



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2012-0010; Directorate Identifier 2012-NE-03-AD; Amendment 39-17035; AD 2012-08-18]**

**RIN 2120-AA64**

**Airworthiness Directives; Turbomeca S.A. Turboshift Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all Turbomeca S.A. Arriel 2B and 2B1 turboshift engines. This AD was prompted by the discovery of non-conformities of certain power turbine (PT) blade fir-tree roots. This AD requires removing the affected PT blades from service on or before reaching a new reduced life limit for those certain PT blades. We are issuing this AD to prevent PT blade rupture, which could result in an uncommanded in-flight engine shutdown, forced autorotation landing, or accident.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** 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. 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 AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Rose Len, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7772; fax: 781-238-7199; e-mail: rose.len@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM published in the Federal Register on January 20, 2012 (77 FR 2930). That NPRM proposed to require removing the affected PT blades from service on or before reaching a new reduced life limit for those certain PT blades.

**Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (77 FR 2930, January 20, 2012).

**Clarification of Compliance Time**

Since we issued the proposed AD, we determined that we need to clarify the compliance time. The proposed AD stated 5,000 flight cycles. We changed the AD to state 5,000 flight cycles-since-new.

**Conclusion**

We reviewed the relevant data and determined that air safety and the public interest require adopting the AD with the change described previously.

### **Costs of Compliance**

Based on the service information, we estimate that this AD will affect about 150 engines installed on helicopters of U.S. registry. We also estimate that it will take about 4 work-hours per product to comply with this AD. The average labor rate is \$85 per work-hour. A prorated replacement M04 module will cost about \$20,000 per engine. Based on these figures, we estimate the cost of the AD on U.S. operators to be \$3,051,000.

### **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**

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**

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):

2012-08-18 **Turbomeca S.A:** Amendment 39-17035; Docket No. FAA-2012-0010; Directorate Identifier 2012-NE-03-AD.

### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

### **(b) Affected ADs**

None.

### **(c) Applicability**

This AD applies to Turbomeca S.A. Arriel 2B and 2B1 turboshaft engines with at least one installed power turbine (PT) blade part number (P/N) 2 292 81 A01 0, serial

numbers (S/Ns) 102782 through 120230 inclusive, or, S/Ns 120293 through 120390 inclusive.

**(d) Reason**

This AD was prompted by the detection of geometric non-conformities on PT blade fir-tree roots. We are issuing this AD to prevent PT blade rupture, which could result in an uncommanded in-flight engine shutdown, forced autorotation landing, or accident.

**(e) Actions and Compliance**

Unless already done, do the following actions within 5,000 flight cycles-since-new (CSN) on the PT blades, or within one month after the effective date of this AD, whichever occurs later.

(1) Replace the PT blades with PT blades eligible for installation; or

(2) Replace the M04 module with an M04 module having PT blades eligible for installation; or

(3) Replace the PT wheel assembly with a PT wheel assembly having PT blades eligible for installation.

(4) Guidance on the replacements specified in paragraphs (e)(1) through (e)(3) can be found in Turbomeca S.A. Alert Mandatory Service Bulletin No. A292 72 2842, Version A, dated September 23, 2011.

**(f) Definition**

For the purposes of this AD, a PT blade eligible for installation is one not listed in paragraph (c) of this AD or, one listed in paragraph (c) of this AD with fewer than 5,000 flight CSN.

**(g) Installation Prohibition**

From the effective date of this AD:

(1) Do not install a PT blade as listed in paragraph (c) of this AD, that has 5,000 or more flight CSN, into any engine.

(2) Do not install any engine with a PT blade as listed in paragraph (c) of this AD, that has 5,000 or more flight CSN, onto a helicopter.

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

The Manager, Engine Certification Office, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

**(i) Related Information**

(1) For more information about this AD, contact Rose Len, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7772; fax: 781-238-7199; e-mail: rose.len@faa.gov.

(2) Refer to MCAI EASA Airworthiness Directive 2011-0218, dated November 10, 2011, and Turbomeca S.A. Alert Mandatory Service Bulletin No. A292 72 2842, Version A, dated September 23, 2011, for related information.

(3) 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. For information on the availability of this material at the FAA, call 781-238-7125.

**(j) Material Incorporated by Reference**

None.

Issued in Burlington, Massachusetts, on April 17, 2012.

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

[FR Doc. 2012-9789 Filed 04/24/2012 at 8:45 am; Publication Date: 04/25/2012]