

Raytheon

Raytheon Aircraft Company
9709 E. Central
P.O. Box 85
Wichita, Kansas
67201-0085 USA

April 30, 2003

In Reply Please Refer

To: 982-03-04-L58/TH-1186

Please Address Reply

To: Paul E. Yoos (9829-B12)

Mr. Timothy Monville
National Transportation Safety Board
Southeast Regional Office
8405 NW 53rd Street, Suite B-103
Miami, Florida 33166

- Re. 1) Beech Model 58 Baron, Serial Number TH-1186, Registration Number N158MT, accident near Hernando, Mississippi, on July 17, 2000, at 1206 CDT.
- 2) Your April 23, 2003, letter.
 - 3) Copy of the original weight and balance and equipment list extracted from the Production Inspection Record.
 - 4) MIL-W-5086/1 military specification sheet.
 - 5) MS27125 military standard sheet.
 - 6) Raytheon Aircraft Beech Baron Illustrated Parts Catalog, P/N 58-590000-19E8, Section 53-17-20 Firewall Assembly.
 - 7) Busman Manufacturing Division information sheet for AGC-3 fuses.

Dear Mr. Monville:

On April 23, 2003, I received your letter requesting additional information. The following is provided:

Question 1: A copy of the PIR for the airplane to show what amperage alternators were installed when the airplane was manufactured.

RAC Response

The airplane had 100-amp alternators installed. Attached is the original weight and balance and equipment list for the airplane. Also note the following installations:

- B.F. Goodrich Type 25 wing and tail deice boots
- B.F. Goodrich electric propeller deice systems installed on Hartzell 3-bladed propellers
- An alcohol windshield anti-ice system

You provided RAC with an October 27, 1997, FAA Form 337, which showed that Airmet Systems, Inc., had installed (among others) the Beech Kit P/N 58-3009-1P Heavy Duty Stall Warning option and the Beech Kit P/N 58-4007-5S Electric Windshield Anti-Ice option. The electric windshield installation required a circuit breaker switch replacement on the W15 bus. The stall warning installation required the installation of a W11 bus. Refer also to my response to your Question 5.

Question 2: Confirm what type of electrical wire was used when the airplane was manufactured; include what type of insulation is used in that type of wire.

RAC Response

The airplane had MIL-W-5086/1 single wire installed (exclusive of engine compartment). The

Timothy W. Monville
982-03-04-L58/TH-1186
Page 2

engine compartment had MS27125 (MS18000 or MS18001 may be substituted) single wire installed. MIL-W-5086/1 military specification sheet and MS27125 military standard sheet are attached. These sheets identify the composition of the wire conductor, insulation, and jacket.

Question 3: Provide from IPC and structural repair manual illustrations for the "firewall" that exhibited high heat damage.

RAC Response

Raytheon Aircraft Beech Baron Illustrated Parts Catalog, P/N 58-590000-19E8, Section 53-17-20 Firewall Assembly is attached. Page 4 has been annotated to include the various water line (WL) locations and butt line (BL) positions of the heat damage on the firewall at fuselage station (FS) 39.0.

Question 4: Confirm the location on the firewall where the burn through occurred, i.e., what is the fuselage station, water line, and approximate butt line location (provide supporting documents).

RAC Response

Section 53-17-20 Firewall Assembly, page 4, item number 33 is the partially consumed cover, which is visible on photograph 285. (Photograph 285 had been provided in previous correspondence.)

Question 5: Confirm how P5A10 wire was routed when the airplane was manufactured.

RAC Response

The P5A10 wire was originally run from the end of the W15 bus where the windshield (alcohol) switch would have been attached, around the deice timer switch, and attached to the pitot heat switch. At the time of manufacture, no W11 bus was installed, because the optional right pitot heat was not installed. Refer also to my response to your Question 1.

Question 6: Confirm the length of the P5A10 wire when the airplane was manufactured.

RAC Response

The P5A10 wire would have been fabricated to fit by the installing technician, so that the fit was mechanically and electrically sound.

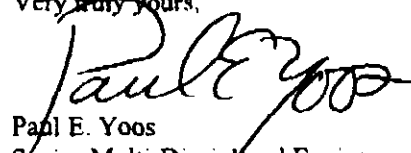
Question 7: Provide a document that indicates what are the correct load meter fuses by p/n, and what specifications are for the load meter fuses.

RAC Response

The F13, F14, F15, and F16 load meter fuses are AGC-3 fuses, which is a Busman Manufacturing Division designation. The government designation for the same fuse is FO2A250V3A. A Busman Manufacturing Division information sheet is attached, describing AGC-3 fuses.

Should you have any question, please call me at (316) 676-1329.

Very truly yours,



Paul E. Yoos
Senior Multi-Disciplined Engineer
Air Safety Investigation
Raytheon Aircraft Company