Beechcraft

CLASS I

SERVICE INSTRUCTIONS

76

No. 1087
ATA Code 27-10

SUBJECT: **FLIGHT CONTROLS - INSPECTION AND/OR REPLACEMENT OF THE STOP BOLT NUTS FOR THE AILERON AND RUDDER BELL CRANKS**

EFFECTIVITY:

PART I

BEECHCRAFT Duchess 76, serials ME-1 through ME-149, ME-151 through ME-164, ME-166, ME-168 through ME-181, ME-184 through ME-190, ME-192 and ME-193.

PART II

BEECHCRAFT Duchess 76, serials ME-1 through ME-164, ME-166, ME-168 through ME-181, ME-184 through ME-193, ME-195 and ME-198.

REASON: To ensure that self locking nuts are installed on the aileron and rudder bell crank stop bolts.

COMPLIANCE: Beech Aircraft Corporation considers this to be a mandatory inspection and/or modification and it should be accomplished as soon as possible after receipt of these Service Instructions, but no later than the next 25 service hours. BEECHCRAFT EXECUTIVE AIRPLANE SAFETY COMMUNIQUE NO. 76-50 HAS BEEN ISSUED ON THIS SUBJECT FOR PART I ONLY.

APPROVAL: FAA Approved - DOA CE-2.

MANPOWER: The following information is for planning purposes only:

PART I

Estimated man-hours: 3 hours.
Suggested number of men: 1 man.

PART II

Estimated man-hours: 1.5 hour.
Suggested number of men: 1 man.

MATERIAL: The following parts which may be required may be ordered through BEECHCRAFT Aero or Aviation Centers and International Distributors and Dealers, or may be obtained from local sources.

CLASS I

PART NUMBER	DESCRIPTION	QUANTITY
MS21044N4 or MS20365-428A	Nut	4 per airplane for Part I, 2 per airplane for Part II

WARRANTY: Warranty credit for parts and labor to the extent noted under MATERIAL and MANPOWER will be allowed on all affected airplanes listed under EFFECTIVITY for claims which are submitted prior to January 31, 1980.

All warranty reimbursements are handled through franchised BEECHCRAFT 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: Duchess 76 Maintenance Manual, P/N 105-590000-7 or subsequent, Chapter 27-10. BEECHCRAFT Executive Airplane Safety Communique No. 76-50.

PUBLICATIONS AFFECTED: None.

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

PART I: FOR AIRPLANES THAT HAVE NOT COMPLIED WITH SAFETY COMMUNIQUE No. 76-50.

1. Remove the round inspection plates on the lower wing surface just forward of the inboard end of the aileron.
2. Using a flashlight and mirror as required, inspect the nuts on the forward and aft aileron bell crank stop bolts to determine that they are self locking nuts.

NOTE

The aft bell crank stop bolt is located in the first wing rib just inboard of the aileron, just forward of the bell crank cutout in the rib. The forward stop bolt is located on a small bracket on the forward side of the main wing spar and can be observed through the bell crank cutout in the spar.

3. If self locking nuts are installed, no further action is required on Part I.
4. If the nuts are not the self locking type, they must be removed and replaced with MS21044N4 or MS20365-428A self locking nuts. Torque to 50-70 inch-pounds.

CAUTION

The relative position of the stop bolts as they pass through the rib and/or bracket must be maintained. The outboard end of the aft stop bolt has a specified number of shims installed to maintain the relative position of the stop bolt to the rib. DO NOT REMOVE OR ADD SHIMS! The outboard end of the forward stop bolt has an adjusting nut installed to maintain the stop bolt position relative to the bracket. The position of the adjusting nut and the bolt must be maintained while tightening the locking nut on the inboard side of the bracket.

5. After replacing the nuts on both wings, check the aileron deflection as described in the Maintenance Manual.

PART II

1. Remove the tail cone to expose the rudder bell crank and stop bolts.
2. Inspect the securing nuts on both stop bolts to determine if they are self locking nuts.

NOTE

Each stop bolt has an adjusting nut on the outboard side of the stop bracket. The securing nut on the inboard side of the mounting bracket is the nut to be inspected and/or replaced.

3. If self locking nuts are installed, no further action is required.
4. If the nuts are not the self locking type, they must be removed and replaced with MS21044N4 or MS20365-428A self locking nuts. Torque to 50-70 inch-pounds.

CAUTION

The relative position of the stop bolts as they pass through the bracket must be maintained. The outboard end of each stop bolt has an adjusting nut installed to maintain the stop bolt position relative to the bracket. The position of the adjusting nut and the bolt must be maintained while tightening the locking nut on the outboard side of the bracket.

5. After replacing the nut on each stop bolt, check the rudder deflection as described in the Maintenance Manual.

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