

Fig. 4—Pressure Testing the Fuel Pump

carburetor, as shown in Figure 4.

(2) Connect a 6 inch piece of hose between the "T" fitting and gauge Tool C-3411. (The hose should not exceed 6 inches. A longer hose may collect fuel and the additional weight of the fuel would be added to the pressure of the pump and result in an inaccurate reading).

(3) Vent the pump for a few seconds (this relieves the air trapped in the fuel chamber). If this is not done, the pump will not operate at full capacity and a low pressure reading will result.

(4) Connect a tachometer, then start the engine and run at 500 rpm. The reading should be from

3½ to 5 psi (or from 5 to 7 psi, depending on pump) and remain constant or return to zero, very, very slowly when the engine is stopped. An instant drop to zero indicates a leaky outlet valve. If the pressure is too low a weak diaphragm main spring, or in proper assembly of the diaphragm may be the cause. If the pressure is too high, the main spring is too strong.

Vacuum Test

The vacuum test should be made with the fuel line disconnected from the carburetor. (This will allow the pump to operate at full capacity, which it must do to prime a dry carburetor).

Volume Test

The fuel pump should supply 1 quart of fuel in 1 minute or less at 500 rpm.

Inlet Valve Test

To test the inlet valve, connect a vacuum gauge on the inlet fitting while the line is disconnected:

(1) Start the engine or turn over with starting motor. There should be a noticeable vacuum present, not alternated by blowback.

(2) If blowback is present, the inlet valve is not seating properly and should be cleaned, or a new valve body installed.

If the fuel pump does not perform to the above test requirements, the fuel pump should be removed from the vehicle.

FUEL TANK

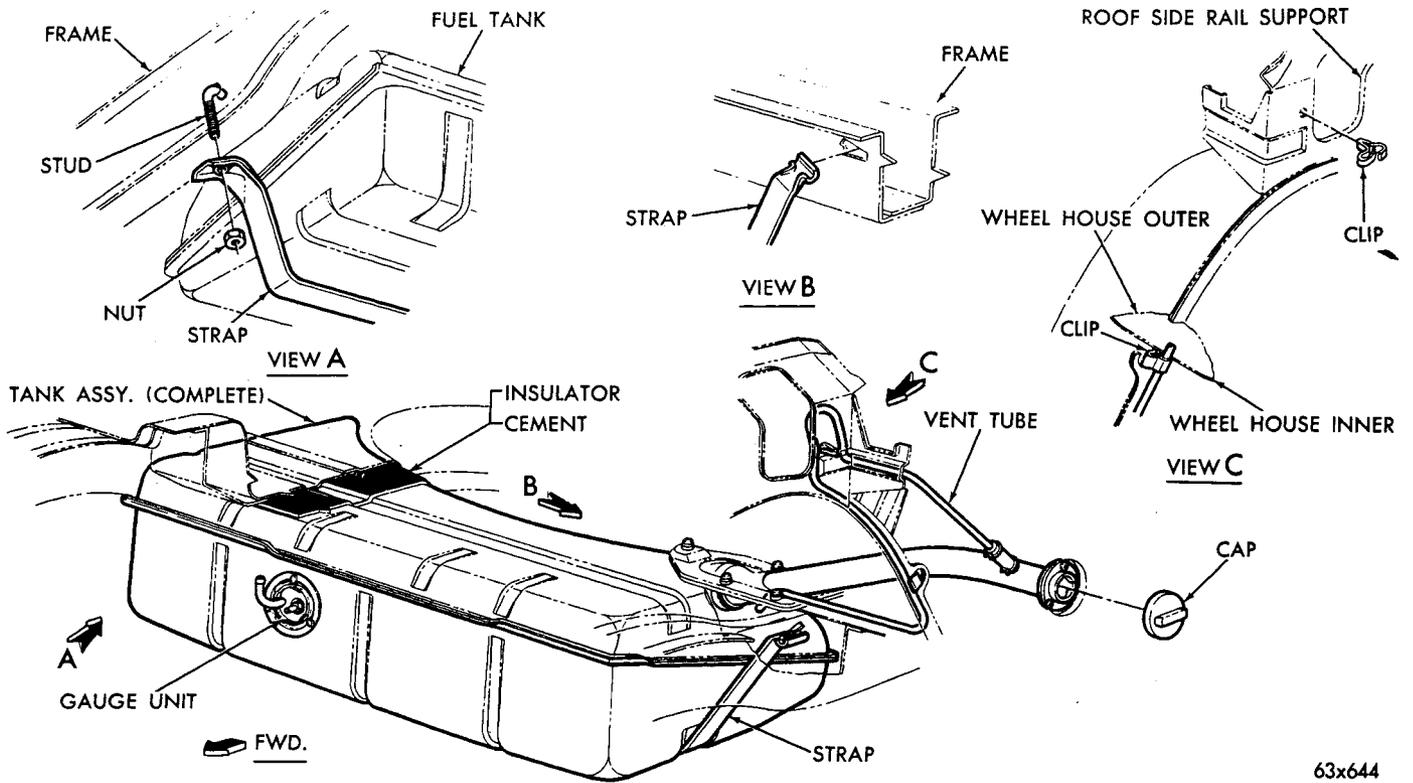
The fuel tank on both the conventional and the Station Wagon Models (106" wheelbase) is located at the rear of the body, under the trunk compartment floor, as shown in Figures 1 or 2. The filler tube is located in the left rear quarter panel.

