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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2009-0057; Directorate Identifier 85-ANE-25-AD; Amendment 39-16037; AD 2009-20-14]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce plc (RR) RB211-535E4 Series Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is superseding an existing airworthiness directive (AD) for RR RB211-535E4 series turbofan engines. That AD currently requires initial and repetitive inspections of the outer combustion case for cracks and possible removal if cracks are found. This AD requires the same inspections, but requires using RR Mandatory Service Bulletin (MSB) RB.211-72-7775, Revision 3, dated April 9, 1999. This AD results from the FAA approving Revision 3 to the MSB, which adds an alternative eddy current inspection (ECI) method. We are issuing this AD to prevent an uncontained outer combustion case burst, which could result in damage to the airplane.

DATES: This AD becomes effective November 17, 2009. The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of November 17, 2009.

ADDRESSES: You can get the service information identified in this AD from Rolls-Royce plc, P.O. Box 31, Derby, DE24 8BJ, United Kingdom; telephone: 44 (0) 1332-242424; fax: 44 (0) 1332-249936.

The Docket Operations office is located at Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

FOR FURTHER INFORMATION CONTACT: Ian Dargin, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: ian.dargin@faa.gov; telephone (781) 238-7178; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 by superseding AD 86-07-01, Amendment 39-5273 (51 FR 12511, April 11, 1986), with a proposed AD.

The proposed AD applies to RR RB211-535E4 series turbofan engines. We published the proposed AD in the Federal Register on February 12, 2009, (74 FR 7002). Airworthiness directive 86-07-01 requires initial and repetitive inspections of the combustor case welds using RR MSB RB.211-72-7775, dated June 28, 1985. The NPRM to supersede AD 86-07-01 proposed to require the same inspections, but proposed to require using RR Mandatory Service Bulletin (MSB) RB.211-72-7775, Revision 3, dated April 9, 1999.

Special Flight Permits Paragraph Removed

The current AD, AD 86-07-01, contains a paragraph pertaining to special flight permits. Even though this final rule does not contain a similar paragraph, we have made no changes with regard to the use of special flight permits to operate the airplane to a repair facility to do the work required by this AD. In July 2002, we published a new Part 39 that contains a general authority regarding special flight permits and airworthiness directives; see Docket No. FAA-2004-8460, Amendment 39-9474 (69 FR 47998, July 22, 2002). Thus, when we now supersede ADs, we will not include a specific paragraph on special flight permits unless we want to limit the use of that general authority granted in section 39.23.

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 (telephone (800) 647-5527) is provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comments received.

Request To Change the Engine Model Designation

Two commenters (RR and The Boeing Company) state that the engine model designation listed in the Applicability is incorrect and the engine models listed are incorrect. The commenters ask us to change RB211-534E4 to RB211-535E4 and to correctly list the engine models.

We agree. We changed the Applicability to correctly list the engine model as RB211-535E4 and changed the models affected to: RB211-535E4-37, RB211-535E4-B-37, and RB211-535E4-B-75.

Request To Clarify That Eddy Current Inspection (ECI) Is Alternative to Fluorescent Penetrant Inspection (FPI)

One commenter (RR) asks us to clarify that the ECI is an alternative to the FPI and doesn't replace the FPI.

We agree. We changed the AD to state that ECI is an alternative to FPI.

Conclusion

We have carefully reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously.

We have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Costs of Compliance

We estimate that this AD will affect 300 engines installed on airplanes of U.S. registry. We also estimate that it will take about 1 work-hour per engine to perform the required actions, and that the average labor rate is \$80 per work-hour. No parts are required. Based on these figures, we estimate the total cost of this AD to U.S. operators to be \$24,000.

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 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); 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 summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary at the address listed under ADDRESSES.

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 Federal Aviation Administration 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 removing Amendment 39-5273 (51 FR 12511, April 11, 1986) and by adding a new airworthiness directive, Amendment 39-16037, to read as follows:



2009-20-14 Rolls-Royce plc (RR) (Formerly Rolls-Royce Limited): Amendment 39-16037.
Docket No. FAA-2009-0057; Directorate Identifier 85-ANE-25-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective November 17, 2009.

Affected ADs

- (b) This AD supersedes AD 86-07-01, Amendment 39-5273.

Applicability

(c) This AD applies to RR models RB211-535E4-37, RB211-535E4-B-37, and RB211-535E4-B-75 turbofan engines that don't incorporate RR Service Bulletin (SB) RB.211-72-8045. These engines are installed on, but not limited to, Boeing 757 and Tupolev Tu204 airplanes.

Unsafe Condition

(d) This AD results from the FAA approving Revision 3 to Mandatory Service Bulletin (MSB) RB.211-72-7775, which adds an alternative eddy current inspection (ECI) method. We are issuing this AD to prevent an uncontained outer combustion case burst, which could result in damage to the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

Initial Inspection

(f) Perform an initial inspection of the outer combustion casing. Use the Accomplishment Instructions paragraph 3.B. or paragraph 3.C. of RR MSB RB.211-72-7775, Revision 3, dated April 9, 1999, and the following compliance schedules:

- (1) For cases with 1,500 or fewer cycles-since-new (CSN) on the effective date of this AD, inspect before accumulating 1,500 CSN.
- (2) For cases with more than 1,500 CSN on the effective date of this AD, inspect within 50 cycles-in-service (CIS) after the effective date of this AD.
- (3) If you detect any cracks of 1.5 inches or more in length, replace the case before further flight.

Repetitive Inspections

(g) Thereafter, inspect cases at the following intervals. Use the Accomplishment Instructions paragraph 3.B. or paragraph 3.C. of RR MSB RB.211-72-7775, Revision 3, dated April 9, 1999.

- (1) Inspect within 500 cycles-since-last inspection (CSLI) if you detected no cracks during the last inspection.

(2) Inspect within 100 CSLI if you detected cracks less than or equal to 0.5 inch in length during the last inspection.

(3) Inspect within 50 CSLI if you detected cracks greater than 0.5 inch but less than 1.5 inches in length.

Credit for Previous Inspections

(h) Cases inspected before the effective date of this AD using RB.211-72-7775, Revision 2, dated February 27, 1998, or earlier issue, meet the requirements of this AD for the initial or repetitive inspections specified in paragraphs (f) through (f)(3) and (g) through (g)(3) of this AD.

Alternative Methods of Compliance

(i) The Manager, Engine Certification Office, FAA, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Related Information

(j) Civil Aviation Authority airworthiness directive 008-07-85, dated June 19, 1985, also addresses the subject of this AD.

(k) Contact Ian Dargin, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: ian.dargin@faa.gov; telephone (781) 238-7178; fax (781) 238-7199, for more information about this AD.

Material Incorporated by Reference

(l) You must use Rolls-Royce plc Mandatory Service Bulletin RB.211-72-7775, Revision 3, dated April 9, 1999 to perform the inspections required by this AD. The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Rolls-Royce plc, P.O. Box 31, Derby, DE24 8BJ, United Kingdom; telephone: 44 (0) 1332-242424; fax: 44 (0) 1332-249936, for a copy of this service information. You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or 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 September 22, 2009.
Peter A. White,
Assistant Manager, Engine and Propeller Directorate,
Aircraft Certification Service.