

3-9. CRANKCASE DEPRESSION REGULATOR (CDR) VALVE AND BRACKET MAINTENANCE

This task covers:

- a. Testing
- b. Removal

- c. Cleaning and Inspection
- d. 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

Test Equipment

Manometer, U-tube
(Appendix B, Section IV, Item L)

Equipment Condition

- Hood raised and secured (TM 9-2320-280-10).
- Engine access cover removed (para. 10-15).

a. Testing

1. Remove engine oil dipstick from oil dipstick tube (para. 3-2).
2. Install manometer in dipstick tube.
3. Connect STE/ICE-R unit to DCA connector.

NOTE

To read manometer, add amount the water column travels above zero to the amount the water column travels below zero.

4. Start engine and let idle; record water pressure. Pressure should be zero inches of water or a slight vacuum.
5. Increase engine speed to 2,000 rpm; record water pressure. Pressure should be 2-5 inches.
6. If pressures are not within specifications listed in steps 4 and 5, replace CDR valve (9) and repeat test.
7. Install oil dipstick in engine oil dipstick tube (para. 3-2).

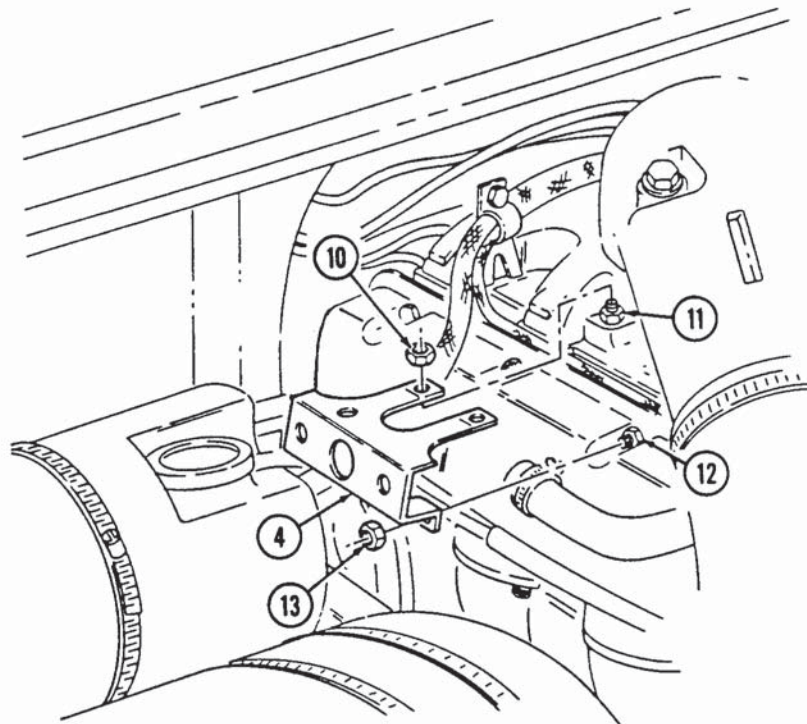
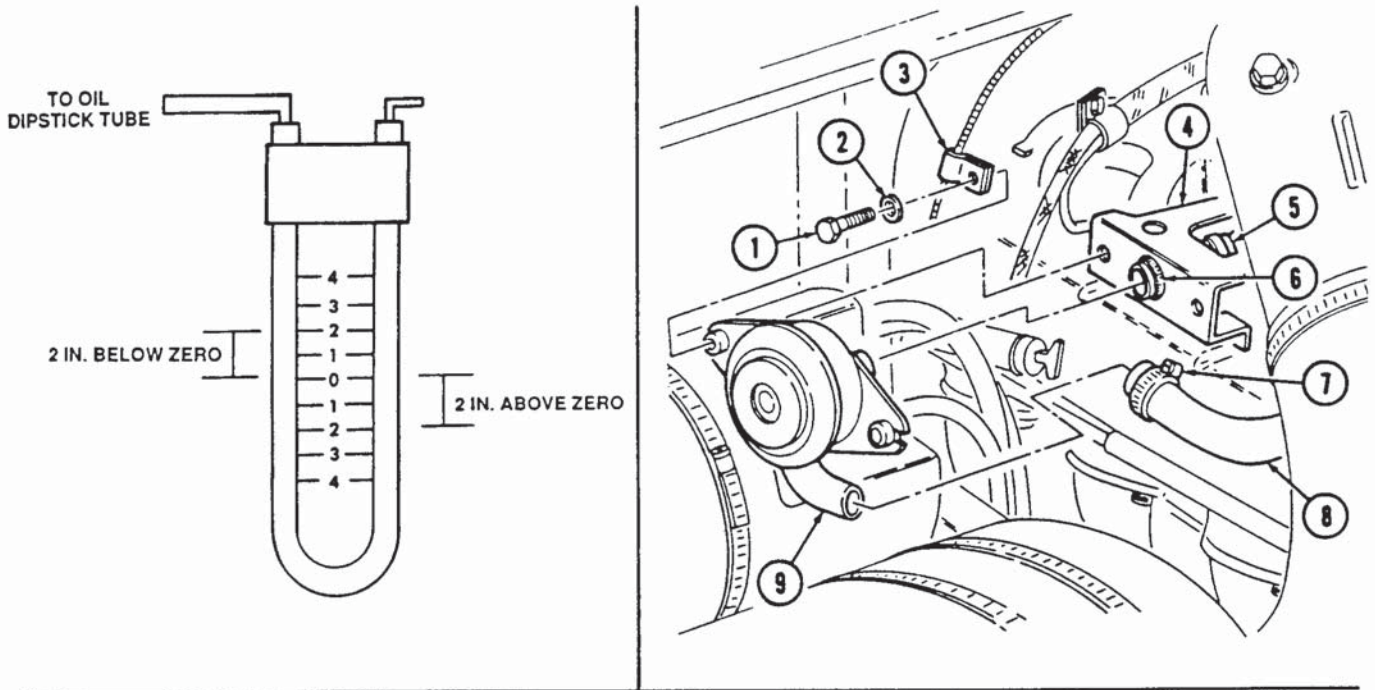
b. Removal

