



Subject: Transmittal of Revision 2 to Service Bulletin Number  
V2500-ENG-72-0093

Service Bulletin Revision History:

<u>Event</u>	<u>Date</u>
Basic Issue	May.17/91
Revision 1	Oct.25/91
Revision 2	Nov.8/91

Reasons For Issuance Of Revision:

(1) To amend the page dates on revised pages.

Effect On Past Compliance:

None

List Of Effective Pages:

<u>Bulletin Page No.</u>	<u>Rev. No.</u>	<u>Effective Date</u>
1 and 2	2	Nov.8/91
3 to 4	Basic	May.17/91
5	2	Nov.8/91
6 to 9	Basic	May.17/91

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Transmittal  
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V2500 Propulsion System — Engine

# SERVICE BULLETIN

ENGINE - LP COMPRESSOR - REWORK THE NO.3 BEARING HOUSING ASSEMBLY  
TO INCORPORATE REVISED MATERIAL PINS

## MODEL APPLICATION

V2500-A1

## BULLETIN INDEX INDICATOR

72-32-00

## Compliance Category Code

6

## Internal Reference No.

90VA027A

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ENGINE - LP COMPRESSOR - REWORK THE NO.3 BEARING HOUSING ASSEMBLY  
TO INCORPORATE REVISED MATERIAL PINS

## 1. Planning Information

### A. Effectivity

- (1) Aircraft: Airbus A320
- (2) Engine: V2500-A1 Engine No. V0184 and Engines before Serial No. V0180, except V0174.

### B. Reason

#### (1) Condition

Wear has been experienced on the Anti-rotation Pins located in the No.3 Bearing Housing.

#### (2) Background

It has been determined that the Anti-rotation Pin material may not be hard enough and permits the Anti-rotation Pin to wear when the Seal Rings are seated in the No. 3 Bearing Housing Assembly.

#### (3) Objective

To improved the wear characteristics by providing a new Anti-rotation Pin that has sufficient hardness to prevent wear.

#### (4) Substantiation

Successful experience in other flight test engines.

#### (5) Effects of Bulletin on Workshop Procedures:

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.

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## C. Description

- (1) Provide a new Anti-rotation pin manufactured from a material that offers sufficient hardness to prevent wear.

## 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.

## 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. Manpower

Estimated Manhours to incorporate the full intent of this Bulletin:

<u>Venue</u>	<u>Estimated Manhours</u>
(1) In Service	Not applicable
(2) At overhaul (Note: The parts affected by this Service Bulletin are accessible at overhaul)	
(a) To accomplish the rework of the No.3 Bearing Housing Assembly	- Hours, 8 Minutes
	Total: - Hours, 8 Minutes

## G. Material - Price and Availability

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

## H. Tooling - Price and Availability

The following tools are required to accomplish Sub-division 2 of the Service Bulletin:

<u>Tool No.</u>	<u>Qty.</u>	<u>Description</u>	<u>Function</u>	<u>Avail</u>
IAE3P16280	1	Holding Fixture	Hold the No.3 Bearing Housing Assembly	(1)

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<u>Tool No.</u>	<u>Qty.</u>	<u>Description</u>	<u>Function</u>	<u>Avail</u>
IAE3P16281	1	Pin Driver	Install new Pin	(1)
IAE3P16282	1	Template Gage	Inspect clearance envelope of Pin	(1)
IAE3P16283	1	Template Gage	Inspect Pin height	(1)

- (1) Indicates that Tool Design Aperture Cards are currently available from IAE.

## I. Weight and Balance

- (1) Weight change    ..    ..    ..    None
- (2) Moment arm        ..    ..    ..    No effect
- (3) Datum            ..    ..    ..    Engine front mount Centerline  
(Powerplant station P.P.S.100)

## J. Electrical Load Data

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

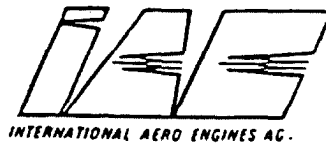
## K. Reference

- (1) V2500 Engine Illustrated Parts Catalog.
- (2) V2500 Engine Manual.
- (3) V2500 Standard Practices Manual.

## L. Other Publications Affected

- (1) The V2500 Engine Illustrated Parts Catalog, Chapter/Section 72-32-21, Figure 1, to add the new part.

