FUEL FILTERS

DESCRIPTION

The purpose of the fuel filters is to clean the fuel of any dirt particles that can cause wear on the fuel injection nozzle's sliding surface; and to separate any water from the fuel, which is ever-present from the condensation in the fuel tank. The pre-fuel filter (water separator) is located between the fuel tank and the injection pump (figure 6). The secondary fuel filter is located between the fuel pump and the injection pump (figure 7).

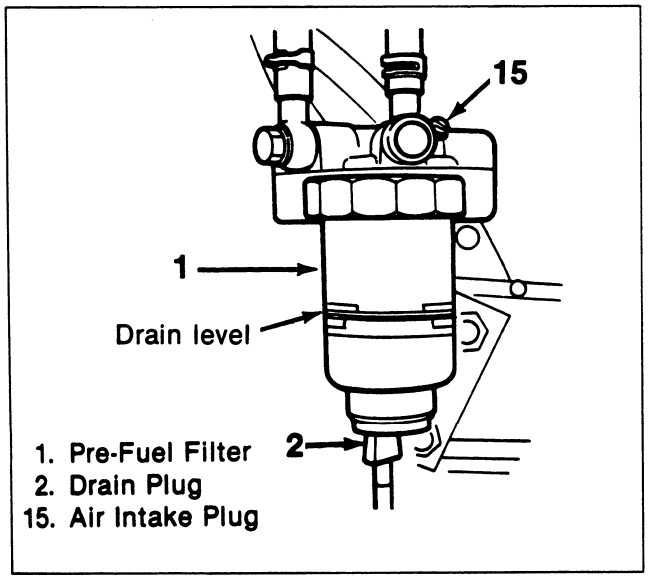


Figure 6. Pre-Fuel Filter

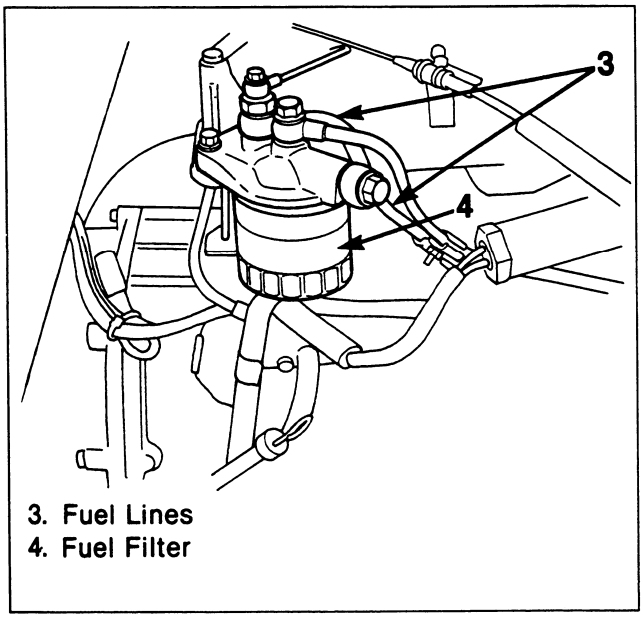


Figure 7. Fuel Filter

Pre-Fuel Filter

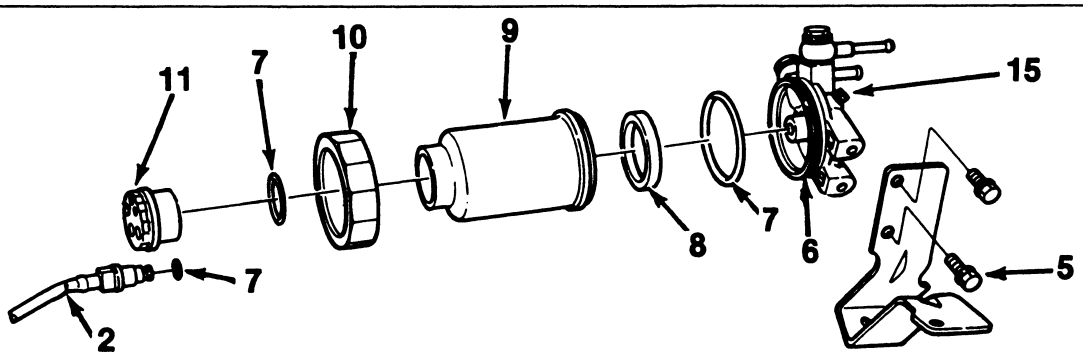
When the condensed water in the pre-fuel filter (water separator) comes to the warning level indicated on its plastic body, drain the fluid immediately from the drain plug located bottom of water separator.

