

[Federal Register: February 1, 2006 (Volume 71, Number 21)]
[Rules and Regulations]
[Page 5162-5165]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr01fe06-3]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2005-23031; Directorate Identifier 2005-NE-41-AD; Amendment 39-14467; AD 2006-03-03]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce plc RB211 Trent 553-61, 553A2-61, 556-61, 556A2-61, 556B-61, 556B2-61, 560-61, and 560A2-61 Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Rolls-Royce plc (RR) RB211 Trent 553-61, 553A2-61, 556-61, 556A2-61, 556B-61, 556B2-61, 560-61, and 560A2-61 turbofan engines. This AD requires initial and repetitive borescope inspections for missing HPT rear seal plate locking plugs and damaged locking plug retaining wires, and removal of the engine from service if necessary, based on inspection results. This AD results from two reports of missing HPT rear seal plate locking plugs, damage to the HPT disc, and damage to the remaining locking plug retaining wires. We are issuing this AD to prevent uncontained release of the HPT rear side plate and HPT disc, resulting in damage to the airplane.

DATES: Effective February 16, 2006. The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of February 16, 2006.

We must receive any comments on this AD by April 3, 2006.

ADDRESSES: Use one of the following addresses to comment on this AD:

- DOT Docket Web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.
- Government-wide rulemaking Web site: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-0001.
- Fax: (202) 493-2251.
- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Contact Rolls-Royce plc, P.O. Box 31, Derby, DE248BJ; UK, telephone: 011-44-1332-242424; fax: 011-44-1332-249936, for the service information identified in this AD.

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

SUPPLEMENTARY INFORMATION: The Civil Aviation Authority (CAA), which is the airworthiness authority for the United Kingdom (U.K.), notified us that an unsafe condition may exist on RR RB211 Trent 500 series turbofan engines that have not incorporated RR Service Bulletin (SB) No. RB.211-72-E767. The CAA advises that during shop visit, some engines were noticed to be missing some of the HPT turbine rear seal plate locking plugs. This resulted in scoring of the HPT disc rear diaphragm and impact damage to the remaining locking plug retaining wires, and could have led to release of the HPT rear seal plate and reduced low-cycle-fatigue life of the HPT disc.

Relevant Service Information

We have reviewed and approved the technical contents of RR Alert SB No. RB.211-72-AE358, Revision 3, dated July 13, 2005, that describes procedures for borescope inspecting the HPT rear seal plate locking plugs and locking plug retaining wires. The CAA classified this as a mandatory SB and issued AD G-2005-0007 R1, dated July 11, 2005, in order to ensure the airworthiness of these RB211 Trent 500 series turbofan engines in the U.K.

Bilateral Airworthiness Agreement

These RB211 Trent 553-61, 553A2-61, 556-61, 556A2-61, 556B-61, 556B2-61, 560-61, and 560A2-61 series turbofan engines are manufactured in the U.K. and are type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Under this bilateral airworthiness agreement, the CAA kept the FAA informed of the situation described above. We have examined the findings of the CAA, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

FAA's Determination and Requirements of This AD

Although no airplanes that are registered in the United States use these engines, the possibility exists that the engines could be used on airplanes that are registered in the United States in the future. The unsafe condition described previously is likely to exist or develop on other RR RB211 Trent 500 series turbofan engines of the same type design. We are issuing this AD to prevent uncontained release of the HPT rear side plate and HPT disc, resulting in damage to the airplane. This AD requires initial and repetitive borescope inspections for missing HPT rear seal plate locking plugs and damaged locking plug retaining wires. This AD also requires removing engines from service based on the number of HPT locking plugs with acceptable locking plug retaining wires installed. You must use the service information described previously to perform the actions required by this AD.

FAA's Determination of the Effective Date

Since there are currently no domestic operators of this engine model, notice and opportunity for public comment before issuing this AD are unnecessary. A situation exists that allows the immediate adoption of this regulation.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to send us any written relevant data, views, or arguments regarding this AD. Send your comments to an address listed under ADDRESSES. Include "AD Docket No. FAA-2005-23031; Directorate Identifier 2005-NE-41-AD" in the subject line of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify it.

We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of the DMS Web site, anyone can find and read the comments in any of our dockets, including the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78) or you may visit <http://dms.dot.gov>.

