



Emergency Airworthiness Directive

AD No.: 2019-0266-E

Issued: 25 October 2019

Note: This Emergency Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

SAFRAN HELICOPTER ENGINES

Type/Model designation(s):

ARRIUS 1 engines

Effective Date: 29 October 2019

TCDS Number(s): EASA.E.080

Foreign AD: Not applicable

Supersedure: None

ATA 72 – Engine – Module 02 / Gas Generator – Service Life Calculation / Replacement

Manufacturer(s):

Safran Helicopter Engines (SAFRAN), formerly Turboméca

Applicability:

ARRIUS 1A and ARRIUS 1A1 engines, all serial numbers (s/n).

These engines are known to be installed on, but not limited to, Airbus Helicopters (formerly Eurocopter, Eurocopter France, Aérospatiale) AS355 N and AS355 NP twin-engine helicopters.

Definitions:

For the purpose of this AD, the following definitions apply:

Affected part: Module M02 having an s/n as listed in Appendix A of the SB.

Serviceable part: An affected part which has not exceeded the re-calculated service life of high-pressure (HP) turbine disc and HP blade specified in the SB or a module M02 which is not an affected part.

The SB: SAFRAN Mandatory Service Bulletin (SB) A319 72 0819.



Groups: Group 1 engines are those that have an affected part installed. Group 2 engines are all other engines.

Reason:

A manufacturing non-conformity of the HP turbine blades was identified through quality control on a batch of blades during production. This non-conformity affects the service life of the affected blades and HP disk where the blades are installed and, consequently, of the modules M02 on which these blades are installed.

This condition, if not corrected, could lead to separation of a blade assembly, resulting in an uncommanded in-flight engine shut-down and release of low energy debris with consequent damage to, and/or reduced control of, the helicopter.

To address this unsafe condition, SAFRAN issued the SB to provide instructions for re-calculation of the service life of affected parts.

For the reason described above, this AD requires a one-time recalculation of the remaining service life of each affected module M02 and, depending on the results, replacement of affected parts with a serviceable part.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

Service Life Calculation:

- (1) Group 1 engines: Within 10 flight hours (FH) or 15 days, whichever occurs first after the effective date of this AD, re-calculate the remaining service life of HP turbine disc and HP blade of each affected part in accordance with the instructions of Section 2 of the SB.

Part Replacement:

- (2) Following the re-calculation as required by paragraph (1) of this AD, before exceeding the re-calculated service life of the HP turbine disc and the HP blade or, before next flight, whichever occurs later, replace that affected part with a serviceable part in accordance with approved SAFRAN maintenance instructions.

Parts Installation:

- (3) Group1 and Group 2 engines: From the effective date of this AD, it is allowed to install an affected part on an engine, or an engine with an affected part on a helicopter, provided it is a serviceable part.

Ref. Publications:

SAFRAN Mandatory SB A319 72 0819 dated October 2019.

The use of later approved revisions of the above-mentioned document is acceptable for compliance with the requirements of this AD.



Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. The results of the safety assessment have indicated the need for immediate publication and notification, without the full consultation process.
3. Enquiries regarding this AD should be referred to the EASA Programming and Continued Airworthiness Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the [EU aviation safety reporting system](#).
5. For any question concerning the technical content of the requirements in this AD, please contact your nearest SAFRAN Helicopter Engines technical representative, or connect to www.tools.safran-helicopter-engines.com.

