

SERVICE BULLETIN

TITLE: FUEL - INSPECTION/REPLACEMENT OF FUEL CELLS

1. Planning Information

A. Effectivity

(1) Airplanes

Model G58 Baron, Serials TH-2356 through TH-2378.

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

(2) Spares

The following fuel cells are suspect if ordered from Beechcraft (HBP&D) between January 2012 and November 2013 on Baron Model 95, B95, B95A, D95A, E95, 95-55, 95-A55, 95-B55, 95-B55A, 95-B55B (T-42), 95-C55, 95-C55A, D55, D55A, E55, E55A, 56TC, A56TC, 58, 58A, and G58:

Part Number	Description
60-921046-5	Leading Edge Outboard Fuel Cell, Left
60-921046-6	Leading Edge Outboard Fuel Cell, Right
002-920034-9	Leading Edge Inboard Fuel Cell, Left
002-920034-10	Leading Edge Inboard Fuel Cell, Right
58-380003-13	Center Tank Fuel Cell, Left
58-380003-14	Center Tank Fuel Cell, Right

The export of these commodities, technology or software are subject to the U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited. For guidance on export control requirements, contact the Commerce Department's Bureau of Export Administration at <http://www.bis.doc.gov>.

Beechcraft Corporation (BC) 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, inspection and modifications that could affect safety or crashworthiness. BC 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, BC 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 available on the web at <http://pubs.beechcraft.com> and mailed to:

- (a) Owners of record on the FAA Aircraft Registration Branch List and the BC Safety of Flight Information (SOFI) List.
- (b) Those having a publications subscription.

Information on Safety of Flight Information (SOFI) or subscription can be obtained through the Beechcraft Corporation Technical Manual Distribution Center (TMDC). As Mandatory Service Bulletins and Service Bulletins are issued, the Service Bulletin Master Index will be updated and available online at <http://pubs.beechcraft.com>. Warranty will be allowed only when specifically defined in the Service Bulletin and in accordance with BC Warranty Policy.

Unless otherwise designated, BC Mandatory Service Bulletins, Service Bulletins and BC Kits are approved for installation on BC airplanes in original or BC modified configurations only. BC Mandatory Service Bulletins, Service Bulletins and Kits may not be compatible with airplanes modified by STC installations or modifications other than BC approved kits.



SERVICE BULLETIN

B. Reason

This Service Bulletin is being issued to address potential fuel leaks in defined fuel cells installed in the wings.

C. Description

This Service Bulletin provides instructions to remove and replace suspect fuel cells with new fuel cells, in accordance with definitions provided in Table 1 of Paragraph 3.A.

D. Compliance

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

Beechcraft Corporation considers this to be a Mandatory Service Bulletin. Airplanes with 150 or more flight hours shall remove and replace applicable fuel cells at the next annual inspection or 100 flight hours, whichever occurs first. Airplanes with less than 150 flight hours shall remove and replace applicable fuel cells within 20 flight hours from issuance of this Service Bulletin.

NOTE

Until such time as this Service Bulletin has been complied with, reference Safety Communique 332.

E. Approval

The engineering data contained in this Service Bulletin is FAA approved.

Prior to accomplishment, owners/operators of airplanes registered in countries other than the United States shall consult with their local Aviation Regulatory Authority.

Incorporation of this Service Bulletin restores the airplane to original Type Design.

F. Manpower

The following information is for planning purposes only:

Estimated man-hours for inspection: 12 hours

Suggested number of technicians for inspection: 1

Estimated man-hours for modification: 16 hours per fuel cell, not to exceed 96 hours

Suggested number of technicians: 2

The above is an estimate based on experienced, properly equipped technicians complying with this Service Bulletin. Occasionally, after work has started, conditions may be found that could result in additional man-hours.

SERVICE BULLETIN

G. Weight and Balance

Negligible.

It is the responsibility of the owner/operator to maintain compliance with the applicable Airworthiness Regulations.

H. Electrical Load Data

No change.

I. Software Accomplishment Summary

Not applicable.

