

SERVICE BULLETIN

ENGINE — BEARING, ROLLER — INSPECTION FOR SUSPECT ROLLER BEARINGS

MODEL APPLICATION

V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5

BULLETIN ISSUE SEQUENCE

V2500 Series 72-0689

ATA NUMBER

72-60-22

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Compliance Category

4

P&W Distribution Code

V2500
February 13/18

V2500-ENG-72-0689

Summary

The purpose of this Service Bulletin is to do an inspection to find and replace suspect roller bearings, identified by serial number, that were determined to be non-conforming.

Planning Information

Effectivity Data

Engine Models Applicable

V2522-A5, V2524-A5, V2527M-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5
Engine Serial Nos. Any Engine that has a Roller Bearing PN 4T0073, with a serial number listed in Table 2 and Table 3.

Concurrent Requirements

There are no concurrent requirements.

Reason

1. Condition: One (1) In Flight Shut Down (IFSD) has been attributed to significant distress of a roller bearing contained in the external gearbox module.
2. Background: Eighty-nine (89) Roller Bearings PN 4T0073, have been manufactured with roller geometry that is not consistent with the part manufacturing drawing requirements. The geometric inconsistency may cause an increase in contact pressure and reduction of calculated bearing life. The suspect roller bearings, identified by serial number, were delivered and installed in a population of twenty (20) production external gearbox modules.
3. Objective: This Service Bulletin identifies and provides replacement instructions for the affected roller bearings.
4. Substantiation: The instructions contained within this Service Bulletin return the engine to that of original design intent.
5. Effects of Bulletin on:
Removal/Installation: Not Affected.
Disassembly/Assembly: Not Affected.
Cleaning: Not Affected.
Inspection/Check: Not Affected.
Repair: Not Affected.
Testing: Not Affected.
6. Supplemental Information
None.

Description

Replace the suspect roller bearings.

Compliance

Category 4

Accomplish at the first visit of an engine or module to a maintenance base capable of compliance with the accomplishment instructions regardless of the planned maintenance action or the reason for engine removal.

Approval Data

The compliance statement and the procedures described in this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine model listed.

Manpower

1. In Service
..... Not Applicable.
2. At Overhaul
No more man-hours are required when done at external gearbox module overhaul.

Weight and Balance

1. Weight Change
None.
2. Moment Arm
No Effect.
3. Datum
Engine Front Mount Centerline (Power Plant Station (PPS) 100)

Electrical Load Data

This Service Bulletin has no effect on the aircraft electrical load.

Software Accomplishment Summary

Not Applicable.

References

NOTE: In 2014 IAE converted the V2500 Technical Publications to a new system. As a result of the conversion, some manuals were consolidated. All manuals received new P&W part numbers. To facilitate the use of this Service Bulletin, a Technical Publications conversion table is provided in the Appendix.

1. ATA Locator — 72-60-22, 72-60-23, 72-60-25, 72-60-26, 72-60-28.
2. Internal Reference No. — 17VC202.
3. V2500 Standard Practices and Processes, P&W Ref. PN 2A4414, Chapter/Section 70-00-00.
4. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 72-60-22, 72-60-23, 72-60-25, 72-60-26, 72-60-28.
5. V2500 A1/A5 Series Engine Manual, P&W Ref. PN 2A4407, Chapter/Section 72-60-22, 72-60-23, 72-60-25, 72-60-26, 72-60-28.

Other Publications Affected

NOTE: In 2014 IAE converted the V2500 Technical Publications to a new system. As a result of the conversion, some manuals were consolidated. All manuals received new P&W part numbers. To facilitate the use of this Service Bulletin, a Technical Publications conversion table is provided in the Appendix.

1. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 72-60-22, 72-60-23, 72-60-25, 72-60-26, 72-60-28.

Interchangeability of Parts

Not Applicable.

Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts (No)

Added Data (Yes)

Revision to Table of Limits (No)

Inspection Procedures (No)

Material Information

Material — Price and Availability

1. Part prices were not available at the time of Service Bulletin publication. Contact IAE Spares Management & Logistics for firm quotations.
2. There is no kit provided to do this Service Bulletin.
3. Part availability information is provided in material data Instructions — Disposition.

