

PRATT & WHITNEY CANADA  
**SERVICE BULLETIN**

P&WC S.B. No. 28387R2

**BULLETIN INDEX LOCATOR**  
**72-11-00**

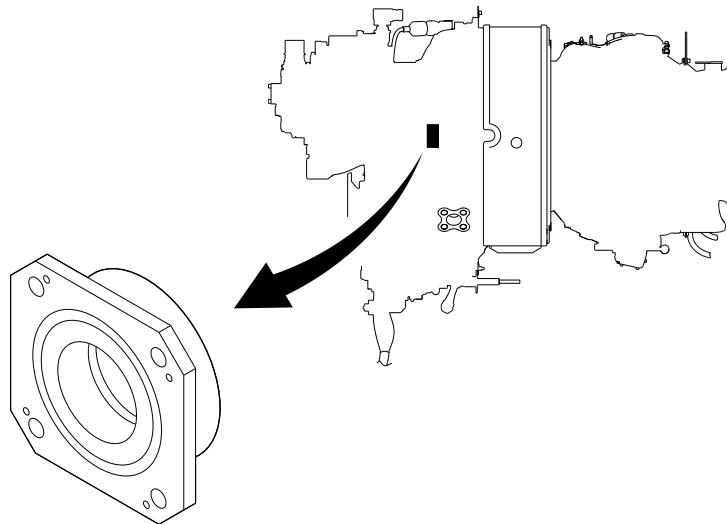
TURBOSHAFT ENGINE  
REDUCTION GEARBOX NO. 2 BALL BEARING - INSPECTION/REPLACEMENT OF  
MODEL APPLICATION

PW206B2, PW206B3, PW206C, PW207C, PW207D, PW207D1, PW207D2, PW207E, PW207K

■ Compliance: CATEGORY 3, 4

Summary:

- Spalling can occur on the No. 2 ball bearing and may lead to Metal In Oil (MIO). A batch of bearing balls were subjected to process deviations at the supplier.
- This batch produced 175 bearings. Replace affected bearings with a new one.
- The list of affected engines and bearing serial numbers can be found in the Table 1.



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Revision No. 2: Jan 04/2021

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Cover Sheet

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**Pratt & Whitney Canada**

A United Technologies Company

04 January 2021

P&WC S.B. No. 28387R2

REVISION TRANSMITTAL SHEET  
TURBOSHAFT ENGINE MODEL PW200

SUBJECT: Pratt & Whitney Canada Service Bulletin No. PW200-72-28387, Rev. No. 2, dated Jan 04/2021 (P&WC S.B. No. 28387R2) REDUCTION GEARBOX NO. 2 BALL BEARING - INSPECTION/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 Destroy the superseded copy.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 service bulletin is revised to:

- add compliance code 3 for both engines Pre SB28387.

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: Sep 07/2018  
Revision No. 1: Mar 11/2019  
Revision No. 2: Jan 04/2021



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TURBOSHAFT ENGINE  
REDUCTION GEARBOX NO. 2 BALL BEARING - INSPECTION/REPLACEMENT OF

1. Planning Information

A. Effectivity

PW206B2 Engines.  
PW206B3 Engines.  
PW206C Engines.  
PW207C Engines.  
PW207D Engines.  
PW207D1 Engines.  
PW207D2 Engines.  
PW207E Engines.  
PW207K Engines.

NOTE: 1. Refer to Table 1 for list of applicable engines and bearings.

NOTE: 2. 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

Spalling can occur on the No. 2 ball bearing and may lead to Metal In Oil (MIO).

(2) Cause

A batch of bearing balls was subject to process deviations at the supplier.

(3) Solution

Verify the serial number of the No. 2 bearing in the engine log book with the list in Table 1. Replace bearings listed in Table 1 with a new one.

D. Description

Replace the suspect bearings in Table 1 with a new one.

E. Compliance

**For helicopters where both engines are Pre-SB28387:**

CATEGORY 3 - P&WC recommends to do this service bulletin within 400 hours on at least one of the two engines.

