HARTZELL PROPELLER INC.

SERVICE BULLETIN

TRANSMITTAL SHEET

HC-SB-61-315

Propeller - Hub Pitch Change Bore

July 1, 2015

This page transmits a revision to Service Bulletin HC-SB-61-315.

- Original Issue, dated Oct 27/10
- Revision 1, dated Jan 14/11
- Revision 2, dated July 01/15

Propeller assemblies that have previously complied with the modification requirements in a previous revision of this Service Bulletin are not affected.

Changes are shown by a change bar in the left margin of the revised pages.

Revision 2 is issued to change the following in the Service Bulletin:

- Revise the references to Hartzell Propeller Inc. Standard Practices Manual 202A, Volume 3 (61-01-02)
- Revise section 1.C., "Reason"
- Revise section 1.D., "Description"
- Remove the procedure references and component part numbers from Table 1, "Affected Propeller and Hub Models"
- Revise section 2.A., "Material Necessary for Each Propeller"
- Revise the entire section 3., "Accomplishment Instructions"

This Service Bulletin is reissued in its entirety.

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1. Planning Information

   A. Effectivity

      (1) Hartzell Propeller Inc. compact aluminum hub propellers ( )HC-(C,G,L)(2,3,4)Y(F,K,R)-1( ) installed on any Hawker Beechcraft Bonanza or Debonair aircraft are affected by this Service Bulletin.

         (a) Refer to Table 1 for a list of hub part numbers and the affected serial number prefixes.

         (b) Listed propeller models/hubs that do not have a bushing installed, or that have been previously modified/repaired to include an aluminum bushing for the engine-side hub half, are affected by this Service Bulletin.

         (c) Listed propeller models/hubs that have been previously modified/repaired in accordance with the Aluminum Hub Overhaul chapter of Hartzell Propeller Inc. Standard Practices Manual 202A, Volume 3 (61-01-02) to include a plastic (Delrin®) pitch change rod bore bushing with an internal spiral retaining ring in the engine-side hub half are not affected by this Service Bulletin.

            1 The following propeller serial numbers were modified at the factory before shipment and are not affected by this Service Bulletin:

2-blade hubs:	EG225B	EG227B	
3-blade hubs:	EE6814B	EE6875B	EE6904B
	EE6843B	EE6876B	EE6907B
	EE6845B	EE6878B	EE6909B
	EE6869B	EE6879B	EE6912B
	EE6874B	EE6883B	EE6913B

         (d) Listed propeller models/hubs with a serial number prefix that is not listed in Table 1 are not affected by this Service Bulletin.

            NOTE: New hubs are manufactured with a plastic (Delrin®) pitch change rod bore bushing with an external spiral retaining ring incorporated in the engine-side of the hub. Hubs that were manufactured with a Delrin® bushing have new serial number prefixes that are not listed in Table 1. These hubs are not affected by this Service Bulletin.

      (2) Hartzell Propeller Inc. compact aluminum hub propellers ( )HC-(C,G,L)(2,3,4)Y(F,K,R)-1( ) installed on any aircraft other than the Hawker Beechcraft Bonanza or Debonair are not affected by this Service Bulletin.

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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.

Propeller Model	Hub Part No.	Affected Serial Number Prefix
BHC-C2YF-1( )	D-6531-( )	LQ
	D-2201-( )	
BHC-L2YF-1( )	D-6531-( )	EG
	D-2201-( )	
(P)HC-C3YF-1( )	E-7154-( )(R)	CL, EC, EE
	D-3251-( )	
(P)HC-G3YF-1( )	E-7154-( )R	LC, HP
	D-3251-( )	
PHC-L3YF-1( )	E-7154-( )R	FD
	D-3251-( )	
PHC-L3Y(1)F-1( )	103025	NP
HC-C3Y(K,R)-1( )	E-7157-( )R	DY
	D-3251-( )	
HC-C4YF-1( )	E-4501-( )	GK

Refer to section 1.A.(1)(c)1 of this Service Bulletin for the list of serial numbers with affected prefixes that are excluded from effectivity.

