#### This task covers:

- a. Draining
- b. Removal
- c. Disassembly

- d. Cleaning and Inspection
- e. Assembly
- f. Installation

#### **INITIAL SETUP:**

#### **Tools**

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

# Materials/Parts

Access cover gasket (Appendix G, Item 1) Fifteen locknuts (Appendix G, Item 70) Adhesive (Appendix C, Item 1) Sealing compound (Appendix C, Item 46) Drycleaning solvent (Appendix C, Item 18) Twelve O-rings (Appendix G, Item 215)

## **Personnel Required**

One mechanic One assistant

#### **Manual References**

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

# **Equipment Condition**

- Battery ground cable disconnected (para. 4-73).
- Rear propeller shaft removed (para. 6-4).

# **General Safety Instructions**

- Do not perform this procedure near fire, flames, or sparks.
- Cleaning will be done in a well-ventilated area and a fire extinguisher will be kept nearby when solvent is used.

# WARNING

Diesel fuel is highly flammable. Do not perform this procedure near fire, flames, or sparks. Severe injury or death will result.

#### NOTE

Have drainage container ready to catch fuel.

# a. Draining

- 1. Remove fuel tank filler cap (1).
- 2. Remove drainplug (3) from fuel tank (2). Allow fuel to completely drain into container.

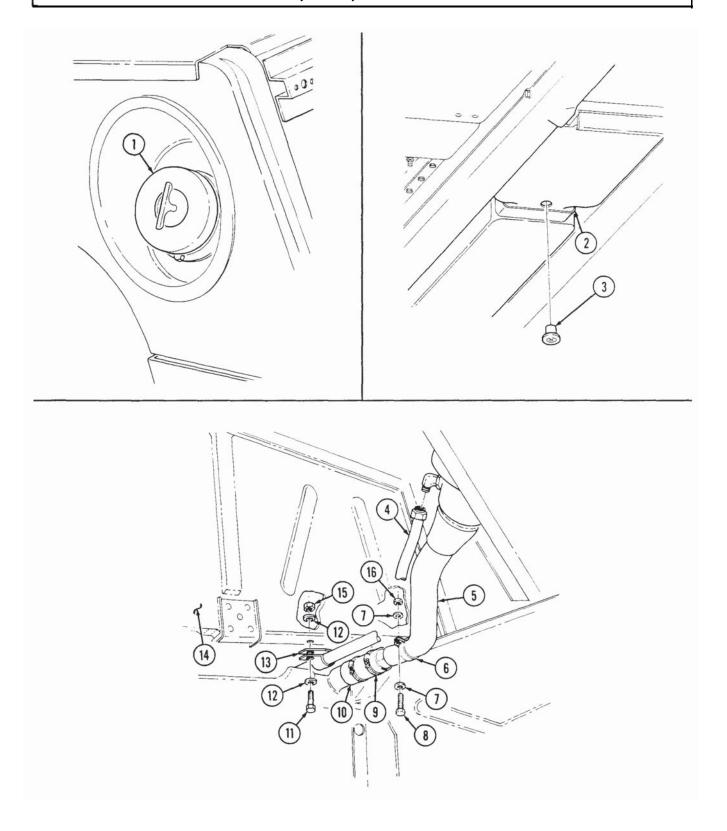
#### **CAUTION**

Do not overtighten drainplug. Drainplug must not turn in hole. Sharp edge of hole may cut rubber.

3. Install drainplug (3) flush with bottom of fuel tank (2) and tighten.

#### b. Removal

- 1. Disconnect large vent line (4) from filler spout (5).
- 2. Remove locknut (15), washer (12), capscrew (11), washer (12), and clamp (13) from vent line (4) and body (14). Discard locknut (15).
- 3. Remove locknut (16), washer (7), capscrew (8), washer (7) and clamp (6) from filler spout (5). Discard locknut (16).
- 4. Loosen clamp (9) and remove hose (10) from filler spout (5).



- 5. Remove two nuts (15), washers (14), and capscrews (7) from fuel tank support straps (6) and (12) and remove lower straps (13).
- 6. Loosen two clamps (3) and disconnect fuel supply hoses (1) and (2) from fuel return line (4) and supply line (5).

## **NOTE**

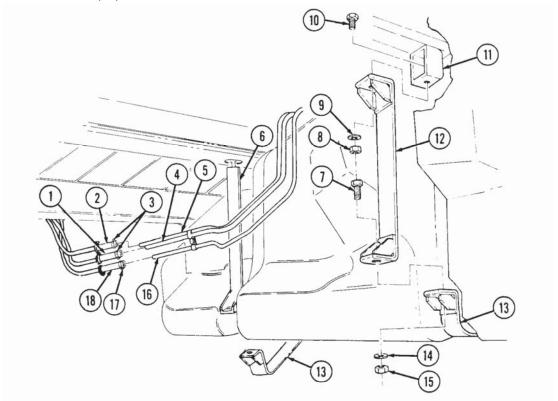
Perform step 7 if vehicle is equipped with an arctic heater and/or troop/cargo wintenzation kit.

