

INCIDENT INVESTIGATION REPORT

Component Inspection and Flow Check - RSA Fuel Injection

PAM Work Order Number: _____
Aircraft Type: Piper PA-24-250
Engine Model Number: _____
Incident Location: Athens, GA

Investigation Date: 5-9-24
Aircraft Registration #: N8007P
Incident Date: 05-11-22 ____
PAM File Number: _____

Component Type: Servo

Model: RSA-5AD1

Parts List Number: 2524054-10

Serial Number: .20565 On Bendix field tag, F.C - PR

Location:

Precision Airmotive

Attendees:

Josh Cawthra – NTSB

Peter Nielson - PA

I) External Condition:

1) Throttle Rotation?

OK

2) Mixture Control Rotation?

OK

3) Fittings/Levers:

Bent throttle lever, fittings OK

4) Throttle Body/Regulator Body:

Dirty and greasy.

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5) Letters on Coiloc Seal:

“A”? other illegible.

6) Additional Observations:

There is a mixture control cable bracket attached to the regulator. One impact tube in the venturi has the tip folded over. The throat of the servo is very oily.

II) Flow Test Results:

See attached flow sheet.

III) Tear down Results:

1) Fuel Inlet Screen:

OK, a few paint chips, but mostly clear.

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

Brass valve, OK.

3) Idle Plug/Main Metering Orifice:

OK

4) Idle valve plate/lever assy:

OK

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):

1 ½ turns out.

B) Constant Head Spring/Shims:

No color on spring, no shims.

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

1 turn out.

D) Constant Effort Spring:

No color on spring.

7) Regulator Components

A) Brass Plug:

OK, no "G" stamp.

B) Regulator Nuts:

OK

C) Air Diaphragm:

OK, P/N 2538295, oil on suction side.

D) Center Body Bellows/Seal:

OK, old style seal and spring.

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E) Fuel Diaphragm:

OK, P/N 2541801.

F) Servo Seat:

OK, .030" shim, did not remove.

8) Venturi

OK, did not remove.

9) AMC (If Applicable)

NA

10) Other Observations:

N 807P

17 Addition- 11-19-19

20565

INSTALLATION PARTS LIST: 7524054-10

OF 90% PSI @ 7000

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