

ARMY TM 9-2320-280-20-2
AIR FORCE TO 36A12-1A-2092-1-2
MARINE CORPS TM 2320-20/7B
(SUPERSEDES TM 9-2320-280-20-2, 19 JANUARY 1990)

Volume No. 2

TECHNICAL MANUAL
UNIT MAINTENANCE

TRUCK, UTILITY: CARGO/TROOP CARRIER, 1-1/4 TON, 4X4, M998 (2320-01-107-7155) (EIC: BBD); M998A1 (2320-01-371-9577) (EIC: BBN);

TRUCK, UTILITY: CARGO/TROOP CARRIER, 1-1/4 TON, 4X4, W/WINCH, M1038 (2320-01-107-7156) (EIC: BBE); M1038A1 (2320-01-371-9578) (EIC: BBP);

TRUCK, UTILITY: HEAVY VARIANT, 4X4, M1097 (2320-01-346-9317) (EIC: BBM); M1097A1 (2320-01-371-9583) (EIC: BBU); M1097A2 (2320-01-380-8604) (EIC: BB6); M1123 (2320-01-455-9593) (EIC: B6G);

TRUCK, UTILITY: TOW CARRIER, ARMORED, 1-1/4 TON, 4X4, M966 (2320-01-107-7153) (EIC: BBC); M966A1 (2320-01-372-3932) (EIC: BBX); M1121 (2320-01-456-1282) (EIC: B6H);

TRUCK, UTILITY: TOW CARRIER, ARMORED, 1-1/4 TON, 4X4, W/WINCH, M1036 (2320-01-107-7154) (EIC: BBH);

TRUCK, UTILITY: TOW CARRIER, W/SUPPLEMENTAL ARMOR, 1-1/4 TON, 4X4, M1045 (2320-01-146-7191); M1045A1 (2320-01-371-9580) (EIC: BBR); M1045A2 (2320-01-380-8229) (EIC: BB5);

TRUCK, UTILITY: TOW CARRIER, W/SUPPLEMENTAL ARMOR, 1-1/4 TON, 4X4, W/WINCH, M1046 (2320-01-146-7188); M1046A1 (2320-01-371-9582) (EIC: BBT);

TRUCK, UTILITY: ARMAMENT CARRIER, ARMORED, 1-1/4 TON, 4X4, M1025 (2320-01-128-9551) (EIC: BBF); M1025A1 (2320-01-371-9584) (EIC: BBV); M1025A2 (2320-01-380-8233) (EIC: BB3);

TRUCK, UTILITY: ARMAMENT CARRIER, ARMORED, 1-1/4 TON, 4X4, W/WINCH, M1026 (2320-01-128-9552) (EIC: BBG); M1026A1 (2320-01-371-9579) (EIC: BBQ);

TRUCK, UTILITY: ARMAMENT CARRIER, W/SUPPLEMENTAL ARMOR, 1-1/4 TON, 4X4, M1043 (2320-01-146-7190); M1043A1 (2320-01-372-3933) (EIC: BBY); M1043A2 (2320-01-380-8213) (EIC: BB4);

TRUCK, UTILITY: ARMAMENT CARRIER, W/SUPPLEMENTAL ARMOR, 1-1/4 TON, 4X4, W/WINCH, M1044 (2320-01-146-7189); M1044A1 (2320-01-371-9581) (EIC: BBS);

TRUCK, UTILITY: S250 SHELTER CARRIER, 4X4, M1037 (2320-01-146-7193) (EIC: BBK);

TRUCK, UTILITY: S250 SHELTER CARRIER, 4X4, W/WINCH, M1042 (2320-01-146-7187);

TRUCK, AMBULANCE, 2-LITTER, ARMORED, 4X4, M996 (2310-01-111-2275) (EIC: BBB); M996A1 (2310-01-372-3935) (EIC: BB2);

TRUCK, AMBULANCE, 4-LITTER, ARMORED, 4X4, M997 (2310-01-111-2274) (EIC: BBA); M997A1 (2310-01-372-3934) (EIC: BBZ); M997A2 (2310-01-380-8225) (EIC: BB8);

TRUCK, AMBULANCE, 2-LITTER, SOFT TOP, 4X4, M1035 (2310-01-146-7194); M1035A1 (2310-01-371-9585) (EIC: BBW); M1035A2 (2310-01-380-8290) (EIC: BB9).

