[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-0821; Directorate Identifier 2010-NE-30-AD]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce plc Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede an existing airworthiness directive (AD) that applies to all Rolls-Royce plc (RR) RB211-Trent 875-17, RB211-Trent 877-17, RB211-Trent 884-17, RB211-Trent 884B-17, RB211-Trent 892-17, RB211-Trent 892B-17, and RB211-Trent 895-17 turbofan engines. The existing AD currently requires initial and repetitive ultrasonic inspections (UIs) of certain low-pressure (LP) compressor blades identified by serial number (S/N). This proposed AD would require the same actions but expands the population of blades. We are proposing this AD to prevent LP compressor blades from failing due to blade root cracks, which could lead to uncontained engine failure and damage to the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: 202-493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ, telephone: 011–44–1332–242424; fax: 011–44–1332–245418, or e-mail:http://www.rolls-royce.com/contact/civil_team.jsp. You may review copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Alan Strom, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7143; fax: 781-238-7199; e-mail: alan.strom@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2010-0821; Directorate Identifier 2010-NE-30-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

On March 20, 2012, we issued AD 2012-06-23, Amendment 39-17004 (77 FR 20508, April 5, 2012), for all RR RB211-Trent 875-17, RB211-Trent 877-17, RB211-Trent 884-17, RB211-Trent 884B-17, RB211-Trent 892-17, RB211-Trent 892B-17, and RB211-Trent 895-17 turbofan engines. That AD requires initial and repetitive UIs of certain LP compressor blades identified by S/N. That AD superseded AD 2011-08-07, Amendment 39-16657 (76 FR 24798, May 3, 2011) and resulted from RR concluding that additional blades affected must be inspected. We issued that AD to prevent LP compressor blades from failing due to blade root cracks, which could lead to uncontained engine failure and damage to the airplane.

Actions Since Existing AD Was Issued

We issued AD 2012-06-23, Amendment 39-17004 (77 FR 20508, April 5, 2012), to ensure timely inspection of the listed blades in Appendices 3A through 3G of Rolls-

Royce plc Alert Service Bulletin (ASB) No. RB.211-72-AG244, Revision 4, dated December 22, 2011. We now need AD action to add the inspection of the blades listed in Appendices 3H through 3L of that ASB.

Relevant Service Information

We reviewed Rolls-Royce plc ASB No. RB.211-72-AG244, Revision 4, dated December 22, 2011. The service information describes procedures for performing UIs of the LP compressor blades listed in Appendices 3A through 3L of that ASB.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would retain all of the requirements of AD 2012-06-23 (77 FR 20508, April 5, 2012). This proposed AD would require adding inspections of the blades listed in Appendices 3H through 3L of ASB No. RB.211-72-AG244, Revision 4, dated December 22, 2011. This proposed AD would also require accomplishing the actions specified in the service information described previously.

Costs of Compliance

Based on the service information, we estimate that this proposed AD would affect about 158 engines installed on airplanes of U.S. registry. We also estimate that it would take about 3 hours per engine inspection, and six inspections per year. The average labor rate is $85 per work-hour. We estimate that one LP compressor blade per year would need replacement, at a cost of about $82,000. Based on these figures, we estimate the annual cost of the proposed AD on U.S. operators to be $323,740. Our cost estimate is exclusive of possible warranty coverage.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 the proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) 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.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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 FAA amends § 39.13 by removing airworthiness directive (AD) 2012-06-23, Amendment 39-17004 (77 FR 20508, April 5, 2012), and adding the following new AD:

Rolls-Royce plc: Docket No. FAA-2010-0821; Directorate Identifier 2010-NE-30-AD.

