

19, 23, 24

No. 2014  
ATA Code 32-10

## Kit No. 23-8009-1 S

**SUBJECT:** LANDING GEAR - REMOVAL OF FREE PLAY IN MAIN LANDING GEAR

**EFFECTIVITY:** BEEHCRAFT A23-19, 19A, M19A and B19, serials MB-1 through MB-520;  
B19 Sport 150, serials MB-521 through MB-905;  
23, A23, A23A, B23 and C23, serials M-1 through M-1361;  
C23 Sundowner 180, serials M-1362 and after;  
A23-24 and A24, serials MA-1 through MA-368.

**REASON:** To provide a method of repair of main landing gear assemblies that have free play at the base of the landing gear weld assembly.

**COMPLIANCE:** Beech Aircraft Corporation recommends that the repair specified herein be accomplished at any time free play is indicated at the base of the landing gear weld assembly during normal operation of the airplane or at any routine inspection interval.

This Service Bulletin supersedes and cancels BEEHCRAFT Service Instructions No. 1078 by extending the EFFECTIVITY.

### NOTE

Unless previously accomplished, this Service Bulletin should be accomplished in conjunction with BEEHCRAFT Service Instructions No. 0465-202, Rev. II.

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

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

Estimated man-hours: 10 hours.

Suggested number of men: 2 men.

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

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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:

(a) BEEHCRAFT Authorized Outlets.  
(b) Owners of record on the FAA Aircraft Registration Branch List and the BEEHCRAFT International Owner Notification Service List.

(c) Those having a publications subscription.

Information on Owner Notification Service or Subscriptions can be obtained through any BEEHCRAFT 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 BEEHCRAFT kits are approved for installation on BEEHCRAFT airplanes in original or BEEHCRAFT modified configurations only. BEEHCRAFT Service Bulletins and Kits may not be compatible with airplanes modified by STC installations or modifications other than BEEHCRAFT Approved kits.

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**MATERIAL:**

The following parts required for this repair may be ordered through BEEHCRAFT Aero or Aviation Centers and International Distributors and Dealers. The value of the parts required for the incorporation of this Service Bulletin on one airplane is to be advised. Prices, 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 this Service Bulletin without prior notice.

PART NUMBER	DESCRIPTION	QUANTITY PER AIRPLANE
NAS1669-6L7	Jo-Bolt	As Required
NAS1751-6L7*	Oversize Jo-Bolt	As Required
23-8009-1 S	Kit - Filler Inst'l	1 Per Airplane

\* Alternate Jo-Bolt for oversize holes.

**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:**

None.

**SPECIAL TOOLS:**

None.

**WEIGHT AND BALANCE:**

None.

**REFERENCES:**

BEEHCRAFT 19, 23 and 24 series Shop Manual, P/N 169-590015G or subsequent, Section 3. BEEHCRAFT Service Instructions No. 0465-202, Rev. II or subsequent.

**PUBLICATIONS AFFECTED:**

None.

**ACCOMPLISHMENT INSTRUCTIONS:**

This Service Bulletin may be accomplished as follows:

**NOTE**

The following steps are applicable to both the LH and RH main landing gear.

1. Remove the screws which attach the main landing gear fairing to the housing. Slide the fairing down to expose the Jo-Bolts, grind the heads off the two existing Jo-Bolts in each main landing gear and push the Jo-Bolt stems through the holes to the inside of the landing gear housing.

2. Allow the full weight of the airplane to rest on the landing gear.

**NOTE**

If the original housing and weld assembly are to be reused, align the original bolt holes in the housing and weld assembly prior to any drilling or reaming. If a new housing or weld assembly is installed, set the main landing gear alignment as directed in Section 3 of the Shop Manual prior to drilling and reaming.

3. If the Jo-Bolt holes are elongated or exceed .379 inch in diameter, drill two new .375/.379 inch diameter holes 2.75 inches above the bottom of the weld assembly (1.25 inches below the original holes), or ream the existing holes to .3905/.3935 inch diameter to accommodate NAS1751-6L7 oversize Jo-Bolts.

4. Disconnect and cap the brake lines on each main landing gear.
5. Jack the airplane and cradle the wings and fuselage to remove weight from the landing gear.
6. Remove the housings from the weld assemblies, deburr and treat for corrosion protection as instructed in Section 3 of the Shop Manual. Remove the Jo-Bolt stems which were pushed out of the holes in Step 1.
7. Sand the radius at the base of the housing stem with aluminum oxide cloth or paper.
8. Clean off all sanding residue with naphtha or equivalent.
9. Clean the radius inside the bottom of the weld assembly with naphtha or equivalent.
10. Apply RELEASE-ALL 50 parting agent around the inside bottom edge of the weld assembly in a thin, even coat. Be certain the area with parting agent extends beyond the area of the magnesium housing to be filled. **DO NOT ALLOW THE PARTING AGENT TO CONTACT THE MAGNESIUM HOUSING** prior to application of the filler compound.
11. Mix the full kit of filler compound as follows:
  - a. Thoroughly mix EPON 828 with DTA 951 catalyst.
  - b. Add VERSAMID 125 and mix thoroughly with the EPON 828 and DTA catalyst mix.
  - c. Add BLACK IRON OXIDE and stir thoroughly until all of the oxide powder has been evenly dispersed.
  - d. Add GLASS FLOC in several portions and stir thoroughly after each addition until a thick, uniform putty is

obtained. No evidence of unmixed glass fibers should be present.

12. Apply the filler around the radius at the base of the magnesium housing stem. Use only enough filler to assure full mating of the radius on the weld assembly and the housing.

13. Insert the landing gear housings into the weld assemblies and carefully lower the airplane until the full weight of the airplane is on the landing gear and install the new Jo-Bolts. **DO NOT MOVE THE AIRPLANE OR THE LANDING GEAR UNTIL THE FILLER HAS SET FULLY (Approximately 24 hours).**

14. After installation of the Jo-Bolts, apply torque of 30 inch-pounds to the head of the Jo-Bolt in the counter-clockwise direction. The bolt should not rotate. **DO NOT EXCEED 30 INCH-POUNDS.** If the Jo-Bolt should rotate during the torque application, the Jo-Bolt should be removed and replaced with a new Jo-Bolt.

**NOTE**

If a Jo-Bolt must be replaced, both Jo-Bolts must be removed, the housing removed from the weld assembly and the Jo-Bolt stems removed from the housing prior to reassembly.

15. Allow the filler to cure for 24 hours at room temperature. Full hardening of the residue of filler compound in the mixing vessel may be used as an indication of full hardening of the compound on the landing gear weld assembly.

16. Reconnect the brake lines, reinstall the landing gear fairing and bleed the brake system as necessary.

17. Touch up paint as required.

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**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.