

PRATT & WHITNEY CANADA
SERVICE BULLETIN

P&WC S.B. No. 28306R4

BULLETIN INDEX LOCATOR
72-31-00

TURBOSHAFT ENGINE
COMPRESSOR CENTRIFUGAL IMPELLER - REPLACEMENT/MODIFICATION OF

MODEL APPLICATION

PW206A, PW206B, PW206B2, PW206C, PW206E, PW207C, PW207D, PW207E, PW207K

■ Compliance: CATEGORY 5, 7

Summary: Some new production engines can require a rebuild to achieve an acceptable test result before release to a customer. To reduce the number of production engine rebuilds, replace the compressor centrifugal impeller with one that has tighter control applied to the blade profile tolerance.

Feb 02/2009
Revision No. 4: Mar 08/2022

PW200-72-28306
Cover Sheet

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08 March 2022

P&WC S.B. No. 28306R4

REVISION TRANSMITTAL SHEET
TURBOSHAFT ENGINE MODEL PW200

SUBJECT: Pratt & Whitney Canada Service Bulletin No. PW200-72-28306, Rev. No. 4, dated Mar 08/2022 (P&WC S.B. No. 28306R4) COMPRESSOR CENTRIFUGAL IMPELLER - REPLACEMENT/MODIFICATION 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 Destroy the superseded copy.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 service bulletin is issued to:

- modify the compliance code to read CC5 for the PW206B2 and PW207D and CC7 for PW206A, PW206B, PW206C, PW206E, PW207C, PW207E, PW207K; and
- remove the part progressions.

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: Feb 02/2009
Revision No. 1: Aug 11/2009
Revision No. 2: Feb 04/2010
Revision No. 3: Aug 26/2013
Revision No. 4: Mar 08/2022

PRATT & WHITNEY CANADA

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TURBOSHAFT ENGINE

COMPRESSOR CENTRIFUGAL IMPELLER - REPLACEMENT/MODIFICATION OF

1. Planning Information

A. Effectivity

PW206A Engines which are before and include Serial No. PCE-BA0031.

PW206B Engines which are before and include Serial No. PCE-BB0126.

PW206B2 Engines which are before and include Serial No. PCE-BJ0655 and Serial No. PCE-BJ0657 thru PCE-BJ0754.

PW206C Engines which are before and include Serial No. PCE-BC0785 and Serial No. PCE-BC0787 thru PCE-BC0794.

PW206E Engines which are before and include Serial No. PCE-BE0048.

PW207C Engines which are before and include Serial No. PCE-BH0281 and Serial No. PCE-BH0283 thru Serial No. PCE-BH0376.

PW207D Engines which are before and include Serial No. PCE-BF0191.

PW207E Engines which are before and include Serial No. PCE-BG0140.

PW207K Engines which are before and include Serial No. PCE-BK0052.

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

Some production engines require a rebuild to replace the compressor centrifugal impeller in order to meet the production engine pass off criteria.

(2) Cause

A broad tolerance on the compressor centrifugal impeller inlet blade profile and thickness tolerance may cause an engine test reject and require the engine to be rebuilt and retested before release to a customer.

(3) Solution

Replace the compressor centrifugal impeller with one that has tighter control applied to the blade profile and thickness tolerance.

NOTE: Engines Pre-SB28306 have passed normal P&WC overhaul or production engine testing.

P&WC No. E0720A, E0720L, DCR23964, EC-0018501

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COMPRESSOR CENTRIFUGAL IMPELLER - REPLACEMENT/MODIFICATION OF

1. Planning Information (Cont'd)

D. Description

Replace the compressor centrifugal impeller.

E. Compliance

For PW206B2 and PW207D Engines:

CATEGORY 5 - P&WC recommends to do this service bulletin when the engine is disassembled and access is available to the necessary subassembly (i.e. module, accessories, components, or build groups). Do all spare subassemblies.

For PW206A, PW206B, PW206C, PW206E, PW207C, PW207E, PW207K Engines:

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

F. Approval

The technical content of this document is approved under the authority of the Transport Canada Civil Aviation (TCCA) Design Approval Organization No: DAO #93-Q-01.

G. Manpower

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

H. Weight and Balance

None.

