DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39


RIN 2120–AA64

Airworthiness Directives; Rolls-Royce Corporation Turboshaft Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

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

DATES: This AD is effective August 16, 2018.

ADDRESSES: For service information identified in this final rule, 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 781–238–7750. It is also available on the internet at http://www.regulations.gov by searching for and locating Docket No. FAA–2018–1118.

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 final rule, the regulatory evaluation, any comments received, and other information. The address for Docket Operations is: 800 Independence Avenue SW, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.

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.m.tallarovic@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Rolls-Royce Corporation (RRC) model 250–C turboshaft engines. The NPRM published in the Federal Register on February 1, 2018 (83 FR 4609). The NPRM was prompted by 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. The NPRM proposed to require removal of the affected PTG bearing assembly and replace it with a bearing assembly with a new design. We are issuing this AD to address the unsafe condition on these products.

Comments

We gave the public the opportunity to participate in developing this final rule. The following presents the comments received on the NPRM and the FAA’s response to each comment.

Request To Specify the New Bearing Assembly

The NTSB and Honeywell Aerospace requested that the AD prohibit the installation of bearing assembly, P/N 2544198, and specify the installation of the new bearing assembly, P/N 2526146. The NTSB expressed concern that differences between the proposed AD and the actions described in the Honeywell SB and Rolls-Royce CEBs could lead to the reinstallation of a dual-spool bearing into an affected PTG.

We partially agree. We agree with the request to prohibit the installation of another bearing assembly, P/N 2544198, because our intent is to remove them from service. We disagree with the request to specify the installation of the new bearing assembly, P/N 2526146, because of the possibility of a new bearing P/N being introduced or the specified P/N being discontinued in the future. We added an installation prohibition paragraph to this AD to prohibit the installation of bearing assembly, P/N 2544198.

Request To Re-Identify the PTG After Changing the Bearing Assembly

The NTSB and Honeywell Aerospace requested that the AD require re-identifying the PTG P/N after changing the bearing assembly in accordance with the related service information. Honeywell Aerospace reasoned that maintenance personnel and operators could easily determine if the service bulletin has been accomplished. This increases the efficiency of operations and reduces the potential for misunderstandings about whether the bearing assembly has been replaced.

We disagree. While re-identifying the PTG after changing the bearing assembly is helpful for maintenance personnel, we are not requiring this action within this AD. During the replacement of the bearing assembly, P/N 2544198, the related service information instructs personnel to re-identify the PTG. We did not change this AD.

Request To Reduce the Compliance Time

Honeywell Aerospace requested that we reduce the compliance time to 50 hours or within 90 days for PTGs that have greater than 750 hours. The commenter reasoned that the original compliance schedule was established 10 years ago based on field experience at that time. The fatal accident referenced in the NPRM occurred on a PTG with 1,048.7 hours since new.

We disagree. The compliance time for removing the bearing assembly, P/N 2544198, in this AD is based on Rolls-
Royce Corporation Commercial Engine Bulletin (CEB) 1402, Revision 2, dated February 4, 2009. The failure history shows that the number of bearing assembly failures fell sharply following the initial publication of RRC CEB 1402 in 2008. The replacement strategy has proven successful. As a result, we believe that the majority of the fleet has replaced the bearing assembly, P/N 2544198, and only a few remain in service. Besides the fatal accident, there have not been any other bearing failures noted between 2012 and 2018. We, therefore, find it unnecessary to reduce the compliance time as noted by the commenter. We did not change this AD.

**Request To Clarify the Affected Engines**

Honeywell Aerospace noted that only 1,200 engines installed on airplanes of U.S. registry may be affected, compared with the 2,928 mentioned in the NPRM, based on a review of modification records provided to Honeywell by repair stations.

We disagree. We are estimating the total number of engines affected by this AD based on the data available to us. We did not change this AD.

**Request To Identify the Model, Brand, and P/N of the PTG**

Aircraft Maintenance Netherlands requested that this AD identify the model, brand, and P/N of the affected PTG that must be replaced. The commenter reasoned that various PTG models can be installed on the affected engines.

We disagree. This AD provides the overall engine model applicability. The related service information provides specific information regarding the PTGs, including the manufacturer, model, and P/Ns. We did not change this AD.

**Question on Not Issuing the AD Earlier**

An individual commenter asked why an AD was not issued in 2009 when RRC issued a statement regarding the failure of the bearing assembly. The FAA uses a risk-based approach to make continued operational safety decisions. When RRC issued CEB 1402, Revision 2, in 2009, our evaluation of the fleet risk did not support an AD. We update our fleet risk evaluation periodically as new information becomes available and have now determined that an AD is justified. We did not change this AD.

**Request for Clarification on the Number of Affected Engines**

An individual commenter asked why the NPRM estimates that 2,928 model 250–C turboshaft engines are affected, however, the RRC website estimates that there are an estimated 16,000 model 250–C engines currently in service. This AD applies to all RRC model 250–C turboshaft engines that could have the bearing assembly, P/N 2544198, installed. Many of those engines have already had the bearing assembly, P/N 2544198, replaced when new parts became available. Based on the available data, we estimate that 2,928 engines may still have the bearing assembly, P/N 2544198, installed. We did not change this AD.

