

AIRWORTHINESS DIRECTIVE

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Inspection and/or modifications described below are mandatory. No person may operate a product to which this Airworthiness Directive applies except in accordance with the requirements of this Airworthiness Directive.

Translation of 'Consigne de Navigabilité' ref. : 98-096(B)
In case of any difficulty, reference should be made to the French original issue.

CFM INTERNATIONAL

Turbo Fan engines CFM56-3 all models

Accessory gear box (AGB) and transfer gear box (TGB)

1) APPLICABILITY :

Warning : some engines may be in several lists

List 1A : (First batch of CFM56-3 engines with suspect starter gearshaft (line 5) in the accessory gearbox (AGB)). Engines serial numbers 858619 to 858622, 858624, 858627 to 858635, 858638, 858640, 858641, 858644, 858647, 858657. (See Service Bulletin CFM56-3/-3B/-3C S/B 72-863 Revision 1).

List 1B : (Second batch of CFM56-3 engines with suspect starter gearshaft (line 5) in the accessory gearbox (AGB)). Engines serial numbers 858639, 858642, 858643, 858646, 858648 to 858656, 858658, 858660, 858662 to 858665, 858670, 858671, 858673, 858676, 858678. (See Service Bulletin CFM56-3/-3B/-3C S/B 72-863 Revision 1).

List 2A : (CFM56-3 engines with suspect 26 teeth input bevel gear (line 1) in the transfer gear box (TGB)). Engines serial numbers 858568, 858571, 858576, 858624, 858625, 858630 to 858639, 858641 to 858643, 858646 to 858651, 858654 to 858657, 858660 to 858662, 858665 to 858668, 858673, 858687, 858688, 858701, 722201. (See Service Bulletin CFM56-3/-3B/-3C S/B 72-865).

List 2B : (CFM56-3 engines with suspect 27 teeth output bevel gear (line 2) in the transfer gear box (TGB)). Engines serial numbers 858635 to 858637, 858642, 858643, 858646, 858648, 858656, 858657, 858662, 858663, 858665 to 858669, 858671 to 858677, 858679 to 858681, 858684, 858686, 858688, 858689, 858691, 858700. (See Service Bulletin CFM56-3/-3B/-3C S/B 72-865).

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List 3 : (CFM56-3 engines with suspect intermediate gearshaft 44x73 teeth (line 9) in the accessory gear box (AGB)). Engines serial numbers 858619 to 858622, 858624, 858627 to 858642, 858644 to 858652, 858654, 858657 to 858660, 858666, 858668. (See Service Bulletin CFM56-3/-3B/-3C S/B 72-873 Revision 1).

2) REASON :

Three in Flight Shut Downs were experienced due to failure of starter gearshaft in the accessory gear box (AGB). The first analysis result shows also a risk of failure of others gearshafts of the transfer gear box (TGB) or the accessory gear box (AGB) which could lead to an in Flight Shut Down.

3) MANDATORY ACTIONS :

- a) For engines in above lists 1A, 1B, 2A and 2B perform a daily check of the AGB and TGB magnetic chip detector (MCD). If magnetic particles are found, remove from service AGB and TGB. (See Service Bulletin CFM56-3/-3B/-3C S/B 72-A861 Revision 3).
- b) Remove from service the starter gearshaft in the AGB of engines in the above list 1A and list 1B. (See Service Bulletin CFM56-3/-3B/-3C S/B 72-863 Revision 1) following the schedule of paragraph 4 below (excepted if already done).
- c) Remove from service the input bevel gearshaft in the TGB of engines in the above list 2A. (See Service Bulletin CFM56-3/-3B/-3C S/B 72-865) following the schedule of paragraph 4 below (excepted if already done).
- d) Remove from service the output bevel gearshaft in the TGB of engines in the above list 2B. (See Service Bulletin CFM56-3/-3B/-3C S/B 72-865) following the schedule of paragraph 4 below (excepted if already done).
- e) Remove from service the intermediate gearshaft 44x73 teeth in the accessory gear box (AGB) of engines in the above list 3. (See Service Bulletin CFM56-3/-3B/-3C S/B 72-873) under the schedule of paragraph 4 below (excepted if already done).

4) DATES OF COMPLIANCE :

- a) For twin engines planes which have two engines in the above lists replace **before the next flight** all the suspect gearshafts on one engine performing the above mandatory actions 3B, 3C, 3D, and 3E.
- b) For the installed engines of list 1A perform before December 12, 1997 (which is the applicable date in CN 97-354 Revision 3) above mandatory action 3B.
- c) For the installed engines of list 1B perform before January 20, 1998 (which is the applicable date in CN 97-354 Revision 3) above mandatory action 3B.
- d) For the installed engines of list 2A perform before December 20, 1997 (which is the applicable date in CN 97-354 Revision 3) above mandatory action 3C.
- e) For the installed engines of list 2B perform before January 05, 1998 (which is the applicable date in CN 97-354 Revision 3) above mandatory action 3D.
- f) For the installed engines of list 3 perform before March 15, 1998 above mandatory action 3E.

5) NOTE :

The present Airworthiness Directive re-opens and complete the requirements of AD 97-354(B) Revision 3 dated December 17, 1997 (which is cancelled by - Revision 4) for CFM56-3 engines.

6) REFERENCES :

CFM56-3/-3B/-3C S/B 72-A861 R3
72-863 R1
72-865
72-873 R1

EFFECTIVE DATE : UPON RECEIPT