

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 39**

[Docket No. 99-NE-60-AD; Amendment 39-11535; AD 2000-02-17]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce plc RB211 Trent 768-60, 772-60, and 772B-60 Series Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to Rolls-Royce plc RB211 Trent 768-60, 772-60, and 772B-60 series turbofan engines. This action requires initial and repetitive visual inspections for flank wear on intermediate pressure turbine (IPT) shaft splines and intermediate pressure compressor (IPC) rear stub shaft splines. Components that show excessive flank wear must be replaced with serviceable parts. This amendment is prompted by reports of worn IPT shaft splines discovered at overhaul. The actions specified in this AD are intended to prevent IPT and IPC shaft spline flank wear, which could result in loss of drive between the IPT and IPC, leading to an IPT overspeed and possible disk burst, uncontained engine failure, and potential damage to the aircraft.

DATES: Effective February 16, 2000.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of February 16, 2000.

Comments for inclusion in the Rules Docket must be received on or before April 3, 2000.

ADDRESSES: Submit comments to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 99-NE-60-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may also be sent via the Internet using the following address: "9-ane-adcomment@faa.gov". Comments sent via the Internet must contain the docket number in the subject line.

The service information referenced in this AD may be obtained from Rolls-Royce plc, PO Box 31, Derby, England; telephone: International Access Code 011, Country Code 44, 1332-249428, fax: International Access Code 011, Country Code 44, 1332-249223. This

information may be examined at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT:

James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone 781-238-7176, fax 781-238-7199.

SUPPLEMENTARY INFORMATION: The Civil Aviation Authority (CAA), which is the airworthiness authority for the United Kingdom (UK), recently notified the Federal Aviation Administration (FAA) that an unsafe condition may exist on Rolls-Royce plc (R-R) RB211 Trent 768-60, 772-60, and 772B-60 series turbofan engines. The CAA advises that it has received reports of excessive flank wear discovered on intermediate pressure turbine (IPT) shaft splines at overhaul. The investigation revealed that a lubrication problem, among other factors, may be causing the wear. This condition, if not corrected, could result in IPT and intermediate pressure compressor (IPC) shaft spline flank wear, which could result in loss of drive between the IPT and IPC, leading to an IPT overspeed and possible disk burst, uncontained engine failure, and potential damage to the aircraft.

Service Information

R-R has issued Mandatory Service Bulletin (SB) No. RB.211-72-C329, Revision 1, dated November 6, 1998, that specifies procedures and references for performing visual inspections for flank wear on IPT shaft splines and IPC rear stub shaft splines. The SB also provides references for determining if excessive flank wear requires replacing worn components with serviceable parts. The CAA classified this SB as mandatory and issued airworthiness directive (AD) 004-04-98, dated November 6, 1998, in order to assure the airworthiness of these R-R engines in the UK.

Bilateral Airworthiness Agreement

This engine model is manufactured in the UK and is 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. Pursuant to this bilateral airworthiness agreement, the CAA has kept the FAA informed of the situation described above. The FAA has 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.

Required Actions

Since an unsafe condition has been identified that is likely to exist or develop on other engines of the same type design registered in the United States, the AD requires initial visual inspections prior to accumulating 4,200 cycles-since-new (CSN) and repetitive inspections at intervals not to exceed 4,200 cycles-in-service (CIS) since last inspection. Components that show excessive flank wear must be replaced with serviceable parts. The actions would be required to be accomplished in accordance with the SB described previously.

Immediate Adoption

There are currently no domestic operators of this engine model. Accordingly, a situation exists that allows the immediate adoption of this regulation. Notice and opportunity for prior public comment hereon are impracticable, and good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted to the address specified under the caption **ADDRESSES**. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact

concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 99-NE-60-AD." The postcard will be date stamped and returned to the commenter.

Regulatory Impact

The regulations adopted herein 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. Therefore, it is determined that this final rule does not have federalism implications under Executive Order (EO) 13132.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and is not a "significant regulatory action" under EO 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, pursuant to 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. PART=39

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

2000-02-17 Rolls-Royce plc: Amendment 39-11535. Docket 99-NE-60-AD.

Applicability: Rolls-Royce plc (R-R) RB211 Trent Rolls-Royce plc (R-R) RB211 Trent 768-60, 772-60, and 772B-60 series turbofan engines, installed on but not limited to Airbus Industrie A330-341 and A330-342 series airplanes.

Note 1: This airworthiness directive (AD) applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent intermediate pressure turbine (IPT) and intermediate pressure compressor (IPC) shaft spline flank wear, which could result in loss of drive between the IPT and IPC, leading to an IPT overspeed and possible disk burst, uncontained engine failure, and potential damage to the aircraft, accomplish the following:

Inspections

(a) Visually inspect for flank wear on IPT shaft splines and intermediate pressure compressor IPC rear stub shaft splines in accordance with Paragraph D, Action, of R-R Mandatory Service Bulletin (SB) No. RB.211-72-C329, Revision 1, dated November 6, 1998, as follows:

- (1) Initially inspect prior to accumulating 4,200 cycles-since-new.
- (2) Thereafter, inspect at intervals not to exceed 4,200 cycles-in-service since last inspection.

Replacement, If Necessary

(b) If spline wear depth exceeds the limits referred to in paragraph D (h)(vi) of R-R Mandatory SB No. RB.211-72-C329, Revision 1, dated November 6, 1998, prior to further flight remove from service worn components and replace with serviceable parts.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office (ECO). Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the ECO.

Ferry Flights

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the inspection requirements of this AD can be accomplished.

Incorporation by Reference

(e) The actions required by this AD shall be performed in accordance with Rolls-Royce plc Mandatory Service Bulletin No. RB.211-72-C329, Revision 1, dated November 6, 1998. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Rolls-Royce plc, PO Box 31, Derby, England; telephone: International Access Code 011, Country Code 44, 1332-249428, fax: International Access Code 011, Country Code 44, 1332-249223. Copies may be inspected at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

(f) This amendment becomes effective on February 16, 2000.

Issued in Burlington, Massachusetts, on January 21, 2000.

David A. Downey,

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

[FR Doc. 00-2000 Filed 1-31-00; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 97-CE-99-AD; Amendment 39-11534; AD 2000-02-16]

RIN 2120-AA64

Airworthiness Directives; Short Brothers and Harland Ltd. Models SC-7 Series 2 and SC-7 Series 3 Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that applies to all Short Brothers and Harland Ltd. (Shorts) Models SC-7 Series 2 and SC-7 Series 3 airplanes. This AD requires you to repetitively inspect the wing attachment bushes in the fuselage front and rear spar frames for migration (gaps), and replace the bushes if a gap exists that is of a certain length or more. This AD is the result of mandatory continuing airworthiness information (MCAI) issued by the airworthiness authority for the United Kingdom. The actions specified by this