



## Emergency Airworthiness Directive

**AD No.:** 2024-0067-E

**Issued:** 09 March 2024

Note: This Emergency 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):**

CFM56-2, CFM56-3, CFM56-5, CFM56-5B, CFM56-5C and CFM56-7B engines

**Effective Date:** 11 March 2024

**TCDS Number(s):** EASA.E.066, EASA.E.067, EASA.E.003 and EASA.E.004

**Foreign AD:** Not applicable

**Supersedure:** None

### ATA 72 – Engine – Life Limited Parts – Replacement

**Manufacturer(s):**

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

**Applicability:**

CFM56-2, CFM56-2A, CFM56-2B, CFM56-3, CFM56-3B and CFM56-3C engines, serial numbers (s/n);

CFM56-5, CFM56-5-A1/F, CFM56-5A3, CFM56-5A4, CFM56-5A4/F, CFM56-5A5 and CFM56-5A5/F engines, all s/n;

CFM56-5B1, CFM56-5B1/2P, CFM56-5B1/3, CFM56-5B1/P, CFM56-5B2, CFM56-5B2/2P, CFM56-5B2/3, CFM56-5B2/P, CFM56-5B3/2P, CFM56-5B3/2P1, CFM56-5B3/3, CFM56-5B3/3B1, CFM56-5B3/P, CFM56-5B3/P1, CFM56-5B4, CFM56-5B4/2P, CFM56-5B4/2P1, CFM56-5B4/3, CFM56-5B4/3B1, CFM56-5B4/P, CFM56-5B4/P1, CFM56-5B5, CFM56-5B5/3, CFM56-5B5/P, CFM56-5B6, CFM56-5B6/2P, CFM56-5B6/3, CFM56-5B6/P, CFM56-5B7, CFM56-5B7/3, CFM56-5B7/P, CFM56-5B8/3, CFM56-5B8/P, CFM56-5B9/2P, CFM56-5B9/3 and CFM56-5B9/P engines, all s/n;

CFM56-5C2, CFM56-5C2/4, CFM56-5C2/F, CFM56-5C2/F4, CFM56-5C2/G, CFM56-5C2/G4, CFM56-5C2/P, CFM56-5C3/F, CFM56-5C3/F4, CFM56-5C3/G, CFM56-5C3/G4, CFM56-5C3/P, CFM56-5C4, CFM56-5C4/1, CFM56-5C4/P and CFM56-5C4/1P engines, all s/n; and



CFM56-7B20, CFM56-7B20/2, CFM56-7B20/3, CFM56-7B20E, CFM56-7B22, CFM56-7B22/2, CFM56-7B22/3, CFM56-7B22/3B1, CFM56-7B22/B1, CFM56-7B22E, CFM56-7B22E/B1, CFM56-7B24, CFM56-7B24/2, CFM56-7B24/3, CFM56-7B24/3B1, CFM56-7B24/B1, CFM56-7B24E, CFM56-7B24E/B1, CFM56-7B26, CFM56-7B26/2, CFM56-7B26/3, CFM56-7B26/3B1, CFM56-7B26/3B2, CFM56-7B26/3B2F, CFM56-7B26/3F, CFM56-7B26/B1, CFM56-7B26/B2, CFM56-7B26E, CFM56-7B26E/B1, CFM56-7B26E/B2, CFM56-7B26E/B2F, CFM56-7B26E/F, CFM56-7B27, CFM56-7B27/2, CFM56-7B27/3, CFM56-7B27/3B1, CFM56-7B27/3B1F, CFM56-7B27/3B3, CFM56-7B27/3F, CFM56-7B27/B1, CFM56-7B27/B3, CFM56-7B27A, CFM56-7B27A/3, CFM56-7B27AE, CFM56-7B27E, CFM56-7B27E/B1, CFM56-7B27E/B1F, CFM56-7B27E/B3 and CFM56-7B27E/F engines, all s/n.

These engines are known to be installed on, but not limited to, Airbus A318, A319, A320, A321 and A340 aeroplanes, and Boeing 737-300, 737-400, 737-500, 737-600, 737-700, 737-800, 737-900 and 737-900ER series aeroplanes.

### Definitions:

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

**Affected part:** Compressor discharge pressure (CDP) seal, high-pressure compressor (HPC) stage 3 disk, high pressure turbine (HPT) rear shaft, having a Part Number (P/N) and a s/n as listed in Appendix 1 of this AD.

Appendix 1 of this AD also lists, for information only, the engine serial number (ESN) to which the affected parts were installed after accomplishment of the suspected improper maintenance task.

**Serviceable part:** Any CDP pressure seal, HPC stage 3 disk, HPT rear shaft, eligible for installation, which 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:

An occurrence has been reported in which evidence of arcing was found on Critical Parts of an engine. Subsequent investigation identified that the root cause was the usage of an induction heater during maintenance in a manner that may have resulted in unintended electrical arcing to those parts.