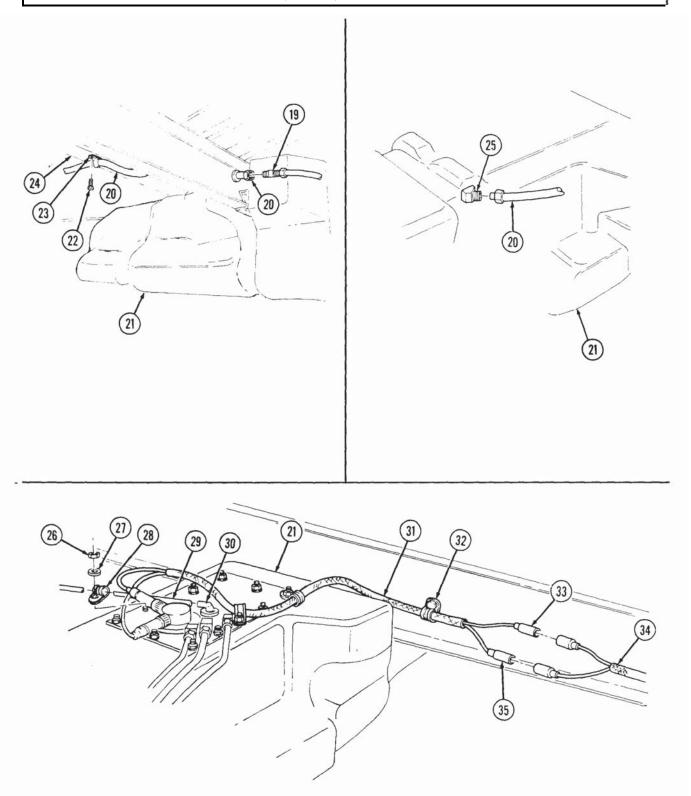
- 7. Loosen clamp (17) and disconnect fuel supply hose (18) from arctic heater and/or troop/cargo heater fuel supply line (16).
- 8. Disconnect vent line (20) from tee (19).
- 9. Remove capscrew (22) and clamp (23) securing vent line (20) to body (24).
- 10. Remove locknut (8), washer (9), capscrew (10) and rear strap (12) from strap bracket (11). Discard locknut (8).
- 11. Lower fuel tank (21) for access to vent line (29) and clamp (28).
- 12. Disconnect vent line (20) from fitting (25) on fuel tank (21).
- 13. Remove locknut (26) and washer (27) securing clamp (28) and vent line (29) to fuel tank (21). Discard locknut (26).
- 14. Disconnect vent line (29) from vent line housing (30).

#### NOTE

Prior to removal, tag leads for installation.

- 15. Disconnect jumper leads 58J (33) and 28B (35) from body wiring harness (34).
- 16. Bend clamp (32) down and remove jumper harness (31).
- 17. Remove fuel tank (21) from vehicle.





# c. Disassembly

- 1. Thoroughly clean outside of tank (17) to prevent dirt contamination.
- 2. Disconnect fuel supply line (26) from fuel supply tube (12) and fuel return line (25) from fuel return tube (29).

# NOTE

Perform step 3 if vehicle is equipped with an arctic heater.

- 3. Disconnect arctic heater fuel supply line (20) from arctic heater fuel supply tube (13).
- 4. Remove capscrew (22) and clamp (24) securing fuel supply line (26), fuel return line (25), and shield (21) to fuel tank (17). Remove arctic heater fuel supply line (20), and clamp (23) if installed.
- 5. Remove two locknuts (6) and washers (7) securing two clamps (8) and jumper harness (5) to access cover (11). Discard locknuts (6).

#### NOTE

Prior to removal, tag leads for installation.

5. Disconnect jumper harness leads 28B (1) and 58J (2) from fuel level sender (30) and remove jumper harness (5).

#### **NOTE**

Perform steps 7 and 8 for vehicles with fuel tank P/N 12358588.

- 7. Remove nine locknuts (9) and washers (10) securing access cover (11), gasket (28), and retainer (27) to fuel tank (17). Discard locknuts (9).
- 8. Remove access cover (11), gasket (28), and retainer (27) from fuel tank (17). Discard gasket (28).

#### **NOTE**

Perform steps 8.1 through 8.5 for vehicles with fuel tank P/N 12460105.

- 8.1. Remove nine locknuts (9), washers (10), access cover (11), gasket (28), and retainer (19.2) from fuel tank (17). Discard locknuts (9) and gasket (28).
- 8.2. Remove eight capscrews (19.4), washers (19.3), and retainer (19.2) from support baffle (19.8).
- 8.3. Remove twelve O-rings (19.1) from retainer (19.2). Discard O-rings (19.1).
- 8.4. Remove four locknuts (19.6), washers (19.7), and support baffle (19.8) from fuel tank baffle (19.5). Discard locknuts (19.6).
- 8.5. Remove support baffle (19.8) and fuel tank baffle (19.5) from fuel tank (17).
  - 9. Match mark position of elbow fittings on access cover (11).

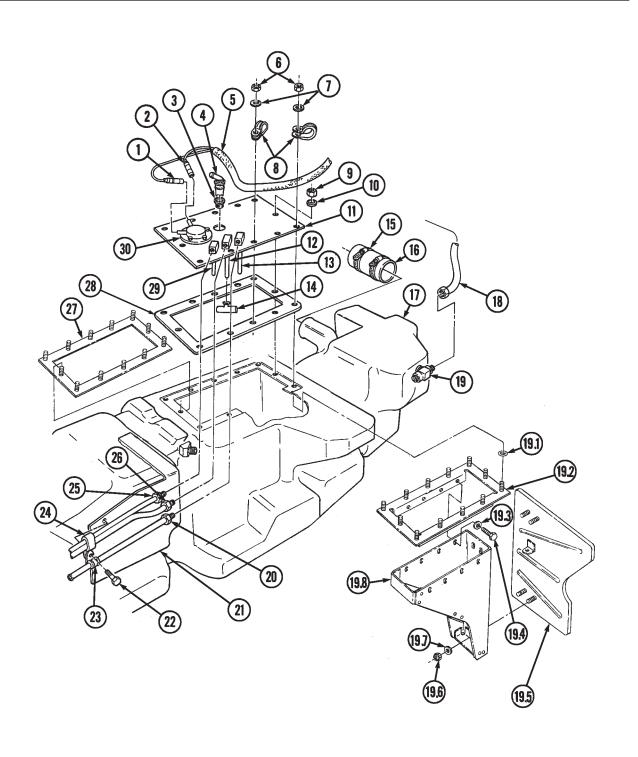
#### NOTE

Note position of fuel strainer for installation.

