AD/CFM56/11 Accessory and Transfer Gearbox Replacement 6/98 TX

Applicability: CFM International (CFMI) CFM 56-5, 56-5B and 56-5C, all models, turbofan engines with serial numbers as listed below (Warning: some engines may appear in more than one list):

List 1A: (First batch of CFM56-5 Engines with suspect gearshaft cluster spur assembly 31x71 teeth (line 2) in the accessory gearbox (AGB). Engines Serial Number (ESN): 731951, 731954, 731955, 731959, 731960, 731962, 731963, 731966, 731969 (See Service Bulletin CFM56-5 S/B 72-523 Revision 1).

List 1B: (Second batch of CFM56-5 engines with suspect gearshaft cluster spur assembly 31x71 teeth (line 2) in the accessory gearbox (AGB). ESN 731943 to 731948, 731952, 731953, 731956 to 731958, 731973. (See Service Bulletin CFM56-5 S/B 72-523 Revision 1).

List 2A: (First batch of CFM56-5B Engines with suspect gearshaft cluster spur assembly 31x71 teeth (line 2) in the accessory gearbox (AGB). ESN: 779316, 779318, 779322, 779323, 779330, 779332, 779339 (See Service Bulletin CFM56-5B S/B 72-211 Revision 1).

List 2B: (Second batch of CFM56-5B Engines with suspect gearshaft cluster spur assembly 31x71 teeth (line 2) in the accessory gearbox(AGB). ESN 779307 to 779315, 779317, 779327 (See Service Bulletin CFM56-5B S/B 72-211 Revision 1).

List 3A: (First batch of CFM56-5C engines with suspect gearshaft cluster spur assembly 31x71 teeth (line 2) in the accessory gearbox (AGB) ESN: 741666, 741668, 741670 to 741674, 741676, 741677, 741680, 741682, 741684 (see Service Bulletin CFM56-5C S/B 72-350 Revision 1).

List 3B: (Second batch of CFM56-5C engines with suspect gearshaft cluster spur assembly 31x71 teeth (line 2) in the accessory gearbox (AGB). ESN: 741653, 741655, 741665, 741667, 741669, 741675, 741678, 741679, 741681 (see Service Bulletin CFM56-5C S/B 72-350 Revision 1).

Requirement:

1. For all engines in Lists 1A and 1B above, remove from service the gearshaft cluster spur assembly (31x71 teeth) in the AGB in accordance with the instructions of Service Bulletin CFM56-5 S/B 72-523 Revision 1.

2. For all engines in Lists 2A and 2B above, remove from service the gearshaft cluster spur assembly (31x 71 teeth) in the AGB in accordance with the instructions of Service Bulletin CFM56-5B S/B 72-211 Revision 1.

3. For all engines in Lists 3A and 3B above, remove from service the gearshaft cluster spur assembly (31x 71 teeth) in the AGB in accordance with the instructions of Service Bulletin CFM56-5C S/B 72-350 Revision 1.

4. For twin engined aircraft, with both engines applicable, all suspect gearshafts on one of the engines must be replaced in accordance with actions 1-2 above.

5. For four engined aircraft which have more than one engine applicable to the provisions of this directive, replace all suspect gearshafts, on all applicable engines (in accordance with actions 2-7 above), such that no more than one applicable engine with suspect gearshafts remains in service on any four engined aircraft.

Note 1: Actions listed above which have already been completed under AD/CFM-56/8 need not be repeated under this directive.

Note 2: DGAC T98-097 (B) dated 25 February 1998 refers.

Compliance:

1. Before 01 February 1998.

2. Engines on List 2A before 01 February 1998; engines on List 2B before 15 April 1998.

3. Engines on List 3A before 01 February 1998; engines on List 3B before 15 April 1998.

4. Before next flight.

5. Before next flight.

This airworthiness directive becomes effective on 26 March 1998.

Background: Three in flight shut downs were experienced due to failure of starter gearshafts in the accessory gearbox (AGB). The first analysis results shows also a risk of failure of the conical gearshafts of the transfer gearbox (TGB) which could lead to an in flight shut down. This directive supersedes the CFM56-5 requirements of AD/CFM-56/8 which has been cancelled.