

19, 23, 24

No. 1064
ATA Code 53-00

SUBJECT: FUSELAGE - INSPECTION OF SEALS ON THE WINDSHIELD, CABIN WINDOWS, THE ENGINE FIREWALL AND F.S. 68.00 FRAME

EFFECTIVITY: BEECHCRAFT 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-2 through M-1361;
C23 Sundowner 180, serials M-1362 through M-2129;
A23-24 and A24, serials MA-1 through MA-368;
A24R, serials MC-2 through MC-95;
A24R, B24R and C24R Sierra 200, serials MC-96 through MC-642.

REASON: To inspect the seals between the engine firewall and F.S. 68.0 frame, at the upper and lower edges of the windshield and around the cabin windows for possible sources of water leaks and to repair as required.

COMPLIANCE: At the owner's/operator's option, however, Beech Aircraft Corporation recommends that this inspection be accomplished at the next annual or 100 hour inspection.

APPROVAL: FAA Approved - DOA CE-2.

MANPOWER: The following information is for planning purposes only:

PART I

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

PART II

Estimated man-hours for repair of seal between the engine firewall and F.S. 68.0 frame: 1 hour.
Suggested number of men: 1 man.

PART III

Estimated man-hours for repair of seal at the lower edge of the windshield: 4 hours.
Suggested number of men: 1 man.

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CLASS II

II

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.

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PART IV

Estimated man-hours for repair of seal along upper edges of the windshield and around the cabin windows: 4 hours.
Suggested number of men: 1 man.

MATERIAL:

The following parts, if required, may be ordered through BEECHCRAFT Aero or Aviation Centers and International Distributors and Dealers, or from local sources.

PART NUMBER	DESCRIPTION	QUANTITY
AN525-832R8	Screw	As required
100951N063ZE	Washer	As required
*S2C8S	Gripco Fastener	As required
AN365-832	Nut	As required
100951N063ZK	Washer	As required
100951DD063ZK	Washer	As required
MS35489-4	Grommet	As required
**EP711B2	Sealer LB	As required
***RTV732	Adhesive	As required

*P/N of Gripco Fastener Div., Mite Corp., S. Whitley Indiana, 46787.

**P/N of Coast Pro-Seal Div., Essex Chemical Corp., Compton, Ca., 90221.

***P/N of General Electric Silicone Products Dept., Waterford, N.Y., 12188.

The value of the parts required to incorporate these Service Instructions on one airplane is to be advised. Prices, when issued, will be subject to change without notice.

WARRANTY:

None.

SPECIAL TOOLS:

None.

WEIGHT AND BALANCE:

None.

REFERENCES:

None.

PUBLICATIONS AFFECTED:

None.

**ACCOMPLISHMENT
INSTRUCTIONS:**

These Service Instructions may be accomplished as follows:

PART I, INSPECTION OF SEALS

1. Remove the left and right upholstery kick panels forward of the cabin door.
2. Remove interior soundproofing as necessary to view F.S. 68 frame. Inspect the soundproofing for stains which would indicate water leaks.
3. Pour and/or spray water along the lower edge of the windshield and along the upper edge of the engine firewall at F.S. 68 frame. Inspect along F.S. 68 frame and along the lower edge of the windshield for signs of water leaks on the inside of the airplane. If water leaks are indicated, proceed to Part II for repair to the firewall seal or to Part III for repair to the lower windshield seal.

NOTE

If unusual conditions are noted which cannot be resolved locally, such as corrosion due to impurities in the water, send good quality photographs (color, if possible) of the affected area to Customer Service Department, Beech Aircraft Corporation, P.O. Box 300, Liberal, Ks., 67901. The photographs will be evaluated and you will be notified of recommended necessary action.

4. If no indications of water leaks are found, reinstall the interior soundproofing and upholstery panels.

5. Inspect the outside edges of the cabin windows and along the upper edges of the windshield for gaps in the seals on the exterior of the airplane. If gaps are found, remove the cabin window mouldings and pour and/or spray water against the exterior of the windows. If there is evidence of water leakage, proceed to Part IV for repair in this area.

PART II, REPAIR OF SEAL BETWEEN THE ENGINE FIREWALL AND F.S. 68

1. Clean the area of the suspected leakage as necessary. Lightly scuff the surrounding metal with 320 grit sandpaper and wipe clean with an appropriate cleaner such as methyl ethyl ketone. Reseal the area with EP711B2.

2. If additional support is necessary to ensure adequate sealing in the area, AN3 bolts of the appropriate length (obtain locally) may be installed midway between the existing engine/firewall attaching bolts.