Fuel Filter

The fuel filter is spin-on cartridge-type. The filter should be replaced. Never try to clean it. For the replacement interval refer to MAINTENANCE AND LUBRICATION (SEC. 0B).

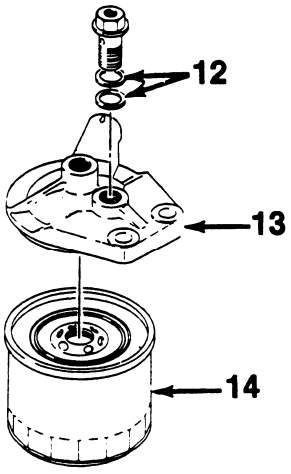
DRAINING THE PRE-FUEL FILTER

1. Loosen the air intake plug (15) and drain plug (2) by turning them counterclockwise (figures 6 and 8).
2. Drain approximately 0.1 liters (3.4 oz) of water.
3. Securely tighten the drain plug and air intake plug.
4. Operate the primer pump on the fuel pump to bleed the fuel system. Refer to FUEL INJECTION SYSTEM (SEC. 6C3).
5. Start the engine and check to be sure no fuel is leaking from the drain plug.



2. Drain Line
5. Mounting Bolt
6. Filter Base
7. O-Ring
8. Gasket
9. Filter Shell
10. Center Bolt
11. Bottom Cap
15. Air Intake Plug

Figure 8. Pre-Fuel Filter Components



12. Gaskets
13. Filter Base
14. Cartridge Filter

Figure 9. Fuel Filter Components

FUEL FILTER REPLACEMENT

Remove or Disconnect (Figures 7 and 9)

- The filter using a filter wrench.

Clean

- The filter base.

Install or Connect (Figures 7 and 9)

- Lightly oil the filter O-ring.
- Fill the filter with clean fuel.

