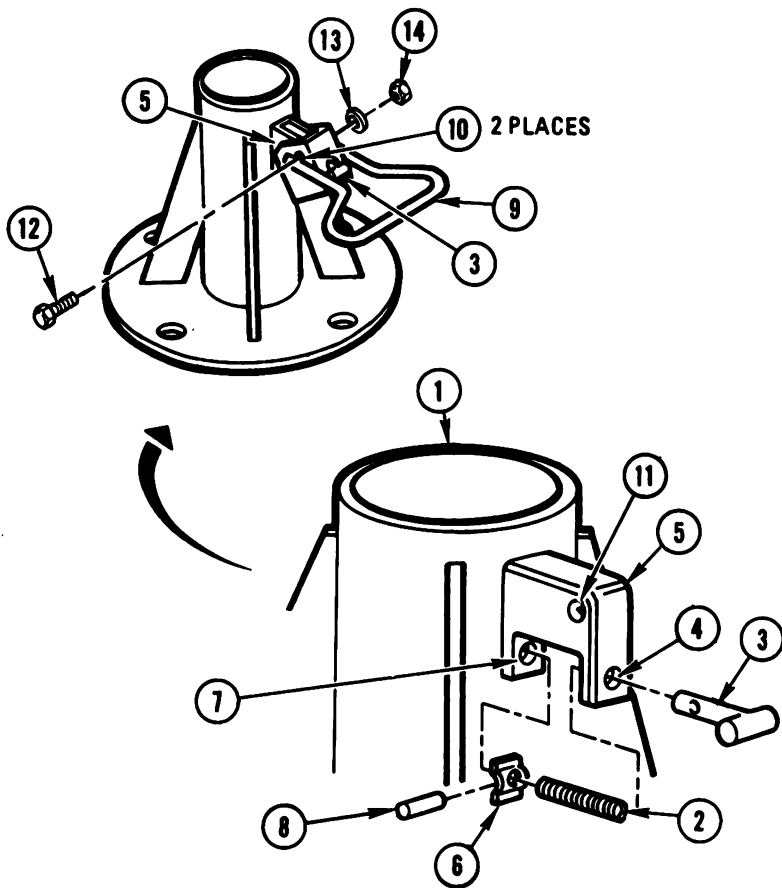
Install Straight Headed Pin:

1. Spread a light coat of grease inside pedestal (1) and on spring (2).
2. Slide straight headed pin (3) through hole (4) in bracket (5).
3. Put spring (2) and retainer (6) over end of pin (3).
4. Slide pin (3) through hole (7) in pedestal (1).

Install Height Adjustment Handle:

5. Hold pin (3) in place. Put new spring pin (8) in pin (3). Tap pin (8) in place with hammer and punch.
6. Hook handle (9) on end of pin (3). Line up holes (10) in handle (9) with hole (11) in bracket (5) and put in screw (12) and washer (13).
7. Screw on nut (14) with 7/16-inch socket, handle, and combination wrench. Torque nut (14) between 95 and 105 pound inches (11 and 12 Newton meters).

GO TO FRAME 11



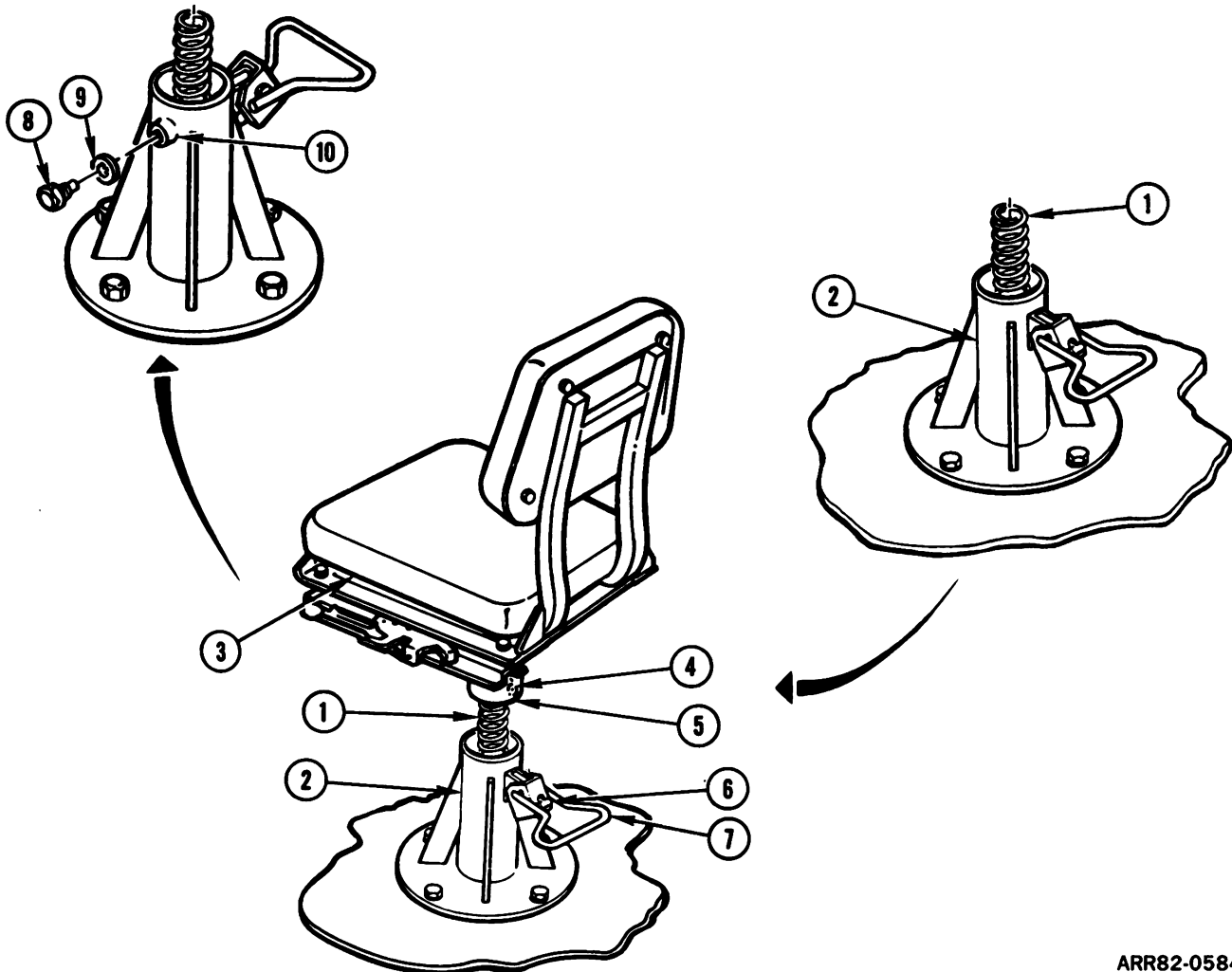
ARR82-0583

FRAME 11**Install Spring and Seat:**

1. Install pedestal; refer to task 8.
2. Slide spring (1) in pedestal (2).
3. Slide seat frame (3) over spring (1) and in pedestal (2). Push down on frame (3) until lowest hole (4) in seat support (5) lines up with straight headed pin (6).
4. Lower handle (7) to make pin (6) slide in seat support hole (4).
5. Screw in setscrew (8) and new lockwasher (9) in hole (10) with 3/4-inch socket and handle.
6. Torque setscrew (8) between 360 and 420 pound inches (41 and 47 Newton meters).

Follow-on Maintenance: None

TASK 9 ENDS HERE



ARR82-0584

TASK 10. Install Seat Support

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 3/4-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Grease, GAA, MIL-G-10924 (Item 24)
Lockwasher (96906) MS 35333-44

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

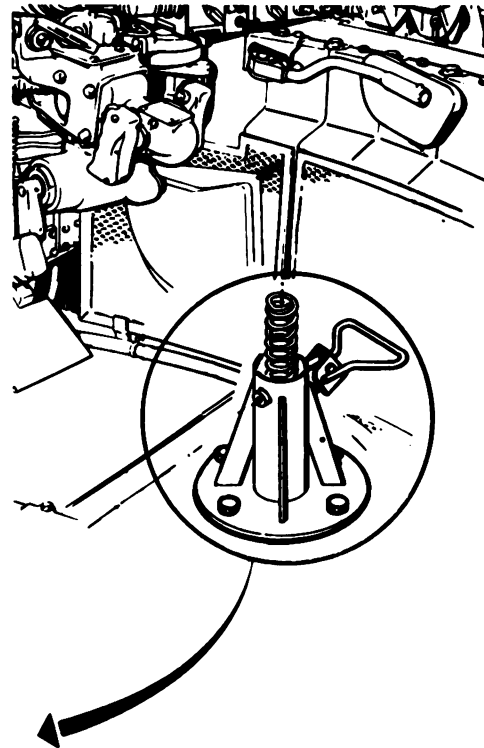
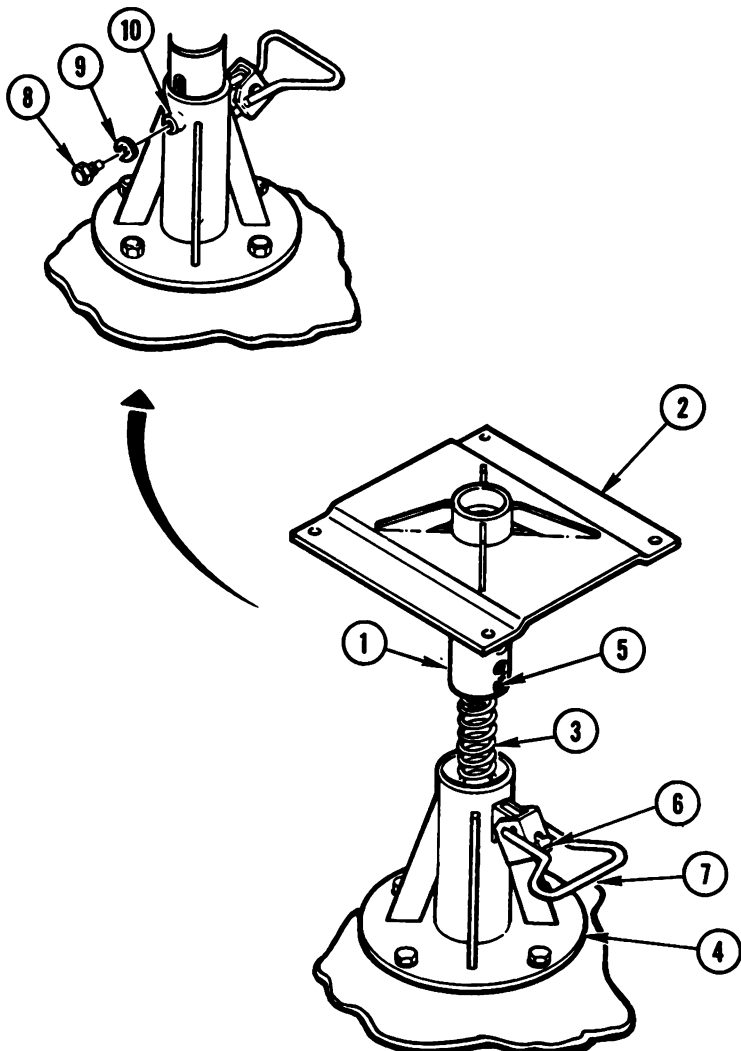
Remove seat support; refer to task 5.

FRAME 12**Install Support:**

1. Spread a light coat of grease on outside of support tube (1).
2. Slide support (2) over spring (3) and in pedestal (4) . Push down on support (2) until lowest hole (5) in support tube (1) lines up with locking pin (6).
3. Lower handle (7) to make pin (6) slide in.
4. Screw in setscrew (8) and new lockwasher (9) in hole (10) with socket and handle.
5. Torque setscrew (8) between 360 and 420 pound inches (41 and 47 Newton meters).

Follow-on Maintenance:

Install adjusters; refer to task 11.

TASK 10 ENDS HERE

ARR82-0585

TASK 11. Install Adjusters

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Oiler, hand
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, combination, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lockwasher (96906) MS 35333-42 (eight required)
Lubricating Oil, MIL-L-3150 (Item 31)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove adjusters; refer to task 4.

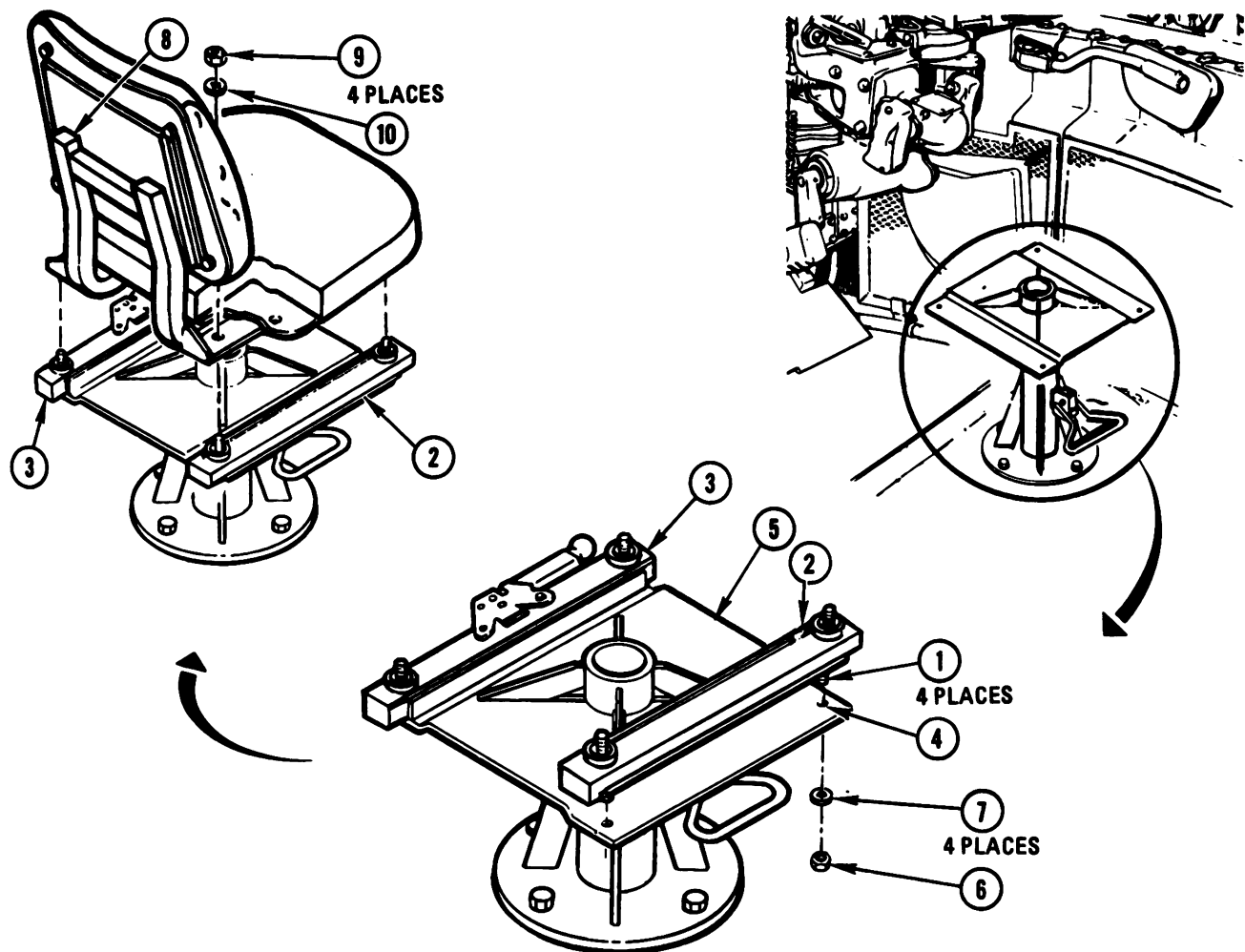
FRAME 13

Install Adjusters and Seat Frame:

1. Put a light coat of oil on four studs (1).
2. Put studs (1) on bottom of two adjusters (2, 3) in holes (4) in seat support (5).
3. Screw on four nuts (6), and new lockwashers (7), on studs (1) with socket and handle.
4. Put seat frame (8) on adjusters (2, 3). Screw on and firmly tighten four nuts (9) and new lockwashers (10) with wrench.
5. Torque four nuts (6) between 360 and 420 pound inches (41 and 47 Newton meters).

Follow-on Maintenance: None

TASK 11 ENDS HERE



ARR82-0586

TASK 12. Install Seat Frame

Applicability: All Models

Common Tools:

Wrench, combination, 9/16-inch
Oiler, hand

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lockwasher (96906) MS 35333-42 (four required)
Lubricating Oil, MIL-L-3150 (Item 31)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove seat frame; refer to task 3.

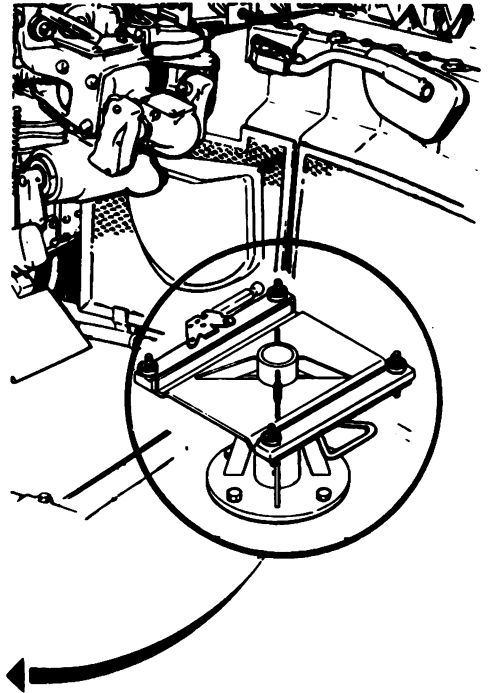
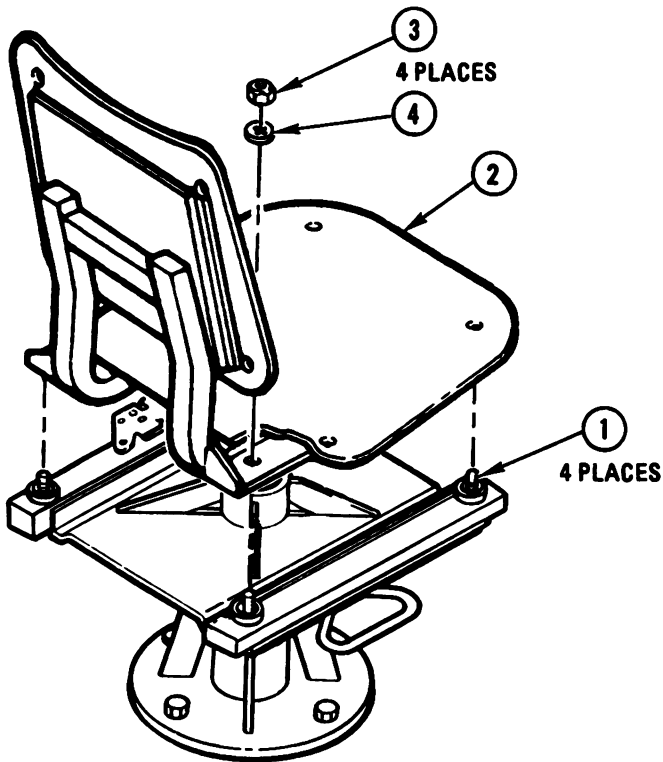
FRAME 14**Install Frame:**

1. Put a light coat of oil on threads of four adjuster studs (1).
2. Put frame (2) on four adjuster studs (1).
3. Screw on and tighten four nuts (3) and new lockwashers (4) in frame (2) with wrench.

Follow-on Maintenance:

Install seat back cushion and seat; refer to task 13.

TASK 12 ENDS HERE



ARR82-0587

TASK 13. Install Seat Back Cushion and Seat

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 3/8-inch
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, open end, 3/8-inch

Special Tools: None

Supplies:

Lockwasher (96906) MS 35333-40 (eight required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove seat back cushion and seat; refer to task 2.

FRAME 15

Install Seat:

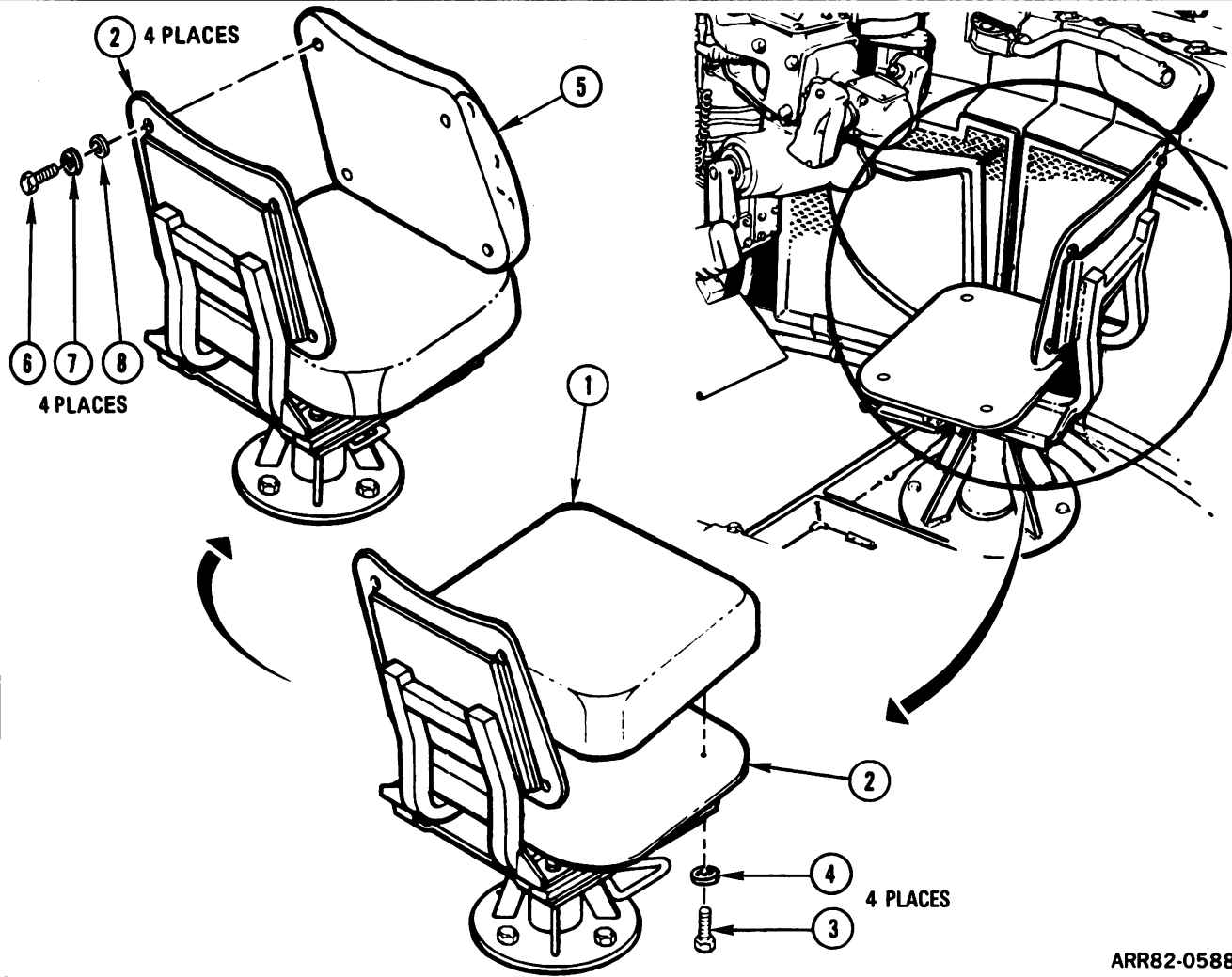
1. Line up four holes in bottom of seat (1) with four holes in seat frame (2).
2. Screw in, but do not tighten, four screws (3) and new lockwashers (4).
3. Tighten four screws (3) with 3/8-inch socket, extension, handle, and wrench.

Install Seat Back Cushion:

4. Line up four holes in back of seat back cushion (5) with holes in frame (2).
5. Screw in and tighten four screws (6), new lockwashers (7), and washers (8) in cushion (5) with 7/16-inch socket, extension, and handle.

Follow-on Maintenance: None

TASK 13 ENDS HERE



ARR82-0588

TASK 14. Replace Adjuster Handle

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 1/4-inch square drive
Socket, socket wrench, 1/4-inch square drive, 3/8-inch
Wrench, open end, 5/16-inch
Wrench, torque, 0 to 60 inch-pounds

Special Tools: None

Supplies:

Handle (19207) 12273211
Lockwasher (96906) MS 35333-39 (two required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 16

Remove Handle:

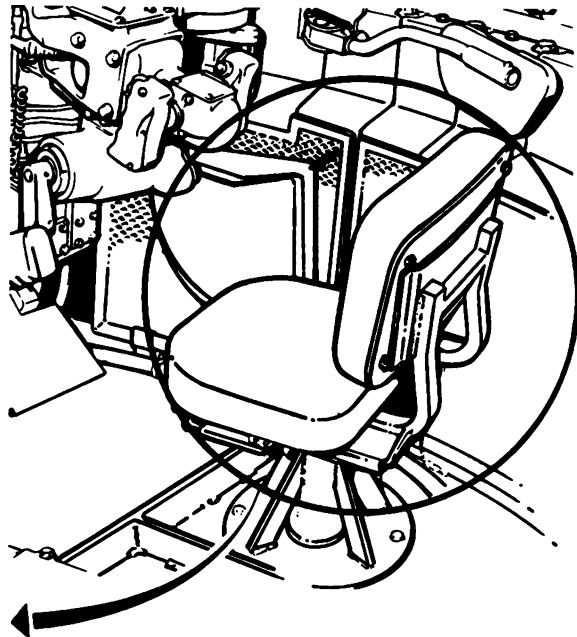
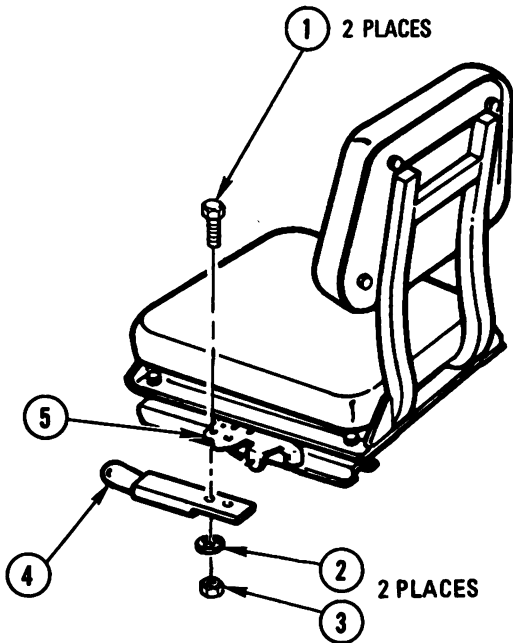
1. Unscrew and take out two screws (1), lockwashers (2), and nuts (3) with socket, handle, and wrench. Get rid of lockwashers (2).
2. Take off and turn in handle (4).

Install Handle:

3. Put new handle (4) on bracket (5).
4. Screw in two screws (1), new lockwashers (2), and nuts (3) with socket, handle, and wrench.
5. Torque two nuts (3) between 25 and 30 pound inches (2.8 and 3.4 Newton meters).

Follow-on Maintenance: None

TASK 14 ENDS HERE



ARR82-0589

TASK 15. Install Gunner's Seat Assembly

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Oiler, hand
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lubricating Oil, MIL-L-3150 (Item 31)
Rag, wiping (Item 45)

Personnel: Two

Soldier A: Installs seat assembly.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove gunner's seat assembly; refer to task 1.

FRAME 17**Install Seat Assembly:**

Soldier B: 1. Lower seat (1) through loader's hatch opening (2).

Soldier A: 2. Line up holes in bottom of pedestal (3) with holes in turret floor (4).

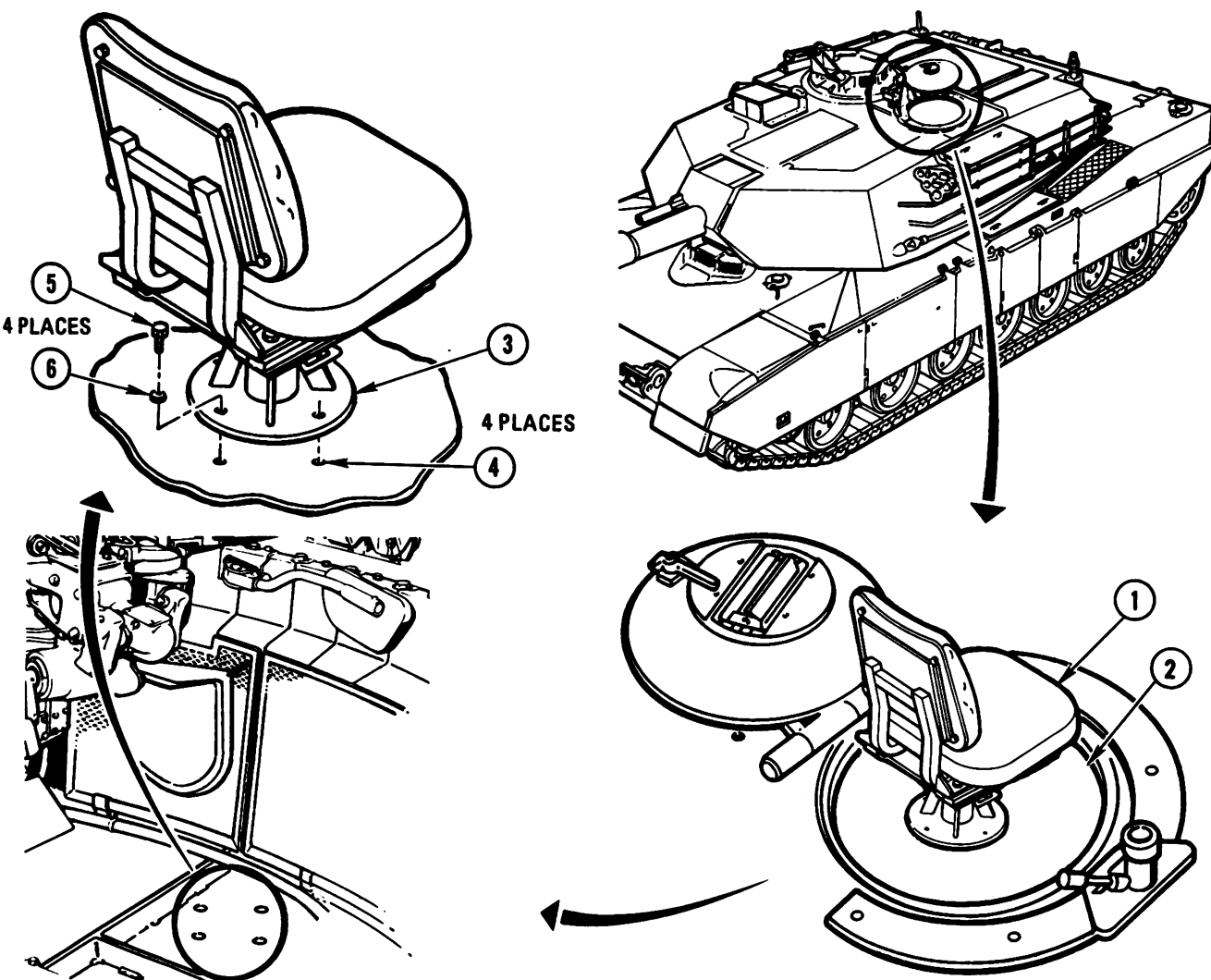
Soldier A: 3. Coat threads of four screws (5) with oil. Wipe off excess oil with rag.

Soldier A: 4. Screw in four screws (5) and washers (6) with socket, extension, and handle.

Soldier A: 5. Torque four screws (5) between 360 and 420 pound inches (41 and 47 Newton meters).

Follow-on Maintenance: None

END OF GUNNER'S SEAT ASSEMBLY MAINTENANCE



ARR82-0590

3-7. Loader's Seat Assembly

Task	Title	Frames
1	Remove Loader's Seat Assembly	1
2	Remove Seat and Frame	2 - 3
3	Remove Platform	4
4	Remove Seat and Platform Height Adjuster Shoulder Pins	5 - 6
5	Repair Seat Assembly	7 - 10
6	Repair Seat Back and Frame	11
7	Install Seat and Platform Height Adjuster Shoulder Pins	12 - 13
8	Install Platform	14
9	Install Seat and Frame	15 - 16
10	Install Loader's Seat Assembly	17 - 18

TASK 1. Remove Loader's Seat Assembly

Applicability: All Models

Common Tools:

- Extension, socket wrench, 3/8-inch square drive, 12-inch Handle, socket wrench, hinged, 1/2-inch square drive
- Handle, socket wrench, ratchet, 3/8-inch square drive
- Socket, socket wrench, 3/8-inch square drive, 7/16-inch
- Socket, socket wrench, 3/8-inch square drive, 9/16-inch
- Socket, socket wrench, 1/2-inch square drive, 15/16-inch

Special Tools: None

Supplies: None

Personnel: Two

- Soldier A: Removes seat assembly.
- Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove loader's vehicular accessories storage box; refer to para. 3-19, task 2.

FRAME 1**Remove Loader's Seat Assembly:**

- Soldier A:** 1. Unscrew and take out screw (1), lockwasher (2), and washer (3) from clamp (4) with 7/16-inch socket and handle. Push harness (5) away from two screws (6). Get rid of lockwasher (2).
- Soldier A:** 2. Unscrew and take out two screws (6) and washers (7) with 15/16-inch socket and handle.
- Soldier A:** 3. Unscrew and take out three screws (8) and washers (9) with 9/16-inch socket, extension, and handle.

NOTE

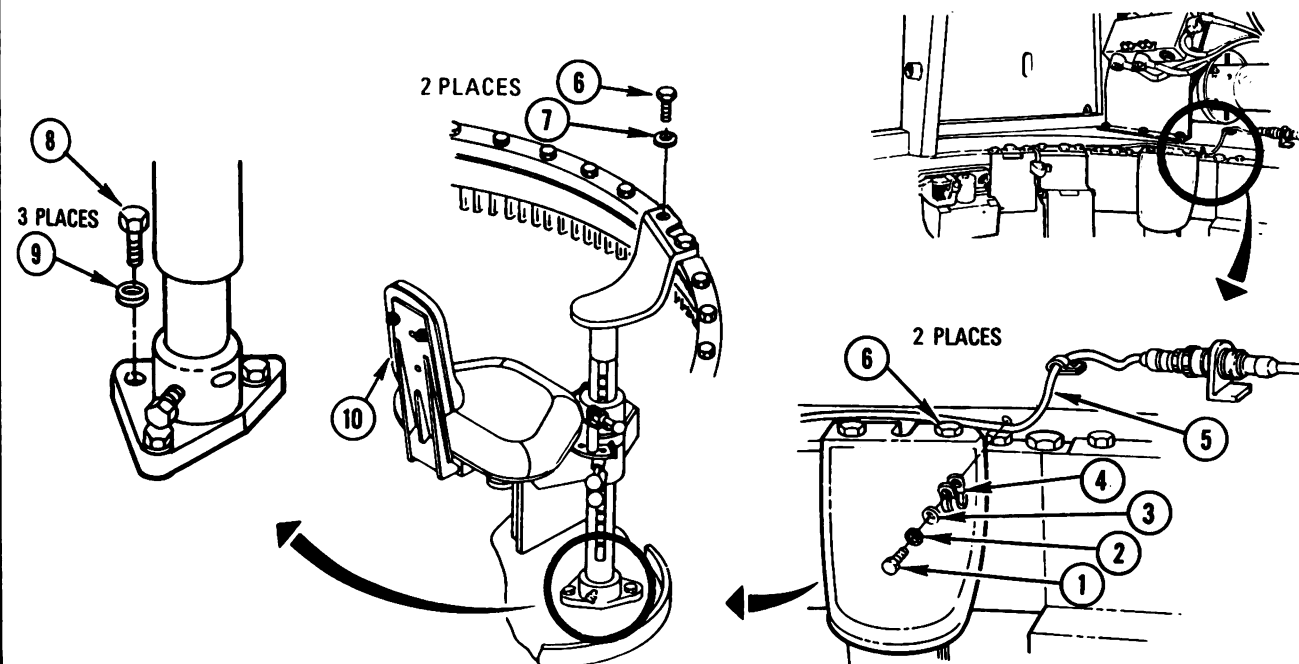
Soldier A works inside turret. Soldier B works outside tank.

- Soldier A,**
Soldier B: 4. Lift out loader's seat assembly (10) through loader's hatch and place on clean, flat work surface.
- Soldier A:** 5. Look at seat assembly (10) for cracks, bends, or stripped threads. If bad repair seat assembly; refer to task 5. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install loader's seat assembly, refer to task 10.

TASK 1 ENDS HERE



ARR82-0357

TASK 2. Remove Seat and Frame

Applicability: All Models

Common Tools:

Hammer, ball peen
Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, slip joint
Punch, drive pin 3/32-inch
Socket, socket wrench, 3/8-inch square drive, 7/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

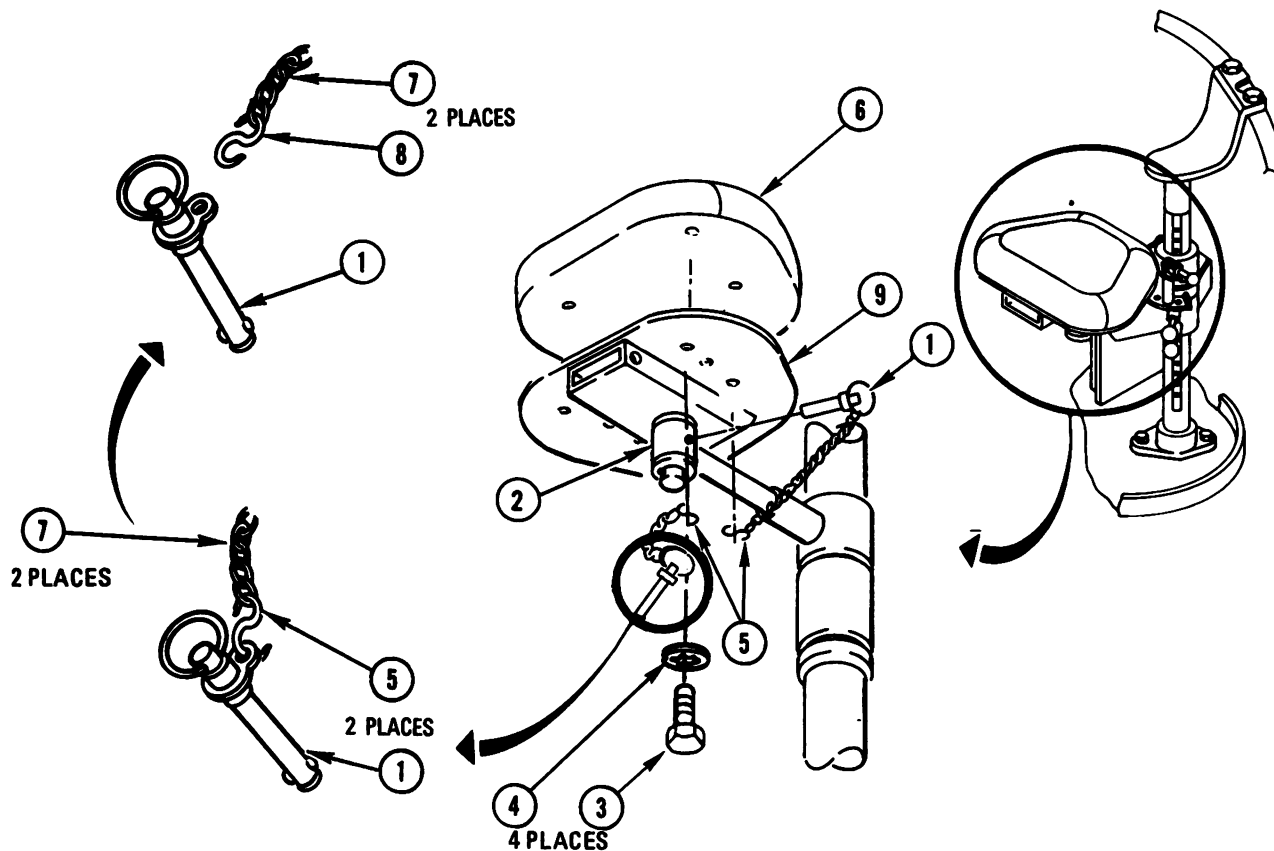
Preliminary Procedure:

Remove loader's seat back; refer to TM 9-2350-255-10.

FRAME 2**Remove Seat:**

1. Pull out quick-release pin (1) from support arm assembly (2). Unscrew and take off four screws (3), lockwashers (4), and two S-hooks (5) from seat (6) with socket and handle. Get rid of lockwashers (4).
2. Open ends of two S-hooks (5) with pliers. Take off two chains (7) with two quick-release pins (1). Turn in S-hooks (5).
3. Look at chains (7) and quick-release pins (1) for cracks, breaks, and bends. If either is bad do step 4. If OK set aside for later use and skip step 4.
4. Open end of S-hook (8) with pliers. Take off quick-release pin (1) from S-hook (8). Turn in bad part.
5. Lift seat (6) off seat frame (9).
6. Look at seat (6) for rips and holes. If bad turn in. If OK set aside for later use.

GO TO FRAME 3



ARR82-0358

FRAME 3

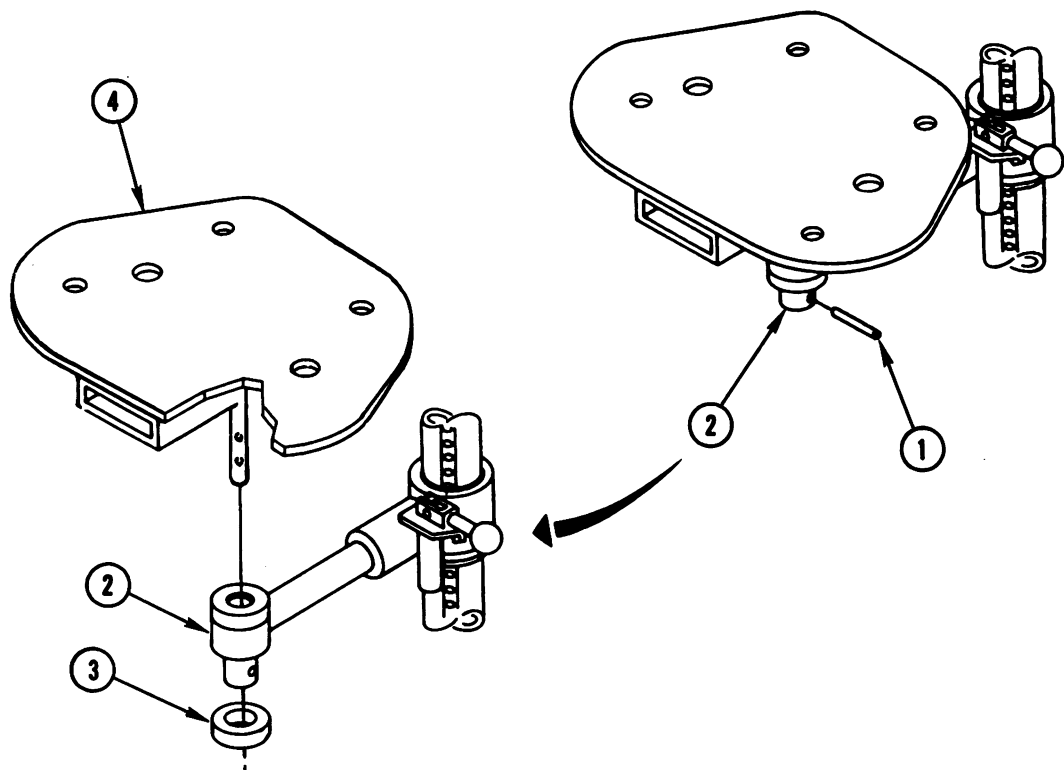
Remove Seat Frame:

1. Drive out pin (1) from support arm assembly (2), as far as possible, with hammer and punch. Pull pin (1) the rest of the way out with pliers. Washer (3) will fall off support arm assembly (2). Get rid of pin (1).
2. Lift seat frame (4) up and out.
3. Look at seat frame (4) for cracks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install seat and frame, refer to task 9.

TASK 2 ENDS HERE



ARR82-0369

TASK 3. Remove Platform

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 1/4-inch square drive
Socket, socket wrench, 1/4-inch square drive, 5/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure: None

FRAME 4

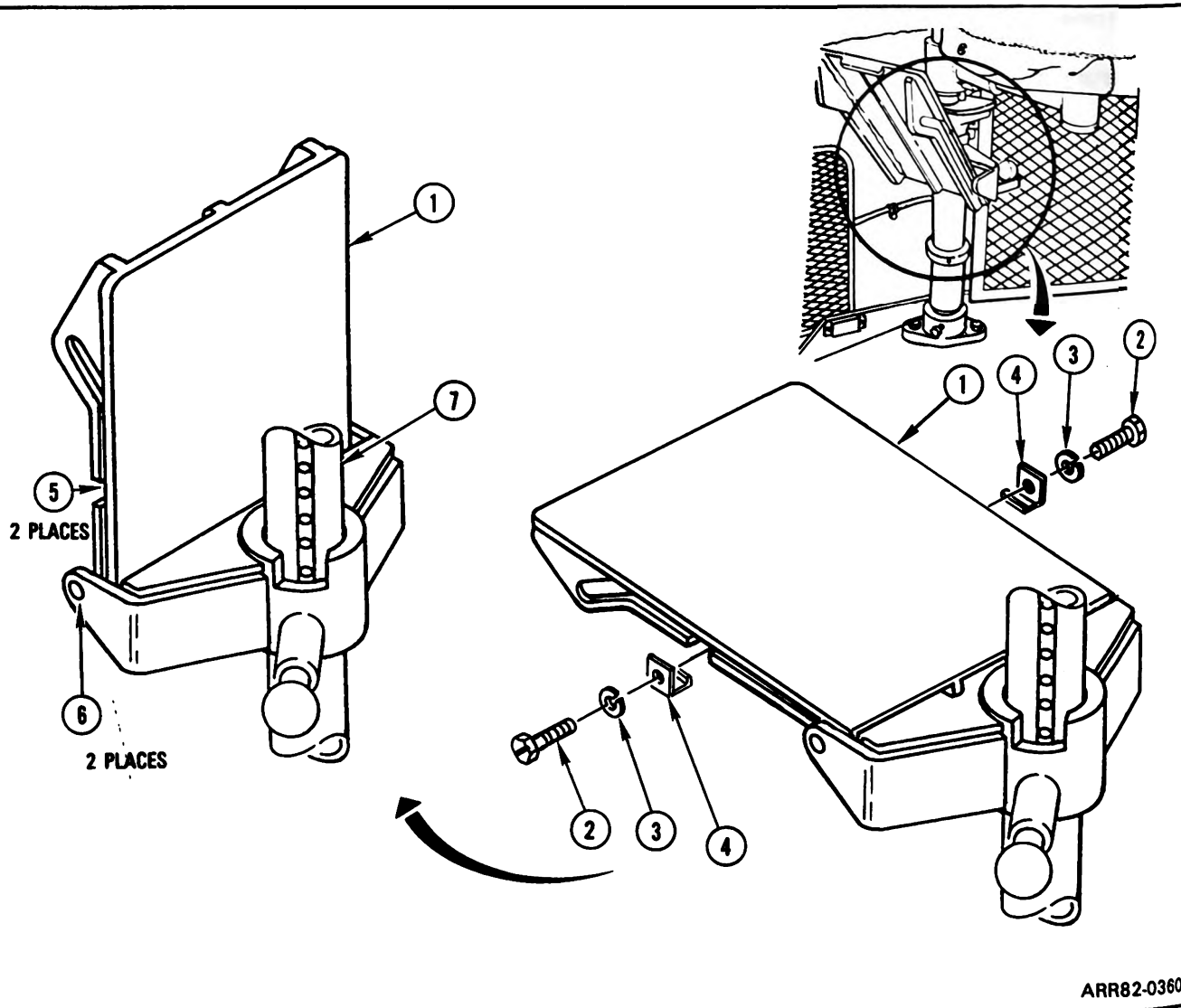
Remove Platform:

1. Lift platform (1) up and out to level position.
2. Unscrew and take out two screws (2) and lockwashers (3) from platform (1) with socket and handle. Take out inserts (4). Get rid of lockwashers (3).
3. Lower platform (1) until notches (5) line up with two pins (6). Push platform (1) toward post (7) until two pins (6) clear notches (5). Lift platform (1) up and out.
4. Look at platform (1) for cracks and bends. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install platform, refer to task 8.

TASK 3 ENDS HERE



ARR82-0360

TASK 4. Remove Seat and Platform Height Adjuster Shoulder Pins

Applicability: All Models

Common Tools:

Hammer, ball peen
Pliers, slip joint
Punch, drive pin, 3/32-inch

Special Tools:

Holder, sleeve, 12285592

Supplies: None

Personnel: Two

Soldier A: Removes seat and platform height adjuster shoulder pins.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove loader's vehicular accessories storage box; refer to para. 3-19, task 2.

FRAME 5

Remove Platform Height Adjuster Shoulder Pin:

Soldier A: 1. Unscrew and take off knob (1) from shoulder pin (2).

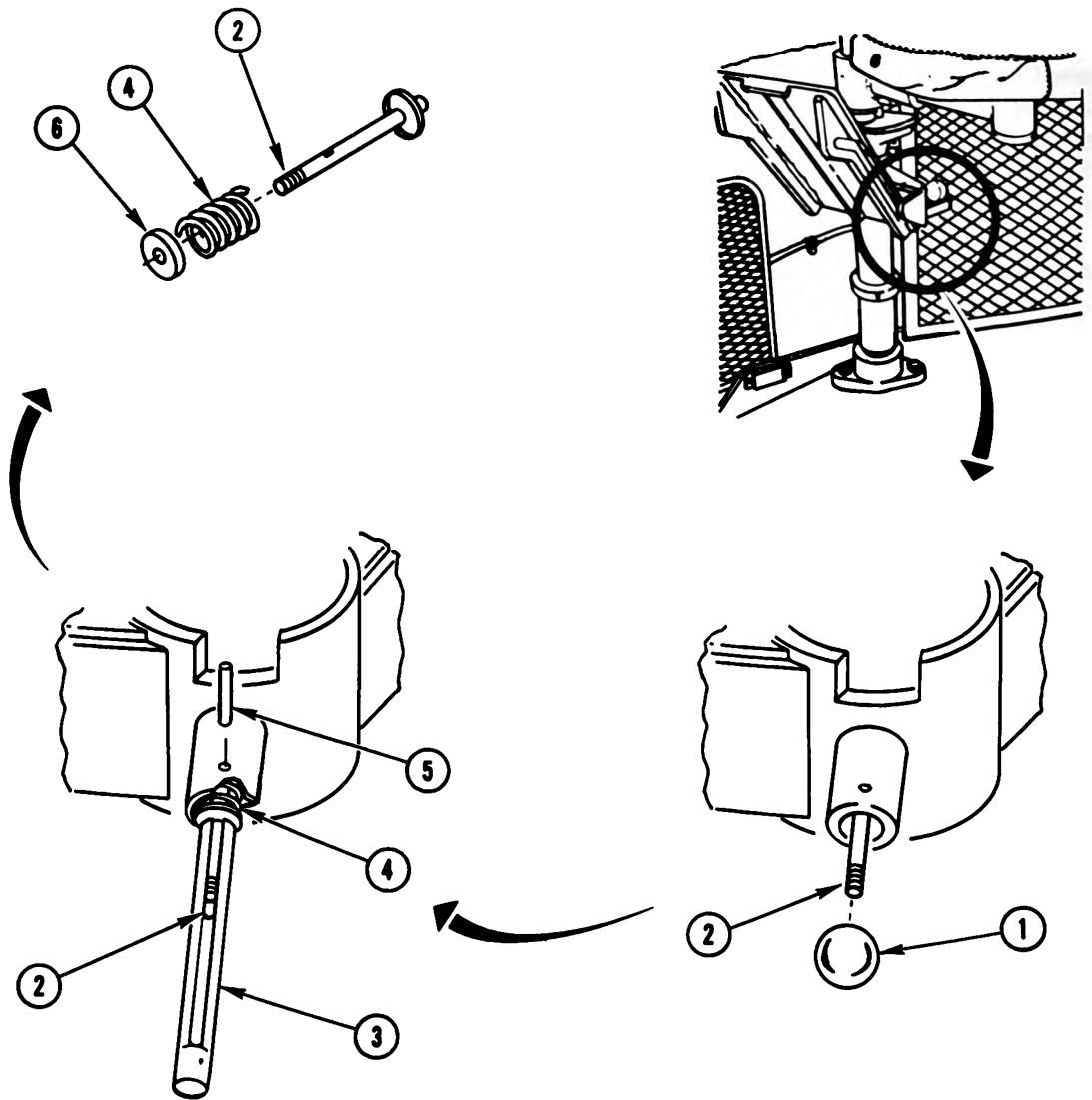
Soldier A,

Soldier B: 2. Using sleeve holder (3) push in on spring (4) and drive out spring pin (5) as far as possible with hammer and punch. Pull out pin (5) with pliers. Get rid of pin (5).

Soldier A: 3. Pull out pin (2) with spring (4) and washer (6). Take washer (6) and spring (4) off pin (2).

Soldier A: 4. Look at all parts for cracks, bends, or breaks. Turn in bad parts. Set good parts aside for later use.

GO TO FRAME 6



ARR82-0381

FRAME 6**Remove Seat Height Adjuster Shoulder Pin:**

Soldier A: 1. Unscrew and take off knob (1) from shoulder pin (2).

Soldier A,

Soldier B: 2. Using sleeve holder (3) push in spring (4) and drive out spring pin (5) as far as possible with hammer and punch. Pull out pin (5) with pliers. Get rid of pin (5).

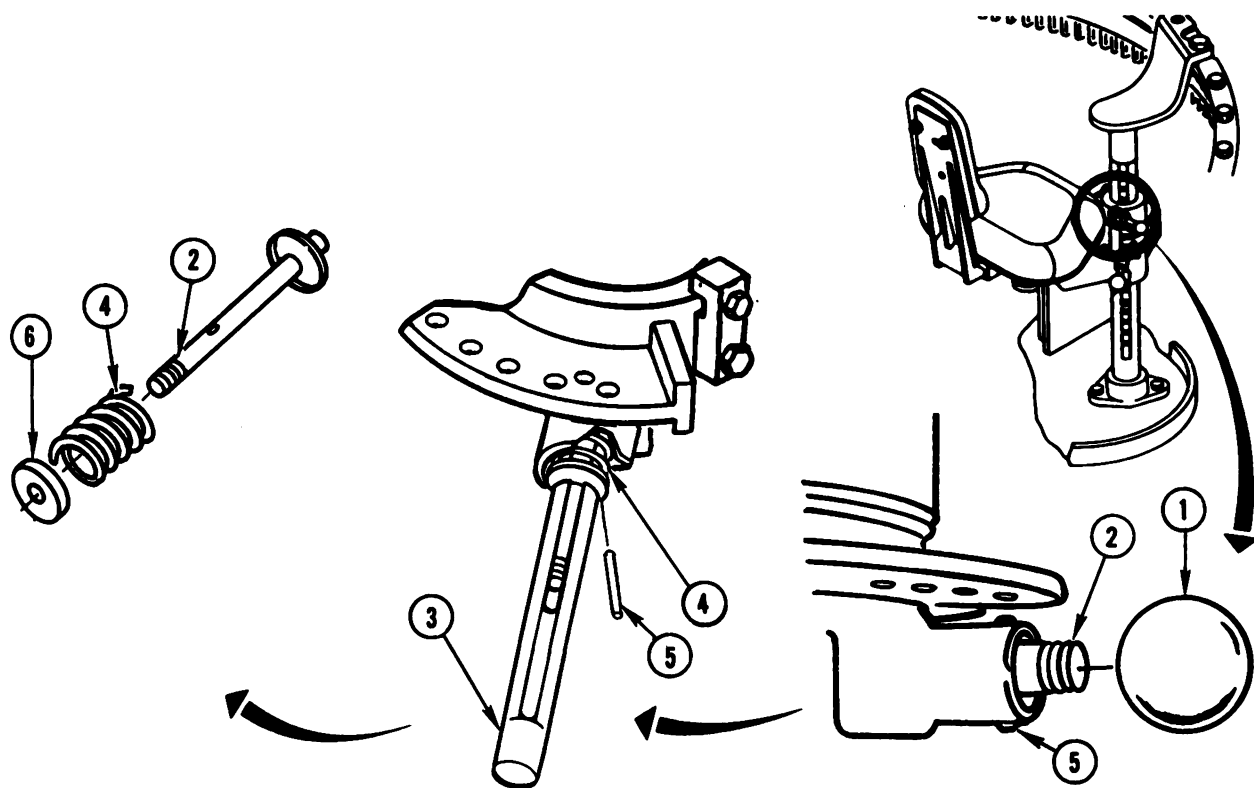
Soldier A: 3. Pull out pin (2) with spring (4) and washer (6). Take washer (6) and spring (4) off pin (2).

Soldier A: 4. Look at all parts for cracks, bends, or breaks. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install seat and platform height adjuster shoulder pins, refer to task 7.

TASK 4 ENDS HERE



ARR82-0362

TASK 5. Repair Seat Assembly

Applicability: All Models

Common Tools:

Hammer, ball peen
Handle, socket wrench, hinged, 3/8-inch square drive
Handle, socket wrench, ratchet, 1/4-inch square drive
Punch Set, drive pin
Socket, socket wrench, 1/4-inch square drive, 5/16-inch
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies:

Grease, GAA, MIL-G-10924 (Item 24)
Lockwasher (96906) MS35333-39 (two required)
Pin, spring (96906) MS9048-103
Pin, spring (96906) MS9048-183
Pin, spring (96906) MS9048-308

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

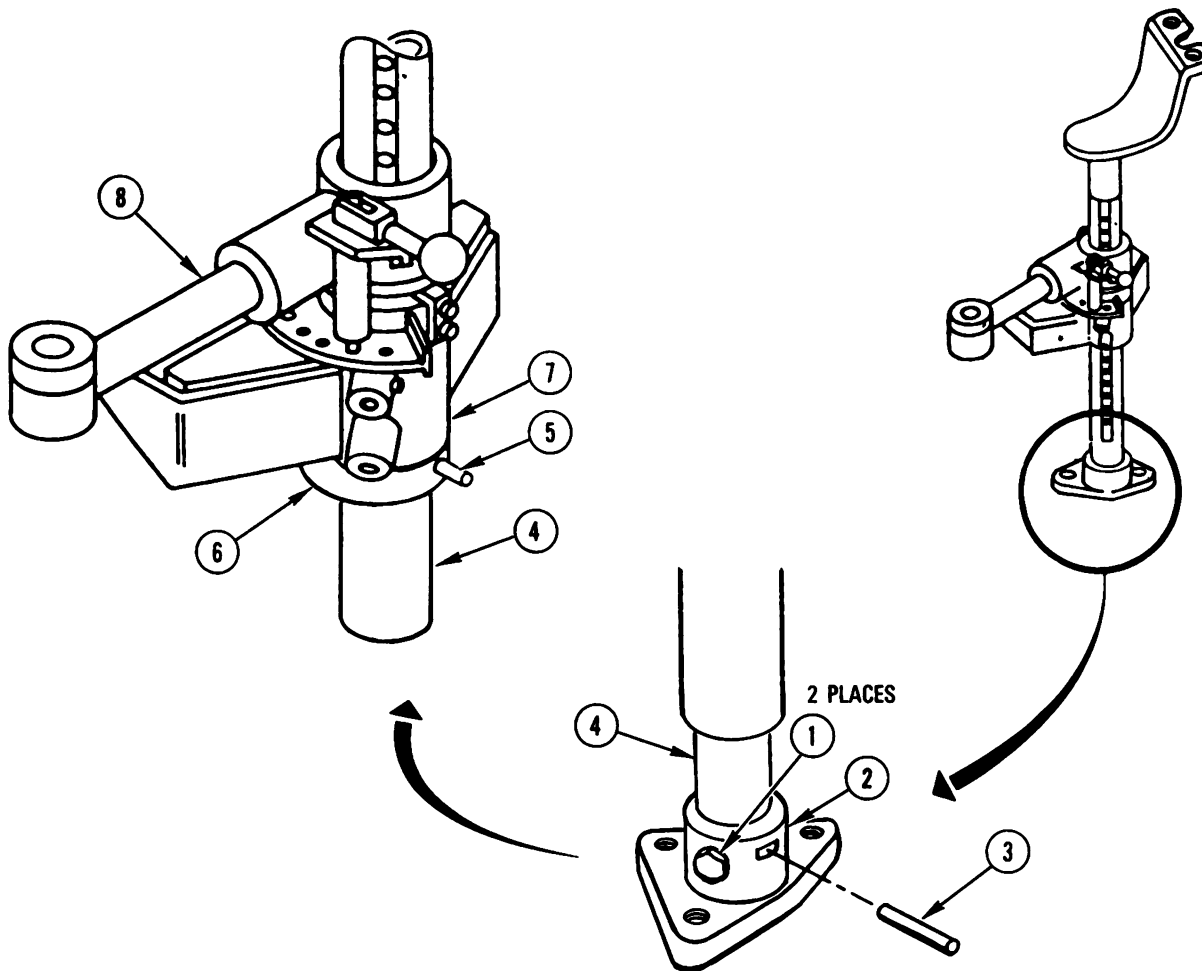
1. Remove loader's vehicular accessories storage box; refer to para. 3-19, task 2.
2. Remove loader's seat back; refer to TM 9-2350-255-10.
3. Remove platform; refer to task 3.
4. Remove seat and frame; refer to task 2.
5. Remove seat and platform height adjuster shoulder pins; refer to task 4.
6. Remove loader's seat assembly; refer to task 1.

FRAME 7

Remove Loader's Seat Adjuster and Support Arm Assembly:

1. Loosen, but do not take out, two screws (1) from retainer (2) with 9/16-inch socket and hinged handle.
2. Drive out pin (3) from retainer (2) with 5/16-inch punch and hammer. Get rid of pin (3). Take out retainer (2) from post (4).
3. Drive out pin (5) from seat adjuster stop (6) with 1/8-inch punch and hammer. Get rid of pin (5).
4. Slide off stop (6), loader's seat adjuster (7), and support arm assembly (8) from post (4).

GO TO FRAME 8



ARR82-0363

FRAME 8

Remove Clamp and Shoulder Pin:

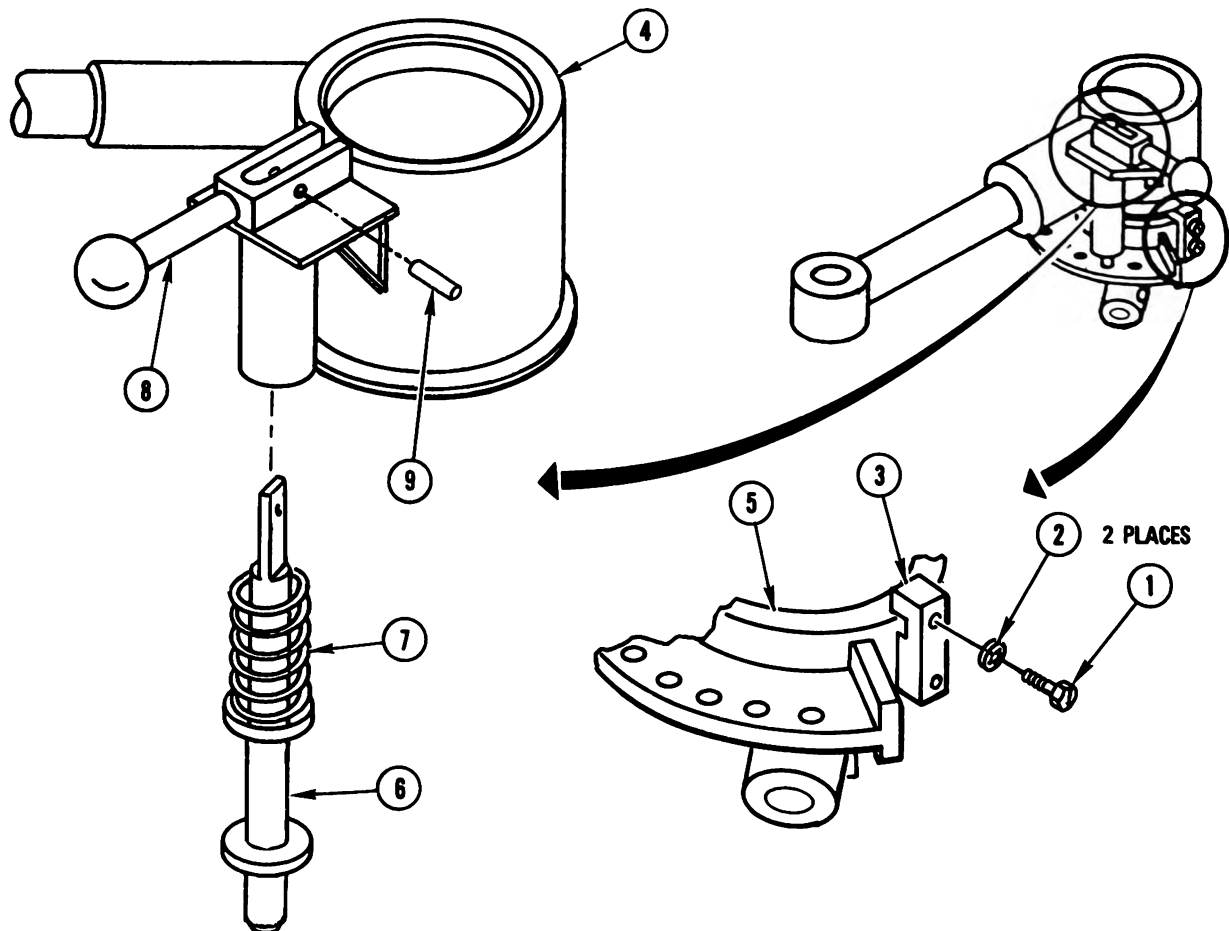
1. Unscrew and take out two screws (1) and lockwashers (2) from rim clenching clamp (3) with 5/16-inch socket and ratchet handle. Get rid of lockwashers (2). Lift off clamp (3) and take support arm assembly (4) off seat height adjuster (5).

NOTE

Shoulder pin (6) and spring (7) will drop out when cam handle (8) is taken off.

2. Drive out pin (9) with hammer and punch. Get rid of pin (9). Lift off cam handle (8).
3. Look at all parts for cracks or bends. Turn in bad parts. Set good parts aside for later use.

GO TO FRAME 9

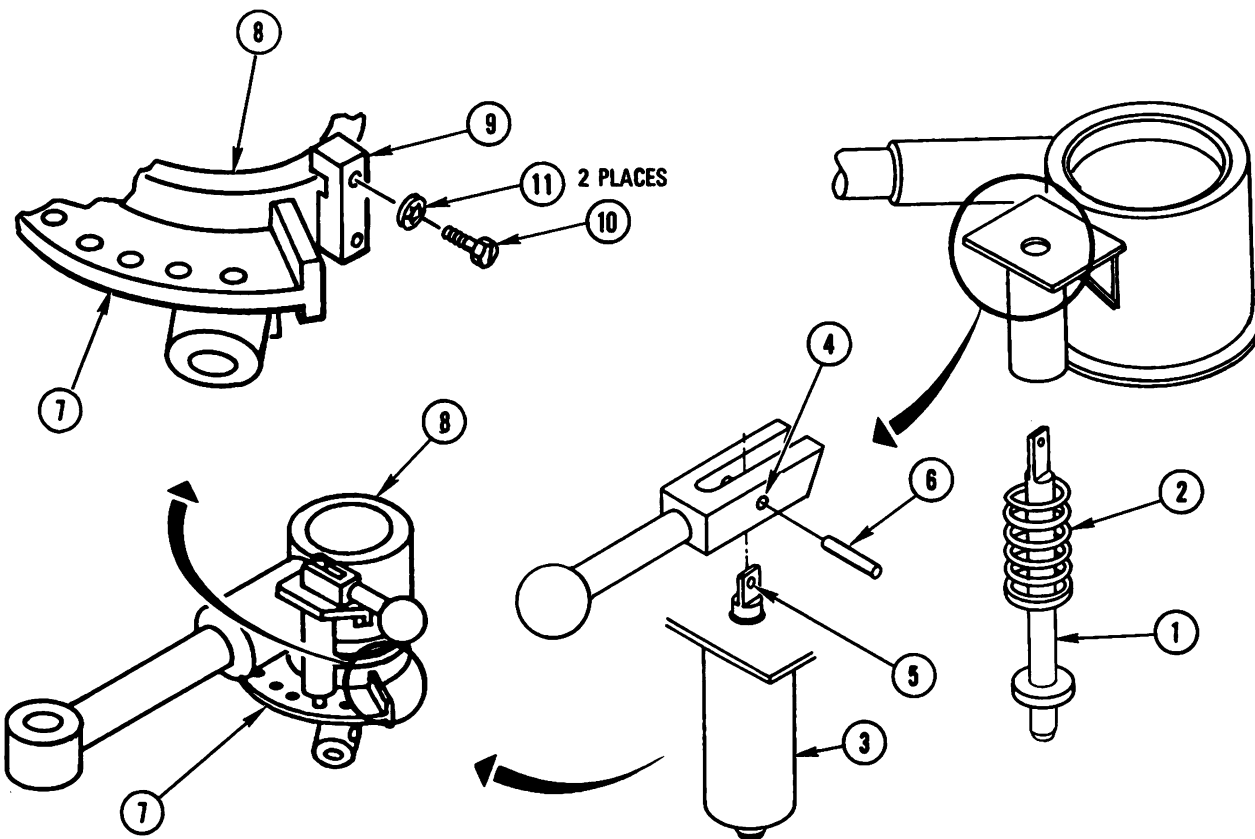


ARR82-0364

FRAME 9**Install Clamp and Shoulder Pin:**

1. Spread a light coat of grease on shoulder pin (1).
2. Put spring (2) on shoulder pin (1). Put shoulder pin (1) in support arm assembly (3).
3. Line up cam handle hole (4) with pin hole (5). Tap in new pin (6) with hammer.
4. Put seat height adjuster (7) and support arm assembly (8) together.
5. Put clamp (9) on support arm assembly (8) and line up holes in clamp (9) with holes in seat height adjuster (7).
6. Screw in and tighten two screws (10) and new lockwashers (11) in seat height adjuster (7) with 5/16-inch socket and ratchet handle.

GO TO FRAME 10



ARR82-0365

FRAME 10

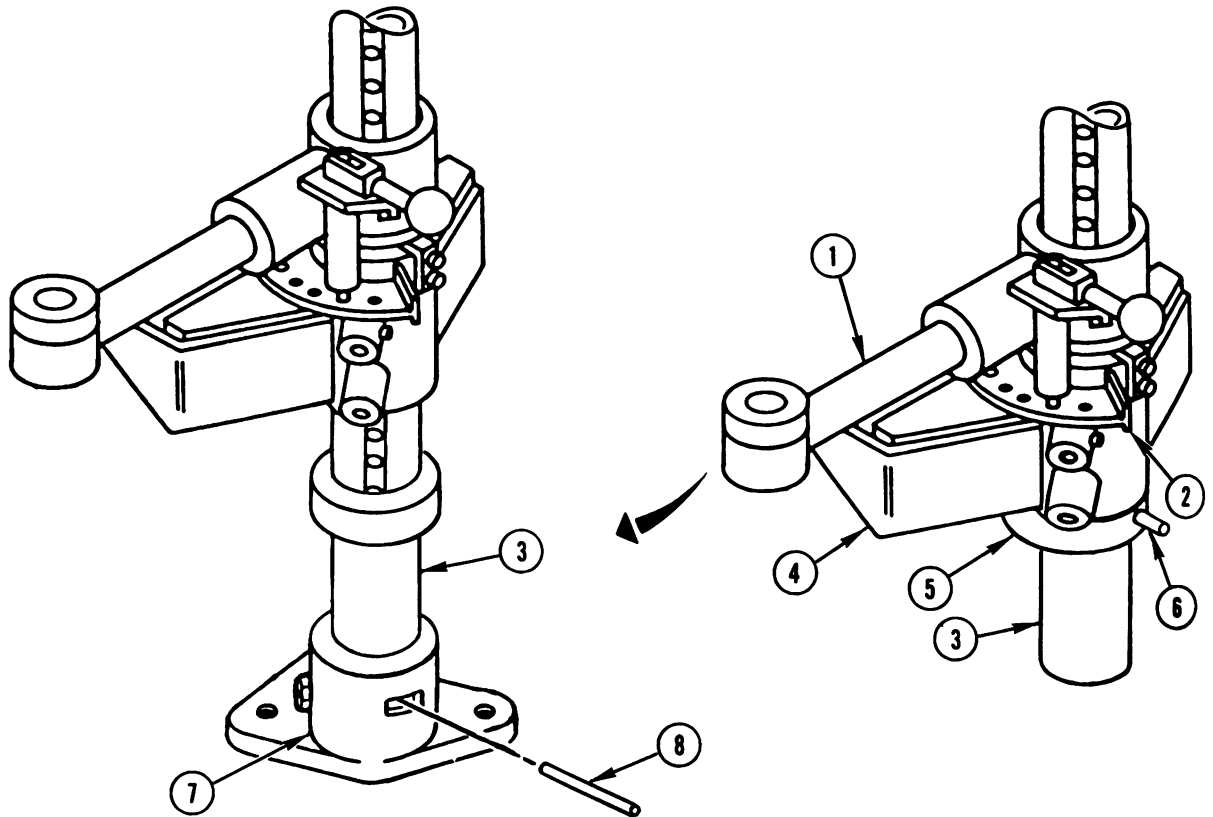
Install Loader's Seat Adjuster and Support Arm Assembly:

1. Slide support arm assembly (1) and seat height adjuster (2) on post (3).
2. Slide loader's seat adjuster (4) on post (3).
3. Slide seat adjuster stop (5) on post (3). Drive new pin (6) in stop (5) and post (3) with hammer.
4. Put retainer (7) on post (3). Drive new pin (8) in retainer (7) and post (3) with hammer.

Follow-on Maintenance:

1. Install loader's seat assembly; refer to task 10.
2. Install seat and platform height adjuster shoulder pins; refer to task 7.
3. Install seat and frame; refer to task 9.
4. Install platform; refer to task 8.
5. Install loader's seat back; refer to TM 9-2350-255-10.
6. Install loader's vehicular accessories storage box; refer to para. 3-19, task 12.

TASK 5 ENDS HERE



ARR82-0366

TASK 6. Repair Seat Back and Frame

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch

Special Tools: None

Supplies:

Lockwasher (96906) MS35333-40 (four required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove loader's seat back; refer to TM 9-2350-255-10.

FRAME 11

Repair Seat Back and Frame:

1. Unscrew and take off four screws (1) and lockwashers (2) with socket and handle. Pull off seat back (3) from frame (4). Get rid of lockwashers (2).
2. Look at seat back (3) for tears. Look at frame (4) for cracks. Turn in bad parts. Set good parts aside for later use.
3. Line up holes in seat back (3) with holes in frame (4).

NOTE

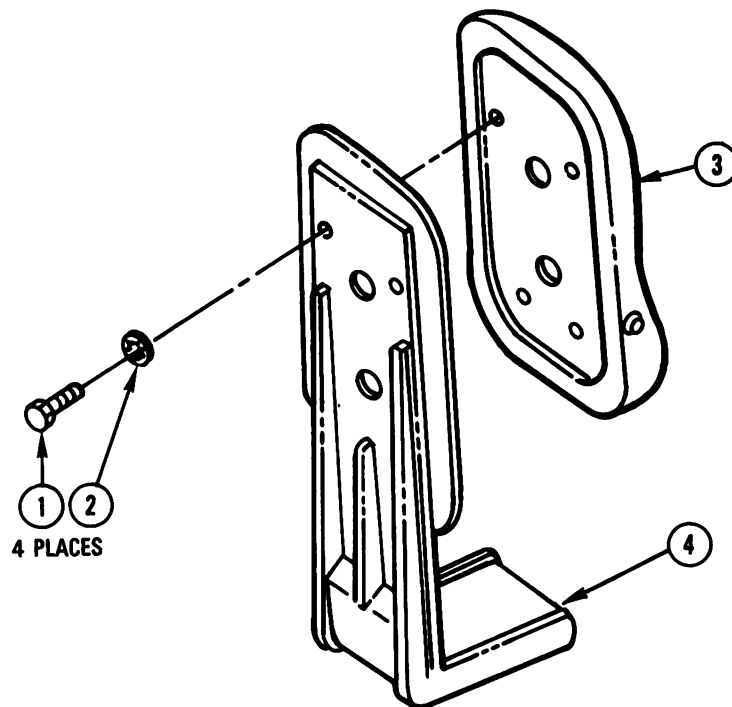
Put two longer screws (1) in the bottom holes.

4. Screw in and tighten four screws (1) and new lockwashers (2) in seat back (3) and frame (4) with socket and handle.

Follow-on Maintenance:

Install loader's seat back; refer to TM 9-2350-255-10.

TASK 6 ENDS HERE



ARR82-0367

TASK 7. Install Seat and Platform Height Adjuster Shoulder Pins

Applicability: All Models

Common Tools:

Hammer, ball peen

Special Tools:

Holder, sleeve 12285592

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Grease, GAA, MIL-G-10924 (Item 24)

Pin, spring (96906) MS9048-109 (two required)

Sealing Compound, MIL-S-46163 (Item 49)

Personnel: Two

Soldier A: Install seat and platform height adjuster shoulder pins.

Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove seat and platform height adjuster shoulder pins; refer to task 4.

FRAME 12

Install Seat Height Adjuster Shoulder Pin:

Soldier A: 1. Spread a light coat of grease on shoulder pin (1) and inside seat height adjuster (2).

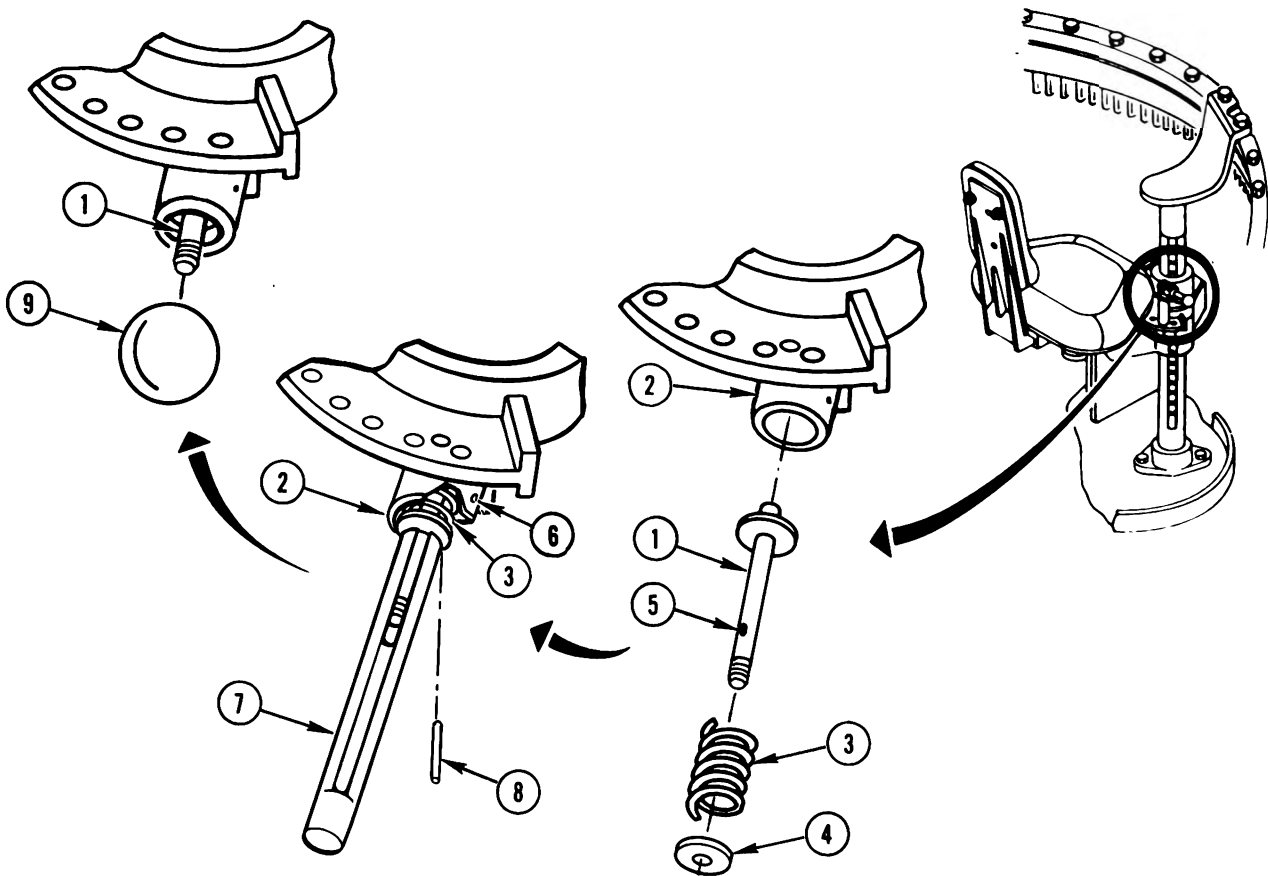
Soldier A: 2. Put spring (3) and washer (4) on pin (1).

Soldier A: 3. Put pin (1) with spring (3) and washer (4) in seat height adjuster (2). Turn pin (1) so that slot (5) lines up with hole (6) in seat height adjuster (2).

Soldier A,
Soldier B: 4. Using sleeve holder (7), push washer (4) and spring (3) in seat height adjuster (2). Tap new spring pin (8) in hole in bottom of seat height adjuster (2) with hammer so that pin (8) holds in washer (4) and spring (3).

Soldier A: 5. Spread a thin coat of sealing compound on threads of pin (1). Screw on and tighten knob (9) to pin (1).

GO TO FRAME 13



ARR82-0368

FRAME 13**Install Platform Height Adjuster Shoulder Pin:**

Soldier A: 1. Spread a light coat of grease on pin (1) and inside platform height adjuster (2).

Soldier A: 2. Put spring (3) and washer (4) on pin (1).

Soldier A: 3. Put pin (1) with spring (3) and washer (4) in adjuster (2). Turn pin (1) so that slot (5) lines up with hole (6) in adjuster (2).

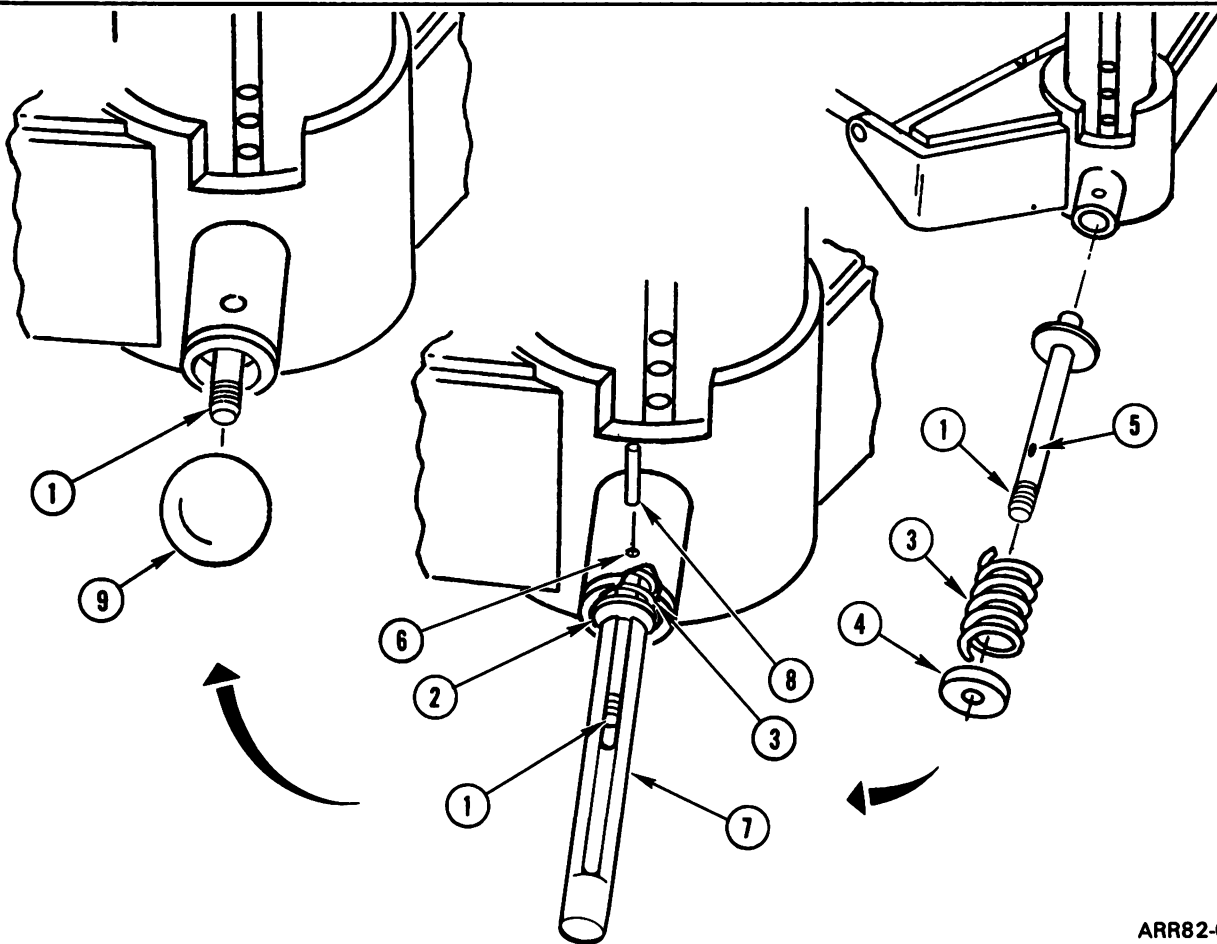
Soldier A,
Soldier B: 4. Using sleeve holder (7), push washer (4) and spring (3) in adjuster (2). Tap new pin (8) in hole in bottom of adjuster (2) with hammer so that pin (8) holds in washer (4) and spring (3).

Soldier A: 5. Spread a thin coat of sealing compound on threads of pin (1). Screw on and tighten knob (9) on pin (1).

Follow-on Maintenance:

Install loader's vehicular accessories storage box; refer to para. 3-19, task 12.

TASK 7 ENDS HERE



ARR82-0369

TASK 8. Install Platform

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet 1/4-inch square drive
Socket, socket wrench, 1/4-inch square drive, 5/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Grease, GAA, MIL-G-10924 (Item 24)
Lockwasher (96906) MS35333-39 (two required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

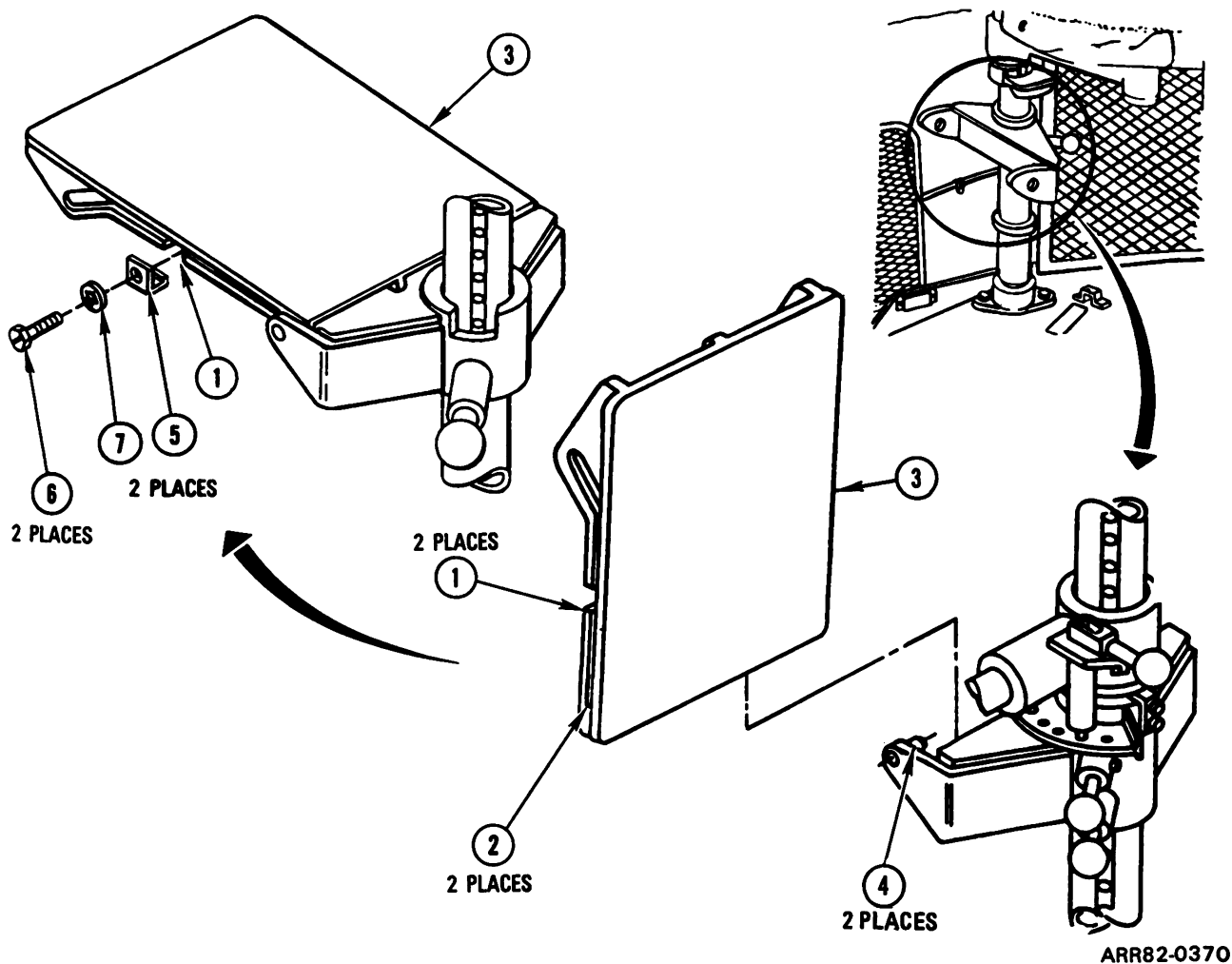
Remove platform; refer to task 3.

FRAME 14**Install Platform:**

1. Spread a light coat of grease in two platform notches (1) and two platform slots (2).
2. Slide platform (3) behind two platform height adjuster pins (4).
3. Line up two notches (1) with two platform height adjuster pins (4).
4. Slide two platform slots (2) over two pins (4).
5. Set platform (3) to level position.
6. Put two inserts (5) in notches (1). Screw in and tighten two screws (6) and new lockwashers (7) with socket and handle.

Follow-on Maintenance: None

TASK 8 ENDS HERE



TASK 9. Install Seat and Frame

Applicability: All Models

Common Tools:

- Hammer, ball peen
- Handle, socket wrench, ratchet 3/8-inch square drive
- Pliers, slip joint
- Socket, socket wrench, 3/8-inch square drive, 7/16-inch

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Grease, GAA, MIL-G-10924 (Item 24)
 - Hook, (96906) MS87006-3 (two required)
 - Lockwasher (96906) MS35333-40 (four required)
 - Lubricating Oil, MIL-L-3150 (Item 31)
 - Pin, spring (96906) MS9048-111

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

- Remove seat and frame; refer to task 2.

FRAME 15

Install Seat Frame:

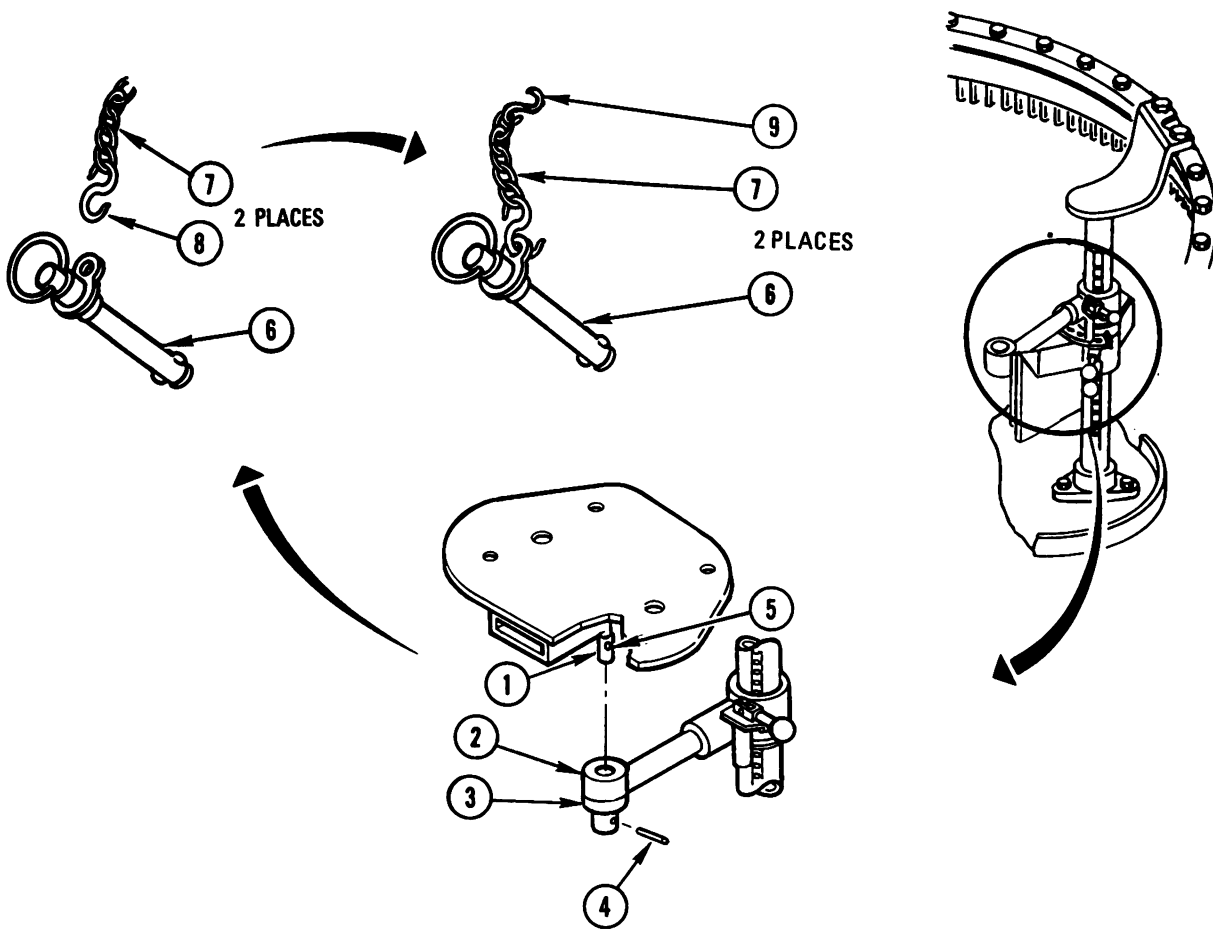
1. Spread a light coat of grease on seat pivot (1).
2. Lower seat pivot (1) straight down into support arm assembly (2). Put on and hold washer (3) and drive new pin (4) in pivot hole (5) with hammer.

NOTE

If either quick-release pin (6) or chain (7) is new, do step 3. If not, skip step 3 and go to step 4.

3. Put S-hook (8) on quick-release pin (6) and end of chain (7). Close S-hook (8) with pliers.
4. Put two new S-hooks (9) on two chains (7) with pliers.

GO TO FRAME 16



ARR82-0371

FRAME 16

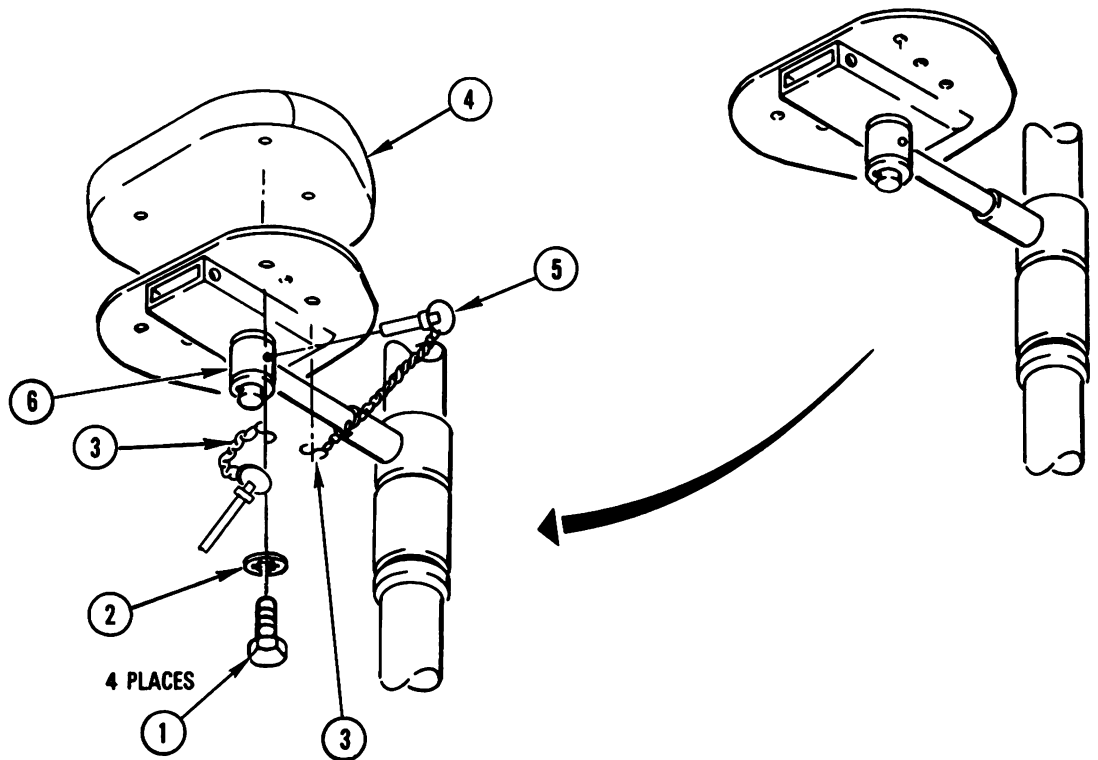
Install Seat:

1. Spread a light coat of oil on threads of four screws (1). Put four new lockwashers (2) on four screws (1). Put two S-hooks (3) on two screws (1) and lockwashers (2).
2. Screw in, but do not tighten, two screws (1), lockwashers (2), and S-hooks (3) to seat (4) with socket and handle.
3. Screw in and tighten two screws (1) and lockwashers (2) to seat (4) with socket and handle.
4. Put quick-release pin (5) in hole in support arm assembly (6).

Follow-on Maintenance:

Install loader's seat back; refer to TM 9-2350-255-10.

TASK 9 ENDS HERE



ARR82-0372

TASK 10. Install Loader's Seat Assembly

Applicability: All Models

Common Tools:

Extension, socket wrench, 1/2-inch square drive, 5-inch
Handle, socket wrench, hinged, 1/2-inch square drive
Handle, socket wrench, ratchet 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Socket, socket wrench, 1/2-inch square drive, 9/16-inch
Socket, socket wrench, 1/2-inch square drive, 15/16-inch
Wrench, torque, 0 to 175 foot-pound

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lockwasher (96906) MS35333-40
Lubricating Oil, MIL-L-3150 (Item 31)

Personnel: Two

Soldier A: Installs seat assembly.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove loader's seat assembly; refer to task 1.

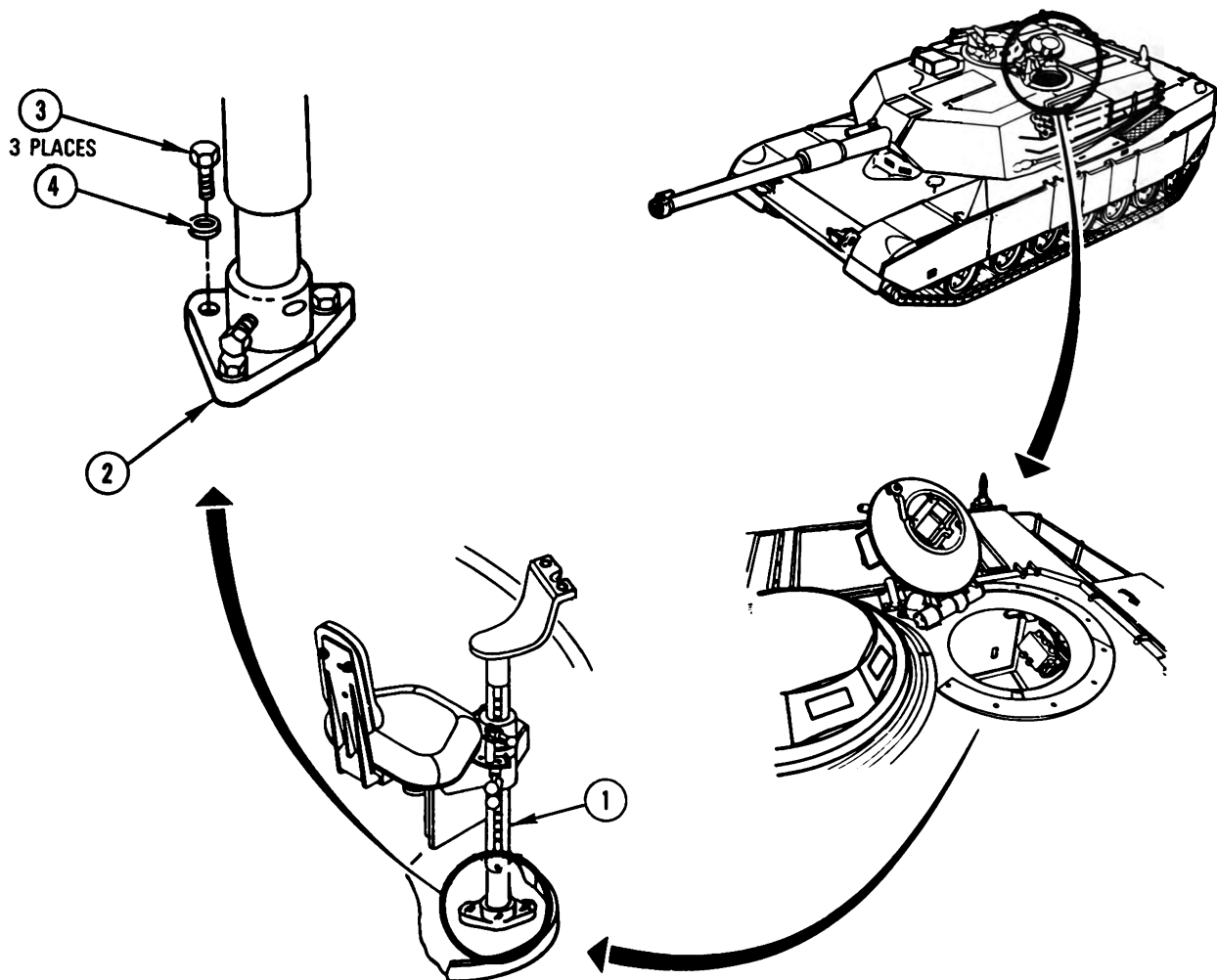
FRAME 17

Install Loader's Seat Assembly:

Soldier B: 1. When told by Soldier A, lower loader's seat (1) through loader's hatch opening.

Soldier A: 2. Put retainer (2) in place on turret floor. Screw in, but do not tighten, three screws (3) and washers (4) with 9/16-inch socket, extension, and handle.

GO TO FRAME 18



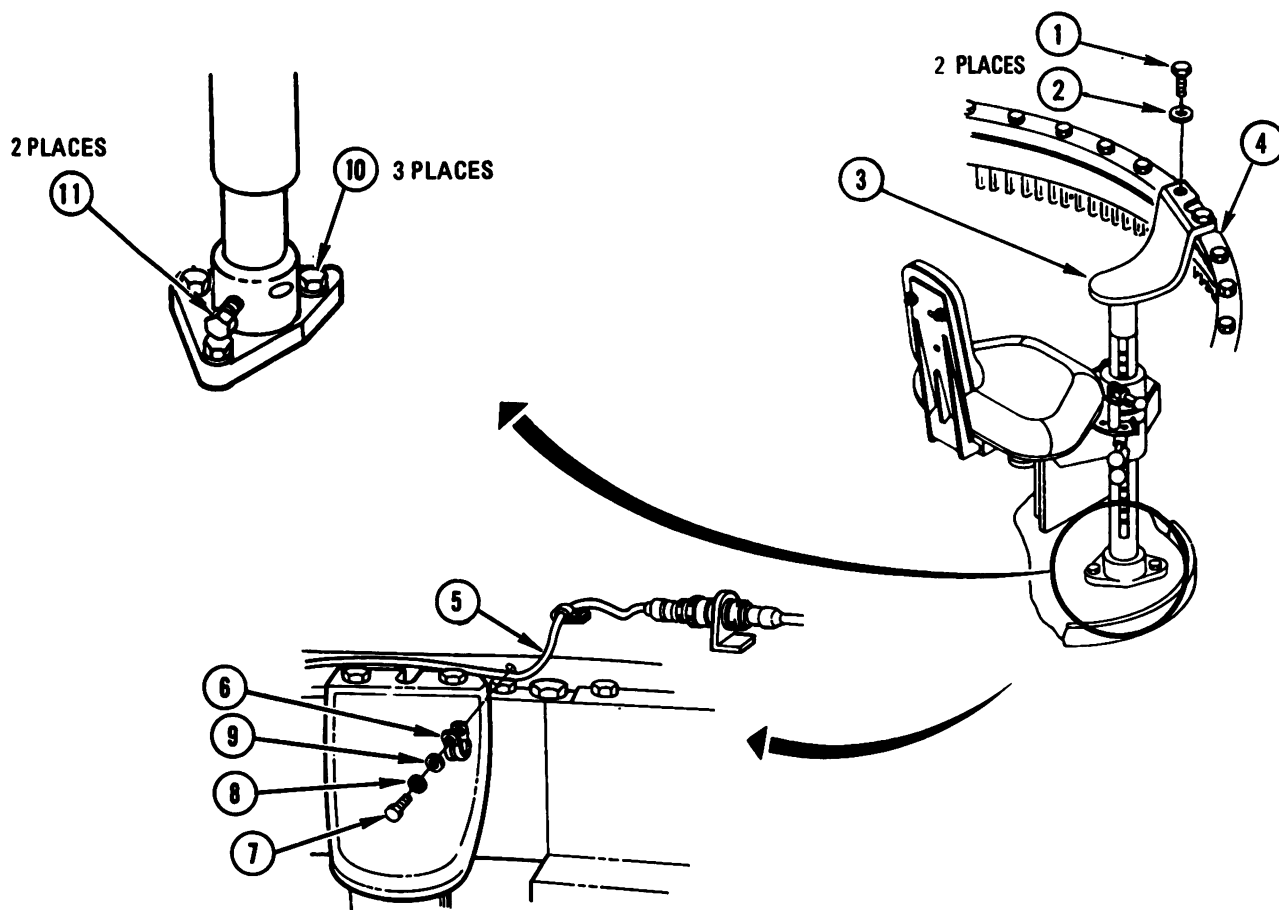
ARR82-0373

FRAME 18**Install Loader's Seat Assembly (Continued):**

1. Spread a light coat of oil on threads of two screws (1). Screw in two screws (1) and washers (2) to bracket (3) and race ring (4) with 15/16-inch socket and handle.
2. Torque screws (1) between 125 and 140 pound feet (170 and 190 Newton meters).
3. Put harness (5) in clamp (6). Screw in and tighten screw (7), new lockwasher (8), and washer (9) in clamp (6) with 7/16-inch socket and handle.
4. Torque three screws (10) between 150 and 160 pound feet (203 and 217 Newton meters).
5. Tighten two screws (11) with 9/16-inch socket and handle.

Follow-on Maintenance:

1. Install loader's vehicular accessories storage box; refer to para. 3-19, refer to task 12.
2. Check loader's seat for proper operation; refer to TM 9-2350-255-10.

END OF LOADER'S SEAT ASSEMBLY MAINTENANCE

ARR82-0374

3-8. Loader's Hatch

Task	Title	Frames
1	Remove Turntable, Gasket, and Bearing	1 - 3
2	Remove Loader's Hatch Handle	4 - 5
3	Remove Hatch Lock Handle	6 - 9
4	Remove Hatch, Metallic Tube, and Leaf Springs	10 - 14
5	Replace Rubber Seal	15 - 17
6	Replace Angle Bracket	18 - 19
7	Replace Bearings or Sleeve Bearings	20 - 22
8	Replace Spring Tension Clip	23
9	Replace Plain Encased Seal	24
10	Replace Continuous Thread Stud	25 - 26
11	Install Hatch, Metallic Tube, and Leaf Springs	27 - 36
12	Install Hatch Lock Handle	37
13	Install Loader's Hatch Handle	38
14	Install Turntable, Gasket, and Bearing	39 - 41

TASK I. Remove Turntable, Gasket, and Bearing

Applicability: All Models

Common Tools:

- Extension, socket wrench, 3/8-inch square drive, 5-inch
- Handle, socket wrench, ratchet, 3/8-inch square drive
- Knife, pocket
- Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Cloth, abrasive (Item 17)
 - Dry Cleaning Solvent, P-D-680 (Item 21)
 - Rag, wiping (Item 45)

Personnel: Two

- Soldier A: Removes turntable, gasket, and bearing.
- Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- VEHICLE MASTER POWER switch set to OFF.
- Parking brake set.
- Transmission shift control set to N.

Preliminary Procedures:

1. Close loader's hatch from inside turret; refer to TM 9-2350-255-10.
2. Remove loader's periscope; refer to TM 9-2350-255-10.

FRAME 1

Remove Turntable:

CAUTION

Turntable (1) weighs 48 pounds. Two soldiers are needed to lift or lower turntable (1) to avoid dropping it.

Soldier B: 1. Hold turntable (1) from outside of tank.

Soldier A: 2. Unscrew and take out four screws (2) with socket, extension, and handle. Set retainer (3) aside for cleaning.

CAUTION

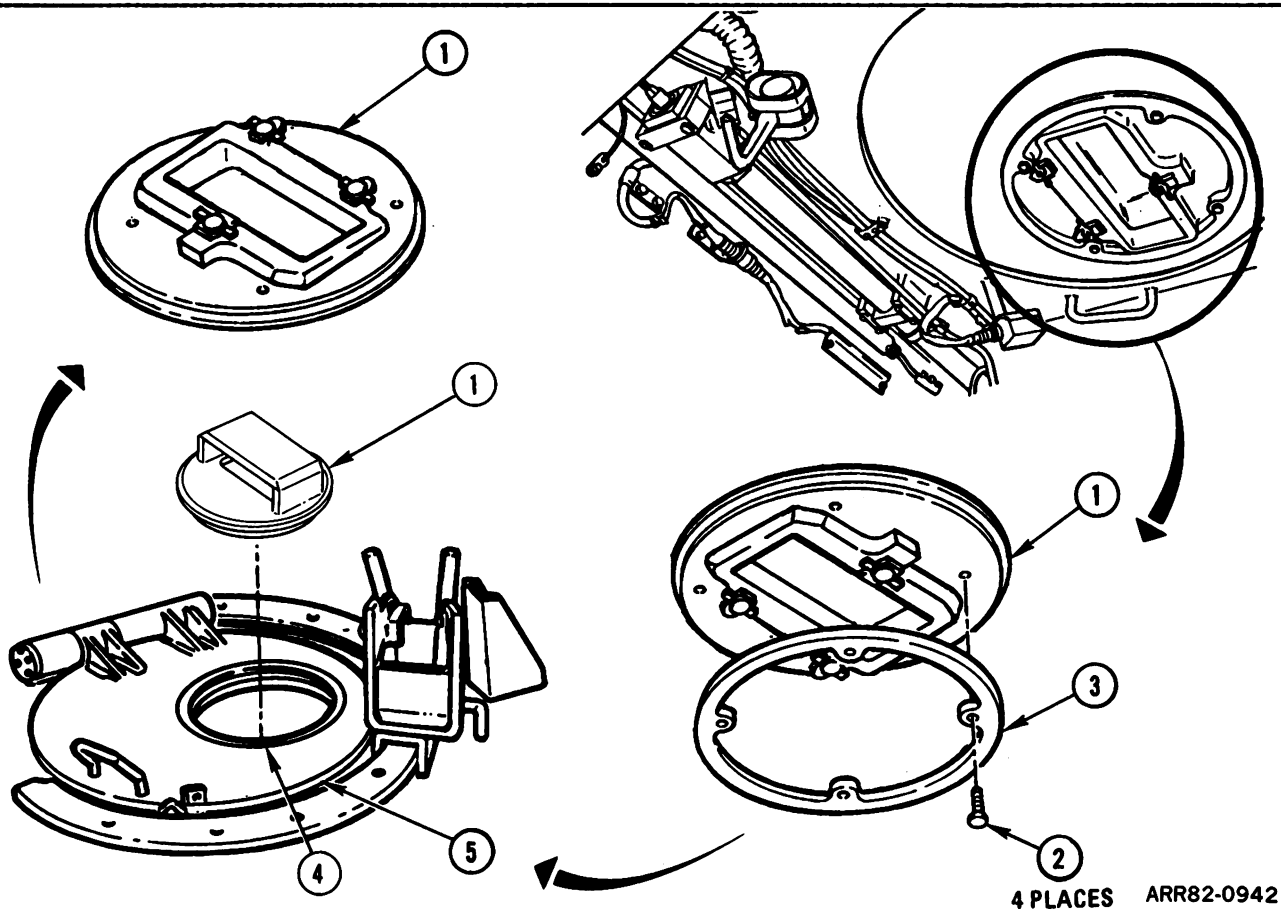
Use care when taking out turntable (1) to avoid damage to bearing (4).

Soldier A,

Soldier B: 3. Lift turntable (1) out of hatch (5).

Soldier B: 4. Set turntable (1) upside down on clean, flat work surface.

GO TO FRAME 2



FRAME 2

Clean and Inspect Turntable:

Soldier A: 1. Pull bearing (1) from turntable opening (2) in hatch (3). Look at bearing (1) for tears, breaks, and wear. If bad turn in. If OK set aside for later use.

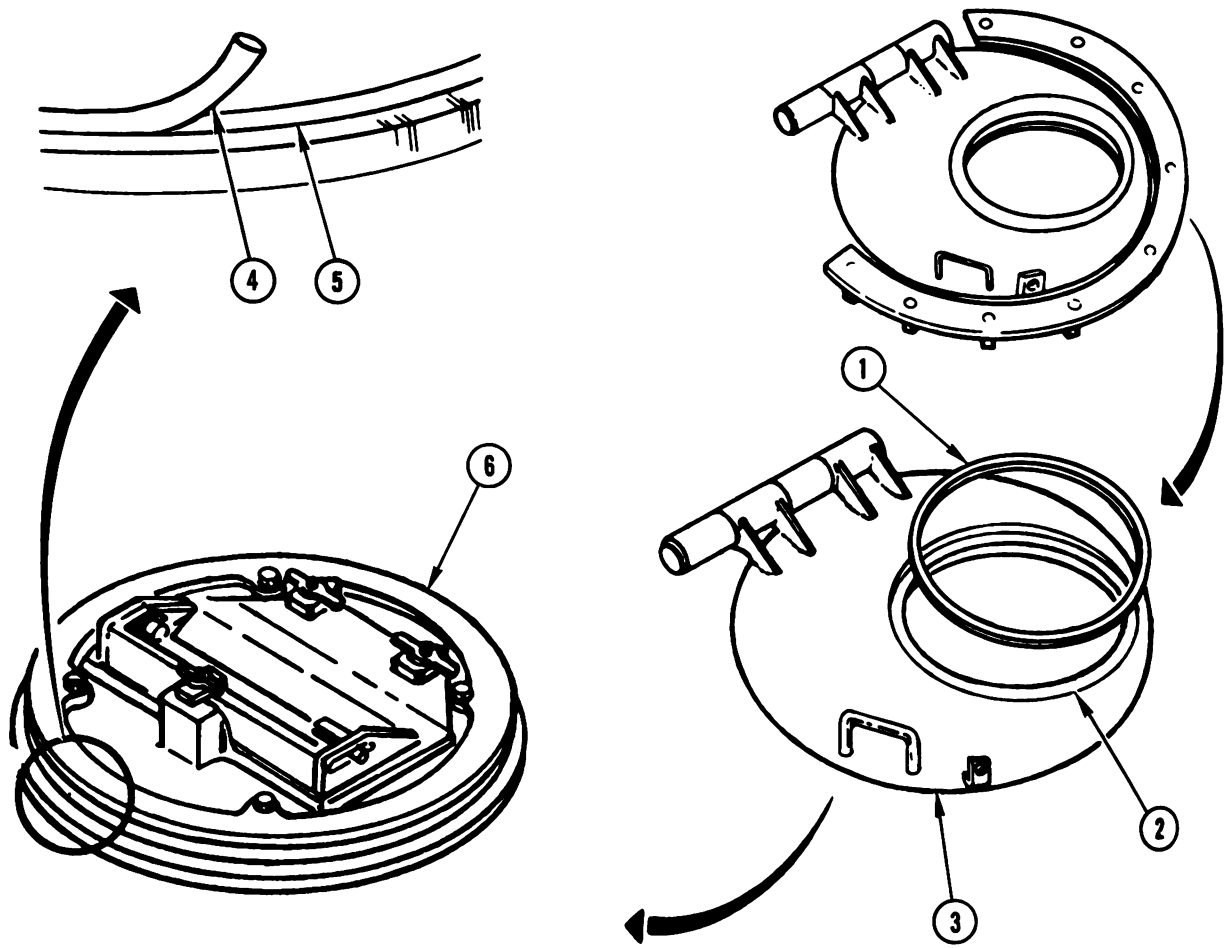
Soldier A. 2. Scrape gasket (4) from groove (5) on turntable (6) with knife. Get rid of gasket (4).

WARNING

Solvent burns easily. To avoid injury, do not use near open fire.

Soldier B: 3. Clean around turntable opening (2) and groove (5) with solvent, rag, and abrasive cloth. Wipe dry with clean rag.

GO TO FRAME 3



ARR82-0943

FRAME 3

Clean and Inspect Turntable (Continued):

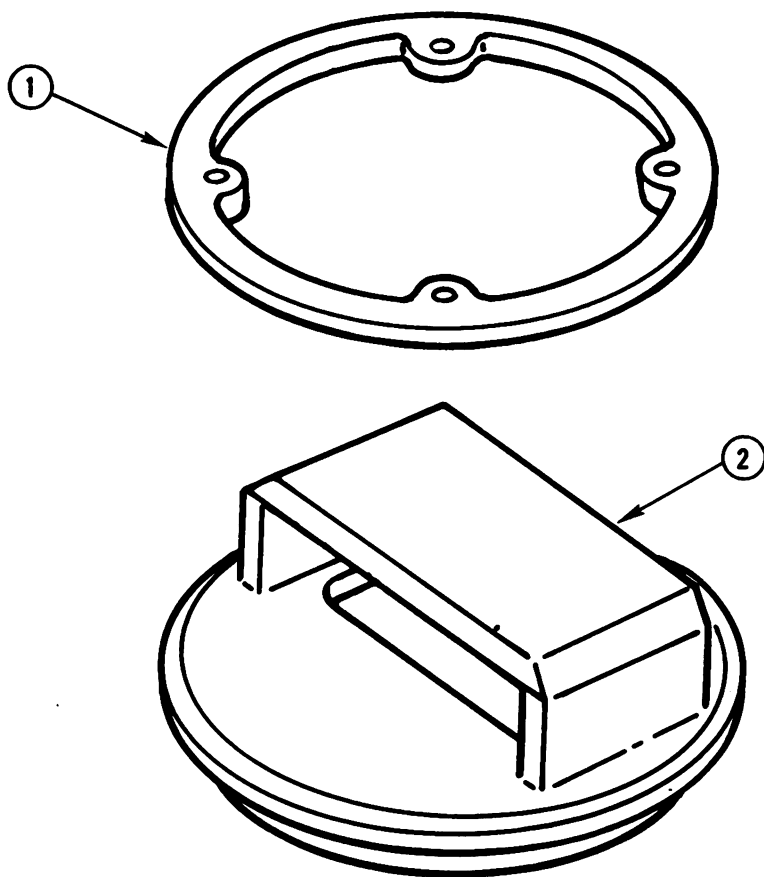
Soldier A: 1. Clean retainer (1) with solvent, rag, and abrasive cloth. Wipe dry with clean rag.

Soldier A,
Soldier B: 2. Look at retainer (1) and turntable (2) for cracks. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install turntable, gasket, and bearing, refer to task 14.

TASK 1 ENDS HERE



ARR82-0944

TASK 2. Remove Loader's Hatch Handle

Applicability: All Models

Common Tools:

Hammer, ball peen
Handle, socket wrench, hinged, 1/2 -inch square drive
Punch, drive pin, 1/8-inch
Socket, socket wrench, 1/2-inch square drive, 15/16-inch
Pliers, slip joint

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Open loader's hatch; refer to TM 9-2350-255-10.

FRAME 4**Remove Handle:**

1. Unscrew and take off screw (1), washer (2), three disc springs (3), and loader's hatch handle (4) with socket and handle.

NOTE

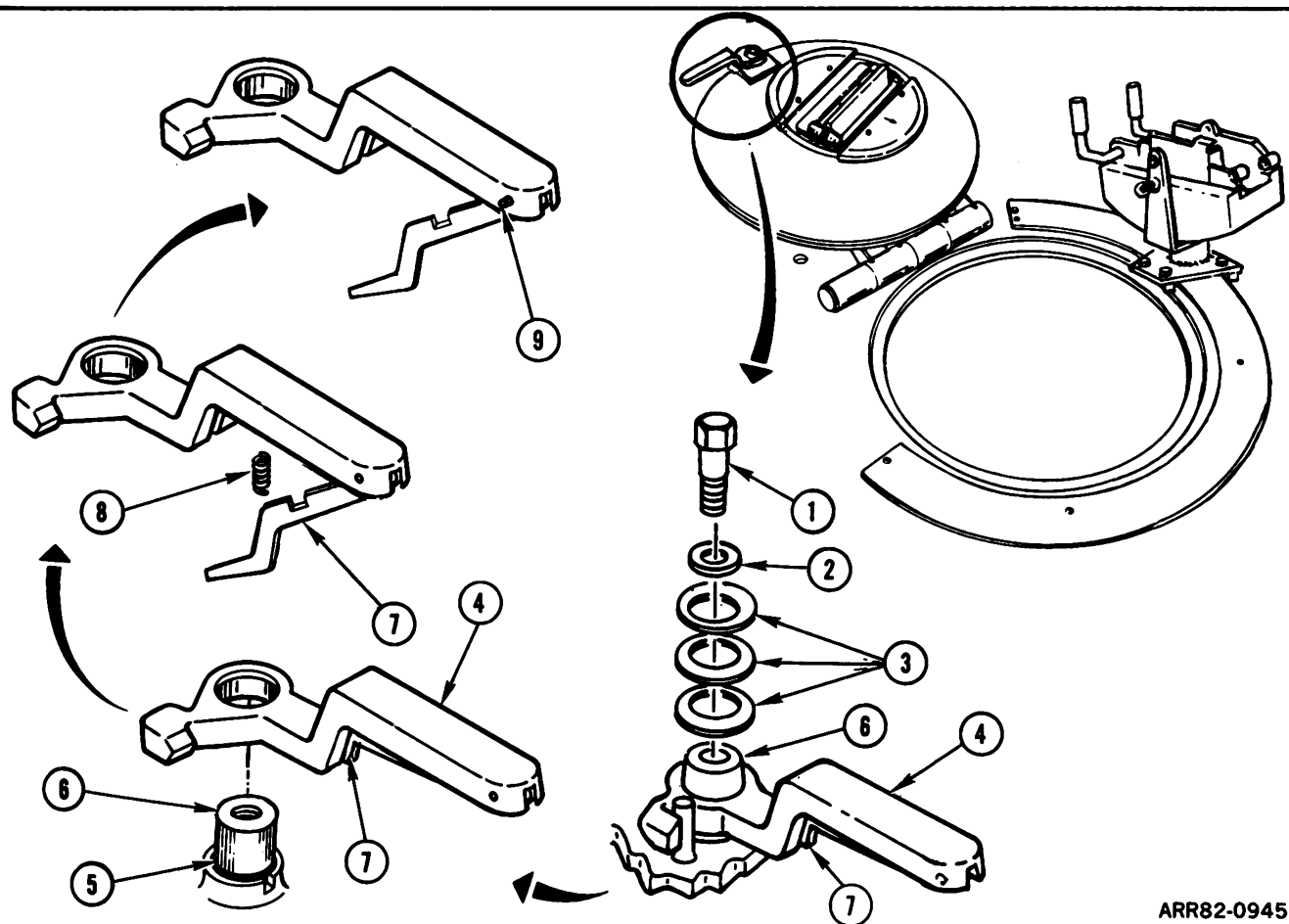
Shim (5) may be on post (6). If shim (5) is there, leave shim (5) in place on post (6).

2. Squeeze handle (4) and handle latch (7). Lift handle (4) from post (6).

Disassemble Handle and Latch:

3. Take out extension helical spring (8) from handle (4). Look at spring (8) for breaks or bends. If bad turn in. If OK set aside for later use.
4. Drive out spring pin (9) from handle (4) as far as possible with hammer and punch. Pull pin (9) out with pliers. Get rid of pin (9).

GO TO FRAME 5



ARR82-0945

FRAME 5

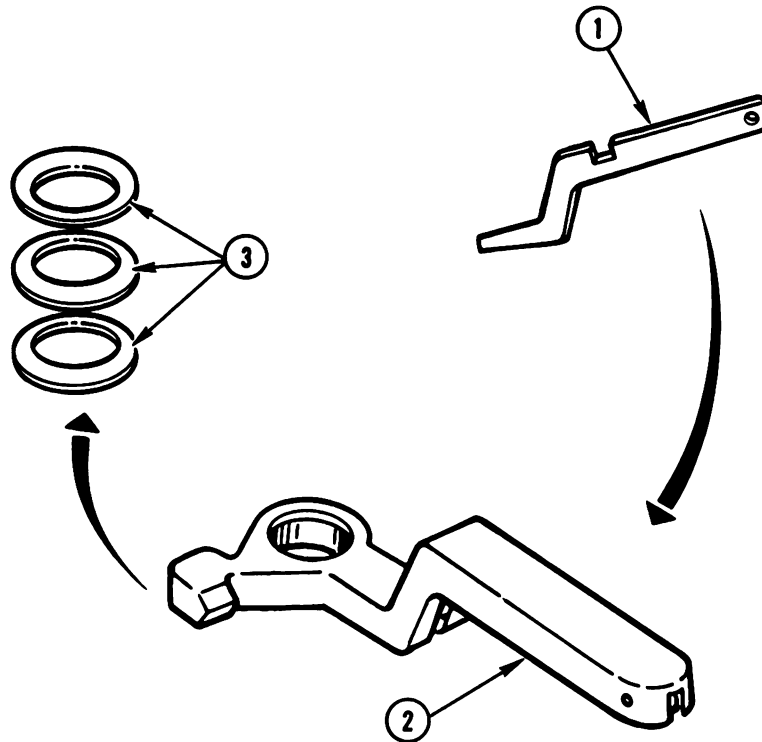
Inspect Handle and Latch:

1. Pull latch (1) off handle (2). Look at latch (1) and handle for cracks or bends. Turn in bad parts. Set good parts aside for later use.
2. Look at three disc springs (3) for cracks and flattened discs. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install loader's hatch handle, refer to task 13.

TASK 2 ENDS HERE



ARR82-0946

TASK 3. Remove Hatch Lock Handle

Applicability: All Models

Common Tools:

Caps, vise
Extension, socket wrench, 3/8-inch square drive, 5-inch
Hammer, ball peen
Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, long round nose
Punch, drive pin, 3/32-inch
Socket, socket wrench, 3/8-inch square drive, 1/2-inch
Vise, machinist's

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Dry Cleaning Solvent, P-D-680 (Item 21)
Pin, spring (96906) MS16562-26
Rag, wiping (Item 45)

Personnel: Two

Soldier A: Removes hatch lock handle.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Open loader's hatch; refer to TM 9-2350-255-10.

FRAME 6

Remove Handle:

Soldier B: 1. Hold hatch (1) in the open position.

Soldier A: 2. Hold hatch lock handle (2) aside. Unscrew and take out two machine bolts (3) and two shims (4) with socket, extension, and handle.

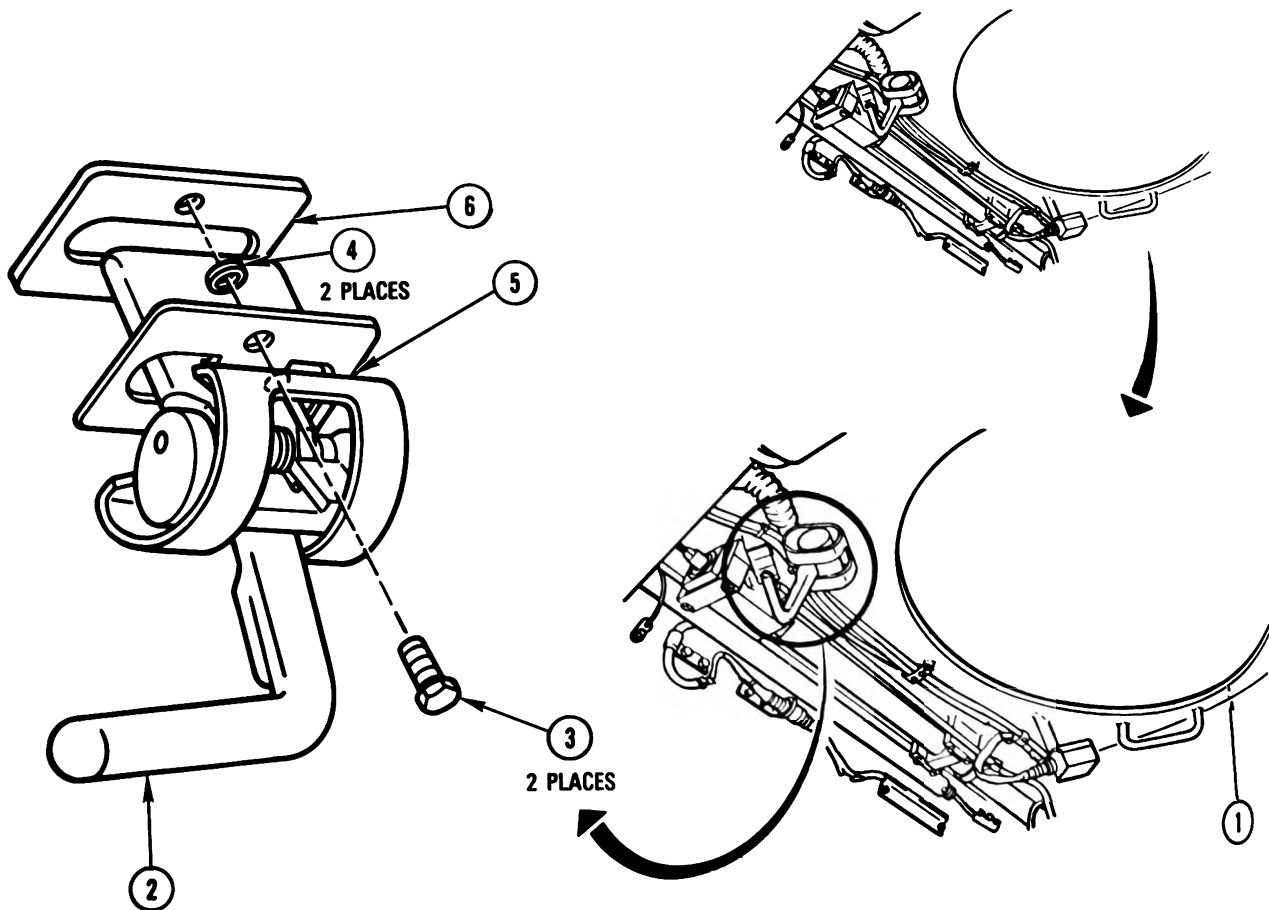
Soldier A: 3. Lower assembled handle (5) from pad (6). Put assembled handle (5) on clean work surface.

Soldier B: 4. Put hatch (1) in full open position.

NOTE

Soldier B is no longer needed in this task.

GO TO FRAME 7

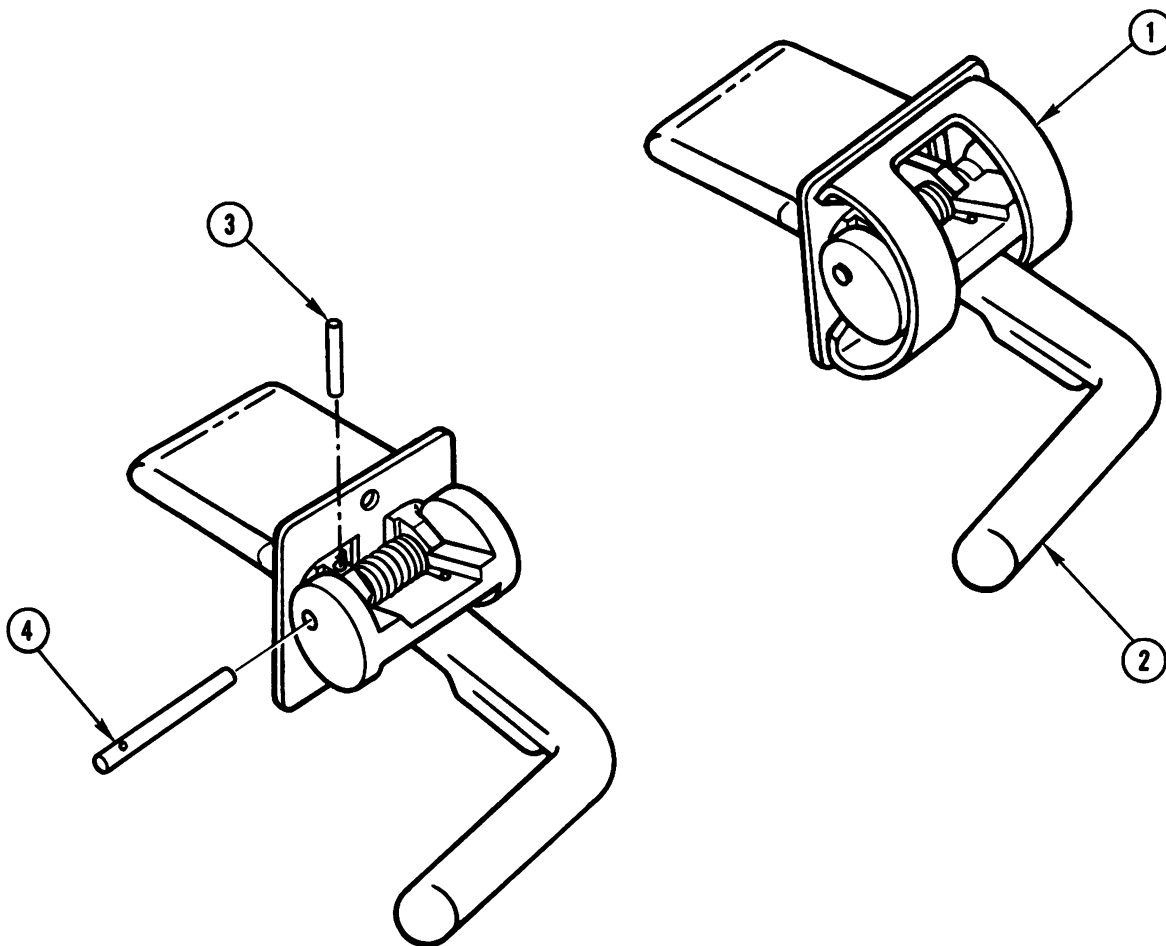


ARR82-0947

FRAME 7**Disassemble Handle:**

1. Pull cam guide (1) off handle (2).
2. Look at guide (1) for cracks. If bad turn in. If OK set aside for later use.
3. Drive out spring pin (3) with hammer and punch. Get rid of pin (3).
4. Drive out headless straight pin (4) with punch and hammer. Look at pin (4) for cracks. If bad turn in. If OK set aside for later use.

GO TO FRAME 8



ARR82-0948

FRAME 8

Disassemble Handle (Continued):

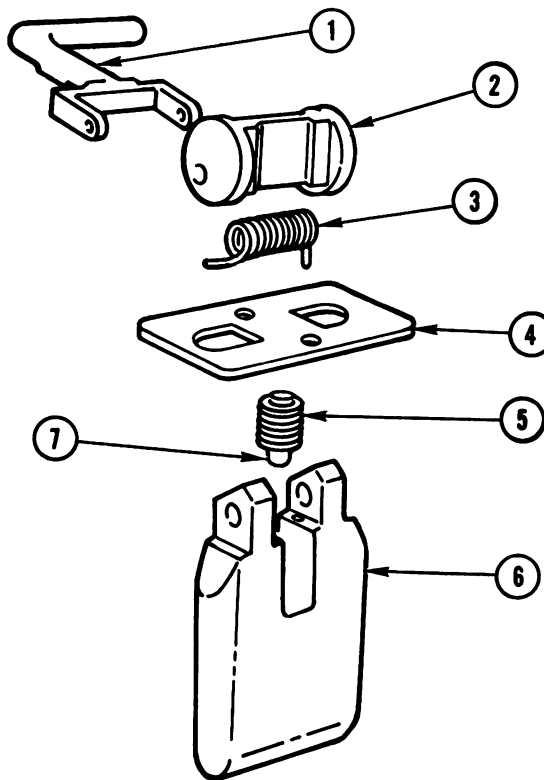
1. Take handle (1), cam (2), torsion helical spring (3), cam spacer (4), and cartridge assembly (5) off hatch lock bolt (6).

WARNING

Solvent burns easily. To avoid injury, do not use near open fire.

2. Clean handle (1), cam (2), spring (3), spacer (4), cartridge (5), and bolt (6) with solvent and rag.
3. Put bolt (6) in vise.
4. Put cartridge (5) in bolt (6). Press and let go of cartridge pin (7). Make sure that pin (7) springs back when let go. If bad, turn in cartridge (5). If OK set aside for later use.
5. Look at all parts for cracks or breaks. Turn in bad parts. Set good parts aside for later use.

GO TO FRAME 9



ARR82-0949

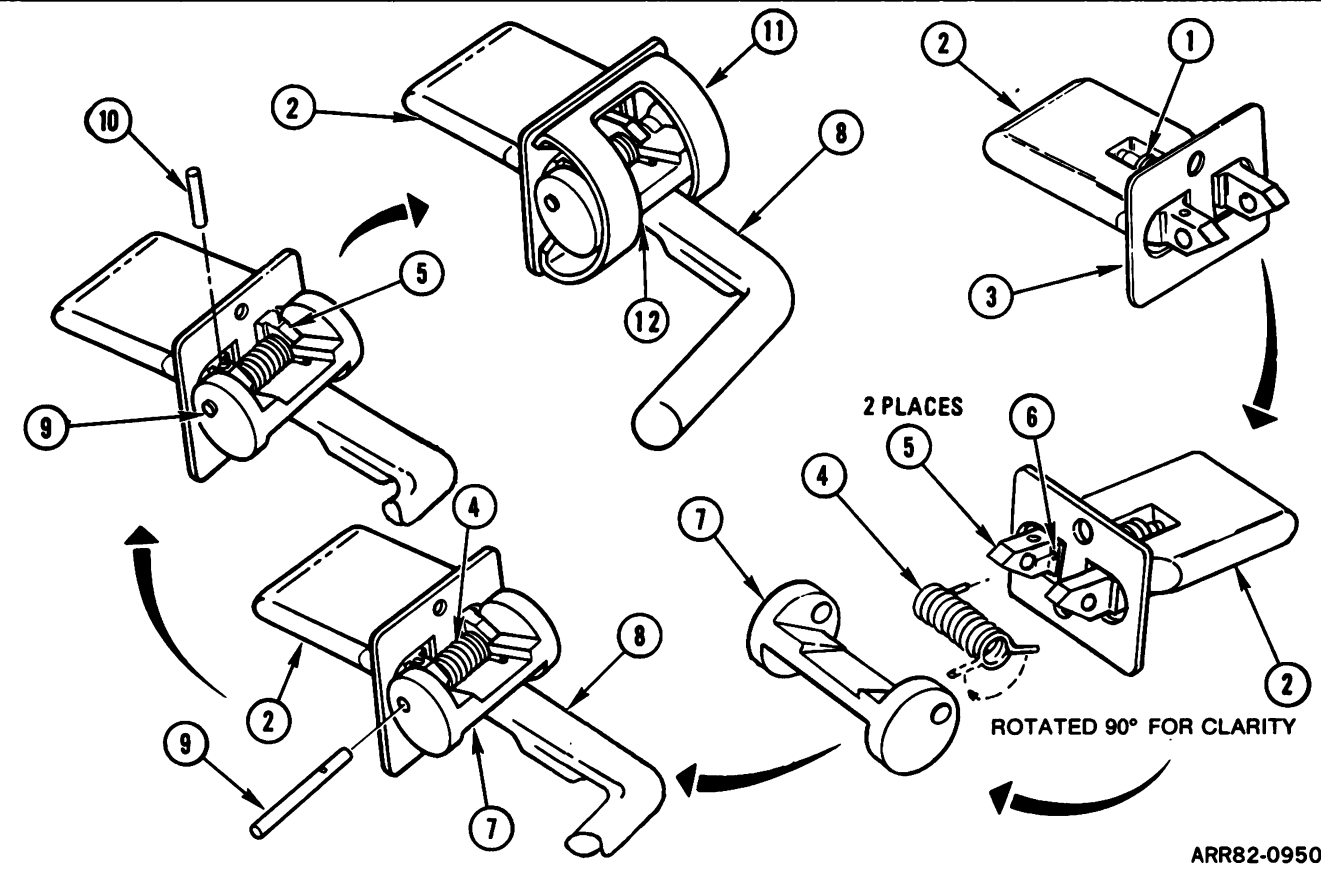
FRAME 9**Assemble Handle:**

1. Put cartridge (1) in bolt (2). Put spacer (3) on bolt (2).
2. Push spring (4) between two arms (5) on bolt (2) with short end of spring (4) in hole (6) in arm (5).
3. Turn long end of spring (4) clockwise and put on top of cam (7) with pliers.
4. Hold cam (7) and spring (4) in place on bolt (2). Put handle (8) on bolt (2). Line up holes in bolt (2), cam (7), and handle (8). Slide straight pin (9) in holes of cam (7) and bolt (2) until flat against end of cam (7).
5. Line up pinhole in arm (5) and straight pin (9).
6. Hold new spring pin (10) with pliers. Drive spring pin (10) in arm (5) and straight pin (9) with hammer and punch. Slide cam guide (11) over handle (8).
7. Take assembled handle (12) out of vise.

Follow-on Maintenance:

NOTE: To install hatch lock handle, refer to task 12.

TASK 3 ENDS HERE



TASK 4. Remove Hatch, Metallic Tube, and Leaf Springs

Applicability: All Models

Common Tools:

Hammer, ball peen
Handle, socket wrench, ratchet, 3/8-inch square drive
Hoist, 1000-pound capacity
Punch, drive pin, 3/8-inch
Rule, machinist's, 6-inch
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, combination, 1/2-inch

Special Tools:

Strap Assembly, web, adjustable, 12273481

Supplies: None

Personnel: Two

Soldier A: Removes hatch, metallic tube, and leaf springs.
Soldier B: Operates hoist.

NOTE

Soldier B is not needed until frame 11.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

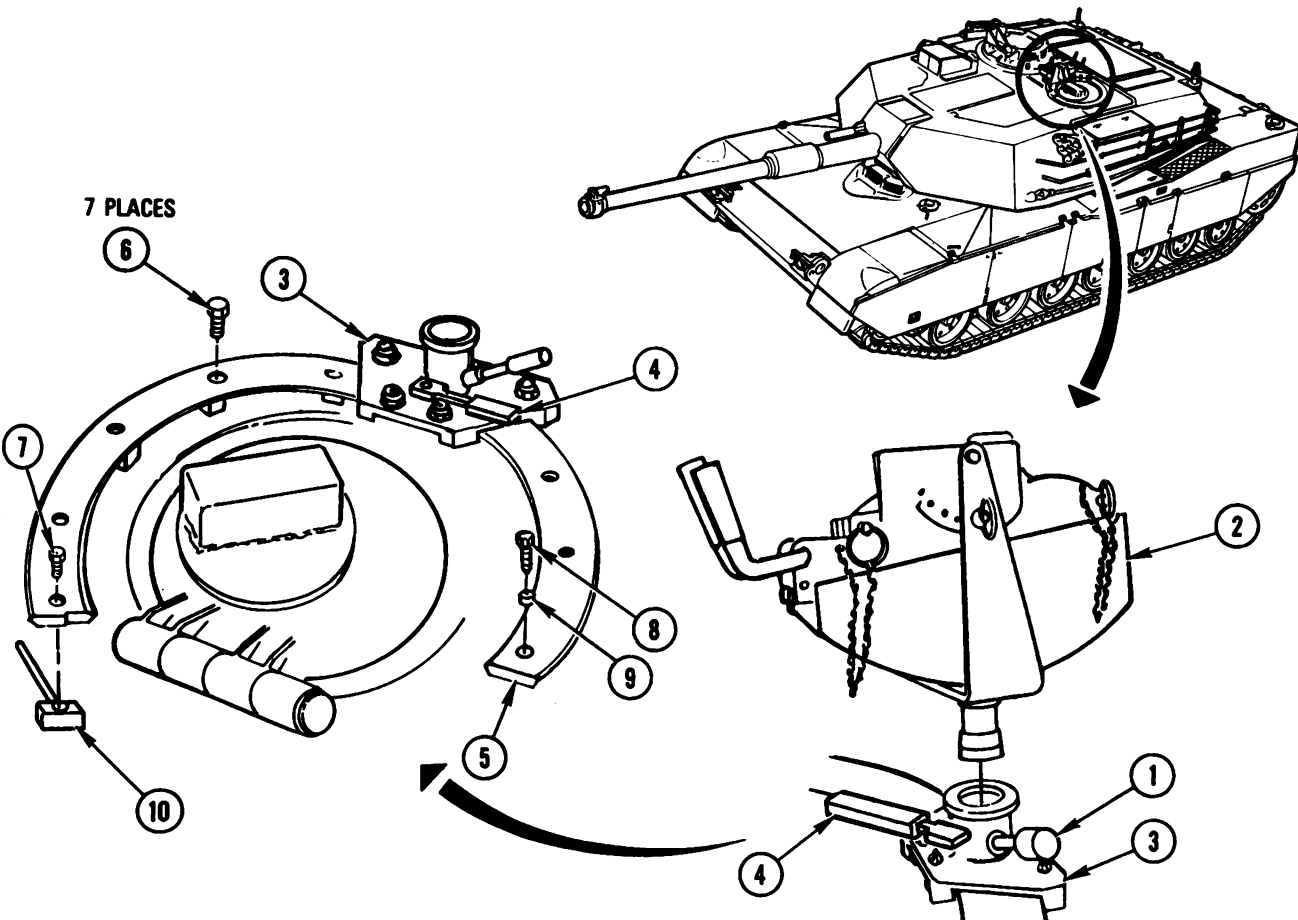
Preliminary Procedures:

1. Remove loader's periscope; refer to TM 9-2350-255-10.
2. Remove turntable, gasket, and bearing; refer to task 1.
3. Open loader's hatch; refer to TM 9-2350-255-10.
4. Remove loader's hatch handle; refer to task 2.

FRAME 10**Remove Track and Loader's Weapon Mount:**

1. Loosen lockscrew (1) and take out loader's weapon mount (2) from skate (3).
2. Turn skate clamp handle (4) counterclockwise as far as it will go. Move skate (3) on skate mount track (5) as required, and take out seven short screws (6) with socket and handle.
3. Unscrew and take out long screw (7) with socket and handle.
4. Unscrew and take out screw (8) and stop (9) with socket and handle.
5. Turn handle (4) clockwise as far as it will go to lock skate (3) on track (5). Lift off skate (3) and track (5).
6. Take off detent (10).
7. Set all parts aside for later use.

GO TO FRAME 11



ARR82-0951

FRAME 11

Attach Web Strap:

Soldier B: 1. When told by Soldier A, operate hoist so hoist hook (1) is centered over loader's hatch (2).

Soldier A: 2. Put web strap (3) through turntable hole (4) and handle (5).

Soldier A: 3. Hook ends of web strap (3) together.

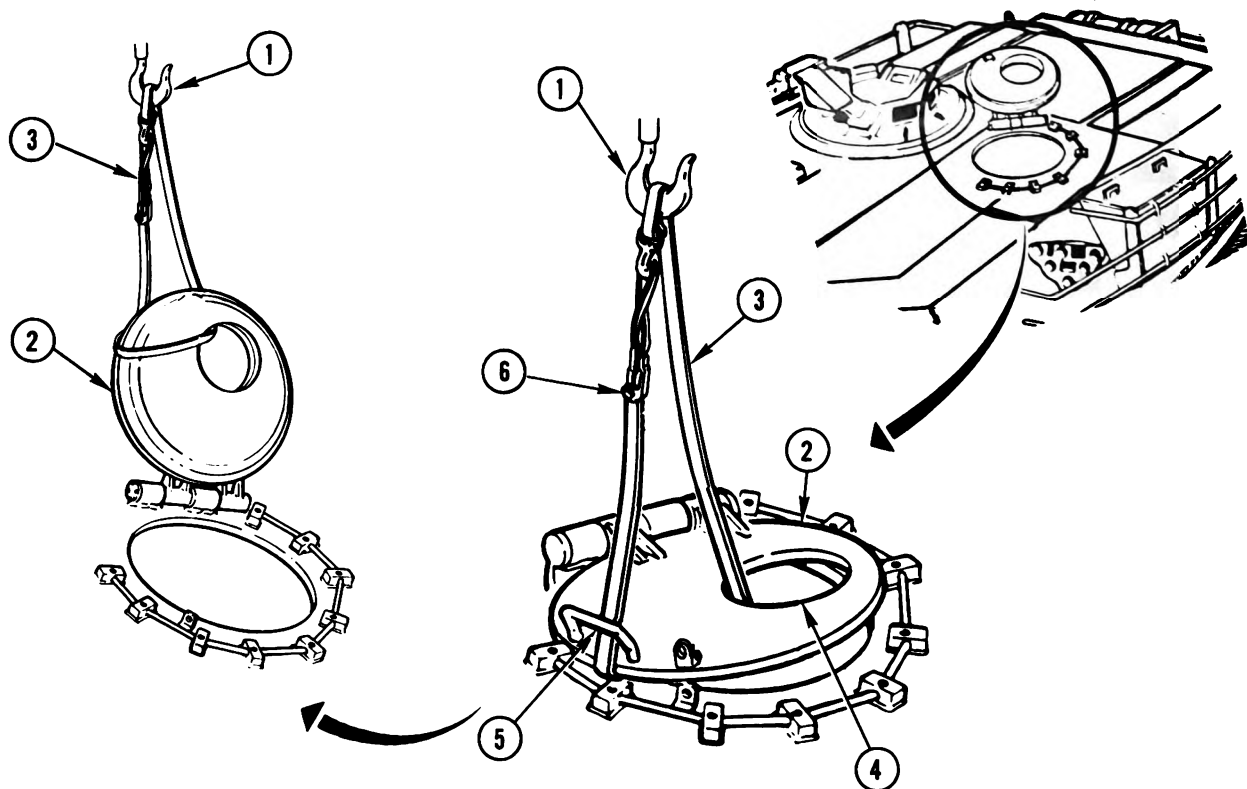
Soldier B: 4. When told by Soldier A, lower hoist hook (1).

Soldier A,

Soldier B: 5. Hook web strap (3) to hoist hook (1). Take up slack in web strap (3) with slack adjuster (6).

Soldier B: 6. When told by Soldier A, raise hook (1), and web strap (3) until hatch (2) is almost straight up.

GO TO FRAME 12



ARR82-0952

FRAME 12

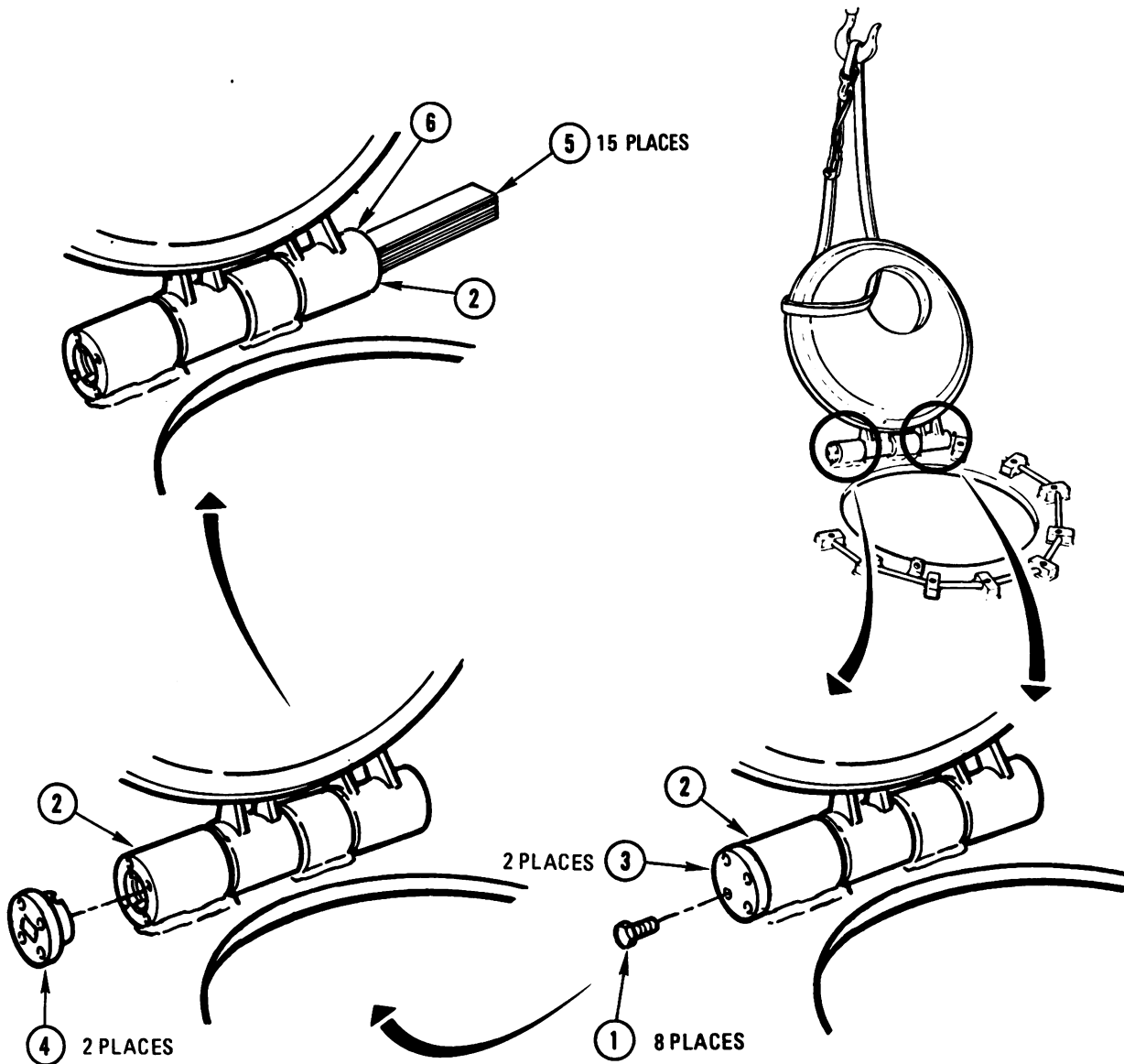
Remove Covers, End Caps, and Leaf Springs:

Soldier A: 1. Unscrew and take four machine bolts (1) out of each end of hinge (2) with wrench.

Soldier A: 2. Take two access covers (3) and two hinge end caps (4) off ends of hinge (2). Set covers (3) and caps (4) aside for later use.

Soldier A,
Soldier B: 3. Take 15 leaf springs (5) out of left side (6) of hinge (2).

GO TO FRAME 13



ARR82-0953

FRAME 13

Remove Tube and Hatch:

Soldier B: 1. When told by Soldier A, lower hatch (1) on hatch opening (2).

Soldier A: 2. Drive metallic tube (3) 2 to 3 inches out of hinge (4) with hammer, punch, and rule.

Soldier A: 3. Pull tube (3), three recessed washers (5), and three packings (6) out of hinge (4). Get rid of washers (5) and packings (6). Set tube (3) aside for later use.

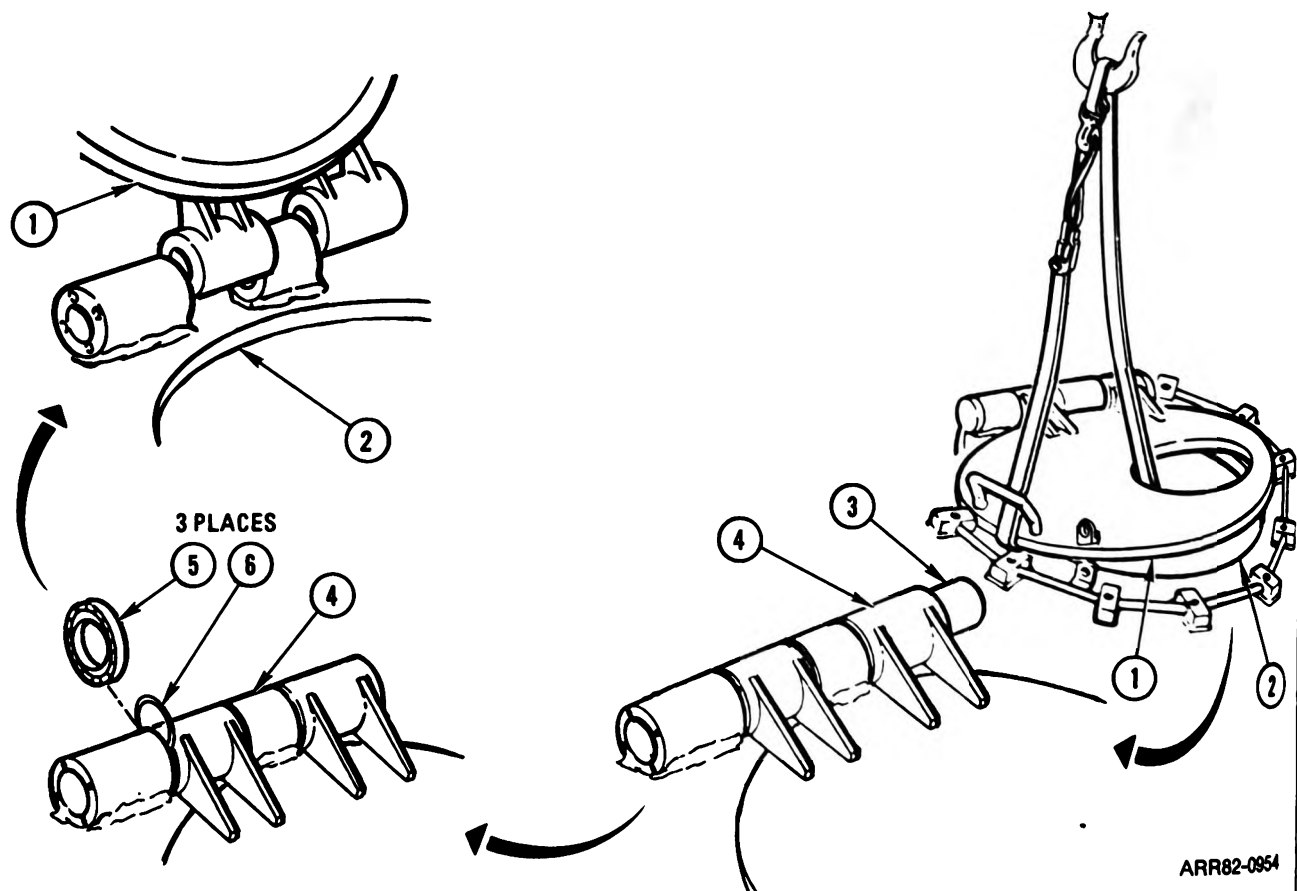
WARNING

Hatch (1) weighs more than 120 pounds. Use care when lifting hatch (1) with hoist. Swinging hatch (1) can injure you and can damage equipment.

Soldier A: 4. Guide hatch (1) clear of tank to work surface.

Soldier B: 5. When told by Soldier A, raise hatch (1) off hatch opening (2) and lower to flat work surface.

GO TO FRAME 14



ARR82-0954

ARR82-0954

FRAME 14

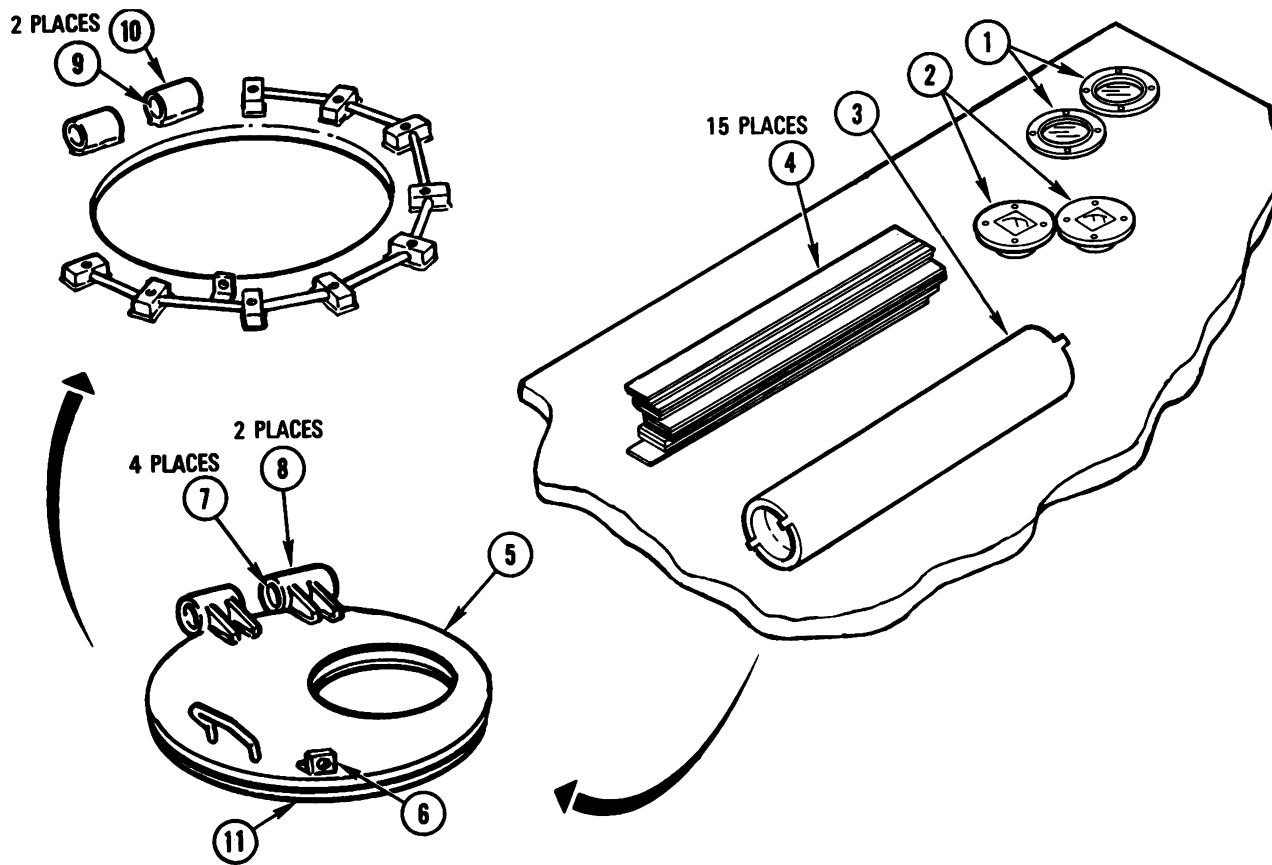
Inspect Hatch:

- Soldier A:** 1. Look at two access covers (1), two hinge caps (2), metallic tube (3), 15 leaf springs (4), and hatch (5) for cracks. Turn in bad parts. Set good parts aside for later use.
- Soldier A:** 2. Look at angle bracket (6) on hatch for breaks. Replace bad angle bracket; refer to task 6.
- Soldier A:** 3. Look at four bearings (7) in hinges (8) of hatch (5) and two sleeve bearings (9) in hinges (10) for corrosion or flat spots. Replace bad bearings or sleeve bearings; refer to task 7.
- Soldier A:** 4. Look at rubber seal (11) on hatch (5) for tears. If bad replace rubber seal; refer to task 5. If OK set hatch (5) aside for later use.

Follow-on Maintenance:

NOTE: To install hatch metallic tube and leaf springs, refer to task 11.

TASK 4 ENDS HERE



ARR82-0955

TASK 5. Replace Rubber Seal

Applicability: All Models

Common Tools:

Knife, pocket
Knife, putty
Rule, machinist's 6-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Adhesive, Type II, MMM-A-1617 (Item 3)
Brush, acid swabbing (Item 13)
Dry Cleaning Solvent, P-D-680 (Item 21)
Pencil, writing (Item 42)
Rag, wiping (Item 45)
Seal, rubber (19207) 12273179-1
Tubing, nonmetallic (19207) 12287775 (two required)

Personnel: One

Equipment Condition:

- Tank parked.
- VEHICLE MASTER POWER switch set to OFF.
- Parking brake set.
- Transmission shift control set to N.

Preliminary Procedure:

Open loader's hatch to full open position; refer to TM 9-2350-255-10.

FRAME 15**Remove Seal:**

1. Peel rubber seal (1) off hatch (2) with pocket knife and putty knife. Get rid of seal (1).

WARNING

Solvent burns easily. To avoid injury, do not use near open fire.

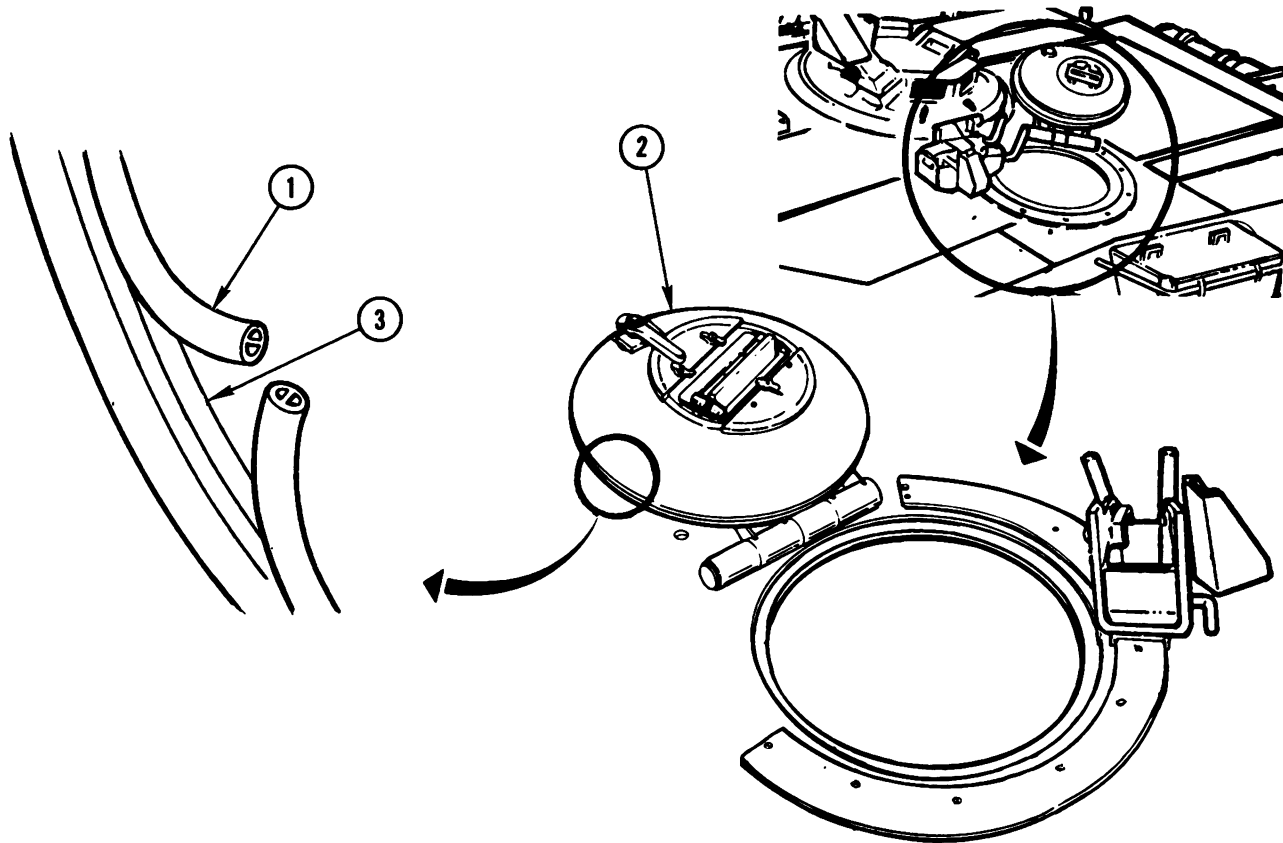
2. Clean seal groove (3) with solvent and rag. Wipe dry with clean rag.

Install Seal:**NOTE**

For tight fit, new rubber seal (1) should be cut 1/2-inch longer than groove (3).

3. Push seal (1) in groove (3). Cut seal (1) with pocket knife and rule.

GO TO FRAME 16



ARR82-0956

FRAME 16

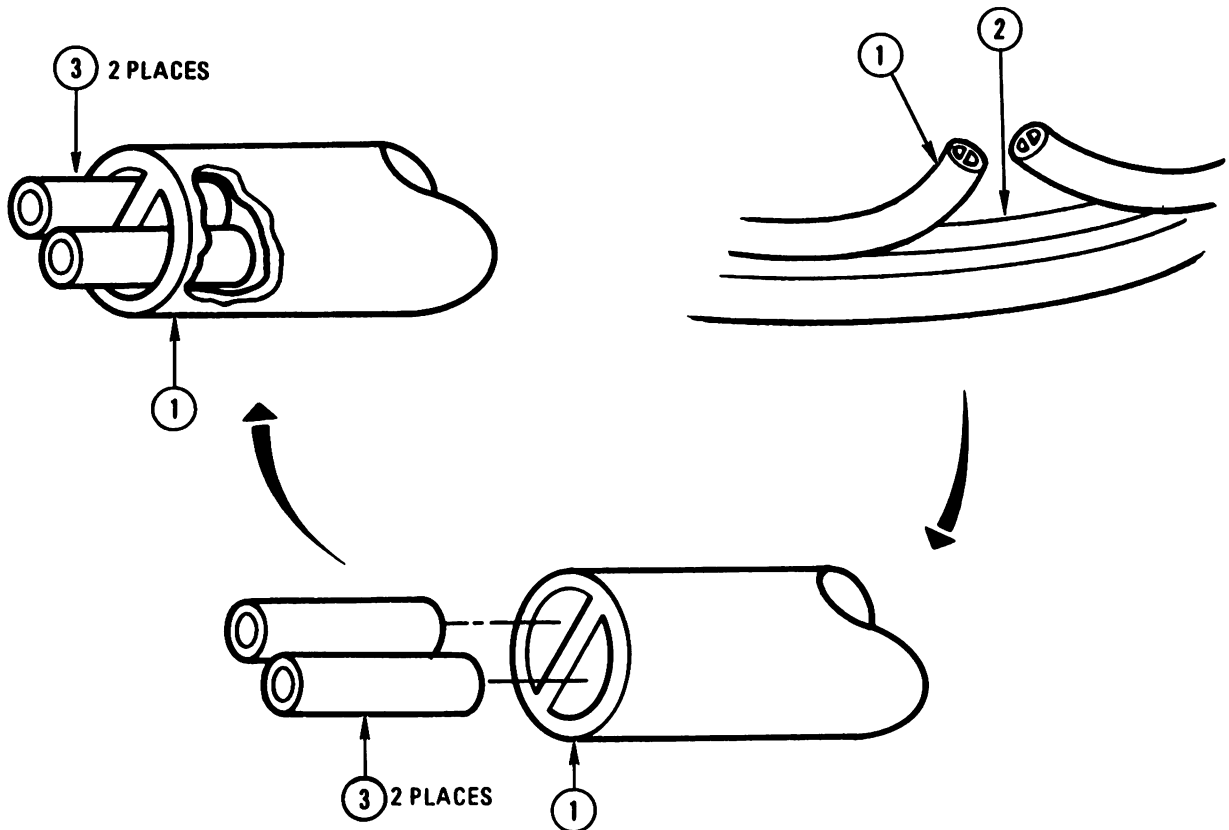
Install Seal (Continued):

WARNING

Adhesives burn easily and give off harmful vapors. To avoid injury, keep away from open flame and use in a well-ventilated area.

1. Take seal (1) out of groove (2). Spread adhesive in groove (2) and on seal (1) with brush. Let dry for 15 minutes.
2. Measure a 3/4-inch section at one end of each piece of new nonmetallic tubing (3) with rule. Mark with pencil. Spread a coat of adhesive on measured end of each piece of tubing (3) with brush. Let dry for 15 minutes.
3. Spread a second coat of adhesive on measured end of tubing (3) with brush. Push adhesive coated end of tubes (3) in end of seal (1) to pencil mark before adhesive dries.
4. Spread a coat of adhesive on other end of each piece of tubing (3) with brush. Let dry for 15 minutes.

GO TO FRAME 17



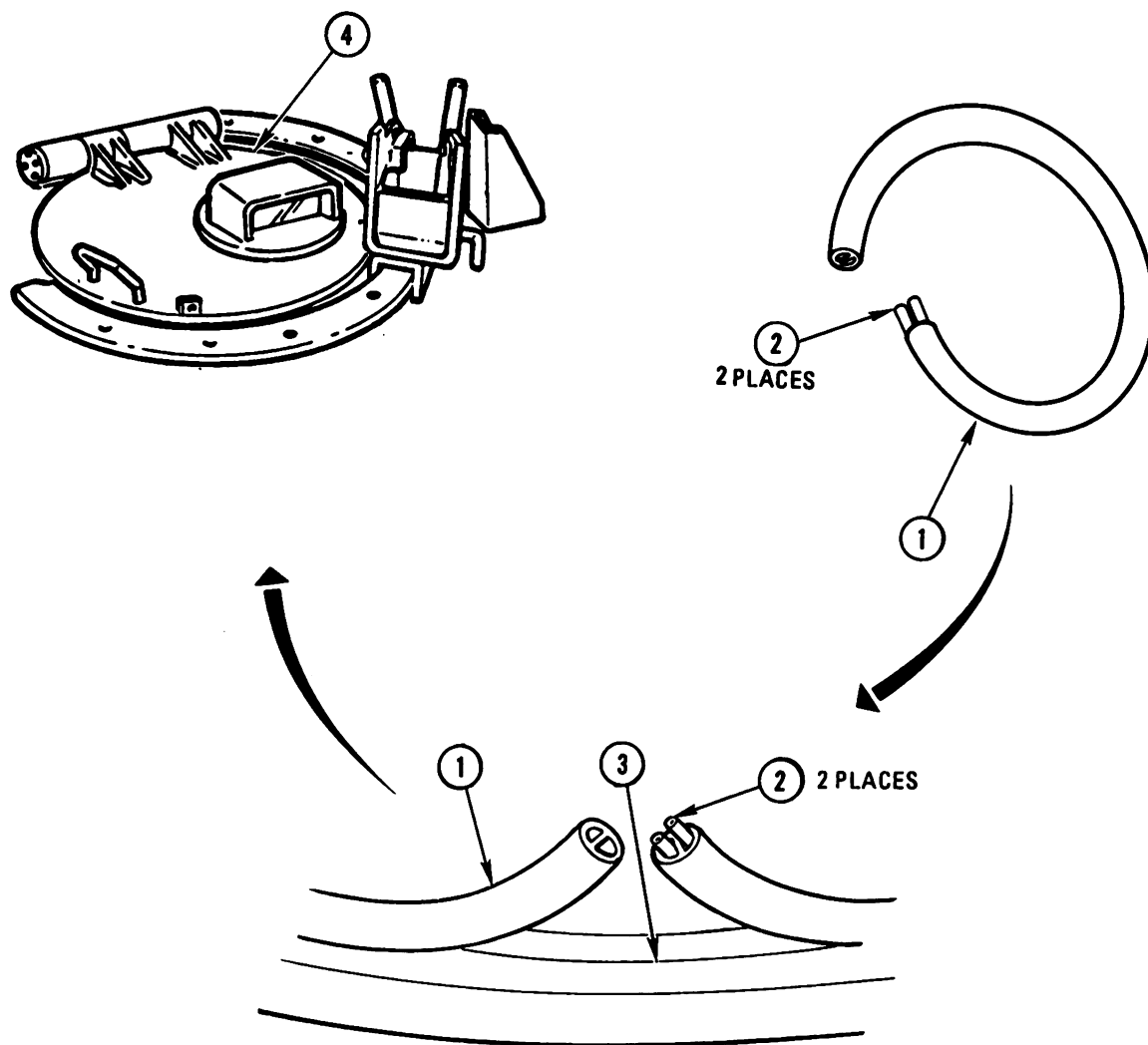
ARR82-0957

FRAME 17**Install Seal (Continued):**

1. Spread second coat of adhesive on seal (1), end of tubes (2), and in groove (3) with brush. Put seal (1) in groove (3) before adhesive dries.
2. Push end of seal (1) over end of each piece of tubing (2) before adhesive dries.
3. Close hatch (4) for 15 minutes to seat seal (1).

Follow-on Maintenance: None

TASK 5 ENDS HERE



ARR82-0958

TASK 6. Replace Angle Bracket

Applicability: All Models

Common Tools:

Apron, leather
Brush, wire scratch
Clamp, C, 6-inch
Drill, portable, electric, 1/2-inch
Drill, twist, 25/64-inch
Gloves, leather
Goggles, industrial
Grinder, electric, portable
Hammer, ball peen
Helmet, welding
Holder, electrode welding
Machine, arc welding
Punch, center
Screen, welding
Scriber, machinist's
Vise, machinist's
Wheel, abrasive

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Bracket, angle (19207) 12285138
Crayon, marking SS-C-661 (Item 18)
Electrode, welding (Item 22)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Open loader's hatch to intermediate open position; refer to TM 9-2350-255-10.

FRAME 18

Remove Angle Bracket:

WARNING

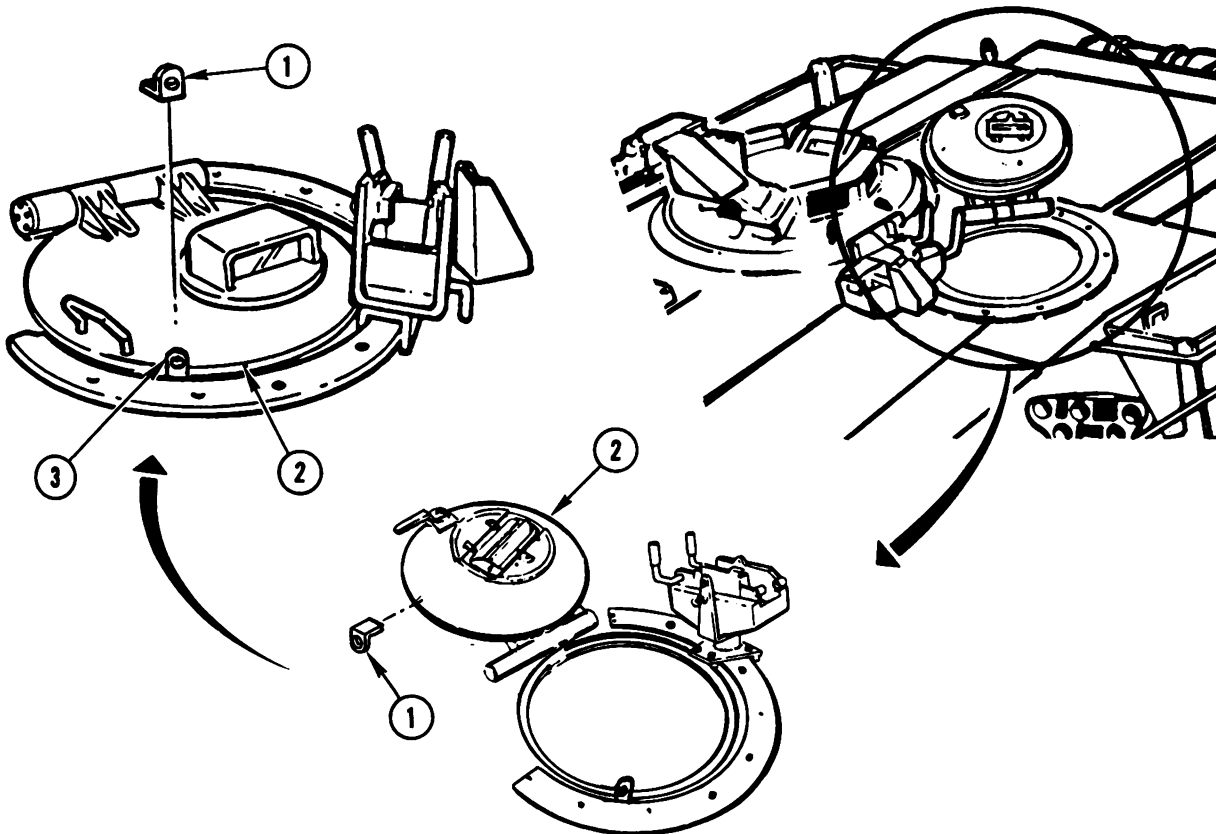
Metal sparks and flying grit caused by grinding can injure eyes and burn you. To avoid injury, wear safety goggles and gloves.

1. Take bad angle bracket (1) off hatch (2) with grinder and wheel. Turn in bracket (1).
2. Take any weld metal, dirt, or paint off weld area on hatch (2) with grinder wheel and brush.

Install Angle Bracket:

3. Close hatch (2). Hold new angle bracket (1) in place on hatch (2). Line up bracket (1) with turret angle bracket (3).
4. Mark position of bracket (1) on hatch (2) with crayon. Mark hole position on bracket (1) through turret bracket (3) with scribe. Take bracket (1) off hatch (2).

GO TO FRAME 19



ARR82-0959

FRAME 19

Install Angle Bracket (Continued):

1. Put bracket (1) in vise. Mark center of scribed area with hammer and punch. Drill hole, where marked, through bracket (1) with electric drill and twist drill. Take bracket (1) out of vise.
2. Open loader's hatch (2) to intermediate open position.
3. Put bracket (1) in place on hatch (2). Make sure front (3) of bracket (1) is even with edge (4) of hatch (2).
4. Clamp bracket (1) to hatch cover (2) with C clamp.

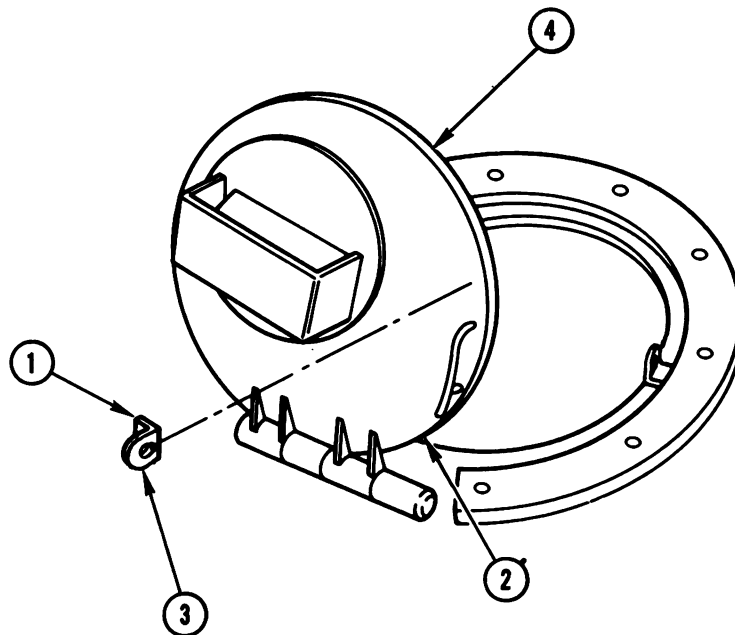
WARNING

Make sure hatch (2) is properly grounded before welding.

5. Weld bracket (1) to hatch (2); refer to TM 9-237.

Follow-on Maintenance: None

TASK 6 ENDS HERE



ARR82-0960

SK 7. Replace Bearings or Sleeve Bearings

Applicability: All Models

Common Tools:

Hammer, ball peen
Punch, drive pin, 1/4-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Bearing (19207) 12274778-3 (four required) or
Bearing, sleeve (19207) 12274778-4 (two required)
Wood Block, 2 X 4 X 6 inch (Item 64)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove loader's periscope; refer to TM-9-2350-255-10.
2. Remove turntable, gasket, and bearing; refer to task 1.
3. Open loader's hatch; refer to TM 9-2350-255-10.
4. Remove loader's hatch handle; refer to task 2.
5. Remove hatch metallic tube and leaf springs; refer to task 4.

FRAME 19

Install Angle Bracket (Continued):

1. Put bracket (1) in vise. Mark center of scribed area with hammer and punch. Drill hole, where marked, through bracket (1) with electric drill and twist drill. Take bracket (1) out of vise.
2. Open loader's hatch (2) to intermediate open position.
3. Put bracket (1) in place on hatch (2). Make sure front (3) of bracket (1) is even with edge (4) of hatch (2).
4. Clamp bracket (1) to hatch cover (2) with C clamp.

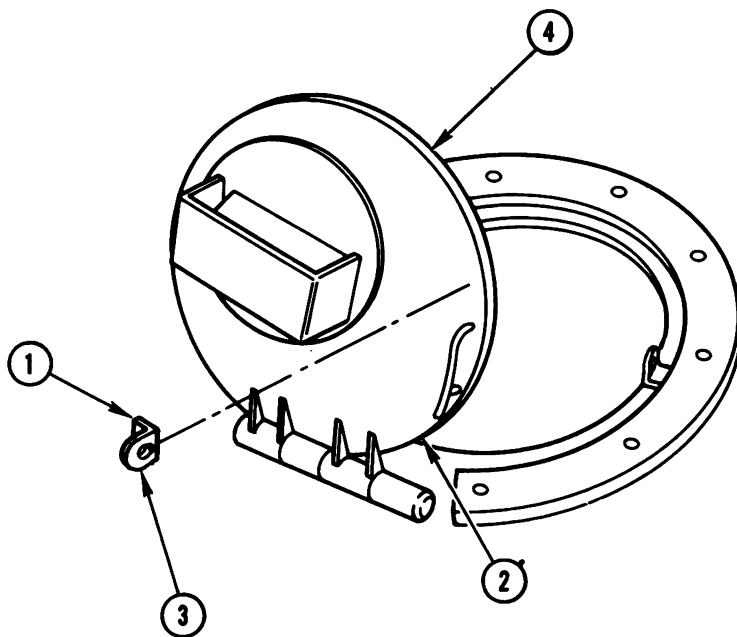
WARNING

Make sure hatch (2) is properly grounded before welding.

5. Weld bracket (1) to hatch (2); refer to TM 9-237.

Follow-on Maintenance: None

TASK 6 ENDS HERE



ARR82-0960

ASK 7. Replace Bearings or Sleeve Bearings

Applicability: All Models

Common Tools:

Hammer, ball peen
Punch, drive pin, 1/4-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Bearing (19207) 12274778-3 (four required) or
Bearing, sleeve (19207) 12274778-4 (two required)
Wood Block, 2 X 4 X 6 inch (Item 64)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove loader's periscope; refer to TM-9-2350-255-10.
2. Remove turntable, gasket, and bearing; refer to task 1.
3. Open loader's hatch; refer to TM 9-2350-255-10.
4. Remove loader's hatch handle; refer to task 2.
5. Remove hatch metallic tube and leaf springs; refer to task 4.

FRAME 19

Install Angle Bracket (Continued):

1. Put bracket (1) in vise. Mark center of scribed area with hammer and punch. Drill hole, where marked, through bracket (1) with electric drill and twist drill. Take bracket (1) out of vise.
2. Open loader's hatch (2) to intermediate open position.
3. Put bracket (1) in place on hatch (2). Make sure front (3) of bracket (1) is even with edge (4) of hatch (2).
4. Clamp bracket (1) to hatch cover (2) with C clamp.

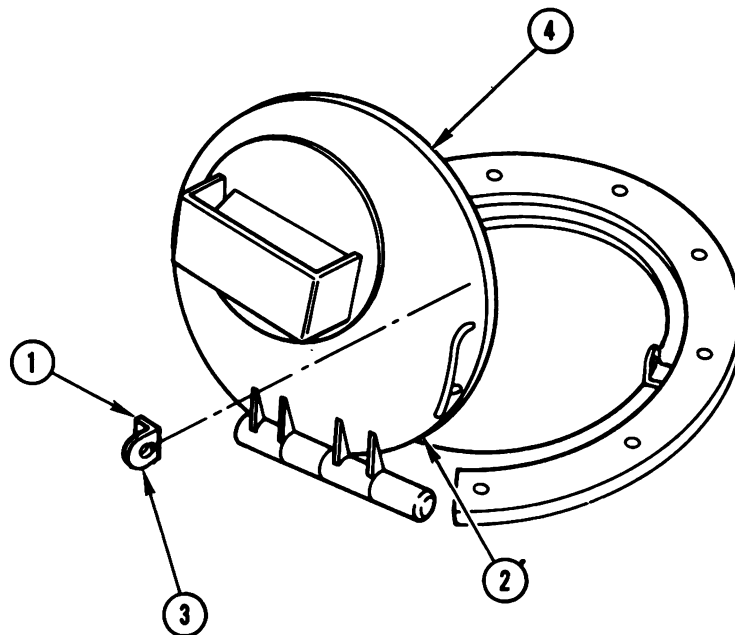
WARNING

Make sure hatch (2) is properly grounded before welding.

5. Weld bracket (1) to hatch (2); refer to TM 9-237.

Follow-on Maintenance: None

TASK 6 ENDS HERE



ARR82-0960

TASK 7. Replace Bearings or Sleeve Bearings

Applicability: All Models

Common Tools:

Hammer, ball peen
Punch, drive pin, 1/4-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Bearing (19207) 12274778-3 (four required) or
Bearing, sleeve (19207) 12274778-4 (two required)
Wood Block, 2 X 4 X 6 inch (Item 64)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove loader's periscope; refer to TM-9-2350-255-10.
2. Remove turntable, gasket, and bearing; refer to task 1.
3. Open loader's hatch; refer to TM 9-2350-255-10.
4. Remove loader's hatch handle; refer to task 2.
5. Remove hatch metallic tube and leaf springs; refer to task 4.

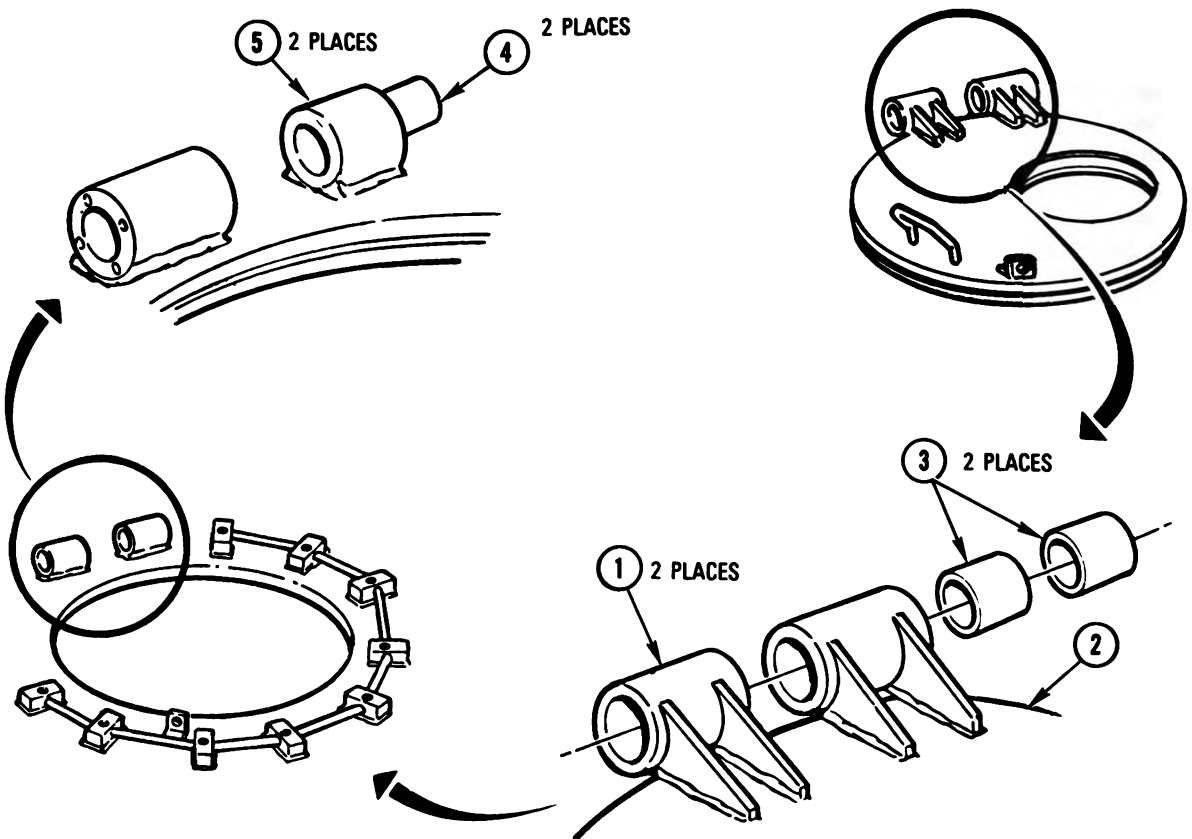
FRAME 20

Remove Bearings:

NOTE

- Each hinge (1) on hatch (2) has two bearings (3).
 - To take out bearings (3) from hinges (1) on hatch (2), do step 1.
 - To take out sleeve bearings (4) from hinges (5) on turret, do step 2.
1. Drive two bearings (3) out of each hinge (1) on hatch (2) with hammer and punch. Turn in bearings (3).
 2. Drive bearing (4) out of each hinge (5) on turret with hammer and punch. Turn in bearings (4).

GO TO FRAME 21



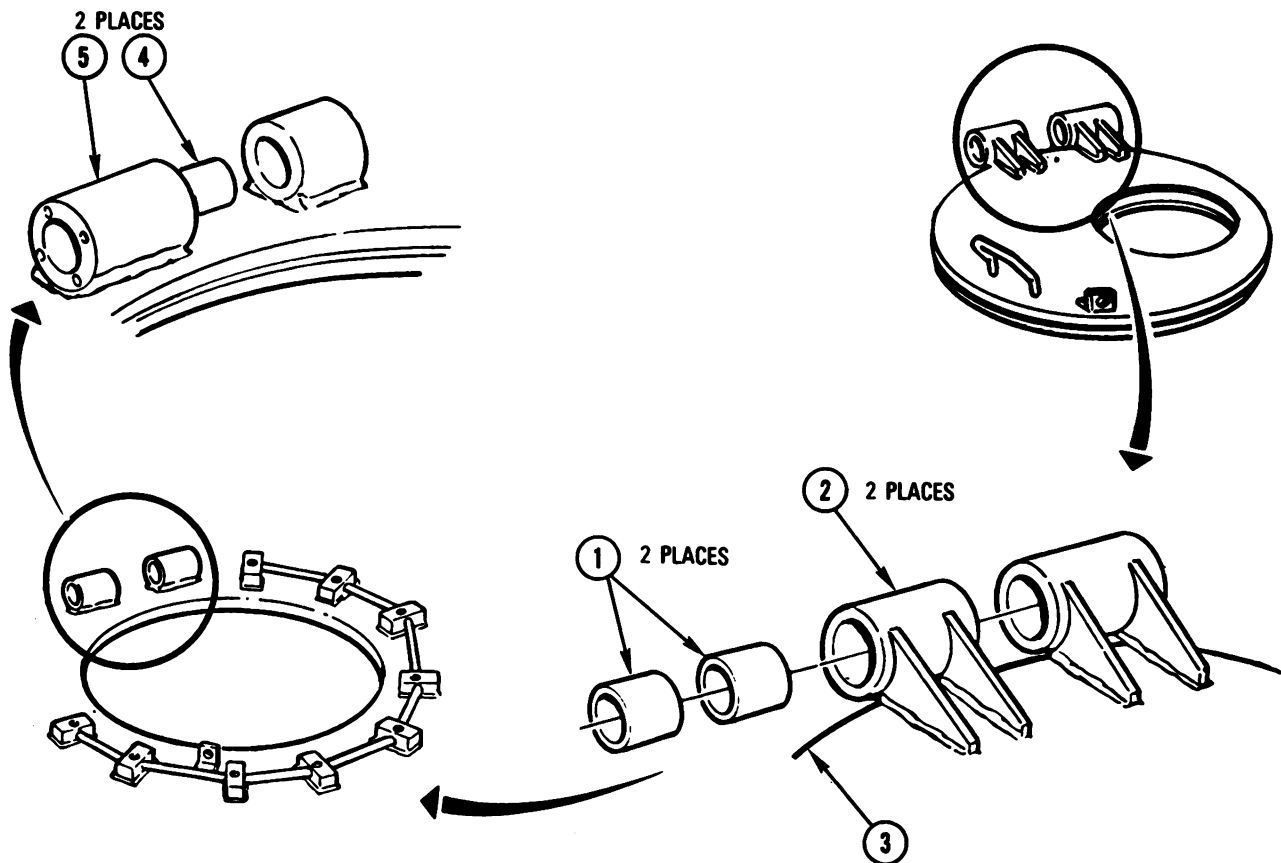
ARR82-0961

FRAME 21**Install Bearings:****NOTE**

- To put bearings (1) in hinges (2) of hatch (3), do steps 1 and 2.
- To put sleeve bearings (4) in hinges (5) of turret, do steps 3 and 4.

1. Tap one new bearing (1) in one hinge (2) of hatch (3) with wooden block and hammer. Tap second new bearing (1) against first bearing (1) with wooden block and hammer until second bearing (1) is flush with end of hinge (2).
2. Do step 1 again for other hinge (2) of hatch (3).
3. Tap new bearing (4) in wide hinge (5) of turret with wooden block and hammer until bearing (4) is flush with end of hinge (5).
4. Do step 3 again for other hinge (5) of turret.

GO TO FRAME 22



ARR82-0962

FRAME 22

Follow-on Maintenance:

1. Install hatch metallic tube and leaf springs; refer to task 11.
2. Install loader's hatch handle; refer to task 13.
3. Close loader's hatch; refer to TM 9-2350-255-10.
4. Install turntable, gasket, and bearing; refer to task 14.
5. Install loader's periscope; refer to TM 9-2350-255-10.

TASK 7 ENDS HERE

TASK 8. Replace Spring Tension Clip

Applicability: All Models

Common Tools:

Screwdriver, flat tip
Screwstarter

Special Tools: None

Supplies:

Clip (19204) 11591519
Lockwasher (96906) MS35333-39 (two required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Close and lock loader's hatch from inside turret; refer to TM 9-2350-255-10.

FRAME 23

Remove Clip:

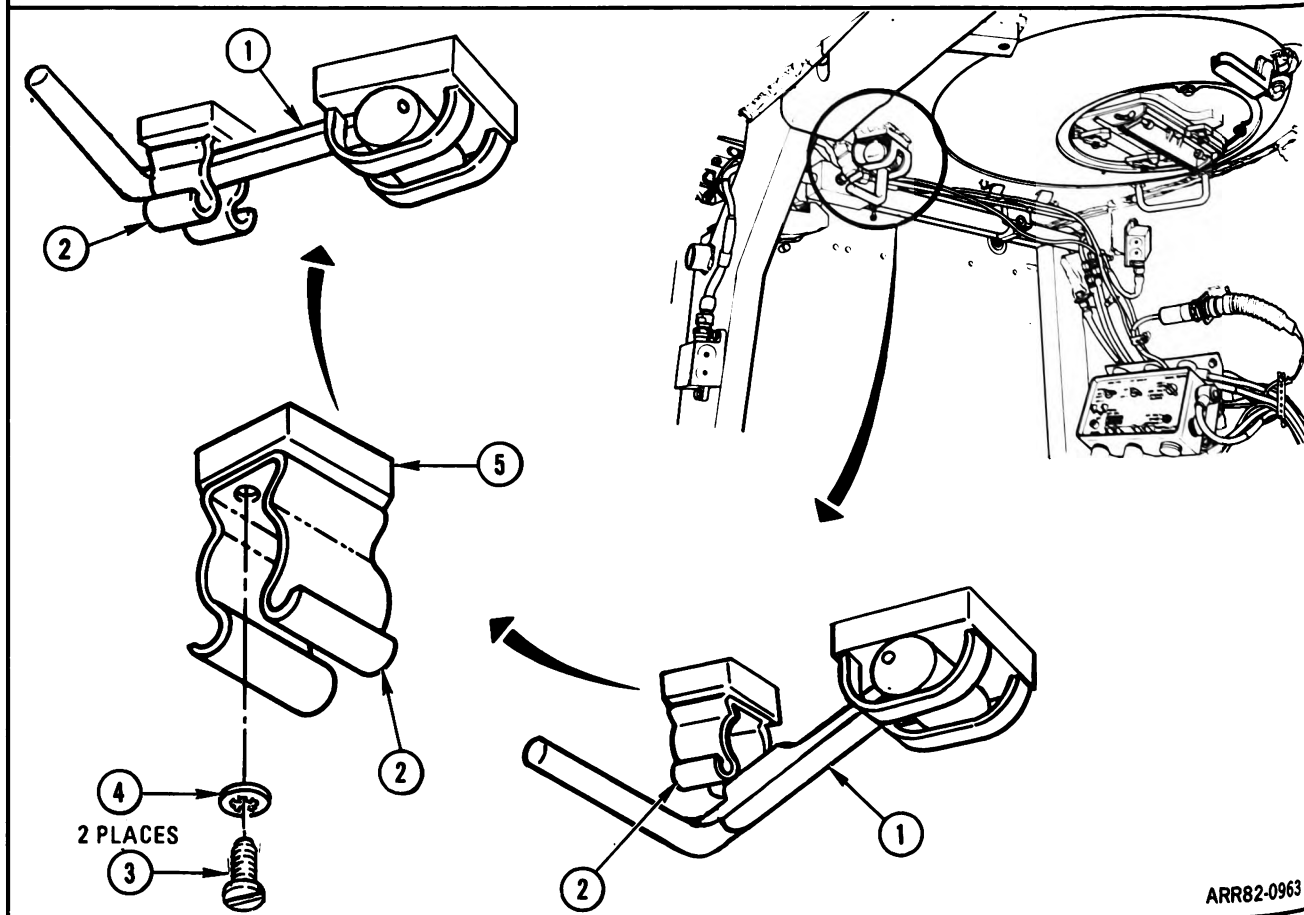
1. Take hatch lock handle (1) out of spring tension clip (2).
2. Hold clip (2). Unscrew and take out two screws (3) and lockwashers (4) with screwdriver. Turn in clip (2). Get rid of lockwashers (4).

Install Clip:

3. Screw in, but do not tighten, screws (3) and lockwashers (4) through new spring tension clip (2) and mount pad (5) with screwdriver.
4. Put handle (1) in clip (2). Adjust clip (2) to center it on handle (1).
5. Take handle (1) out of clip (2). While holding clip (2) in place, tighten screws (3) with screwdriver.
6. Put handle (1) in clip (2). Make sure clip (2) is centered on handle. If not, loosen screws (3) with screwdriver and do steps 4, 5, and 6 again.

Follow-on Maintenance: None

TASK 8 ENDS HERE



ARR82-0963

TASK 9. Replace Plain Encased Seal

Applicability: All Models

Common Tools:

Wrench, combination, 7/16-inch

Special Tools: None

Supplies:

Seal, plain encased (19207) 12287926

Personnel: Two

Soldier A: Replaces plain encased seal.

Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Open loader's hatch to intermediate open position; refer to TM 9-2350-255-10.

FRAME 24

Remove Seal:

Soldier A: 1. Unscrew and take out two screws (1) with wrench.

WARNING

When hatch lock handle (2) is pulled, hatch (3) will drop to full-open position and could cause injury to personnel. Use care when pulling handle (2).

Soldier B: 2. Hold hatch (3) in position until Soldier A takes out plain encased seal (4).

Soldier A: 3. Pull handle (2) forward and hold in position.

Soldier A: 4. Take seal (4) off turret roof. Release handle (2). Turn in seal (4).

Install Seal:

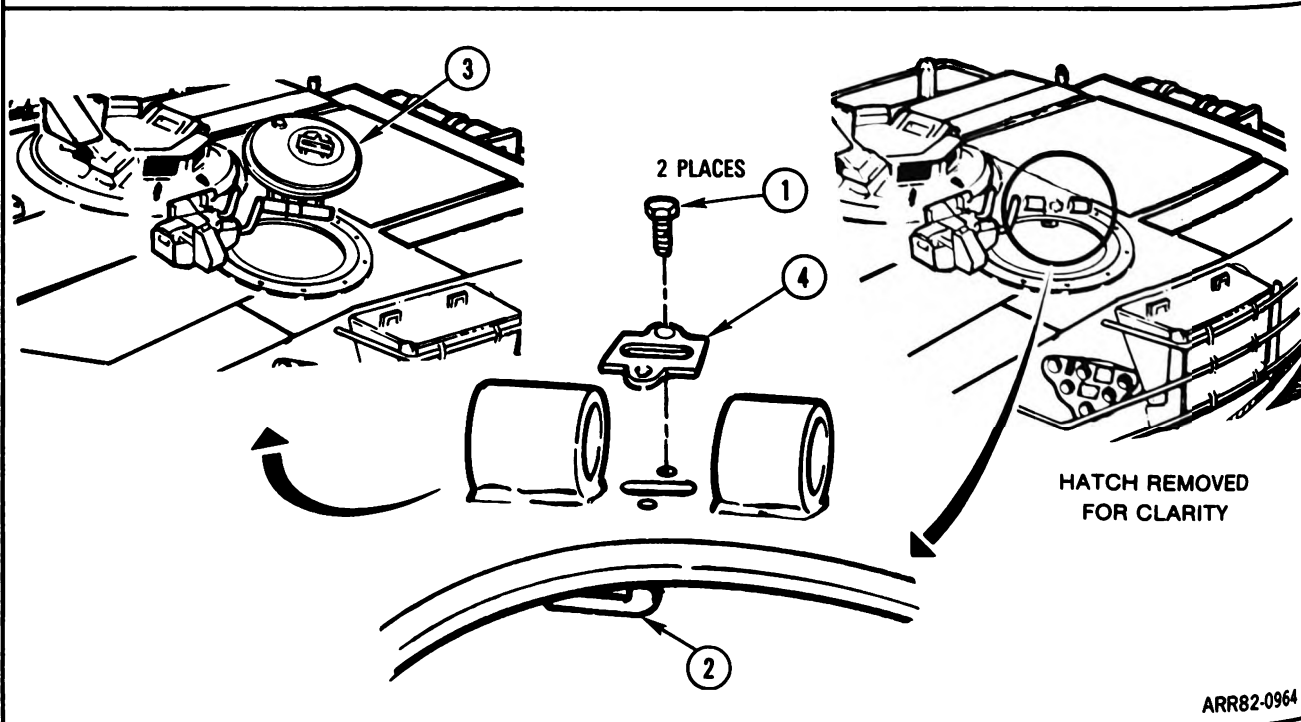
Soldier B: 5. Open hatch (3) to intermediate open position and hold in place while Soldier A installs new plain encased seal (4); refer to TM 9-2350-255-10.

Soldier A: 6. Pull handle (2) forward and hold in position. Put new seal (3) in place on turret roof with felt side of seal (3) against turret. Release handle (2).

Soldier A: 7. Screw in and tighten two screws (1) with wrench.

Follow-on Maintenance: None

TASK 9 ENDS HERE



ARR82-0964

TASK 10. Continuous Thread Stud

Applicability: All Models

Common Tools:

Hammer, ball peen
Handle, socket wrench, 1/2-inch square drive
File
Punch, center
Remover and Setter, stud
Rule, machinist's, 6-inch

Special Tools: None

Supplies:

Stud, continuous thread (19207) 12287053

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove loader's periscope; refer to TM 9-2350-255-10.
2. Open loader's hatch; refer to TM 9-2350-255-10.

FRAME 25

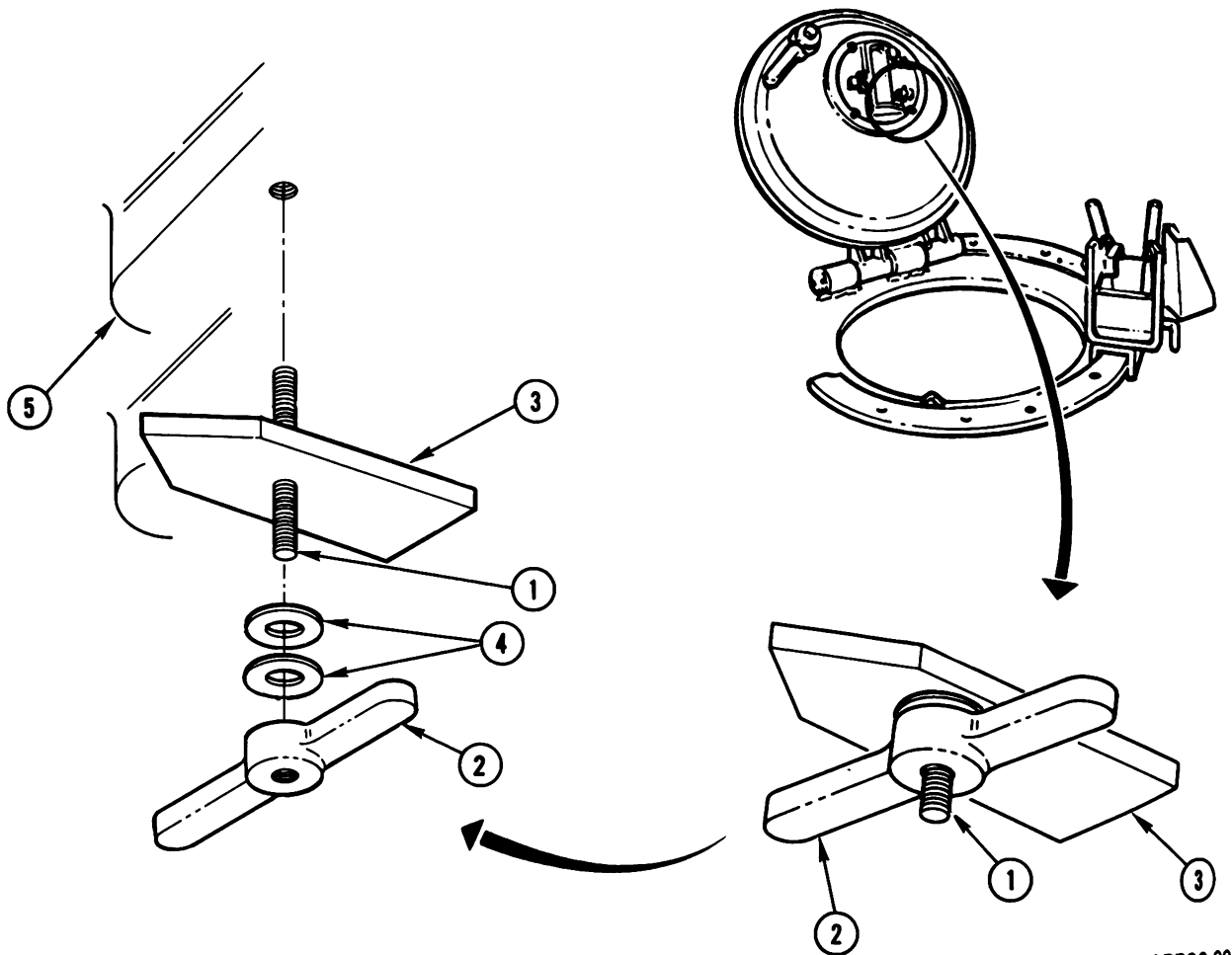
Remove Stud and Washer:

NOTE

Use this task to replace any one of three continuous thread studs (1). Only one stud (1) is shown.

1. Screw wingnut (2) on stud (1) against clamp (3).
2. Take off flattened areas on stud (1) with file.
3. Unscrew wingnut (2). Take clamp (3) and two spring tension washers (4) off stud (1).
4. Look at wingnut (2), clamp (3), and washers (4) for dents or cracks. Turn in bad parts. Set good parts aside for later use.
5. Take out stud (1) from turntable (5) with stud remover and setter and handle. Turn in stud (1).

GO TO FRAME 26



ARR82-0965

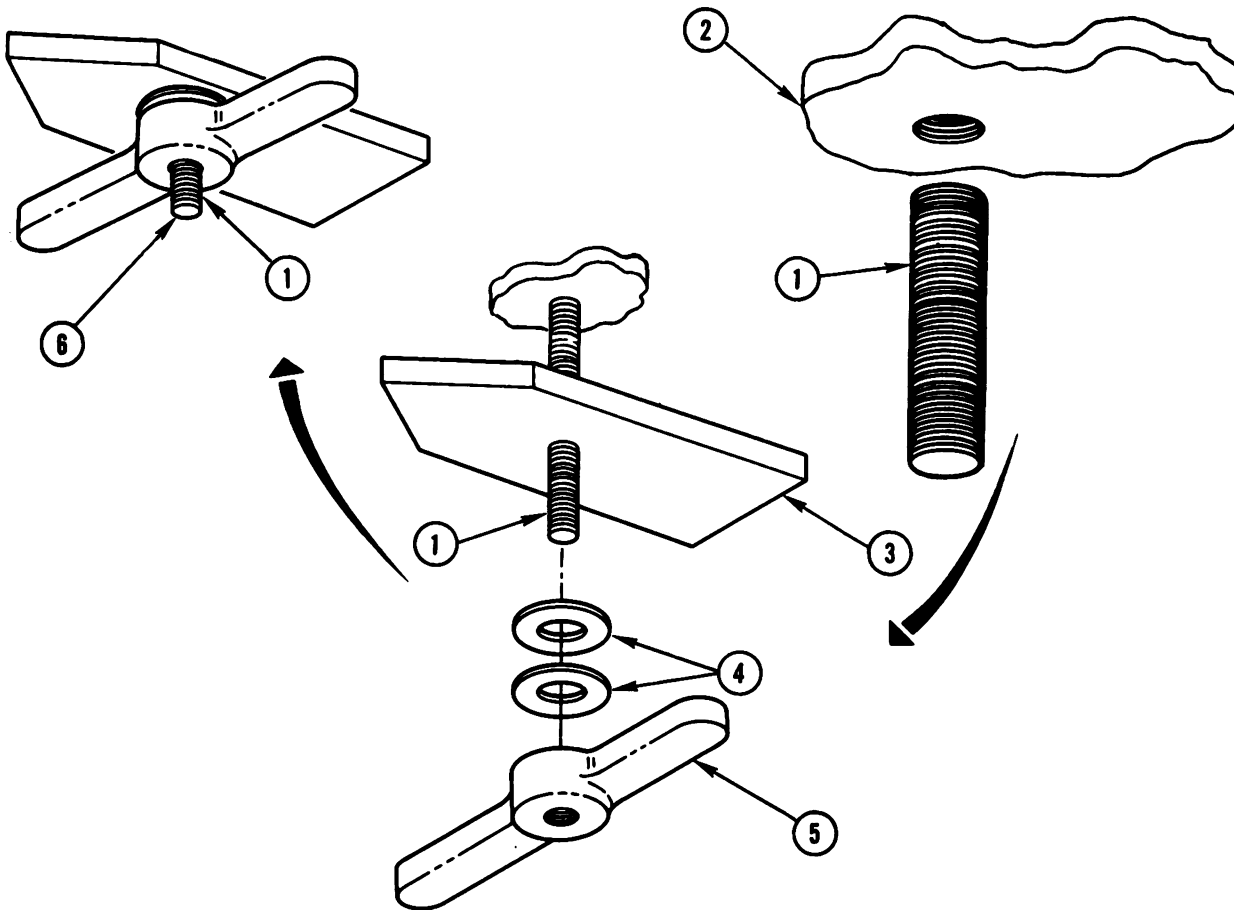
FRAME 26**Install Stud and Washer:**

1. Screw new continuous thread stud (1) in turntable (2) with stud remover and setter and handle. Make sure stud (1) sticks out 1-1/4 inches. Measure stud (1) with rule. Clean up threads of stud (1) with file.
2. Put clamp (3) and two spring tension washers (4) on stud (1). Screw wingnut (5) on stud (1).
3. Flatten top two threads (6) of stud (1) in two or three places with hammer and punch.

Follow-on Maintenance:

1. Close loader's hatch; refer to TM 9-2350-255-10.
2. Install loader's periscope; refer to TM 9-2350-255-10.

TASK 10 ENDS HERE



ARR82-0966

TASK 11. Install Hatch, Metallic Tube, and Leaf Springs

Applicability: All Models

Common Tools:

Hammer, ball peen
Handle, socket wrench, ratchet, 3/8-inch square drive
Hoist, 1000-pound capacity
Punch, drive pin, 3/8-inch
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, combination, 1/2-inch

If hatch is new, you will need:

Apron, leather	Holder, electrode welding
Brush, wire scratch	Knife, pocket
C, Clamp 6-inch size	Machine, arc welding
Drill, portable, electric, 1/2-inch	Punch, center
Drill, twist, 25/64-inch	Screen, welding
Gloves, leather	Scriber, machinist's
Goggles, industrial	Vise, machinist's
Grinder, electric portable	Wheel, abrasive
Helmet, welding	Wrench, torque, 0 to 600 inch-pounds

Special Tools:

Strap Assembly, web, adjustable, 12273481

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Crayon, marking, SS-C-661 (Item 18)
Packing, preformed (81349) M83461/1-148 (three required)
Washer, recessed (19207) 12274786 (three required)

If hatch is new, you will need the following:

Adhesive, Type II, MMM-A-1617 (Item 3)
Bracket, angle (19207) 12285138
Brush, acid swabbing (Item 13)
Dry Cleaning Solvent, P-D-680 (Item 21)
Electrode, welding (Item 22)
Pencil, writing (Item 22)
Rag, wiping (Item 45)
Seal, rubber (19207) 12273179-1
Tubing, nonmetallic (19207) 12287775 (two required)

Personnel: Two

Soldier A: Installs hatch, metallic tube, and leaf springs.

Soldier B: Operates hoist.

Equipment Condition:

- Tank parked.
- VEHICLE MASTER POWER switch set to OFF.
- Parking brake set.
- Transmission shift control set to N.

Preliminary Procedure:

Remove hatch, metallic tube, and leaf springs; refer to task 4.

FRAME 27

Install Hatch:

WARNING

Hatch (1) weighs more than 120 pounds. Be careful when lifting hatch (1) with hoist. Swinging hatch (1) can injure you and can damage equipment.

Soldier B: 1. When told by Soldier A, operate hoist so hoist hook (2) is centered over loader's hatch (1).

Soldier A: 2. Put web strap (3) through turntable hole (4) and handle (5).

Soldier A: 3. Hook ends of web strap (3) together.

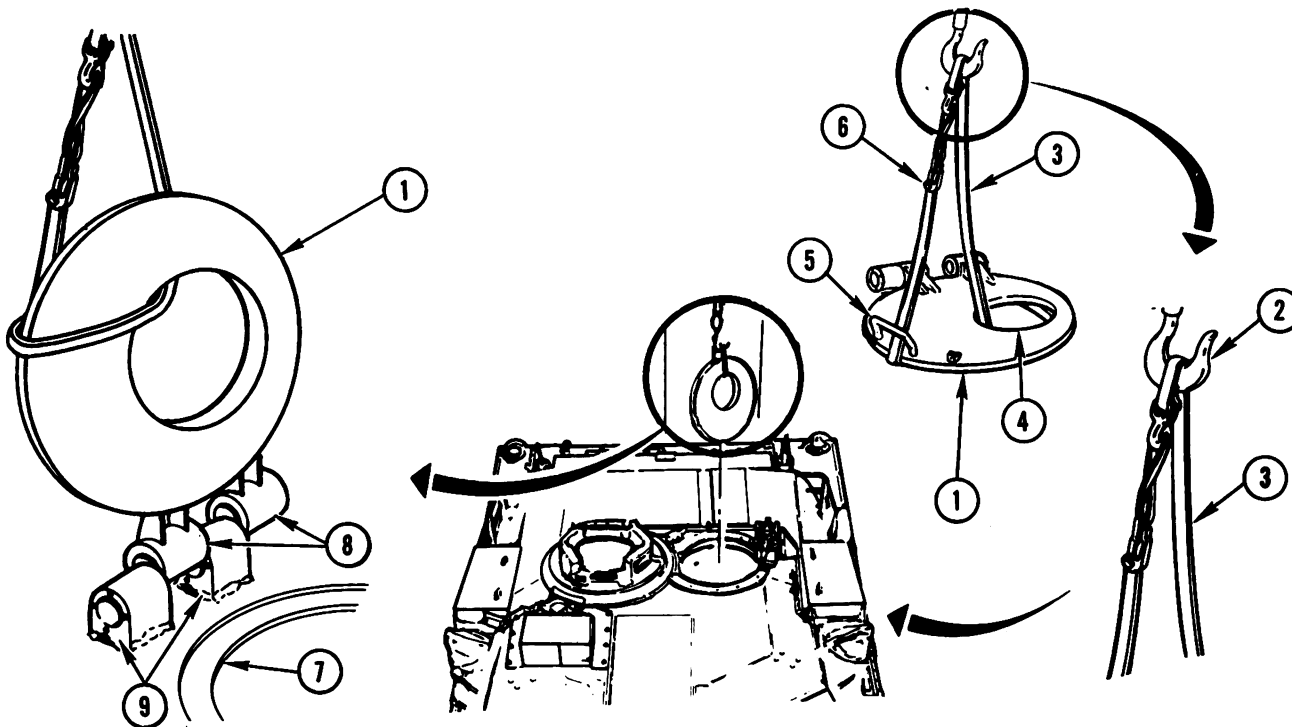
Soldier A: 4. When told by Soldier A, lower hook (2) to web strap (3).

Soldier A,
Soldier B: 5. Hook web strap (3) to hoist hook (2). Take up slack in web strap (3) with slack adjuster (6).

Soldier B: 6. When told by Soldier A, raise hatch (1) over hatch opening (7).

Soldier A: 7. Line up two hatch hinges (8) with turret hinges (9).

GO TO FRAME 28



ARR82-0967

FRAME 28

Install Hatch (Continued):

Soldier B: 1. When told by Soldier A, lower hatch (1) on hatch opening (2).

Soldier A: 2. Line up holes in hatch hinges (3) with holes in turret hinges (4).

Soldier A: 3. Slide three new packings (5) and new washers (6) in three spaces (7) between hinges (3) and turret hinges (4).

Install Tube:

NOTE

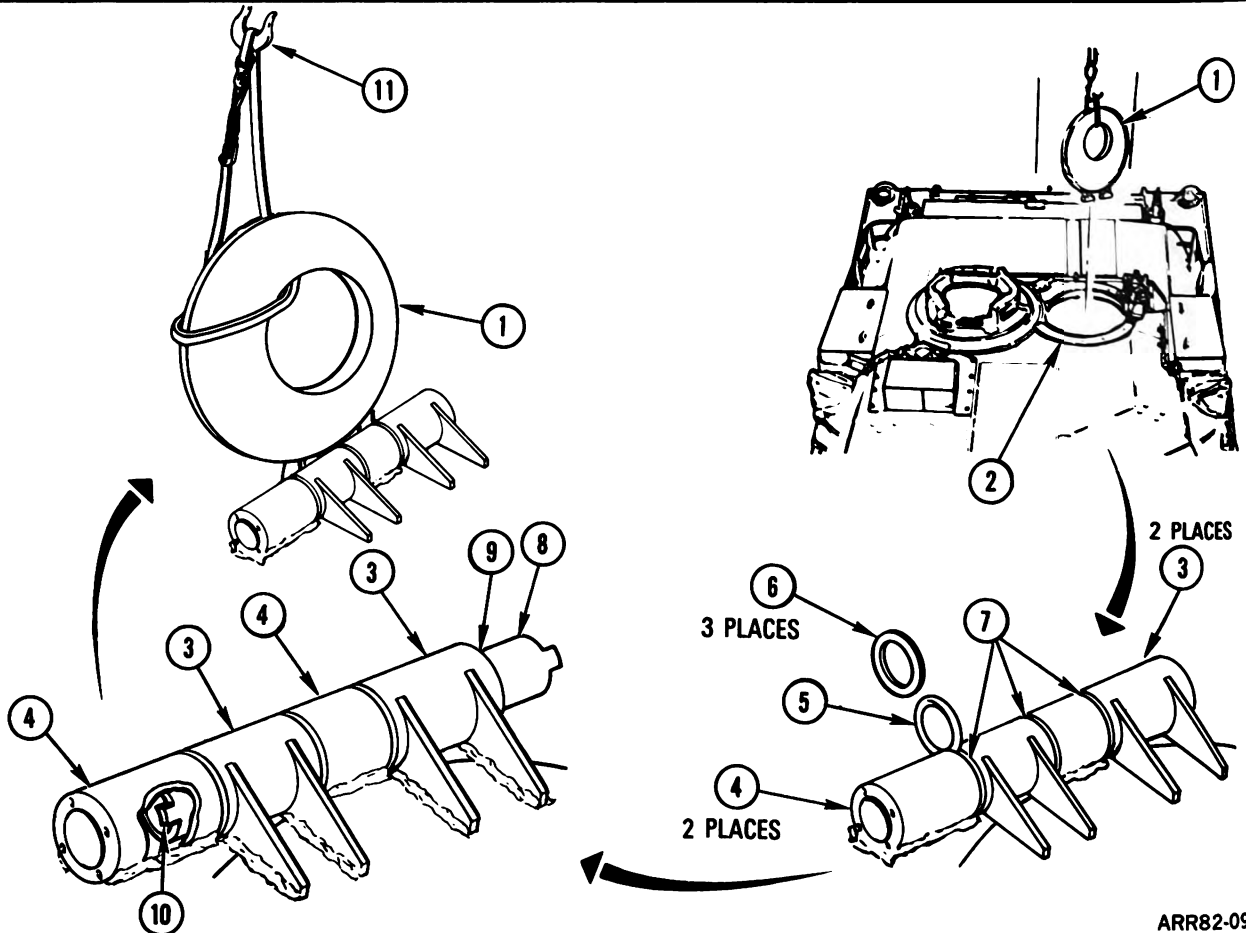
It may be necessary to tap in metallic tube (8) with hammer and drive pin punch.

Soldier A: 4. Push in metallic tube (8) from left side (9) through hinges (3,4). Make sure tab (10) is at top on hinges (3,4) as shown.

Soldier A: 5. Center tube (8) in hinges (3,4).

Soldier A: 6. Tell Soldier B to move hoist hook (11) so that hatch (1) is straight up.

GO TO FRAME 29



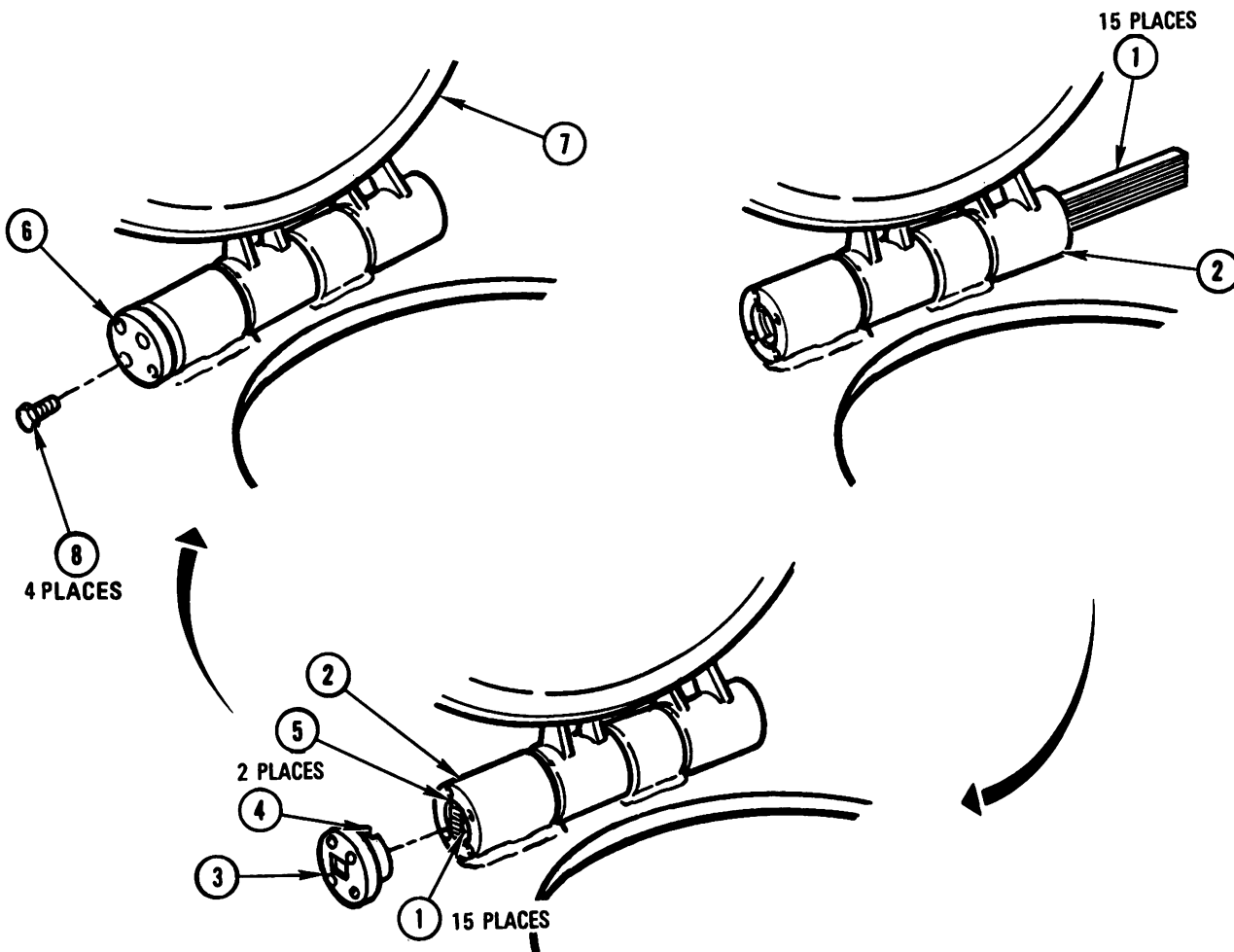
ARR82-0968

FRAME 29

Install Leaf Springs, End Cap and Cover:

- Soldier A: 1. Stack up 15 springs (1) and slide them in left side of hinge (2). Springs (1) will stick out of each end of hinge (2) about 1/4-inch.
- Soldier A: 2. Slide hinge end cap (3) on springs (1). Line up cap slots (4) with tube tabs (5). Push cap (3) on hinge (2).
- Soldier A: 3. Line up screw holes in access cover (6), cap (3), and hinge (2) by moving hatch (7). Screw in and tighten four machine bolts (8) with wrench.

GO TO FRAME 30



ARR82-0969

FRAME 30

Install End Cap and Cover:

Soldier A: 1. Slide other end cap (1) on springs (2) at other end of hinge (3). Line up two slots in end cap (1) with tube tabs (4). Push cap (1) in hinge (3).

Soldier A: 2. Line up screw holes in cover (5), end cap (1), and hinge (3) by moving hatch (6). Screw in and tighten four machine bolts (7) with wrench.

Remove Web Strap:

Soldier B: 3. When told by Soldier A, operate hoist to lower hook (8) and loosen web strap (9).

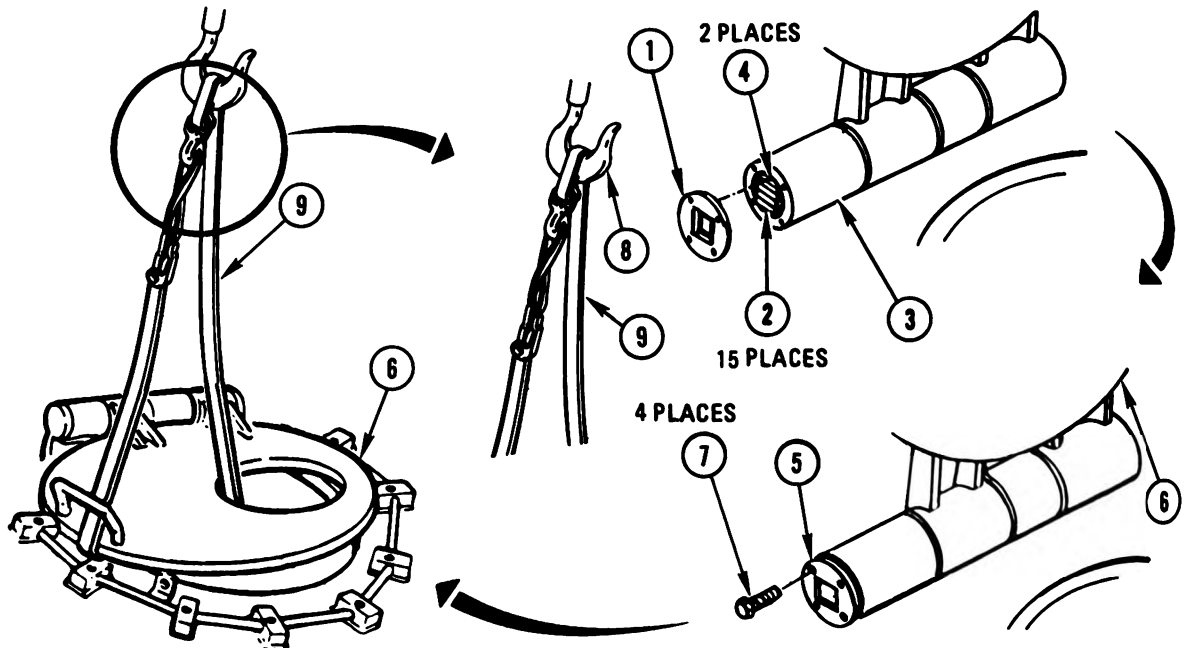
Soldier A: 4. Take web strap (9) out of hatch (6).

Soldier A: 5. Operate hatch (6) to check for normal operation.

NOTE

- If hatch (6) is new, go to frame 31. If not, go to frame 35.
- Soldier B is no longer needed in this task.

GO TO FRAME 31



ARR82-0970

FRAME 31

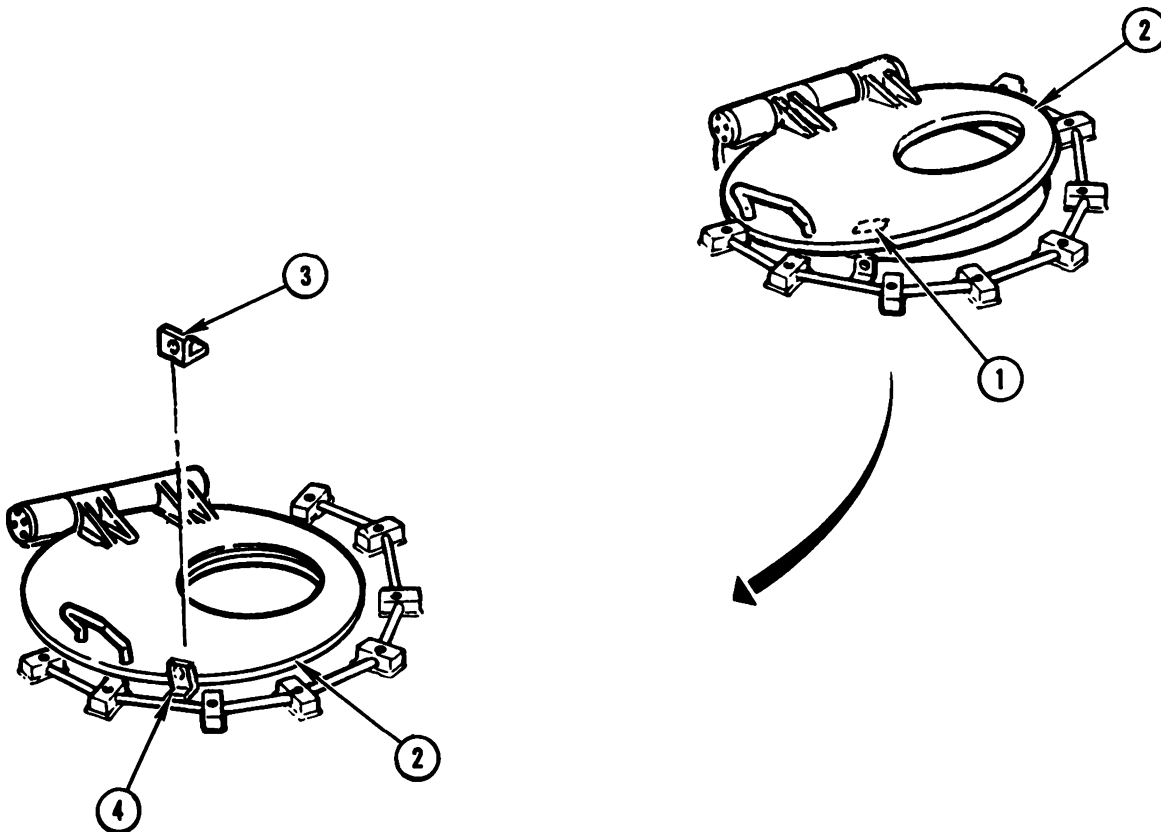
Install Angle Bracket:

WARNING

Metal sparks and flying grit caused by grinding can injure eyes and burn you. To avoid injury, wear safety goggles and gloves.

1. Take any dirt or paint off weld area (1) on new loader's hatch (2) with grinder, wheel, and brush.
2. Close hatch (2). Put new angle bracket (3) in place on hatch (2). Line up bracket (3) with turret bracket (4).
3. Mark position of bracket (3) on hatch (2) with crayon. Mark hole position on bracket (3), through turret bracket (4), with scribe. Take off bracket (3) from hatch (2).
4. Put bracket (3) in vise. Mark center of scribed area with hammer and center punch. Drill hole where marked through bracket (3) with electric drill and twist drill. Take bracket (3) out of vise.

GO TO FRAME 32



ARR82-0971

FRAME 32

Install Angle Bracket (Continued):

1. Open loader's hatch (1) to intermediate open position.
2. Put bracket (2) in place where marked on hatch (1). Make sure front (3) of bracket (2) is even with edge (4) of hatch (1).
3. Clamp bracket (2) to hatch (1) with C-Clamp.

WARNING

Make sure hatch (1) is properly grounded before welding.

4. Weld bracket (2) to hatch (1); refer to TM 9-237.

Install Seal:

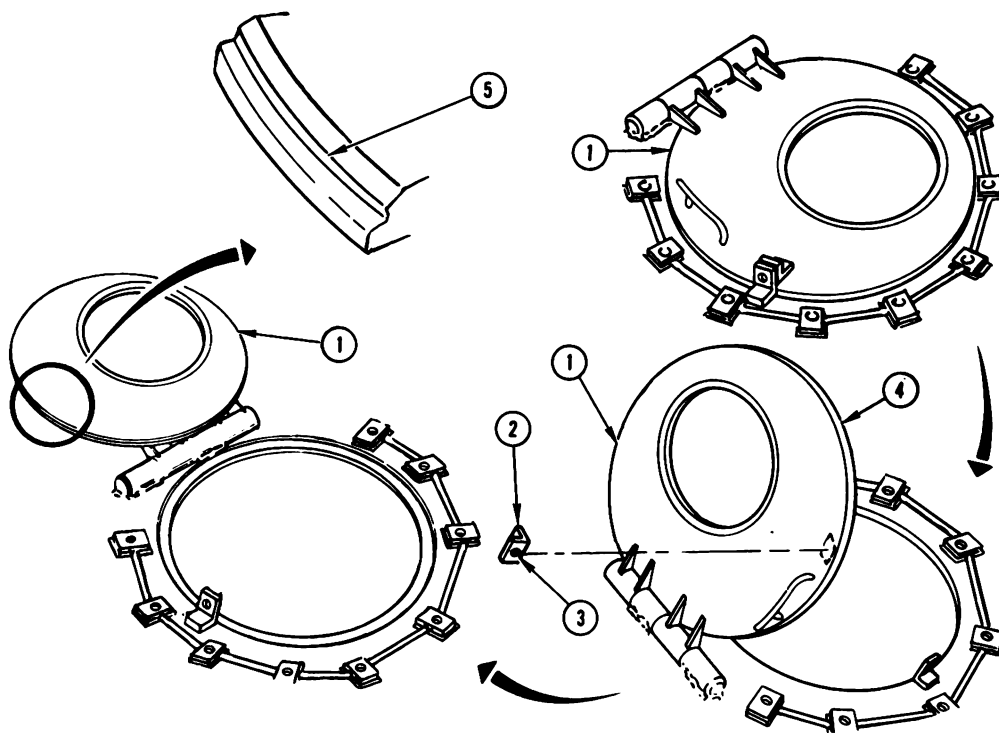
5. Open loader's hatch (1) to full open position.

WARNING

Solvent burns easily. To avoid injury, do not use near open fire.

6. Clean seal groove (5) with solvent and rag. Wipe dry with clean rag.

GO TO FRAME 33



ARR 82-0972

FRAME 33

Install Seal (Continued):

NOTE

For tight fit, new rubber seal (1) should be cut 1/2-inch longer than groove (2).

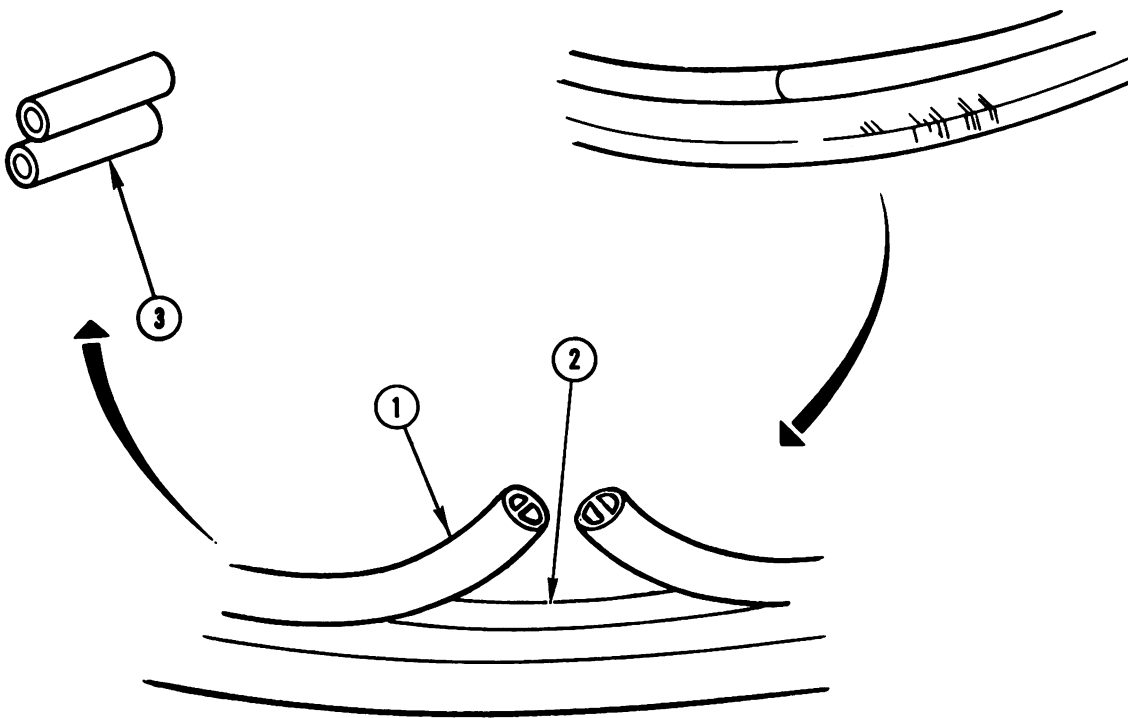
1. Push seal (1) in groove (2). Cut seal (1) with knife.

WARNING

Adhesives burn easily and give off harmful vapors. To avoid injury, keep away from open fire and use in a well-ventilated area.

2. Take seal (1) out of groove (2). Spread adhesive in groove (2) and on seal (1) with brush. Let dry for 15 minutes.
3. Measure a 3/4-inch section at one end of each of two new pieces of nonmetallic tubing (3) with rule. Mark with pencil. Spread a coat of adhesive on measured end of each piece of tubing (3) with brush. Let dry for 15 minutes.

GO TO FRAME 34



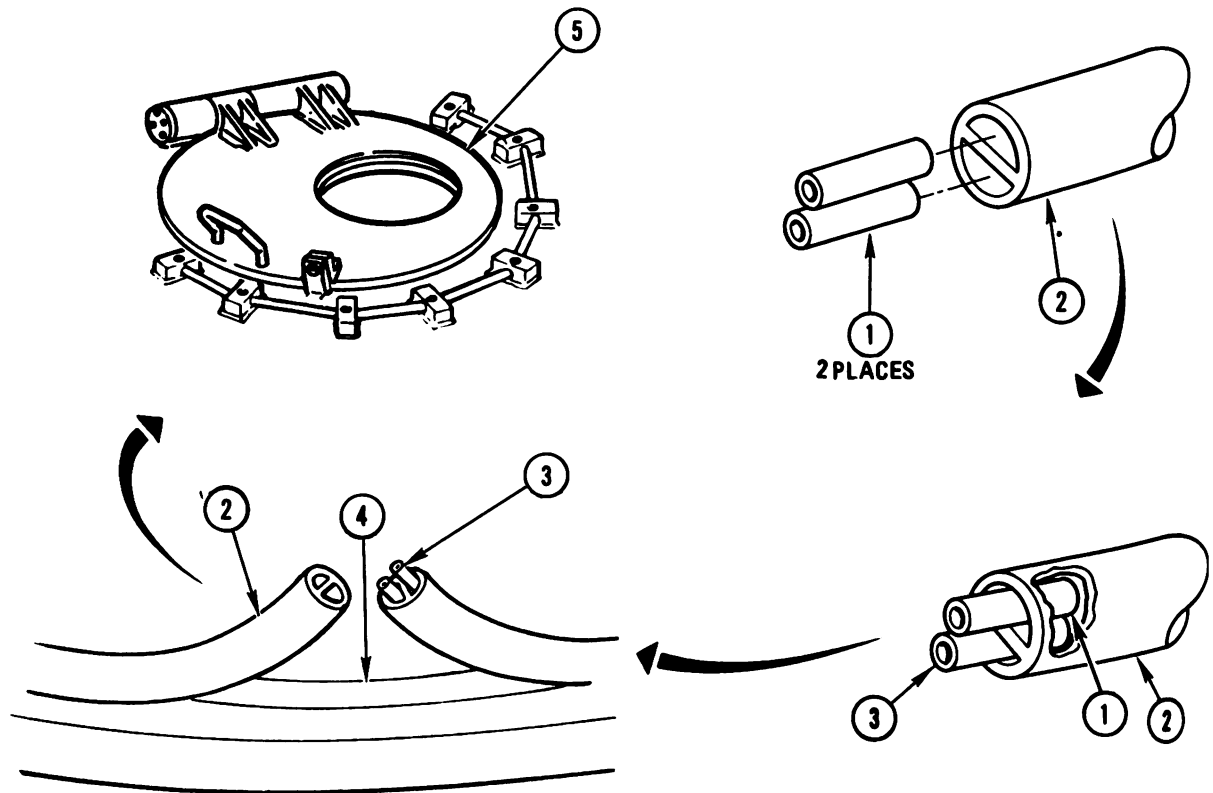
ARR82-0973

FRAME 34

Install Seal (Continued):

1. Spread a second coat of adhesive on measured end of each piece of tubing (1) with brush. Push adhesive coated end of each piece of tubing (1) in end of seal (2) to pencil mark before adhesive dries.
2. Spread a coat of adhesive on other end (3) of each of tubing (1) with brush. Let dry for 15 minutes.
3. Spread a second coat of adhesive on seal (2), tube end (3), and in groove (4) with brush. Put seal (2) in groove (4) before adhesive dries.
4. Push end of seal (2) over tube ends (3) before adhesive dries.
5. Close hatch (5) for 15 minutes to seat seal (2).

GO TO FRAME 35



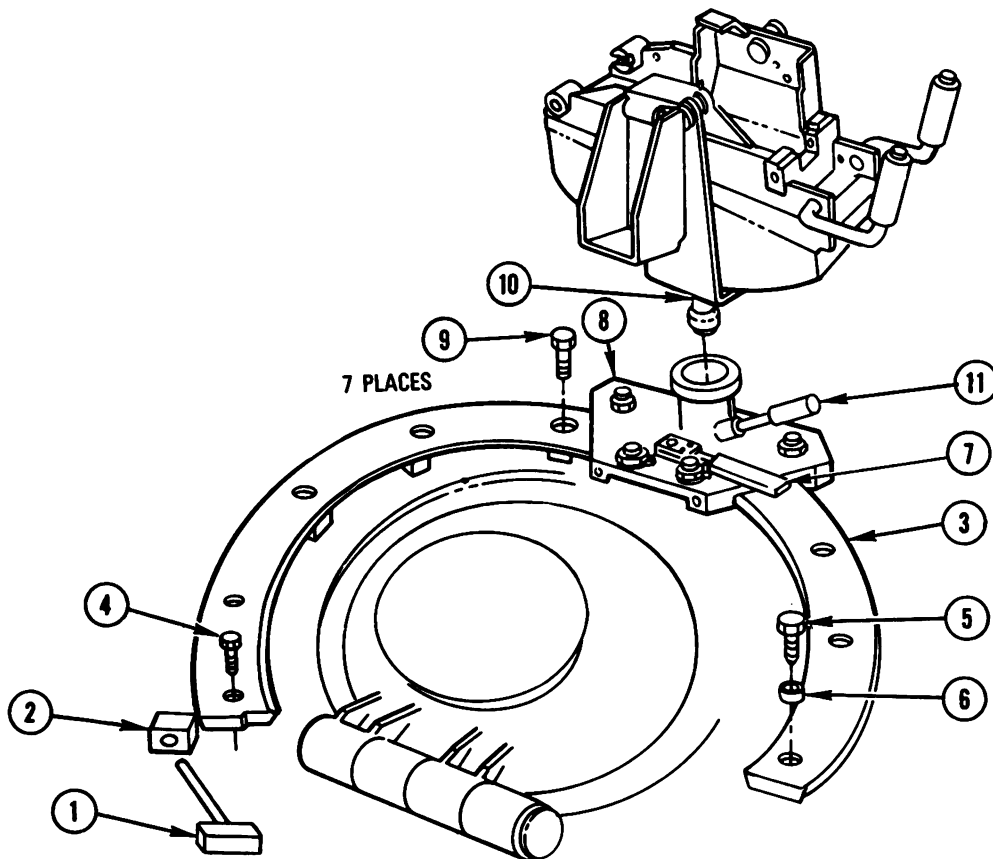
ARR82-0974

FRAME 35

Install Track and Loader's Weapon Mount:

1. Put detent (1) in hole (2).
2. Put skate mount track (3) in place and screw in longest screw (4) with socket and handle.
3. Screw in long screw (5) and stop (6) with socket and handle.
4. Turn skate clamp handle (7) counterclockwise as far as it will go. Move skate (8) on track (3) as required and screw in seven short screws (9) with socket and handle.
5. Torque nine screws (4, 5, 9) between 95 and 120 pound inches (11 and 14 Newton meters).
6. Turn handle (7) clockwise as far as it will go to lock skate (8) on track (3).
7. Put loader's weapon mount (10) in skate (8) and tighten lockscrew (11).

GO TO FRAME 36



ARR82-0975

FRAME 36

Follow-on Maintenance:

1. Install loader's hatch; refer to task 13.
2. Close loader's handle hatch; refer to TM 9-2350-255-10.
3. Install turntable, gasket, and bearing; refer to task 14.
4. Install loader's periscope; refer to TM 9-2350-255-10.

TASK 11 ENDS HERE

TASK 12. Install Hatch Lock Handle

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 1/2-inch

Special Tools: None

Supplies: None

Personnel: Two

Soldier A: Installs hatch lock handle.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove hatch lock handle; refer to task 3.

FRAME 37

Install Handle:

Soldier B: 1. Hold hatch (1) in the open position.

Soldier A: 2. Put two machine bolts (2) through cam guide (3), cam spacer (4), and shims (5).

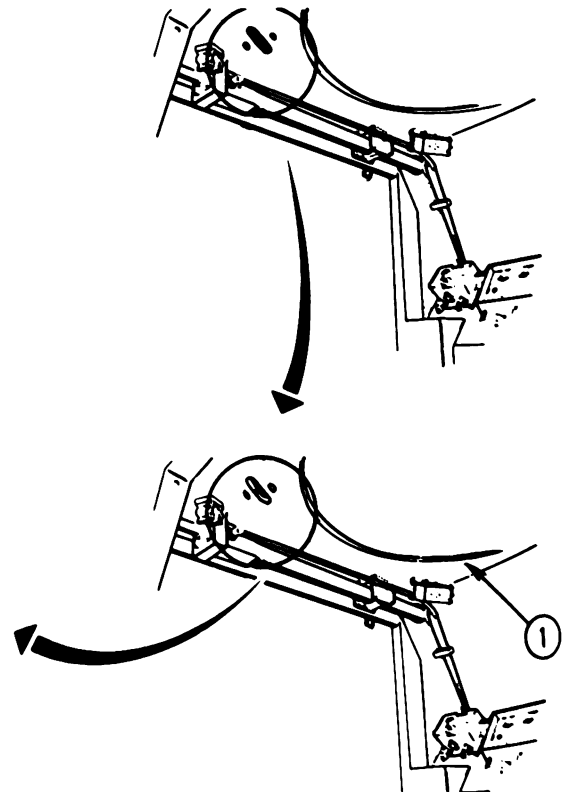
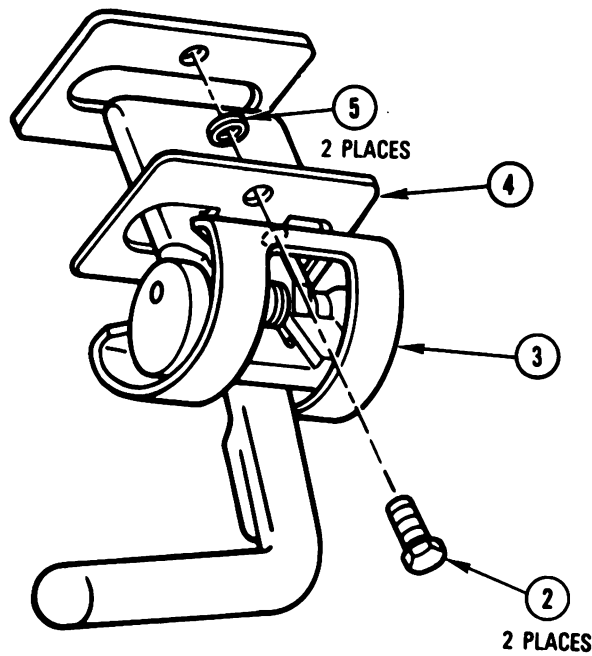
Soldier A: 3. Line up and screw in bolts (2), cam guide (3), spacer (4), and shims (5) in pad (6).

Soldier A: 4. Tighten bolts (2) with socket, extension, and handle.

Follow-on Maintenance:

Check that hatch lock handle holds hatch open in all positions; refer to TM 9-2350-255-10.

TASK 12 ENDS HERE



ARR82-0976

TASK 13. Install Loader's Hatch Handle

Applicability: All Models

Common Tools:

- Hammer, ball peen
- Handle, socket wrench, ratchet, 1/2-inch square drive
- Socket, socket wrench, 1/2-inch square drive, 15/16-inch

Special Tools: None

Supplies:

- Pin, spring (96906) MS51923-604

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

- Remove loader's hatch handle; refer to task 2.

FRAME 38

Assemble Handle and Latch:

1. Put handle latch (1) in loader's hatch handle (2). Squeeze handle (2) and latch (1). Line up hole in latch (1) with hole in handle (2).
2. Drive new spring pin (3) in handle (2) with hammer.