The fuel tank on all models (116" wheelbase) except the Station Wagon Models, is located at the rear of the body under the trunk compartment floor, as shown in Figures 3 and 4. In the Station Wagon Models the fuel tank is mounted in the left rear quarter panel beyond the wheel house, as shown in Figure 5.

The filler tube on the conventional models is accessible through the center of the deck opening lower panel. Station Wagon models fill at the left rear upper quarter panel between the quarter post and the fin.

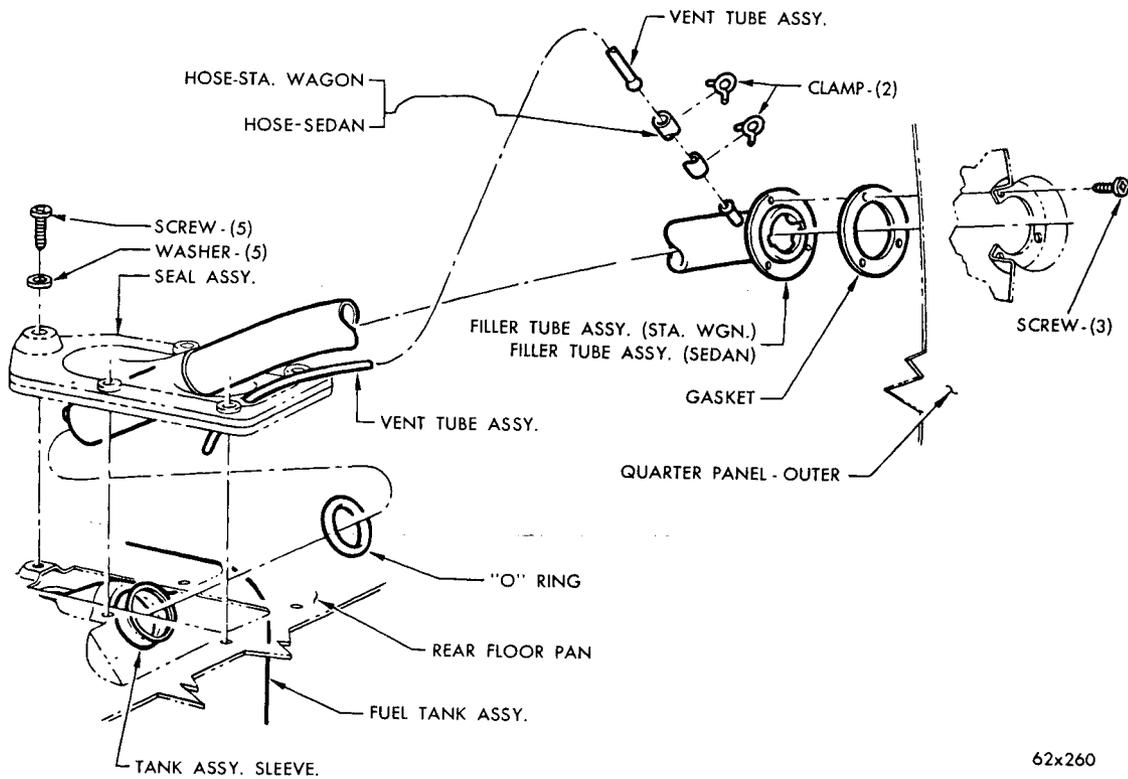
NOTE: If a vehicle is to be stored for any appreciable length of time, the gasoline should be drained from the entire system in order to prevent gum formation. If the vehicle has been undercoated, be sure the tank vent tube is open. If this vent is plugged, a collapsed fuel tank will result.

The fuel tank on all 106" wheelbase models has a 18 gallon capacity. The fuel tank on all conventional 116" W/B Models has a 19 gallon capacity. (The Station Wagon tank capacity is 21 gallons). The fuel tank is fitted with a gauge unit, including the suction pipe, as shown in Figure 6. The filter on the end of the suction pipe is a replaceable unit and prevents the entry of water or foreign material. When installing a tank unit, be sure the filter is pushed down on the pipe until seated.



