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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2012-1327; Directorate Identifier 2012-NE-47-AD; Amendment 39-17934; AD 2014-16-10]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Rolls-Royce plc Turbofan Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

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**SUMMARY:** We are superseding airworthiness directive (AD) 2013-12-01 for all Rolls-Royce plc (RR) model RB211 Trent 768-60, 772-60, and 772B-60 turbofan engines. AD 2013-12-01 required a one-time ultrasonic inspection (UI) of low-pressure (LP) compressor blades with more than 2,500 flight cycles since new or last inspection. This AD requires initial and repetitive UIs of the affected LP compressor blades. This AD was prompted by LP compressor blade partial airfoil release events. We are issuing this AD to prevent LP compressor blade airfoil separations, damage to the engine, and damage to the airplane.

**DATES:** This AD is effective September 23, 2014.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of September 23, 2014.

**ADDRESSES:** For service information identified in this AD, contact Rolls-Royce plc, P.O. Box 31, Derby DE24 8BJ, UK; phone: 44 0 1332 242424; fax: 44 0 1332 249936. You may view this 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> by searching for and locating Docket No. FAA-2012-1327; 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 AD, the mandatory continuing airworthiness information, regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document

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

**FOR FURTHER INFORMATION CONTACT:** Robert Green, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7754; fax: 781-238-7199; email: robert.green@faa.gov.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2013-12-01, Amendment 39-17478 (78 FR 37703, June 24, 2013), ("AD 2013-12-01"). AD 2013-12-01 applied to the specified products. The NPRM published in the Federal Register on May 23, 2014 (79 FR 29694). The NPRM proposed to require initial and repetitive UIs of the affected LP compressor blades.

### **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (79 FR 29694, May 23, 2014).

### **Conclusion**

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

### **Costs of Compliance**

We estimate that this AD affects 56 engines installed on airplanes of U.S. registry. We also estimate that it will take about 44 hours per engine to comply with the initial inspection requirements in this AD. The average labor rate is \$85 per hour. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$209,440.

### **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**

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),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, 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.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends part 39 of the Federal Aviation Regulations (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) 2013-12-01, Amendment 39-17478 (78 FR 37703, June 24, 2013), and adding the following new AD:



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**2014-16-10 Rolls-Royce plc:** Amendment 39-17934; Docket No. FAA-2012-1327; Directorate Identifier 2012-NE-47-AD.

**(a) Effective Date**

This AD is effective September 23, 2014.

**(b) Affected ADs**

This AD supersedes AD 2013-12-01, Amendment 39-17478 (78 FR 37703, June 24, 2013).

**(c) Applicability**

This AD applies to Rolls-Royce plc (RR) model RB211 Trent 768-60, 772-60, and 772B-60 turbofan engines, with low-pressure (LP) compressor blade, part numbers (P/Ns) FK23411, FK25441, FK25968, FW11901, FW15393, FW23643, FW23741, FW23744, KH23403, or KH23404, installed.

**(d) Unsafe Condition**

This AD was prompted by LP compressor blade partial airfoil release events. We are issuing this AD to prevent LP compressor blade airfoil separations, engine damage, and damage to the airplane.

**(e) Actions and Compliance**

Unless already done, do the following actions.

**(1) Ultrasonic Inspection (UI) of LP Compressor Blade**

(i) After the effective date of this AD, ultrasonically inspect each LP compressor blade before the blade exceeds 3,600 cycles since new (CSN) or before further flight, whichever occurs later. Repeat the UI of the blade every 2,400 cycles since last inspection (CSLI).

(ii) For any LP compressor blade that exceeds 2,200 CSLI on the effective date of this AD, inspect the blade before exceeding 3,000 CSLI or before further flight, whichever occurs later. Thereafter, perform the repetitive inspections required by this AD.

(iii) Use paragraph 3, excluding subparagraphs 3.A.(9), 3.B.(5), 3.C.(4), 3.D.(3), 3.E.(5), 3.F.(10), and 3.G.(7), of RR Alert Non-Modification Service Bulletin (NMSB) RB.211-72-AH465, dated July 15, 2013, to perform the inspections required by this AD.

**(2) Use of Replacement Blades**

LP compressor blades, P/Ns FK23411, FK25441, FK25968, FW11901, FW15393, FW23643, FW23741, FW23744, KH23403, or KH23404, that have accumulated at least 3,600 CSN or 2,400 CSLI are eligible for installation if the blade has passed the UI required by this AD.

#### **(f) Credit for Previous Actions**

If you performed a UI of an affected LP compressor blade before the effective date of this AD using RR NMSB No. RB.211-72-G702, dated May 23, 2011; or RR NMSB No. RB.211-72-G872, Revision 2, dated March 8, 2013, or earlier revisions; or RR NMSB No. RB.211-72-H311, dated March 8, 2013; or Engine Manual E-Trent-1RR, Task 72-31-11-200-806, you have met the initial inspection requirements of this AD. However, you must still comply with the repetitive 2,400 CSLI requirement of this AD.

#### **(g) Alternative Methods of Compliance (AMOCs)**

The Manager, Engine Certification Office, 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 Robert Green, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7754; fax: 781-238-7199; email: Robert.Green@faa.gov.

(2) Refer to MCAI European Aviation Safety Agency AD 2014-0031, dated February 4, 2014, for more information. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2012-1327-0007>.

#### **(i) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Rolls-Royce plc Alert Non-Modification Service Bulletin No. RB.211-72-AH465, dated July 15, 2013.

(ii) Reserved.

(3) For RR service information identified in this AD, contact Rolls-Royce plc, P.O. Box 31, Derby DE24 8BJ, UK; phone: 44 0 1332 242424; fax: 44 0 1332 249936.

(4) You may view this service information at 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.

(5) You may view this service information at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Burlington, Massachusetts, on August 1, 2014.  
Colleen M. D'Alessandro,  
Assistant Directorate Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.