

AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (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/89**Propeller Mounting Flanges****11/2007
TX**

Applicability: Hartzell Propeller Inc. model HC-B5MP-3()/M10282A()+6 and HC-B5MP-3()/M10876()() five-bladed propellers. These propellers are installed on the following aircraft:

Aeroplane 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

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.

Requirement: 1. If 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 5 January 1995, or SB No. HC-SB-61-275, dated 2 June 2005, perform a torque inspection of the propeller mounting bolts.

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

2. If the torque of any one bolt is found to be less than 90 ft-lbs, as detailed in Requirement 1 of this AD then remove and inspect the propeller, and resurface the flanges as necessary.

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

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3. If the propeller and engine mounting flanges have been resurfaced using either Hartzell Propeller Inc. Alert SB No. A203A, or SB No. HC-SB-61-275, and a fretting disk was not installed, then:
 - a. Perform a torque inspection of the propeller mounting bolts.

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

Use paragraphs 3.B. through 3.B.(5) of the Accomplishment Instructions of Hartzell Propeller Inc. SB No. HC-SB-61-275, to do the inspection and resurfacing. Replace all mounting bolts with new mounting bolts.
4. If the propeller and engine mounting flanges have been resurfaced, using either Hartzell Propeller Inc. Alert SB No. A203A, or SB No. HC-SB-61-275, and a fretting disk was installed, then:
 - a. Remove the propeller, and inspect the propeller and engine mounting flanges. Resurface the flanges if necessary and replace the fretting disk.
 - b. Thereafter, remove the propeller and repeat the flange inspections and replace the fretting disk.

Use paragraphs 3.B. through 3.B.(5) of the Accomplishment Instructions of Hartzell Propeller Inc. SB No. HC-SB-61-275, to do the inspection and resurfacing. Replace all mounting bolts with new mounting bolts.
5. Inspect the propeller and engine mounting flanges and resurface the flanges if necessary.

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

Note: FAA AD 2006-22-12 Amdt 39-14809 refers. This AD supersedes FAA AD 2004-21-01 which is referred to in AD/SD3-30/23 Amdt 2. In addition AD/SD3-60/41 refers to Hartzell SB A203A.

- Compliance:
1. For propellers having 3,000 or more flight hours (FH) time-since-new (TSN) on the effective date of this AD:
 - Before further flight after the effective date of this AD, if the bolt torque inspection has never been done, and thereafter at intervals not to exceed 120 FH.

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AD/PHZL/89 (continued)

- For bolts last inspected using AD/SD3-30/23 or AD/SD3-60/41: Within 120 FH from the last inspection or from the effective date of this AD, whichever occurs first, unless already done, and thereafter at intervals not to exceed 120 FH.

For propellers having fewer than 3,000 FH TSN on the effective date of this AD - upon reaching 3,000 FH TSN, and thereafter at intervals not to exceed 120 FH.

2. Before further flight after the effective date of this AD.
3.
 - a. Within 120 FH after reaching 1,500 FH from the time the flanges were last resurfaced, and thereafter at intervals not to exceed 120 FH.
 - b. Before further flight after the effective date of this AD.
4.
 - a. Within 120 FH after reaching 1,500 FH from the time the flanges were last resurfaced.
 - b. At intervals not to exceed 1,500 FH.
5. Whenever the propeller is removed from the engine and whenever a propeller is removed from an engine to be installed on an aeroplane model not listed in this AD.

This Airworthiness Directive becomes effective on 17 September 2007.

Background: 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 aeroplane.

AD/SD3-30/23 Amdt 2 and AD/SD3-60/41 have been cancelled following the issue of this AD.



Charles Lenarcic
Delegate of the Civil Aviation Safety Authority

10 September 2007