



Service Information Letter - Fuel Systems

**SUBJECT: Service Information For RSA-5 Series Fuel Injection Servos
Installed In Updraft Configuration.**

PURPOSE: To inform operators that the factory has received sporadic reports of thick, oily contamination in the air section of servo regulators.

Change 1: Revises applicability from aerobatic aircraft to updraft configuration.

- A. **EFFECTIVITY:** This Service Information Letter is applicable to all RSA-5AD1 and RSA-5AB1 fuel injection servos installed in updraft configuration.
- B. **REASON:** Precision Airmotive has received sporadic reports from the field of hard starting, rough idle, and poor acceleration on certain fuel injection servos. These servos are typically installed on Lycoming engines with the servo in the updraft configuration (mounted to the bottom of the sump). Disassembly of servos removed from these aircraft has occasionally revealed a red or blue/green, thick, oily residue behind the venturi and in the air section of the servo regulator. This contamination appears to enter the induction system and travel down the walls of the manifold where it can enter the servo through the venturi slots.
- C. **COMPLIANCE:** At owners discretion if symptoms in Paragraph D, **ACCOMPLISH INSTRUCTIONS**, are noted.
- D. **ACCOMPLISH INSTRUCTIONS:** Operators experiencing hard starting, rough idle, or poor acceleration, especially when the engine is cold, should inspect the interior of the intake manifold and venturi for evidence of contamination. If it appears that oil has accumulated around the venturi slots, removal of the venturi for cleaning and inspection as described in Paragraph E is recommended. If removal of the venturi reveals an accumulation (pool) of oil behind the venturi, removal of the servo for cleaning and flow test by an approved overhaul facility may be required.

<p>NOTE: A slight oil film on the walls of the intake manifold and venturi is common in many installations and does <u>not</u> warrant removal of the venturi or fuel servo.</p>

- E. **INSPECTION INSTRUCTIONS:**
 1. Remove intake duct or airbox in order to gain access to injection servo venturi. Refer to airframe or engine maintenance manual.
 2. Remove two taper screws and one screw with washer located along body, opposite of regulator section.

3. Place both thumbs inside of venturi throat and pull venturi out of body. **Do not pry on, pull, or otherwise damage the four impact tubes.**
4. Inspect the rings around the outside of the venturi for evidence of heavy contamination.
5. If an accumulation of oil is found behind the venturi and the operator is experiencing hard starting, rough idle, or poor acceleration, removal of the servo for cleaning and flow test is recommended. If there is no accumulation of oil behind the venturi, the venturi should be cleaned and reinstalled as described below.
6. Lubricate three new venturi O’rings with engine oil and install in O’ring grooves. (O’ring grooves in the venturi do not have air passages) See Paragraph F for applicable O’ring part numbers.
7. Insert the end of the venturi opposite the four impact tubes into the main body assembly. Align the threaded hole in the venturi with the hole in the body and install the screw and washer. Torque screw to 15-20 in-lb.
8. Install taper seat screws and torque to 30-40 in-lb. Safety wire all three screws together using standard shop practices with .026 inch diameter corrosion resistant steel lockwire.
9. Reinstall intake duct or airbox per applicable airframe or engine maintenance manual.
10. Make an appropriate log book entry.

F. **PARTS REQUIRED:**

RSA-5 Series	951437	Venturi O’ring	3 ea.
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Precision Airmotive parts can be ordered from your local aircraft parts distributor. For further information please contact Precision Airmotive Product Support at (360) 651-8282, or your nearest factory approved overhaul facility.