

77

No. 2243  
ATA Code 32-10

**SUBJECT:** LANDING GEAR - INSTALLATION OF MAIN LANDING GEAR SINGLE PIECE BRACE NUT AND COLLAR AND ELLIPTICAL BUSHING RETAINER

**REASON:** This Service Bulletin is being issued to offer a single piece retainer nut and improved elliptical bushing retainer for the main landing gear strut in the fuselage support fitting. Beech Aircraft Corporation has received reports of debonding of the strut collars resulting in landing gear looseness and vibration during ground operations.

**EFFECTIVITY:** BEECHCRAFT Skipper 77, serials WA-1 through WA-312.

**COMPLIANCE:** At the owner's/operator's discretion.

This Service Bulletin supersedes and cancels BEECHCRAFT Service Bulletin No. 2003.

**APPROVAL:** Engineering data contained in this Service Bulletin 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, properly equipped personnel complying with this Service Bulletin. Occasionally, after work has started, conditions may be found which could result in additional man-hours.

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

PART NUMBER	DESCRIPTION	QUANTITY PER AIRPLANE
108-810020-3	Retainer Nut	2 Required
77-8003-1 S	Kit Information - Elliptical Bushing Retainer Installation	1, If Required
AN960-516	Washer	As Required
AN960-516L	Washer	As Required

Safety wire required for this modification, may be obtained from local sources. The value of the parts required to incorporate this Service Bulletin on one airplane is to be advised.

**SPARES AFFECTED:** None.

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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:

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- (a) BEECHCRAFT Authorized Outlets.
- (b) 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.

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**WARRANTY CREDIT:** None.

**SPECIAL TOOLS:** None.

**WEIGHT AND BALANCE:** None.

**REFERENCES:** BEECHCRAFT Skipper 77 Maintenance Manual, P/N 108-590000-7 or subsequent, Chapter 7-00 and 32-10.

**PUBLICATIONS**

**AFFECTED:** BEECHCRAFT Skipper 77 Parts Catalog, P/N 108-590000-9B or subsequent, Chapter 32-10.

**ACCOMPLISHMENT**

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

1. Refer to Chapter 7 of the Maintenance Manual and place the airplane on jacks.
2. Refer to Chapter 32-10 of the Maintenance Manual for removal of the main landing gear. Remove only one gear at a time.
3. Refer to Figure 1 and remove and discard the existing collar and nut from the LH, RH or both landing gear struts. Remove the adhesive from the strut.

**NOTE**

The use of moderate heat (do not exceed 200°) may be advantageous in the removal of the existing collars and nuts.

4. Install a new P/N 108-810020-3 retainer nut. Do not tighten until Step 5 has been accomplished. The single piece brace nut and collar (retainer nut) does not require bonding.
5. Prior to reinstallation of the landing gear struts, check to see if BEECHCRAFT Service Bulletin No. 2003 has been accomplished previously. Service Bulletin No. 2003 modifies the elliptical bushing (Fig 2) by the addition of the bushing retainer contained in Kit No. 77-8003-1 S. If this modification has not been accomplished, remove the elliptical bushings from the fuselage fittings and perform the following:
  - a. Locate the two tooling holes in the inboard side of the elliptical bushing. Drill a .2720 inch diameter hole to a depth of .56 inch. Tap the holes to 5/16 - 24 thread, starting with a tapered tap and finishing with a bottoming tap as shown in Figure 2.

**NOTE**

Inspect the condition of the Urethane coating on the elliptical bushing. If the coating is damaged, a new bushing will be required.

- b. When installing the retainer ensure that the alignment dots on the elliptical bushing and strut support fitting are aligned exactly. Using a spanner wrench, torque the P/N 108-810020-3 retainer nut (Fig.2) to 125-150 inch-pounds. Ensure that the alignment dots align after torquing. Safety the retainer nut.

**NOTE**

In some cases, the retainer nut may contact the strut support fitting prior to reaching full torque. It is permissible to remove sufficient material from the edge of the strut support fitting to permit torquing the retainer nut.

- c. Install a P/N 108-810000-7 retainer as shown in Figure 2 using two P/N MS20073-05-05 /M/ bolts. Place P/N AN960-516 or P/N AN960-516L washers (obtain locally) between the bushing and retainer as required to maintain a spacing of .03 to .09 inch between the retainer and support fitting as shown in Figure 2. Torque the bolts to 56 - 78 inch-pounds and safety.

- d. Reinspect for .03 to .09 inch clearance between the retainer and support fitting.