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Fig. 1—Fuel Tank Assembly Installed (106" W/B Models)



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Fig. 2—Filler Tube Assembly (Disassembled View) (106" W/B Models)

SERVICE PROCEDURES

1. FUEL TANK

Removal—(106" W/B Models)

Should it become necessary to remove a fuel tank for repair, gauge removal, or installation of a new tank, refer to Figures 1 and 2, then proceed as follows:

- (1) Drain the fuel tank dry by disconnecting the fuel line at the pump and then connect a siphon tube. Collect the drained fuel in a suitable container. Disconnect the fuel line and the wire lead to the gauge unit. (Right side near top of tank).
- (2) Disconnect the vent tube from the filler tube at the connector.
- (3) Remove the 3 screws that hold the filler tube and gasket, to the rear quarter panel.
- (4) Remove the 5 screws and washers that attach the filler tube seal to the floor pan, then remove the end of the vent tube from the seal.
- (5) Grasp the filler tube with both hands, twist the tube, and at the same time, force downward into the tank, until the end of the tube clears the quarter panel. Remove the gasket. (If the tube is frozen in

the tank, use a rubber lubricant around the joint and work into the "O" ring recess, after sliding the dust shield out of the way).

- (6) Twist (or rotate) the filler tube approximately 180 degrees, then work tube carefully out of the tank and dust shield seal. Remove tube from the inside of the trunk compartment.

CAUTION: Do not pull the tube from side to side or up and down, as rough treatment can cause the soldered sleeve to break its seal to the tank and thus cause a leak.

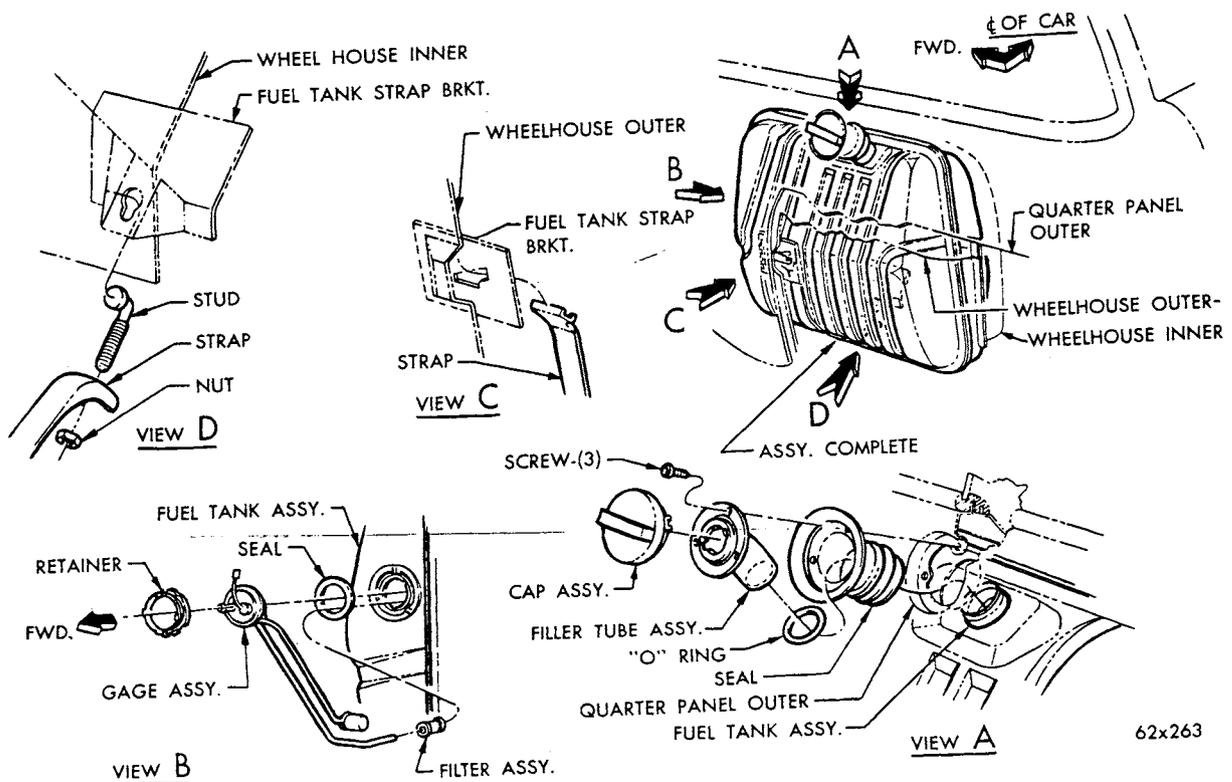
- (7) Remove the nut that holds the tank retaining strap to the "J" bolt. Allow the strap to drop or hang then lower the tank and remove from under the vehicle.

- (8) Remove the tank gauge unit, using spanner wrench Tool C-3582. Slide the gauge assembly out of the fuel tank. Discard the gasket.

