



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0114; Directorate Identifier 2017-NE-03-AD; Amendment 39-18880; AD 2017-10-06]

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 Rolls-Royce plc (RR) RB211 Trent 768-60, 772-60, and 772B-60 turbofan engines. This AD requires fluorescent penetrant inspection (FPI) of the compressor intermediate case (CIC) for cracking. This AD was prompted by CICs that were weld repaired and have a higher probability of cracking as a result of the weld repair process. We are issuing this AD to correct the unsafe condition on these products.

DATES: This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

We must receive comments on this AD by [INSERT DATE 45 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>. Follow the instructions for submitting comments.
- 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, DE24 8BJ; phone: 011-44-1332-242424; fax: 011-44-1332-249936; email: http://www.rolls-royce.com/contact/civil_team.jsp; Internet: <https://customers.rolls-royce.com/public/rollsroycecare>. You may view this service information at the FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call 781-238-7125. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0114.

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-2017-0114; 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 mandatory continuing airworthiness information (MCAI), regulatory evaluation, any comments received, and other

information. The address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Robert Green, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7754; fax: 781-238-7199; email: robert.green@faa.gov.

SUPPLEMENTARY INFORMATION:

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-2017-0114; Directorate Identifier 2017-NE-03-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.

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2017-0071, dated

April 26, 2017 (referred to hereinafter as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

It has been determined that certain compressor intermediate cases (CIC), repaired by RR Repair FRSC005, have a higher probability of cracking, due to increased residual stresses which were applied during the weld repair process. This condition, if not detected and corrected, could lead to CIC failure, possibly resulting in damage to, and/or reduced control of, the aeroplane. To address this potential unsafe condition, RR released Alert Non-Modification Service Bulletin (NMSB) RB.211-72-AH976, later revised, providing inspection instructions. For the reason described above, this AD requires a one-time fluorescent-penetrant inspection (FPI) of each affected CIC and, depending on findings, accomplishment of a repair.

You may obtain further information by examining the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0114.

Related Service Information under 1 CFR Part 51

RR has issued Alert NMSB RB.211-72-AH976, Revision 2, dated March 16, 2017. The Alert NMSB describes procedures for FPI of the CIC that have RR Repair FRSC005 applied to them. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA’s Determination and Requirements of This AD

This product has been approved by the aviation authority of 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. This AD requires one-time FPI of each affected CIC and, depending on findings, accomplishment of a repair.

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.

Costs of Compliance

We estimate that this AD affects 0 engines installed on airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	2.0 work-hours X \$85 per hour = \$170.00	\$0	\$170.00	\$0

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),
- (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 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 airworthiness directive

(AD):

2017-10-06 **Rolls-Royce plc**: Amendment 39-18880; Docket No. FAA-2017-0114;

Directorate Identifier 2017-NE-03-AD.

(a) Effective Date

This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Rolls-Royce plc (RR) RB211 Trent 768-60, RB211 Trent 772-60, and RB211 Trent 772B-60 turbofan engines that have a compressor intermediate case (CIC) that was repaired using RR Repair FRSC005.

(d) Subject

Joint Aircraft System Component (JASC) 7230, Turbine Engine Compressor Section.

(e) Reason

This AD was prompted by CICs that were weld repaired and have a higher probability of cracking due to increased residual stresses as a result of the weld repair

process. We are issuing this AD to prevent CIC failure, engine separation and loss of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) Inspect repaired CICs during the next shop visit, or within 6,000 engine flight cycles, whichever occurs first, after the effective date of this AD, using paragraph 3.B.(1)(c) of the Accomplishment Instructions, of RR Alert Non-Modification Service Bulletin (NMSB) RB.211-72-AH976, Revision 2, dated March 16, 2017.

(2) If a CIC fails inspection required by paragraph (g)(1) of this AD, either repair the CIC using paragraph 3.B.(2)(b) of the Accomplishment Instructions, of RR Alert NMSB RB.211-72-AH976, Revision 2, dated March 16, 2017, or, replace the CIC with a part eligible for installation, before next flight.

(h) Definitions

For the purpose of this AD, a shop visit is the induction of an engine into the shop for maintenance or overhaul that requires the separation of major mating engine module flanges. The separation of engine flanges solely for the purpose of transporting the engine without subsequent engine maintenance does not constitute an engine shop visit.

(i) Installation Prohibition

After the effective date of this AD, do not install an affected intermediate module on an engine unless the CIC has passed the inspection required by paragraph (g)(1) of this AD.

(j) Credit for Previous Actions

You may take credit for the inspections and corrective action required by paragraph (g) of this AD, if you performed these actions before the effective date of this

AD using RR Alert NMSB RB.211-72-AH976, original issue, dated November 3, 2016 or RR Alert NMSB RB.211-72-AH976, Revision 1, dated November 17, 2016.

(k) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request. You may email your request to: ANE-AD-AMOC@faa.gov.

(l) Related Information

(1) For more information about this AD, contact Robert Green, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7754; fax: 781-238-7199; email: Robert.Green@faa.gov.

(2) Refer to MCAI European Aviation Safety Agency (EASA), AD 2017-0071, dated April 26, 2017, for more information. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2017-0114.

(m) 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 RB.211-72-AH976, Revision 2, dated March 16, 2017.

(ii) Reserved.

(3) For Rolls-Royce plc service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE24 8BJ; phone:

011-44-1332-242424; fax: 011-44-1332-249936; email: http://www.rollsroyce.com/contact/civil_team.jsp; Internet: <https://customers.rollsroyce.com/public/rollsroycecare>.

(4) You may view this service information at FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803. 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 May 4, 2017.

Robert J. Ganley,
Acting Assistant Manager, Engine & Propeller Directorate,
Aircraft Certification Service.
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