

SERVICE BULLETIN

Beech

TITLE: FUSELAGE - INSPECTION/INSTALLATION OF RH FUSELAGE MISSING RIVETS

1. Planning Information

SYNOPSIS OF CHANGE

NOTE

If the airplane has already been inspected or modified as a result of the original issuance of Service Bulletin 53-3341 or Revision 1, the inspection or modification does not need to be repeated.

This service bulletin has been revised and is produced in the new format for Raytheon Aircraft Company service bulletins. Relevant technical changes are marked with change bars in the outside margins. Changes have been made to add Model 36, Model A36TC, and 58A listings to the Effectivity to pair these models with appropriate Serial Numbers, which were not accurately defined in the original issuance or Revision 1 of the Service Bulletin. The Compliance statement has been changed to reference the Airworthiness Directive.

A. Effectivity

(1) Airplanes

BEECH Model 36 Bonanza, Serials E-1 through E-184;

BEECH Model A36 Bonanza, Serials E-185 through E-3231 and E-3233;

BEECH Model A36TC Bonanza, Serials EA-1 through EA-241 and EA-243 through EA-272;

BEECH Model B36TC Bonanza, Serials EA-242, EA-273 through EA-635;

BEECH Model 58/58A Baron, Serials TH-1 through TH-1811 and TH-1813 through TH-1897.

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

(2) Spares

None.

Exported under the authority of license exception: TSU. "These commodities, technology or software were exported from the United States in accordance with Export Administration Regulations. Diversion contrary to U.S. law prohibited."

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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B. Reason

This Service Bulletin is being issued to inspect for and install missing rivets in the lower right hand fuselage panel assembly in the area above the right wing and below the cabin door threshold. These rivets must be present for the fuselage to carry ultimate load.

C. Description

An inspection is performed to determine if up to nine rivets are missing in the lower right hand fuselage panel assembly in the area above the right wing and approximately 4.00 inches below the cabin door threshold. If missing, three rivets are installed along a horizontal rivet line just above the front spar upper fitting cutout (F.S. 83.00) at W.L. 90.3. These three rivets are installed through the skin and P/N 002-430043-19 gusset. If missing, six rivets are installed on the same horizontal rivet line and forward of F.S. 91.00, just aft of the aft web flange of the front spar. These six rivets are installed through the skin and the edge of the P/N 002-430043-19 gusset just below the skin lap and beneath the cabin door threshold.

NOTE

If any airplane has five, six, or seven rivets installed along the horizontal rivet line just aft of the aft web flange of the front spar upper fitting cutout instead of six, this is an acceptable condition.

D. Compliance

Raytheon Aircraft Company considers this to be a mandatory modification and it must be accomplished as soon as possible after receipt of this Service Bulletin, but no later than the next 100 hour/annual inspection.

Airworthiness Directive 2000-26-16 has been issued on the matter covered by 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 for installation: 2 hours.

Suggested number of men for installation: 2 men.

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

None.

H. Electrical Load Data

Not changed.

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I. Software Accomplishment Summary

Not applicable.

J. References

BEECHCRAFT Bonanza Series Maintenance Manual, P/N 36-590001-9A20 or subsequent revision, Chapter 20-00 and 25-00.

BEECHCRAFT Baron 58 Series Maintenance Manual, P/N 102-590000-5A23 or subsequent revision, Chapter 20-00 and 25-00.

K. Publications Affected

None.

L. Interchangeability of Parts

Not applicable.

M. Warranty Credit

Warranty coverage for this Service Bulletin expired May, 2001.

2. Material Information

A. Materials - Price and Availability

Contact a Raytheon Aircraft Authorized Service Center for information.

B. Industry Support

Not applicable.

C. Airplanes

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

Part Number	Description	Quantity Per Airplane
*MS20470AD4-X	Rivet, Solid, Universal Head,	9
+ *NAS1398B4-X	Rivet, Blind (Cherrylock-style)	9
+ *132269B4-X	Rivet, Blind (Cherrymax-style)	9

* The rivet length X is to be determined in the field.

+ Acceptable alternative blind rivets, for use if access to opposite side of skin is limited.

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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.

The following materials may be obtained locally:

Part Number	Description	Quantity Per Airplane
A-A-1491, CCC-C-40, or equivalent	Cotton Cheesecloth	As Required
A-A-2758 or equivalent	Marking Pen, Felt Tip or equivalent	As Required
A-A-58054 (Scotchbrite or equivalent)	Abrasive Pad	As Required
MIL-C-81706, Alodine 1200, or equivalent	Chemical Conversion Coating	As Required
MIL-P-23377 or equivalent	Epoxy Polyamide Primer	As Required
	Methyl Propyl Ketone	As Required
TT-N-95, Type II or equivalent	Aliphatic Naphtha	As Required
P-D-680, Type III or equivalent	Dry Cleaning Solvent	As Required

D. Spares

Not applicable.

