

[Federal Register: May 29, 2003 (Volume 68, Number 103)]  
[Rules and Regulations]  
[Page 31973-31974]  
From the Federal Register Online via GPO Access [wais.access.gpo.gov]  
[DOCID:fr29my03-14]

---

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. 2002-NE-38-AD; Amendment 39-13167; AD 2003-11-08]**

**RIN 2120-AA64**

**Airworthiness Directives; Turbomeca S.A. Arriel -1B, -1D, and -1D1 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 -1B, -1D, and -1D1 series turboshaft engines. This amendment requires replacement of modules M03 modified to TU 204 standard with modules M03 not modified to TU 204 standard. This amendment is prompted by several reports of 2nd stage gas generator turbine blade failures. The actions specified by this AD are intended to prevent 2nd stage gas generator turbine blade failure resulting in uncommanded engine in-flight shutdown.

**DATES:** Effective July 3, 2003. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of July 3, 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 -1B, -1D, and -1D1 series turboshaft engines was published in the Federal Register on February 7, 2003 (68 FR 6380). That action proposed to require replacement of modules M03 modified to TU 204 standard with modules M03 not modified to TU 204 standard in accordance with Turbomeca S.A. Service

## **Comments**

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

## **Request To Expand Applicability**

One commenter requests that the applicability be expanded to include Turbomeca engine model -1S1. The -1S1 engine model powers the twin-engine S76 helicopter, and the commenter states that the -1S1 engine model is the same type design as the -1B, -1D, and -1D1 model series turboshaft engines. The commenter states that the -1S1 engine model can incorporate the same high pressure turbine (HPT) blade modification TU 204, and is, therefore, affected by the same risk failure as the other engine models.

The FAA does not agree. The FAA recognizes that the -1S1 engine model may have the same probability of failure as the other engine models installed on the single engine helicopter application if the HPT blade modification TU 204 is installed. However, the probability of a dual-engine failure on a twin-engine helicopter, and the risk of loss of the helicopter, is very low. Furthermore, the engine manufacturer issued instructions (Turbomeca S.A. mandatory SB No. 292 72 0288, dated October 21, 2002) to retire the HPT blades with modification TU 204 installed on the -1S1 engine model. The FAA believes that no specific action is necessary at this time for the -1S1 engine model to increase safety on the twin-engine helicopter application. Therefore, the applicability in this AD is not changed.

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

## **Economic Analysis**

There are approximately 1,319 Turbomeca S.A. Arriel -1B, -1D, and -1D1 series turboshaft engines of the affected design in the worldwide fleet. The FAA estimates that 48 engines installed on helicopters of U.S. registry will be affected by this AD, that it will take approximately 12 work hours per engine to perform the required actions, and that the average labor rate is \$60 per work hour. Required parts will cost approximately \$160,000 per engine. Based on these figures, the total cost of the AD to U.S. operators is estimated to be \$7,714,560. Turbomeca has advised the FAA that material and tooling may be provided at no cost to the operator, thereby substantially reducing the cost of the final rule.

## **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).

**2003-11-08 Turbomeca S.A.:** Amendment 39-13167. Docket No. 2002-NE-38-AD.

**Applicability:** This airworthiness directive (AD) is applicable to Turbomeca S.A. Arriel -1B, -1D, and -1D1 series turboshaft engines. These engines are installed on, but not limited to Eurocopter AS-350B "Astar" 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 (c) 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 at the next engine shop visit, but no later than August 31, 2003, unless already done.

To prevent 2nd stage gas generator turbine blade failure resulting in uncommanded engine in-flight shutdown, do the following:

(a) For Arriel -1B engines, replace TU 204 Standard modules M03 with modules M03 not modified to TU 204 standard, in accordance with Paragraphs 2.A. through 2.C. of Turbomeca S.A. Service Bulletin (SB) No. 292 72 0258, Update No. 1, dated April 4, 2002.

(b) For Arriel -1D and -1D1 engines, replace TU 204 Standard modules M03 with modules M03 not modified to TU 204 standard, in accordance with Paragraphs 2.A. through 2.C. of Turbomeca S.A. SB No. 292 72 0265, Update No. 1, dated August 18, 2000.

## Alternative Methods of Compliance

(c) 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

(d) 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 helicopter to a location where the requirements of this AD can be done.

## Documents That Have Been Incorporated by Reference

(e) The actions must be done in accordance with the following Turbomeca S.A. service bulletins (SBs):

Document No.	Pages	Revision	Date
SB No. 292 72 0258 Total pages: 8	All	Update No. 1	April 4, 2002.
SB No. 292 72 0265 Total pages: 6	All	Update No. 1	August 18, 2000.

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 airworthiness directive 2002-258(A), dated May 15, 2002.

## Effective Date

(f) This amendment becomes effective on July 3, 2003.

Issued in Burlington, Massachusetts, on May 16, 2003.  
Francis A. Favara,  
Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.  
[FR Doc. 03-13113 Filed 5-28-03; 8:45 am]  
BILLING CODE 4910-13-P