

TECHNICAL MANUAL

ORGANIZATIONAL MAINTENANCE

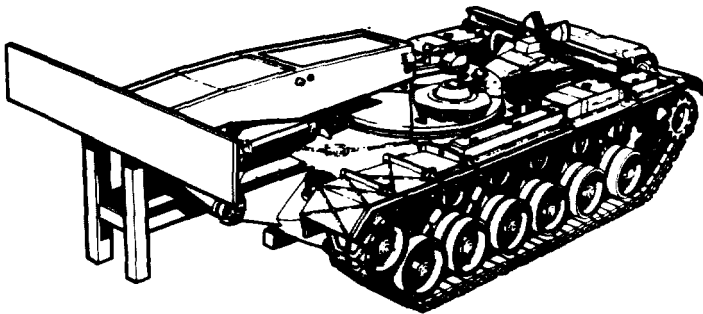
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M48A5 TANK CHASSIS,
TRANSPORTING:
FOR BRIDGE,
ARMORED-VEHICLE-LAUNCHED
SCISSORING TYPE, CLASS 60
[NSN 5420-01-076-6096]

TECHNICAL MANUAL

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D. C., 20 November 1981

Organizational Maintenance Manual

**M48A5 TANK CHASSIS, TRANSPORTING: FOR BRIDGE,
ARMORED-VEHICLE-LAUNCHED SCISSORING TYPE, CLASS 60**
(5420-01-076-6096)

Volume 2 of 4

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2, located in the back of this manual, directly to: Commander, U.S. Army Tank-Automotive Command, ATTN: AMSTA-MB, Warren, MI 48397-5000. A reply will be furnished to you.

NOTE

Chapters 1 thru 4 are contained in Volume 1.
Chapters 5 thru 9 are contained in this Volume.
Chapters 10 thru 16 are contained in Volume 3.
Chapters 17 thru 21, Appendixes, and Indexes are contained in Volume 4.

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CHAPTER 5

POWERPLANT MAINTENANCE INDEX

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POWERPLANT REPLACEMENT (Sheet 1 of 21)

PROCEDURE INDEX

PROCEDURE	PAGE
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TOOLS:

- 9/16 in. socket with 1/2 in. drive
- 7/16 in. socket with 1/2 in. drive
- Ratchet with 1/2 in. drive
- Flat-tip screwdriver
- Long round nose pliers
- 7/16 in. combination box and open end wrench
- 11/16 in. combination box and open end wrench
- 7/8 in. combination box and open end wrench
- 7/8 in. crowfoot with 3/8 in. drive
- Diagonal cutting pliers
- 3/4 in. socket with 1/2 in. drive
- Spanner wrench
- Pinch bar
- 5 in. extension with 1/2 in. drive
- 1-1/2 in. socket with 3/4 in. drive
- Ratchet with 3/4 in. drive
- Universal joint with 1/2 in. drive
- Hammer
- Torque wrench with 3/8 in. drive (0-600 lb-in) (0-68 N-m)
- Torque wrench with 1/2 in. drive (0-175 lb-ft) (0-237 N-m)
- Torque wrench with 3/4 in. drive (0-600 lb-ft) (0-813 N-m)
- Adjustable wrench
- 5 ton hoist capable of lifting powerplant 12 ft. high

SPECIAL TOOLS: Final drive guide shields (Fig. F-1, Appendix F) (2 required)
 Final drive adapter hook-up tool (Fig. F-4, Appendix F)
 Engine and transmission sling (Item 31, Chapter 3, Section I)

SUPPLIES:

- Covers for fire extinguisher flexible tubing
- Covers for hydraulic brake line openings
- Covers for fuel lines openings
- Covers for air cleaner hoses and outlets
- Grease (Item 37, Appendix D)
- Lockwire (Item 61, Appendix D)
- Light rope (or heavy masking tape)
- Cotter pins
- Wooden blocks 12 in. x 12 in.
- Lock washers

PERSONNEL: Three

REFERENCE: TM 5-5420-226-10

NOTE

Use suitable container to catch fuel whenever any fuel line or connection is loosened or disconnected. Use cloth to wipe any spillage. Discard cloth and drained fuel in accordance with local procedures,

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POWERPLANT REPLACEMENT (Sheet 2 of 21)

PRELIMINARY PROCEDURES:

