

HARTZELL PROPELLER INC.

SERVICE LETTER

Propellers

Improved installation of beta rod guide lug and snap ring on Seabee aircraft with reversing propeller

1. Planning Information

A. Effectivity

Hartzell Model HC-A3(X,V,MV)20-3L on Seabee applications.

B. Concurrent Requirements

None

C. Reason

Problems have been encountered on reversing Seabee HC-A3(X,V,MV)20-3L propellers wherein the snap ring and guide lug came loose, damaging the beta ring.

D. Description

Previously, the HC-A3(X,V,MV)20-3L propeller had an A-1983 guide lug and an A-2246-9 spacer installation that had the B-3843-56ZD snap ring carrying the load from the beta spring. This Service Letter authorizes the replacement of the above spacer and guide lug with an A-3067-6 guide lug. The A-3067-6 guide lug allows the spring force to be carried by the guide lug shoulder, allowing the snap ring to become a secondary, non load carrying, safety.

E. Compliance

Compliance is recommended at next overhaul or disassembly of propeller.

F. Approval

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

G. Manpower

Not affected.

H. Weight and Balance

No change.

I. Electrical Load Data

No change.

J. References

Hartzell Manual 114C (ATA61-10-14) Steel Hub Propeller Maintenance Manual.
Hartzell Manual 168 (ATA61-00-68) Propeller Owner's Manual for Steel Hub Reciprocating Propeller with Aluminum Blades.

HARTZELL PROPELLER INC.

SERVICE LETTER

Propellers

Improved installation of beta rod guide lug and snap ring on Seabee aircraft with reversing propeller

K. Other Publications Affected

None.

2. Material Information

A. Material Necessary for Each Propeller/Component

<u>New Part Number</u>	<u>Keyword</u>	<u>Old Part Number</u>	<u>Fig/Item No.</u>	<u>Qty</u>
A-3067-6	Guide Lug	A-1993	N/A	3
N/A	Spacer	A-2246-9	N/A	3
B-3843-56ZD	Snap Ring	B-3843-56ZD	N/A	3

B. Expendables

None

C. Special Tooling

None

3. Accomplishment Instructions

A. Disassembly:

- (1) Disassemble the piston assembly in accordance with Hartzell Manual 114C (61-10-14).

NOTE: Measure the distance from the bottom of each low pitch stop nut (A-2043-1) to the top of each beta rod (B-3475A-2) before disassembly. Record the measurement and location on top of the piston before disassembly (See Figure 1).

- (2) Remove the feathering spring assembly in accordance with Hartzell Manual 114C (61-10-14).
- (3) Remove the the propeller from the aircraft in accordance with Hartzell Manual 114C (61-10-14) or 168 (61-00-68).
- (4) Remove the cylinder and guide collar unit in accordance with Hartzell Manual 114C (61-10-14).

HARTZELL PROPELLER INC. SERVICE LETTER

Propellers

Improved installation of beta rod guide lug and snap ring on Seabee aircraft with reversing propeller