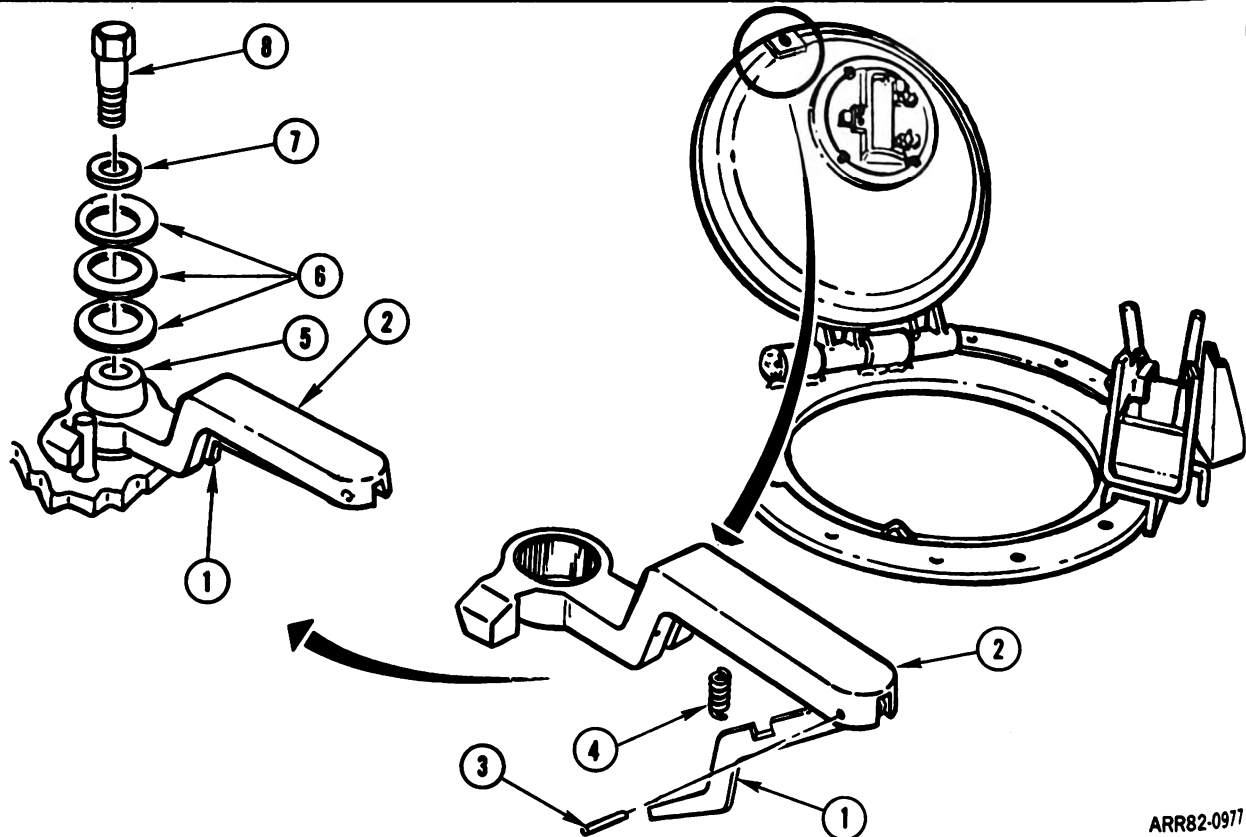
Install Handle and Latch:

3. Open loader's hatch; refer to TM 9-2350-255-10.
4. Put extension helical spring (4) between handle (2) and latch (1). Squeeze handle (2) and latch (1) together.
5. Put latch (1) and handle (2) on post (5) in position shown.
6. Put three disc springs (6) and washer (7) on post (5) in position shown. Hold in place.
7. Screw in and tighten screw (8) with socket and handle.

Follow-on Maintenance:

Check operation on loader's hatch handle; refer to TM 9-2350-255-10.

TASK 13 ENDS HERE



ARR82-0977

TASK 14. Install Turntable, Gasket, and Bearing

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Adhesive, Type II, MMM-A-1617 (Item 3)

Brush, acid swabbing (Item 13)

Gasket (19207) 12274773

Lubricant, MIL-L-60326 (Item 35)

Personnel: Two

Soldier A: Installs turntable, gasket, and bearing.

Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove turntable, gasket, and bearing; refer to task 1.

FRAME 39

Install Gasket:

Soldier B: 1. Open commander's hatch to full-open position; refer to TM 9-2350-255-10.

WARNING

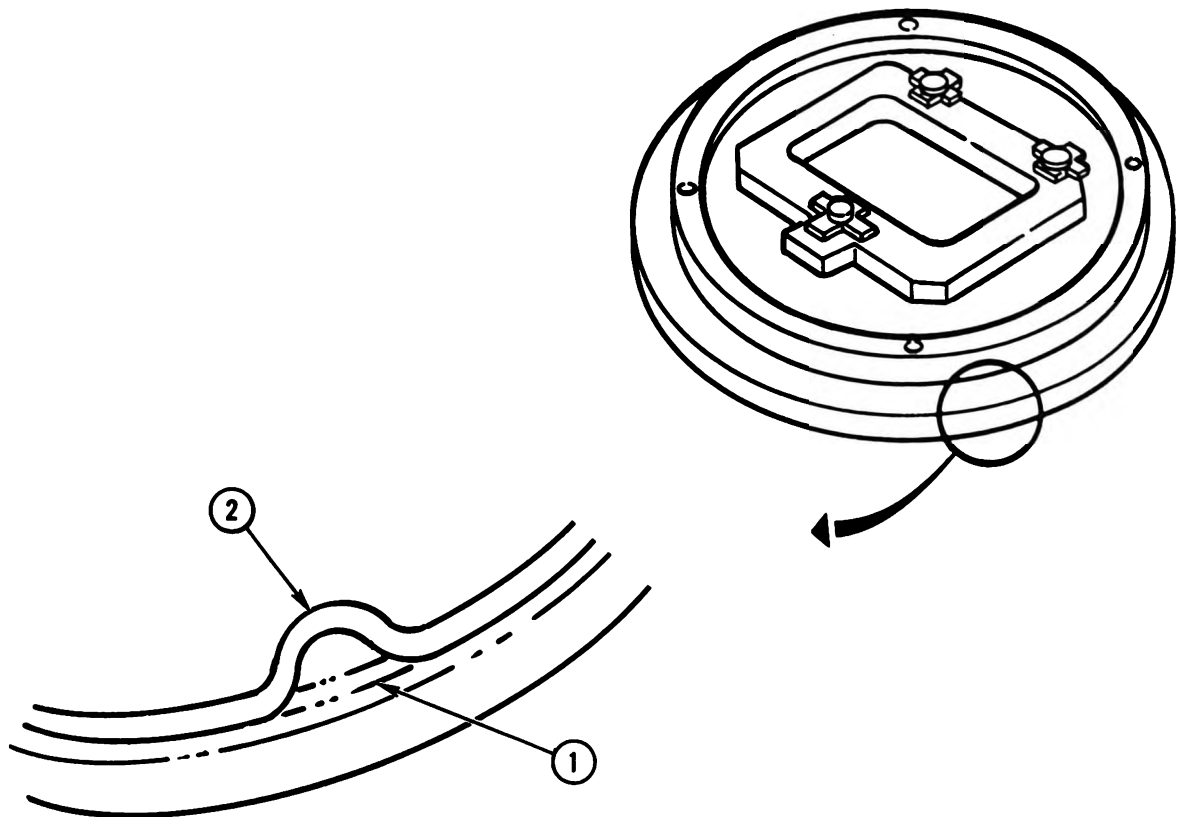
Adhesives burn easily and can give off harmful vapors. To avoid injury, keep away from open fire and use in a well-ventilated area.

Soldier A: 2. Spread a coat of adhesive in groove (1) and on new gasket (2) with brush. Let dry 15 minutes.

Soldier A: 3. Spread a second coat of adhesive in groove (1) and on gasket (2) with brush. Let adhesive get tacky.

Soldier A: 4. Press gasket (2) in groove (1). Let dry 15 minutes.

GO TO FRAME 40



ARR82-0978

FRAME 40

Install Turntable and Bearing:

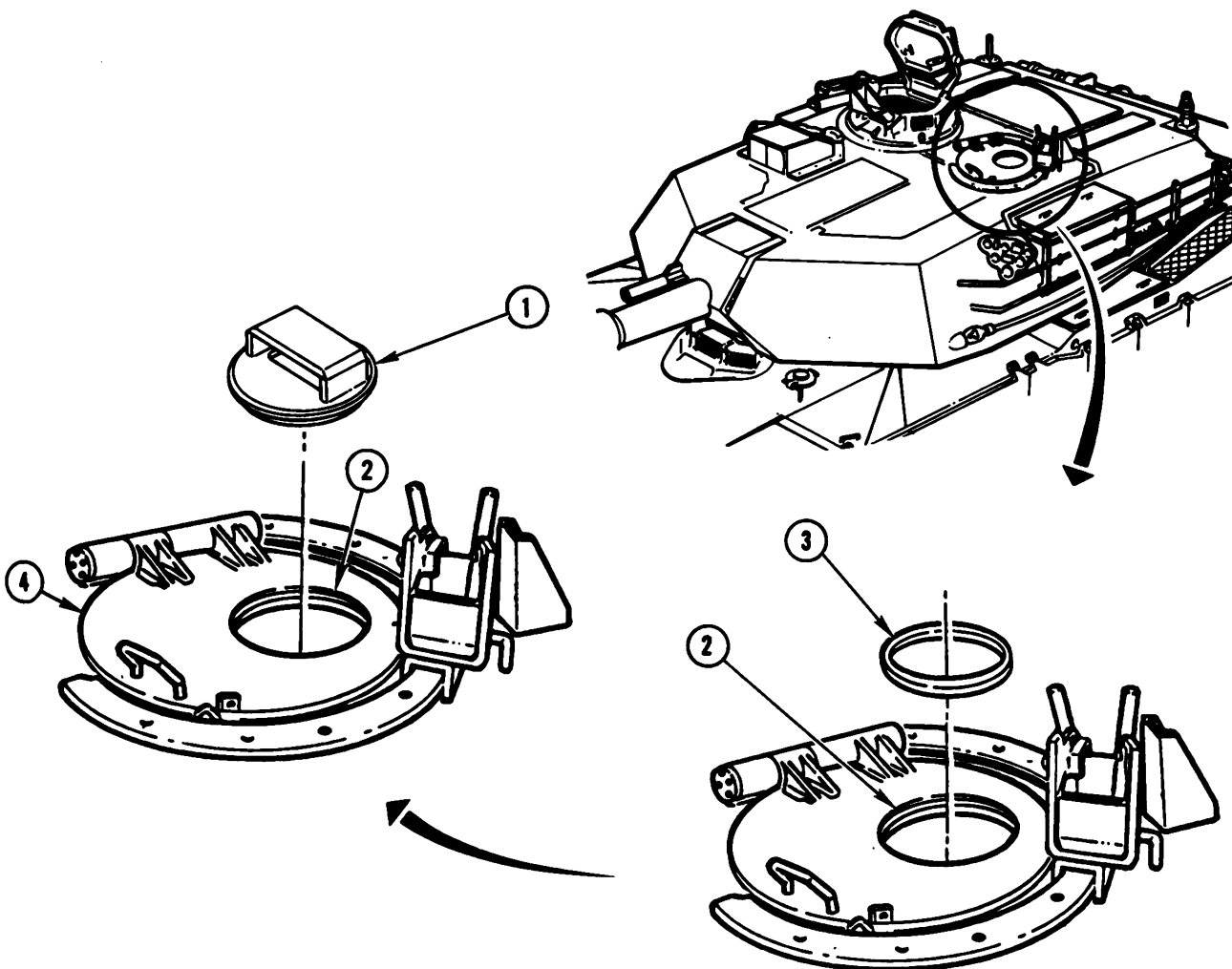
CAUTION

Turntable (1) weighs 48 pounds. Two soldiers are needed to lift or lower turntable (1) to avoid dropping it.

Soldier A: 1. Put a coat of lubricant on outside of turntable opening (2). Put bearing (3) in opening (2).

Soldier A,
Soldier B: 2. Lift turntable (1) directly over opening (2) in hatch (4). Lower turntable (1) into opening (2). Soldier A enter tank through commander's hatch.

GO TO FRAME 41



ARR82-0979

FRAME 41

Install Retainer:

Soldier A: 1. Put a thin coat of lubricant on inside of hatch (1). Hold retainer (2) up to turntable (3). Line up holes in retainer (2) with holes in turntable (3).

Soldier B: 2. Hold turntable (3).

Soldier A: 3. Screw in and tighten four screws (4) with socket, extension, and handle.

Soldier A: 4. Move turntable (3) clockwise and counterclockwise to make sure it operates without binding. If it binds, do steps 5 through 7. If OK go to follow-on maintenance.

Soldier A: 5. Unscrew and take out screws (4) with socket, extension, and handle. Take off retainer (2).

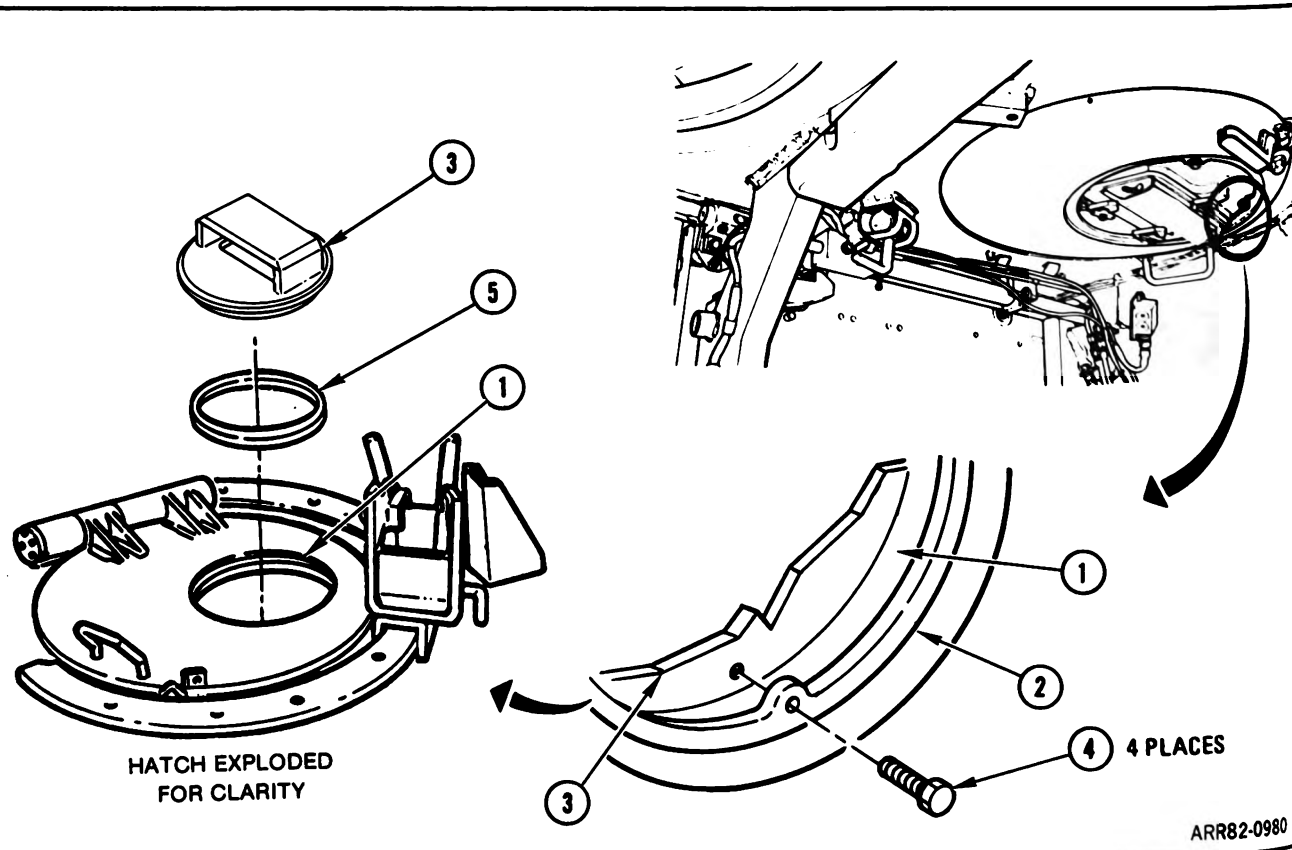
Soldier B: 6. Make sure turntable (3) and bearing (5) are seated properly in hatch (1).

Soldier A: 7. Put retainer (2) in place. Screw in and tighten screws (4) with socket, extension, and handle. Do step 4 again.

Follow-on Maintenance:

Install loader's periscope; refer to TM 9-2350-255-10.

END OF LOADER'S HATCH MAINTENANCE



3-9. Commander's Weapon Station Hatch Assembly

Task	Title	Frames
1	Remove Hatch Door and Yoke Assembly	1 - 4
2	Remove Hatch Locking Bolt	5 - 7
3	Remove Hatch Door Latch Assembly	8
4	Remove Hatch Lock Handle	9
5	Remove Cushioning Pad and Door Hatch Cover Block	10
6	Replace Hatch Door Seal	11 - 12
7	Replace Seal Wiper	13
8	Replace Sleeve Bearings or Spring Retaining Collar and Hatch Hinge Plate	14 - 16
9	Replace Lifting Eye Bolt	17
10	Install Cushioning Pad and Hatch Cover Block	18
11	Install Hatch Lock Handle	19 - 20
12	Install Hatch Door Latch Assembly	21
13	Install Hatch Locking Bolt	22
14	Install Hatch Door and Yoke Assembly	23 - 27
15	Replace Hatch Door Tilt Stop	28 - 29

TASK 1. Remove Hatch Door and Yoke Assembly

Applicability: All Models

Common Tools:

- | | |
|--|--|
| Drill, electric, portable, 1/2-inch | Handle, socket wrench, hinged, 1/2-inch square drive |
| Drill, twist, 15/64-inch | Hoist, 5-ton capacity |
| Extension, 1/2-inch square drive, 5-inch | Pin, drift, 1/2-inch |
| Hammer, ball peen | Punch, drive pin, tapered, 1/4-inch |
| Socket, socket wrench, 1/2-inch square drive, 7/16-inch | |
| Socket Wrench Attachment, socket head screw, 1/2-inch square drive, 5/8-inch | |

Special Tools:

Web Strap Assembly, adjustable, 12273481

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Cloth, abrasive (Item 17)

Personnel: Two

Soldier A: Removes hatch door and yoke assembly.
Soldier B: Operates hoist.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Open commander's hatch to full open position; refer to TM 9-2350-255-10.
2. Remove hatch lock handle; refer to task 4.

FRAME 1

Remove Door and Yoke Assembly:

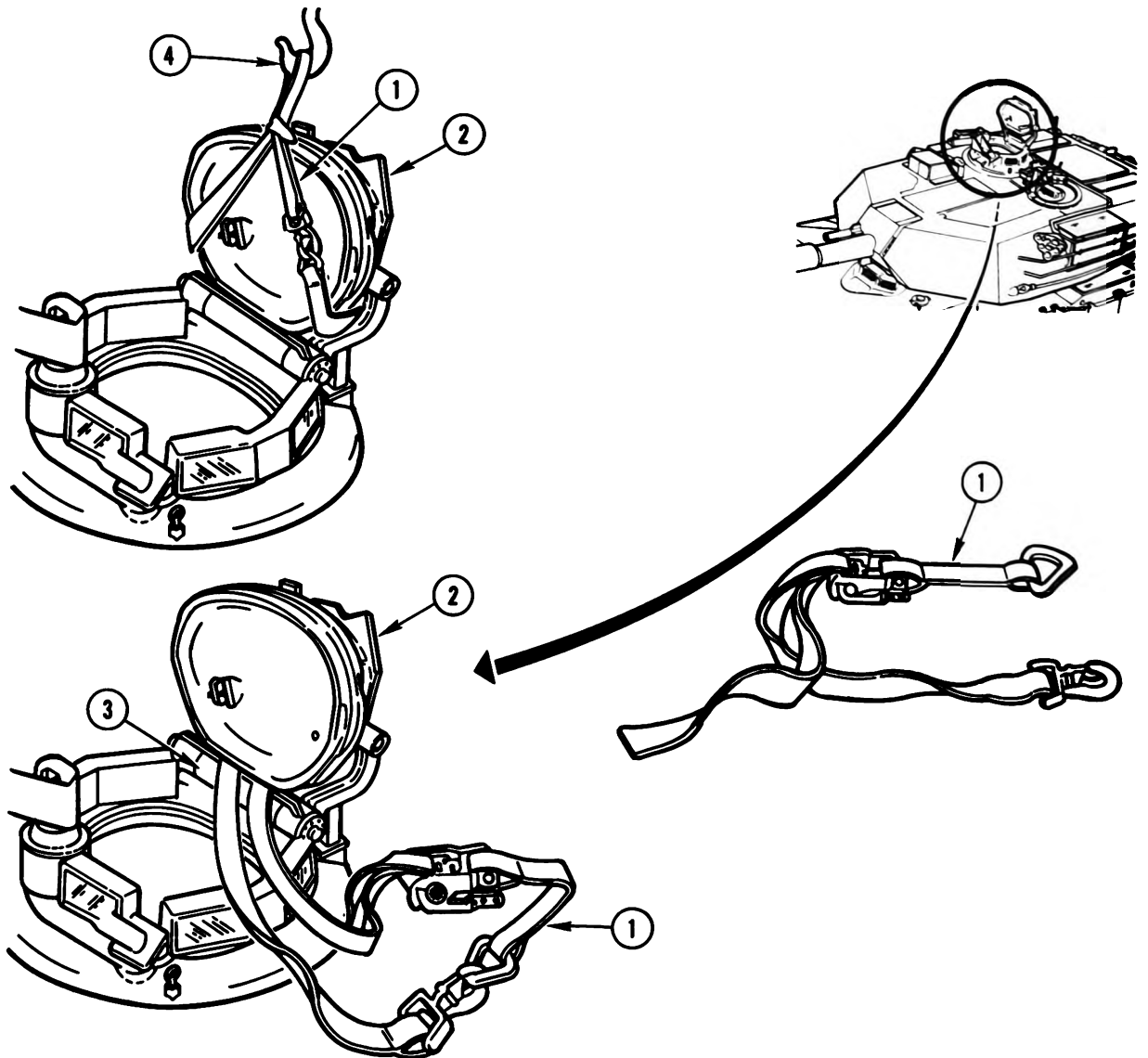
Soldier A: 1. Hook ends of strap (1) together.

Soldier A: 2. Put strap (1) between door (2) and yoke (3) and around door (2) as shown.

Soldier A: 3. Put strap (1) on hoist hook (4).

Soldier B: 4. When told by Soldier A, take up slack in strap (1) with hoist.

GO TO FRAME 2



ARR82-1277

FRAME 2

Remove Door and Yoke Assembly (Continued):

NOTE

Yoke arms (1) must point straight up to take off spring retainers (2) and springs (3).

Soldier A: 1. Unscrew and take out three screws (4) on each side of yoke assembly (5) with socket, extension, and handle. Take off two spring retainers (2) with hammer and drift pin.

NOTE

Hatch door (6) may have to be moved back and forth before tubes (7) can be removed.

Soldier A: 2. Take out one set of 22 leaf springs (3), tube (7), and washer (8) from each side of yoke assembly (5). Look at all parts for cracks or splits. Turn in bad parts. Set good parts aside for later use.

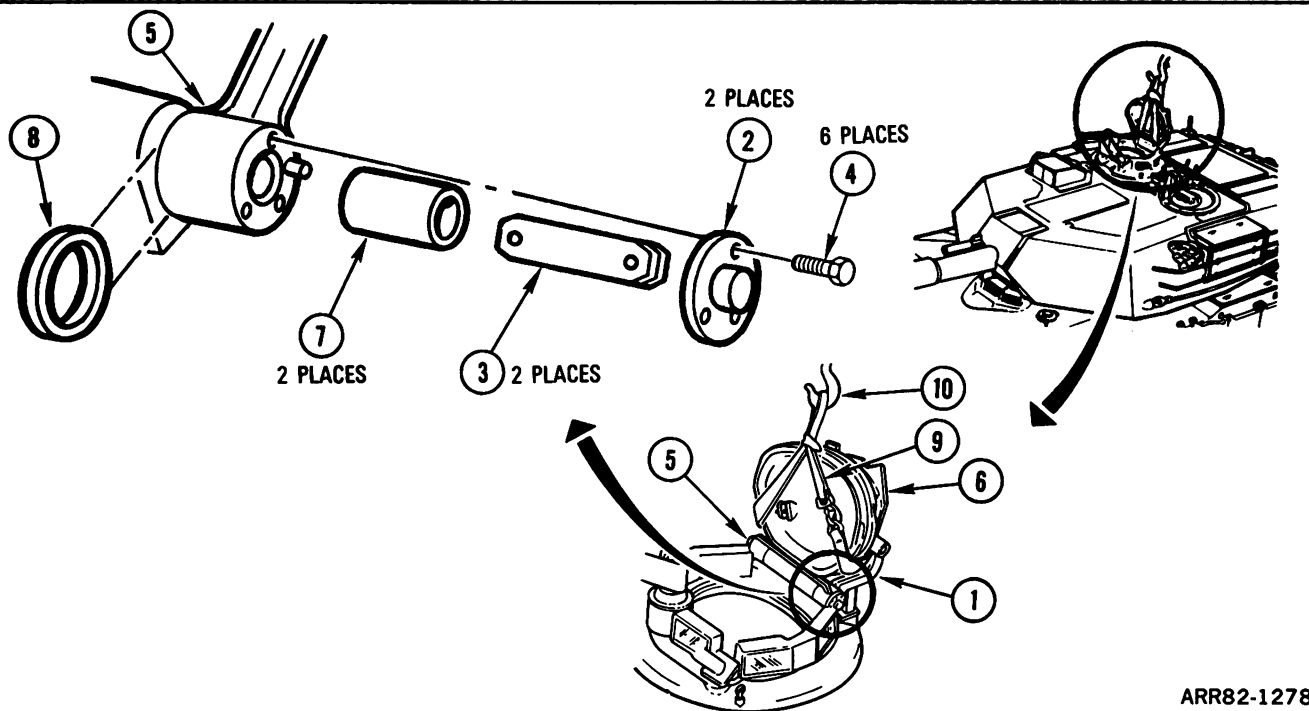
Soldier B: 3. When told by Soldier A, lift hatch door (6) and yoke assembly (5) and lower to ground.

Soldier A: 4. Take strap (9) off hoist hook (10). Take strap (9) off door (6).

NOTE

Soldier B is no longer needed in this task.

GO TO FRAME 3



ARR82-1278

FRAME 3

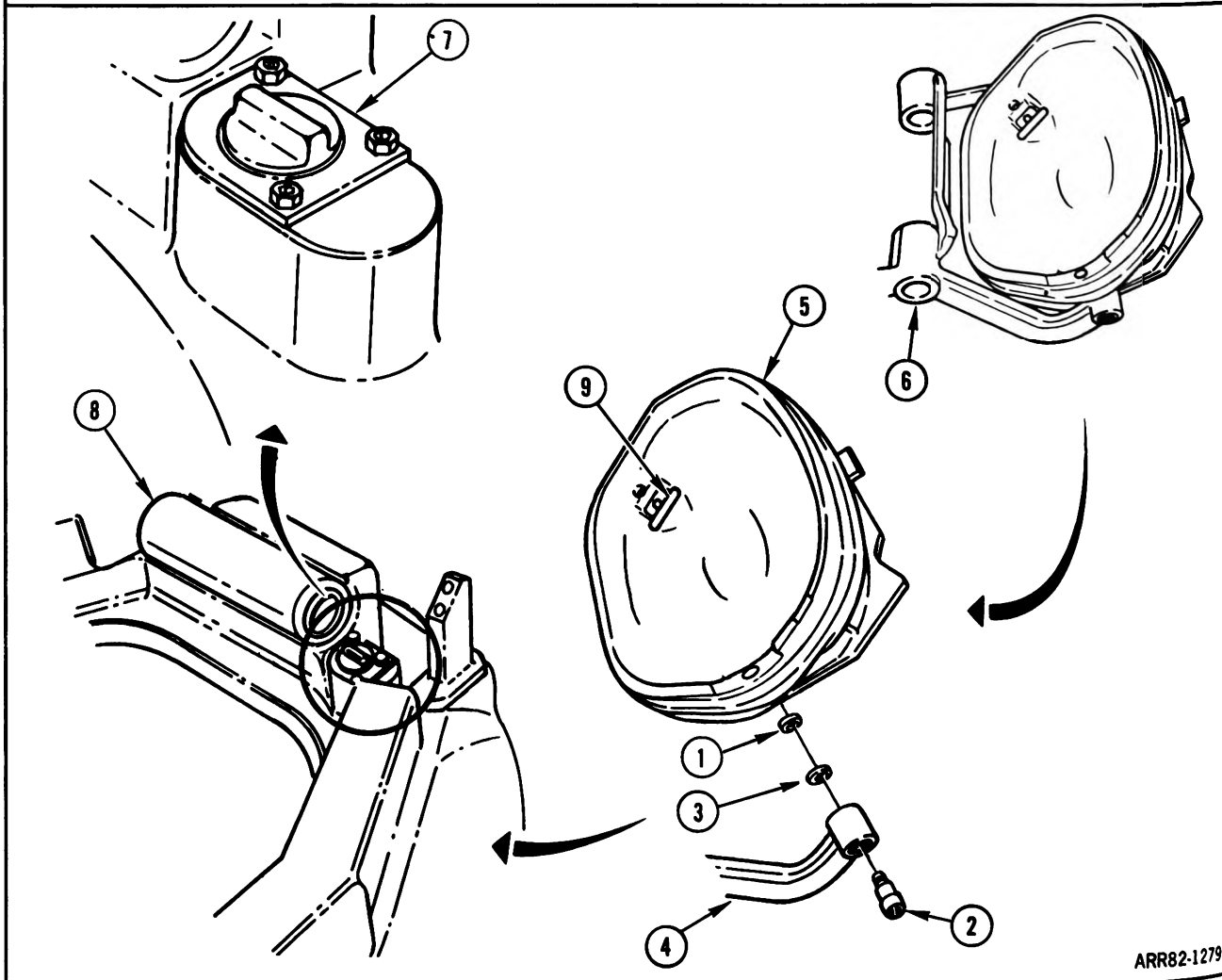
Remove Door and Yoke Assembly (Continued):

NOTE

Flat washers (1) are for adjustment. The number of washers (1) used may be different from tank to tank.

1. Unscrew and take out screw (2), washer (3), and flatwasher (1) from each yoke arm (4) and door (5) with socket wrench attachment and handle. Take yoke assembly (6) off door (5).
2. Look at wiper (7) on body (8) for cracks. If bad replace wiper (7); refer to task 7. If OK go to step 3.
3. Look at door (5) for cracks. If bad go to step 4. If OK go to frame 4.
4. Remove hatch door latch assembly (9); refer to task 3. Turn in bad door (5).

GO TO FRAME 4



ARR82-1279

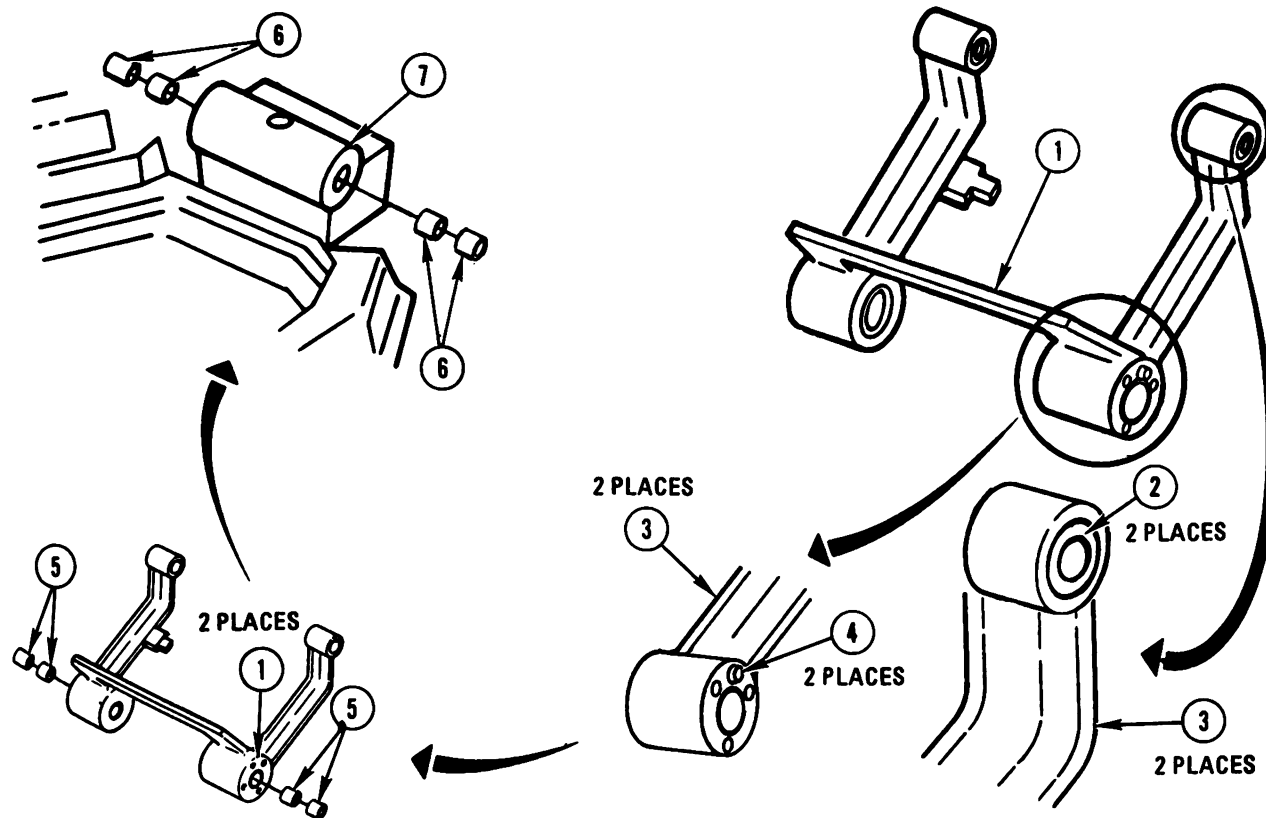
FRAME 4**Remove Door and Yoke Assembly (Continued):**

1. Look at yoke assembly (1) for cracks or splits. If bad turn in and TASK 1 ENDS HERE. If OK go to step 2.
2. Look at two bushings (2) on yoke arms (3) for flat spots or corrosion. If bad, tap out bushings (2) with hammer and punch. Turn in bad bushings (2). If OK set aside for later use and go to step 3.
3. Look at two pins (4) for cracks or breaks. If bad drill out pins (4) from yoke arms (3) with twist drill and electric drill. If OK go to step 4.
4. Look at four bearings (5) inside yoke assembly (1) and four bearings (6) inside body (7) for cracks, rust, or wear. If rusty, clean rust off bearings (5, 6) with abrasive cloth. If bad replace sleeve bearings; refer to task 8. If OK set yoke assembly (1) aside for later use.

Follow-on Maintenance:

NOTE: To install hatch door and yoke assembly, refer to task 14.

TASK 1 ENDS HERE



ARR82-1280

TASK 2. Remove Hatch Locking Bolt

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Hammer, brass, 4-ounce
Handle, socket wrench, ratchet, 3/8-inch square drive
Oiler, hand
Pliers, long round nose
Pliers, slip joint
Punch, drive pin, 3/32-inch
Punch, drive pin, 3/16-inch
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Vise, machinist's
Wrench, combination, 7/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Cloth, abrasive (Item 17)
Lubricating Oil, OE/HDO-30, MIL-L-2104C (Item 33)
Pin, spring (96906) MS16562-26
Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Close and lock commander's hatch; refer to TM 9-2350-255-10.

FRAME 5**Remove Hatch Locking Bolt:****WARNING**

Commander's hatch door (1) will not lock open when hatch locking bolt (2) is taken out. Door (1) can fall and injure you. Make sure hatch door (1) is closed and locked before doing any work.

1. Unscrew and take out two screws (3) with socket, extension, and handle, or wrench.
2. Take off cam guide (4), bolt (2), with attaching parts, and shims (5).

Repair Hatch Locking Bolt:

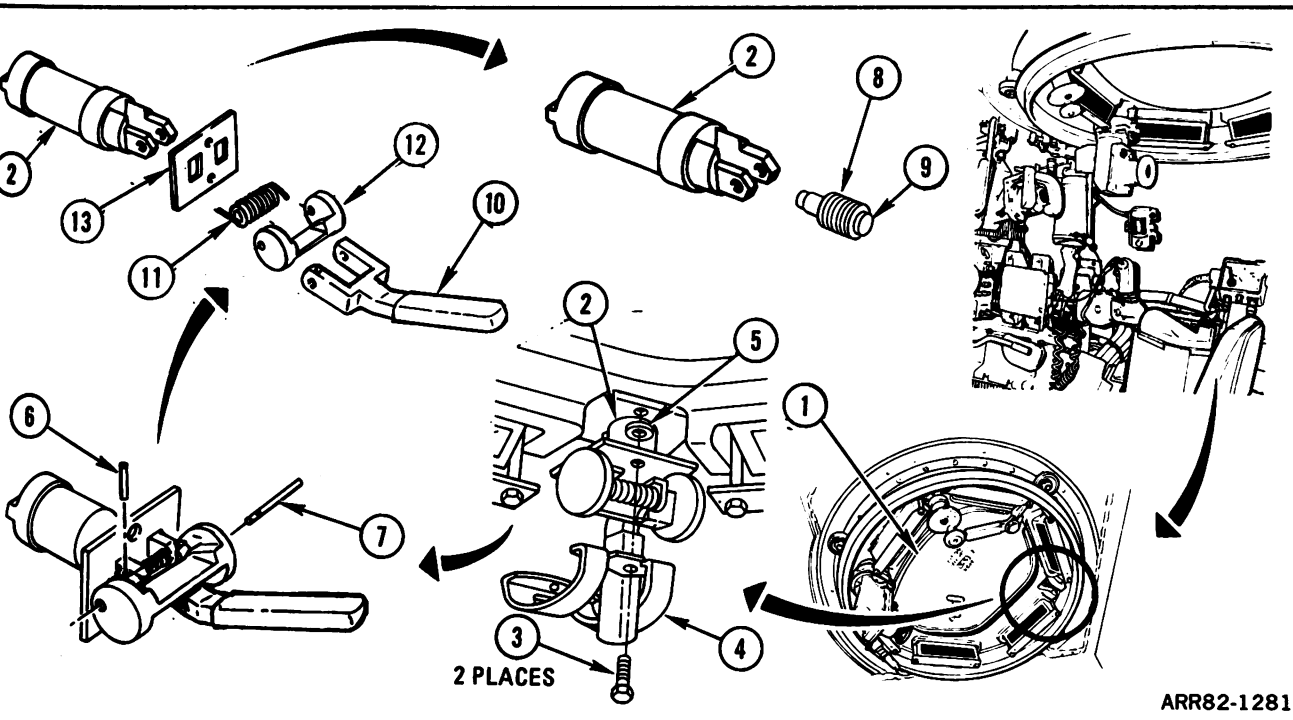
3. Drive out spring pin (6) with hammer and 3/32-inch punch. Get rid of spring pin (6).
4. Drive out straight pin (7) with hammer and 3/16-inch punch as far as possible. Pull out straight pin (7) with slip joint pliers.

NOTE

Shims (8) may fall off during removal of cartridge assembly (9). Put back same shims (8) on cartridge assembly (9).

5. Pull apart handle (10), spring (11), cam (12), cam plate (13), and bolt (2). Take cartridge assembly (9) out of bolt (2).

GO TO FRAME 6

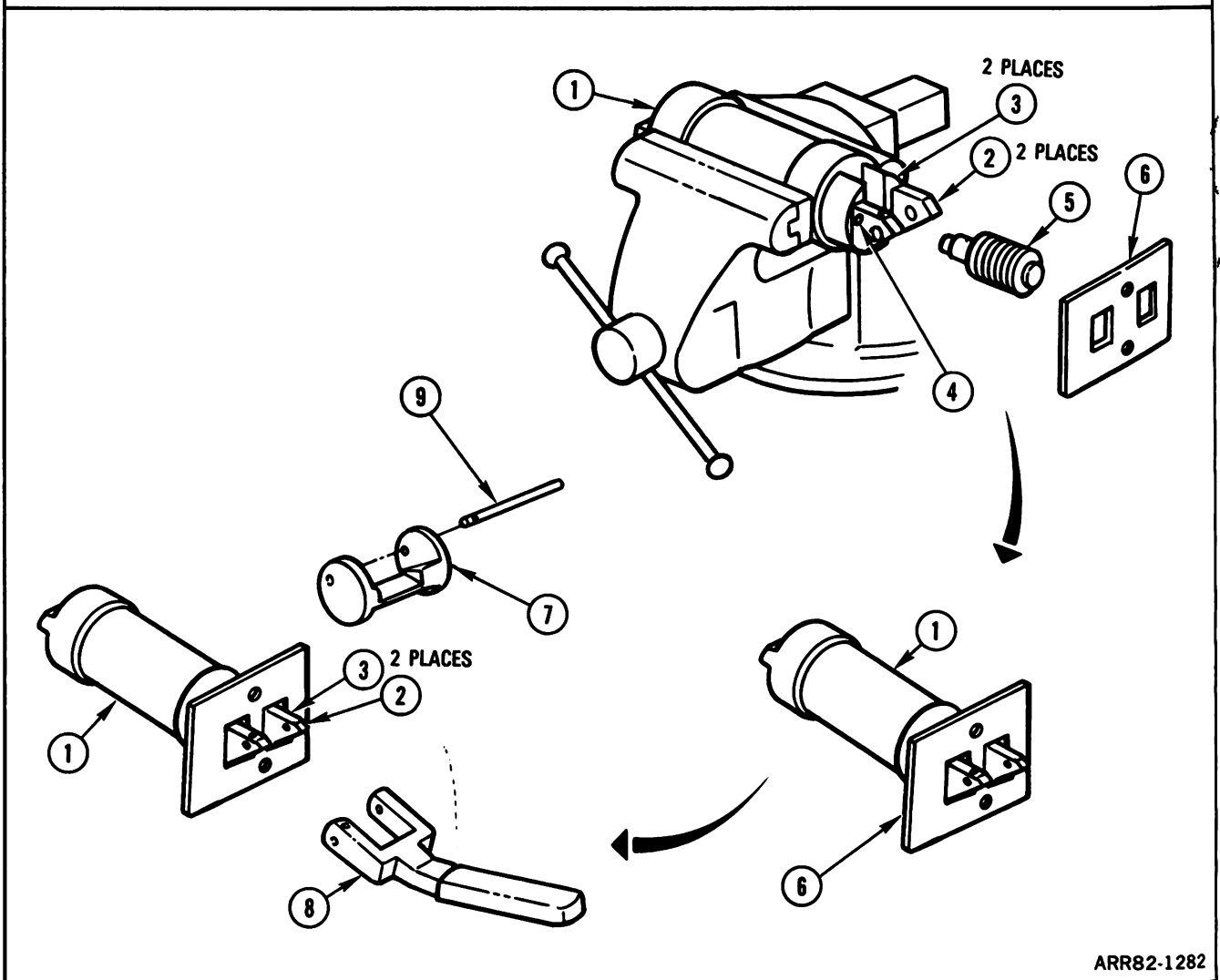


FRAME 6

Repair Hatch Locking Bolt (Continued):

1. Clean rust off all parts with abrasive cloth and rags. Look at all parts for cracks and breaks. Turn in bad parts. Oil good parts lightly. Set good parts aside for later use.
2. Put bolt (1) in vise with short angled sides (2) of bolt arms (3) on top and small hole (4) in bolt (1) as shown.
3. Put cartridge assembly (5) on bolt (1). Put cam plate (6) on bolt (1).
4. Put cam (7) on short angled sides (2) of bolt arms (3) and hold in place. Put handle (8) under cam (7) and on bolt arms (3).
5. Align holes in cam (7) with holes in bolt arms (3) and holes in handle (8). Tap end of straight pin (9) with the small hole part way in with hammer.

GO TO FRAME 7



ARR82-1282

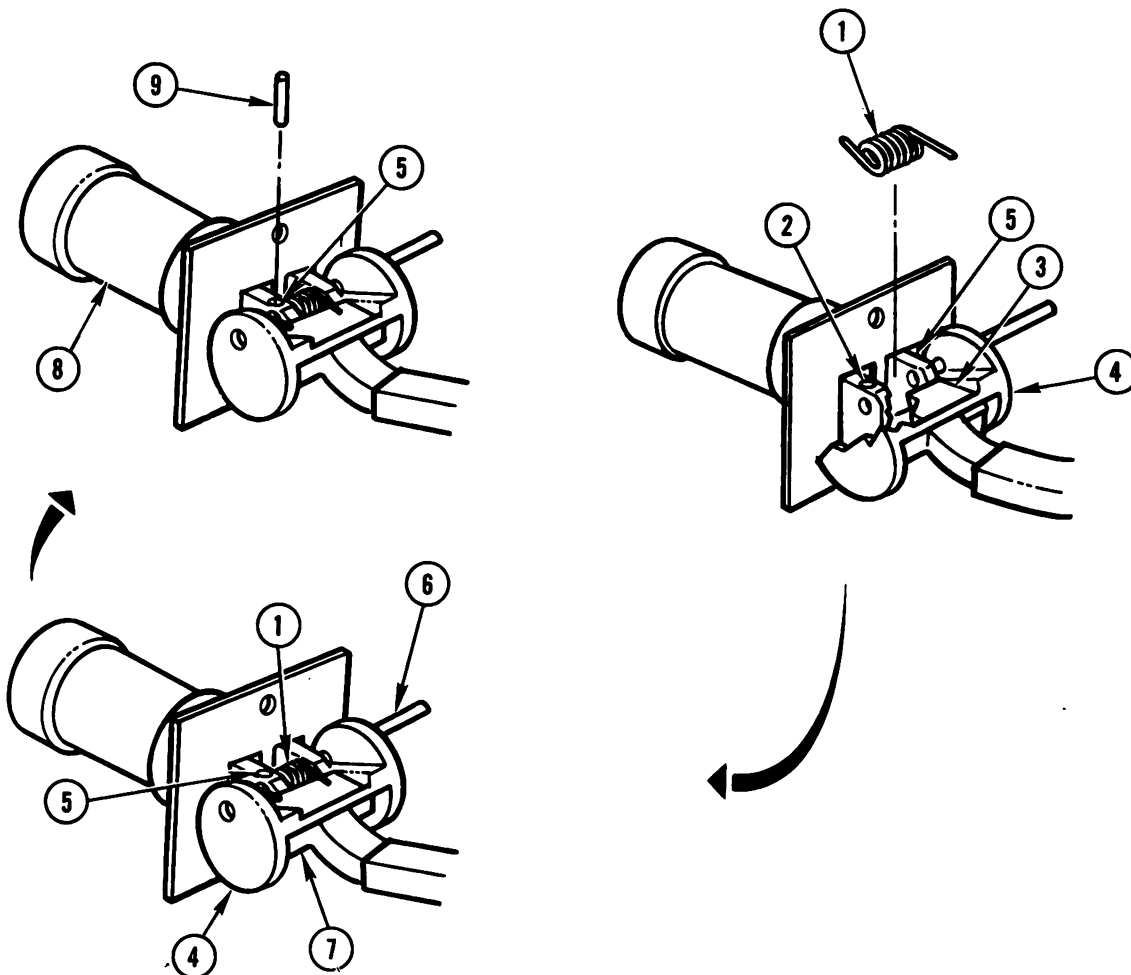
FRAME 7**Repair Hatch Locking Bolt (Continued):**

1. Put short end of spring (1) in hole (2) and long end of spring (1) in slot (3) of cam (4).
2. Push down on spring (1) until hole in spring (1) is aligned with holes in cam (4) and bolt arms (5).
3. Tap straight pin (6) through spring (1) and the rest of the way through holes in bolt arms (5), handle (7), and cam (4) with hammer.
4. Line up small hole in straight pin (6) with hole in left arm (5) of bolt (8). Tap in new spring pin (9) with hammer.
5. Remove bolt (8) from vise.

Follow-on Maintenance:

NOTE: To install yoke latching mechanism, refer to task 14.

TASK 2 ENDS HERE



ARR82-1283

TASK 3. Remove Hatch Door Latch Assembly

Applicability: All Models

Common Tools:

Caps, vise jaw, brass
Hammer, ball peen
Punch, drive pin, tapered, 1/16-inch
Vise, machinist's
Wrench, combination, 7/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Cloth, abrasive (Item 17)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Close and lock commander's hatch; refer to TM 9-2350-255-10.

FRAME 8**Remove Latch Assembly:**

1. Unscrew and take out two screws (1) from latch assembly (2) with wrench.
2. Take off latch assembly (2). Look at latch assembly (2) for cracks and breaks. If bad go to step 3. If OK set aside for later use.

NOTE

If latch assembly (2) was taken out for access only, TASK 3 ENDS HERE.

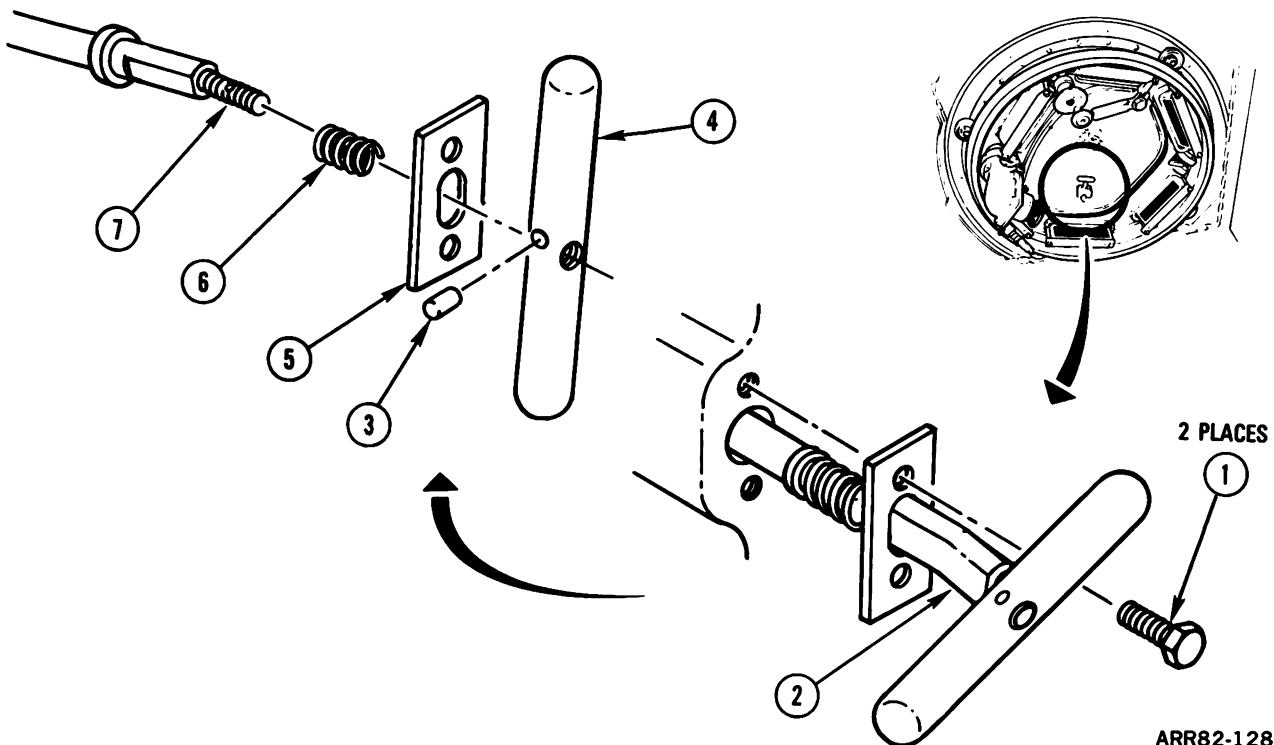
Disassemble Latch Assembly:

3. Put latch assembly (2) in vise. Drive out spring pin (3) from bar (4) with hammer and punch. Get rid of spring pin (3).
4. Unscrew and take off bar (4), plate (5), and spring (6) from latch pin (7).
5. Clean rust off bar (4), plate (5), spring (6), and latch pin (7) with abrasive cloth. Look at bar (4), plate (5), spring (6), and latch pin (7) for cracks and breaks. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install hatch door latch assembly, refer to task 12.

TASK 3 ENDS HERE



ARR82-1284

TASK 4. Remove Hatch Lock Handle

Applicability: All Models

Common Tools:

Hammer, ball peen
Handle, socket wrench, ratchet, 1/2-inch square drive
Pliers, slip joint
Punch, drive pin, tapered, 1/8-inch
Socket, socket wrench, 1/2-inch square drive, 1-1/8 inch
Vise, machinist's

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Cloth, abrasive (Item 17)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 9**Remove Handle:**

1. Unscrew and take out self-locking bolt (1) with socket and handle.

NOTE

Washers (2) are used as shims to get a close seal when hatch door (3) is closed. Washers (4) that are not used are stowed under head of bolt (1). Washers (2, 4) may vary in quantity.

2. Take off washers (2, 4), bushing (5), and hatch lock handle (6). Look at bolt (1) for stripped threads. Look at bushing (5) and handle (6) for cracks. Turn in bad parts. Set good parts aside for later use.

NOTE

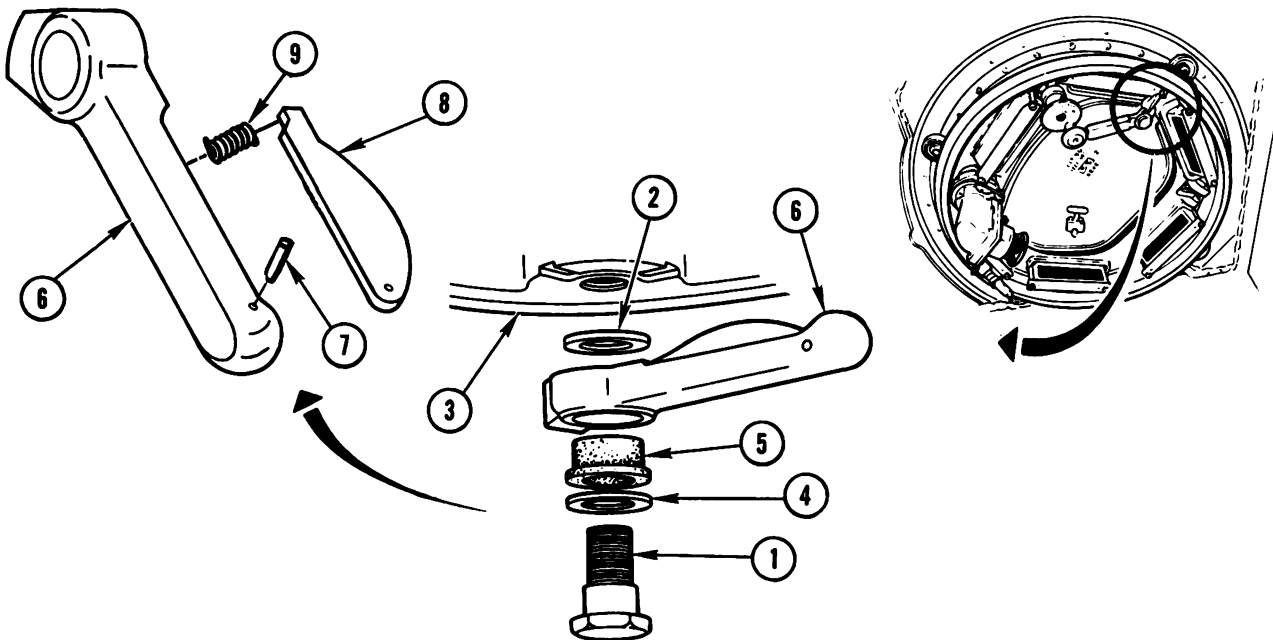
If handle (6) is taken out for access only, TASK 4 ENDS HERE. If not, go to step 3.

3. Put handle (6) in vise. Drive out spring pin (7) from handle (6) and locking plate (8) with hammer, punch, and pliers. Take out plate (8) and spring (9). Get rid of spring pin (7).
4. Clean rust off plate (8) and spring (9) with abrasive cloth. Look at plate (8) and spring (9) for cracks. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install hatch lock handle, refer to task 11.

TASK 4 ENDS HERE



ARR82-1285

TASK 5. Remove Cushioning Pad and Hatch Cover Block

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Screwdriver, cross tip, No. 2
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Close commander's hatch; refer to TM 9-2350-255-10.

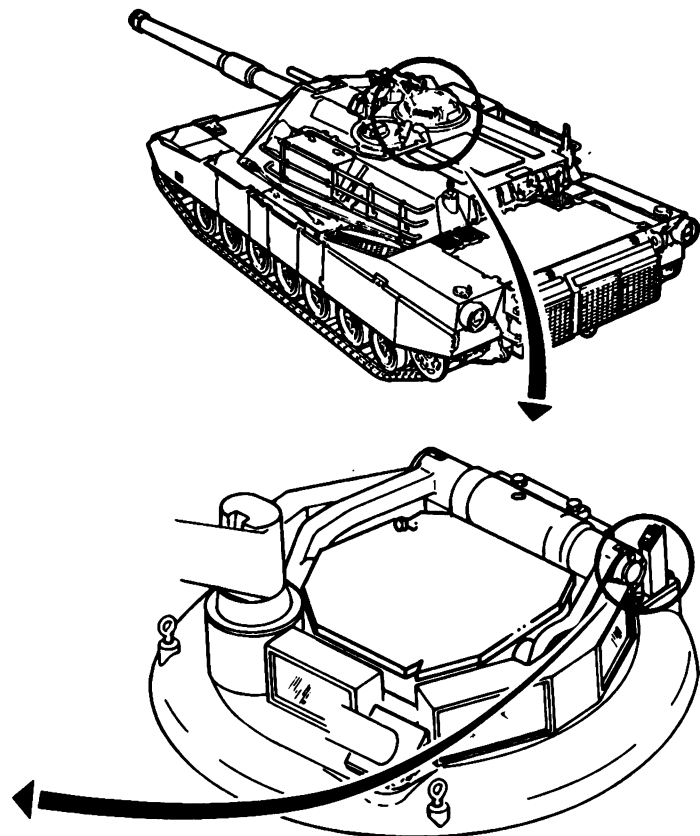
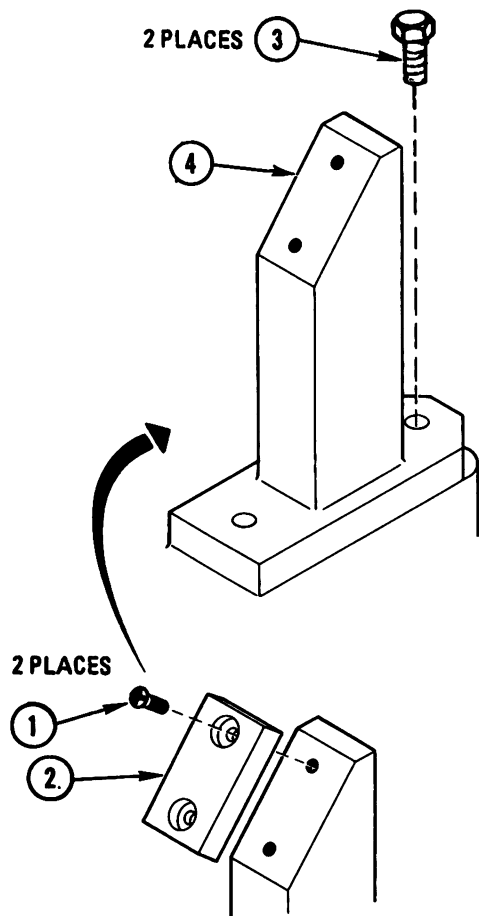
FRAME 10**Remove Pad and Block:**

1. Unscrew and take out two screws (1) from cushioning pad (2) with screwdriver. Take off pad (2).
2. Look at pad (2) for cracks. If bad turn in. If OK set aside for later use.
3. Unscrew and take out two screws (3) from hatch cover block (4) with socket and handle. Take off block (4).
4. Look at block (4) for cracks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install cushioning pad and hatch cover block, refer to task 10.

TASK 5 ENDS HERE



ARR82-1286

TASK 6. Replace Hatch Door Seal

Applicability: All Models

Common Tools:

Brush, wire
Knife, putty
Rule, machinist's, 6-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Adhesive, Type 11, MMM-A-1617 (Item 3)
Brush, acid swabbing (Item 13)
Dry Cleaning Solvent, P-D-680 (Item 12)
Rag, wiping (Item 45)
Seal, rubber special (19207) 12273179-3
Tubing, nonmetallic (19207) 12287775 (two required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Open commander's hatch to full open position; refer to TM 9-2350-255-10.

FRAME 11**Replace Seal:**

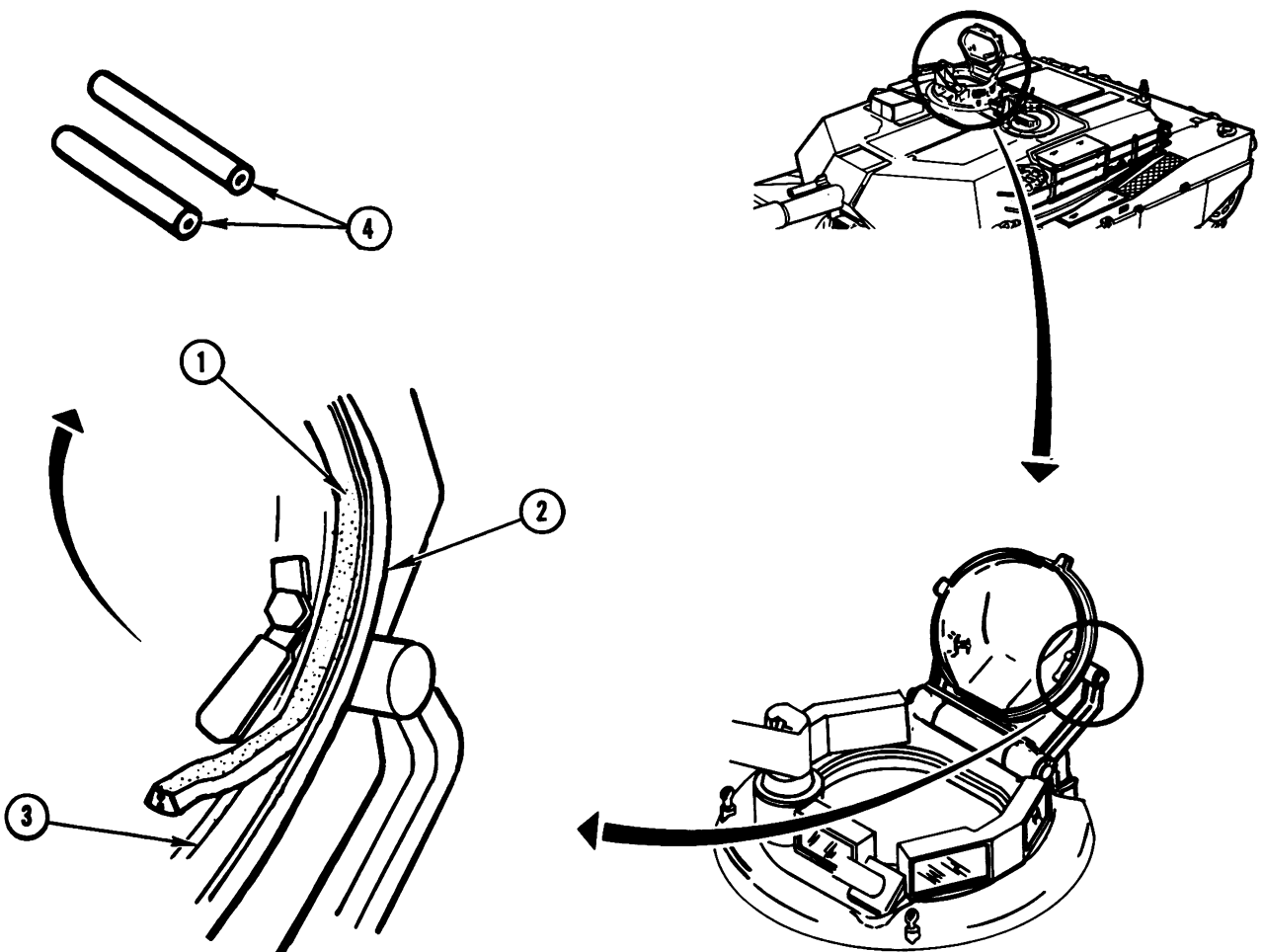
1. Peel seal (1) off hatch door (2) with putty knife. Get rid of seal (1).

WARNING

Adhesives and solvents burn easily and can give off harmful vapors. To avoid injury, keep away from open fire and use in a well-ventilated area.

2. Clean seal groove (3) with solvent and wire brush. Wipe groove (3) clean with rag and let dry.
3. Measure a 3/4-inch section on end of two new nonmetallic tubings (4) with rule. Spread a coat of adhesive on measured end of each tubing (4) with acid swabbing brush.

GO TO FRAME 12



ARR82-1287

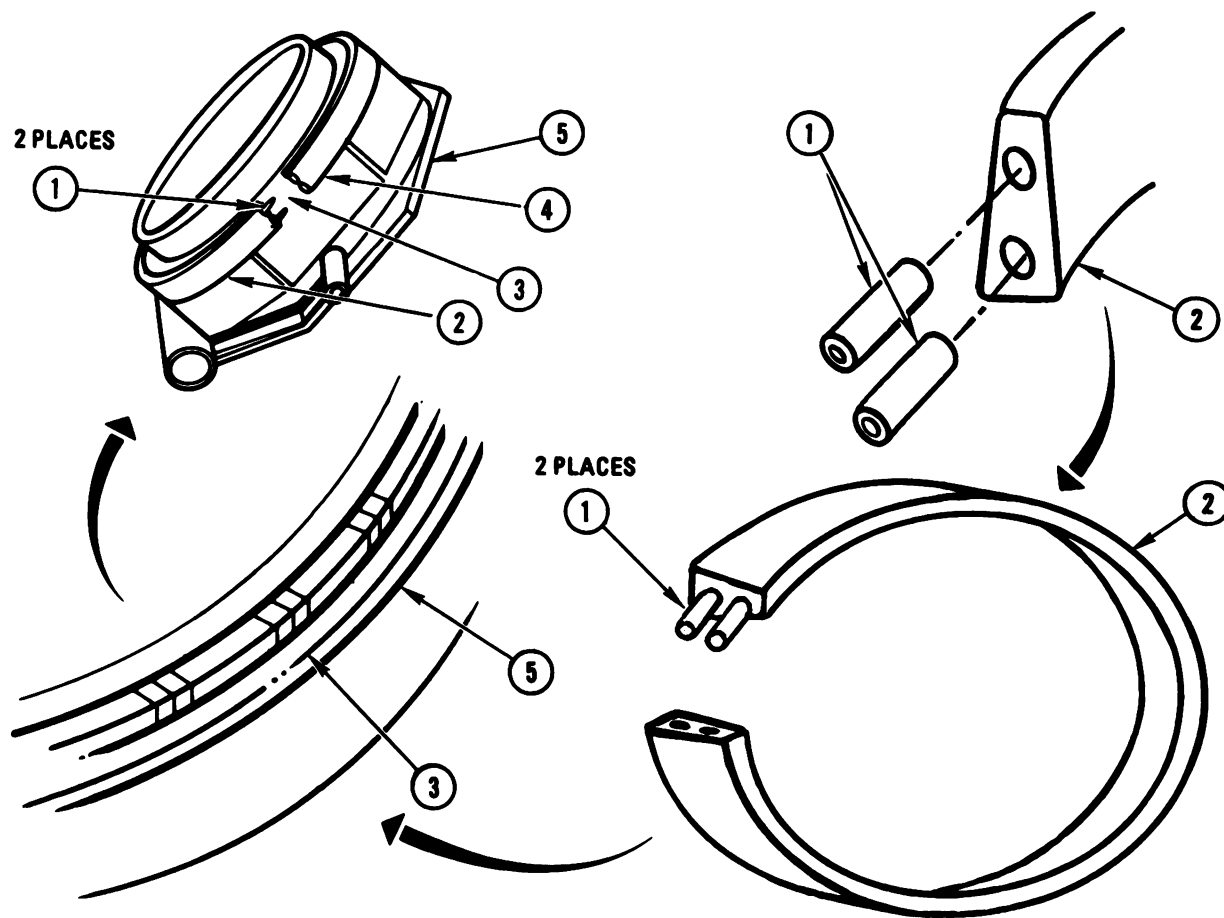
FRAME 12

Replace Seal (Continued):

1. Push coated end of each tubing (1) in end of new seal (2) before adhesive dries. Let adhesive dry for at least 15 minutes.
2. Spread a coat of adhesive on seal (2) and in seal groove (3) with acid swabbing brush, and let dry at least 15 minutes.
3. Spread a second coat of adhesive on seal (2), groove (3), and other end of each tubing (1) with acid swabbing brush.
4. Put seal (2) in groove (3) before adhesive dries. Push end (4) of seal (2) over tubings (1) before adhesive dries.
5. Close hatch door (5) for at least 15 minutes to seat seal (2).

Follow-on Maintenance: None

TASK 6 ENDS HERE



ARR82-1288

TASK 7. Replace Seal Wiper**Applicability:** All Models**Common Tools:**

Key, socket head screw, 5/32-inch

Special Tools: None**Supplies:**

Lockwasher (96906) MS35336-27 (three required)

Wiper, seal (19207) 12285492

Personnel: One**Equipment Condition:**

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Open commander's hatch to full open position; refer to TM 9-2350-255-10.
2. Remove hatch lock handle; refer to task 4.
3. Remove hatch door and yoke assembly; refer to task 1.

FRAME 13

Remove Wiper:

1. Unscrew and take out three screws (1) and lockwashers (2) on body (3) with key. Get rid of lockwashers (2).
2. Take off and turn in seal wiper (4).

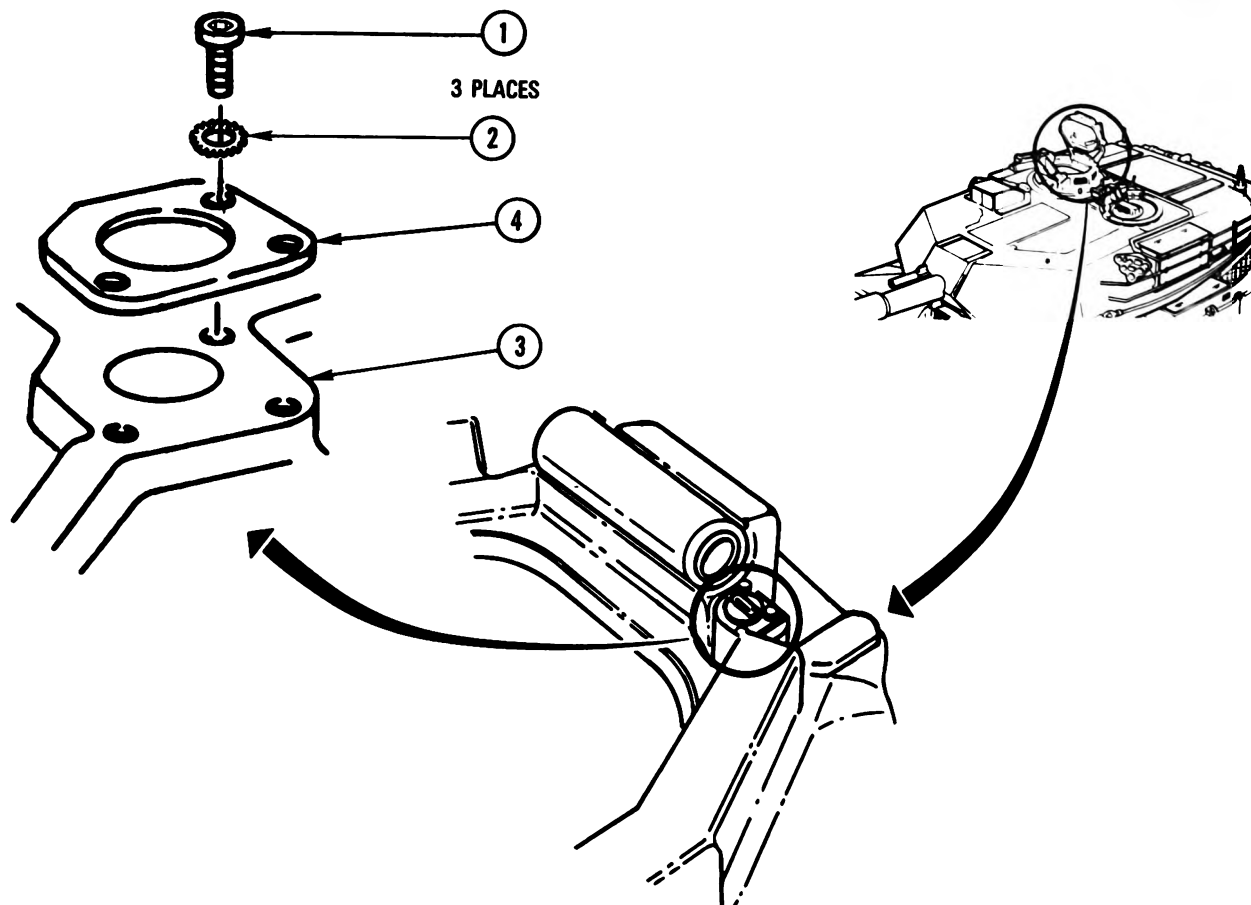
Install Wiper:

3. Line up holes of new wiper (4) and body (3).
4. Screw in and tighten three screws (1) and new lockwashers (2) with key.

Follow-on Maintenance:

1. Install hatch door and yoke assembly; refer to task 14.
2. Install hatch lock handle; refer to task 11.

TASK 7 ENDS HERE



ARR82-1289

TASK 8. Replace Sleeve Bearings or Spring Retaining Collar and Hatch Hinge Plate

Applicability: All Models

Common Tools:

Hammer, ball peen
Handle, socket wrench, ratchet, 3/8-inch square drive
Puller Kit, mechanical
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Bearing, sleeve (19207) 12287664 (as required)
Collar, spring retaining (19207) 12285307 (as required)
Plate, hatch hinge (19207) 12285306 (as required)
Wood block, 2 x 4-inch (Item 64)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Open commander's hatch to full open position; refer to TM 9-2350-255-10.
2. Remove hatch lock handle; refer to task 4.
3. Remove hatch door and yoke assembly; refer to task 1.

FRAME 14

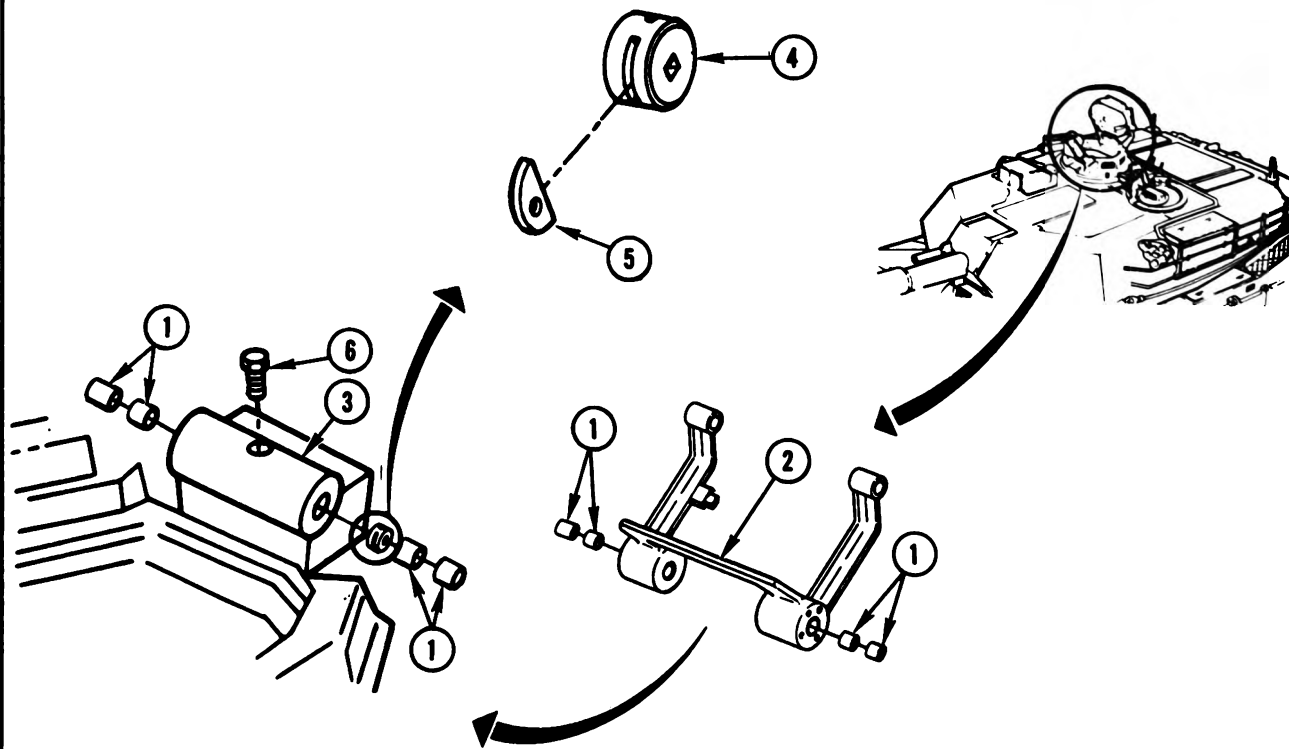
Remove Bearings or Collar and Plate:

NOTE

- To take out sleeve bearings (1) from yoke (2), do step 1.
- To take out sleeve bearings (1) from body (3), do step 2.
- To take out spring retaining collar (4) and hatch hinge plate (5), do steps 2, 3, 4, and 5.

1. Pull two bearings (1) from each side of yoke body (2) with bearing puller. Turn in four bearings (1).
2. Pull two bearings (1) from each side of body (3) with bearing puller. Turn in four bearings (1).
3. Unscrew and take out screw (6) from body (3) with socket and handle.
4. Push out collar (4) from body (3) with leg from puller kit.
5. Slide out plate (5) from collar (4). Look at collar (4) and plate (5) for cracks or bends. Turn in bad parts. Set good parts aside for later use.

GO TO FRAME 15



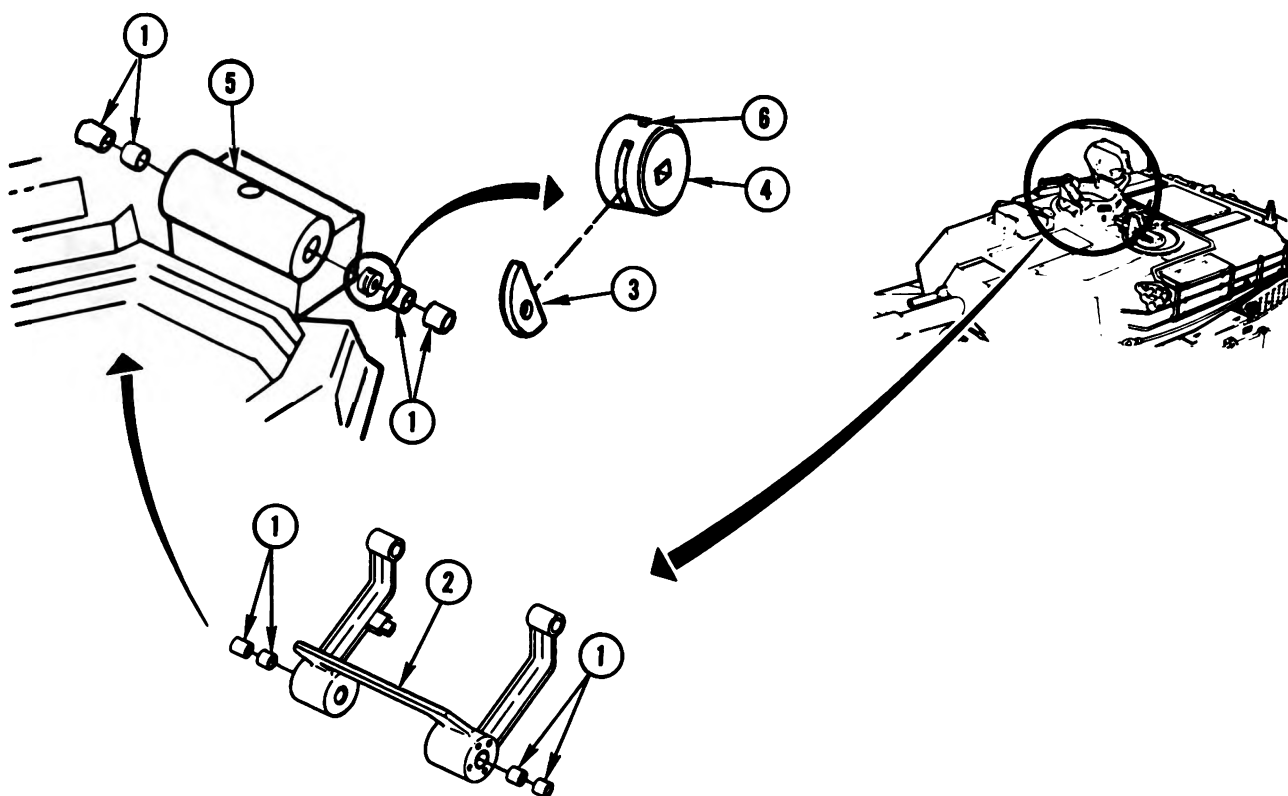
ARR82-1290

FRAME 15**Install Bearings or Collar and Plate:****NOTE**

- To put sleeve bearings (1) in yoke (2), do steps 1, 2, and 3. Then go to follow-on maintenance.
- To put hatch hinge plate (3) and spring retaining collar (4) in body (5) begin with step 4.
- To put sleeve bearings (1) in body (5), go to frame 16, step 3.

1. Tap one new bearing (1) in one side of yoke (2) with wood block and hammer until flush with end of yoke (2).
2. Tap second new bearing (1) against first bearing (1) with wood block and hammer until flush with end of yoke (2).
3. Do steps 1 and 2 again for other side of yoke (2).
4. Slide plate (3) in collar (4) with flat end of plate (3) facing hole (6) in collar (4).

GO TO FRAME 16



ARR82-1291

FRAME 16

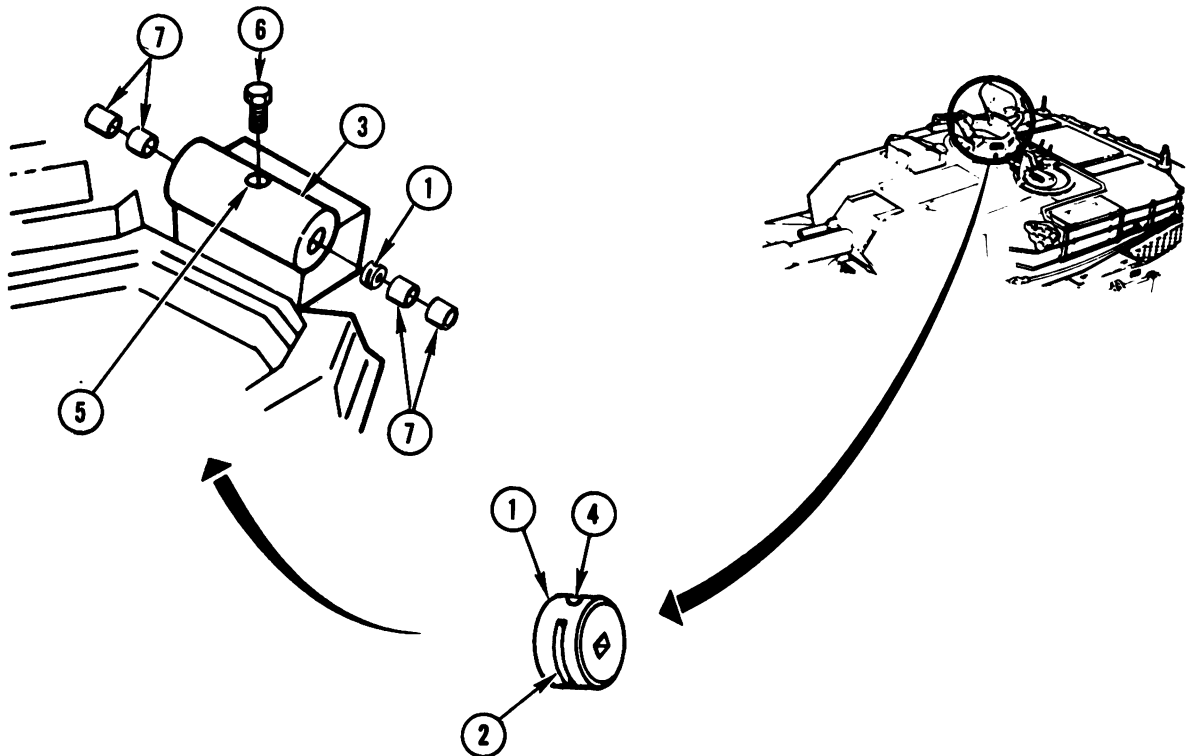
Install Bearings or Collar and Plate (Continued):

1. Push collar (1), with plate (2), in one end of body (3) with leg from puller kit, until hole (4) in collar (1) lines up with hole (5) in body (3).
2. Screw in and tighten screw (6) in holes (4, 5) with socket and handle. Torque screw (6) between 480 and 525 pound inches (54 and 59 Newton meters).
3. Tap one new bearing (7) in one side of body (3) with wood block and hammer until flush with end of body (3).
4. Tap second new bearing (7) against first bearing (7) with wood block and hammer until flush with end of body (3).
5. Do steps 3 and 4 again for other side of body (3).

Follow-on Maintenance:

1. Install hatch door and yoke assembly; refer to task 14.
2. Install hatch lock handle; refer to task 11.

TASK 8 ENDS HERE



ARR82-1292

TASK 9. Replace Lifting Eye Bolt

Applicability: All Models

Common Tools:

Bar, pinch, 3/4-inch diameter
Drill, electric, portable, 1/2-inch
Drill, twist, 1/4-inch
Extractor, screw, 1/4-inch
Hammer, ball peen
Handle, tap
Punch, center, 5/32-inch
Rule, machinist's, 6-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Bolt, eye (96906) MS51937-5 (as required)
Tape, pressure sensitive, PPP-T-60 (Item 58)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 17

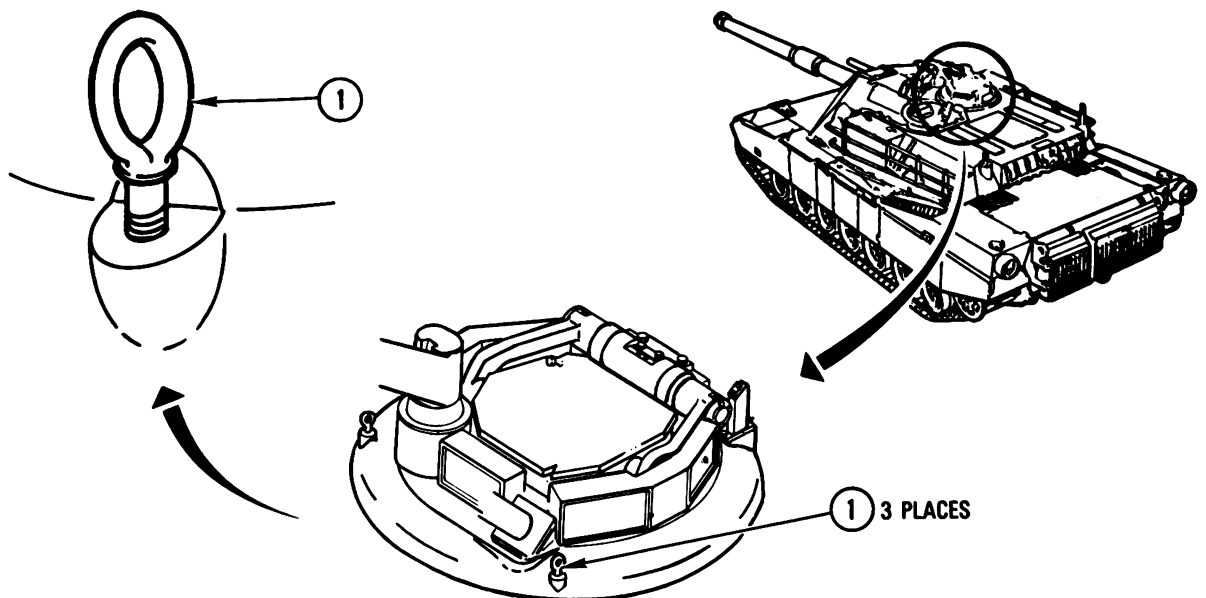
Replace Eye Bolt:

NOTE

- Use this task to take out and put in any of three lifting eye bolts (1). One lifting eye bolt (1) is shown.
 - If lifting eye bolt (1) is bent, do step 1 and then go to step 5.
 - If lifting eye bolt (1) is sheared, begin with step 2.
1. Unscrew and take out bent lifting eye bolt (1) with pinch bar. Get rid of lifting eye bolt (1).
 2. Center-punch sheared lifting eye bolt (1) with hammer and punch.
 3. Mark twist drill 1/2-inch from end with tape and rule. Drill 1/4-inch hole, 1/2-inch deep, in sheared lifting eye bolt (1) with electric drill and twist drill.
 4. Unscrew and take out sheared lifting eye bolt (1) with screw extractor and tap handle. Get rid of sheared lifting eye bolt (1).
 5. Screw in new lifting eye bolt (1). Tighten new lifting eye bolt (1) with pinch bar.

Follow-on Maintenance: None

TASK 9 ENDS HERE



ARR82-1293

TASK 10. Install Cushioning Pad and Hatch Cover Block

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Oiler, hand
Screwdriver, cross tip, No. 2
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lubricating Oil, OE/HDO-30, MIL-L-2104 (Item 33)
Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove cushioning pad and hatch cover block; refer to task 5.

FRAME 18

Install Pad and Block:

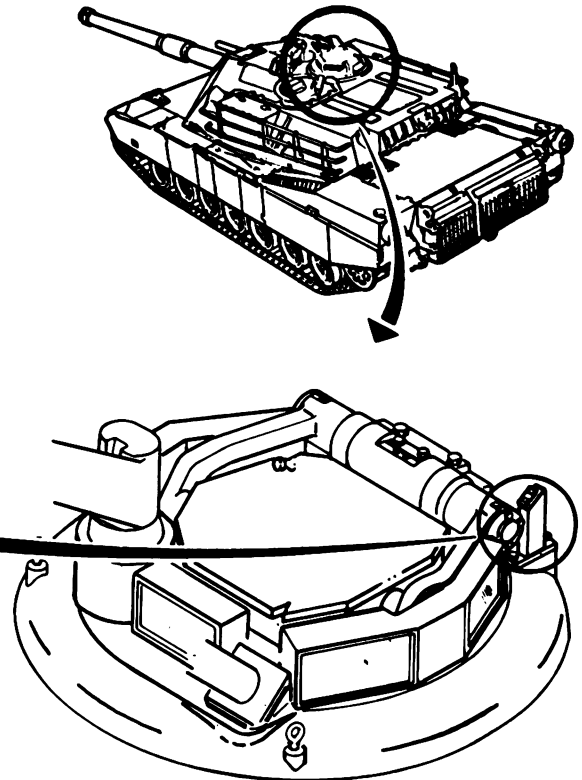
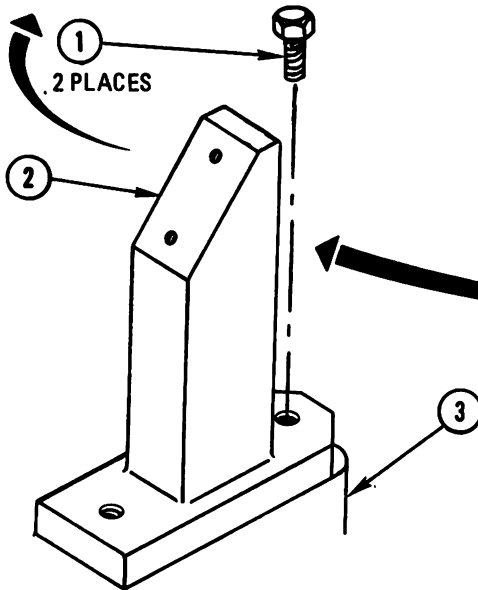
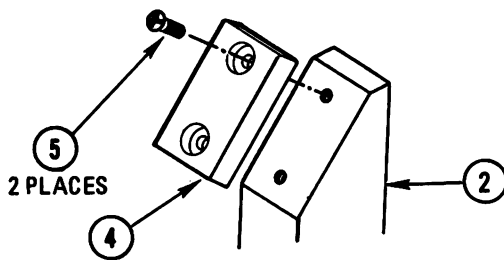
WARNING

Lubricating oil can cause skin rash. If oil gets on skin or clothing, wash with soap and water.

1. Coat threads of two screws (1) with oil. Wipe off excess oil with rag.
2. Put hatch cover block (2) in place on body (3). Screw in two screws (1) with socket and handle. Torque screws (1) between 360 and 420 pound inches (41 and 47 Newton meters).
3. Put cushioning pad (4) on block (2). Screw in and tighten two screws (5) with screwdriver.

Follow-on Maintenance: None

TASK 10 ENDS HERE



ARR82-1294

TASK 11. Install Hatch Lock Handle

Applicability: All Models

Common Tools:

- Hammer, ball peen
- Handle, socket wrench, ratchet, 1/2-inch square drive
- Punch, drive pin, tapered, 1/8-inch
- Socket, socket wrench, 1/2-inch square drive, 1-1/8 inch

Special Tools: None

Supplies:

- Pin, spring (96906) MS16562-38

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

- Remove hatch lock handle; refer to task 4.

FRAME 19

Assemble Handle:

NOTE

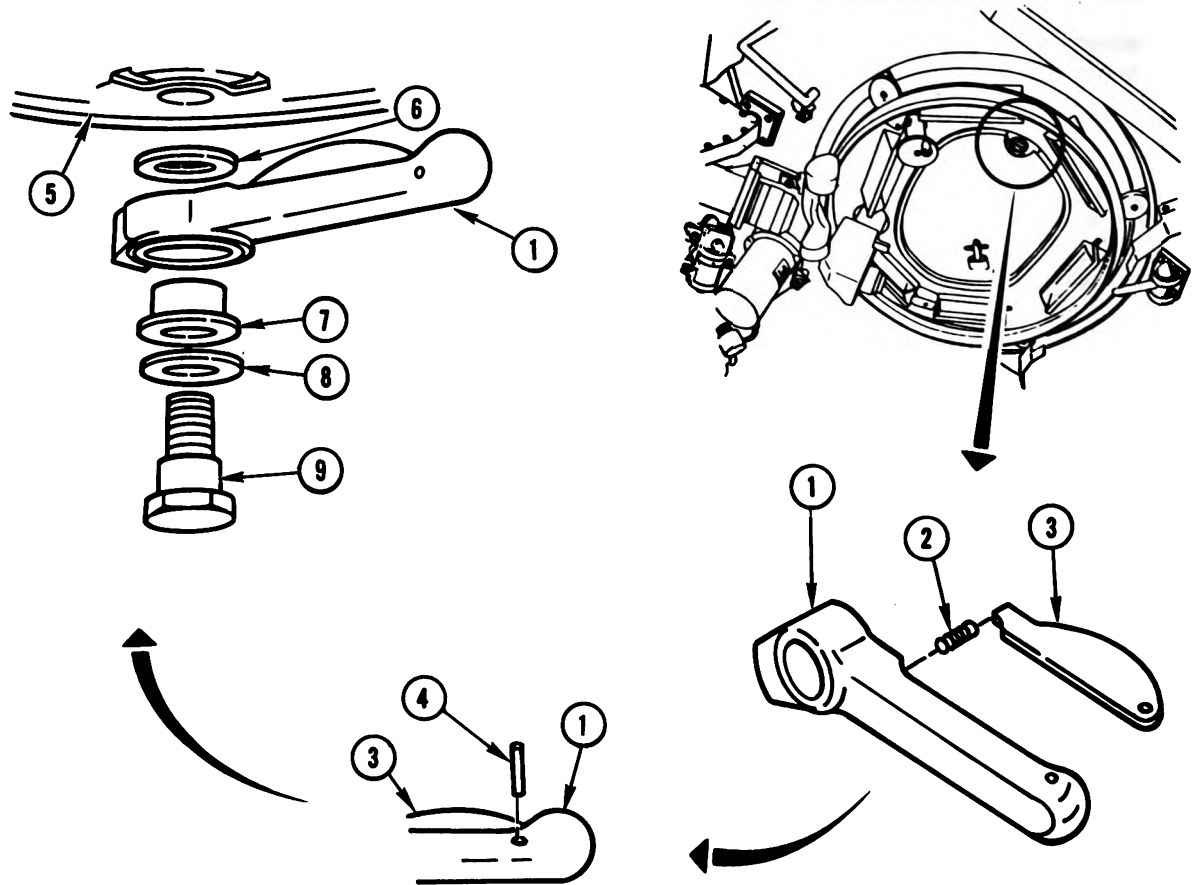
If hatch lock handle (1) was taken out for access only, begin with step 3. If not, begin with step 1.

1. Put spring (2) and locking plate (3) on handle (1).
2. Line up hole in handle (1) with hole in plate (3). Tap new spring pin (4) in handle (1) and plate (3) with hammer and punch.

Install Handle:

3. Close hatch door (5) and make sure door (5) is fully seated.
4. Put washers (6), handle (1), bushing (7), and spare washers (8) in place on door (5).
5. Screw in and tighten self-locking bolt (9) with socket and handle.

GO TO FRAME 20



ARR82-1295

FRAME 20**Install Handle (Continued):**

1. Look at hatch door (1) for a close seal between door (1) and hatch (2). If door (1) and hatch (2) are sealed and handle (3) moves freely, TASK 11 ENDS HERE. If not, do steps 2 and 3.
2. Unscrew and take out bolt (4) with socket and handle. Take off handle (3).

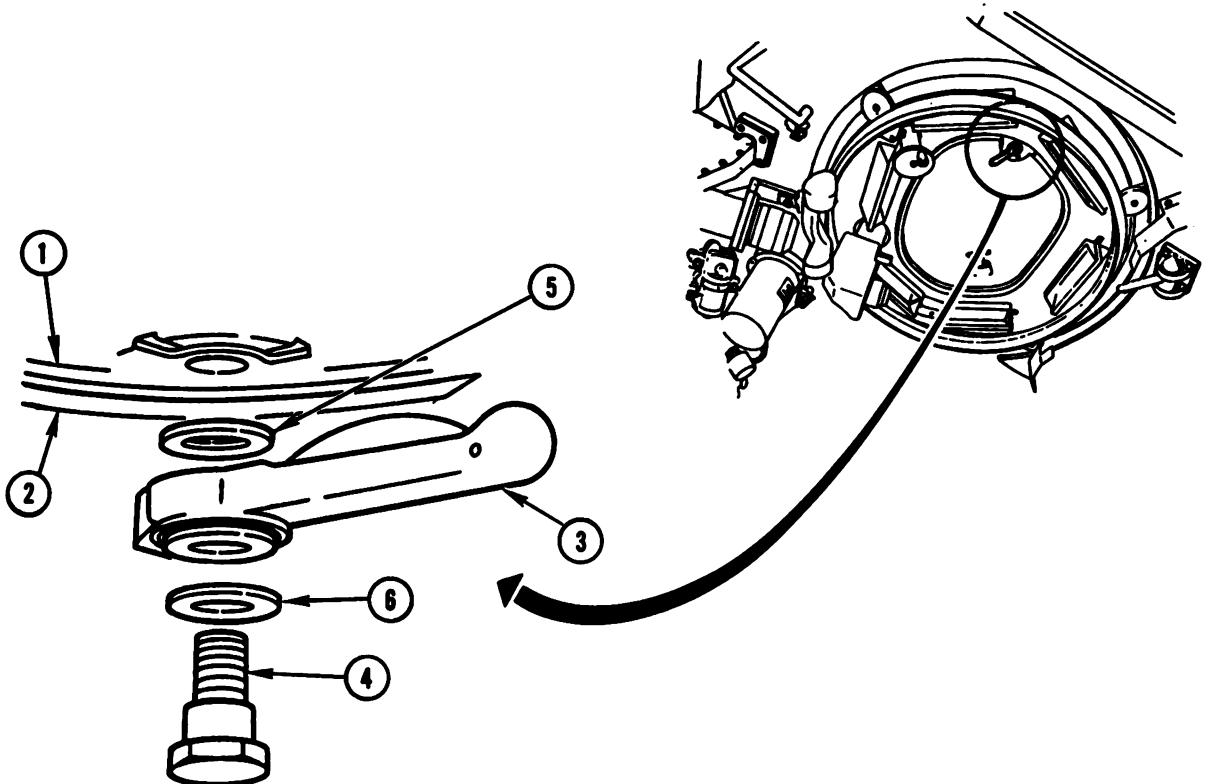
NOTE

Washers (5) are used as shims to get a close seal when hatch door (1) is closed. Shim washers (6) that are not used are stowed under head of bolt (4).

3. Add or take out washers (5) as needed to get a tight seal. Do steps 4 and 5 of frame 19 again. Repeat this step 3 until door (1) and hatch (2) seal tightly.

Follow-on Maintenance: None

TASK 11 ENDS HERE



ARR82-1296

TASK 12. Install Hatch Door Latch Assembly

Applicability: All Models

Common Tools:

Hammer, ball peen
Wrench, combination, 7/16-inch

Special Tools: None

Supplies:

Pin, spring (96906) MS16562-18

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove hatch door latch assembly; refer to task 3.

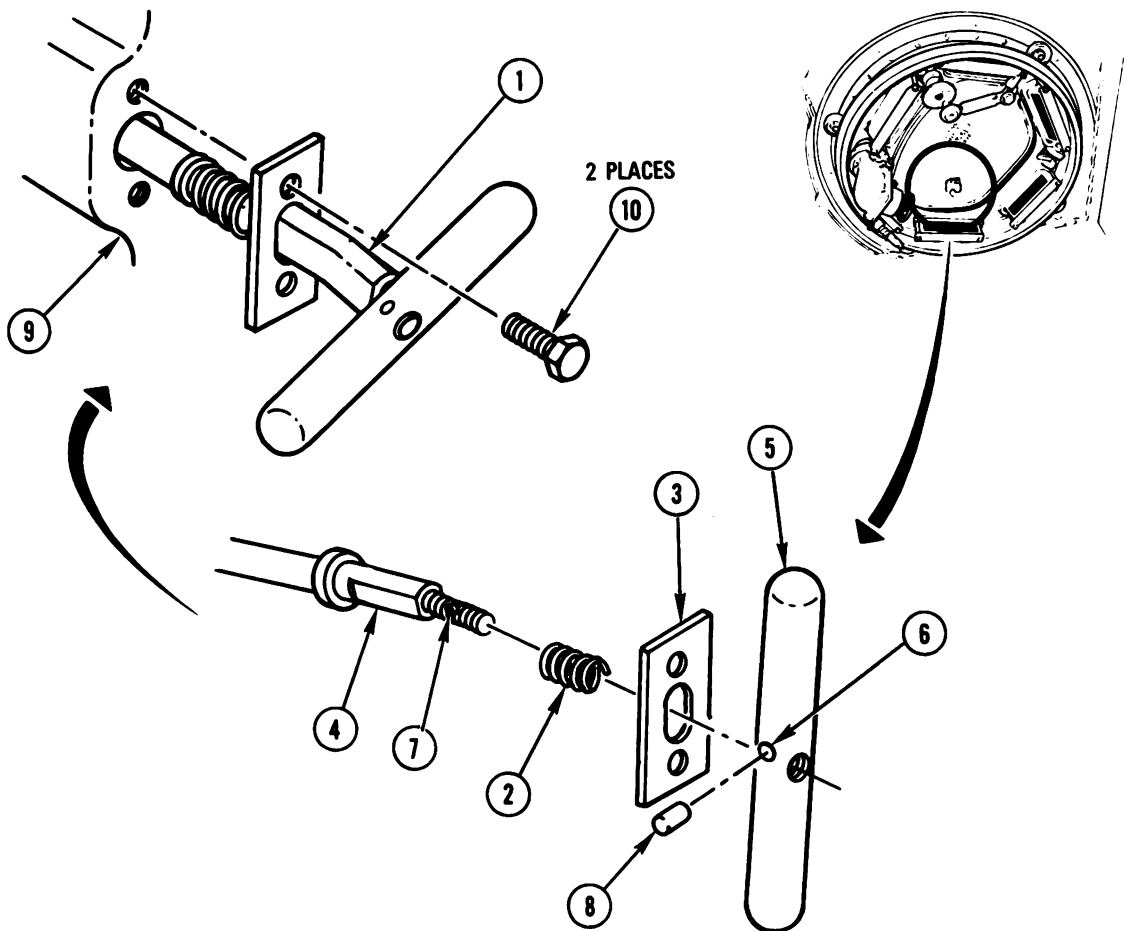
FRAME 21**Assemble Latch Assembly:****NOTE**

If latch assembly (1) was taken out for access only, begin with step 3.

1. Put spring (2) and plate (3) on latch pin (4).
2. Screw bar (5) on threaded end of latch pin (4) until pin hole (6) in bar (5) aligns with pin hole (7) in latch pin (4). Drive in new spring pin (8) with hammer.
3. Put latch assembly (1) in hatch door (9). Screw in two screws (10) with wrench.
4. Operate hatch door (9) to make sure hatch door (9) locks in protected open position, and make sure latch assembly (1) releases hatch door (9).

Follow-on Maintenance: None

TASK 12 ENDS HERE



ARR82-1297

TASK 13. Install Hatch Locking Bolt

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Grease, MIL-G-10924 (Item 24)

Personnel: Two

Soldier A: Installs hatch locking bolt.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove hatch locking bolt; refer to task 2.

FRAME 22**Install Hatch Locking Bolt:****WARNING**

Commander's hatch door (1) will not lock open with hatch locking bolt (2) removed.
Door (1) can fall and injure you.

Soldier B: 1. Hold open hatch door (1).

Soldier A: 2. Put cam guide (3) over cam (4).

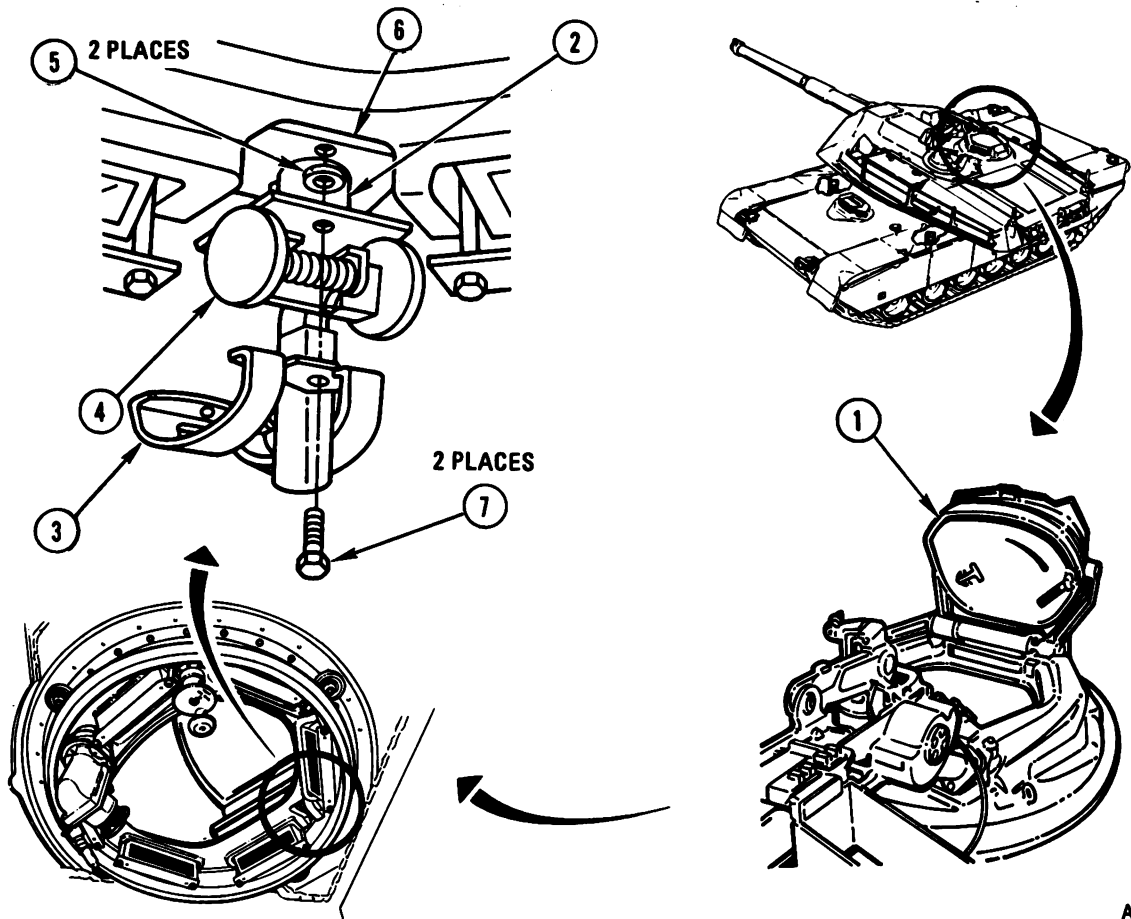
Soldier A: 3. Put grease on two shims (5). Put two shims (5) on cam plate (6). Align holes in shims (5) with holes in cam plate (6).

Soldier A: 4. Put cam (4) and shims (5) in place on turret. Put two screws (7) through cam guide (3), cam plate (6), and shims (5).

Soldier A: 5. Screw in and tighten two screws (7) with socket, extension, and handle. Torque two screws (7) between 96 and 120 pound inches (11 and 14 Newton meters).

Follow-on Maintenance: None

TASK 13 ENDS HERE



ARR82-1298

TASK 14. Install Hatch Door and Yoke Assembly

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Hammer, ball peen
Handle, socket wrench, ratchet, 3/8-inch square drive
Handle, socket wrench, hinged, 1/2-inch square drive
Hoist, 5-ton capacity
Oiler, hand
Socket, socket wrench, 3/8 square drive, 7/16-inch
Socket, socket wrench, 3/8 square drive, 9/16-inch
Socket Wrench Attachment, socket head screw, 1/2-inch square drive, 5/8-inch
Wrench, torque, 0 to 600 inch-pounds
Wrench, torque, 0 to 175 foot-pounds

If hatch door is new, you will need:

Apron, leather	Holder, electrode welding
Brush, wire	Machine, arc welding
Gloves, leather	Screen, welding
Goggles, industrial	Wheel, abrasive
Grinder, electric, portable	Wrench, plier, straight jaw
Helmet, welding	

Special Tools:

Web Strap Assembly, adjustable, 12273481

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Bushing, sleeve (19207) 12274071 (as required)
Lubricating Oil, OE/HDO-30, MIL-L-2104 (Item 33)
Pin, straight (96906) MS16555-46 (as required)
Sealing Compound, MIL-S-46163 (Item 49)
Wood Block, 2 x 4-inch (Item 64)

If new hatch door is being put on, you will need:

Chalk, white marking (Item 14)
Electrode, welding, MIL-E-13080 (Item 22)
Stop, tilt (19207) 12287567
Washer, flat (19207) 11608503 (as required)
Washer, flat (19207) 12274072 (as required)

Personnel: Three

Soldier A: Installs hatch door and yoke assembly.
Soldier B: Helps Soldier A.
Soldier C: Operates hoist.

NOTE

Soldiers B and C are only needed in frames 24 and 25.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove hatch door and yoke assembly; refer to task 1.

FRAME 23

Install Door and Yoke Assembly:

NOTE

- If pins (1) were taken out, do step (1) and then go to step 3.
- If bushings (2) were taken out go to step 2.
- If pins (1) and bushings (2) were not taken out go to step 3.

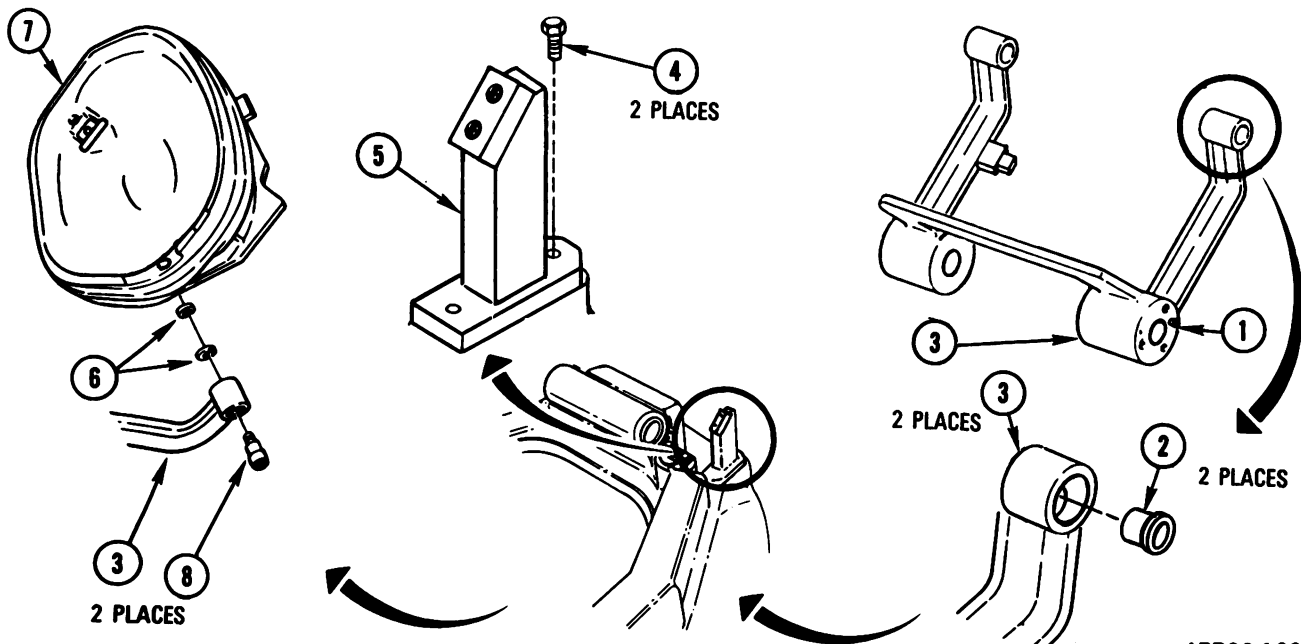
1. Tap two new pins (1) in unthreaded holes in yoke arm (2) with hammer.
2. Tap two new bushings (2) in yoke arms (3) with wood block and hammer.
3. Unscrew and take out two screws (4) from hatch block (5) with socket and handle. Take off block (5).

NOTE

Washers (6) come in two thicknesses. Use washers (6) as needed to fill gaps between yoke arms (3) and hatch cover (7).

4. Put sealing compound on threads of two screws (8). Hold washers (6) in place between hatch door (7) and each yoke arm (3). Screw in and tighten two screws (8) with socket wrench attachment and 1/2-inch handle.
5. Torque two screws (8) between 85 and 100 pound feet (115 and 136 Newton meters) with socket wrench attachment and 0 to 175 foot-pound torque wrench.

GO TO FRAME 24



ARR82-1299

FRAME 24

Install Door and Yoke Assembly (Continued):

NOTE

If new hatch door (1) is being put on, begin with step 1. If not, begin with step 2.

Soldier A: 1. Install hatch door latch assembly; refer to task 12.

Soldier A,

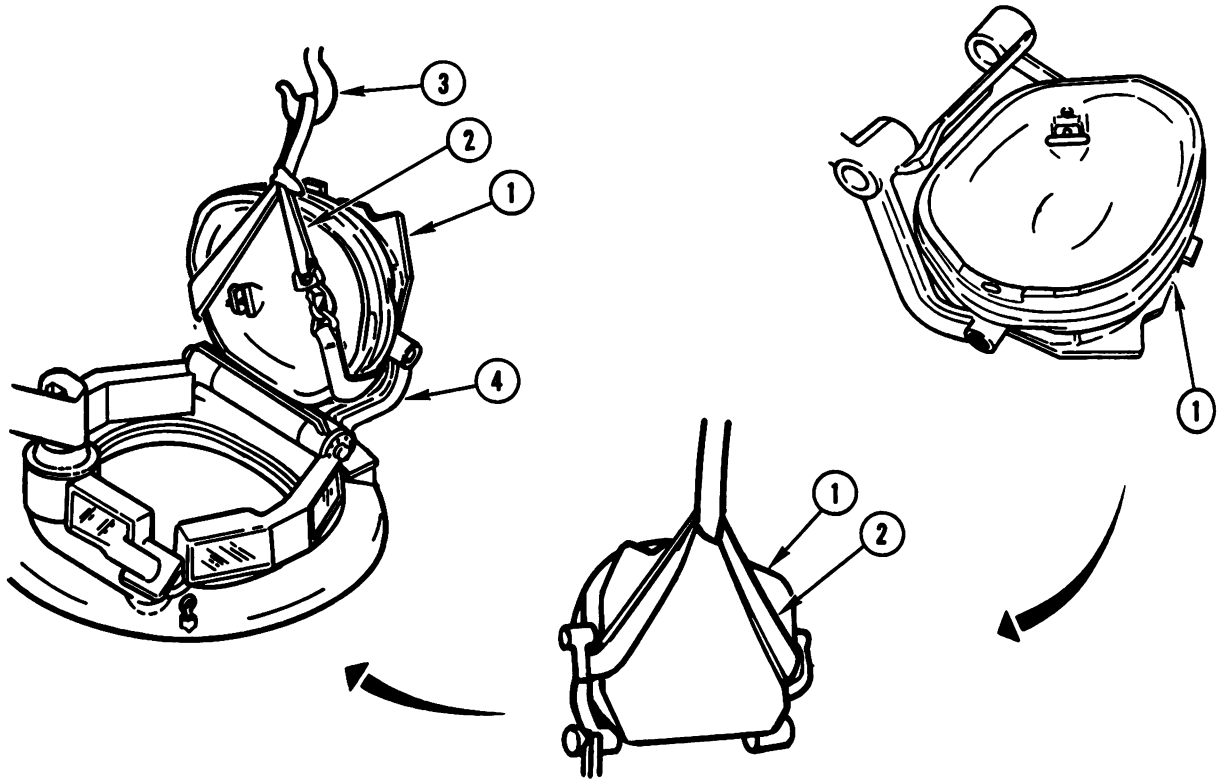
Soldier B: 2. Put strap assembly (2) around door (1) as shown. Put strap (2) on hook (3).

Soldier C: 3. When told by Soldier A, slowly lift door (1) and yoke assembly (4) and put in place on tank.

Soldier A,

Soldier B: 4. Guide door (1) and yoke assembly (4) as it is lowered into position.

GO TO FRAME 25



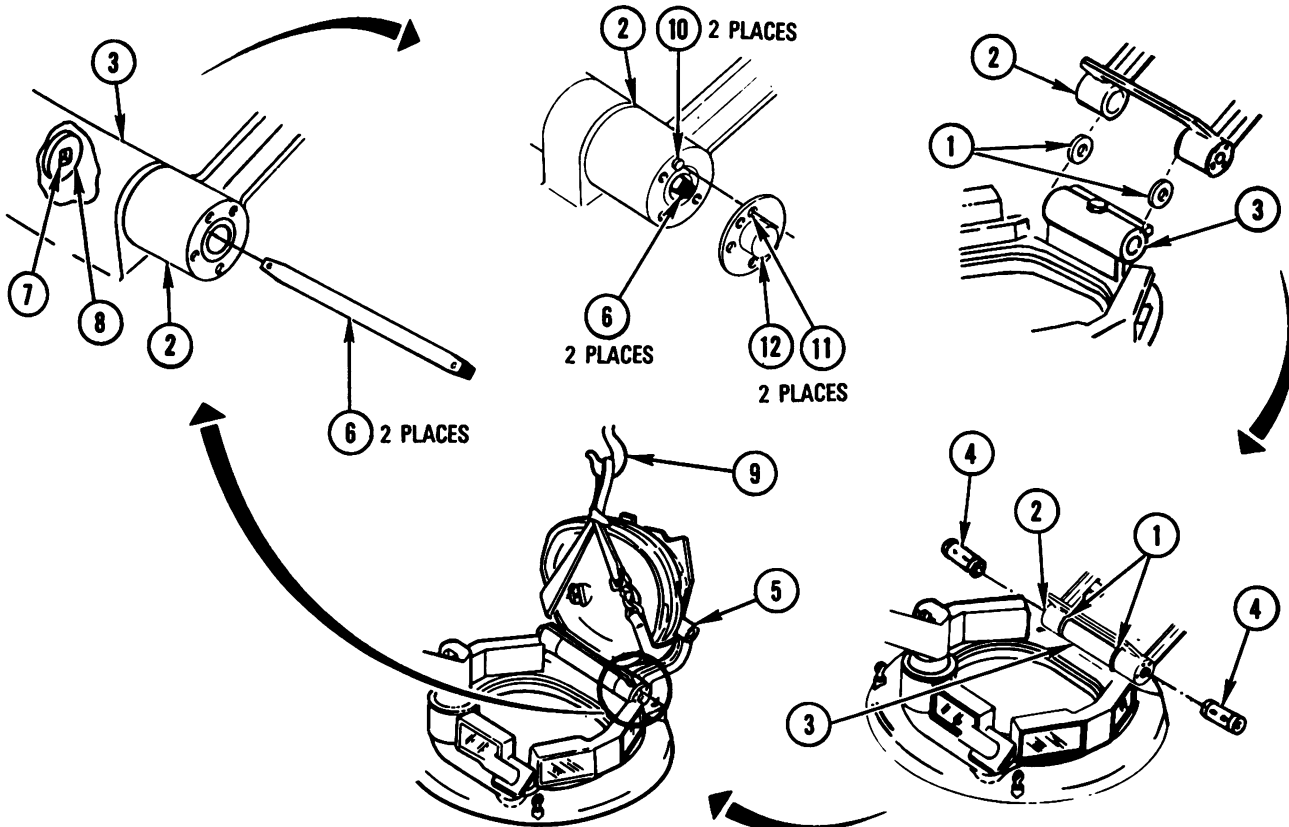
ARR82-1300

FRAME 25

Install Door and Yoke Assembly (Continued):

- Soldier B: 1. Align two washers (1), yoke assembly (2), and body (3).
- Soldier A: 2. Slide one tube (4) through each end of yoke assembly (2) and washers (1) until each tube (4) stops in body (3).
- Soldier B: 3. Position yoke assembly (2) so that yoke arms (5) point straight up.
- Soldier A: 4. Put one set of 22 leaf springs (6) in each end of yoke assembly (2). Push springs (6) until they fit in square hole (7) of collar (8).
- Soldier C: 5. When told by Soldier A, lower hoist hook (9) just enough to allow yoke assembly (2) to be moved.
- Soldier B: 6. Move yoke assembly (2) until pins (10) are in 12 o'clock position and lined up with holes (11) in spring retainers (12).
- Soldier A: 7. Press spring retainers (12) on springs (6) at each end of yoke assembly (2).

GO TO FRAME 26



ARR82-1301

FRAME 26

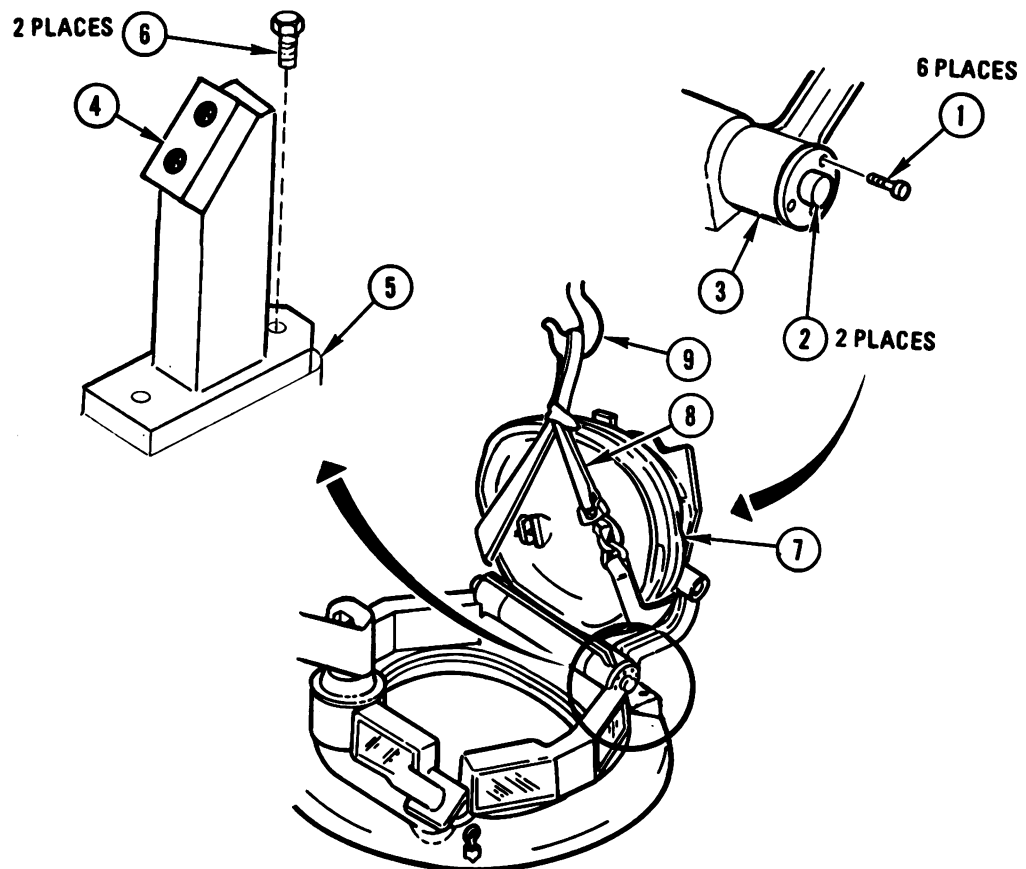
Install Door and Yoke Assembly (Continued):

1. Screw three screws (1) in spring retainer (2) on each side of yoke assembly (3) with 7/16-inch socket, extension, and handle. Torque screws (1) between 95 and 120 pound inches (11 and 14 Newton meters) with 0 to 600 inch-pound torque wrench.
2. Put hatch cover block (4) in place on body (5). Coat threads of two screws (6) with oil. Screw in two screws (6) with 9/16-inch socket and handle. Torque screws (6) between 360 and 420 pound inches (41 and 47 Newton meters) with 0 to 600 inch-pound torque wrench.
3. Open hatch door (7) to full open position; refer to TM 9-2350-255-10.
4. Take strap (8) off hoist hook (9). Take strap (8) off hatch door (7).

NOTE

If hatch door (7) is new, go to frame 27. If hatch door (7) is not new, TASK 14 ENDS HERE.

GO TO FRAME 27



ARR82-1302

FRAME 27

Install Door and Yoke Assembly (Continued):

WARNING

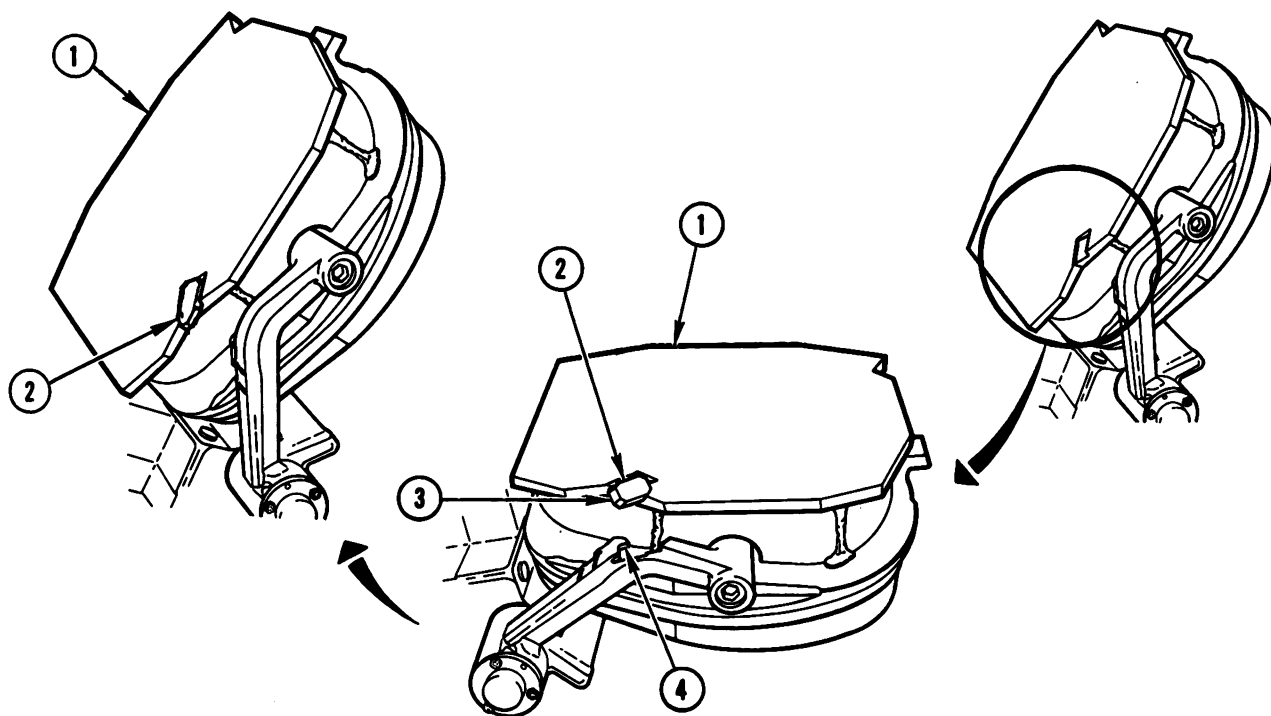
- Metal sparks and flying grit caused by grinding can damage eyesight and burn you. To avoid injury, wear safety goggles and gloves.
- Make sure hatch door (1) is properly grounded before welding.

1. Take off dirt or paint from new hatch door (1) where new tilt stop (2) is to be put on, with grinder, wheel, and brush.
2. Put tilt stop (2) in place on hatch door (1) with lip (3) of tilt stop (2) centered over yoke stop (4). Mark position of tilt stop (2) on hatch door (1) with chalk, and then take off tilt stop (2).
3. Open commander's hatch door (1) to full open position. Clamp tilt stop (2) in marked spot on hatch door (1) with clamp. Weld tilt stop (2) to hatch door (1); refer to TM 9-237.
4. Close hatch door (1).

Follow-on Maintenance:

Install hatch lock handle; refer to task 11.

TASK 14 ENDS HERE



ARR82-1303

TASK 15. Replace Hatch Door Tilt Stop

Applicability: All Models

Common Tools:

Apron, leather
Brush, wire
Clamp, C, 6 inch
Gloves, leather
Goggles, industrial
Grinder, electric, portable
Helmet, welding
Holder, electrode welding
Machine, arc welding
Screen, welding
Wheel, abrasive

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Chalk, white marking (Item 14)
Electrode, welding, A, MIL-E-13080 (Item 22)
Stop, tilt (19207) 12287567

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Open commander's hatch door to full open position; refer to TM 9-2350-255-10.

FRAME 28

Remove Tilt Stop:

WARNING

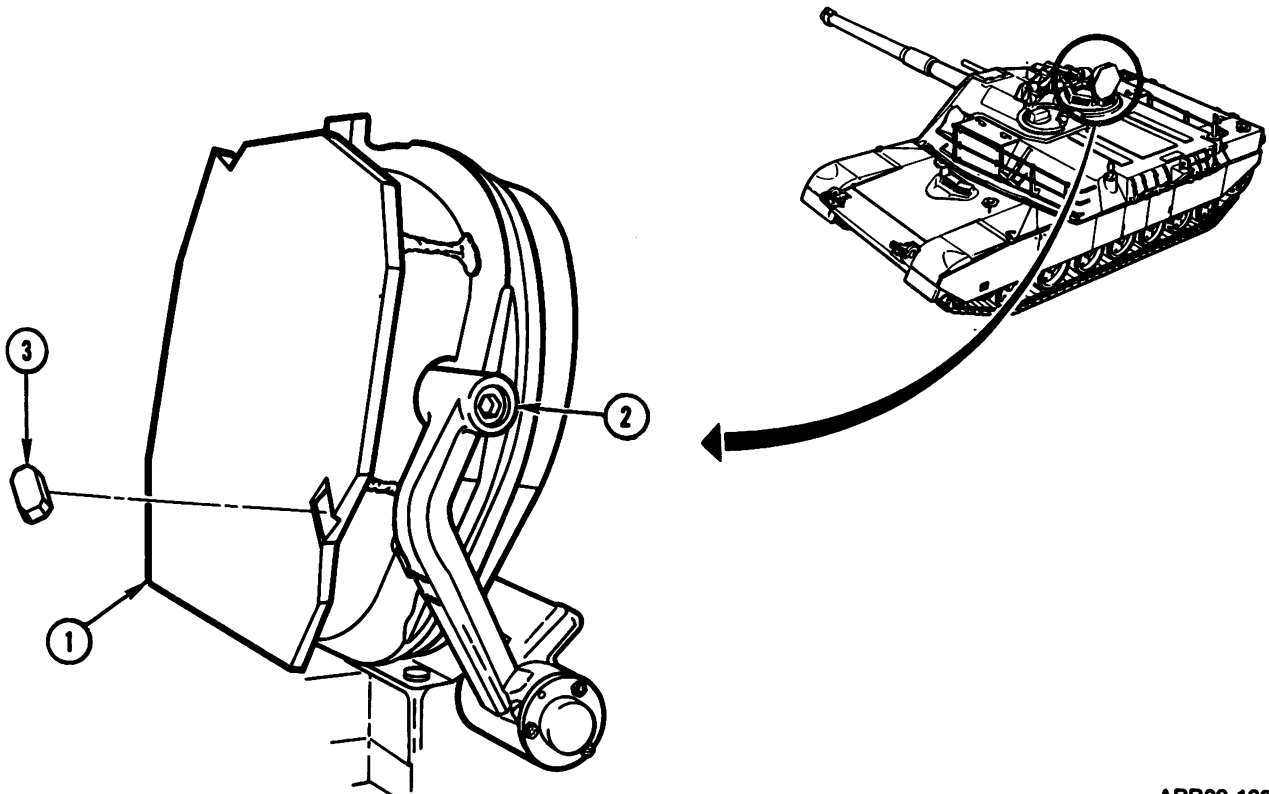
- Metal sparks and flying grit caused by grinding can damage eyesight and burn you. To avoid injury, wear safety goggles and gloves.
- Make sure hatch door (1) is properly grounded before welding.

NOTE

Hatch door (1) must be in place on yoke (2) to put on tilt stop (3).

1. Take tilt stop (3) off hatch door (1) with grinder and wheel. Turn in tilt stop (3).
2. Take off weld metal, dirt, or paint from tilt stop (3) area on hatch door (1) with grinder, wheel, and brush.

GO TO FRAME 29



ARR82-1304

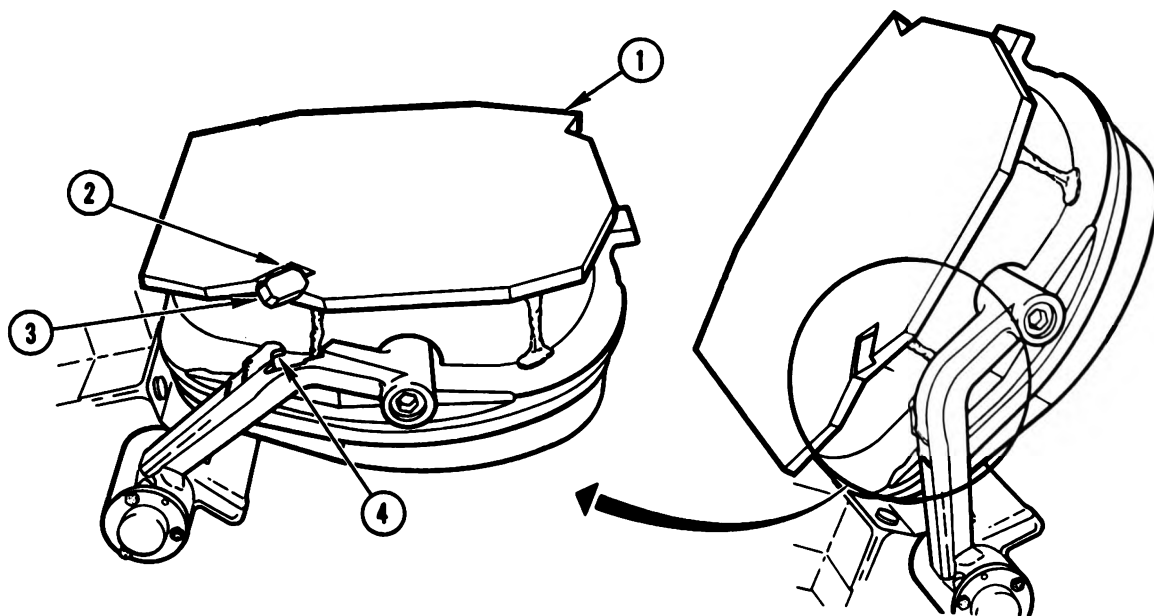
FRAME 29

Install Tilt Stop:

1. Close commander's hatch door (1); refer to TM 9-2350-255-10.
2. Put new tilt stop (2) in place on hatch door (1) with lip (3) of tilt stop (2) centered over yoke stop (4). Mark position of tilt stop (2) on hatch door (1) with chalk, and then take off tilt stop (2).
3. Open hatch door (1) to full open position; refer to TM 9-2350-255-10.
4. Clamp tilt stop (2) in place where marked on hatch door (1) with wrench.
5. Weld tilt stop (2) to hatch door (1); refer to TM 9-237.
6. Close hatch door (1). Make sure lip (3) of tilt stop (2) seats on yoke stop (4).

Follow-on Maintenance: None

END OF COMMANDER'S WEAPON STATION HATCH ASSEMBLY MAINTENANCE



ARR82-1305

3-10. Exterior Stowage Boxes

Task	Title	Frames
1	Remove Right-Hand or Left-Hand Stowage Box Straps	1
2	Remove Fire Extinguisher and Mounting Bracket	2
3	Remove Decontamination Apparatus and Mounting Bracket	3
4	Remove Stowage Box Handle	4
5	Replace Right-Hand or Left-Hand Vehicular Accessories Stowage Box	5 - 7
6	Replace Cargo Strap Assembly or Water Can Strap	8
7	Install Stowage Box Handle	9
8	Install Decontamination Apparatus and Mounting Bracket	10
9	Install Fire Extinguisher and Mounting Bracket	11
10	Install Right-Hand or Left-Hand Stowage Box Straps	12

TASK 1. Remove Right-Hand or Left-Hand Stowage Box Straps**Applicability:** All Models**Common Tools:**

Handle, socket wrench, ratchet, 3/8-inch square drive
 Socket, socket wrench, 3/8-inch square drive, 7/16-inch
 Wrench, combination, 7/16-inch

Special Tools: None**Supplies:** None**Personnel:** One**Equipment Condition:**

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

To remove right-hand stowage box straps, do the following:

1. Manually traverse turret until main gun is over right side of tank, and then lock turret; refer to TM 9-2350-255-10.

To remove left-hand stowage box straps, do the following:

1. Manually traverse turret until main gun is over left side of tank, and then lock turret; refer to TM 9-2350-255-10.

FRAME 1

Remove Upper and Lower Straps:

1. Open cover (1). Take cargo out of stowage box (2).

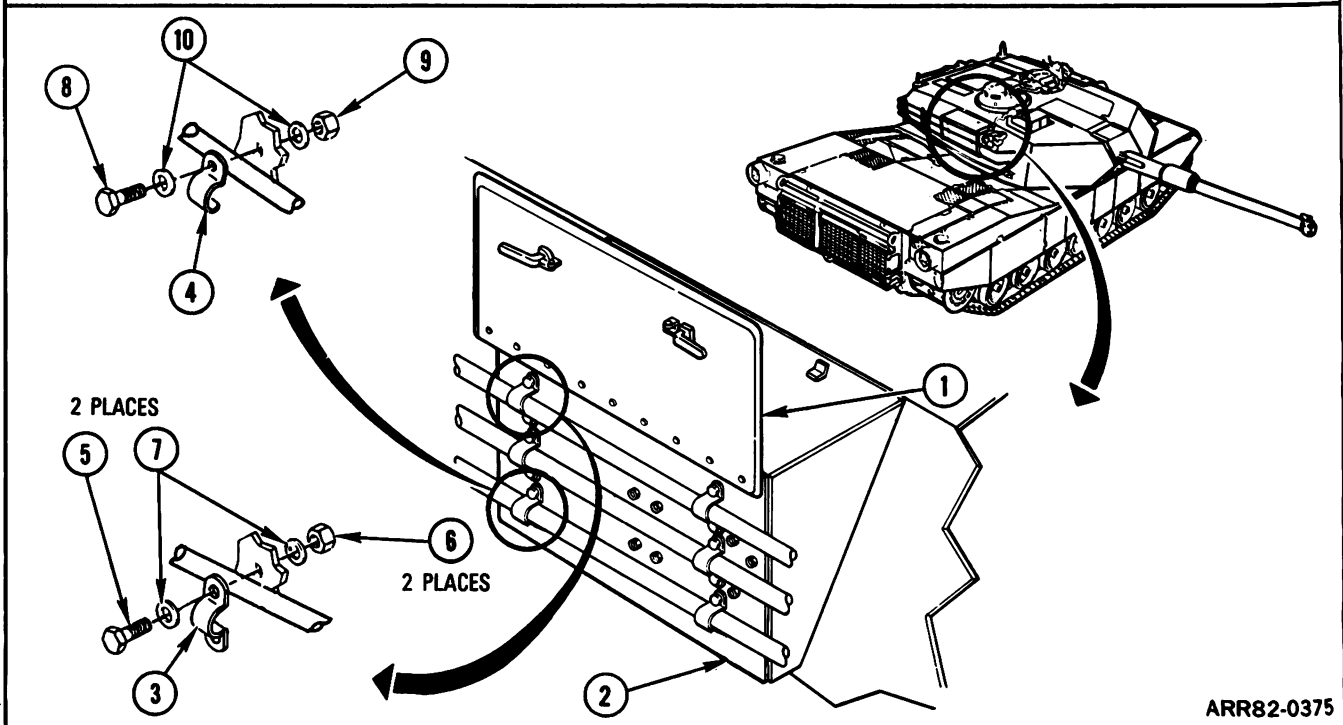
NOTE

- Do steps 2 and 3 to take off any upper strap (3) on left-hand or right-hand box (2).
 - Do steps 4 and 5 to take off any lower strap (4) on left-hand or right-hand box (2).
 - Right-hand stowage box (2) is shown.
2. Unscrew and take out two screws (5), self-locking nuts (6), and four washers (7) from upper strap (3) with socket, handle, and wrench. Take off strap (3). Get rid of nuts (6).
 3. Look at strap (3) for cracks or breaks. If bad turn in. If OK set aside for later use.
 4. Unscrew and take out screw (8), self-locking nut (9), and two washers (10) from lower strap (4) with socket, handle, and wrench. Take off strap (4). Get rid of nut (9).
 5. Look at strap (4) for cracks or breaks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install right-hand or left-hand stowage box straps, refer to task 10.

TASK 1 ENDS HERE



TASK 2. Remove Fire Extinguisher and Mounting Bracket**Applicability:** All Models**Common Tools:**

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, combination, 7/16-inch

Special Tools: None**Supplies:** None**Personnel:** One**Equipment Condition:**

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Manually traverse turret until main gun is over right side of tank, and then lock turret; refer to TM 9-2350-255-10.

FRAME 2

Remove Fire Extinguisher:

NOTE

Fire extinguisher (1) is mounted in right-hand stowage box (2).

1. Open cover (3). Take cargo out of box (2).
2. Unlatch spring lock clamp (4) holding fire extinguisher (1) in mounting bracket (5). Take extinguisher (1) out of bracket (5).

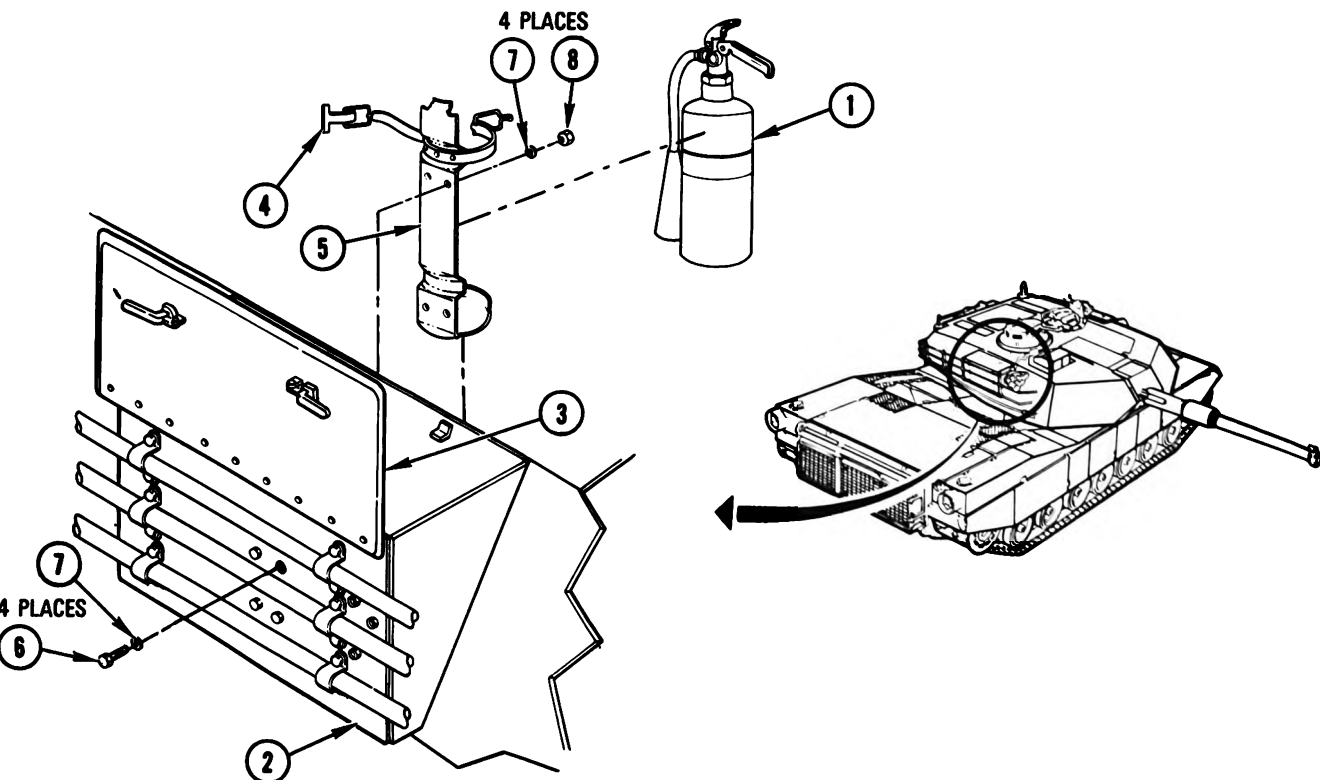
Remove Mounting Bracket:

3. Unscrew and take out four screws (6), eight washers (7), and four self-locking nuts (8) from bracket (5) with socket, handle, and wrench. Take bracket (5) off box (2). Get rid of nuts (8).
4. Look at bracket (5) for cracks or breaks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install fire extinguisher and mounting bracket, refer to task 9.

TASK 2 ENDS HERE



ARR82-0376

TASK 3. Remove Decontamination Apparatus and Mounting Bracket

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, combination, 7/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

To remove decontamination apparatus and mounting bracket from right-hand stowage box, do the following:

1. Manually traverse turret until main gun is over right side of tank, and then lock turret; refer to TM 9-2350-255-10.

To remove decontamination apparatus and mounting bracket from left-hand stowage box, do the following:

1. Manually traverse turret until main gun is over left side of tank, and then lock turret; refer to TM 9-2350-255-10.

FRAME 3

Remove Decontamination Apparatus:

NOTE

Use this task to take out decontamination apparatus (1) and mounting bracket (2) from either right-hand or left-hand stowage box (3). Right-hand box (3) is shown.

1. Open cover (4). Take cargo out of box (3).
2. Unlatch spring lock clamp (5) holding decontamination apparatus (1) in mounting bracket (2). Take apparatus (1) out of bracket (2).

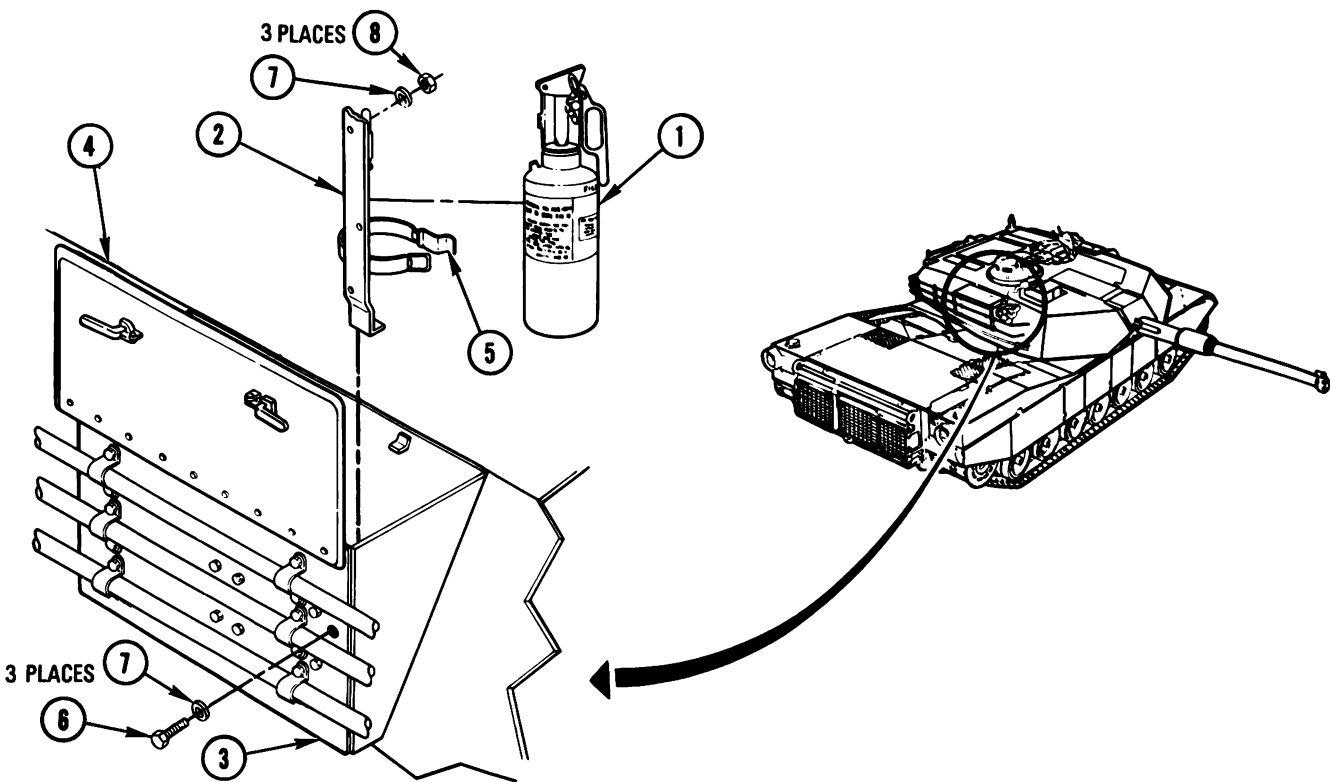
Remove Mounting Bracket:

3. Unscrew and take out three screws (6), six washers (7), and three self-locking nuts (8) from bracket (2) with socket, handle, and wrench. Take bracket (2) off box (3). Get rid of nuts (8).
4. Look at bracket (2) for cracks or breaks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install decontamination apparatus and mounting bracket, refer to task 8.

TASK 3 ENDS HERE



ARR82-0377

TASK 4. Remove Stowage Box Handle**Applicability:** All Models**Common Tools:**

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None**Supplies:** None**Personnel:** One**Equipment Condition:**

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

To remove right-hand stowage box handle, do the following:

1. Manually traverse turret until main gun is over right side of tank, and then lock turret; refer to TM 9-2350-255-10.

To remove left-hand stowage box handle, do the following:

1. Manually traverse turret until main gun is over left side of tank, and then lock turret; refer to TM 9-2350-255-10.

FRAME 4

Remove Handle:

NOTE

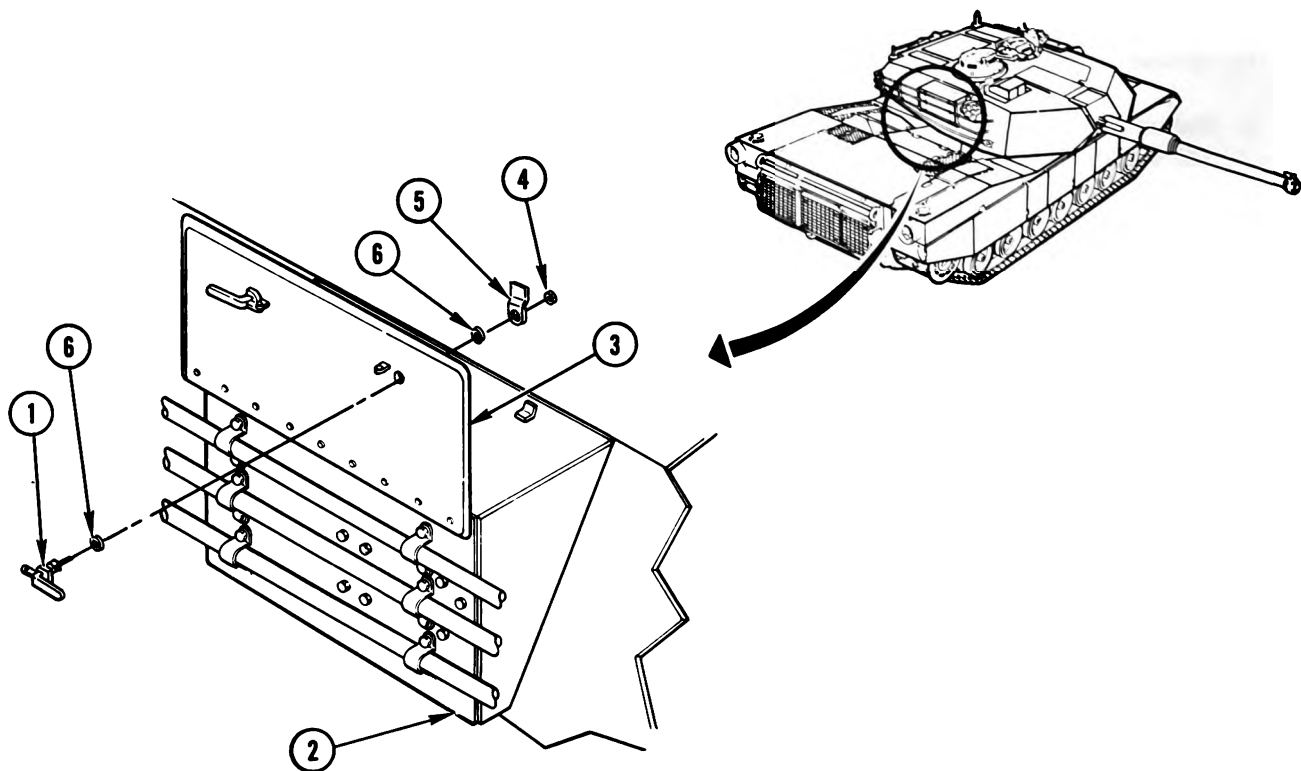
Use this task to take off any handle (1) on right-hand or left-hand stowage box (2). Right-hand box is shown.

1. Open cover (3) on box (2).
2. Unscrew and take off self-locking nut (4) from handle (1) with socket and handle. Get rid of nut (4).
3. Take off tongue (5), two washers (6), and handle (1) from cover (3). Look at handle (1) for cracks, bends, or stripped threads. If bad turn in. If OK set aside for later use.
4. Look at tongue (5) for cracks and gouges. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install stowage box handle, refer to task 7.

TASK 4 ENDS HERE



ARR82-0378

TASK 5. Replace Right-Hand or Left-Hand Vehicular Accessories Stowage Box**Applicability:** All Models**Common Tools:**

Bar, pry
 Drill, electric, portable
 Drill, twist, 5/16-inch diameter
 Hammer, ball peen
 Punch, center
 Rule, machinist's, 12-inch

Special Tools: None**Supplies:**

NOTE: Expendable supplies are defined in appendix A.
 Box, stowage, right (19207) 12280594 or
 Box, stowage, left (19207) 12280586
 Pencil, writing (Item 42)

Personnel: Two

Soldier A: Replaces stowage box.
 Soldier B: Helps Soldier A.

NOTE

Soldier B is needed in frame 5 only.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

To remove right-hand stowage box, do the following:

1. Manually traverse turret until main gun is over right side of tank, and then lock turret; refer to TM 9-2350-255-10.
2. Remove fire extinguisher and mounting bracket; refer to task 2.
3. Remove decontamination apparatus and mounting bracket; refer to task 3.
4. Remove stowage box handles; refer to task 4.
5. Remove right-hand stowage box straps; refer to task 1.

To remove left-hand stowage box, do the following:

1. Manually traverse turret until main gun is over left side of tank, and then lock turret; refer to TM 9-2350-255-10.
2. Remove decontamination apparatus and mounting bracket; refer to task 3.
3. Remove stowage box handles; refer to task 4.
4. Remove left-hand stowage box straps; refer to task 1.

FRAME 5

Replace Stowage Box:

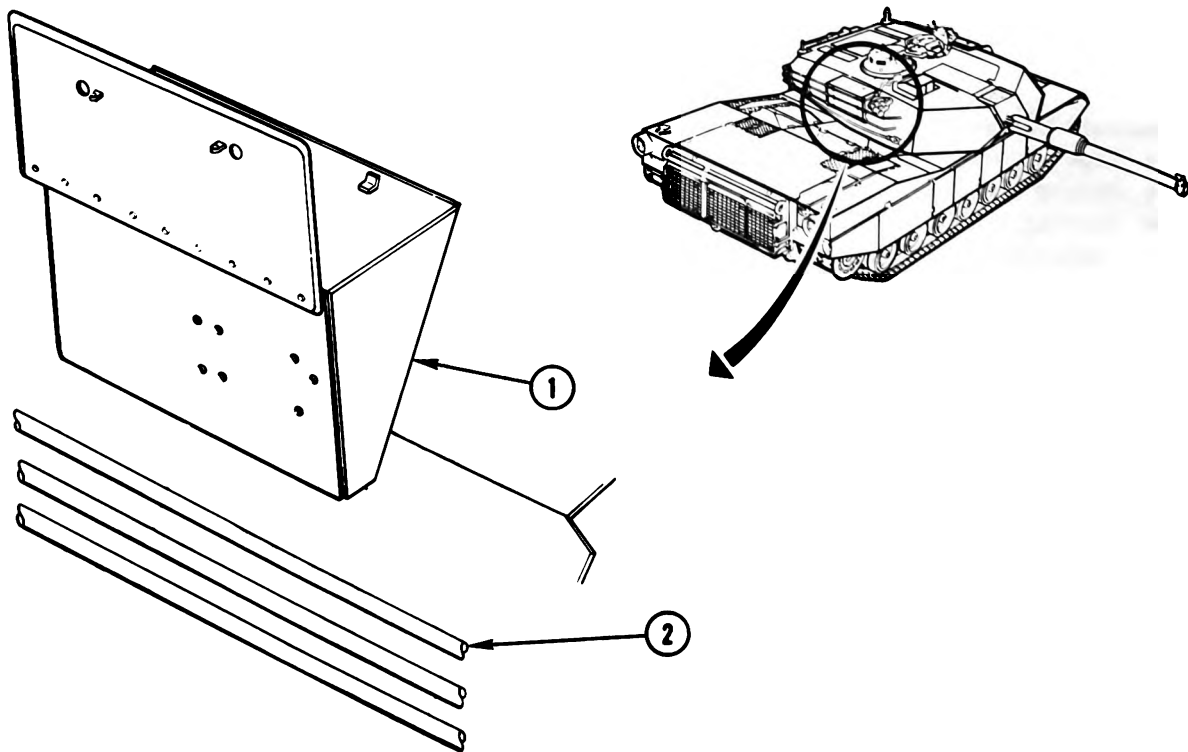
NOTE

- Use this task to take out and put in right-hand or left-hand stowage box (1). Right-hand box (1) is shown.
- Pry bar may be needed to pry stowage box (1) out of rails (2).

Soldier A,
 Soldier B: 1. Pull box (1) up and out of rails (2). Turn in box (1).

Soldier A,
 Soldier B: 2. Put new box (1) in position on turret.

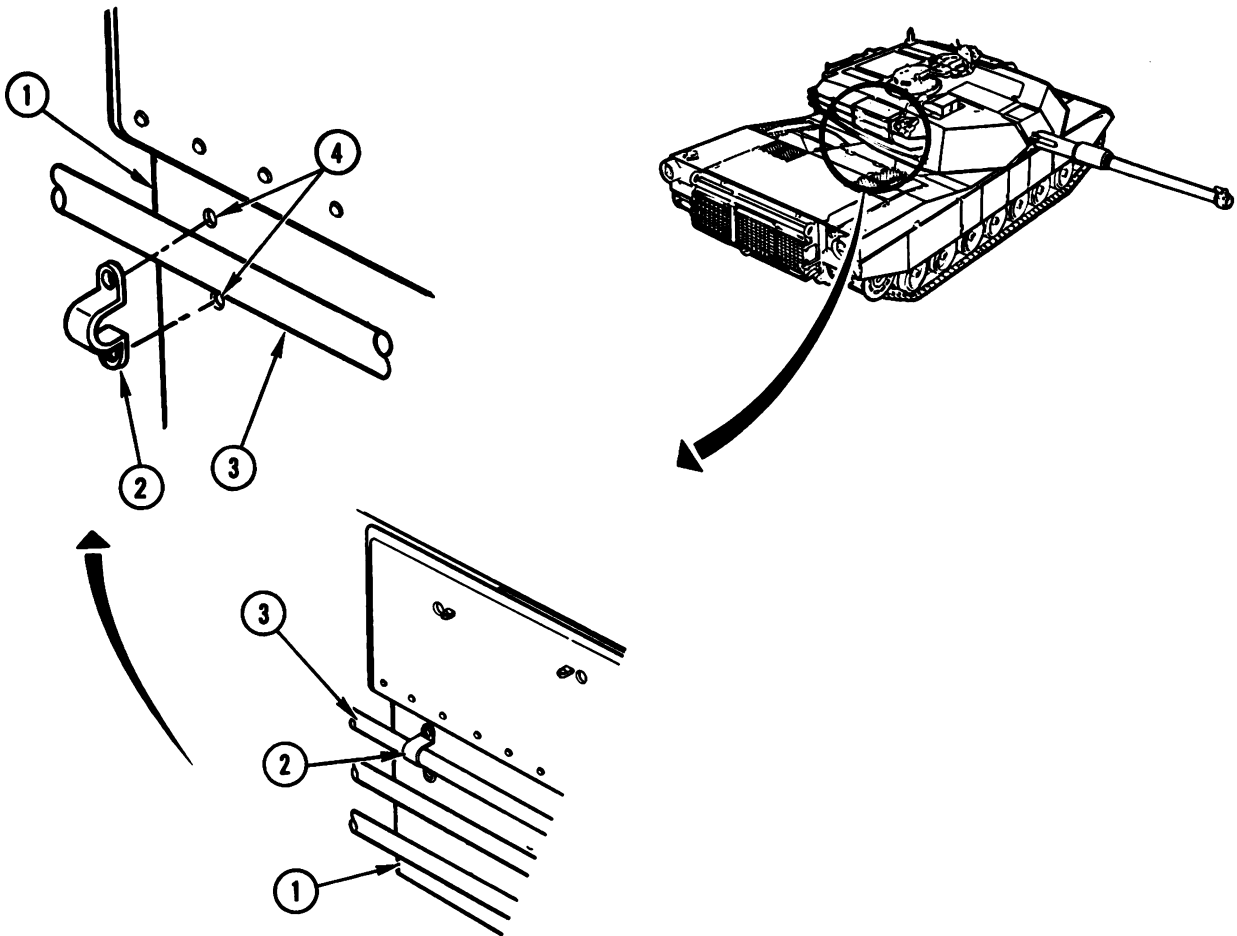
GO TO FRAME 6



ARR82-0379

FRAME 6**Replace Stowage Box (Continued):**

1. Measure 8 inches from outside edge of box (1) with rule. Put upper strap (2) on rail (3). Hold strap (2) in place and mark hole locations on box (1) with pencil. Set strap (2) aside for later use.
2. Center punch two pencil marks (4) with hammer and punch.
3. Drill two holes in box (1) with electric drill and twist drill.
4. Repeat steps 1, 2, and 3 to drill six more upper strap holes.

GO TO FRAME 7

ARR82-0380

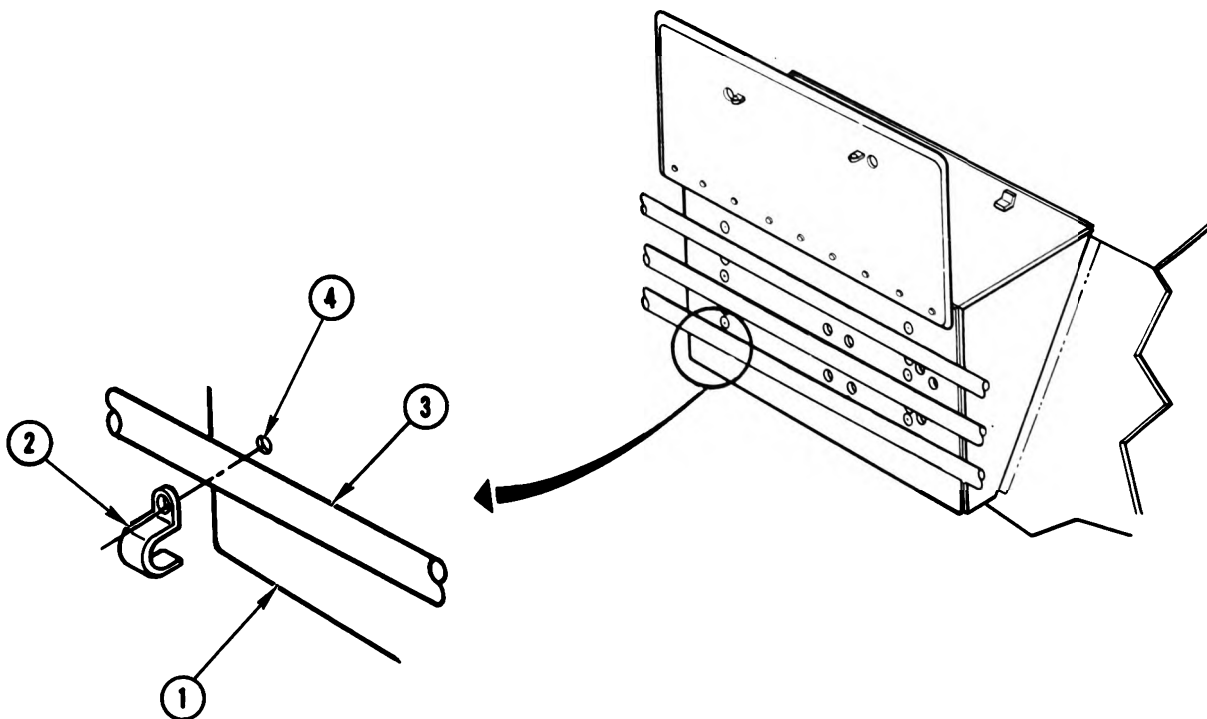
FRAME 7**Replace Stowage Box (Continued):**

1. Measure 8 inches from outside edge of stowage box (1) with rule. Put lower strap (2) on rail (3). Hold strap (2) in place and mark hole location on new box (1) with pencil. Set strap (2) aside for later use.
2. Center punch pencil mark (4) with hammer and punch.
3. Drill hole in box (1) with electric drill and twist drill.
4. Repeat steps 1, 2, and 3 to drill other lower strap hole.

Follow-on Maintenance:

1. Install right-hand or left-hand stowage box straps; refer to task 10.
2. Install stowage box handles; refer to task 7.
3. Install decontamination apparatus and mounting bracket; refer to task 8.
4. Install fire extinguisher and mounting bracket (right-hand stowage box only); refer to task 9.

TASK 5 ENDS HERE



ARR82-0381

TASK 6. Replace Cargo Strap Assembly or Water Can Strap

Applicability: All Models

Common Tools: None

Special Tools: None

Supplies:

Strap Assembly (19207) 12288451 or
Strap (19207) 8690527

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 8

Remove Straps:

NOTE

To take off and put on cargo strap assembly (1), do steps 1 and 3. To take off and put on water can strap (2), do steps 2 and 4.

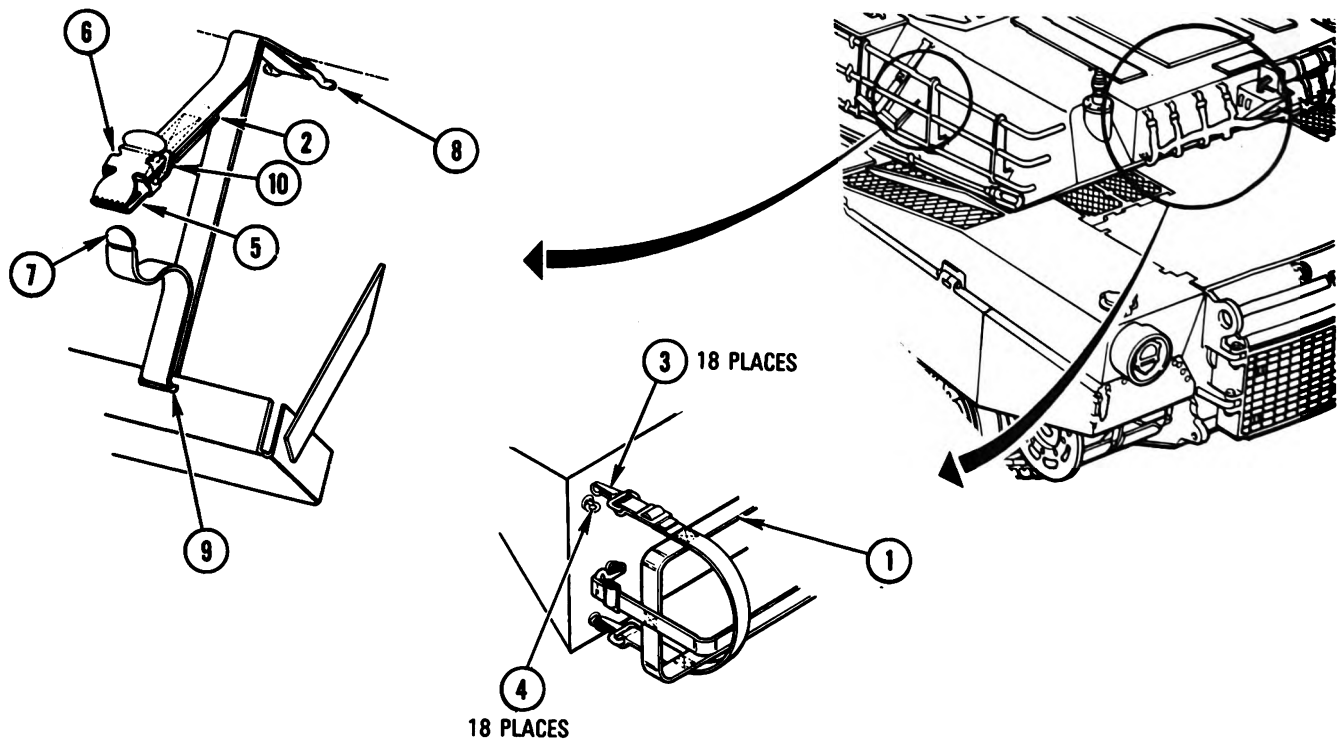
1. Unhook 18 snap hooks (3) on cargo strap assembly (1) from 18 brackets (4) on turret. Turn in strap assembly (1).
2. Open catch (5) on buckle (6). Take end clip (7) out of buckle (6). Slide strap (2) out of bracket (8) and slot (9) on turret. Turn in strap (2).

Install Straps:

3. Hook on 18 snap hooks (3) on new cargo strap assembly (1) to brackets (4) of turret.
4. Slide end clip (7) of new water can strap (2) through bracket (8) and slot (9) on turret. Open catch (5) on buckle (6). Slide end clip (7) through loop (10) on buckle (6). Close catch (5).

Follow-on Maintenance: None

TASK 6 ENDS HERE



ARR82-0382

TASK 7. Install Stowage Box Handle

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Oiler, hand
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lubricating Oil, MIL-L-2104 (Item 32)
Nut, self-locking (96906) MS51943-35

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove stowage box handle; refer to task 4.

FRAME 9

Install Handle:

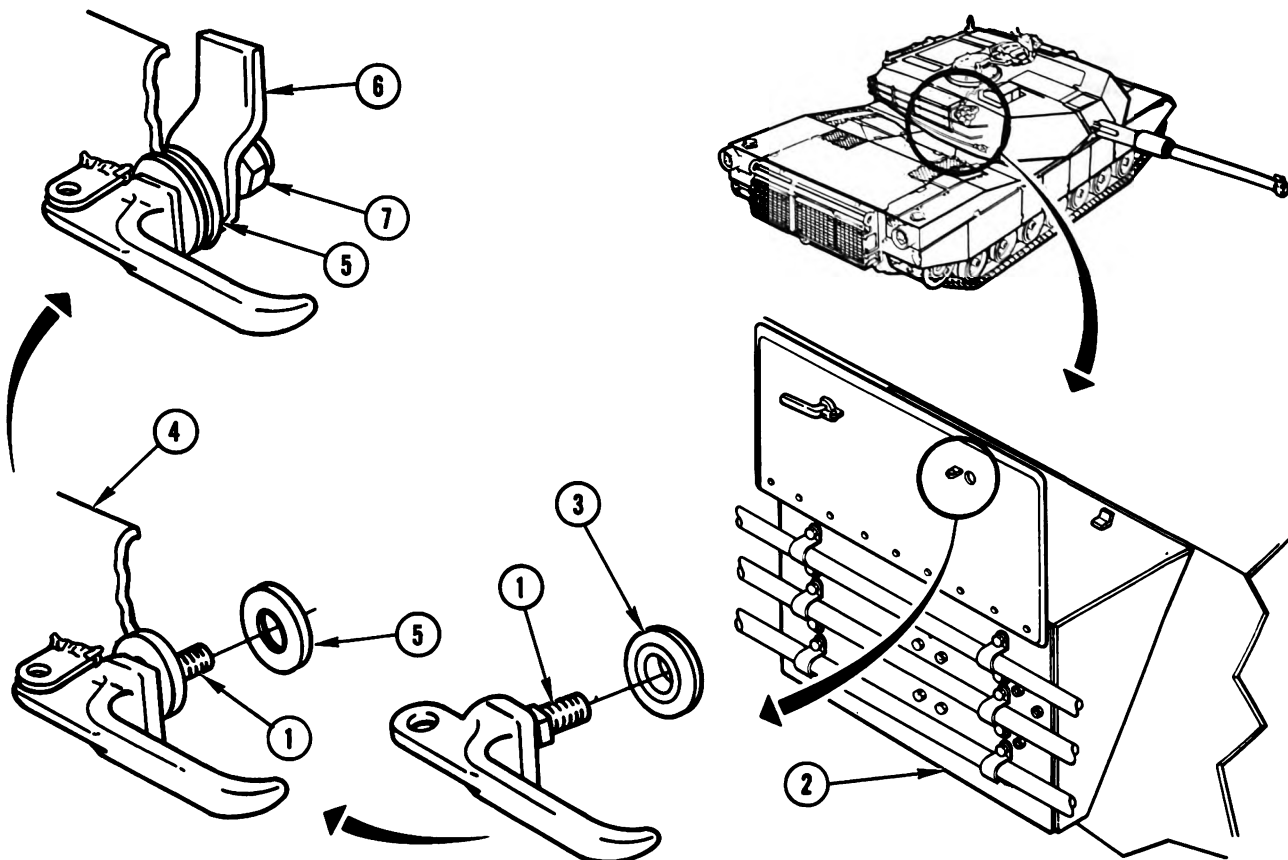
NOTE

Use this task to put on any handle (1) on right-hand or left-hand stowage box (2). Right-hand box (2) is shown.

1. Spread a light coat of oil on threads of handle (1) with oiler.
2. Put washer (3) on handle (1). Put threads of handle (1) through opening in cover (4).
3. Put washer (5) on threads on handle (1). Hold washer (5) and handle (1) together.
4. Slide tongue (6) against washer (5) as shown.
5. Screw on and tighten new self-locking nut (7) to handle (1) with socket and handle.

Follow-on Maintenance: None

TASK 7 ENDS HERE



ARR82-0383

ASK 8. Install Decontamination Apparatus and Mounting Bracket

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, combination, 7/16-inch

Special Tools: None

Supplies:

Nut, self-locking (96906) MS51943-31 (three required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove decontamination apparatus and mounting bracket; refer to task 3.

FRAME 10

Install Mounting Bracket:

NOTE

Use this task to put mounting bracket (1) and decontamination apparatus (2) in either right-hand or left-hand stowage box (3). Right-hand box (3) is shown.

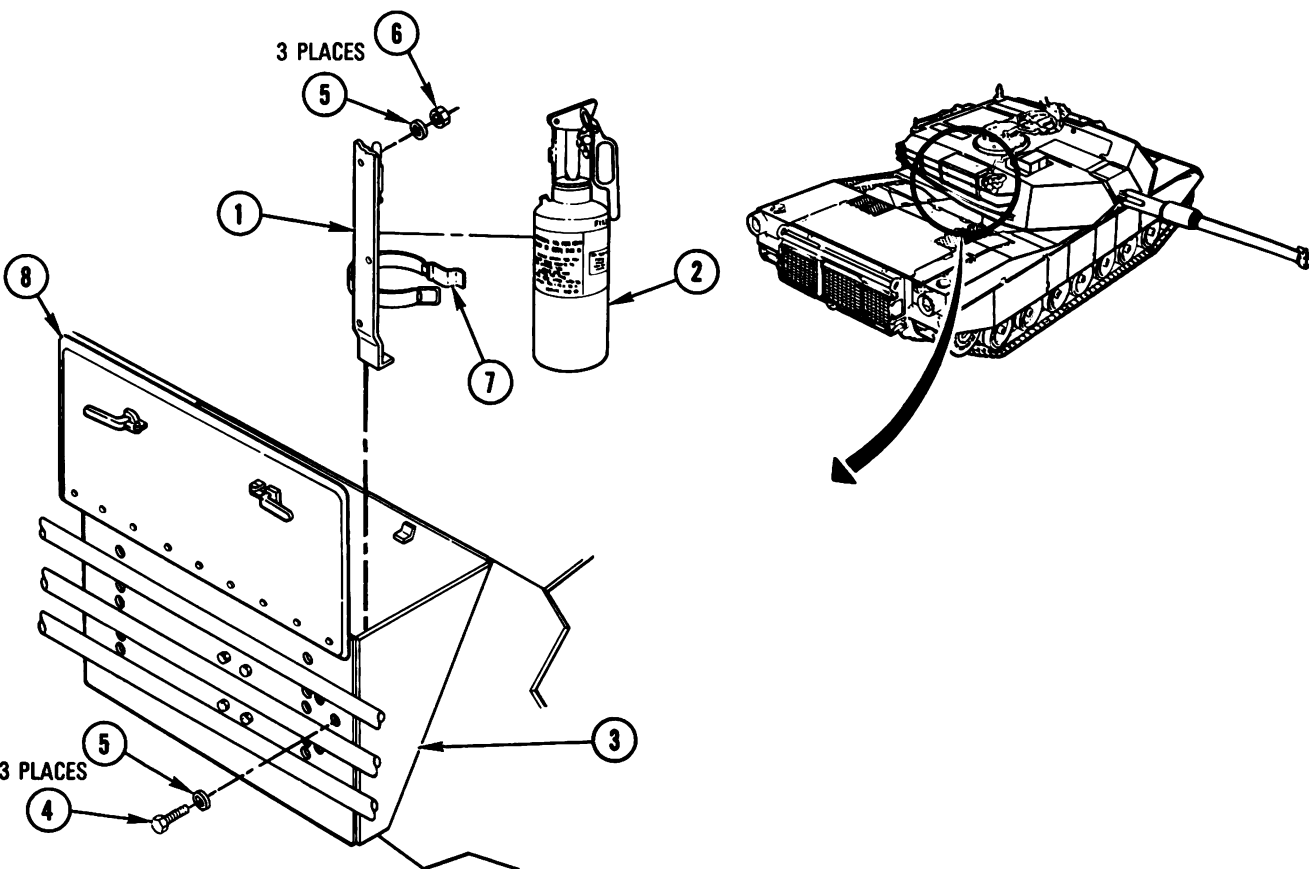
1. Line up holes in mounting bracket (1) with holes inside box (3). Hold bracket (1) in place.
2. Screw in and tighten three screws (4), six washers (5), and three new self-locking nuts (6) with socket, handle, and wrench.

Install Decontamination Apparatus:

3. Unlatch spring lock clamp (7) on bracket (1). Put decontamination apparatus (2) in bracket (1). Latch clamp (7).
4. Put cargo in box (3) and close cover (8).

Follow-on Maintenance: None

TASK 8 ENDS HERE



ARR82-0384

TASK 9. Install Fire Extinguisher and Mounting Bracket

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, combination, 7/16-inch

Special Tools: None

Supplies:

Nut, self-locking (96906) MS51943-31 (four required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove fire extinguisher and mounting bracket; refer to task 2.

FRAME 11

Install Mounting Bracket:

NOTE

Fire extinguisher mounting bracket (1) is mounted in right-hand stowage box (2).

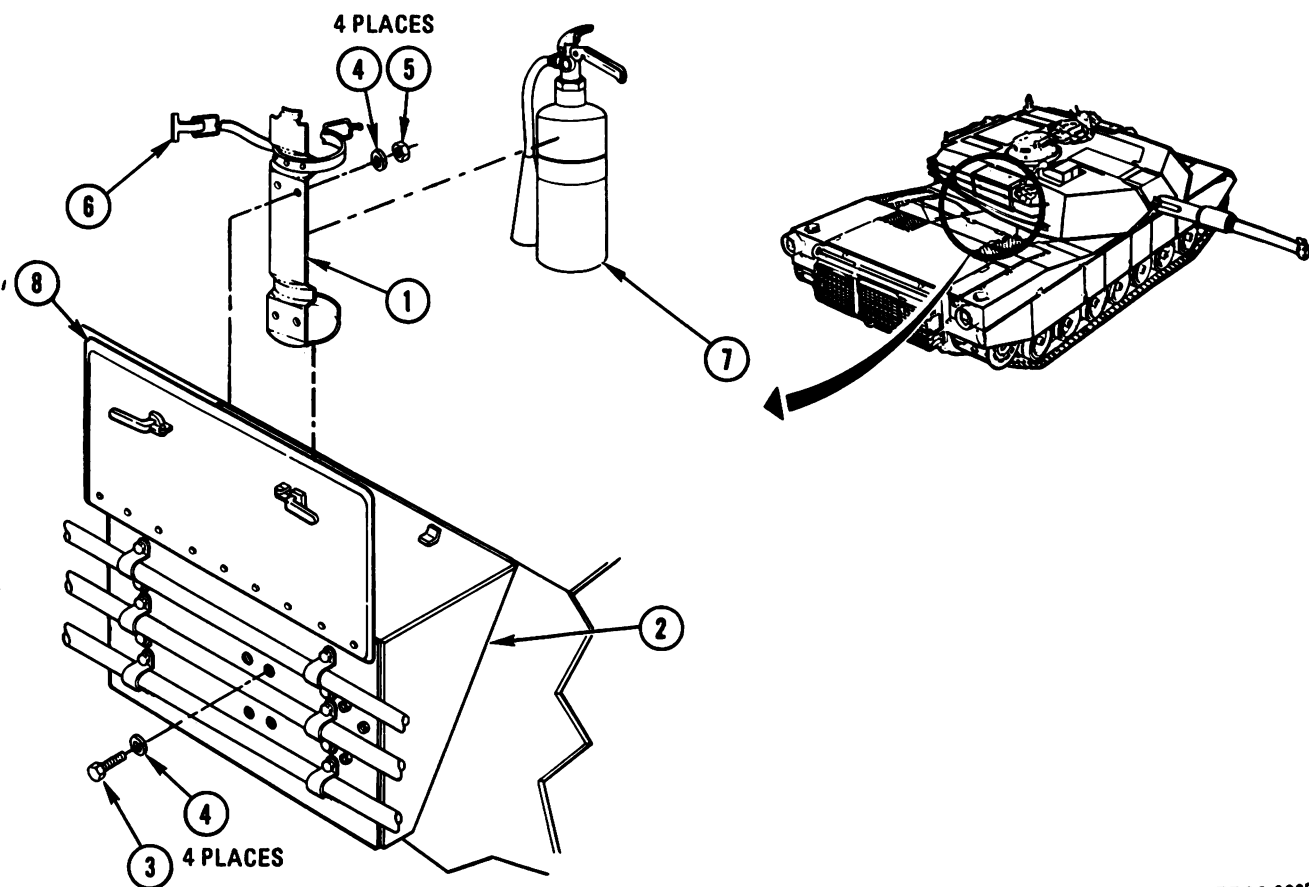
1. Line up holes in mounting bracket (1) with holes inside box (2). Hold bracket (1) in place.
2. Screw in and tighten four screws (3), eight washers (4), and four new self-locking nuts (5) with socket handle, and wrench.

Install Fire Extinguisher:

3. Unlatch spring lock clamp (6) on bracket (1). Put fire extinguisher (7) in bracket (1). Latch clamp (6).
4. Put cargo in box (2) and close cover (8).

Follow-on Maintenance: None

TASK 9 ENDS HERE



ARR82-0385

TASK 10. Install Right-Hand or Left-Hand Stowage Box Straps

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, combination, 7/16-inch

Special Tools: None

Supplies:

Nut, self-locking (96906) MS51943-31 (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove right-hand or left-hand stowage box straps; refer to task 1.

FRAME 12

Install Upper and Lower Straps:

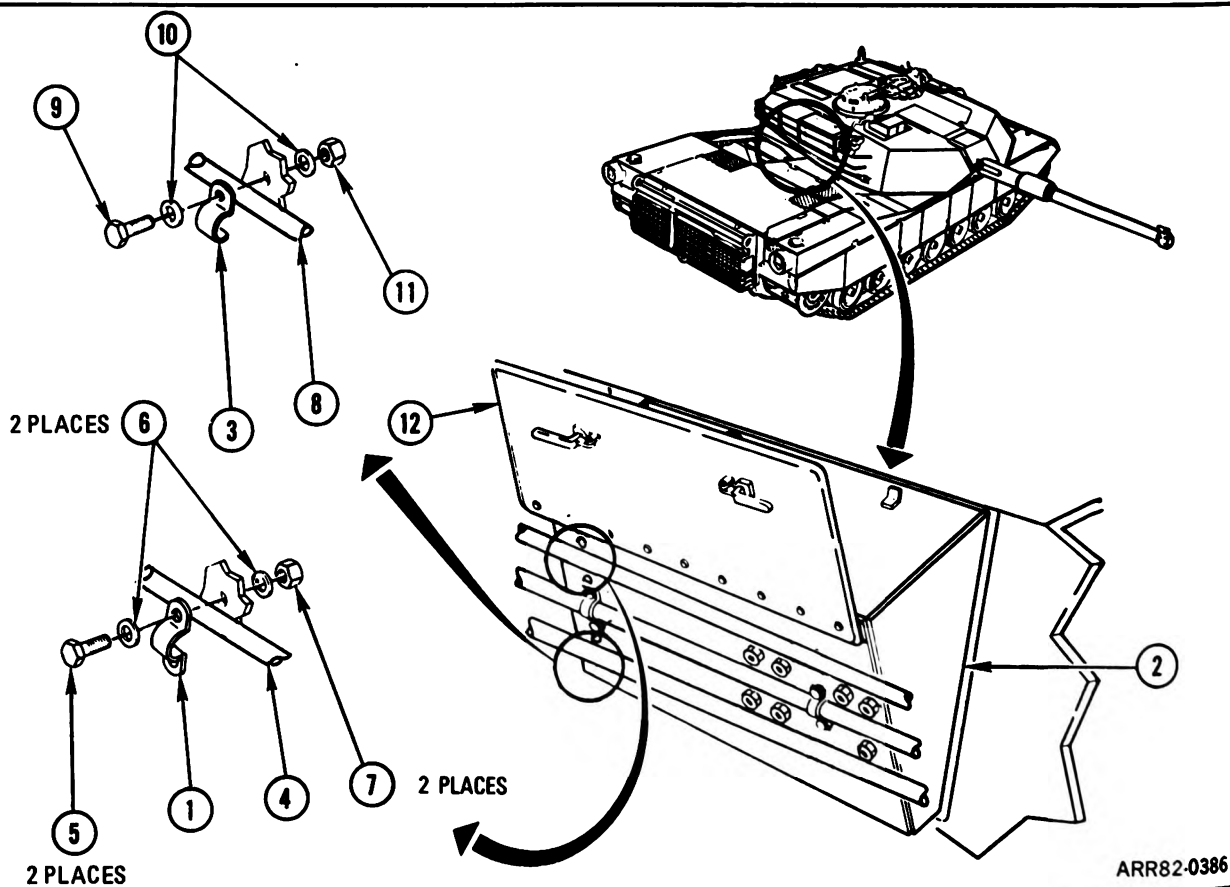
NOTE

- Do steps 1 and 3 to put in any upper strap (1) on left-hand or right-hand stowage box (2).
- Do steps 2 and 3 to put in any lower strap (3) on left-hand or right-hand box (2).
- Right-hand box (2) is shown.

1. Put upper strap (1) on rail (4). Screw in and tighten two screws (5), four washers (6), and two new self-locking nuts (7) to strap (1) and box (2) with socket, handle, and wrench.
2. Put lower strap (3) on rail (8). Screw in and tighten screw (9), two washers (10), and new self-locking nut (11) with socket, handle, and wrench.
3. Put cargo in stowage box (2) and close cover (12).

Follow-on Maintenance: None

END OF EXTERIOR STOWAGE BOXES MAINTENANCE



3-11. Turret Ammunition Doors

Task	Title	Frames
1	Disconnect Ammo Door Hydraulic Actuator	1
2	Remove Sliding Metal Ready Door Upper Roller Assembly	2 - 3
3	Remove Sliding Metal Ready Door Lower Roller Assembly	4 - 5
4	Remove Sliding Metal Stowage Door Upper Roller Assembly	6 - 7
5	Remove Sliding Metal Stowage Door Lower Roller Assembly	8 - 10
6	Remove Actuator Arm, Hook, and Housing Assembly	11
7	Remove Mechanical Drive Housing	12
8	Remove Latch Release Bracket	13
9	Remove Clamp Hook and Latch Mounting Plate	14
10	Remove Arm Latch	15
11	Remove Headless Shoulder Pin	16
12	Replace Quick Release Pin and Lanyard Assembly	17 - 18
13	Replace Sliding Metal Ready Door Latch Housing Lubrication Fitting	19
14	Replace Sliding Metal Ready Door Marker and Identification Marker	20 - 21
15	Replace Sliding Metal Ready Door Left Side Door Post Seal	22
16	Replace Sliding Metal Stowage Door Right Side Door Post Seal	23 - 25
17	Replace Sliding Metal Stowage Door Center Seal	26
18	Replace Sliding Metal Ready Door Lock	27
19	Install Headless Shoulder Pin	28
20	Install Arm Latch	29
21	Install Clamp Hook and Latch Mounting Plate	30
22	Install Latch Release Bracket	31
23	Install Mechanical Drive Housing	32
24	Install Actuator Arm, Hook, and Housing Assembly	33
25	Install Sliding Metal Stowage Door Lower Roller Assembly	34 - 35
26	Install Sliding Metal Stowage Door Upper Roller Assembly	36
27	Install Sliding Metal Ready Door Lower Roller Assembly	37
28	Install Sliding Metal Ready Door Upper Roller Assembly	38
29	Connect Ammo Door Hydraulic Actuator	39
30	Adjust Sliding Metal Ready Door Closed Position	40 - 41

TASK 1. Disconnect Ammo Door Hydraulic Actuator

Applicability: All Models

Common Tools:

Goggles, industrial

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Protective caps and plugs (Bulk)
Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Reduce system hydraulic pressure to zero; refer to para. 4-4.

FRAME 1**Disconnect Actuator:****NOTE**

Read para. 4-4, on removing hydraulic lines, before doing any work.

1. Cover audio amplifier (1) with rags.

WARNING

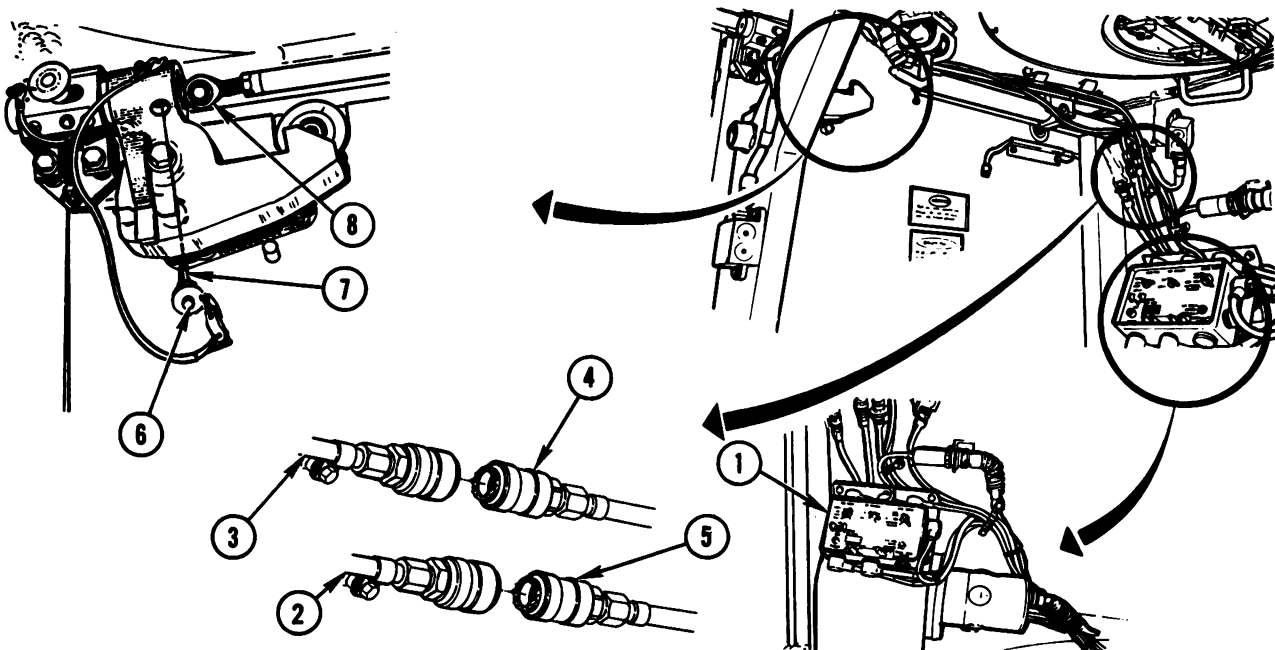
Make sure metal tube assemblies (2,3) are cool enough to touch before you handle them. Wear goggles when taking off coupling assemblies (4,5). Wrap couplings (4,5) with rags to keep hydraulic fluid from spraying out.

2. Pull down and turn couplings (4,5) clockwise. Take couplings (4,5) off tubes (2,3).
3. Push in button (6) and pull out quick-release pin (7) from actuator self-aligning rod end plain bearing (8).
4. Take off rags from audio amplifier (1) and couplings (4,5). Wipe up any spilled hydraulic fluid with rags.

Follow-on Maintenance:

NOTE: To connect ammo door hydraulic actuator, refer to task 29.

TASK 1 ENDS HERE



ARR82-0901

TASK 2. Remove Sliding Metal Ready Door Upper Roller Assembly

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket Wrench Attachment, socket head screw, 3/8-inch square drive, 3/8- inch hex

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Rag, wiping (Item 45)

Personnel: One

NOTE

Two soldiers are needed if both upper roller assemblies are removed.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Disconnect ammo door hydraulic actuator; refer to task 1.
4. Set sliding metal ready ammunition door to manual operation; refer to TM 9-2350-255-10.
5. Unlock sliding metal ammunition stowage door; refer to TM 9-2350-255-10.

FRAME 2

Remove Upper Roller:

WARNING

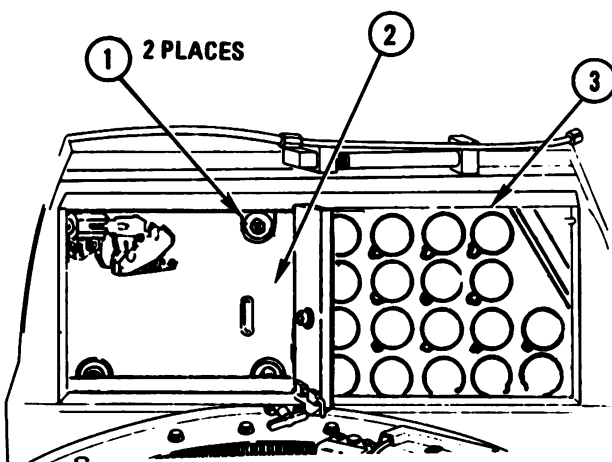
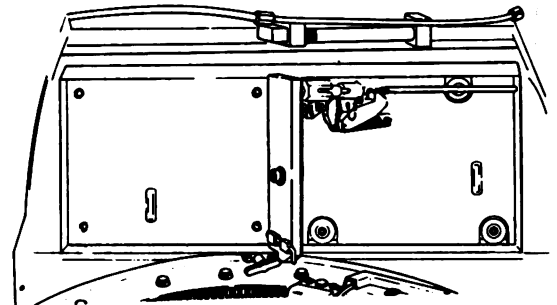
Take off one upper roller assembly (1) at a time to keep sliding metal ready door (2) from falling out of door track (3) and injuring you.

NOTE

- If both upper roller assemblies (1) are taken off to take out door (2), Soldier B must hold door (2) in place.
- Use this task to take off any upper roller assembly (1) on door (2). One upper roller assembly (1) is shown.

1. Open door (2) until roller assembly (1) can be reached.

GO TO FRAME 3



ARR82-0902

FRAME 3

Remove Upper Roller (Continued):

1. Unscrew and take out screw (1) from door (2) with socket wrench attachment and handle. Take out roller assembly (3), axle (4), and washer bearing (5) from door (2).
2. Clean roller (3), axle (4), and bearing (5) with rag.

NOTE

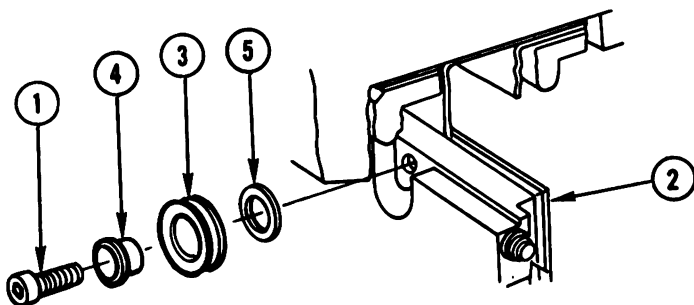
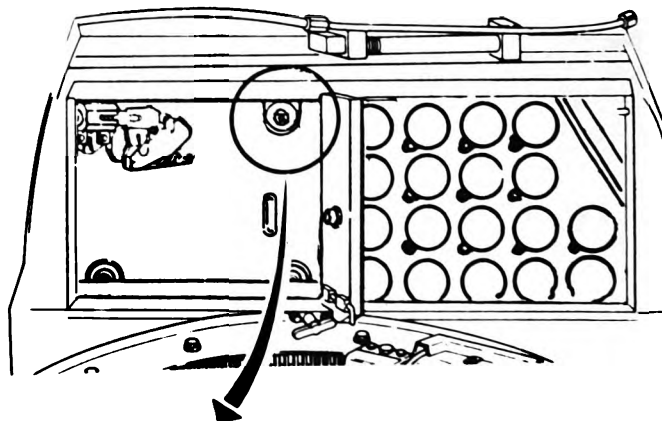
If any part is cracked, bent, or gouged, all parts must be turned in together.

3. Look at roller (3), axle (4), and bearing (5) for cracks, bends, gouges, and wear grooves. If bad turn in all parts. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install sliding metal ready door upper roller assembly, refer to task 28.

TASK 2 ENDS HERE



ARR82-0903

TASK 3. Remove Sliding Metal Ready Door Lower Roller Assembly

Applicability: All Models

Common Tools:

Bar, pry
Handle, socket wrench, ratchet, 3/8-inch square drive
Screwdriver, flat tip
Socket Wrench Attachment, socket head screw, 3/8-inch square drive, 3/8-inch hex

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Disconnect ammo door hydraulic actuator; refer to task 1.
4. Set sliding metal ready ammunition door to manual operation; refer to TM 9-2350-255-10.

FRAME 4

Remove Lower Roller:

WARNING

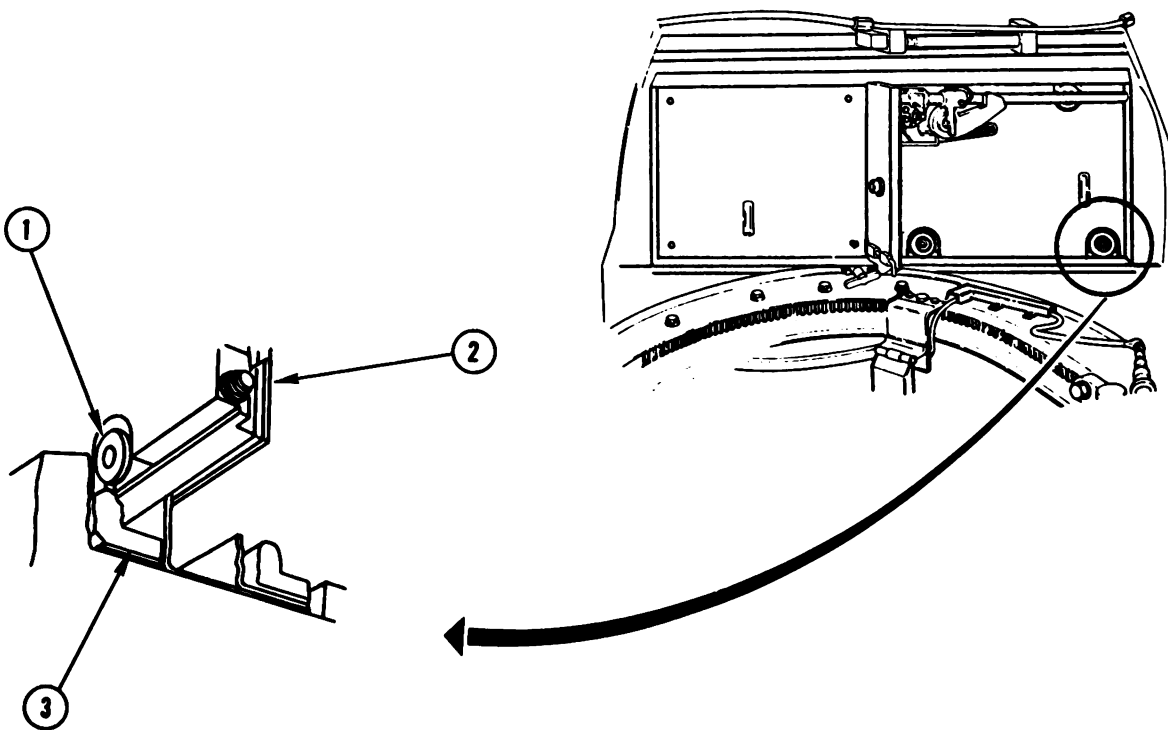
Take off one lower roller assembly (1) at a time to keep sliding metal ready door (2) from falling out of door track (3) and injuring you.

NOTE

Use this task to take off right or left roller assembly (1) on door (2). To take off left roller assembly, do steps 1 and 3. To take off right roller assembly, do steps 2 and 3.

1. Open door (2) all the way until roller assembly (1) can be reached.
2. Open door (2) halfway.
3. Pry up end of door (2) with bar until weight of door (2) is off roller assembly (1). Slide screwdriver under end of door (2).

GO TO FRAME 5



ARR82-0904

FRAME 5

Remove Lower Roller (Continued):

NOTE

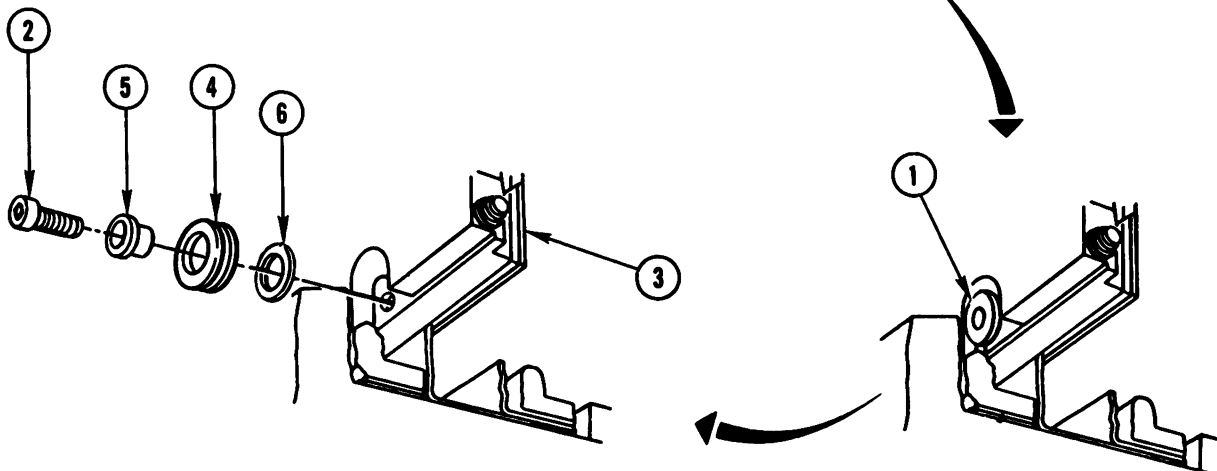
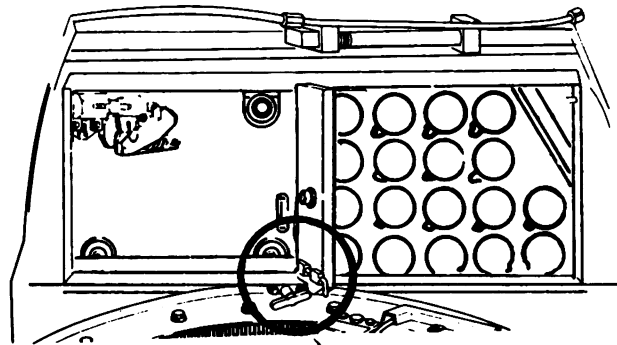
Left lower roller assembly (1) is shown.

1. Unscrew and take out screw (2) from sliding metal ready door (3) with socket wrench attachment and handle. Take out roller assembly (4), axle (5), and washer bearing (6) from door (3). Clean roller (4), axle (5), and bearing (6) with rag.
2. Look at roller (4), axle (5), and bearing (6) for cracks, bends, gouges, or wear grooves. If any part is bad, turn in all parts. If OK set all parts aside for later use.

Follow-on Maintenance:

NOTE: To install sliding metal ready door lower roller assembly, refer to task 27.

TASK 3 ENDS HERE



ARR82-0905

TASK 4. Remove Sliding Metal Stowage Door Upper Roller Assembly

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket Wrench Attachment, socket head screw, 3/8-inch square drive, 3/8-inch hex

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Rag, wiping (Item 45)

Personnel: One

NOTE

Two soldiers are needed to take out both upper roller assemblies.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Disconnect ammo door hydraulic actuator; refer to task 1.
4. Unlock sliding metal ammunition stowage door; refer to TM 9-2350-255-10.
5. Set sliding metal ready ammunition door to manual operation; refer to TM 9-2350-255-10.
6. Remove blow-off plate (center); refer to para. 3-14, task 1.

FRAME 6

Remove Upper Roller:

WARNING

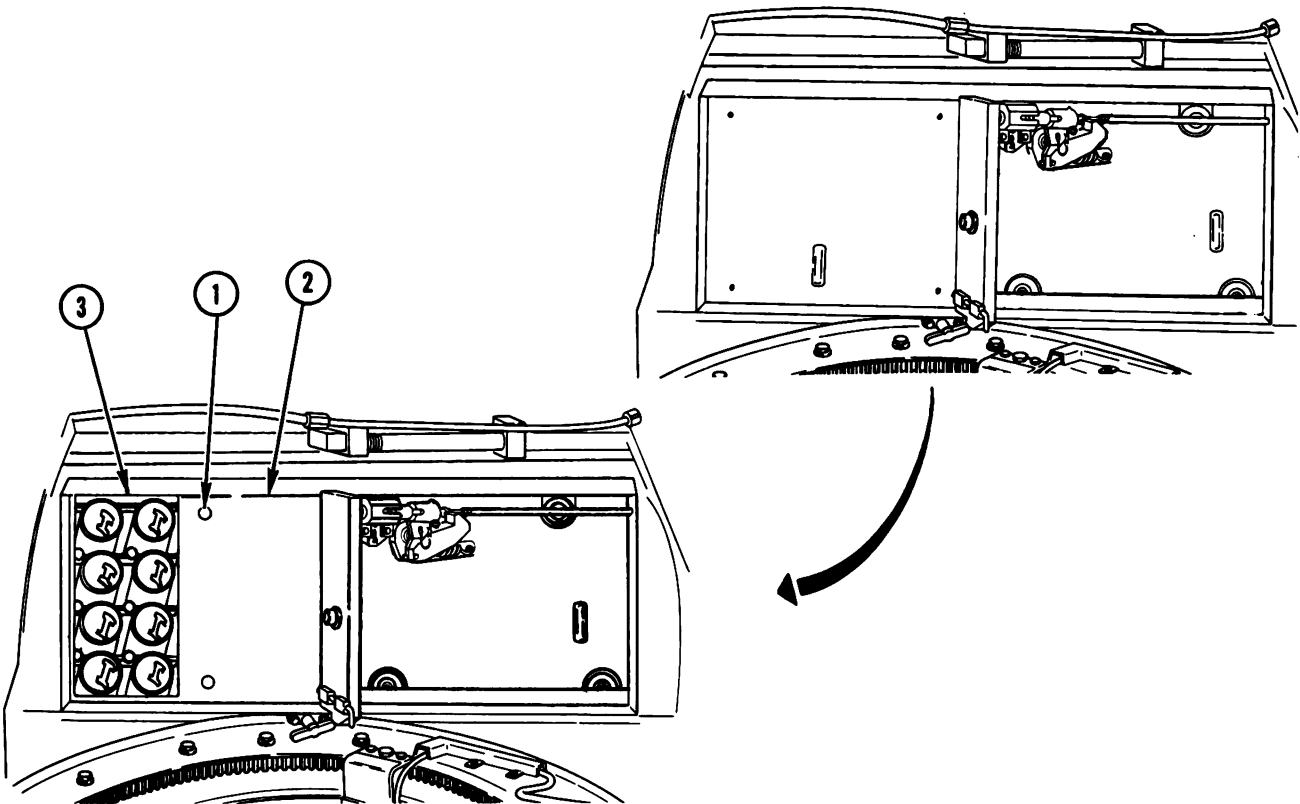
Take off one upper roller assembly (1) at a time to keep sliding metal stowage door (2) from falling out of door track (3) and injuring you.

NOTE

- If both upper roller assemblies (1) are taken off to take out door (2), Soldier B must hold door (2) in place.
- Use this task to take off any upper roller assembly (1) on door (2). One upper roller assembly (1) is shown.

1. Open door (2) until roller assembly (1) can be reached.

GO TO FRAME 7



ARR82-0906

FRAME 7

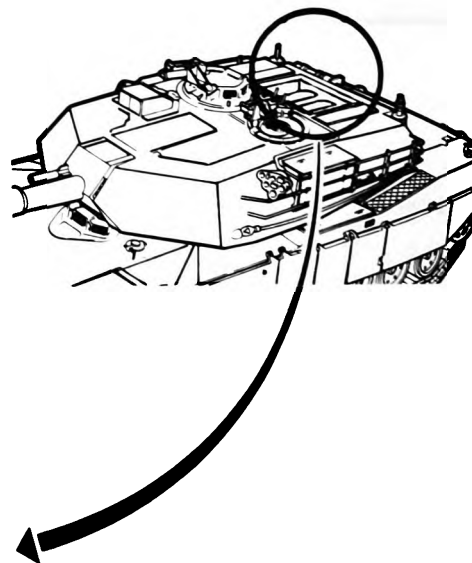
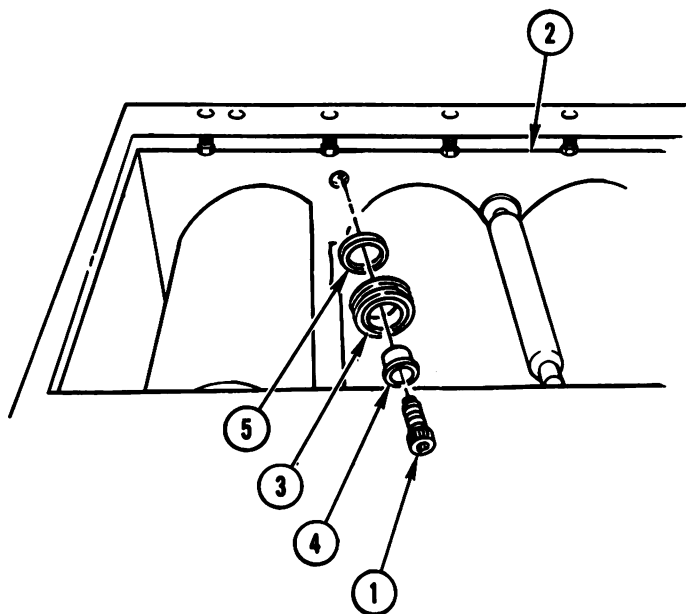
Remove Upper Roller (Continued):

1. Unscrew and take out screw (1) from door (2) with socket wrench attachment and handle. Take out roller assembly (3), axle (4), and washer bearing (5) from door (2).
2. Clean roller (3), axle (4), and bearing (5) with rag.
3. Look at roller (3), axle (4), and bearing (5) for cracks, bends, gouges, or wear grooves. If any part is bad, turn in all parts. If all parts are OK, set aside for later use.

Follow-on Maintenance:

NOTE: To install sliding metal stowage door upper roller assembly, refer to task 26.

TASK 4 ENDS HERE



ARR82-0907

TASK 5. Remove Sliding Metal Stowage Door Lower Roller Assembly**Applicability:** All Models**Common Tools:**

Bar, pry
 Extension, socket wrench, 3/8-inch square drive, 12-inch
 Handle, socket wrench, ratchet, 3/8-inch square drive
 Screwdriver, flat tip
 Socket Wrench Attachment, socket head screw, 3/8-inch square drive, 3/8-inch hex
 Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None**Supplies:**

NOTE: Expendable supplies are defined in appendix A.
 Rag, wiping (Item 45)

Personnel: Two

Soldier A: Removes sliding metal stowage door lower roller assembly.
 Soldier B: Helps Soldier A.

NOTE

Soldier B needed in frame 8 only.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Disconnect ammo door hydraulic actuator; refer to task 1.
4. Unlock sliding metal ammunition stowage door; refer to TM 9-2350-255-10.
5. Set sliding metal ready ammunition door to manual operation; refer to TM 9-2350-255-10.
6. Open sliding metal ammunition stowage door; refer to TM 9-2350-255-10.
7. Remove blow-off plate (center); refer to para. 3-14, task 1.

FRAME 8

Remove Right Center Bustle Ammunition Rack:

Soldier A: 1. Unscrew and take out three screws (1) and washers (2) from angle bracket (3) with socket, extension, and handle.

Soldier A: 2. Look at bracket (3) for cracks or bends. If bad turn in. If OK set aside for later use.

Soldier A: 3. Go inside turret. Unscrew and take out three screws (4) and washers (5) from bottom front mount (6) with socket, extension, and handle.

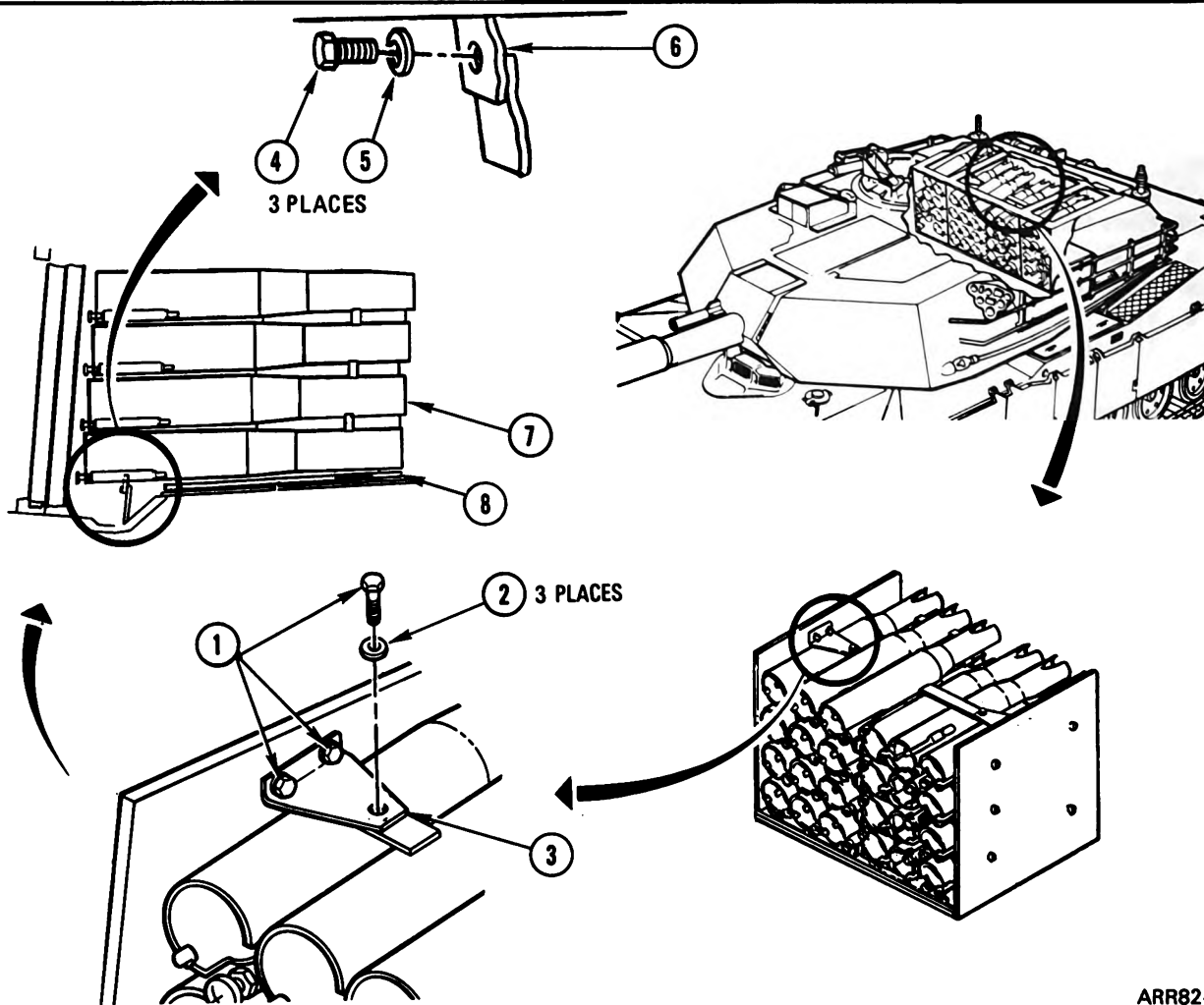
CAUTION

Use care when moving rack (7). Insulation (8) may be damaged when moving rack (7).

Soldier A,

Soldier B: 4. Pull ammunition rack (7) into crew compartment.

GO TO FRAME 9



ARR82-0908

FRAME 9

Remove Lower Roller:

WARNING

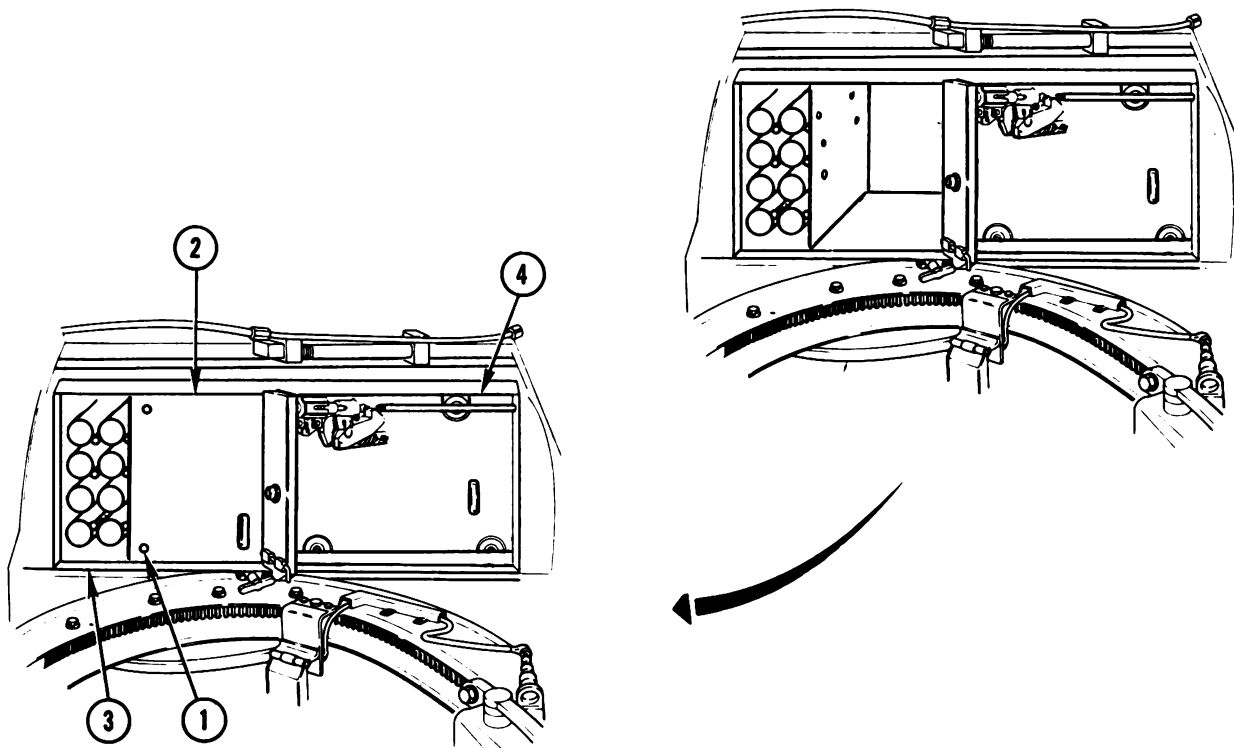
Take off one lower roller assembly (1) at a time to keep sliding metal storage door (2) from falling out of door track (3) and injuring you.

NOTE

Use this task to take off right or left lower roller assembly (1) on door (2). For right lower assembly, do steps 1, 3, and 4. For left lower roller assembly do steps 2, 3, and 4.

1. Close door (2) halfway.
2. Close door (2) all the way. Open sliding metal ready door (4) all the way for left roller assembly.
3. Pry up door (2) with bar until weight is off roller assembly (1). Put screwdriver under end of door (2).
4. Go to top of turret.

GO TO FRAME 10



ARR82-0909

FRAME 10**Remove Lower Roller (Continued):****NOTE**

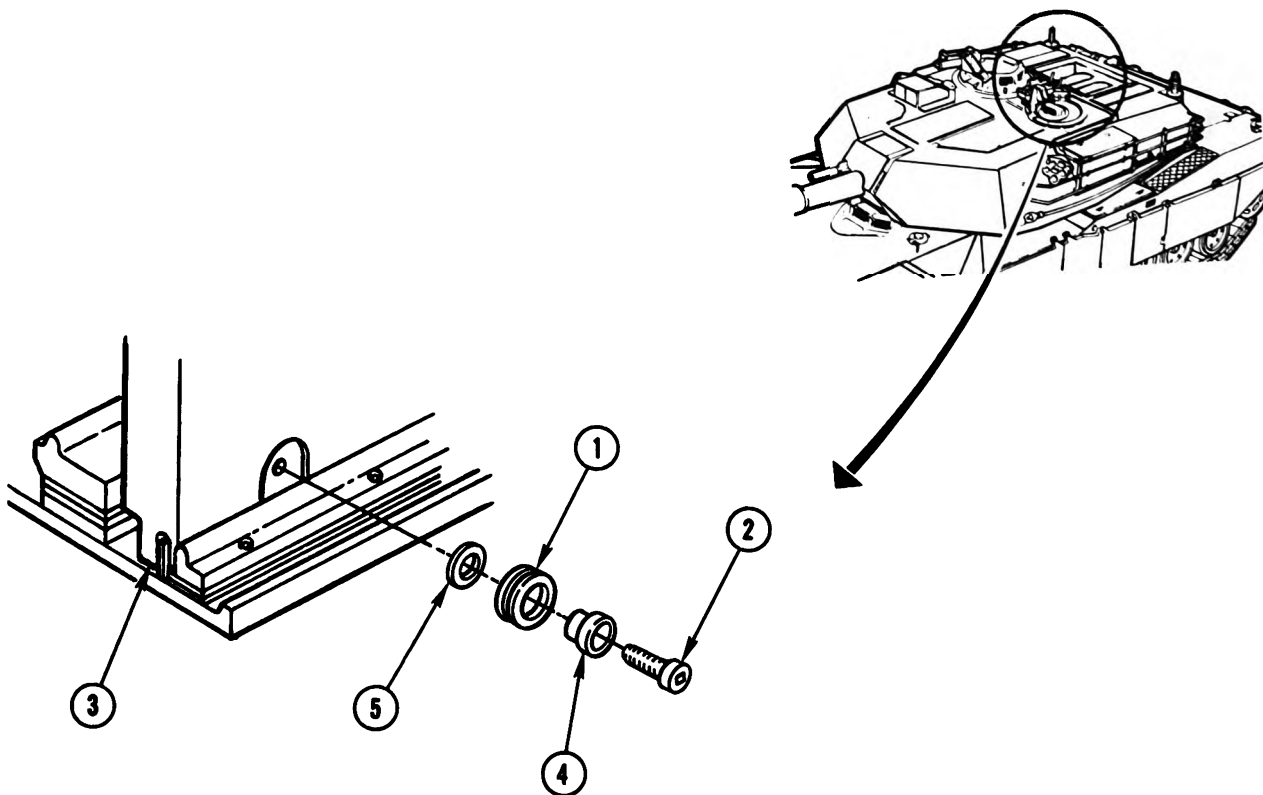
Left lower roller assembly (1) is shown.

1. Unscrew and take out screw (2) from sliding metal stowage door (3) with socket wrench attachment and handle. Take out roller assembly (1), axle (4), and washer bearing (5) from door (3).
2. Clean roller (1), axle (4), and bearing (5) with rag.
3. Look at roller (1), axle (4), and bearing (5) for cracks, bends, gouges, or wear grooves. If any part is bad, turn in all parts. If all parts are OK, set aside for later use.

Follow-on Maintenance:

NOTE: To install sliding metal stowage door lower roller assembly, refer to task 25.

TASK 5 ENDS HERE



ARR82-0910

TASK 6. Remove Actuator Arm, Hook, and Housing Assembly

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Conditions:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Disconnect ammo door hydraulic actuator; refer to task 1.
4. Set sliding metal ready ammunition door to manual operation; refer to TM 9-2350-255-10.
5. Unlock sliding metal ammunition stowage door; refer to TM 9-2350-255-10.

FRAME 11

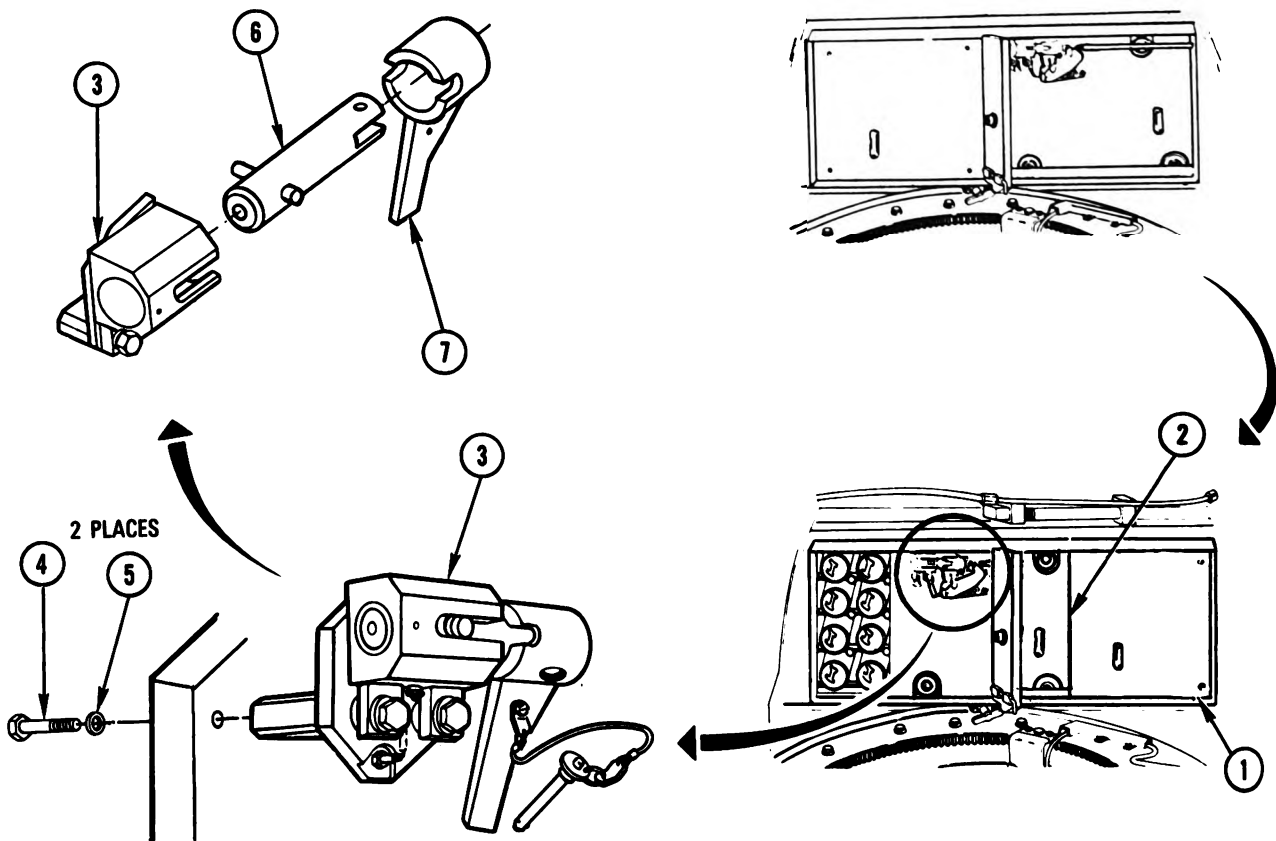
Remove Hook and Housing:

1. Slide sliding metal stowage door (1) all the way open and sliding metal ready door (2) halfway open.
2. Hold hook and housing assembly (3) in place.
3. Unscrew and take out two screws (4) and washers (5) from inside bustle ammunition compartment with socket and handle.
4. Take off hook and housing assembly (3). Take off straight shaft (6) and arm (7) from hook and housing assembly (3).
5. Look at hook and housing assembly (3) for cracks or breaks. If bad remove mechanical drive housing; refer to task 7; and then go to step 6. If OK set aside for later use.
6. Look at shaft (6) and arm (7) for cracks or breaks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install actuator arm, hook, and housing assembly, refer to task 24.

TASK 6 ENDS HERE



ARR82-0911

TASK 7. Remove Mechanical Drive Housing

Applicability: All Models

Common Tools:

- Caps, vise jaw
- Handle, socket wrench, ratchet, 3/8-inch drive
- Socket, socket wrench, 3/8-inch square drive, 9/16-inch
- Vise, machinist's
- Wrench, combination, 7/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove actuator arm, hook, and housing assembly; refer to task 6.

FRAME 12

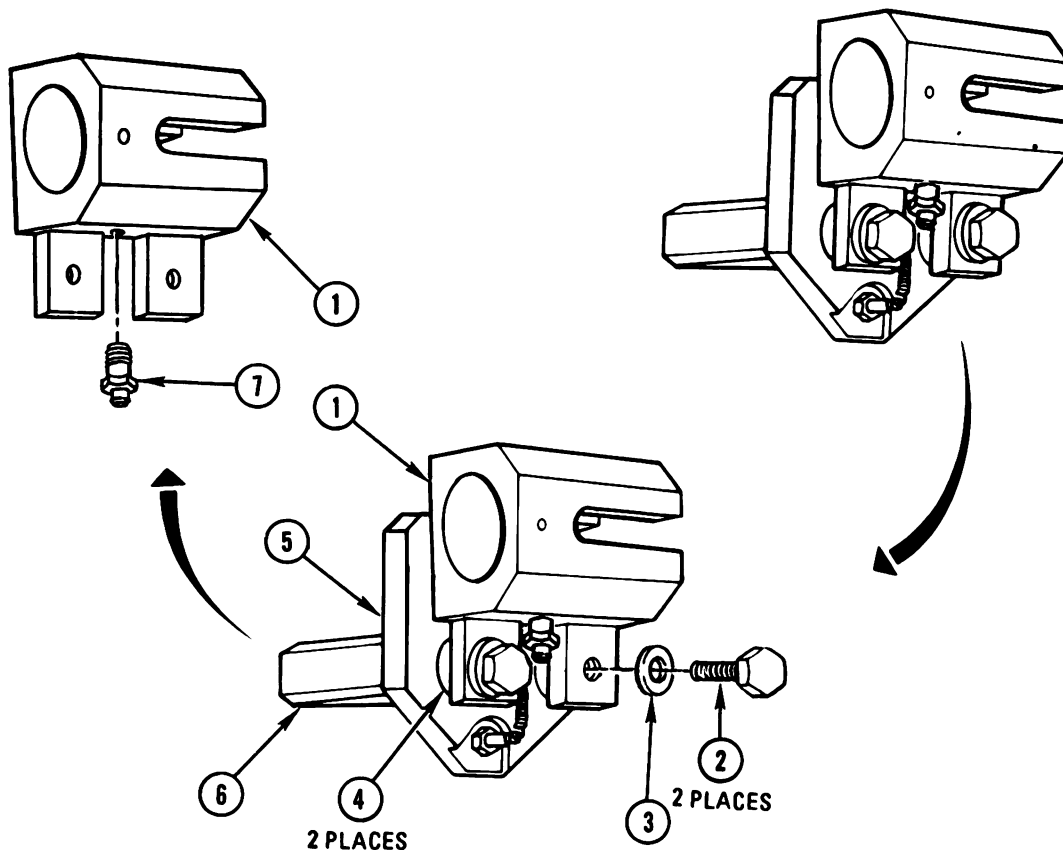
Remove Housing:

1. Put mechanical drive housing (1) in vise.
2. Unscrew and take out two screws (2), and washers (3) from housing (1) with socket and handle. Take apart housing (1), two sleeve spacers (4), latch mounting plate (5), and plate spacer (6).
3. Look at three spacers (4, 6) and plate (5) for cracks, bends, or breaks. Turn in bad parts. Set good parts aside for later use.
4. Look at housing (1) for cracks, bends, or breaks. If bad do steps 5 and 6. If OK TASK 7 ENDS HERE.
5. Unscrew and take out lubrication fitting (7) from housing (1) with wrench. Turn in housing (1).
6. Look at fitting (7) for cracks or breaks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install mechanical drive housing, refer to task 23.

TASK 7 ENDS HERE



ARR82-0912

TASK 8. Remove Latch Release Bracket

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Disconnect ammo door hydraulic actuator; refer to task 1.
4. Set sliding metal ready ammunition door to manual operation; refer to TM 9-2350-255-10.

FRAME 13

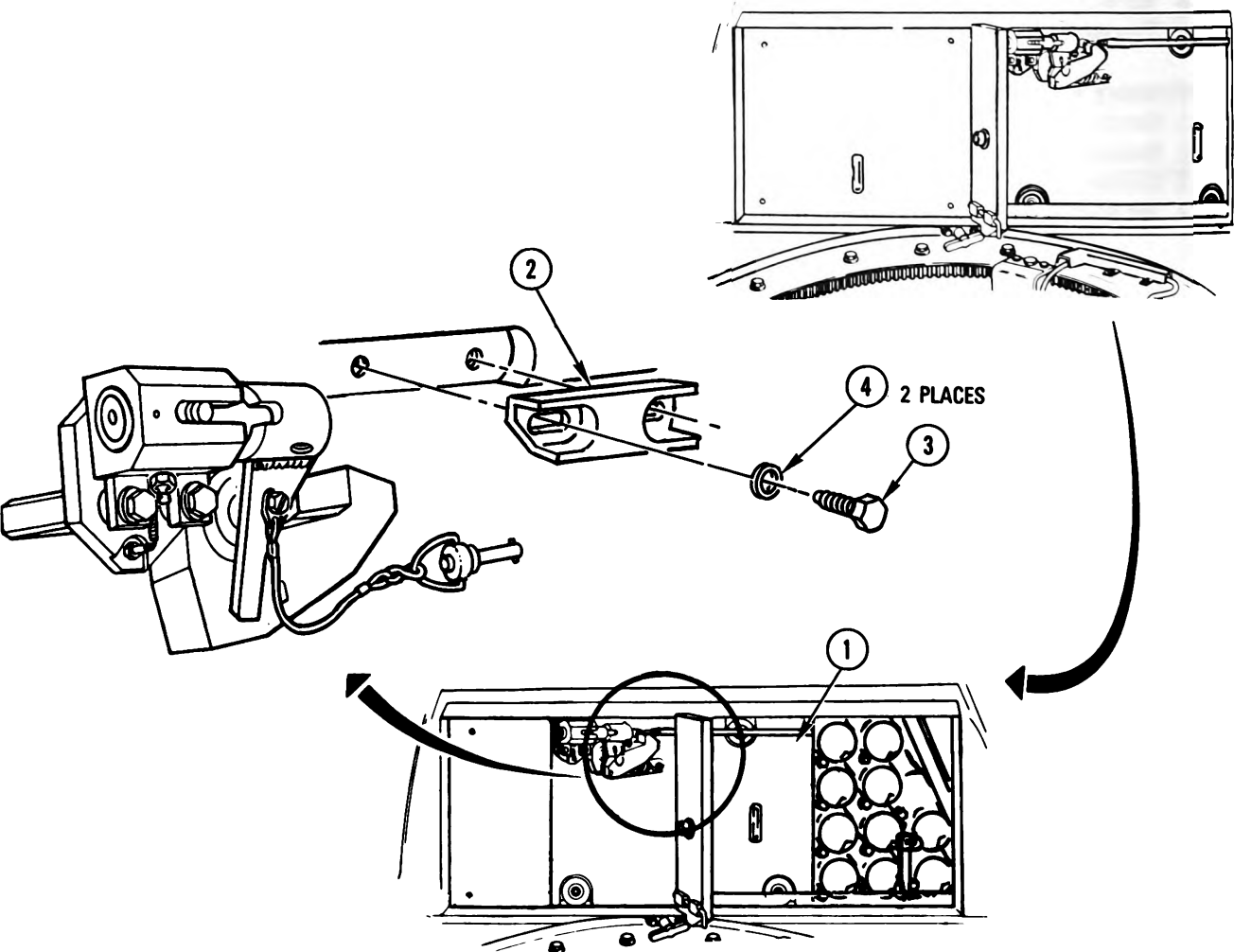
Remove Bracket:

1. Open sliding metal ready door (1) halfway so bracket (2) can be reached.
2. Unscrew and take out two screws (3) and two washers (4) from bracket (2) with socket and handle. Take off bracket (2).
3. Look at bracket (2) for cracks, breaks, or bends. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install latch release bracket, refer to task 22.

TASK 8 ENDS HERE



ARR82-0913

TASK 9. Remove Clamp Hook and Latch Mounting Plate

Applicability: All Models

Common Tools:

- Hammer, ball peen
- Pliers, long round nose
- Punch, drive pin, 1/4-inch
- Wrench, combination, 7/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove actuator arm, hook, and housing assembly; refer to task 6.
2. Remove mechanical drive housing; refer to task 7.

FRAME 14

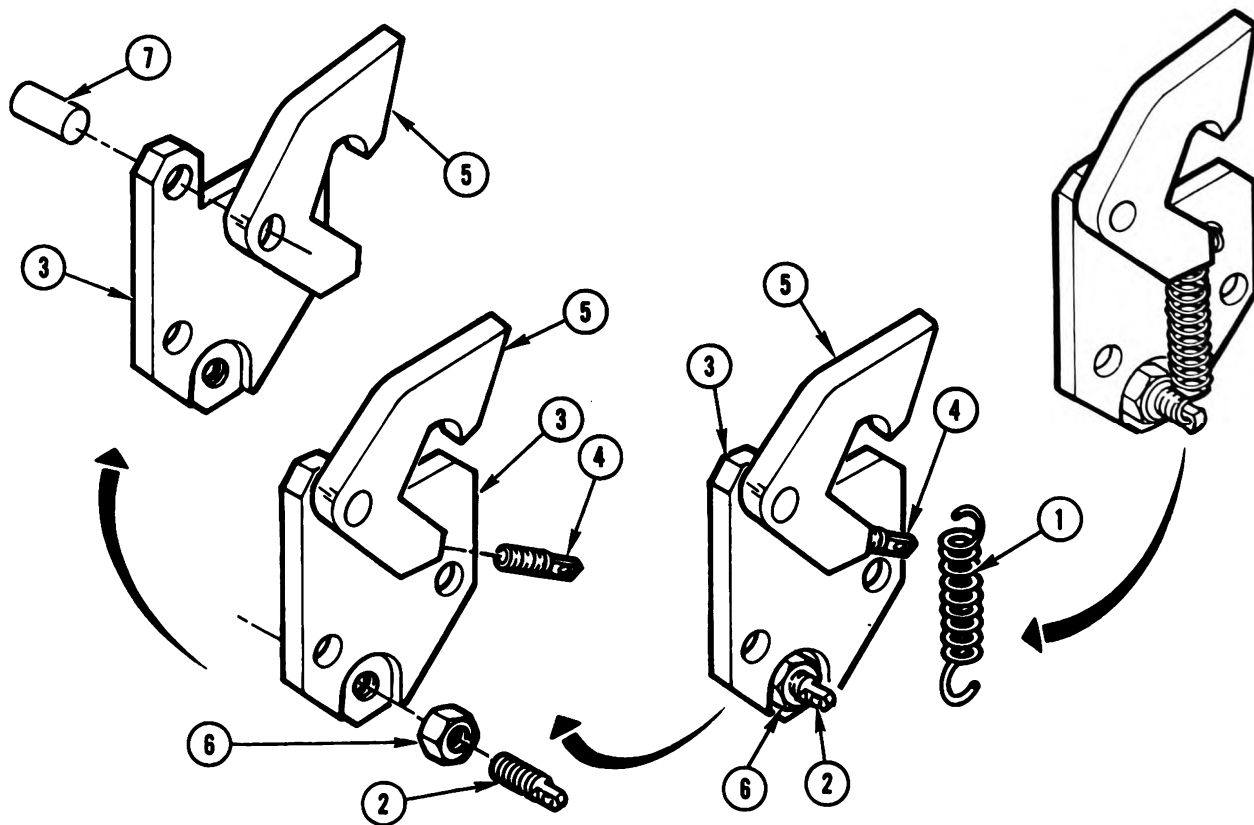
Remove Hook and Latch Plate:

1. Take extension helical spring (1) off threaded straight pin (2) on latch mounting plate (3), and threaded straight pin (4) on clamp hook (5) with pliers.
2. Unscrew and take off nut (6) and pin (2) on plate (3) with wrench.
3. Unscrew and take off nut (6) from pin (2), and pin (4) from hook (5), with pliers and wrench.
4. Look at pins (2, 4) for cracks or breaks. If bad turn in. If OK set aside for later use.
5. Take hook (5) off headless straight pin (7).
6. Drive pin (7) out of plate (3) with hammer and punch. Get rid of pin (7).
7. Look at spring (1), plate (3), and hook (5) for cracks, bends, or breaks. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install clamp hook and latch mounting plate, refer to task 21.

TASK 9 ENDS HERE



ARR82-0914

TASK 10. Remove Arm Latch

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, long round nose
Socket, socket wrench, 3/8-inch square drive, 3/4-inch
Wrench, combination, 9/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Disconnect ammo door hydraulic actuator; refer to task 1.
4. Unlock sliding metal ammunition stowage door; refer to TM 9-2350-255-10.
5. Set sliding metal ready ammunition door to manual operation; refer to TM 9-2350-255-10.
6. Remove actuator arm, hook, and housing assembly; refer to task 6.

FRAME 15

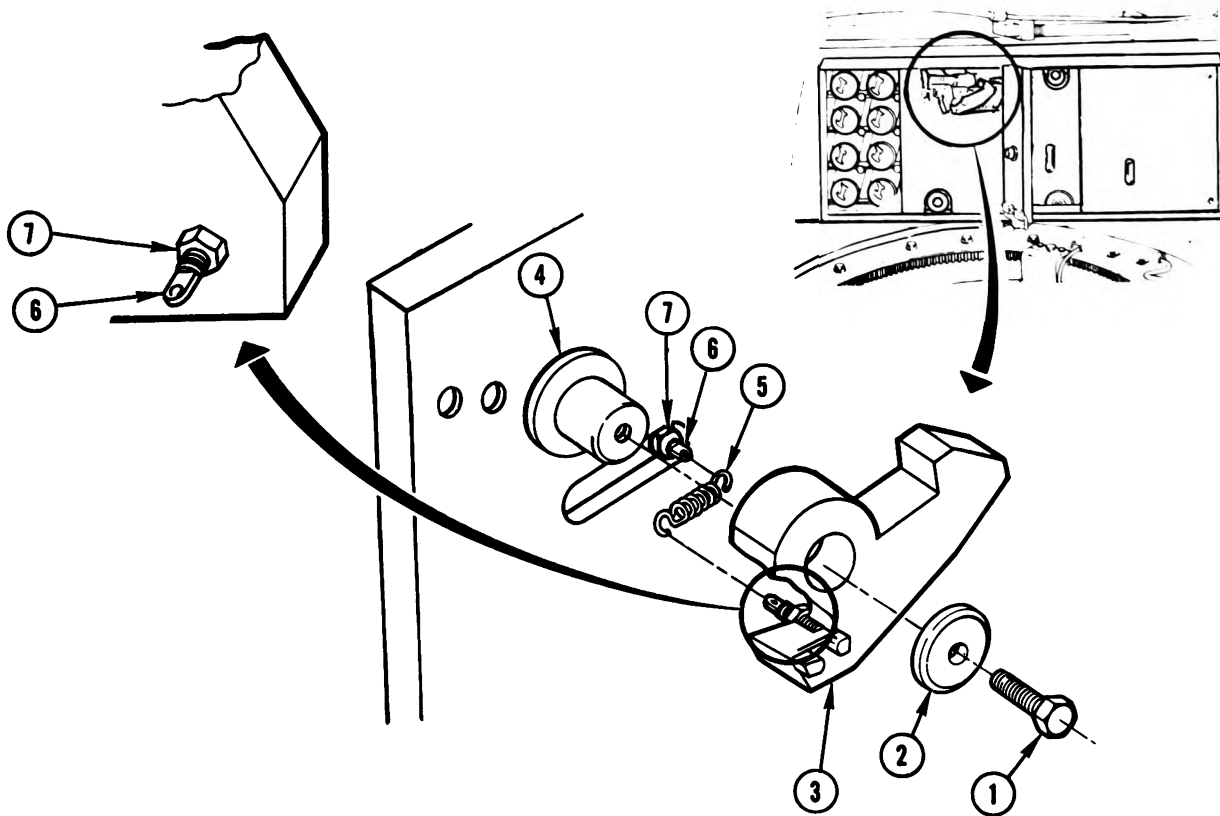
Remove Latch:

1. Unscrew and take off screw (1) and flat washer (2) from arm latch (3) with socket and handle.
2. Pull latch (3) off headless shoulder pin (4) with extension helical spring (5) still attached. Take spring (5) off threaded straight pins (6) with pliers.
3. Unscrew and take off two nuts (7) and pins (6) with wrench.
4. Unscrew and take off two nuts (7) from two pins (6) with pliers and wrench.
5. Look at all parts for cracks, breaks, or bends. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install arm latch, refer to task 20.

TASK 10 ENDS HERE



ARR82-0915

TASK 11. Remove Headless Shoulder Pin

Applicability: All Models

Common Tools:

Bar, torque wrench
Drift Pin, 3/4-inch
Extension, socket wrench, 3/4-inch square drive, 8-inch
Hammer, ball peen
Handle, socket wrench, hinged, 3/4-inch square drive
Wrench, torque, 0 to 1200 foot-pounds (Power Dyne)

Special Tools: None

Supplies:

Socket, socket wrench, 3/4-inch square drive, 2-1/4 inch (Fabricated)

Personnel: Two

Soldier A: Removes headless shoulder pin.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Unlock sliding metal ammunition stowage door; refer to TM 9-2350-255-10.
3. Set sliding metal ready ammunition door to manual operation; refer to TM 9-2350-255-10.
4. Remove actuator arm, hook, and housing assembly; refer to task 6.
5. Remove arm latch; refer to task 10.
6. Remove blow-off plates; refer to para. 3-14, task 1.
7. Remove left and right center bustle ammunition racks; refer to para. 3-13, task 1.

FRAME 16

Remove Pin:

NOTE

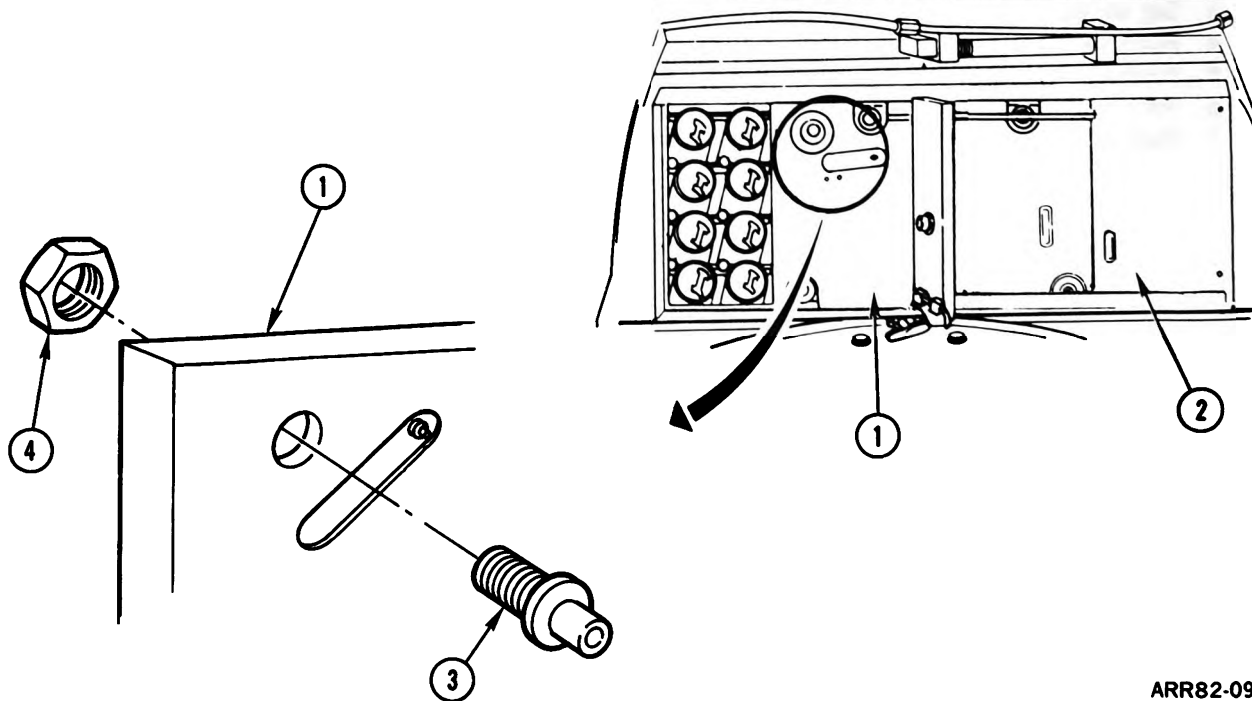
Open and close sliding metal ready door (1) and sliding metal stowage door (2) as needed to take out headless shoulder pin (3).

- Soldier A,
Soldier B: 1. Using fabricated socket, extension, torque wrench, and bar, loosen nut (4).
- Soldier A,
Soldier B: 2. Using fabricated socket, extension, and handle, unscrew and take off nut (4) from pin (3) from inside bustle ammunition compartment.
- Soldier A: 3. Look at nut (4) for cracks and damaged threads. If bad turn in. If OK set aside for later use.
- Soldier B: 4. Hold pin (3) from inside turret as Soldier A drives out pin (3) from door (1).
- Soldier A: 5. Drive out pin (3) from door (1) with hammer and punch.
- Soldier B: 6. Look at pin (3) for cracks, breaks, or damaged threads. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install headless shoulder pin, refer to task 19.

TASK 11 ENDS HERE



ARR82-0916

TASK 12. Replace Quick Release Pin and Lanyard Assembly

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 1/4-inch square drive
Extension, socket wrench, 1/4-inch square drive, 2-inch
Pliers, slip joint
Socket, socket wrench, 1/4-inch square drive, 5/16-inch

Special Tools: None

Supplies:

Lanyard Assembly (19207) 12287761
Pin, quick-release (96906) MS17987C617

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

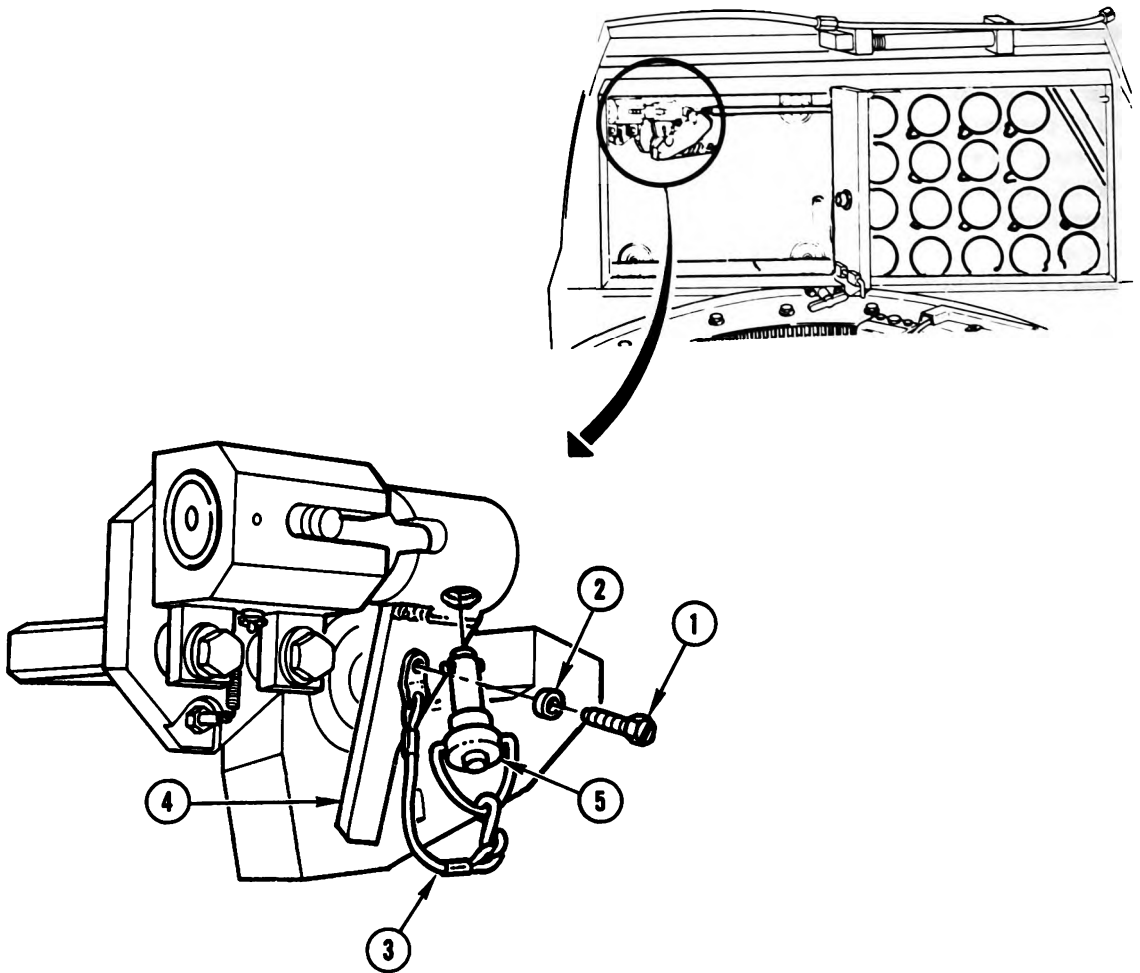
1. Remove commander's ammunition door guard; refer to TM 9-2350-20-10.
2. Set sliding metal ready ammunition door to manual operation, full open and locked position; refer to TM 9-2350-255-10.