- 10. Remove fuel strainer (14) from fuel supply tube (12).
- 11. Remove fuel supply tube (12) from access cover (11).
- 12. Remove fuel return tube (29) from access cover (11).

#### NOTE

- Perform step 13 if vehicle is equipped with an arctic heater.
- Vehicles not equipped with an arctic winterization kit will have a plug instead of an arctic heater fuel supply tube.
- 13. Remove arctic heater fuel supply tube (13) from access cover (11).
- 14. Remove vent valve (4) and grommet (3) from access cover (11).
- 15. Remove vent line (18) from tee (19).
- 16. Loosen clamp (15) and remove filler spout hose (16) from tank (17).

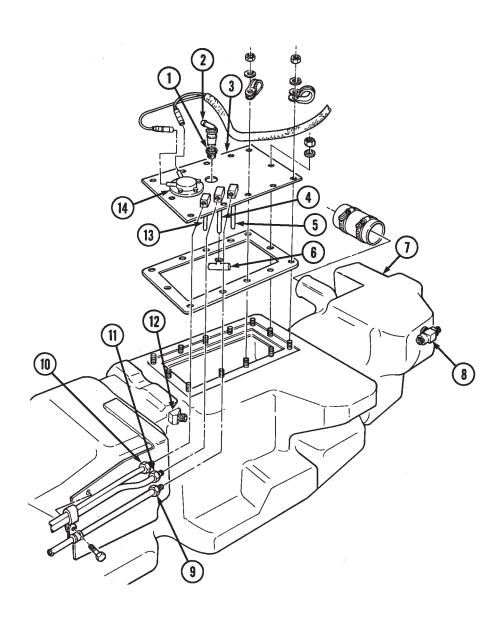


# d. Cleaning and Inspection

# **WARNING**

Drycleaning solvent is flammable and will not be used near an open flame. A fire extinguisher will be kept nearby when the solvent is used. Use only in well-ventilated places. Failure to do this may result in injury to personnel or damage to equipment.

- 1. Use drycleaning solvent to clean access cover (3), fuel supply line (11), fuel return line (10), arctic heater fuel supply line (9), fuel supply tube (4), fuel return tube (13), arctic heater fuel supply tube (5), and inside fuel tank (7).
- 2. Inspect access cover (3), fuel supply line (11), fuel return line (10), fuel supply tube (4), fuel return tube (13), strainer (6), tee (8), fitting (12), vent line housing (2), and grommet (1) for cracks, wear, and breaks. Replace if cracked, worn, or broken.
- 3. Inspect arctic heater fuel supply line (9) and arctic heater fuel supply tube (5) for cracks, wear, and breaks, if installed. Replace if cracked, worn, or broken.
- 4. Inspect sending unit (14) for damage. Replace if damaged.



# e. Assembly

#### NOTE

- Use pipe sealant on all vent line and fuel line connector threads before installation.
- Use fittings from old tank if installing new tank.
- 1. Install vent line (18) to tee fitting (19).
- 2. Install filler spout hose (16) on tank (17) and secure with clamp (15).
- 3. Apply sealing compound to threads of fuel supply tube (12), and install and align fuel supply tube (12) on access cover (11).
- 4. Apply sealing compound to threads of fuel return tube (29), and install and align fuel return tube (29) on access cover (11).

#### NOTE

Perform step 5 only if vehicle has an arctic heater installed.

- 5. Apply sealing compound to threads of arctic heater fuel supply line (13), and install and align arctic heater fuel supply line (13) on access cover (11).
- 6. Install grommet (3) and vent valve (4) to access cover (11).
- 7. Install fuel strainer (14) on fuel supply tube (12).

#### NOTE

Perform steps 7.1 through 7.4 for vehicles with fuel tank P/N 12460105.

- 7.1 Insert fuel tank baffle (19.5) and support baffle (19.8) into fuel tank (17).
- 7.2 Secure support baffle (19.8) to fuel tank baffle (19.5) with four washers (19.7) and locknuts (19.6).
- 7.3 Install twelve O-rings (19.1) on retainer (19.2), and secure retainer (19.2) to support baffle (19.8) with eight washers (19.3) and capscrews (19.4).
- 7.4 Apply adhesive to threads of nine locknuts (9), and install retainer (19.2), gasket (28), and access cover (11) on fuel tank (17) and with nine washers (10) and locknuts (9). Tighten locknuts (9) to 72 lb-in. (8 N·m).

#### NOTE

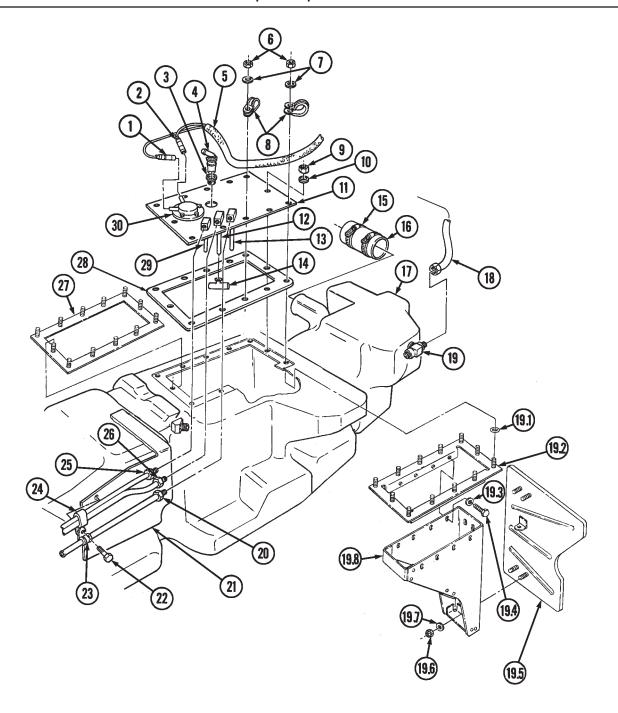
Perform step 8 for vehicles with fuel tank P/N 12358588.