It has been determined that the affected parts, as defined in this AD, had maintenance accomplished using the same induction heater and may also be damaged.

This condition, if not corrected, could lead to failure of affected parts, possibly leading to uncontained release of engine parts, damage to the engine and damage to the aeroplane.

For the reason described above, this AD requires replacing the affected parts with serviceable parts, and prohibits (re)installation of affected parts. This AD also prohibits installation of engines having an affected part installed.



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

Required as indicated by this AD, unless the actions required by this AD have been already accomplished:

**Part(s) Replacement:**

- (1) For Group 1 engines: Before next flight after the effective date of this AD, replace each affected part with a serviceable part. This can be accomplished in accordance with the instructions of the applicable engine maintenance manual.

**Parts Installation:**

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

**Ref. Publications:**

None.

**Remarks:**

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. The results of the safety assessment have indicated the need for immediate publication and notification, without the full consultation process.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto: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](mailto: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](mailto:aviation.fleetsupport@ge.com).



## Appendix 1 – Affected Parts

ESN	Engine Type	CDP Seal		HPC Stage 3 Disc		HPT Rear Shaft	
		s/n	P/N	s/s	P/N	s/n	P/N
779879	CFM56-5B	GFF5HR7H	2116M25P01	XAEH4524	1590M59P01	TMT3SB56	1864M90P05
575151	CFM56-5B	GFF5J2R0	1523M35P01	XAEW3896	1590M59P01	TMTA6584	1864M90P04
643313	CFM56-5B	GFF5LL3P	2116M25P01	XAE6377U	2116M23P01	TMT1RJ6T	1864M90P04
643308	CFM56-5B	GFF5LL5R	2116M25P01	XAE6416U	2116M23P01	TMT1T7KF	1864M90P04
643443	CFM56-5B	GFF5LN9K	2116M25P01	XAE6576U	2116M23P01	TMT1UCL8	1864M90P04
643384	CFM56-5B	GFF5LN29	2116M25P01	XAE6749U	2116M23P01	TMT1UDJN	1864M90P04
643383	CFM56-5B	GFF5LN7C	2116M25P01	XAE6883U	2116M23P01	TMT1UTL2	1864M90P04
960147	CFM56-7B	GFF5LC8G	2116M25P01	XAE6329U	2116M23P01	TMT1LPT5	1864M90P04
890800	CFM56-7B	GFF5GL4T	2116M25P01	XAEY9605	2116M23P01	TMTA3602	1864M90P04
960113	CFM56-7B	GFF5LLHK	2116M25P01	XAE6496U	2116M23P01	TMT1RJ6P	1864M90P04
960105	CFM56-7B	GFF5KTW1	2116M25P01	XAE6196U	2116M23P01	TMT1PM2N	1864M90P04
803767	CFM56-5B	GFF5LLJE	2116M25P01	XAE6497U	2116M23P01	TMT1PRR6	1864M90P04
962116	CFM56-7B	GFF5LM2F	2116M25P01	XAE6482U	2116M23P01	TMT1PRR4	1864M90P04
960999	CFM56-7B	GFF5LLK6	2116M25P01	XAE6502U	2116M23P01	TMT1PN56	1864M90P04
961787	CFM56-7B	GFF5LL4A	2116M25P01	XAE7292U	2116M23P01	TMT1U29H	1864M90P04
962504	CFM56-7B	GFF5LLH4	2116M25P01	XAE7324U	2116M23P01	TMT1LPJ6	1864M90P04
962491	CFM56-7B	GFF5LPKJ	2116M25P01	XAE7116U	2116M23P01	TMT1RJ6E	1864M90P04
575348	CFM56-5B	GFF5LH68	2116M25P01	XAE6017U	2116M23P01	TMT1NLFE	1864M90P04
575243	CFM56-5B	GFF5KN5K	2116M25P01	XAE5290U	2116M23P01	TMT1JHJ7	1864M90P04
577604	CFM56-5B	GFF5L936	2116M25P01	XAE4312U	2116M23P01	TMT1JKK8	1864M90P04
577255	CFM56-5B	GFF5ECKK	1523M35P01	XAEG0763	1590M59P01	TMT1M7UD	1864M90P04
645551	CFM56-5B	GFF5LH4H	2116M25P01	XAE5738U	2116M23P01	TMT1NLF0	1864M90P04
779544	CFM56-5B	GFF5ELTO	1523M35P01	XAEW3361	1590M59P01	TMT3SD14	1864M90P05
575840	CFM56-5B	GFF5J4R8	1523M35P01	n/a	n/a	TMTD4155	1864M90P04
960395	CFM56-7B	GFF5G2WC	2116M25P01	XAEV5927	2116M23P01	TMTA1872	1864M90P04
575806	CFM56-5B	GFF5LLHT	2116M25P01	XAEW3261	1590M59P01	TMTD1698	1864M90P04
699126	CFM56-5B	GFF5DNJG	2116M25P01	XAER4768	2116M23P01	TMTA5963	1864M90P04



