DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0561; Directorate Identifier 2014-NE-12-AD; Amendment 39-18105; AD 2015-04-03]

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 Trent 768-60, 772-60, and 772B-60 turbofan engines. This AD requires inspection of the oil feed tube sealing sleeve and removal of those oil feed tube sealing sleeves that are affected by this AD. This AD was prompted by fractures of the high-pressure/intermediate-pressure (HP/IP) turbine support internal oil feed tube. We are issuing this AD to prevent failure of the HP/IP turbine support internal oil feed tube, which could result in uncontained engine failure and damage to the airplane.

DATES: This AD becomes effective March 30, 2015.

ADDRESSES: See the For Further Information Contact section.

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-2014-0561; 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 September 18, 2014 (79 FR 56025). The NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

There have been nine occurrences of high oil consumption, caused by fracture of the High/Intermediate Pressure (HP/IP) turbine support internal oil feed tube Part Number (P/N) FW45909.

The oil feed tube threaded end adaptor and sealing sleeve P/N FW15003 are designed to form a sliding joint which, if restrained, can compress the oil feed tube during thermal contraction of the turbine casing at the end of the flight cycle. On each subsequent flight, the thermal growth and contraction of the turbine casing relative to the oil tube, during the heating and cooling phases of the flight cycle, apply a load cycle to the tube, which may lead to low cycle fatigue fracture.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (79 FR 56025, September 18, 2014).

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 69 engines installed on airplanes of U.S. registry. We also estimate that it will take about 8.5 hours per engine to comply with this AD. The average labor rate is $85 per hour. Based on these figures, we estimate the cost of this AD on U.S. operators to be $49,853.

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):
**2015-04-03 Rolls-Royce plc:** Amendment 39-18105; Docket No. FAA-2014-0561; Directorate Identifier 2014-NE-12-AD.

(a) **Effective Date**

This AD becomes effective March 30, 2015.

(b) **Affected ADs**

None.

(c) **Applicability**

This AD applies to Rolls-Royce plc (RR) RB211 Trent 768-60, 772-60, and 772B-60 turbofan engines, serial numbers 41693 through 42309 inclusive, 42313, 42318, 42319, 42320, 42328, and 42330 with high-pressure/intermediate-pressure (HP/IP) turbine support internal oil feed tube sealing sleeve, part number (P/N) FW15003, installed, that is marked with the prefix "B/N" followed by a six digit batch number and does not contain the marking 102013, 112013 or 102013L.

(d) **Reason**

This AD was prompted by fractures of the HP/IP turbine support internal oil feed tube. We are issuing this AD to prevent failure of the HP/IP turbine support internal oil feed tube, which could result in uncontained engine failure and damage to the airplane.

(e) **Actions and Compliance**

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

1. Within 6 months after the effective date of this AD, perform on-wing or in-shop inspection for, and remove from service, any affected HP/IP turbine support internal oil feed tube sealing sleeve.
2. Remove from service any HP/IP turbine support internal oil feed tube sealing sleeve on which markings cannot be sufficiently identified to determine whether said sealing sleeve is part of the affected population.
3. From the effective date of this AD, you may install on engines HP/IP turbine support internal oil feed tube sealing sleeves, P/N FW15003, that are marked with the prefix "B/N" followed by a six digit batch number, provided that the part is marked with 102013, 112013, or 102013L.

(f) **Alternative Methods of Compliance (AMOCs)**

The Manager, Engine Certification Office, FAA, may approve AMOCs to 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 Wego Wang, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7134; fax: 781-238-7199; email: wego.wang@faa.gov.


(h) Material Incorporated by Reference

None.

Issued in Burlington, Massachusetts, on February 11, 2015.
Colleen M. D'Alessandro,
Assistant Directorate Manager, Engine & Propeller Directorate,
Aircraft Certification Service.