Rayner Brian

From: Sent:	Busch, Howard J [- Friday, September 17, 2010 2:35 PM
То:	Rayner Brian
Cc:	Murrer, AI 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.

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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.

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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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A/C DISCREPANCIES RDG/LZU

PAGE # 08- 45

LOG # 08-957 DATE: 4-3-05 PILOT/TECH	CORRECTIVE ACTION: CLEWS of cuch
DISCREPANCY: LTART HONIJONTAL	PHINTEC I.T. FRZ Tip
STABS OB TIPS ENOUNIN	
DATE: 1/-11-08 TECH:	
CERT#:	
A/C HOURS: 159 2.4 LNDG: 1285	STATUS UPDATE INC CONT.ON BACK ICC
LABOR: POD; INSP TYP. ANNUAL	s/n off s/n on 113
LOG # 08- 958 DATE: 4-3-08 PILOT	CORRECTIVE ACTION: Reinstalled both Flaps
DISCREPANCY: Both Flaps removed	
FOM	and rigged & aps check I/A/W Baron 58 M.M. 27-50-00.
PI MOSEIN	
DATE: 4-10-08 TECH:	
CERT#:	j.
A/C HOURS: 1588.4 LNDG: 1785	STATUS UPDATE NO CONT.ON BACK NO
LABOR: - POD: - INSP TYP. ANNUAL	
LOG # 08-95 7 DATE: 4-4-08 PILOT (TECH)	CORRECTIVE ACTION: Reinstalled same bumper.
DISCREPANCY: Lett Flap bumper	Ref 08-258 For rig.
removed Form.	
GLASER	
	·
a/c hours: /588.4 LNDG: /785 LABOR: POD: INSP TYP. ANNUAL	STATUS UPDATE <u>NO</u> CONT.ON BACK <u>NO</u> s/n off s/n on - H3
9-29 8207274 (16 7) 211 27 800 F) 19-2 20 111 22 111 110 1107 (17 7) 27 8 / 17 7) 72 110 12 11 110 1107 1107 110 1107 1107	
LOG # 08-260 DATE: 4/5/05 PILOT/TECH:	CORRECTIVE ACTION: New from a-dered 4/2/08 th
DISCREPANCY: Ceft Course Decumente tou	
Find Ince 19 19 1 1 1 234	item 08-277 for Petails
61.11.50	item 08-277 for Petrils
DATE: 4-10-08 FECH:	
CERT#:	
MC HOURS, IS88.4 LNDG: 1785	STATUS UPDATE NO CONT.ON BACK NO
LABOR: - POD: - INSPITYP, ANNUAL	#13
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A/C DISCREPANCIES RDG/LZU

