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## V2500-A1/A5/D5 SERIES PROPULSION SYSTEMS SERVICE BULLETIN

This document transmits the Initial Issue of Service Bulletin V2500-ENG-72-0598 and the Initial Issue of the Supplement.

### Service Bulletin Initial Issue

Remove	Incorporate	Reason for change
	Pages 1 to 8 of the Service Bulletin.	Initial Issue.
	Page 1 of the Supplement.	Initial Issue.

# V2500-ENG-72-0598

Transmittal - Page 1 of 1

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ENGINE – SEALS, STAGE 1 HIGH PRESSURE TURBINE (HPT) VANE – PROVIDE NEW SEALS WITH  
IMPROVED DURABILITY

1. Planning Information

A. Effectivity

(1) Airbus A319

- (a) V2522-A5, V2524-A5, V2527M-A5 (A5 Standard and A5 SelectOne™ Retrofit Standard).

Engines from Serial No. V10001 thru V13190 and V15001.

- (b) V2522-A5, V2524-A5, V2527M-A5 (A5 SelectOne™ Production Standard).

Engines from Serial No. V15002 thru V15320.

(2) Airbus A320

- (a) V2500-A1

Engine Serial No. V0001 thru V0361.

- (b) V2527-A5, V2527E-A5 (A5 Standard and A5 SelectOne™ Retrofit Standard).

Engines from Serial No. V10001 thru V13190 and V15001.

- (c) V2527-A5, V2527E-A5 (A5 SelectOne™ Production Standard).

Engines from Serial No. V15002 thru V15320.

(3) Airbus A321

- (a) V2530-A5, V2533-A5 (A5 Standard and A5 SelectOne™ Retrofit Standard).

Engines from Serial No. V10001 thru V13190 and V15001.

- (b) V2530-A5, V2533-A5 (A5 SelectOne™ Production Standard).

Engines from Serial No. V15002 thru V15320.

(4) Boeing MD-90

- (a) V2525-D5, V2528-D5

Engines Serial No. V20001 thru V20285.

**B. Concurrent Requirements**

There are no concurrent requirements.

**C. Reason****(1) Problem**

The SelectOne™ engine models have experienced stage 1 HPT vane seal breakage.

**(2) Background**

The SelectOne™ stage 1 HPT vane seals have suffered high cycle fatigue.

**(3) Objective**

Provide redesigned stage 1 HPT vane seals that are shorter, which eliminates tip vibration and seal breakage.

**(4) Effect of Bulletin on:****(a) Removal/Installation**

Not affected.

**(b) Disassembly/Assembly**

Not affected.

**(c) Cleaning**

Not affected.

**(d) Inspection/Check**

Not affected.

**(e) Repair**

Not affected.

**(f) Testing**

Not affected.

**(5) Supplement Information**

(a) None.

**D. Description**

Replace the stage 1 HPT vane seals.

**E. Compliance**

For V2522-A5 (SelectOne™), V2524-A5 (SelectOne™), V2527-A5 (SelectOne™), V2527E-A5 (SelectOne™), V2527M-A5 (SelectOne™), V2530-A5 (SelectOne™) and V2533-A5 (SelectOne™) Engines:

**Category 6**

Accomplish when the subassembly (i.e. modules, accessories, components, build groups) is disassembled sufficiently to afford access to the affected part and to all affected spare parts.

For V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5, V2525-D5 and V2528-D5 Engines:

**Category 7**

Accomplish when supply of superseded parts has been depleted.

**F. Approval**

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 models 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 models listed.

**G. Manpower****(1) In Service**

Not applicable.

**(2) At Overhaul**

Not applicable

**H. Weight and Balance****(1) Weight Change**

None.

- (2) Moment Arm

No Effect.

- (3) Datum

Engine Front Mount Centreline (Power Plant Station (PPS) 100).

I. Electrical Load Data

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

J. Software Accomplishment Summary

Not applicable.

K. References

- (1) IAE V2500 Service Bulletin V2500-ENG-72-0151. (Engine - HP Turbine Rotor And Stator Assembly - Provide New Stage 1 HPT Vane Platform Seals - Category Code 7 - Mod.Eng-72-0151).
- (2) IAE V2500 Service Bulletin V2500-ENG-72-0340. (Modification Service Bulletin - Engine - HP Turbine Rotor And Stator Assembly - Provide A New Single Fully Ceramic Coated Vane And A New Stage 1 High Pressure Turbine Cooling Duct Assembly).
- (3) V2500 Engine Illustrated Parts Catalogs (S-V2500-1IA, S-V2500-2IA, S-V2500-2IB, S-V2500-3IA, S-V2500-3IB, S-V2500-5IA, S-V2500-5IB, S-V2500-6IA, S-V2500-6IB, S-V2500-7IA and S-V2500-7IB), Chapter/Section 72-44-20.
- (4) V2500 Engine Illustrated Parts Catalogs (S-V2500-2SA, S-V2500-2SB, S-V2500-5SA, S-V2500-5SB, S-V2500-6SA, S-V2500-6SB, S-V2500-7SA and S-V2500-7SB), Chapter/Section 72-44-20.
- (5) Internal Reference No. EC 09VA013 and 09VA013D.
- (6) ATA Locator - 72-44-20.

