



400 MAIN STREET, MAIL STOP 121-10
EAST HARTFORD, CT 06108, USA.
TELEPHONE:- 860 565 5515
FAX:- 860 565 0600

DATE: Sep. 4/08

P.O. BOX 31, DERBY
TELEGRAMS - 'ROYCAR' DERBY
TELEX - 37645
TELEPHONE:- 44 (0) 1332 242424
FAX:- 44 (0) 1332 249936

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

Printed in Great Britain

This document transmits the Initial Issue of Service Bulletin V2500-ENG-72-0568 and the Initial Issue of the Supplement

Service Bulletin Initial Issue

Remove	Incorporate	Reason for change
	Pages 1 to 8 of the Service Bulletin	Initital Issue.
	Pages 1 to 2 of the Appendix	Initial Issue.
	Page 1 of the Supplement	Initial Issue.

V2500-ENG-72-0568
Transmittal - Page 1 of 1

CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED
If any have not been received please advise Customer Data Services, Rolls-Royce plc, Derby, England
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ENGINE – SEAL ASSEMBLY, NO. 3 BEARING – REPLACEMENT OF THE CARBON SEAL FOR IMPROVED
DURABILITY

1. Planning Information

A. Effectivity

(1) Airbus A319

(a) V2522-A5, V2524-A5 and V2527M-A5 Engines with Serial No. V10001 thru V13110.

(2) Airbus A320

(a) V2500-A1 Engines with Serial No. V0001 thru V0361

(b) V2527-A5 and V2527E-A5 Engines with Serial No. V10001 thru V13110.

(3) Airbus A321

(a) V2530-A5 and V2533-A5 Engines with Serial No. V10001 thru 13110.

(4) Boeing MD-90

(a) V2525-D5 and V2528-D5 Engines with Serial No. V20001 thru V20285.

B. Concurrent Requirements

None.

C. Reason

(1) Problem:

Review of service experience of No. 3 carbon seal exhibits the potential to experience a higher wear rate of seal material than predicted.

(2) Background:

To date there have been no service events associated with seal wear. However, higher wear rate has been observed on the current carbon seal than on prior configuration carbon seal.

(3) Objective:

Replace the current bill of material No. 3 carbon seal with prior configuration. V2500 field experience of prior configuration confirms carbon material wears at an acceptable rate.

(4) Substantiation:

This Service Bulletin places the carbon material that is original to the V2500, with 40+ million acceptable operational hours, back into the current bill of material.

(5) Effect of Bulletin on:

(a) Removal/Installation

Not affected.

(b) Disassembly/Assembly

Not affected.

(c) Cleaning

Not affected.

(d) Inspection/Check

Not affected.

(e) Testing

Not affected.

(6) Supplemental Information

None.

D. Description

Replace the current No. 3 Bearing Seal Assembly with the prior configuration.

E. Compliance

Category Code 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.

F. Approval

The part number changes and/or part modifications specified in the Material Information and Accomplishment Instruction section 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 Centerline (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-72-0010 (Engine - LP Compressor - Replacement Of The No. 3 Bearing Seal Ring Holder).
- (2) IAE V2500 Service Bulletin V2500-ENG-72-0132 (Engine - LP Compressor - Removal Of Stage 6 Buffer Air System).
- (3) IAE V2500 Service Bulletin V2500-ENG-72-0478 (Engine - Replace No. 3 Bearing Carbon Seal Assembly).
- (4) V2500 Engine Illustrated Parts Catalogues (S-V2500-1IA, S-V25002IA, 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 72-32-25 Figure 2.

- (5) V2500 Engine Manual (E-V2500-1IA), Chapter/Section 72-32-25.
- (6) V2500 Engine Manual (E-V2500-3IA), Chapter/Section 72-32-25,
- (7) V2500 Standard Practices/Processes Manual (SPP-V2500-1IA), Chapter/Section 70-09-00-400-501.
- (8) Internal Reference No.: 07VA039
- (9) ATA Locator - 72-32-00.

L. Other Publications Affected

- (1) V2500 Engine Illustrated Parts Catalogues (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 72-32-25 Figure 2 Item 100 and 150, to add the new part.
- (2) V2500 Engine Manuals (E-V2500-1IA and E-V2500-3IA), Chapter/Section 72-32-25 Cleaning, Inspection and Repair, to add the new part.

M. Interchangeability of Parts

Old and new parts are directly interchangeable.

N. Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts - (Yes)

Revision to Table of Limits - (No)

Inspection Procedures - (No)

Supplement - (Yes)

Added Data - (Yes).

2. Material Information

A. Material – Price and Availability

- (1) Modification kit is not required.
- (2) For price and availability of spares refer to the supplement of this Service Bulletin.

B. Industry Support Program

Not applicable.

C. New production parts

See supplement of this Service Bulletin.

