



Airworthiness Directive

AD No.: 2024-0026

Issued: 24 January 2024

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:

CFM INTERNATIONAL S.A.

Type/Model designation(s):

LEAP-1A engines

Effective Date: 07 February 2024

TCDS Number(s): EASA.E.110

Foreign AD: Not applicable

Supersedure: None

ATA 72 – Engine – High Pressure Turbine – Rotor Interstage Seal – Replacement

Manufacturer(s):

SAFRAN Aircraft Engines, formerly SNECMA (France); General Electric Aviation (United States)

Applicability:

LEAP-1A23, LEAP-1A24, LEAP-1A24E1, LEAP-1A26, LEAP-1A26CJ, LEAP-1A26E1, LEAP-1A29, LEAP-1A29CJ, LEAP-1A30, LEAP-1A32, LEAP-1A33, LEAP-1A33B2, LEAP-1A35A engines, all serial numbers (s/n).

These engines are known to be installed on, but not limited to, certain Airbus A319, A320 and A321 aeroplanes.

Definitions:

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

The SB: CFM International (CFM) Service Bulletin (SB) LEAP-1A-72-00-0492-01A-930A-D.

Affected part: High Pressure Turbine (HPT) Rotor Interstage Seal, having part number 2466M68P02, and s/n FIA1VGM8, FIA1VMEW, NCU7102E, NCU7602E, NCU7103E, FIA1VE98, FIA1VGM4, FIA1VGM2, FIA1VGN A, FIA1VGM6 or NCU7101E.

Serviceable part: Any HPT Rotor Interstage Seal, eligible for installation, that is not an affected part.



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.

Qualified shop visit: Any engine shop visit where the HPT rotor assembly (Significant Item Number: 15000) is fully removed from the core per accomplishment of LEAP-1A Engine Shop Manual procedure 72-00-02-51A-52AA-C.

Reason:

Following detection by the manufacturer of melt-related freckles in some billets, it was determined that certain HPT Rotor Interstage Seals may be affected by sub-surface anomalies resulting in reduced material properties, possibly affecting their capability to be operated until their published life limit.

This condition, if not corrected, could lead to failure of the affected parts, possibly resulting in high energy debris release, with consequent damage to and possible reduced control of the aeroplane.

To address this potential unsafe condition, CFM published the SB (as defined in this AD) to provide replacement instructions and a list of the affected parts.

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

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

Required as indicated by this AD, unless the action(s) required by this AD have been already accomplished:

Replacement:

- (1) For Group 1 engines: During the next qualified shop visit (as defined in this AD) after the effective date of this AD, or before exceeding the threshold as specified in Table 1 of this AD, as applicable, whichever occurs first, replace the affected part with a serviceable part in accordance with the instructions of the SB.

Table 1 Thresholds for Removal of Affected Parts

Engine Model	Removal Threshold
LEAP-1A23, LEAP-1A24, LEAP-1A24E1, LEAP-1A26, LEAP-1A26E1, LEAP-1A29, LEAP-1A30, LEAP-1A32, LEAP-1A33, LEAP-1A33B2, and LEAP-1A35A	5 000 Cycles Since New (CSN) (see Note 1 of this AD)
LEAP-1A26CJ and LEAP-1A29CJ	4 500 CSN

Note 1: The CSN specified in Table 1 of this AD are those accumulated by an affected part since its first installation on an engine.



Parts Installation:

(2) Do not install an affected part on any engine, as required by paragraph (2.1) or (2.2) of this AD, as applicable.

(2.1) For Group 1 engines: After replacement of the affected part on an engine as required by paragraph (1) of this AD.

(2.2) For Group 2 engines: From the effective date of this AD.

Ref. Publications:

CFM SB LEAP-1A-72-00-0492-01A-930A-D original issue (Issue 001) dated 06 April 2023.

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 16 November 2023 as PAD 23-123 for consultation until 14 December 2023. 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.
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: CFM International S.A., Customer Support Centre, Telephone: +33 1 64 14 88 66, Fax: +33 1 64 14 87 65, E-mail: cfm.csc@safrangroup.com,

or

CFM Inc., GE Aviation Fleet Support, Telephone: +1 513-552-3272 or +1 877-432-3272, E-mail: aviation.fleetsupport@ge.com.