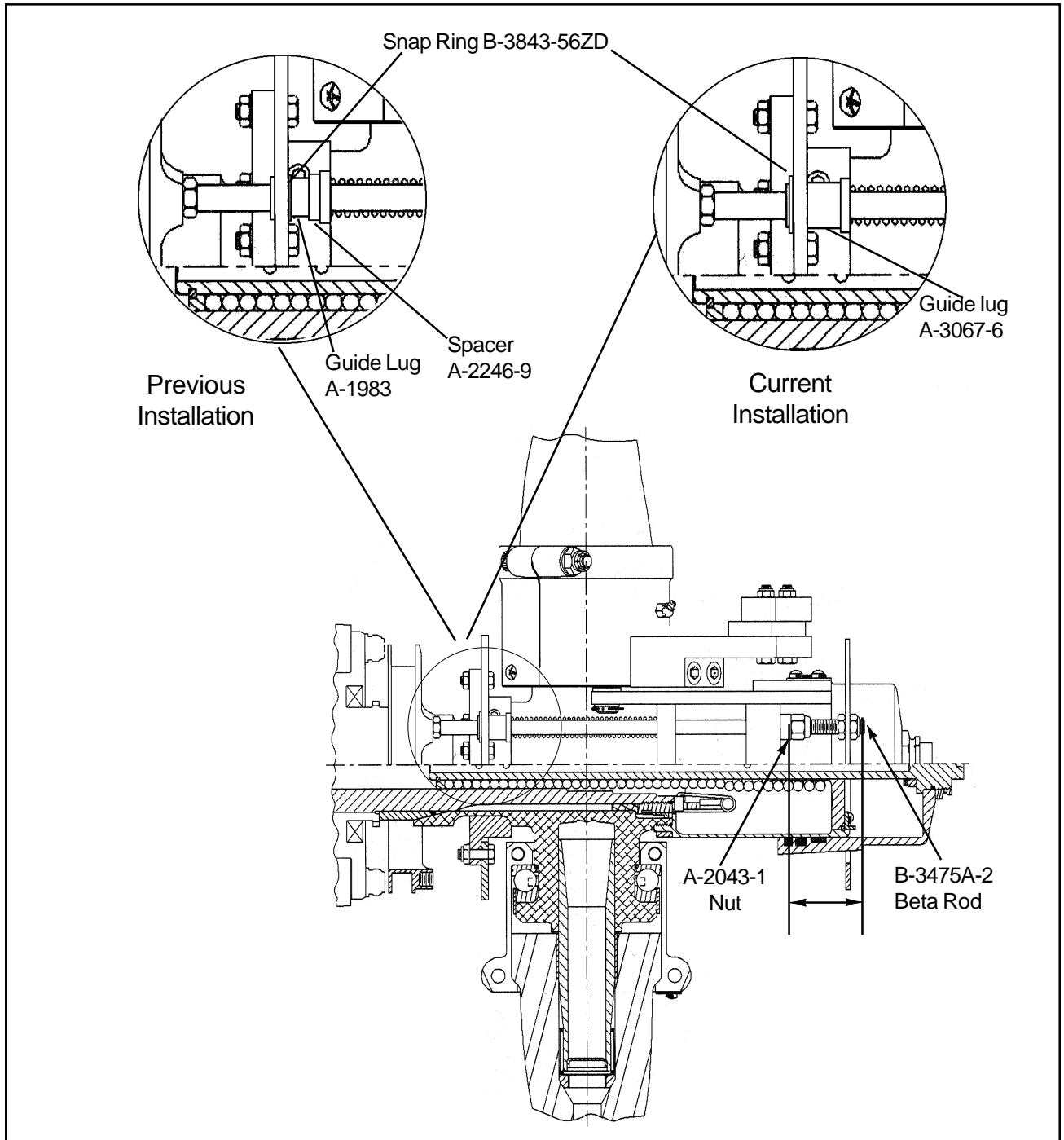


Figure 1 - HC-A3(X,V,MV)20-3L Propeller with Modified Beta Rod Guide Lug and Snap Ring.

HARTZELL PROPELLER INC.
SERVICE LETTER

Propellers

**Improved installation of beta rod guide lug and snap ring on
Seabee aircraft with reversing propeller**

- (5) Disassemble the beta system in accordance with Hartzell Manual 114C (61-10-14).
 - (a) Discard the old guide lugs (A-1983) and spacers (A-2246-9). The new guide lug (A-3067-6) incorporates the guide lug and spacer into one unit (see Figure 1, Previous Installation).

B. Assembly:

- (1) Install the beta system in accordance with Hartzell Manual 114C (61-10-14).
 - (a) When installing the guide lugs (A-3067-6) in the support plate, the snap ring (B-3843-56ZD) must be placed on the engine side of the support plate (see Figure 1, Current Installation).
- (2) Install the cylinder and guide collar in accordance with Hartzell Manual 114C (61-10-14).
- (3) Install the propeller on the aircraft in accordance with Hartzell Manuals 114C (61-10-14), 168 (61-00-68) and STC holder specifications.
- (4) Install the feathering spring assembly in accordance with Hartzell Manual 114C (61-10-14).
- (5) Install the piston assembly in accordance with Hartzell Manual 114C (61-10-14).
 - (a) Reassemble using previously recorded measurement to set propeller low pitch.
- (6) Make a record entry indicating compliance with this service letter.