



## Airworthiness Directive Cancellation Notice

**AD No.:** 2018-0044-CN

**Issued:** 18 July 2019

Note: This Airworthiness Directive (AD) Cancellation Notice (CN) 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.

**Design Approval Holder's Name:**

SAFRAN HELICOPTER ENGINES

**Type/Model designation(s):**

ARRIUS 2 engines

**Effective Date:** 18 July 2018

**TCDS Number(s):** EASA.E.029

**Foreign AD:** Not applicable

**Cancellation:** This notice cancels EASA AD 2018-0044 dated 14 February 2018.

### ATA 72 – CANCELLED: Engine – Power Turbine Wheels – Replacement

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**Manufacturer(s):**

SAFRAN Helicopter Engines (SAFRAN), formerly Turboméca S.A.

**Applicability:**

ARRIUS 2B1, ARRIUS 2B1A, ARRIUS 2B2, ARRIUS 2G1, ARRIUS 2K1 and ARRIUS 2K2 engines, all serial numbers (s/n).

**Definitions:**

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

**The SB:** SAFRAN Alert Service Bulletin (SB) N° A319 72 2854.

**Affected part:** Power turbine wheels (PTW) having an s/n as specified in Appendix 1 of this AD.

**Serviceable part:** A PTW which is not an affected part; or an affected part which, before installation, has passed (no defect detected) an inspection, or has been repaired, as applicable, in accordance with the instructions of the SB.



**Reason:**

During an ARRIUS 2B2 engine ground run check, the "Degrade" indicator illuminated and unusual vibration occurred. At the same time, bluish smoke and debris came out of the exhaust pipe. Both engines were shut down without further occurrences. Investigation revealed that missing dampers on the PTW assembly caused rupture of PTW blades. The dampers on the PTW blades reduce the mechanical stress exerted on the blades. Without dampers, mechanical stress on the blades can exceed the vibratory fatigue limit, eventually leading to rupture of the blades. Further investigation identified a batch of potentially affected PTW.

This condition, if not corrected, could lead to engine in-flight shut-down and release of low energy debris through the exhaust pipe, possibly resulting in forced landing, damage to the helicopter and injury to occupants.

To address this potential unsafe condition, SAFRAN issued the SB to provide inspection and repair instructions. Consequently, EASA issued AD 2018-0044 to require replacement of the affected parts with serviceable parts.

Since that AD was issued, SAFRAN has reported to EASA that all affected parts have been inspected and, where necessary, repaired. EASA has accepted this information as proof that the unsafe condition no longer exists and can no longer develop on any ARRIUS 2 engine.

For the reason described above, this AD-CN cancels EASA AD 2018-0044.

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

None.

**Ref. Publications:**

SAFRAN Helicopter Engines Alert SB N° A319 72 2854 version A (original issue) dated 09 February 2018.

**Remarks:**

1. This AD-CN was posted on 14 June 2019 as PAD 19-105-CN for consultation until 12 July 2019. No comments were received during the consultation period.
2. Enquiries regarding this AD-CN should be referred to the EASA Programming and Continued Airworthiness Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
3. For any question concerning the technical content of this AD-CN, please contact your nearest SAFRAN Helicopter Engines technical representative, or connect to [www.tools.safran-helicopter-engines.com](http://www.tools.safran-helicopter-engines.com).



## Appendix 1 – Affected Parts

PTW s/n				
AZD3710TY	AZF3241UP	AZL309TY	818TY	12714UP
AZF0050UP	AZF3248UP	AZL0585TY	934TY	12716UP
AZF0108UP	AZF3332UP	AZL0614TY	990TY	13421UP
AZF1109UP	AZF3963UP		SER1036TY	14260UP
AZF1116UP	AZF3967UP		1126TY	14326UP
AZF1833UP	AZF5663UP		1143TY	14338UP
AZF1984UP	AZF6034UP		1172TY	14380UP
AZF2445UP	AZF6176		1285TY	
AZF2969UP	AZF6215UP			

Note: The SB provides a list of Module 02 on which a potentially affected PTW is known to have been installed. This list can be used to identify the s/n of the affected Module 02, provided the potentially affected PTW wheel has not been replaced with a non-affected part in that Module 02.