J. References

Baron 55 and 58 Maintenance Manual, P/N 55-590000-13G5, Chapter 28;

Beechcraft Baron 56TC and A56TC Turbo-Baron Shop Manual, P/N 96-590003-5B, Revision 96-590003-5B5, Section 8;

Beechcraft Travel Air 95 Series Shop Manual, P/N 95-590001-1C, Revision 95-590001-1C5, Section 4;

Beech Baron 58P and 58TC Maintenance Manual, P/N 102-590000-5A, Revision A25, Chapter 28;

Safety Communique 332.

K. Publications Affected

It is recommended that a note, "See Service Bulletin 28-4131," be made in the appropriate chapter of the Illustrated Parts Catalog.

L. Interchangeability of Parts

Not applicable.

SERVICE BULLETIN

M. Warranty Credit

Warranty credit for labor and parts obtained from Beechcraft Corporation or Hawker Beechcraft Services, to the extent noted under MANPOWER and MATERIAL, will be allowed on all airplanes meeting all the following criteria:

- (1) Airplane owners must have active Standard Warranty coverage and/or an active Beechcraft Maintenance program with applicable Service Bulletin coverage for the subject airplane when the Service Bulletin is issued.
- (2) Standard Warranty coverage and/or Beechcraft Maintenance Program must be active for the subject airplane on the day the work is accomplished.
- (3) The work shall be accomplished in accordance with the criteria defined in Paragraph 1.D., COMPLIANCE.
- (4) The work shall be accomplished in accordance with criteria defined in Paragraph 3, ACCOMPLISHMENT INSTRUCTIONS.
- (5) The work shall be accomplished at Hawker Beechcraft Services or an Authorized Service Center (ASC) rated to perform maintenance on the specific model of Beechcraft airplane.
- (6) While work shall be accomplished in accordance with the criteria defined in Paragraph 1.D, COMPLIANCE, warranty coverage offered in this Service Bulletin will expire 12 months from the last day of the month this Service Bulletin is issued. After this date, the owner/operator assumes the responsibility for compliance cost.
- (7) Claims for compliance with this Service Bulletin (SB) are to be filed as a W4-type claim against SB 28-4131.
- (8) After the Service Bulletin has been accomplished, a warranty claim must be submitted to HBC within 60 days of the Service Bulletin completion date.

Beechcraft Corporation (BC) reserves the right to void continued airplane warranty coverage in the area affected by this Service Bulletin until the date the Service Bulletin is accomplished.

The owner/operator should contact Hawker Beechcraft Services or an ASC to schedule the warranty work to be accomplished. Hawker Beechcraft Services or an ASC must submit the appropriate paperwork directly to the Beechcraft Warranty Department for warranty consideration.

2. Material Information

A. Materials - Price and Availability

Contact information:

Hawker Beechcraft Parts & Distribution (HBP&D)
10511 East Central Avenue
Wichita, KS 67206
USA
Phone: 316-676-3100 or 1-888-727-4344
Fax: 316-676-3222 or 316-676-3327
E-mail: parts@beechcraft.com

SERVICE BULLETIN

B. Industry Support

Not applicable.

C. Airplanes

- (1) The following parts required for accomplishment of this Service Bulletin may be ordered through Hawker Beechcraft Services, an ASC, or HBP&D:

Part Number	Description	Quantity Per Airplane
60-921046-1	Leading Edge Outboard Fuel Cell, Left	As Required
60-921046-2	Leading Edge Outboard Fuel Cell, Right	As Required
002-920034-1	Leading Edge Inboard Fuel Cell, Left	As Required
002-920034-2	Leading Edge Inboard Fuel Cell, Right	As Required
58-380003-5	Center Tank Fuel Cell, Left	As Required
58-380003-6	Center Tank Fuel Cell, Right	As Required
WWD82	Clamp	As Required
NAS1924-114 or WWD114	Clamp	As Required
52KS3 or 4852SS305	Clamp	As Required
002-920020-1	Gasket	As Required
35-921502	Gasket	As Required

Beechcraft Corporation 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.

