

PRATT & WHITNEY CANADA
SERVICE BULLETIN

P&WC S.B. No. 41110R2

BULLETIN INDEX LOCATOR
72-60-00

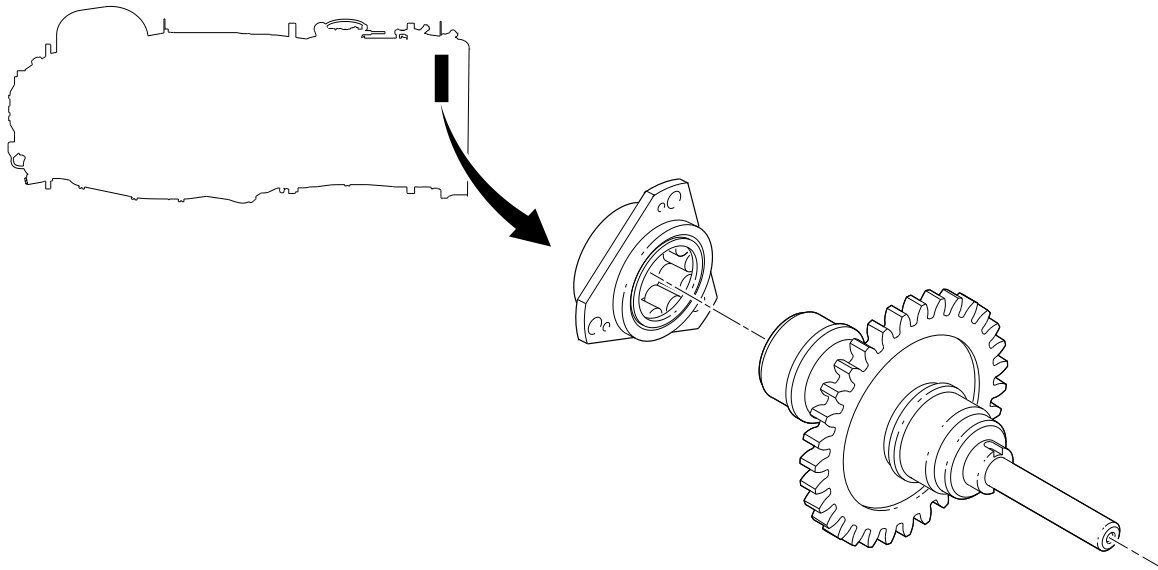
TURBOSHAFT ENGINE
PERMANENT-MAGNETIC-ALTERNATOR GEARSHAFT AND ROLLER BEARINGS -
REPLACEMENT OF

MODEL APPLICATION

PT6C-67C, PT6C-67C1

Compliance: CATEGORY 7

Summary: The Permanent Magnetic Alternator (PMA) spur gearshaft is not optimal. The PMA gearshaft and the roller bearing may interfere and cause PMA gearshaft wear. Replace one of the two roller bearings at the PMA gearshaft with a ceramic ball bearing combined with the new PMA gearshaft to accommodate the bearing change.



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Revision No. 2: Jun 09/2021

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Cover Sheet

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09 June 2021

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REVISION TRANSMITTAL SHEET
TURBOSHAFT ENGINE MODEL PT6C

SUBJECT: Pratt & Whitney Canada Service Bulletin No. PT6C-72-41110, Rev. No. 2, dated Jun 09/2021 (P&WC S.B. No. 41110R2) PERMANENT-MAGNETIC-ALTERNATOR GEARSHAFT AND ROLLER BEARINGS - REPLACEMENT OF

Replace your existing copy of this service bulletin with the attached revised bulletin. Destroy the superseded copy.

Please retain this Revision Transmittal Sheet with the revised bulletin.

SUMMARY: This revision is issued to:

- add the PT6C-67C1 engine model.

EFFECT OF REVISION ON PRIOR ACCOMPLISHMENT:

None.

NOTE: A black bar in the left margin indicates a change in that line of text or figure.

REVISION HISTORY:

Original Issue: Mar 06/2019
Revision No. 1: Mar 27/2019
Revision No. 2: Jun 09/2021

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TURBOSHAFT ENGINE
PERMANENT-MAGNETIC-ALTERNATOR GEARSHAFT AND ROLLER BEARINGS -
REPLACEMENT OF

1. Planning Information

A. Effectivity

PT6C-67C (BS963, BS1019) Engines which are before and include Serial No. PCE-KB2246.