D. Parts affected by this Service Bulletin

Applicability: For all V2500-A1, 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
72-32-25						
02-100	2A2370	1	.Seal, Assy, No. 3 Bearing	-	2A3891	(1)(B) (C) (I)
02-150	2A1786	1	..Seal, Assy Of	-	2A3854	(1)(A) (B) (I)
02-150	2A1784	1	..Seal Face	-	2A3853	(NP)

E. Instruction/Disposition Codes:

(1) Parts Modification Conditions

(1) The new part can be obtained by modification of the old part as specified in the Accomplishment Instructions.

(2) Spare Parts Availability

(A) New part will be available approximately July 1, 2008.

(B) The old part will be supplied until the new part is available.



(C) The new part will be supplied on a full manufacturing lead time quote basis only.

(NP) The part is an item that is not procured as a spare item.

(3) Cleaning, Inspection and Repair Information

(I) The cleaning, inspection and repair requirements are the same for the old and new part. The applicable engine manuals will be revised.

F. Tooling – Price and Availability

Special tools are not required to accomplish this Service Bulletin.

G. Reidentified Parts

Reidentified Parts Data

New P/N	Keyword	Old P/N
2A2370	Seal, Assy, No. 3 Bearing	2A3891
2A1786	Seal, Assy Of, Face	2A3854

H. Other Material Information Data

Not applicable.

3. Accomplishment Instructions

A. Modification of Seal Assembly and Seal Face Assembly

- (1) Remove the No. 3 bearing seal assembly from the front bearing compartment per:
 - (a) V2500-A1 Pre Service Bulletin ENG-72-0132 Engine Manual Subtask 72-32-20-040-052-A00.
 - (b) V2500-A1 Post Service Bulletin ENG-72-0132 Engine Manual Subtask 72-32-20-040-052-B00.
 - (c) V2500-A5 Service Bulletin ENG-72-0132 Engine Manual Subtask 72-32-20-040-052-C00.
 - (d) V2500-D5 Engine Manual Task 72-32-20-040-001, Subtask 72-32-20-040-052.
- (2) Disassemble the No. 3 bearing seal assembly per Engine Manual Subtask 72-32-25-040-051.
- (3) Replace the No. 3 bearing seal carbon detail per Engine Manual Task 72-32-25-300-007.

NOTE: Replacement of the carbon seal element is a source demonstrated procedure.

B. Identify the reoperated part per the Reidentified Parts Data Table.

- (1) Mark per Standard Practices/Procedures, Chapter/Section 70-09-00-400-501 in Publication SPP-V2500-1IA.

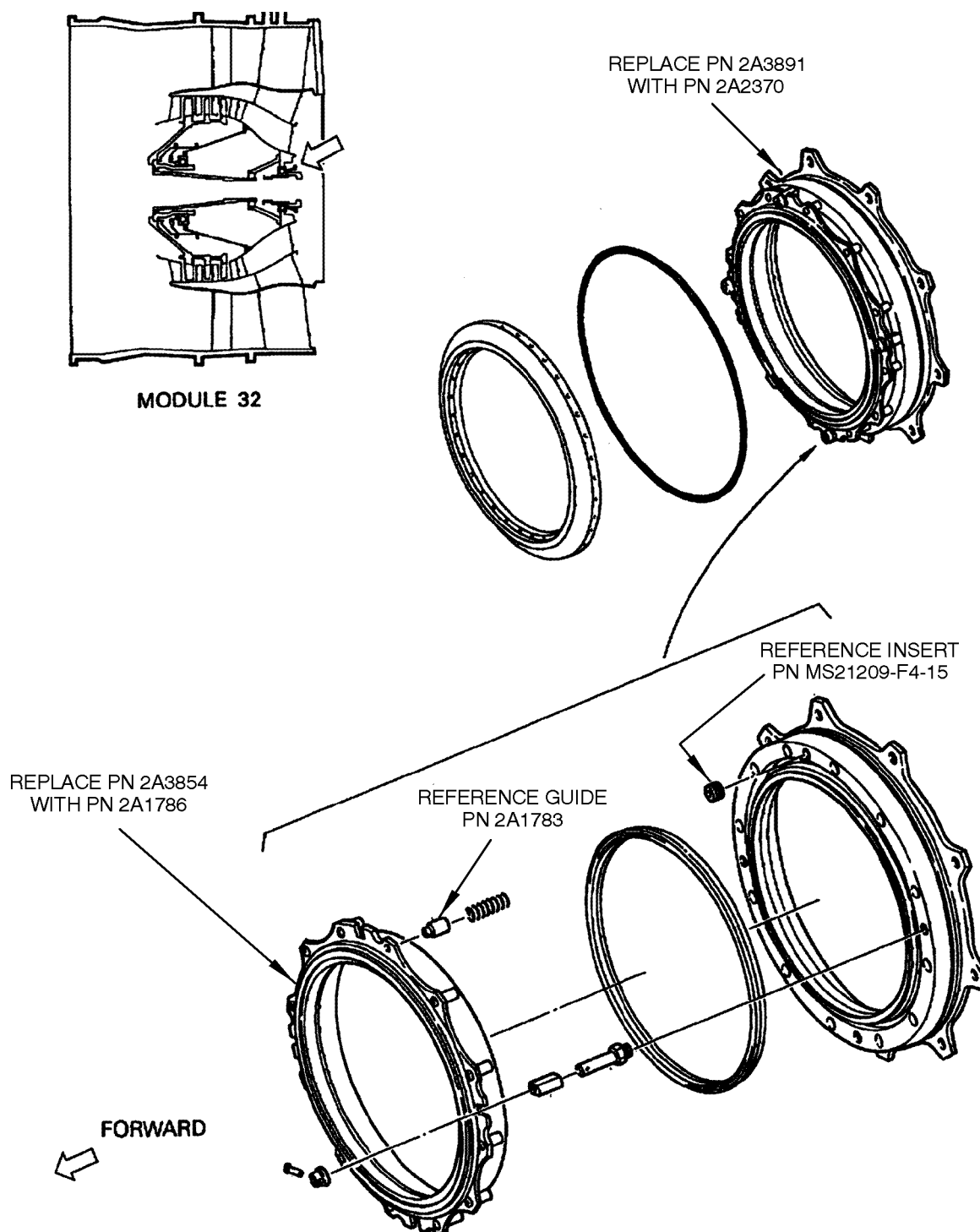
C. Assemble the No. 3 bearing seal assembly per Engine Manual Task 72-32-20-440-001.