- (2) The following materials may be obtained locally:

Part Number	Description	Quantity Per Airplane
Polyken 231 or ASTM-D5486, Type IV, Class I	Tape, Pressure-Sensitive	As Required

SERVICE BULLETIN

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 Beechcraft Corporation at 1-800-429-5372 or 316-676-3140.

WARNING

Observe all Warnings and Cautions contained in the airplane manuals referenced 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.

A. Airplane

- (1) Perform the following Steps (1)(a) through (1)(f) to inspect part numbers of all six fuel cells in accordance with Table 1 below. Fuel Cell part numbers that are listed in the ***Fuel Cell P/N to be Removed*** column shall be replaced by part numbers in the ***Fuel Cell P/N to be Installed*** column.

Table 1	
Fuel Cell P/N to be Removed	Fuel Cell P/N to be Installed
P/N 60-921046-5, Leading Edge Outboard Fuel Cell, Left	P/N 60-921046-1, Leading Edge Outboard Fuel Cell, Left
P/N 60-921046-6, Leading Edge Outboard Fuel Cell, Right	P/N 60-921046-2, Leading Edge Outboard Fuel Cell, Right
P/N 002-920034-9, Leading Edge Inboard Fuel Cell, Left	P/N 002-920034-1, Leading Edge Inboard Fuel Cell, Left

SERVICE BULLETIN

Table 1	
Fuel Cell P/N to be Removed	Fuel Cell P/N to be Installed
P/N 002-920034-10, Leading Edge Inboard Fuel Cell, Right	P/N 002-920034-2, Leading Edge Inboard Fuel Cell, Right
P/N 58-380003-13, Center Tank Fuel Cell, Left	P/N 58-380003-5, Center Tank Fuel Cell, Left
P/N 58-380003-14, Center Tank Fuel Cell, Right	P/N 58-380003-6, Center Tank Fuel Cell, Right

WARNING

At all locations during the incorporation of this Service Bulletin, inspect for the existence of and damage from foreign objects (FOD). All foreign objects shall be removed and any damage shall be addressed in accordance with the applicable Baron Maintenance Manual or Shop Manual.

- (a) Remove all power from the airplane and disconnect the battery. Display warning notices prohibiting reconnection of airplane electrical power.

WARNING

Review fuel handling and fuel cell maintenance procedures warnings and cautions contained in Baron Maintenance Manual or Shop Manual.

- (b) Defuel the airplane in accordance with the applicable chapter/section of the appropriate Maintenance Manual or Shop Manual.
 - (c) Remove lower and upper access panels to enable replacement of the inboard, outboard and center section fuel cells. Refer to Figure 1.
 - (d) Remove the respective fuel cell doors to gain access to the fuel cells. These doors are located behind access panels removed in Step (1)(c).
 - (e) Remove the exhaust heat shields to enable access to fuel cells. Refer to Figure 1.
 - (f) Use an explosion proof flashlight and mirror as needed to inspect the top and middle of all existing fuel cells to determine which part numbers have been installed. Fuel Cell part numbers that are listed in the **Fuel Cell P/N to be Removed** column of Table 1 shall be replaced by part numbers in the **Fuel Cell P/N to be Installed** column.
- (2) Remove the applicable fuel cell(s), as defined in Step (1), in accordance with the applicable chapter/section of the appropriate Maintenance Manual or Shop Manual.
 - (3) Along all areas of the fuel bay liners, verify that tape is installed over rivets and sheet metal edges, and that no foreign objects are present. If any foreign objects exist or tape is found to be missing from edges, remove the foreign objects and install tape over defined areas.

SERVICE BULLETIN

- (4) Install the applicable new fuel cell(s), as defined in Step (1), in accordance with guidelines provided in the applicable chapter/section of the appropriate Maintenance Manual or Shop Manual, in conjunction with the following Steps (4)(a) through (4)(f):

NOTE

Verify interconnect tube position relative to the spar. If the interconnect tube is not correctly positioned, unintended loads could be induced on the fuel cell.