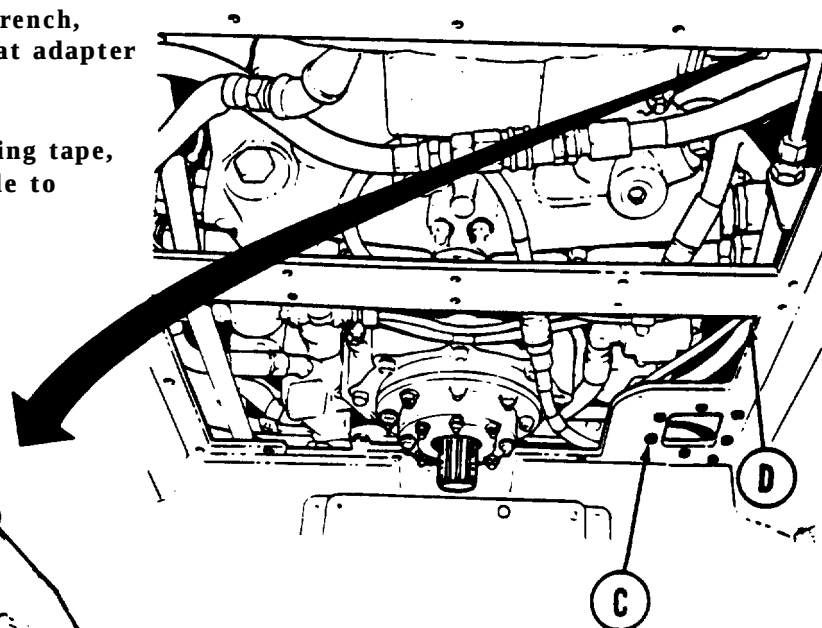
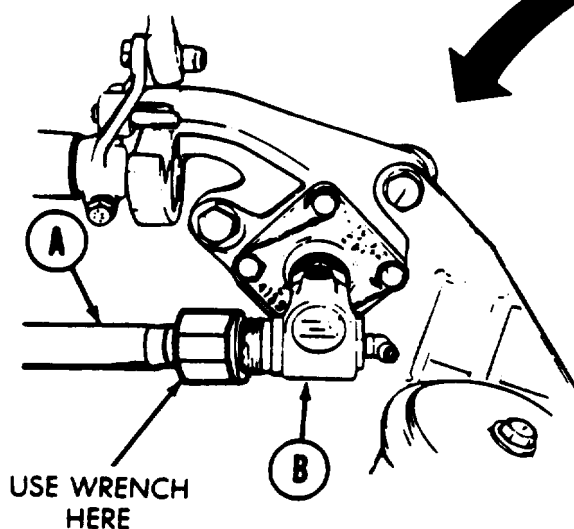
Park vehicle on level ground, block both tracks at front and rear (TM 5-5420-226-10)
 Release parking brake (TM 5-5420-226-10)
 Place shifting lever in P (park) (TM 5-5420-226-10)
 Place MASTER BATTERY switch OFF (TM 5-5420-226-10)
 Disconnect battery ground straps (page 10-268)
 Remove top deck (page 16-21)
 Remove transmission shroud (page 9-2)
 Remove engine upper access cover (page 17-14)
 Disconnect power take-off (page 5-23)

NOTE

Procedures for the removal and installation of the powerplant equipped with an AVDS 1790-2D or AVDS 1790-2DA are similar. Differences are noted in the procedure.

REMOVAL:

1. Reach through engine access cover Opening and, using adjustable wrench, unscrew tachometer cable (A) at adapter (B).
2. Using light rope or heavy masking tape, tie free end of tachometer cable to bulkhead support.