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HEADQUARTERS, DEPARTMENTS OF THE ARMY,
THE AIR FORCE, AND MARINE CORPS

JANUARY 1996

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NO. 2320-20/7B**

**TECHNICAL ORDER
NO. 36A12-1A-2092-1-2**

**HEADQUARTERS,
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THE AIR FORCE, AND MARINE CORPS
WASHINGTON, D.C., 31 JANUARY 1996**

TECHNICAL MANUAL VOLUME 2 OF 3

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REPORTING OF ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this publication. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Submit your DA Form 2028-2 (Recommended Changes to Equipment Technical Publications), through the Internet, on the Army Electronic Product Support (AEPS) website. The Internet address is <http://aeprs.ria.army.mil>. If you need a password, scroll down and click on "ACCESS REQUEST FORM." The DA Form 2028 is located in the ONLINE FORMS PROCESSING section of the AEPS. Fill out the form and click on SUBMIT. Using this form on the AEPS will enable us to respond quicker to your comments and better manage the DA Form 2028 program. You may also mail, fax or email your letter, DA Form 2028, or DA Form 2028-2 direct to: Commander, U.S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-LC-CIP-WT, Rock Island, IL 61299-7630. The email address is amsta-ac-nml@ria.army.mil. The fax number is DSN 793-0726 or Commercial (309) 782-0726. (Marine Corps) Submit NAVMC 10772 to the Commanding General (826), MCLB, 814 Radford Blvd., Albany, GA 31704-1128.

This manual is published in three parts. TM 9-2320-280-20-1 contains chapters 1 and 2, TM 9-2320-280-20-2 contains chapters 3 through 9, and TM 9-2320-280-20-3 contains chapters 10 through 13 and Appendices a through g.

This manual contains a table of contents and alphabetized index for chapters 3 through 9.

*This publication supersedes TM 9-2320-280-20-2 dated 19 January 1990 and all changes.

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CHAPTER 3

ENGINE SYSTEMS MAINTENANCE

Section I. LUBRICATION SYSTEM MAINTENANCE

3-1. LUBRICATION SYSTEM MAINTENANCE TASK SUMMARY

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3-2. ENGINE OIL DIPSTICK TUBE REPLACEMENT

This task covers:

a. Removal

b. Installation

INITIAL SETUP:

Tools

General mechanic's tool kit:
automotive (Appendix B, Item 1)

Manual References

TM 9-2320-280-10
TM 9-2320-280-24P

Special Tools

Hex head driver, 8 mm
(Appendix B, Item 156)

Equipment Condition

Hood raised and secured (TM 9-2320-280-10).

