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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

[Docket No. 2001-NE-44-AD; Amendment 39-13072; AD 2003-04-23]

**RIN 2120-AA64**

### **Airworthiness Directives; Hartzell Propeller Inc. Model HC-B3TN-5( ) Propellers**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

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**SUMMARY:** This amendment adopts a new airworthiness directive (AD), that is applicable to Hartzell Propeller Inc. model HC-B3TN-5( ) propellers, with blades part number (P/N) T10176H(B,K)-5 or T10178H(B)-11(R) that are installed on Mitsubishi Heavy Industries, Ltd, MU-2 series airplanes. This amendment requires replacement of those blades with blades of the latest design. This amendment is prompted by a report of in-flight propeller blade separation that caused a severe out-of-balance condition, damage to the airplane, and resulted in engine shutdown and a safe landing. The actions specified by this AD are intended to prevent propeller blade separation, damage to the airplane, and possible loss of the airplane.

**DATES:** Effective April 4, 2003. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of April 4, 2003.

**ADDRESSES:** The service information referenced in this AD may be obtained from Hartzell Propeller Inc. Technical Publications Department, One Propeller Place, Piqua, OH 45356; telephone (937) 778-4200, fax (937) 778-4391. This information 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; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

**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-B3TN-5( ) propellers, with blades P/N T10176H(B,K)-5 or T10178H(B)-11(R) that are installed

on Mitsubishi Heavy Industries, Ltd, MU-2 series airplanes was published in the Federal Register on October 18, 2002, (67 FR 64321). That action proposed to require replacement of those blades with blades of the latest design in accordance with Hartzell Propeller Inc. SB HC-SB-61-250, Revision 1, dated April 8, 2002. The FAA has received a report of in-flight propeller blade separation that caused a severe out-of-balance condition, damage to the airplane, and resulted in engine shutdown and a safe landing, on a Mitsubishi MU-2 series airplane. Analysis revealed that the blade, made of (hard alloy) 7076 aluminum alloy, separated due to fatigue failure caused by intergranular corrosion. The service difficulty history to date indicates that this condition is limited to Hartzell propellers installed on Mitsubishi MU-2 series airplanes. This condition, if not corrected, could result in propeller blade separation, damage to the airplane, and possible loss of the airplane.

## **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.

One commenter states that the proposed AD should be expanded to remove all Hartzell "hard alloy" propeller blades from service regardless of the type of aircraft they are installed on.

The FAA does not agree. As stated in the NPRM, the service history indicates that the intergranular corrosion condition found on the affected Hartzell propellers is limited to Hartzell propellers installed on Mitsubishi MU-2 series airplanes. The commenter did not provide any new service history to indicate that this condition exists on other airplanes with the affected Hartzell propellers. Therefore, the AD will not be changed. If in the future, intergranular corrosion conditions are reported to the FAA and are occurring on Hartzell propellers installed on airplanes other than the Mitsubishi MU-2 series airplanes, the FAA will review the need to expand the AD.

After careful review of the available data, including the comments 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 250 Hartzell Propeller Inc. model HC-B3TN-5( ) propellers of the affected design in the worldwide fleet. The FAA estimates that 200 propellers installed on airplanes of U.S. registry will be affected by this AD, that it will take approximately 10 work hours per propeller to perform the required actions, and that the average labor rate is \$60 per work hour. Required parts will cost approximately \$10,000 per propeller. Based on these figures, the total cost of the AD to U.S. operators is estimated to be \$ 2,120,000.

## **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, Incorporation by reference, 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).

**2003-04-23 Hartzell Propeller Inc.:** Amendment 39-13072. Docket No. 2001-NE-44-AD.

**Applicability:** This airworthiness directive (AD) is applicable to Hartzell Propeller Inc. model HC-B3TN-5( ) propellers, with part numbers (P/N's) T10176H(B)-5, T10176H(K)-5, T10176H-5, T10178H-11, T10178H-11R, T10178H(B)-11, and T10178H(B)-11R blades that are installed on Mitsubishi Heavy Industries, Ltd, MU-2 series airplanes.

**Note 1:** The parentheses indicate the presence or absence of an additional letter(s) which vary the basic propeller blade model designation. This AD still applies regardless of whether these letters are present or absent on the propeller blade model designation.

**Note 2:** 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 (c) 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 within 200 flight hours or 1 year from the effective date of this AD, whichever occurs first, unless already done.

To prevent propeller blade separation, damage to the airplane, and possible loss of the airplane, do the following:

(a) Remove and replace propeller blades in accordance with paragraphs 3.A. through 3.C.(3) of the Accomplishment Instructions of Hartzell Propeller Inc. Service Bulletin (SB) HC-SB-61-250, Revision 1, dated April 8, 2002.

(b) After the effective date of this AD, do not install any propeller blade removed in accordance with paragraph (a) of this AD, on any airplane.

## Alternative Methods of Compliance

(c) 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 3:** 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**

(d) 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 aircraft to a location where the requirements of this AD can be done.

### **Documents That Have Been Incorporated by Reference**

(e) The blade removal and replacement must be done in accordance with Hartzell Propeller Inc. Service Bulletin (SB) HC-SB-61-250, Revision 1, dated April 8, 2002. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Hartzell Propeller Inc. Technical Publications Department, One Propeller Place, Piqua, OH 45356; telephone (937) 778-4200, fax (937) 778-4391. Copies may be inspected at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

### **Effective Date**

(f) This amendment becomes effective on April 4, 2003.

Issued in Burlington, Massachusetts, on February 19, 2003.

Jay J. Pardee,

Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 03-4484 Filed 2-27-03; 8:45 am]

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