



**FEDERAL AVIATION ADMINISTRATION  
AIRWORTHINESS DIRECTIVES  
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS,  
BALLOONS, & AIRSHIPS**

**BIWEEKLY 2012-04**

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U.S. Department of Transportation  
Federal Aviation Administration  
Engineering Procedures Office, AIR-110  
P. O. Box 25082  
Oklahoma City, OK 73125-0460



**SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS**

AD No.	Information	Manufacturer	Applicability
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Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; - See AD for additional information;

**Biweekly 2012-01**

2010-19-06 R1	COR	Turbomeca	Engine: Arriel 1A, 1A1, 1B, 1C, 1C1, 1C2, 1D, 1D1, and IS1 turboshaft
2011-26-10		Enstrom Helicopter Corporation	Rotorcraft: F-28C, F-28C-2, F-28F, 280C, 280F, 280FX, TH-28, 480, and 480B
2011-27-09		Socata	TBM 700
2012-01-01		Various Aircraft	See AD
2012-01-02		Schempp-Hirth Flugzeugbau	Glider: Discus 2cT

**Biweekly 2012-02**

2011-18-12	S 82-13-05R1	Eurocopter France	Rotorcraft: AS350B, B1, B2, B3, BA, and D; and AS355E, F, F1, F2, and N
2011-27-08		Agusta S.p.A.	Rotorcraft: A109S and AW109SP
2011-27-51		Hawker Beechcraft	1900, 1900C, 1900C (Military), 1900D
2012-01-07		BRP-Powertrain GmbH	Engine: Rotax 914 F2, 914 F3, and 914 F4 reciprocating
2012-01-11		Cirrus Design	SR22T
2012-02-05		Thielert Aircraft Engines GmbH	Engine: TAE 125-02-99 and TAE-125-02-114 reciprocating

**Biweekly 2012-03**

71-13-01R1		Lycoming Engines	Engine: TIO-540-A series
2012-01-03		Eurocopter France	Rotorcraft: AS332L2 and EC225LP
2012-02-02	S 2008-03-02	Cessna	172R and 172S
2012-02-06		Honeywell International	Engine: TPE331-10, -10AV, -10GP, -10GT, -10N, -10P, -10R, -10T, -10U, -10UA, -10UF, -10UG, -10UGR, -10UR, and TPE331-11U
2012-02-10	S 2011-07-13	CPAC	112, 112B, 112TC, 112TCA, 114, 114A, 114B, and 114TC
2012-02-13		Eurocopter France	Rotorcraft: EC130B4
2012-02-51	E	Bell Helicopter Textron Canada Limited	Rotorcraft: 206L, L-1, L-3, and L-4
2012-03-06	S 2011-15-10	Superior Air Parts, Lycoming Engines, and Continental Motors	Engine: Fuel injected reciprocating engines
2012-03-52	E	Mooney Aviation	M20TN and M20R

**Biweekly 2012-04**

2012-03-01		Eurocopter Deutschland	Rotorcraft: EC135 helicopters
2012-03-07		Lycoming Engines	Engine: See AD
2012-03-11	S 2010-03-06	Turbomeca S.A.	Engine: Arriel 2B and 2B1 turboshaft engines





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**2012-03-01 Eurocopter Deutschland:** Amendment 39-16942. Docket No. FAA-2011-0453;  
Directorate Identifier 2008-SW-16-AD.

**(a) Applicability**

This AD applies to Model EC135 helicopters with Turbomeca Arrius 2B or 2B1 engines installed, certificated in any category.

**(b) Unsafe Condition**

This AD defines the unsafe condition as a discrepancy generated within the fuel main metering unit and transmitted to the FADEC, which could lead to the display of the FADEC FAIL caution light and "freezing" of the fuel main metering valve at its position. This condition could result in loss of the automatic engine control.

**(c) Effective Date**

This AD is effective March 21, 2012.

**(d) Compliance**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(e) Required Actions**

Within 50 hours time-in-service (TIS), either insert the following procedure by making pen-and-ink changes to the Rotorcraft Flight Manual (RFM) or by inserting a copy of this AD into the Limitations Section of the RFM.

