



# CLASS I SERVICE INSTRUCTIONS

77

No. 1135  
ATA Code 27-30

**SUBJECT:** FLIGHT CONTROLS - REPLACEMENT OF THE ELEVATOR CONTROL ARM BUSHINGS

**EFFECTIVITY:** BEECHCRAFT Skipper 77, serials WA-1 through WA-59.

**REASON:** To reduce the possibility of free play in the elevator control arm assembly.

**COMPLIANCE:** Beech Aircraft Corporation considers this to be a mandatory modification and it should be accomplished as soon as possible after receipt of these Service Instructions, but no later than the next 100 service hours.

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

**MANPOWER:** The following information is for planning purposes only:  
Estimated man-hours for modification: 4 hours.  
Suggested number of men for modification: 1 man.

**MATERIAL:** The following parts required for this modification may be ordered through BEECHCRAFT Aero or Aviation Centers and International Distributors and Dealers.

PART NUMBER	DESCRIPTION	QUANTITY PER AIRPLANE
108-520133-1	Bushing	2
108-520133-3	Bushing	4
AN960-416	Washer	As Required
130909N32	Nut	4
NAS1104-31 /M/	Bolt	2
NAS1104-21 /M/	Bolt	2

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

BEECHCRAFT 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 BEECHCRAFT 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



CLASS I

## Service Instructions No. 1135

**WARRANTY:** Warranty credit for parts and labor to the extent noted under MATERIAL and MANPOWER will be allowed on claims submitted prior to January 1, 1981.

All warranty reimbursements are handled through franchised BEEHCRAFT outlets. Owners and operators may arrange with these outlets to perform the work and submit the standard Beech Aircraft Corporation warranty claim form to the Commercial Service Department, Beech Aircraft Corporation, Wichita, Kansas, 67201.

**SPECIAL TOOLS:** None.

**WEIGHT AND BALANCE:** None.

**REFERENCES:** None.

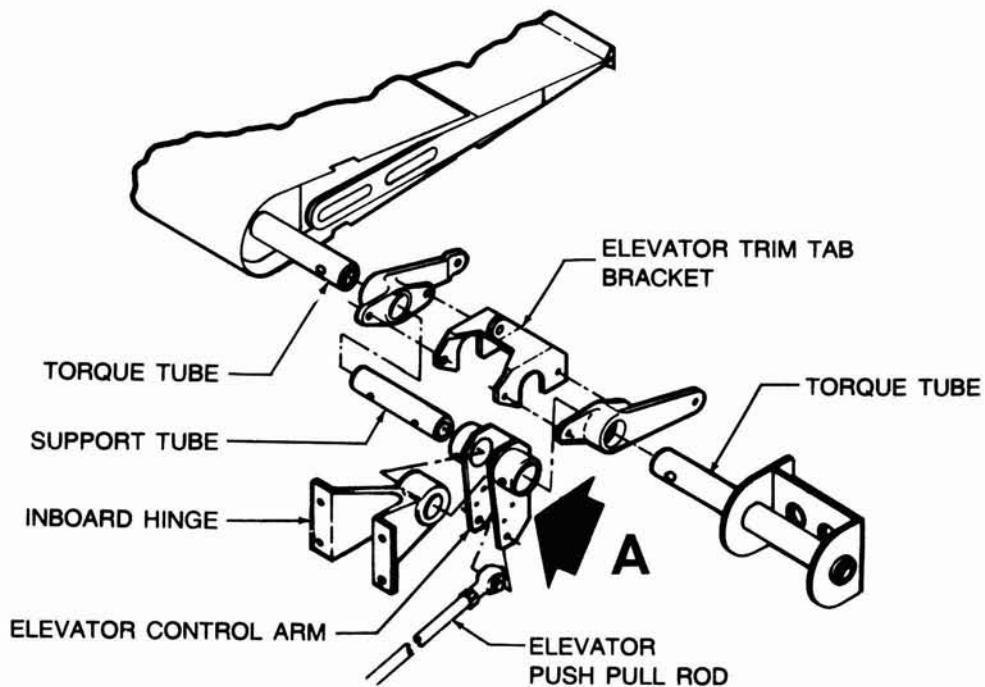
**PUBLICATIONS AFFECTED:** It is recommended that a note to "See Service Instructions No. 1135" be made in the following:

