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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2009-0302; Directorate Identifier 2009-NE-09-AD; Amendment 39-15881; AD 2009-08-08]

RIN 2120-AA64

Airworthiness Directives; Turbomeca Arriel 1B, 1D, 1D1, 2B, and 2B1 Turboshaft Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

During production of Arriel 1 and Arriel 2 power turbine (PT) wheels, geometric non-conformances on blade fir tree roots have been detected by Turbomeca. Potentially non-conforming PT blades have been traced as having been installed on Module M04 (PT) listed in Alert Mandatory Service Bulletin (MSB) A292 72 0827 for Arriel 1 engines and A292 72 2833 for Arriel 2 engines. The geometric non-conformities of the blades may potentially lead to a reduction in the fatigue resistance of PT blades to a lower level than their authorized in service use limit. This reduction of fatigue resistance can potentially result in blade release, which could cause an uncommanded in-flight shutdown.

Uncommanded in-flight shutdown could result in an emergency autorotation landing. We are issuing this AD to prevent release of PT blades, which could result in uncommanded in-flight shutdown and emergency autorotation landing.

DATES: This AD becomes effective April 29, 2009.

We must receive comments on this AD by May 14, 2009.

The Director of the Federal Register approved the incorporation by reference of Turbomeca Alert Mandatory Service Bulletin (MSB) No. A292 72 0827, Version A, dated March 20, 2009, and Turbomeca Alert MSB No. A292 72 0827, Version A, dated March 20, 2009, listed in the AD as of April 29, 2009.

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Fax: (202) 493-2251.

Examining the AD Docket

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

FOR FURTHER INFORMATION CONTACT: James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: james.lawrence@faa.gov; telephone (781) 238-7176, fax (781) 238-7199.

SUPPLEMENTARY INFORMATION:

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2009-0068-E, dated March 25, 2009 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

During production of Arriel 1 and Arriel 2 power turbine (PT) wheels, geometric non-conformances on blade fir tree roots have been detected by Turbomeca. Potentially non-conforming PT blades have been traced as having been installed on Module M04 (PT) listed in Alert MSB A292 72 0827 for Arriel 1 engines and A292 72 2833 for Arriel 2 engines. The geometric non-conformities of the blades may potentially lead to a reduction in the fatigue resistance of PT blades to a lower level than their authorized in service use limit. This reduction of fatigue resistance can potentially result in blade release, which could cause an uncommanded in-flight shutdown.

Uncommanded in-flight shutdown could result in an emergency autorotation landing. You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Turbomeca has issued Alert MSB No. A292 72 0827, Version A, dated March 20, 2009, for Arriel 1 series turboshaft engines, and issued Alert MSB No. A292 72 2833, Version A, dated March 20, 2009, for Arriel 2 series turboshaft engines. The power turbine modules M04 having the affected PT blades, are listed by serial number (SN) in Figure 1 of these MSBs, as applicable. We have incorporated by reference these MSBs to identify the affected parts.

Differences Between This AD and the MCAI or Service Information

We have reviewed the MCAI and related service information and, in general, agree with their substance. But we required different actions in this AD from those in the MCAI in order to follow FAA policies. Any such differences are described in a separate paragraph of the AD. These requirements take precedence over the actions copied from the MCAI.

FAA's Determination and Requirements of This AD

This product has been approved by the aviation authority of France and is approved for operation in the United States. Pursuant to our bilateral agreement with France, they have notified us of the unsafe condition described in the MCAI and service information referenced above. We are issuing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design. This AD requires removing the affected PT blades from service.

FAA's Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because depending on the number of cycles already accumulated on some engines, the actions specified in this AD might require immediate incorporation before further flight. Therefore, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in fewer than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2009-0302; Directorate Identifier 2009-NE-09-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this 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 with FAA personnel concerning this AD. Using the search function of the Web site, anyone can find and read the comments in any of our dockets, including, if provided, the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

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 determined that 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 this AD:

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. 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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

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 AD:



2009-08-08 Turbomeca: Amendment 39-15881; Docket No. FAA-2009-0302; Directorate Identifier 2009-NE-09-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective April 29, 2009.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to:

- (1) Turbomeca Arriel 1B, 1D, and 1D1 turboshaft engines with the power turbine modules M04 installed, as listed by serial number (SN) in Figure 1 of Turbomeca Alert Mandatory Service Bulletin (MSB) No. A292 72 0827, Version A, dated March 20, 2009; and

- (2) Turbomeca Arriel 2B, and 2B1 turboshaft engines with the power turbine modules M04 installed, as listed by SN in Figure 1 of Turbomeca Alert MSB No. A292 72 2833, Version A, dated March 20, 2009.

- (3) These engines are installed on, but not limited to, Eurocopter AS 350 B, AS 350 BA, AS 350 B1, AS 350 B2, AS 350 B3, and EC 130 B4 helicopters.

Reason

- (d) European Aviation Safety Agency (EASA) AD No. 2009-0068-E, dated March 25, 2009, states:

During production of Arriel 1 and Arriel 2 power turbine (PT) wheels, geometric non-conformances on blade fir tree roots have been detected by Turbomeca. Potentially non-conforming PT blades have been traced as having been installed on Module M04 (PT) listed in Alert MSB A292 72 0827 for Arriel 1 engines and A292 72 2833 for Arriel 2 engines. The geometric non-conformities of the blades may potentially lead to a reduction in the fatigue resistance of PT blades to a lower level than their authorized in service use limit. This reduction of fatigue resistance can potentially result in blade release, which could cause an uncommanded in-flight shutdown.

Uncommanded in-flight shutdown could result in an emergency autorotation landing. We are issuing this AD to prevent release of PT blades, which could result in uncommanded in-flight shutdown and emergency autorotation landing.

Actions and Compliance

- (e) Unless already done, do the following actions.

(1) For engines with an affected Module M04 (PT module) which has accumulated 1,000 total PT cycles or more on the effective date of this AD, remove the PT blades from service before further flight.

(2) For engines with an affected Module M04 (PT module) which has accumulated fewer than 1,000 total PT cycles on the effective date of this AD, remove the PT blades from service before accumulating 1,000 total PT cycles.

(3) After the effective date of this AD, do not install any PT blades removed as specified in paragraph (e)(1) or (e)(2) of this AD, into any engine.

FAA AD Differences

(f) Although the compliance section of EASA AD No. 2009-0068-E, dated March 25, 2009, states to replace the Module M04, or PT wheel assembly, or PT blades, this AD states to remove the PT blades from service.

(g) Although EASA AD No. 2009-0068-E, dated March 25, 2009, applies to the Arriel 2B1A engine, this AD does not apply to that model because it has no U.S. type certificate.

Alternative Methods of Compliance (AMOCs)

(h) 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.

Related Information

(i) Refer to MCAI EASA Airworthiness Directive 2009-0068-E, dated March 25, 2009, for related information.

(j) Contact James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: james.lawrence@faa.gov; telephone (781) 238-7176, fax (781) 238-7199, for more information about this AD.

Material Incorporated by Reference

(k) You must use the service information specified in Table 1 of this AD to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Turbomeca, 40220 Tarnos, France; telephone 33 05 59 74 40 00, fax 33 05 59 74 45 15.

(3) You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Table 1 – Material Incorporated by Reference

Turbomeca Alert Mandatory Service Bulletin No.	Page	Version	Date
A292 72 0827	All	A	March 20, 2009
Total pages: 17			
A292 72 2833	All	A	March 20, 2009
Total Pages: 17			

Issued in Burlington, Massachusetts, on April 6, 2009.

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