



# CLASS I SERVICE INSTRUCTIONS

24

No. 0833-293  
ATA Code 73-20  
Recurring Inspection

**SUBJECT:** ENGINE FUEL AND CONTROL - INSPECTION OF MANUAL MIXTURE CONTROL SHAFT

**EFFECTIVITY:** BEEHCRAFT B24R Sierra 200, serials MC-151 through MC-446.

**REASON:** To check freedom of movement of the mixture control shaft.

**COMPLIANCE:** Beech Aircraft Corporation considers this to be a mandatory inspection and it should be accomplished at the next scheduled inspection or if binding of the manual mixture control shaft becomes evident, whichever occurs first, and at each periodic or annual inspection thereafter.

**DESCRIPTION:** The fuel injector manual mixture control shaft is inspected for binding and, if necessary, the manual mixture control is disassembled, cleaned, lubricated and reassembled.

**APPROVAL:** FAA Approved - DOA CE-2.

**MANPOWER:** The following information is for planning purposes only:  
Estimated man-hours for repair: 3 hours.  
Suggested number of men for repair: 1 man.

**MATERIAL:** Parts which may be required for the accomplishment of these Service Instructions, and the Bendix Product Support Centers where those parts may be purchased, are listed in the attached Bendix Service Information Letter No. 22. Parts required will not be available through your BEEHCRAFT Parts and Service Outlets.

**WARRANTY:** BEEHCRAFT Warranty on a new airplane is 180 days from delivery or 180 days from the date noted on the Owner Warranty Card. Labor noted herein will be allowed on BEEHCRAFTS within warranty at the time these Service Instructions are released, if repair is required.

**SPECIAL TOOLS:** None.

**WEIGHT AND BALANCE:** None.

**REFERENCES:** Bendix Service Information Letter No. 22. (Attached)

CLASS I

No BECP  
876 I

1 of 2

Beech Aircraft Corporation issues service information for the benefit of owners and fixed base operators in the form of three classes of Service Instructions. CLASS I (Red Border) are changes, inspections, and modifications that could affect safety. The factory considers compliance mandatory. CLASS II (Green Border) covers changes, modifications, improvements or inspections the factory feels will benefit the owner and although highly recommended, they are not considered mandatory compliance, unless specified at the time of issuance. Class I and II are mailed to:

- (a) BEEHCRAFT Aero or Aviation Centers and International Distributors and Dealers.
- (b) Owners of record on the FAA Registration list and the

BEEHCRAFT International Owner Notification Service List.  
(c) Those having a publications subscription.

CLASS III (No Border) covers changes which are optional, maintenance aids, product improvement kits and miscellaneous service information. Compliance is at the owner or operator's prerogative. Copies of Class III are distributed per a and c above. Information on Owner Notification Service or Subscriptions can be obtained through any BEEHCRAFT Aero or Aviation Center, International Distributor and Dealer, or the Factory. As Service Instructions are issued, temporary notation in the index should be made until the index is revised. Warranty will be allowed only when specifically defined in the Service Instructions and in accordance with Beech Warranty Policy.

98-34239D



**Service Instructions No. 0833-293**

**PUBLICATIONS AFFECTED:** It is recommended that a note to "See Service Instructions No. 0833-293" be made in all 19, 23 and 24 Shop Manual copies, P/N 169-590015F or subsequent, Section 3.

**ACCOMPLISHMENT INSTRUCTIONS:** The instructions for accomplishing these Service Instructions are contained in the attached Bendix Service Information Letter No. 22.

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**RECORD COMPLIANCE:** Upon completion of these Service Instructions, make an appropriate maintenance record entry.

# Service information Letter - Fuel Systems

RSA5AD1  
Fuel Injector  
No. 22A  
Issued 4/23/76  
Page 1 of 1

SUBJECT: SIL No. 22, Disassembly, Cleaning, Lubricating and Reassembly  
of the Manual Mixture Control in RSA5AD1 Fuel Injectors

Purpose: To correct previously supplied information

SIL No. 22 is to be changed as follows:

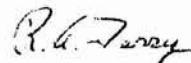
Step No. 15 of the instructions for disassembly, cleaning, lubricating and reassembly is to read "Lubricate lever assembly (36) and packing (35) with Dow Corning Grease FS-1292 or equivalent conforming to MIL-G-27617."

