



SCHWEIZER SERVICE BULLETIN

B-266
15 Oct 1996

MANDATORY

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SUBJECT: TEXTRON LYCOMING SERVICE BULLETIN NO. 525

MODELS AFFECTED: All Model 269A, TH-55A, 269A-1, 269B, and 269C Helicopters equipped with fuel pump listed under MODELS AFFECTED in subject Service Bulletin

TIME OF COMPLIANCE: ● As specified under TIME OF COMPLIANCE in subject Service Bulletin or prior to 01 Jan 1997, whichever occurs first.

- Affected Spares; prior to installation on helicopter or prior to 01 Jan 1997, whichever occurs first.

REFERENCE: Attached copy of TEXTRON Lycoming Service Bulletin No. 525, Inspection of High Pressure Fuel Pump, dated September 3, 1996 (or current revision)

PREFACE: ● Refer to TIME OF COMPLIANCE in subject Service Bulletin

- Failure to comply with this Service Bulletin may lead to loss of control of the helicopter and subsequent serious injury, death and/or property damage.

PROCEDURE:

- Perform all procedures specified in subject Service Bulletin.
- Record compliance with this Service Bulletin (B-266) in the aircraft/engine records.

WEIGHT AND BALANCE

Weight and balance are not affected.

MANDATORY
SERVICE BULLETIN

DATE: September 3, 1996 Service Bulletin No. 525
Engineering Aspects are
FAA Approved

SUBJECT: Inspection of High Pressure Fuel Pump P/N LW-15473

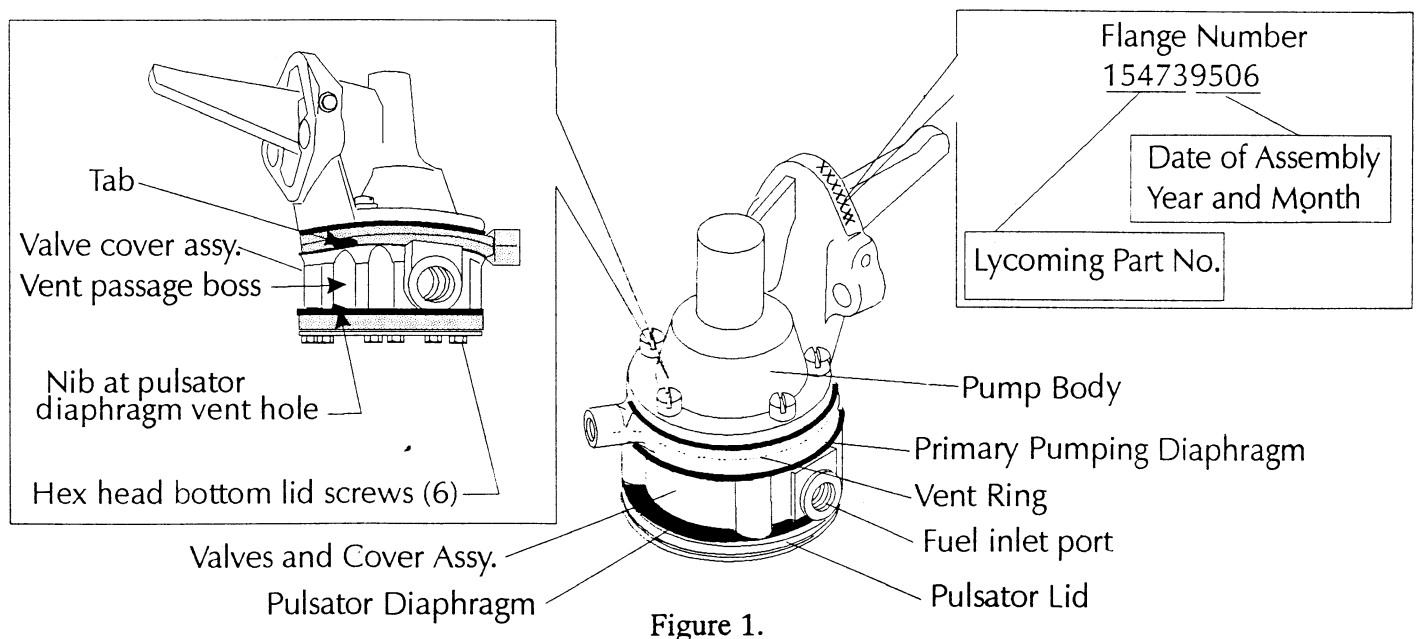
MODELS AFFECTED: New, remanufactured and overhauled fuel injected engines from Textron Lycoming with P/N LW-15473 fuel pumps shipped between 7/18/95 and 8/14/96 inclusive. Models included are (L) IO-320, 360, 540; AEIO-320, 360, 540; HIO-360, TO-360 and O-540-L.

