



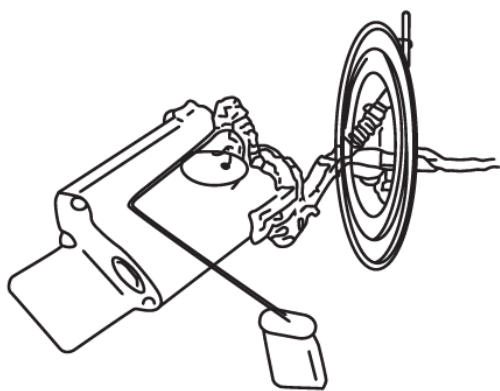
## FUEL INJECTION FUEL PUMP TANK UNIT 12-943, 12-944, 12-945, & 12-946 REPLACEMENT INSTRUCTIONS

### PRECAUTIONS FOR FUEL SYSTEM SERVICE:

To reduce the risk of fire and personal injury, it is necessary to observe the following precautions:

- Perform this repair **ONLY** in a properly equipped service facility
- Position the vehicle in a clear, level, well ventilated work area.
- Make sure there are no sources of spark or combustion near the work area.
- Perform work in a non-smoking area or post no-smoking signs in the area selected.
- Have a fully functional Class B fire extinguisher of adequate size (such as a 5 lb. CO-2 as a minimum) readily available.
- Disconnect the ground cable from the vehicle's battery before performing any operation involving gasoline, gasoline tanks, or gasoline lines.
- Allow the vehicle to cool before performing any operation which could possibly expose gasoline or gasoline vapors to hot parts, such as catalytic converters, hot light bulbs, or similar components.
- Avoid using extension cords or lights which might overheat or cause sparks.
- Avoid inhaling gasoline fumes and prolonged skin contact with gasoline. Promptly wash any skin/body areas that have been in contact with gasoline.
- Wear approved safety glasses while performing any repairs.
- When raising the vehicle to perform under-vehicle services, use proper hoisting or jacking equipment along with approved safety supports.
- When removing gasoline from a fuel tank, use an OSHA approved pump that is specifically designed for handling gasoline. **DO NOT USE** any other type of pump. Gasoline removed from a fuel tank must be stored in approved gasoline containers.

It is impossible to anticipate all possible risks and conditions under which repairs may be made to a fuel system. Therefore, in addition to the safety concerns listed, you are urged to carefully evaluate the hazards involved in such a service procedure and take whatever precautions that may be necessary.



TANK UNIT (FUEL PUMP)

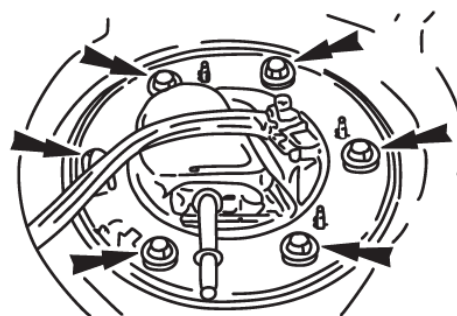


5/16"  
(NATURAL)



3/8"  
(BLACK)

FUEL LINE RETAINING  
CLIPS



6 BOLT PUMP FLANGE  
W/GASKET INSTALLED

Picture for reference only  
(Flange design may vary)

**NOTE:** This tank unit may look different than the O.E. unit. This replacement unit meets all specifications established by the O.E. manufacturer. It will fit and function properly if all the installation procedures outlined in this instruction sheet are followed.

**WARNING!** This rotary fuel injection pump **WILL NOT** work on carbureted fuel systems. It is for electronic fuel injection only.

**CAUTION:** Read these instructions thoroughly from start to finish before attempting to replace the fuel pump.

**MINIMUM TOOL REQUIREMENTS:**

Hoist or end lift jack	OSHA approved safety stands	OSHA approved fuel transfer pump
OSHA approved fuel storage containers	Variety of mechanics hand tools	

**FUEL PUMP REPLACEMENT INSTRUCTIONS:**

**NOTE:** The words "TANK UNIT" used throughout these instructions means fuel pump tank unit and fuel level sender assembly.

**1.0 PREPARATIONS**

Relieve the fuel system pressure.

**NOTE:** The fuel system can retain gasoline under pressure for a considerable period of time. Opening a pressurized line could spray fuel, creating a risk of fire and/or personal injury.

1. Remove the fuel cap from the tank to relieve any tank pressure.
2. Locate the power distribution block and remove the fuel pump relay. Relay locations are described inside the cover of the power distribution block.
3. With the fuel pump relay removed, crank the engine to bleed down the fuel system pressure. The engine will start and stall several times. Continue to momentarily crank the engine several more times. Be sure to turn the ignition switch completely to the off position between cycles. Once the engine no longer tries to start, the fuel system pressure is relieved.
4. Disconnect the negative (-) cable from the battery and position it so it cannot accidentally make contact with the negative (-) battery post during the fuel pump replacement procedure.

