

Rayner Brian

From: Busch, Howard J [-]
Sent: Friday, September 17, 2010 2:35 PM
To: Rayner Brian
Cc: Murrer, Al X
Subject: N167TB
Attachments: PropAccumulator (2).pdf

Brian,

I apologize for being late getting you this information.

Per your request please see the attached PDF file which contains the entries related to the removal of the propeller unfeathering accumulators on the Baron 58 - N167TB. These log entries - Log # 08-260 and # 08-273, which are part of the aircraft's permanent records – show that the left and right accumulators were removed during the aircraft's Annual Inspection in April 2008.

With regard to your question: “were there any propeller accumulators in the Quest fleet at the time of the accident”?, the answer is yes. At the time of the accident, 3 of the Baron 58 aircraft in Quest Diagnostic' fleet had accumulators and 10 did not. The following is the background related to unfeathering accumulators in Quest Diagnostics' fleet:

- Since the 1988 Quest Diagnostics (formerly SmithKline Beecham) has operated light twin engine aircraft. During the early days of twin engine aircraft, none of planes in the Quest Diagnostics fleet were configured with propeller unfeathering accumulators. The aircraft were either not equipped with accumulators when built or had the equipment removed prior to their purchase by Quest Diagnostics. Consistent with the relevant FARs and industry practice, Quest Diagnostics' operations, maintenance and training programs have never required the use of propeller unfeathering accumulators.
- In 2004 Quest Diagnostics began to purchase Baron 58 aircraft. When Quest Diagnostics reviewed these aircraft for purchase, propeller unfeathering accumulators were not a part of its purchase specification. As it turned out, some of the airplanes Quest Diagnostics purchased were equipped with unfeathering accumulators while others did not have them. As a result, the company ended up with a mixed fleet of aircraft—aircraft with unfeathering accumulators and aircraft without unfeathering accumulators.
- After a while, the Company began to assess the reliability of the accumulator units and the maintenance that was required to support them. After this assessment, Quest Diagnostics made the decision to remove the unfeathering accumulators in those aircraft that had them when the accumulators needed to be repaired or replaced or when the accumulators needed to be removed to perform engine maintenance. The basis for this decision was:
 - In the Baron 58 Type Certificate, Section X, propeller unfeathering accumulators are not listed as “required equipment” and are not part of the aircraft certification. Furthermore, their removal only required a logbook entry and an equipment list update.
 - Quest Diagnostics does not use the accumulators in its operation. Quest Diagnostics uses Simcom Training Centers and all engine out training is done in flight simulators.
 - Some of the accumulator units had a history of high failure rates because they are very prone to leaks.
 - The accumulators are not listed as an item on the Minimum Equipment List for the Baron 58. As a result, if an accumulator was determined to be inoperable at inspection, the airplane would have to be grounded until the accumulator was repaired or permanently disabled.
 - Removal of the accumulator units would streamline engine maintenance.
 - If an aircraft had to have an engine or propeller removed due to metal contamination, the accumulators would have to be replaced due to their tendency to contaminate the engine oil supply.

Based on the foregoing, the decision was made to remove the propeller unfeathering accumulators if they needed to be repaired or replaced, or if engine maintenance required their removal. Please let me know if you require anything further from us.

Howard

Howard J. Busch

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LOG # 08-257 DATE: 4-3-08 PILOT/TECH: [REDACTED]	CORRECTIVE ACTION: <i>cleaned up of</i>
DISCREPANCY: <i>LTRT HORIZONTAL</i>	<i>Printed 1. Top of Tip -</i>
<i>STABS OB TIPS Eroding</i>	<i>AS needed</i>
CLOSED	
DATE: 4-11-08 TECH: [REDACTED]	
CERT#: [REDACTED]	
A/C HOURS: 1598.4 LNDG: 1785	STATUS UPDATE <u>NO</u> CONT.ON BACK <u>NO</u>
LABOR: — POD: — INSP TYP. ANNUAL	s/n off — s/n on —

