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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. 83-ANE-14-AD; Amendment 39-14043; AD 83-08-01R2]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Hartzell Propeller Inc. (Formerly TRW Hartzell Propeller) Models HC-B3TN-2, HC-B3TN-3, HC-B3TN-5, HC-B4TN-3, HC-B4TN-5, HC-B4MN-5, and HC-B5MP-3 Turbopropellers**

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

**ACTION:** Final rule.

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**SUMMARY:** The FAA is revising an existing airworthiness directive (AD), that is applicable to Hartzell Propeller Inc. (formerly TRW Hartzell Propeller) models HC-B3TN-2, HC-B3TN-3, HC-B3TN-5, HC-B4TN-3, HC-B4TN-5, HC-B4MN-5, and HC-B5MP-3 turbopropellers. That AD requires, before further flight, that all new propellers being installed and all serviceable propellers being reinstalled, are attached using part number (P/N) B-3339 bolts and P/N A-2048-2 washers, and that the bolts are properly torqued. That AD also requires a onetime torque-check of P/N A-2047 bolts that are already installed through propellers and replacement of those bolts if necessary, with P/N B-3339 bolts and P/N A-2048-2 washers. This AD requires the same actions, and includes the use of other equivalent FAA-approved serviceable bolts and washers. This AD results from the need to make nonsubstantive wording changes and additions to clarify that terminating action is achieved by attaching propellers with P/N B-3339 bolts and P/N A-2048-2 washers or other equivalent FAA-approved serviceable bolts and washers, to the engine flange, as instructed in the compliance section of this AD. We are issuing this AD to preclude propeller attaching bolt failures or improperly secured propellers, which could lead to separation of the propeller from the airplane.

**DATES:** This AD becomes effective May 11, 2005.

**ADDRESSES:** 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 referenced in this AD. 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:** Melissa T. Bradley, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, Small Airplane Directorate, 2300 East Devon Avenue, Des Plaines, IL 60018; telephone: (847) 294-8110; fax: (847) 294-7834.

**SUPPLEMENTARY INFORMATION:** The FAA proposed to amend 14 CFR part 39 with a proposed airworthiness directive (AD). The proposed AD applies to Hartzell Propeller Inc. (formerly TRW Hartzell Propeller) models HC-B3TN-2, HC-B3TN-3, HC-B3TN-5, HC-B4TN-3, HC-B4TN-5, HC-B4MN-5, and HC-B5MP-3 turbopropellers by revising AD 83-08-01R1, Amendment 39-4633 (48 FR 17576, April 25, 1983), which is applicable to the same turbopropellers. We published the proposed AD in the Federal Register on October 20, 2004 (69 FR 61611). That action proposed to require the same actions as AD 83-08-01R1, except that it would not be applicable to propellers installed using P/N B-3339 bolts and P/N A-2048-2 washers, and it would not require an additional onetime torque-check of P/N A-2047 bolts. This AD results from the need to make nonsubstantive wording changes and additions to clarify that terminating action is achieved by attaching propellers with P/N B-3339 bolts and P/N A-2048-2 washers or other equivalent FAA-approved serviceable bolts and washers, to the engine flange, as instructed in the compliance section of this AD.

### **Comments**

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

### **Request To Add Parts Manufacturer Approval (PMA) Parts**

One commenter requests that we modify the compliance section to state that PMA equivalent parts can also be used to attach the propeller. The commenter states that the proposed AD did not reference all FAA-PMA parts.

We partially agree. For clarification, we have added references to the use of other equivalent FAA-approved serviceable bolts and washers, in lieu of using only P/N B-3339 bolts and P/N A-2048-2 washers.

### **Correction of Petrolated Graphite Military Specification Number**

We have corrected the Petrolated Graphite Military Specification number in the compliance section from MIL-T-5544 to MIL-T-83483.