Industry Support Program

For V2500-A5 Engines in the effectivity of this Service Bulletin.

Under this program the operator is offered support in the form of a one-time discount of full catalog list price for the Roller Bearing, PN 4T0073 replaced as a result of the accomplishment of this Service Bulletin.

To be eligible for this discount:

- Roller Bearing, PN 4T0073 must be replaced with new.
- Determine through your local IAE field representative if the removed bearing should be returned to P&W for investigation.
- If return of the bearing is not required, locally scrap removed Roller Bearing, PN 4T7003.
- All required documentation must be submitted to IAE within 180 days of the applicable Shop Visit completion date. Requests received after the 180 day period, even if they are prior to the expiration date of this Support Program, will be ineligible for the IAE spare parts discount and disqualified.

No duplicate benefits through FHA, Service Policy or other Support Programs will be approved.

Customers are requested to place a purchase order for the parts through their normal PW/IAE spare parts channel.

Upon approval, IAE Materials Management will issue the applicable IAE spare parts discount to the Customer's account with IAE.

This support program is valid through December 31, 2025.

If you have any questions concerning this offer please contact your IAE Customer Field Representative or Customer Fleet Director.

The material data that follows is for each engine.

For V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5 Engines:

New PN	Qty	Estimate of Unit Price (\$)	Keyword	Old PN	Instructions — Disposition
	A/R	*	BEARING - ROLLER	4T0073 (72-60-22-01-220) (72-60-23-01-640) (72-60-25-01-180) (72-60-26-01-100) (72-60-28-01-590)	(4)(X)

Instructions/Disposition Code Statements:

Parts Modification Conditions

Estimated part prices are provided when they are available at time of publication. The Estimate of Unit Price is only for planning purposes and does not constitute a firm quotation. An asterisk (*) is shown where part pricing information was unavailable. In either case, contact IAE Spares for firm quotations.

(4) Do an inspection as specified in the Accomplishment Instructions.

Spare Parts Availability

(X) See Reference 4, Illustrated Parts Catalog for applicable replacement parts.

Vendor Services or Special Components/Materials

Not Applicable.

Tooling — Price and Availability

Special tools are not required to accomplish this Service Bulletin.

Reidentified Parts

Not Applicable.

Other Material Information Data

Not Applicable.

Accomplishment Instructions

1. Do an inspection to find suspect Roller Bearings, PN 4T0073, with serial numbers listed in Table 2 or Table 3.
 - A. For roller bearings with serial numbers not listed in Table 2 or Table 3:
 - (1) No further action is necessary.
 - B. For roller bearings with serial numbers listed in Table 2 or Table 3:
 - (1) Remove the Roller Bearing, PN 4T0073 as specified in Reference 5, EM, TASK 72-60-10-040-001
 - (2) Install new Roller Bearing, PN 4T0073 as specified in Reference 5, EM, TASK 72-60-10-440-001.
2. Recording Instructions
 - A. A record of accomplishment is required.



Appendix

Added Data

Internal Reference Information

Revision No.	Reference Document	Origination
Original	EA 17VC202	RB/RCM

Number values shown in parentheses adjacent to U.S. values are International System of units (SI) equivalents.

Table 1

Engine Serial Number (as shipped from IAE)	External Gearbox Serial Number		Engine Serial Number (as shipped from IAE)	External Gearbox Serial Number		Engine Serial Number (as shipped from IAE)	External Gearbox Serial Number
V13038	606174		V13053	606180		V13064	606203
V13040	606184		V13055	606181		V13065	606201
V13042	606182		V13056	606195		V13067	606199
V13044	606183		V13058	606198		V15008	606179
V13048	606188		V13059	606194		V15012	606204
V13050	606189		V13060	606202		V15014	606212
V13051	606178		V13063	606197			

NOTE: Table 1 identifies the engine serial numbers and Gearbox Module, PN 4A1077 serial numbers, that were produced with the subject roller bearings addressed in this Service Bulletin.

