**International Aero Engines****RR-DERBY**

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

P.O. BOX 31, DERBY
 TELEGRAMS - 'ROYCAR' DERBY
 TELEX - 37645
 TELEPHONE - DERBY 242424

DATE ~~R~~ Dec. 6/02**V2500-A1 PROPULSION SYSTEMS SERVICE BULLETIN**

Printed in Great Britain

This document transmits Revision 5 to Service Bulletin EV2500-72-0120

Document History

Service Bulletin Revision Status

Initial Issue	Jul.31/92
Revision 1	Sep.18/92
Revision 2	Oct.30/92
Revision 3	May 14/99
Revision 4	Oct.31/02

Supplement Revision Status

Bulletin Revision 5

Remove

All pages of the
 Service Bulletin

Incorporate

Pages 1 to 11 of the
 Service Bulletin

Reason for change

Correction to SB Title
 (which was incorrect at
 Revision 4)

V2500-ENG-72-0120

Transmittal - Page 1 of 2

CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED

If any have not been received please advise Publication Services, Rolls-Royce plc, Derby, England

© Rolls-Royce plc (date as above) Printed in Great Britain

LIST OF EFFECTIVE PAGES

The effective pages to this Service Bulletin following incorporation of Revision 5 are as follows:

<u>Page</u>		<u>Revision Number</u>	<u>Revision Date</u>
	Bulletin		
R	1	5	Dec.6/02
R	2	5	Dec.6/02
R	3	5	Dec.6/02
R	4	5	Dec.6/02
R	5	5	Dec.6/02
R	6	5	Dec.6/02
R	7	5	Dec.6/02
R	8	5	Dec.6/02
R	9	5	Dec.6/02
R	10	5	Dec.6/02
R	11	5	Dec.6/02

Printed in Great Britain



ENGINE - NO.4 BEARING COMPARTMENT - PROVIDE A NEW NO.4 BEARING SCAVENGE TUBE ASSEMBLY
AND GASKET

1. Planning Information

A. Effectivity

- (1) Airbus A320

V2500-A1 Engines V0001 thru V0277*

* This estimate of engine serial numbers will be revised, if necessary, when parts are installed in engines at Pratt and Whitney.

B. Concurrent Requirements

None.

C. Reason

- (1) Condition

The existing No.4 Bearing Scavenge Tube design may result in insufficient flow of scavenge oil at low power.

- (2) Background

The scavenge oil flow is decreased because of the small bend radii in the elbow that is used now. During the tests of the No. 4 bearing scavenge rig, the scavenge problem was identified, and a solution found.

- (3) Objective

To increase the oil scavenge flow at low power.

- (4) Substantiation

Successful tests on test rigs and a test engine.

- (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) Repair

Not affected.

(f) Testing

Not affected.

(6) Supplemental Information

None.

D. Description

(1) Provide a new No.4 Bearing Scavenge Tube Assembly with larger bend radii and a new Gasket Option.

E. Compliance

Category 3

Accomplish by July 2005.

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 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.

G. Manpower

(1) In service

Not applicable.



- (2) At overhaul

Not applicable.

NOTE: The parts affected by this Service Bulletin are accessible at overhaul.

H. Material Price and Availability

- (1) Modification kit not required.

- (2) See 2. Material Information section for prices and availability of future spares.

I. Tooling Price and Availability

Special tools are not required.

J. Industry Support Information

None.

K. Weight and Balance

- (1) Weight Change

None.

- (2) Moment Arm

Not affected.

- (3) Datum

Engine front mount centreline (Power Plant Station (PPS) 100).

L. Electrical Load Data

The aircraft electrical load is not affected by this Service Bulletin.

M. Software Accomplishment Summary

Not applicable.

N. References

- (1) V2500 Engine Manual (E-V2500-11A), Chapter/Section 72-42-20.

- (2) V2500-ENG-72-0004 (Engine - Diffuser Case Assembly - Replace the No. 4 Bearing Scavenge Tube Assembly).



(3) V2500-ENG-72-0087 (Engine - No. 4 Bearing Compartment - Introduce a New Heatshielded No. 4 Bearing Scavenge Tube Assembly).

(4) IAE Engineering Change Numbers - 87VA187 and 89VA187-03, 89VA187-04.

(5) ATA Locator - 72-42-00.

0. Other Publications Affected

(1) V2500 Engine Illustrated Parts Catalog (S-V2500-1IA), Chapter/Section 72-42-20, Figure 2, to add the new parts.