- 8. Apply adhesive to threads of nine locknuts (9), and install retainer (27), gasket (28), and access cover (11) on fuel tank (17) with nine washers (10) and locknuts (9). Tighten locknuts (9) to 72 lb-in. (8 N•m).
- 9. Connect jumper harness leads 28B (1) and 58J (2) to fuel level sender (30).
- 10. Apply adhesive to threads of two locknuts (6) and secure jumper harness (5) to fuel tank (17) with two clamps (8), washers (7), and locknuts (6). Tighten locknuts (6) to 72 lb-in. (8 N•m).
- 11. Connect fuel supply line (26) to fuel supply tube (12), and fuel return line (25) to fuel return tube (29).

# **NOTE**

Perform step 12 if vehicle has an arctic heater installed.

- 12. Connect arctic heater fuel supply line (20) to arctic heater fuel supply tube (13).
- 13. Secure shield (21), return line (25), supply line (26), clamp (24), and arctic heater fuel supply line (20) and clamp (23) if installed, to fuel tank (17) with capscrew (22).



### f. Installation

- 1. Position fuel tank (5) under vehicle.
- 2. Install jumper harness (6) on clamp (7) and bend clamp (7) up.
- 3. Connect jumper harness leads 58J (8) and 28B (10) to body wiring harness (9).

#### NOTE

Use sealing compound on all vent line connector threads before installation.

- 3.1. Connect vent line (4) to vent line housing (4.1).
  - 4. Connect vent line (4) to fuel tank (5) with clamp (3), washer (2), and locknut (1). Tighten locknut (1) to 6 lb-ft (8 N·m).
  - 5. Connect vent line (12) on fitting (11) on fuel tank (5).

#### NOTE

Apply adhesive to threads of capscrews.

6. Install rear strap (23) on strap bracket (22) with capscrew (21), washer (20), and locknut (19). Tighten locknut (19) to 37 lb-ft (50 N·m).

#### NOTE

Ensure front straps are flush with fuel tank and to right side of dimple in slot.

- 7. Raise fuel tank (5) and install two support straps (24) to straps (17) and (23) with two capscrews (18), washers (25), and locknuts (26). Do not tighten locknuts (26).
- 8. Connect vent line (12) to tee (31) on vent line (38).
- 9. Secure vent line (12) to body (34) with clamp (33) and screw (32).
- 10. Connect fuel supply hoses (13) and (30) to fuel return and supply lines (16) and (15) and secure with clamps (14).

# NOTE

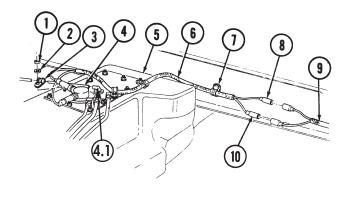
Perform step 11 if vehicle is equipped with an arctic heater and/or troop/cargo winterization kit.

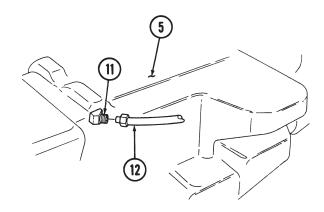
11. Connect fuel supply hose (29) to arctic heater and/or troop/cargo heater fuel supply line (27) and secure with clamp (28).

#### NOTE

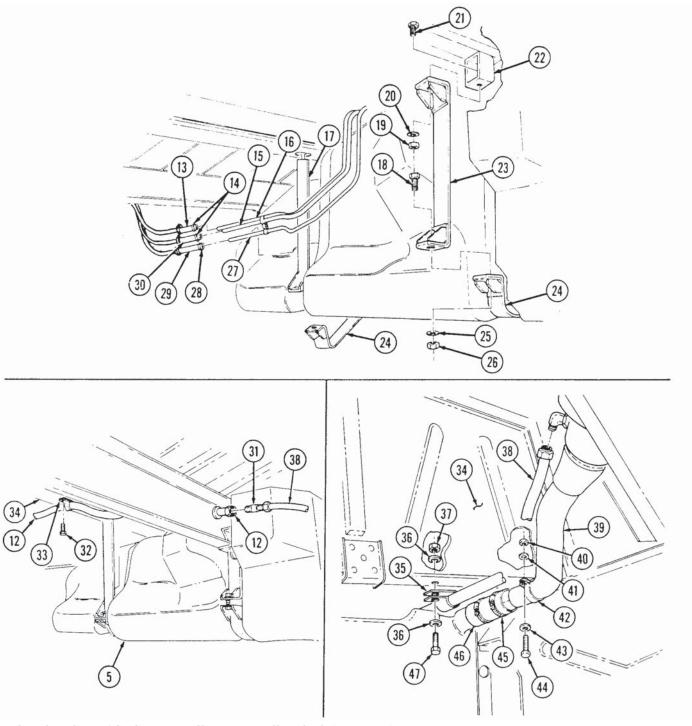
Ensure upper and lower straps are 1/2 in. (12 mm) apart after tightening nuts. Straps should not touch when properly installed. Straps must be replaced if upper or lower straps touch.

- 12. Tighten locknuts (26) to 23-27 lb-ft (31-37 N·m).
- 13. Connect vent line (38) to filler spout (39).
- 14. Secure vent line (38) to body (34) with clamp (35), washer (36), capscrew (47), washer (36), and locknut (37).





