

[Federal Register: July 2, 2008 (Volume 73, Number 128)]
[Rules and Regulations]
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[DOCID:fr02jy08-8]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0254; Directorate Identifier 2008-NE-06-AD; Amendment 39-15591; AD 2008-13-28]

RIN 2120-AA64

Airworthiness Directives; Hartzell Propeller Inc. ()HC-() (2,3)Y(K,R)-2 Two- and Three-Bladed Compact Series 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. left-hand rotating ()HC-() (2,3)Y(K,R)-2 two- and three-bladed, aluminum hub, "compact" series propellers, with hubs having a non-suffix serial number, and lubrication holes located on the shoulder of the hub blade socket. These propellers are installed on Lycoming Engines LIO-360 series and LO-360 series reciprocating engines installed on Piper Aircraft, Inc. Seneca PA-34-200 and Seminole PA-44-180, and Hawker Beechcraft Corporation Model 76 Duchess, airplanes. This AD requires initial and repetitive eddy current inspections (ECI), of the area around the lubrication holes of the hub blade sockets. This AD results from four reports of propeller hub cracks, including two in-flight blade separation events. We are issuing this AD to prevent failure of the propeller hub, which could result in blade separation and loss of control of the airplane.

DATES: This AD becomes effective July 17, 2008. The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of July 17, 2008.

We must receive any comments on this AD by September 2, 2008.

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

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: U.S. Docket Management Facility, Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Fax: (202) 493-2251.

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, Senior Aerospace Engineer, Chicago Aircraft Certification Office, FAA, Small Airplane Directorate, 2300 East Devon Avenue, Des Plaines, IL 60018-4696; e-mail: timothy.smyth@faa.gov; telephone (847) 294-8110; fax (847) 294-7132.

SUPPLEMENTARY INFORMATION: We received four reports of hub cracks initiating from the lubrication holes on "left-hand" rotating propellers, including incidents of in-flight blade separation, in Hartzell two blade "compact" series aluminum propellers. These propellers have hubs with a non-suffix serial number, and lubrication holes located on the shoulder of the hub blade socket. We received the most recent report of a cracked hub, in June 2007. The lubrication holes on the "left-hand" rotating propeller experience additional stresses not experienced in the lubrication holes on "right-hand" rotating propellers. Some of the hub cracks were found during inspection following a report of abnormal vibration or grease leakage. Such a crack typically initiates in the area around the lubrication holes. As a crack spreads across the blade socket, the spreading can accelerate. This condition, if not corrected, could result in failure of the propeller hub which could result in blade separation and loss of control of the airplane.

Relevant Service Information

We have reviewed and approved the technical contents of Hartzell Propeller Inc. Alert Service Bulletin (ASB) No. HC-ASB-61-297, Revision 1, dated November 14, 2007. That ASB describes procedures for performing initial and repetitive ECIs of the propeller hubs for cracks.

FAA's Determination and Requirements of This AD

The unsafe condition described previously is likely to exist or develop on other Hartzell Propeller Inc. left-hand rotating ()HC-()(2,3)Y(K,R)-2 two- and three-bladed compact series propellers of the same type design. For that reason, we are issuing this AD to prevent failure of the propeller hub, which could result in blade separation and loss of control of the airplane. This AD requires an initial ECI of the affected propeller hubs within 50 hours time-in-service (TIS) or 12 months after the effective date of the AD, whichever occurs first. This AD also requires repetitive ECIs of the affected propeller hubs within 50-hour TIS intervals or within 12 months from the previous ECI, whichever occurs first. 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.

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-2008-0254; Directorate Identifier 2008-NE-06-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://www.regulations.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 Web site, anyone can find and read the comments in any of our dockets, including, if provided, 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).

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is the same as the Mail address provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

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:



2008-13-28 Hartzell Propeller Inc.: Amendment 39-15591. Docket No. FAA-2008-0254; Directorate Identifier 2008-NE-06-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective July 17, 2008.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Hartzell Propeller Inc. left-hand rotating ()HC-() (2,3)Y(K,R)-2 two- and three-bladed, aluminum hub, "compact" series propellers, with hubs having a non-suffix serial number (SN), and lubrication holes located on the shoulder of the hub blade socket. These propellers are installed on Lycoming Engines LIO-360 series and LO-360 series reciprocating engines, installed on Piper Aircraft, Inc. Seneca PA-34-200 and Seminole PA-44-180, and Hawker Beechcraft Corporation Model 76 Duchess, 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 four reports of propeller hub cracks, including two in-flight blade separation events. We are issuing this AD to prevent failure of the propeller hub, which could result in blade separation and loss of control of the airplane.

Compliance

(f) 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 Eddy Current Inspection (ECI)

(g) Within 50 hours time-in-service (TIS) or 12 months after the effective date of this AD, whichever occurs first, perform an initial ECI of the area around the lubrication holes of the hub blade sockets.

(h) Use paragraphs 3.A. through 3.A.(3)(d) of Hartzell Propeller Inc. Alert Service Bulletin (ASB) No. HC-ASB-61-297, Revision 1, dated November 14, 2007, to do the initial ECI.

(i) If any cracks are found, remove the propeller hub from service before further flight.

(j) If no cracks are found, mark the propeller using paragraph 3.A.(5)(a) of the Accomplishment Instructions of Hartzell Propeller Inc., ASB No. HC-ASB-61-297, Revision 1, dated November 14, 2007, to indicate compliance with this ASB.

Repetitive ECIs

(k) At repetitive intervals not to exceed 50 hours TIS or 12 months from the previous ECI, whichever occurs first, perform ECIs of the area around the lubrication holes of the hub blade sockets.

(l) Use paragraphs 3.A. through 3.A.(3)(d) of Hartzell Propeller Inc. ASB No. HC-ASB-61-297, Revision 1, dated November 14, 2007, to do the repetitive ECIs.

(m) If any cracks are found, remove the propeller hub from service before further flight.

Optional Terminating Action

(n) As optional terminating action to the repetitive ECIs required by this AD, replace the non-suffix SN propeller hub with a propeller hub identified by an "A" or "B" suffix letter in the propeller hub SN.

(o) Replacement propeller hub part numbers can be found in paragraph 2.A., Material Information, of Hartzell Propeller Inc. ASB No. HC-SB-61-297, Revision 1, dated November 14, 2007.

Prohibition of Propeller Hub Reuse

(p) After the effective date of this AD, propeller hubs that have a non-suffix SN, or an "E" suffix letter in the SN removed from affected propellers in this AD, are not eligible for installation on any engine in any aircraft.

Previous Credit

(q) ECIs of the propeller hubs done before the effective date of this AD that use Hartzell Propeller Inc. ASB No. HC-SB-61-297, dated September 17, 2007, comply with the requirements specified in this AD.

Alternative Methods of Compliance

(r) 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

(s) Contact Tim Smyth, Senior Aerospace Engineer, Chicago Aircraft Certification Office, FAA, Small Airplane Directorate, 2300 East Devon Avenue, Des Plaines, IL 60018-4696; e-mail: timothy.smyth@faa.gov; telephone (847) 294-8110; fax (847) 294-7132, for more information about this AD.

Material Incorporated by Reference

(t) You must use Hartzell Propeller Inc. Alert Service Bulletin No. HC-ASB-61-297, Revision 1, dated November 14, 2007, to perform the ECIs 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. 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, 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>.

Issued in Burlington, Massachusetts, on June 19, 2008.

Diane Cook,

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

[FR Doc. E8-14312 Filed 7-1-08; 8:45 am]