



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-1118; Product Identifier 2017-NE-40-AD]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce Corporation Turboshift Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Rolls-Royce Corporation (RRC) model 250-C turboshift engines. This proposed AD was prompted by several reports of engine power loss, one of which resulted in a fatal helicopter accident. This proposed AD would require removal of the bearing assembly, part number (P/N) 2544198, in the power turbine governor (PTG) and its replacement with a bearing assembly eligible for installation. We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Rolls-Royce Corporation, 450 South Meridian Street, Mail Code NB-02-05, Indianapolis, IN 46225; phone: 317-230-3774; email: indy.pubs.services@rolls-royce.com; Internet: www.rolls-royce.com. You may view this service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7759.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1118; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: John Tallarovic, Aerospace Engineer, Chicago ACO Branch, FAA, 2300 E. Devon Ave., Des Plaines, IL 60018; phone: 847-294-8180; fax: 847-294-7834; email: john.tallarovic@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2017-1118; Product Identifier 2017-NE-40-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all

comments received by the closing date and may amend this NPRM because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

Discussion

We were prompted to issue this NPRM based upon several reports of loss of engine power on certain RRC model 250-C turboshaft engines installed on single-engine helicopters. One of these instances of power loss resulted in a fatal helicopter accident on May 4, 2016.

During the course of the investigation of the 2016 fatal accident, RRC determined that the root cause of this engine power loss was the failure of the bearing assembly, P/N 2544198, in the PTG, due to lack of lubrication. Although RRC had issued a service bulletin in 2009 to address the failure of this bearing assembly, our risk assessment had not supported issuance of an AD at that time. Based on more recent service experience, and the fatal accident in 2016, we are now proposing an AD to remove the affected bearing assembly in the PTG and replace it with a bearing assembly with a new design. This condition, if not addressed, could result in failure of the PTG, failure of the engine, in-flight shutdown, and forced autorotation landing or accident.

Related Service Information

We reviewed Rolls-Royce Corporation Commercial Engine Bulletin (CEB) 1402, Revision 2, dated February 4, 2009. The CEB provides guidance on replacing the P/N 2544198 bearing assembly in the PTG with a bearing assembly eligible for installation.

FAA’s Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require removal of the affected bearing assembly in the PTG and its replacement with a bearing assembly eligible for installation.

Costs of Compliance

We estimate that this proposed AD affects 2,928 engines installed on airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Remove and replace PTG bearing assembly	8 work-hours x \$85 per hour = \$680	\$1,700	\$2,380	\$6,968,640

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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to engines, propellers, and associated appliances to the Manager, Engine and Propeller Standards Branch, Policy and Innovation Division.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 this proposed 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),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) 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.

List of Subjects in 14 CFR Part 39

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

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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 (AD):

Roll-Royce Corporation (Type Certificate previously held by Allison Engine Company): Docket No. FAA-2017-1118; Product Identifier 2017-NE-40-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Rolls-Royce Corporation (RRC) model 250-C10D, 250-C18, 250-C18A, 250-C18B, 250-C18C, 250-C19, 250-C20, 250-C20B, 250-C20C, 250-C20F, 250-C20J, 250-C20R, 250-C20R/1, 250-C20R/2, 250-C20R/4, 250-C20S, 250-C20W, 250-C28, 250-C28B, 250-C28C, 250-C30, 250-C30G, 250-C30G/2, 250-C30M, 250-C30P, 250-C30S, and 250-C30U turboshaft engines.

(d) Subject

Joint Aircraft System Component (JASC) Code 7323, Turbine Governor.

(e) Unsafe Condition

This AD was prompted by several reports of loss of power, one of which resulted in a fatal helicopter accident. We are issuing this AD to prevent failure of the bearing assembly in the power turbine governor (PTG). The unsafe condition, if not addressed, could result in failure of the PTG, failure of the engine, in-flight shutdown, and forced autorotation landing or accident.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) Remove the bearing assembly, part number 2544198, from the PTG in accordance with the compliance times in Figure 1 to paragraph (g) of this AD, or within 90 days after the effective date of this AD, whichever occurs later.

Figure 1 to Paragraph (g) – Compliance Times

PTG Operational Hours (Time Since New/Time Since Last Overhaul).	Compliance Time
0 to 750	Not later than 750 hours
751 to 1000	Not later than 1,000 hours
1001 to 1250	Not later than 1,250 hours
1251 to 1500	Not later than 1,500 hours
1501 or greater	At the next removal of the PTG for any reason

(2) After such removal, replace the affected bearing assembly in the PTG with a part eligible for installation before further flight.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Chicago ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the

manager of the Chicago ACO Branch, send it to the attention of the person identified in paragraph (i)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact John Tallarovic, Aerospace Engineer, Chicago ACO Branch, FAA, 2300 E. Devon Ave., Des Plaines, IL 60018; phone: 847-294-8180; fax: 847-294-7834; email: john.tallarovic@faa.gov.

(2) For service information identified in this AD, contact Rolls-Royce Corporation, 450 South Meridian Street, Mail Code NB-02-05, Indianapolis, IN 46225; phone: 317-230-3774; email: indy.pubs.services@rolls-royce.com; Internet: www.rolls-royce.com. You may view this referenced service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call 781-238-7759.

Issued in Burlington, Massachusetts, on January 25, 2018.

Robert J. Ganley,
Manager, Engine and Propeller Standards Branch,
Aircraft Certification Service.
[FR Doc. 2018-01900 Filed: 1/31/2018 8:45 am; Publication Date: 2/1/2018]