

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 39****[Docket No. 99-NE-50-AD]****RIN 2120-AA64****Airworthiness Directives; Rolls-Royce Ltd. Dart 511, 511-7E, 514-7, 528, 528-7E, 529-7E, 532-7, 532-7L, 532-7N, 532-7P, 532-7R, 535-7R, 551-7R, and 552-7R Turboprop Engines****AGENCY:** Federal Aviation Administration, DOT.**ACTION:** Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the adoption of a new airworthiness directive (AD) that is applicable to Rolls-Royce Ltd. (R-R) Dart 511, 511-7E, 514-7, 528, 528-7E, 529-7E, 532-7, 532-7L, 532-7N, 532-7P, 532-7R, 535-7R, 551-7R, and 552-7R turboprop engines. This proposal would require the installation of a feathering probe and a steel retaining ring in the reduction gear housing (RGH), and replacement of a transfer bobbin installed in the torque meter. This proposal is prompted by two reports of the failure of a propeller to feather following the failure of the RGH annulus gear, which resulted in the propeller overspeeding and the release of a propeller blade, causing damage to the airplane. The actions specified by the proposed AD are intended to prevent a propeller from overspeeding and the release of a propeller blade after a failure of the RGH annulus gear, which could result in damage to an adjacent engine or to the airplane.

DATES: Comments must be received by March 13, 2000.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 99-NE-50-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may also be submitted to the Rules Docket by using the following Internet address: "9-ane-adcomment@faa.gov." Comments may be inspected at this location between 8 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from Rolls-Royce Limited, Attn: Dart Engine Service Manager, East Kilbride, Glasgow G74 4PY, Scotland; telephone: 011-44-1355-220-200, fax: 011-44-1141-778-432. This information may be examined

at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT:

Jason Yang, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone 781-238-7747, fax 781-238-7199.

SUPPLEMENTARY INFORMATION:**Comments Invited**

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments, as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before acting on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 99-NE-50-AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRM's

Any person may obtain a copy of this NPRM by submitting a request to the FAA, New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 99-NE-50-AD, 12 New England Executive Park, Burlington, MA 01803-5299.

Discussion

The Civil Aviation Authority (CAA), which is the airworthiness authority for the United Kingdom (UK), recently notified the Federal Aviation Administration (FAA) that an unsafe condition may exist on R-R Dart 511, 511-7E, 514-7, 528, 528-7E, 529-7E, 532-7, 532-7L, 532-7N, 532-7P, 532-7R, 535-7R, 551-7R, and 552-7R

turboprop engines. The CAA advises that there has been an incident where the RGH annulus gear failed, which resulted in the malfunctioning of an engine in service. Manual feathering of the propeller was initiated, but the propeller failed to feather. The propeller disconnected from the gearbox and oversped to the point where it separated. This caused extensive damage to the adjacent engine and to the airplane fuselage.

Service Information

R-R has issued service bulletin (SB) Da72-348, Revision 13, dated December 22, 1998, that specifies modification instructions for:

- Installation of a probe to trigger a low-torque switch, which will automatically feather the propeller in the event of a failure of the annulus gear.
- Installation of a steel retaining ring between the nose casing and the front bearing panel to maintain engagement between the annulus gear teeth and layshafts following a gear failure.
- Replacement of a transfer bobbin with a new design that allows a more rapid torque meter oil pressure drop in order to initiate the auto feather function.

The CAA classified this service bulletin as mandatory and issued AD 1935 in order to assure the airworthiness of these R-R Dart 511, 511-7E, 514-7, 528, 528-7E, 529-7E, 532-7, 532-7L, 532-7N, 532-7P, 532-7R, 535-7R, and 551-7R, 552-7R turboprop engines in the U.K.

Difference Between Service Bulletin Information and This AD

R-R SB Da72-348, Revision 13, dated December 22, 1998, requires that the probe and retaining ring be installed before December 31, 2000. The FAA has determined that the probe and ring should be installed at the next engine shop visit or by December 31, 2000, whichever occurs first.

