

HARTZELL PROPELLER INC.
SERVICE BULLETIN
HM-SB-002

Pitch Change Knob Bracket/Mounting Hardware

1. Planning Information

A. Effectivity

- (1) Hartzell Propeller Inc. Wing-In-Ground Effect lightweight turbine propeller models HM-D4N-3() are affected by this Service Bulletin.

WARNING: DO NOT USE OBSOLETE OR OUTDATED INFORMATION. PERFORM ALL INSPECTIONS OR WORK IN ACCORDANCE WITH THE MOST RECENT REVISION OF THIS SERVICE BULLETIN. INFORMATION CONTAINED IN THIS SERVICE BULLETIN MAY BE SIGNIFICANTLY CHANGED FROM EARLIER REVISIONS. FAILURE TO COMPLY WITH THIS SERVICE BULLETIN OR THE USE OF OBSOLETE INFORMATION MAY CREATE AN UNSAFE CONDITION THAT MAY RESULT IN DEATH, SERIOUS BODILY INJURY, AND/OR SUBSTANTIAL PROPERTY DAMAGE. REFER TO THE SERVICE BULLETIN INDEX FOR THE MOST RECENT REVISION LEVEL OF THIS SERVICE BULLETIN.

B. Concurrent Requirements

- (1) Additional service documents may apply to the components/propellers affected by this Service Bulletin. Compliance with additional service documents may be necessary in conjunction with the completion of the Accomplishment Instructions in this Service Bulletin. Refer to the Hartzell Propeller Inc. website at www.hartzellprop.com for a cross-reference of service documents.

C. Reason

- (1) Hartzell Propeller Inc. has received reports about premature failure of the B-3825 screws used to attach the pitch change knob brackets to the blades on affected propellers.
- (2) Hartzell Propeller Inc. is introducing a redesigned pitch change knob bracket and mounting hardware for the affected propellers.

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D. Description

- (1) This Service Bulletin provides Instructions for Continued Operation (ICO).
- (2) This Service Bulletin introduces the 108302-() pitch change knob bracket as a replacement for the 100027-() pitch change knob bracket used on affected propellers.
 - (a) The 108142 12-point bolt replaces the B-3825 screw used to attach the pitch change knob bracket to the blade on affected propellers.
 - (b) Refer to the Material Information section in this Service Bulletin for a complete list of components required for pitch change knob bracket replacement.
 - 1 Hartzell Propeller Inc. will offer discounted pricing on the 108302-2-OH Pitch Change Knob Bracket O/H Kit listed in the Material Information section of this Service Bulletin.
- (3) This Service Bulletin provides instructions for installing the 108302-() pitch change knob bracket onto the blades for affected propellers.
- (4) This Service Bulletin provides instructions for inspecting the 108302-() pitch change knob bracket.
- (5) Affected propellers manufactured after the release date of this Service Bulletin will incorporate the 108302-() pitch change knob brackets and 108142 mounting bolts.

E. Compliance

NOTE: Overhaul intervals are specified in Hartzell Propeller Inc. Service Letter HM-SL-001.

- (1) Beginning on February 1, 2023, Hartzell will require replacement of all four 100027-() pitch change knob brackets at next propeller overhaul or pitch change knob bracket removal, whichever occurs first.
 - (a) Replace the 100027-() pitch change knob brackets with new or serviceable 108302-() pitch change knob brackets in accordance with the Accomplishment Instructions section in this Service Bulletin.

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F. Approval

- (1) This technical document is approved by Hartzell Propeller Inc.

G. Manpower

- (1) No additional man-hours required when performed at overhaul.

H. Weight and Balance

- (1) Not changed

I. Electrical Load Data

- (1) Not changed

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PERFORM ALL INSPECTIONS OR WORK IN ACCORDANCE WITH
THE MOST RECENT REVISION OF A DOCUMENT.