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.

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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.

NOTE

If any airplane has five, six, or seven rivets installed along the horizontal rivet line just aft of the aft web flange of the front spar upper fitting cutout instead of six, this is an acceptable condition.

- (1) Refer to Figure 1 and inspect for rivets between F.S. 83.00 and F.S. 91.00 at W.L. 90.3. Universal (round) head or flush head blind rivets may have been installed along this rivet line. If rivets are installed in the noted locations, no further action is necessary. If rivets are not present, proceed to step 2.
- (2) Remove all power from the airplane and disconnect the battery. Display warning notices prohibiting reconnection of airplane electrical power.
- (3) Open cabin or passenger door to gain access to airplane interior. Refer to airplane Maintenance Manual.
- (4) Remove passenger seats, as required, to gain access to the RH Side Panel. Refer to airplane Maintenance Manual.
- (5) Remove RH Side Panel.
- (6) Remove and retain interior insulation from areas above the floorboards and between the forward and aft spars, 9.70 inches below W.L. 100.00 (approximately W.L. 90.3).

CAUTION

It may be necessary to move aside or remove the wing fairing rubber extrusion to gain access to the area where two missing forward rivets are to be installed. Use care to prevent damage to the extrusion during removal or drilling operations.

- (7) Locate the lower right hand fuselage panel assembly, P/N 002-430040-181 for Model A36 Bonanza airplanes, P/N 002-430040-175 for Model B36TC Bonanza airplanes, and P/N 002-430040-133 for Model 58 Baron airplanes. Mark a horizontal line for installation of P/N MS20470AD4-X or equivalent rivets using a suitable marking pen or pencil.

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WARNING

If the installer opts to install blind rivets in lieu of MS20470AD4-X rivets, use a suitable stop drill or otherwise take care to avoid drilling damage to plumbing and electrical lines, structural parts, etc., in the airplane interior. Personal injury or damage to equipment could result.

CAUTION

When drilling rivet holes, look inside at the P/N 002-430043-19 gusset to make sure that an edge distance of at least two times the rivet diameter is maintained between the edge of the material and the center of each fastener hole. Maintain rivet spacing at least three times rivet diameter (center-to-center) distance between each new fastener hole.

- (8) Drill pilot holes for missing P/N MS20470AD4-X or equivalent rivets in locations as follows (see Figures 1 and 2):
 - (a) Drill three holes through the skin and P/N 002-430043-19 gusset just above the upper wing bolt attach fitting cutout.
 - (b) Drill six holes through the skin and the edge of the P/N 002-430043-19 gusset just aft of the aft web flange on the front spar.
- (9) Drill 0.125 + 0.0035 inch diameter holes for installation of P/N MS20470AD4-X or equivalent rivets.

CAUTION

Insure "foreign object elimination" by vacuuming or wiping up all metal shavings and other drilling or cleaning debris.

- (10) Deburr rivet holes and vacuum or wipe up any drilling debris using clean cotton cheesecloth or clean wiping rag.

WARNING

Solvents, primers, and paints are flammable and toxic to skin, eyes, and respiratory tract. Skin and eye protection is required. Avoid repeated or prolonged contact. Keep away from flames or sources of heat. Use in a well-ventilated area or respiratory protection equipment may be required.

WARNING

Chemical conversion coating may affect skin, eyes, and respiratory tract. Chemical goggles and neoprene gloves will be worn. Use in a well-ventilated area.

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- (11) Use abrasive pads to dress out drilled hole areas. Clean the area with clean cotton cheesecloth or clean wiping rag dampened with appropriate solvent. Repeat solvent wipe cleaning, as necessary. Wipe surfaces dry with clean cotton cheesecloth.
- (12) Apply chemical conversion coating to bare metal surfaces of both interior and exterior locations. Allow adequate drying time following application of chemical conversion coating.
- (13) Refer to Figure 1 and Figure 2 and install P/N MS20470AD4-X or equivalent rivets in hole locations drilled in step 9. Dip each rivet shank in epoxy polyamide primer and install wet. Use an appropriate size rivet gun and bucking bar to install rivets.
- (14) Prime both interior and exterior surfaces in the repair area with epoxy polyamide primer.
- (15) Allow adequate drying time for epoxy polyamide primer, then touch up the exterior top coat paint to match exterior paint color. Refer to airplane Maintenance Manual for methods and paint color.
- (16) Install wing fairing rubber extrusion (if removed to facilitate drilling and rivet installation operations).
- (17) Install insulation retained from step 6.
- (18) Install RH Side Panel.
- (19) Install passenger seats which were removed to gain access to the RH Side Panel. Refer to airplane Maintenance Manual.
- (20) Reconnect the airplane battery, remove warning notices and restore power.
- (21) Ensure all work areas are clean and clear of tools and miscellaneous items of equipment.
- (22) Return airplane to service.