L. Other Publications Affected

- (1) V2500 Engine Illustrated Parts Catalogs (S-V2500-1IA, S-V2500-2IA, S-V2500-2IB, S-V2500-3IA, S-V2500-3IB, S-V2500-5IA, S-V2500-5IB, S-V2500-6IA, S-V2500-6IB, S-V2500-7IA and S-V2500-7IB), Chapter/Section 72-44-20.

**M. Interchangeability of Parts**

For V2522-A5, (SelectOne™), V2524-A5 (SelectOne™), V2527-A5 (SelectOne™), V2527E-A5 (SelectOne™), V2527M-A5 (SelectOne™), V2530-A5 (SelectOne™) and V2533-A5 (SelectOne™) Engines:

Old and new parts are interchangeable only in full sets.

For V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5, V2525-D5 and V2528-D5 Engines:

Old and new parts are directly interchangeable.

**N. Information in the Appendix**

Alternate Accomplishment Instructions (No)

Progression Charts (Yes)

Added Data (Yes)

Revision to Table of Limits (No)

Inspection Procedures (No)

## 2. Material Information

### A. Material – Price and Availability

Modification kit is not required.

For Price and availability of spares refer to the supplement of this Service Bulletin.

### B. Industry Support Program

Not Applicable.

### C. The material data that follows is for each engine.

72-44-20

For V2500-A1 Engines:

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01-480	2A4351	40	SEAL, HPT VANE, STAGE 1	–	2A2676	(2)(B)(L)(I)
01-510	2A4451	40	SEAL, HPT VANE, STAGE 1	–	2A2677	(2)(B)(L)(I)

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

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01-512	2A4351	40	SEAL, HPT VANE, STAGE 1	–	2A2676	(2)(B)(L)(I)
01-514	2A4451	40	SEAL, HPT VANE, STAGE 1	–	2A2677	(2)(B)(L)(I)

For V2522-A5 (SelectOne™), V2524-A5 (SelectOne™), V2527-A5 (SelectOne™), V2527E-A5 (SelectOne™), V2527M-A5 (SelectOne™), V2530-A5 (SelectOne™), V2533-A5 (SelectOne™) Engines:

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01-512	2A4351	40	SEAL, HPT VANE, STAGE 1	–	2A2676	(2)(B)(C2)(I)
01-514	2A4451	40	SEAL, HPT VANE, STAGE 1	–	2A2677	(2)(B)(C2)(I)

**D. Instructions/Disposition Code Statements:****Parts Modification Conditions**

(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 November 15, 2009.

(C2) The old part will continue to be supplied for use in other engine models until the supply is fully used.

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

**Cleaning, Inspection and Repair Information**

(I) The cleaning, inspection and repair requirements are the same for the old and new part.

**E. Tooling – Price and Availability**

Special tools are not required to accomplish this Service Bulletin.

**F. Reidentified Parts**

Not Applicable.

**G. Other Material Information Data**

Not Applicable.

### 3. Accomplishment Instructions

- (1) Replace 40 Stage 1 HPT Vane Seals, PN 2A2676 with PN 2A4351. See Figure 1 for the location of the seals.
- (2) Replace 40 Stage 1 HPT Vane Seals, PN 2A2677 with PN 2A4451. See Figure 1 for the location of the seals.

APPENDIXParts Progression To Show the Changed Part in Relation to Other Parts

Added Data

## Internal Reference Information

Revision No.	Reference Document	Origination
Original	EC 09VA013 and 09VA013D	RG/JDH

Printed in Great Britain



ENGINE – SEALS, STAGE 1 HIGH PRESSURE TURBINE (HPT) VANE – PROVIDE NEW SEALS WITH IMPROVED DURABILITY

Supplement

V2500 ALL

1. Modification Kit:

A. There is no kit provided to do this Service Bulletin.

2. Material Cost

NOTE: The prices shown are for estimating purposes only and as such are given in good faith without commercial liability for advanced planning purposes only. Refer to IAE Spares and/or current price catalogue for current prices.

A. The estimated price of new material to do this Service Bulletin using new replacement parts is \$ 952.00.

B. There is no kit provided to do this Service Bulletin.

3. New Production Parts

New Production Part Number	Description	Unit Price US Dollars
2A4351	Stage 1 HPT Vane Seal	\$ 11.90
2A4451	Stage 1 HPT Vane Seal	\$ 11.90