

SERVICE BULLETIN

Beech

TITLE: LANDING GEAR - MAIN LANDING GEAR TORQUE KNEE REPLACEMENT

1. Planning Information

A. Effectivity

(1) Airplanes

(a) Civil

Beech King Air Model 65-90, 65-A90, B90, C90, C90A, Serials LJ-1 through LJ-1559;
Model E90, Serials LW-1 through LW-347.

(b) Military

Model 65-A90-1 and variants, Serials LM-1 through LM-141;

Model 65-A90-4 and variants, Serials LU-1 through LU-16.

H-90 (T-44A), Serials LL-1 through LL-61

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

(2) Spares

None.

B. Reason

This Service Bulletin is being issued to announce the availability of steel torque knees for the replacement of both main landing gear upper and lower torque knees eliminating recurring inspection requirements of Mandatory Service Bulletin 32-3134, Rev. 1 for fatigue cracks.

C. Description

This Service Bulletin will replace both main landing gear aluminum upper and the steel lower torque knees with new steel alloy torque knees and removes the 1,000 cycle/2 year inspection requirement specified in Mandatory Service Bulletin 32-3134, Rev. 1.

Raytheon Aircraft Company (RAC) issues Service Information for the benefit of owners and fixed base operators in the form of two classes of Service Bulletins. The first class, Mandatory Service Bulletins (red border) includes changes, inspections and modifications that could affect safety or crashworthiness. RAC also issues Service Bulletins with no red border which are designated as either recommended or optional in the compliance section within the bulletin. In the case of recommended Service Bulletins, RAC feels the changes, modifications, improvements or inspections will benefit the owner/operator and although highly recommended, Recommended Service Bulletins are not considered mandatory at the time of issuance. In the case of Optional Service Bulletins, compliance with the changes, modifications, improvements or inspections is at the owner/operator's discretion. Both classes are mailed to:

- (a) RAC Authorized Service Centers.

- (b) Owners of record on the FAA Aircraft Registration Branch List and the RAC International Owner Notification/Registration Service List.

- (c) Those having a publications subscription.

Information on Owner Notification Service or subscription can be obtained through any RAC Authorized Service Center. As Mandatory Service Bulletins and 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 RAC Warranty Policy.

Unless otherwise designated, RAC Mandatory Service Bulletins, Service Bulletins and RAC Kits are approved for installation on RAC airplanes in original or RAC modified configurations only. RAC Mandatory Service Bulletins, Service Bulletins and Kits may not be compatible with airplanes modified by STC installations or modifications other than RAC approved kits.



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SERVICE BULLETIN

D. Compliance

(1) Civil Airplanes

Raytheon Aircraft Company considers this to be a Recommended Service Bulletin and can be accomplished if cracks are found in the torque knees when complying with Mandatory Service Bulletin 32-3134, Rev. 1.

(2) Military Airplanes

For compliance information on military airplanes affected by this Service Bulletin, contact the appropriate headquarters.

E. Approval

The engineering data contained in this Service Bulletin is FAA approved.

F. 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.

G. Weight and Balance

Negligible.

H. Electrical Load Data

Not changed.

I. Software Accomplishment Summary

Not applicable.

J. References

Beech King Air 90,A90, B90, C90, C90A, E90 Maintenance Manual P/N 90-590012-13B4 or subsequent revision, Chapter 32.

K. Publications Affected

Beech King Air 90,A90, B90, C90, C90A, E90 Maintenance Manual P/N 90-590012-13B4 or subsequent revision, Chapter 32;

Beech King Air Series Component Maintenance Manual P/N 101-590097-13A15 or subsequent revision Chapter 32;

Beech King Air 90, A90, B90 Illustrated Parts Catalog P/N 65-590016-3F9 or subsequent revision, Chapter 32;

SERVICE BULLETIN

RAYTHEON AIRCRAFT Beech King Air C90 Series Illustrated Parts Catalog, P/N 90-590012-17F1 or subsequent revision, Chapter 32;

Beechcraft King Air Model H90 (T-44A) Illustrated Parts Catalog P/N 92-38880-A7, or subsequent revision, Chapter 32.

L. Interchangeability of Parts

Not applicable.

M. Warranty Credit

(1) Civil Airplanes

Refer to SB 32-3134, Rev. 1 for inspection requirements and warranty information.

