

TEST SPECIFICATION - AIR BOX LIMITS
PRECISION AIRMOTIVE LLC - MARYSVILLE, WASHINGTON

11737-08

~~8-11~~ 3-30-10

ENGINEERING SPECIFICATION: PES-4500

MODEL: RSA-5AD1

SERIAL NUMBER:

39040

OPERATOR:

ZALDY PONCE

DATE:

05-06-10

INSTALLATION PARTS LIST:

2524450-9

BASIC PARTS LISTS: 2524476

INTERNAL CHANGE: 42

CUSTOMER: TEXTRON LYCOMING

CUSTOMER TEST SPEC: 13135-E

AIRFLOW: STANDARD (29.92"Hg @ 59°F)

FUEL: PES-2010 or PES-2150

AIR BOX NUMBER:

9004

FUEL TEMP.

734

°F

BAROMETRIC PRESSURE

14.83

PSI @

71.64

of

TEST POINT NUMBER	1	2	3	4	5	6	7	8	9	10	11
AIRFLOW (LBS/HR)	0	0	100	100	A/R*	400	500	1100	1100	1400	0
CARB LOSS ("Hg)	W/O	W/O	15.6	15.6	A/R*	15.6	W/O	W/O	W/O	W/O	W/O
FUEL INLET PRESS	20 ± 1	20 ± 1	20 ± 1	45 ± 5	20 ± 1	20 ± 1	20 ± 1	20 ± 1	20 ± 1	20 ± 1	20 ± 1
MIXTURE CONTROL	RICH	ICO	RICH	RICH	RICH	RICH	RICH	RICH	40° FROM RICH	RICH	RICH

FLOWMETER LIMITS

MINIMUM

22.0

0.0

9.5

± 0.5

*CLOSE
THROTTLE
TO 6.0
LBS/HR
FUEL
FLOW

OBS

40.0

85.7

112.0

± 5.0

OBSERVED (LBS/HR)

29.0

0

10.0

11.0

32.0

41.8

91.5

51.0

116.0

29.6

MAXIMUM

28.0

0.5

10.5

MAX
CHANGE
FROM
TP 3

42.7

91.2

115.0

MAX
CHANGE
FROM
TP 1

METERING SUCTION

AVERAGE VALUE

OBSERVED ("H₂O)

2.0

3.0

15.8

26.2

MAX
+5.0
(TP 3)

2.0

3.0

15.8

15.8

26.2

METERING HEAD

AVERAGE VALUE

OBSERVED
("STODDARD)

2.9

3.8

3.2

4.3

7.4

39.0

39.6

64.3

**REGULATOR
SETTINGS**

PREFLOW (LBS/HR)
8 MIN / 18 MAX

EFFORT SPRING
COLOR

HEAD SPRING
COLOR

HEAD SPRING SHIMS
(NUMBER)

NULL
(TURNS OUT)

INNER NUT
TURNS OUT

OUTER NUT
TURNS OUT

EXTERNAL LEAKAGE
NONE PERMITTED

INCIDENT INVESTIGATION REPORT

Component Inspection and Flow Check - RSA Fuel Injection

PAM Work Order Number: _____
Aircraft Type: Piper PA-28R-200
Engine Model Number: IO-360
Incident Location: Wendover, NV

Investigation Date: 5-6-10
Aircraft Registration #: N4837T
Incident Date: 8-26-09
PAM File Number: 082609

Component Type: Servo

Model: RSA-5AD1

Parts List Number: 2524450-9

Serial Number: 39040 Also on yellow PA data tag: "I.C. - 39T"

Location:

PA

Attendees:

Tom Little – NTSB
Pete Nielson - PA

I) External Condition:

1) Throttle Rotation?

OK

2) Mixture Control Rotation?

OK

3) Fittings/Levers:

OK

4) Throttle Body/Regulator Body:

OK

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5) Letters on Coiloc Seal:

No seal present or safety wire through the regulator plug. Regulator plug was tight and older style gasket was installed.

6) Additional Observations:

Non-factory style safety wire on regulator.

II) Flow Test Results:

See attached flow sheet.

III) Tear down Results: No teardown performed due to acceptable flow test.

1) Fuel Inlet Screen:

OK, clear.