



South Bend, Indiana 46620, U.S.A.

Service Bulletin

Fuel Systems

Bulletin No.: RS-82

Date: 9-18-81

Revised: _____

Subject: BENDIX FUEL INJECTION SYSTEM, MODEL RSA-5AD1 P/L 2524359-8 MODIFICATION TO ISSUE 9.

1. Planning Information.

A. Effectivity:

<u>Model No.</u>	<u>Basic P/L No.</u>	<u>Installation P/L No.</u>
RSA-5AD1	2524521-J	2524359-1 thru 8

B. Reason:

To meet revised engine requirements by incorporation of a revised flow schedule.

C. Description:

To provide modification instructions for the subject control.

D. Compliance:

Operation Activities: At owner's discretion.

Overhaul Activities: Comply at present O/H.

E. Approval:

None.

F. Manpower:

Not applicable.

G. Material Availability:

<u>Part No.</u>	<u>Nomenclature</u>	<u>Availability</u>
2541493	Valve, Lower Idle	Bendix Product Support Center

H. Tooling:

Not applicable.

I. References:

Lycoming request.

J. Weight and Balance:

Not applicable.

K. Publications Affected:

RSA-5AD1 Series O/H and IPB, Form No. 15-381E.

2. Accomplishment Instructions.

- A. Proceed with normal O/H procedures as specified in O/H manual.
- B. Replace existing valve, idle lower P/N 2537514 with P/N 2541493.
- C. Calibrate the fuel injector in accordance with Figure 1.
- D. Identification.
 - (1) All modified RSA-5AD1 Fuel Injectors must be reidentified.
 - (2) If the identification plate is reused, it is permissible to overstrike the issue number, less any changes not incorporated during this and/or previous overhauls. If new plate is used, reidentify as follows:
 - (a) Transfer the exact model number from the old identification plate.
 - (b) Reidentify the unit with new applicable parts list number, less any changes not incorporated during this and/or previous overhauls.
 - (c) Reidentify the unit with new applicable basic parts list number.
 - (d) I.C. this block should be left blank.
 - (e) Transfer the exact serial number from the old identification plate.

<u>Model No.</u>	<u>Old Parts List No.</u>	<u>New Parts List No.</u>
RSA-5AD1	2524359-8	2524359-9

TEST SPECIFICATION DATE: 7-APR-81
 THE BENDIX CORPORATION, ENERGY CONTROLS DIVISION, SOUTH BEND, INDIANA, U.S.A.

OPERATOR MODEL RSA-5AD1 SERIAL NO. (14-19) 10291 -01 (20-25)
 PARTS LIST (1-13) DATE (32-37) PAGE CODE
 Released 4-13-81
 PAGE 1 of 1

BASIC: 2524521
 INSTALLATION PARTS LIST: 2524359
 FUEL INLET PRESSURE: 20 P.S.I. ± 1
 NOZZLE PRESSURE: 0
 LIMITS BASED ON NAPHTHA 0.734 SPECIFIC GRAVITY AT 75 DEG F ± 5 DEG F
 INJECTOR MODEL: RSA-5AD1
 DATE ISSUED:

ENGINE MFR: LYCOMING

TEST POINT NO.	1	2	3	4
METERING SUCTION	0	0	4.5	26.1
INCHES OF WATER				
CORRESPONDING				
AIR FLOW LBS/HR.	0	0	600	1400
MIXTURE CONTROL				
LEVER POSITION	R	I.C.O.	R	R
THROTTLE POSITION	W.O.	W.O.	W.O.	W.O.
BURETTE VOLUME	150	300	300	850
TIME MIN.	23.6	28.4	28.4	36.3
LIMITS MAX.	29.1	30.9	30.9	37.4
IN				
SECONDS OBS.				
FLOWMETER MIN.	30.0	0	56.5	137.0
LIMITS MAX.	37.0	5CC	61.5	141.0
IN				
LBS./HR. OBS.				
METERING HEAD			AV.	AV.
INCHES OF FUEL			13.6	76.5

PROCEDURE FOR SPLIT HEAD CHECK

1. CLOSE THROTTLE WITH .006" SHIM IN BORE.
2. ADJ. IDLE FUEL TO 6.0 - 7.0 #/HR. WHEEL CENTERED, OBS. MET. HEAD.
3. REMOVE .006" SHIM.
4. CLOSE THROTTLE TO 4.0 - 5.0 #/HR. F.F.; MET. HEAD INCREASE FROM (2) 5.0" FUEL MAX.

Figure 1.

TEST SPECIFICATION DATE: 7-APR-81
 THE BENDIX CORPORATION, ENERGY CONTROLS DIVISION, SOUTH BEND, INDIANA, U.S.A.

OPERATOR MODEL RSA-5AD1 SERIAL NO. (14-19) 10292 -01 (20-25)
 PARTS LIST (1-13) DATE (32-37) PAGE CODE
 Released 4-13-81

SERVICE FLOW LIMITS

BASIC: 2524521 PAGE 1 OF 1
 INSTALLATION PARTS LIST: 2524359
 FUEL INLET PRESSURE: 20 P.S.I. ± 1
 NOZZLE PRESSURE: 0 INJECTOR MODEL: RSA-5AD1
 LIMITS BASED ON NAPHTHA 0.734 SPECIFIC GRAVITY AT 75 DEG F ± 5 DEG F
 DATE ISSUED: 03-25-81


ENGINE MFR: LYCOMING

TEST POINT NO.	1	2	3	4
METERING SUCTION	0	0	4.5	26.1
INCHES OF WATER				
CORRESPONDING				
AIR FLOW LBS/HR.	0	0	600	1400
MIXTURE CONTROL				
LEVER POSITION	R	I.C.O.	R	R
THROTTLE POSITION	W.O.	W.O.	W.O.	W.O.
BURETTE VOLUME	150	300	300	850
TIME MIN.	23.6	28.1	28.1	34.6
LIMITS MAX.	29.1	31.6	31.6	39.4
IN				
SECONDS OBS.				
FLOWMETER MIN.	30.0	0	55.4	130.0
LIMITS MAX.	37.0	5CC	63.	148.0
IN				
LBS./HR. OBS.				
METERING			AV.	AV.
HEAD			13.6	76.5
INCHES OF				
FUEL				

Figure 2.

3. Material Information:

<u>New P/N</u>	<u>Nomenclature</u>	<u>Old P/N</u>	<u>Disposition</u>
2541493	Valve, Idle Lower	2537514	Scrap


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Manager of Service