PT6C-67C1 (BS1448) converted Engines (Ref. Post-SB41120).

NOTE: The above effectivity list does not identify engines that have been converted from one engine model to another via an engine conversion service bulletin. To clarify the effectivity of converted engines, refer to the original engine effectivity above. For the parts embodied during the engine conversion, refer to conversion service bulletin.

B. Concurrent Requirements

None.

C. Reason

(1) Problem

The PMA spur gearshaft is not optimal.

(2) Cause

The PMA gearshaft and the roller bearing may interfere and cause PMA gearshaft wear.

(3) Solution

Replace one of the two roller bearings at the PMA gearshaft with a ceramic ball bearing combined with the new PMA gearshaft to accommodate the bearing change.

D. Description

Replace the PMA Spur Gearshaft with a new one and a roller bearing with a ceramic ball bearing.

E. Compliance

CATEGORY 7 - You can do this service bulletin when the supply of superseded parts is fully used.

F. Approval

D.O.T./D.A.A. approved.

G. Manpower

No more man-hours are necessary to include this service bulletin at overhaul.

P&WC No. CO-0003764, CO-0010967

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REPLACEMENT OF

1. Planning Information (Cont'd)

H. Weight and Balance

None.

I. Electrical Load Data

Not changed.

J. Software Accomplishment Summary

Not applicable.

K. References

Illustrated Parts Catalog P/N 3045334 (PT6C-67C/C1)
Overhaul Manual P/N 3045333 (PT6C-67C/C1)

L. Publications Affected

Illustrated Parts Catalog P/N 3045334 (PT6C-67C/C1)
Overhaul Manual P/N 3045333 (PT6C-67C/C1)

M. Interchangeability and Intermixability of Parts

Interchangeability - Refer to Para. 2.C.

Intermixability - Not changed.

2. Material Information

A. Industry Support Information

Not applicable.

B. Material - Cost and Availability

You can get the procurable parts listed in Para. 2.C. from any Pratt & Whitney Canada Parts Distribution Center.

The estimated total cost of new parts needed to replace old parts is \$Quote (US, 2019).

The new parts are available.

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C. Material Necessary for Each Engine

The quantity of materials listed in this section is on a per Engine basis.

<u>New P/N</u>	<u>Keyword</u>	<u>Old P/N</u>	<u>Qty</u>	<u>Est. Unit List Price (\$US, 2019)</u>	<u>Instructions Disposition</u>
3123718-01	Gearshaft, Spur, PMA Drive	3044080-01	1	Quote	(A)(B)
	Bearing Option (IC)	3037278	1		(A)(B)
	. Bearing, Roller, Flange	3112368-01	Ref.		
	. Bearing, Roller, Flange	3112367-01	Ref.		
	. Bearing, Roller, Flange	3112369-01	Ref.		
	. Bearing, Roller, Flange	3073908-01	Ref.		
3133866	Bearing, Ball, Ceramic, Flanged		1	Quote	(A)

(A) RESTRICTED INTERCHANGEABILITY - (ATA 200 Explanation Code 07):
Parts are interchangeable as a complete set.

(B) Discard the part if it is unserviceable. Return a serviceable part to stock.

D. Reidentified Parts

None.

E. Tooling - Price and Availability

<u>Tool No.</u>	<u>Nomenclature</u>	<u>Est. Price (\$US, 2019)</u>	<u>Delivery</u>
PWC77018	Base	Quote	
PWC77019	Drift	Quote	
PWC77020	Puller	Quote	
PWC90000	Heat Gun	Quote	

3. Accomplishment Instructions

A. Remove the parts in the Old P/N list in Para. 2.C., Material Information, in accordance with the overhaul manual instructions as follows:

- Ref. OHM 72-60-00 ACCESSORY GEARBOX - DISASSEMBLY.

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3. Accomplishment Instructions (Cont'd)

B. Install the parts in the New P/N list in Para. 2.C., Material Information, in accordance with the overhaul manual instructions and differences that follows (Ref. Table 1, Figure 2 and Figure 3):

- Ref. OHM 72-60-00 ACCESSORY GEARBOX - SUB-ASSEMBLY.

- (1) Install the PMA gearshaft on base (PWC77018) Ref. Fig. 1.
- (2) Put the bearing in the oven at 350° F (176° C), for 30 minutes minimum.

WARNING: PUT ON PROTECTIVE GLOVES WHEN YOU HANDLE HOT PARTS.