LOG # 08-258 DATE: 4-3-08 PILOT/TECH: [REDACTED]	CORRECTIVE ACTION: <i>Reinstalled both Flaps</i>
DISCREPANCY: <i>Both Flaps removed</i>	<i>and rigged & ops check I/A/W Baron</i>
<i>F.O.M.</i>	<i>58 M.M. 27-50-00.</i>
CLOSED	
DATE: 4-10-08 TECH: [REDACTED]	
CERT#: [REDACTED]	
A/C HOURS: 1588.4 LNDG: 1785	STATUS UPDATE <u>NO</u> CONT.ON BACK <u>NO</u>
LABOR: — POD: — INSP TYP. ANNUAL	s/n off — s/n on —

LOG # 08-259 DATE: 4-4-08 PILOT/TECH: [REDACTED]	CORRECTIVE ACTION: <i>Reinstalled same bumper.</i>
DISCREPANCY: <i>Left Flap bumper</i>	<i>Ref 08-258 For rig.</i>
<i>removed for.</i>	
CLOSED	
DATE: 4-10-08 TECH: [REDACTED]	
CERT#: [REDACTED]	
A/C HOURS: 1588.4 LNDG: 1785	STATUS UPDATE <u>NO</u> CONT.ON BACK <u>NO</u>
LABOR: — POD: — INSP TYP. ANNUAL	s/n off — s/n on —

LOG # 08-260 DATE: 4/5/08 PILOT/TECH: [REDACTED]	CORRECTIVE ACTION: <i>New fan ordered 4/7/08</i>
DISCREPANCY: <i>Cebs Governor Accumulator</i>	<i>System Disabled - See log</i>
<i>End line 18000 for N52144</i>	<i>item 08-277 for Details</i>
CLOSED	
DATE: 4-10-08 TECH: [REDACTED]	
CERT#: [REDACTED]	
A/C HOURS: 1588.4 LNDG: 1785	STATUS UPDATE <u>NO</u> CONT.ON BACK <u>NO</u>
LABOR: — POD: — INSP TYP. ANNUAL	s/n off — s/n on —

LOG # 08-272 DATE: 4-9-08 PILOT/TECH: [REDACTED]	CORRECTIVE ACTION:
DISCREPANCY: DEACTIVATED FEATHER ACCUMULATE	DEACTIVATED PROP UNFEATHER ASSIST SYSTEM. CAPPED OIL LINE AT FIREWALL. LEAK OK.
CLOSED	
DATE: 4/10/08 TECH: [REDACTED]	
CERT#: [REDACTED]	
A/C HOURS: 1588.4 LNDG: 1785	STATUS UPDATE <u>NO</u> CONT.ON BACK <u>NO</u>
LABOR: - POD: - INSP TYP. ANNUAL	s/n off - s/n on -

INSP #13 HS

LOG # 08-274 DATE: 4-9-08 PILOT/TECH: [REDACTED]	CORRECTIVE ACTION: REMOVED PAINTED WORDS
DISCREPANCY: REMOVE CIA7 FROM AIR	THE STRAY CAT FROM PILOTS DOOR. BY SANDING RECLEAR COATED DOOR AS NEEDED. OK FOR RETURN TO SERVICE.
CLOSED	
DATE: 4/11/08 TECH: [REDACTED]	
CERT#: [REDACTED]	
A/C HOURS: 1588.4 LNDG: 1785	STATUS UPDATE <u>NO</u> CONT.ON BACK <u>NO</u>
LABOR: - POD: - INSP TYP. ANNUAL	s/n off - s/n on -

INSP #13 HS

LOG # 08-275 DATE: 4-9-08 PILOT/TECH: [REDACTED]	CORRECTIVE ACTION:
DISCREPANCY: Prop Removed To Be Replaced	Sent Prop to East Coast Prop Serv inc Installed Prop on Engine s/n 833548-12 After receiving Prop from east coast Prop See work ER-6711 for Details: Work accomplished (A/C) Hartzell + Raytheon Manuals. Leak ✓ Satisfactory
CLOSED	
DATE: 4-10-08 TECH: [REDACTED]	
CERT#: [REDACTED]	
A/C HOURS: 1588.4 LNDG: 1785	STATUS UPDATE <u>NO</u> CONT.ON BACK <u>NO</u>
LABOR: - POD: - INSP TYP. ANNUAL	s/n off ED4009A s/n on ED4009A

