

# PREVOST

Instruction Sheet

IS-95004

## REPLACEMENT OF THE STAINLESS STEEL FUEL TANK WITH A POLYETHYLENE FUEL TANK ON H3 SERIES VEHICLE WITH SERIES 60 ENGINE

### MATERIAL

Part No	Description	Qty
032001P	Fuel tank assembly	1
032044	Fuel tank retrofit kit, includes: <ul style="list-style-type: none"> <li>- Jumper cable (Qty: 1; Prévost #063936)</li> <li>- Tell-tale light, neutral 24 volts (Qty: 1; Prévost #562113)</li> <li>- Insert, low fuel level (Qty: 1; Prévost #391029)</li> <li>- Wiring harness fuel tank (Qty: 1; Prévost #064116)</li> <li>- Filling hose, right side, 26 3/8" (670 mm) (Qty: 1; Prévost #031852)</li> <li>- Filling hose, left side, 45" (1143 mm) (Qty: 1; Prévost #032042)</li> <li>- Hose clamp (Qty: 6; Prévost #504562)</li> <li>- Check valve assembly (Qty: 2; Prévost #032088)</li> <li>- Cap, non threaded (Qty: 1; Prévost #680733)</li> <li>- Fitting hose, straight (Qty: 1; Prévost #507602)</li> <li>- Adapter, straight 1/2 X 1/4 (Qty: 1; Prévost #501316)</li> <li>- Auxiliary suction tube assembly (Qty: 1; Prévost #031993)</li> <li>- Auxiliary suction tube assembly (Qty: 1; Prévost #032013)</li> <li>- Neoprene rubber tape, 12.5' (3 810 mm) (Qty: 2; Prévost #506007)</li> <li>- Fuel cooler assembly (Qty: 1; Prévost #051925)</li> <li>- Hose assembly, 95" (2415 m) (Qty: 1; Prévost #032037)</li> <li>- Hose assembly, 78 1/2" (1995 mm) (Qty: 1; Prévost #032038)</li> <li>- Adapter, straight 3/8 X #6 (Qty: 2; Prévost #501640)</li> <li>- Nut, hexagon #10-24 (Qty: 3; Prévost #500786)</li> <li>- Screw, phillips 10-24x3/4 (Qty: 3; Prévost #500387)</li> <li>- Split lock washer (Qty: 3; Prévost #500470)</li> <li>- Hose clamp (Qty: 10; Prévost #560482)</li> <li>- Hose clamp support (Qty: 2; Prévost #031701)</li> <li>- Insulating tube, 7 7/8" (200 mm) (Qty: 4; Prévost #032043)</li> <li>- Channel support (Qty: 1; Prévost #051986)</li> <li>- Rivet 1/8" X 3/8" (Qty: 7; Prévost #504339)</li> <li>- Flat washer (Qty: 7; Prévost #500437)</li> <li>- Rivet 3/16" X 3/8" (Qty: 2; Prévost #504249)</li> <li>- Instruction sheet IS-95004</li> <li>- Feuille d'instruction FI-95004</li> </ul>	1

