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V2500-A5/D5 SERIES PROPULSION SYSTEM SERVICE BULLETIN

Printed in Great Britain

This document transmits the Initial Issue of Service Bulletin V2500-ENG-72-0569

Service Bulletin Initial Issue

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

V2500-ENG-72-0569
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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INFORMATION – ENGINE – PROVIDE A NEW NO. 3 BEARING1. Planning InformationA. Effectivity

- (1) Airbus A319
 - (a) V2522-A5, V2524-A5, V2527M-A5 Engines.
- (2) Airbus A320
 - (a) V2524-A5, V2527-A5, V2527E-A5 Engines.
- (3) Airbus A321
 - (a) V2530-A5, V2533-A5 Engines.
- (4) Boeing MD-90
 - (a) V2525-D5, V2528-D5 Engines.

B. Concurrent Requirements

There are no concurrent requirements.

C. Reason

(1) Condition:

V2500-A5/D5 No. 3 bearing outer race distress. Opportunity exists to introduce a more fracture-resistant outer race material, resulting in improved detection of distress and a slower progression rate of fracture.

(2) Background:

The V2500 No. 3 bearing has experienced occasional outer ring fracture events which results in increased engine repair costs.

(3) Objective:

Introduce new No. 3 bearing, P/N 2A3851, as an alternate bearing for current MRC No. 3 bearing P/N 2A1170 and FAG No.3 bearing P/N 2A4022. This bearing material change provides product improvement to decrease post-spall (distress) progression rate and improve resistance to crack propagation of outer ring in the event of distress.

(4) Substantiation:

Validation by similarity to existing M50 bearing based on full-scale rig test and engine endurance testing.

(5) Effects 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.

(6) Supplemental Information

None.

D. Description

Provide a new No. 3 bearing as an alternate to P/N 2A1170 and P/N 2A4022.

E. Compliance

Category 7

Accomplish when supply of superseded parts has been depleted.

F. 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 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) V2500 Engine Illustrated Parts Catalogs (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 72-32-24.
- (2) V2500 Engine Manual (E-V2500-1IA, E-V2500-3IA), Chapter/Section 72-32-24.
- (3) Internal Reference No.:
Engineering Change: 05VA059K, 05VA059N, 05VA059O.
- (4) ATA Locator - 72-32-24.

L. Other Publications Affected

- (1) V2500 Engine Illustrated Parts Catalogs (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 72-32-24 to add the new part.
- (2) V2500 Engine Manuals (E-V2500-1IA and E-V2500-3IA), Chapter/Section 72-32-24 Cleaning, Inspection and Repair, to add the new part.

M. Interchangeability of Parts

P/N 2A1170 bearings and P/N 2A3851 bearings are fully interchangeable. For Spares, P/N 2A4022 bearings are fully interchangeable with P/N 2A1170 bearings and P/N 2A3851 bearings.

N. Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts (No)

Supplement (Yes)

Added Data (Yes)

Revision to Table of Limits (No)

Inspection Procedures (No)

O. General Information

The Material Information section of this Service Bulletin provides the latest information concerning the availability of the affected parts.

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.

Applicability: 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
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72-32-24

01-100	2A3851	1	No. 3 bearing	-	2A1170	(1)(A) (B)(I)
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D. Instructions/Disposition Code Statements:

Parts Modification Conditions

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

Spare Parts Availability

(A) The new part will be available approximately August 2008.

(B) The old part will be supplied until stock is exhausted.

Cleaning, Inspection and Repair Information

(I) The cleaning, inspection and repair requirements are the same for P/N 2A3851, P/N 2A1170 and P/N 2A4022.

E. Tooling – Price and Availability

Special tools are not required to accomplish this Service Bulletin.

F. Reidentified Parts

Not Applicable.

