



SAIB: NE-09-04

Date: January 12, 2009

SUBJ: Fuel Control/Reciprocating Engines

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) alerts repair stations, mechanics holding Inspection Authorization (IA), and Principal Maintenance Inspectors (PMI) in the Flight Standard District Offices (FSDO) of the potential of loose hex plugs in any **Precision Airmotive LLC RSA-5 series, RSA-10 series, or any Bendix RSA-5 series or RSA-10 series fuel injection servo** that meets the following criteria:

The servo was shipped on an engine, or installed as a spare, or repaired/overhauled before August 22, 2006; and

The brass hex plug, P/N 383493, does not have a letter "G" scribed or stamped on it.

These servos are installed on fuel injected Lycoming Engines IO, (L)IO, TIO, (L)TIO, AEIO, AIO, IGO, IVO, and HIO series reciprocating engines, regardless of displacement, Teledyne Continental Motors LTSIO-360-RB and TSIO-360-RB reciprocating engines, and Superior Air Parts, Inc. IO-360 series reciprocating engines.

At this time, there is no evidence to indicate that this airworthiness concern is an unsafe condition that would warrant airworthiness directive action under Title 14 of the Code of Federal Regulations (14 CFR) part 39.

Background

There have been two incidents pertaining to fuel injection servos installed on Lycoming engines in which the brass hex plug, P/N 383493, was found hanging by the safety wire, out of the hole, with damaged threads. A disengaged hex plug will cause improper scheduling of fuel flow and associated engine power loss. Emergency airworthiness directive (AD) 2008-06-51 was issued mandating inspection of all engines that had their servo replaced or worked on since August 22, 2006 and in which defective gaskets were installed under the hex plugs. To adopt the emergency AD as an amendment to 14 CFR part 39, we superseded it with AD 2008-08-14. An AD supersedure to incorporate a terminating action to the repetitive inspections of that AD will be forthcoming. While investigating the cause of the disengaged hex plugs, we were made aware of several instances of loose plugs on servos that did not have gaskets manufactured during the suspect time period. We determined that the gaskets addressed in this SAIB may allow the hex plugs to loosen, but we have no reports of these plugs coming out.

Recommendations

We recommend, as part of each normal annual inspection performed on all airplanes powered by the engines listed previously in this SAIB, you use Precision Airmotive Service Information Letter SIL RS-88, dated June 16, 2008 (attached) for the following:

We recommend that you inspect hex plugs in Precision Airmotive LLC RSA-5 and RSA-10 series, and Bendix, RSA-5 and RSA-10 series, fuel injection servos that meet the previously described criteria in this SAIB, for looseness, and if the plug is found to be secure, no further action would be required.

If the plug is found to be loose, we recommend you replace the hex plug gasket with gasket, P/N 2577258, and apply the increased installation torque using steps 1 through 10 of Precision Airmotive Service Information Letter SIL RS-88. We also recommend that you report plugs found loose, to Richard Simonson at the contact information below, unless otherwise reported.

For Further Information Contact

Richard Simonson, Aerospace Engineer, FAA, Seattle Aircraft Certification Office, 1601 Lind Ave. SW, Renton, WA 98055; e-mail: richard.simonson@faa.gov; telephone (425) 917-6507; fax (425) 917-6590.

For Related Service Information Contact

Precision Airmotive LLC, 14800 40th Avenue NE., Marysville, Washington 98271; telephone (360) 651-8282, or go to: <http://www.precisionairmotive.com>.