P&WC No. EC-0007119, EC-0009543

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REDUCTION GEARBOX NO. 2 BALL BEARING - INSPECTION/REPLACEMENT OF

1. Planning Information (Cont'd)

**For the remaining affected engines:**

CATEGORY 4 - P&WC recommends to do this service bulletin the first time the engine or module is at a maintenance base that can do the procedures, regardless of the scheduled maintenance action or reason for engine removal.

F. Approval

D.A.A. approved

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

Overhaul Manual P/N 3038325 (207E)  
Overhaul Manual P/N 3039733 (PW206B2/206B3)  
Overhaul Manual P/N 3043323 (PW206C/207C)  
Overhaul Manual P/N 3043613 (PW207D)  
Overhaul Manual P/N 3071603 (PW207D1/207D2)  
Overhaul Manual P/N 3053373 (PW207K)

L. Publications Affected

None.

M. Interchangeability and Intermixability of Parts

Interchangeability - Refer to Para. 2.C.

Intermixability - Not changed.

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## TURBOSHAFT ENGINE REDUCTION GEARBOX NO. 2 BALL BEARING - INSPECTION/REPLACEMENT OF

### 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, 2018).

The new parts are available.

#### 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, 2018)</u>	<u>Instructions Disposition</u>
<b>For all engines in Table 1:</b>					
3075990-01	Bearing, Ball	3075990-01	1	12238.00	(A)

(A) Discard. Do not use again in any application.

#### D. Reidentified Parts

None.

#### E. Tooling - Price and Availability

Not applicable.

### 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 72-11-02 REAR HOUSING - DISASSEMBLY.

B. Install the parts in the New P/N list in Para. 2.C., Material Information, in accordance with the overhaul manual instructions as follows:

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3. Accomplishment Instructions (Cont'd)

- Ref. OHM 72-11-02 REAR HOUSING - ASSEMBLY.
- C. Complete the feedback form and return it to P&WC (Ref. Figure 1).
- D. Write the accomplishment of P&WC S.B. No. 28387 in the engine module log book.

NOTE: All engines in Table 1 that were inducted due to an #2 bearing (P/N: 3075990-01) MIO event between 2016 and September 07, 2018 are considered to have incorporated this SB.



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TURBOSHAFT ENGINE  
REDUCTION GEARBOX NO. 2 BALL BEARING - INSPECTION/REPLACEMENT OF

3. Accomplishment Instructions (Cont'd)

TABLE 1, Suspect Bearings P/N 3075990-01

Bearing S/N	Engine S/N	OR	Engine S/N	Bearing S/N
FCN403328	BJ1352		BC0383	FCN411548
FCN403329	BH0774		BC0899	FCN411512
FCN403330	BJ1349		BC0928	FCN403373
FCN403331	BL0501		BC0929	FCN403389
FCN403332	BL0506		BC0930	FCN403382
FCN403333	BL0498		BC0931	FCN411517
FCN403334	BL0496		BC0932	FCN403383
FCN403335	BL0495		BC0933	FCN411518
FCN403337	BJ1345		BC0935	FCN411513
FCN403338	BL0477		BC0936	FCN411563
FCN403339	BL0480		BC0937	FCN411514
FCN403340	BL0479		BC0938	FCN411581
FCN403341	BL0482		BC0941	FCN411552
FCN403342	BL0491		BC0943	FCN407397
FCN403343	BR0004		BC0944	FCN407399
FCN403344	BL0473		BC0945	FCN407386
FCN403345	BL0483		BC0946	FCN416595
FCN403346	BL0478		BC0947	FCN416593
FCN403347	BR0002		BF0212	FCN411540
FCN403348	BL0472		BF0213	FCN407402
FCN403349	BL0475		BF0214	FCN407411
FCN403350	BR0001		BG0180	FCN411532
FCN403351	BL0476		BG0181	FCN411560
FCN403352	BL0474		BG0182	FCN407390
FCN403353	BK0124		BG0183	FCN407393
FCN403354	BJ1350		BH0772	FCN403365

