



## Airworthiness Directive

**AD No.:** 2016-0235

**Issued:** 24 November 2016

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 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 (EC) 216/2008, Article 14(4) exemption].

### Design Approval Holder's Name:

SAFRAN HELICOPTER ENGINES

### Type/Model designation(s):

ARRIEL 2E engines

**Effective Date:** 08 December 2016

**TCDS Number(s):** EASA.E.001

**Foreign AD:** Not applicable

**Supersedure:** None

## ATA 72 – Engine – Front Support – Replacement

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### Manufacturer(s):

SAFRAN Helicopter Engines, formerly Turboméca, S.A.

### Applicability:

ARRIEL 2E engines, all serial numbers.

These engines are known to be installed on Airbus Helicopters Deutschland (formerly Eurocopter Deutschland) MBB-BK 117 D-2 helicopters.

### Reason:

Some cases were reported of ruptured front support pins on ARRIEL 1E2 engines. That condition, if not detected and corrected, could lead to the loss of the load path integrity of the engine front support. Consequently, Turboméca issued Mandatory Service Bulletin (MSB) 292 72 0842 to provide instructions for the inspection of the pins and front support replacement, and EASA issued AD 2015-0064 (later revised) to require those actions.

Since EASA AD 2015-0064R1 was issued, SAFRAN Helicopter Engines developed a new pin design, in order to increase the mechanical strength of the pin, through modification TU380, for ARRIEL 1E2 engines. Although no cases of front support pin rupture have been reported on ARRIEL 2E engines, since the ARRIEL 1E2 and 2E type designs have the same front support, SAFRAN Helicopter Engines decided to also apply this new pin design on ARRIEL 2E engines through modification TU197.



To address this potential unsafe condition, SAFRAN Helicopter Engines decided, as precautionary measure, to replace the front support on ARRIEL 2E engines, and published MSB 292 72 2197 to provide instructions for in-service front support replacement.

For the reasons described above, this AD requires modification of the affected engines by replacement of each pre-mod TU197 front support.

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

Required as indicated, unless accomplished previously:

**Modification:**

- (1) For an engine that, on the effective date of this AD, is in pre-mod TU197 configuration: Before the Module 01 exceeds 1 600 engine operating hours since new, or within 80 engine operating hours after the effective date of this AD, whichever occurs later, modify that engine by replacement of the pre-mod TU197 front support with a post-mod TU197 front support in accordance with the instructions of SAFRAN Helicopter Engines MSB 292 72 2197.

Note 1: For the purpose of this AD, a serviceable part is a Module 01, fitted with a pre-mod TU197 front support, that has not exceeded 1 680 engine operating hours since new, or a Module 01 fitted with a post-mod TU197 front support.

**Parts Installation:**

- (2) For an engine that, on the effective date of this AD, is in pre-mod TU197 configuration: From the effective date of this AD, prior to modification of the engine (see paragraph (4) of this AD), it is allowed to install on that engine a Module 01 or front support, provided this is a serviceable part, as defined in Note 1 of this AD.
- (3) For an engine that, on the effective date of this AD, is in post-mod TU197 configuration: From the effective date of this AD, do not install a pre-mod TU197 Module 01 or front support on that engine.
- (4) After modification of an engine as required by paragraph (1) of this AD, do not install a pre-mod TU197 Module 01 or front support on that engine.

**Ref. Publications:**

SAFRAN Helicopter Engines MSB 292 72 2197 version A (original issue) dated 15 September 2016.

The use of later approved revisions of this 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. This AD was posted on 18 October 2016 as PAD 16-148 for consultation until 15 November 2016. The Comment Response Document can be found at <http://ad.easa.europa.eu>.



3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
4. For any question concerning the technical content of the requirements in this AD, please contact: SAFRAN Helicopter Engines, ARRIEL 2 Customer Support, 40220 Tarnos, France Fax: +33 5 59 74 45 15, or contact [SAFRAN on-line for technical assistance](#).