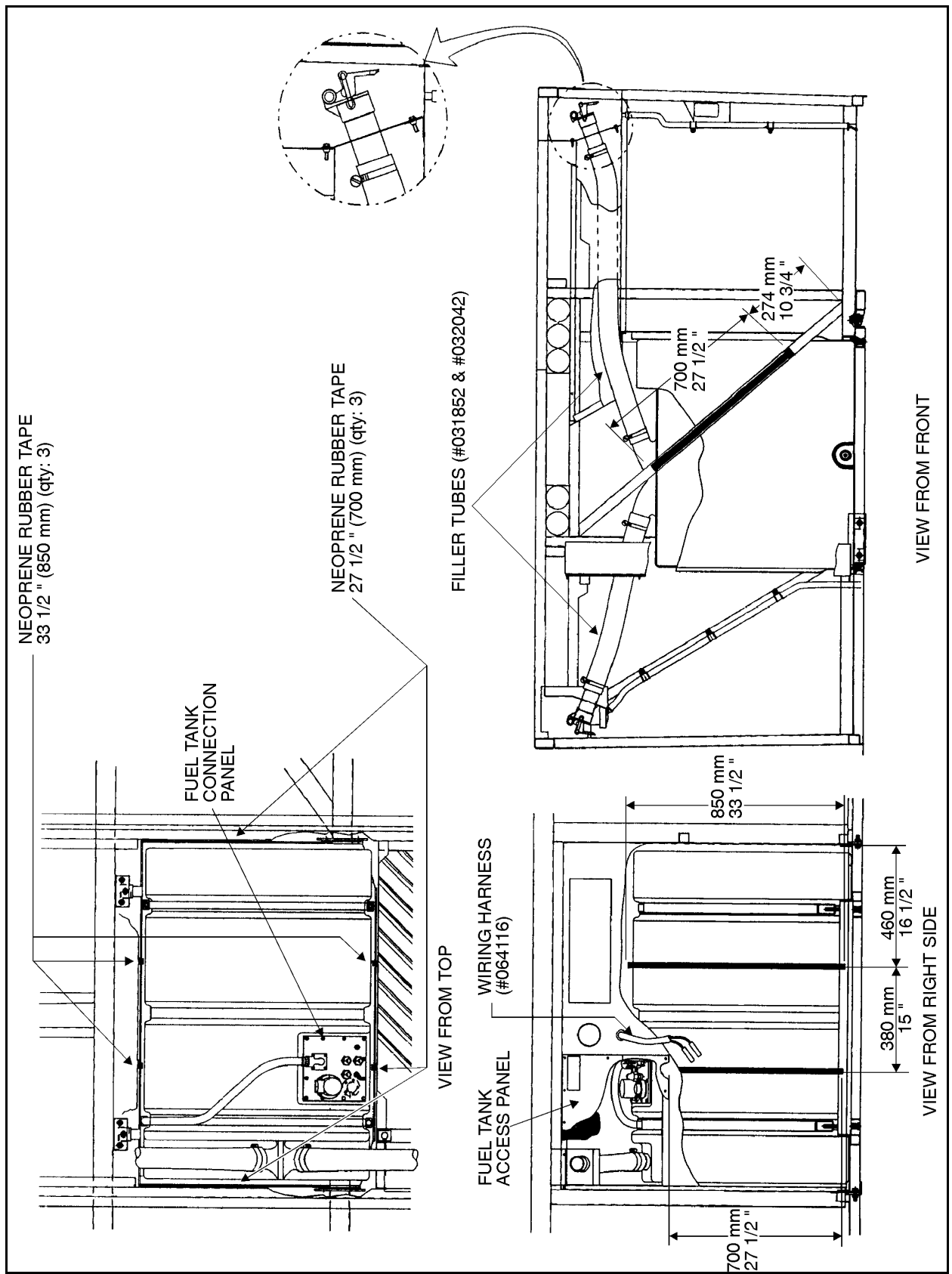


FIGURE 1: POLYETHYLENE FUEL TANK

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## PROCEDURE

**Warning:** Park vehicle safely, apply parking brake, stop engine and set battery master switch(es) to the OFF position prior to working on the vehicle.

Prior to working under a air-suspended vehicle, it is strongly recommended to support the body at the recommended jacking points.

### Step A: Removal of Stainless Steel Fuel Tank

**Note:** Prior to removal, the fuel tank should be completely drained by unscrewing the drain plug. Ensure that the container used has a capacity equal to the amount of fuel remaining in the tank (total capacity of the tank is 235 U.S. gallons or 890 l).

1. In evaporator's compartment (L.H. side of vehicle), locate filler tube. Unscrew clamp retaining filler tube, then disconnect tube.
2. In condenser's compartment (R.H. side of vehicle), locate the fuel tank access panel and remove it.
3. Unscrew clamp retaining L.H. side filler tube to the fuel tank, then disconnect tube and remove it.
4. Unscrew clamps retaining R.H. side filler tube to fuel tank and filler neck. Disconnect tube and remove it.
5. Unscrew engine supply and return lines from fuel tank connection panel, identify them for reinstallation.
6. If applicable, unscrew preheater supply line, preheater return line, auxiliary supply line and/or auxiliary return line from fuel tank connection panel. Identify them for reinstallation.
7. Disconnect electric wiring from tank (wires 76 and 0 from connection panel and, if vehicle is equipped with "low fuel warning light", wires 76B and 76C from bottom rear side of tank). Disconnect connectors C107 and C152 in condenser's compartment. Remove cable assembly #062576 and discard it.

