



適航指令發布單

Airworthiness Directive Issuance Form

民航局 AD 編號 AD number	CAA-2022-06-015	發布日期 Date issued	2022/6/21
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	LEAP-1A23, LEAP-1A24, LEAP-1A24E1, LEAP-1A26, LEAP-1A26CJ, LEAP-1A26E1, LEAP-1A29, <input type="checkbox"/> LEAP-1A29CJ, LEAP-1A30, LEAP-1A32, LEAP-1A33, LEAP-1A33B2 and LEAP-1A35A engines, all serial numbers (s/n).		
主旨摘要 Subject	Engine - Stages 6-10 Compressor Rotor Spools and High Pressure Turbine Rotor Stage 1 Disks - Replacement		
民航局 CAA <input type="checkbox"/> 本國產品 Native product <input type="checkbox"/> 其他個案 Other	設計國民航主管機構 Original Authority <input type="checkbox"/> FAA <input type="checkbox"/> Germany LBA <input checked="" type="checkbox"/> EASA <input type="checkbox"/> CAA-NL <input type="checkbox"/> Brazil <input type="checkbox"/> UK CAA <input type="checkbox"/> Transport Canada Civil Aviation <input type="checkbox"/> Japan CAB <input type="checkbox"/> DGAC <input type="checkbox"/> CAA of Israel <input type="checkbox"/> Other _____		
	設計國 AD 編號 Original AD number	2022-0113	
	1. 直接採用原 AD 之內容?(Is the original AD directly adopted?) <input checked="" type="checkbox"/> 是(Yes) <input type="checkbox"/> 否(No) _ a. 生效日期另訂為(Re-specify the effective date as) : _____ b. 執行時限另訂為(Re-specify the compliance time or period as) : _____ 2. 使用人是否需要將 AD 執行結果向民航局提出報告?(Do Users need to report the status of compliance to the CAA?) <input type="checkbox"/> 是(Yes) <input checked="" type="checkbox"/> 否(No)		
備註 Note	ATA 72. Ref. Publications: CFM SB LEAP-1A-72-00-0474-01A-930A-D original issue (Issue 001) dated 10 June 2022.		
註： 1. AD 內容後附。 2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。 3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6330 / 6332, Fax：(02)2545-8464, e-mail： adcaa@mail.caa.gov.tw Note： 1. The AD text is enclosed. 2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval. 3. For further information, please contact Civil Aeronautics Administration on Tel：(02)2349-6330 / 6332, Fax： (02)2545-8464, e-mail： adcaa@mail.caa.gov.tw			



Airworthiness Directive

AD No.: 2022-0113

Issued: 17 June 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:

CFM INTERNATIONAL S.A.

Type/Model designation(s):

LEAP-1A engines

Effective Date: 01 July 2022

TCDS Number(s): EASA.E.110

Foreign AD: Not applicable

Supersedure: None

ATA 72 – Engine – Stages 6-10 Compressor Rotor Spools and High Pressure Turbine Rotor Stage 1 Disks – 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 and 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-72-00-0474-01A-930A-D.

Affected part: Compressor Rotor Stages 6-10 Spools and High Pressure Turbine (HPT) Rotor Stage 1 Disks, having a Part Number (P/N) and s/n as listed in Table 1 of the SB.



Serviceable part: Any Compressor Rotor Stages 6-10 Spool or HPT Rotor Stage 1 Disk, 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.

Reason:

Three HPT Rotor Disks from a different engine type have been found to contain iron inclusions. This has been attributed to specific deficiencies in the manufacturing process. Iron inclusion may lead to reduced mechanical properties and failure of an affected part prior to achieving its approved life as published in the Airworthiness Limitations Section of the Engine Manual. It has been determined that the affected parts identified in the SB were manufactured using the same processes, and may also have reduced mechanical properties due to iron inclusion.

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

To address this potential unsafe condition, CFM published the SB, as defined in this AD, to provide replacement instructions.

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, unless accomplished previously:

Replacement:

- (1) For Group 1 engines: Within the compliance time as specified in Table 1 of the SB (see Note 1 of this AD), or during the next engine shop visit, whichever occurs first after the effective date of this AD, replace each affected part with a serviceable part in accordance with the instructions of the SB.

Note 1: The Cycles Since New (CSN) specified in Table 1 of the SB are those accumulated by the 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 each 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-72-00-0474-01A-930A-D original issue (Issue 001) dated 10 June 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.
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 79 85 55, E-mail: cfm.csc@safrangroup.com,

or

CFM Inc. Aviation Operations Centre, Telephone: +1 513-552-3272 or +1 877-432-3272, Fax: +1 877-432-3329, E-mail: geae.aoc@ge.com or aviation.fleetsupport@ge.com.

