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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2005-22534; Directorate Identifier 2005-NE-27-AD; Amendment 39-14305; AD 2005-20-11]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce Corporation (RRC) (formerly Allison Engine Company, Allison Gas Turbine Division, and Detroit Diesel Allison) Models 250-C28, -C28B, and -C28C Turboshaft 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 Rolls-Royce Corporation (formerly Allison Engine Company, Allison Gas Turbine Division, and Detroit Diesel Allison) (RRC) Models 250-C28, -C28B, and -C28C turboshaft engines. This AD requires a onetime visual inspection of the seal joint in each passage between airfoils at the hub and shroud of third-stage turbine wheels, part number (P/N) 6899383. This AD results from reports of three failed third-stage turbine wheels and from the manufacturer's analysis of those failures. We are issuing this AD to prevent loss of power and uncommanded engine shutdown due to failure of the third-stage turbine wheel.

DATES: This AD becomes effective October 18, 2005.

We must receive any comments on this AD by December 2, 2005.

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 Corporation, PO Box 420, Indianapolis, IN 46206-0420; telephone (317) 230-6400; fax (317) 230-4243 for the service information identified in this AD.

FOR FURTHER INFORMATION CONTACT: John Tallarovic, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, 2300 East Devon Avenue, Des Plaines, IL 60018-4696; telephone (847) 294-8180; fax (847) 294-7834.

SUPPLEMENTARY INFORMATION: In April 2005, we became aware of reports of three failed third-stage turbine wheels, P/N 6899383. The third-stage turbine wheels had partial loss of the blades and shroud. RRC conducted an analysis and found the failures were caused by compromised third-stage blade fillet radii, which led to increased stresses to the third-stage blades and shroud. RRC categorized this finding as a manufacturer's quality control problem. This condition, if not corrected, could result in loss of power and uncommanded engine shutdown due to failure of the third-stage turbine wheel.

FAA's Determination and Requirements of This AD

The unsafe condition described previously is likely to exist or develop on other RRC Models 250-C28, -C28B, and -C28C turboshaft engines of the same type design. For that reason, we are issuing this AD to prevent loss of power and uncommanded engine shutdown due to failure of the third-stage turbine wheel. This AD requires a onetime visual inspection of the seal joint in each passage between airfoils at the hub and shroud of third-stage turbine wheels, P/N 6899383.

FAA's Determination of the Effective Date

Since an unsafe condition exists that requires the immediate adoption of this AD, we have found that notice and opportunity for public comment before issuing this AD are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

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-2005-22534; Directorate Identifier 2005-NE-27-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 Docket Management System (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 Offices 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 at the address listed under ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, 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**

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).

2005-20-11 Rolls-Royce Corporation (formerly Allison Engine Company, Allison Gas Turbine Division, and Detroit Diesel Allison): Amendment 39-14305. Docket No. FAA-2005-22534; Directorate Identifier 2005-NE-27-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective October 18, 2005.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Rolls-Royce Corporation (RRC) (formerly Allison Engine Company, Allison Gas Turbine Division, and Detroit Diesel Allison) models 250-C28, -C28B, and -C28C turboshaft engines. These engines are installed on, but not limited to, Bell Helicopter Textron 206L-1; Eurocopter Deutschland BO 105 LS A-1; and Eurocopter Canada BO 105 LS A-3 helicopters.

Unsafe Condition

(d) This AD results from reports of three failed third-stage turbine wheels and from the manufacturer's analysis of those failures. We are issuing this AD to prevent loss of power and uncommanded engine shutdown due to failure of the third-stage turbine wheel.

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.

Onetime Visual Inspection

(f) For third-stage turbine wheels, part number (P/N) 6899383, with fewer than 3,000 hours time-since-new (TSN), inspect the next time the third-stage turbine wheel is directly available for removal, at the next turbine overhaul, or by April 30, 2007, whichever occurs sooner.

(g) For third-stage turbine wheels, P/N 6899383, with 3,000 hours or more TSN, inspect within 300 hours or by April 30, 2007, whichever occurs sooner.

(h) Remove the third-stage turbine wheel and perform a onetime visual inspection of the seal joint in each passage between airfoils at the hub and shroud. Seal joint evidence must not be present within blade fillet radii. See Figure 1 of this AD for reference.