Diaphragm fuel pumps P/N LW-15473 purchased between 7/18/95 and 8/14/96 inclusive.

TIME OF COMPLIANCE: Before further flight of the aircraft.

Textron Lycoming has determined that a number of high pressure fuel pumps, P/N LW-15473, manufactured between June and October of 1995 may have manufacturing defects that may result in engine stoppage. Several instances have occurred where the retaining washer gasket has become separated from the pull rod assembly and lodged in the pump outlet valve restricting fuel flow.

If your Textron Lycoming engine has a P/N LW-15473 high pressure fuel pump installed, with identification/date code scribed on the pump as 154739506, 154739507 or 154739510, it must be inspected, as follows, before further flight of your aircraft.



DIAPHRAGM FUEL PUMP INSPECTION PROCEDURE

1. Remove the fuel pump from the engine.
2. With a felt tip marker, make a line down the side of the pump assembly at the vent passage boss (Refer to Figure 1) to aid in part alignment for subsequent reassembly.
3. Completely loosen but do not remove the six hex head bottom lid screws and remove the entire bottom section of the pump as a unit assembly including the lid screws and valve cover assembly. (Refer to Figure 1.) Set this unit assembly aside for later examination (step 7).
4. Visually inspect for proper location and retention of the gasket in the pull rod/diaphragm assembly. (Refer to Figure 2.) If the gasket is not found to be between the retaining washer and diaphragm protector or it protrudes more than 1/16 inch beyond the retaining washer at any point, the pump is unserviceable and must be replaced.
5. Using vernier or dial calipers, measure the expanded diameter of the pull rod section immediately next to the retaining washer (larger copper plated diameter). If this diameter measures less than .275 inches, the pump assembly is unserviceable and must be replaced.
6. Visually inspect the primary pumping diaphragm for cracks or tears. If the diaphragm is cracked or torn, the pump is unserviceable and must be replaced.
7. Examine the pulsator diaphragm from the unit assembly set aside in step 3, (Refer to Figure 1) as follows:
 - a. Remove the valves and cover assembly from the six hex head retaining screws and remove the diaphragm.
 - b. Carefully examine the pulsator diaphragm for cracks and/or separation of the rubber elastomer from the fabric reinforcement, particularly at the clamped periphery of the diaphragm. A diaphragm showing cracks, perforation or separation should be replaced. The replacement diaphragm, P/N 6414698, can be obtained by contacting a Textron Lycoming distributor.

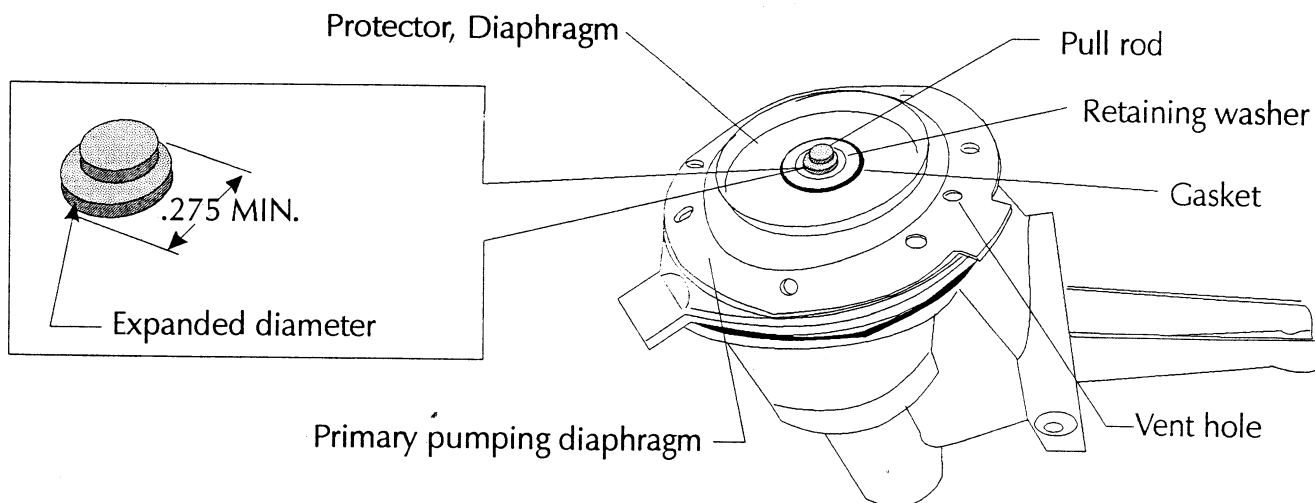


Figure 2.

