



SERVICE BULLETIN

ENGINE - DIFFUSER AND COMBUSTION GROUP AND NO.4 BEARING FRONT AND REAR COMPARTMENT -
INCORPORATE NEW NO. 4 BEARING CARBON SEAL ASSEMBLIES MADE OF REVISED MATERIAL -
CATEGORY CODE 6 - MOD.ENG-72-0032

1. Planning Information

A. Effectivity

(1) Aircraft: Airbus A320

(2) Engine: V2500-A1 Engines Serial No.s prior to V0131*.

* The Serial Number shown is of a preliminary nature and is provided for advanced planning only. A future revision to this Service Bulletin will confirm final Serial Number effectivity.

B. Reason

(1) Condition

Carbon seals wore at a rate which was not satisfactory. The first material used in the carbon seal was too soft.

(2) Background

The first carbon seals used were made of a material that had a wear rate that was not satisfactory. During the test program a new, more wear resistant, material was found.

(3) Objective

To provide a more durable carbon seal.

(4) Substantiation

Many hours of engine operation in other engine programs.

(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) The durability of the Carbon Seal is improved by the use of a new material which is more wear resistant.

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:

Venue

Estimated Manhours

- | | |
|--|----------------|
| (1) In Service | Not applicable |
| (2) At Overhaul (Note: The parts affected by this Service Bulletin are accessible at Ovrhaul.) | |

- [illegible]

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

Special tools are not required.

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**SERVICE BULLETIN****I. Weight and Balance**

- | | |
|-------------------|---|
| (1) Weight change | None |
| (2) Moment arm | No effect |
| (3) Datum | Engine front mount Centreline
(Powerplant 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.

89VA030

89VA107

- (2) Other References

V2500 Engine Illustrated Parts Catalogue

V2500 Engine Manual.

V2500 Standard Practices Manual.

L. Other Publications Affected

- (1) V2500 Engine Illustrated Parts Catalog, Chapter/Section 72-42-33 Figure 1, and Chapter/Section 72-43-20, Figure 1, to add the new part.
- (2) The V2500 Engine Manual, Chapter/Section 72-42-33 and 72-43-20, cleaning, to add the new part.
- (3) The V2500 Engine Manual, Chapter/Section 72-42-33 and 72-43-20, Inspection/Check, to add the new part.
- (4) The V2500 Engine Manual, Chapter/Section 72-42-33 and 72-43-20, Repair, to add the new part.

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2. Accomplishment Instructions

- A. The Source Demonstration requirements of this rework means that any facility not authorized to accomplish this rework either utilize the Authorised Rework Vendors listed below or contact IAE Technical Services to determine if a qualification program can be initiated at their facility.

IAE-INTERNATIONAL AERO ENGINES AG
287 Main Street
East Hartford, CT 06108 USA
ATTN: Director Technical Services

- B. Authorized Rework Vendors for this bulletin are listed below:

EG&G Sealol Incorporated
Engineering Products Division
15 Pioneer Avenue
Warwick, RI 02888 USA

Kaydon Ring and Seal Incorporated
Bush and Hamburg Street
P.O. Box 626
Baltimore, MD 21203 USA

- C. The designation by IAE of an authorized rework vendor indicates that the vendor has demonstrated the necessary capability to enable it to carry out the rework. However, IAE makes no warranties or representations concerning the qualifications or quality standards of the vendors to carry out the rework, and accepts no responsibility whatsoever for any work that may be carried out by a rework vendor, other than when IAE is listed as the vendor. Authorised rework vendors do not act as agents or representatives of IAE.

D. Rework Instructions

- (1) Send 2A0856 Face Seal Assemblies (Reference (1), 72-42-33 Fig/Item No.01-220 and 72-43-20 Fig/Item No.01-180) to one of the approved vendors for a modification and identification to the new part number.

Procedure

Supplementary Information

- (a) Send the No.4 Bearing Face Seal Assemblies to one of the approved vendors for modification and identification to the new part number.

Refer to Figures 1 and 2.
Refer to the Material Information.

