

HARTZELL PROPELLER INC.
SERVICE BULLETIN
HC-SB-61-397
Erosion Shield Inspection: E10950P() Blades

1. Planning Information

A. Effectivity

- (1) Hartzell Propeller Inc. HC-E4A-3(A,I,J)/E10950() lightweight turbine propellers installed on Beech 1900D Airliner aircraft 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WARNING: DO NOT USE OBSOLETE OR OUTDATED INFORMATION.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 of erosion shields separating from the blades on affected propellers while in-flight.
 - (a) In two incidents, the erosion shield separated and penetrated the fuselage of the aircraft.
- (2) Blade analysis from separation incidents indicates that the erosion shields had started to debond for a substantial period of time prior to separation.
 - (a) Early detection and repair of erosion shield debonding can prevent the erosion shield from separating during flight.

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- (3) Activating the de-ice system without engine power can cause erosion shield debonds due to excessive heat.
 - (a) The Check chapter of Hartzell Propeller Inc. Ice Protection System Manual 180 (30-61-80) provides instructions to safely perform an operational test of the de-ice system.
- (4) Hartzell Propeller Inc. issued Service Bulletin HC-SB-61-239 on March 10, 1999 to introduce a recurring coin-tap inspection of the erosion shield at 300 hour intervals on affected propeller blades.
 - (a) Service Bulletin HC-SB-61-239 was incorporated into Hartzell Propeller Owner's Manual 147 (61-00-47) in November 1999.

D. Description

- (1) This Service Bulletin provides Instructions for Continued Airworthiness (ICA).
- (2) This Service Bulletin provides the details of (and the reason for) the recurring coin-tap inspections on the affected propeller blades.

E. Compliance

- (1) For affected E10950P() blades:
 - (a) At recurring intervals not to exceed 1200 flight hours, perform a coin-tap inspection of the exposed section of the blade in accordance with the Accomplishment Instructions section in this Service Bulletin.
 - (b) At recurring 300 flight hour intervals, not to exceed 12 months, perform a coin-tap inspection of the erosion shield surface in accordance with the Accomplishment Instructions section in this Service Bulletin.
 - (c) Any time the de-ice boot is removed, perform a coin-tap inspection of the erosion shield surface in accordance with the Accomplishment Instructions section in this Service Bulletin.

F. Approval

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

G. Manpower

- (1) The visual and coin-tap inspections require approximately one man-hour per propeller.

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H. Weight and Balance

- (1) Not changed

I. Electrical Load Data

- (1) Not changed

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J. References

- (1) Hartzell Propeller Inc. Service Bulletin HC-SB-61-239 (Obsolete)
- (2) Hartzell Propeller Inc. Owner's Manual 147 (61-00-47)
- (3) Hartzell Propeller Inc. Composite Blade Field Maintenance and Minor Repair Manual 170 (61-13-70)

2. Material Information

- A. None

3. Accomplishment Instructions

A. Coin-tap Inspection

- (1) Coin-tap the blade surface/erosion shield in accordance with Hartzell Propeller Inc. Composite Blade Field Maintenance and Minor Repair Manual 170 (61-13-70).
 - (a) Refer to Hartzell Propeller Inc. Composite Blade Field Maintenance and Minor Repair Manual 170 (61-13-70) for permitted damage/repair limits and minor repair procedures.
- (2) Make an entry in the propeller logbook indicating the Coin-tap Inspection was performed in accordance with this Service Bulletin and the periodic inspection requirements stated in Hartzell Propeller Inc. Owner's Manual 147 (61-00-47).

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B. 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.

C. Contact Information

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