Examining the AD Docket

You may examine the docket that contains the AD, any comments received, and any final disposition in person at the Docket Management Facility Docket Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone (800) 647-5227) is located on the plaza level of the Department of Transportation Nassif Building at the street address stated in ADDRESSES. Comments will be available in the AD docket shortly after the DMS receives them.

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 the regulation:

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 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.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Under the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

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

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).

2006-03-03 Rolls-Royce plc: Amendment 39-14467. Docket No. FAA-2005-23031; Directorate Identifier 2005-NE-41-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective February 16, 2006.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Rolls-Royce plc (RR) RB211 Trent 553-61, 553A2-61, 556-61, 556A2-61, 556B-61, 556B2-61, 560-61, and 560A2-61 turbofan engines that have not incorporated RR Service Bulletin (SB) No. RB.211-72-E767. These engines are installed on, but not limited to, Airbus A340-500 and -600 series airplanes.

Unsafe Condition

(d) This AD results from two reports of missing HPT rear seal plate locking plugs, damage to the HPT disc, and damage to the remaining locking plug retaining wires. We are issuing this AD to prevent uncontained release of the HPT rear side plate and HPT disc, resulting in damage to the airplane.

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.

Initial Borescope Inspection

(f) Borescope-inspect for missing HPT rear seal plate locking plugs and damaged locking plug retaining wires, between 500 and 1,000 cycles-since-new (CSN) or cycles-since-overhaul where the locking plug wires were replaced, or within 50 cycles after the effective date of this AD, whichever occurs later.

(g) Use paragraphs 3.B.(1)(a) through 3.B.(1)(k)(xi) of the Accomplishment Instructions of RR Alert Service Bulletin No. RB.211-72-AE358, Revision 3, dated July 13, 2005, to do the inspection.

Repetitive Borescope Inspections

(h) Using the criteria and intervals in the following Table 1, repeat the borescope inspection and remove engines from service to inspect the HPT disc.

TABLE 1.—ENGINE REMOVAL CRITERIA

If the number of HPT locking plugs with acceptable locking plug retaining wires installed, determined in paragraph (f) of this AD is:	Then repeat the borescope inspection within:	Remove the engine from service to inspect HPT disc:
(1) Zero or one.	Not applicable	Before further flight.
(2) Two	Not applicable	Within 15 CSLI.
(3) Three or four	100 cycles-since-last-inspection (CSLI) intervals.	Before accumulating 1,100 cycles-since-loss of locking plug(s) or 1,100 CSN, or 1,100 cycles-since-last acceptable inspection, whichever occurs later.
(4) Five	1,000 CSLI intervals	Not applicable.

(i) Use paragraphs 3.B.(1)(a) through 3.B.(1)(k)(xi) of the Accomplishment Instructions of RR Alert Service Bulletin No. RB.211-72-AE358, Revision 3, dated July 13, 2005, to do the inspection.

(j) For Table 1, item (3), if possible, determine when the loss of locking plug(s) occurred by reviewing the engine vibration history. If it is not possible to determine the point of locking plug release, use 1,100 CSN, or 1,100 cycles-since-last acceptable inspection, whichever occurs later.

Alternative Methods of Compliance

(k) 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

(l) United Kingdom Civil Aviation Authority airworthiness directive G-2005-0007 R1, dated July 11, 2005, also addresses the subject of this AD.

Material Incorporated by Reference

(m) You must use the Rolls-Royce plc Alert Service Bulletin and Appendices listed in Table 2 of this AD to perform the inspections required by this AD. The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Rolls-Royce plc, P.O. Box 31, Derby, DE248BJ; UK, telephone: 011-44-1332-242424; fax: 011-44-1332-249936, for a copy of this service information. You may review copies at the Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-0001, on the Internet at <http://dms.dot.gov>; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

TABLE 2.—INCORPORATION BY REFERENCE

Alert Service Bulletin No.	Page	Revision	Date
RB.211-72-AE358 Total Pages: 16	ALL	3	July 13, 2005.
Appendix 1 to ASB No. RB.211-72-AE358 Total Pages: 2	ALL	3	July 13, 2005.
Appendix 2 to ASB No. RB.211-72-AE358 Total Pages: 2	ALL	3	July 13, 2005.

Issued in Burlington, Massachusetts, on January 24, 2006.

Peter A. White,

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

[FR Doc. 06-826 Filed 1-31-06; 8:45 am]

BILLING CODE 4910-13-P