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3. Accomplishment Instructions (Cont'd)

TABLE 1, Suspect Bearings P/N 3075990-01 (Cont'd)

Bearing S/N	Engine S/N	OR	Engine S/N	Bearing S/N
FCN403355	BL0504		BH0773	FCN403357
FCN403356	BK0125		BH0774	FCN403329
FCN403357	BH0773		BH0775	FCN411562
FCN403358	BL0507		BH0776	FCN411521
FCN403359	BL0497		BH0777	FCN411524
FCN403360	BJ1351		BH0779	FCN411520
FCN403361	BR0006		BH0780	FCN411582
FCN403362	BL0494		BH0781	FCN407403
FCN403363	Discarded prior to SB		BH0782	FCN411590
FCN403364	BL0503		BH0783	FCN407401
FCN403365	BH0772		BH0784	FCN407400
FCN403366	BL0502		BH0785	FCN407389
FCN403367	Discarded prior to SB		BH0786	FCN411591
FCN403368	BL0543		BH0787	FCN407391
FCN403369	BL0493		BH0788	FCN407408
FCN403370	BK0127		BH0791	FCN411572
FCN403371	BJ1348		BH0792	FCN407388
FCN403372	BJ1346		BH0793	FCN407398
FCN403373	BC0928		BJ0141	FCN418146
FCN403374	BJ1353		BJ0279	FCN411544
FCN403375	BK0126	BJ0338	FCN411545	
FCN403376	BJ1344	BJ0429	FCN411547	
FCN403377	BL0500	BJ1344	FCN403376	
FCN403378	BL0489	BJ1345	FCN403337	
FCN403379	BL0484	BJ1346	FCN403372	

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## TURBOSHAFT ENGINE REDUCTION GEARBOX NO. 2 BALL BEARING - INSPECTION/REPLACEMENT OF

### 3. Accomplishment Instructions (Cont'd)

TABLE 1, Suspect Bearings P/N 3075990-01 (Cont'd)

Bearing S/N	Engine S/N	OR	Engine S/N	Bearing S/N
FCN403380	BL0481		BJ1347	FCN403391
FCN403381	BL0488		BJ1348	FCN403371
FCN403382	BC0930		BJ1349	FCN403330
FCN403383	BC0932		BJ1350	FCN403354
FCN403384	BL0492		BJ1351	FCN403360
FCN403385	BL0499		BJ1352	FCN403328
FCN403386	BL0486		BJ1353	FCN403374
FCN403387	BR0003		BJ1355	FCN411519
FCN403388	BL0487		BJ1356	FCN411528
FCN403389	BC0929		BJ1357	FCN407410
FCN403390	BL0490		BJ1358	FCN407395
FCN403391	BJ1347		BJ1360	FCN407406
FCN407384	BL0553		BJ1361	FCN407407
FCN407385	BR0011		BJ1362	FCN411553
FCN407386	BC0945		BJ1363	FCN418147
FCN407387	BL0542		BK0124	FCN403353
FCN407388	BH0792		BK0125	FCN403356
FCN407389	BH0785		BK0126	FCN403375
FCN407390	BG0182		BK0127	FCN403370
FCN407391	BH0787		BK0128	FCN411535
FCN407392	BK0132		BK0129	FCN411530
FCN407393	BG0183		BK0130	FCN411539
FCN407394	BR0017		BK0131	FCN411542
FCN407395	BJ1358		BK0132	FCN407392
FCN407396	BL0550		BK0133	FCN411573
FCN407397	BC0943		BK0135	FCN418144

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REDUCTION GEARBOX NO. 2 BALL BEARING - INSPECTION/REPLACEMENT OF

3. Accomplishment Instructions (Cont'd)

TABLE 1, Suspect Bearings P/N 3075990-01 (Cont'd)