6. Reinstall both landing gears in accordance with the Maintenance Manual.

7. Remove the airplane from the jacks.

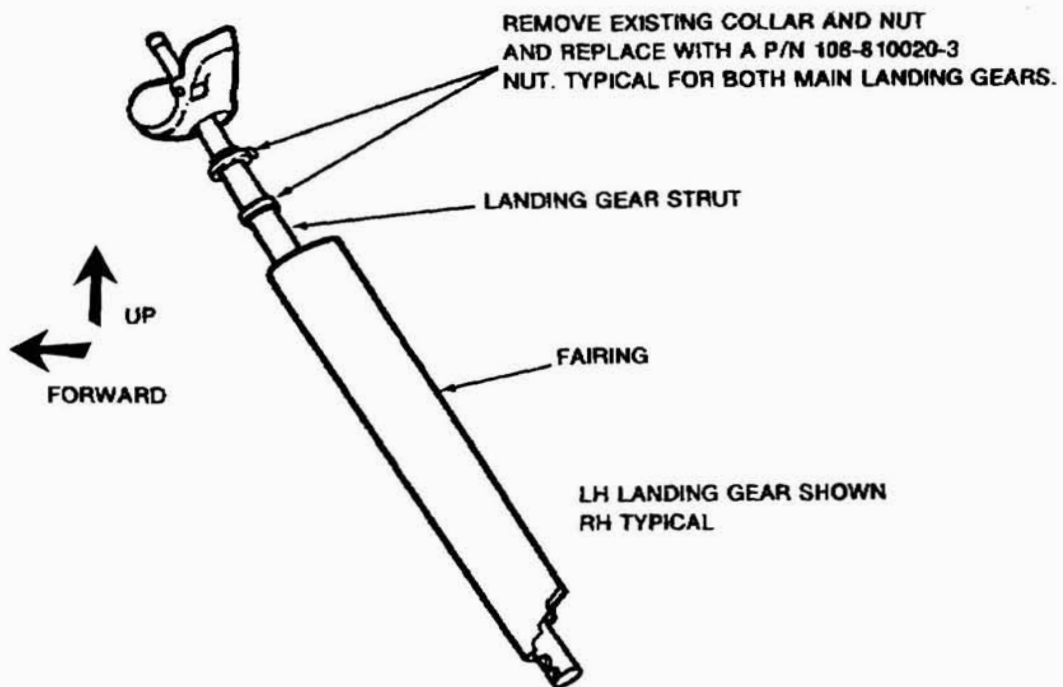


Figure 1

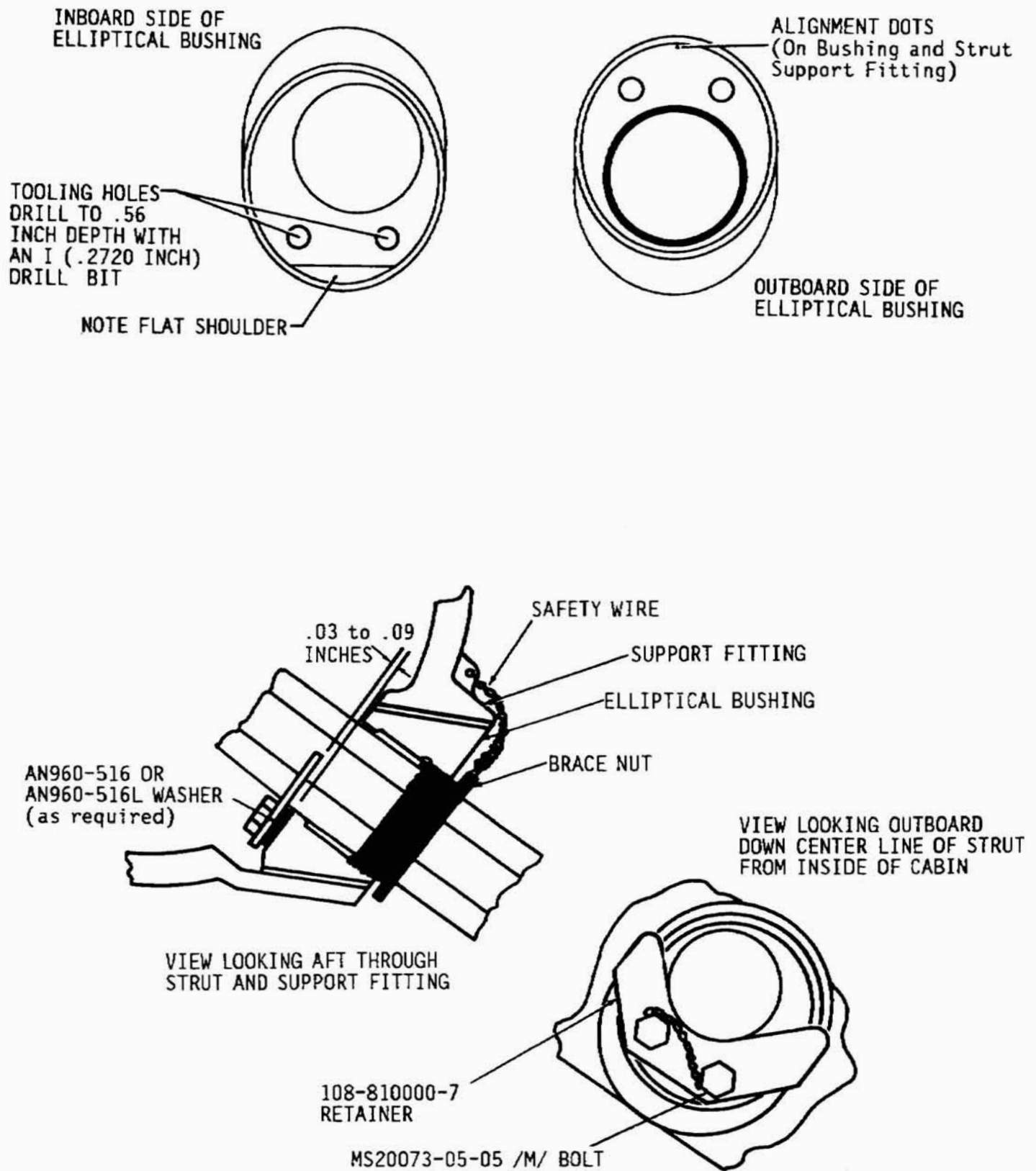


Figure 2

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

**NOTE**

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