- (3) Install bearing on gearshaft using drift (PWC77019).

NOTE: To remove the bearing please use puller (PWC77020).

- (4) Do an inspection for a proper seating of the bearing, 0.001 in. feeler gauge must not go in.
- (5) If necessary, heat bore with a heat gun (PWC90000) at bearing location for (5) minutes approx. In a circular motion while maintaining a minimum of one inch clearance between part(s) and heater outlet.
- (6) Install the bearing, mounted on the PMA gearshaft, on diaphragm. Secure with a triple key washer P/N 3115926-01.
- (7) Install three bolts MS9489-08 and torque 36 to 40 Lbf.in. (4.0-4.5 Nm).

C. Write the accomplishment of P&WC S.B. No. 41110 in the engine module log book.

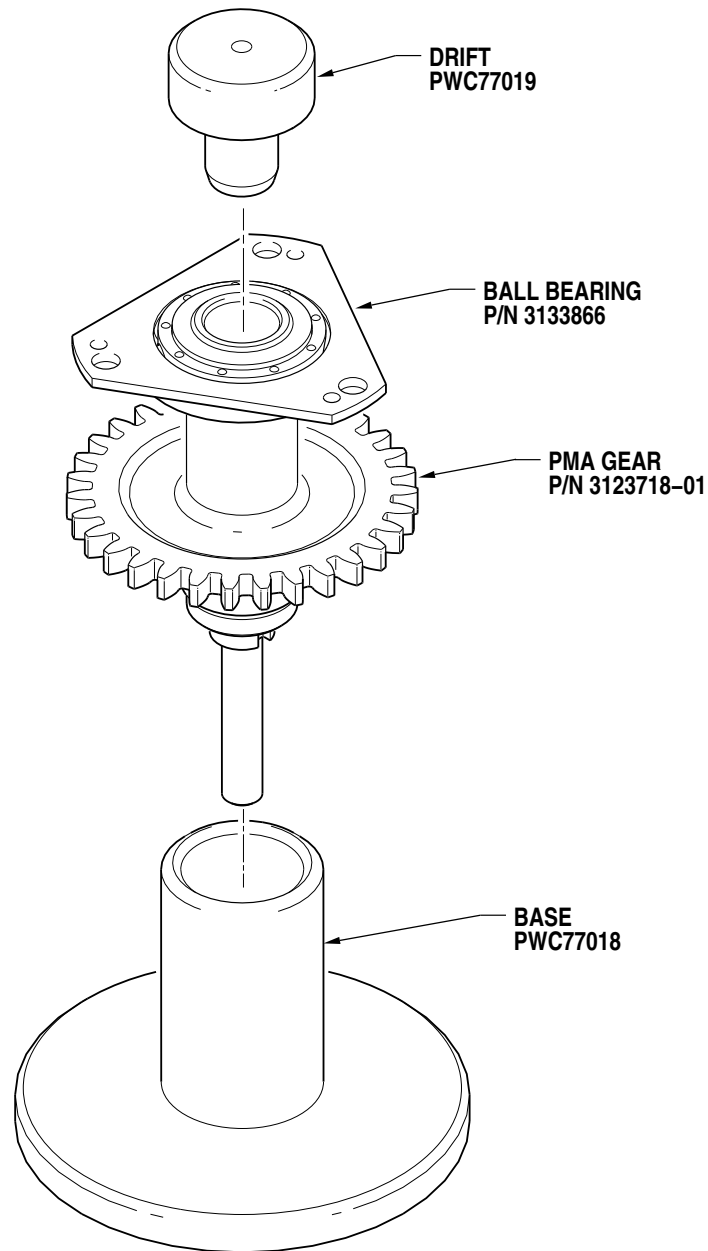
4. Appendix

A. Refer to Table 1 and Figure 3 for Fits and Clearances.

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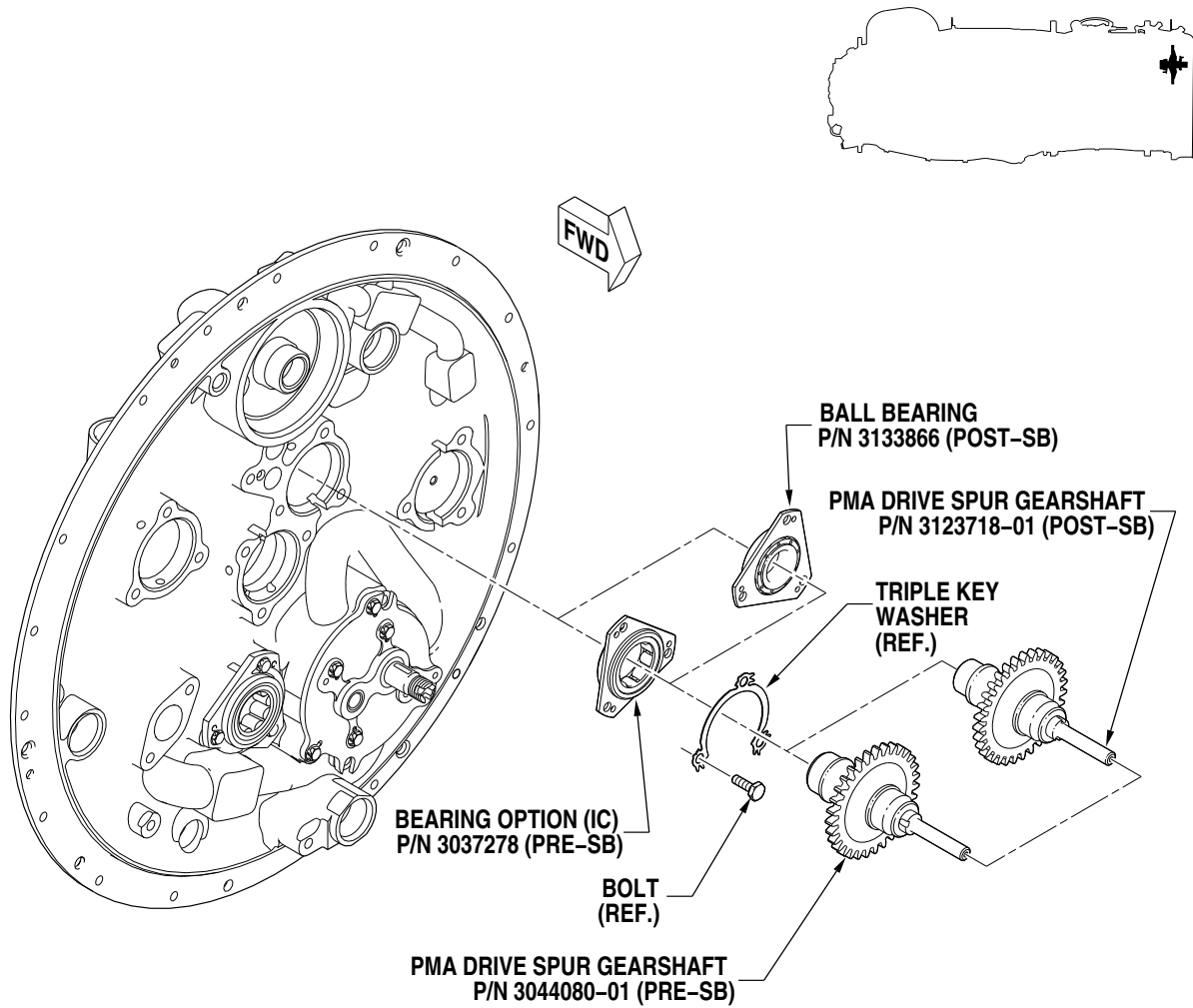
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PMA Gearshaft and Roller Bearings - Installation
Figure 1

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PMA Gearshaft and Roller Bearings - Replacement of
Figure 2