Materials/Parts

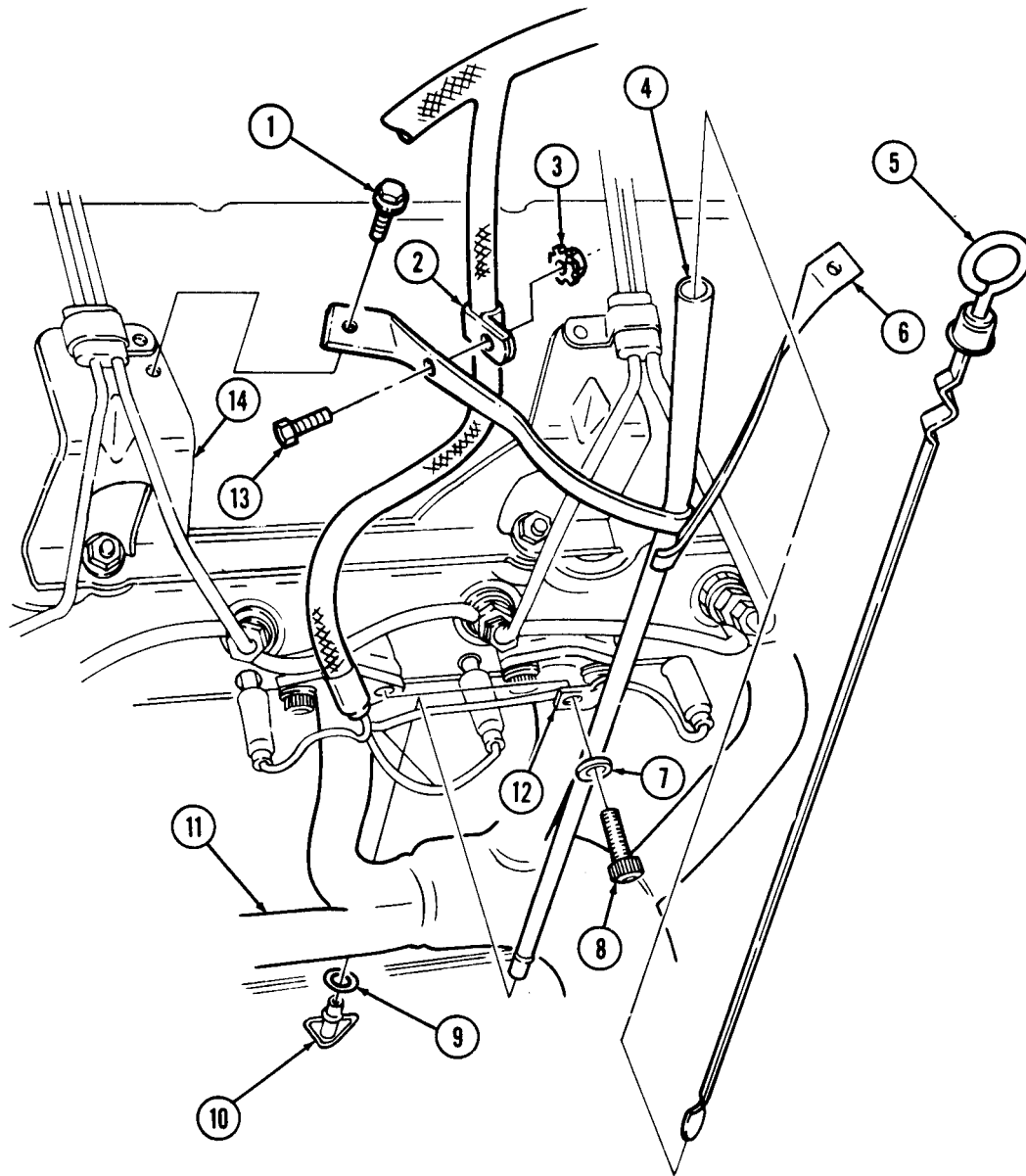
O-ring seal (Appendix G, Item 154)
Nut and lockwasher assembly
(Appendix G, Item 144)
Sealant (Appendix C, Item 38)

a. Removal

1. Remove oil dipstick (5) from oil dipstick tube (4).
2. Remove nut and lockwasher assembly (3) and capscrew (13) from harness clamp (2) and upper dipstick tube bracket (6). Discard nut and lockwasher assembly (3).
3. Using hex head driver, remove socket head screw (8) and washer (7) from lower dipstick tube bracket (12) and exhaust manifold (11).
4. Remove two screw-assembled washers (1) from upper dipstick tube bracket (6) and fuel line bracket (14).
5. Remove oil dipstick tube (4) from engine oil pan (10). Remove and discard O-ring seal (9).

b. Installation

1. Apply RTV sealant to O-ring seal (9) and install O-ring seal (9) on oil dipstick tube (4).
2. Install oil dipstick tube (4) in engine oil pan (10).
3. Using hex head driver, secure lower dipstick tube bracket (12) to exhaust manifold (11) with washer (7) and socket head screw (8). Tighten socket head screw (8) to 25-33 lb-ft (34-45 **N•m**).
4. Secure upper dipstick tube bracket (6) to fuel line bracket (14) with two screw-assembled washers (1). Tighten screw-assembled washers (1) to 3 to 4 lb-ft (45 **N•m**).
5. Secure harness clamp (2) to upper dipstick tube bracket (6) with capscrew (13) and nut and lockwasher assembly (3).
6. Install oil dipstick (5) into oil dipstick tube (4).