D. Identify the reoperated part per the Reidentified Parts Data Table.

- (1) Mark per Standard Practices/Procedures, Chapter/Section 70-09-20-400-501 in Publication SPP-V2500-1IA.

E. Recording Instructions

- (1) A record of accomplishment is required.



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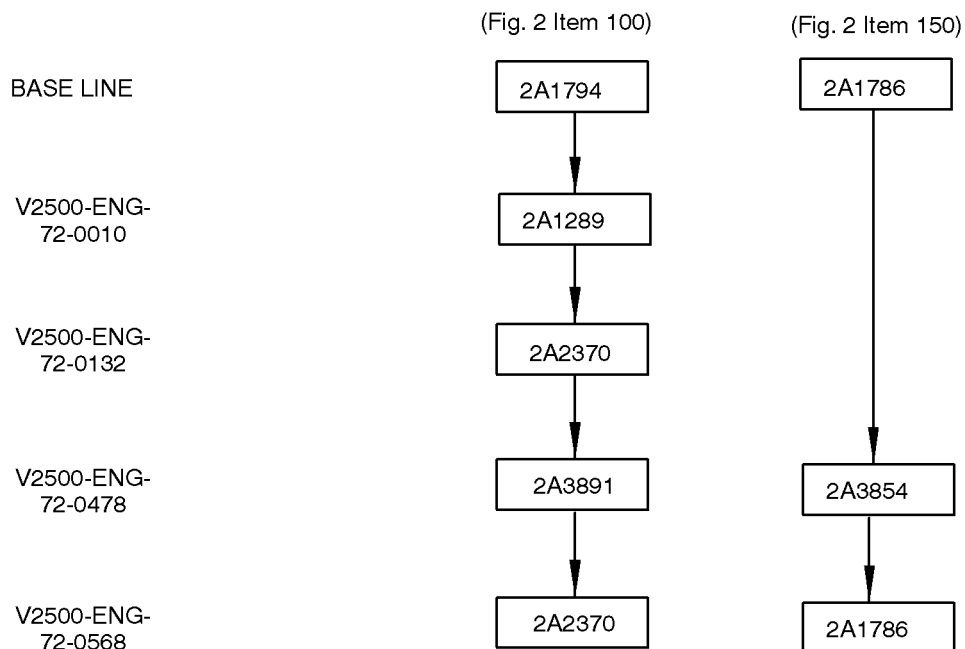
NO. 3 BEARING REAR OIL SEAL ASSEMBLY
FIGURE 1

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

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MODIFICATIONS

PART NUMBER CHANGE



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FAMILY TREE – SEAL ASSEMBLY REF. CATALOG SEQUENCE 72-32-25 FIG. 02 ITEM 100 AND
SEAL ASSEMBLY FACE REF. CATALOG SEQUENCE 72-32-25 FIG. 02 ITEM 150.
CHART A

ENGINE – SEAL ASSEMBLY, NO. 3 BEARING – REPLACEMENT OF THE CARBON SEAL FOR IMPROVED
DURABILITYSUPPLEMENT

Prices and Availability

1. Modification Kit

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

2. Material Cost

A. If this Service Bulletin is incorporated by purchase of P/N 2A1786, the estimated price of incorporation is \$10,680.00.

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

3. New Production Parts

New Production Part Number	Description	Unit Price US Dollars
2A2370	No. 3 Seal Assy	Quote
2A1786	Seal Face	10,680.00

Added Data

Internal Reference Information

Revision No.	Reference Document	Origination
Original	EC07VA039	WC/TR