



ENGINE - DIFFUSER CASE ASSEMBLY - REPLACE THE NO. 4 BEARING SCAVENGE TUBE ASSEMBLY -  
CATEGORY CODE 5 - MOD.ENG-72-0004

1. Planning Information

A. Effectivity

- (1) Aircraft: Airbus A320
- (2) Engine: V2500-A1 Engines which are candidates for incorporation of this Service Bulletin are:
  - (1) For Part 1: Engines before Serial No. V0049, except V0042
  - (2) For Part 2: Engine Serial Nos. from V0050 through V0068 and Engine V0042

B. Reason

(1) Condition

The Heat Shield could fracture allowing pieces of foil to get into the Carbon Seal, resulting in premature Seal wear.

(2) Background

This condition was seen on some experimental engines and occurs when the Heat Shield rubs against the Diffuser Case Strut.

(3) Objective

To stop internal carbon seal damage caused by Heat Shield fragments which have broken free.

(4) Substantiation

The new configuration was run for 1000 hours in an experimental engine and there were no problems.

(5) Effect of Bulletin on the following shop functions:

V2500-ENG-72-0004



## SERVICE BULLETIN

Removal/Installation	Not affected
Disassembly/Assembly	Not affected
Cleaning	Not affected
Inspection/Check	Not affected
Repair	Not affected
Testing	Not affected

## (6) Supplemental Information

None

C. Description

- (1) Carbon Seal Wear (that occurs before the usual time) which is caused by broken pieces of the Heat Shields, is stopped by removing the Heat Shields from the No. 4 Bearing Scavenge Tube Assembly.

D. Approval

The part number changes and/or part modifications described in Section 2 and 3 of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the Engine Model listed.

F. Compliance

Category Code 5

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

F. Manpower

Estimated manhours to incorporate the full intent of this Bulletin:

Venue	Estimated Manhours
(1) In Service .. .. .	Not Applicable
(2) At Overhaul (Note: The parts affected by this Service Bulletin are accessible at Overhaul).	
(a) To accomplish the removal and installation of the new No. 4 Bearing Scavenge Tube Heat Shield Assembly	

Total: 44 minutes

V2500-ENG-72-0004



## SERVICE BULLETIN

G. Material - Price and Availability

- (1) Modification Kit is not required.
- (2) See "Material Information" section for prices and availability of future spares.

I. Tooling - Price and Availability

Special tools are not required.

J. Weight and Balance

- (1) Weight change .. .. None
- (2) Moment arm .. .. No effect
- (3) Datum .. .. Engine Front Centerline  
(Power Plant Station P.P.S.100)

J. Electrical Load Data

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

K. References

- (1) Internal Reference No.

EC88VA274

EC89VA065

EC89VA065A

EC89VA065B

- (2) Other References

V2500 Illustrated Parts Catalog

V2500 Standard Practices Manual

V2500 Engine Manual

L. Other Publications Affected

- (1) V2500 Engine Illustrated Parts Catalog, Chapter 72-42-20, Figure 2, to add and remove parts as necessary.

V2500-ENG-72-0004



International Aero Engines

## SERVICE BULLETIN

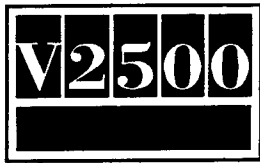
- (2) The V2500 Engine Manual, Chapter/Section 72-42-20, Cleaning, to add the new parts.
- (3) The V2500 Engine Manual, Chapter/Section 72-42-20, Inspection/Check, to add the new parts.

Printed in Great Britain

V2500-ENG-72-0004

Jan.24/92

Page 4



## SERVICE BULLETIN

### 2. Accomplishment Instructions

#### A. Rework Instructions

##### Part 1

- (1) Remove the 2A0830-01 No. 4 Bearing Scavenge Tube Assembly by the approved procedure in Reference (3), Chapter/Section 72-42-00, Disassembly.
- (2) Make a modification to the 2A0830-01 No. 4 Bearing Scavenge Tube assembly (1 off) (See Reference (1)), Chapter/Section 72-42-20, Fig./Item No. 02-020) and identify as follows:

Procedure	Supplementary Information				
(a) Set-up and machine the welded tabs (A and B) for the full length of the Heat Shield.	Refer to Figures 1 and 2.				
(B) Remove the Heat Shield and the Insulation Blanket from the No. 4 Bearing Scavenge Tube Assembly.	Refer to Figures 1 and 2.				
(c) Mark the new Part Number adjacent to the existing part number. Use the vibration peen method.	<table><tr><td>Old Part Number</td><td>New Part Number</td></tr><tr><td>2A0830-01</td><td>2A0830-001</td></tr></table> Refer to Reference (2), Task No. 70-09-00-400-501	Old Part Number	New Part Number	2A0830-01	2A0830-001
Old Part Number	New Part Number				
2A0830-01	2A0830-001				