Bearing S/N	Engine S/N	OR	Engine S/N	Bearing S/N
FCN407398	BH0793		BL0027	FCN411549
FCN407399	BC0944		BL0472	FCN403348
FCN407400	BH0784		BL0473	FCN403344
FCN407401	BH0783		BL0474	FCN403352
FCN407402	BF0213		BL0475	FCN403349
FCN407403	BH0781		BL0476	FCN403351
FCN407404	BR0012		BL0477	FCN403338
FCN407405	Discarded prior to SB		BL0478	FCN403346
FCN407406	BJ1360		BL0479	FCN403340
FCN407407	BJ1361		BL0480	FCN403339
FCN407408	BH0788		BL0481	FCN403380
FCN407409	BR0010		BL0482	FCN403341
FCN407410	BJ1357		BL0483	FCN403345
FCN407411	BF0214		BL0484	FCN403379
FCN411512	BC0899		BL0486	FCN403386
FCN411513	BC0935		BL0487	FCN403388
FCN411514	BC0937		BL0488	FCN403381
FCN411515	BL0523		BL0489	FCN403378
FCN411516	BL0511		BL0490	FCN403390
FCN411517	BC0931		BL0491	FCN403342
FCN411518	BC0933		BL0492	FCN403384
FCN411519	BJ1355		BL0493	FCN403369
FCN411520	BH0779		BL0494	FCN403362
FCN411521	BH0776	BL0495	FCN403335	
FCN411522	BL0538	BL0496	FCN403334	
FCN411523	BL0515	BL0497	FCN403359	

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## TURBOSHAFT ENGINE REDUCTION GEARBOX NO. 2 BALL BEARING - INSPECTION/REPLACEMENT OF

### 3. Accomplishment Instructions (Cont'd)

TABLE 1, Suspect Bearings P/N 3075990-01 (Cont'd)

Bearing S/N	Engine S/N	OR	Engine S/N	Bearing S/N
FCN411524	BH0777		BL0498	FCN403333
FCN411525	BR0009		BL0499	FCN403385
FCN411526	BL0521		BL0500	FCN403377
FCN411527	BL0518		BL0501	FCN403331
FCN411528	BJ1356		BL0502	FCN403366
FCN411529	BL0525		BL0503	FCN403364
FCN411530	BK0129		BL0504	FCN403355
FCN411531	BR0007		BL0506	FCN403332
FCN411532	BG0180		BL0507	FCN403358
FCN411533	BR0005		BL0508	FCN411538
FCN411534	BL0509		BL0509	FCN411534
FCN411535	BK0128		BL0510	FCN411537
FCN411536	BL0528		BL0511	FCN411516
FCN411537	BL0510		BL0512	FCN411577
FCN411538	BL0508		BL0513	FCN411571
FCN411539	BK0130		BL0514	FCN411541
FCN411540	BF0212		BL0515	FCN411523
FCN411541	BL0514		BL0516	FCN411551
FCN411542	BK0131		BL0518	FCN411527
FCN411543	Discarded prior to SB		BL0519	FCN411579
FCN411544	BJ0279		BL0520	FCN411557
FCN411545	BJ0338		BL0521	FCN411526
FCN411546	N/A		BL0522	FCN411559
FCN411547	BJ0429		BL0523	FCN411515
FCN411548	BC0383		BL0524	FCN411561
FCN411549	BL0027		BL0525	FCN411529

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3. Accomplishment Instructions (Cont'd)

TABLE 1, Suspect Bearings P/N 3075990-01 (Cont'd)

