

77

No. 1256
ATA Code 55-40

Kit No. 77-4006-1 S

- SUBJECT:** STABILIZERS - IMPROVED ATTACHMENT OF THE RUDDER BALANCE WEIGHT
- EFFECTIVITY:** BEECHCRAFT Skipper 77, serials WA-1 through WA-312.
- REASON:** To provide a reinforced attachment of the rudder balance weight to the rudder leading edge skin.
- COMPLIANCE:** Beech Aircraft Corporation considers this to be a mandatory modification, and it should be accomplished prior to the accumulation of 25 hours time in service after receipt of these Service Instructions.
- APPROVAL:** Engineering data contained in these Service Instructions is FAA approved.
- MANPOWER:** The following information is for planning purposes only:
Estimated man-hours: 8 hours.
Suggested number of men: 1 man.

The above is an estimate based on experienced personnel complying with these Service Instructions. Occasionally, after work has started, conditions may be found which could result in additional man-hours.
- MATERIAL:** The parts required for this modification are contained in Kit No. 77-4006-1 S. The kit may be ordered through BEECHCRAFT Aero or Aviation Centers and International Distributors and Dealers. The value of the kit required to incorporate these Service Instructions on one airplane is to be advised. Price, when issued, will be subject to change without notice. Beech Aircraft Corporation expressly reserves the right to supersede, cancel and/or declare obsolete any kits or publications that may be referenced in these Service Instructions without prior notice.

DJ-147
983 I

1 of 4

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.

NOTICE

All BEEHCRAFT kits, unless otherwise designated, are approved for installation on BEEHCRAFT airplanes in original or BEEHCRAFT modified configurations only. BEEHCRAFT kits may not be compatible with airplanes modified by STC installations or modifications other than BEEHCRAFT approved kits.

WARRANTY: Warranty credit for parts and labor to the extent noted under MATERIAL and MANPOWER will be allowed on all affected airplanes.

All warranty reimbursements are handled through franchised BEEHCRAFT Aero or Aviation Centers and International Distributors and Dealers. Owners and operators should arrange with these outlets to perform the work and have them submit the standard Beech Aircraft Corporation warranty claim form through BEEHCRAFT Parts and Equipment Marketing Wholesalers or International Distributors.

SPECIAL TOOLS: None.

WEIGHT AND BALANCE: None.

REFERENCES: BEEHCRAFT Skipper 77 Maintenance Manual, P/N 108-590000-7 or subsequent, Chapters 27-20 and 55-40.

PUBLICATIONS AFFECTED: It is recommended that a note to "See Service Instructions No. 1256" be made in the following:

BEEHCRAFT Skipper 77 Maintenance Manual, P/N 108-590000-7 or subsequent, Chapters 27-20 and 55-40;
BEEHCRAFT Skipper 77 Parts Catalog copies, P/N 108-590000-9B or subsequent, Chapter 55-40.

ACCOMPLISHMENT INSTRUCTIONS: These Service Instructions may be accomplished as follows:

1. Refer to the Maintenance Manual, Chapter 27-20 and remove the rudder.

weight and the original attaching bolts through the new brackets, rib ends and balance weight.

NOTE

Pin the rudder cable clevis ends to prevent the cables from pulling forward through the aft fuselage bulkhead.