**Warning:** Before removing the bolts securing the tank to the frame, make sure the tank is supported adequately. Failure to do so could result in injury as well as damage to the tank.

8. From under the vehicle, on R.H. side, remove the 4 bolts (2 in front, 2 in back) retaining the tank support to the frame bracket.
9. From under the vehicle, on the L.H. side, remove the 6 bolts (3 in front, 3 in back) retaining the tank support to the frame bracket. Remove the 2 mounting plates located between the tank support and the frame brackets.
10. Carefully remove tank from under the vehicle.

### Step B: Installation of Polyethylene Fuel Tank

1. Cut and bend L.H. side fuel fill duct as on figure 2.
2. Insert check valve assembly (Prévost #032088) in right side filler hose (Prévost #031852) (Fig. 2), fasten it with hose clamp (Prévost #504562). Repeat with left side filler hose (Prévost #032042).
3. Using hose clamps (Prévost #504562), install filler tubes in corresponding filler neck.

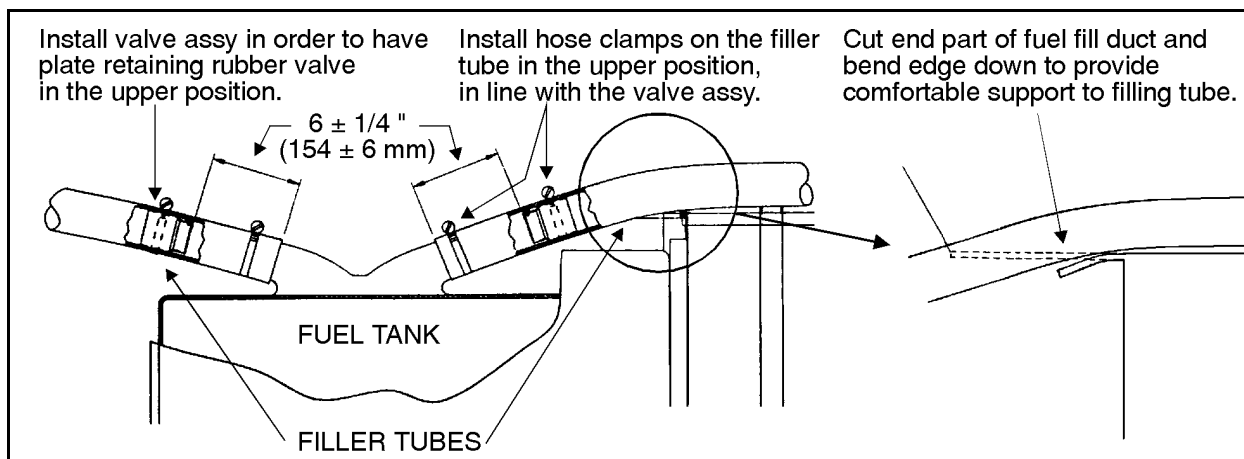


FIGURE 2: FUEL TANK AND FILLER TUBES

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4. If vehicle is equipped with Espar (40 000 btu) preheating system:

- Remove plug on "to preheating system" port on fuel tank (Fig. 3). Using a *Loctite 567™* type thread sealant, install auxiliary suction tube assembly (Prévost #031993) on "to preheating system" port.

If vehicle is equipped with Webasto (80 000 btu) preheating system:

- Remove plug on "to preheating system" port on fuel tank (Fig. 3). Using a *Loctite 567™* type thread sealant, install auxiliary suction tube assembly (Prévost #032013) on "to preheating system" port.
- Remove plug on "from preheating system" port on fuel tank (Fig. 3). Using a *Loctite 567™* type thread sealant, install straight adapter (Prévost #501316), then straight hose fitting (Prévost #507602).