**Question on the Availability of a Replacement Bearing Assembly**

An individual commenter asked if RRC still needs to design a new bearing assembly or if a replacement bearing assembly is already available. A replacement bearing assembly, P/N 2526146, is available for installation. We did not change this AD.

**Support for the AD**

An individual commenter expressed support for the NPRM as written.

**Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule with the changes described previously. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

**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 PTG bearing assembly, P/N 2544198, with a bearing assembly eligible for installation.

**Costs of Compliance**

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

We estimate the following costs to comply with this AD:

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
<th>Cost on U.S. operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remove and replace PTG bearing assembly</td>
<td>$85 per hour × 8 work-hours = $680...........</td>
<td>$1,700</td>
<td>$2,380</td>
<td>$6,968,640</td>
</tr>
</tbody>
</table>

**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

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),
(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.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

§ 39.13 [Amended]


(a) Effective Date

This AD is effective August 16, 2018.

(b) Affected ADs

None.

(c) Applicability


(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 PTG bearing assembly. 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, P/N 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.

(h) Installation Prohibition

After the effective date of this AD, do not install PTG bearing assembly, P/N 2544198, on any engine.

(i) 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 (j) 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.

(j) Related Information

For more information about this AD, contact John Tallarovic, Aerospace Engineer,
The Coast Guard is issuing this temporary rule without prior notice and opportunity to comment pursuant to authority under section 4(a) of the Administrative Procedure Act (APA) (5 U.S.C. 553(b)). This provision authorizes an agency to issue a rule without prior notice and opportunity to comment when the agency for good cause finds that those procedures are “impracticable, unnecessary, or contrary to the public interest.” Under 5 U.S.C. 553(b)(B), the Coast Guard finds that good cause exists for not publishing a notice of proposed rulemaking (NPRM) with respect to this rule because doing so would be impracticable. The Coast Guard just recently received the final details of this water ski show, which does not provide sufficient time to publish an NPRM prior to the event. Thus, delaying the effective date of this rule to wait for a comment period to run would be contrary to public interest because it would inhibit the Coast Guard’s ability to protect participants, mariners and vessels from the hazards associated with this event. It is impracticable to publish an NPRM because we lack sufficient time to provide a reasonable comment period and then consider those comments before issuing this rule.

Under 5 U.S.C. 553(d)(3), the Coast Guard finds that good cause exists for making this rule effective less than 30 days after publication in the Federal Register. Delaying the effective date of this rule would inhibit the Coast Guard’s ability to protect participants, mariners and vessels from the hazards associated with this event.

III. Legal Authority and Need for Rule

The Coast Guard is issuing this rule under authority in 33 U.S.C. 1233. The Captain of the Port Detroit (COTP) has determined that the likely combination of recreation vessels, commercial vessels, and an unknown number of spectators in close proximity to a water ski show along the water wave extra and unusual hazards to public safety and property. Therefore, the COTP is establishing a special local regulation around the event location to help minimize risks to safety of life and property during this event.

IV. Discussion of the Rule

This rule establishes a special local regulation from 1 p.m. though 5 p.m. on August 4, 2018. The special local regulation will encompass all U.S. navigable waters of the St. Clair River, Marine City, MI, bound by: 200 feet seaward of latitude position 42°43.382’ N and 200 feet seaward of latitude position 42°42.983’ N (NAD 83). The special local regulation will be enforced from 1 p.m. to 1:45 p.m. and from 4 p.m. to 4:45 p.m. on August 4, 2018. No vessel or person will be permitted to enter the special local regulation without obtaining permission from the COTP or his designated representative.

V. Regulatory Analyses

We developed this rule after considering numerous statutes and Executive orders related to rulemaking. Below we summarize our analyses based on a number of those statutes and Executive orders, and we discuss First Amendment rights of protestors.

A. Regulatory Planning and Review

Executive Orders 12866 and 13563 direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits. Executive Order 13771 directs agencies to control regulatory costs through a budgeting process. This rule has not been designated a “significant regulatory action,” under Executive Order 12866. Accordingly, this rule has not been reviewed by the Office of Management and Budget (OMB), and pursuant to OMB guidance it is exempt from the requirements of Executive Order 13771.

This regulatory action determination is based on the size, location, duration, and time-of-year of the special local regulation. Vessel traffic will be able to safely transit around this special local regulation zone which will impact a small designated area of the St. Clair River from 1 p.m. until 5 p.m. on August 4, 2018. Moreover, the Coast Guard will issue Broadcast Notice to Mariners via VHF–FM marine channel 16 about the special local regulation and the rule allows vessels to seek permission to enter the area.

B. Impact on Small Entities

The Regulatory Flexibility Act of 1980, 5 U.S.C. 601–612, as amended, requires Federal agencies to consider the potential impact of regulations on small entities during rulemaking. The term “small entities” comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000. The Coast Guard certifies under 5 U.S.C. 605(b) that this rule will not have a