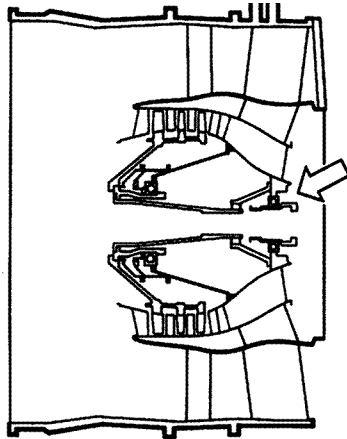
G. Other Material Information Data

NOTE: P/N 2A4022 bearing will be supplied until stock is exhausted.

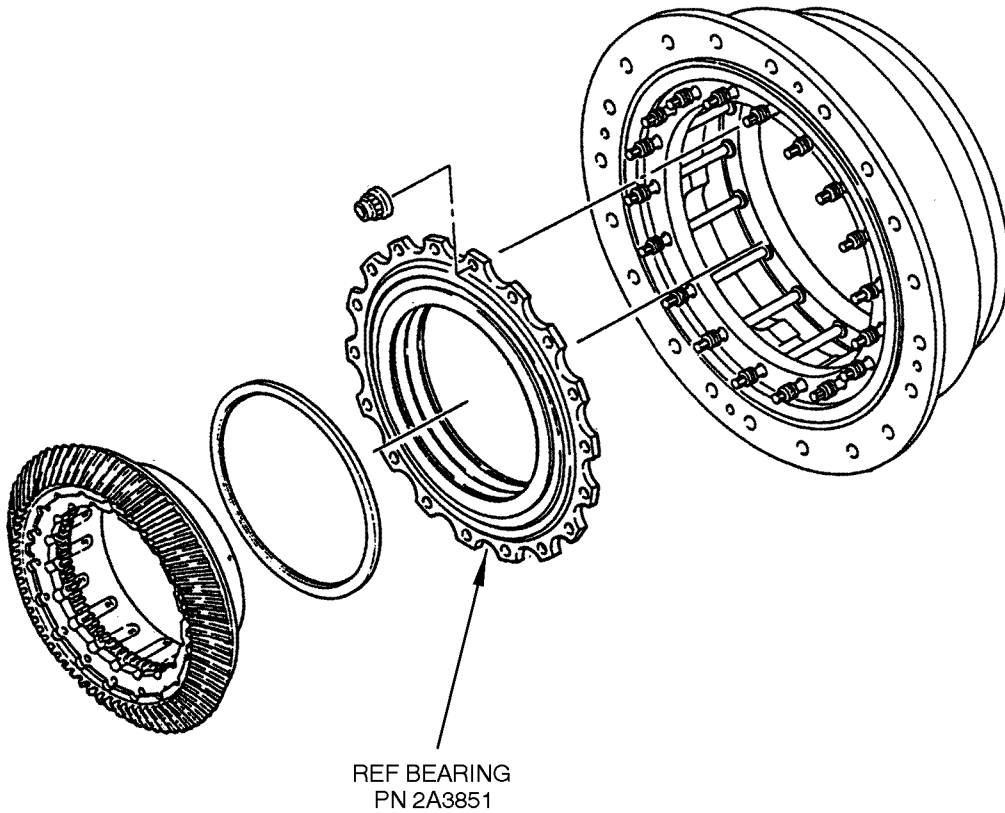
3. Accomplishment Instructions

None.

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MODULE 32



REF BEARING
PN 2A3851

Engine - No. 3 Bearing
Figure 1

INFORMATION – ENGINE – PROVIDE A NEW NO. 3 BEARINGSupplement

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 Catalog for current prices.

A. The estimated price of new material to do this Service Bulletin using new replacement parts is \$ 29,630.00.

3. New Production Parts

New Production Part Number	Description	Unit Price US Dollars
2A3851	No. 3 Bearing	29,630.00

APPENDIXAdded Data

Internal Reference Information

Revision No.	Reference Document	Origination
Original	EC05VA059K, EC05VA059N EC05VA0590	WC/TR

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