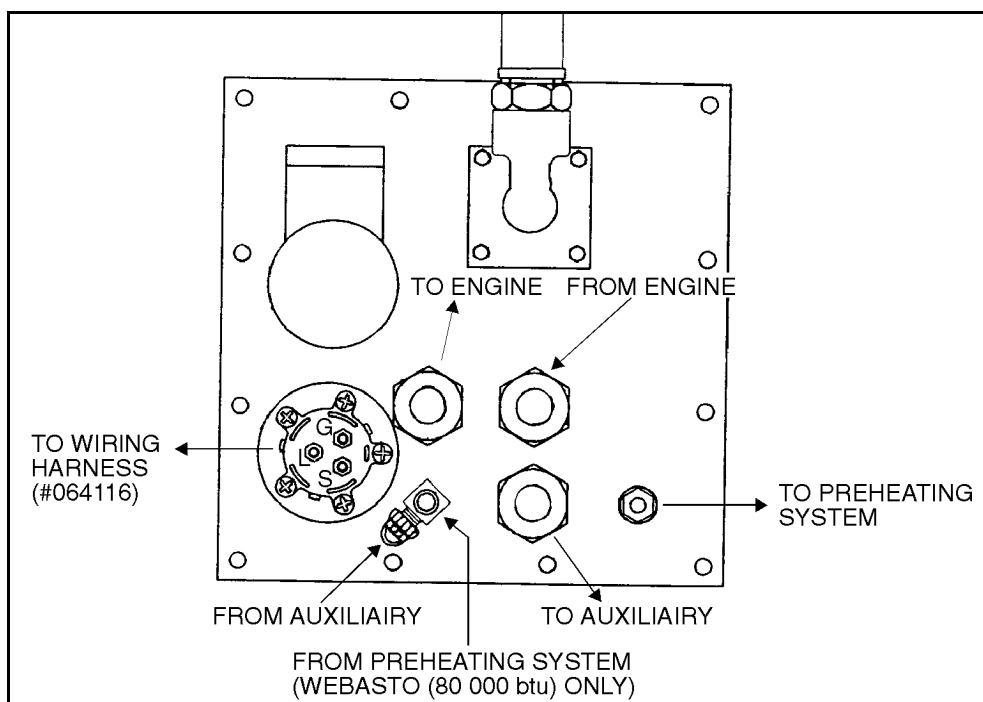


FIGURE 3: FUEL TANK CONNECTION PLATE

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5. Cut neoprene rubber tape (Prévost #506007) at appropriate length ( $33\frac{1}{2}$ " (850 mm), Qty:3;  $27\frac{1}{2}$ " (700 mm), Qty: 3). Spray aerosol adhesive at the appropriate positions on the fuel tank section walls (Fig. 1). Install neoprene rubber tape on walls of fuel tank section.
6. From under vehicle, carefully place fuel tank in its place. Using the mounting plates and bolts removed during steps **A.8** and **A.9**, affix fuel tank on structure.

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7. Install filler tubes on fuel tank, fix them with hose clamps (Prévost #504562).
  8. Using a *Loctite 567™* type thread sealant, screw engine supply and return lines to fuel tank connection panel (Fig. 3).
  9. If applicable, using a *Loctite 567™* type thread sealant, screw preheater supply line, preheater return line, auxiliary supply line and/or auxiliary return line to fuel tank connection panel (Fig. 3).
  10. In condenser's compartment, connect wiring harness (Prévost #064116) connectors *C107* and *C152*. Run wiring harness through grommet, then connect wires *0*, *76*, and *76C* to terminals *G*, *S*, and *L* respectively, on connection plate (Fig. 3). If vehicle is equipped with Espar (40 000 btu) preheater, connect wires *127W* and *128W* to the fuel metering pump (Fig. 4) (wires could be connected on either of the two connectors without affecting functionality), otherwise, secure wires with cable ties.



**FIGURE 4: FUEL METERING PUMP**

11. Reinstall fuel tank access panel.
  12. In vehicle, remove two screws retaining rear dashboard housing and remove it.
    - If vehicle is already equipped with "low fuel level warning light":
      - Disconnect wire *OH* from "low fuel level warning light" socket (Fig. 5).
      - Disconnect wire *85A* from "AC door ajar warning light" socket.
      - Connect wire *85A* in jumper cable (Prévost #063936).
      - Connect jumper cable in "low fuel level warning light" and "AC door ajar warning light" sockets.
    - If vehicle is not already equipped with "low fuel level warning light":
      - Remove unused socket from position at which new "low fuel level warning light" socket should be installed (Fig. 5).
      - Place "low fuel level" insert (Prévost #391029) in Tell-tale light (Prévost #562113), then install it at appropriate position on dashboard.
      - Find wire *76C*, then connect it in "low fuel level warning light" socket.
      - Disconnect wire *85A* from "AC door ajar warning light" socket.
      - Connect wire *85A* in jumper cable (Prévost #063936).
      - Connect jumper cable in "low fuel level warning light" and "AC door ajar warning light" sockets.
- Reinstall rear dashboard housing.