FRAME 17

Remove Pin and Lanyard:

1. Unscrew and take out screw (1) and washer (2) from lanyard assembly (3) and arm (4) with socket, extension, and handle.
2. Turn in quick release pin (5) and lanyard (3).

GO TO FRAME 18



ARR82-0917

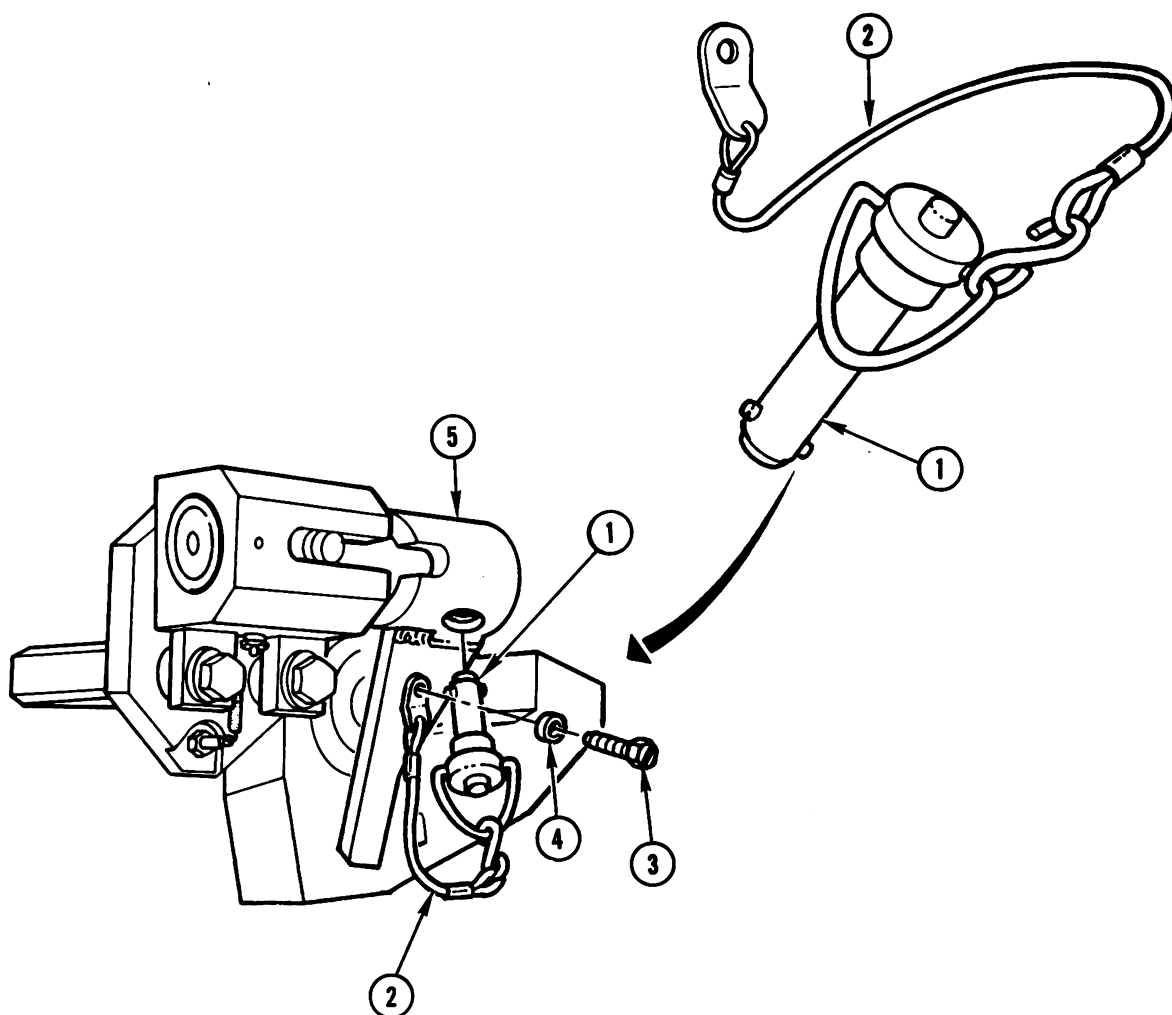
FRAME 18**Install Pin and Lanyard:**

1. Put S-hook of new pin (1) on loop of new lanyard assembly (2) with pliers.
2. Screw in and tighten screw (3) and washer (4) through lanyard (2) to arm (5) with socket, extension, and handle.

Follow-on Maintenance:

1. Set sliding metal ready ammunition door to closed position and automatic operation; refer to TM 9-2350-255-10.
2. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 12 ENDS HERE



ARR82-0918

TASK 13. Replace Sliding Metal Ready Door Latch Housing Lubrication Fitting

Applicability: All Models

Common Tools:

Wrench, combination, 7/16-inch

Special Tools: None

Supplies:

Fitting, lubrication (96906) MS15006-1

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Reduce system hydraulic pressure to zero; refer to para. 4-4.
2. Disconnect ammo door hydraulic actuator; refer to task 1.

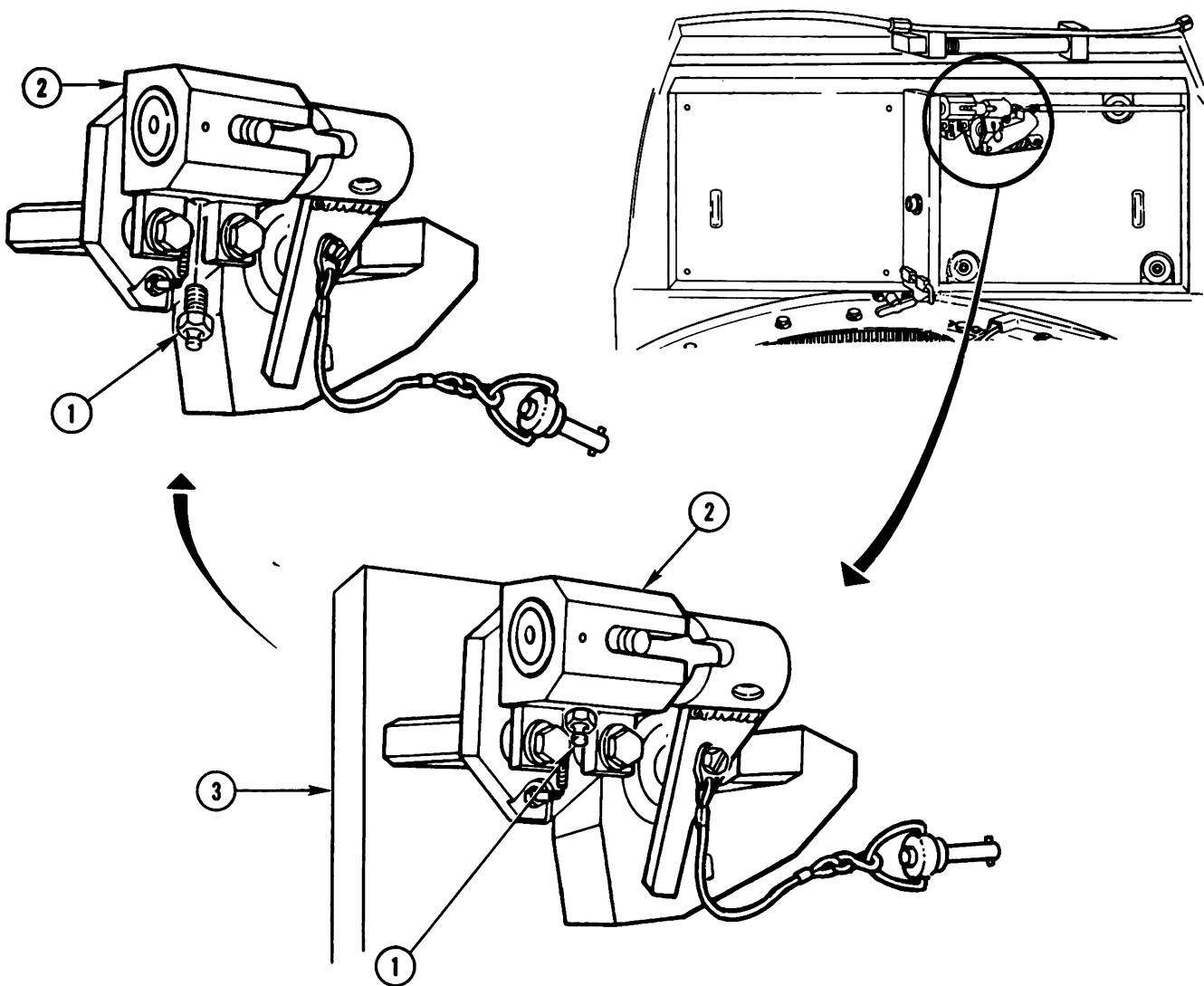
FRAME 19**Replace Lubrication Fitting:**

1. Unscrew and take off lubrication fitting (1) from mechanical drive housing (2) on sliding metal ready door (3) with wrench. Turn in fitting (1).
2. Screw in and tighten new fitting (1) to housing (2) with wrench.

Follow-on Maintenance:

1. Connect ammo door hydraulic actuator; refer to task 29.
2. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.

TASK 13 ENDS HERE



ARR82-0919

TASK 14. Replace Sliding Metal Ready Door Marker and Identification Marker

Applicability: All Models

Common Tools:

Knife, putty
Tape, measuring

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Dry Cleaning Solvent, P-D-680 (Item 21)

Marker (19207) 12288744

Marker, identification (19207) 12287483

Pencil (Item 42)

Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Set sliding metal ready ammunition door to manual operation; refer to TM 9-2350-255-10.

FRAME 20

Remove Marker:

NOTE

Use this task to take off and put on identification marker (1) and marker (2) on sliding metal ready door (3). Marker (2) is shown.

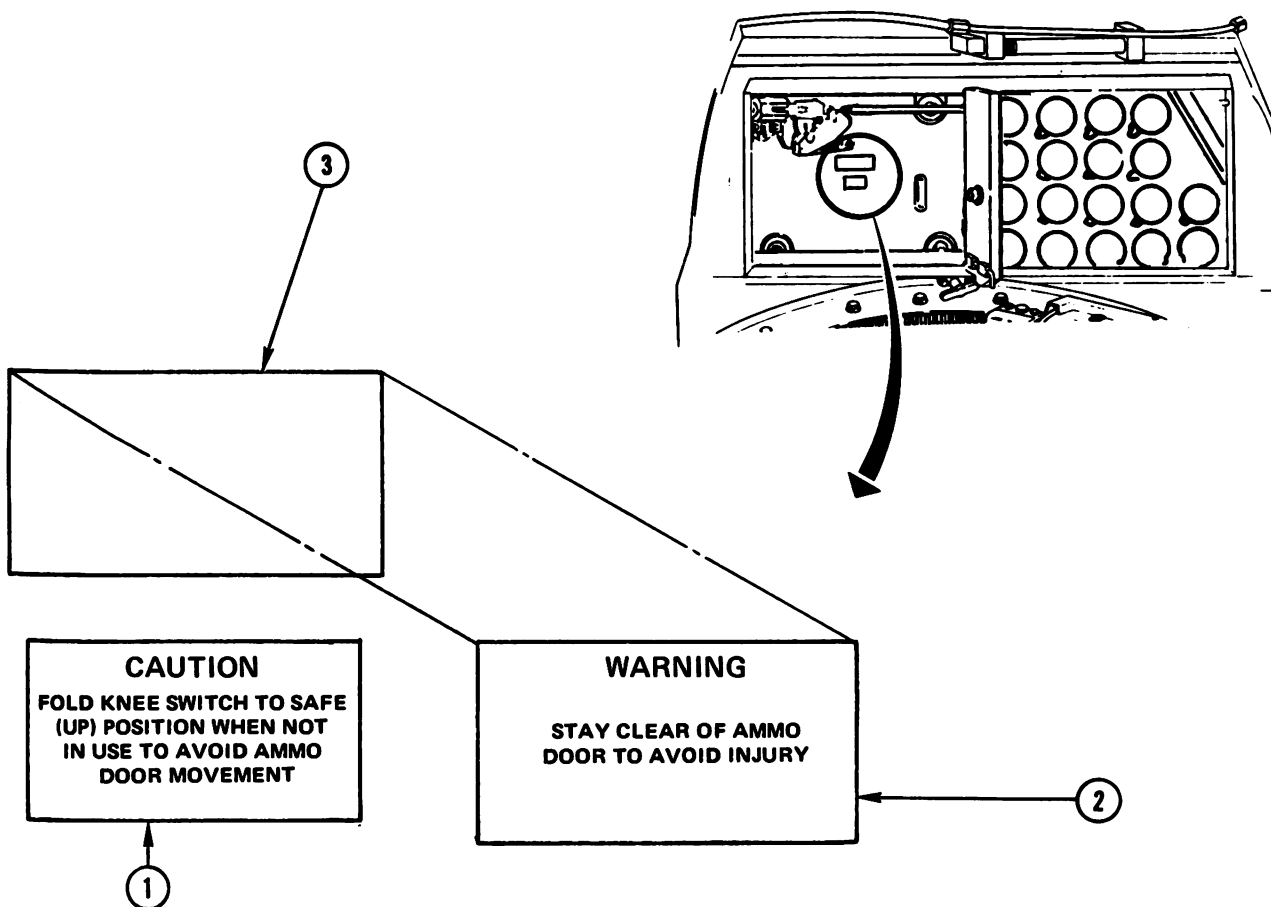
1. Scrape off marker (2) with putty knife. Get rid of marker (2).

WARNING

Solvent burns easily. To avoid injury, do not use near open fire.

2. Clean surface of door (3), where marker (2) was taken off, with solvent, putty knife, and rag.

GO TO FRAME 21



ARR82-0920

FRAME 21

Install Marker:

NOTE

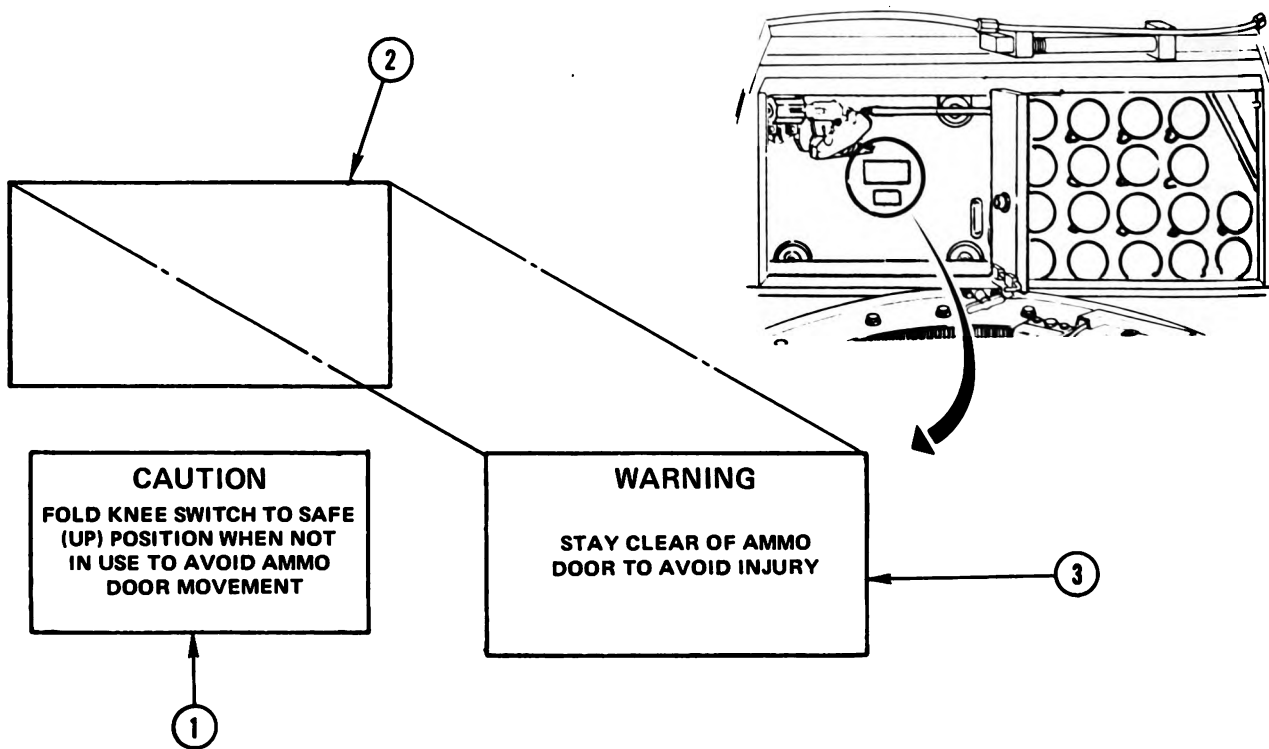
- Put new identification marker (1) 12- 1/2 inches from bottom and 14 inches from right side of sliding metal ready door (2).
- Put new marker (3) 3/4-inch from top of identification marker (1) and center.

1. Measure and mark position of new marker (3) with tape and pencil.
2. Peel backing off marker (3).
3. Stick marker (3) in place on door (2). Press down on marker (3).

Follow-on Maintenance:

1. Set sliding metal ready ammunition door to automatic operation for closed position; refer to TM 9-2350-255-10.
2. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 14 ENDS HERE



ARR82-0921

TASK 15. Replace Sliding Metal Ready Door Left Side Door Post Seal

Applicability: All Models

Common Tools:

Screwdriver, cross tip, No. 2, stubby
Screwdriver, offset, cross tip, No. 3

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lubricating Oil, MIL-L-3150 (Item 31)
Seal, sliding door (19207) 12287394
Shim (19207) 12288783

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Disconnect ammo door hydraulic actuator; refer to task 1.
4. Set sliding metal ready ammunition door to manual operation, and lock in full open position; refer to TM 9-2350-255-10.

FRAME 22

Remove Seal:

1. Loosen seven screws (1) on packing retainer (2) with offset screwdriver.
2. Unscrew and take out seven screws (1) from two packing retainers (2, 3), sliding door seal (4), shim (5), and door post (6) with stubby screwdriver. Take out retainers (2, 3), seal (4), and shim (5) from door post (6). Get rid of seal (4) and shim (5).
3. Look at retainers (2, 3) for cracks and bends. Turn in bad parts. Set good parts aside for later use.

Install Seal:

WARNING

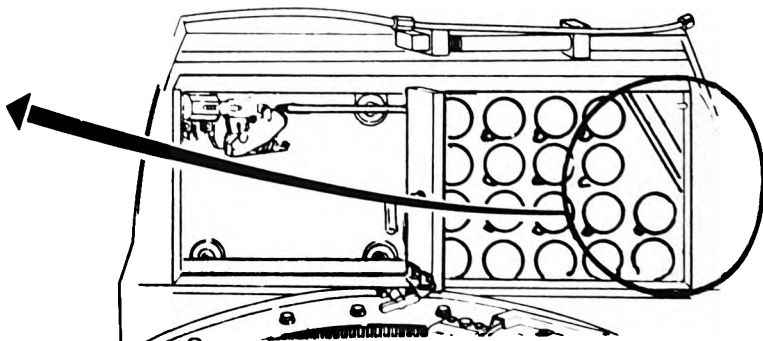
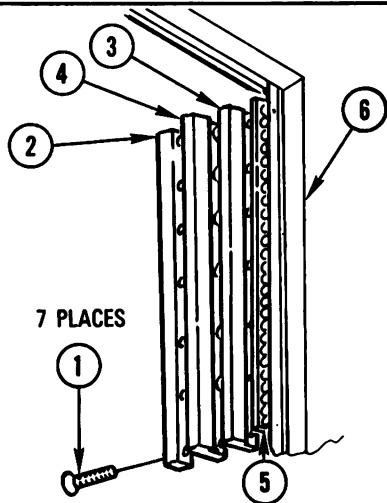
Lubricating oil can cause skin rash. If oil gets on skin or clothing, wash with soap and water.

4. Spread a light coat of oil on threads of seven screws (1).
5. Put two retainers (2, 3), new sliding door seal (4), and new shim (5) on one screw (1).
6. Screw in, but do not tighten, one screw (1) to hold retainers (2, 3), seal (4), and shim (5) in place on door post (6).
7. Screw in other six screws (1) with stubby screwdriver. Tighten all seven screws (1) with offset screwdriver.

Follow-on Maintenance:

1. Manually close sliding metal ready ammunition door; refer to TM 9-2350-255-10.
2. Connect ammo door hydraulic actuator; refer to task 29.
3. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.
4. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 15 ENDS HERE



ARR82-0922

TASK 16. Replace Sliding Metal Stowage Door Right Side Door Post Seal**Applicability:** All Models**Common Tools:**

Screwdriver, cross tip, No. 2, stubby
Screwdriver, offset, cross tip, No. 3
Wrench, combination, 7/16-inch

Special Tools: None**Supplies:**

NOTE: Expendable supplies are defined in appendix A.
Lubricating Oil, MIL-L-3150 (Item 31)
Seal, retainer (19207) 12287453
Shim (19207) 12288784

Personnel: One**Equipment Condition:**

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Disconnect ammo door hydraulic actuator; refer to task 1.
4. Unlock sliding metal ammunition stowage door; refer to TM 9-2350-255-10.

FRAME 23**Remove Seal:**

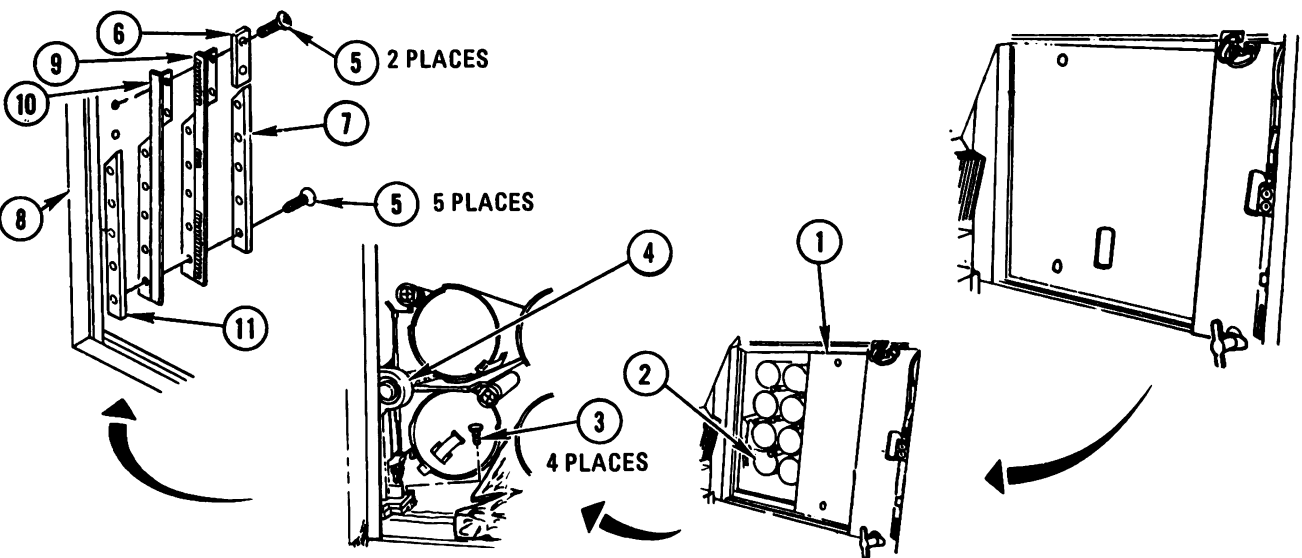
1. Open sliding metal stowage door (1) halfway.

NOTE

- Rotate ammunition rack (2) as needed for access to work area; refer to TM 9-2350-255-10.
- Do not pull out on ammunition rack (2) or rack (2) may be displaced.

2. Unscrew and take out four screws (3) from ammunition rack post (4) with wrench. Take out post (4).
3. Loosen seven screws (5) on packing retainers (6, 7) on right door post (8) with offset screwdriver.
4. Unscrew and take out two screws (5) from upper packing retainer (6), packing retainer (9), retainer seal (10), and bustle wall with stubby screwdriver. Take off retainer (6). Look at retainer (6) for cracks and bends. If bad turn in. If OK set aside for later use.
5. Unscrew and take out five screws (5) from lower packing retainer (7), retainer (9), seal (10), shim (11), and door post (8) with stubby screwdriver.
6. Take out retainer (7), retainer (9), seal (10), and shim (11) from door post (8). Get rid of seal (10) and shim (11).
7. Look at retainer (7) and retainer (9) for cracks and bends. Turn in bad parts. Set good parts aside for later use.

GO TO FRAME 24



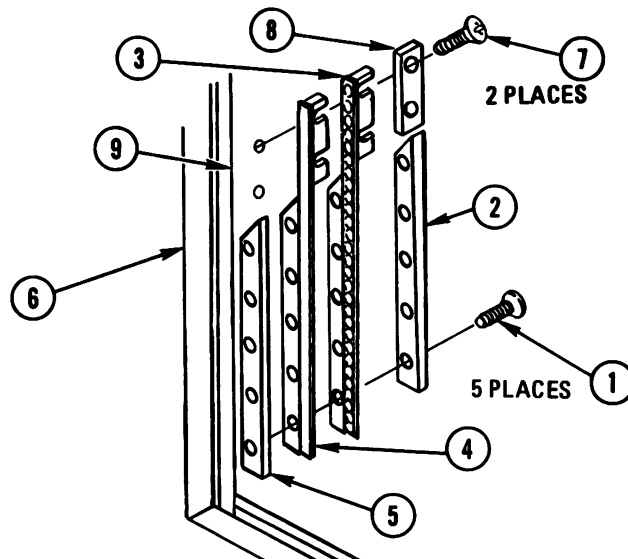
ARR82-0923

FRAME 24**Install Seal:****WARNING**

Lubricating oil can cause skin rash. If oil gets on skin or clothing, wash with soap and water.

1. Spread a light coat of oil on threads of five screws (1).
2. Put lower packing retainer (2), packing retainer (3), new retainer seal (4), and new shim (5) on one screw (1).
3. Screw in, but do not tighten, one screw (1) to hold retainers (2, 3), seal (4), and shim (5) in place on door post (6). Screw in other four screws (1) with stubby screwdriver.
4. Spread a light coat of oil on threads of two screws (7).
5. Line up holes in upper packing retainer (8), retainer (3), and seal (4) with holes in bustle wall (9).
6. Screw two screws (7) in retainers (8, 3) and seal (4) with stubby screwdriver.
7. Tighten all seven screws (1, 7) with offset screwdriver.

GO TO FRAME 25



ARR82-0924

FRAME 25

Install Seal (Continued):

NOTE

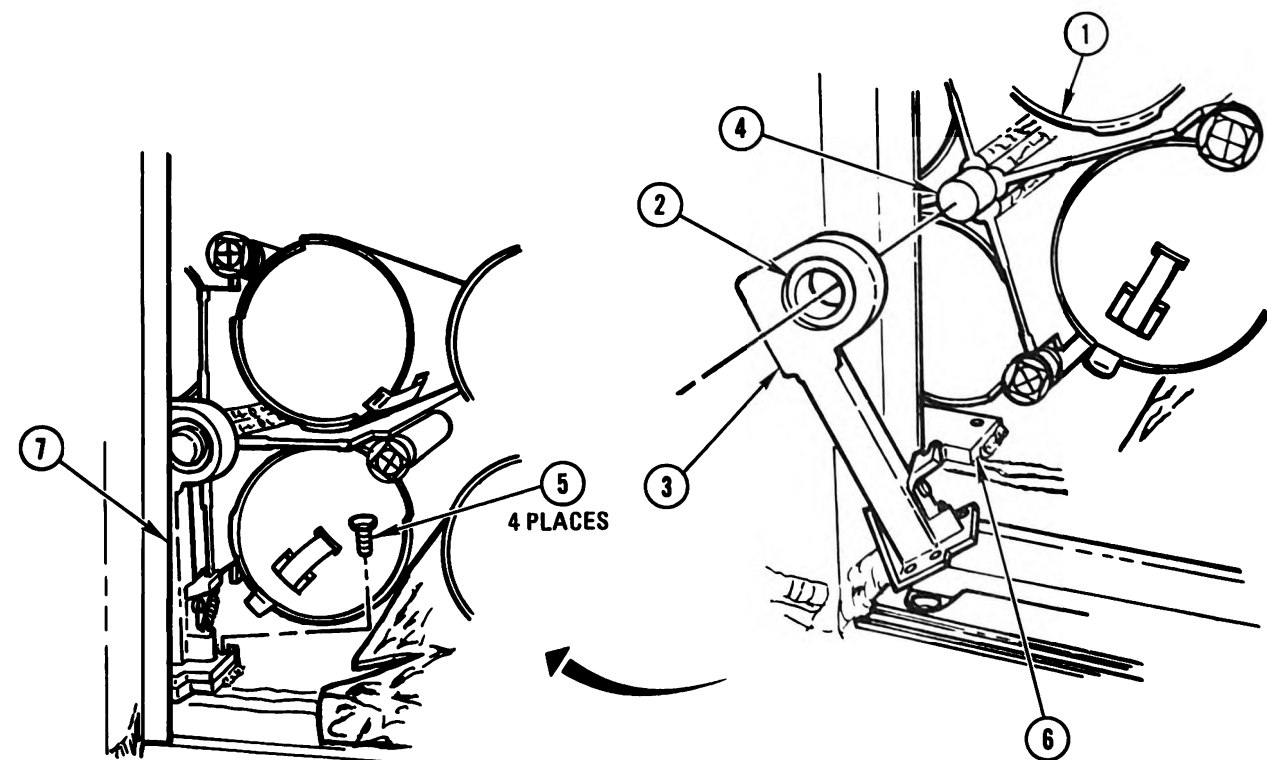
Rotate ammunition rack (1) as needed for access to work area.

1. Line up bearing hole (2) in ammunition rack post (3) with pin (4) on ammunition rack (1).
2. Spread a light coat of oil on threads of four screws (5).
3. Line up four holes in post (3) with holes in pad (6) in bustle compartment (7).
4. Screw in and tighten four screws (5) in post (3) and pad (6) with wrench.

Follow-on Maintenance:

1. Connect ammo door hydraulic actuator; refer to task 29.
2. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.
3. Lock sliding metal stowage ammunition door; refer to TM 9-2350-255-10.
4. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 16 ENDS HERE



ARR82-0925

TASK 17. Replace Sliding Metal Stowage Door Center Seal

Applicability: All Models

Common Tools:

- Screwdriver, cross tip, No. 4
- Screwdriver, offset, cross tip, No. 4

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Lubricating Oil, MIL-L-3150 (Item 31)
 - Seal, sliding door (19207) 12287463

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Disconnect ammo door hydraulic actuator; refer to task 1.
4. Manually open and lock sliding metal ready ammunition door in full open position; refer to TM 9-2350-255-10.
5. Unlock sliding metal ammunition stowage door; refer to TM 9-2350-255-10.

FRAME 26

Remove Retainer and Seal:

1. Open sliding metal stowage door (1) halfway.
2. Loosen seven screws (2) with offset screwdriver.
3. Unscrew and take out seven screws (2) from seal retainer (3), sliding door seal (4), and sliding metal stowage door (1) with screwdriver. Lift off retainer (3) and seal (4). Get rid of seal (4).
4. Look at retainer (3) for cracks and bends. If bad turn in. If OK set aside for later use.

Install Retainer and Seal:

WARNING

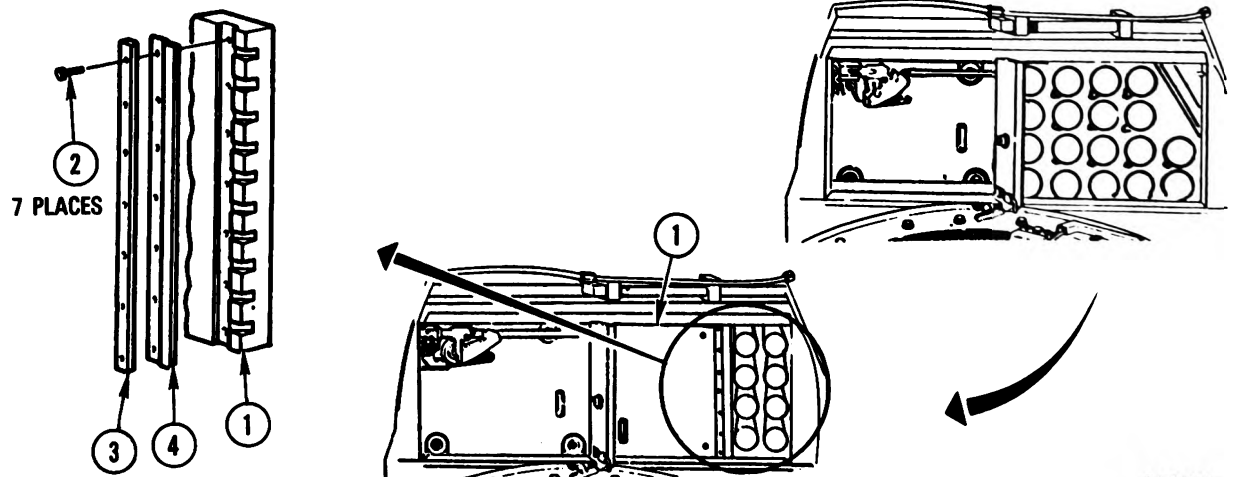
Lubricating oil can cause skin rash. If oil gets on skin or clothing, wash with soap and water.

5. Spread a light coat of oil on threads of seven screws (2).
6. Line up holes in retainer (3) and new sliding door seal (4) with holes in sliding metal stowage door (1).
7. Screw in seven screws (2) to retainer (3) and seal (4) with screwdriver. Tighten seven screws (2) with offset screwdriver.

Follow-on Maintenance:

1. Close and lock sliding metal ammunition stowage door; refer to TM 9-2350-255-10.
2. Unlock and close sliding metal ready ammunition door; refer to TM 9-2350-255-10.
3. Connect ammo door hydraulic actuator; refer to task 29.
4. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.
5. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 17 ENDS HERE



ARR82-0926

TASK 18. Replace Sliding Metal Ready Door Lock**Applicability:** All Models**Common Tools:**

Hammer, ball peen
Pliers, long round nose
Screwdriver, flat tip, No. 3

Special Tools: None**Supplies:**

Pin, spring (96906) MS16562-17
Ring, retaining (96906) MS3215-4037
Shaft (19207) 12285703
Spring, helical, compression (96906) MS24585C341

Personnel: One**Equipment Condition:**

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Disconnect ammo door hydraulic actuator; refer to task 1.
4. Set sliding metal ready ammunition door to manual operation, and in full open position; refer to TM 9-2350-255-10.

FRAME 26

Remove Retainer and Seal:

1. Open sliding metal stowage door (1) halfway.
2. Loosen seven screws (2) with offset screwdriver.
3. Unscrew and take out seven screws (2) from seal retainer (3), sliding door seal (4), and sliding metal stowage door (1) with screwdriver. Lift off retainer (3) and seal (4). Get rid of seal (4).
4. Look at retainer (3) for cracks and bends. If bad turn in. If OK set aside for later use.

Install Retainer and Seal:

WARNING

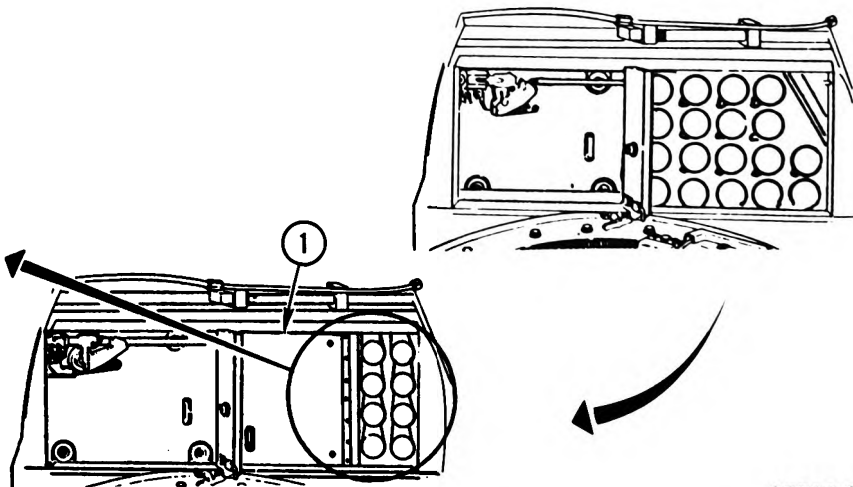
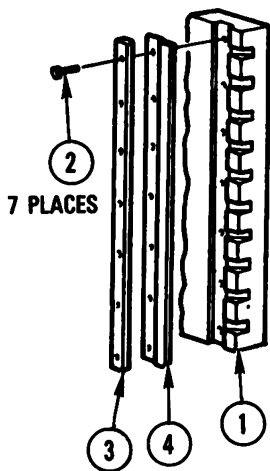
Lubricating oil can cause skin rash. If oil gets on skin or clothing, wash with soap and water.

5. Spread a light coat of oil on threads of seven screws (2).
6. Line up holes in retainer (3) and new sliding door seal (4) with holes in sliding metal stowage door (1).
7. Screw in seven screws (2) to retainer (3) and seal (4) with screwdriver. Tighten seven screws (2) with offset screwdriver.

Follow-on Maintenance:

1. Close and lock sliding metal ammunition stowage door; refer to TM 9-2350-255-10.
2. Unlock and close sliding metal ready ammunition door; refer to TM 9-2350-255-10.
3. Connect ammo door hydraulic actuator; refer to task 29.
4. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.
5. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 17 ENDS HERE



ARR82-0926

TASK 18. Replace Sliding Metal Ready Door Lock

Applicability: All Models

Common Tools:

- Hammer, ball peen
- Pliers, long round nose
- Screwdriver, flat tip, No. 3

Special Tools: None

Supplies:

- Pin, spring (96906) MS16562-17
- Ring, retaining (96906) MS3215-4037
- Shaft (19207) 12285703
- Spring, helical, compression (96906) MS24585C341

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Disconnect ammo door hydraulic actuator; refer to task 1.
4. Set sliding metal ready ammunition door to manual operation, and in full open position; refer to TM 9-2350-255-10.

FRAME 27

Remove Ready Door Lock:

1. Take retaining ring (1) off shaft (2) with pliers and screwdriver. Pull shaft (2) out of blocks (3, 5). Take out compression helical spring (4) from between blocks (3, 5).
2. Turn in ring (1), shaft (2) with spring pin (6), and spring (4).

Install Ready Door Lock:

NOTE

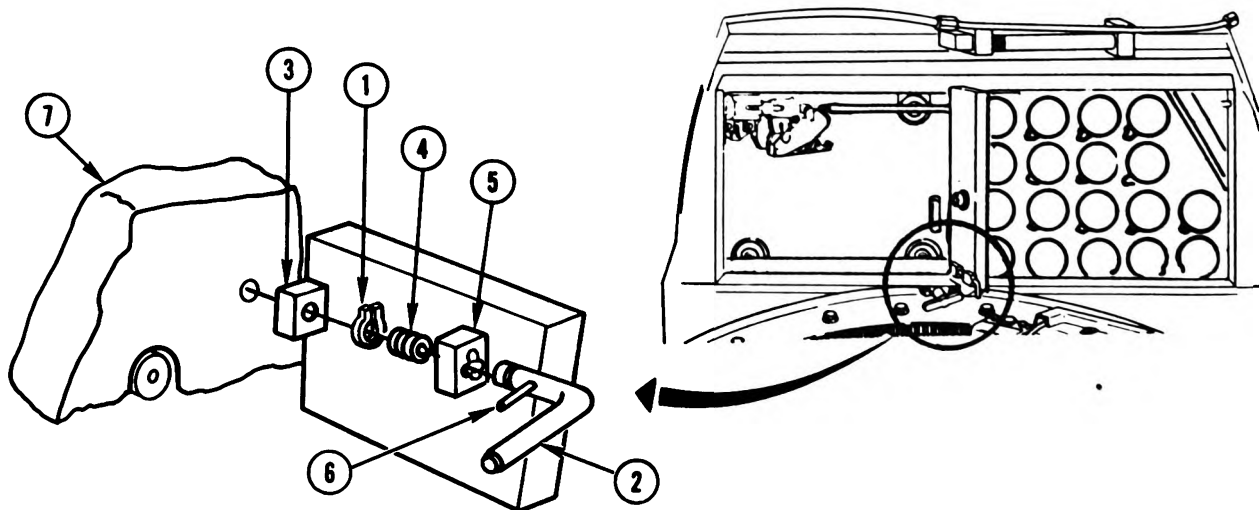
New spring pin (6) should stick out same amount on each side of new shaft (2) when put in.

3. Tap new pin (6) in hole of new shaft (2) with hammer. Position new compression helical spring (4) between blocks (3, 5). Slide shaft (2) through block (5), spring (4), block (3), and hole in sliding metal ready door (7).
4. Squeeze spring (4) and put new retaining ring (1) on shaft (2) with pliers.

Follow-on Maintenance:

1. Unlock and close sliding metal ready ammunition door; refer to TM 9-2350-255-10.
2. Connect ammo door hydraulic actuator; refer to task 29.
3. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.
4. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 18 ENDS HERE



ARR82-0927

TASK 19. Install Headless Shoulder Pin

Applicability: All Models

Common Tools:

Bar, torque wrench
Extension, socket wrench, 3/4-inch square drive, 8-inch
Handle, socket wrench, hinged, 3/4-inch square drive
Oiler, hand
Wrench, torque, 0 to 1200 foot-pounds (Power Dyne)

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Oil, lubricating, MIL-L-3150 (Item 31)
Socket, socket wrench, 3/4-inch square drive, 2-1/4 inch (Fabricated)

Personnel: Two

Soldier A: Install headless shoulder pin.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove headless shoulder pin; refer to task 11.

FRAME 28

Install Pin:

WARNING

Lubricating oil can cause skin rash. If oil gets on skin or clothing, wash with soap and water.

NOTE

Open and close sliding metal ready door (1) and sliding metal stowage door (2) as needed to put in headless shoulder pin (3).

Soldier A: 1. Spread a light coat of oil on threads of pin (3) with oiler.

Soldier A: 2. Push pin (3) through opening in door (1).

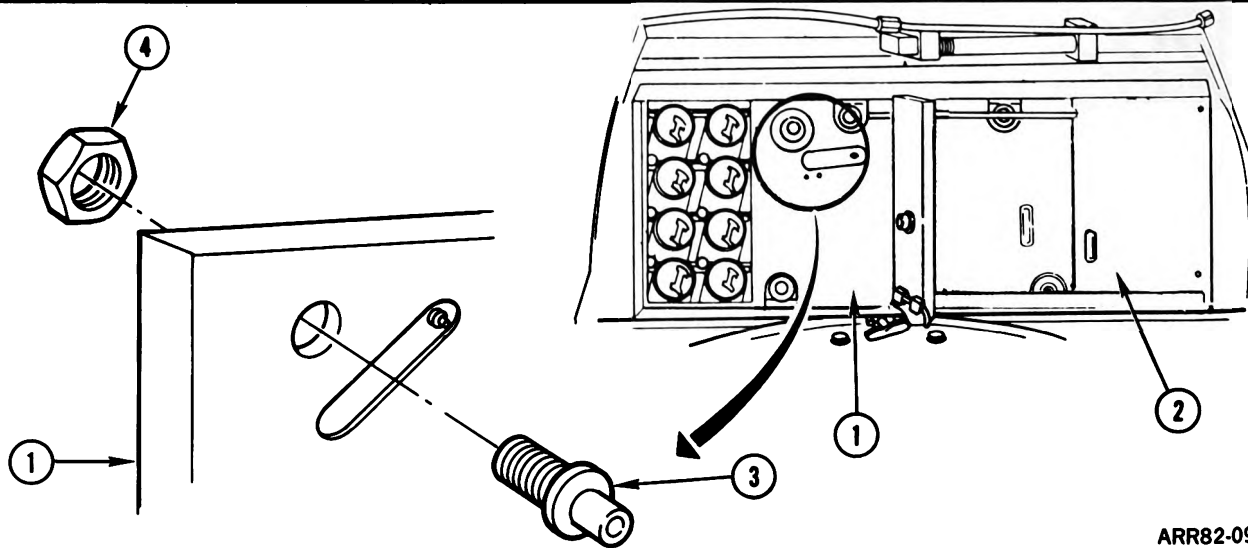
Soldier A: 3. Using fabricated socket, extension, and handle, screw on and tighten nut (4) on pin (3) from inside bustle ammunition compartment.

Soldier A,
Soldier B: 4. Using fabricated socket, extension, torque wrench, and bar, torque nut (4) between 800 and 880 pound feet (1085 and 1193 Newton meters).

Follow-on Maintenance:

1. Install left and right center bustle ammunition racks; refer to para. 3-13, task 8.
2. Install blow-off plates; refer to para. 3-14, task 2.
3. Install arm latch; refer to task 20.
4. Install actuator arm, hook, and housing assembly; refer to task 24.
5. Install commander's ammunition door guard; refer to TM 9-2350-255-10.
6. Lock sliding metal ammunition stowage door; refer to TM 9-2350-255-10.
7. Set sliding metal ready ammunition door to automatic operation; refer to TM 9-2350-255-10.

TASK 19 ENDS HERE



ARR82-0928

TASK 20. Install Arm Latch

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, long round nose
Socket, socket wrench, deep style, 3/8-inch square drive, 9/16-inch
Socket, socket wrench, 3/8-inch square drive, 3/4-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Sealing Compound, MIL-S-46163 (Item 49)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove arm latch; refer to task 10.

FRAME 29

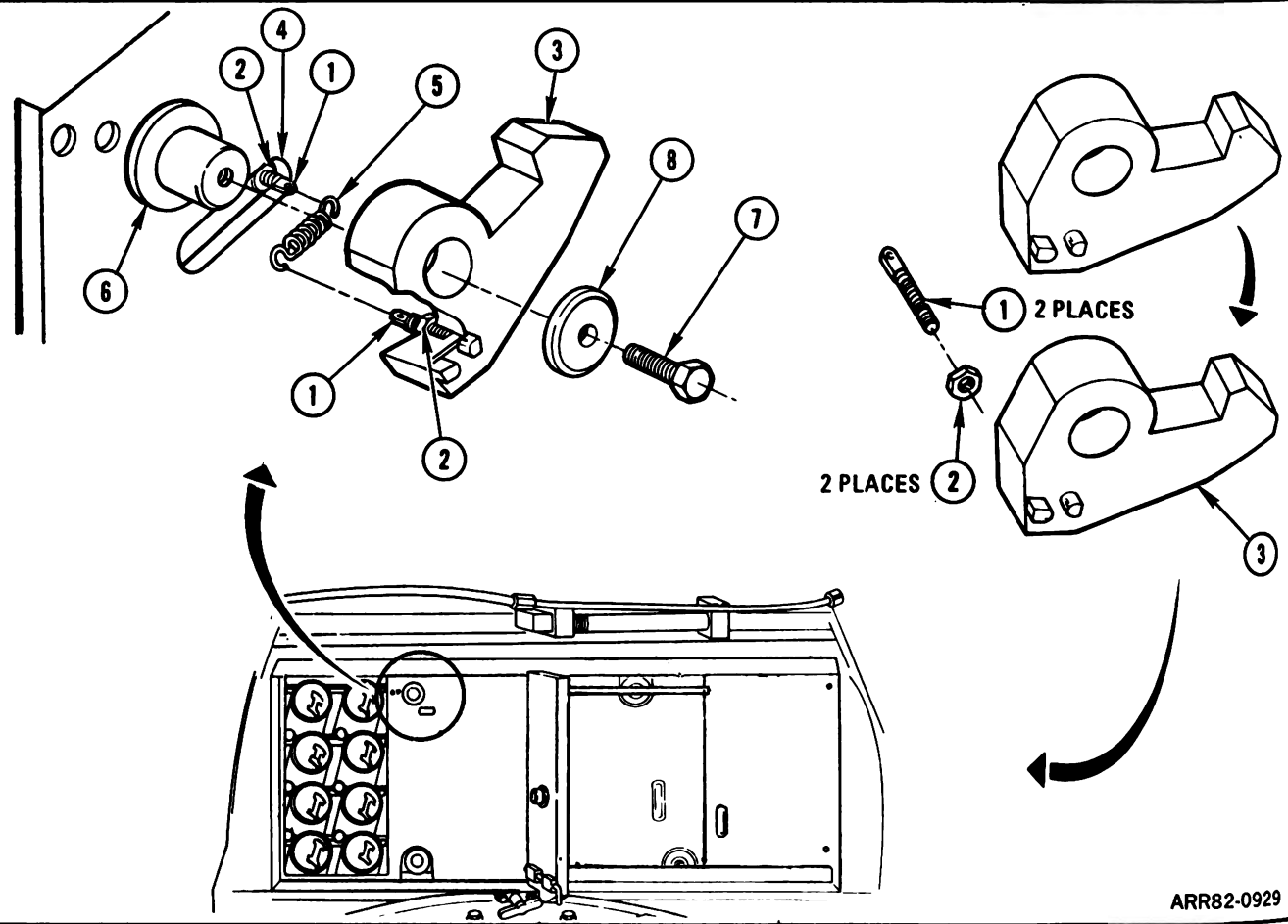
Install Latch:

1. Spread a light coat of sealing compound on threads of threaded straight pins (1). Screw one nut (2) all the way on each pin (1). Screw one pin (1) in arm latch (3) and one pin (1) on sliding metal ready door (4) with wrench. Tighten nuts (2) on pins (1) against latch (3) and door (4) with 9/16-inch socket and handle.
2. Put extension helical spring (5) on two pins (1) with pliers. Push latch (3) on headless shoulder pin (6).
3. Spread a light coat of sealing compound on threads of screw (7). Put flat washer (8) on screw (7). Screw in and tighten screw (7) on pin (6) with 3/4-inch socket and handle.

Follow-on Maintenance:

1. Install actuator arm, hook, and housing assembly; refer to task 24.
2. Close and lock sliding metal ammunition stowage door; refer to TM 9-2350-255-10.
3. Connect ammo door hydraulic actuator; refer to task 29.
4. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.
5. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 20 ENDS HERE



TASK 21. Install Clamp Hook and Latch Mounting Plate

Applicability: All Models

Common Tools:

Hammer, ball peen
Pliers, long round nose
Wrench, combination, 7/16-inch

Special Tools: None

Supplies:

Pin, straight, headless (96906) MS51838-274

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove clamp hook and latch mounting plate; refer to task 9.

FRAME 30

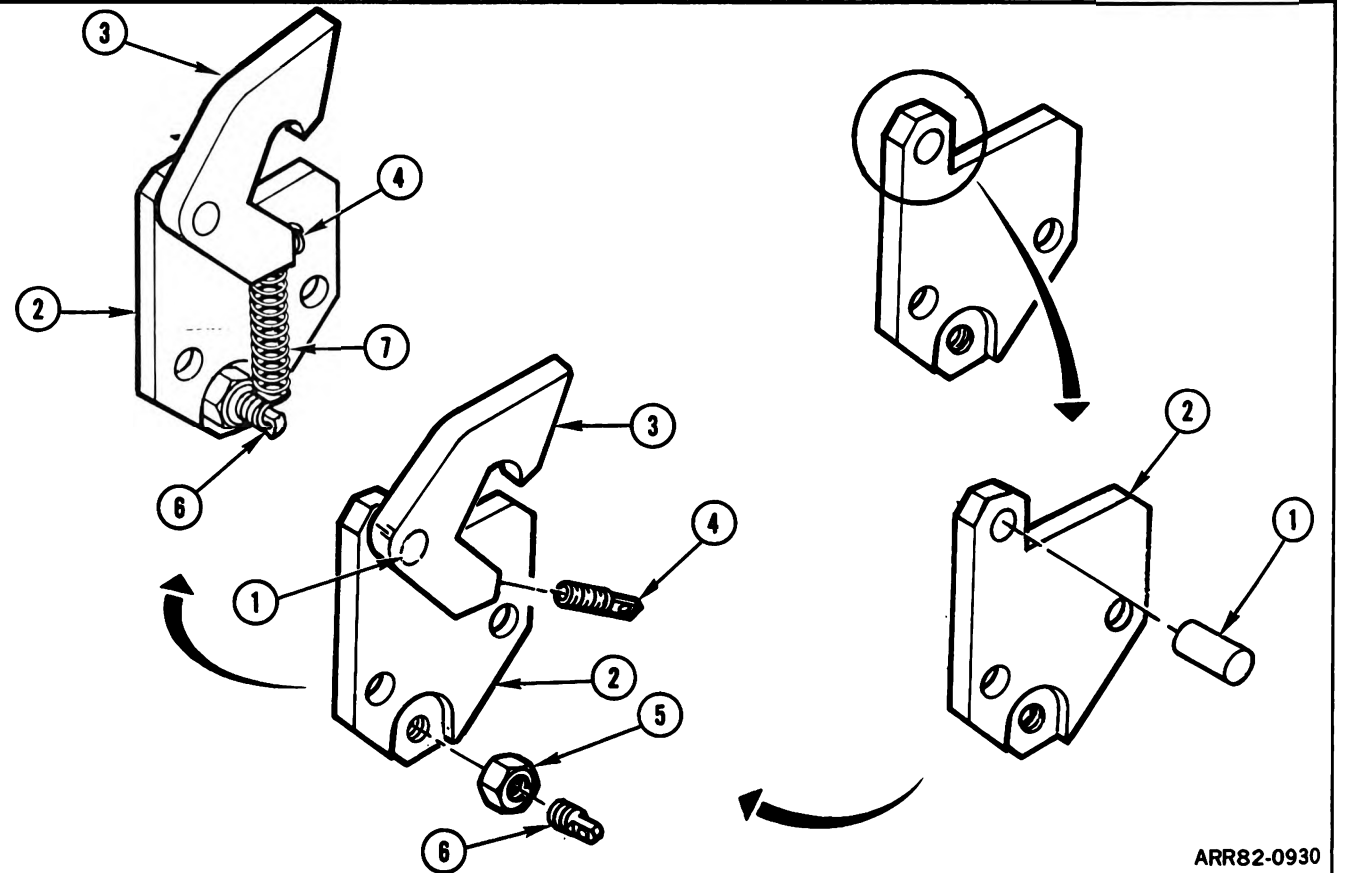
Install Hook and Latch Plate:

1. Drive new headless straight pin (1) in latch mounting plate (2) with hammer until pin (1) is even with back surface of plate (2).
2. Put clamp hook (3) on pin (1).
3. Screw in and tighten smaller threaded straight pin (4) in hook (3) with pliers.
4. Screw nut (5) on larger threaded straight pin (6).
5. Screw in and tighten pin (6) in plate (2) with pliers.
6. Tighten nut (5) against plate (2) with wrench.
7. Hook one end of extension helical spring (7) on pin (4) in hook (3) with pliers. Stretch and hook other end of spring (7) on pin (6) in plate (2) with pliers.

Follow-on Maintenance:

1. Install mechanical drive housing; refer to task 23.
2. Install actuator arm, hook, and housing assembly; refer to task 24.

TASK 21 ENDS HERE



ARR82-0930

TASK 22. Install Latch Release Bracket

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Rule, steel, machinist's, 6-inch
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, torque 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Pencil, writing (Item 42)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove latch release bracket; refer to task 8.

FRAME 31

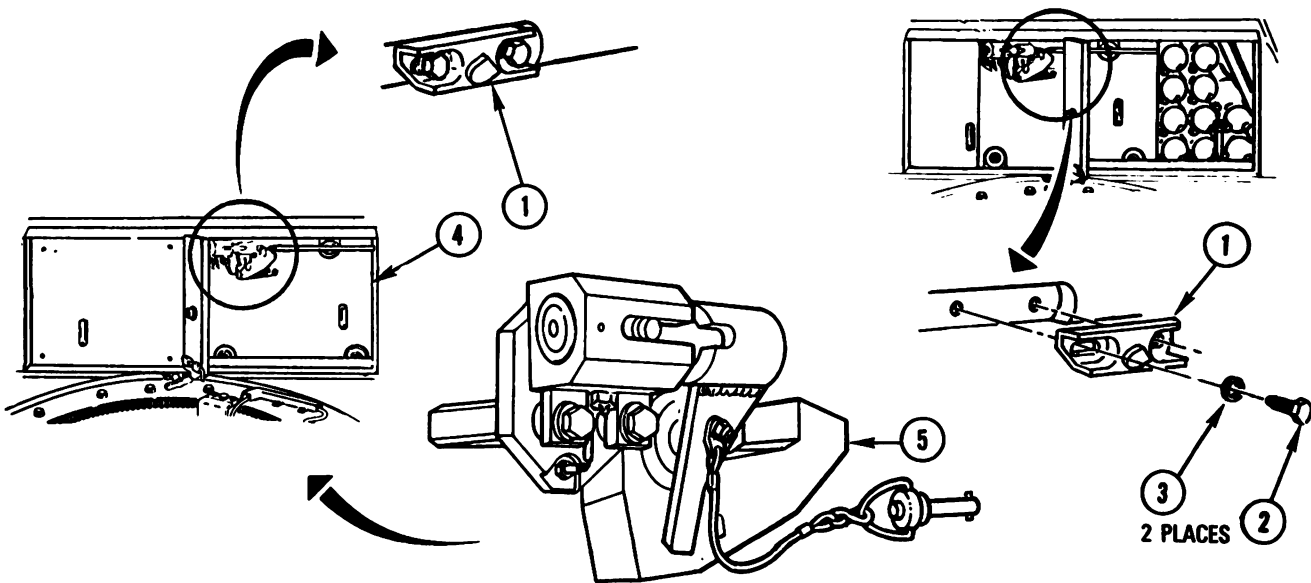
Install and Adjust Bracket:

1. Line up holes in bracket (1) with holes in turret.
2. Screw in, but do not tighten, two screws (2) and two washers (3) to bracket (1) and turret.
3. Slide bracket (1) all the way to the right. Tighten two screws (2) with socket and handle.
4. Close sliding metal ready ammunition door (4) and watch arm latch (5) close; refer to TM 9-2350-255-10. If latch (5) does not close, do steps 5 and 6. If latch (5) closes, go to step 7.
5. Open door (4); refer to TM 9-2350-255-10. Mark turret at right edge of bracket (1) with pencil. Loosen two screws (2) with socket and handle. Measure 1/8-inch from mark to the left with rule and make a second mark with pencil.
6. Slide bracket (1) to the left until right edge of bracket (1) is in line with second mark. Tighten two screws (2) with socket and handle. Do step 4 again.
7. Open door (4); refer to TM 9-2350-255-10. Torque two screws (2) between 100 and 110 pound inches (11 and 12 Newton meters).

Follow-on Maintenance:

1. Connect ammo door hydraulic actuator; refer to task 29.
2. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.
3. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 22 ENDS HERE



ARR82-0931

TASK 23. Install Mechanical Drive Housing

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, combination, 7/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Sealing Compound, MIL-S-46163 (Item 49)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove mechanical drive housing; refer to task 7.

FRAME 32

Install Housing:

NOTE

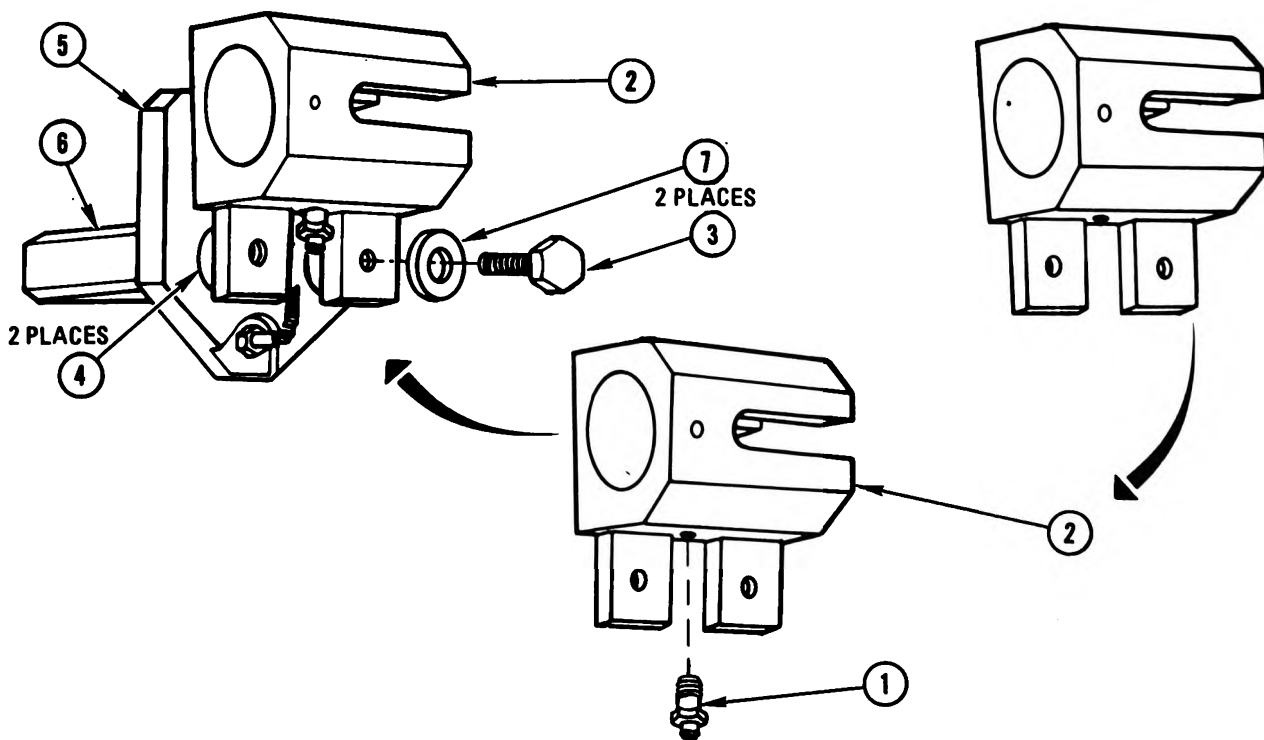
If lubrication fitting (1) and mechanical drive housing (2) are not new, skip step 1.

1. Screw in and tighten new fitting (1) in new housing (2) with wrench.
2. Spread a thin coat of sealing compound on threads of two screws (3).
3. Put housing (2) in place on two sleeve spacers (4), latch mounting plate (5), and plate spacer (6).
4. Screw in and tighten two screws (3) and washers (7) in housing (2), spacers (4), plate (5), and spacer (6) with socket and handle.

Follow-on Maintenance:

Install actuator arm, hook, and housing assembly; refer to task 24.

TASK 23 ENDS HERE



ARR82-0932

TASK 24. Install Actuator Arm, Hook, and Housing Assembly

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds
Mirror, inspection

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Sealing Compound, MIL-S-46163 (Item 49)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove actuator arm, hook, and housing assembly; refer to task 6.

FRAME 33

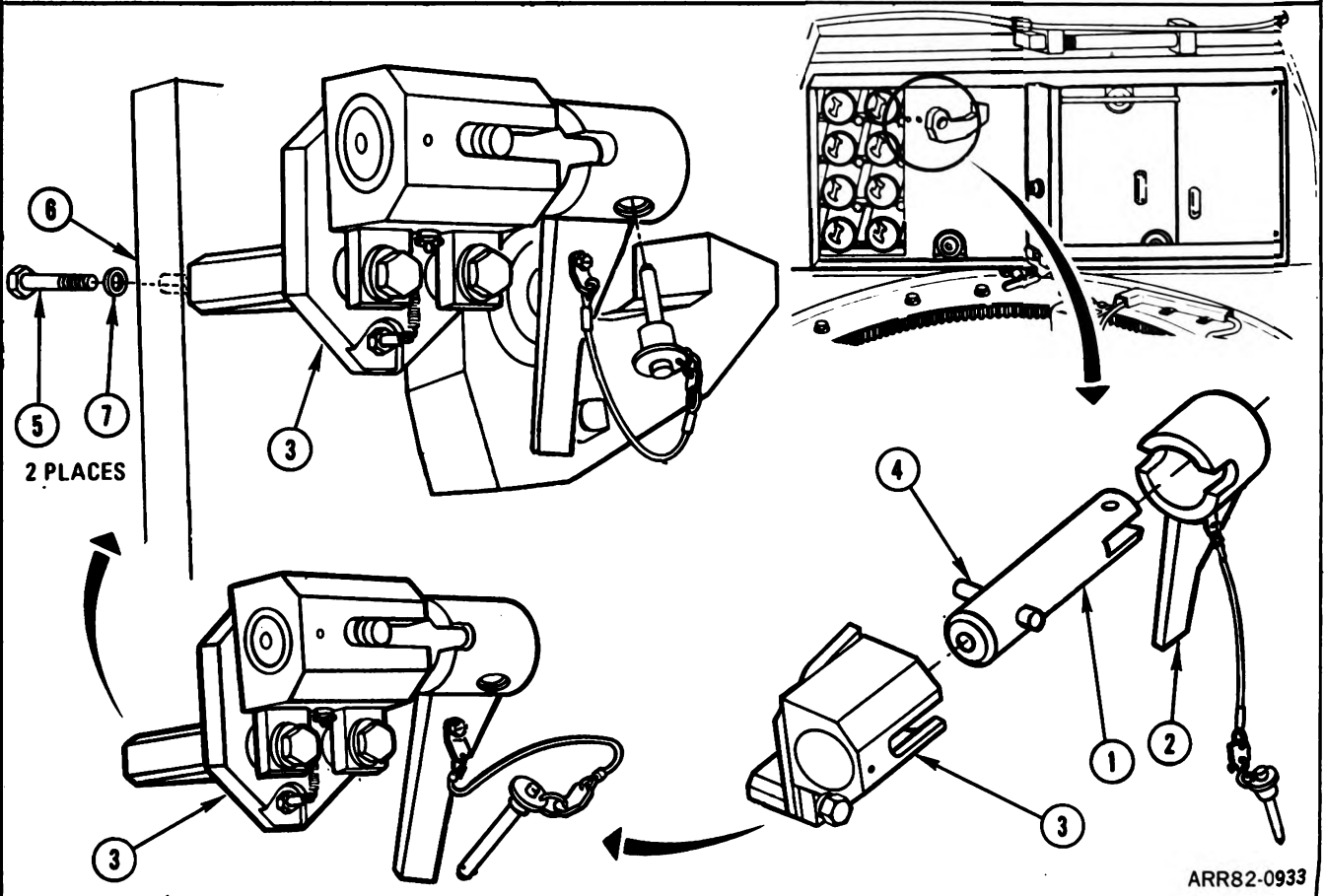
Install Hook and Housing:

1. Put straight shaft (1) and arm (2) in place on hook and housing assembly (3) with short pin (4) facing out.
2. Spread a light coat of sealing compound on threads of two screws (5).
3. Hold hook and housing assembly (3) in place on outside of sliding metal ready door (6).
4. Screw in and tighten two screws (5) and washers (7) from inside bustle ammunition compartment with socket and handle.
5. Using mirror to read meter on wrench, torque screws (5) between 480 and 540 pound inches (54 and 61 Newton meters).

Follow-on Maintenance:

1. Close and lock sliding metal ammunition stowage door; refer to TM 9-2350-255-10.
2. Set sliding metal ready ammunition door for automatic operation; refer to TM 9-2350-255-10.
3. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.
4. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 24 ENDS HERE



TASK 25. Install Sliding Metal Stowage Door Lower Roller Assembly

Applicability: All Models

Common Tools:

Adapter, 1/2-inch female to 3/8-inch male
Extension, socket wrench, 3/8-inch square drive, 12-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket Wrench Attachment, socket head screw, 3/8-inch square drive, 3/8-inch hex
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 175 foot-pounds
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lubricating Oil, MIL-L-3150 (Item 31)
Sealing Compound, MIL-S-46163 (Item 49)

Personnel: Two

Soldier A: Installs sliding metal stowage door lower roller assembly.
Soldier B: Helps Soldier A.

NOTE

Soldier B needed in frame 35 only.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove sliding metal stowage door lower roller assembly; refer to task 5.

FRAME 34

Install Lower Roller:

WARNING

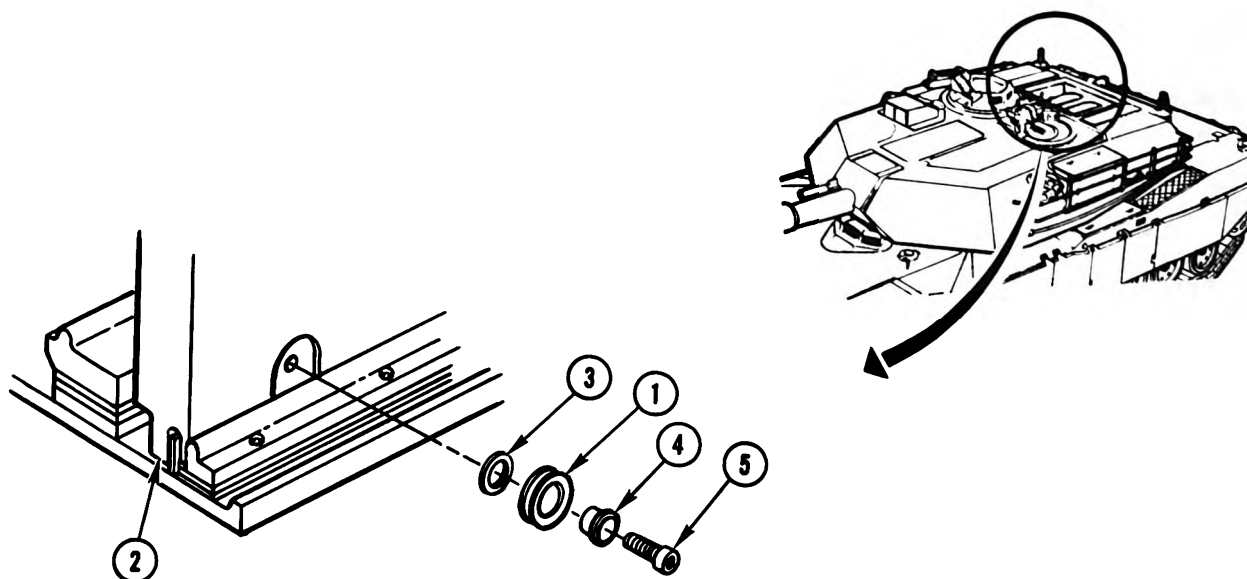
Lubricating oil can cause skin rash. If oil gets on skin or clothing, wash with soap and water.

NOTE

Use this task to put right or left lower roller assembly (1) on sliding metal stowage door (2). Left lower roller assembly (1) is shown.

1. Spread a light coat of oil on washer bearing (3), axle (4), and threads of screw (5).
2. Put axle (4) in roller (1), so flange of axle (4), is in groove of roller (1).
3. Line up hole in roller (1), bearing (3), and axle (4) with hole in door (2).
4. Screw in and tighten screw (5) to roller (1), bearing (3), axle (4), and door (2) with handle and socket wrench attachment.
5. Torque screw (5) between 70 and 75 pound feet (95 and 102 Newton meters) with socket wrench attachment, adapter, and wrench.
6. Roll door (2) off screwdriver. Close door (2).

GO TO FRAME 35



ARR82-0934

FRAME 35

Install Right Center Bustle Ammunition Rack:

Soldier A,

Soldier B: 1. Push in ammunition rack (1) until rear retainer (2) mates with mount (3).

NOTE

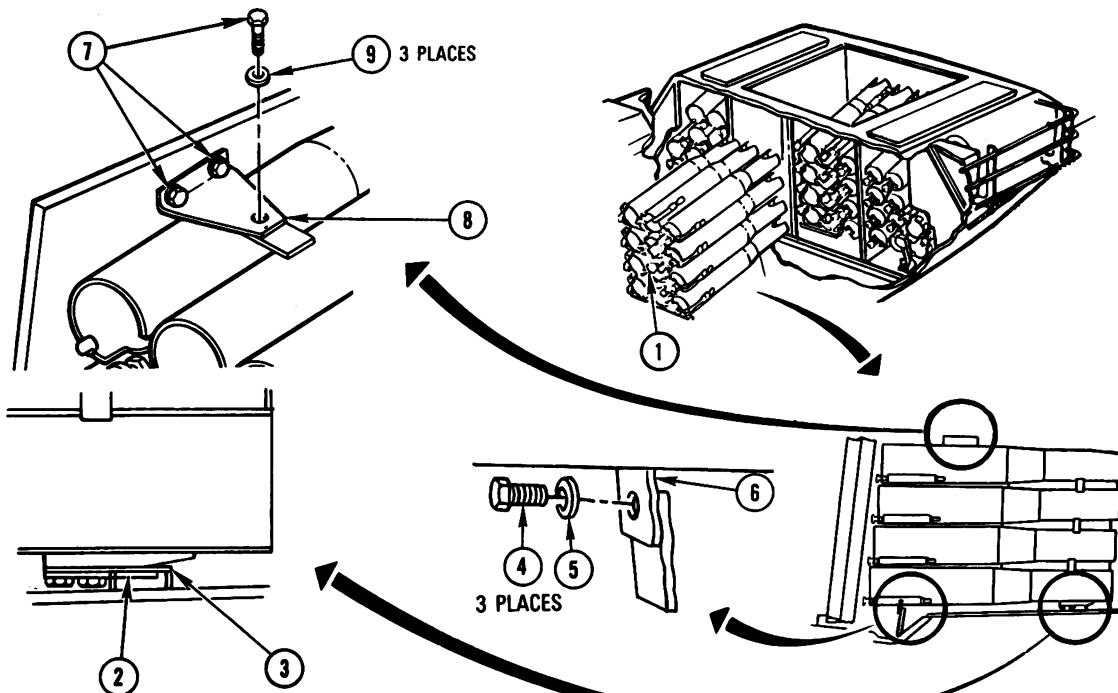
Soldier B is no longer needed in this task.

2. Put sealing compound on threads of three screws (4). Screw in three screws (4) and washers (5) to bottom front mount (6) with socket, extension, and handle.
3. Put sealing compound on threads of three screws (7). Put angle bracket (8) in position and screw in three screws (7) and washers (9) in bracket (8) with socket, extension, and handle.
4. Torque six screws (4, 7) between 335 and 385 pound inches (38 and 43 Newton meters).

Follow-on Maintenance:

1. Install blow-off plate (center); refer to para. 3-14, task 2.
2. Close sliding metal ammunition stowage door; refer to TM 9-2350-255-10.
3. Lock sliding metal ammunition stowage door; refer to TM 9-2350-255-10.
4. Connect ammo door hydraulic actuator; refer to task 29.
5. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.
6. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 25 ENDS HERE



ARR82-0935

TASK 26. Install Sliding Metal Stowage Door Upper Roller Assembly

Applicability: All Models

Common Tools:

Adapter, 1/2-inch female to 3/8-inch male
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket Wrench Attachment, socket head screw, 3/8-inch square drive, 3/8-inch hex
Wrench, torque, 0 to 175 foot-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lubricating Oil, MIL-L-3150 (Item 31)

Personnel: One

NOTE

Two soldiers are needed to put in both upper roller assemblies.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove sliding metal stowage door upper roller assembly; refer to task 4.

FRAME 36**Install Upper Roller:****WARNING**

Lubricating oil can cause skin rash. If oil gets on skin or clothing, wash with soap and water.

NOTE

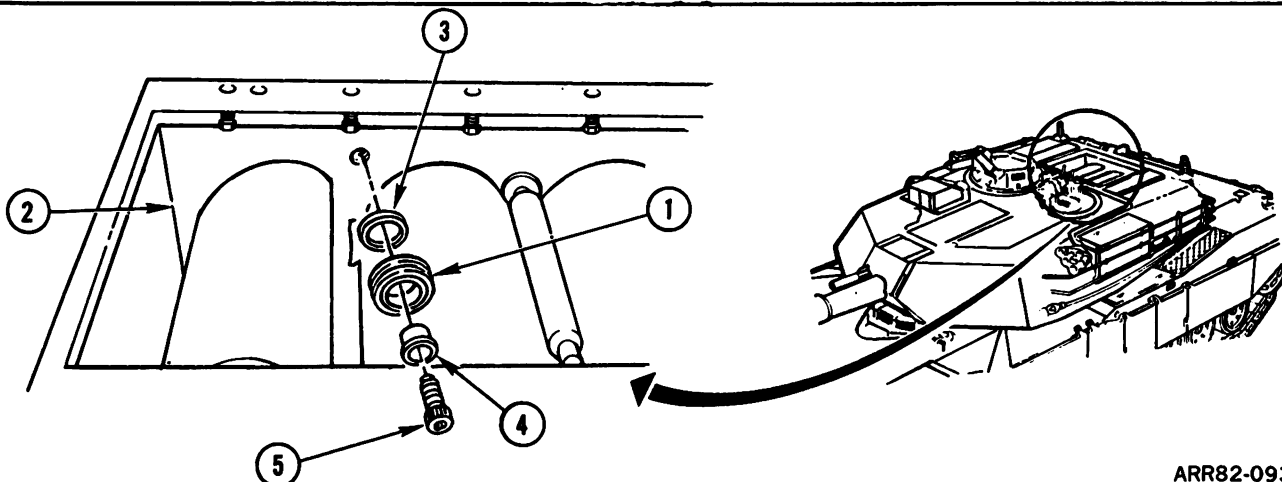
- If both upper roller assemblies (1) were taken off to take out sliding metal stowage door (2), Soldier B must hold door (2) in place.
- Use this task to put on any upper roller assembly (1) on sliding metal stowage door (2). One upper roller assembly (1) is shown.

1. Spread a light coat of oil on washer bearing (3), axle (4), and threads of screw (5).
2. Put axle (4) in roller (1), so that flange of axle is in groove of roller (1).
3. Line up hole in roller (1), bearing (3), and axle (4) with hole in door (2).
4. Screw in and tighten screw (5) to roller (1), bearing (3), axle (4), and door (2) with socket wrench attachment and handle.
5. Torque screw (5) between 70 and 75 pound feet (95 and 102 Newton meters) with socket wrench attachment, adapter, and wrench.

Follow-on Maintenance:

1. Install blow-off plate (center); refer to para. 3-14, task 2.
2. Lock sliding metal ammunition stowage door; refer to TM 9-2350-255-10.
3. Connect ammo door hydraulic actuator; refer to task 29.
4. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.
5. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 26 ENDS HERE



ARR82-0936

TASK 27. Install Sliding Metal Ready Door Lower Roller Assembly

Applicability: All Models

Common Tools:

Adapter, 1/2-inch female to 3/8-inch male
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket Wrench Attachment, socket head screw, 3/8-inch square drive, 3/8-inch hex
Wrench, torque, 0 to 175 foot-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lubricating Oil, MIL-L-3150 (Item 31)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove sliding metal ready door lower roller assembly; refer to task 3.

FRAME 37**Install Lower Roller:****WARNING**

Lubricating oil can cause skin rash. If oil gets on skin or clothing, wash with soap and water.

NOTE

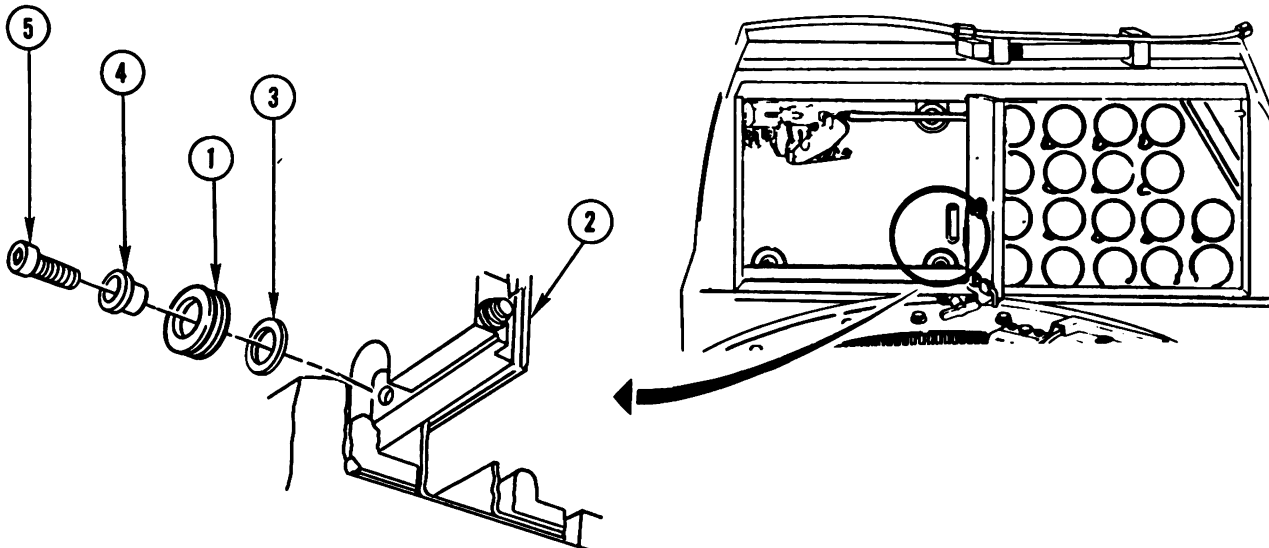
Use this task to put right or left lower roller assembly (1) on sliding metal ready door (2). Left lower roller assembly (1) is shown.

1. Spread a light coat of oil on washer bearing (3), axle (4), and threads of screw (5). Put axle (4) in roller (1) so that flange of axle (4) is in groove of roller (1).
2. Line up hole in roller (1), bearing (3), and axle (4) with hole in door (2).
3. Screw in and tighten screw (5) to roller (1), bearing (3), axle (4), and door (2) with socket wrench attachment and handle.
4. Torque screw (5) between 70 and 75 pound feet (95 and 102 Newton meters) with socket wrench attachment, adapter, and wrench. Roll door (2) off screwdriver.

Follow-on Maintenance:

1. Connect ammo door hydraulic actuator; refer to task 29.
2. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.
3. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 27 ENDS HERE



ARR82-0937

TASK 28. Install Sliding Metal Ready Door Upper Roller Assembly

Applicability: All Models

Common Tools:

Adapter, 1/2-inch female to 3/8-inch male
Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket Wrench Attachment, socket head screw, 3/8-inch square drive, 3/8-inch hex
Wrench, torque, 0 to 175 foot-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lubricating Oil, MIL-L-3150 (Item 31)

Personnel: One

NOTE

Two soldiers are needed if both upper roller assemblies are installed.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove sliding metal ready door upper roller assembly; refer to task 2.

FRAME 38**Install Upper Roller:****WARNING**

Lubricating oil can cause skin rash. If oil gets on skin or clothing, wash with soap and water.

NOTE

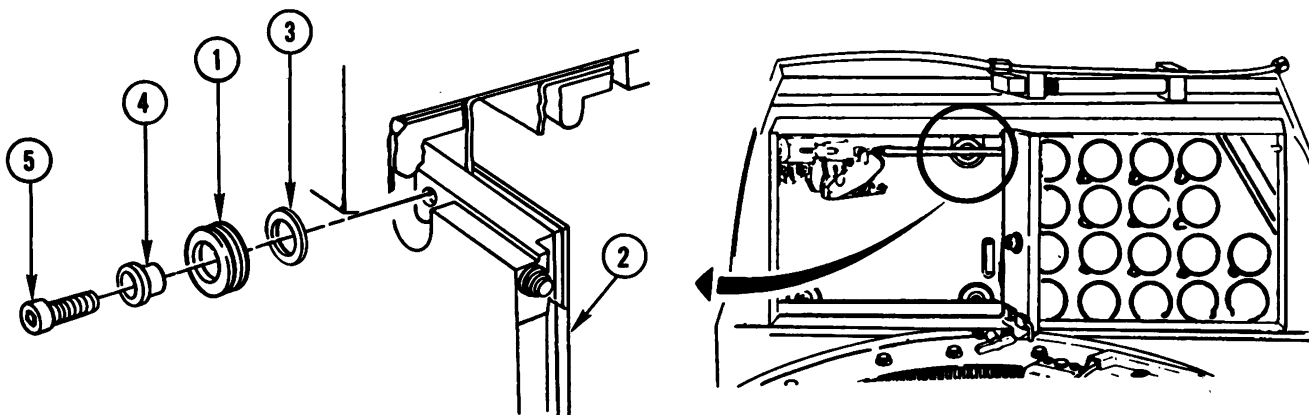
- If both upper roller assemblies (1) were taken off to take out sliding metal ready door (2), Soldier B must hold door (2) in place.
- Use this task to put on any upper roller assembly (1) on sliding metal ready door (2). One upper roller assembly (1) is shown.

1. Spread a light coat of oil on washer bearing (3), axle (4), and threads of screw (5). Put axle (4) in roller (1) so that flange of axle (4) is in groove of roller (1).
2. Line up hole in roller (1), bearing (3), and axle (4) with hole in door (2).
3. Screw in and tighten screw (5) to roller (1), bearing (3), axle (4), and door (2) with socket wrench attachment and handle.
4. Torque screw (5) between 70 and 75 pound feet (95 and 102 Newton meters) with socket wrench attachment, extension, adapter, and wrench.

Follow-on Maintenance:

1. Lock sliding metal ammunition stowage door; refer to TM 9-2350-255-10.
2. Connect ammo door hydraulic actuator; refer to task 29.
3. Set sliding metal ready ammunition door for automatic operation; refer to TM 9-2350-255-10.
4. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.
5. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 28 ENDS HERE



ARR82-0938

TASK 29. Connect Ammo Door Hydraulic Actuator

Applicability: All Models

Common Tools:

Wrench, combination, 9/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Disconnect ammo door hydraulic actuator; refer to task 1.

FRAME 39

Connect Actuator:

1. If open, manually close sliding metal ready ammunition door (1); refer to TM 9-2350-255-10.
2. Try to put quick-release pin (2) through arm (3), straight shaft (4), and self-aligning rod end plain bearing (5). If pin (2) cannot be put in, go to step 3. If pin (2) can be put in, go to step 7.
3. Loosen jamnut (6) with wrench.
4. Manually open door (1); refer to TM 9-2350-255-10.

NOTE

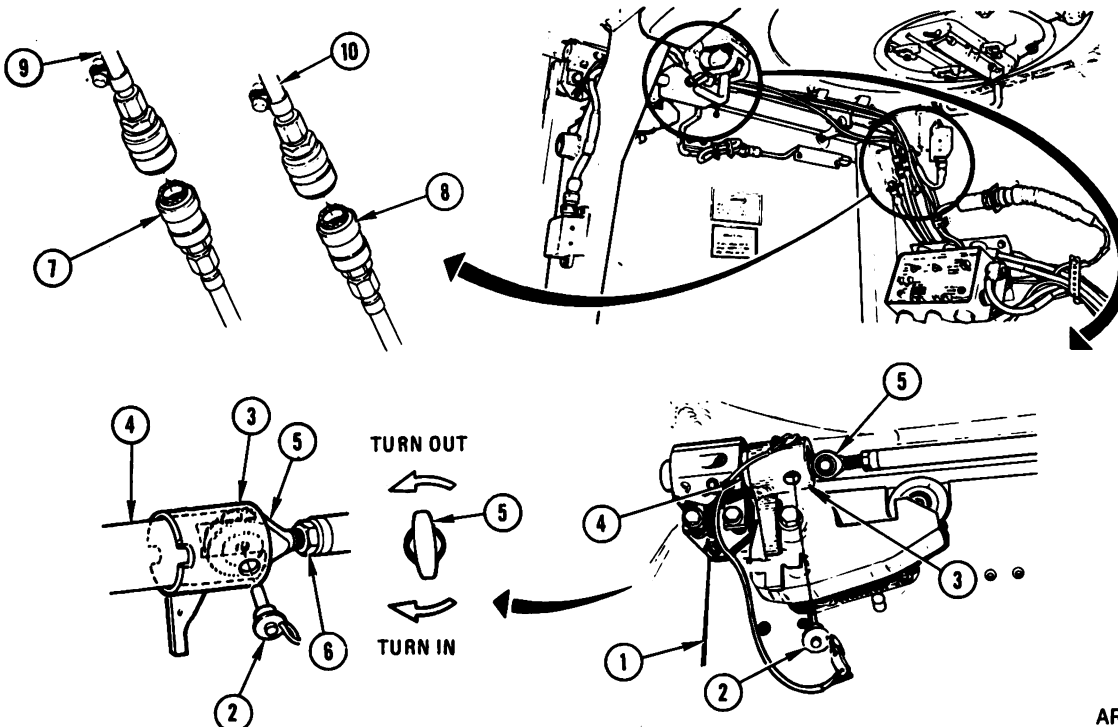
Open and close door (1) as needed to adjust bearing (5).

5. Turn bearing (5) in or out until pin (2) will go through arm (3), shaft (4), and bearing (5).
6. Tighten jamnut (6) with wrench.
7. Push coupling assemblies (7, 8) on metal tube assemblies (9, 10). Make sure connections are firmly seated and tight.

Follow-on Maintenance:

1. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.
2. Fill hydraulic reservoir; refer to LO 9-2350-255-12.

TASK 29 ENDS HERE



ARR82-0939

TASK 30. Adjust Sliding Metal Ready Door Closed Position

Applicability: All Models

Common Tools:

Gage, thickness
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, combination, 9/16-inch
Wrench, combination, 5/8-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lubricating Oil, MIL-L-3150 (Item 31)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Disconnect ammo door hydraulic actuator; refer to task 1.
4. Set sliding metal ready ammunition door to manual operation; refer to TM 9-2350-255-10.

FRAME 40

Check Ready Ammunition Door Adjustment:

NOTE

Gap between block (1) and arm latch (2) should be between 0.03 and 0.09 inches.

1. Close sliding metal ready door (3). Measure gap between block (1) and latch (2) on door (3) with gage.

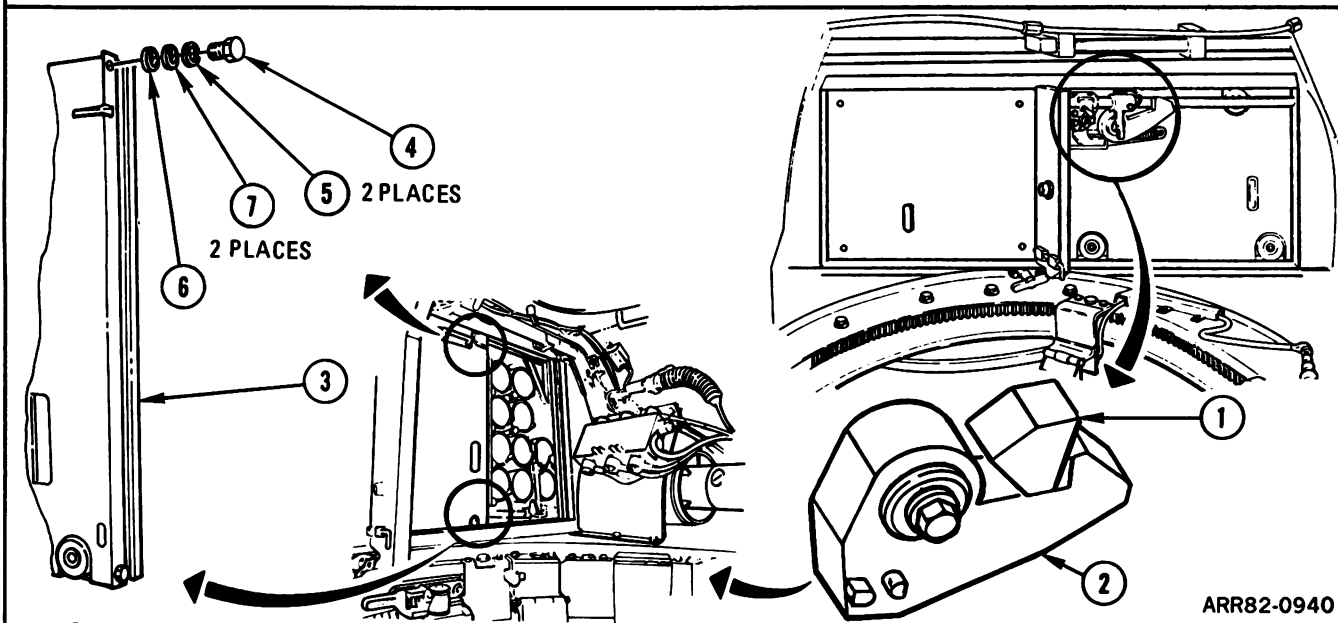
Adjust Ready Ammunition Door:

NOTE

- If gap is too large, do steps 2, 3, and 4.
- If gap is correct, go to frame 41, step 4.
- If gap is too small, go to frame 41, steps 1, 2, and 3.

2. Open door (3) halfway.
3. Unscrew and take out two screws (4), sleeve spacers (5), washers (6), and washers (7) with socket and handle. Add one washer (7) or washer (6) to each screw (4). Spread a light coat of oil on threads of two screws (4).
4. Screw in and tighten two screws (4), spacers (5), washers (6), and washers (7) to door (3) with socket and handle. Do step 1 again. If gap is correct, go to frame 41, step 3. If gap is not correct, repeat steps 2, 3, and 4 above.

GO TO FRAME 41

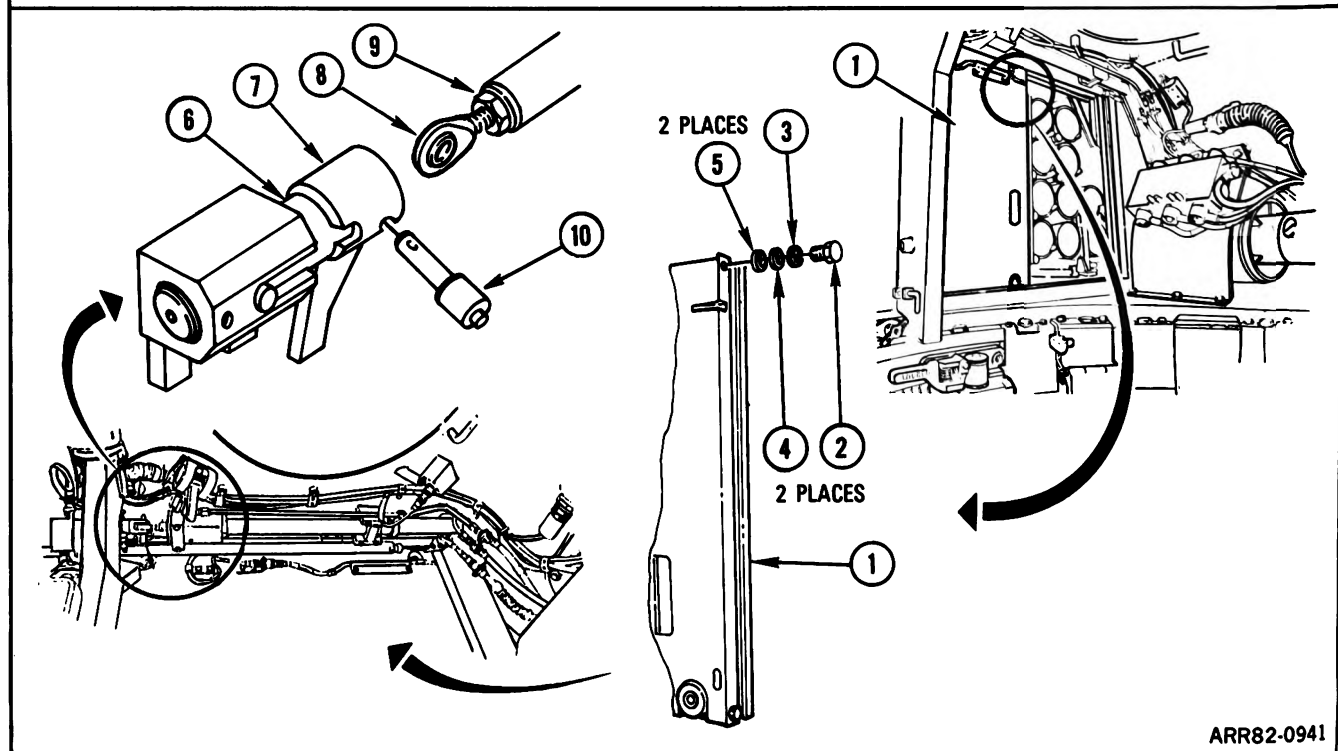


FRAME 41**Adjust Ready Door (Continued):**

1. Open sliding metal ready door (1) halfway. Unscrew and take out two screws (2), spacers (3), washers (4), and washers (5) with socket and handle. Take off one washer (5) or washer (4) from each screw (2). Spread light coat of oil on threads of two screws (2).
2. Screw in two screws (2), spacers (3), washers (4), and one washer (5) to door (1) with socket and handle. Repeat step 1 in frame 40.
3. Torque two screws (2) between 360 and 420 pound inches (41 and 47 Newton meters).
4. Close sliding metal ready door (1). Line up holes in straight shaft (6) and arm (7) with hole in self-aligning rod end plain bearing (8). If holes in shaft (6) and arm (7) do not line up with bearing (8), then do step 5. If OK go to step 6.
5. Unscrew nut (9) partway on bearing (8) with 9/16-inch wrench. Open door (1). Turn bearing (8) clockwise to shorten, or counterclockwise to lengthen bearing (8). Close door (1).
6. Push quick-release pin (10) through arm (7), shaft (6), and bearing (8). Screw on and tighten nut (9) with 9/16-inch and 5/8-inch wrenches.

Follow-on Maintenance:

1. Connect ammo door hydraulic actuator; refer to task 29.
2. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.
3. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

END OF TURRET AMMUNITION DOORS MAINTENANCE

ARR82-0941

3-12. Safety Guards and Pads

Task	Title	Frames
1	Remove Gunner's Left or Right Knee Guard or Chestrest Assembly	1 - 2
2	Remove Chestrest, Support, Spring, or Thumbscrew	3 - 4
3	Remove Commander's Guard Assembly, Ejected Link Screen, Hinges, or Magnet	5 - 7
4	Remove Loader's Knee Guard Support	8
5	Remove Loader's Shoulder Guard	9
6	Remove Commander's Ammunition Door Guard	10
7	Replace Knee Guard Support Quick-Release Pin	11
8	Replace Turret Roof Brace Safety Pad	12
9	Replace Loader's Shoulder Guard Quick Release Pin and Wire Rope Assembly	13
10	Replace Commander's Right Arm Pad	14
11	Install Commander's Ammunition Door Guard	15
12	Install Loader's Shoulder Guard	16
13	Install Loader's Knee Guard Support	17
14	Install Commander's Guard Assembly, Ejected Link Screen, Hinges, or Magnet	18 - 19
15	Install Chestrest, Support, Spring, or Thumbscrew	20
16	Install Gunner's Left or Right Knee Guard or Chestrest Assembly	21 - 22

TASK 1. Remove Gunner's Left or Right Knee Guard or Chestrest Assembly

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, long round nose
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, combination, 7/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Put main gun in travel lock position; refer to TM 9-2350-255-10.
2. Remove box and rim latch; refer to TM 9-2350-255-20-2-3-3, para. 6-7.

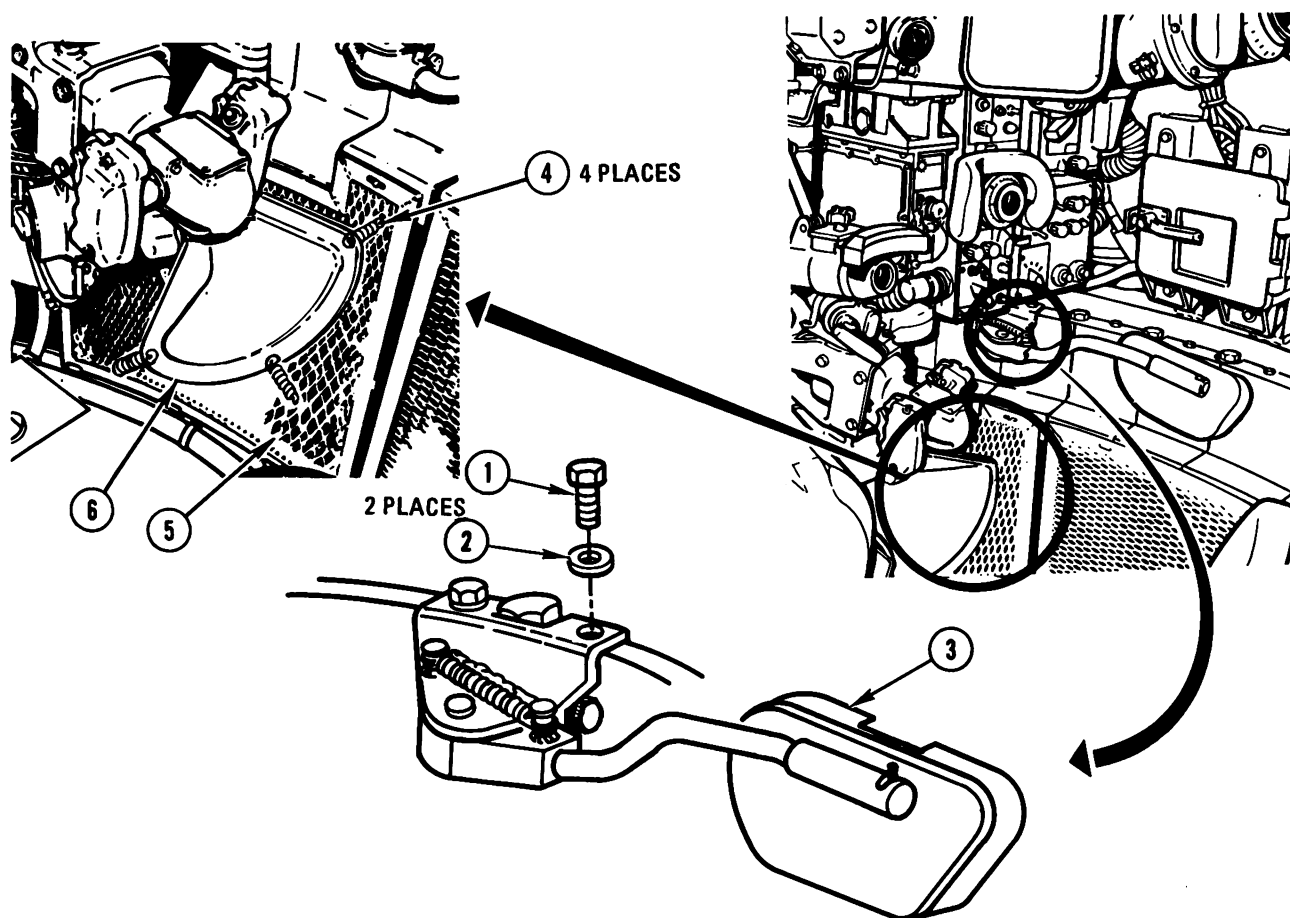
FRAME 1**Remove Gunner's Chestrest Assembly:**

1. Unscrew and take out two screws (1) and washers (2) from chestrest assembly (3) with 9/16-inch socket and handle.
2. Look at chestrest assembly (3) for cracks and tears. If bad turn in. If OK set aside for later use.

Remove Gunner's Right Knee Guard:

3. Take off four springs (4) from screen (5) with pliers. Take off knee guard (6).
4. Look at knee guard (6) for cracks and tears. If bad turn in. If OK set aside for later use.
5. Take off four springs (4) from knee guard (6) with pliers.
6. Look at springs (4) for bends and breaks. Turn in bad parts. Set good parts aside for later use.

GO TO FRAME 2



ARR82-0758

FRAME 2

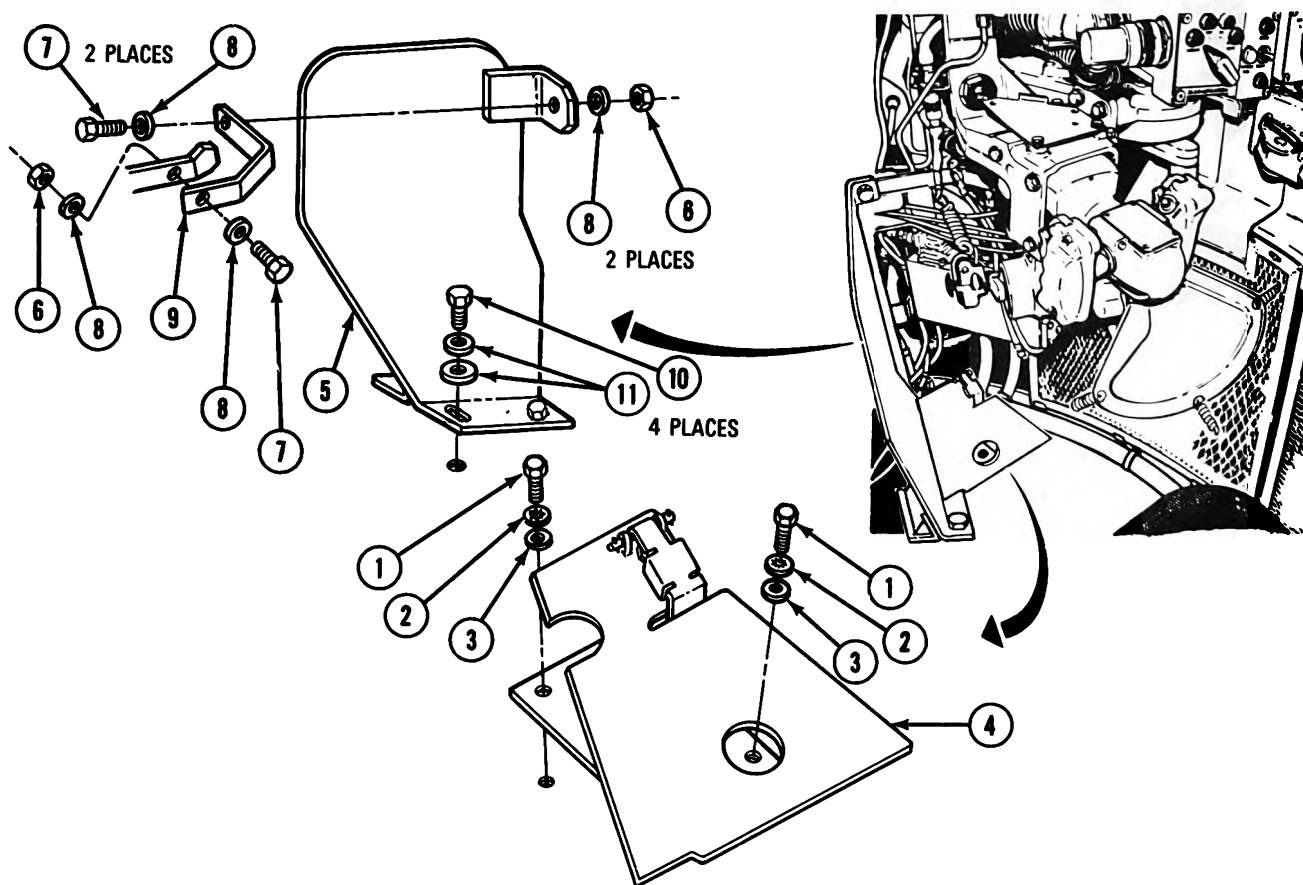
Remove Gunner's Left Knee Guard:

1. Unscrew and take out two screws (1), lockwashers (2), and washers (3) from footrest (4) with 9/16-inch socket, extension, and handle. Get rid of lockwashers (2). Move footrest (4) away from knee guard (5).
2. Unscrew and take off two nuts (6), two screws (7), and four washers (8) from bracket (9) with 7/16-inch socket, handle, and wrench. Take off and look at bracket (9) for cracks, breaks, and bends. If bad turn in. If OK set aside for later use.
3. Unscrew and take out four screws (10) and eight washers (11) from knee guard (5) with 9/16-inch socket, extension, and handle. Take off knee guard (5).
4. Look at knee guard (5) for cracks, dents, and breaks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install gunner's left or right knee guard or chestrest assembly, refer to task 16.

TASK 1 ENDS HERE



ARR82-0759

TASK 2. Remove Chestrest, Support, Spring, or Thumbscrew

Applicability: All Models

Common Tools:

Hammer, ball peen
Pliers, slip-joint
Punch, drive pin, 1/4-inch
Screwdriver, flat tip
Vise

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

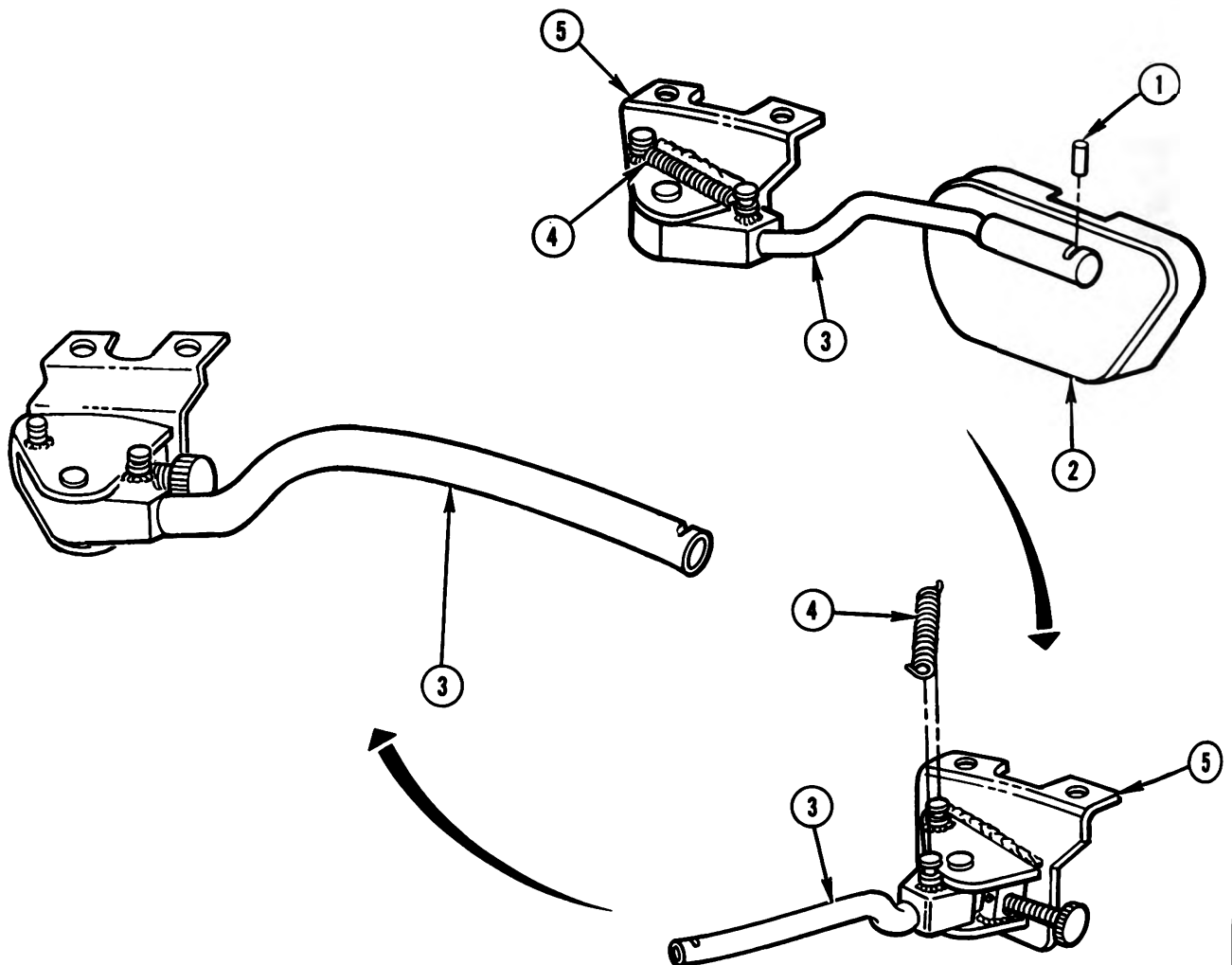
1. Put main gun in travel lock position; refer to TM 9-2350-255-10.
2. Remove box and rim latch; refer to TM 9-2350-255-20-2-3-3, para. 6-7.
3. Remove chestrest assembly; refer to task 1.

FRAME 3

Remove Chestrest and Spring:

1. Drive spring pin (1) from joint of chestrest (2) and support (3) with hammer and punch. Pull off chestrest (2) from support (3). Get rid of spring pin (1).
2. Look at chestrest (2) for cracks and tears. If bad turn in. If OK set aside for later use.
3. Pull support (3) to full open position.
4. Take off spring (4) from chestrest bracket (5) and support (3) with pliers.
5. Look at spring (4) for cracks. If bad turn in. If OK set aside for later use.
6. Push support (3) closed.

GO TO FRAME 4



ARR82-0760

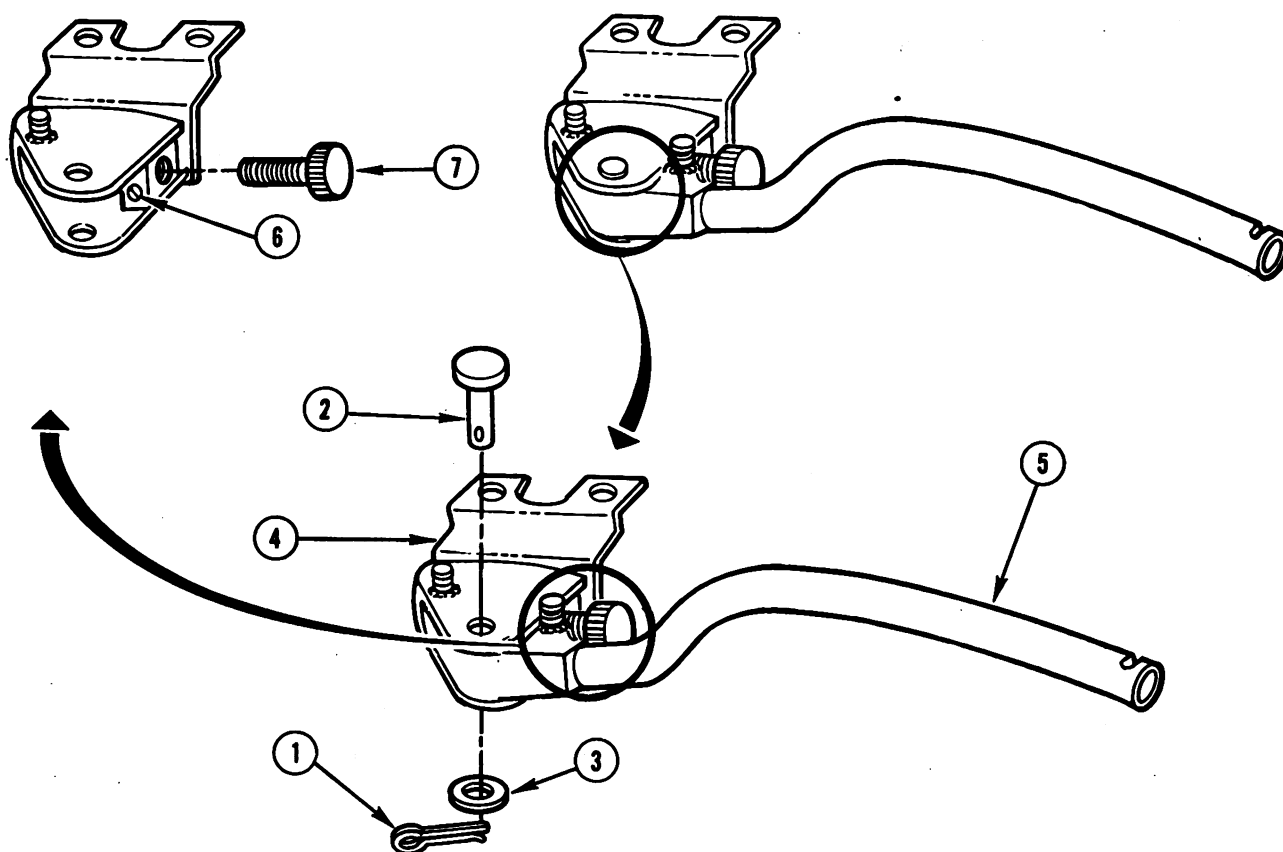
FRAME 4**Remove Support and Thumbscrew:**

1. Take out cotter pin (1) from straight pin (2) with pliers. Get rid of cotter pin (1).
2. Take out straight pin (2) and washer (3) from bracket (4) and support (5) with hammer and punch. Take out support (5).
3. Look at straight pin (2) and support (5) for cracks and bends. Turn in bad parts. Set good parts aside for later use.
4. Loosen setscrew (6) from thumbscrew (7) with screwdriver. Unscrew and take out thumbscrew (7).
5. Look at thumbscrew (7) for stripped threads and cracks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install chestrest, support, spring, or thumbscrew, refer to task 15.

TASK 2 ENDS HERE



ARR82-0761

TASK 3. Remove Commander's Guard Assembly, Ejected Link Screen, Hinges, or Magnet

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Screwdriver, cross tip, No. 2
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, combination, 3/8-inch
Wrench, combination, 9/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

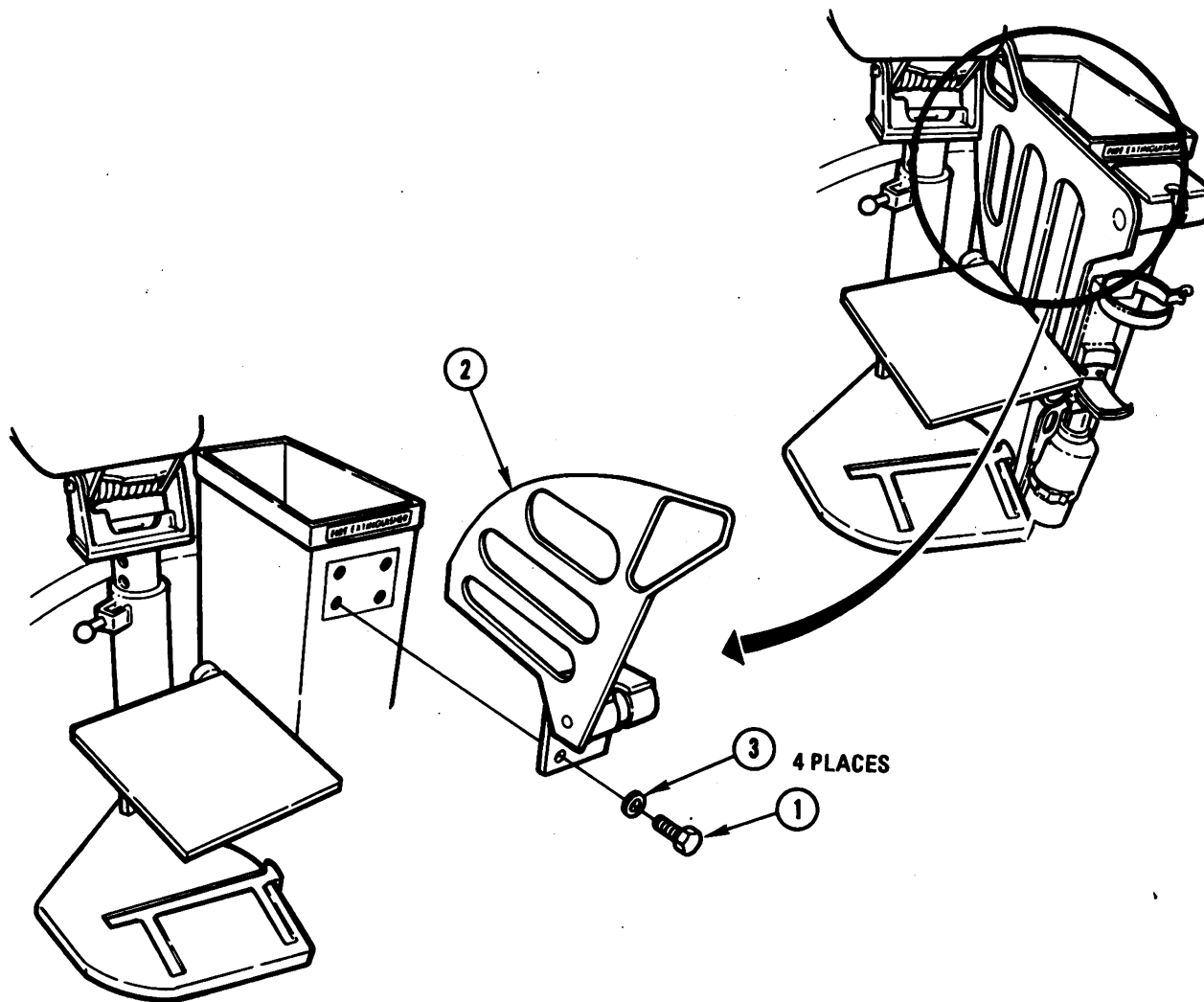
- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove portable fire extinguisher; refer to TM 9-2350-255-10.

FRAME 5**Remove Commander's Guard Assembly:**

1. Loosen four screws (1) with 9/16-inch wrench.
2. Hold weight of guard (2) with one hand. Unscrew and take out four screws (1) and washers (3) with 9/16-inch wrench. Take out guard (2).
3. Look at guard (2) for cracks and bends. If bad turn in. If OK set aside for later use.

GO TO FRAME 6

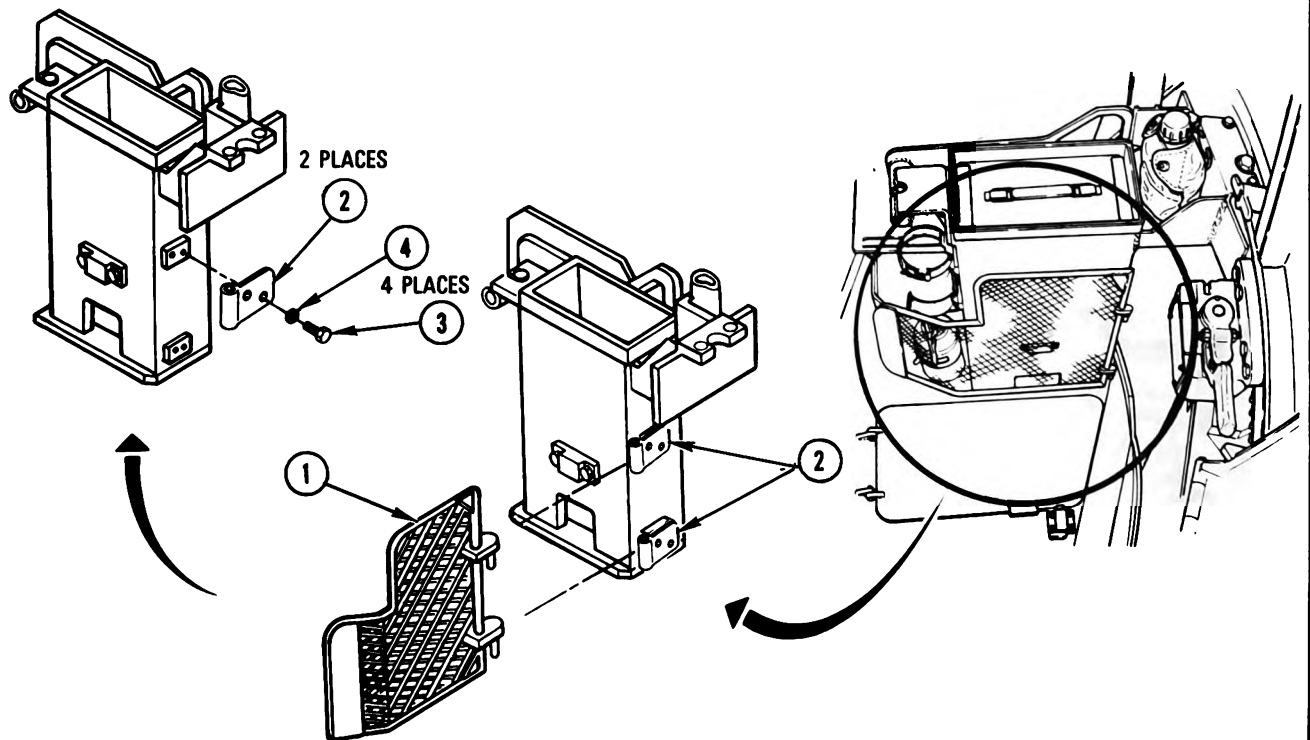
ARR82-0762

FRAME 6

Remove Screen and Hinges:

1. Lift screen (1) out of two hinges (2).
2. Look at screen (1) for cracks and bends. If bad turn in. If OK set aside for later use.
3. Unscrew and take out four screws (3) and washers (4) from two hinges (2) with socket and handle. Take off two hinges (2).
4. Look at two hinges (2) for cracks and breaks. If bad turn in. If OK set aside for later use.

GO TO FRAME 7



ARR82-0763

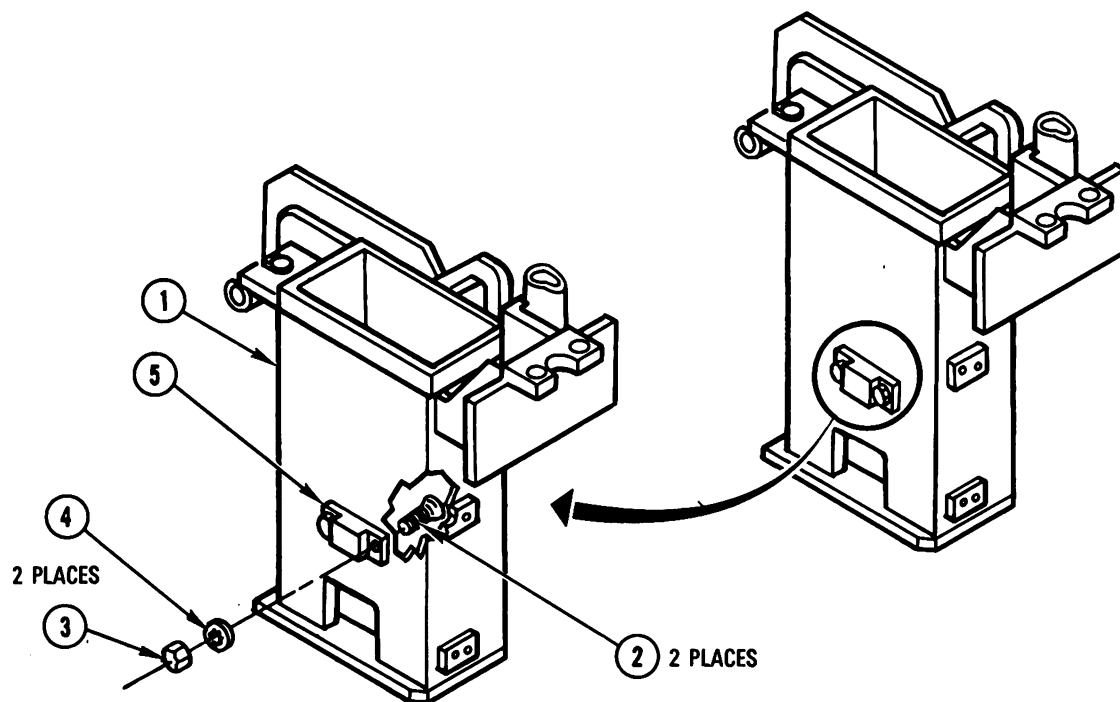
FRAME 7**Remove Magnet:**

1. Take contents out of box (1) so that two screws (2) can be reached from inside box (1).
2. Unscrew and take off two screws (2), nuts (3), and lockwashers (4) with 3/8-inch wrench and screwdriver. Get rid of lockwashers (4). Take off magnet (5).
3. Look at magnet (5) for cracks and breaks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install commander's guard assembly, ejected link screen, hinges, or magnet, refer to task 14.

TASK 3 ENDS HERE



ARR82-0764

TASK 4. Remove Loader's Knee Guard Support

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, slip joint
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure: None

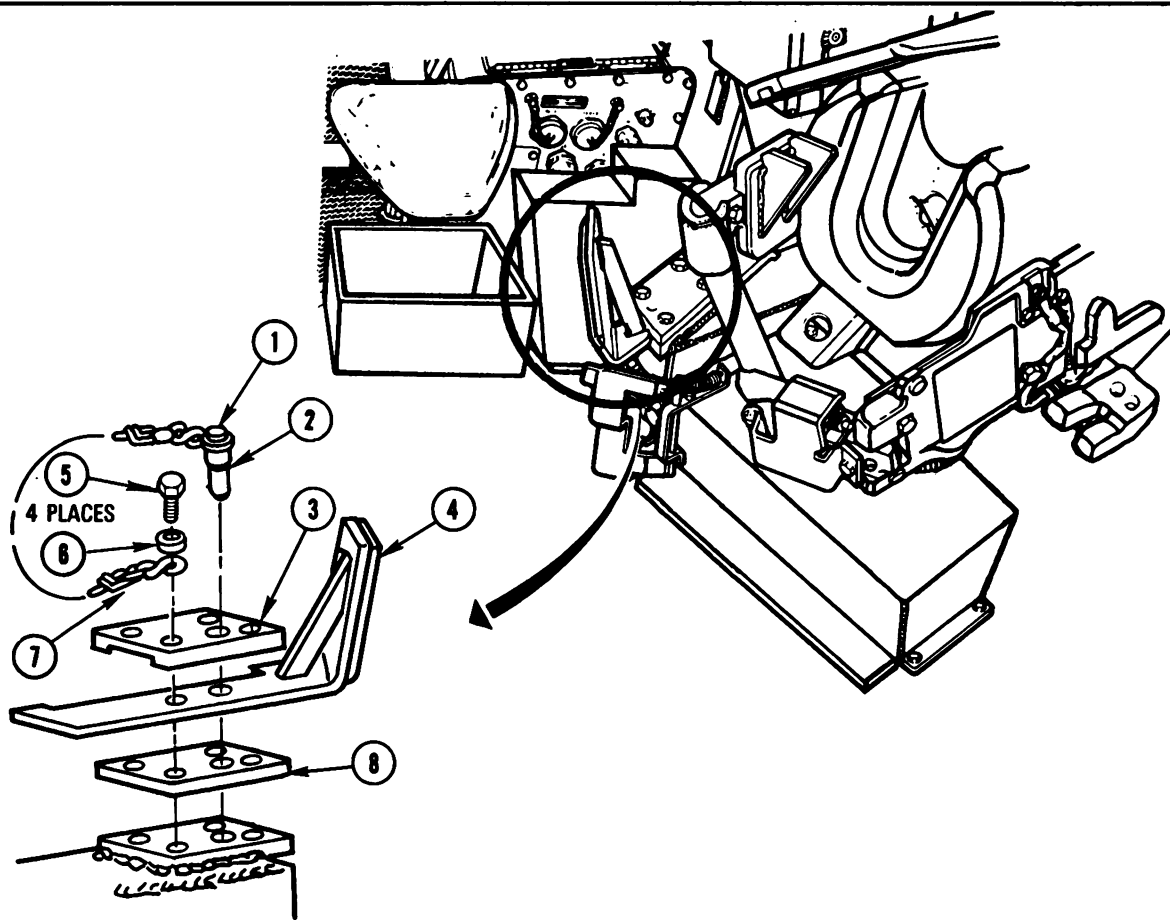
FRAME 8**Remove Support:**

1. Push in and hold release button (1) in quick-release pin (2). Pull up and take out pin (2) from cover (3).
2. Hold support (4). Unscrew and take out four screws (5), washers (6), and chain (7) with socket and handle.
3. Check pin (2) and chain (7) for cracks, bends, or stuck button (1). If OK set aside for later use. If pin (2) or chain (7) is bad, unhook chain (7) from pin (2) with pliers and turn in bad part.
4. Lift off cover (3), support (4), and plate (8).
5. Look at support (4), cover (3), and plate (8) for cracks, breaks, and bends. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install loader's knee guard support, refer to task 13.

TASK 4 ENDS HERE



ARR82-0765

TM 9-2350-255-20-2-3-2

TASK 5. Remove Loader's Shoulder Guard

Applicability: All Models

Common Tools: None

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Manually elevate main gun to stop; refer to TM 9-2350-255-10.

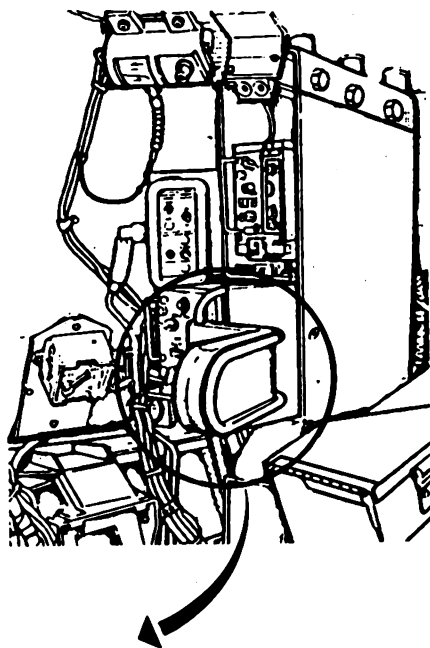
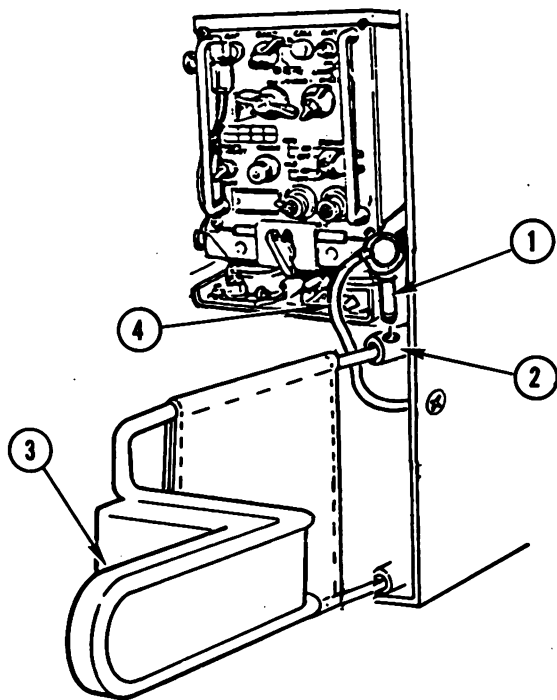
FRAME 9**Remove Guard:**

1. Pull pin (1) from bracket (2) and shoulder guard (3). Pull shoulder guard (3) out of bracket (2).
2. Look at shoulder guard (3) for bends, cracks, or tears. If bad turn in. If OK set aside for later use.
3. Look at pin (1) and wire rope assembly (4) for breaks, cracks, or tears. Replace bad parts; refer to task 9. Set good parts aside for later use. If OK go to follow-on maintenance.

Follow-on Maintenance:

NOTE: To install loader's shoulder guard, refer to task 12.

TASK 5 ENDS HERE



ARR82-0766

TASK 6. Remove Commander's Ammunition Door Guard

Applicability: All Models

Common Tools: None

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

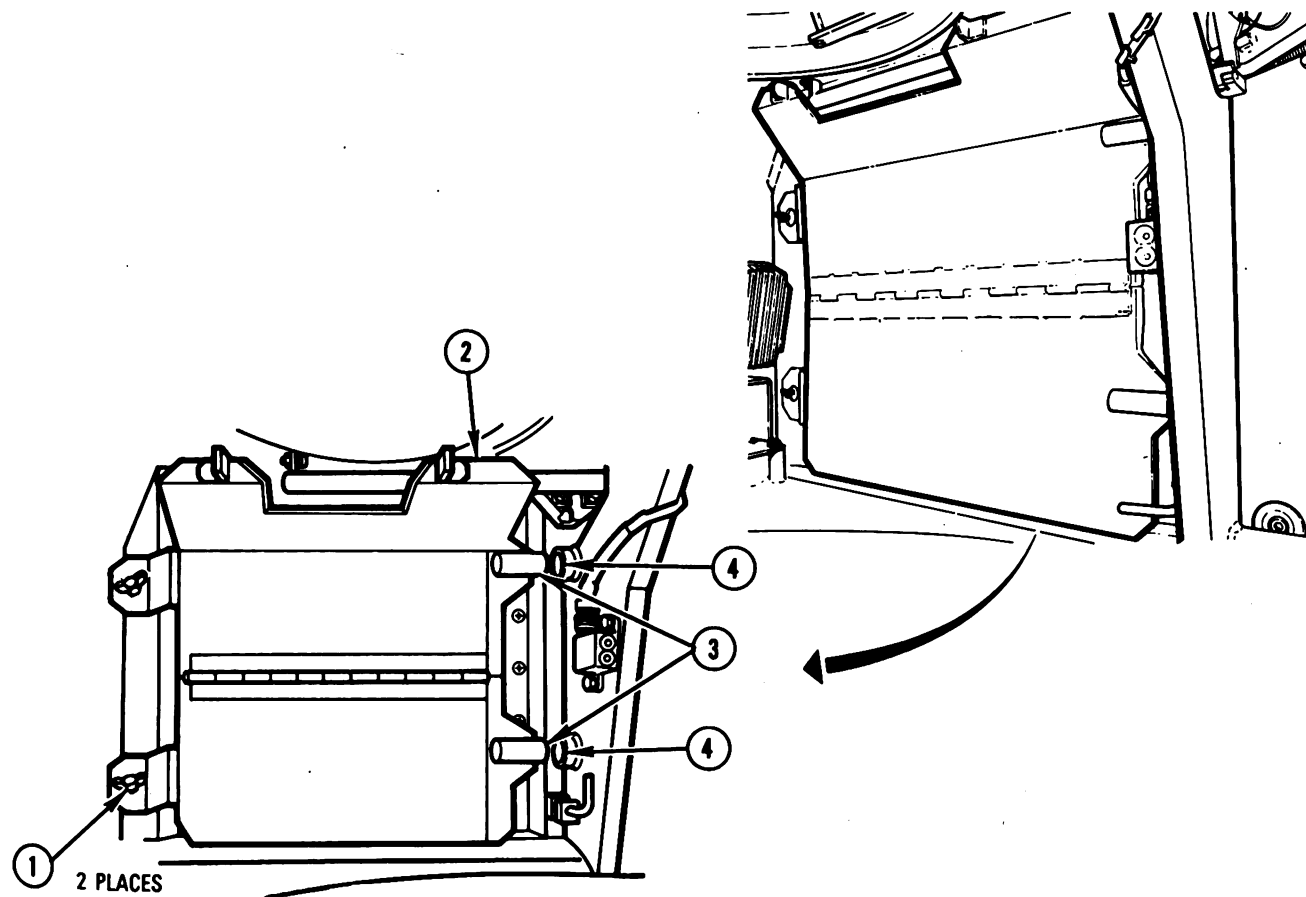
FRAME 10**Remove Guard:**

1. Loosen two wing screws (1).
2. Slide door guard (2) to left until two guide pins (3) clear holes (4) in turret wall.
3. Pull guard (2) toward you over wing screws (1). Turn wing screws (1) as needed to clear holes in guard (2).
4. Look at door guard (2) for bends, cracks or broken hinges. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install commander's ammunition door guard; refer to task 11.

TASK 6 ENDS HERE



ARR82-0767

TASK 7. Replace Knee Guard Support Quick-Release Pin

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, slip joint
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies:

Pin, quick-release (96906) MS17984C708

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 11**Remove Quick-Release Pin:**

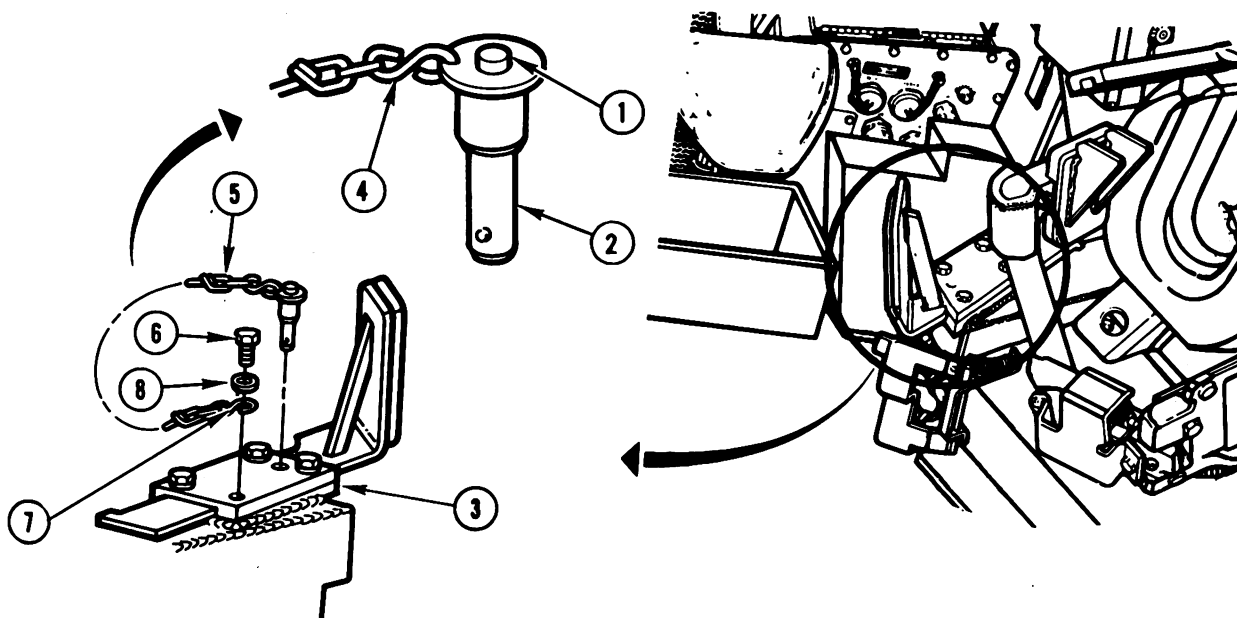
1. Push in and hold release button (1) in quick-release pin (2). Pull up and take out pin (2) from cover (3).
2. Open S-hook (4) with pliers. Take off pin (2) and turn in.
3. Look at chain (5) for breaks or loose links. If bad go to step 4. If OK go to step 6.
4. Unscrew and take out screw (6), S-hook (7), and washer (8) with socket and handle. Unhook S-hooks (4, 7) with pliers and turn in chain (5). Get rid of S-hooks (4, 7).

Install Quick-Release Pin:

5. Close new S-hooks (4, 7) on ends of new chain (5) with pliers. Screw in and tighten screw (6), S-hook (7), and washer (8) in cover (3) with socket and handle.
6. Close S-hook (4) on quick-release pin (2) with pliers.
7. Put pin (2) in hole in cover (3).

Follow-on Maintenance: None

TASK 7 ENDS HERE



ARR82-0768

TASK 8. Replace Turret Roof Brace Safety Pad

Applicability: All Models

Common Tools:

Screwdriver, flat tip

Special Tools: None

Supplies:

Pad, cushioning (19207) 12280488

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

Remove Pad:

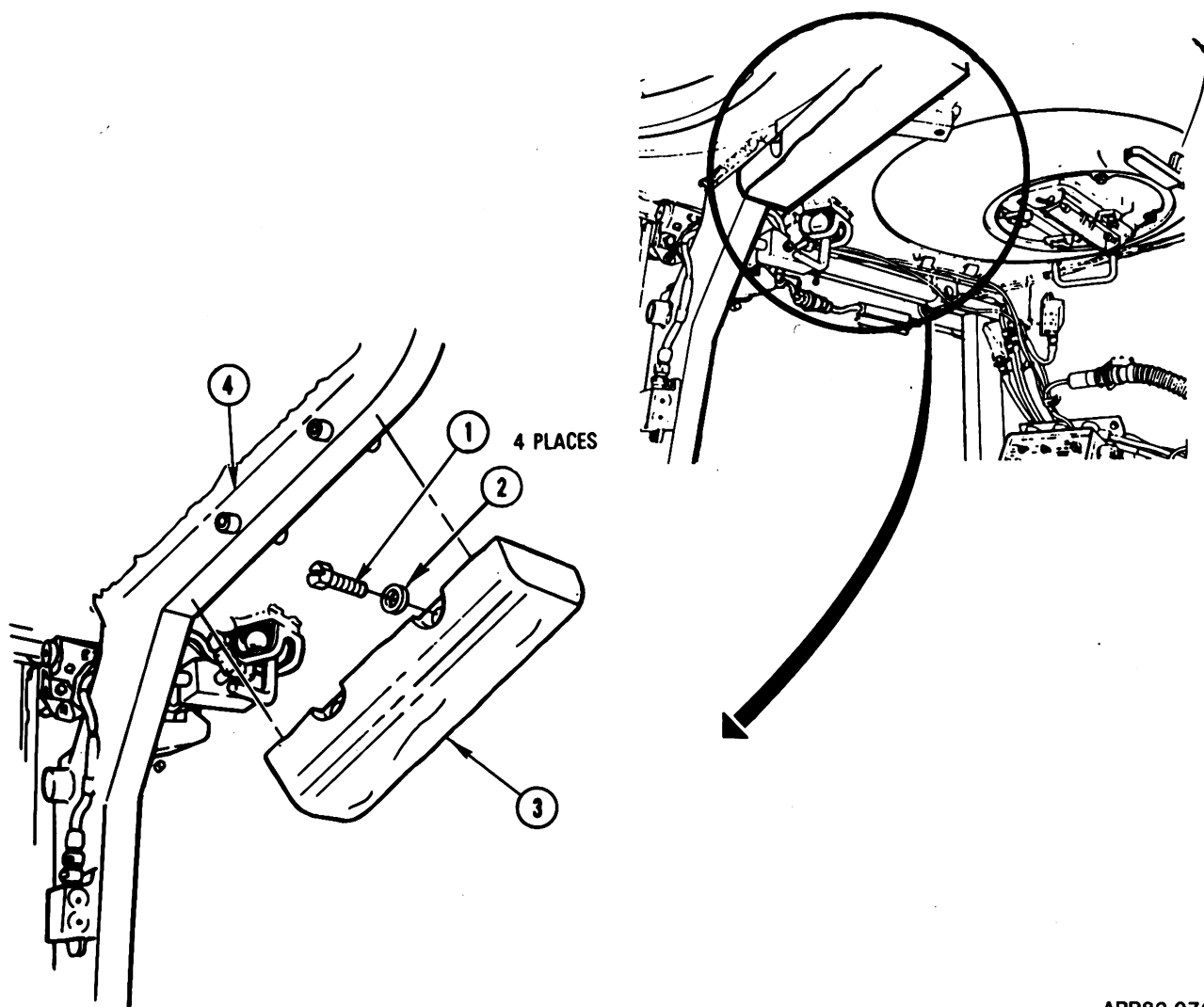
1. Unscrew and take out four screws (1) and washers (2) from pad (3) with screwdriver.
2. Take off and turn in pad (3).

Install Pad:

3. Put new pad (3) on center post (4).
4. Screw in and tighten four screws (1) and washers (2) with screwdriver.

Follow-on Maintenance: None

TASK 8 ENDS HERE



ARR82-0769

TASK 9. Replace Loader's Shoulder Guard Quick Release Pin and Wire Rope Assembly

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Screwdriver, cross tip, No. 2
Socket, socket wrench, 3/8-inch square drive, 3/8-inch

Special Tools: None

Supplies:

Lockwasher (96906) MS35333-39
Pin, quick release (81349) M45952/1-4-14
Wire rope assembly (19207) 12273183-3

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Elevate main gun; refer to TM 9-2350-255-10.

FRAME 13**Remove Pin and Wire Rope Assembly:**

1. Unscrew and take out screw (1), nut (2), lockwasher (3), and wire rope (4) from radio mount (5) with socket, handle, and screwdriver. Get rid of lockwasher (3).
2. Pull out pin (6) from bracket (7). Turn in pin (6) and wire rope (4).

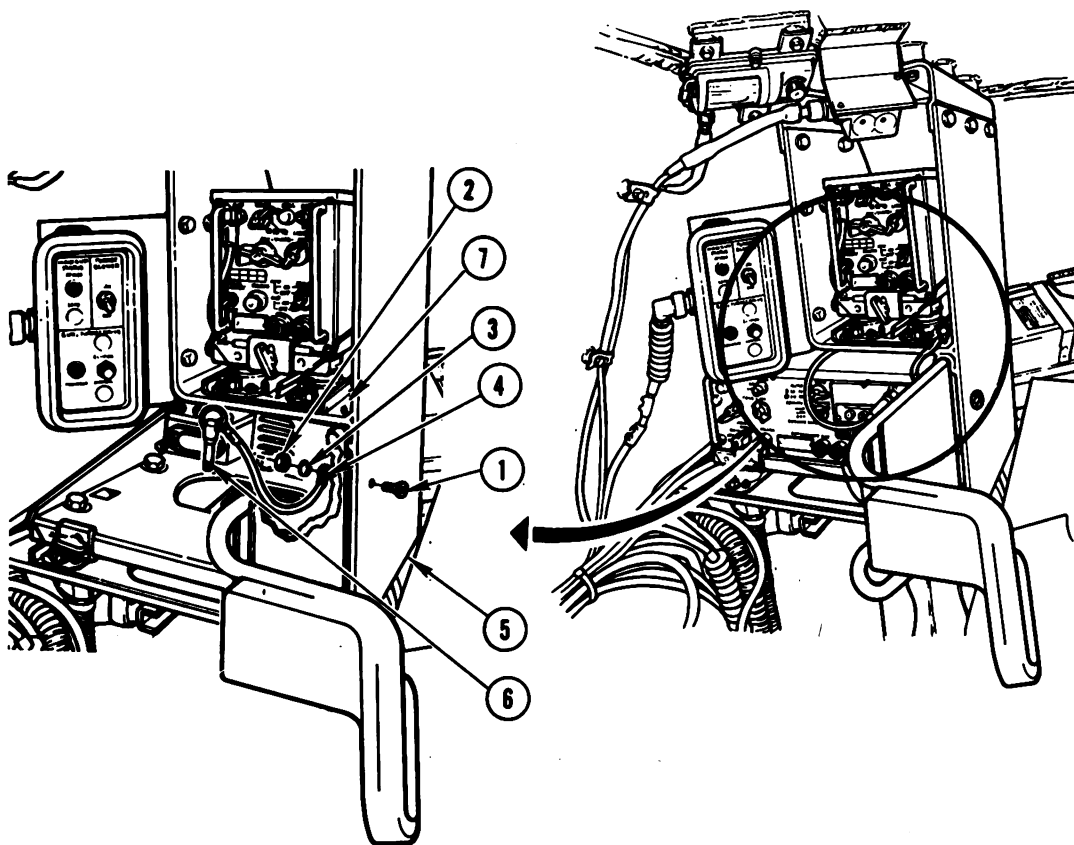
Install Pin and Wire Rope Assembly:

3. Put screw (1) through hole in radio mount (5). Put end of new wire rope (4) and new lockwasher (3) on screw.
4. Screw on and tighten nut (2) on screw (1) with socket, handle, and screwdriver. Put new pin (6) through hole in bracket (7).

Follow-on Maintenance:

Lower main gun as required; refer to TM 9-2350-255-10.

TASK 9 ENDS HERE



ARR82-0770

TM 9-2350-255-20-2-3-2

TASK 10. Replace Commander's Right Arm Pad

Applicability: All Models

Common Tools:

Brush, wire
Knife, putty

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Adhesive, Type II, MMM-A-1617 (Item 3)
Brush, acid swabbing (Item 13)
Cloth, abrasive (crocus) (Item 17)
Dry Cleaning Solvent, P-D-680 (Item 21)
Pad, cushioning (19207) 12280767
Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 14**Remove Pad:**

1. Take off pad (1) from surface (2) of vehicular accessories storage box (3) with putty knife.
Get rid of pad (1).

WARNING

Adhesives and solvent burns easily. To avoid injury, do not use near open fire.

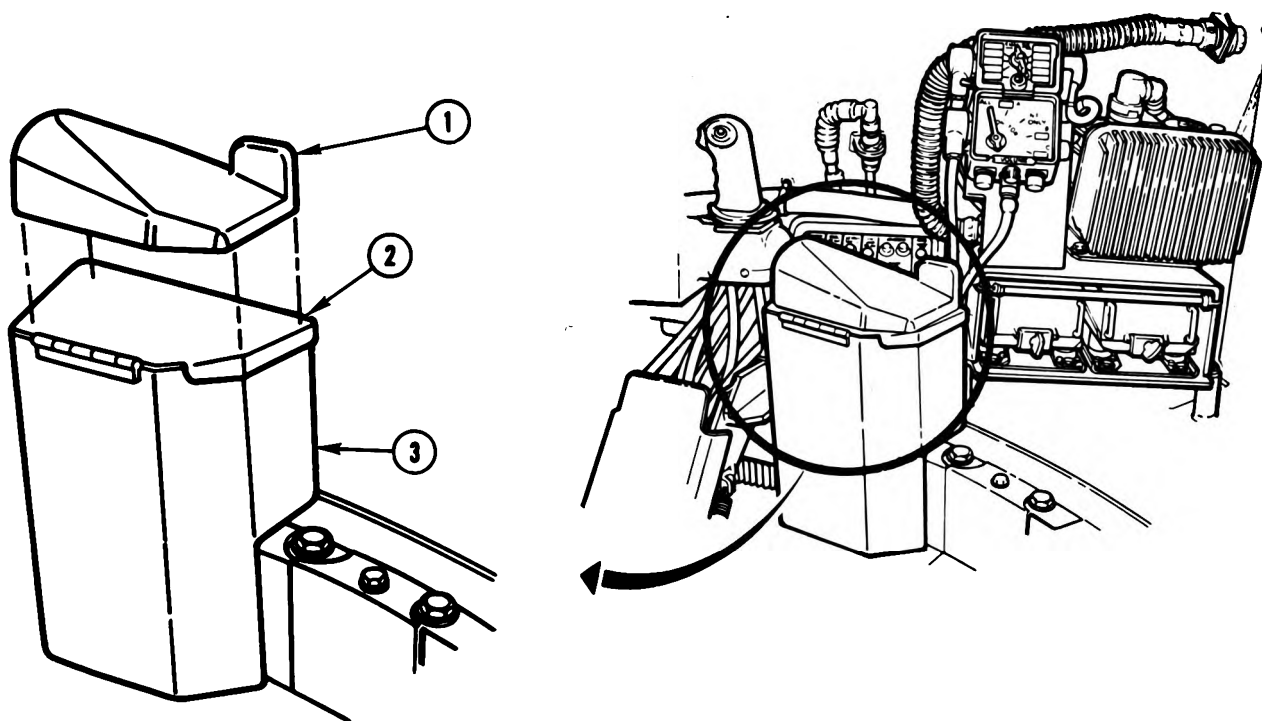
2. Clean surface (2) of box (3) with wire brush, solvent, crocus cloth, and rag.

Install Pad:

3. Spread adhesive on new pad (1) and surface (2) with brush.
4. Put new pad (1) in place.

Follow-on Maintenance: None

TASK 10 ENDS HERE



ARR82-0771

TASK 11. Install Commander's Ammunition Door Guard

Applicability: All Models

Common Tools: None

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

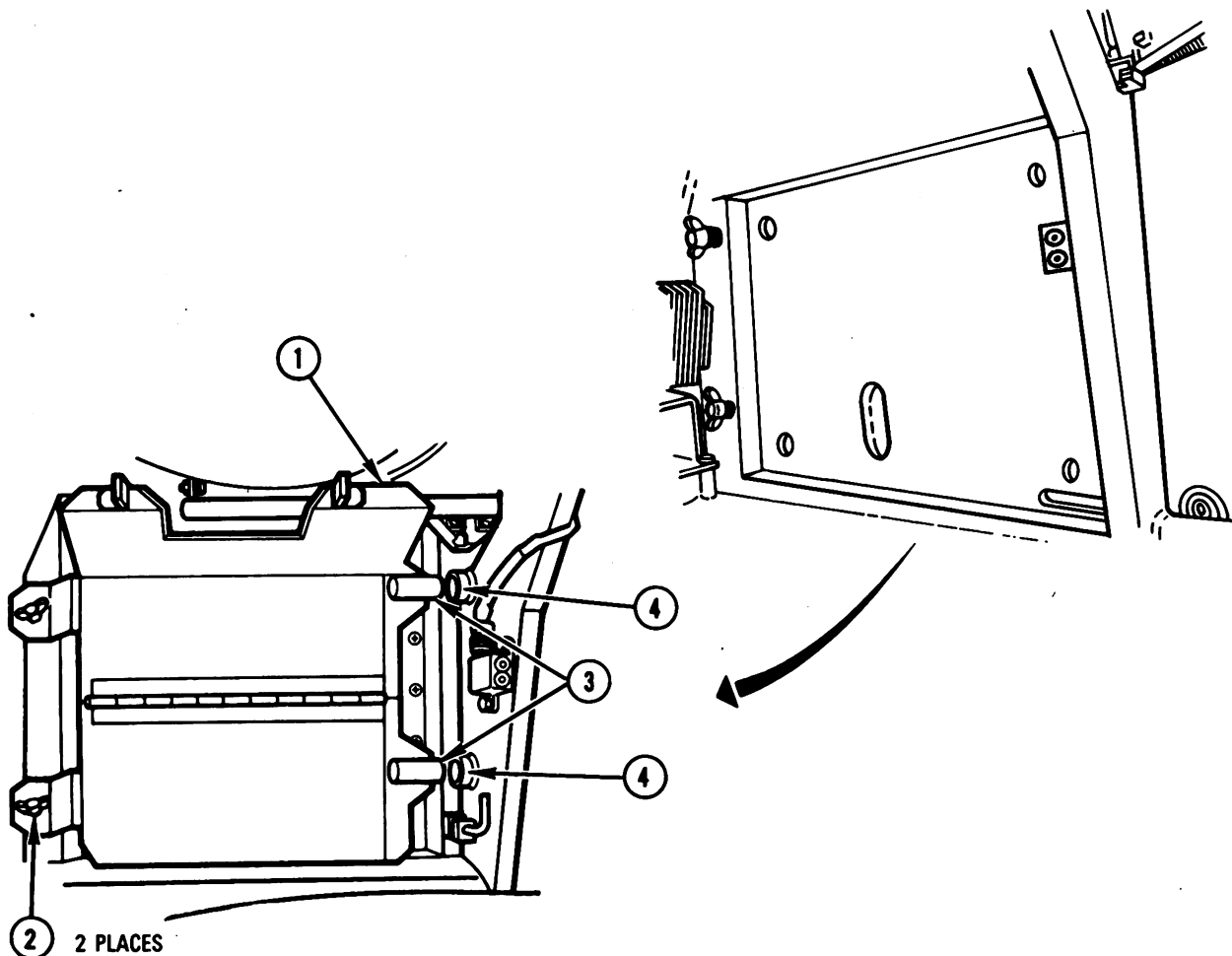
Remove commander's ammunition door guard; refer to task 6.

FRAME 15**Install Guard:**

1. Put door guard (1) over two wing screws (2). Turn wing screws (2) as needed to clear holes in guard.
2. Slide door guard (1) to the right and put two pins (3) in two holes (4) in turret wall.
3. Tighten wing screws (2) to secure door guard (1).

Follow-on Maintenance: None

TASK 11 ENDS HERE



ARR82-0772

TM 9-2350-255-20-2-3-2

TASK 12. Install Loader's Shoulder Guard

Applicability: All Models

Common Tools: None

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove loader's shoulder guard; refer to task 5.

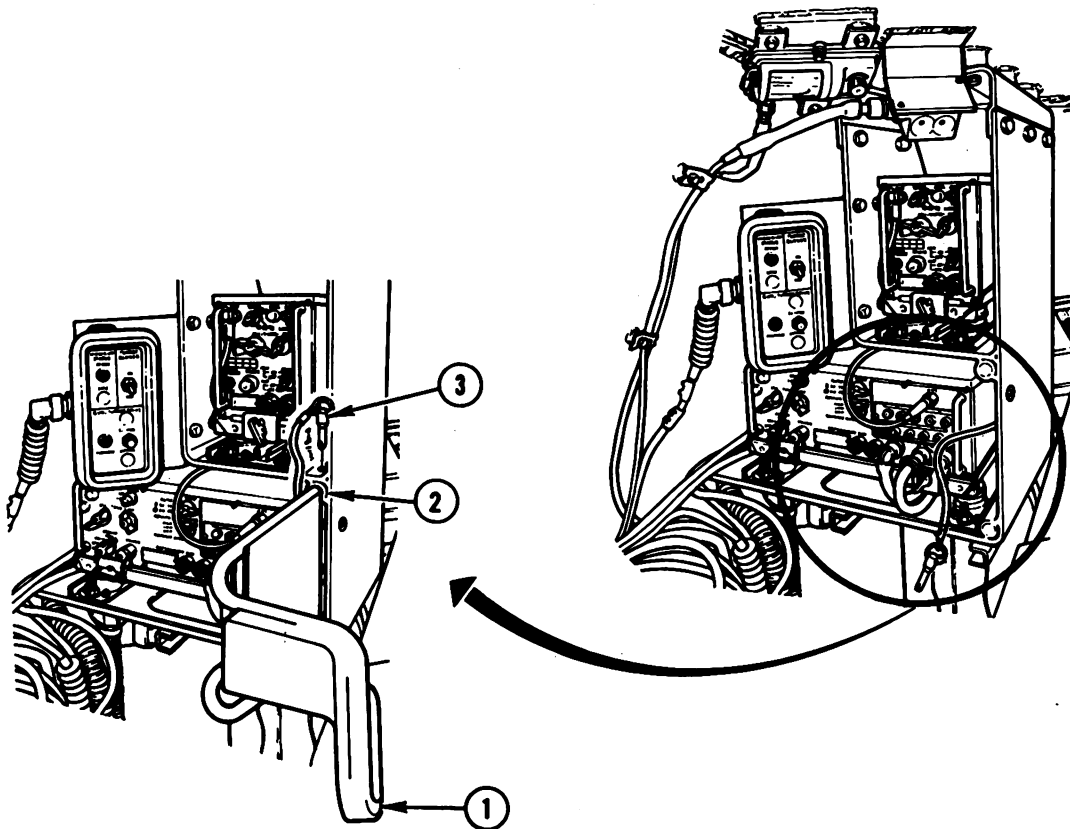
FRAME 16**Install Guard:**

1. Line up shoulder guard (1) with bracket (2). Push shoulder guard (1) in bracket (2).
2. Line up holes in guard (1) and bracket (2). Push quick-release pin (3) in holes of bracket (2) and guard (1).

Follow-on Maintenance:

Lower main gun as required; refer to TM 9-2350-255-10.

TASK 12 ENDS HERE



ARR82-0773

TM 9-2350-255-20-2-3-2

TASK 13. Install Loader's Knee Guard Support

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, slip joint
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove loader's knee guard support; refer to task 4.

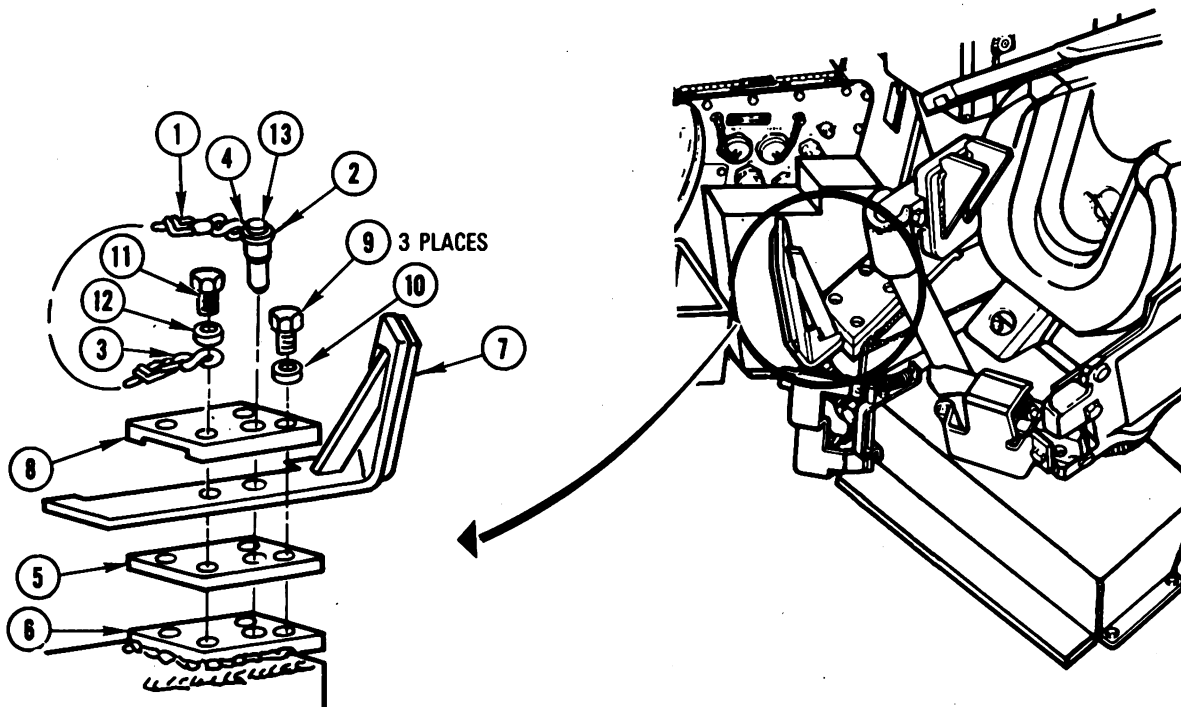
FRAME 17**Install Support:****NOTE**

If chain (1) is new, do step 1. If only quick-release pin (2) is new, begin with step 2. If chain (1) and quick-release pin (2) are not new, begin with step 3.

1. Close new S-hooks (3, 4) on ends of new chain (1) with pliers.
2. Close S-hook (4) on quick-release pin (2) with pliers.
3. Put plate (5) on mounting pad (6).
4. Put support (7) on plate (5). Put cover (8) on support (7).
5. Line up four holes in cover (8), plate (5), and pad (6). Screw in and tighten three screws (9) and washers (10) with socket and handle.
6. Put S-hook (3) on fourth screw (11). Screw in and tighten screw (11), S-hook (3), and washer (12) to cover (8) with socket and handle.
7. Line up one of two holes in support (7) with hole in cover (8). Press in button (13) of quick-release pin (2). Push quick-release pin (2) in hole in cover (8) and release button (13).

Follow-on Maintenance: None

TASK 13 ENDS HERE



ARR82-0774

TASK 14. Install Commander's Guard Assembly, Ejected Link Screen, Hinges, or Magnet

Applicability: All Models

Common Tools:

- Handle, socket wrench, ratchet, 3/8-inch square drive
- Screwdriver, cross tip, No. 2
- Socket, socket wrench, 3/8-inch square drive, 9/16-inch
- Wrench, combination, 3/8-inch
- Wrench, combination, 9/16-inch

Special Tools: None

Supplies:

- Lockwasher (96906) MS35333-39 (two required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

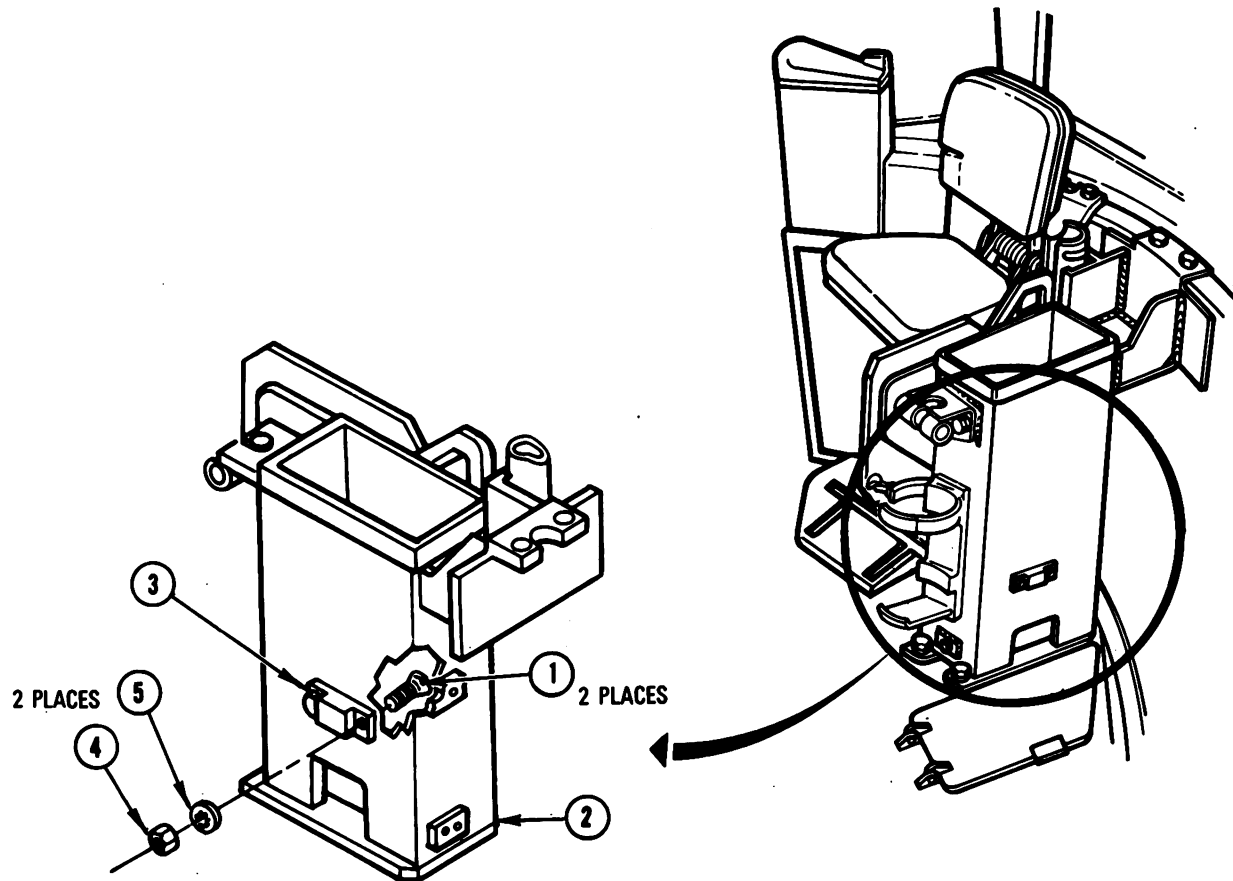
Preliminary Procedure:

- Remove commander's guard assembly, ejected link screen, hinges, or magnet; refer to task 3.

FRAME 18**Install Magnet:**

1. Put in two screws (1) through holes in ammunition box (2) from inside. Put magnet (3) in place on screws (1) at outside of box (2).
2. Screw on and tighten two nuts (4) and new lockwashers (5) to screws (1) with screwdriver and 3/8-inch wrench.

GO TO FRAME 19



ARR82-0775

FRAME 19

Install Screen:

1. Put two hinges (1) in place on ammunition stowage box (2). Screw in, but do not tighten, four screws (3) and washers (4) with socket and handle.
2. Hold screen (5) so hinge pins (6) can slide in hinges (1). Lower screen (5) in place with two hinge pins (6) seated in hinges (1).
3. Tighten four screws (3) and washers (4) with socket and handle. Make sure screen (5) swings freely without binding.

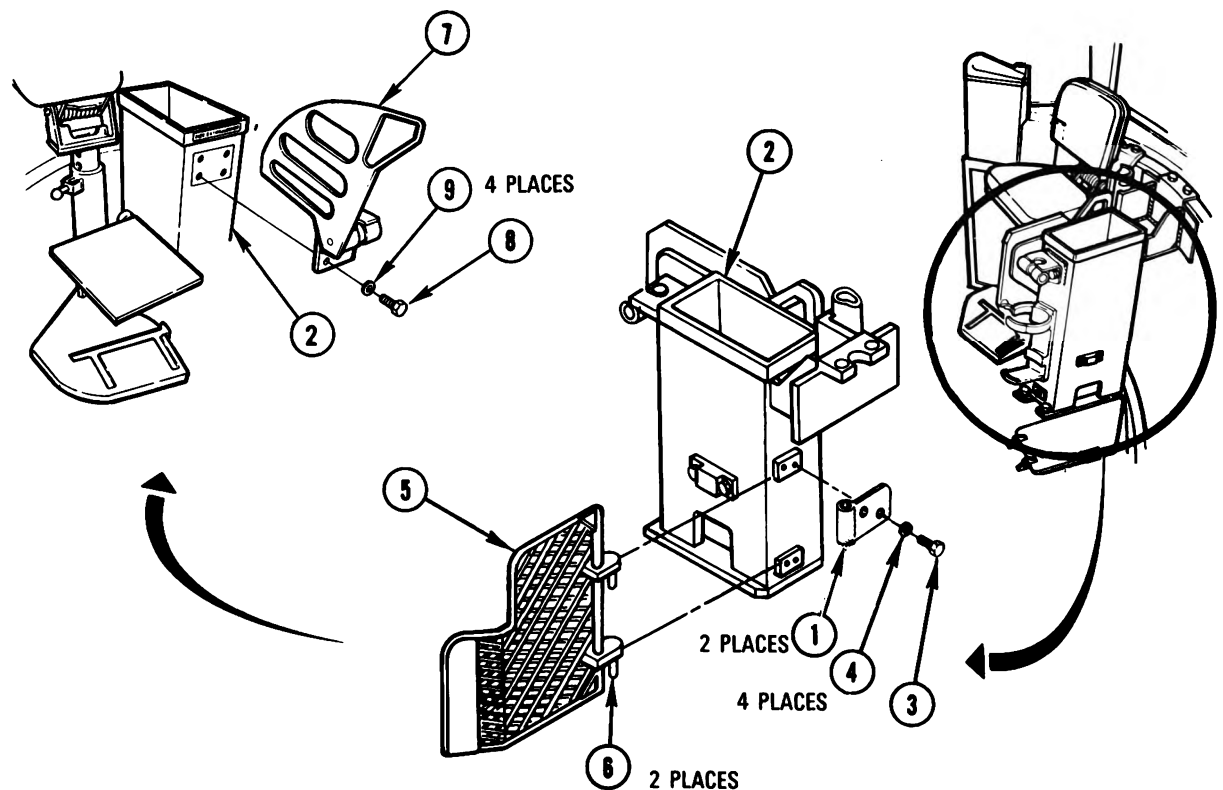
Install Commander's Guard Assembly:

4. Hold guard (7) in place on ammunition stowage box (2).
5. Screw in and tighten four screws (8) and washers (9) with 9/16-inch wrench.

Follow-on Maintenance:

Install portable fire extinguisher; refer to TM 9-2350-255-10.

TASK 14 ENDS HERE



ARR82-0776

TASK 15. Install Chestrest, Support, Spring or Thumbscrew

Applicability: All Models

Common Tools:

Hammer, ball peen
Pliers, long round nose
Punch, drive, 3/8-inch
Screwdriver, flat tip
Vise

Special Tools: None

Supplies:

Pin, cotter (96906) MS24665-353
Pin, spring (96906) MS9048-235

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove chestrest, support, spring, or thumbscrew; refer to task 2.

FRAME 20

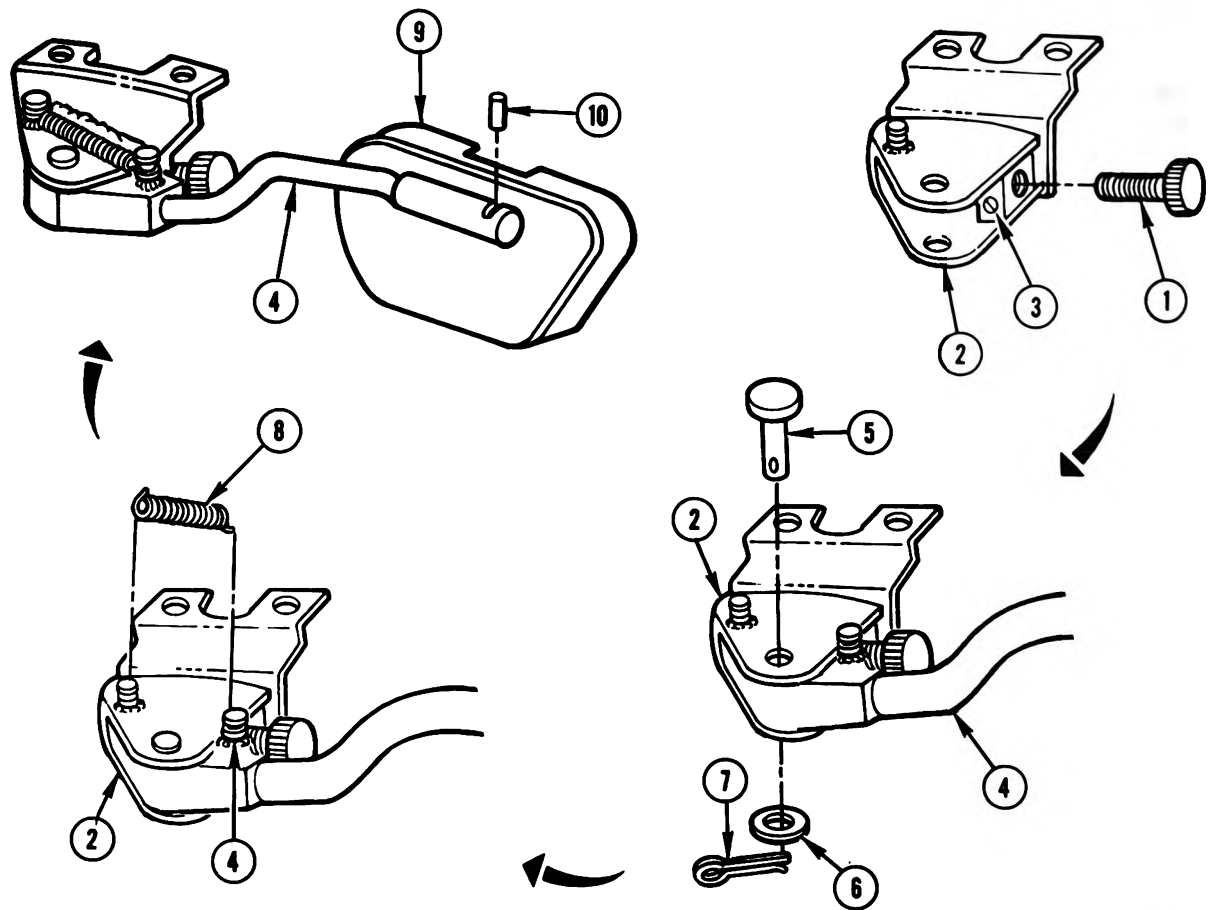
Install Pins, Thumbscrew, and Spring:

1. Screw thumbscrew (1) until it is just through bracket (2). Tighten setscrew (3) with screwdriver.
2. Line up holes in support (4) and bracket (2). Push straight pin (5) in holes in support (4) and bracket (2).
3. Put washer (6) on straight pin (5). Put new cotter pin (7) in straight pin (5) with pliers.
4. Put spring (8) on support (4) and bracket (2) with pliers.
5. Put chestrest (9) on support (4). Line up holes in support (4) and chestrest (9). Drive new spring pin (10) in holes in support (4) and chestrest (9) with hammer and punch.

Follow-on Maintenance:

1. Install chestrest assembly; refer to task 16.
2. Install box and rim latch; refer to TM 9-2350-255-20-2-3-3, para. 6-7.

TASK 15 ENDS HERE



ARR82-0777

SK 16. Install Gunner's Left or Right Knee Guards or Chestrest Assembly

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, long round nose
Screwdriver, flat tip
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, combination, 7/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lockwasher (96906) MS35333-42 (two required)
Lubricating Oil, OE/HDO-30, MIL-L-2104 (Item 33)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

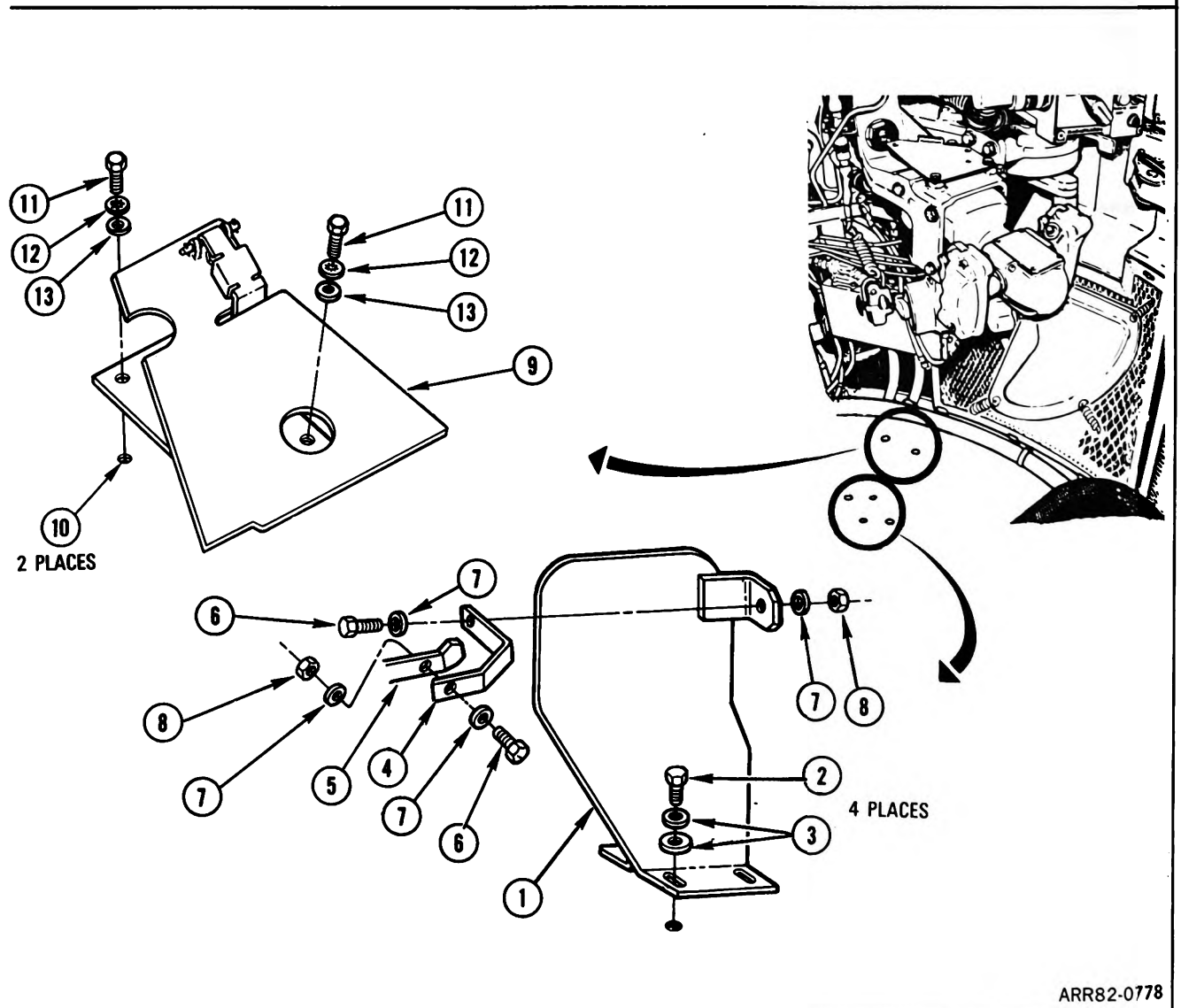
Remove gunner's left or right knee guard or chestrest assembly; refer to task 1.

FRAME 21

Install Gunner's Left Knee Guard:

1. Line up holes in knee guard (1) with holes in turret floor. Screw four screws (2) and eight washers (3) through holes in knee guard (1) and into turret floor with 9/16-inch socket, extension, and handle.
2. Line up holes in bracket (4) with holes in knee guard (1) and bracket (5). Put two screws (6) and washers (7) in place on bracket (4). Screw two nuts (8) and washers (7) on two screws (6).
3. Hold two screws (6) with 7/16-inch wrench. Tighten two nuts (8) with 7/16-inch socket and handle.
4. Place footrest (9) in place over two mounting holes (10) in turret floor. Screw in and tighten two screws (11) new lockwashers (12) and washers (13) with 9/16-inch socket, extension, and handle.

GO TO FRAME 22



ARR82-0778

FRAME 22**Install Gunner's Right Knee Guard:**

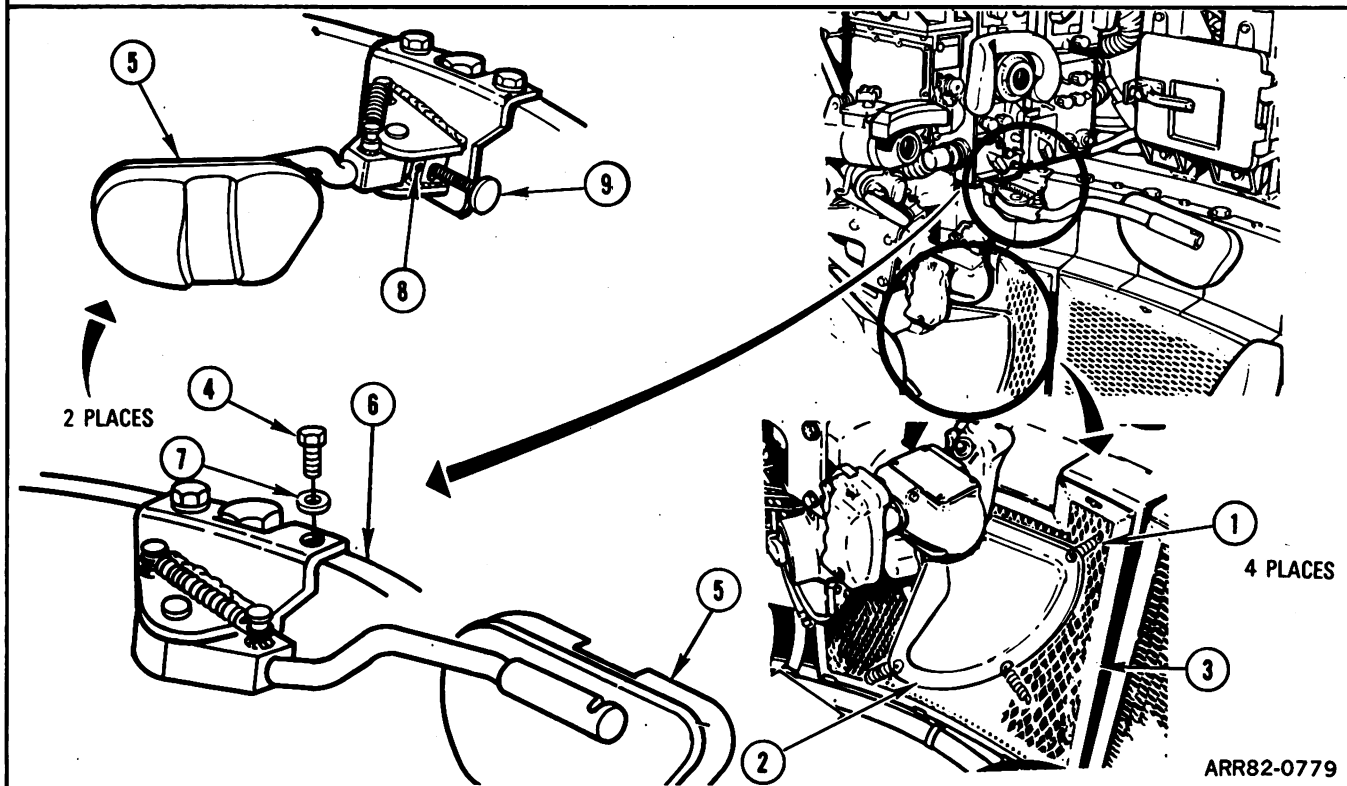
1. Put four springs (1) in holes in knee guard (2) with pliers.
2. Put knee guard (2) in place on screen (3). Pull four springs (1) with pliers and hook springs (1) in screen (3) so knee guard (2) fits against screen (3).

Install and Adjust Gunner's Chestrest Assembly:

3. Spread a thin coat of lubricating oil on threads of two screws (4).
4. Put gunner's chestrest assembly (5) in place on bracket (6). Screw in and tighten two screws (4) and washers (7) with 9/16-inch socket and handle.
5. Torque screws (4) between 360 and 420 pound inches (41 and 47 Newton meters) with 9/16-inch socket and torque wrench.
6. Move gunner's chestrest assembly to open position; refer to TM 9-2350-255-10.
7. Loosen setscrew (8) with screwdriver. Turn thumbscrew (9) in or out to set chestrest assembly (5) in correct position. Tighten setscrew (8) with screwdriver.

Follow-on Maintenance:

Install box and rim latch; refer to TM 9-2350-255-20-2-3-3, para. 6-7.

END OF SAFETY GUARDS AND PADS MAINTENANCE

3-13. Turret Ammunition Racks

Task	Title	Frames
1	Remove Left and Right Center Bustle Ammunition Racks	1 - 4
2	Remove Left Side Six-Round Bustle Ammunition Rack	5 - 6
3	Remove Right Side Six-Round Bustle Ammunition Rack	7 - 8
4	Remove Left Side Rotary Ammunition Rack	9 - 10
5	Remove Right Side Rotary Ammunition Rack	11
6	Remove 105MM Ready Ammunition Rack Cover and Strap	12
7	Remove 105MM Ready Ammunition Rack	13
8	Install Left and Right Center Bustle Ammunition Racks	14 - 18
9	Install Left Side Six-Round Bustle Ammunition Rack	19 - 22
10	Install Right Side Six-Round Bustle Ammunition Rack	23 - 25
11	Install Left Side Rotary Ammunition Rack	26
12	Install Right Side Rotary Ammunition Rack	27
13	Install 105MM Ready Ammunition Rack Cover and Strap	28
14	Install 105MM Ready Ammunition Rack	29
15	Replace Bustle Swing Tube Plate Spacers	30
16	Replace Bustle Swing Tube Flat Spring	31 - 32
17	Remove Bustle or Ready Ammunition Rack Plunger or Designation Plate	33
18	Install Bustle or Ready Ammunition Rack Plunger or Designation Plate	34
19	Replace Bustle or Ready Ammunition Tube Locking Flat Spring	35 - 36
20	Replace Ready Ammunition Rack Tube, Cover, or Pin	37 - 39
21	Replace Ready Ammunition Rack Pin, Chain, Hooks, or Rivet	40
22	Remove Rotary Rack Front Mounting Post and Latch Assembly, Right or Left Side	41
23	Replace Bearing on Left or Right Side Rotary Ammunition Rack	42 - 43
24	Repair Rotary Rack Front Mounting Post and Latch Assembly, Right or Left Side	44 - 45
25	Install Rotary Rack Front Mounting Post and Latch Assembly, Right or Left Side	46
26	Repair Left Center Bustle Ammunition Rack	47 - 52

TASK 1. Remove Left and Right Center Bustle Ammunition Racks

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 12-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies: None

Personnel: Three

Soldier A: Removes racks.
Soldier B: Helps Soldier A.
Soldier C: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Open sliding metal stowage door; refer to TM 9-2350-255-10.
3. Set sliding metal ready door to manual operation; refer to TM 9-2350-255-10.
4. Remove blow-off plates; refer to para. 3-14, task 1.

FRAME 1

Remove Right Center Bustle Ammunition Rack:

- Soldier A:** 1. Unscrew and take out three screws (1) and washers (2) from angle bracket (3) with socket, extension, and handle.
- Soldier A:** 2. Look at bracket (3) for bends or cracks. If bad, turn in bracket (3). If OK set aside for later use.
- Soldier A:** 3. Unscrew and take out three screws (4) and washers (5) from bottom front mount (6) with socket, extension, and handle.

CAUTION

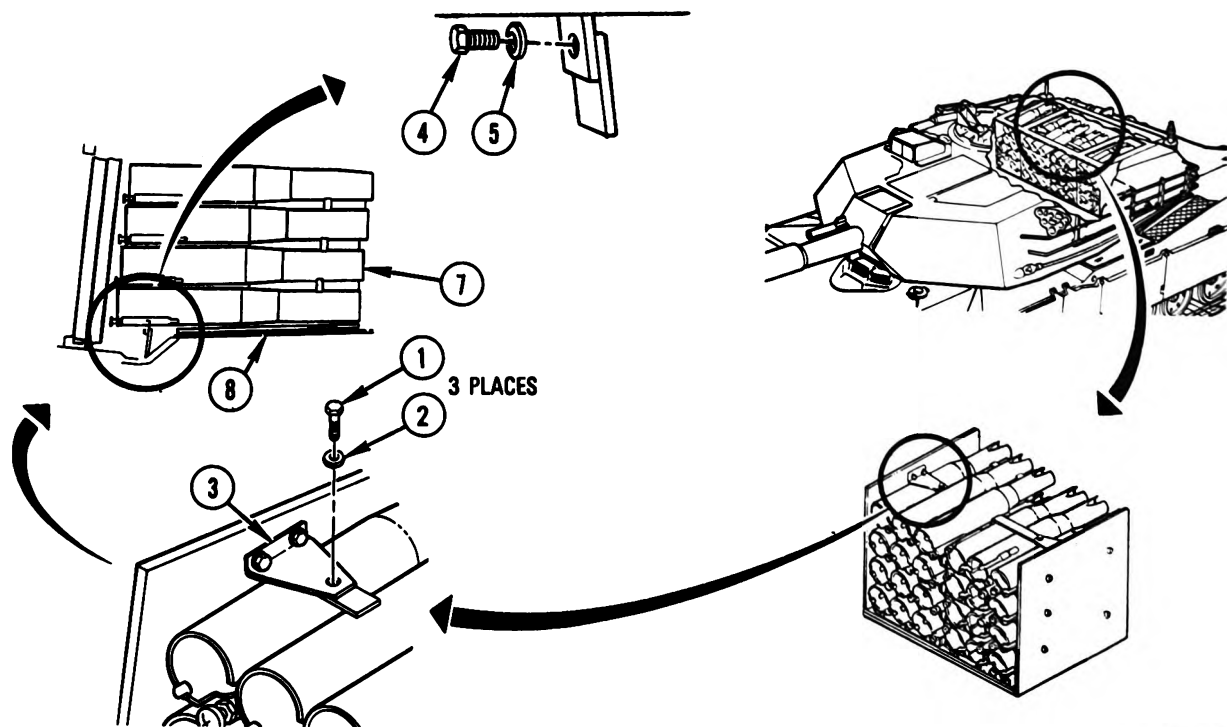
Use care when moving rack (7). Insulation (8) may be damaged when moving rack (7).

- Soldier A,**
Soldier B: 4. Pull rack (7) into crew compartment.

NOTE

If you are doing this task to gain access to right side six-round or four-round bustle ammunition rack, TASK 1 ENDS HERE.

GO TO FRAME 2



ARR82-0427

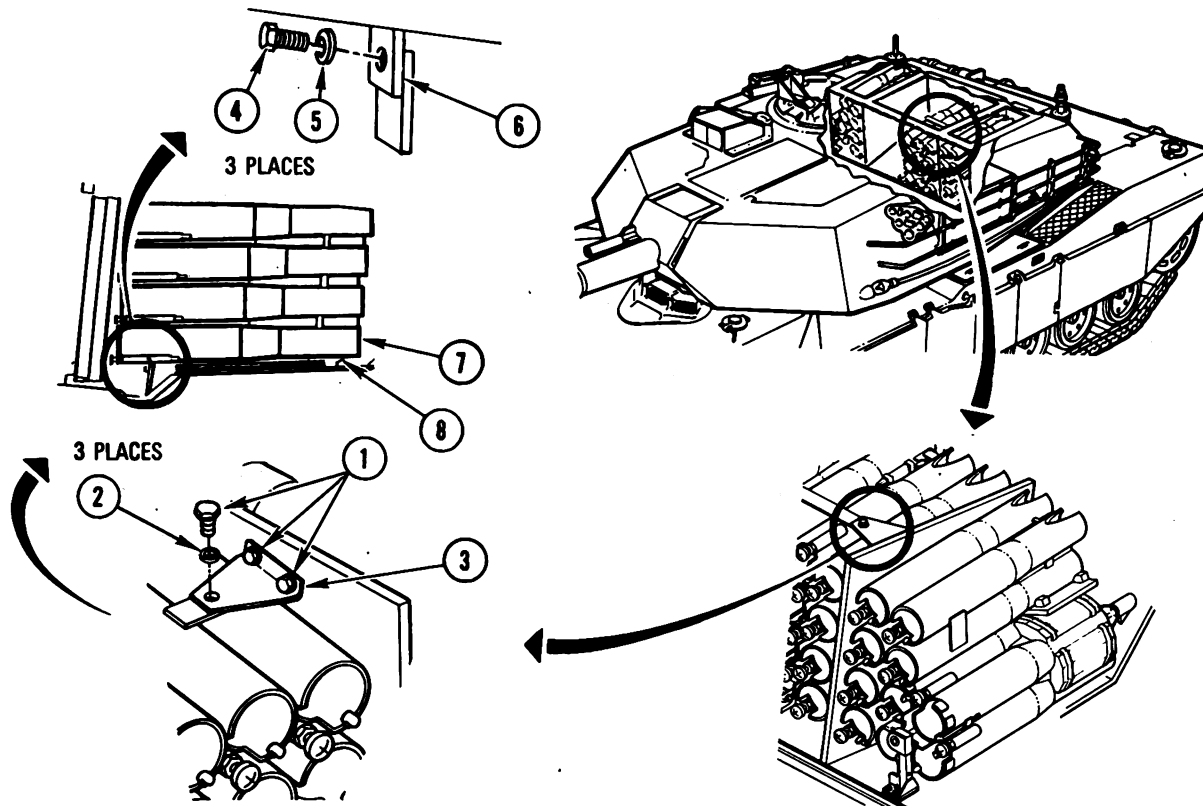
FRAME 2**Remove Angle Bracket and Front Mounting Screws:**

- Soldier A: 1. Close sliding metal stowage door and open sliding metal ready door; refer to TM 9-2350-255-10.
- Soldier A: 2. Unscrew and take out three screws (1) and washers (2) from top bracket (3) with socket, extension, and handle.
- Soldier A: 3. Look at bracket (3) for bends or cracks. If bad turn in. If OK set aside for later use.
- Soldier A: 4. Unscrew and take out three screws (4) and washers (5) from bottom front mount (6) with socket, extension, and handle.
- Soldier A,
Soldier B: 5. Pull rack (7) forward to free it from mount (8).

NOTE

If doing this task to gain access to left side six-round or four-round bustle ammunition rack, move rack (7) to right side of ammunition bustle compartment and TASK 1 ENDS HERE.

GO TO FRAME 3



ARR82-0428

FRAME 3

Remove Left Center Bustle Ammunition Rack from Tank:

Soldier A,

Soldier B: 1. Move rack (1) sideways into right center rack compartment.

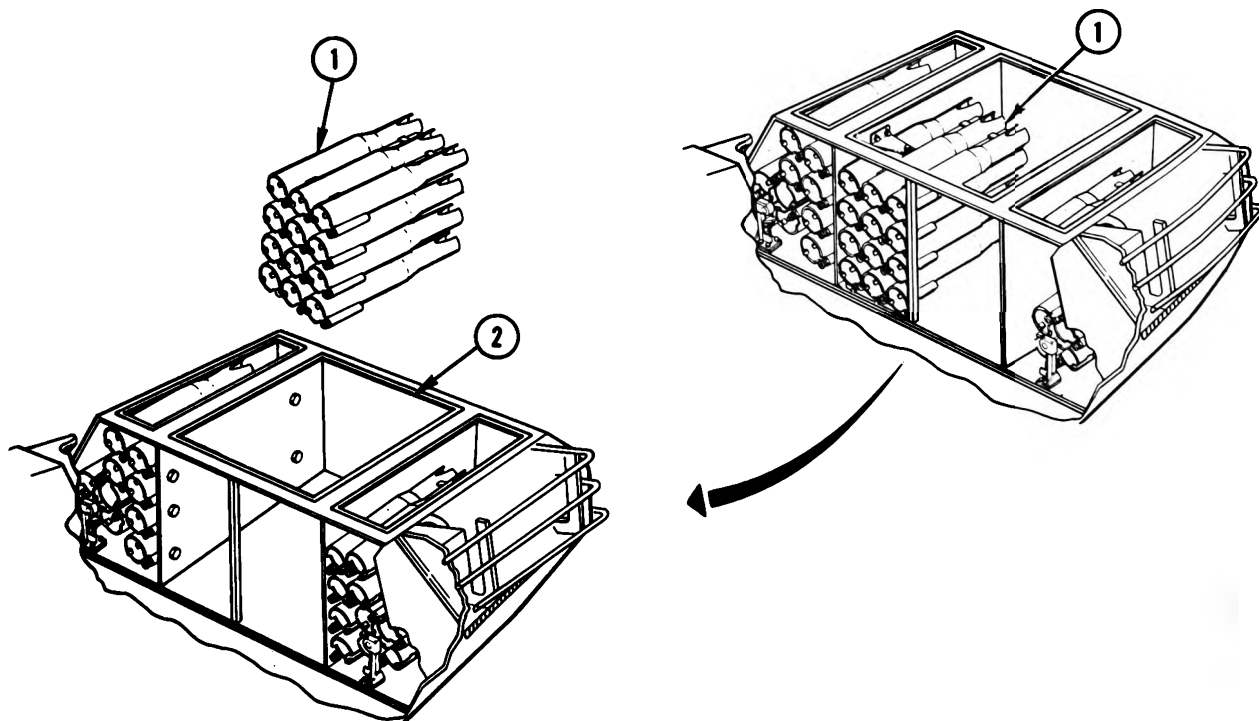
Soldier A,

Soldier B,

Soldier C: 2. Lift rack (1) out through opening (2) and move rack (1) to a clean work area.

Soldier A: 3. Look at rack (1) for bends or cracks. If bad turn in. If OK set aside for later use.

GO TO FRAME 4



ARR82-0429

FRAME 4

Remove Right Center Bustle Ammunition Rack from Tank:

Soldier A: 1. Close ammunition ready door and open stowage door; refer to TM 9-2350-255-10.

Soldier A,

Soldier B: 2. Move rack (1) from crew compartment into right center rack compartment.

Soldier A,

Soldier B,

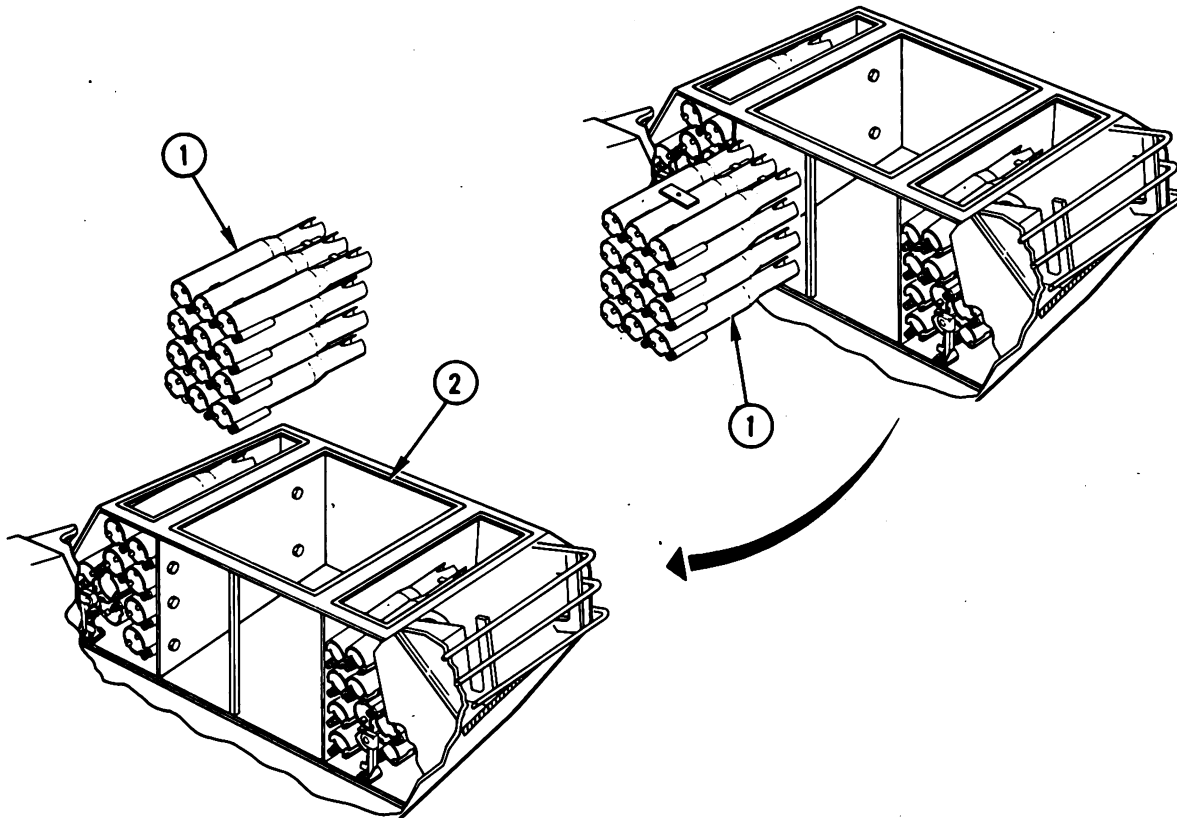
Soldier C: 3. Lift rack (1) out through opening (2) and move rack (1) to a clean work area.

Soldier A: 4. Look at rack (1) for bends or cracks. If bad, turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install left and right center bustle ammunition racks, refer to task 8.

TASK 1 ENDS HERE



ARR82-0430

TASK 2. Remove Left Side Six-Round Bustle Ammunition Rack

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies: None

Personnel: Two

Soldier A: Removes rack.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Open sliding metal stowage door; refer to TM 9-2350-255-10.
3. Set sliding metal ready door to manual operation and open; refer to TM 9-2350-255-10.
4. Remove blow-off plates; refer to para. 3-14, task 1.
5. Remove left and right center bustle ammunition racks; refer to task 1.
6. Close sliding metal stowage door; refer to TM 9-2350-255-10.
7. Open sliding metal ready door; refer to TM 9-2350-255-10.

FRAME 5**Remove Mounting Screws and Rack:**

Soldier A: 1. Unscrew and take out five screws (1) and washers (2) from side mounting plate (3) with socket and handle.

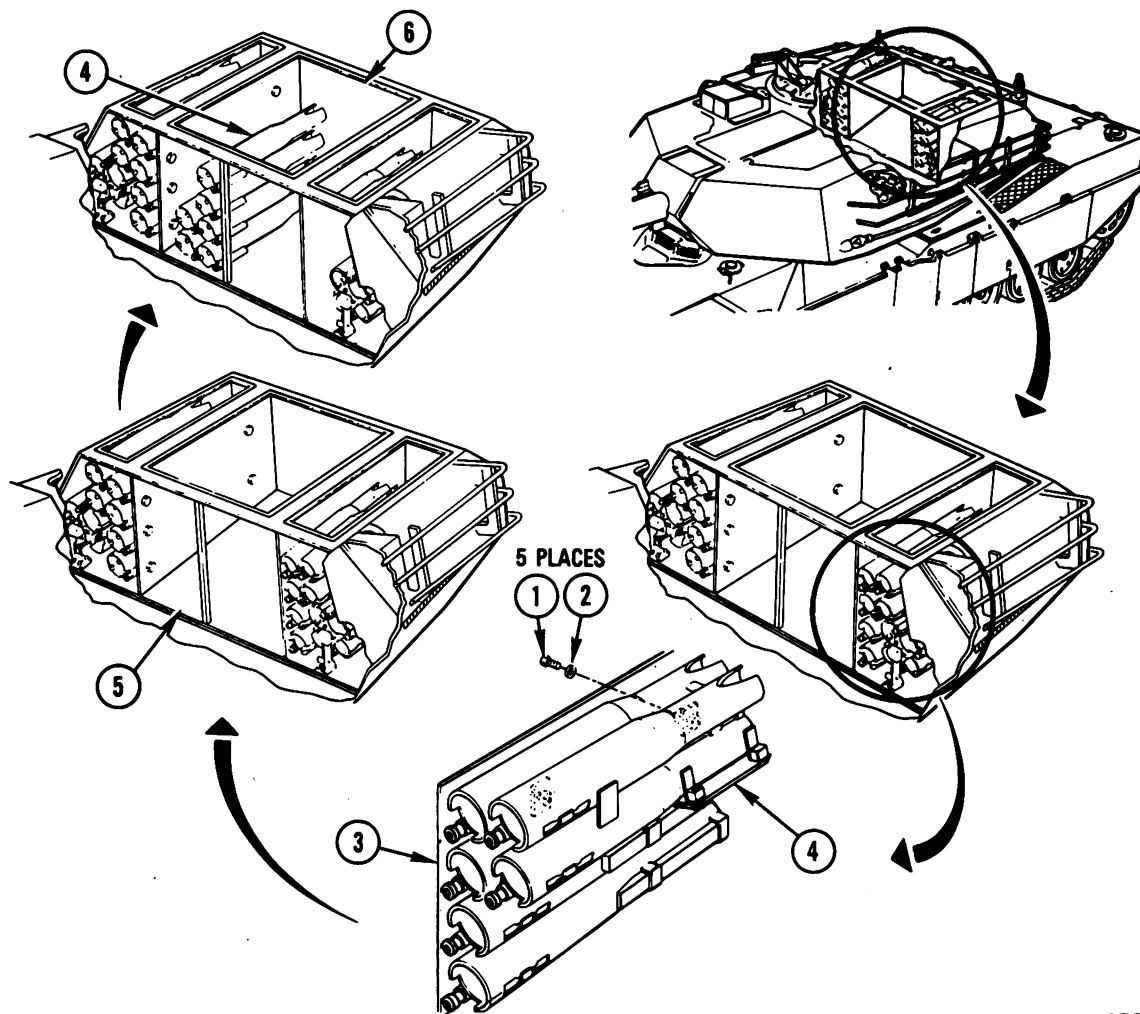
Soldier A: 2. Lower knee switch actuator lever; refer to TM 9-2350-255-10.

**Soldier A,
Soldier B:** 3. Pull rack (4) into crew compartment.

**Soldier A,
Soldier B:** 4. Lift and move rack (4) into left center ammunition rack empty space (5).

**Soldier A,
Soldier B:** 5. Lift out rack (4) through blow-off plate opening (6) and move rack (4) to a clean work area.

GO TO FRAME 6



ARR82-0431

FRAME 6

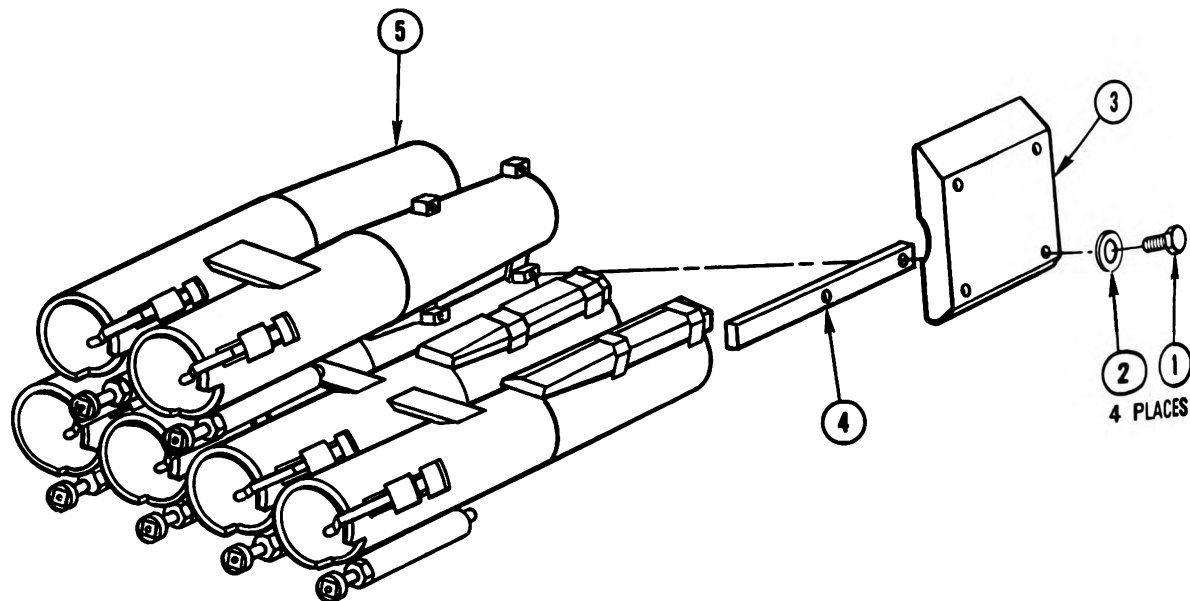
Remove Plate and Bar:

1. Unscrew and take out four screws (1) and washers (2) from plate (3) with socket and handle.
2. Take off plate (3) and bar (4). Set plate (3) and bar (4) aside for later use.
3. Look at rack (5) for bends or cracks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install left side six-round bustle ammunition rack, refer to task 9.

TASK 2 ENDS HERE



ARR82-0432

TASK 3. Remove Right Side Six-Round Bustle Ammunition Rack

TM 9-2350-255-20-2-3-2

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies: None

Personnel: Two

Soldier A: Removes rack.
Soldier B: Helps Soldier A.

NOTE

Soldier B is needed in frame 7 only.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Open sliding metal stowage door; refer to TM 9-2350-255-10.
3. Set sliding metal ready door to manual operation and open; refer to TM 9-2350-255-10.
4. Remove blow-off plates; refer to para. 3-14, task 1.
5. Remove left and right center bustle ammunition racks; refer to task 1.

FRAME 7

Remove Rack:

Soldier A: 1. Unscrew and take out five screws (1) and washers (2) from side mounting plate (3) with socket and handle.

CAUTION

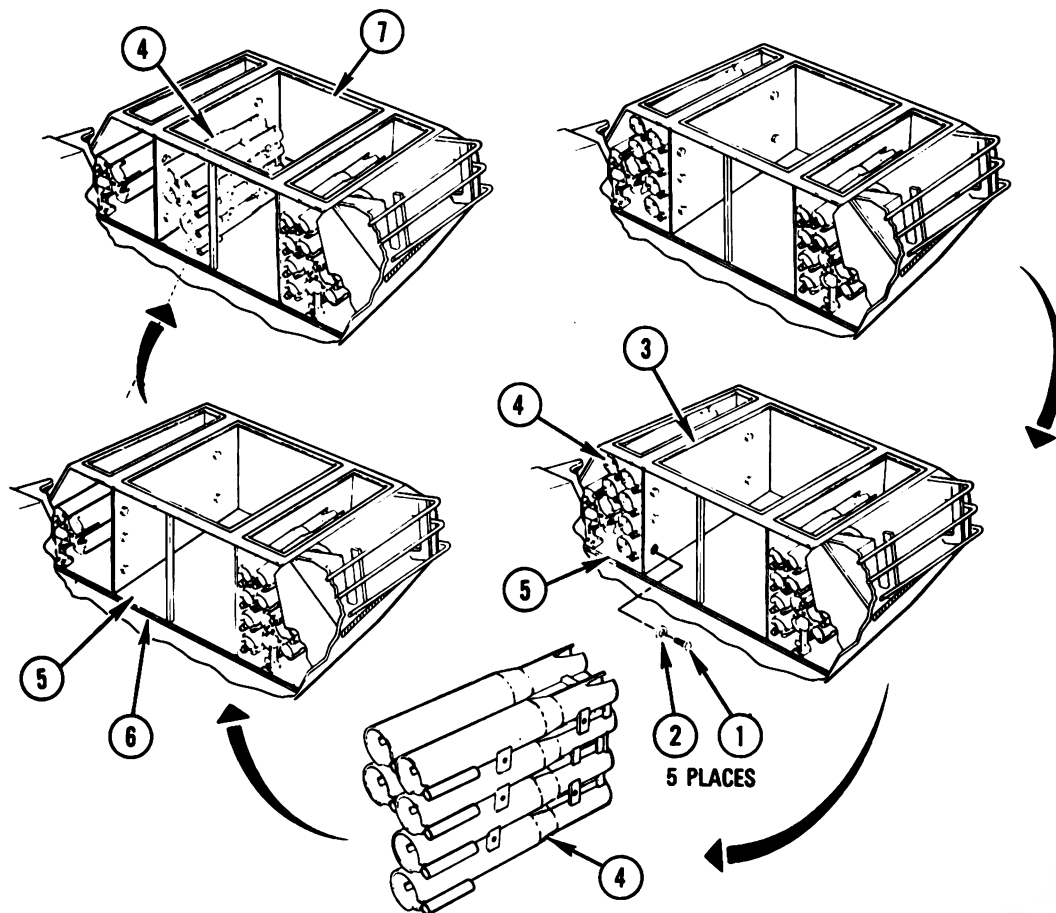
Use care when moving rack (4). Insulation (5) may be damaged when moving rack (4).

**Soldier A,
Soldier B:** 2. Pull rack (4) into crew compartment.

**Soldier A,
Soldier B:** 3. Lift and move rack (4) into right center ammunition rack empty space (6).

**Soldier A,
Soldier B:** 4. Lift out rack (4) through opening (7) and move to clean work area.

GO TO FRAME 8



ARR82-0433

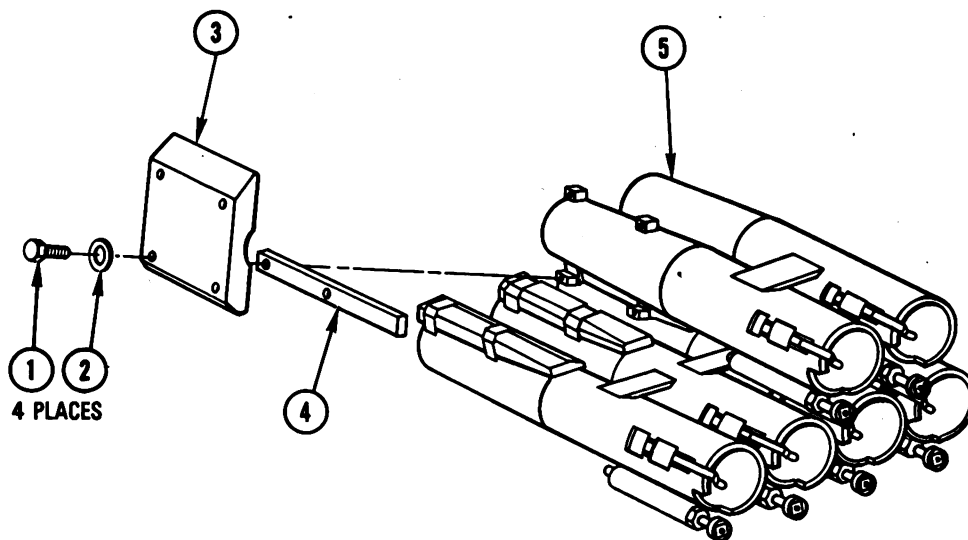
FRAME 8**Remove Plate and Bar:**

1. Unscrew and take out four screws (1) and washers (2) from plate (3) with socket and handle.
2. Take off plate (3) and bar (4). Set plate (3) and bar (4) aside for later use.
3. Look at rack (5) for bends or cracks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install right side six-round bustle ammunition rack, refer to task 10.

TASK 3 ENDS HERE



ARR82-0434

TASK 4. Remove Left Side Rotary Ammunition Rack

Applicability: All Models

Common Tools: None

Special Tools: None

Supplies: None

Personnel: Two

Soldier A: Removes rack.

Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Open sliding metal stowage door; refer to TM 9-2350-255-10.
3. Set sliding metal ready door to manual operation and open; refer to TM 9-2350-255-10.
4. Remove blow-off plates; refer to para. 3-14, task 1.
5. Remove left and right center bustle ammunition racks; refer to task 1.
6. Remove left side six-round bustle ammunition rack; refer to task 2.
7. Remove rotary rack front mounting post and latch assembly, left side; refer to task 22.

FRAME 9

Remove Rack from Rear Mount:

CAUTION

Use care when moving rack (1). Insulation (2) may be damaged when moving rack (1).

Soldier A,

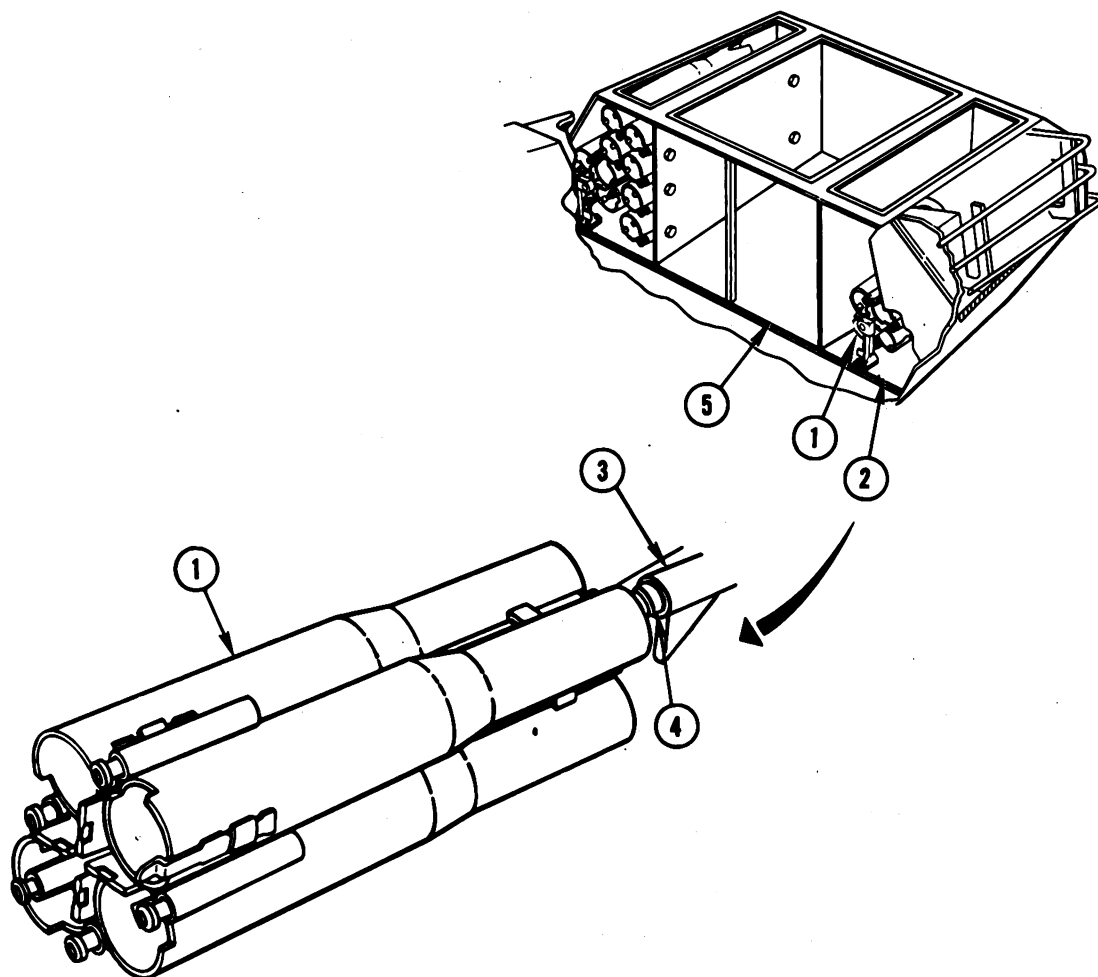
Soldier B: 1. Pull rack (1) forward to free from rear mounting tube (3) and mounting tube bearing (4).

Soldier A,

Soldier B: 2. Lift and move rack (1) to left center ammunition rack empty space (5).

Soldier A: 3. Look at bearing (4) for cracks or flat spots. If bad replace bearing (4); refer to task 23. If OK leave bearing (4) in place.

GO TO FRAME 10



ARR82-0435

FRAME 10

Remove Rack:

Soldier A,

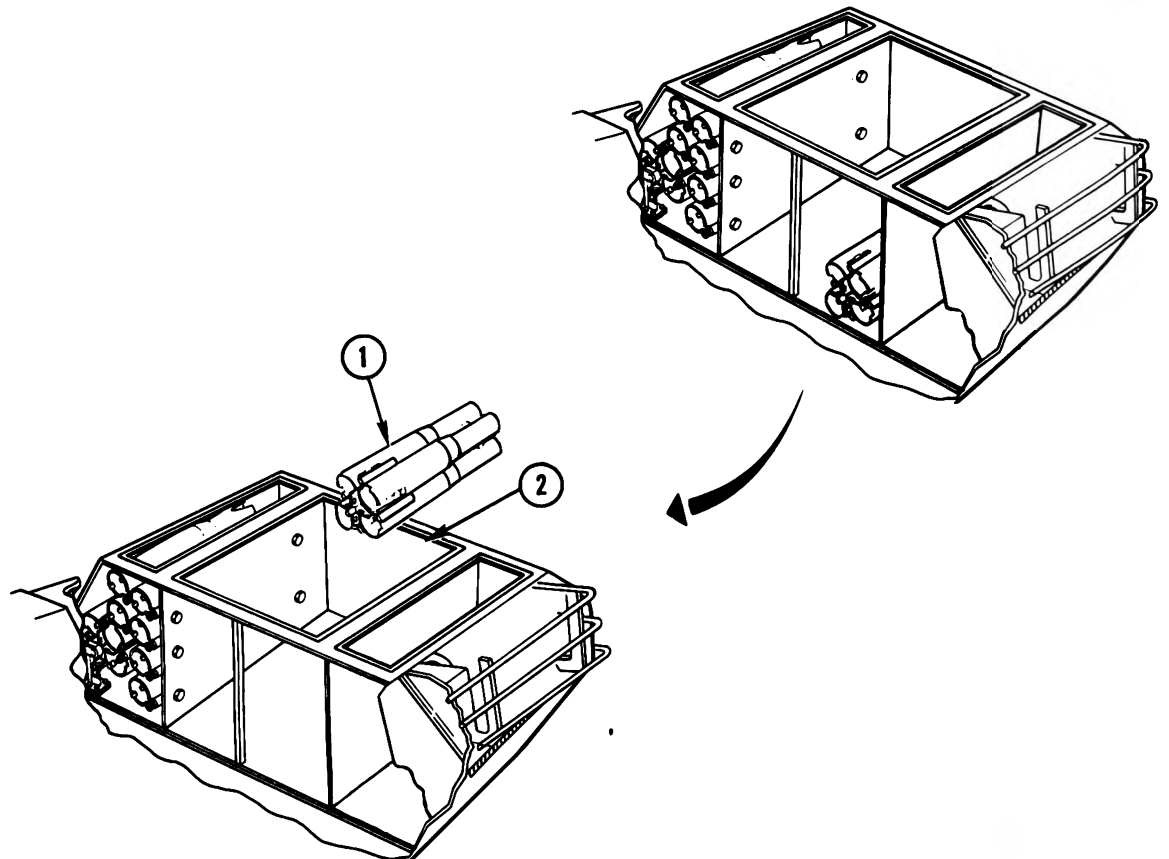
Soldier B: 1. Lift out rack (1) through blow-off plate opening (2) and move rack (1) to a clean work area.

Soldier A: 2. Look at rack (1) for bends or cracks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install left side rotary ammunition rack, refer to task 11.

TASK 4 ENDS HERE



ARR82-0436

TASK 5. Remove Right Side Rotary Ammunition Rack

Applicability: All Models

Common Tools: None

Special Tools: None

Supplies: None

Personnel: Two

Soldier A: Removes rack.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Open sliding metal stowage door; refer to TM 9-2350-255-10.
3. Set sliding metal ready door to manual operation and open; refer to TM 9-2350-255-10.
4. Remove blow-off plates; refer to para. 3-14, task 1.
5. Remove right and left center bustle ammunition racks; refer to task 1.
6. Remove right side six-round bustle ammunition rack; refer to task 3.
7. Remove rotary rack front mounting post and latch assembly, right side; refer to task 22.

FRAME 11

Remove Rack from Rear Mount:

CAUTION

Use care when moving rack (1). Insulation (2) may be damaged when moving rack (1).

Soldier A,

Soldier B: 1. Pull rack (1) forward to free it from rear mounting tube (3) and mounting tube bearing (4).

Soldier A,

Soldier B: 2. Lift and move rack (1) to right center ammunition rack empty space (5).

Soldier A:

Soldier B: 3. Look at bearing (4) for cracks or flat spots. If bad replace bearing (4); refer to task 23. If OK leave bearing (4) in place.

Soldier A,

Soldier B: 4. Lift out rack (1) through blow-off plate opening (6) and move to clean work area.

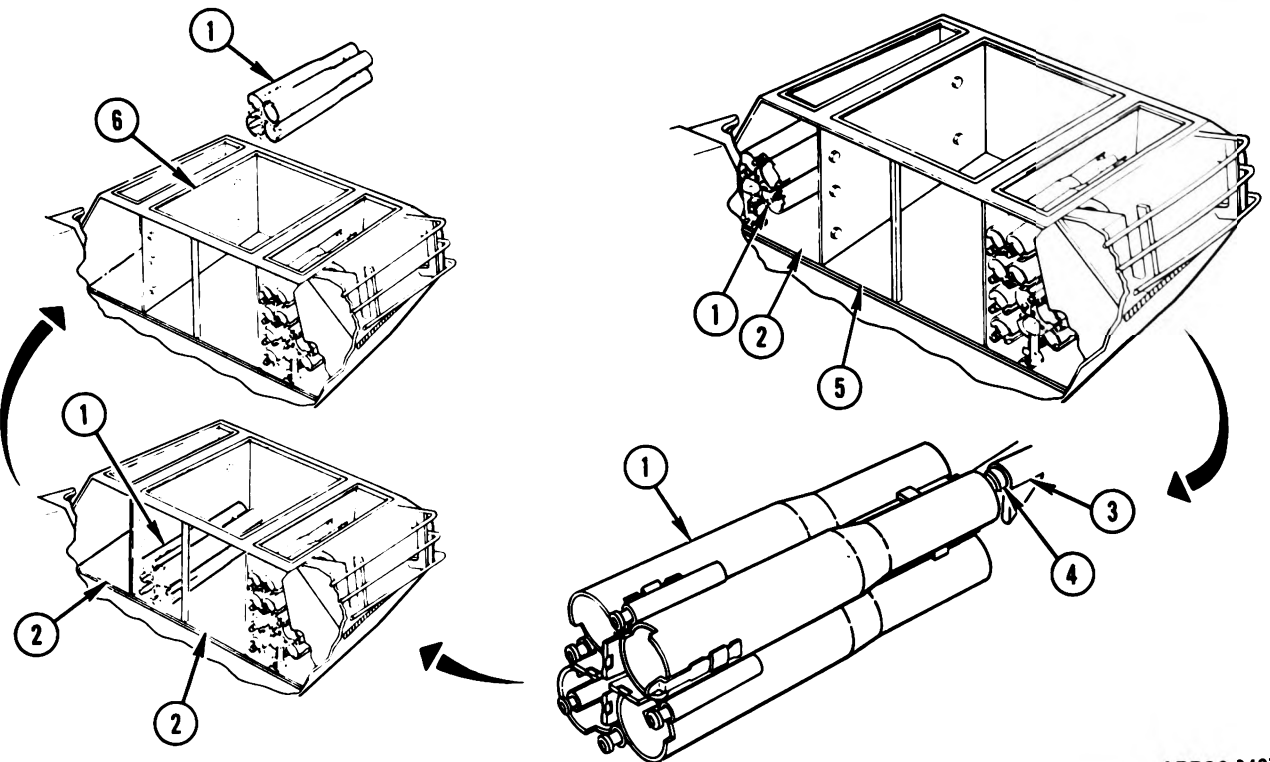
Soldier A:

Soldier B: 5. Look at rack (1) for bends or cracks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install right side rotary ammunition rack, refer to task 12.

TASK 5 ENDS HERE



ARR82-0437

TASK 6. Remove 105MM Ready Ammunition Rack Cover and Strap

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Extension, socket wrench, 3/8-inch square drive, 12-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, long round nose
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, combination, 7/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Lower main gun tube; refer to TM 9-2350-255-10.
2. Remove electronics rack shield; refer to TM 9-2350-255-20-2-3-3, para. 7-7.

FRAME 12

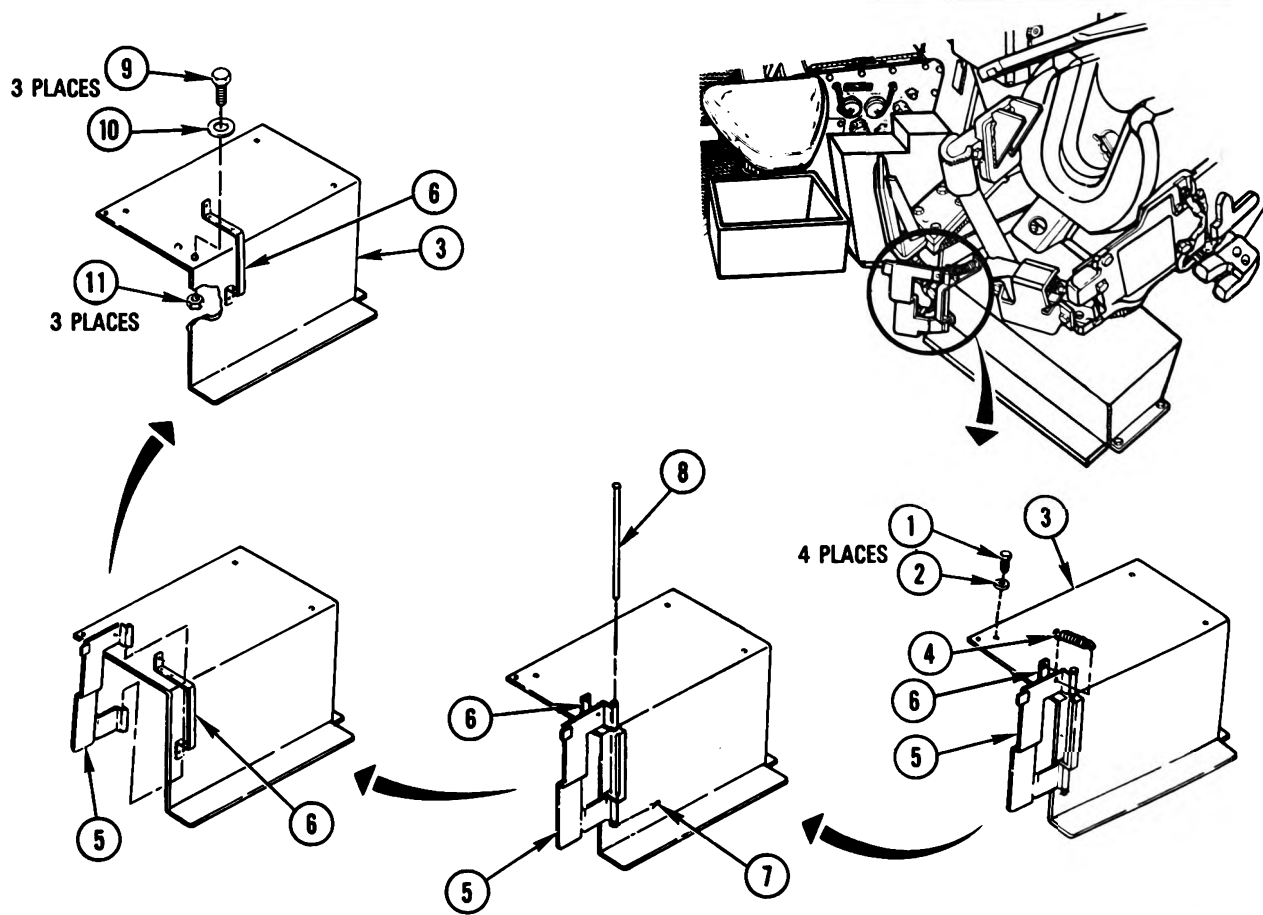
Remove Slipping Access Cover and Strap:

1. Unscrew and take out four screws (1) and washers (2) from access cover (3) with 9/16-inch socket, 12-inch extension, and handle. Take out access cover (3).
2. Take spring (4) off rack cover (5) and strap (6) with pliers.
3. Take cotter pin (7) out of straight pin (8) with pliers. Get rid of cotter pin (7).
4. Take straight pin (8) out of rack cover (5) and strap (6). Take rack cover (5) off strap (6).
5. Unscrew and take out three screws (9), washers (10), and nuts (11) with 7/16-inch socket, 5-inch extension, handle, and wrench. Take strap (6) off access cover (3).
6. Look at all parts for cracks or breaks. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install 105MM ready ammunition rack cover and strap, refer to task 13.

TASK 6 ENDS HERE



ARR82-0438

TASK 7. Remove 105MM Ready Ammunition Rack

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 12-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, slip joint, conduit style with plastic jaw inserts
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies: None

Personnel: Two

Soldier A: Removes rack.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove loader's knee guard support; refer to para. 3-12, task 4.
2. Traverse turret until main gun is over right front fender, and then lock turret; refer to TM 9-2350-255-10.
3. Remove electronics rack shield; refer to TM 9-2350-255-20-2-3-3, para. 7-7.
4. Remove slipping cover; refer to TM 9-2350-255-20-2-3-1, para. 2-8.
5. Remove guard; refer to TM 9-2350-255-20-2-3-1, para. 2-7.

FRAME 13

Remove Rack:

NOTE

Read para. 4-4, on removing electrical connectors, before doing any work.

Soldier A: 1. Unscrew and take off electrical connector (1) with pliers.

Soldier A: 2. Unscrew and take out screw (2) and washer (3) from each side of rack (4) with socket, extension, and handle.

Soldier B: 3. Go to driver's compartment. Unscrew and take out screw (5) and washer (6) with socket, extension, and handle. Go to turret.

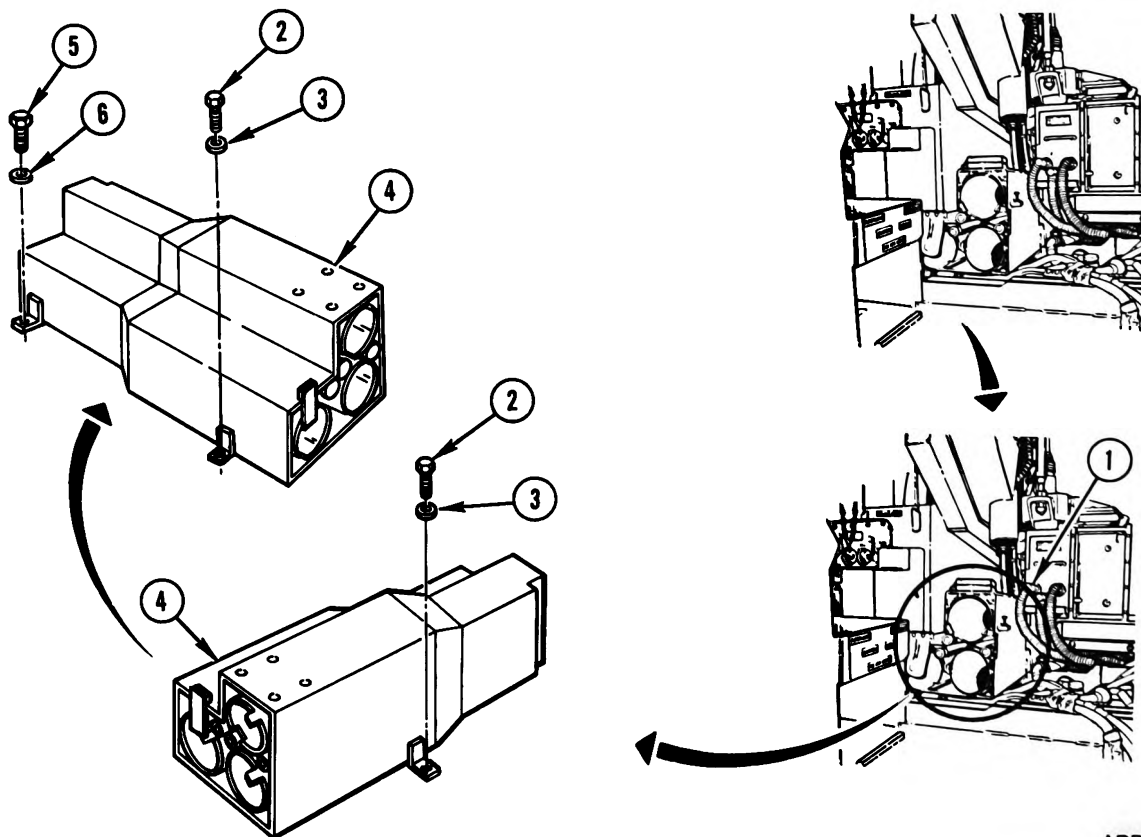
Soldier A,
Soldier B: 4. Lift out rack (4) through loader's hatch.

Soldier A: 5. Look at rack (4) for cracks or bends. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install 105MM ready ammunition rack, refer to task 14.

TASK 7 ENDS HERE



ARR82-0439

TASK 8. Install Left and Right Center Bustle Ammunition Racks

Applicability: All Models

Common Tools:

Bar, pry
Extension, socket wrench, 3/8-inch square drive, 12-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Sealing Compound, MIL-S-46163 (Item 49)

Personnel: Three

Soldier A: Installs rack.
Soldier B: Helps Soldier A.
Soldier C: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove left and right center bustle ammunition racks; refer to task 1.

FRAME 14

Move Right Center Bustle Ammunition Rack Inside Tank:

CAUTION

Use care when moving rack (1). Insulation (2) may be damaged when moving rack (1).

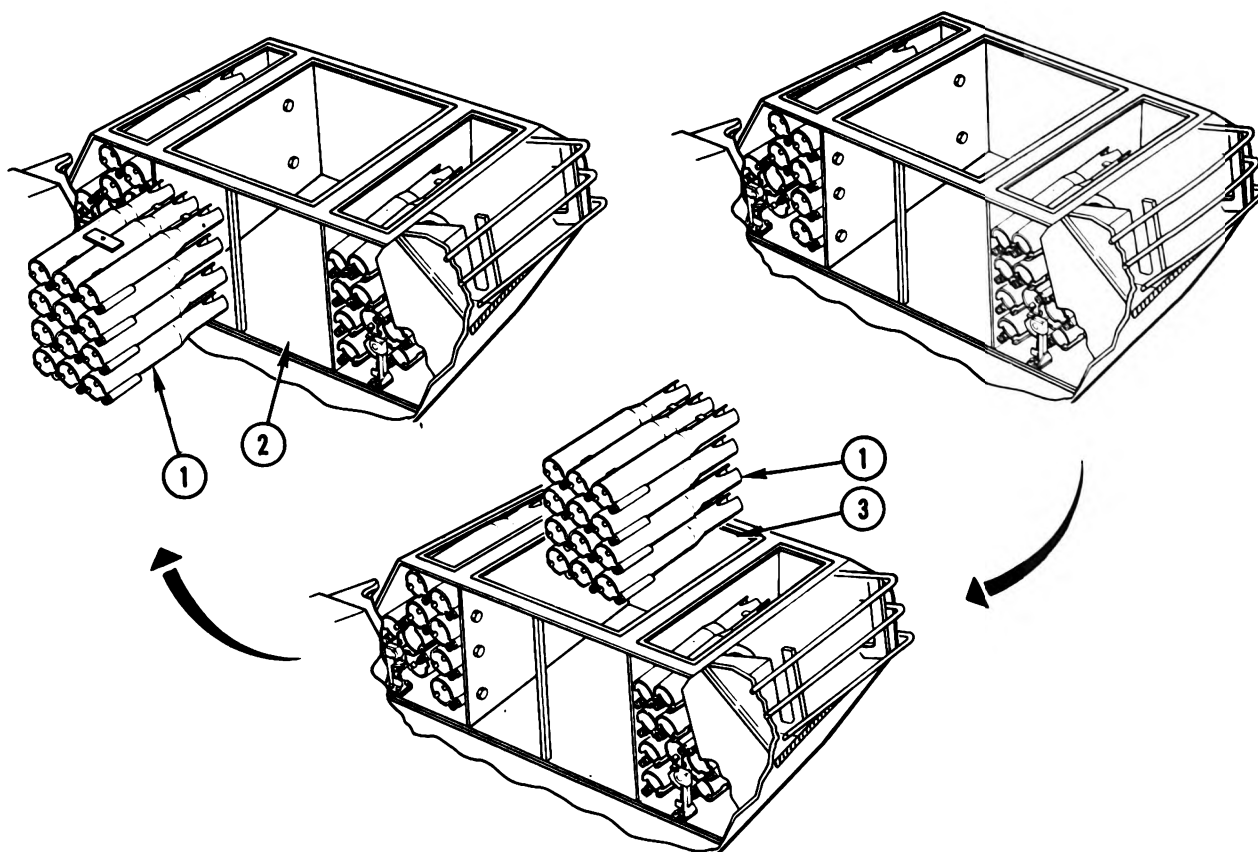
NOTE

Open and close sliding metal stowage door sliding metal and ready door as needed.

Soldier A,
Soldier B,
Soldier C: 1. Lower rack (1) through opening (3).

Soldier A,
Soldier B: 2. Pull rack (1) into crew compartment.

GO TO FRAME 15



ARR82-0440

FRAME 15

Install Left Center Bustle Ammunition Rack:

CAUTION

Use care when moving rack (1). Insulation (2) may be damaged when moving rack (1).

**Soldier A,
Soldier B,
Soldier C:** 1. Lower rack (1) through opening (3).

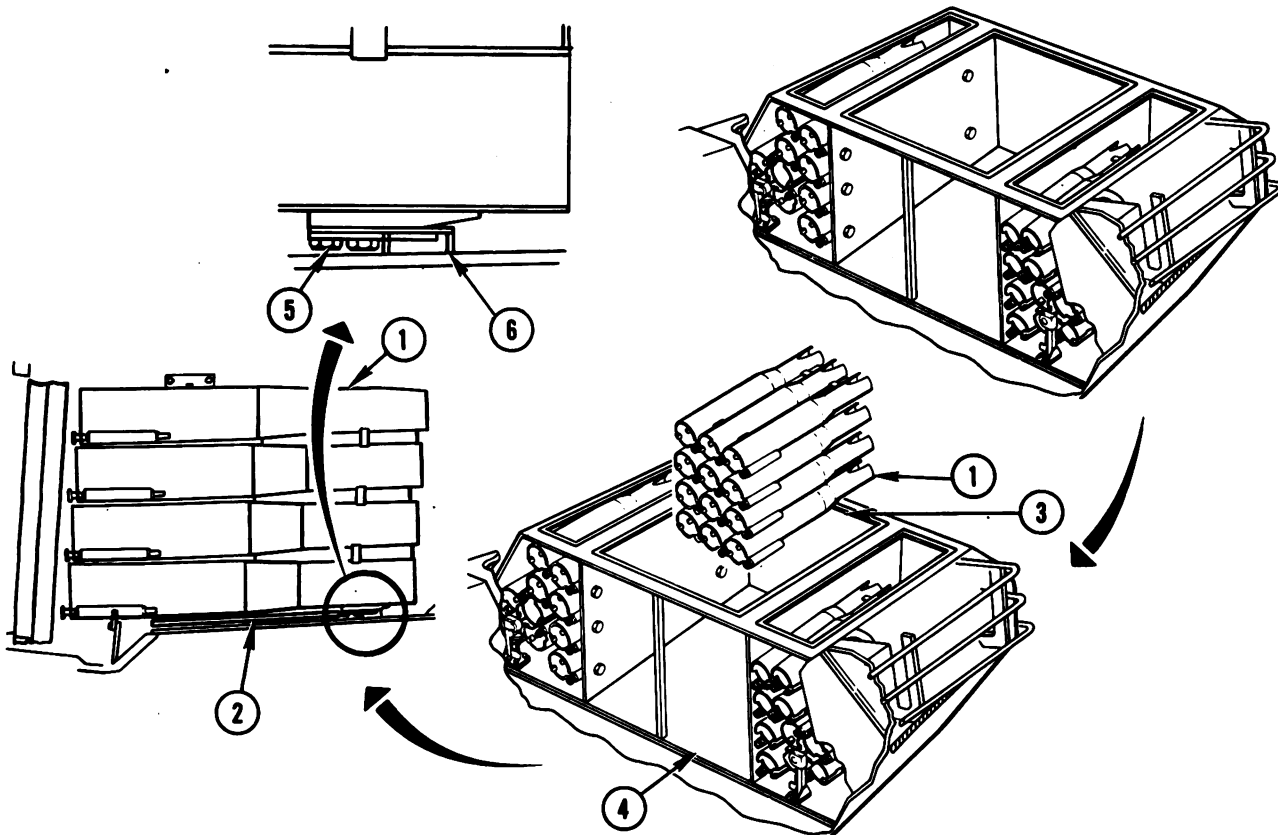
**Soldier B,
Soldier C:** 2. Move rack (1) to left side of center bustle ammunition compartment (4).

**Soldier A,
Soldier B:** 3. Push in rack (1) until retainer (5) mates with mount (6).

NOTE

Soldier B is not needed again until frame 17. Soldier C is no longer needed in this task.

GO TO FRAME 16



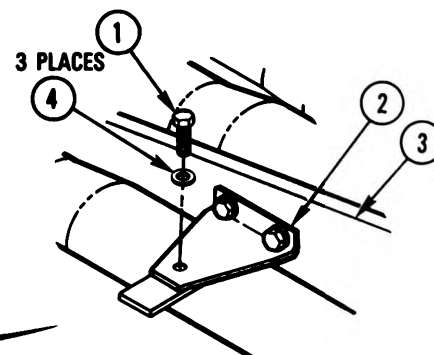
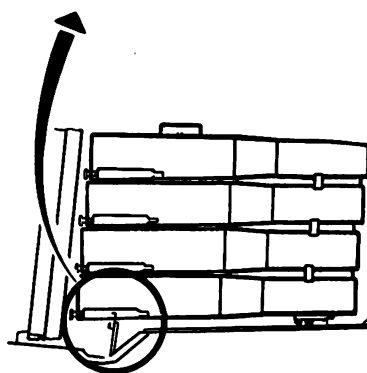
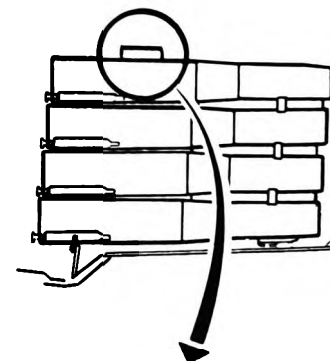
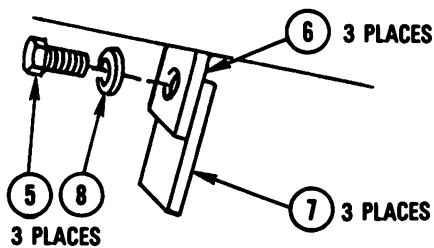
ARR82-0441

FRAME 16

Install Angle Bracket and Front Mounting Screws:

1. Put sealing compound on threads of three screws (1).
2. Position angle bracket (2) on compartment wall (3).
3. Screw in but do not tighten three screws (1) and washers (4) in angle bracket (2) with socket, extension, and handle.
4. Put sealing compound on threads of three screws (5).
5. Line up holes in three bottom front mounts (6) and brackets (7) on ammunition compartment floor with pry bar.
6. Screw in but do not tighten three screws (5) and washers (8) to bottom front mounts (6) and brackets (7) with socket, extension, and handle.
7. Torque screws (1, 5) between 335 and 385 pound inches (38 and 43 Newton meters).

GO TO FRAME 17



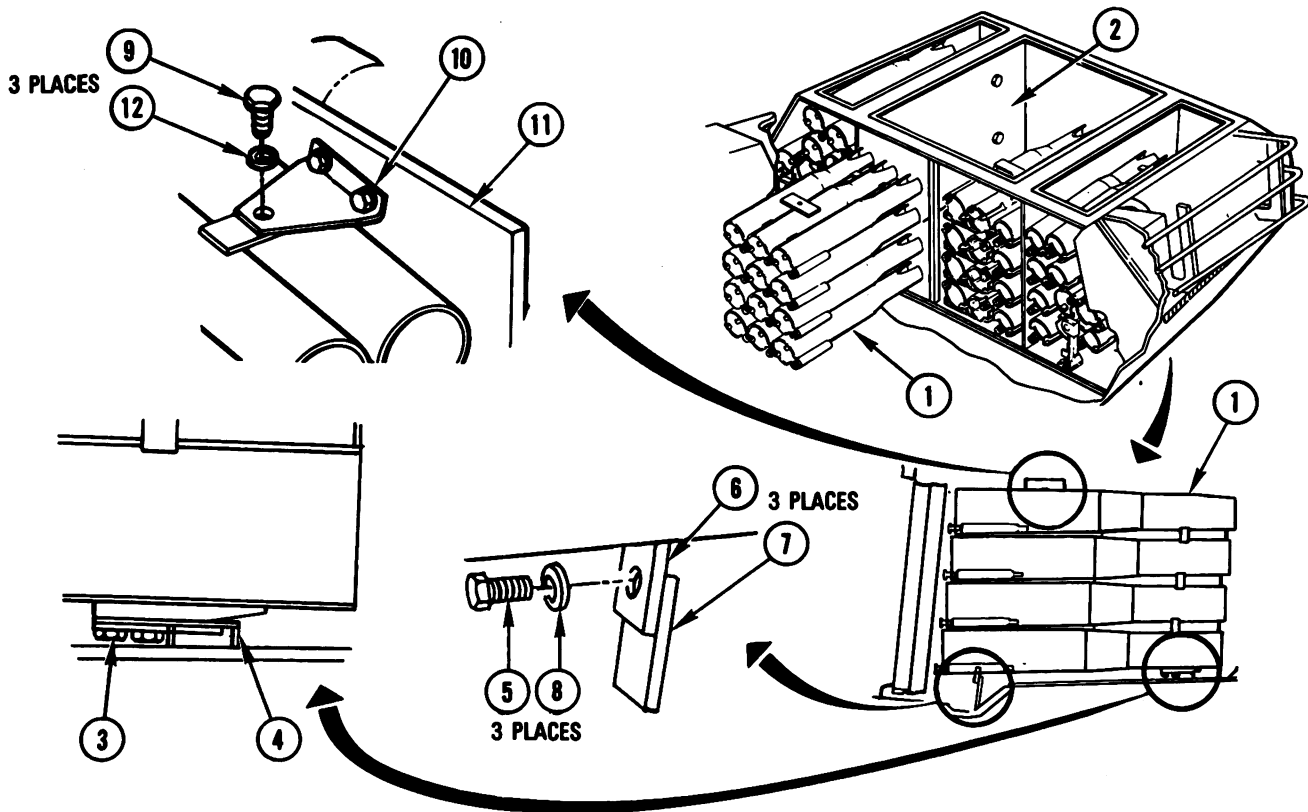
ARR82-0442

FRAME 17

Install Right Center Bustle Ammunition Rack:

- Soldier A,
 Soldier B: 1. Move rack (1) from crew compartment into right side of center bustle ammunition compartment (2). Push in rack (1) until rear retainer (3) mates with mount (4).
- Soldier A,
 Soldier B: 2. Put sealing compound on threads of three screws (5). Line up holes in three bottom front mounts (6) and brackets (7) on ammunition compartment floor with pry bar. Screw in three screws (5) and washers (8) with socket, extension, and handle.
- Soldier A: 3. Put sealing compound on threads of three screws (9).
- Soldier A,
 Soldier B: 4. Put angle bracket (10) on compartment wall (11). Screw in but do not tighten three screws (9) and washers (12) to angle bracket (10) with socket, extension, and handle.
- Soldier A: 5. Torque six screws (5, 9) between 335 and 385 pound inches (38 and 43 Newton meters).

GO TO FRAME 18



ARR82-0443

FRAME 18

Follow-on Maintenance:

1. Close sliding metal stowage door; refer to TM 9-2350-255-10.
2. Close and set sliding metal ready door for automatic operation; refer to TM 9-2350-255-10.
3. Install commander's ammunition door guard; refer to TM 9-2350-255-10.
4. Install blow-off plates; refer to para. 3-14, task 2.

TASK 8 ENDS HERE

TASK 9. Install Left Side Six-Round Bustle Ammunition Rack

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 12-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Sealing Compound, MIL-S-46163 (Item 49)

Personnel: Three

Soldier A: Installs rack.
Soldier B: Helps Soldier A.
Soldier C: Helps Soldier A.