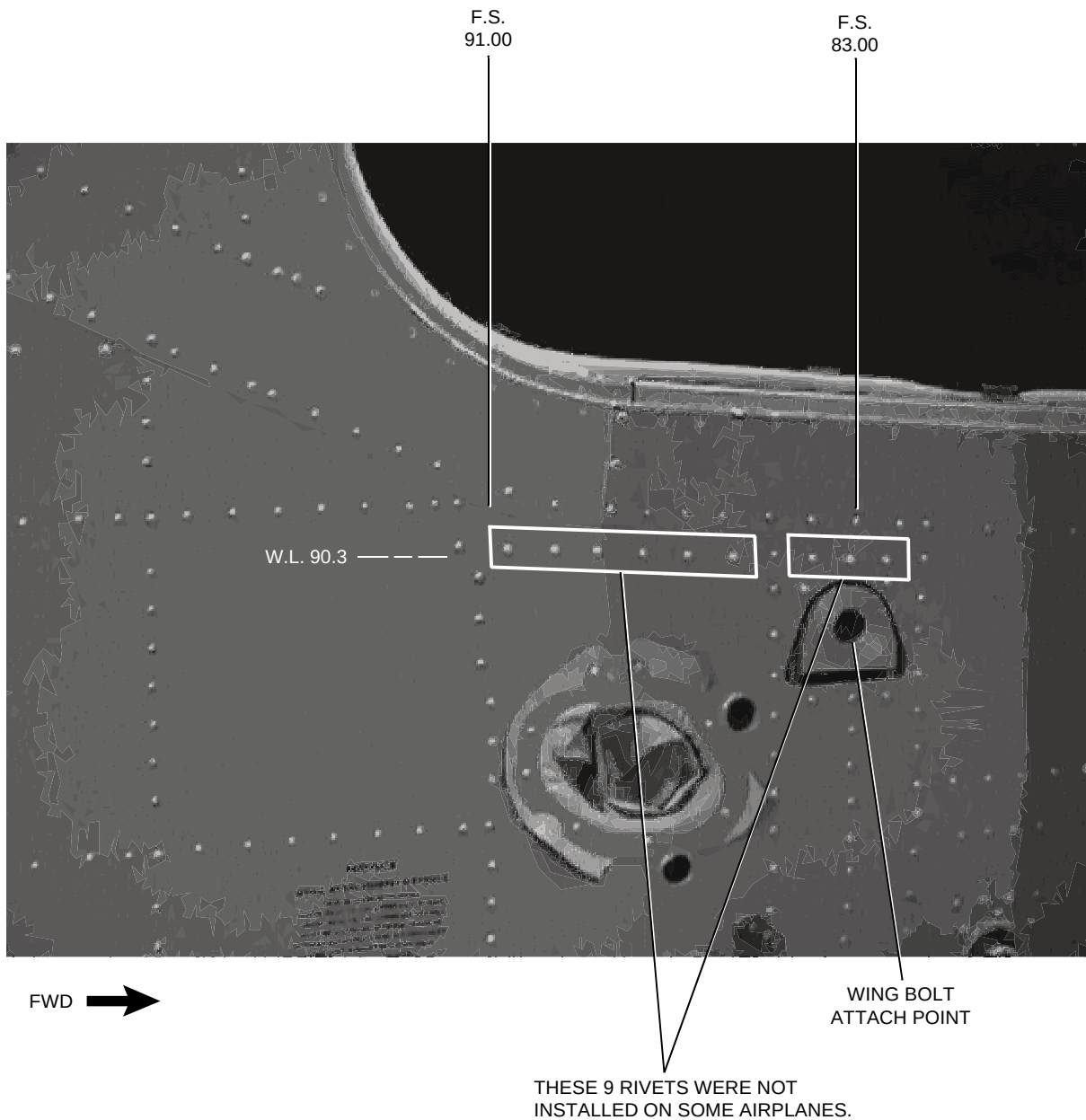
B. Spares

Not applicable.