##### Part 2

- (1) Remove the 2A1949-01 No. 4 Bearing Scavenge Tube Assembly by the approved procedure in Reference (3), Chapter/Section 72-42-00, Disassembly.
- (2) Make a modification to the 2A1949-01 No. 4 Bearing Scavenge Tube assembly (1 off) (See Reference (1)), Chapter/Section 72-42-20, Fig./Item No. 02-020) and identify as follows:

Procedure	Supplementary Information
(a) Set-up and machine the welded tabs (A and B) for the full length of the Heat Shield.	Refer to Figures 2 and 3.
(b) Remove the Heat Shield and the Insulation Blanket from the No. 4 Bearing Scavenge Tube Assembly.	Refer to Figures 2 and 3.

V2500-ENG-72-0004



## SERVICE BULLETIN

(c) Mark the new Part Number adjacent to the existing part number. Use the vibration peen method.

Old Part Number	New Part Number
2A1949-01	2A2028-01

Refer to Reference (2),  
Task No. 70-09-00-400-501

## B. Assembly Instructions

## Part 1

- (1) Install the 2A0830-001 No. 4 Bearing Scavenge Tube Assembly (1 off) by the approved procedures in Reference (3), Chapter/Section 72-42-00, Assembly.
- (2) When the No. 4 Bearing Housing is installed (by the approved procedure in Reference (3), Chapter/Section 72-42-00, Assembly) the Heat Shields 2A0922-01 (1 off) and 2A0923-01 (1 off) will not be installed.

Note: Although the Heat Shields are removed the 361367 Nuts (2 off) will be installed and locked with wire.

## Part 2

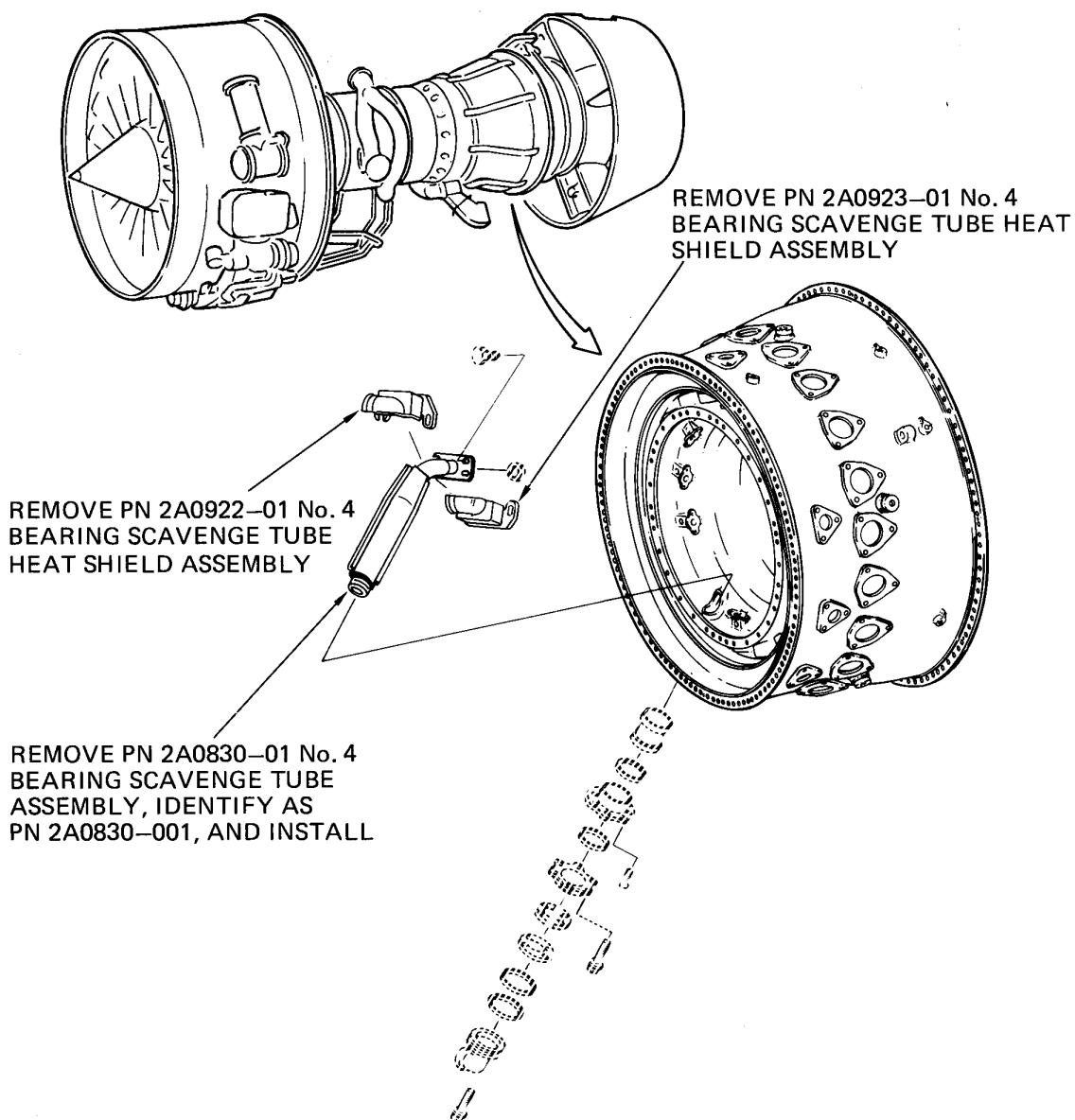
- (1) Install the 2A2028-01 No. 4 Bearing Scavenge Tube Assembly (1 off) by the approved procedures in Reference (3), Chapter/Section 72-42-00, Assembly.
- (2) When the No. 4 Bearing Housing is installed (by the approved procedure in Reference (3), Chapter/Section 72-42-00, Assembly) the Heat Shields 2A0922-01 (1 off) and 2A0923-01 (1 off) will not be installed.

