[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-1006; Directorate Identifier 2012-NE-28-AD]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce Deutschland Ltd & Co KG Turbojet Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Rolls-Royce Deutschland Ltd & Co KG (RRD) Spey 511-8 turbojet engines. This proposed AD was prompted by a recent quality review determination that bolts with reduced material properties may have been installed in some engines. This proposed AD would require inspection and replacement if necessary, of affected bolts, and if any bolt is found broken, inspection of the adjacent disc(s) for damage. We are proposing this AD to prevent uncontained turbine disc fracture 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 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: Docket Management Facility, 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 proposed AD, contact Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, Dahlewitz, 15827 Blankenfelde-Mahlow, Germany; telephone: 49 0 33-7086-1883; fax: 49 0 33-7086-3276. You may view 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 Operations office 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 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: Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England

Executive Park, Burlington, MA 01803; phone: 781-238-7779; fax: 781-238-7199; e-mail: frederick.zink@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-2012-1006; Directorate Identifier 2012-NE-28-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 based on 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 proposed 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).

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2012-0158, dated

August 22, 2012 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

> The results of a recent quality review of low pressure turbine (LPT) support assembly, high pressure turbine (HPT) bearing support assembly and HPT air seal sleeve bolts identified that, before installation, those bolts are not subjected to a complete quality inspection. As a consequence, bolts with reduced material properties may have been installed in some engines.
>
> This condition, if not detected and corrected, could lead to failure of a bolt, potentially causing turbine disc fracture and release of high-energy debris, possibly resulting in damage to the aeroplane and/or injury to the occupants.

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

Relevant Service Information

RRD has issued Alert Service Bulletin No. Sp72-A1068, Revision 1, dated June 11, 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 Proposed AD

This product has been approved by EASA, 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 proposing 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. This proposed AD would require inspection and replacement if necessary, of affected bolts, and if any bolt is found broken, inspection of the adjacent disc(s) for damage.

Costs of Compliance

We estimate that this proposed AD would affect about six engines installed on airplanes of U.S. registry. We also estimate that it would take about 2 hours per engine to comply with this proposed AD. The average labor rate is $85 per hour. Required parts would cost about $860 per engine. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be $6,180.

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 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 this 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); 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 proposed 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.

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 adding the following new AD:

Rolls-Royce Deutschland Ltd & Co KG (Formerly Rolls-Royce Deutschland GmbH, formerly Rolls-Royce plc): Docket No. FAA-2012-1006; Directorate Identifier 2012-NE-28-AD.

(a) Comments Due Date

We must receive comments by [insert date 60 days after date of publication in the FEDERAL REGISTER].

(b) Affected Airworthiness Directives (ADs)

None.

(c) Applicability

This AD applies to Rolls-Royce Deutschland Ltd & Co KG (RRD) Spey 511-8 turbojet engines, serial numbers 8847, 8853, 8879, 8989, 8994, and 9817, with a date of the last shop visit before November 15, 2007.

(d) Reason

This AD was prompted by a recent quality review determination that bolts with reduced material properties may have been installed in some engines. We are issuing this AD to prevent uncontained turbine disc fracture and damage to the airplane.

(e) Actions and Compliance

Unless already done, do the following actions for engines with a date of the last shop visit before November 15, 2007:

(1) Within 4,500 engine cycles accumulated since that last engine shop visit, inspect the bolts installed in the low-pressure turbine (LPT) support assembly, high-pressure turbine (HPT) bearing support assembly, and HPT air seal sleeve.

(2) If engine cycles accumulated since the last engine shop visit is more than 4,400 cycles on the effective date of this AD, inspect the bolts installed in the LPT support assembly, HPT bearing support assembly, and HPT air seal sleeve within 100 engine cycles.

(3) If any broken bolt, brown bolt, or bolt with a rough oxidized surface is identified, replace all bolts with new bolts before further flight.

(4) If any bolt is found broken in the LPT support assembly, inspect the LPT stage 2 disc for damage before further flight.

(5) If any bolt is found broken in the HPT shaft air seal sleeve, inspect the HPT stage 1 disc for damage before further flight.

(6) Within 30 days after the inspection, report the inspection findings to RRD service engineering. Guidance on reporting can be found in RRD Alert Service Bulletin No. Sp72-A1068, Revision 1, dated June 11, 2012.

(f) Installation Prohibition

After the effective date of this AD, do not install any LPT support assembly, HPT bearing support assembly, or HPT air seal sleeve into any engine, or any engine onto an airplane, unless the bolts have been inspected and replaced if necessary, and the LPT stage 2 disc and HPT stage 1 disc have been inspected if necessary, as specified in paragraph (e) of this AD.

(g) Definition

For the purpose of this AD, a shop visit is when the engine is inducted into the shop for any maintenance involving the separation of pairs of major mating engine flanges (lettered flanges). However, the separation of engine flanges solely for the purposes of transporting the engine without subsequent engine maintenance is not an engine shop visit.

(h) Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(i) Alternative Methods of Compliance (AMOCs)

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

(j) Related Information

(1) For more information about this AD, contact Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7779; fax: 781-238-7199; e-mail: frederick.zink@faa.gov.

(2) Refer to European Aviation Safety Agency AD 2012-0158, dated August 22, 2012, and RRD Alert Service Bulletin Sp72-A1068, for related information.

(3) For service information identified in this AD, contact Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, Dahlewitz, 15827 Blankenfelde-Mahlow, Germany; telephone: 49 0 33-7086-1883; fax: 49 0 33-7086-3276. You may view 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.

(k) Material Incorporated by Reference

None.

Issued in Burlington, Massachusetts, on October 26, 2012.

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

[FR Doc. 2012-27170 Filed 11/06/2012 at 8:45 am; Publication Date: 11/07/2012]