Affected Propeller and Hub Models
Table 1

C. Reason

(1) Hartzell Propeller Inc. has received reports of oil leaking into the propeller hub at the engine-side pitch change rod bore on affected propellers without a pitch change rod bore bushing, and on affected propellers using aluminum pitch change rod bore bushings.

(a) Scoring of the pitch change rod bore is one type of damage that can cause an oil leak at this location.

(b) An oil leak at this location can lead to hub pressurization and hydraulic lock, causing the propeller to operate as a fixed pitch propeller at the low pitch blade angle setting.

(2) To prevent oil leaks at the engine-side pitch change rod bore, affected hubs may be modified to incorporate a Delrin® bushing with a spiral retaining ring.

(a) The Delrin® bushing modification will improve the reliability of the seal at the pitch change rod bore.

(3) Aircraft models identified by this Service Bulletin are suspected of being sensitive to maintaining level flight when the propeller is at the low pitch blade angle setting and the aircraft is being flown at best glide airspeed. Refer to FAA Special Airworthiness Information Bulletin CE-10-21 and contact the aircraft manufacturer for additional details.

(4) Regulatory action is not expected.

D. Description

(1) This Service Bulletin provides Instructions for Continued Airworthiness (ICA).

(2) This Service Bulletin provides instructions for examining the affected hubs to determine which type of pitch change rod bore bushing (if any) is installed.

(3) This Service Bulletin provides instructions for modifying the engine-side of the affected hub to incorporate a Delrin® bushing and spiral retaining ring.

E. Compliance

(1) Affected propellers that have not been maintained in accordance with the schedule identified in Hartzell Propeller Inc. Service Letter HC-SL-61-61Y, must complete the Accomplishment Instructions of this Service Bulletin within 200 flight hours, within 12 calendar months, or at next major disassembly, whichever occurs first.

(2) Affected propellers that have been maintained in accordance with the schedule identified in Hartzell Propeller Inc. Service Letter HC-SL-61-61Y, must complete the Accomplishment Instructions in this Service Bulletin at next major disassembly, or within the applicable limitations for both flight hours and calendar times specified in Hartzell Propeller Inc. Service Letter HC-SL-61-61Y, whichever occurs first.

NOTE 1: Aluminum hub propeller major disassembly is defined as any repair that requires the hub halves to be separated.

NOTE 2: Hartzell Propeller Inc. Service Letter HC-SL-61-61Y is available on the Hartzell website at www.hartzellprop.com.

(3) Completion of the Accomplishment Instructions is terminating action for this Service Bulletin.

F. Approval

(1) FAA acceptance has been obtained on technical data in this publication that affects type design.

G. Manpower

(1) Approximately 2.0 man hours are required to perform the hub modification procedure when performed in conjunction with propeller overhaul.

H. Weight and Balance

(1) Not changed

I. Electrical Load Data

(1) Not changed

CAUTION: DO NOT USE OBSOLETE OR OUTDATED INFORMATION. PERFORM ALL INSPECTIONS OR WORK IN ACCORDANCE WITH THE MOST RECENT REVISION OF A DOCUMENT.

J. References

(1) Hartzell Propeller Inc. Compact and Lightweight Compact Non-Feathering (-1) and Aerobatic (-4) Propeller Overhaul and Maintenance Manual 113B (61-10-13)

(2) Hartzell Propeller Inc. Propeller Owner's Manual 115N (61-00-15) - Available on the Hartzell Propeller Inc. website at www.hartzellprop.com

(3) Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02)

(4) Hartzell Propeller Inc. Service Letter HC-SL-61-61Y - Available on the Hartzell Propeller Inc. website at www.hartzellprop.com

(5) FAA Special Airworthiness Information Bulletin CE-10-21 - Available on the Hartzell Propeller Inc. website at www.hartzellprop.com

K. Other Publications Affected

(1) None

2. Material Information

A. Material Necessary for Each Propeller

(1) Required materials are specified in the Aluminum Hub Overhaul chapter of Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02).

