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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2006-25841; Directorate Identifier 86-ANE-7; Amendment 39-14809; AD 2006-22-12]

RIN 2120-AA64

Airworthiness Directives; Hartzell Propeller Inc. Model HC-B5MP-3()/M10282A()+6 and HC-B5MP-3()/M10876()()()() Five-Bladed Propellers.

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

ACTION: Final rule; request for comments.

SUMMARY: The FAA is superseding an existing airworthiness directive (AD) for Hartzell Propeller Inc. model HC-B5MP-3()/M10282A()+6 five-bladed propellers. That AD currently requires initial and repetitive torque check inspections on the mounting bolts on certain model Hartzell Propeller Inc. HC-B5MP-3()/M10282A()+6 five-bladed propellers, replacement of mounting bolts if necessary, and inspection and resurfacing of the engine and propeller mounting flanges if necessary. This AD requires the same actions but requires more detailed overhaul inspections and maintenance than the previous AD, AD 2004-21-01. This AD also adds Hartzell Propeller Inc. HC-B5MP-3()/M10876()()() five-bladed propellers to the applicability. This AD results from reports of fretting wear still occurring between the engine and propeller mounting flanges. The fretting wear results in loss of mounting bolt preload, causing failure of the mounting bolts. We are issuing this AD to prevent propeller separation from the airplane.

DATES: Effective November 13, 2006. The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of November 13, 2006.

We must receive any comments on this AD by December 26, 2006.

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

• DOT Docket Web site: Go to <u>http://dms.dot.gov</u> and follow the instructions for sending your comments electronically.

• Government-wide rulemaking Web site: Go to <u>http://www.regulations.gov</u> 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; telephone: (847) 294-7132; fax: (847) 294-7834.

SUPPLEMENTARY INFORMATION: On October 4, 2004, the FAA issued AD 2004-21-01, Amendment 39-13822 (69 FR 62179, October 25, 2004). That AD requires initial and repetitive torque check inspections on the mounting bolts on certain model Hartzell Propeller Inc. model HC-B5MP-3()/M10282A()+6 five-bladed propellers, and replacement of mounting bolts if necessary. That AD also reduces compliance time from the previous AD, for the initial inspection on certain Short Brothers Ltd. Model SD3-30 airplanes to before further flight and within 100 hours time-inservice for propellers installed on certain Aerospatiale (Nord) Model 262A airplanes. That AD also requires repetitive torque check inspections of mounting bolts at reduced intervals from the previous AD, on Model SD3-30 airplanes, and requires additional visual inspections of mounting flanges, threads in hub bolt holes, and replacement of mounting bolts and hubs, if necessary. That AD resulted from four reports in the previous 12 months of eleven cracked or failed propeller mounting bolts on Short Brothers Model SD3-30 airplanes. That condition, if not corrected, could result in propeller separation from the airplane.

Actions Since AD 2004-21-01 Was Issued

Since AD 2004-21-01 was issued, Hartzell Propeller Inc. reviewed the propeller mounting flange loads for all similar installations, including airplanes listed in Hartzell Propeller Inc. Alert Service Bulletin (SB) No. A203A, which is incorporated by reference in the previous AD, AD 2004-21-01. Hartzell Propeller Inc. has now addressed all of the propeller models on affected airplanes in a later service bulletin, including those airplanes that generate higher propeller loads during normal flight operations.

Relevant Service Information

We have reviewed and approved the technical contents of Hartzell Propeller Inc. SB No. HC-SB-61-275, dated June 2, 2005. That SB describes procedures for performing initial and repetitive torque inspections of propeller mounting bolts, initial and repetitive inspections of the propeller mounting flange and engine mounting flange, and resurfacing of the flanges if necessary.

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-B5MP-3()/M10282A()+6 and HC-B5MP-3()/M10876()()()()() fivebladed propellers of the same type design. We are issuing this AD to prevent propeller separation from the airplane. This AD requires more detailed overhaul inspections and maintenance than the previous AD, AD 2004-21-01, for the airplane installations listed under paragraph (c) of this AD. This AD requires initial and repetitive torque inspections of propeller mounting bolts, and initial and repetitive inspections of the propeller mounting flange and engine mounting flange, and resurfacing the flanges if necessary. 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-2006-25841; Directorate Identifier 86-ANE-7" 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 <u>http://dms.dot.gov</u>, 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 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 <u>http://dms.dot.gov</u>.

Docket Number Change

We are transferring the docket for this AD to the Docket Management System as part of our on going docket management consolidation efforts. The new Docket No. is FAA-2006-25841. The old Docket No. became the Directorate Identifier, which is 86-ANE-7. This final rule might get logged into the DMS docket, ahead of the previously collected documents from the old docket file, as we are in the process of sending those items to the DMS.

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 Docket Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (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 the regulation:

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 by sending a request to us 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 removing Amendment 39-13822 (69 FR 62179, October 25, 2004), and by adding a new airworthiness directive, Amendment 39-14809, to read as follows:

AIRWORTHINESS DIRECTIVE





2006-22-12 Hartzell Propeller Inc. (formerly Hartzell Propeller Products Division): Amendment 39-14809. Docket No. FAA-2006-25841; Directorate Identifier 86-ANE-7.

Effective Date

(a) This airworthiness directive (AD) becomes effective November 13, 2006.

Affected ADs

(b) This AD supersedes AD 2004-21-01.

