[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-1050; Product Identifier 2017-NE-39-AD; Amendment 39-19393; AD 2018-18-14]

RIN 2120-AA64

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

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Rolls-Royce Deutschland Ltd & Co KG (RRD) BR700-710A2-20 and BR700-710C4-11 turbofan engines. This AD was prompted by reports of deterioration of the intumescent heat resistant paint system on the electronic engine controller (EEC) firebox assembly that was found to be beyond acceptable limits. This AD requires replacement of affected EEC firebox assembly parts with improved parts, which have a more durable paint system. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, Dahlewitz, 15827 Blankenfelde-Mahlow, Germany; phone: +49 (0) 33 7086 2673; fax: +49 (0) 33 7086 3276. You may view this service information at the FAA, Engine & Propeller Standards Branch, 1200 District Avenue, Burlington, MA, 01803. For information on the availability of this material at the FAA, call 781-238-7759. It is also available on the internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-1050.

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-2017-1050; or in person at Docket Operations 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), the regulatory evaluation, any comments received, and other information. The address for Docket Operations (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, 20590.

FOR FURTHER INFORMATION CONTACT: Barbara Caufield, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone: 781-238-7146; fax: 781-238-7199; email: barbara.caufield@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain RRD BR700-710A2-20 and BR700-710C4-11 turbofan engines. The NPRM published in the Federal Register on February 12, 2018 (83 FR 5963). The NPRM was prompted by reports of deterioration of the intumescent heat resistant paint system on the EEC firebox assembly that was found to be beyond acceptable limits. The NPRM proposed to require replacement of affected EEC firebox assembly parts with improved parts, which have a more durable paint system. We are issuing this AD to address the unsafe condition on these products.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2017-0198, dated October 10, 2017 (referred to after this as "the MCAI"), to address the unsafe condition on these products. The MCAI states:

> Occurrences were reported where deterioration of an Electronic Engine Controller (EEC) firebox assembly intumescent heat resistant paint system was found to be beyond acceptable limits. Subsequent investigation determined that lack of paint adhesion, due to incorrect surface preparation during manufacturing, had caused this deterioration.
>
> This condition, if not corrected, could reduce the fire protection capability of the EEC firebox, possibly leading to reduced control of an engine during engine fire, engine overspeed and release of high-energy debris, resulting in damage to, and/or reduced control of, the aeroplane.
>
> To address this potential unsafe condition, RRD issued Alert SB SB-BR700-73-A101977, SB-BR700-73-A101981 and SB-BR700-73-A101985 to provide modification instructions introducing improved new or reworked EEC firebox assembly parts, which have a more durable paint system.
>
> For the reason described above, this AD requires replacement of affected EEC firebox assembly parts with improved parts.

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-2017-1050.

Comments

We gave the public the opportunity to participate in developing this final rule. The following presents the comment received on the NPRM and the FAA's response to this comment.

Request to Revise Compliance Time

RRD requested that we align the compliance time of this AD with EASA AD 2017-0198, dated October 10, 2017, and RRD Alert Service Bulletins (ASBs) SB-BR700-73-A101977, SB-BR700-73-A101981 and SB-BR700-73-A101985. RRD suggested that we revise the compliance time of the FAA AD to meet the end date of the RRD ASBs, which is January 31, 2021.

We agree. The proposed compliance time of 6 months in the NPRM was an error. We revised the compliance time for performance of the required actions of this AD to a timeframe consistent with the EASA AD and the RRD ASBs. The revised compliance time requires performance of the required actions within 28 months after the effective date of this AD.

Conclusion

We reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting this final rule with the change described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

Related Service Information

We reviewed RRD ASB SB−BR700−73−A101977, Revision 3, dated July 10, 2017; RRD ASB SB−BR700−73−A101981, Revision 3, dated July 10, 2017; and RRD ASB SB−BR700−73−A101985, Revision 3, dated July 10, 2017. The service information describes procedures for installing new or reworked EEC firebox assembly parts for BR700-710A2-20 and BR700-710C4-11 turbofan engines, which includes BR700-710C4-11/10 turbofan engines.

Costs of Compliance

We estimate that this AD affects 842 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
EEC firebox assembly replacement	2.5 work-hours X $85 per hour = $212.50	$4,900	$5,112.50	$4,304,725

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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to engines, propellers, and associated appliances to the Manager, Engine and Propeller Standards Branch, Policy and Innovation Division.

Regulatory Findings

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, 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):

2018-18-14 **Rolls-Royce Deutschland Ltd & Co KG (Type Certificate previously held by Rolls-Royce Deutschland GmbH, formerly BMW Rolls-Royce GmbH):**

Amendment 39-19393; Docket No. FAA-2017-1050; Product Identifier 2017-NE-39-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to:

(1) Rolls-Royce Deutschland Ltd & Co KG (RRD) BR700-710A2-20 turbofan engines with any electronic engine controller (EEC) firebox assembly installed, with any of the following component part numbers (P/Ns): FW42888, FW42886, FW38590, FW38591, or FW58255.

(2) RRD BR700-710C4-11 turbofan engines with any EEC firebox assembly installed, with any of the following component P/Ns: FW38504, FW38503, FW38590, FW38591, or FW58255.

(d) Subject

Joint Aircraft System Component (JASC) Code 7600, Engine Controls.

(e) Unsafe Condition

This AD was prompted by reports of deterioration of the intumescent heat resistant paint system on the EEC firebox assembly that was found to be beyond acceptable limits. We are issuing this AD to prevent failure of the EEC. The unsafe condition, if not addressed, could result in failure of the EEC, loss of engine thrust control, and reduced control of the airplane.

(f) Compliance

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

(g) Required Actions

(1) Within 28 months after the effective date of this AD, perform the following:

(i) For RRD BR700-710A2-20 engines, remove from service the EEC firebox assembly components with P/N FW42888, FW42886, FW38590, FW38591, and FW58255, and replace with parts eligible for installation.

(ii) For RRD BR700-710C4-11 engines, remove from service the EEC firebox assembly components with P/N FW38504, FW38503, FW38590, FW38591, and FW58255, and replace with parts eligible for installation.

(2) Reserved.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, ECO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (i)(1) of this AD. You may email your request to: ANE-AD-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact Barbara Caufield, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone: 781-238-7146; fax: 781-238-7199; email: barbara.caufield@faa.gov.

(2) Refer to EASA AD No. 2017-0198, dated October 10, 2017, for more information. You may examine the EASA AD in the AD docket on the Internet at http://www.regulations.gov by searching for and locating it in Docket No. FAA-2017-1050.

(j) Material Incorporated by Reference

None.

Issued in Burlington, Massachusetts, on August 30, 2018.

Karen M. Grant
Acting Manager, Engine and Propeller Standards Branch,
Aircraft Certification Service.
[FR Doc. 2018-19365 Filed: 9/6/2018 8:45 am; Publication Date: 9/7/2018]