

# SERVICE BULLETIN

NON-MODIFICATION SERVICE BULLETIN — HIGH PRESSURE TURBINE  
STAGE 2 AIR SEAL — REPLACEMENT OF

## MODEL APPLICATION

V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5,  
V2533-A5, V2525-D5, V2528-D5

## BULLETIN ISSUE SEQUENCE

V2500 Series 72-0676

## ATA NUMBER

72-45-00

## IAE PROPRIETARY INFORMATION

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Export Classification: Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

## Compliance Category

3

## P&W Distribution Code

V2500

October 14/16

**V2500-ENG-72-0676**

## Summary

The purpose of this Service Bulletin is to replace five suspect High Pressure Turbine (HPT) Stage 2 Air Seals, PN 2A4157. Production defects have been reported that may impact the certified life of these five parts.

## Planning Information

### Effectivity Data

#### Engine Models Applicable

V2522-A5, V2524-A5, V2527M-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5  
Engine Serial Nos. V10001 thru V18254

V2525-D5, V2528-D5  
Engine Serial Nos. V20001 thru V20285

### Concurrent Requirements

There are no concurrent requirements.

### Reason

1. Condition: Certain HPT stage 2 air seals may exhibit manufacturing defects which could impact the part certified life.
2. Background: Production defects have been reported by one manufacturer in an area that will impact the certified life of the part. Four serial numbers are known to be affected and one serial number is suspect. There is no method to inspect for these defects. The parts will require replacement.
3. Objective: Replace the affected and suspect parts within the time limits of this Non-Modification Service Bulletin.
4. Substantiation: Structural analysis based on location of reported manufacturing defect.
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 HPT Stage 2 Air Seal, PN 2A4157 if it has a serial number listed within the compliance section.

### Compliance

Category 3

Accomplish replacement of HPT Stage 2 Air Seal, PN 2A4157 identified by serial number and cycle limit specified in Table 1.

Table 1

Serial Number	Threshold
PKLBN41534	Replace part prior to accumulating 1,236 cycles since new
PKLBN41540	Replace part prior to accumulating 1,572 cycles since new
PKLBN41568	Replace part prior to accumulating 1,281 cycles since new
PKLBN41608	Replace part prior to accumulating 1,483 cycles since new
PKLBJC4871	Replace part prior to accumulating 7,074 cycles since new

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.

The aircraft Type Certificate holder has been informed of this inspection.

Manpower

1. In Service  
..... Not Applicable.
2. At Overhaul  
..... Not Applicable.

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 — 72-45-00.
2. Internal Reference No. — EA16VC336.
3. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 72-45-00.
4. V2500-D5, Series Illustrated Parts Catalog, P&W Ref. PN 2A4426, Chapter/Section 72-45-00.
5. V2500 A1/A5 Series Engine Manual, P&W Ref. PN 2A4407, Chapter/Section 72-45-00.
6. V2500-D5 Series Engine Manual, P&W Ref. PN 2A4416, Chapter/Section 72-45-00.

Other Publications Affected

None.

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. There is no kit provided to do this Service Bulletin.
2. Part availability information is provided in material data Instructions — Disposition.

### Industry Support Program

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
	1	176,430.00	SEAL - AIR, HPT STG 2	2A4157 (72-45-00-01-080)	(5)(X)

The material data that follows is for each engine.

For V2525-D5, V2528-D5 Engines:

New PN	Qty	Estimate of Unit Price (\$)	Keyword	Old PN	Instructions — Disposition
	1	176,430.00	SEAL - AIR, HPT STG 2	2A4157 (72-45-00-01-080)	(5)(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.

- (5) Do an inspection for the listed Serial Numbers as specified in Compliance and replace as specified in the Accomplishment Instructions if applicable.

#### Spare Parts Availability

- (X) See Reference 3 or 4 for applicable part replacement.

#### Vendor Services or Special Components/Materials

Not Applicable.