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## 2. Accomplishment Instructions

### A. Rework Instructions

- (1) Do a modification of the No.3 Bearing Housing Assembly (Reference (1) Fig/Item No. 01-020) and identify as follows:

#### Procedure

- (a) Remove the two 1A9666 Slab Pin from the No.3 Bearing Housing Assembly.
- (b) Install the new 2A2205 Slab Pin (2 off) in the No.3 Bearing Housing Assembly.

#### Supplementary Information

Refer to Figure 1 and the requirements in Figure 2. Use the IAE 3P16280 Holding Fixture or equivalent.

Refer to Figure 2 requirements. Use the IAE 3P16280 Holding Fixture or equivalent and IAE 3P16281 Pin Driver. Use the IAE 3P16282 Template Gage or equivalent to inspect the pin clearance envelope. Use the IAE 3P16283 Template Gage or equivalent to inspect the Pin height.

- 1 Mark the new part number adjacent to the old part number. Use the vibration peen method.

#### OLD PART NO.    NEW PART NO.

2A0424

2A2204

Refer to Reference (3) Control No./Task No. 70-09-00-400-501.

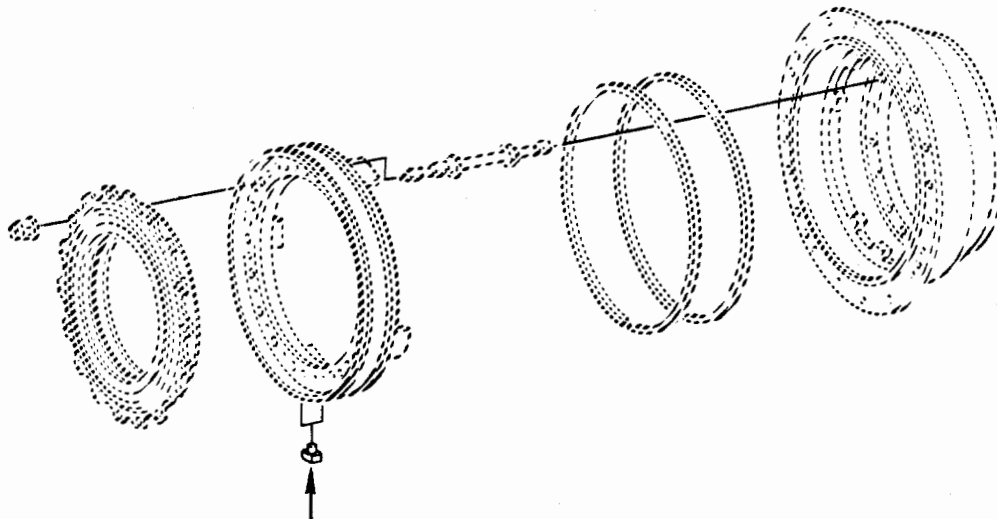
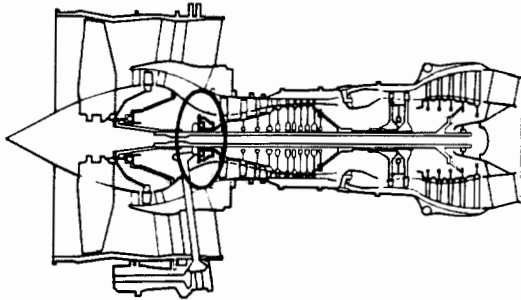
### B. Assembly Instructions

- (1) Replace the 2A0424 No.3 Bearing Housing Assembly with 2A2204 No.3 Bearing Housing Assembly (1 off) by the approved procedure in Reference (2), Chapter/Section 72-32-20, Assembly.

### C. Recording Instructions

- (1) A record of accomplishment is necessary.