REASSEMBLY PROCEDURE

NOTE: Be sure all parts are thoroughly clean prior to reassembly of the fuel pump.

8. Place the pulsator diaphragm over the pulsator lid, aligning the small hole near the diaphragm periphery with the lid chamber vent hole. (Refer to Figure 3.)
9. Place the valve cover assembly on the diaphragm, aligning the vent passage with the diaphragm and lid vent holes.
10. Using the alignment mark made in step 2 as a guide, reassemble the “unit assembly” to the pump body observing the correct orientation of the fuel ports. The valves and cover assembly vent passage must align with the tab on the primary pumping diaphragm. (Refer to Figure 1.) Looking at the pump from the rear as installed on the engine, the fuel inlet port is on the right. Torque the six hex head lid screws alternately and evenly until a torque value of 30 inch pounds is obtained.

COMPLIANCE IDENTIFICATION AND REINSTALLATION

11. To identify that this examination was accomplished on the pump assembly, mark an “A” by metal stamp or scribe on the pump mounting flange immediately before the flange number (Refer to Figure 1.) If necessary due to space constraints, the “A” may be located just above the rocker shaft pin. An entry in the engine and/or aircraft log book should also be made.
 12. If the pump was removed for examination, reinstall it per standard practice according to the appropriate Overhaul Manual. Examine the port fitting “o” ring seals and the mounting flange gasket, replace if necessary.
- Once the pump is reinstalled on the engine, run the engine on the ground and inspect the pump and fuel lines for fuel leaks.

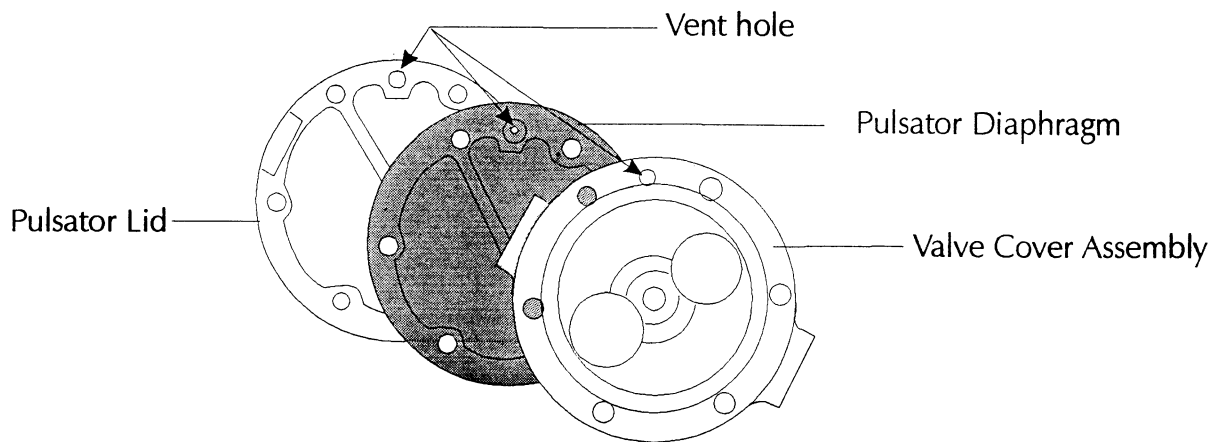


Figure 3.

WARRANTY:

LABOR: A labor allowance of 1/2 hour will be provided to inspect and identify the fuel pump date code including removal and replacement of the cowling. An additional 2 hour labor allowance will be provided for inspection and/or replacement of the affected fuel pumps.

MATERIAL: If required by inspection, one (1) replacement pulsator diaphragm, P/N 6414698, or one (1) each replacement fuel pump, P/N LW-15473, through a Textron Lycoming Distributor. Unserviceable pumps must be returned to Textron Lycoming in accordance with the warranty procedure.

This warranty allowance will be in effect for one year from the date of this Service Bulletin.