FUEL TANKS - INSPECTION/CHECK

1. General

A. This section has the inspections and checks necessary to keep the fuel tanks in a serviceable condition.

TASK 28-10-01-220

2. Fuel Filler Assembly Detailed Inspection

A. General

(1) This task gives the procedures to do a detailed inspection of the fuel filler assembly.

B. Special Tools

(1) Medeco Key Lube or Equivalent

C. Access

(1) None

D. Do a Detailed Inspection of the Fuel Filler Assembly.

(1) Visually examine the fuel filler caps, covers, lanyard cords, and hinges for security of installation, cleanliness, corrosion, and other damage.

(2) Examine the O-rings for security of installation, deterioration, cleanliness, and other damage.

(3) Apply Medeco Key Lube to the inside of the fuel cap locks.

(4) Insert the key and operate the lock mechanism several times and make sure that the operation is smooth.

(5) Wipe off unwanted lubricant.

E. Restore Access

(1) None

END OF TASK

TASK 28-10-01-221

3. Fuel Storage System Detailed Inspection

A. General

(1) This task gives the information needed to do a detailed inspection of the fuel storage systems.

B. Special Tools

(1) None

C. Access

(1) Fuselage access panels and covers

NOTE: The fuel access panels and covers are removed after the inspection steps for removing the fuel.

D. Do a Detailed Inspection of the Fuel Storage System.

WARNING: Before you do maintenance on the fuel system, you must read and understand all of the fuel system maintenance, fire precautions, and safety practices. Refer to Fuel System - Maintenance Practices and Chapter 12, Fuel – Servicing.

(1) Defuel the airplane. Refer to Chapter 12, Fuel – Servicing.

(a) Remove the remaining fuel from the fuel storage areas with the fuel drain valves. Refer to Chapter 12, Fuel – Servicing.

(2) Remove lower wing fuel access panels 521AB, 521BB, 521DB, 521EB left, and 621AB, 621BB, 621DB and 621EB right. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

CAUTION: Be careful to not separate the wing skin doubler from the wing skin.

(a) Purge the fuel tanks. Refer to Chapter 12, Fuel – Servicing.

(3) Examine the eight (8) quantity transmitter mounting plates for condition, leaks, and security.

(4) Examine the transmitters wire harnesses and terminals at the transmitters for condition and security.

(5) Examine the tank drains for condition, leaks, and security.

(6) Examine the fuel lines, fuel shut-off-valves, and filters for condition and security.

(7) Visually check for indications of biological growth within the fuel storage area.

NOTE: For information on biological growth, refer to Chapter 12, Fuel - Servicing , and Chapter 28, Fuel Contamination .

E. Do a Fuel Reservoir Tank Inspection.

NOTE: This inspection includes the system and components of the inner reservoir tank cavity only. On airplanes with pods, the reservoir includes a mechanical drain that is connected to a push/pull cable on the left side of the pod.

(1) For airplanes with a POD installed, remove the drain line cover.

(a) Install a plug In the drain line opening.

(b) Pull the drain valve open and examine the line connections for leaks.

(c) Examine the reservoir drain system for condition, security, correct drain valve rigging, and correct operation of the drain valve.

(d) Remove the plug from the drain line opening.

(2) Examine the metal fuel lines, manifold, vent lines, and drain lines in the tank area for condition, security, and signs of leakage.

NOTE: The auxiliary fuel pump seal drain line is not installed on airplanes with the Airborne pump installed.

(3) Examine the seals where fuel and vent lines go through the structure for condition and security.

(4) Examine the rubber hoses (7 each) and the hose clamps for condition, leaks, deterioration, and security.

(5) Examine the fuel pressure switch and the auxiliary pump relay for condition, security, correct wire routing, chafing of wires, and leaks at the pressure switch.

CAUTION: Before you remove fuselage access panel 253AC, make sure that all residual fuel is drained.

(6) Remove fuselage access cover 253AC. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

(7) Examine the reservoir tank for condition, leaks, and security of installation

(8) Examine the reservoir tank mounting brackets and attachment structure for condition, cracks, corrosion, and security.

(9) Examine the auxiliary fuel pump, ejector boost pump, and plumbing for condition and security.

(10) Examine the swing check valves for condition, security, and freedom of movement from the closed to the open position.

(11) Examine the interior paint primer to make sure that it is not peeled, blistered, or separated from the surfaces of the reservoir.

(a) If loose primer is found, find the cause and correct it. Refer to Fuel Tanks - Maintenance Practices.

1 If no paint primer particles are found, no further action is necessary.

F. Restore Access

(1) Install fuselage access cover 253AC. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

(2) Install lower wing fuel access panels 521AB, 521BB, 521DB, 521EB left, and 621AB, 621BB, 621DB and 621EB right. Refer to Chapter 6, Access Plates and Panels Identification - Description and Operation.

CAUTION: Be careful to not separate the wing skin doubler from the wing skin.

(a) Purge the fuel tanks. Refer to Chapter 12, Fuel – Servicing.

(3) Refuel the airplane. Refer to Chapter 12, Fuel – Servicing.

END OF TASK