Bearing S/N	Engine S/N	OR	Engine S/N	Bearing S/N
FCN411550	BL0536		BL0526	FCN411578
FCN411551	BL0516		BL0527	FCN411565
FCN411552	BC0941		BL0528	FCN411536
FCN411553	BJ1362		BL0529	FCN411570
FCN411554	BL0532		BL0530	FCN411569
FCN411555	BL0537		BL0531	FCN411558
FCN411556	BL0540		BL0532	FCN411554
FCN411557	BL0520		BL0533	FCN411567
FCN411558	BL0531		BL0534	FCN411564
FCN411559	BL0522		BL0535	FCN411575
FCN411560	BG0181		BL0536	FCN411550
FCN411561	BL0524		BL0537	FCN411555
FCN411562	BH0775		BL0538	FCN411522
FCN411563	BC0936		BL0539	FCN411580
FCN411564	BL0534		BL0540	FCN411556
FCN411565	BL0527		BL0541	FCN411583
FCN411566	BL0545		BL0542	FCN407387
FCN411567	BL0533		BL0543	FCN403368
FCN411568	BL0552		BL0545	FCN411566
FCN411569	BL0530		BL0546	FCN411574
FCN411570	BL0529		BL0547	FCN418145
FCN411571	BL0513		BL0549	FCN416594
FCN411572	BH0791		BL0550	FCN407396
FCN411573	BK0133		BL0552	FCN411568
FCN411574	BL0546		BL0553	FCN407384
FCN411575	BL0535		BL0554	FCN416596

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## TURBOSHAFT ENGINE REDUCTION GEARBOX NO. 2 BALL BEARING - INSPECTION/REPLACEMENT OF

3. Accomplishment Instructions (Cont'd)

TABLE 1, Suspect Bearings P/N 3075990-01 (Cont'd)

Bearing S/N	Engine S/N	OR	Engine S/N	Bearing S/N
FCN411576	BL0684		BL0555	FCN416592
FCN411577	BL0512		BL0556	FCN416597
FCN411578	BL0526		BL0684	FCN411576
FCN411579	BL0519		BR0001	FCN403350
FCN411580	BL0539		BR0002	FCN403347
FCN411581	BC0938		BR0003	FCN403387
FCN411582	BH0780		BR0004	FCN403343
FCN411583	BL0541		BR0005	FCN411533
FCN411590	BH0782		BR0006	FCN403361
FCN411591	BH0786		BR0007	FCN411531
FCN416592	BL0555		BR0009	FCN411525
FCN416593	BC0947		BR0010	FCN407409
FCN416594	BL0549		BR0011	FCN407385
FCN416595	BC0946		BR0012	FCN407404
FCN416596	BL0554		BR0017	FCN407394
FCN416597	BL0556		N/A	FCN411546
FCN418144	BK0135		Discarded prior to SB	FCN403363
FCN418145	BL0547		Discarded prior to SB	FCN411543
FCN418146	BJ0141		Discarded prior to SB	FCN407405
FCN418147	BJ1363		Discarded prior to SB	FCN403367
N/A: NOT AVAILABLE				

4. Appendix

Not applicable.

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TURBOSHAFT ENGINE  
REDUCTION GEARBOX NO. 2 BALL BEARING - INSPECTION/REPLACEMENT OF

**Feedback Accomplishment Report**

To: Pratt & Whitney Canada  
Email: [pwchelo@pwc.ca](mailto:pwchelo@pwc.ca)  
Or Fax: 450-647-9597

From: Operator name: \_\_\_\_\_

Date: \_\_\_\_\_ (Day/Month/Year)

Aircraft Model: Leonardo AW109E Power  Airbus EC135-P2  Bell 427  MD 902 Explorer   
Leonardo A109SP Grand  Airbus EC135-P3  Bell 429  Kazan Ansat

Aircraft Serial Number: \_\_\_\_\_ Aircraft tail number: \_\_\_\_\_

Engine model: PW206C  PW206B2  PW207D  PW207E   
PW207C  PW206B3  PW207D1/D2  PW207K

Engine Serial Number: \_\_\_\_\_

Engine Total Time Since New: \_\_\_\_\_ Hours Engine Total Time Since Overhaul: \_\_\_\_\_ Hours

**No. 2 bearing**

Removed

Part Number: 3075990-01 Serial Number: \_\_\_\_\_

Installed

Part Number: 3075990-01 Serial Number: \_\_\_\_\_

Remarks:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

ICN-00198-G000021016-001-01

Feedback Form  
Figure 1