
AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/PHZL/44 Amdt 8 and issues the following AD under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Propellers - Variable Pitch - Hartzell

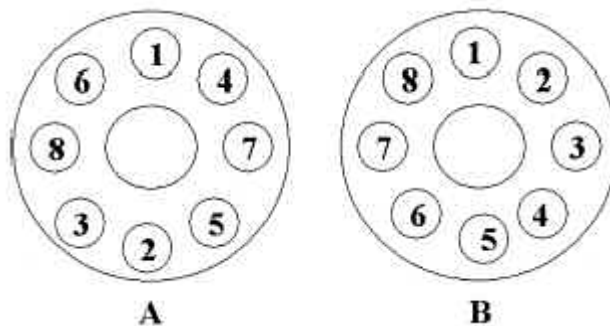
**AD/PHZL/44
Amdt 9**

Propeller Attachment Bolts

7/2005

Applicability: Hartzell Propeller model HC-B3TN-2, HC-B3TN-3, HC-B3TN-5, HC-B4TN- 3, HC-B4TN-5, HC-B4MN-5, and HC-B5MP-3 turbine engine propellers.

- Requirement: 1. Install all new propellers and serviceable propellers, as follows:
- a. Install the propeller oil seal to the engine flange after ensuring that the engine and propeller flanges are clean.
 - b. Carefully install propeller on the engine flange ensuring that complete and true contact is established.
 - c. 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 approved serviceable bolts and washers.
 - d. Install the eight P/N B-3339 attaching bolts and eight P/N A-2048-2 washers, or other equivalent approved serviceable bolts and washers, that were prepared in paragraph 1.c. of this AD, through the engine flange and into the propeller flange.
 - e. 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 approved manner.



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- f. Once the propeller is installed with P/N B-3339 bolts and P/N A-2048-2 washers or other equivalent approved serviceable bolts and washers, this AD no longer applies.
2. For propellers in the applicability list, that are currently installed with P/N A-2047 attaching bolts:
 - a. 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. Do not use any lubricant with the P/N A-2047 bolts. Safety wire all bolts in an approved manner.

Note 1: 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.

- b. During torque check per Requirement 2 (a) of this AD, 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 approved serviceable bolts and washers, using procedures described in Requirement 1 of this AD.
- c. During torque check per Requirement 2 (a) of this AD, 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 approved serviceable bolts and washers. Use procedures described in Requirement 1 of this AD.

Note 2: Hartzell Service Instructions No. 140A, Revision 9, dated 30 March 2005 is the latest service information that pertains to the subject of this AD.

Note 3: FAA Airworthiness Directive (AD) 83-08-01 R2 Amendment 39-14043 refers.

- Compliance:
1. Whenever a new or a serviceable propeller is installed on an aircraft after the effective date of this AD.
 2.
 - a. Within the next 300 hours time-in-service, after the effective date of this AD.
 - b. Before further flight.
 - c. At the next propeller disassembly, after the effective date of this AD.

This Amendment becomes effective on 7 July 2005.

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Background: An improperly secured propeller or failure of propeller attaching bolt can lead to the separation of the propeller from the airplane, resulting in loss of aircraft and / or the occupants.

This actions specified in this Airworthiness Directive minimize the safety risks associated with the loss of propeller.

Current amendment allows the use of equivalent approved serviceable bolts and washers.

Amendment 7 was raised to mandate compliance with Issue 6 of Hartzell SI 140A.

Amendment 8 was raised to mandate compliance in accordance with Hartzell Alert SB A203, for those aircraft fitted with Hartzell B5MP propellers.

AD/PHZL/44 Amendment 8 became effective in 1994.



James Coyne
Delegate of the Civil Aviation Safety Authority

19 May 2005