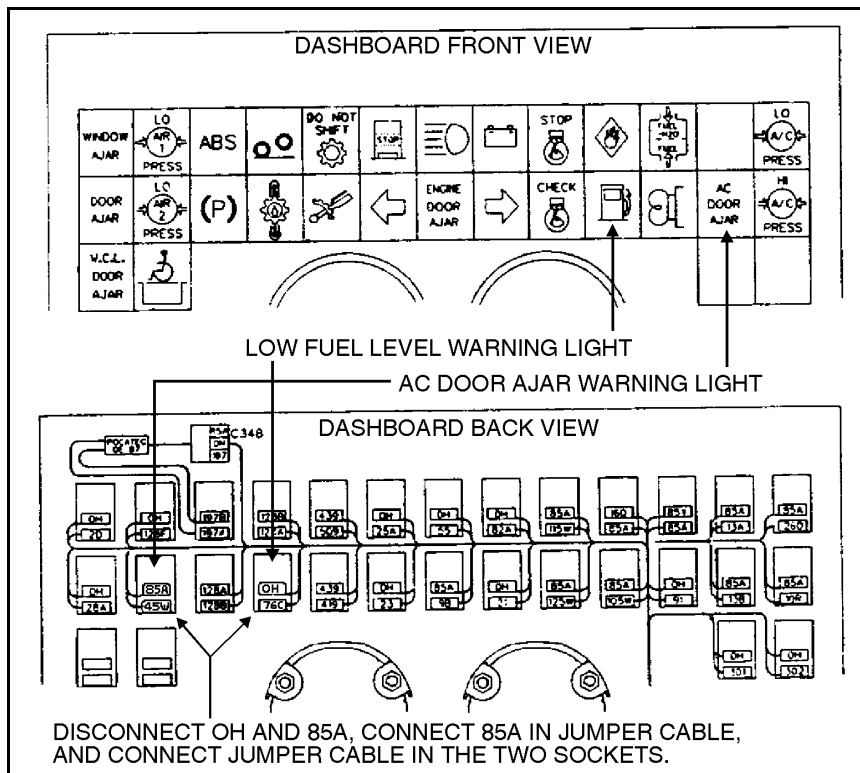


FIGURE 5: DASHBOARD INDICATOR LIGHTS

### Step C: Installation of Fuel Cooler

1. On H3-40, remove radiator panel after the two plastic caps and the two bolts on bottom of panel have been removed. On H3-41 or H3-45, open radiator door.

