FUEL SCAVENGE SYSTEM - MAINTENANCE PRACTICES

1. General

A. For Airplane 208B2197 and Airplanes 208B5000 and On, this section gives the procedures for the removal and installation for the fuel ecology tank, which replaces the EPA fuel reservoir can. The fuel ecology tank recycles the unused fuel back to the fuel system.

B. For Airplanes 20800001 and On, and Airplanes 208B0001 thru 208B2196, and 208B2198 thru 208B4999 this section gives the procedures for the removal and installation for the fuel scavenging system.

2. Description

A. The fuel ecology system consists of the fuel ecology tank, drain lines, swing check valve, and fuel tubes.

B. The fuel scavenge system consists of combustion chamber drain lines, an Environmental Protection Agency (EPA) fuel reservoir can with a drain valve or a fuel ecology tank, and an overboard vent tube assembly.

3. EPA Can Removal/Installation

A. Remove the EPA Fuel Reservoir Can (Refer to Figure 201).

(1) Open the left upper cowling door to get access to the EPA fuel reservoir can.

(2) Disconnect the vent tube assembly from the EPA fuel reservoir can.

(3) Disconnect the combustion chamber drain line from the EPA fuel reservoir can.

(4) Remove the bolts and washers that attach the EPA fuel reservoir can to the brackets.

(5) Remove EPA fuel reservoir can from the airplane.

B. Install the EPA Fuel Reservoir Can (Refer to Figure 201).

(1) Put the EPA fuel reservoir can in position to the brackets.

(2) Install the bolts and washers that attach the EPA fuel reservoir can to the brackets.

(3) Connect the combustion chamber drain line to the EPA fuel reservoir can.

(4) Connect the vent tube assembly to the EPA fuel reservoir can.

(5) When the maintenance is complete, close the left upper cowling door.

4. Fuel Ecology Tank Removal/Installation

A. Remove the Fuel Ecology Tank (Refer to Figure 202).

(1) Open the left upper cowling door to get access to the fuel ecology tank.

(2) Disconnect the overboard vent tube assembly from the fuel ecology tank.

(3) Disconnect the fuel manifold drain tube from the fuel ecology tank.

(4) Disconnect the fuel supply tube from the fuel ecology tank.

(5) Disconnect the motive flow tube from the fuel ecology tank.

(6) Remove the bolts and washers that attach the fuel ecology tank to the brackets.

(7) Remove the fuel ecology tank from the airplane.

B. Install the Fuel Ecology Tank (Refer to Figure 202).

(1) Put the fuel ecology tank in position to the brackets.

(2) Install the bolts and washers that attach the fuel ecology tank to the brackets.

(3) Connect the motive flow tube to the fuel ecology tank.

(4) Connect the fuel supply tube to the fuel ecology tank.

(5) Connect the fuel manifold drain tube to the fuel ecology tank.

(6) Connect the overboard vent tube assembly to the fuel ecology tank.

(7) When the maintenance is complete, close the left upper cowling door.

5. Swing Check Valve Removal/Installation

A. Remove the Swing Check Valve (Refer to Figure 202).

(1) Open the left upper cowling door to get access to the fuel ecology tank and fuel tubes.

(2) Record the installation of the valve in the tubing installation by observing the part number ink stamp or the etched (H)

position on the valve.

(3) Loosen the lower fuel supply tube fitting on the swing check valve.

(a) Carefully remove the tube from the valve fitting.

(4) While you support the swing check valve, loosen the top fuel supply fitting on the valve.

(5) Carefully remove the swing check valve from the airplane.

B. Install the Swing Check Valve (Refer to Figure 202).

(1) Put the swing check valve in its recorded correct position on the lower fuel supply tubing.

(a) While you support the swing check valve, tighten the lower fuel supply fitting on the valve.

(2) Put the top fuel supply tubing in its correct position on the top valve fitting.

(a) While you support the swing check valve, tighten the top fuel supply fitting on the valve.

(3) When the maintenance is complete, close the left upper cowling door.