**SPECIAL INFORMATION FOR OEI/AUTOROTATION TRAINING AND APPROACH/LANDING PREPARATION**

In order to prevent a malfunction, which could lead to a FADEC FAIL indication, the following procedure is mandatory:

The procedure shown below must be performed while in a steady flight condition and at a safe altitude:

- Before initiation of every approach (with or without landing)
- During training of OEI or Autorotation before every switch-over to IDLE

**CAUTION: DURING THE RESET PROCEDURE DESCRIBED IN THE FOLLOWING, NO INPUTS ARE TO BE MADE TO THE COLLECTIVE LEVER OR TO THE TWIST GRIP FOR MANUAL ENGINE CONTROL, SINCE THIS CAN LEAD TO AN INEFFECTIVE SYNCHRONIZATION.**

The reset procedure is identical for each of two systems and is to be applied for both engines, one after the other.

Procedure

1. ENG MODE SEL switch–Set from NORM TO MAN

After illumination of the ENG MANUAL caution:

2. ENG MODE SEL switch–Set from MAN to NORM: ENG MANUAL caution must go off

Repeat procedure for second engine.

**(f) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Safety Management Group, Rotorcraft Directorate, FAA, may approve AMOCs for this AD. Send your proposal to: Eric Haight, Aviation Safety Engineer, Regulations and Guidance Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5204, email: eric.haight@faa.gov.

(2) For operations conducted under a Part 119 operating certificate or under Part 91, Subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

**(g) Additional Information**

(1) Eurocopter Alert Service Bulletin EC135-71A-024, dated August 6, 2008, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.eurocopter.com/techpub>. You may review copies of the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(2) The subject of this AD is addressed in Luftfahrt-Bundesamt (Germany) AD No. 2002-333, dated September 16, 2002.

**(h) Subject**

Air Transport Association of America (ATA) Tracking Code: 7600, Engine Controls.

Issued in Fort Worth, Texas, on January 27, 2012.

Lance T. Gant,  
Acting Manager, Rotorcraft Directorate,  
Aircraft Certification Service.



**2012-03-07 Lycoming Engines (formerly Textron Lycoming Division, AVCO Corporation):**  
Amendment 39-16948; Docket No. FAA-2011-0533; Directorate Identifier 2011-NE-16-AD.

**(a) Effective Date**

This AD is effective March 27, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all Lycoming Engines reciprocating engines with carburetor part numbers listed in Table 1 of this AD.

**Table 1—Part Numbers (Including All Dash Numbers) of Known Affected HA-6 Model Carburetors**

10-5219-XX	10-5224-XX	10-5230-XX	10-5235-XX	10-5253-XX
10-5255-XX	10-5283-XX	10-6001-XX	10-6019-XX	10-6030-XX

**(d) Unsafe Condition**

This AD was prompted by a report of a “machined-from-billet” HA-6 carburetor having a loose mixture control sleeve that rotated in the carburetor body causing restriction of fuel and power loss. We are issuing this AD to prevent engine in-flight shutdown, power loss, and reduced control of the airplane.

**(e) Compliance**

Comply with this AD within 50 flight hours after the effective date of this AD, unless already done.

**(f) Inspection**

Inspect the carburetor to determine the type of body the carburetor has. Use Marvel-Schebler Emergency Service Bulletin (SB) No. SB-18, dated October 14, 2010, or Revision A, dated March 15, 2011, Figure (3) to determine which type of body is used.

(g) If the carburetor has a die-cast body, no further action is required.

(h) If the carburetor has an affected “machined-from-billet” body, remove the carburetor; and replace the carburetor with:

(1) An HA-6 carburetor not listed in Table 1 of this AD; or

(2) An HA-6 carburetor that is listed in Table 1 but is exempted as described in paragraphs 1.A. and 1.B of Marvel-Schebler Emergency SB No. SB-18, dated October 14, 2010 or Revision A, dated March 15, 2011; or that has already been repaired using that Emergency SB.

**(i) Alternative Methods of Compliance (AMOCs)**

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

**(j) Related Information**

For more information about this AD, contact Kevin Brane, Aerospace Engineer, Propulsion, Atlanta Aircraft Certification Office, FAA, Small Airplane Directorate; 1701 Columbia Avenue, College Park, Georgia 30337; phone: (404) 474-5582; fax: (404) 474-5606; email: kevin.brane@faa.gov.

**(k) Material Incorporated by Reference**

(1) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference (IBR) under 5 U.S.C. 552(a) and 1 CFR part 51 of the following service information:

- (i) Marvel-Schebler Emergency Service Bulletin No. SB-18, dated October 14, 2010.
- (ii) Marvel-Schebler Emergency Service Bulletin No. SB-18, Revision A, dated March 15, 2011.