NOTE

Soldiers B and C are not needed until frame 20.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

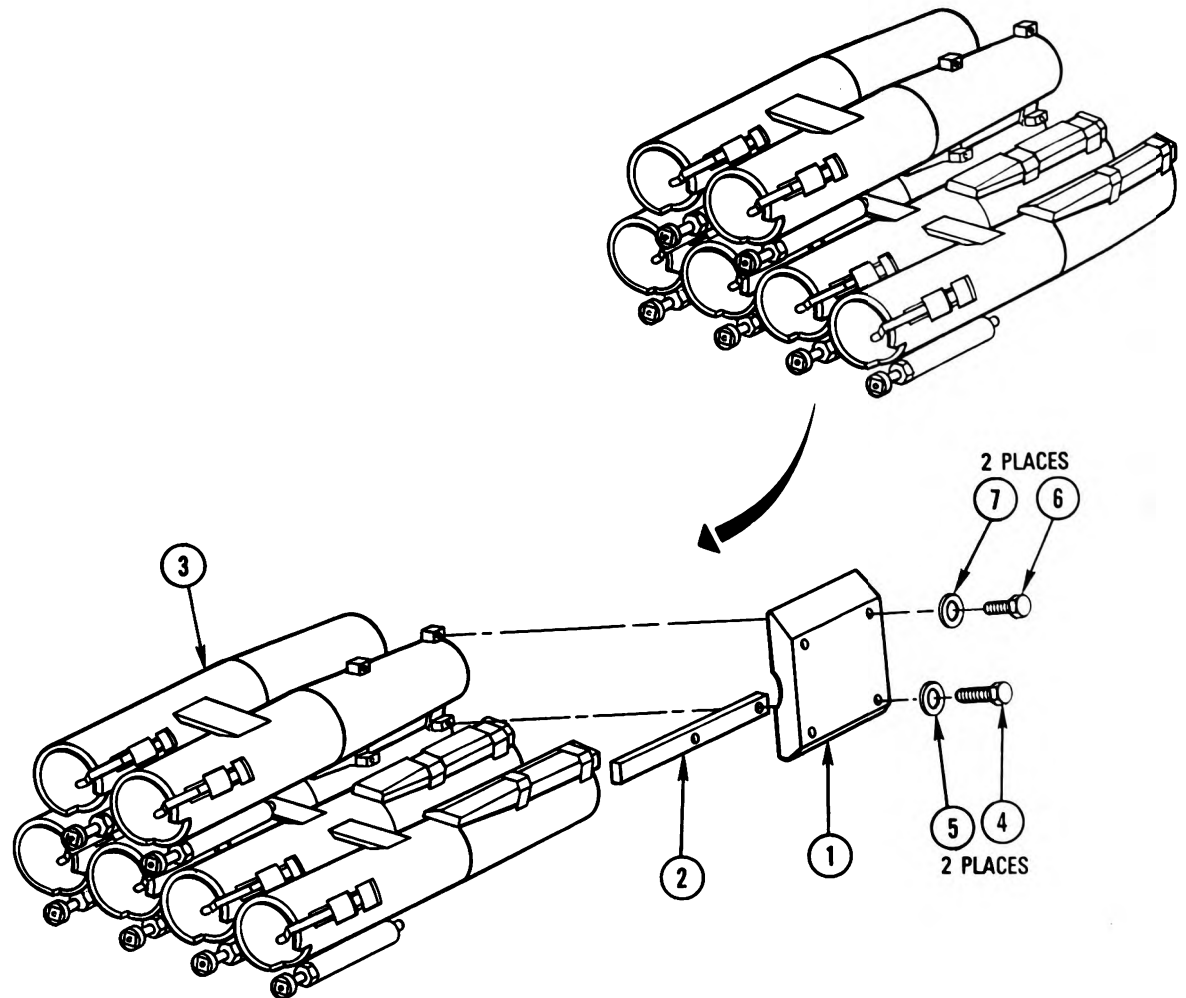
Remove left side six-round bustle ammunition rack; refer to task 2.

FRAME 19

Install Plate and Bar:

1. Line up holes in plate (1) and bar (2) with holes in rack (3).
2. Screw in and tighten two long screws (4) and washers (5) in plate (1), bar (2), and rack (3) with socket and handle.
3. Screw in and tighten two short screws (6) and washers (7) in plate (1) and rack (3) with socket and handle.

GO TO FRAME 20



ARR82-0444

FRAME 20

Install Rack:

CAUTION

Use care when moving rack (1). Insulation (2) may be damaged when moving rack (1).

Soldier A,
Soldier B,

Soldier C: 1. Lower rack (1) through opening (3).

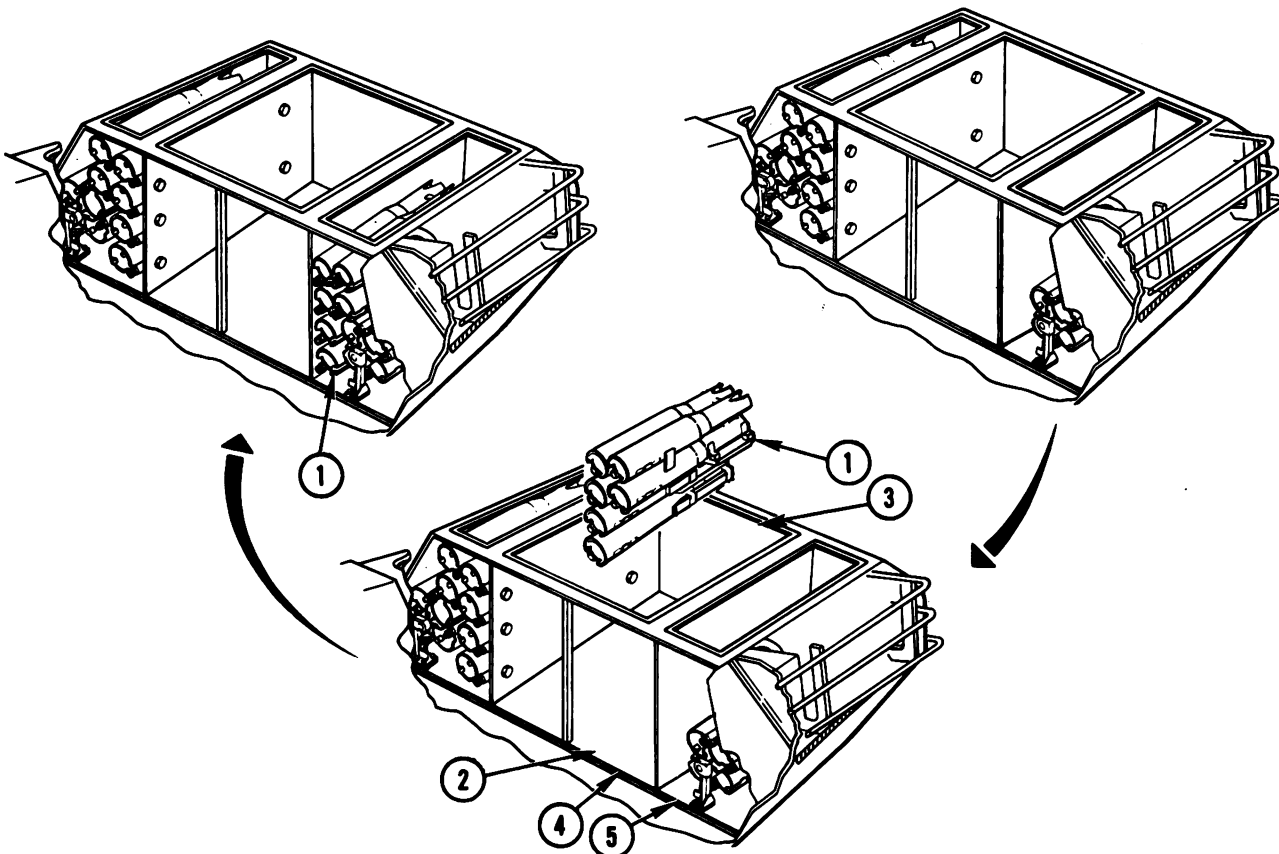
NOTE

Soldier C is no longer needed in this task.

Soldier A,
Soldier B:

2. Lift and move rack (1) from empty space in center ammunition compartment (4) to left side six-round ammunition rack empty space (5).

GO TO FRAME 21



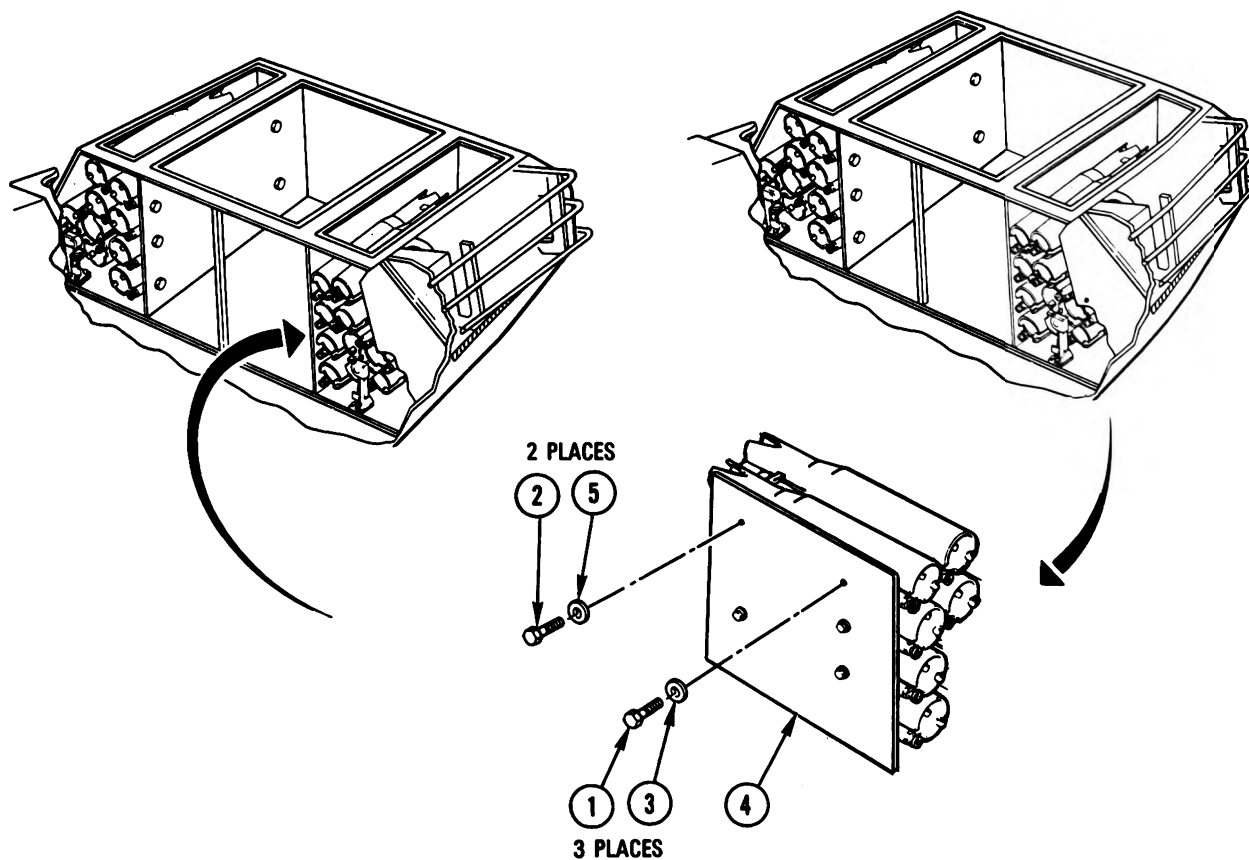
ARR82-0445

FRAME 21

Install Mounting Screws:

- Soldier A: 1. Put sealing compound on threads of three short screws (1) and two long screws (2).
- Soldier A: 2. Screw in and tighten three short screws (1) and washers (3) in side mounting plate (4) with socket and handle.
- Soldier A: 3. Screw in and tighten two long screws (2) and washers (5) in side mounting plate (4) with socket and handle.
- Soldier A: 4. Torque screws (1, 2) between 335 and 385 pound inches (38 and 43 Newton meters).

GO TO FRAME 22



ARR82-0446

FRAME 22**Follow-on Maintenance:**

1. Install left and right center bustle ammunition racks; refer to task 8.
2. Close sliding metal stowage door; refer to TM 9-2350-255-10.
3. Close and set sliding metal ready door for automatic operation; refer to TM 9-2350-255-10.
4. Install commander's ammunition door guard; refer to TM 9-2350-255-10.
5. Install blow-off plates; refer to para. 3-14, task 2.

TASK 9 ENDS HERE

TASK 10. Install Right Side Six-Round Bustle Ammunition Rack

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Sealing Compound, MIL-S-46163 (Item 49)

Personnel: Two

Soldier A: Installs rack.
Soldier B: Helps Soldier A.

NOTE

Soldier B is not needed until frame 24.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

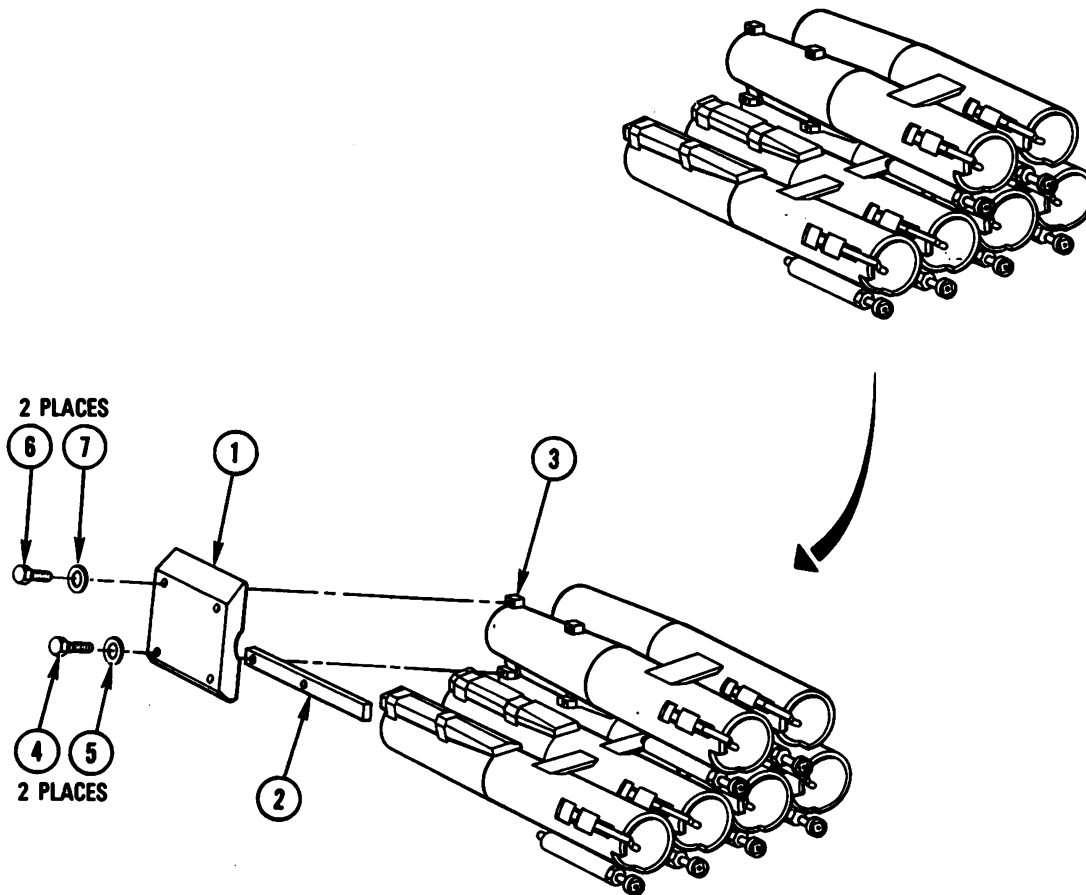
Preliminary Procedure:

Remove right side six-round bustle ammunition rack; refer to task 3.

FRAME 23**Install Plate and Bar:**

1. Line up holes in plate (1) and bar (2) with holes in rack (3).
2. Screw in and tighten two long screws (4) and washers (5) in plate (1), bar (2), and rack (3) with socket and handle.
3. Screw in and tighten two short screws (6) and washers (7) in plate (1) and rack (3) with socket and handle.

GO TO FRAME 24



ARR82-0447

FRAME 24

Install Rack:

CAUTION

Use care when moving rack (1). Insulation (2) may be damaged when moving rack (1).

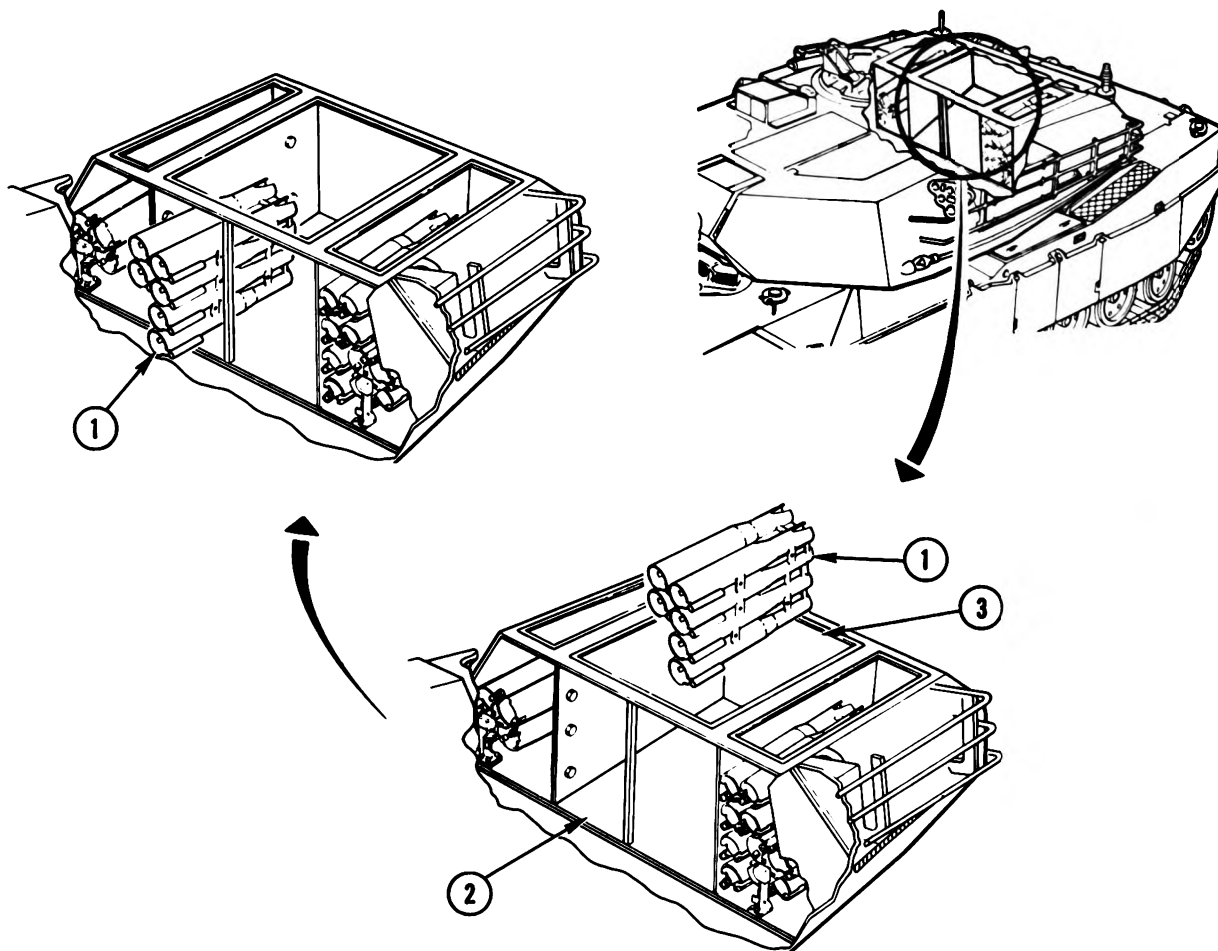
Soldier A,

Soldier B: 1. Lower rack (1) into center bustle ammunition rack empty space (3).

Soldier A,

Soldier B: 2. Pull rack (1) into crew compartment.

GO TO FRAME 25



ARR82-0448

FRAME 25

Install Mounting Screws:

Soldier A,

Soldier B: 1. Lift and move rack (1) into right six-round ammunition rack empty space (2).

Soldier A: 2. Put sealing compound on threads of three short screws (3) and two long screws (4).

Soldier A: 3. Screw in three short screws (3) and washers (5) in mounting plate (6) with socket and handle.

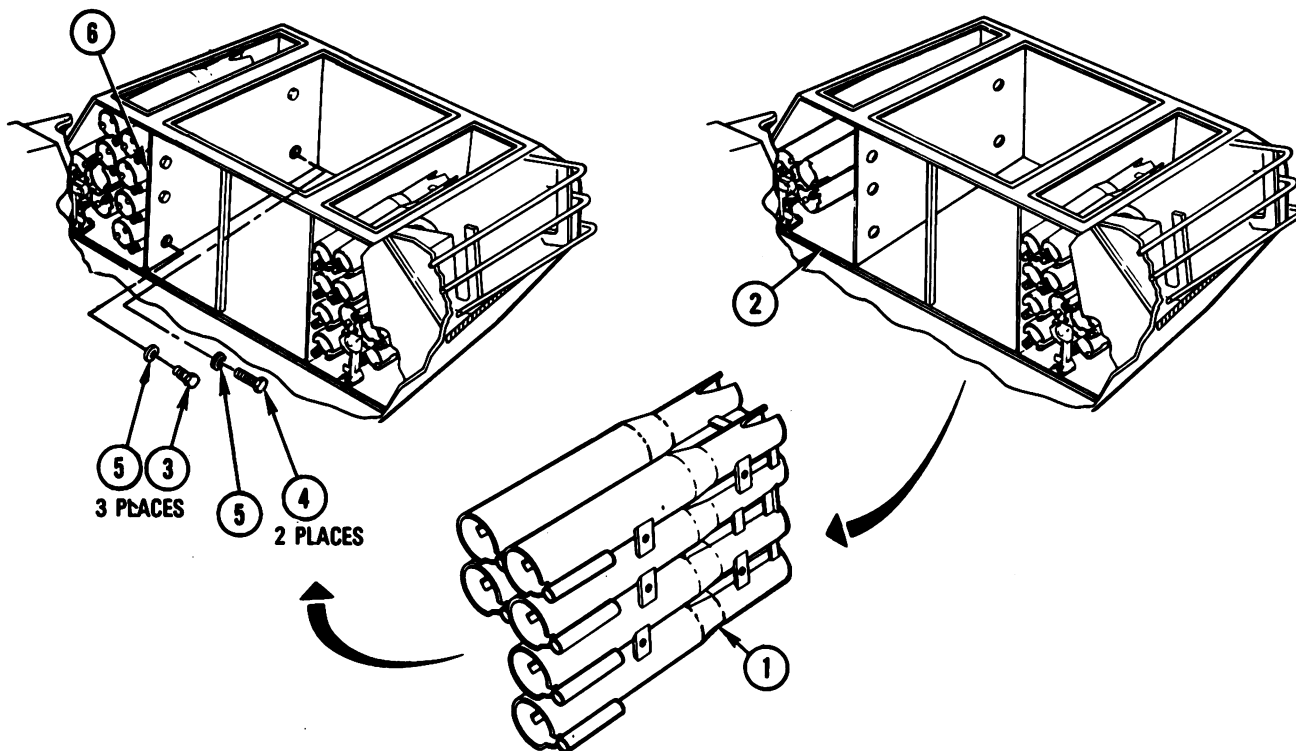
Soldier A: 4. Screw in two long screws (4) and washers (5) in mounting plate (6) with socket and handle.

Soldier A: 5. Torque screws (3, 4) between 335 and 385 pound inches (38 and 43 Newton meters).

Follow-on Maintenance:

1. Install left and right center bustle ammunition racks; refer to task 8.
2. Install blow-off plates; refer to para. 3-14, task 2.
3. Close sliding metal stowage door; refer to TM 9-2350-255-10.
4. Close and set sliding metal ready door for automatic operation; refer to TM 9-2350-255-10.
5. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 10 ENDS HERE



ARR82-0449

TM 9-2350-255-20-2-3-2

TASK 11. Install Left Side Rotary Ammunition Rack

Applicability: All Models

Common Tools: None

Special Tools: None

Supplies: None

Personnel: Two

Soldier A: Installs rack.

Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove left side rotary ammunition rack; refer to task 4.

FRAME 26**Install Rack:****CAUTION**

Use care when moving rack (1). Insulation (2) may be damaged when moving rack (1).

Soldier A,

Soldier B: 1. Lower rack (1) through blow-off plate opening (3).

Soldier A,

Soldier B: 2. Pull rack (1) into crew compartment.

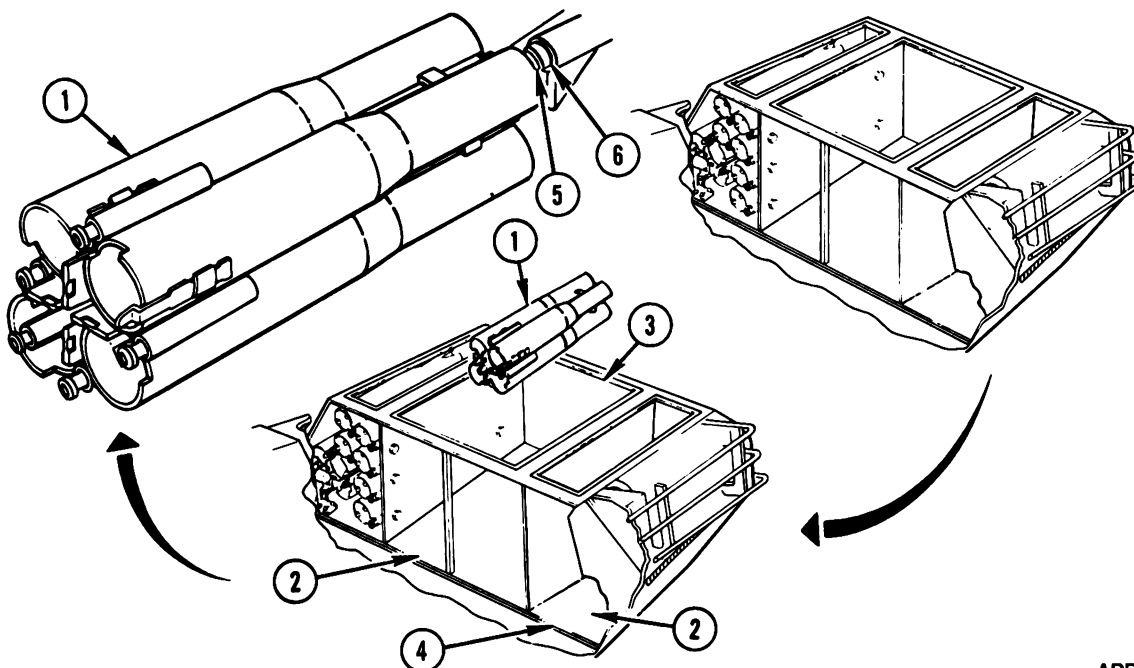
Soldier A,

Soldier B: 3. Lift and move rack (1) halfway into left side rotary ammunition rack empty space (4). Lift and push rack (1) in place until rear shaft (5) seats in rear mounting tube bearing (6).

Follow-on Maintenance:

1. Install rotary rack front mounting post and latch assembly, left side; refer to task 25.
2. Install left side six-round bustle ammunition rack; refer to task 9.
3. Install left and right center bustle ammunition racks; refer to task 8.
4. Close sliding metal stowage door; refer to TM 9-2350-255-10.
5. Close and set sliding metal ready door for automatic operation; refer to TM 9-2350-255-10.
6. Install commander's ammunition door guard; refer to TM 9-2350-255-10.
7. Install blow-off plates; refer to para. 3-14, task 2.

TASK 11 ENDS HERE



ARR82-0450

TM 9-2350-255-20-2-3-2

TASK 12. Install Right Side Rotary Ammunition Rack

Applicability: All Models

Common Tools: None

Special Tools: None

Supplies: None

Personnel: Two

Soldier A: Installs rack.

Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove right side rotary ammunition rack; refer to task 5.

FRAME 27**Install Rack:****CAUTION**

Use care when moving rack (1). Insulation (2) may be damaged when moving rack (1).

Soldier A,

Soldier B: 1. Lower rack (1) through blow-off plate opening (3).

Soldier A,

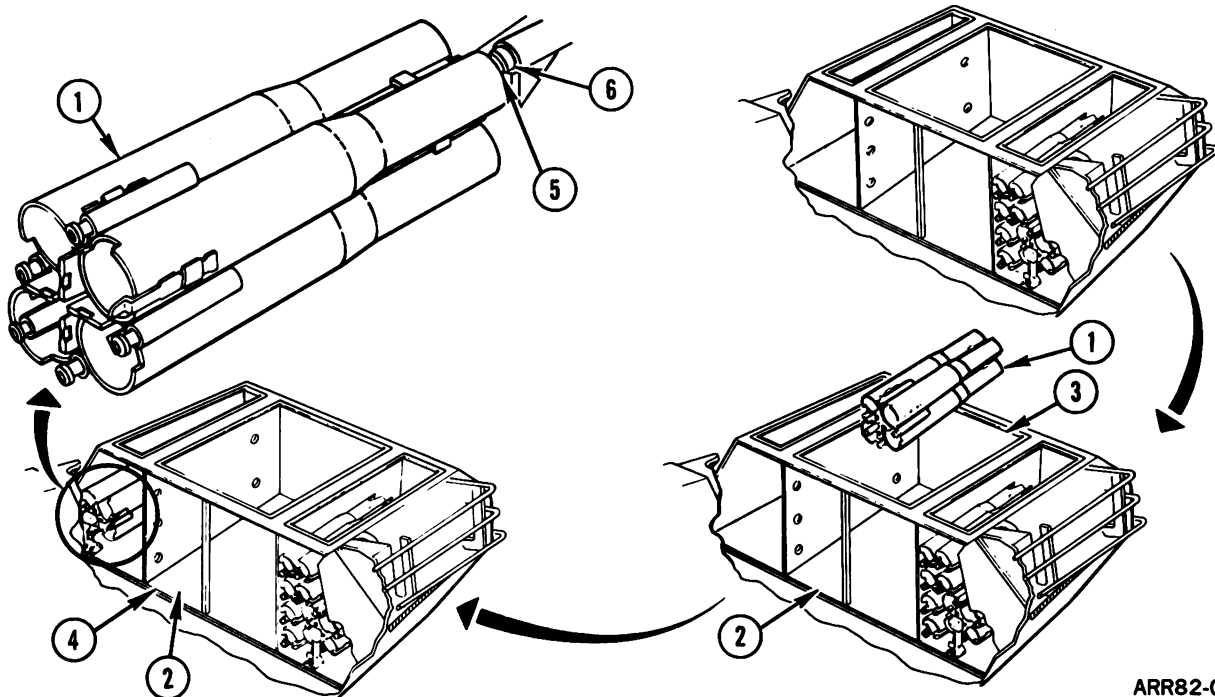
Soldier B: 2. Pull rack (1) into crew compartment.

Soldier A,

Soldier B: 3. Lift and move rack (1) halfway in right side rotary ammunition rack empty space (4). Lift and push rack (1) until rear shaft (5) seats in rear mounting tube bearing (6).

Follow-on Maintenance:

1. Install rotary rack front mounting post and latch assembly, right side; refer to task 25.
2. Install right side six-round bustle ammunition rack; refer to task 10.
3. Install left and right center bustle ammunition racks; refer to task 8.
4. Close sliding metal stowage door; refer to TM 9-2350-255-10.
5. Close and set sliding metal ready door for automatic operation; refer to TM 9-2350-255-10.
6. Install commander's ammunition door guard; refer to TM 9-2350-255-10.
7. Install blow-off plates; refer to para. 3-14, task 2.

TASK 12 ENDS HERE

ARR82-0451

TASK 13. Install 105MM Ready Ammunition Rack Cover and Strap

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Extension, socket wrench, 3/8-inch square drive, 12-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, long round nose
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, combination, 7/16-inch

Special Tools: None

Supplies:

Pin, cotter (96906) MS 24665-334

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove 105MM ready ammunition rack cover and strap; refer to task 6.

FRAME 28

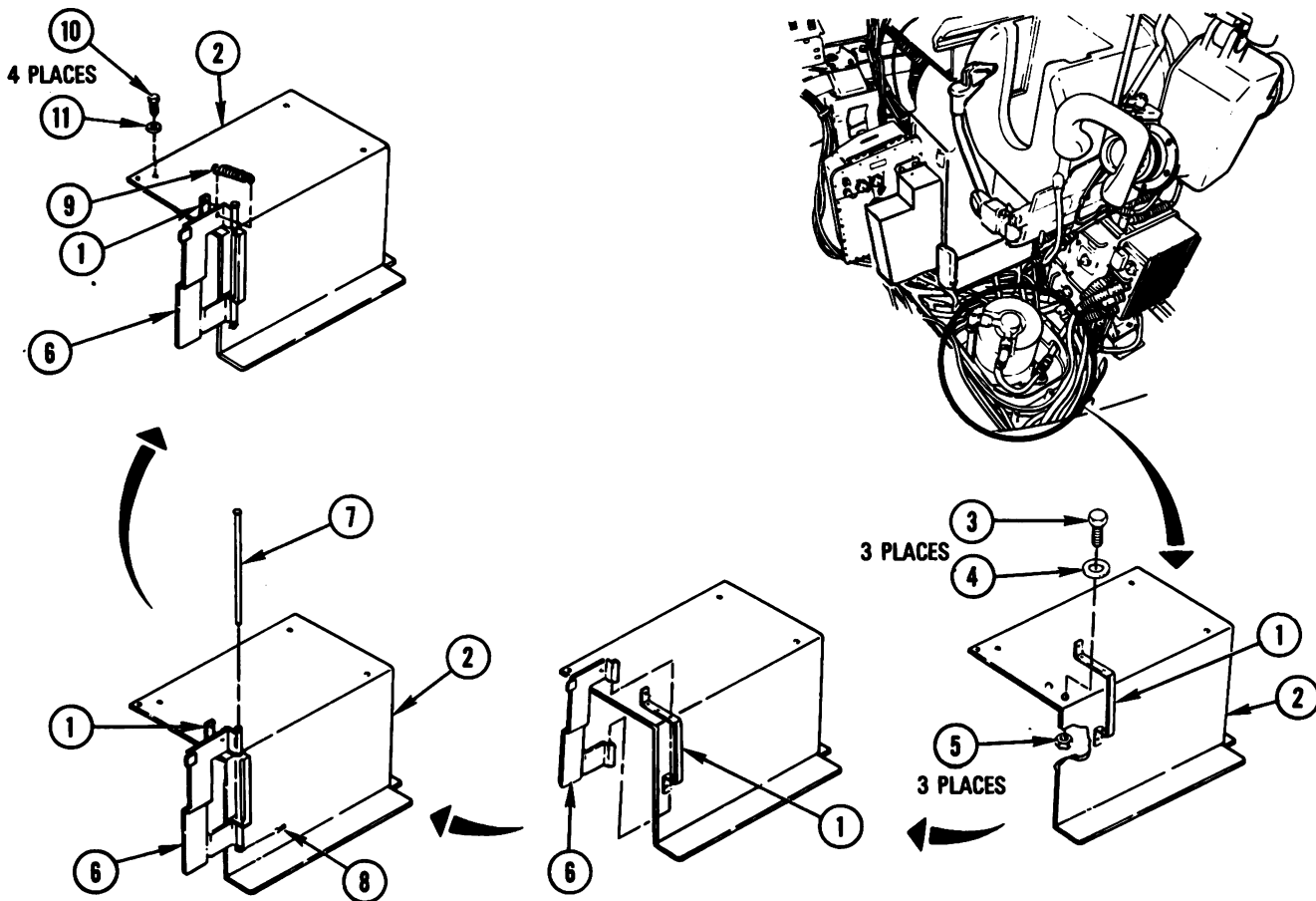
Install Slipping Access Cover and Strap:

1. Line up holes in strap (1) with holes in access cover (2). Screw in and tighten three screws (3), washers (4), and nuts (5) with 7/16-inch socket, 5-inch extension, handle, and wrench.
2. Put rack cover (6) on strap (1). Put straight pin (7) through holes in rack cover (6) and strap (1).
3. Put new cotter pin (8) in straight pin (7) with pliers.
4. Put spring (9) on rack cover (6) and strap (1) with pliers.
5. Put access cover (2) in place. Screw in and tighten four screws (10) and washers (11) with 9/16-inch socket, 12-inch extension, and handle.

Follow-on Maintenance:

Install electronics rack shield assembly; refer to TM 9-2350-255-20-2-3-3, para. 7-7.

TASK 13 ENDS HERE



ARR82-0452

TASK 14. Install 105MM Ready Ammunition Rack

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 12-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, slip joint, conduit style with plastic jaw inserts
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies: None

Personnel: Two

Soldier A: Installs ammunition rack.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove 105MM ready ammunition rack; refer to task 7.

FRAME 29**Install Ready Ammunition Rack:****NOTE**

Read para. 4-4, on installing electrical connectors, before doing any work.

Soldier A,

Soldier B: 1. Put rack (1) in place.

Soldier A: 2. Screw in two screws (2) and washers (3) on each side of rack (1) with socket, extension, and handle.

Soldier B: 3. Go to driver's compartment. Screw in screw (4) and washer (5) with socket, extension, and handle.

Soldier A,

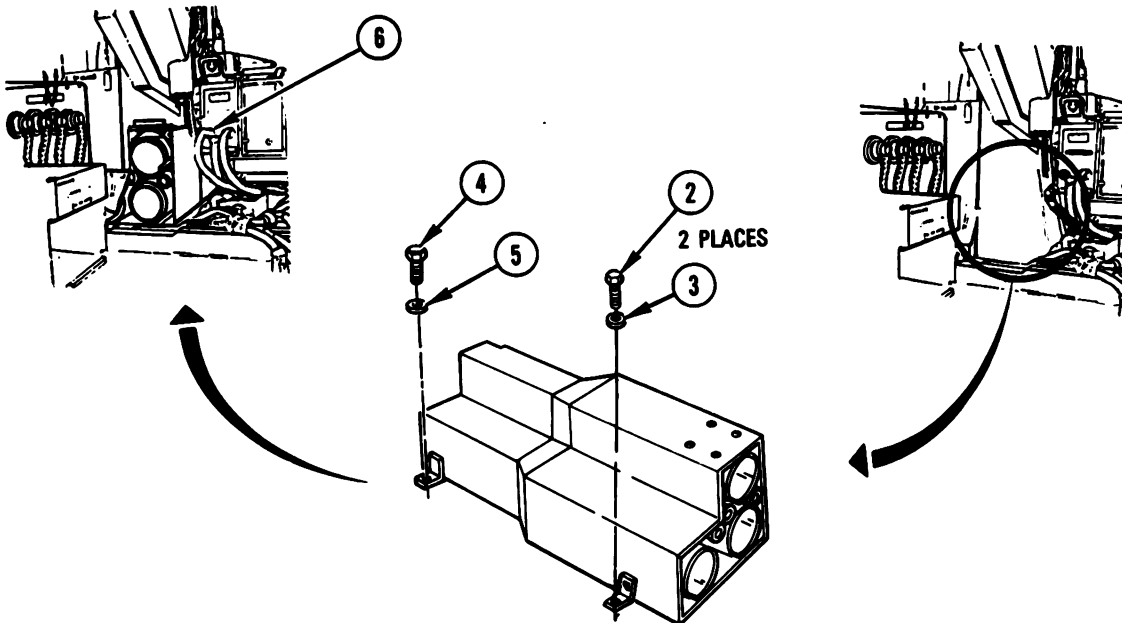
Soldier B: 4. Torque screws (2, 4) between 360 and 430 pound inches (41 and 49 Newton meters).

Soldier A: 5. Screw on and tighten electrical connector (6) with pliers.

Follow-on Maintenance:

1. Install loader's knee guard support; refer to para. 3-12, task 13.
2. Install slipping access cover; refer to TM 9-2350-255-20-2-3-1, para. 2-8.
3. Install electronics rack shield assembly; refer to TM 9-2350-255-20-2-3-3, para. 7-7.
4. Install guard; refer to TM 9-2350-255-20-2-3-1, para. 2-7.

TASK 14 ENDS HERE



ARR82-0453

TASK 15. Replace Bustle Swing Tube Plate Spacers

Applicability: All Models

Common Tools:

Screwdriver, cross tip, offset, No. 2

Special Tools: None

Supplies:

Cartridge Case, 105MM, dummy
Sealing Compound, MIL-S-46163 (Item 49)
Spacer, plate (19207) 12285639

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Set sliding metal ready door to manual operation and open; refer to TM 9-2350-255-10.

FRAME 30**Remove Plate Spacers:**

1. Unscrew and take out two screws (1) from forward end of tube (2) with screwdriver.
2. Take out plate spacers (3, 4). Look at plate spacers (3, 4) for cracks. Turn in bad parts. Set good parts aside for later use.

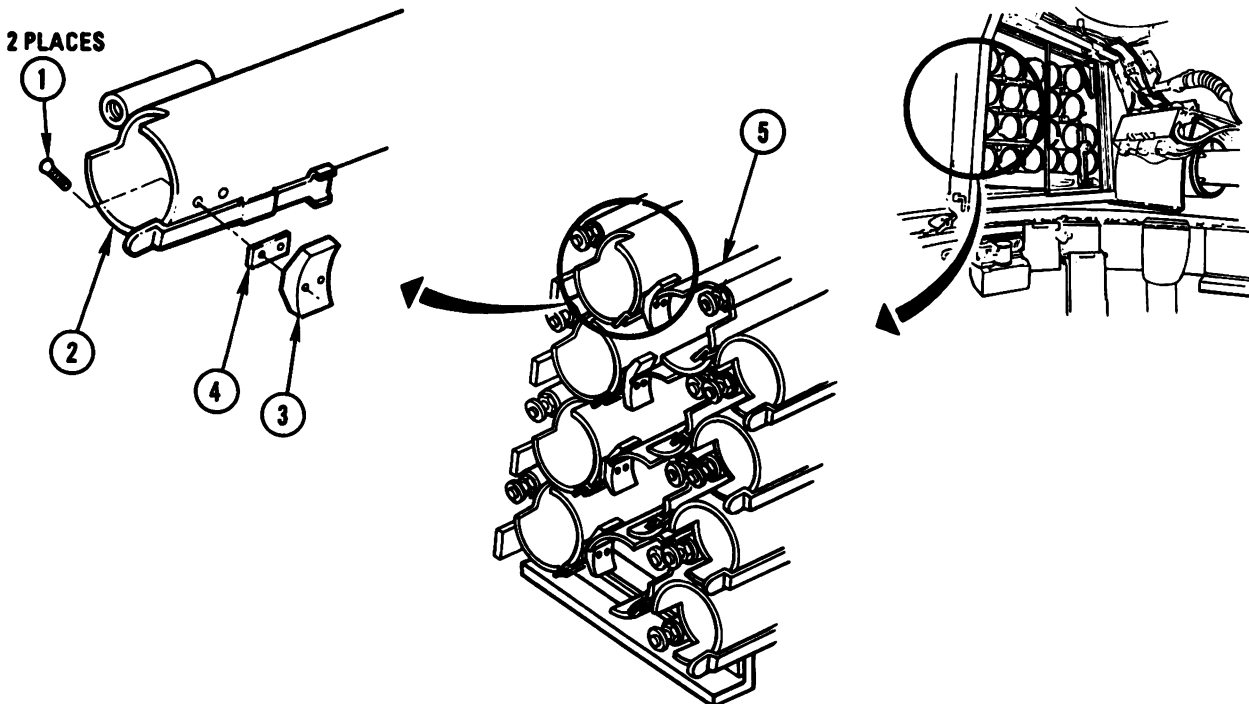
Install Plate Spacers:

3. Put plate spacers (3, 4) on tube (2). Screw in and tighten two screws (1) through tube (2), and plate spacers (3, 4) with screwdriver.
4. Put spent cartridge case in tube (5); refer to TM 9-2350-255-10.
5. Try to move tube (2) from side to side. If tube (2) can be moved, remove spent case; refer to TM 9-2350-255-10. Repeat steps 1 through 5 and add one plate spacer (4). If tube (2) cannot be moved, remove spent case; refer to TM 9-2350-255-10.

Follow-on Maintenance:

Close and set sliding metal ready door to automatic operation; refer to TM 9-2350-255-10.

TASK 15 ENDS HERE



ARR82-0454

TASK 16. Replace Bustle Swing Tube Flat Spring

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Sealing Compound, MIL-S-46163 (Item 49)
Spring, flat (19207) 12304971

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

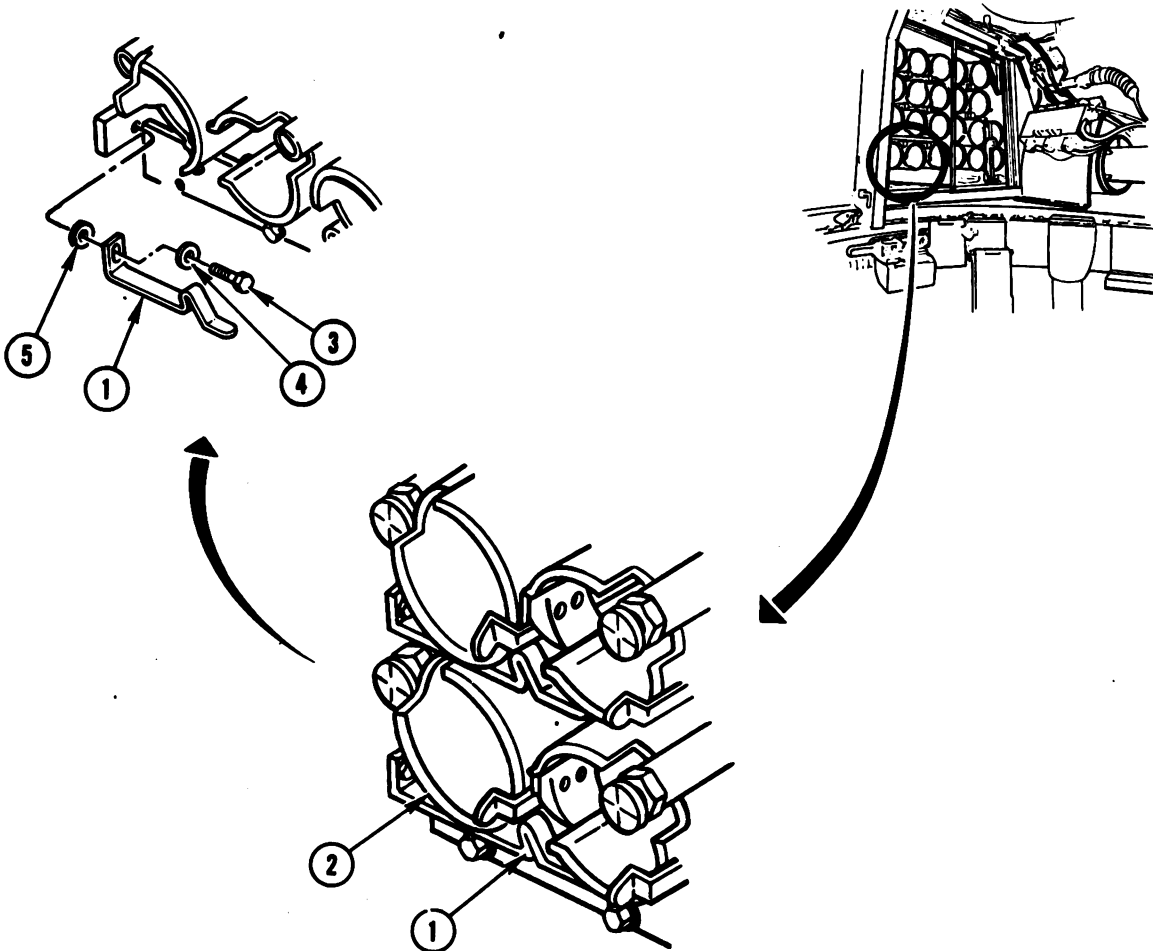
Preliminary Procedures:

1. Remove commander's door guard; refer to TM 9-2350-255-10.
2. Set sliding metal ready door to manual operation and open; refer to TM 9-2350-255-10.

FRAME 31**Remove Swing Tube Flat Spring:**

1. Push down on spring (1) and push tube (2) to the right.
2. Unscrew and take out screw (3), washer (4), spring (1), and washer (5) with socket and handle.
3. Turn in spring (1).
4. Look at washers (4, 5) for cracks or bends. If bad turn in. If OK set aside for later use.

GO TO FRAME 32



ARR82-0455

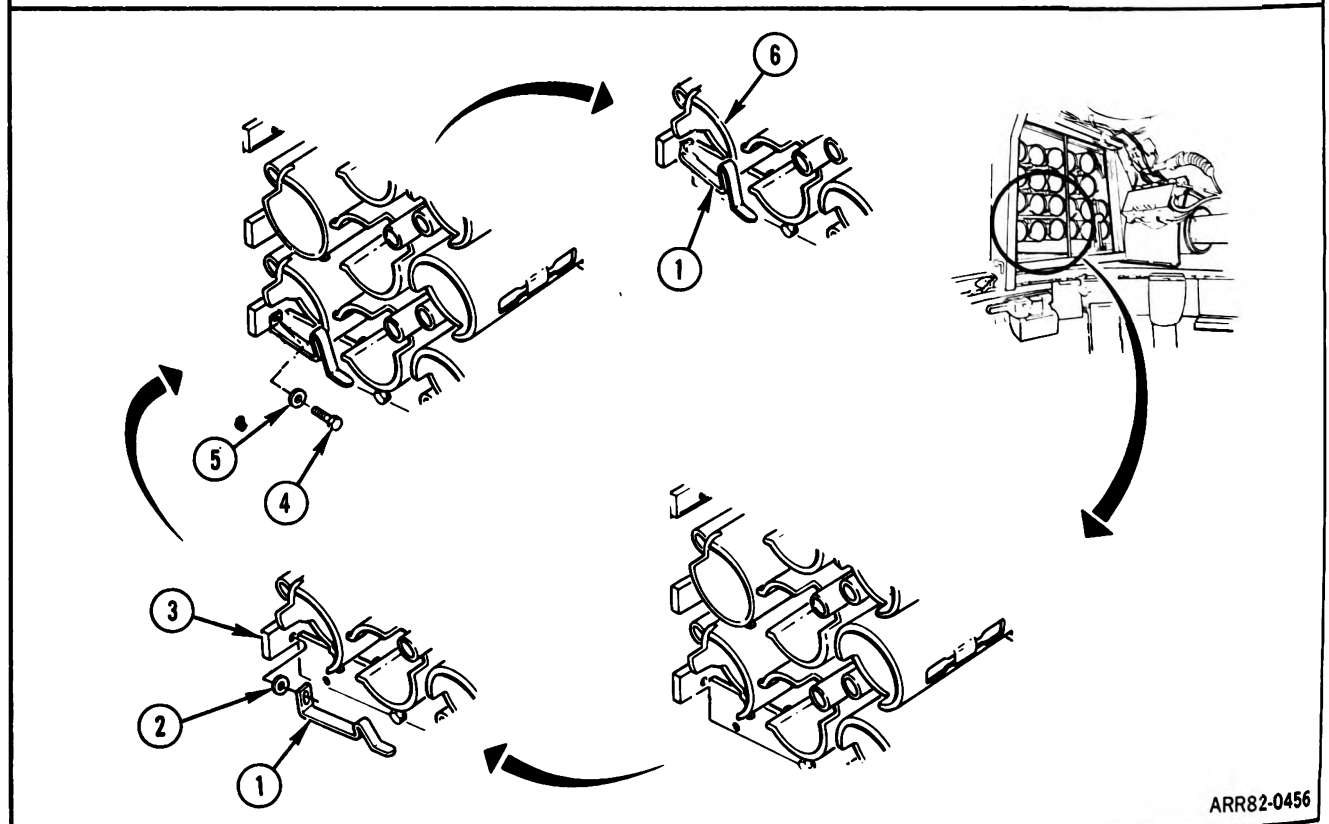
FRAME 32**Install Swing Tube Flat Spring:**

1. Put new spring (1) and washer (2) in place with hole in spring (1) and washer (2) lined up with hole in support (3).
2. Screw in screw (4) and washer (5) with socket and handle. Torque screw (4) between 100 and 120 pound inches (11 and 14 Newton meters).
3. Push swing tube (6) against spring (1) until a click is heard. If a click is heard, go to step 5. If a click is not heard or if tube (6) is loose, go to step 4.
4. Push down on spring (1) to free tube (6). Unscrew and take out screw (4) and washer (5) with socket and handle. Add another washer (2). Do steps 1, 2, and 3 again.
5. Push down on spring (1) to free tube (6). Unscrew and take out screw (4) and washer (5) with socket and handle. Spread sealing compound on threads of screw (4).
6. Screw in screw (4) and washer (5) with socket and handle. Torque screw (4) between 100 and 120 pound inches (11 and 14 Newton meters).

Follow-on Maintenance:

1. Close and set sliding metal ready door for automatic operation; refer to TM 9-2350-255-10.
2. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 16 ENDS HERE



ARR82-0456

TASK 17. Remove Bustle or Ready Ammunition Rack Plunger or Designation Plate

Applicability: All Models

Common Tools:

- Extension, socket wrench, 1/2-inch square drive, 5-inch
- Hammer, ball peen
- Handle, socket wrench, hinged, 1/2-inch square drive
- Knife, putty
- Punch, drive pin, 3/32-inch
- Vise, machinist's
- Wrench, crowfoot, 1/2-inch square drive, 1-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

NOTE

It may be necessary to remove left and right center bustle ammunition racks; refer to task 1, before some of the plungers can be taken off.

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Open sliding metal stowage door; refer to TM 9-2350-255-10.
3. Set sliding metal ready door for manual operation and open; refer to TM 9-2350-255-10.

FRAME 33

Remove Plunger:

1. Unscrew plug (1) with crowfoot wrench, extension, and handle. Pull out plunger (2).
2. Slide spring (3), two washers (4), and guide (5) off plunger (2).
3. Put plunger (2) in vise. Drive out pin (6) with hammer and punch. Get rid of pin (6).
4. Remove plunger (2) from vise. Take off spacer (7) and plug (1).

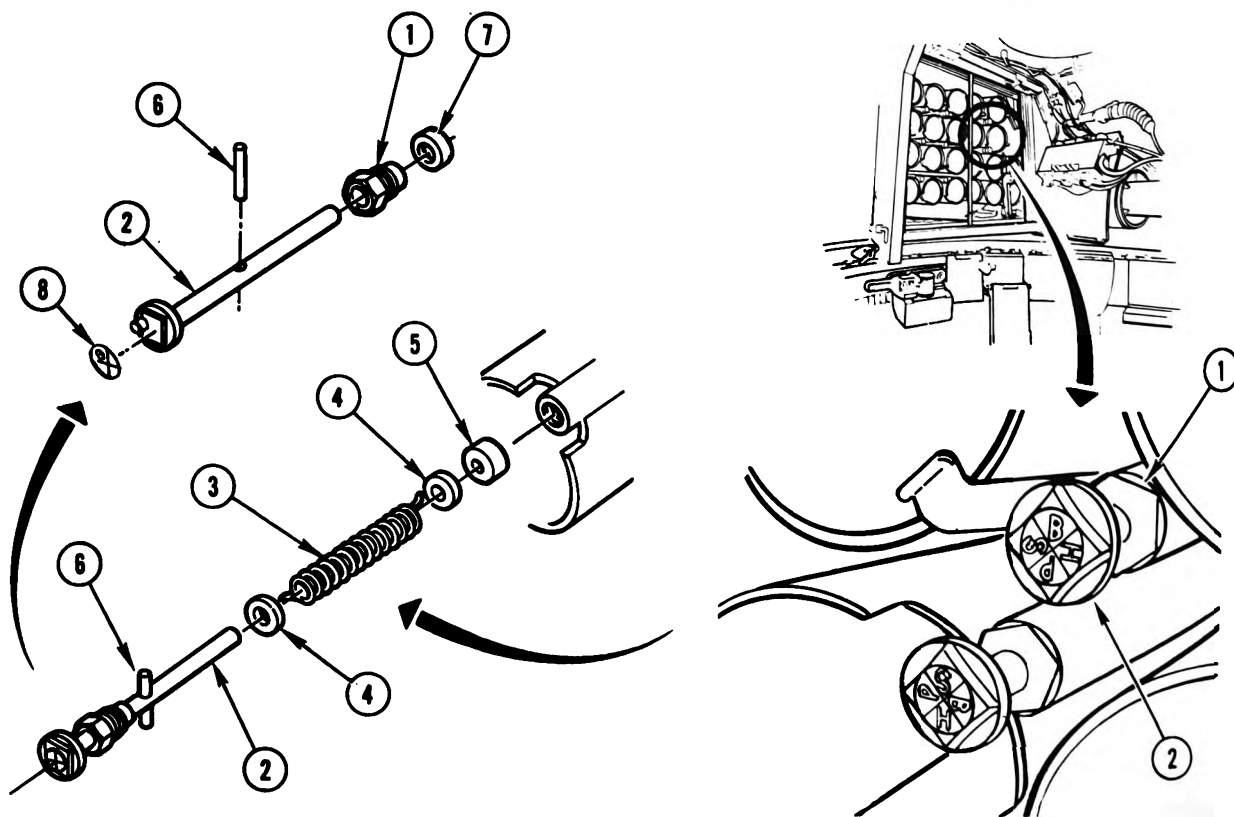
Remove Designation Plate:

5. Peel plate (8) from plunger (2) with putty knife.
6. Get rid of plate (8).
7. Look at all parts for cracks, bends, or stripped threads. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install bustle or ready ammunition rack plunger or designation plate, refer to task 18.

TASK 17 ENDS HERE



ARR82-0457

TASK 18. Install Bustle or Ready Ammunition Rack Plunger or Designation Plate

Applicability: All Models

Common Tools:

Extension, socket wrench, 1/2-inch square drive, 5-inch
Hammer, ball peen
Handle, socket wrench, hinged, 1/2-inch square drive
Wrench, crowfoot, 1/2-inch square drive, 1-inch

Special Tools: None

Supplies:

Pin, spring (96906) MS 16562-36
Plate, designation (19207) 12283043

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove bustle or ready ammunition rack plunger or designation plate; refer to task 17.

FRAME 34

Install Plunger:

1. Put plug (1) and sleeve spacer (2) on plunger (3).
2. Tap new pin (4) through plunger (3) with hammer.
3. Slide washer (5), spring (6), washer (7), and guide (8) on plunger (3).
4. Put assembled plunger (3) in tube (9).
5. Screw in and tighten plug (1) with crowfoot wrench, extension, and handle.

Install Designation Plate:

6. Line up hole in new plate (10) and plunger (3) and press plate (10) in place on plunger (3).

NOTE

If new plunger (3) was installed, go to step 7. If old plunger (3) was installed, go to follow-on maintenance.

7. Tap new pin (11) through hole in plate (10) and plunger (3) with hammer.

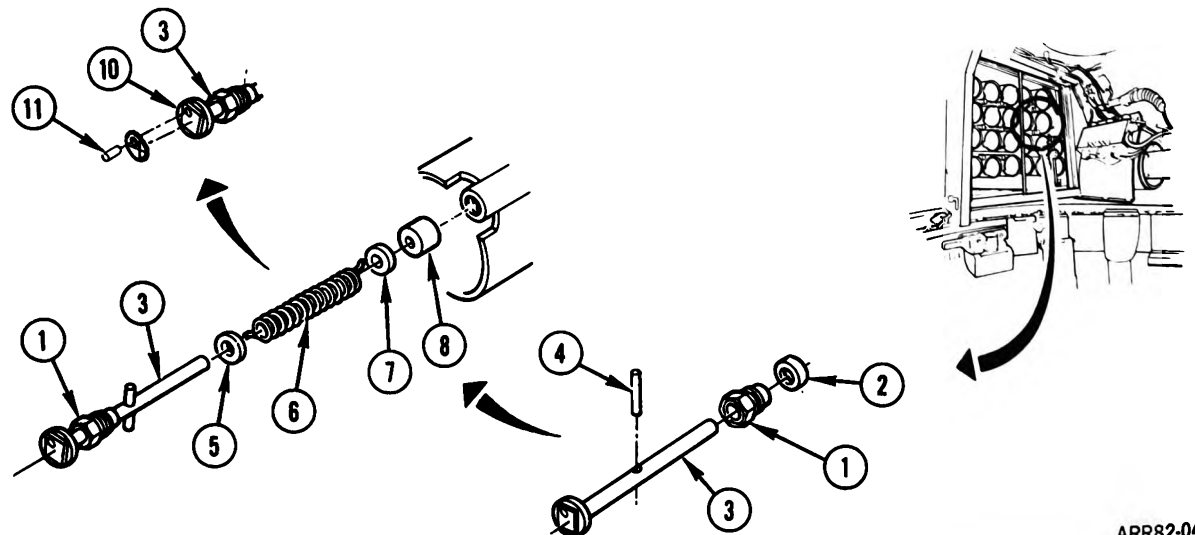
Follow-on Maintenance:

NOTE

If left and right center bustle ammunition racks were taken off, install left and right center bustle ammunition racks; refer to task 8.

1. Close ammunition stowage door; refer to TM 9-2350-255-10.
2. Close and set ammunition ready door for automatic operation; refer to TM 9-2350-255-10.
3. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 18 ENDS HERE



ARR82-0458

TASK 19. Replace Bustle or Ready Ammunition Tube Locking Flat Spring

Applicability: All Models

Common Tools:

Screwdriver, flat tip

Special Tools: None

Supplies:

Spring, flat (19207) 12283045

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commanders ammunition door guard; refer to TM 9-2350-255-10.
2. Set sliding metal ready door to manual operation and open; refer to TM 9-2350-255-10.

FRAME 35

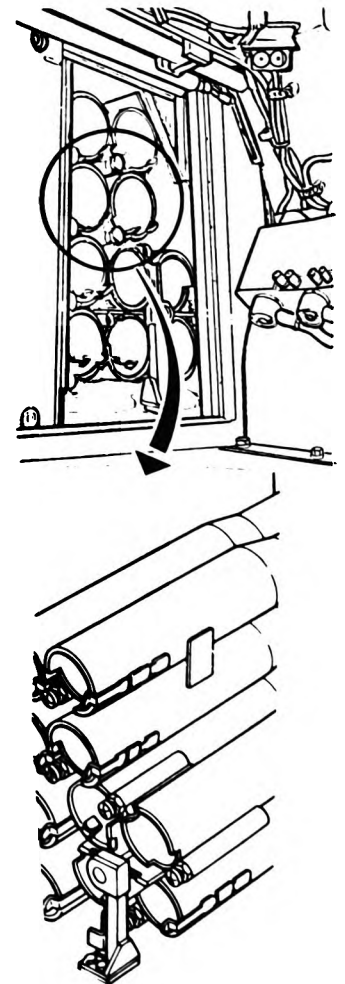
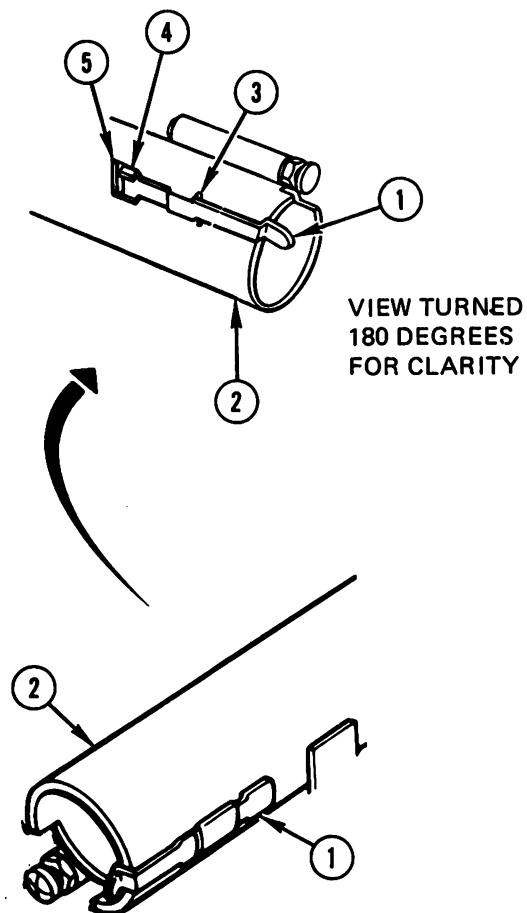
Remove Spring:

NOTE

Use this task to take off and put on any locking flat spring (1).

1. Lift spring (1) away from tube (2).
2. Press middle of spring (1) down into front hole (3) with screwdriver.
3. Push spring (1) toward rear of tube (2) until rear tab (4) drops into rear hole (5).
4. Turn spring (1) slightly and pull out.
5. Look at spring (1) for breaks or bends. If bad turn in. If OK set aside for later use.

GO TO FRAME 36



ARR82-0459

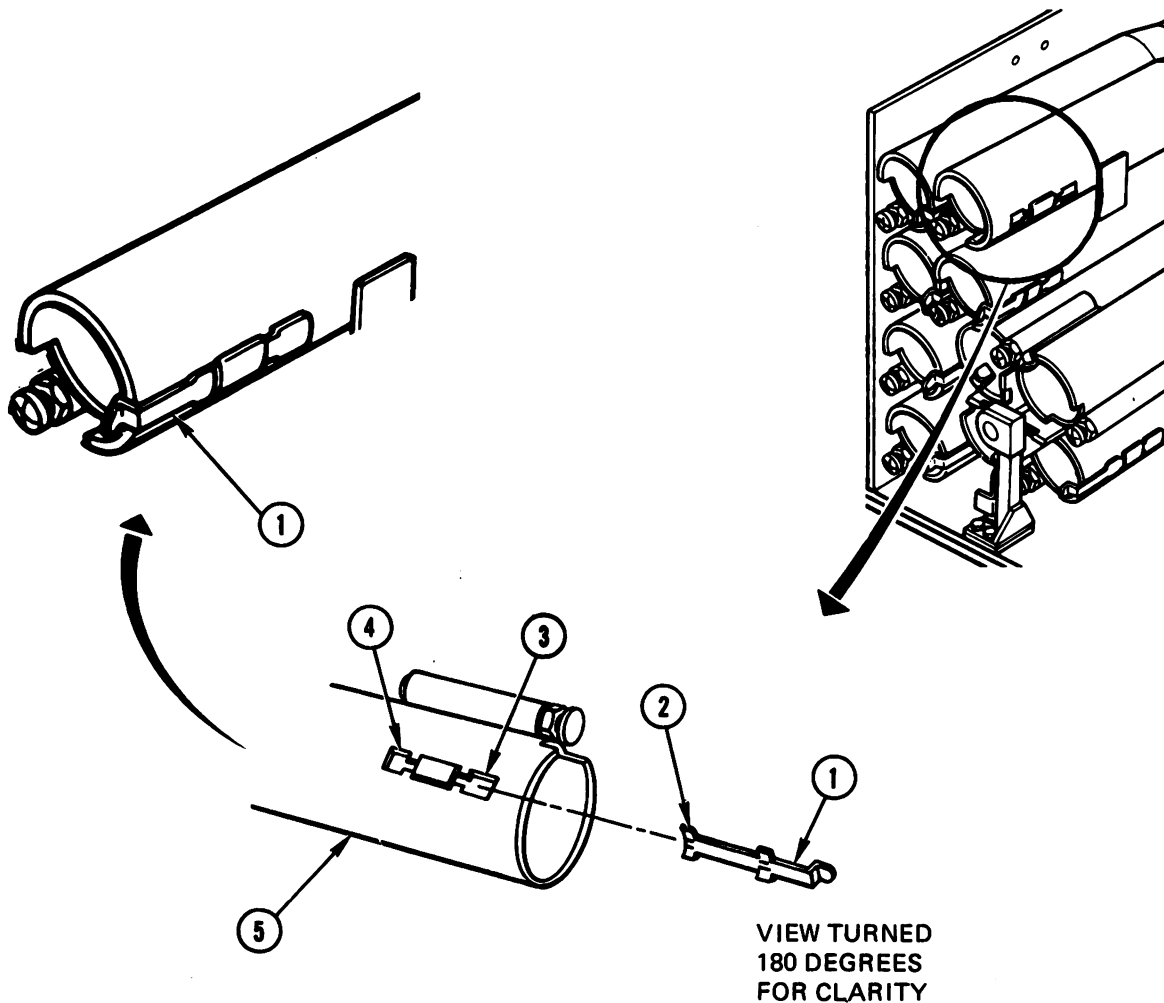
FRAME 36**Install Spring:**

1. Turn spring (1) slightly and put rear tab (2) through front hole (3).
2. Push spring (1) toward rear hole (4) with screwdriver until rear tab (2) is in rear hole (4).
3. Turn spring (1) flat with surface of tube (5).
4. Pull spring (1) forward until it locks in place.

Follow-on Maintenance:

1. Close and set sliding metal ready door to automatic operation; refer to TM 9-2350-255-10.
2. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 19 ENDS HERE



ARR82-0460

TASK 20. Replace Ready Ammunition Rack Tube, Cover, or Pin

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Screwdriver, cross tip, offset, No. 2
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Cover (19207) 12288387
Lubricating Oil, MIL-L-3150 (Item 31)
Pin, straight, headless (19207) 12283012
Sealing Compound, MIL-S-46163 (Item 49)
Tube, ammunition storage (19207) 12283030

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Traverse turret until main gun is over right front fender, and then lock turret; refer to TM 9-2350-255-10.
2. Remove loader's knee guard support; refer to para. 3-12, task 4.
3. Remove 105MM ready ammunition rack; refer to task 7.

FRAME 37

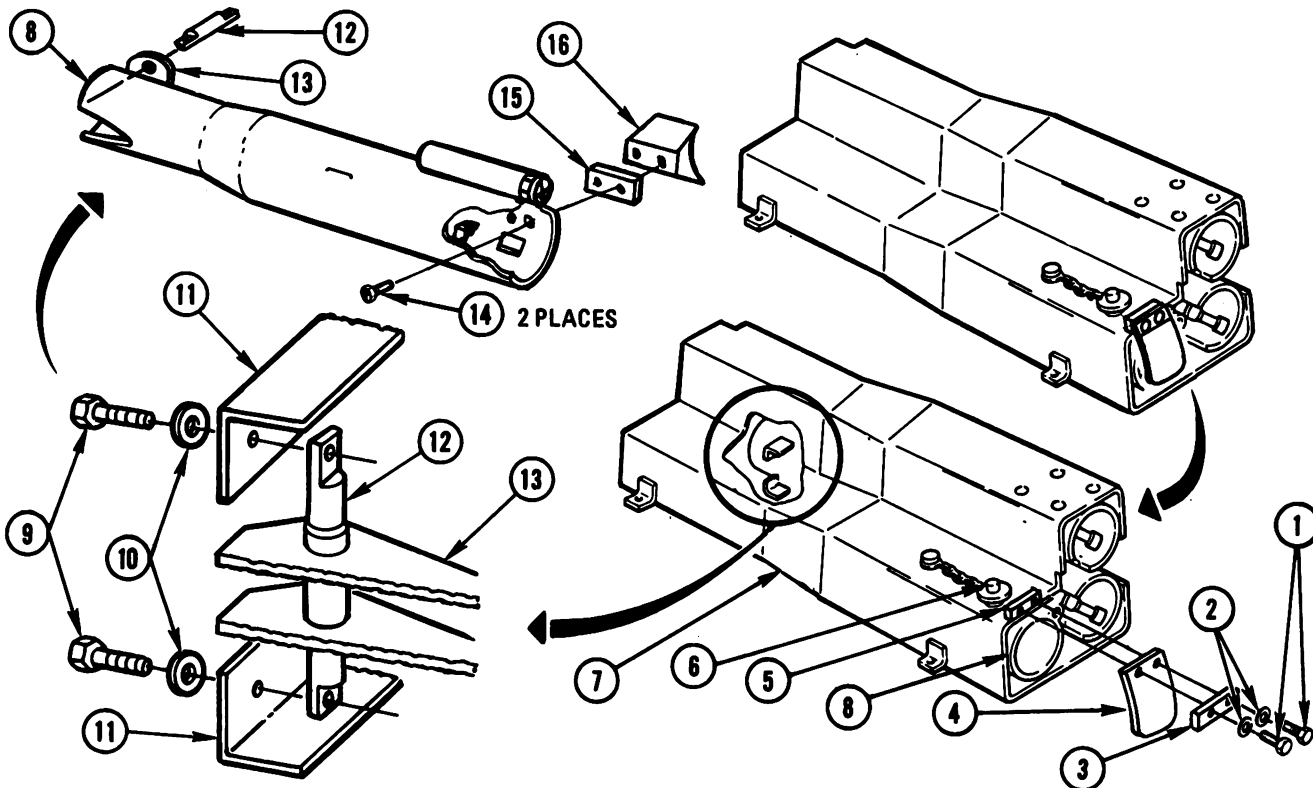
Remove Cover:

1. Unscrew and take out two screws (1) and washers (2) from plate (3), cover (4), and bracket (5) with socket and handle.
2. Take off plate (3) and cover (4) from bracket (5). Turn in cover (4).
3. Look at plate (3) for cracks or bends. If bad turn in. If OK set aside for later use.

Remove Tube:

4. Push in on center of quick-release pin (6) and pull pin (6) from ammunition rack (7) and ammunition tube (8).
5. Unscrew and take out two screws (9) and washers (10) from retainer brackets (11) and pin (12) with socket, extension, and handle. Pull out tube (8) from rack (7) and take out pin (12) from bracket sleeve (13). Turn in pin (12).
6. Unscrew and take out two screws (14) and plate spacers (15, 16) with screwdriver. Turn in tube (8). Look at plate spacers (15, 16) for cracks. Turn in bad parts. Set good parts aside for later use.

GO TO FRAME 38



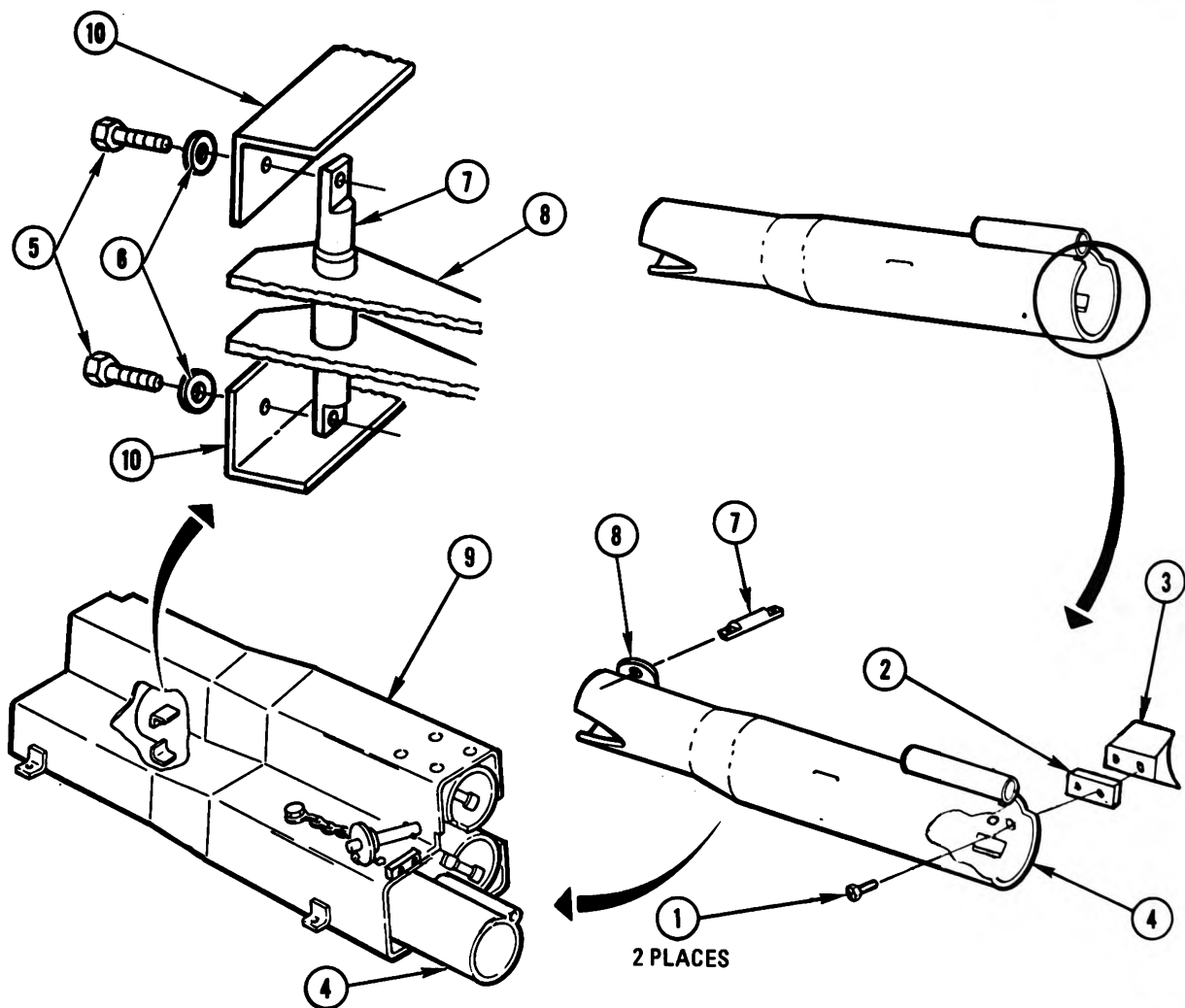
ARR82-0461

FRAME 38

Install Tube:

1. Put a light coat of oil on threads of two screws (1).
2. Put plate spacers (2, 3) in place on new ammunition tube (4). Screw in and tighten screws (1) through tube (4) and plate spacers (2, 3) with screwdriver.
3. Put sealing compound on threads of two screws (5). Put two washers (6) on screws (5).
4. Put new pin (7) in place through bracket sleeve (8) on tube (4) with flat side of pin (7) facing rear of rack (9). Put tube (4) in place in ammunition rack (9). Screw in two screws (5) and washers (6) in pin (7) and retainer brackets (10) with socket, extension, and handle.
5. Torque screws (5) between 95 and 120 pound inches (11 and 14 Newton meters).

GO TO FRAME 39



FRAME 39**Install Tube (Continued):**

1. Put quick-release pin (1) through ammunition rack (2) and ammunition tube (3).

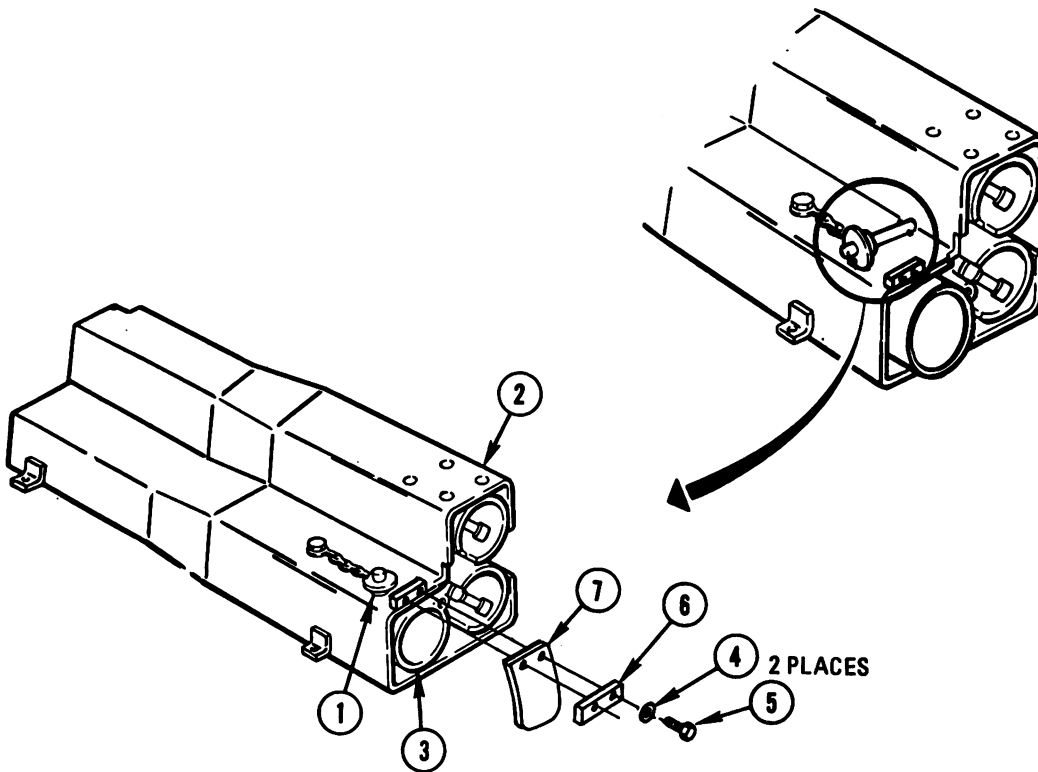
Install Cover:

2. Put two washers (4) on screws (5). Put a light coat of oil on threads of screws (5).
3. Put plate (6) and new cover (7) in place on tube (3).
4. Screw in screws (5) with socket and handle.
5. Torque screws (5) between 70 and 95 pound inches (8 and 10 Newton meters).

Follow-on Maintenance:

1. Install 105MM ready ammunition rack; refer to task 14.
2. Install loader's knee guard support; refer to para. 3-12, task 13.

TASK 20 ENDS HERE



ARR82-0463

TM 9-2350-255-20-2-3-2

TASK 21. Replace Ready Ammunition Rack Pin, Chain, Hooks, or Rivet

Applicability: All Models

Common Tools:

Chisel, cold, hand, 3/4-inch
Goggles, industrial
Hammer, ball peen (two required)
Pliers, slip joint

Special Tools: None

Supplies:

Chain, Type II, Class 2 (Bulk)
Hook, chain, S-type (96906) MS 87006-13 (two required)
Pin, quick-release (96906) MS 17984-407
Rivet, solid (96906) MS 20470AD6-9

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 40**Remove Rivet, Pin, Chain, or Hooks:**

1. Push in on center of quick-release pin (1). Pull pin (1) from rack (2). Move tube (3) to the right.

WARNING

Wear safety goggles while cutting off rivet (4). Parts of rivet (4) could pop off and cause serious injury to your eyes.

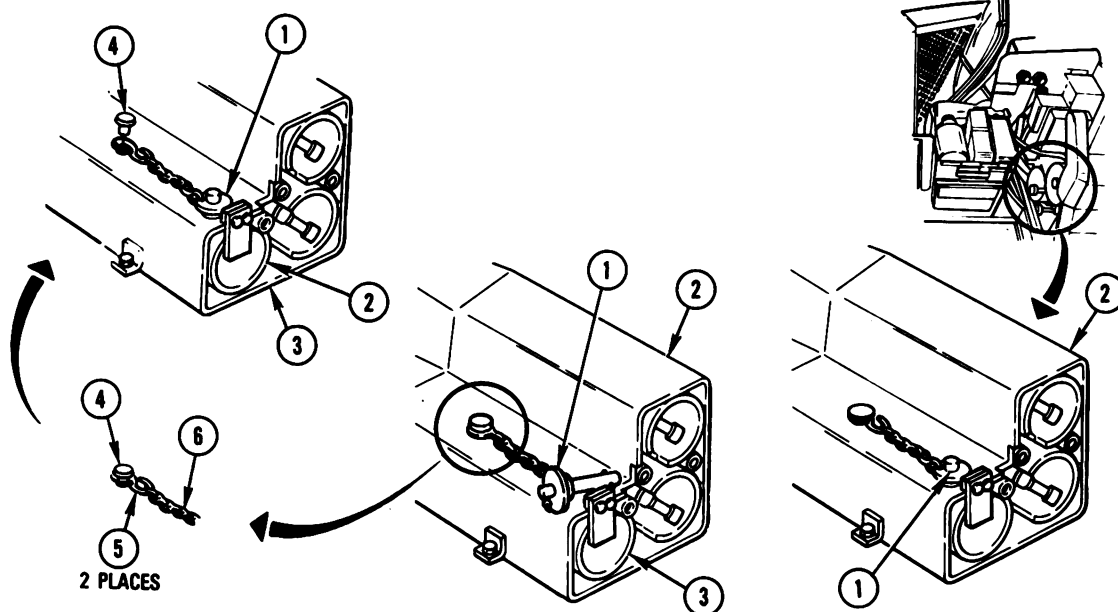
2. Cut off rivet (4) with chisel and hammer. Get rid of rivet (4).
3. Turn in two S-hooks (5), chain (6), and quick-release pin (1).

Install Rivet, Pin, Chain, or Hooks:

4. Put two new S-hooks (5) on ends of new chain (6). Put one S-hook (5) on new quick-release pin (1) and close S-hook (5) with pliers.
5. Put new rivet (4) through S-hook (5) and rack (2).
6. Peen rivet (4) in place with two hammers.
7. Move tube (3) to left and put pin (1) in rack (2).

Follow-on Maintenance: None

TASK 21 ENDS HERE



ARR82-0464

TASK 22. Remove Rotary Rack Front Mounting Post and Latch Assembly, Right or Left Side

Applicability: All Models

Common Tools:

Hammer, ball peen
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

To remove right side post and latch assembly, do the following:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Open sliding metal stowage door; refer to TM 9-2350-255-10.
3. Set sliding metal ready door to manual operation and closed; refer to TM 9-2350-255-10.

To remove left side post and latch assembly, do the following:

Set ammunition ready door to manual operation and open; refer to TM 9-2350-255-10.

FRAME 41

Remove Front Mounting Post and Latch Assembly:

NOTE

- Use this task for taking out either right or left front mounting post and latch assembly (1). Left side is shown.
- Tanks with serial numbers 14 through 110 have only three mounting screws (2) holding right mounting post and latch assembly (1).

1. Unscrew and take out four mounting screws (2) from front mounting post and latch assembly (1) with socket and handle.

NOTE

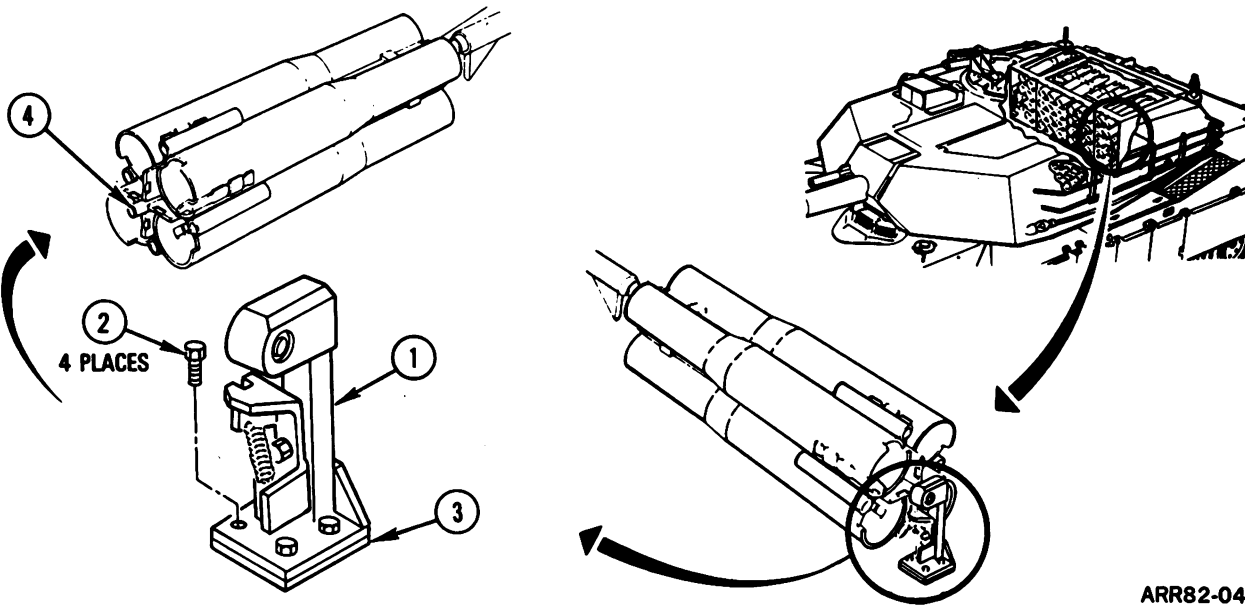
If front mounting post and latch assembly (1) has plate spacer (3) under it, do step 2. If not, go to step 3.

2. Take out plate spacer (3). Look at plate spacer (3) for cracks or breaks. If bad turn in. If OK set aside for later use.
3. Tap front mounting post and latch assembly (1) lightly with hammer and take off from shaft (4).
4. Look at front mounting post and latch assembly (1) for cracks or bends. If bad repair mounting post and latch assembly; refer to task 24. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install rotary rack front mounting post and latch assembly, right or left side, refer to task 25.

TASK 22 ENDS HERE



ARR82-0465

TASK 23. Replace Bearings on Left or Right Side Rotary Ammunition Racks

Applicability: All Models

Common Tools:

Hammer, ball peen
Puller Kit, mechanical
Vise, machinist's

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Bearing (96906) MS 21233-16 (as required)
Block, wooden, 2-inch x 4-inch x 6-inch (Item 64)
Dry Cleaning Solvent, P-D-680 (Item 21)
Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

To replace bearing for left rotary ammunition rack, do the following:

1. Set ammunition ready door to manual operation and open; refer to TM 9-2350-255-10.
2. Remove blow-off plates; refer to para. 3-14, task 1.
3. Remove left and right center bustle ammunition rack; refer to task 1.
4. Remove left side six-round bustle ammunition rack; refer to task 2.
5. Remove rotary rack front mounting post and latch assembly; refer to task 22.
6. Remove left side rotary ammunition rack; refer to task 4.

To replace bearing for right rotary ammunition rack, do the following:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Open ammunition stowage door; refer to TM 9-2350-255-10.
3. Set ammunition ready door to manual operation and open; refer to TM 9-2350-255-10.
4. Remove blow-off plates; refer to para. 3-14, task 1.
5. Remove left and right center bustle ammunition racks; refer to task 1.
6. Remove right side six-round bustle ammunition rack; refer to task 3.
7. Remove rotary rack front mounting post and latch assembly; refer to task 22.
8. Remove right side rotary ammunition rack; refer to task 5.

FRAME 42

Remove Bearing:

NOTE

- To take off and put on bearing (1) on rear mounting tube (2) do steps 1, 3, and 4.
- To take off and put on bearing (1) on rotary rack front mounting post and latch assembly (3) do steps 2, 3, and 5.

1. Take out bearing (1) from tube (2) with puller. Turn in bearing (1).
2. Put post (3) in vise. Take out bearing (1) from post (3) with puller. Turn in bearing (1).

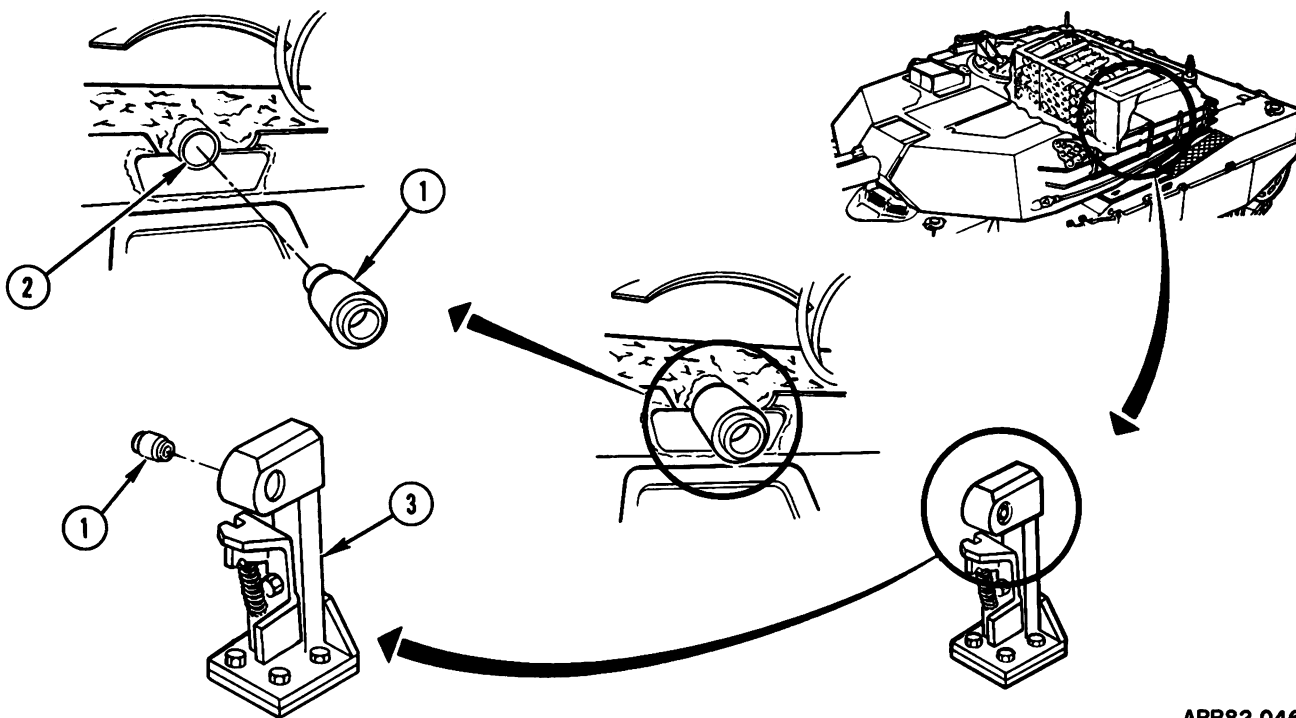
Install Bearing:

WARNING

Solvent burns easily. To avoid injury, do not use near open fire.

3. Clean inside of tube (2) or post (3) with solvent and rag.
4. Put new bearing (1) in tube (2) with block and hammer.
5. Put new bearing (1) in post (3) with block and hammer. Take post (3) out of vise.

GO TO FRAME 43



ARR82-0466

FRAME 43

Follow-on Maintenance:

For right rotary ammunition rack, do the following:

1. Install right side rotary ammunition rack; refer to task 12.
2. Install rotary rack front mounting post and latch assembly; refer to task 25.
3. Install right side six-round bustle ammunition rack; refer to task 10.
4. Install left and right center bustle ammunition racks; refer to task 8.
5. Install blow-off plates; refer to para. 3-14, task 2.
6. Close sliding metal stowage door; refer to TM 9-2350-255-10.
7. Close and set sliding metal ready door to manual operation; refer to TM 9-2350-255-10.
8. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

For left rotary ammunition rack, do the following:

1. Install left side rotary ammunition rack; refer to task 11.
2. Install rotary rack front mounting post and latch assembly; refer to task 25.
3. Install left side six-round bustle ammunition rack; refer to task 9.
4. Install left and right center bustle ammunition racks; refer to task 8.
5. Install blow-off plates; refer to para. 3-14, task 2.
6. Close sliding metal stowage door; refer to TM 9-2350-255-10.
7. Close and set sliding metal ready door to manual operation; refer to TM 9-2350-255-10.
8. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 23 ENDS HERE

TASK 24. Repair Rotary Rack Front Mounting Post and Latch Assembly, Right or Left Side

Applicability: All Models

Common Tools:

Hammer, ball peen
Key, socket screw, 1/8-inch
Pliers, long round nose
Puller Kit, mechanical
Vise, bench

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Block, wooden, 2-inch x 4-inch x 6-inch (Item 64)
Dry Cleaning Solvent, P-D-680 (Item 21)
Rag, wiping (Item 45)
Sealing Compound, MIL-S-46163 (Item 49)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Open sliding metal stowage door; refer to TM 9-2350-255-10.
3. Set sliding metal ready door to manual operation and open; refer to TM 9-2350-255-10.
4. Remove rotary rack front mounting post and latch assembly, right or left side; refer to task 22.

FRAME 44

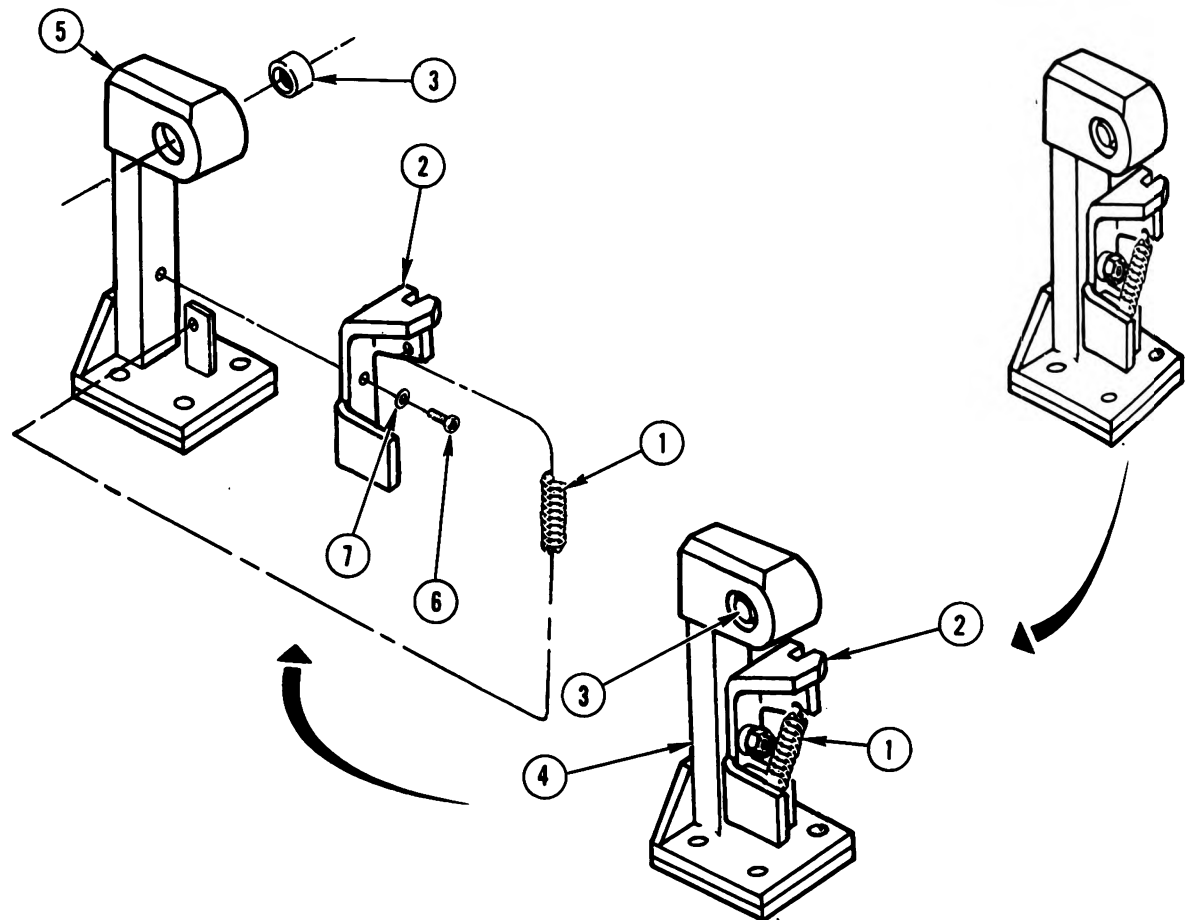
Remove Spring, Latch, and Bearing:

NOTE

Use this task to take out or put in spring (1), latch (2), and bearing (3) of right or left rotary rack front mounting post and latch assembly (4). Right side is shown.

1. Take off spring (1) from post (5) and latch (2) with pliers.
2. Unscrew and take out screw (6) and washer (7) from latch (2) and post (5) with key.
3. Put post (5) in vise. Take out bearing (3) from post (5) with puller.
4. Look at all parts for cracks or breaks. Look at bearing (3) for scratches, breaks, and dents. Turn in bad parts. Set good parts aside for later use.

GO TO FRAME 45



ARR82-0467

FRAME 45**Install Spring, Latch, and Bearing:****WARNING**

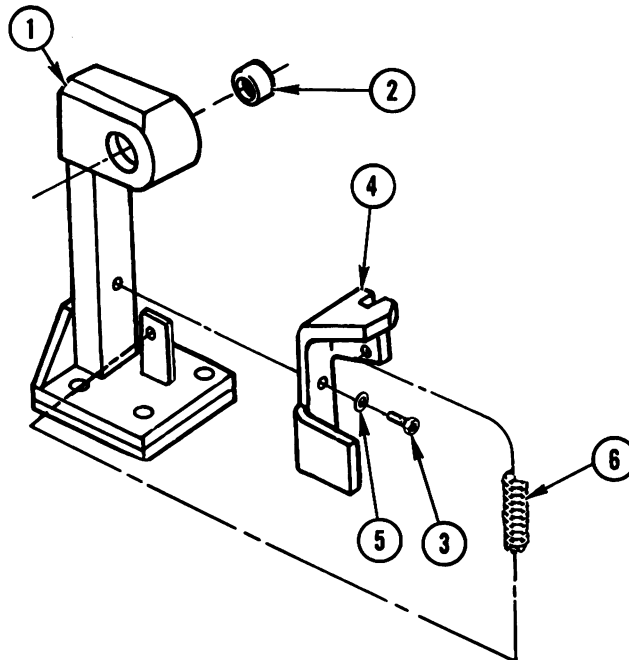
Solvent burns easily. To avoid injury, do not use near open fire.

1. Put post (1) on clean work surface. Clean inside of post (1) with solvent and rag.
2. Put bearing (2) in post (1) with block and hammer.
3. Put sealing compound on threads of screw (3).
4. Put latch (4) in place on post (1). Screw in and tighten screw (3) and washer (5) to latch (4) and post (1) with key.
5. Put spring (6) on latch (4) and post (1) with pliers.

Follow-on Maintenance:

1. Install rotary rack front mounting post and latch assembly, right or left side; refer to task 25.
2. Set sliding metal ready door to automatic operation and close; refer to TM 9-2350-255-10.
3. Close sliding metal stowage door; refer to TM 9-2350-255-10.
4. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

TASK 24 ENDS HERE



ARR82-0468

TASK 25. Install Rotary Rack Front Mounting Post and Latch Assembly, Right or Left Side

Applicability: All Models

Common Tools:

Extension, 3/8-inch square drive, 12-inch
Hammer, ball peen
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Sealing Compound, MIL-S-46163 (Item 49)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove rotary rack front mounting post and latch assembly, right or left side; refer to task 22.

FRAME 46**Install Front Mounting Post and Latch Assembly:****NOTE**

- Use this task to put in right or left rotary rack front mounting post and latch assembly (1). Left assembly (1) is shown.
- Tanks with serial numbers 14 through 110 have only three screws (2) holding assembly (1) in place.

1. Put assembly (1) on shaft (3) of rotary rack (4). Tap lightly with hammer.

NOTE

If plate spacer (5) was not on tank when assembly (1) was taken off, line up holes in assembly (1) with holes on tank and skip step 2.

2. Put plate spacer (5) under assembly (1). Line up holes.
3. Spread a thin coat of sealing compound on threads of four screws (2).

NOTE

Rotate rotary rack (4) as needed to install four screws (2).

4. Screw in four screws (2) in assembly (1) with socket, extension, and handle. Torque screws (2) between 100 and 120 pound inches (11 and 14 Newton meters).
5. Lock rotary rack (4) using latch (6).

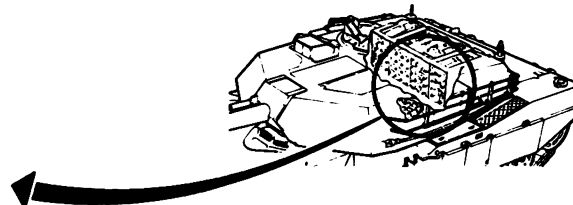
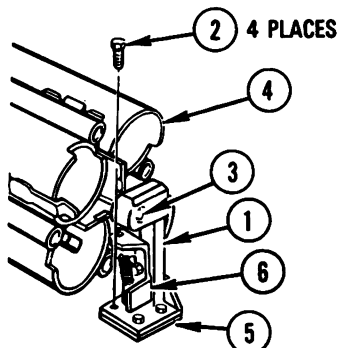
Follow-on Maintenance:

If right rotary rack front mounting post and latch assembly was installed, do the following:

1. Close sliding metal stowage door; refer to TM 9-2350-255-10.
2. Install commander's ammunition door guard; refer to TM 9-2350-255-10.

If left rotary rack front mounting post and latch assembly was installed, do the following:

1. Set sliding metal ready door to automatic operation and closed; refer to TM 9-2350-255-10.



ARR82-0469

TASK 26. Repair Left Center Bustle Ammunition Rack

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 12-inch
Hammer, ball peen
Handle, socket wrench, ratchet 3/8-inch square drive
Screwdriver, cross tip, No. 2, offset
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Cartridge Case, 105 MM, dummy
Sealing compound, MIL-S-46163 (Item 49)
Washer, Flat (19207) 12285641 (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

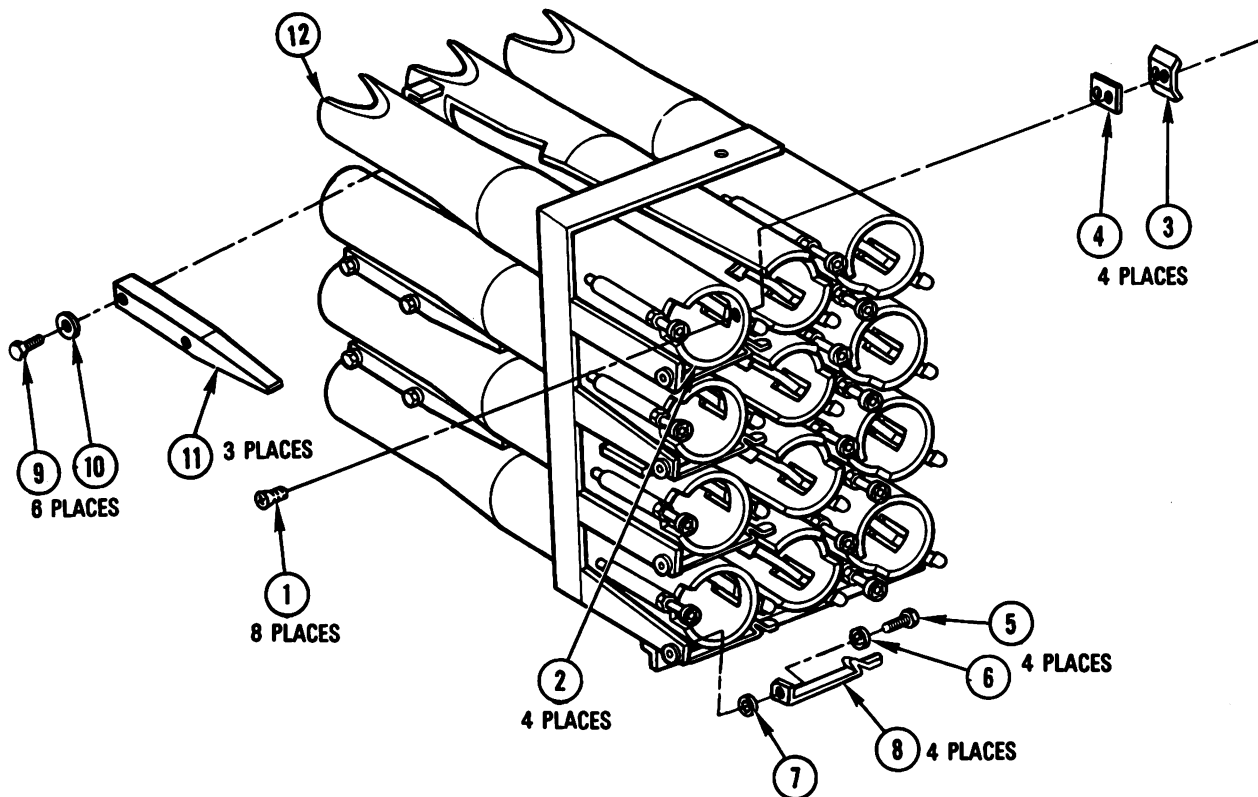
1. Remove commander's ammunition door guard; refer to TM 9-2350-255-10.
2. Open sliding metal stowage door; refer to TM 9-2350-255-10.
3. Set sliding metal ready door to manual operation; refer to TM 9-2350-255-10.
4. Remove blow-off plates; refer to para. 3-14, task 1.
5. Remove left and right center bustle ammunition racks; refer to task 1.
6. Remove left center bustle ammunition rack plungers and designation plates; refer to task 17.

FRAME 47

Repair Left Center Ammunition Rack:

1. Unscrew and take out eight screws (1) from forward end of tubes (2) with screwdriver.
2. Take out four spacers (3) and spacers (4). Look at spacers (4) and spacers (3) for cracks. Turn in bad parts. Set good parts aside for later use.
3. Unscrew and take out four screws (5), washers (6), and washer (7) from springs (8) with 7/16-inch socket and handle. Look at washer (7) for cracks. Turn in bad washer (7). Set good washer (7) aside for later use.
4. Take out four springs (8). Look at springs (8) for cracks. Turn in bad springs (8). Set good springs (8) aside for later use.
5. Unscrew and take out six screws (9) and washers (10) from three ammunition rack bars (11) at back end of rack (12) with 9/16-inch socket, extension, and handle.
6. Take out three ammunition rack bars (11).

GO TO FRAME 48



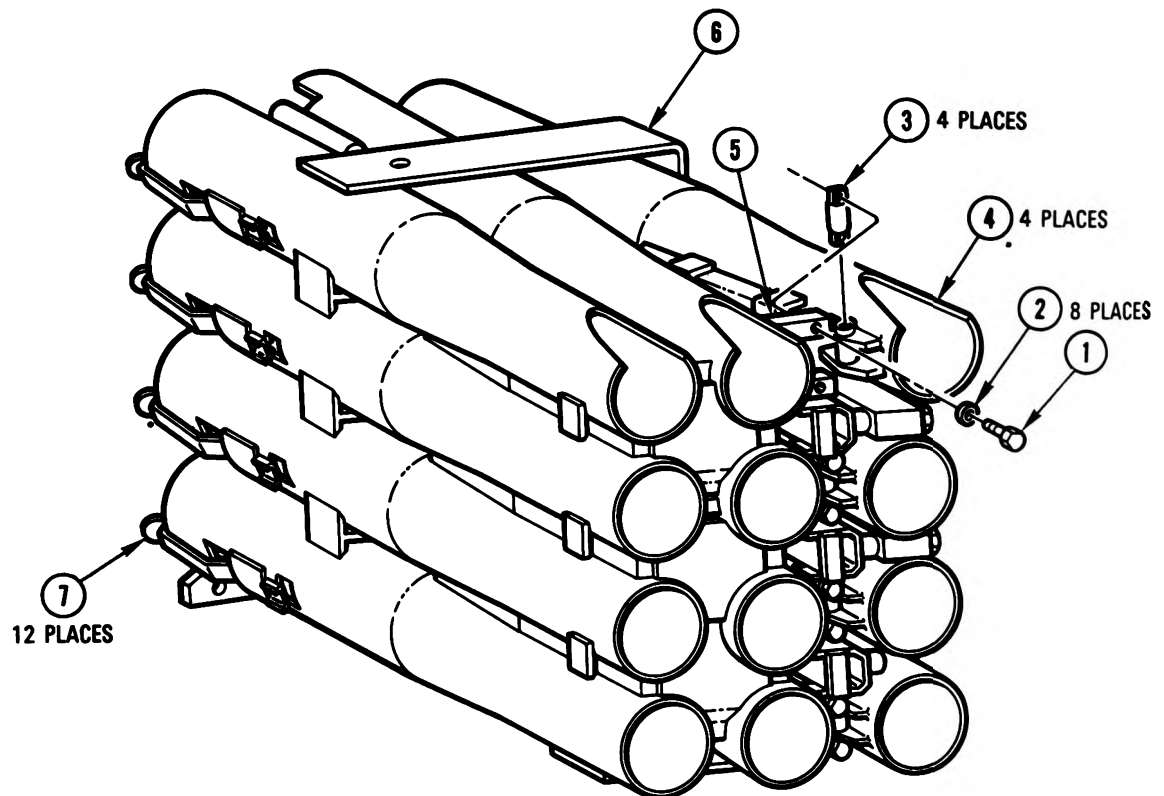
ARR82-0470

FRAME 48

Repair Left Center Ammunition Rack (Continued):

1. Unscrew and take out eight screws (1) and washers (2) from four pins (3) with 7/16-inch socket, extension, and handle.
2. Slide tubes (4) away from brackets (5) and take out four pins (3). Look at pins (3) for cracks, bends, or breaks. Turn in bad pins (3). Set good pins (3) aside for later use.
3. Take out four tubes (4) from rack (6). Look at tubes (4) for cracks or bends. Turn in bad tubes (4). Set good tubes (4) aside for later use.
4. Look at locking flat springs (7) for breaks or bends. If bad or if tubes(4) were turned in, replace locking flat springs; refer to task 19. If OK, go to frame 49.

GO TO FRAME 49

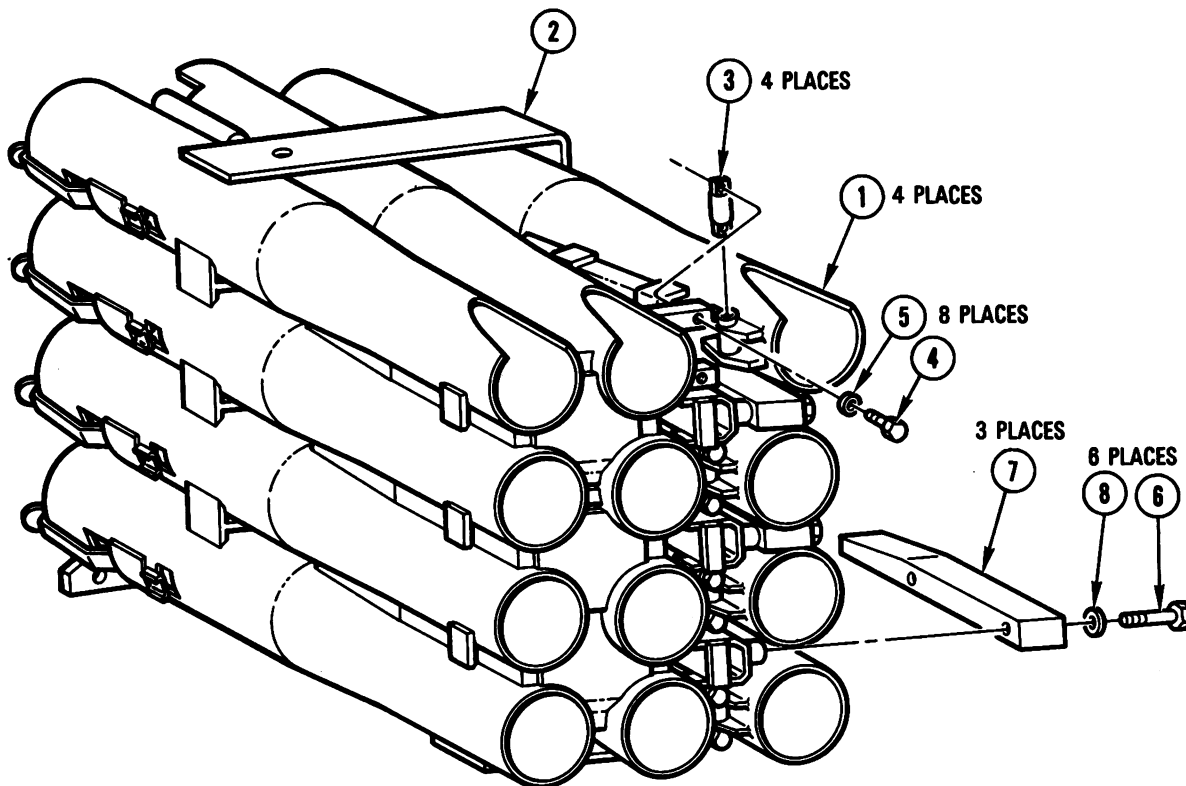


ARR82-0471

FRAME 49**Repair Left Center Ammunition Rack (Continued):**

1. Put four tubes (1) in rack (2).
2. Put pins (3) in tubes (1). Use hammer if needed. Put pins (3) in place on rack (2).
3. Apply a light coat of sealing compound on eight screws (4). Put screws (4) and washers (5) in pins (3). Tighten screws (4) with 7/16-inch socket, extension, and handle.
4. Apply a light coat of sealing compound on six screws (6).
5. Put three ammunition rack bars (7) on rack (2). Screw in six screws (6) and washers (8) with 9/16-inch socket and handle. Torque screws (6) between 360 and 420 pound inches (41 and 47 Newton meters).

GO TO FRAME 50

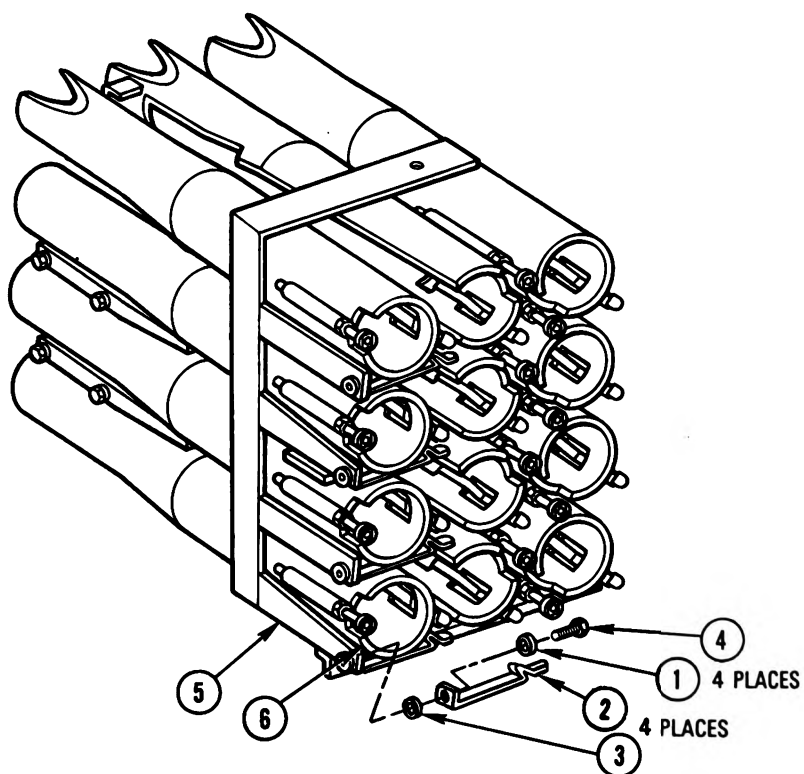


ARR82-0472

FRAME 50**Repair Left Center Ammunition Rack (Continued):**

1. Put washers (1), flat springs (2), and washers (3) on screws (4).
2. Put washers (1), springs (2), washers (3), and screws (4) on rack (5). Screw in and tighten screws (4) into rack (5) with 7/16-inch socket and handle.
3. Push tubes (6) to left until springs (2) lock tubes (6). If springs (2) do not lock tubes (6), or if springs (2) do not hold tubes (6) in place firmly, go to step 4. If springs (2) do lock and hold tubes (6) in place firmly, go to step 5.
4. Unscrew and take out screws (4), washers (1), springs (2), and washers (3) with 7/16-inch socket and handle. Take off or add washers (3), as needed. Screw in and tighten screws (4) into rack (5) with 7/16-inch socket and handle. Repeat step 3.
5. Unscrew and take out screws (4), washers (1), springs (2), and washers (3) with 7/16-inch socket and handle. Put light coat of sealing compound on screws (4). Screw in screws (4) into rack (5) with 7/16-inch socket and handle. Torque screws (4) between 100 and 120 pound inches (11 and 14 Newton meters).

GO TO FRAME 51

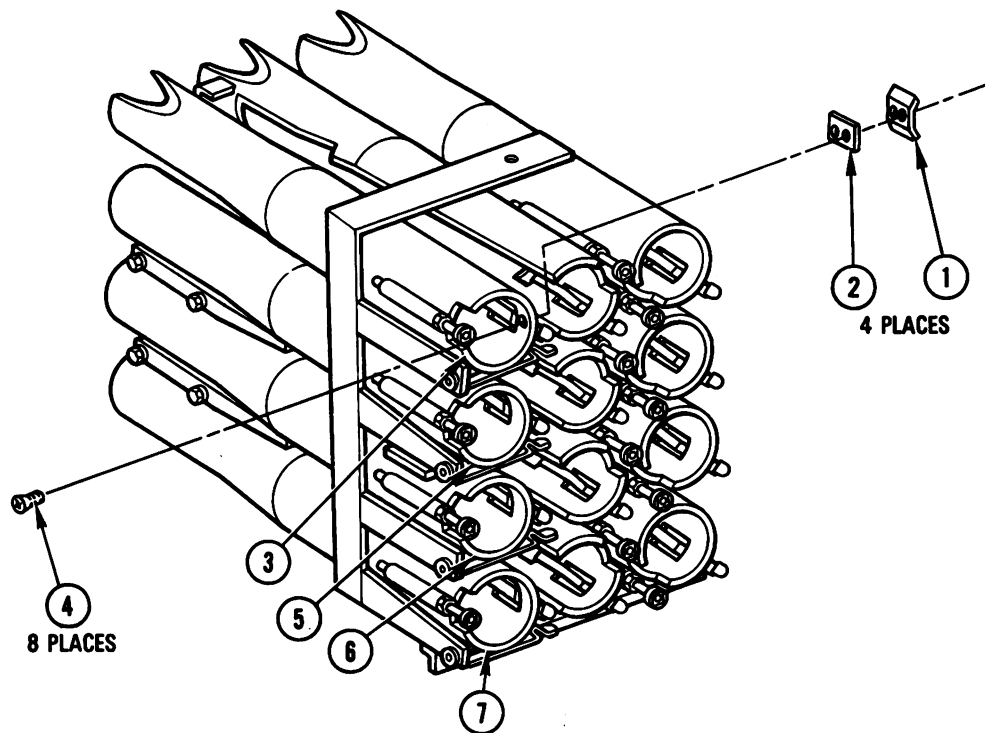


ARR82-0473

FRAME 51**Repair Left Center Ammunition Rack (Continued):**

1. Put spacer (1) and spacer (2) in place on tube (3).
2. Screw in and tighten two screws (4) through tube (3), spacer (2), and spacer (1) with screwdriver.
3. Put spent dummy cartridge case in tube (3); refer to TM 9-2350-255-10.
4. Try to move tube (3) from side to side. If tube (3) can be moved, remove dummy case; refer to TM 9-2350-255-10 and then go to step 5. If tube (3) cannot be moved, remove dummy case; refer to TM 9-2350-255-10 and then go to step 6.
5. Unscrew and take out two screws (4) with screwdriver. Add one spacer (2). Screw in and tighten two screws (4) through tube (3) spacer (2) and spacer (1) with screwdriver. Repeat steps 3 and 4.
6. Repeat steps 1 through 4 for tubes (5, 6, 7).

GO TO FRAME 52



ARR82-0474

FRAME 52

Repair Left Center Ammunition Rack (Continued):

Follow-on Maintenance:

1. Install bustle or ready ammunition rack plunger or designation plate; refer to task 18.
2. Install left and right center bustle ammunition racks; refer to task 8.
3. Install blow-off plates; refer to para. 3-14, task 2.
4. Close sliding metal stowage door; refer to TM 9-2350-255-10.
5. Close and set sliding metal ready door to automatic operation; refer to TM 9-2350-255-10.
6. Install commander's ammunition door guard refer to TM 9-2350-255-10.

END OF TURRET AMMUNITION RACKS MAINTENANCE

3-14. Turret Blow-off Plates

Task	Title	Frames
1	Remove Blow-off Plates	1
2	Install Blow-off Plates	2

TASK 1. Remove Blow-off Plates

Applicability: All Models

Common Tools:

- Bar, pry
- Brush, wire
- Handle, socket wrench, hinged, 3/8-inch square drive
- Knife, pocket
- Knife, putty
- Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Rag, wiping (Item 45)

Personnel: Two

- Soldier A: Removes plates.
- Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Close loaders hatch; refer to TM 9-2350-255-10.

FRAME 1

Remove Plates:

Soldier A: 1. Unscrew and take out eight screws (1) and washers (2) from two side plates (3) with socket and handle. Lift off side plates (3) with pry bar. Set side plates (3) aside for cleaning.

Soldier A,

Soldier B: 2. Unscrew and take out six screws (4) and washers (5) from center plate (6) with socket and handle. Lift off center plate (6) with pry bar. Set center plate (6) aside for cleaning.

Clean and Inspect Plates:

WARNING

Solvent burns easily. To avoid injury, do not use near open fire.

Soldier A: 3. Cut off 12 seals (7) from plates (3, 6) with pocket knife. Get rid of seals (7).

Soldier A: 4. Clean around turret openings (8) with solvent, rag, putty knife, and brush. Make sure old adhesive and sealing compound are completely cleaned off. Dry around turret openings (8) with clean rag.

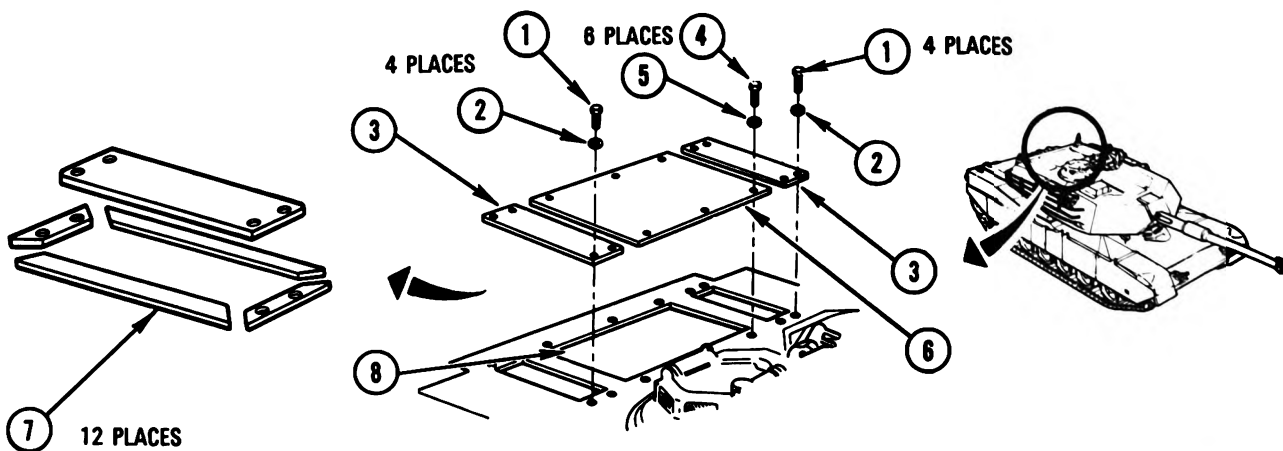
Soldier A: 5. Clean plates (3, 6), screws (1, 4), and washers (2, 5) with solvent, rag, putty knife, and brush. Make sure old adhesive and sealing compound are completely cleaned off. Dry all parts with clean rag.

Soldier A: 6. Look at plates (3, 6) for cracks or bends. Turn in bad plates (3, 6). Set good plates (3, 6) aside for later use.

Follow-on Maintenance:

NOTE: To install blow-off plates, refer to task 2.

TASK 1 ENDS HERE



ARR82-0756

TASK 2. Install Blow-off Plates

Applicability: All Models

Common Tools:

Handle, socket wrench, hinged, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Adhesive, MIL-A-46106A (Item 8)
Adhesive, Type II, MMM-A-1617 (Item 6)
Brush, acid swabbing (Item 13)
Seal (19207) 12285981-2
Seal (19207) 12280478 (six required)
Seal (19207) 12285980-2
Seal (19207) 12285980-1
Seal (19207) 12285981-1
Seal (19207) 12285980-3
Seal (19207) 12285980-4
Sealing Compound Kit, MIL-S-11031 (Item 50)

Personnel: Two

Soldier A: Installs plates.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove blow-off plates; refer to task 1.

FRAME 2

Install Plates:

WARNING

Adhesives and sealing compounds can burn easily and can give off harmful vapors. To avoid injury, keep adhesives and sealing compounds away from open fire and use them in a well-ventilated area.

Soldier A: 1. Spread adhesive MMM-A-1617 on 12 new seals (1, 2) with brush. Put seals (1, 2) in place on three plates (3).

Soldier A,
Soldier B: 2. Put three plates (3) in place over turret openings (4). Line up holes in plates (3) and openings (4).

Soldier A: 3. Coat threads of 14 screws (5) and underside of washers (6) with sealing compound.

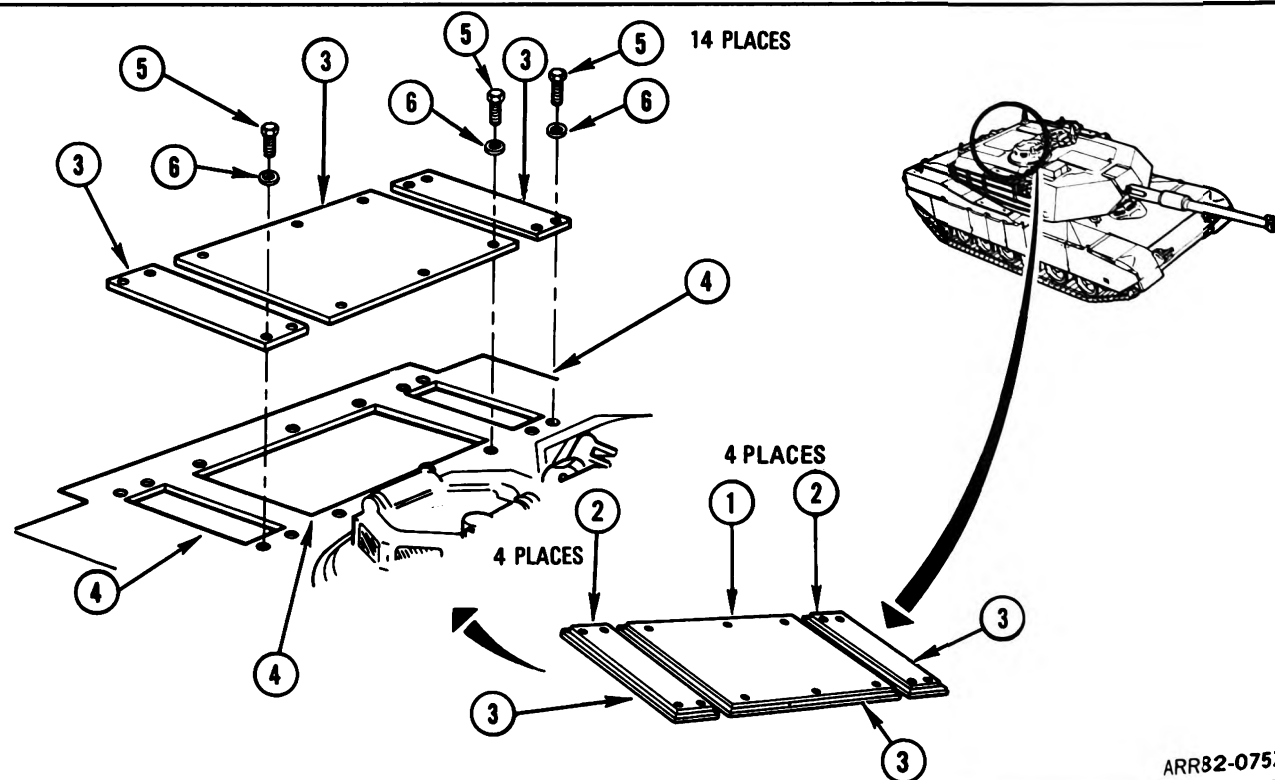
Soldier A: 4. Screw in screws (5) and washers (6) with socket and handle.

Soldier A: 5. Torque screws (5) between 290 and 310 pound inches (33 and 35 Newton meters).

Soldier A: 6. Spread adhesive MIL-A-46106 A around edges of plates (3) and screws (5).

Follow-on Maintenance: None

END OF TURRET BLOW-OFF PLATES MAINTENANCE



3-15. Internal Gun Travel Lock

Task	Title	Frames
1	Remove Internal Gun Travel Lock	1
2	Install Internal Gun Travel Lock	2

TASK 1. Remove Internal Gun Travel Lock

Applicability: All Models

Common Tools:

- Handle, socket wrench, ratchet, 3/8-inch square drive
- Pliers, slip joint (two required)
- Socket, socket wrench, 3/8-inch square drive, 7/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Unlock main gun elevation travel lock; refer to TM 9-2350-255-10.
2. Manually elevate main gun to gain access to internal gun travel lock; refer to TM 9-2350-255-10.

FRAME 1

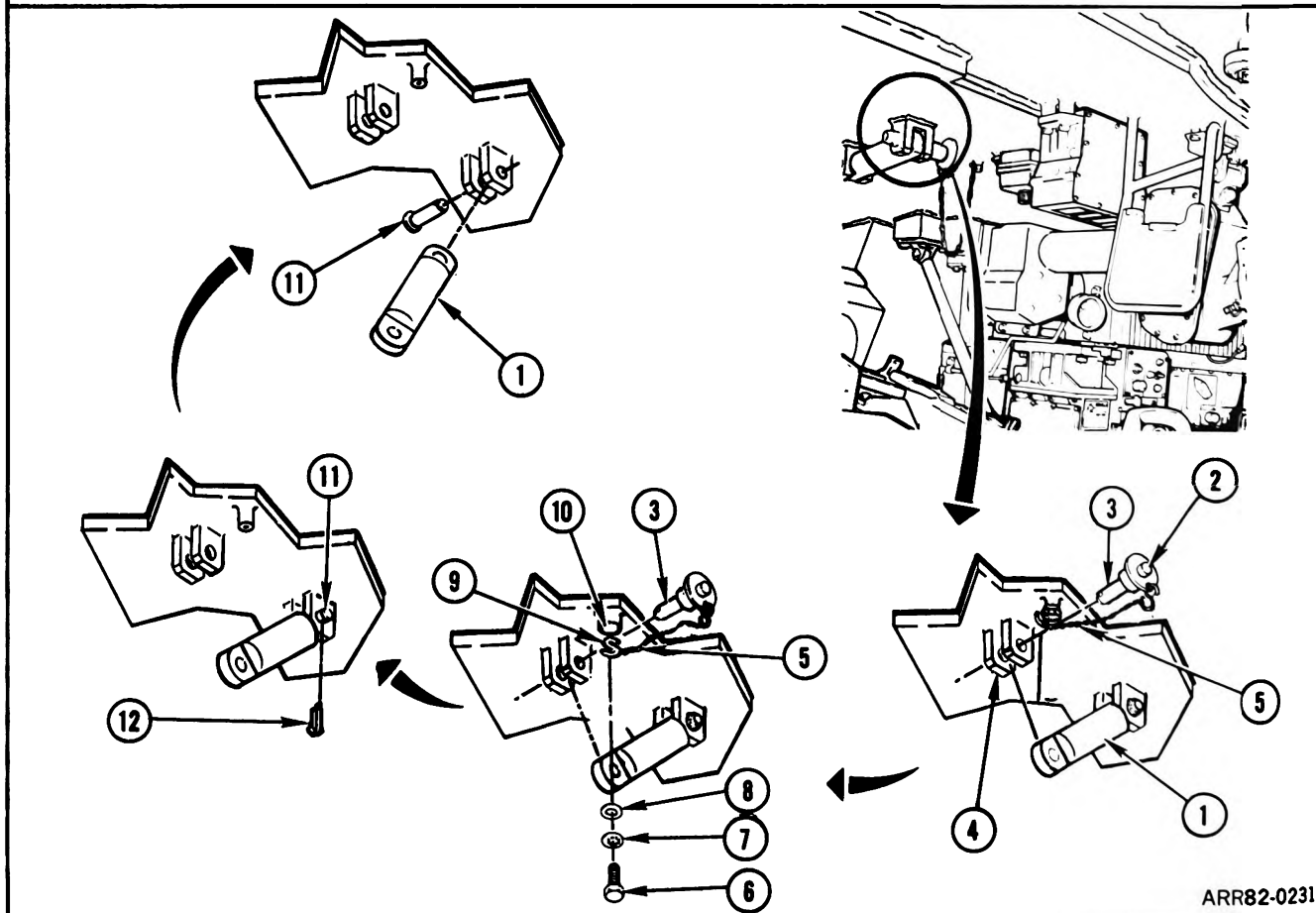
Remove Lock:

1. Hold connecting link (1) and press button (2) on quick-release pin (3). Pull pin (3) from clevis (4) and link (1).
2. Look at pin (3) for bends, cracks, or hard-to-move button (2). Look at chain (5) for bends or cracks. If either part is bad, do step 3. If both parts are OK, go to step 4.
3. Unscrew and take out screw (6), lockwasher (7), washer (8), and S-hook (9) from standoff (10) with socket and handle. Turn in bad part. Get rid of lockwasher (7).
4. Hold straight pin (11) with one pair of pliers and pull out cotter pin (12) with other pair of pliers. Pull out straight pin (11). Get rid of cotter pin (12).
5. Look at straight pin (11) for bends or cracks. If bad turn in. If OK set aside for later use.
6. Look at link (1) for cracks, bends, or out-of-round holes. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install internal gun travel lock, refer to task 2.

TASK 1 ENDS HERE



ARR82-0231

TASK 2. Install Internal Gun Travel Lock

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, slip joint
Socket, socket wrench, 3/8-inch square drive, 7/16-inch

Special Tools: None

Supplies:

Pin, cotter (96906) MS24665-355
To put on new quick-release pin or chain you will need:
Chain (81348) RRC271TY2CL2X072
Lockwasher (96906) MS35333-40
Pin (96906) MS17984C1218

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove internal gun travel lock; refer to task 1.

FRAME 2

Install Lock:

1. Line up holes in connecting link (1) and forward clevis (2). Push straight pin (3) in clevis (2) and link (1).
2. Put new cotter pin (4) in straight pin (3) with pliers.

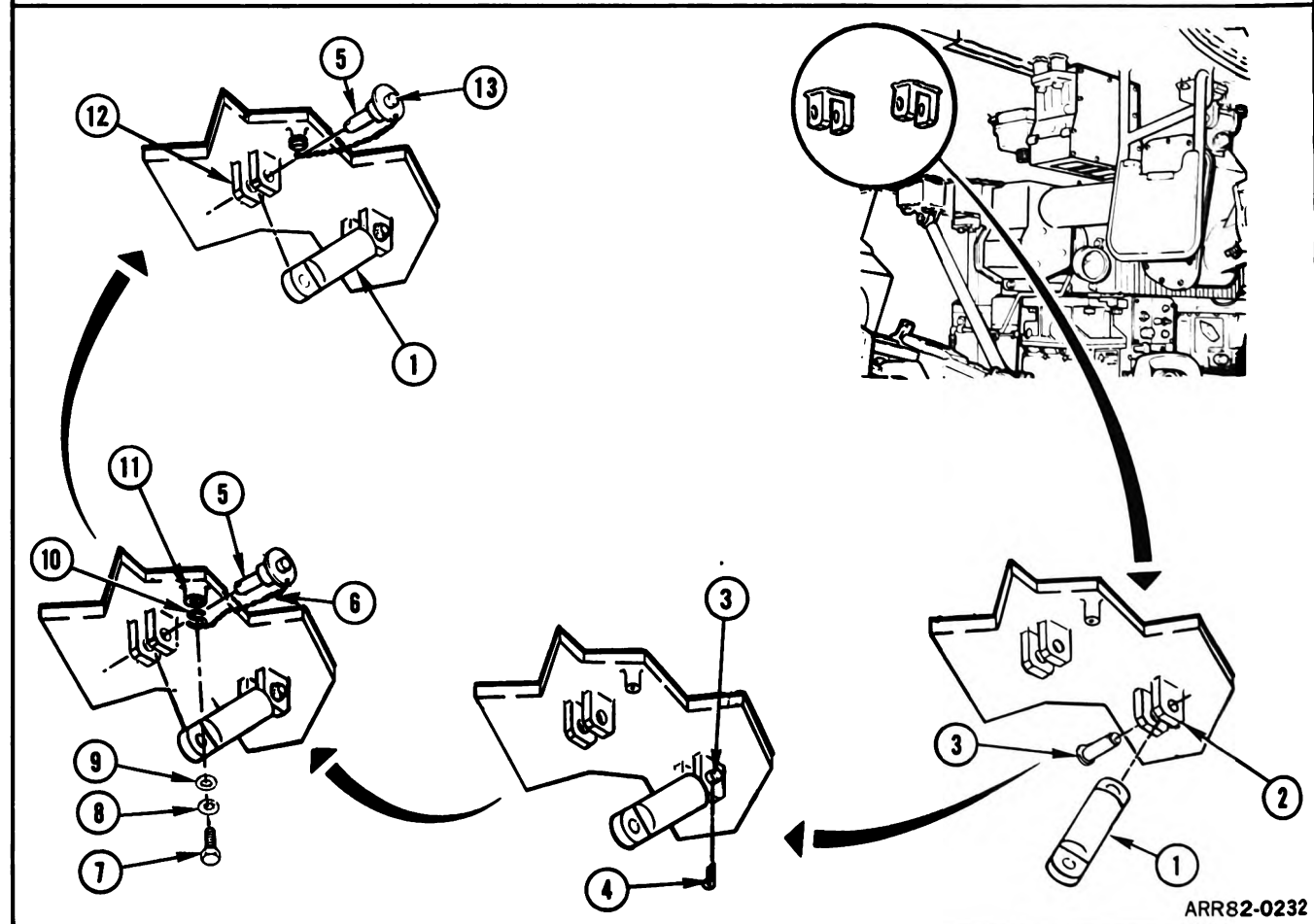
NOTE

If quick-release pin (5) and chain (6) were taken off in task 1, go to step 3. If not, go to step 4.

3. Screw in and tighten screw (7), new lockwasher (8), washer (9), and S-hook (10) in standoff (11) with socket and handle.
4. Put link (1) in rear clevis (12). Push in button (13) on quick-release pin (5). Push pin (5) in clevis (12) and link (1).

Follow-on Maintenance: None

END OF INTERNAL GUN TRAVEL LOCK MAINTENANCE



ARR82-0232

3-16. Turret Platform

Task	Title	Frames
1	Remove Screens	1
2	Remove Gunner's Brackets	2
3	Remove Commander's Guard and Bracket	3
4	Remove Loader's Brackets	4
5	Remove Loader's Radio Mount Bracket	5
6	Remove Turret Platform Access Door	6
7	Remove Turret Platform and Bracket Cable Channel Access Covers	7
8	Replace Loader's or Gunner's Bracket Identification Marker	8 - 9
9	Replace Turret Platform Access Door Latch Assembly	10
10	Replace Ball Stud	11
11	Replace Friction Receptacle	12 - 13
12	Install Turret Platform and Bracket Cable Channel Access Covers	14
13	Install Turret Platform Access Door	15
14	Install Loader's Radio Mount Bracket	16
15	Install Loader's Bracket	17
16	Install Commander's Guard and Bracket	18
17	Install Gunner's Brackets	19
18	Install Screens	20

TASK 1. Remove Screens**Applicability:** All Models**Common Tools:**

Screwdriver, flat tip

Special Tools: None**Supplies:** None**Personnel:** Two

Soldier A: Removes screens from driver's compartment.

Soldier B: Rotates turret manually.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

To remove screen next to gunner's seat area, remove right knee guard; refer to para. 3-12, task 1.

FRAME 1

Remove Screen:

NOTE

Use this task to take out any one of five screens (1) in gunner's, commander's, or loader's station. Screen (1) in commander's station is shown.

Soldier B: 1. When told by Soldier A, manually traverse turret until screen to be taken out can be reached from the driver's compartment; refer to TM 9-2350-255-10.

Soldier B: 2. Pry screen (1) off bracket (2) at ball studs (3) with screwdriver.

Soldier A: 3. Lift screen (1) out of turret platform (4) and pull inside driver's compartment.

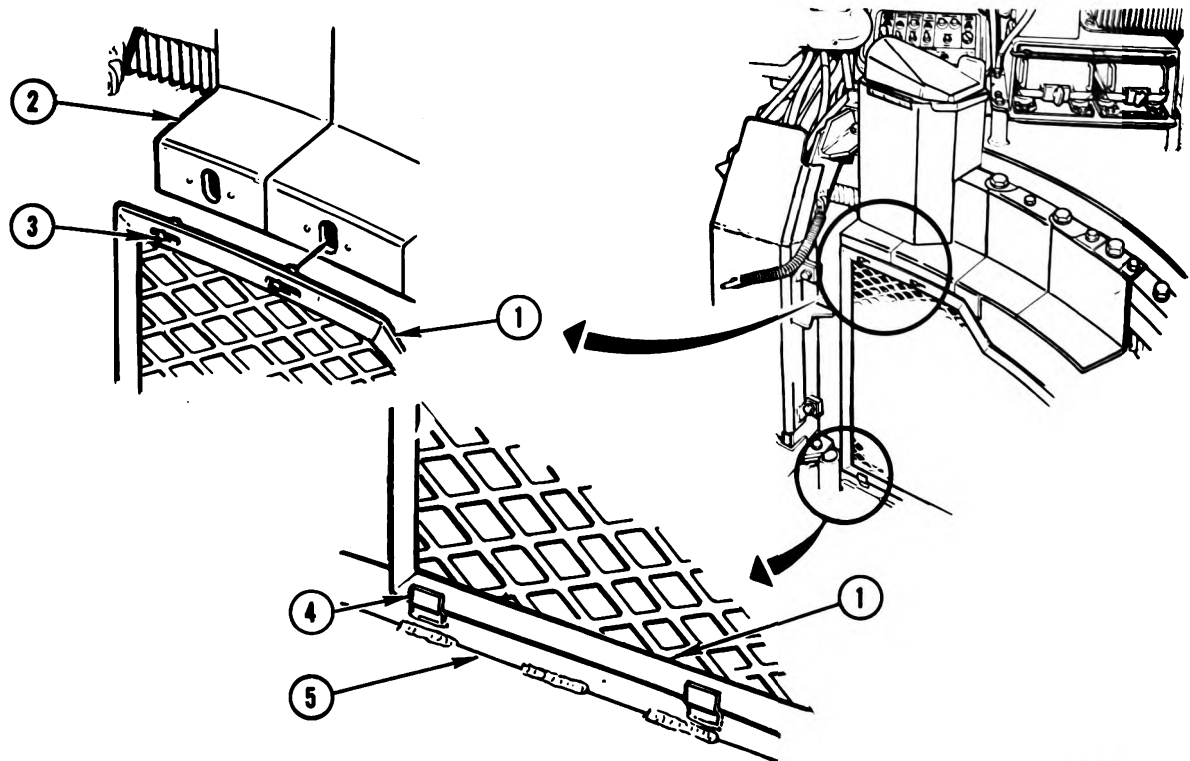
Soldier A: 4. Look at screen (1) for cracks and bends. If bad turn in and TASK 1 ENDS HERE. If OK go to step 5.

Soldier A: 5. Look at screen (1) for cracked, broken, and bent ball studs (3). Replace bad ball studs, refer to task 10.

Follow-on Maintenance:

NOTE: To install screens, refer to task 18.

TASK 1 ENDS HERE



ARR82-0237

TASK 2. Remove Gunner's Brackets

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove gunner's right knee guard and chestrest assembly; refer to para. 3-12, task 1.
2. Remove screen (gunner's station); refer to task 1.

FRAME 2

Remove Bracket:

NOTE

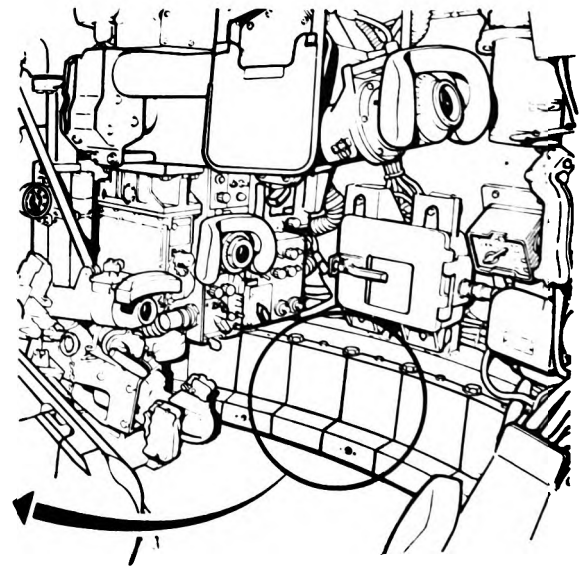
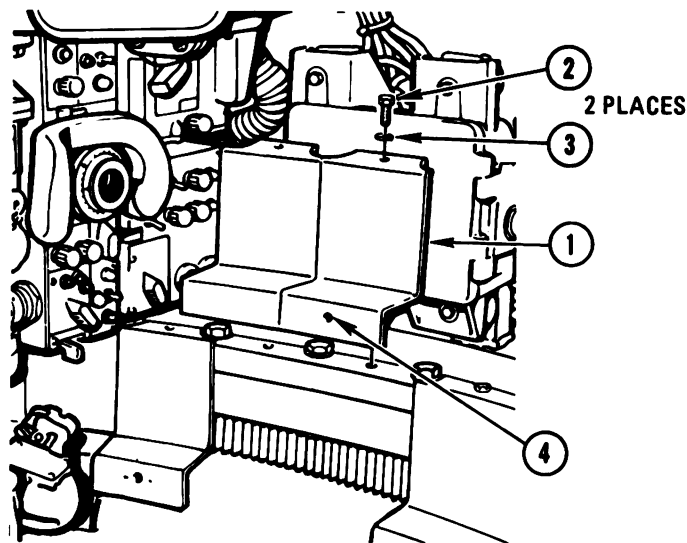
Use this task to take out any one of three brackets (1) in gunner's station. One bracket (1) is shown.

1. Unscrew and take two screws (2) and washers (3) off bracket (1) with socket and handle. Take bracket (1) off turret.
2. Look at bracket (1) for cracks and bends. If bad turn in and TASK 2 ENDS HERE. If OK go to step 3.
3. Look at friction receptacles (4) for cracks, breaks, or bends. Replace friction receptacles; refer to task 11.

Follow-on Maintenance:

NOTE: To install gunner's brackets, refer to task 17.

TASK 2 ENDS HERE



ARR82-0238

TASK 3. Remove Commander's Guard and Bracket

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's vehicular accessories storage box; refer to para. 3-19, task 1.
2. Remove screens (commander's station); refer to task 1.

FRAME 3

Remove Guard:

1. Unscrew and take two screws (1) and washers (2) off guard (3) with socket and handle. Take guard (3) off turret.
2. Look at guard (3) for cracks and bends. If bad turn in. If OK set aside for later use.

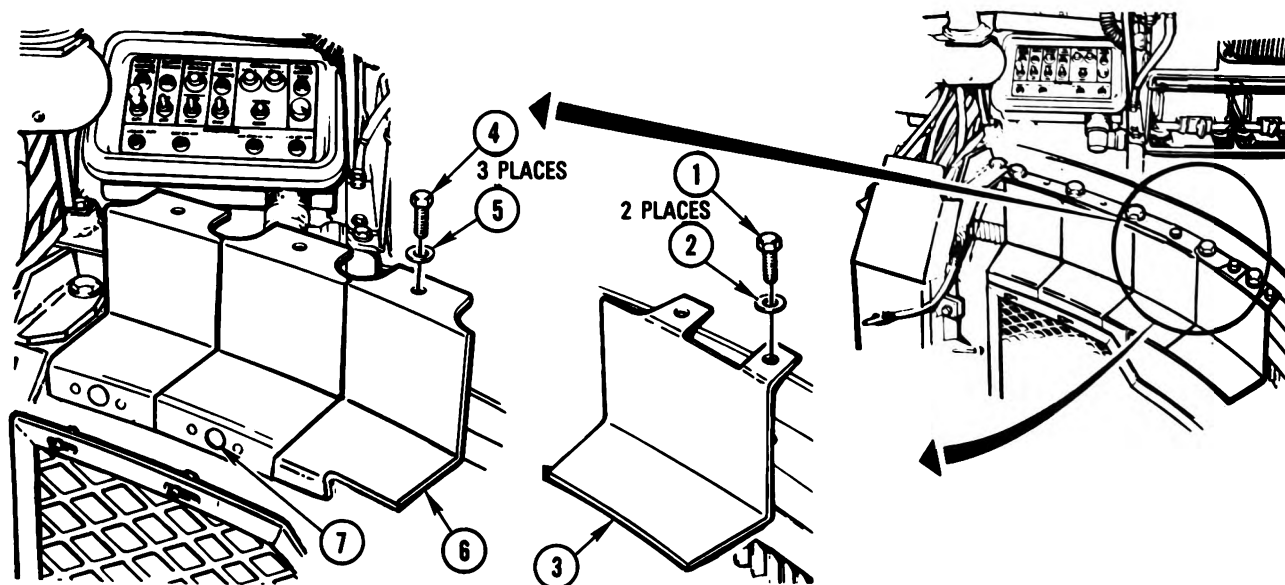
Remove Bracket:

3. Unscrew and take three screws (4) and washers (5) off bracket (6) with socket and handle. Take bracket (6) off turret.
4. Look at bracket (6) for cracks and bends. If bad turn in and TASK 3 ENDS HERE. If OK go to step 5.
5. Look at friction receptacles (7) for cracks, breaks, or bends. Replace bad friction receptacles; refer to task 11.

Follow-on Maintenance:

NOTE: To install commander's guard and bracket, refer to task 16.

TASK 3 ENDS HERE



ARR82-0239

TASK 4. Remove Loader's Brackets

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove screens (loader's station); refer to task 1.

FRAME 4

Remove Bracket:

NOTE

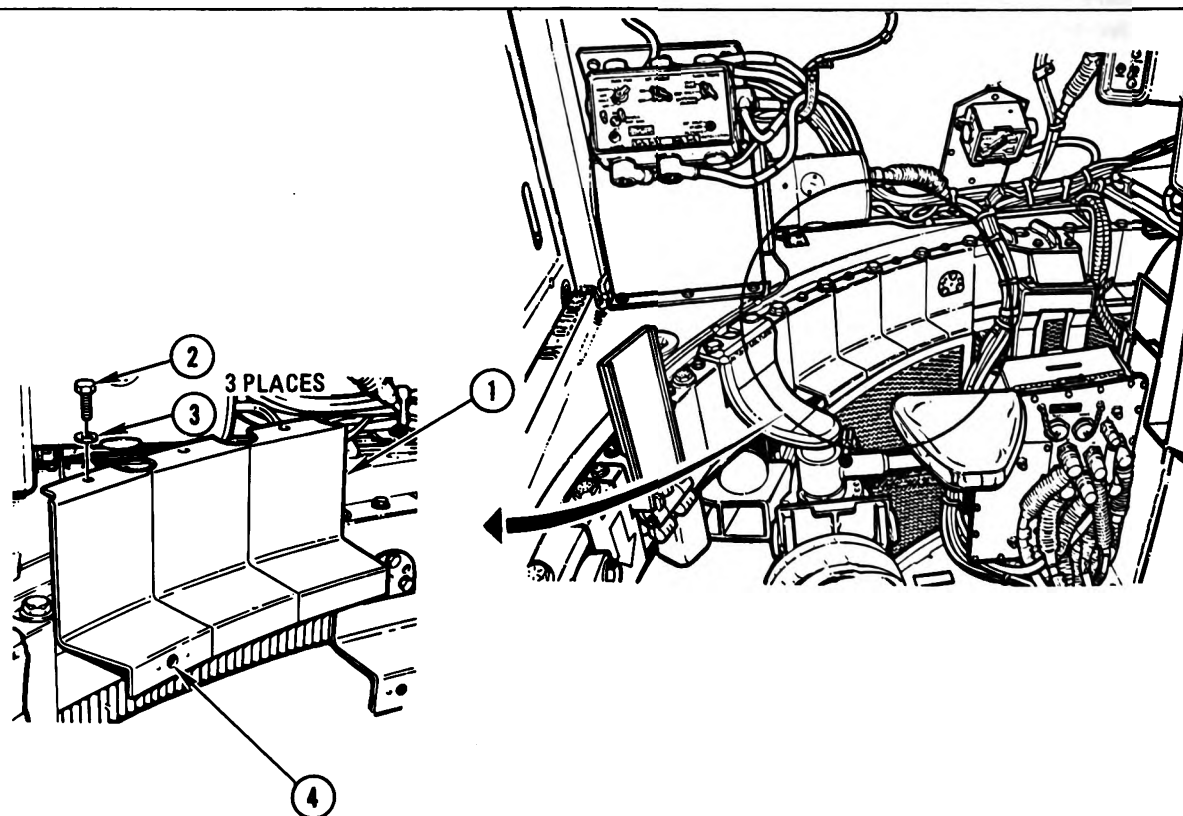
Use this task to take off any one of four brackets (1) in loader's station. One bracket (1) is shown.

1. Unscrew and take three screws (2) and washers (3) off bracket (1) with socket and handle. Take bracket (1) off turret.
2. Look at bracket (1) for cracks and bends. If bad turn in and TASK 4 ENDS HERE. If OK go to step 3.
3. Look at friction receptacles (4) for cracks, breaks, or bends. Replace bad friction receptacles; refer to task 11.

Follow-on Maintenance:

NOTE: To install loader's brackets, refer to task 15.

TASK 4 ENDS HERE



ARR82-0240

TASK 5. Remove Loader's Radio Mount Bracket

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove loader's orifice connector assembly and angle bracket; refer to TM 9-2350-255-20-2-3-3, para. 8-4.
2. Remove loader's heater assembly; refer to TM 9-2350-255-20-2-3-3, para. 8-4.
3. Remove screens (loader's station); refer to task 1.

FRAME 5

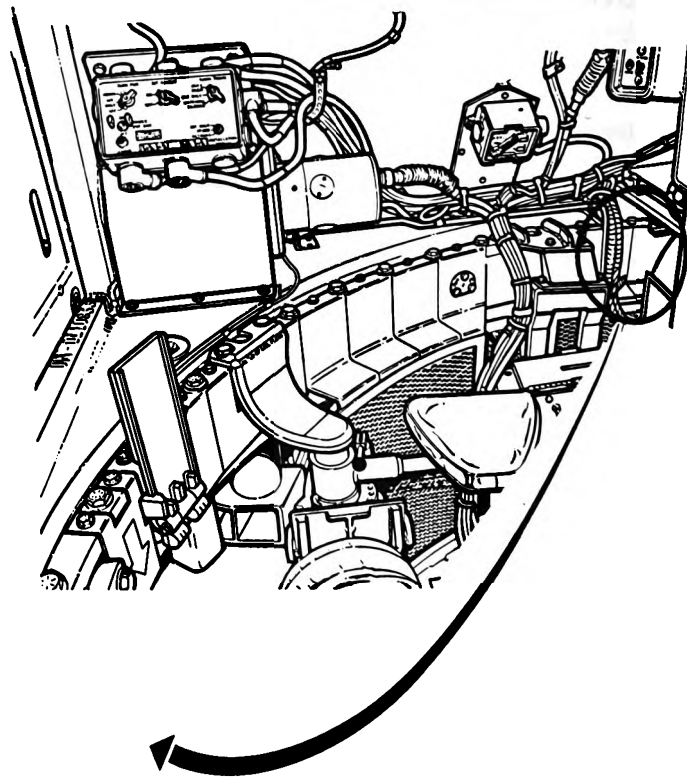
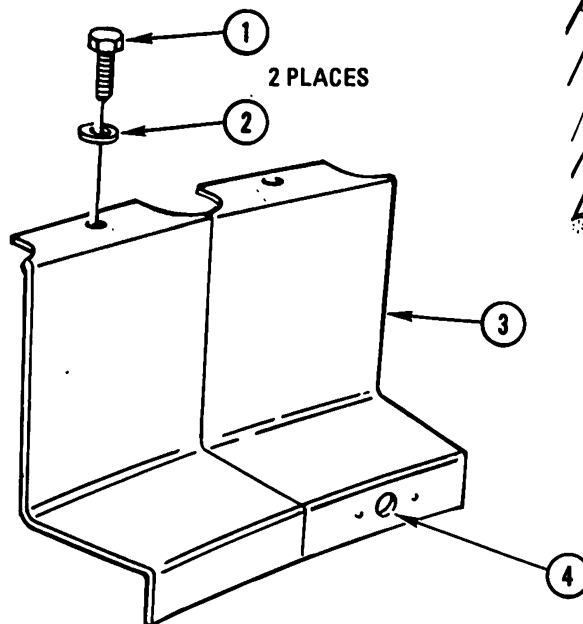
Remove Bracket:

1. Unscrew and take two screws (1) and washers (2) off bracket (3) with socket and handle. Take bracket (3) off turret.
2. Look at bracket (3) for cracks and bends. If bad turn in and TASK 5 ENDS HERE. If OK go to step 3.
3. Look at friction receptacles (4) for cracks, breaks, or bends. Replace bad friction receptacles; refer to task 11.

Follow-on Maintenance:

NOTE: To install loader's radio mount bracket, refer to task 14.

TASK 5 ENDS HERE



ARR82-0241

TASK 6. Remove Turret Platform Access Door

Applicability: All Models

Common Tools:

- Hammer, ball peen
- Pliers, slip joint
- Punch, drive pin, 1/4-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 6

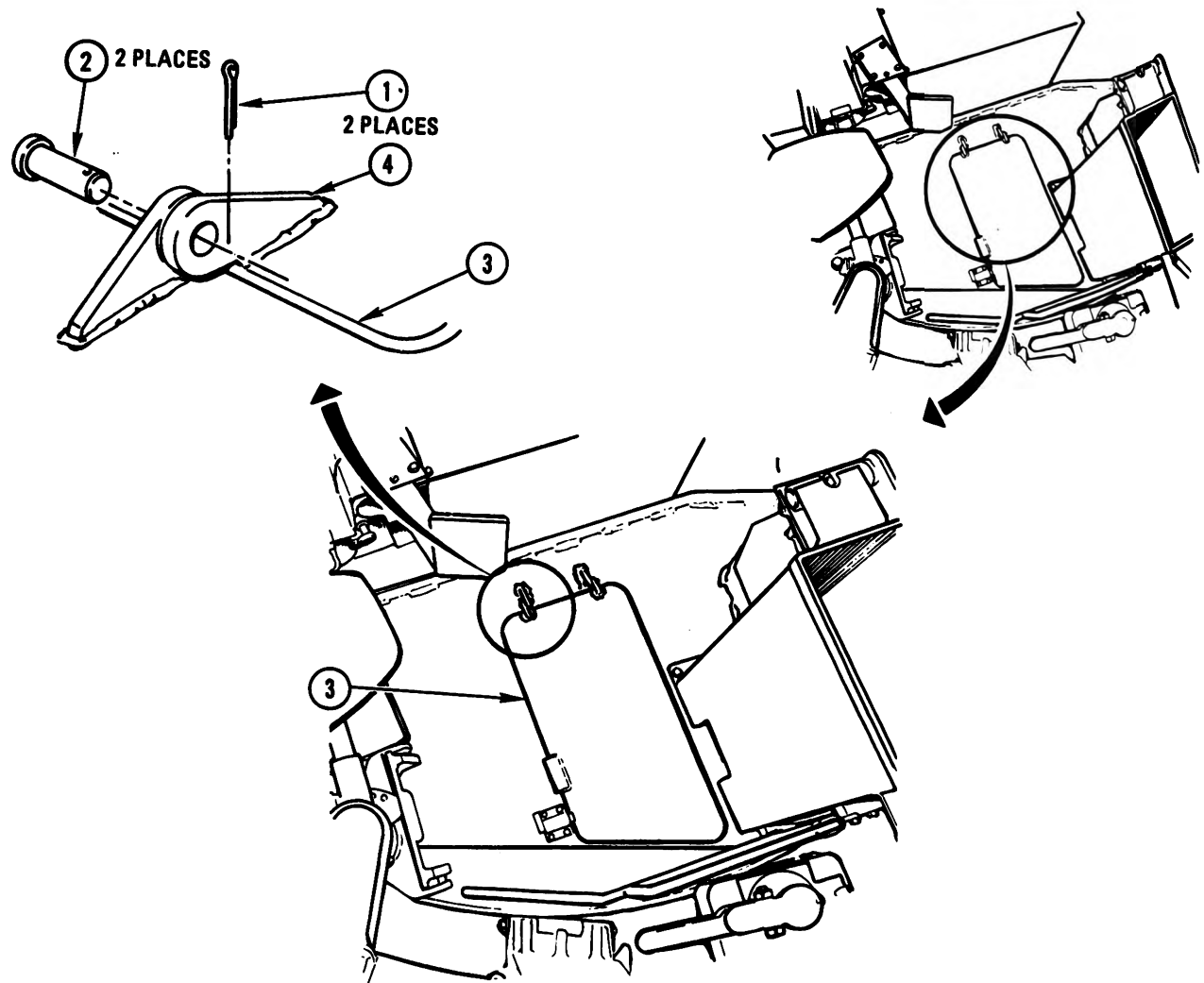
Remove Door:

1. Pull two cotter pins (1) out of straight headed pins (2) with pliers. Get rid of cotter pins (1).
2. Drive two pins (2) out of door (3) and two hinges (4) with hammer and punch.
3. Lift off door (3).
4. Look at door (3) and pins (2) for cracks and bends. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install turret platform access door, refer to task 13.

TASK 6 ENDS HERE



ARR82-0242

TASK 7. Remove Turret Platform and Bracket Cable Channel Access Covers

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove electronics rack shield assembly; refer to TM 9-2350-255-20-2-3-3, para. 7-7.
2. Remove slipping access cover; refer to TM 9-2350-255-20-2-3-1, para. 2-8.

FRAME 7

Remove Turret Platform Access Cover:

1. Unscrew and take out three screws (1) and washers (2) from platform access cover (3) with 9/16-inch socket and handle. Lift cover (3) off platform (4).
2. Look at cover (3) for cracks and bends. If bad turn in. If OK set aside for later use.

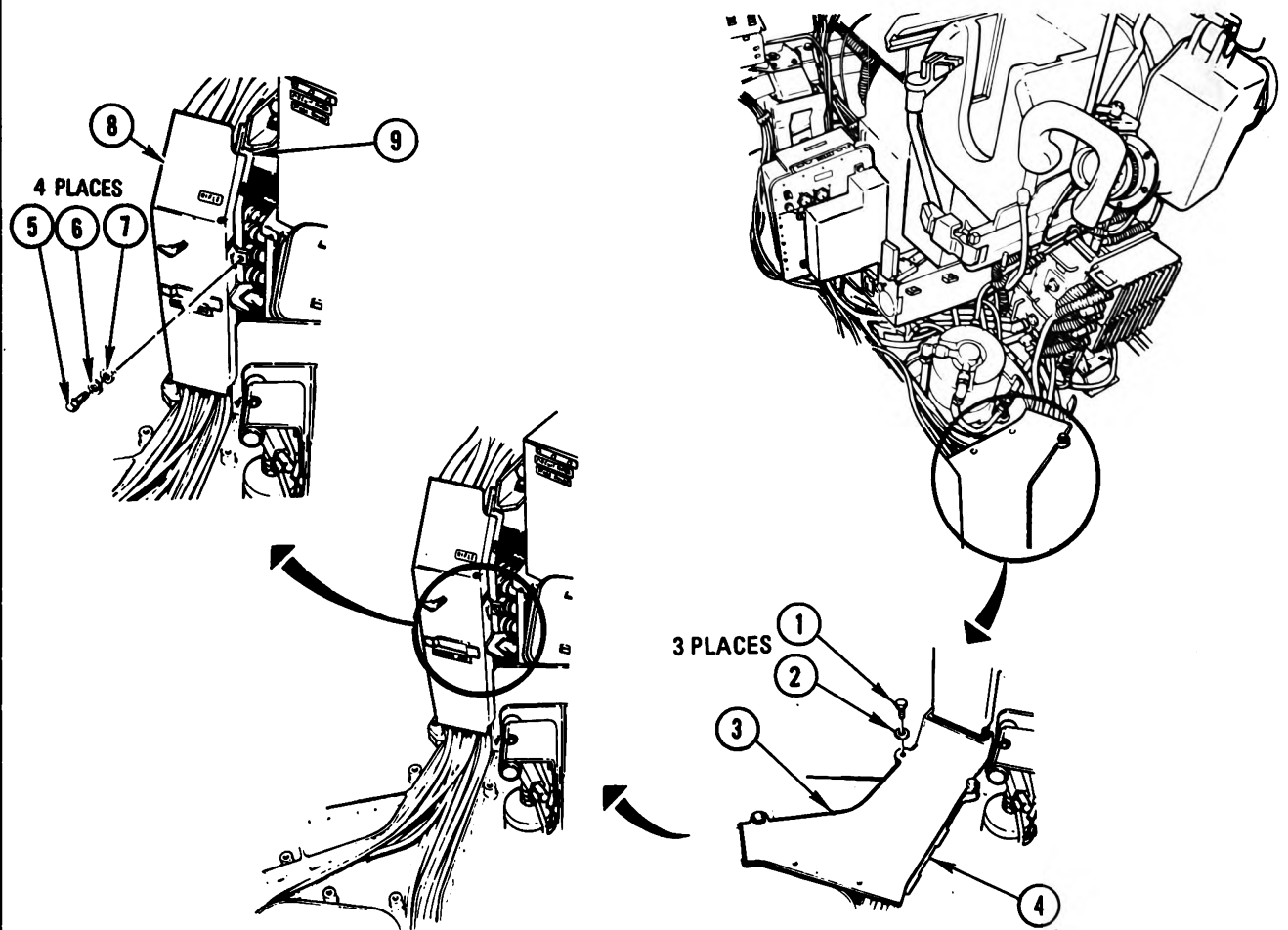
Remove Bracket Access Cover:

3. Unscrew and take out four screws (5), lockwashers (6), and washers (7) from bracket access cover (8) with 7/16-inch socket and handle. Pull cover (8) off bracket (9). Get rid of lockwashers (6).
4. Look at cover (8) for cracks and bends. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install turret platform and bracket cable channel access covers, refer to task 12.

TASK 7 ENDS HERE



ARR82-0243

TASK 8. Replace Loader's or Gunner's Bracket Identification Marker

Applicability: All Models

Common Tools:

Brush, wire
Knife, putty
Rule, steel, machinist's

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Dry Cleaning Solvent, P-D-680 (Item 21)
Marker, identification (19207) 12301514-2 (gunner's bracket)
Marker, identification (19207) 12301514-5 (loader's bracket)
Pencil, writing (Item 40)
Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 8

Remove Marker:

NOTE

Use this task to take off and put on loader's bracket marker (1) or gunner's bracket marker (2). Marker (2) on gunner's bracket (3) is shown.

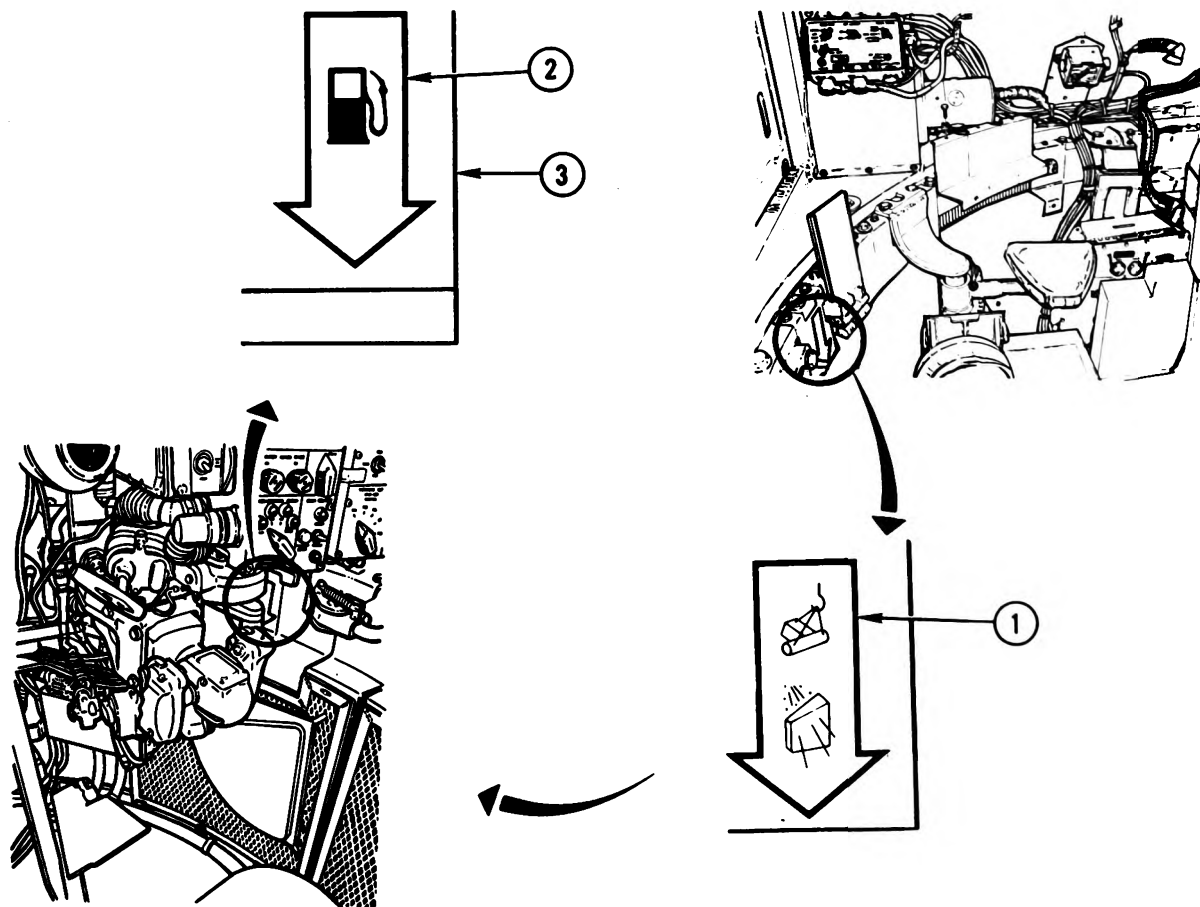
1. Scrape marker (2) off bracket (3) with putty knife. Get rid of marker (2).

WARNING

Solvent burns easily. To avoid injury, do not use near open fire.

2. Clean old adhesive off bracket (3) with solvent, brush, and rag.

GO TO FRAME 9



ARR82-0244

FRAME 9

Install Marker:

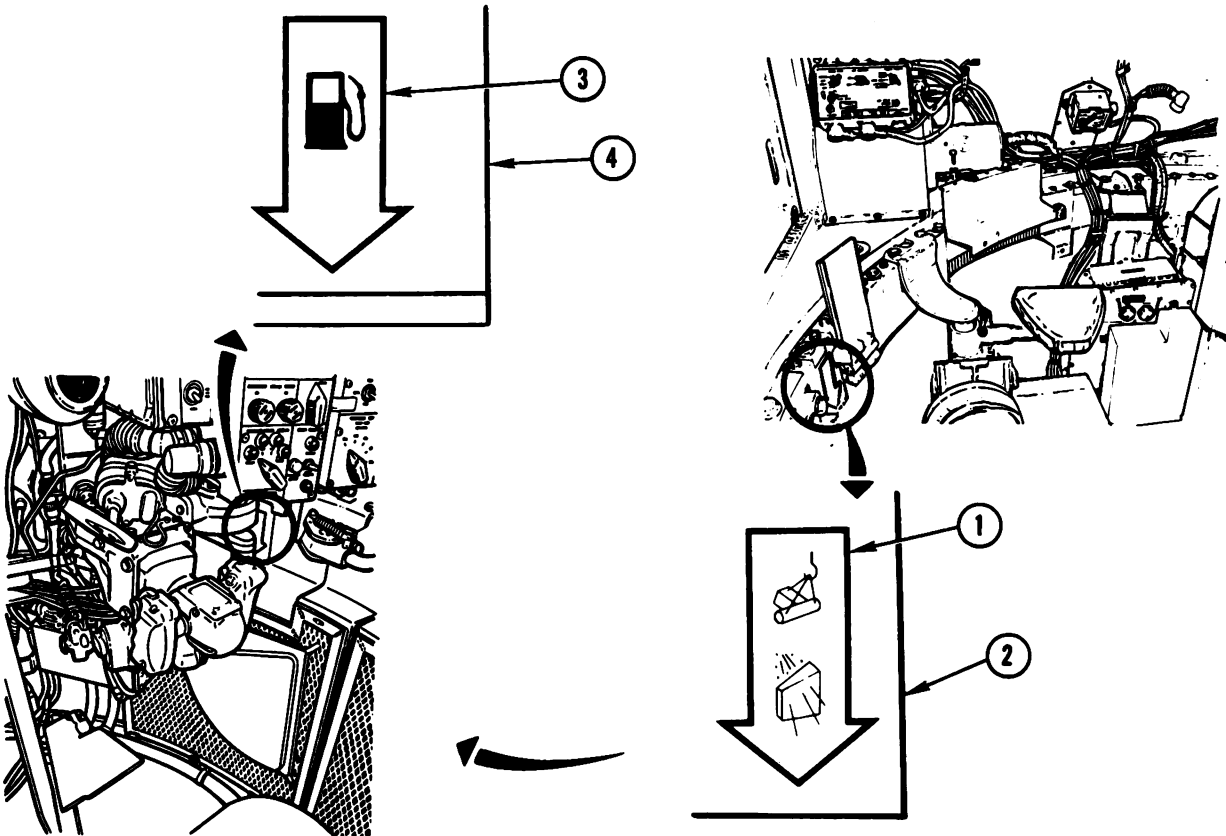
NOTE

- Put new loader's bracket marker (1) 1/4-inch from bottom of bracket (2) and 7/8- inch from right side of bracket (2).
- Put new gunner's bracket marker (3) 1/2-inch from bottom of bracket (4) and 5 inches from left side of bracket (4).

1. Measure and mark position for new marker (3) with rule and pencil.
2. Peel off back of marker (3). Press marker (3) in place.
3. Peel protective cover off marker (3).

Follow-on Maintenance: None

TASK 8 ENDS HERE



ARR82-0245

TASK 9. Replace Turret Platform Access Door Latch Assembly

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Latch Assembly (19207) 12280805
Lubricating Oil, OE/HDO-30, MIL-L-2104C (Item 33)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 10

Remove Latch and Plate Spacer:

1. Unscrew and take four screws (1) and washers (2) off latch assembly (3) with socket and handle. Take latch assembly (3) off plate spacer (4). Turn in latch assembly (3).
2. Look at spacer (4) for cracks and bends. If bad turn in. If OK set aside for later use.

Install Latch and Plate Spacer:

3. Line up four holes in spacer (4) with holes in turret platform.
4. Line up four holes in new latch assembly (3) with holes in spacer (4).

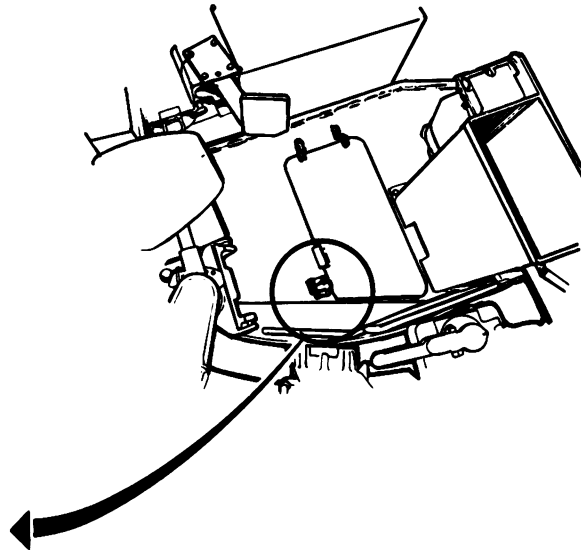
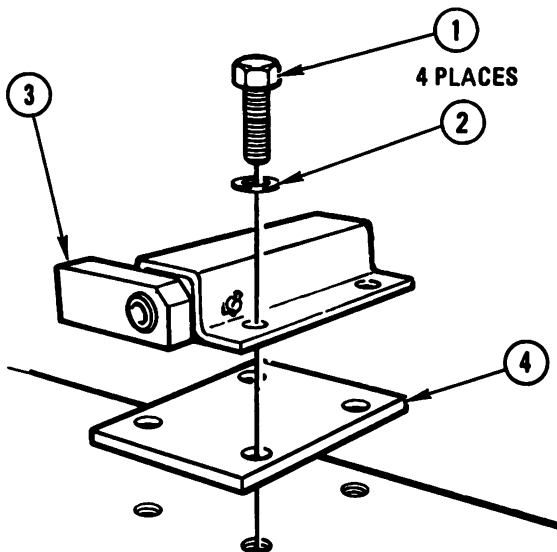
WARNING

Lubricating oil can cause skin rash. If oil gets on skin or clothing, wash with soap and water.

5. Spread a light coat of oil on threads of four screws (1). Screw in and tighten four screws (1) and washers (2) to latch assembly (3) and spacer (4) with socket and handle.

Follow-on Maintenance: None

TASK 9 ENDS HERE



ARR82-0246

TASK 10. Replace Ball Stud

Applicability: All Models

Common Tools:

Screwdriver, flat tip

Socket, socket wrench, 3/8-inch square drive, 5/16-inch

Wrench, combination, 1/2-inch

Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Ball Stud (19207) 12287811

Pencil, china marking (Item 41)

Sealing Compound, MIL-S-46163 (Item 49)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove screens as required; refer to task 1.

FRAME 11**Remove Ball Stud:**

1. Mark location of ball stud (1) on screen (2) with pencil.
2. Unscrew and take out ball stud (1), washer (3), and screw (4) from screen (2) with screwdriver and wrench. Get rid of ball stud (1).

Install Ball Stud:**WARNING**

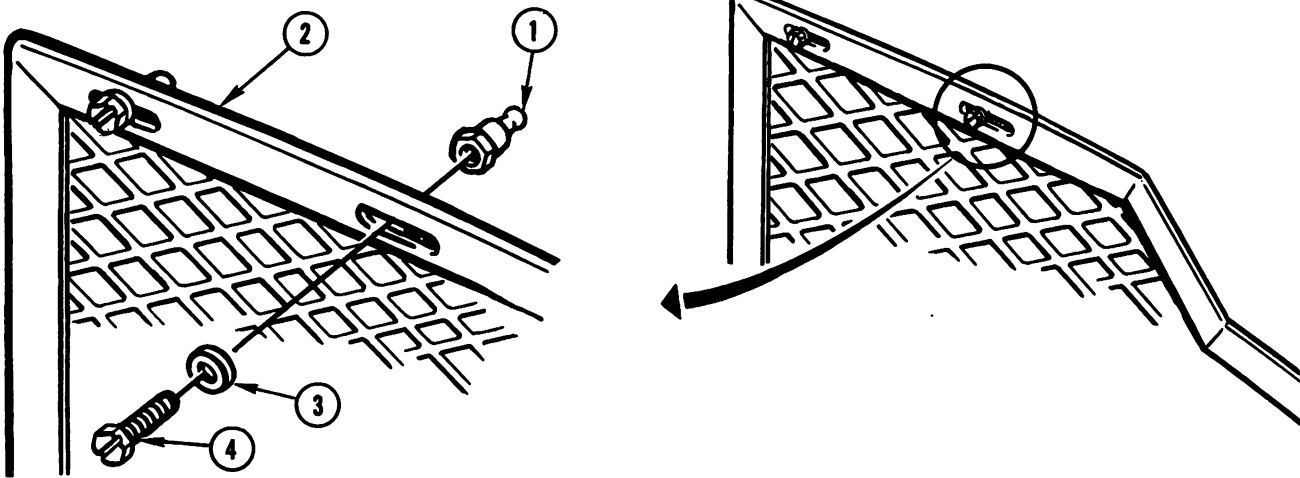
Sealing compound can burn easily and can give off harmful vapors. To avoid injury, keep away from open fire and use in a well-ventilated area.

3. Spread a light coat of sealing compound on threads of screw (4).
4. Put new ball stud (1) in line with mark on screen (2). Screw in and tighten screw (4) and washer (3) with screwdriver and wrench.
5. Torque screw (4) between 20 and 25 pound inches (2 to 3 Newton meters).

Follow-on Maintenance:

Install screens; refer to task 18.

TASK 10 ENDS HERE



ARR82-0247

TASK 11. Replace Friction Receptacle

Applicability: All Models

Common Tools:

Drill, electric, portable
Drill, twist, 1/8-inch diameter
Hammer, ball peen
Punch, center
Riveter, blind, hand

Special Tools: None

Supplies:

Rivet, 3/16-inch (96906) MS20613-4C6 (two required)
Receptacle, friction (19207) 12287808
Washer (96906) MS27183-6 (two required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

To replace friction receptacle on gunner's brackets, do the following:

1. Remove gunner's knee guard and chestrest; refer to para. 3-12, task 1.
2. Remove screens (gunner's station); refer to task 1.
3. Remove gunner's brackets; refer to task 2.

To replace friction receptacle on commander's guard and bracket, do the following:

1. Remove commander's vehicular accessories storage box; refer to para. 3-19, task 1.
2. Remove screens (commander's station); refer to task 1.
3. Remove commander's guard and bracket; refer to task 3.

To replace friction receptacle on loader's brackets, do the following:

- Remove screens (loader's station); refer to task 1.

Preliminary Procedures (Continued):

To replace friction receptacle on loader's radio mount bracket, do the following:

1. Remove loader's shoulder guard; refer to para. 3-12, task 5.
2. Remove auxiliary receiver; refer to para. 5-7, task 2.
3. Remove receiver-transmitter; refer to para. 5-7, task 1.
4. Remove auxiliary receiver mount; refer to para. 5-8, task 3.
5. Remove receiver-transmitter mount; refer to para. 5-8, task 5.
6. Remove loader's orifice connector assembly and angle bracket; refer to TM 9-2350-255-20-2-3-3, para. 8-4.
7. Remove loader's heater assembly; refer to TM 9-2350-255-20-2-3-3, para. 8-4.
8. Remove loader's panel; refer to TM 9-2350-255-20-2-3-1, para. 2-6.
9. Remove loader's panel bracket; refer to TM 9-2350-255-20-2-3-1, para. 2-6.
10. Remove radio mount; refer to para. 5-8, task 6.
11. Remove screens (loader's station); refer to task 1.
12. Remove loader's radio mount bracket; refer to task 5.

FRAME 12

Remove Friction Receptacle:

1. Center punch two rivets (1) with hammer and punch.

NOTE

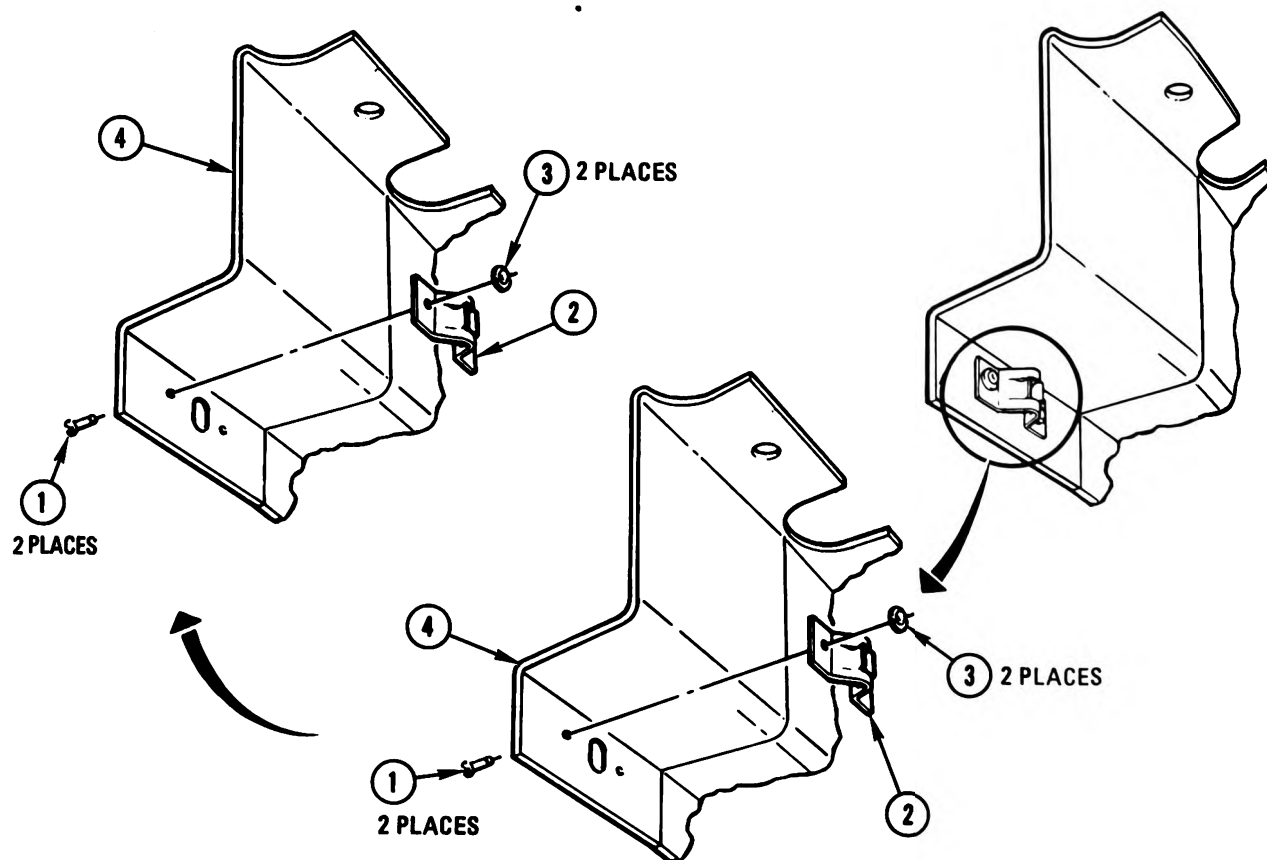
Friction receptacle (2) and two washers (3) will fall off when rivets (1) are taken out.

2. Drill out two rivets (1) with electric drill and 1/8-inch twist drill. Get rid of friction receptacle (2), two washers (3), and rivets (1).

Install Friction Receptacle:

3. Line up holes in new friction receptacle (2) with holes in bracket (4). Put two new rivets (1) through holes in bracket (4) and friction receptacle (2).
4. Put two new washers (3) on rivets (1). Rivet friction receptacle (2) to bracket (4) with riveter.

GO TO FRAME 13



ARR82-0248

FRAME 13**Follow-on Maintenance:**

If friction receptacle on gunner's brackets was replaced, do the following:

1. Install gunner's brackets; refer to task 17.
2. Install screens (gunner's station); refer to task 18.
3. Install gunner's knee guards and chestrest assembly; refer to para. 3-12, task 16.

If friction receptacle on commander's guard and bracket was replaced, do the following:

1. Install commander's guard and bracket; refer to task 16.
2. Install screens (commander's station); refer to task 18.
3. Install commander's vehicular accessories storage box; refer to para. 3-19, task 13.

If friction receptacle on loader's brackets was replaced, do the following:

- Install screens (loader's station); refer to task 18.

If friction receptacle on loader's radio mount bracket was replaced, do the following:

1. Install loader's radio mount bracket; refer to task 14.
2. Install screens (loader's station); refer to task 18.
3. Install radio mount; refer to para. 5-8, task 7.
4. Install loader's panel bracket; refer to TM 9-2350-255-20-2-3-1, para. 2-6.
5. Install loader's panel; refer to TM 9-2350-255-20-2-3-1, para. 2-6.
6. Install loader's heater assembly; refer to TM 9-2350-255-20-2-3-3, para. 8-4.
7. Install loader's orifice connector assembly and angle bracket; refer to TM 9-2350-255-20-2-3-3, para. 8-4.
8. Install receiver-transmitter mount; refer to para. 5-8, task 8.
9. Install auxiliary receiver mount; refer to para. 5-8, task 10.
10. Install receiver-transmitter; refer to para. 5-7, task 6.
11. Install auxiliary receiver; refer to para. 5-7, task 5.
12. Install loader's shoulder guard; refer to para. 3-12, task 12.

TASK 11 ENDS HERE

TASK 12. Install Turret Platform and Bracket Cable Channel Access Covers

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies:

Lockwasher (96906) MS35333-40 (four required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove turret platform and bracket cable channel access covers; refer to task 7.

FRAME 14

Install Bracket Access Cover:

1. Line up holes in bracket access cover (1) with holes in channel (2).
2. Screw in and tighten four screws (3), new lockwashers (4), and washers (5) in access cover (1) and channel (2) with 7/16-inch socket and handle.

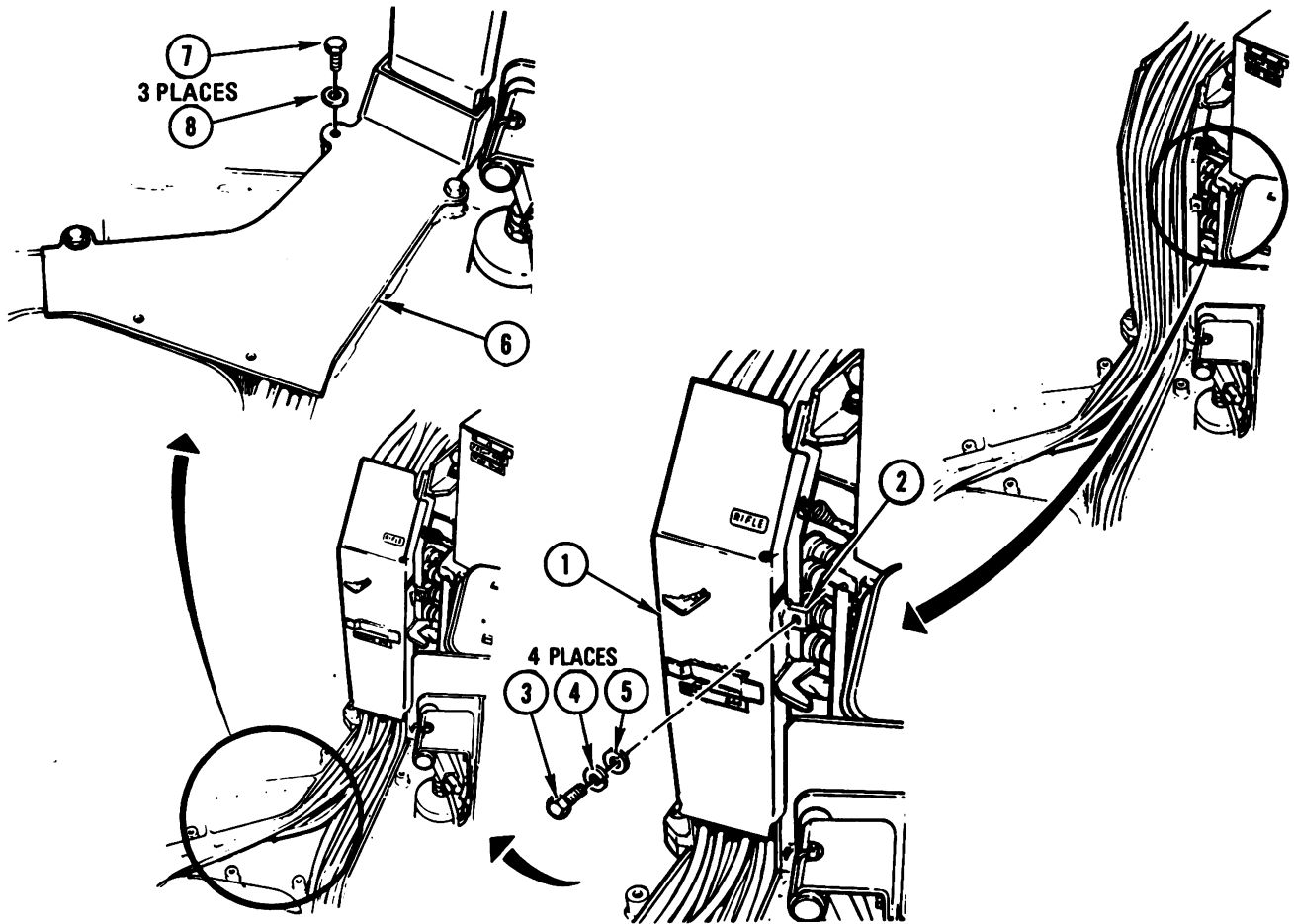
Install Turret Platform Access Cover:

3. Line up holes in turret platform access cover (6) with holes in turret platform.
4. Screw in and tighten three screws (7) and washers (8) in cover (6) and turret platform with 9/16-inch socket and handle.

Follow-on Maintenance:

1. Install slipping access cover; refer to TM 2350-255-20-2-3-1, para. 2-8.
2. Install electronics rack shield assembly; refer to TM 9-2350-255-20-2-3-3, para. 7-7.

TASK 12 ENDS HERE



ARR82-0249

TASK 13. Install Turret Platform Access Door

Applicability: All Models

Common Tools:

Hammer, ball peen
Pliers, slip joint

Special Tools: None

Supplies:

Pin, cotter (96906) MS24665-285 (two required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

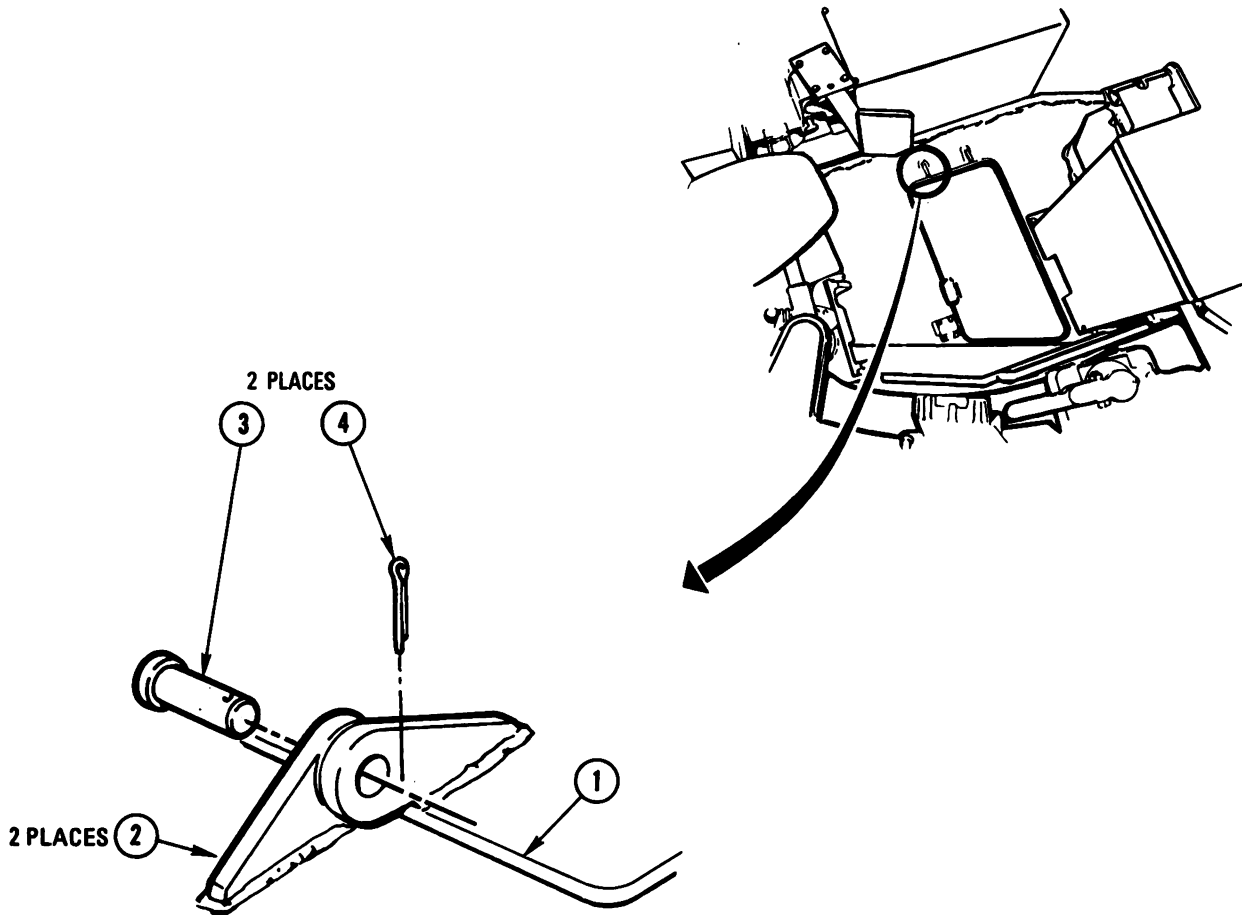
Remove turret platform access door; refer to task 6.

FRAME 15**Install Door:**

1. Line up holes in door (1) with holes in two hinges (2).
2. Tap two straight headed pins (3) in door (1) and hinges (2) with hammer.
3. Push two new cotter pins (4) through holes in pins (3) with pliers.
4. Bend ends of cotter pins (4) over pins (3) with pliers.

Follow-on Maintenance: None

TASK 13 ENDS HERE



ARR82-0250

TASK 14. Install Loader's Radio Mount Bracket

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lubricating Oil, OE/HDO-30, MIL-L-2104C (Item 33)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove loader's radio mount bracket; refer to task 5.

FRAME 16**Install Bracket:****WARNING**

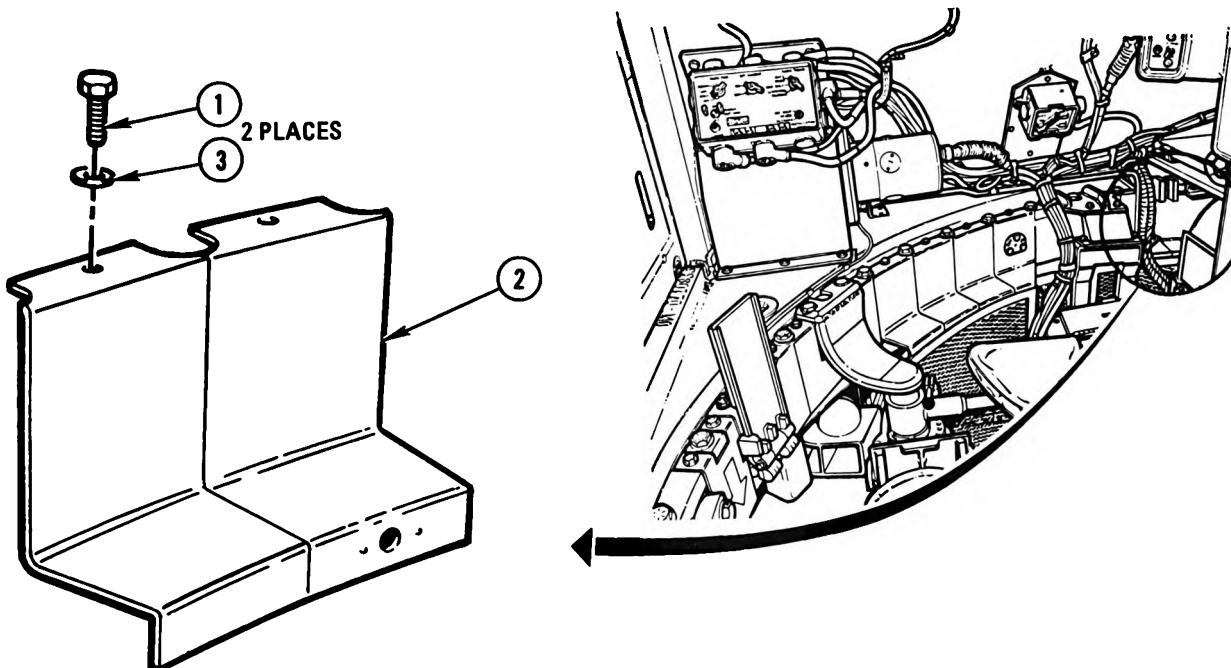
Lubricating oil can cause skin rash. If oil gets on skin or clothing, wash with soap and water.

1. Spread a light coat of oil on threads of two screws (1).
2. Line up holes in bracket (2) with holes in turret. Screw in and tighten screws (1) and washers (3) in bracket (2) with socket and handle.
3. Torque screws (1) between 360 and 385 pound inches (41 and 43 Newton meters).

Follow-on Maintenance:

1. Install screen (loader's station); refer to task 18.
2. Install loader's heater assembly; refer to TM 9-2350-255-20-2-3-3, para. 8-4.
3. Install loader's orifice connector assembly and angle bracket; refer to TM 9-2350-255-20-2-3-3, para. 8-4.

TASK 14 ENDS HERE



ARR82-0251

TASK 15. Install Loader's Brackets

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lubricating Oil, OE/HDO-30, MIL-L-2104C (Item 33)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove loader's brackets; refer to task 4.

FRAME 17**Install Brackets:****WARNING**

Lubricating oil can cause skin rash. If oil gets on skin or clothing, wash with soap and water.

NOTE

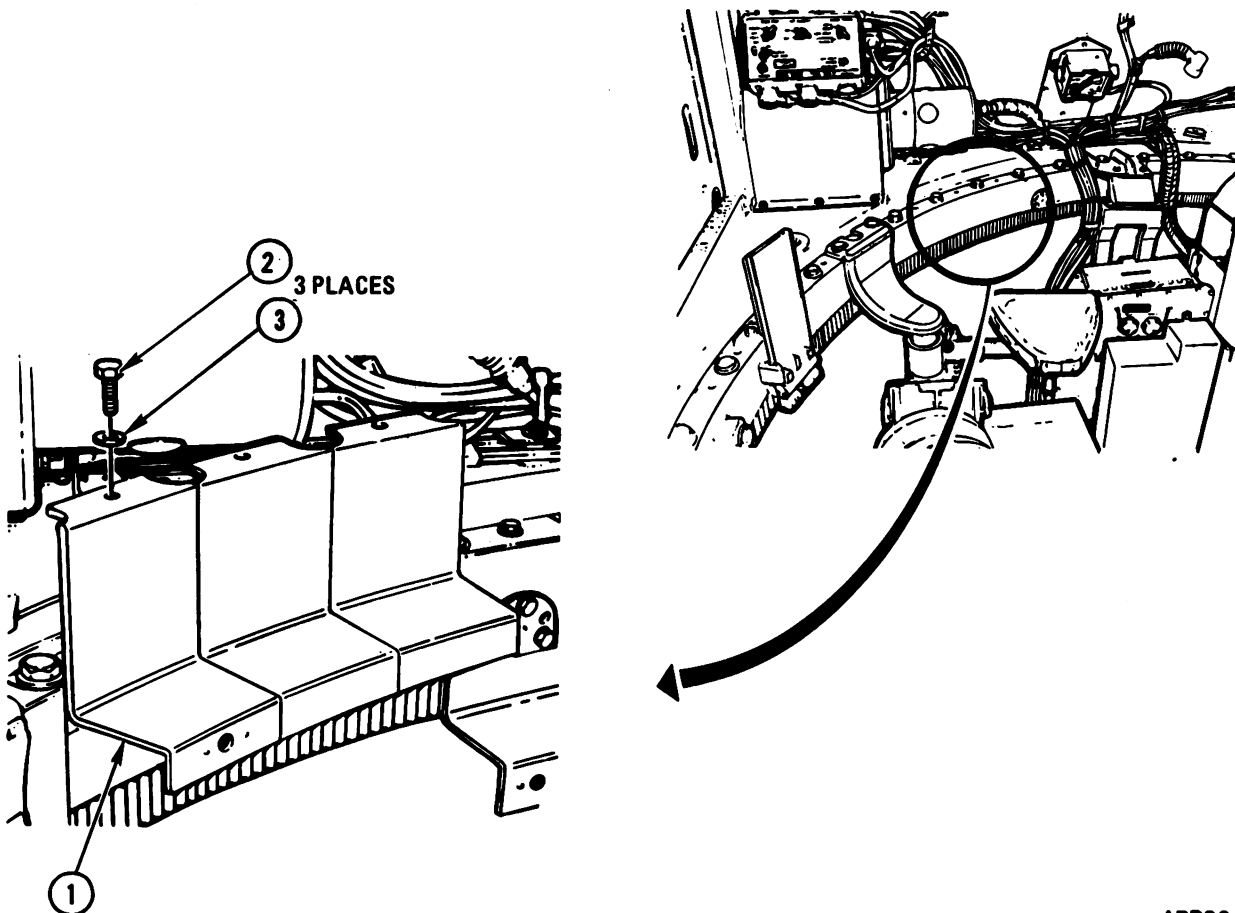
Use this task to put on any one of four brackets (1) in loader's station. One bracket (1) is shown.

1. Spread a light coat of oil on threads of three screws (2). Line up holes in bracket (1) with holes in turret. Screw in and tighten screws (2) and washers (3) in bracket (1) with socket and handle.
2. Torque screws (2) between 360 and 385 pound inches (41 and 43 Newton meters).

Follow-on Maintenance:

Install screens (loader's station); refer to task 18.

TASK 15 ENDS HERE



ARR82-0252

TASK 16. Install Commander's Guard and Bracket

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lubricating Oil, OE/HDO-30, MIL-L-2104C (Item 33)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove commander's guard and bracket; refer to task 3.

FRAME 18

Install Bracket:

WARNING

Lubricating oil can cause skin rash. If oil gets on skin or clothing, wash with soap and water.

1. Spread a light coat of oil on threads of three screws (1). Line up holes in bracket (2) with holes in turret. Screw in and tighten screws (1) and washers (3) in bracket (2) with socket and handle.
2. Torque screws (1) between 360 and 385 pound inches (41 and 43 Newton meters).

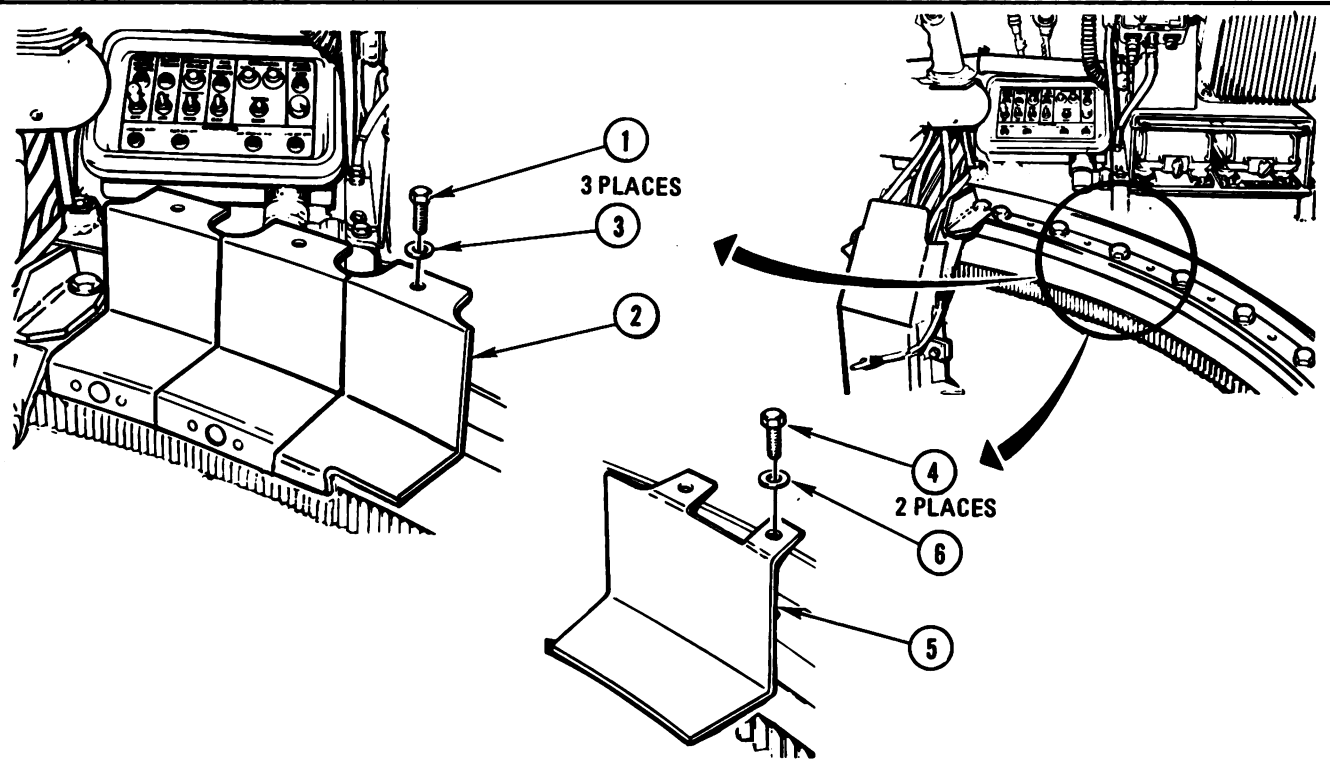
Install Guard:

3. Spread a light coat of oil on threads of two screws (4). Line up holes in guard (5) with holes in turret. Screw in and tighten screws (4) and washers (6) in guard (5) with socket and handle.
4. Torque screws (4) between 360 and 385 pound inches (41 and 43 Newton meters).

Follow-on Maintenance:

1. Install commander's vehicular accessories storage box; refer to para. 3-19, task 13.
2. Install screens (commander's station); refer to task 18.

TASK 16 ENDS HERE



ARR82-0253

TASK 17. Install Gunner's Brackets

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lubricating Oil, OE/HDO-30, MIL-L-2104C (Item 33)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove gunner's brackets; refer to task 2.

FRAME 19

Install Brackets:

WARNING

Lubricating oil can cause skin rash. If oil gets on skin or clothing, wash with soap and water.

NOTE

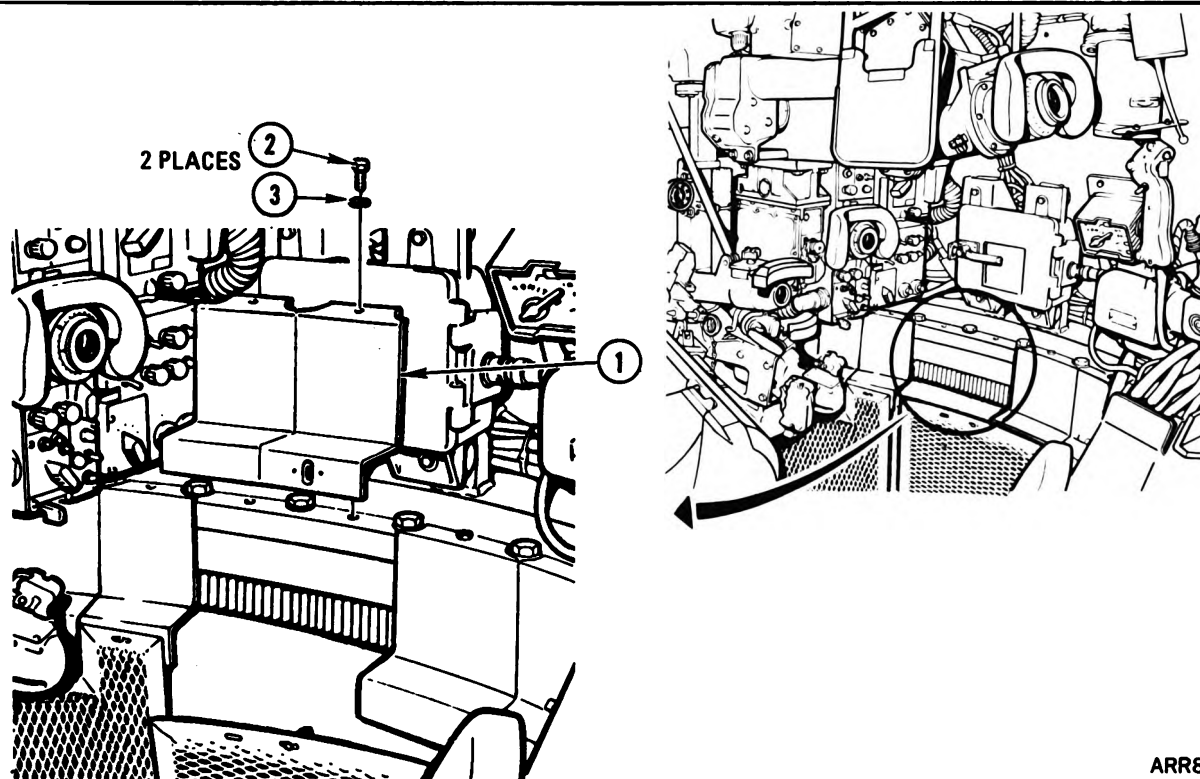
Use this task to put in any one of three brackets (1) in gunner's station. One bracket (1) is shown.

1. Spread a light coat of oil on threads of two screws (2).
2. Line up holes in bracket (1) with holes in turret.
3. Screw in and tighten screws (2) and washers (3) in bracket (1) with socket and handle.
4. Torque screws (2) between 360 and 385 pound inches (41 and 43 Newton meters).

Follow-on Maintenance:

1. Install screen (gunner's station); refer to task 18.
2. Install gunner's knee guards and chestrest assembly; refer to para. 3-12, task 16.

TASK 17 ENDS HERE



ARR82-0254

TM 9-2350-255-20-2-3-2

TASK 18. Install Screens

Applicability: All Models

Common Tools: None

Special Tools: None

Supplies: None

Personnel: Two

Soldier A: Installs screens from driver's compartment.

Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove screens; refer to task 1

FRAME 20

Install Screen:

NOTE

Use this task to put in any one of five screens (1) in gunner's, commander's, or loader's station. Screen (1) in commander's station is shown.

Soldier A: 1. Set screen (1) on tabs (2) on turret platform (3).

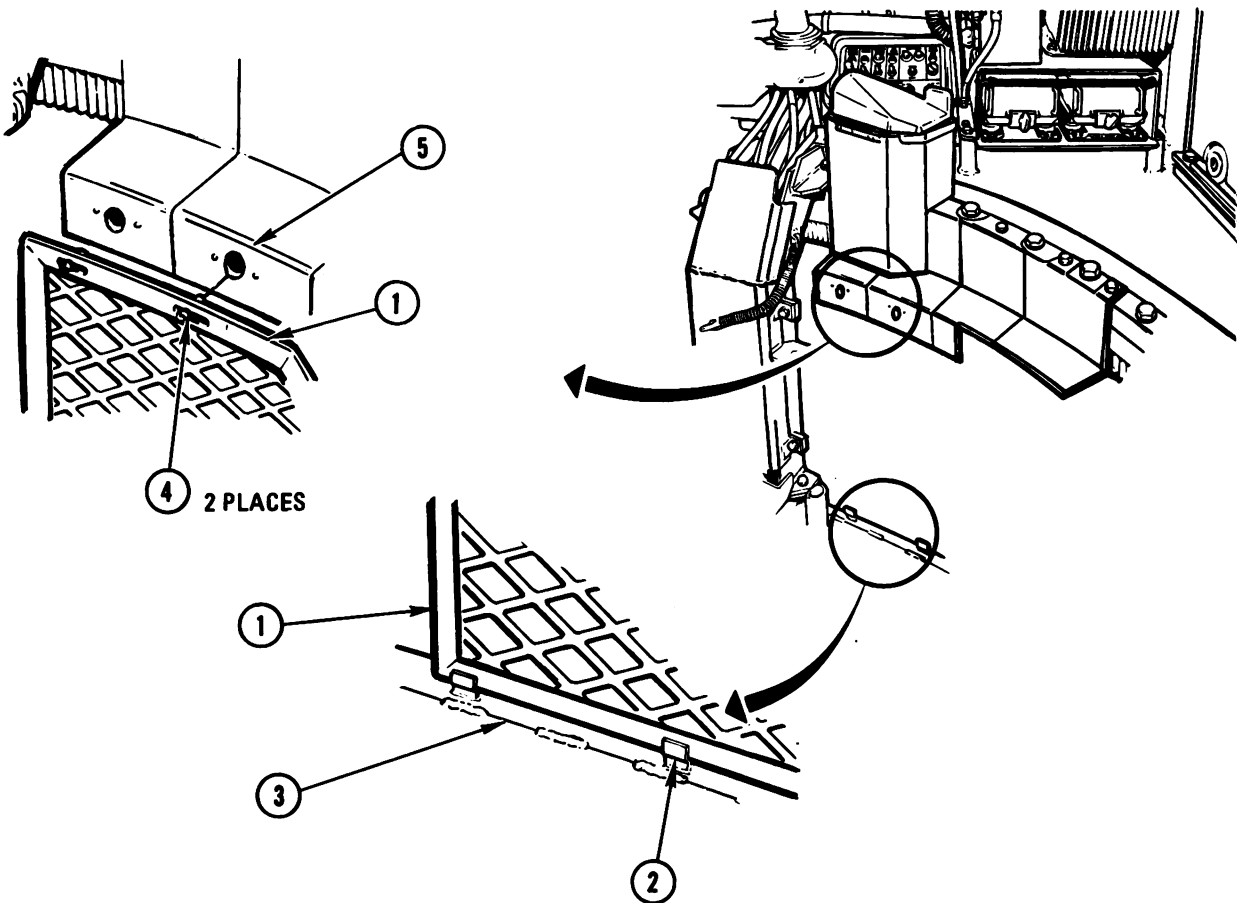
Soldier B: 2. Line up ball studs (4) in screen (1) with holes in bracket (5).

Soldier B: 3. Push ball studs (4) in holes in bracket (5).

Follow-on Maintenance:

If screen next to gunner's seat area was installed, install right knee guard; refer to para. 3-12, task 16.

END OF TURRET PLATFORM MAINTENANCE



ARR82-0255

3-17. Instruction Plate

Task	Title	Frames
1	Replace Commander's Station Instruction Plate	1
2	Replace Voice Security Unit Identification Marker	2
3	Replace Loader's Station Instruction Plate	3

TASK 1. Replace Commander's Station Instruction Plate

Applicability: All Models

Common Tools:

Knife, putty

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
 Dry Cleaning Solvent, P-D-680 (Item 21)
 Plate, instruction (19207) 12283884,
 Plate, instruction (19207) 12283882 (as required), or
 Plate, instruction (19207) 12282951
 Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 1

Remove Instruction Plate:

WARNING

Solvents burn easily. To avoid injury, do not use near open fire.

NOTE

Use this task to take off and put on any of three instruction plates (1).

1. Wet rag with solvent. Put solvent on instruction plate (1) with rag.
2. Take off instruction plate (1) with putty knife. Get rid of instruction plate (1).
3. Clean instruction plate mounting area with rag and solvent.

Install Instruction Plate:

4. Wet back of new instruction plate (1) with small amount of solvent to activate adhesive.
5. Put new instruction plate (1) on mounting area.
6. Wipe mounting area dry with clean rag.

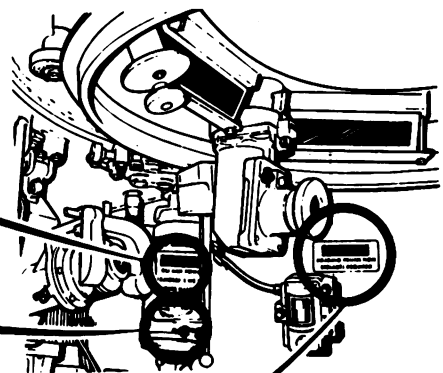
Follow-on Maintenance: None

TASK 1 ENDS HERE

CAUTION
DO NOT POWER
TRAVERSE CWS WITH
LOADERS HATCH OPEN

MANUAL POWER

CAUTION
HEARING PROTECTION
(HELMET) REQUIRED



1

ARR82-0387

TASK 2. Replace Voice Security Unit Identification Marker

Applicability: All Models

Common Tools:

Knife, putty

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Dry Cleaning Solvent, P-D-680 (Item 21)

Marker, identification (19207) 12283886

Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 2**Remove Identification Marker:****WARNING**

Solvent burns easily. To avoid injury, do not use near open fire.

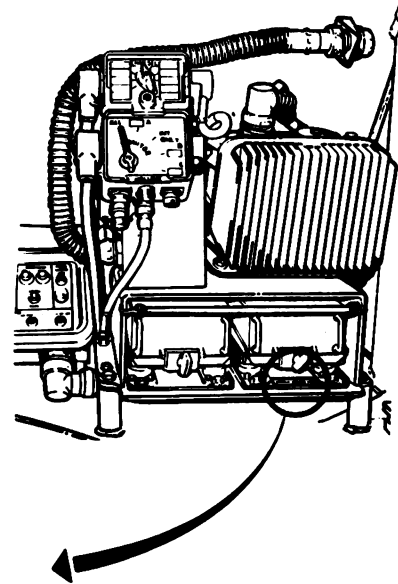
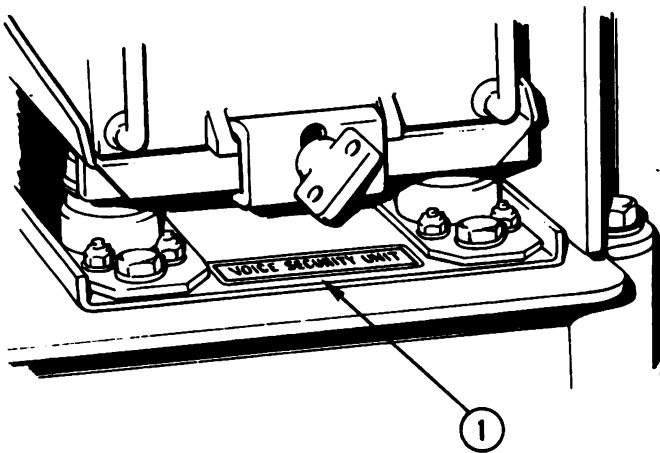
1. Wet rag with solvent. Put solvent on identification marker (1) with rag.
2. Take off identification marker (1) with putty knife. Get rid of identification marker (1).
3. Clean identification marker mounting area with rag and solvent.

Install Identification Marker:

4. Wet back of new identification marker (1) with small amount of solvent to activate adhesive.
5. Put new identification marker (1) on mounting area.
6. Wipe mounting area dry with clean rag.

Follow-on Maintenance: None

TASK 2 ENDS HERE



ARR82-0388

TM 9-2350-255-20-2-3-2

TASK 3. Replace Loader's Station Instruction Plate

Applicability: All Models

Common Tools:

Knife, putty

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Dry Cleaning Solvent, P-D-680 (Item 21)

Plate, instruction (19207) 12282951

Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 3

Remove Instruction Plate:

WARNING

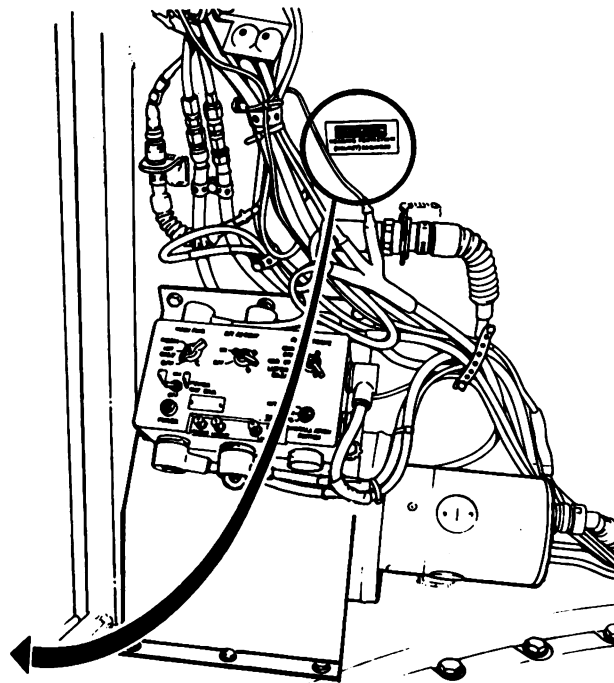
Solvent burns easily. To avoid injury, do not use near open fire.

1. Wet rag with solvent. Put solvent on instruction plate (1) with rag.
2. Take off instruction plate (1) with putty knife. Get rid of instruction plate (1).
3. Clean instruction plate (1) mounting area with rag and solvent.
4. Wipe mounting area dry with clean rag.

Install Instruction Plate:

5. Wet back of new instruction plate (1) with small amount of solvent to activate adhesive.
6. Put new instruction plate (1) on mounting area.

Follow-on Maintenance: None

END OF INSTRUCTION PLATE MAINTENANCE

ARR82-0389

3-18. Turret Bustle Ammunition Compartment Thermal Insulation

Task	Title	Frames
1	Replace Insulation on Roof	1 - 2
2	Replace Insulation on Rear Walls or Floor	3 - 4

TASK 1. Replace Insulation on Roof

Applicability: All Models

Common Tools:

- Brush, wire
- Knife, putty

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Adhesive, MMM-A-121 (Item 1)
 - Brush, acid swabbing (Item 13)
 - Dry Cleaning Solvent, P-D-680 (Item 21)
 - Insulation (center blow-off plate) (19207) 12285717
 - Insulation (left blow-off plate) (19207) 12285716-2
 - Insulation (left roof) (19207) 12285715-2
 - Insulation (right blow-off plate) (19207) 12285716-1
 - Insulation (right roof) (19207) 12285715-1
 - Pencil, writing (Item 42)
 - Rag, wiping (Item 45)

NOTE

New two-layer fastening tape is on the rear of new insulations.
Put one layer on mounting surface as needed.

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Open ammunition compartment doors; refer to TM 9-2350-255-10.
2. Remove ammunition from ammunition tubes; refer to TM 9-2350-255-10.
3. Remove blow-off plates; refer to para. 3-14, task 1.
4. Remove ammunition racks; refer to para. 3-13, tasks 1, 2, 3, 4, 5, and 6.

FRAME 1

Remove Insulation:

1. Mark location of insulations (1, 2) on bustle ammunition compartment roof with pencil.
2. Pull insulations (1, 2) off roof. Get rid of insulations (1, 2).
3. Pull insulations (3, 4, 5) off blow-off plates (6, 7, 8). Get rid of insulations (3, 4, 5).

Remove Fastening Tape:

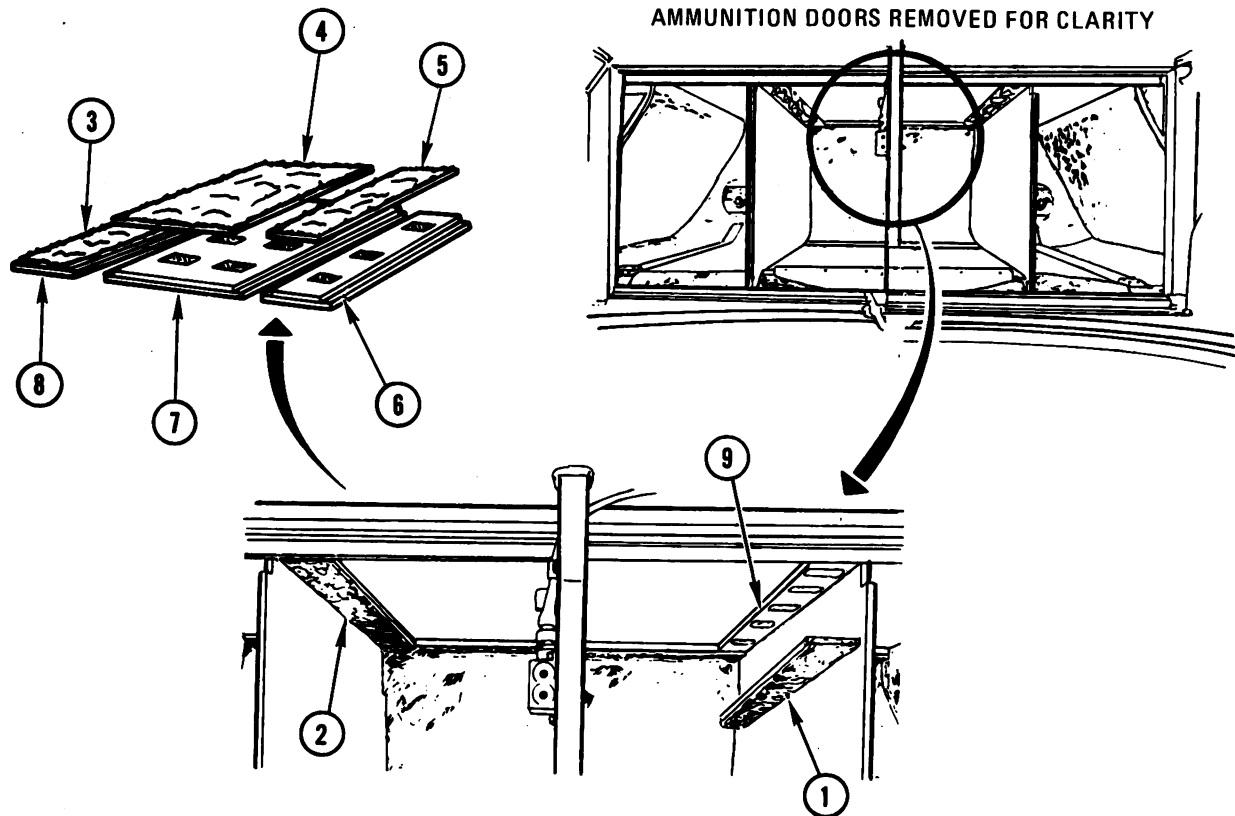
4. Take fastening tape (9) off roof or blow-off plates (6, 7, 8) with putty knife.

WARNING

Solvent burns easily. To avoid injury, do not use near open fire.

5. Clean mounting area for tape (9) with wire brush, solvent, and rag.

GO TO FRAME 2



ARR82-1208

FRAME 2

Install Fastening Tape:

1. Separate fastening tape (1) off rear of new insulations (2, 3, 4, 5, 6).

WARNING

Adhesives can burn easily and can give off harmful vapors. To avoid injury, keep adhesives away from open fire and use them in a well-ventilated area.

2. Spread coat of adhesive on back of tape (1) and mounting surface in ammunition compartment with acid swabbing brush. Press tape (1) in place and let dry.

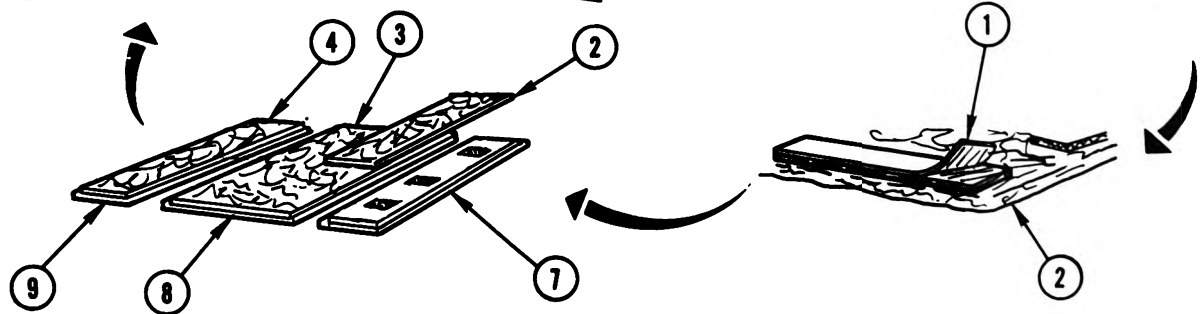
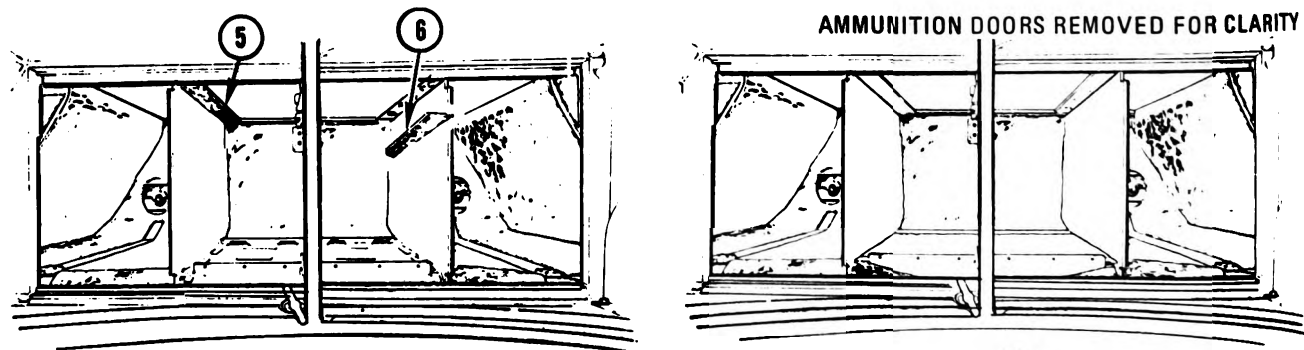
Install Insulation:

3. Center three insulations (2, 3, 4) on blow-off plates (7, 8, 9). Press on insulations (2, 3, 4) to fasten in place.
4. Put insulations (5, 6) in place on ammunition compartment roof. Press on insulations (5, 6) to fasten in place.

Follow-on Maintenance:

1. Install ammunition racks; refer to para. 3-13, tasks 9, 10, 11, 12, 13, and 14.
2. Install blow-off plates; refer to para. 3-14, task 2.
3. Close ammunition compartment doors; refer to TM 9-2350-255-10.

TASK 1 ENDS HERE



ARR82-1209

TASK 2. Replace Insulation on Rear Walls or Floor**Applicability:** All Models**Common Tools:**

Brush, wire
 Knife, putty

Special Tools: None**Supplies:****NOTE:** Expendable supplies are defined in appendix A.

Adhesive, MMM-A-121 (Item 1)
 Brush, acid swabbing (Item 13)
 Dry Cleaning Solvent, P-D-680 (Item 21)
 Insulation (19207) 12285724-2
 Insulation (19207) 12285723
 Insulation (19207) 12285718
 Insulation (19207) 12285713
 Insulation (19207) 12285714
 Insulation (19207) 12285720
 Insulation (19207) 12285725-2
 Insulation (19207) 12285725-1
 Insulation (19207) 12285721
 Insulation (19207) 12285722
 Insulation (19207) 12285724-1
 Insulation (19207) 12285685
 Insulation (19207) 12285681
 Insulation (19207) 12285712
 Insulation (19207) 12285682
 Insulation (19207) 12285683
 Insulation (19207) 12285684
 Pencil, writing (Item 42)
 Rag, wiping (Item 45)

NOTE

New two-layer fastening tape is on the rear of new insulations. Put one layer on mounting surface as needed.

Personnel: One**Equipment Condition:**

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Open ammunition compartment doors; refer to TM 9-2350-255-10
2. Remove ammunition from ammunition tubes; refer to TM 9-2350-255-10.
3. Remove blow-off plates; refer to para. 3-14, task 1.
4. Remove ammunition racks; refer to para. 3-13, tasks, 1, 2, 3, 4, 5, and 6.

FRAME 3

Remove Insulation:

NOTE

There are 20 thermal insulations (1) on the bustle ammunition compartment walls and floor. Use this task to take off and put on any insulation (1). One insulation (1) is shown being taken off floor.

1. Mark location of insulation (1) on bustle ammunition compartment floor with pencil.
2. Pull insulation (1) off floor. Get rid of insulation (1).

Remove Fastening Tape:

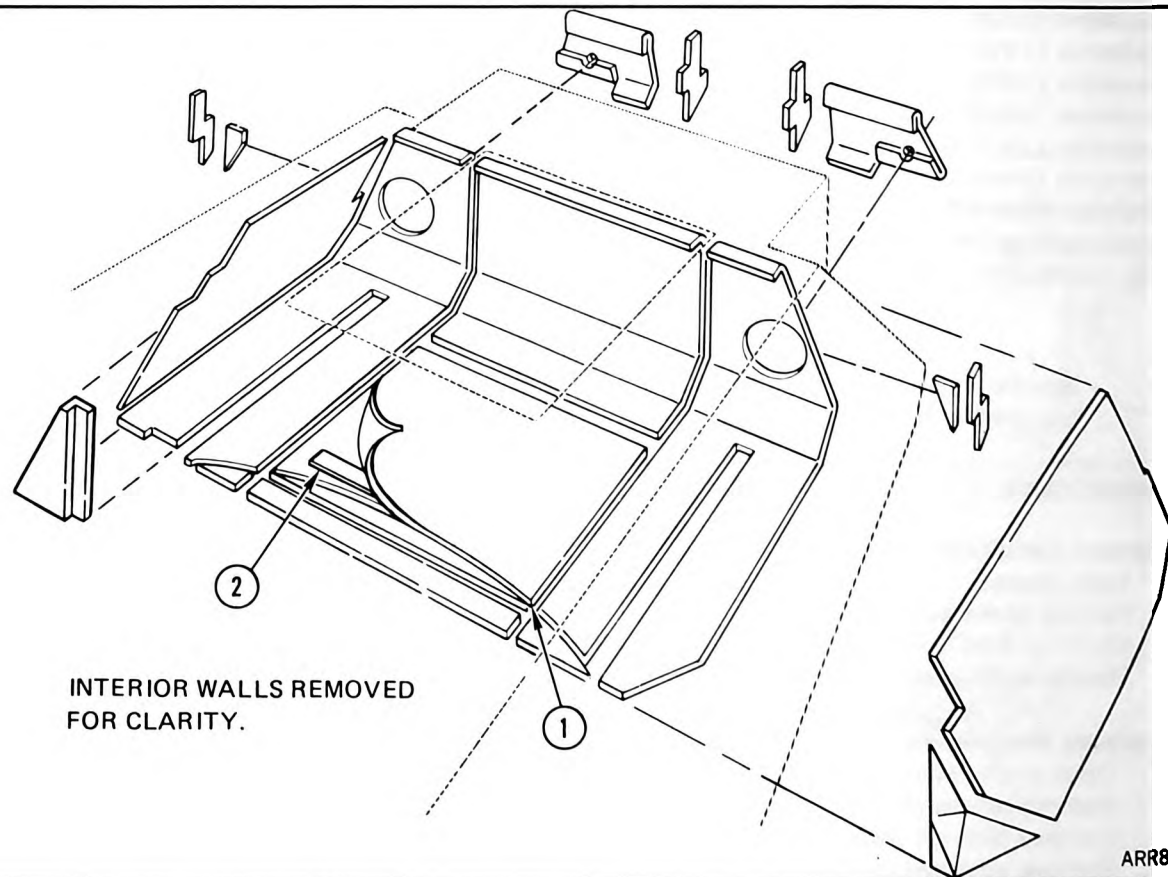
3. Take fastening tape (2) off floor with putty knife.

WARNING

Solvent burns easily. To avoid injury, do not use solvent near open fire.

4. Clean mounting area for fastening tape (2) with wire brush, solvent, and rag.

GO TO FRAME 4



FRAME 4**Install Fastening Tape:**

1. Separate fastening tape (1) from rear of new insulation (2).

WARNING

Adhesives can burn easily and can give off harmful vapors. To avoid injury, keep adhesives away from open fire and use in a well-ventilated area.

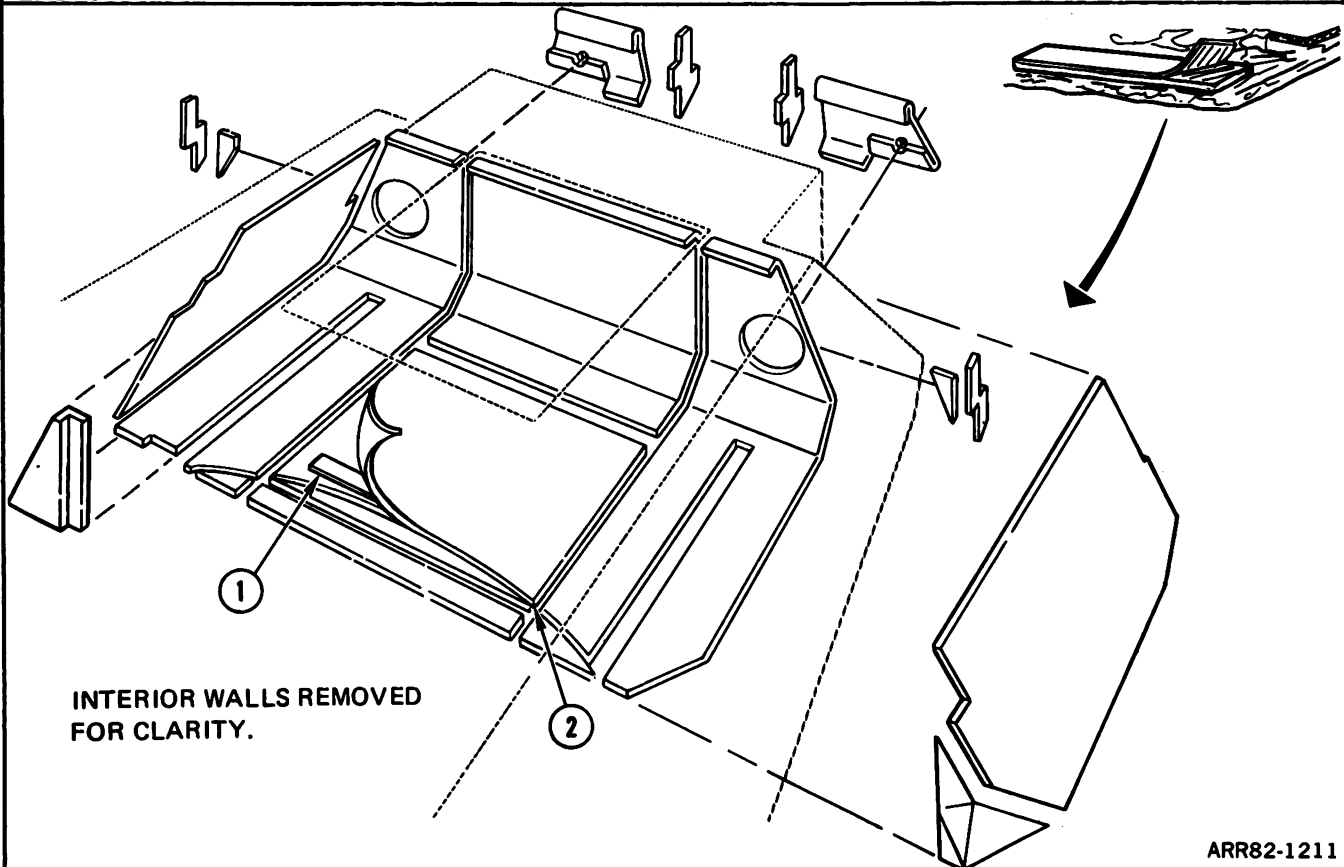
2. Spread coat of adhesive on back of tape (1) and mounting surface in ammunition compartment with acid swabbing brush. Press tape (1) in place and let dry for 15 minutes.

Install Insulation:

3. Put insulation (2) in place on ammunition compartment floor. Press on insulation (2) to fasten in place.

Follow-on Maintenance:

1. Install ammunition racks; refer to para. 3-13, tasks 9, 10, 11, 12, 13, and 14.
2. Install blow-off plates; refer to para. 3-14, task 2.
3. Close ammunition compartment doors; refer to TM 9-2350-255-10.

END OF TURRET BUSTLE AMMUNITION COMPARTMENT THERMAL INSULATION MAINTENANCE

3-19.Turret Internal Stowage

Task	Title	Frames
1	Remove Commander's Vehicular Accessories Storage Box	1
2	Remove Loader's Vehicular Accessories Storage Box	2
3	Remove .50 Caliber Ammunition Stowage Box	3
4	Remove Military Water Can and Brackets	4
5	Replace 5.56 Millimeter Small Arms Ammunition Cover	5
6	Repair 5.56 Millimeter Small Arms Ammunition Box	6
7	Replace Identification Marker	7
8	Replace Elastic Cord Assembly	8
9	Repair Commander's Vehicular Accessories Storage Box	9 - 10
10	Install Military Water Can and Brackets	11
11	Install .50 Caliber Ammunition Stowage Box	12 - 13
12	Install Loader's Vehicular Accessories Storage Box	14
13	Install Commander's Vehicular Accessories Storage Box	15 - 16

TASK 1. Remove Commander's Vehicular Accessories Storage Box

Applicability: All Models

Common Tools:

- Extension, socket wrench, 3/8-inch square drive, 5-inch Handle, socket wrench, ratchet, 3/8-inch square drive
- Socket, socket wrench, 3/8-inch square drive, 7/16-inch
- Socket, socket wrench, 3/8-inch square drive, 9/16-inch
- Wrench, combination, 7/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 1

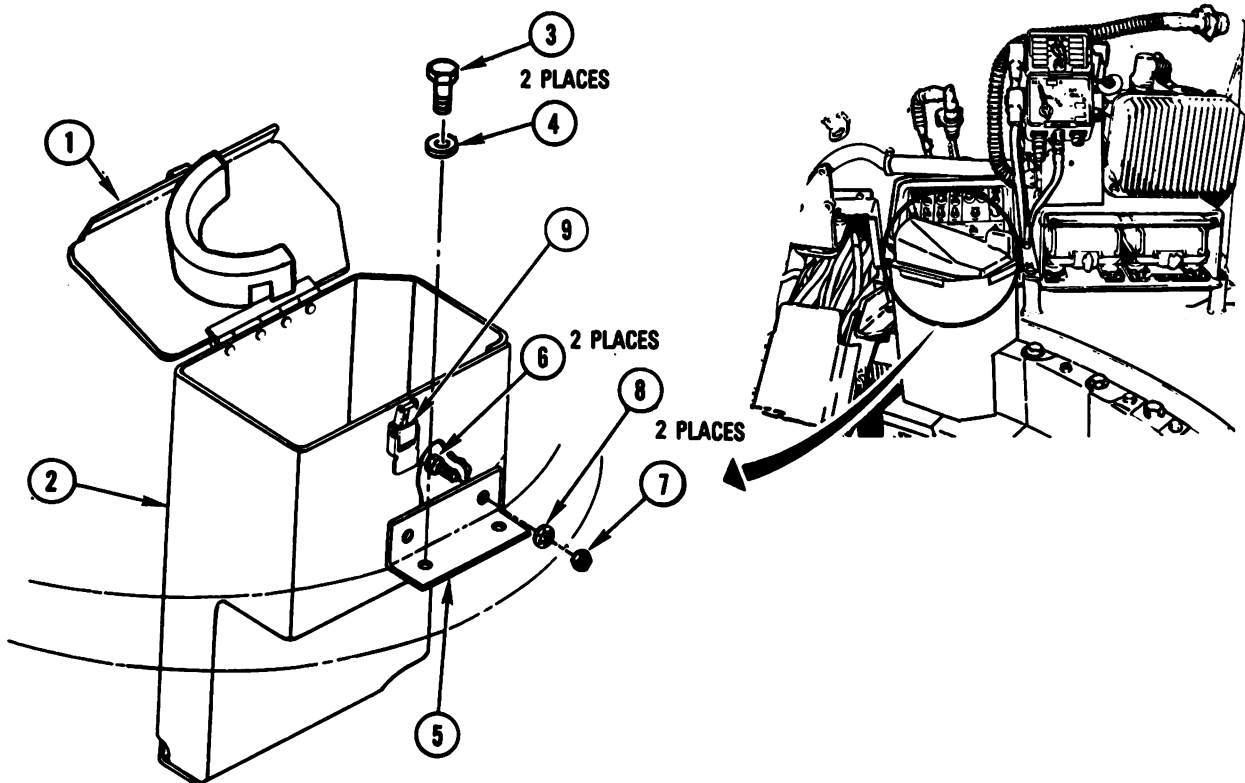
Remove Vehicular Accessories Storage Box:

1. Open vehicular storage box cover (1) of commander's vehicular accessories storage box (2). Take out all cargo from box (2) and set aside for later use.
2. Unscrew and take out two screws (3) and washers (4) from angle bracket (5) with 9/16-inch socket, extension, and handle. Take out box (2) and bracket (5).
3. Unscrew and take out two screws (6), nuts (7), and lockwashers (8) from bracket (5) with 7/16-inch socket, handle, and wrench.
4. Look at box (2) for cracked, broken or bent cover (1) or latch (9). If either is bad repair commander's vehicular accessories storage box; refer to task 9. If OK set aside for later use.
5. Look at bracket (5) for cracks, bends, or breaks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install commander's vehicular accessories storage box, refer to task 13.

TASK 1 ENDS HERE



ARR82-1146

TASK 2. Remove Loader's Vehicular Accessories Storage Box

Applicability: All Models

Common Tools: None

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 2

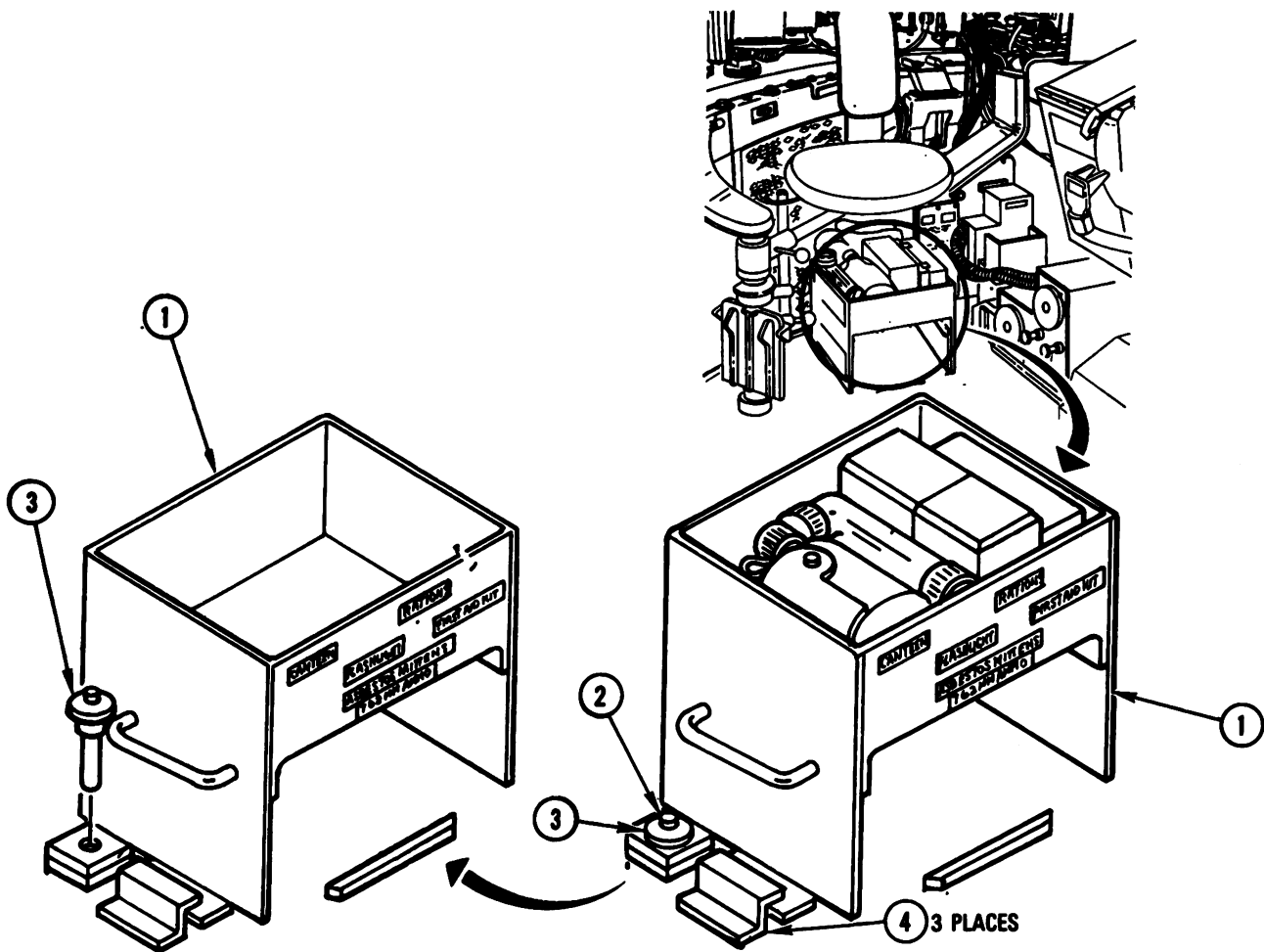
Remove Vehicular Accessories Storage Box:

1. Take out all cargo from loader's vehicular accessories storage box (1) and set aside for later use.
2. Push in and hold release button (2) in quick-release pin (3). Pull up and take out pin (3) from box (1).
3. Slide box (1) off three retainers (4).
4. Look at box (1) for cracks or bends. If bad turn in. If OK set aside for later use.
5. Look at pin (3) for cracks, bends, or stuck button (2). If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install loader's vehicular accessories storage box, refer to task 12.

TASK 2 ENDS HERE



ARR82-1147

TASK 3. Remove .50 Caliber Ammunition Storage Box

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive

Pliers, slip joint

Socket, socket wrench, 3/8-inch square drive, 7/16-inch

Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove commander's guard assembly, ejected link screen, hinges, or magnet; refer to para. 3-12, task 3.

FRAME 3

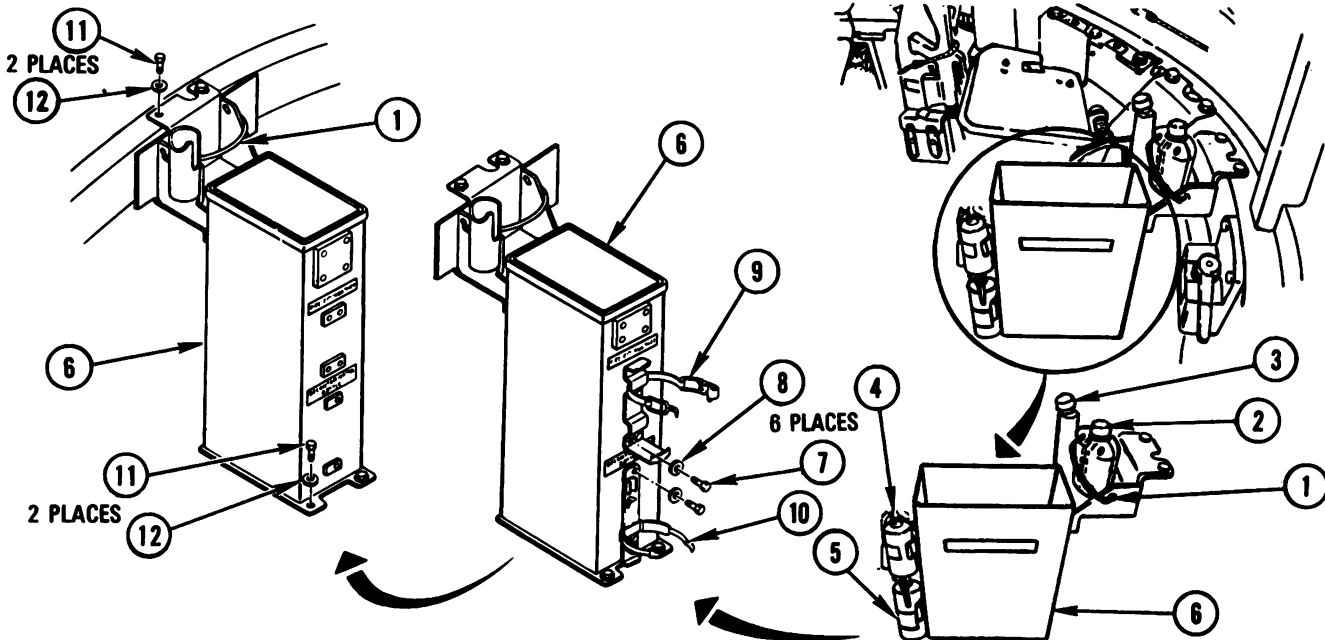
Remove Stowage Box:

1. Pull elastic cord assembly (1) off canteen (2).
2. Take out flashlight (3), canteen (2), fire extinguisher (4), and decontamination bottle (5) from ammunition stowage box (6).
3. Unscrew and take out six screws (7) and washers (8) from two brackets (9, 10) with 7/16-inch socket and handle. Take off brackets (9, 10) from box (6).
4. Look at brackets (9, 10) for cracks or bends. Turn in bad parts. Set good parts aside for later use.
5. Unscrew and take out four screws (11) and washers (12) from box (6) with 9/16-inch socket and handle. Take off box (6).
6. Open two closed loop ends on cord assembly (1) with pliers. Take cord assembly (1) off box (6).
7. Look at box (6) for cracks or bends. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install .50 caliber ammunition stowage box, refer to task 11.