**NOTE:** Be sure an appropriate fire extinguisher is readily accessible before continuing with the service procedure.

5. Drain the fuel tank with an OSHA approved gasoline transfer pump. Place the suction hose of the pump into the fuel tank through the filler neck.

**NOTE:** Be sure the hose is completely inserted into the tank. All of the fuel must be drained before trying to remove the fuel tank.

**2.0 REMOVE AND REPLACE THE TANK UNIT**

1. Remove the skid plate and any shields that may interfere with removal of the fuel tank (if so equipped).
2. Remove the fuel filler and vent hoses from the fuel tank.
3. Support the fuel tank and remove the tank retaining straps.
4. Lower the fuel tank enough to access the tank unit.
5. Disconnect the fuel lines and electrical wiring to the tank unit. Be sure all other lines and wires are disconnected from the fuel tank before removing the fuel tank from the vehicle.
6. Carefully lower the fuel tank out of the vehicle.

**CAUTION:** Take care when lowering the fuel tank from the vehicle. Be careful not to cause sparks in or around the fuel tank.

**WARNING!** HAVE ABSORBENT SHOP TOWELS READILY AVAILABLE WHEN REMOVING THE TANK UNIT. SOME FUEL WILL SPILL WHEN THE TANK UNIT IS REMOVED.

7. Clean any debris or foreign material from around the tank unit area of the fuel tank. Note the direction of the fuel out tube.
8. Remove the module assembly flange bolts.
9. Check the inside of the fuel tank for foreign debris and clean out the tank, if necessary.
10. Pull the tank unit assembly flange up and out of the fuel tank until the locking tabs are accessible. Reach through the opening and squeeze the locking tabs together and remove the module from the tank by lifting up and out (Fig. 1).
11. Clean the tank unit flange mounting surface. Install the tank unit module by pushing down on the module until the module tabs click and engage the retainer.

12. Install the tank unit flange on the fuel tank with the fuel out tube in the same direction as when removed. Finger tighten all the bolts then tighten using the sequence shown in Fig. 2.
13. Lift the fuel tank into position in the vehicle. Re-install all fuel lines and electrical connections.

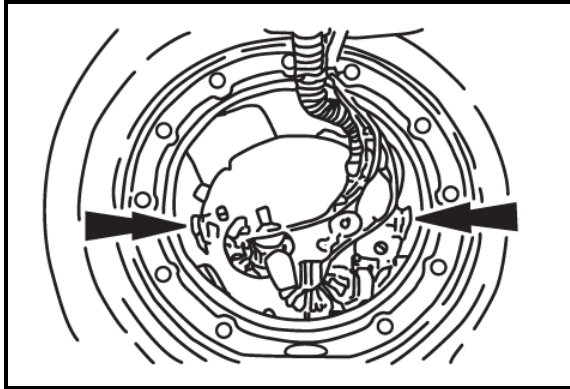


Figure 1

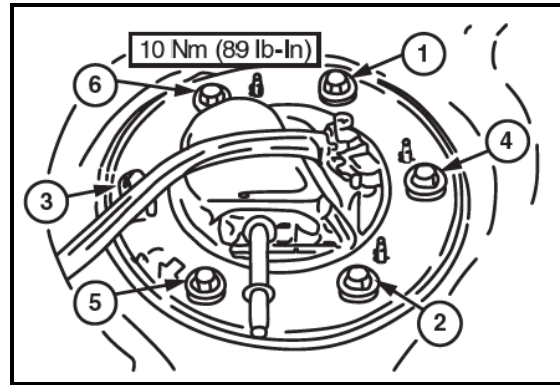


Figure 2

**NOTE:** It may be necessary to loosen the fuel filter and slide it back down in its mount toward the tank to allow better fit of the fuel line onto the module.

14. Install the fuel tank retaining straps and tighten the retaining nuts. Do not over tighten the retaining strap nuts.
15. Re-install the filler neck and vent hoses.

### 3.0 WRAP UP

1. Using only equipment designed for use with gasoline, refuel the fuel tank with gasoline. (**NOTE: Be sure to clean up any fuel spills before proceeding.**)
2. Inspect the fuel system for leaks and correct them, as necessary.
3. With the ignition switch off, reconnect the negative (-) cable to the battery.
4. Re-install the fuel pump relay in the power distribution center.
5. Start the engine and inspect the fuel lines and connections for leaks. Correct any leaks, as necessary.
6. Clear any trouble codes in the electronic control system that may exist as a result of the fuel pump replacement procedure. If necessary, use the specific vehicle service manual for assistance.

### TROUBLESHOOTING:

If the fuel pump fails to operate:

- Check the fuel pump fuse and fuel pump relay as outlined in the service manual.
- If the pump has power and proper polarity, check the remainder of the fuel system as outlined in the service manual.

**NOTE:** This fuel pump will not remedy malfunctions of the fuel pressure regulator, fuel injector(s), or other fuel system components.