

INCIDENT INVESTIGATION REPORT

Component Inspection and Flow Check - RSA Fuel Injection

PAM Work Order Number: _____
Aircraft Type: Piper PA-30
Engine Model Number: IO-320
Incident Location: St. Ignatius, MT

Investigation Date: 5-24-23
Aircraft Registration #: N4009Y
Incident Date: 8-23-22
PAM File Number: 082322

Component Type: Servo

Model: RSA-5AD1

Parts List Number: 2524145-11

Serial Number: .18960-34 On yellow aftermarket data tag.

Location:

Precision Airmotive

Attendees:

Eleazar Nepomuceno - NTSB

Peter Nielson - PAC

I) External Condition:

1) Throttle Rotation?

OK

2) Mixture Control Rotation?

OK

3) Fittings/Levers:

OK, fittings have caps.

4) Throttle Body/Regulator Body:

OK, oily residue.

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5) Letters on Coilloc Seal:

Unit has a lead carburetor type seal on the regulator housing with “M” on one side and “265-2” on the other.

6) Additional Observations:

Older style idle lever assembly bushing.

II) Flow Test Results:

See attached flow sheet.

III) Tear down Results:

1) Fuel Inlet Screen:

Ok, mostly clear, one small piece of debris.

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

OK, valve has some scratching in center.

3) Idle Plug/Main Metering Orifice:

OK, some light abrasion in center.

4) Idle valve plate/lever assy:

OK, old style bushing.

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):

3 turns out.

B) Constant Head Spring/Shims:

Red spring, no shims.

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

1 ½ turns out.

D) Constant Effort Spring:

Red spring.

7) Regulator Components

A) Brass Plug:

OK, no "G", some illegible stamped character.

B) Regulator Nuts:

OK, silver.

C) Air Diaphragm:

OK, P/N CF2538295, "FAA-PMA", "02/03"

D) Center Body Bellows/Seal:

OK, illegible numbers on bellows, old style seal with spring.

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E) Fuel Diaphragm:

OK, P/N CF2541801

F) Servo Seat:

OK, did not remove.

8) Venturi

OK, d

A) O-rings (If Applicable)

9) AMC (If Applicable)

N/A

10) Other Observations: