

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [70 FR 40187 No. 133; 07/13/05]

Hartzell Propeller,
McCauley Propeller,
&
Sensenich Propeller
[AD 2005-14-11](#)
Amendment 39-14188
Effective Aug. 17, 2005
ATA Code: 61
Recurring: No

[Docket No. 2003-NE-53-AD; Amendment 39-14188; AD 2005-14-11] RIN 2120-AA64

Airworthiness Directives; Hartzell Propeller, Inc., McCauley Propeller Systems, and Sensenich Propeller Manufacturing Company, Inc. Propellers

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Hartzell Propeller, Inc., McCauley Propeller Systems, and Sensenich Propeller Manufacturing Company, Inc. propellers. This AD requires maintenance actions amounting to an overhaul of the affected propellers. This AD results from the investigation of a failed propeller blade and subsequent inspections of various propeller models returned to service by Southern California Propeller Service, of Inglewood, CA. We are issuing this AD to prevent blade failure that could result in separation of a propeller blade and loss of control of the airplane.

DATES: This AD becomes effective August 17, 2005.

ADDRESSES: You may examine the AD docket at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT: Timothy Smyth, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, Small Airplane Directorate, 2300 East Devon Avenue, Des Plaines, IL 60018-4696; telephone (847) 294-7132, fax (847) 294-7834 for Hartzell Propellers.

Contact Jeff Janusz, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, Small Airplane Directorate, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone (316) 946-4148; fax (316) 946-4107 for McCauley Propellers.

Contact James Delisio, Aerospace Engineer, New York Aircraft Certification Office, FAA, Engine and Propeller Directorate, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone (516) 228-7321, fax (516) 794-5531 for Sensenich Propellers.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 with a proposed airworthiness directive (AD). The proposed AD applies to certain Hartzell

Propeller, Inc., McCauley Propeller Systems, and Sensenich Propeller Manufacturing Company, Inc. propellers returned to service by Southern California Propeller Service. We published the proposed AD in the Federal Register on May 20, 2004 (69 FR 29111). That action proposed to require maintenance actions that amount to an overhaul of Hartzell Propeller, Inc., McCauley Propeller Systems, and Sensenich Propeller Manufacturing Company, Inc. propellers returned to service by Southern California Propeller Service.

Examining the AD Docket

You may examine the AD Docket (including any comments and service information), by appointment, between 8 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays. See ADDRESSES for the location.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comments received.

Question of Why the FAA Is Changing the Rules

One commenter asks “Why change the rules just because one repair station, Southern California Propeller Service, of Inglewood, CA didn't follow the existing rules?” The commenter feels that the existing rules have worked for well over 50 years, and asks how making general aviation cost more is going to solve the problem. The commenter feels that the proposed AD is counterproductive because it will force people to go to “cut-rate” outfits like Southern California Propeller Service. We don't agree that we are “changing the rules.” We are issuing an AD to correct unsafe conditions introduced by Southern California Propeller Services. The Code of Federal Regulations, 14 CFR part 39 allows us to issue ADs to correct unsafe conditions. While the public will incur costs to comply with this action, the action will address the unsafe conditions found in other propellers.

Request To Add Hartzell HC and HA Series Propellers to the Applicability

One commenter asks if we should add Hartzell HC series and HA series propellers to the Applicability of this AD. We don't agree that we need to add the Hartzell “HC” or “HA” series propellers at this time. We reviewed the repair station certificate and responses from the public, and found no evidence that Southern California Propeller Service worked on Hartzell five-bladed steel hub propellers. While we were developing **Special Airworthiness**

Information Bulletin (SAIB)

No. NE-01-09, we were advised to include a reference to Sensenich propellers (even though the repair station certificate doesn't denote them). However, if someone sends us information that documents work done by Southern California Propeller Service on propellers beyond those denoted in the AD, we will review the AD for an expanded applicability. We have not changed the propeller model numbering to maintain consistency with the NPRM and **SAIB No. NE-01-09**.

Request To Change the Wording in Paragraph “2(e)” of the AD

The same commenter asks us to change the wording in paragraph “2(e)” of the AD to

read, “For Hartzell and McCauley propellers listed in **Table 1** of this AD, any letter, number, or any combination of letters or numbers (or lack of a letter or number) could appear where open parentheses are shown in the model number. Model numbers could show any combination of letters or numbers where the model number contains an open parentheses with a series of numbers or letters.” We do not agree. The suggested change adds nothing, so we choose to not alter the wording.

Request To Change the Wording in Paragraphs “2(f)” and “2(i)” of the AD

The same commenter asks us to change the wording in paragraph “2(f)” of the AD from, “For propeller models listed in Table 1” to “For propeller models addressed in Table 1 of this AD.” The commenter also asks us to change paragraph “2(i)” from “Perform the actions specified in paragraph (j) of this AD on propeller models listed in Table 1 of this AD” to “Perform the actions specified in paragraph (j) of this AD on the propeller models addressed, regardless of serial number, in Table 1 of this AD.” We partially agree. We will change “propellers listed in Table 1” to “propeller models listed in Table 1” throughout the regulatory text of the AD, specifically in paragraphs (e), (f), and (i), to maintain consistency.

Request To Ensure Compliance by Southern California Propeller Services With Previous ADs

The same commenter asks us to add an action requirement to ensure that previous ADs signed off by Southern California Propeller Service are re-evaluated, reinspected, or repeated as appropriate. We do not agree. The required actions specified in this AD are equivalent to any AD applicable to the affected propellers.

