

INCIDENT INVESTIGATION REPORT

Component Inspection and Flow Check - RSA Fuel Injection

PAM Work Order Number: _____
Aircraft Type: PA46-350T
Engine Model Number: TIO-540
Incident Location: Mooreville, NC

Investigation Date: 2-21-23
Aircraft Registration #: N539MA
Incident Date: 123123 _____
PAM File Number: _____

Component Type: Servo

Model: RSA-10ED1

Parts List Number: 2549038-4

Serial Number: 70007902 Also on yellow field tag: FC - AFS

Location:

Precision Airmotive

Attendees:

Todd Gunther – NTSB
Russel Gait – Lycoming
Dave Harsanyi – Lycoming
Peter Nielson - Precision

I) External Condition:

1) Throttle Rotation?

OK

2) Mixture Control Rotation?

OK

3) Fittings/Levers:

OK, blue levers.

4) Throttle Body/Regulator Body:

OK

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5) Letters on Coiloc Seal:

“AFS”, on round Lead seal.

6) Additional Observations:

II) Flow Test Results:

See attached flow sheet.

III) Tear down Results:

1) Fuel Inlet Screen:

OK, clear.

2) Manual mixture control valve/plate/lever assy:

P/N 2541562 A100, OK, blue lever.

3) Idle Plug/Main Metering Orifice:

OK, P/N 2577201-1512

4) Idle valve plate/lever assy:

OK, non-bearing type.

5) Fuel Section O-rings:

OK

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6) Regulator Adjustments:

A) Position of outer regulator nut (# of turns out from inner nut):

2 turns out.

B) Constant Head Spring/Shims:

Yellow spring, no shims.

C) Position of inner regulator nut (# of turns out from bottom):

1 turn out.

D) Constant Effort Spring:

Black

7) Regulator Components

A) Brass Plug:

OK, "G"

B) Regulator Nuts:

OK, silver, no Loctite on stem.

C) Air Diaphragm:

OK, P/N AV257xxxx (illegible).

D) Center Body Bellows/Seal:

OK, no lot number.

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E) Fuel Diaphragm:

OK, P/N AV2541803

F) Servo Seat:

OK, did not remove.

8) Venturi

OK

A) O-rings (If Applicable)

OK

9) AMC (If Applicable)

NA

10) Other Observations:

Unit was loosely re-assembled to protect components.