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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003-NE-57-AD; Amendment 39-13798; AD 2004-19-04]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce plc RB211-22B, RB211-524, and RB211-535 Series Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; correction.

SUMMARY: This document makes a correction to Airworthiness Directive (AD) 2004-19-04. That AD applies to Rolls-Royce plc (RR) RB211-22B, RB211-524, and RB211-535 series turbofan engines. That AD was published in the Federal Register on September 22, 2004 (69 FR 56683). In the amendatory language, under § 39.13 [Amended], the amendment number for the AD was inadvertently omitted. This document corrects that omission. In all other respects, the original document remains the same.

EFFECTIVE DATE: Effective September 30, 2004.

FOR FURTHER INFORMATION CONTACT: Christopher Spinney, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7175, fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: A final rule AD, FR Doc. 04-21173 that applies to RR RB211-22B, RB211-524, and RB211-535 series turbofan engines, was published in the Federal Register on September 22, 2004 (69 FR 56683). The following correction is needed:

§ 39.13 [Corrected]

On page 56684, in the second column, under § 39.13 [Amended], in the fifth line, "2004-19-04 Rolls-Royce plc: Docket No." is corrected to read "2004-19-04 Rolls-Royce plc: Amendment 39-13798. Docket No.".

Issued in Burlington, MA, on September 23, 2004.

Francis A. Favara,

Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 04-21912 Filed 9-29-04; 8:45 am]

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[Federal Register: September 22, 2004 (Volume 69, Number 183)]
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003-NE-57-AD; Amendment 39-13798; AD 2004-19-04]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce plc RB211-22B, RB211-524, and RB211-535 Series Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Rolls-Royce plc (RR) RB211-22B, RB211-524, and RB211-535 series turbofan engines. This AD requires revising the Time Limits Manual for RR RB211-22B, RB211-524, and RB211-535 series turbofan engines. These revisions include required enhanced inspection of selected critical life-limited parts at each piece-part exposure. This AD results from the need to require enhanced inspection of selected critical life-limited parts of RB211-22B, RB211-524, and RB211-535 series turbofan engines. We are issuing this AD to prevent failure of critical life-limited rotating engine parts, which could result in an uncontained engine failure and damage to the airplane.

DATES: This AD becomes effective October 27, 2004.

ADDRESSES: You can get the service information identified in this AD from Rolls-Royce plc, P.O. Box 31, Derby, DE24 8BJ, United Kingdom; telephone: 011-44-1332-242424; fax: 011-44-1332-249936.

You may examine the AD docket at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT: Christopher Spinney, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7175, fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 with a proposed airworthiness directive (AD). The proposed AD applies to Rolls-Royce plc RB211-22B, RB211-524, and RB211-535 series turbofan engines. We published the proposed AD in the Federal Register on March 12, 2004 (69 FR 11821). That action proposed to require revisions to the Time

Limits Manual for RR RB211-22B, RB211-524, and RB211-535 series turbofan engines to include required enhanced inspection of selected critical parts at each piece-part exposure.

Examining the AD Docket

You may examine the AD Docket (including any comments and service information), by appointment, between 8 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays. See ADDRESSES for the location.

Comments

We provided the public the opportunity to participate in the development of this AD. We received no comments on the proposal or on the determination of the cost to the public.

Conclusion

We have carefully reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed.

Costs of Compliance

There are about 882 RB211-22B and RB211-524 series engines and about 1,160 RB211-535 series engines of the affected design in the worldwide fleet. We estimate that 30 RB211-22B and RB211-524 series engines and 620 RB211-535 series engines installed on airplanes of U.S. registry will be affected by this AD. We also estimate that it will take about 75 work hours per engine to perform the inspections, and that the average labor rate is \$65 per work hour. Since this is an added inspection requirement, included as part of the normal maintenance cycle, no additional part costs are involved. Based on these figures, the total cost impact of this AD on U.S. operators is estimated to be \$3,169,000.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866;
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under ADDRESSES. Include "AD Docket No. 2003-NE-57-AD" in your request.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39–AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The Federal Aviation Administration (FAA) amends § 39.13 by adding the following new airworthiness directive (AD):

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

CORRECTION: [*Federal Register: September 30, 2004 (Volume 69, Number 189); Page 58257-58258; www.access.gpo.gov/su_docs/aces/aces140.html]*]

2004-19-04 Rolls-Royce plc: Amendment 39-13798. Docket No. 2003-NE-57-AD.