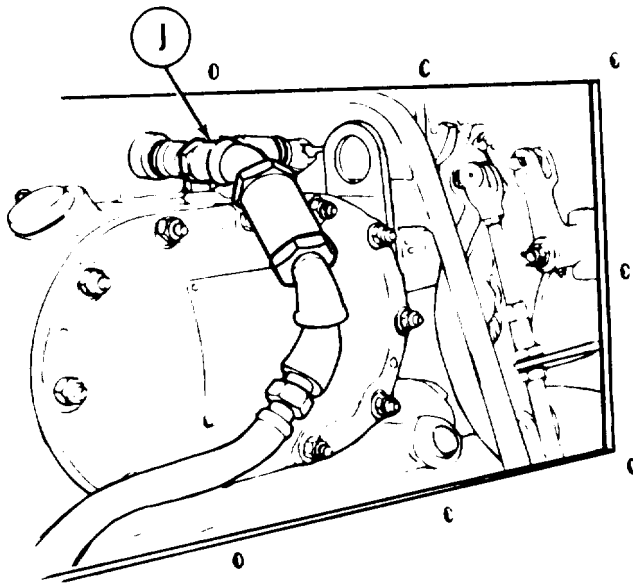
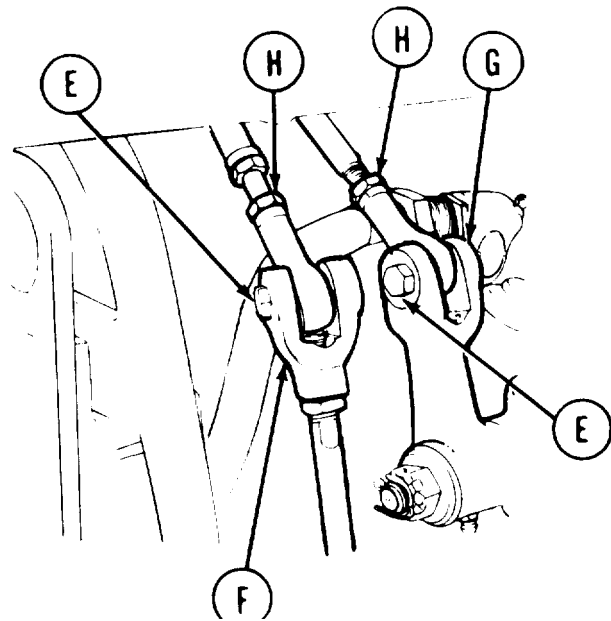


3. Using 7/16 inch wrench, remove six screws (C) securing generator air duct
4. Using light rope or heavy masking tape, fasten generator air duct (D) to engine.

Go on to Sheet 3

POWERPLANT REPLACEMENT (Sheet 3 of 21)

5. Using 7/16 inch box end of **wrench**, remove two bolts (E) securing manual fuel shutoff clevis (F) and accelerator linkage lever (G) to rod ends (H).
6. Separate accelerator linkage lever (G) and fuel shutoff clevis (F) from two rod ends (H).

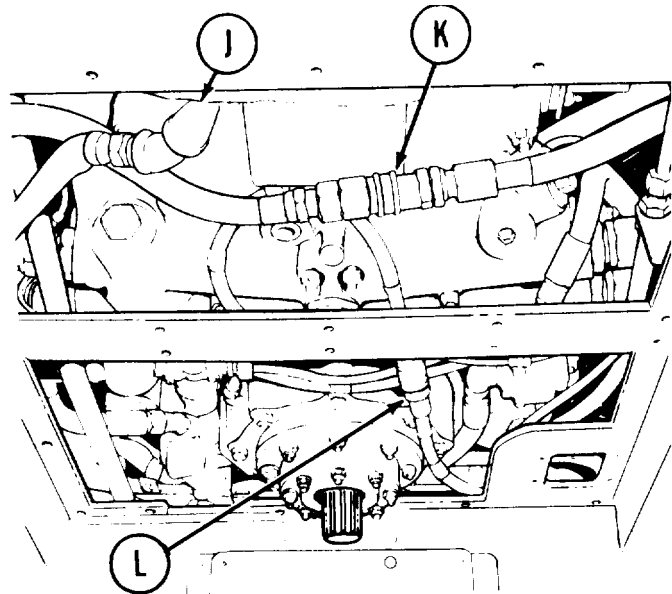


7. Reach through engine access cover opening and disconnect fire extinguisher flexible tubing (J) at quick-disconnect.
8. Tie free end of fuel shutoff clevis (F) and fire extinguisher flexible tubing (J) out of way.

