



DATE: May 16, 2013

AD #: 2013-10-52

Emergency airworthiness directive (AD) 2013-10-52 is sent to owners and operators of General Electric Company (GE) GE90-110B1 and GE90-115B turbofan engines.

Background

This emergency AD was prompted by reports of two failures of transfer gearbox assemblies (TGBs) which resulted in in-flight shutdowns (IFSDs). Investigation has revealed that the failures were caused by TGB radial gear cracking and separation. Further inspections found two additional radial gears with cracks. This condition, if not corrected, could result in additional IFSDs of one or more engines, loss of thrust control, and damage to the airplane.

Relevant Service Information

We reviewed GE GE90-100 Series Alert Service Bulletin (ASB) No. GE90-100 S/B 72-A0558, Revision 1, dated May 14, 2013, and GE90-100 Series ASB No. GE90-100 S/B 72-A0559, dated May 14, 2013. The ASBs provide additional information regarding the affected TGBs.

FAA's Determination

We are issuing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

AD Requirements

This AD prohibits operation of an airplane with affected TGBs installed on both engines five days after receipt of this emergency AD.

Interim Action

We consider this AD to be an interim action. We anticipate that further AD action will follow.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This

regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Presentation of the Actual AD

We are issuing this AD under 49 U.S.C. Section 44701 according to the authority delegated to me by the Administrator.

2013-10-52 General Electric Company: Directorate Identifier 2013-NE-17-AD

(a) Effective Date

This Emergency AD is effective upon receipt.

(b) Affected ADs

None.

(c) Applicability

General Electric Company (GE) GE90-110B1 and GE90-115B turbofan engines with a transfer gearbox assembly (TGB), part number 2115M33G07 or 2115M33G08, serial number (S/N) listed in Table 1 to paragraph (c) of this emergency AD, installed.

Table 1 to Paragraph (c) - Transfer Gearbox Assembly S/Ns

FIA0HYRT	FIA0JGE8	FIA0J3YC	FIA0JRTW
FIA0HV16	FIA0JEH2	FIA0JEH3	FIA0K4M6
FIA0J31V	FIA0JGE7	FIA0JAVL	FIA0JN33
FIA0H0R1	FIA0JLAV	FIA0J70G	FIA0K7TV
FIA0J3YE	FIA0JLAY	FIA0HV18	FIA0K56H
FIA0J1L0	FIA0JGFC	FIA0J70E	FIA0K7TY
FIA0J3YF	FIA0JN31	FIA0JGE9	FIA0K7TW
FIA0J7FF	FIA0JN3Y	FIA0JLAW	FIA0K4M5
FIA0J5LR	FIA0JGFF	FIA0H0R3	FIA0K56G
FIA0J7FH	FIA0JN30	FIA0JGE6	FIA0JN32
FIA0J7FC	FIA0J7Y9	FIA0JT56	FIAAV6M1
FIA0J70A	FIA0JAVM	FIA0JT57	FIA0K7T1
FIA0J7Y8	FIA0JGFA	FIA0J7FE	FIAAP6C4
FIA0J7Y7	FIA0JLAT	FIA0JT6K	FIA0K7T0
FIA0J31W	FIA0JT58	FIA0JT6L	FIAATMYA
FIA0J70C	FIA0K2H1	FIA0JLAR	FIA0K56K
FIA0JAVH	FIA0HP4Y	FIA0JRT5	FIAATH0T

FIA0J7FG	FIA0HV17	FIA0JRT4	FIA0K56J
FIA0J70F	FIA0HV19	FIA0JT6J	FIAAPA8T
FIA0JAVK	FIA0HWG3	FIA0K2H4	FIAAVTMA
FIA0JEH4	FIA0J3YG	FIA0JRTV	FIA0JRTY
FIA0J5LY	FIA0H0R0	FIA0K2H2	FIAAR7C0
FIA0J5LT	FIA0HYRV	FIA0K2H3	FIAARW1V
FIA0J5LW	FIA0H0R2	FIA0K4M2	FIA07PAN
FIA0JEH5	FIA0J1LY	FIA0K4M4	FIA06VPP
FIA0JAVJ	FIA0J31T	FIA0JT59	FIA03RR4
FIA0JGE5	FIA0J1LW	FIA0K2H5	FIA0JGFE
FIA0JEH6	FIA0J5LV	FIA0K4M1	FIA02N6R
FIA0JGEH	FIA0HYRR	FIA0K56L	
FIA0J1LV	FIA0J31R	FIA0K4M3	

(d) Unsafe Condition

This AD was prompted by reports of two failures of TGBs which resulted in in-flight shutdowns (IFSDs). This condition, if not corrected, could result in additional IFSDs of one or more engines, loss of thrust control, and damage to the airplane.

(e) Compliance

(1) Comply with this AD within the compliance times specified, unless already done.

(2) No later than five days after receipt of this emergency AD, do not operate the airplane if more than one installed engine has a TGB S/N listed in Table 1 to paragraph (c) of this emergency AD.

(f) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(g) Related Information

(1) For further information about this AD, contact: Jason Yang, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7747; fax: 781-238-7199; email: jason.yang@faa.gov.

(2) GE GE90-100 Series Alert Service Bulletin (ASB) No. GE90-100 S/B 72-A0558, Revision 1, dated May 14, 2013, and GE90-100 Series ASB No. GE90-100 S/B 72-A0559, dated May 14, 2013, pertain to the subject of this AD.

(3) For the service information referenced in this AD, contact: General Electric Company, GE-Aviation, Room 285, 1 Neumann Way, Cincinnati, Ohio 45215; email: geae.aoc@ge.com;

phone: 513-552-3272. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA.

Issued in Burlington, Massachusetts, on May 16, 2013.

Frank P. Paskiewicz,
Acting Director,
Aircraft Certification Service