

# PŘÍKAZ K ZACHOVÁNÍ LETOVÉ ZPŮSOBILOSTI

CAA-AD-T-073/2002

Datum vydání: 10. července 2002

## MOTOR - MAGNETO - KONTROLA/VÝMĚNA

**Týká se:** motorů vyrobených firmou Teledyne Continental Motors (TCM) typu C-125, C145, O-300, IO-360, TSIO-360 a LTSIO-520-AE, vybavených (Slick) magnety Unison Industries typu 6314, 6324 a 6364, výrobních čísel od 99110001 až 9912999 včetně. Tyto motory mohou být instalovány na letadlech Cessna 170, 170A, 170B, 172, 172A až 172H, 172XP, 336, 337 a T303, Beagle B242-C, Cirrus SR20 a SR22, Globe Swift GC-1A a GC-1B, Maule M4, Piper PA-28R-201T a PA-34 a Reims (Cessna) FA172, F337 a FR172, ale nejen na těchto.

**Důvod vydání:** zabránit poruše motoru a ztrátě říditelnosti letadla v důsledku vypadnutí pojistného čepu odtrhové spojky magnetu a jeho vniknutí do skříně pohonů motoru.

**Datum účinnosti:** ihned po obdržení.

**Provést v termínech:** Jak je popsáno v FAA AD 2002-13-04, od data účinnosti tohoto PZZ.

**Postup provedení prací:** Dle FAA AD 2002-13-04 (příloha tohoto PZZ).

Poznámky: Provedení tohoto PZZ musí být zapsáno do motorové knihy. Případné dotazy týkající se tohoto PZZ adresujte na ÚCL sekce technická - Ing. Vyhnálek. Pokud to vyžaduje povaha tohoto PZZ, musí být zapracován do příslušné části dokumentace pro obsluhu, údržbu a opravy letadla. Tento PZZ byl vypracován na základě FAA AD 2002-13-04.

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**Ředitel sekce technické**  
**Úřad pro civilní letectví**

**2002-13-04 Teledyne Continental Motors:** Amendment 39-12792. Docket No. 2000-NE-19-AD.

### Applicability

This airworthiness directive (AD) is applicable to Teledyne Continental Motors (TCM) C-125, C145, O-300, IO-360, TSIO-360, and LTSIO-520-AE series reciprocating engines with Unison Industries (Slick) Magnetos, models 6314, 6324, and 6364, with magneto serial numbers of 99110001 through 9912999 inclusive. These engines are used on, but not limited to Cessna 170, 170A, 170B, 172, 172A through 172H, 172XP, 336, 337, and T303, Beagle B242-C, Cirrus SR20 and SR22, Globe Swift GC-1A and GC-1B, Maule M4, Piper PA-28R-201T and PA-34, and Reims (Cessna) FA172, F337, and FR172.

**Note 1:** The magneto serial number (SN) can be found in logbooks or other maintenance records. If the magneto was installed, or if the engine was assembled new, rebuilt, or overhauled before October 31, 1999, it is likely that a suspect magneto is not installed on the engine.

**Note 2:** This airworthiness directive (AD) applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

### Compliance

Compliance with this AD is required within 10 flight hours after the effective date of this AD, unless already done.

To prevent engine failure and loss of control of the airplane due to migration of the magneto impulse coupling stop pin out of the magneto frame and into the gear train of the engine, do the following:

### **Replacement of Magneto**

(a) Replace any magneto that has a SN of 99110001 through 99129999, inclusive, with a magneto that does not have a serial number in that range.

### **Inspections**

(b) Inspect each removed magneto to verify that the impulse coupling stop pin is present. If the pin is missing, do the following:

(1) For C-125, C145, O-300, IO-360, and TSIO-360 series engines, do the following:

(i) Remove magnetos, alternator or generator, and starter adapter from the accessory case.

(ii) Remove the accessory case from the crankcase and oil sump.

(iii) Visually inspect the entire engine gear train for damaged or broken gears and gear teeth.

(iv) Inspect visible portions of the engine crankcase and accessory case for damage due to the stop pin becoming lodged between the engine gear train and the crankcase or accessory case.

(v) If the accessory case is damaged, repair or replace the accessory case.

(vi) If the engine crankcase is damaged, disassemble the engine, and repair or replace the crankcase.

(vii) Inspect the oil pump drive gear teeth and inner cam gear teeth for damage. Replace any engine drive train component that has been damaged.

(viii) Replace any damaged gear, and magnaflux the mating gears using the applicable engine overhaul manual.

(2) For LTSIO-520-AE series engines, do the following:

(i) Remove the starter adapter, fuel pump, vacuum pumps, accessory drive pads, and both magnetos.

(ii) Visually inspect the entire engine gear train for damaged or broken gears and gear teeth.

(iii) If any damage has occurred, remove the engine from the airplane, disassemble the engine, and inspect it for damage. If any damage is found, repair as necessary.

(iv) Replace any damaged gear, and magnaflux the mating gears using the applicable engine overhaul manual.

(v) Inspect the interior portions of the engine crankcase for damage due to the stop pin becoming lodged between the gear train and the crankcase. If the crankcase is damaged, repair or replace the crankcase.

(c) After the effective date of this AD, do not install any Unison Industries magnetos, model 6314, 6324, or 6364 that have a SN of 99110001 through 99129999 inclusive, on any engine.

**Note 3:** A cross-reference for part numbers (P/N's) for Unison magneto model 6314 (TCM P/N 653271), model 6324 (TCM P/N 653292), and model 6364 (TCM P/N 649696) can be found in TCM Mandatory Service Bulletin 00-6A, dated June 8, 2000.

### **Alternative Methods of Compliance**

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Chicago Aircraft Certification Office (CHIACO). Operators must submit their

requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, CHIACO.

**Note 4:** Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the CHIACO.

**Special Flight Permits**

(e) Special flight permits may be issued in accordance with Secs. 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be done.

**Effective Date**

(f) This amendment becomes effective July 12, 2002.