



CLASS I

SERVICE INSTRUCTIONS

76

No. 1166
ATA Code 32-10

Kit No. 76-8002-1 S

- SUBJECT:** LANDING GEAR - INSTALLATION OF IMPROVED MAIN LANDING GEAR DOORS
- EFFECTIVITY:** BEEHCRAFT Duchess 76, serials ME-1 through ME-347.
- REASON:** To install improved main landing gear doors and attaching hardware.
- 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 100 service hours.
- APPROVAL:** FAA Approved.
- MANPOWER:** The following information is for planning purposes only:

Estimated man-hours: 7 hours per airplane.
Suggested number of men: 1 man.
- MATERIAL:** The parts required to install the improved main landing gear doors on one airplane are contained in Kit No. 76-8002-1 S. The P/N 76-8002-1 S main landing gear door installation kit, P/N LOCTITE 271 thread lock adhesive and P/N EC1300L PT adhesive may be ordered through BEEHCRAFT Aero or Aviation Centers and International Distributors and Dealers. Beech Aircraft Corporation expressly reserves the right to supersede, cancel and/or declare obsolete any kits or publications that may be referenced in these Service Instructions without prior notice.

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:** Warranty credit for parts and labor to the extent noted under MATERIAL and MANPOWER will be allowed for claims received prior to October 1, 1982 on all affected airplanes.

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

BEEHCRAFT 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 BEEHCRAFT 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.

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All warranty reimbursements are handled through franchised BEECHCRAFT 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 BEECHCRAFT Parts and Equipment Marketing Wholesalers or International Distributors.

SPECIAL TOOLS: None.

WEIGHT AND BALANCE: None.

REFERENCES: BEECHCRAFT Duchess 76 Maintenance Manual, P/N 105-590000-7 or subsequent, Chapters 7-00 and 32-10.

PUBLICATIONS AFFECTED: It is recommended that a note to "See Service Instructions No. 1166" be made in all BEECHCRAFT Duchess 76 Parts Catalog copies, P/N 105-590000-9B or subsequent, Chapter 32-11.

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

1. Refer to the Maintenance Manual, Chapter 32-10 and remove the main landing gear doors and attaching hardware.

2. Position a new P/N 105-100031-35 (LH) or P/N 105-100031-36 (RH) main landing gear door on the main landing gear housing and install a new P/N 100951X063YJ washer, P/N MS35489-20 grommet, P/N 169-110029-61 bushing, two P/N 169-110029-63 nylon washers and P/N 169-110034-21 bolt assembly as shown in view C-C of the illustration.

NOTE

Apply a thin coating of LOCTITE 271 thread lock adhesive to the threads of the P/N 169-110034-21 bolt assembly before installation. The threads on the bolt assembly and the pivot pin should be cleaned and the LOCTITE 271 should be applied as specified in the manufacturer's instructions on the container. Do not allow the LOCTITE 271 to get into the grease fitting or grease hole in the end of the bolt assembly.

3. Position a P/N 105-100031-27 bracket, P/N 105-100031-29 bracket and P/N 105-100031-31 and/or P/N 105-100031-33 shims (as required) on the main landing gear door and housing as shown in view A-A of the illustration.

4. Temporarily secure the bracket assembly using the predrilled hole in the door and the hardware shown in view A-A of the illustration.

5. Drill the other .193/200 inch diameter hole through the main landing gear door using the bracket assembly as a guide as shown in view A-A of the illustration.

6. Attach the P/N 105-100031-27 bracket, P/N 105-100031-29 bracket and P/N 105-100031-31 and/or P/N 105-100031-33 shims (as required) to the main landing gear door using the hardware specified in view A-A of the illustration.

7. Position the P/N 105-100031-17 bracket on the main landing gear door and housing as shown in view B-B of the illustration and drill two .193/200 inch diameter holes through the door using the bracket as a guide.

8. Attach the P/N 105-100031-17 bracket to the main landing gear door using the hardware specified in view B-B of the illustration.

9. Install a P/N MS20392-2C27 clevis pin, AN960PD10L washer and MS24665-132 cotter pin through P/N 105-100031-17 bracket as shown in view B-B of the illustration.

10. Install a new P/N 105-810038-1 upstop on the main landing gear side brace.

11. Install a new P/N 105-100031-5 aft rubber fairing and P/N 105-100031-7 forward rubber fairing on the main landing gear door as shown in the illustration with EC1300L adhesive.