TASK 3 ENDS HERE



ARR82-1148

TASK 4. Remove Military Water Can and Brackets

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Elevate main gun; refer to TM 9-2350-255-10.
2. Remove, but do not turn in, accumulator assembly; refer to para. 4-9, task 1.

FRAME 4

Remove Water Can:

1. Pull elastic cord assembly (1) and take off hook (2) from mounting hole in water container bracket (3).
2. Take military water can (4) off bracket (3). Look at water can (4) for dents or cracks. If bad turn in. If OK set aside for later use.

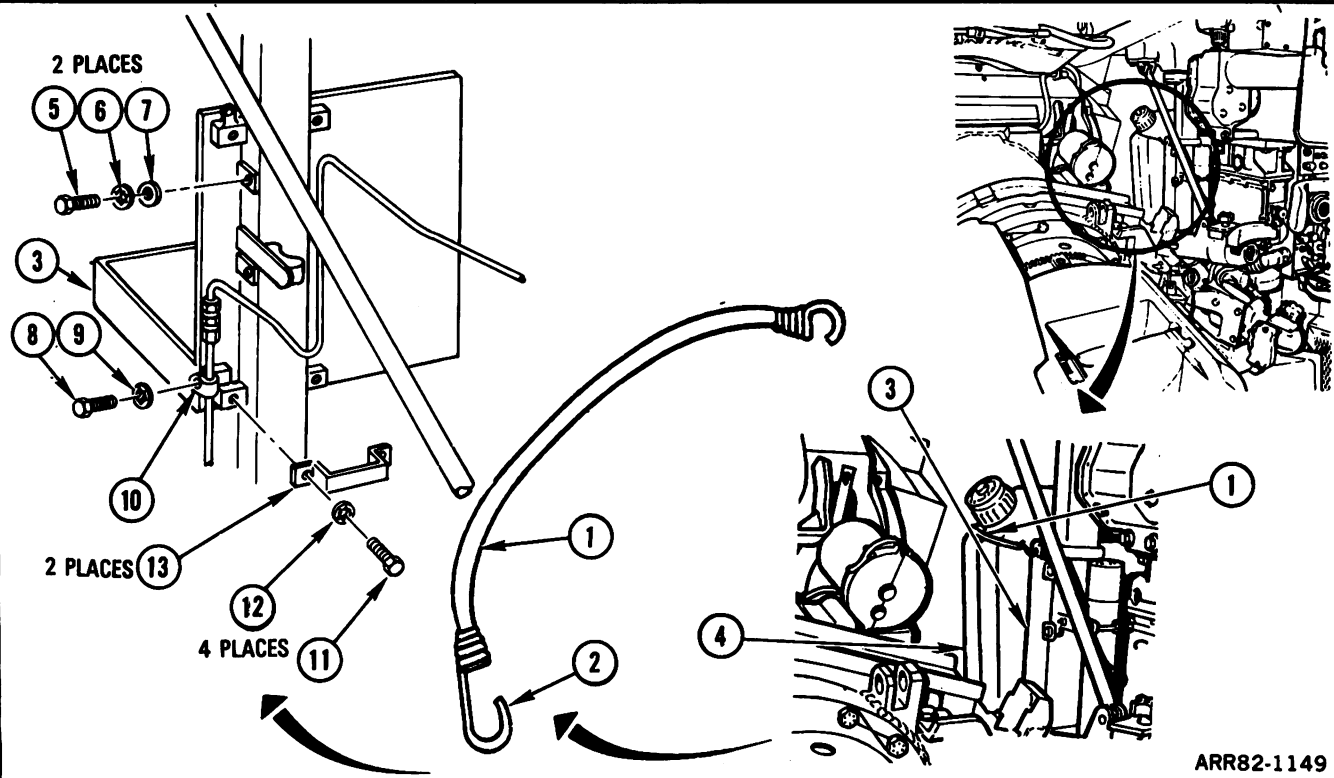
Remove Brackets:

3. Unscrew and take out two screws (5), lockwashers (6), and washers (7) from bracket (3) with socket, extension, and handle. Get rid of lockwashers (6).
4. Unscrew and take out one screw (8) and lockwasher (9) from loop clamp (10), with socket, extension, and handle. Get rid of lockwasher (9).
5. Unscrew and take out four screws (11) and lockwashers (12) from two brackets (13) with socket, extension, and handle. Get rid of lockwashers (12).
6. Take off and look at two brackets (13) and bracket (3) for bends or cracks. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install military water can and brackets, refer to task 10.

TASK 4 ENDS HERE



ARR82-1149

TM 9-2350-255-20-2-3-2

TASK 5. Replace 5.56 Millimeter Small Arms Ammunition Cover

Applicability: All Models

Common Tools: None

Special Tools: None

Supplies:

Cover, small arms ammunition (19207) 12280618

Marker, identification (19207) 12280760

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Raise commander's platform all the way up; refer to TM 9-2350-255-10.

FRAME 5

Remove Cover:

1. Lift and unhook latch (1) from 5.56 millimeter small arms ammunition cover (2).
2. Slide cover (2) off 5.56 millimeter small arms ammunition box (3). Turn in cover (2).

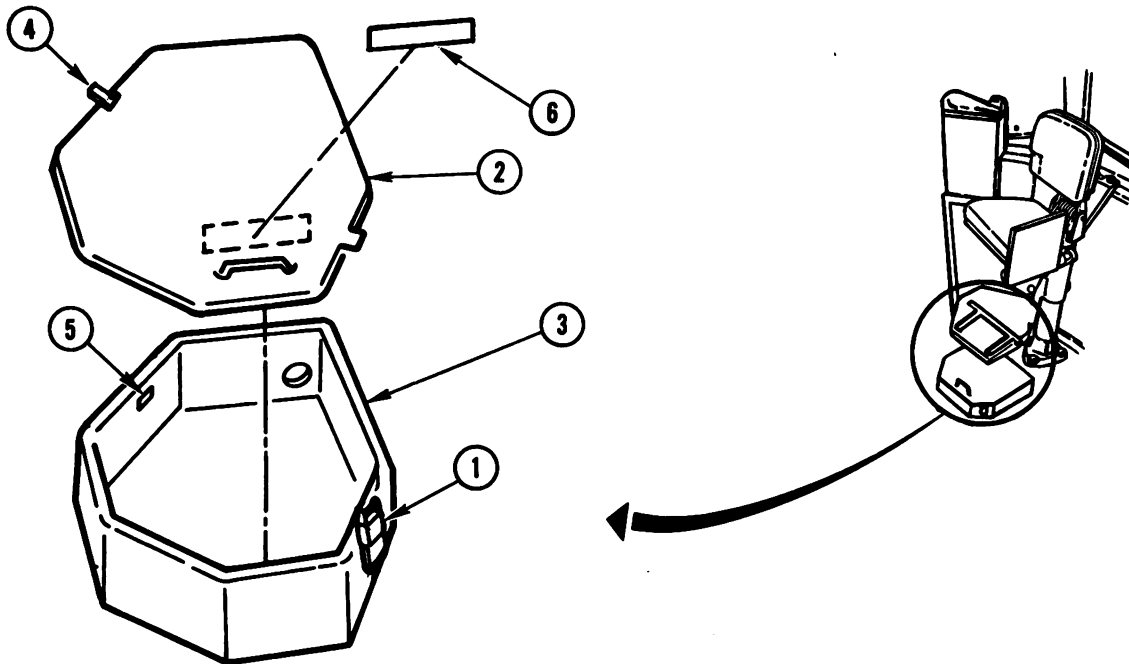
Install Cover:

3. Slide new 5.56 millimeter small arms ammunition cover (2) on box (3). Push tab (4) into slot (5). Hook latch (1) on cover (2).
4. Take paper backing off new identification marker (6). Put marker (6) in place on cover (2) and press down on marker (6).

Follow-on Maintenance:

Lower commander's platform to rest on 5.56 millimeter small arms ammunition cover; refer to TM 9-2350-255-10.

TASK 5 ENDS HERE



ARR82-1150

TASK 6. Repair 5.56 Millimeter Small Arms Ammunition Box

Applicability: All Models

Common Tools:

- Chisel, 1/2-inch
- Hammer, ball peen
- Hammer, cross peen, 12-pound

Special Tools: None

Supplies:

- Latch (96906) MS18015-2
- Rivet, solid (96906) MS20470DD4-8 (two required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Raise commander's platform all the way up; refer to TM 9-2350-255-10.

FRAME 6**Remove Latch:**

1. Lift and unhook latch (1) from 5.56 millimeter small arms ammunition cover (2). Slide cover (2) off 5.56 millimeter small arms ammunition box (3).
2. Cut heads off two solid rivets (4) with chisel and ball peen hammer.
3. Take off latch (1) from box (3). Turn in latch (1).

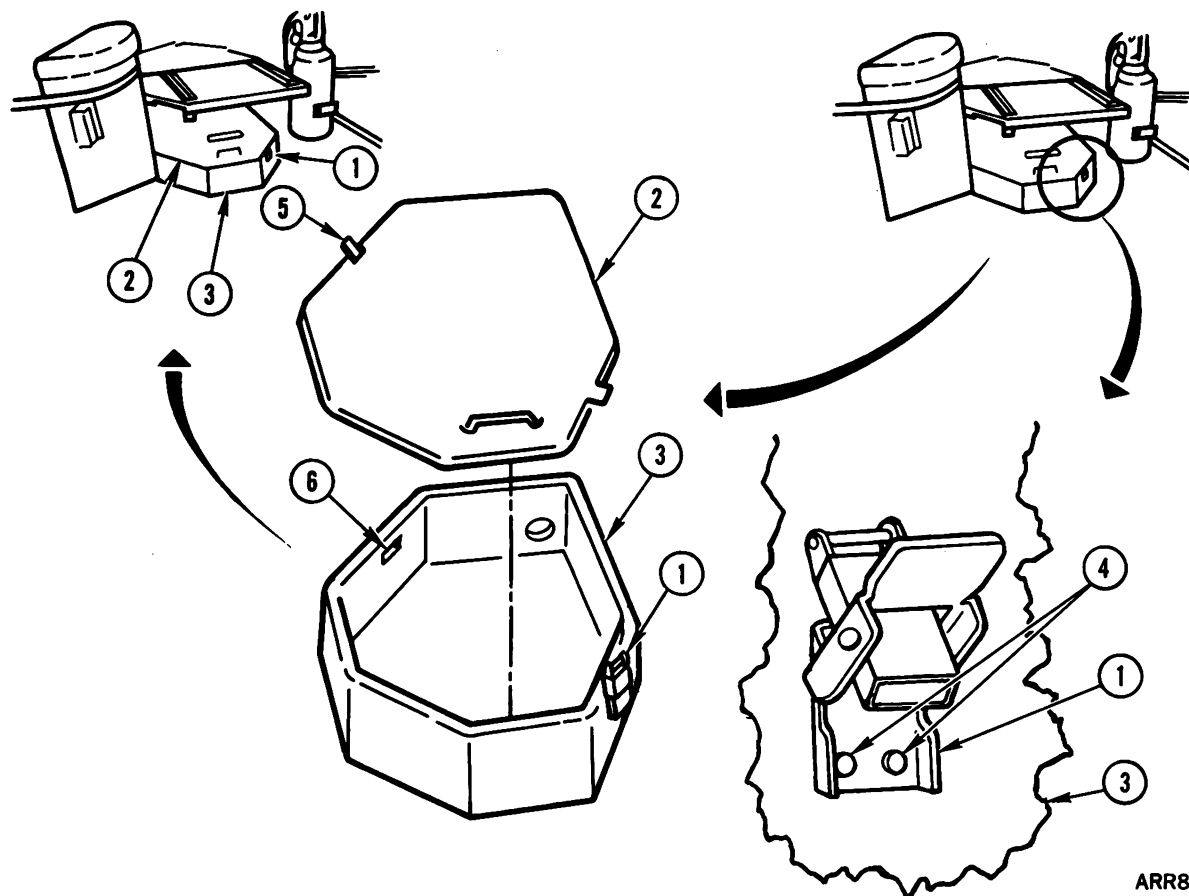
Install Latch:

4. Put new latch (1) in place on box (3).
5. Put two new solid rivets (4) in latch (1) and fasten with two hammers.
6. Slide cover (2) on box (3). Push tab (5) into slot (6). Hook latch (1) on cover (2).

Follow-on Maintenance:

Lower commander's platform to rest on 5.56 millimeter small arms ammunition cover; refer to TM 9-235-255-10.

TASK 6 ENDS HERE



ARR82-1151

TASK 7. Replace Identification Marker

Applicability: All Models

Common Tools:

Knife, putty

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Dry Cleaning Solvent, P-D-680 (Item 21)

Marker, identification (19207) 12280752

Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 7

Remove Marker:

NOTE

Use this task to take off and put on any identification marker (1) in turret.
FIRST AID KIT marker (1) is shown.

1. Scrape off marker (1) from surface (2) with putty knife. Get rid of marker (1).

WARNING

Solvent burns easily. To avoid injury, do not use near open fire.

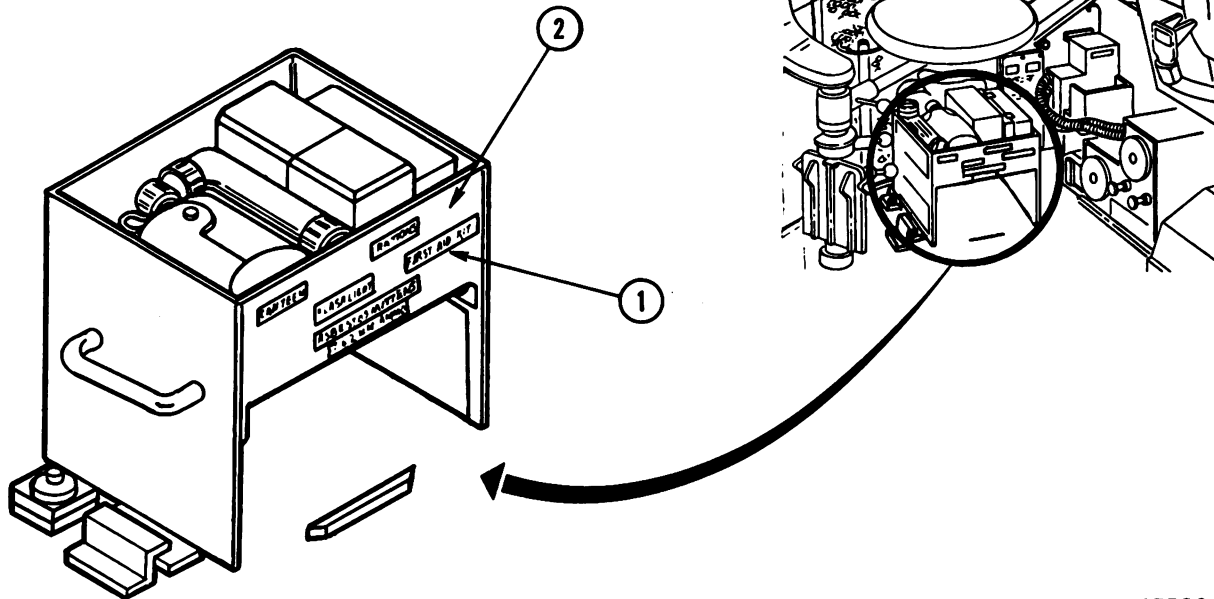
2. Clean surface (2) with rag and solvent.

Install Marker:

3. Take paper backing off new identification marker (1).
4. Put marker (1) in place on surface (2). Press down on marker (1).

Follow-on Maintenance: None

TASK 7 ENDS HERE



ARR82-1152

TM 9-2350-255-20-2-3-2

TASK 8. Replace Elastic Cord Assembly

Applicability: All Models

Common Tools:
Pliers, slip joint

Special Tools: None

Supplies:
Cord Assembly, elastic (19207) 12273209-5

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 8**Remove Elastic Cord Assembly:****NOTE**

- Use this task to take out and put in any elastic cord assembly (1) in turret.
- Elastic cord assembly (1) and hook (2) may be closed at one or both ends. One closed end is shown.

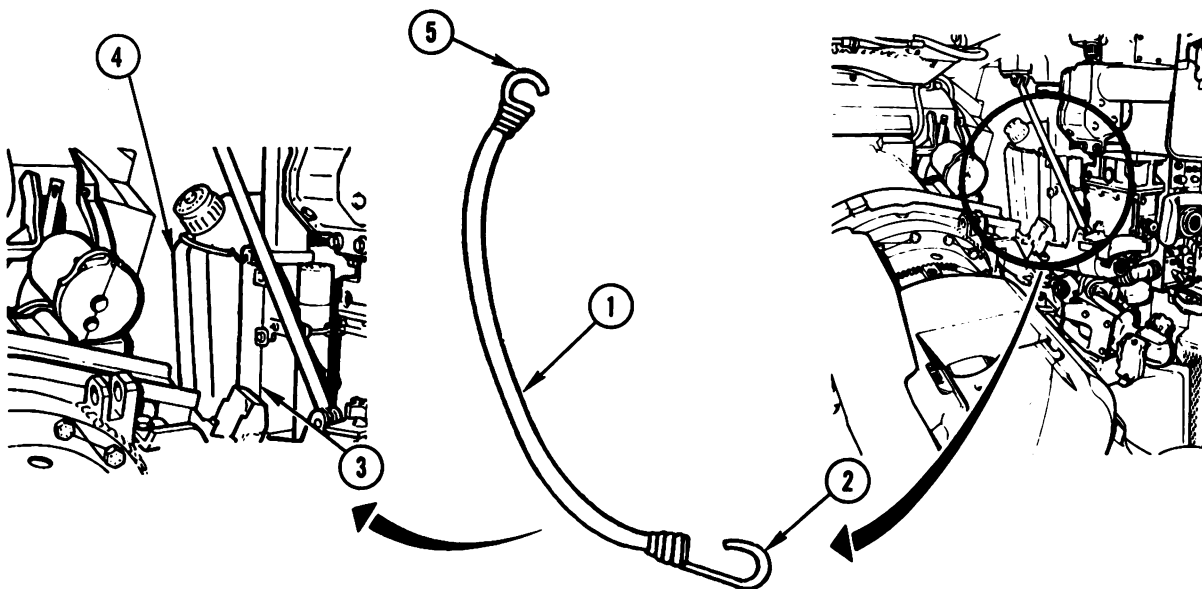
1. Pull cord assembly (1) and take off hook (2) from mounting hole in water container bracket (3).
2. Take out military water can (4).
3. Open closed loop (5) at other end of cord assembly (1) with pliers. Unhook and take off loop (5) from other mounting hole on turret wall. Turn in cord assembly (1).

Install Elastic Cord Assembly:

4. Put loop (5) of new elastic cord assembly (1) in mounting hole on turret wall. Squeeze loop (5) closed with pliers.
5. Put water can (4) in place. Stretch cord assembly (1) around water can (4) and put hook (2) in mounting hole in bracket (3).

Follow-on Maintenance: None

TASK 8 ENDS HERE



ARR82-1153

TASK 9. Repair Commander's Vehicular Accessories Storage Box

Applicability: All Models

Common Tools:

Anvil
Chisel, 3/8-inch
Drill, electric, portable
Drill, twist, 1/8-inch diameter
Hammer, ball peen
Punch, center

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

To repair cover you will need:

Adhesive, Type III, MMM-A-1617 (Item 4)
Brush, acid swabbing (Item 13)
Cover, box, vehicular storage (19207) 12280609
Pad, cushioning (19207) 12280767
Rivet, solid (96906) MS20470DD4-6 (four required)

To repair latch you will need:

Latch (96906) MS18015-2
Rivet, solid (96906) MS20470DD4-6 (two required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove commander's vehicular accessories storage box; refer to task 1.

FRAME 9

Remove Cover:

NOTE

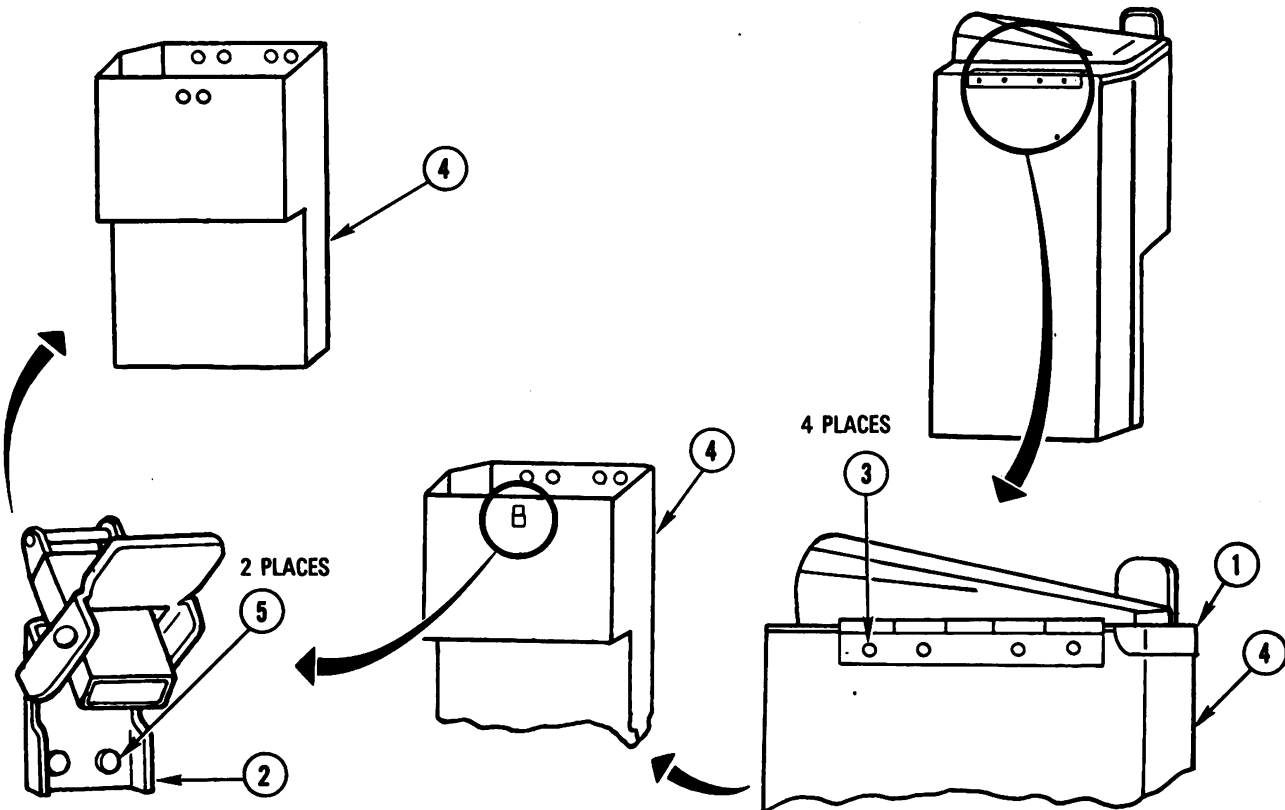
To take out vehicular storage box cover (1), do steps 1, 2, and 5. To take out latch (2), do steps 3, 4, and 5.

1. Cut heads off four solid rivets (3) with anvil, chisel, and hammer. Get rid of rivets (3).
2. Take cover (1) off commander's vehicular accessories storage box (4). Turn in cover (1).

Remove Latch:

3. Cut heads off two solid rivets (5) with anvil, chisel, and hammer. Get rid of rivets (5).
4. Take latch (2) off box (4). Turn in latch (2).
5. Look at box (4) for cracks or bends. If bad turn in. If OK set aside for later use.

GO TO FRAME 10



ARR82-1154

FRAME 10

Install Cover:

NOTE

- If box assembly (1) is new, do steps 1 through 7.
- To put on new vehicular storage box cover (2), do steps 1 through 4.
- To put on new latch (3), do steps 5 through 7.

1. Put cover (2) in place on box (1).
2. Mark positions of four holes (4) on box (1) with punch and hammer. Drill four marked holes (4) in box (1) with electric drill and twist drill.
3. Put four new solid rivets (5) in box hinge (6) with anvil and hammer.
4. Spread adhesive on new cushioning pad (7) and surface (8) with brush. Put pad (7) in place on cover (2).

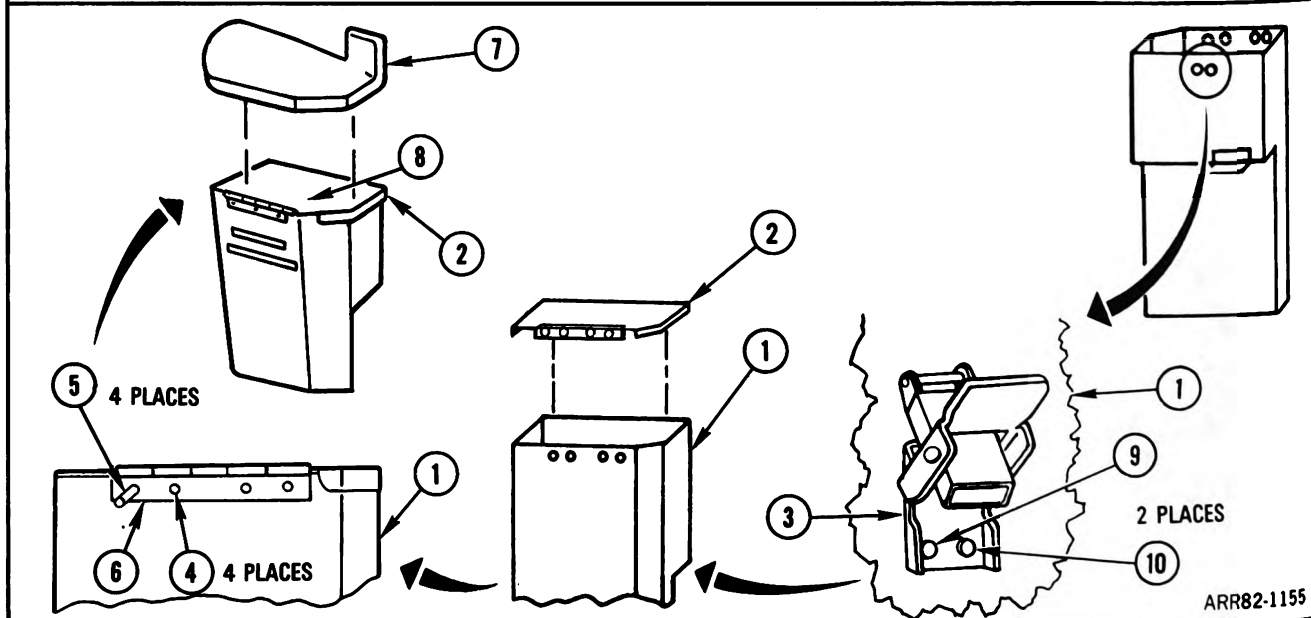
Install Latch:

5. Put new latch (3) in place on box (1).
6. Mark positions for two holes (9) on box (1) with punch and hammer. Drill two marked holes (9) in box (1) with electric drill and twist drill.
7. Put two new solid rivets (10) in latch (3) with anvil and hammer.

Follow-on Maintenance:

Install vehicular accessories storage box; refer to task 13.

TASK 9 ENDS HERE



TASK 10. Install Military Water Can and Brackets

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Oiler, hand
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lockwasher (96906) MS35333-40 (seven required)
Lubricating Oil, MIL-L-3150 (Item 31)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove military water can and brackets; refer to task 4.

FRAME 11

Install Brackets:

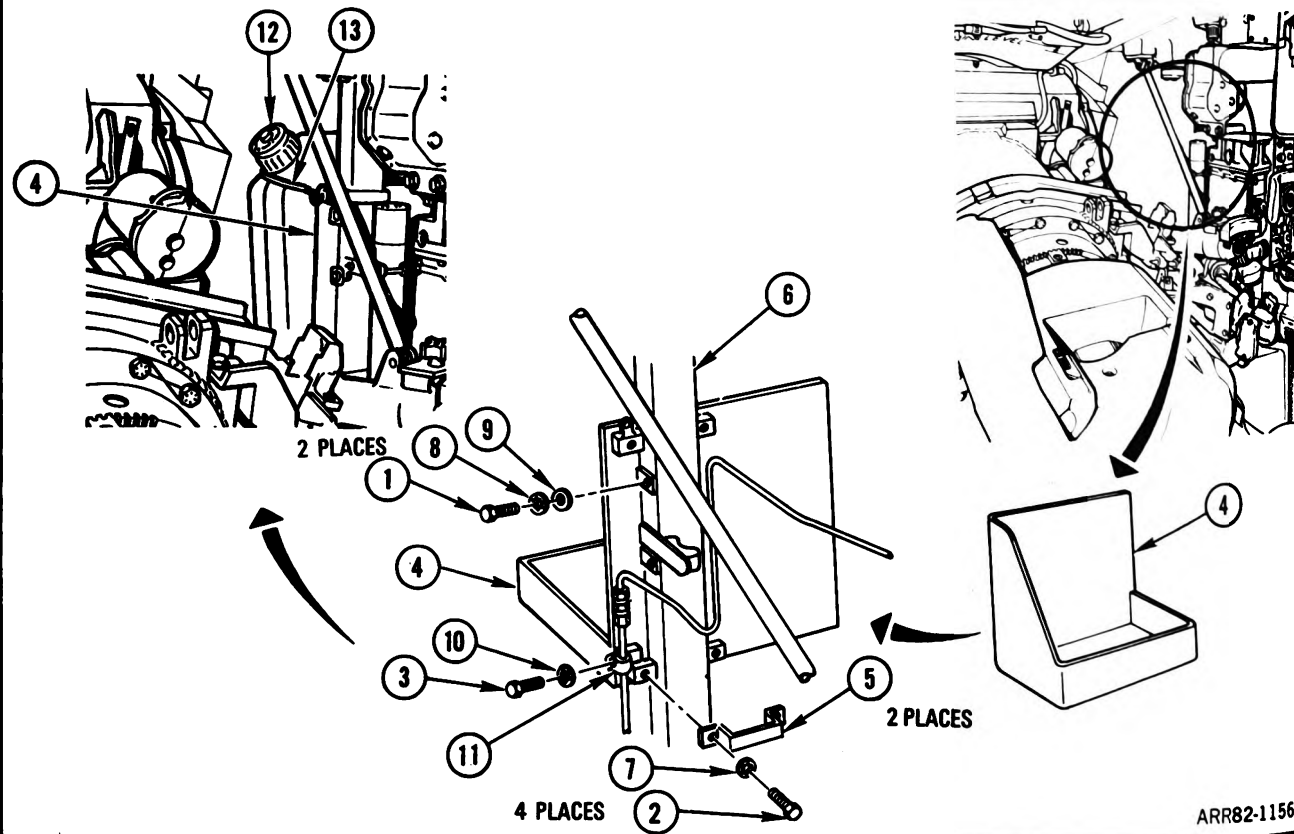
1. Spread light coat of oil on threads of seven screws (1, 2, 3).
2. Put water container bracket (4) and two brackets (5) in place on post (6).
3. Screw in four screws (2) and new lockwashers (7) to two brackets (5) with socket, extension, and handle. Torque screws (2) between 95 and 120 pound inches (11 and 14 Newton meters).
4. Screw in two screws (1), new lockwashers (8), and washers (9) to bracket (4) with socket, extension, and handle. Torque screws (1) between 95 and 120 pound inches (11 and 14 Newton meters).
5. Screw in one screw (3) and new lockwasher (10) to loop clamp (11) with socket, extension, and handle. Torque screw (3) between 95 and 120 pound inches (11 and 14 Newton meters).

Install Water Can:

6. Put military water can (12) in bracket (4).
7. Pull elastic cord assembly (13) over water can (12) and hook in mounting hole in bracket (4).

Follow-on Maintenance: None

TASK 10 ENDS HERE



ARR82-1156

TASK 11. Install .50 Caliber Ammunition Stowage Box

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Oiler, hand
Pliers, slip joint
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lubricating Oil, MIL-L-3150 (Item 31)

If you are putting in a new ammunition stowage box, you will need the following:

Box, ammunition stowage (19207) 12280611
Marker, identification (19207) 12280766
Marker, identification (19207) 12280755
Marker, identification (19207) 12280762
Marker, identification (19207) 12280763
Marker, identification (19207) 12280754

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

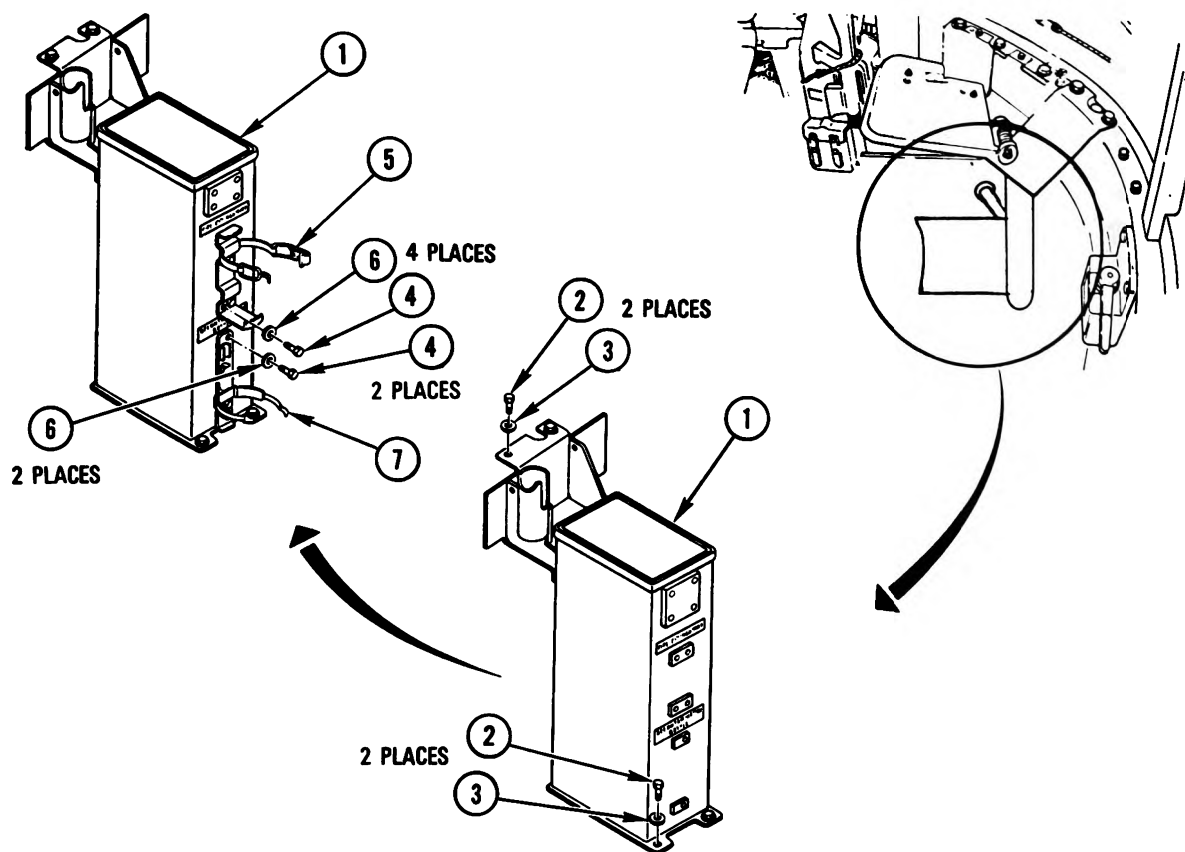
Remove .50 caliber ammunition stowage box; refer to task 3.

FRAME 12

Install Ammunition Stowage Box:

1. Put ammunition stowage box (1) in place on turret floor. Spread light coat of oil on threads of four screws (2).
2. Screw in four screws (2) and washers (3) with 9/16-inch socket and handle. Torque screws (2) between 360 and 385 pound inches (41 and 43 Newton meters).
3. Spread light coat of oil on six screws (4). Put bracket (5) on stowage box (1).
4. Screw in four screws (4) and washers (6) to bracket (5) with 7/16-inch socket and handle. Torque screws (4) between 95 and 120 pound inches (11 and 14 Newton meters).
5. Put bracket (7) on stowage box (1).
6. Screw in two screws (4) and washers (6) to bracket (7) with 7/16-inch socket and handle. Torque screws (4) between 95 and 120 pound inches (11 and 14 Newton meters).

GO TO FRAME 13



ARR82-1157

FRAME 13

Install Ammunition Stowage Box (Continued):

NOTE

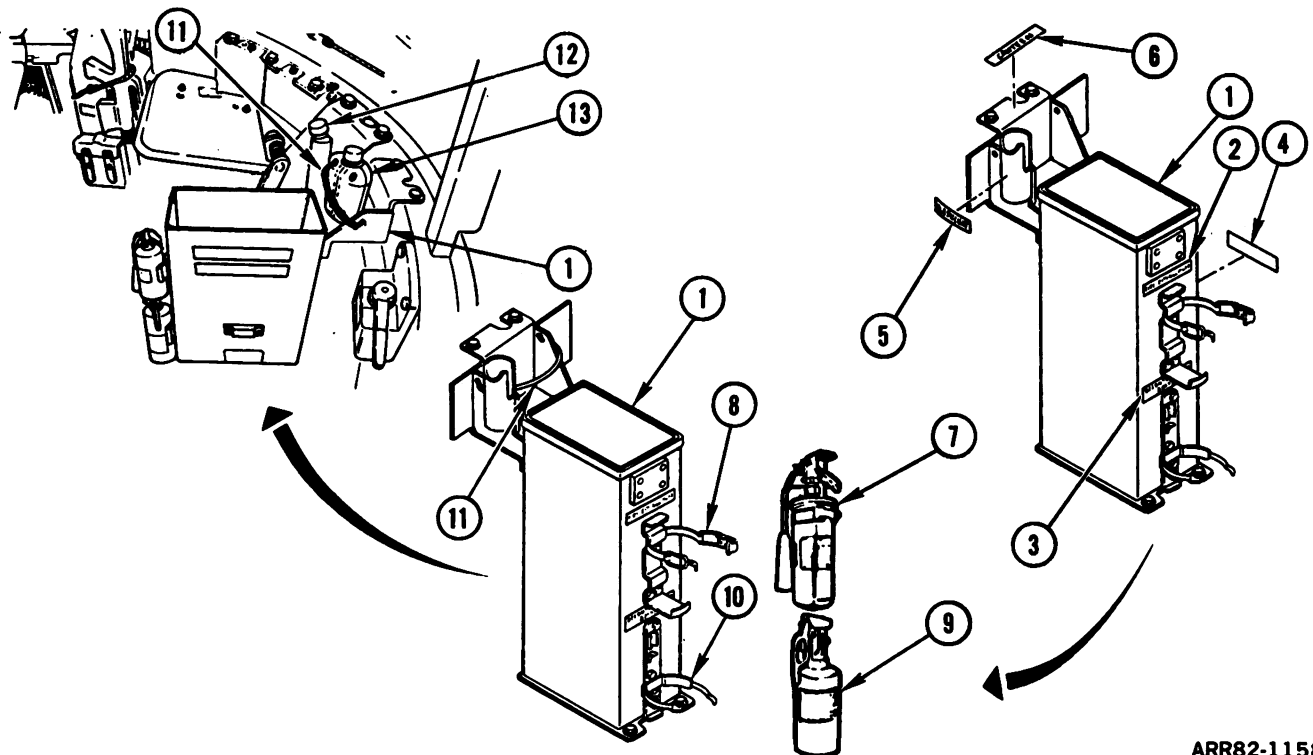
To put in new ammunition stowage box (1), go to step 1. If box (1) is not new, go to step 3.

1. Take paper backing off new FIRE EXTINGUISHER identification marker (2). Put marker (2) in place on box (1) and press down on marker (2).
2. Do step 1 again for DECONTAMINATION BOTTLE identification marker (3), CAL .50 AMMO identification marker (4), FLASHLIGHT identification marker (5), and CANTEEN marker (6).
3. Put fire extinguisher (7) in bracket (8). Put decontamination bottle (9) in bracket (10).
4. Put elastic cord assembly (11) on box (1) and close loop on one end with pliers.
5. Put flashlight (12) and canteen (13) on box (1).
6. Put cord assembly (11) over canteen (13) and hook cord assembly (11) to box (1).

Follow-on Maintenance:

Install commander's guard assembly, ejected link screen, hinges, or magnet; refer to para. 3-12, task 14.

TASK 11 ENDS HERE



ARR82-1158

TASK 12. Install Loader's Vehicular Accessories Storage Box

Applicability: All Models

Common Tools: None

Special Tools: None

Supplies:

If you are putting in a new loader's vehicular accessories storage box, you will need the following:

Box, vehicular accessories storage (19207) 12280605

Marker, identification (19207) 12280756

Marker, identification (19207) 12280755

Marker, identification (19207) 12280752

Marker, identification (19207) 12280754

Marker, identification (19207) 12280753

Marker, identification (19207) 12280751

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove loader's vehicular accessories storage box; refer to task 2.

FRAME 14

Install Vehicular Accessories Storage Box:

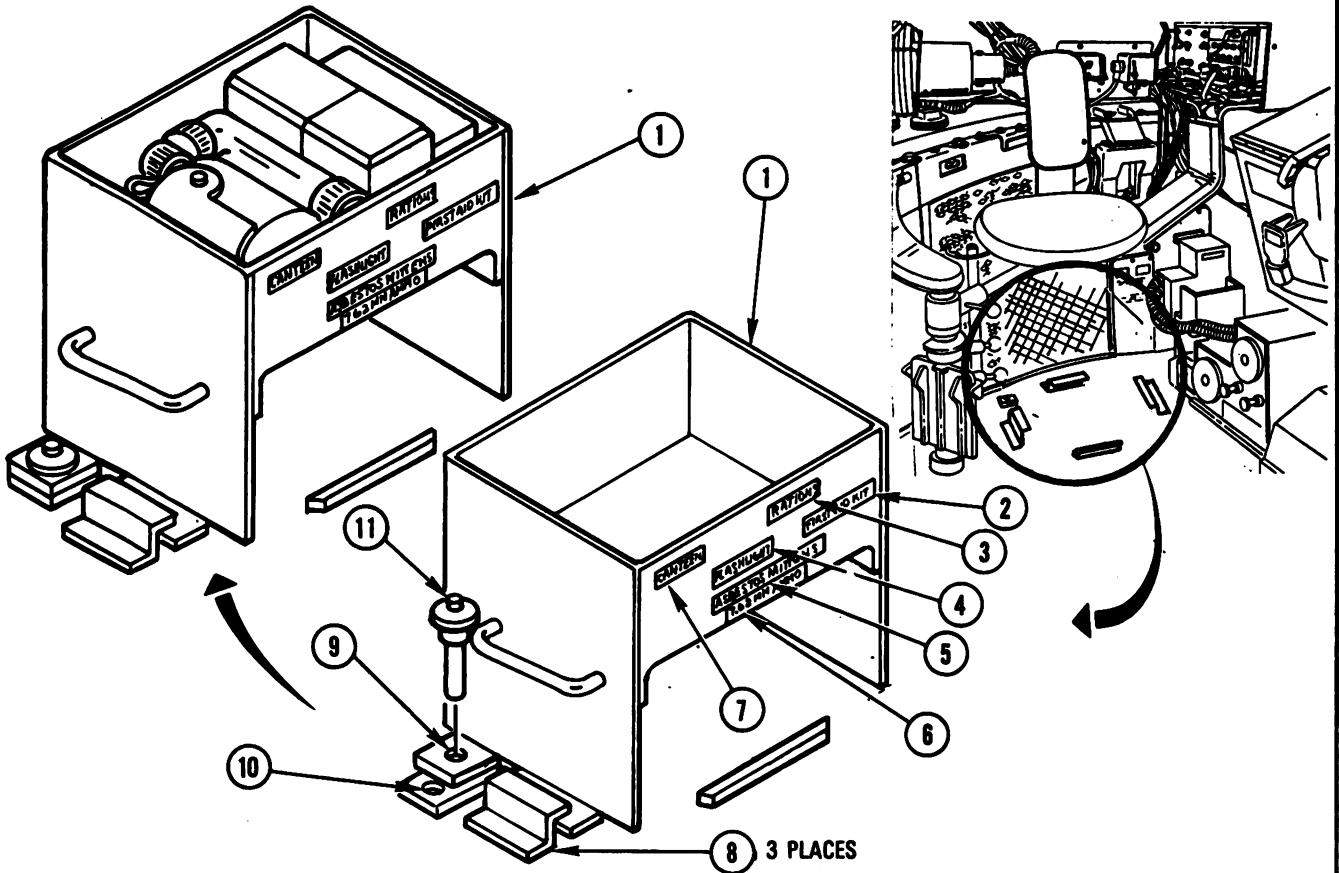
NOTE

To put in new loader's vehicular accessories storage box (1), go to step 1. If box (1) is not new, go to step 3.

1. Take paper backing off new FIRST AID KIT identification marker (2). Put marker (2) in place on box (1) and press down on marker (2).
2. Do step 1 again for RATIONS identification marker (3), FLASHLIGHT identification marker (4), ASBESTOS MITTENS identification marker (5), 7.62MM AMMO identification marker (6), and CANTEN identification marker (7).
3. Slide box (1) in three retainers (8). Line up box hole (9) and turret lock hole (10).
4. Put quick-release pin (11) in box hole (9). Put back all cargo taken out of box (1).

Follow-on Maintenance: None

TASK 12 ENDS HERE



ARR82-1159

TASK 13. Install Commander's Vehicular Accessories Storage Box

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Oiler, hand
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, combination, 7/16-inch
Wrench, torque 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lubricating Oil, MIL-L-3150 (Item 31)

If new commander's vehicular accessories storage box is being put on, you will need:
Box, vehicular accessories storage (19207) 12280607
Marker, identification (19207) 12280764
Marker, identification (19207) 12280765

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

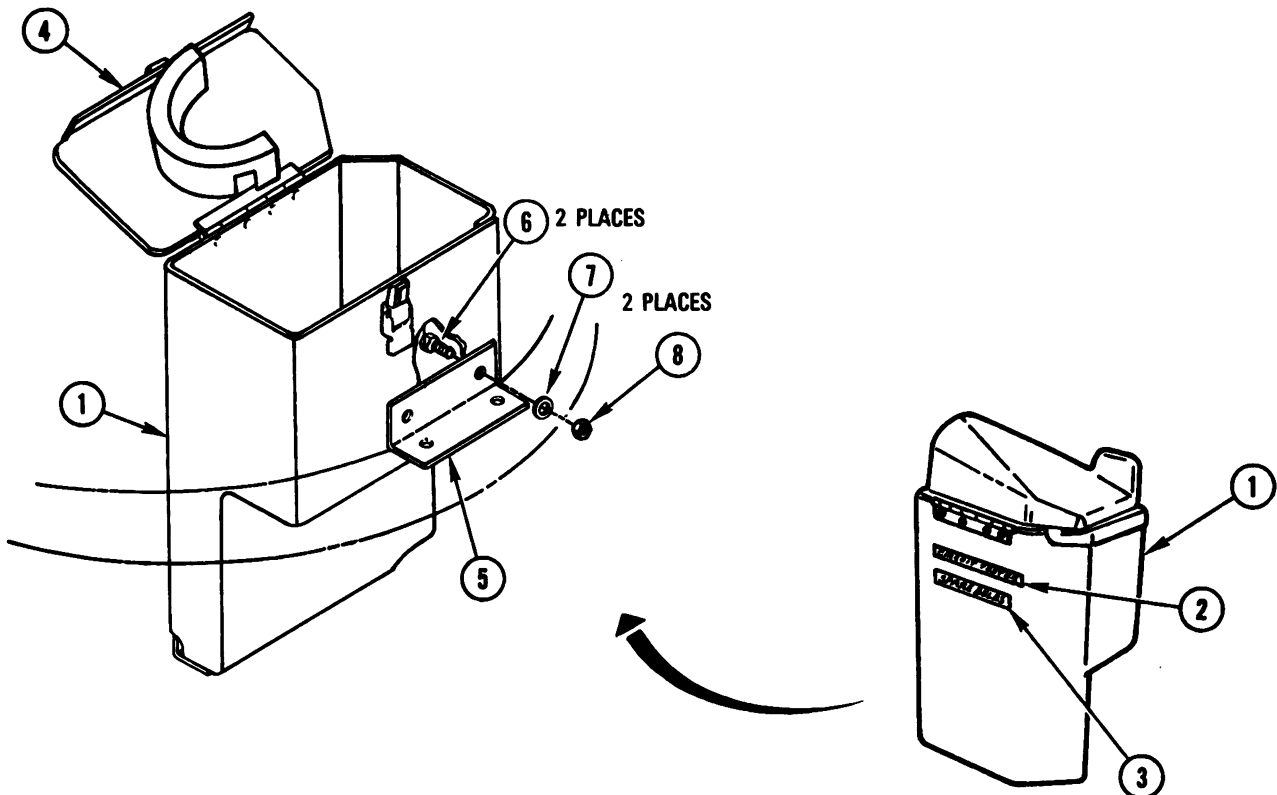
Remove commander's vehicular accessories storage box; refer to task 1.

FRAME 15**Install Vehicular Accessories Storage Box:****NOTE**

To put in new commander's vehicular accessories storage box (1), go to step 1.
If box (1) is not new, go to step 3.

1. Take paper backing off new CIRCUIT TESTER identification marker (2). Put marker (2) in place on box (1) and press down on marker (2).
2. Repeat step 1 for new SPARE BULBS identification marker (3).
3. Open vehicular storage box cover (4).
4. Line up two screw mounting holes on angle bracket (5) with mounting holes on box (1).
5. Spread light coat of oil on threads of two screws (6). Screw in two screws (6), lockwashers (7), and nuts (8) to bracket (5) with 7/16-inch socket, handle, and wrench.
6. Torque nuts (8) between 95 and 120 pound inches (11 and 14 Newton meters).

GO TO FRAME 16



ARR82-1160

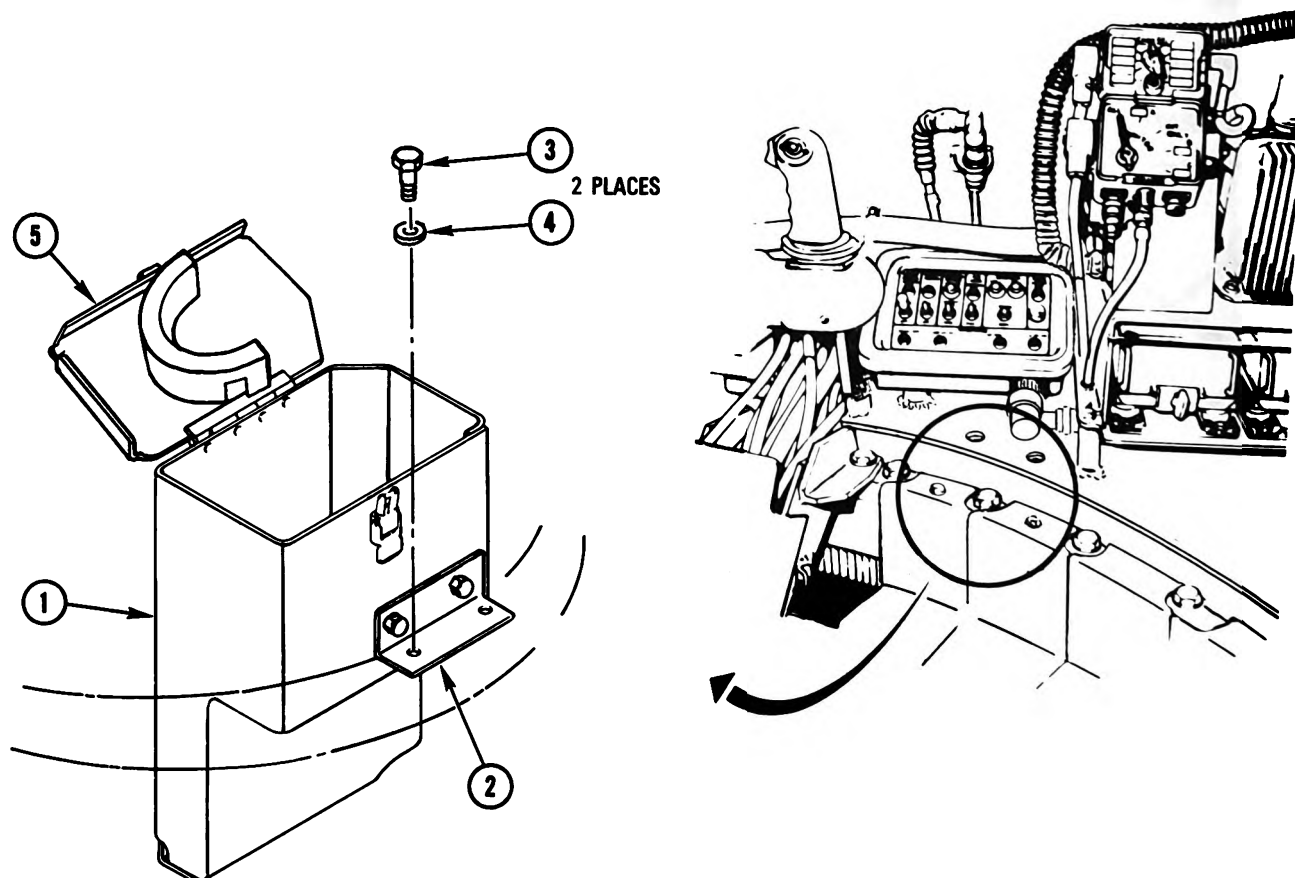
FRAME 16

Install Vehicular Accessories Storage Box (Continued):

1. Put box (1) and bracket (2) in place on turret ring.
2. Spread light coat of oil on threads of two screws (3). Screw in two screws (3) and washers (4) to turret with 9/16-inch socket, extension, and handle.
3. Torque screws (3) between 360 and 420 pound inches (41 and 48 Newton meters).
4. Put back all cargo taken out of box (1) and close cover (5).

Follow-on Maintenance: None

END OF TURRET INTERNAL STOWAGE MAINTENANCE



ARR82-1161

3-20. Commander's Weapon Station

Task	Title	Frames
1	Replace Deflection Plate	1

TASK 1. Replace Deflection Plate

Applicability: All Models

Common Tools:

- Brush, wire
- Handle, socket wrench, ratchet, 3/8-inch square drive
- Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Plate (19207) 12288782
 - Rag, wiping (Item 45)
 - Sealing Compound, Type II, Grade N, MIL-S-46163 (Item 49)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 1

Remove Plate:

1. Unscrew and take out screw (1) from plate (2) with socket and handle. Take off plate (2) from weapon station (3). Turn in plate (2).

WARNING

Solvent burns easily. To avoid injury, do not use open fire.

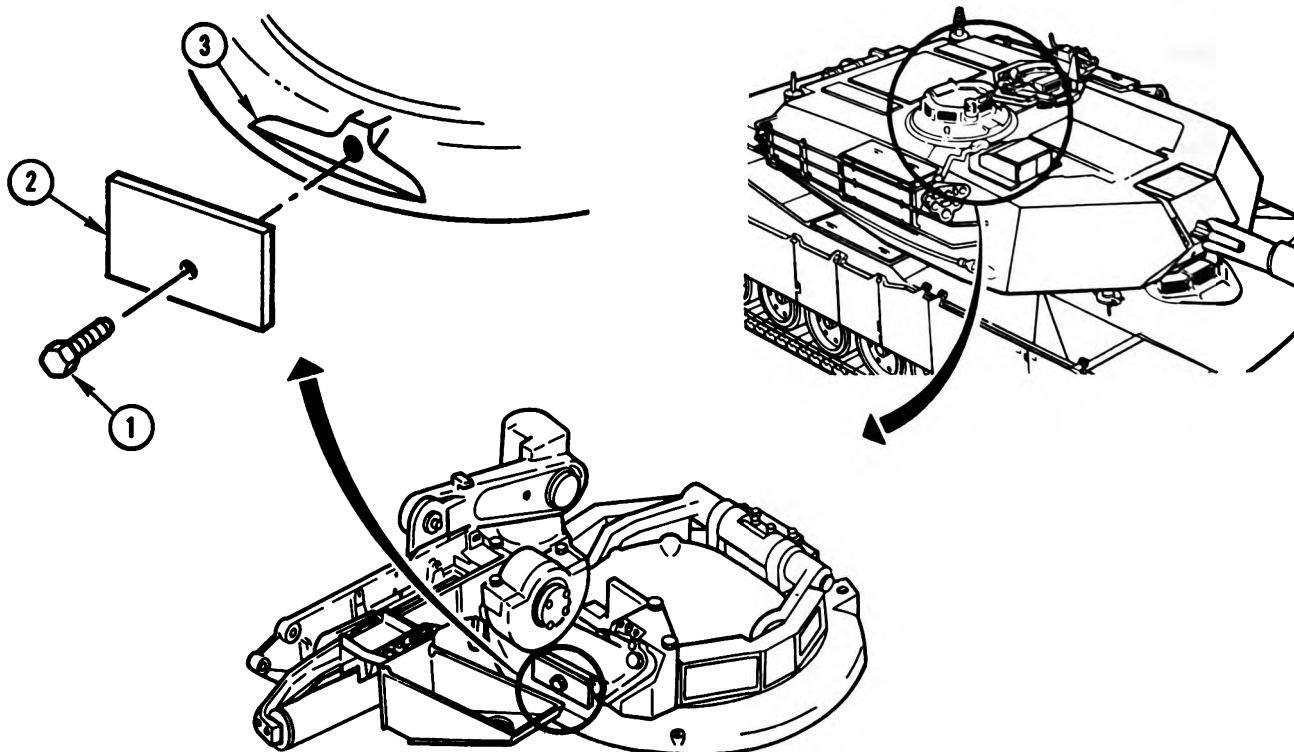
2. Clean threads of screw (1) with solvent, wire brush, and rags.

Install Plate:

3. Spread a thin coat of sealing compound on threads of screw (1).
4. Put new plate (2) in place on weapon station (3).
5. Screw in and tighten screw (1) with socket and handle.

Follow-on Maintenance: None

END OF COMMANDER'S WEAPON STATION MAINTENANCE



ARR82-0783

CHAPTER 4

TURRET HYDRAULIC SYSTEM MAINTENANCE

4-1. General. This chapter tells you how to fix the M1 tank turret hydraulic system. The chapter is divided into paragraphs and then into tasks. Each task explains how to take a part off the tank and then put it back on the tank.

4-2. Equipment Items Covered. Each paragraph, starting with paragraph 4-5, lists tasks that take parts off or put them back on the tank. The equipment items covered in this chapter are listed in table 4-1 with their paragraph and page numbers.

Table 4-1. Equipment Items Covered

Paragraph	Title	Page
4 - 5	Traverse Servo	4 - 13
4 - 6	Elevation Servo	4 - 21
4 - 7	Hydraulic System	4 - 25
4 - 8	Elevation Hand Pump	4 -145
4 - 9	Manual Elevation Accumulator	4 -167
4 - 10	Turret Hydraulics	4 -174
4 - 11	Adjust Traversing Mechanism Anti-backlash	4 -223

4-3. Equipment Items Not Covered. None

4-4. General Maintenance Instructions. Follow these maintenance practices when working on the hydraulic system. Be sure to observe all warnings at the front of this manual.

WARNING

- Always wear safety glasses when working on the hydraulic system. If hydraulic fluid gets in your eyes, you can be blinded.
- Hot equipment can burn you. Wait until hydraulic tubes and hoses are cool enough to touch before you start work.
- Always reduce system hydraulic pressure to zero before you start work. Sudden movement of hydraulic parts can injure you.

4-4. General Maintenance Instructions (Continued)

a. Reducing System Hydraulic Pressure to Zero

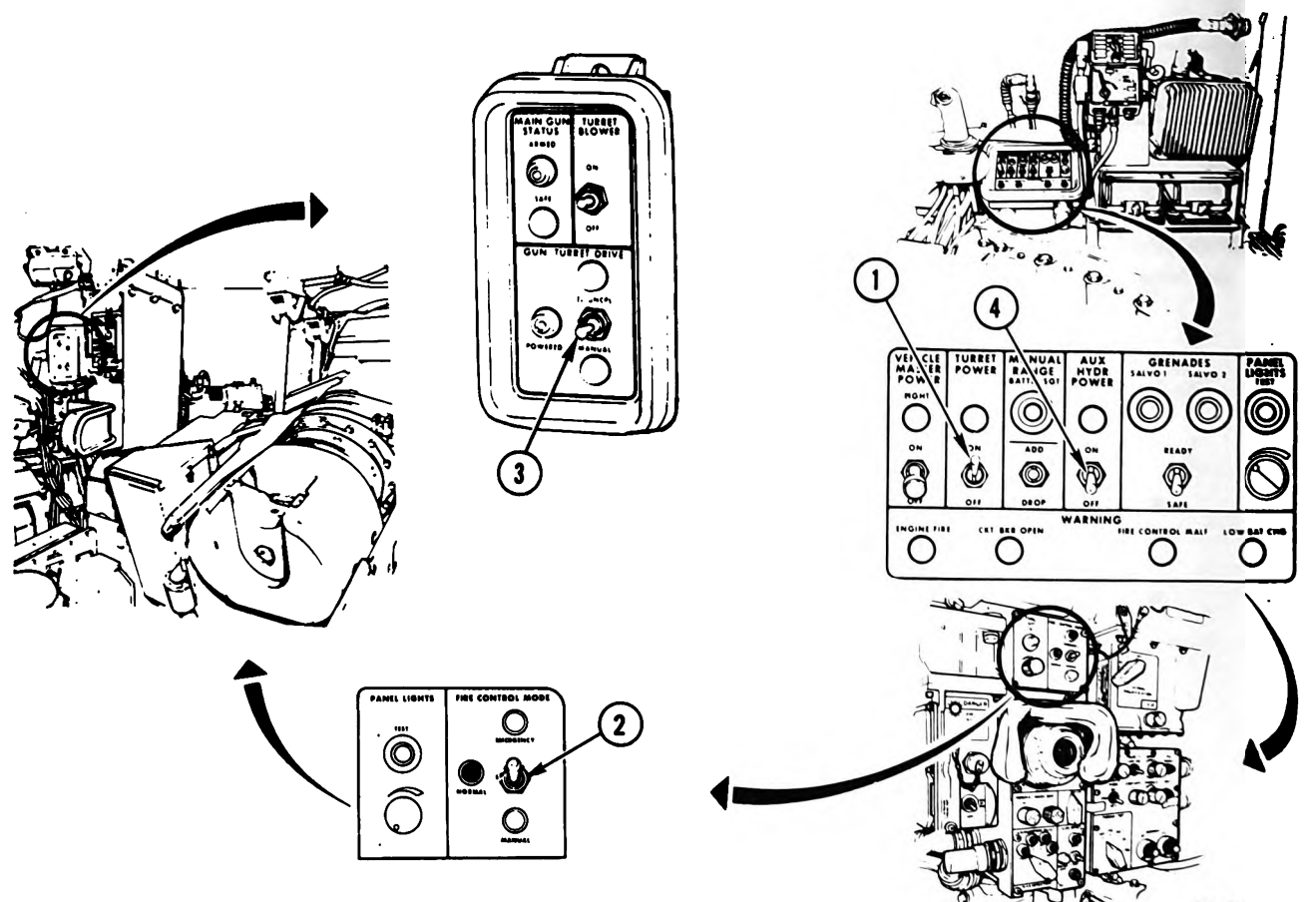
WARNING

Keep gun tube and breech areas clear when depressurizing main gun. Gun can move suddenly and cause serious injury or damage to equipment.

NOTE

- Tank must be parked on level surface with transmission shift control set to N.
- Make sure main engine hydraulic pump is not running.

- (1) Set TURRET POWER switch (1) on commander's panel to ON.
- (2) Set GPS FIRE CONTROL MODE panel switch (2) to EMERGENCY.
- (3) Set GUN/TURRET DRIVE switch (3) on loader's panel to POWERED.
- (4) Set AUX/HYDR POWER switch (4) on commander's panel to OFF.

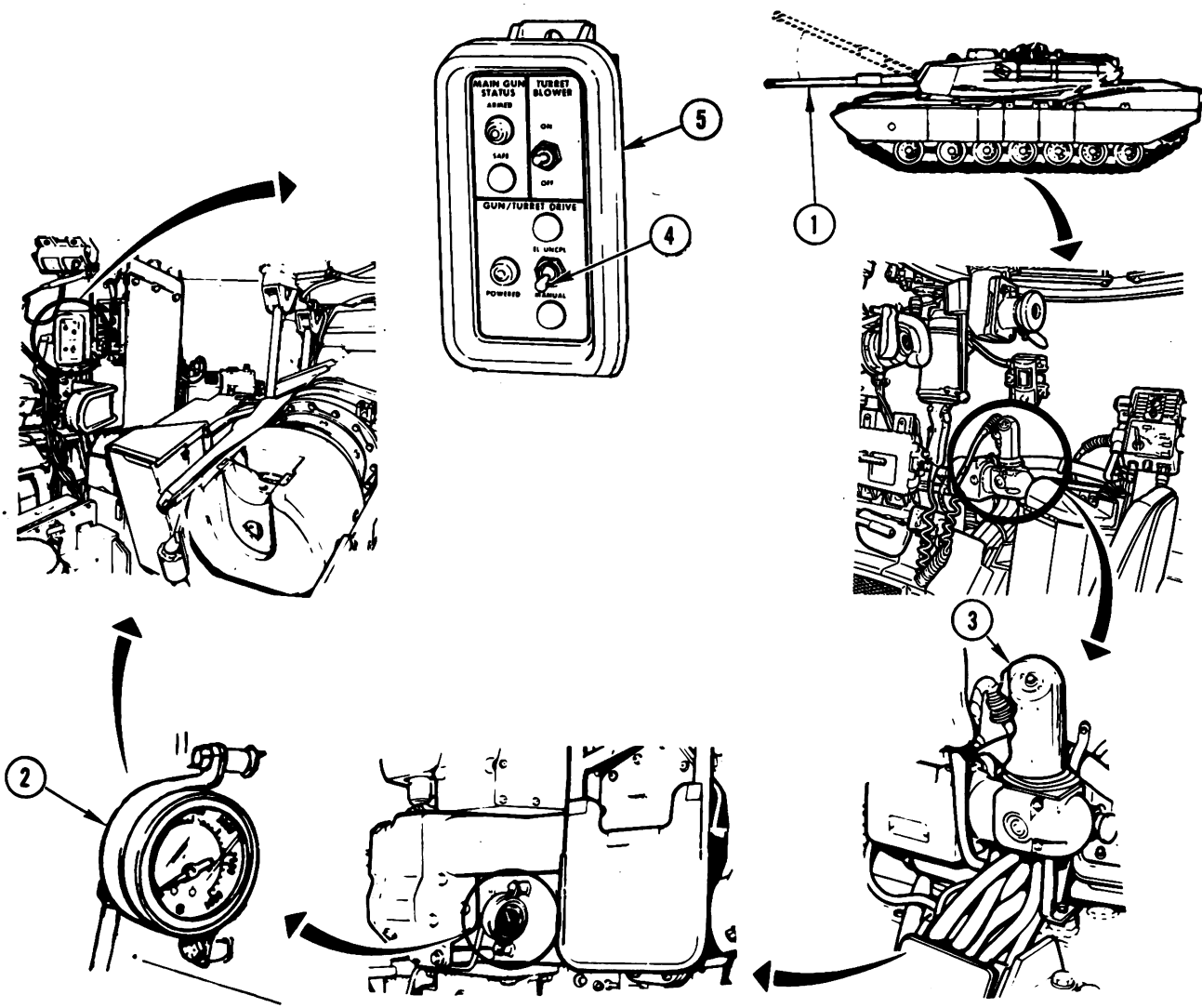


ARR82-1310

4-4. General Maintenance Instructions (Continued)

a. Reducing System Hydraulic Pressure to Zero (Continued)

- (5) Elevate and depress main gun (1) with gunner's or commander's control handle until hydraulic pressure gage (2) reads zero. Commander's control handle (3) shown here.
- (6) Set GUN/TURRET DRIVE switch (4) on loader's panel (5) to MANUAL.



ARR82-1311

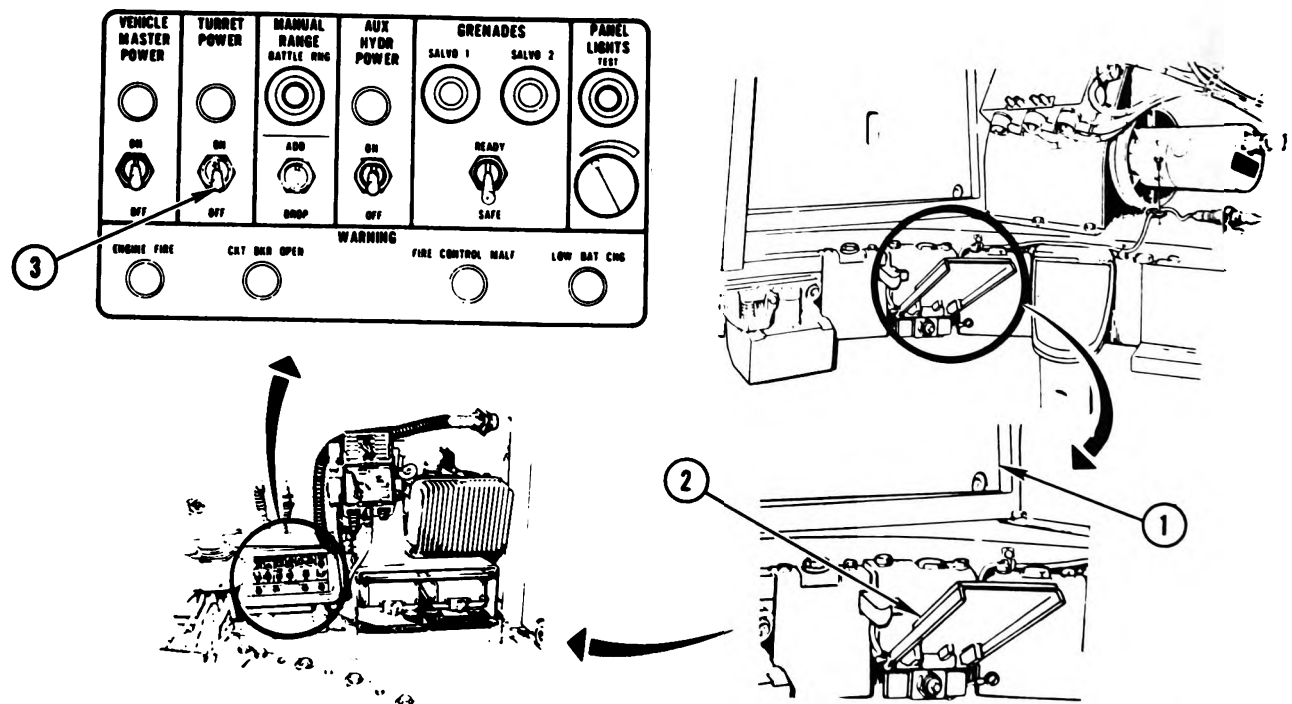
4-4. General Maintenance Instructions (Continued)

a. Reducing System Hydraulic Pressure to Zero (Continued)

WARNING

Sliding metal ready door (1) will move with great force when it opens or closes. Keep hands and equipment away from door track to avoid injury.

- (7) Fold down loader's knee switch lever (2). Press and hold knee switch lever (2) with right knee to open door (1).
- (8) Move right knee away from knee switch lever (2) to close door (1).
- (9) Repeat steps 7 and 8 until door (1) does not move.
- (10) Set TURRET POWER switch (3) on commander's panel to OFF.



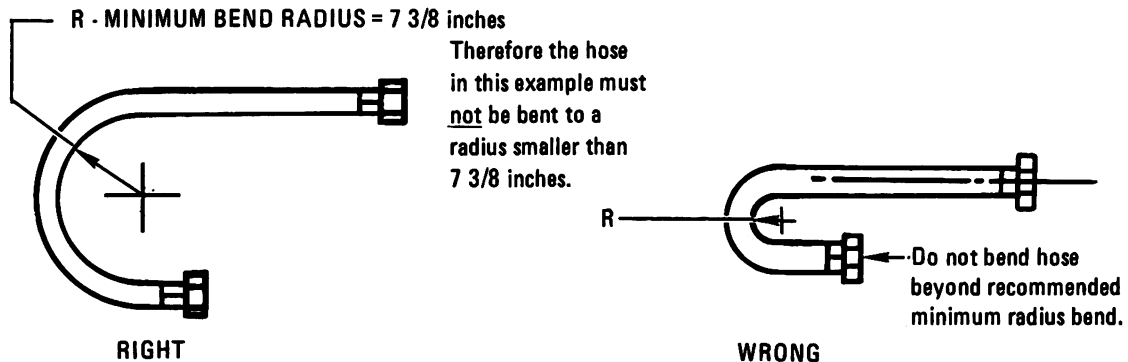
4-4. General Maintenance Instructions (Continued)

b. Bending Flexible Hoses

- (1) Tie flexible hose assemblies back and out of the way with rope or straps in order to gain access to other assemblies. Use care when bending flexible hydraulic hoses to prevent a hose from forming a kink or flat spot. Do not try to bend a hose that is not flexible.
- (2) Do not bend a flexible hose assembly beyond its minimum recommended bend radius. The inside of a hose assembly can be damaged if it is bent too far. To find out the minimum bend radius of a hose, find the seventh character of the part number of the hose. That character designates the size. Then refer to table 4-2 to find the minimum bend radius. For example, on hose part number M58006M505CM, the seventh character is M. Table 4-2 shows that for size M, the minimum bend radius is 7-3/8 inches.

Table 4-2. Hose Bend Radius

Size	Dash Number Reference	Hose O.D. Reference -	Minimum Bend Radius (inside of bend) - inches
E	-4	1/4	2
F	-5	5/16	2
G	-6	3/8	4
H	-8	1/2	4-5/8
J	-10	5/8	5-1/2
K	-12	3/4	6-1/2
M	-16	1	7-3/8



ARR82-1313

4-4. General Maintenance Instructions (Continued)

c. Removing Hydraulic Connections

WARNING

- Cleaning compound can cause skin rash and can give off harmful vapors. To avoid injury, use in a well-ventilated area. Wash immediately with soap and water if compound gets on skin or clothing.
 - Compressed air used for cleaning purposes will not exceed 30 pounds-per-square-inch. Use only with effective chip guarding and personal protective equipment (goggles/shield, gloves, etc).
- (1) Clean all hydraulic connections and mating parts with solvent cleaning compound and rags when taking them off. If available, use compressed air to clean fittings.
 - (2) Before taking off any hydraulic hoses, tubes, electrical wires, harnesses, or cables, tag them to show location. Tagging saves time and avoids errors. Remove tags after parts are installed.
 - (3) Unscrew connections with two wrenches. Use one wrench to unscrew the connection and the other wrench to hold the fitting or line to keep it from twisting. Make sure any old sealing compound or tape is removed.
 - (4) Cap or plug all open hydraulic tubes, lines, or fittings when you disconnect them. This will keep dirt and dust out of the hydraulic system, and will also stop fluid from siphoning through hoses and tubes.

WARNING

Solvent burns easily. To avoid injury, do not use near open fire.

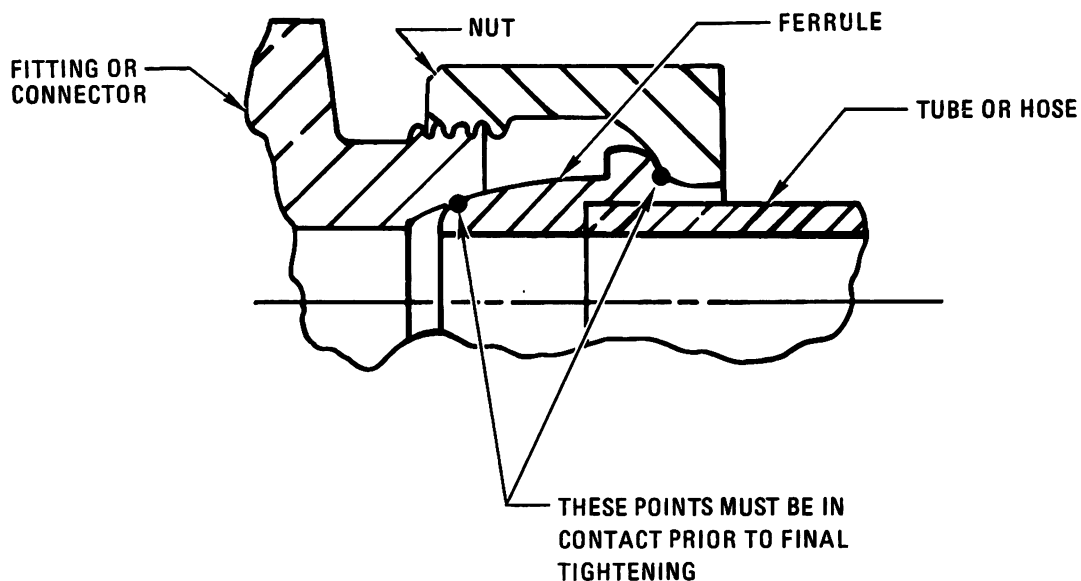
- (5) Clean up all spills and leaks with rags. When a gasket is taken off, clean area with dry cleaning solvent P-D-680 and rags.
- (6) Always look carefully at equipment for likely signs of trouble while doing routine work. If hydraulic oil is leaking down on harnesses and connectors, repair the leak at once. Tie down any harness that is free to move and rub against metal. If you look for possible troublespots and make repairs at once, you can cut down on repair time and extra work.

4-4. General Maintenance Instructions (Continued)

d. Installing Hydraulic Connections

WARNING

- Cleaning compound can cause skin rash and can give off harmful vapors. To avoid injury, use in a well-ventilated area. Wash immediately with soap and water if compound gets on skin or clothing.
 - Compressed air used for cleaning purposes will not exceed 30 pounds-per-square-inch. Use only with effective chip guarding and personal protective equipment (goggles/shield, gloves, etc).
- (1) Clean all dirty hydraulic connections and mating parts with solvent cleaning compound and rags before putting them on. If available, use compressed air to clean fittings.
 - (2) Lubricate preformed packings with hydraulic fluid before you put them on.
 - (3) Screw on hydraulic connections by hand to make sure connections are not cross-threaded.
 - (4) Tighten connections with two wrenches. Use one wrench to tighten the connection and the other wrench to hold the fitting or line to keep it from twisting. Tighten tube/hose nut until you feel firm resistance when the ferrule contacts the seat of the connector. If you are not sure that the ferrule has seated against the connector, loosen and tighten the nut several times, rapidly, to make sure you make firm contact and not just feel thread friction. Continue to tighten nut another 1/6 to 1/3 turn.

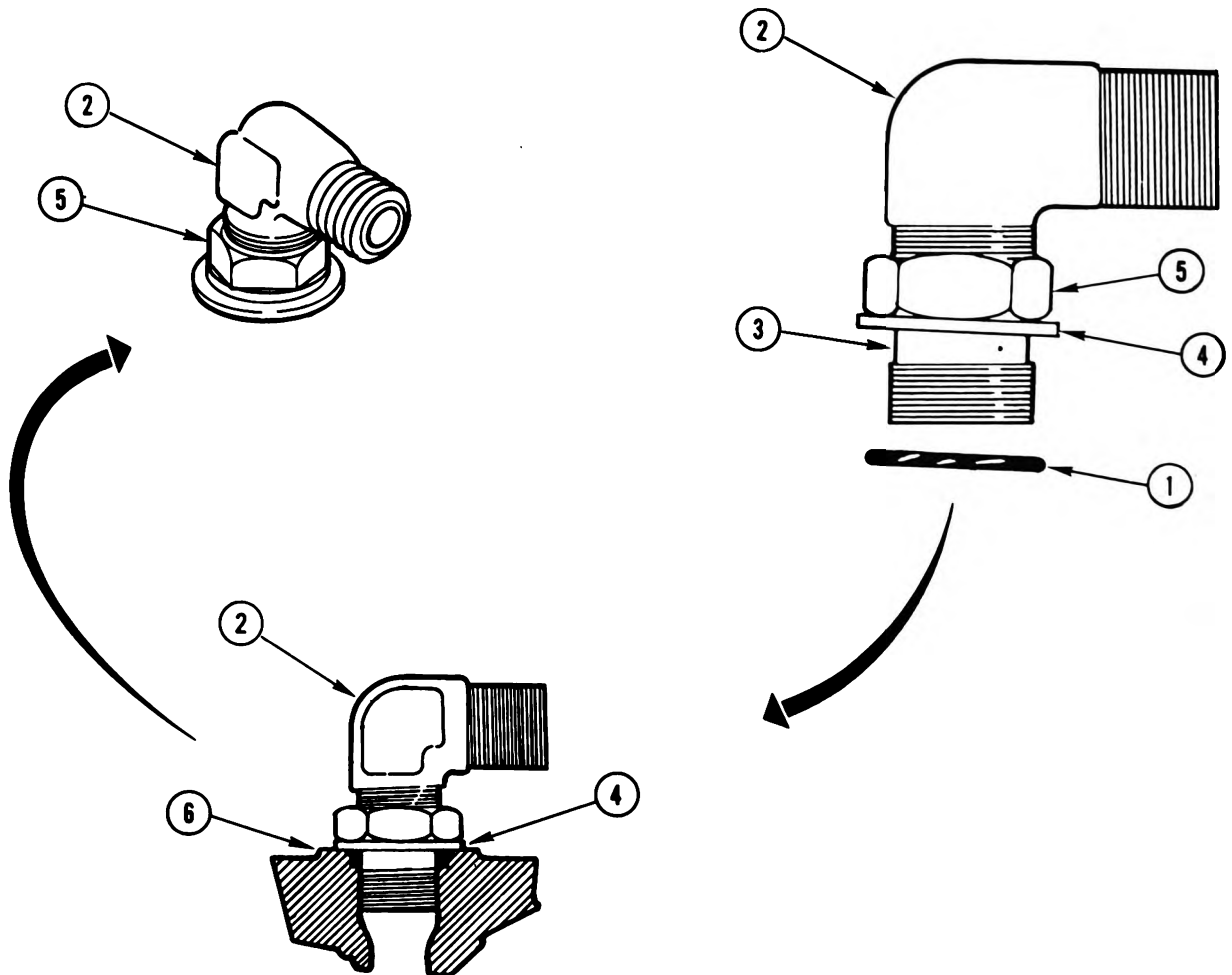


ARR82-1314

4-4. General Maintenance Instructions (Continued)

e. Installing Adjustable Fittings

- (1) Put a light coat of hydraulic fluid, MIL-H-46170, on packing (1). Slide packing (1) on fitting (2) so that packing (1) is seated in groove (3) against washer (4) as far as it will go.
- (2) Turn locknut (5) clockwise until it touches washer (4).
- (3) Screw fitting (2) into boss (6) until washer (4) touches boss (6).
- (4) Turn fitting (2) counterclockwise, up to one full turn, until desired position is reached.
- (5) While holding fitting (2) in position with one wrench, tighten locknut (5) clockwise with other wrench.



4-4. General Maintenance Instructions (Continued)

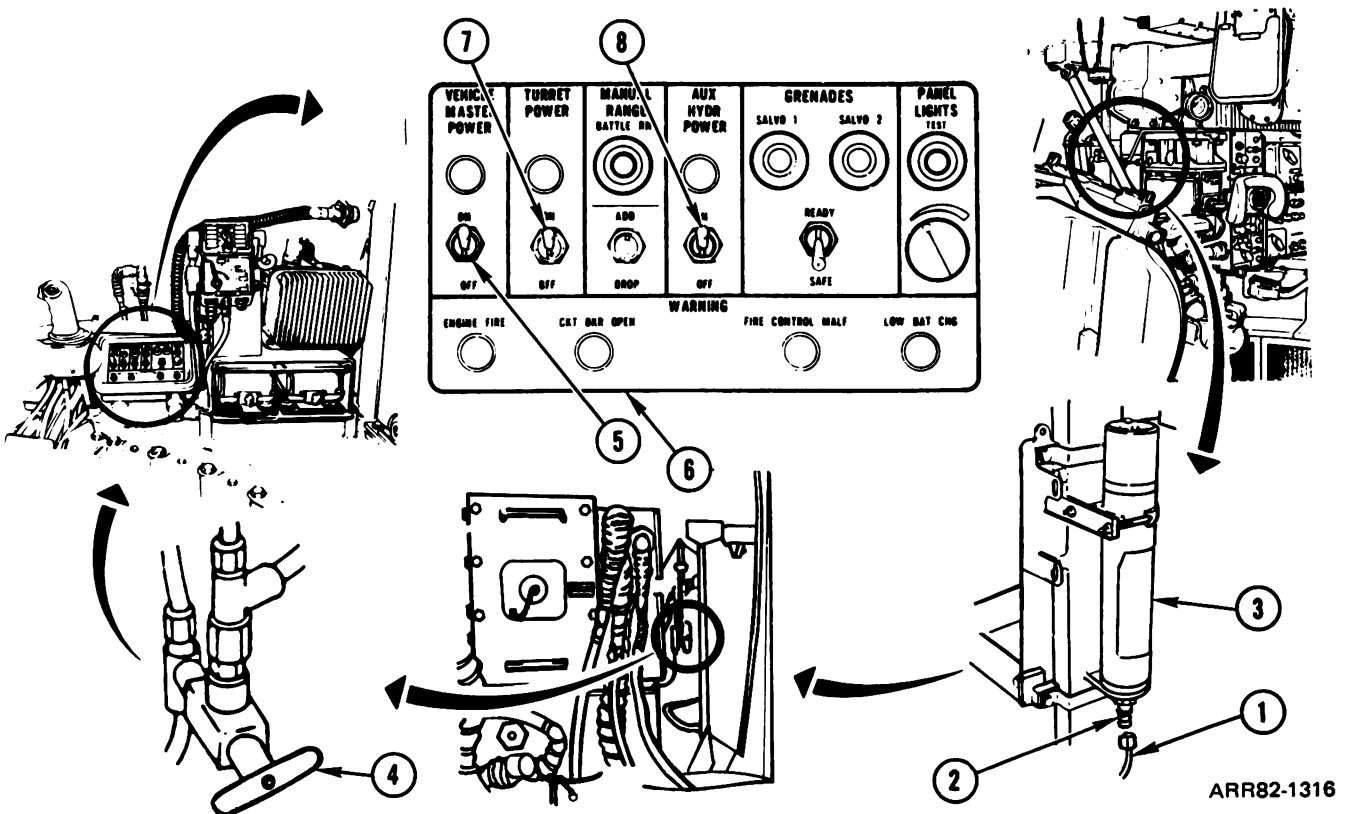
f. Checking for Leaks

A leak check must be performed any time a hydraulic component has been taken off and put back on.

- (1) Pressurize the hydraulic system between 1500 and 1650 pounds-per-square inch, using main hydraulic pump or auxiliary hydraulic powerpack; refer to TM 9-2350-255-10.
- (2) Bleed air from the hydraulic system by doing bleeding procedure specified at the end of your task.
- (3) Check for leaks at all connections.

g. Bleed Manual Elevation Accumulator

- (1) Loosen tube fitting (1) to reducer (2) of accumulator (3) with 9/16-inch and 11/16-inch combination wrenches.
- (2) Turn elevation angle valve (4) clockwise to close.
- (3) Set VEHICLE MASTER POWER switch (5) on commander's control panel (6) to ON.
- (4) Set TURRET POWER switch (7) on commander's control panel (6) to ON.
- (5) Set AUX HYDR POWER switch (8) on commander's control panel (6) to ON.



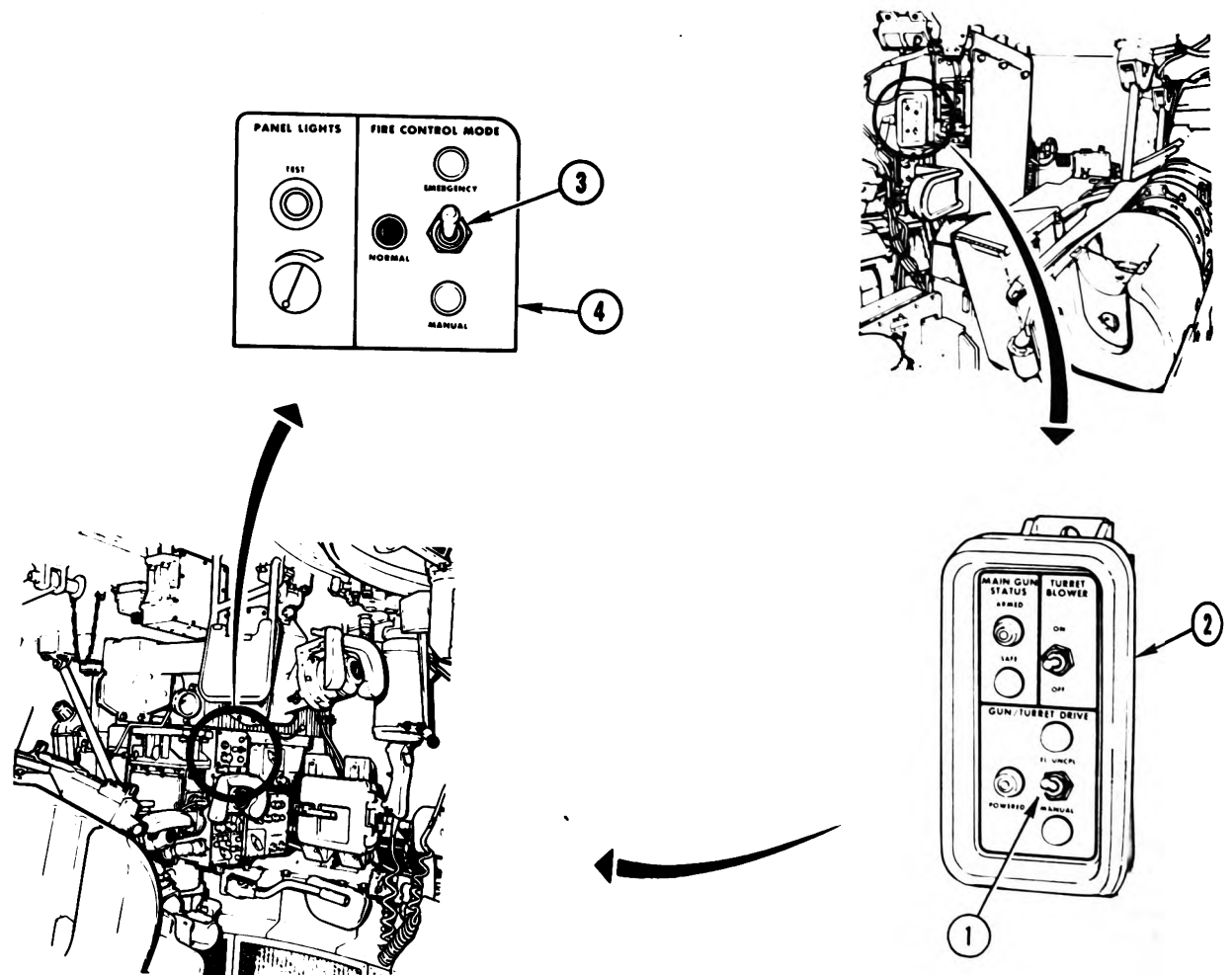
ARR82-1316

4-4. General Maintenance Instructions (Continued)

g. Bleed Manual Elevation Accumulator (Continued)

(6) Set GUN TURRET DRIVE switch (1) on loader's panel (2) to POWERED.

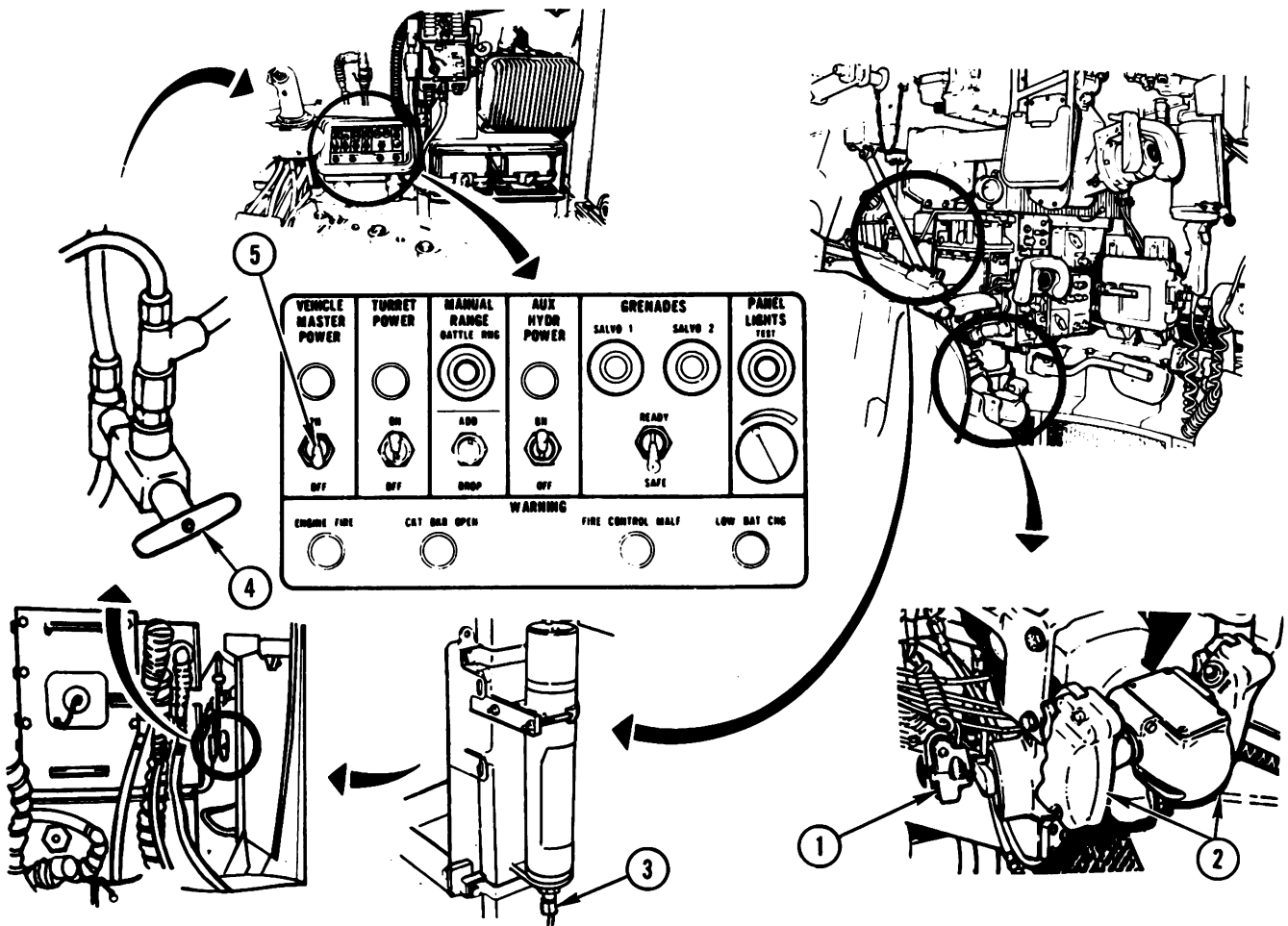
(7) Set FIRE CONTROL MODE switch (3) on gunner's primary sight panel (4) to EMERGENCY.



4-4. General Maintenance Instructions (Continued)

g. Bleed Manual Elevation Accumulator (Continued)

- (8) Operate gunner's manual elevation handle (1) and gunner's power elevation handles (2) at the same time to lower gun slowly. Look for hydraulic fluid coming out of fitting (3). When fluid comes out clear, tighten fitting (3) with 9/16-inch combination wrench.
- (9) Turn angle valve (4) counterclockwise to open.
- (10) Operate main gun with hand pump; refer to TM 9-2350-255-10.
- (11) Turn angle valve (4) clockwise to close.
- (12) Wipe up hydraulic fluid with rags.
- (13) Set VEHICLE MASTER POWER switch (5) to OFF.
- (14) Fill hydraulic reservoir; refer to LO 9-2350-255-12.



ARR82-1318

4-4. General Maintenance Instructions (Continued)

h. Removing or Installing Electrical Connectors

- (1) If connectors cannot be removed by hand, use slip joint conduit style pliers with plastic jaw inserts to loosen them. Finish removal by hand. Straighten any bent contacts with long round nose pliers. When installing connectors on larger harnesses, another soldier will be needed to help align the mating ends of the cable. Make sure that contacts and keyways line up. Tighten twist-snap-type connectors until a click is heard. Tighten screw-on-type connectors until the ratchet noise is heard to indicate that connectors are tight.
- (2) Put a protective cap or cover over any electrical connector that is left uncovered. Cover connectors on any item being moved to or from the tank. Take off covers when connectors are put back.
- (3) Look at connectors for broken, missing, or pushed-in contacts before making any connections. If a connector is bad, notify support maintenance.
- (4) Tighten connectors by hand whenever tools are not called out.

4-5. Traverse Servo

Task	Title	Frames
1	Replace Traverse Servo Filter or Pressure Differential Indicator	1 - 3
2	Bleed Air from Traverse Hydraulic System	4 - 6

TASK 1. Replace Traverse Servo Filter or Pressure Differential Indicator**Applicability:** All Models**Common Tools:**

Bar, pry
 Extension, socket wrench, 3/8-inch square drive, 5-inch
 Handle, socket wrench, ratchet, 3/8-inch square drive
 Handle, socket wrench, hinged, 1/2-inch square drive
 Socket, socket wrench, 3/8-inch square drive, 7/16-inch
 Socket, socket wrench, 1/2-inch square drive, 1-inch
 Wrench, torque, 0 to 600 inch-pounds

Special Tools: None**Supplies:**

NOTE: Expendable supplies are defined in appendix A.
 Dry cleaning solvent, P-D-680 (Item 21)
 Fluid, hydraulic, MIL-H-46170 (Item 23)
 Indicator, pressure differential (19207) 12283369
 Kit, filter element (19204) 5911304
 Packing, preformed (96906) MS28778-8
 Packing, preformed (96906) MS28778-14
 Rag, wiping (Item 45)

Personnel: One**Equipment Condition:**

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

- 1 Traverse turret to gain access to servo from driver's seat, and then lock turret; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.

FRAME 1

Remove Pressure Differential Indicator:

NOTE

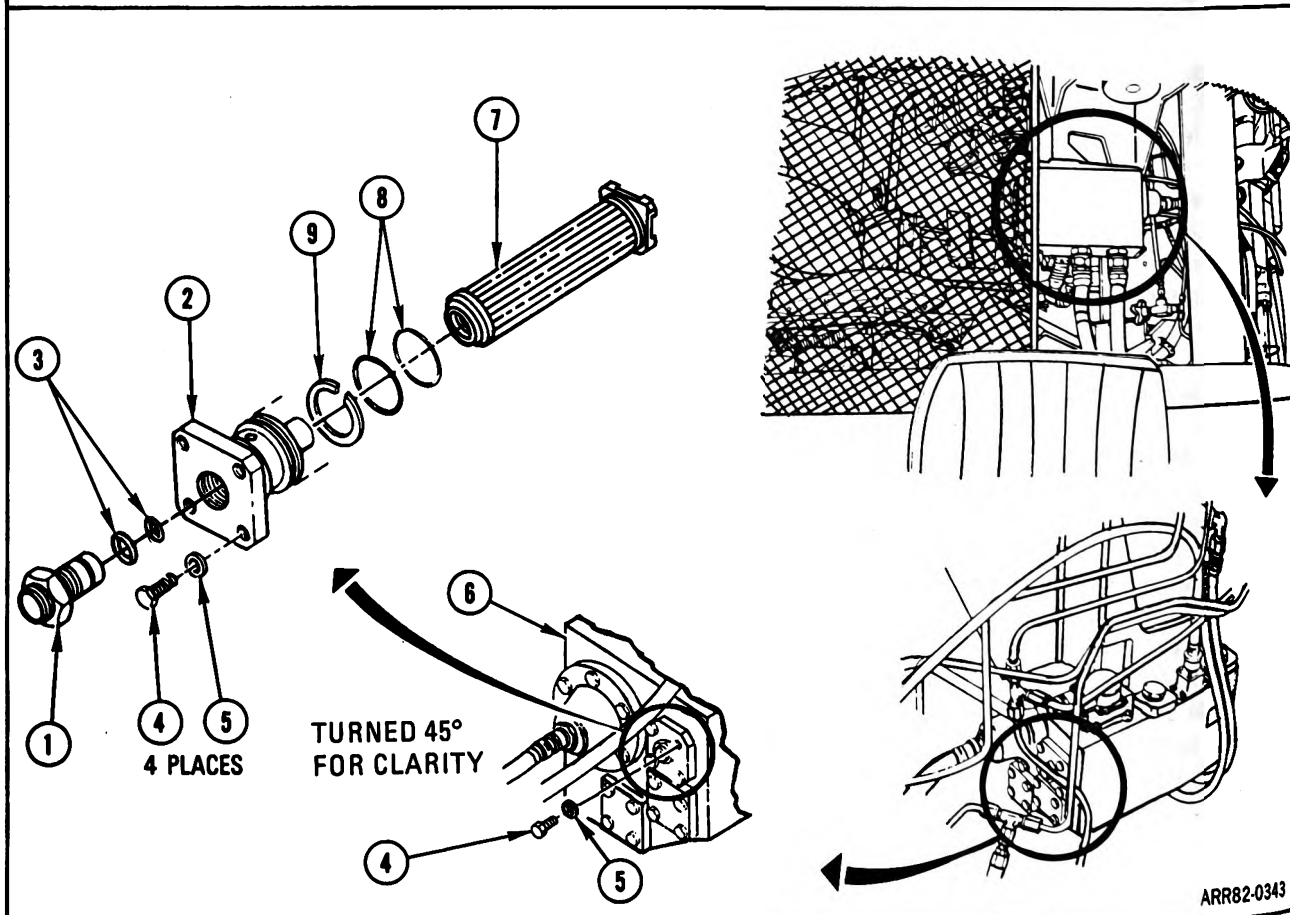
Read para. 4-4, on removing hydraulic connections, before doing any work.

1. Unscrew and take out differential indicator (1) from filter adapter (2) with 1-inch socket and handle.
2. Take off two packings (3) from indicator (1). Get rid of packings (3). Turn in indicator (1).

Remove Traverse Servo Filter:

3. Unscrew and take out four screws (4) and lockwashers (5) with 7/16-inch socket, and handle. Get rid of lockwashers (5). Lift out adapter (2) from housing (6) with pry bar.
4. Pull filter (7) off adapter (2). Turn in filter (7).
5. Take two packings (8) and one retainer (9) from adapter (2). Get rid of packings (8) and retainer (9).
6. Look at adapter (2) for cracks or out of round holes. If bad turn in. If OK set aside for later use.

GO TO FRAME 2



ARR82-0343

FRAME 2

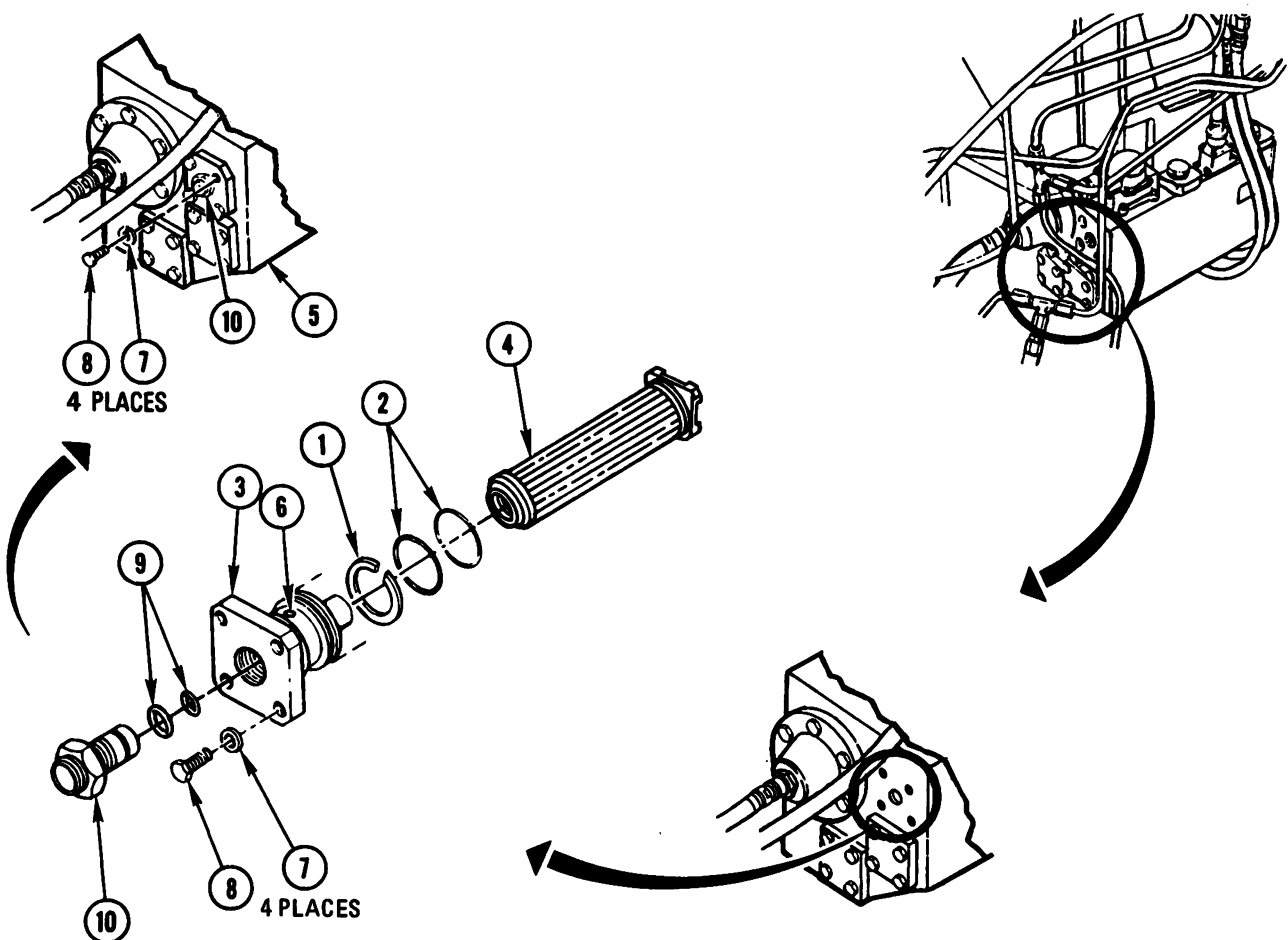
Install Traverse Servo Filter:

1. Put new retainer (1) and two new packings (2) on adapter (3). Put new filter (4) on adapter (3).
2. Put adapter (3) into housing (5) with hole (6) in up position. Put four new lockwashers (7) on screws (8). Screw in and tighten screws (8) with 7/16-inch socket, and handle.
3. Torque screws (8) between 125 and 150 pound inches (14 and 17 Newton meters).

Install Pressure Differential Indicator:

4. Put two new packings (9) on new indicator (10).
5. Screw indicator (10) in adapter (3) with 1-inch socket and handle.
6. Bleed air from traverse hydraulic system; refer to task 2.

GO TO FRAME 3



ARR82-0344

FRAME 3

Check Hydraulic Pressure:

NOTE

Read para. 4-4 before doing any work.

1. Set TURRET POWER switch (1) on commander's control panel (2) to ON.
2. Set AUX HYDR POWER switch (3) on commander's control panel (2) to ON. Watch pressure gage (4) and let pressure build up to 300 pounds per square inch, then set switch (3) to OFF. Wait 45 seconds.
3. Set switch (3) to ON. Let pressure build up to 600 pounds per square inch, then set switch (3) to OFF. Wait 45 seconds.
4. Set switch (3) to ON. Let pressure build up to 1000 pounds per square inch, then set switch (3) to OFF. Wait 45 seconds.

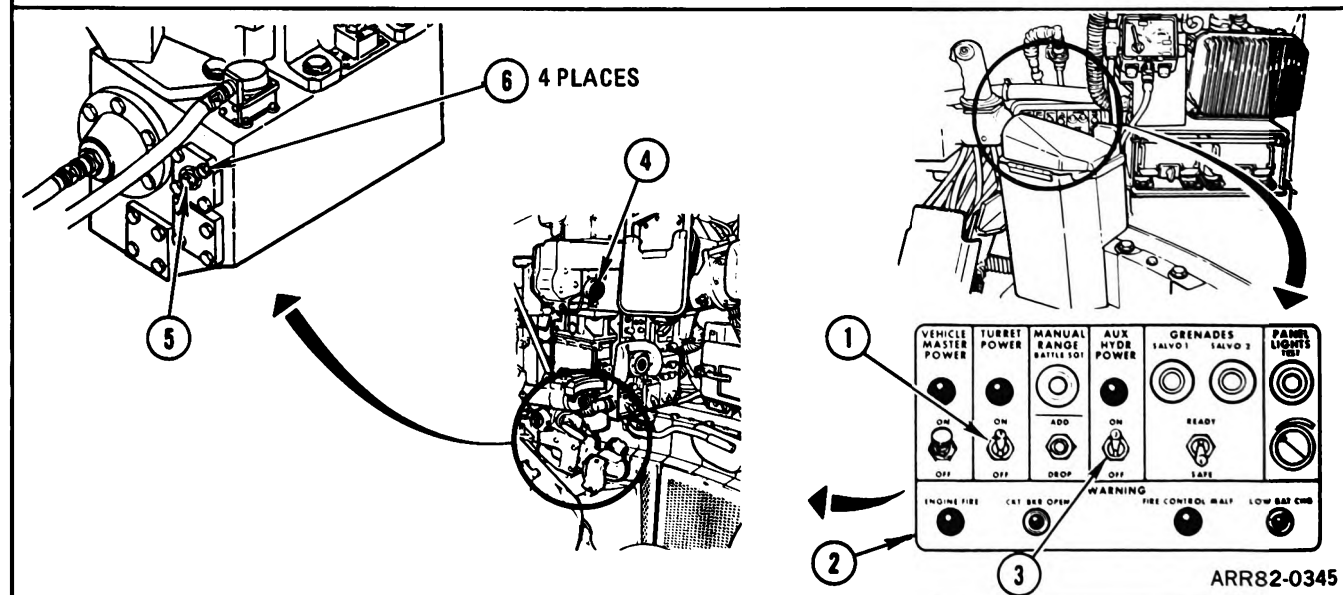
NOTE

If operating pressure of 1550 to 1650 pounds per square inch cannot be reached, troubleshoot hydraulic system.

5. Set switch (3) to ON. Let pressure build up to operating pressure of 1550 to 1650 pounds per square inch, then set switch (3) to OFF. Set switch (1) to OFF.
6. Check traverse servo filter adapter (5) for leaks. If any leaks are found, retighten four screws (6) and do step 5 again until leaking stops.

Follow-on Maintenance: None

TASK 1 ENDS HERE



TASK 2. Bleed Air From Traverse Hydraulic System

Applicability: All Models

Common Tools: None

Special Tools: None

Supplies: None

Personnel: Three

Soldier A: Traverses turret.

Soldier B: Helps Soldier A.

Soldier C: Safety observer outside of tank.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Take main gun out of elevation travel lock; refer to TM 9-2350-255-10.

FRAME 4

Bleed Air From Traverse Hydraulic System:

Soldier C: 1. Make sure area around turret is clear of personnel and equipment.

Soldier B: 2. Start engine; refer to TM 9-2350-255-10.

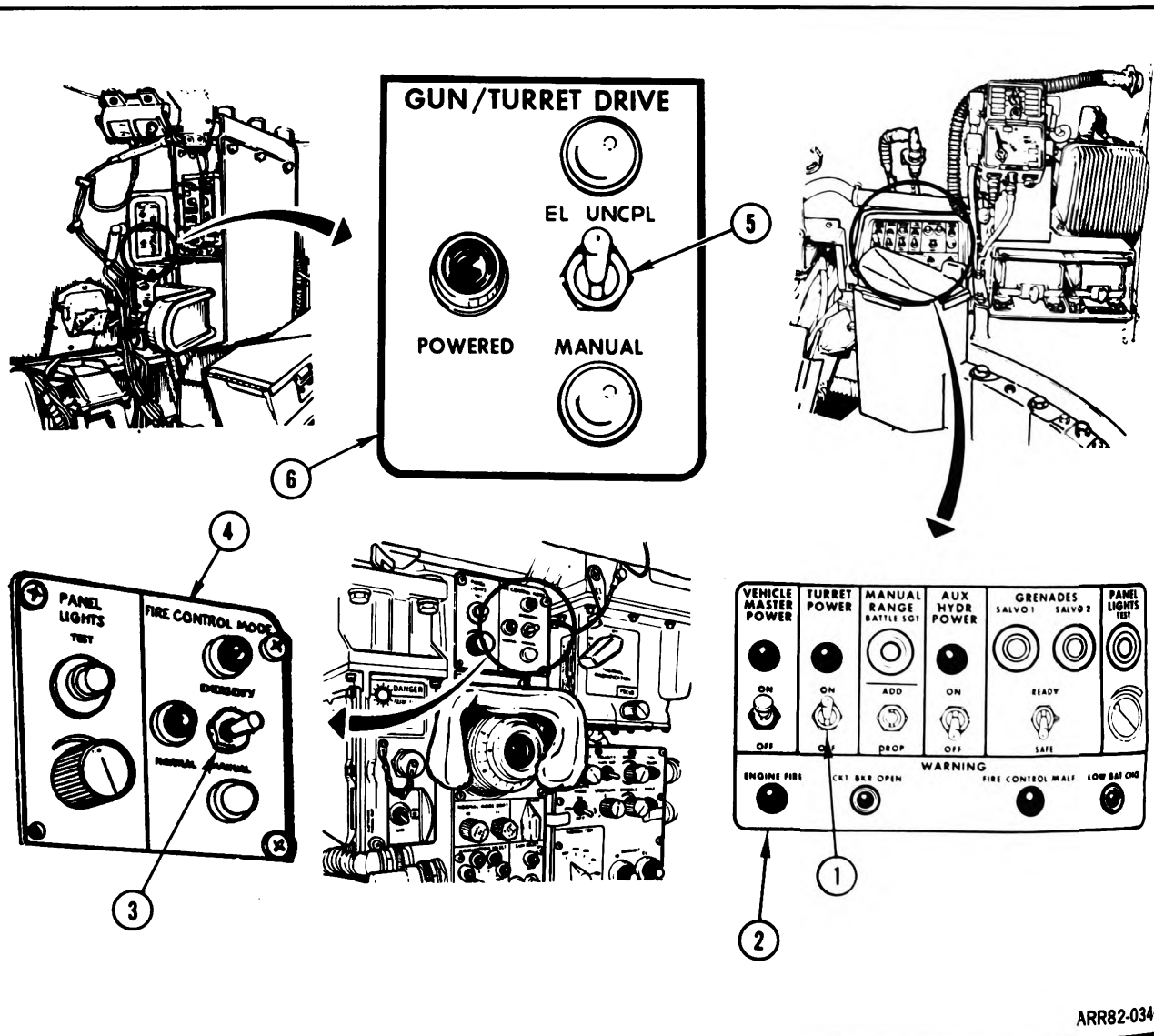
Soldier A: 3. Unlock traverse lock; refer to TM 9-2350-255-10.

Soldier A: 4. Set TURRET POWER switch (1) on commander's control panel (2) to ON.

Soldier A: 5. Set FIRE CONTROL MODE switch (3) on gunner's primary sight panel (4) to NORMAL.

Soldier A: 6. Set GUN/TURRET DRIVE switch (5) on loader's panel (6) to POWERED.

GO TO FRAME 5



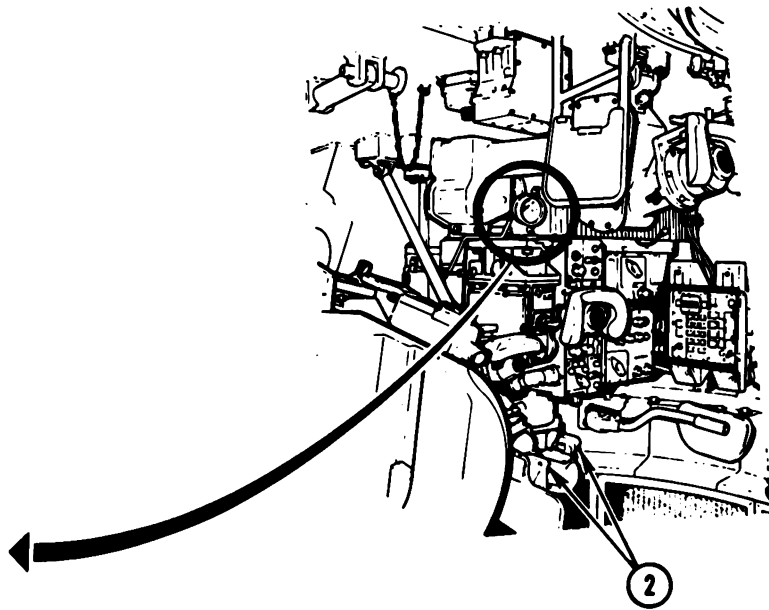
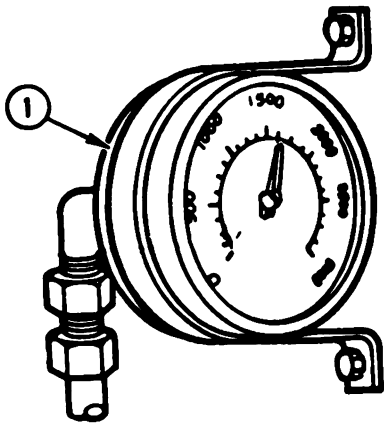
ARR82-0346

FRAME 5**Bleed Air From Traverse Hydraulic System (Continued):**

Soldier A: 1. Look at pressure gage (1) for system operating pressure of 1550 to 1650 pounds per square inch.

Soldier A: 2. Pull back on top of gunner's control handles (2) to raise main gun until main gun clears rear deck.

GO TO FRAME 6



ARR82-0347

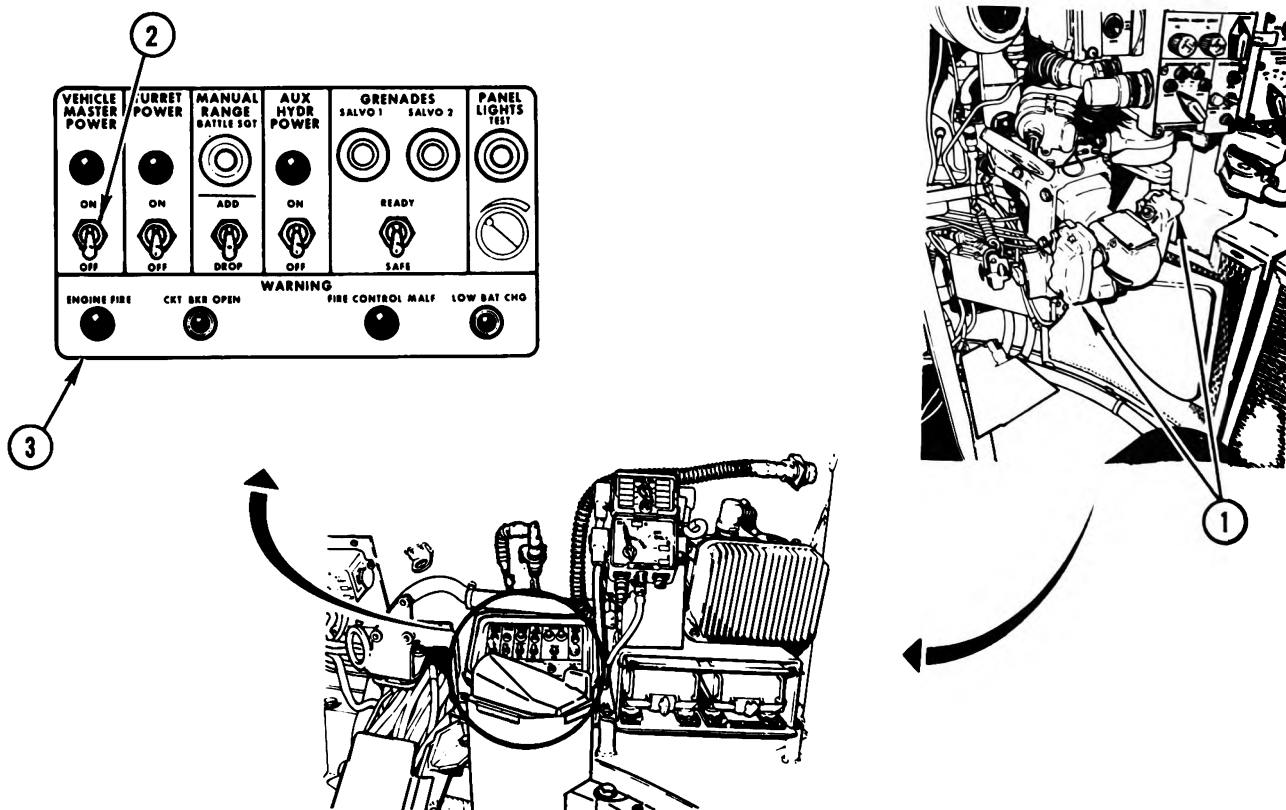
FRAME 6

Bleed Air From Traverse Hydraulic System (Continued):

- Soldier A: 1. Turn gunner's control handles (1) to the left and rotate turret two revolutions to the left.
- Soldier A: 2. Turn gunner's control handles (1) to the right and rotate turret two revolutions to the right.
- Soldier B: 3. Check all connections for leaks. If any leaks are found, retighten connections and do steps 1 and 2 again until leaks are stopped.
- Soldier A: 4. Power down gunner's station; refer to TM 9-2350-255-10.
- Soldier A: 5. Power down loader's station; refer to TM 9-2350-255-10.
- Soldier B: 6. Shut down engine; refer to TM 9-2350-255-10.
- Soldier A: 7. Set VEHICLE MASTER POWER switch (2) on commander's control panel (3) to OFF.

Follow-on Maintenance: None

END OF TRAVERSE SERVO MAINTENANCE



ARR82-0348

4-6. Elevation Servo

Task	Title	Frames
1	Replace Elevation Servo Filter or Pressure Differential Indicator	1 - 3

TASK 1. Replace Elevation Servo Filter or Pressure Differential Indicator

Applicability: All models

Common Tools:

- Handle, socket wrench, hinged, 3/8-inch square drive
- Handle, socket wrench, hinged, 1/2-inch square drive
- Socket, socket wrench, 3/8-inch square drive, 7/16-inch
- Socket, socket wrench, 1/2-inch square drive, 1-inch
- Wrench, torque, 0 to 200 inch-pounds

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Fluid, hydraulic, MIL-H-46170 (Item 23)
 - Indicator, pressure differential (19207) 12283369
 - Kit, filter element (19204) 5911304, NSN 1015-01-096-8583
 - Packing, preformed (96906) MS28778-8
 - Packing, preformed (96906) MS28778-14
 - Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Traverse turret to reach servo from driver's seat, and then lock turret; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.

FRAME 1

Remove Pressure Differential Indicator:

NOTE

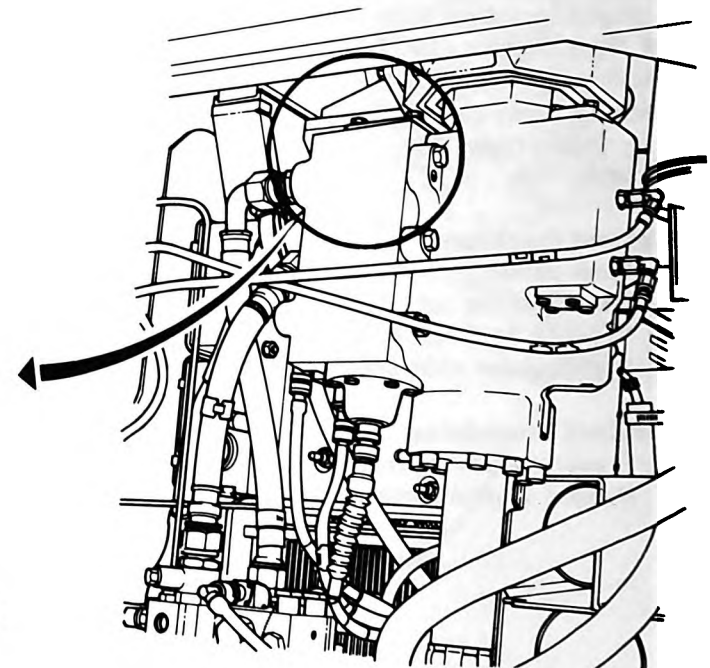
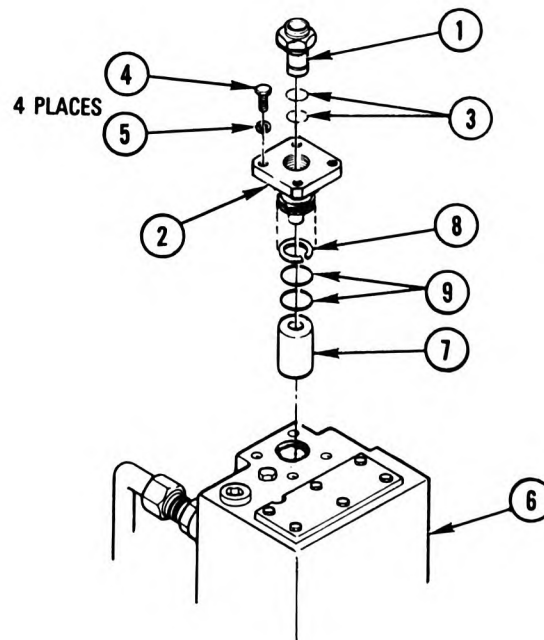
Read para. 4-4 before doing any work.

1. Unscrew and take out indicator (1) from filter adapter (2) with 1-inch socket and handle.
2. Take off two packings (3) from indicator (1). Get rid of packings (3). Turn in indicator (1).

Remove Elevation Servo Filter:

3. Unscrew and take out four screws (4) and lockwashers (5) from filter adapter (2) with 7/16-inch socket and handle. Get rid of lockwashers (5).
4. Pull adapter (2) from servo (6). Pull off filter (7) from adapter (2). Turn in filter (7).
5. Take off retainer (8) and two packings (9) from adapter (2). Get rid of retainer (8) and packings (9).
6. Look at adapter (2) for cracks or stripped threads. If bad turn in. If OK set aside for later use.

GO TO FRAME 2



ARR82-0354

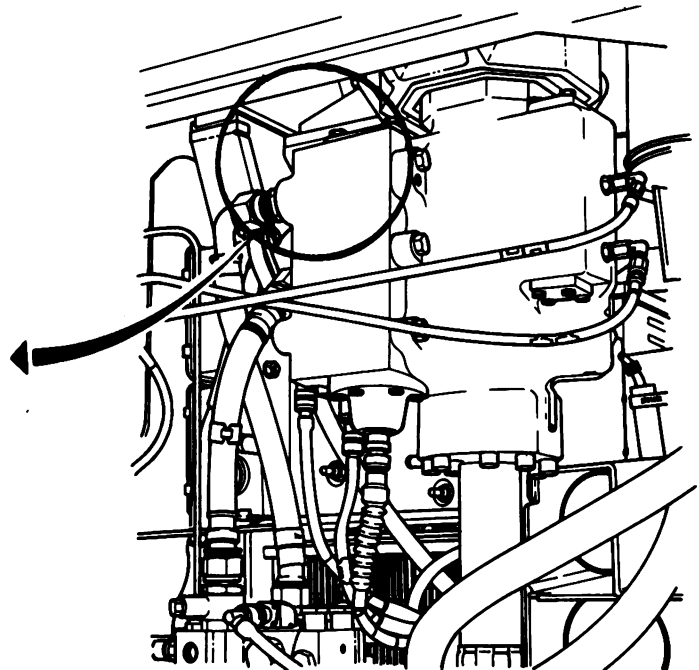
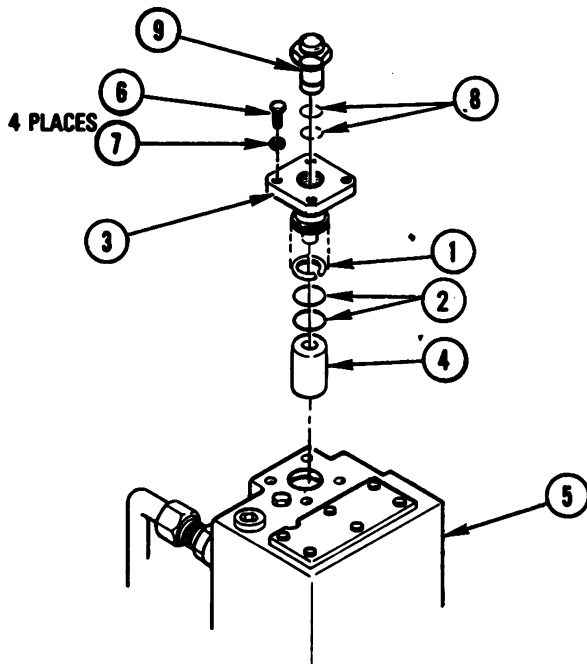
FRAME 2**Install Elevation Servo Filter:**

1. Put new retainer (1) and two new packings (2) on filter adapter (3).
2. Put new filter (4) on adapter (3).
3. Put adapter (3) in servo (5). Line up mounting holes in adapter (3) and servo (5).
4. Screw in four screws (6) and new lockwashers (7). Torque screws (6) between 135 and 160 pound inches (15 and 18 Newton meters) with torque wrench and 7/16-inch socket.

Install Pressure Differential Indicator:

5. Put two new packings (8) on new indicator (9). Screw in and tighten indicator (9) in adapter (3) with 1-inch socket and handle.
6. Fill hydraulic reservoir; refer to LO 9-2350-255-12.
7. Bleed air from elevation hydraulic system; refer to para. 4-8, tasks 7 and 8.

GO TO FRAME 3



ARR82-0355

FRAME 3

Install Elevation Servo Filter (Continued):

1. Set TURRET POWER switch (1) on commander's control panel (2) to ON.
2. Set AUX HYDR POWER switch (3) on commander's control panel (2) to ON. Watch hydraulic pressure gage (4) and let pressure build up to 300 pounds-per-square-inch. Set switch (3) to OFF and wait 45 seconds.
3. Set switch (3) to ON. Let pressure build up to 600 pounds-per-square-inch. Set switch (3) to OFF and wait 45 seconds.
4. Set switch (3) to ON. Let pressure build up to 1000 pounds-per-square-inch. Set switch (3) to OFF and wait 45 seconds.

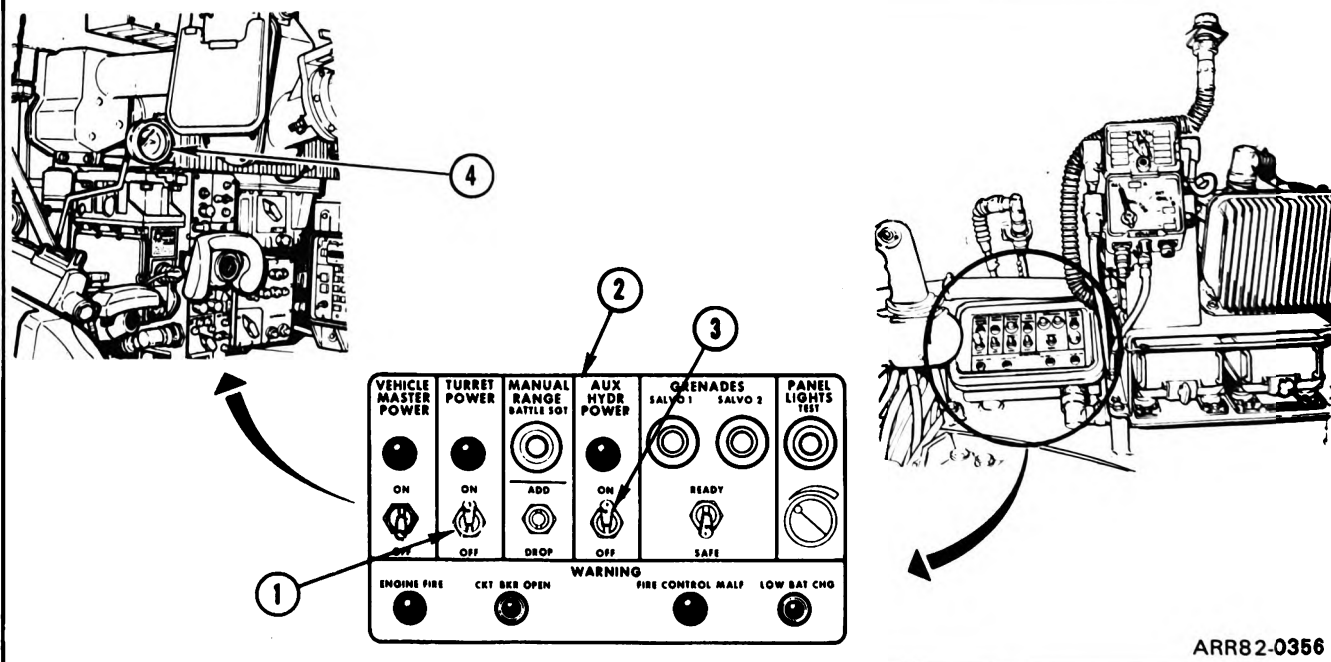
NOTE

If operating pressures of 1550 to 1650 pounds-per-square-inch cannot be reached, troubleshoot hydraulic system.

5. Set switch (3) to ON. Let pressure build up to operating pressure between 1550 to 1650 pounds-per-square-inch. Set switch (3) to OFF.
6. Set TURRET POWER switch (1) on commander's control panel (2) to OFF.
7. Check for leaks. If any are found, tighten all connections until leaks are stopped.

Follow-on Maintenance: None

END OF ELEVATION SERVO MAINTENANCE



ARR82-0356

4-7. Hydraulic System

Task	Title	Frames
1	Remove Hose Assembly, Hydraulic Turret Valve to Elevation Servo Mechanism Assembly	1 - 2
2	Install Hose Assembly, Hydraulic Turret Valve to Elevation Servo Mechanism Assembly	3
3	Remove Metal Tube Assembly, Dial Pressure Gage, Hydraulic Turret Valve to Bracket	4 - 6
4	Install Metal Tube Assembly, Dial Pressure Gage, Hydraulic Turret Valve to Bracket	7
5	Replace Metal Tube Assembly, Dial Pressure Gage Bracket to Water Container Bracket	8 - 10
6	Replace Metal Tube Assembly, Water Container Bracket to Dial Pressure Gage	11 - 12
7	Replace Bracket	13 - 14
8	Remove Hose Assembly, Hydraulic Turret Valve to Metal Tube Assembly	15 - 17
9	Install Hose Assembly, Hydraulic Turret Valve to Metal Tube Assembly	18 - 19
10	Replace Metal Tube Assembly to Hull/Turret Slipring Assembly	20 - 22
11	Remove Metal Tube Assembly, Ammo Door Hydraulic Actuator, Hydraulic Turret Valve to Nipple Behind 7.62 Millimeter Ammunition Box	23 - 25
12	Install Metal Tube Assembly, Ammo Door Hydraulic Actuator, Hydraulic Turret Valve to Nipple Behind 7.62 Millimeter Ammunition Box	26 - 27
13	Remove Metal Tube Assembly, Ammo Door Hydraulic Actuator, Nipple Behind 7.62 Millimeter Ammunition Box to Hose Assembly	28 - 29

4-7. Hydraulic System (Continued)

Task	Title	Frames
14	Install Metal Tube Assembly, Ammo Door Hydraulic Actuator, Nipple Behind 7.62 Millimeter Ammunition Box to Hose Assembly	30 - 31
15	Replace Hose Assembly, Ammo Door Hydraulic Actuator	32 - 34
16	Replace Coupling Assembly, Ammo Door Hydraulic Actuator	35
17	Replace Metal Tube Assembly, Ammo Door Hydraulic Actuator to Coupling Assembly	36 - 40
18	Remove Hose Assembly, Hydraulic Turret Valve to Traverse Servomechanism Assembly	41 - 42
19	Install Hose Assembly, Hydraulic Turret Valve to Traverse Servomechanism Assembly	43
20	Replace Hose Assembly, Traverse Servomechanism Assembly to Turret Traversing Mechanism Assembly	44 - 45
21	Replace Angle Valve, Angle Bracket	46 - 47
22	Remove Angle Valve	48 - 49
23	Install Angle Valve	50
24	Replace Metal Tube Assembly, Elevation Hand Pump Assembly, Port MD to Bracket	51 - 53
25	Replace Metal Tube Assembly, Elevation Hand Pump Assembly, Port ME to Tube Tee	54 - 56
26	Replace Metal Tube Assembly, Elevation Hand Pump Assembly Inlet to Tube Tee	57 - 59
27	Replace Metal Tube Assembly, Elevation Hand Pump Assembly, Port CD to Tube Tee	60 - 62
28	Replace Hose Assembly, Elevating Mechanism Assembly to Bracket	63 - 65

4-7. Hydraulic System (Continued)

Task	Title	Frames
29	Remove Metal Tube Assembly, Hydraulic Turret Valve to Angle Valve	66 - 67
30	Install Metal Tube Assembly, Hydraulic Turret Valve to Angle Valve	68
31	Replace Regulating Valve	69 - 70
32	Replace Metal Tube Assembly, Regulating Valve to Tube Tee	71 - 72
33	Replace Metal Tube Assembly, Elevation Hand Pump Accumulator to Tube Tee	73 - 74
34	Remove Hose Assembly, Hydraulic Turret Valve to Main Accumulator	75 - 76
35	Install Hose Assembly, Hydraulic Turret Valve to Main Accumulator	77
36	Replace Test Adapter on Hydraulic Turret Valve	78 - 79
37	Replace Fluid Pressure Dampener, Test Adapter, or Check Valve on Manual Elevation Hand Pump	80

TASK 1. Remove Hose Assembly, Hydraulic Turret Valve to Elevation Servo Mechanism Assembly

Applicability: All Models

Common Tools:

- Wrench, open end, 1-1/2 inch (two required)
- Wrench, open end, 1-5/8 inch

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
- Pencil, writing (Item 42)
- Protective caps and plugs (Bulk)
- Rag, wiping (Item 45)
- Tag, marker (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

To remove pressure hose assembly, do the following:

1. Put main gun in elevation lock; refer to TM 9-2350-255-10.
2. Manually traverse turret until hydraulic turret valve lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
3. Reduce system hydraulic pressure to zero; refer to para. 4-4.
4. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.

To remove return hose assembly, do the following:

1. Put main gun in elevation lock; refer to TM 9-2350-255-10.
2. Manually traverse turret until hydraulic turret valve lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
3. Reduce system hydraulic pressure to zero; refer to para. 4-4.
4. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.
5. Remove metal tube assembly, hydraulic turret valve to angle valve; refer to task 29.

FRAME 1

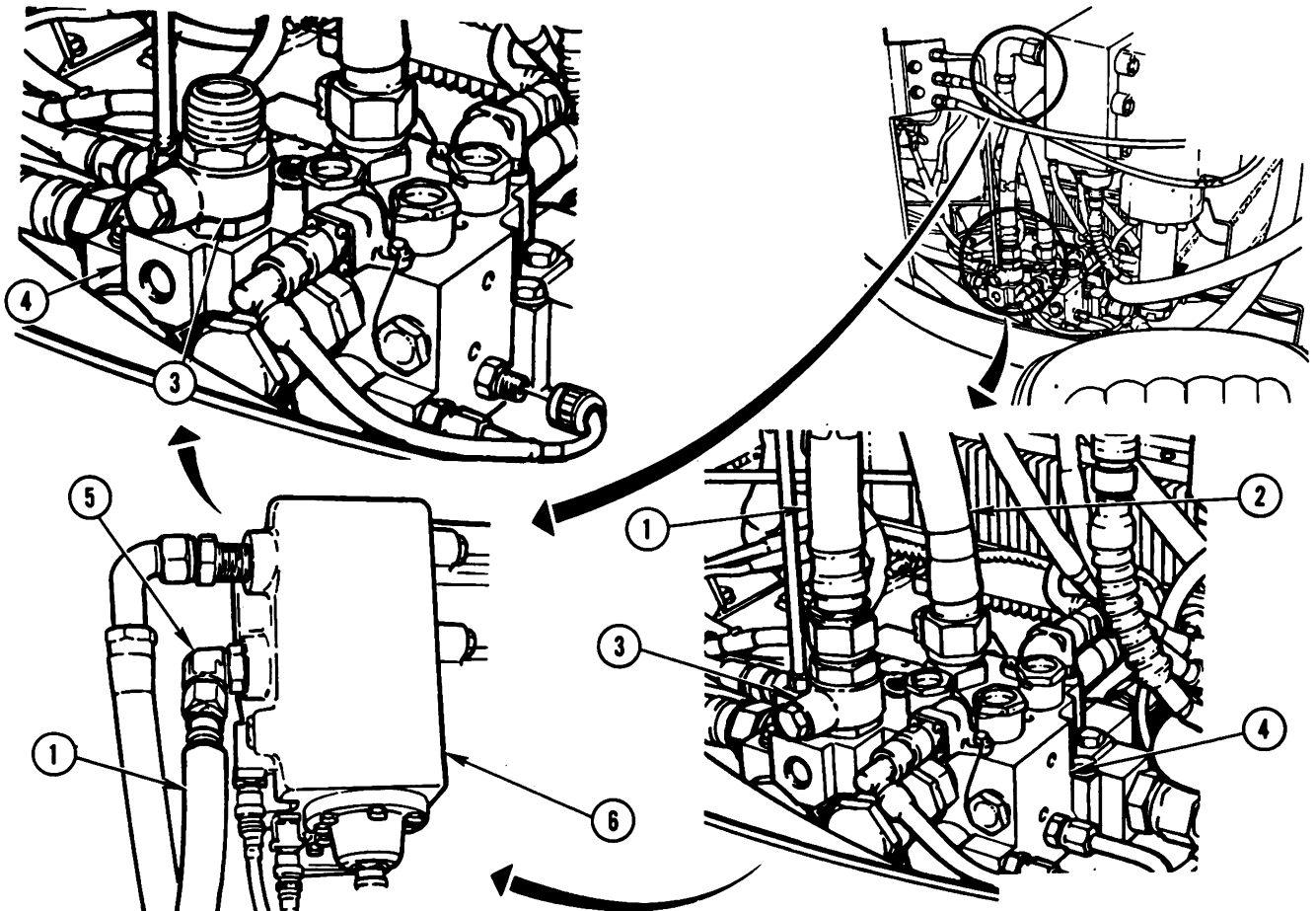
Remove Hose Assembly:

NOTE

- Read para. 4-4 before doing any work.
- Use this task to take off pressure hose (1) or return hose (2). Pressure hose (1) is shown.

1. Unscrew and take hose (1) off test adapter (3) at hydraulic turret valve (4) with two 1-1/2 inch wrenches.
2. Unscrew and take hose assembly (1) off tube nipple (5) at elevation servo (6) with 1-1/2 inch and 1-5/8 inch wrenches.
3. Look at hose assembly (1) for cracks, breaks, or stripped threads. If bad turn in. If OK set aside for later use.

GO TO FRAME 2



ARR82-0981

FRAME 2

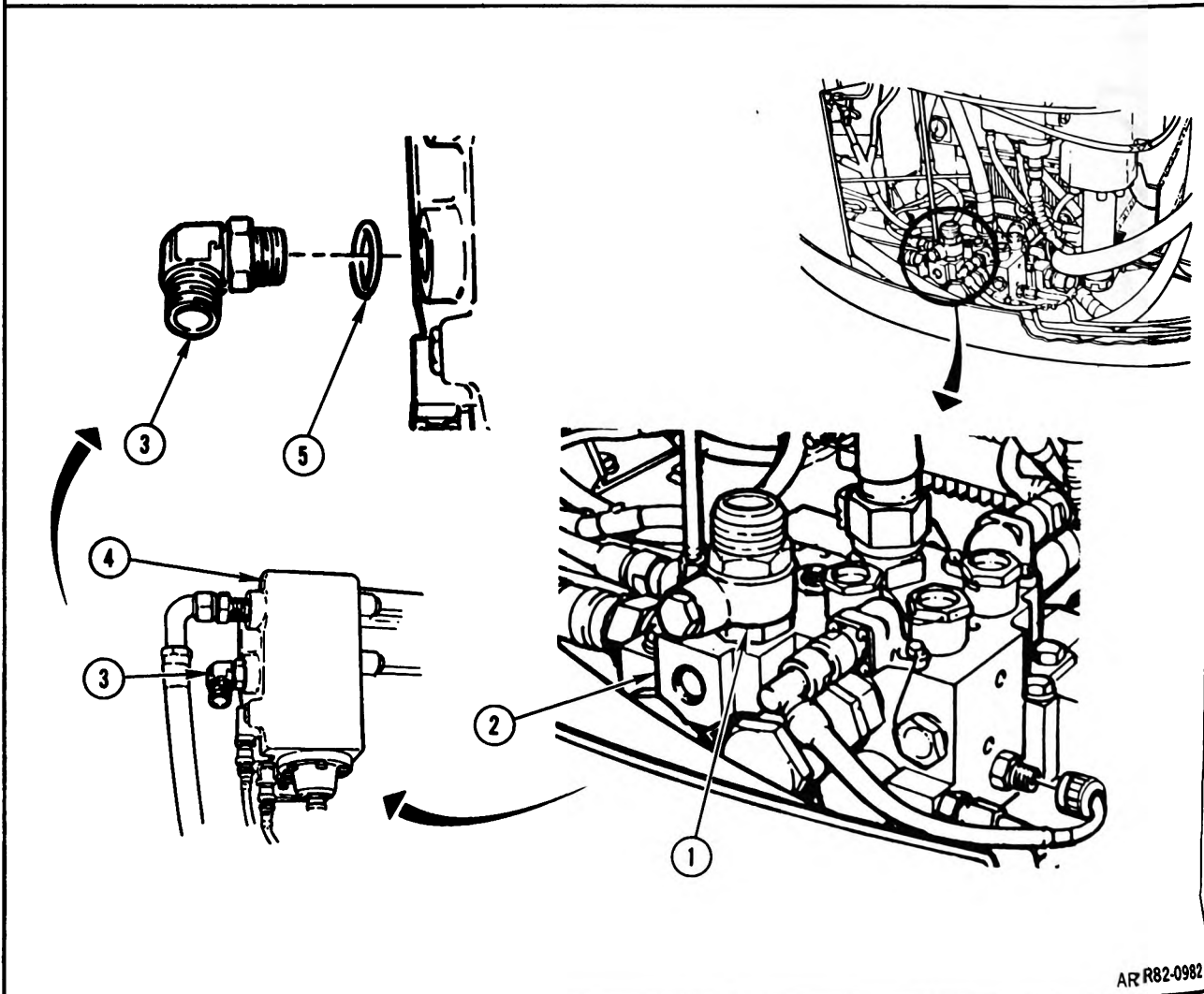
Inspect Fittings:

1. Look at test adapter (1) on hydraulic turret valve (2) for cracks, breaks, or stripped threads. If bad replace test adapter; refer to task 36. If OK go to step 2.
2. Look at tube nipple (3) on elevation servo (4) for cracks, breaks, or stripped threads. If bad do steps 3 and 4. If OK TASK 1 ENDS HERE.
3. Unscrew and take out nipple (3) and packing (5) with 1-5/8 inch and 1-1/2 inch wrenches. Turn in nipple (3). Get rid of packing (5).
4. Screw on, but do not tighten, new nipple (3) and new packing (5) with 1-5/8 inch wrench.

Follow-on Maintenance:

NOTE: To install hose assembly, hydraulic turret valve to elevation servomechanism assembly, refer to task 2.

TASK 1 ENDS HERE



AR R82-0982

TASK 2. Install Hose Assembly, Hydraulic Turret Valve to Elevation Servo Mechanism Assembly

Applicability: All Models

Common Tools:

- Wrench, open end, 1-3/8 inch
- Wrench, open end, 1-1/2 inch (two required)
- Wrench, open end, 1-5/8 inch

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove hose assembly, hydraulic turret valve to elevation servomechanism assembly; refer to task 1.

FRAME 3

Install Hose:

NOTE

- Read para. 4-4 before doing any work.
- Use this task to put on pressure hose (1) or return hose (2). Pressure hose (1) is shown.

1. Screw on hose (1) to test adapter (3) on hydraulic turret valve (4). Screw on other end of hose (1) to tube nipple (5) on elevation servo (6).
2. Tighten hose (1) to test adapter (3) with two 1-1/2 inch wrenches. Tighten other end of hose (1) to tube nipple (5) with 1-3/8 inch and 1-1/2 inch wrenches.
3. Tighten nut (7) on tube nipple (5) with 1-5/8 inch and 1-1/2 inch wrenches.

Follow-on Maintenance:

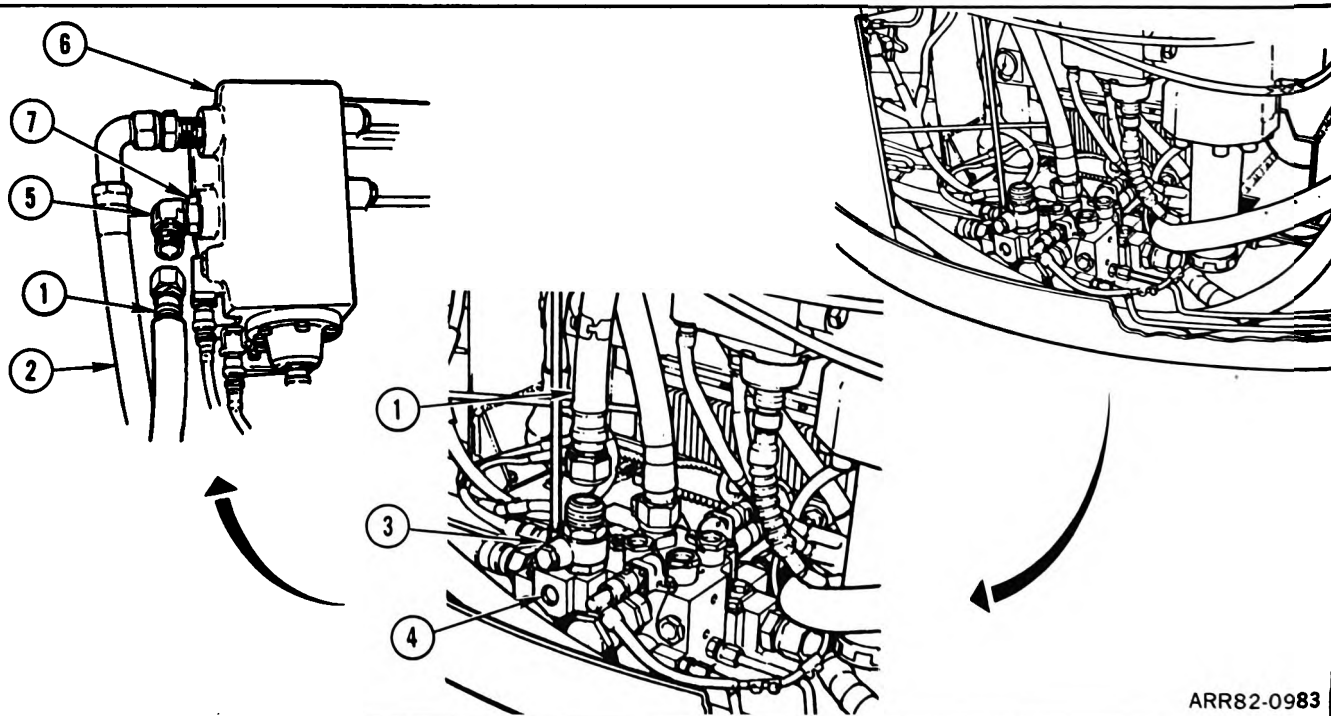
After installing pressure hose assembly, do the following:

1. Bleed air from elevation mechanism; refer to para. 4-8, task 8.
2. Fill hydraulic reservoir; refer to LO 9-2350-255-12.

After installing return hose assembly, do the following:

1. Install metal tube assembly, hydraulic turret valve to angle valve; refer to task 30.
2. Bleed air from elevation mechanism; refer to para. 4-8, task 8.
3. Fill hydraulic reservoir; refer to LO 9-2350-255-12.

TASK 2 ENDS HERE



ARR82-0983

TASK 3. Remove Metal Tube Assembly, Dial Pressure Gage, Hydraulic Turret Valve to Bracket

Applicability: All Models

Common Tools:

- Wrench, combination, 9/16-inch
- Wrench, combination, 11/16-inch (two required)

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Pencil, writing (Item 42)
 - Protective caps and plugs (Bulk)
 - Rag, wiping (Item 45)
 - Tag, marker (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until hydraulic turret valve lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.

FRAME 4

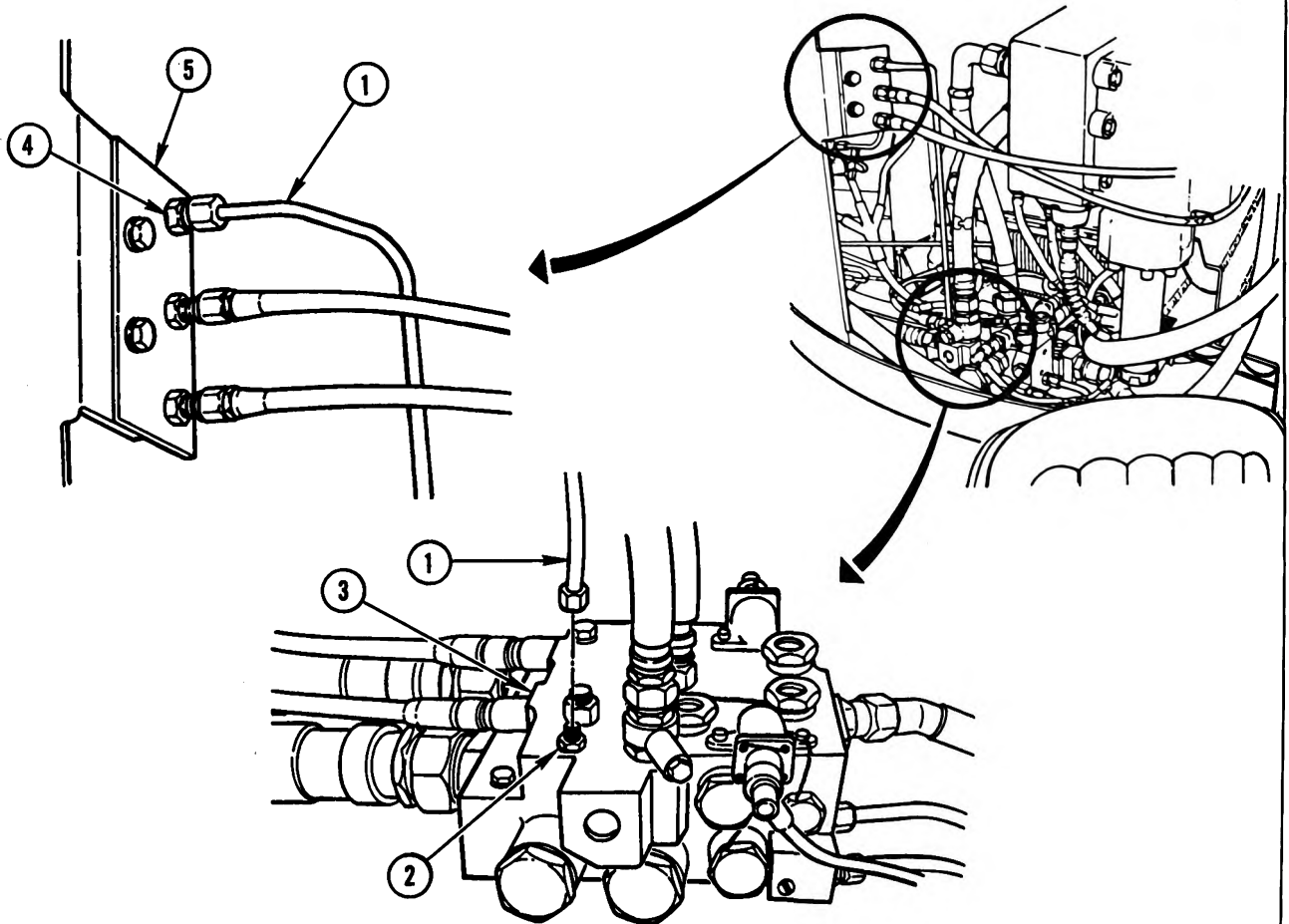
Remove Tube Assembly:

NOTE

Read para. 4-4 before doing any work.

1. Unscrew and take off metal tube assembly (1) from fluid pressure dampener (2) on hydraulic turret valve (3) with 9/16-inch and 11/16-inch wrenches.
2. Unscrew and take off tube (1) from tube nipple (4) at bracket (5) with 9/16-inch and 11/16-inch wrenches.
3. Look at tube (1) for cracks, breaks, or stripped threads. If bad turn in. If OK set aside for later use.

GO TO FRAME 5

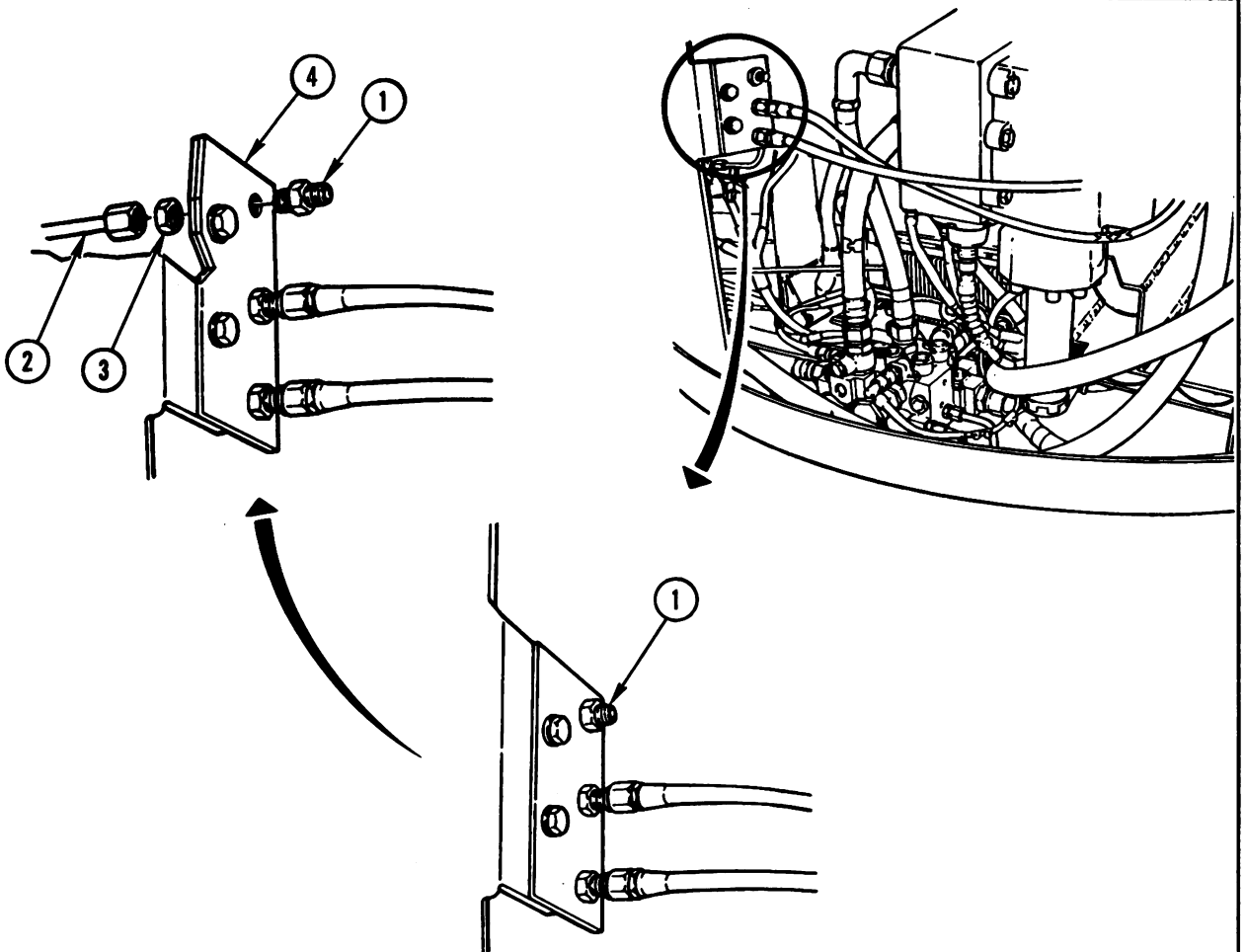


ARR82-0984

FRAME 5**Inspect Fittings:**

1. Look at tube nipple (1) for cracks, breaks, or stripped threads. If bad do steps 2 through 5. If OK go to frame 6.
2. Unscrew and take metal tube assembly (2) off nipple (1) with 9/16-inch and 11/16-inch wrenches.
3. Unscrew and take off tube fitting lock nut (3) and nipple (1) from bracket (4) with two 11/16-inch wrenches. Turn in nipple (1).
4. Put new nipple (1) in bracket (4). Screw on and tighten new lock nut (3) with two 11/16-inch wrenches.
5. Screw on and tighten tube (2) to nipple (1) with 9/16-inch and 11/16-inch wrenches.

GO TO FRAME 6



ARR82-0985

FRAME 6

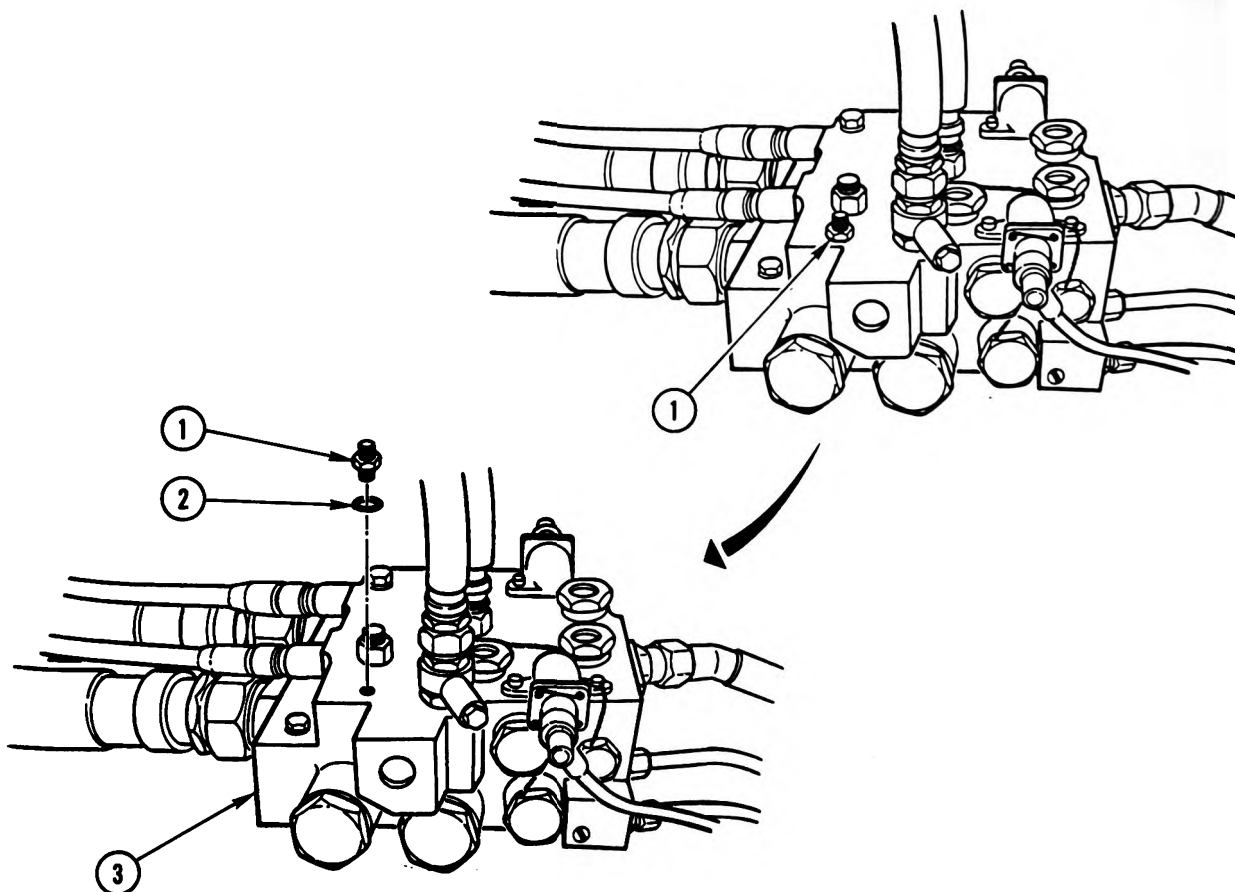
Inspect Fittings (Continued):

1. Look at dampener (1) for cracks, breaks, or stripped threads. If bad do steps 2 and 3. If OK, TASK 3 ENDS HERE.
2. Unscrew and take out dampener (1) and packing (2) from hydraulic turret valve (3) with 11/16-inch wrench. Turn in dampener (1). Get rid of packing (2).
3. Screw in and tighten new dampener (1) and new packing (2) with 11/16-inch wrench.

Follow-on Maintenance:

NOTE: To install metal tube assembly, dial pressure gage, hydraulic turret valve to bracket, refer to task 4.

TASK 3 ENDS HERE



ARR82-0986

TASK 4. Install Metal Tube Assembly, Dial Pressure Gage, Hydraulic Turret Valve to Bracket

Applicability: All Models

Common Tools:

- Wrench, combination, 9/16-inch
- Wrench, combination, 11/16-inch

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove metal tube assembly, dial pressure gage, hydraulic turret valve to bracket; refer to task 3.

FRAME 7

Install Tube Assembly:

NOTE

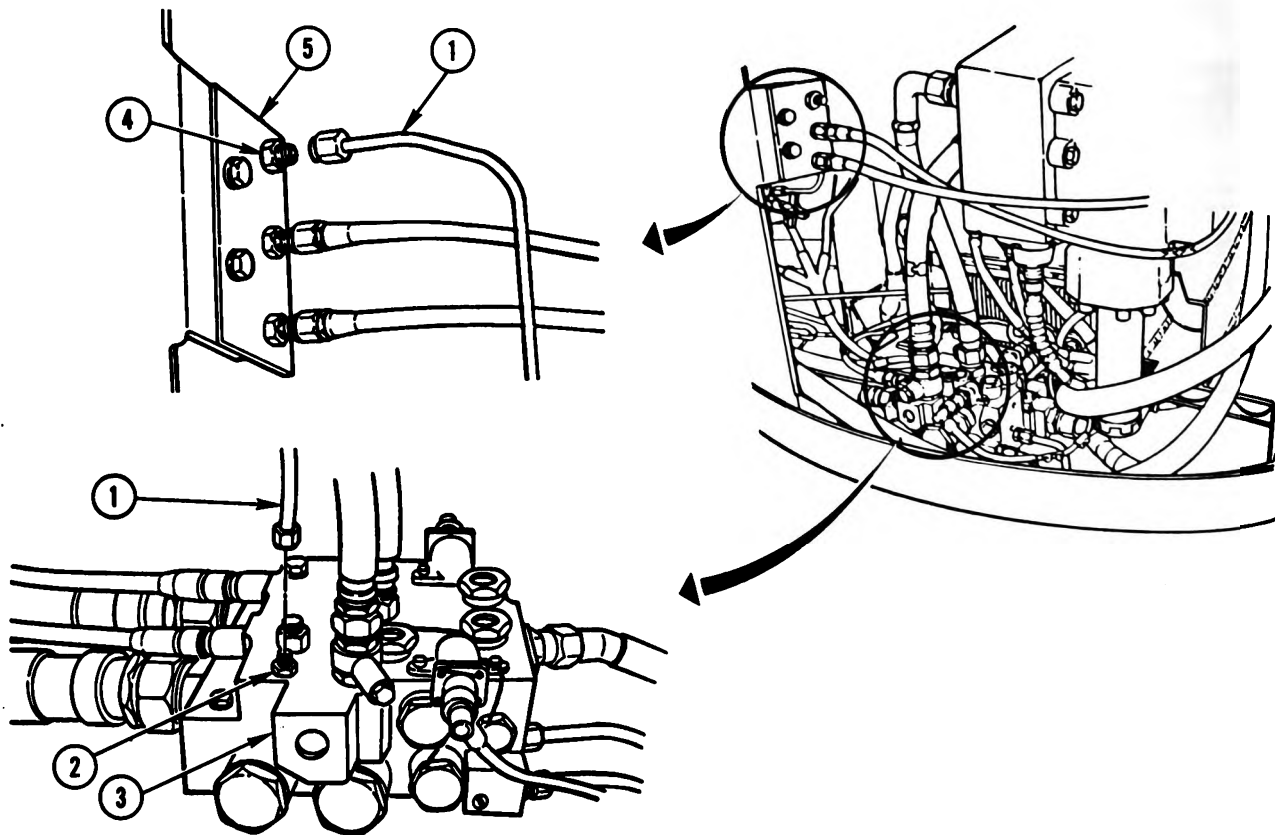
Read para. 4-4 before doing any work.

1. Screw on tube (1) to dampener (2) on hydraulic turret valve (3).
2. Screw on tube (1) to nipple (4) on bracket (5).
3. Tighten tube (1) to dampener (2) and nipple (4) with two wrenches.

Follow-on Maintenance:

1. Bleed air from dial pressure gage; refer to para. 4-10, task 12.
2. Fill hydraulic reservoir; refer to LO 9-2350-255-12.

TASK 4 ENDS HERE



ARR82-0987

TASK 5. Replace Metal Tube Assembly, Dial Pressure Gage Bracket to Water Container Bracket

Applicability: All Models

Common Tools:

- Wrench, combination, 7/16-inch
- Wrench, combination, 1/2-inch
- Wrench, combination, 9/16-inch
- Wrench, combination, 11/16-inch (two required)

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Lockwasher (96906) MS35333-40
 - Pencil, writing (Item 42)
 - Protective caps and plugs (Bulk)
 - Rag, wiping (Item 45)
 - Tag, marker (Item 54) (as required)
 - Tube Assembly (19207) 12304632

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until hydraulic turret valve lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.

FRAME 8

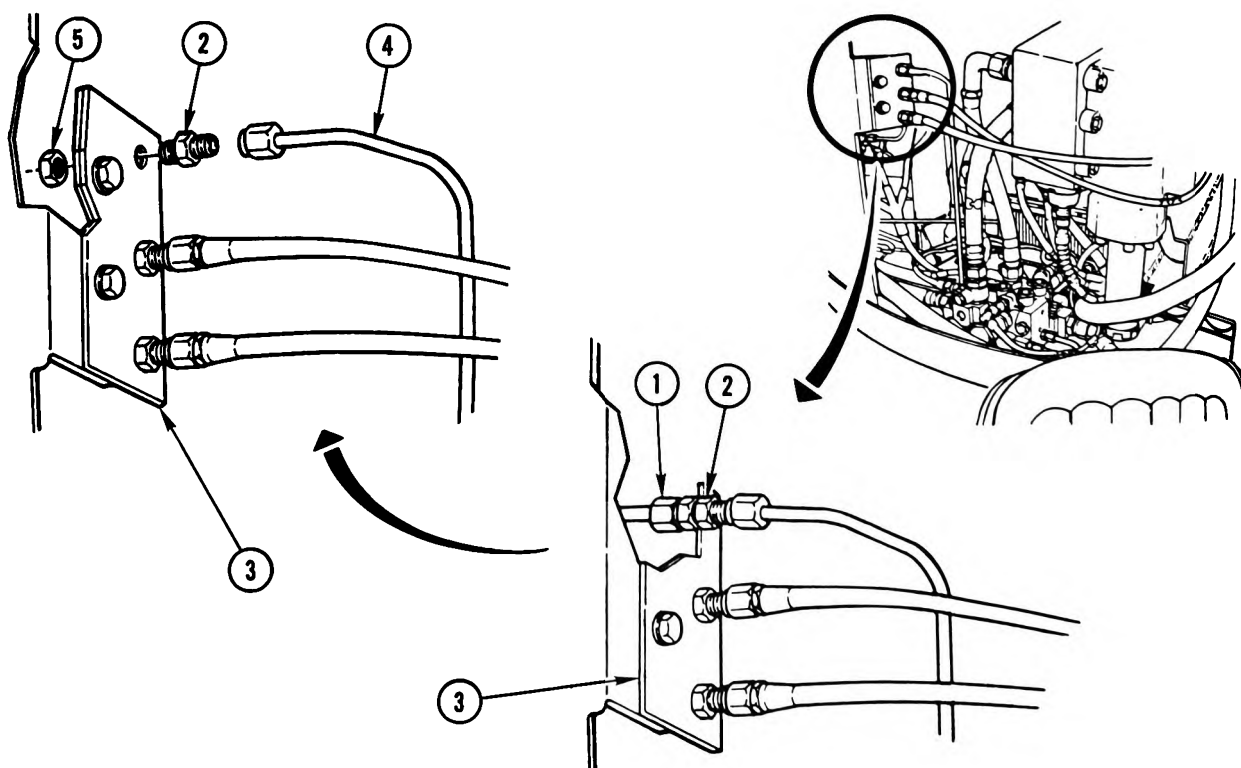
Remove Tube Assembly:

NOTE

Read para. 4-4 before doing any work.

1. Unscrew and take off tube (1) from nipple (2) at bracket (3) with 9/16-inch and 11/16-inch wrenches.
2. Look at nipple (2) for cracks, breaks, or stripped threads. If bad do steps 3 through 6. If OK go to frame 9.
3. Unscrew and take off tube (4) from nipple (2) with 9/16-inch and 11/16-inch wrenches.
4. Unscrew and take off lock nut (5) and nipple (2) from bracket (3) with two 11/16-inch wrenches. Turn in nipple (2).
5. Put new nipple (2) in bracket (3). Screw on and tighten lock nut (5) with two 11/16-inch wrenches.
6. Screw on and tighten tube (4) to nipple (2) with 9/16-inch and 11/16-inch wrenches.

GO TO FRAME 9



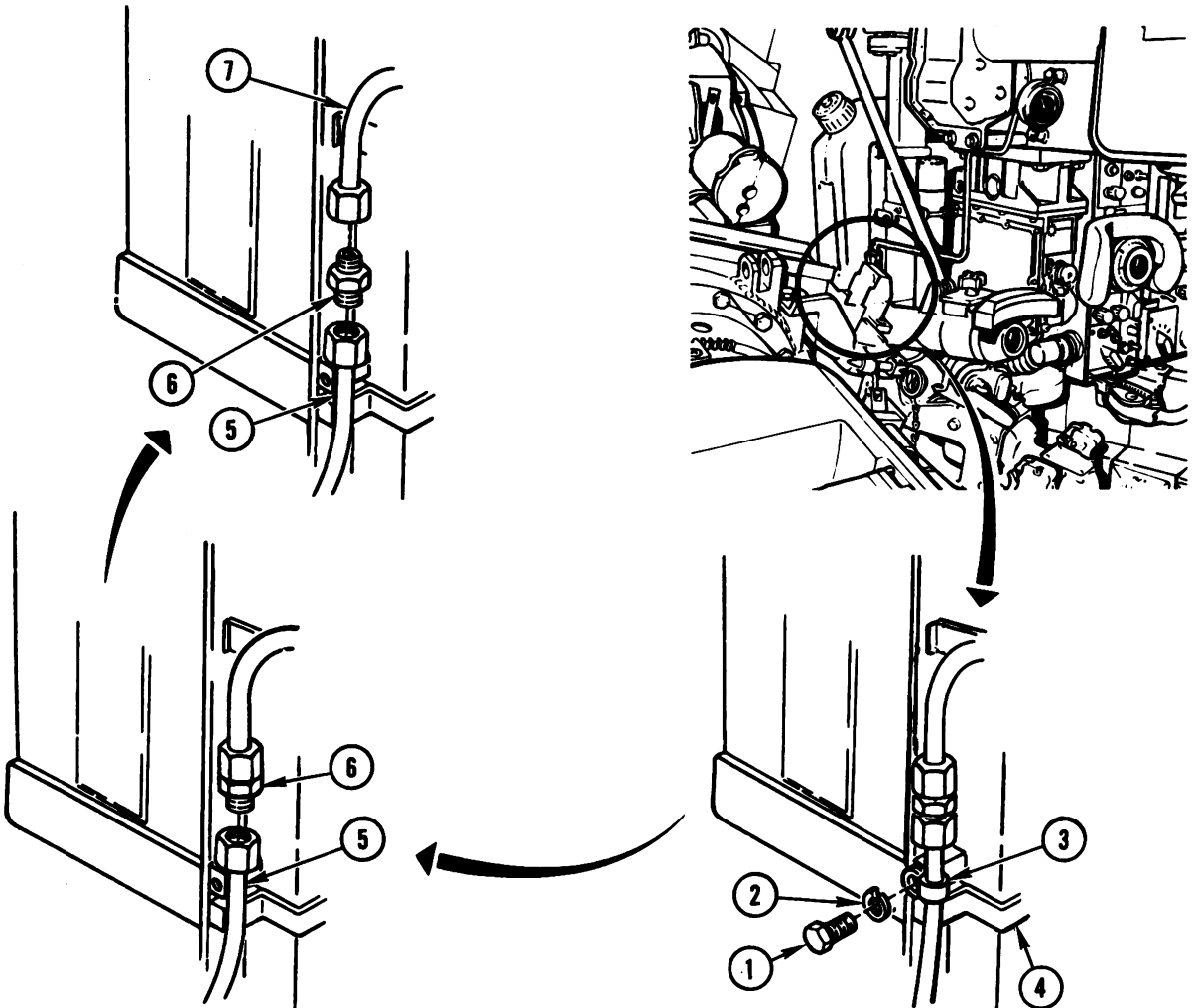
ARR82-0988

FRAME 9

Remove Tube Assembly (Continued):

1. Go to turret. Unscrew and take off screw (1) and lockwasher (2) from loop clamp (3) and water container bracket (4) with 7/16-inch wrench. Set clamp (3) aside for later use. Get rid of lockwasher (2).
2. Unscrew and take off tube (5) from nipple (6) with 9/16-inch and 1/2-inch wrench. Turn in tube assembly (5).
3. Look at nipple (6) for cracks, breaks, or stripped threads. If bad do step 4. If OK go to frame 10.
4. Unscrew and take out nipple (6) from tube (7) with 1/2-inch and 9/16-inch wrenches. Turn in nipple (6). Screw in and tighten new nipple (6) in tube (7) with 1/2-inch and 9/16-inch wrenches.

GO TO FRAME 10



ARR82-0989

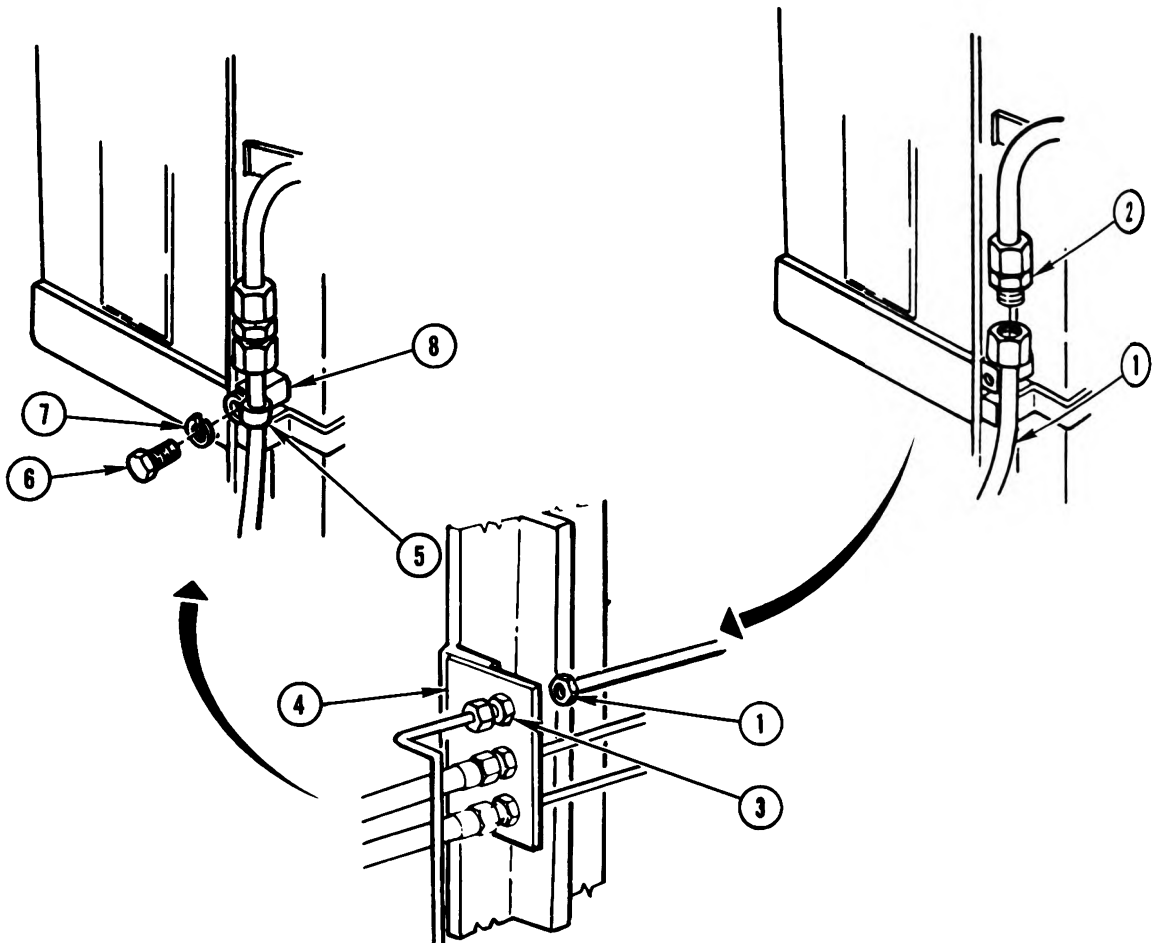
FRAME 10**Install Tube Assembly:**

1. Screw on new tube (1) to nipple (2) in turret.
2. Go to driver's compartment. Screw on and tighten tube (1) to nipple (3) at bracket (4) with 9/16-inch and 11/16-inch wrenches.
3. Go to turret. Tighten tube (1) to nipple (2) with 9/16-inch and 1/2-inch wrenches.
4. Put clamp (5) on tube (1). Screw in and tighten screw (6) and new lockwasher (7) to clamp (5) and bracket (8) with 7/16-inch wrench.

Follow-on Maintenance:

1. Bleed air from dial pressure gage; refer to para. 4-10, task 12.
2. Fill hydraulic reservoir; refer to LO 9-2350-255-12.

TASK 5 ENDS HERE



ARR82-0990

TASK 6. Replace Metal Tube Assembly, Water Container Bracket to Dial Pressure Gage

Applicability: All Models

Common Tools:

- Wrench, combination, 1/2-inch
- Wrench, combination, 9/16-inch (two required)

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Pencil, writing (Item 42)
 - Protective caps and plugs (Bulk)
 - Rag, wiping (Item 45)
 - Tag, marker (Item 54) (as required)
 - Tube Assembly (19207) 12304634

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

- Reduce system hydraulic pressure to zero; refer to para. 4-4.

FRAME 11

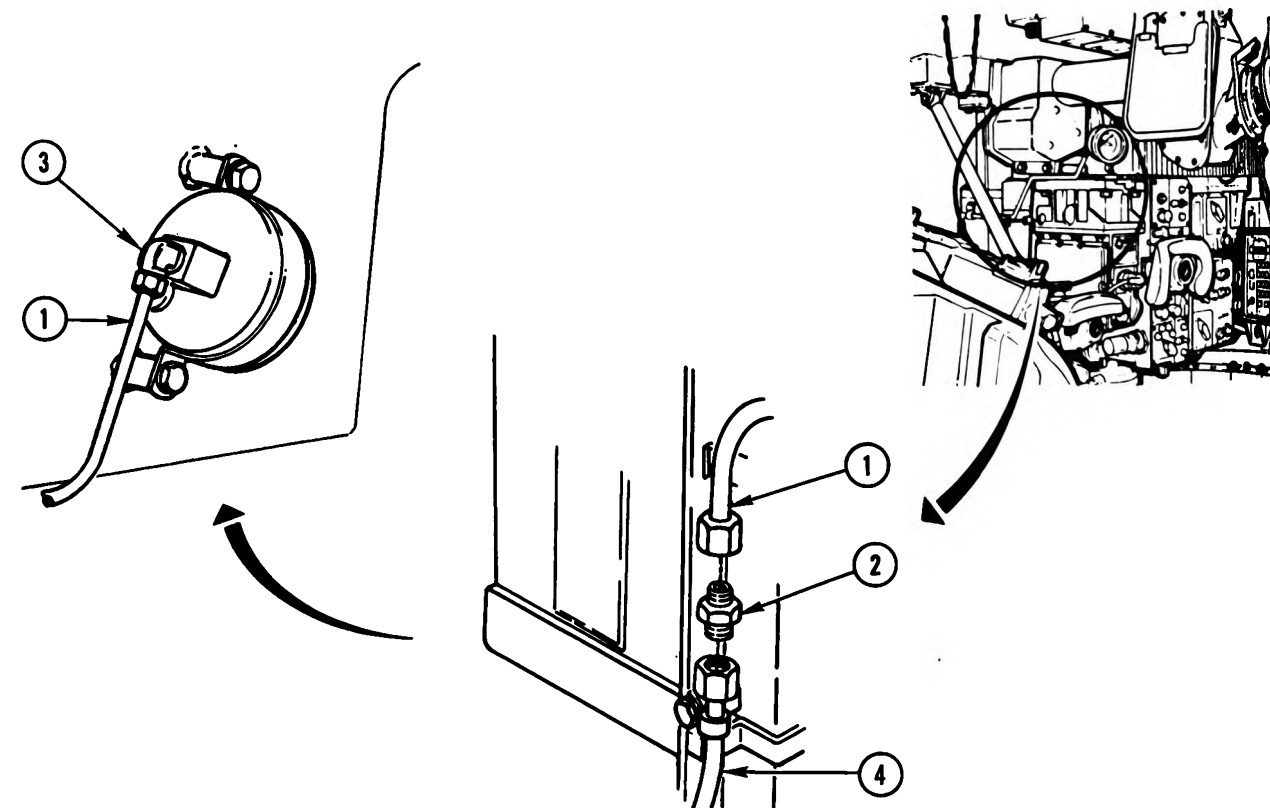
Remove Tube Assembly:

NOTE

Read para. 4-4 before doing any work.

1. Unscrew and take off tube (1) from nipple (2) and elbow (3) with 1/2-inch and 9/16-inch wrenches. Turn in tube (1).
2. Look at nipple (2) for cracks, breaks, or stripped threads. If bad, do steps 3 and 4. If OK go to frame 12.
3. Unscrew and take out nipple (2) from tube (4) with 1/2-inch and 9/16-inch wrenches. Turn in nipple (2).
4. Screw in and tighten new nipple (2) to tube (4) with 1/2-inch and 9/16-inch wrenches.

GO TO FRAME 12



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FRAME 12**Remove Tube Assembly (Continued):**

1. Look at elbow (1) on dial gage (2) for cracks, breaks, or stripped threads. If bad do step 2. If OK go to step 3.
2. Unscrew and take elbow (1) off gage (2) with 1/2-inch wrench. Turn in elbow (1). Screw on and tighten new elbow (1) with 1/2-inch wrench.

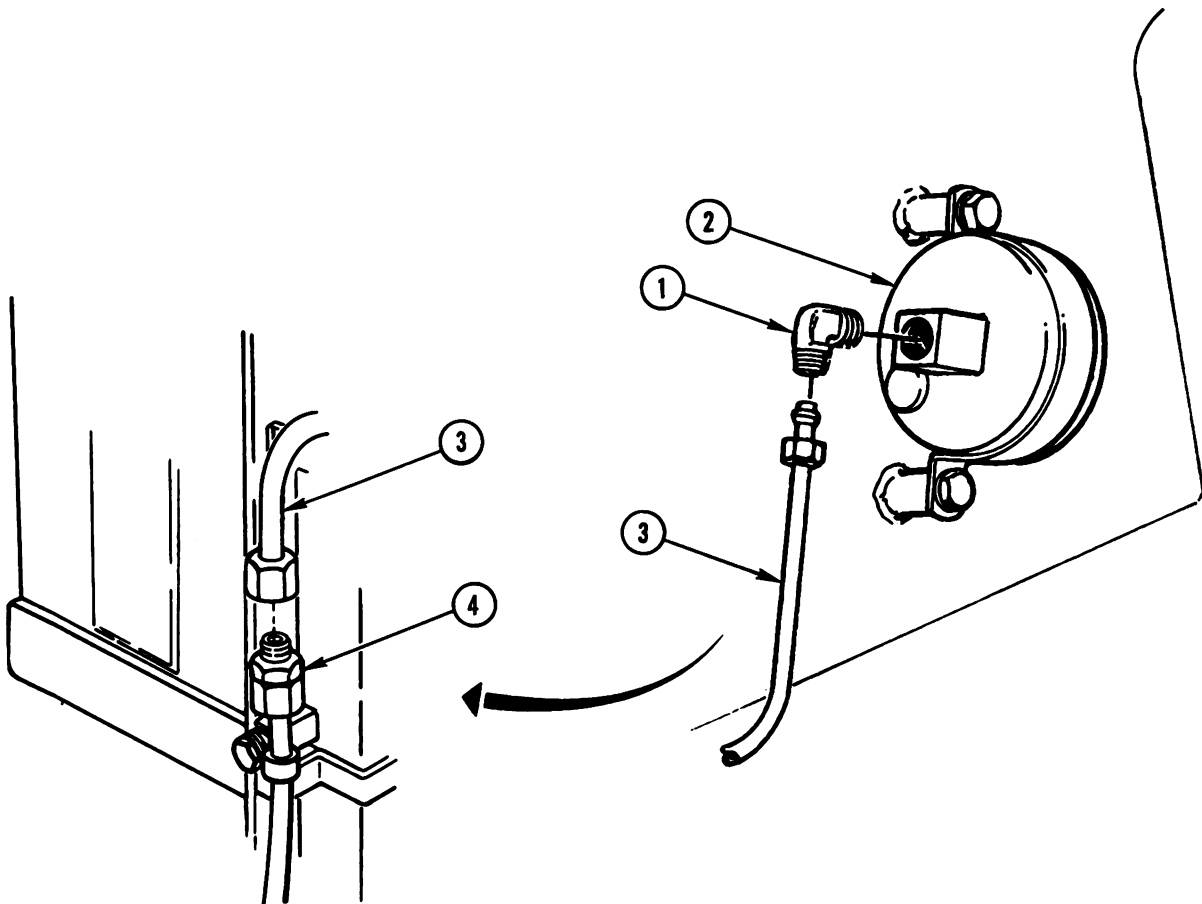
Install Tube Assembly:

3. Screw on new tube (3) to elbow (1) and nipple (4).
4. Tighten tube (3) to nipple (4) and elbow (1) with 1/2-inch and 9/16-inch wrenches.

Follow-on Maintenance:

1. Bleed air from dial pressure gage; refer to para. 4-10, task 12.
2. Fill hydraulic reservoir; refer to LO 9-2350-255-12.

TASK 6 ENDS HERE



ARR82-0992

TASK 7. Replace Bracket

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, combination, 9/16-inch
Wrench, combination, 11/16-inch (two required)

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Bracket (19207) 12284100
Dry Cleaning Solvent, P-D-680 (Item 21)
Nut, self-locking (96906) MS51943-35 (two required)
Pencil, writing (Item 42)
Protective caps and plugs (Bulk)
Rag, wiping (Item 45)
Tag, marker (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until hydraulic turret valve lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.

FRAME 13

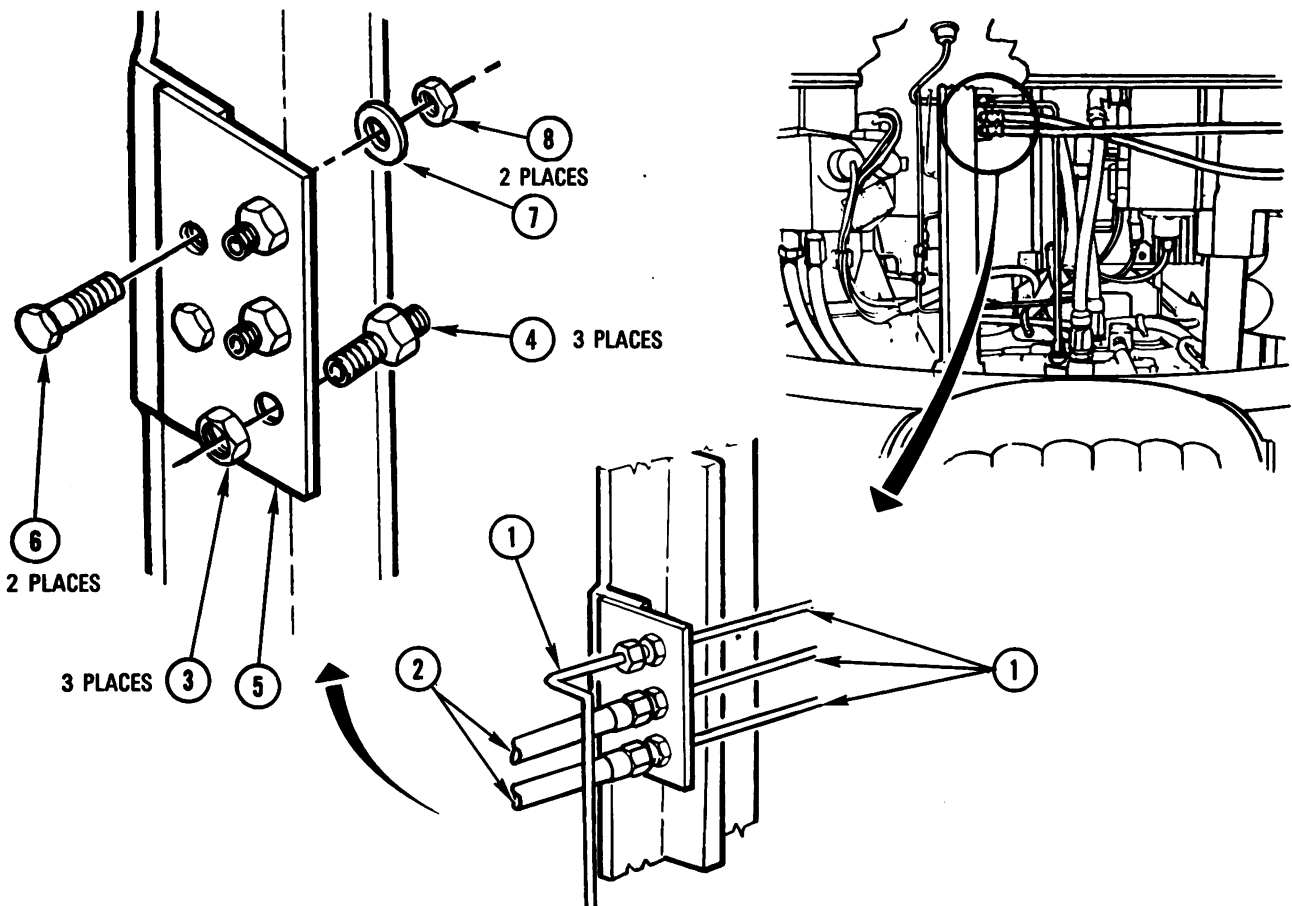
Remove Bracket:

NOTE

Read para. 4-4 before doing any work.

1. Unscrew and take off four tubes (1) and two hoses (2) with 9/16-inch and 11/16-inch wrenches.
2. Unscrew and take off three nuts (3) with two 11/16-inch wrenches. Take three nipples (4) off bracket (5).
3. Unscrew and take out two screws (6), washers (7), and self-locking nuts (8) with socket, handle, and 9/16-inch wrench. Get rid of nuts (8). Turn in bracket (5).
4. Look at nipples (4) for cracks, breaks, or stripped threads. If bad turn in. If OK set aside for later use.

GO TO FRAME 14



ARR82-0993

TASK 8. Remove Hose Assembly, Hydraulic Turret Valve to Metal Tube Assembly**Applicability:** All Models**Common Tools:**

- Pliers, slip joint, conduit style with plastic jaw inserts
- Wrench, combination, 1-3/8 inch
- Wrench, combination, 1-1/2 inch (two required)

Special Tools: None**Supplies:**

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Pencil, writing (Item 42)
 - Protective caps and plugs (Bulk)
 - Rag, wiping (Item 45)
 - Tag, marker (Item 54) (as required)

Personnel: Two

- Soldier A: Removes hose assembly from turret.
- Soldier B: Helps Soldier A and works in driver's compartment.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until hydraulic turret valve lines up with the driver's compartment and then lock turret; refer to TM 9-2350-255-10.
2. Put main gun in travel lock; refer to TM 9-2350-255-10.
3. Reduce system hydraulic pressure to zero; refer to para. 4-4.
4. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.
5. Remove electronics rack shield assembly; refer to TM 9-2350-255-20-2-3-3, para. 7-7.
6. Remove slipping access cover; refer to TM 9-2350-255-20-2-3-1, para. 2-8.

FRAME 15

Remove Hose Assembly:

NOTE

- Read para. 4-4, before doing any work.
- Use this task to take off pressure hose (1) or return hose assembly (2). Pressure hose (1) is shown.
- If return hose (2) only is being taken off, go to step 2.

Soldier A: 1. Unscrew and take off five electrical connectors (3) from slipping (4) with pliers.

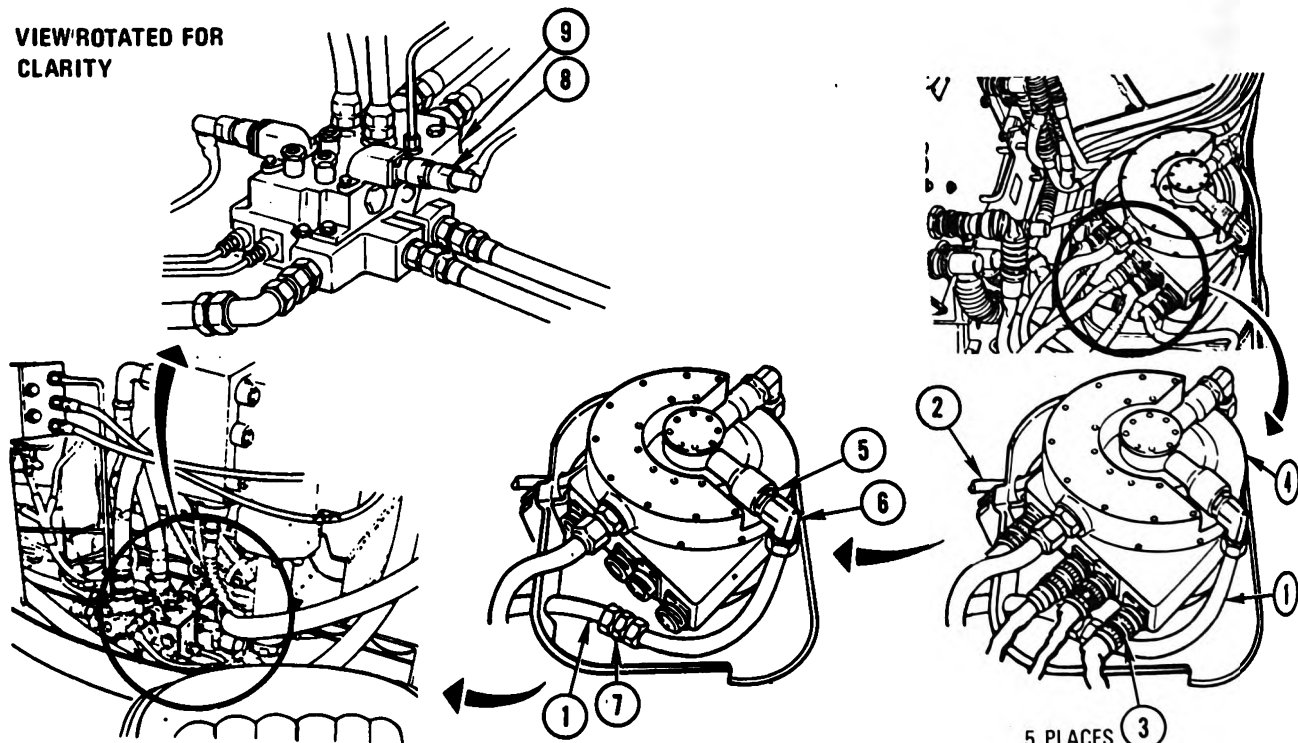
Soldier A: 2. Put rags around slipping (4) to catch hydraulic fluid.

Soldier A: 3. Loosen jamnut (5) on elbow (6) with 1-1/2 inch wrench. Rotate elbow (6) as needed for access in step 4.

Soldier A: 4. Unscrew and take off hose (1) from nipple (7) with 1-3/8 inch and 1-1/2 inch wrenches.

Soldier B: 5. Unscrew and take off electrical connector (8) from hydraulic turret valve (9).

GO TO FRAME 16



FRAME 16

Remove Hose Assembly (Continued):

Soldier B: 1. Unscrew and take off hose (1) from adapter (2) with two 1-1/2 inch wrenches.

Soldier A: 2. Take out hose (1). Look at hose for cuts, cracks or stripped threads. If bad turn in. If OK set aside for later use.

Inspect Fittings:

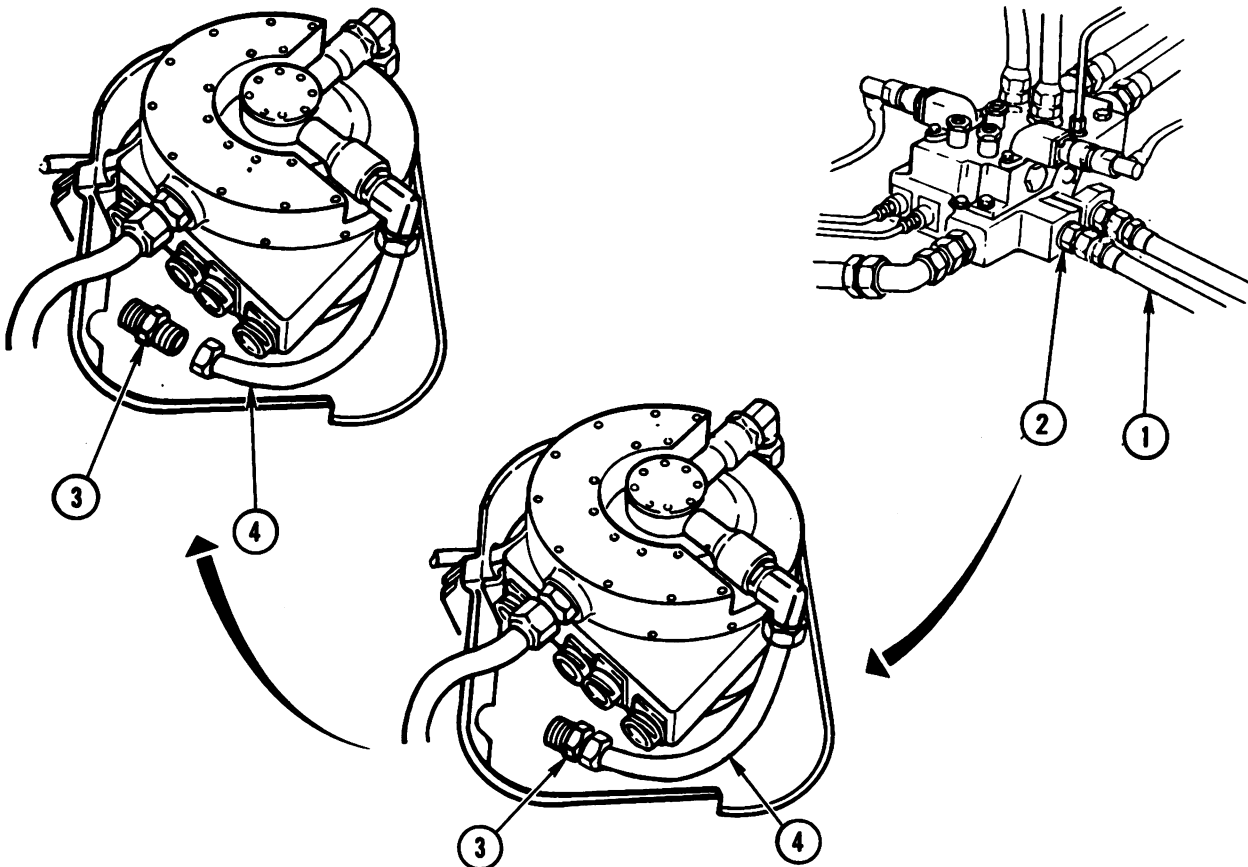
Soldier A: 3. Look at nipple (3) for cracks, breaks, or stripped threads. If bad do steps 4 and 5. If OK go to frame 17.

Soldier A: 4. Unscrew and take off nipple (3) from tube (4) with 1-3/8 inch and 1-1/2 inch wrenches. Turn in nipple (3).

Soldier A: 5. Screw in and tighten new nipple (3) with 1-3/8 inch and 1-1/2 inch wrenches.

GO TO FRAME 17

VIEW ROTATED FOR CLARITY



ARR82-0996

FRAME 17

Inspect Fittings (Continued):

Soldier B: 1. Look at adapter (1) for cracks, breaks, or stripped threads. If bad do steps 2 and 3. If OK go to follow-on maintenance.

Soldier B: 2. Unscrew and take off adapter (1) and packing (2) from valve (3) with 1-1/2 inch wrench. Turn in adapter (1). Get rid of packing (2).

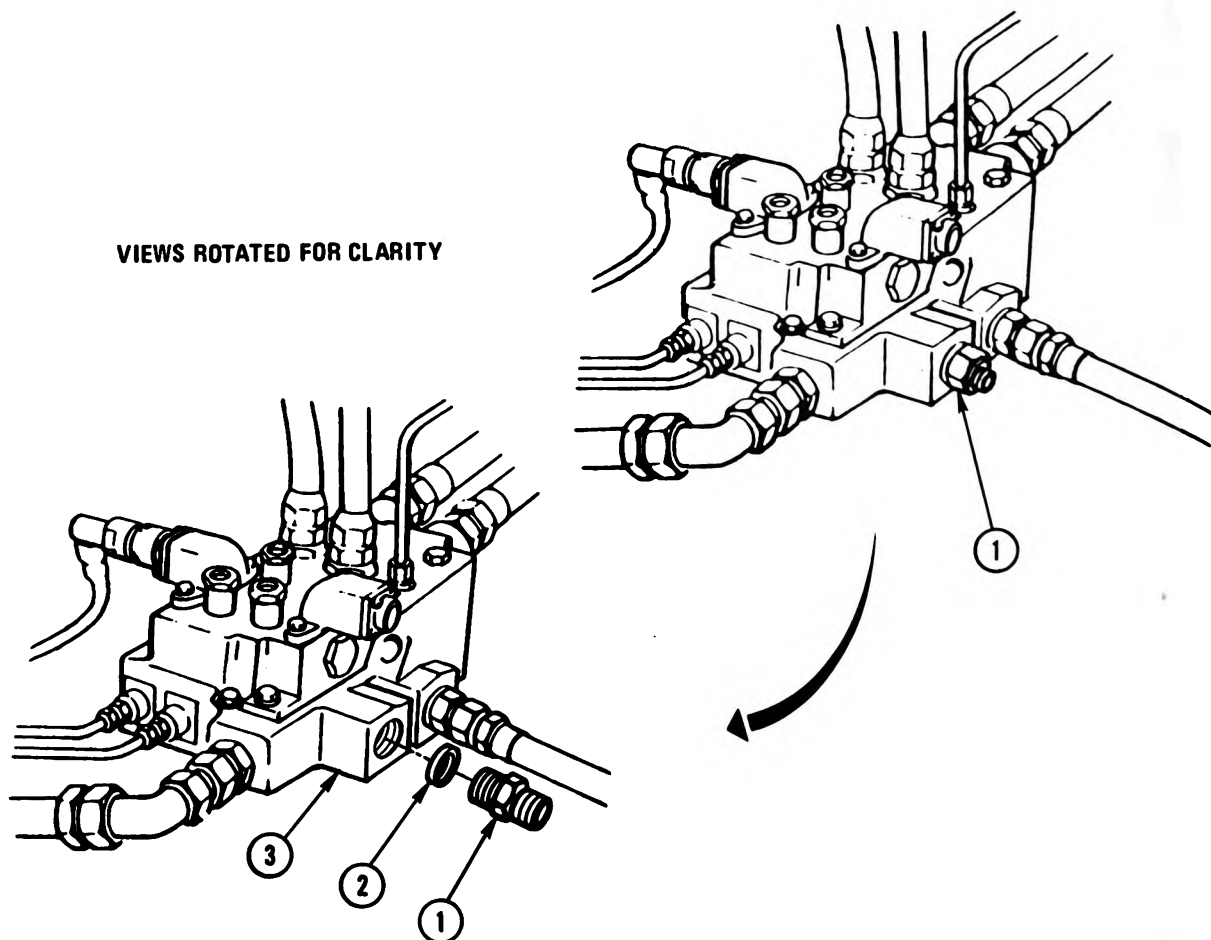
Soldier B: 3. Screw in and tighten new adapter (1) and new packing (2) with 1-1/2 inch wrench.

Follow-on Maintenance:

NOTE: To install hose assembly, hydraulic turret valve to metal tube assembly, refer to task 9.

TASK 8 ENDS HERE

IEWS ROTATED FOR CLARITY



ARR82-0997

TASK 9. Install Hose Assembly, Hydraulic Turret Valve to Metal Tube Assembly

Applicability: All Models

Common Tools:

- Wrench, combination, 1-3/8 inch
- Wrench, combination, 1-1/2 inch (two required)

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Hose Assembly (16717) MS8006M234AB
 - Rag, wiping (Item 45)

Personnel: Two

- Soldier A: Installs hose assembly and works in turret.
- Soldier B: Helps Soldier A and works in driver's compartment.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

Remove hose assembly, hydraulic turret valve to metal tube assembly; refer to task 8.

FRAME 18

Install Hose Assembly:

NOTE

- Read para. 4-4 before doing any work.
- Use this task to put on pressure hose (1) or return hose (2). Pressure hose (1) is shown.

Soldier A: 1. Put hose (1) in place. Screw on and tighten hose (1) to nipple (3) with 1-3/8 inch and 1-1/2 inch wrenches.

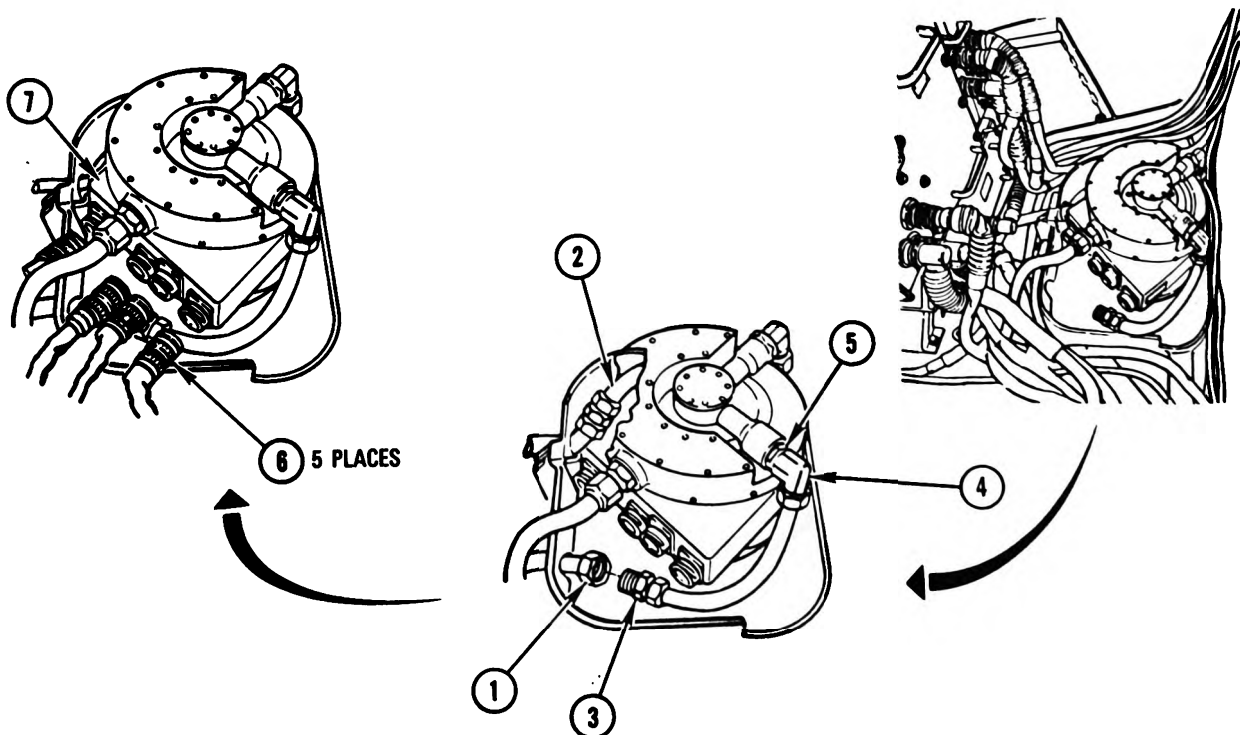
Soldier A: 2. Turn elbow (4) back to original position as shown. Tighten jamnut (5) on elbow (4) with 1-1/2 inch wrench.

NOTE

If return hose (2) is being put on, go to FRAME 19.

Soldier A: 3. Screw on and tighten five electrical connectors (6) to slipring (7).

GO TO FRAME 19



ARR82-0998

FRAME 19

Install Hose Assembly (Continued):

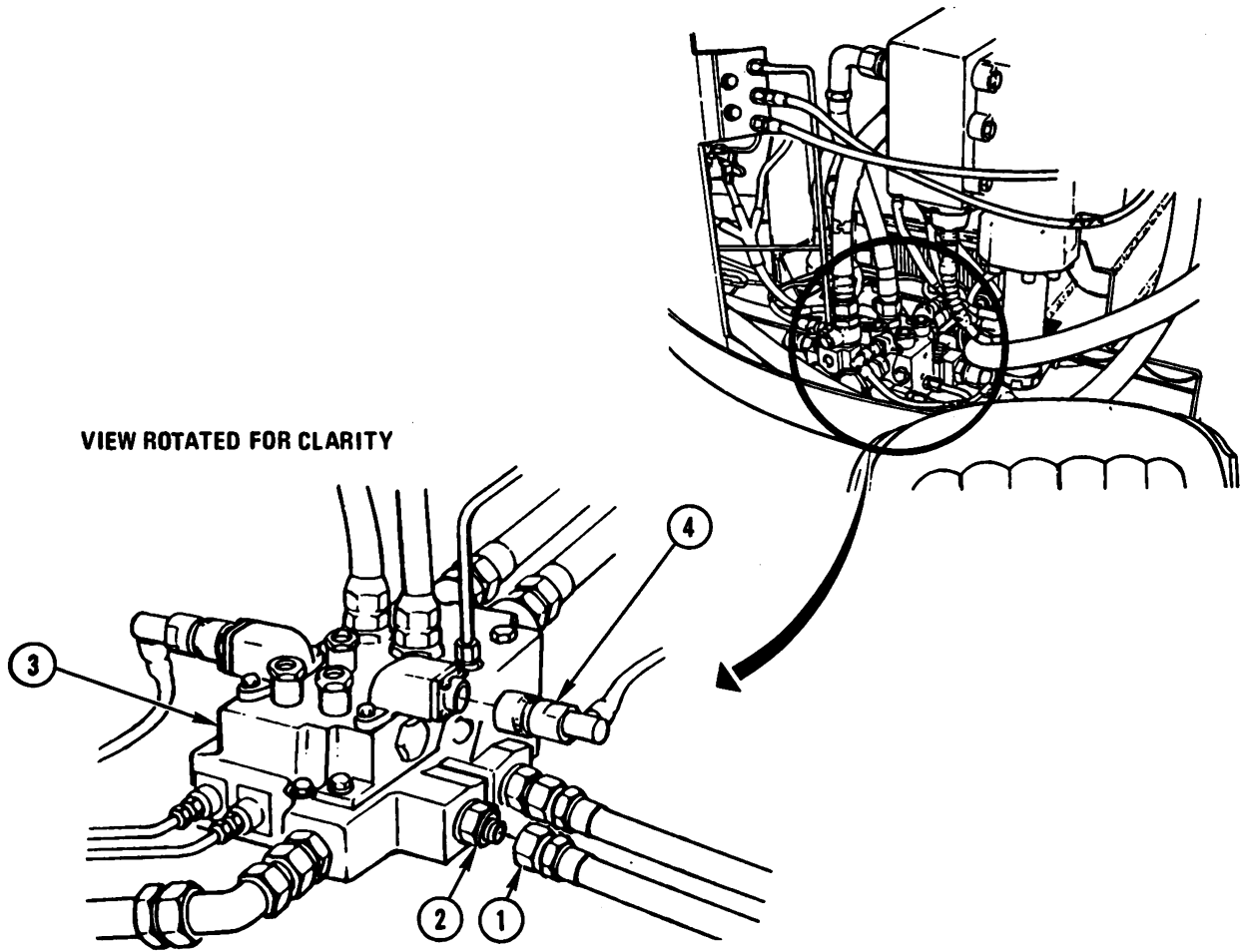
Soldier B: 1. Screw on and tighten hose (1) to adapter (2) at hydraulic turret valve (3) with 1-1/2 inch wrench.

Soldier B: 2. Screw on and tighten electrical connector (4) to valve (3).

Follow-on Maintenance:

1. Bleed air from hydraulic system; refer to para. 4-5, task 2; para. 4-8, tasks 7 and 8, and para. 4-10, tasks 2, 10, and 12.
2. Install slipping access cover; refer to TM 9-2350-255-20-2-3-1, para. 2-8.
3. Install electronics rack shield assembly; refer to TM 9-2350-255-20-2-3-3, para. 7-7.
4. Fill hydraulic reservoir; refer to LO 9-2350-255-12.

TASK 9 ENDS HERE



ARR82-0999

TASK 10. Replace Metal Tube Assembly to Hull/Turret Slipping Assembly

Applicability: All Models

Common Tools:

- Pliers, slip joint, conduit style with plastic jaw inserts
- Wrench, combination 1-3/8 inch
- Wrench, combination 1-1/2 inch

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Pencil, writing (Item 42)
 - Protective caps and plugs (Bulk)
 - Rag, wiping (Item 45)
 - Tag, marker (Item 54) (as required)
 - Tube Assembly (19207) 12284091

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Reduce system hydraulic pressure to zero; refer to para. 4-4.
2. Remove electronics rack shield assembly; refer to TM 9-2350-255-20-2-3-3, para. 7-7.
3. Remove slipping access cover; refer to TM 9-2350-255-20-2-3-1, para. 2-8.

FRAME 20

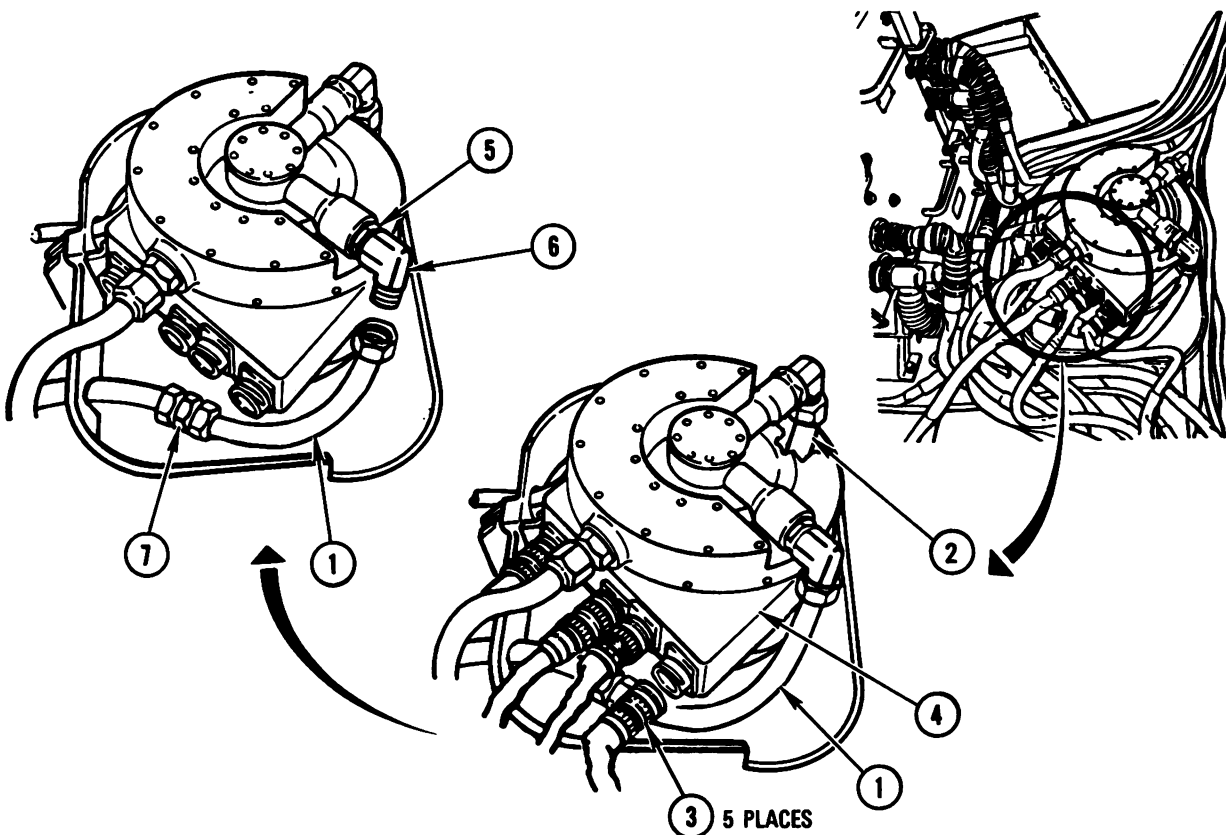
Remove Tube Assembly:

NOTE

- Read para. 4-4 before doing any work.
- Use this task to take off and put on pressure tube (1) or return tube (2). Pressure tube (1) is shown.
- If return tube (2) is being taken out and put in, start with step 2.

1. Unscrew and take off five electrical connectors (3) from slipping (4) with pliers.
2. Put rags around slipping (4) to catch hydraulic fluid.
3. Loosen jam nut (5) on elbow (6) with 1-1/2 inch wrench. Rotate elbow (6) as needed for access in steps 4 and 5.
4. Unscrew and take off tube (1) from elbow (6) with 1-1/2 inch wrench.
5. Unscrew and take off tube (1) from nipple (7) with 1-3/8 inch and 1-1/2 inch wrenches.

GO TO FRAME 21



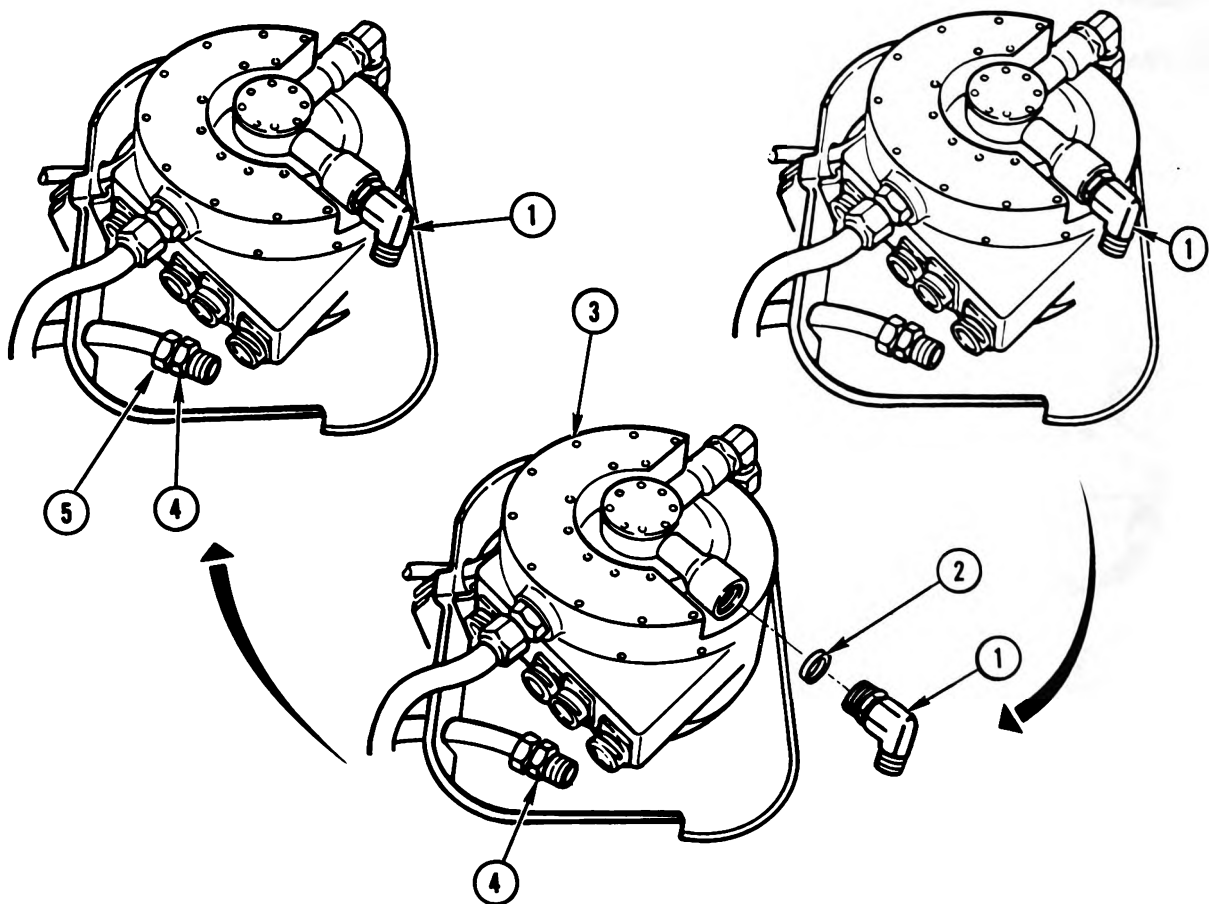
ARR82-1000

FRAME 21

Remove Tube Assembly (Continued):

1. Look at elbow (1) for cracks, breaks, or stripped threads. If bad do steps 2 and 3. If OK go to step 4.
2. Unscrew and take off elbow (1) and packing (2) from slipring (3) with 1-1/2 inch wrench. Turn in elbow (1). Get rid of packing (2).
3. Screw in new elbow (1) and new packing (2).
4. Look at nipple (4) for cracks, breaks, or stripped threads. If bad do steps 5 and 6. If OK go to frame 22.
5. Unscrew and take off nipple (4) from hose (5) with 1-3/8 inch and 1-1/2 inch wrenches. Turn in nipple (4).
6. Screw in and tighten new nipple (4) with 1-3/8 inch and 1-1/2 inch wrenches.

GO TO FRAME 22



ARR82-1001

FRAME 22

Install Tube Assembly:

1. Screw on and tighten new tube (1) to nipple (2) and elbow (3) with 1-3/8 inch and 1-1/2 inch wrenches.
2. Turn elbow (3) back to original position as shown. Tighten jamnut (4) on elbow (3) with 1-1/2 inch wrench.

NOTE

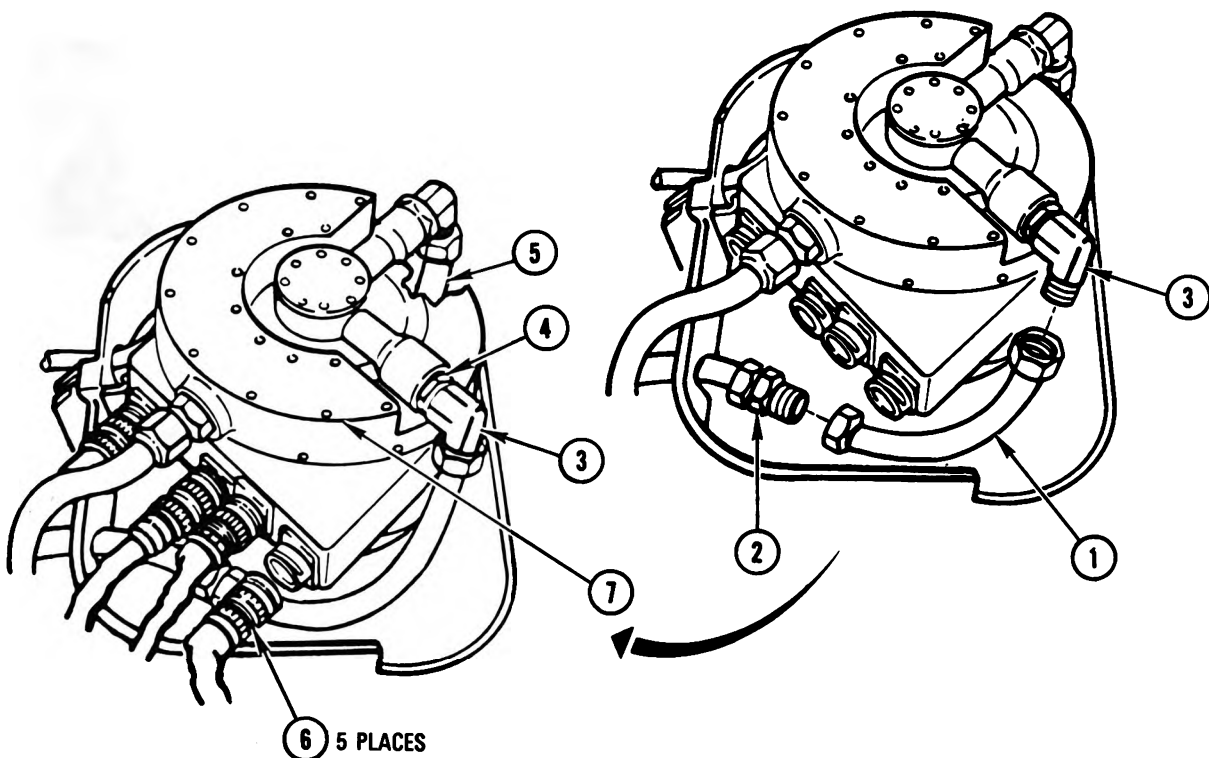
If return tube assembly (5) is being put on, go to follow-on maintenance.

3. Screw on and tighten five electrical connectors (6) to slipring (7).

Follow-on Maintenance:

1. Bleed air from traverse hydraulic system; refer to para. 4-5, task 2; and para. 4-10, tasks 2, 10, and 12.
2. Install slipring access cover; refer to TM 9-2350-255-20-2-3-1, para. 2-8.
3. Install electronics rack shield assembly; TM 9-2350-255-20-2-3-3 para. 7-7.
4. Fill hydraulic reservoir; refer to LO 9-2350-255-12.

TASK 10 ENDS HERE



ARR82-1002

TASK 11. Remove Metal Tube Assembly, Ammo Door Hydraulic Actuator, Hydraulic Turret Valve To Nipple Behind 7.62 Millimeter Ammunition Box

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 1/4-inch square drive
Socket, socket wrench, 1/4-inch square drive, 7/16-inch
Wrench, combination, 5/8-inch
Wrench, combination, 11/16-inch (two required)

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Dry Cleaning Solvent, P-D-680 (Item 21)
Pencil, writing (Item 42)
Protective caps and plugs (Bulk)
Rag, wiping (Item 45)
Tag, marker (Item 54) (as required)

Personnel: Two

Soldier A: Removes tube assembly.
Soldier B: Manually traverses turret for Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret to line up hydraulic turret valve with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.

FRAME 23

Remove Tube Assembly:

NOTE

- Read para. 4-4 before doing any work.
- Use this task to take off door open tube (1) or door close tube (2). Door open tube (1) is shown.

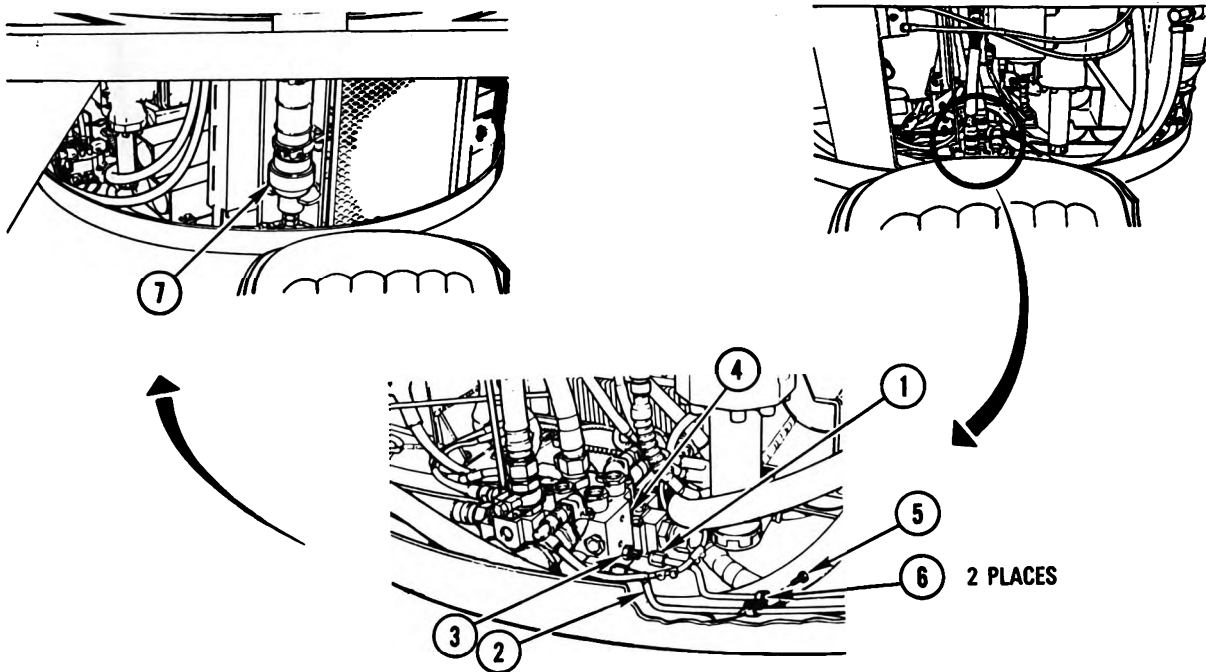
Soldier A: 1. Unscrew and take tube (1) off adapter (3) at hydraulic turret valve (4) with two 11/16-inch wrenches.

Soldier A: 2. Unscrew and take out screw (5) from two clamps (6) with socket and handle. Take one clamp (6) off tube (1) and set aside for later use.

Soldier B: 3. When told by Soldier A, traverse turret until main accumulator (7) lines up with right side of driver's compartment, and then lock turret; refer to TM 9-2350-255-10.

Soldier A: 4. Remove loader's screen behind 7.62 millimeter ammunition box; refer to para. 3-16, task 1.

GO TO FRAME 24



ARR82-1003

FRAME 24

Remove Tube Assembly (Continued):

Soldier A: 1. Unscrew and take out screw (1) and clamp (2) from tube (3) with socket, and handle. Take clamp (2) off tube (3) and set aside for later use.

Soldier A: 2. Unscrew and take tube (3) off nipple (4) with 5/8-inch and 11/16-inch wrenches.

Soldier A: 3. Look at tube (3) for cracks, crushed spots, or stripped threads. If bad turn in. If OK set aside for later use.

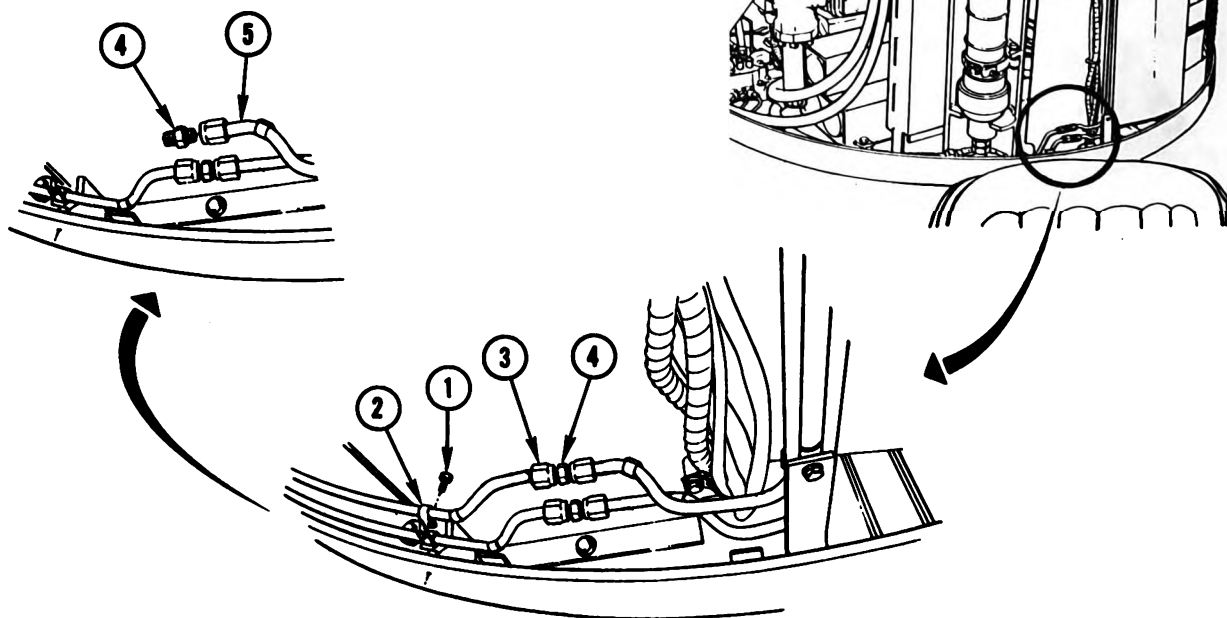
Inspect Fittings:

Soldier A: 4. Look at nipple (4) for cracks, breaks, or stripped threads. If bad do steps 5 and 6. If OK go to frame 25.

Soldier A: 5. Unscrew and take nipple (4) out of tube (5) with 5/8-inch and 11/16-inch wrenches. Turn in nipple (4).

Soldier A: 6. Screw in and tighten new nipple (4) with 5/8-inch and 11/16-inch wrenches.

GO TO FRAME 25



ARR82-1004

FRAME 25

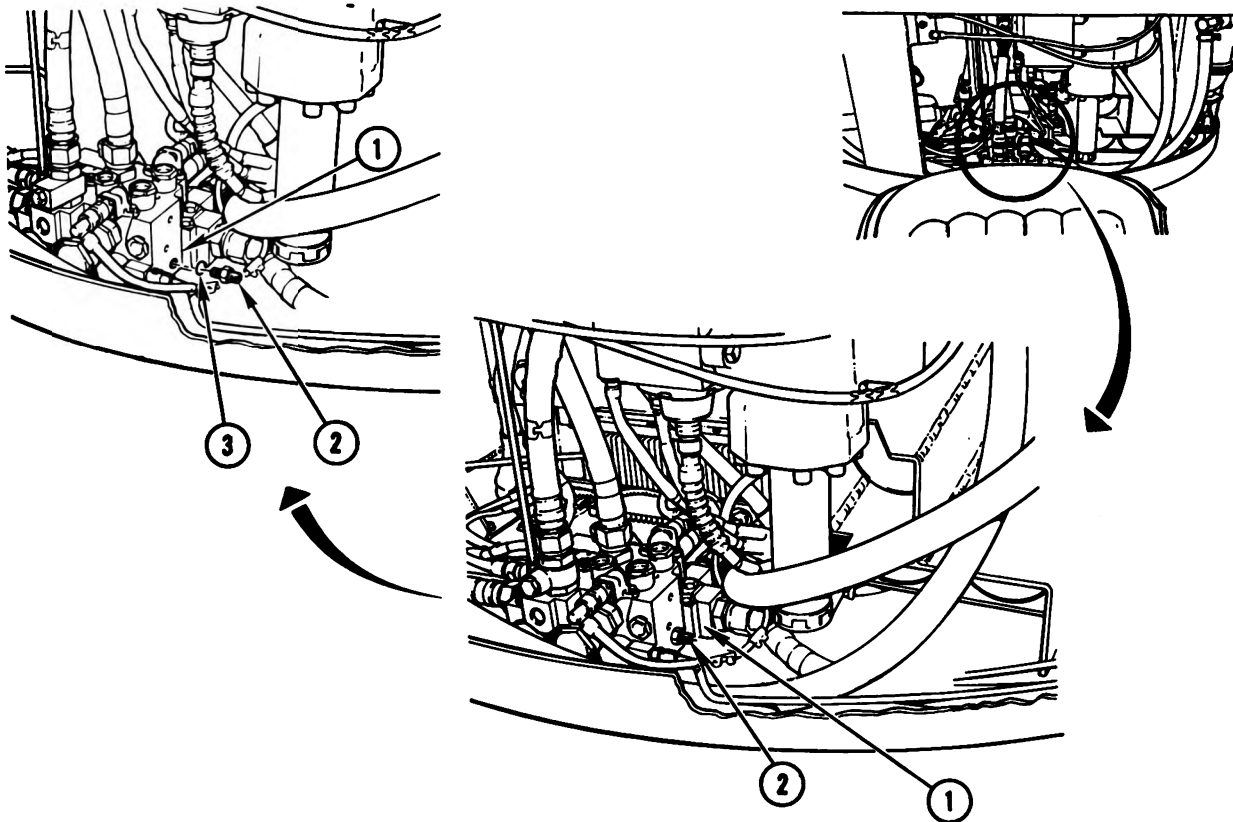
Inspect Fittings (Continued):

- Soldier B:** 1. Manually traverse turret to line up hydraulic turret valve (1) with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
- Soldier A:** 2. Look at adapter (2) for cracks, breaks, or stripped threads. If bad do steps 3 and 4. If OK TASK 11 ENDS HERE.
- Soldier A:** 3. Unscrew and take out adapter (2) and packing (3) from valve (1) with 11/16-inch wrench. Turn in adapter (2). Get rid of packing (3).
- Soldier A:** 4. Screw in and tighten new adapter (2) and new packing (3) with 11/16-inch wrench.

Follow-on Maintenance:

NOTE: To install metal tube assembly, ammo door hydraulic actuator, hydraulic turret valve to nipple behind 7.62 millimeter ammunition box, refer to task 12.

TASK 11 ENDS HERE



ARR82-1005

TASK 12. Install Metal Tube Assembly, Ammo Door Hydraulic Actuator, Hydraulic Turret Valve To Nipple Behind 7.62 Millimeter Ammunition Box

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 1/4-inch square drive
Socket, socket wrench, 1/4-inch square drive, 7/16-inch
Wrench, combination, 5/8-inch
Wrench, combination, 11/16-inch (two required)
Wrench, combination, 7/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Dry Cleaning Solvent, P-D-680 (Item 21)
Rag, wiping (Item 45)

Personnel: Two

Soldier A: Installs tube assembly.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove metal tube assembly, ammo door hydraulic actuator, hydraulic turret valve to nipple behind 7.62 millimeter ammunition box; refer to task 11.

FRAME 26

Install Tube Assembly:

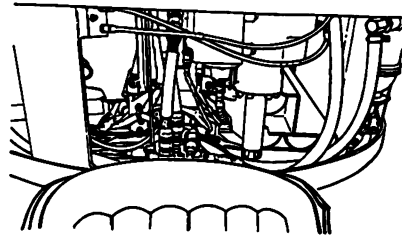
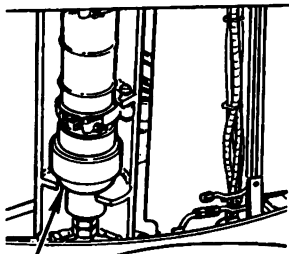
NOTE

- Read para. 4-4 before doing any work.
- Use this task to put on door open tube (1) or door close tube (2). Door open tube (1) is shown.

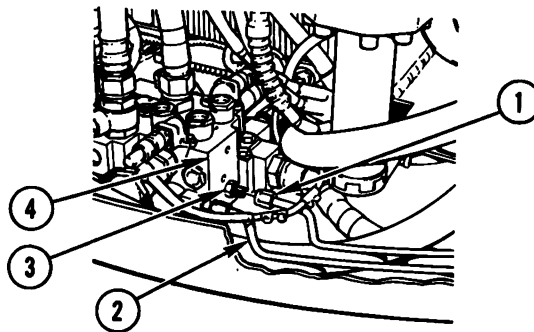
Soldier A: 1. Screw on tube (1) to adapter (3) on hydraulic turret valve (4).

Soldier B: 2. When told by Soldier A, manually traverse turret to line up hydraulic accumulator (5) with right side of driver's compartment, and then lock turret; refer to TM 9-2350-255-10.

GO TO FRAME 27



5



4

3

2

1

ARR82-1006

FRAME 27

Install Tube Assembly (Continued):

Soldier A: 1. Screw on and tighten tube (1) to nipple (2) with 5/8-inch and 11/16-inch wrenches.

Soldier A: 2. Put clamp (3) on tube (1) screw in screw (4) to two clamps (3) part way with 7/16-inch wrench. Tighten screw (4) with socket and handle.

Soldier B: 3. When told by Soldier A, manually traverse turret to line up hydraulic turret valve with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.

Soldier A: 4. Tighten tube (1) to adapter (5) on hydraulic turret valve (6) with two 11/16-inch wrenches.

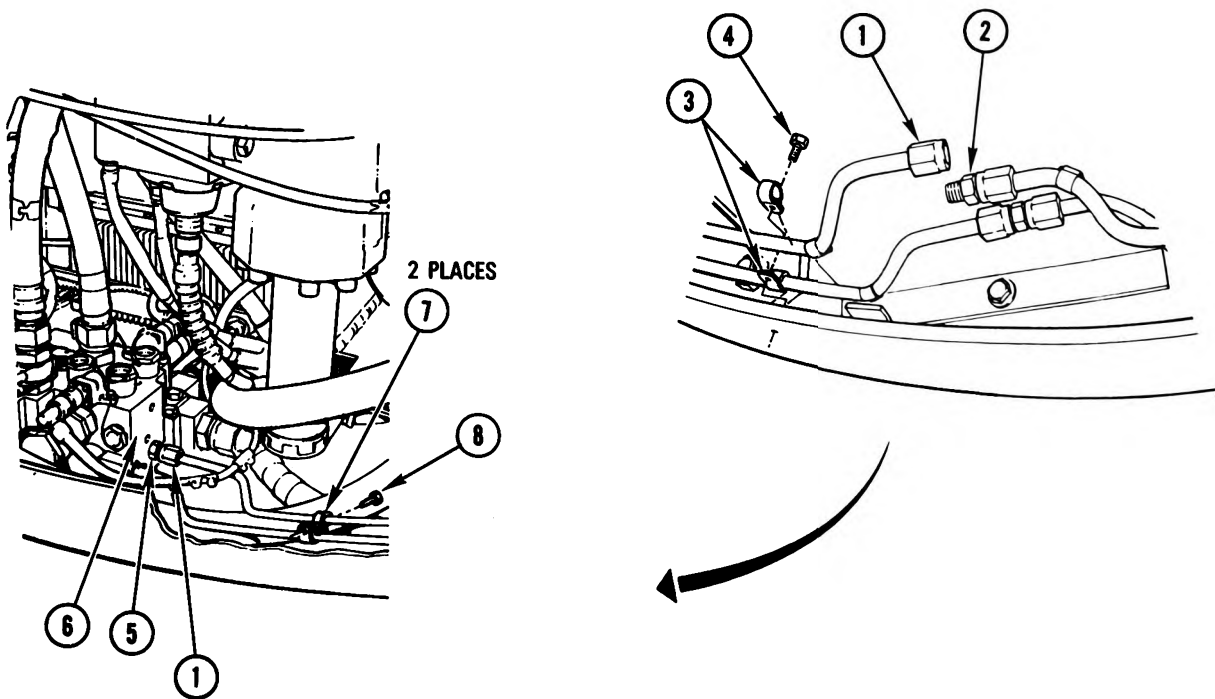
Soldier A: 5. Put clamp (7) on tube (1). Screw in screw (8) in two clamps (7) part way with 7/16-inch wrench. Tighten screw (8) with socket and wrench.

Soldier A: 6. Install loader's screen; refer to para. 3-16, task 18.

Follow-on Maintenance:

1. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.
2. Fill hydraulic reservoir; refer to LO 9-2350-255-12.

TASK 12 ENDS HERE



ARR82-1007

TASK 13. Remove Metal Tube Assembly, Ammo Door Hydraulic Actuator, Nipple Behind 7.62 Millimeter Ammunition Box to Hose Assembly**Applicability:** All Models**Common Tools:**

Extension, socket, wrench, 1/4-inch square drive, 2-inch
 Handle, socket wrench, ratchet 1/4-inch square drive
 Socket, socket wrench, 1/4-inch square drive, 7/16-inch
 Universal Joint, socket wrench, 1/4-inch square drive
 Wrench, combination, 7/16-inch
 Wrench, combination, 5/8-inch
 Wrench, combination, 11/16-inch

Special Tools: None**Supplies:**

NOTE: Expendable supplies are defined in appendix A.
 Dry Cleaning Solvent, P-D-680 (Item 21)
 Pencil, writing (Item 42)
 Protective caps and plugs (Bulk)
 Rag, wiping (Item 45)
 Tag, marker (Item 54) (as required)

Personnel: One**Equipment Condition:**

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret to line up hydraulic accumulator with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Remove loader's intercom control box; refer to para. 5-5, task 15.
4. Remove loader's intercom control box double angle bracket; refer to para. 5-5, task 16.
5. Remove loader's screen; refer to para. 3-16, task 1.

FRAME 28

Remove Tube Assembly:

NOTE

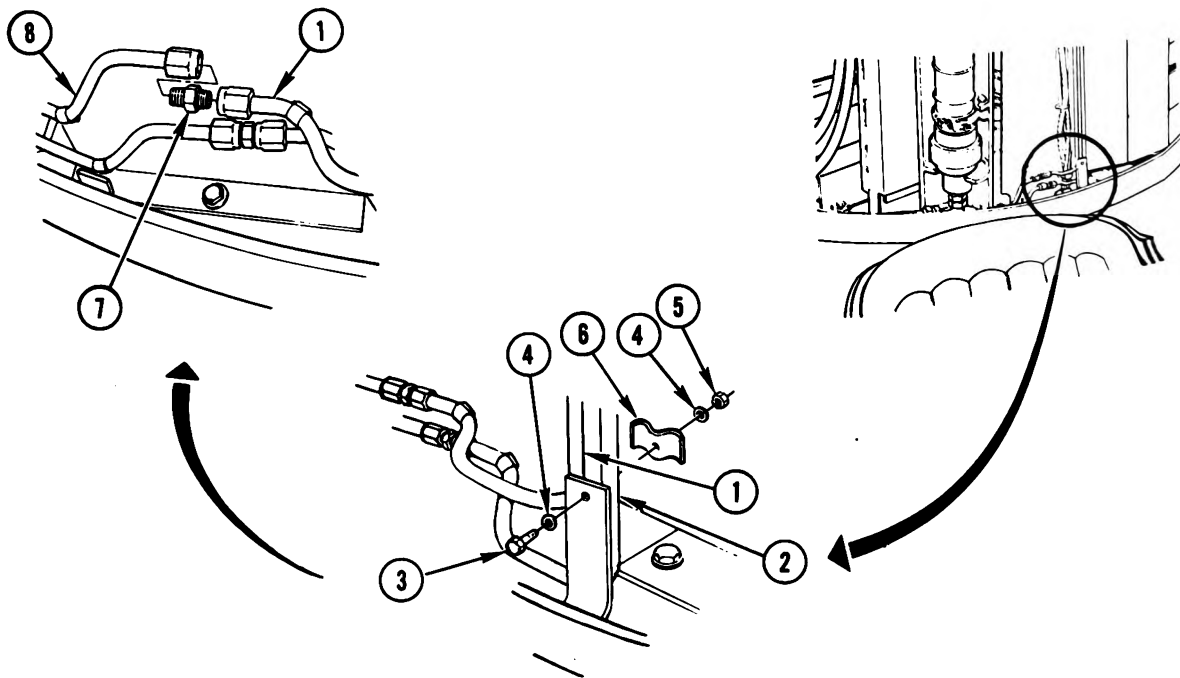
- Read para. 4-4 before doing any work.
- Use this task to take off door open tube (1) or door closed tube (2). Door open tube (1) is shown.

1. Unscrew and take out screw (3), two washers (4), and nut (5) from strap (6) with socket, handle, and 7/16-inch wrench. Look at strap (6) for cracks. If bad turn in. If OK set aside for later use.
2. Unscrew and take tube (1) off nipple (7) with 5/8-inch and 11/16-inch wrenches.

Inspect Fitting:

3. Look at nipple (7) for cracks, breaks, or stripped threads. If bad go to step 4. If OK go to frame 29.
4. Unscrew and take nipple (7) out of tube (8) with 5/8-inch and 11/16-inch wrenches. Turn in nipple (7).
5. Screw in and tighten new nipple (7) with 5/8-inch and 11/16-inch wrenches.

GO TO FRAME 29



ARRB 2-1008

FRAME 29

Remove Tube Assembly (Continued):

1. Go to turret. Take off electrical connector (1) from exhaust blower (2).
2. Unscrew and take out three screws (3), lockwashers (4), and washers (5) from three straps (6) that hold harness bundles (7) in place, with socket, universal joint, extension, handle, and 7/16-inch wrench. Get rid of lockwashers (4).
3. Unscrew and take out screw (8) from two clamps (9) with socket, extension, and handle. Take one clamp (9) off tube (10).
4. Unscrew and take tube (10) off nipple (11) with 11/16-inch and 5/8-inch wrenches. Turn in tube (10).

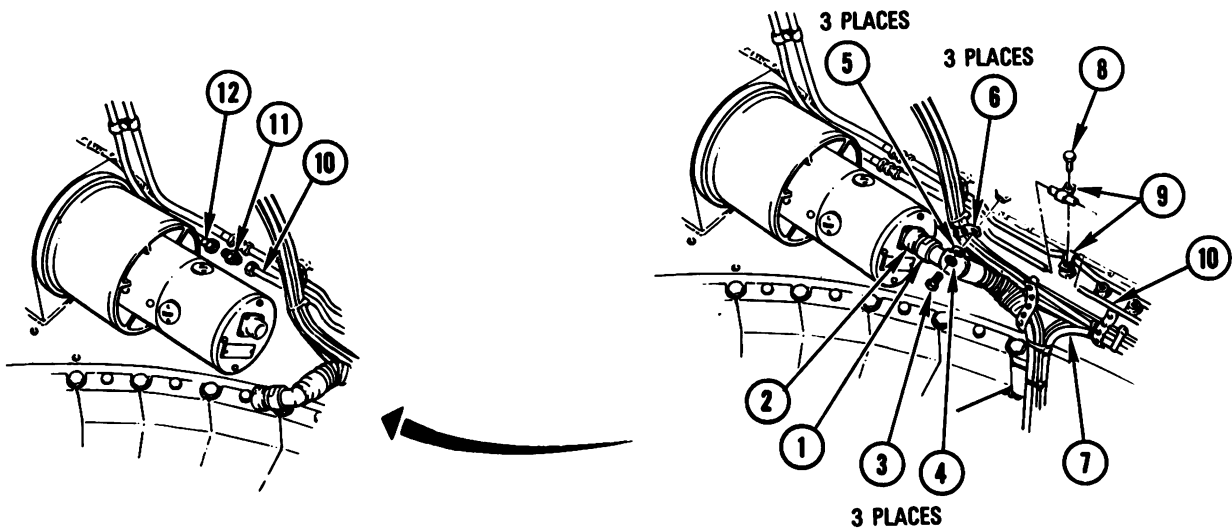
Inspect Fitting:

5. Look at nipple (11) for cracks, breaks or stripped threads. If bad go to step 6. If OK TASK 13 ENDS HERE.
6. Unscrew and take nipple (11) off hose (12) with 5/8-inch and 11/16-inch wrenches. Turn in nipple (11).
7. Screw on and tighten new nipple (11) with 5/8-inch and 11/16-inch wrenches.

Follow-on Maintenance:

NOTE: To install metal tube assembly, ammo door hydraulic actuator, nipple behind 7.62 millimeter ammunition box to hose assembly; refer to task 14.

