

MANDATORY SERVICE BULLETIN

DATE: August 16, 2016

Service Bulletin No. 518D
(Supersedes Service Bulletin No. 518C)
Engineering Aspects are
FAA Approved

SUBJECT: Inspection of Thermostatic Oil Cooler Bypass Valves

MODELS AFFECTED: All Lycoming engines with thermostatic oil cooler bypass valves:

- Part number (P/N) 53E19600 (with thermostatic oil cooler bypass valve serial numbers less than 53788),
- P/N 75944, P/N LW-13230, and P/N 53E19980 (with thermostatic oil cooler bypass valve serial numbers less than 159)

TIME OF COMPLIANCE: At the next oil change, not to exceed 50 hours, then annually thereafter

REASON FOR REVISION: Identified new superseding thermostatic oil cooler bypass valve and updated corrective action after inspection; valve rework/repair is no longer allowed.

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

This Service Bulletin contains instructions for a mandatory inspection of the crimp nut on the thermostatic oil cooler bypass valve on affected Lycoming engine models. This required inspection is in response to field reports of loose crimp nuts that can drop into the engine and cause engine damage. The required inspection herein ensures that the crimp nut (Figure 1) is securely seated on the shaft.

The inspection is to be done on affected thermostatic oil cooler bypass valves at the next oil change, not to exceed 50 hours, with subsequent annual inspection thereafter.

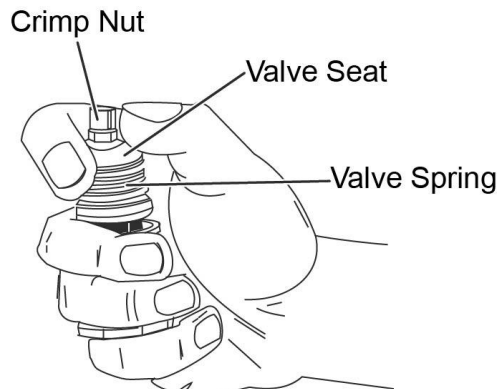


Figure 1
Compression of Valve Spring for
Thermostatic Oil Cooler Bypass Valve Inspection

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Inspection Procedure

NOTICE: This inspection is to be done on all thermostatic oil cooler bypass valves in spares inventory and on those installed on affected Lycoming engines models.

1. Remove the thermostatic oil cooler bypass valve from the engine or your spares inventory.
2. Hold the thermostatic oil cooler bypass valve and compress the valve spring with the forefinger and thumb (as shown in Figure 1) to separate the valve seat and retaining nut.
3. Grasp the crimp nut with the other hand and try to move the crimp nut.
 - A. If the crimp nut does not move, the thermostatic oil cooler bypass valve is acceptable and can be used.

NOTICE: Lycoming Engines no longer allows rework or repair of a thermostatic oil cooler bypass valve. Replace the valve if it does not pass inspection.

- B. If the crimp nut moves, replace the thermostatic oil cooler bypass valve with a serviceable superseding thermostatic oil cooler bypass valve part number identified in the latest revision of Service Instruction No. 1565. Do not install any other bypass valve.

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