NOTE

CDR valves on vehicles equipped with deep water fording kit contain two additional vent lines.

1. Loosen clamp (7) and disconnect CDR valve oil fill tube hose (8) from CDR valve (9).
2. Loosen clamp (6) on CDR valve intake manifold hose (5).
3. Remove two screws (1), washers (2), CDR valve (9), and heater control cable clamp (3) horn CDR valve bracket (4).
4. Remove two nuts (10) from CDR valve bracket (4) and two intake manifold studs (11).
5. Remove two nuts (13) and CDR valve bracket (4) from two valve cover studs (12).

3-9. CRANKCASE DEPRESSION REGULATOR (CDR) VALVE AND BRACKET MAINTENANCE (Cont'd)



3-9. CRANKCASE DEPRESSION REGULATOR (CDR) VALVE AND BRACKET MAINTENANCE (Cont'd)

c. Cleaning and Inspection

CAUTION

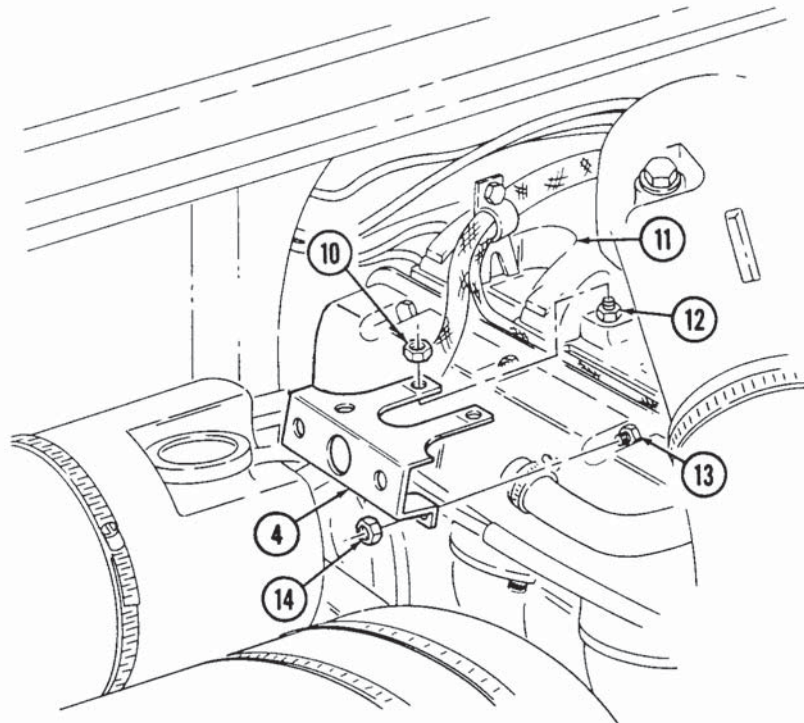
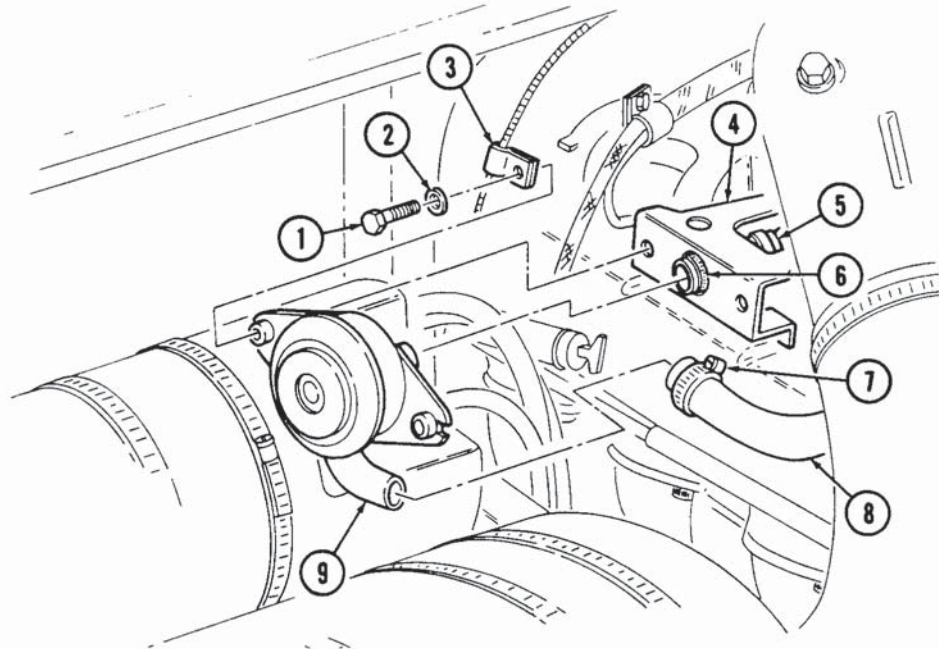
Do not clean CDR valve with drycleaning solvent. Drycleaning solvent will damage the diaphragm inside the CDR valve.

1. Clean oil and carbon deposits from the CDR valve (9) with a clean, lint-free cloth.
2. Inspect the CDR valve (9) and lines for leaks, cracks, and restrictions. Replace if damaged.

d. Installation

1. Install CDR valve bracket (4) on two intake manifold studs (12) and two valve cover studs (13).
2. Secure CDR valve bracket (4) to intake manifold (11) with two nuts (10). Tighten nuts (10) to 15 lb-ft (20 **N•m**).
3. Secure CDR valve bracket (4) to valve cover studs (13) with two nuts (14). Tighten nuts (14) to 10 lb-ft (14 **N•m**).
4. Connect CDR valve (9) to intake manifold hose (5) and tighten clamp (6).
5. Install CDR valve (9) and heater control cable clamp (3) on CDR valve bracket (4) with two washers (2) and screws (1). Tighten screws (1) to 15 lb-ft (20 **N•m**).
6. Connect CDR valve oil fill tube hose (8) to CDR valve (9) and tighten clamp (7).

