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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2009-0348; Directorate Identifier 2008-NE-39-AD; Amendment 39-16050; AD 2009-21-11]

RIN 2120-AA64

Airworthiness Directives; Turbomeca S.A. ARRIUS 1A Turboshaft Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

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:

Cycle life limit value for ARRIUS 1A balancing piston Part Number (P/N) 0 319 20 152 0, initially set at 40 000 cycles, has been reduced to 16 000 cycles, following the discovery of a calculation error during a recent review of the ARRIUS 1 engine family files.

We are issuing this AD to prevent failure of the balancing piston, which could result in an engine in-flight-shutdown and the release of high-energy debris and damage to the helicopter.

DATES: This AD becomes effective November 20, 2009.

ADDRESSES: The Docket Operations office is located at Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

FOR FURTHER INFORMATION CONTACT: James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine & 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

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 was published in the Federal Register on April 17, 2009 (74 FR 17797). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

Cycle life limit value for ARRIUS 1A balancing piston Part Number (P/N) 0 319 20 152 0, initially set at 40 000 cycles, has been reduced to 16 000 cycles, following the discovery of a calculation error during a recent review of the ARRIUS 1 engine family files.

As of the publication date of this Airworthiness Directive, no ARRIUS 1A engines in service are fitted with a balancing piston that has logged more than 16 000 cycles, and the outlook for the consumption of cycles on the ARRIUS 1A fleet indicates that no balancing pistons will exceed this new limit for a few years' time.

Moreover, this new cycle life limit value for the balancing piston has been incorporated since the end of 2007 in ARRIUS 1A Maintenance documentation.

Failure to comply with the new life limits provided in the Airworthiness Limitations Section of ARRIUS 1A Maintenance documentation could potentially result in an engine in-flight-shutdown and the release of high energy debris.

You may obtain further information by examining the MCAI in the AD docket.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed.

Differences Between This AD and the MCAI or Service Information

The MCAI requires modifying the cyclic life limit value of the balancing piston in the engine log book as specified in Turbomeca Mandatory Service Bulletin 319 72 0811, dated April 30, 2008, and updating the approved operator's maintenance program.

We are requiring removing from service ARRIUS 1A engines containing a balancing piston, P/N 0 319 20 152 0, before the balancing piston meets or exceeds the new, reduced cyclic life limit value of 16,000 cycles-since-new.

Costs of Compliance

Based on the service information, we estimate that this AD would affect about 33 products of U.S. registry. We also estimate that it would take about 0.5 work-hour per product to comply with

this AD. The average labor rate is \$80 per work-hour. Required parts would cost about \$5,280 per product. Based on these figures, we estimate the cost of the AD on U.S. operators to be \$175,560.

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.

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 provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, 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:



2009-21-11 Turbomeca S.A.: Amendment 39-16050. Docket No. FAA-2009-0348; Directorate Identifier 2008-NE-39-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective November 20, 2009.

Affected Airworthiness Directives (ADs)

- (b) None.

Applicability

- (c) This AD applies to Turbomeca S.A. ARRIUS 1A turboshaft engines with balancing pistons, part number (P/N) 0 319 20 152 0, installed. These engines are installed on, but not limited to, Eurocopter AS355N helicopters.

Reason

- (d) Cycle life limit value for ARRIUS 1A balancing piston Part Number (P/N) 0 319 20 152 0, initially set at 40 000 cycles, has been reduced to 16 000 cycles, following the discovery of a calculation error during a recent review of the ARRIUS 1 engine family files.

We are issuing this AD to prevent failure of the balancing piston, which could result in an engine in-flight-shutdown and the release of high-energy debris and damage to the helicopter.

Actions and Compliance

- (e) Unless already done, for ARRIUS 1A engines with a balancing piston, P/N 0 319 20 152 0, installed, remove the engine from service before the balancing piston accumulates 16,000 cycles-since-new (CSN).

Installation Prohibition

- (f) After the effective date of this AD, don't return to service any engine that has a balancing piston that has accumulated 16,000 or more CSN.

FAA AD Differences

- (g) This AD differs from the Mandatory Continuing Airworthiness Information (MCAI) or service information as follows:

- (1) This AD requires removing from service, any ARRIUS 1A engine that has a balancing piston, P/N 0 319 20 152 0, with 16,000 CSN installed.

(2) We prohibit returning to service any ARRIUS 1A engine that has a balancing piston, P/N 0 319 20 152 0, with 16,000 or more CSN.

Other FAA AD Provisions

(h) 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.

Related Information

(i) Refer to MCAI Airworthiness Directive 2008-0133, dated July 17, 2008 for related information.

(j) Contact James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine & 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) None.

Issued in Burlington, Massachusetts, on October 8, 2009.
Diane S. Romanosky,
Acting Manager, Engine and Propeller Directorate,
Aircraft Certification Service.