

2007-19-09R1 Turbomeca: Amendment 39-16322. Docket No. FAA-2007- 27009; Directorate Identifier 2007-NE-02-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective July 7, 2010.

Affected ADs

(b) This AD revises AD 2007-19-09, Amendment 39-15200.

Applicability

(c) This AD applies to Turbomeca ARRIEL 2B1 turboshaft engines that don't incorporate modification TU157. These engines are installed on, but not limited to, Eurocopter AS 350 B3 and EC 130 B4 helicopters.

Reason

(d) European Aviation Safety Agency (EASA) AD No. 2009-0091, dated May 4, 2009, states: Since the issuance of AD 2007-0126 Turbomeca has released modification TU157 which consists in modifying the pressure relief valve of the HMU by introducing a damping device into the valve. Introduction of this device has demonstrated to decrease the pressure fluctuations in the system, therefore reducing significantly the risk of wear of the delta-P diaphragm fabric. This will delete the need for a periodical replacement of the delta-P diaphragm before overhaul of the HMU. The modification TU157 is therefore considered as the terminating action for this AD.

We are issuing this AD to prevent the loss of automatic control mode coupled with the deteriorated performance of the backup mode, which can lead to the inability to continue safe flight, forced autorotation landing, or an accident.

Actions and Compliance

(e) Unless already done, do the following actions.

(1) For ARRIEL 2B1 engines that incorporate modification TU157, no further action is required.

(2) For all other ARRIEL 2B1 engines do the following:

(i) Replace the hydromechanical metering unit (HMU) with a serviceable HMU before the HMU accumulates 1,500 hours-since-new, hours-since-last-overhaul (HSO), or since incorporation of Turbomeca Service Bulletin (SB) No. 292 73 2105, whichever occurs later.

(ii) Thereafter, replace the HMU with a serviceable HMU at every 1,500 hours-since new, since last overhaul, or since incorporation of Turbomeca SB No. 292 73 2105, whichever occurs later.

(iii) For the purposes of this AD, a serviceable HMU is an HMU fitted with a new constant delta P diaphragm in accordance with Turbomeca Mandatory Service Bulletin (MSB) No. 292 73 2818, Original Issue, Dated October 18, 2006, Update No. 1, dated April 3, 2007, or Version C, dated January 29, 2009.

Optional Terminating Action

(3) Replacing the HMU with an HMU that has been modified to TU157 terminates the repetitive requirement of paragraph (e)(2)(ii) of this AD.

FAA AD Differences

(f) This AD differs from the Mandatory Continuing Airworthiness Information (MCAI) because the MCAI applies to the ARRIEL 2B1 and 2B1A engines. The ARRIEL 2B1A engine is not type certificated in the United States, so this proposed AD applies to the ARRIEL 2B1 engine model only.

Alternative Methods of Compliance (AMOCs)

(g) The Manager, Engine Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

Related Information

(h) Contact Kevin Dickert, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: kevin.dickert@faa.gov; telephone (781) 238-7117; fax (781) 238-7199, for more information about this AD.

Material Incorporated by Reference

(i) None.