We have carefully reviewed the available data, including the comment 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**

There are about 17,000 Hartzell Propeller Inc. models HC-B3TN-2, HC-B3TN-3, HC-B3TN-5, HC-B4TN-3, HC-B4TN-5, HC-B4MN-5, and HC-B5MP-3 turbopropellers of the affected design in the worldwide fleet. We estimate that 11,900 turbopropellers installed on airplanes of U.S. registry would be affected by this AD. We also estimate that all of these propellers likely have upgraded to the P/N B-3339 bolts and P/N A-2048-2 washers, or equivalent FAA-approved serviceable bolts and washers, since issuance of the original AD. The average labor rate is \$65 per work hour. Bolt and washer replacement will require about 1.5 work hours. Required parts will cost about \$260 per propeller. Based on these figures, we estimate the total cost of the AD to replace the bolts and washers for all 11,900 turbopropellers, to be \$4,248,300.

## **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 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, 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 removing Amendment 39-4633 (48 FR 17576, April 25, 1983) and by adding a new airworthiness directive, Amendment 39-14043, 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).

**83-08-01R2 Hartzell Propeller Inc. (formerly TRW Hartzell Propeller):** Amendment 39-14043.  
Docket No. 83-ANE-14-AD. Revises AD 83-08-01R1, Amendment 39-4633

## Applicability

This AD is applicable to Hartzell Propeller Inc. (formerly TRW Hartzell Propeller) models HC-B3TN-2, HC-B3TN-3, HC-B3TN-5, HC-B4TN-3, HC-B4TN-5, HC-B4MN-5, and HC-B5MP-3 turbopropellers. The HC-B()TN-2, HC-B()TN-3, and HC-B()MP-3 propellers are typically installed on Pratt & Whitney Canada Model PT6A-() series engines. The HC-B()TN-5 and HC-B()MN-5 series propellers are typically installed on Honeywell International Inc., (formerly AlliedSignal Inc., Garrett Turbine Engine Company, and AIRsearch Manufacturing Company of Arizona) TPE-331-() series engines.

**Note 1:** 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 are 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.

