DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39


RIN 2120-AA64

Airworthiness Directives; Rolls-Royce plc Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Rolls-Royce plc (RR) RB211-524G2-19, RB211-524G2-T-19, RB211-524G3-19, RB211-524G3-T-19, RB211-524H2-19, RB211-524H2-T-19, RB211-524H-36 and RB211-524H-T-36 engines. This AD requires removal of affected low-pressure compressor (LPC) shafts. This AD was prompted by unauthorized repairs to the affected LPC shafts that reduced their expected life. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective June 28, 2019.

The FAA must receive comments on this AD by July 29, 2019.

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.
Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this final rule, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, United Kingdom, DE24 8BJ; phone: 011-44-1332-242424; fax: 011-44-1332-249936; email: http://www.rolls-royce.com/contact/civil_team.jsp; internet: https://www.aeromanager.com. You may view this 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. It is also available on the internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2019-0338.

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-2019-0338; 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 mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Eugene Triozzi, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7148; fax: 781-238-7199; email: Eugene.triozzi@faa.gov.

SUPPLEMENTARY INFORMATION:
Discussion

The European Union Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2018-0157, dated July 24, 2018 (referred to after this as “the MCAI”), to address an unsafe condition for the specified products. The MCAI states:

It was reported that a number of low pressure (LP) compressor shafts have undergone unauthorised repairs, which were found to be detrimental to the approved shaft life.

This condition, if not corrected, could lead to fracture of the LP compressor shaft and release of high energy debris, possibly resulting in damage to, and reduced control of, the aeroplane.

To address this potentially unsafe condition, it has been decided that a life reduction must be imposed for those LP compressor shafts known to have been repaired. However, the history of some shafts has not been determined and the unauthorised repairs may not have been confirmed. To address all the shafts that have possibly been subject to the unauthorised repairs, RR issued the NMSB to provide instructions to reduce the life of the affected shafts.


Related Service Information


FAA's Determination

This product has been approved by EASA and is approved for operation in the United States. Pursuant to our bilateral agreement with the European Community, EASA has notified us of the unsafe condition described in the MCAI and service information referenced above. The FAA is issuing this AD because we evaluated all the relevant information provided by EASA and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.
AD Requirements

This AD requires removal of the affected LPC shafts at a reduced cyclic life limit.

FAA's Justification and Determination of the Effective Date

No domestic operators use this product. Therefore, the FAA finds good cause that notice and opportunity for prior public comment are unnecessary. In addition, for the reason stated above, the FAA finds 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, the FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under the ADDRESSES section. Include the docket number FAA-2019-0338 and Product Identifier 2019-NE-10-AD at the beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this final rule. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

The FAA will post all comments received, without change, to http://www.regulations.gov, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact received about this final rule.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because FAA has determined that it has good cause to adopt this rule without notice and comment, RFA analysis is not required.

Costs of Compliance

The FAA estimates that this AD affects 0 engines installed on airplanes of U.S. registry. The FAA estimates 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>Replace LPT shaft</td>
<td>0 work-hours × $85 per hour = $0</td>
<td>$113,524</td>
<td>$113,524</td>
<td>$0</td>
</tr>
</tbody>
</table>

Authority for This Rulemaking


The FAA is 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, the FAA certifies this AD:

1. **Is not a “significant regulatory action” under Executive Order 12866,** and
2. **Will not affect intrastate aviation in Alaska.**

**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**

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):

(a) Effective Date

This AD is effective June 28, 2019.

(b) Affected ADs

None.

(c) Applicability


(d) Subject

Joint Aircraft System Component (JASC) Code 7230, Turbine Engine Compressor Section.

(e) Unsafe Condition

This AD was prompted by unauthorized repairs to the affected low-pressure compressor (LPC) shafts that reduced their expected life. The FAA is issuing this AD to prevent failure of the LPC shaft. The unsafe condition, if not addressed, could result in uncontained release of the LPC shaft, damage to the engine, and damage to the airplane.

(f) Compliance

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

(g) Required Actions

Within 30 days from the effective date of this AD or before exceeding 10,500 flight cycles (FCs) since new, whichever occurs later, remove LPC shaft, part number (P/N) UL24833, with serial numbers (S/Ns) PATH3113; PATH3121; PAVN1765, PAVN1853, PAVN2152, PAVN2157, PAVN2259, PAVN2636, PAVN2991, or PAVN2992.

(h) Installation Prohibition

After the effective date of this AD, do not install an LPC shaft, P/N UL24833 and with S/Ns PATH3113; PATH3121; PAVN1765, PAVN1853, PAVN2152, PAVN2157, PAVN2259, PAVN2636, PAVN2991, or PAVN2992, with 10,500 FCs since new, or greater, on any engine.
(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, ECO 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 certification office, send it to the attention of the person identified in paragraph (j)(1) of this AD. You may email your request to: ANE-AD-AMOC@faa.gov.

(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

(1) For more information about this AD, contact Eugene Triozzi, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7148; fax: 781-238-7199; email: Eugene.triozzi@faa.gov.


(k) Material Incorporated by Reference

None.

Issued in Burlington, Massachusetts, on June 6, 2019.
Robert J. Ganley,
Manager, Engine and Propeller Standards Branch,
Aircraft Certification Service.