



SUBJ: Fuel Control/Reciprocating Engines - Fuel Injector Tube Assembly
Installation and Inspection

SAIB: NE-07-49R1
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This is information only. Recommendations aren't mandatory.

Introduction

This **Revised** Special Airworthiness Information Bulletin (SAIB) alerts you, owners, operators, and certificated repair facilities of **Lycoming four, six, and eight cylinder reciprocating engines** of a potential problem that could result in not accomplishing a mandatory inspection. This SAIB advises that mandatory maintenance items for Lycoming engines can be found in different documents.

At this time, the airworthiness concern is not an unsafe condition that would warrant an airworthiness directive (AD) action under Title 14 of the Code of Federal Regulations (14 CFR) part 39.

Background

The correct installation and inspection of fuel injector lines on Lycoming engines has traditionally been described and pictured in various revisions of Lycoming Mandatory Service Bulletin (MSB) No. 342 and corresponding ADs. However, depending on the engine's certification basis, these same installation and inspection procedures may be documented in a Maintenance and Overhaul Manual (MOM) that has an Airworthiness Limitations Section (ALS) instead of in an AD.

The location of mandatory inspections is determined by an engine model's certification basis. When engines are certified to Federal Aviation Regulations (FARs), as the newly certified Lycoming engine models are, a specific engine manual with an ALS is required. The ALS is part of the original type design (14 CFR 21.31). You must comply with an ALS pursuant to 14 CFR 91.403(c). When engines were certified to Civil Air Regulations (CARs), as older Lycoming engine models were, a specific engine manual was not required and any mandatory inspections were provided in an AD. However, as Lycoming issues engine manuals for CAR-certified engines, these engine manuals will not have an ALS.

The type certificate (TC) number is the same as the type certificate data sheet (TCDS) number. This number is stamped on the engine's identification plate/ data plate. You can find the certification basis for your engine by following the recommendations in this SAIB.

The certification basis for an engine TCDS will be either CAR 13 or FAR 33. Note that the certification basis of all the engine models on a TCDS might not be the same, for example, TCDS No. 1E10, Revision No. 24 has the following entries:

| Certification Basis | Engine Model | Date |
|----------------------------|---------------------|---------------|
| CAR 13 | IO-360-M1A | May 11, 1999 |
| FAR 33 | LIO-360-M1A | Dec. 11, 2008 |

Note: For engines models that have a FAR 33 certification basis, mandatory inspections are contained in the ALS. For engine models that have a CAR 13 certification basis, mandatory inspections are contained in one or more ADs.

The mandatory inspection of the fuel lines and clamps for the IO-360-M1A engine (CAR 13) is located in Supplement No. 1 to Lycoming MSB No. 342G, mandated by AD 2015-19-07. The mandatory inspection of the fuel lines and clamps for the LIO-360-M1A engine (FAR 33) is located in the ALS (Section 05-00-00) of the LIO-360-M1A MOM.

You will find, for example, that for CAR-certified Lycoming engines, AD 2015-19-07 and Lycoming MSB No. 342G, Supplement 1, are still applicable. Any changes to type design in the area of the fuel injector lines and clamps would require approval of an alternative method of compliance to AD 2015-19-07.

Additionally, for FAR-certified Lycoming engines, the appropriate ALS is applicable. Any changes to type design in the area of the fuel injector lines and clamps require issuance of a Supplemental Type Certificate (STC).

Lycoming Service Letter L-114 lists engines with an MOM, however, not all MOMs have an ALS because Lycoming is in the process of issuing manuals for CAR-certified engines and these manuals will not have an ALS. The manuals might have a recommended maintenance list, but they will not have an ALS.

It is the responsibility of the installers of any equipment that is clamped to the fuel injector lines to ensure that engines modified in this manner have not had the fuel system integrity compromised by chafing or crimping a fuel line or by otherwise impacting the airworthiness by such installations.

Recommendations

The FAA recommends the following actions to ensure mandatory inspections are accomplished on Lycoming engines:

1. Inspect the engine identification plate/ data plate to determine the TCDS number of your engine. The TCDS number is the same as the TC number stamped on the engine's identification plate.
2. In the FAA Regulatory and Guidance Library located at <http://rgl/Regulatory and Guidance Library/rgwebcomponents.nsf>, select "Type Certificate Data Sheets". Enter the TCDS/TC number in the "Search" box, and select "Go". Open the resulting TCDS document and scroll down to the "Certification Basis". You will find your engine listed as either CAR 13 or FAR 33, and this will determine if mandatory inspections are in an ALS or one or more ADs.

For Further Information Contact

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