

**Kit No. 76-4004-1 S**

**SUBJECT:** **WINGS - INSTALLATION OF WASHERS ON THE WING LOWER SPLICE PLATE BOLTS AND INSPECTION OF THE WING UPPER SPLICE PLATE**

**SYNOPSIS OF CHANGE:** Changed WARRANTY by limiting warranty coverage to December 31, 1987.

**EFFECTIVITY:** BEECHCRAFT Duchess 76, serials ME-3 through ME-377, ME-379 through ME-428, ME-430 and ME-432.

**REASON:** To install additional washers to wing lower splice plate bolts, inspect the wing upper splice plate for possible tool marks and to provide a kit for repair, if necessary.

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

No Airworthiness Directive has been issued on the matter covered by this Service Bulletin as of the issue date shown herein.

**APPROVAL:** Engineering data contained in this Service Bulletin is FAA approved.

**MANPOWER:** The following information is for planning purposes only:

Estimated man-hours to install washers: 5 hours.

Suggested number of men: 2 men.

Estimated man-hours for tool mark inspection: 2 hours.

Estimated man-hours for modification if required: 3 hours.

Suggested number of men: 1 man.

The above is an estimate based on experienced, properly equipped personnel complying with this Service Bulletin. Occasionally, after work has started, conditions may be found which could result in additional man-hours.

DB-334 M

**Issued: August, 1985****Revised: July, 1987****1 of 4**

Beech Aircraft Corporation issues service information for the benefit of owners and fixed base operators in the form of two classes of Service Bulletins. MANDATORY (Red Border) Service Bulletins are changes, inspections and modifications that could affect safety. The factory considers compliance with these Service Bulletins mandatory. OPTIONAL (No Border) Service Bulletins cover changes, modifications, improvements or inspections the factory feels will benefit the owner and although highly recommended, they are not considered mandatory compliance at the time of issuance, unless so stated in the publication. Due to the wide range of information covered by the OPTIONAL Service Bulletin, each owner/operator is responsible for conducting a thorough review of each Optional Service Bulletin and determine if compliance is required based on the applicability of the OPTIONAL Service Bulletin to his particular set of operating conditions. Both classes are mailed to:

- BEECHCRAFT Authorized Outlets.
- Owners of record on the FAA Aircraft Registration Branch List and the BEECHCRAFT International Owner Notification Service List.

(c) Those having a publications subscription.

Information on Owner Notification Service or Subscriptions can be obtained through any BEECHCRAFT Authorized Outlet. As Service Bulletins are issued, temporary notification in the Service Bulletin Master index should be made until the index is revised. Warranty will be allowed only when specifically defined in the Service Bulletin and in accordance with the Beech Aircraft Corporation Warranty Policy.

Unless otherwise designated, Beech Aircraft Corporation Service Bulletins as well as BEECHCRAFT kits are approved for installation on BEECHCRAFT airplanes in original or BEECHCRAFT modified configurations only. BEECHCRAFT Service Bulletins and Kits may not be compatible with airplanes modified by STC installations or modifications other than BEECHCRAFT Approved kits.

98-3907 ID



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**MATERIAL:** The following parts required for this modification, may be ordered through a BEEHCRAFT Authorized Outlet:

<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY PER AIRPLANE</b>
AN960-416L	Washer	1 required
AN960-416L	washer	28 required
76-4004-1 S	Kit - Upper Splice Plate Bolt Installation	1, if required

Beech Aircraft Corporation expressly reserves the right to supersede, cancel and/or declare obsolete any kits or publications that may be referenced in this Service Bulletin without prior notice.

### **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 CREDIT:** Warranty credit for parts and labor to the extent noted under MATERIAL and MAN-POWER will be allowed on all affected airplanes.

Warranty coverage offered in this Service Bulletin will expire December 31, 1987. After this date, the owner/operator assumes the responsibility for the compliance and cost. Beech Aircraft Corporation reserves the right to void continued warranty coverage in the area affected by this Service Bulletin if this Service Bulletin is not complied with.

All warranty reimbursements are handled through franchised BEEHCRAFT Authorized Outlets. 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 a BEEHCRAFT Authorized Outlet.

