

## Airworthiness Directive

**AD No.:** 2022-0244**Issued:** 08 December 2022

Note: This 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, or Annex Vb Part ML.A.301, as applicable, 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 Annex Vb Part ML.A.303, as applicable] 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):**

MAKILA 1 engines

**Effective Date:** 22 December 2022**TCDS Number(s):** EASA.E.072**Foreign AD:** Not applicable**Supersedure:** None

### ATA 26 – Fire Protection – Fire Detectors – Replacement

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**Manufacturer(s):**

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

**Applicability:**

MAKILA 1A and MAKILA 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) AS 332 C, C1, L and L1 helicopters.

**Definitions:**

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

**The SB:** SAFRAN Mandatory Service Bulletin (SB) A298 26 0833 Version A.**Affected part:** Fire detectors, having a Part Number (P/N), an s/n and a type as listed in Appendix 1 of this AD.**Serviceable part:** Any fire detector that is not an affected part.**Affected engine:** An engine that has at least one affected part installed.

**Affected helicopter:** A helicopter that has two affected engines installed.

**Reason:**

Some occurrences were reported of spurious engine fire warnings. The subsequent investigation results identified a manufacturing non-compliance on the fire detectors, which caused a shift of the detection threshold towards temperature values that are lower than specified, potentially leading to a spurious engine fire warning. When two engines on a helicopter are fitted with an affected part, an engine fire warning could occur on both engines during the same flight.

This condition, if not corrected, could lead to commanded engine in-flight shut-down, possibly resulting in damage to, and consequent reduced control of, the helicopter.

To address this potential unsafe condition, SAFRAN issued the SB, as defined in this AD, to provide instructions to identify and replace the affected parts.

For the reasons described above, this AD requires replacement, and prohibits (re)installation, of the affected parts.

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

Required as indicated, unless accomplished previously:

**Replacement:**

- (1) For affected helicopters: Within 30 flight hours or 60 days, whichever occurs first after the effective date of this AD, replace the affected parts installed on one of the affected engines with serviceable parts, as defined in this AD, in accordance with the instructions of section 2 of the SB.

**Part(s) Installation:**

- (2) For all engines: From the effective date of this AD, do not install an affected part on any engine.

**Engine Installation:**

- (3) From the effective date of this AD, it is allowed to install an engine on any helicopter, provided that, prior to installation, it is determined that no affected part is installed on that engine.

**Ref. Publications:**

SAFRAN Mandatory SB A298 26 0833 Version A dated 05 December 2022.

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. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.



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. 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](#). This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.
5. For any question concerning the technical content of the requirements in this AD, please contact: SAFRAN Helicopter Engines, S.A. at [data-fleet.fr.she@safrangroup.com](mailto:data-fleet.fr.she@safrangroup.com).



## Appendix 1 – Affected Parts

<b>Fire Detector Type</b>		<b>300°C</b>
<b>Supplier P/N</b>		<b>H352-1</b>
<b>SAFRAN P/N</b>		<b>9550103520</b>
<b>s/n</b>		
ACP5258	ACP5280	ACP5303
ACP5259	ACP5284	ACP5304
ACP5262	ACP5285	ACP5306
ACP5263	ACP5286	ACP5311
ACP5267	ACP5287	ACP5322
ACP5271	ACP5288	ACP5345
ACP5279	ACP5301	



## Appendix 1 – Affected Parts (continued)

Fire Detector Type		400°C	
Supplier P/N		H453-1	
SAFRAN P/N		9550104530	
s/n			
ADB8362	ADB8401	ADB8462	ADB8552
ADB8363	ADB8402	ADB8463	ADB8555
ADB8366	ADB8403	ADB8471	ADB8557
ADB8367	ADB8404	ADB8475	ADB8560
ADB8368	ADB8405	ADB8477	ADB8566
ADB8369	ADB8406	ADB8478	ADB8568
ADB8370	ADB8407	ADB8480	ADB8569
ADB8371	ADB8408	ADB8481	ADB8570
ADB8372	ADB8410	ADB8482	ADB8576
ADB8373	ADB8411	ADB8483	ADB8578
ADB8374	ADB8412	ADB8486	ADB8579
ADB8376	ADB8413	ADB8488	ADB8580
ADB8377	ADB8414	ADB8496	ADB8582
ADB8378	ADB8415	ADB8497	ADB8584
ADB8379	ADB8417	ADB8498	ADB8585
ADB8380	ADB8420	ADB8499	ADB8590
ADB8382	ADB8421	ADB8501	ADB8592
ADB8383	ADB8423	ADB8503	ADB8593
ADB8384	ADB8432	ADB8506	ADB8596
ADB8385	ADB8439	ADB8508	ADB8597
ADB8386	ADB8440	ADB8512	ADB8598
ADB8387	ADB8445	ADB8519	ADB8609
ADB8388	ADB8448	ADB8524	ADB8610
ADB8391	ADB8450	ADB8528	
ADB8392	ADB8451	ADB8529	
ADB8393	ADB8456	ADB8532	
ADB8394	ADB8458	ADB8543	
ADB8395	ADB8459	ADB8544	
ADB8398	ADB8460	ADB8550	
ADB8399	ADB8461	ADB8551	



## Appendix 1 – Affected Parts (continued)

<b>Fire Detector Type</b>		<b>300°C</b>
<b>Supplier P/N</b>		<b>H342-1</b>
<b>SAFRAN P/N</b>		<b>9550177140</b>
<b>s/n</b>		
BG10890	BG10908	BG10937
BG10892	BG10909	BG10938
BG10893	BG10910	BG10940
BG10894	BG10913	BG10941
BG10895	BG10914	BG10942
BG10896	BG10915	BG10944
BG10897	BG10916	BG10945
BG10898	BG10917	BG10946
BG10899	BG10919	BG10949
BG10900	BG10924	BG10951
BG10901	BG10926	BG10953
BG10903	BG10927	BG10957
BG10904	BG10928	
BG10906	BG10929	
BG10907	BG10935	

