LYCOMING

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SERVICE INSTRUCTION

DATE: March 9, 2011

Service Instruction No. 1489C
(Supersedes Service Instruction No. 1489B)
Engineering Aspects are
FAA (DER) Approved

SUBJECT: Fuel Manifold Spring Change

MODELS AFFECTED: IO-360-L2A model engines installed in Cessna 172R and 172S aircraft; IO-540-AB1A5 model engines installed in Cessna 182 aircraft; IO-540-AC1A5 model engines installed in Cessna 206 aircraft; TIO-540-AJ1A model engines installed in Cessna T206 aircraft with a 2 psi fuel flow divider spring (with detail P/N 2576532-1 or 2576556-1 marked on top of cover).

TIME OF COMPLIANCE: At owner's discretion.

NOTE

Incomplete review of all the information in this document can cause errors. Read the entire Service Instruction to make sure you have a complete understanding of the requirements.

This Service Instruction identifies a new 4 psi flow divider spring Precision P/N 2577011 that is available as a replacement for the 2 psi flow divider spring for improved idle characteristics, especially in hot weather, for Lycoming engine models IO-360-L2A, IO-540-AB1A5, IO-540-AC1A5, and TIO-540-AJ1A. This Service Instruction is NOT a substitute for adjusting the fuel system and idle RPM. A check of the fuel adjustment must be done after the spring is installed.

To replace the flow divider spring:

1. Remove the top cowling.
2. Open the flow divider cover by removing the safety wire and the four screws that attach the top of the flow divider.
3. Carefully remove the cover of the flow divider. Use care not to damage the diaphragm. Do not remove the diaphragm from the body. Do not let the diaphragm rotate in the body.
4. Remove the spring above the diaphragm. Discard the spring.
5. Install the new 4 psi Precision flow divider spring P/N 2577011 on top of the diaphragm. Make sure the spring is installed in the metal cup on top of the diaphragm.

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6. Install the cover in the same position it was removed using the four screws. Torque the four screws 20 to 30 in.-lb. (2.6 to 3.4 Nm). After 20 minutes, re-torque the screws 20 to 30 in.-lb. (2.6 to 3.4 Nm).
7. Use a vibropeen tool and make a “4 psi” etch mark next to the Precision part number on the cover of the flow divider.
8. Safety the four cover screws with a single strand of 0.025 in. (0.64 mm) lockwire. The lockwire must pull screws clockwise, twisted only at the ends.
9. Start the engine and operate it to specified operating temperatures. Do a visual leak check.
10. Do a check of the idle speed and mixture; set to Cessna specified idle speed and mixture values if necessary.
11. Enter compliance with this Service Instruction in the airframe and/or maintenance logbook.