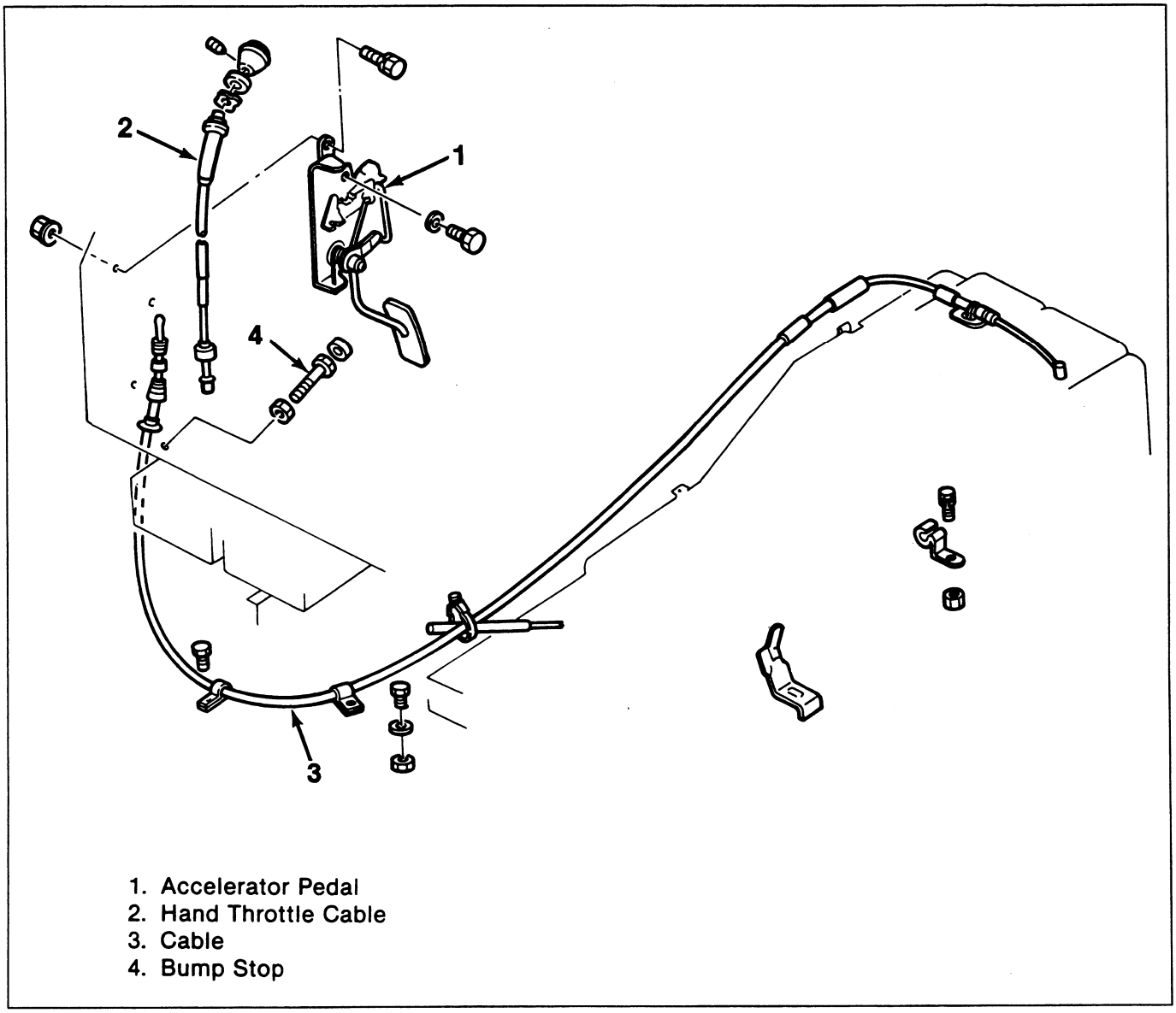
1. Filter by hand until the O-ring contacts the filter base.
   - Use a filter wrench to further tighten the filter 1/3 to 2/3 of a turn.
2. Bleed the fuel system. Refer to FUEL INJECTION SYSTEM (SEC. 6C3) in this manual.

ACCELERATOR LINKAGE AND HAND THROTTLE

DESCRIPTION

The accelerator linkage consists of a pedal assembly and cable (figure 11). Be sure that the cable is not kinked when installed.

The hand throttle consists of a knob assembly and a cable that connects to the accelerator pedal assembly. When making any idle adjustment, be sure the hand throttle is completely "off."



1. Accelerator Pedal
2. Hand Throttle Cable
3. Cable
4. Bump Stop

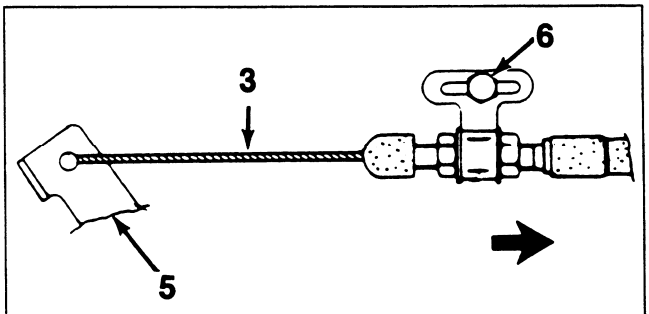
Figure 11. Accelerator and Hand Throttle Components

ACCELERATOR LINKAGE ADJUSTMENT

Adjust (Figure 12)

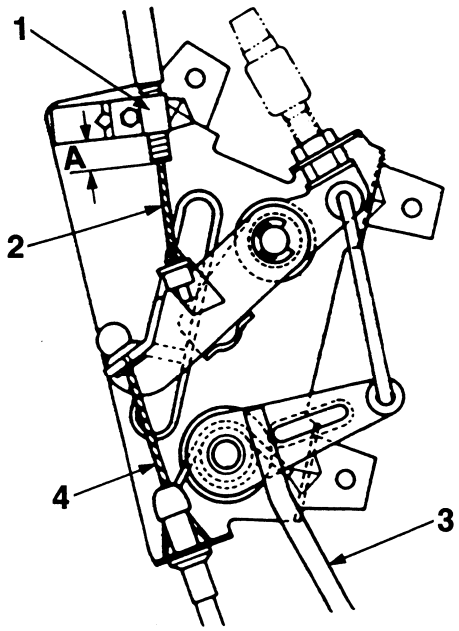
- Be sure the hand throttle control knob is in the "off" position.