Figure 201 : Sheet 1 : EPA Fuel Reservoir Can Installation

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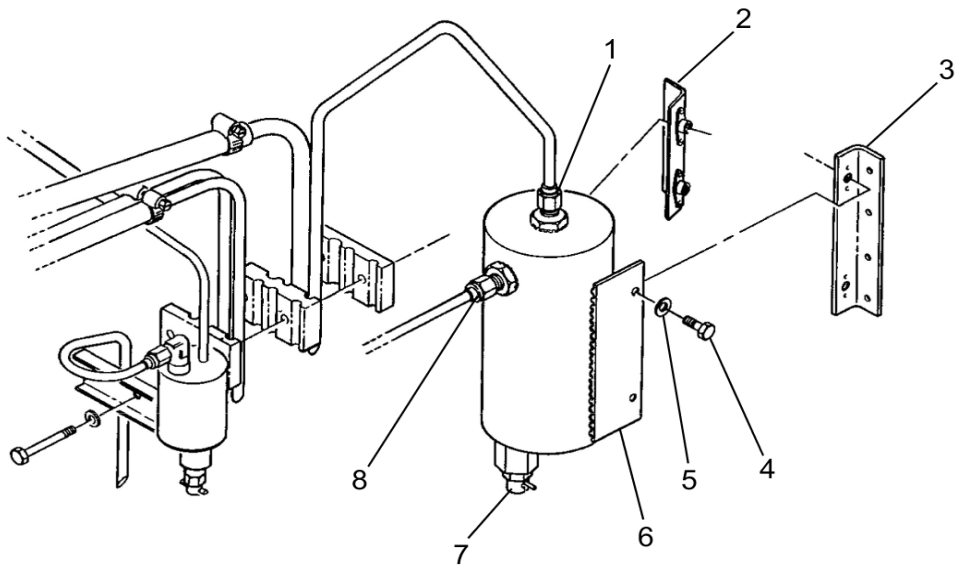
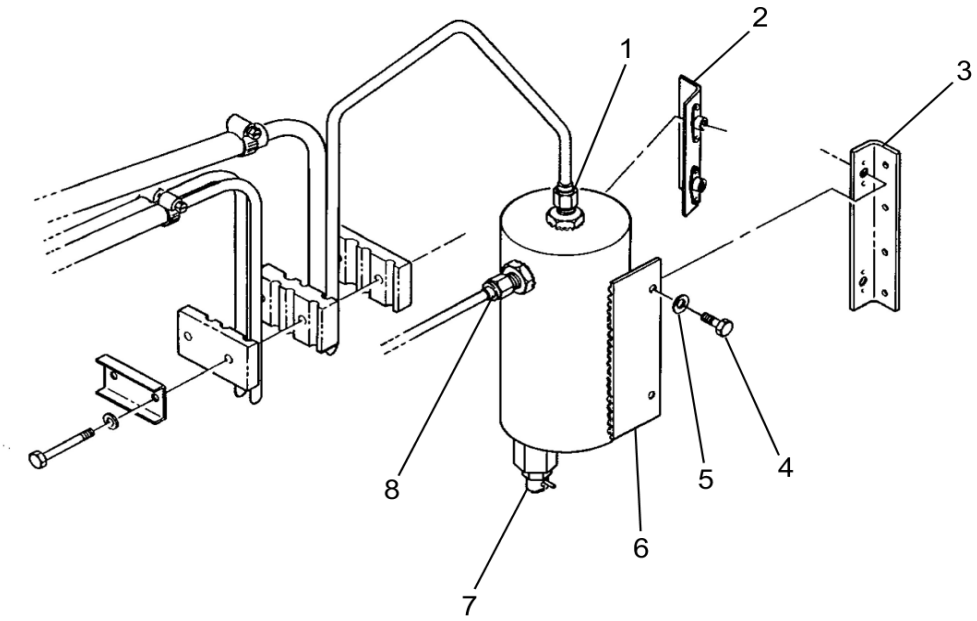


AIRPLANES 20800144 AND ON
AND 208B0143 THRU 208B2196 AND
208B2198 THRU 208B4999



AIRPLANES 20800001 THRU 20800143
AND 208B0001 THRU 208B0142

1. VENT TUBE ASSEMBLY
2. BRACKET
3. BRACKET
4. BOLT
5. WASHER
6. EPA FUEL RESERVOIR CAN
7. DRAIN VALVE
8. COMBUSTION CHAMBER DRAIN LINE

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Figure 202 : Sheet 1 : Fuel Ecology Tank Installation