



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

DATE: Jul. 7/08

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 SYSTEM SERVICE BULLETIN

Printed in Great Britain

This document transmits Revision 1 to Service Bulletin V2500-ENG-70-0926

Document History

Service Bulletin Revision Status
Initial Issue Mar.13/08

Service Bulletin Revision 1

Remove	Incorporate	Reason for change
All pages of the Service Bulletin	Pages 1 to 7 of the Service Bulletin	To remove all references to P/N 2A4023 and to delete P/N 2A4023 as a cancelled part.
All pages of the Supplement	Page 1 of the Supplement	To remove all references to P/N 2A4023 and to delete P/N 2A4023 as a cancelled part.
All pages of the Appendix	Page 1 of the Appendix	To remove all references to P/N 2A4023 and to delete P/N 2A4023 as a cancelled part.

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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 BEARING**1. Planning Information****A. 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: An alternate source for the No. 3 Bearing on V2500-A5/D5 engines is desired to support spares requirements.
- (2) Background: A second source for the No. 3 Bearing has been identified as FAG-C. The bearing configuration will be FAG-C manufactured cage and rings with balls manufactured by MRC.
- (3) Objective: This Service Bulletin adds No. 3 Bearing P/N 2A4022 as an alternate spare to No. 3 Bearing P/N 2A1170 for delivered engines only.
- (4) Substantiation: Validate by similarity to the existing MRC bearing with 10+ million hours and a 150 Hr. full-scale rig test.

The full scale rig validation test of the redesigned FAG bearing with MRC balls consisted of a 150 hours cyclic endurance test with simulated engine duty cycle thrust loads, N2 speed and oil flow. Validation test was conducted and completed successfully.

In conclusion, all post test inspections showed no wear or damage on the bearing.

(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

Introduce a second source for the No. 3 Bearing on V2500-A5/D5 engines to support spares demand.

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 Model 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 and E-V2500-3IA), Chapter/Section 72-32-24.
- (3) Internal Reference No. - 01VA013D, 01VA013K.
- (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

New parts are directly interchangeable with PN 2A1170.

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.

72-32-24

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

FIG- ITEM NUMBER	NEW PART NUMBER	QTY	PART TITLE	MAT	OLD PN	INSTR – DISP
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R	01-100	2A4022	1	No. 3 Bearing	-	(2)(B)(I)
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D. Instructions/Disposition Code Statements:

Parts Modification Conditions

(2) The new part is a replacement part only and cannot be obtained by modification.

Spare Parts Availability

(B) The new part is available.

Cleaning, Inspection and Repair Information

(I) The cleaning, inspection and repair requirements are the same for PN 2A4022 and 2A1170.

E. Tooling – Price and Availability

Special tools are not required to accomplish this Service Bulletin.

F. Reidentified Parts

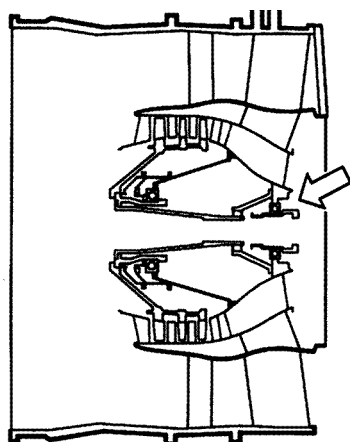
Not Applicable.

G. Other Material Information Data

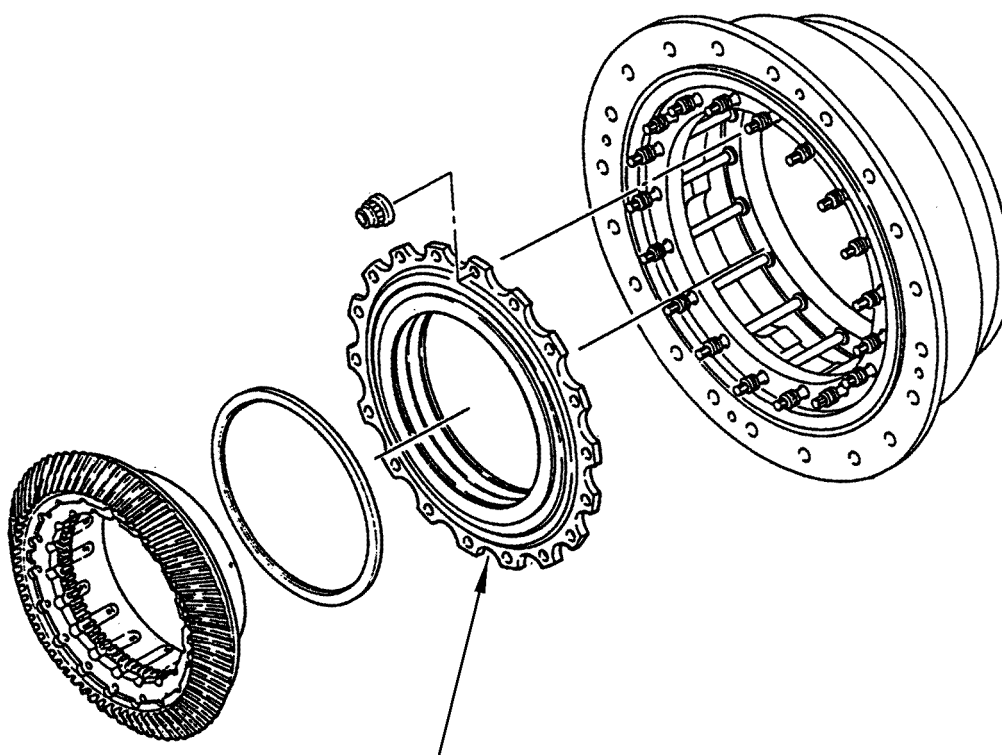
Not Applicable.

3. Accomplishment Instructions

None



MODULE 32



REF BEARING PN 2A4022

pw0b519941

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
2A4022	No. 3 Bearing	29,630.00

APPENDIXAdded Data

Internal Reference Information

Revision No.	Reference Document	Origination
Original	EC01VA013D, EC01VA013K	WC/TR