**3-9. CRANKCASE DEPRESSION REGULATOR (CDR) VALVE AND BRACKET
MAINTENANCE (Cont'd)**



- FOLLOW-ON TASKS:**
- Lower and secure hood (TM 9-2320-280-10).
 - Install engine access cover (para. 10-15).

3-10. CDR VALVE HOSES REPLACEMENT

This task covers:

a. Removal

b. Installation

INITIAL SETUP:

Tools

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

Equipment Condition

- Hood raised and secured (TM 9-2320-280-10).
- Engine access cover removed (para. 10-15).
- CDR valve and bracket removed (para. 3-9).

Manual References

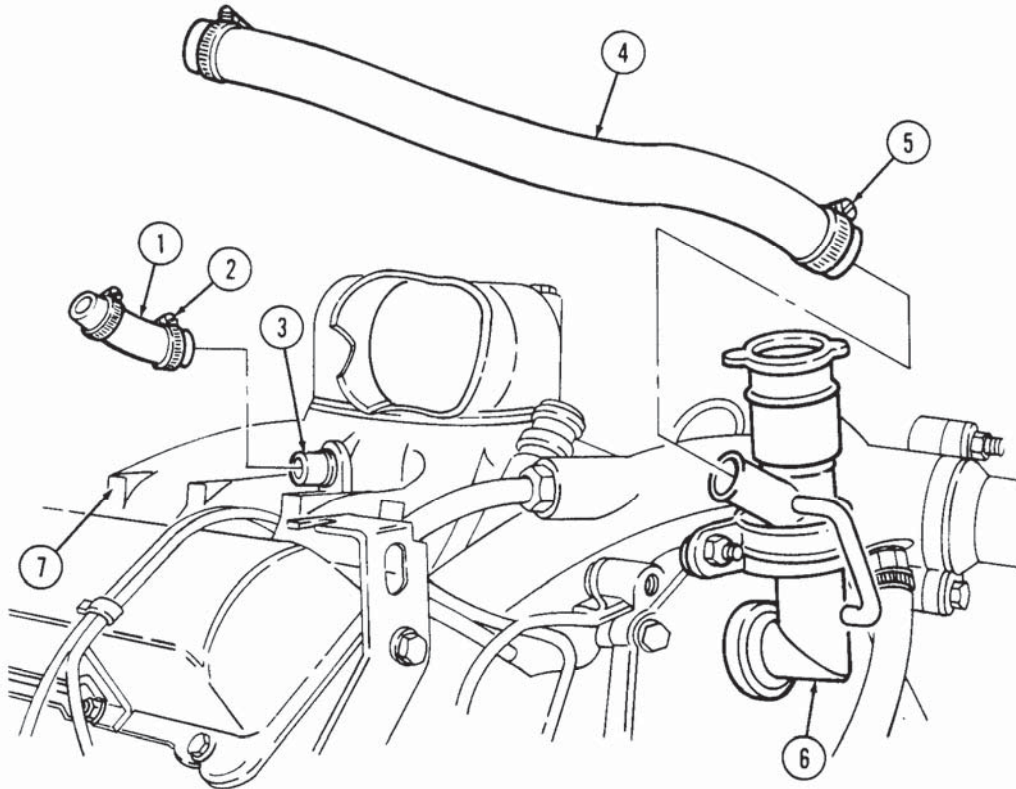
TM 9-2320-280-10
TM 9-2320-280-24P

a. Removal

1. Loosen clamp (2) and disconnect CDR valve intake manifold hose (1) from intake manifold (7).
2. Inspect adapter (3) for breaks or cracks. Replace if defective.
3. Loosen clamp (5) and disconnect CDR valve oil fill tube hose (4) from oil fill tube (6).

b. Installation

1. Connect CDR valve oil fill tube hose (4) to oil fill tube (6) and tighten clamp (5).
2. Connect to CDR valve intake manifold hose (1) to intake manifold (7) and tighten clamp (2).



- FOLLOW-ON TASKS:
- Install CDR valve and bracket (para. 3-9).
 - Lower and secure hood (TM 9-2320-280-10).
 - Install engine access cover (para. 10-15).