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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2001-NE-06-AD; Amendment 39-13036; AD 2003-03-12]

RIN 2120-AA64

Airworthiness Directives; Turbomeca S.A. Arriel 1 A2, 1 C, 1 C1, 1 C2, 1 D, 1 D1, 1 E2, 1 K, 1 K1, 1 S, 1 S1 and Arriel 2 B, 2 B1, 2 C, 2 C1, 2 S1 Series Turboshift Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), that is applicable to Turbomeca S.A. Arriel 1 A2, 1 C, 1 C1, 1 C2, 1 D, 1 D1, 1 E2, 1 K, 1 K1, 1 S, 1 S1 and Arriel 2 B, 2 B1, 2 C, 2 C1, 2 S1 series turboshaft engines. This amendment requires the insertion of a sleeve in the attachment boss of the compressor bleed valve, and bonding the sleeve in the bleed-valve mounting pad. This amendment is prompted by several cases of contained centrifugal compressor impeller blade ruptures that occurred in service. The actions specified by this AD are intended to prevent acoustic excitation of the centrifugal compressor impeller blades resulting in contained compressor impeller blade ruptures and power loss that could lead to an uncommanded in-flight shutdown.

DATES: Effective March 7, 2003. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of March 7, 2003.

ADDRESSES: The service information referenced in this AD may be obtained from Turbomeca S.A, 64511 Bordes Cedex, France; telephone 33 05 59 64 40 00; fax 33 05 59 64 60 80. This information may be examined, by appointment, at the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Antonio Cancelliere, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7751; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that is applicable to Turbomeca S.A. Arriel 1 D, 1 D1, 1 S, 1 S1, and -2B series turboshaft engines was published in the Federal Register on September 6, 2001 (66 FR 46562). That proposal was revised by a supplemental notice of proposed rulemaking (SNPRM) to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that expanded the applicability to Turbomeca S.A. Arriel 1 A2, 1 C, 1 C1, 1 C2, 1 D, 1 D1, 1 E2, 1 K, 1 K1, 1 S, 1 S1 and Arriel 2 B, 2 B1, 2 C, 2 C1, 2 S1 series turboshaft engines. That SNPRM was published in the Federal Register on September 20, 2002 (67 FR 59217). That action proposed to require the insertion of a sleeve in the attachment boss of the compressor bleed valve, and bonding the sleeve in the bleed-valve mounting pad, in accordance with Turbomeca S.A. Mandatory Service Bulletin (MSB) No. 292 72 2054, dated September 20, 1999; MSB No. 292 72 0261, dated September 20, 1999; MSB No. 292 72 2070, Update No. 1, dated October 5, 2001; and MSB No. 292 72 0275, Update No. 1, dated October 2, 2001. Since the publication of the SNPRM, MSB No. 292 72 0275 has been reissued as Update No. 2, dated April 15, 2002. This MSB expands the engine model applicability of this AD by referencing MSB No. 292 72 0261, dated September 20, 1999, and Service Bulletin (SB) No. 292 72 0262, dated September 28, 1999. Accordingly, a new paragraph (b) has been added to reflect the updated MSB.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were received on the proposal or the FAA's determination of the cost to the public. The FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

Economic Analysis

There are approximately 1,406 Turbomeca S.A. Arriel 1 and Arriel 2 model turboshaft engines of the affected design in the worldwide fleet. The FAA estimates that 476 engines installed on helicopters of U.S. registry will be affected by this AD, that it will take approximately 1.0 work hour per engine to perform the required actions, and that the average labor rate is \$60 per work hour. Required parts will cost approximately \$430 per engine. Based on these figures, the total cost of the AD to U.S. operators is estimated to be \$233,240.

Regulatory Analysis

This final 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 final rule.

For the reasons discussed above, I certify that this action (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. A final evaluation has been prepared for this action and it 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, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends 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 a new airworthiness directive to read as follows:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2003-03-12 Turbomeca S.A.: Amendment 39-13036. Docket No. 2001-NE-06-AD.

Applicability: This airworthiness directive (AD) is applicable to Turbomeca S.A. Arriel 1 A2, 1 C, 1 C1, 1 C2, 1 D, 1 D1, 1 E2, 1 K, 1 K1, 1 S, 1 S1 and Arriel 2 B, 2 B1, 2 C, 2 C1, 2 S1 series turboshaft engines. These engines are installed on, but not limited to, Eurocopter France AS350B1, AS350B2, AS350B3; Astar 350D, Fennic AD550U2 and Sikorsky S-76A and S-76C series helicopters.

Note 1: This 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 (f) 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: Compliance with this AD is required within 30 days after the effective date of this AD, unless already done.