CAUTION

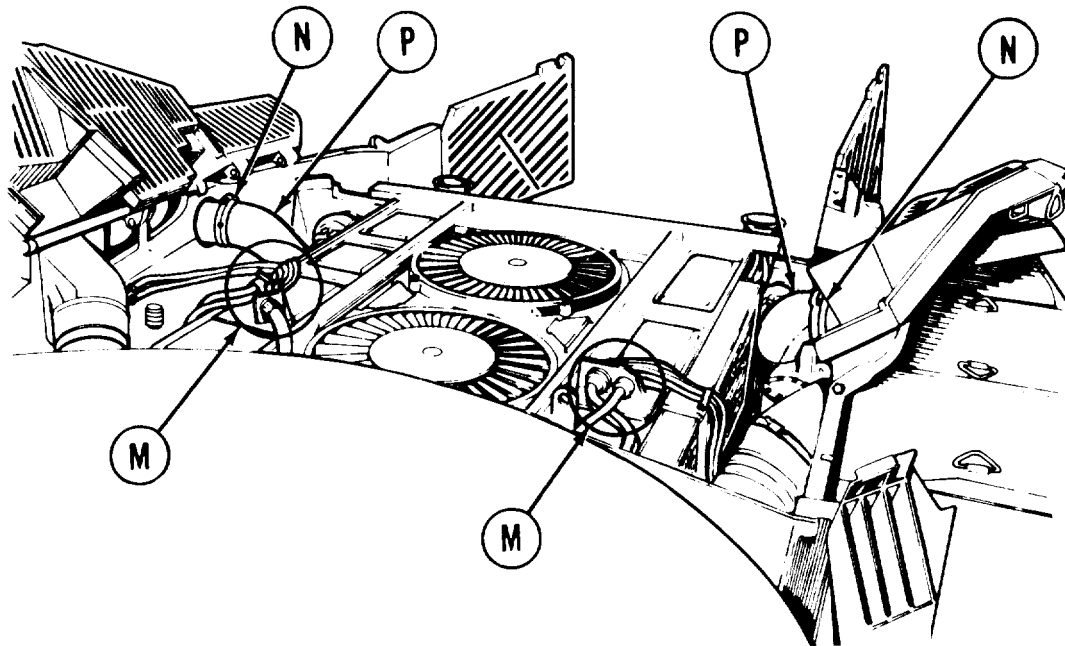
Put protective coverings over fire extinguisher openings.

9. Disconnect main fuel line at quick-disconnect fitting (K).
10. Disconnect purge line at quick-disconnect fitting (L).
11. Tie both fuel line and purge hoses out of way at top of powerplant.

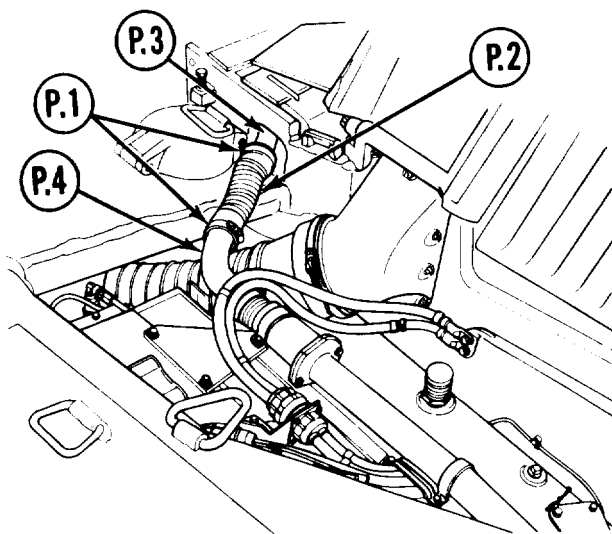


Go on to Sheet 4

POWERPLANT REPLACEMENT (Sheet 4 of 21)



12. Using spanner wrench, disconnect four electrical harness connectors (M) at both sides of powerplant.
13. Using screwdriver, loosen two clamps (N) which hold air cleaner outlet hose (P) at each side of powerplant.
14. Disconnect air cleaner outlet hoses (P). Make sure **you** cover air cleaner outlet hose openings.



NOTE

If your vehicle is equipped with a 2DA engine, do steps 14.1 and 14.2. If not, proceed to step 15.

- 14.1 Using screwdriver, loosen two clamps (P.1).
- 14.2. Slide hose (P.2) off manifold (P.3) and back onto tube (P.4).

