

**2009-26-07 Turbomeca:** Amendment 39-16142. Docket No. FAA-2009-0544; Directorate Identifier 2009-NE-17-AD.

### **Effective Date**

(a) This airworthiness directive (AD) becomes effective January 12, 2010.

### **Affected ADs**

(b) This AD supersedes AD 2009-12-51, Amendment 39-15952.

### **Applicability**

(c) This AD applies to Turbomeca Arriel 1A1, 1A2, 1B, 1C, 1C1, 1C2, 1D, 1D1, 1E2, 1K1, 1S, and 1S1 turboshaft engines if modified by Turbomeca Modification TU332 and fitted with a reduction gearbox (module M05) as listed by serial number in Figure 1 of Turbomeca Mandatory Service Bulletin (MSB) No. A292 72 0825, Version B, dated October 6, 2009. These engines are installed on, but not limited to, Eurocopter France AS350B, AS350BA, AS365N, AS350B1, AS350B2, Eurocopter Deutschland GmbH MBB-BK117-C1, Agusta A109K2, and Sikorsky S-76A+, S-76A++ and S-76C helicopters.

### **Unsafe Condition**

(d) This AD results from Turbomeca identifying five additional reduction gearboxes (module M05) affected, and adding an alternative optional terminating action to the repetitive visual inspections. We are issuing this AD to prevent uncommanded in-flight engine shutdown, possible engine fire, and an emergency autorotation landing.

### **Compliance**

(e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

### **Initial Visual Inspection Before Further Flight**

(f) Before further flight:

(1) Visually inspect the reduction gearbox (module M05) lubrication duct for oil leakage. Use paragraph 1.C.(1)(a), paragraph 2.A., and Figure 2 of Turbomeca S.A. MSB No. A292 72 0825, Version B, dated October 6, 2009, to do the inspection.

(2) If oil leakage is found:

(i) Repair the reduction gearbox (module M05) lubrication duct by filling it with black CAF 33 elastomer. Use paragraphs 2.B.1 through 2.B.1.(a)3 3.2, Figure 3, and Figure 4 in Turbomeca S.A. MSB No. A292 72 0825, Version B, dated October 6, 2009, to do the repair; or

(ii) Repair the reduction gearbox (module M05) lubrication duct by installing a steel plug. Use paragraphs 2.B.1(b)1 through 2.B.1(b)7, and Figure 5 in Turbomeca S.A. MSB No. A292 72 0825, Version B, dated October 6, 2009, to do the repair.

### **Repetitive Visual Inspections**

(g) If no oil leakage is found, repeat the visual inspection every four flight hours, or after the last flight of each day, whichever comes first.

(h) The actions required by paragraph (g) of this AD may be performed by the owner/operator holding at least a private pilot certificate, and must be entered into the aircraft records showing compliance with this AD in accordance with 14 CFR 43.9 and 14 CFR 91.417(a)(2)(v).

### **Optional Terminating Action**

(i) As optional terminating action to the repetitive visual inspections in paragraph (g) of this AD, repair the affected reduction gearbox (module M05) as specified in paragraph (f)(2) of this AD.

### **Alternative Methods of Compliance**

(j) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

### **Related Information**

(k) European Aviation Safety Agency emergency airworthiness directive 2009-0245-E, dated November 10, 2009, also addresses the subject of this AD.

### **Contact Information**

(l) For further information, contact: James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: james.lawrence@faa.gov; telephone (781) 238-7176; fax (781) 238-7199, for more information about this AD.

### **Material Incorporated by Reference**

(m) You must use Turbomeca Mandatory Service Bulletin No. A292 72 0825, Version B, dated October 6, 2009, to identify the serial numbers of reduction gearboxes (module M05) affected by this AD, and to perform the inspections and repairs required by this AD. The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You can get a copy from Turbomeca, 40220 Tarnos, France; telephone (33) 05 59 74 40 00, fax (33) 05 59 74 45 15. You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

### **Special Flight Permits**

(n) Under 14 CFR part 39.23, special flight permits for this AD are prohibited.