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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-1198; Directorate Identifier 2012-NE-35-AD; Amendment 39-17289; AD 2012-25-08]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce plc Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain serial numbers (S/Ns) of Rolls-Royce plc (RR) RB211-Trent 768-60, 772-60, and 772B-60 turbofan engines. This AD requires initial and repetitive on-wing or in-shop inspections of the high pressure/intermediate pressure (HP/IP) turbine bearing support oil feed tube outer heat shield. This AD also requires installation of a revised HP/IP turbine bearing support structure as terminating action to the repetitive inspections of the HP/IP turbine bearing support oil feed tube outer heat shield. This AD was prompted by a report of high oil consumption due to an oil leak from the HP/IP turbine bearing support oil feed tube. We are issuing this AD to prevent failure of the HP turbine disc, uncontained engine failure, and damage to the airplane.

DATES: This AD becomes effective January 10, 2013.

We must receive comments on this AD by February 11, 2013.

The Director of the Federal Register approved the incorporation by reference of a certain publication as of January 10, 2013.

The Director of the Federal Register approved the incorporation by reference of certain other publications as of December 14, 2007 (72 FR 67568, November 29, 2007).

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. You may view this 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: Robert Morlath, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238 7154; fax: 781-238 7199; email: robert.c.morlath@faa.gov.

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 AD 2012-0201, dated September 26, 2012 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

In August 2011, a Trent 700 engine was removed for high oil consumption, which was found to have been caused by a small hole in the oil feed tube of the High Pressure/Intermediate Pressure (HP/IP) Bearing Support. The hole was the result of fretting (chafing) with a fractured outer heat shield. This is a known problem and recognized unsafe condition that has re-emerged having been previously addressed by EASA AD 2007-0260R1.

Investigation by RR revealed a build error that, in contradiction to the build records, the previous configuration of outer heat shield (Pre-Service Bulletin (SB) 72-F117 standard) was fitted on the oil feed tube service pipe of the HP/IP structure. As the build error may have been reproduced several times, it is assumed that further post-SB 72-F117 standard structures may be in service with pre-SB 72-F117 outer heat shields fitted to the oil feed tube.

The fretting on the oil feed tube within the HP/IP turbine bearings support structure results from contact with the fracture edges of the tubes outermost heat shield, which has been found to fracture under thermal cycling and then to chafe against the oil tube with the potential to cause holes and consequent oil leaks.

You may obtain further information by examining the MCAI in the AD docket.

On November 20, 2007, we issued AD 2007-24-09 (72 FR 67568, November 29, 2007) which corresponds with EASA AD 2007-0260R1. Our AD has a mandatory terminating action date of May 31, 2010, however, there were, and currently are, no U.S. operators of the engines affected by those

ADs. Those ADs are only applicable to engines that do not incorporate Modification Standard 72-F117. Since those ADs were issued, EASA has issued AD 2012-0201 that is applicable to a specific set of engines that may have had Modification Standard 72-F117 incorporated incorrectly. EASA did not supersede EASA AD 2007-0260R1 with EASA AD 2012-0201 because EASA AD 2012-0201 only affects a very specific population of engines that, having incorporated Modification Standard 72-F117, either correctly or incorrectly, are no longer affected by EASA AD 2007-0260R1. We are issuing our AD as a standalone document for the same reasons. This new AD also is applicable only to the engines specified in the MCAI, none of which are currently registered to U.S. operators. Also, this new AD lists certain service bulletins that were previously incorporated by reference in AD 2007-24-09.

Relevant Service Information

RR has issued Alert Service Bulletin No. RB.211-72-AG873, dated February 27, 2012. 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 any of the RB211-Trent 768-60, 772-60, and 772B-60 turbofan engines listed by S/N in this AD. 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-2012-1198; Directorate Identifier 2012-NE-35-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:



2012-25-08 Rolls-Royce plc: Amendment 39-17289; Docket No. FAA-2012-1198; Directorate Identifier 2012-NE-35-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective January 10, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Rolls-Royce plc (RR) RB211 Trent 768-60, 772-60, and 772B-60 turbofan engines with serial numbers (S/Ns) listed in Table 1 to paragraph (c) of this AD.

Table 1 to Paragraph (c)–Affected Engine S/Ns

41221	41435	41446	41459	41465
41425	41437	41451	41460	41466
41428	41438	41452	41461	41468
41430	41440	41454	41462	41469
41431	41442	41455	41463	41470
41432	41445	41456	41464	41471

(d) Reason

This AD was prompted by a report of high oil consumption due to an oil leak from the high pressure/intermediate pressure (HP/IP) turbine bearing support oil feed tube. We are issuing this AD to prevent a failure of the HP turbine disc, uncontained engine failure, and damage to the airplane.

(e) Actions and Compliance

Unless already done, do the following actions.

(f) Initial Inspection

(1) Initially inspect the HP/IP turbine bearing support oil feed tube within the compliance times specified in paragraphs 1.D.(1)(a) through 1.D.(1)(a)(ii) of RR Alert Service Bulletin (ASB) No. RB.211-72-AG873, dated February 27, 2012. Perform the initial inspection in accordance with paragraphs 3.A (1)(a) through 3.A (1)(j) of RR ASB No. RB.211-72-AG873, dated February 27, 2012.

(2) If the HP/IP turbine bearing support oil feed tube outer heat shield is not present, accept the module as compliant. No further action is required.

(g) Repetitive Inspections

If the HP/IP turbine bearing support oil feed tube outer heat shield is present, perform repetitive inspections of the HP/IP turbine bearing support oil feed tube, in accordance with paragraphs 3.A (2)(b) through 3.A (2)(f) of RR ASB No. RB.211-72-AG873, dated February 27, 2012.

(h) Mandatory Terminating Action

As mandatory terminating action to the repetitive inspections required by this AD, install a revised HP/IP turbine bearing support structure, at the next 05 Module overhaul after the effective date of this AD, in accordance with either:

(1) Sections 3.B (1)(a) through 3.B (1)(f) of RR Service Bulletin (SB) No. RB.211-72-F117, Revision 2, dated September 25, 2006; or

(2) Sections 3.B (1)(a) through 3.B (1)(e) and 3.B (2)(a) of RR SB No. RB.211-72-F227, Revision 1, dated October 8, 2007.

(i) Definition

For the purpose of this AD, "next 05 Module overhaul" is any time that the HP/IP turbine internal oil tubes have been exposed and the HP/IP turbine bearing support oil feed tube heat shields are subjected to visual inspection.

(j) 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.

(k) Related Information

(1) For more information about this AD, contact Robert Morlath, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238 7154; fax: 781-238 7199; email: robert.c.morlath@faa.gov.

(2) Refer to European Aviation Safety Agency AD 2012-0201, dated September 26, 2012, for related information.

(l) 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 Service Bulletin No. RB.211-72-AG873, dated February 27, 2012, approved for IBR January 10, 2013.

(ii) Reserved.

(3) The following service information was approved for IBR on December 14, 2007 (72 FR 67568, November 29, 2007).

(i) Rolls-Royce plc Service Bulletin No. RB.211-72-F117, Revision 2, dated September 25, 2006.

(ii) Rolls-Royce plc Service Bulletin No. RB.211-72-F227, Revision 1, dated October 8, 2007.

(4) 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.

(5) 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.

(6) 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 December 4, 2012.

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