# HARTZELL PROPELLER INC.
# SERVICE BULLETIN

## TRANSMITTAL SHEET

## HC-SB-61-97A

## Propellers - Blade Inspection

April 16, 2007

This page transmits Revision 1 to Service Bulletin HC-SB-61-97A.

- Original Issue, dated May 03/71
- Revised, dated Dec 01/71
- Revision A, dated Mar 01/73
- Revision 1, dated Apr 16/07

Propeller assemblies that have previously complied with this Service Bulletin are not affected.

FAA approval has been obtained on technical data in this publication that affects type design.

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

This revision is issued to change the following in the Service Bulletin:

- Revised and reissued Service Bulletin - The procedure for inspection and shot peening the blade balance bore has been removed and the user in referred to the Hartzell Aluminum Blade Overhaul Manual 133C (61-13-13).
- The Service Bulletin is being reissued as an alternate method of compliance with Airworthiness Directive 72-08-04.
- Removed requirement to shot peen the blade retention radius of Y shank blades.

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## Propellers - Blade Inspection

1. Planning Information

A. Effectivity

(1) Hartzell T10173( ) and T10176( ) aluminum blades used in HC-B3TN-(2,3,5), HC-B3TF-7, and HC-B4TN-3 model propeller assemblies with serial numbers B85886 and lower, except blade serial numbers listed in Table 1, are affected by this Service Bulletin.

(2) Hartzell T10173( ) and T10176( ) aluminum blades used in HC-B3TN-(2,3,5), HC-B3TF-7, and HC-B4TN-3 model propeller assemblies with blade serial numbers B85887 and higher, including serial numbers listed in Table 1, are not affected by this Service Bulletin.

(3) Hartzell T10173( ) and T10176( ) aluminum blades with no prefix letter or an "A" prefix letter in the blade serial number, except blade serial numbers listed in Table 1, are affected by this Service Bulletin

NOTE: A previous revision of this Service Bulletin required shot peening of the blade retention radius on "Y" shank blades. Shot peening of the blade retention radius is no longer required.

B. Reason

(1) Hartzell has received reports from the field of corrosion in the blade balance hole.

(2) This corrosion could precipitate fatigue cracks and result in failures of the blade.

C. Description

(1) This Service Bulletin provides instructions for inspection of the blade bore, blade balance hole, and inspection of the blade shank.

(2) This Service Bulletin is issued as an alternate method of compliance for AD 72-08-04.

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## Propellers - Blade Inspection

| | | | |
|---|---|---|---|
| A97324 | B63294 | B80715 | B82711 |
| A97352 | B63327 | B80717 | B82876 |
| A98330 | B63354 | B80895 | B82878 |
| B38602 | B63431 | B80908 | B82883 |
| B39183 | B63441 | B80911 | B82891 |
| B39356 | B69570 | B80988 | B82894 |
| B40809 | B71482 | B82181 | B82895 |
| B40828 | B71483 | B82182 | B82898 |
| B41002 | B75009 | B82215 | B82900 |
| B41387 | B75037 | B82565 | B82902 |
| B41886 | B75322 | B82566 | B82905 |
| B41893 | B76844 | B82577 | B82908 |
| B44241 | B76847 | B82579 | B84129 |
| B44343 | B76865 | B82586 | B84168 |
| B49153 | B78383 | B82595 | B84169 |
| B53160 | B78386 | B82598 | B84187 |
| B53246 | B78428 | B82599 | B84192 |
| B53249 | B79430 | B82603 | B84193 |
| B53264 | B79435 | B82607 | B84222 |
| B63036 | B79454 | B82685 | B84227 |
| B63039 | B80547 | B82694 | B84230 |
| B63122 | B80548 | B82699 | B84243 |
| B63127 | B80553 | B82706 | B84245 |
| B63131 | B80698 | B82710 | B84254 |
| | | | B84294 |

**Serial Numbers of Propellers Not Affected**
**Table 1**

D. Compliance

(1) At next propeller overhaul, not to exceed 1500 hours TSN or TSO, inspect the blade shank, the blade bore, and the blade balance hole, and shot peen the blade balance hole in accordance with the Accomplishment Instructions of this Service Bulletin.

(2) T10173-( ) Non-Category II propeller blade used on Beech 99 and A99 aircraft:

(a) Within 1500 hours time in service after accomplishment of the blade inspection and shot peening of the blade balance hole in accordance with the Accomplishment Instructions of this Service Bulletin, replace the T10173-( ) Non-Category II blades with T10173-( ) Category II type blades in accordance with the Accomplishment Instructions of this Service Bulletin.

(b) A T10173-( ) Non-Category II blade from a Beech 99 or an A99 aircraft that is affected by this Service Bulletin is not to be removed and reused on another aircraft application. Such blade interchangeability is no longer authorized.

(c) Hartzell propeller overhaul requirements are specified in Hartzell Service Letter HC-SL-61-61Y.

E. Approval

(1) This Service Bulletin is approved by the Manager, FAA, Chicago Aircraft Certification Office, ACE115C, by approval document dated April 16, 2007 as an alternate method of compliance for AD 72-08-04.

F. References

(1) Hartzell Steel Hub Turbine Propeller Maintenance Manual 118F (61-10-18)

(2) Hartzell Aluminum Blade Overhaul Manual 133C (61-13-33)

(3) Hartzell Propeller Owner’s Manual 139 (61-00-39)

(4) Hartzell Standard Practices Manual 202A (61-00-02).

(5) Airworthiness Directive 72-08-04

2. Accomplishment Instructions

   A. Remove the propeller from the aircraft in accordance with the Hartzell Propeller Owner's Manual 139 (61-00-39).

   B. Disassemble the propeller in accordance with the Hartzell Steel Hub Turbine Propeller Maintenance Manual 118F (61-10-18).

   C. For Beech 99 or A99 aircraft, remove and replace T10173( ) Non-category II blades with Category II blades in accordance with Hartzell Aluminum Blade Overhaul Manual 133C (61-13-33). Blades must be retired from service in accordance with the Part Retirement Procedures chapter of Hartzell Standard Practices Manual 202A (61-00-02).

   D. Remove components from the blade in accordance with Hartzell Aluminum Blade Overhaul Manual 133C (61-13-33).

      (1) Remove the bearing from the blade bore.

      (2) Remove the lead from the balance hole, if applicable.

      (3) Remove the paint from the blade bore and the blade balance hole.

   E. Inspect the blade bore, the blade balance hole and the blade shank in accordance with Hartzell Aluminum Blade Overhaul Manual 133C (61-13-33).

   F. Shot peen the blade balance hole in accordance with Hartzell Aluminum Blade Overhaul Manual 133C (61-13-33).

   G. Apply chemical conversion coating and paint to the blade bore and the blade balance hole in accordance with Hartzell Aluminum Blade Overhaul Manual 133C (61-13-33).

   H. Apply chemical conversion coating to the blade shank in accordance with Hartzell Aluminum Blade Overhaul Manual 133C (61-13-33).

   I. Assemble the propeller in accordance with the Hartzell Steel Hub Turbine Propeller Maintenance Manual 118F (61-10-18).

   J. Install the propeller on the aircraft in accordance with the Hartzell Propeller Owner's Manual 139 (61-10-39).