I. Electrical Load Data

Not changed.

J. Software Accomplishment Summary

Not changed.

K. References

Illustrated Parts Catalog P/N 3038326 (PW206A/206E)
Illustrated Parts Catalog P/N 3049725 (PW207E)
Illustrated Parts Catalog P/N 3039734 (PW206B)
Illustrated Parts Catalog P/N 3054928 (PW206B2)

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TURBOSHAFT ENGINE
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1. Planning Information (Cont'd)

Illustrated Parts Catalog P/N 3043324 (PW206C)
Illustrated Parts Catalog P/N 3054927 (PW207C)
Illustrated Parts Catalog P/N 3049724 (PW207D)
Illustrated Parts Catalog P/N 3053374 (PW207K)
Overhaul Manual P/N 3038325 (PW206A/206E/207E)
Overhaul Manual P/N 3039733 (PW206B/206B2)
Overhaul Manual P/N 3043323 (PW206C/207C)
Overhaul Manual P/N 3043613 (PW207D)
Overhaul Manual P/N 3053373 (PW207K)

L. Publications Affected

Illustrated Parts Catalog P/N 3038326 (PW206A/206E)
Illustrated Parts Catalog P/N 3049725 (PW207E)
Illustrated Parts Catalog P/N 3039734 (PW206B)
Illustrated Parts Catalog P/N 3054928 (PW206B2)
Illustrated Parts Catalog P/N 3043324 (PW206C)
Illustrated Parts Catalog P/N 3054927 (PW207C)
Illustrated Parts Catalog P/N 3049724 (PW207D)
Illustrated Parts Catalog P/N 3053374 (PW207K)

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, 2013).

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, 2013)</u>	<u>Instructions Disposition</u>
Pre-SB28248 for Engines PW206B2, PW207C, PW207D, PW207E, PW207K					
3074667-01	Impeller and Housing Set, Compressor	3049984-01	1	Quote	(A)(D)
3074666-01	. Impeller, Centrifugal	3044095-01	1	52807.00	(B)(C)
Post-SB28248 for Engines PW206B2, PW207C, PW207D, PW207E, PW207K					
3074667-01	Impeller and Housing Set, Compressor	3059010-01	1	Quote	(A)(D)
3074666-01	. Impeller, Centrifugal	3058672-01	1	52807.00	(B)(C)
Post-SB28248 for Engines PW206A, PW206B, PW206C, PW206E					
3074666-01	Impeller, Centrifugal	3058672-01	1	52807.00	(A)(B)

- (A) TWO WAY INTERCHANGEABLE - (ATA 200 Explanation Code 02):
The old or the new part can replace the old or the new part.
- (B) Discard the part if it is unserviceable. Return a serviceable part to stock.
- (C) NOT INTERCHANGEABLE - (ATA 200 Explanation Code 03):
The old part must replace the old part; the new part must replace new part.
- (D) To get the new part it is possible to make a modification to the old part, or you can get the new part from any Pratt & Whitney Canada Distribution Center.

D. Reidentified Parts

The following list of parts can be reworked:

<u>OLD P/N</u>	<u>NEW P/N</u>
3049984-01	3074667-01
3059010-01	3074667-01

E. Tooling - Price and Availability

Not applicable.

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3. Accomplishment Instructions

- A. Remove the parts listed under old P/N in Para. 2.C., Material Information, per the applicable overhaul manual instructions.
- B. Install the parts listed under New P/N in Para. 2.C., Material Information, per the applicable overhaul manual instructions.

WARNING: USE EYE PROTECTION WHEN YOU WRITE WITH THE VIBRATION PEENING PROCEDURE.

- C. If only the impeller was changed in Para. 2.C, you must reidentify the Impeller and Housing Set to the new part number as follows:
 - (1) Use the vibration peening procedure, 0.003 to 0.006 in. (0.08-0.15 mm) deep, and put a line across the old part number on the Impeller and Housing Set.
 - (2) Use the vibration peening procedure, 0.003 to 0.006 in. (0.08-0.15 mm) deep, and write the new part number in the same area.
- D. Write accomplishment of P&WC S.B. No. 28306 in the applicable engine module log book.

4. Appendix

- A. Deleted