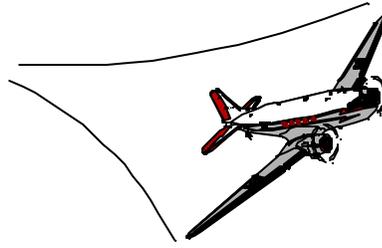


SPECIAL AIRWORTHINESS INFORMATION BULLETIN

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation

**Federal Aviation
Administration**

No. NE-01-17
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We post SAIBs on the internet at "av-info.faa.gov"

This is information only. Recommendations are not mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) alerts you an owner or operator of Teledyne Continental Motors (TCM) model GTSIO-520 series reciprocating engines of the recommendation for inspection of the starter adapter shaftgear and crankshaft gear.

Background

Thirty-four service difficulty reports since 1980 and one accident in 1999 indicate problems can develop with the starter adapter shaftgear and the crankshaft gear in the TCM GTSIO-520 series engines. Engine failure can occur if the starter adapter viscous damper becomes inoperative due to overheating or other causes. Continued operation of these engines with starter adapter viscous dampers that have been overheated can lead to distress and possible failure of the starter adapter shaftgear and/or crankshaft gear. Overheating of the viscous damper can be caused by exhaust gas leakage in the nacelle area and, in particular, the engine accessory section of the engine nacelle.

In addition, operation of a rough running engine as a result of, but not limited to, ignition system misfiring will cause overheating of the viscous damper. For purposes of this document, a rough running engine can be defined as one in which there are sudden/unusual airframe vibrations caused by the engine, possibly accompanied by fluctuations in engine RPM and/or manifold pressure, that can not be cleared by adjusting the mixture control.

TCM Critical Service Bulletin, CSB94-4D, issued on February 14, 2001, presents inspection procedures and intervals, as well as, replacement parts installation procedures to ensure that the condition of the components listed above is known.

Recommendation

Based on currently available information, we only recommend the following actions. However, we will continue this investigation and additional actions, such as issuance of an Airworthiness Directive may be warranted.

We recommend that all TCM GTSIO-520 series engines have the inspections and parts replacement as necessary, accomplished as described in TCM CSB94-4D. *To avoid confusion because of interlocking requirements* we highly recommend that you and especially **maintenance personnel**, read CSB94-4D carefully and completely prior to beginning work. Contact a TCM service representative if you have any confusion with the requirements.

The complete text of TCM CSB94-4D is available on the TCM website at: www.tcmlink.com. You can call the TCM Customer Service Department at (888) 200-7565 to obtain a copy of CSB94-4D. In addition, you can write the Service Department at: Teledyne Continental Motors, P.O. Box 90, Mobile, AL 36601.

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