NOTE

Screen is limited to 20 repairs. Each repair shall not exceed 1/2 inch diameter and must be a minimum of 1/2 inch between each repair.

(1) Small tears and holes in screen assemblies not exceeding **0.25** square inch may be repaired.

(2) Apply small amount of adhesive (C245) at tear or hole. Spread adhesive to bridge and cover hole.

b. Repair of Vortex Tubes.

(1) Damage to Swirl Vanes is considered negligible if no more than 0.250 inch of leading or trailing edge of each vane is eroded away or broken off. Jagged tears in the first 0.250 inch of each vane should be trimmed off to prevent further tearing. If more damage is not restricted to 0.250 of inch or damage to outside circumference of the tube, replace the tube.

NOTE

Plugging of vortex tube can be accomplished using tape (reinforced) or epoxy. Grounding of the aircraft is not required.

(2) Damaged vortex tubes can be removed and replaced with serviceable vortex tubes or plugged temporary. No more than 50 holes shall be plugged in any side or top panel not to exceed 100 holes per aircraft. Replaced vortex tubes do not have a flight restriction unless a total of 300 tubes have been replaced. If more than 300 tubes are replaced the IPS must be removed and replaced.

NOTE

Make an entry on 2408-15 of number of tubes replaced. The replacement tubes are about 1/32 inch smaller in diameter than the original tubes. A dot of paint may be placed above each tube as it is replaced.

(3) To remove a damaged tube, crimp tube with long nose pliers. Ensure all pieces of tube are removed from hole. Use care not to damage hole while removing tube. Particular attention should be given to the small triangular protrusion in hole which is used to lock tube to prevent rotation (figure 4-17.2).

NOTE

Should tube hole or protrusion become enlarged or damaged, insert only a plug.

(4) To replace missing or damaged vortex generator tubes, position replacement tube in vacant hole. Push tube through hole using thumb pressure until the groove in tube O.D. engages the inlet panel. Tube is considered properly installed when the groove on the tube fully engages with inlet panel hole, lip is flush with the panel and is aligned with the outlet tube. The replacement vortex tube is shorter than the original designed tube. Do not attempt to twist tube into hole. Damage could occur to triangular protusion used to lock the tube in place. The quantity of vortex tubes replaced should be documented on the 2408-15.

(5) To replace a displaced (pushed-in) vortex generator tube, ensure the vortex generator tube should be aligned with the outlet tube. Do not annotate quantity on 2408-15.

(6) Deleted.

(7) Deleted.

c. Replacement of External Side Inlet Panel. Remove rivets per TM 1-1500-204-23. Use caution so as not to enlarge rivets holes. Cleco panel as required to avoid panel flexure as rivets are removed. After rivet removal, remove cleo's and separate panel from structure. Remove all debris from interior of IPS unit. Debur rivet holes if required. Apply sealant (C237) to interfacing sheet metal open to outside air. Align panel to structure, insuring vortex and outlet tubes are in proper alignment, cleco as required for riveting.

d. Replacement of Bulkhead Fitting. Remove defective bulkhead fitting and boss seal by disconnecting the bleed air hose and then remove bulkhead fitting and boss seal. Install new fitting with new boss seal into bulkhead use antiseize compound (C47), tighten fitting and install bleed air hose and tighten. Assure bulkhead fitting is installed in proper direction.

e. Replacement of Bleed Air Connector Assembly. Gain access to bleed air connector assembly located on engine and disconnect bleed air line. Remove four mounting bolts and washers. Remove bleed air connector assembly and gasket. Position new gasket and bleed air connector assembly on engine compressor port and install four mounting bolts and washers. Do not tighten bolts. Connect bleed air line to bleed air connector assembly use antiseize compound (C47). Ensure bleed air line is properly aligned and has no kinks. Torque the bleed air connector mount bolts to 35 inch pounds and lockwire (C155).

f. Replacement of Check Valve Assembly. Remove check valve assembly on bottom of lower half assembly by loosening B nut. Install new check valve and tighten B nut.

g. Deleted.

h. Replacement of Engine Intake Ring. Remove lockwire from 10 attaching bolts and remove bolts from lip seal ring.

i. Replacement of Wash Hose Assembly. Remove wash hose assembly by disconnecting B nuts on both ends. Position new wash hose assembly and tighten B nuts on both ends.

j. Replacement of Lower Half Assembly Mounting Nutplates. Remove nutplate by drilling out two attaching rivets. Position new nutplate and install two rivets.