

PŘÍKAZ K ZACHOVÁNÍ LETOVÉ ZPŮSOBILOSTI

CAA-AD-059/2002

Datum vydání: 27. května 2002

VRTULE - ÚNAVOVÉ TRHLINY NA VRTULOVÝCH LISTECH - KONTROLA

Týká se: vrtulí vyrobených firmou Hartzell Propellers, Inc., s označením ()HC-()Y-()-(), jak je blíže uvedeno v části "Applicability" FAA AD 2002-09-08 (příloha tohoto PZZ).

Důvod vydání: zabránit poruše vrtulového listu zapříčiněné únavovými trhlinami, což může vést k poškození letounu a následné ztrátě jeho říditelnosti.

Datum účinnosti: 11. července 2002.

Provést v termínech: Jak je popsáno v FAA AD 2002-09-08 od data účinnosti tohoto PZZ.

Postup provedení prací: Dle FAA AD 2002-09-08.

Poznámky: Provedení tohoto PZZ musí být zapsáno do vrtulové knihy. Případné dotazy týkající se tohoto PZZ adresujte na ÚCL sekce technická – Ing. Beneš. Pokud to vyžaduje povaha tohoto PZZ, musí být zpracován do příslušné části dokumentace pro obsluhu, údržbu a opravy letadla. Tento PZZ byl vypracován na základě FAA AD 2002-09-08, který nahrazuje FAA AD 77-12-06R2.

Ing. Pavel MATOUŠEK
ředitel sekce technické

2002-09-08 Hartzell Propellers, Inc.: Amendment 39-12741. Docket No. 2000-NE-08-AD. Supersedes AD 77-12-06R2, Amendment 39-3097.

Applicability

This airworthiness directive (AD) is applicable to Hartzell Propellers, Inc. Models ()HC-()Y-()-() compact series constant speed or feathering propellers with Hartzell manufactured "Y" shank blades. These propellers are used on but not limited to the following airplanes:

Aermacchi S.p.A. (formerly Siai-Marchetti) S-208
Aero Commander 200B and 200D
Aerostar 600 Beech 24, 35, 36, 45, 55, 56TC, 58, 60, and 95
Bellanca 14 and 17 series
Cessna 182 and 188
Embraer EMB-200A
Maule M5
Mooney M20 and M22
Pilatus Britten Norman, or Britten Norman BN-2, BN-2A, and BN-2A-6
Piper PA-23, PA-24, PA-28, PA-30, PA-31, PA-32, PA-34, PA-36, and PA-39
Pitts S-1T and S-2A
Rockwell 112, 114, 200, 500, and 685 series

Note 1: This AD applies to each propeller 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 propellers 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 (e) 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 as indicated, unless already done. Propeller maintenance records showing compliance with AD 77-12-06R2 is an indication that compliance was previously done.

To prevent failure of the propeller blade from fatigue cracks in the blade shank radius, which can result in damage to the airplane and loss of airplane control, do the following:

(a) Propellers are considered in compliance with the one-time inspection and rework requirements only, of this AD if:

(1) All blades are serial number D47534 and above, or

(2) All blades are identified with the letters "PR" or "R" or "SP-P" ink-stamped on the camber side, or the letters "SP", "RD" or "SP-P" metal-stamped on the blade butt.

Models ()HC-()Y() Compact Series "Y" Shank Propellers

(b) If propellers models ()HC-()Y() have not been inspected and reworked in accordance with AD 77-12-06R2, then before further flight, do a one-time action to remove, inspect, rework or replace blades if necessary in accordance with Hartzell Service Bulletin (SB) No.118A, dated February 15, 1977.

Note 2: One requirement in SB No. 118A is the cold rolling of the propeller blade shank. This is a critical requirement in the prevention of cracks in the blade. Propeller repair shops must obtain and maintain proper certification to perform the cold rolling procedure. For a current list of propeller overhaul facilities approved to perform the blade shank cold rolling procedure, contact Hartzell Product Support, telephone: (937) 778-4200. Not all propeller repair facilities have the equipment to properly perform a cold roll of the blade shanks. In addition, any rework in the blade shank area will also necessitate the cold rolling of the blade shank area, apart from the one-time cold rolling requirement of this AD.

Instrument Panel Modifications

(c) If airplanes with propeller models ()HC-C2YK-()() / ()()7666A-(), installed on (undampered) 200 horsepower Lycoming IO-360 series engines, have not been modified in accordance with AD 77-12-06R2, then modify the airplane instrument panel according to the following subparagraphs before further flight. Airplanes include, but are not limited to, Mooney M20E and M20F (normal category), Piper PA-28R-200 (normal category), and Pitts S-1T and S-2A (acrobatic category).

(1) For normal category airplanes, before further flight, remove the present vibration placard and affix a new placard near the engine tachometer that states:

"Avoid continuous operation:
Between 2000 and 2350 rpm."

(2) For utility and acrobatic category airplanes, before further flight, remove the present vibration placard and affix a new placard near the engine tachometer that states:

"Avoid continuous operation:
Between 2000 and 2350 rpm.
Above 2600 rpm in acrobatic flight."

(3) For normal category airplanes, re-mark the engine tachometer face or bezel with a red arc for the restricted engine speed range, between 2000 and 2350 rpm.

(4) For acrobatic and utility airplanes, re-mark the engine tachometer face or bezel with a red arc for each restricted engine speed range, i.e., between 2000 and 2350 rpm and between 2600 and 2700 rpm (red line).

Models ()HC-C2YK-()() / ()()8475-() or ()()8477-() Propellers

(d) If propeller models ()HC-C2YK-()() / ()()8475-() or ()()8477-() have not been inspected and reworked in accordance with AD 74-15-02, then do the following maintenance before further flight.

(1) Remove propeller from airplane.

(2) Modify pitch change mechanism, and replace blades with equivalent model blades prefixed with letter "F" in

accordance with Hartzell Service Letter No. 69, dated November 30, 1971 and Hartzell SB No. 101D, dated December 19, 1974.

(3) Inspect and repair or replace, if necessary, in accordance with Hartzell SB No. 118A, dated February 15, 1977.

Alternative Methods of Compliance

(e) Alternative methods of compliance to Hartzell Service Bulletin No. 118A are Hartzell Service Bulletin No.'s 118B, 118C, 118D, and Hartzell Manual 133C. Alternative method of compliance to Hartzell SB No. 101D is Hartzell Manual 133C. No adjustment in the compliance time is allowed. Any requests for an alternative method of compliance that provides an acceptable level of safety may be used if approved by the Manager, Chicago Aircraft Certification Office (ACO). Operators must submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Chicago ACO.

Note 3: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Manager, Chicago ACO.

Special Flight Permits

(f) 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 airplane to a location where the requirements of this AD can be done.

Documents That Have Been Incorporated By Reference

(g) The inspections must be done in accordance with the following Hartzell Propeller, Inc. service bulletins (SB's) and service letter (SL):

Document No.	Pages	Revision	Date
SB No. 101D Total pages: 2	All	D	December 19, 1974.
SB No. 118A Total pages: 16	All	A	February 15, 1977.
SL No. 69 Total pages: 2	All	1	November 30, 1971.

These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Hartzell Propeller, Inc., One Propeller Place, Piqua, Ohio 45356-2634; telephone (937) 778-4200; fax (937) 778-4391. Copies may be inspected, by appointment, at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

Effective Date

(h) This amendment becomes effective on June 13, 2002.