1. Tilt the cab.
2. Loosen the bolt (6) on the cable bracket (figure 12).
3. Hold the accelerator lever(5) in the fully closed position and remove slack from the cable (3) by pulling in the direction of the arrow.
4. Tighten the bolt (6).
5. Check the cable and pedal assembly for free movement.
6. Lower the cab.



3. Cable
5. Accelerator Lever
6. Bolt

Figure 12. Accelerator Linkage Adjustment



1. Hand Throttle Cable Clip
2. Hand Throttle Cable
3. Accelerator Pedal Rod
4. Engine Control Cable
A. 5±1 mm (0.20±0.04 in)

Figure 13. Hand Throttle Adjustment

HAND THROTTLE ADJUSTMENT

Before adjusting the hand throttle cable be sure the accelerator linkage and engine idle speed are adjusted correctly.

Adjust (Figure 13)

1. Position the hand throttle control knob in the "off" position.
2. Loosen the clip (1) and adjust the cable (2) so that there is 5±1 mm (0.20±0.04 in) clearance (A) between the clip and the outer cable end.
3. Tighten the clip (1) to hold the cable in position.
4. From the position above, confirm that the accelerator pedal begins to move when the hand throttle control knob is turned 2.5 times.

FAST IDLE SYSTEM

Fast idle system consists of fast idle actuator, vacuum switching valve (VSV), vacuum pump, rubber hoses connecting there-between and electric circuit including thermo switch.

FUNCTION OF THE SYSTEM

1. When engine coolant temperature is below 40°C (104°F):
   QOSIII controller sends "ON" signal to VSV, making the vacuum generated by vacuum pump lead to fast idle actuator, functioning control lever of injection pump for promote of engine warm-up ability.
2. When engine coolant temperature comes up beyond 40°C(104°F):
   QOSIII controller sends "OFF" signal to VSV, cutting the vacuum, as the result of that the engine speed return to the idle mode.
   This system operates when air conditioning switch is turned to "ON" position too, functioning for compensating for engine speed drop at idle attributable to the increase of compressor load.