Effective Date

- (a) This AD becomes effective October 27, 2004.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Rolls-Royce plc (RR) RB211-22B, RB211-524, and RB211-535 series turbofan engines. These engines are installed on, but not limited to, Boeing 747, 757, 767, Lockheed L-1011, and Tupolev Tu204 airplanes.

Unsafe Condition

(d) This AD results from the need to require enhanced inspection of selected critical life-limited parts of RB211-22B, RB211-524, and RB211-535 series turbofan engines. The actions specified in this AD are intended to prevent failure of critical life-limited rotating engine parts, which could result in an uncontained engine failure and damage to the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

(f) Within the next 40 days after the effective date of this AD, revise the Time Limits Manual (TLM), and for air carrier operations revise the approved continuous airworthiness maintenance program, by adding the following text and the applicable table determined by engine model number:

"GROUP A PARTS MANDATORY INSPECTION

(1) Inspections referred to as 'Focus Inspect' in the applicable Engine Manual inspection Task are mandatory inspections for the components given below, when the conditions that follow are satisfied:

- (i) When the component has been completely disassembled to piece-part level as given in the applicable disassembly procedures contained in the Engine Manual; and
- (ii) The part has more than 100 recorded flight cycles in operation since the last piece-part inspection; or
- (iii) The component removal was for damage or a cause directly related to its removal; or
- (iv) Where serviceable used components, for which the inspection history is not fully known, are to be used again.

(2) The list of Group A Parts for RB211-22B engines is specified below:

Part nomenclature (RB211–22B series engines)	Part number	Inspected per overhaul manual task
Low Pressure Compressor Rotor Disc	All	72–31–12–200–006
Low Pressure Compressor Rotor Shaft	All	72–31–20–200–000
Intermediate Pressure Compressor Rotor Shaft Stages 1 to 5	All	72–32–31–200–000
Intermediate Pressure Compressor Rotor Shaft Stages 6 to 7	All	72–32–31–200–001
Intermediate Pressure Compressor Rotor Rear Stubshaft	All	72–33–31–200–000
High Pressure Compressor Rotor Stage 1 to 2 Disc Shaft	All	72–41–31–200–000
High Pressure Compressor Rotor Stage 3 Disc	All	72–41–31–200–001
High Pressure Compressor Rear Rotor Shaft Assembly	All	72–41–31–200–002
Compressor/Turbine Joint Flange Support Disc	All	72–41–31–200–003
High Pressure Turbine Disc	All	72–41–51–200–000
Intermediate Pressure Turbine Disc	All	72–51–31–200–000
Intermediate Pressure Turbine Shaft	All	72–51–33–200–000
Low Pressure Turbine Stage 1 Disc	All	72–51–61–200–000
Low Pressure Turbine Stage 2 Disc	All	72–51–61–200–001
Low Pressure Turbine Stage 3 Disc	All	72–51–61–200–002
Low Pressure Turbine Shaft	All	72–51–63–200–000

(3) The list of Group A Parts for RB211-535 series engines is specified below:

Part nomenclature (RB211–535 series engines)	Part number	Inspected per overhaul manual task
Low Pressure Compressor Rotor Disc	All	72–31–12–200–000
Low Pressure Compressor Rotor Shaft	All	72–31–20–200–000
Intermediate Pressure Compressor Rotor Shaft	All	72–32–31–200–001
Intermediate Pressure Compressor Rotor Rear Stubshaft	All	72–33–21–200–000
High Pressure Compressor Rotor Stage 1 & 2 Disc	All	72–41–31–200–000
High Pressure Compressor Rotor Stage 3 Disc	All	72–41–31–200–001
High Pressure Compressor Rear Rotor Shaft Assembly	All	72–41–31–200–002
Compressor/Turbine Joint Flange Support Disc (applicable to –535C only)	All	72–41–31–200–003
High Pressure Turbine Disc	All	72–41–51–200–000
Intermediate Pressure Turbine Rotor Disc	All	72–51–31–200–000
Intermediate Pressure Turbine Shaft	All	72–51–33–200–000
Low Pressure Turbine Stage 1 Disc	All	72–51–61–200–000
Low Pressure Turbine Stage 2 Disc	All	72–51–61–200–001
Low Pressure Turbine Stage 3 Disc	All	72–51–61–200–002
Low Pressure Turbine Shaft	All	72–51–63–200–000