(2) V2500 Engine Manual (E-V2500-1IA), Chapter/Section 72-42-00, Cleaning, Inspection and Repair, to add the new parts.

P. Interchangeability of Parts

Old and new parts are directly interchangeable.

Q. Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts (Yes)

Added Data (No)

Revision to Table of Limits (No)

Inspection Procedures (No)



2. Material Information

A. Material Price and Availability

- (1) The estimated price of new material to do this Service Bulletin using new replacement parts is \$6099.10.
- (2) Part availability information is provided in material data Instructions-Disposition.

B. Industry Support Program

Not applicable.

C. Parts prices

The estimated unit prices shown are provided for planning purposes only and do not constitute a firm quotation. Consult the IAE Price Catalog or contact IAE's Spare Parts Sales Department for information concerning firm prices.

Part No.	Estimated unit price US Dollars
2A0557	23.10
2A0555	Price supplied on request
2A2074-01	6076.00

D. Parts affected by this Service Bulletin:

Applicability: For each V2500 Engine to incorporate this Bulletin.

72-42-20

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
02001	2A0557	1	Gasket Option consisting-		ST1141-26	(S1)
			of:			
	2A0555		.Gasket	-	ST1111-26	
			or			
	2A0555		.Gasket	-	ST1121-26	



Applicability: For each V2500-A1 Engine which incorporates V2500-ENG-72-0087 and V2500-ENG-72-0004

72-42-20

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
02020	2A2074-01	1	Tube, Scavenge, No.4 Bearing Assembly	-	2A2274-01	(S1)(A) (E)
02380	-	1	Shield, Heat, No.4 Bearing Scavenge Tube Assembly	-	2A0922-01	(E)
02400	-	1	Shield, Heat, No.4 Bearing Scavenge Tube Assembly	-	2A0923-01	(E)

Applicability: For each V2500-A1 Engine which does not incorporate V2500-ENG-72-0087 but incorporates Part 2 of V2500-ENG-72-0004

72-42-20

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
02020	2A2074-01	1	Tube, Scavenge, No.4 Bearing	-	2A2028-01	(S1)(A) (E)

Applicability: For each V2500-A1 Engine which does not incorporate V2500-ENG-72-0087 and V2500-ENG-72-0004 (For the tube assembly with the increased strength heatshield)

72-42-20

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
02020	2A2074-01	1	Tube, Scavenge, No.4 Bearing Assembly	-	2A1949-01	(S1)(A) (E)
02380	-	1	Shield, Heat, No.4 Bearing Scavenge Tube Assembly	-	2A0922-01	(E)
02400	-	1	Shield, Heat, No.4 Bearing Scavenge Tube Assembly	-	2A0923-01	(E)



Applicability: For each V2500-A1 Engine which does not incorporate V2500-ENG-72-0087 and V2500-ENG-72-0004 (For the tube assembly before the increased strength heatshield)

72-42-20

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
02020	2A2074-01	1	Tube, Scavenge, No.4 Bearing Assembly	-	2A0830-01	(S1)(A) (E)
02380	-	1	Shield, Heat, No.4 Bearing Scavenge Tube Assembly	-	2A0922-01	(E)
02400	-	1	Shield, Heat, No.4 Bearing Scavenge Tube Assembly	-	2A0923-01	(E)

E. Instructions disposition codes:

(S1) Old parts and New parts coded (S1) are freely and fully interchangeable, both physically and functionally.

(A) New part is currently available.

(E) The old part will no longer be supplied.

F. Tooling Price and Availability

Special tools are not required.

G. Reidentified Parts

Not applicable.

H. Other Material Information Data

Not applicable.



