

HARTZELL PROPELLER INC.
SERVICE LETTER
HC-SL-61-239

Propeller - Slip Ring Split Mounting Plate Inspection and Repair

1. Planning Information

A. Effectivity

Hartzell PHC-J3YF-2()/FC7663-2R aluminum hub, compact propellers installed on Raytheon 58 Barons equipped with propeller de-ice with aircraft serial number TH1889 through TH2093 and installed by the Raytheon Aircraft Company after 1999 are affected by this Service Letter.

B. Concurrent Requirements

The torque inspection specified in Hartzell Service Bulletin HC-SB-61-272 must be complied with concurrently with this Service Letter.

C. Reason

- (1) During an inspection of a propeller, damage was found to the slip ring split mounting plate (Goodrich Corp. part number 3E1951). The slip ring split mounting plate is used to attach the de-ice slip ring to the propeller.
- (2) The slip ring split mounting plate is designed to be installed on the aft side of the engine mounting flange. A washer, P/N A-1381, is intended to be installed between the slip ring split mounting plate and the mounting nut. The A-1381 washer was not installed during installation of the propeller at Raytheon Aircraft Company.
- (3) The A-1381 washer is intended to protect the slip ring split mounting plate from damage by the mounting nuts. During operation, the damage may permit the mounting nuts to lose torque. Installation without the mounting washers could result in damage to the slip ring split mounting plate and fatigue failure of the propeller mounting hardware. This could result in loss of the propeller from the engine.

D. Description

This Service Letter introduces inspection and rework procedures for the slip ring split mounting plate as terminating action for the repetitive inspection specified in Hartzell Service Bulletin HC-SB-61-272.

E. Compliance

At the convenience of the operator.

F. Approval

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

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G. Manpower

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| (1) Propeller hardware removal and visually inspection of split mounting plate | 1.5 man hours |
| (2) Propeller removal and installation (if required) | 2.0 man hours |
| (3) Split mounting plate repair (if required) | 2.0 man hours |
| (4) Split mounting plate replacement (if required) | 2.0 man hours |

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

K. Other Publications Affected

None

2. Material Information

A. Material Required for Slip Ring Split Mounting Plate repair

<u>Part Number</u>	<u>Keyword</u>	<u>Qty</u>
A-1381	Washer	6
C-3317-228	O-ring	1
A-2044	Mounting Nuts	A/R
3E1951	Split Mounting Plate	A/R
(Goodrich Corp.)		

B. Expendables

Quick Dry Stoddard Solvent, Methyl-Ethyl-Ketone (MEK) or equivalent cleaning solvent

C. Other Publications Affected

None

D. Special Tooling

Bridgeport or Vertical Mill (recommended)

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3. Accomplishment Instructions

A. Slip Ring Split Mounting Plate Inspection and Repair

NOTE: Perform torque inspection in accordance with Hartzell Service Bulletin HC-SB-61-272 prior to inspecting or repairing the slip ring split mounting plate. The torque inspection is necessary to determine if hub replacement is required.

CAUTION: DO NOT REMOVE ALL THE MOUNTING NUTS AT THE SAME TIME. PERSONAL INJURY AND THE DAMAGE TO THE PROPELLER OR ENGINE FLANGE MAY RESULT IF PROPELLER IS NOT SUPPORTED ON THE ENGINE FLANGE.

- (1) Remove four of the propeller mounting nuts in accordance with Hartzell Owner's Manual 115N (61-00-15). Leave two mounting nuts 180 degrees apart to support the propeller.
- (2) With the propeller on the engine flange, use cleaning solvent and clean the slip ring split mounting plate in the area around the four mounting studs with the nuts removed.
- (3) Visually examine the slip ring split mounting plate for scoring, gouging, or other damage from the mounting nuts.
- (4) If no damage is visible:
 - (a) Inspect the mounting nuts. Discard the mounting nuts if they are corroded or damaged. Install the propeller mounting hardware with new A-1381 washers on the four studs with the mounting nuts removed and tighten until snug.
 - (b) Remove the two mountings nuts, that were not previously removed, in accordance with Hartzell Owner's Manual 115N (61-00-15) and perform the inspection in Paragraph 3.A.(2) and Paragraph 3.A.(3).
 - (c) If damage is visible, proceed to Paragraph 3.A.(5).
 - (d) Inspect the mounting nuts. Discard the mounting nuts if they are corroded or damaged. Install the propeller mounting hardware with new A-1381 washers on the two studs with the mounting nuts removed.
 - (e) Torque all mounting nuts in accordance with Hartzell Owner's Manual 115N (61-00-15).

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(f) If no damage was visible, make a logbook entry noting compliance with this Service Letter as terminating action for Hartzell Service Bulletin HC-SB-61-272, further action is not required.

(5) If damage is visible:

(a) Remove the propeller in accordance with Hartzell Owner's Manual 115N (61-00-15). Remove the slip ring split mounting plate in accordance with airframe manufacturer's information.

(b) Remove the damage by creating a counterbore around the attaching hole.

(c) Create the counterbore around the attaching hole as follows:

1 The counterbore must have a diameter of 0.937 +/- 0.010 inch (23.80 +/- 0.254mm) centered on the attaching hole.

2 A maximum corner radius 0.005 inch (0.127 mm) is allowed

3 Remove all damage. The minimum permitted thickness of the slip ring split mounting plate in the counterbored area is 0.080 inch (2.03 mm).

4 The counterbore must have a surface finish of 125Ra or better.

5 The counterbore must be parallel to the opposite side within 0.002 inch (0.05 mm).

(d) If all the damage cannot be removed within the above limits, the slip ring split mounting plate must be replaced with a serviceable unit.

(e) Inspect the mounting nuts. Discard the mounting nuts if they are corroded or damaged. Install the propeller mounting hardware with new A-1381 washers. Torque all mounting nuts in accordance with Hartzell Owner's Manual 115N (61-00-15).

(f) Make a logbook entry noting compliance with this Service Letter as terminating action for Hartzell Service Bulletin HC-SB-61-272, further action is not required.