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) models Tay 620–15 and Tay 650–15 turbofan engines. This AD was prompted by RRD recalculating the Declared Safe Cyclic Life (DSCL) for certain low-pressure compressor (LPC) rotor disc assemblies operating to the Plan D Flight Mission. This AD requires removing the affected LPC rotor disc assemblies at a new lower recalculated DSCL. We are issuing this AD to prevent failure of the LPC rotor disc assembly, uncontained engine failure, and damage to the airplane.

DATES: This AD becomes effective April 24, 2013.

ADDRESSES: 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.


SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on December 13, 2012 (77 FR 74123). That NPRM proposed to correct an unsafe condition for the specified products. The Mandatory Continuing Airworthiness Information states:

The Tay 650–15 and Tay 650–15/10 engine Time Limits Manual Chapter 05–10–01 contains maximum approved life limitations, identified as Declared Safe Cyclic Life (DSCL) for Low Pressure Compressor (LPC) rotor disc assemblies Part Number (P/N) JR31198A and P/N JR34563A operated to the Plan D Flight Mission, which has been recalculated to a lower value.

Decreased DSCL of LPC rotor disc assemblies P/N JR31198A and P/N JR34563A may affect these disc assemblies installed in Tay 650–15 and Tay 650–15/10 engines as well as in Tay 620–15 and Tay 620–15/20 engines.

Failure to take decreased DSCL of affected LPC rotor disc assemblies into account could lead to affected part failure and consequent release of high energy debris potentially resulting in damage to, and/or 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 (77 FR 74123, December 13, 2012).

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed (77 FR 74123, December 13, 2012).

Costs of Compliance

We estimate that this AD will affect four engines installed on airplanes of U.S. registry. We also estimate that it will require four hours to perform the actions required by this AD. The average labor rate is $85 per hour. Prorated life for the disc assembly is approximately $650 per disc. Based on these figures, we estimate the cost of this AD on U.S. operators to be $3,960.

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); 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 AD and placed it in the AD docket.

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

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 AD:


(a) Effective Date

This airworthiness directive (AD) becomes effective April 24, 2013.

(b) Affected ADs

None.
(c) Applicability
This AD applies to RRD models Tay 620–15 and Tay 650–15 turbofan engines with a low-pressure compressor (LPC) rotor disc assembly, part number (P/N) JR31198A or P/N JR34563A, installed.

(d) Reason
This AD was prompted by RRD recalculating the Declared Safe Cyclic Life for certain LPC rotor disc assemblies operating to the Plan D Flight Mission. We are issuing this AD to prevent failure of the LPC rotor disc assembly, uncontained engine failure, and damage to the airplane.

(e) Actions and Compliance
Unless already done, do the following. For engines that have operated to the Plan D Flight Mission configuration, remove the LPC rotor disc assembly from service before accumulating 18,700 engine flight cycles. Do not return to service nor approve for return to service any engine with the affected discs that are installed that exceeds 18,700 engine flight cycles.

(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.

(g) Related Information


(3) For service information identified in this AD, contact Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11 Dahlewitz 15827, Blankenfelde-Mahlow, Germany; phone: +49 0 33–7086–1944; fax: +49 0 33–7086–3276.

(4) You may view this 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.

(h) Material Incorporated by Reference
None.

Issued in Burlington, Massachusetts, on March 8, 2013.

Colleen M. D’Alessandro,
Acting Manager, Engine & Propeller Directorate, Aircraft Certification Service.

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DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration

14 CFR Part 39

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) BR700–710 series turbofan engines. This AD requires replacement of the affected fuel pump splined couplings. This AD was prompted by service experience that demonstrated premature wear of the splined coupling on the fuel pump. We are issuing this AD to prevent failure of the engine and loss of the airplane.

DATES: This AD becomes effective April 24, 2013.

ADDRESSES: 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.


SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on November 7, 2012 (77 FR 66771). That NPRM proposed to require replacement of the affected fuel pump splined couplings. The Mandatory Continuing Airworthiness Information states:

In-service experience of RRD BR700–710 fuel pump installed on the rear face of the accessory gearbox identified premature wear of the splined coupling, which caused damage to the splined coupling.

This condition, if not corrected, could lead to failure of engine fuel supply, likely resulting in an uncommanded in-flight shutdown and consequently reduced control of the aeroplane.

Comments

We gave the public the opportunity to participate in developing this AD. We considered the comment received.

Request To Withdraw the AD

An anonymous commenter requested that the FAA withdraw the proposed rule (77 FR 66771, November 7, 2012). The commenter indicated that the rule is a “waste of government resources” because a service bulletin has been issued and larger companies and individuals will comply because it is in their best interest while smaller companies will “suffer.”

We do not agree. We reviewed the service experience of the affected fuel pump splined couplings and determined that an unsafe condition exists and that corrective action is required. Although some operators may take corrective action based on the service bulletin, the issuance of an AD makes compliance mandatory for all. We made no change to the AD.

Change to Installation Prohibition Paragraph

We determined when reviewing the proposed rule (77 FR 66771, November 7, 2012), that the Installation Prohibition paragraph (g) was not consistent with the compliance paragraph (e). The Installation Prohibition paragraph in the NPRM forbids returning to service any engine with a fuel pump with an affected splined coupling that has accumulated 4,000 hours time in service (TIS). This paragraph is not consistent without compliance paragraph (e) which allows engines with affected spline couplings to be returned to service for those engines with 3,750 hours or more TIS, while allowing an additional 250 hours TIS to comply. The Installation Prohibition paragraph should have been directed against “installing” an affected fuel pump into an engine or installing an engine with an affected fuel pump into an aircraft rather than against returning an engine to service with an affected fuel pump.

The Installation Prohibition paragraph now reads: “After the effective date of this AD, do not install into any engine a fuel pump with an affected splined coupling that has accumulated 4,000 hours TIS, or install any engine with an affected splined coupling that has accumulated 4,000 hours TIS onto an airplane.”