(2) Military Airplanes

For warranty information on military airplanes affected by this Service Bulletin, contact the appropriate headquarters.

2. Material Information

A. Materials - Price and Availability

Contact a Raytheon Aircraft Authorized Service Center for information.

B. Industry Support

Not applicable.

C. Airplanes

Materials

The following parts required for this modification may be ordered through a Raytheon Aircraft Authorized Service Center:

Part Number	Description	Quantity Per Airplane
50-810032-12	Main landing gear upper torque knee	2
50-810295-25	Main landing gear lower torque knee	2

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

D. Spares

Not applicable.

SERVICE BULLETIN

E. Reidentified Parts

None.

F. Tooling - Price and Availability

Not applicable.

3. Accomplishment Instructions

This Service Bulletin shall be accomplished as follows:

NOTE

Should any difficulty be encountered in accomplishing this Service Bulletin, contact Raytheon Aircraft Company at 1-800-429-5372 or 316-676-3140 for commercial aircraft, and appropriate headquarters for military aircraft.

A. Airplane

WARNING

Observe all Warnings and Cautions contained in the aircraft manuals referred to in this Service Bulletin.

Whenever any part of this system is dismantled, adjusted, repaired or renewed, detailed investigation must be made on completion to make sure that distortion, tools, rags or any other loose articles or foreign matter that could impede the free movement and safe operation of the system are not present, and that the systems and installations in the work area are clean.

- (1) Remove all power from the airplane and disconnect the battery.
- (2) Pull the landing gear control circuit breaker and place a note on the circuit breaker panel that landing gear maintenance and rigging are in progress.

WARNING

Stay clear of the wheel wells, landing gears, and gear doors while the landing gear is in operation.

Never service the accumulator or the hydraulic system or do maintenance or rigging of the landing gear without first placing the airplane on jacks (Serials LJ-1063 through LJ-1559).

When jacking the airplane in an unsheltered area where winds in excess of 35 knots may be encountered, never jack more than one gear clear of the ground at a time.

SERVICE BULLETIN

WARNING

Anytime the landing gear is only partially retracted during maintenance, always cycle the gear with the normal extension/retraction system through at least one complete cycle before removing the airplane from jacks.

When working on a landing gear or its associated hydraulic retraction system, be aware that movement of a hydraulic actuating cylinder may cause unanticipated movement of other actuating cylinders in the system (Serials LJ-1063 through LJ-1559).

Raise jacks to a height sufficient only to support the weight of the airplane. Do not raise the tires off the floor. Having the tires in contact with the floor will prevent the main landing gear lower pistons from extending after the torque knees are removed.

- (3) Place the airplane on jacks to support the weight of the airplane per Chapter 7 of the applicable maintenance manual.
- (4) Remove both upper and lower torque knees from the airplane per Chapter 32 of the applicable maintenance manual.
- (5) Install the new P/N 50-810295-25 lower torque knee and the new P/N 50-810032-12 upper torque knee per Chapter 32 of the applicable maintenance manual.

WARNING

While rigging the landing gear, observe the mechanical components and hydraulic lines (Serials LJ-1063 through LJ-1559) for any indications of binding, dragging, interference, leakage, or questionable operation. Correct any discrepancy(cies).

- (6) Jack the airplane so the wheels clear the floor per Chapter 7 of the applicable maintenance manual.
- (7) Connect battery and reset the landing gear control circuit breaker.
- (8) Perform a landing gear system rigging and retraction check per Chapter 32 of the appropriate maintenance manual.

WARNING

Before removing the airplane from the jacks, make sure that the manual extension hand pump handle is in the stowed position. In airplanes with Raytheon Aircraft hydraulic landing gear, make sure that the red knob (plunger) on the service valve is pushed down and safety wired, that the plunger retainer and safety pin (detent pin), are installed (Serials LJ-1063 through LJ-1559). Verify that the landing gear control handle is in the DOWN position, and that the landing gear is down and locked.

SERVICE BULLETIN

- (9) Remove the airplane from jacks per Chapter 7 of the applicable maintenance manual.
- (10) Ensure all work areas are clean and clear of tools and miscellaneous items of equipment.
- (11) Return the airplane to service.

B. Spares

Not applicable.

C. Record of Compliance

Upon completion of this Service Bulletin, make an appropriate maintenance record entry.