



Airworthiness Directive

AD No.: 2018-0239

Issued: 07 November 2018

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, 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 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-1B engines

Effective Date: 21 November 2018

TCDS Number(s): EASA.E.115

Foreign AD: Not applicable

Supersedure: None

ATA 72 – Engine – High Pressure Turbine Case – Replacement

Manufacturer(s):

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

Applicability:

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 serial numbers (s/n).

These engines are known to be installed on, but not limited to, Boeing 737-8 and 737-9 aeroplanes.

Definitions:

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

The SB: CFM International S.A. (CFM) Service Bulletin LEAP-1B-72-00-0193-01A-930A-D Issue 003.

Affected HPT case: A high pressure turbine (HPT) case, having Part Number (P/N) 2541M81G01 and s/n as identified in Table 1 or Table 2 of the SB.

Serviceable HPT case: A HPT case which is not affected.

Affected CDN case: A Combustor Diffuser Nozzle (CDN) case, having P/N 2548M30G0X (where X can be any number from 1 to 7) and a s/n as identified in Table 1 or 2 of the SB.



Serviceable CDN case: A CDN case which is not affected. Or an affected CDN case which was installed to an affected HPT case that passed an inspection (no cracks, as identified in the SB, found) in accordance with the instructions of the SB.

Reason:

Unapproved weld repair have been reported on some HPT cases, which could affect the material capability and reduce the life limit of the part. It has been also determined that a CDN case, if mated to a damaged HPT case forward flange, could have experienced loads beyond design values, with possible reduction of the life limit.

This condition, if not corrected, may lead to failure of the HPT case or CDN case with consequent uncontained debris release, possibly resulting in damage to, and reduced control of, the aeroplane.

To address this potential unsafe condition, CFM issued the SB, providing the list of affected parts and applicable instructions.

For the reason described above, this AD requires inspection of a limited batch of affected parts and, depending on findings, accomplishment of applicable corrective action(s), and replacement of affected parts. This AD also provides criteria for installation of parts on any engine.

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

Required as indicated, unless accomplished previously:

Inspection and Replacement:

- (1) Before exceeding the cycles to removal as identified in Table 1 and Table 2 of the SB, as applicable, and calculated from the effective date of this AD, or when first exposed to piece part level, whichever occurs first after the effective date of this AD, concurrently inspect any affected HPT case and replace it with a serviceable HPT case in accordance with the instructions of the SB.

Corrective Action:

- (2) If, during the inspection as required by paragraph (1) of this AD, a crack, as identified in the SB, is found on an affected HPT case, before next flight or before release to service of the engine, as applicable, replace the associated mating CDN case in accordance with the instructions of the SB.

Credit:

- (3) Inspections and replacement of parts accomplished on an engine before the effective date of this AD in accordance with the instructions of CFM SB LEAP-1B-72-00-0193-01A-930A-D Issue 001 or Issue 002 are acceptable to comply with the requirements of paragraphs (1) and (2) of this AD, as applicable, for that engine.

Parts Installation:

- (4) From the effective date of this AD, do not install an affected HPT case on any engine.
- (5) From the effective date of this AD, it is allowed to install on any engine a CDN case, provided it is serviceable.



Ref. Publications:

CFM International S. A. SB LEAP-1B-72-00-0193-01A-930A-D Issue 001 Dated 30 May 2018, Issue 002 dated 03 August 2018, or Issue 003 dated 05 November 2018.

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](#).
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.