### Tooling — Price and Availability

Special tools are not required to accomplish this Service Bulletin.

### Reidentified Parts

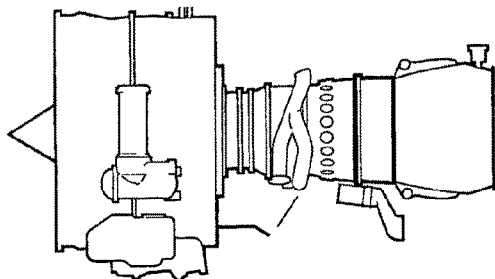
Not Applicable.

### Other Material Information Data

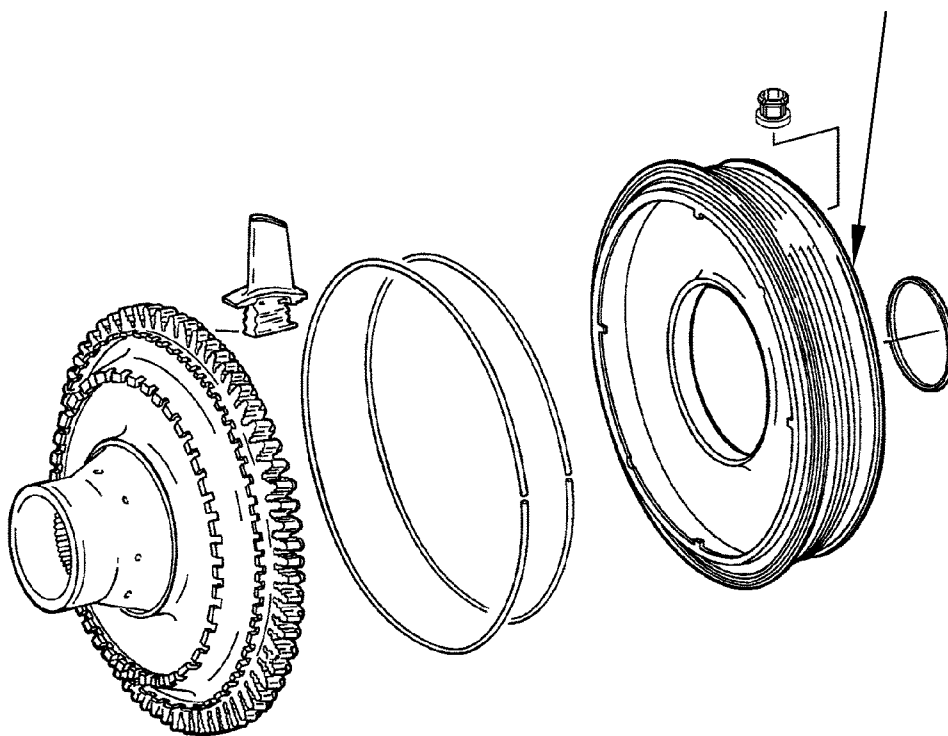
Not Applicable.

### Accomplishment Instructions

1. Remove the HPT Stage 2 Air Seal, PN 2A4157, listed by serial number and cycle limit specified in Table 1. See Figure 1. Reference 5 or 6, Engine Manual, Chapter/Section 72-45-00.
2. Install a new HPT Stage 2 Air Seal, PN 2A4157 when you assemble the HPT rotor and stator assembly. Reference 5 or 6, Engine Manual, Chapter/Section 72-45-00.
3. Recording Instructions
  - A. A record of accomplishment is required.



PN 2A4157 STAGE 2  
HIGH PRESSURE TURBINE  
AIR SEAL REPLACE AS  
SPECIFIED IN TABLE 1.



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LOCATION OF STAGE 2 HIGH PRESSURE TURBINE AIR SEAL  
72-45-00  
FIGURE 1

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## Appendix

### Added Data

#### Internal Reference Information

Revision No.	Reference Document	Origination
Original	EA16VC336	MK/RCM

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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



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	