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REPLACE PN 1A9666 SLAB PIN (2 Off)  
WITH PN 2A2205 SLAB PIN (2 Off)

B5025

Location of No.3 bearing housing assembly  
Figure 1

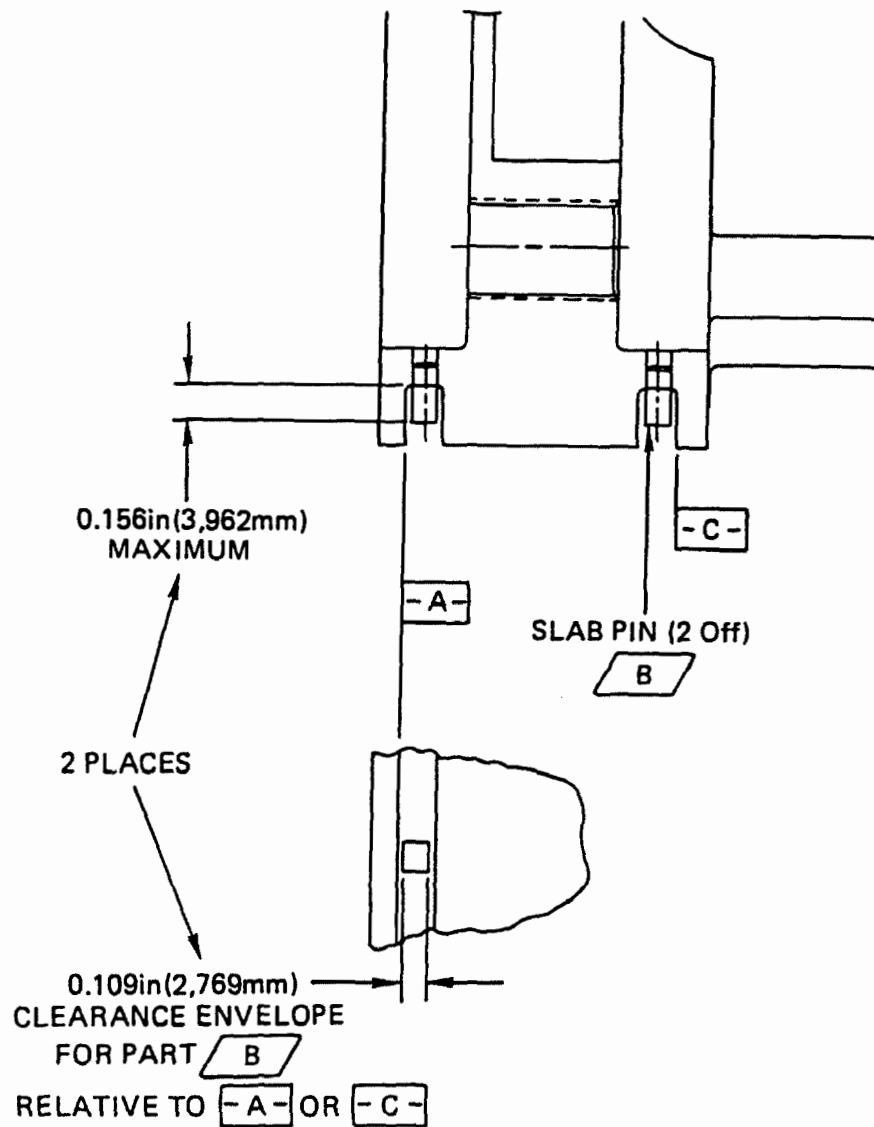
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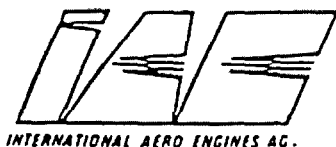
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Modification of the No.3 bearing housing assembly  
Figure 2

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## 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
2A2204 (72-32-21)	1	6438.00	Housing Assembly, No.3 Bearing	2A0424 (01-020)	(S1) (1D) (A) (B)
2A2205 (72-32-21)	2	26.70	.Pin, Slab	1A9666 (01-040)	(S1) (A) (B)

### C. Instruction/Disposition Code Statements:

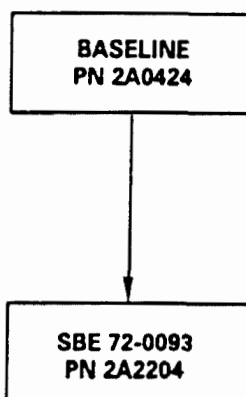
- (S1) New parts coded (S1) must replace old parts coded (S1) in a COMPLETE SET per engine.
- (1D) Old part can be reworked and identified to the New part number.
- (A) New part is currently available.
- (B) Old part will no longer continue to be available.

**NOTE:** The estimated 1991 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.



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Family tree - No.3 bearing housing assembly  
Figure 3

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