Note: Although the Heat Shields are removed the 361367 Nuts (2 off) will be installed and locked with wire.

## C. Recording Instructions

- (1) A record of accomplishment is necessary.

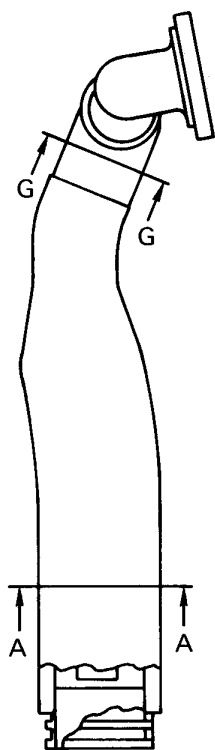
V2500-ENG-72-0004



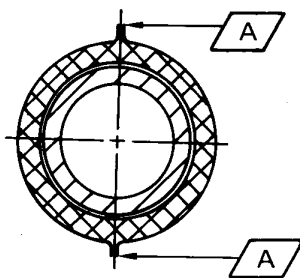
14942

Location of No.4 Bearing Scavenge Tube Assembly  
Fig.1

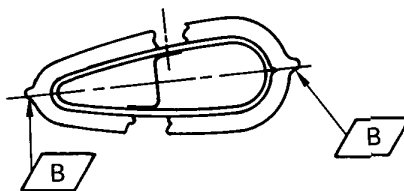
V2500-ENG-72-0004



No. 4 BEARING SCAVENGE  
TUBE ASSEMBLY



SECTION G-G



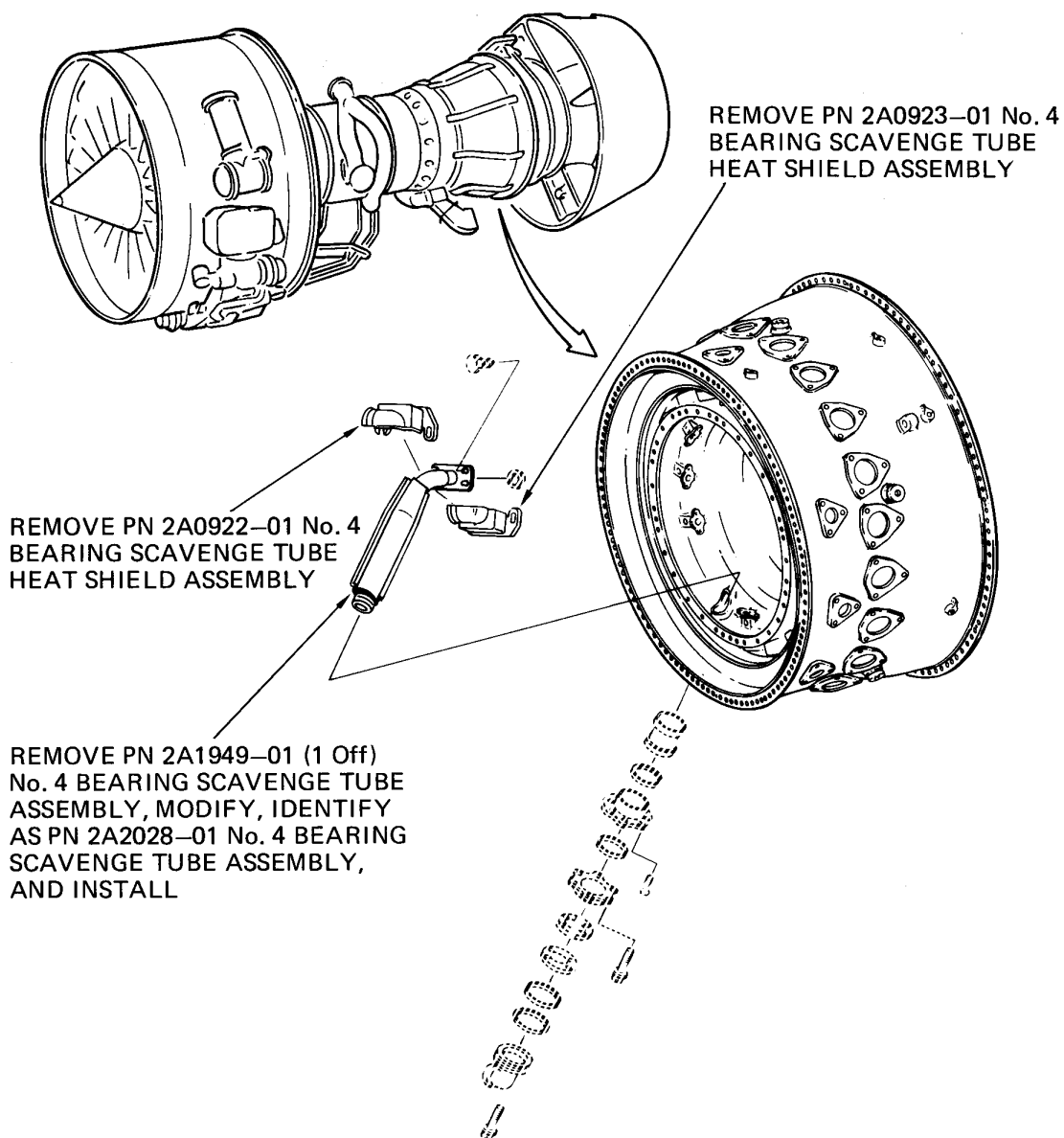
SECTION A-A

14943

Location of No.4 Bearing Scavenge Tube Assembly  
Fig.2

**V2500-ENG-72-0004**





14941

Location of No.4 Bearing Scavenge Tube Assembly  
Fig.3

V2500-ENG-72-0004



## SERVICE BULLETIN

3. Material Information

Applicability: For each V2500 Engine to incorporate this Bulletin.

A. Kits associated with this Bulletin:

None.

B. Parts affected by this Bulletin:

New Part No. (ATA No.)	Qty.	Est'd Unit Price (\$)	Keyword	Old Part No. (IPC No.)	Instructions Disposition
2A0830-001 (72-42-20)	1	-	Tube - Scavenge, No. 4 Bearing, Assembly	2A0830-01 (02-020)	(S1) (1D) (B)