Bilateral Airworthiness Agreement

This engine model is manufactured in the U.K. and is type certificated for operation in the United States under the provisions of Section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Pursuant to this bilateral airworthiness agreement, the CAA has kept the FAA informed of the situation described above. The FAA has examined the findings of the CAA, reviewed all available information, and determined that AD action is necessary for products of this type design that are

certificated for operation in the United States.

Requirements of This AD

Since an unsafe condition has been identified that is likely to exist or develop on other R-R Dart 511, 511-7E, 514-7, 528, 528-7E, 529-7E, 532-7, 532-7L, 532-7N, 532-7P, 532-7R, 535-7R, 551-7R, and 552-7R turboprop engines of the same type design registered in the United States, the proposed AD would require:

- Installation of a feathering probe.
- Installation of a steel retaining ring in the reduction gear housing.
- Replacement of a torque-meter oil pressure transfer bobbin.

The actions would be required to be accomplished at the next shop visit after the effective date of the proposed AD, or by December 31, 2000, whichever occurs first, in accordance with the service bulletin described previously.

Cost Impact

There are approximately 1500 engines of the affected design in the worldwide fleet. The FAA estimates that 100 engines installed on aircraft of U.S. registry would be affected by this proposed AD, that it would take approximately 2 work hours per engine to accomplish the proposed actions and that the average labor rate is \$60 per work hour. Required parts would cost approximately \$300 per engine. Based on these figures, the total cost impact of the proposed AD on U.S. operators is estimated to be \$42,000.

Regulatory Impact

This proposed rule does not have federalism implications, as defined in Executive Order 13132, because it 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. Accordingly, the FAA has not consulted with state authorities prior to publication of this proposed rule.

For the reasons discussed above, I certify that 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); and (3) if promulgated, 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. A copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by

contacting the Rules Docket at the location provided under the caption "ADDRESSES."

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend 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. Section 39.13 is amended by adding the following new airworthiness directive:

Rolls Royce Ltd.: Docket No. 99-NE-50-AD.

Applicability: Rolls-Royce Ltd. (R-R) Dart 511, 511-7E, 514-7, 528, 528-7E, 529-7E, 532-7, 532-7L, 532-7N, 532-7P, 532-7R, 535-7R, 551-7R, and 552-7R turboprop engines, installed on but not limited to Fokker Aircraft B.V. F27 series and Maryland Air Industries (formerly Fairchild) F-27 and FH-227 series airplanes.

Note 1: This airworthiness directive (AD) applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent a propeller from overspeeding resulting in propeller release after a failure of the annulus gear, which could result in damage to an adjacent engine or to the airplane, accomplish the following:

Installation of a Sensor Probe and Retaining Ring

(a) At the next shop visit after the effective date of this AD, or by December 31, 2000, whichever occurs first, do all of the following:

(1) Install a feathering probe in the front bearing panel of the reduction gearbox in accordance with paragraph 2.A. of service bulletin (SB) Da72-348, revision 13, dated April 13, 1999.

(2) Install a steel retaining ring between the nose casing and the front bearing panel in accordance with paragraph 2.C. of SB Da72-348, revision 13, dated April 13, 1999.

(3) Replace the existing transfer bobbin with an aluminum bobbin in accordance with paragraph 2.C. of SB Da72-348, revision 13, dated April 13, 1999.

Definition of a Shop Visit

(b) For the purposes of this AD, a shop visit is defined as any maintenance action that results in the removal or disassembly of the reduction gearbox.

Alternative Method of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office (ECO). Operators shall submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the ECO.

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be accomplished.

Issued in Burlington, Massachusetts, on January 5, 2000.

Thomas A. Boudreau,

Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service
[FR Doc. 00-722 Filed 1-11-00; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 52 and 70

[MO 091-1091a; FRL-6519-8]

Approval and Promulgation of Implementation Plans and Part 70 Operating Permits Program; State of Missouri

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA proposes to approve a State Implementation Plan (SIP) revision submitted by the state of Missouri. This revision updates the state's definitions rule, 10 CSR 10-6.020, Definitions and Common Reference Tables. EPA is also approving the definitions rule under the part 70 program. Approval of this revision will make it Federally enforceable.

In the final rules section of the **Federal Register**, EPA is approving the state's SIP revision as a direct final rule