Conclusion

We have carefully reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Costs of Compliance

We estimate that 1,000 propellers installed on aircraft of U.S. registry will be affected by this AD and that it will cost on average about \$3,000 to overhaul each propeller. Based on these figures, we estimate the total cost of the AD to U.S. operators to be \$3,000,000.

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 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 by sending a request to us at the address listed under ADDRESSES. Include “AD Docket No. 2003-NE-53-AD” in your request.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends 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.

Sec. 39.13 [Amended]

2. The FAA amends Sec. 39.13 by adding the following new airworthiness directive:

2005-14-11 Hartzell Propeller, Inc., McCauley Propeller Systems, and Sensenich Propeller Manufacturing Company, Inc. Propellers: Amendment 39-14188. Docket No. 2003-NE-53-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective August 17, 2005.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to the Hartzell Propeller, Inc., McCauley Propeller Systems, and Sensenich Propeller Manufacturing Company, Inc. propeller models last returned to service by Southern California Propeller Service of Inglewood, CA., listed in the following **Table 1**:

Table 1.-Applicable Propeller Models

| | |
|--|--|
| Hartzell Propeller, Inc. | ()HC-()(2,3,4)Y()-() |
| | ()HC-()(2,3,4)(X,V,MV,W,Z,P,R)(F,G,L,K,R,20,30,31)- () |
| | ()HA-()-() |
| | HC-B(3,4)(M,P,R,T)(A,N,P)-() |
| | HC-(D,E)(4,5)(A,B,N,P)-() |
| McCauley Propeller Systems | ()2()3()C()-(): All constant speed two-bladed propeller models. |
| | ()3()3()C()-(): All constant speed three-bladed propeller models. |
| | 1()-()-(): All metal propeller models. |
| Sensenich Propeller Manufacturing Company, Inc. | All metal propeller models. |

- (d) These actions are against propeller models returned to service by Southern California Propeller Service. Southern California Propeller Service is not to be confused with propeller repair stations known as California Propeller or as Propeller Service of California. Southern California Propeller Service was issued Air Agency Certificate number of VXSR617L in 1992, which was revoked in June of 1998.
- (e) For Hartzell and McCauley propeller models listed in **Table 1** of this AD, any letter or number (or lack of a letter or number) could appear where open parentheses are shown in the model number. Model numbers could show any combination of letters or numbers where the model number shows parentheses with a series of numbers or letters.
- (f) For propeller models listed in **Table 1** of this AD, that have been overhauled since being returned to service by Southern California Propeller Service by an authorized repair station other than Southern California Propeller Service, no further action is required.

Unsafe Condition

- (g) This AD results from the investigation of a failed propeller blade and subsequent inspections of various propeller models returned to service by Southern California Propeller Service, of Inglewood, CA. We are issuing this AD to prevent blade failure

that could result in separation of a propeller blade and loss of control of the airplane.

Compliance

- (h) You are responsible for having the actions required by this AD performed within 10 hours time-in-service after the effective date of this AD.

Required Actions

- (i) Perform the actions specified in paragraph (j) of this AD on propeller models listed in **Table 1** of this AD. You can find information on performing the actions in the applicable propeller manufacturer's service documentation.
- (j) Perform the following actions:
 - (1) Disassemble,
 - (2) Clean,
 - (3) Inspect for the following:
 - (i) Cracks,
 - (ii) Corrosion or pits,
 - (iii) Nicks,
 - (iv) Scratches,
 - (v) Blade minimum dimensions,
 - (vi) Unapproved localized heating of blade,
 - (vii) Unapproved use of helicoil inserts in actuating pin holes,
 - (viii) Improperly drilled actuating pin holes,
 - (ix) Chemical conversion coat or paint or both applied over corrosion,
 - (x) Lack of chemical conversion coating,
 - (xi) Lack of paint on internal surfaces,
 - (xii) Bolts incorrectly torqued,
 - (xiii) Incorrect parts,
 - (xiv) Incorrect installation of parts,
 - (xv) Reinstallation of parts intended for one-time use, and
 - (xvi) Lack of proper shot peening.
 - (4) Repair and replace with serviceable parts, as necessary,
 - (5) Reassemble and test.

Alternative Methods of Compliance

- (k) The Manager, Chicago Aircraft Certification Office, has the authority to approve alternative methods of compliance (AMOCs) for this AD if requested using the procedures found in 14 CFR 39.19.

Special Flight Permits

- (l) Under 14 CFR 39.23, we are limiting the special flight permits for this AD by not allowing any flights with apparent cracks in propellers.

Related Information

- (m) **Special Airworthiness Information Bulletin No. NE-01-19**, dated March 20, 2001, pertains to the subject of this AD.

Issued in Burlington, Massachusetts, on July 5, 2005.

Francis A. Favara, Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

FOR FURTHER INFORMATION CONTACT: Timothy Smyth, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, Small Airplane Directorate, 2300 East Devon Avenue, Des Plaines, IL 60018-4696; telephone (847) 294-7132, fax (847) 294-7834 for Hartzell Propellers.

Contact Jeff Janusz, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, Small Airplane Directorate, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone (316) 946-4148; fax (316) 946-4107 for McCauley Propellers.

Contact James Delisio, Aerospace Engineer, New York Aircraft Certification Office, FAA, Engine and Propeller Directorate, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone (516) 228-7321, fax (516) 794-5531 for Sensenich Propellers.

Manufacturer's Service Information:

[Special Airworthiness Information Bulletin No. NE-01-19](#)