PART III, REPAIR OF SEAL ALONG THE LOWER EDGE OF THE WINDSHIELD

1. Remove the glareshield to gain access to the inside of the windshield frame. Additional screws may be required on either side and midway between the three screws at the center forward edge of the windshield to provide added security against water leaks in this area. If it is determined that additional screws are required, the holes for installation of these screws should be drilled as follows before proceeding to step 2:

a. Drill No. 40 (.098 inch diameter) pilot holes centered between the existing holes in the lower windshield frame and the plastic windshield. (Holes should be drilled from the outside of the airplane.)

b. Finish drill these pilot holes to 11/64 (.1719) inch diameter. If the fuselage deck skin protrudes aft from the lower windshield frame, be certain the drill is long enough to reach through the deck skin.

c. Using a ½ inch diameter drill or spot facer, back drill through the fuselage deck skin only, using the 11/64 inch diameter holes as pilot holes, or the skin may be trimmed as necessary to clear the area for accomplishing step d.

d. Through the ½ inch diameter holes in the deck skin, spot face the holes in the plastic windshield only to 7/16 inch diameter.

CAUTION

DO NOT SPOT FACE THROUGH THE ALUMINUM WINDSHIELD FRAME.

2. Remove the existing screws along the windshield lower edge. The 3 existing holes in the center of the windshield frame should be spot faced to 7/16 inch diameter through the plastic windshield only. If not, this should be accomplished as follows before proceeding to step 3.

a. Drill 11/64 (.1719) inch diameter holes through the plastic windshield, the frame and the fuselage deck skin using the 3 existing holes noted in step 2 as pilot holes. Be certain the drill is long enough to reach through the deck skin.

b. Back drill the 11/64 inch diameter holes to ½ inch diameter through the deck skin only, or the skin may be trimmed as necessary to clear the area for accomplishing step c.

c. Through the ½ inch diameter holes in the deck skin, spot face the holes in the plastic windshield only to 7/16 inch diameter.

CAUTION

DO NOT SPOT FACE THROUGH THE ALUMINUM WINDSHIELD FRAME.

3. Deburr all holes.

4. Using a plastic scraper, clean out as much of the old sealant as possible from

between the windshield and the frame. Use extreme care to avoid scratching the windshield or breaking it by applying excessive force against it.

5. Apply RTV732 liberally between the windshield and the lower frame.
6. Install AN525-832 screws of the appropriate length (obtain screws locally) in all the holes in the windshield frame. Place an MS35489-4 grommet over the screws where the windshield has been spot faced to 7/16 inch diameter.
7. Install a 100951N063ZK rubber washer on the inside next to the windshield with a 100951DD063ZK aluminum washer over it on all screws.
8. Install AN365-832 nuts on all screws and torque to 12 to 15 inch pounds while the sealant is still wet. **DO NOT OVERTORQUE.**
9. Reinstall the glareshield and clean any excess sealant off the windshield with a plastic scraper after the sealant has set up.
10. Paint the heads of the newly installed screws and touch up the repair area as required.

PART IV, REPAIR OF THE CABIN WINDOW SEALS AND THE UPPER EDGES OF THE WINDSHIELD SEAL

1. Place a strip of 3/4 inch wide masking tape on the window with one edge adjacent to the metal skin or windshield frame on each window being repaired.
2. Place another strip of 3/4 inch wide masking tape on the metal skin or the window frame with one edge adjacent to the plastic window.
3. Using extreme care not to damage the plastic window or the paint, clean the area between the window and the skin or frame with a thin knife blade (or equivalent) and a small brush (toothbrush or equivalent).
4. On the cabin side windows, it is recommended that No. 10 (.1935 inch diameter) holes be drilled (with a slow speed drill) through the fuselage skin and each plastic window as follows:
 - a. One hole centered between top and bottom on the forward and aft sides of each window.
 - b. Two holes spaced evenly across both the top and the bottom of each window.
5. Using a small wooden paddle (tongue depressor or equivalent), apply sealant such as EP-711, RTV732 (or equivalent) to the area of separation, pressing the sealant between the window and the metal skin or frame, making certain the cavity is filled thoroughly.
6. Install AN525-832R8 screws, 100951N063ZE rubber washers and S2C8S Gripco fasteners in the holes drilled in step 4 while the sealant is still wet. The head of the screws should be outboard with the rubber washers against the inner surface of the window and secured with the Gripco fasteners.
7. Allow the sealant to dry sufficiently before removing the masking tape to reduce the possibility of sealant getting on the window or the paint.
8. Paint the heads of the newly installed screws, touch up paint as required and reinstall the window mouldings.

RECORD COMPLIANCE:

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