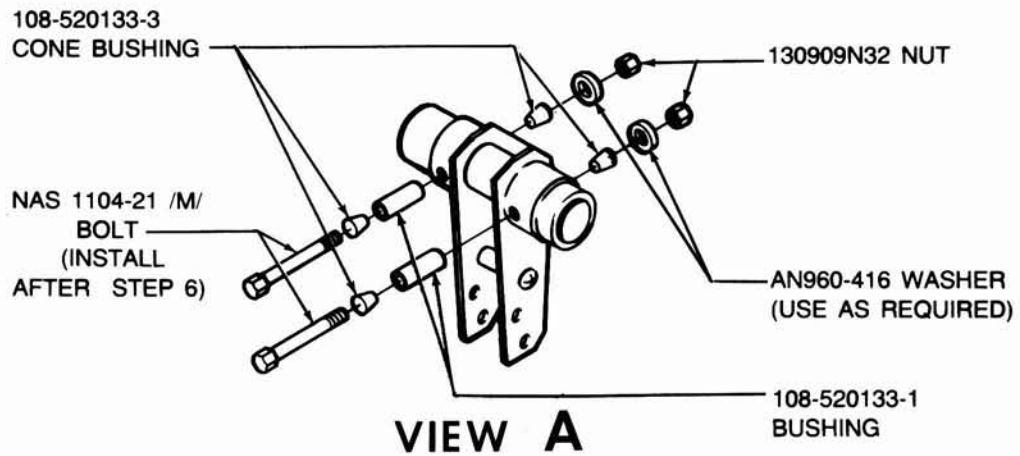
Skipper 77 Maintenance Manual copies, P/N 108-590000-7 or subsequent, Chapter 27-30;  
Skipper 77 Parts Catalog copies, P/N 108-590000-9 or subsequent, Chapter 27-30.

### ACCOMPLISHMENT INSTRUCTIONS:

These Service Instructions may be accomplished as follows:

1. Remove the aft horizontal stabilizer fairing.
2. Remove and discard the two bolts, washers and nuts which connect the elevator torque tubes to the left and right side of the elevator control arm assembly.
3. Use the two new 108-520133-1 bushings to push out the original bushings which protected the bolts removed in Step 2. This will leave the new bushings in place without disturbing the alignment of the tubes and control arm assembly (see illustration, view A).
4. Insert the 108-520133-3 cone bushings and NAS1104-31 /M/ bolts in the 108-520133-1 bushings (see illustration, view A).





NOTE

Lubrication of the mating surface between the cone and sleeve bushings will aid in allowing the cone bushings to slip into and expand the sleeve bushings without stripping or breaking the bolts and nuts being used to compress the parts.

5. Install a 130909N32 nut on each NAS1104-31 /M/ bolt, using AN960-416 washers as necessary to keep the nuts on the threaded portion of the shafts. Tighten the nuts, adding washers as necessary, until the cone bushings are pressed in place and all free play between the torque tubes, support tube and control arm has been eliminated.

NOTE

The NAS1104-31 /M/ bolts are used only to press the cone bushings in place. It may be necessary to substantially overtorque them in order to completely eliminate free play in the assembly.

6. Remove the NAS1104-31 /M/ bolts and 130909N32 nuts and discard them.

CAUTION

Because these bolts and nuts may have been overstressed, they should be disposed of so as to ensure that they will not be used on any future assembly.

7. Install two NAS1104-21 /M/ bolts in place of the bolts removed in Step 6, add AN960-416 washers as necessary, and install new 130909N32 nuts on the bolts. Torque the nuts to 75-100 inch-pounds.
8. Recheck the elevators to ensure that there is no free play present, and reinstall the aft horizontal stabilizer fairing.

NOTE

If any binding in elevator movement is encountered after installation, contact the Sales and Service Department, Beech Aircraft Corporation, Liberal, Kansas 67901 (316 624-1613).

**RECORD COMPLIANCE:**

Upon completion of these Service Instructions, make an appropriate maintenance record entry.