To prevent acoustic excitation of the centrifugal compressor impeller blades, resulting in contained blade ruptures and power loss that could lead to an uncommanded in-flight shutdown, do the following:

Modification TU 300 Not Incorporated

(a) For Arriel 1 D, 1 D1, 1 S, and 1 S1 engines that do not have TU 300 incorporated, incorporate TU 300 and TU 316A as follows:

(1) Remove the bleed valve in accordance with the Instructions to be Incorporated of Turbomeca mandatory service bulletin (MSB) No. 292 72 0261, dated September 20, 1999.

(2) Install sleeve part number (P/N) 0 292 15 333 0 and the bleed valve in accordance with 2.B.(1)(d) through 2.B.(1)(g) of the Instructions to be Incorporated of Turbomeca MSB No. 292 72 0275, Update No. 2, dated April 15, 2002.

(b) For Arriel 1 A2, 1 C, 1 C1, 1 C2, 1 E2, 1K, 1 K1 engines that do not have TU 300 incorporated, incorporate TU 300 and TU 316A as follows:

(1) Remove the bleed valve in accordance with the Instructions to be Incorporated of Turbomeca service bulletin (SB) No. 292 72 0262, dated September 28, 1999.

(2) Install sleeve part number (P/N) 0 292 15 333 0 and the bleed valve in accordance with 2.B.(1)(d) through 2.B.(1)(g) of the Instructions to be Incorporated of Turbomeca MSB No. 292 72 0275, Update No. 2, dated April 15, 2002.

Modification TU 300 Incorporated

(c) For Arriel 1 A2, 1 C, 1 C1, 1 C2, 1 D, 1 D1, 1 E2, 1 K, 1 K1, 1 S and 1 S1 engines that have modification TU 300 incorporated, incorporate modification TU 316A in accordance with 2.B.(1)(a) through 2.B.(1)(g) or 2.B.(2) of the Instructions to be Incorporated of Turbomeca. MSB No. 292 72 0275, Update No. 2, dated April 15, 2002.

Modification TU 54 Not Incorporated

(d) For Arriel 2 B and 2 S1 engines that do not have modification TU 54 incorporated, incorporate TU 54 and TU 70A as follows:

(1) Remove the bleed valve in accordance with the Instructions to be Incorporated of Turbomeca MSB No. 292 72 2054, dated September 20, 1999.

(2) Install sleeve P/N 0 292 15 333 0 and the bleed valve in accordance with the 2.B.(1)(d) through 2.B.(1)(g) or 2.B.(2) of the Instructions to be Incorporated of Turbomeca MSB No. 292 72 2070, Update No. 1, dated October 5, 2001.

Modification TU 54 Incorporated

(e) For Arriel 2 B, 2 B1, 2 C, 2 C1 and 2 S1 engines that have modification TU 54 incorporated, incorporate modification TU 70A in accordance with 2.B.(1)(a) through 2.B.(1)(g) or 2.B.(2) of the Instructions to be Incorporated of Turbomeca MSB No. 292 72 2070, Update No. 1, dated October 5, 2001.

Alternative Methods of Compliance

(f) 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 must 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.

Special Flight Permits

(g) Special flight permits may be issued in accordance with §§ 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 done.

Documents That Have Been Incorporated by Reference

(h) The actions must be done in accordance with the following Turbomeca S.A. Mandatory Service Bulletins (MSB's) and Service Bulletin (SB):

Document No.	Pages	Revision	Date
MSB No. 292 72 2054 Total Pages: 6	All	Original	Sept. 20, 1999.
MSB No. 292 72 0261 Total Pages: 6	All	Original	Sept. 20, 1999.
SB No. 292 72 0262 Total Pages: 6	All	Original	Sept. 28, 1999.
MSB No. 292 72 2070 Total Pages: 9	All	1	Oct. 5, 2001.
MSB No. 292 72 0275 Total Pages: 9	All	2	April 15, 2002.

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Turbomeca S.A, 64511 Bordes Cedex, France; telephone 33 05 59 64 40 00; fax 33 05 59 64 60 80. Copies may be inspected at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Note 3: The subject of this AD is addressed in Direction Generale de L'Aviation Civile (DGAC) Airworthiness Directives No. 2002-126(A) and 2002-127(A), dated March 6, 2002 that replaced DGAC AD's 1999-391(A) and 1999-392(A), dated October 6, 1999.

Effective Date

- (i) This amendment becomes effective on March 7, 2003.

Issued in Burlington, Massachusetts, on January 22, 2003.
 Jay J. Pardee,
 Manager, Engine and Propeller Directorate, Aircraft Certification Service.
 [FR Doc. 03-2093 Filed 1-30-03; 8:45 am]
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