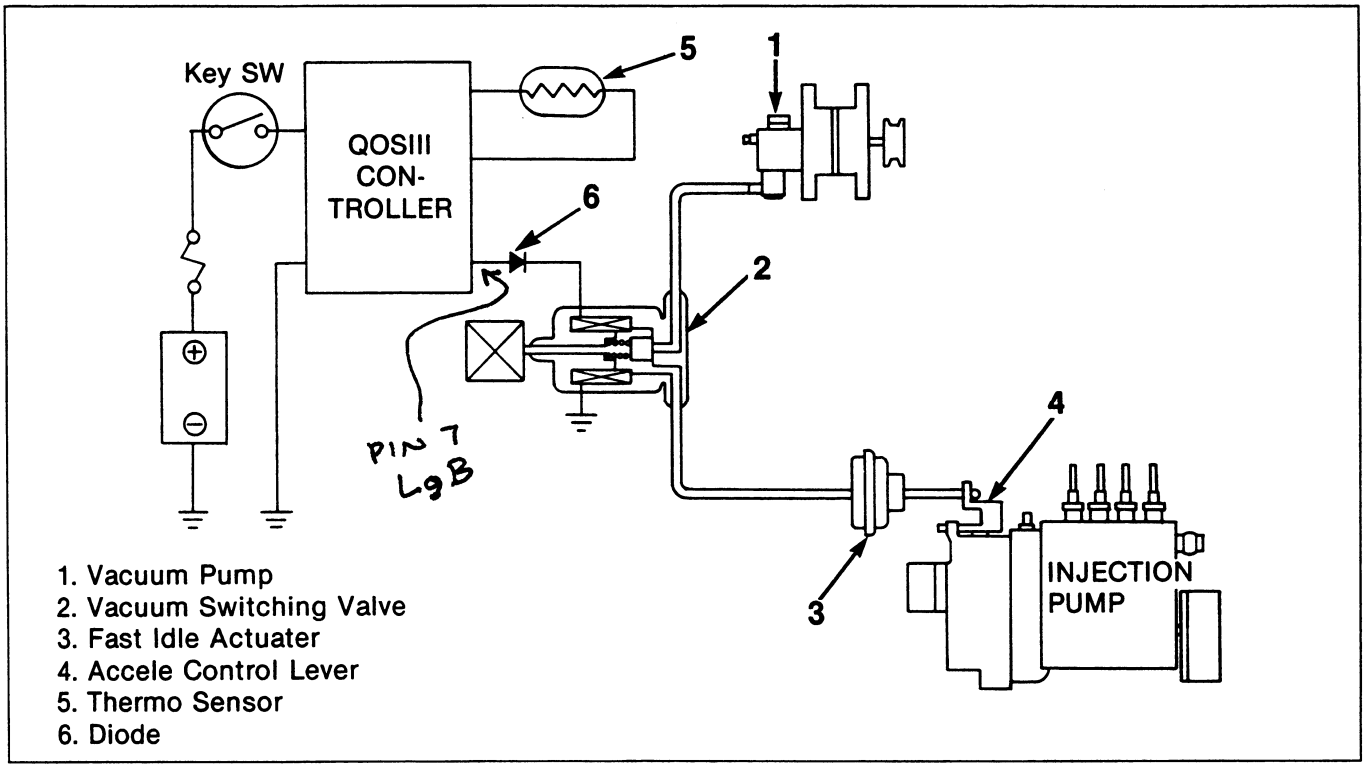


Figure 14. Diagram of Fast Idle System

FAST IDLE ADJUSTMENT

Before adjusting the fast idle actuator be sure the accelerator linkage and engine idle speed are adjusted correctly.

Adjust (Figure 15)

1. Apply the parking brake firmly.
2. Place the transmission in neutral.
3. Block the wheel.
4. Tilt the cab.
5. Start the engine and allow it to warm up.
6. Disconnect VSV (Vacuum Switching Valve) connector.
7. Loosen the fast idle fixing screws.
8. Apply battery voltage between VSV terminals (figure 15).
9. Set to fast idle speed 950 RPM.
10. Tighten fast idle fixing screws.

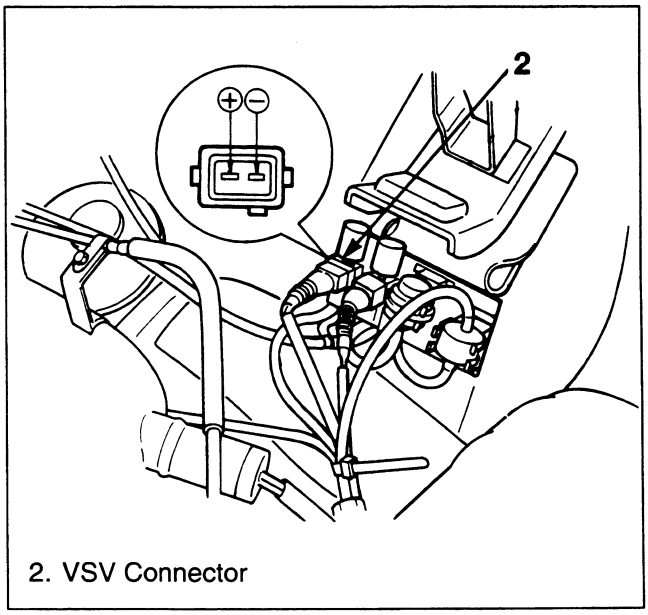


Figure 15. Fast Idle Speed Adjustment

ENGINE STOP LINKAGE

DESCRIPTION

The engine stop linkage consists of the engine stop motor assembly and cable. The engine stop cable is connected to the fuel cut lever of the injection pump governor. The engine is stopped smoothly by the engine stop motor by a simple key switch operation.

