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SERVICE INSTRUCTION

DATE: August 22, 2008 Service Instruction No. 1520
Engineering Aspects are
FAA DER Approved

SUBJECT: Reprint of Precision Service Information Letter No. SIL RS-88

MODELS AFFECTED: Any Lycoming new, overhauled, rebuilt, or repaired (L)IO, AIO, HIO, IGO, IVO, (L)TIO, AEIO series engine with either a Precision Airmotive RSA-5 or RSA-10 series fuel injection servo which does NOT have a “G” marked on the regulator hex plug.

All Lycoming new, overhauled, rebuilt, or repaired (L)IO, AIO, HIO, IGO, IVO, (L)TIO, AEIO series engine with a Precision Airmotive Silverhawk EX Fuel Injection Kit which does NOT have a “G” marked on the regulator hex plug.

TIME OF COMPLIANCE: At the next maintenance event or at annual inspection, whichever occurs first.

Precision Service Information Letter No. SIL RS-88 is reprinted in its entirety as follows.

This reprint is current at the time Lycoming Service Instruction No. 1520 is issued. However, when complying with this Service Instruction, insure that compliance is in accordance with the latest revision of Precision Service Information Letter No. SIL RS-88.



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PRECISION
AIRMOTIVE LLC
Service Information
Letter - Fuel Systems

SIL RS-88
 SMALL RECIPROCATING ENGINES
 RSA-5 and RSA-10
 Issued: 6/16/08
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SUBJECT: Inspection of Regulator Hex Plug on RSA-5 and RSA-10 Fuel Injection Servos.

PURPOSE: To alert operators to potential service issues with regulator hex plugs on RSA-5 and RSA-10 Fuel Injection Servos.

- A. **EFFECTIVITY:** This Service Information Letter is applicable to all RSA-5 and RSA-10 servos which do NOT have a “G” marked on the regulator hex plug (see photograph page 2.).
- B. **DESCRIPTION:** Precision Airmotive LLC has received information from the FAA relating to our Service Bulletin PRS-107. In response to PRS-107, operators have reported to the FAA finding “loose” regulator hex plugs on fuel injection servos that do not appear to fall within the date range specified on that bulletin. Quantification of “loose” has been anecdotal in nature and it is therefore unknown how that determination was made. Nonetheless, to ensure safety, Precision recommends that the servos on all aircraft be inspected at each periodic inspection as set forth below.
- C. **DETAILED INSTRUCTIONS:** If your aircraft has an RSA-5 or RSA-10 fuel injection servo that is NOT marked with a “G” on the regulator hex plug, during each annual or other periodic inspection (but at least annually) the regulator hex plug on the fuel injection servo should be inspected to verify that it is not loose. The regulator hex plug is a 1” brass hex plug on the large round cover on the side of the fuel injection servo. (See photograph page 2.)

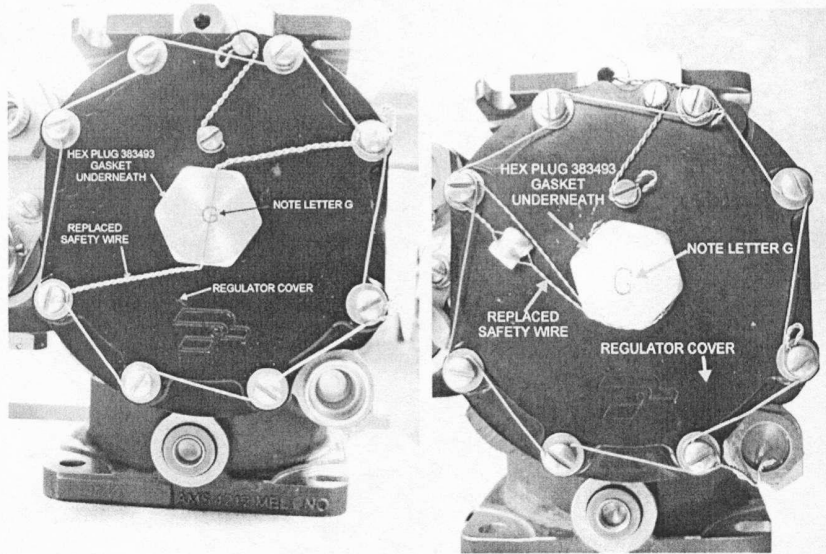
Determining if the plug is loose requires more than just a visual inspection. The inspection should be accomplished by attempting to move the plug with a single finger. Do not use a wrench, grip the plug, or in any other way apply significant torque to the plug. If the plug does not move, it is acceptable.

If the plug does move, one of the two following steps **must** be taken: (1) The servo can be removed and sent to a qualified repair station for repair, or (2) the servo can be repaired on the aircraft as follows:

1. Carefully cut and remove the safety wire that spans between the regulator hex plug and regulator cover only.
2. Remove hex plug.
3. Examine the threads on the hex plug and regulator cover for damage. Threads should not show signs of excessive wear. The hex plug outer diameter threads should also measure within .740-.750 inches. If the condition of the threads is suspect in any way, please contact Precision Airmotive Product Support.
4. If the threads on either the hex plug or regulator cover are excessively worn or don’t measure within the aforementioned dimensions the servo must be removed and sent to a qualified repair station for repair.
5. If the threads on both the hex plug and the regulator cover are acceptable, obtain a new gasket, Precision Airmotive part number 2577258. Discard the old gasket.

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6. Stamp or scribe the letter “G” onto the face of the hex plug as shown in the sample photos. This shall be done with the plug removed from the servo. DO NOT stamp the plug with it installed in the servo.
7. With an acceptable hex plug and an acceptable regulator cover and the new 2577258 gasket, install the gasket over the hex plug and install plug into the regulator cover. Torque the hex plug to 90-100 in-lbs.
8. The hex plug must be safety wired with .015 thru .025 inch diameter wire to the regulator cover as shown in the photos below. The wire shall pass thru the plug such that it pulls the plug in the tightened direction and does not rest on the corners of the hex on the plug (it is acceptable to wrap under the corners of the hex plug). These photos are just two examples of acceptable safety methods. Other safety wire methods such as those described in FAA AC 43-13-1B (or latest revision) are also acceptable.
9. Ensure that any other safety wire on the servo that may have been damaged when removing the hex plug safety wire is replaced.
10. Enter in the engine log book the date the 2577258 gasket was installed and a “G” was marked on the regulator hex plug per this Service Information Letter, SIL RS-88. Further inspections per this SIL are no longer required.



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