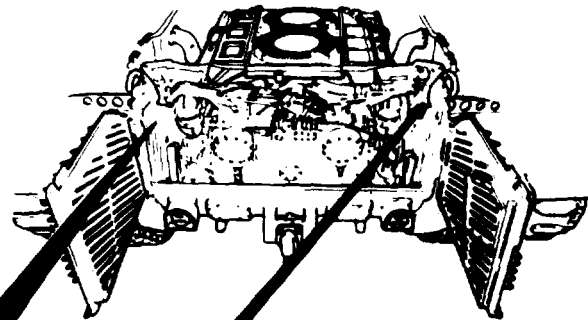
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POWERPLANT REPLACEMENT (Sheet 5 of 21)

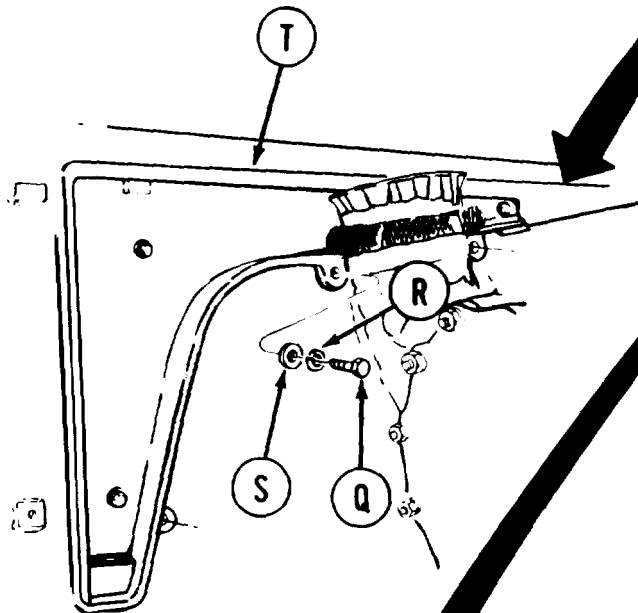
15. Using 9/16 inch socket with ratchet and extension, remove six screws (Q), lockwashers (R), and washers (S) securing two angle brackets (T).

NOTE

One angle bracket is located on each side at rear of vehicle.



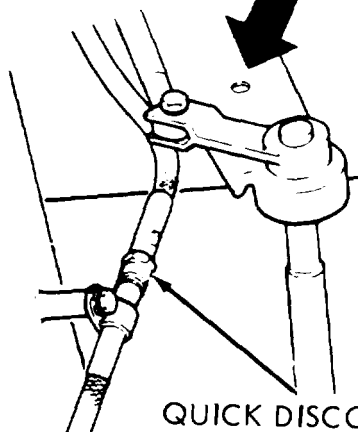
REAR OF VEHICLE



16. **Lift up** on rear *comers* of both brackets (T) to remove **them**.

NOTE

Parking brake cable in engine compartment may be one piece or two piece with quick disconnect. If two piece cable is in your vehicle skip steps 18 through 22. If one piece cable is used skip step 17 and proceed with step 18.