B. Consumables

(1) No additional consumables are required when performed in conjunction with propeller overhaul.

3. Accomplishment Instructions

A. Propeller Removal

(1) This procedure may be performed by a certified aircraft mechanic with the appropriate rating, or by a certified propeller repair station with the appropriate rating.

(2) Remove the propeller in accordance with Hartzell Propeller Inc. Owner's Manual 115N (61-00-15).

B. Visual Inspection

(1) This procedure may be performed by a certified aircraft mechanic with the appropriate rating, or by a certified propeller repair station with the appropriate rating.

(2) Visually examine the engine-side hub half for presence of a pitch change rod bore bushing.

(a) If no bushing is visible, perform an internal inspection in accordance with section 3.C. in this Service Bulletin.

(b) If an aluminum bushing is visible, perform the hub modification in accordance with section 3.D. in this Service Bulletin.

(c) If a Delrin® bushing is visible, the internal inspection and hub modification procedures are not required.

1 Make an entry in the propeller logbook indicating compliance with the terminating action for this Service Bulletin.

2 Install the propeller in accordance with section 3.E. in this Service Bulletin.

C. Internal Inspection

(1) This procedure must be performed by a certified propeller repair station with the appropriate rating.

(2) Disassemble the propeller in accordance with Hartzell Propeller Inc. Compact and Lightweight Compact Non-Feathering (-1) and Aerobatic (-4) Propeller Overhaul and Maintenance Manual 113B (61-10-13).

(3) Visually examine the inside of the engine-side hub half for presence of a pitch change rod bore bushing.

(a) If no bushing is installed, perform the hub modification in accordance with section 3.D. in this Service Bulletin.

(b) If an aluminum bushing is installed, perform the hub modification in accordance with section 3.D. in this Service Bulletin.

(c) If a Delrin® bushing is installed, hub modification is not required.

1 Assemble the propeller in accordance with Hartzell Propeller Inc. Compact and Lightweight Compact Non-Feathering (-1) and Aerobatic (-4) Propeller Overhaul and Maintenance Manual 113B (61-10-13).

2 Make an entry in the propeller logbook indicating compliance with the terminating action for this Service Bulletin.

3 Install the propeller in accordance with section 3.E. in this Service Bulletin.

D. Hub Modification

(1) This procedure must be performed by a certified propeller repair station with the appropriate rating.

(2) Disassemble the propeller in accordance with Hartzell Propeller Inc. Compact and Lightweight Compact Non-Feathering (-1) and Aerobatic (-4) Propeller Overhaul and Maintenance Manual 113B (61-10-13).

(3) Modify the engine-side hub half in accordance with the applicable procedure in the section, "Aluminum Hub Pitch Change Rod Bore Repairs for Two, Three, and Four Blade Propeller Hubs" in the Aluminum Hub Overhaul chapter of Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02).

(4) Assemble the propeller in accordance with Hartzell Propeller Inc. Compact and Lightweight Compact Non-Feathering (-1) and Aerobatic (-4) Propeller Overhaul and Maintenance Manual 113B (61-10-13).

(5) Make an entry in the propeller logbook indicating compliance with the terminating action for this Service Bulletin.

(6) Install the propeller in accordance with section 3.E. in this Service Bulletin.

E. Propeller Installation

(1) This procedure may be performed by a certified aircraft mechanic with the appropriate rating, or by a certified propeller repair station with the appropriate rating.

(2) Install the propeller in accordance with Hartzell Propeller Inc. Owner's Manual 115N (61-00-15).

F. 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 standard FAA requirements and additional Hartzell Propeller requirements before being recommended by Hartzell Propeller Inc. Each service facility is audited by Hartzell Propeller Inc. 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.

G. Contact Information

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