



## Airworthiness Directive

**AD No.:** 2018-0085

**Issued:** 13 April 2018

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):

ASTAZOU XIV engines

**Effective Date:** 27 April 2018

**TCDS Number(s):** EASA.E.075

**Foreign AD:** Not applicable

**Supersedure:** None

## ATA 72 – Engine – Stage 3 Turbine Wheels – Inspection

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### Manufacturer(s):

SAFRAN Helicopter Engines, formerly Turboméca, S.A.

### Applicability:

ASTAZOU XIV B and XIV H engines, all manufacturer serial numbers (MSN).

These engines are known to be installed on, but not limited to, Airbus Helicopters (formerly Aerospatiale, Sud Aviation) SA 319 B (Alouette III) and SA 342 J (Gazelle) helicopters.

### Definitions:

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

**The MSB:** Safran Helicopters Engines Mandatory Service Bulletin (MSB) 283 72 0813.

**Affected part:** Stage 3 turbine wheels having Part Number (P/N) and serial number (s/n) as specified in Appendix 1 of this AD.

**Groups:** Group 1 engines are those that have an affected part installed. Group 2 engines are those that do not have an affected part installed.



**Reason:**

Safran Helicopter Engines reported that an identified batch of stage 3 turbine wheels were released to service after repair in spite of the fact that the natural frequency of the turbine blades installed on those wheels did not comply with the acceptance criteria. Excessive turbine blade vibration may lead to progressive crack initiation on the rear face of the affected turbine wheel.

This condition, if not detected and corrected, could lead to rupture of a turbine blade and its associated piece of rim, possibly resulting in an un-commanded engine in-flight shut-down and/or release of high energy debris, with consequent damage to, and/or reduced control of, the helicopter.

To address this potentially unsafe condition, Safran Helicopter Engines issued the MSB to provide inspections instructions.

For the reasons described above, this AD requires repetitive inspections of the affected parts and, depending on findings, accomplishment of applicable corrective action(s).

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

Required as indicated, unless accomplished previously:

**Inspection(s):**

- (1) Group 1 engines: Before exceeding 400 engine cycles since the last engine overhaul, or within 50 engine cycles after the effective date of this AD, whichever occurs later, and, thereafter, at intervals not to exceed 400 engine cycles, inspect the rear face of each affected part in accordance with the instructions of the MSB.

Note 1: A non-cumulative tolerance of 50 engine cycles may be applied to the inspection interval as required by paragraph (1) of this AD.

**Corrective Action(s):**

- (2) If, during any inspection as required by paragraph (1) of this AD, any discrepancy is detected, as defined in the MSB, before next flight, remove the engine from service and accomplish a repair in accordance with the instructions of the chapter 4 of the MSB.

**Terminating Action:**

- (3) Accomplishment of a repair in accordance with the instructions of chapter 4 of the MSB constitutes terminating action for inspections required by paragraph (1) of this AD.

Note 2: Accomplishment of a repair referred in paragraph (3) of this AD is recorded in section A of the engine log book.

**Parts Installation:**

- (4) Group 1 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 equipped with an affected part on a helicopter, provided that, following installation, the affected part is inspected as required by this AD.



**Ref. Publications:**

Safran Helicopters Engines MSB 283 72 0813 original issue dated 26 February 2018.

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. This AD was posted on 13 March 2018 as PAD 18-036 for consultation until 10 April 2018. No comments were received during the consultation period.
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).
3. For any question concerning the technical content of the requirements in this AD, please contact: Safran Helicopter Engines, Customer Support, 40220 Tarnos, France, Fax: +33 5 59 74 45 15, or contact [SAFRAN on-line for technical assistance](#).



## Appendix 1 – The affected 3rd stage turbine wheels (the affected parts)

Turbine wheel		For information only (Last identified engine MSN on which the turbine wheel is installed)
P/N	s/n	
0 265 25 706 0	AD78703AD	ASTAZOU XIV H s/n 6217
0 265 25 706 0	CC52860	ASTAZOU XIV H s/n 6183
0 265 25 705 0	L232AD	ASTAZOU XIV B s/n 4181
0 265 25 706 0	AD93845AD	ASTAZOU XIV H s/n 6091
0 265 25 706 0	RD39596	ASTAZOU XIV H s/n 6293
0 265 25 706 0	AD78691AD	ASTAZOU XIV H s/n 6435

