

**10-142. Inspection - Fuel Cell Sump Assembly.**

- a. Inspect drain valve for leaking packing or seal washers (figure 10-12).
- b. Inspect flow switch, flow switch gaskets, and packings for evidence of leakage.
- c. Inspect fuel quantity indicating system electrical connectors on right sump for damage. Dome nut plates NAS1474A4 installed on fuel sumps 205-062-640-1 and -2 in lower left and right hand fuel tanks 205-062-635-1 and -2 may be installed with 1/8 inch rivets with O-ring NSN 5320-00-680-3396 if the regular 3/32 inch rivet holes have been elongated. The 3/32 inch holes may be drilled out to 1/8 inch in sumps and in the nut plates to accept the 1/8 inch rivets.
- d. Inspect plate for corrosion in gasket area. If corrosion is such that vacuum blasting would require material removal to a depth exceeding .030 inch in any one spot, or exceeding .020 inch over 80% of the gasket area on either side of the plate, discard plate.

**10-143. Repair or Replacement - Fuel Cell Sump Assembly.** Replace components which show evidence of damage or have been found to be faulty during troubleshooting procedures.

**10-144. Installation - Fuel Cell Sump Assembly.**

- a. Locate free ends of hoses which attach to boost pump and to flow switch inside fuel cell. Locate fuel quantity probe leads if a right fuel cell sump is being installed.
- b. Install packing in groove around cell opening. Use a small amount of adhesive (C34) to hold packing in place.
- c. Position clean, properly assembled sump assembly with boost pump (11, figure 10-12), flow switch (33), check valve (3), cross fitting (26), sump drain valve (28), and defuel valve (29) properly installed, slightly below opening. Reach inside and connect outlet hose to pump fitting. Connect outlet hose to flow switch (33) and cross fitting (26) and attach fuel quantity tank unit leads to connectors.

**NOTE**

If sump drain valve safety was removed, re-safety valve.

- d. Raise sump plate to normal position and secure with bolts and washers. Tighten bolts evenly 40 to 50 inch pounds.
- e. Connect external lines and electrical leads of pump and other units of sump assembly.
- f. Check for leaks and for proper functioning of indicators when system is being refilled.
- g. Reinstall access panel.

**10-145. Flow Switch.**

**10-146. Description - Flow Switch.** The flow switch (33, figure 10-12) is attached to the sump plate on the underside of each forward fuel tank.

**10-147. Removal - Flow Switch.**

- a. Remove sump assembly (paragraph 10-137).
- b. Disconnect fuel line from check valve (3) and fuel line from outlet of flow switch (33).
- c. Disconnect electrical terminals and cover ends with tape.
- d. Cut lockwire and remove nut and washer securing flow switch (33) to sump plate; remove flow switch (33), and check valve (3) from sump plate.
- e. Remove check valve (3) from flow switch (33).
- f. Remove packing from flow switch electrical unit.

**10-148. Repair or Replacement - Flow Switch.**

- a. Replace flow switch (33) if malfunctioning.
- b. Replace packing with like serviceable item.
- c. Position flow switch (33) and check valve (3) on sump plate with electrical inlet projecting through plate.
- d. Install washer (22) on electrical outlet and secure flow switch to sump plate with nut (21) previously removed. Lockwire (C155) nut.
- e. Connect electrical terminals.
- f. Replace sump assembly (27).

**10-149. DELETED.**

**10-150. Check Valve.**

**10-151. Description - Check Valve.** The check valve (3, figure 10-12) is installed in the inlet port of the flow switch (33).

**10-152. Removal - Check Valve.**

- a. Remove sump assembly (paragraph 10-137).
- b. Disconnect hose from inlet port of check valve (3).
- c. Unscrew check valve (3) from inlet port of flow switch (33).
- d. Remove packing (2) between flow switch (33) and check valve (3).

**10-153. Repair or Replacement - Check Valve.**

- a. Replace check valve (3) if malfunctioning.
- b. Replace packing (2) between flow switch (33) and check valve (3) with like serviceable item.