



CIVIL AVIATION AUTHORITY  
CZECH REPUBLIC  
Airworthiness Division  
Airport Ruzyně, 160 08 Prague 6  
Tel: 420 233320922, fax: 420 220562270

## AIRWORTHINESS DIRECTIVE

**Number: CAA-AD-047/2004**

Date of issue: May 27, 2004

**Lycoming Engines (formerly Textron  
Lycoming)**

---

*This AD has been issued in accordance with Decision No.: 2/2003 of the Executive Director of the EASA (ADs issued by the state of design are automatically adopted in EU member states).*

### ENGINE – CRANKSHAFT GEAR – INSPECTION

**Applicability:** This AD applies to Lycoming Engines (formerly Textron Lycoming), direct-drive reciprocating engines (except O-145, O-320H, O-360E, LO-360E, LTO-360E, O-435, and TIO-541 series engines).

**Effective date:** July 8, 2004

**Compliance:** Required as indicated in FAA AD 2004-10-14.

---

*Remarks: The compliance of this AD must be recorded in Engine Logbook, where applicable the requirements of this AD must be integrated into Aircraft Technical Documentation. Address inquiries concerning this AD to: Civil Aviation Authority, Airworthiness Division, Ruzyně Airport, 160 08 Prague 6, Czech Republic, tel: 420 233320922, fax: 420 220562270.*

**Ing. Pavel MATOUŠEK**  
director

**2004-10-14 Lycoming Engines (formerly Textron Lycoming):** Amendment 39-13644. Docket No. 89-ANE-10-AD. Supersedes AD 91-14-22, Amendment 39-6916.

#### **Effective Date**

(a) This AD becomes effective June 25, 2004.

#### **Affected ADs**

(b) This AD supersedes AD 91-14-22.

#### **Applicability**

(c) This AD applies to Lycoming Engines (formerly Textron Lycoming), direct-drive reciprocating engines (except O-145, O-320H, O-360E, LO-360E, LTO-360E, O-435, and TIO-541 series engines).

#### **Unsafe Condition**

(d) This AD results from a change to the definition of a propeller strike or sudden stoppage. The actions specified in this AD are intended to prevent loosening or failure of the crankshaft gear retaining bolt, which may cause sudden engine failure.

#### **Compliance**

(e) Compliance with this AD is required as indicated before further flight if the engine has experienced a propeller strike as defined in paragraphs (i) and (j) of this AD, unless already done.

(f) Inspect, and if necessary repair, the crankshaft counter bored recess, the alignment dowel, the bolt hole threads, and the crankshaft gear for wear, galling, corrosion, and fretting in accordance with steps 1 through 5 of Lycoming Mandatory Service Bulletin (MSB) No. 475C, dated January 30, 2003.

(g) Remove the existing gear retaining bolt and lockplate from service, and install a new bolt and lockplate, in accordance with steps 6 and 7 of Lycoming MSB No. 475C, dated January 30, 2003.

#### **Prohibition of Retaining Bolt and Lockplate**

(h) Do not install the gear retaining bolt and lockplate that were removed in paragraph (g) of this AD, into any engine.

#### **Definition of Propeller Strike**

(i) For the purposes of this AD, a propeller strike is defined as follows:

(1) Any incident, whether or not the engine is operating, that requires repair to the propeller other than minor dressing of the blades.

(2) Any incident during engine operation in which the propeller impacts a solid object that causes a drop in revolutions per minute (RPM) and also requires structural repair of the propeller (incidents requiring only paint touch-up are not included). This is not restricted to propeller strikes against the ground.

(3) A sudden RPM drop while impacting water, tall grass, or similar yielding medium, where propeller damage is not normally incurred.

(j) The preceding definitions include situations where an aircraft is stationary and the landing gear collapses causing one or more blades to be substantially bent, or where a hanger door (or other object) strikes the propeller blade. These cases should be handled as sudden stoppages because of potentially severe side loading on the crankshaft flange, front bearing, and seal.

#### **Alternative Methods of Compliance**

(k) The Manager, New York Aircraft 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.

#### **Material Incorporated by Reference**

(l) You must use Lycoming MSB No. 475C, dated January 30, 2003, 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 Lycoming Engines, 652 Oliver Street, Williamsport, PA 17701, U.S.A; telephone (570) 323-6181; fax (570) 327-7101. You can review copies at the FAA, New England Region, Office of the Regional Counsel, 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/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

#### **Related Information**

(m) None.

#### **Footer Information**

Issued in Burlington, Massachusetts, on May 12, 2004.

Peter A. White,

Acting Manager, Engine and Propeller Directorate,

Aircraft Certification Service.

[FR Doc. 04-11406 Filed 5-20-04; 8:45 am]

BILLING CODE 4910-13-P