NOTICE: To turn on the fuel enrichment system, fully depress the accelerator pedal and then turn on the starter.

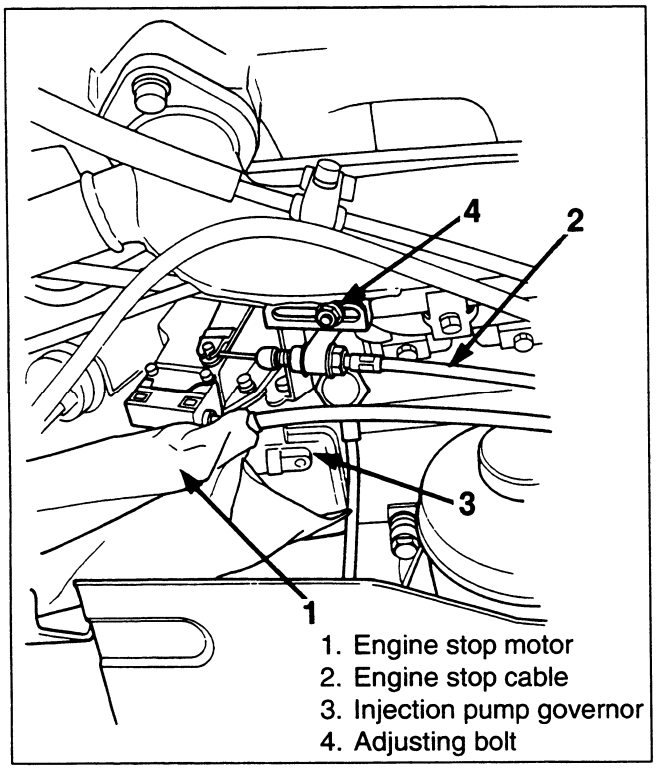


Figure 16. Engine Stop Linkage

ENGINE STOP LINKAGE ADJUSTMENT

Adjust (Figure 17)

1. Be sure that the key switch is in "Lock" position or removed from the key cylinder.
2. Loosen the adjusting bolt (A).
3. Hold the fuel-cut lever (C) in fully-pulled position and remove the slackness of the cable (B) by pulling it in the direction shown by the arrow.
4. Retighten the adjusting bolt (A).

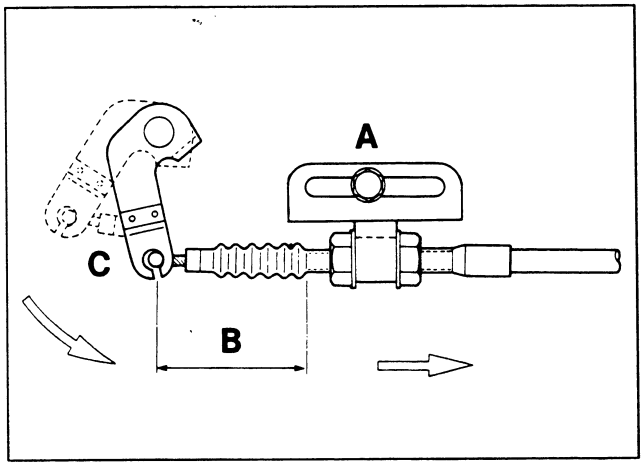


Figure 17. Engine Stop Cable Adjustment

FUEL TANK

DESCRIPTION

The fuel tank is mounted on the right frame rail and is supported by two brackets. The tank is attached to the bracket by a metal strap backed with a rubber cushion strip. A vent valve is installed at the top of the fuel tank to relieve excess pressure. A drain plug is located in the bottom of the tank for draining purposes. The fuel tank identification tag is located next to the filler cap.

FUEL TANK REPLACEMENT

NOTICE: To prevent possible accident when working on fuel system, disconnect the vehicle battery ground (–)cable(s) and provide the appropriate fire fighting and safety equipment in accordance with local fire and safety regulations.

Before removing the fuel tank to correct a leak, a careful inspection of the tank should be made to determine the actual source of the leak. "Seam