FUEL SYSTEM - MAINTENANCE PRACTICES

1. General

A. Fuel system maintenance practices consist of defueling and fuel bay purging.

2. Precautions

- A. Always ground airplane before performing any maintenance on fuel system.
- B. Control drainage of residual fuel from disconnected fuel lines and hoses.
- C. Ensure battery switch is turned OFF when performing maintenance on fuel system, unless otherwise specified.

NOTE: Plugs or caps should be installed on lines, hoses, and fittings to prevent thread damage and contamination).

- D. Use thread compound, Antisieze, Graphite Petrolatum (MIL-T-5544) or equivalent to lubricate, and/or seal leaking connections. Apply sparingly to male fittings, keeping compound off first two threads. DO NOT allow compound to enter fuel system.
- E. Before repairing fuel leaks or performing any maintenance on integral fuel tanks, it may be necessary to defuel airplane.

3. Defueling

NOTE: Drain valve poppet O-ring replacement can be performed, without defueling the airplane. Refer to Chapter 28, Fuel Tanks - Maintenance Practices.

WARNING: During all fuel system servicing procedures, fire fighting equipment must be available. Two ground wires from TLE-down rings on the airplane to approved ground stakes shall be used to prevent accidental disconnection of one ground wire. Make sure battery switch is turned off, unless otherwise specified.

A. Defuel airplane.

- (1) Ground airplane to a suitable ground or stake.
- (2) Ensure battery switch is turned OFF.
- (3) Turn fuel selector valves OFF.
- (4) Remove filler cap(s) from tank(s) to be defueled; insert defueling nozzle.
- (5) Remove as much fuel as possible with defueling nozzle.
- (6) Remove drain valves from bottom of fuel tank and drain remaining fuel.

4. Fuel Bay Purging

WARNING: Purge fuel tank(s) with argon or carbon dioxide prior to repairing leaks to minimize possibility of explosion. Use a portable vapor detector to determine when it is safe to repair fuel tank(s).

A. Purge Fuel Bays.

- (1) Ground airplane to suitable ground or stake.
- (2) Ensure battery is disconnected from electrical system.
- (3) Drain all fuel from tank(s).
- (4) Remove access door and place inert gas supply hose in fuel tank.
- (5) Allow gas to flow into tank until fuel vapor can not be detected. Non-sparking tools shall be used to make repairs (air motors, plastic hammers and scrapers, etc.)

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