

FUEL PUMP (A-89977A1)

Installation Instructions

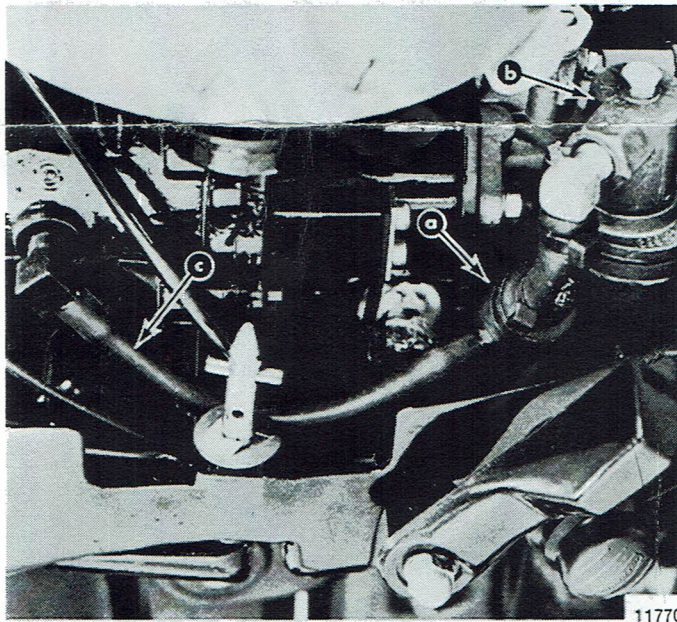
IMPORTANT: This fuel pump assembly replaces several earlier style fuel pump and fuel line configurations. Select the appropriate installation instructions for the fuel pump style being replaced.

4.5 HP ENGINES with ONE-PIECE CANISTER TYPE FUEL PUMP (Figure 1) OR, MIKUNI FUEL PUMP (Figure 2)

NOTE: New fuel line and pulse line connections DO NOT require clamps.

1. Disconnect pulse line from fitting on crankcase and fuel line from carburetor inlet cover.
2. Disconnect fuel line (between fuel pump and check unit adaptor) from check unit adaptor.
3. Remove (and discard) fuel pump and attached fuel lines from engine.

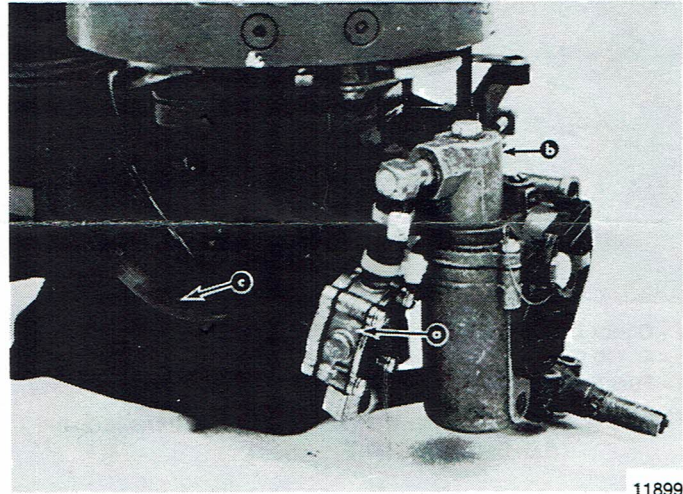
NOTE: "Arrows" on fuel pump indicate direction of fuel flow to carburetor.



a - One-Piece Canister Type Fuel Pump b - Carburetor Inlet Cover
c - Pulse Line

Figure 1. 4.5 HP with One-Piece Canister Type Fuel Pump

4. Cut and install a section of fuel line 1½" (38mm) long onto outlet side of fuel pump (supplied with kit). (Figure 4)
5. Cut and install a section of fuel line 4" (10.2cm) long onto inlet side of fuel pump (supplied). (Figure 4)
6. Install fuel line (from outlet side of fuel pump) to carburetor inlet cover. (Figure 4)
7. Install fuel line (from inlet side of fuel pump) to check unit adaptor.
8. Cut and install a section of fuel line 5½" (14cm) long onto pulse line fitting on fuel pump and pulse line fitting on crankcase. (Figure 4)



