
AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Allison Turbine Engines - 250 Series**AD/AL 250/89****Gas Producer Rotor Tie Bolt****9/2006**

Applicability: Rolls-Royce Corporation (formerly Allison Engine Company, Allison Gas Turbine Division, and Detroit Diesel Allison) 250-B17, -B17B, -B17C, -B17D, -B17E, -B17F, -B17F/1, -B17F/ 2, 250-C18, -C20, -C20B, -C20F, -C20J, -C20R, -C20R/1, -C20R/2, -C20R/4, -C20S, and C20W series turboprop and turboshaft engines with the gas producer rotor assembly tie bolt part numbers (P/Ns) listed in Table 1 of this Airworthiness Directive installed.

Table 1. - Affected Gas Producer Rotor Assembly Tie Bolts

Manufacturer	Affected part numbers (P/N)
EXTEX Ltd. (EXTEX)	A23008020 and E23008020
Rolls-Royce Corporation (RRC)	23008020, 6843388 and 6876991
Superior Air Parts Inc. (SAP)	A23008020
Pacific Sky Supply Inc	23008020P

Note 1: These engines are installed on, but not limited to, aircraft listed in Table 2 of this AD:

Table 2. - Applicable Aircraft

Helicopter	Models
Agusta	A109, A109A, A109A II, A109C.
Arrow Falcon Exporters	OH-58A+ and OH-58C.
Bell Textron	206A, 206B, 206L.
Enstrom	TH-28, 480, 480B.
Eurocopter France	AS355E, AS355F, AS355F1, AS355F2.

Allison Turbine Engines - 250 Series

AD/AL 250/89 (continued)

Table 2. - Applicable Aircraft (continued)

Eurocopter Deutschland.	BO-105A, BO-105C, BO-105S.
FH-1100 Manufacturing Corp.	FH-1100.
Garlick	OH-58A+ OH-58C.
McDonnell Douglas Company	369D, 369E, 369F, 369H, 369HM, 369HS, 369HE, 500N.
San Joaquin	OH-58A+ and OH-58C.
Schweizer	269D.
B-N Group Ltd.	BN-2T and BN-2T-4R.
SIAI Marchetti s.r.l.	SF600, SF600A.

- Requirement:
1. Remove from service the P/N gas producer rotor assembly tie bolts listed in Table 1 of this Airworthiness Directive, and replace with tie bolts with P/Ns that are not listed in Table 1 of this Airworthiness Directive.
 2. Do not install any gas producer rotor assembly tie bolt P/Ns listed in Table 1 of this AD in any RRC 250-B and 250-C Series turboprop and turboshaft engines.

Related Information

RRC Commercial Engine Bulletin (CEB) CEB A-304, CEB A-1371, CEB A-72-4076, TP CEB A-176, TP CEB A-1319, TP CEB A-72-2027, Revision N/C, dated 23 May 2005, and EXTEX Service Bulletin T-090, Revision N/C, 23 dated May 2005, pertain to the subject of this Airworthiness Directive.

Note 2: FAA AD 2006-13-06 Amdt 39-14659 dated 14 June 2006 refers.

- Compliance:
1. At the next time they are disassembled for any reason, or by October 31, 2011, whichever occurs first.
 2. From the effective date of this Airworthiness Directive.

This Airworthiness Directive becomes effective on 31 August 2006.

Allison Turbine Engines - 250 Series

AD/AL 250/89 (continued)

Background: This Airworthiness Directive results from eleven reports of RRC tie bolt failure due to high-cycle-fatigue. The requirements of this Airworthiness Directive are intended to prevent tie bolt failure that could cause loss of engine power, resulting in a first stage turbine wheel overspeed and an uncontained engine failure.

A handwritten signature in black ink, appearing to read 'James Coyne', with a stylized flourish at the end.

James Coyne
Delegate of the Civil Aviation Safety Authority

21 July 2006