J. References

- (1) Hartzell Propeller Inc. Propeller Owner's Manual 350
- (2) Hartzell Propeller Inc. Wing-In-Ground Effect Craft Propeller Overhaul and Maintenance Manual 360

K. Other Publications Affected

- (1) Hartzell Propeller Inc. Wing-In-Ground Effect Craft Propeller Overhaul and Maintenance Manual 360

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2. Material Information

A. Components Required for Affected Propellers

Part Number	Description	Qty	Replaces
108302-2-OH	Pitch Change Bracket O/H Kit <i>includes bulleted (•) items below</i>	1	-
108302-2	• Pitch Change Knob Bracket	4	100027-()
B-6260	• Dowel Pin, 3/8"	4	-
B-3860-10L	Washer, Dimpled, 100°, Cres.	4	-
B-3867-272	Screw, 10-32, 100° Head, Cres.	4	-
B-6545	Cam Follower	4	-
102632	Silicone Tubing	4	-
103395	Washer, Retaining, Knob Unit	4	-
108142	Bolt, 1/4-28, 12 Point	8	B-3825

B. Pitch Change Knob Bracket/Blade Angle Adjustment

Part Number	Description	Change of Blade Angle
108302-1	Pitch Change Knob Bracket	-0.3 degrees
108302-2	Pitch Change Knob Bracket	-
108302-3	Pitch Change Knob Bracket	+0.3 degrees

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3. Accomplishment Instructions

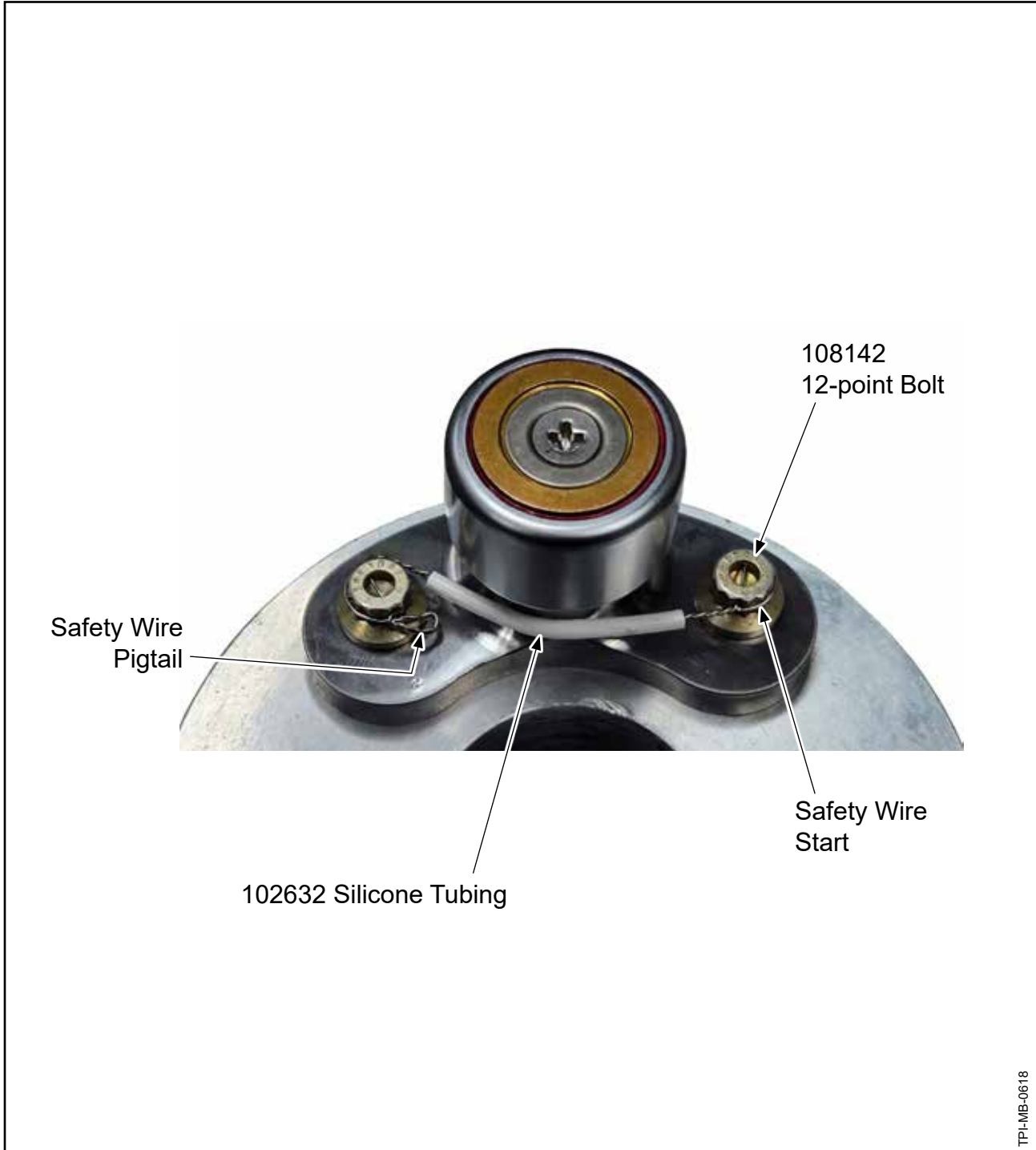
CAUTION: INSTRUCTIONS AND PROCEDURES IN THIS SERVICE BULLETIN MAY INVOLVE PROPELLER CRITICAL PARTS. REFER TO THE APPLICABLE PROPELLER OVERHAUL OR OWNER'S MANUAL FOR INFORMATION ABOUT PROPELLER CRITICAL PARTS.

