

SERVICE BULLETIN

ENGINE — BLADE, STAGE 4 LOW PRESSURE TURBINE (LPT) — REINTRODUCTION OF
HOT GAS CORROSION PROTECTION COATING TO REDUCE SULFIDATION

MODEL APPLICATION

V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5,
V2533-A5, V2525-D5, V2528-D5

BULLETIN ISSUE SEQUENCE

V2500 Series 72-0655

ATA NUMBER

72-50-32

IAE PROPRIETARY INFORMATION

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

Compliance Category

7

P&W Distribution Code

V2500

January 28/15

V2500-ENG-72-0655

Summary

The purpose of this Service Bulletin is to reintroduce a Stage 4 Low Pressure Turbine (LPT) blade into service with hot gas corrosion protection coating to reduce sulfidation.

Planning Information

Effectivity Data

Engine Models Applicable

V2500-A1

Engine Serial Nos. V0001 thru V0361

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

Engine Serial Nos. V10001 thru V13190

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

Engine Serial Nos. V15002 thru V17699

V2525-D5, V2528-D5

Engine Serial Nos. V20001 thru V20285

Concurrent Requirements

There are no concurrent requirements.

Reason

1. Condition: Stage 4 LPT blades with the absence of hot gas corrosion protective coating are being scrapped due to sulfidation attack.
2. Background: Reference 8, Service Bulletin No. V2500-ENG-70-0890 introduced non-coated Stage 4 LPT Blade, PN 3A2923. However, recent in-service shop data has shown an increase scrap rate of non-coated Stage 4 LPT blades due to sulfidation attack. Field experience shows that the application of hot gas corrosion protection coating helps to protect against sulfidation attack of the base material.
3. Objective: Reintroduction of Stage 4 LPT blades with hot gas corrosion protection coating into service.
4. Substantiation: In service experience with hot gas corrosion protection coating on other stages showed less sulfidation attack.
5. Effects of Bulletin on:
 - Removal/Installation: Not Applicable.
 - Disassembly/Assembly: Not Affected.
 - Cleaning: Affected.
 - Inspection/Check: Affected.
 - Repair: Affected.
 - Testing: Not Affected.
6. Supplemental Information
 - None.

Description

Replace Stage 4 LPT blades.

Compliance

Category 7

Accomplish when supply of superseded parts has been depleted.

Approval Data

The part number changes and/or part modifications specified in the Accomplishment Instructions and Material Information sections of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine model(s) given.

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 technical content under the JAR25 regulation of this document is approved under the authority of DOA Ref. EASA.21J.031.

Manpower

1. In Service

..... Not Applicable.

2. At Overhaul

..... Not Applicable.

Weight and Balance

1. Weight Change

+ 0.3 lb (+ 135.9 g) for full set of Stage 4 LPT blades.

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 — 72-50-32.

2. V2500 Standard Practices and Processes, P&W Ref. PN 2A4414.
3. V2500-A1 Series Illustrated Parts Catalog, P&W Ref. PN 2A4427, Chapter/Section 72-50-32.
4. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 72-50-32.
5. V2500-D5, Series Illustrated Parts Catalog, P&W Ref. PN 2A4426, Chapter/Section 72-50-32.
6. V2500 A1/A5 Series Engine Manual, P&W Ref. PN 2A4407, Chapter/Section 72-50-32.
7. V2500-D5 Series Engine Manual, P&W Ref. PN 2A4416, Chapter/Section 72-50-32.
8. V2500 Service Bulletin V2500-ENG-70-0890 (Information — Engine — LP Turbine Blade Stg 4 — Deletion Of PWA73 Hot Gas Corrosion Protection Coating).

Other Publications Affected

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1. V2500-A1 Series Illustrated Parts Catalog, P&W Ref. PN 2A4427.
2. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 72-50-32.
3. V2500-D5, Series Illustrated Parts Catalog, P&W Ref. PN 2A4426, Chapter/Section 72-50-32.

Interchangeability of Parts

Old and new parts are directly interchangeable.

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. The estimated price of new material to do this Service Bulletin using new replacement parts is \$2,703.00.
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

Not Applicable.

The material data that follows is for each engine.

For V2500-A1 Engines:

New PN	Qty	Estimate of Unit Price (\$)	Keyword	Old PN	Instructions — Disposition
3A2374	99	2,703.00	.BLADE, LPT STAGE 4	3A2923 (72-50-32-01-150)	(2)(B)(L)(S2)

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
3A2374	99	2,703.00	.BLADE, LPT STAGE 4	3A2923 (72-50-32-01-150)	(2)(B)(L)(S2)

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
3A2374	99	2,703.00	.BLADE, LPT STAGE 4	3A2923 (72-50-32-01-150)	(2)(B)(L)(S2)

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.

- (2) The new part is a replacement part only, and cannot be obtained by modification of the old part.

Spare Parts Availability

- (B) The new part will be available approximately 31st of January 2015.

(L) The old part will be supplied until the supply is fully used.

(S2) Old and new parts are fully and freely interchangeable.

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. Not applicable
2. Recording Instructions
 - A. A record of accomplishment is required.

Appendix

Added Data

Internal Reference Information

Revision No.	Reference Document	Origination
Original	EC14VM003	HK/MTU/JP/IEL

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

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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
ENGINE MANUAL — D5	All	E-V2500-3IA	2A4416
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	