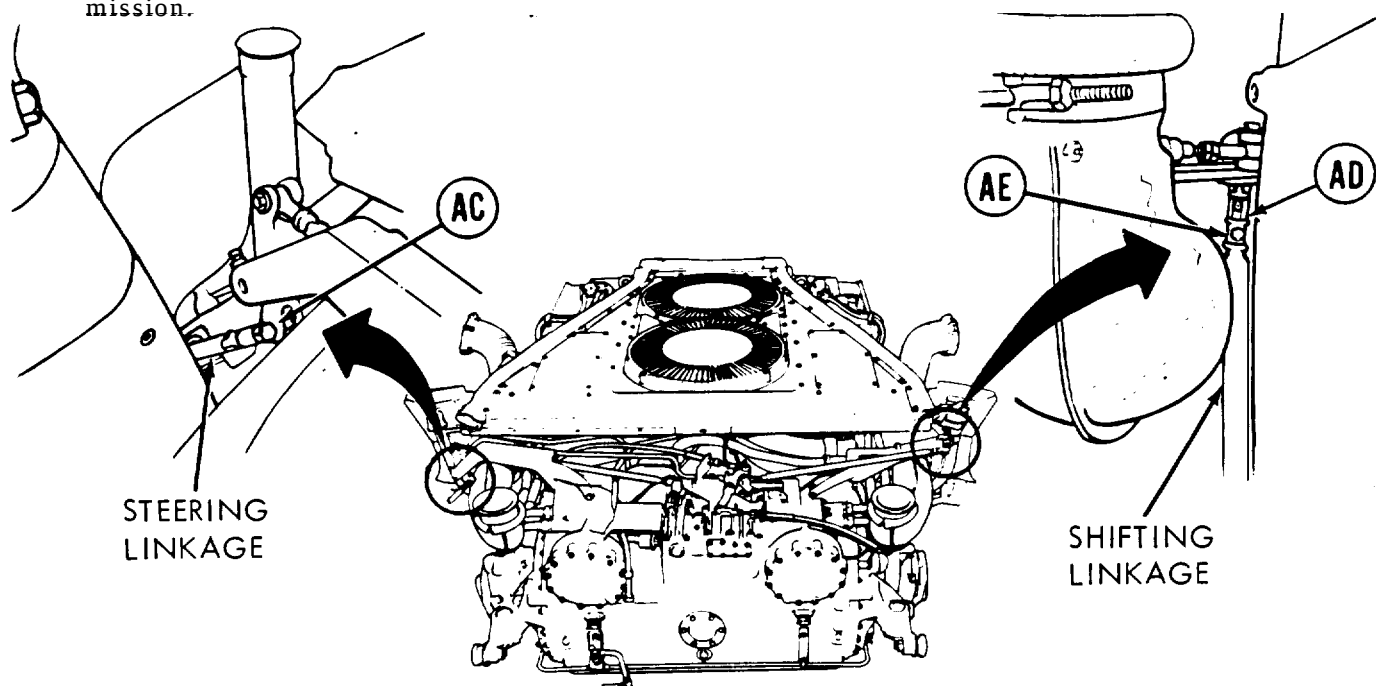
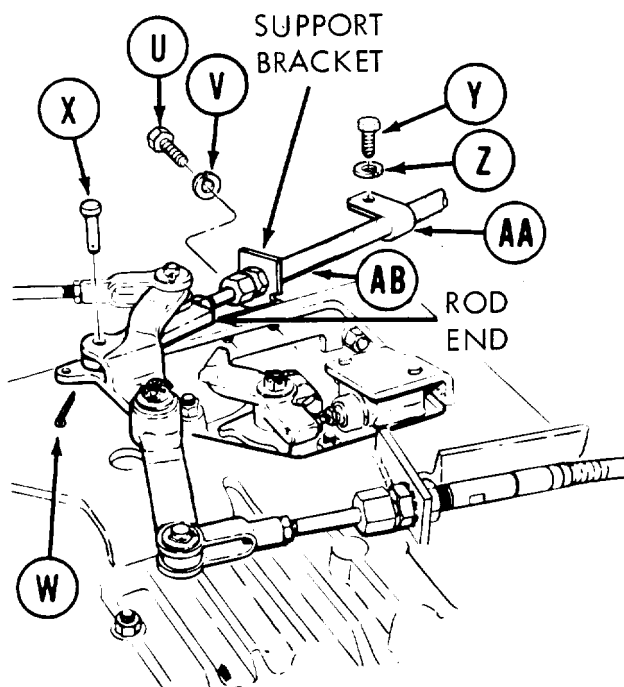
QUICK DISCONNECT

17. Manually turn hex portion of quick disconnect counterclockwise till loose, then displace rear portion of cable.

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POWERPLANT REPLACEMENT (Sheet 6 of 21)

17. Go to top of transmission at rear of vehicle.
18. Using 9/16 inch socket, remove two screws (U) and lockwashers (V) securing parking brake support bracket.
19. Using pliers, pull cotter pin (W).
20. Remove straight pin (X). Separate rod end of parking brake control from bell-crank.
21. Using 7/16 inch wrench, remove screw (Y) and lockwasher (Z) attaching clamp (AA) that secures parking brake control.
22. Move parking brake control (AB) out of way.
23. Using 7/16 inch wrench, remove bolt (AC) securing steering linkage. Displace linkage at left side of transmission.
24. Using cutting pliers, remove lockwire (AD) at right side of transmission.
25. Using 7/16 inch wrench, remove screw (AE) and shifting linkage at right side of transmission.