a - Fuel Pump
b - Carburetor Inlet Cover
c - Pulse Line

Figure 2. 4.5 HP with A-87905A__ Mikuni Fuel Pump

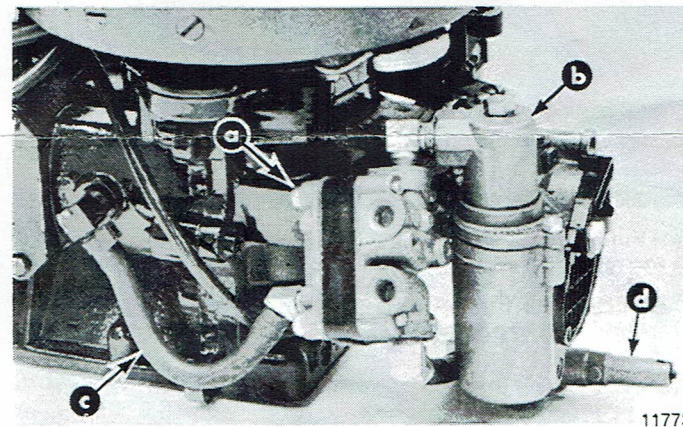
3.9 HP thru 20 HP ENGINES with MULTI-PIECE (A-53238A__ TYPE) FUEL PUMP (Figure 3)

NOTE: New fuel line and pulse line connections DO NOT require clamps.

1. Disconnect pulse line from fitting on crankcase.

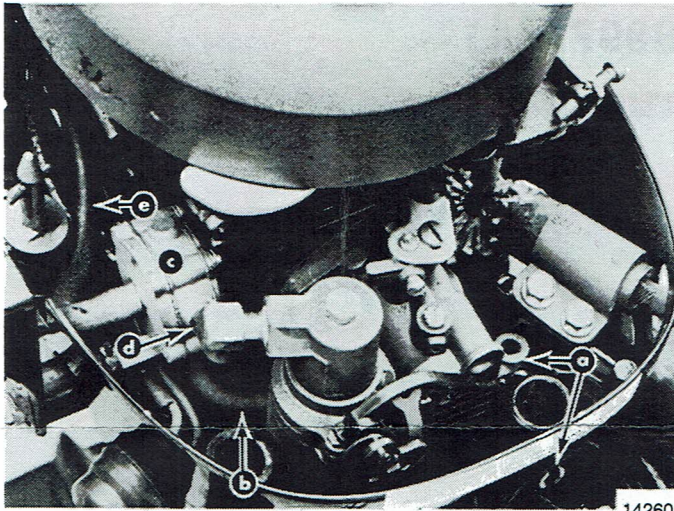
NOTE: Some 20 HP engines are equipped with 2 pulse lines, in which case it will be necessary to remove the top pulse line fitting from crankcase and install pipe plug (supplied with kit) in hole (in crankcase) vacated by pulse line fitting.

2. Disconnect inlet fuel line (between check unit adaptor and fuel pump) from check unit adaptor.
3. Remove (and discard) fuel pump assembly and 90° elbow from carburetor inlet cover.



a - Multi-Piece Fuel Pump c - Pulse Line
b - Carburetor Inlet Cover d - Check Unit Adaptor

Figure 3. Typical Multi-Piece Fuel Pump (3.9 HP thru 20 HP)

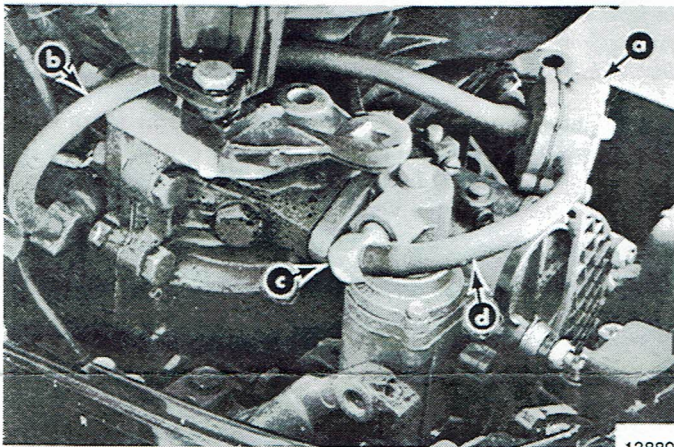


- 14260
- a - Check Unit Adaptor
 - b - 4" (10.2cm) Fuel Line
 - c - Fuel Pump
 - d - 1-1/2" (38mm) Fuel Line
 - e - 5-1/2" (14cm) Pulse Line

Figure 4. New Fuel Pump (A-89977A1) Installed (4.5-thru-9.8 HP Engines)

4. Apply a small amount of Quicksilver Perfect Seal (C-92-34227) to threads of larger 90° elbow fitting (supplied with kit).
5. Thread larger 90° elbow fitting into check unit adaptor. Tighten and position elbow in the direction that fuel line will be routed, as shown in Figures 4 or 6.
6. Apply a small amount of Quicksilver Perfect Seal to threads of smaller 90° elbow fitting (supplied).
7. Thread smaller 90° elbow fitting into carburetor inlet cover. Tighten and position elbow fitting in the direction that the fuel line will be routed. (Figures 4 or 5)

NOTE: "Arrows" on fuel pump indicate direction of fuel flow to carburetor.