The Qualified Products List of Products Qualified under Military Specification MIL-G-6032 is to be deleted.

Manufacturer's name and address:

Dow Corning  
Midland, Michigan 48640

A reference to this will be made in the overhaul manuals as they are updated.



R. A. Terry  
Service Engineering  
Commercial Propulsion Systems

RAT/maf



**Energy Controls  
Division**

DETAILED PARTS LIST

Figure and Index Number	Part Number	Description	Units per Assy.	Usable on Code
		1234567		
R 5-2	2524469H	FUEL INJECTOR ASSEMBLY/BASIC/ . . . . .	REF	A THRU O
R 5-2	2524650B	FUEL INJECTOR ASSEMBLY/BASIC/ . . . . .	REF	P
R 5-2	2524521B	FUEL INJECTOR ASSEMBLY/BASIC/ . . . . .	REF	O
R 5-2	2524476B	FUEL INJECTOR ASSEMBLY/BASIC/ . . . . .	REF	R
R 5-2	2524542B	FUEL INJECTOR ASSEMBLY/BASIC/ . . . . .	REF	S
R 5-2	2524472B	FUEL INJECTOR ASSEMBLY/BASIC/ . . . . .	REF	T,U,V
R 5-2	2524474B	FUEL INJECTOR ASSEMBLY/BASIC/ . . . . .	REF	W,X
R 5-2	2524645B	FUEL INJECTOR ASSEMBLY/BASIC/ . . . . . /FOR NEXT HIGHER ASSEMBLY SEE FIGURE 5-1/	REF	Y
	- 1	367756 .PLATE, IDENTIFICATION . . . . .	1	
	- 2	186739 ATTACHING PARTS .SCREW, SELF-TAPPING . . . . . ----*----	2	
	- 2A	2635163 .PLUG, SHIPPING . . . . .	1	
	- 2H	2635163 .PLUG, SHIPPING . . . . .	1	
	- 2C	2635163 .PLUG, SHIPPING . . . . .	1	
	- 3	2537629 .PLUG, SHIPPING . . . . .	1	
	- 4	2537629 .PLUG, SHIPPING . . . . .	1	
R	- 5	2537608 .STRAINER ASSEMBLY, FUEL INLET . . . . .	1	
R	- 5A	953541-10 .PACKING, PREFORMED . . . . .	1	
	- 6	P61195 .PLUG, TAPER SEAT 1/4-28 . . . . .	1	
	- 7	P61195 .PLUG, TAPER SEAT 1/4-28 . . . . .	1	
	- 8	P61195 .PLUG, TAPER SEAT 1/4-28 . . . . .	1	
	- 9	2525165 .SPRING, HELICAL, EXTENSION . . . . .	1	
	- 10	901200 .PIN, COTTER . . . . .	1	
	- 11	911244 .WASHER, FLAT/AN960-416L/ . . . . .	1	
	- 12	P19821 .WASHER, SPRING . . . . .	1	
	- 13	2522021 .PIN, STRAIGHT, HEADED . . . . .	1	
	- 14	901200 .PIN, COTTER . . . . .	1	
	- 15	911242 .WASHER, FLAT/AN960-10L/ . . . . .	1	
	- 16	177718 .WASHER, SPRING . . . . .	1	
	- 17	2522022 .PIN, STRAIGHT, HEADED . . . . .	1	
R	- 18	2520876 .CLEVIS . . . . .	1	A THRU S
R	- 18	367544 .CLEVIS . . . . .	1	T THRU Y
R	- 19	367418 .CLEVIS . . . . .	1	
R	- 20	367547 .SCREW ASSEMBLY . . . . .	1	
R	- 21	363083 .SCREW NO. 10-24 BY 47/64 IN. . . . .	1	
	- 22	199596 .WASHER, FLAT . . . . .	1	
	- 23	2525318 .SPACER . . . . .	1	
	- 24	188595 .WASHER, FLAT . . . . .	1	
	- 25	79216 .SCREW, MACHINE/AN503-10-8/. . . . .	1	
	- 26	188595 .WASHER, FLAT . . . . .	1	
R	- 27	909290K35 .PIN, SPRING . . . . .	1	
	- 28	2520879 .PLATE, MIXTURE CONTROL . . . . .	1	A THRU P R THRU Y C
R	- 28	2525843 .PLATE, MIXTURE CONTROL . . . . .	1	
R	- 29	2538328 .BUSHING, MIXTURE CONTROL STEM . . . . .	1	
	- 30	338491 .WASHER, C . . . . .	1	
R	- 30A	2538330 .WASHER, NONMETALLIC . . . . .	1	
	- 31	367694 .HOLDER, SPRING . . . . .	1	
	- 32	2523757 .SPRING, HELICAL, COMPRESSION . . . . .	1	
	- 33	951401 .PACKING, PREFORMED . . . . .	1	
	- 34	2520878 .BUSHING . . . . .	1	
	- 35	953516-10 .PACKING, PREFORMED . . . . .	1	
R	- 36	2538738 .LEVER ASSEMBLY, MIXTURE CONTROL . . . . .	1	A THRU P R THRU Y Q
R	- 36	2538737 .LEVER ASSEMBLY, MIXTURE CONTROL . . . . .	1	
	- 37	328617 .SEAL, ALUMINUM . . . . .	1	
	- 38	79216 .SCREW, MACHINE/AN503-10-8/. . . . .	2	
	- 39	911242 .WASHER, FLAT/AN960-10L/ . . . . .	2	
	- 40	951400 .PACKING, PREFORMED . . . . .	1	
R	- 41	2523719 .LEVER ASSEMBLY, IDLE VALVE . . . . .	1	A THRU S
R	- 41	2523718 .LEVER ASSEMBLY, IDLE VALVE . . . . .	1	T,U,V,Y
R	- 41	2525152 .LEVER ASSEMBLY, IDLE VALVE . . . . .	1	W,X

