

DANMARK GRØNLAND OG FÆRØERNE

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AIC-B 26/04 Special Airworthiness Information Bulletin (SAIB) RRC 250 series Turboshaft motorer.

Statens Luftfartsvæsen (SLV) har fra FAA modtaget vedlagte SAIB vedrørende fejl i motorer af fabrikat Rolls-Royce Corporation (RRC)(tidligere Allison Engine Company), typen/model 250 serierne . Delene der er omfattet er "compressor splined adapter couplings" der som følge af forkert overflade behandling kan føre til separation af forbindelsen mellem turbine og kompressor og derved total tab af motorkraft.

Følgende SAIB'er er vedlagt for information og evt. aktion.

FAA SAIB:

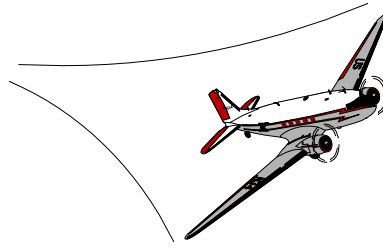
No. NE-04-56

No. NE-04-57

No. NE-04-58

(TLJ)

SPECIAL AIRWORTHINESS INFORMATION BULLETIN



U.S. Department
of Transportation

**Federal Aviation
Administration**

NE-04-56
March 24, 2004

Aircraft Certification Service
Washington, DC

www.faa.gov/certification/aircraft

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) advises owners, operators, and repair stations of recently issued service information regarding the compressor adapter coupling for certain (see below) **Rolls-Royce Corporation (RRC) [formerly Allison Engine Company] Model 250 series engines**.

Manufacturer	Model(s)
Rolls-Royce Corporation (RRC)	250-C20, -C20B, -C20J, -C20F, -C20W, -C20S and 250-B17 series engines
Installed on, but not limited to:	
Augusta	A109, A109A and A109A II
B-N Group Ltd.	BN-2T
Bell	206A, 206B and 206L
Enstrom	TH-28, 480 and 480B
MDHI	369D, 369E, 369H, 369HM, 369HS and 369HE
Eurocopter Deutschland	BO-105C and BO-105S
Eurocopter France	AS355E, AS355F, AS355F1 and AS355F2
Schweizer	269D

Background

The FAA has received reports of failures of Rolls-Royce compressor adapter couplings (part numbers 23039791-1, -2, and -3). The compressor adapter coupling is part of the shafting system between the gas generator turbine and the compressor. **Failure of this part results in immediate and total loss of power from the engine.** To minimize the dangers posed by a failure of the compressor adapter coupling, these engines should be maintained by carefully and completely following the current Rolls-Royce Corporation service information, Commercial Engine Bulletin (CEB) CEB-A-1392 (for the 250-C20 engine models listed above) and TP-CEB-A-1334 (for the 250-B17 series engines).

During overhaul, some new compressor adapter couplings were inadvertently installed in impellers that have fretting damage on the mating surface. After the impeller and compressor adapter coupling are separated for any reason, the correct procedure is to machine the impeller prior to reassembly. The machining operation cleans the impeller surface that fits to the compressor adapter coupling. Fretting is not allowed on the impeller after machining and prior to installation of the new

compressor adapter coupling. The appropriate version of the compressor adapter coupling (-1, -2, or -3) must then be installed to achieve the proper fit with the impeller. Failure to install the proper version compressor adaptor coupling may lead to part failure.

Analysis is continuing on this issue and we are considering a number of alternatives, including mandatory action related to the above manufacturer service documents and recommendations.

Recommendation

We highly recommend that you follow the actions specified in RRC's service information documents, CEB-A-1392 and TP-CEB-A-1334, when servicing and maintaining the compressor adapter coupling and related assemblies.

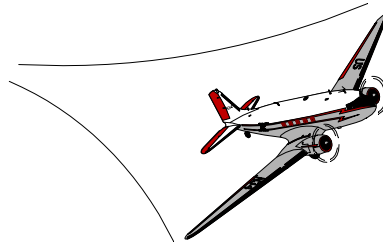
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For Service Bulletin Information Contact

Rolls-Royce Corporation, Publications Services, P.O. Box 420, Indianapolis, IN 46206; phone: (317) 230-2906; fax: (317) 230-6084.

SPECIAL AIRWORTHINESS INFORMATION BULLETIN



U.S. Department
of Transportation

**Federal Aviation
Administration**

NE-04-57
March 24, 2004

Aircraft Certification Service
Washington, DC

www.faa.gov/certification/aircraft

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin advises owners, operators, and repair stations of recently issued service information regarding **Alcor Engine Company's compressor splined adapter coupling**, part number 23039791AL-1, -2, -3, produced under FAA **Parts Manufacturer Approval (PMA) as replacement parts** for certain (see below) **Rolls-Royce Corporation (RRC) [formerly Allison Engine Company] Model 250 series engines**.