**SPECIAL TOOLS:** P/N 105-10 Huck bolt collar splitter or equivalent (P/N of Huck Mfg. Co., Carson, Ca. 90745)

**WEIGHT AND BALANCE:** None.

**REFERENCES:** BEEHCRAFT Duchess 76 Maintenance Manual, P/N 105-590000-7 or subsequent, Chapter 57-00.

**PUBLICATIONS AFFECTED:** It is recommended that a note to "See Service Bulletin No. 2038, Rev. I" be made in the following:

BEEHCRAFT Duchess 76 Maintenance Manual, P/N 105-590000-7 or subsequent, Chapter 57-00.

BEEHCRAFT Duchess 76 Parts Catalog, P/N 105-590000-9C or subsequent, Chapter 54-30;

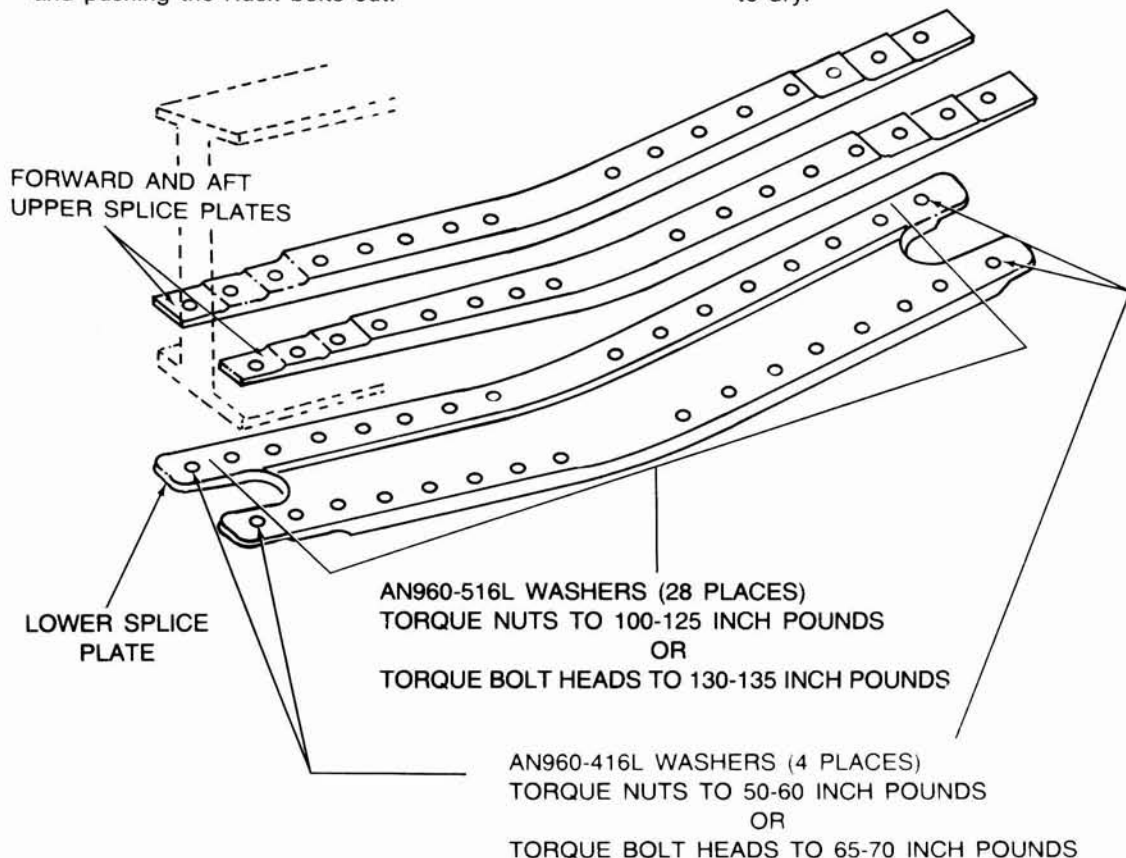
**ACCOMPLISHMENT INSTRUCTIONS:** This Service Bulletin may be accomplished as follows:

1. Refer to the Maintenance Manual and remove the seats, floorboard assemblies and spar cover to gain access to the wing splice plates.
2. Remove the nuts from all of the bolts in the wing lower splice plate. DO NOT REMOVE THE BOLTS. Retain the attaching hardware.
3. Install a P/N AN960-416L washer, in addition to the existing washer, under the nuts on the two bolts on each end of the lower splice plate. Torque the nuts to 50-60 inch pounds or torque the bolt head to 65-70 inch pounds.
4. Install a P/N AN960-516L washer, in addition to the existing washer, to each of the remaining twenty-eight bolts. Torque the nuts to 100-125 inch pounds or torque the bolt heads to 130-135 inch pounds. See Figure 1.
5. Inspect the wing upper splice adjacent to each of the six center forward Huck bolts for tool marks in the radius of the web and splice plate. See Figure 2.
6. If no tool marks are found, proceed to Step 14.
7. If tool marks are found, and are less than .050 inch deep, remove the affected Huck bolts in the upper splice plate by splitting the collars with a P/N 105-10 collar splitter or equivalent and pushing the Huck bolts out.