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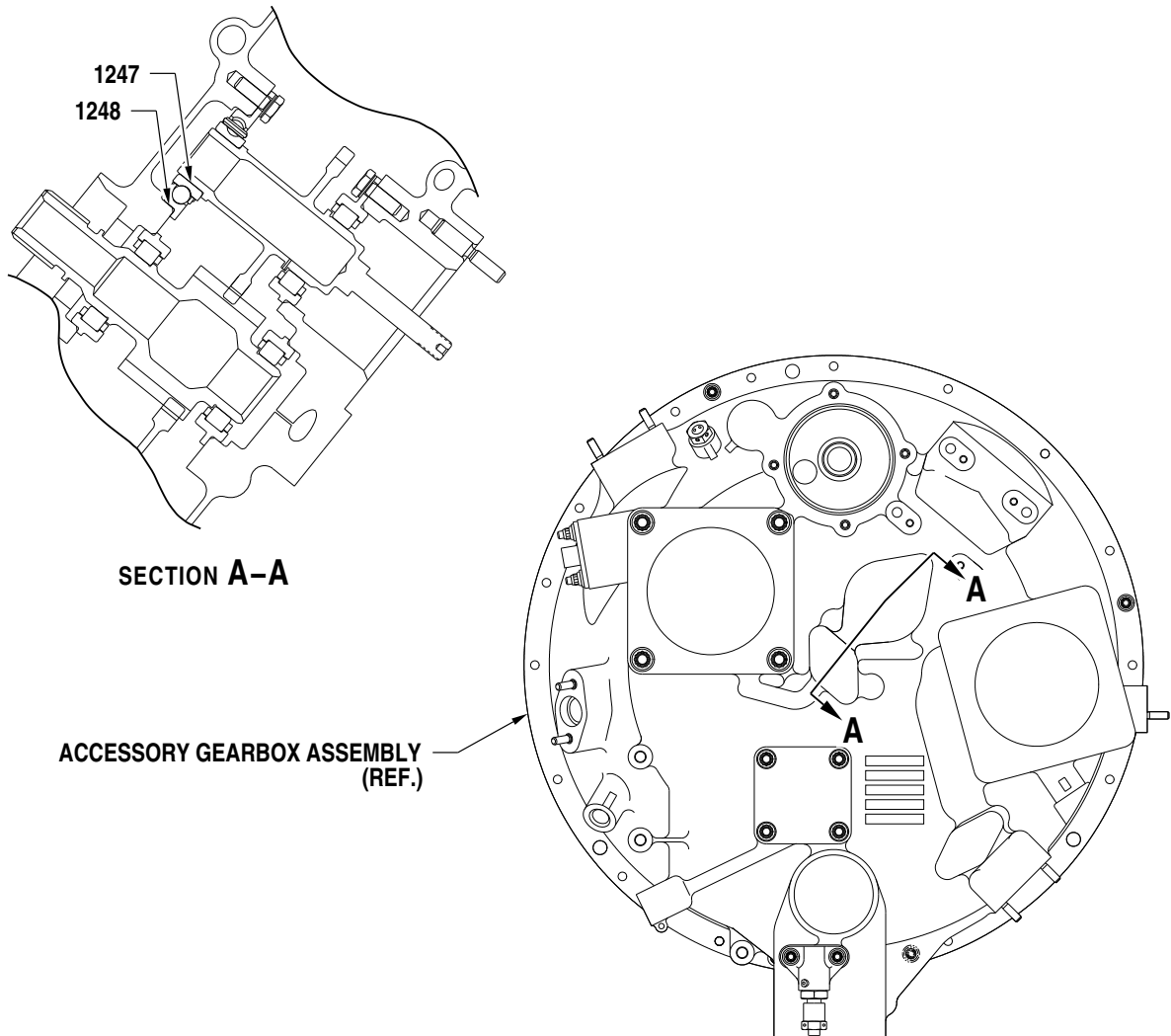
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Fits and Clearances
Figure 3

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4. Appendix (Cont'd)

TABLE 1, Fits and Clearances

REF. NO.	IFR	Name	Dim. for Ref. inches (mm)		Limits inches (mm)		Replace
			Min.	Max.	Min.	Max.	
Pre-SB							
1247		Gearshaft, Spur, PMA Drive	0.9439 (23.975)	0.9443 (23.985)	0.0006 (0.015)	0.0014 (0.035)	
		Bearing, Roller, Flanged	0.9449 (24.000)	0.9453 (24.010)			
1248		Bearing, Roller, Flanged	1.6532 (41.991)	1.6535 (41.998)	0.000 0.000	0.0013 0.033	
		Diaphragm, Accessory Gearbox	1.6535 41.998	1.6545 42.024			
Post-SB							
1247		Gearshaft, Spur, PMA Drive	0.7881 (20.017)	0.7884 (20.025)	0.0007T (0.017)T	0.0012T (0.030)T	
		Bearing, Ball, Ceramic, FLGD	0.7872 (19.994)	0.7874 (19.999)			
1248		Bearing, Ball, Ceramic, FLGD	1.6532 (41.991)	1.6535 (41.998)	0.000 (0.000)	0.0013 (0.033)	
		Diaphragm, Accessory Gearbox	1.6535 (41.998)	1.6545 (42.024)			