(4) The list of Group A Parts for RB211-524B, -524B3, and -524B4 series engines is specified below:

Part nomenclature (RB211-524B, -524B3, and -524B4 series engines)	Part number	Inspected per overhaul manual task
Low Pressure Compressor Rotor Disc	All	¹ 72-31-12-200-05 ² 72-31-12-200-013
Low Pressure Compressor Rotor Shaft	All	72-31-20-200-000
Intermediate Pressure Compressor Stage 1 Disc	All	72-32-31-200-000
Intermediate Pressure Compressor Stage 2 Disc	All	72-32-31-200-000
Intermediate Pressure Compressor Stage 3 Disc	All	72-32-31-200-000
Intermediate Pressure Compressor Stage 4 Disc	All	72-32-31-200-000
Intermediate Pressure Compressor Stage 5 Disc	All	72-32-31-200-001
Intermediate Pressure Compressor Rotor Shaft Stages 6 to 7	All	72-32-31-200-001
Intermediate Pressure Compressor Front Stubshaft Drive Cone	All	72-32-31-200-008
Intermediate Pressure Compressor Rotor Rear Stubshaft	All	72-33-21-200-010
High Pressure Compressor Rotor Stage 1 to 2 Disc	All	72-41-31-200-000
High Pressure Compressor Rotor Stage 3 Disc	All	72-41-31-200-001
High Pressure Compressor Rear Rotor Shaft Assembly	All	72-41-31-200-002
High Pressure Compressor/Turbine Joint Flange Support Disc	All	72-41-31-200-006
High Pressure Turbine Bearing Inner Race Support Panel	All	72-41-51-200-005
High Pressure Turbine Disc	All	72-41-51-200-019
High Pressure Turbine Conical Shaft	All	72-41-51-200-021
Intermediate Pressure Turbine Disc	All	72-51-31-200-003
Intermediate Pressure Turbine Shaft	All	72-51-33-200-005
Low Pressure Turbine Stage 1 Disc	All	¹ 72-51-61-200-000 ² 72-51-61-200-007
Low Pressure Turbine Stage 2 Disc	All	¹ 72-51-61-200-001 ² 72-51-61-200-008
Low Pressure Turbine Stage 3 Disc	All	¹ 72-51-61-200-002 ² 72-51-61-200-009
Low Pressure Turbine Shaft	All	¹ 72-51-63-200-000 ² 72-51-63-200-003

¹ (Configuration 1).

² (Configuration 2).

(5) The list of Group A Parts for RB211-524B2, -524C2, and -524D4 series engines is specified below:

Part nomenclature (RB211-524B2, -524C2, and -524D4 series engines)	Part number	Inspected per overhaul manual task
Low Pressure Compressor Rotor Disc	All	72-31-12-200-013
Low Pressure Compressor Rotor Shaft	All	72-31-20-200-000
Intermediate Pressure Compressor Stage 1 Disc	All	72-32-31-200-000
Intermediate Pressure Compressor Stage 2 Disc	All	72-32-31-200-000
Intermediate Pressure Compressor Stage 3 Disc	All	72-32-31-200-000
Intermediate Pressure Compressor Stage 4 Disc	All	72-32-31-200-000
Intermediate Pressure Compressor Stage 5 Disc	All	72-32-31-200-001
Intermediate Pressure Compressor Rotor Shaft Stages 6 to 7	All	72-32-31-200-001
Intermediate Pressure Compressor Front Stubshaft Drive Cone	All	72-32-31-200-008

Intermediate Pressure Compressor Rotor Rear Stubshaft	All	72-33-21-200-010
High Pressure Compressor Rotor Stage 1 to 2 Disc	All	72-41-31-200-000
High Pressure Compressor Rotor Stage 3 Disc	All	72-41-31-200-001
High Pressure Compressor Rear Rotor Shaft Assembly	All	72-41-31-200-002
High Pressure Compressor/Turbine Joint Flange Support Disc	All	72-41-31-200-006
High Pressure Turbine Bearing Inner Race Support Panel	All	72-41-51-200-005
High Pressure Turbine Disc	All	72-41-51-200-019
High Pressure Turbine Conical Shaft	All	72-41-51-200-021
Intermediate Pressure Turbine Rotor Disc	All	72-51-31-200-003
Intermediate Pressure Turbine Shaft	All	72-51-33-200-005
Low Pressure Turbine Stage 1 Disc	All	72-51-61-200-007
Low Pressure Turbine Stage 2 Disc	All	72-51-61-200-008
Low Pressure Turbine Stage 3 Disc	All	72-51-61-200-009
Low Pressure Turbine Shaft	All	72-51-63-200-003

