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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2012-0004; Directorate Identifier 2012-NE-01-AD; Amendment 39-16927; +AD 2012-02-04]**

**RIN 2120-AA64**

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

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

**ACTION:** Final rule; request for comments.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for all Rolls-Royce plc RB211-Trent 500 series turbofan engines. This AD requires a one-time inspection of the fuel tubes and fuel tube clips for evidence of damage, wear, and fuel leakage. This AD was prompted by reports of wear found between the securing clips and the low-pressure (LP) fuel tube outer surface, which reduces the fuel tube wall thickness, leading to fracture of the fuel tube and consequent fuel leak. We are issuing this AD to prevent engine fuel leaks, which could result in risk to the airplane.

**DATES:** This AD becomes effective February 24, 2012.

We must receive comments on this AD by March 26, 2012.

The Director of the Federal Register approved the incorporation by reference of Rolls-Royce plc Alert Service Bulletin No. RB.211-73-AG797, dated October 26, 2011, listed in the AD as of February 24, 2012.

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Fax: (202) 493-2251.

For service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ; phone: 011-44-1332-242424; fax: 011-44-1332-245418 or email: [http://www.rolls-royce.com/contact/civil\\_team.jsp](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 01803. 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 Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (phone: (800) 647-5527) is the same as the Mail address provided 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; email: [alan.strom@faa.gov](mailto:alan.strom@faa.gov); phone: (781) 238-7143; fax: (781) 238-7199.

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2011-0243, dated December 20, 2011 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

Fuel leaks from the LP fuel tubes which run between the LP fuel pumps and high pressure (HP) fuel pumps have occurred in service.

The subsequent technical investigations have shown that these have resulted from fretting between the securing clips and the LP fuel tube outer surface, which reduces the fuel tube wall thickness, leading to fracture of the fuel tube and consequent fuel leak.

The corrective action includes inspection of the tubes and the associated clips. The fretting and thinning of the fuel tubes is caused by relative movement between the tubes and the clips. You may obtain further information by examining the MCAI in the AD docket.

#### **Relevant Service Information**

Rolls-Royce plc has issued Alert Service Bulletin No. RB.211-73-AG797, dated October 26, 2011. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

#### **FAA's Determination and Requirements of This AD**

This product has been approved by the United Kingdom and is approved for operation in the United States. Pursuant to our bilateral agreement with the European Community, EASA has notified us of the unsafe condition described in the MCAI and service information referenced above. We are issuing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

## **FAA's Determination of the Effective Date**

No domestic operators use this product. Therefore, we find that notice and opportunity for prior public comment are unnecessary and that good cause exists for making this amendment effective in less than 30 days.

## **Comments Invited**

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2012-0004; Directorate Identifier 2012-NE-01-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this 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 with FAA personnel concerning this AD. Using the search function of the Web site, anyone can find and read the comments in any of our dockets, including, if provided, the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

## **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 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 this AD:

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); 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 regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

## **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 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 adding the following new AD:



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**2012-02-04 Rolls-Royce plc:** Amendment 39-16927; Docket No. FAA-2012-0004; Directorate Identifier 2012-NE-01-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective February 24, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Rolls-Royce plc RB211-Trent 553-61, RB211-Trent 553A2-61, RB211-Trent 556-61, RB211-Trent 556A2-61, RB211-Trent 556B-61, RB211-Trent 556B2-61, RB211-Trent 560-61, and RB211-Trent 560A2-61 turbofan engines that have not complied with Rolls-Royce plc Service Bulletin No. RB.211-73-G723, and that have any of the following fuel tube part numbers installed:

- (1) FW57605.
- (2) FW17689.
- (3) FW57604.
- (4) FK30710.
- (5) FW57578.
- (6) FK30713.

**(d) Reason**

This AD was prompted by reports of wear found between the securing clips and the low-pressure (LP) fuel tube outer surface, which reduces the fuel tube wall thickness, leading to fracture of the fuel tube and consequent fuel leak. We are issuing this AD to prevent engine fuel leaks, which could result in risk to the airplane.

**(e) Actions and Compliance**

Unless already done, do the following one-time actions within 1,600 flight hours after the effective date of this AD.

(1) Visually inspect the fuel tube clips holding the LP fuel tube run from the LP fuel pump to the fuel-oil-heat exchanger, and the clips holding the LP fuel tube run from the LP filter to the high-pressure (HP) fuel pump, for evidence of damage or wear and replace as necessary. Do this in accordance with paragraphs 3.A(4)(a) through 3.A(4)(c) of Rolls-Royce plc Alert Service Bulletin No. RB.211-73-AG797, dated October 26, 2011.

(2) Clean and dry the LP fuel tube run from the LP fuel pump to the fuel-oil-heat exchanger, and the LP fuel tube run from the LP filter to the HP fuel pump.

- (i) Visually inspect for evidence of damage, wear near the clip locations, and for fuel leakage.

(ii) Reject the tube and replace it if evidence of fuel leakage or contact fretting to a depth of greater than 0.1 mm (0.004 in.) on the outer surface of a bend, or 0.2 mm (0.008 in.) in any other area, is evident.

**(f) 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.

**(g) 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; email: alan.strom@faa.gov; phone: (781) 238-7143; fax: (781) 238-7199.

(2) Refer to European Aviation Safety Agency AD 2011-0243, dated December 20, 2011, for related information.

**(h) Material Incorporated by Reference**

(1) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference of the following service information under 5 U.S.C. 552(a) and 1 CFR part 51:

(2) Rolls-Royce plc Alert Service Bulletin No. RB.211-73-AG797, dated October 26, 2011.

(3) For service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ; phone: 011-44-1332-242424; fax: 011-44-1332-245418 or email: [http://www.rolls-royce.com/contact/civil\\_team.jsp](http://www.rolls-royce.com/contact/civil_team.jsp).

(4) You may review copies of the 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.

(5) You may also review copies of the service information incorporated by reference 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 January 19, 2012.

Peter A. White,  
Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.