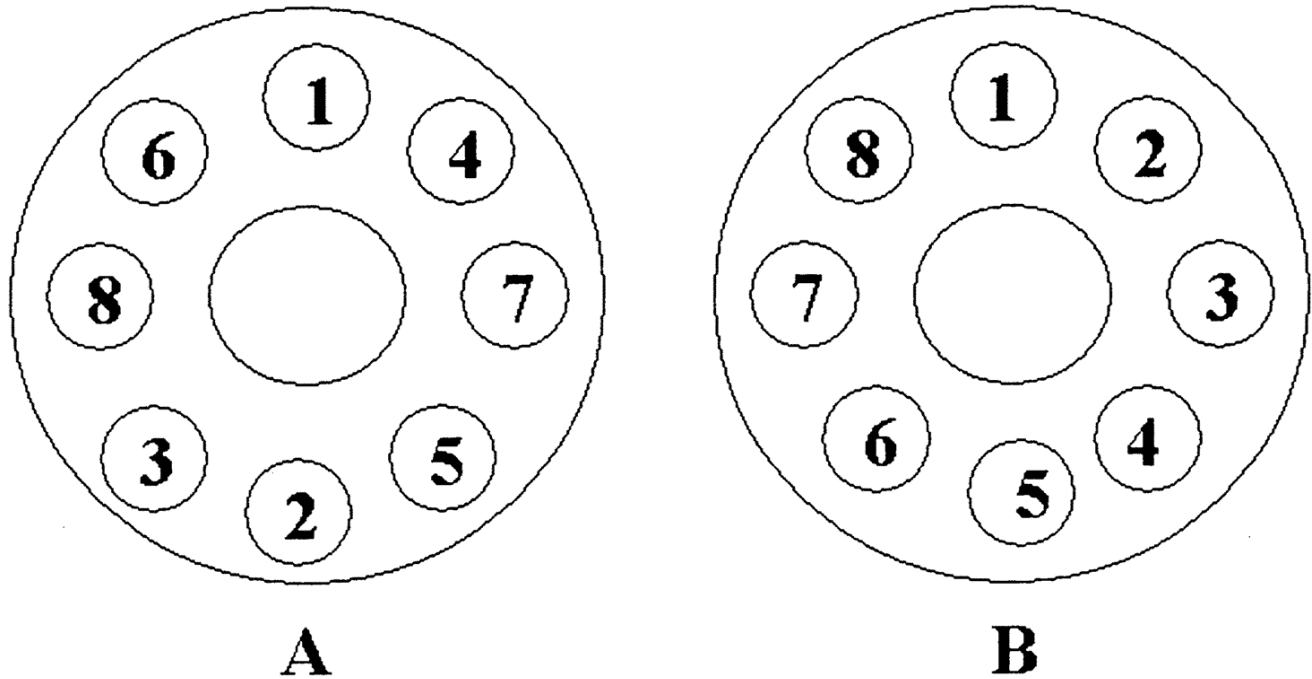
## Compliance

Compliance with this AD is required as indicated, unless already done.

To preclude propeller attaching bolt failures or improperly secured propellers, which could lead to separation of the propeller from the airplane, do the following:

- (a) Install all new propellers and serviceable propellers, as follows, before further flight:
  - (1) Install the propeller oil seal to the engine flange after ensuring that the engine and propeller flanges are clean.
  - (2) Carefully install propeller on the engine flange ensuring that complete and true contact is established.
  - (3) Apply MIL-T-83483 Petrolated Graphite, or Hartzell Lubricant part number (P/N) A-3338, to threads of the eight P/N B-3339 attaching bolts (and remainder of bolt if desired) and to flat surfaces of the eight P/N A-2048-2 washers, or to other equivalent FAA-approved serviceable bolts and washers.
  - (4) Install the eight P/N B-3339 attaching bolts and eight P/N A-2048-2 washers, or other equivalent FAA-approved serviceable bolts and washers, that were prepared in paragraph (a)(3) of this AD, through the engine flange and into the propeller flange.

(5) Torque all attaching bolts with a torque wrench and an appropriate adapter, to 40 ft.-lbs., and then to 80 ft.-lbs., following sequence "A" (shown below). Final torque all attaching bolts using sequence "B" (shown below) to 100 ft.-lbs. to 105 ft.-lbs. Safety wire all attaching bolts in an FAA-approved manner.



(6) Once the propeller is installed with P/N B-3339 bolts and P/N A-2048-2 washers, or other equivalent FAA-approved serviceable bolts and washers, this AD no longer applies.

(b) Within the next 300 hours time-in-service after the effective date of this AD, do the following on all applicable turbopropellers presently installed with P/N A-2047 attaching bolts:

(1) Check the torque, with a torque wrench and an appropriate adapter, of all eight propeller attaching bolts (with washers installed). Torque should be 100 ft.-lbs. to 125 ft.-lbs., with dry threads. (Caution: Do not use any lubricant with the P/N A-2047 bolts. Safety wire all bolts in an FAA-approved manner.)

(2) If the torque of any one of the bolts is found to be less than 100 ft.-lbs., remove all eight bolts and washers and replace with P/N B-3339 bolts and P/N A-2048-2 washers, or other equivalent FAA-approved serviceable bolts and washers, using paragraphs (a)(1) through (a)(5) of this AD.

(3) A P/N A-2047 bolt has the letter "H" stamped inside a triangle on the bolt. A P/N B-3339 bolt has the P/N stamped inside the cupped head.

(4) If the torque of each P/N A-2047 bolt is in compliance, then at next propeller disassembly, remove all eight bolts and washers and replace with P/N B-3339 bolts and P/N A-2048-2 washers, or other equivalent FAA-approved serviceable bolts and washers. Use paragraphs (a)(1) through (a)(5) of this AD to do the replacements.

(5) Hartzell Service Instructions No. 140A, Revision 9, dated March 30, 2005, is the latest service information that pertains to the subject of this AD.

### **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. Operators must submit their requests through an appropriate FAA Principal Maintenance

Inspector, who may add comments and then send it to the Manager, Chicago Aircraft Certification Office.

**Note 2:** Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Chicago Aircraft Certification Office.

### **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 airplane to a location where the requirements of this AD can be done.

### **Effective Date**

(e) This amendment becomes effective on May 11, 2005.

Issued in Burlington, Massachusetts, on March 30, 2005.

Diane Cook,

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

[FR Doc. 05-6778 Filed 4-5-05; 8:45 am]

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