

# AIRWORTHINESS DIRECTIVE

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U.S. Department  
of Transportation  
**Federal Aviation  
Administration**



**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:

<b>Airplane manufacturer</b>	<b>Model</b>	<b>Propeller/blade</b>	<b>Supplemental type certificate</b>
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**

(l) 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.

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