Manufacturer	Model(s)
Rolls-Royce Corporation (RRC)	250-C20 and 250-B17 series engines
Installed on, but not limited to:	
Augusta	A109, A109A and A109A II
B-N Group Ltd.	BN-2T
Bell	206A, 206B and 206L
Enstrom	TH-28, 480 and 480B
MDHI	369D, 369E, 369H, 369HM, 369HS and 369HE
Eurocopter Deutschland	BO-105C and BO-105S
Eurocopter France	AS355E, AS355F, AS355F1 and AS355F2
Schweizer	269D

Background

We have received reports of failure of Rolls-Royce and EXTEX compressor splined adapter couplings. The failure was due to fatigue originating from fretting on the outer diameter of the coupling where it mates with the compressor impeller. The compressor splined adapter coupling is part of the shafting system between the gas generator turbine and the compressor. **Failure of this part results in immediate and total loss of power from the engine.** There have been no reported failures of the Alcor compressor splined adapter coupling. However, we are issuing this SAIB on the Alcor coupling due to its identity to the RRC coupling.

Alcor has issued Service Letter Bulletin (SLB) No. 814-3-1, Revision B, dated March 15, 2004, which recommends removal, inspection, and replacement of their compressor splined adapter coupling at next access to the coupling not to exceed 600 hours from the date of release of the above mentioned SLB.

Analysis is continuing and we are considering a number of alternatives, including mandatory action related to the above service document.

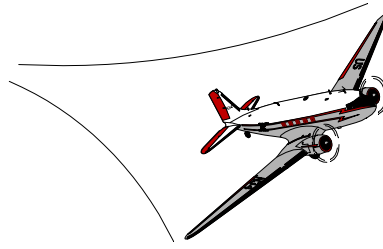
For Further Information Contact

Robert Baitoo, Aerospace Engineer, FAA Los Angeles Aircraft Certification Office, Propulsion Branch, ANM-140L; 3960 Paramount Boulevard, Lakewood, CA 90712; phone: (562) 627-5245; fax: (562) 627-5210; email: robert.baitoo@faa.gov.

For Service Bulletin Information Contact

Alcor Engine Company Inc., 1015 N. McQueen Road, Suite 167, Gilbert, AZ 85233; phone: (480) 632-1039; fax: (480) 632-1046.

SPECIAL AIRWORTHINESS INFORMATION BULLETIN



U.S. Department
of Transportation

**Federal Aviation
Administration**

NE-04-58
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Aircraft Certification Service
Washington, DC

www.faa.gov/certification/aircraft

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin advises owners, operators, and repair stations of recently issued service information regarding the **EXTEX Ltd. compressor splined adapter coupling**, part numbers E23039791, E23039791-1, -2, -3, EH23039791, EH23039791-1, -2, -3, and A23039791, produced under FAA **Parts Manufacturer Approval (PMA)** as replacement parts for certain (see below) **Rolls-Royce Corporation (RRC) [formerly Allison Engine Company] Model 250 series engines**.

Manufacturer	Model(s)
Rolls-Royce Corporation (RRC)	250-C20 and 250-B17 series engines
Installed on, but not limited to:	
Augusta	A109, A109A and A109A II
B-N Group Ltd.	BN-2T
Bell	206A, 206B and 206L
Enstrom	TH-28, 480 and 480B
MDHI	369D, 369E, 369H, 369HM, 369HS and 369HE
Eurocopter Deutschland	BO-105C and BO-105S
Eurocopter France	AS355E, AS355F, AS355F1 and AS355F2
Schweizer	269D

Background

We have received reports of the failure of two EXTEX compressor splined adapter couplings. The most recent failure of the EXTEX coupling was due to fatigue originating from fretting on the outer diameter of the coupling where it mates with the compressor impeller. The compressor splined adapter coupling is part of the shafting system between the gas generator turbine and the compressor. **Failure of this part results in immediate and total loss of power from the engine.**

EXTEX has issued the following service documents:

- Service Bulletin T-081, dated March 15, 2004, which recommends removal of the EXTEX compressor splined adapter coupling any time the compressor assembly has been separated from the gearbox, or the engine has been removed from the aircraft.

- Customer Information Letter T-080, dated August 20, 2003, which recommends inspection for fretting of the outer diameter of the compressor splined adapter coupling any time the compressor assembly has been separated from the gearbox or the engine has been removed from the aircraft.
- Inspection Limits and Repair T-010, Revision C, dated August 21, 2003, for the EXTEX compressor splined adapter coupling.

Analysis is continuing and the FAA is considering a number of alternatives, including mandatory action related to the above service documents.

For Further Information Contact

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