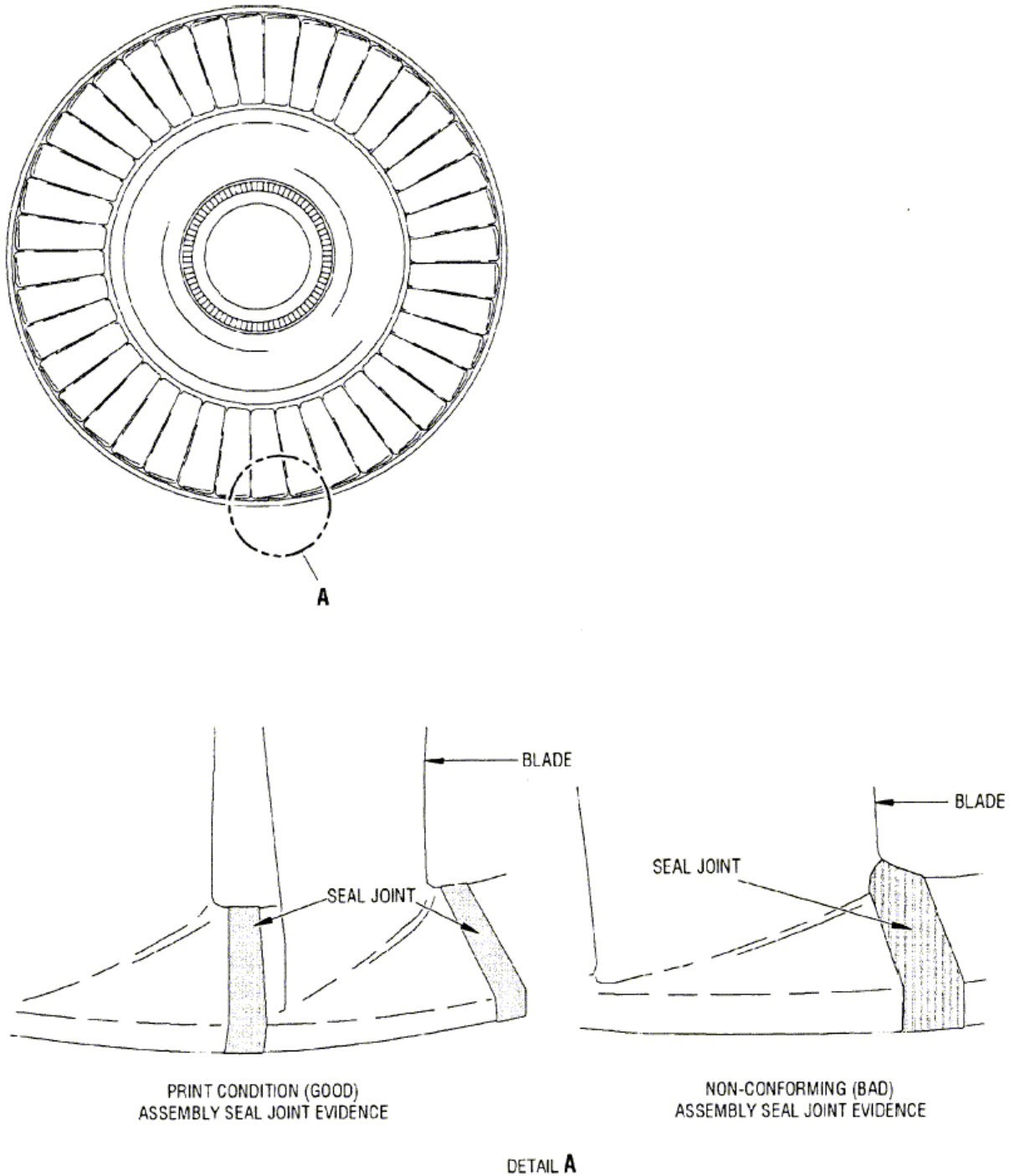


Figure 1.

(i) Remove from service any turbine wheel that has seal joint evidence present within blade fillet radii.

Alternative Methods of Compliance

(j) The Manager, Chicago Aircraft 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

(k) RRC Alert Service Bulletin No. CEB-A-72-2205, dated April 26, 2005, pertains to the subject of this AD.

Issued in Burlington, Massachusetts, on September 26, 2005.

Francis A. Favara,

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

[FR Doc. 05-19693 Filed 9-30-05; 8:45 am]

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