2A2028-01 (72-42-20)	1	-	Tube - Scavenge, No. 4 Bearing, Assembly	2A1949-01 (02-020)	(S1) (1D) (B)
				or	
				2A0830-01 (02-020)	(S3)
				or	
				2A0830-001 (02-020)	(S3)
- (72-42-20)	1	-	Shield, Heat - No. 4 Bearing Scavenge Tube Assembly	2A0922-01 (02-380)	(B)
- (72-42-20)	1	-	Shield, Heat - No. 4 Bearing Scavenge Tube Assembly	2A0923-01 (02-400)	(B)

C. Instruction/Disposition Code Statements:

- (S1) New Parts codes (S1) must replace Old Parts coded (S1) as a COMPLETE SET per Engine.
- (S2) New Parts codes (S2) must replace Old Parts coded (S2) as a COMPLETE SET per Engine.
- (S3) PN 2A2028-01 can be used as a replacement part for either of the parts coded (S3).
- (1D) A modification can be done to the Old Part and it can be identified as the New Part number.
- (A) New part is currently available.
- (B) Old part will no longer be available.

NOTE: The estimated 1992 Unit Prices shown are provided for planning purposes only and do not constitute a firm quotation. Contact IAE's Spare Parts Sales Department for information concerning firm prices.

Printed in Great Britain

V2500-ENG-72-0004