PAGE <u># 08-</u>

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LOG # 08-272 DATE: 4-9. 08 PILOT (ECH)	CORRECTIVE ACTION:
DISCREPANCY: DEALTINA T-C	DEACTIVATED PROP UNFEATHER
FEATHEL Accumulate	ASSIST SYSTEM, CAPPED OIL
	LINE AT FIREWALL. LEAK CK
	ok.
DATE: 4/10/08 TECH:	
CERT#:	
A/C HOURS: 1588.4 LNDG: 1785	STATUS UPDATE_
LABOR: POD: INSP TYP. ANNUAL	s/n off s/n on (#13)
LOG # 08- 974 DATE: 4-9-08 PILOTTECH	
	CORRECTIVE ACTION: REMOVED PRIMITED YORDS
DISCREPANCY: Ramare CIAT	THE STRAY CAT FROM PILOTS DOOR.
From All	BY SANDING RECLEAR COATES DOOR AS NEEDED. OK FOR RETURN TO
TULUNED	AS NELGLO. OR FOR METHICA TO SERVICE.
DATE: 4/1108 TECH	service
CERT#:	
A/C HOURS: 1588.4 LNDG: 1785	STATUS UPDATE
	s/n off s/n on #13
LOG #08 975 DATE: 4-905 PULOTTECH	
LOG # 08-975 DATE: 4-9.05 PILOTECH	CORRECTIVE ACTION:
DISCREPANCY: Phop Removed	Sent Prop to East Coast Prop Servinc
DISCREPANCY: Phop Removed To Br. Flostfact	Sent Prop to East Coast Prop Serv inc Installed Prop on Engine SNU 833548-R
DISCREPANCY: Phop Removed	Sent Prop to East Coast Prop Serv inc Installed Prop on Engine SAU 833548-R Affly receiveing Prop from Past Coast Prop
DISCREPANCY: Phop Removed To Br. Flostfact	Sent Prop to East Coast Prop Serv inc Installed Prop on Engine SNU 833548-R Affir receiveing Prop from Past Coast Prop See Work ER-0711 for Details : Work
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DISCREPANCY: Phop Removed To Br. FUESHad DATE: 4- 10-00 THE CHARTER CERT#:	Sent Prop to East Coast Prop Serv iNC Installed Prop on Engine SAN 833548-R Affir receiveing Prop from east coast Prop See Wold ER-6711 for Details Work accomplished IAC Hartsell + Raytleon Manuals. IPAK / Satisfactory
DISCREPANCY: Phop Removed To Br. FUESHack DATE: 4-10-00 TESTING CERT#: CARACTER A/C HOURS: IS88.4 LNDG: 1785 LABOR: POD; INSP TYP. ANNUAL	Sent Prop to East Coast Prop Serv iNC Installed Prop on Engine SNU 833548-PR Affly receiveing Prop from east coast Prop See Work ER-G711 for Details Work accomplished IAC) Hatzell + Ruytleon Manuals. IPAK / Salisfactory STATUS UPDATE NO CONT.ON BACK NO \$13 \$10 off ED 4009A \$10 on ED 4009A
DISCREPANCY: Phop Removed To Br FUESHACE DATE: 4-10-00 TED DATE: 4-10-00 TED CERT#: AC HOURS: IS88.4 LNDG: 1785 LABOR: POD; INSP TYP. ANNUAL LOG # 08-976 DATE: 9/10-08 PILOT/TECH	Sent Prop to East Coast Prop Serv iNC Installed Prop on Engine SAN 833548-R Affly receiveing Prop from east coast Prop See Work ER-G711 for Details Work accomplished IAC) Hatzell + Ruytleon Manuals. IMX / Salisfactory STATUS UPDATE NO CONT.ON BACK NU sin off ED 4009A sin on ED 4009A
DISCREPANCY: Phop Removed To Br FUESHACL DATE: 4-10-00 TESTING DATE: 4-10-00 TESTING CERT#: AC HOURS: IS88.4 LNDG: 1785 LABOR: POD; INSP TYP. ANNUAL LOG # 08-976 DATE: 9/10-08 PILOT/TECH) DISCREPANCY: IZ15 UALUT	Sent Prop to East Coast Prop Serv iNC Installed Prop on Engine SN 833548-R Affect receivering Prop from east coast Prop See Wold ER-6711 for Details Work accomplished IAC) Hattell + Ruytleon Manuals. IMK / Salisfactory STATUS UPDATE NO CONT.ON BACK NO s/n off ED 4009A s/n on ED 4009A Hassemibly P/N 95-550002-17.
DISCREPANCY: Phop Removed To Br. FUESHACC DATE: 4-10-00 TODING DATE: 4-10-00 TODING CERT#: A/C HOURS: IS88.4 LNDG: 1785 LABOR: POD; INSP TYP. ANNUAL LOG # 08-976 DATE: 9/10.05 PILOTITECH, DISCREPANCY: IRIS VALUT K BALLES	Sent Prop to East Coast Prop Serv iNC Installed Prop on Engine SNU 833548-FR Affly receiveing Prop from east const Prop See Work ER-G711 for Details Work accomplished IAC) Hatzell + Roytleon Manuals. IMX / Salisfactory STATUS UPDATE NO CONT.ON BACK NO s/n off ED 4009A s/n on ED 4009A #13 CORRECTIVE ACTION: INSTALLED NEW IRIS VALUE
DISCREPANCY: Phop Removed To Br FUESHACL DATE: 4-10-00 HOUSED DATE: 4-10-00 HOUSED CERT#: A/C HOURS: IS88.4 LNDG: 1785 LABOR: POD; INSP TYP. ANNUAL LOG # 08-976 DATE: 9/10-08 PILOT/TECH DISCREPANCY: IR15 VALUE	Sent Prop to East Coast Prop Serv iNC Installed Prop on Engine SN 833548-R Affect receivering Prop from east coast Prop See Wold ER-6711 for Details Work accomplished IAC Hartsell + Ruytleon Manuals. IPAK / Sulisfactory STATUS UPDATE NO CONT.ON BACK NO s/n off ED 4009A s/n on ED 4009A HS CORRECTIVE ACTION: INSTALLED NEW IRIS VALUE ASSEMBLY P/N 95-550002-17.
DISCREPANCY: PLOP REMOVED TO BE FLOSHED DATE: 4-10-00 HOURSELL DATE: 4-10-00 HOURSELL CERT#: A/C HOURS: IS88.4 LNDG: 1785 LABOR: POD; INSP TYP. ANNUAL LOG # 08-976 DATE: 9/10-08 PILOT/TECH) DISCREPANCY: IZIS VALUE K BALLEL NIO95D CLOSED	Sent Prop to East Coast Prop Serv iNC Installed Prop on Engine SN 833548-R Affect receivering Prop from east const Prop See Wold ER-6711 for Details Work accomplished IAC Hutcell + Ruytleon Manuals. IPAK / Sulisfactory STATUS UPDATE NO CONT.ON BACK NO s/n off ED 4009A s/n on ED 4009A HS CORRECTIVE ACTION: INSTALLED NEW IRIS VALUE ASSEMBLY P/N 95-550002-17.
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A/C DISCREPANCIES RDG/LZU