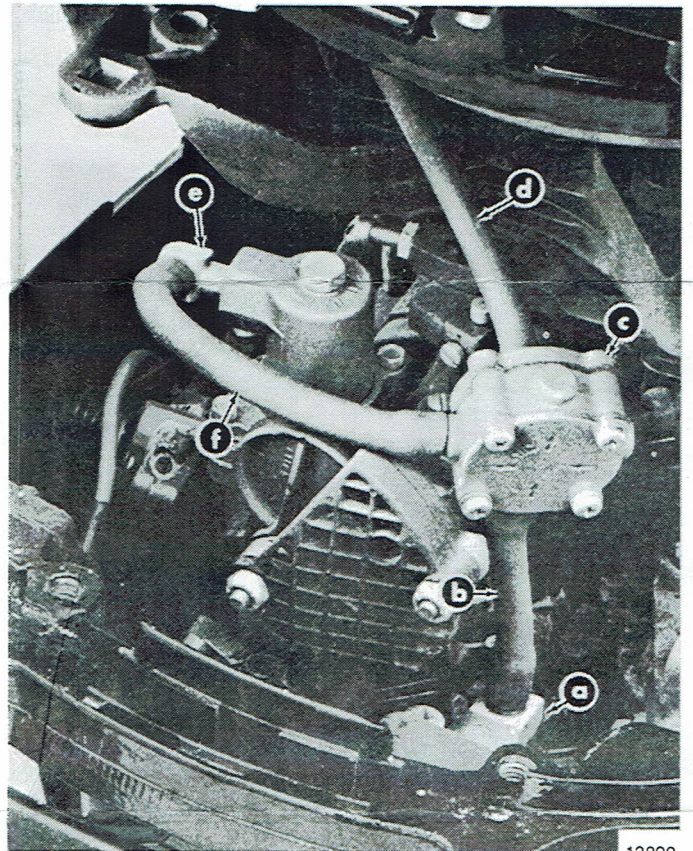
- 13889
- a - Fuel Pump
 - b - 10-3/4" (27.3cm) Pulse Line
 - c - Smaller 90° Elbow Fitting
 - d - 4-1/4" (10.8cm) Fuel Line

Figure 5. New Fuel Pump (A-89977A1) Installed (20 HP Engine — Side View)

8. If installing this fuel pump on a 4.5 HP engine, cut and install a section of fuel line 4" (10.16cm) long onto the inlet side of fuel pump, a section 1 1/2" (3.81cm) long onto the outlet side of fuel pump and a section 5 1/2" (13.97 cm) onto the pulse line fitting. (Figure 4)
9. If installing this fuel pump on a 20 HP engine, cut and install a section of fuel line 2 1/2" (63.5mm) long onto the inlet side of fuel pump, a section 4 1/2" (10.8cm) long onto the outlet side of fuel pump and a section 10 3/4" (27.3cm) onto the pulse line fitting. (Figure 5 and 6)

NOTE: If installing this fuel pump onto any engine other than a 4.5 or 20 HP engine, install inlet, outlet and pulse lines cut to required length.

10. Install fuel line (from outlet side of fuel pump) to carburetor inlet cover. (Figures 4, 5 and 6)
11. Install fuel line (from inlet side of fuel pump) to check unit adaptor. (Figures 4 or 6)
12. Connect pulse line (from fuel pump) to fitting on crankcase. (Figures 4 or 5)



- 13890
- a - Larger 90° Elbow Fitting
 - b - 2-1/2" (63.5mm) Fuel Line
 - c - Fuel Pump
 - d - 10-3/4" Pulse Line
 - e - Smaller 90° Elbow Fitting
 - f - 4-1/4" Fuel Line

Figure 6. New Fuel Pump (A-89977A1) Installed (20 HP Engine — Front View)