



Airworthiness Directive

AD No.: 2025-0003

Issued: 07 January 2025

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 M.L.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 M.L.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, LEAP-1B and LEAP-1C engines

Effective Date: 21 January 2025

TCDS Number(s): EASA.E.110 and EASA.E.115

Foreign AD: Not applicable

Supersedure: None

ATA 72 – Engine – Low Pressure Turbine – Stage 4 and Stage 5 Disks – Replacement

Manufacturer(s):

SAFRAN Aircraft Engines, formerly SNECMA (France); General Electric (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 and LEAP-1A35A engines, all serial numbers (s/n).

LEAP-1B21, LEAP-1B23, LEAP-1B25, LEAP-1B27, LEAP-1B28, LEAP-1B28B1, LEAP-1B28B2, LEAP-1B28B2C, LEAP-1B28B3, LEAP-1B28BBJ1 and LEAP-1B28BBJ2 engines, all s/n.

LEAP-1C28, LEAP-1C30 and LEAP-1C30B1 engines, all s/n.

These engines are known to be installed on, but not limited to, certain Airbus A319, A320, A321, Boeing 737-8, 737-8200, 737-9 and COMAC C919 aeroplanes.

Definitions:

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

The SB: CFM International (CFM) Service Bulletin (SB) LEAP-1A-72-00-0519-01A-930A-D, LEAP-1B-72-00-0419-01A-930A-D and LEAP-1C-72-00-0100-01A-930A-D, as applicable.



Affected part:

For LEAP-1A and LEAP-1C engines:

Low Pressure Turbine (LPT) Stage 5 disk, having Part Number (P/N) 362-600-011-0 and having s/n GA003989, GA003997, GA006176, GA003991, GA009605, GA009603, GA010117, GA010645, GA010742, GA008019, GA008794, GA009872, GA010032, GA010120, GA008563, GA009874, GA009799, GA008811, GA010193, GA009602, GA010228 or GA014872;

For LEAP-1B engines:

LPT Stage 4 Disk-Stubshafts (LPT Stage 4 Disk) having P/N 364-001-611-0 and having s/n HG658293, HJ604057, HE226041 or HF527464;

LPT Stage 5 Disks having P/N 364-600-011-0 and having s/n GA010663, GA010432, GA010220, GA005334, GA010216, GA010072, GA011001, GA010668, GA010444, GA010439, GA011291, GA010213, GA008147, GA011277, GA010435, GA010211, GA009165, GA010665, GA009259, GA009265, GA008318, GA009264, GA010208, GA010069, GA010661 or GA011690.

Serviceable part: Any LPT stage 4 Disk-Stubshaft and LPT Stage 5 Disk, eligible for installation, which is not an affected part.

Groups: Group 1 engines are engines that have an affected part installed.

Group 2 engines are those that are not Group 1 engines.

Reason:

It has been determined that the affected parts may have reduced material properties due to non-conforming grain size, possibly affecting their capability to be operated until their published life limit.

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

To address this potential unsafe condition, CFM published the SB to provide replacement instructions, and to prohibit reinstallation of affected parts.

While LPT Stage 5 disk P/N 362-600-011-0 is eligible for installation on LEAP-1C engines, on the effective date of this AD, no affected part is known to have been installed on any LEAP-1C28, LEAP-1C30 or LEAP-1C30B1 engine.

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

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 LEAP-1A and LEAP-1B engines: During the next piece part exposure or before exceeding the threshold as specified in Tables 1, 2 and 3 of SB LEAP-1A-72-00-0519-01A-930A-D or SB LEAP-1B-72-00-0419-01A-930A-D, as applicable, whichever occurs first after the effective date of this AD, replace the affected part with a serviceable part in accordance with the instructions of the SB.

Parts Installation:

- (2) For Group 1 and Group 2 engines: From the effective date of this AD, do not install an affected part on any engine.

Ref. Publications:

CFM SB LEAP-1A-72-00-0519-01A-930A-D original issue (Issue 001) dated 18 September 2024.

CFM SB LEAP-1B-72-00-0419-01A-930A-D original issue (Issue 001) dated 18 September 2024.

CFM SB LEAP-1C-72-00-0100-01A-930A-D original issue (Issue 001) dated 18 September 2024.

The use of later approved revisions of the above-mentioned documents 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 22 November 2024 as PAD 24-143 for consultation until 03 January 2025. 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.
4. 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.