- 15. Install filler spout (39) into hose (46) and tighten clamp (45).
- 16. Install filler spout (39) to body (34) with clamp (42), washer (43), capscrew (44), washer (41), and locknut (40). Tighten locknut (40) to 6 lb-ft (8 N•m).



FOLLOW-ON TASKS: • Install rear propeller shaft (para. 6-4).

- Connect battery ground cable (para. 4-73).
  Fill fuel tank (TM 9-2320-280-10) and check for leaks.

# 3-25. FUEL TANK SUPPLY AND RETURN LINES REPLACEMENT

This task covers:

a. Removal

#### b. Installation

# **INITIAL SETUP:**

# **Tools**

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

#### Materials/Parts

Two locknuts (Appendix G, Item 70)

# **Manual References**

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

# **Equipment Condition**

Engine right splash shield removed (para. 10-20).

# **General Safety Instructions**

Do not perform this procedure near fire, flames, or sparks.

# **WARNING**

Diesel fuel is highly flammable. Do not perform this procedure near fire, flames, or sparks. Severe injury or death will result.

## a. Removal

# **CAUTION**

Cover or plug all open hoses and connections immediately after disconnection to prevent contamination. Remove all plugs prior to connection.

#### NOTE

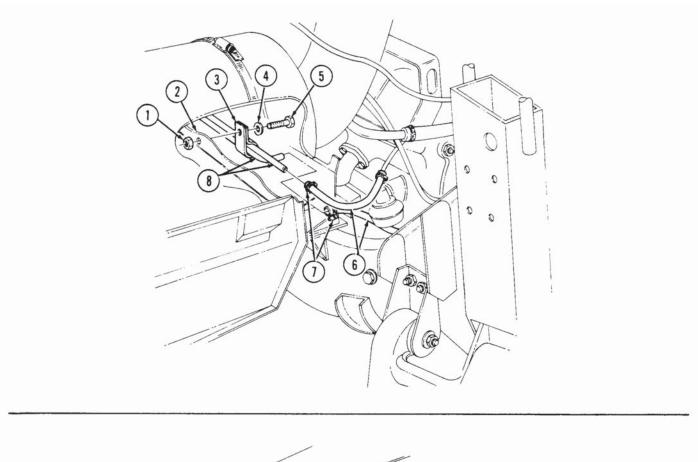
Have drainage container ready to catch fuel.

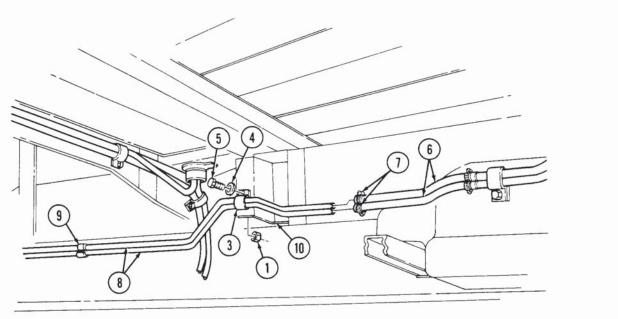
- 1. Loosen clamps (7) and disconnect hoses (6) from fuel tank return and supply lines (8).
- 2. Remove two locknuts (1), capscrews (5), washers (4), clamps (3) and return and supply lines (8) from front body bracket (2) and rear body bracket (10). Discard locknuts (1).
- 3. Remove three clips (9) securing lines together.

### b. Installation

- 1. Install return and supply lines (8) on front body bracket (2) and rear body bracket (10) with two clamps (3), washers (4), capscrews (5), and locknuts (1).
- 2. Connect supply and return lines (8) to hoses (6) and tighten clamps (7).
- 3. Secure fuel supply and return lines (8) together with three clips (9).

# 3-25. FUEL TANK SUPPLY AND RETURN LINES REPLACEMENT (Cont'd)





FOLLOW-ON TASKS: • Install engine right splash shield (para. 10-20).
• Fill fuel tank (TM 9-2320-280-10) and check for fuel leaks.

# 3-26. AUXILIARY FUEL PICKUP AND RETURN LINES REPLACEMENT

This task covers:

a. Removal

#### b. Installation

# **INITIAL SETUP:**

# **Applicable Models**

M1097, M1097A1, M1097A2, M1123

#### **Tools**

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

## Materials/Parts

Sealing compound (Appendix C, Item 44) Tiedown strap (Appendix G, Item 311)

## **Manual References**

TM 9-2320-280-24P

## **Equipment Condition**

Fuel tank removed (para. 3-24).

# **General Safety Instructions**

Do not perform this procedure near fire, flames, or sparks.

# **WARNING**

Diesel fuel is highly flammable. Do not perform this procedure near fire, flames, or sparks. Severe injury or death will result.

#### a. Removal

# **CAUTION**

Cover or plug all open hoses and connections immediately after disconnection to prevent contamination. Remove all plugs prior to connection.

#### NOTE

Have drainage container ready to catch fuel.

- 1. Remove screw (5) and clamp (7), securing fuel return line (6) and fuel pickup line (4) to fuel line clamp (8).
- 2. Remove fuel pickup line (4) from supply tube (3) on fuel tank (1).
- 3. Remove fuel return line (6) from supply tube (2).

