



CLASS I SERVICE INSTRUCTIONS

CLASS I

77

No. 1217
ATA Code 32-20

SUBJECT: LANDING GEAR - REPLACEMENT OF THE NOSE LANDING GEAR AXLE.

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

REASON: To provide an improved nose landing gear axle.

COMPLIANCE: Beech Aircraft Corporation considers this to be a mandatory modification and it should be accomplished as soon as possible after receipt of these Service Instructions, but no later than the next 50 service hours.

NOTE

Beech Aircraft Corporation recommends that Service Instructions No. 1218 or subsequent revision be accomplished prior to, or in conjunction with these Service Instructions.

APPROVAL: Engineering data contained in these Service Instructions is FAA approved.

MANPOWER: The following information is for planning purposes only:

Estimated man-hours: 2 hours.
Suggested number of men: 1 man.

MATERIAL: The following parts required for this modification may be ordered through BEECHCRAFT Aero or Aviation Centers and International Distributors and Dealers.

PART NUMBER	DESCRIPTION	QUANTITY PER AIRPLANE
108-820039-1 or 108-820039-3	Axle	1 req.
MS24665-359	Cotter Pin	1 req.

WARRANTY: Warranty credit for parts and labor to the extent noted under MATERIAL and MANPOWER will be allowed on all affected airplanes.

DJ-140
382 I

1 of 3

Beech Aircraft Corporation issues service information for the benefit of owners and fixed base operators in the form of three classes of Service Instructions. CLASS I (Red Border) are changes, inspections, and modifications that could affect safety. The factory considers compliance mandatory. CLASS II (Green Border) covers changes, modifications, improvements or inspections the factory feels will benefit the owner, and although highly recommended, they are not considered mandatory compliance, unless specified at the time of issuance. Class I and II are mailed to:

- (a) BEECHCRAFT Aero or Aviation Centers and International Distributors and Dealers;
- (b) Owners of record on the FAA Registration list and the

BEECHCRAFT International Owner Notification Service List
(c) Those having a publications subscription.

CLASS III (No Border) covers changes which are optional, maintenance aids, product improvement kits and miscellaneous service information. Compliance is at the owner or operator's prerogative. Copies of Class III are distributed per a and c above. Information on Owner Notification Service or Subscriptions can be obtained through any BEECHCRAFT Aero or Aviation Center, International Distributor and Dealer, or the Factory. As Service Instructions are issued temporary notation in the index should be made until the index is revised. Warranty will be allowed only when specifically defined in the Service Instructions and in accordance with Beech Warranty Policy.

DocId:31780

Service Instructions No. 1217

All warranty reimbursements are handled through franchised BEEHCRAFT Aero or Aviation Centers and International Distributors and Dealers. 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 BEEHCRAFT Parts and Equipment Marketing Wholesalers or International Distributors.

SPECIAL

TOOLS: None.

WEIGHT AND BALANCE:

None.

REFERENCES: BEEHCRAFT Skipper 77 Maintenance Manual copies, P/N 108-590000-7 or subsequent, Chapter 32.

PUBLICATIONS

AFFECTED: It is recommended that a note to "See Service Instructions No. 1217" be made in all BEEHCRAFT Skipper 77 Parts Catalog copies, P/N 108-590000-9 or subsequent, Chapter 32.

ACCOMPLISHMENT

INSTRUCTIONS: These Service Instructions may be accomplished as follows:

1. Use a weighted tail tie down to lower the rear of the airplane. Use just enough weight to raise the nose landing gear off the ground.

2. Remove the nose landing gear wheel and tire assembly. Retain the nut and spacer.

WARNING

Deflate the strut before disconnecting the torque knee assembly.

3. Refer to the Maintenance Manual and deflate the nose landing gear strut. Disconnect the lower end of the torque knee assembly by removing the clevis pin and lower pivot pin. The lower pivot pin also serves as the tow bar attachment.

4. Loosen the two bolts which are installed at the top of the fork assembly and remove the bolt which secures the fork and axle assembly to the bottom of the piston. Remove the fork and axle assembly.

5. Remove the through-bolt, nut and washer that retain the axle in the fork. Carefully press the axle out of the fork. Use care to ensure that the fork is not scratched or marred by the press, the press table or pilot shaft if used.

WARNING

Do not use a hammer to drive the axle out.

6. Measure the diameter of the axle in the area of the fork attach bolt. If the diameter of the axle is in excess of 1.268 inch and/or the number "MRB E15428-1" is stamped in this area of the axle, a P/N 108-820039-3 axle will be required as a replacement. If the diameter of the axle is less than 1.250 inch, a P/N 108-820039-1 axle will be required as a replacement.

7. Press the appropriate new axle into the fork so that the end of the axle is flush with the edge of the hole in the fork. Use care to ensure that the axle is in correct alignment with the hole in the fork during the pressing procedure. Care should be taken for protection of the threads during this procedure.

WARNING

Do not use a hammer to drive the axle in. Warranty will not be allowed for forks damaged as a result of the pressing procedure.

8. Using the through-bolt holes in the fork as a guide, drill the axle for the through-bolt, using a .250/.257 inch diameter drill bit by drilling from each side of the axle through the outside of the fork through-bolt holes.

WARNING

Do not attempt to drill completely through the axle from one side of the fork. Drill approximately half way through the axle from each side of the fork to ensure hole alignment with the through-bolt hole in the fork.

9. Debur and treat the through-bolt hole and through-bolt holes in the fork with Epoxy Polyamide Primer conforming to MIL-P-23377 or equivalent (obtain locally).

10. Reinstall the through-bolt, washer and nut in the fork and axle and torque to 37/47 inch-pounds. Reinstall the fork and axle assembly onto the piston and torque the three bolts which secure the fork to the piston to 56/78 inch-pounds.

11. Reinstall the wheel and tire assembly, spacer and nut on the new axle using a new P/N MS24665-359 cotter pin.

CAUTION

The nose landing gear strut servicing procedures contained in these Service Instructions supersede the strut servicing procedures in the Maintenance Manual (Chapters 12-20-00, Page 2 dated Feb 27/79 and 32-20-00, Page 1 dated Feb 27/79.) A Maintenance Manual revision to reflect these procedures is in process.

12. With the strut installed and fully compressed, fill with MIL-H-5606 hydraulic fluid (obtain locally) through the filler port until it overflows.

13. Fully extend the strut and compress again to remove excess air. Add hydraulic fluid again to overflow. Repeat this process until the hydraulic fluid can no longer be added with the strut in the compressed position. The total amount of hydraulic fluid should be approximately 400 ml (approximately 4/5 pint).

14. With the strut compressed install the air valve assembly.

CAUTION

Do not inflate the strut while the weight of the airplane is off the strut, as sudden extension or over-inflation may bend the torque knee.

WARNING

Do not use oxygen to fill the strut.

15. Remove the weighted tail tie down and lower the nose of the airplane.

16. Inflate the strut until 5.80 to 6.10 inches of the piston is visible (approximately 99 psi).

RECORD

COMPLIANCE:

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