[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2009-0889; Directorate Identifier 2009-NE-35-AD]

RIN 2120-AA64

Airworthiness Directives; Turbomeca S.A. Arriel 2B and 2B1 Turboshaft Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede an existing airworthiness directive (AD) that applies to all Turbomeca S.A. Arriel 2B and 2B1 turboshaft engines. The existing AD currently requires checking the transmissible torque between the low-pressure (LP) pump impeller and the high-pressure (HP) pump shaft on HP/LP pump hydro-mechanical metering units (HMUs) that do not incorporate Modification TU 147. Since we issued that AD, EASA issued a new AD. This proposed AD would require inspection and possible replacement of the HMU. We are proposing this AD to prevent reduced engine power or, at worst, an uncommanded in-flight shutdown (IFSD), which can result in a forced autorotation landing or accident.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 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 AD, contact Turbomeca, 40220 Tarnos, France; phone: 33-05-59-74-40-00, fax: 33-05-59-74-45-15. You may review copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: James Rosa, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7152; fax: 781-238-7199; e-mail: james.rosa@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2009-0889; Directorate Identifier 2009-NE-35-AD” at the

beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD 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 proposed AD.

Discussion

On January 21, 2010, we issued AD 2010-03-06, Amendment 39-16189 (75 FR 5689, February 4, 2010), for all Turbomeca Arriel 2B and 2B1 turboshaft engines. That AD requires checking the transmissible torque between the LP pump impeller and the HP pump shaft on HMUs that do not incorporate Turbomeca Modification TU 147. That AD also requires replacing the HMU, if it fails that check, with an HMU that has not incorporated Modification TU 147 but passes the check, or with an HMU that incorporates Modification TU 147. That AD resulted from several events of uncoupling of the LP fuel pump impeller and the HP fuel pump shaft on Arriel 2 engines which do not incorporate modification TU 147. The uncoupling of the LP fuel pump impeller and the HP fuel pump shaft may lead to reduced engine power or, at worst, an uncommanded IFSD, which can result in a forced autorotation landing or accident.

Actions Since Existing AD Was Issued

Since we issued AD 2010-03-06 (75 FR 5689, February 4, 2010), three additional cases of uncoupling of the LP fuel pump impeller and the HP fuel pump shaft have been encountered. However, these failures were in HMUs that were modified to post-TU 147 configuration HMUs, and the investigation indicates that these HMUs that fail the transmissible torque check must also be replaced.

Relevant Service Information

We reviewed Turbomeca Alert Mandatory Service Bulletin (MSB) No. A292 73 2830, Version B, dated July 10, 2009, and Alert MSB No. A292 73 2836, Version A, dated August 17, 2010. The Alert MSBs describe procedures for inspecting and replacing the HMU.

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 the checking of the transmissible torque between the LP pump impeller and the HP pump shaft on HMUs. This proposed AD would also require replacing the HMU if it fails the transmissible torque check, with an HMU that is eligible for installation.

Costs of Compliance

Based on the service information, we estimate that this proposed AD would affect about 540 engines installed on helicopters of U.S. registry. We also estimate that it would take about 2.5 work-hours per engine to comply with this proposed AD. The average labor rate is $85 per work-hour. Replacement HMUs would cost about $12,000 per engine. Based on these figures, if all of the HMUs were to fail the check, we estimate the cost of the proposed AD on U.S. operators to be $6,594,750.

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 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 that the 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 removing airworthiness directive (AD) 2010-03-06, Amendment 39-16189 (75 FR 5689, February 4, 2010), and adding the following new AD:

Turbomeca S.A.: Docket No. FAA-2009-0889; Directorate Identifier 2009-NE-35-AD.

(a) **Comments Due Date**

The FAA must receive comments on this AD action by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) **Affected ADs**

This AD supersedes AD 2010-03-06, Amendment 39-16189 (75 FR 5689, February 4, 2010).

(c) **Applicability**

This AD applies to all Turbomeca S.A. Arriel 2B and 2B1 turboshaft engines.

(d) **Unsafe Condition**

This AD was prompted by three additional cases of uncoupling of the high-pressure/low-pressure (HP/LP) pump hydro-mechanical metering unit (HMU) LP fuel pump impeller and the HP fuel pump shaft, since AD 2010-03-06 (75 FR 5689, February 4, 2010) was issued. However, these failures were in HMUs that were modified to post-TU 147 configuration HMUs. The investigation indicates that these HMUs may also need to be replaced. We are issuing this AD to prevent reduced engine power or, at worst, an uncommanded in-flight shutdown, which can result in a forced autorotation landing or accident.

(e) **Compliance**

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

(1) Check the transmissible torque between the LP fuel pump impeller and the HP fuel pump shaft as follows:

(i) For HMUs that do not incorporate Modification TU 147, check the torque before accumulating 500 engine flight hours (EFH) since March 11, 2010 (the effective date of AD 2010-03-06 (75 FR 5689, February 4, 2010)). Use Paragraph 2 of Turbomeca Alert Mandatory Service Bulletin (MSB) No. A292 73 2830, Version B, dated July 10, 2009, to do the check.

(ii) For HMUs that incorporate Modification TU 147 and which Modification TU 147 was applied on or before March 31, 2010, and the HMUs are not listed in Figures 2 or 3 of Turbomeca Alert MSB No. A292 73 2836, Version A, dated August 17, 2010, check the torque within 750 EFH from the effective date of this AD, but no later than 14 months after the effective date of this AD. Use Paragraph 2 of Turbomeca Alert MSB No. A292 73 2836, Version A, dated August 17, 2010, to do the check.

(2) If the HMU does not pass the torque check, then replace the HMU with an HMU that is eligible for installation.

(f) **HMU Reinstallation**

Do not install any HMU removed from service by this AD until it has been checked in accordance with Paragraph 2 of Turbomeca Alert MSB No. A292 73 2836, Version A, dated August 17, 2010, or checked in accordance with Paragraph 2 of Turbomeca Alert MSB No. A292 73 2830, Version B, dated July 10, 2009, and found eligible for installation.

(g) **Alternative Methods of Compliance (AMOCs)**

The Manager, Engine Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

(h) **Related Information**

(1) For more information about this AD, contact James Rosa, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7152; fax: 781-238-7199; e-mail: james.rosa@faa.gov.

(2) For service information identified in this AD, contact Turbomeca S.A., 40220 Tarnos, France; phone: 33-05-59-74-40-00, fax: 33-05-59-74-45-15. You may review copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803. For information on the availability of this material at the FAA, call 781 238-7125.

Issued in Burlington, Massachusetts, on October 28, 2011.

Peter A. White,
Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

[FR Doc. 2011-28677 Filed 11/04/2011 at 8:45 am; Publication Date: 11/07/2011]