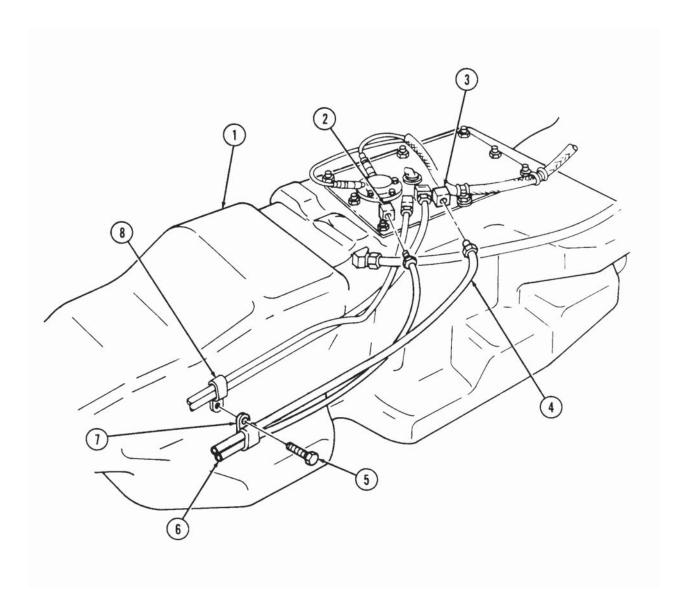
# b. Installation

#### NOTE

Substitute tiedown strap for spring clamp when clamp is not available.

- 1. Apply sealing compound to threads of fuel return line (6) and fuel pickup line (4).
- 2. Install fuel return line (6) to supply tube (2) on fuel tank (1).
- 3. Install fuel pickup line (4) to supply tube (3).
- 4. Install clamp (7) on fuel return line (6) and fuel pickup line (4) and secure to fuel line clamp (8) with screw (5).

# 3-26. AUXILIARY FUEL PICKUP AND RETURN LINES REPLACEMENT (Cont'd)



# 3-27. FUEL TANK VENT LINE AND FILTER REPLACEMENT

## This task covers:

#### a. Removal

#### b. Installation

## **INITIAL SETUP:**

# **Tools**

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

#### Materials/Parts

Tiedown strap (Appendix G, Item 312) Locknut (Appendix G, Item 70)

#### **Manual References**

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

# **Equipment Condition**

- Fuel tank removed (para. 3-24).
- Hood raised and secured (TM 9-2320-280-10).

# **CAUTION**

Cover or plug all open hoses and connections immediately after disconnection to prevent contamination. Remove all plugs prior to connection.

#### NOTE

For fuel tank vent line filter replacement, perform steps 5, 8, and 9 only.

#### a. Removal

- 1. Remove clip (9) securing fuel tank vent line (3) to vent line (6).
- 2. Remove two capscrews (2) securing clamps (1) and (7) and vent lines (3) and (6) to brackets (8).
- 3. Remove tiedown strap (4) securing vent line (6) and fuel lines (5). Discard tiedown strap (4).
- 4. Disconnect vent line (3) from elbow (16).
- 5. Loosen two clamps (14) and remove vent line (15) from vent line filter (13) and elbow (16).
- 6. Remove two clamps (14) from vent line (15).
- 7. Remove two clamps (1) from vent line (3).

#### NOTE

Perform step 8 only when deep water fording kit is installed.

- 8. Disconnect deep water fording vent line (19) from vent line filter (13).
- 9. Remove capscrew (18), washer (11), locknut (12) clamp (10) and vent line filter (13) from body bracket (17). Discard locknut (12).

#### b. Installation

#### NOTE

For fuel tank vent line filter replacement, perform steps 1, 2, and 5 only.

1. Install clamp (10) and vent line filter (13) to body bracket (17) with washer (11), capscrew (18), and locknut (12).

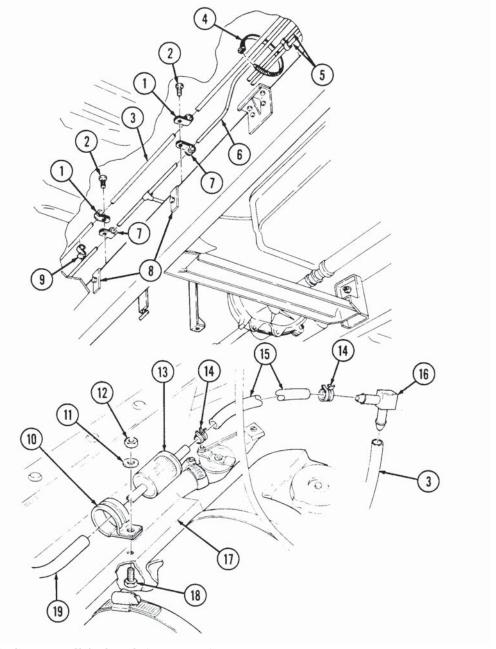
## NOTE

Perform step 2 only when deep water fording kit is installed.

2. Connect deep water fording vent line (19) to vent line filter (13).

# 3-27. FUEL TANK VENT LINE AND FILTER REPLACEMENT (Cont'd)

- 3. Install two clamps (1) on vent line (3).
- 4. Install two clamps (14) on vent line (15).
- 5. Install vent line (15) to vent line filter (13) and elbow (16) and tighten two clamps (14).
- 6. Connect vent line (3) to elbow (16).
- 7. Install vent line (3) to vent line (6) and fuel lines (5) with tiedown strap (4).
- 8. Install vent lines (3) and (6) and two clamps (1) and (7) to brackets (8) with two capscrews (2).
- 9. Secure vent line (3) to vent line (6) with clip (9).



FOLLOW-ON TASKS: • Install fuel tank (para. 3-24).

• Lower and secure hood (TM 9-2320-280-10).

# 3-28. FUEL TANK FILLER CAP AND SPOUT MAINTENANCE

#### This task covers:

- a. Removal
- b. Inspection
- c. Installation

- d. Fuel Filler Chain Removal
- e. Fuel Filler Chain Installation

## **INITIAL SETUP:**

#### **Tools**

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

# Materials/Parts

Four locknuts (Appendix G, Item 70) Sealing compound (Appendix C, Item 44)

# **Manual References**

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

# **Equipment Condition**

Fuel tank drained (para. 3-24).

