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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2001-NE-48-AD; Amendment 39-13045; AD 2003-03-20]

RIN 2120-AA64

Airworthiness Directives; Hartzell Propeller Inc., Model HC-C2YR-4CF Propellers

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), that is applicable to Hartzell Propeller Inc. model HC-C2YR-4CF propellers. This amendment requires the reduction of the original hub and blades certified service (fatigue) life from unlimited hours to 2,000 hours. This amendment is prompted by a reevaluation by Hartzell Propeller Inc. of the original hub and blades service life certification calculations. The actions specified by this AD are intended to prevent fatigue failure of the original propeller hub and blades which may result in loss of airplane control.

DATES: Effective March 11, 2003.

ADDRESSES: Information regarding this action may be examined, by appointment, at the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT: Tomaso DiPaolo, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, Small Airplane Directorate, 2300 East Devon Avenue, Des Plaines, IL 60018, telephone (847) 294-7031; fax (847) 294-7834.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that is applicable to Hartzell Propeller Inc. model HC-C2YR-4CF propellers was published in the Federal Register on September 19, 2002 (67 FR 59026). That action proposed to require the reduction of the propeller hubs part number (P/N) D-6522-1 or D-2201-16 and blades P/N FC8477A-4 certified service (fatigue) life from unlimited hours to 2,000 hours. The FAA and Hartzell Propeller Inc. have received reports of several engine crankshaft failures on Sky International Inc. (Pitts) S-2S and S-2B airplanes, which are manufactured by Aviat Aircraft Inc. of Afton, WY. Hartzell Propeller Inc. reevaluated the service (fatigue) life of the original propeller hubs P/N D-6522-1 or D-2201-16 and blades P/N FC8477A-4 installed in the

model HC-C2YR-4CF propellers. Hartzell has reduced the certified service (fatigue) life of these original propeller hubs and blades from unlimited hours to 2,000 hours. Exceeding these life limits could result in fatigue failure of the hubs or blades which may result in loss of airplane control. The 2,000-hour life limit is documented in the Airworthiness Limitations section of Hartzell Manual 113B.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comment received.

Risk if Life of a Component Is Not Known

One commenter states that the proposal introduces a life limit where there was none previously required. The commenter also states that there is a risk that operators or maintenance organizations may not know the current life of the applicable parts, and that the NPRM does not include any proposal to estimate usage or factoring where the life of a component is not known.

The FAA does not agree. Under 14 CFR 91.417(a)(2)(i), each registered owner or operator must keep records of the total time in service of each propeller. The propellers affected by this AD are flown on aircraft used in part 91 operations. Moreover, 14 CFR 91.417(b)(2) requires that the records must denote the total time, must be retained for an unlimited time, and must be transferred with the aircraft. Therefore, if a propeller's total time is unknown, then the propeller and the registered owner or operator are not in compliance with the regulations. Presently, the FAA will not pursue policy to approve a general formula for calculating total time on propellers with unknown total times. Please note that the final rule allows for the submittal of data to request and to justify an alternate method of compliance to the AD or an adjustment of the compliance time in the AD.

After careful review of the available data, including the comment noted above, the FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

Economic Analysis

There are approximately 377 propellers of the affected design in the worldwide fleet. The FAA estimates that 300 propellers installed on airplanes of U.S. registry would be affected by this AD, that it would take approximately 6 work hours per propeller to do the actions, and that the average labor rate is \$60 per work hour. The approximate cost of a new hub and blades is \$9,000. Based on these figures, the total cost of the AD to U.S. operators is estimated to be \$2,808,000.

Regulatory Analysis

This final rule does not have federalism implications, as defined in Executive Order 13132, because it would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Accordingly, the FAA has not consulted with state authorities prior to publication of this final rule.

For the reasons discussed above, I certify that this action (1) Is not a "significant regulatory action" under Executive Order 12866; (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding a new airworthiness directive to read as follows:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2003-03-20 Hartzell Propeller Inc.: Amendment 39-13045. Docket No. 2001-NE-48-AD.

Applicability: This airworthiness directive (AD) is applicable to Hartzell Propeller Inc. model HC-C2YR-4CF propellers with propeller hubs part number (P/N) D-6522-1 or D-2201-16 and propeller blades P/N FC8477A-4, installed on Sky International Inc. (Pitts) S-2S and S-2B airplanes with Textron Lycoming model AEIO-540-D4A5 engines.

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 (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 as indicated, unless already done.

To prevent fatigue failure of Hartzell propeller hubs P/N D-6522-1 or D-2201-16 and blades P/N FC8477A-4 which may result in loss of airplane control, do the following:

(a) Remove from service Hartzell propeller hubs P/N D-6522-1 or D-2201-16 and blades P/N FC8477A-4 before exceeding 2,000 flight hours and replace with serviceable hubs and blades.

(b) After the effective date of this AD, do not install any Hartzell propeller hubs P/N D-6522-1 or D-2201-16 and blades P/N FC8477A-4 that have accumulated 2,000 hours.

(c) A propeller hub or blade from an airplane that is identified in the applicability section of this AD may not be removed and reused on an airplane for which this AD is not applicable.

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

Special Flight Permits

(e) Special flight permits may be issued in accordance with §§ 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.

Effective Date

(f) This amendment becomes effective on March 11, 2003.

Issued in Burlington, Massachusetts, on January 28, 2003.

Jay J. Pardee,

Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 03-2464 Filed 2-3-03; 8:45 am]

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