3. Accomplishment Instructions

A. Rework Instructions

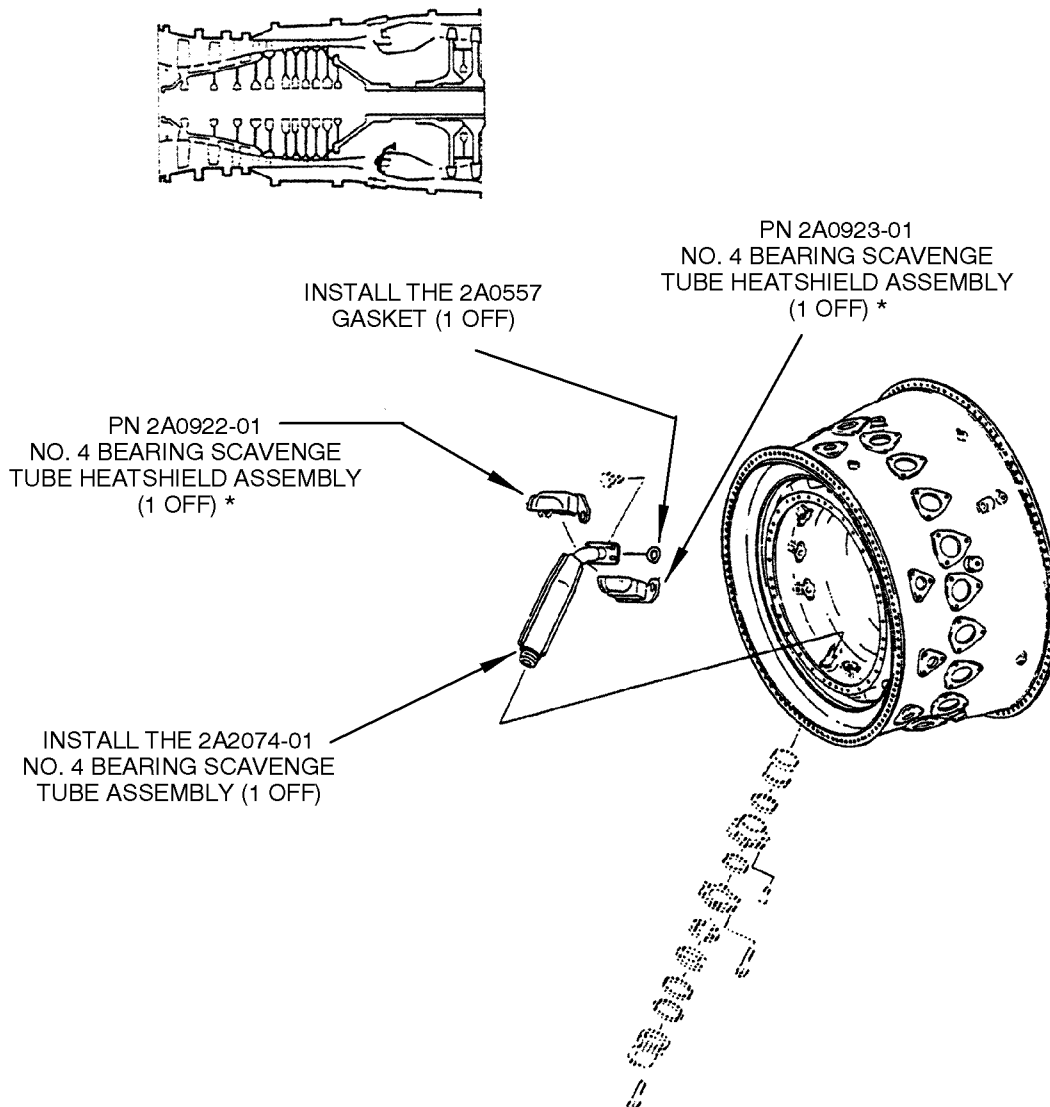
None.

B. Assembly Instructions

- (1) Install the 2A0557 Gasket and the 2A2074-01 No.4 Bearing Scavenge Tube Assembly (1 off). Use the approved procedure in Reference (1), Chapter/Section 72-42-00, Assembly. See Figure 1.
- (2) Do not install the No.4 Bearing Tube Heatshields 2A0922-01 and 2A0923-01 when you do this Service Bulletin, for engines which do not incorporate Reference (2), and for engines which incorporate Reference (3). See Figure 1.

C. Recording Instructions

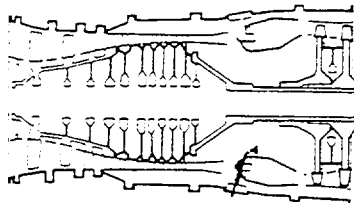
A record of accomplishment is necessary.



