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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2006-25272; Directorate Identifier 2006-NE-16-AD; Amendment 39-14924; AD 2007-03-13]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce Deutschland Ltd & Co KG (formerly Rolls-Royce plc) Dart 528, 529, 532, 535, 542, and 552 Series Turboprop Engines

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

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Rolls-Royce Deutschland Ltd & Co KG (formerly Rolls-Royce plc) (RRD) Dart 528, 529, 532, 535, 542, and 552 series turboprop engines. This AD would require repetitive inspections of high pressure turbine (HPT) blade platforms and shrouds, and reworking the engines if the inspections reveal excessive gaps between blade shrouds. This AD results from reports of HPT disk rim failures. We are issuing this AD to prevent HPT disk rim failures resulting in the release of portions of the HPT disk, uncontained engine failure, and damage to the airplane.

DATES: This AD becomes effective March 19, 2007. The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of March 19, 2007.

ADDRESSES: You can get the service information identified in this AD from Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, D-15827 Dahlewitz, Germany; telephone 49 (0) 33-7086-1768; fax 49 (0) 33-7086-3356.

You may examine the AD docket on the Internet at <http://dms.dot.gov> or in Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Jason Yang, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; telephone (781) 238-7747; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 with a proposed AD. The proposed AD applies to RRD Dart 528, 529, 532, 535, 542, and 552 series turboprop engines. We published the proposed AD in the Federal Register on September 12, 2006 (71 FR 53610). That action proposed to require repetitive inspections of HPT blade platforms and shrouds, and reworking the engines if the inspections reveal excessive gaps between blade shrouds.

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 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.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comment received.

Incorporate Service Bulletin By Reference

The Modification & Replacement Parts Association requests that we incorporate the service bulletin by reference. We agree that the material should be incorporated by reference. We did so in the AD. The commenter also requests that we post service bulletins on the DMS. We are currently reviewing issues surrounding the posting of this material on the DMS as part of an AD docket. Once we have thoroughly examined all aspects of this issue and have made a final determination, we will decide whether our current practice of not posting service bulletins on the DMS should be changed. The final rule remains unchanged.

Changes to the AD

We have made two changes to the AD. In the proposed AD, we mistakenly referred to the RRD Dart 528, 529, 532, 535, 542, and 552 series turboprop engines as turbofan engines. They are turboprop engines and we corrected the final rule accordingly.

Additionally, to clarify paragraph (f)(3), we added the words “rework to DRS 611 standard.” The sentence now reads “Before exceeding 7,400 hours since last HPT blade inspection or rework to DRS 611 standard.”

Conclusion

We have carefully reviewed the available data, including the comment received, and determined that air safety and the public interest require adopting the AD with the changes described previously.

Costs of Compliance

We estimate that this AD will affect about 30 RRD Dart 528, 529, 532, 535, 542, and 552 series turboprop engines installed on airplanes of U.S. registry. We also estimate that it will take about 22 work-hours per engine to perform the actions, and that the average labor rate is \$80 per work-hour. No parts are required. Based on these figures, we estimate the total cost of the AD to U.S. operators to be \$52,800.

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 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

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 adding the following new airworthiness directive:



2007-03-13 Rolls-Royce Deutschland Ltd & Co KG (formerly Rolls-Royce plc): Amendment 39-149824. Docket No. FAA-2006-25272; Directorate Identifier 2006-NE-16-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective March 19, 2007.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Rolls-Royce Deutschland Ltd & Co KG (RRD) Dart 528, 529, 532, 535, 542, and 552 series turboprop engines. These engines are installed on, but not limited to, Hawker Siddeley, Argosy AW.650, Fairchild Hiller F-27, F-27A, F-27B, F-27F, F-27G, F-27J, FH-227, FH-227B, FH-227C, FH-227D, FH-227E, Fokker F.27 all makes; British Aircraft Corporation Viscount 744, 745D and 810; and Gulfstream G-159 airplanes.

Unsafe Condition

(d) This AD results from reports of high pressure turbine (HPT) disk rim failures. We are issuing this AD to prevent HPT disk rim failures resulting in the release of portions of the HPT disk, uncontained engine failure, and 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.

(f) Using RRD Dart Service Bulletin (SB) Da72-543, dated July 11, 2003, and the scheme detailed in RRD Repair Instruction, "Restoration of Platform and Shroud gaps by welding, DRS 611," dated July 15, 2005, inspect and repair HPT blade platforms and shroud abutment faces by weld build-up:

- (1) After no more than 1,500 flight hours from the date of issue of this AD, if the engine has not been previously inspected or reworked to the DRS 611 standard;
- (2) Each time new blades are installed; and
- (3) Before exceeding 7,400 hours since last HPT blade inspection or rework to DRS 611 standard.

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) LBA airworthiness directive 2003-217, dated August 7, 2003, also addresses the subject of this AD.

(i) Contact Jason Yang, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; telephone (781) 238-7747, fax (781) 238-7199; e-mail: jason.yang@faa.gov for more information about this AD.

Material Incorporated by Reference

(j) You must use Rolls-Royce Deutschland Ltd & Co KG (RRD) Dart Service Bulletin Da72-543, dated July 11, 2003, and RRD Dart Repair Instruction, "Restoration of Platform and Shroud Gaps by Gaps by Welding, DRS 611," dated July 15, 2005, to perform the actions required by this AD.

(1) 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.

(2) Contact Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, D-15827 Dahlewitz, Germany; telephone 49 (0) 33-7086-1768; fax 49 (0) 33-7086-335 for a copy of this service information.

(3) You may review copies 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>.

Issued in Burlington, Massachusetts, on January 26, 2007.

Francis A. Favara,

Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. E7-1708 Filed 2-9-07; 8:45 am]