PAGE <u># 08-</u>70

LOG # 08-217 DATE: 4-11-0 S PILOTAECH	CORRECTIVE ACTION: INSTALLED PROP GOVER WOR
DISCREPANCY: LT PROPGOU	AFTER OVERHAUL P/N B210800J
Rem All AREAH	S/N 12152935, REFERENCE DESCREPANCY
	OB-185 LEAK AND OFS CHECK LEFT
	ENGINE.
CERT#:	
A/C HOURS: 1588.4 LNDG: 1785	
LABOR: - POD: - INSP TYP. ANNUAL	1 H 10
LOG # 08-778 DATE: 4-11-08 PILOT (TECH)	CORRECTIVE ACTION: Removed + replaced relay assently
DISCREPANCY: Landing year motor	of AM 50 DT For trouble sporting, Renoval +
docsnotrappente correctly	replaced gear motor with an overhaufeel
	ph 58-380090-1. Generigt ops check
	motor good I/A/N Baron 58 M.M. 32-00-00.
DATE: 4-15-08 TECH:	
CERT#:	
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 #13
LOG # 08-29 9 DATE: 4-15-08 PILOT	CORRECTIVE ACTION: INSTALLED NEW DOOR ACTUATOR
LOG # 08-27 9 DATE: 4-15-08 PILOT TECH	CORRECTIVE ACTION: INSTALLED NEW DOOR ACTUATUR PIN ASSEMBLY P/N 002-820016-39 AND
	CORRECTIVE ACTION: INSTALLED NEW DOOR ACTUATUR PIN ASSEMBLY P/N 002-820016-39 AND NEW NOSE GEAR DOOR ACTUATOR SHAFT
DISCREPANCY: Nose gear door	FIN ASSEMBLY FIN 002-820016-39 AND
DISCREPANCY: Nose gear door actuator shaft assenby worn.	PIN ASSEMBLY PIN 002-B20016-39 AND NEW NOSE GEAR DOOR ACTUATOR SHAFT
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DISCREPANCY: Nose gear door actuator shaft assenby worn.	PIN ASSEMBLY PIN 002-820016-39 AND NEW NOSE GEAR DOOR ACTUATOR SHAFT ASSEMBLY, BPERATIONAL CHECK WAS
DISCREPANCY: Nose gear door actuator shaft assenby worn. DATE: 8+15 CS TECH:	PIN ASSEMBLY P/N 002-820016-39 AND NEW NOSE GEAR DOOR ACTUATOR SHAFT ASSEMBLY, BPERATIONAL CHECK WAS SATISFACTORY, SHAFT ASSY. P/N 602-410938-1 STATUS UPDATE NO CONT.ON BACK NO
DISCREPANCY: Nose gear door actuator shaft assenby worn. DATE: 8 + 15 · CS TECH: CERT#:	PIN ASSEMBLY P/N 002-820016-39 AND NEW NOSE GEAR DOOR ACTUATOR SHAFT ASSEMBLY, OPERATIONAL CHECK WAS SATISFACTORY, SHAFT ASSY. P/N 002-410938-1
DISCREPANCY: Nose gear door actuator shaft assenby worn. DATE: 8+15 CS TECH: CERT#: A/C HOURS: ISE8.4 LNDG: 1785	PIN ASSEMBLY P/N 002-820016-39 AND NEW NOSE GEAR DOOR ACTUATOR SHAFT ASSEMBLY, OPERATIONAL CHECK WAS SATISFACTORY, SHAFT ASSY. P/N 002-410938-1 STATUS UPDATE NO CONT.ON BACK NO 113