TASK 13 ENDS HERE



ARR82-1009

TASK 14. Install Metal Tube Assembly, Ammo Door Hydraulic Actuator, Nipple behind 7.62 Millimeter Ammunition Box to Hose Assembly

Applicability: All Models

Common Tools:

Extension, socket wrench, 1/4-inch square drive, 2-inch
Handle, socket wrench, ratchet, 1/4-inch square drive
Socket, socket wrench, 1/4-inch square drive, 7/16-inch
Universal Joint, socket wrench, 1/4-inch square drive
Wrench, combination, 7/16-inch
Wrench, combination, 5/8-inch
Wrench, combination, 11/16-inch (two required)

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Dry Cleaning Solvent, P-D-680 (Item 21)
Rag, wiping (Item 45)
Lockwasher (96906) MS35333-40 (three required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

Remove metal tube assembly, ammo door hydraulic actuator, nipple behind 7.62 millimeter ammunition box to hose assembly; refer to task 13.

FRAME 30

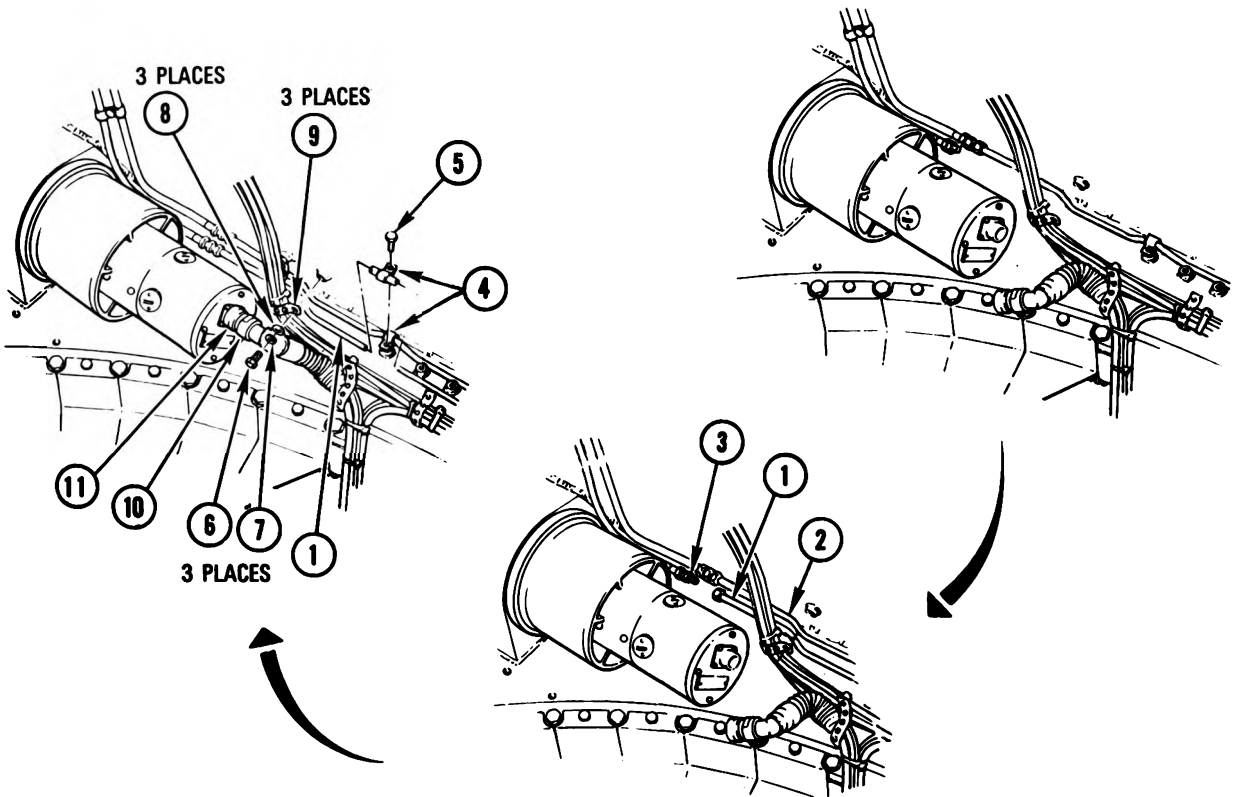
Install Tube Assembly:

NOTE

- Read para. 4-4 before doing any work.
- Use this task to put on door open tube assembly (1) or door closed tube assembly (2). Door open tube (1) is shown.

1. Put tube (1) in place. Screw on and tighten tube (1) to nipple (3) with 5/8-inch and 11/16-inch wrenches.
2. Put clamp (4) on tube (1). Screw in and tighten screw (5) in two clamps (4) with socket, extension, and handle.
3. Screw in and tighten three screws (6), new lockwashers (7), and washers (8) in three straps (9) with socket, universal joint, extension, handle, and 7/16-inch wrench.
4. Screw on electrical connector (10) to exhaust blower (11).

GO TO FRAME 31



ARR82-1010

FRAME 31

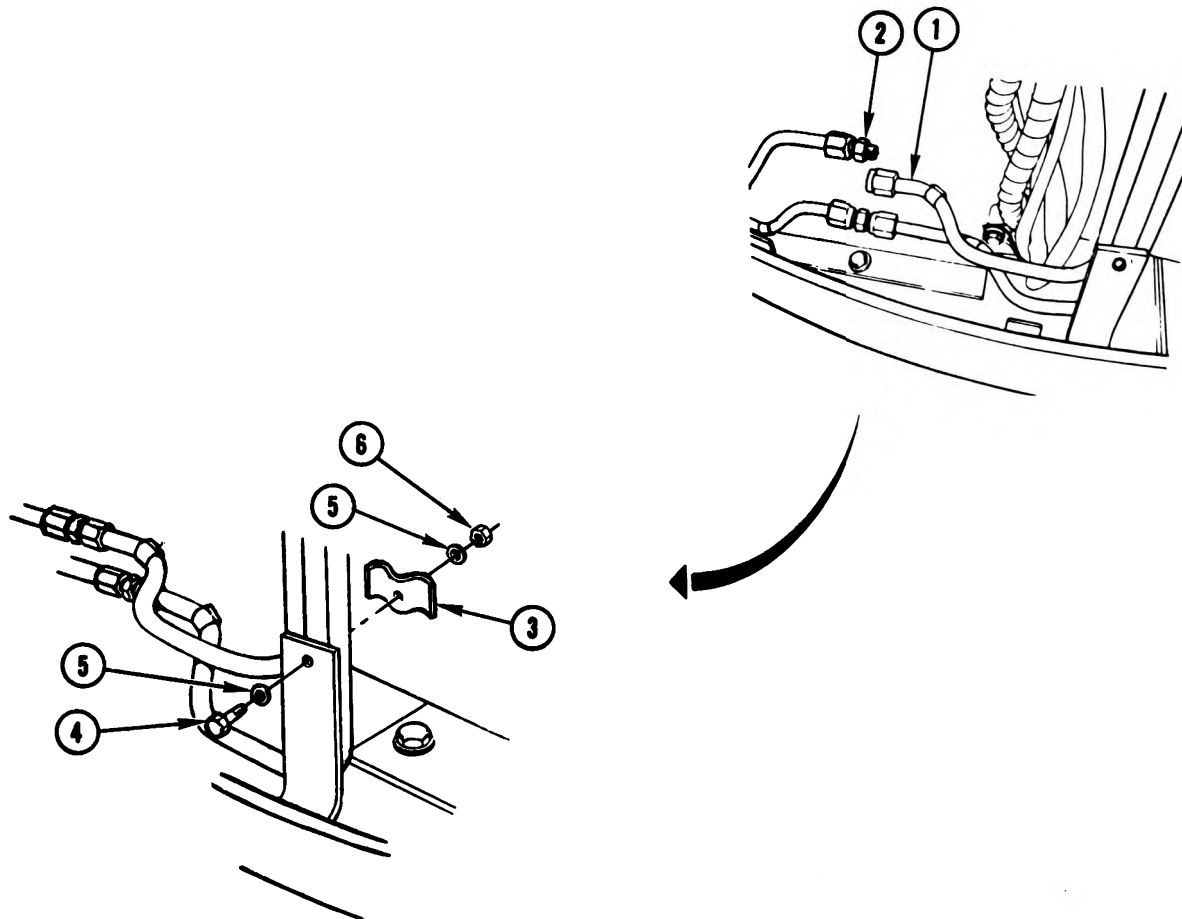
Install Tube Assembly (Continued):

1. Go to driver's compartment. Screw on and tighten tube (1) to nipple (2) with 5/8-inch and 11/16-inch wrenches.
2. Put strap (3) in place. Screw in and tighten screw (4), two washers (5), and nut (6) with socket, handle, and 7/16-inch wrench.

Follow-on Maintenance:

1. Install loader's screen; refer to para. 3-16, task 18.
2. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.
3. Fill hydraulic reservoir; refer to LO 9-2350-255-12.
4. Install loader's intercom control box double angle bracket; refer to para. 5-5, task 17.
5. Install loader's intercom control box; refer to para. 5-5, task 18.

TASK 14 ENDS HERE



ARR82-1011

TASK 15. Replace Hose Assembly, Ammo Door Hydraulic Actuator**Applicability:** All Models**Common Tools:**

Extension, socket wrench, 1/4-inch square drive, 5-inch
Handle, socket wrench, ratchet, 1/4-inch square drive
Socket, socket wrench, 1/4-inch square drive, 7/16-inch
Wrench, combination, 5/8-inch
Wrench, combination, 11/16-inch
Wrench, combination, 3/4-inch
Wrench, combination, 7/8-inch

Special Tools: None**Supplies:****NOTE:** Expendable supplies are defined in appendix A.

Dry Cleaning Solvent, P-D-680 (Item 21)
Hose Assembly (16717) MS8006G360AB
Pencil, writing (Item 42)
Protective caps and plugs (Bulk)
Rag, wiping (Item 45)
Tag, marker (Item 54)(as required)

Personnel: One**Equipment Condition:**

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Reduce system hydraulic pressure to zero; refer to para. 4-4.
2. Remove audio amplifier; refer to para. 5-7, task 3.
3. Remove audio amplifier bracket; refer to para. 5-8, task 1.

FRAME 32

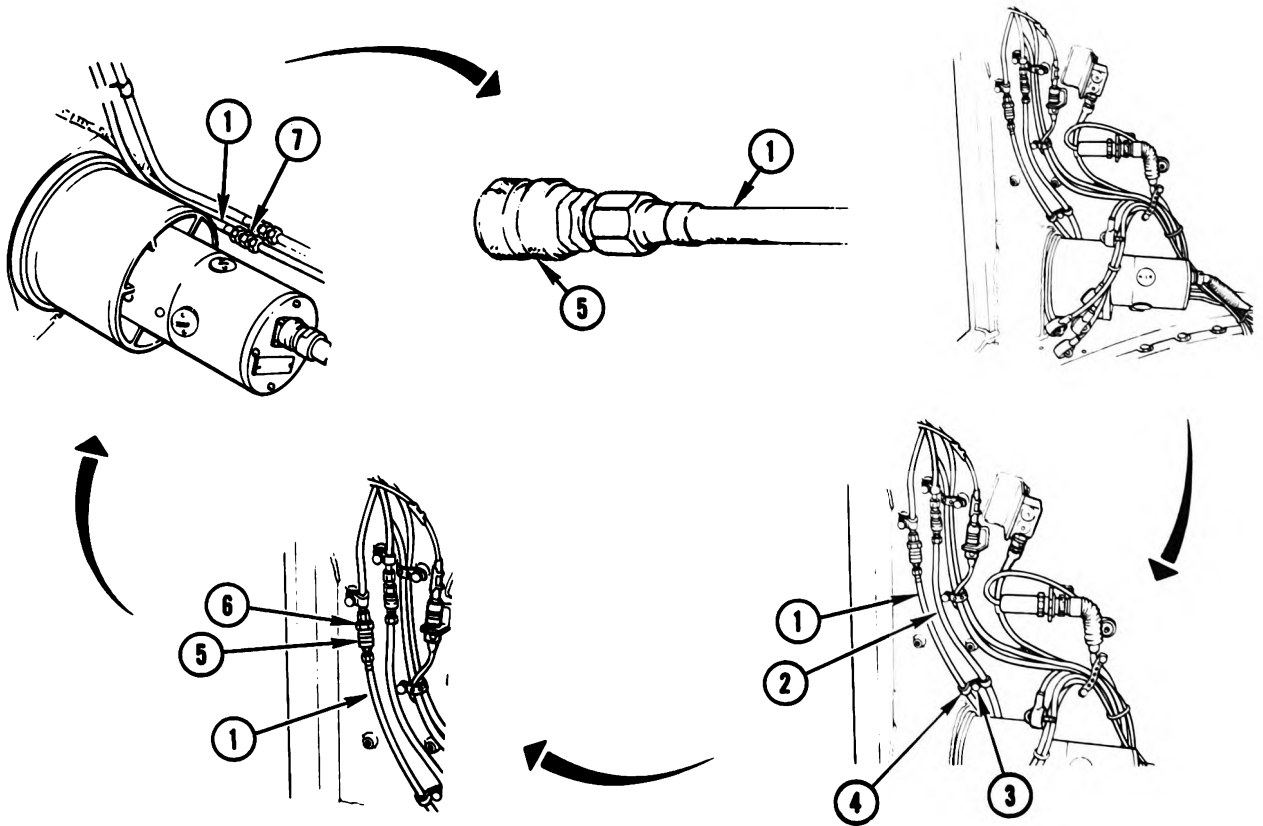
Remove Hose Assembly:

NOTE

- Read para. 4-4 before doing any work.
- Use this task to take off and put on ready door open hose (1) or ready door close hose (2). Ready door open hose is shown (1).

1. Unscrew and take out screw (3) from clamp (4) with socket, extension, and handle. Take clamp (4) off hose (1).
2. Unscrew and take female coupling half (5) off male coupling half (6). Unscrew and take hose (1) off nipple (7) with 5/8-inch and 11/16-inch wrenches.
3. Unscrew and take coupling half (5) off hose (1) with 3/4-inch and 11/16-inch wrenches. Turn in hose (1).

GO TO FRAME 33



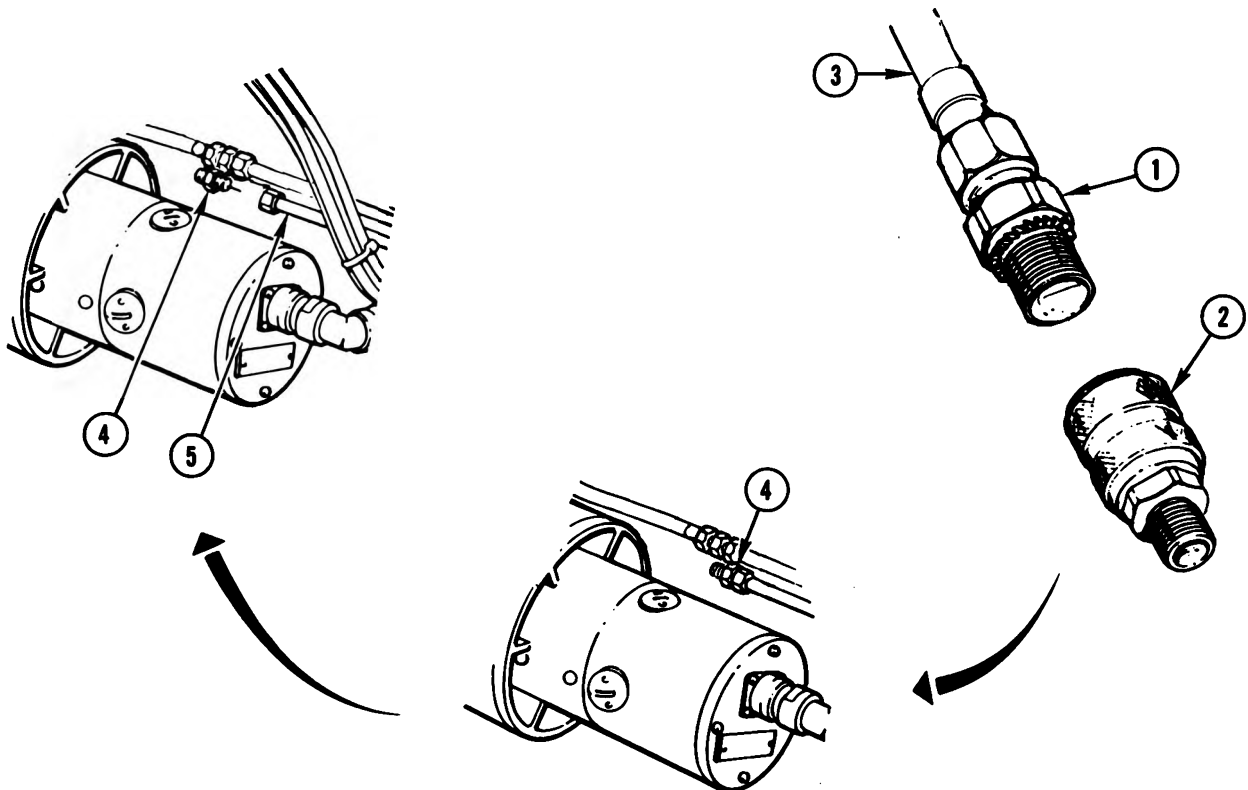
ARR82-1012

FRAME 33

Inspect fittings:

1. Look at coupling halves (1,2) for cracks, breaks, or stripped threads. If either half (1 or 2) is bad do steps 2, 3, and 4. If OK go to step 5.
2. Unscrew and take male coupling half (1) off tube (3) with 7/8-inch and 11/16-inch wrenches. Turn in both coupling halves (1, 2).
3. Screw on and tighten new male coupling half (1) to tube (3) with 7/8-inch and 11/16-inch wrenches.
4. Set new female coupling half (2) aside for later use.
5. Look at nipple (4) for cracks, breaks, or stripped threads. If bad do steps 6 and 7. If OK go to frame 34.
6. Unscrew and take nipple (4) off tube (5) with 5/8-inch and 11/16-inch wrenches. Turn in nipple (4).
7. Screw on and tighten new nipple (4) with 5/8-inch and 11/16-inch wrenches.

GO TO FRAME 34



ARR82-1013

FRAME 34

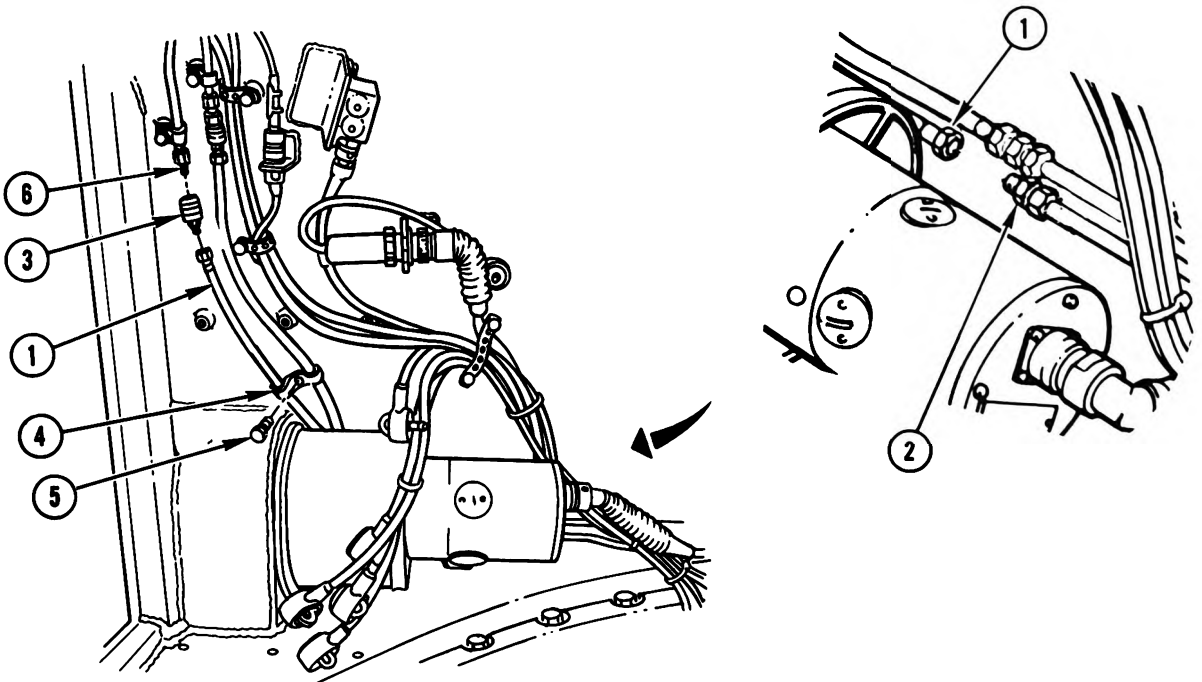
Install Hose Assembly:

1. Screw on and tighten new hose (1) to nipple (2) with 5/8-inch and 11/16-inch wrenches.
2. Screw on and tighten female coupling half (3) to hose (1) with 11/16-inch and 3/4-inch wrenches.
3. Put clamp (4) on hose (1). Screw in and tighten screw (5) with socket, extension, and handle.
4. Screw on and tighten coupling (3) to coupling (6).

Follow-on Maintenance:

1. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.
2. Fill hydraulic reservoir; refer to LO 9-2350-255-12.
3. Install audio amplifier bracket; refer to para. 5-8, task 12.
4. Install audio amplifier; refer to para. 5-7, task 4.

TASK 15 ENDS HERE



ARR82-1014

TASK 16. Replace Coupling Assembly, Ammo Door Hydraulic Actuator

Applicability: All Models

Common Tools:

- Wrench, combination, 11/16-inch
- Wrench, combination, 3/4-inch
- Wrench, combination, 7/8-inch

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Coupling Assembly, (19207) 12305018
 - Dry Cleaning Solvent, P-D-680 (Item 21)
 - Pencil, writing (Item 42)
 - Protective caps and plugs (Bulk)
 - Rag, wiping (Item 45)
 - Tag, marker, (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Reduce system hydraulic pressure to zero; refer to para. 4-4.

FRAME 35

Remove Coupling:

NOTE

Read para. 4-4 before doing any work.

1. Unscrew and take tube (1) off coupling (2) with 11/16-inch and 7/8-inch wrenches.
2. Unscrew and take hose (3) off coupling (2) with 11/16-inch and 3/4-inch wrenches. Turn in coupling (2).

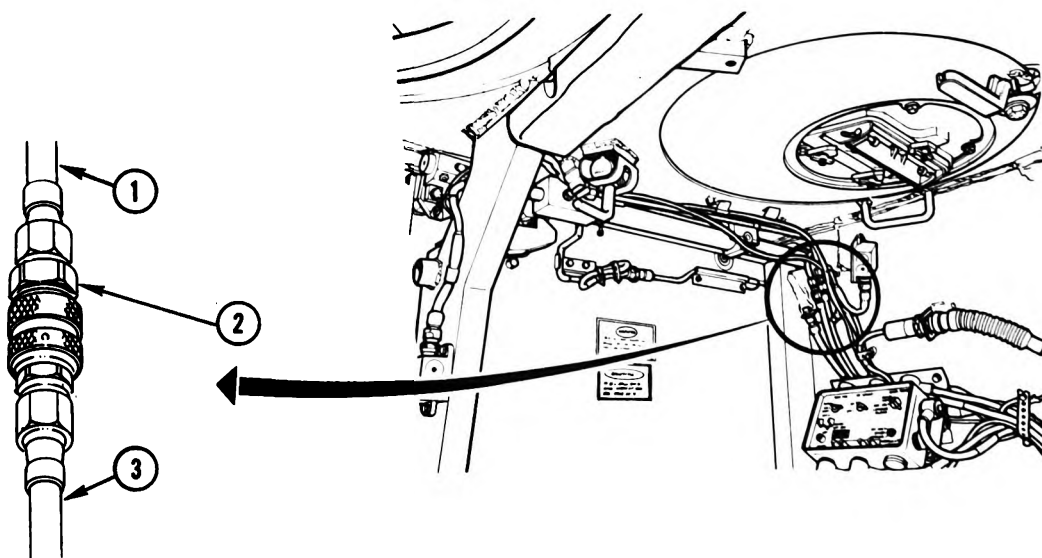
Install Coupling:

3. Screw in and tighten new coupling (2) to tube (1) with 11/16-inch and 7/8-inch wrenches.
4. Screw on and tighten hose (3) to coupling (2) with 11/16-inch and 3/4-inch wrenches.

Follow-on Maintenance:

1. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.
2. Fill hydraulic system reservoir; refer to LO 9-2350-255-12.

TASK 16 ENDS HERE



ARR82-1015

TASK 17. Replace Metal Tube Assembly, Ammo Door Hydraulic Actuator to Coupling Assembly

Applicability: All Models

Common Tools:

Extension, socket wrench, 1/4-inch square drive
Handle, socket wrench, ratchet, 1/4-inch square drive
Socket, socket wrench, 1/4-inch square drive, 1/4-inch
Socket, socket wrench, 1/4-inch square drive, 7/16-inch
Wrench, combination, 5/16-inch
Wrench, combination, 7/16-inch
Wrench, combination, 9/16-inch
Wrench, combination, 11/16-inch
Wrench, combination, 3/4-inch
Wrench, combination, 7/8-inch

Special Tools: None

Supplies: None

Note: Expendable supplies are defined in appendix A.
Dry Cleaning Solvent, P-D-680 (Item 21)
Lockwasher (96906) MS35338-155 (three required)
Pencil, writing (Item 42)
Protective caps and plugs (Bulk)
Rag, wiping (Item 45)
Tag, marker (Item 54) (as required)
Tube Assembly (19207) 12304959

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Reduce system hydraulic pressure to zero; refer to para. 4-4.

FRAME 36

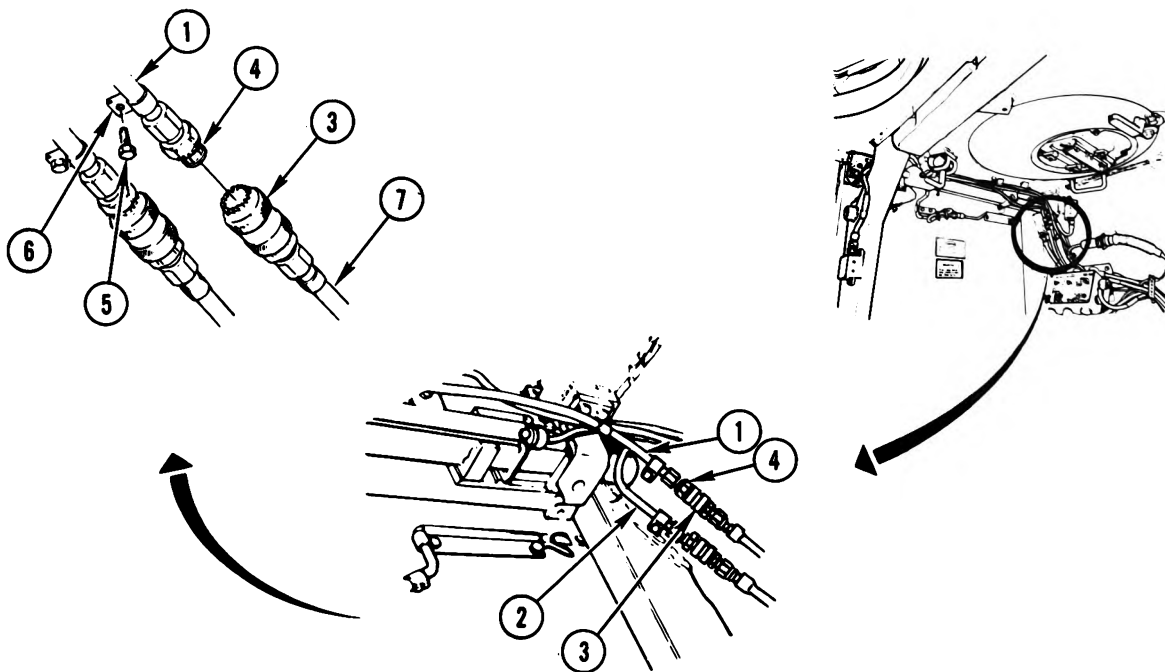
Remove Tube Assembly:

NOTE

- Read para. 4-4 before doing any work.
- Use this task to take off and put on door close tube (1) or door open tube (2). Door close tube (1) is shown.
- If door open tube (2) is being taken off, do step 1. If door close tube (1) is being taken off, skip step 1.

1. Remove ammo door hydraulic actuator, clips, brackets, and clamps; refer to para. 4-10, task 8. Then go to frame 38.
2. Unscrew and take female coupling half (3) off male coupling half (4).
3. Unscrew and take screw (5) out of clamp (6) with 7/16-inch socket, extension, and handle. Take clamp (6) off tube (1).
4. Unscrew and take coupling half (4) off tube (1) with 7/8-inch and 11/16-inch wrenches.

GO TO FRAME 37



ARR82-1016

FRAME 37

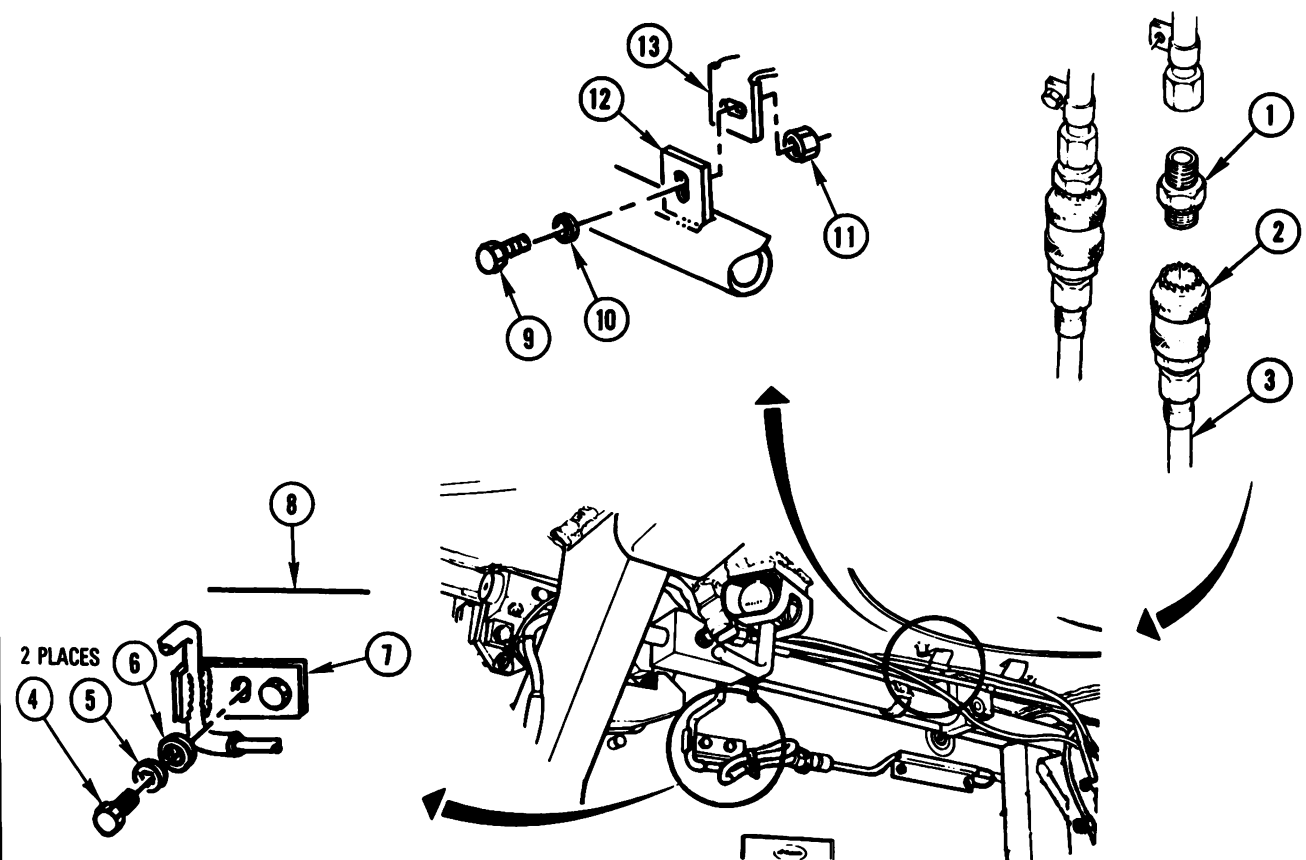
Inspect Fitting:

1. Look at male coupling half (1) for cracks, breaks, or stripped threads. If bad do steps 2 and 3. If OK, set aside for later use and go to frame 38.
2. Unscrew and take female coupling half (2) off hose (3) with 3/4-inch and 11/16-inch wrenches. Turn in couplings (1,2).
3. Screw new female coupling half (2) on hose (3) with 3/4-inch and 11/16-inch wrenches.

Remove Tube Assembly:

4. Unscrew and take out two screws (4), lockwashers (5), and washers (6) from harness bracket (7) on sliding metal ready door (8) with 7/16-inch socket, extension, and handle. Get rid of lockwashers (5).
5. Unscrew and take off screw (9), washer (10), and nut (11) from metallic tube bracket (12) and support bracket (13) with 7/16-inch socket, extension, handle, and 7/16-inch wrench.

GO TO FRAME 38



ARR82-1017

FRAME 38

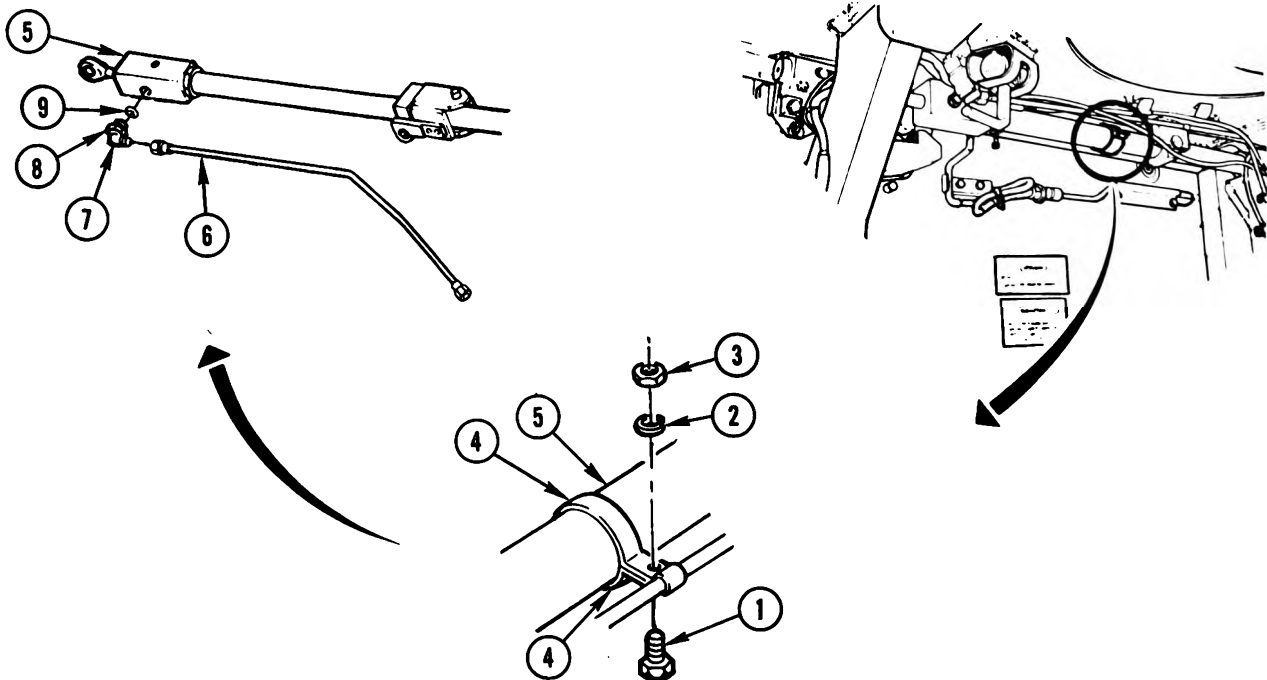
Remove Tube Assembly (Continued):

1. Unscrew and take off screw (1), lockwasher (2), and nut (3) from two spring tension clips (4) with 1/4-inch socket, extension, handle, and 5/16-inch wrench. Get rid of lockwasher (2).
2. Take clips (4) off actuator (5).
3. Unscrew and take tube (6) off elbow (7) with 9/16-inch and 11/16-inch wrenches. Turn in tube (6).

Inspect Fitting:

4. Look at elbow (7) for cracks, breaks, or stripped threads. If bad do steps 5, 6 and 7. If OK go to frame 39.
5. Unscrew locknut (8) with 11/16-inch wrench.
6. Unscrew and take off elbow (7) and packing (9) from actuator (5) with 9/16-inch wrench. Turn in elbow (7). Get rid of packing (9).
7. Screw in and tighten new elbow (7) locknut (8) and packing (9) with 9/16-inch and 11/16-inch wrenches.

GO TO FRAME 39



ARR82-1018

FRAME 39

Install Tube Assembly:

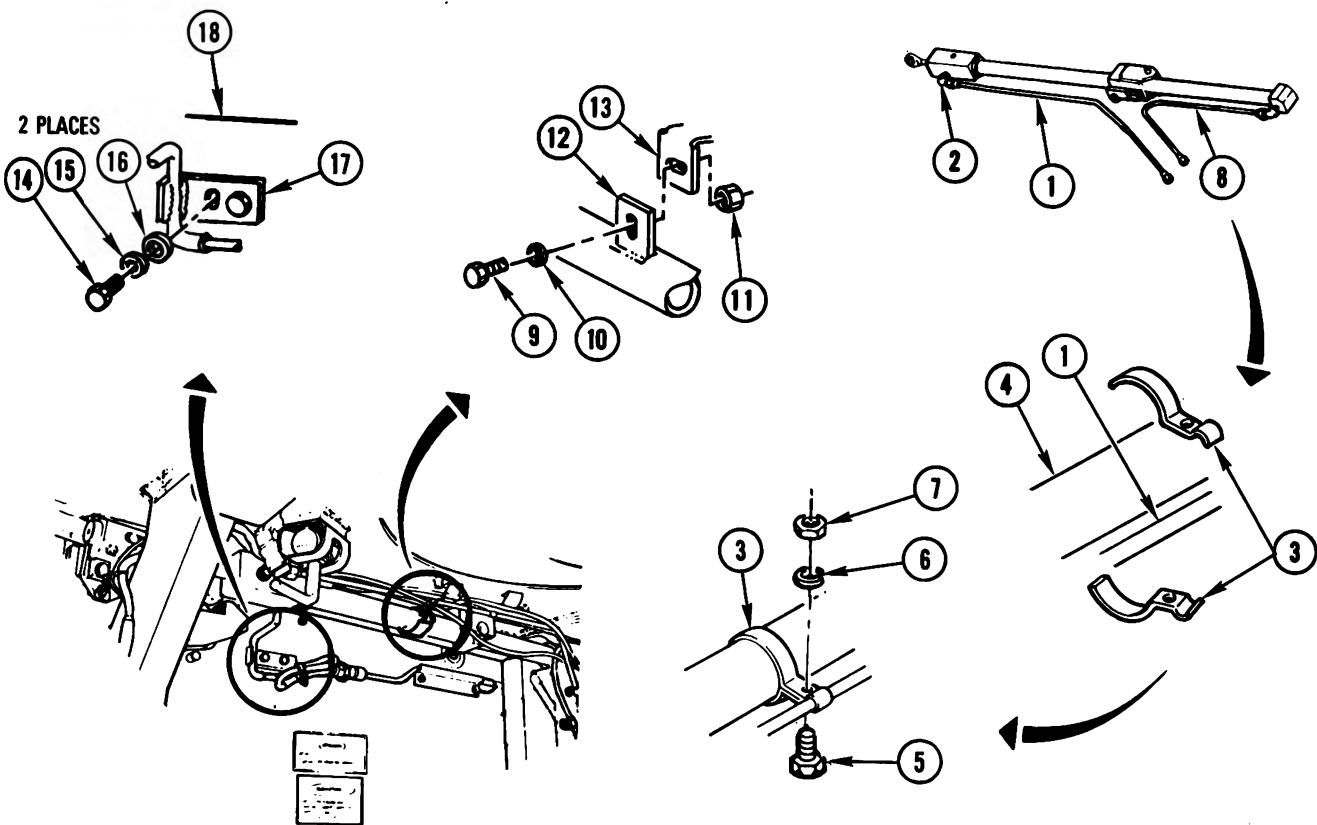
1. Screw on and tighten tube (1) to elbow (2) with 9/16-inch and 11/16-inch wrenches.
2. Put two spring tension clips (3) on actuator (4) and tube (1). Screw in and tighten screw (5), new lockwasher (6), and nut (7) with 1/4-inch socket, extension, handle, and 5/16-inch wrench.

NOTE

If door close tube (1) is being put on, go to steps 4 and 5. If door open tube (8) is being put on, do step 3.

3. Install ammo door hydraulic actuator clips, brackets, and clamps; refer to para. 4-10, task 8. **TASK 17 ENDS HERE.**
4. Screw in and tighten screw (9), washer (10), and nut (11) in metallic tube bracket (12) and support bracket (13) with 7/16-inch socket, extension, handle, and 7/16-inch wrench.
5. Screw in and tighten two screws (14) new lockwashers (15) and washers (16) in harness bracket (17) on sliding metal ready door (18) with 7/16-inch socket, extension, and handle.

GO TO FRAME 40



ARR82-1019

FRAME 40

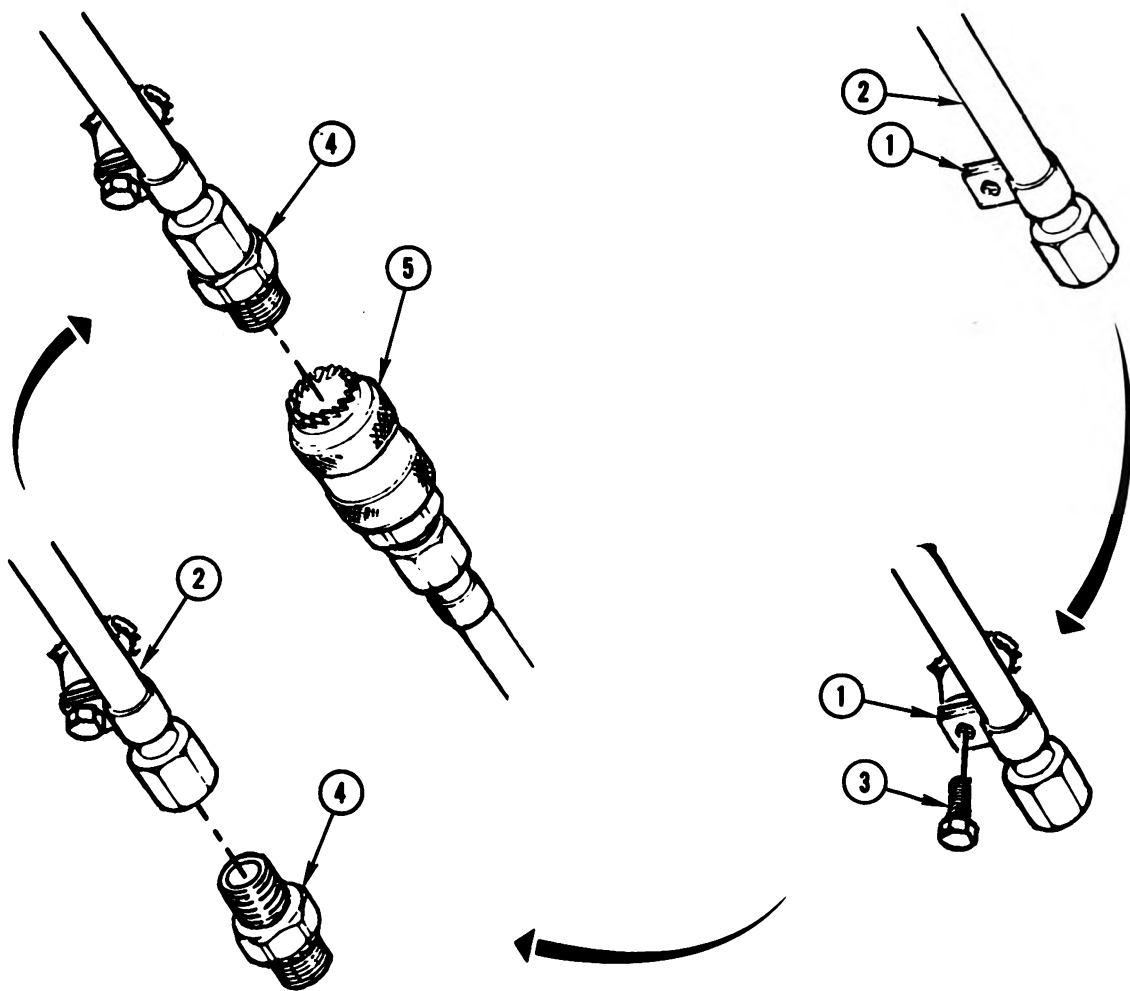
Install Tube Assembly (Continued):

1. Put clamp (1) on tube (2). Screw in and tighten screw (3) in clamp (1) with 7/16-inch socket, handle, and extension.
2. Screw on and tighten male coupling half (4) to tube (2) with 7/8-inch and 11/16-inch wrenches. Screw on and tighten coupling (5) to coupling (4).

Follow-on Maintenance.

1. Bleed air from ammo door hydraulic actuator; refer to para. 4-10, task 10.
2. Fill hydraulic reservoir; refer to LO 9-2350-255-12.

TASK 17 ENDS HERE



ARR82-1020

TASK 18. Remove Hose Assembly, Hydraulic Turret Valve to Traverse Servomechanism Assembly**Applicability:** All Models**Common Tools:**

Wrench, combination, 1-1/2 inch (two required)

Special Tools: None**Supplies:****NOTE:** Expendable supplies are defined in appendix A.

Dry Cleaning Solvent, P-D-680 (Item 21)

Pencil, writing (Item 42)

Protective caps and plugs (Bulk)

Rag, wiping (Item 45)

Tag, marker (Item 54) (as required)

Personnel: One**Equipment Condition:**

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret to line up hydraulic turret valve and traverse servomechanism assembly with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.
4. Remove tube metal assembly, hydraulic turret valve to angle valve; refer to task 29.
5. Remove gunner's screen; refer to para. 3-16, task 1.

FRAME 41

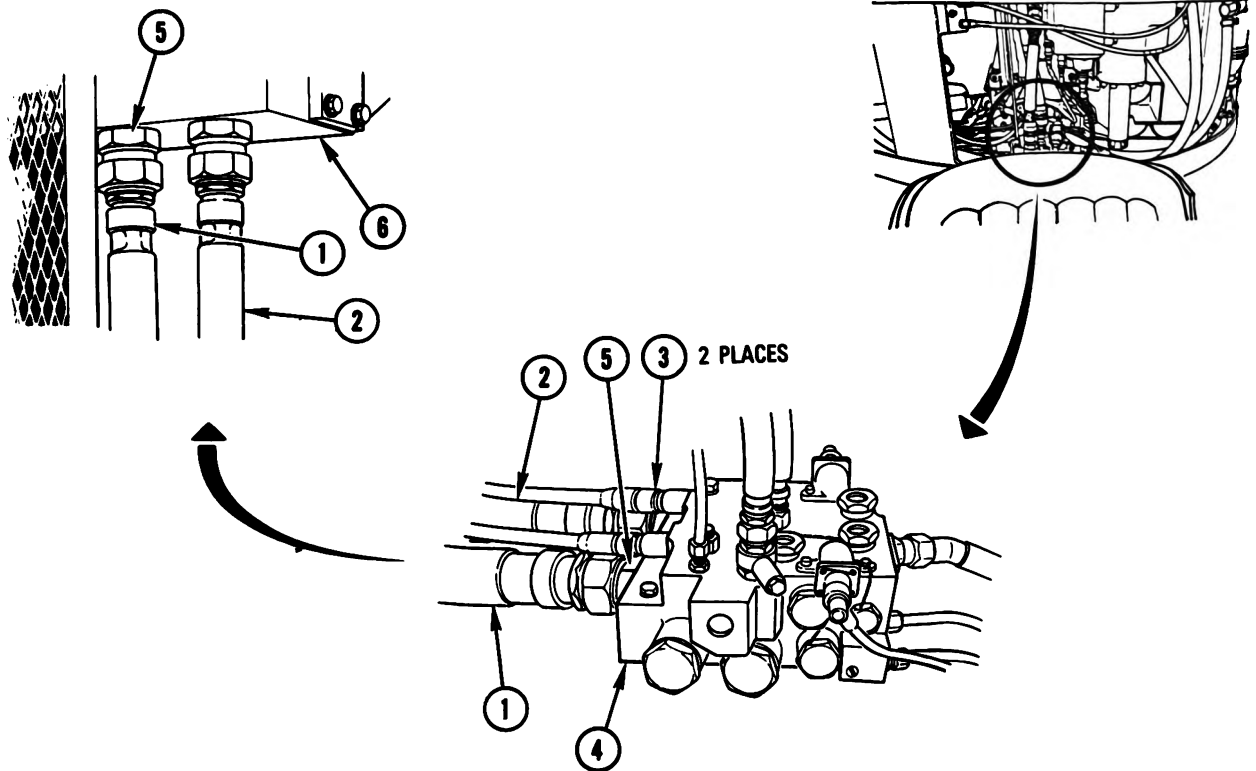
Remove Hose Assembly:

NOTE

- Read para. 4-4 before doing any work.
- Use this task to take off pressure hose (1) or return hose (2). Pressure hose (1) is shown.

1. Unscrew and take off two electrical connectors (3) from hydraulic turret valve (4).
2. Unscrew and take off hose (1) from adapter (5) on valve (4) and traverse servomechanism assembly (6) with two 1-1/2 inch wrenches.
3. Look at hose (1) for cracks, breaks, or stripped threads. If bad turn in. If OK set aside for later use.

GO TO FRAME 42



ARR82-1021

FRAME 42

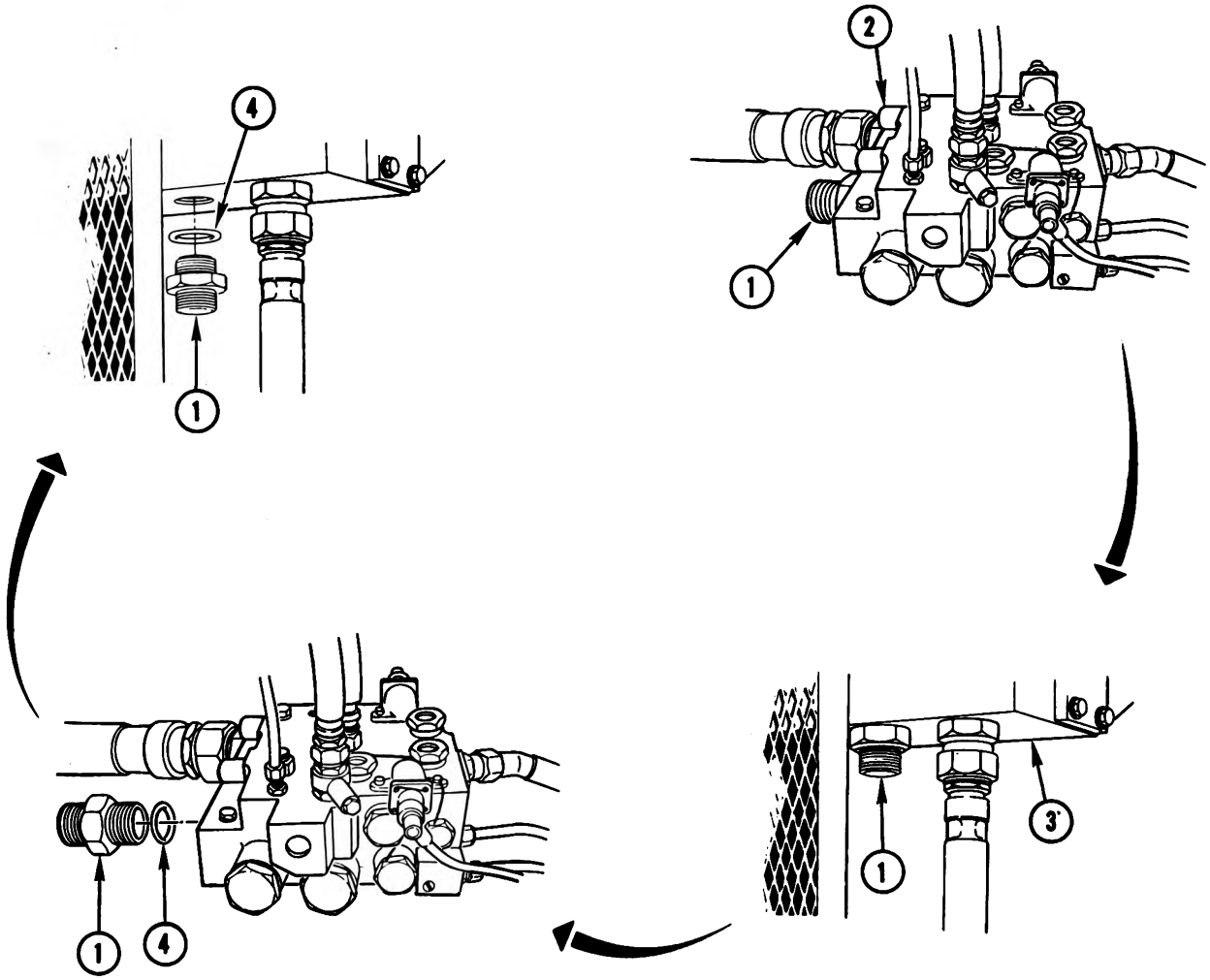
Inspect Fittings:

1. Look at adapters (1) on hydraulic turret valve (2) and traverse servomechanism assembly (3) for cracks, breaks, or stripped threads. If any adapter (1) is bad, do steps 2 and 3. If all are OK, TASK 18 ENDS HERE.
2. Unscrew and take out bad adapter (1) and packing (4) with 1-1/2 inch wrench. Turn in adapter (1). Get rid of packing (4).
3. Screw in and tighten new adapter (1) and new packing (4) with wrench.

Follow-on Maintenance:

NOTE: To install hose assembly, hydraulic turret valve to traverse servomechanism assembly; refer to task 19.

TASK 18 ENDS HERE



ARR82-1022

TASK 19. Install Hose Assembly, Hydraulic Turret Valve to Traverse Servomechanism Assembly

Applicability: All Models

Common Tools:

Wrench, combination, 1-1/2 inch (two required)

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Dry Cleaning Solvent, P-D-680 (Item 21)

Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove hose assembly, hydraulic turret valve to traverse servomechanism assembly; refer to task 18.

FRAME 43

Install Hose Assembly:

NOTE

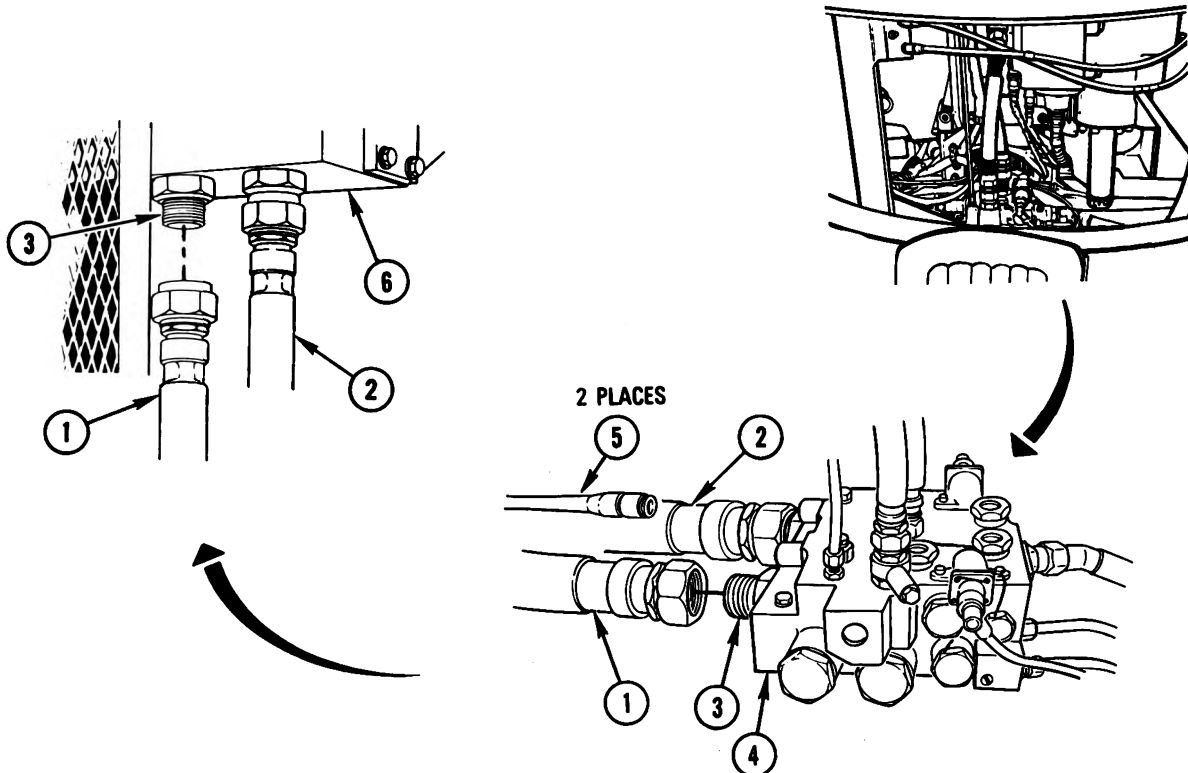
- Read para. 4-4 before doing any work.
- Use this task to put on pressure hose (1) or return hose (2). Hose (1) is shown.

1. Screw on and tighten new hose (1) to adapter (3) on hydraulic turret valve (4) with two 1-1/2 inch wrenches.
2. Screw on and tighten two electrical connectors (5) to valve (4).
3. Screw on and tighten other end of hose (1) to adapter (3) on traverse servomechanism assembly (6) with two 1-1/2 inch wrenches.

Follow-on Maintenance:

1. Install metal tube assembly, hydraulic turret valve to angle valve; refer to task 30.
2. Bleed air from traverse hydraulic system; refer to para. 4-5, task 2.
3. Fill hydraulic reservoir; refer to LO 9-2350-255-12.
4. Install (gunner's) screen; refer to para. 3-16, task 18.

TASK 19 ENDS HERE



ARR82-1023

TASK 19. Install Hose Assembly, Hydraulic Turret Valve to Traverse Servomechanism Assembly

Applicability: All Models

Common Tools:

Wrench, combination, 1-1/2 inch (two required)

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Dry Cleaning Solvent, P-D-680 (Item 21)

Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove hose assembly, hydraulic turret valve to traverse servomechanism assembly; refer to task 18.

FRAME 43

Install Hose Assembly:

NOTE

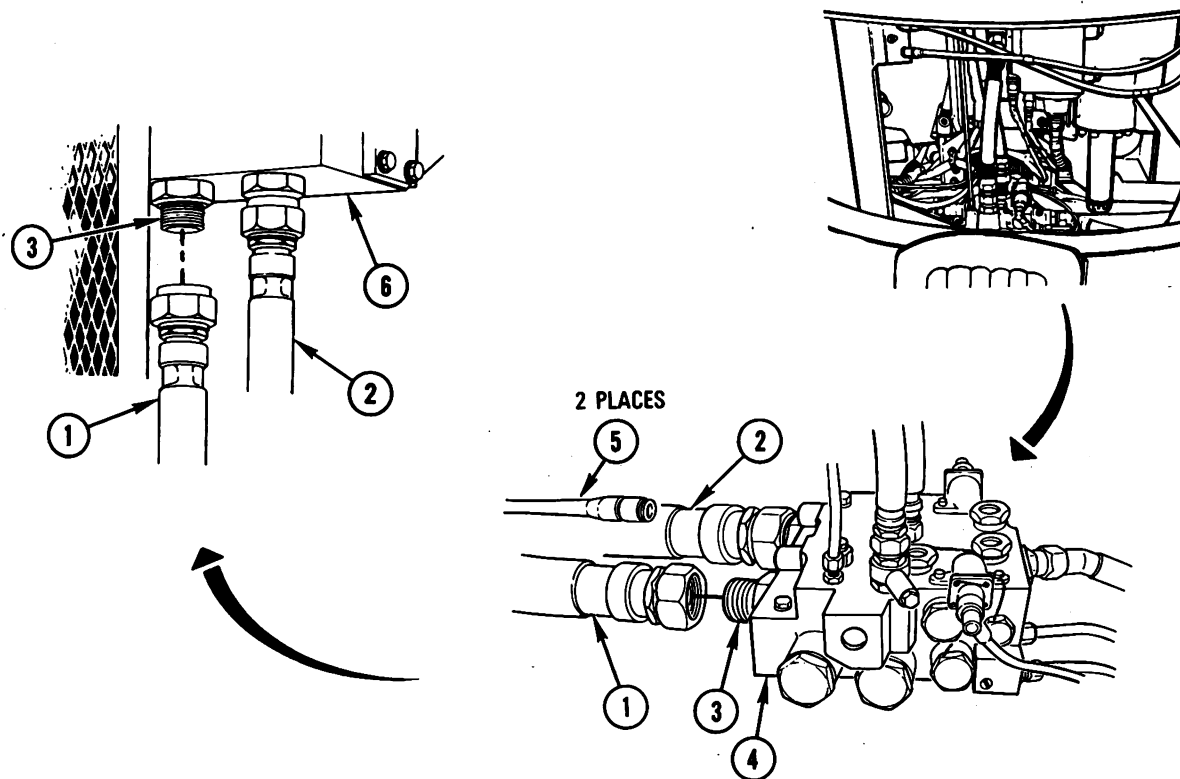
- Read para. 4-4 before doing any work.
- Use this task to put on pressure hose (1) or return hose (2). Hose (1) is shown.

1. Screw on and tighten new hose (1) to adapter (3) on hydraulic turret valve (4) with two 1-1/2 inch wrenches.
2. Screw on and tighten two electrical connectors (5) to valve (4).
3. Screw on and tighten other end of hose (1) to adapter (3) on traverse servomechanism assembly (6) with two 1-1/2 inch wrenches.

Follow-on Maintenance:

1. Install metal tube assembly, hydraulic turret valve to angle valve; refer to task 30.
2. Bleed air from traverse hydraulic system; refer to para. 4-5, task 2.
3. Fill hydraulic reservoir; refer to LO 9-2350-255-12.
4. Install (gunner's) screen; refer to para. 3-16, task 18.

TASK 19 ENDS HERE



ARR82-1023

TASK 20. Replace Hose Assembly, Traverse Servomechanism Assembly to Turret Traversing Mechanism Assembly

Applicability: All Models

Common Tools:

Wrench, combination, 7/16-inch
Wrench, combination, 9/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Dry Cleaning Solvent, P-D-680 (Item 21)
Hose Assembly (16717) MS800GE150MB
Pencil, writing (Item 42)
Protective caps and plugs (Bulk)
Rag, wiping (Item 45)
Tag, marker (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

Reduce system hydraulic pressure to zero; refer to para. 4-4.

FRAME 44**Remove Hose Assembly:****NOTE**

- Read para. 4-4 before doing any work.
- Use this task to take off and put on pressure hose (1) or return hose (2). Pressure hose (1) shown.

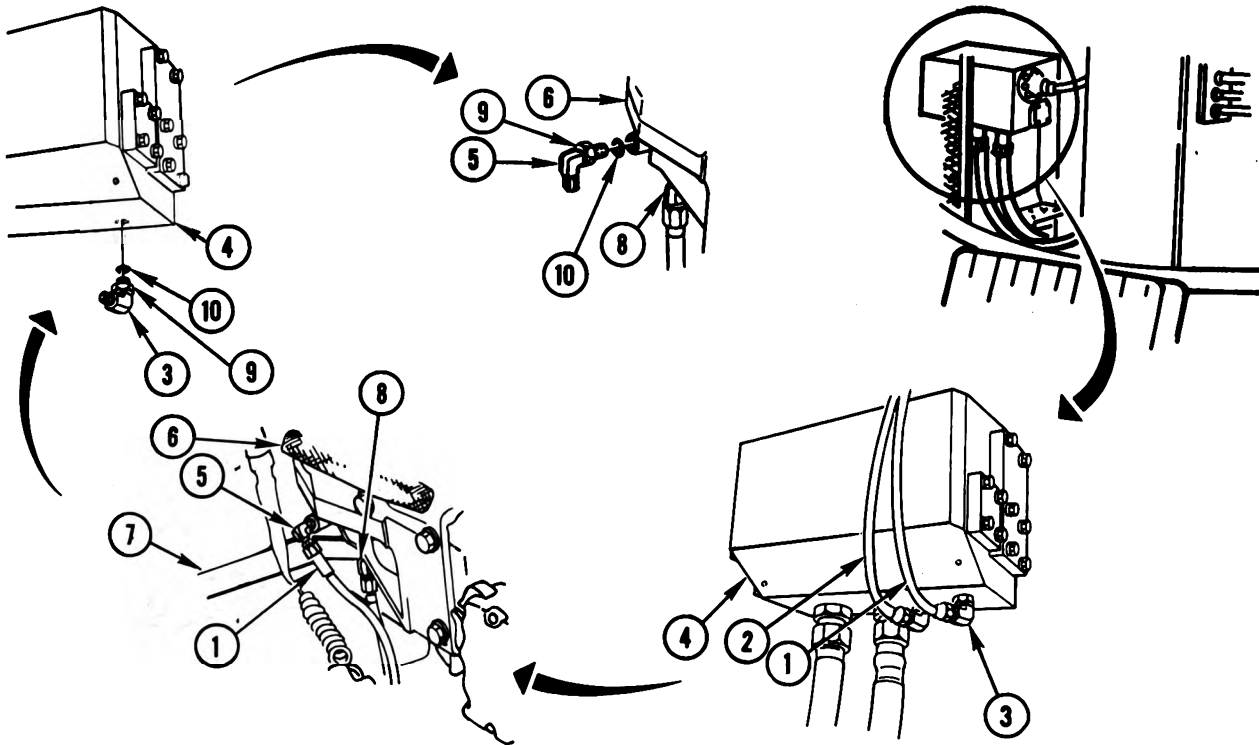
1. Unscrew and take hose (1) off elbow (3) on traverse servomechanism assembly (4) and elbow (5) on traversing mechanism (6) with 7/16-inch and 9/16-inch wrenches. Turn in hose (1).
2. Look at elbows (3, 5) for cracks, breaks, or stripped threads. If bad do step 3. If OK go to frame 45.

NOTE

Gunner's left knee guard (7) must be taken off to replace elbow (8); refer to para. 3-12, task 1.

3. Unscrew locknut (9) and take out elbow (3 or 5) and packing (10) with 9/16-inch and 7/16-inch wrenches. Turn in elbow (3 or 5). Get rid of packing (10).

GO TO FRAME 45



ARR82-1024

FRAME 45

Install Hose Assembly:

NOTE

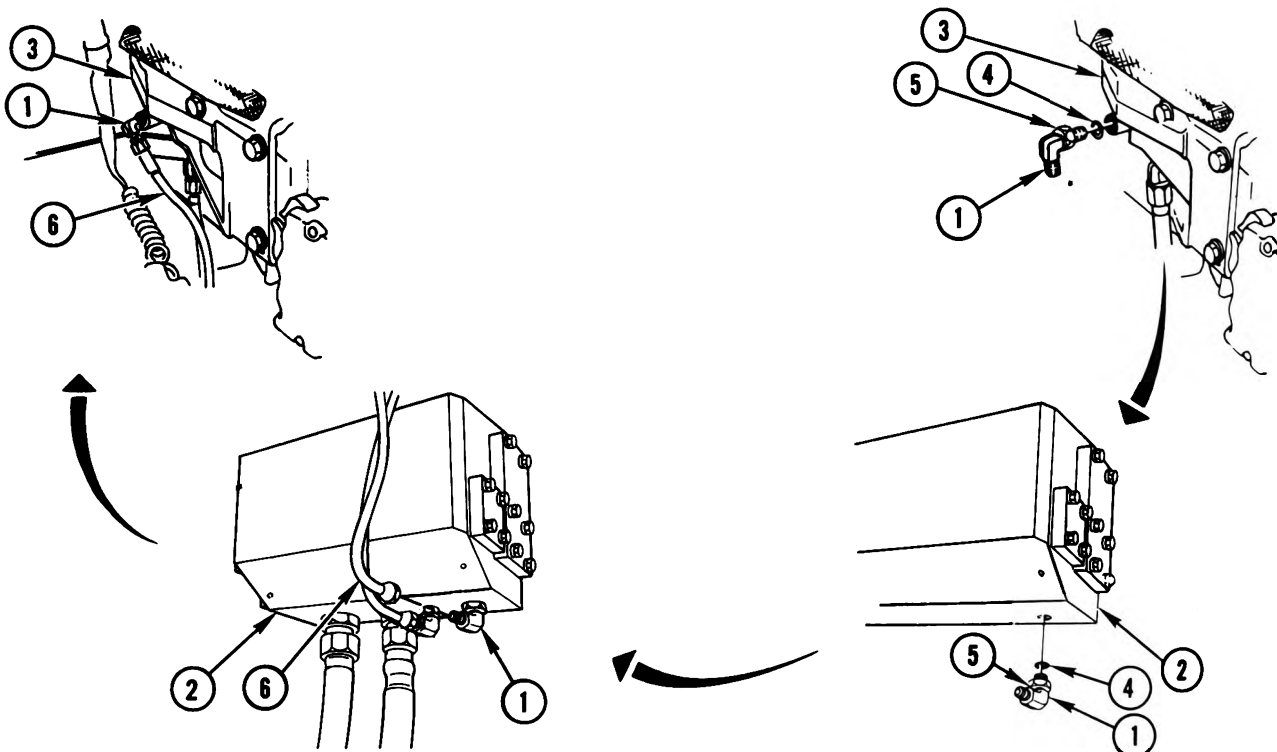
If elbow (1) was taken off traverse servomechanism assembly (2) or mechanism (3) do step 1. If not go to step 2.

1. Screw in elbow (1) and packing (4) and tighten jamnut (5) on elbow (1) with 7/16-inch and 9/16-inch wrenches.
2. Screw on and tighten new hose (6) on elbow (1) on servomechanism (2) and elbow (1) on mechanism (3) with 7/16-inch and 9/16-inch wrenches.

Follow-on Maintenance:

1. Bleed air from traverse hydraulic system; refer to para. 4-5, task 2.
2. Fill hydraulic reservoir; refer to LO-9-2350-255-12.

TASK 20 ENDS HERE



ARR82-1025

TASK 21. Replace Angle Valve, Angle Bracket

Applicability: All Models

Common Tools:

- Handle, socket wrench, ratchet, 3/8-inch square drive
- Socket, socket wrench, 3/8-inch square drive, 7/16-inch
- Wrench, combination, 7/16-inch
- Wrench, combination, 9/16-inch
- Wrench, combination, 11/16-inch (two required)

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

- Bracket, angle (19207) 12288311
- Dry Cleaning Solvent, P-D-680 (Item 21)
- Pencil, writing (Item 42)
- Protective caps and plugs (Bulk)
- Rag, wiping (Item 45)
- Tag, marker (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until hydraulic turret valve lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.
4. Remove angle valve; refer to task 22.

FRAME 46

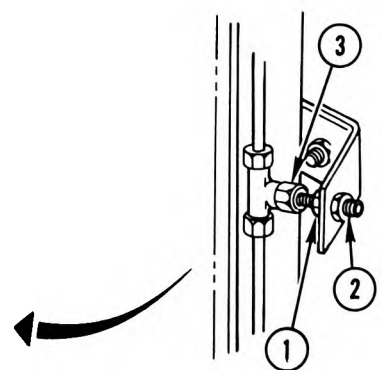
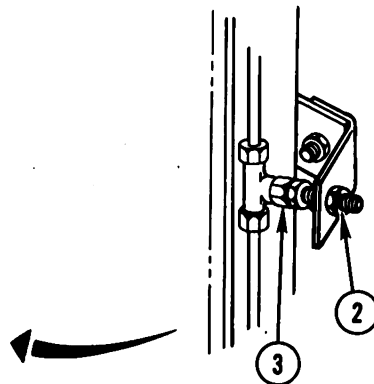
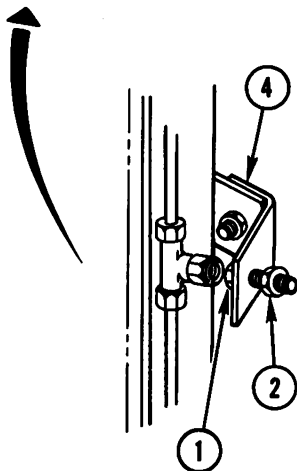
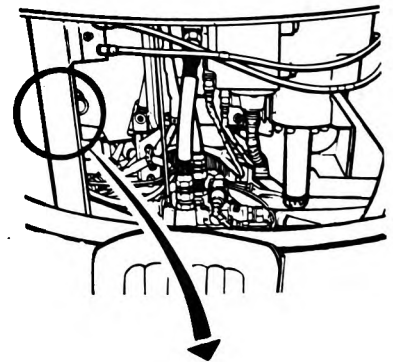
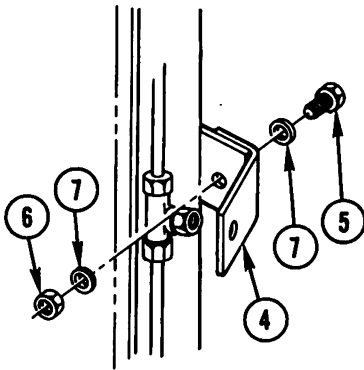
Remove Bracket:

NOTE

Read para. 4-4 before doing any work.

1. Unscrew jamnut (1) on nipple (2) back to tube fitting locknut (3) with two 11/16-inch wrenches.
2. Unscrew nipple (2) from locknut (3) with 9/16-inch and 11/16-inch wrenches.
3. Unscrew and take jamnut (1) off nipple (2). Take nipple (2) out of bracket (4).
4. Unscrew and take out screw (5), nut (6), and two washers (7) from bracket (4) with socket, handle, and 7/16-inch wrench. Turn in bracket (4).

GO TO FRAME 47



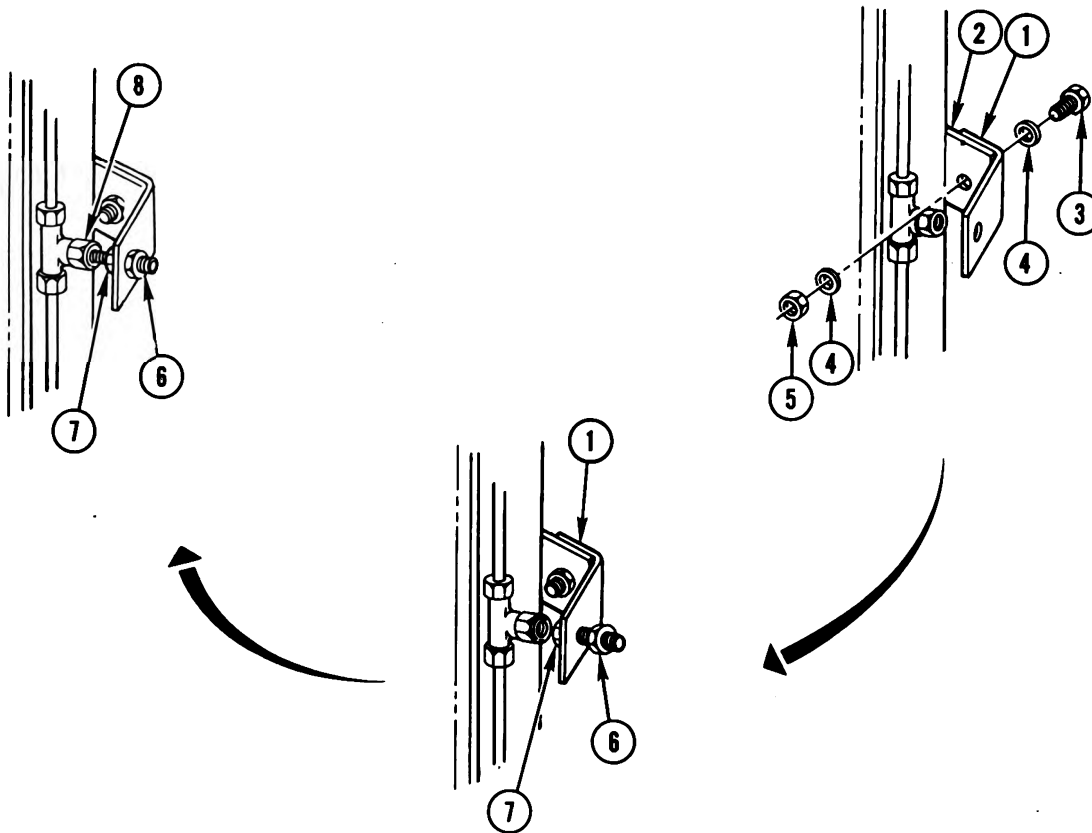
ARR82-1026

FRAME 47**Install Bracket:**

1. Hold new bracket (1) on support (2).
2. Screw on and tighten screw (3), washers (4), and nut (5), with socket, handle, and 7/16-inch wrench.
3. Put nipple (6) in bracket (1) and screw on jamnut (7).
4. Screw in and tighten nipple (6) in locknut (8) with 9/16-inch and 11/16-inch wrenches.
5. Tighten jamnut (7) to nipple (6) with two 11/16-inch wrenches.

Follow-on Maintenance:

1. Install angle valve; refer to task 23.
2. Prime elevation hand pump; refer to para. 4-8, task 6.
3. Bleed air from elevation hand pump; refer to para. 4-8, task 7.
4. Bleed air from elevation mechanism; refer to para. 4-8, task 8.
5. Fill hydraulic reservoir; refer to LO-9-2350-255-12.

TASK 21 ENDS HERE

ARR82-1027

TASK 22. Remove Angle Valve

Applicability: All Models

Common Tools:

- Wrench, adjustable, 8-inch
- Wrench, combination, 7/16-inch
- Wrench, combination, 9/16-inch
- Wrench, combination, 11/16-inch (two required)

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Pencil, writing (Item 42)
 - Protective caps and plugs (Bulk)
 - Rag, wiping (Item 45)
 - Tag, marker (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until hydraulic turret valve lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.

FRAME 48

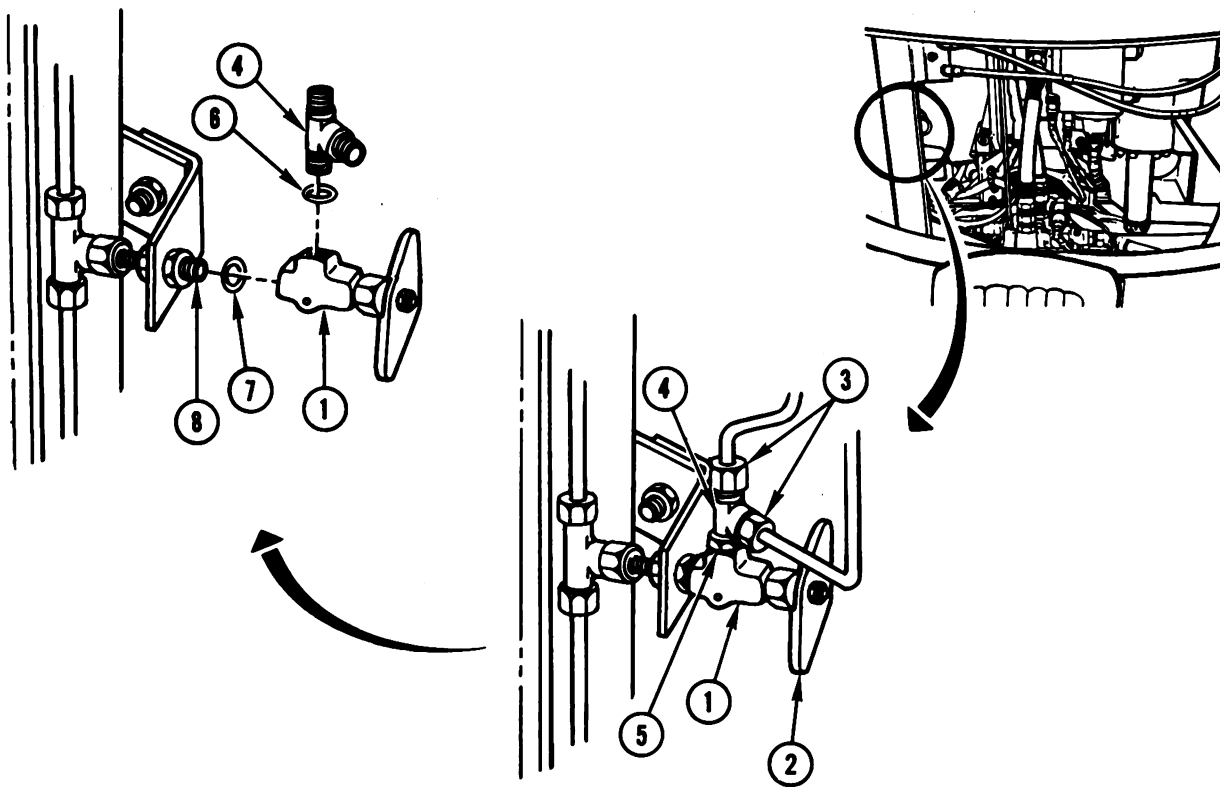
Remove Valve:

NOTE

Read para. 4-4 before doing any work.

1. Open angle valve (1) by turning handle (2) counterclockwise until handle (2) stops. Unscrew and take off two tubes (3) from tube tee (4) with 7/16-inch and 9/16-inch wrenches.
2. Loosen locknut (5) on tee (4) with 7/16-inch and 9/16-inch wrenches.
3. Unscrew and take tee (4) and packing (6) off valve (1) with 9/16-inch and 7/16-inch wrenches. Get rid of packing (6).
4. Look at tee (4) for cracks, breaks, or stripped threads. If bad turn in. If OK set aside for later use.
5. Unscrew and take off valve (1) and packing (7) from nipple (8) with 11/16-inch and adjustable wrenches. Get rid of packing (7).
6. Look at valve (1) for cracks, breaks, or stripped threads. If bad turn in. If OK set aside for later use.

GO TO FRAME 49



ARR82-1028

FRAME 49

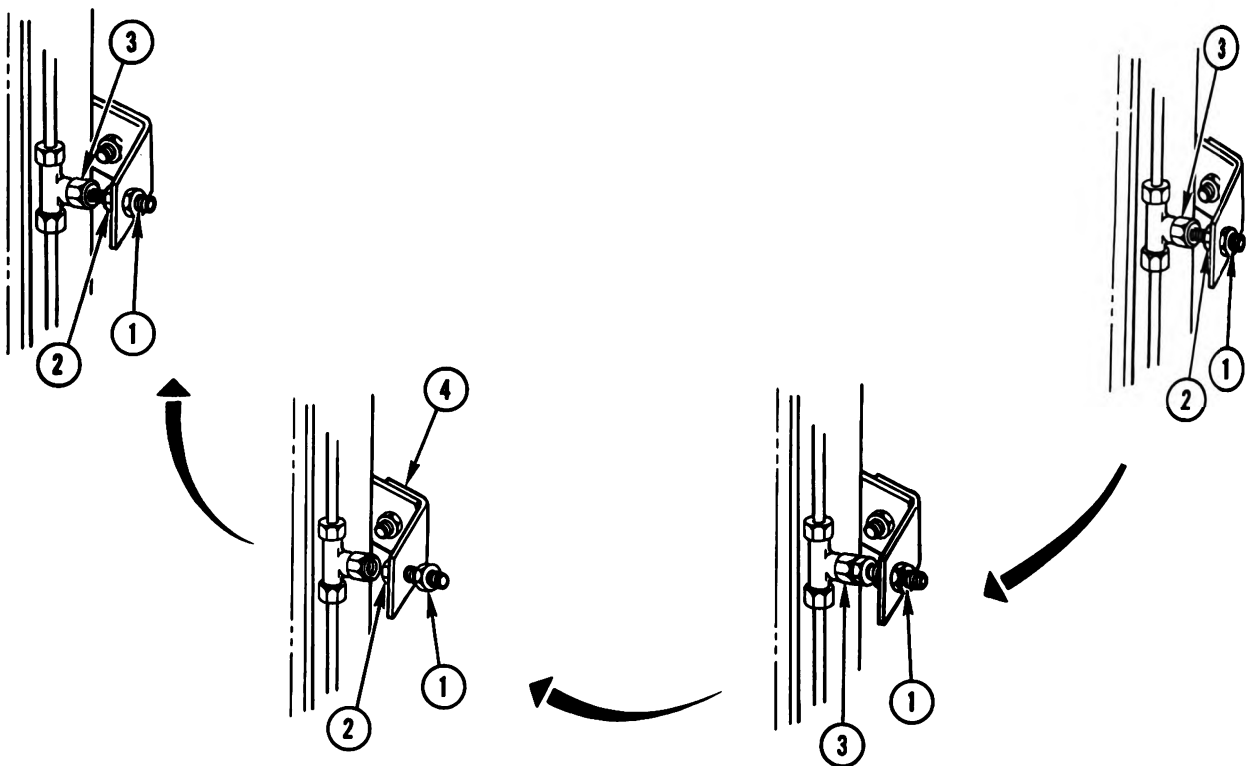
Install Valve:

1. Look at nipple (1) for cracks, breaks, or stripped threads. If bad do steps 2 through 7. If OK TASK 22 ENDS HERE.
2. Unscrew jamnut (2) all the way back to tube nipple locknut (3) with two 11/16-inch wrenches.
3. Unscrew nipple (1) from locknut (3) with 9/16-inch and 11/16-inch wrenches.
4. Unscrew and take jamnut (2) off nipple (1). Take nipple (1) out of bracket (4).
5. Put new nipple (1) in bracket (4) and screw on jamnut (2).
6. Screw in and tighten nipple (1) in locknut (3) with 9/16-inch and 11/16-inch wrenches.
7. Tighten jamnut (2) to nipple (1) with two 11/16-inch wrenches.

Follow-on Maintenance:

NOTE: To install angle valve, refer to task 23.

TASK 22 ENDS HERE



ARR82-1029

TASK 23. Install Angle Valve

Applicability: All Models

Common Tools:

- Wrench, adjustable, 8-inch
- Wrench, combination, 7/16-inch
- Wrench, combination, 9/16-inch
- Wrench, combination, 11/16-inch

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Packing, preformed (81349) M83248/1-904 (two required)
 - Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove angle valve; refer to task 22.

FRAME 50

Install Valve:

NOTE

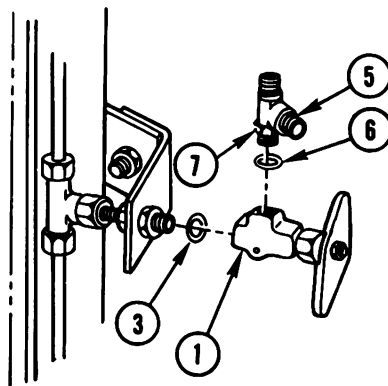
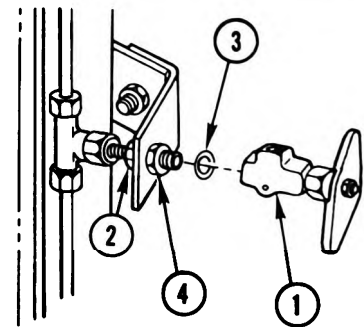
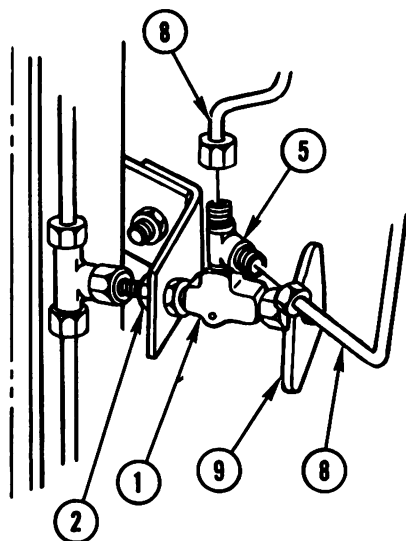
Opening in angle valve (1) must point upwards as shown. If adjustment is needed, loosen jamnut (2) with 11/16-inch wrench. Position angle valve (1) using adjustable wrench. Tighten jamnut (2) using 11/16-inch wrench.

1. Put new packing (3) on nipple (4). Screw on and tighten angle valve (1) with adjustable and 11/16-inch wrenches.
2. Screw on tee (5) and new packing (6) to valve (1) and tighten locknut (7) with 9/16-inch and 7/16-inch wrenches.
3. Screw on and tighten two tubes (8) to tee (5) with 7/16-inch and 9/16-inch wrenches.
4. Turn valve handle (9) clockwise to close valve (1) until handle (9) stops.

Follow-on Maintenance:

1. Prime elevation hand pump; refer to para 4-8, task 6.
2. Bleed air from elevation hand pump; refer to para. 4-8, task 7.
3. Bleed air from elevation mechanism; refer to para. 4-8, task 8.
4. Fill hydraulic reservoir; refer to LO 9-2350-255-12.

TASK 23 ENDS HERE



ARR82-1030

TASK 24. Replace Metal Tube Assembly, Elevation Hand Pump Assembly, Port MD to Bracket

Applicability: All Models

Common Tools:

- Wrench, combination, 9/16-inch
- Wrench, combination, 11/16-inch (two required)

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Pencil, writing (Item 42)
 - Protective caps and plugs (Bulk)
 - Rag, wiping (Item 45)
 - Tag, marker (Item 54) (as required)
 - Tube Assembly (19207) 12304410

Personnel: Two

- Soldier A: Replaces tube assembly.
- Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

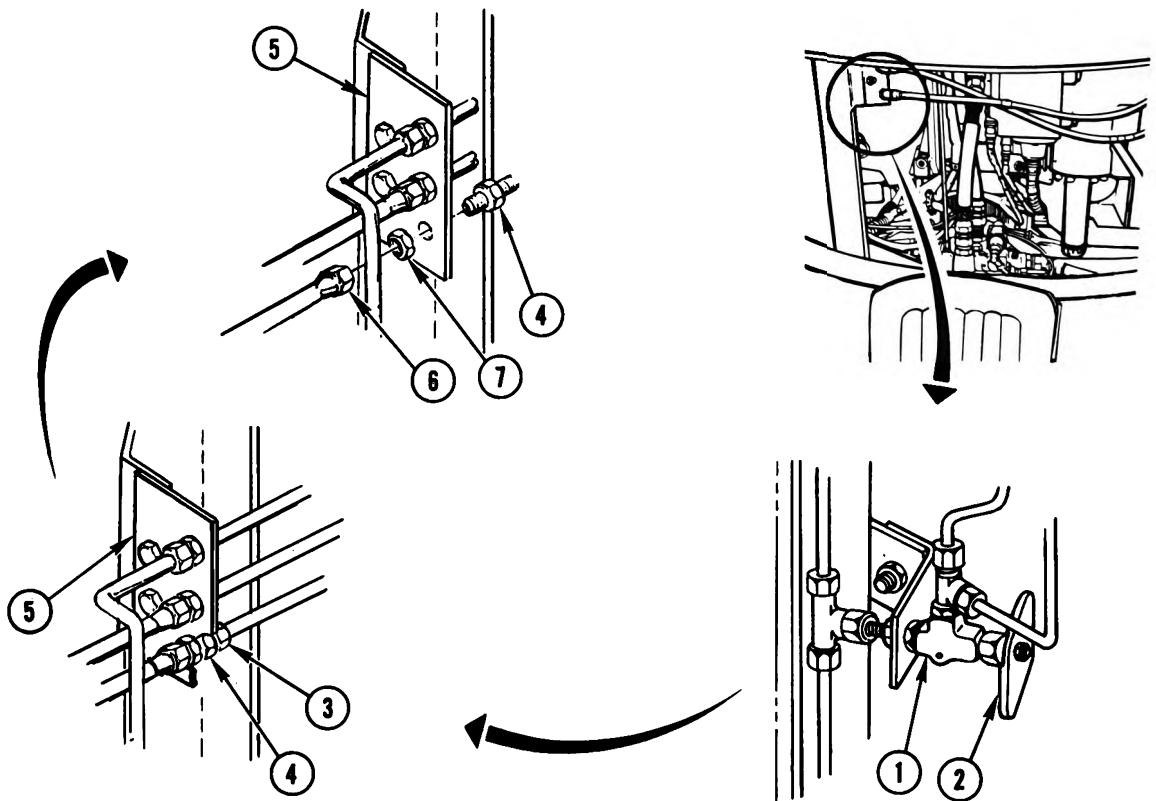
1. Manually traverse turret until hydraulic turret valve lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.

FRAME 51

Remove Tube Assembly:

- Soldier A: 1. Open angle valve (1) by turning handle (2) counterclockwise all the way. Unscrew and take tube assembly (3) off nipple (4) at bracket (5) with 9/16-inch and 11/16-inch wrenches.
- Soldier A: 2. Look at nipple (4) for cracks, breaks, or stripped threads. If bad do steps 3 through 6. If OK go to frame 52.
- Soldier A: 3. Unscrew and take hose (6) off nipple (4) with 9/16-inch and 11/16-inch wrenches.
- Soldier A: 4. Unscrew and take nut (7) off nipple (4) with two 11/16-inch wrenches. Take nipple (4) out of bracket (5). Turn in nipple (4).
- Soldier A: 5. Put new nipple (4) in bracket (5). Screw on and tighten nut (7) with two 11/16-inch wrenches.
- Soldier A: 6. Screw on and tighten hose (6) on nipple (4) with 9/16-inch and 11/16-inch wrenches.

GO TO FRAME 52



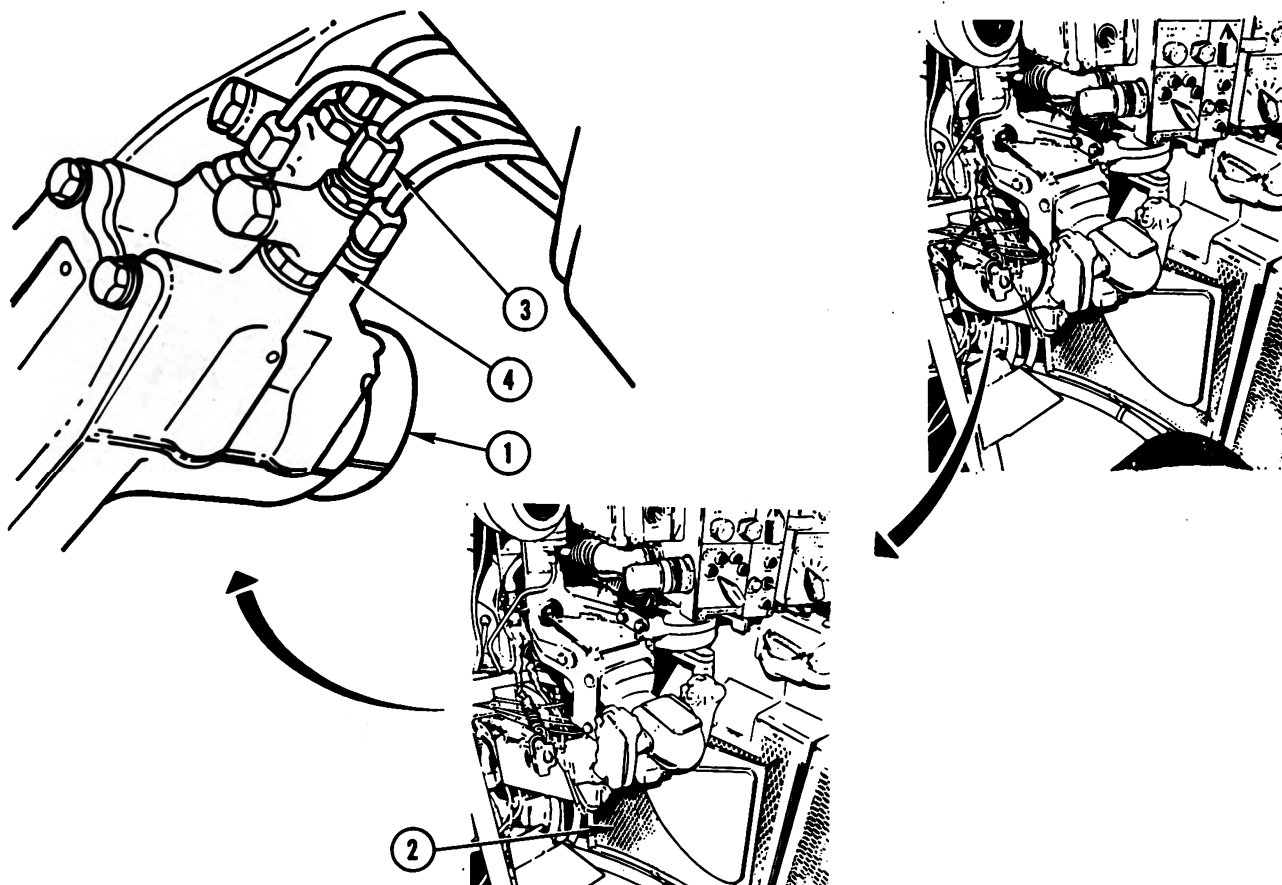
ARR82-1031

FRAME 52

Remove Tube Assembly (Continued):

- Soldier B: 1. When told by Soldier A, manually traverse turret to line up hand pump (1) with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
- Soldier B: 2. Remove gunner's screen (2); refer to para. 3-16, task 1.
- Soldier A: 3. Unscrew and take off tube (3) from test adapter (4), with 9/16-inch and 11/16-inch wrenches. Turn in tube (3).
- Soldier A: 4. Look at test adapter (4) for cracks, breaks, or stripped threads. If bad replace test adapter; refer to task 37. If OK go to frame 53.

GO TO FRAME 53



ARR82-1032

FRAME 53

Install Tube Assembly:

Soldier B: 1. Hold tube (1) in position at support bracket (2).

Soldier A: 2. Screw on and tighten new tube assembly (1) on adapter (3) with 9/16-inch and 11/16-inch wrenches.

Soldier B: 3. Install gunner's screen (4); refer to para. 3-16, task 18.

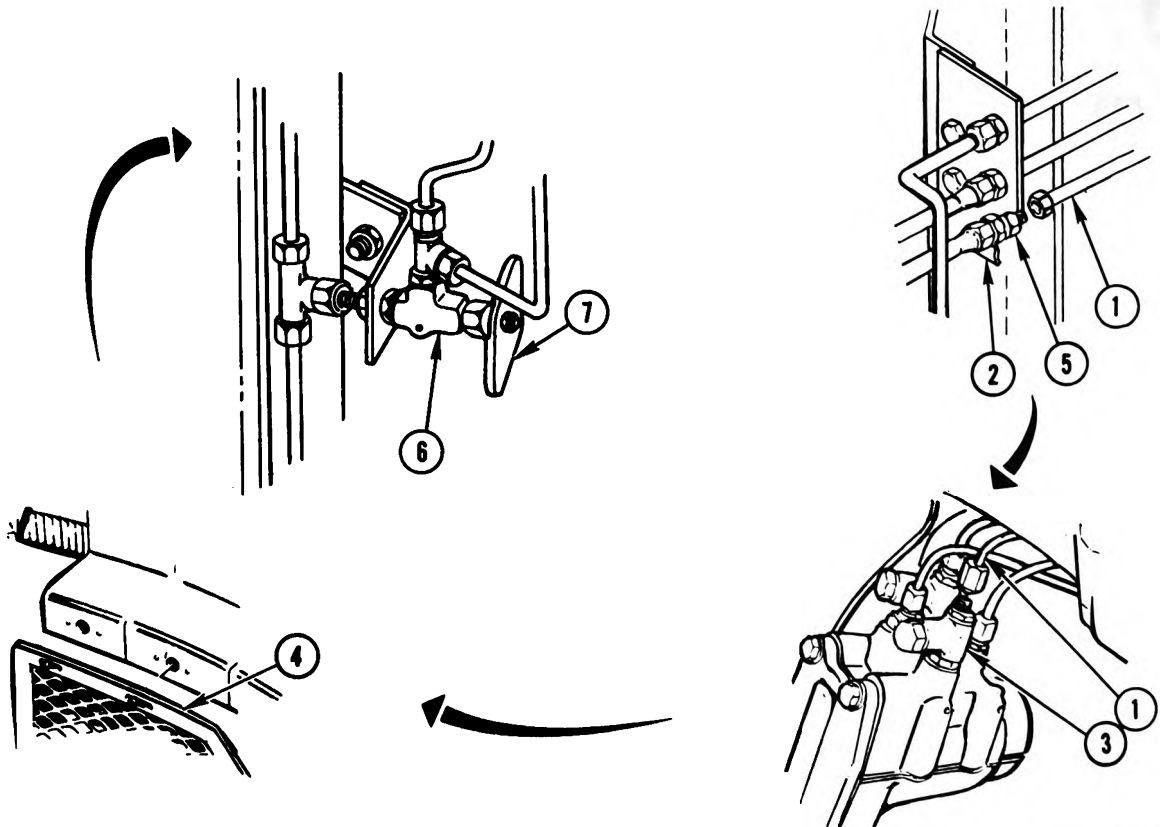
Soldier B: 4. When told by Soldier A, manually traverse turret to line up bracket (2) with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.

Soldier A: 5. Screw on and tighten tube (1) to nipple (5) with 9/16-inch and 11/16-inch wrenches. Close angle valve (6) by turning handle (7) clockwise all the way.

Follow-on Maintenance:

1. Bleed air from elevation hand pump; refer to para. 4-8, task 7.
2. Bleed air from elevation mechanism; refer to para. 4-8, task 8.
3. Fill hydraulic reservoir; refer to LO-9-2350-255-12.

TASK 24 ENDS HERE



ARR82-1033

TASK 25. Replace Metal Tube Assembly, Elevation Hand Pump Assembly, Port ME To Tube Tee

Applicability: All Models

Common Tools:

- Wrench, adjustable, 8-inch
- Wrench, combination, 9/16-inch
- Wrench, combination, 11/16-inch

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Pencil, writing (Item 42)
 - Protective caps and plugs (Bulk)
 - Rag, wiping (Item 45)
 - Tag, marker (Item 54)(as required)
 - Tube Assembly(19207) 12288301

Personnel: Two

- Soldier A: Replaces tube assembly from driver's compartment.
- Soldier B: Helps Soldier A from turret.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until hydraulic turret valve lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.

FRAME 54

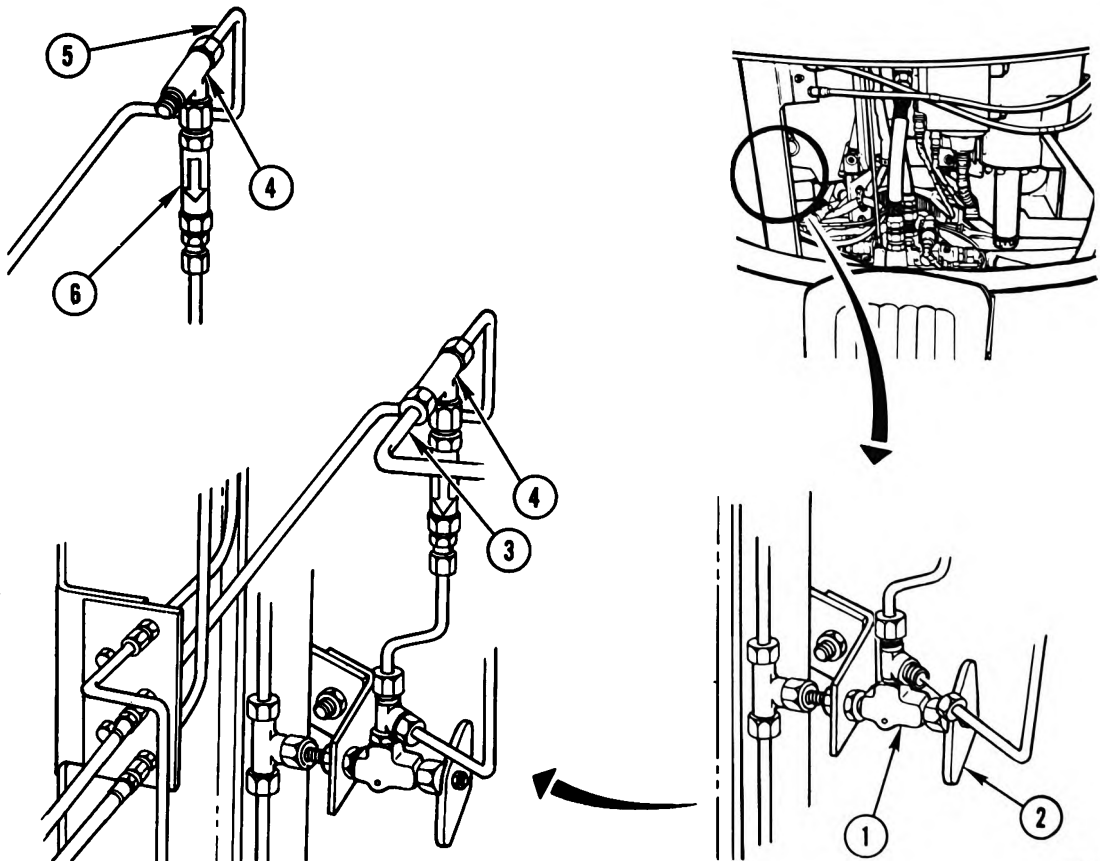
Remove Tube Assembly:

NOTE

Read para. 4-4 before doing any work.

- Soldier A: 1. Open angle valve (1) by turning handle (2) counterclockwise all the way. Unscrew and take off tube assembly (3) from tube tee (4) with adjustable and 9/16-inch wrenches.
- Soldier A: 2. Look at tee (4) for cracks, breaks, or stripped threads. If bad do steps 3 through 5. If OK go to frame 55.
- Soldier A: 3. Unscrew and take off tube (5) from tee (4) with 9/16-inch and adjustable wrenches.
- Soldier A: 4. Take off tee (4) from valve (6) with adjustable, 9/16-inch, and 11/16-inch wrenches. Turn in tee (4).
- Soldier A: 5. Screw on new tee (4) to valve (6) and tube (5) to tee (4), then tighten with adjustable, 9/16-inch, and 11/16-inch wrenches.

GO TO FRAME 55



ARR82-1034

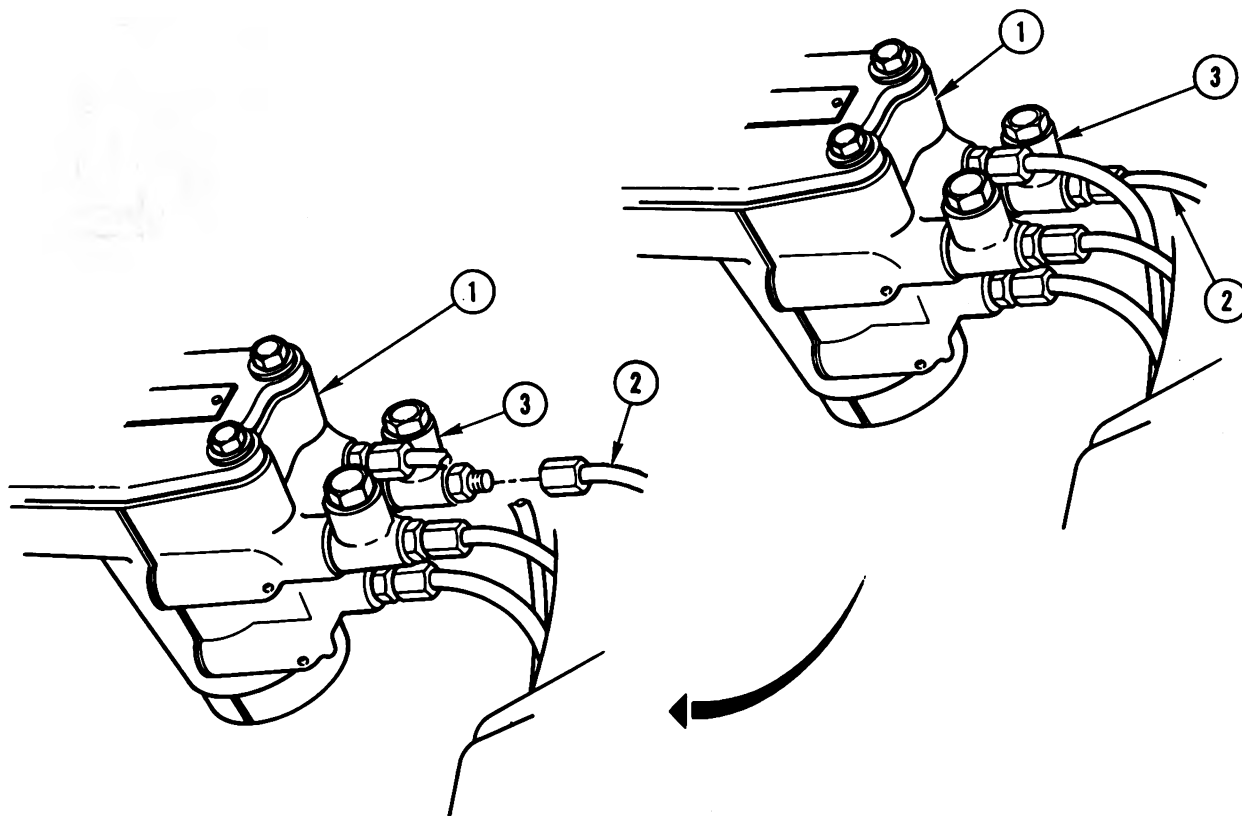
FRAME 55**Remove Tube Assembly (Continued):**

- Soldier B:** 1. When told by Soldier A, manually traverse turret to line up elevation hand pump (1) with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
- Soldier B:** 2. Remove gunner's screen; refer to para. 3-16, task 1.
- Soldier A:** 3. Unscrew and take off tube (2) from test adapter (3) on hand pump (1) with 9/16-inch and 11/16-inch wrenches.
- Soldier A:** 4. Look at adapter (3) for cracks, breaks or stripped threads. If bad replace test adapter; refer to task 37. If OK go to step 5.

Install Tube Assembly:

- Soldier A:** 5. Screw on new tube (2) to adapter (3) with 9/16-inch and 11/16-inch wrenches.

GO TO FRAME 56



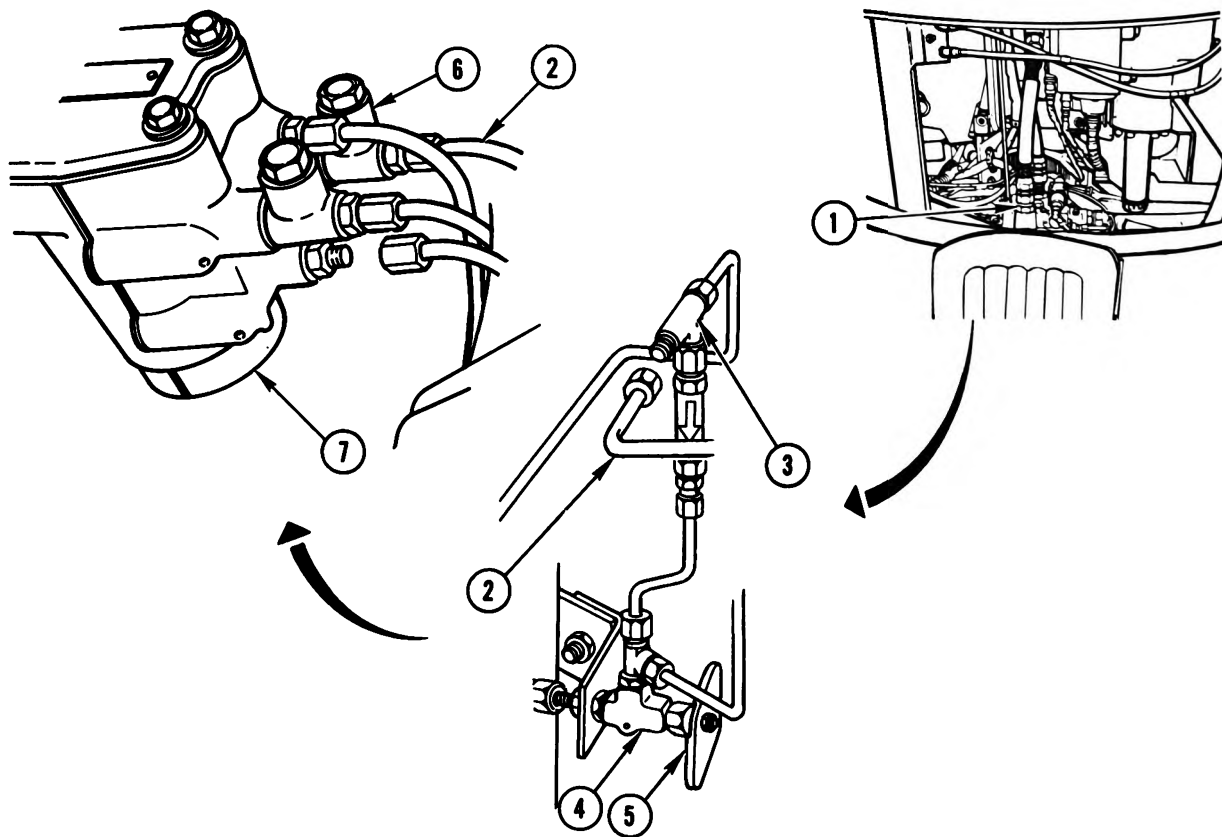
ARR82-1035

FRAME 56

Install Tube Assembly (Continued):

- Soldier B:** 1. When told by Soldier A, manually traverse turret to line up hydraulic turret valve (1) with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
- Soldier A:** 2. Screw on and tighten tube assembly (2) to tube tee (3) with adjustable and 9/16-inch wrenches.
- Soldier A:** 3. Close angle valve (4) by turning handle (5) clockwise all the way.
- Soldier B:** 4. Tighten tube (2) to test adapter (6) on elevation pump (7) with 9/16-inch and 11/16-inch wrenches.
- Follow-on Maintenance:**
1. Bleed air from elevation hand pump; refer to para. 4-8, task 7.
 2. Bleed air from elevation mechanism; refer to para. 4-8, task 8.
 3. Fill hydraulic reservoir; refer to LO-9-2350-255-12.
 4. Install (gunner's) screen; refer to para. 3-16, task 18.

TASK 25 ENDS HERE



ARR82-1036

TASK 26. Replace Metal Tube Assembly, Elevation Hand Pump Assembly Inlet To Tube Tee

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, adjustable, 8-inch
Wrench, combination, 7/16-inch
Wrench, combination, 9/16-inch
Wrench, combination, 11/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Dry Cleaning Solvent, P-D-680 (Item 21)
Pencil, writing (Item 42)
Protective caps and plugs (Bulk)
Rag, wiping (Item 45)
Tag, marker (Item 54) (as required)
Tee, tube (96906) MS51853-5SS
Tube Assembly (19207) 12288304

Personnel: Two

Soldier A: Replaces tube assembly from driver's compartment.
Soldier B: Helps Soldier A and traverses turret.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until hydraulic turret valve lines up with turret, and then lock turret; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.

FRAME 57

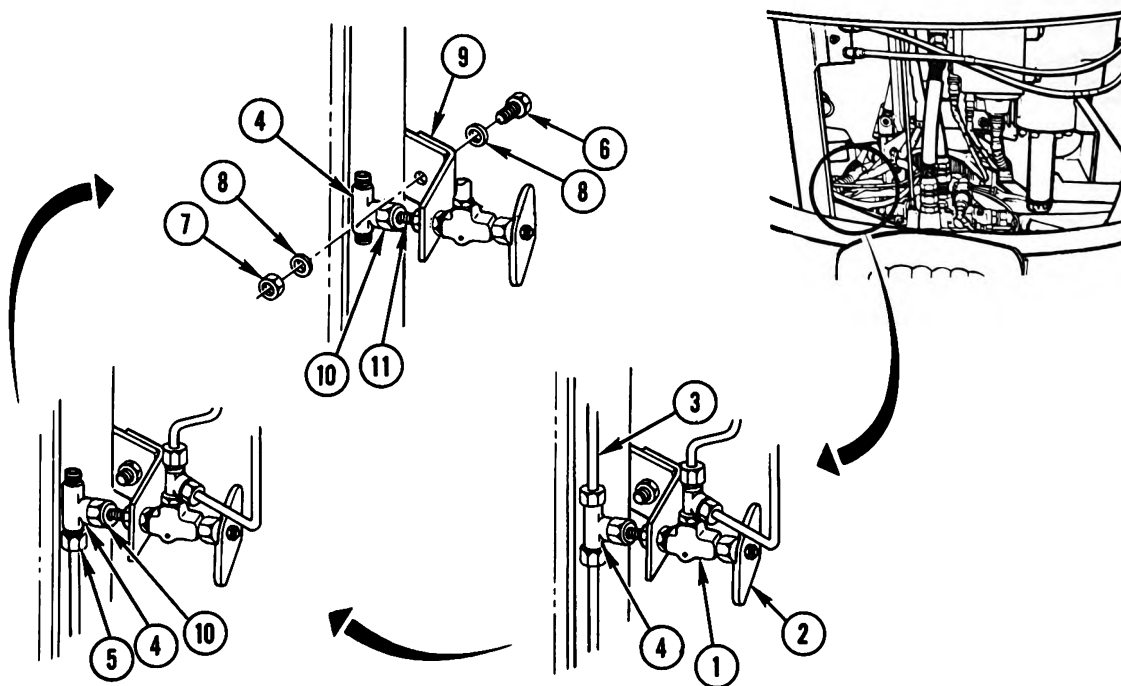
Remove Tube Assembly:

NOTE

Read para. 4-4 before doing any work.

- Soldier A: 1. Open angle valve (1) by turning handle (2) counterclockwise all the way. Unscrew and take off tube assembly (3) from tube tee (4) with adjustable and 9/16-inch wrenches.
- Soldier A: 2. Look at tee (4) for cracks, breaks, or stripped threads. If bad go to step 3. If OK go to frame 58, step 3.
- Soldier A: 3. Unscrew and take off other tube (5) from tee (4) with adjustable and 9/16-inch wrenches.
- Soldier A: 4. Unscrew and take out screw (6), nut (7), and two washers (8) from bracket (9) with socket, handle, and 7/16-inch wrench.
- Soldier A: 5. Loosen locknut (10) on tee (4) with adjustable and 9/16-inch wrenches.
- Soldier A: 6. Unscrew locknut (10) with 9/16-inch wrench and push bracket (9) until locknut (10) clears nipple (11). Turn in tee (4).

GO TO FRAME 58

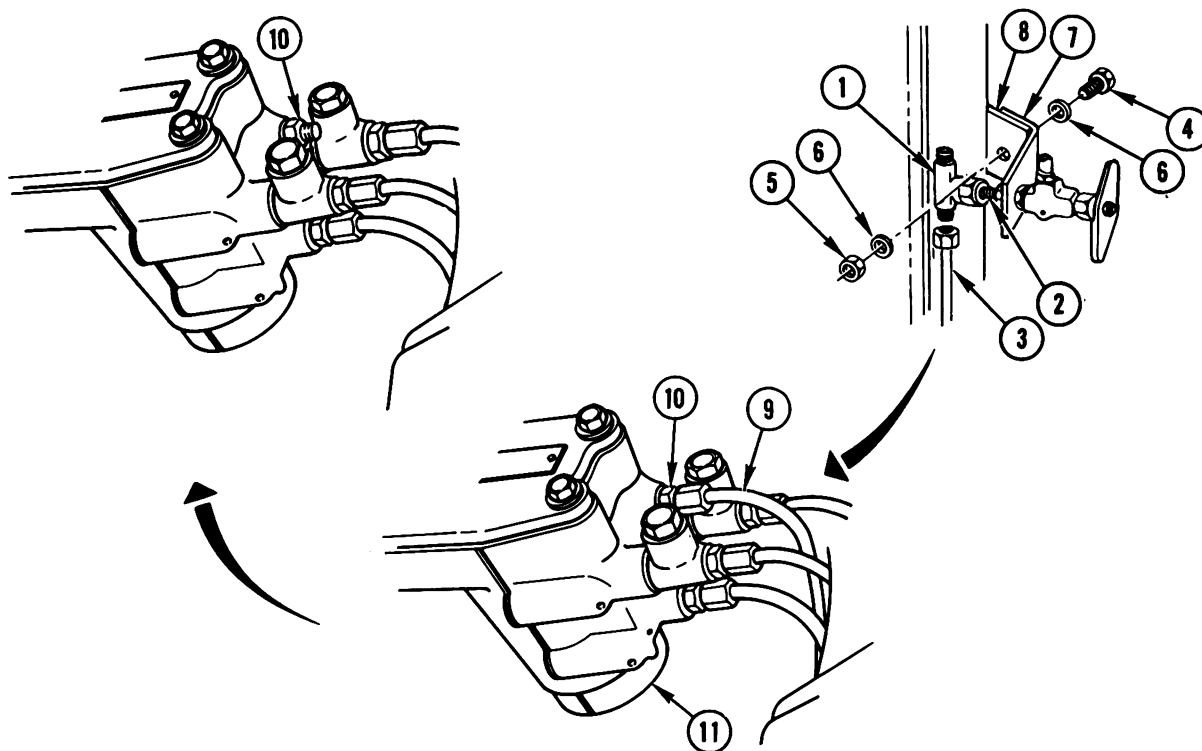


ARR82-1037

FRAME 58**Remove Tube Assembly (Continued):**

- Soldier A:** 1. Screw on and tighten new tee (1), nipple (2), and tube (3) with adjustable and 9/16-inch wrenches.
- Soldier A:** 2. Screw on and tighten screw (4), nut (5), and two washers (6) in bracket (7) and support (8) with socket, handle, and 7/16-inch wrench.
- Soldier B:** 3. When told by Soldier A, manually traverse turret to line up driver's compartment with elevation hand pump, and then lock turret; refer to TM 9-2350-255-10.
- Soldier B:** 4. Remove gunner's screen; refer to para. 3-16, task 1.
- Soldier A:** 5. Unscrew and take tube (9) off check valve (10) on elevation hand pump (11) with 9/16-inch and 11/16-inch wrenches.
- Soldier A:** 6. Look at check valve (10) for cracks, breaks, or stripped threads. If bad replace check valve; refer to task 39. If OK go to frame 59.

GO TO FRAME 59



ARR82-1038

FRAME 59

Install Tube Assembly:

Soldier A: 1. Screw new tube (1) on check valve (2).

Soldier B: 2. Manually traverse turret to line up hydraulic turret valve (3) with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.

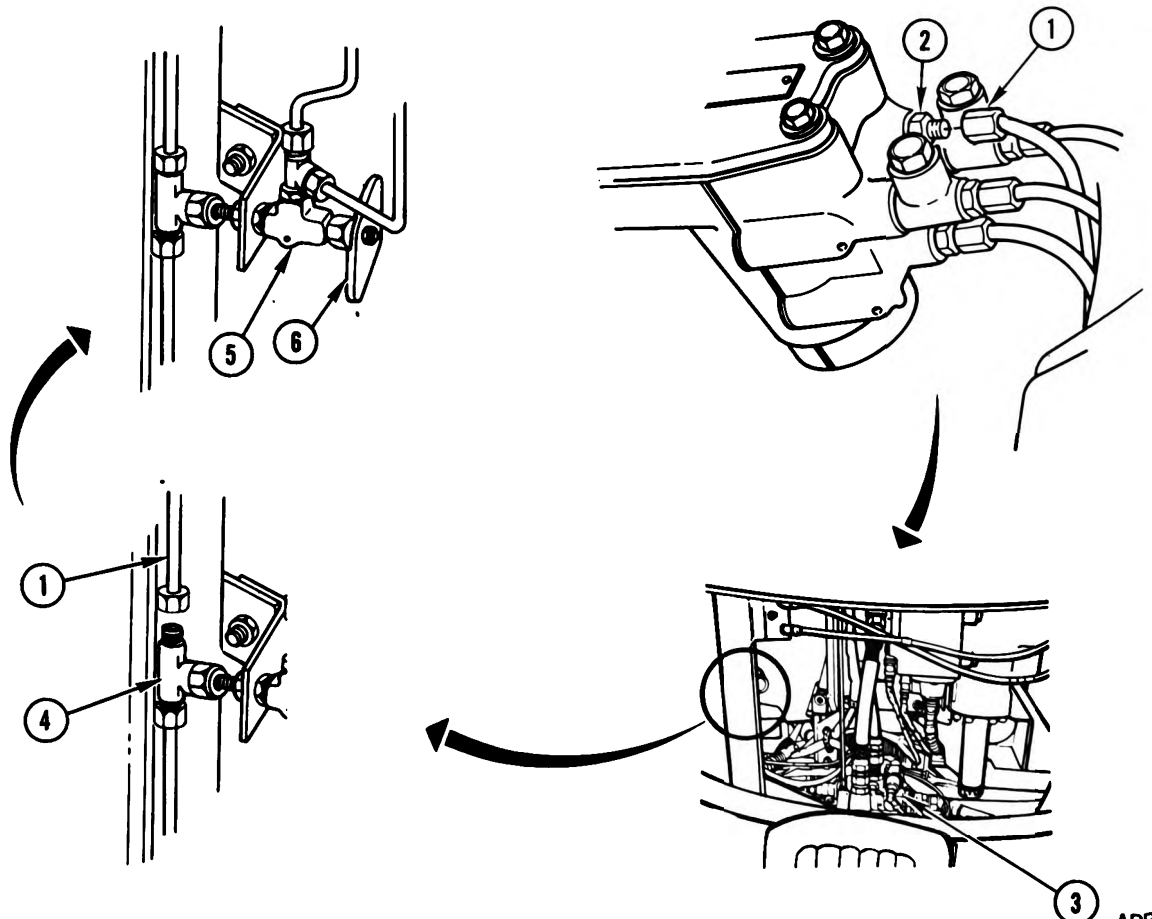
Soldier A: 3. Screw on and tighten tube (1) to tee (4) with adjustable and 9/16-inch wrenches. Close angle valve (5) by turning handle (6) clockwise all the way.

Soldier B: 4. Tighten tube (1) to check valve (2) with 9/16-inch and 11/16-inch wrenches.

Follow-on Maintenance:

1. Prime elevation hand pump; refer to para. 4-8, task 6.
2. Bleed air from elevation hand pump ; refer to para. 4-8, task 7.
3. Bleed air from elevation mechanism; refer to para 4-8, task 8.
4. Fill hydraulic reservoir; refer to LO-9-2350-255-12.
5. Install (gunner's)screen; refer to para. 3-16, task 18.

TASK 26 ENDS HERE



ARR82-1039

TASK 27. Replace Metal Tube Assembly, Elevation Hand Pump Assembly, Port CD to Tube Tee

Applicability: All Models

Common Tools:

- Wrench, adjustable, 8-inch
- Wrench, combination, 9/16-inch
- Wrench, combination, 11/16-inch

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Pencil, writing (Item 42)
 - Protective caps and plugs (Bulk)
 - Rag, wiping (Item 45)
 - Tag, marker (Item 54) (as required)
 - Tube Assembly (19207) 12287994

Personnel: Two

- Soldier A: Replaces tube assembly from driver's compartment.
- Soldier B: Helps Soldier A and traverses turret.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until hydraulic turret valve lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Put driver's seat in full reclining position; refer to TM-2350-255-10.

FRAME 60

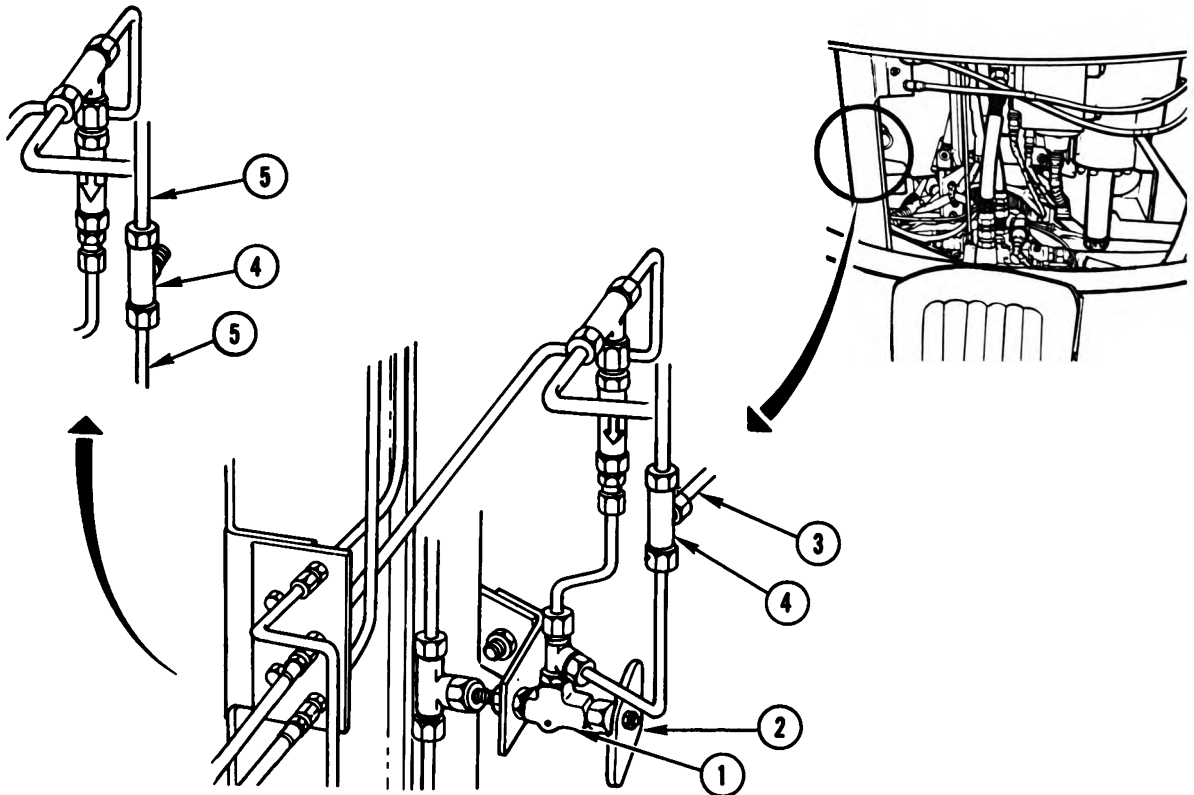
Remove Tube Assembly:

NOTE

Read para. 4-4 before doing any work.

- Soldier A: 1. Open angle valve (1) by turning handle (2) counterclockwise all the way. Unscrew and take off tube assembly (3) from tube tee (4) with adjustable and 9/16-inch wrenches.
- Soldier A: 2. Look at tee (4) for cracks, breaks, or stripped threads. If bad do steps 3 and 4. If OK go to frame 61.
- Soldier A: 3. Unscrew and take two tubes (5) off tee (4) with adjustable and 9/16-inch wrenches. Turn in tee (4).
- Soldier A: 4. Screw on and tighten tubes (5) to new tee (4) with adjustable and 9/16-inch wrenches.

GO TO FRAME 61

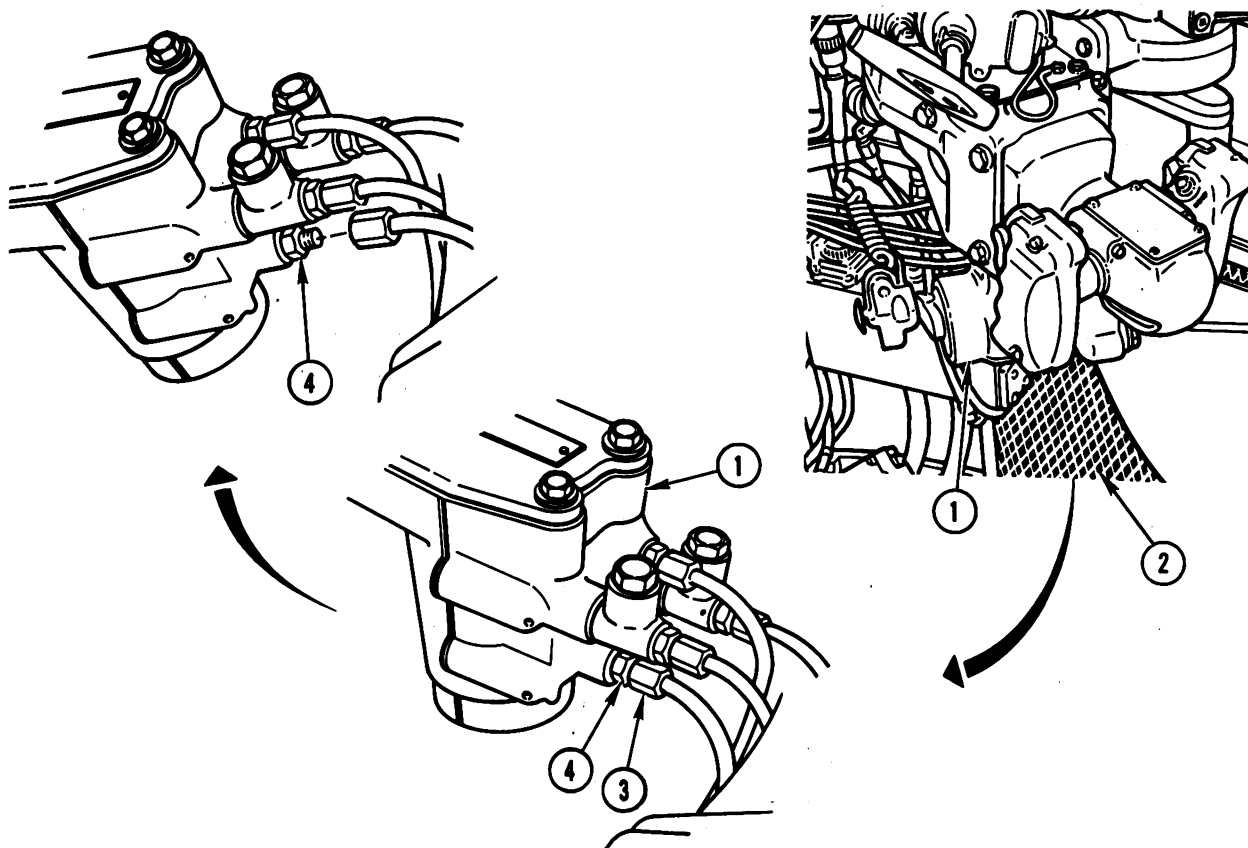


ARR82-1040

FRAME 61**Remove Tube Assembly (Continued):**

- Soldier B:** 1. When told by Soldier A, manually traverse turret to line up driver's compartment with elevation hand pump (1) and then lock turret; refer to TM 9-2350-255-10.
- Soldier B:** 2. Remove gunner's screen (2); refer to para. 3-16, task 1.
- Soldier A:** 3. Unscrew and take tube (3) off adapter (4) on elevation hand pump (1) with 9/16-inch and 11/16-inch wrenches. Turn in tube (3).
- Soldier A:** 4. Look at adapter (4) for cracks, breaks, or stripped threads. If bad replace adapter; refer to task 37. if OK go to frame 62.

GO TO FRAME 62



ARR82-1041

FRAME 62

Install Tube Assembly:

Soldier A: 1. Screw new tube assembly (1) on adapter (2).

Soldier B: 2. Manually traverse turret to line up hydraulic turret valve (3) with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.

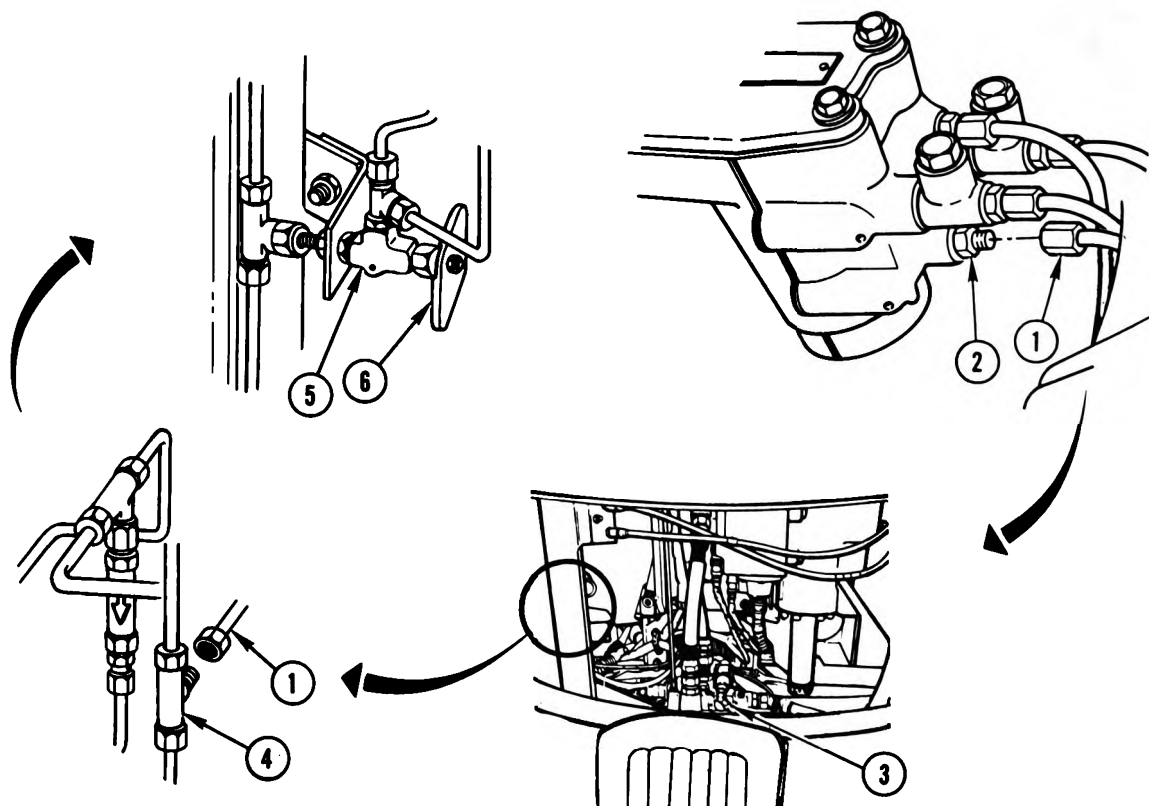
Soldier A: 3. Screw on and tighten tube assembly (1) to tube tee (4) with adjustable and 9/16-inch wrenches. Close angle valve (5) by turning handle (6) clockwise all the way.

Soldier B: 4. Tighten tube assembly (1) on adapter (2) with 9/16-inch and 11/16-inch wrenches.

Follow-on Maintenance:

1. Bleed air from elevation hand pump; refer to para 4-8, task 7.
2. Bleed air from elevation mechanism; refer to para. 4-8, task 8.
3. Fill hydraulic reservoir; refer to LO-9-2350-255-12.
4. Install(gunner's)screen; refer to para. 3-16, task 18.

TASK 27 ENDS HERE



ARR82-1042

TASK 28. Replace Hose Assembly, Elevating Mechanism Assembly to Bracket

Applicability: All Models

Common Tools:

- Wrench, combination, 1/2-inch
- Wrench, combination, 9/16-inch (two required)
- Wrench, combination, 11/16-inch (two required)

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Pencil, writing (Item 42)
 - Protective caps and plugs (Bulk)
 - Rag, wiping (Item 45)
 - Tag, marker (Item 54) (as required)
 - Hose Assembly (16717) MS8006E274AB

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until elevating mechanism lines up with center of driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Put driver's seat in full reclining position; refer to TM-2350-255-10.

FRAME 63

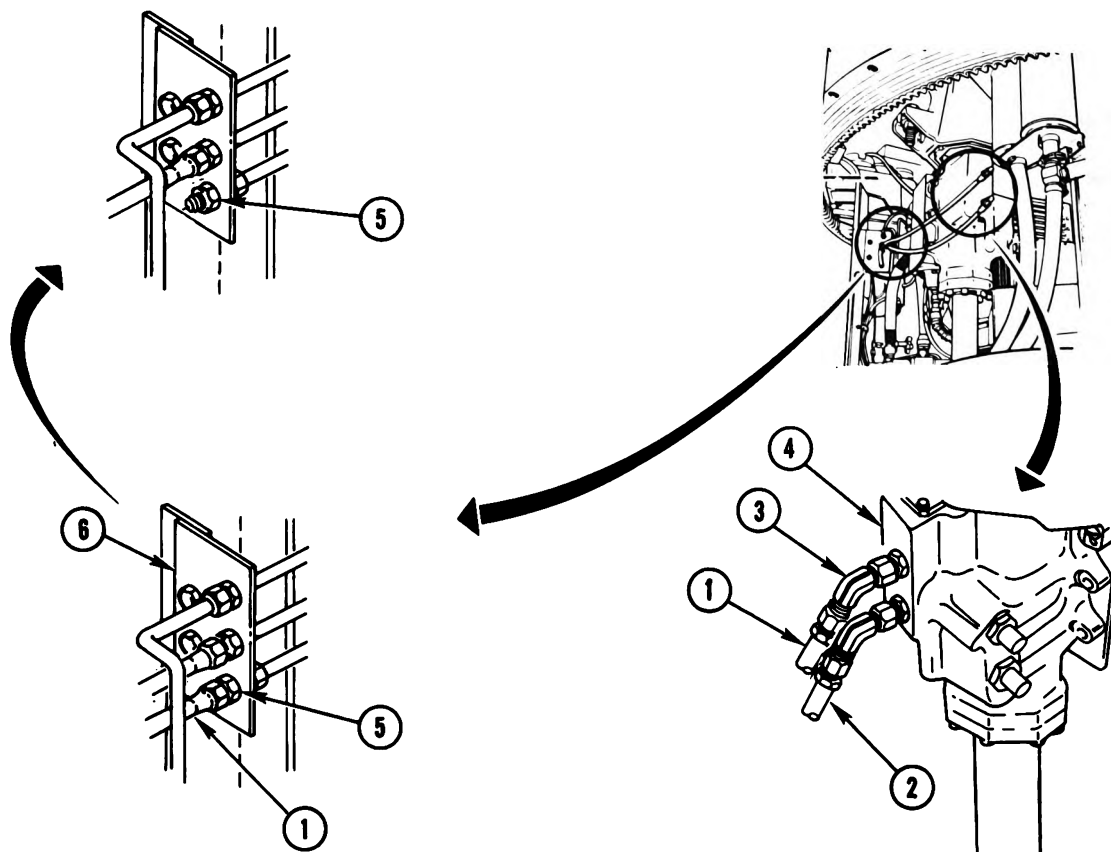
Remove Hose Assembly:

NOTE

- Read para. 4-4 before doing any work.
- Use this task to take off and put on hose assembly (1) or hose assembly (2).

1. Unscrew and take hose assembly (1) off elbow (3) at elevation mechanism (4) with 1/2-inch and 9/16-inch wrenches.
2. Unscrew and take hose assembly (1) off nipple (5) at bracket (6) with 9/16-inch and 11/16-inch wrenches. Turn in hose assembly (1).
3. Look at nipple (5) for cracks, breaks, or stripped threads. If bad go to frame 64. If OK go to frame 65.

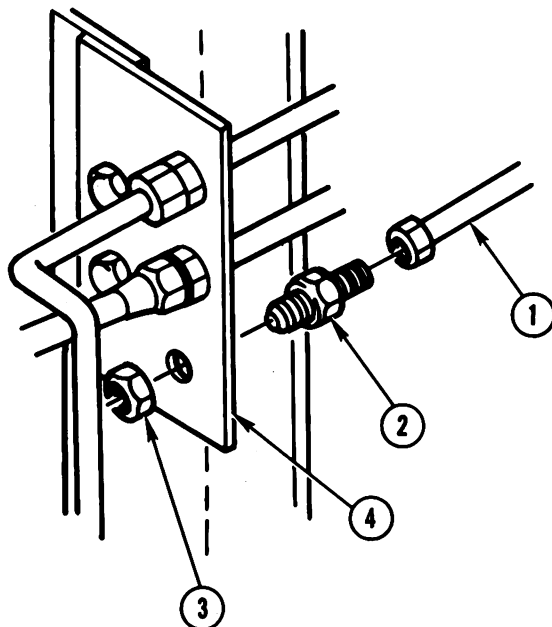
GO TO FRAME 64



ARR82-1043

FRAME 64**Replace Nipple:**

1. Unscrew and take tube assembly (1) off tube nipple (2) with 9/16-inch and 11/16-inch wrenches.
2. Unscrew and take nut (3) and nipple (2) from bracket (4) with two 11/16-inch wrenches. Turn in nipple (2).
3. Screw in and tighten new nipple (2) and nut (3) in bracket (4) with two 11/16-inch wrenches.

GO TO FRAME 65

ARR82-1044

FRAME 65

Inspect Elbow:

1. Look at tube elbow (1) on elevation mechanism (2) for cracks, breaks, or stripped threads. If bad do steps 2 and 3. If OK go to step 4.
2. Unscrew and take elbow (1) off adapter (3) with two 9/16-inch wrenches. Turn in elbow (1).
3. Screw on and tighten new elbow (1) with two 9/16-inch wrenches.

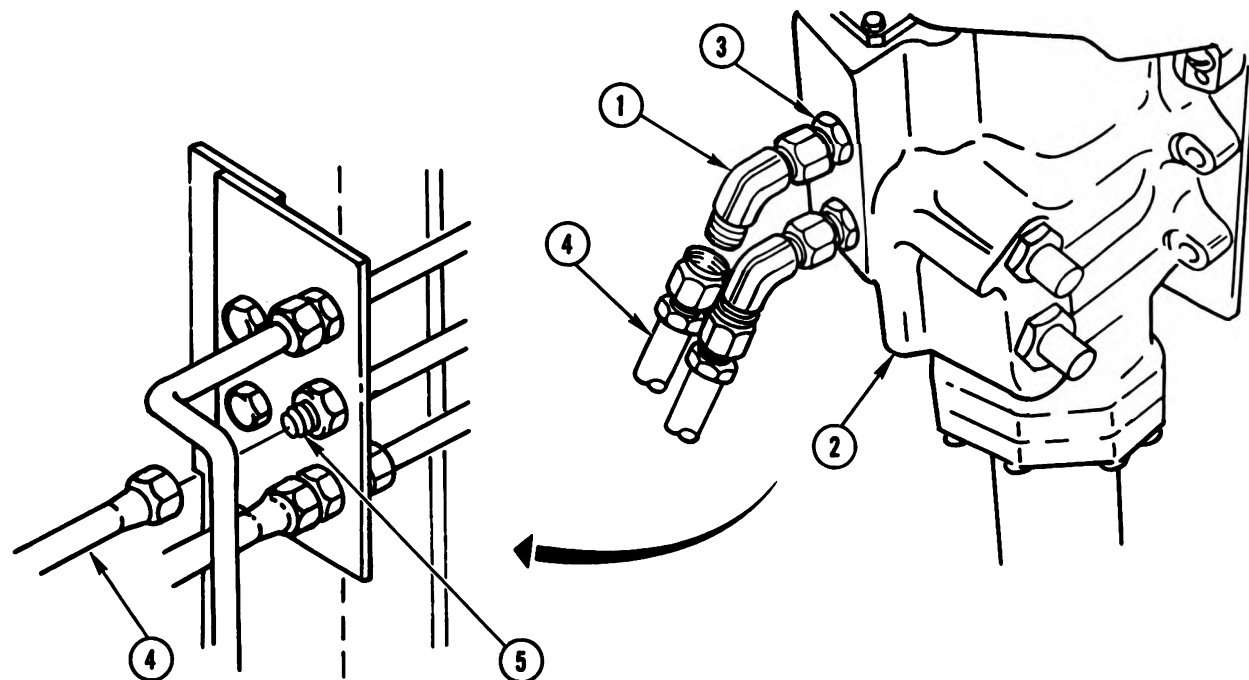
Install Hose Assembly:

4. Screw on and tighten new hose (4) to elbow (1) with 1/2-inch and 9/16-inch wrenches.
5. Screw on and tighten hose (4) to nipple (5) with 9/16-inch and 11/16-inch wrenches.

Follow-on Maintenance:

1. Bleed air from elevation mechanism; refer to para. 4-8, task 8.
2. Bleed air from elevation hand pump; refer to para. 4-7, task 7.
3. Fill hydraulic reservoir; refer to LO-9-2350-255-12.

TASK 28 ENDS HERE



ARR82-1045

TASK 29. Remove Metal Tube Assembly, Hydraulic Turret Valve To Angle Valve.

Applicability: All Models

Common Tools:

- Handle, socket wrench, ratchet, 3/8-inch square drive
- Socket, socket wrench, 3/8-inch square drive, 7/16-inch
- Wrench, adjustable, 8-inch
- Wrench, combination, 7/16-inch
- Wrench, combination, 9/16-inch (two required)

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Pencil, writing (Item 42)
 - Protective caps and plugs (Bulk)
 - Rag, wiping (Item 45)
 - Tag, marker (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until hydraulic turret valve lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Lock main gun in elevation travel lock; refer to TM 9-2350-255-10.
3. Reduce system hydraulic pressure to zero; refer to para. 4-4.
4. Put driver's seat in full reclining position; refer to TM-2350-255-10.

FRAME 66

Remove Tube Assembly:

NOTE

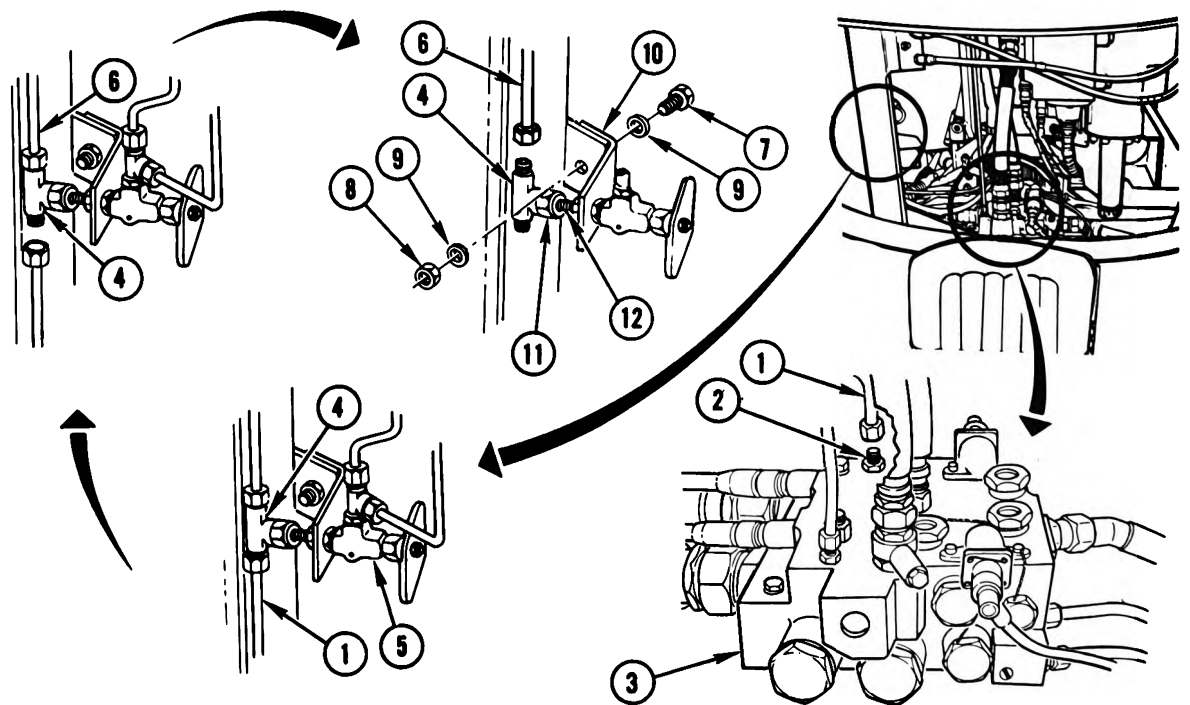
Read para. 4-4 before doing any work.

1. Unscrew and take tube assembly (1) off adapter (2) on hydraulic turret valve (3) with two 9/16-inch wrenches.
2. Unscrew and take tube assembly (1) off tube tee (4) at angle valve (5) with 9/16-inch wrench.

Inspect Fittings:

3. Look at tee (4) for cracks, breaks, or stripped threads. If bad go to step 4. If OK go to frame 67, step 4.
4. Unscrew and take other tube (6) off tee (4) with 9/16-inch wrench.
5. Unscrew and take out screw (7), nut (8), and two washers (9) from bracket (10) with socket, handle, and 7/16-inch wrench.
6. Unscrew locknut (11) with 9/16-inch and adjustable wrenches. Push bracket (10) until locknut (11) clears nipple (12). Turn in tee (4).

GO TO FRAME 67



ARR82-1046

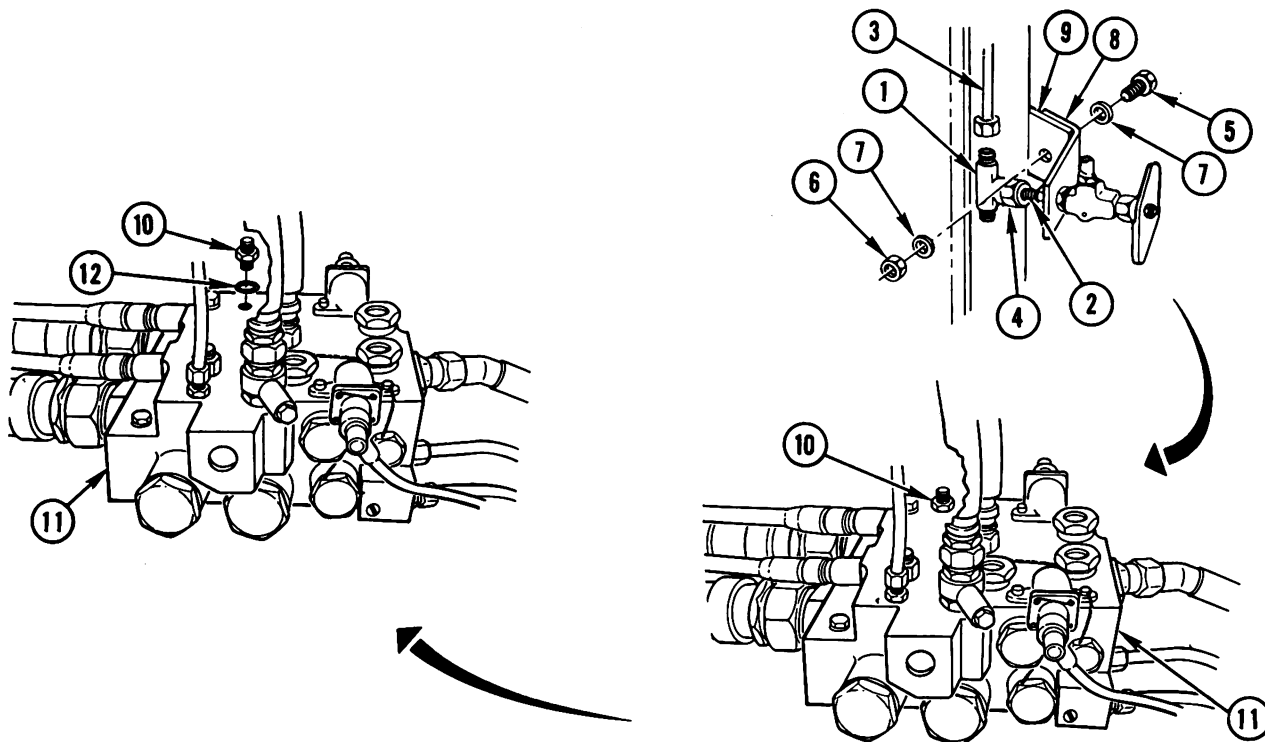
FRAME 67**Inspect Fittings (Continued):**

1. Screw on new tee (1) to nipple (2) with adjustable and 9/16-inch wrenches.
2. Screw on and tighten tube (3) to new tee (1) with 9/16-inch and adjustable wrenches. Tighten locknut (4) with 9/16-inch and adjustable wrenches.
3. Screw in and tighten screw (5), nut (6), and two washers (7) in bracket (8) and support (9) with socket, handle, and 7/16-inch wrenches.
4. Look at adapter (10) at hydraulic turret valve (11) for cracks, breaks, stripped threads. If bad do steps 5 and 6. If OK TASK 29 ENDS HERE.
5. Unscrew and take off adapter (10) and packing (12) with 9/16-inch wrench. Turn in adapter (10). Get rid of packing (12).
6. Screw in and tighten new adapter (10) and new packing (12) with 9/16-inch wrench.

Follow-on Maintenance:

NOTE: To install metal tube assembly, hydraulic turret valve to angle valve, refer to task 30.

TASK 29 ENDS HERE



ARR82-1047

TM 9-2350-255-20-2-3-2

TASK 30. Install Metal Tube Assembly, Hydraulic Turret Valve To Angle Valve

Applicability: All Models

Common Tools:

Wrench, combination, 9/16-inch (two required)

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Dry Cleaning Solvent, P-D-680 (Item 21)

Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove metal tube assembly, hydraulic turret valve to angle valve; refer to task 29.

FRAME 68**Install Tube Assembly:****NOTE**

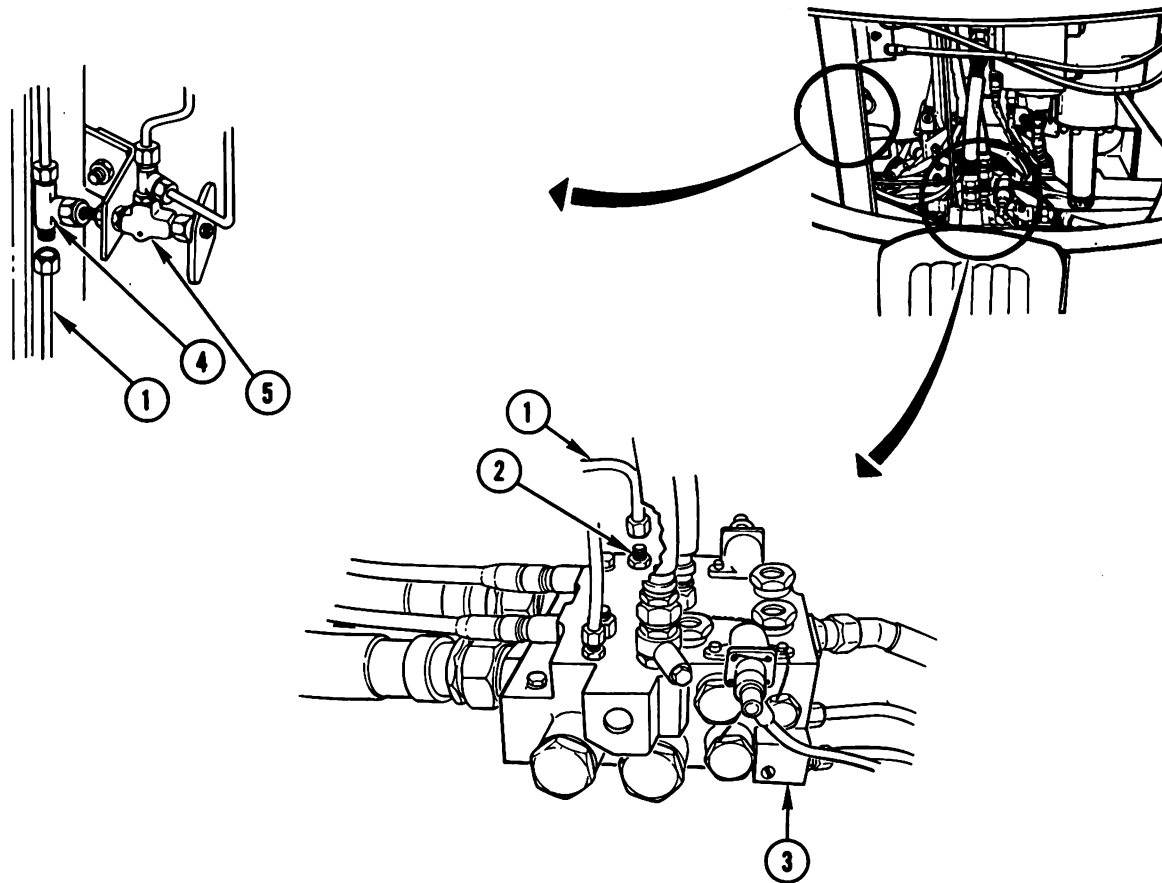
Read para. 4-4 before doing any work.

1. Screw on tube assembly (1) to adapter (2) on hydraulic turret valve (3).
2. Screw on and tighten tube assembly (1) to tee (4) at angle valve (5) with 9/16-inch wrench. Tighten tube (1) to adapter (2) with two 9/16-inch wrenches.

Follow-on Maintenance:

1. Bleed air from manual elevation hand pump; refer to para. 4-8, task 7.
2. Bleed air from elevation mechanism; refer to para. 4-8, task 8.
3. Fill hydraulic reservoir; refer to LO-9-2350-255-12.

TASK 30 ENDS HERE



ARR82-1048

TASK 31. Replace Regulating Valve

Applicability: All Models

Common Tools:

- Wrench, adjustable, 8-inch
- Wrench, combination, 9/16-inch (two required)
- Wrench, combination, 11/16-inch

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
- Packing, preformed (31349) M83248/1-904
- Pencil, writing (Item 42)
- Protective caps and plugs (Bulk)
- Rag, wiping (Item 45)
- Tag, marker (Item 54) (as required)
- Valve, regulating (19207) 12273462

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until hydraulic turret valve lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Put main gun in elevation travel lock; refer to TM 9-2350-255-10.
3. Reduce system hydraulic pressure to zero; refer to para. 4-4.
4. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.

FRAME 69

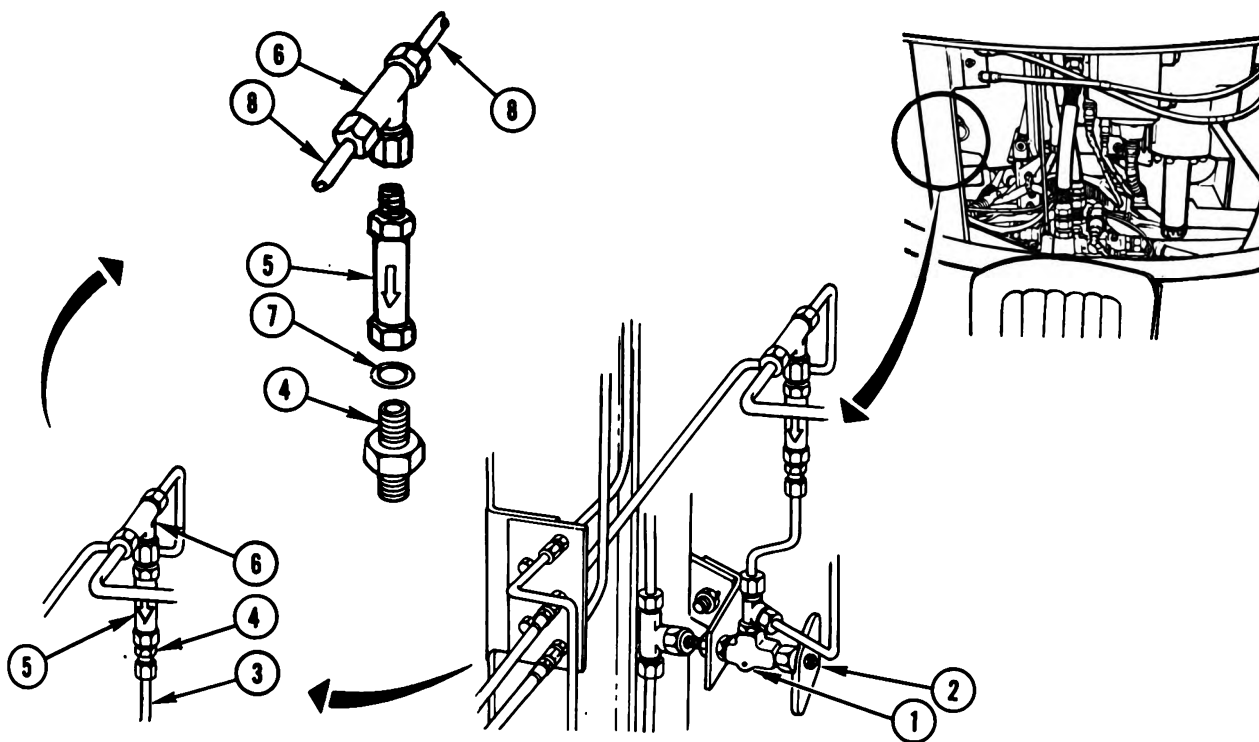
Remove Valve:

NOTE

Read para. 4-4 before doing any work.

1. Open angle valve (1) by turning handle (2) counterclockwise all the way. Unscrew and take off metal tube (3) from straight adapter (4) and regulating valve (5) from tube tee (6) with two 9/16-inch and one 11/16-inch wrenches.
2. Unscrew and take off adapter (4) and packing (7) from valve (5) with 9/16-inch and 11/16-inch wrenches. Turn in valve (5). Get rid of packing (7).
3. Look at adapter (4) for cracks, breaks, or stripped threads. If bad turn in. If OK set aside for later use.
4. Look at tee (6) for cracks, breaks, or stripped threads. If bad do steps 5 and 6. If OK go to frame 70.
5. Unscrew and take off two tubes (8) from tee (6) with 9/16-inch wrench. Turn in tee (6).
6. Screw on and tighten two tubes (8) to new tee (6) with and 9/16-inch wrench.

GO TO FRAME 70



ARR82-1049

FRAME 70

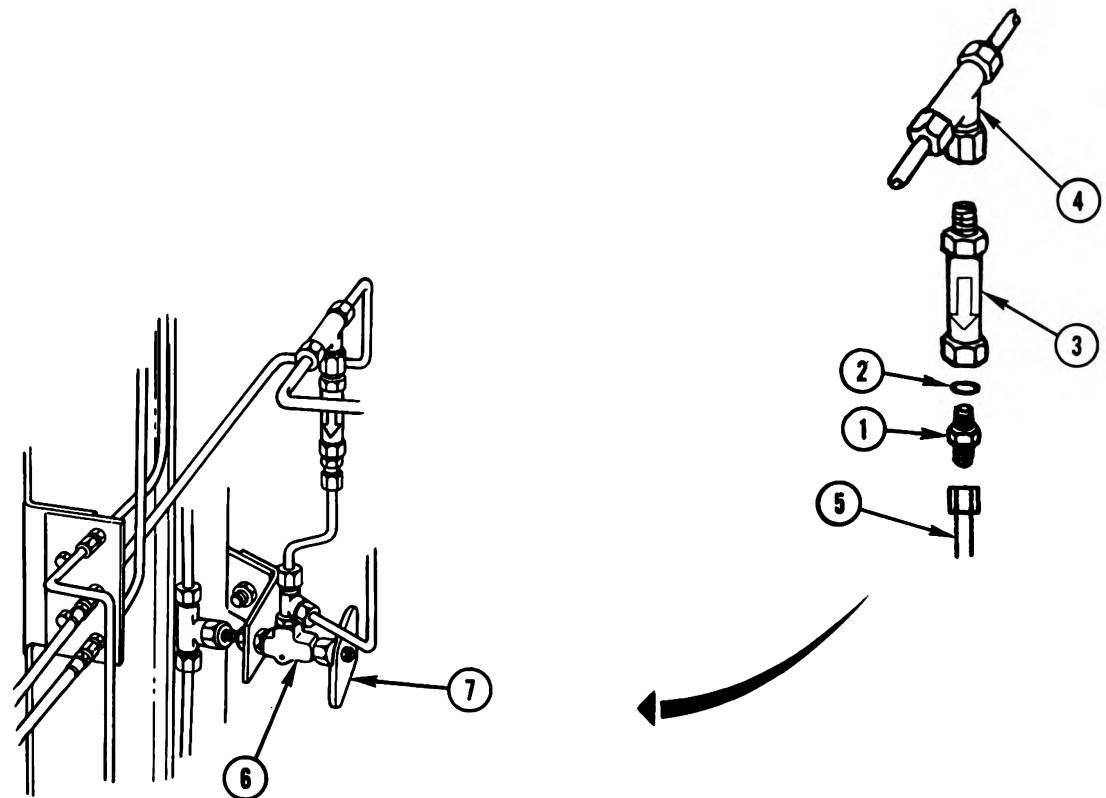
Install Valve:

1. Screw in and tighten adapter (1) and new packing (2) on new valve (3) with 9/16-inch and 11/16-inch wrenches.
2. Screw on and tighten valve (3) to tee (4) with 9/16-inch and 11/16-inch wrenches.
3. Screw on and tighten tube assembly (5) to adapter (1) with two 9/16-inch wrenches.
4. Close angle valve (6) by turning handle (7) clockwise all the way.

Follow-on Maintenance:

1. Bleed air from elevation hand pump, refer to para. 4-8, task 7.
2. Bleed air from elevation mechanism; refer to para. 4-8, task 8.
3. Fill hydraulic reservoir; refer to LO 9-2350-255-12.

TASK 31 ENDS HERE



ARR82-1050

TASK 32. Replace Metal Tube Assembly, Regulating Valve to Tube Tee

Applicability: All Models

Common Tools:

- Wrench, adjustable, 8-inch
- Wrench, combination, 9/16-inch (two required)
- Wrench, combination, 11/16-inch

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Pencil, writing (Item 42)
 - Protective caps and plugs (Bulk)
 - Rag, wiping (Item 45)
 - Tag, marker (Item 54) (as required)
 - Tube Assembly (19207) 12287988

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until hydraulic turret valve lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Put main gun in elevation travel lock; refer to TM 9-2350-255-10.
3. Reduce system hydraulic pressure to zero; refer to para. 4-4.
4. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.

FRAME 57

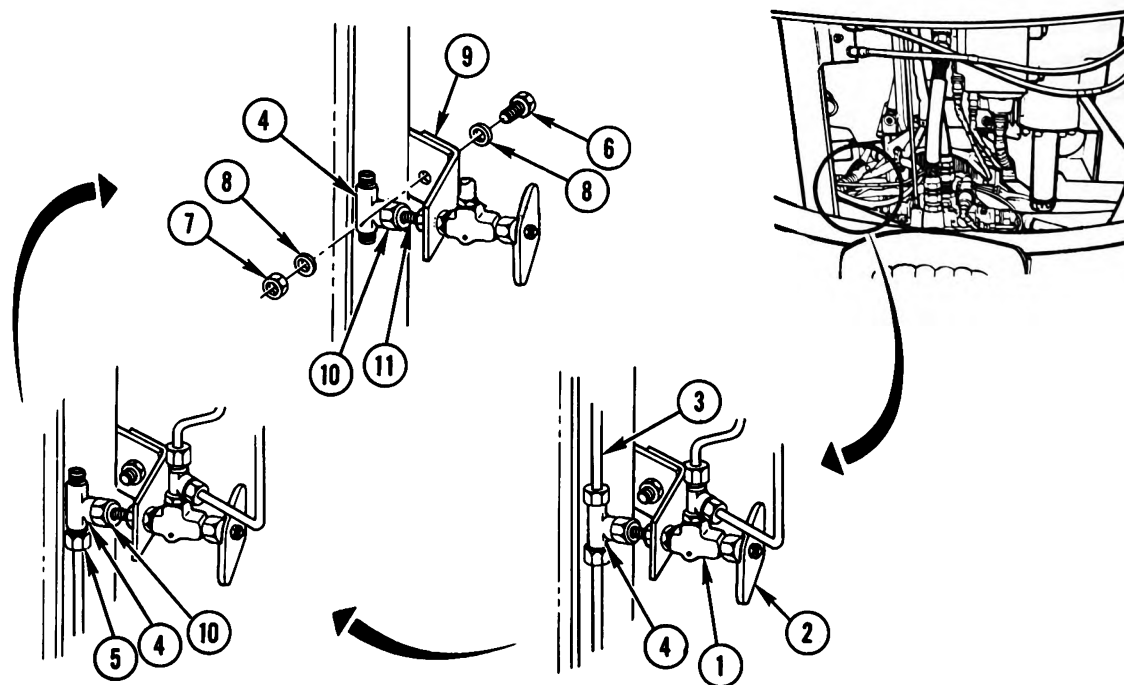
Remove Tube Assembly:

NOTE

Read para. 4-4 before doing any work.

- Soldier A: 1. Open angle valve (1) by turning handle (2) counterclockwise all the way. Unscrew and take off tube assembly (3) from tube tee (4) with adjustable and 9/16-inch wrenches.
- Soldier A: 2. Look at tee (4) for cracks, breaks, or stripped threads. If bad go to step 3. If OK go to frame 58, step 3.
- Soldier A: 3. Unscrew and take off other tube (5) from tee (4) with adjustable and 9/16-inch wrenches.
- Soldier A: 4. Unscrew and take out screw (6), nut (7), and two washers (8) from bracket (9) with socket, handle, and 7/16-inch wrench.
- Soldier A: 5. Loosen locknut (10) on tee (4) with adjustable and 9/16-inch wrenches.
- Soldier A: 6. Unscrew locknut (10) with 9/16-inch wrench and push bracket (9) until locknut (10) clears nipple (11). Turn in tee (4).

GO TO FRAME 58



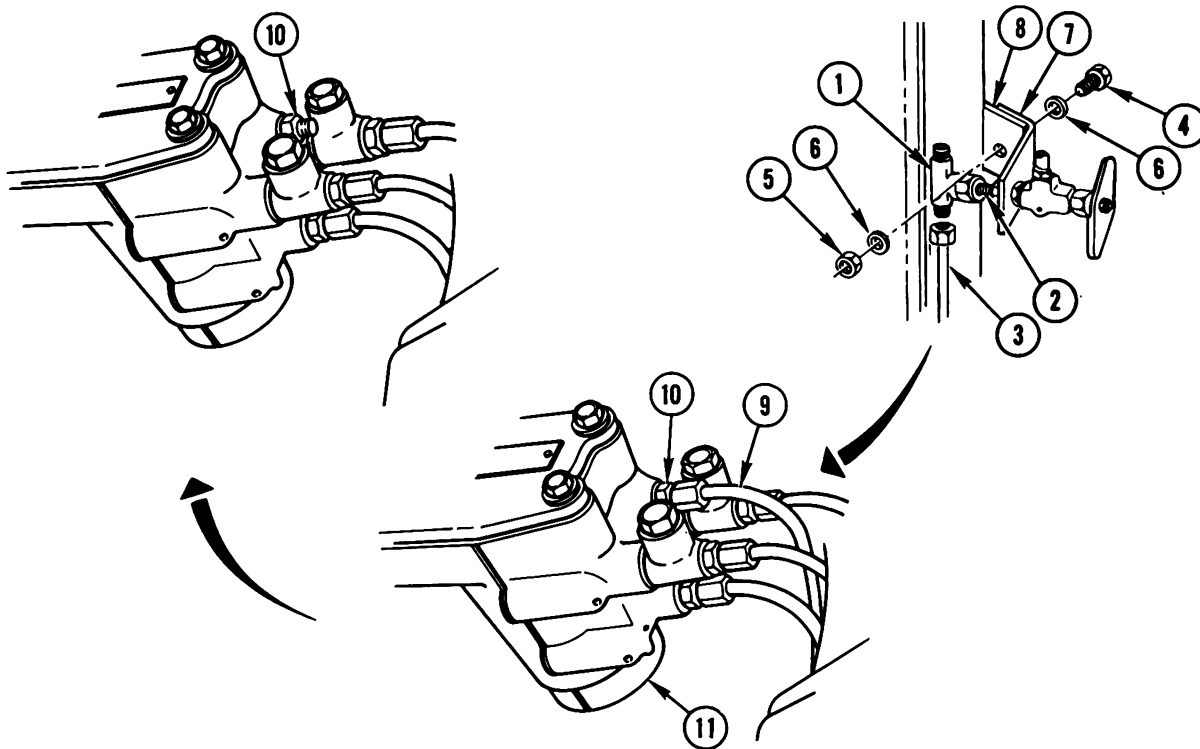
ARR82-1037

FRAME 58

Remove Tube Assembly (Continued):

- Soldier A:** 1. Screw on and tighten new tee (1), nipple (2), and tube (3) with adjustable and 9/16-inch wrenches.
- Soldier A:** 2. Screw on and tighten screw (4), nut (5), and two washers (6) in bracket (7) and support (8) with socket, handle, and 7/16-inch wrench.
- Soldier B:** 3. When told by Soldier A, manually traverse turret to line up driver's compartment with elevation hand pump, and then lock turret; refer to TM 9-2350-255-10.
- Soldier B:** 4. Remove gunner's screen; refer to para. 3-16, task 1.
- Soldier A:** 5. Unscrew and take tube (9) off check valve (10) on elevation hand pump (11) with 9/16-inch and 11/16-inch wrenches.
- Soldier A:** 6. Look at check valve (10) for cracks, breaks, or stripped threads. If bad replace check valve; refer to task 39. If OK go to frame 59.

GO TO FRAME 59



ARR82-1038

FRAME 59

Install Tube Assembly:

Soldier A: 1. Screw new tube (1) on check valve (2).

Soldier B: 2. Manually traverse turret to line up hydraulic turret valve (3) with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.

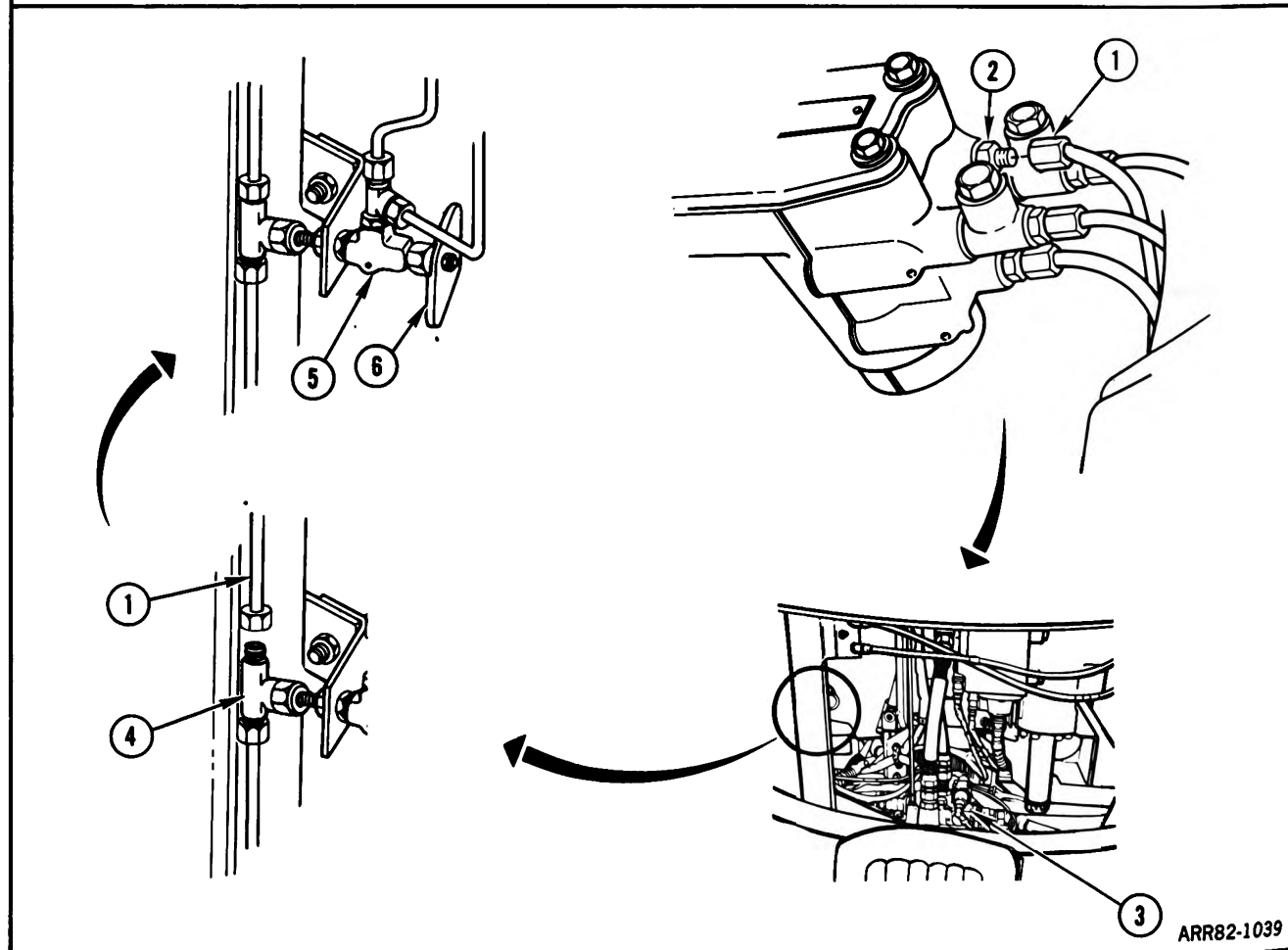
Soldier A: 3. Screw on and tighten tube (1) to tee (4) with adjustable and 9/16-inch wrenches. Close angle valve (5) by turning handle (6) clockwise all the way.

Soldier B: 4. Tighten tube (1) to check valve (2) with 9/16-inch and 11/16-inch wrenches.

Follow-on Maintenance:

1. Prime elevation hand pump; refer to para. 4-8, task 6.
2. Bleed air from elevation hand pump ; refer to para. 4-8, task 7.
3. Bleed air from elevation mechanism; refer to para 4-8, task 8.
4. Fill hydraulic reservoir; refer to LO-9-2350-255-12.
5. Install (gunner's) screen; refer to para. 3-16, task 18.

TASK 26 ENDS HERE



ARR82-1039

TASK 27. Replace Metal Tube Assembly, Elevation Hand Pump Assembly, Port CD to Tube Tee

Applicability: All Models

Common Tools:

- Wrench, adjustable, 8-inch
- Wrench, combination, 9/16-inch
- Wrench, combination, 11/16-inch

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Pencil, writing (Item 42)
 - Protective caps and plugs (Bulk)
 - Rag, wiping (Item 45)
 - Tag, marker (Item 54) (as required)
 - Tube Assembly (19207) 12287994

Personnel: Two

- Soldier A: Replaces tube assembly from driver's compartment.
- Soldier B: Helps Soldier A and traverses turret.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until hydraulic turret valve lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Put driver's seat in full reclining position; refer to TM-2350-255-10.

FRAME 60

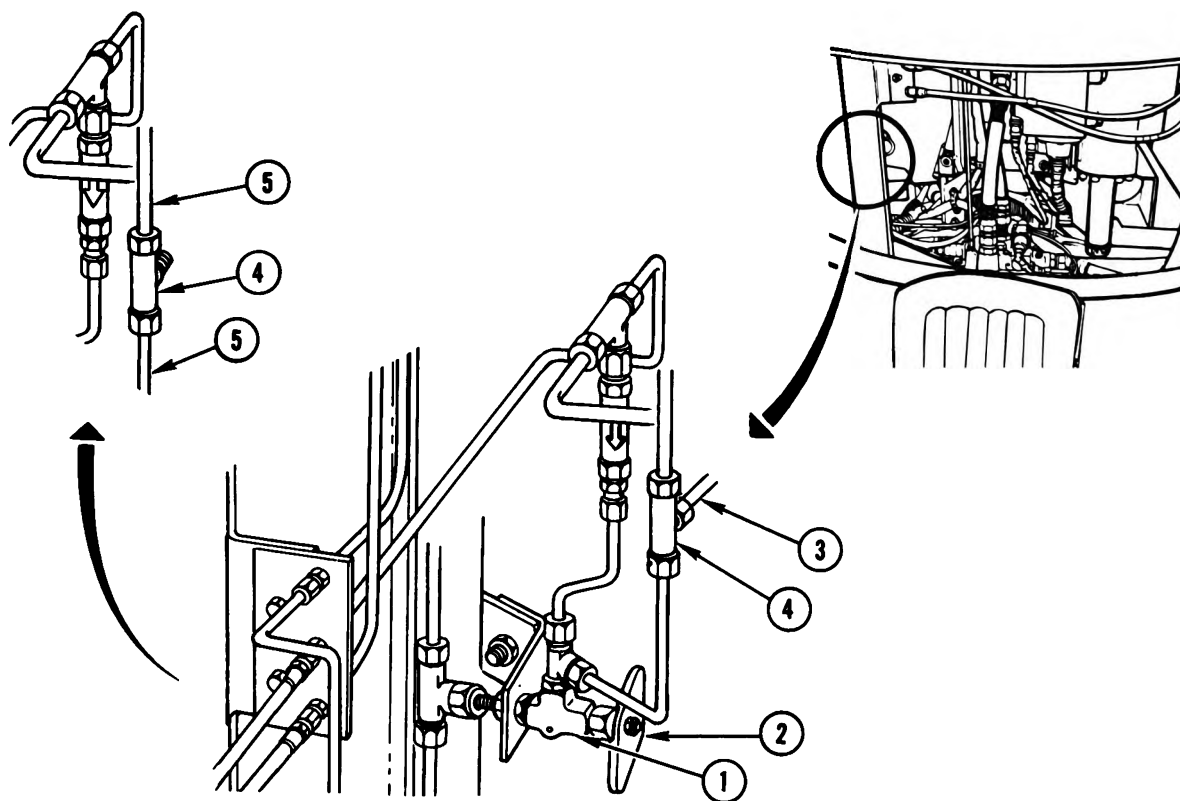
Remove Tube Assembly:

NOTE

Read para. 4-4 before doing any work.

- Soldier A: 1. Open angle valve (1) by turning handle (2) counterclockwise all the way. Unscrew and take off tube assembly (3) from tube tee (4) with adjustable and 9/16-inch wrenches.
- Soldier A: 2. Look at tee (4) for cracks, breaks, or stripped threads. If bad do steps 3 and 4. If OK go to frame 61.
- Soldier A: 3. Unscrew and take two tubes (5) off tee (4) with adjustable and 9/16-inch wrenches. Turn in tee (4).
- Soldier A: 4. Screw on and tighten tubes (5) to new tee (4) with adjustable and 9/16-inch wrenches.

GO TO FRAME 61



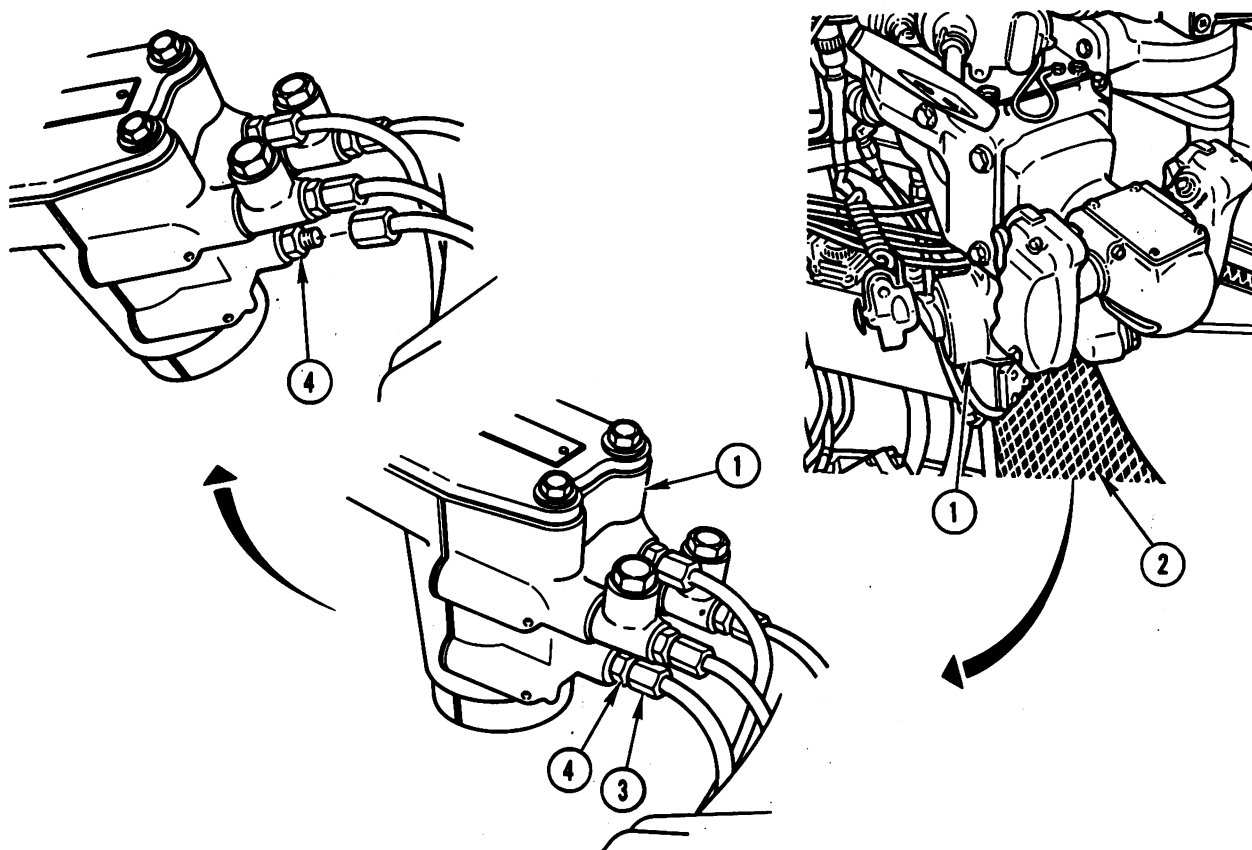
ARR82-1040

FRAME 61

Remove Tube Assembly (Continued):

- Soldier B: 1. When told by Soldier A, manually traverse turret to line up driver's compartment with elevation hand pump (1) and then lock turret; refer to TM 9-2350-255-10.
- Soldier B: 2. Remove gunner's screen (2); refer to para. 3-16, task 1.
- Soldier A: 3. Unscrew and take tube (3) off adapter (4) on elevation hand pump (1) with 9/16-inch and 11/16-inch wrenches. Turn in tube (3).
- Soldier A: 4. Look at adapter (4) for cracks, breaks, or stripped threads. If bad replace adapter; refer to task 37. If OK go to frame 62.

GO TO FRAME 62



ARR82-1041

FRAME 62

Install Tube Assembly:

Soldier A: 1. Screw new tube assembly (1) on adapter (2).

Soldier B: 2. Manually traverse turret to line up hydraulic turret valve (3) with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.

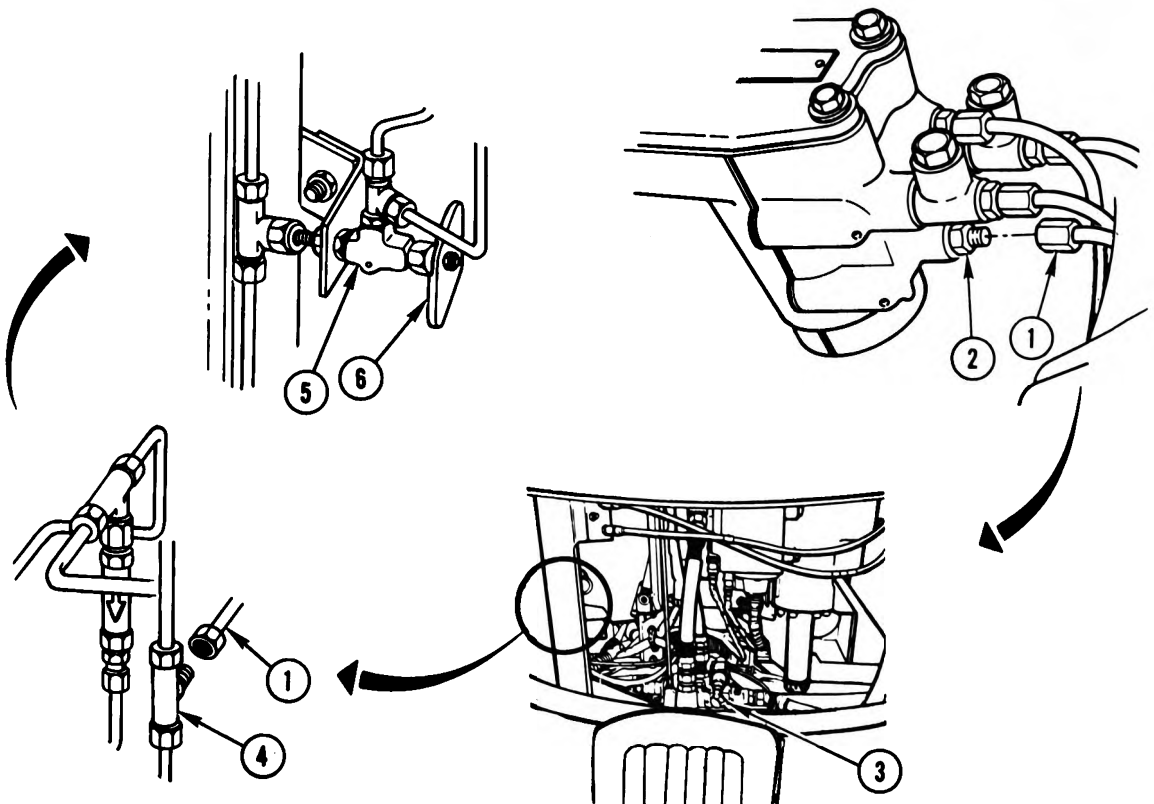
Soldier A: 3. Screw on and tighten tube assembly (1) to tube tee (4) with adjustable and 9/16-inch wrenches. Close angle valve (5) by turning handle (6) clockwise all the way.

Soldier B: 4. Tighten tube assembly (1) on adapter (2) with 9/16-inch and 11/16-inch wrenches.

Follow-on Maintenance:

1. Bleed air from elevation hand pump; refer to para 4-8, task 7.
2. Bleed air from elevation mechanism; refer to para. 4-8, task 8.
3. Fill hydraulic reservoir; refer to LO-9-2350-255-12.
4. Install(gunner's)screen; refer to para. 3-16, task 18.

TASK 27 ENDS HERE



ARR82-1042

TASK 28. Replace Hose Assembly, Elevating Mechanism Assembly to Bracket

Applicability: All Models

Common Tools:

- Wrench, combination, 1/2-inch
- Wrench, combination, 9/16-inch (two required)
- Wrench, combination, 11/16-inch (two required)

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Pencil, writing (Item 42)
 - Protective caps and plugs (Bulk)
 - Rag, wiping (Item 45)
 - Tag, marker (Item 54) (as required)
 - Hose Assembly (16717) MS8006E274AB

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until elevating mechanism lines up with center of driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Put driver's seat in full reclining position; refer to TM-2350-255-10.

FRAME 63

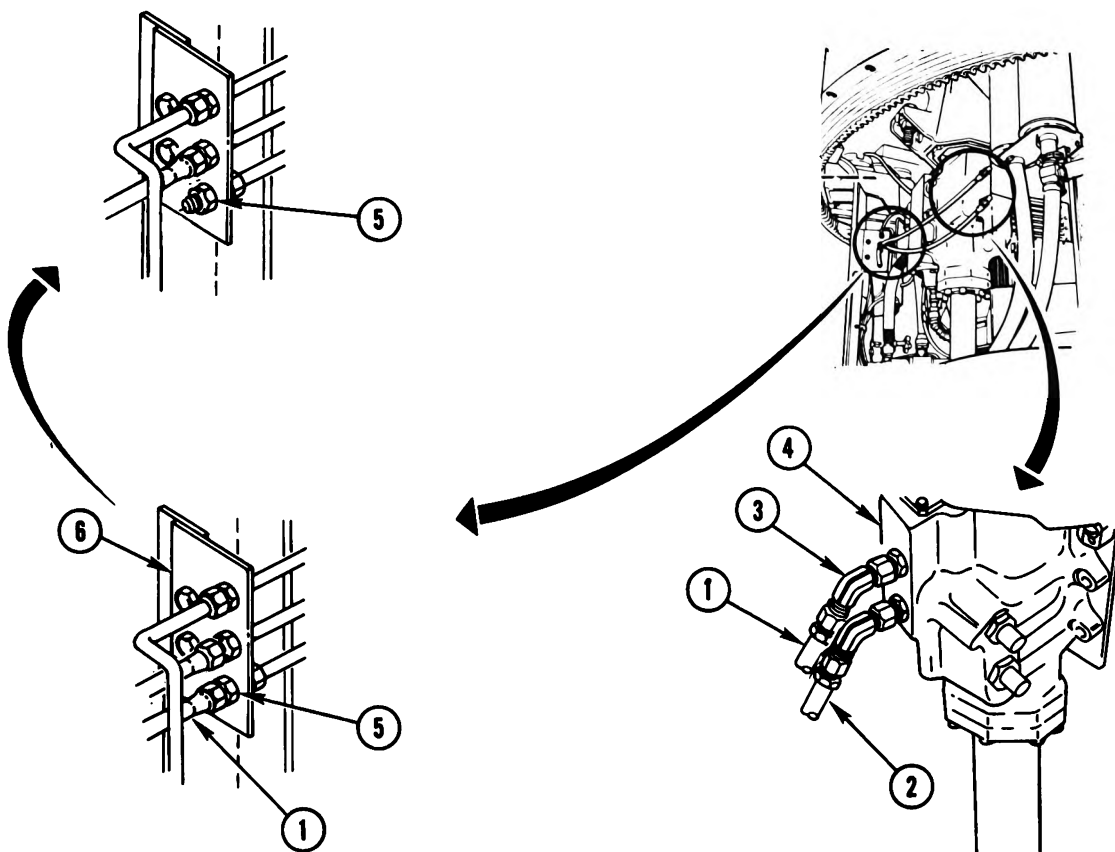
Remove Hose Assembly:

NOTE

- Read para. 4-4 before doing any work.
- Use this task to take off and put on hose assembly (1) or hose assembly (2).

1. Unscrew and take hose assembly (1) off elbow (3) at elevation mechanism (4) with 1/2-inch and 9/16-inch wrenches.
2. Unscrew and take hose assembly (1) off nipple (5) at bracket (6) with 9/16-inch and 11/16-inch wrenches. Turn in hose assembly (1).
3. Look at nipple (5) for cracks, breaks, or stripped threads. If bad go to frame 64. If OK go to frame 65.

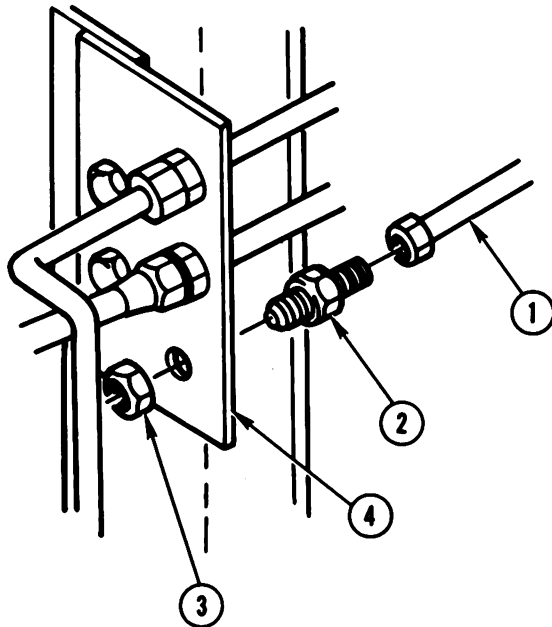
GO TO FRAME 64



ARR82-1043

FRAME 64**Replace Nipple:**

1. Unscrew and take tube assembly (1) off tube nipple (2) with 9/16-inch and 11/16-inch wrenches.
2. Unscrew and take nut (3) and nipple (2) from bracket (4) with two 11/16-inch wrenches. Turn in nipple (2).
3. Screw in and tighten new nipple (2) and nut (3) in bracket (4) with two 11/16-inch wrenches.

GO TO FRAME 65

ARR82-1044

FRAME 65

Inspect Elbow:

1. Look at tube elbow (1) on elevation mechanism (2) for cracks, breaks, or stripped threads. If bad do steps 2 and 3. If OK go to step 4.
2. Unscrew and take elbow (1) off adapter (3) with two 9/16-inch wrenches. Turn in elbow (1).
3. Screw on and tighten new elbow (1) with two 9/16-inch wrenches.

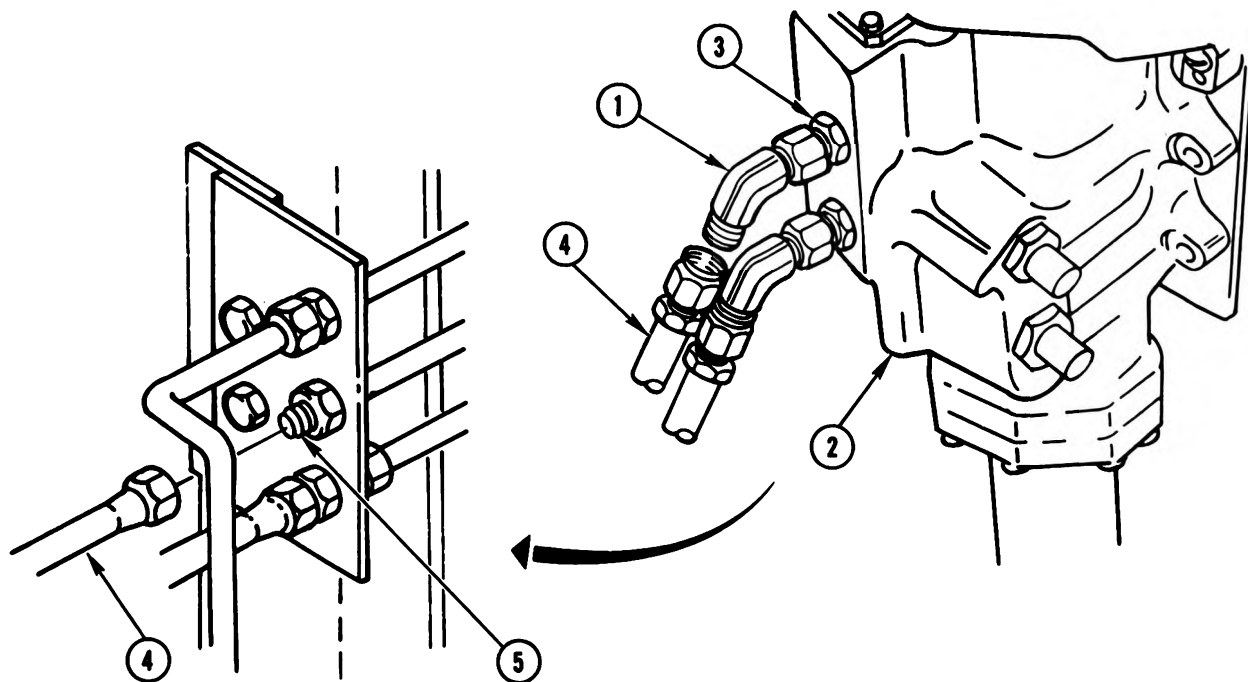
Install Hose Assembly:

4. Screw on and tighten new hose (4) to elbow (1) with 1/2-inch and 9/16-inch wrenches.
5. Screw on and tighten hose (4) to nipple (5) with 9/16-inch and 11/16-inch wrenches.

Follow-on Maintenance:

1. Bleed air from elevation mechanism; refer to para. 4-8, task 8.
2. Bleed air from elevation hand pump; refer to para. 4-7, task 7.
3. Fill hydraulic reservoir; refer to LO-9-2350-255-12.

TASK 28 ENDS HERE



ARR82-1045

TASK 29. Remove Metal Tube Assembly, Hydraulic Turret Valve To Angle Valve

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, adjustable, 8-inch
Wrench, combination, 7/16-inch
Wrench, combination, 9/16-inch (two required)

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Dry Cleaning Solvent, P-D-680 (Item 21)
Pencil, writing (Item 42)
Protective caps and plugs (Bulk)
Rag, wiping (Item 45)
Tag, marker (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until hydraulic turret valve lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Lock main gun in elevation travel lock; refer to TM 9-2350-255-10.
3. Reduce system hydraulic pressure to zero; refer to para. 4-4.
4. Put driver's seat in full reclining position; refer to TM-2350-255-10.

FRAME 66

Remove Tube Assembly:

NOTE

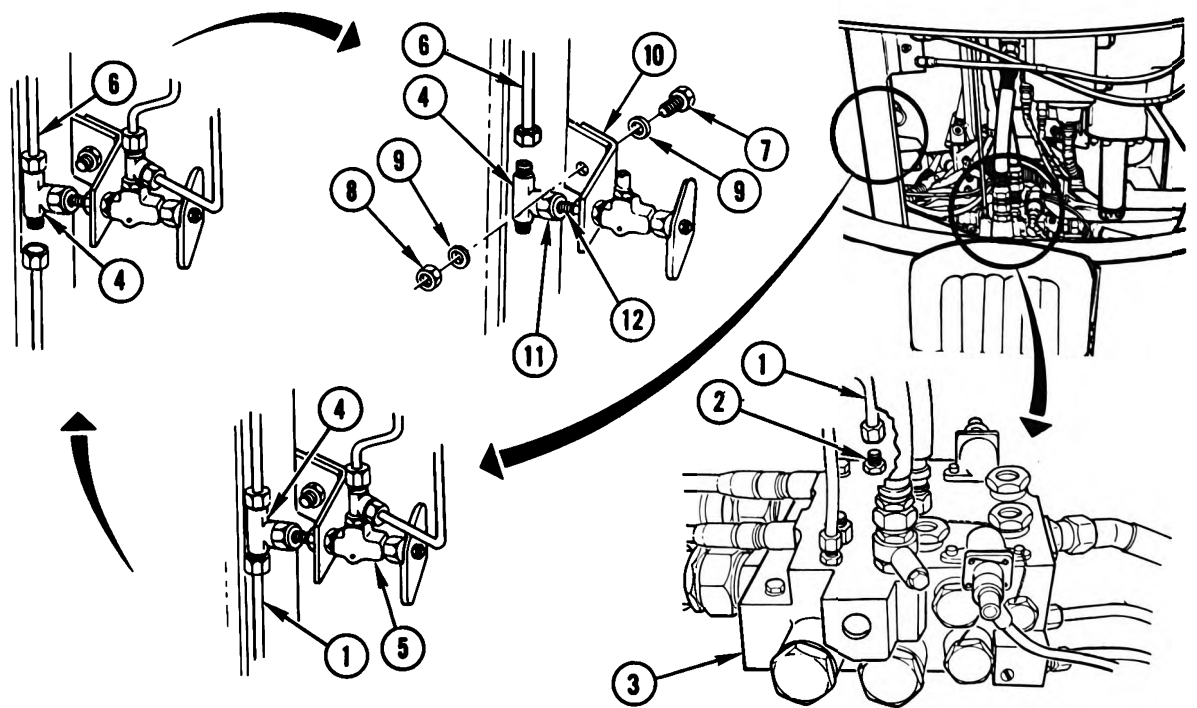
Read para. 4-4 before doing any work.

1. Unscrew and take tube assembly (1) off adapter (2) on hydraulic turret valve (3) with two 9/16-inch wrenches.
2. Unscrew and take tube assembly (1) off tube tee (4) at angle valve (5) with 9/16-inch wrench.

Inspect Fittings:

3. Look at tee (4) for cracks, breaks, or stripped threads. If bad go to step 4. If OK go to frame 67, step 4.
4. Unscrew and take other tube (6) off tee (4) with 9/16-inch wrench.
5. Unscrew and take out screw (7), nut (8), and two washers (9) from bracket (10) with socket, handle, and 7/16-inch wrench.
6. Unscrew locknut (11) with 9/16-inch and adjustable wrenches. Push bracket (10) until locknut (11) clears nipple (12). Turn in tee (4).

GO TO FRAME 67



ARR82-1046

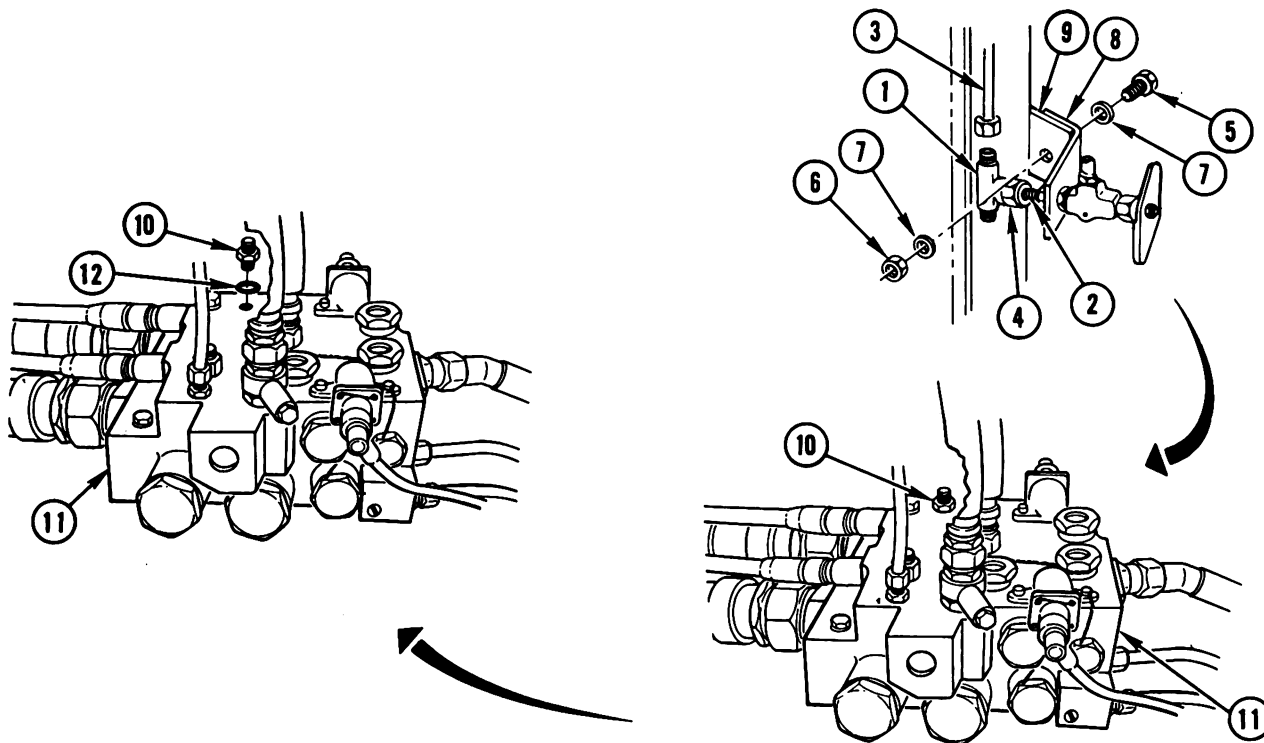
FRAME 67**Inspect Fittings (Continued):**

1. Screw on new tee (1) to nipple (2) with adjustable and 9/16-inch wrenches.
2. Screw on and tighten tube (3) to new tee (1) with 9/16-inch and adjustable wrenches. Tighten locknut (4) with 9/16-inch and adjustable wrenches.
3. Screw in and tighten screw (5), nut (6), and two washers (7) in bracket (8) and support (9) with socket, handle, and 7/16-inch wrenches.
4. Look at adapter (10) at hydraulic turret valve (11) for cracks, breaks, stripped threads. If bad do steps 5 and 6. If OK TASK 29 ENDS HERE.
5. Unscrew and take off adapter (10) and packing (12) with 9/16-inch wrench. Turn in adapter (10). Get rid of packing (12).
6. Screw in and tighten new adapter (10) and new packing (12) with 9/16-inch wrench.

Follow-on Maintenance:

NOTE: To install metal tube assembly, hydraulic turret valve to angle valve, refer to task 30.

TASK 29 ENDS HERE



ARR82-1047

TASK 30. Install Metal Tube Assembly, Hydraulic Turret Valve To Angle Valve

Applicability: All Models

Common Tools:

Wrench, combination, 9/16-inch (two required)

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Dry Cleaning Solvent, P-D-680 (Item 21)

Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove metal tube assembly, hydraulic turret valve to angle valve; refer to task 29.

FRAME 68**Install Tube Assembly:****NOTE**

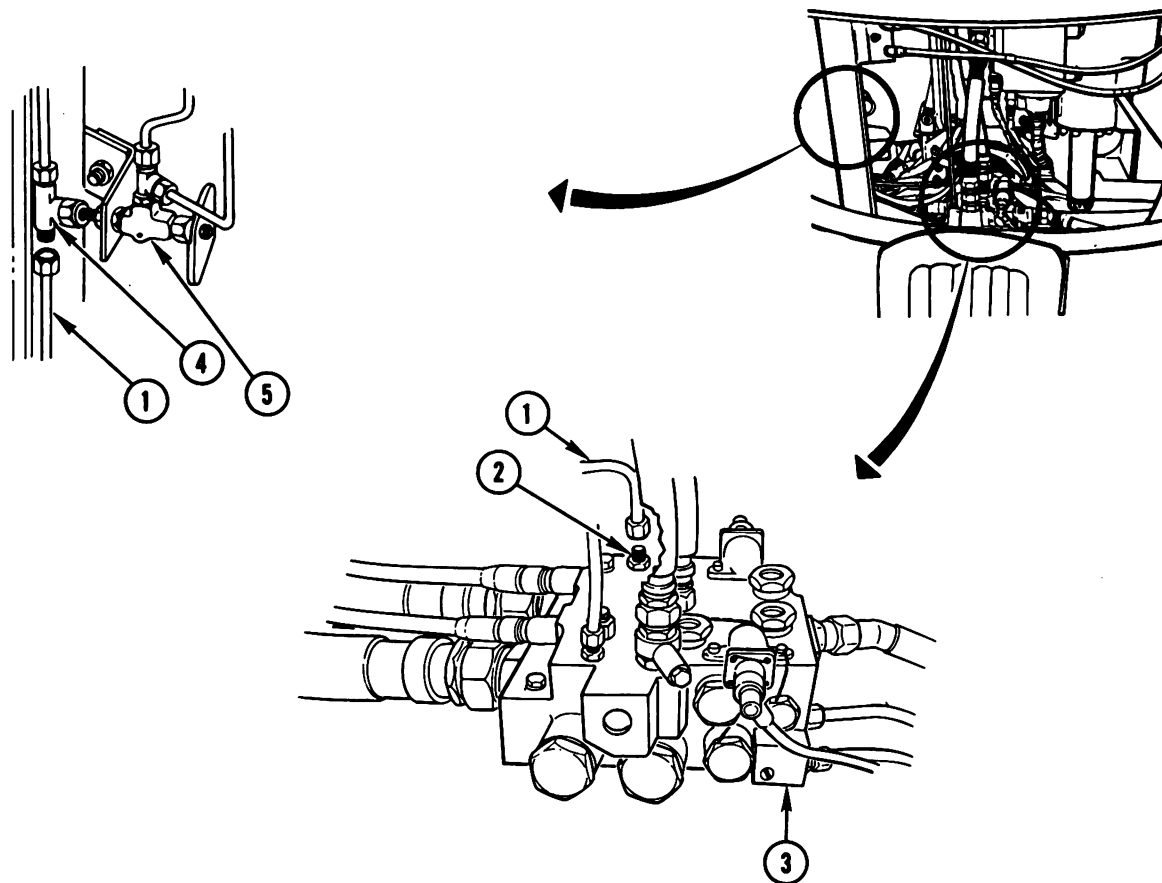
Read para. 4-4 before doing any work.

1. Screw on tube assembly (1) to adapter (2) on hydraulic turret valve (3).
2. Screw on and tighten tube assembly (1) to tee (4) at angle valve (5) with 9/16-inch wrench. Tighten tube (1) to adapter (2) with two 9/16-inch wrenches.

Follow-on Maintenance:

1. Bleed air from manual elevation hand pump; refer to para. 4-8, task 7.
2. Bleed air from elevation mechanism; refer to para. 4-8, task 8.
3. Fill hydraulic reservoir; refer to LO-9-2350-255-12.

TASK 30 ENDS HERE



ARR82-1048

TASK 31. Replace Regulating Valve

Applicability: All Models

Common Tools:

- Wrench, adjustable, 8-inch
- Wrench, combination, 9/16-inch (two required)
- Wrench, combination, 11/16-inch

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Packing, preformed (31349) M83248/1-904
 - Pencil, writing (Item 42)
 - Protective caps and plugs (Bulk)
 - Rag, wiping (Item 45)
 - Tag, marker (Item 54) (as required)
 - Valve, regulating (19207) 12273462

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until hydraulic turret valve lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Put main gun in elevation travel lock; refer to TM 9-2350-255-10.
3. Reduce system hydraulic pressure to zero; refer to para. 4-4.
4. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.

FRAME 69

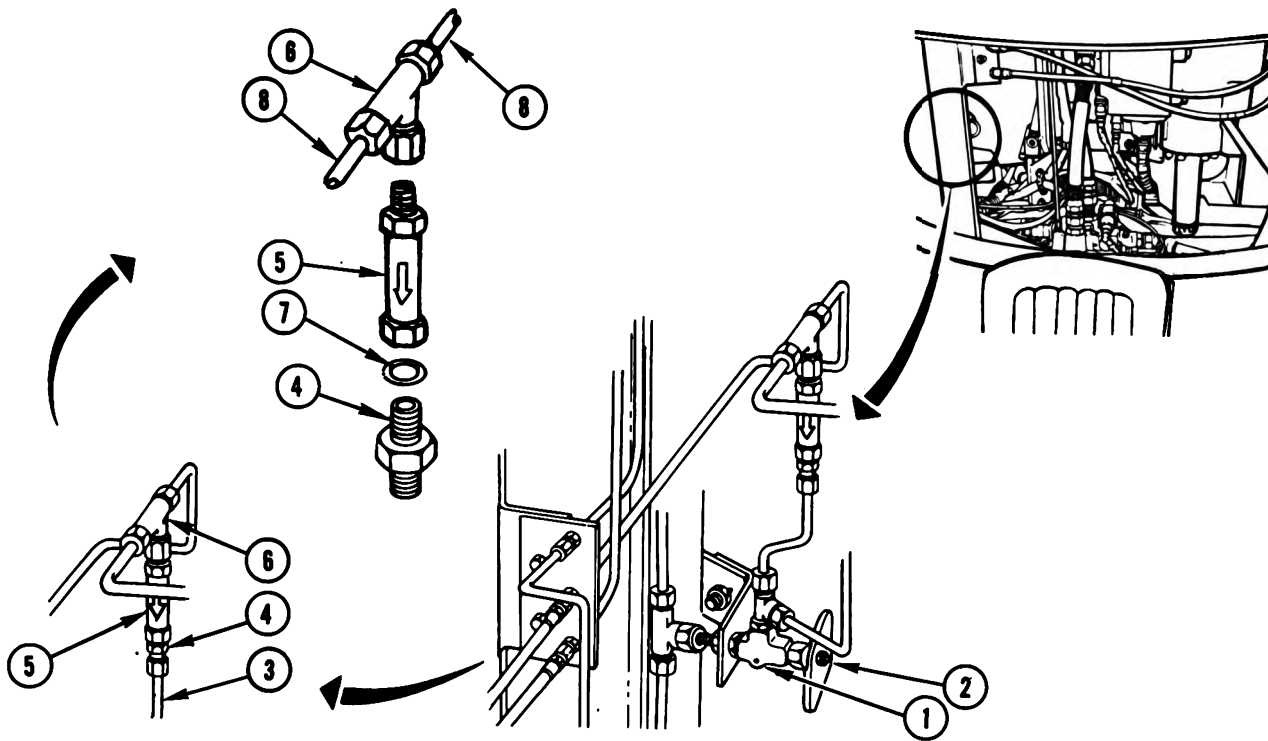
Remove Valve:

NOTE

Read para. 4-4 before doing any work.

1. Open angle valve (1) by turning handle (2) counterclockwise all the way. Unscrew and take off metal tube (3) from straight adapter (4) and regulating valve (5) from tube tee (6) with two 9/16-inch and one 11/16-inch wrenches.
2. Unscrew and take off adapter (4) and packing (7) from valve (5) with 9/16-inch and 11/16-inch wrenches. Turn in valve (5). Get rid of packing (7).
3. Look at adapter (4) for cracks, breaks, or stripped threads. If bad turn in. If OK set aside for later use.
4. Look at tee (6) for cracks, breaks, or stripped threads. If bad do steps 5 and 6. If OK go to frame 70.
5. Unscrew and take off two tubes (8) from tee (6) with 9/16-inch wrench. Turn in tee (6).
6. Screw on and tighten two tubes (8) to new tee (6) with and 9/16-inch wrench.

GO TO FRAME 70



ARR82-1049

FRAME 70

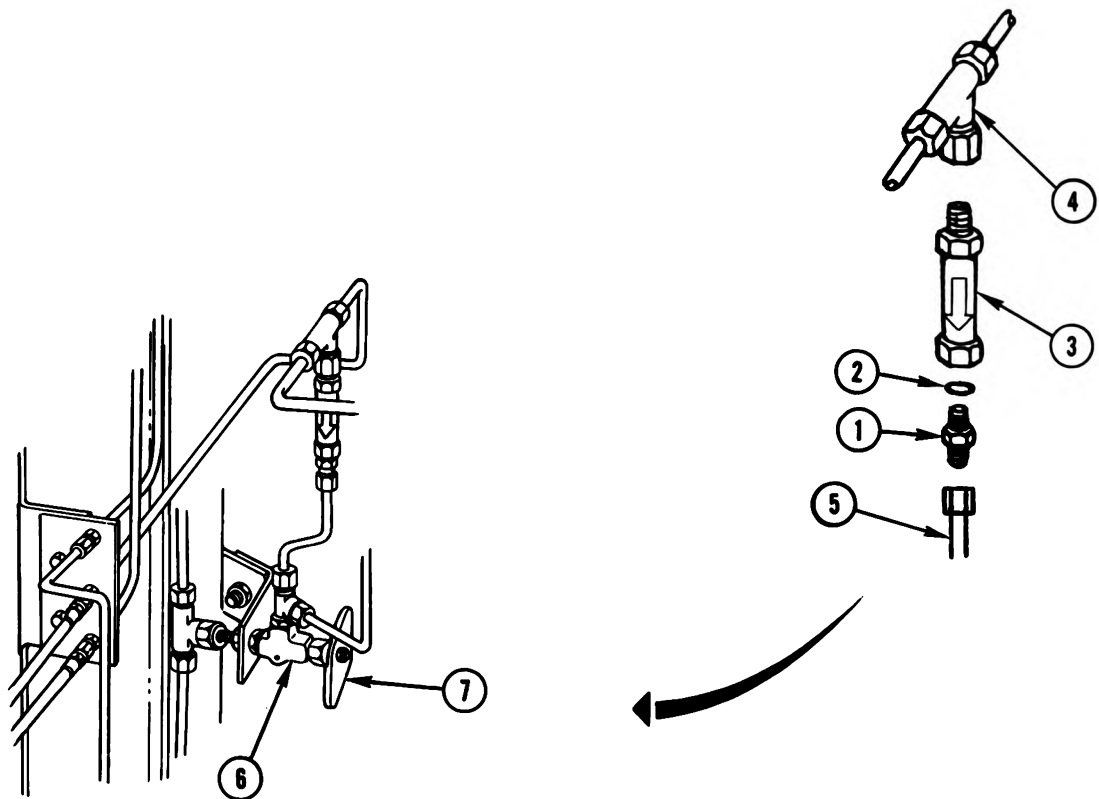
Install Valve:

1. Screw in and tighten adapter (1) and new packing (2) on new valve (3) with 9/16-inch and 11/16-inch wrenches.
2. Screw on and tighten valve (3) to tee (4) with 9/16-inch and 11/16-inch wrenches.
3. Screw on and tighten tube assembly (5) to adapter (1) with two 9/16-inch wrenches.
4. Close angle valve (6) by turning handle (7) clockwise all the way.

Follow-on Maintenance:

1. Bleed air from elevation hand pump, refer to para. 4-8, task 7.
2. Bleed air from elevation mechanism; refer to para. 4-8, task 8.
3. Fill hydraulic reservoir; refer to LO 9-2350-255-12.

TASK 31 ENDS HERE



ARR82-1050

TASK 32. Replace Metal Tube Assembly, Regulating Valve to Tube Tee

Applicability: All Models

Common Tools:

- Wrench, adjustable, 8-inch
- Wrench, combination, 9/16-inch (two required)
- Wrench, combination, 11/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

- Dry Cleaning Solvent, P-D-680 (Item 21)
- Pencil, writing (Item 42)
- Protective caps and plugs (Bulk)
- Rag, wiping (Item 45)
- Tag, marker (Item 54) (as required)
- Tube Assembly (19207) 12287988

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until hydraulic turret valve lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Put main gun in elevation travel lock; refer to TM 9-2350-255-10.
3. Reduce system hydraulic pressure to zero; refer to para. 4-4.
4. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.

FRAME 71

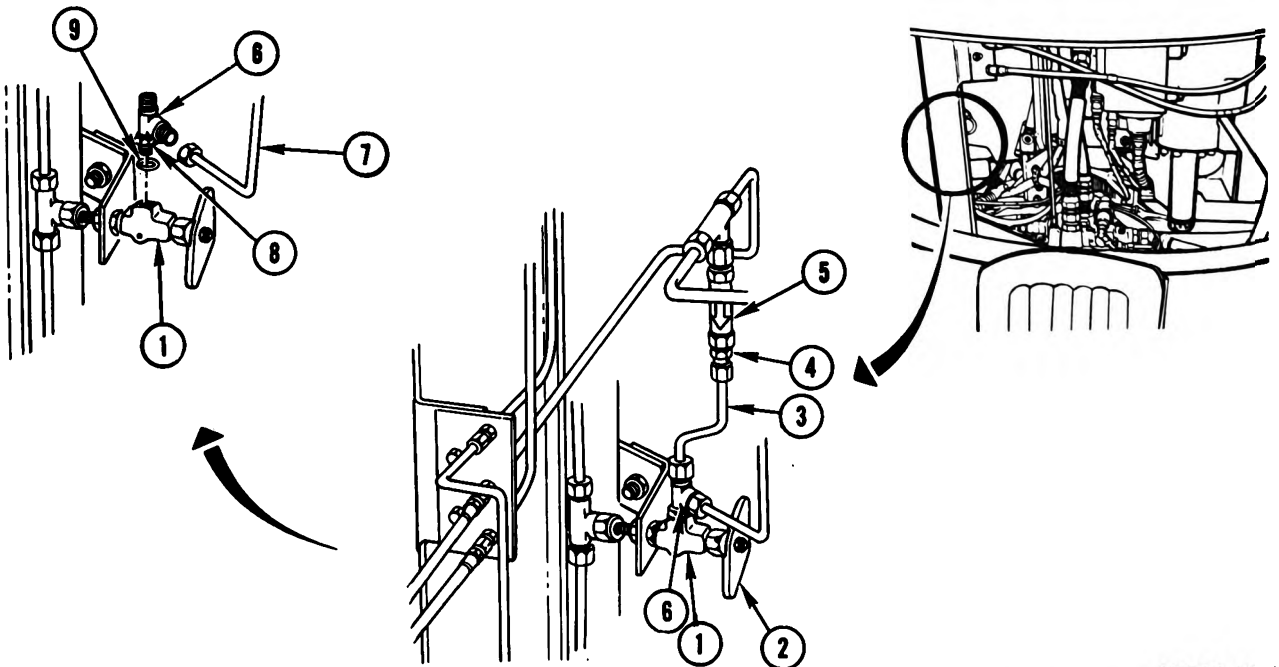
Remove Tube Assembly:

NOTE

Read para. 4-4 before doing any work.

1. Open angle valve (1) by turning handle (2) counterclockwise all the way. Unscrew and take off tube assembly (3) from adapter (4) on regulating valve (5) and tube tee (6) on angle valve (1) with adjustable and two 9/16-inch wrenches. Turn in tube assembly (3).
2. Look at tee (6) for cracks, breaks, or stripped threads. If bad do steps 3 through 8. If OK go to frame 72.
3. Unscrew and take off other tube assembly (7) from tee (6) with adjustable and 9/16-inch wrenches.
4. Loosen jamnut (8) on tee (6) with adjustable and 9/16-inch wrenches.
5. Unscrew and take off tee (6) and packing (9) from angle valve (1) with 9/16-inch wrench. Turn in tee (6). Get rid of packing (9).
6. Screw on and tighten new tee (6) and new packing (9) in angle valve (1) with adjustable and 9/16-inch wrenches.
7. Screw on and tighten tube assembly (7) to tee (6) with adjustable and 9/16-inch wrenches.
8. Tighten jamnut (8) with adjustable and 9/16-inch wrenches.

GO TO FRAME 72



ARR82-1051

FRAME 72

Remove Tube Assembly (Continued):

1. Look at adapter (1) for cracks, breaks, or stripped threads. If bad do steps 2 and 3. If OK go to step 4.

Replace Adapter:

2. Unscrew and take off adapter (1) and packing (2) from valve (3) with 9/16-inch and 11/16-inch wrenches. Turn in adapter (1). Get rid of packing (2).
3. Screw in and tighten new adapter (1) and new packing (2) with 9/16-inch and 11/16-inch wrenches.

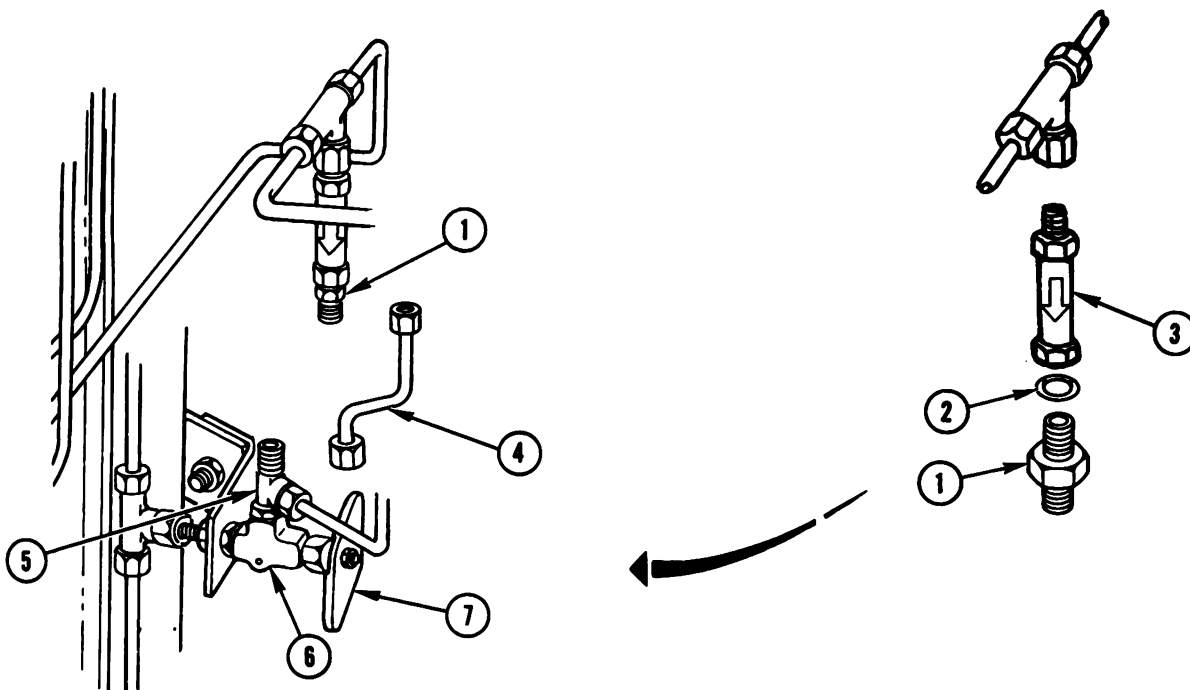
Install Tube Assembly:

4. Screw on and tighten new tube (4) to adapter (1) and tee (5) with adjustable and two 9/16-inch wrenches.
5. Close angle valve (6) by turning handle (7) clockwise all the way.

Follow-on Maintenance:

1. Bleed air from elevation hand pump; refer to para. 4-8, task 7.
2. Bleed air from elevation mechanism; refer to para. 4-8, task 8.
3. Fill hydraulic reservoir; refer to LO 9-2350-255-12.

TASK 32 ENDS HERE



ARR82-1052

TASK 33. Replace Metal Tube Assembly, Elevation Hand Pump Accumulator to Tube Tee

Applicability: All Models

Common Tools:

- Wrench, adjustable, 8-inch
- Wrench, combination, 9/16-inch
- Wrench, combination, 1-inch

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Pencil, writing (Item 42)
 - Protective caps and plugs (Bulk)
 - Rag, wiping (Item 45)
 - Tag, marker (Item 54)(as required)
 - Tube Assembly (19207) 12288309

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until hydraulic turret valve lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.

FRAME 73

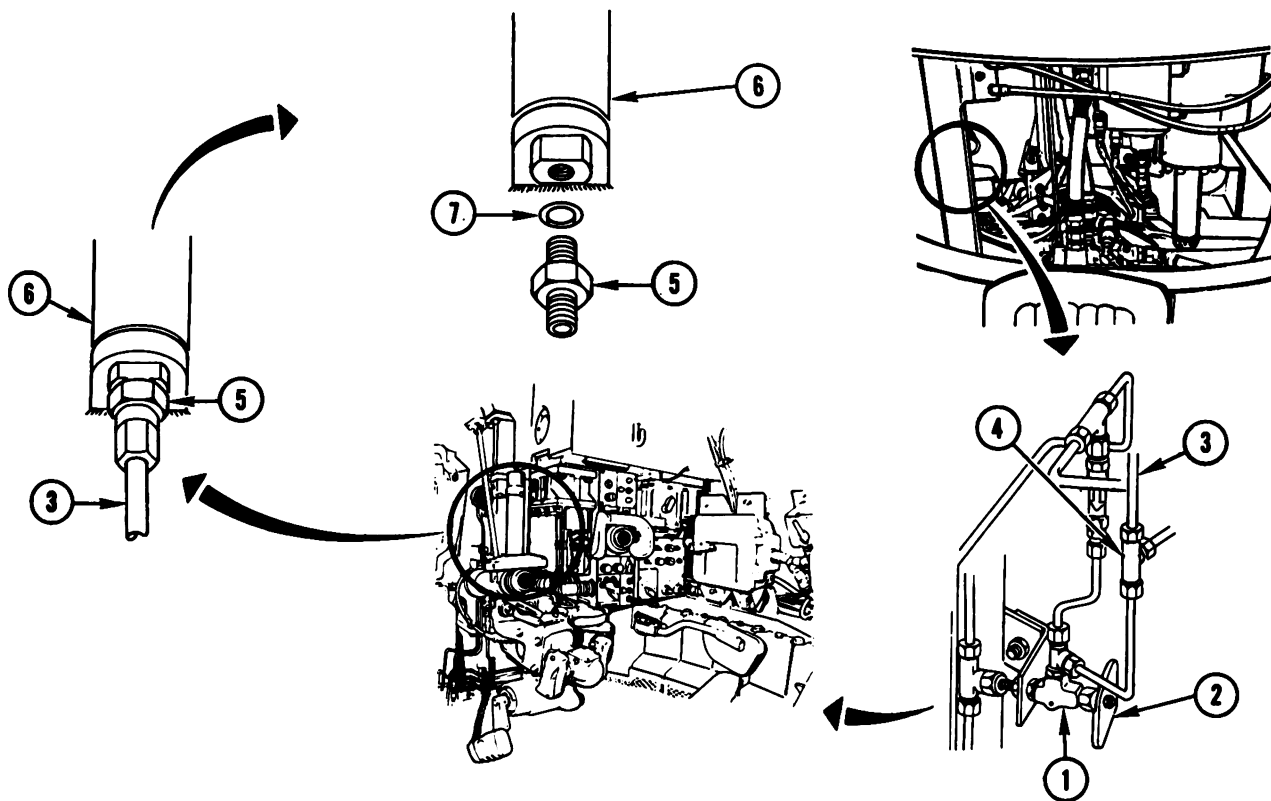
Remove Tube Assembly:

NOTE

Read para. 4-4 before doing any work.

1. Open angle valve (1) by turning handle (2) counterclockwise all the way. Unscrew and take tube assembly (3) off tube tee (4) with 9/16-inch and adjustable wrenches.
2. Go inside turret and unscrew and take tube (3) off reducer (5) on accumulator (6) with 9/16-inch and 1-inch wrenches. Turn in tube assembly (3).
3. Look at reducer (5) for breaks, cracks, or stripped threads. If bad do steps 4 and 5. If OK go to frame 74.
4. Unscrew and take off reducer (5) and packing (7) from accumulator (6) with 1-inch wrench. Turn in reducer (5). Get rid of packing (7).
5. Screw on and tighten new reducer (5) and new packing (7) with 1-inch wrench.

GO TO FRAME 74



ARR82 -1053

FRAME 74

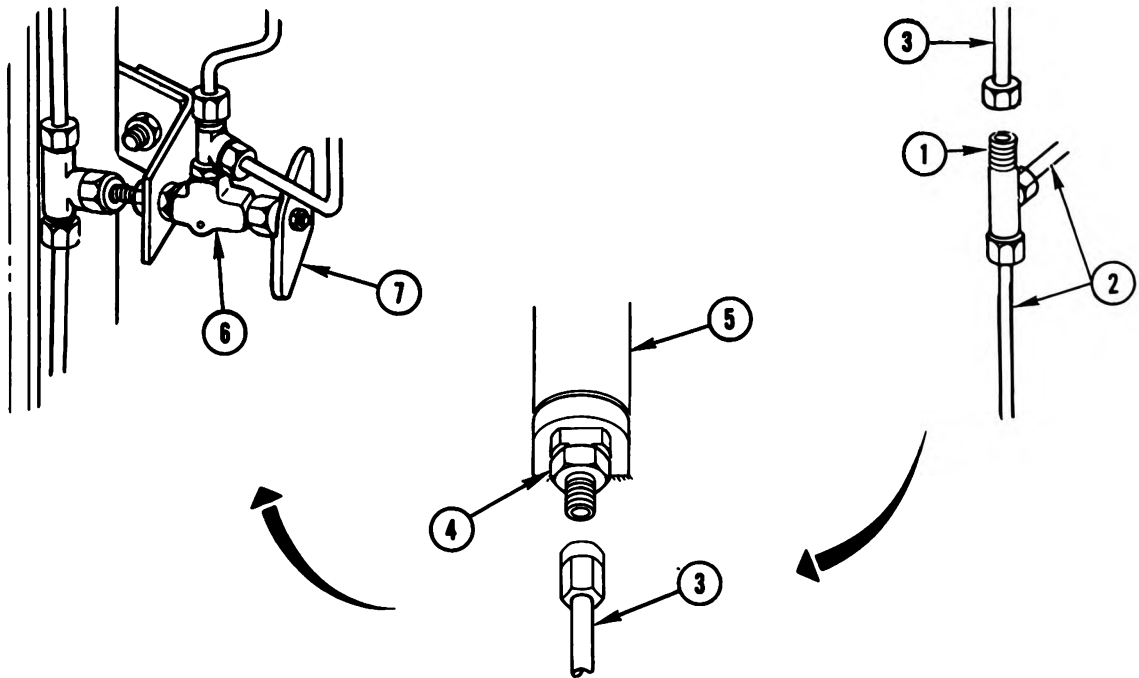
Install Tube Assembly:

- Soldier B:** 1. Look at tee (1) for breaks, cracks, or stripped threads. If bad do step 2. If OK go to step 3.
- Soldier B:** 2. Go to driver's seat and unscrew and take off two tubes (2) from tee (1) with adjustable and 9/16-inch wrenches. Turn in tee (1). Screw on and tighten two tubes (2) to new tee (1) with adjustable and 9/16-inch wrenches.
- Soldier A:** 3. Screw on and tighten new tube (3) to tee (1) with 9/16-inch and adjustable wrenches.
- Soldier B:** 4. Go inside turret and screw on and tighten new tube (3) to reducer (4) on accumulator (5) with 1-inch and 9/16-inch wrenches. Close angle valve (6) by turning handle (7) clockwise all the way.

Follow-on Maintenance:

1. Bleed air from elevation hand pump; refer to para. 4-8, task 7.
2. Bleed air from elevation mechanism; refer to para. 4-8, task 8.
3. Bleed manual elevation accumulator; refer to para. 4-4.
4. Fill hydraulic reservoir; refer to LO 9-2350-255-12.

TASK 33 ENDS HERE



ARR82-1054

TASK 34. Remove Hose Assembly, Hydraulic Turret Valve to Main Accumulator

Applicability: All Models

Common Tools:

Wrench, combination, 1-1/2 inch (two required)

Wrench, combination, 1-5/8 inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Dry Cleaning Solvent, P-D-680 (Item 21)

Pencil, writing (Item 42)

Protective caps and plugs (Bulk)

Rag, wiping (Item 45)

Tag, marker (Item 54) (as required)

Personnel: Two

Soldier A: Removes hose assembly.

Soldier B: Helps Soldier A.

NOTE

Soldier B is needed in frame 76 only.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until hydraulic accumulator lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Reduce system hydraulic pressure to zero; refer to para. 4-4.
3. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.

FRAME 75

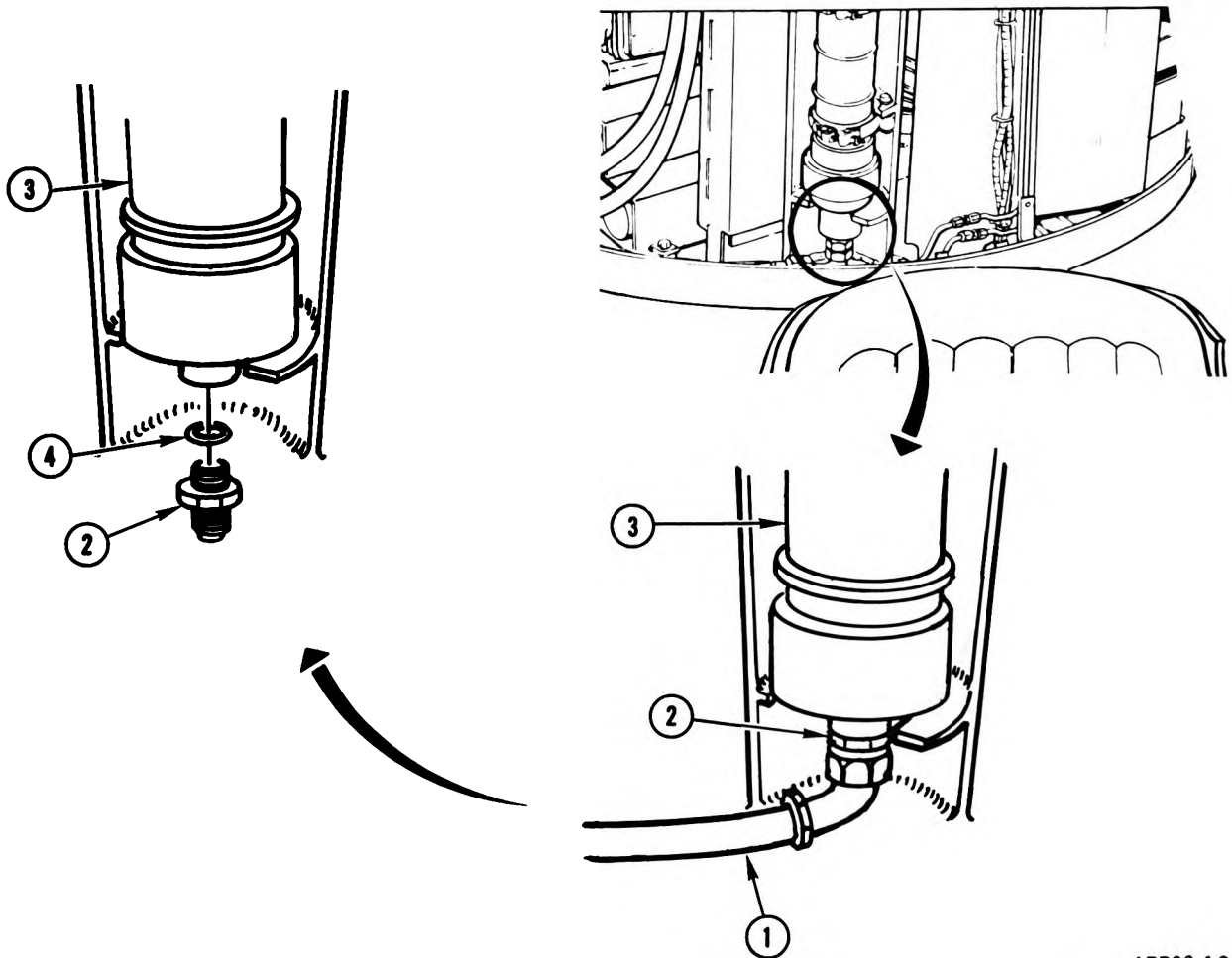
Remove Hose Assembly

NOTE

Read para. 4-4 before doing any work.

1. Unscrew and take hose assembly (1) off reducer (2) on accumulator (3) with 1-1/2 inch and 1-5/8 inch wrenches.
2. Look at reducer (2) for breaks, cracks, or stripped threads. If bad do steps 3 and 4. If OK go to frame 76.
3. Unscrew and take off reducer (2) and packing (4) from accumulator (3) with 1-5/8 inch wrench. Turn in reducer (2). Get rid of packing (4).
4. Screw in and tighten new reducer (2) and new packing (4) with 1-5/8 inch wrench.

GO TO FRAME 76



ARR82-1055

FRAME 76

Remove Hose Assembly (Continued):

Soldier B: 1. When told by Soldier A, manually traverse turret until hydraulic turret valve (1) lines up with right side of driver's compartment and then lock turret; refer to TM 9-2350-255-10.

Soldier A: 2. Unscrew electrical connector (2) from elevation servo (3).

Soldier A: 3. Unscrew and take off hose assembly (4) from adapter (5) on hydraulic turret valve (1) with two 1-1/2 inch wrenches.

Soldier A: 4. Look at adapter (5) on hydraulic turret valve (1) for breaks, cracks, or stripped threads. If bad do steps 5 and 6. If OK TASK 34 ENDS HERE.

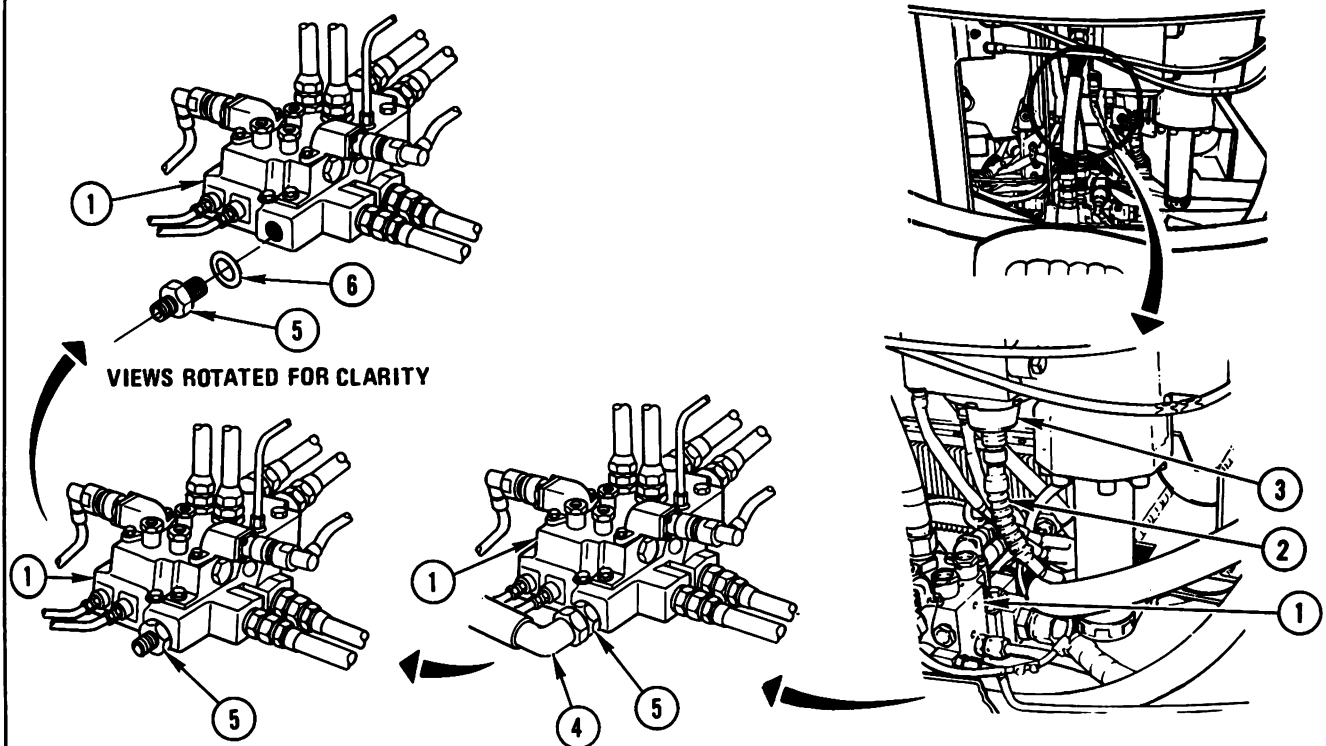
Soldier A: 5. Unscrew and take off adapter (5) and packing (6) from hydraulic turret valve (1) with 1-1/2 inch wrench. Turn in adapter (5). Get rid of packing (6).

Soldier A: 6. Screw in and tighten new adapter (5) and new packing (6) with 1-1/2 inch wrench.

Follow-on Maintenance:

NOTE: To install hose assembly, hydraulic turret valve to main accumulator, refer task 35.

TASK 34 ENDS HERE



ARR82-1056

TASK 35. Install Hose Assembly, Hydraulic Turret Valve to Main Accumulator

Applicability: All Models

Common Tools:

- Wrench, combination, 1-1/2 inch (two required)
- Wrench, combination, 1-5/8 inch

Special Tools:

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Dry Cleaning Solvent, P-D-680 (Item 21)
 - Rag, wiping (Item 45)

Personnel: Two

- Soldier A: Installs hose assembly.
- Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove hose assembly, hydraulic turret valve to main accumulator; refer to task 34.

FRAME 77

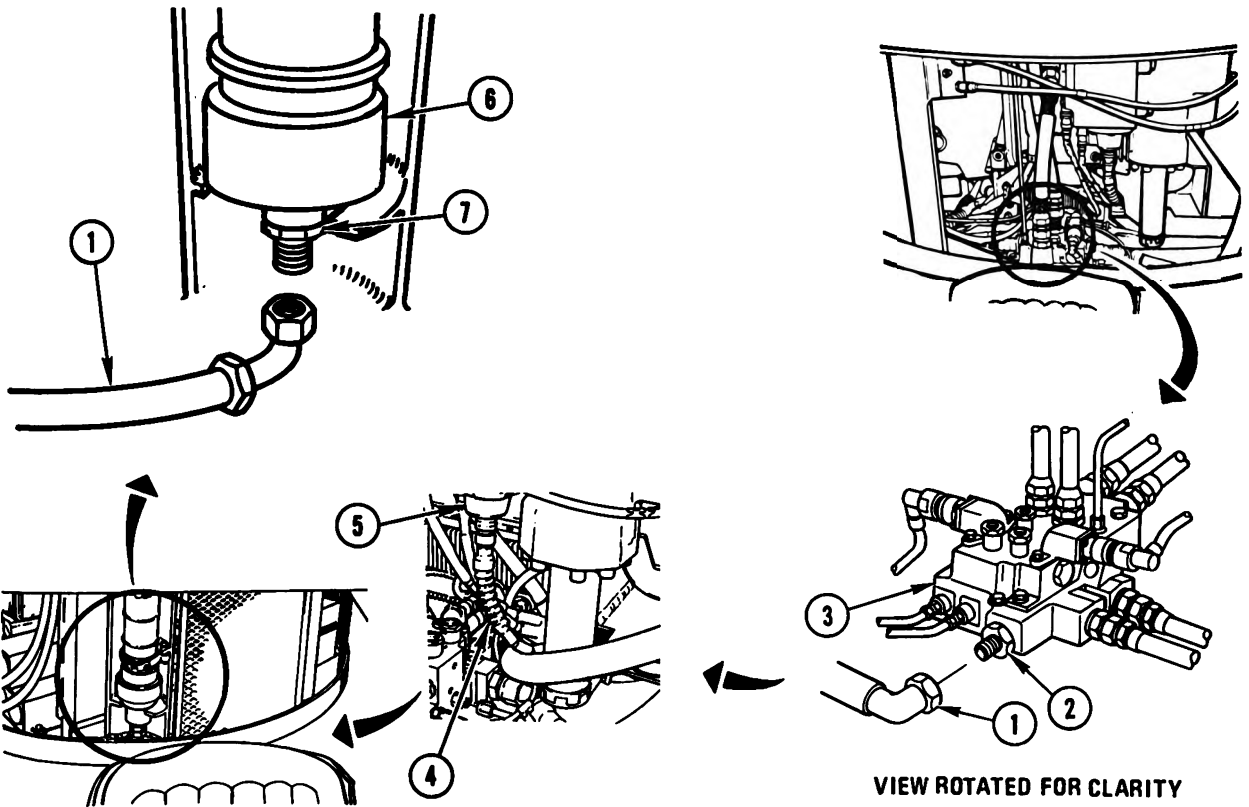
Install Hose Assembly:

NOTE

Read para. 4-4 before doing any work.

- Soldier A:** 1. Screw on and tighten hose assembly (1) to adapter (2) on hydraulic turret valve (3) with two 1-1/2 inch wrenches.
- Soldier A:** 2. Screw on and tighten electrical connector (4) to elevation servo (5).
- Soldier B:** 3. When told by Soldier A, manually traverse turret to lineup hydraulic accumulator (6) with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
- Soldier A:** 4. Screw on and tighten hose assembly (1) to reducer (7) on hydraulic accumulator (6) with 1-1/2 and 1-5/8 inch wrenches.
- Follow-on Maintenance:**
1. Bleed air from hydraulic accumulator; refer to para. 4-10, task 2.
 2. Fill hydraulic reservoir; refer to LO 9-2350-255-12.

TASK 35 ENDS HERE



VIEW ROTATED FOR CLARITY

ARR82-1057

TASK 36. Replace Test Adapter on Hydraulic Turret Valve

Applicability: All Models

Common Tools:

Wrench, open end, 1-1/2 inch (two required)

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Adapter, test (19207) 12304402

Dry Cleaning Solvent, P-D-680 (Item 21)

Pencil, writing (Item 42)

Protective caps and plugs (Bulk)

Rag, wiping (Item 45)

Packing, preformed (81349) M83248-1-916

Tag, marker (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Put main gun in elevation lock; refer to TM 9-2350-255-10.
2. Manually traverse turret until hydraulic turret valve lines up with driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
3. Reduce system hydraulic pressure to zero; refer to para. 4-4.
4. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.
5. Remove hose assembly (pressure), hydraulic turret valve to elevation servo mechanism assembly; refer to task 1.

FRAME 78

Remove Test Adapters:

NOTE

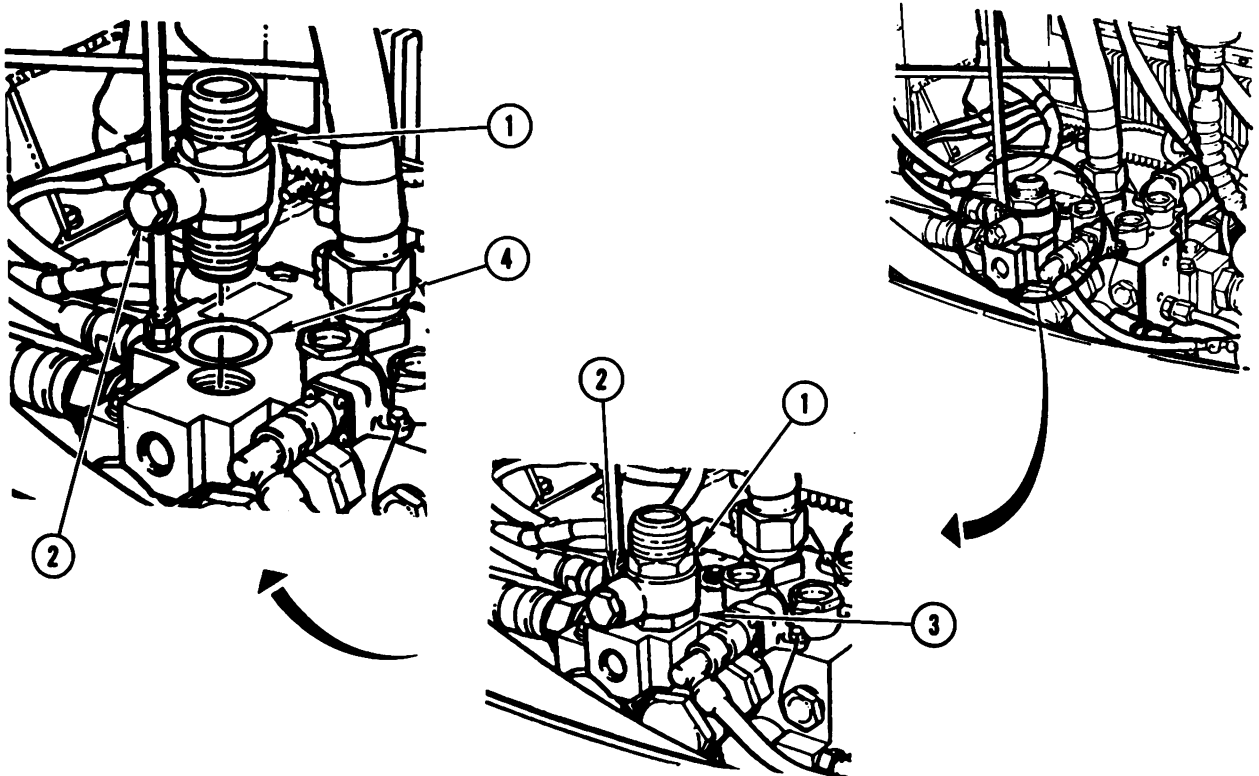
Read para. 4-4 before doing any work.

