Beech

TITLE: STABILIZERS - HORIZONTAL STABILIZER REAR SPAR INSPECTION/REPAIR

1. Planning Information

A. Effectivity

   (1) Airplanes

       Beech Model 58 Baron, Serials TH-1739 through TH-2022, TH-2024, TH-2026, TH-2028, and TH-2029.

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

   (2) Spares

       None.

B. Reason

This Service Bulletin is being issued because Raytheon Aircraft Company (RAC) has received a report of oversized and rough tab actuator cutouts in the left and right horizontal stabilizer rear spars.

C. Description

This Service Bulletin provides instructions for the inspection of the horizontal stabilizer rear spar at the elevator trim tab actuator for oversized, rough, and unfinished cutouts. It also provides procedures for the repair of any rough cutouts.

D. Compliance

An Airworthiness Directive will be requested on the matter covered by this Service Bulletin.

Raytheon Aircraft Company considers this to be a mandatory modification. Airplanes with less than 900 flight hours should be accomplished during the first scheduled 900 hour trim tab actuator lubrication after receipt of this Service Bulletin, but no later than the next 48 months, whichever occurs first. Airplanes with over 900 flight hours should be accomplished at the next 100 hour/annual inspection after receipt of this Service Bulletin.
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: 2 hours per side.

Suggested number of men: 1 man.

The above is an estimate based on experienced, properly equipped personnel complying with this Service Bulletin concurrent with the scheduled 900 flight hour trim tab actuator lube. Occasionally, after work has started, conditions may be found which could result in additional man-hours.

G. Weight and Balance

None.

H. Electrical Load Data

Not changed.

I. Software Accomplishment Summary

Not applicable.

J. References

Beechcraft, Baron Shop Manual, P/N 55-590000-13E15 or subsequent revision.

K. Publications Affected

None.

L. Interchangeability of Parts

Not applicable.

M. Warranty Credit

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

Warranty coverage offered in this Service Bulletin will expire 48 months from the last day of the month this Service Bulletin is issued. After that date, the owner/operator assumes the responsibility for compliance cost. Raytheon Aircraft Company reserves the right to void warranty coverage in the area affected by this Service Bulletin until the date the Service Bulletin is accomplished by a Raytheon Aircraft Company Authorized Service Center.

All warranty work must be accomplished by a Raytheon Aircraft Authorized Service Center rated to perform maintenance on the specific model of Beech Airplane.
SERVICE BULLETIN

All warranty reimbursements are handled through Raytheon Aircraft Company Authorized Service Centers. The owner/operator should arrange for an Authorized Service Center to perform the work and the Authorized Service Center must submit the standard Raytheon Aircraft Company warranty claim.

2. Material Information

Contact a Raytheon Aircraft Authorized Service Center for information.

A. Industry Support

Not applicable.

B. Airplanes

The following parts required for this modification may be ordered through a Raytheon Aircraft Authorized Service Center, RAPID, or obtained locally:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Quantity Per Airplane</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIL-P-23377</td>
<td>Primer, Polyamide Epoxy</td>
<td>As Required</td>
</tr>
<tr>
<td>MIL-C-5541</td>
<td>Alodine</td>
<td>As Required</td>
</tr>
</tbody>
</table>

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.

C. Spares

Not applicable.

D. Reidentified Parts

None.

E. 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.
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. Display warning notices prohibiting reconnection of airplane electrical power.

NOTE

Maintenance procedures are typical for both left and right sides. The procedure is for the left side.

(2) Remove the left elevator trim tab actuator in accordance with Section 4 of the shop manual.

(3) Inspect the horizontal stabilizer rear spar at the elevator trim tab actuator cutout for oversize, or rough unblended areas that have not been treated for corrosion. The minimum allowable remaining material above and below the cutout is 0.432 inch measured from the edge of the cutout to the outer surface of the stabilizer skin. The minimum allowable distance from the edge of the cutout to the center of any nutplate rivet is 0.152 inch. See Figure 1.

(4) If the cutout is smooth, blended, primed, and meets the minimum material requirements, proceed to step (8).

(5) Carefully blend the perimeter of the hole in the spar and doubler to a smooth profile. Maintain existing edge distance on all fastener positions. Maintain a minimum radius of 0.20 inch. Do not increase the maximum width or length of trim out when blending smooth.

(6) Perform a nondestructive inspection (NDI e.g. Fluorescent Penetrant or Eddy Current) to ensure that no cracks are present.

NOTE

If minimum material dimensions of fastener edge distance do not exist or if any crack is discovered during the NDI, contact Raytheon Aircraft Company for additional assessment.

(7) Apply Alodine 1200, 1200S or 1201 (obtain locally or through a RAC Authorized Outlet) to all bare aluminum areas. Allow the Alodine to dwell for approximately five minutes. After the dwell time has elapsed, wash the coated areas with water and blow dry (do not wipe dry). Prime with one coat of MIL-P-23377 Polyamide Epoxy Primer.

(8) Install the elevator trim tab actuator in accordance with Section 4 of the shop manual.
(9) Repeat steps (2) through (8) for the right side.

(10) Rig the elevator and elevator trim tab control system per Chapter Four (4) of the Maintenance Manual.

(11) Reconnect the airplane battery, remove warning notices and restore power.

(12) Ensure all work areas are clean and clear of tools and miscellaneous items of equipment.

(13) Return airplane to service.

B. Spares

Not applicable.

C. Record of Compliance

Upon completion of this Service Bulletin, make an appropriate maintenance record entry.
Elevator Trim Tab Actuator Cutout

Figure 1

MINIMUM ED FROM CUTOUT TO CENTER OF RIVET 0.152 INCH

OML WING SKIN

MINIMUM DISTANCE 0.432 INCH