



FAA
Aviation Safety

EMERGENCY

AIRWORTHINESS DIRECTIVE

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DATE: February 9, 2017
AD #: 2017-04-51

Emergency Airworthiness Directive (AD) 2017-04-51 is sent to owners and operators of Safran Helicopter Engines, S.A., Arriel 1A1, 1A2, 1B, 1C, 1C1, 1C2, 1D, 1D1, 1E2, 1K1, 1S and 1S1 turboshaft engines.

Background

This emergency AD was prompted by reports of fuel leaks originating from the drain valve assembly (DV) on certain Arriel engines. Investigation revealed that these fuel leaks were caused by non-compliant diaphragms. This condition, if not corrected, could result in an engine compartment fire, in-flight shutdown, and damage to the helicopter.

Relevant Service Information

We reviewed Safran Helicopter Engines Alert Mandatory Service Bulletin (MSB) A292 73 0851, Version A, dated January 31, 2017. The MSB describes procedures for inspecting, wrapping, and replacing the DV.

FAA's Determination

We are issuing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

AD Requirements

This AD requires inspection, wrapping, and replacing affected DVs.

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.

Presentation of the Actual AD

We are issuing this AD under 49 U.S.C. Section 44701 according to the authority delegated to me by the Administrator.

2017-04-51 Safran Helicopter Engines, S.A. (Type Certificate previously held by Turbomeca, S.A): Directorate Identifier 2017-NE-04-AD.

(a) Effective Date

This Emergency AD is effective upon receipt.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Safran Helicopter Engines, S.A., Arriel 1A1, 1A2, 1B, 1C, 1C1, 1C2, 1D, 1D1, 1E2, 1K1, 1S and 1S1 turboshaft engines equipped with a drain valve assembly (DV) with a part number and a serial number listed in Appendix 5.1 in Safran Helicopter Engines Alert Mandatory Service Bulletin (MSB) A292 73 0851, Version A, dated January 31, 2017.

(d) Subject

Joint Aircraft System Component (JASC) Code 7321, Fuel Control/Turbine Engines.

(e) Unsafe Condition

This AD was prompted by reports of fuel leaks originating from the DV on certain Arriel engines. We are issuing this AD to prevent an engine compartment fire, in-flight shutdown, and damage to the helicopter.

(f) Compliance

(1) Comply with this AD within the compliance times specified, unless already done.

(2) Within 10 flight hours or 7 days, whichever occurs first, after the effective date of this AD:

(i) Replace the affected DV with a DV eligible for installation. Use the Accomplishment Instructions, Paragraph 2, of Safran Helicopter Engines Alert MSB A292 73 0851, Version A, dated January 31, 2017, to do the replacement; or

(ii) Visually inspect the affected DV for fuel leakage and follow the instructions below:

(A) If a fuel leak is detected, replace the affected DV with a DV eligible for installation, before the next flight.

(B) If no fuel leak is detected, before next flight, wrap the affected DV with a self-amalgamate tape using the Accomplishment Instructions, paragraph 2, of Safran Helicopter Engines Alert MSB A292 73 0851, Version A, dated January 31, 2017.

(C) After wrapping an affected DV, as specified in paragraph (f)(2)(ii)(B) of this AD, inspect the DV for fuel leakage before each first flight of the day. If a fuel leak is detected, replace the affected DV with a DV eligible for installation, before the next flight

(D) After wrapping an affected DV, as specified in paragraph (f)(2)(ii)(B) of this AD, inspect the DV wrapping before each first flight of the day. If the wrapping is found defective (loose,

missing, or damaged), before the next flight, remove the wrap and re-wrap the affected DV using the Accomplishment Instructions, paragraph 2, of Safran Helicopter Engines Alert MSB A292 73 0851, Version A, dated January 31, 2017.

(E) For an engine on which the affected DV was wrapped, within 180 days after the first wrapping of the affected DV as specified in paragraph (f)(2)(ii)(B) of this AD, replace the affected DV with a DV eligible for installation.

(g) Definitions

For the purpose of this AD, a DV eligible for installation is:

(1) a DV that is not affected by this AD; or

(2) a DV in which the diaphragm has been replaced in accordance with the instructions in paragraph 4 of Safran Helicopter Engines Alert MSB A292 73 0851, Version A, dated January 31, 2017.

(h) Terminating Action

Replacement of an affected DV installed on an engine, with a DV eligible for installation constitutes terminating action for the repetitive inspections required by paragraph (f)(2)(ii) of this AD.

(j) 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. You may email your request to: ANE-AD-AMOC@faa.gov.

(k) Related Information

(1) For further information about this AD, contact: Robert Green, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7754; fax: 781-238-7199; email: robert.green@faa.gov.

(2) Refer to European Aviation Safety Agency Emergency AD No. 2017-0019-E, dated February 3, 2017, for more information.

(3) Safran Helicopter Engines Alert MSB A292 73 0851, Version A, dated January 31, 2017, pertains to the subject of this AD.

(4) For service information referenced in this AD, contact: Safran Helicopter Engines, S.A., 40220 Tarnos, France; phone: (33) 05 59 74 40 00; fax: (33) 05 59 74 45 15.

(5) You may view this service information at the FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on February 8, 2017.

Carlos A. Pestana,
Acting Assistant Manager, Engine & Propeller Directorate,
Aircraft Certification Service.