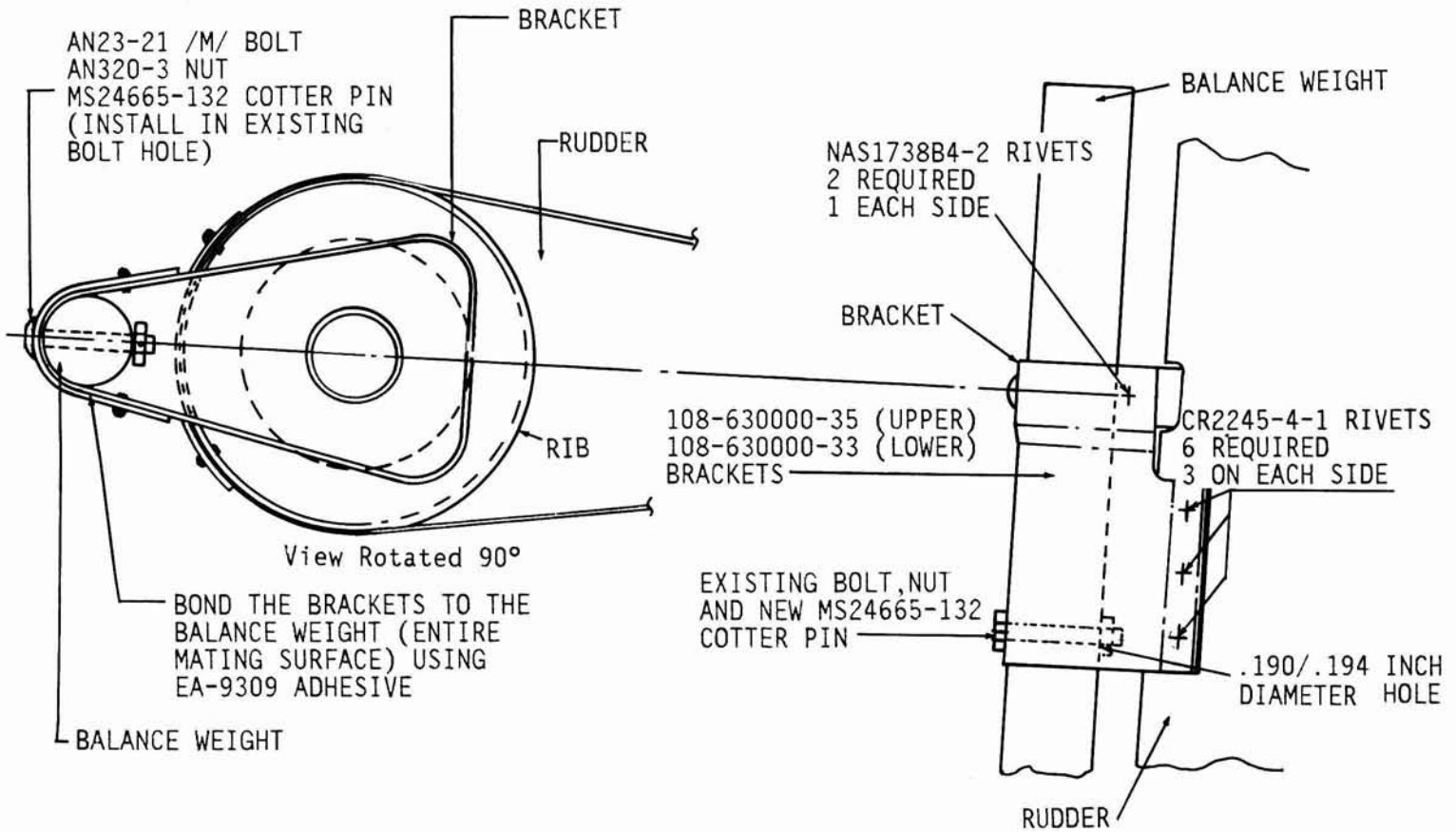
4. Using the holes in the new brackets as a guide, mark the balance weight for two #11 (.190/.194 inch diameter) bolt holes. DO NOT drill at this time.

2. Remove the bolts and nuts holding the rudder balance weight to the rudder and slide the weight out of the rib ends.

5. Drill two #27 (.143/.146 inch diameter) holes for the P/N NAS1738B4-2 rivets on each bracket as shown in the illustration.

3. Position the new P/N 108-630000-33 bracket over the lower rib end. (See illustration). Position the new P/N 108-630000-35 bracket over the upper rib end. Temporarily install the balance

6. Drill six #27 (.143/.146 inch diameter) holes for the P/N CR2245-4-1 rivets on each bracket as shown in the illustration. Countersink the six holes to .170 inch diameter with a 100° countersink.



**Rudder Balance Weight Bracket Installation
(Typical Upper and Lower)**

NOTE

Make sure the brackets are pulled down firmly against the balance weight while drilling the bracket attach holes. After the first hole is drilled, it is suggested that the bracket be clecoed to the rib and/or skin while drilling the remaining holes.

7. Remove the balance weight and the brackets. Using a drill press, drill the two #11 (.190/.194 inch diameter) holes that were marked in Step 4 through the balance weight.

8. Clean the mating surfaces of the new brackets, balance weight, rudder skin and rib ends by light sanding with #100 grit aluminum oxide cloth (obtain locally). Further clean and prime for bonding by applying the P/N EC-3911

degreaser/primer contained in the kit. Allow the degreaser/primer to dry to a white powder, then wipe off with a CLEAN, lint-free cloth.

CAUTION

All traces of the white powder must be removed from the mating surfaces and these surfaces **MUST NOT BE TOUCHED** with the hands after cleaning. White cotton gloves may be used for handling parts after cleaning.

9. Thoroughly mix the P/N EA-9309 adhesive contained in the kit per the manufacturers instructions in a plain paper (not waxed) cup or bowl. Use a wooden stirring rod for mixing. Plastic and/or styrofoam containers and mixing tools may not be suitable with this adhesive.

Service Instructions No. 1256

Install the balance weight into the original rib ends and apply the adhesive to the balance weight, rib flange, rudder skin and inside surface of the P/N 108-630000-33 and P/N 108-630000-35 brackets. Install the brackets in place, and install P/N AN23-21 /M/ bolts, P/N AN320-3 nuts and MS24665-132 cotter pins from the kit in the original balance weight attach holes.

10. Install the original bolts, nuts and two new MS24665-132 cotter pins in the two new holes which were drilled in Step 7. Install P/N NAS1738B4-2 and P/N

CR2245-4-1 rivets as shown in the illustration. Allow the adhesive to cure for 24 hours per the manufacturers instructions and keep the unused adhesive in the mixing vessel as an indicator of complete cure.

11. Refer to the Maintenance Manual, Chapter 55-40, check the rudder balance and rebalance if necessary.

12. Refer to the Maintenance Manual, Chapter 27-20, install the rudder, and check the rudder travel and cable tension.

RECORD

COMPLIANCE:

Upon completion of these Service Instructions, make an appropriate maintenance record entry specifying the kit identification number and the kit serial number. It is recommended that the parts list contained in the kit be filed for future reference until the listing of parts has been incorporated into the Parts Catalog.