Bendix Energy Controls Division

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

Service Bulletin

Fuel Systems

Bulletin No.: RS-78

Date: 2/4/81

Revised: _____

Subject: BENDIX FUEL INJECTION SYSTEM, MODEL RSA-5AB1, MODIFICATION OF:

1. Planning Information:

A. Effectivity:

Model No.	Basic P/L No.	Installation P/L No.
RSA-5AB1	2524716-J	2524712-7

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:

Operating Activities: For information only.

Overhaul Activities: Comply with the provisions of this bulletin when parts become available. Comply at overhaul.

E. Approval:

None.

F. Manpower:

No additional manhours are required at overhaul.

G. Material Availability:

Part No.	Nomenclature	Availability
2541413	Valve, Idle Lower	Bendix Product Support Centers 4/81
2539512	Spring	Bendix Product Support Centers

NOTE: The availability date given at far right is an approximate. Contact Bendix Product Support Centers before ordering parts not available as of date of this bulletin.

H. Tooling:

No special tooling required.

I. References:

Enstrom request.

J. Weight and Balance:

Not affected.

K. Publications Affected:

RSA-5AB1 Series Overhaul and Illustrated Parts List Manual, Bendix Form Number 15-419B.

2. Accomplishment Instructions:

A. Proceed with normal overhaul procedures as specified in overhaul manual.

B. Replace existing idle valve P/N 2540326 with P/N 2541413 idle valve.

C. Replace spring P/N 2520652 with P/N 2539512 spring.

D. Calibrate the fuel injector in accordance with Figures 1 and 2.

E. Identification:

(1) All modified RSA-5AB1 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.

TEST SPECIFICATION DATE: 2-DEC-80

THE BENDIX CORPORATION, ENERGY CONTROLS DIVISION, SOUTH BEND, INDIANA, U. S. A.

1	MODEL RSA-5AB1	SERIAL NO.	(14-19)1 10227-01	(20-25)1
OPERATOR	PARTS LIST	(1-13)1 DATE	(32-37)1 PAGE CODE	1

Released 12/26/80

PAGE 1 OF 1

FLOW BENCH BASIC 2524716 INSTALLATION PARTS LIST 2524712

ENGINE MFGR: LYCOMING

FUEL INLET PRESSURE: 20 P.S.I. ± 1
NOZZLE PRESSURE: 0
LIMITS BASED ON 0.734 SPECIFIC GRAVITY AT 75 DEG F ± 5 DEG F
(NAPHTHA)

INJECTOR MODEL: RSA-5AB1

DATE ISSUED: SEPT.15,1980

TEST POINT NO.		1	2	3	4	5
METERING SUCTION INCHES OF WATER CORRESPONDING AIR FLOW LBS/HR.		0	0	2.0 400	11.8 1100	2.0 400
MIXTURE CONTROL LEVER POSITION		R	I.C.O.	R	R	R
THROTTLE POSITION				w.o.	w.o.	w.o.
BURETTE	VOLUMN	300		300	850	300
TIME	MIN.	37.3		32.9	44.0	32.9
LIMITS	MAX.	41.5		35.6	46.1	35.6
IN SECONDS	OBS					
FLOWMETER	MIN.	42.1	0	49.1	107.5	49.1
LIMITS	MAX.	46.9	5CC	53.1	112.5	53.1
IN LBS./HR.	OBS					
METERING HEAD				AV 5.0	AV. 28.3	
INCHES OF FUEL	OBS					

PROCEDURE FOR SPLIT HEAD CHECK

1. CLOSE THRO. TO .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 THRO. TO 4.0 - 5.0 #/HR. F.F., MET. HEAD INCREASE FROM (2) 5.0" FUEL MAX.

Figure 1. Calibration Flow Sheet

TEST SPECIFICATION DATE: 2-DEC-80

THE BENDIX CORPORATION, ENERGY CONTROLS DIVISION, SOUTH BEND, INDIANA, U. S. A.

1 | MODEL RSA-5AB1 | SERIAL NO. (14-19) 10229-01 (20-25)

OPERATOR | PARTS LIST (1-13) | DATE (32-37) | PAGE CODE | Released 12/02/80

BASIC 2524716 INSTALLATION PARTS LIST 2524712

SERVICE FLOW LIMITS

ENGINE MFGR: LYCOMING

FUEL INLET PRESSURE: 20 P.S.I. ± 1
NOZZLE PRESSURE: 0
LIMITS BASED ON 0.734 SPECIFIC GRAVITY AT 75 DEG F ± 5 DEG F (NAPHTHA)

INJECTOR MODEL: RSA-5AB1

DATE ISSUED: SEPT. 15, 1980

TEST POINT NO.		1	2	3	4
METERING SUCTION INCHES OF WATER CORRESPONDING AIR FLOW LBS/HR.		0	0	400	1100
MIXTURE CONTROL LEVER POSITION		R	I.C.O.	R	R
THROTTLE POSITION				W.O.	W.O.
BURETTE	VOLUME	300		300	850
TIME	MIN.	35.8		31.7	42.6
LIMITS IN SECONDS	MAX	43.3		37.2	47.8
	OBS				
FLOWMETER LIMITS IN LBS./HR.	MIN.	40.4	0	47.0	103.6
	MAX	48.9	5 CC	55.2	116.4
	OBS.				
METERING HEAD INCHES OF FUEL				AV 5.0	AV 28.3
	OBS.				

Figure 2. Service Flow Sheet

(e) Transfer the exact serial number from the old identification plate.

Model No.	Old Parts List No.	New Parts List No.
RSA-5AB1	2524712-7	2524712-8

Model No.	Old Basic No.	New Basic No.
RSA-5AB1	2524716-J	2524716-K

3. Material Information:

New P/N	Nomenclature	Old P/N	Disposition
2541413	Valve, Idle Lower	2540326	A
2539512	Spring	2520652	A or B

A. Scrap.

B. If serviceable, retain for use on other model injectors.

K R Dettweiler

K. R. Dettweiler
Manager of Service