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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2007-27552; Directorate Identifier 2007-NE-11-AD; Amendment 39-15019; AD 2007-08-02]

RIN 2120-AA64

Airworthiness Directives; Hartzell Propeller Inc. Model HC-E4A-3()/ E10950() Propellers

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Hartzell Propeller Inc. model HC-E4A-3()/E10950() propellers. This AD requires initial and repetitive inspections and rework of the propeller blade retention radius, and replacement of the propeller blade thrust bearing, for each blade. This AD results from reports of excessive propeller vibration and of damaged or broken propeller blade thrust bearings found during routine and investigative propeller disassembly. We are issuing this AD to prevent propeller blade separation, damage to the airplane, and possible loss of airplane control.

DATES: This AD becomes effective April 27, 2007. The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of April 27, 2007.

We must receive any comments on this AD by June 11, 2007.

ADDRESSES: Use one of the following addresses to comment on this AD:

- DOT Docket Web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.
- Government-wide rulemaking Web site: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-0001.
- Fax: (202) 493-2251.
- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Contact Hartzell Propeller Inc. Technical Publications Department, One Propeller Place, Piqua, OH 45356; telephone (937) 778-4200; fax (937) 778-4391, for the service information identified in this AD.

FOR FURTHER INFORMATION CONTACT: Tim Smyth, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, Small Airplane Directorate, 2300 East Devon Avenue, Des Plaines, IL 60018; e-mail: tim.smyth@faa.gov; telephone: (847) 294-7132; fax: (847) 294-7834.

SUPPLEMENTARY INFORMATION: We have received reports of excessive propeller vibration, and of damaged or broken propeller blade thrust bearings on Hartzell Propeller Inc. model HC-E4A-3()/E10950() propellers found during routine and investigative propeller disassembly. At least 15 propellers have been reported with broken propeller blade thrust bearings. During teardowns, instances of bearing failures have been progressively more severe, with more internal damage to the hub noted. Service history shows the propellers can safely accumulate 2,000 operating hours time-since-overhaul (TSO) before the unsafe conditions start to appear. A broken thrust bearing can lead to damage to the propeller hub and blade shank, and blade separation from the hub. These damaged or broken parts can also lead to damage to the internal propeller pitch change mechanism, resulting in loss of propeller pitch control or in difficulty in feathering the propeller. This condition, if not corrected, could result in propeller blade separation, damage to the airplane, and possible loss of airplane control. Repairing the propeller blade retention radius using the instructions cited in Hartzell Propeller Inc. Service Bulletin (SB) No. HC-SB-61-287, Revision 2, dated October 24, 2006, allows the propeller to safely operate for 3,000 hours before requiring bearing replacement.

Relevant Service Information

We reviewed and approved the technical contents of Hartzell Propeller Inc. SB No. HC-SB-61-287, Revision 2, dated October 24, 2006. That SB describes procedures for initial and repetitive propeller blade inspection, rework, and thrust bearing replacement, for each blade.

Differences Between This AD and the Service Information

Hartzell Propeller Inc. SB No. HC-SB-61-287, Revision 2, dated October 24, 2006, states in paragraph 3.G.(6) of the Accomplishment Instructions, to install new blade thrust bearings if required. However, this AD removes the option of "if required," and mandates that operators must always install new blade thrust bearings.

FAA's Determination and Requirements of this AD

The unsafe condition described previously is likely to exist or develop on other Hartzell Propeller Inc. model HC-E4A-3()/E10950() propellers of the same type design. For that reason, we are issuing this AD to prevent propeller blade separation, damage to the airplane, and possible loss of airplane control. You must use the service information described previously to perform the actions required by this AD.

This AD requires:

- For propellers with 4,000 or more operating hours TSO, initial inspection and rework of the propeller blade retention radius and replacement of the propeller thrust bearing for each blade, within 100 operating hours after the effective date of the AD; and
- For propellers with 2,000 or more operating hours TSO, but fewer than 4,000 operating hours TSO, inspection and rework of the propeller blade retention radius and replacement of the propeller thrust bearing, for each blade, at the next propeller disassembly; and

- Thereafter, after every 3,000 additional operating hours time-in-service, inspection and rework of the propeller blade retention radius and replacement of the propeller blade thrust bearing, for each blade.

You must use the service information described previously to perform the actions required by this AD.

FAA's Determination of the Effective Date

Since an unsafe condition exists that requires the immediate adoption of this AD, we have found that notice and opportunity for public comment before issuing this AD are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Interim Action

These actions are interim actions and we may take further rulemaking actions in the future.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to send us any written relevant data, views, or arguments regarding this AD. Send your comments to an address listed under ADDRESSES. Include "AD Docket No. FAA-2007-27552; Directorate Identifier 2007-NE-11-AD" in the subject line of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify it.

