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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2001-NE-12-AD; Amendment 39-14319; AD 2005-20-23]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce plc RB211 Trent 875, 877, 884, 884B, 892, 892B, and 895 Series Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding an existing airworthiness directive (AD) for Rolls-Royce plc (RR) RB211 Trent 875, 877, 884, 892, 892B, and 895 series turbofan engines. That AD currently requires repetitive application of dry film lubricant (DFL) to low pressure compressor (LPC) fan blade roots. This AD requires the same actions but at more frequent intervals than the existing AD. This AD also adds the Trent 884B engine to the list of engine models affected, adds a fan blade part number (P/N) to the affected list of fan blades, and relaxes the initial DFL repetitive application compliance time for certain fan blades that have never been removed from the disk. This AD results from discovering DFL in worse condition than anticipated on fan blades fitted to disks previously run for a significant period. This AD also results from the need to update the list of engine models affected, and to update the list of fan blade part numbers affected. We are issuing this AD to prevent LPC fan blade loss, which could result in an uncontained engine failure and possible aircraft damage.

DATES: This AD becomes effective November 8, 2005.

ADDRESSES: You may examine the AD docket at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA. You may examine the service information at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT: Christopher Spinney, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone: (781) 238-7175, fax: (781) 238-7199.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR Part 39 with a proposed airworthiness directive (AD). The proposed AD applies to RR RB211 Trent 875, 877, 884, 892, 892B, and 895 series turbofan engines with LPC fan blade P/Ns: FK 30838, FK30840, FK30842, FW12960, FW12961, FW12962, FW13175, FW18548, or FW23552. We published the proposed AD in the Federal Register on February 18, 2005 (70 FR 8303). That action proposed to require repetitive application of DFL to LPC fan blade roots at more frequent intervals than the existing AD. That action also proposed to add the Trent 884B engine to the applicability, to add a fan blade P/N to the affected list of fan blades, and to relax the initial DFL repetitive application compliance time for certain fan blades that have never been removed from the disk.

Examining the AD Docket

You may examine the AD Docket (including any comments and service information), by appointment, between 8 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays. See ADDRESSES for the location.

Comments

We provided the public the opportunity to participate in the development of this AD. We received one comment on the proposal and it was favorable.

Conclusion

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

Costs of Compliance

There are approximately 388 RR RB211 Trent 875, 877, 884, 884B, 892, 892B, and 895 series turbofan engines of the affected design in the worldwide fleet. We estimate that 106 engines installed on airplanes of U.S. registry will be affected by this AD. We also estimate that it will take approximately six work hours per engine to perform the DFL application, and that the average labor rate is \$65 per work hour. Based on these figures, we estimate the total cost of the AD to U.S. operators to perform one repetitive application of DFL to the affected engines to be \$41,340.

Special Flight Permits Paragraph Removed

Paragraph (d) of the current AD, AD 2002-10-15, contains a paragraph pertaining to special flight permits. Even though this final rule does not contain a similar paragraph, we have made no changes with regard to the use of special flight permits to operate the airplane to a repair facility to do the work required by this AD. In July 2002, we published a new Part 39 that contains a general authority regarding special flight permits and airworthiness directives; see Docket No. FAA-2004-8460, Amendment 39-9474 (69 FR 47998, July 22, 2002). Thus, when we now supersede ADs we will not include a specific paragraph on special flight permits unless we want to limit the use of that general authority granted in section 39.23.

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 have 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 that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866;
- (2) Is not a "significant rule" under 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 summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under ADDRESSES. Include "AD Docket No. 2001-NE-12-AD" in your request.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration 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 removing Amendment 39-12761 (67 FR 36803, May 28, 2002) and by adding a new airworthiness directive, Amendment 39-14319, to read as follows:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at www.faa.gov/aircraft/safety/alerts/

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2005-20-23 Rolls-Royce plc: Amendment 39-14319. Docket No. 2001-NE-12-AD.

Effective Date

- (a) This AD becomes effective November 8, 2005.

Affected ADs

- (b) This AD supersedes AD 2002-10-15.

Applicability

(c) This AD applies to Rolls-Royce plc (RR) RB211 Trent 875, 877, 884, 884B, 892, 892B, and 895 series turbofan engines with low pressure compressor (LPC) fan blade part numbers (P/Ns): FK 30838, FK30840, FK30842, FW12960, FW12961, FW12962, FW13175, FW18548, or FW23552. These engines are installed on, but not limited to, Boeing 777 series airplanes.

Unsafe Condition

(d) This AD results from the discovery of dry film lubricant (DFL) condition appearing worse than anticipated on fan blades fitted to disks previously run for a significant period. This AD also results from the need to update the list of engine models affected, and to update the list of fan blade part numbers affected. The actions specified in this AD are intended to prevent LPC fan blade loss, which could result in an uncontained engine failure and possible aircraft damage.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

(f) Apply an approved DFL to LPC fan blade roots as follows:

(1) For LPC fan blades P/Ns FW13175, FW12960, FW12961, FW12962, FW18548, and FW23552 that have never been removed from the disk, apply DFL at the first removal from the disk or before 1,200 cycles-in-service (CIS), whichever occurs first.

(2) For LPC fan blades P/Ns FW13175, FW12960, FW12961, FW12962, FW18548, and FW23552 that have been removed from the disk since entering service, apply DFL before accumulating 600 cycles-since-new (CSN) or before accumulating 600 cycles-since-last DFL application, or within 200 CIS from the effective date of this AD, whichever occurs later.

(3) For LPC fan blades P/Ns FK30842, FK30840, and FK300838, apply DFL before accumulating 600 CSN or before accumulating 600 cycles-since-last DFL application, or within 100 CIS after July 2, 2002 (effective date of superseded AD 2002-10-15), whichever occurs first.

(4) Thereafter, reapply DFL to LPC fan blade roots within 600 cycles-since-last DFL application.

(5) Information on applying DFL to fan blade roots can be found in RR Alert Service Bulletin No. RB.211-72-AD347, Revision 6, dated April 22, 2004, or Revision 7, dated August 2, 2005.

Alternative Methods of Compliance

(g) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Related Information

(h) Civil Aviation Authority Airworthiness Directive G-2004-0008, dated April 29, 2004, also addresses the subject of this AD.

Issued in Burlington, Massachusetts, on September 27, 2005.

Francis A. Favara,

Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 05-19845 Filed 10-3-05; 8:45 am]

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