

Airworthiness Directive

AD No.: 2019-0137

Issued: 12 June 2019

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: 26 June 2019

TCDS Number(s): EASA.E.115

Foreign AD: Not applicable

Supersedure: None

ATA 72 – Engine – Transfer Gearbox Module Scavenge Screens – Inspection

Manufacturer(s):

Safran Aircraft Engines, formerly SNECMA (France); and 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:

SB 72-0222: CFM International S. A. (CFMI) Service Bulletin (SB) LEAP-1B-72-00-0222-01A-930A-D issue 007.

SB 72-0256: CFMI SB LEAP-1B-72-00-0256-01A-930A-D.

Metallic particles: Any metallic particles, except fuzz (being any quantity of material which greatest dimension is 0.1016 mm / 0.004 in, or less) and machining curls.

Screen: Transfer gearbox modules (TGB) 1 and TGB2 scavenge screens.



Affected part: Radial drive shaft (RDS) bearing, having Part Number (P/N) 92D08200 or P/N 92D08201, except those that, after having accumulated 3 750 FH or more since first installation on an engine, passed (SATISFACTORY results, as defined in SB 72-0222) a bearing borescope inspection in accordance with the instructions of SB 72-0222 or of SB 72-0256.

Groups: Group 1 are engines having s/n up to 602 499 inclusive, having an affected part installed. Group 2 are engines having s/n 602 500 or higher, having an affected part installed.

Reason:

Five occurrences have been reported of commanded engine in-flight shut-down (IFSD) following activation of the oil filter bypass light indication in the cockpit. Subsequent investigation identified the root cause as failure of the radial drive shaft bearing cage.

This condition, if not detected and corrected, could lead to further IFSD, possibly resulting in reduced control of the aeroplane.

To address this potential unsafe condition, CFMI issued SB 72-0222 to provide inspection instructions.

For the reason described above, this AD requires repetitive inspections and, depending on findings, accomplishment of applicable corrective action(s).

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

Required as indicated, unless accomplished previously:

Inspection:

- (1) For Group 1 engines: Before the affected part exceeds 250 flight hours (FH) since first installation on an engine, or within 50 FH after the effective date of this AD, whichever occurs later, but not before the affected part exceeds 50 FH since first installation on an engine, and, thereafter, at intervals not exceeding 250 FH, inspect each screen in accordance with the instructions of SB 72-0222.
- (2) For Group 2 engines: Before the affected part exceeds 100 FH since first installation on engine, or within 50 FH after the effective date of this AD, whichever occurs later, but not before the affected part exceeds 50 FH since first installation on an engine, and, thereafter, at intervals not exceeding 100 FH, inspect each screen in accordance with the instructions of SB 72-0222.
- (3) For Group 1 and 2 engines: For an engine equipped with an affected part having accumulated 1 000 FH or more since its first installation on an engine, passing (SATISFACTORY results, as defined in SB 72-0222) a bearing borescope inspection in accordance with the instructions of SB 72-0222 allows deferring the subsequent inspection of each screen, as required by paragraph (1) or (2) of this AD, as applicable, until the affected part accumulates 4 250 FH since first installation on an engine.



Corrective Action(s):

- (4) If, during any inspection as required by paragraph (1) or (2) of this AD, as applicable, metallic particles, as defined in this AD, are found in a screen, within 3 calendar days, determine the nature of those particles in accordance with the instructions of SB 72-0222.
- (5) If, during the determination as required by paragraph (4) of this AD, AISI4340 or AISI4340 Silver Plated (magnetic) metallic particles are identified in a screen, before next flight, remove the engine from service, contact CFMI for applicable corrective action instructions and, before release to service of the engine, accomplish those instructions accordingly.
- (6) If, during any determination as required by paragraph (4) of this AD, metallic particles other than AISI4340, AISI4340 Silver Plated (magnetic) and silver particles are identified in a screen, before next flight, accomplish all applicable corrective actions in accordance with the instructions of SB 72-0222.

Terminating Action(s):

- (7) Accomplishment of corrective actions on an engine, as required by paragraphs (4) to (6) of this AD, as applicable, does not constitute terminating action for the repetitive inspections as required by paragraph (1) or (2) of this AD, as applicable, for that engine, unless specified otherwise in the instructions provided by CFMI.

Credit:

- (8) Inspections and corrective actions, accomplished on an engine before the effective date of this AD in accordance with the instructions of any previous issue of SB 72-0222 are acceptable to comply with the initial requirements of paragraphs (1) to (6) of this AD, as applicable, for that engine.
- (9) Inspections accomplished on an engine before the effective date of this AD in accordance with the instructions of SB 72-0256 are acceptable to comply with the initial requirements of paragraph (3) of this AD, as applicable, for that engine.

Part(s) installation:

- (10) From the effective date of this AD, it is allowed to install an affected part on an engine provided, after installation, inspections and corrective actions, as applicable, are accomplished on that engine as required by this AD.

Ref. Publications:

CFMI SB LEAP-1B-72-00-0222-01A-930A-D issue 001 dated 26 October 2018, or issue 002 dated 19 December 2018, or issue 003 dated 21 January 2019, or issue 004 dated 01 February 2019, or issue 005 dated 13 February 2019, or issue 006 dated 22 March 2019, or issue 007 dated 17 May 2019.

CFMI SB LEAP-1B-72-00-0256-01A-930A-D issue 001 dated 22 March 2019, or issue 002 dated 06 May 2019, or issue 003 dated 17 May 2019.

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. 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 Programming and Continued Airworthiness 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.