3-2. ENGINE OIL DIPSTICK TUBE REPLACEMENT (Cont'd)

FOLLOW-ON TASKS:

- Start engine (TM 9-2320-280-10) and check for oil leaks.
- Lower and secure hood (TM 9-2320-280-10).

3-3. ENGINE OIL FILLER TUBE REPLACEMENT

This task covers:

a. Removal

b. Installation

INITIAL SETUP:

Tools

General mechanic's tool kit
automotive (Appendix B, Item 1)

Manual References

TM 9-2320-280-10
TM 9-2320-280-24P

Materials/Parts

Lubricating oil (Appendix C, Item 31)

Equipment Condition

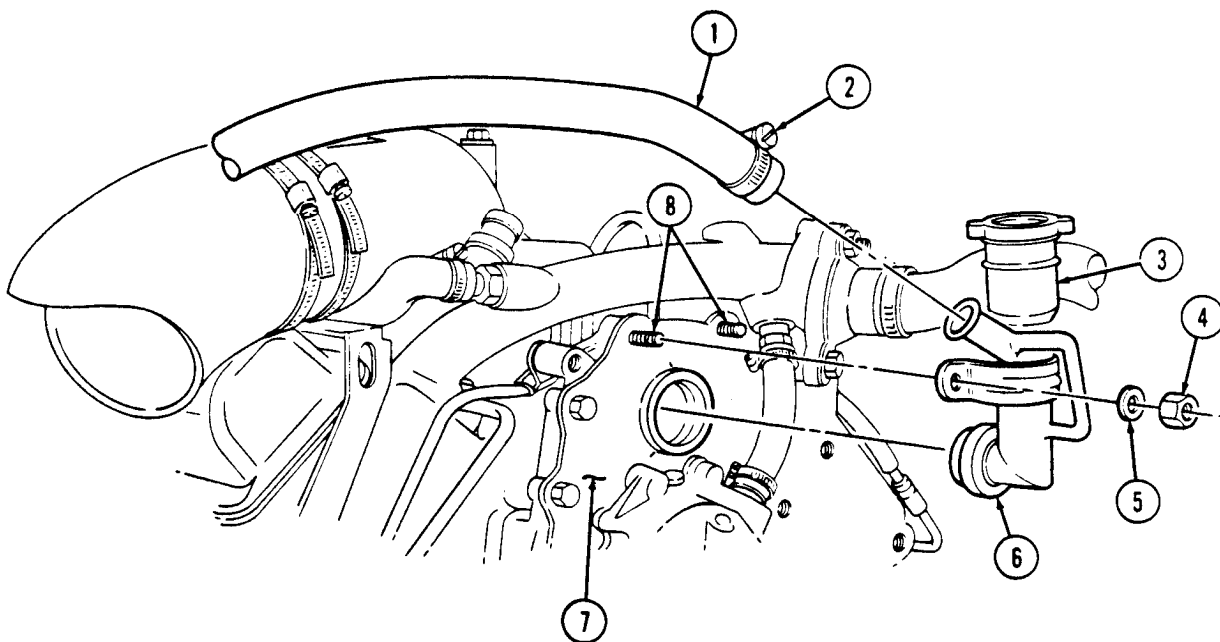
Hood raised and secured (TM 9-2320-280-10).

a. Removal

1. Loosen clamp (2) and disconnect CDR valve hose (1) from engine oil filler tube (3).
2. Remove two nuts (4), washers (5), and engine oil filler tube (3) from timing chain cover (7) and studs (8).
3. Inspect grommet (6) for breaks or cracks. Replace if defective.

b. Installation

1. Coat grommet (6) with lubricating oil.
2. Install engine oil filler tube (3) into timing chain cover (7) with two washers (5) and nuts (4). Tighten nuts (4) to 13-20 lb-ft (18-27 N•m).
3. Connect CDR valve hose (1) to engine oil filler tube (3) and tighten clamp (2).



FOLLOW-ON TASK: Lower and secure hood (TM 9-2320-280-10).