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SERVICE INSTRUCTION

DATE: August 03, 2018

Service Instruction No. 1570A
(Supersedes Service Instruction No. 1570)
Engineering Aspects are
FAA-Approved

SUBJECT: Alternate Oil Sump Fitting Configuration for Aerobatic Inverted Oil System

MODELS AFFECTED: IO-540-K1K5 Engines Installed in ENAER T-35 Pillan Aircraft

TIME OF COMPLIANCE: As required by the aircraft manufacturer, based on parts availability*

REASON FOR REVISION Added additional section detailing the Servicing of Engine Oil

NOTICE: 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 an alternate configuration for the fittings and plugs installed in the oil sump.

Parts Required for Alternate Oil Sump Fitting Configuration:

Description	Part Number	Quantity per Engine
Oil Sump Strainer Fitting	LW-13753	1
Plug	LW-12545	1
Gasket	06E19769-1.00	1
Oil Hose (correct length and diameter for the alternate oil sump fitting configuration)	*Supplied by the aircraft manufacturer	1

Alternate Oil Sump Fitting Configuration Instructions

1. Drain the oil from the oil sump per instructions in the applicable Lycoming manual.
2. Disconnect the oil hose from the bottom port on the 3-way valve of the inverted oil system per the aircraft manufacturer's instructions.
3. Disconnect the oil hose (Figure 1) from the oil sump suction screen assembly on the left side of the oil sump. Discard the oil hose.



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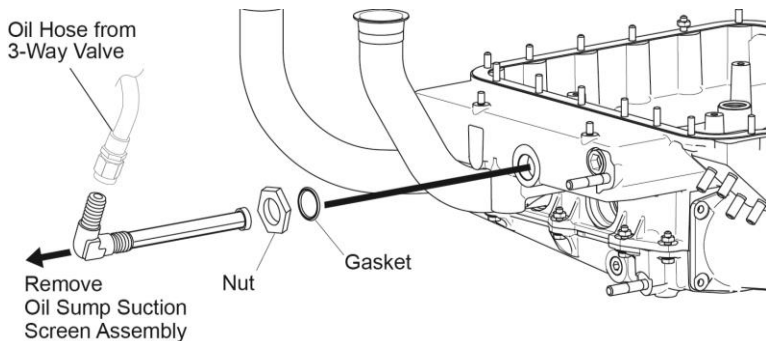


Figure 1

Oil Sump Suction Screen Assembly

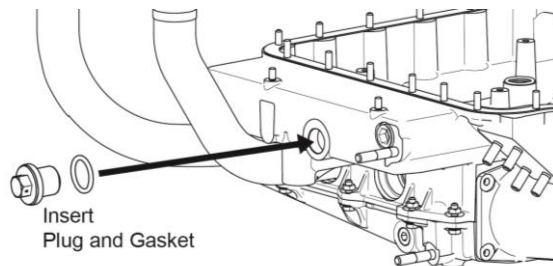


Figure 2

Plug and Gasket

4. Remove and discard the safety wire/cable from the oil sump suction screen assembly then remove and discard the oil sump suction screen assembly, nut, and gasket from the oil sump.
5. Apply food grade anti-seize or equivalent to the first three threads of the plug (P/N 12545).
6. Install the plug and gasket (P/N 06E19769-1.00) in the threaded hole where the oil sump suction screen assembly was removed (Figure 2).
7. Torque the plug in accordance with the latest revision of the *Service Table of Limits – SSP-1776*. Safety wire/cable the plug in accordance with the standard practices per the latest revision of AC43.13-1B or the latest revision of Service Instruction No. SI-1566.
8. If not already done, remove and discard the safety wire/cable from the oil drain plug on the right side of the oil sump then remove and discard the oil drain plug (Figure 3).

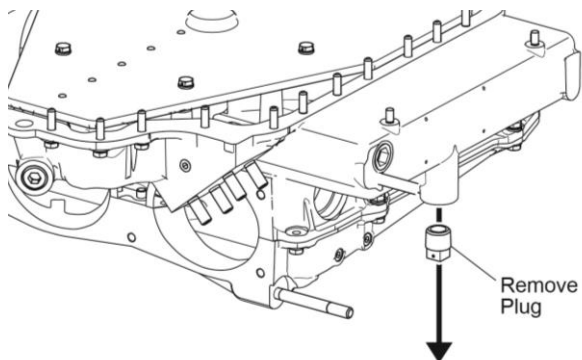


Figure 3
Oil Drain Plug

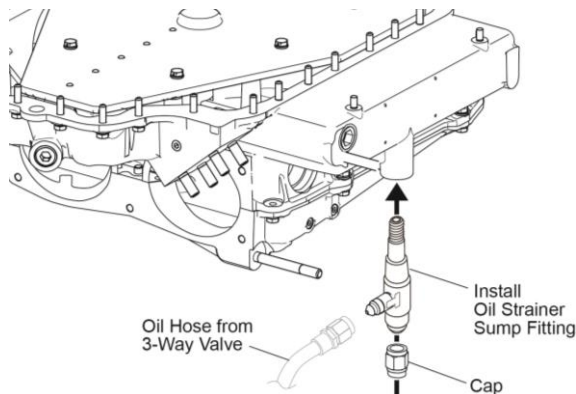


Figure 4
Oil Sump Strainer Fitting

9. Apply Loctite® 564 or equivalent to the first three threads of the oil sump strainer fitting.
10. Install the oil sump strainer fitting (P/N LW-13753) in the threaded hole where the oil drain plug was removed (Figure 4).

NOTICE: Make sure the fitting end that attaches to the oil hose is oriented toward the rear of the engine after final torque.

11. Torque the fitting in accordance with the latest revision of the *Service Table of Limits – SSP-1776*.

NOTICE: Ensure oil hose diameter, length, and routing for the inverted oil system are correct per the aircraft manufacturer’s specifications.

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12. Attach the new oil hose to the fitting end of the oil sump strainer fitting (Figure 4) and the bottom port on the 3-way valve of the inverted oil system per the aircraft manufacturer's instructions.
13. Make sure the cap on the oil sump strainer fitting (Figure 4) is installed correctly in accordance with instructions in the applicable Lycoming manual or aircraft manufacturer's manual. Safety wire/cable the cap in accordance with the standard practices per the latest revision of AC43.13-1B or the latest revision of Service Instruction No. SI-1566.
14. Fill the oil sump with oil per the applicable Lycoming manual.
15. Add oil to the inverted oil system per instructions from the aircraft manufacturer and inverted oil system manufacturer.
16. Operate the engine to ensure there are no oil leaks.
17. Record completion of the alternate oil sump fitting configuration in the engine logbook.

Servicing of Engine Oil

After this configuration change is accomplished, compliance with routine oil changes per the most current revision of Lycoming Service Bulletin 480 will be limited to inspection and replacement of the spin-on oil filter only.

NOTICE: Continue to inspect the spin-on oil filter for metallic solids as required in the most current revision of SB-480.

The LW-13753 Oil Sump Strainer Fitting is to be removed every 700 hours for inspection and cleaning. Reinstall Oil Sump Strainer fitting in accordance with instructions given in this Service Instruction.

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