

Proper Servicing of the Fuel Screens on Enstrom F Series Piston Engine Helicopters

Proper cleaning of the fuel filter assembly: reference page MM-13-85 para. (4) of the F28F and 280F Series Maintenance Manual.

- (4) Fuel Filter Assembly Cleaning
 - (a) Clean all housing parts with a suitable solvent.

<u>NOTE</u>: Pay particular attention to fittings and passageways within housing body.

- (b) Clean interior and exterior surfaces of housing with solvent and fine bristle brush.
 - <u>CAUTION</u>: Damage to filter can occur if excessive force is used during cleaning.
- (c) Check that screen assembly fits tightly into upper housing assembly and is not loose.

(d) Check to ensure that the screen securing pin is properly installed. The securing pin must be installed so that the curved portion is between the straight section and the screen bottom.

The curved section of the pin must be installed between the straight section of the pin and the base of the screen and the curved tail of the pin must be tucked under the straight section of the pin. The screen assembly must be checked for looseness and must fit tightly into the filter base.

Figure 1
Correct installation of pin.





Figure 2 Incorrect Installation; tail of pin is installed overtop of straight section.

Figure 3
Incorrect installation; curved section of pin is installed overtop of straight section.

(e) It is normally not necessary to remove the screen from the filter assembly for cleaning unless blockage is suspected. Gently blow the screen dry with compressed air.

<u>CAUTION</u>: Damage to filter can occur if excessive force is used during cleaning.

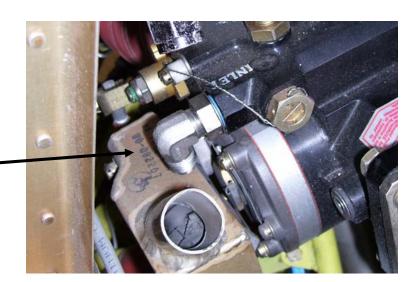
- (5) Fuel Filter Housing Assembly
 - (a) If removed, install filter assembly.
 - (b) Secure filter with pin. Take care that the curved portions of the pin are installed between the bottom cap of the filter and the straight section of the pin and that the curved section of the pin tail is tucked under the straight section of the pin.
 - (c) Check to ensure that the screen fits tightly into the filter assembly top cap with no looseness.
 - (d) Install gasket in top cover.
 - (e) Install gasket in bottom cover.
 - (f) Install outer body and end cap on assembly.

NOTE: Align drain port on end cap with the hole in the engine quarter panel.

- (g) Swing retaining bracket under the assembly and align the bolt with the recess in the end cap.
- (h) Secure assembly by tightening retaining bracket bolt and safety wiring bolt to bracket.

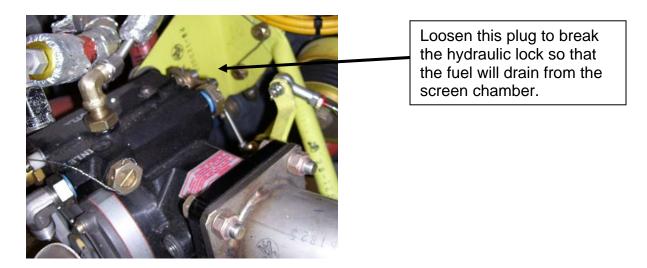
Proper cleaning of the fuel servo screen: reference page MM-13-41 para. (G) of the F28F and 280F Series Maintenance Manual.

- G. Fuel Servo Screen
 - (1) Servo Screen Removal (See Fig. 13-4)
 - (a) Turn off the I main fuel valve.
 - (b) Disconnect and cap the fuel inlet line.
 - (c) Loosen check nut on fuel inlet elbow and place a container the inlet fitting to catch fuel that drains from it.
 - (d) Turn elbow so that it is pointing down.

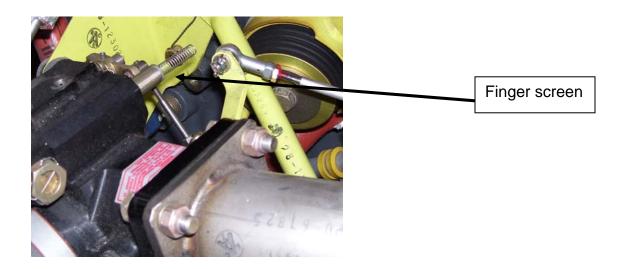


Inlet fitting turned so that it points down.

(e) Cut the safety wire and loosen the plug that is installed in the servo at the opposite end of the screen. When the hydraulic lock is released by loosening the plug, the remaining fuel inside the screen chamber will drain from the inlet plug.



(f) Remove the plug on the back side of the servo, and carefully withdraw the screen.



(2) Servo Screen – Cleaning

Refer to Bendix Overhaul Manual for RSA-AB1 Fuel Injectors. Form 15-419.

- (3) Servo Screen Installation (See fig. 13-4)
 - (a) Insert screen into injector body. The spring should be towards the tail of the helicopter. Twist the spring carefully and insure that the screen penetrates into the inlet fitting.
 - (b) Install the plug, torque and safety.
 - (c) Turn the inlet fitting back so that the fuel line can be attached.
 - (d) Torque the check nut on the inlet fitting.
 - (e) Torque the inlet line to the inlet fitting.
 - (f) Turn on the main fuel valve and check for leaks.