DISCREPANCY: Nose gear door actuator shaft assenby worn. DATE: 8 + 15 CS TECH: CERT#: A/C HOURS: 15:88.4 LNDG: 1785 LABOR: - POD: - INSP TYP. ANNUAL	PIN ASSEMBLY P/N 002-820016-39 AND NEW NOSE GEAR DOOR ACTUATOR SHAFT ASSEMBLY, BPERATIONAL CHECK WAS SATISFACTORY, SHAFT ASSY. P/N 602-410938-1 STATUS UPDATE NO CONT.ON BACK NO s/n off - s/n on - 113
DISCREPANCY: Nose gear door actuator shaft assenby worn. DATE: 8 * 15 CS TECH: CERT#: A/C HOURS: ISE8.4 LNDG: 1785 LABOR: - POD: - INSP TYP. ANNUAL LOG # 08-280 DATE: PILOT/ECT.	PIN ASSEMBLY PIN 002-B20016-39 AND NEW NOSE GEAR DOOR ACTUATOR SHAFT ASSEMBLY, BPERATIONAL CHECK WAS SATISFACTORY, SHAFT ASSY. PIN 602-410938-1 STATUS UPDATE NO CONT.ON BACK NO s/n off - s/n on - 113 CORRECTIVE ACTION: INSTALLED NEW BAFFLE BRACKET
DISCREPANCY: Nose gear door actuator shaft assenby worn. DATE: 8 * 15 CS TECH: CERT#: A/C HOURS: ISE8.4 LNDG: 1785 LABOR: - POD: - INSP TYP. ANNUAL LOG # 08-280 DATE: PILOT/ECH. DISCREPANCY: LEFT FORWARD BAFFLE	PIN ASSEMBLY PIN 002-B20016-39 AND NEW NOSE GEAR DOOR ACTUATOR SHAFT ASSEMBLY, BPERATIONAL CHECK WAS SATISFACTORY, SHAFT ASSY. PIN 602-410938-1 STATUS UPDATE NO CONT.ON BACK NO s/n off - s/n on - 113 CORRECTIVE ACTION: INSTALLED NEW BAFFLE BRACKET
DISCREPANCY: Nose gear door actuator shoft assendy worn. DATE: 8+15 CS TECH CERT#: A/C HOURS: ISE8.4 LNDG: 1785 LABOR: - POD: - INSP TYP. ANNUAL LOG # 08-280 DATE: PILOT/TECH DISCREPANCY: LEFT FORWARD BAFFLE BRACKET, CRACKED.	PIN ASSEMBLY P/N 002-820016-39 AND NEW NOSE GEAR DOOR ACTUATOR SHAFT ASSEMBLY, BPERATIONAL CHECK WAS SATISFACTORY, SHAFT ASSY. P/N 602-410938-1 STATUS UPDATE NO CONT.ON BACK NO s/n off - s/n on - 13 S/n off - S/n on - 13 CORRECTIVE ACTION: INSTALLED NEW BAFFLE BRACKET
DISCREPANCY: Nose gear door actuator shoft assendy worn. DATE: 8+15 CS TECH CERT#: A/C HOURS: ISE8.4 LNDG: 1785 LABOR: - POD: - INSP TYP. ANNUAL LOG # 08-280 DATE: PILOT/TECH DISCREPANCY: LEFT FORWARD BAFFLE BRACKET, CRACKED.	PIN ASSEMBLY PIN 002-B20016-39 AND NEW NOSE GEAR DOOR ACTUATOR SHAFT ASSEMBLY, BPERATIONAL CHECK WAS SATISFACTORY, SHAFT ASSY. PIN 602-410938-1 STATUS UPDATE NO CONT.ON BACK NO s/n off - s/n on - 113 CORRECTIVE ACTION: INSTALLED NEW BAFFLE BRACKET
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