1. Loosen jamnut (1) on test adapter (2) with wrench until adapter (2) can be turned.
2. Hold adapter (2). Unscrew bottom nut (3) and take out adapter (2) and packing (4) with wrench. Turn in test adapter (2). Get rid of packing (4).

Install Test Adapter:

3. Loosen jamnut (1) on new adapter (2) with two wrenches.
4. Hold adapter (2). Screw in and tighten bottom nut (3) on adapter (2) and new packing (4) with wrench.
5. Tighten jamnut (1) with wrench.

GO TO FRAME 79



ARR82-1058

FRAME 79

Follow-on Maintenance:

- 1. Install hose assembly (pressure), hydraulic turret valve to elevation servo mechanism assembly; refer to task 2.**
- 2. Bleed air from elevation mechanism; refer to para. 4-8, task 8.**
- 3. Fill hydraulic reservoir; refer to LO 9-2350-255-12.**

TASK 36 ENDS HERE

TASK 37. Replace Fluid Pressure Dampener, Test Adapter, or Check Valve on Manual Elevation Hand Pump

Applicability: All Models

Common Tools:

Wrench, combination, 11/16-inch (two required)

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Dampener, fluid pressure (19207) 12273464

Packing, preformed (81349) M83248/1-904

Protective caps and plugs (Bulk)

Rag, wiping (Item 45)

Test Adapter (19207) 12309401

Valve, check (96906) MS24423-4

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Reduce system hydraulic pressure to zero; refer to para. 4-4.
2. Remove elevation hand pump; refer to para. 4-8.

FRAME 80

Replace Fittings:

NOTE

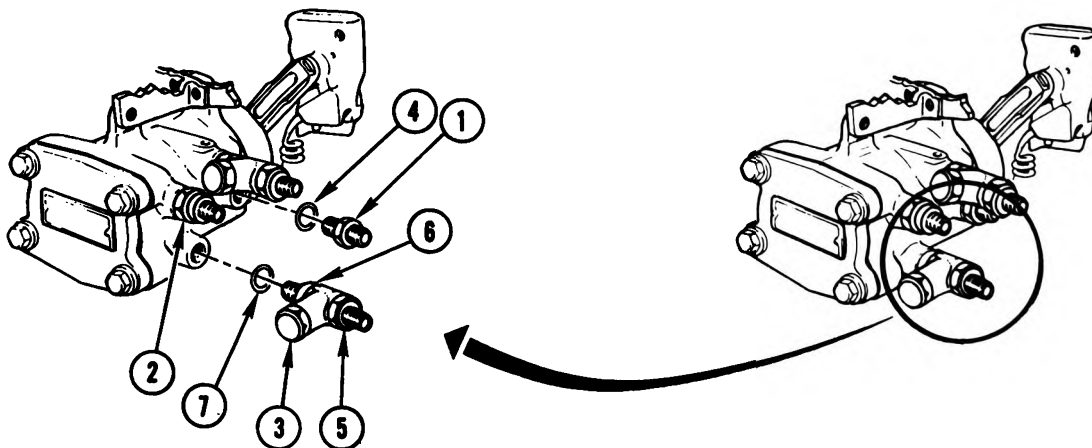
- To replace dampener (1) or check valve (2), do steps 1 and 2. Dampener (1) is shown.
- To replace either of two test adapters (3), go to step 3. One test adapter (3) is shown.

1. Unscrew and take off dampener (1) and packing (4) with 11/16-inch wrench. Turn in dampener (1). Get rid of packing (4).
2. Screw in and tighten new dampener (1) and new packing (4) with 11/16-inch wrench.
3. Loosen jamnut (5) on test adapter (3) with two 11/16-inch wrenches, until test adapter (3) can be turned.
4. Hold test adapter (3). Unscrew nut (6) and take out test adapter (3) and packing (7) with 11/16-inch wrench. Turn in test adapter (3). Get rid of packing (7).
5. Loosen jamnut (5) on new test adapter (3) with two 11/16-inch wrenches. Put new packing (7) on test adapter (3).
6. Hold test adapter (3) in place. Screw in and tighten nut (6) with 11/16-inch wrench. Tighten jamnut (5) with 11/16-inch wrench.

Follow-on Maintenance:

1. Install elevation hand pump; refer to para. 4-8, task 3.
2. Prime elevation hand pump; refer to para. 4-8, task 6.
3. Bleed air from elevation hand pump; refer to para. 4-8, task 7.
4. Bleed air from elevation mechanism, refer to para. 4-8, task 8.
5. Check and adjust drift; refer to TM 9-2350-255-20-2-3-3, para. 7-5.
6. Fill hydraulic reservoir, as needed; refer to LO9-2350-255-12.

END OF HYDRAULIC SYSTEM MAINTENANCE



ARR82-1059

8. Elevation Hand Pump

Task	Title	Frames
1	Remove Elevation Hand Pump Handle	1
2	Remove Elevation Hand Pump	2
3	Install Elevation Hand Pump	3
4	Install Elevation Hand Pump Handle	4
5	Replace Electrical Connector Angle Bracket	5 - 6
6	Prime Elevation Hand Pump	7 - 8
7	Bleed Air From Elevation Hand Pump	9 - 10
8	Bleed Air From Elevation Mechanism	11 - 14

TASK 1. Remove Elevation Hand Pump Handle

Applicability: All Models

Common Tools:

- Hammer, ball peen
- Pliers, long round nose
- Pliers, slip joint, conduit style with plastic jaw inserts
- Punch, drive pin, 3/16-inch

Special Tools: None

Supplies:

- Protective caps and plugs (Bulk)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 1

Remove Handle:

NOTE

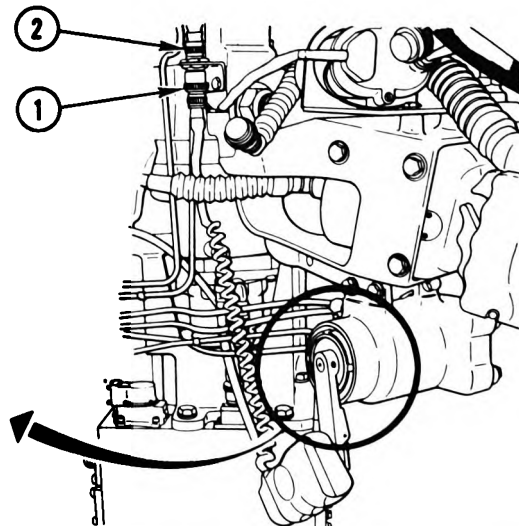
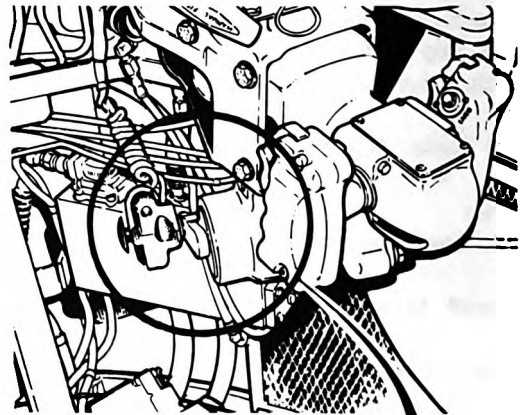
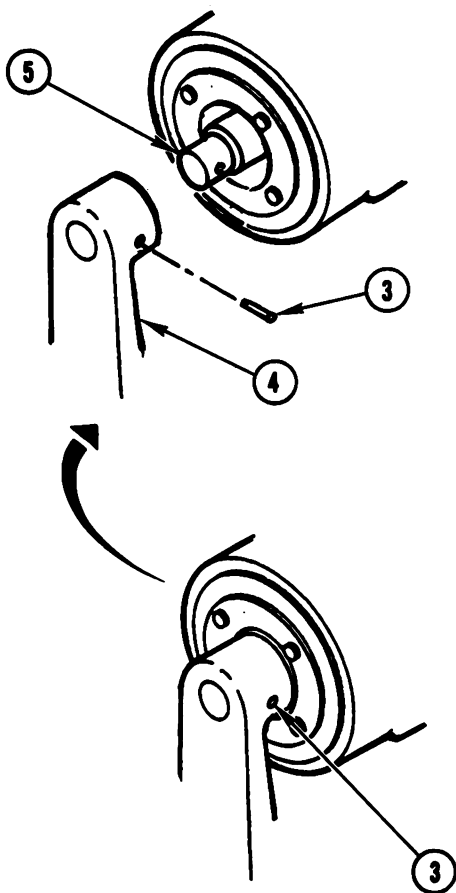
Read para. 4-4, on removing electrical connectors, before doing any work.

1. Unscrew and take off connector (1) from connector (2).
2. Tap out pin (3) with hammer and punch. Pull pin (3) out of handle (4) and shaft (5) with pliers. Get rid of pin (3).
3. Pull handle (4) off shaft (5).
4. Look at handle (4) for cracks or bends. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install elevation hand pump handle, refer to task 4.

TASK 1 ENDS HERE



ARR82-0323

TASK 2. Remove Elevation Hand Pump

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, combination, 9/16-inch
Wrench, combination, 11/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Fluid, hydraulic, MIL-H-46170 (Item 23)
Pencil, writing (Item 41)
Protective caps and plugs (Bulk)
Rag, wiping (Item 45)
Tag, marker (Item 54)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Reduce system hydraulic pressure to zero; refer to para. 4-4.
2. Remove elevation hand pump handle; refer to task 1.

FRAME 2

Remove Pump:

NOTE

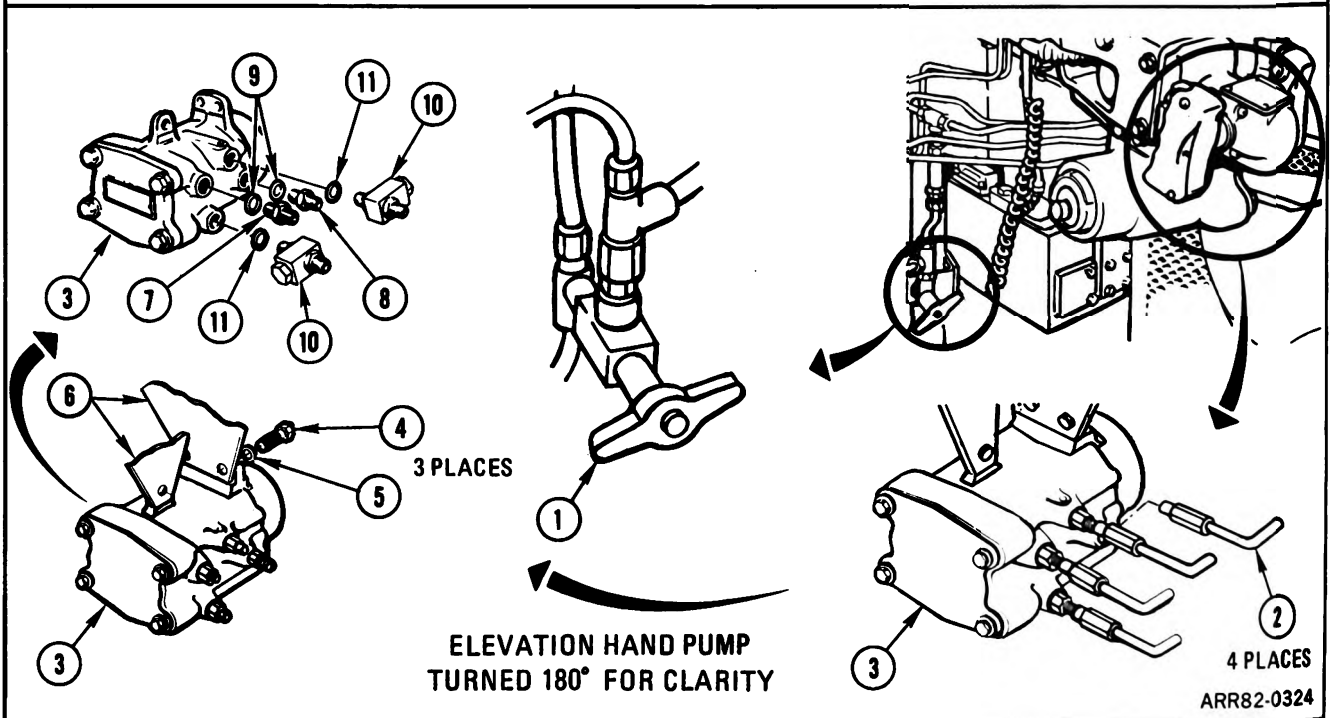
Read para. 4-4 before doing any work.

1. Open elevation needle valve (1).
2. Unscrew and take off four tubes (2) from elevation hand pump (3) with 9/16-inch and 11/16-inch wrenches.
3. Close elevation needle valve (1).
4. Unscrew and take out three screws (4) and washers (5) with socket, extension, and handle. Take pump (3) off mounting (6) and put on clean work surface.
5. Unscrew and take out check valve (7), adapter (8), and two packings (9) from pump (3) with 11/16-inch wrench. Get rid of packings (9).
6. Unscrew and take out two test adapters (10) and two packings (11) with 11/16-inch wrench. Get rid of packings (11).
7. Look at pump (3) for cracks and leaks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install elevation hand pump, refer to task 3.

TASK 2 ENDS HERE



TASK 3. Install Elevation Hand Pump

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, combination, 9/16-inch
Wrench, combination, 11/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Packing, preformed (81349) MS83248/1-904 (four required)
Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove elevation hand pump; refer to task 2.

FRAME 3

Install Pump:

NOTE

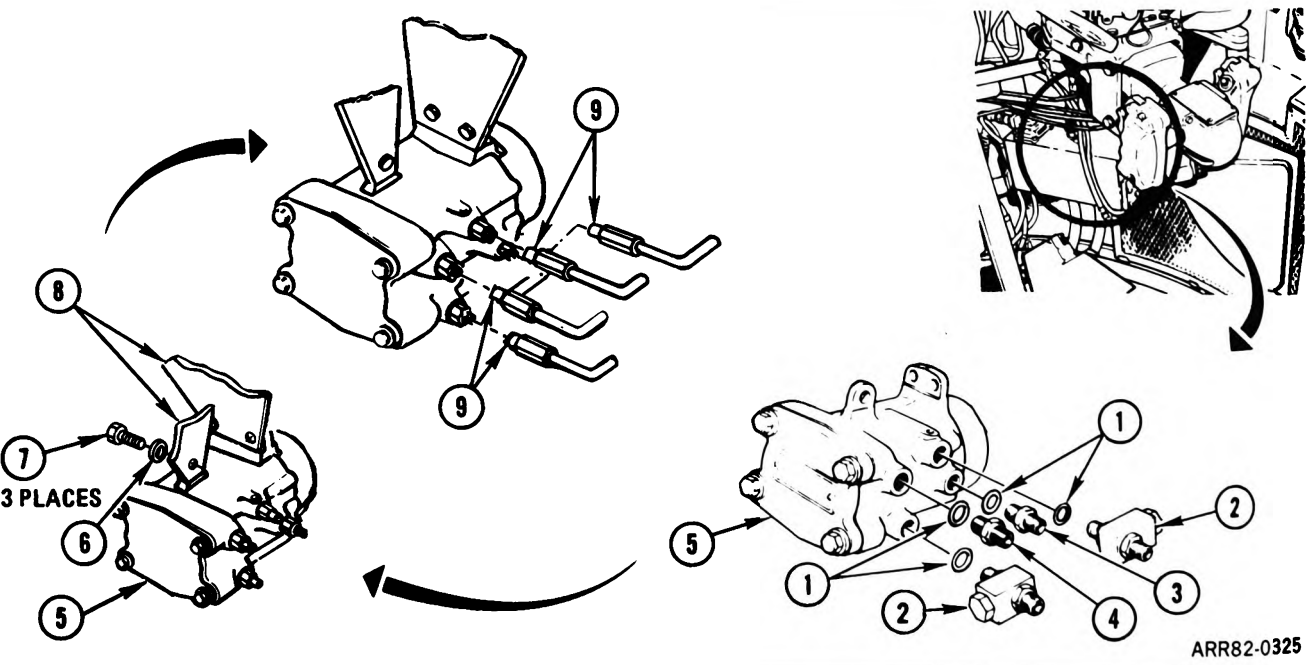
Read para. 4-4 before doing any work.

1. Put four new packings (1) on two test adapters (2), adapter (3), and check valve (4). Screw in and tighten check valve (4) in elevation hand pump (5) with 11/16-inch wrench.
2. Screw in and tighten adapter (3) in pump (5) with 11/16-inch wrench.
3. Screw in and tighten two test adapters (2) in pump (5) with 11/16-inch wrench.
4. Put three washers (6) on screws (7). Hold pump (5) in place. Screw in but do not tighten screws (7) through holes in pump (5) and mounting (8) with 9/16-inch wrench, socket, extension, and handle.
5. Screw on and tighten four tubes (9) with 9/16-inch and 11/16-inch wrenches.
6. Tighten three screws (7) with socket, extension, handle, and 9/16-inch wrench.

Follow-on Maintenance:

1. Install elevation hand pump handle; refer to task 4.
2. Prime elevation hand pump; refer to task 6.
3. Bleed air from elevation hand pump; refer to task 7.
4. Bleed air from elevation mechanism; refer to task 8.
5. Check and adjust drift; refer to TM 9-2350-255-20-2-3-3, para. 7-5.
6. Fill hydraulic reservoir, as needed; refer to LO 9-2350-255-12.

TASK 3 ENDS HERE



ARR82-0325

TASK 4. Install Elevation Hand Pump Handle

Applicability: All Models

Common Tools:

Hammer, ball peen
Punch, drive pin, 3/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Brush, acid swabbing (Item 13)
Pin, spring (96906) MS16562-50
Viscous Coating Compound (Item 60)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove elevation hand pump handle; refer to task 1.

FRAME 4

Install Handle:

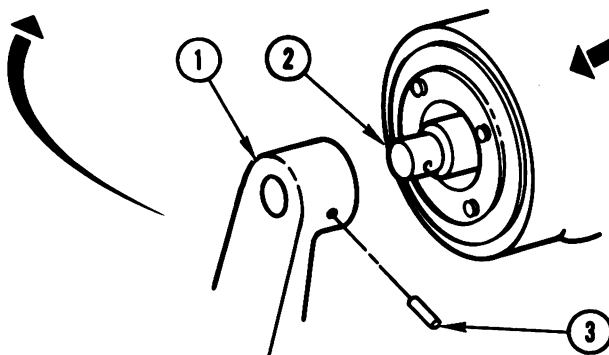
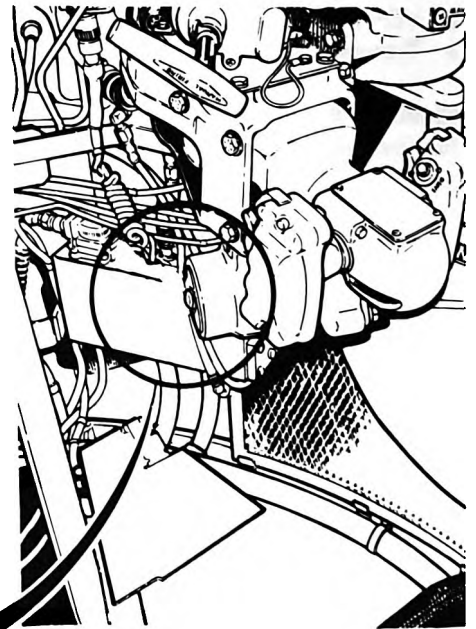
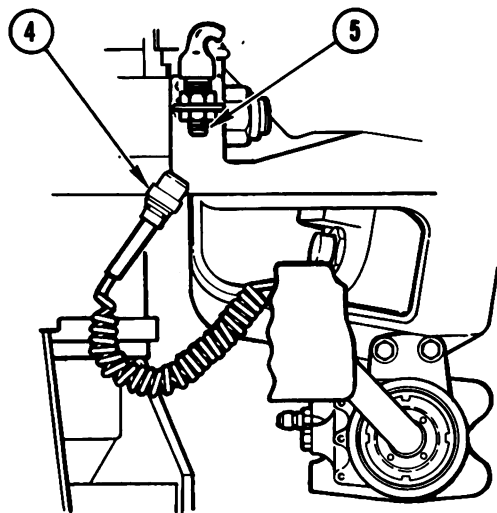
NOTE

Read para. 4-4, on installing electrical connectors, before doing any work.

1. Slide handle (1) on shaft (2).
2. Line up hole in handle (1) with hole in shaft (2). Tap new pin (3) in hole with hammer and punch.
3. Put coating compound on threads of connector (4) with brush.
4. Push up, screw on and tighten electrical connector (4) on connector (5).

Follow-on Maintenance: None

TASK 4 ENDS HERE



ARR82-0326

TASK 5. Replace Electrical Connector Angle Bracket

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, slip joint, conduit style with plastic jaw inserts
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, combination, 15/16-inch
Wrench, torque, 0 to 200 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Bracket, angle (19207) 12282076
Brush, acid swabbing (Item 13)
Protective caps and plugs (Bulk)
Viscous Coating Compound (Item 60)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 5

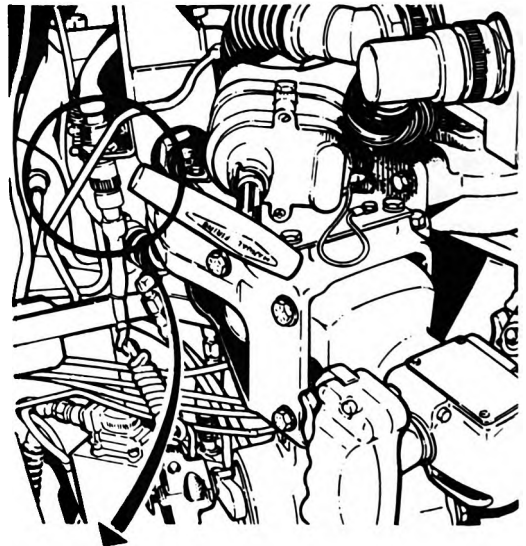
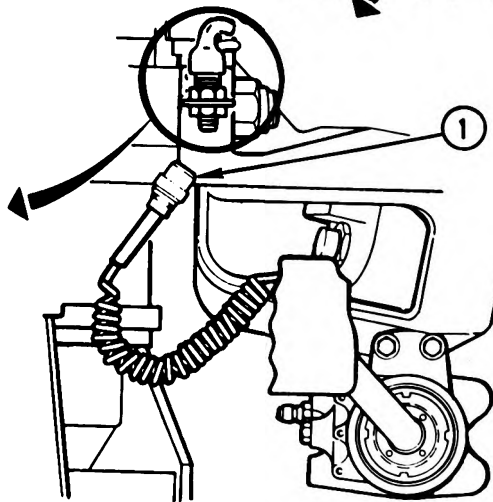
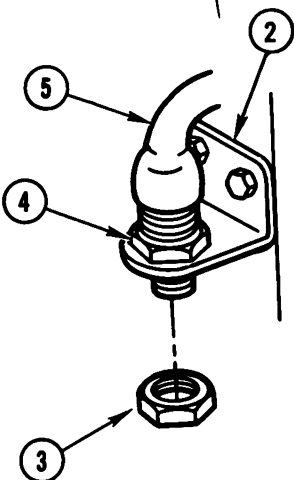
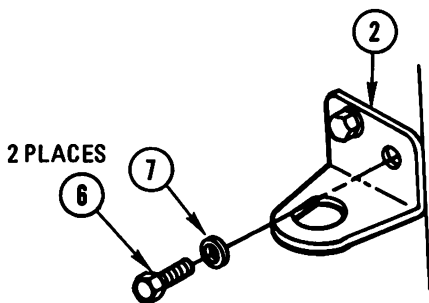
Remove Bracket:

NOTE

Read para. 4-4, on removing and installing electrical connectors, before doing any work.

1. Unscrew and take off electrical connector (1) at angle bracket (2). Unscrew and take off connector nut (3) with wrench.
2. Take off connector (4) and harness (5) from bracket (2).
3. Unscrew and take out two screws (6) and washers (7) from bracket (2) with socket and handle. Turn in bracket (2).

GO TO FRAME 6



ARR82-0327

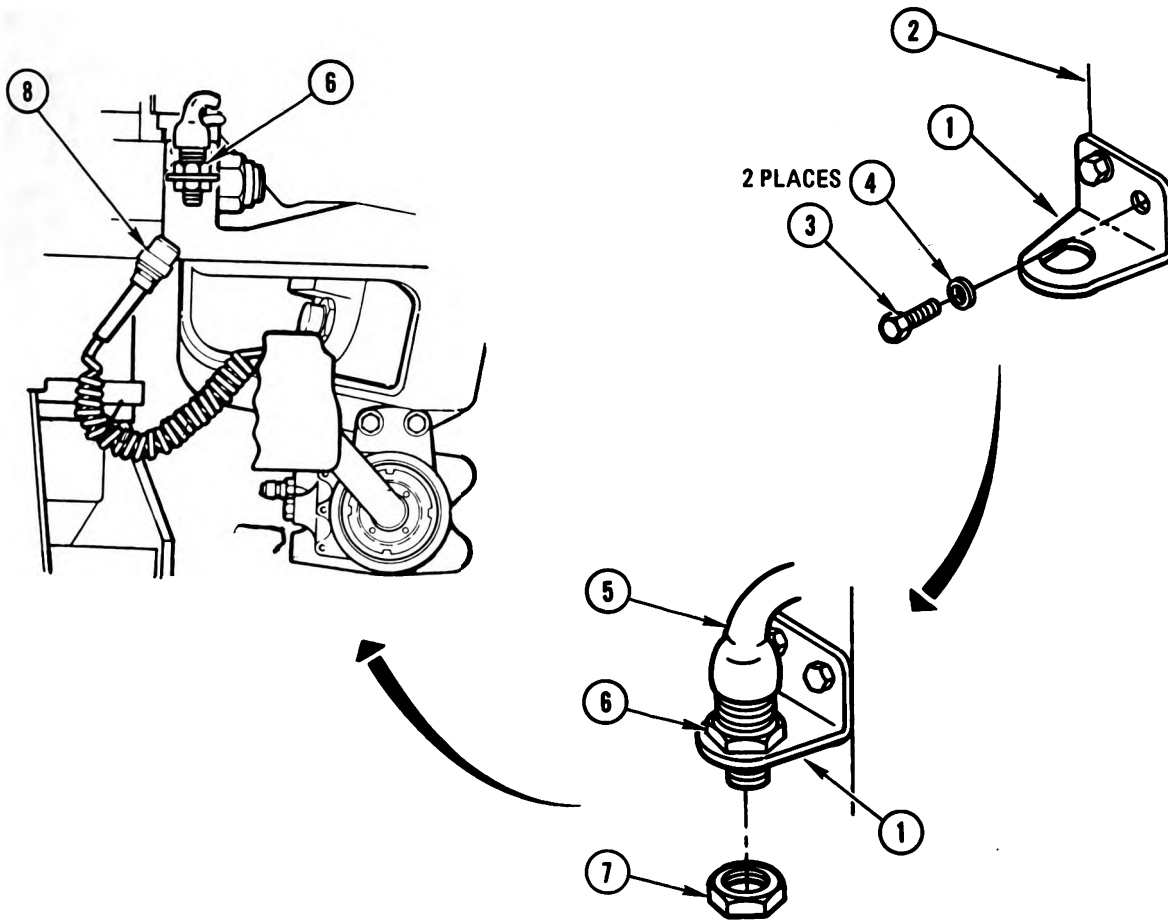
FRAME 6

Install Bracket:

1. Line up holes in new bracket (1) and traverse gearbox (2).
2. Screw in and tighten two screws (3) and washers (4) with socket and handle. Torque screws (3) between 100 and 120 pound inches (11 and 14 Newton meters).
3. Put harness (5) and connector (6) in bracket (1). Screw connector nut (7) on connector (6).
4. Tighten nut (7) against bracket (1) with wrench.
5. Put coating compound on threads of connector (8) with brush.
6. Push up, screw on and tighten electrical connector (8) on connector (6).

Follow-on Maintenance: None

TASK 5 ENDS HERE



ARR82-0328

TASK 6. Prime Elevation Hand Pump

Applicability: All Models

Common Tools: None

Special Tools: None

Supplies: None

Personnel: Two

Soldier A: Primes elevation hand pump.

Soldier B: Acts as safety observer outside tank.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Take main gun out of travel lock; refer to TM 9-2350-255-10.

FRAME 7

Prime Hand Pump:

WARNING

Make sure area around turret is clear. You could be seriously injured when main gun is raised and lowered.

Soldier B: 1. Make sure area is cleared before raising or lowering main gun.

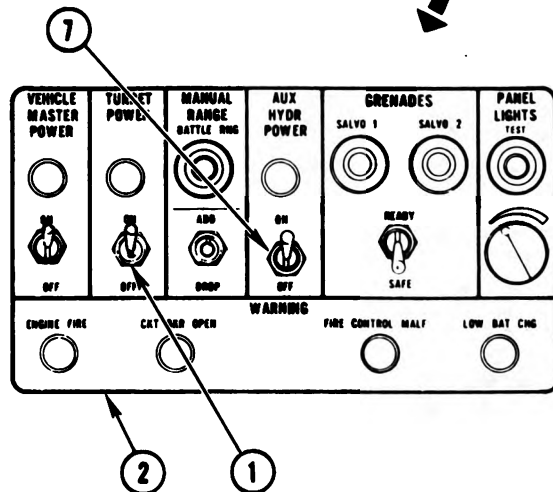
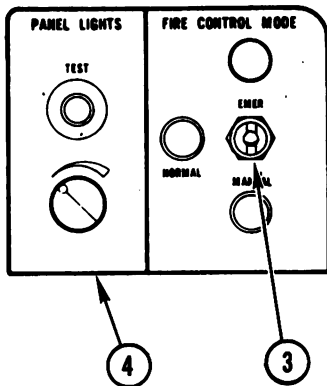
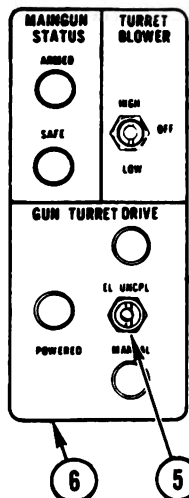
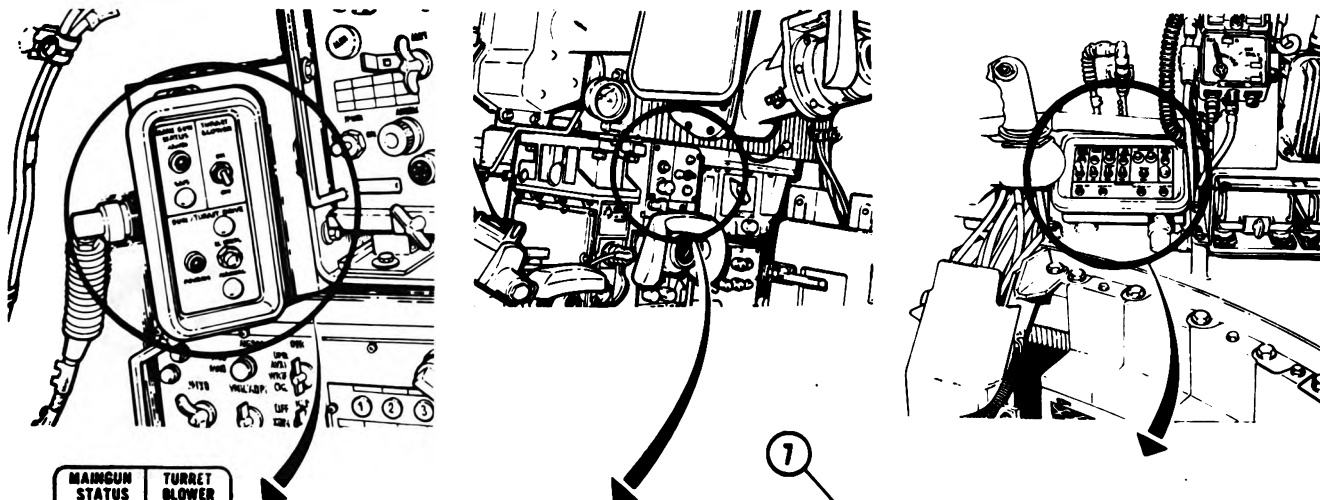
Soldier A: 2. Set TURRET POWER switch (1) on commander's control panel (2) to ON.

Soldier A: 3. Set FIRE CONTROL MODE switch (3) on gunner's primary sight upper panel (4) to NORMAL.

Soldier A: 4. Set GUN/TURRET DRIVE switch (5) on loader's panel (6) to POWERED.

Soldier A: 5. Set AUX HYDR POWER switch (7) on commander's control panel (2) to ON.

GO TO FRAME 8



ARR82-0329

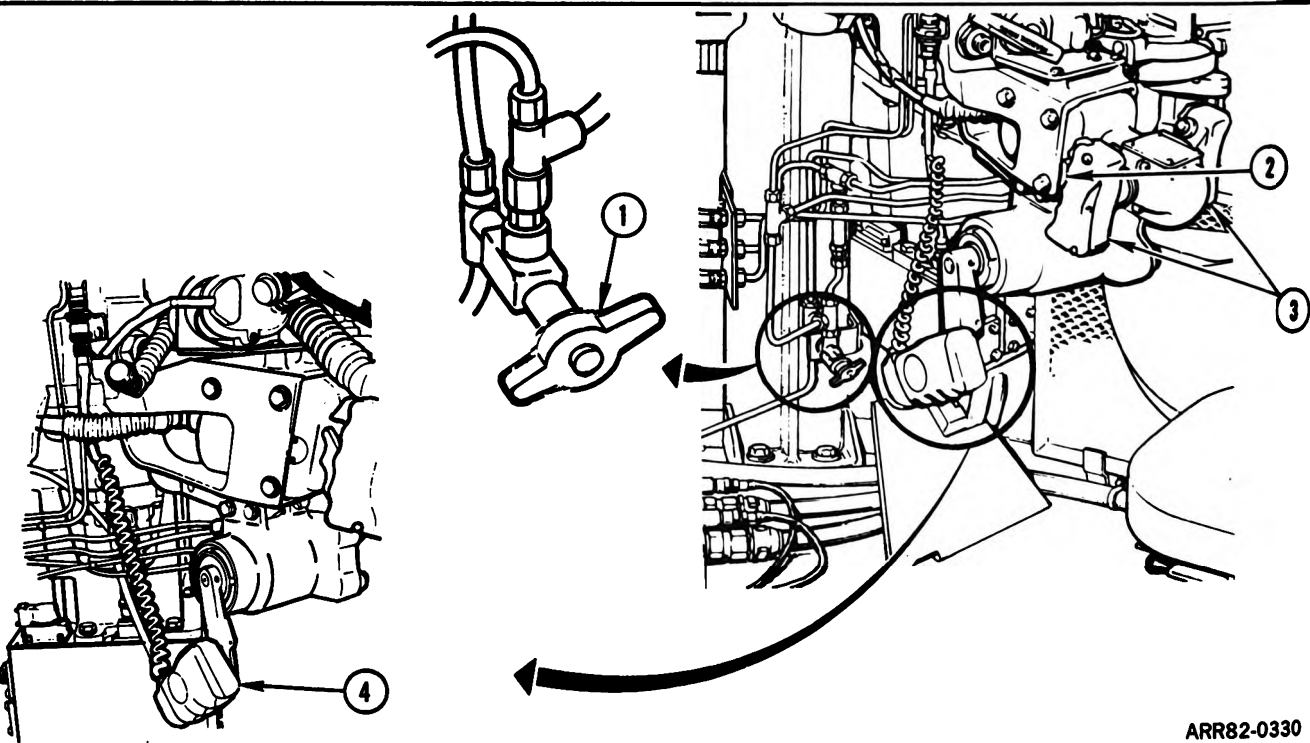
FRAME 8**Prime Hand Pump (Continued):****WARNING**

Make sure area around turret is clear. You could be seriously injured when main gun is raised and lowered.

- Soldier A:** 1. Open elevation needle valve (1) by turning counterclockwise.
- Soldier A:** 2. Squeeze and hold gunner's handle palm switch (2) on control handle (3) with right hand. At the same time crank elevation hand pump (4) clockwise and then counterclockwise several turns in each direction.
- Soldier A:** 3. Let go of gunner's control handle palm switch (2) on control handle (3). Close elevation needle valve (1) by turning clockwise.
- Soldier A:** 4. Crank hand pump (4) to raise and lower gun.
- Soldier A:** 5. If main gun does not raise and lower with hand pump (4), repeat steps 1 through 5 again until main gun can be raised and lowered by hand pump (4).

Follow-on Maintenance:

1. Set VEHICLE MASTER POWER switch to OFF; refer to TM 9-2350-255-10.
2. Bleed air from elevation hand pump; refer to task 7.
3. Put main gun in travel lock; refer to TM 9-2350-255-10.

TASK 6 ENDS HERE

ARR82-0330

TASK 7. Bleed Air From Elevation Hand Pump

Applicability: All Models

Common Tools: None

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Take main gun out of travel lock; refer to TM 9-2350-255-10
2. Manually traverse main gun over front of tank; refer to TM 9-2350-255-10.

FRAME 9

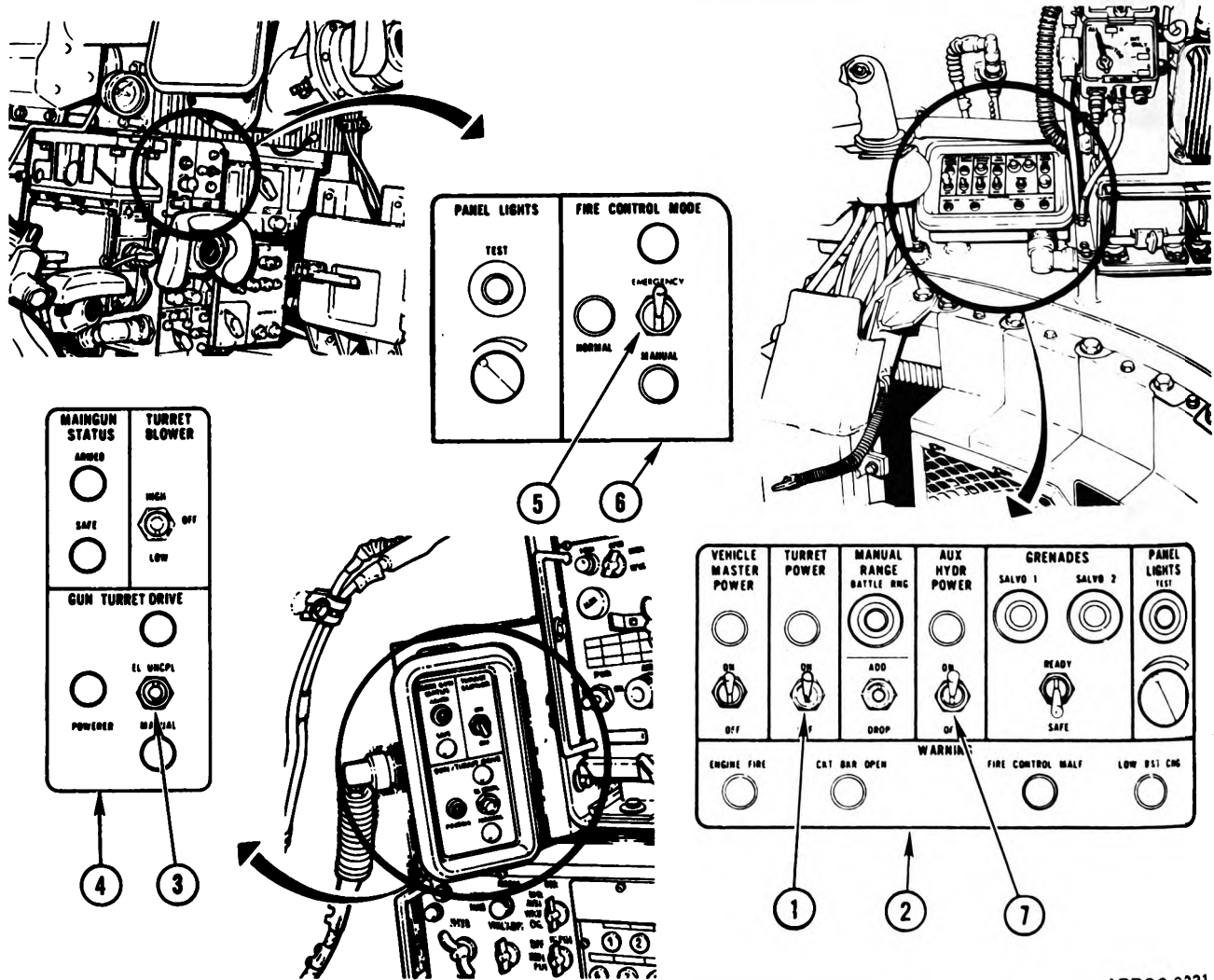
Bleed Hand Pump:

NOTE

Read para. 4-4 before doing any work.

1. Set TURRET POWER switch (1) on commander's control panel (2) to ON.
2. Set GUN/TURRET DRIVE switch (3) on loader's panel (4) to POWERED.
3. Set FIRE CONTROL MODE switch (5) on gunner's primary sight upper control panel (6) to EMERGENCY.
4. Set AUX HYDR POWER switch (7) on commander's control panel (2) to ON.

GO TO FRAME 10



ARR82-0331

FRAME 10**Bleed Hand Pump (Continued):****WARNING**

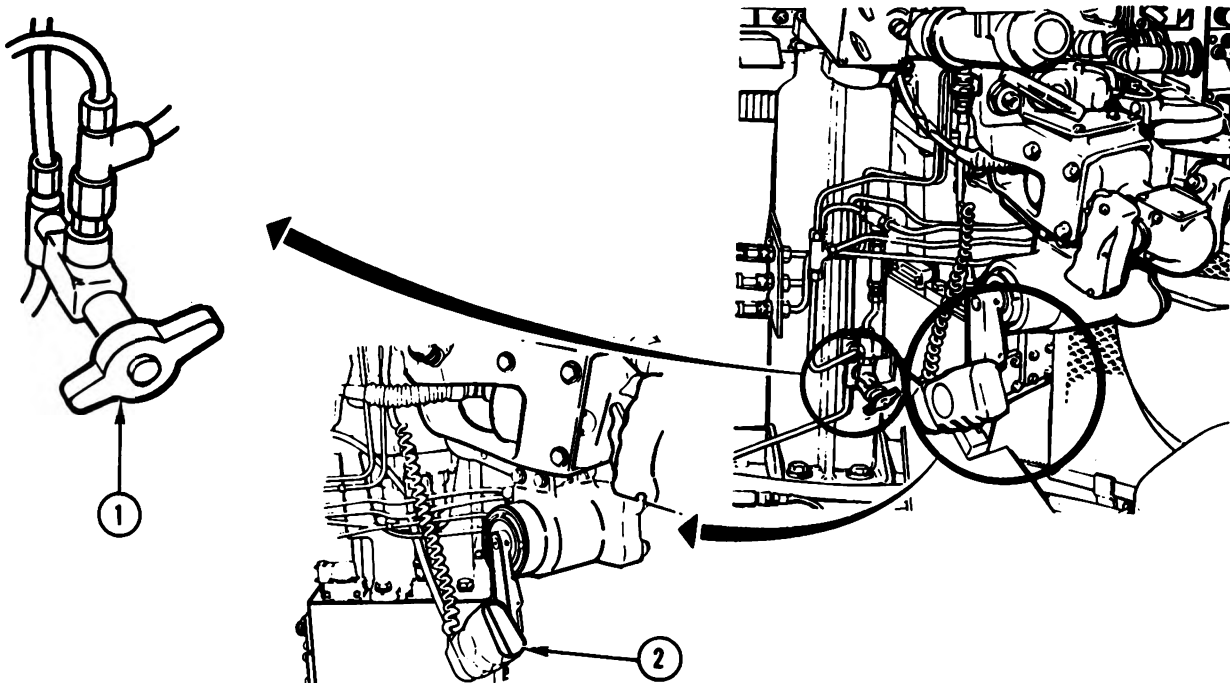
Make sure area around turret is clear. You could be injured when main gun is raised and lowered.

1. Open elevation needle valve (1).
2. Raise main gun slowly in power mode while cranking hand pump (2) to raise main gun; refer to TM 9-2350-255-10.
3. Lower main gun slowly in power mode while cranking hand pump (2) to lower main gun; refer to TM 9-2350-255-10.
4. Do steps 2 and 3 again until there is a smooth and even operation of elevation mechanism.
5. Set turret power switch to OFF; refer to TM 9-2350-255-10.
6. Close elevation needle valve (1).

Follow-on Maintenance:

1. Set VEHICLE MASTER POWER switch to OFF; refer to TM 9-2350-255-10.
2. Bleed air from elevation mechanism; refer to task 8.

TASK 7 ENDS HERE



ARR82-0332

TASK 8. Bleed Air From Elevation Mechanism

Applicability: All Models

Common Tools:

Pail, utility
Wrench, combination, 3/8-inch

Special Tools:

Tube, metal, branched, 12284852

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Fluid, hydraulic, MIL-H-46170 (Item 23)
Rags, wiping (Item 45)

Personnel: Two

Soldier A: Bleeds air from elevation mechanism.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until main gun is over right headlight and then lock turret; refer to TM 9-2350-255-10.
2. Raise main gun; refer to TM 9-2350-255-10.

FRAME 11

Bleed Elevation Mechanism:

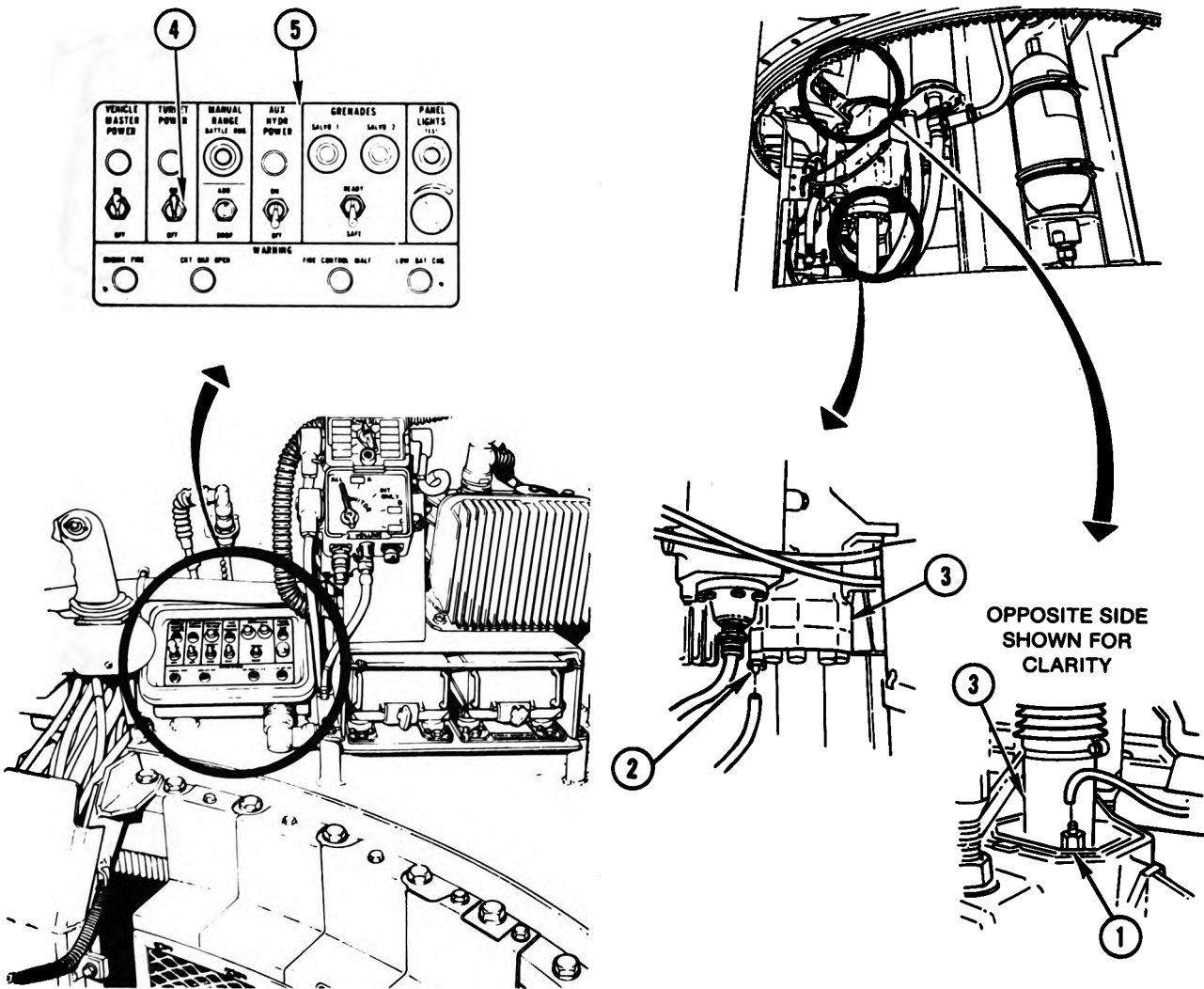
NOTE

Read para. 4-4, on hydraulic system, before doing any work. Elevation mechanism is located under main gun as seen from driver's compartment.

Soldier B: 1. Take tools and supplies and go to driver's compartment. Put two bleed tubes from metal branched tube on two bleed ports (1,2) on elevation mechanism (3). Put end of third tube in empty utility pail.

Soldier A: 2. Set TURRET POWER switch (4) on commander's control panel (5) to ON.

GO TO FRAME 12



ARR82-0333

FRAME 12

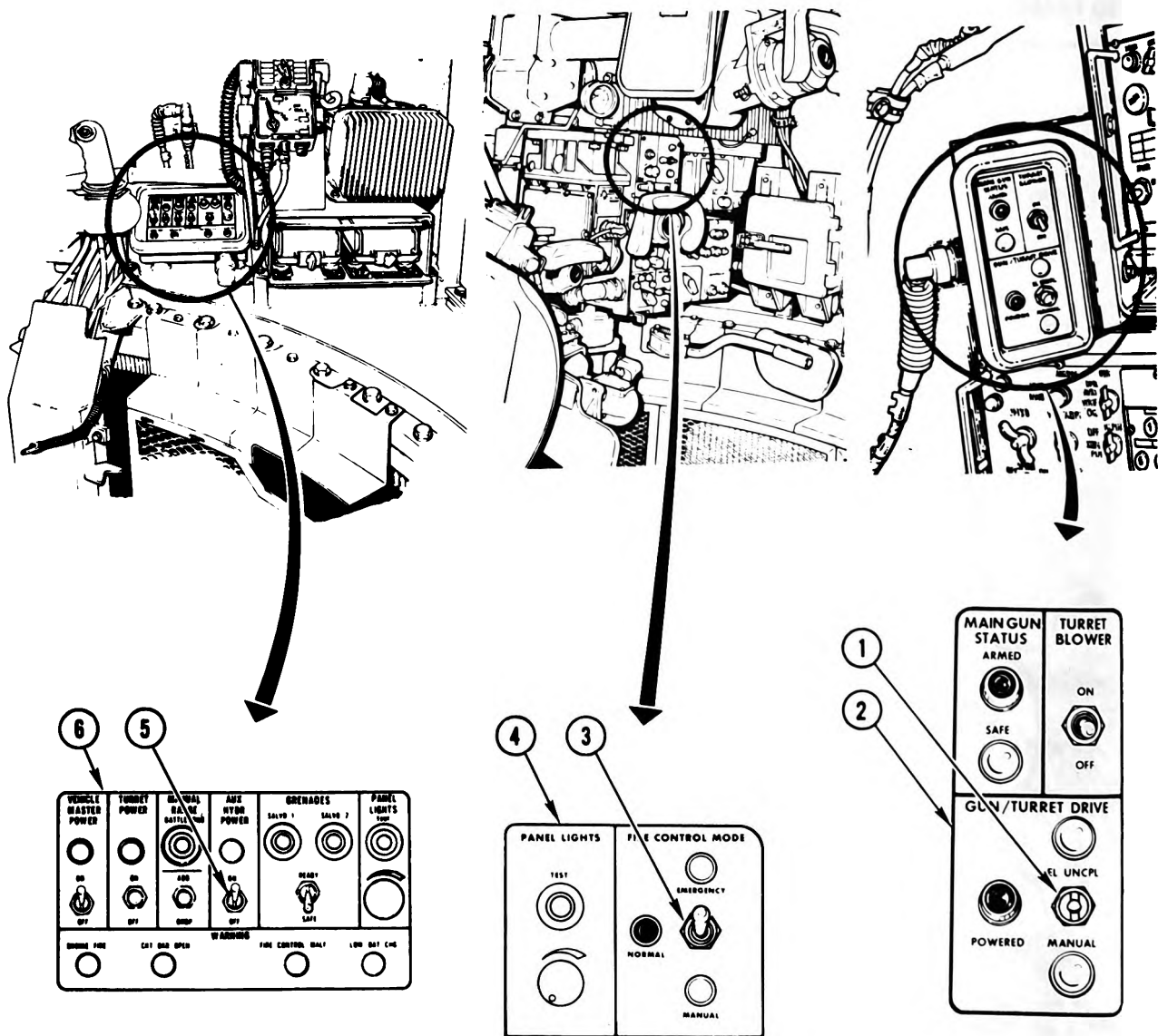
Bleed Elevation Mechanism (Continued):

Soldier A: 1. Set GUN/TURRET DRIVE switch (1) on loader's control panel (2) to POWERED.

Soldier A: 2. Set FIRE CONTROL MODE switch (3) on gunner's primary sight lower control panel (4) to EMERGENCY.

Soldier A: 3. Set AUX HYDR POWER switch (5) on commander's control panel (6) to ON.

GO TO FRAME 13



ARR82-0334

FRAME 13

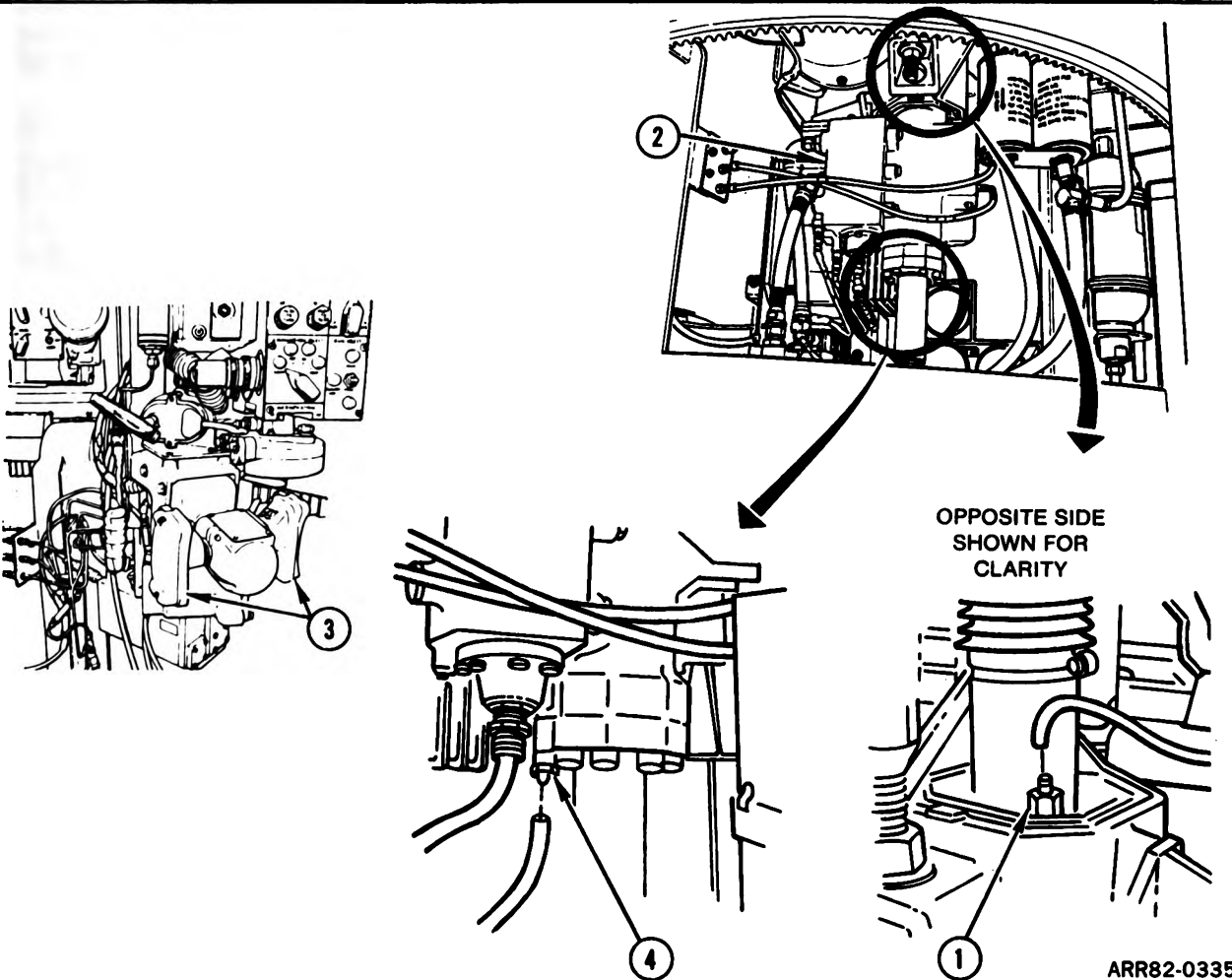
Bleed Elevation Mechanism (Continued):

WARNING

Make sure area around turret is clear. You could be seriously injured when main gun is elevated and lowered.

- Soldier B: 1. Open top bleed port (1) on elevation mechanism (2) 1/4 turn with wrench.
- Soldier A: 2. Squeeze and slowly rotate gunner's control handles (3) forward to lower main gun.
- Soldier B: 3. Close top bleed port (1) with wrench when fluid runs clear from port (1).
- Soldier B: 4. After gun is lowered all the way, open bottom bleed port (4) on elevation mechanism (2) 1/4 turn with wrench.
- Soldier A: 5. Squeeze and slowly rotate gunner's control handles (3) back to raise main gun.

GO TO FRAME 14



ARR82-0335

FRAME 14

Bleed Elevation Mechanism (Continued):

Soldier B: 1. Close bottom bleed port (1) with wrench when fluid runs clear from port (1).

Soldier B: 2. Take off metal branched tube from ports (1,2).

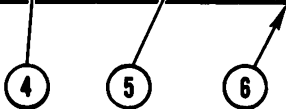
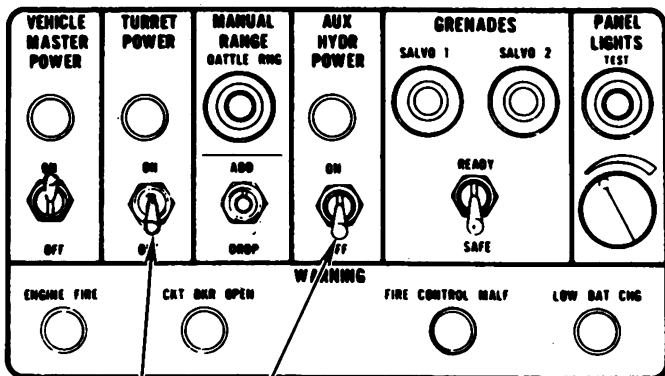
Soldier A,
Soldier B: 3. Look at two ports (1, 2) on elevation mechanism (3) for leaks. If any leaks are found, retighten leaking ports (1, 2). If OK set TURRET POWER switch (4) and AUX HYDR POWER switch (5) on commander's control panel (6) to OFF.

Soldier B: 4. Take out utility pail and properly dispose of fluid in pail.

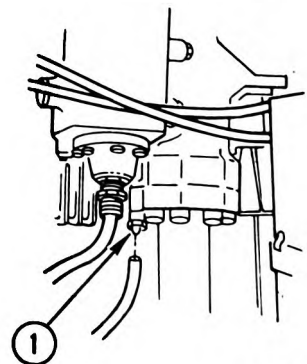
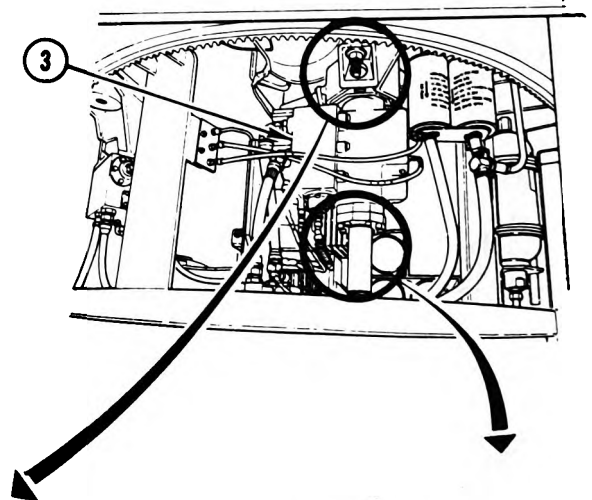
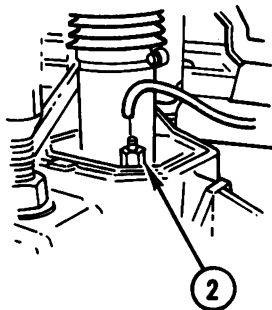
Follow-on Maintenance:

1. Set VEHICLE MASTER POWER switch to OFF; refer to TM 9-2350-255-10.
2. Fill hydraulic reservoir; refer to LO 9-2350-255-12.
3. Unlock turret lock, traverse turret and raise or lower main gun to original position; refer to TM 9-2350-255-10.

END OF ELEVATION HAND PUMP MAINTENANCE



OPPOSITE SIDE SHOWN FOR CLARITY



ARR82-0336

4-9. Manual Elevation Accumulator Assembly

Task	Title	Frames
1	Replace Accumulator Assembly	1 - 6

TASK 1. Replace Accumulator Assembly

Applicability: All Models

Common Tools:

- Handle, socket wrench, ratchet, 3/8-inch square drive
- Measure, liquid, 2-quart
- Socket, socket wrench, 3/8-inch square drive, 3/8-inch
- Wrench, combination, 3/8-inch
- Wrench, combination, 9/16-inch
- Wrench, combination, 11/16-inch
- Wrench, combination, 1-inch
- Wrench, combination, 1-1/8 inch
- Wrench, torque, 0 to 600 inch-pounds
- Wrench, pipe, strap

Special Tools:

- Charging Device, accumulator, 12252157
- Tank, nitrogen, dry, NSN 6830-00-782-2641

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Accumulator assembly, manual elevation (19207) 7974982
- Packing, preformed (81349) M83248-1-908
- Protective caps and plugs (Bulk)
- Rag, wiping (Item 42)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Reduce system hydraulic pressure to zero; refer to para. 4-4.

FRAME 1

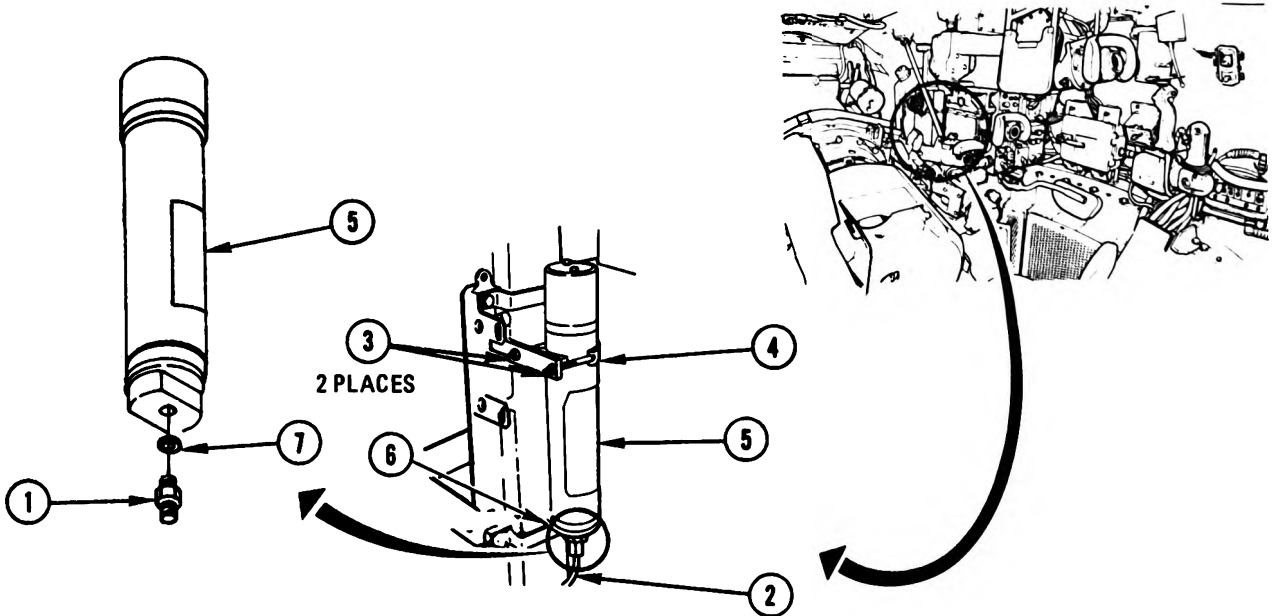
Remove Accumulator:

NOTE

Read para. 4-4 before doing any work.

1. Hold reducer (1) in place with 1-inch wrench. Unscrew and take off tube (2) with 9/16-inch wrench.
2. Unscrew and take off two nuts (3) from strap (4) with socket and handle. Take accumulator (5) and strap (4) from gunner's control handle bracket (6).
3. Look at strap (4) for cracks, bends, or stripped threads. If bad turn in. If OK set aside for later use.
4. Unscrew and take out reducer (1) and packing (7) from accumulator (5) with 1-inch and 1-1/8 inch wrenches. Get rid of packing (7). Turn in accumulator (5).
5. Look at reducer (1) for cracks, breaks, or stripped threads. If bad turn in. If OK set aside for later use.

GO TO FRAME 2



ARR82-0390

FRAME 2

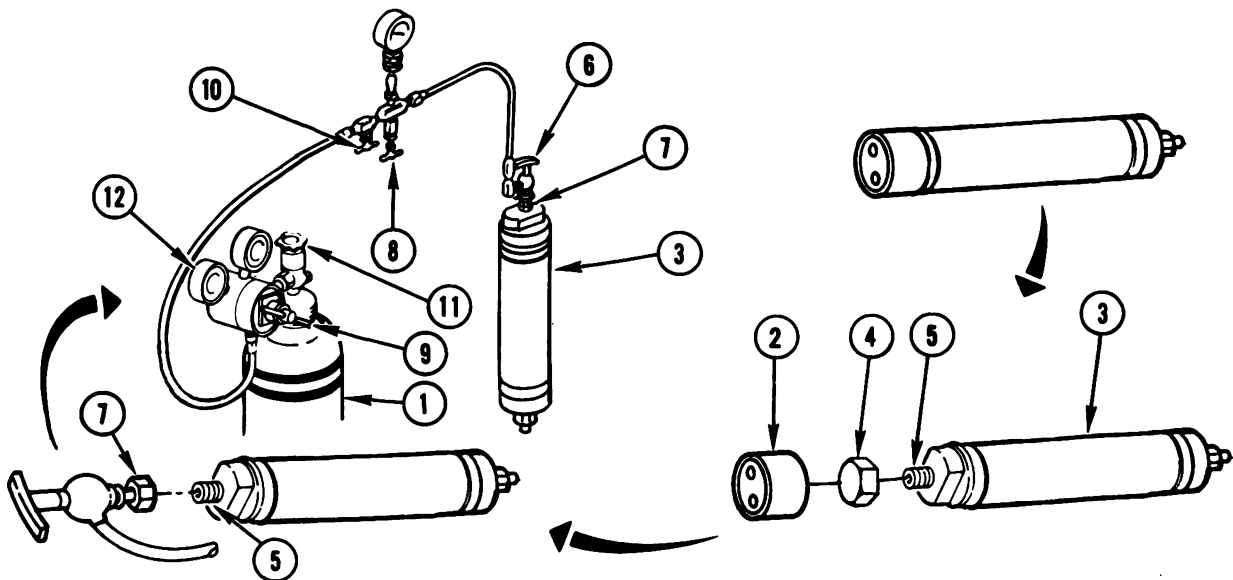
Service Accumulator:

WARNING

- Use only nitrogen gas to service accumulator. Use of any other type of gas can cause injury or death. Nitrogen tanks (1) are gray with two black rings around the top.
- Do not let nitrogen tank (1) drop or fall. High-pressure nitrogen can propel broken tank (1) with great force, and cause injury or death.

1. Unscrew and take off cap (2) from new accumulator (3) with strap wrench. Unscrew and take off cap (4) from air valve body (5) with 3/8-inch wrench.
2. Turn valve (6) on gas charging valve elbow (7) fully counterclockwise. Screw on and tighten elbow (7) to air valve body (5) with 11/16-inch wrench.
3. Close angle valve (8). Turn regulator shutoff valve (9) counterclockwise just enough to release spring tension.
4. Turn shutoff valve (10) fully counterclockwise. Open tank valve (11).
5. Turn regulator shutoff valve (9) slowly clockwise until gage (12) shows 60 pounds of pressure.

GO TO FRAME 3

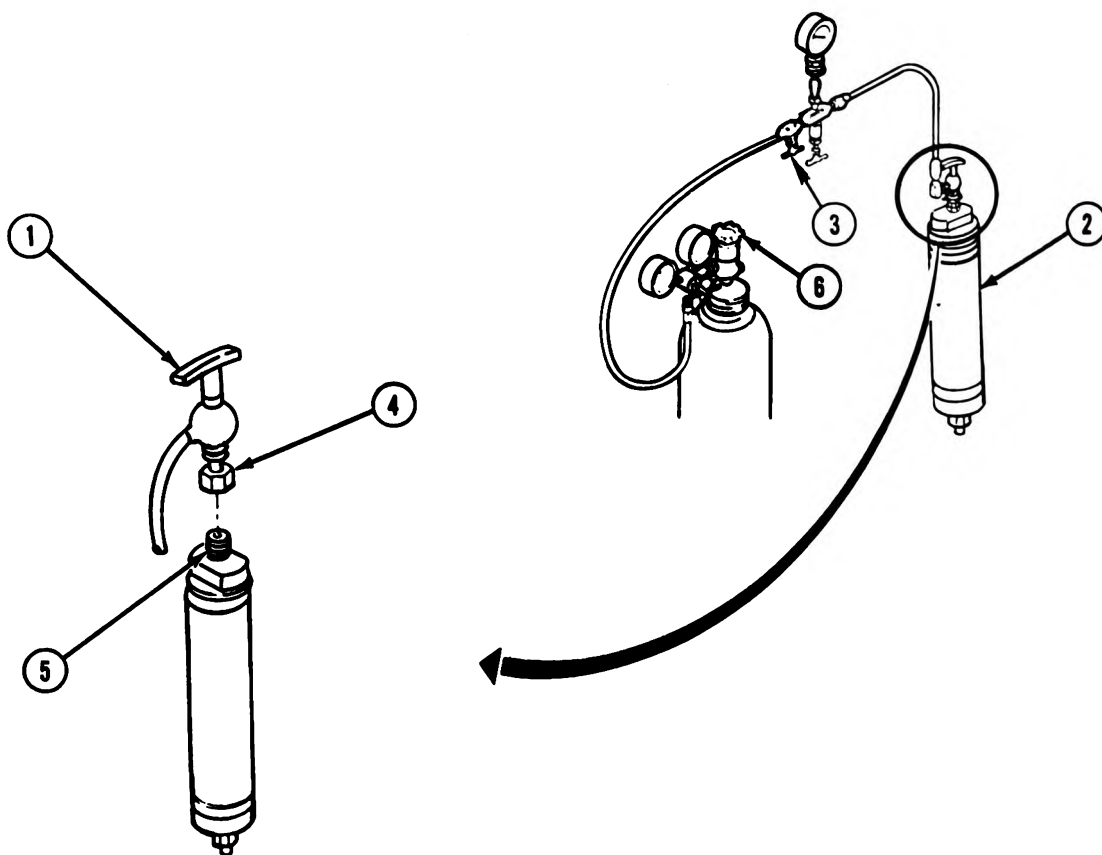


ARR82-0391

FRAME 3**Service Accumulator (Continued):**

1. Turn valve (1) fully counterclockwise. Listen for gas going in accumulator (2). When gas can no longer be heard, turn valve (1) fully clockwise and close shutoff valve (3).
2. Unscrew gas charging valve elbow (4) from air valve body (5) with 11/16-inch wrench.
3. Put accumulator (2) in two quart measure filled with water so that accumulator (2) is completely covered.
4. Look for bubbles coming from accumulator (2). If bubbles are seen within 10 minutes, turn in accumulator (2) and go back to Frame 2. If no bubbles are seen go to step 5.
5. Close tank valve (6) and open shutoff valve (3).

GO TO FRAME 4



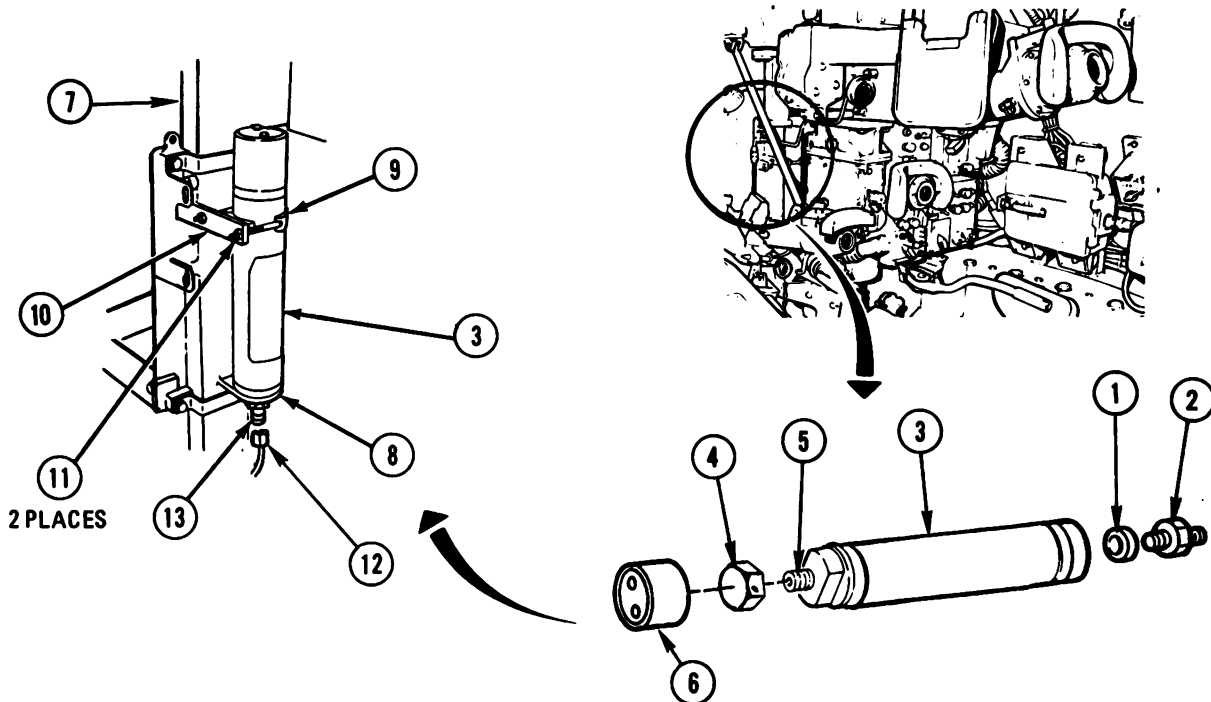
ARR82-0392

FRAME 4

Install Accumulator:

1. Put new packing (1) on reducer (2). Screw in and tighten reducer (2) in accumulator (3) with 1-inch and 1-1/8 inch wrenches.
2. Screw on cap (4) to air valve body (5) on accumulator (3) with 3/8-inch wrench. Screw cap (6) on accumulator (3) with strap wrench.
3. Put accumulator (3) in place on gunner's control handle bracket (7) and accumulator mount bracket (8).
4. Put strap (9) in place on accumulator (3) and bracket (10). Screw two nuts (11) on strap (9) with socket and handle. Torque nuts (11) between 25 and 30 pound inches (3 and 4 Newton meters).
5. Screw on tube fitting (12) to reducer (13).

GO TO FRAME 5



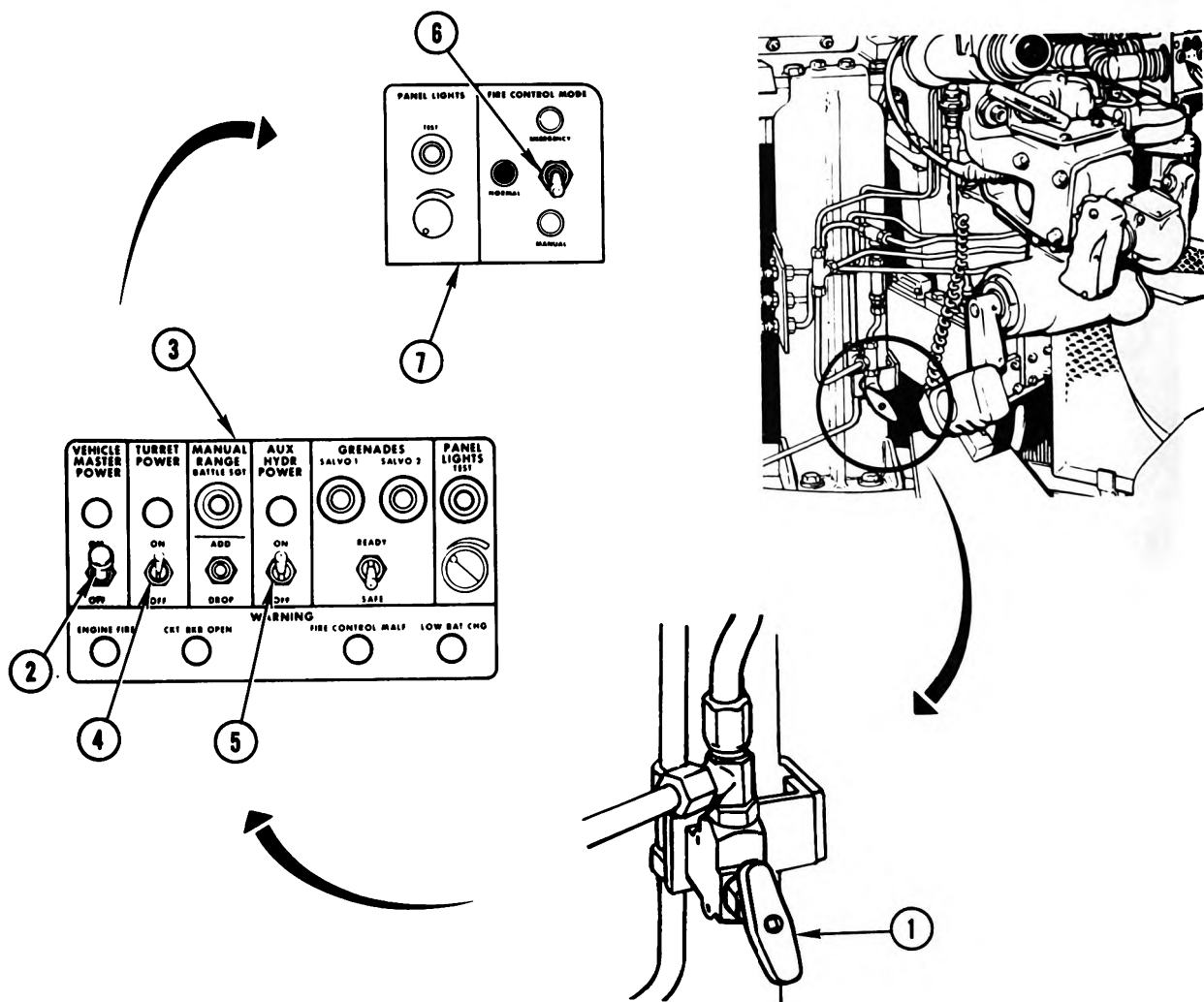
ARR82-0393

FRAME 5

Install Accumulator (Continued):

1. Turn elevation needle valve (1) fully clockwise to close.
2. Set VEHICLE MASTER POWER switch (2) on commander's control panel (3) to ON.
3. Set TURRET POWER switch (4) on commander's control panel (3) to ON.
4. Set AUX HYDR POWER switch (5) on commander's control panel (3) to ON.
5. Set FIRE CONTROL MODE switch (6) on gunner's primary sight panel (7) to MANUAL.

GO TO FRAME 6



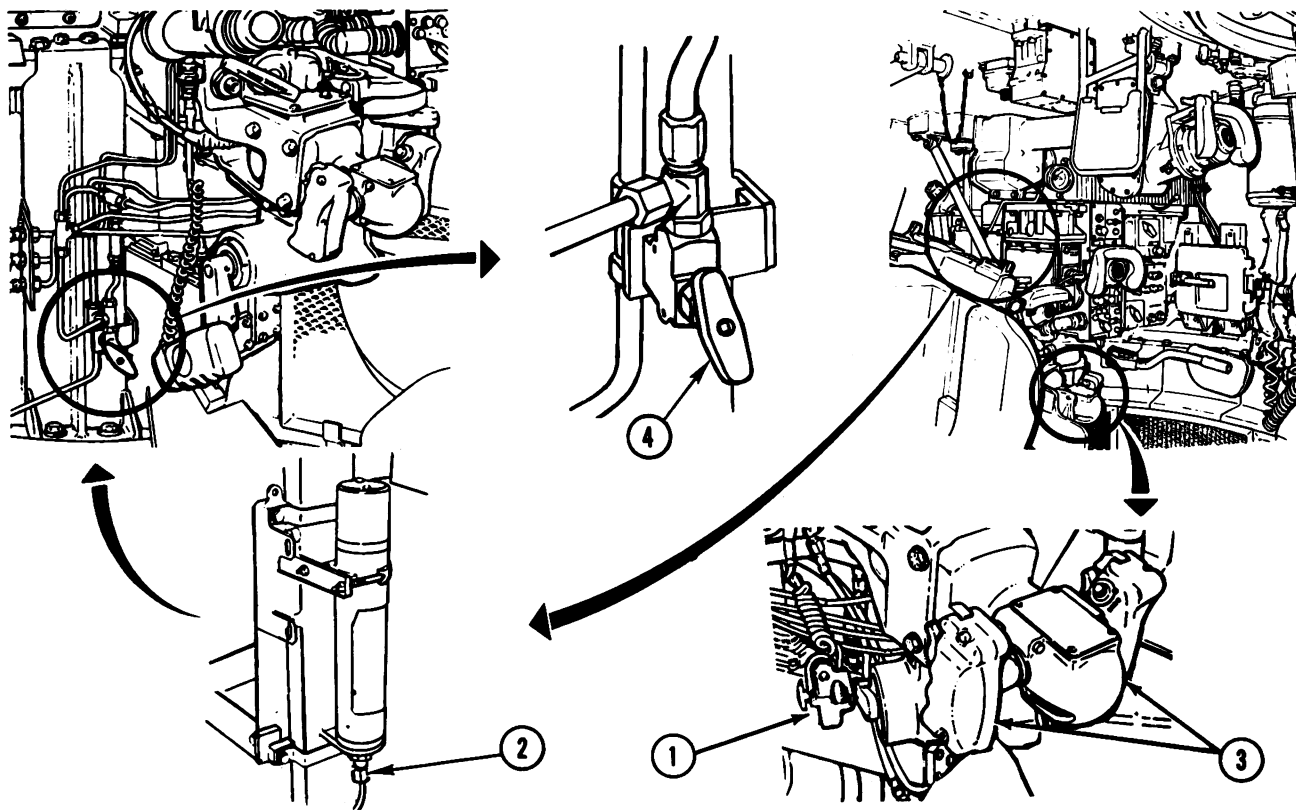
ARR82-0394

FRAME 6**Install Accumulator (Continued):**

1. Operate gunner's manual elevation handle (1) to raise gun slowly. Look for hydraulic fluid coming out of tube fitting (2). When fluid comes out clear, continue raising gun with power elevation handles (3) and tighten fitting (2) with 9/16-inch combination wrench.
2. Turn elevation needle valve (4) counterclockwise to open.
3. Operate gunner's manual elevation handle (1) to raise and lower gun.
4. Turn elevation needle valve (4) clockwise to close.
5. Wipe up hydraulic fluid with rags.

Follow-on Maintenance:

1. Fill hydraulic reservoir; refer to LO 9-2350-255-12.
2. Set VEHICLE MASTER POWER switch to OFF; refer to TM 9-2350-255-10.

END OF MANUAL ELEVATION ACCUMULATOR MAINTENANCE

ARR82-0395

4-10. Turret Hydraulics

Task	Title	Frames
1	Service Hydraulic Accumulator	1 - 5
2	Bleed Air from Hydraulic Accumulator	6 - 7
3	Replace Hydraulic Turret Valve	8 - 17
4	Remove Hydraulic Accumulator	18 - 19
5	Install Hydraulic Accumulator	20 - 22
6	Remove Metallic Guide Tube	23 - 24
7	Remove Ammo Door Hydraulic Actuator, Clips, Brackets, and Clamps	25 - 28
8	Install Ammo Door Hydraulic Actuator, Clips, Brackets, and Clamps	29 - 31
9	Install Metallic Guide Tube	32 - 33
10	Bleed Air from Ammo Door Hydraulic Actuator	34 - 35
11	Replace Dial Pressure Gage	36
12	Bleed Air from Dial Pressure Gage	37

TASK 1. Service Hydraulic Accumulator

Applicability: All Models

Common Tools:

- Wrench, combination, 3/8-inch
- Wrench, combination, 11/16-inch
- Wrench, combination, 3/4-inch
- Wrench, combination, 1-1/8 inch

Special Tools:

- Charging Kit, accumulator, 12285883
- Nitrogen, technical, NSN 6830-00-782-2641
- Thermometer, self-indicating, liquid in glass, NSN 6685-00-526-8122

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Rag, wiping (Item 45)

Personnel: Two

- Soldier A: Services hydraulic accumulator.
- Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until main gun is over right front fender, and then lock turret; refer to TM 9-2350-255-10.
2. Elevate main gun to maximum elevation; refer to TM 9-2350-255-10.

FRAME 1**Service Accumulator:****WARNING**

- Only use nitrogen gas to service accumulator. Using any other type of gas can cause injury or death. Nitrogen tanks (1) are gray with two black rings around the top.
- Do not let nitrogen tank (1) drop or fall. High-pressure nitrogen can propel broken tank (1) with great force, and cause injury or death.

NOTE

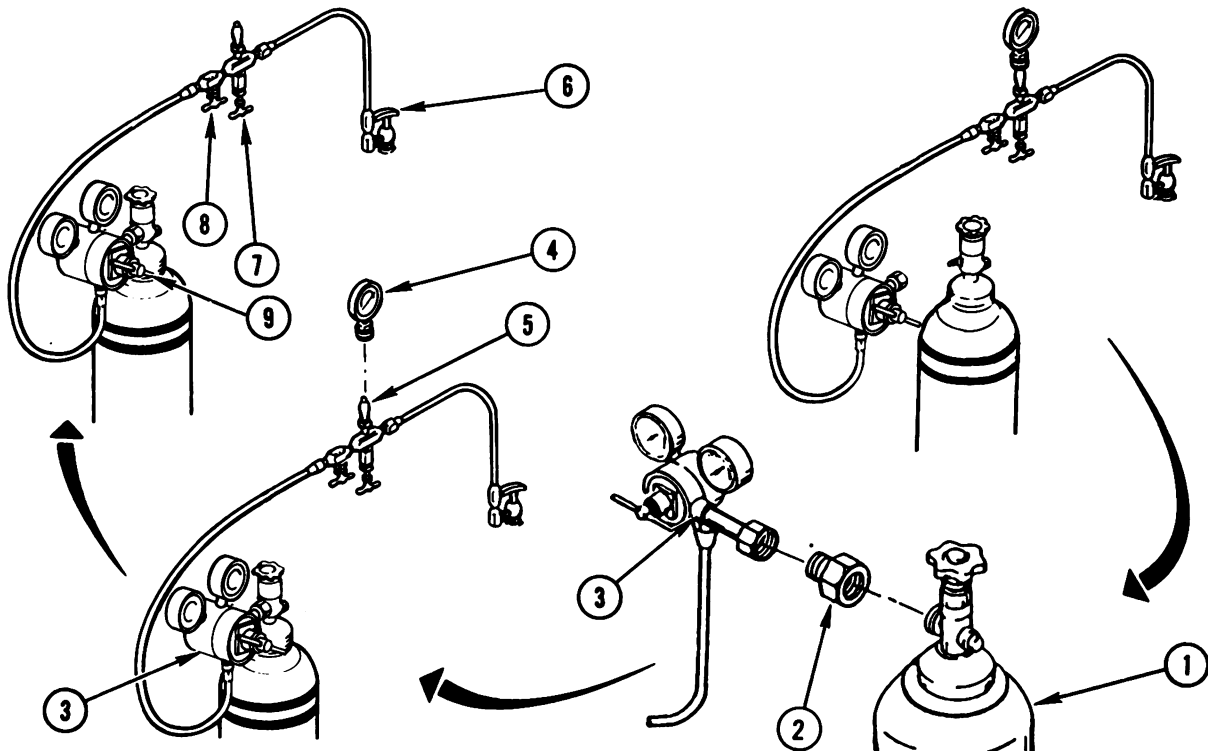
If nitrogen tank (1) has left-hand threads, use adapter (2) to connect charging kit (3) to tank (1).

Soldier A: 1. Screw on charging kit (3) to tank (1) and tighten with 1-1/8 inch wrench.

Soldier B: 2. Take off gage (4) from quick-disconnect (5) on charging kit (3).

Soldier B: 3. Turn air chuck valve (6), bleeder valve (7), and manifold shutoff valve (8) clockwise to close. Turn regulator valve (9) counterclockwise to close.

GO TO FRAME 2



ARR82-0615

FRAME 2

Service Accumulator (Continued):

NOTE

Nitrogen tank supply gage (1) must show a minimum pressure of 1000 pounds-per-square-inch. If pressure on gage (1) is less than 1000 pounds-per-square-inch, replace nitrogen tank (2).

Soldier A: 1. Turn nitrogen tank supply valve (3) counterclockwise to open.

Soldier B: 2. Turn manifold shutoff valve (4) and air chuck valve (5) counterclockwise to open.

Soldier A: 3. Turn regulator valve (6) slowly clockwise to open, until gas can be heard coming out of air chuck valve (5).

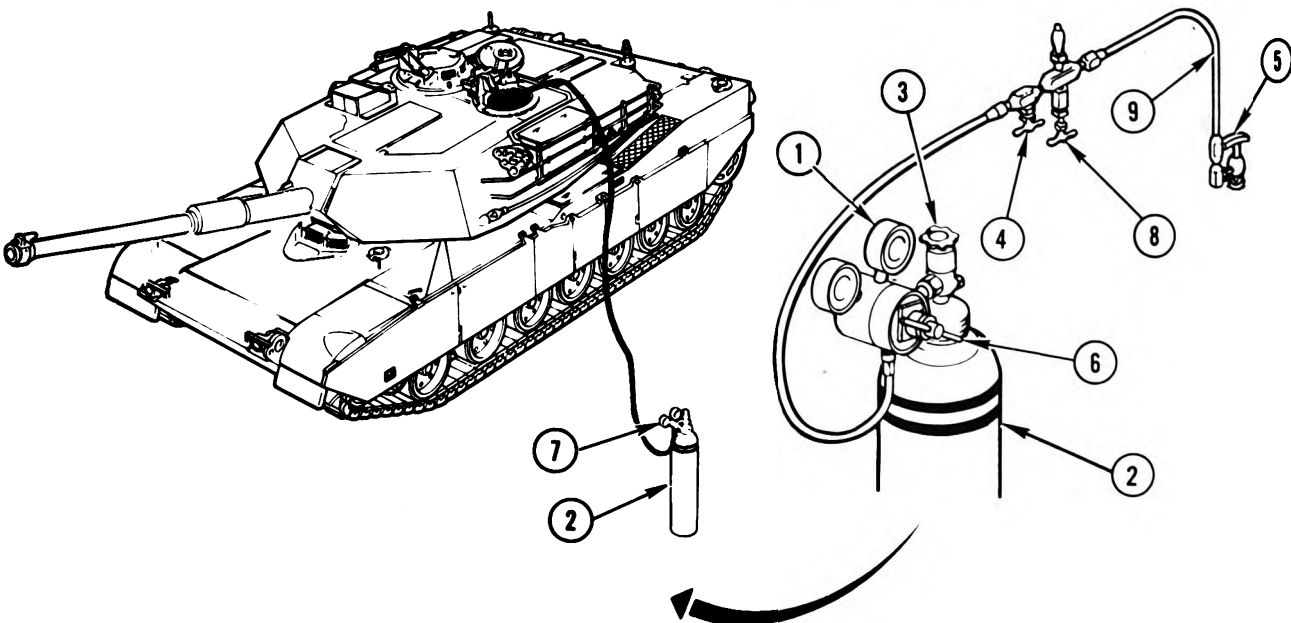
Soldier B: 4. Wait about 10 seconds after gas is first heard coming out of air chuck valve (5), then turn manifold shutoff valve (4) and air chuck valve (5) clockwise to close.

Soldier A: 5. Turn regulator valve (6) counterclockwise to close.

Soldier A,
Soldier B: 6. Move nitrogen tank (2) and charging kit (7) next to tank.

Soldier B: 7. Take manifold shutoff valve (4), air chuck valve (5), bleeder valve (8), and connecting line (9) inside turret.

GO TO FRAME 3



ARR82-0616

FRAME 3

Service Accumulator (Continued):

Soldier A: 1. Hang or set thermometer in work area.

Soldier B: 2. Unscrew cap (1) from hydraulic accumulator (2) with 3/8-inch wrench.

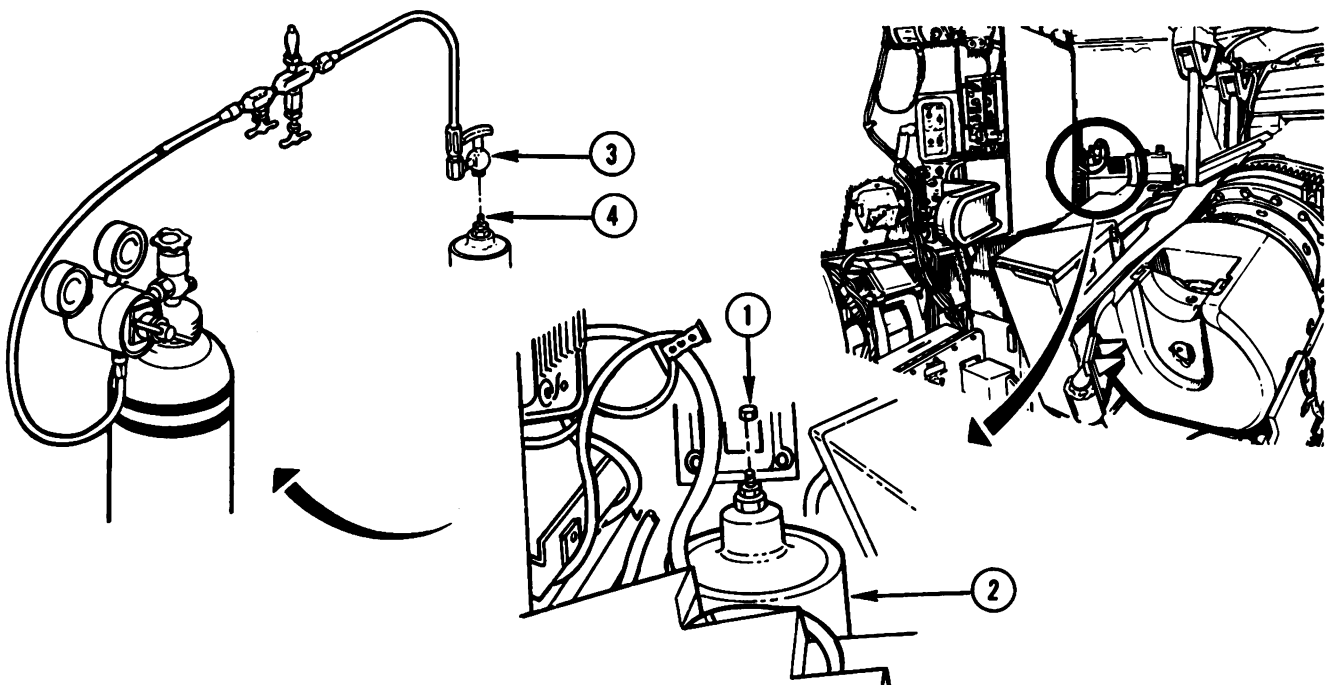
Soldier B: 3. Screw air chuck valve (3) on accumulator charging valve (4) with 11/16-inch wrench.

Soldier A: 4. Find proper precharge pressure with chart below according to temperature shown on thermometer.

NITROGEN GAS TEMPERATURE VERSUS PRECHARGE PRESSURE CHART

TEMP °F	-70	-50	-25	0	+25	+50	+75	+100	+125
PRECHARGE PSI	550	580	620	650	685	720	755	790	830

GO TO FRAME 4



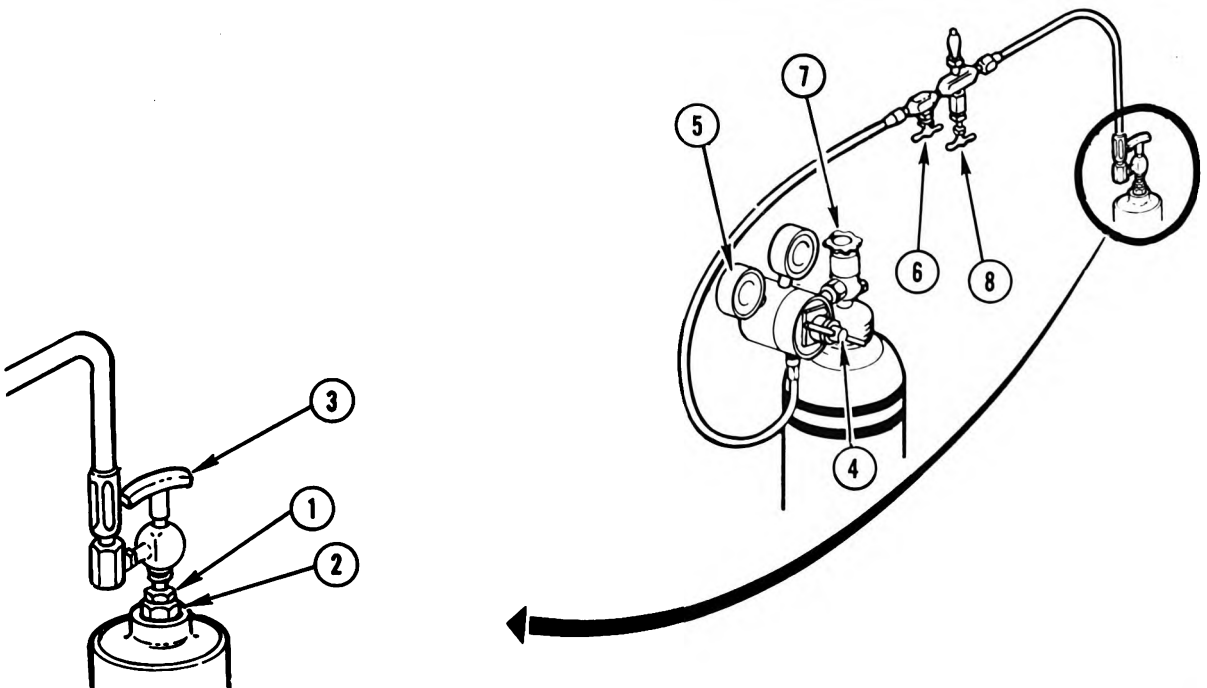
ARR82-0617

FRAME 4

Service Accumulator (Continued):

- Soldier B: 1. Turn thin nut (1) counterclockwise with 3/4-inch wrench to open accumulator charging valve (2). Turn air chuck valve (3) counterclockwise to open.
- Soldier A: 2. Turn regulator valve (4) slowly clockwise to open until regulator pressure gage (5) shows proper precharge pressure.
- Soldier B: 3. Turn manifold shutoff valve (6) slowly counterclockwise to open.
- Soldier A: 4. When regulator pressure gage (5) shows proper precharge pressure, turn nitrogen supply valve (7) clockwise to close.
- NOTE**
- If pressure shown on regulator pressure gage (5) is higher than proper precharge pressure, do step 5.
 - If pressure shown on regulator pressure gage (5) is same as proper precharge pressure, skip step 5.
- Soldier A: 5. Tell Soldier B to turn bleeder valve (8) slowly counterclockwise to open until proper precharge pressure is shown on regulator pressure gage (5), then tell Soldier B to turn bleeder valve (8) clockwise to close.

GO TO FRAME 5



ARR82-0618

FRAME 5

Service Accumulator (Continued):

Soldier B: 1. Turn thin nut (1) clockwise with 3/4-inch wrench to close accumulator charging valve (2). Turn air chuck valve (3) clockwise to close.

Soldier B: 2. Turn bleeder valve (4) counterclockwise to open.

Soldier B: 3. Unscrew and take off air chuck valve (3) from accumulator charging valve (2) with 11/16-inch wrench. Take manifold shutoff valve (5), air chuck valve (3), bleeder valve (4), and connecting line (6) out of turret.

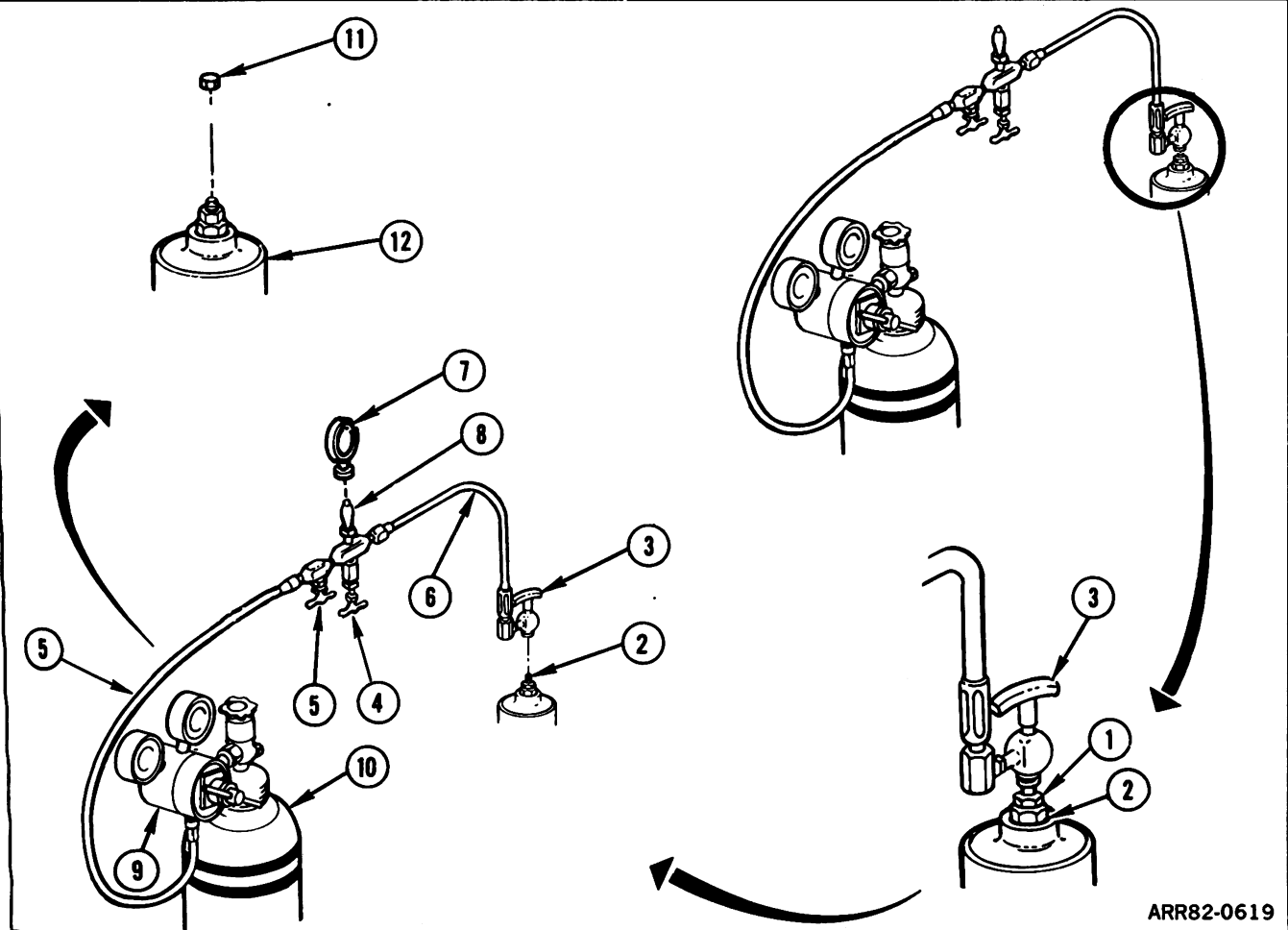
Soldier B: 4. Put gage (7) on quick-disconnect (8) of charging kit (9).

Soldier A: 5. Unscrew and take off charging kit (9) from nitrogen tank (10) with 1-1/8 inch wrench.

Soldier B: 6. Screw cap (11) on accumulator (12) with 3/8-inch wrench.

Follow-on Maintenance: None

TASK 1 ENDS HERE



ARR82-0619

TASK 2. Bleed Air From Hydraulic Accumulator

Applicability: All Models

Common Tools:

Goggles, industrial
Wrench, open end, 1-1/2 inch;
Wrench, open end, 1-5/8 inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Rag, wiping (Item 45)

Personnel: Two

Soldier A: Bleeds hydraulic accumulator.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Manually traverse turret until hydraulic accumulator is accessible through driver's compartment, and then lock turret; refer to TM 9-2350-255-10.
2. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.

FRAME 6

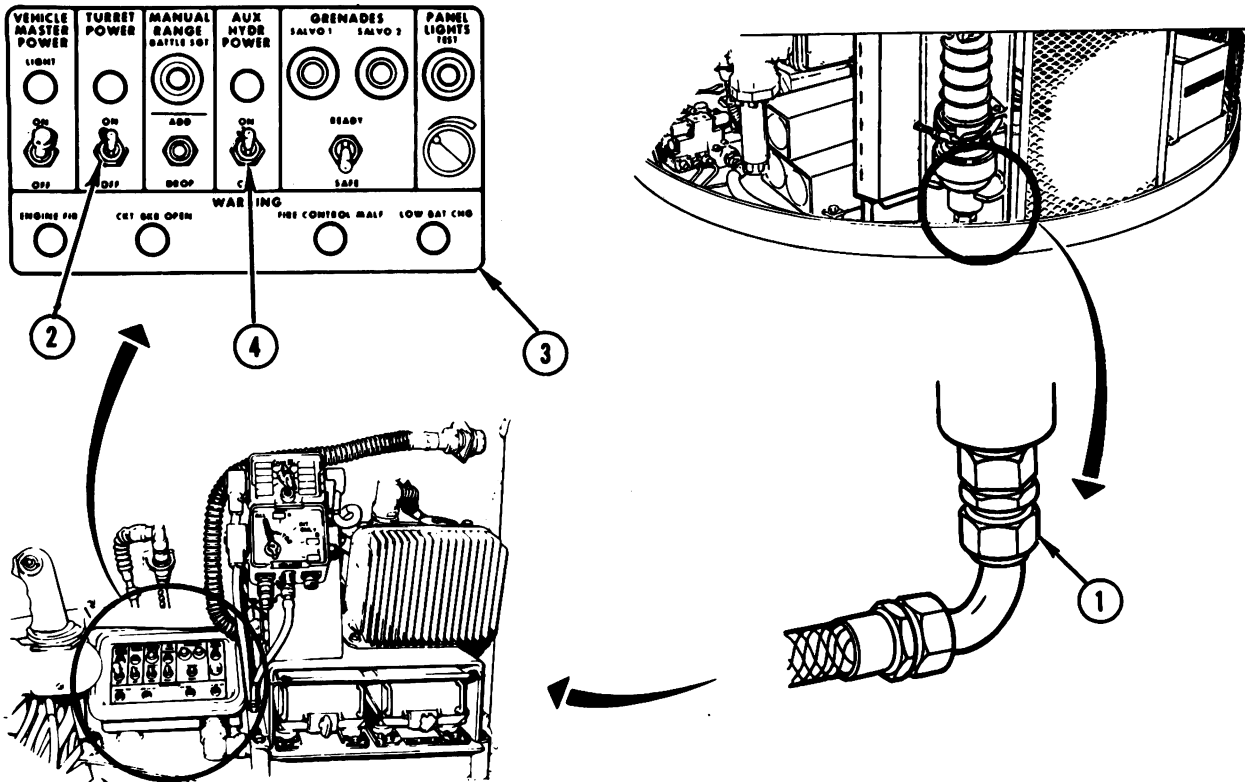
Bleed Accumulator:

WARNING

Hydraulic fluid under pressure could get in eyes and cause serious eye injury. Wear goggles to protect eyes.

- Soldier A: 1. Put clean rags under fitting (1). Loosen fitting (1) with two wrenches.
- Soldier A: 2. Keep wrenches on fitting (1).
- Soldier B: 3. Set TURRET POWER switch (2) on commander's control panel (3) to ON.
- Soldier B: 4. Set AUX HYDR POWER switch (4) on commander's control panel (3) to ON and then immediately to OFF.
- Soldier A: 5. Look for fluid flowing out of fitting (1). Tighten or loosen fitting (1) as needed to get steady flow rate.

GO TO FRAME 7



ARR82-0620

FRAME 7

Bleed Accumulator (Continued):

NOTE

Hydraulic fluid with air in it will look foamy. Hydraulic fluid without air will look clear.

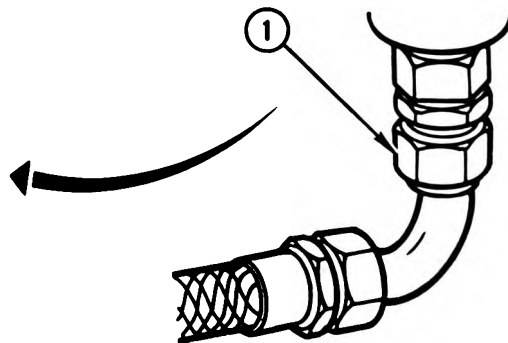
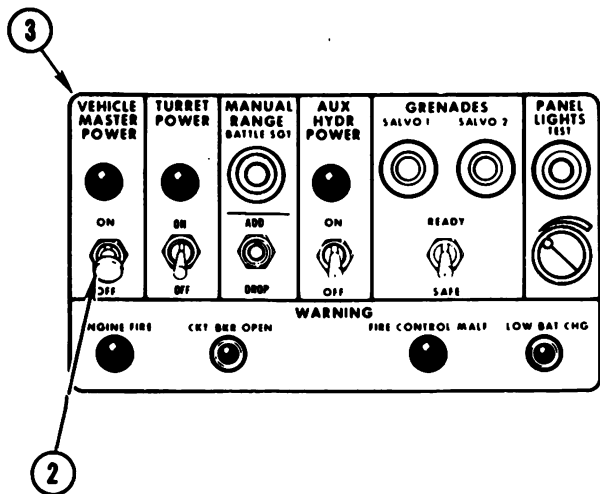
Soldier A: 1. When fluid is clear, tighten fitting (1) with two wrenches until fluid stops leaking.

Soldier B: 2. Set VEHICLE MASTER POWER switch (2) on commander's control panel (3) to OFF.

Follow-on Maintenance:

Fill hydraulic reservoir; refer to LO 9-2350-255-12.

TASK 2 ENDS HERE



ARR82-0621

TASK 3. Replace Hydraulic Turret Valve**Applicability:** All Models**Common Tools:**

Extension, socket wrench, 3/8-inch square drive, 5-inch
 Goggles, industrial
 Handle, socket wrench, ratchet, 3/8-inch square drive
 Key, socket head screw, 5/64-inch
 Oiler, hand
 Pliers, slip joint, conduit style with plastic jaw inserts
 Socket, socket wrench, 3/8-inch square drive, 9/16-inch
 Wrench, combination, 9/16-inch (two required)
 Wrench, combination, 11/16-inch (two required)
 Wrench, combination, 1-inch
 Wrench, open end, 1-1/2 inch (two required)
 Wrench, torque, 0 to 600 inch-pounds

Special Tools: None**Supplies:**

NOTE: Expendable supplies are defined in appendix A.
 Lubricating Oil, OE/HDO 30, MIL-L-2104 C (Item 33)
 Packing, preformed (81349) M83248-1-916 (seven required)
 Packing, preformed (81349) M83248/1-904 (three required)
 Packing, preformed (81349) M83248/1-906 (two required)
 Pencil, writing (Item 42)
 Protective caps and plugs (Bulk)
 Rag, wiping (Item 45)
 Tag, marker (Item 54)
 Valve, turret, hydraulic (19207) 12273262

Personnel: One**Equipment Condition:**

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Traverse turret until main gun is over driver's hatch, and then lock turret; refer to TM 9-2350-255-10.
2. Elevate main gun to maximum elevation; refer to TM 9-2350-255-10.
3. Reduce system hydraulic pressure to zero; refer to para. 4-4.

FRAME 8

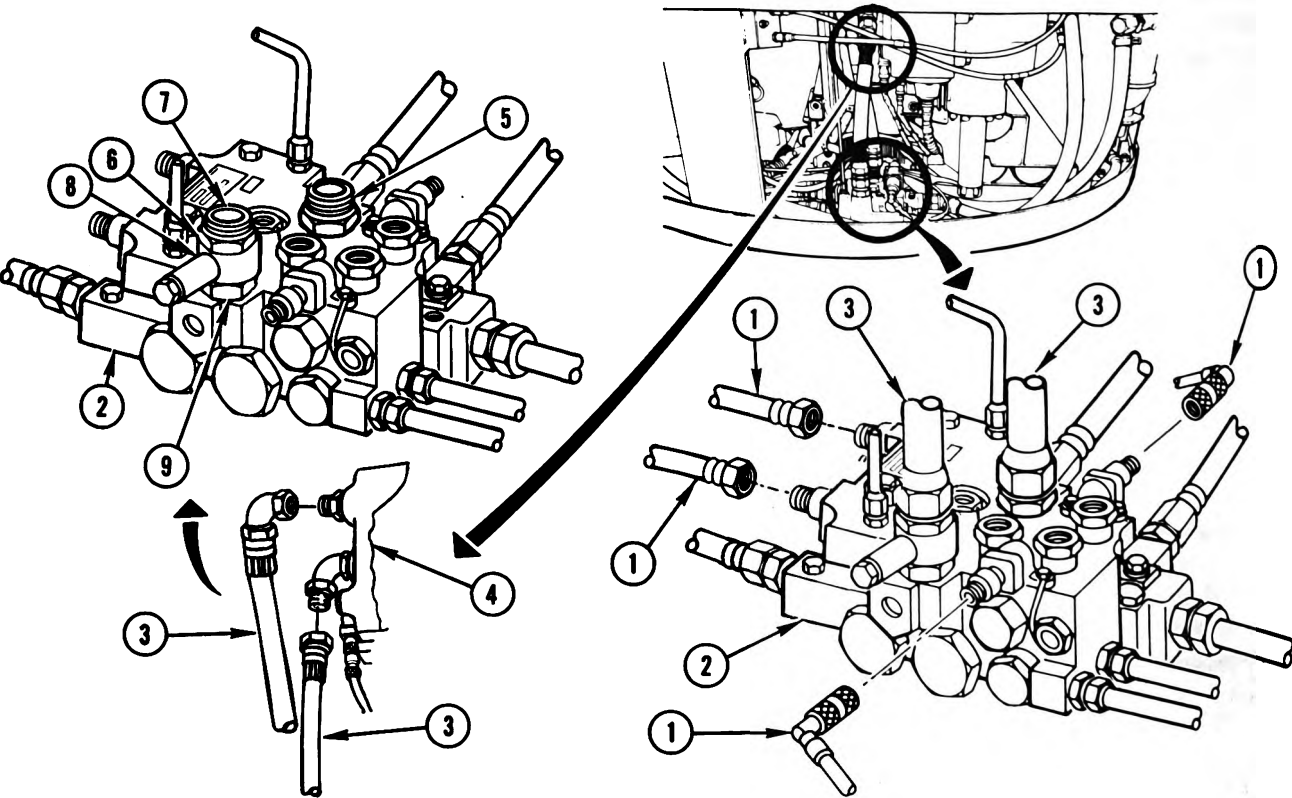
Remove Connectors and Elevation Servomechanism Hoses:

NOTE

Read para. 4-4 before doing any work.

1. Unscrew and take off four electrical connectors (1) from hydraulic turret valve (2).
2. Put rags around valve (2) to soak up leaking fluid.
3. Unscrew and take off two hoses (3) from valve (2) and elevation servomechanism (4) with two 1-1/2 inch wrenches.
4. Loosen adapter (5) in valve (2) with 1-1/2 inch wrench.
5. Unscrew jamnut (6) almost all the way off test adapter (7) with 1-1/2 inch wrench.
6. Raise body (8) and loosen bottom nut (9) of test adapter (7) with 1-1/2 inch wrench.

GO TO FRAME 9



ARR82-0622

FRAME 9

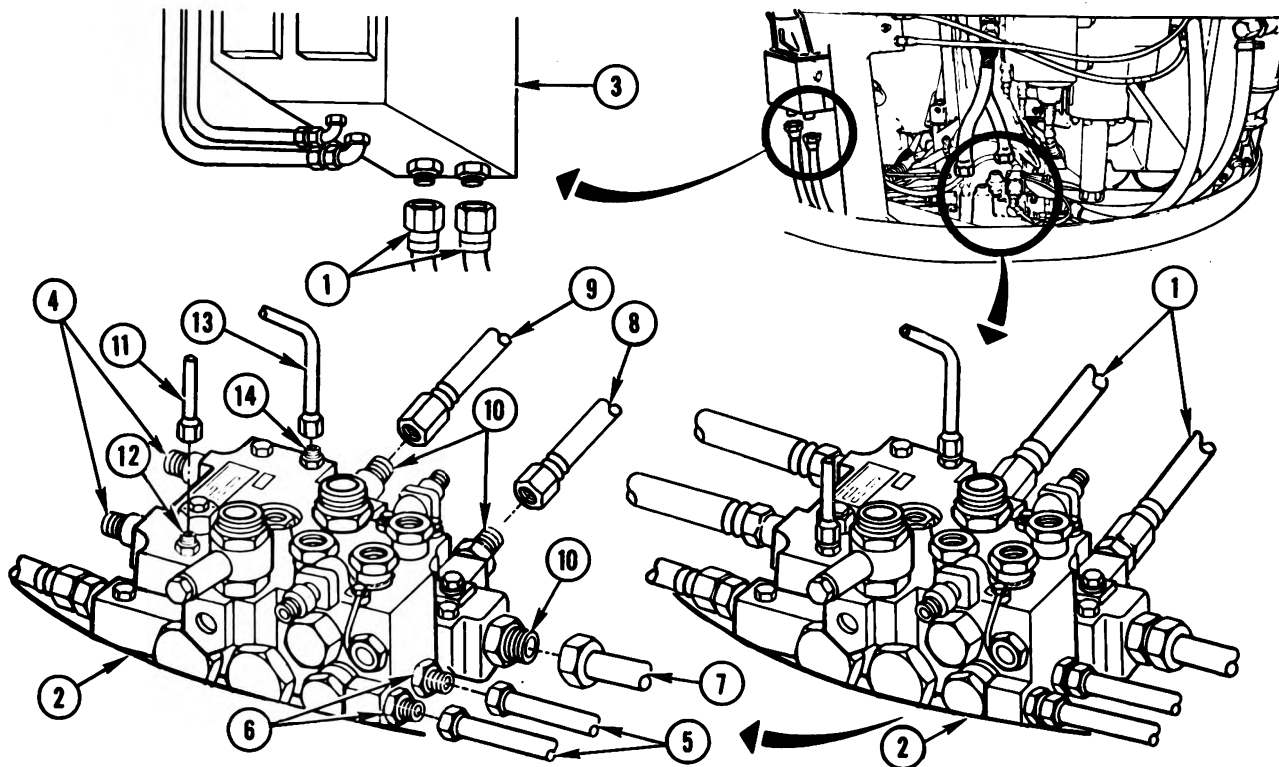
Remove Hoses and Tube Assemblies:

NOTE

Traverse turret as needed to take off two hoses (1).

1. Unscrew and take off two hoses (1) from valve (2) and traverse servo mechanism assembly (3) with two 1-1/2 inch wrenches.
2. Loosen two adapters (4) on valve (2) with 1-1/2 inch wrench.
3. Unscrew and take off two tubes (5) from adapters (6) with two 11/16-inch wrenches. Loosen adapters (6) with 11/16-inch wrench.
4. Unscrew and take off three hoses (7, 8, 9) from three adapters (10) with two 1-1/2 inch wrenches. Loosen three adapters (10) with 1-1/2 inch wrench.
5. Unscrew and take off tube (11) from dampener (12) with 9/16-inch and 11/16-inch wrenches. Loosen dampener (12) with 11/16-inch wrench.
6. Unscrew and take off tube (13) from adapter (14) with two 9/16-inch wrenches. Loosen adapter (14) with 9/16-inch wrench.

GO TO FRAME 10



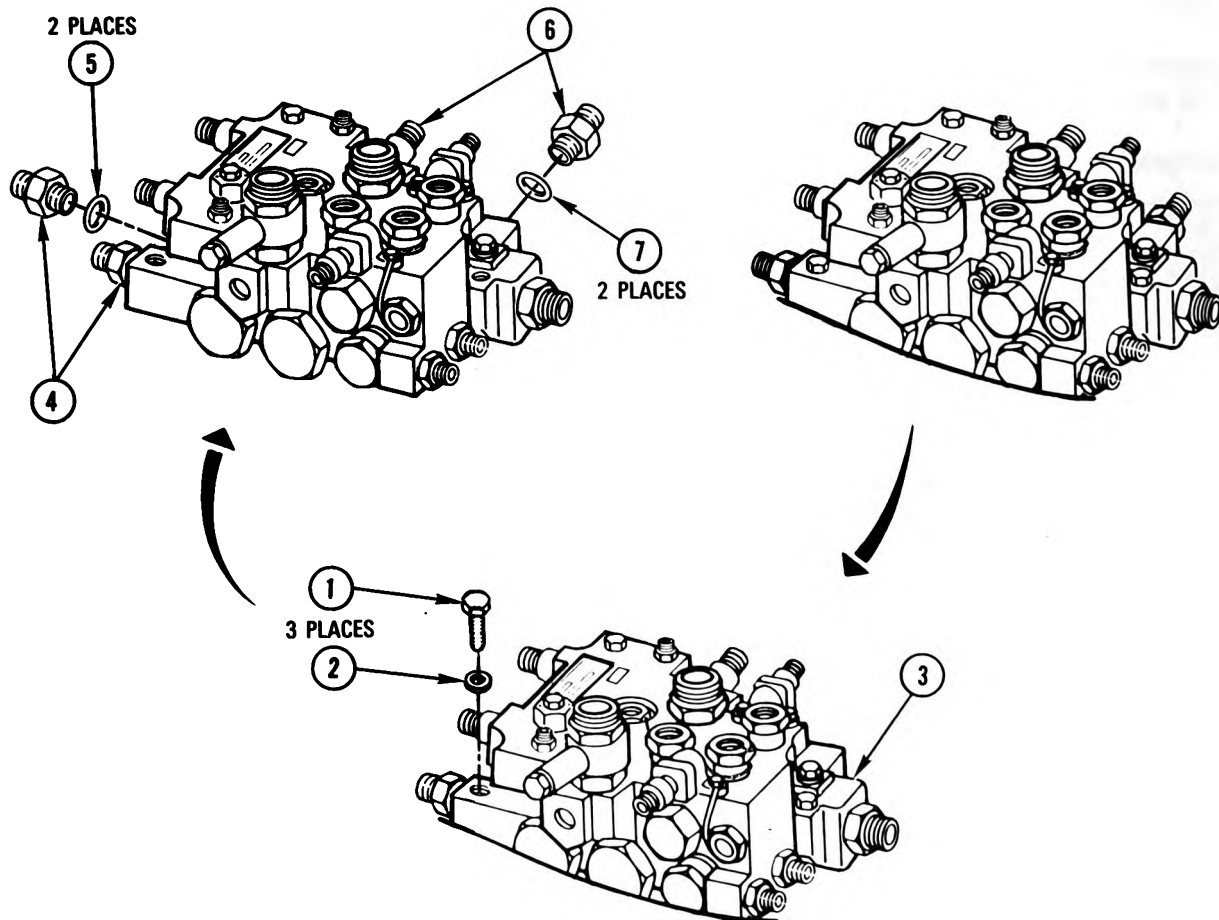
ARR82-0623

FRAME 10

Remove Valve, Packings, and Fittings:

1. Unscrew and take off three screws (1) and washers (2) with socket, extension, and handle. Put valve (3) on clean work surface.
2. Unscrew and take off two adapters (4) and packings (5) with 1-1/2 inch wrench. Get rid of packings (5).
3. Unscrew and take off two adapters (6) and packings (7) with 1-1/2 inch wrench. Get rid of packings (7).
4. Look at four adapters (4, 6) for stripped threads or cracks. Turn in bad parts. Set good parts aside for later use.

GO TO FRAME 11



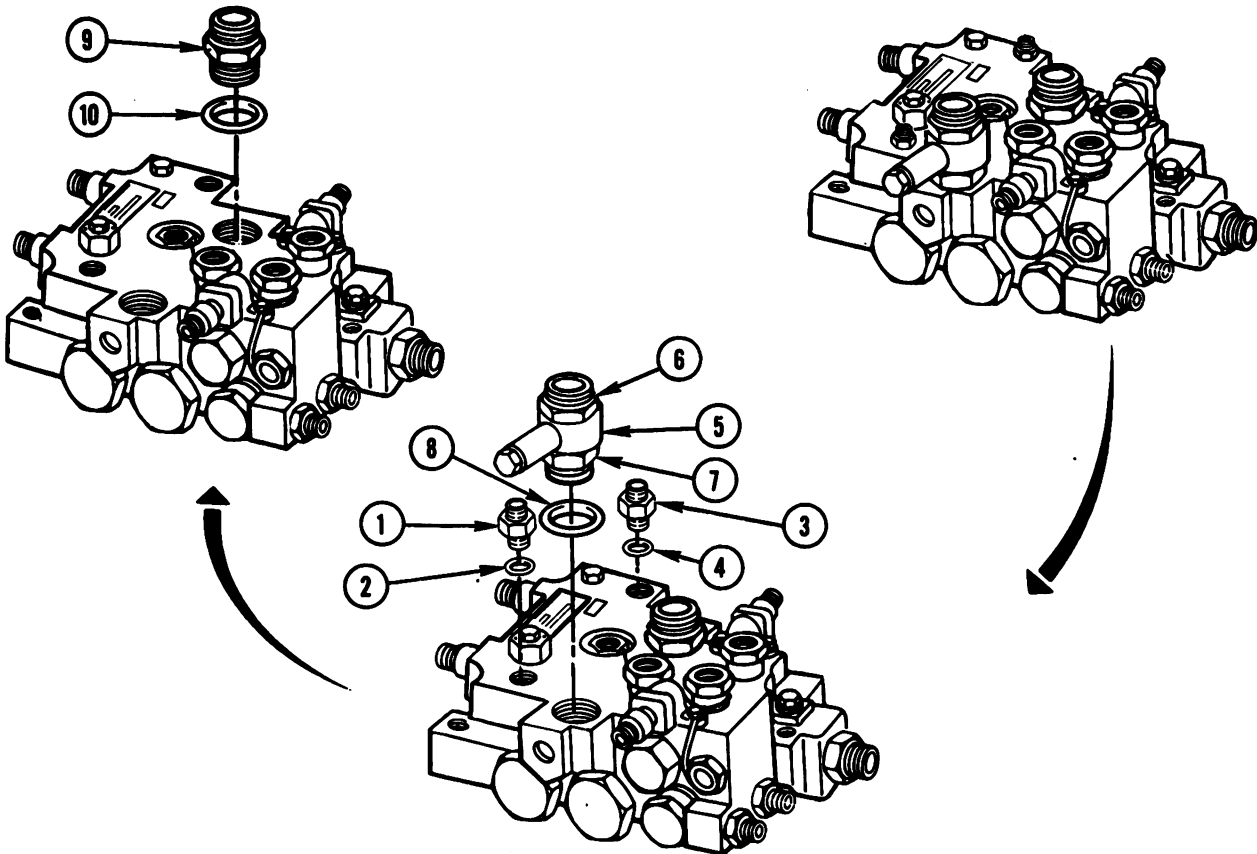
ARR82-0624

FRAME 11

Remove Packings, Test Adapters, and Fittings:

1. Unscrew and take off dampener (1) and packing (2) with 11/16-inch wrench. Get rid of packing (2).
2. Unscrew and take off adapter (3) and packing (4) with 9/16-inch wrench. Get rid of packing (4).
3. Raise body (5) against jamnut (6). Unscrew and take off test adapter (7) and packing (8) with 1-1/2 inch wrench. Get rid of packing (8).
4. Unscrew and take off adapter (9) and packing (10) with 1-1/2 inch wrench. Get rid of packing (10).
5. Look at dampener (1), two adapters (3, 9), and test adapter (7) for stripped threads or cracks. Turn in bad parts. Set good parts aside for later use.

GO TO FRAME 12



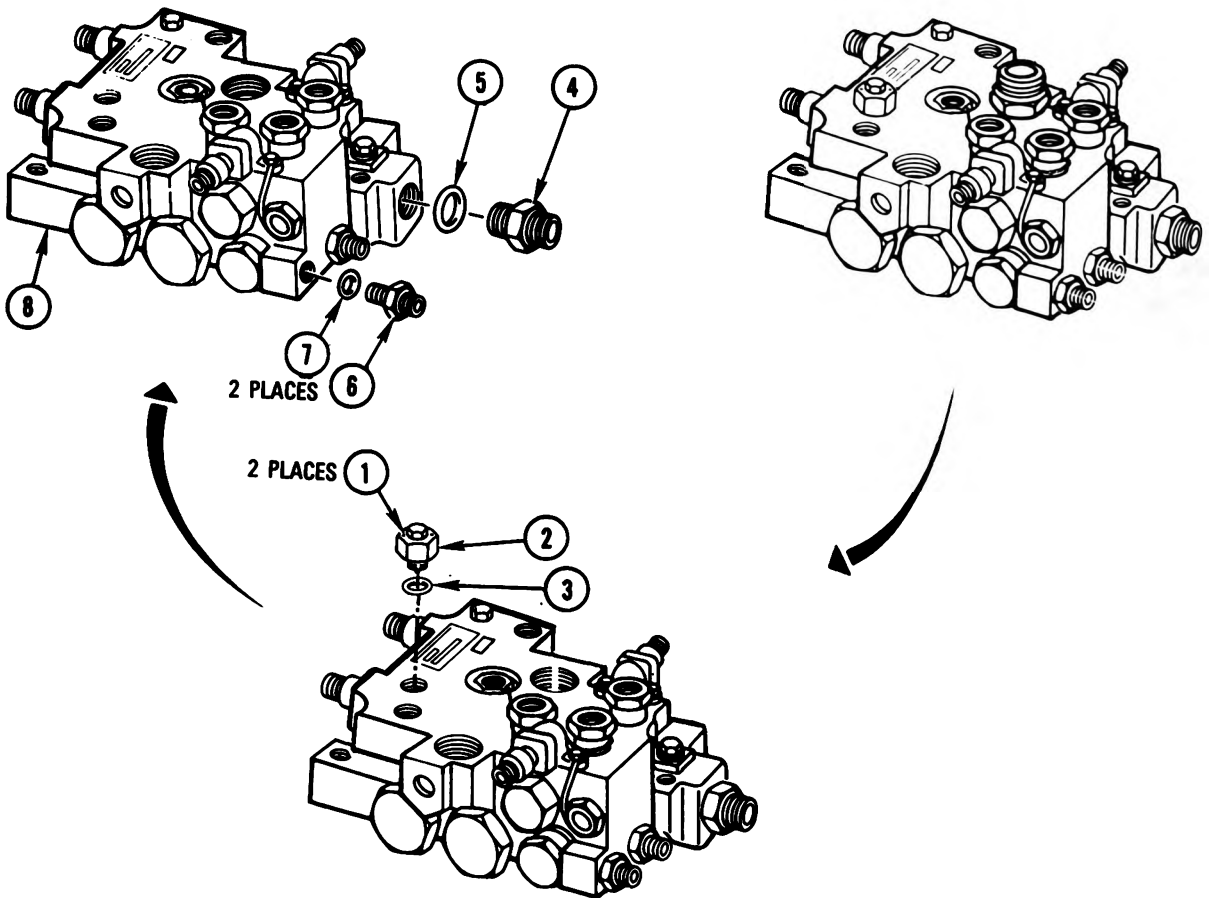
ARR82-0625

FRAME 12

Remove Packings, Test Adapters, and Fittings (Continued):

1. Loosen two setscrews (1) with key. Unscrew and take off test adapter (2) and packing (3) with 1-inch wrench. Get rid of packing (3).
2. Unscrew and take off adapter (4) and packing (5) with 1-1/2 inch wrench. Get rid of packing (5).
3. Unscrew and take off two adapters (6) and packings (7) with 11/16-inch wrench. Get rid of packings (7).
4. Look at test adapter (2) and three adapters (4, 6) for stripped threads or cracks. Turn in bad parts. Set good parts aside for later use.
5. Turn in hydraulic turret valve (8).

GO TO FRAME 13



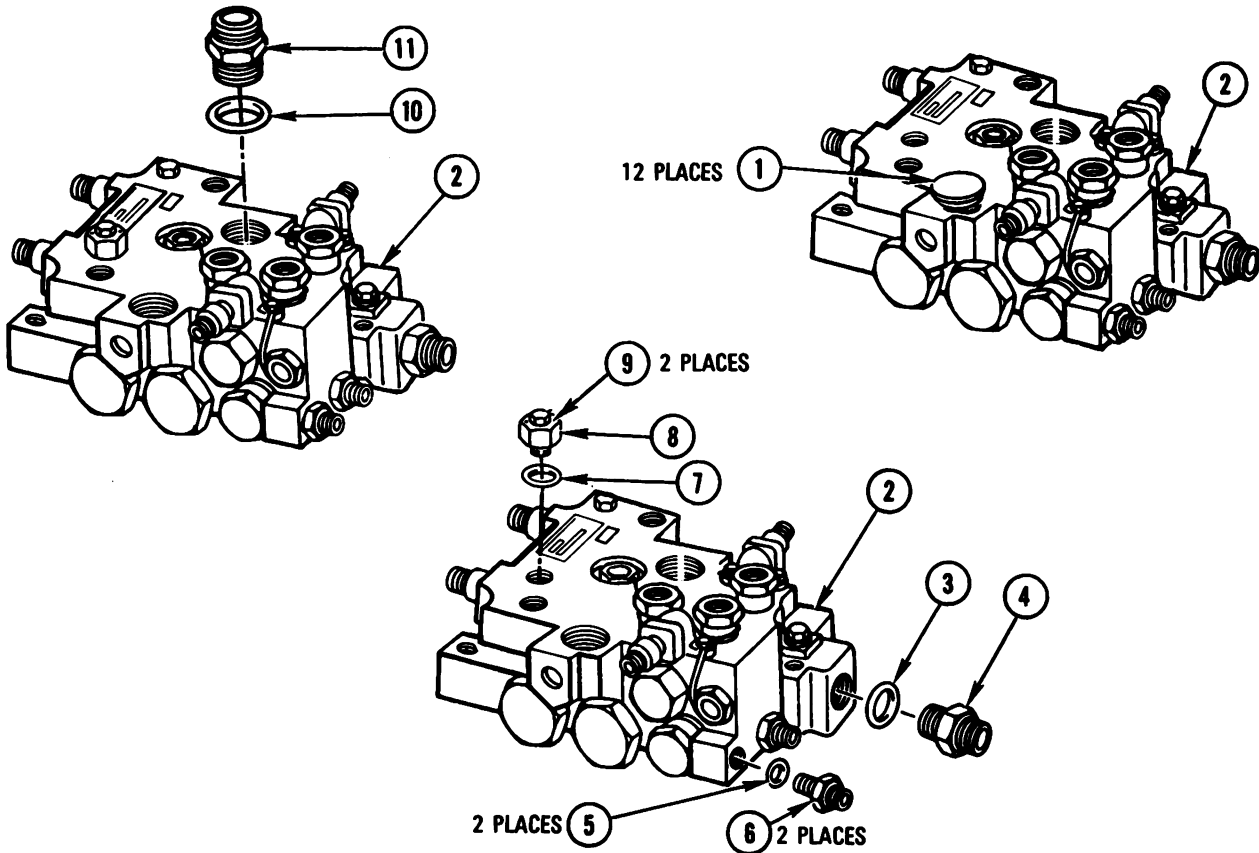
ARR82-0626

FRAME 13

Install Packings, Test Adapters, and Fittings:

1. Take off 12 shipping plugs (1) from new hydraulic turret valve (2).
2. Put new packing (3) on adapter (4). Screw in and tighten adapter (4) and packing (3) to valve (2) with 1-1/2 inch wrench.
3. Put two new packings (5) on two adapters (6). Screw in and tighten adapters (6) and packings (5) with 11/16-inch wrench.
4. Put new packing (7) on test adapter (8). Screw in and tighten test adapter (8) and packing (7) with 1-inch wrench.
5. Tighten two setscrews (9) with key.
6. Put new packing (10) on adapter (11). Screw in and tighten adapter (11) and packing (10) with 1-1/2 inch wrench.

GO TO FRAME 14

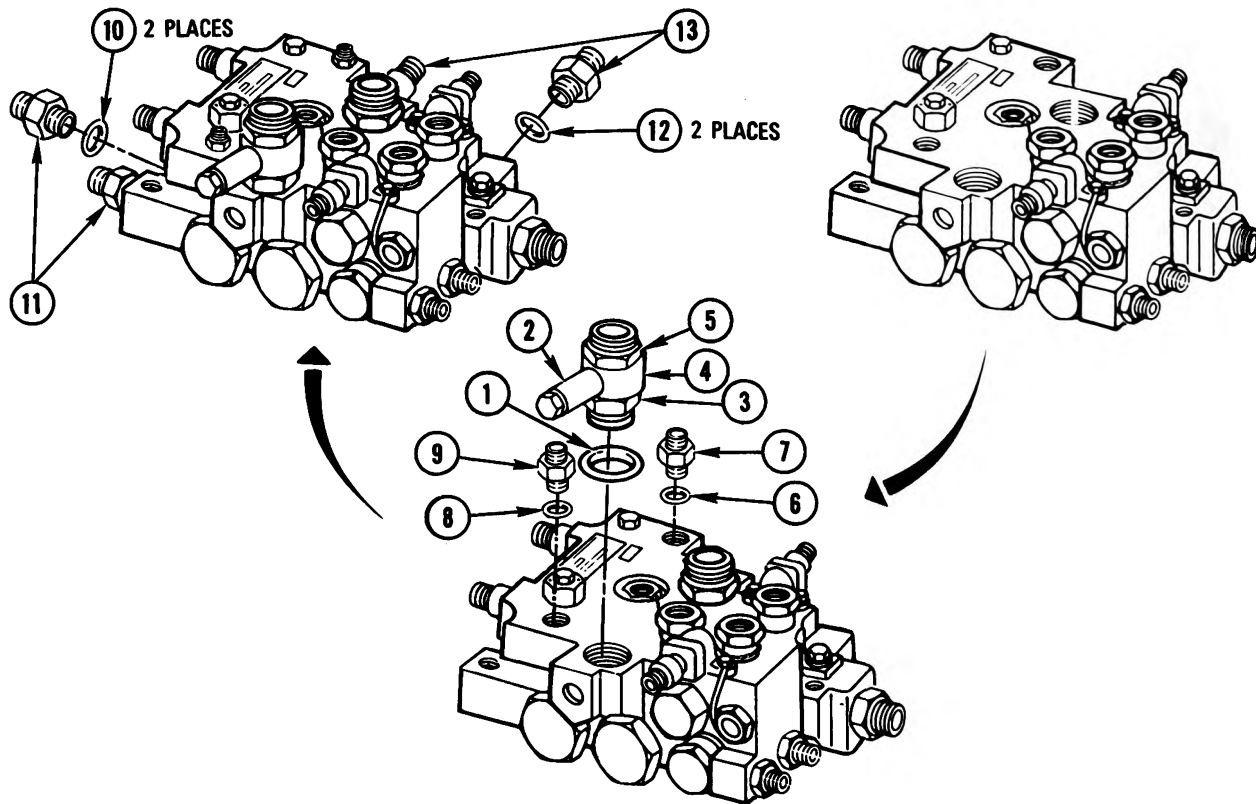


ARR82-0627

FRAME 14**Install Packings, Test Adapters, and Fittings (Continued):**

1. Put new packing (1) on test adapter (2). Screw in and tighten bottom nut (3) of test adapter (2) with 1-1/2 inch wrench.
2. Push down on body (4). Tighten jamnut (5) with 1-1/2 inch wrench.
3. Put new packing (6) on adapter (7). Screw in and tighten adapter (7) and packing (6) with 9/16-inch wrench.
4. Put new packing (8) on dampener (9). Screw in and tighten dampener (9) and packing (8) with 11/16-inch wrench.
5. Put two new packings (10) on adapters (11). Screw in and tighten adapters (11) and packings (10) with 1-1/2 inch wrench.
6. Put two new packings (12) on adapters (13). Screw in and tighten adapters (13) and packings (12) with 1-1/2 inch wrench.

GO TO FRAME 15



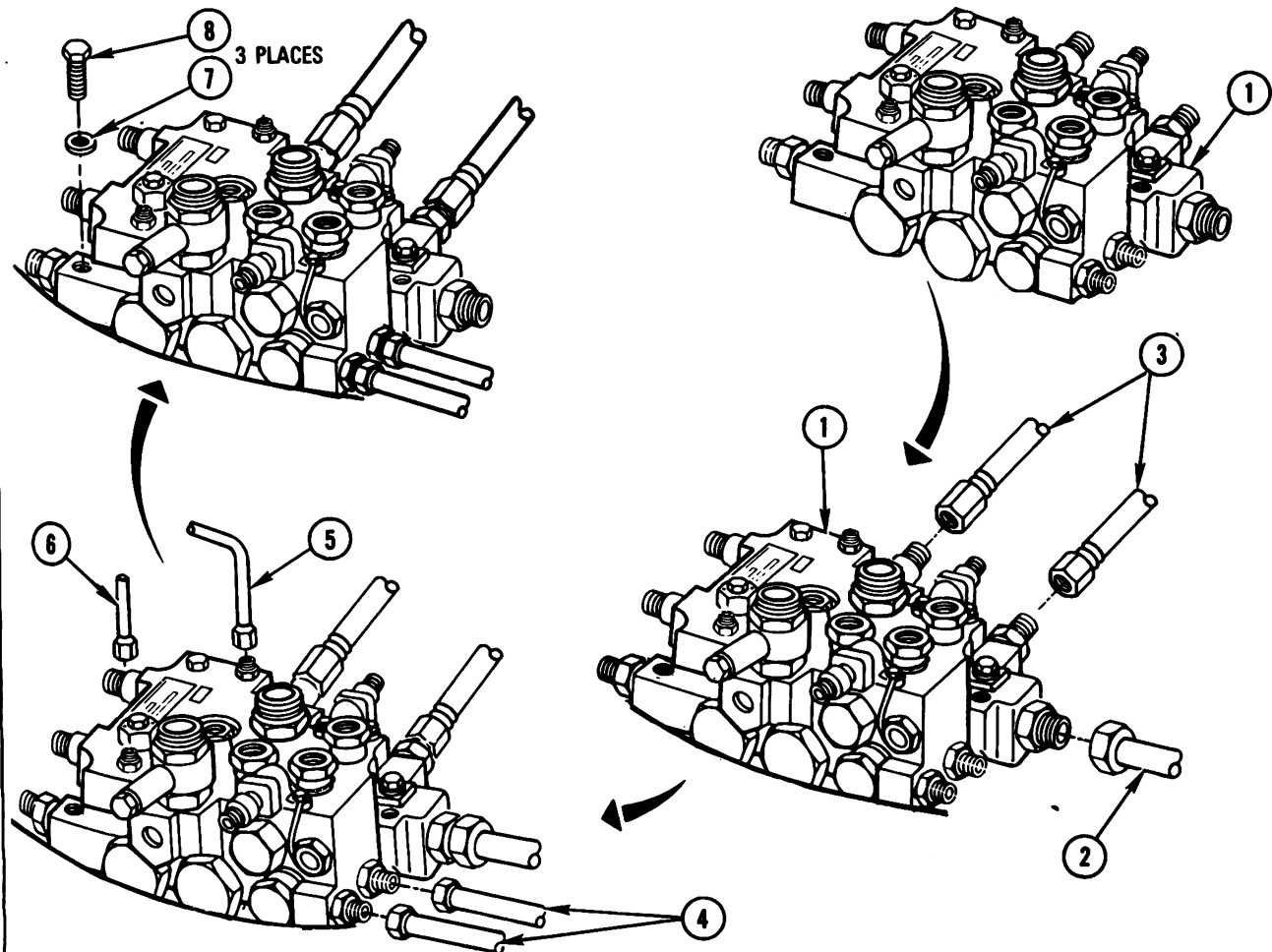
ARR82-0628

FRAME 15

Install Valve, Tubes, and Hoses:

1. Put valve (1) in place on turret floor.
2. Screw on and tighten hose (2) and two hoses (3) with two 1-1/2 inch wrenches.
3. Screw on and tighten two tubes (4) with two 11/16-inch wrenches.
4. Screw on and tighten tube (5) with two 9/16-inch wrenches. Screw on and tighten tube (6) with 9/16-inch and 11/16-inch wrenches.
5. Put three washers (7) on three screws (8). Spread oil on threads of screws (8).
6. Screw in, but do not tighten, three screws (8) with socket, extension, and handle.

GO TO FRAME 16



ARR82-0629

FRAME 16

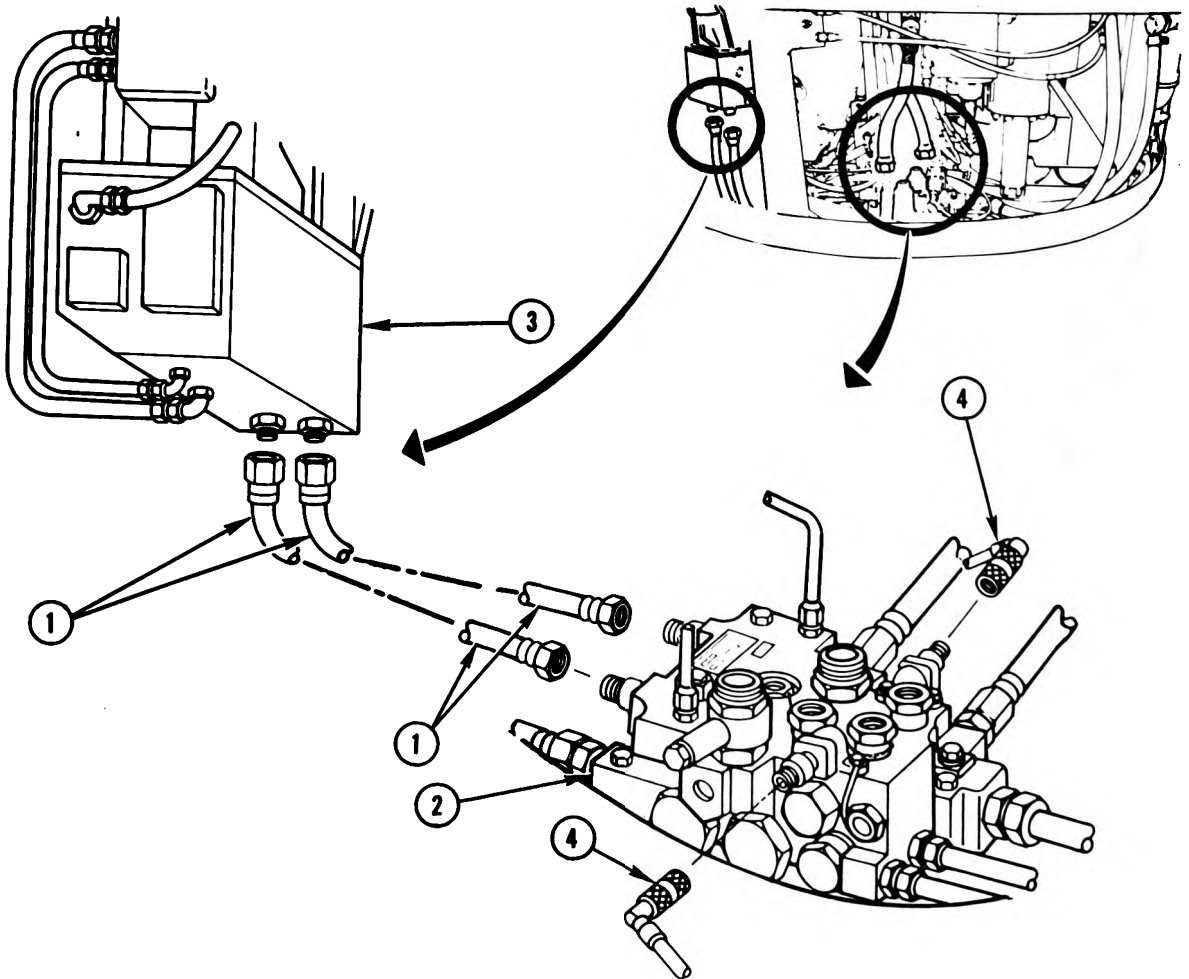
Install Valve, Hoses, and Connectors:

NOTE

Traverse turret as needed to put on two hoses (1).

1. Screw on and tighten two hoses (1) to valve (2) with two 1-1/2 inch wrenches.
2. Screw on and tighten other ends of two hoses (1) to traverse servomechanism assembly (3) with two 1-1/2 inch wrenches.
3. Screw on and tighten two electrical connectors (4) to valve (2).

GO TO FRAME 17



ARR82-0630

FRAME 17

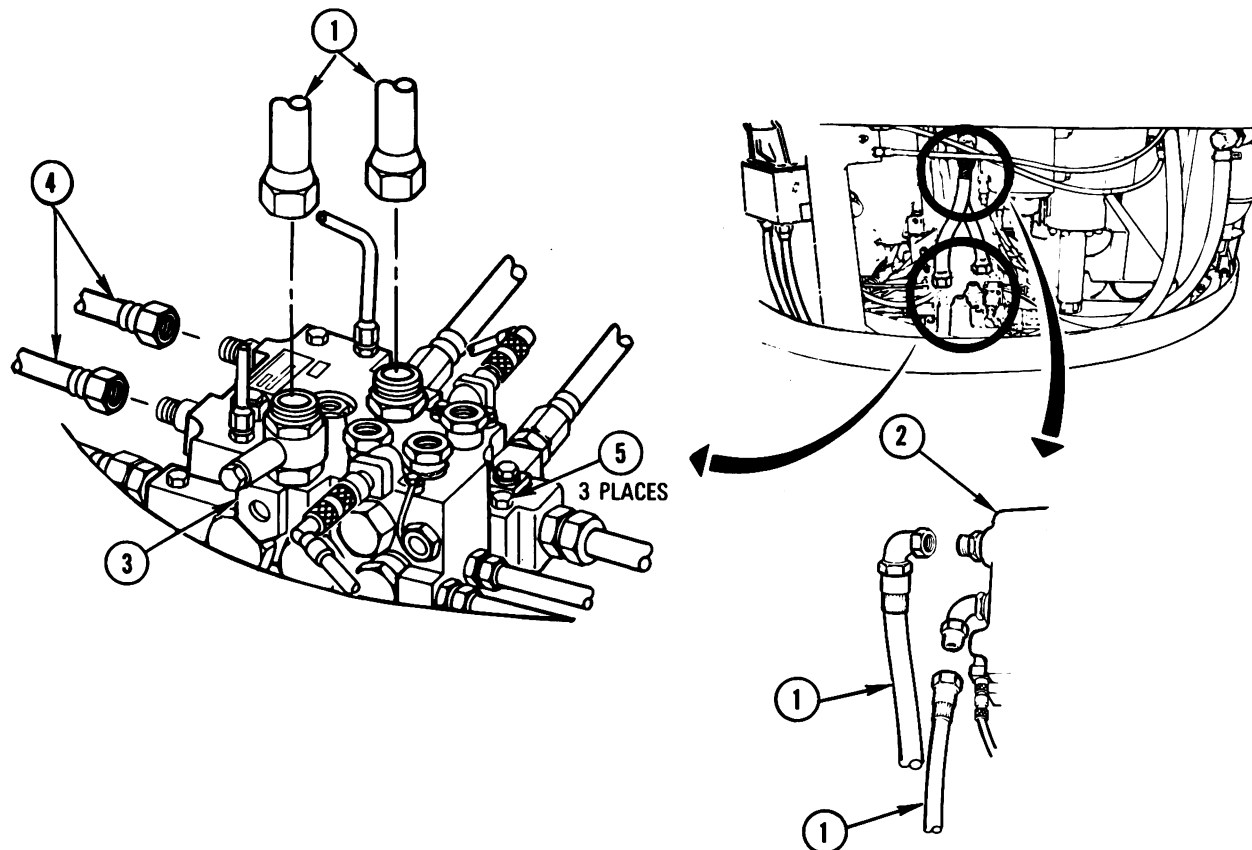
Install Valve, Hoses, and Connectors (Continued):

1. Screw on and tighten two hoses (1) to elevation servomechanism (2) with two 1-1/2 inch wrenches.
2. Screw on and tighten other ends of hoses (1) to valve (3) with two 1-1/2 inch wrenches.
3. Screw on and tighten two electrical connectors (4) to valve (3).
4. Torque three screws (5) between 360 and 420 pound inches (41 and 47 Newton meters).

Follow-on Maintenance:

1. Fill hydraulic reservoir; refer to LO 9-2350-255-12.
2. Bleed air from elevation hand pump; refer to para. 4-8, task 7.
3. Bleed air from elevation mechanism; refer to para. 4-8, task 8.

TASK 3 ENDS HERE



ARR82-0631

TASK 4. Remove Hydraulic Accumulator

Applicability: All Models

Common Tools:

- Pliers, slip joint
- Wrench, auto adjustable
- Wrench, combination, 7/16-inch
- Wrench, combination, 3/4-inch
- Wrench, open end, 1-1/2 inch
- Wrench, open end, 1-5/8 inch

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Protective caps and plugs (Bulk)
 - Rag, wiping (Item 45)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Traverse turret until hydraulic accumulator can be reached from driver's station, and then lock turret; refer to TM 9-2350-255-10.
2. Put driver's seat in full reclining position; refer to TM 9-2350-255-10.
3. Reduce system hydraulic pressure to zero; refer to para. 4-4.

FRAME 18

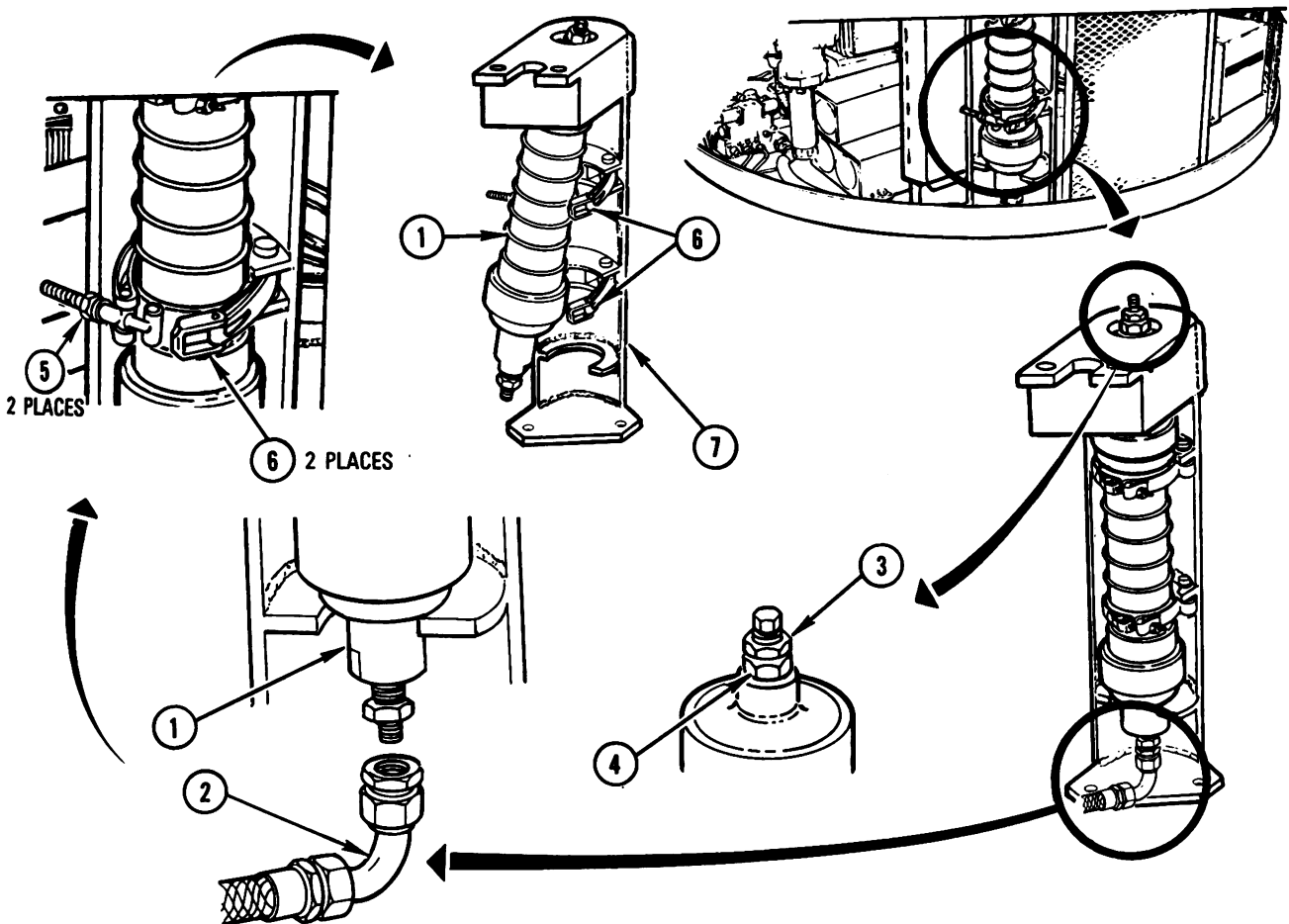
Remove Accumulator:

NOTE

Read para. 4-4 before doing any work.

1. Go to driver's station. Put clean rags under hydraulic accumulator (1). Unscrew and take off hose (2) from accumulator (1) with 1-1/2 inch and 1-5/8 inch wrenches.
2. Go inside turret. Loosen nut (3) on accumulator charging valve (4) with 3/4-inch wrench until gas can be heard coming out of valve (4).
3. When gas has all escaped from accumulator (1), loosen two nuts (5) on straps (6) with 7/16-inch wrench. Pull straps (6) apart.
4. Lift accumulator (1) out of straps (6) and away from post (7).

GO TO FRAME 19



ARR82-0632

FRAME 19

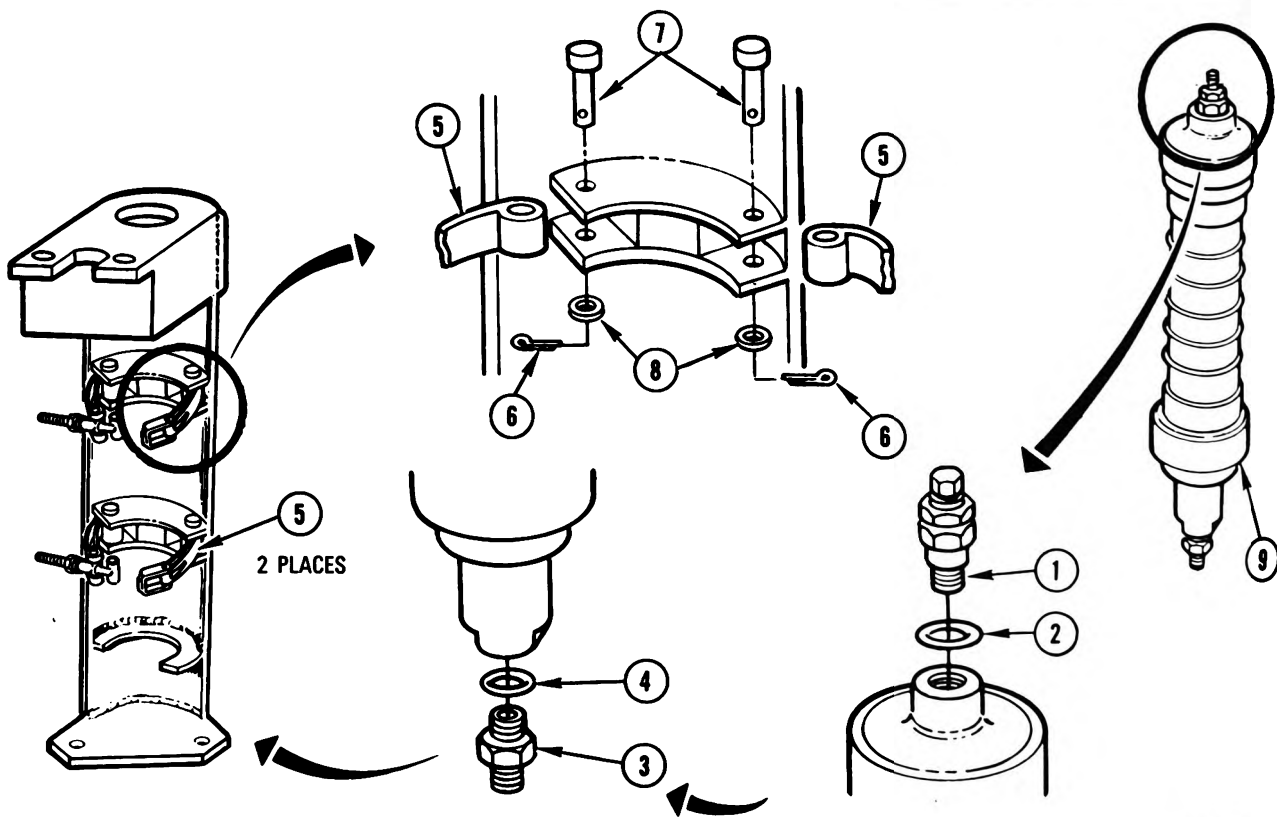
Remove Main Accumulator (Continued):

1. Unscrew and take off charging valve (1) with 3/4-inch and adjustable wrenches. Take packing (2) off valve (1). Get rid of packing (2).
2. Look at valve (1) for stripped or cracked threads. If bad turn in. If OK set aside for later use.
3. Unscrew and take off reducer (3) with 1-5/8 inch and adjustable wrenches. Take packing (4) off reducer (3). Get rid of packing (4).
4. Look at reducer (3) for stripped or cracked threads. If bad turn in. If OK set aside for later use.
5. Look at two straps (5) for cracks or breaks. If either strap (5) is bad, go to step 6. If OK, go to step 7.
6. Pull out two cotter pins (6) with pliers. Take out two pins (7) and washers (8). Take off and turn in bad strap (5). Get rid of cotter pins (6).
7. Look at accumulator (9) for cracks or breaks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install hydraulic accumulator, refer to task 5.

TASK 4 ENDS HERE



ARR82-0633

ASK 5. Install Hydraulic Accumulator

Applicability: All Models

Common Tools:

- Pliers, slip joint
- Wrench, auto adjustable
- Wrench, combination, 7/16-inch
- Wrench, combination, 3/4-inch
- Wrench, open end, 1-1/2 inch
- Wrench, open end, 1-5/8 inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

- Pin, cotter (96906) MS 24665-132 (two required)
- Packing, preformed, charging valve (81349) M83248/1-015
- Packing, preformed, reducer (81349) M83248-1-912
- Tape, antiseizing, MIL-T-27730 (Item 55)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove hydraulic accumulator; refer to task 4.

FRAME 20

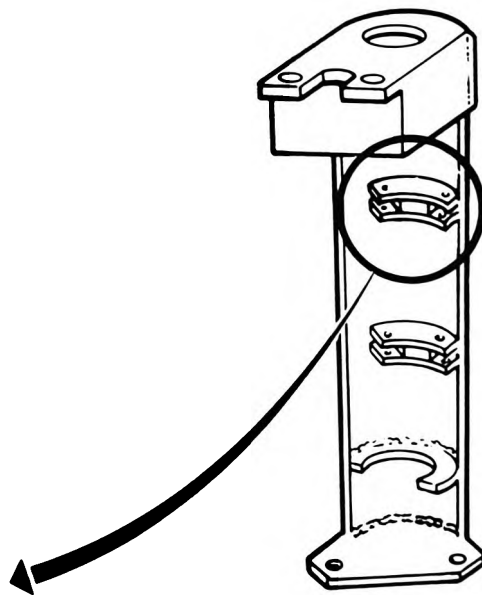
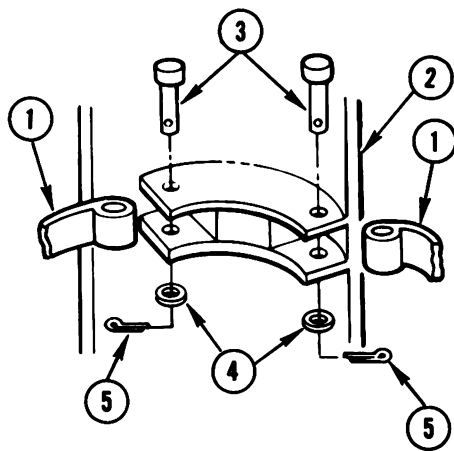
Install Straps:

NOTE

If either strap (1) was taken off, go to step 1. If not, go to frame 21.

1. Hold strap (1) in position on post (2). Slide pins (3) through holes in post (2) and strap (1).
2. Place washer (4) in position on pins (3) and insert new cotter pin (5) through pins (3) with pliers.
3. Repeat steps 1 and 2 for other strap (1).

GO TO FRAME 21



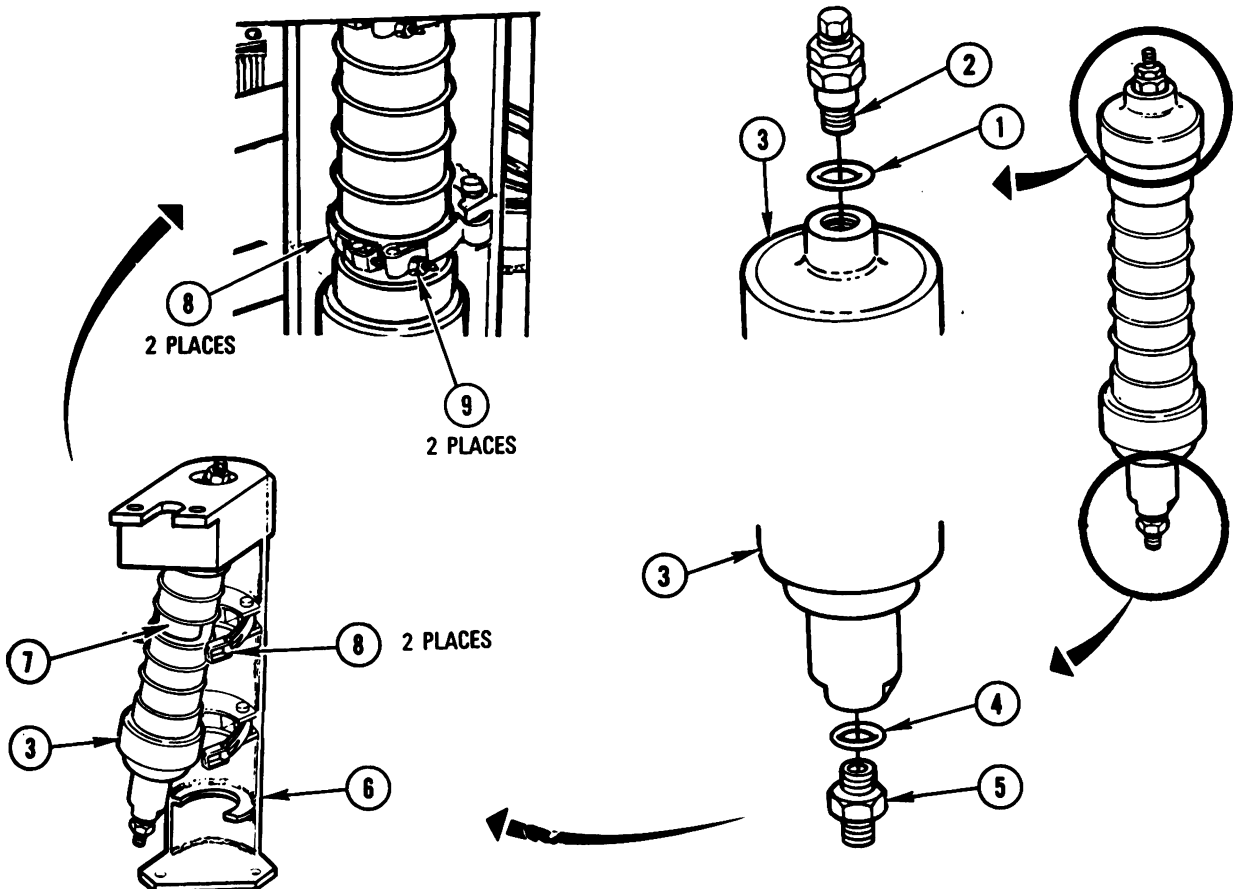
ARR82-0634

FRAME 21

Install Accumulator:

1. Put new packing (1) on charging valve (2). Put antiseizing tape on threads of charging valve (2). Screw in and tighten charging valve (2) in hydraulic accumulator (3) with 3/4-inch and adjustable wrenches.
2. Put new packing (4) on reducer (5). Put antiseizing tape on threads of reducer (5). Screw in and tighten reducer (5) in accumulator (3) with 1-5/8 inch and adjustable wrenches.
3. Slide accumulator (3) in post (6). Make sure instruction label (7) faces away from post (6).
4. Hook two straps (8) around accumulator (3). Tighten two strap nuts (9) with 7/16-inch wrench.

GO TO FRAME 22



ARR82-0635

FRAME 22

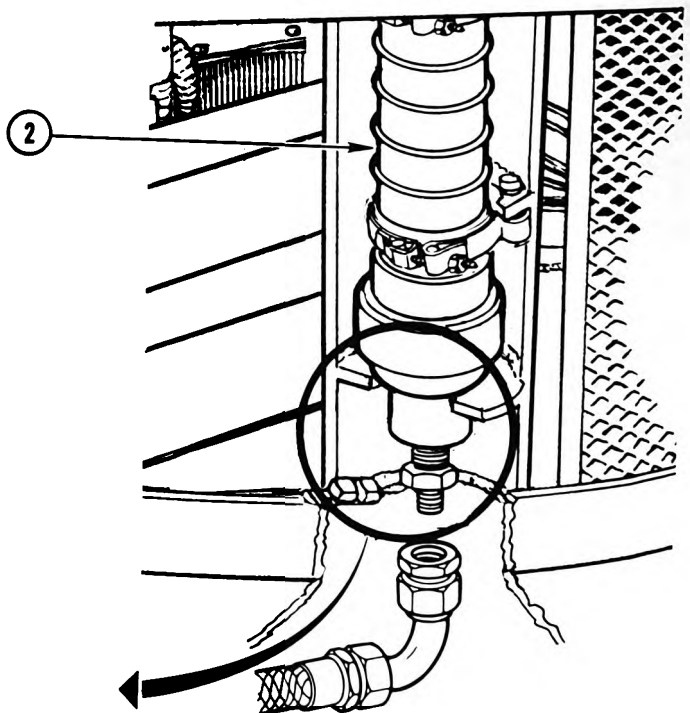
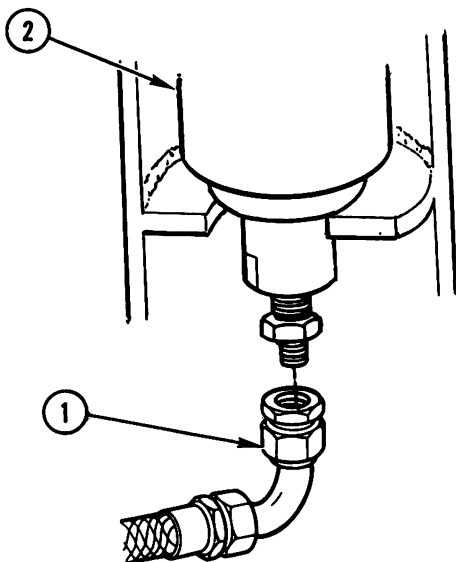
Install Accumulator (Continued):

1. Screw in and tighten hose (1) to accumulator (2) with 1-1/2 inch and 1-5/8 inch wrenches.

Follow-on Maintenance:

1. Service hydraulic accumulator; refer to task 1.
2. Bleed air from hydraulic accumulator; refer to task 2.
3. Fill hydraulic reservoir; refer to LO 9-2350-255-12.

TASK 5 ENDS HERE



AFR82-0636

ASK 6. Remove Metallic Guide Tube

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, combination, 7/16-inch

Special Tools: None

Supplies: None

Personnel: Two

Soldier A: Removes metallic guide tube.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 23

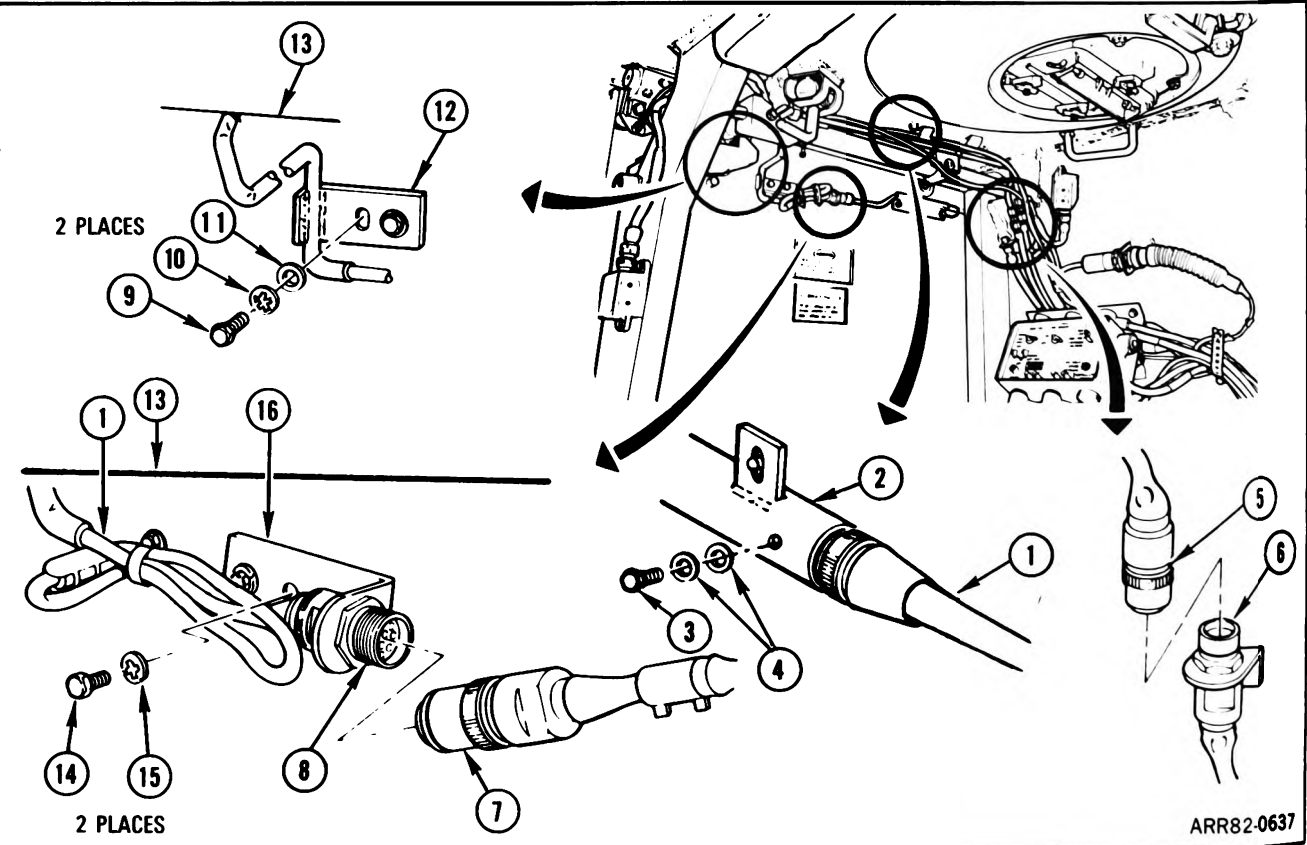
Remove Tube:

NOTE

- Read para. 4-4, on removing connectors, before doing any work.
- If harness 1W111 (1) is being taken out with metallic guide tube (2) for access, skip step 1.

- Soldier A:** 1. Unscrew and take out screw (3) and two washers (4) from tube (2) with socket, extension, and handle.
- Soldier A:** 2. Unscrew and take off harness connector 1W111 P1 (5) from harness connector 1W106 J1 (6). Unscrew and take off door safety switch connector P1 (7) from harness connector 1W111 J1 (8).
- Soldier A:** 3. Unscrew and take out two screws (9), lockwashers (10), and washers (11) from harness bracket (12) and ready door (13) with socket, extension, and handle. Get rid of lockwashers (10).
- Soldier A:** 4. Unscrew and take out two screws (14) and lockwashers (15) from bracket (16) and sliding metal ready door (13) with wrench. Get rid of lockwashers (15).

GO TO FRAME 24



ARR82-0637

FRAME 24

Remove Tube (Continued):

Soldier B: 1. Hold tube (1).

Soldier A: 2. Unscrew and take out two screws (2), three washers (3) and two nuts (4) from brackets (5, 6) with socket, extension, handle, and wrench.

NOTE

If harness 1W111 (7) is being taken out with tube (1) for access, skip step 3.

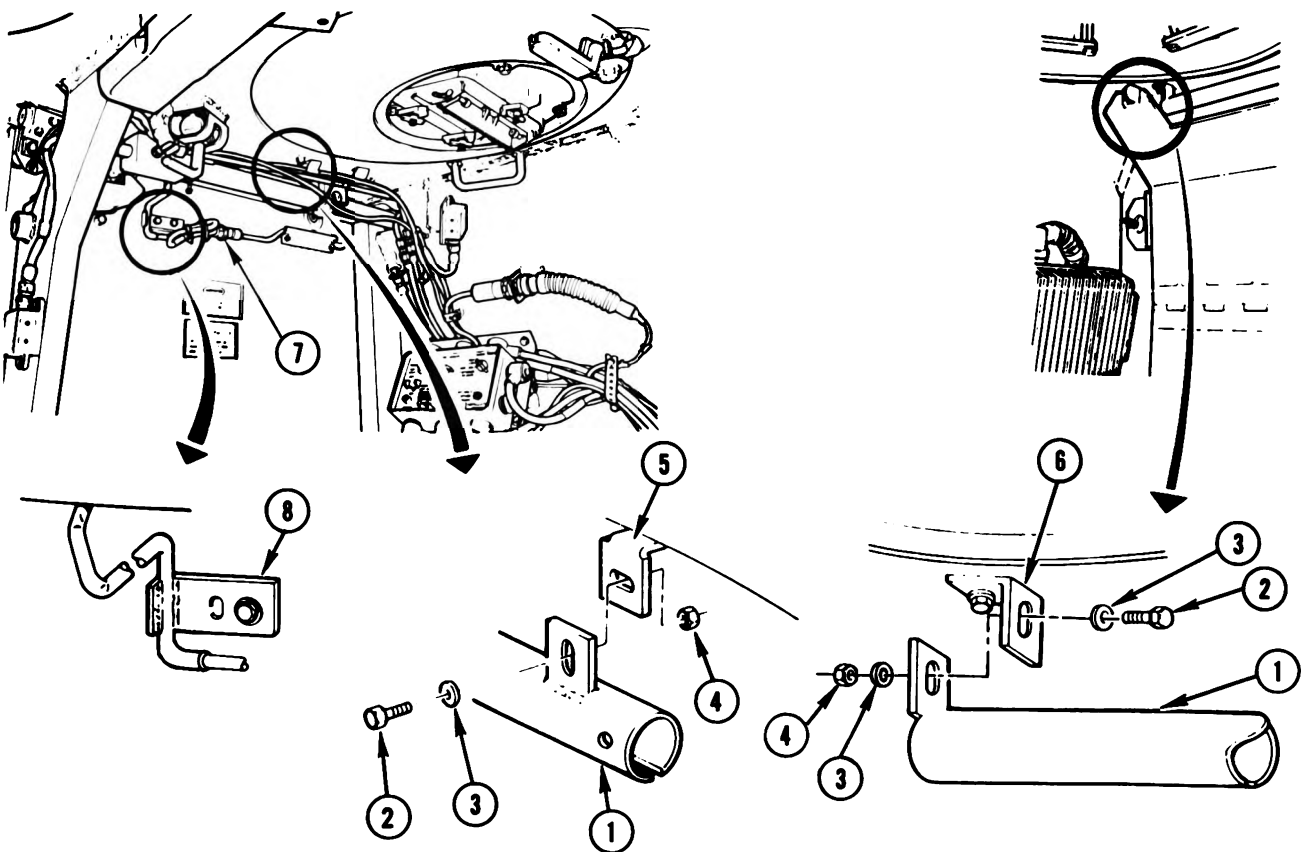
Soldier A: 3. Slide harness bracket (8) from left to right. Take out harness 1W111 (7) from tube (1).

Soldier A: 4. Look at all parts for cracks or breaks. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install metallic guide tube, refer to task 9.

TASK 6 ENDS HERE



ARR82-0638

TASK 7. Remove Ammo Door Hydraulic Actuator, Clips, Brackets, and Clamps

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Hammer, ball peen
Handle, socket wrench, ratchet, 3/8-inch square drive
Punch, drive pin, 1/4-inch
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Vise, machinist's
Wrench, combination, 5/16-inch (two required)
Wrench, combination, 7/16-inch
Wrench, combination, 9/16-inch
Wrench, combination, 11/16-inch (two required)

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Protective caps and plugs (Bulk)
Rag, wiping (Item 45)

Personnel: Two

Soldier A: Removes ammo door hydraulic actuator, brackets, and clamps.
Soldier B: Helps Soldier A.

NOTE

Soldier B is only needed in frames 25 and 27.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Set sliding metal ready door for manual operation; refer to TM 9-2350-255-10.
2. Open sliding metal ready door; refer to TM 9-2350-255-10.
3. Remove metallic guide tube; refer to task 6.

FRAME 25

Depressurize Sliding Metal Door Hydraulic System:

WARNING

Sliding metal ready door (1) is heavy and can injure you. Keep away from door (1) during depressurizing procedure to avoid injury.

Soldier A: 1. Set VEHICLE MASTER POWER switch (2) on commander's panel (3) to ON.

Soldier A: 2. Set TURRET POWER switch (4) on commander's panel (3) to ON.

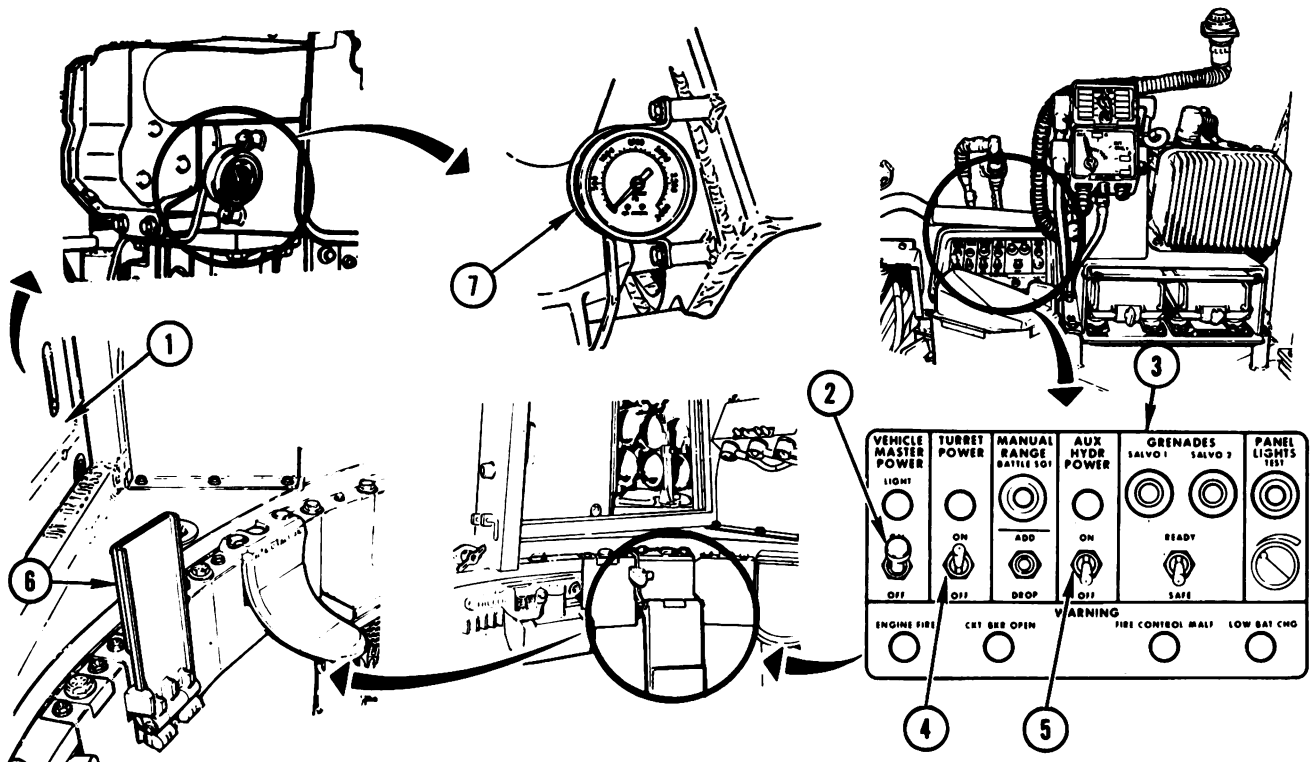
Soldier A: 3. Set AUX HYDR POWER switch (5) on commander's panel (3) to OFF.

Soldier B: 4. Press and release loader's knee switch (6) until dial pressure gage (7) reads zero.

Soldier A: 5. Set TURRET POWER switch (4) on commander's panel (3) to OFF.

Soldier A: 6. Set VEHICLE MASTER POWER switch (2) on commander's panel (3) to OFF.

GO TO FRAME 26



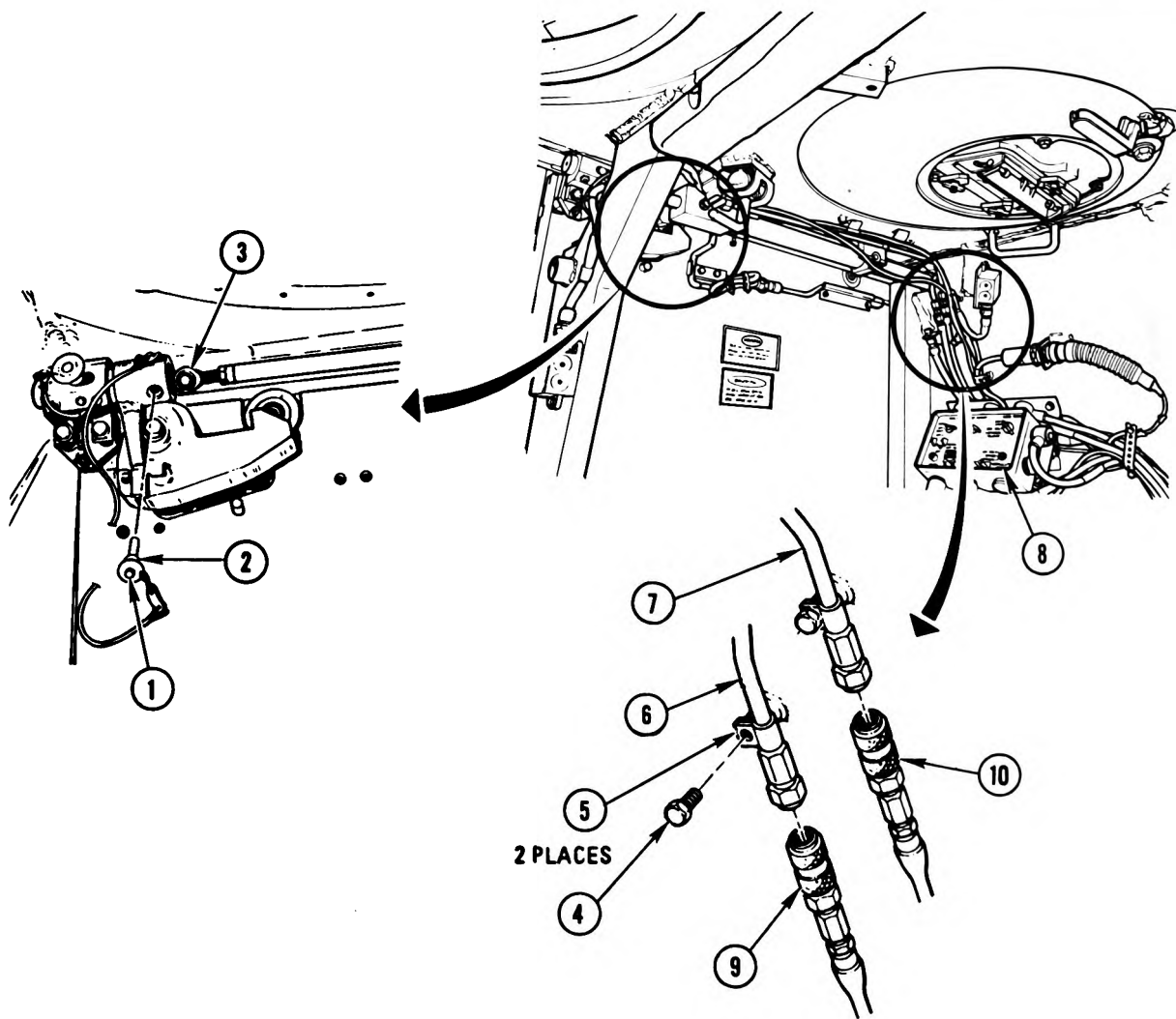
ARR82-0639

FRAME 26

Remove Actuator, Brackets, and Clamps:

1. Push in button (1) and pull out quick-release pin (2) from self-aligning rod end plain bearing (3).
2. Take out two screws (4) from loop clamps (5) with 7/16-inch socket, extension, and handle. Take clamps (5) off metal tube assemblies tubes (6, 7). Set clamps (5) aside for later use.
3. Cover audio amplifier (8) with rags.
4. Pull down and turn coupling assemblies (9, 10) counterclockwise and take couplings (9, 10) off tubes (6, 7).

GO TO FRAME 27



ARR82-0640

FRAME 27

Remove Actuator, Brackets, and Clamps (Continued):

Soldier B: 1. Hold ammo door hydraulic actuator (1).

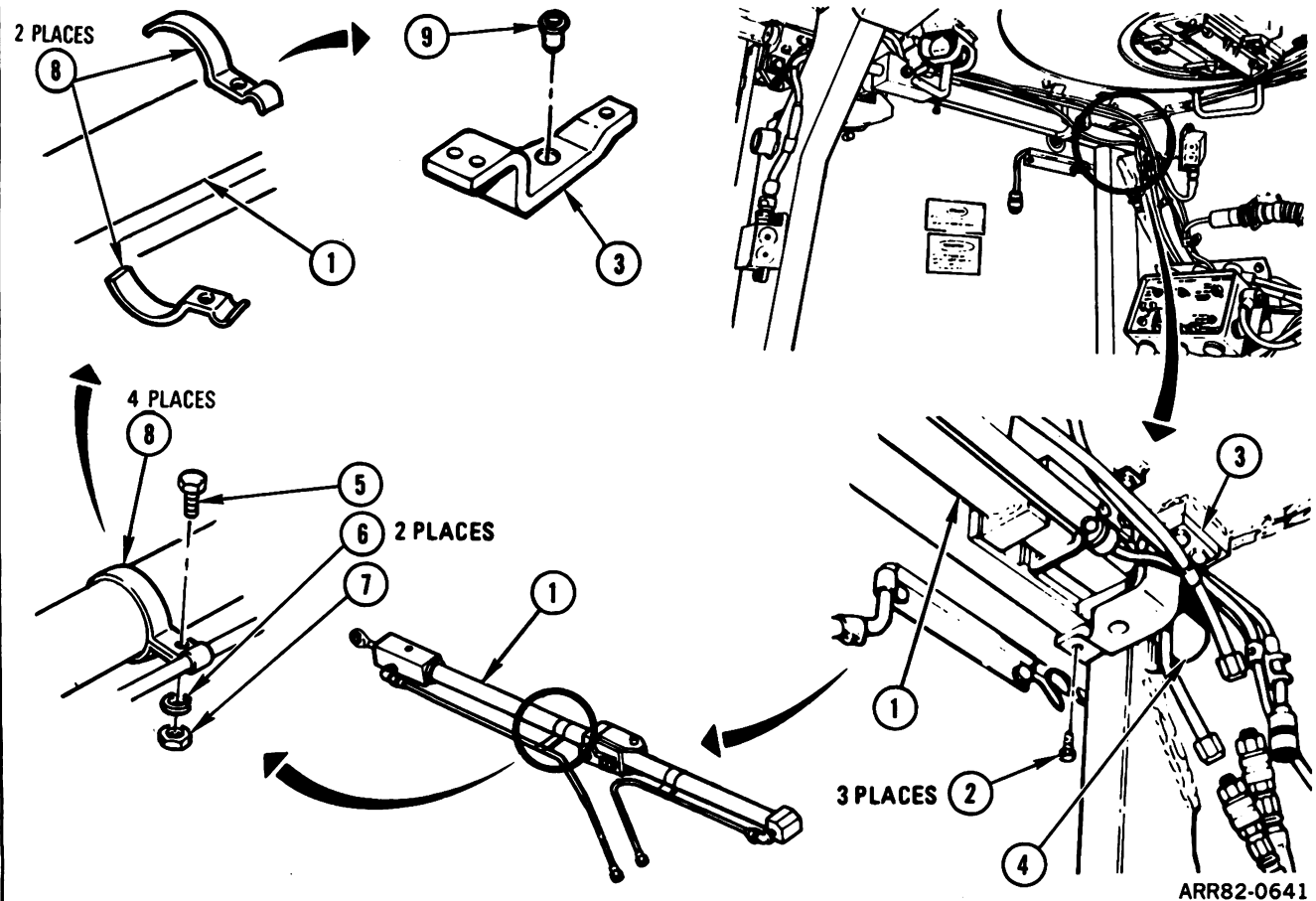
Soldier A: 2. Unscrew and take out three screws (2) from bracket (3) with 9/16-inch socket, extension, and handle. Take off bracket (3).

Soldier A,
Soldier B: 3. Pull actuator (1) out of bulkhead opening (4). Lower actuator (1) and place it on clean work surface. If actuator (1) was taken out for access only, TASK 7 ENDS HERE.

Soldier A: 4. Unscrew and take out two screws (5), lockwashers (6), and nuts (7) from four clamps (8) with two 5/16-inch wrenches. Take clamps (8) off actuator (1). Get rid of lockwashers (6).

Soldier A: 5. Look at bracket (3) and clamps (8) for cracks or breaks. Turn in bad parts. Set good parts aside for later use. Look at bushing (9) in bracket (3) for cracks or wear. If bad, put bracket (3) in vise and drive out bushing (9) with punch and hammer. Turn in bushing (9). If OK set aside for later use.

GO TO FRAME 28



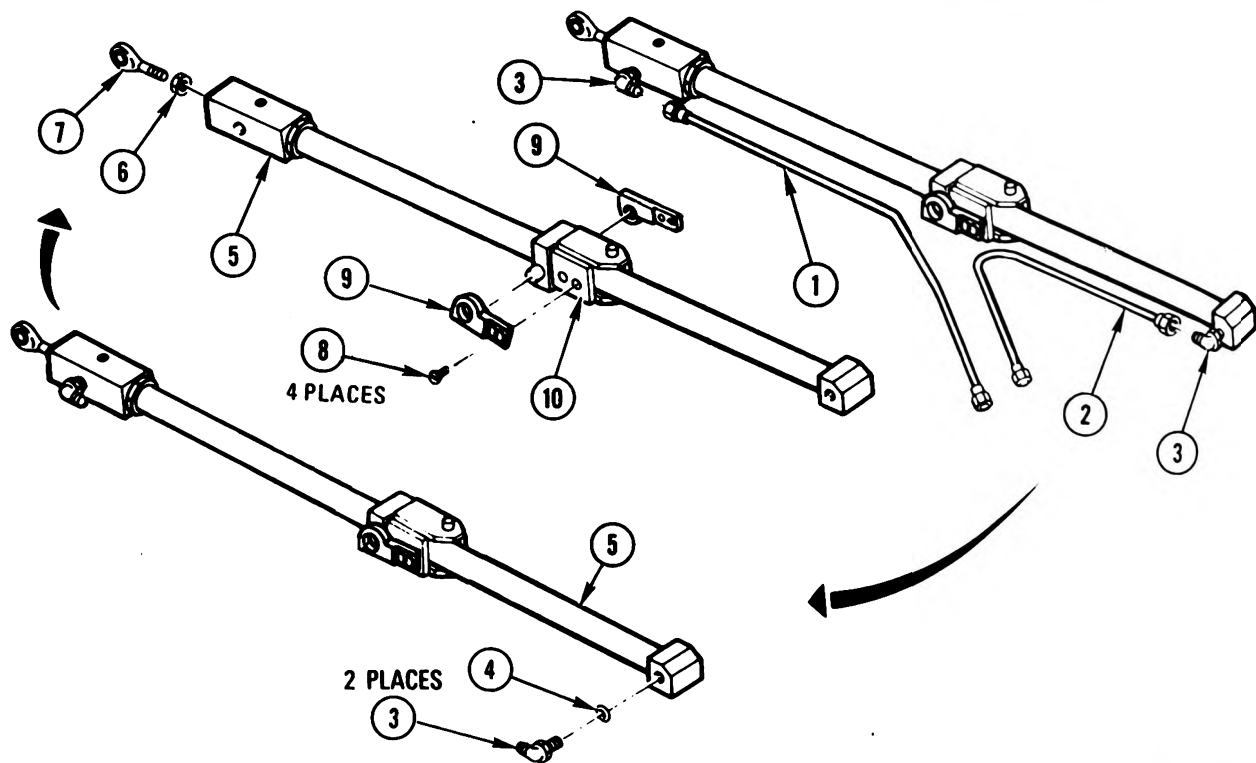
FRAME 28**Remove Actuator, Brackets, and Clamps (Continued):**

1. Unscrew and take off two tubes (1, 2) from elbows (3) with two 11/16-inch wrenches.
2. Unscrew and take off elbows (3) and packings (4) from hydraulic actuator (5) with 11/16-inch wrench. Get rid of packings (4).
3. Loosen nut (6) with 9/16-inch wrench. Unscrew and take out bearing (7) from actuator (5) with 7/16-inch wrench.
4. Unscrew and take off nut (6) from bearing (7) with 9/16-inch and 7/16-inch wrenches.
5. Unscrew and take out four screws (8) from two bracket assemblies (9) with 9/16-inch socket and handle. Take off two bracket assemblies (9) from actuator (5).
6. Slide bracket (10) off actuator (5).
7. Look at all parts for cracks, breaks, or stripped threads. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install ammo door hydraulic actuator, brackets, clips, and clamps, refer to task 8.

TASK 7 ENDS HERE



ARR82-0642

TASK 8. Install Ammo Door Hydraulic Actuator, Clips, Brackets, and Clamps**Applicability:** All Models**Common Tools:**

Extension, socket wrench, 3/8-inch square drive, 5-inch
 Gage, thickness
 Hammer, ball peen
 Handle, socket wrench, ratchet, 3/8-inch square drive
 Socket, socket wrench, 3/8-inch square drive, 7/16-inch
 Socket, socket wrench, 3/8-inch square drive, 9/16-inch
 Wrench, combination, 5/16-inch (two required)
 Wrench, combination, 7/16-inch
 Wrench, combination, 9/16-inch
 Wrench, combination, 11/16-inch (two required)
 Wrench, torque, 0 to 600 inch-pounds

Special Tools: None**Supplies:**

Lockwasher (96906) MS35338-155 (two required)
 Packing, preformed (81349) M83248/1-906 (two required)

Personnel: Two

Soldier A: Installs ammo door hydraulic actuator, brackets, and clamps.
 Soldier B: Helps Soldier A.

NOTE

Soldier B is only needed in frame 30.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove ammo door hydraulic actuator, clips brackets and clamps; refer to task 7.

FRAME 29

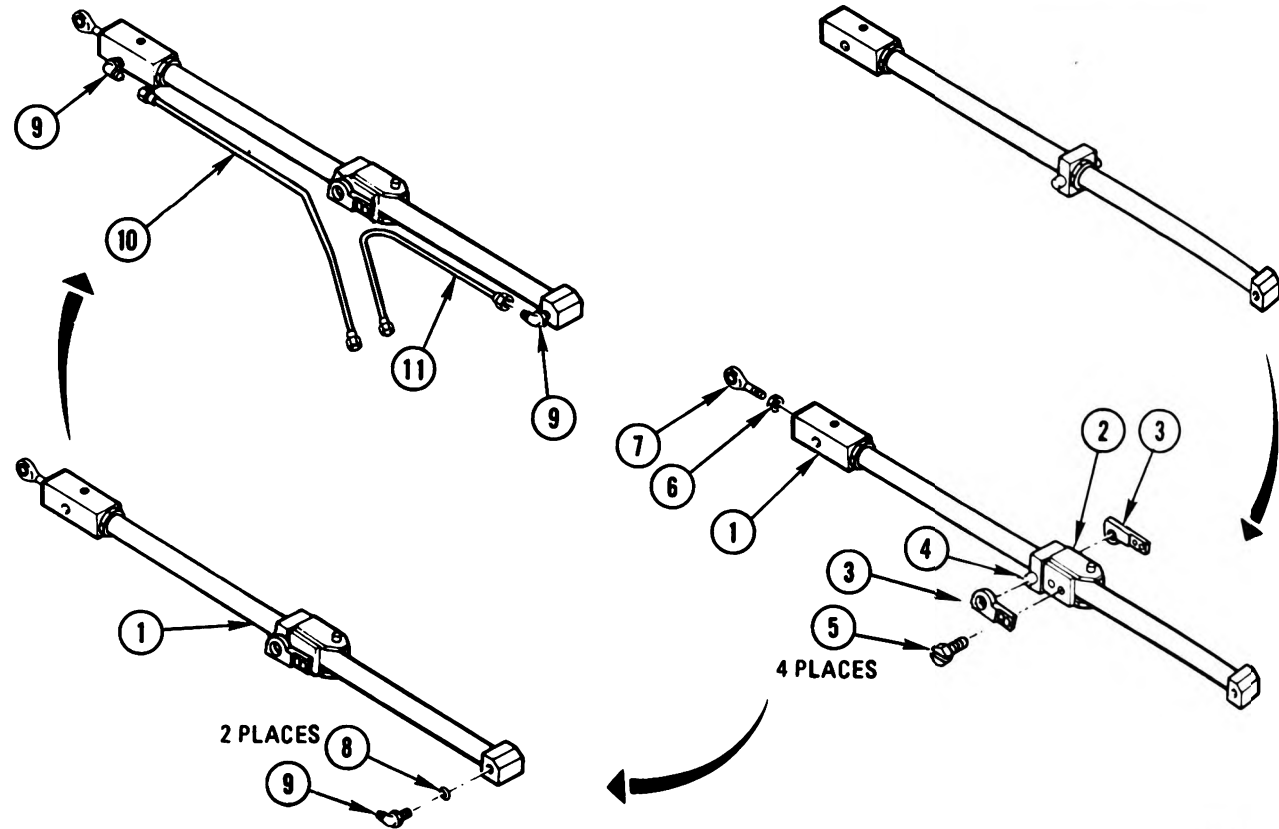
Install Actuator, Brackets, and Clamps:

NOTE

If ammo door hydraulic actuator (1) was taken out for access only, skip this frame and go to frame 30, step 4.

- Slide bracket (2) on new actuator (1).
- Put two bracket assemblies (3) on two posts (4). Line up holes in bracket assemblies (3) with holes in bracket (2). Screw in and tighten four screws (5) with 9/16-inch socket and handle. Torque screws (5) between 360 and 395 pound inches (41 and 45 Newton meters).
- Screw nut (6) on self-aligning rod end plain bearing (7) with 9/16-inch and 7/16-inch wrenches. Screw bearing (7) on actuator (1) with 7/16-inch wrench. Be sure bearing (7) is fully retracted.
- Put two new packings (8) on elbows (9). Screw in and tighten elbows (9) to actuator (1) with 11/16-inch wrench.
- Screw two metal tube assemblies (10, 11) on elbows (9) with two 11/16-inch wrenches.

GO TO FRAME 30



ARR82-0643

FRAME 30

Install Actuator, Brackets, and Clamps (Continued):

Soldier A: 1. Put four clamps (1) on actuator (2) and two tubes (3, 4).

Soldier A: 2. Screw in and tighten two screws (5), new lockwashers (6), and nuts (7) on clamps (1) with two 5/16-inch wrenches.

NOTE

If sleeve bushing (8) was taken out, do step 3. If not, skip step 3 and go to step 4.

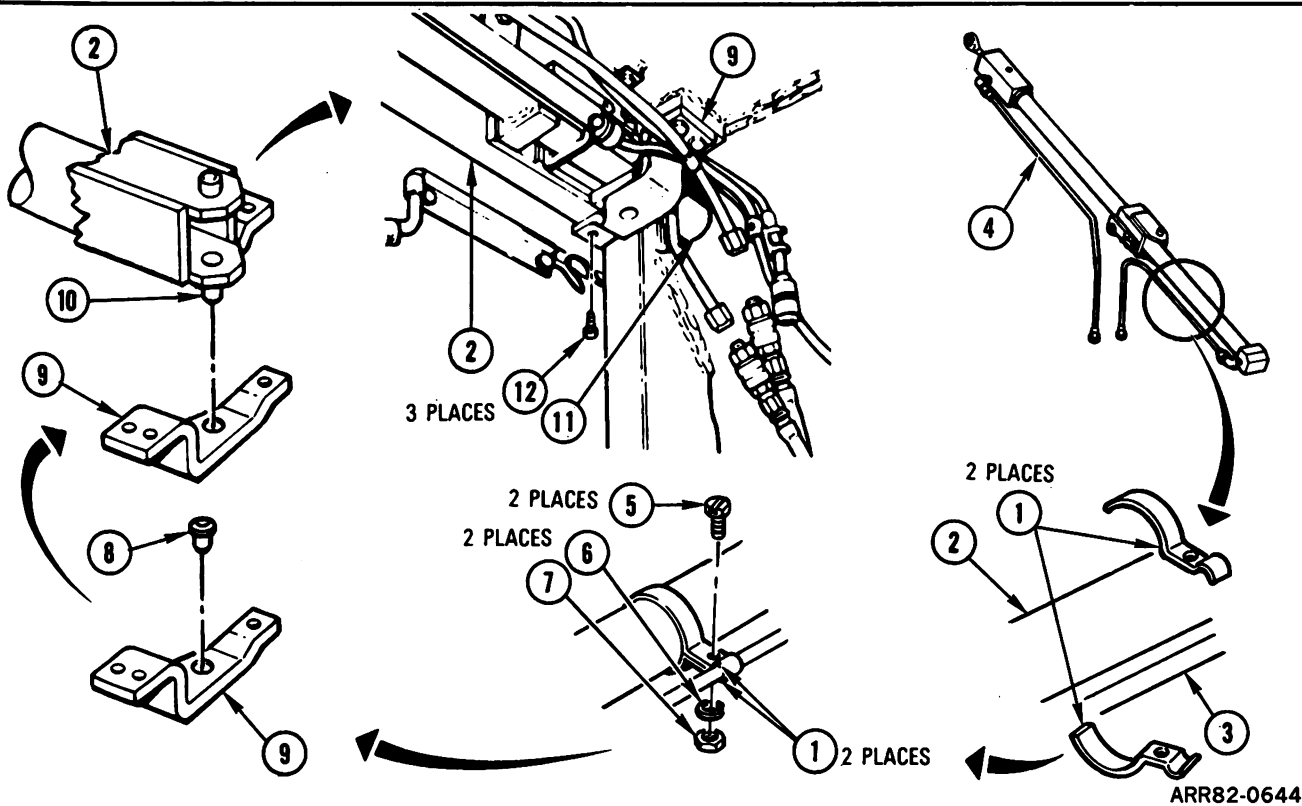
Soldier A: 3. Put bracket (9) on clean flat surface. Drive in new sleeve bushing (8) in bracket (9) with hammer.

Soldier A: 4. Put bracket (9) on trunnion pin (10) of actuator (2). Put actuator (2) in bulkhead opening (11) and against turret roof.

Soldier B: 5. Hold actuator (2) in place.

Soldier A: 6. Line up holes in bracket (9) with holes in turret roof. Screw in three screws (12) with 9/16-inch socket, extension, and handle. Torque screws (12) between 360 and 395 pound inches (41 and 45 Newton meters).

GO TO FRAME 31



FRAME 31

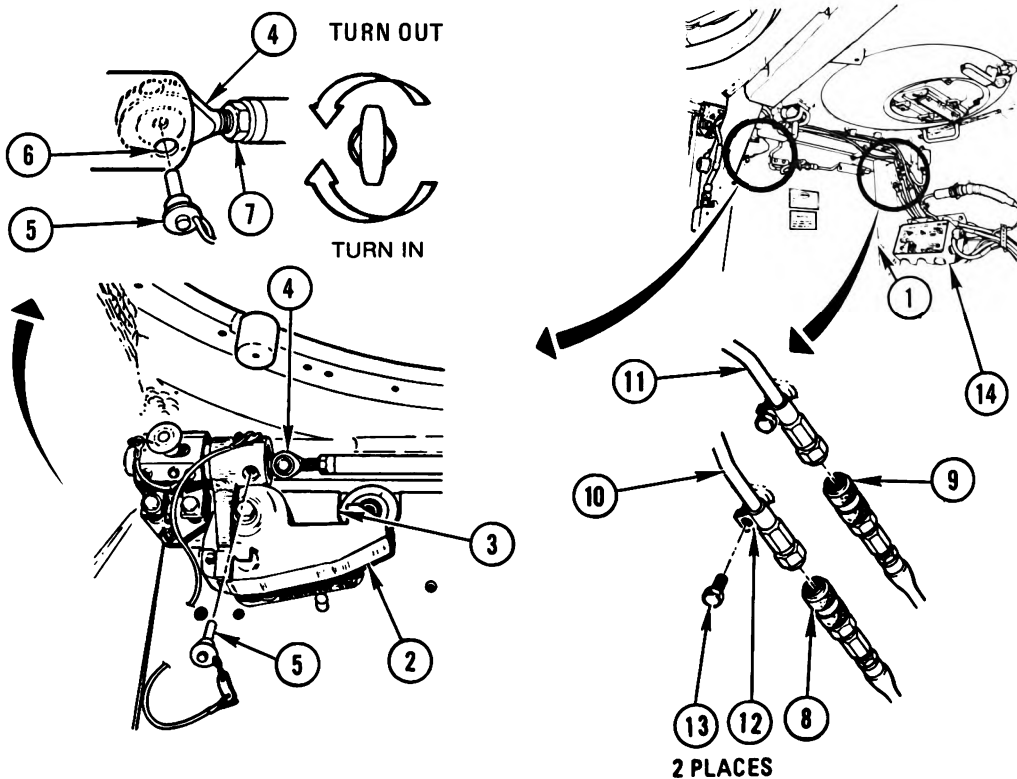
Install Actuator, Brackets, and Clamps (Continued):

1. Manually close sliding metal ready door (1); refer to TM 9-2350-255-10.
2. Measure distance between hook (2) and block (3) with gage. If gap is not between 0.03 and 0.09 inches, adjust ready ammunition door closed position; refer to para. 3-11, task 31.
3. Turn bearing (4) in or out, so that hook and housing quick-release pin (5) can fit through rod end bearing (6). Put quick-release pin (5) in bearing (6) and tighten nut (7) and bearing (4) with 9/16-inch and 7/16-inch wrenches.
4. Screw on coupling assemblies (8, 9) to metal tube assemblies (10, 11). Make sure connections are firmly seated and tight.
5. Put two loop clamps (12) on tubes (10, 11). Put two screws (13) through clamps (12). Screw in screws (13) with 7/16-inch socket, extension, and handle. Torque screws (13) between 95 and 105 pound inches (11 and 12 Newton meters).
6. Take rags off audio amplifier (14).

Follow-on Maintenance:

Install metallic guide tube; refer to task 9.

TASK 8 ENDS HERE



ARR82-0645

TASK 9. Install Metallic Guide Tube**Applicability:** All Models**Common Tools:**

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Rule, machinist's, 6-inch
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, combination, 7/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None**Supplies:**

Lockwasher (96906) M535333-40 (four required)

Personnel: Two

Soldier A: Installs metallic guide tube.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove metallic guide tube; refer to task 6.

FRAME 32

Install Tube:

NOTE

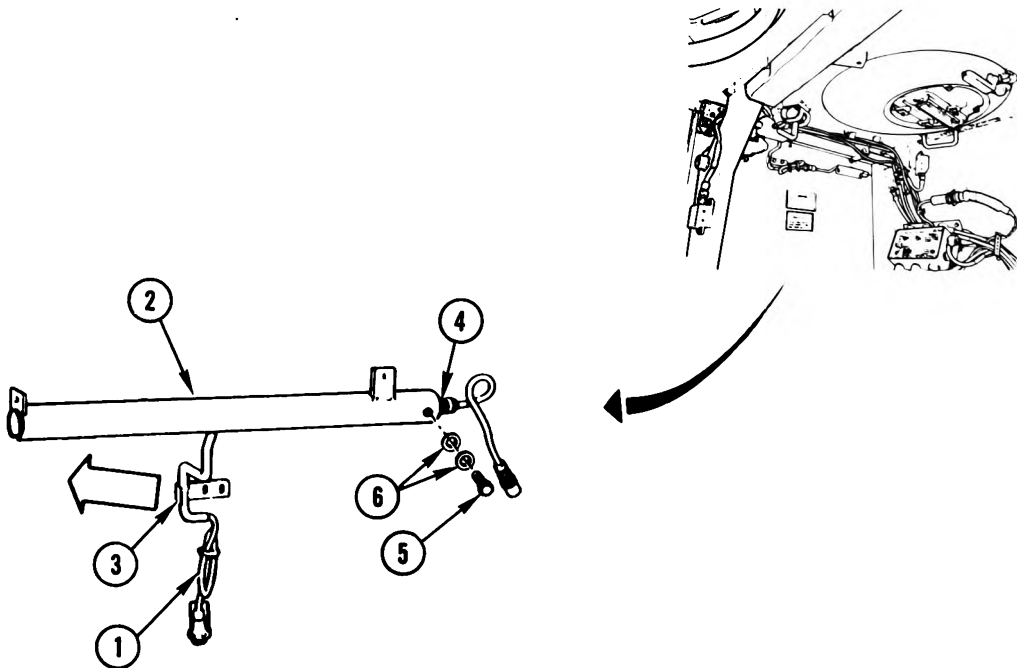
- Read para. 4-4, on installing connectors, before doing any work.
- If harness 1W111 (1) was taken out with metallic guide tube (2) for access, go to frame 33. Otherwise, begin with step 1.

Soldier B: 1. Hold tube (2).

Soldier A: 2. Feed coiled part of harness 1W111 (1) in right end of tube (2) by sliding harness bracket (3) from right to left.

Soldier A: 3. Line up hole in tube (2) with hole in plug (4). Screw in and tighten screw (5) and two washers (6) with socket, extension, and handle.

GO TO FRAME 33



ARR82-0646

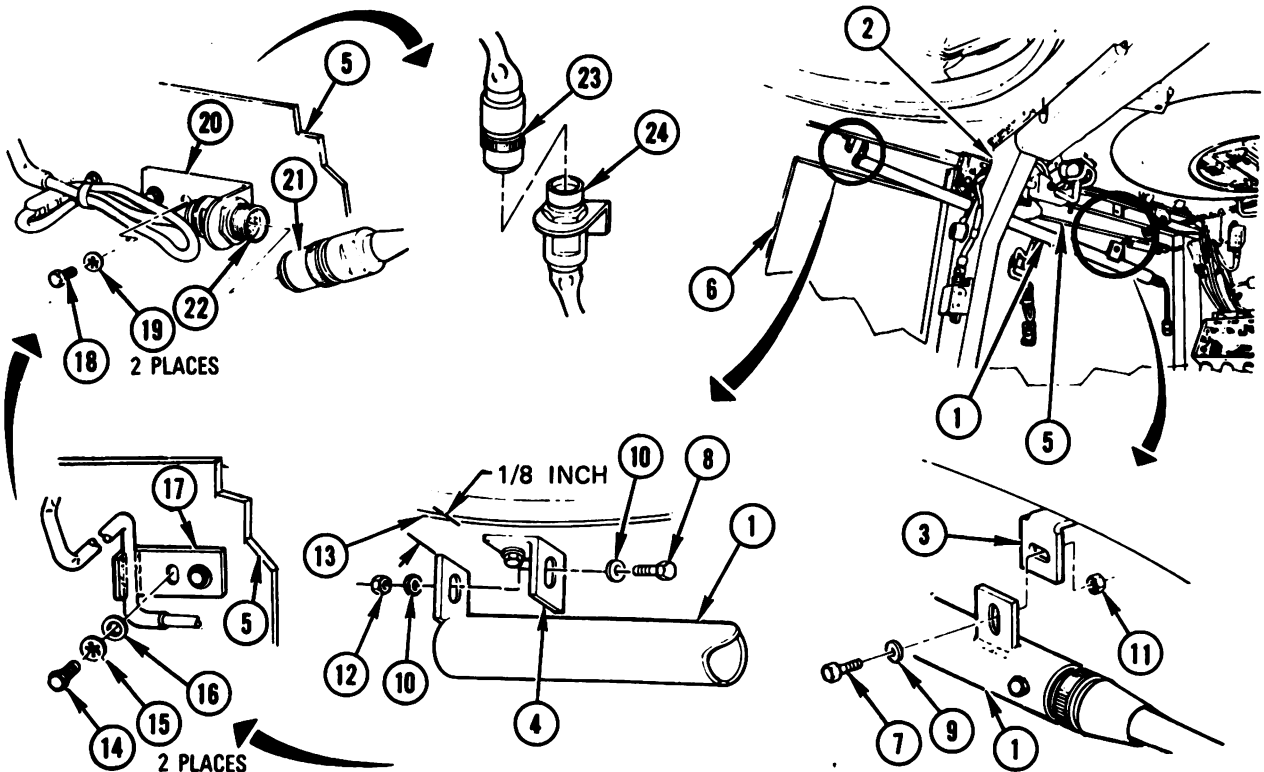
FRAME 33

Install Tube (Continued):

- Soldier B:** 1. Put tube (1) through support (2). Hold tube (1) in place against two brackets (3, 4) with bottom of tube (1) just above top of sliding metal ready door (5) and sliding metal stowage door (6). Screw in screws (7, 8), washers (9, 10), and nuts (11, 12) on brackets (3, 4).
- Soldier A:** 2. Measure at least 1/8-inch between tube (1) and commander's weapon station handring (13) with rule. Torque screws (7, 8) between 95 and 105 pound inches (11 and 12 Newton meters) with socket, extension, and wrenches.
- Soldier A:** 3. Screw in and tighten two screws (14), new lockwashers (15), washers (16), and harness bracket (17) on ready door (5) with socket, extension, and handle. Screw in and tighten two screws (18), new lockwashers (19), and bracket (20) on ready door (5) with 7/16-inch wrench.
- Soldier A:** 4. Screw on and tighten door safety switch connector P1 (21) to harness connector 1W111 J1 (22). Screw on and tighten harness connector 1W111 P1 (23) to harness connector 106 J1 (24).

Follow-on Maintenance: None

TASK 9 ENDS HERE



ARR82-0647

TASK 10. Bleed Air From Ammo Door Hydraulic Actuator

Applicability: All Models

Common Tools:

- Goggles, industrial
- Wrench, combination, 5/8-inch
- Wrench, combination, 7/8-inch
- Wrench, combination, 11/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Rag, wiping (Item 45)

Personnel: Two

Soldier A: Bleeds ammo door hydraulic actuator.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Reduce system hydraulic pressure to zero; refer to para. 4-4.

FRAME 34

Bleed Ammunition Ready Door Cylinder and Tubes:

WARNING

Sliding metal ready door (1) is heavy and can injure you. Keep away from door (1) during bleeding procedure to avoid injury.

Soldier A: 1. Cover audio amplifier (2) with rags. Put rags under actuator (3).

Soldier B: 2. Set VEHICLE MASTER POWER switch (4), TURRET POWER switch (5), and AUX HYDR POWER switch (6) on commander's control panel (7) to ON.

WARNING

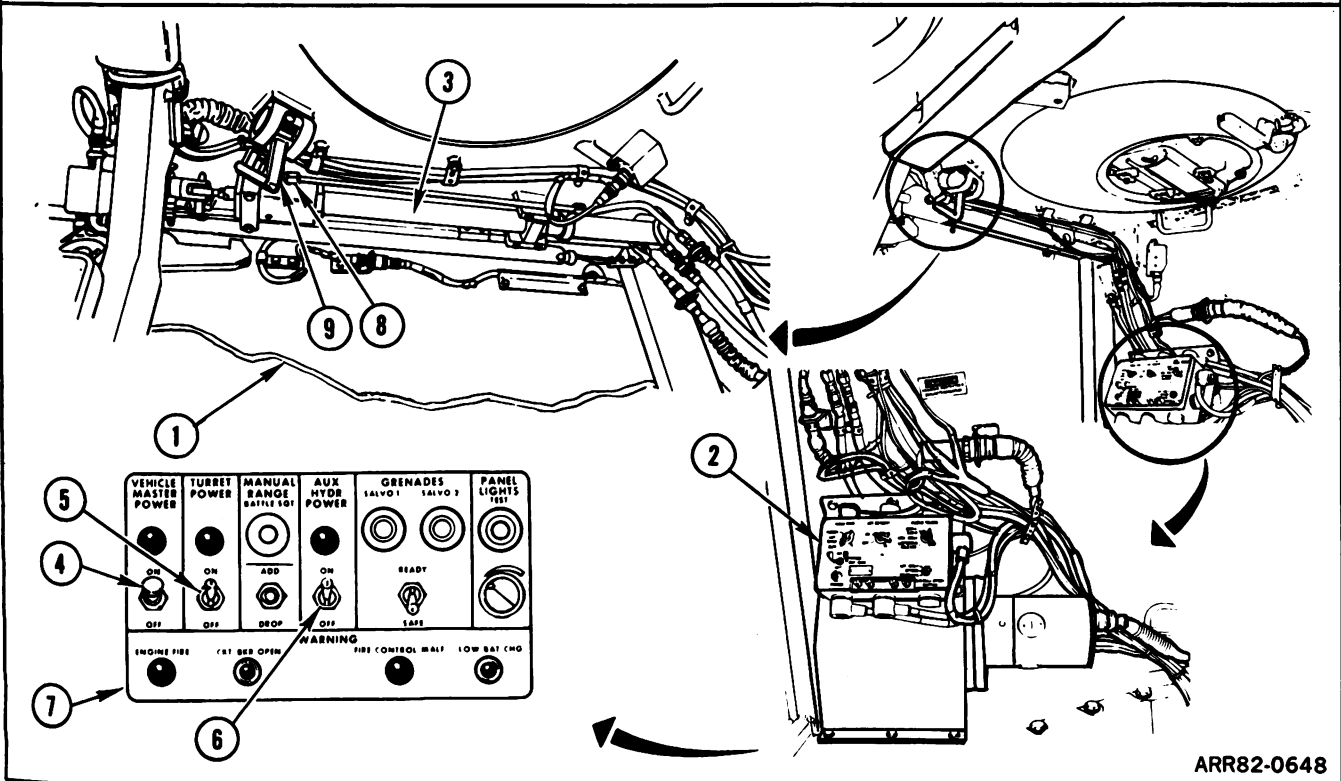
Hydraulic fluid under pressure can get in eyes and cause serious eye injury. Wear goggles and make sure system hydraulic pressure is reduced to zero.

NOTE

Hydraulic fluid with air in it will look foamy. Hydraulic fluid without air will look clear.

Soldier A: 3. Loosen nut (8) from elbow (9) with 5/8-inch and 11/16-inch wrenches. Tighten nut (8) when fluid coming out of elbow (9) is clear.

GO TO FRAME 35



ARR82-0648

FRAME 35

Ready Door Cylinder and Tubes (Continued):

Operator B: 1. Cycle door (1) four times with loader's knee switch (2); refer to TM 9-2350-255-10.

Operator A: 2. Loosen fitting (3) slowly with 7/8-inch and 11/16-inch wrenches. When fluid flows clear from fitting (3), tighten fitting (3) with 7/8-inch and 11/16-inch wrenches.

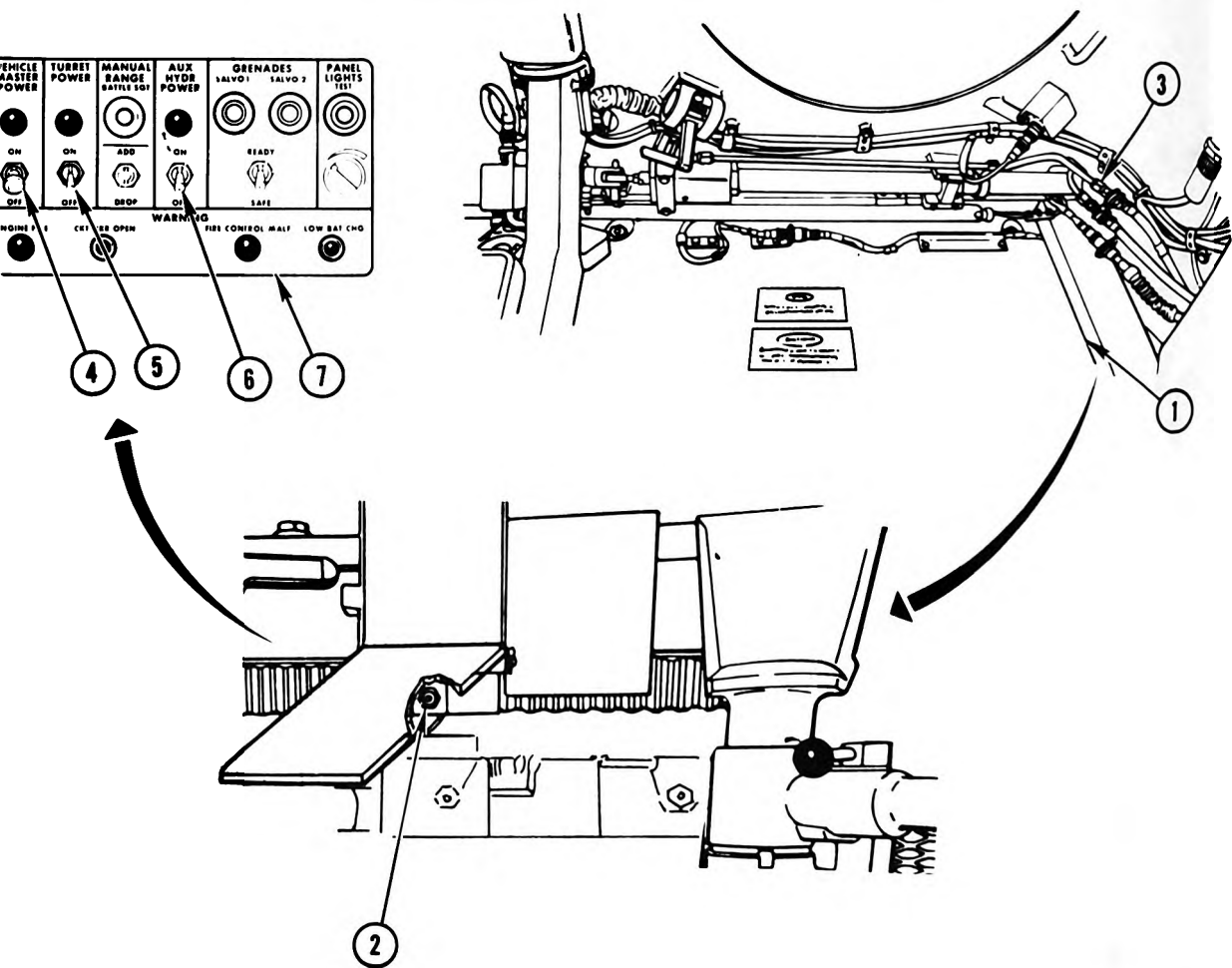
Operator B: 3. Set VEHICLE MASTER POWER switch (4), TURRET POWER switch (5), and AUX HYDR POWER switch (6) on commander's control panel (7) to OFF.

Operator A: 4. Wipe up excess hydraulic fluid with rags. Take rags off parts.

Follow-on Maintenance:

Fill hydraulic reservoir; refer to LO 9-2350-255-12.

TASK 10 ENDS HERE



ARR82-0649

TASK 11. Replace Dial Pressure Gage

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, adjustable, 8-inch
Wrench, combination, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Gage, pressure, dial (19207) 12273261
Protective caps and plugs (Bulk)
Rag, wiping (Item 45)
Tape, antiseizing MIL-T-27730 (Item 55)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Reduce system hydraulic pressure to zero; refer to para. 4-4.

FRAME 36

Remove Gage:

NOTE

Read para. 4-4 before doing any work.

1. Unscrew and take off metal tube assembly (1) from elbow (2) with 9/16-inch wrench.
2. Unscrew and take out two screws (3) and washers (4) from mounting bracket (5) with socket, extension, and handle.
3. Unscrew and take off elbow (2) from dial pressure gage (6) with adjustable wrench. Turn in gage (6).
4. Look at tube assembly (1) and elbow (2) for stripped or cracked threads. Turn in bad parts. Set good parts aside for later use.

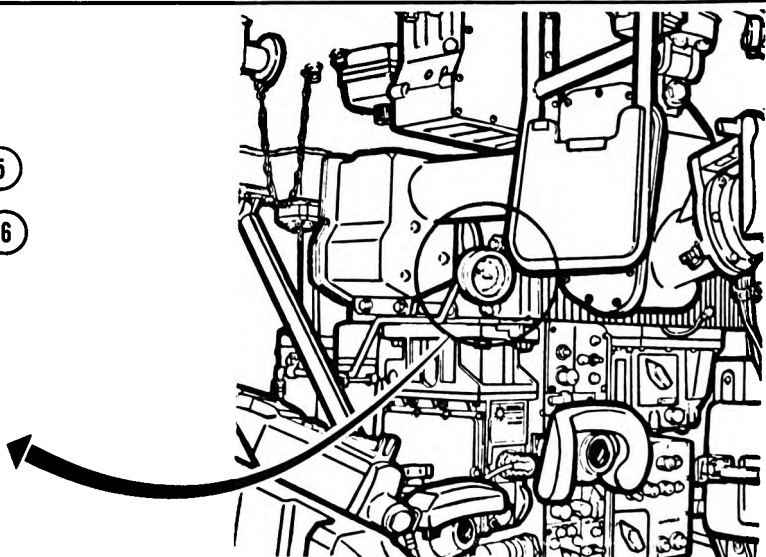
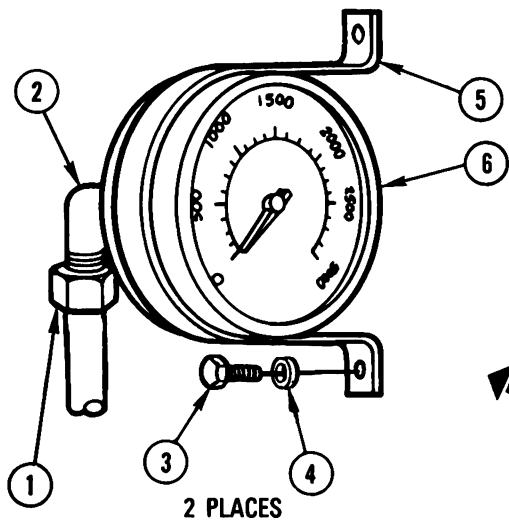
Install Gage:

5. Put antiseizing tape on threads of elbow (2). Screw in and tighten elbow (2) to new dial pressure gage (6) with adjustable wrench. Hold gage (6) in place in mounting bracket (5).
6. Screw in two screws (3) and washers (4) in bracket (5) with socket, extension, and handle. Torque screws (3) between 95 and 120 pound inches (11 and 14 Newton meters).
7. Screw in and tighten metal tube assembly (1) to elbow (2) with 9/16-inch wrench.

Follow-on Maintenance:

1. Bleed air from dial pressure gage; refer to task 12.
2. Fill hydraulic reservoir; refer to LO 9-2350-255-12.

TASK 11 ENDS HERE



ARR82-0650

TASK 12. Bleed Air From Dial Pressure Gage

Applicability: All Models

Common Tools:

Goggles, industrial
Wrench, combination, 9/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Rag, wiping (Item 45)

Personnel: Two

Soldier A: Bleeds air from dial pressure gage.
Soldier B: Helps Soldier A.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 37

Bleed Gage Line:

Soldier A: 1. Put rags under dial pressure gage (1).

Soldier B: 2. Set VEHICLE MASTER POWER switch (2), TURRET POWER switch (3), and AUX HYDR POWER switch (4) on commander's control panel (5) to ON.

WARNING

Hydraulic fluid under pressure can get in eyes and cause serious eye injury. Wear goggles to protect eyes.

NOTE

Hydraulic fluid with air in it will look foamy. Hydraulic fluid without air will look clear.

Soldier A: 3. Loosen metal tube assembly (6) with wrench until fluid comes out. Let fluid run out of tube assembly (6) until it is clear. Tighten tube assembly (6) with wrench.

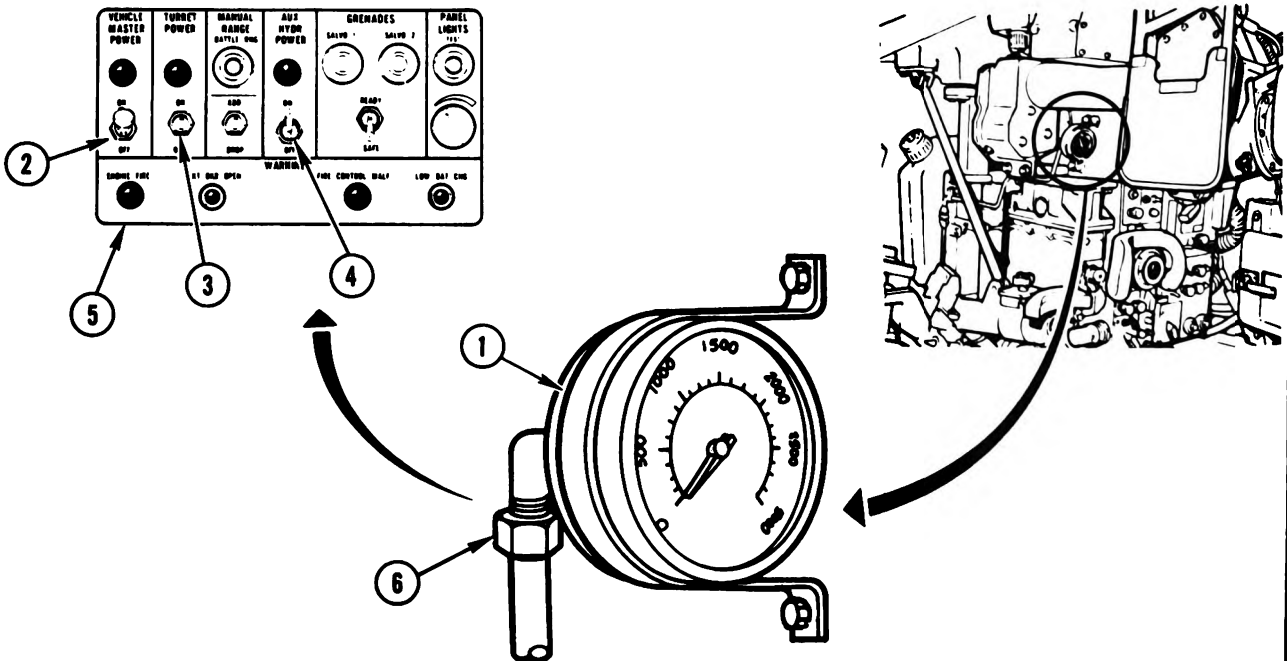
Soldier B: 4. Set AUX HYDR POWER switch (4), TURRET POWER switch (3), and VEHICLE MASTER POWER switch (2) on commander's control panel (5) to OFF.

Soldier A: 5. Wipe up all hydraulic fluid with rags.

Follow-on Maintenance:

Fill hydraulic reservoir; refer to LO 9-2350-255-12.

END OF TURRET HYDRAULICS MAINTENANCE



ARR82-0651

4-11. Traversing Mechanism

Task	Title	Frames
1	Adjust Traversing Mechanism Anti-backlash	1-3

TASK 1. Adjust Traversing Mechanism Anti-backlash

Applicability: All Models

Common Tools:

- Extension, socket wrench, 3/8-inch square drive, 5-inch Handle, socket wrench, ratchet, 3/8-inch square drive
- Socket, socket wrench, 3/8-inch square drive, 9/16-inch Universal Joint, socket wrench, 3/8-inch square drive

Special Tools: None

Supplies: None

Personnel: Two

- Soldier A: Adjusts traversing mechanism anti-backlash.
- Soldier B: Helps Soldier A from driver's station.

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Check azimuth gearbox anti-backlash; refer to TM 9-2350-255-20-2-1, para. 2-5.

FRAME 1

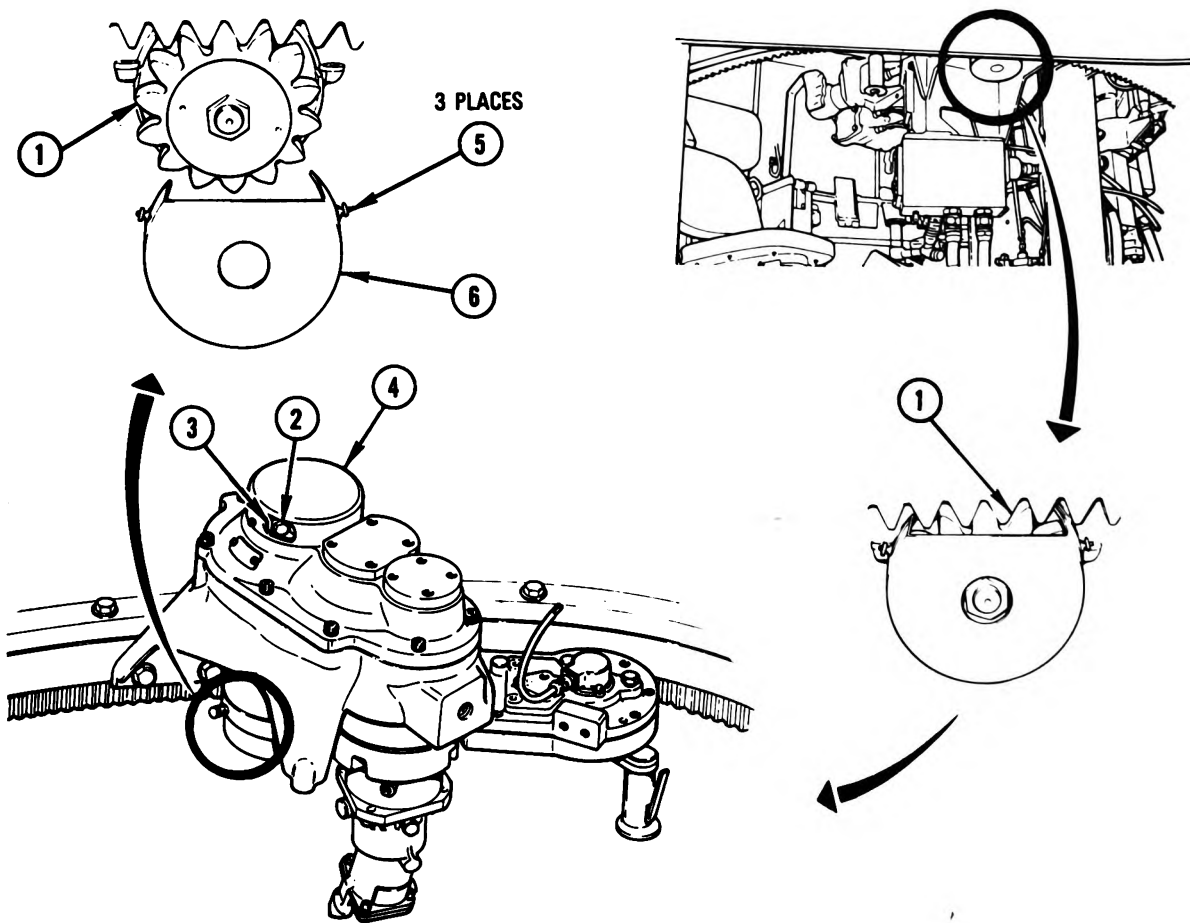
Adjust Anti-backlash:

Soldier A,
Soldier B: 1. Traverse turret until turret azimuth pinion gear (1) is seen from driver's station by Soldier B and the anti-backlash hex head adjusting screw (2) is seen by Soldier A in access hole (3) of cover (4); refer to TM 9-2350-255-10.

Soldier A: 2. Lock turret and put main gun in travel lock; refer to TM 9-2350-255-10.

Soldier B: 3. Loosen three knurled nuts (5) and remove cover (6) from azimuth drive pinion gear (1).

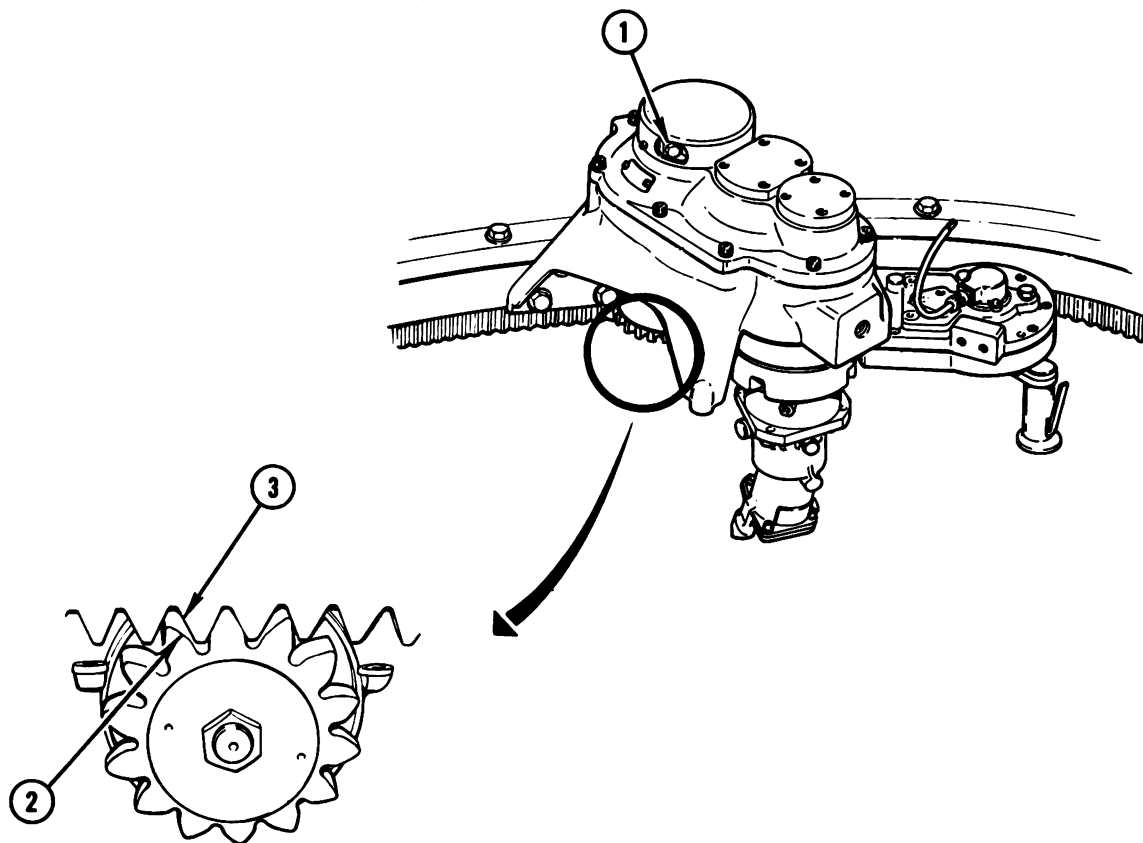
GO TO FRAME 2



ARR8 2-0228

FRAME 2**Adjust Anti-backlash (Continued):**

- Soldier A:** 1. Turn adjusting screw (1) counterclockwise with socket, extension, universal joint, and handle. Stop turning screw (1) when told by Soldier B.
- Soldier B:** 2. Tell Soldier A to stop turning screw (1) when pinion gear (2) has lost contact with turret ring gear (3).
- Soldier A:** 3. Turn screw (1) clockwise with socket, extension, universal joint, and handle.
- Soldier B:** 4. Tell Soldier A when pinion gear (2) contacts ring gear (3).
- Soldier A:** 5. Turn screw (1) clockwise another six to seven turns after contact is made.

GO TO FRAME 3

ARR82-0229

FRAME 3

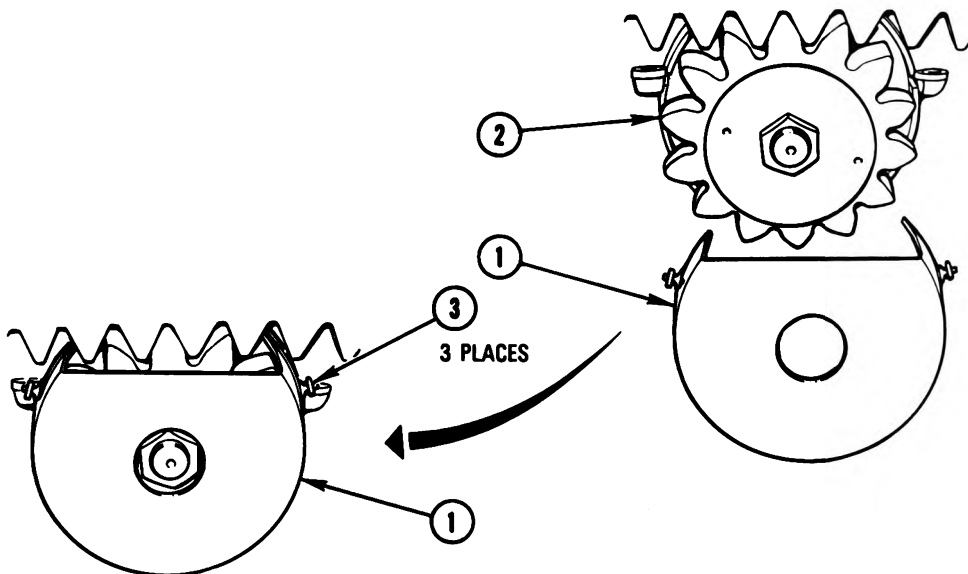
Adjust Anti-backlash (Continued):

Soldier A: 1. Manually traverse turret to make sure that turret movement is smooth and free of noise and then lock turret; refer to TM 9-2350-255-10.

Soldier B: 2. Put cover (1) over pinion gear (2) and tighten three knurled nuts (3).

Follow-on Maintenance: None

END OF TRAVERSING MECHANISM MAINTENANCE



ARR82-O230

CHAPTER 5

COMMUNICATION MAINTENANCE

5-1. General. This chapter tells you how to fix the M1 turret communications system. The chapter is divided into paragraphs and then into tasks. Each task explains how to take a part off the tank and then put it back on the tank.

5-2. Equipment Items Covered. Each paragraph, starting with paragraph 5-5, lists the tasks that take parts off or put them back on the tank. The equipment items covered in this chapter are listed in table 5-1 with their paragraphs and page numbers.

Table 5-1. Equipment Items Covered

Paragraph	Title	Page
5 - 5	Intercom Control Boxes: Commander's, Gunner's, and Loader's	5 - 5
5 - 6	Commander's Frequency Control Box	5 - 45
5 - 7	Receiver-Transmitter, Auxiliary Receiver, and Audio Amplifier	5 - 49
5 - 8	Audio Amplifier Bracket, Auxiliary Receiver Mount, Tray, Receiver-Transmitter Mount, Tray, and Radio Mount	5 - 63
5 - 9	Junction Boxes: Auxiliary Receiver and Receiver-Transmitter	5 - 91
5 -10	Antennas: Receiver-Transmitter and Auxiliary Receiver	5 - 99
5 -11	Security Units and Mounts	5 -111

5-3. Equipment Items Not Covered. None

5-4. General Maintenance Instructions. Follow these maintenance practices when working on communications equipment. Be sure to observe all warnings at the front of this manual.

CAUTION

Before putting on or taking off radio equipment, make sure VEHICLE MASTER POWER switch is set to OFF. Turn off POWER switches of receiver-transmitter and auxiliary receiver. Failure to do so may damage equipment.

a. Care of Equipment

- (1) Put covers on antennas and communication equipment when equipment is shut down during low temperature operation. This keeps ice and frost off equipment.

5-4. General Maintenance Instructions (Continued)

a. Care of Equipment (Continued)

- (2) Keep equipment wiped clean in desert and dusty conditions.
- (3) Wipe up any wet or damp places. Take steps to keep water out of turret.

b. Cleaning Electrical Components

WARNING

Solvent can irritate skin and can give off harmful vapors. To avoid injury, keep solvent away from heat, wear protective clothing, and use in a well-ventilated area.

- (1) Clean off oil, grease, and dirt from cable harnesses, parts, and connectors, with solvent and brush or lint-free cloth. Be sure to clean dirt from connectors and cover clean parts with dust caps, plugs, or lint-free cloths.
- (2) Rub corrosion off connector contacts and other parts with a pencil eraser. Remove rust by scraping, wire brushing, or both. If rust damage is too great, or on small thin parts that would be weakened by rust, you may need to replace the part. Find the cause of the rust and correct the problem.

WARNING

- Cleaning compound can cause skin rash and can give off harmful vapors. To avoid injury, use in a well-ventilated area. Wash immediately with soap and water if compound gets on skin or clothing.
 - Compressed air used for cleaning purposes will not exceed 30 PSI. Use only with effective chip guarding and personal protective equipment (goggles/shield, gloves, etc).
- (3) Threaded holes in metal must be thoroughly clean when sealing compounds are used to lock screws in place. Take off old preservative or sealing compounds from threads with tap and tap wrench. Blow loose particles out of holes with compressed air, then clean threads with solvent cleaning compound MIL-C-81302 and brush. Let holes dry before putting in screws.
 - (4) Check intake cooling vents and screens and exhaust ducts for anything that will block the flow of air. Clean intake vents and screens to keep dirt from getting inside equipment.

c. Tagging Electrical Parts

- (1) Tag all harnesses, wires, and connectors for identification and location any time one is lifted out of position. Tagging saves time and helps avoid mistakes. Tag any parts before they are taken apart for repairs.
- (2) Remove tags after parts are put back together.

5-4. General Maintenance Instructions (Continued)

d. Replacing Electrical Wiring or Components

- (1) Always look carefully at equipment for likely signs of trouble while doing routine work. Tie down any harness that is free to move and rub against metal. If you look for possible troublespots and make repairs at once, you can cut down on repair time and extra work. Replace any harness or harness wires that have splits, tears, or worn spots. If troubleshooting isolates a bad harness, replace that harness.
- (2) Do not put a trouble light within 2 inches of a fire sensor. A trouble light too near a fire sensor can cause fire extinguishers to discharge.
- (3) Replace broken or torn instrument or gage lenses, rubber eye cups, headrests, and other parts.
- (4) Replace any damaged or crossthreaded screws and nuts. Check for torn or stretched gaskets and leaks.
- (5) Replace any burned out lamps or fuses. If you cannot replace a lamp or fuse right away, tag it and go back to it later.
- (6) Tighten all loose parts. Use correct torque values when tightening screws and nuts. Straighten bent parts where possible and check for cracks. Replace all missing parts.
- (7) Make sure that ground points in electrical system are kept clean, free of corrosion, and tight.
- (8) Check mountings, parts, and shafts for proper electrical connection and alignment.

e. Removing or Installing Connectors

- (1) If connectors cannot be removed by hand, use slip joint conduit style pliers with plastic jaw inserts to loosen them. Finish removal by hand. Straighten any bent contacts with long round nose pliers. When installing connectors on larger harnesses, another soldier will be needed to help align the mating ends of the cable. Make sure that contacts and keyways line up. Tighten twist-snap-type connectors until a click is heard. Tighten screw-on-type connectors until the ratchet noise is heard to indicate that connectors are tight.
- (2) Put a protective cap or cover over any electrical connector that is left uncovered. Cover connectors on any items being moved to or from the tank. Take off covers when connectors are put back.

5-4. General Maintenance Instructions (Continued)

e. Removing or Installing Connectors (Continued)

- (3) Look at connectors for broken, missing, or pushed in contacts before making any connections. If a connector is bad notify support maintenance.
- (4) Tighten connectors by hand whenever tools are not called out.

5-5. Intercom Control Boxes: Commander's, Gunner's, and Loader's

Task	Title	Frames
1	Remove Gunner's Footrest, Foot Sensitive Switch, and Switch Actuator Arm	1 - 2
2	Adjust Gunner's Foot Sensitive Switch	3 - 5
3	Install Gunner's Footrest, Foot Sensitive Switch, and Switch Actuator Arm	6 - 7
4	Replace Commander's Intercom Electrical Switch Assembly	8
5	Remove Commander's Intercom Control Box	9
6	Remove Commander's Intercom Control Box Bracket	10
7	Remove Commander's Intercom Control Box Bracket Mounting Plate	11
8	Install Commander's Intercom Control Box Bracket Mounting Plate	12
9	Install Commander's Intercom Control Box Bracket	13
10	Install Commander's Intercom Control Box	14
11	Remove Gunner's Intercom Control Box	15
12	Remove Gunner's Intercom Control Box Bracket	16
13	Install Gunner's Intercom Control Box Bracket	17
14	Install Gunner's Intercom Control Box	18
15	Remove Loader's Intercom Control Box	19
16	Remove Loader's Intercom Control Box Double Angle Bracket	20
17	Install Loader's Intercom Control Box	21
18	Install Loader's Intercom Control Box Double Angle Bracket	22

TASK 1. Remove Gunner's Footrest, Foot Sensitive Switch, and Switch Actuator Arm**Applicability:** All Models**Common Tools:**

- Extension, socket wrench, 3/8-inch square drive, 5-inch
- Hammer, ball peen
- Handle, socket wrench, ratchet, 3/8-inch square drive
- Pliers, slip joint
- Pliers, slip joint, conduit style, with plastic jaw inserts
- Punch, drive pin, 3/16-inch
- Socket, socket wrench, 3/8-inch square drive, 9/16-inch
- Wrench, combination, 7/16-inch
- Wrench, combination, 13/16-inch

Special Tools: None**Supplies:** None**Personnel:** One**Equipment Condition:**

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 1

Remove Footrest:

NOTE

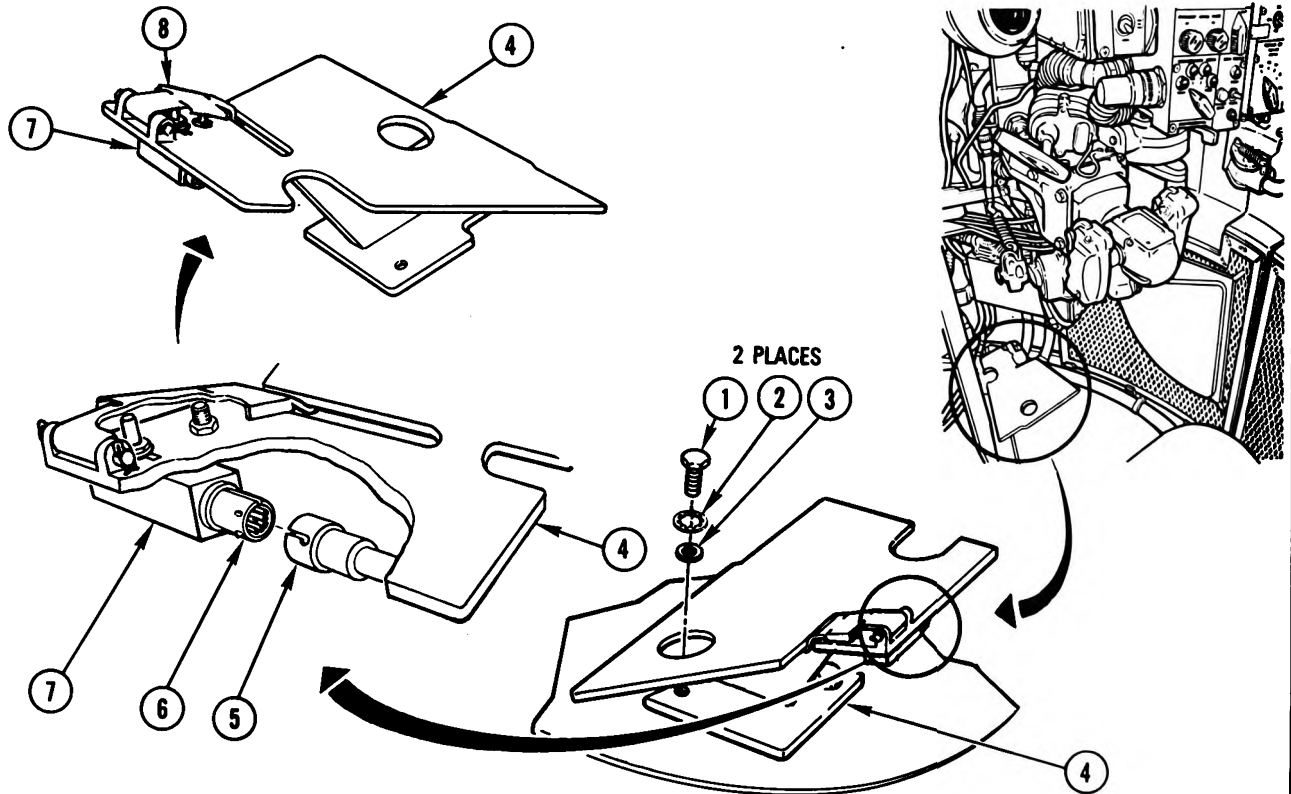
Read para. 5-4, on removing connectors, before doing any work.