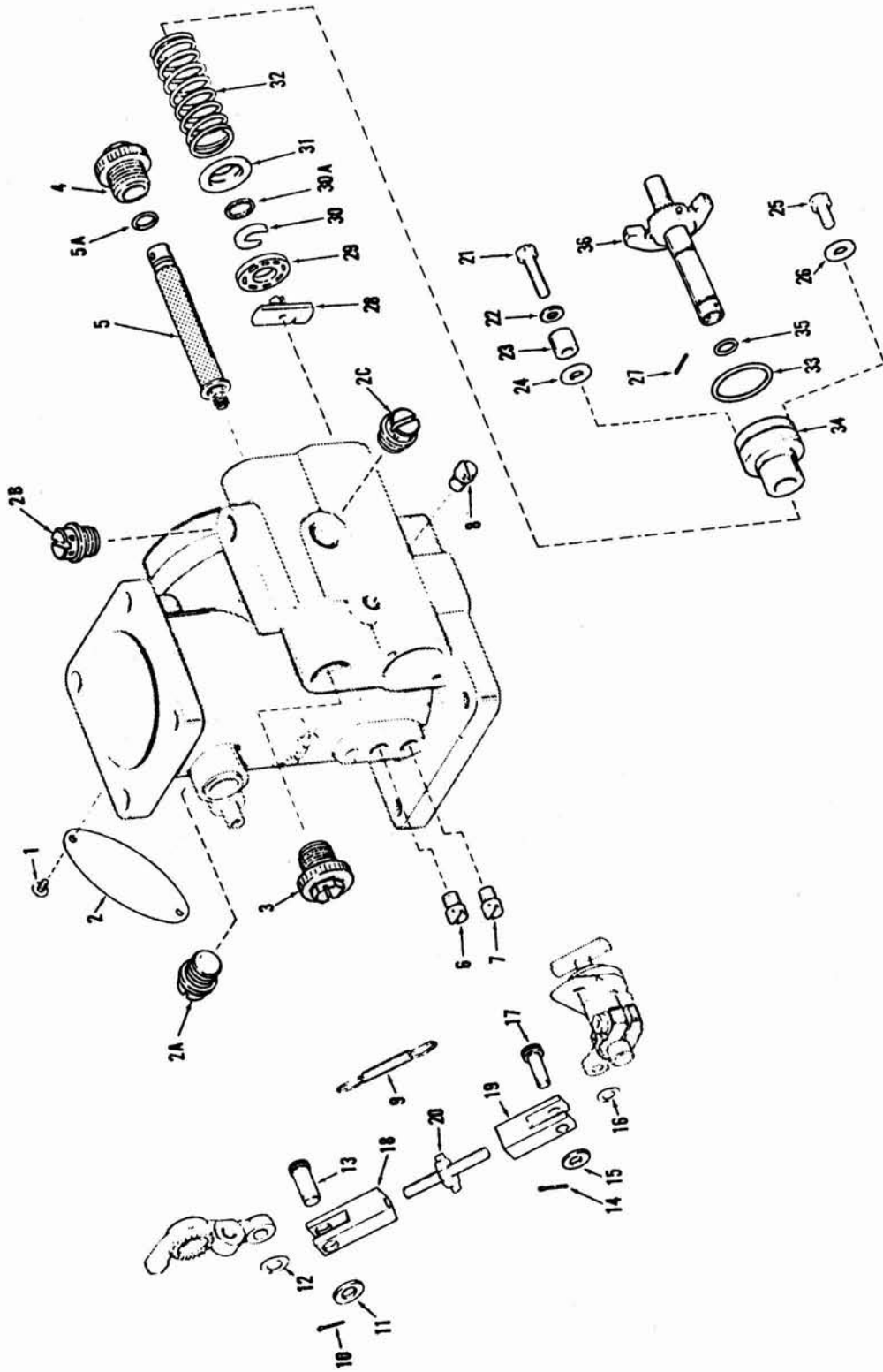


Figure 5-2. Model RSA-5AD1 Injector (Basic) (Sheet 1 of 2)

# Service Information

## Letter - Fuel Systems

RSA5AD1  
Fuel Injector  
No. 22  
Issued 12-15-75  
Page 1 of 3

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**Subject:** Disassembly, Cleaning, Lubricating and Reassembly of the Manual Mixture Control in RSA5AD1 Fuel Injectors

**Purpose:** To provide instructions to the maintenance facility for correcting operator complaints of manual mixture control binding at the injectors.

Should trouble shooting indicate that binding is located at the manual mixture control in the injector, proceed as follows: Refer to Fig. 5-2 and IPB listing attached.

1. Gain access to the fuel injector manual mixture control area.
2. Disconnect the cockpit mixture control from the injector arm.
3. Refer to illustration and cut the safety wire on screws 21 and 25.
4. Important. Note the hole location for screw 21, washer 22, spacer 23 and washer 24 for correct reassembly.
5. Remove screws 21 and 25 with washers, spacers, keeping them together for correct reassembly.
6. Gently pull the mixture control out of the injector body. Remove the mixture plate (28), protect the plate from possible damage until reassembly.
7. Straighten the ends of spring pin (27) and remove using a drift of correct size to avoid damage to the shaft.
8. Remove bushing (29).
9. Using suitable means and care, compress the spring (32) and remove the "C" washer (30), non-metallic washer (30A) and spring holder (31).