A. Pitch Change Knob Bracket Replacement

- (1) Disassembly, inspection, and assembly of the propeller and propeller hub must be performed by a certified propeller repair station with the appropriate rating.
- (2) Remove the propeller assembly from the craft in accordance with Hartzell Propeller Inc. Propeller Owner's Manual 350.
- (3) Remove the pitch change knob bracket from each blade in accordance with the Disassembly chapter in Hartzell Propeller Inc. Wing-In-Ground Effect Craft Propeller Overhaul and Maintenance Manual 360.
 - (a) Discard the B-3825 screws used to attach the 100027-() pitch change knob brackets.
 - (b) Retire the 100027-() pitch change knob brackets in accordance with the Part Retirement Procedures chapter of Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02).
- (4) Install the B-6260 dowel pin and the B-6545 cam follower onto the 108302-() pitch change knob bracket in accordance with the Assembly chapter in Hartzell Propeller Inc. Wing-In-Ground Effect Craft Propeller Overhaul and Maintenance Manual 360.
- (5) Position the 108303-() pitch change knob bracket unit on the butt of the blade in accordance with the Assembly chapter in Hartzell Propeller Inc. Wing-In-Ground Effect Craft Propeller Overhaul and Maintenance Manual 360.
 - (a) Use the alternate pitch change knob bracket choices as necessary to bring the floating pitch angle of all three blades within the specified tolerance of ± 0.1 degree. Refer to "Pitch Change Knob Bracket/Blade Angle Adjustment" in the Material Information section in this Service Bulletin.

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Safety Wire/Silicone Tubing
Figure 1

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- (6) Attach the 108302-() pitch change knob bracket to the butt of the blade with two 108142 12-point bolts.
 - 1 Torque the 108142 12-point bolts 16-18 Ft.-Lbs. (22-24 N•m).
- (7) Safety wire the 108142 12-point bolts to each other in accordance with NASM33540 with the 102632 silicone tubing positioned as shown in Figure 1.
- (8) Repeat steps (4) thru (7) of this procedure for the remaining blades.
- (9) Complete the assembly of the propeller in accordance with the Assembly chapter in Hartzell Propeller Inc. Wing-In-Ground Effect Craft Propeller Overhaul and Maintenance Manual 360.
- (10) Install the propeller onto the aircraft in accordance with Hartzell Propeller Inc. Propeller Owner's Manual 350.
- (11) Make an entry in the propeller logbook indicating replacement of the pitch change knob bracket unit as terminating action for this Service Bulletin.

B. Inspection Criteria

- (1) At overhaul, inspect the 108302-() pitch change knob bracket in accordance with the pitch change knob bracket inspection criteria in the Check chapter of Hartzell Propeller Inc. Wing-In-Ground Effect Craft Propeller Overhaul and Maintenance Manual 360.

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C. Recommended Service Facilities

- (1) Hartzell Propeller Inc. has a worldwide network of Recommended Service Facilities for overhaul and repair of our products.
- (2) Each service facility must meet specific requirements before being recommended by Hartzell Propeller Inc. Each service facility is audited by Hartzell to verify the continuation of the standards.
- (3) Hartzell Propeller Inc. recommends that you use one of these service facilities when having your propeller overhauled or repaired.
- (4) For a current list of Hartzell Propeller Inc. Recommended Service Facilities, contact Hartzell Propeller Inc. Product Support or refer to the Hartzell Propeller Inc. website at www.hartzellprop.com.

D. Contact Information

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