C. Record of Compliance

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

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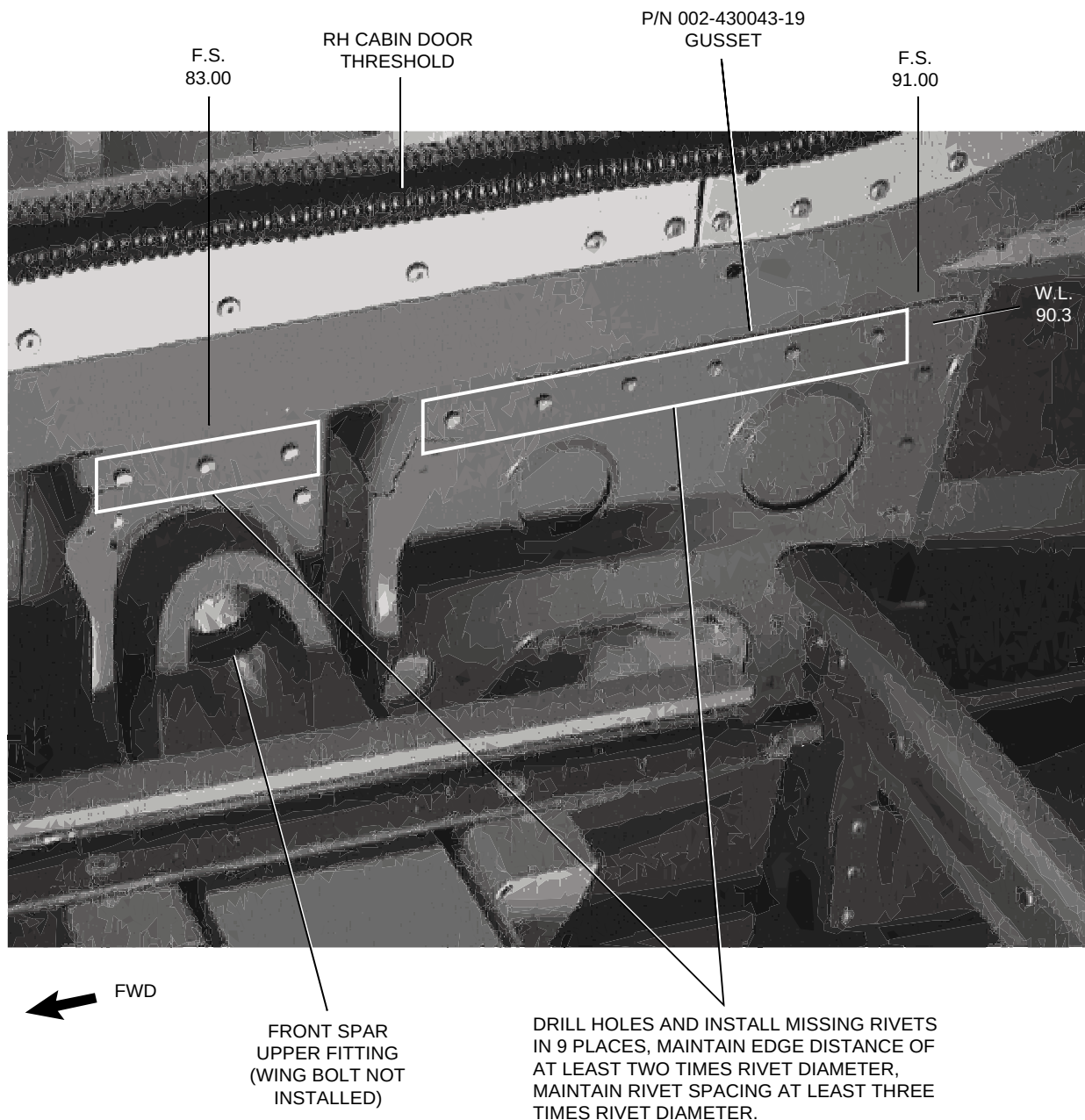


VIEW OF RH FUSELAGE ON BONANZA MODEL (TYPICAL),
WING AND WING FAIRING RUBBER EXTRUSION NOT SHOWN

B334101.AI

Inspection/Installation of Missing Rivets in RH Fuselage
Figure 1

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VIEW LOOKING OUTBOARD AT RH FUSELAGE ON BONANZA MODEL (TYPICAL)

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Installation of Missing Rivets in RH Fuselage

Figure 2