



## Airworthiness Directive Cancellation Notice

**AD No.:** 2014-0059R1-CN

**Issued:** 05 December 2022

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):**

MAKILA 2 engines

**Effective Date:** 05 December 2022

**TCDS Number(s):** EASA.E.006

**Foreign AD:** Not applicable

**Cancellation:** This Notice cancels EASA AD 2014-0059R1 dated 15 April 2014.

### ATA 77 – CANCELLED: Fuel System – High Pressure Fuel Pump Drive Splines – Inspection

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**Manufacturer(s):**

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

**Applicability:**

MAKILA 2A and MAKILA 2A1 engines, all serial numbers.

These engines are known to be installed on, but not limited to, Airbus Helicopters (formerly Eurocopter, Eurocopter France) EC 225 LP helicopters.

**Definitions:**

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

**The SB:** Turboméca Mandatory Service Bulletin (SB) 298 73 2818 Version E.

**The ALS:** SAFRAN MAKILA 2A reference X 298 N7 460 2 and SAFRAN MAKILA 2A1 reference X 298 U3 460 2 Maintenance Manual, Airworthiness Limitations Section (ALS), both Update 16.

**Reason:**

Two uncommanded in-flight shutdowns on MAKILA 2A/2A1 engines have been reported. The results of the technical investigations concluded that these events were caused by deterioration of the splines on the High Pressure (HP) fuel pump drive link, which eventually interrupted the fuel supply to the engine.



This condition, if not detected and corrected, could lead to further cases of uncommanded engine in-flight shutdown, and may ultimately lead to an emergency landing.

To address these occurrences, Turboméca published SB 298 73 2818 (Versions A through D) to recommend inspection of the specific spline coupling area and reporting any damage. Subsequently, Turboméca's understanding of the damage of HP fuel pump drive link splines improved and, a new fuel pump drive shaft was developed (Turboméca modification TU 59). This modification, available for in-service application via Turboméca SB 298 73 2059, improved lubrication and limited axial displacement of the HP pump drive shaft in the Module 01 drive gear. Consequently, Turboméca published the SB, as defined in this AD-CN, and EASA issued AD 2014-0059 (later revised) to require, for pre-mod TU59 MAKILA 2A and 2A1 engines, repetitive inspections of the HP fuel pump/metering valve and the module M01 drive gear.

Since EASA AD 2014-0059R1 was issued, SAFRAN published the ALS, as defined in this AD-CN, including the repetitive inspections addressed by that AD. Consequently, EASA issued AD 2022-0223 and AD 2022-0224, requiring accomplishment of the actions specified in the ALS, and taking over the requirements of EASA AD 2014-0059R1, which, therefore, has become redundant.

For the reason described above, this Notice cancels EASA AD 2014-0059R1.

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

None.

**Ref. Publications:**

Turboméca Mandatory SB 298 73 2818 Version E dated 11 February 2014.

**Remarks:**

1. Enquiries regarding this AD-CN should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
2. For any question concerning the technical content of this AD-CN, please contact: SAFRAN Helicopter Engines at [www.tools.safran-helicopter-engines.com](http://www.tools.safran-helicopter-engines.com).