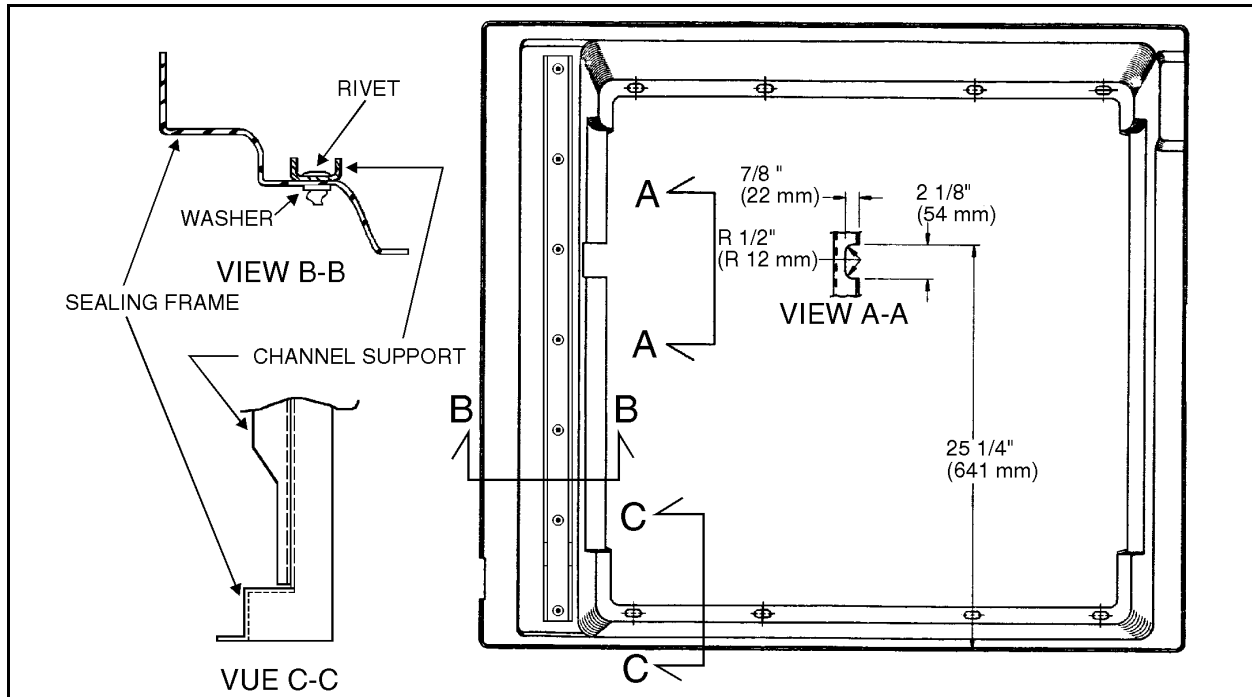


FIGURE 6: RADIATOR SEALING FRAME

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- Remove sealing frame (Fig. 6). To do so, remove screws, bolts and washers all around the sealing frame. On H3-41 and H3-45, rivets that support door retaining strap must be removed.

**Note:** To remove rivets, use a 1/8" (3 mm) punch and a hammer to drive out rivet body, then drill rivet center with a 3/16" (4,5 mm) bit to remove rivet head.

- Cut hole in sealing frame, refer to View A-A on figure 6 for dimensions.
- Place channel support (Prévost #051986) on radiator sealing frame (Fig. 6). Horizontally, channel support should be 1/4" farther than the radius end. Vertically, center channel support on sealing frame.
- Drill sealing frame with a 1/8" (3 mm) drill in the channel support holes (7). For each hole (7), place pop-up rivet 1/8" X 3/8" (Prévost #504339) and washer (Prévost #500437) (Fig. 6).
- On engine, over flywheel housing, locate fuel return hose (Fig. 7) and disconnect it.
- Using a *Loctite 567™* type thread sealant, install hoses (Prévost #032037 and #032038) on engine (Fig. 7).

