

# **Airworthiness Directive**

AD No.: 2025-0171R1

Issued: 15 August 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 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: Type/Model designation(s):

CFM INTERNATIONAL S.A. LEAP-1A engines

Effective Date: Revision 1: 20 August 2025

Original issue: 11 August 2025

TCDS Number(s): EASA.E.110

Foreign AD: Not applicable

Revision: This AD revises EASA AD 2025-0171 dated 04 August 2025.

# ATA 72 – Engine – High Pressure Turbine Rotor Stage 1 Blade – Inspection

### 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, 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-72-00-0485-01A-930A-D Issue 002.

Where the SB refers to India region, this has to be interpreted as critical departure regions, as specified in this AD. The SB Issue 003 has been amended accordingly.



**Affected part**: High pressure turbine (HPT) rotor stage 1 blades, having Part Number (P/N) 2747M92P01, P/N 2553M91G03, P/N 2553M91G05, P/N 2553M91G06, P/N 2553M91G07 or P/N 2553M91G08.

**Serviceable part:** HPT rotor stage 1 blade, having P/N 2825M11G02 or any HPT rotor stage 1 blade eligible for installation in accordance with CFM instructions, that is not an affected part.

**Critical departure:** Take-off accomplished in the Indian subcontinent region. This includes India, Sri Lanka, Nepal, Bhutan, Bangladesh and Maldives.

#### **Groups:**

Group 1 engines are LEAP-1A29, LEAP-1A29CJ, LEAP-1A30, LEAP-1A32, LEAP-1A33, LEAP-1A33B2 and LEAP-1A35A engines.

Group 2 engines are LEAP-1A23, LEAP-1A24, LEAP-1A24E1, LEAP-1A26, LEAP-1A26CJ and LEAP-1A26E1 engines.

#### Reason:

Occurrences were reported of finding cracked affected parts on engines operated extensively in the Indian subcontinent region.

This condition, if not detected and corrected, could lead to failure of the affected parts, possibly resulting in in-flight shut-down and reduced control of the aeroplane.

To address this potential unsafe condition, CFM issued the SB, as defined in this AD, providing instructions to accomplish borescope inspections (BSI) of HPT stage 1 rotor blades, and EASA issued AD 2025-0171 to require repetitive inspections of the affected parts and, depending on findings, accomplishment of corrective actions.

Since that AD was issued, an error in the compliance time specified in paragraph (2.2) has been noted, and additional comments have been received from operators. This AD is revised accordingly, also introducing reference to the latest issue of the SB.

#### 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:

### Inspection(s):

- (1) For engines having an affected part installed, that, on 11 August 2025 [the effective date of the original issue of this AD], has accumulated more than 1 100 critical departures (see Note 1 of this AD): Accomplish the repetitive inspection(s) as specified in paragraph (1.1) or (1.2), as applicable.
  - (1.1) For Group 1 engines: Within the threshold as identified in Table 1 of this AD, as applicable, and, thereafter, at intervals not exceeding 150 cycles (see Note 2 of this AD), inspect each affected part [blades] in accordance with the instructions of the SB.



(1.2) For Group 2 engines: Within the threshold as identified in Table 2 of this AD, as applicable, and thereafter, at intervals not exceeding 300 cycles (see Note 2 of this AD), inspect each affected part [blades] in accordance with the instructions of the SB.

Table 1 – Group 1 Engines – Initial Inspection Threshold (See Note 1 of this AD)

Cycles	Initial Inspection Threshold
More than 2 400 cycles	Within 100 cycles after 11 August 2025 [the effective date of the original issue of this AD]
2 400 cycles or less	Before exceeding 2 500 cycles

Table 2 – Group 2 Engines – Initial Inspection Threshold (See Note 1 of this AD)

Cycles	Initial Inspection Threshold
More than 5 000 cycles	Within 100 cycles after 11 August 2025 [the effective date of the original issue of this AD]
5 000 cycles or less	Before exceeding 5 100 cycles

Note 1: If the number of critical departures accumulated by an affected part of an engine is unknown, the critical departures accumulated by that engine can be used instead.

Note 2: Unless otherwise stated, the cycles specified in Table 1, Table 2, Table 3 and Table 4 of this AD are those accumulated since new (first installation on an engine) by the HPT rotor stage 1 blade which has accumulated the highest number of cycles since new.

- (2) For engines having an affected part installed, none of which, on 11 August 2025 [the effective date of the original issue of this AD], has accumulated more than 1 100 critical departures (see Note 1 of this AD): Upon exceeding
  - 1 100 critical departures for an affected part of an engine, accomplish the repetitive inspection(s) as specified in paragraph (2.1) or (2.2), as applicable.
  - (2.1) For Group 1 engines: Within the threshold as identified in Table 3 of this AD, as applicable, and, thereafter, at intervals not exceeding 150 cycles (see Note 2 of this AD), inspect each affected part [blades] in accordance with the instructions of the SB.
  - (2.2) For Group 2 engines: Within the threshold as identified in Table 4 of this AD, as applicable, and, thereafter, at intervals not exceeding 300 cycles (see Note 2 of this AD), inspect each affected part [blades] in accordance with the instructions of the SB.