- (a) Apply forward pressure to the aft side of each interconnect tube. If the interconnect tube(s) are installed correctly the tube bead should come against the spar and not continue to the leading edge fuel cell area (Refer to Figure 3). If the interconnect tube is not installed correctly remove the interconnect tube and install correctly per Figure 3. If the tube is installed correctly proceed to the next step.
- (b) *The purpose of this step is to verify that the fuel cell is positioned tight against the spar. If the fuel cell is not tight against and supported by the spar, unintended loads could be induced on the fuel cell.* Hold forward pressure on the aft side of the interconnect tube(s), access the forward side of the interconnect tubes in the inboard and outboard leading edge fuel cells and ensure that the leading edge inboard and outboard fuel cells, at each interconnect tube, are tight against the forward side of the spar. If not tight, reposition nipple, ensuring it is tight against the forward face of the spar.
- (c) Reinstall center tank nipples to interconnect tubes and ensure that the fuel cell is tight against the aft face of the fuel bay liner.
- (d) Install new clamps, P/N WWD82, as applicable, to interconnect tube, P/N 002-920012-53. Ensure that the clamps are torqued to 30-35 inch-pounds. Install new clamps, P/N WWD114 (or equivalent P/N NAS1924-114), as applicable, to interconnect tube, P/N 002-920012-51. Ensure that the clamps are torqued to 35-40 inch-pounds.
- (e) When assembling wet wing interconnect tube P/N 60-921047-1 into leading edge outboard fuel cell, use new clamp, P/N 52KS3 or P/N 4852SS305, as needed. Torque to 20-25 inch-pounds.
- (f) Ensure that the hanger snap clips are properly fastened on the top of each fuel cell.
- (5) Install the respective fuel cell doors, using new gaskets, P/N 002-920020-1 (As Required) and P/N 35-921502 (As Required). Install fuel access panels. Install any other access panels that were removed to gain access to the applicable fuel cells.
- (6) Install exhaust heat shields.
- (7) Reconnect the airplane battery, remove warning notices, and restore power.
- (8) Fully fuel the airplane in accordance with guidelines provided in the applicable chapter/section of the appropriate Maintenance Manual or Shop Manual. A minimum of four hours after fueling the airplane, check for leaks.
- (9) Ensure all work areas are clean and clear of tools and miscellaneous items of equipment.
- (10) Return airplane to service.

B. Spares

Review fuel cell configuration as defined in Paragraph 1.A.(2) of this Service Bulletin.