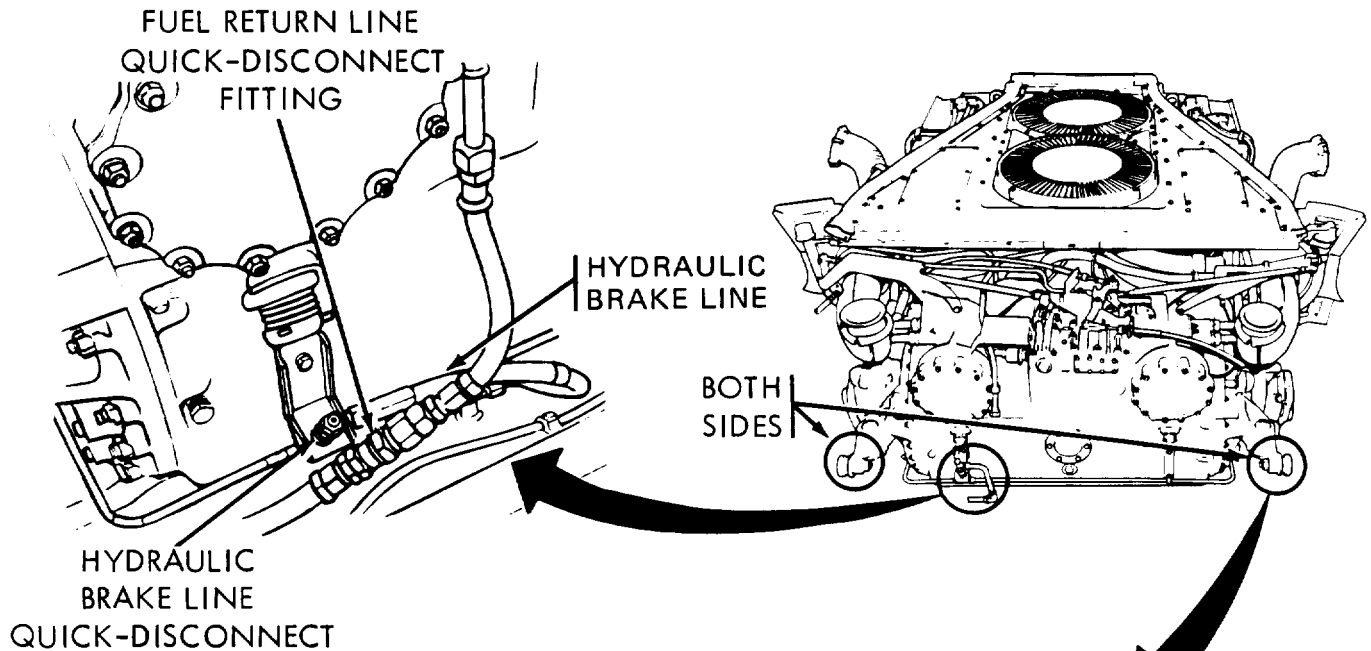
REAR TOP VIEW OF POWERPLANT

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POWERPLANT REPLACEMENT (Sheet 7 of 21)

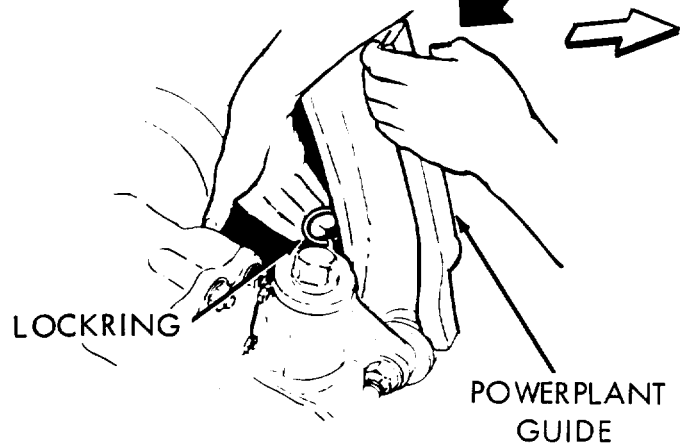
26. Pull back on quick-disconnect to separate fuel return line at fitting. Cover openings.



