

HARTZELL PROPELLER INC.
SERVICE LETTER
HC-SL-30-246
De-Ice - Spare Parts Release

1. Planning Information

A. Effectivity

Hartzell PHC-J3YF-2()/FC7663K-2R aluminum hub, compact propellers installed on Raytheon 58 Barons equipped with propeller de-ice are affected by this Service Letter.

B. Concurrent Requirements

- (1) Hartzell Service Bulletin HC-SB-61-272
- (2) Hartzell Service Letter HC-SL-61-239

C. Reason

- (1) During the propeller mounting torque inspections in accordance with Hartzell Service Bulletin HC-SB-61-272, damage has been found on the propeller hub.
- (2) Numerous reports have been received concerning the propeller hub damage. Investigation indicates that the damage was caused by contact between the hardware used to attach the slip ring to the de-ice split mounting plate and the propeller hub. The diameter of the hardware specified for attaching the slip ring to the de-ice split mounting plate may be too large resulting in the contact.
- (3) The damage appears as small indentations on the outside diameter of the propeller hub extension surface. See Figure 1.
- (4) New hardware is required for attaching the slip ring to the de-ice split mounting plate. Attachment of the slip ring to the de-ice split mounting plate using the new hardware prevents further damage to the propeller hub.
- (5) Regulatory action is not expected.

D. Description

- (1) This Service Letter introduces new hardware with smaller diameters for attaching the slip ring to the de-ice split mounting plate.
- (2) This Service Letter supplies hub inspection and repair criteria for hub damage.

E. Compliance

At next slip ring removal, inspect the hub, rework as necessary and attach the slip ring to the de-ice split mounting plate with the new reduced diameter hardware.

F. Approval

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

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G. Manpower

Approximately 1.0 man hour is required for hub repair (if required).

H. Weight and Balance

None

I. Electrical Load Data

None

J. References

- (1) Hartzell Owner's Manual 115N (61-00-15)
- (2) Hartzell Service Bulletin HC-SB-61-272
- (3) Hartzell Service Letter HC-SL-61-239
- (4) Hartzell Standard Practices Manual 202A (61-01-02)

K. Other Publications Affected

Goodrich General Arrangement Drawing 5E2662

2. Material Information

A. Consumables

<u>Key Word</u>	<u>Description</u>	<u>Part Number</u>
Paint, Gray	Tempo	A-151
	Sherwin-Williams	L4A89503
	Hartzell Propeller Inc.	A-6741-146-1A
Cleaner	Acetone	
	#700 Lacquer Thinner	
	Methyl-Ethyl-Ketone (MEK)	
Chemical Conversion Coating	Chemcell	Oaktite 31
	Alodine 1201	Chromicote L-25

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B. Material Required for Attachment of the Slip Ring to the De-Ice Split Mounting Plate:

Previous Part Number	Hartzell/Vendor Part Number	Keyword	Quantity
AN960C10L, NAS1149CO332R, or B-3837-0332 (Note 1)	101131-10L (Note 1), NAS620-10L	Washer	12
MS21045-3, H10-3, B-3808-3 (Note 1), or 130909N29 (Note 2)	B-3869-3 (Note 1), MS21043-3	Nut	12
	C-3317-228 (Note 1)	O-Ring, Mounting	Use a new mounting O-ring at every propeller installation.
	A-1381 (Note 1)	Washer, Mounting	If the mounting washers were not present, inspect and rework the de-ice split mounting plate in accordance with Hartzell Service Letter HC-SL-61-239. Install the propeller with the mounting washers.
	A-2044 (Note 1)	Nut, Mounting	The mounting nuts may be reused if they are not damaged or corroded.
	7931-3E1951 (Note 1) 3E1951 (Note 3)	Split Mounting Plate	Replacement of the de-ice split mounting plate is only required if it fails inspection in accordance with Hartzell Service Letter HC-SL-61-239 and can not be reworked.
<u>NOTE 1:</u> Hartzell Part Number			
<u>NOTE 2:</u> Raytheon Part Number			
<u>NOTE 3:</u> Goodrich Corp. Part Number			

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3. Accomplishment Instructions

A. Hub Inspection

- (1) If no damage to the propeller hub is visible, proceed to Paragraph 3.B.
- (2) If damage to the propeller hub is visible:

CAUTION 1: DAMAGE DEPTH OF 0.020 INCH (0.508 MM) IS PERMITTED ONLY IN AREAS DAMAGED FROM THE HARDWARE USED TO ATTACH THE SLIP RING TO THE DE-ICE SPLIT MOUNTING PLATE.

CAUTION 2: DAMAGE DEPTH OF 0.020 INCH (0.508 MM) IS NOT PERMITTED IF RADIALLY IN LINE WITH A PROPELLER MOUNTING STUD THREADED HOLE.