Table 3 – Group 1 Engines – Initial Inspection Threshold (See Note 1 of this AD)

Cycles	Initial Inspection Threshold
More than 2 400 cycles	Within 100 cycles after an affected part exceeds 1 100 critical departures
2 400 cycles or less	Before exceeding 2 500 cycles

Table 4 – Group 2 Engines – Initial Inspection Threshold (See Note 1 of this AD)

Cycles	Initial Inspection Threshold
More than 5 000 cycles	Within 100 cycles after an affected part exceeds 1 100 critical departures
5 000 cycles or less	Before exceeding 5 100 cycles

## Corrective Action(s):

- (3) For engines installed on twin-engine aeroplanes: If, during any inspection as required by paragraph (1) or (2) of this AD, as applicable, any discrepancy, as identified in section 5.E.1.(f)1 of the SB, is found on an engine (hereafter referred to as 'first engine'), which requires removal or reinspection within 50 cycles or less of that engine, within 5 engine cycles after that inspection, unless already accomplished during the last 50 cycles (for Group 1 engines) or 100 cycles (for Group 2 engines) accumulated by the second engine before that inspection, inspect each affected part of the second engine of that aeroplane in accordance with the instructions of the SB.
- (4) If, during the inspection as required by paragraph (3) of this AD, any discrepancy, as identified in section 5.E.1.(f)2 of the SB, is found on the second engine of an aeroplane, accomplish the actions as specified in paragraphs (4.1) and (4.2).
  - (4.1) Before next flight, remove from service one engine (first engine or second engine) of that aeroplane and, before release to service of that engine, contact CFM for approved repair instructions and accomplish those instructions accordingly.
  - (4.2) Accomplish the applicable corrective action(s) on the remaining installed engine (second engine or first engine) within the compliance time as specified in, and in accordance with the instructions of the applicable Aircraft Maintenance Manual (AMM), or contact CFM for approved repair instructions and accomplish those instructions accordingly.
- (5) If, during the inspection as required by paragraph (3) of this AD, no discrepancy, as identified in section 5.E.1.(f)2 of the SB, is found on the second engine, accomplish the applicable corrective action(s) on the first engine within the compliance time as specified in, and in accordance with the instructions of the applicable AMM, or contact CFM for approved repair instructions and accomplish those instructions accordingly.
- (6) For engines in shop: If, during any inspection as required by paragraph (1) or (2) of this AD, as applicable, any discrepancy, as identified in section 5.E.1(f)1 of the SB, is found on an engine,



before release to service of that engine, contact CFM for approved repair instructions and accomplish those instructions accordingly.

### **Terminating Action:**

(7) Replacement of each affected part of an engine with a serviceable part in accordance with CFM approved instructions constitutes terminating action for the repetitive inspections as required by paragraph (1) or (2) of this AD, as applicable, for that engine.

#### Part(s) Installation:

- (8) From 11 August 2025 [the effective date of the original issue of this AD], it is allowed to install an affected part on any engine provided that, following that installation, the engine is inspected as required by this AD.
- (9) From 11 August 2025 [the effective date of the original issue of this AD], following removal from service of an engine as required by paragraph (4.1) of this AD, it is allowed to install on a twin-engine aeroplane an engine having affected parts installed which qualify for the inspections as required by paragraph (1) or (2) of this AD, as applicable, provided that, before that installation (see Note 3 of this AD), that engine has passed an inspection (no discrepancies, as identified in section 5.E.1.(f)1 of the SB, found on that engine) in accordance with the instructions of the SB.

Note 3: "Before that installation", as specified in paragraph (9) of this AD, must be read as "no cycles have been accumulated by that engine between the inspection and the installation of that engine on an aeroplane".

### Reporting:

(10) [DELETED].

#### **Acceptable Method of Compliance:**

(11) Inspecting an engine in accordance with the instructions of CFM SB LEAP-1A-72-00-0461-01A-930A-D is an acceptable method to accomplish any of the inspections as required by this AD, as applicable, for that engine.

#### Credit:

(12) Inspections and corrective action(s) accomplished on an engine before 11 August 2025 [the effective date of the original issue of this AD] in accordance with the instructions of CFM SB LEAP-1A-72-00-0485-01A-930A-D Issue 001, are acceptable to comply with the requirements of paragraphs (1) to (6) of this AD, as applicable, for that engine.

### **Ref. Publications:**

CFM SB LEAP-1A-72-00-0485-01A-930A-D Issue 001 dated 2 July 2022, Issue 002 dated 16 April 2025 and Issue 003 dated 30 July 2025.

CFM SB LEAP-1A-72-00-0461-01A-930A-D Issue 001 dated 10 December 2021, Issue 002 dated 21 December 2021 and Issue 003 dated 13 July 2022.



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. The original issue of this AD was posted on 17 July 2025 as PAD 25-106 for consultation until 31 July 2025. No comments were received during the consultation period.
- 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 <u>EU aviation safety reporting system</u>. 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: <a href="mailto:cfm.csc@safrangroup.com">cfm.csc@safrangroup.com</a>,

or

CFM Inc., GE Aviation Fleet Support, Telephone: +1 513-552-3272 or +1 877-432-3272, E-mail: <a href="mailto:aviation.fleetsupport@ge.com">aviation.fleetsupport@ge.com</a>.