NOTE

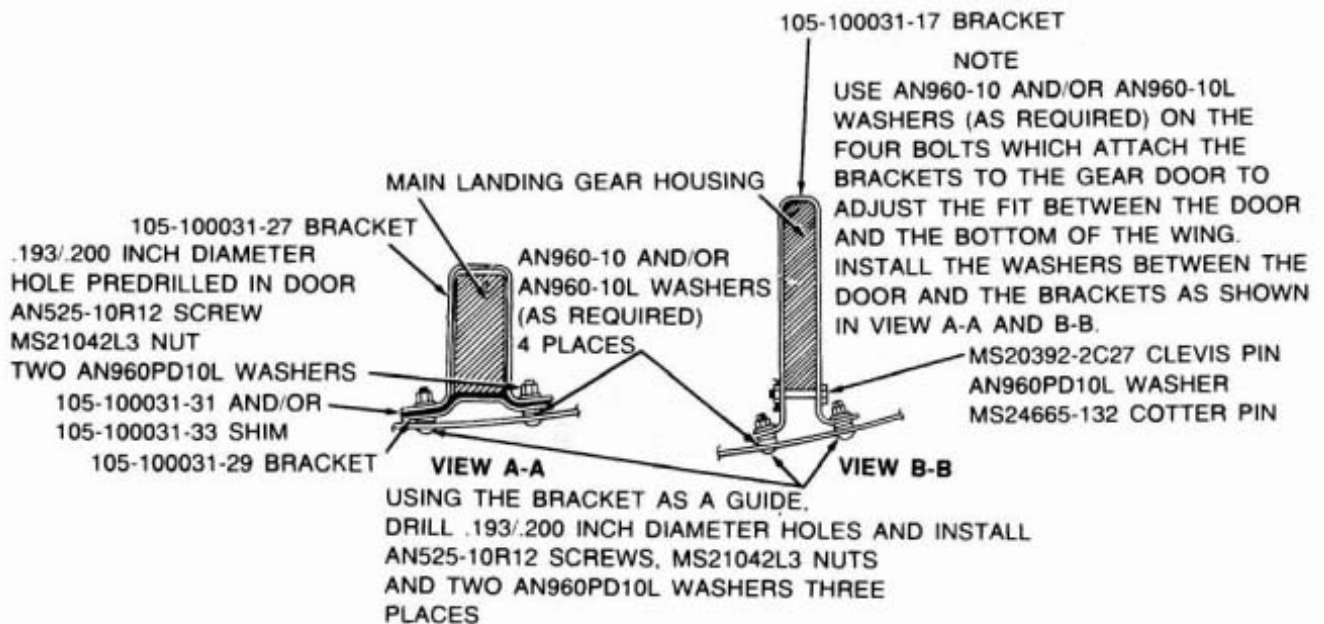
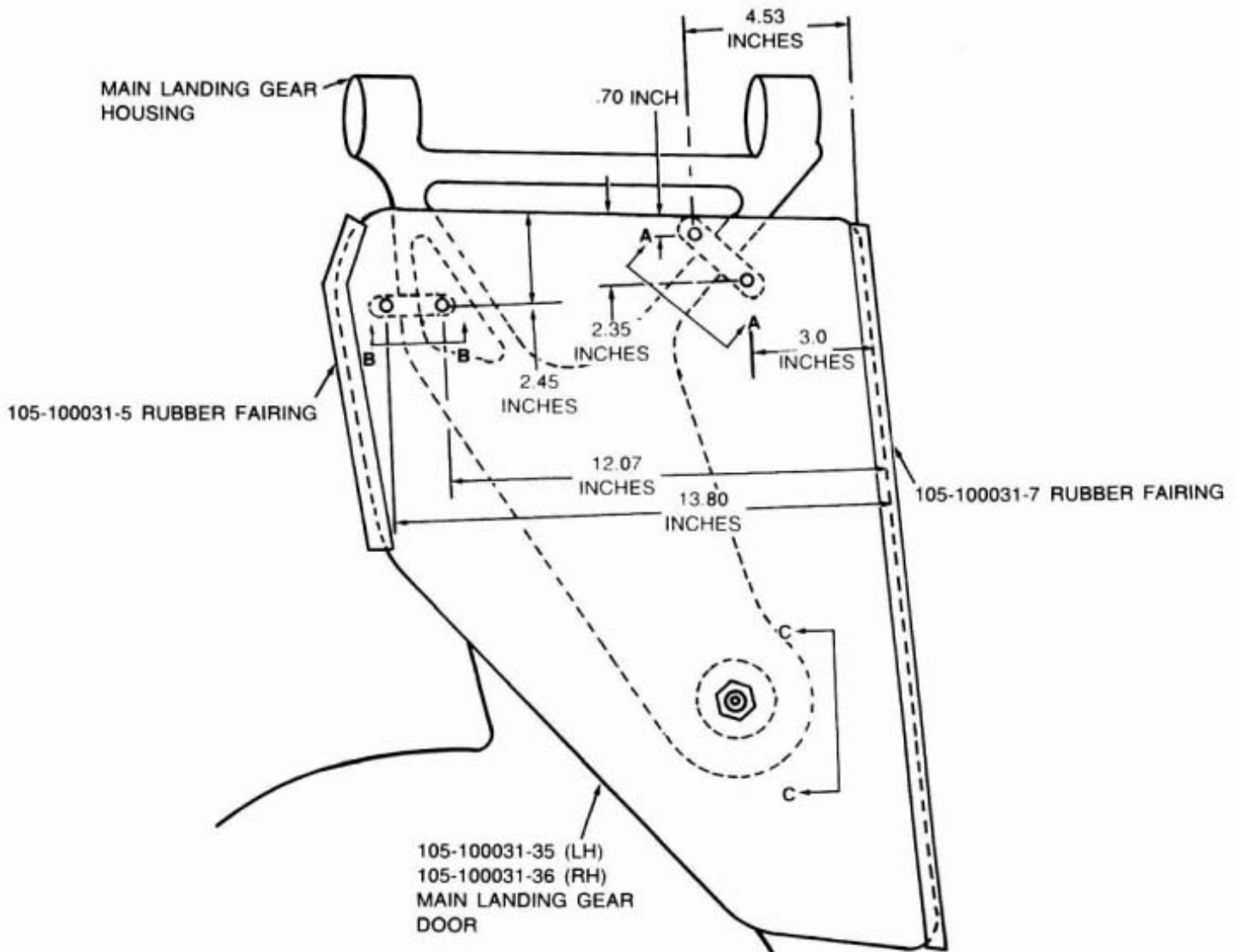
Clean the bonding surfaces and apply the adhesive as specified in the manufacturer's instructions on the container.