* THESE PARTS ARE REMOVED AND WILL
NOT BE INSTALLED AGAIN WITH THE NEW
CONFIGURATION

B8648

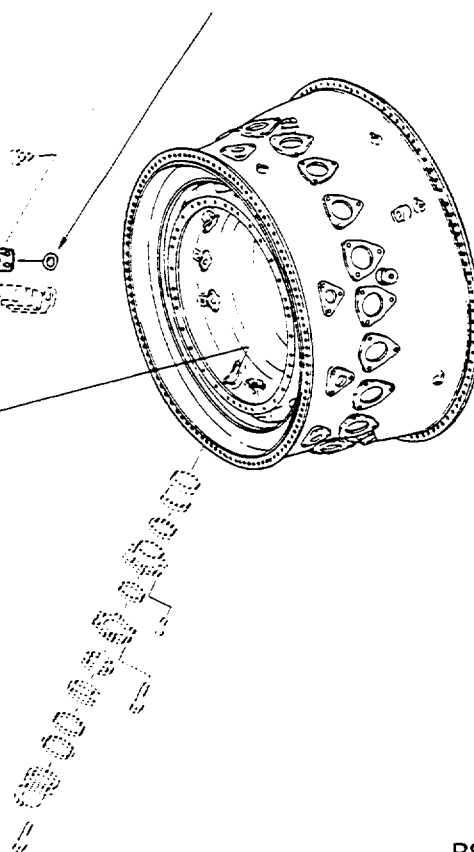
Location of the No.4 Bearing Scavenge Tube Assembly For Engines Which Incorporate
Reference (2), But Do Not Incorporate Reference (3)
Fig.1 (Sheet 1 of 2)



MODULE 40

INSTALL THE 2A0557
GASKET (1 off)

INSTALL THE
2A2074 - 01 No.4 BEARING
SCAVENGE TUBE ASSEMBLY
(1 off)



B8532

Location of the No.4 Bearing Scavenge Tube Assembly For Engines Which Do Not
Incorporate Reference (2), and for Engines Which Incorporate Reference (3)
Fig.1 (Sheet 2 of 2)



MODIFICATIONS

PART NUMBER CHANGE

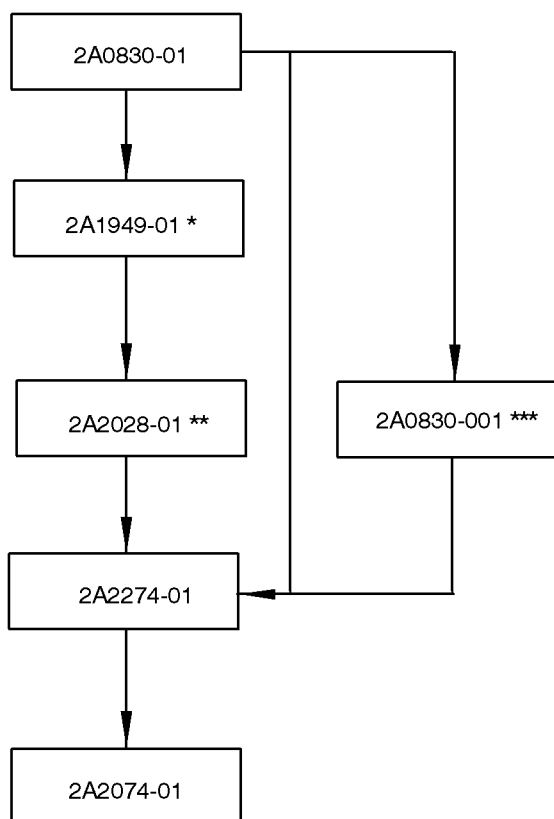
BASE LINE

* PART WAS NOT PROVIDED AS A
SPARE FOR THE MODIFICATION OF
DELIVERED ENGINES INCREASED
STRENGTH HEATSHIELDS

*** V2500-ENG-70-0004 (PART 1)
REMOVE THE HEATSHIELD FROM
THE 2A0830-01 NO. 4 BEARING
SCAVENGE TUBE ASSEMBLY

*** V2500-ENG-70-0004 (PART 2)
REMOVE THE HEATSHIELD FROM
THE 2A0830-01 NO. 4 BEARING
SCAVENGE TUBE ASSEMBLY

V2500-ENG-72-0120 PROVIDE NEW
FRONT AND REAR NUMBER 4
BEARING DUCTS WITH OIL
DRAIN HOLES



B8533A

Family Tree - No.4 Bearing Scavenge Tube Assembly Ref. Catalog Sequence No.
72-42-20, Fig. 02, Item 020
Figure 2

Jul 31/92
R Dec. 6/02

V2500-ENG-72-0120

Page 11

© Rolls-Royce plc

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