27. Disconnect hydraulic brake line at quick-disconnect fitting. Cap line openings.

28. Cover brake line opening so dirt cannot enter.

29. Pull lockring out to unlock powerplant guide. Swing guide backward. Do this at both sides.

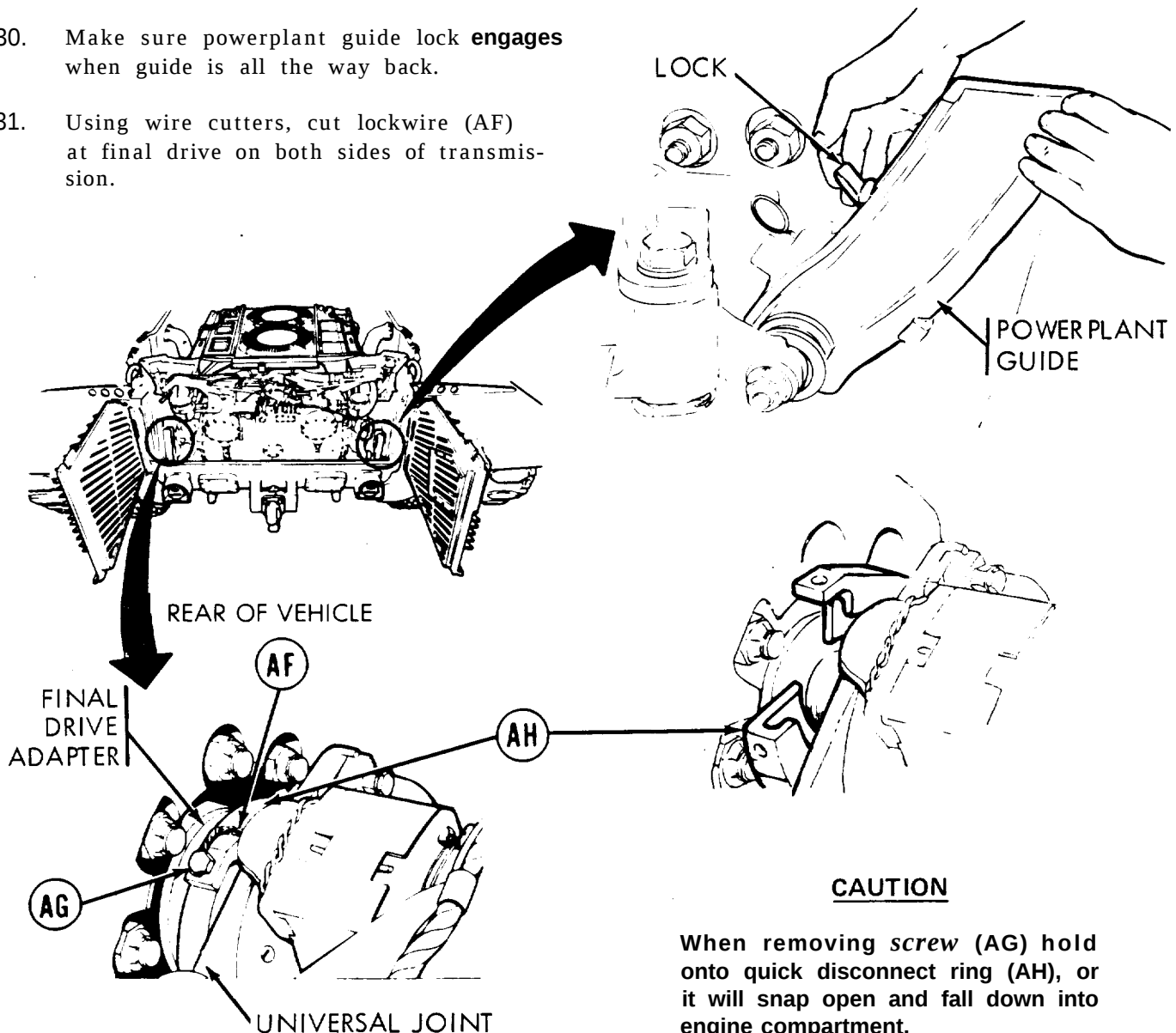


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POWERPLANT REPLACEMENT (Sheet 8 of 21)

30. Make sure powerplant guide lock **engages** when guide is all the way back.
31. Using wire cutters, cut lockwire (AF) at final drive on both sides of transmission.



32. Using 3/4 inch socket with universal joint, remove screw (AG) securing quick-disconnect ring (AH) from both sides of transmission.
33. Remove ring (AH) from both sides of transmission.

Go on to Sheet 9

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