# **General Safety Instructions**

Do not perform this procedure near fire, flames, or sparks.

# **WARNING**

Diesel fuel is highly flammable. Do not perform this procedure near fire, flames, or sparks. Severe injury or death will result.

#### a. Removal

- 1. Unscrew filler cap "T" handle (7) and remove filler cap (6) from filler spout (12).
- 2. Detach cap chain clip (8) from filler spout (12) and remove filler cap (6).
- 3. Disconnect vent line (1) from fitting (2).
- 4. Remove three locknuts (3), washers (4), capscrews (5), and washers (4) from spout mounting ring (9). Discard locknuts (3).
- 5. Loosen clamp (17) securing filler spout (12) to hose (18).
- 6. Remove locknut (13), washer (14), capscrew (16), washer (14), and clamp (15) from filler spout (12). Discard locknut (13).
- 7. Push filler spout (12) out of spout mounting ring (9) and remove filler spout (12) from hose (18).
- 8. Remove fitting (2) from filler spout (12).
- 9. Using handle (10), remove screen (11) from filler spout (12).

# b. Inspection

Inspect screen (11) for damage, debris, or blockage. Replace if damaged or if debris or blockage is detected.

#### c. Installation

- 1. Apply sealing compound to fitting (2) and install fitting (2) on filler spout (12).
- 2. Align filler spout (12) with hose (18) and push filler spout (12) into hose (18).
- 3. Install filler spout mounting ring (9) to body with three washers (4), capscrews (5), washers (4), and locknuts (3).
- 4. Secure hose (18) to filler spout (12) and tighten clamp (17).
- 5. Secure filler spout (12) to body with clamp (15), washer (14), capscrew (16), washer (14), and locknut (13). Tighten locknut (13) to 6 lb-ft (8 N·m).
- 6. Apply sealing compound to fitting (2) and connect vent line (1) to fitting (2).

# 3-28. FUEL TANK FILLER CAP AND SPOUT MAINTENANCE(Cont'd)

- 7. Using handle (10), install screen (11) in filler spout (12).
- 8. Attach filler cap chain clip (8) to filler spout (12).
- 9. Install filler cap (6) to filler spout (12) and secure with "T" handle (7).

#### d. Fuel Filler Chain Removal

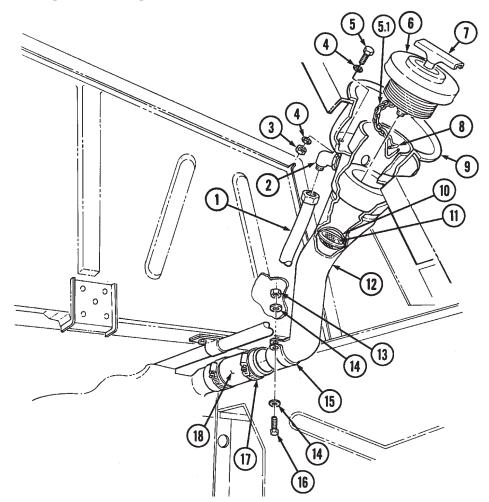
#### NOTE

Replacement chain manufacturing instructions can be found in appendix D, figure 15.1.

- 1. Unscrew "T" handle (7) and remove filler cap (6) from filler spout (12).
- 2. Detach cap chain clip (8) from filler spout (12) and remove chain clip (8) from chain (5.1).
- 3. Pry open link holding chain (5.1) to cap (6), and remove chain (5.1) from cap (6).

# e. Fuel Filler Chain Installation

- 1. Pry open link on end of chain (5.1) and attach to filler cap (6). Close link.
- 2. Hook chain clip (8) through last link at opposite end of chain (5.1) and attach to filler spout (12).
- 3. Install filler cap (6) to filler spout (12) and secure with "T" handle (7).



FOLLOW-ON TASK: Fill fuel tank (TM 9-2320-280-10) and check filler spout for fuel leaks.

# 3-29. FUEL TANK FILLER SPOUT VENT LINE REPLACEMENT

## This task covers:

#### a. Removal

#### b. Installation

## **INITIAL SETUP:**

# **Tools**

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

#### Materials/Parts

Locknut (Appendix G, Item 70) Adhesive (Appendix C, Item 1) Sealing compound (Appendix C, Item 46)

# **Manual References**

TM 9-2320-280-24P

# **Equipment Condition**

Rear propeller shaft removed (para. 6-4).

#### a. Removal

- 1. Disconnect vent line (2) from fuel filler spout elbow (3).
- 2. Remove locknut (7), washer (5), capscrew (4), and washer (5) securing vent line (2) and clamp (6) to body (1). Discard locknut (7).
- 3. Disconnect and remove vent line (2) from tee (12).
- 4. Disconnect vent line (10) from tee (12).
- 5. Remove capscrew (15) securing vent line (10) and clamp (11) to body (1).
- 6. Loosen two nuts (13) to allow access to elbow (8).
- 7. Disconnect vent line (10) from elbow (8) on fuel tank (9), cut vent line (10), and remove vent line (10) from crossmember (14).

#### b. Installation

# NOTE

Use sealing compound on all vent line connector threads before installation.