INSP #13 HS

LOG # 08-276 DATE: 4-10-08 PILOT/TECH: [REDACTED]	CORRECTIVE ACTION: INSTALLED NEW IRIS VALVE ASSEMBLY P/N 95-550002-17.
DISCREPANCY: IRIS VALVE K Balled	OPERATIONAL CHECK WAS SATISFACTORY.
CLOSED	
DATE: 4-16-08 TECH: [REDACTED]	
CERT#: [REDACTED]	
A/C HOURS: 1588.4 LNDG: 1785	STATUS UPDATE <u>NO</u> CONT.ON BACK <u>NO</u>
LABOR: - POD: - INSP TYP. ANNUAL	s/n off - s/n on -

INSP #13 HS

LOG # 08-277 DATE: 4-11-08 PILOT/TECH: [REDACTED]	CORRECTIVE ACTION: INSTALLED PROP GOVERNOR
DISCREPANCY: LT Prop Gov Removal of [REDACTED]	AFTER OVERHAUL P/N B210800J
CLOSED	S/N 12152935. REFERENCE DISCREPANCY
	08-185 LEAK AND OPS CHECK LEFT
	ENGINE.
DATE: 4-16-08 TECH: [REDACTED]	
CERT#: [REDACTED]	
A/C HOURS: 1588.4 LNDG: 1785	STATUS UPDATE NO YES CONT.ON BACK NO
LABOR: - POD: - INSP TYP. ANNUAL	s/n off 12152935 s/n on 12152935

INSP #16 TW

LOG # 08-278 DATE: 4-11-08 PILOT/TECH: [REDACTED]	CORRECTIVE ACTION: Removed + replaced relay assembly
DISCREPANCY: Landing gear motor does not operate correctly	p/n #M50D7 for trouble shooting. Removed +
CLOSED	replaced gear motor with an overhauled
	p/n 58-380090-1. Gear rig + ops check
	motor good I/A/W Barco 58 M.M 32-00-00.
DATE: 4-15-08 TECH: [REDACTED]	
CERT#: [REDACTED]	
A/C HOURS: 1588.4 LNDG: 1785	STATUS UPDATE Yes CONT.ON BACK NO
LABOR: - POD: - INSP TYP. ANNUAL	s/n off 9460 s/n on 5455

INSP #13 HB

LOG # 08-279 DATE: 4-15-08 PILOT/TECH: [REDACTED]	CORRECTIVE ACTION: INSTALLED NEW DOOR ACTUATOR
DISCREPANCY: Nose gear door actuator shaft assembly worn.	PIV ASSEMBLY P/N 002-820016-39 AND
CLOSED	NEW NOSE GEAR DOOR ACTUATOR SHAFT
	ASSEMBLY. OPERATIONAL CHECK WAS
	SATISFACTORY. SHAFT ASSY. P/N 002-410038-1
DATE: 8-15-08 TECH: [REDACTED]	
CERT#: [REDACTED]	
A/C HOURS: 1588.4 LNDG: 1785	STATUS UPDATE NO CONT.ON BACK NO
LABOR: - POD: - INSP TYP. ANNUAL	s/n off - s/n on -

INSP #13 HB

LOG # 08-280 DATE: [REDACTED] PILOT/TECH: [REDACTED]	CORRECTIVE ACTION: INSTALLED NEW BAFFLE BRACKET
DISCREPANCY: LEFT FORWARD BAFFLE BRACKET CRACKED.	P/N 96-910020-271.
CLOSED	
DATE: 4-15-08 TECH: [REDACTED]	
CERT#: [REDACTED]	
A/C HOURS: 1588.4 LNDG: 1785	STATUS UPDATE NO CONT.ON BACK NO
LABOR: - POD: - INSP TYP. ANNUAL	s/n off - s/n on -

INSP #13 HB