DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-0095; Directorate Identifier 2015-NE-01-AD; Amendment 39-18228; AD 2015-16-03]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce plc Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Rolls-Royce plc (RR) RB211-524B-02, RB211-524B2-19, RB211-524B3-02, RB211-524B4-02, RB211-524B4-D-02, RB211-524C2-19, RB211-524D4-19, RB211-524D4-39, and RB211-524D4X-19 turbofan engines. This AD requires removing affected high-pressure turbine (HPT) blades. This AD was prompted by several failures of affected HPT blades. We are issuing this AD to prevent failure of the HPT blade, which could lead to failure of one or more engines, loss of thrust control, and damage to the airplane.

DATES: This AD becomes effective September 15, 2015.

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-2015-0095; or in person at the Docket Management Facility 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 the Docket Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

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 the specified products. The NPRM was published in the Federal Register on April 29, 2015 (80 FR 23741). The NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

There were a number of pre-MOD/SB 72-7730 High Pressure Turbine (HPT) blade failures, with some occurring within a relatively short time. Engineering analysis carried out by RR on those occurrences indicates that certain pre-MOD/SB 72-7730 blades, Part Number (P/N) UL32958 and P/N UL21691 (hereafter referred to as 'affected HPT blade'), with an accumulated life of 6500 flight hours (FH) since new or more, have an increased risk of in-service failure.

This condition, if not corrected, could lead to HPT blade failure, release of debris and consequent (partial or complete) loss of engine power, possibly resulting in reduced control of the aeroplane.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (80 FR 23741, April 29, 2015).

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting this AD as proposed.

Costs of Compliance

We estimate that this AD affects 6 engines installed on airplanes of U.S. registry. We also estimate that it will take about 4 hours per engine to comply with this AD. The average labor rate is $85 per hour. Pro-rated cost of required parts is about $250,000 per engine. Based on these figures, we estimate the cost of this AD on U.S. operators to be $1,502,040.

Authority for This Rulemaking


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):
2015-16-03 Rolls-Royce plc: Amendment 39-18228; Docket No. FAA-2015-0095; Directorate Identifier 2015-NE-01-AD.

(a) Effective Date

This AD becomes effective September 15, 2015.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Rolls-Royce plc (RR) RB211-524B-02, RB211-524B2-19, RB211-524B3-02, RB211-524B4-02, RB211-524B4-D-02, RB211-524C2-19, RB211-524D4-19, RB211-524D4-39, and RB211-524D4X-19 turbofan engines with high-pressure turbine (HPT) blades, part numbers (P/Ns) UL32958 and UL21691, installed.

(d) Reason

This AD was prompted by several failures of affected HPT blades. We are issuing this AD to prevent failure of the HPT blade, which could lead to failure of one or more engines, loss of thrust control, and damage to the airplane.

(e) Actions and Compliance

(1) Comply with this AD within the compliance times specified, unless already done.
(2) After the effective date of this AD, within 2 months or before exceeding 6,500 flight hours since first installation of HPT blades, P/Ns UL32958 and UL21691, on an engine, whichever occurs later, remove all affected HPT blades from service.

(f) 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.

(g) Related Information

(1) For more information about this AD, contact Katheryn Malatek, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7747; fax: 781-238-7199; email: katheryn.malatek@faa.gov.
(h) Material Incorporated by Reference

None.

Issued in Burlington, Massachusetts, on July 30, 2015.
Ann C. Mollica,
Acting Assistant Directorate Manager, Engine & Propeller Directorate,
Aircraft Certification Service.