NOTE: Table 1 shows the serial numbers of the gearbox modules that were installed on each engine during new-engine production. Table 1 does not reflect gearbox module removals or replacements.

Table 2

Roller Bearing Serial Number	External Gearbox Serial Number	Roller Bearing Serial Number	External Gearbox Serial Number	Roller Bearing Serial Number	External Gearbox Serial Number	Roller Bearing Serial Number	External Gearbox Serial Number
08-7791	606188	08-7814	606181	08-7837	606203	08-7860	606197
08-7792	606194	08-7815	606184	08-7838	606204	08-7861	606197
08-7793	606180	08-7816	606184	08-7839	606204	08-7862	606197



Roller Bearing Serial Number	External Gearbox Serial Number	Roller Bearing Serial Number	External Gearbox Serial Number	Roller Bearing Serial Number	External Gearbox Serial Number	Roller Bearing Serial Number	External Gearbox Serial Number
08-7794	606180	08-7817	606184	08-7840	606204	08-7863	606197
08-7795	606180	08-7818	606179	08-7841	606204	08-7864	606199
08-7796	606180	08-7819	606179	08-7842	606204	08-7865	606199
08-7797	606180	08-7820	606179	08-7843	606202	08-7866	606199
08-7798	606194	08-7821	606179	08-7844	606212	08-7867	606199
08-7799	606183	08-7822	606179	08-7845	606212	08-7868	606199
08-7800	606183	08-7823	606183	08-7846	606212	08-7869	606189
08-7801	606183	08-7824	606183	08-7847	606202	08-7870	606189
08-7802	606178	08-7825	606181	08-7848	606202	08-7871	606189
08-7803	606178	08-7826	606181	08-7849	606198	08-7872	606189
08-7804	606178	08-7827	606184	08-7850	606198	08-7873	606195
08-7805	606178	08-7828	606184	08-7851	606198	08-7874	606194
08-7806	606178	08-7829	606181	08-7852	606198	08-7875	606194
08-7807	606195	08-7830	606181	08-7853	606198	08-7876	606174
08-7808	606182	08-7831	606202	08-7854	606201	08-7877	606194
08-7809	606182	08-7832	606202	08-7855	606201	08-7878	606174
08-7810	606182	08-7833	606203	08-7856	606201	08-7879	606195
08-7811	606182	08-7834	606203	08-7857	606201		
08-7812	606182	08-7835	606203	08-7858	606201		
08-7813	606195	08-7836	606203	08-7859	606197		

NOTE: Table 2 identifies the serial numbers of External Gearbox Modules, PN 4A1077, and serial numbers of subject Roller Bearings, PN 4T0073, addressed in this Service Bulletin. Table 2 is in order by roller bearing serial number.

Table 3

External Gearbox Serial Number	Roller Bearing Serial Number	External Gearbox Serial Number	Roller Bearing Serial Number	External Gearbox Serial Number	Roller Bearing Serial Number	External Gearbox Serial Number	Roller Bearing Serial Number
606174	08-7876	606182	08-7809	606194	08-7877	606201	08-7857
606174	08-7878	606182	08-7810	606195	08-7807	606201	08-7858
606178	08-7802	606182	08-7811	606195	08-7813	606202	08-7831



External Gearbox Serial Number	Roller Bearing Serial Number	External Gearbox Serial Number	Roller Bearing Serial Number	External Gearbox Serial Number	Roller Bearing Serial Number	External Gearbox Serial Number	Roller Bearing Serial Number
606178	08-7803	606182	08-7812	606195	08-7873	606202	08-7832
606178	08-7804	606183	08-7799	606195	08-7879	606202	08-7843
606178	08-7805	606183	08-7800	606197	08-7859	606202	08-7847
606178	08-7806	606183	08-7801	606197	08-7860	606202	08-7848
606179	08-7818	606183	08-7823	606197	08-7861	606203	08-7833
606179	08-7819	606183	08-7824	606197	08-7862	606203	08-7834
606179	08-7820	606184	08-7815	606197	08-7863	606203	08-7835
606179	08-7821	606184	08-7816	606198	08-7849	606203	08-7836
606179	08-7822	606184	08-7817	606198	08-7850	606203	08-7837
606180	08-7793	606184	08-7827	606198	08-7851	606204	08-7838
606180	08-7794	606184	08-7828	606198	08-7852	606204	08-7839
606180	08-7795	606188	08-7791	606198	08-7853	606204	08-7840
606180	08-7796	606189	08-7869	606199	08-7864	606204	08-7841
606180	08-7797	606189	08-7870	606199	08-7865	606204	08-7842
606181	08-7814	606189	08-7871	606199	08-7866	606212	08-7844
606181	08-7825	606189	08-7872	606199	08-7867	606212	08-7845
606181	08-7826	606194	08-7792	606199	08-7868	606212	08-7846
606181	08-7829	606194	08-7798	606201	08-7854		
606181	08-7830	606194	08-7874	606201	08-7855		
606182	08-7808	606194	08-7875	606201	08-7856		