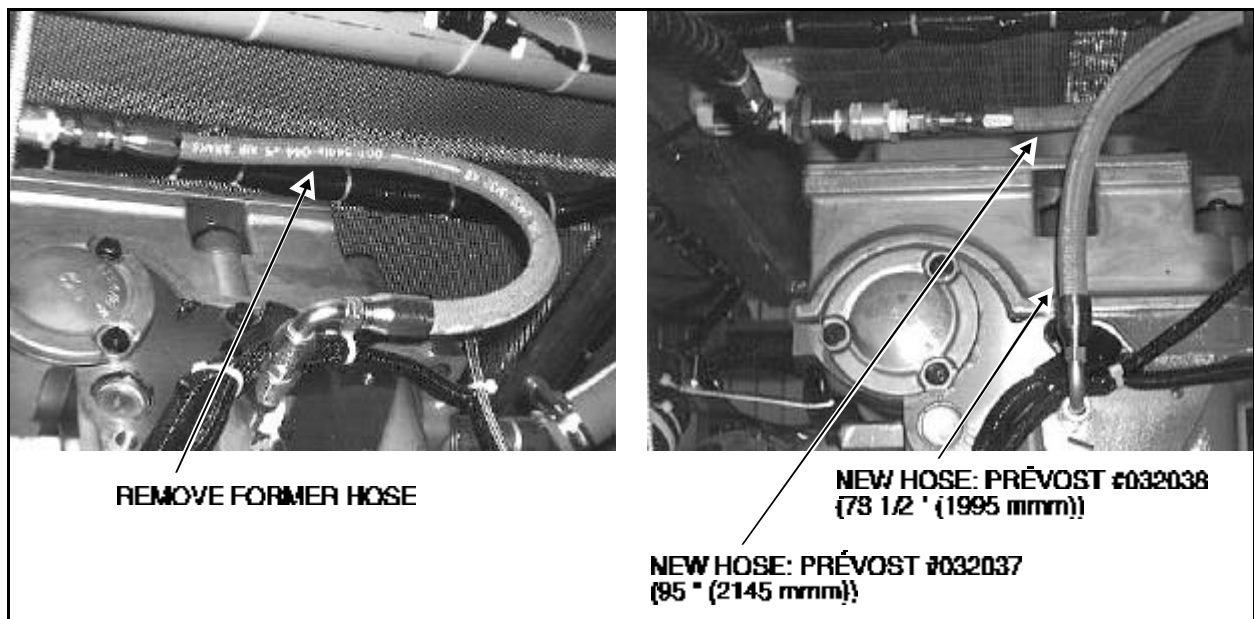


FIGURE 7: FUEL COOLER HOSES ON ENGINE

- Route hoses with insulating tubes (Prévost #032043) from engine to front of radiator (Fig. 8), fix them with hose clamp supports (Prévost #031701), hose clamps (Prévost #560482), nuts, screws and washers (Prévost #500786, #500387, #500470).



FIGURE 8: FUEL COOLER HOSES ROUTING

- Using the bolts, washers and screws removed on step **C.1** (except the four bolts and washers that will be used to fasten the fuel collar (Fig. 9)), install sealing frame. On H3-41 or H3-45, fasten door retaining strap with two new rivets 3/16" X 3/8" (Prévost #504249).

10. Install the fuel cooler assembly (Prévost #051925), affix it with the four bolts and washers (Fig. 9).

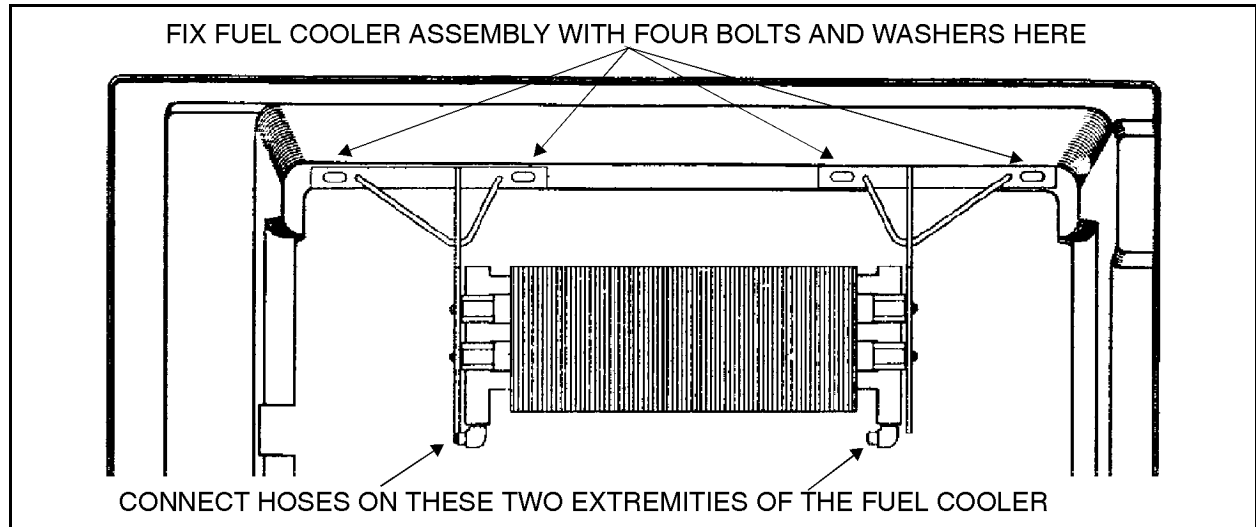


FIGURE 9: FUEL COOLER HOSES ROUTING

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11. Install hoses on fuel cooler.

12. On H3-41 or H3-45, close radiator door. On H3-40, put radiator panel back, affix with bolts, and cover with plastic caps.

## Step D: Priming of Fuel System

### If the vehicle is equipped with the optional priming system

1. Start the priming pump. The switch is located in engine compartment and mounted on a small box above the engine (between the starter button and the starter selector switch).
2. Start the engine and check for leaks.

### If the vehicle is not equipped with the optional priming system

1. Unscrew the cap on the priming valve located on the secondary filter.
2. Direct fuel under pressure 25 psi (172 kPa) to the priming valve using a quick coupling.
3. Start the engine and check for leaks.