ESN	Engine Type	CDP Seal		HPC Stage 3 Disc		HPT Rear Shaft	
		s/n	P/N	s/s	P/N	s/n	P/N
699277	CFM56-5B	GFF5GWRJ	2116M25P01	XAEBS962	2116M23P01	TMT4E107	1864M90P04
697355	CFM56-5B	GFF59NHM	1523M35P01	GWN04DF4	1590M59P01	TMT3SA87	1864M90P05
577182	CFM56-5B	GFF5DG9W	1523M35P01	XAEH5166	1590M59P01	TMT3S111	1864M90P05
779990	CFM56-5B	GFF5K300	2116M25P01	n/a	n/a	n/a	n/a
697483	CFM56-5B	GFF5LGT2	2116M25P01	XAE5993U	2116M23P01	TMT1MMNL	1864M90P04
577181	CFM56-5B	GFF5J4DH	2116M25P01	XAEGD205	2116M23P01	TMTD1836	1864M90P04
569701	CFM56-5B	GFF5HTFW	2116M25P01	XAEDU465	2116M23P01	TMTA8863	1864M90P04
569702	CFM56-5B	GFF5HTWC	2116M25P01	XAECR455	2116M23P01	TMT1H3E3	1864M90P04
802219	CFM56-5B	GFF5LH8R	2116M25P01	XAE6050U	2116M23P01	TMT1MHCE	1864M90P04
643567	CFM56-5B	GFF5LMWK	2116M25P01	XAE6981U	2116M23P01	TMT1U28M	1864M90P04
573567	CFM56-5B	GFF5JARC	2116M25P01	n/a	n/a	n/a	n/a
643851	CFM56-5B	GFF5LN01	2116M25P01	XAE6899U	2116M23P01	TMT1U0J7	1864M90P04
699992	CFM56-5B	n/a	n/a	XAEHP389	2116M23P01	n/a	n/a
645978	CFM56-5B	GFF5KN5N	2116M25P01	XAE5574U	2116M23P01	TMT1JKJJ	1864M90P04
643446	CFM56-5B	GFF5L8K8	2116M25P01	XAE5761U	2116M23P01	TMT1M7UJ	1864M90P04
643447	CFM56-5B	GFF5L9PN	2116M25P01	XAE5757U	2116M23P01	TMT1MGNL	1864M90P04
699642	CFM56-5B	GFF5L9PR	2116M25P01	XAE6316U	2116M23P01	TMT1MNA8	1864M90P04
643470	CFM56-5B	GFF5LKEP	2116M25P01	XAE6406U	2116M23P01	TMT1RJ7P	1864M90P04
699283	CFM56-5B	GFF5L9P9	2116M25P01	XAE5741U	2116M23P01	TMT1JNTP	1864M90P04
643730	CFM56-5B	GFF5LL3W	2116M25P01	XAE6507U	2116M23P01	TMT1PN4H	1864M90P04
699279	CFM56-5B	GFF5LE8P	2116M25P01	XAE6282U	2116M23P01	TMT1L01A	1864M90P04
699644	CFM56-5B	GFF5LE41	2116M25P01	XAE6311U	2116M23P01	TMT1PG4N	1864M90P04
643479	CFM56-5B	GFF5LFDA	2116M25P01	XAE6892U	2116M23P01	TMT1JLU6	1864M90P04
643635	CFM56-5B	GFF5LN4R	2116M25P01	XAE6811U	2116M23P01	TMT1U0HR	1864M90P04
643633	CFM56-5B	GFF5LMJ9	2116M25P01	XAE6568U	2116M23P01	TMT1JKFH	1864M90P04
699867	CFM56-5B	GFF5LN9E	2116M25P01	XAE6932U	2116M23P01	TMT1UNLM	1864M90P04
643267	CFM56-5B	GFF5MH2	2116M25P01	XAE7182U	2116M23P01	TMT1U296	1864M90P04
779533	CFM56-5B	GFF5J6MH	2116M25P01	XAEGD645	2116M23P01	TMTD2505	1864M90P04
643444	CFM56-5B	GFF5LN7D	2116M25P01	n/a	n/a	TMT1U9RJ	1864M90P04



ESN	Engine Type	CDP Seal		HPC Stage 3 Disc		HPT Rear Shaft	
		s/n	P/N	s/s	P/N	s/n	P/N
699887	CFM56-5B	GFF5LKGP	2116M25P01	XAE6818U	2116M23P01	TMT1U0HU	1864M90P04