**Energy Controls  
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CAUTION

Exercise care when compressing spring and removing parts to avoid personal injury.

10. Allow spring (32) to expand normally after removing parts, remove spring from bushing (34).
11. Remove bushing (34) from lever assembly (36).
12. Remove packings (33) (35) carefully, packings may be re-used if not damaged or distorted.
13. Clean the bushing (34) and lever assembly (36) with cleaning stoddard solvent thoroughly to remove all traces of rust and dirt accumulation. Parts that cannot be cleaned thoroughly will have to be replaced.

NOTE

Do not use carbon type cleaners on bushing (34) to remove foreign matter. This part is hard coat aluminum.

14. After parts are cleaned and dried, install new packing (33) (35).
15. Lubricate lever assembly (36) and packing (35) with grease conforming to MIL-G-6032. A copy of Qualified Products list is attached.
16. Install bushing (34) on lever assembly (36).
17. Place spring (32) and spring holder (31) over bushing (34) and lever assembly (36).
18. Compress spring, using care to avoid personal injury.
19. Install washer (30A).
20. Install "C" washer (30) into groove of lever assembly (36). Carefully release compressed spring.
21. Install bushing (29), insure that flat surface is towards spring pin (27).
22. Install new spring pin (27) and spread ends.
23. Lubricate packing (33) with light film of 1010 oil.
24. Reinstall mixture plate into body cavity. Plate and lever are self-aligning.
25. Reinstall lever assembly (36) into cavity and engage the mixture plate by rotating the assembly.