(2) For service information identified in this AD, contact Marvel-Schebler Aircraft Carburetors LLC, 125 Piedmont Avenue, Gibsonville, NC 27249; phone: 336-446-0002; fax: 336-446-0007; email: customerservice@msacarbs.com; Web site: www.msacarbs.com.

(3) You may review copies of the service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at an NARA facility, call 202-741-6030, or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Burlington, Massachusetts, on February 1, 2012.

Peter A. White,  
Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.



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**2012-03-11 Turbomeca S.A.:** Amendment 39-16953; Docket No. FAA-2009-0889; Directorate Identifier 2009-NE-35-AD.

**(a) Effective Date**

This airworthiness directive (AD) is effective March 20, 2012.

**(b) Affected ADs**

This AD supersedes AD 2010-03-06, Amendment 39-16189 (75 FR 5689, February 4, 2010).

**(c) Applicability**

This AD applies to all Turbomeca S.A. Arriel 2B and 2B1 turboshaft engines.

**(d) Unsafe Condition**

This AD was prompted by three additional cases of uncoupling of the high-pressure/low-pressure (HP/LP) pump hydro-mechanical metering unit (HMU) low-pressure (LP) fuel pump impeller and the high-pressure (HP) fuel pump shaft, since AD 2010-03-06 (75 FR 5689, February 4, 2010) was issued. However, these failures were in HMUs that were modified to post-TU 147 configuration HMUs. The investigation indicates that these HMUs may also need to be replaced. We are issuing this AD to prevent an uncommanded in-flight shutdown, which can result in a forced autorotation landing or accident.

**(e) Compliance**

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

(1) Check the transmissible torque between the LP fuel pump impeller and the HP fuel pump shaft as follows:

(i) For HMUs that do not incorporate Modification TU 147, check the torque before accumulating 500 engine flight hours (EFH) since March 11, 2010 (the effective date of AD 2010-03-06 (75 FR 5689, February 4, 2010)). Use Paragraph 2 of Turbomeca Alert Mandatory Service Bulletin (MSB) No. A292 73 2830, Version B, dated July 10, 2009, to do the check.

(ii) For HMUs that incorporated Modification TU 147 on or before March 31, 2010 and those HMUs that are not listed in Figures 2 or 3 of Turbomeca Alert MSB No. A292 73 2836, Version A, dated August 17, 2010:

(A) Check the torque within 750 EFH from the effective date of this AD, but no later than 14 months after the effective date of this AD.

(B) Use Paragraph 2 of Turbomeca Alert MSB No. A292 73 2836, Version A, dated August 17, 2010, to do the check.

(2) If the HMU does not pass the torque check, then replace the HMU with an HMU that is eligible for installation.

**(f) HMU Reinstallation**

Do not install any HMU removed from service by this AD until it has been checked in accordance with Paragraph 2 of Turbomeca Alert MSB No. A292 73 2836, Version A, dated August 17, 2010, or checked in accordance with Paragraph 2 of Turbomeca Alert MSB No. A292 73 2830, Version B, dated July 10, 2009, and found eligible for installation.

**(g) Alternative Methods of Compliance (AMOCs)**

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

**(h) Related Information**

For more information about this AD, contact Rose Len, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7772; fax: 781-238-7199; email: rose.len@faa.gov.

**(i) Material Incorporated by Reference**

You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference (IBR) under 5 U.S.C. 552(a) and 1 CFR part 51 of the following service information on the date specified.

(1) Turbomeca Alert Mandatory Service Bulletin No. A292 73 2836, Version A, dated August 17, 2010 approved for IBR on March 20, 2012.

(2) Turbomeca Alert Mandatory Service Bulletin No. A292 73 2830, Version B, dated July 10, 2009 approved for IBR on March 11, 2010.

(3) For service information identified in this AD, contact Turbomeca S.A., 40220 Tarnos, France; phone: 33-05-59-74-40-00, fax: 33-05-59-74-45-15.

(4) You may review copies of the service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(5) You may also review copies of the service information that is incorporated by reference 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](http://www.archives.gov/federal-register/cfr/ibr_locations.html).

Issued in Burlington, Massachusetts, on February 6, 2012.

Peter A. White,  
Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.