

SERVICE BULLETIN

Compliance Will Enhance Safety

CATEGORY 3
SB99-8A

Supersedes SB99-8
 TECHNICAL PORTIONS
FAA APPROVED

- SUBJECT:** Engine Fuel Injection System Preservation
- PURPOSE:** Purging preservative fluid from fuel injection systems
- COMPLIANCE:** During engine installation, prior to first engine start
- MODELS**
- AFFECTED:** All New and Rebuilt AVGAS Fuel Injected Engines

I. Background Information

Continental Motors, Inc. (CMI) purges and preserves the fuel injection system on all fuel injected engines prior to shipment from the factory using MIL-PRF-6081D Grade 1010 preservation fluid.

This Service Bulletin provides instructions for purging preservative fluids from the engine fuel injection system during engine installation and prior to the first engine start.

II. Procedures

In addition to the “Preparation for Service Instructions” provided in the applicable engine Maintenance Manual you must perform the following purge procedure:

A. Purging Fuel Pump

1. Remove the shipping plugs installed in the lower spark plug holes of all cylinders and, by hand, turn the crankshaft through at least two complete revolutions in order to purge the preservative oil from the cylinders.
2. Remove the shipping cap installed on the inlet fitting of the engine driven fuel pump. Drain any preservation oil present into an approved container.
3. Reinstall the shipping cap on the inlet fitting to prevent debris from entering the fuel pump during engine installation.

B. Purging Fuel System

In addition to the “Preparation for Service Instructions” provided in the applicable engine Maintenance Manual perform the following maintenance procedure:

1. Disconnect the inlet end of the fuel supply hose from the fuel manifold valve.
2. Clean the aircraft fuel system strainer in accordance with the manufacturer’s instructions.
3. Connect a sufficient length of an appropriate matching size hose to the disconnected fuel manifold supply hose using an AN union fitting. Terminate the open end of the newly added hose in an approved Type 1 flammable fluid container that is properly grounded.

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WARNING

Position the ignition switch to the OFF position. Disconnect engine electrical power and confirm continuity between the magneto capacitor (“P” lead terminal) and aircraft ground prior to performing visual inspections or commencing maintenance to avoid uncommanded engine starts. Stand clear of the propeller arc prior to proceeding and DO NOT stand or place equipment within the arc of the propeller.

4. While holding the connected hose in step (B.3.) above in the approved container, have an assistant turn the aircraft master switch to the **ON** position.
5. Place the mixture control to **FULL RICH** and the throttle to **FULL OPEN**.
6. Turn the aircraft boost pump to the **ON** position.
7. Continue to operate the aircraft boost pump until the preservation fluid has been purged from the fuel system; approximately one (1) minute to allow a minimum of (1) gallon of fuel to flow through the hose.
8. Turn the aircraft boost pump and master switch to the **OFF** position.
9. Close the mixture and throttle controls.
10. Remove the added hose and AN union installed in step (B.3.) from the fuel manifold valve supply hose.
11. Connect the fuel manifold valve fuel supply hose to the inlet fitting on the manifold valve and torque the fuel hose “B” nut to the value specified in latest revision of SB96-7.
12. Place approved containers at the induction system drain locations to collect fuel as it is drained overboard during the following procedure.
13. Have an assistant turn the aircraft master switch to the **ON** position.
14. With the mixture control in **FULL RICH** and the throttle control **1/4 OPEN**, turn the aircraft boost pump to the **ON** position.
15. Visually inspect all fuel injection system lines, hoses, and fitting for evidence of fuel leakage.
16. Place the mixture control to **IDLE CUT-OFF** and **CLOSE** the throttle.
17. Turn the aircraft fuel boost pump switch **OFF**.
18. Turn the aircraft master switch **OFF**.
19. Correct any discrepancies noted.
20. Properly dispose of the fuel/oil mixture in accordance with Federal and State Regulations.
21. Reconnect disconnected electrical equipment when required.

C. Engine Start-Up

Perform a normal engine start in accordance with the aircraft manufacturers POH / AFM.

NOTE: There may be a small amount of preservation oil remaining in the cylinders, induction system and fuel nozzles lines resulting in minor visible smoke emitting from the exhaust immediately after the initial engine start.

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