



Service Bulletin SB0050

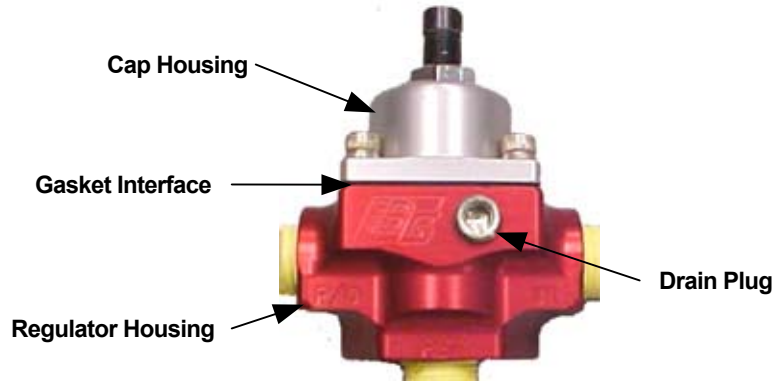
Date: February 2003
From: Capstone Technical Support
Subject: Pressure Regulator Replacement – Model C30 Liquid Fuel

Systems Affected

All Model C30 MicroTurbines equipped with an Enhanced Liquid Fuel System (also known as Enhanced Liquid Operating Range or “ELOR”) Boost Pump and Filter assemblies. The serial numbers of new builds known to be affected are: 2568-2570, 2573-2577, 2593, 2594, 2633, 2634, 2637-2641, 2649, 2654, 2655, 2660, 2661 and 2680. ELOR and HELOR retrofit kits 513883, 514935, 514936 and 514541 are also affected by this change.

Description of Problem

The Pressure Regulator currently installed on ELOR upgrades was found to be suspect for leakage through the body of the cap housing. This leakage occurs at the gasket interface between the regulator and cap housing. This small fuel leakage may prevent the filter assembly from performing as intended, as well as requiring occasional fuel cleanup.



Pressure Regulator Assembly
(513771)

As a recommended solution, Capstone is providing a kit containing the remanufactured pressure regulator, fittings, and flex hose. The flex hose (514083) is intended as a replacement part for earlier kits shipped with a rigid tube (513621).

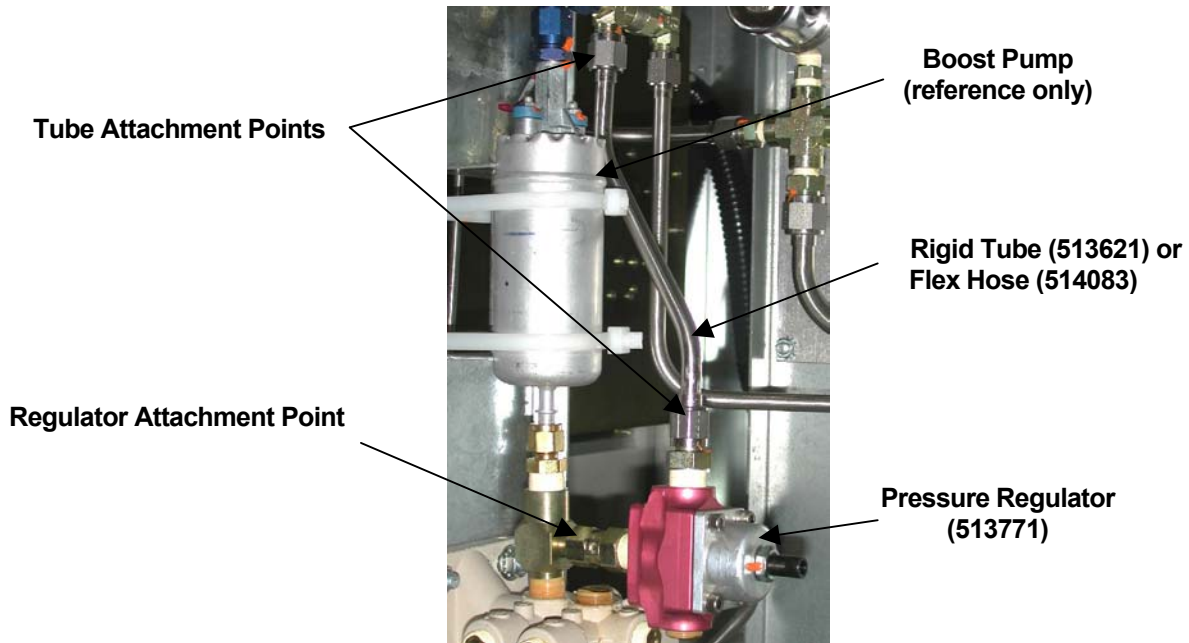
Replacement Kit Parts	Part Number
Pressure Regulator Assembly	513771-00X
Flex Hose, Boost Pump Assembly	514083-00X

Recommended Actions

Perform the following actions to replace the existing pressure regulator:

NOTE: Estimated completion time to perform this procedure is 25 -30 minutes.

1. Capstone Technical Support will supply a replacement kit containing a pressure regulator and flex hose.



2. Clean all connections with degreaser and make sure connections are free of dirt and debris. Wipe tube fittings with cloth to eliminate the possibility of introducing contaminants in the fuel system.

WARNING: Avoid removing any protective caps from the pressure regulator and flex hose until installation to eliminate the possibility of introducing contaminants, which may cause clogged fuel injectors, leading to system failures.

3. Verify fuel source is shut off and open the drain valve on the fuel filter bowl. Place a drain tray under the filter assembly to capture any liquid spillage. Use latex gloves to prevent fuel from accidentally spilling on hands.



4. Remove the 3/16-inch drain plug on side of regulator body (see location on page 1) to purge the return line and regulator of fuel.

5. Detach the connecting rigid tube (513621) from the boost pump outlet to pressure regulator using an 11/16-inch open-ended wrench for the nut, and a 3/4-inch open-ended wrench for support on the lower adjacent fitting.

NOTE: Newer ELOR kits installed in the field utilize a flex hose (514083). If a flex hose is currently installed, loosen only the bottom nut of the hose to allow removal of the pressure regulator.

6. Detach the pressure regulator by loosening the swivel nut with an 11/16-inch open-ended wrench. Use a 3/4-inch open-ended wrench for support on the adjacent fitting.

CAUTION: Regulator contains residual fuel in lower body that may spill upon removal.

7. Examine the contents of the replacement kit, and verify that an “R” is stamped on the regulator and that protective red caps are in place.



**Pressure Regulator
(513771)**



**Flex Hose
(514083)**

8. Re-tighten the drain valve on the filter bowl.
9. If a rigid connecting tube previously existed, install the new flex hose (514083) at the boost pump outlet using an 11/16-inch open-ended wrench to secure the tube.
10. Install the new pressure regulator (513771) into the bottom end of the flex hose, and into the adjacent fitting at the top of the filter. Using a 3/4-inch open-ended wrench for support on the fitting, tighten the nut using an 11/16-inch open-ended wrench.
11. Open fuel source and prime fuel system to verify that there are no leaks in the system. Refer to the Enhanced Liquid Fuel Technical Reference (410017) for details.
12. Complete a Field Service Report documenting replacement of pressure regulator.

Responsibility

It is the responsibility of Capstone to provide work instructions contained within this document to the Authorized Service Providers.

It is the responsibility of the Capstone to provide the replacement kit to Authorized Service Providers free of cost, and pay two hours in repair time.

It is the responsibility of the Authorized Service Providers to schedule the upgrade and provide Capstone with a Field Service Report upon completion.

Capstone Technical Support

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