1. Unscrew and take out two screws (1), lockwashers (2), and washers (3) from footrest (4) with 9/16-inch socket, extension, and handle. Get rid of lockwashers (2).
2. Lift up footrest (4). Reach under footrest (4) and unscrew and take off connector 1W323 (5) from connector (6) of foot sensitive switch (7) with conduit style pliers.
3. Put footrest (4), switch (7), and switch actuator arm (8) on clean work surface.

NOTE

If this task is being done only for access or to adjust gunner's switch, TASK 1 ENDS HERE.

GO TO FRAME 2



ARR82-1081

FRAME 2**Remove Switch Actuator Arm:**

1. Take out one of two cotter pins (1) from pin (2) with slip joint pliers. Get rid of cotter pin (1).
2. Drive out pin (2) from footrest (3) and arm (4) with hammer and punch. Take off arm (4).
3. Take out other cotter pin (1) from pin (2) with slip joint pliers. Get rid of cotter pin (1).
4. Look at pin (2) and arm (4) for cracks, bends, or dents. Turn in bad parts. Set good parts aside for later use.

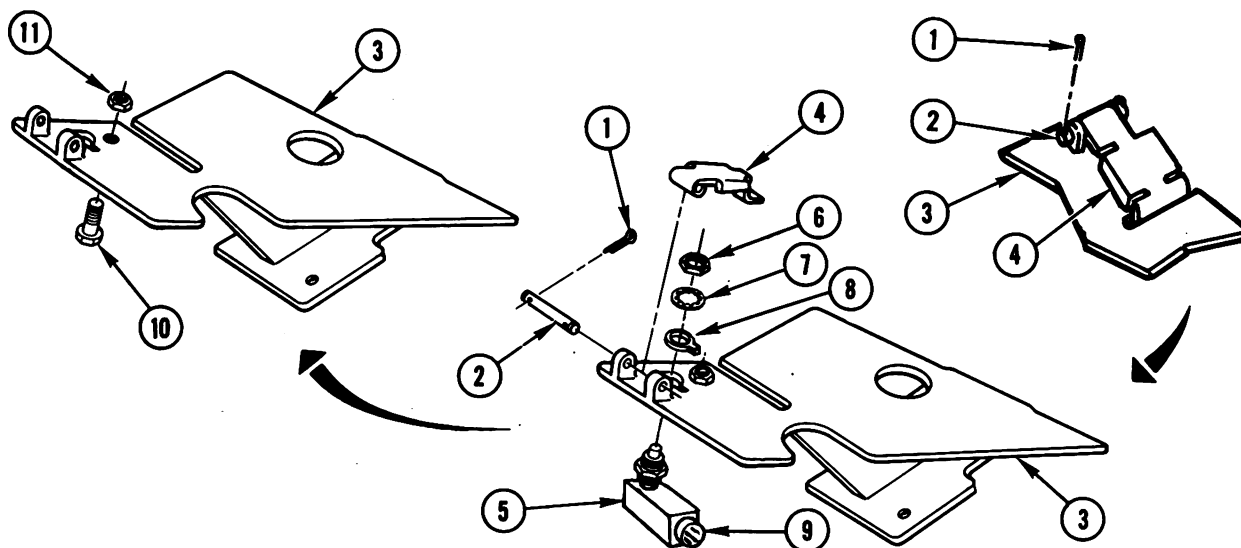
Remove Foot Switch and Screw:

5. Hold foot sensitive switch (5) and take off jamnut (6), lockwasher (7), and keywasher (8) with 13/16-inch wrench.
6. Take out switch (5) from footrest (3). Look at switch (5) for stripped threads or broken pins on connector (9). If bad turn in switch (5). If OK set aside for later use.
7. Take off screw (10) and nut (11) from footrest (3) with 7/16-inch wrench. Look at all parts for cracks, bends, breaks, or stripped threads. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install gunner's footrest, foot sensitive switch, and switch actuator arm, refer to task 3.

TASK 1 ENDS HERE



ARR82-1082

TASK 2. Adjust Gunner's Foot Sensitive Switch

Applicability: All Models

Common Tools:

- Hammer, ball peen
- Pliers, slip joint
- Punch, drive pin, 3/16-inch
- Wrench, combination, 7/16-inch
- Wrench, combination, 13/16-inch

Special Tools: None

Supplies:

- Pin, cotter (96906) MS24665-35 (two required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

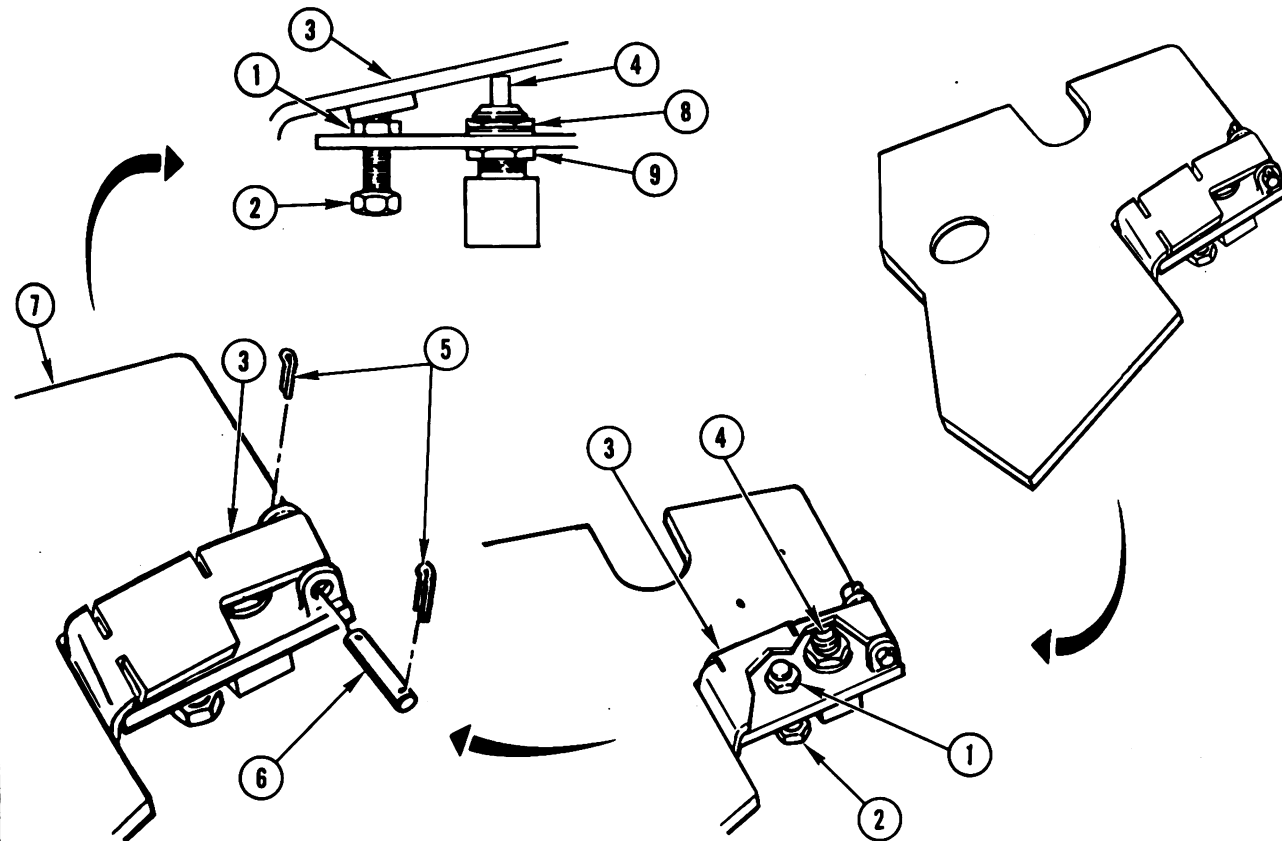
Preliminary Procedure:

Remove gunner's footrest, foot sensitive switch, and switch actuator arm; refer to task 1.

FRAME 3**Adjust Foot Switch:**

1. Loosen nut (1) and unscrew screw (2) with 7/16-inch wrench until end of screw (2) is even with top of nut (1).
2. Push down on switch actuator arm (3) and listen for click from foot sensitive switch (4). If switch (4) does not click, go to step 3. If switch (4) clicks, go to frame 5.
3. Take out two cotter pins (5) with pliers. Get rid of cotter pins (5).
4. Drive out pin (6) from footrest (7) and arm (3) with hammer and punch. Take arm (3) off footrest (7). Loosen jamnut (8) with 13/16-inch wrench.
5. Put arm (3) on footrest (7). Drive pin (6) through holes in footrest (7) and arm (3) with hammer.
6. Turn adjusting nut (9) clockwise or counterclockwise until switch (4) just touches arm (3). Tighten nut (8) finger tight.

GO TO FRAME 4

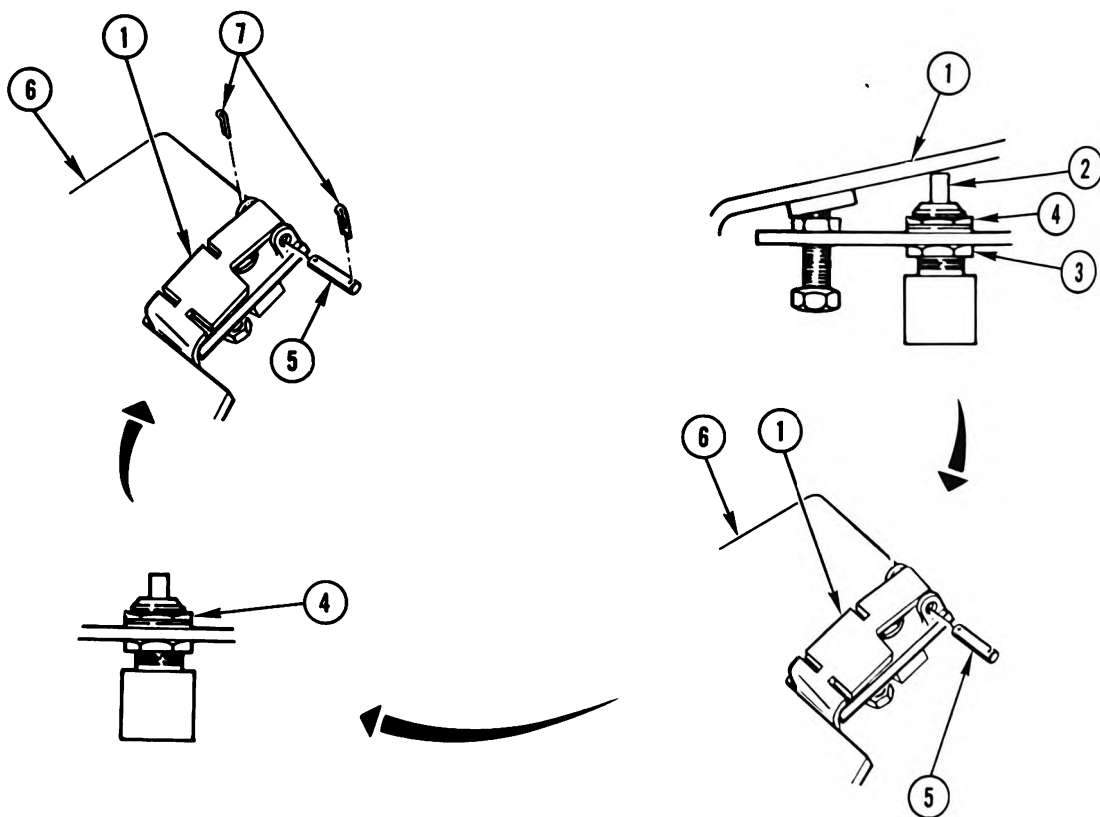


ARR82-1083

FRAME 4**Adjust Foot Switch (Continued):**

1. Push down on arm (1) and listen for click from switch (2). If switch (2) does not click, go to step 2. If switch (2) clicks, go to step 3.
2. Turn adjusting nut (3) clockwise one turn. Tighten jamnut (4) fingertight. Repeat step 1.
3. Drive out pin (5) from footrest (6) and arm (1) with hammer and punch. Remove arm (1) from footrest (6).
4. Tighten jamnut (4) with 13/16-inch wrench.
5. Put arm (1) on footrest (6). Drive pin (5) through holes in footrest (6) and arm (1) with hammer.
6. Put two new cotter pins (7) in holes of pin (5). Bend ends of cotter pins (7) with pliers.

GO TO FRAME 5



ARR82-1084

FRAME 5**Adjust Foot Switch (Continued):**

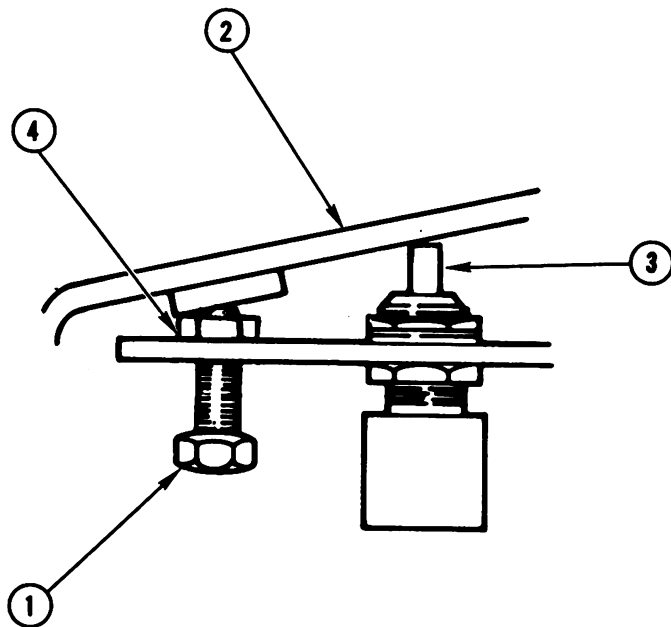
1. Screw in screw (1) to stop arm (2) at a point just past where switch (3) clicks.
2. Tighten nut (4) with 7/16-inch wrench.

Follow-on Maintenance:

Install gunner's footrest, foot sensitive switch, and switch actuator arm; refer to task 3.

TASK 2 ENDS HERE

A20232-709



ARR82-1085

TASK 3. Install Gunner's Footrest, Foot Sensitive Switch, and Switch Actuator Arm

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Hammer, ball peen
Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, slip joint
Pliers, slip joint, conduit style with plastic jaw inserts
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, combination, 13/16-inch

Special Tools: None

Supplies:

Lockwasher (96906) MS35333-42 (two required)
Pin, cotter (96906) MS24665-35 (two required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove gunner's footrest, foot sensitive switch, and switch actuator arm; refer to task 1.

FRAME 6**Install Screw and Foot Switch:****NOTE**

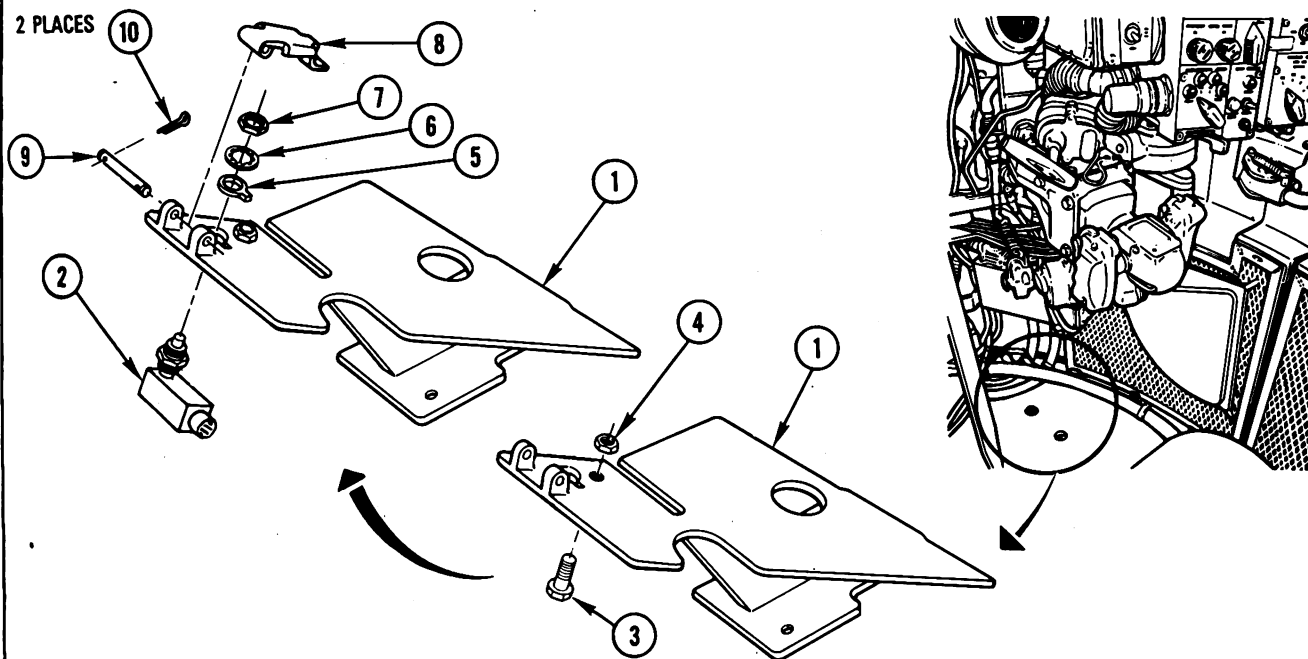
- Read para. 5-4, on installing connectors, before doing any work.
- If gunner's footrest (1) was taken off for access only, go to frame 7.
- If gunner's foot sensitive switch (2) was being adjusted, go to frame 7.

1. Screw in screw (3) from underside of footrest (1). Screw nut (4) on screw (3).
2. Put foot sensitive switch (2) in footrest (1). Put keywasher (5) and lockwasher (6) on switch (2). Screw on and tighten jamnut (7) with 13/16-inch wrench.

Install Switch Actuator Arm:

3. Put switch actuator arm (8) on footrest (1). Drive pin (9) through holes in footrest (1) and arm (8) with hammer.
4. Put two new cotter pins (10) in holes of pin (9). Bend ends of cotter pins (10) with pliers.
5. Adjust gunner's foot sensitive switch; refer to task 2.

GO TO FRAME 7



ARR82-1086

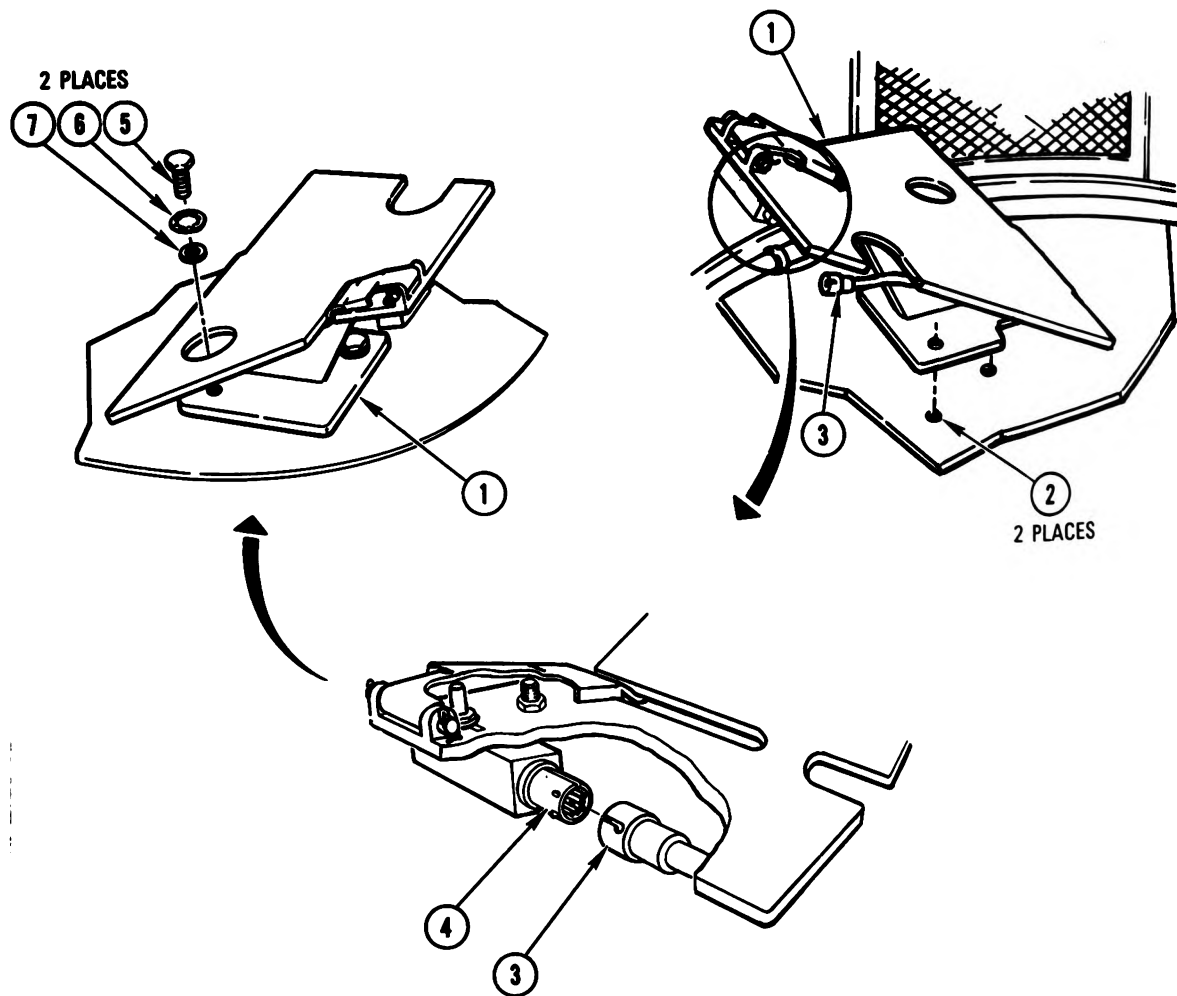
FRAME 7

Install Footrest:

1. Put footrest (1) in place on turret floor over two mounting holes (2) next to connector 1W323 (3).
2. Screw on connector 1W323 (3) to foot switch connector (4) with conduit style pliers.
3. Screw in and tighten two screws (5), new lockwashers (6), and washers (7) with 9/16-inch socket, extension, and handle.

Follow-on Maintenance: None

TASK 3 ENDS HERE



ARR82-1087

TASK 4. Replace Commander's Intercom Electrical Switch Assembly

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, slip joint, conduit style with plastic jaw inserts
Socket, socket wrench, 3/8-inch square drive, 7/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lockwasher (96906) MS35333-40 (two required)
Pencil, writing (Item 42)
Protective caps and plugs (Bulk)
Switch Assembly, electrical (19207) 12287844
Tag, marker (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 8

Remove Switch:

NOTE

Read para. 5-4 before doing any work.

1. Unscrew and take out two screws (1), lockwashers (2), and washers (3) with socket, extension, and handle. Get rid of lockwashers (2).
2. Unscrew and take off connector (4) from electrical switch assembly (5).
3. Take off switch (5) and turn in.

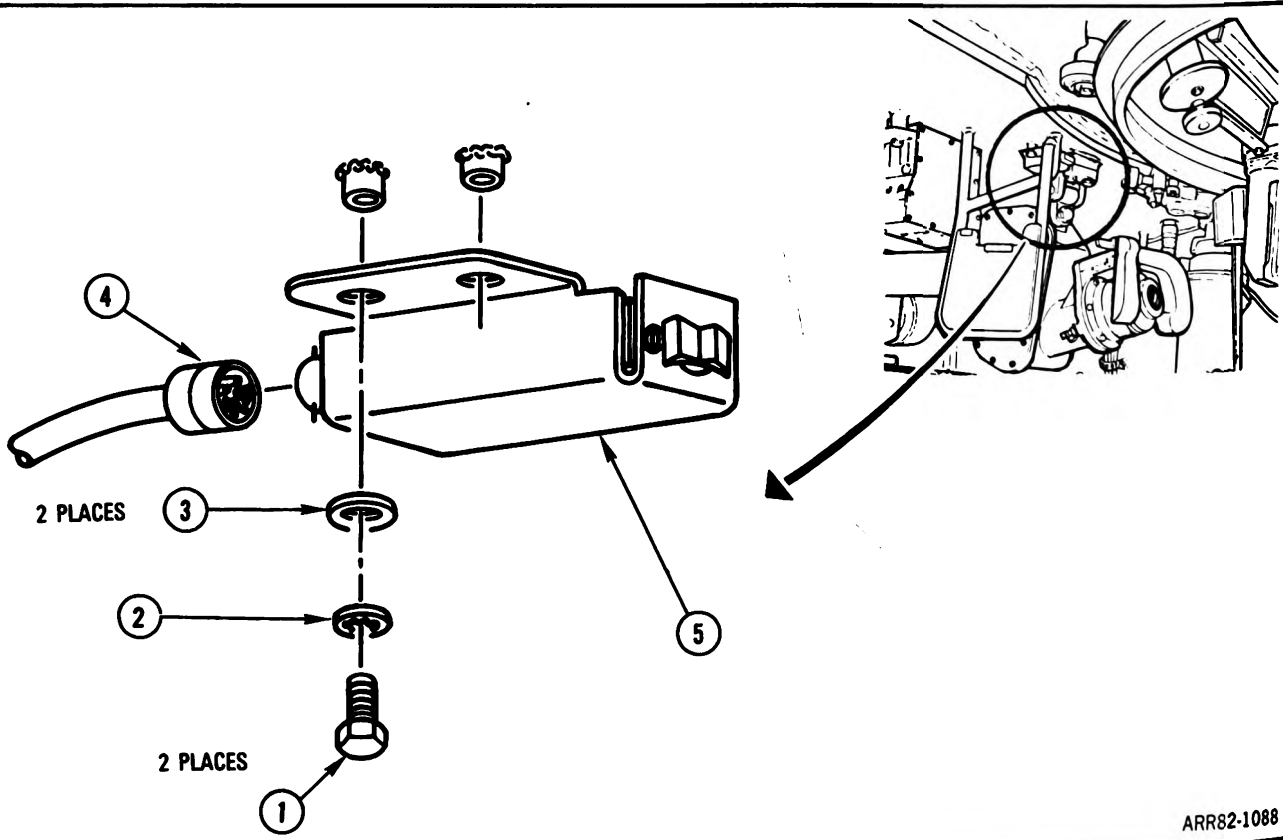
Install Switch:

4. Put new switch (5) in place. Screw in and tighten two screws (1), new lockwashers (2), and washers (3) with socket, extension, and handle.
5. Screw on and tighten connector (4) to switch (5).

Follow-on Maintenance:

Check out commander's intercom; refer to TM 9-2350-255-10.

TASK 4 ENDS HERE



ARR82-1088

TASK 5. Remove Commander's Intercom Control Box

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, slip joint, conduit style with plastic jaw inserts
Socket, socket wrench, 3/8-inch square drive, 1/2-inch
Wrench, combination, 1/2-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Pencil, writing (Item 42)

Protective caps and plugs (Bulk)

Tag, marker (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 9

Remove Control Box:

NOTE

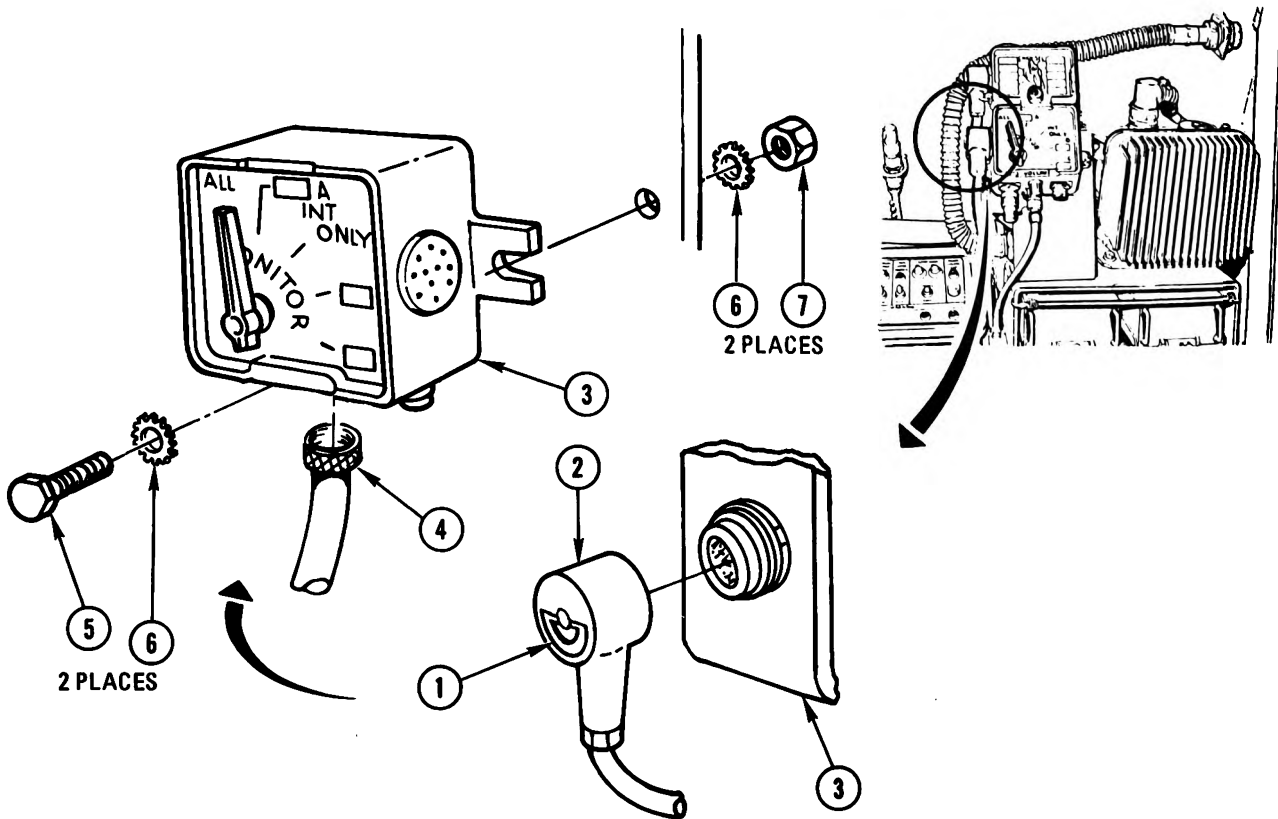
Read para. 5-4, on removing connectors, before doing any work.

1. Lift up tab (1) and turn counterclockwise to take off connector (2) from control box (3).
2. Unscrew and take off connector (4) from control box (3).
3. Unscrew and take out two screws (5), four lockwashers (6), and two nuts (7) with socket, extension handle, and wrench.
4. Take off control box (3).
5. Look at control box (3) for cracks or bends. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install commander's intercom control box, refer to task 10.

TASK 5 ENDS HERE



ARR82-1089

TASK 6. Remove Commander's Intercom Control Box Bracket

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Universal Joint, socket wrench, 3/8-inch square drive
Wrench, combination, 7/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's intercom control box; refer to task 5.
2. Remove commander's frequency control box; refer to para. 5-6, task 1.
3. Remove security unit, auxiliary security unit or audio frequency unit; refer to para. 5-11, task 1.

FRAME 10

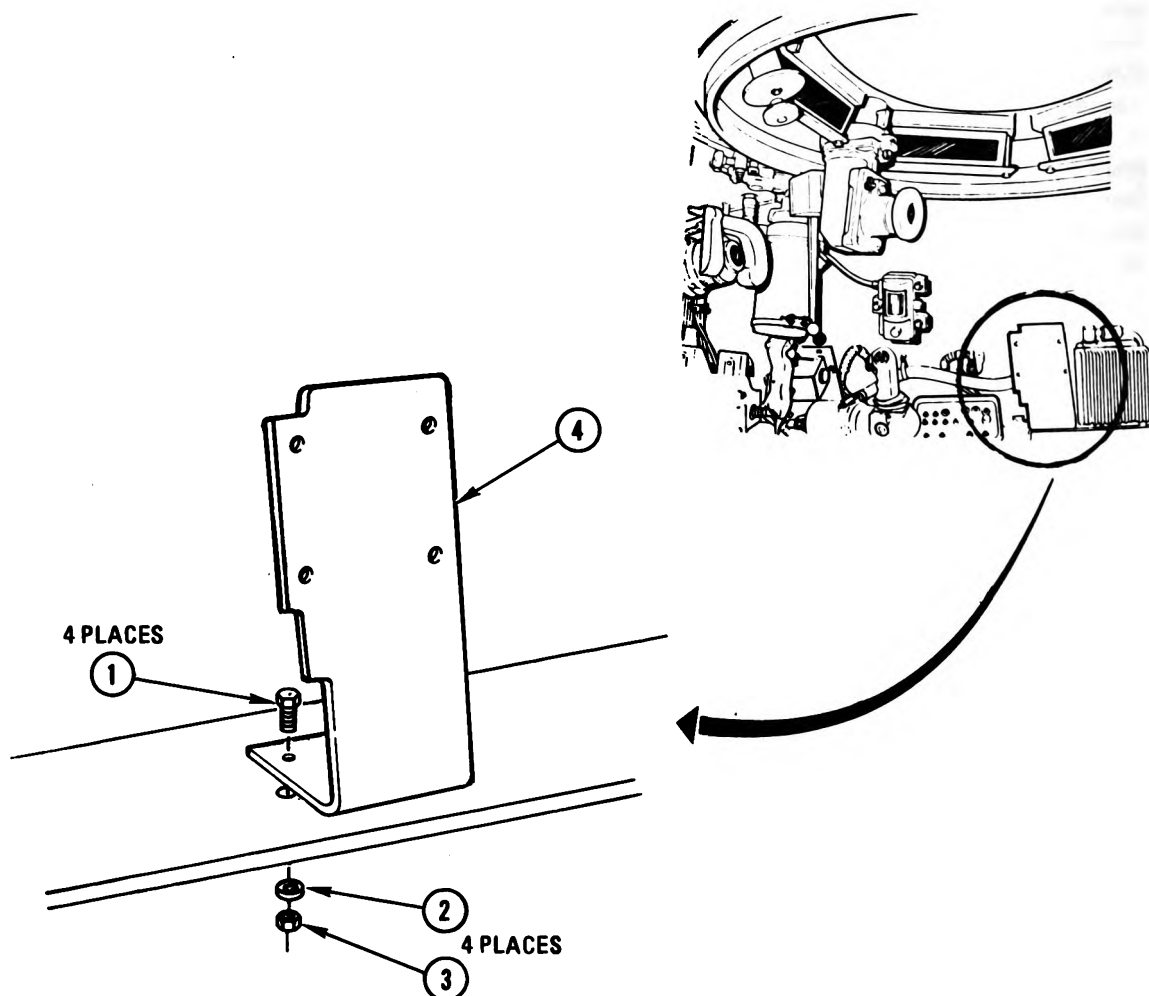
Remove Bracket:

1. Unscrew and take out four screws (1), lockwashers (2), and nuts (3) with socket, universal joint, handle, and wrench. Get rid of lockwashers (2).
2. Take off bracket (4).
3. Look at bracket (4) for cracks or bends. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install commander's intercom control box bracket, refer to task 9.

TASK 6 ENDS HERE



ARR82-1090

TASK 7. Remove Commander's Intercom Control Box Bracket Mounting Plate

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's intercom control box; refer to task 5.
2. Remove commander's frequency control box; refer to para. 5-6, task 1.
3. Remove power control unit and mounting bracket; refer to TM 9-2350-255-2-3-1, para. 2-12.
4. Remove security unit, auxiliary security unit or audio frequency unit; refer to para. 5-11, task 1.
5. Remove commander's intercom control box bracket; refer to task 6.
6. Remove commander's heater assembly; refer to TM 9-2350-255-20-2-3-3, para. 8-4, task 2.

FRAME 11

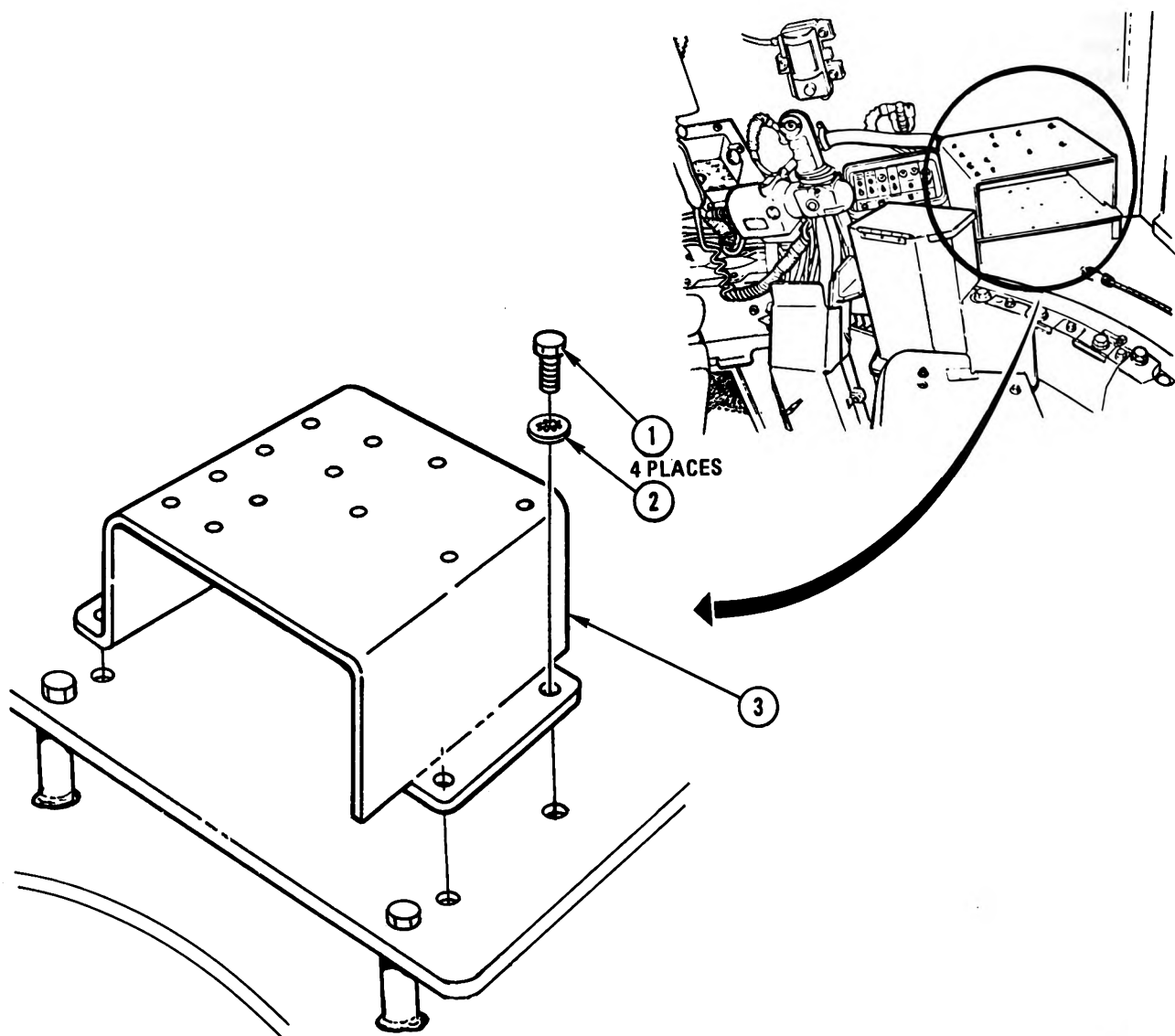
Remove Mounting Plate:

1. Unscrew and take out four screws (1) and lockwashers (2) from mounting plate (3) with socket, extension, and handle. Get rid of lockwashers (2).
2. Look at plate (3) for cracks or bends. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install commander's intercom control box bracket mounting plate, refer to task 8.

TASK 7 ENDS HERE



ARR82-1091

TASK 8. Install Commander's Intercom Control Box Bracket Mounting Plate

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch

Special Tools: None

Supplies:

Lockwasher (96906) MS35333-40 (four required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove commander's intercom control box bracket mounting plate; refer to task 7.

FRAME 12

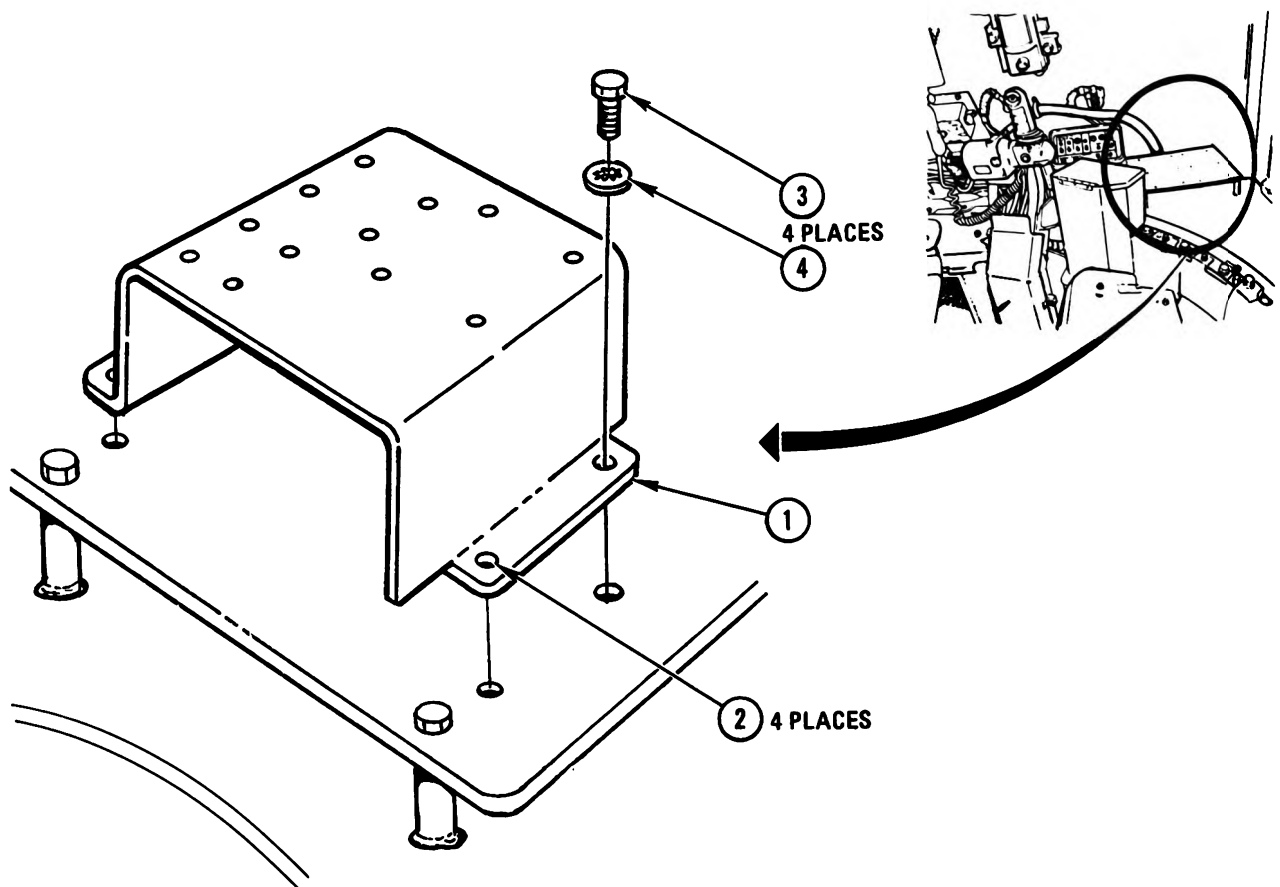
Install Mounting Plate:

1. Put mounting plate (1) in place and line up mounting holes (2).
2. Screw in and tighten four screws (3) and new lockwashers (4) with socket, extension, and handle.

Follow-on Maintenance:

1. Install commander's heater assembly; refer to TM 9-2350-255-2-3-3, para. 8-4, task 12.
2. Install commander's intercom control box bracket; refer to task 9.
3. Install security unit, auxiliary security unit, or audio frequency switch unit; refer to para. 5-11, task 5.
4. Install power control unit and mounting bracket; refer to TM 9-2350-255-20-2-3-1, para. 2-12.
5. Install commander's frequency control box; refer to para. 5-6, task 2.
6. Install commander's intercom control box; refer to task 10.

TASK 8 ENDS HERE



ARR82-1092

TASK 9. Install Commander's Intercom Control Box Bracket

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Universal Joint, socket wrench, 3/8-inch square drive
Wrench, combination, 7/16-inch

Special Tools: None

Supplies:

Lockwasher (96906) MS35333-40 (four required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove commander's intercom control box bracket; refer to task 6.

FRAME 13

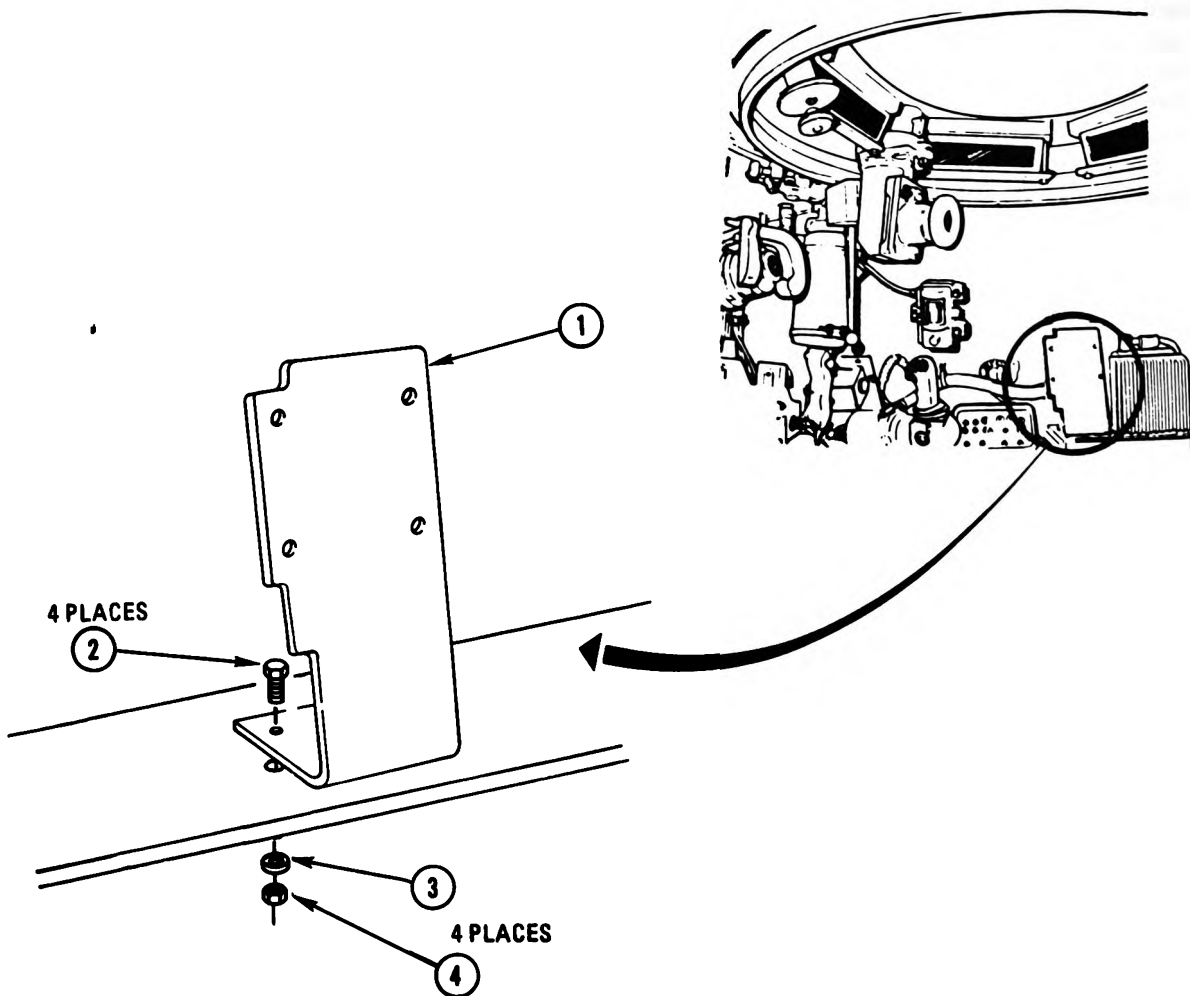
Install Bracket:

1. Put bracket (1) in place.
2. Screw in and tighten four screws (2), new lockwashers (3), and nuts (4) with socket, universal joint handle, and wrench.

Follow-on Maintenance:

1. Install commander's intercom control box; refer to task 10.
2. Install commander's frequency control box; refer to para. 5-6, task 2.
3. Install security unit, auxiliary security unit, or audio frequency switch unit; refer to para. 5-11, task 5.

TASK 9 ENDS HERE



ARR82-1093

TASK 10. Install Commander's Intercom Control Box

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 1/2-inch
Wrench, combination, 1/2-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove commander's intercom control box; refer to task 5.

FRAME 14

Install Control Box:

NOTE

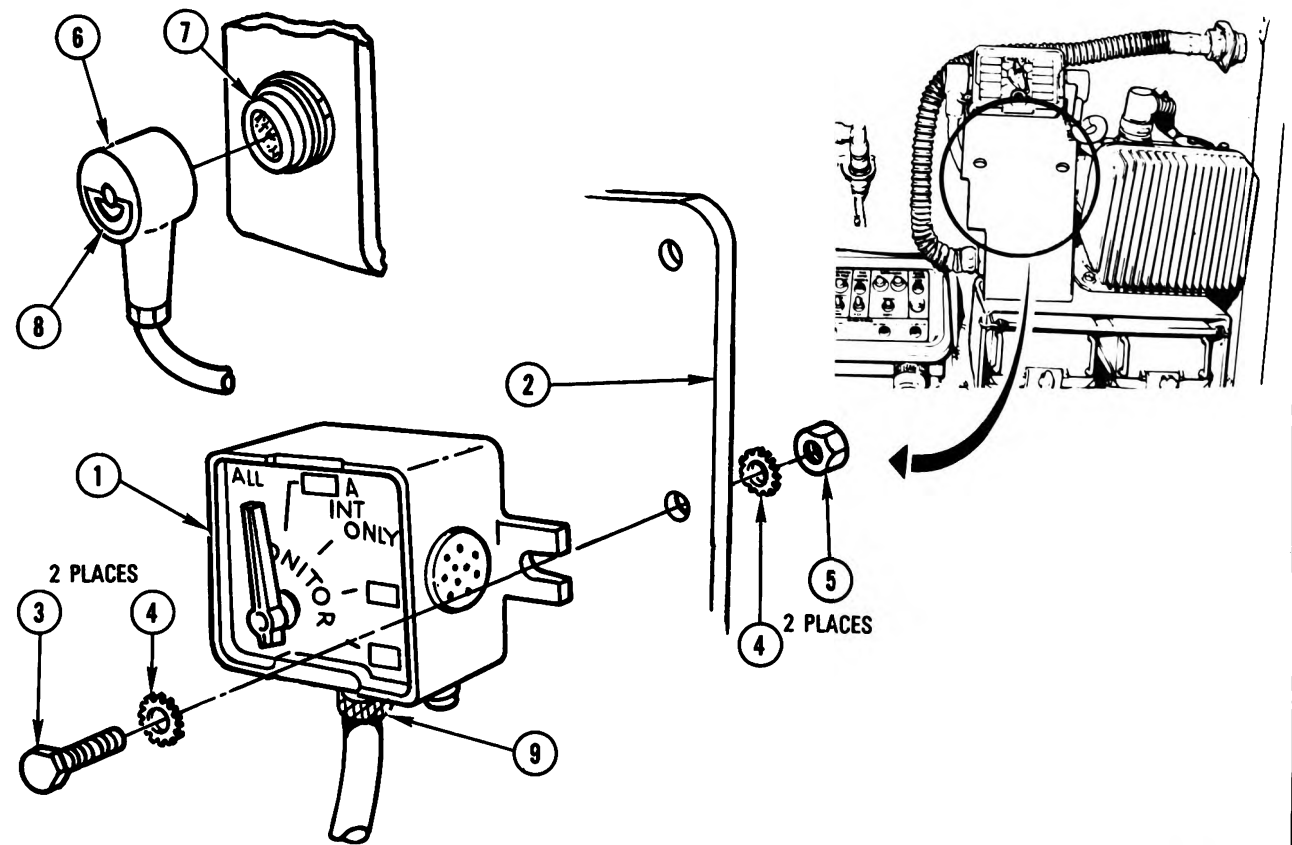
Read para. 5-4 before doing any work.

1. Put control box (1) in place on mounting bracket (2).
2. Screw in and tighten two screws (3), four lockwashers (4), and two nuts (5) with socket, extension, handle, and wrench.
3. Put connector (6) on control box connector (7). Lift up tab (8) and turn clockwise to tighten connector (6).
4. Screw on and tighten connector (9) to control box (1).

Follow-on Maintenance:

Check out commander's control box; refer to TM 9-2350-255-10.

TASK 10 ENDS HERE



ARR82-1094

TASK 11. Remove Gunner's Intercom Control Box

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, slip joint, conduit style with plastic jaw inserts
Socket, socket wrench, 3/8-inch square drive, 1/2-inch
Wrench, combination, 1/2-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Pencil, writing (Item 42)
Protective caps and plugs (Bulk)
Tag, marker (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 15

Remove Control Box:

NOTE

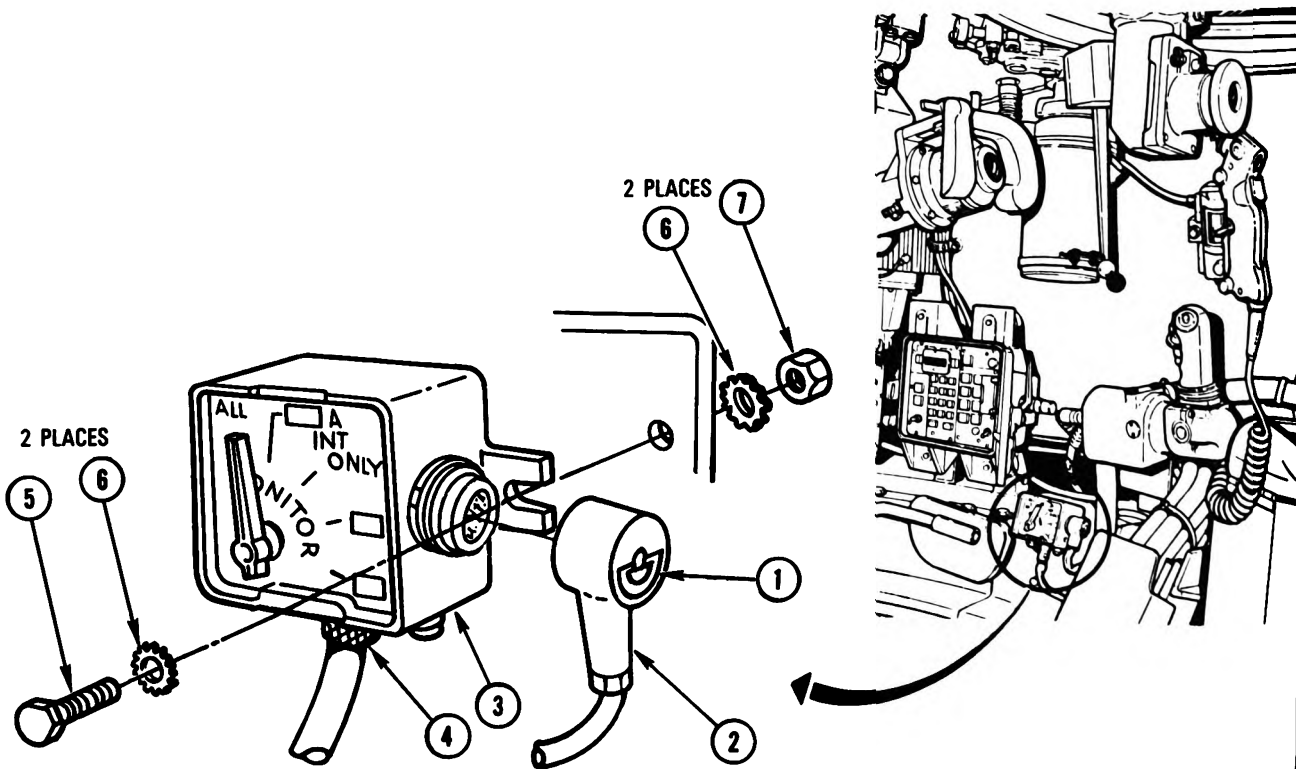
Read para. 5-4 before doing any work.

1. Lift up tab (1) and turn counterclockwise to take off connector (2) from control box (3).
2. Unscrew and take off connector (4) from control box (3).
3. Unscrew and take out two screws (5), four lockwashers (6), and two nuts (7) with socket, extension, handle, and wrench.
4. Take off control box (3).
5. Look at control box (3) for cracks or bends. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install gunner's intercom control box, refer to task 14.

TASK 11 ENDS HERE



ARR82-1095

TASK 12. Remove Gunner's Intercom Control Box Bracket

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove gunner's intercom control box; refer to task 11.

FRAME 16

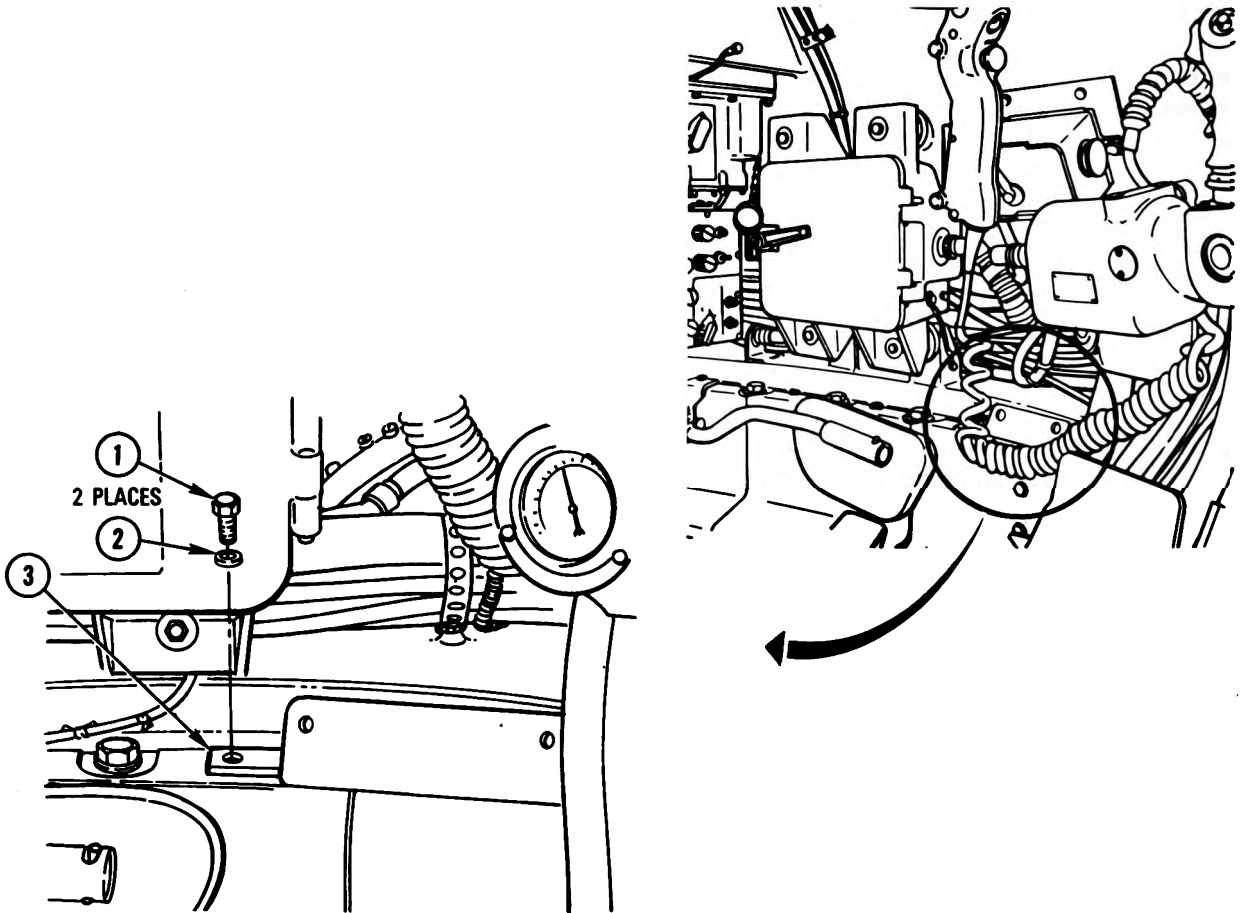
Remove Intercom Bracket:

1. Unscrew and take out two screws (1) and washers (2) with socket, extension, and handle.
2. Lift off intercom bracket (3) and look for cracks or bends. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install gunner's intercom control box bracket, refer to task 13.

TASK 12 ENDS HERE



ARR82-1096

TASK 13. Install Gunner's Intercom Control Box Bracket

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lubricating Oil, MIL-L-3150 (Item 31)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove gunner's intercom control box bracket; refer to task 12.

FRAME 17

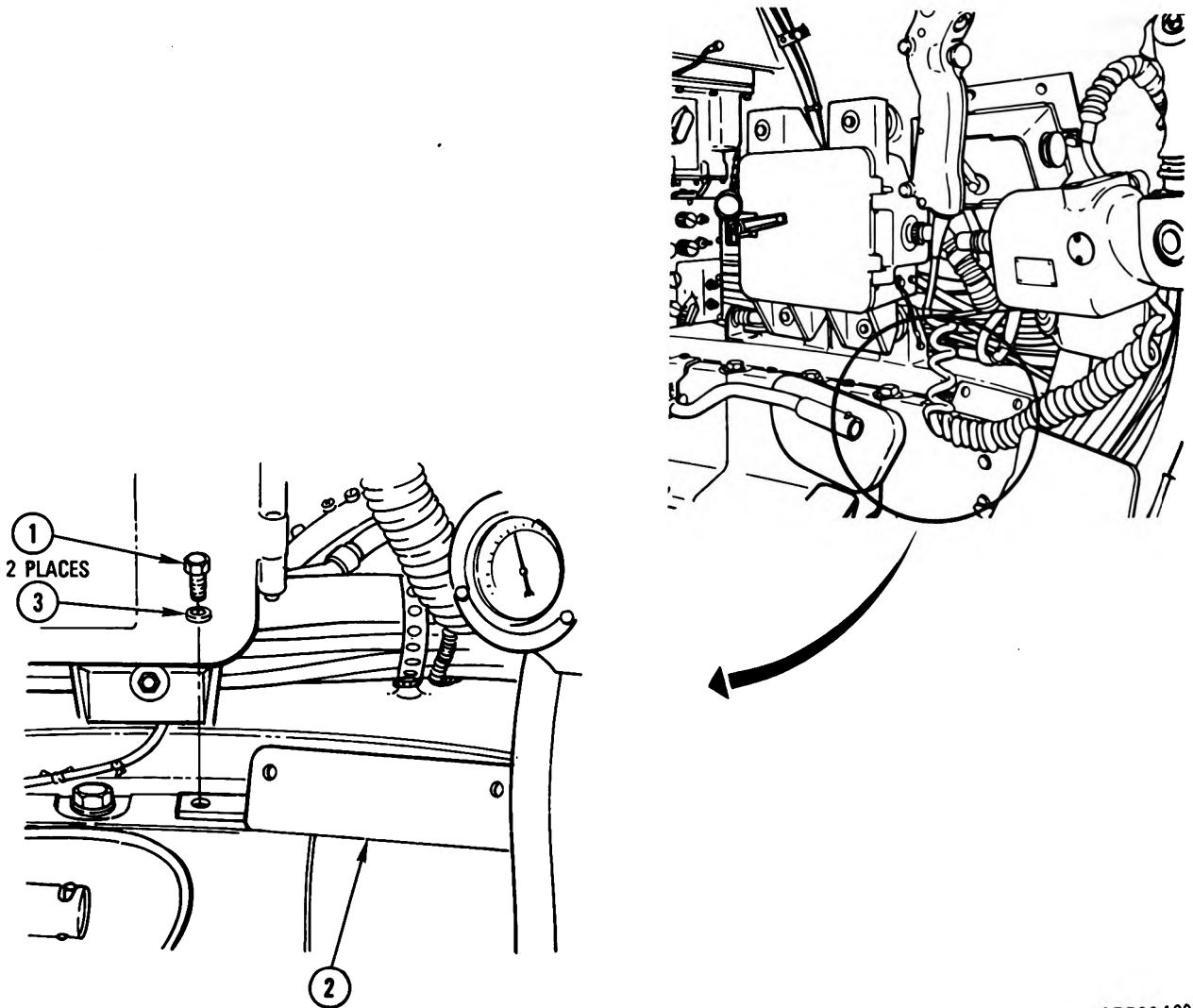
Install Intercom Bracket:

1. Put light coat of oil on threads of two screws (1).
2. Put intercom bracket (2) in place on turret.
3. Screw in and tighten two screws (1) and washers (3) with socket, extension, and handle. Torque between 360 and 420 pound inches (41 and 47 Newton meters) with socket, extension, and torque wrench.

Follow-on Maintenance:

Install gunner's intercom control box; refer to task 14.

TASK 13 ENDS HERE



ARR82-1097

TASK 14. Install Gunner's Intercom Control Box

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 1/2-inch
Wrench, combination, 1/2-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove gunner's intercom control box; refer to task 11.

FRAME 18

Install Control Box:

NOTE

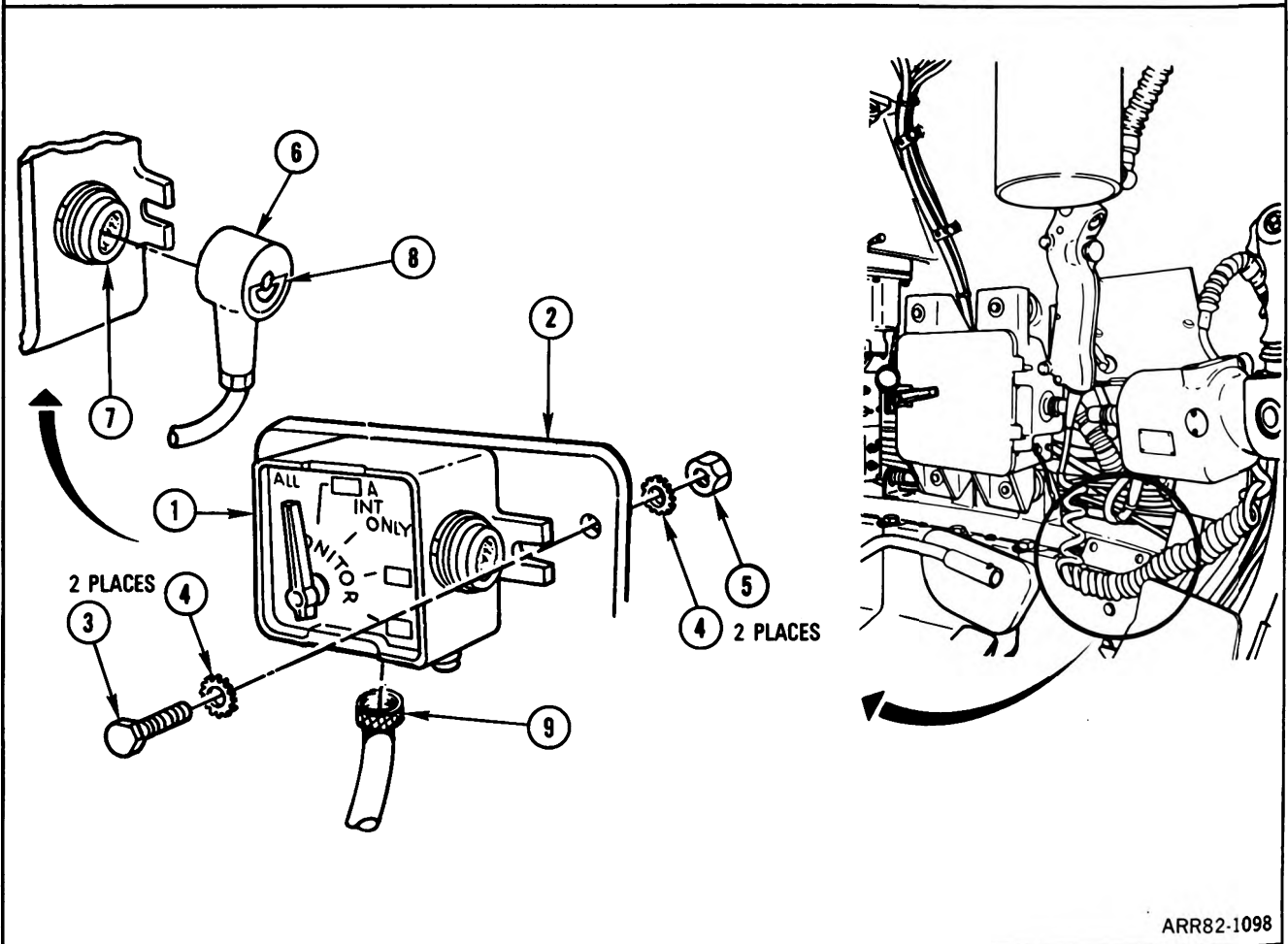
Read para. 5-4 before doing any work.

1. Put control box (1) in place on mounting bracket (2).
2. Screw in and tighten two screws (3), four lockwashers (4), and two nuts (5) with socket, extension handle, and wrench.
3. Put connector (6) on control box connector (7). Lift up tab (8) and turn clockwise to tighten connector (6).
4. Screw on connector (9) on control box (1).

Follow-on Maintenance:

Check out gunner's intercom control box; refer to TM 9-2350-255-10.

TASK 14 ENDS HERE



ARR82-1098

TASK 15. Remove Loader's Intercom Control Box

Applicability: All Models

Common Tools:

Wrench, combination, 1/2-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.

Pencil, writing (Item 42)

Protective caps and plugs (Bulk)

Tag, marker (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 19

Remove Control Box:

NOTE

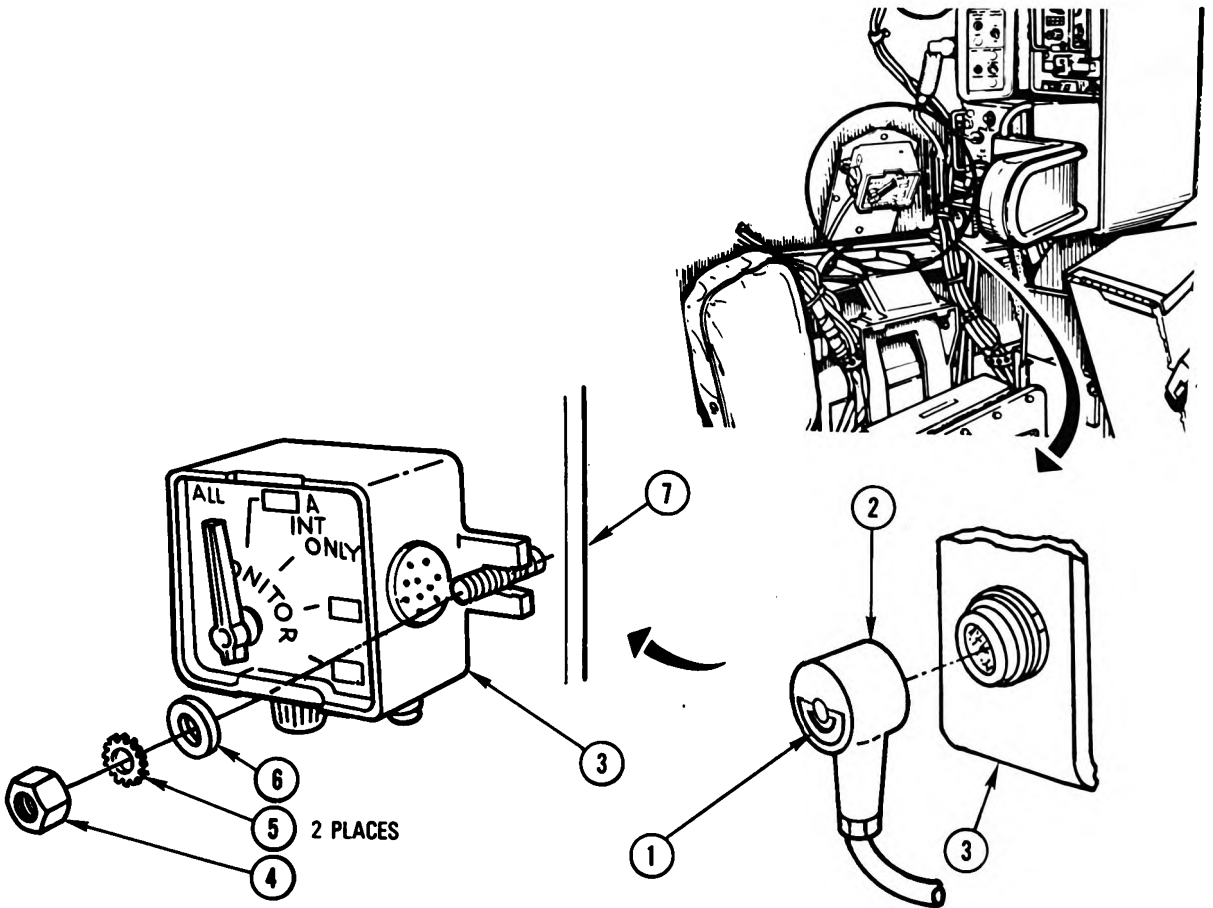
Read para. 5-4 before doing any work.

1. Lift up tab (1) and turn counterclockwise to take off connector (2) from control box (3).
2. Unscrew and take off two nuts (4), lockwashers (5), and washers (6) with wrench.
3. Lift control box (3) off mounting bracket (7). Look at control box (3) for cracks or bends. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install loader's intercom control box, refer to task 17.

TASK 15 ENDS HERE



ARR82-1099

TASK 16. Remove Loader's Intercom Control Box Double Angle Bracket

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, combination, 7/16-inch
Universal Joint, socket wrench, 3/8-inch square drive

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove loader's intercom control box; refer to task 15.

FRAME 20

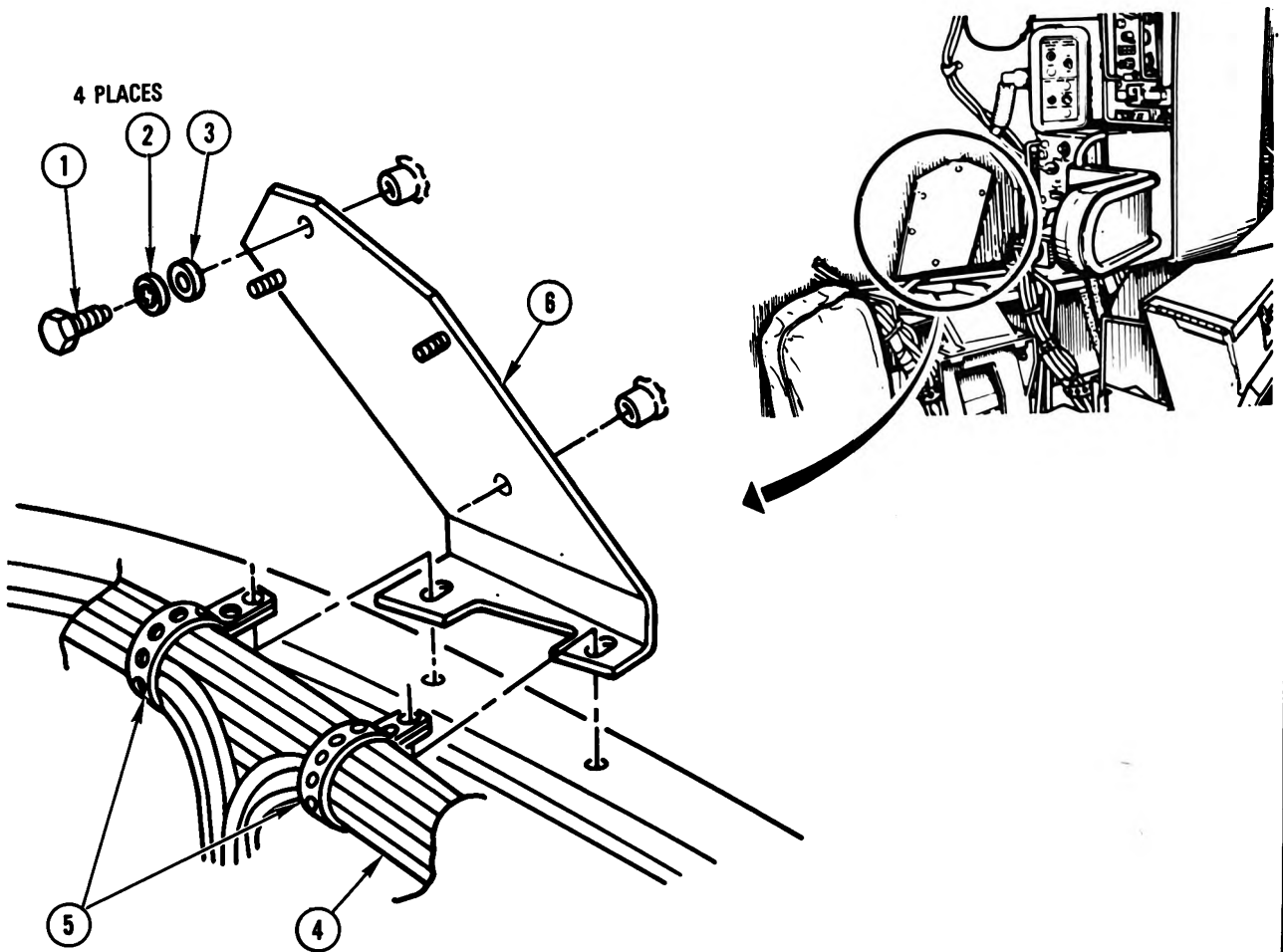
Remove Bracket:

1. Unscrew and take out four screws (1), lockwashers (2), and washers (3) with socket, universal joint, extension, handle, and wrench. Get rid of lockwashers (2).
2. Lift harnesses (4) off two straps (5).
3. Lift off double angle bracket (6) and look for cracks, breaks, or bends. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: Install loader's intercom control box, refer to task 18.

TASK 16 ENDS HERE



ARR82-1100

TASK 17. Install Loader's Intercom Control Box

Applicability: All Models

Common Tools:

Wrench, combination, 1/2-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove loader's intercom control box; refer to task 15.

FRAME 21

Install Control Box:

NOTE

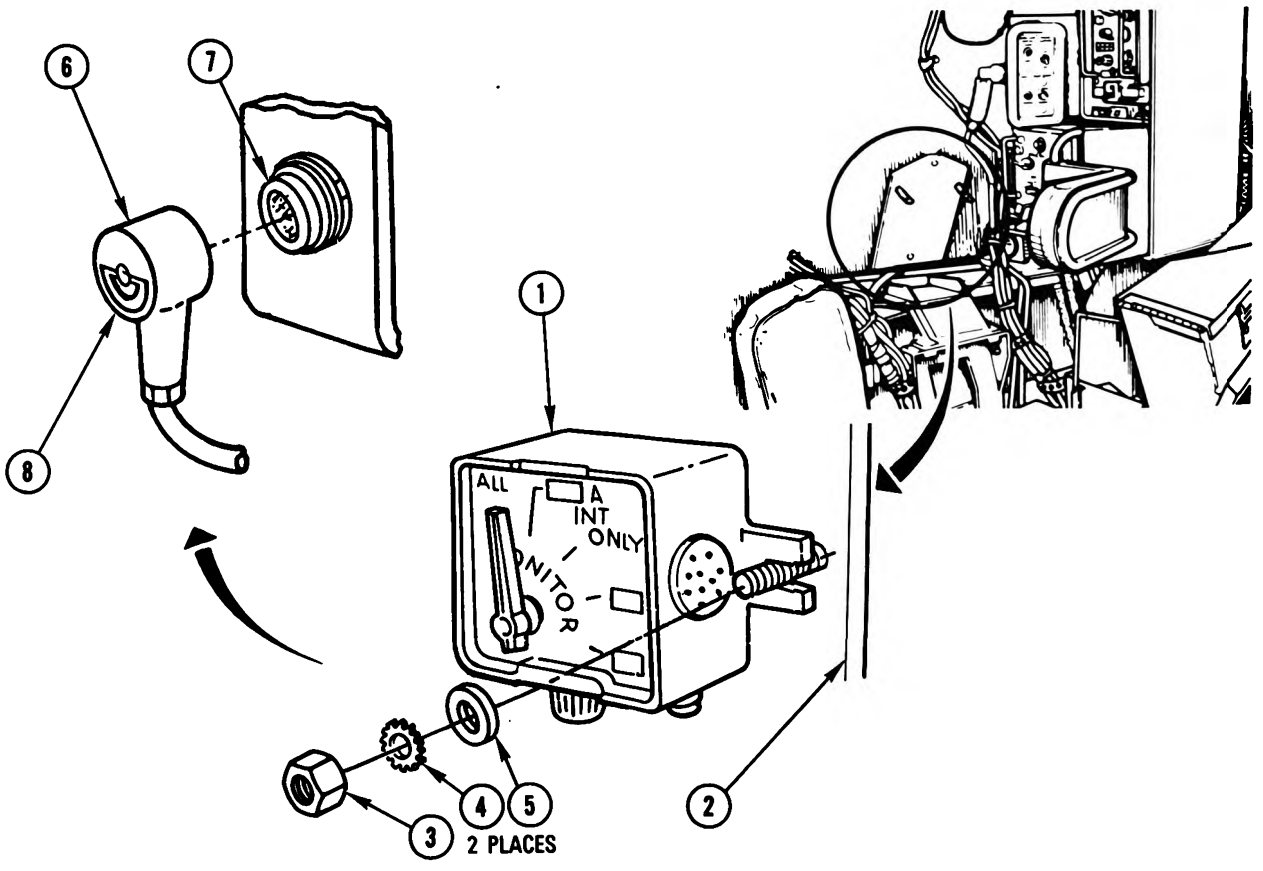
Read para. 5-4 before doing any work.

1. Put control box (1) in place on mounting bracket (2).
2. Screw in and tighten two nuts (3), lockwashers (4), and washers (5) with wrench.
3. Put connector (6) on control box connector (7). Lift up tab (8) and turn clockwise to tighten connector (6).

Follow-on Maintenance:

Check out loader's intercom control box; refer to TM 9-2350-255-10.

TASK 17 ENDS HERE



ARR82-1101

TASK 18. Install Loader's Intercom Control Box Double Angle Bracket

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Universal Joint, socket wrench, 3/8-inch square drive
Wrench, combination, 7/16-inch

Special Tools: None

Supplies:

Lockwasher (96906) MS35333-40 (four required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove loader's intercom control box double angle bracket; refer to task 16.

FRAME 22

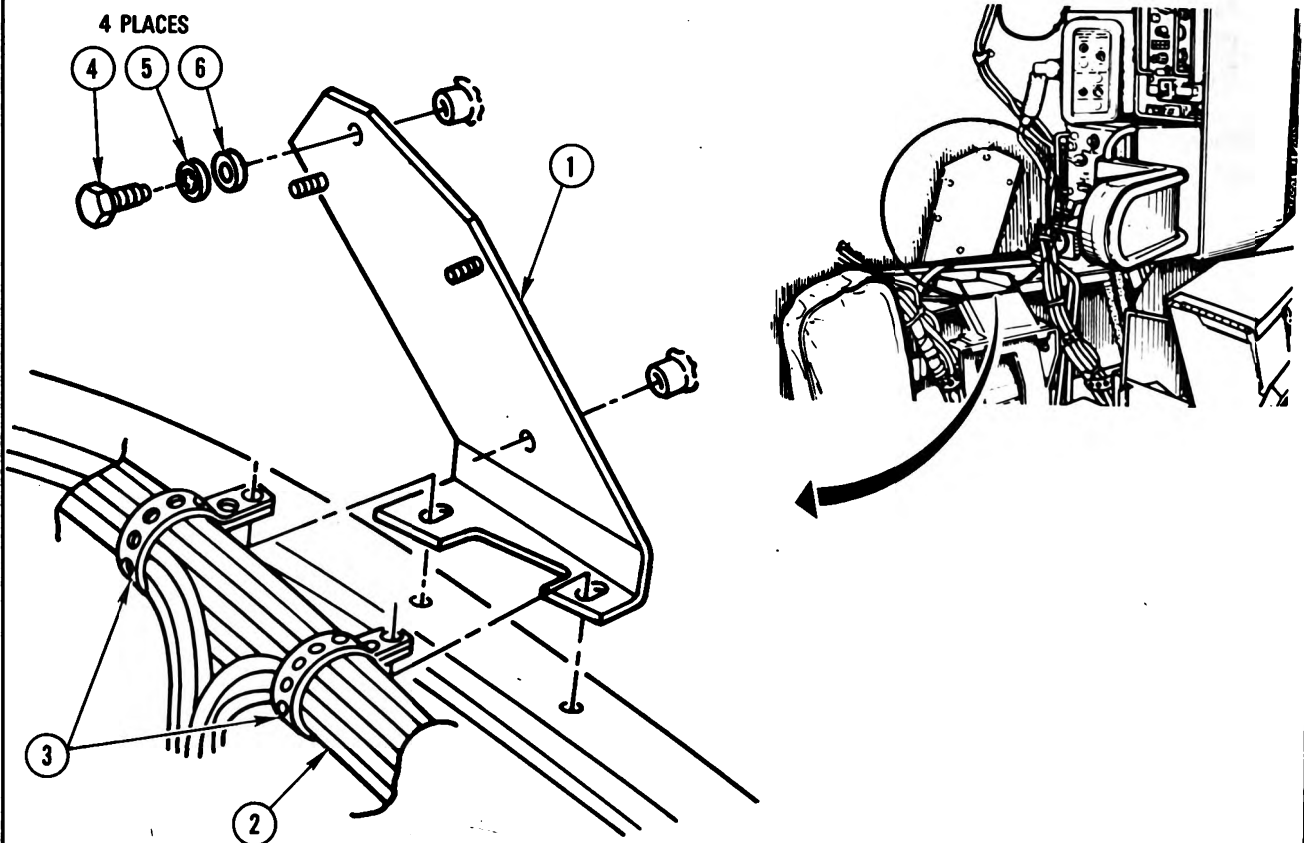
Install Bracket:

1. Put bracket (1) in place on turret wall and line up mounting holes.
2. Put harnesses (2) and two straps (3) on bracket (1).
3. Screw in and tighten four screws (4), new lockwashers (5), and washers (6) with socket, universal joint, extension, handle, and wrench.

Follow-on Maintenance:

Install loader's intercom control box, refer to task 17.

END OF INTERCOM CONTROL BOXES: COMMANDER'S, GUNNER'S, AND LOADER'S MAINTENANCE



ARR82-1309

5-6. Commander's Frequency Control Box

Task	Title	Frames
1	Remove Commander's Frequency Control Box	1
2	Install Commander's Frequency Control Box	2

TASK 1. Remove Commander's Frequency Control Box**Applicability:** All Models**Common Tools:**

Extension, socket wrench, 3/8-inch square drive, 5-inch
 Handle, socket wrench, ratchet, 3/8-inch square drive
 Socket, socket wrench, 3/8-inch square drive, 1/2-inch
 Wrench, combination, 1/2-inch

Special Tools: None**Supplies:**

NOTE: Expendable supplies are defined in appendix A.
 Protective caps and plugs (Bulk)
 Tag, marker (Item 54) (as required)

Personnel: One**Equipment Condition:**

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 1

Remove Control Box:

NOTE

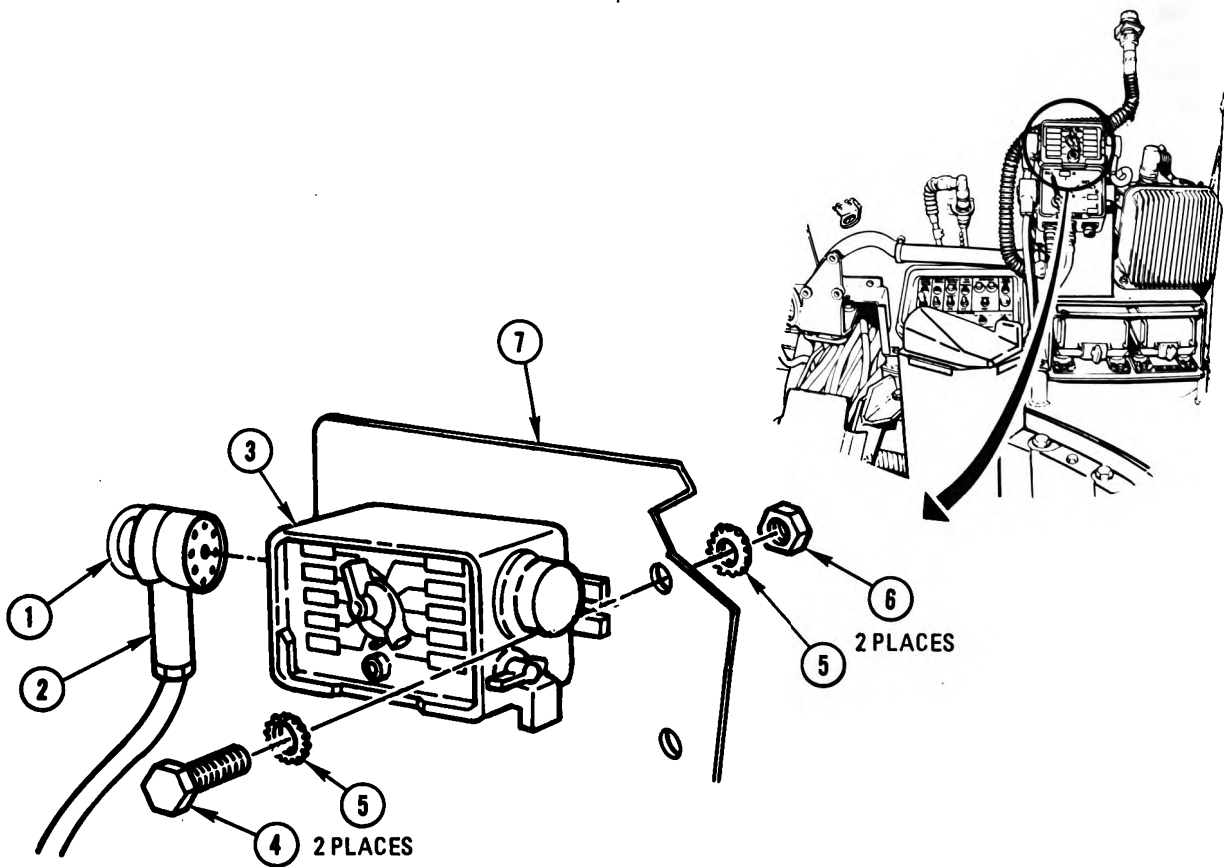
Read para. 5-4, on removing connectors, before doing any work.

1. Lift up tab (1) and turn counterclockwise to take connector (2) off control box (3).
2. Unscrew and take out two screws (4), four lockwashers (5), and two nuts (6) from control box (3) with socket, extension, handle, and wrench. Take control box (3) from mounting bracket (7). Get rid of lockwashers (5).
3. Look at control box (3) for cracks or breaks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install commander's frequency control box, refer to task 2.

TASK 1 ENDS HERE



ARR82-0233

TASK 2. Install Commander's Frequency Control Box

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 1/2-inch
Wrench, combination, 1/2-inch

Special Tools: None

Supplies:

Lockwasher (96906) MS35333-42 (four required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove commander's frequency control box, refer to task 1.

FRAME 2

Install Control Box:

NOTE

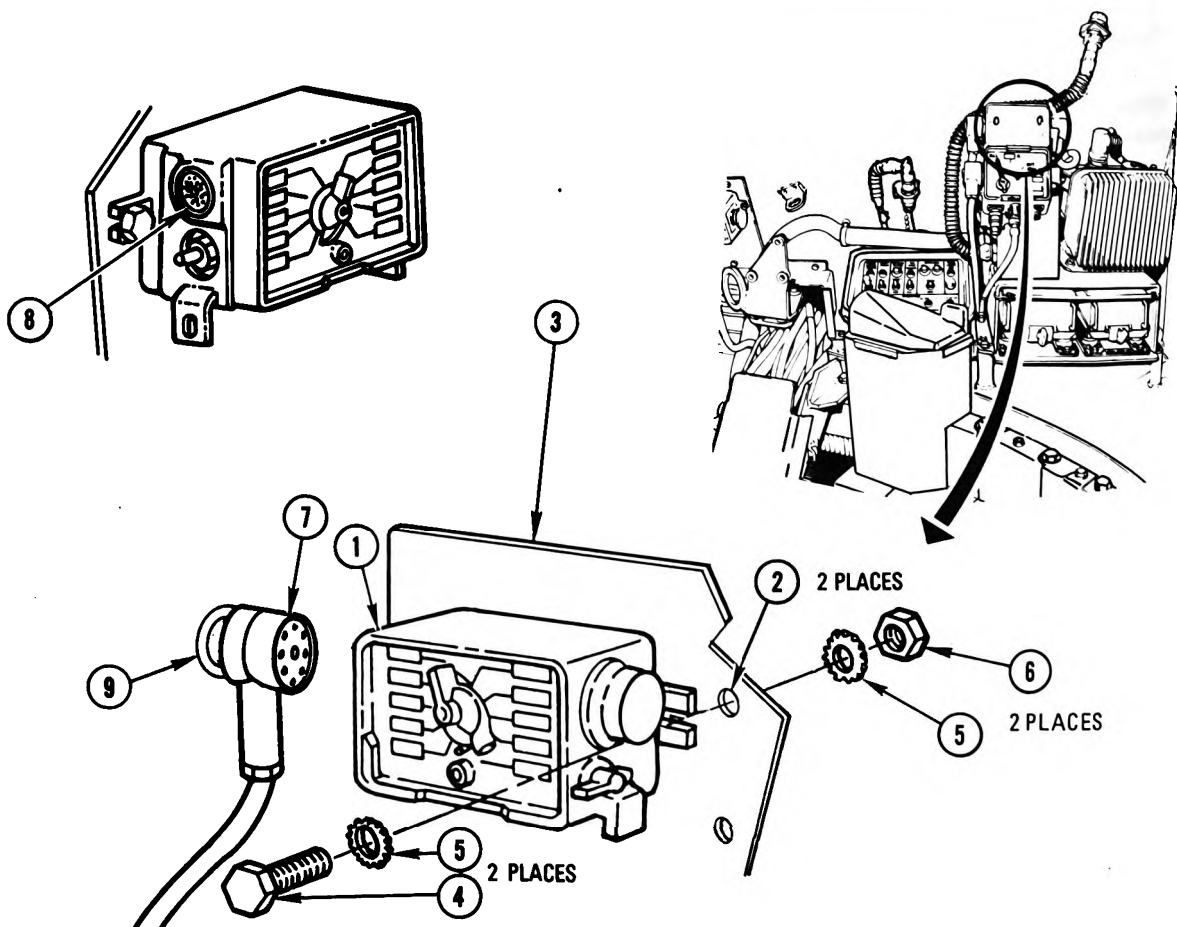
Read para. 5-4, on installing connectors, before doing any work.

1. Hold control box (1) in place at two upper holes (2) on mounting bracket (3).
2. Screw in and tighten two screws (4), four new lockwashers (5), and two nuts (6) to control box (1) with socket, extension, handle, and wrench.
3. Put connector (7) on control box connector (8). Lift up tab (9) and turn clockwise to tighten connector (7) on control box (1).

Follow-on Maintenance:

Check commander's frequency control box for proper operation; refer to TM 9-2350-255-10.

END OF COMMANDER'S FREQUENCY CONTROL BOX MAINTENANCE



ARR82-0234

5-7. Receiver-Transmitter, Auxiliary Receiver, and Audio Amplifier

Task	Title	Frames
1	Remove Receiver-Transmitter	1 - 2
2	Remove Auxiliary Receiver	3
3	Remove Audio Amplifier	4
4	Install Audio Amplifier	5
5	Install Auxiliary Receiver	6
6	Install Receiver-Transmitter	7 - 8

TASK 1. Remove Receiver-Transmitter**Applicability:** All Models**Common Tools:**

Pliers, slip joint, conduit style with plastic jaw inserts

Special Tools: None**Supplies:****NOTE:** Expendable supplies are defined in appendix A.

Pencil, writing (Item 40)

Protective caps and plugs (Bulk)

Tag, marker (Item 54) (as required)

Personnel: One**Equipment Condition:**

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove loader's intercom control box; refer to para. 5-5, task 15.
2. Remove loader's shoulder guard; refer to para. 3-12, task 5.

FRAME 1

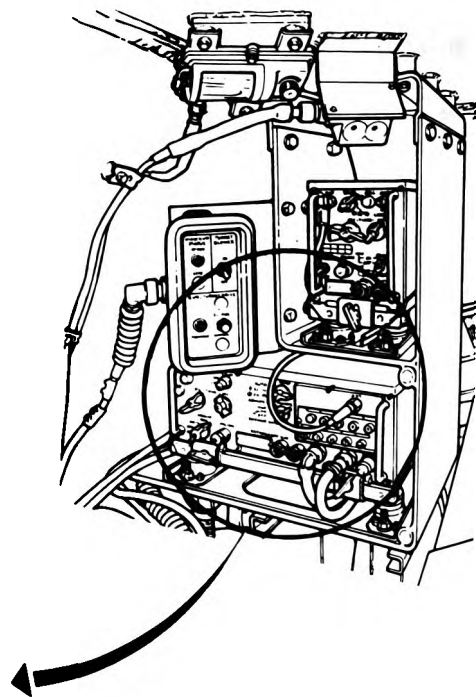
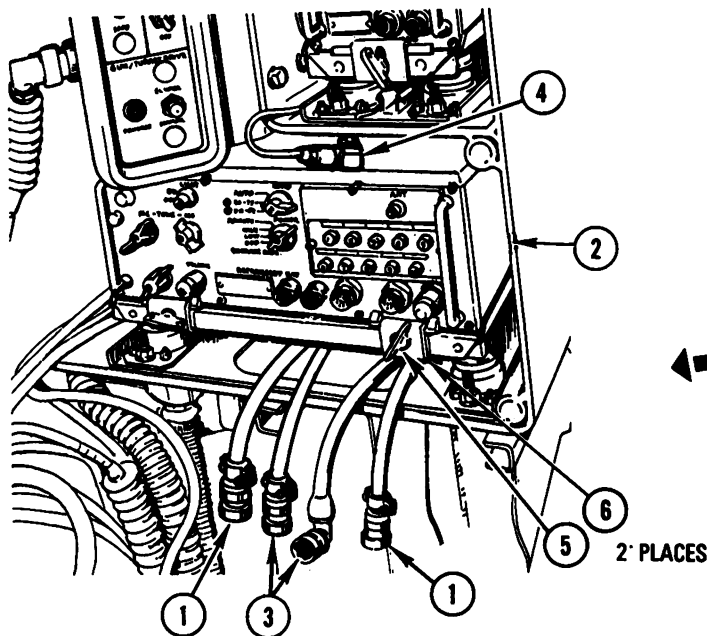
Remove Receiver-Transmitter:

NOTE

- Read para. 5-4, on removing connectors, before doing any work.
- If electrical connectors (1) are connected to receiver-transmitter (2) start with step 1. If not, skip step 1.

1. Unscrew and take off two electrical connectors (1) from receiver-transmitter (2).
2. Unscrew and take off two electrical connectors (3) and antenna connector (4) from receiver-transmitter (2).
3. Turn two screws (5) counterclockwise to loosen two mount clamps (6).

GO TO FRAME 2



ARR82-0180

FRAME 2**Remove Receiver-Transmitter (Continued):****WARNING**

Receiver-transmitter (1) is heavy. Use two handles (2) when lifting and handling it to avoid injury to personnel or damage to equipment.

CAUTION

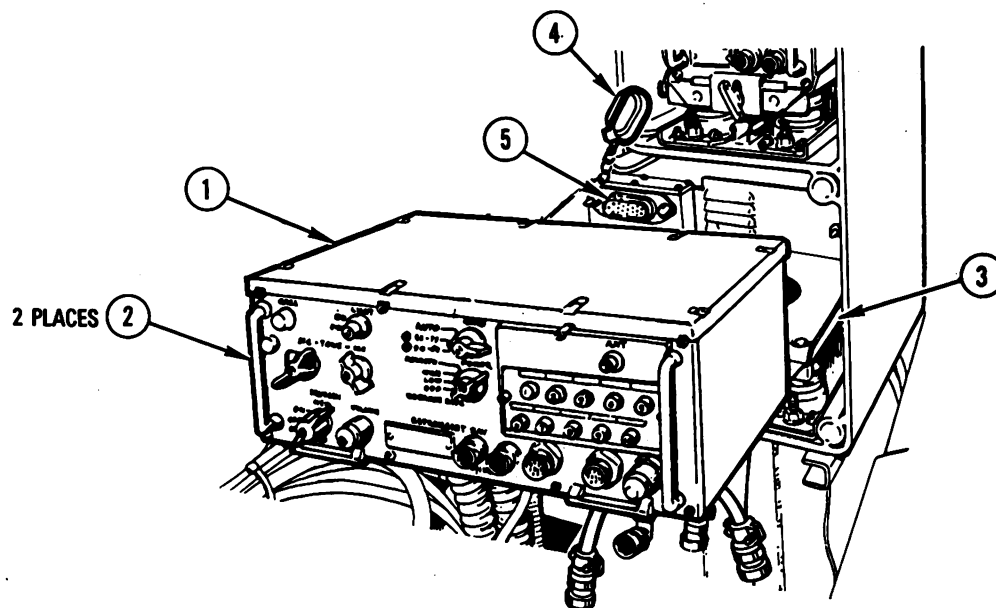
Do not lay receiver-transmitter (1) on its back. This can damage blower assembly.

1. Grasp two handles (2). Pull receiver-transmitter (1) straight out until clear of mount (3).
2. Look at receiver-transmitter (1) for cracks or breaks. If bad turn in. If OK set aside for later use.
3. Put dust cover (4) on connector (5).

Follow-on Maintenance:

NOTE: To install receiver-transmitter, refer to task 6.

TASK 1 ENDS HERE



ARR82-0181

TASK 2. Remove Auxiliary Receiver

Applicability: All Models

Common Tools:

Pliers, slip joint, conduit style with plastic jaw inserts

Special Tools: None

Supplies:

Protective caps and plugs (Bulk)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 3

Remove Receiver:

NOTE

Read para. 5-4, on removing connectors, before doing any work.

1. Unscrew and take off antenna connector (1) from auxiliary receiver (2).
2. Turn screw (3) counterclockwise to loosen mount clamp (4).

WARNING

Auxiliary receiver (2) is heavy. Use two handles (5) when lifting and handling it to avoid injury to personnel or damage to equipment.

CAUTION

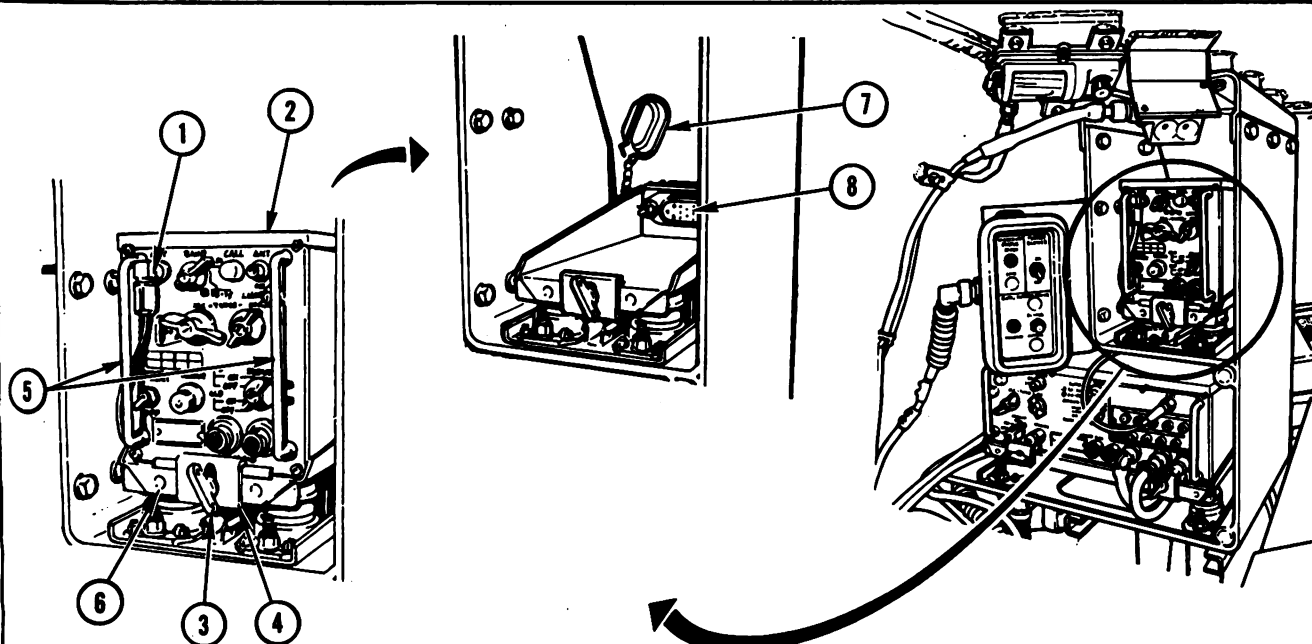
Do not lay auxiliary receiver (2) on its back. This can damage blower assembly.

3. Grasp two handles (5). Pull auxiliary receiver (2) straight out until clear of mount (6).
4. Look at auxiliary receiver (2) for cracks or breaks. If bad turn in. If OK set aside for later use.
5. Put dust cover (7) on connector (8).

Follow-on Maintenance:

NOTE: To install auxiliary receiver, refer to task 5.

TASK 2 ENDS HERE



ARR82-0182

TASK 3. Remove Audio Amplifier

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Screwdriver, flat tip
Socket, socket wrench, 3/8-inch square drive, 1/2-inch
Wrench, combination, 1/2-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Pencil, writing (Item 40)
Protective caps and plugs (Bulk)
Tag, marker (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 4

Remove Amplifier:

NOTE

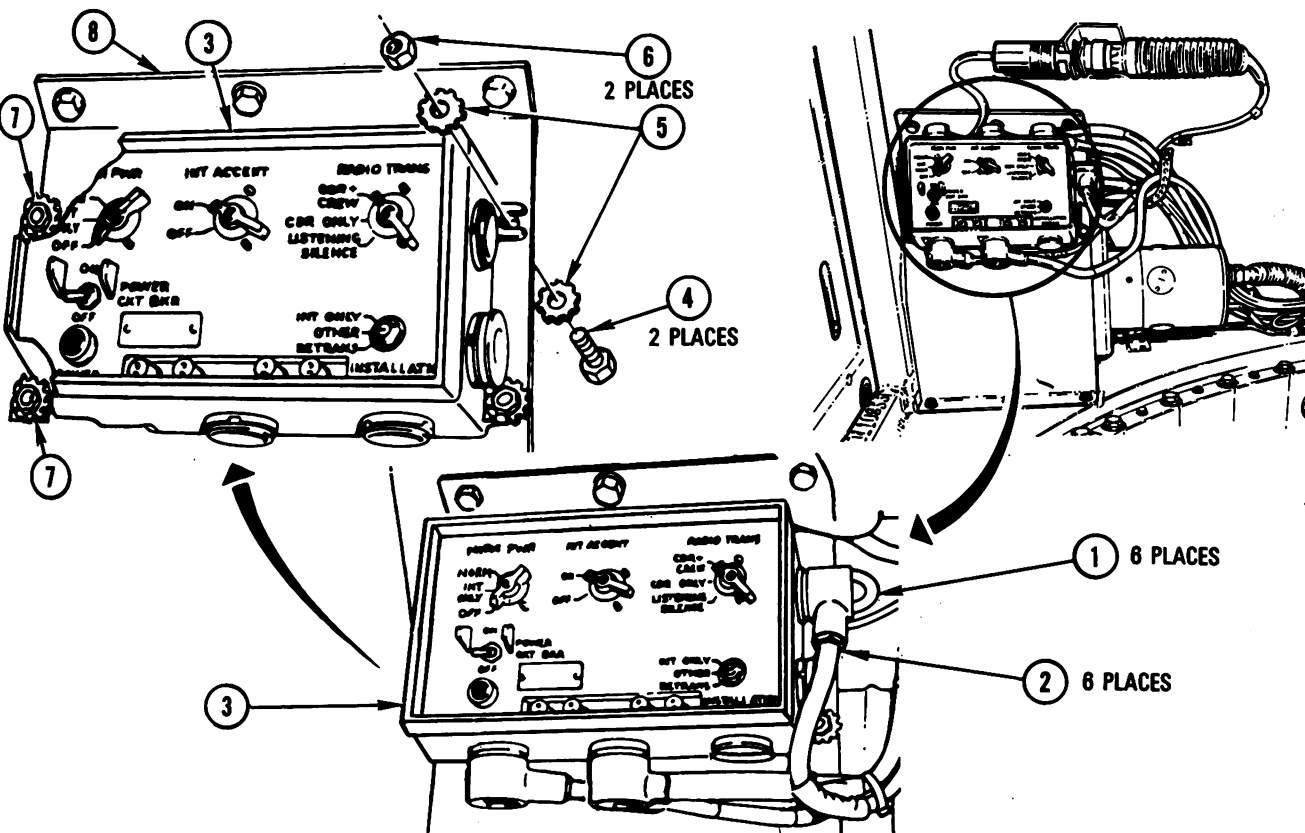
Read para. 5-4, on removing connectors, before doing any work.

1. Lift up six tabs (1) on connectors (2) with screwdriver. Turn tabs (1) counterclockwise and take off connectors (2) from audio amplifier (3).
2. Unscrew and take out two screws (4), four lockwashers (5), and two nuts (6) with socket, extension, handle, and wrench.
3. Loosen two nuts (7) with socket, extension, and handle.
4. Slide amplifier (3) off mount (8).
5. Look at amplifier (3) for cracks or breaks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install audio amplifier, refer to task 4.

TASK 3 ENDS HERE



ARR82-0183

TASK 4. Install Audio Amplifier

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Screwdriver, flat tip
Socket, socket wrench, 3/8-inch square drive, 1/2-inch
Wrench, combination, 1/2-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove audio amplifier; refer to task 3.

FRAME 5

Install Amplifier:

NOTE

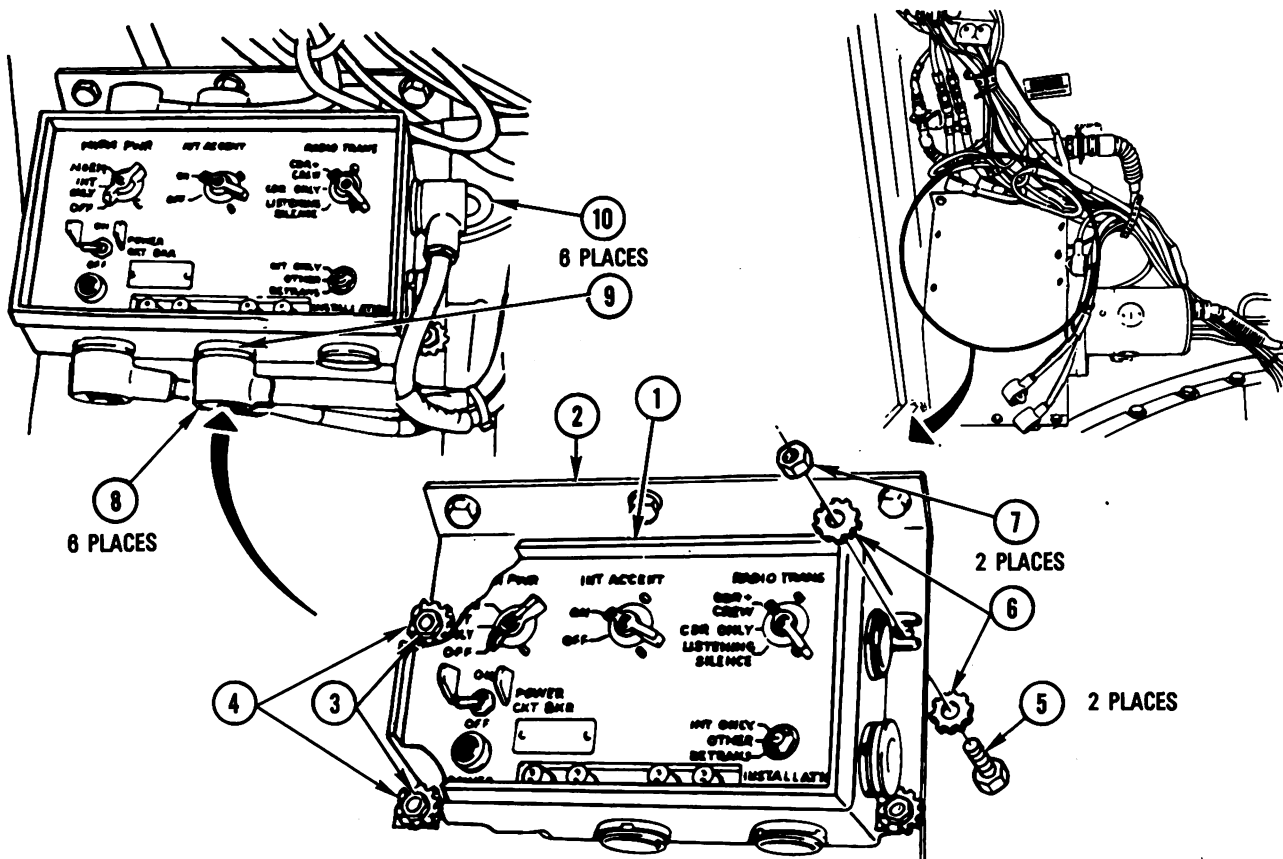
Read para. 5-4, on installing connectors, before doing any work.

1. Put amplifier (1) on mount (2) and under two nuts (3) and lockwashers (4). Line up two screw holes in amplifier (1) and mount (2).
2. Screw in and tighten two screws (5), four lockwashers (6), and two nuts (7) with socket, extension, handle, and wrench.
3. Tighten two nuts (3) using socket, extension, and handle.
4. Put six cables (8) on six amplifier connectors (9). Lift up six tabs (10) with screwdriver. Turn six tabs (10) clockwise to lock six cables (8) on six amplifier connectors (9).

Follow-on Maintenance:

Check audio amplifier and intercom system for proper operation; refer to TM 9-2350-255-10.

TASK 4 ENDS HERE



ARR82-0184

TASK 5. Install Auxiliary Receiver

Applicability: All Models

Common Tools: None

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove auxiliary receiver; refer to task 2.

FRAME 6**Install Receiver:****WARNING**

Auxiliary receiver (1) is heavy. Use two handles (2) when lifting and handling it to avoid injury to personnel or damage to equipment.

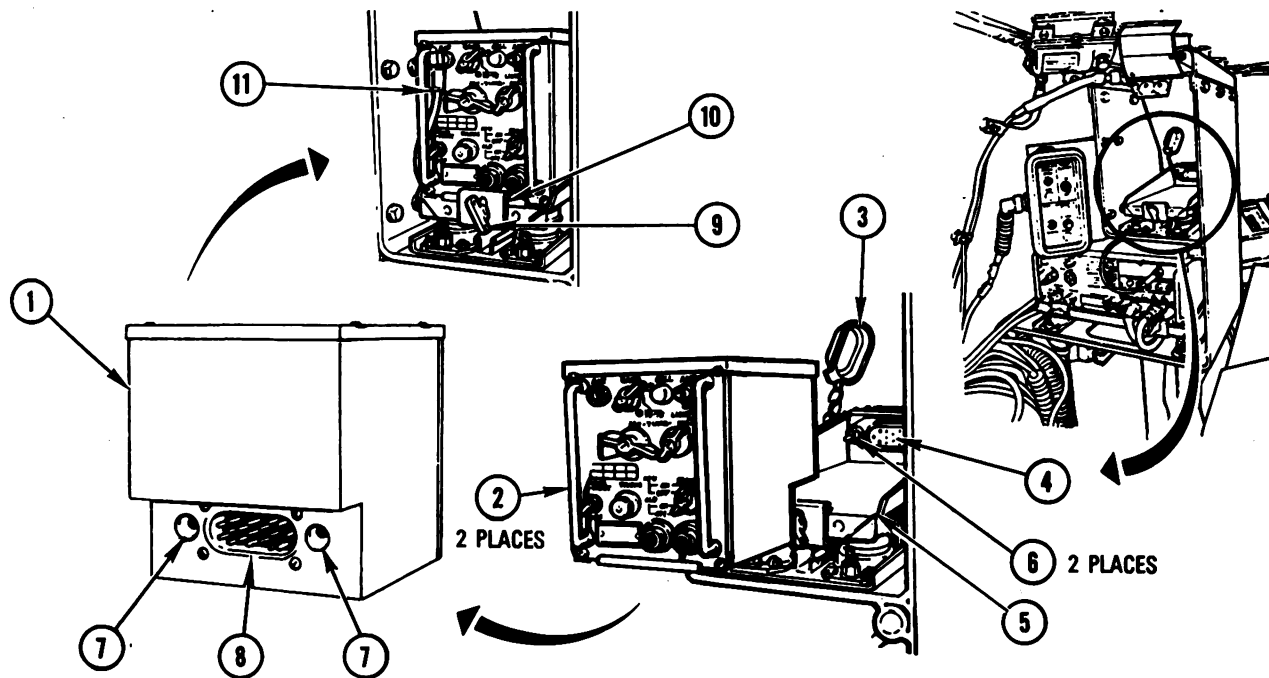
NOTE

Read para. 5-4 before doing any work.

1. Take dust cover (3) off mount connector (4).
2. Place auxiliary receiver (1) on mount (5).
3. Line up two guide pins (6) on mount (5) with two mounting holes (7) on back of auxiliary receiver (1).
4. Push auxiliary receiver (1) straight back to seat auxiliary receiver connector (8) firmly in mount connector (4).
5. Turn screw (9) clockwise to tighten mount clamp (10).
6. Screw on and tighten antenna connector (11) to auxiliary receiver (1).

Follow-on Maintenance:

Check auxiliary receiver for proper operation; refer to TM 9-2350-255-10.

TASK 5 ENDS HERE

ARR82-0185

TASK 5. Install Auxiliary Receiver

Applicability: All Models

Common Tools: None

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove auxiliary receiver; refer to task 2.

FRAME 6

Install Receiver:

WARNING

Auxiliary receiver (1) is heavy. Use two handles (2) when lifting and handling it to avoid injury to personnel or damage to equipment.

NOTE

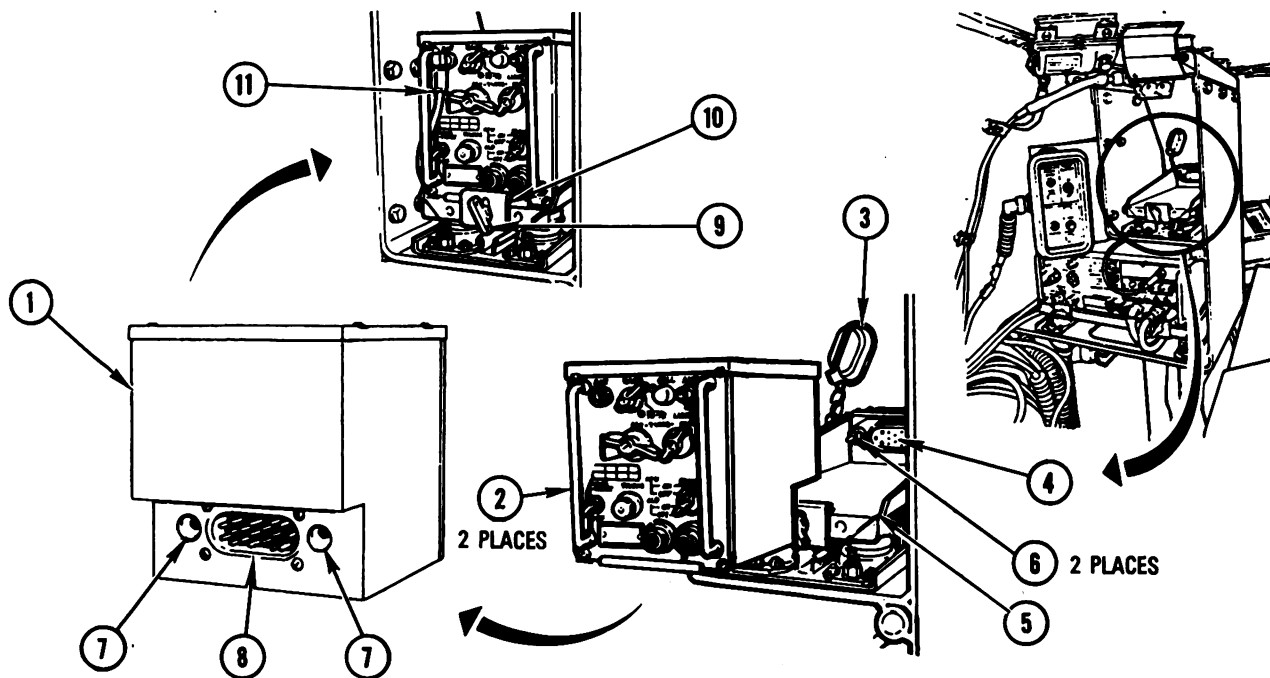
Read para. 5-4 before doing any work.

1. Take dust cover (3) off mount connector (4).
2. Place auxiliary receiver (1) on mount (5).
3. Line up two guide pins (6) on mount (5) with two mounting holes (7) on back of auxiliary receiver (1).
4. Push auxiliary receiver (1) straight back to seat auxiliary receiver connector (8) firmly in mount connector (4).
5. Turn screw (9) clockwise to tighten mount clamp (10).
6. Screw on and tighten antenna connector (11) to auxiliary receiver (1).

Follow-on Maintenance:

Check auxiliary receiver for proper operation; refer to TM 9-2350-255-10.

TASK 5 ENDS HERE



ARR82-0185

TASK 6. Install Receiver-Transmitter

Applicability: All Models

Common Tools: None

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove receiver-transmitter; refer to task 1.

FRAME 7**Install Receiver-Transmitter:****WARNING**

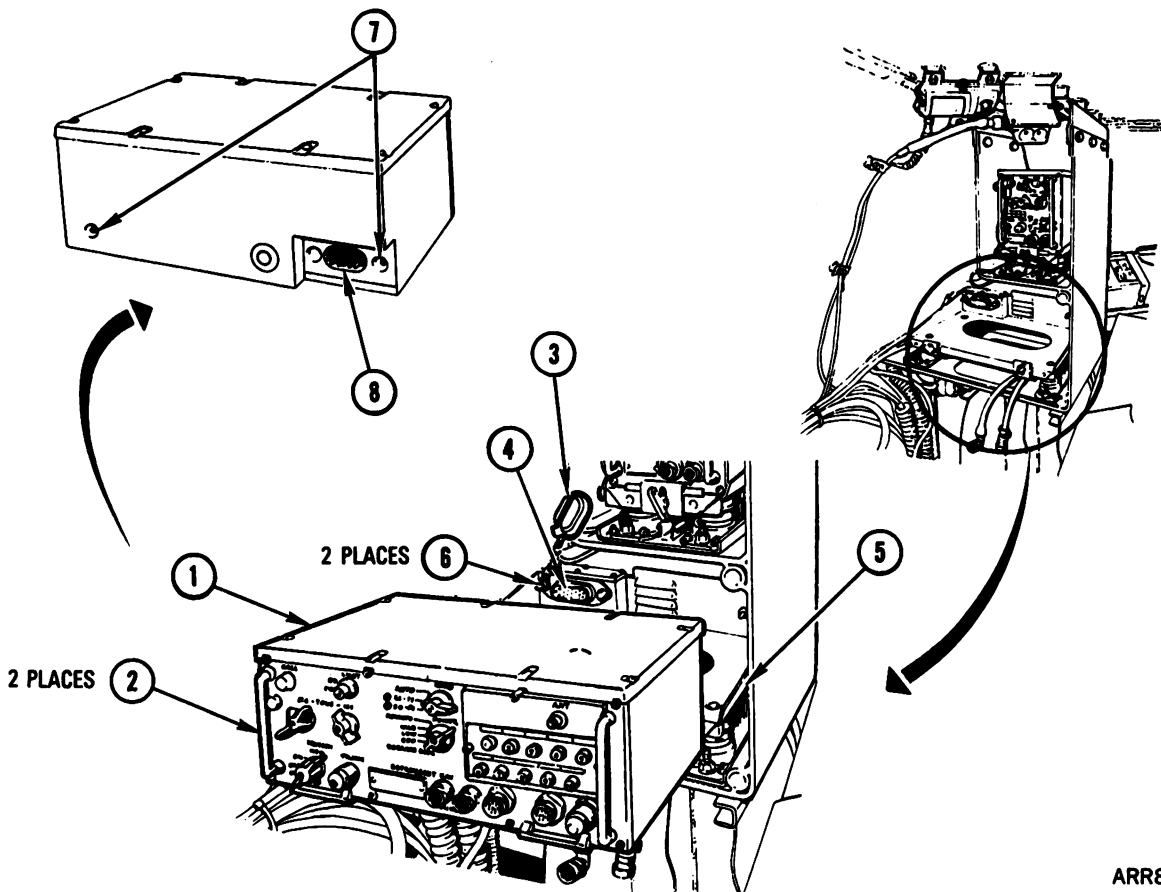
Receiver-transmitter (1) is heavy. Use two handles (2) when lifting and handling it to avoid injury to personnel or damage to equipment.

NOTE

Read para. 5-4 before doing any work.

1. Take dust cover (3) off mount connector (4).
2. Place receiver-transmitter (1) on mount (5).
3. Line up two guide pins (6) on mount (5) with two mounting holes (7) on back of receiver-transmitter (1).
4. Push receiver-transmitter (1) straight back to seat receiver-transmitter connector (8) firmly in mount connector (4).

GO TO FRAME 8



ARR82-0186

FRAME 8

Install Receiver-Transmitter (Continued):

NOTE

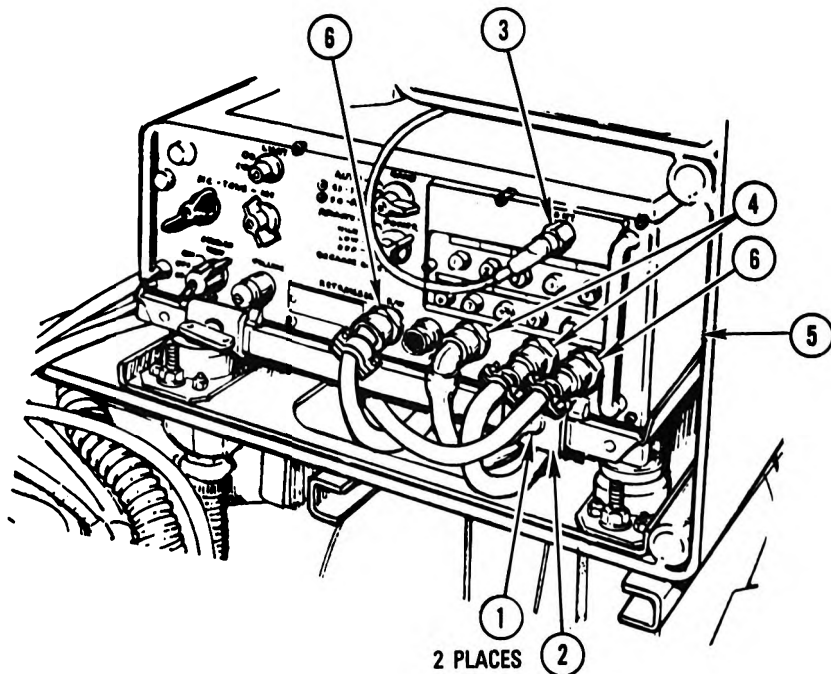
- If security units are put in, do steps 1, 2, and 3.
- If security units are not put in, skip step 3.

1. Turn two screws (1) clockwise to tighten two mount clamps (2).
2. Screw on and tighten antenna connector (3) and two electrical connectors (4) to receiver-transmitter (5).
3. Screw on and tighten two electrical connectors (6) to receiver-transmitter (5).

Follow-on Maintenance:

1. Check receiver-transmitter for proper operation; refer to TM 9-2350-255-10.
2. Install loader's intercom control box; refer to para. 5-5, task 17.
3. Install loader's shoulder guard; refer to para. 3-12, task 5.

END OF RECEIVER-TRANSMITTER, AUXILIARY RECEIVER, AND AUDIO AMPLIFIER MAINTENANCE



ARR82-0187

5-8. Audio Amplifier Bracket, Auxiliary Receiver Mount, Tray, Receiver-Transmitter Mount, Tray, and Radio Mount

Task	Title	Frames
1	Remove Audio Amplifier Bracket	1 - 2
2	Remove Auxiliary Receiver Tray	3
3	Remove Auxiliary Receiver Mount	4
4	Remove Receiver-Transmitter Tray	5
5	Remove Receiver-Transmitter Mount	6
6	Remove Radio Mount	7 - 8
7	Install Radio Mount	9 - 10
8	Install Receiver-Transmitter Mount	11
9	Install Receiver-Transmitter Tray	12
10	Install Auxiliary Receiver Mount	13
11	Install Auxiliary Receiver Tray	14
12	Install Audio Amplifier Bracket	15 - 16

TASK 1. Remove Audio Amplifier Bracket**Applicability:** All Models**Common Tools:**

Extension, socket wrench, 3/8-inch square drive, 5-inch
 Handle, socket wrench, ratchet, 3/8-inch square drive
 Pliers, slip joint, conduit style with plastic jaw inserts
 Socket, socket wrench, 3/8-inch square drive, 9/16-inch
 Wrench, combination, 7/16-inch
 Wrench, open end, 5/8-inch
 Wrench, open end, 1-3/16 inch

Special Tools: None**Supplies:**

NOTE: Expendable supplies are defined in appendix A.
 Pencil (Item 42)
 Protective caps and plugs (Bulk)
 Tag, marker (Item 54) (six required)

Personnel: One**Equipment Condition:**

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove audio amplifier; refer to para. 5-7, task 3.

FRAME 1

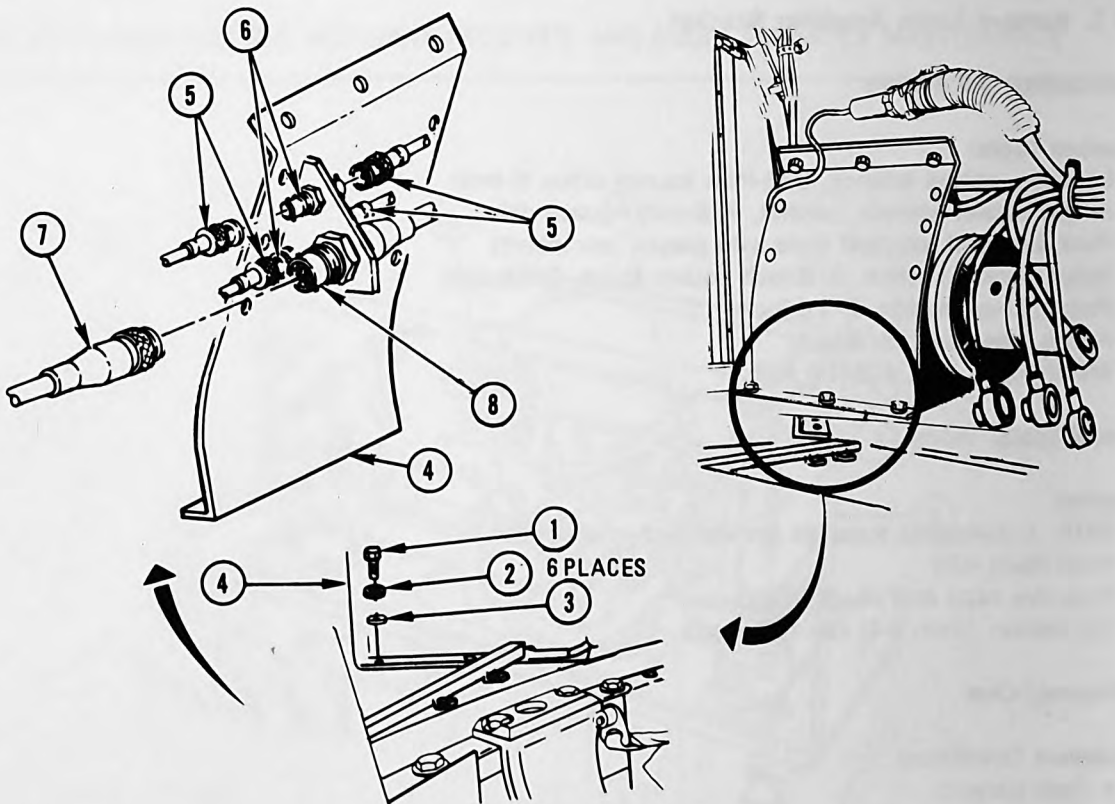
Remove Connectors:

NOTE

Read para. 5-4, on removing connectors, before doing any work.

1. Unscrew and take out six screws (1), lockwashers (2), and washers (3) from bracket (4) with socket, extension, and handle. Lift bracket (4) enough to reach connectors (5).
2. Unscrew and take off four connectors (5) from two adapters (6).
3. Unscrew and take off connector (7) from connector (8).

GO TO FRAME 2



ARR82-0307

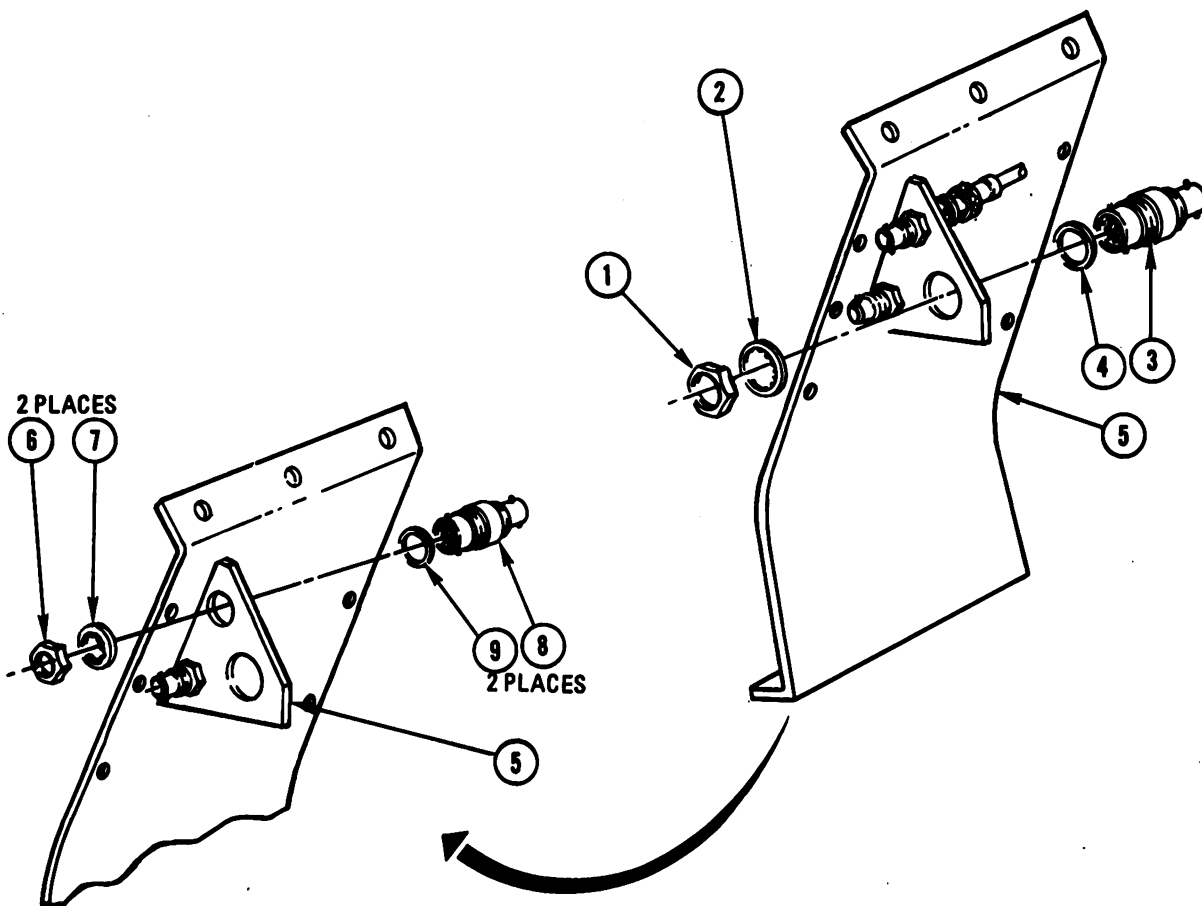
FRAME 2**Remove Connectors and Bracket:**

1. Unscrew and take off jamnut (1) and lockwasher (2) from connector (3) with 1-3/16 inch wrench.
2. Take out connector (3) and packing (4) from bracket (5).
3. Unscrew and take off two jamnuts (6) and lockwashers (7) from two adapters (8) with 5/8-inch wrench.
4. Take out adapters (8) and packings (9) from bracket (5).
5. Look at bracket (5) for cracks or breaks. Look at adapters (8) for stripped threads or ripped insulation. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install audio amplifier bracket, refer to task 12.

TASK 1 ENDS HERE



ARR82-0308

TASK 2. Remove Auxiliary Receiver Tray

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Screwdriver, cross tip, No. 2
Socket, socket wrench, 3/8-inch square drive, 1/2-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Cloth, abrasive, P-C-458 (Item 17)
Pencil (Item 42)
Tag, marker (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove auxiliary receiver; refer to para. 5-7, task 2.

FRAME 3

Remove Tray:

NOTE

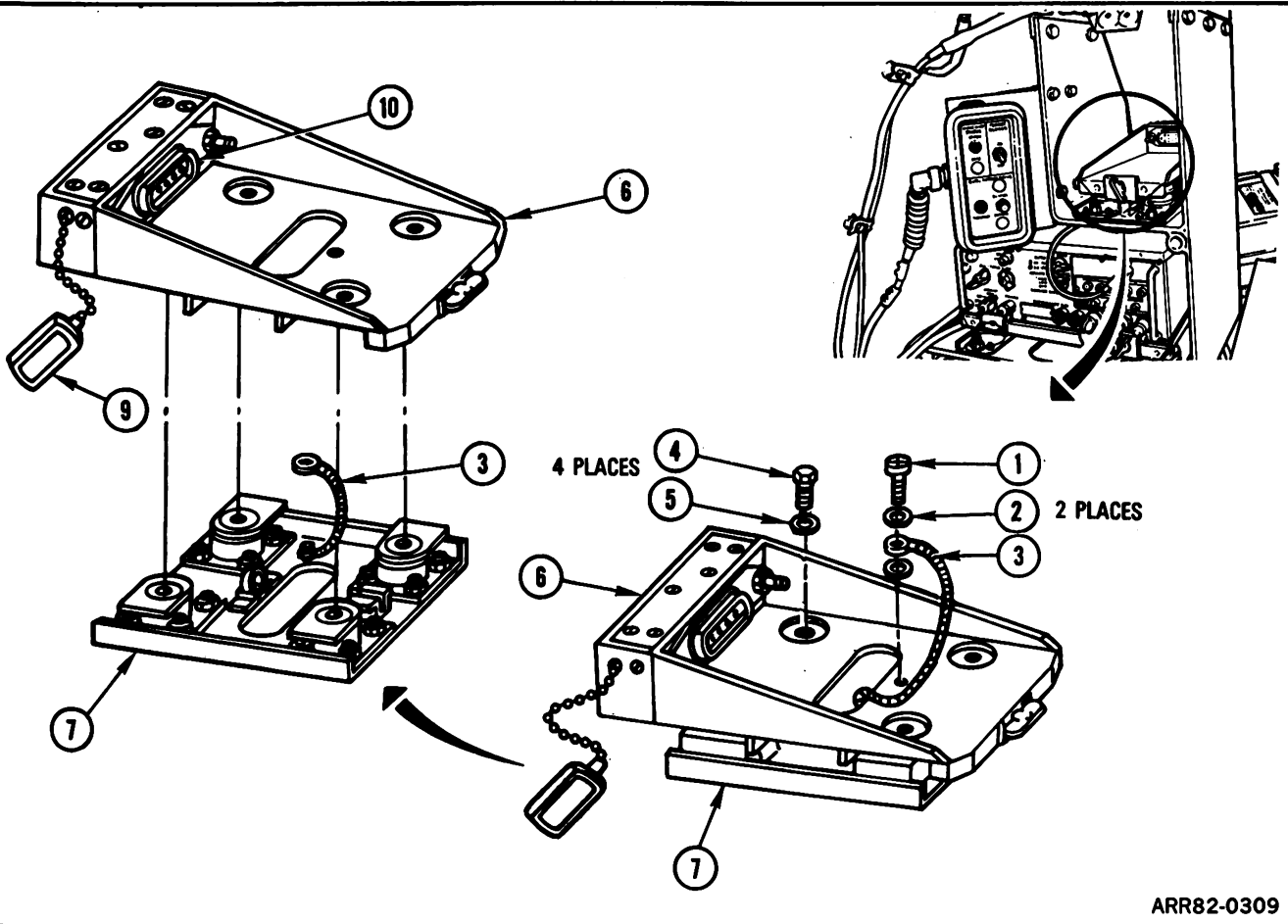
Read para. 5-4, before doing any work.

1. Unscrew and take out screw (1) and two lockwashers (2) from ground strap (3) with screwdriver.
2. Unscrew and take out four screws (4) and washers (5) from tray (6) and mount (7) with socket and handle.
3. Lift tray (6) from mount (7).
4. Look at all parts for cracks or breaks. Turn in bad parts. Set good parts aside for later use. Put dust cover (9) on connector (10).

Follow-on Maintenance:

1. To install auxiliary receiver tray, refer to task 11.
2. To install auxiliary receiver, refer to para. 5-7, task 5.

TASK 2 ENDS HERE



ARR82-0309

TASK 3. Remove Auxilliary Receiver Mount

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 1/2-inch
Wrench, combination, 1/2-Inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove loader's shoulder guard; refer to para. 3-12, task 5.
2. Remove auxiliary receiver; refer to para. 5-7, task 2.
3. Remove auxiliary receiver tray; refer to para. 5-8, task 2.
4. Remove auxiliary receiver junction box if installed on your tank, refer to para. 5-9, task 1.

FRAME 4**Remove Mount:****NOTE**

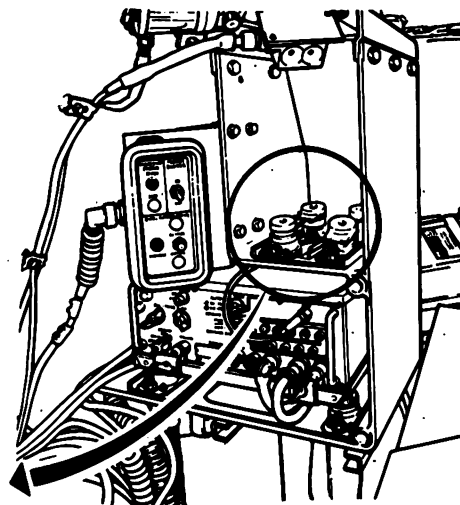
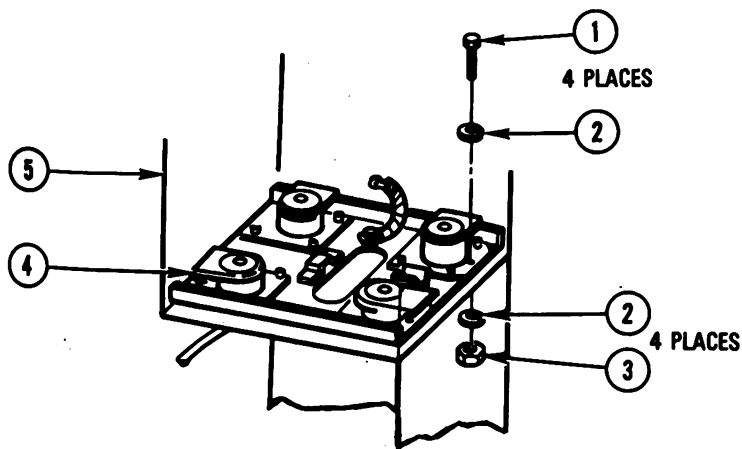
Read para. 5-4, on removing electrical component, before doing any work.

1. Unscrew and take out four screws (1), eight lockwashers (2), and four nuts (3) from auxiliary receiver mount (4) and radio mount (5) with socket, handle, and wrench. Take auxiliary receiver mount (4) off radio mount (5).
2. Look at auxiliary receiver mount (4) for cracks and breaks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install auxiliary receiver mount, refer to task 10.

TASK 3 ENDS HERE



ARR82-0310

TASK 4. Remove Receiver-Transmitter Tray

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Screwdriver, cross tip, No. 2
Socket, socket wrench, 3/8-inch square drive, 1/2-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in Appendix A.
Cloth, abrasive, P-C-458 (Item 17)
Pencil (Item 42)
Protective caps and plugs (Bulk)
Tag, marker (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove loader's shoulder guard; refer to para. 3-12, task 5.
2. Remove receiver-transmitter; refer to para. 5-7, task 1.

FRAME 5

Remove Tray:

NOTE

- Read para 5-4, before doing any work.
- Some tanks may have one ground strap (1). Two ground straps (1) are shown.

1. Unscrew and take out two screws (2), and four lockwashers (3), from two ground straps (1) and receiver-transmitter tray (4) with screwdriver.
2. Unscrew and take out five screws (5) and washers (6) from tray (4) and receiver-transmitter mount (7) with socket and handle. Lift tray (4) up and away from mount (7) enough to gain access to three J-connectors (8).

NOTE

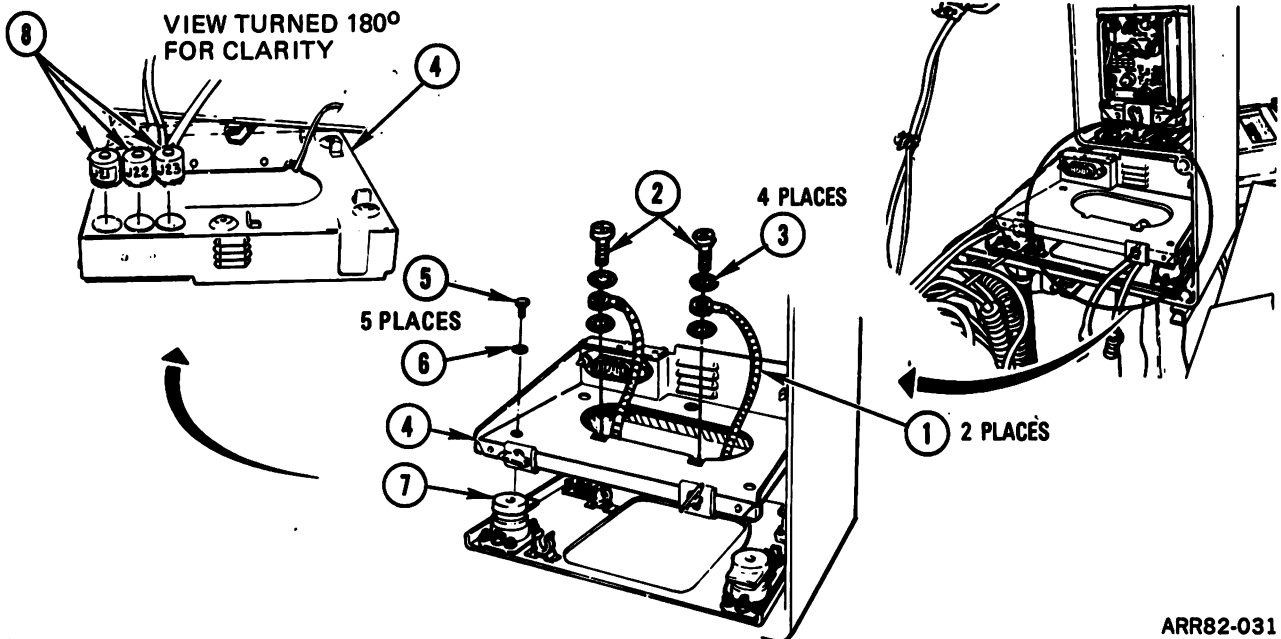
Tray (4) has been turned over to show location of three J-connectors (8).

3. Reach under tray (4) and unscrew and take off three J-connectors (8).
4. Take out tray (4).
5. Look at tray (4) for cracks, bends, breaks, and dents. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install receiver-transmitter tray, refer to task 9.

TASK 4 ENDS HERE



TASK 5. Remove Receiver-Transmitter Mount

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 1/2-inch
Wrench, combination, 1/2-inch (two required)

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove loader's intercom control box; refer to para. 5-5, task 15.
2. Remove loader's shoulder guard; refer to para. 3-12, task 5.
3. Remove receiver-transmitter; refer to para. 5-7, task 1.
4. Remove receiver-transmitter tray; refer to task 4.
5. Remove receiver-transmitter junction box if installed in your tank; refer to para. 5-9, task 2.

FRAME 6

Remove Mount:

NOTE

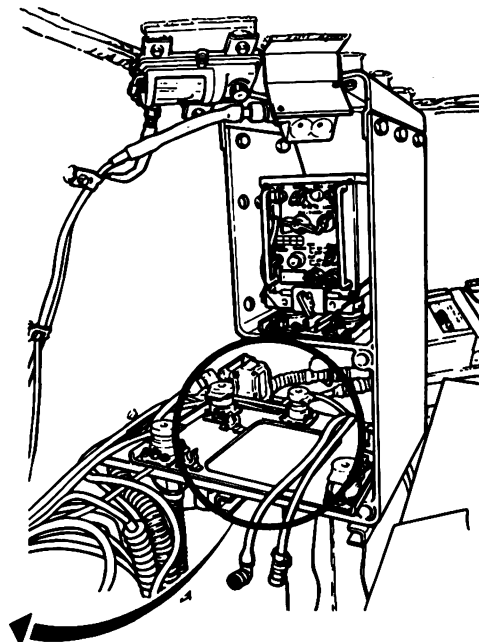
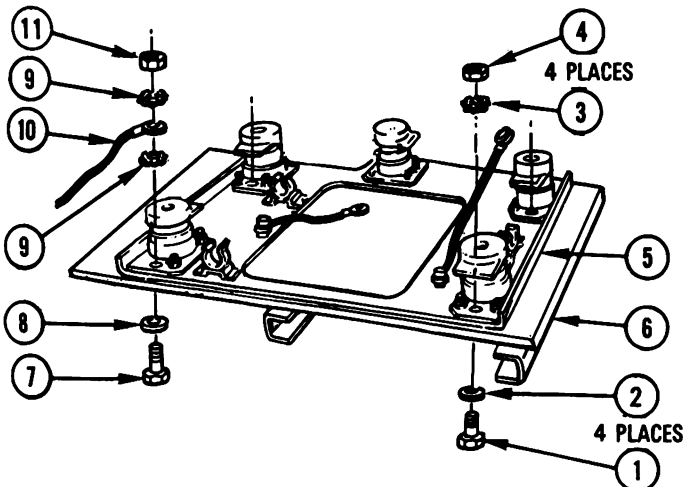
Read para. 5-4, on removing electrical parts, before doing any work.

1. Unscrew and take out four screws (1), washers (2), lockwashers (3), and nuts (4) from receiver-transmitter mount (5), and radio mount (6) with two wrenches.
2. Unscrew and take out screw (7), washer (8), two lockwashers (9), ground strap (10), and nut (11) from receiver-transmitter mount (5), and radio mount (6) with socket, handle, and wrench.
3. Take out receiver-transmitter mount. (5).
4. Look at receiver-transmitter mount (5) for cracks, bends and breaks. If bad turn in. If OK, set aside for later use.

Follow-on Maintenance:

NOTE: To install receiver-transmitter mount, refer to task 8.

TASK 5 ENDS HERE



ARR82-0312

TASK 6. Remove Radio Mount

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Screwdriver, cross tip, offset, No. 4
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Universal Joint, socket wrench, 3/8-inch square drive
Wrench, combination, 7/16-inch
Wrench, combination, 9/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

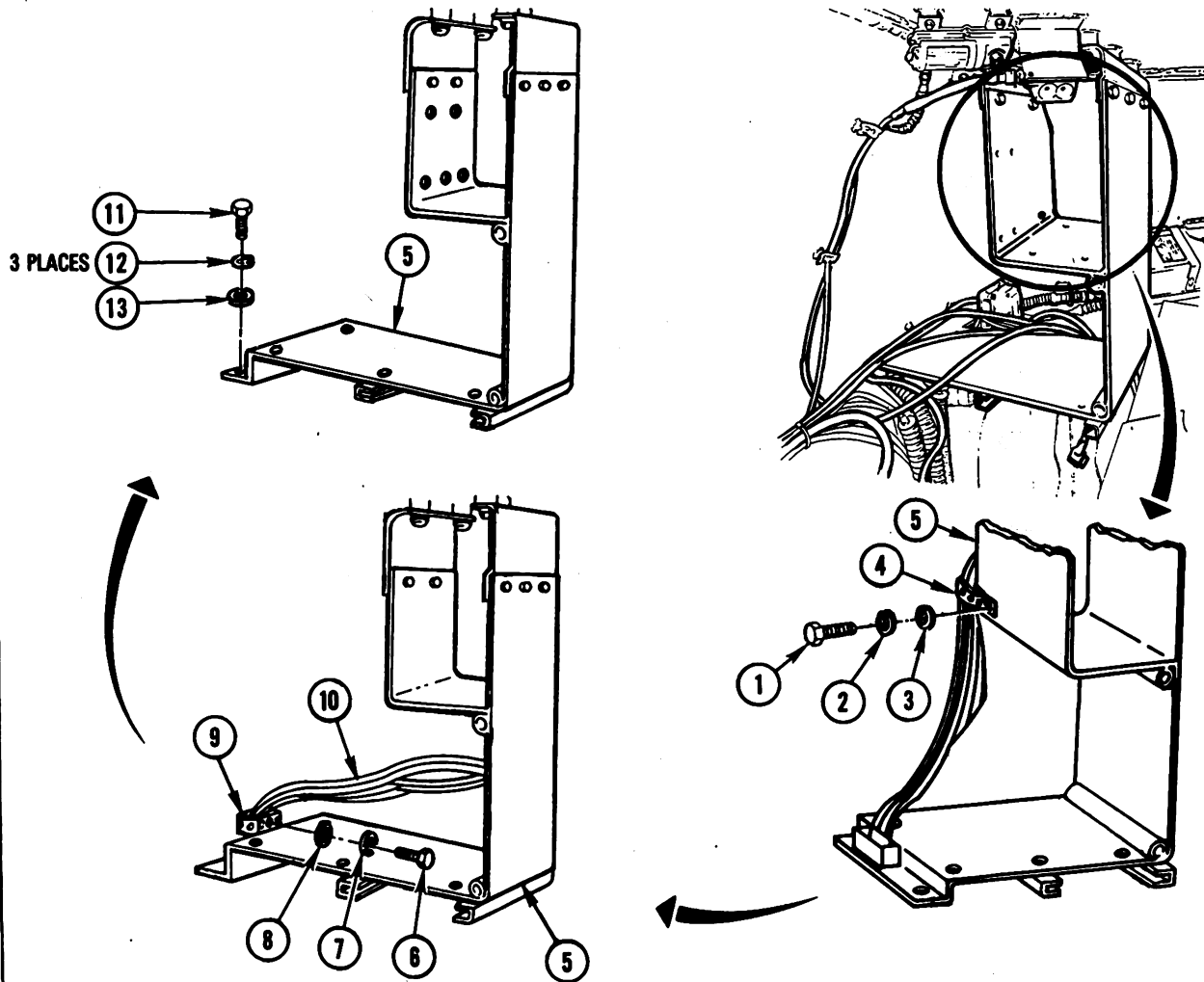
1. Remove loader's shoulder guard; refer to para. 3-12, task 5.
2. Remove auxillary receiver; refer to para. 5-7, task 2.
3. Remove auxilliary receiver tray; refer to task 2.
4. Remove auxillary receiver junction box if installed on your tank; refer to para. 5-9, task 1.
5. Remove auxillary receiver mount; refer to task 3.
6. Remove loader's panel and bracket; refer to TM 9-2350-255-20-2-3-1, para. 2-6.
7. Remove receiver-transmitter; refer to para. 5-7, task 1.
8. Remove receiver-transmitter tray; refer to task 4.
9. Remove receiver-transmitter junction box if installed in your tank; refer to para. 5-9, task 2.
10. Remove receiver-transmitter mount; refer to task 5.
11. Remove orifice connector assembly and angle bracket; refer to TM 9-2350-255-20-2-3-3, para. 8-4.
12. Remove loader's heater assembly; refer to TM 9-2350-255-20-2-3-3, para. 8-4.

FRAME 7

Remove Mount:

1. Unscrew and take out screw (1), lockwasher (2), and washer (3) from clamp (4) and radio mount (5) with 7/16-inch wrench. Get rid of lockwasher (2).
2. Unscrew and take out screw (6), lockwasher (7), and washer (8) from clamp (9) and turret wall with 7/16-inch wrench. Get rid of lockwasher (7). Move harness (10) away from radio mount (5).
3. Unscrew and take out three screws (11), lockwashers (12), and washers (13) from radio mount (5) with socket, universal joint, extension, and handle. Get rid of lockwashers (12).

GO TO FRAME 8



ARR82-0313

FRAME 8

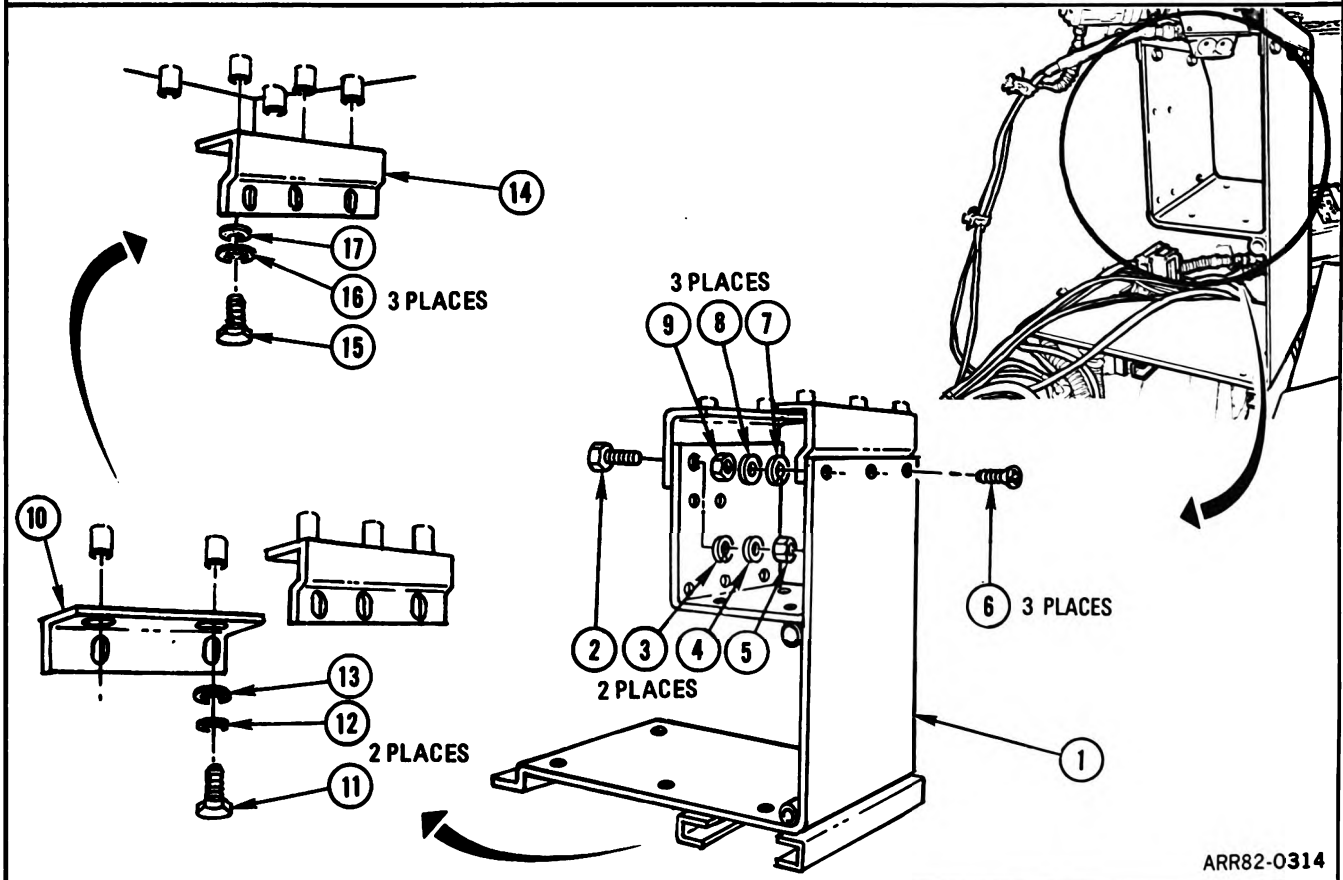
Remove Mount (Continued):

1. Hold radio mount (1). Unscrew and take out two screws (2), lockwashers (3), washers (4), and nuts (5) with socket, handle, and 9/16-inch wrench. Get rid of lockwashers (3).
2. Unscrew and take out three screws (6), lockwashers (7), washers (8), and nuts (9) from radio mount (1) with socket, handle, and screwdriver. Get rid of lockwashers (7). Lower radio mount (1).
3. Hold bracket (10). Unscrew and take out two screws (11), lockwashers (12), and washers (13) from bracket (10) with socket, extension, and handle. Get rid of lockwashers (12). Take off bracket (10).
4. Hold bracket (14). Unscrew and take out three screws (15), lockwashers (16), and washers (17) from bracket (14) with socket, extension, and handle. Get rid of lockwashers (16). Take off bracket (14).
5. Look at all parts for cracks and breaks. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install radio mount, refer to task 7.

TASK 6 ENDS HERE



ARR82-0314

TASK 7. Install Radio Mount

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Screwdriver, cross tip, offset, No. 4
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Universal Joint, socket wrench, 3/8-inch square drive
Wrench, combination, 7/16-inch
Wrench, combination, 9/16-inch

Special Tools: None

Supplies:

Lockwasher, bracket (96906) MS35333-42 (five required)
Lockwasher, clamp (96906) MS35333-40 (two required)
Lockwasher, radio mount (96906) MS35333-42 (eight required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

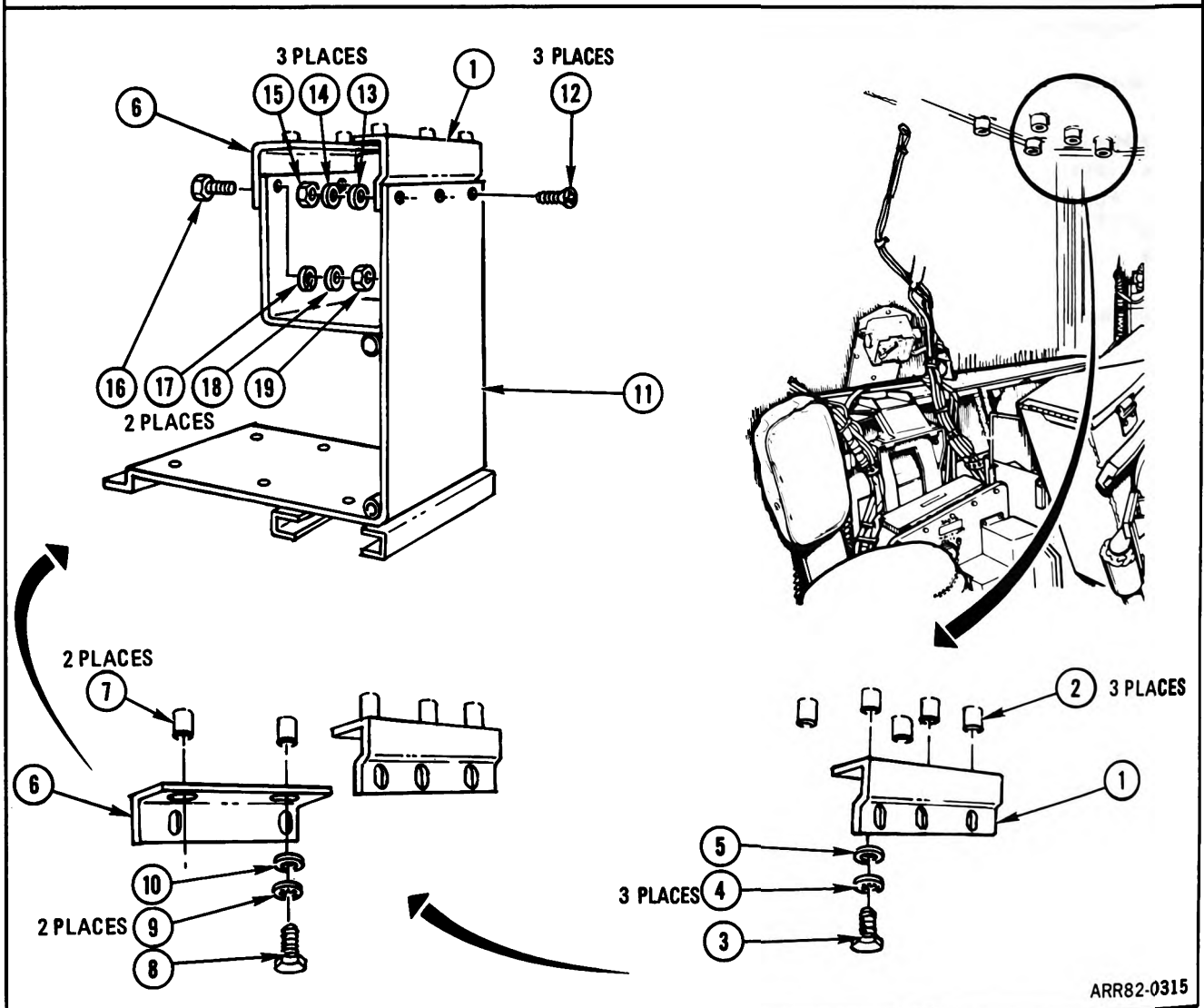
Remove radio mount; refer to task 6.

FRAME 9

Install Mount:

1. Line up holes in bracket (1) with three turret standoffs (2). Screw in but do not tighten three screws (3), new lockwashers (4), and washers (5) to bracket (1) with socket, extension, and handle.
2. Line up holes in bracket (6) with two turret standoffs (7). Screw in but do not tighten two screws (8), new lockwashers (9), and washers (10) to bracket (6) with socket, extension, and handle.
3. Line up holes in radio mount (11) with holes in two brackets (1, 6). Screw in and tighten three screws (12), new lockwashers (13), washers (14), and nuts (15) to radio mount (11) and bracket (1) with socket, handle, and screwdriver.
4. Screw in and tighten two screws (16), new lockwashers (17), washers (18), and nuts (19) to radio mount (11) and bracket (6) with socket, handle, and 9/16-inch wrench.

GO TO FRAME 10



ARR82-0315

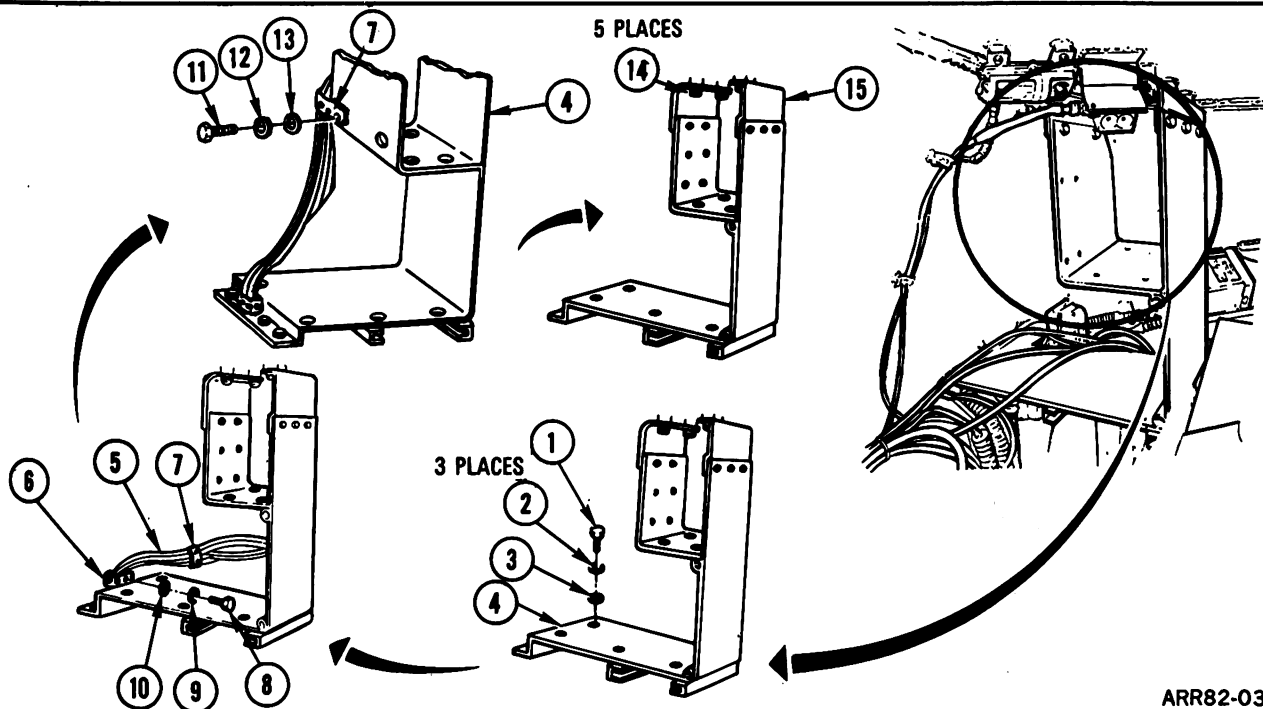
FRAME 10**Install Mount (Continued):**

1. Screw in and tighten three screws (1), new lockwashers (2), and washers (3) to radio mount (4) with socket, universal joint, and handle.
2. Put harness (5) and two clamps (6, 7) in place on radio mount (4). Screw in and tighten screw (8), new lockwasher (9), washer (10), and clamp (6) to turret wall with 7/16-inch wrench.
3. Screw in and tighten screw (11), new lockwasher (12), washer (13), and clamp (7) to radio mount (4) with 7/16-inch wrench.
4. Tighten five screws (14) in radio mount bracket (15) with socket, extension, and handle.

Follow-on Maintenance:

1. Install loader's heater assembly; refer to TM 9-2350-255-20-2-3-3, para. 8-4.
2. Install orifice connector assembly and angle bracket; refer to TM 9-2350-255-20-2-3-3, para. 8-4.
3. Install receiver-transmitter mount; refer to task 8.
4. Install receiver-transmitter junction box if installed on your tank; refer to para. 5-9, task 3.
5. Install receiver-transmitter tray; refer to task 9.
6. Install receiver-transmitter; refer to para. 5-7, task 6.
7. Install loader's panel and bracket; refer to TM 9-2350-255-20-2-3-1, para. 2-6.
8. Install auxiliary receiver mount; refer to task 10.
9. Install auxiliary receiver junction box if installed on your tank; refer to para. 5-9, task 4.
10. Install auxiliary receiver tray; refer to task 11.
11. Install auxiliary receiver; refer to para. 5-7, task 5.
12. Install loader's shoulder guard; refer to para. 3-12, task 12.

TASK 7 ENDS HERE



ARR82-0316

TASK 8. Install Receiver-Transmitter Mount

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 1/2-inch
Wrench, combination, 1/2-inch (two required)

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove receiver-transmitter mount; refer to task 5.

FRAME 11

Install Mount:

NOTE

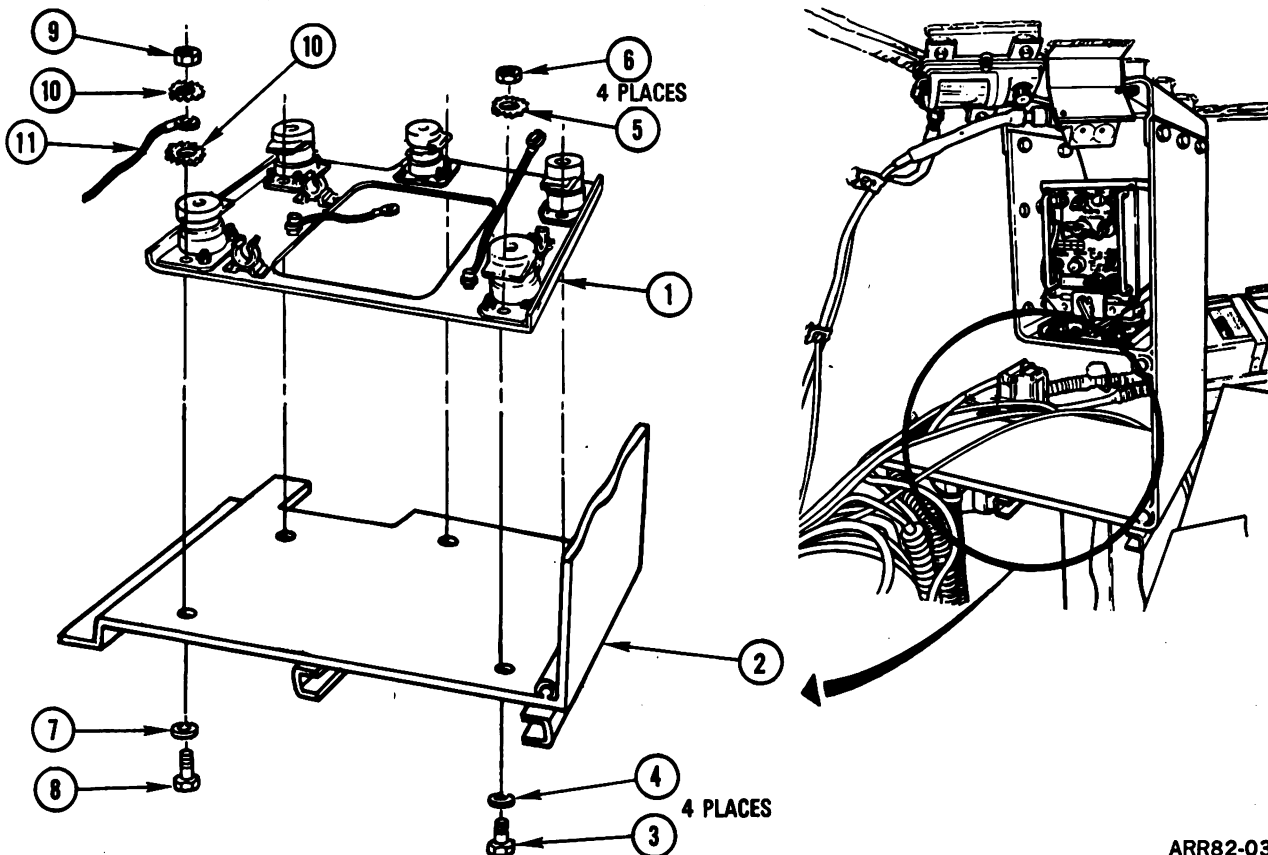
Read para. 5-4, on removing electrical parts, before doing any work.

1. Put receiver-transmitter mount (1) in place on radio mount (2).
2. Screw on and tighten four screws (3), washers (4), lockwashers (5), and nuts (6), to receiver-transmitter mount (1) and radio mount (2) with socket, handle, and wrench.
3. Put washer (7) on screw (8). Put screw (8) through holes in mounts (1, 2). Screw on and tighten nut (9), lockwasher (10), ground strap (11), and other lockwasher (10) to screw (8) with two wrenches.

Follow-on Maintenance:

1. Install receiver-transmitter junction box if installed on your tank; refer to para. 5-9, task 3.
2. Install receiver-transmitter tray; refer to task 9.
3. Install receiver-transmitter; refer to para. 5-7, task 6.
4. Install loader's shoulder guard; refer to para. 3-12, task 12.
5. Install loader's intercom control box; refer to para. 5-5, task 17.

TASK 8 ENDS HERE



ARR82-0317

TASK 9. Install Receiver-Transmitter Tray

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Screwdriver, cross tip, No. 2
Socket, socket wrench, 3/8-inch square drive, 1/2-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove receiver-transmitter tray; refer to task 4.

FRAME 12

Install Tray:

NOTE

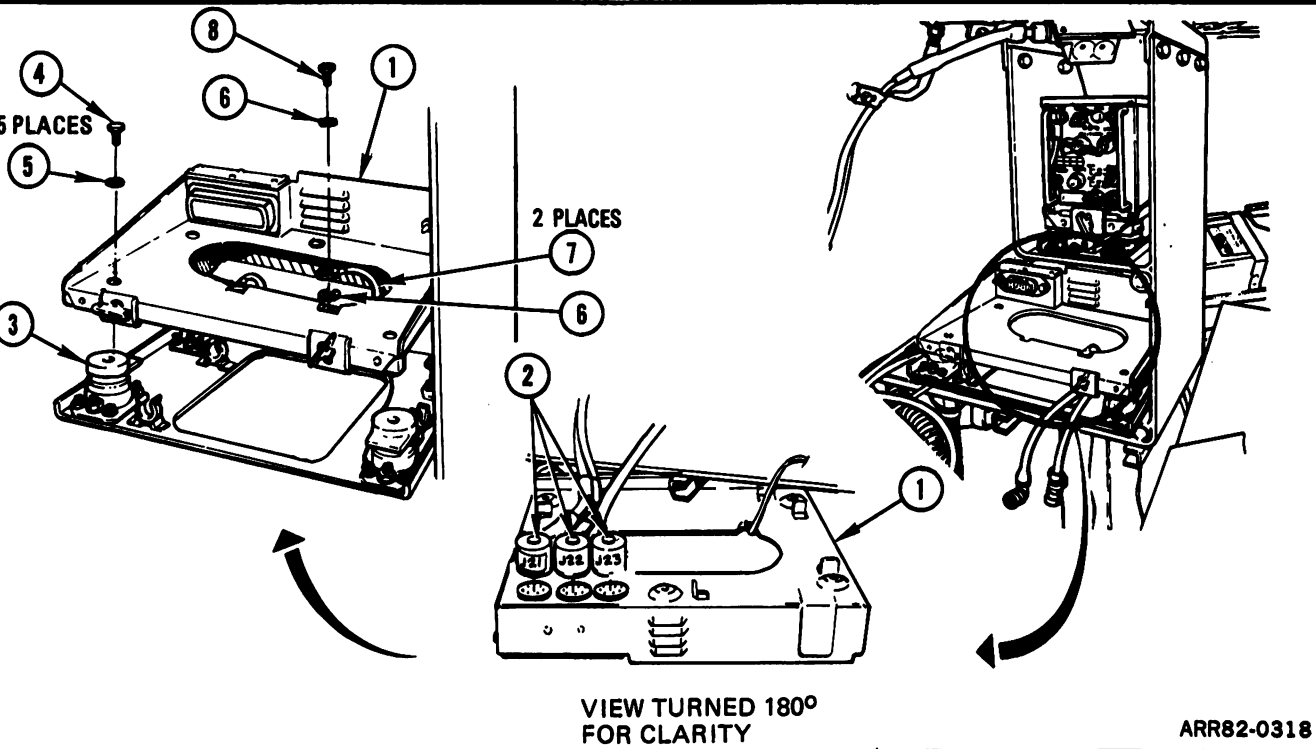
- Read para. 5-4 before doing any work.
- Receiver-transmitter tray (1) has been turned over to show where three J-connectors (2) are to be put on.

1. Hold tray (1) in position over receiver-transmitter mount (3). Line up J-numbers on three connectors (2) with matching J-numbers on tray (1). Screw on and tighten connectors (2).
2. Line up holes in tray (1) with holes in mount (3).
3. Screw in and tighten five screws (4), and washers (5) in tray (1) and mount (3) with socket and handle.
4. Put one lockwasher (6), ground strap (7), other lockwasher (6) on screw (8). Screw in and tighten screw (8) with screwdriver. If there is only one electrical lead (7) go to follow-on maintenance. If there are two leads (7), go to step 5.
5. Do step 4 again to put on other ground strap (7).

Follow-on Maintenance:

1. Install receiver-transmitter; refer to para. 5-7, task 6.
2. Install loader's shoulder guard; refer to para. 3-12, task 12.

TASK 9 ENDS HERE



TASK 10. Install Auxiliary Receiver Mount

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 1/2-inch
Wrench, combination, 1/2-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove auxiliary receiver mount; refer to task 3.

FRAME 13

Install Mount:

NOTE

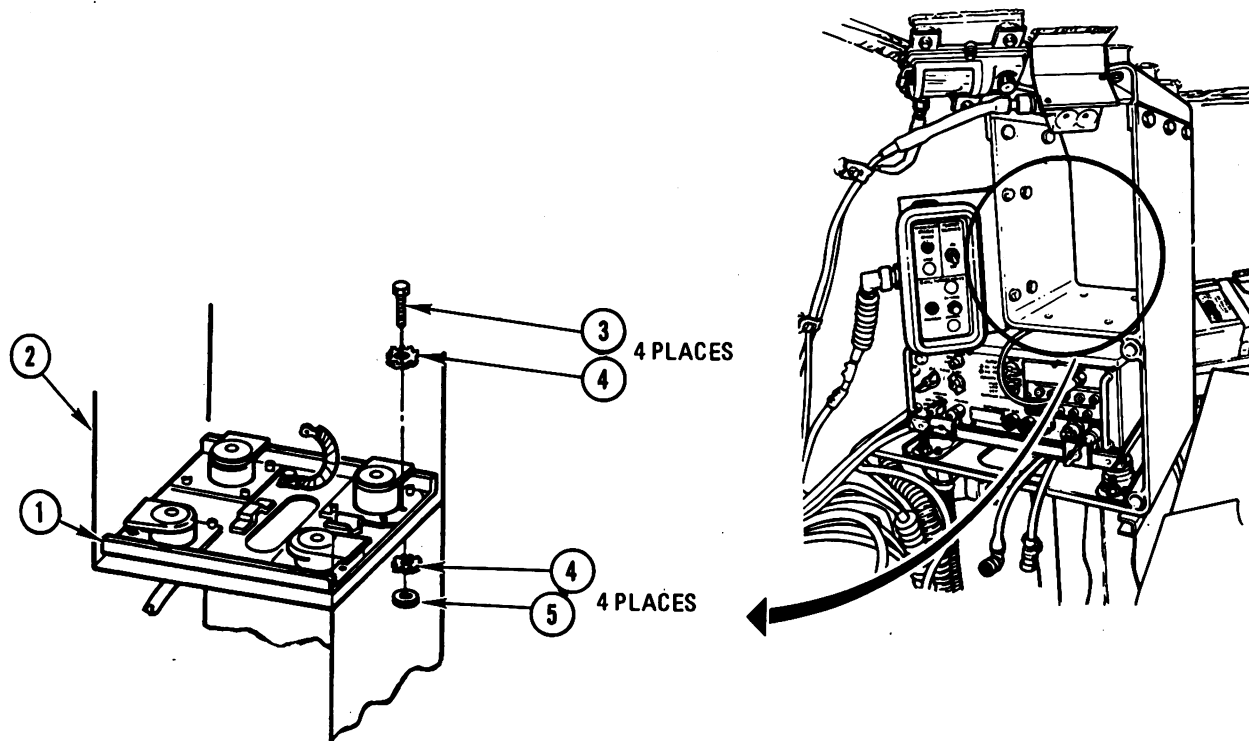
Read para. 5-4, on removing electrical parts, before doing any work.

1. Align mounting holes in auxiliary receiver mount (1) with holes in radio mount (2).
2. Screw in and tighten four screws (3), eight lockwashers (4), and four nuts (5) with socket, handle, and wrench.

Follow-on Maintenance:

1. Install auxiliary receiver junction box; refer to para. 5-9, task 4.
2. Install auxiliary receiver tray; refer to task 11.
3. Install auxiliary receiver; refer to para. 5-7, task 5.
4. Install loader's shoulder guard; refer to para. 3-12, task 12.

TASK 10 ENDS HERE



ARR82-0319

TASK 11. Install Auxiliary Receiver Tray

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Screwdriver, cross tip, No. 2
Socket, socket wrench, 3/8-inch square drive, 1/2-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove auxiliary receiver tray; refer to task 2.

FRAME 14

Install Tray:

NOTE

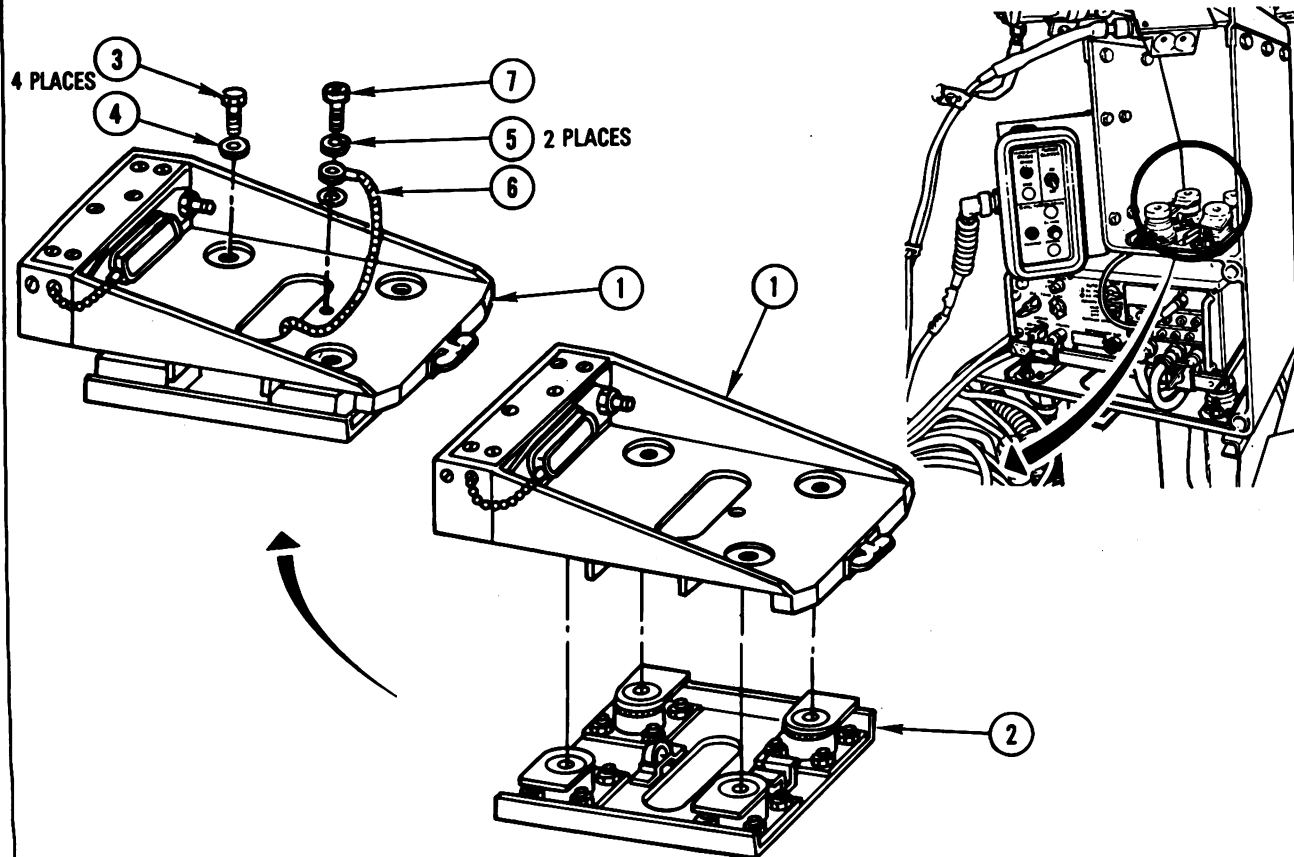
Read para. 5-4 before doing any work.

1. Line up holes in auxiliary receiver tray (1) with holes in auxiliary receiver mount (2).
2. Screw in and tighten four screws (3), and washers (4) with socket and handle.
3. Put one lockwasher (5), ground strap (6) and other lockwasher (5) on screw (7).
4. Screw in and tighten screw (7) in tray (1) with screwdriver.

Follow-on Maintenance:

Install auxiliary receiver; refer to para. 5-7, task 5.

TASK 11 ENDS HERE



ARR82-0320

TASK 12. Install Audio Amplifier Bracket

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, slip joint, conduit style with plastic jaw inserts
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, combination, 7/16-inch
Wrench, open end, 5/8-inch
Wrench, open end, 1-3/16 inch

Special Tools: None

Supplies:

Lockwasher, bracket (96906) MS35333-42 (six required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove audio amplifier bracket; refer to task 1.

FRAME 15

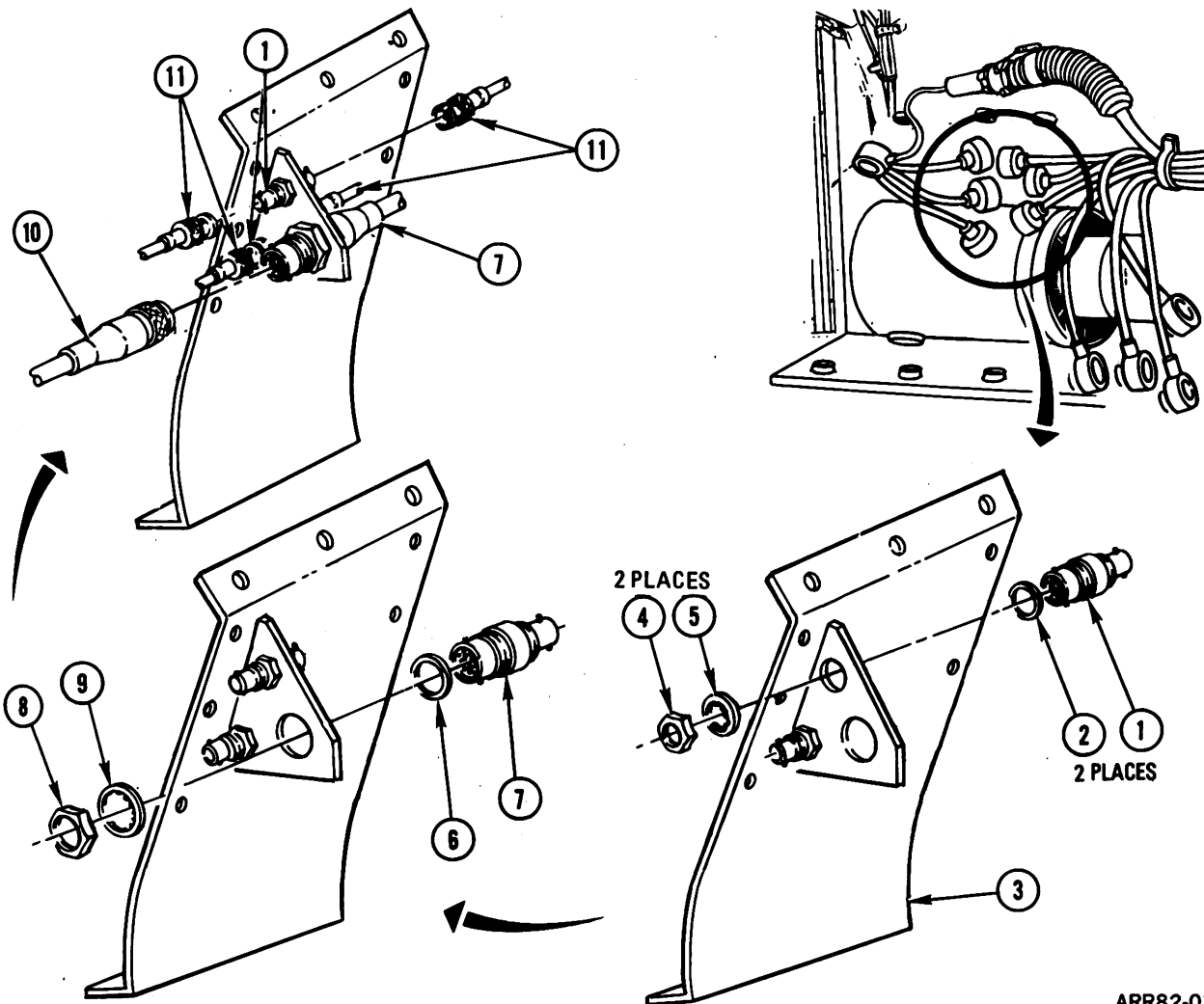
Install Connectors:

NOTE

Read para. 5-4, on installing connectors, before doing any work.

1. Put two adapters (1) and packings (2) in bracket (3). Screw on and tighten two jamnuts (4) and lockwashers (5) with 5/8 wrench.
2. Put packing (6) on connector (7). Put end of connector (7) through hole in bracket (3). Screw on and tighten jamnut (8) and lockwasher (9) with 1-3/16 inch wrench.
3. Screw connector (10) on connector (7).
4. Screw four connectors (11) on two adapters (1).

GO TO FRAME 16



ARR82-0321

FRAME 16

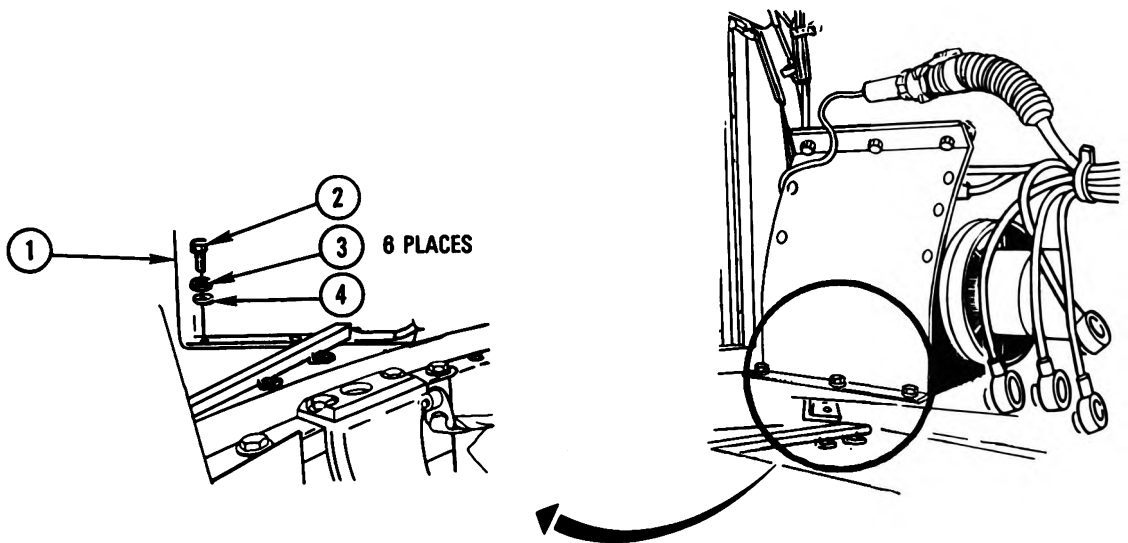
Install Bracket:

1. Align holes in audio amplifier mounting bracket (1) with turret mounting holes.
2. Screw in and tighten six screws (2), new lockwashers (3), and washers (4) with socket, extension, and handle.

Follow-on Maintenance:

Install audio amplifier; refer to para. 5-7, task 4.

END OF AUDIO AMPLIFIER BRACKET, AUXILIARY RECEIVER MOUNT, TRAY, RECEIVER-TRANSMITTER MOUNT, TRAY, AND RADIO MOUNT MAINTENANCE



ARR82-0322

5-9. Junction Boxes: Auxiliary Receiver and Receiver-Transmitter

Task	Title	Frames
1	Remove Auxiliary Receiver Junction Box	1
2	Remove Receiver-Transmitter Junction Box	2
3	Install Receiver-Transmitter Junction Box	3
4	Install Auxiliary Receiver Junction Box	4

TASK 1. Remove Auxiliary Receiver Junction Box**Applicability:** All Models**Common Tools:**

Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, slip joint, with plastic jaw inserts
Screwdriver, flat tip
Socket, socket wrench, 3/8-inch square drive, 1/2-inch

Special Tools: None**Supplies:**

NOTE: Expendable supplies are defined in appendix A.
Cloth, abrasive, P-C-458 (Item 16)
Pencil (Item 42)
Protective caps and plugs (Bulk)
Rag, wiping (Item 45)
Tag, marker (Item 54) (as required)

Personnel: One**Equipment Condition:**

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

Remove auxiliary receiver; refer to para. 5-7, task 2.

FRAME 1

Remove Junction Box:

NOTE

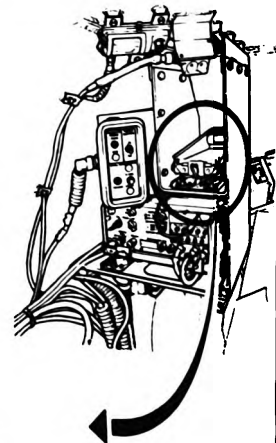
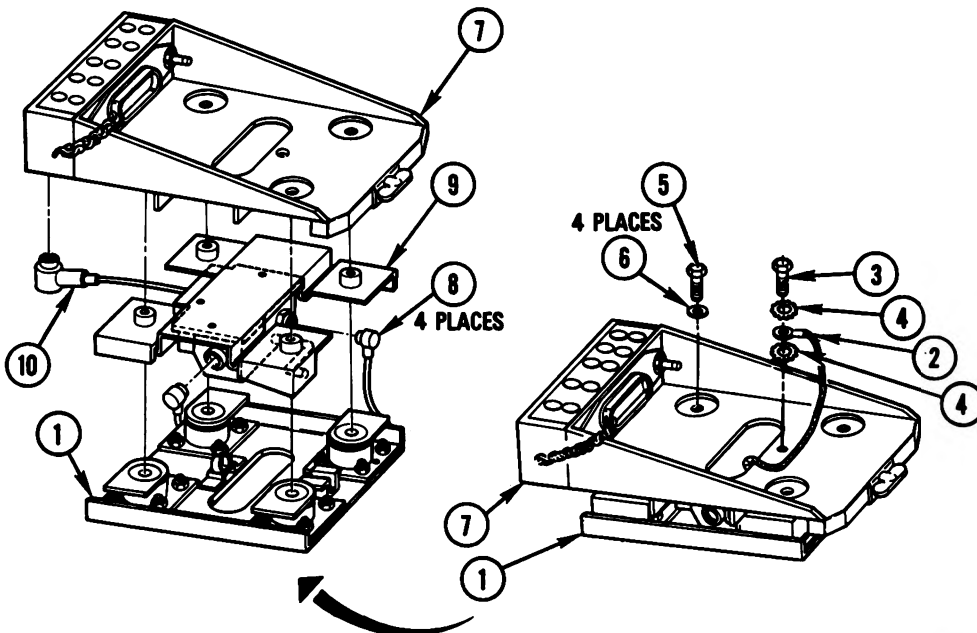
- Read para. 5-4 before doing any work.
- Some auxiliary-receiver mounts (1) may have two ground straps (2). One is shown here.

1. Unscrew and take out screw (3) and lockwashers (4) from each ground strap (2) with screwdriver.
2. Unscrew and take out four screws (5) and washers (6) from tray (7) and mount (1) with socket and handle.
3. Lift tray (7) from mount (1) to gain access to four connectors (8) on junction box (9).
4. Unscrew and take off four connectors (8).
5. Unscrew and take off one connector (10).
6. Take off tray (7) and junction box (9).
7. Look at all parts for cracks or breaks. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install auxiliary receiver junction box; refer to task 4.

TASK 1 ENDS HERE



ARR82-0175

TASK 2. Remove Receiver-Transmitter Junction Box

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, slip joint, with plastic jaw inserts
Screwdriver, flat tip
Socket, socket wrench, 3/8-inch square drive, 1/2-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Cloth, abrasive, P-C-458 (Item 17)
Pencil (Item 42)
Protective caps and plugs (Bulk)
Rag, wiping (Item 45)
Tag, marker (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove receiver-transmitter; refer to para. 5-7, task 1.

FRAME 2

Remove Junction Box:

NOTE

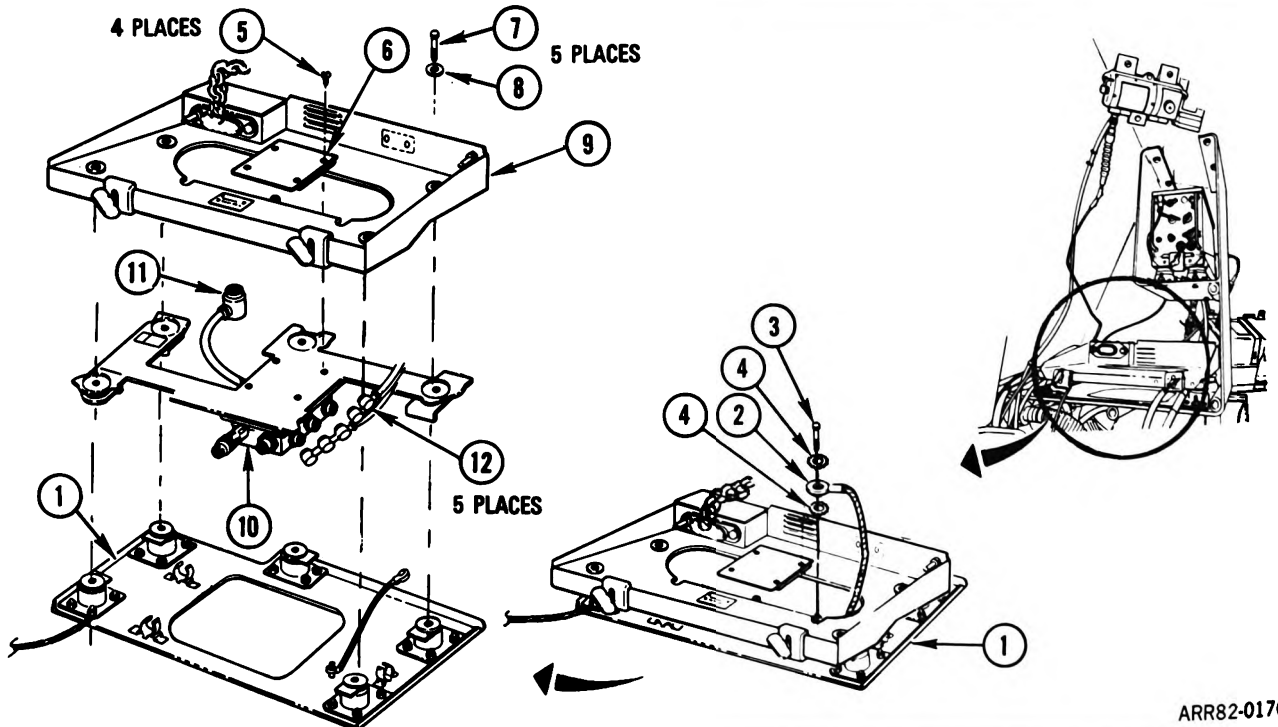
- Read para. 5-4 before doing any work.
- Some receiver-transmitter mounts (1) may have two ground straps (2). One is shown here.

1. Unscrew and take out screw (3) and two lockwashers (4) from each ground strap (2) with screwdriver.
2. Unscrew and take out four screws (5) from clamp plate (6) with screwdriver.
3. Unscrew and take out five screws (7) and washers (8) from tray (9) and mount (1) with socket and handle.
4. Lift tray (9) from junction box (10) and mount (1). Take off connector (11) from tray (9). Take off tray (9).
5. Lift junction box (10) and unscrew and take off five connectors (12). Take off junction box (10).
6. Look at all parts for cracks, bends or breaks. Turn in bad parts. Set good parts aside for later use.

Follow-on Maintenance:

NOTE: To install receiver-transmitter junction box; refer to task 3.

TASK 2 ENDS HERE



ARR82-0176

TASK 3. Install Receiver-Transmitter Junction Box

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Knife, putty
Screwdriver, flat tip
Socket, socket wrench, 3/8-inch square drive, 1/2-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove receiver-transmitter junction box; refer to task 2.

FRAME 3

Install Junction Box:

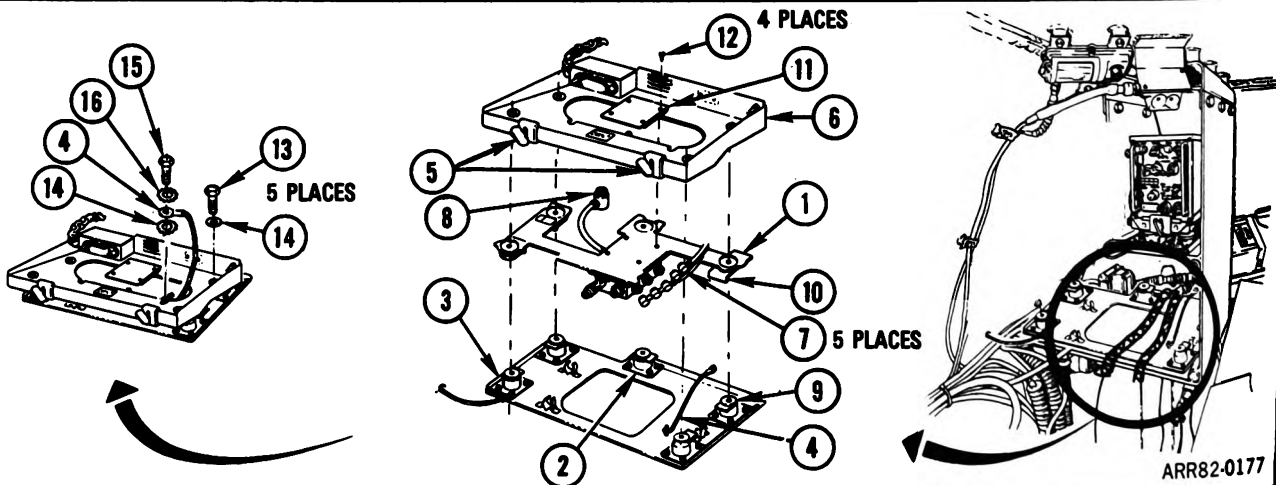
NOTE

- Read para. 5-4 on putting on connectors and electrical parts before doing any work.
 - When installing junction box (1), remove data plate (2) from receiver-transmitter mount (3) and install new data plate (2) which is included in the installation kit.
 - Mount (3) may have two ground straps (4).
 - If clamps (5) are installed, they must be removed prior to installing junction box (1).
1. Hold tray (6) and junction box (1) over mount (3). Screw on and tighten five connectors (7) and one connector (8). Line up holes in tray (6) with holes in mount (3).
 2. Rotate "D" shaped plates (9) as shown to match junction box mounts (10).
 3. Put clamp plate (11) on tray (6) and junction box (1). Line up holes in plate (11) with holes in junction box (1).
 4. Screw in and tighten four screws (12) with screwdriver.
 5. Screw in and tighten five screws (13) and washers (14) with socket and handle.
 6. Put ground strap (4) on tray (6). Screw in and tighten screw (15) and two lockwashers (16) with screwdriver.

Follow-on Maintenance:

Install receiver-transmitter; refer to para. 5-7, task 6.

TASK 3 ENDS HERE



TASK 4. Install Auxiliary Receiver Junction Box

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Screwdriver, flat tip
Socket, socket wrench, 3/8-inch square drive, 1/2-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove auxiliary receiver junction box; refer to task 1.

FRAME 4

Install Junction Box:

NOTE

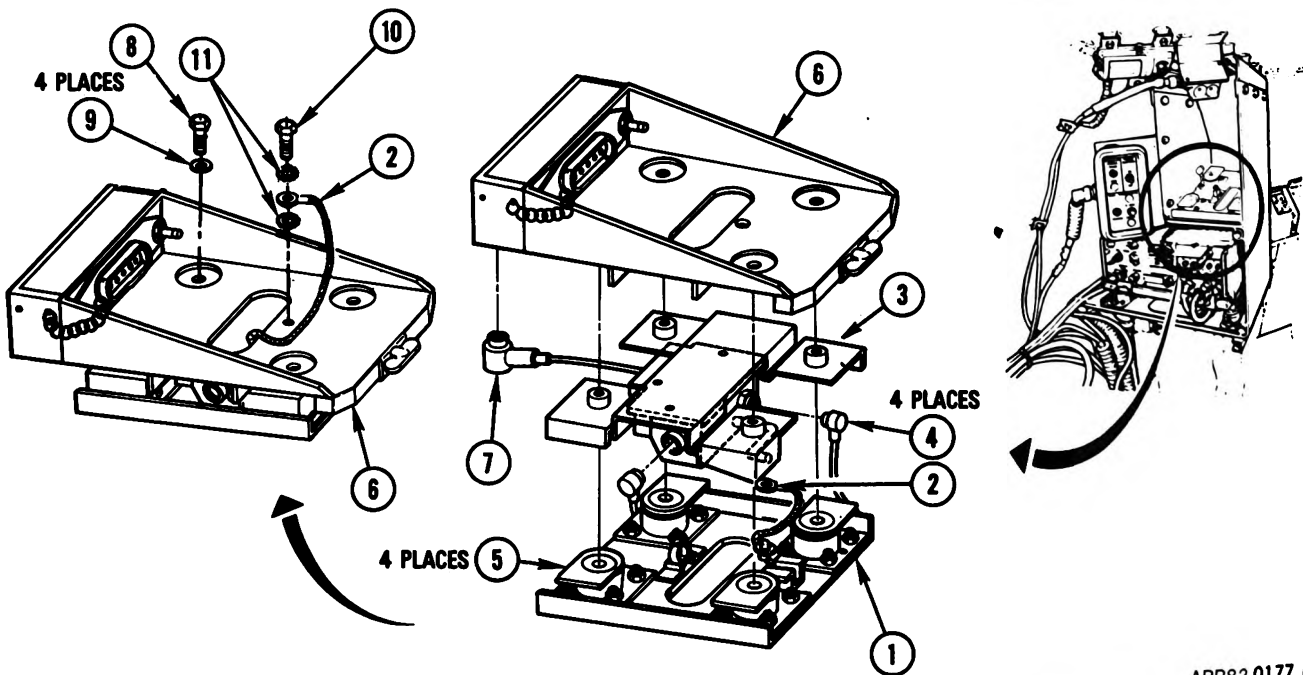
- Read para. 5-4 on putting on connectors and electrical parts before doing any work.
- Some auxiliary receiver mounts (1) may have two ground straps (2). One is shown here.

1. Hold auxiliary-receiver junction box (3) over receiver mount (1). Screw on and tighten four connectors (4) to junction box (3).
2. Rotate four "D" shaped plates (5) on mount (1) as necessary to align with mounting points on junction box (3). Put junction box (3) on mount (1).
3. Hold tray (6) over mount (1) and junction box (3). Screw in connector (7) to tray (6).
4. Line up holes in mount (1) junction box (3), and tray (6). Screw in and tighten four screws (8) and washers (9) with socket and handle.
5. Put ground strap (2) in place on tray (6). Screw in and tighten screw (10) and two lockwashers (11) with screwdriver for each ground strap (2).

Follow-on Maintenance:

Install auxiliary-receiver; refer to para. 5-7, task 5.

END OF AUXILIARY RECEIVER AND RECEIVER-TRANSMITTER JUNCTION BOX MAINTENANCE



ARR82-0177

5-10. Antennas: Receiver-Transmitter and Receiver

Task	Title	Frames
1	Remove Receiver-Transmitter Antenna Base	1
2	Remove Receiver Antenna Base	2
3	Replace Antenna Electrical Lead or Angle Bracket	3 - 5
4	Install Receiver Antenna Base	6
5	Install Receiver-Transmitter Antenna Base	7

TASK 1. Remove Receiver-Transmitter Antenna Base

Applicability: All Models

Common Tools:

- Bar, pry
- Handle, socket wrench, ratchet, 3/8-inch square drive
- Pliers, slip joint, conduit style with plastic jaw inserts
- Screwdriver, flat tip
- Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies:

- NOTE:** Expendable supplies are defined in appendix A.
- Pencil (Item 42)
 - Protective caps and plugs (Bulk)
 - Tag, marker (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove receiver-transmitter antenna; refer to TM 9-2350-255-10.

FRAME 1

Remove Antenna Base:

NOTE

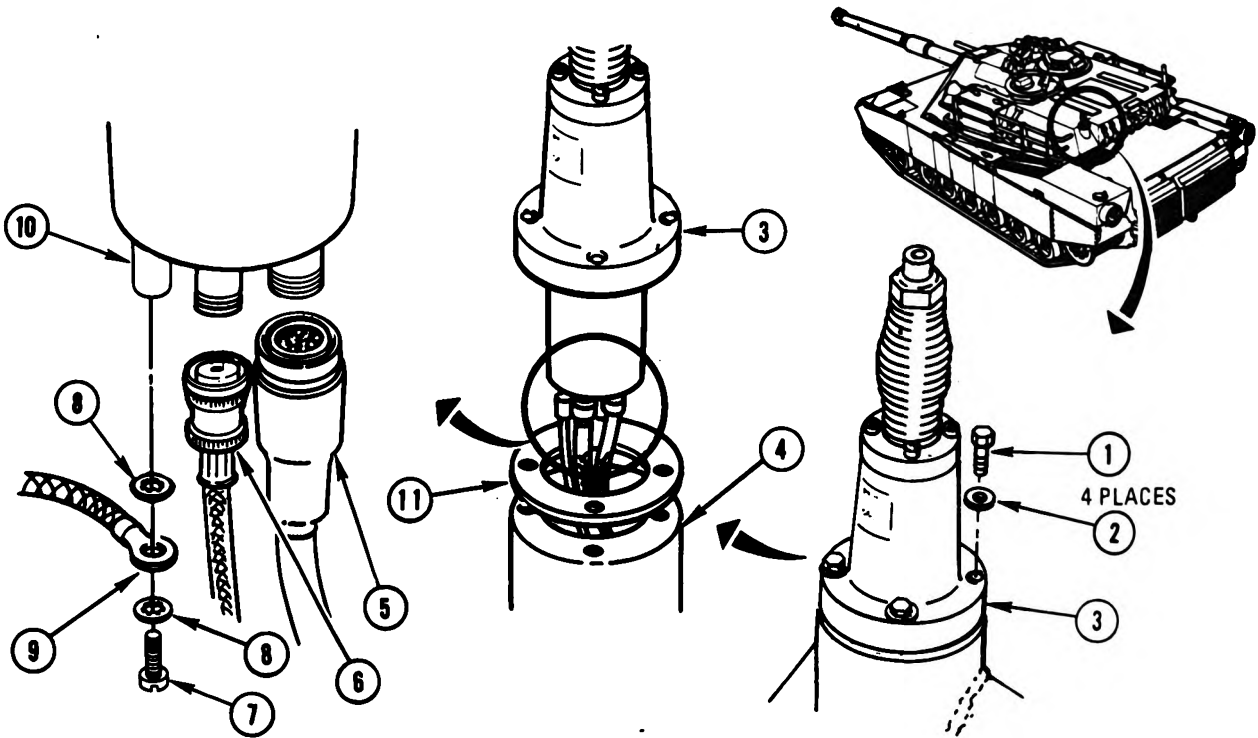
Read para. 5-4, on removing connectors, before doing any work.

1. Unscrew and take out four screws (1) and washers (2) from receiver-transmitter antenna base (3) with socket and handle.
2. Lift base (3) off mount (4), gently with pry bar, just far enough to reach two harness connectors (5, 6).
3. Unscrew and take off two connectors (5, 6).
4. Unscrew and take off screw (7), two lockwashers (8), and electrical lead (9) from standoff (10) with screwdriver. Get rid of lockwashers (8).
5. Take off base (3) and gasket (11).
6. Look at base (3) for cracks or breaks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install receiver-transmitter antenna base, refer to task 5.

TASK 1 ENDS HERE



ARR82-0337

TASK 2. Remove Receiver Antenna Base

Applicability: All Models

Common Tools:

- Bar, pry
- Handle, socket wrench, ratchet, 3/8-inch square drive
- Pliers, slip joint
- Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies:

- Protective caps and plugs (Bulk)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

- Remove receiver antenna; refer to TM 9-2350-255-10.

FRAME 2

Remove Antenna Base:

NOTE

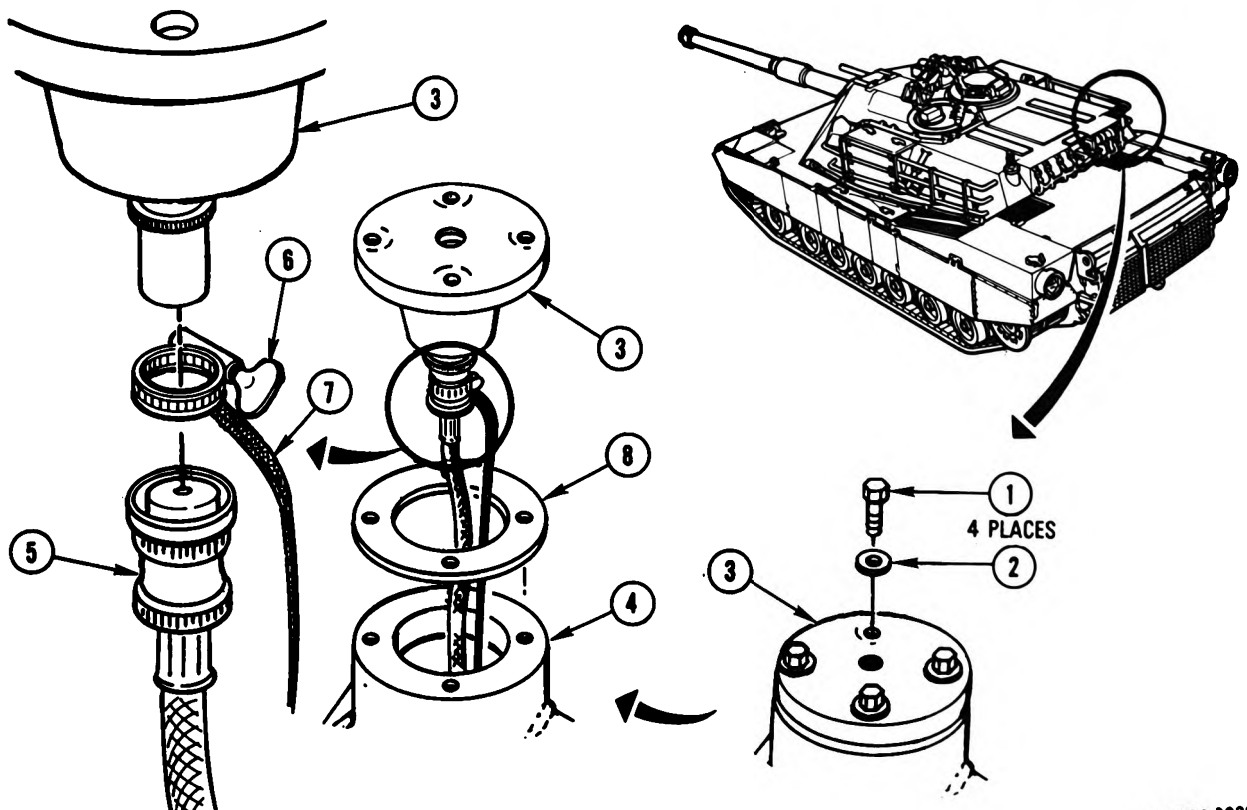
Read para. 5-4, on removing connectors, before doing any work.

1. Unscrew and take out four screws (1) and washers (2) from receiver antenna base (3) with socket and handle.
2. Lift base (3) off mount (4), gently with pry bar, just far enough to reach harness connector (5). Unscrew and take off connector (5).
3. Unscrew clamp thumbscrew (6) on electrical lead (7) with pliers. Take off lead (7).
4. Take off base (3) and gasket (8). Set gasket (8) aside for later use.
5. Look at base (3) for cracks or breaks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install receiver antenna base, refer to task 4.

TASK 2 ENDS HERE



ARR82-0338

TASK 3. Replace Antenna Electrical Lead or Angle Bracket

Applicability: All Models

Common Tools:

Extension, socket wrench, 1/4-inch square drive, 2-inch
Handle, socket wrench, ratchet, 1/4-inch square drive
Handle, socket wrench, speeder, 1/4-inch square drive
Socket, socket wrench, 1/4-inch square drive, 5/16-inch

Special Tools: None

Supplies:

To replace ground strap, you will need:

Lockwasher (96906) MS35333-39 (two required)
Lead, electrical (96906) MS39119-30

To replace angle bracket, you will need:

Bracket, angle (19207) 12283873
Lockwasher (96906) MS35333-39 (two required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

To remove receiver-transmitter antenna ground strap or angle bracket do the following:

1. Remove receiver-transmitter antenna; refer to TM 9-2350-255-10.
2. Remove receiver-transmitter antenna base; refer to task 1.

To remove receiver antenna ground strap or angle bracket, do the following:

1. Remove receiver antenna; refer to TM 9-2350-255-10.
2. Remove receiver antenna base; refer to task 2.

FRAME 3

Remove Electrical Lead or Bracket:

NOTE

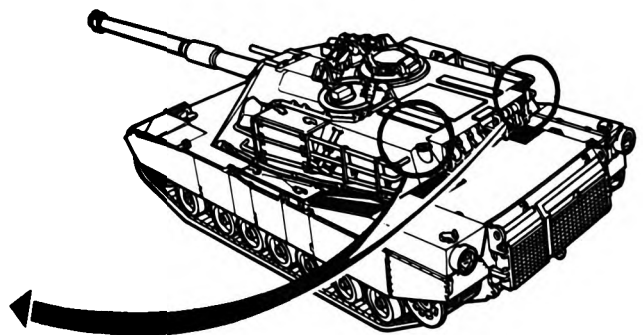
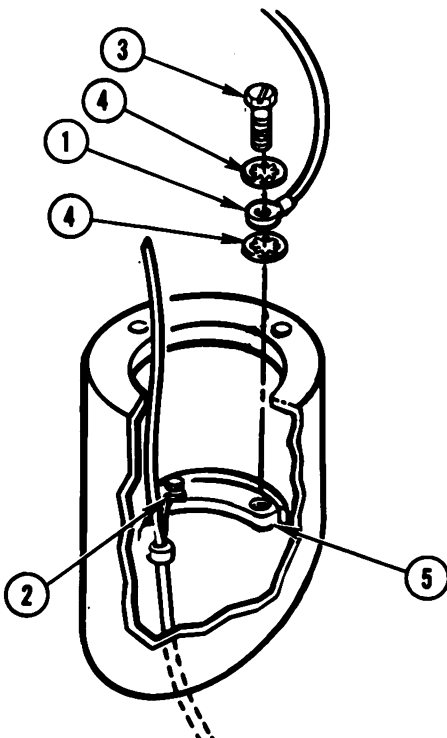
- Read para. 5-4, on replacing electrical wiring and components, before doing any work.
- Do this task to replace bad parts in receiver antenna base or the receiver-transmitter antenna base.
- To replace electrical lead (1), do this frame.
- To replace angle bracket (2), do frame 4.

1. Unscrew and take out screw (3), two lockwashers (4), and antenna electrical lead (1) from flange (5) with socket, extension, and two handles. Get rid of lockwashers (4).
2. Turn in electrical lead (1).

Install Electrical Lead:

3. Put one new lockwasher (4) on each side of new electrical lead (1). Line up hole in electrical lead (1) with hole in flange (5).
4. Screw in and tighten screw (3) with socket, extension, and two handles.

GO TO FRAME 4



ARR82-0339

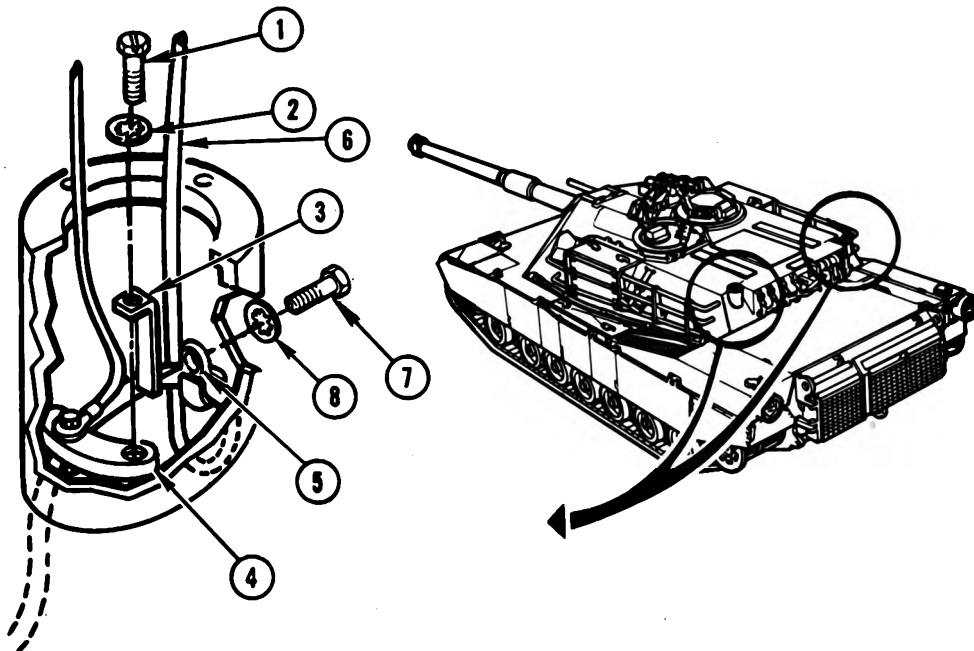
FRAME 4**Remove Angle Bracket:**

1. Unscrew and take out screw (1) and lockwasher (2) from angle bracket (3) and flange (4) with socket, extension, and two handles. Get rid of lockwasher (2).
2. Slide loop clamp (5) with bracket (3) up harness (6) to reach screw (7). Unscrew and take out screw (7) and lockwasher (8) from clamp (5) and bracket (3) with socket and speeder handle. Get rid of lockwasher (8).
3. Turn in bracket (3). Look at clamp (5) for cracks or breaks. If bad turn in. If OK leave clamp (5) on harness (6).

Install Angle Bracket:

4. Line up bottom hole in new bracket (3) with hole in clamp (5). Screw in screw (7) and new lockwasher (8) with socket and speeder handle.
5. Slide clamp (5) with bracket (3) halfway down harness (6).
6. Line up top hole in bracket (3) with hole in flange (4). Screw in and tighten screw (1) and new lockwasher (2) with socket, extension, and two handles.

GO TO FRAME 5



ARR82-0340

FRAME 5

Follow-on Maintenance:

For receiver-transmitter antenna electrical lead or angle bracket, do the following:

1. Install receiver-transmitter antenna base, refer to task 5.
2. Install receiver-transmitter antenna, refer to TM 9-2350-255-10.
3. Check operation of receiver-transmitter system, refer to TM 9-2350-255-10.

For receiver antenna electrical lead or angle bracket, do the following:

1. Install receiver antenna base, refer to task 4.
2. Install receiver antenna, refer to TM 9-2350-255-10.
3. Check operation of receiver system, refer to TM 9-2350-255-10.

TASK 3 ENDS HERE

TASK 4. Install Receiver Antenna Base

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Oiler, hand
Pliers, slip joint
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lubricating Oil, MIL-L-2104C (Item 32)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove receiver antenna base; refer to task 2.

FRAME 6

Install Antenna Base:

NOTE

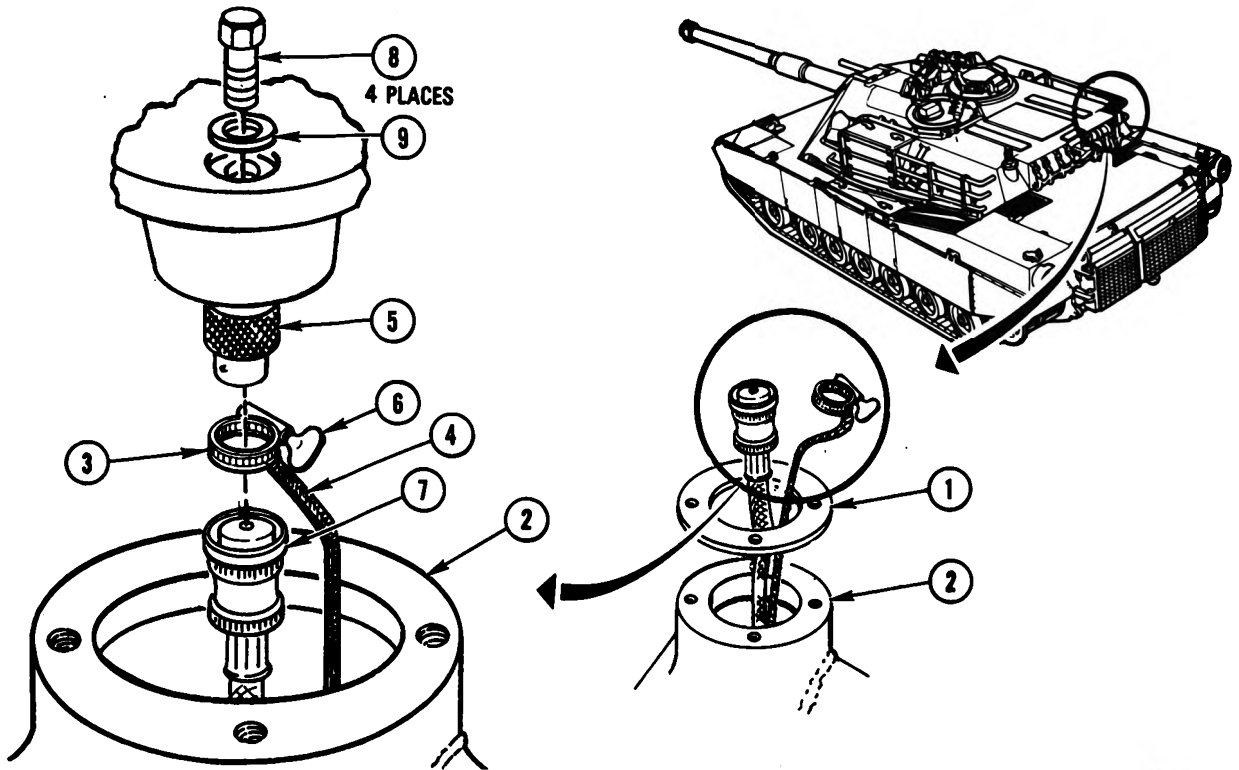
Read para. 5-4, on installing connectors and electrical wiring, before doing any work.

1. Put gasket (1) on antenna mount (2).
2. Put thumbscrew clamp (3) of electrical lead (4) on antenna base connector (5). Tighten thumbscrew (6) with pliers.
3. Screw on and tighten harness connector (7) to receptacle (5).
4. Put a light coat of oil on threads of four screws (8).
5. Screw in four screws (8) and washers (9) with socket and handle. Torque screws (8) between 80 and 100 pound inches (9 and 11 Newton meters) with socket and torque wrench.

Follow-on Maintenance:

1. Install receiver antenna; refer to TM 9-2350-255-10.
2. Check operation of receiver system; refer to TM 9-2350-255-10.

TASK 4 ENDS HERE



ARR82-0341

TASK 5. Install Receiver-Transmitter Antenna Base

Applicability: All Models

Common Tools:

Handle, socket wrench, ratchet, 3/8-inch square drive
Oiler, hand
Screwdriver, flat tip
Socket, socket wrench, 3/8-inch square drive, 9/16-inch
Wrench, torque, 0 to 600 inch-pounds

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Lockwasher (96906) MS35333-39 (two required)
Lubricating Oil, MIL-L-2104C (Item 32)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove receiver-transmitter antenna base; refer to task 1.

FRAME 7

Install Antenna Base:

NOTE

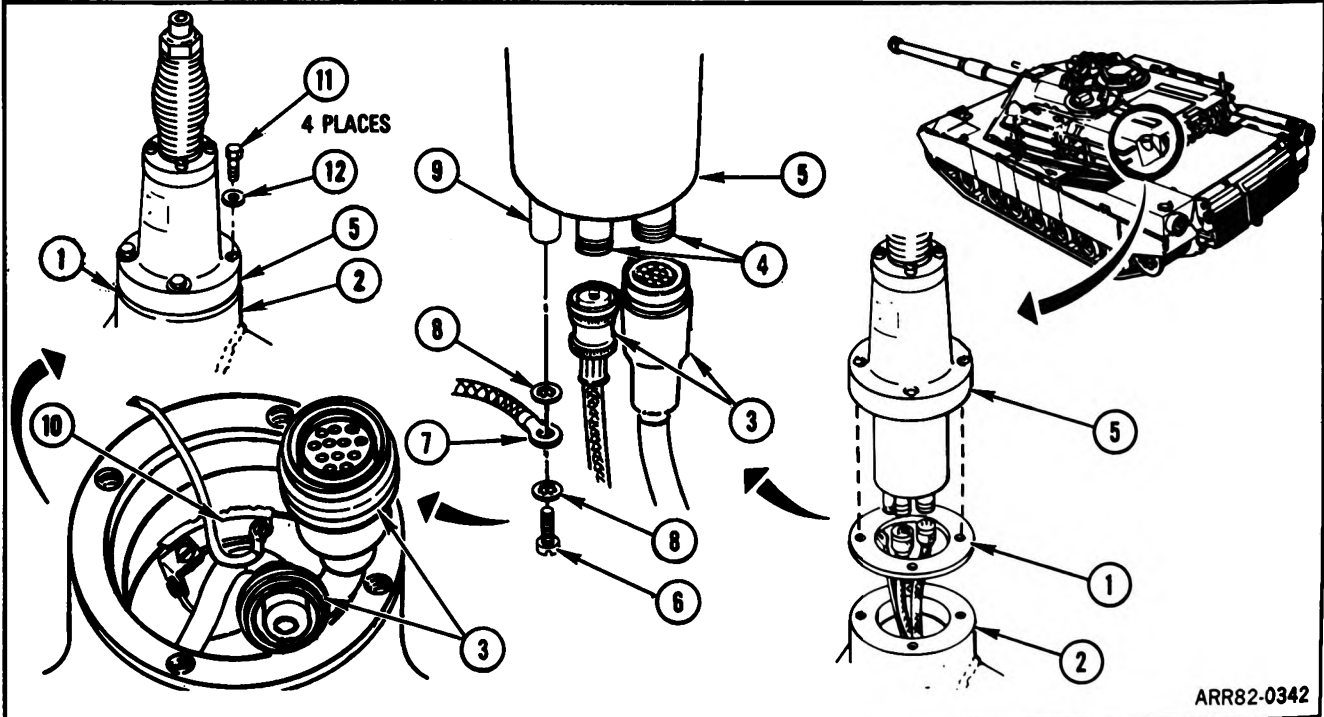
Read para. 5-4, on installing connectors and electrical wiring, before doing any work.

1. Put gasket (1) on antenna mount (2).
2. Screw on and tighten two harness connectors (3) to receptacles (4) of receiver-transmitter antenna base (5).
3. Screw in and tighten screw (6), electrical lead (7), and two new lockwashers (8) on standoff (9) with screwdriver.
4. Lower base (5) on mount (2). Check that connectors (3) are away from flange (10) and that holes of base (5) are lined up with holes of mount (2).
5. Put a light coat of oil on threads of four screws (11).
6. Screw in four screws (11) and washers (12) with socket and handle. Torque screws (11) between '80 and 100 pound inches (9 and 11 Newton meters) with socket and torque wrench.

Follow-on Maintenance:

1. Install receiver-transmitter antenna; refer to TM 9-2350-255-10.
2. Check operation of receiver-transmitter system; refer to TM 9-2350-255-10.

END OF ANTENNAS: RECEIVER-TRANSMITTER AND RECEIVER MAINTENANCE



ARR82-0342

5-11. Security Units and Mounts

Task	Title	Frames
1	Remove Security Unit, Auxiliary Security Unit, or Audio Frequency Switch Unit	1
2	Remove Security Unit, Auxiliary Security Unit, or Audio Frequency Switch Unit Mount	2
3	Replace Security Unit Plate	3
4	Install Security Unit, Auxiliary Security Unit, or Audio Frequency Switch Unit Mount	4
5	Install Security Unit, Auxiliary Security Unit, or Audio Frequency Switch Unit	5

TASK 1. Remove Security Unit, Auxiliary Security Unit, or Audio Frequency Switch Unit

Applicability: All Models

Common Tools:

Pliers, diagonal cutting

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures: None

FRAME 1

Remove Unit:

NOTE

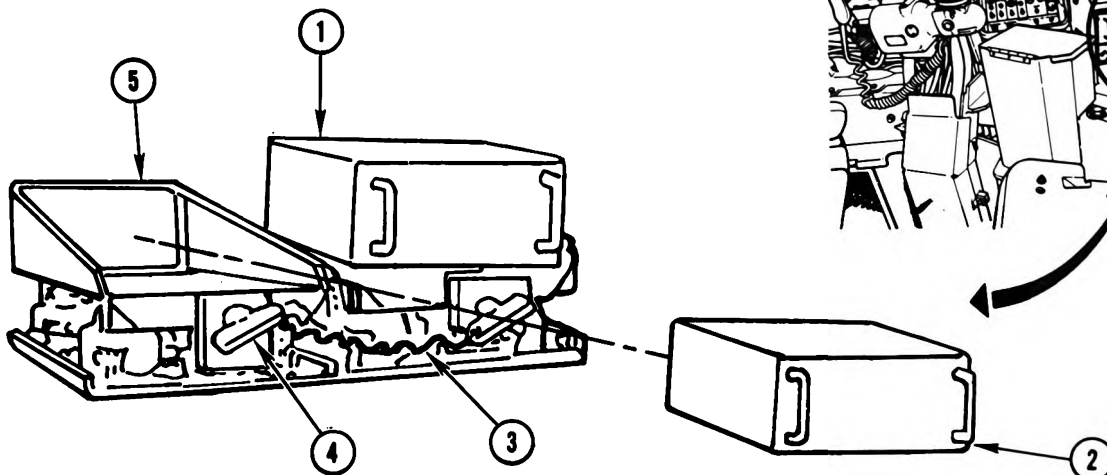
- Read para. 5-4 before doing any work.
- Use this task to take off security unit (1), auxiliary security unit, or audio frequency switch unit (2). Auxiliary security unit (2) is shown.

1. Cut off safety wire (3) with pliers. Get rid of wire (3).
2. Loosen unit mount clamp (4). Slide out unit (2) from mount (5).
3. Look at unit (2) for chips, cracks, or breaks. If bad turn in. If OK set aside for later use.

Follow-on Maintenance:

NOTE: To install security unit, auxiliary security unit, or audio frequency switch unit; refer to task 5.

TASK 1 ENDS HERE



TOP PLATE AND SURROUNDING EQUIPMENT REMOVED FOR CLARITY

ARR82-0188

TASK 2. Remove Security Unit, Auxiliary Security Unit, or Audio Frequency Switch Unit Mount

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Pliers, slip joint, conduit style with plastic jaw inserts
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, combination, 7/16-inch

Special Tools: None

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Pencil, writing (Item 40)
Protective caps and plugs (Bulk)
Tag, marker (Item 54) (as required)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

Remove security unit, auxiliary security unit, or audio frequency switch unit; refer to task 1.

TASK 3. Replace Security Unit Plate

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 9/16-inch

Special Tools: None

Supplies:

Marker, identification (19207) 12283886
Plate (19207) 12283854

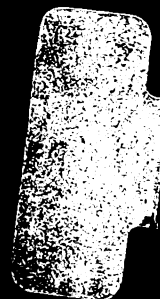
Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

1. Remove commander's intercom control box; refer to para. 5-5, task 7.
2. Remove commander's frequency control box; refer to para. 5-6, task 1.
3. Remove power control unit; refer to TM 9-2350-255-20-2-3-1, para. 2-12.
4. Remove security unit, auxiliary security unit, or audio frequency switch unit; refer to task 1.
5. Remove power control unit bracket; refer to TM 9-2350-255-20-2-3-1, para. 2-12.
6. Remove commander's intercom control box bracket; refer to para. 5-5, task 8.
7. Remove commander's heater assembly; refer to TM 9-2350-255-20-2-3-3 para. 8-4.
8. Remove commander's intercom control box bracket mounting plate; refer to para. 5-5, task 9.
9. Remove security unit, auxiliary security unit, or audio frequency switch unit mount; refer to task 2.



FRAME 3

Remove Security Unit Plate:

1. Unscrew and take off four screws (1), lockwashers (2), and washers (3) with socket, extension, and handle.
2. Take off and turn in plate (4).

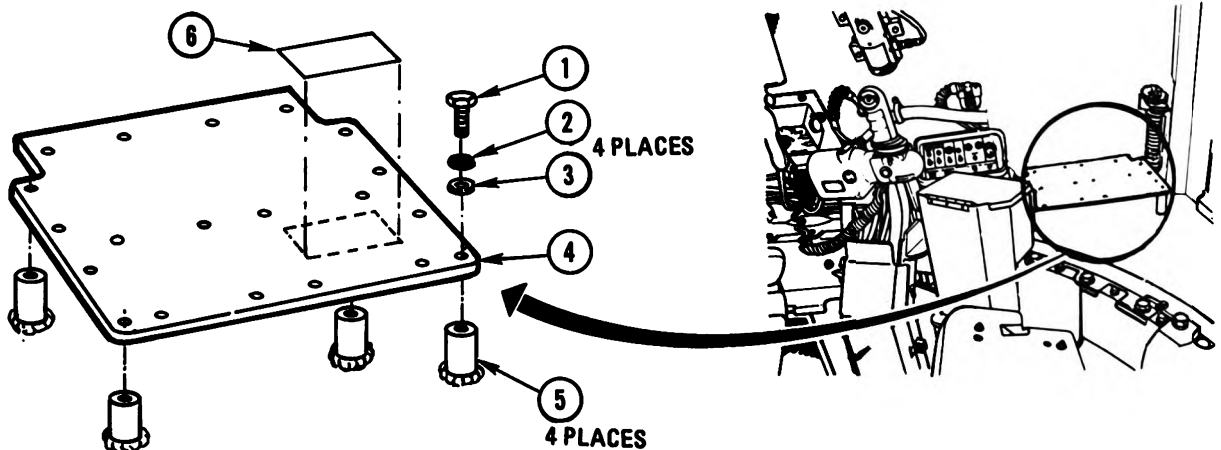
Install Security Unit Plate:

3. Place new plate (4) on four mounting studs (5). Screw in and tighten four screws (1), lockwashers (2), and washers (3) with socket, extension, and handle.
4. Put new identification marker (6) on plate (4).

Follow-on Maintenance:

1. Install security unit, auxiliary security unit, or audio frequency switch unit mount; refer to task 4.
2. Install commander's intercom control box bracket mounting plate; refer to para. 5-5, task 10.
3. Install commander's heater assembly; refer to para. 8-4, task 12.
4. Install commander's intercom control box bracket; refer to para. 5-5, task 11.
5. Install power control unit bracket; refer to TM 9-2350-255-20-2-3-1, para. 2-12.
6. Install security unit, auxiliary security unit, or audio frequency switch unit; refer to task 5.
7. Install power control unit; refer to TM 9-2350-255-20-2-3-1, para. 2-12.
8. Install commander's frequency control box; refer to para. 5-6, task 2.
9. Install commander's intercom control box; refer to para. 5-5, task 12.

TASK 3 ENDS HERE



ARR82-0190

TASK 4. Install Security Unit, Auxiliary Security Unit, or Audio Frequency Switch Unit Mount

Applicability: All Models

Common Tools:

Extension, socket wrench, 3/8-inch square drive, 5-inch
Handle, socket wrench, ratchet, 3/8-inch square drive
Socket, socket wrench, 3/8-inch square drive, 7/16-inch
Wrench, combination, 7/16-inch

Special Tools: None

Supplies: None

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedures:

Remove security unit, auxiliary security unit, or audio frequency switch unit mount;
refer to task 2.

FRAME 4

Install Mount:

NOTE

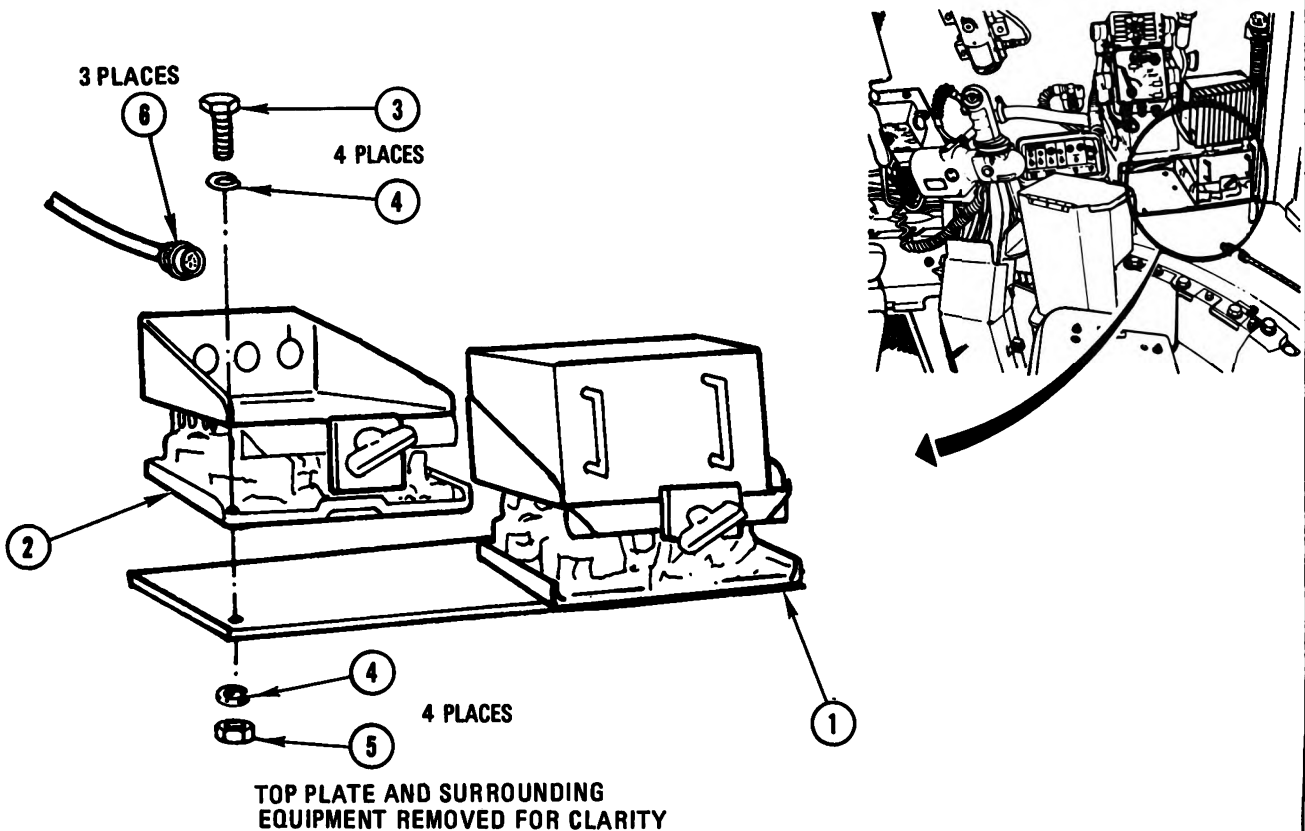
- Read para. 5-4 before doing any work.
- Use this task to put in security unit mount (1), auxiliary security unit, or audio frequency switch unit mount (2). Auxiliary security unit or audio frequency switch unit mount (2) is shown here.

1. Put mount (2) in place.
2. Screw in and tighten four screws (3), eight lockwashers (4), and four nuts (5) with socket, extension, handle, and wrench.
3. Screw on and tighten three connectors (6) to mount (2).

Follow-on Maintenance:

Install security unit, auxiliary security unit, or audio frequency switch unit; refer to task 5.

TASK 4 ENDS HERE



ARR82-0191

TASK 5. Install Security Unit, Auxiliary Security Unit, or Audio Frequency Switch Unit

Applicability: All Models

Common Tools: None

Special Tools:

Pliers, wire twister, NSN 5120-00-542-4171

Supplies:

NOTE: Expendable supplies are defined in appendix A.
Wire, nonelectric (safety) 0.032-inch diameter (Item 60)

Personnel: One

Equipment Condition:

- Tank parked.
- Parking brake set.
- VEHICLE MASTER POWER switch set to OFF.
- Transmission shift control set to N.

Preliminary Procedure:

Remove security unit, auxiliary security unit, or audio frequency switch unit; refer to task 1.

FRAME 5

Install Auxiliary Security Unit:

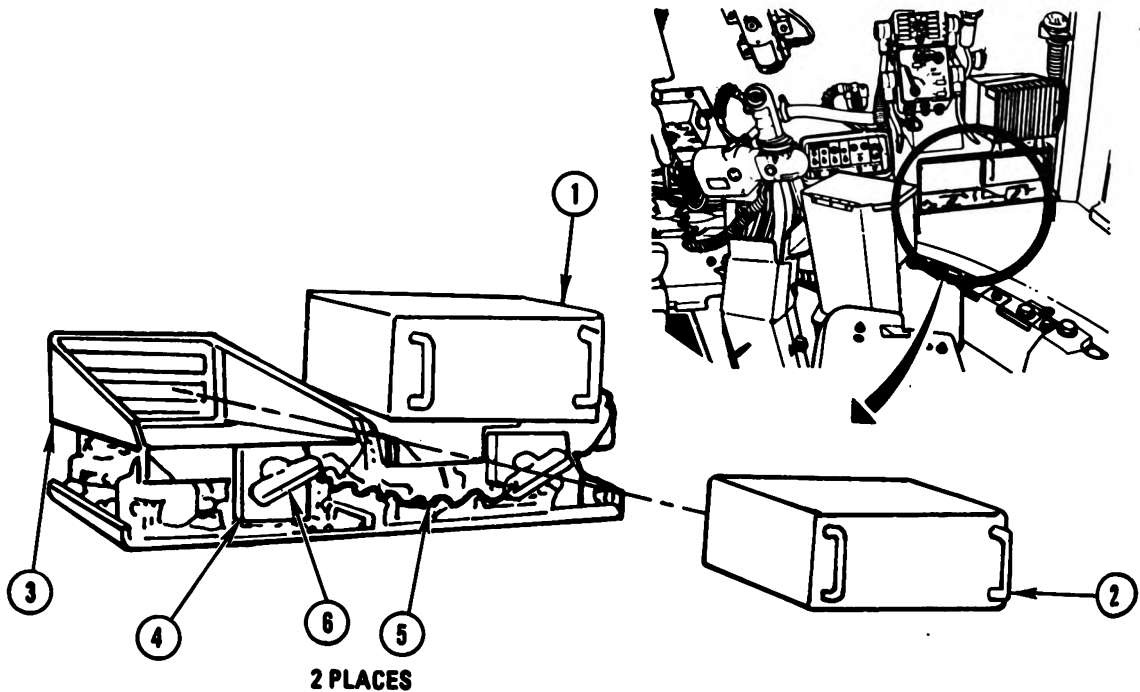
NOTE

- Read para. 5-4 before doing any work.
- Use this task to put in security unit mount (1), audio frequency switch unit, or auxiliary security unit (2). Auxiliary security unit (2) is shown here.

1. Put unit (2) on security mount (3).
2. Screw in mount clamp (4).
3. Using pliers, put on new safety wire (5) between two mount clamp screws (6).

Follow-on Maintenance: None

END OF SECURITY UNITS AND MOUNTS MAINTENANCE



**TOP PLATE AND SURROUNDING
EQUIPMENT REMOVED FOR CLARITY**

ARR82-0192

By Order of the Secretary of the Army:

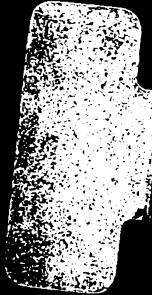
E. C. MEYER
General, United States Army
Chief of Staff

Official:

ROBERT M. JOYCE
Major General, United States Army
The Adjutant General

Distribution:

To be distributed in accordance with DA Form 12-37, Organizational Maintenance Requirements for M1 Abrams Tank.



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Date you fill out this form.

PUBLICATION NUMBER
TM 9-2350-255-20-2-3-2

PUBLICATION DATE
7 Jan 83

PUBLICATION TITLE **Organizational Maintenance Tank, Combat, Full-Trackd: 105MM Gun, M1 Turret**

BE EXACT... PIN-POINT WHERE IT IS

PAGE NO	PARA-GRAPH	FIGURE NO	TABLE NO
3		2	
109		51	
2-8			2-1
12	1-6a		

IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

Item 10. Change illustration. Reason: Tube end shown assembled on wrong side of lever cam.

Item 3. The NSN and P/N are not listed on the AMDF nor the MCRL. Request correct NSN and P/N be furnished.

Preventive Maintenance Checks and Services. Item 7 under "Items to be inspected" should be changed to read as follows: Firing linkage and firing mechanism pawl.

Since there are both 20- and 30- round magazines for this rifle, data on both should be listed.

SAMPLE

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER
JOHN DOE S/P 3 XXX-XXXX

SIGN HERE: *John Doe*

DA FORM 2028-2
1 JUL 79

PREVIOUS EDITIONS ARE OBSOLETE.

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THE METRIC SYSTEM AND EQUIVALENTS

LINEAR MEASURE

1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
 1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches
 1 Kilometer = 1000 Meters = 0.621 Miles

WEIGHTS

1 Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
 1 Kilogram = 1000 Grams = 2.2 Lb.
 1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
 1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

SQUARE MEASURE

1 Sq. Centimeter = 100 Sq. Millimeters = 0.155 Sq. Inches
 1 Sq. Meter = 10,000 Sq. Centimeters = 10.76 Sq. Feet
 1 Sq. Kilometer = 1,000,000 Sq. Meters = 0.386 Sq. Miles

CUBIC MEASURE

1 Cu. Centimeter = 1000 Cu. Millimeters = 0.06 Cu. Inches
 1 Cu. Meter = 1,000,000 Cu. Centimeters = 35.31 Cu. Feet

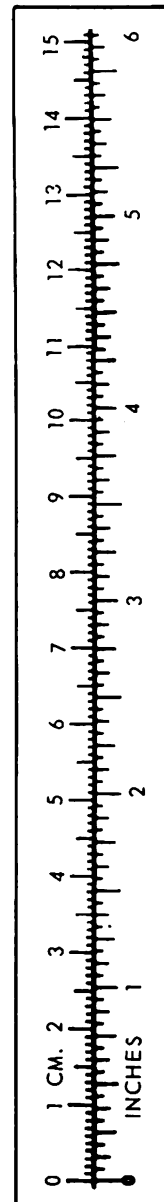
TEMPERATURE

$\frac{5}{9}(\text{°F} - 32) = \text{°C}$
 212° Fahrenheit is equivalent to 100° Celsius
 90° Fahrenheit is equivalent to 32.2° Celsius
 32° Fahrenheit is equivalent to 0° Celsius
 $\frac{9}{5} \text{°C} + 32 = \text{°F}$

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
Pints	Liters	0.473
Quarts	Liters	0.946
Gallons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pound-Feet	Newton-Meters	1.356
Pounds per Square Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
Liters	Gallons	0.264
Grams	Ounces	0.035
Kilograms	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pound-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
Kilometers per Liter	Miles per Gallon	2.354
Kilometers per Hour	Miles per Hour	0.621



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