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## SERVICE INSTRUCTION

DATE: November 22, 2021

Service Instruction No. 1582A (Supersedes Service Instruction No. 1582) Engineering Aspects are FAA Approved

SUBJECT: Fuel Injector Replacement
MODELS AFFECTED: Lycoming TEO-540-C1A

TIME OF COMPLIANCE: At the first replacement of Fuel Injector P/N 61X26294-CT

REASON FOR REVISION: Updated the components included in Service Kit P/N 05K29769. Added new

section Installation of Fire Sleeves (01M29868 and 01M29869)

**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 provides instruction and requirements when initially replacing fuel injectors P/N 61X26294-CT with fuel injectors P/N 61X29461-CT.

Fuel Injectors P/N 61X26294-CT have been obsoleted and are no longer being supplied as spares or installed on new, rebuilt, or overhauled engines shipped from the factory. When it is necessary to replace any of the obsoleted fuel injectors, all six fuel injectors must be replaced as a set with the superseding part number 61X29461-CT. Install the new fuel injectors, retainer clips, fire sleeves, injector adapters, and annular gaskets in accordance with instructions in the latest revision of the TEO-540-C1A Engine Maintenance Manual. This will also require an Engine Control Unit (ECU) upgrade (reflashing) in accordance with the latest revision of Service Instruction No. 1573.

Service Kit P/N 05K29769 is available to assist with the first installation of new fuel injectors when the ECU upgrade (reflashing) is required. This Service Kit includes:

- Six new replacement Fuel Injectors P/N 61X29461-CT
- Six new retainer clips P/N 03A29095-CT
- Four new fire sleeves P/N 01M29868
- Two new fire sleeves P/N 01M29869
- Six new injector adapters P/N 02E29797
- Six new annular gaskets P/N 06E19769-0.50

**NOTICE:** Service Kit P/N 05K29769 cannot be used without the ECU upgrade (reflashing).

For additional assistance and options for completing the ECU upgrade (reflashing), please contact Lycoming Engines Technical Support by phone at 570-327-7222 or 877-836-7878 or by email at <a href="mailto:Technicalsupport@lycoming.com">Technicalsupport@lycoming.com</a>. Please have the Engine Serial Number, ECU Serial Number and Engine Total Time available when contacting Technical Support.



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## Installation of Fire Sleeves (01M29868 and 01M29869)

**NOTICE:** Use of Fire Sleeves 01M29868 and 01M29869 allows for installation of fuel injectors on fuel rail, installation of fuel rail, and fuel leak check prior to installation of the fire sleeves.

## Fire Sleeve 01M29868 Installation:

- 1. Disconnect the wiring harness from the fuel injector (if connected) in accordance with instructions in the Wiring Harness Connectors section in Chapter 72-70 of the latest revision of the TEO-540-C1A Engine Maintenance Manual.
- 2. Insert the fuel injector connector through the rectangular cutout in the fire sleeve.
- 3. Wrap the fire sleeve around the injector. Ensure the fire sleeve overlaps itself.
- 4. Safety wire the fire sleeve in place. Use a double wrap of .032 diameter Type 302/304 stainless steel safety wire (soft temper) per MS20995 around the fire sleeve (Figure 1).
- 5. Connect the wiring harness to the fuel injector in accordance with instructions in the Wiring Harness Connectors section in Chapter 72-70 of the latest revision of the TEO-540-C1A Engine Maintenance Manual.



Figure 1
Fire Sleeve P/N 01M29868
(Installed on Fuel Injectors for Cylinders 1, 3, 4, and 6)



Figure 2
Fire Sleeve P/N 01M29869
(Installed on Fuel Injectors for Cylinders 2 and 5)

## Fire Sleeve 01M29869 Installation:

- 1. Disconnect the wiring harness from the fuel injector (if connected) in accordance with instructions in the Wiring Harness Connectors section in Chapter 72-70 of the latest revision of the TEO-540-C1A Engine Maintenance Manual.
- 2. Insert the fuel injector connector through the rectangular cutout in the fire sleeve.
- 3. Wrap the fire sleeve around the injector. Ensure the "U" shaped cutout fits under the fuel rail and the fire sleeve overlaps itself.
- 4. Safety wire the fire sleeve in place. Use a double wrap of .032 diameter Type 302/304 stainless steel safety wire (soft temper) per MS20995 around the fire sleeve (Figure 2).
- 5. Connect the wiring harness to the fuel injector in accordance with instructions in the Wiring Harness Connectors section in Chapter 72-70 of the latest revision of the TEO-540-C1A Engine Maintenance Manual.

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