We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of the Docket Management System (DMS) Web site, anyone can find and read the comments in any of our dockets, including the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78) or you may visit <http://dms.dot.gov>.

Examining the AD Docket

You may examine the docket that contains the AD, any comments received, and any final disposition in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility (telephone (800) 647-5227) is located on the plaza level of the Department of Transportation Nassif Building at the street address stated in ADDRESSES. Comments will be available in the AD docket shortly after the DMS receives them.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This

regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will 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.

For the reasons discussed above, I certify that this AD:

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.

We prepared a summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary at the address listed under ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Under 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. The FAA amends § 39.13 by adding the following new airworthiness directive:



2007-08-02 Hartzell Propeller Inc.: Amendment 39-15019; Docket No. FAA-2007-27552; Directorate Identifier 2007-NE-11-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective April 27, 2007.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Hartzell Propeller Inc. model HC-E4A-3()/E10950() propellers. These propellers are installed on, but not limited to, Raytheon Beechcraft 1900D airplanes.

(d) The parentheses appearing in the propeller model number indicates the presence or absence of an additional letter(s) that varies the basic propeller model. This AD still applies regardless of whether these letters are present or absent in the propeller model designation.

Unsafe Condition

(e) This AD results from reports of excessive propeller vibration and of damaged or broken propeller blade thrust bearings found during routine and investigative propeller disassembly. We are issuing this AD to prevent propeller blade separation, damage to the airplane, and possible loss of airplane control.

Interim Action

(f) These actions are interim actions and we may take further rulemaking actions in the future.

Compliance

(g) You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

Initial Inspection, Rework, and Replacement

(h) For propellers with 4,000 or more operating hours time-since-overhaul (TSO, initially inspect and rework the propeller blade retention radius and replace the propeller thrust bearing for each blade, within 100 operating hours.

(i) For propellers with 2,000 or more operating hours TSO, but fewer than 4,000 operating hours TSO, inspect and rework the propeller blade retention radius and replace the propeller thrust bearing, for each blade, at the next propeller disassembly.

(j) Use paragraphs 3.G.(1) through 3.G.(8) of the Accomplishment Instructions of Hartzell Propeller Inc. Service Bulletin No. HC-SB-61-287, Revision 2, dated October 24, 2006, to do the actions in paragraphs (h) and (i) of this AD.

(k) Although Hartzell Propeller Inc. SB No. HC-SB-61-287, Revision 2, dated October 24, 2006, states in paragraph 3.G.(6) of the Accomplishment Instructions, to install new blade thrust bearings if required, this AD requires always installing new blade thrust bearings.

Repetitive Inspection, Rework, and Replacement

(l) Thereafter, after every 3,000 additional operating hours time-in-service, inspect and rework the propeller blade retention radius and replace the propeller blade thrust bearing, for each blade.

(m) Use paragraphs 3.G.(1) through 3.G.(8) of the Accomplishment Instructions of Hartzell Propeller Inc. SB No. HC-SB-61-287, Revision 2, dated October 24, 2006, to do these actions.

(n) Although paragraph 3.G.(6) of the Accomplishment Instructions of Hartzell Propeller Inc. SB No. HC-SB-61-287, Revision 2, dated October 24, 2006, states to install new blade thrust bearings if required, this AD requires always installing new blade thrust bearings.

Definition

(o) For the purpose of this AD, next propeller disassembly is defined as any maintenance requiring separating of the propeller hub halves.

Previous Credit

(p) Previous credit is allowed for inspections, rework, and replacements that were done using the Original or Revision 1 of Hartzell Propeller Inc. SB No. HC-SB-61-287, before the effective date of this AD.

Alternative Methods of Compliance

(q) The Manager, Chicago 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.

Related Information

(r) Contact Tim Smyth, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, Small Airplane Directorate, 2300 East Devon Avenue, Des Plaines, IL 60018; e-mail: tim.smyth@faa.gov; telephone: (847) 294-7132; fax: (847) 294-7834, for more information about this AD.

Material Incorporated by Reference

(s) You must use the Hartzell Propeller Inc. service information specified in Table 1 of this AD to perform the checks required by this AD. The Director of the Federal Register approved the

incorporation by reference of the documents listed in Table 1 of this AD in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Hartzell Propeller Inc. Technical Publications Department, One Propeller Place, Piqua, OH 45356; telephone (937) 778-4200; fax (937) 778-4391, for a copy of this service information. You may 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/cfr/ibr-locations.html>.

Table 1 – Incorporation by Reference

Hartzell Propeller Inc. Service Bulletin No.	Page	Revision	Date
HC-SB-61-287 Total Pages: 32	ALL	2	October 24, 2006
Appendix to HC-SB-61-287 Total Pages: 2	ALL	2	October 24, 2006

Issued in Burlington, Massachusetts, on April 3, 2007.

Peter A. White,

Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. E7-6586 Filed 4-11-07; 8:45 am]