NOTE: Table 3 identifies the serial numbers of External Gearbox Modules, PN 4A1077, and serial numbers of subject Roller Bearings, PN 4T0073, addressed in this Service Bulletin. Table 3 is in order by external gearbox module serial number.

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Technical Publications Cross Reference Table

Publication	Engine Model(s)	IAE IETM Pub Ref	P&W Part Number
ENGINE MANUAL — A1, A5	All	E-V2500-1IA	2A4407
CMM-EHC — A1, A5	All	EHC-V2500-1IA	2A4409
CMM-FN — A1, A5	All	FN-V2500-1IA	2A4410
CMM-MMC — A1, A5	All	MECH-V2500-1IA	2A4411
CMM-THD — A1, A5	All	THD-V2500-1IA	2A4412
TLM — A1, A5	All	T-V2500-1IA	2A4408
ENGINE MANUAL — D5	All	E-V2500-3IA	2A4416
CMM-EHC — D5	All	EHC-V2500-3IA	2A4418
CMM-FN — D5	All	FN-V2500-3IA	2A4419
CMM-MMC — D5	All	MECH-V2500-3IA	2A4420
CMM-THD — D5	All	THD-V2500-3IA	2A4423
TLM — D5	All	T-V2500-3IA	2A4417
SPPM (SPM) — A1, A5, D5	All	SPP-V2500-1IA	2A4414
EIPC — A1	V2500-A1102Q00	S-V2500-1IA	2A4427



Publication	Engine Model(s)	IAE IETM Pub Ref	P&W Part Number
EIPC — A5	V2522/V2524/V2527M-AQ02	S-V2500-6IA	2A4428
	V2522/V2524/V2527M-AQ03	S-V2500-6IB	
	V2522/V2524/V2527M-SQ02	S-V2500-6SA	
	V2522/V2524/V2527M-SQ03	S-V2500-6SB	
	V2522/V2524/V2527M-SQ04	S-V2500-6NA	
	V2522/V2524/V2527M-SQ05	S-V2500-6NB	
	V2527/V2527E-AQ02	S-V2500-7IA	
	V2527/V2527E-AQ03	S-V2500-7IB	
	V2527/V2527E-SQ02	S-V2500-7SA	
	V2527/V2527E-SQ03	S-V2500-7SB	
	V2527/V2527E-SQ04	S-V2500-7NA	
	V2527/V2527E-SQ05	S-V2500-7NB	
	V2530-AQ02	S-V2500-2IA	
	V2530-AQ03	S-V2500-2IB	
	V2530-SQ02	S-V2500-2SA	
	V2530-SQ03	S-V2500-2SB	
	V2530-SQ04	S-V2500-2NA	
	V2530-SQ05	S-V2500-2NB	
	V2533-AQ02	S-V2500-5IA	
	V2533-AQ03	S-V2500-5IB	
	V2533-SQ02	S-V2500-5SA	
	V2533-SQ03	S-V2500-5SB	
	V2533-SQ04	S-V2500-5NA	
	V2533-SQ05	S-V2500-5NB	
EIPC — D5	V2525/V2528-AQ02	S-V2500-3IA	2A4426
	V2525/V2528-AQ03	S-V2500-3IB	
	V2525/V2528-AQ04	S-V2500-3IC	