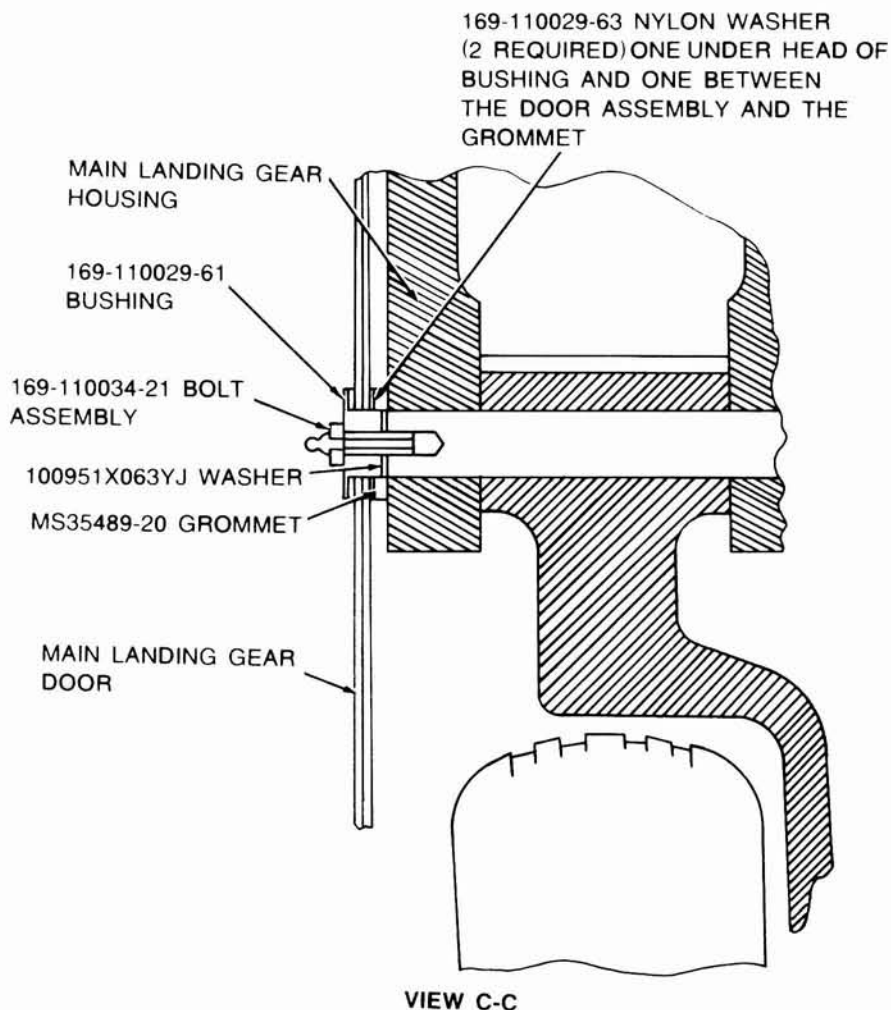
12. Repeat steps 2 through 11 on the other main landing gear.

13. Refer to the Maintenance Manual, Chapter 7-00 and place the airplane on jacks.

CAUTION

In order to prevent inadvertent retraction of the landing gear when the airplane is jacked, the landing gear circuit breaker should be pulled and the emergency gear extension valve should be open to relieve pressure in the hydraulic system.





14. Retract the landing gear and check the main landing gear doors for proper fit against the bottom of the wing. The doors should press lightly and evenly against the wing forming a seal with the rubber fairing strips.

adjusted by adding or removing P/N AN960-10 and/or P/N AN960-10L washers (as required) between the brackets and the main landing gear doors as shown in the illustration.

NOTE

If adjustment of the doors is required, the inboard (lower) end of the door should be adjusted by turning the P/N 105-810038-1 upstop in or out to obtain the proper fit. The outboard (upper) end of the door should be

15. Check to assure that all brackets and attaching hardware are properly secured and safetied (if required).

16. Check the landing gear system for proper operation and remove the airplane from the jacks.

17. Prime all bare metal areas and paint the main landing gear doors and attaching hardware as required.

RECORD COMPLIANCE:

Upon completion of these Service Instructions, 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 until the listing of parts has been incorporated into the Parts Catalog.