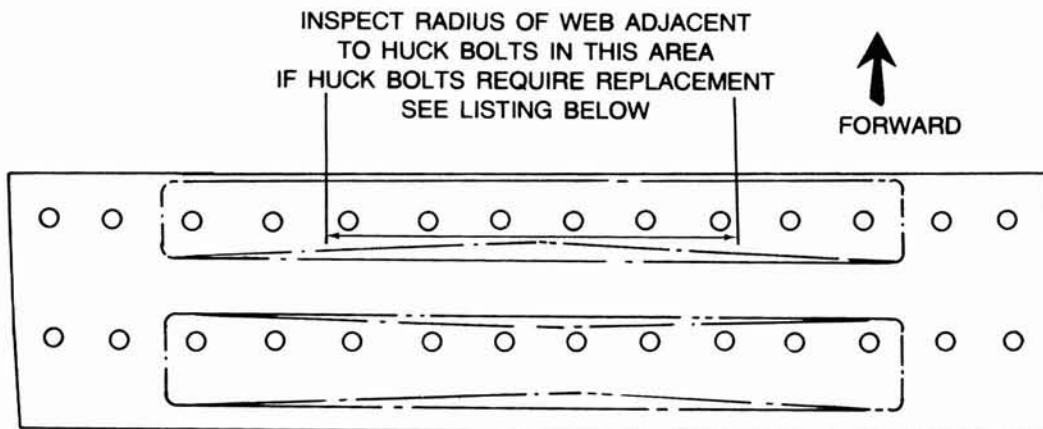
**CAUTION**

It is permissible to split the Huck bolt collars with a chisel, however, the splice plate must be protected from possible nicks by placing large washers over the collars and down against the splice plate. IF THE SPLICE PLATE IS NICKED OR OTHERWISE DAMAGED WHEN SPLITTING THE COLLARS, THE SPLICE PLATE MUST BE REPLACED.

8. Polish the tool marks out evenly using aluminum oxide paper or cloth. Finish polish with 400 grit or finer aluminum oxide paper or cloth.
9. If the tool marks are deeper than .050 inch, contact:  
Beech Aircraft Corporation Commercial Service Department Wichita, Kansas Telephone (316) 681-8495 TWX No. 203603
10. Coat the areas which were polished in Step 8 with ALODINE 1200, 1200S or 1201 chemical conversion coating (obtain locally). Allow the coating to dwell (five minutes). Wash the coated areas with water and blow dry with air (do not wipe dry). Paint the treated areas with zinc chromate primer (obtain locally) and allow to dry.



**LOWER SPLICE PLATES**  
Figure 1



130909B98 BOLTS  
MS20002C5 WASHERS (UNDER BOLT HEAD)  
AN960-516 WASHERS (UNDER NUT-MAX. 3 EA. BOLT)  
MS20365-524A NUTS

TORQUE ON NUTS 100-125 INCH POUNDS  
TORQUE ON BOLT 130-135 INCH POUNDS

### UPPER SPLICE PLATE Figure 2

11. Install a P/N 130909B98 bolt (head up), with a P/N MS20002C5 washer under each bolt head into the the upper splice plate. Ensure that the chamfered side of the washer is against the bolt head.
12. Install a P/N AN960-516 washer and a P/N MS20365-524A nut on the bolts which were installed in the previous step. A maximum of three P/N AN960-516 washers may be used under each nut.
13. Torque the nuts to 100-125 inch pounds or the bolt heads to 130-140 inch pounds.
14. Reinstall the spar cover, spar inspection plate and the floorboard assemblies.

**RECORD COMPLIANCE:** Upon completion of this Service Bulletin, 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.

### NOTE

If you are no longer in possession of this airplane, please forward this information to the present owner.