



## Airworthiness Directive

**AD No.:** 2017-0084

**Issued:** 12 May 2017

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 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 (EC) 216/2008, Article 14(4) exemption].

**Design Approval Holder's Name:**

CFM INTERNATIONAL S.A.

**Type/Model designation(s):**

CFM56-5 and -5B engines

**Effective Date:** 26 May 2017

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

**Foreign AD:** Not applicable

**Revision:** None

### ATA 72 – Engine – Radial Drive Shaft – Replacement

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**Manufacturer(s):**

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

**Applicability:**

CFM56-5, CFM56-5-A1/F, CFM56-5A3, CFM56-5A4, CFM56-5A4/F, CFM56-5A5, CFM56-5A5/F engines, all serial numbers.

and

CFM56-5B1, CFM56-5B1/P, CFM56-5B1/3, CFM56-5B2, CFM56-5B2/P, CFM56-5B2/3, CFM56-5B3/P, CFM56-5B3/P1, CFM56-5B3/3, CFM56-5B3/3B1, CFM56-5B4, CFM56-5B4/P, CFM56-5B4/P1, CFM56-5B4/3, CFM56-5B4/3B1, CFM56-5B5, CFM56-5B5/P, CFM56-5B5/3, CFM56-5B6, CFM56-5B6/P, CFM56-5B6/3, CFM56-5B7, CFM56-5B7/P, CFM56-5B7/3, CFM56-5B8/P, CFM56-5B8/3, CFM56-5B9/P, CFM56-5B9/3, CFM56-5B1/2P, CFM56-5B2/2P, CFM56-5B3/2P, CFM56-5B3/2P1, CFM56-5B4/2P, CFM56-5B4/2P1, CFM56-5B6/2P, CFM56-5B9/2P engines, all serial numbers.

These engines are known to be installed on, but not limited to, Airbus A318, A319, A320 and A321 aeroplanes.



**Reason:**

Several in-flight shut down (IFSD) events were reported on CFM International (CFMI) CFM56-5B engines. Investigations attributed these IFSD to failure of the radial drive shaft (RDS), and identified a batch of RDS assemblies that may be affected by this issue.

This condition, if not detected and corrected, may lead to engine damage and IFSD of one or more engines, possibly resulting in reduced control of the aeroplane.

To address this potential unsafe condition, CFM issued CFM56-5B Service Bulletin (SB) 72-0934, listing engines equipped at delivery with affected parts, and providing instructions to inspect those engines and to replace the RDS assembly and the RDS outer housing.

Furthermore, it was determined that, as the affected parts are eligible for installation on CFM56-5 engines, also these engines may be affected.

For the reason described above, this AD requires replacement of affected parts on affected engines, and prohibits (re)installation of affected parts on any engine.

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

Required as indicated, unless accomplished previously:

Note 1: For the purpose of this AD, an affected RDS assembly is defined as having Part Number (P/N) 305-165-101-0 and equipped with an RDS having a P/N and serial number (s/n) as identified in Appendix 1 of this AD.

Note 2: For the purpose of this AD, Group 1 engines are those that have an affected RDS assembly installed. Group 2 engines are those that do not have an affected RDS assembly installed (see Note 1 of this AD).

**Replacement / Inspection:**

(1) Group 1 engines (see Note 2 of this AD): Within 6 months after the effective date of this AD, replace each affected RDS assembly with a serviceable part, replace the RDS outer housing P/N 301-295-106-0 with a serviceable part, and inspect the engine in accordance with the instructions of CFM56-5B SB 72-0934.

**Corrective Action(s):**

(2) If, during the inspection as required by paragraph (1) of this AD, any deficiency is found, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of CFM56-5B SB 72-0934.

**Parts Installation:**

(3) Do not install on any engine an affected RDS assembly (see Note 1 of this AD) as required by paragraph (3.1) or (3.2) of this AD, as applicable.

(3.1) Group 1 engines (see Note 2 of this AD): After replacement of parts as required by paragraph (1) of this AD.



(3.2) Group 2 engines (see Note 2 of this AD): From the effective date of this AD.

**Ref. Publications:**

CFM International S. A. CFM56-5B SB 72-0934 original issue, dated 01 August 2016.

The use of later approved revisions of this 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. This AD was posted on 15 March 2017 as PAD 17-030 for consultation until 12 April 2017. No comments were received during the consultation period.
3. Enquiries regarding this AD should be referred to the Safety Information Section, Certification Directorate, EASA. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
4. For any question concerning the technical content of the requirements in this AD, please contact:

CFM SA Customer Support Centre, Telephone: +33 1 64 14 88 66, Fax: +33 1 64 79 85 55

E-mail: [snecma.csc@snecma.fr](mailto:snecma.csc@snecma.fr)

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](mailto:geae.aoc@ge.com), or [aviation.fleetsupport@ge.com](mailto:aviation.fleetsupport@ge.com).



## Appendix 1 – Affected RDS, P/N 305-136-803-0 (see Note 3 of this AD)

Note 3: The engine s/n are provided for reference only, and are based on engine configuration at delivery.

Engine s/n	RDS s/n	Engine s/n	RDS s/n	Engine s/n	RDS s/n
569106	EE084945	569438	EE161693	569991	EE266123
569110	EE084941	569449	EE161701	569993	EE266120
569162	EE084978	569453	EE161668	569994	EE266121
569166	EE084976	569460	EE161719	573102	EE266110
569198	EE085022	569480	EE161704	573109	EE266116
569220	EE161447	569485	EE161713	573174	EE266143
569234	EE161450	569504	EE161729	573180	EE266179
569250	EE161432	569540	EE161749	573182	EE266176
569269	EE161490	569541	EE161751	573184	EE266161
569270	EE161482	569543	EE161732	573189	EE266164
569276	EE161478	569553	EE161708	573222	EE266217
569287	EE161519	569600	EE161810	573225	EE266213
569288	EE161495	569616	EE161827	573226	EE266215
569294	EE161513	569642	EE084786	573231	EE266230
569315	EE084846	569649	EE161826	573244	EE266234
569316	EE161504	569691	EE161877	573248	EE266207
569327	EE084860	569692	EE161676	573252	EE266225
569328	EE161487	569704	EE161863	573255	EE266216
569330	EE084854	569757	EE161914	573257	EE266199
569347	EE161619	569758	EE265982	573258	EE266205
569376	EE161624	569799	EE161556	573266	EE266189
569384	EE161649	569815	EE161561	573283	EE266208
569389	EE161586	569831	EE161557	573353	EE266250
569396	EE161643	569835	EE266001	573442	EE266263
569403	EE161633	569937	EE266099	573443	EE266270
569406	EE161605	569947	EE266082	573476	EE266301
569411	EE085020	569952	EE266091	573478	EE266294
569425	EE161675	569954	EE266066	573498	EE266295
569428	EE161655	569962	EE266057	573500	EE266261
569430	EE161665	569985	EE266097	573588	EE266314
		569988	EE266108		