- (9) If necessary, test the operation of the fuel gauge, as described in Group 8, "Electrical System".

Installation

Before installing the fuel gauge, inspect the condi-



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Fig. 5—Fuel Tank Assembly (Installation) 116" W/B Models (Station Wagon)

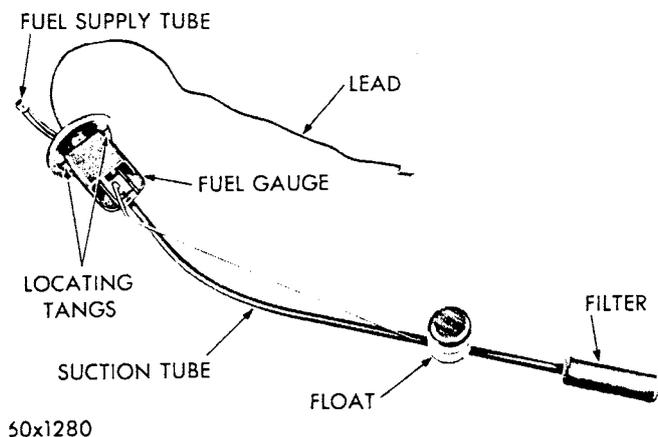


Fig. 6—Fuel Tank Sending Unit

tion of the filter on the end of the suction tube. If the filter is plugged, install a new filter.

(1) Install a new "O" ring in the tank filler tube sleeve. Insert a new gasket in the fuel gauge opening recess, then slide the gauge into the tank. Align the positioning tangs on the gauge with those in the tank. Install the lockring, then tighten securely, using Tool C-3582.

(2) Slide the tank under the vehicle and up into position. Hold the tank in this position, then raise the retaining strap and thread onto the "J" bolt. Install the attaching nut, and tighten securely. (Not over 60 inch pounds torque).

(3) Lubricate the "O" ring, using a suitable rubber lubricant, then slide the filler tube down through the dust seal and into the tank, far enough to clear the quarter panel. Twist (or rotate) the filler tube 180 degrees and align with opening in quarter panel. Install a new gasket over the end of the tube, then, slowly withdraw tube from the tank and into position against the quarter panel. Align the attaching screw holes; install the screws and tighten securely. Slide the vent tube through the seal.

(4) If the dust seal was disturbed during the removal operation, realign and tighten the attaching screws securely.

(5) Reconnect the vent tube to the filler tube connector.

(6) Reconnect the fuel supply line and the wire lead to the gauge.

(7) Refill the tank and test for leaks.

2. FUEL TANK

Disassembly—(116" W/B Models— Except Station Wagons)

Should it become necessary to remove a fuel tank

for repair or installation of a new tank, refer to Figure 4, then proceed as follows:

(1) Drain the fuel tank (using the siphon method), then disconnect the fuel line and the wire lead to the gauge unit.

(2) Remove the screw that attaches the filler tube to the body panel, then, with a twisting motion, pull the filler tube out of the tank. (If the tube is frozen in the tank, use a rubber lubricant around the joint and work into the "O" ring recess).

(3) Remove the nut that holds the tank retaining strap to the "J" bolt. Allow strap to hang, then drop tank and remove from under the vehicle.

(4) Remove the tank unit (gauge), using spanner wrench Tool C-3582. Slide the gauge assembly out of the fuel tank. Discard the gasket.

Installation

Before installing the fuel gauge, inspect the condition of the filter on the end of the suction tube. If the filter is plugged, install a new filter.

To install the fuel tank, refer to Figure 4, then proceed as follows:

(1) Install a new "O" ring in the tank filler tube sleeve. Insert a new gasket in the fuel gauge opening recess, then slide the gauge into the tank. Align the positioning tangs on the gauge with those in the tank. Install the lockring, then tighten securely, using Tool C-3582.

(2) Slide the fuel tank under the vehicle. Raise the tank far enough to engage the filler spout with the opening in the rear panel.

(3) Push the tank toward the rear to fully engage the filler spout in the opening.

(4) Hold the fuel tank in this position, then place the hold down strap in position; feeding the attaching stud through the hole in the end of the strap. Install the nut but do not tighten (2 or 3 threads).

(5) Guide the button head of the stud into the slot in the frame and down into position. Move the tank slightly back and forth; front and rear until the embossed surface of the tank meshes with the embossed surface of the floor pan. (Be sure the insulator is in place). With the tank held in this position, tighten the strap bolt nut to 60 inch pounds.

CAUTION: Do not exceed 60 inch pounds torque, as additional pressure can distort the tank and may cause leaks.

(6) Slide the filler tube down into position through the "O" ring with a twisting motion, until seated firmly in the tank. Align the screw hole and install the attaching screw. Tighten securely.