(a) Comments Due Date

The FAA must receive comments on this AD action by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD supersedes AD 2012-06-23, Amendment 39-17004 (77 FR 20508, April 5, 2012)

(c) Applicability

This AD applies to Rolls-Royce plc (RR) RB211-Trent 875-17, RB211-Trent 877-17, RB211-Trent 884-17, RB211-Trent 884B-17, RB211-Trent 892-17, RB211-Trent 892B-17, and RB211-Trent 895-17 turbofan engines.

(d) Unsafe Condition

This AD was prompted by the need to add the inspections of the low-pressure (LP) compressor blades listed by serial number (S/N) in Appendices 3H through 3L of Rolls-Royce plc Alert Service Bulletin (ASB) No. RB.211-72-AG244, Revision 4, dated December 22, 2011. We are issuing this AD to prevent LP compressor blades from

failing due to blade root cracks, which could lead to uncontained engine failure and damage to the airplane.

(e) Compliance

Comply with this AD within the compliance times specified, unless already done.

(1) Perform an initial ultrasonic inspection (UI) of the affected LP compressor blades identified by S/N in Appendices 3A through 3L of RR ASB No. RB.211-72-AG244, Revision 4, dated December 22, 2011. Use Table 1 of this AD to determine your initial inspection threshold.

Table 1 – Initial Inspection Thresholds

Appendix Number of RR ASB No. RB.211-72-AG244, Revision 4, that Identifies Affected LP Compressor Blades by S/N	Initial Inspection Threshold
3A and 3B	Within 70 flight cycles after the effective date of this AD.
3C	Within 10 months after the effective date of this AD.
3D	Within 22 months after the effective date of this AD.
3E	Within 34 months after the effective date of this AD.
3F	Within 46 months after the effective date of this AD.
3G	Within 58 months after the effective date of this AD.
3H	Within 70 months after the effective date of this AD.
3I	Within 82 months after the effective date of this AD.
3J	Within 94 months after the effective date of this AD.
3K	Within 106 months after the effective date of this AD.

	3L	Within 118 months after the effective date of this AD.

(2) Thereafter, perform repetitive UIs of the affected LP compressor blades within every 100 flight cycles.

(3) Use paragraph 3.A.(2) of Accomplishment Instructions of RR ASB No. RB.211-72-AG244, Revision 4, dated December 22, 2011, and paragraphs 1. through 3.B. of Appendix 1 of that ASB, or paragraphs 3.B.(1) through 3.B.(3) of Accomplishment Instructions of RR ASB No. RB.211-72-AG244, Revision 4, dated December 22, 2011, and paragraphs 1. through 3.C. of Appendix 2 of that ASB, to perform the UIs.

(4) Do not return to service any engine with blades that failed the inspection required by this AD.

(5) For blades that are removed from the engine and pass inspection, re-apply dry film lubricant before re-installing the blades.

(6) After the effective date of this AD, do not install any affected LP compressor blade that has reached the initial inspection threshold in Table 1, unless it has passed the initial and repetitive UIs required by this AD.

(f) Credit for Actions Accomplished in Accordance with Previous Service Information

You may take credit for the initial inspection that is required by paragraph (e)(1) of this AD if you performed the initial inspection before the effective date of this AD using RR ASB No. RB.211-72-AG244, dated August 7, 2009; ASB No. RB.211-72-AG244, Revision 1, dated January 26, 2010; ASB No. RB.211-72-AG244, Revision 2, dated August 18, 2011; or ASB No. RB.211-72-AG244, Revision 3, dated December 13, 2011.

(g) Alternative Methods of Compliance

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(h) Related Information

(1) For more information about this AD, contact Alan Strom, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7143; fax: 781-238-7199; e-mail: alan.strom@faa.gov.

(2) Refer to European Aviation Safety Agency AD 2012-0025, dated February 8, 2012, for related information.

(3) For service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ, telephone: 011–44–1332–242424; fax: 011–44–1332–245418, or e-mail:http://www.rolls-royce.com/contact/civil_team.jsp. You may review copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on April 27, 2012.

Colleen M. D'Alessandro,
Assistant Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

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