(6) The list of Group A Parts for RB211-524G and -524H series engines is specified below:

Part nomenclature (RB211-524G and -524H series engines)	Part number	Inspected per overhaul manual task
Low Pressure Compressor Rotor Disc	All	72-31-12-200-000
Low Pressure Compressor Rotor Shaft	All	72-31-20-200-000
Intermediate Pressure Compressor Stage 1 Disc	All	72-32-31-200-000
Intermediate Pressure Compressor Stage 2 Disc	All	72-32-31-200-000
Intermediate Pressure Compressor Stage 3 Disc	All	72-32-31-200-000
Intermediate Pressure Compressor Stage 4 Disc	All	72-32-31-200-000
Intermediate Pressure Compressor Stage 5 Disc	All	72-32-31-200-000
Intermediate Pressure Compressor Rotor Shaft Stages 6 to 7	All	72-32-31-200-001
Intermediate Pressure Compressor Front Stubshaft Drive Cone	All	72-32-31-200-008
Intermediate Pressure Compressor Rotor Rear Stubshaft	All	72-33-21-200-010
High Pressure Compressor Rotor Stage 1 to 2 Disc	All	¹ 72-41-31-200-000
High Pressure Compressor Rotor Stage 3 Disc	All	¹ 72-41-31-200-001
High Pressure Compressor Rear Rotor Shaft Assembly	All	¹ 72-41-31-200-002
Compressor/Turbine Joint Flange Support Disc	All	¹ 72-41-31-200-003
High Pressure Compressor Rotor Shaft Assembly	All	² 72-41-31-200-014
High Pressure Turbine Disc	All	¹ 72-41-51-200-010 ² 72-41-51-200-024
Intermediate Pressure Turbine Disc	All	72-51-31-200-003
Intermediate Pressure Turbine Shaft	All	72-51-33-200-005
Low Pressure Turbine Stage 1 Disc	All	72-51-61-200-007
Low Pressure Turbine Stage 2 Disc	All	72-51-61-200-008
Low Pressure Turbine Stage 3 Disc	All	72-51-61-200-009
Low Pressure Turbine Shaft	All	72-51-63-200-003''

¹ (Configuration 1).

² (Configuration 2).

Alternative Methods of Compliance

(g) You must perform these mandatory inspections using the TLM and the applicable Engine Manual unless you receive approval to use an alternative method of compliance under paragraph (h) of this AD. Section 43.16 of the Federal Aviation Regulations (14 CFR 43.16) may not be used to

approve alternative methods of compliance or adjustments to the times in which these inspections must be performed.

(h) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Maintaining Records of the Mandatory Inspections

(i) You have met the requirements of this AD by using a TLM changed as specified in paragraph (f) of this AD, and, for air carriers operating under part 121 of the Federal Aviation Regulations (14 CFR part 121), by modifying your continuous airworthiness maintenance plan to reflect those changes. You must maintain records of the mandatory inspections that result from those changes to the TLM according to the regulations governing your operation. You do not need to record each piece-part inspection as compliance to this AD. For air carriers operating under part 121, you may use either the system established to comply with section 121.369 or use an alternative system that your principal inspector has accepted if that alternative system:

- (1) Includes a method for preserving and retrieving the records of the inspections resulting from this AD; and
- (2) Meets the requirements of § 121.369(c); and
- (3) Maintains the records either indefinitely or until the work is repeated.

(j) These record keeping requirements apply only to the records used to document the mandatory inspections required as a result of revising the Time Limits Manual as specified in paragraph (f) of this AD, and do not alter or amend the record keeping requirements for any other AD or regulatory requirement.

Material Incorporated by Reference

(k) None.

Related Information

(l) Civil Aviation Authority (CAA) airworthiness directives No. G-2003-0006, dated September 18, 2003, No. G-2003-0009, dated September 19, 2003, and No. G-2003-0007, dated September 18, 2003 also address the subject of this AD.

Issued in Burlington, Massachusetts, on September 10, 2004.

Francis A. Favara,
Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.
[FR Doc. 04-21173 Filed 9-21-04; 8:45 am]
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