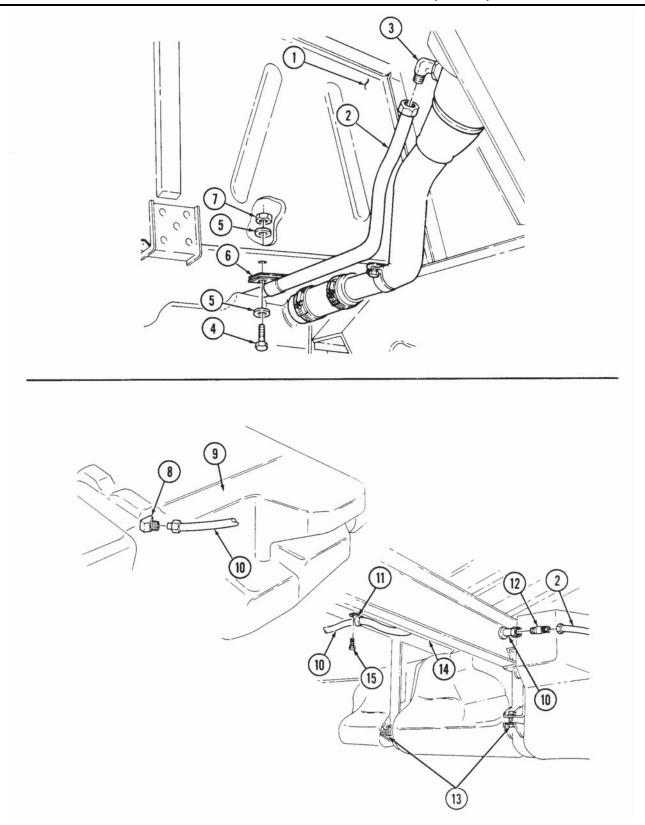
1. Install vent line (10) and connect to elbow (8) on fuel tank (9).

# NOTE

Upper and lower straps should be approximately 1/2 in. (12 mm) apart after tightening locknuts. Straps should not touch when properly installed. Straps must be replaced if upper and lower straps touch.

- 2. Apply adhesive to threads of nuts (13) and tighten nuts (13) to 23-27 lb-in. (3-5 N·m).
- 3. Install clamp (11) and vent line (10) to body (1) with capscrew (15).
- 4. Route vent line (10) through crossmember (14).
- 5. Connect vent line (10) to tee (12).
- 6. Install vent line (2) and connect to tee (12).
- 7. Install vent line (2) and clamp (6) on body (1) with washer (5), capscrew (4), washer (5), and locknut (7). Tighten locknut (7) to 6 lb-ft (8 N•m).
- 8. Connect vent line (2) to fuel filler spout elbow (3).

# 3-29. FUEL TANK FILLER SPOUT VENT LINE REPLACEMENT (Cont'd)



FOLLOW-ON TASK: Install rear propeller shaft (para. 6-4).

# 3-30. FILLER SPOUT HOSE 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

# **Equipment Condition**

Fuel tank drained (para. 3-24).

# **General Safety Instructions**

Do not perform this procedure near fire, flames, or sparks.

# WARNING

Diesel fuel is highly flammable. Do not perform this procedure near fire, flames, or sparks. Severe injury or death will result.

## a. Removal

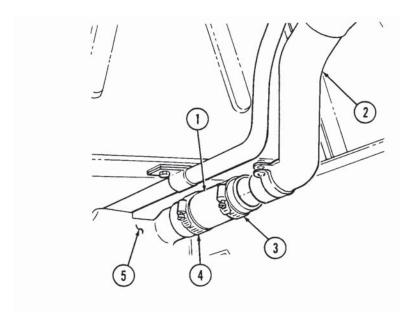
- 1. Loosen clamps (4) and (3) securing hose (1) to fuel tank (5) and to filler spout (2).
- 2. Slide hose (1) on to filler spout (2) until disconnected from fuel tank (5). Remove hose (1) from filler spout (2).

# b. Installation

#### NOTE

Position clamps attaching filler hose to fuel tank as shown.

- 1. Install hose (1) on filler spout (2) and slide on filler spout (2) until the hose (1) clears fuel tank (5).
- 2. Connect hose (1) to fuel tank (5) and tighten clamps (3) and (4).



FOLLOW-ON TASK: Fill fuel tank (TM 9-2320-280-10) and check for leaks.

# 3-31. FUEL TANK HANGERS REPLACEMENT

This task covers:

# a. Removal

## b. Installation

# **INITIAL SETUP:**

#### **Tools**

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

# Materials/Parts

Adhesive (Appendix C, Item 1)

## **Manual References**

TM 9-2320-280-24P

# **Equipment Condition**

Fuel tank removed (para. 3-24).

# a. Removal

- 1. Remove two nuts (3), washers (4), screws (5), and rear hangers (7) from supports (6).
- 2. Twist two front hangers (9) until tee handles (2) clear slots (11) in supports (1) and remove front hangers (9).

#### NOTE

Perform step 3 for "A2" vehicles only.

3. Inspect four insulators (8) on front and rear hangers (9) and (7). Remove insulators (8) if damaged.

#### b. Installation

#### NOTE

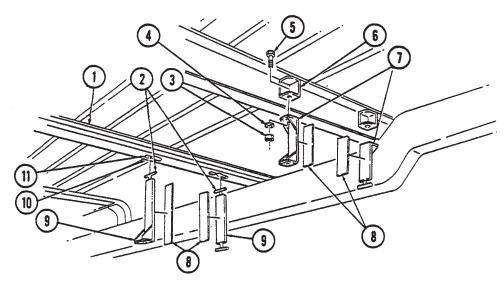
Perform step 1 for "A2" vehicles only.

- 1. Install four insulators (8) on front and rear hangers (9) and (7) (if removed.)
- 2. Install two front hangers (9) by inserting tee handles (2) up through slots (11) in supports (1). Twist hangers (9) so that tee handles (2) are resting across slots (11) against side of ridge (10).

#### NOTE

Apply adhesive to threads of screws.

3. Install two rear hangers (7) on supports (6) with screws (5), washers (4), and nuts (3). Tighten nuts (3) to 37 lb-ft (50  $N \cdot m$ ).



FOLLOW-ON TASK: Install fuel tank (para. 3-24).