Applicability

(c) This AD applies to Hartzell Propeller Inc. model HC-B5MP-3()/M10282A()+6 and HC-B5MP-3()/M10876()()()()() five-bladed propellers. These propellers are installed on the following:

Airplane manufacturer	Model	Propeller/blade	Supplemental type certificate
Nord	262(A) Frakes (Mohawk)	HC-B5MP-3(A)/M10282A(B)+6	SA2369SW
Short Brothers	SD3–30 (Sherpa)	HC-B5MP-3A/M10282AB+6.	
Short Brothers	SD3-60	HC-B5MP-3C/M10876ASK.	
Short Brothers	SD3-60-200 (Sherpa)	HC-B5MP-3C/M10876ANSK.	
PZL Mielec	PZL-M18() (Dromader)	HC-B5MP-3C/M10876(A)()	SA1014GL

(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 fretting wear still occurring between the engine and propeller mounting flanges. The fretting wear results in loss of mounting bolt preload, causing failure of the mounting bolts. The actions specified in this AD are intended to prevent propeller separation from 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.

Bolt Torque Inspections on Mounting Flanges Not Resurfaced

(g) If on the effective date of this AD, either the propeller mounting flange or the engine mounting flange has not been resurfaced using either Hartzell Propeller Inc. Alert Service Bulletin (SB) No. A203A, dated January 5, 1995, or SB No. HC-SB-61-275, dated June 2, 2005; and either flange:

(1) Has 3,000 or more operating hours time-since-new (TSN), then:

(i) Perform a torque inspection of the propeller mounting bolts before further flight, if the bolt torque inspection has never been done.

(ii) For bolts last inspected using AD 2004-21-01, perform a torque inspection of the propeller mounting bolts within 120 operating hours from the last inspection, or from the effective date of this AD, whichever occurs first, unless already done.

(2) Has fewer than 3,000 operating hours TSN, then perform a torque inspection of the propeller mounting bolts upon reaching 3,000 operating hours TSN.

(h) Thereafter, repeat the torque inspections within every 120 operating hours.

(i) Use paragraphs 3.A. through 3.A.(4) of the Accomplishment Instructions of Hartzell Propeller Inc. SB No. HC-SB-61-275, dated June 2, 2005 to do the inspections.

(j) If the torque of any one bolt is found to be less than 90 ft-lbs, remove and inspect the propeller, and resurface the flanges as necessary.

(k) Use paragraphs 3.B. through 3.B.(5) of the Accomplishment Instructions of Hartzell Propeller Inc. SB No. HC-SB-61-275, dated June 2, 2005, to do the inspection and resurfacing. Replace all mounting bolts with new mounting bolts.

Bolt Torque Inspections on Mounting Flanges Resurfaced

(1) If the propeller and engine mounting flanges have been resurfaced using either Hartzell Propeller Inc. Alert SB No. A203A, dated January 5, 1995, or SB No. HC-SB-61-275, dated June 2, 2005, and a fretting disk was not installed, then:

(1) Within 120 operating hours after reaching 1,500 operating hours from the time the flanges were last resurfaced, perform a torque inspection of the propeller mounting bolts.

(2) Thereafter, repeat the torque inspection within every 120 operating hours.

(3) Use paragraphs 3.A. through 3.A.(4) of the Accomplishment Instructions of Hartzell Propeller Inc. SB No. HC-SB-61-275, dated June 2, 2005 to do the inspections.

(m) If the torque of any one bolt is found to be less than 90 ft-lbs, remove and inspect the propeller, and resurface the flanges as necessary.

(n) Use paragraphs 3.B. through 3.B.(5) of the Accomplishment Instructions of Hartzell Propeller Inc. SB No. HC-SB-61-275, dated June 2, 2005 to do the inspection and resurfacing. Replace all mounting bolts with new mounting bolts.

Inspection of Propeller and Engine Mounting Flanges

(o) If the propeller and engine mounting flanges have been resurfaced, using either Hartzell Propeller Inc. Alert SB No. A203A, dated January 5, 1995, or SB No. HC-SB-61-275, dated June 2, 2005, and a fretting disk was installed, then:

(1) Within 120 operating hours after reaching 1,500 operating hours from the time the flanges were last resurfaced, remove the propeller, and inspect the propeller and engine mounting flanges. Resurface the flanges if necessary and replace the fretting disk.

(2) Thereafter, remove the propeller and repeat the flange inspections within every 1,500 operating hours and replace the fretting disk.

(3) Use paragraphs 3.B. through 3.B.(5) of the Accomplishment Instructions of Hartzell Propeller Inc. SB No. HC-SB-61-275, dated June 2, 2005 to do the inspection and resurfacing. Replace all mounting bolts with new mounting bolts.

(p) Whenever the propeller is removed from the engine:

(1) Inspect the propeller and engine mounting flanges and resurface the flanges if necessary.

(2) Use paragraphs 3.B. through 3.B.(5) of the Accomplishment Instructions of Hartzell Propeller Inc. SB No. HC-SB-61-275, dated June 2, 2005 to do the inspection and resurfacing. Replace all mounting bolts with new mounting bolts.

(q) Whenever a propeller is removed from an engine to be installed on an airplane model not listed in this AD:

(1) Inspect the propeller and engine mounting flanges before installation and resurface the flanges if necessary.

(2) Use paragraphs 3.B. through 3.B.(5) of the Accomplishment Instructions of Hartzell Propeller Inc. SB No. HC-SB-61-275, dated June 2, 2005 to do the inspection and resurfacing. Replace all mounting bolts with new mounting bolts.

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.

Material Incorporated by Reference

(s) You must use Hartzell Propeller Inc. SB No. HC-SB-61-275, dated June 2, 2005 to perform the actions 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, 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.

Issued in Burlington, Massachusetts, on October 20, 2006. Peter A. White, Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service. [FR Doc. E6-17925 Filed 10-26-06; 8:45 am]