- (a) Lightly file or polish the hub to remove the damage. Raised area must smoothly blend with the undamaged surrounding area and have a depth to width ratio of at least 10. Raised material is not permitted. Rework is permitted to a maximum depth of 0.020 inch (0.508 mm) with a surface finish of Ra100 or better.
 - (b) Slide a metal "straight edge" over the hub mounting flange surface to visually check for any roughness or deformation (make two passes, at 90 degree intervals). No cracks, deformation or protrusions are permitted
 - (c) Clean the reworked surface and allow the solvent to evaporate.
 - (d) Apply a chemical conversion coating to the bare aluminum surface. Apply these coatings in accordance with the directions provided by the product manufacturer.
 - (e) Paint the rework area with polane gray as specified in the Paint and Finish chapter of Hartzell Standard Practices Manual 202A (61-01-02). Re-coat before 30 minutes, or after 48 hours. If the paint is allowed to dry longer than four (4) hours, it must be lightly sanded before another coat is applied.
- (3) If individual damage or rework depth is greater than 0.020 inch (0.508 mm) depth, hub must be retired from service in accordance with the Parts Retirement chapter of Hartzell Standard Practices Manual 202A (61-01-02).

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B. Slip Ring Installation

- (1) Attach the slip ring to the de-ice split mounting plate using the new hardware with as specified in Paragraph 2.B. Material Information.
- (2) Torque 30 - 36 In. Lbs. (3.4 - 4.0 N•m).

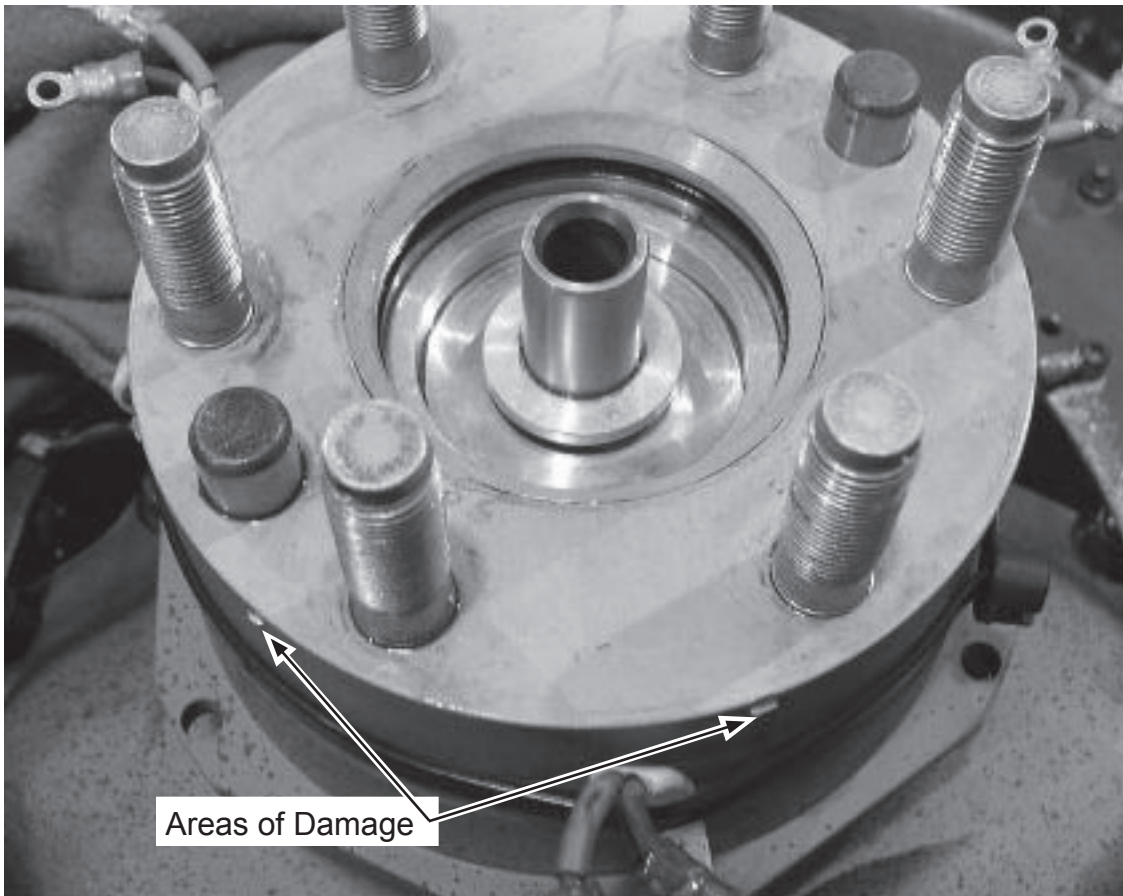
C. Propeller Installation

- (1) Install the propeller using a new mounting O-ring and the required washers and nuts in accordance with Hartzell Owner's Manual 115N (61-00-15).
- (2) Torque all the mounting nuts in accordance with Hartzell Owner's Manual 115N (61-00-15).

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Areas of Damage
Figure 1