C. Record of Compliance

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

SERVICE BULLETIN

UPPER ACCESS PANEL LOCATIONS



FUEL ACCESS



LOWER ACCESS PANELS

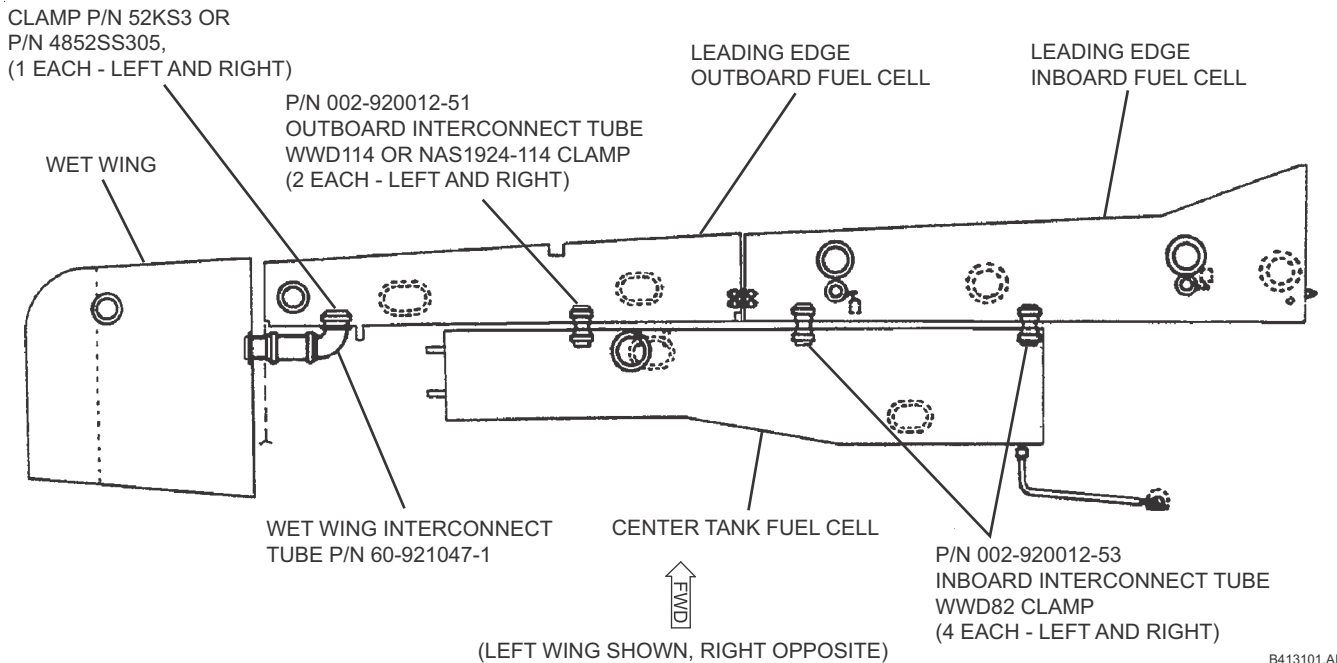
HEAT SHIELD
SHOWN REMOVED



Access Panel Locations
Figure 1

B413103.AI

SERVICE BULLETIN

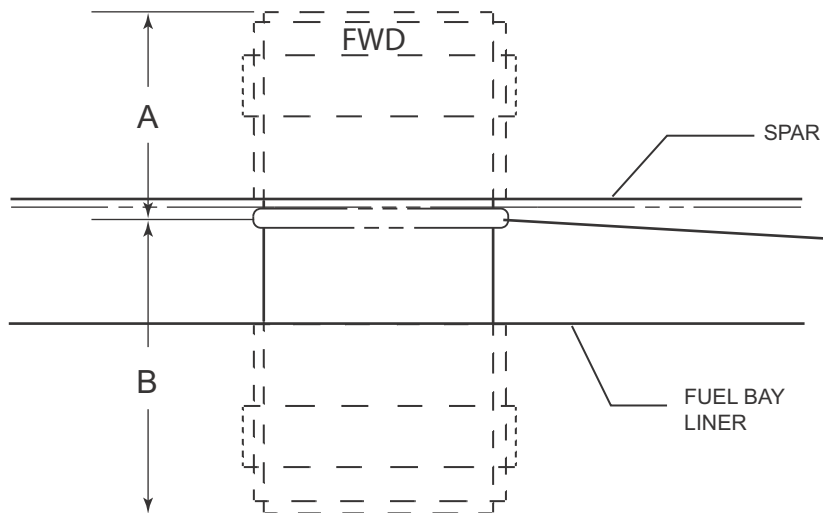


Fuel Cells
Figure 2

SERVICE BULLETIN



THE MIDDLE BEAD OF THE INTERCONNECT TUBE SHOULD BE ON THE AFT SIDE OF THE SPAR. THE INTERCONNECT TUBE SHOULD BE STICKING OUT OF THE NIPPLE ON BOTH SIDES FOR THE MID-BOARD AND INBOARD TUBES. THE OUTBOARD TUBE SHOULD BE FLUSH OR SLIGHTLY IN OR OUT DEPENDING ON TOLERANCES.



VIEW SHOWING THE MIDDLE BEAD OF THE P/N 002-920012-51 OR -53 INTERCONNECT TUBE LOCATED ON THE AFT SIDE OF THE SPAR.

(REFERENCE DIMENSIONS ONLY)

A FOR THE -51 2.60 INCHES
FOR THE -53 3.00 INCHES

B FOR THE -51 2.90 INCHES
FOR THE -53 4.80 INCHES

B413102.AI

Fuel Cell Installation Requirements
Figure 3