E. Assembly Instructions

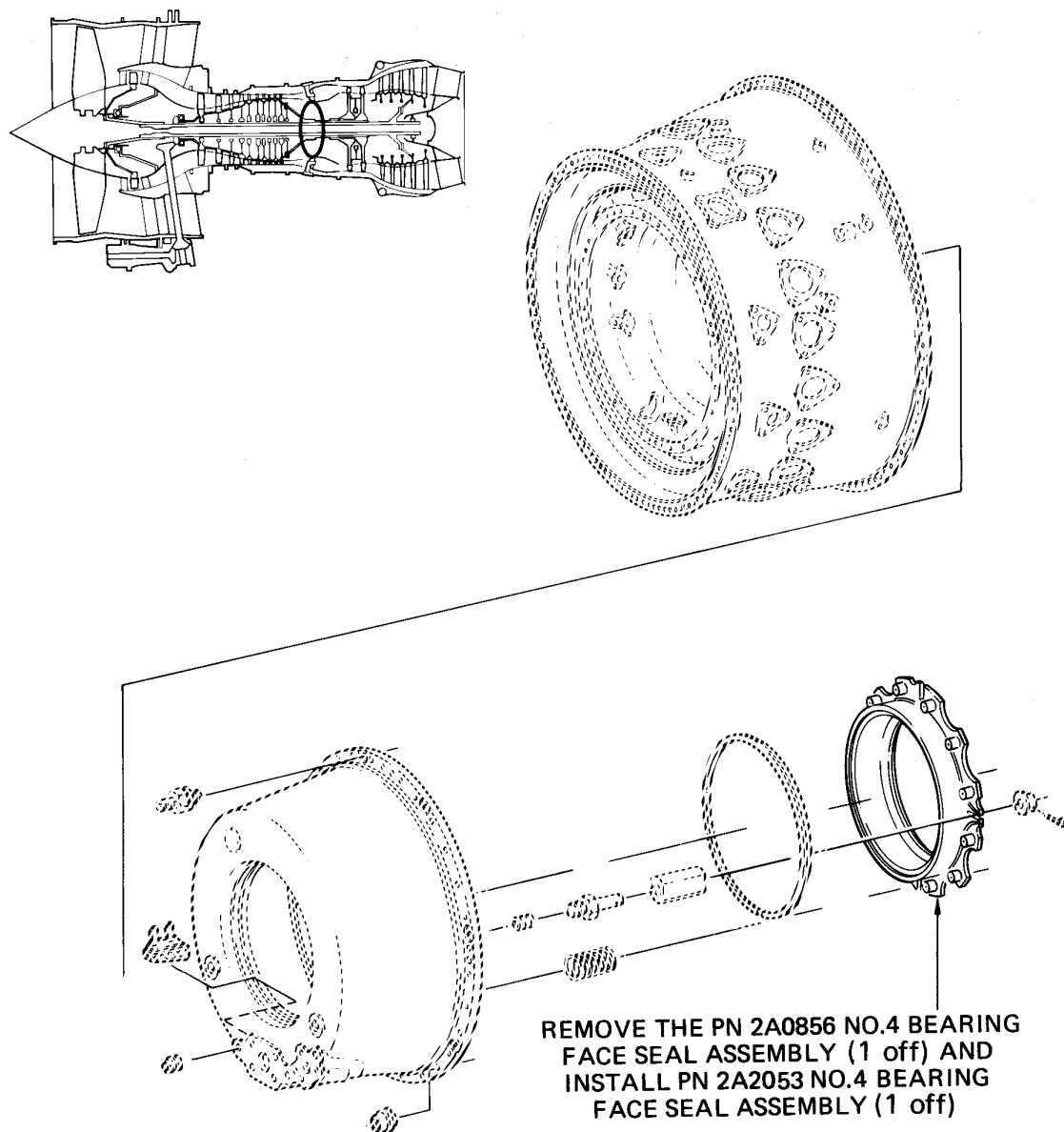
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- (1) Install the 2A2053 No.4 Bearing Face Seal Assembly (1 off) in the Front Seal Assembly by the approved procedure in Reference (2), Chapter/Section 72-42-33, Assembly. See Figure 1.
- (2) Identify the new No.4 Bearing Front Seal Assembly as 2A2055 by the approved procedure in reference (3), Chapter/Section 70-09-00, Marking of Parts. Use the vibration peen method.
- (3) Install the 2A2053 No.4 Bearing Face seal Assembly (1 off) in the Rear Seal Assembly by the approved procedure in Reference (2), Chapter/Section 72-43-20, Assembly. See Figure 2.
- (4) Identify the new No.4 Bearing Rear Seal Assembly as 2A2056 by the approved procedure in Reference (3), Chapter/Section 70-09-00, Marking of Parts. Use the vibration peen method.

F. Recording Instructions

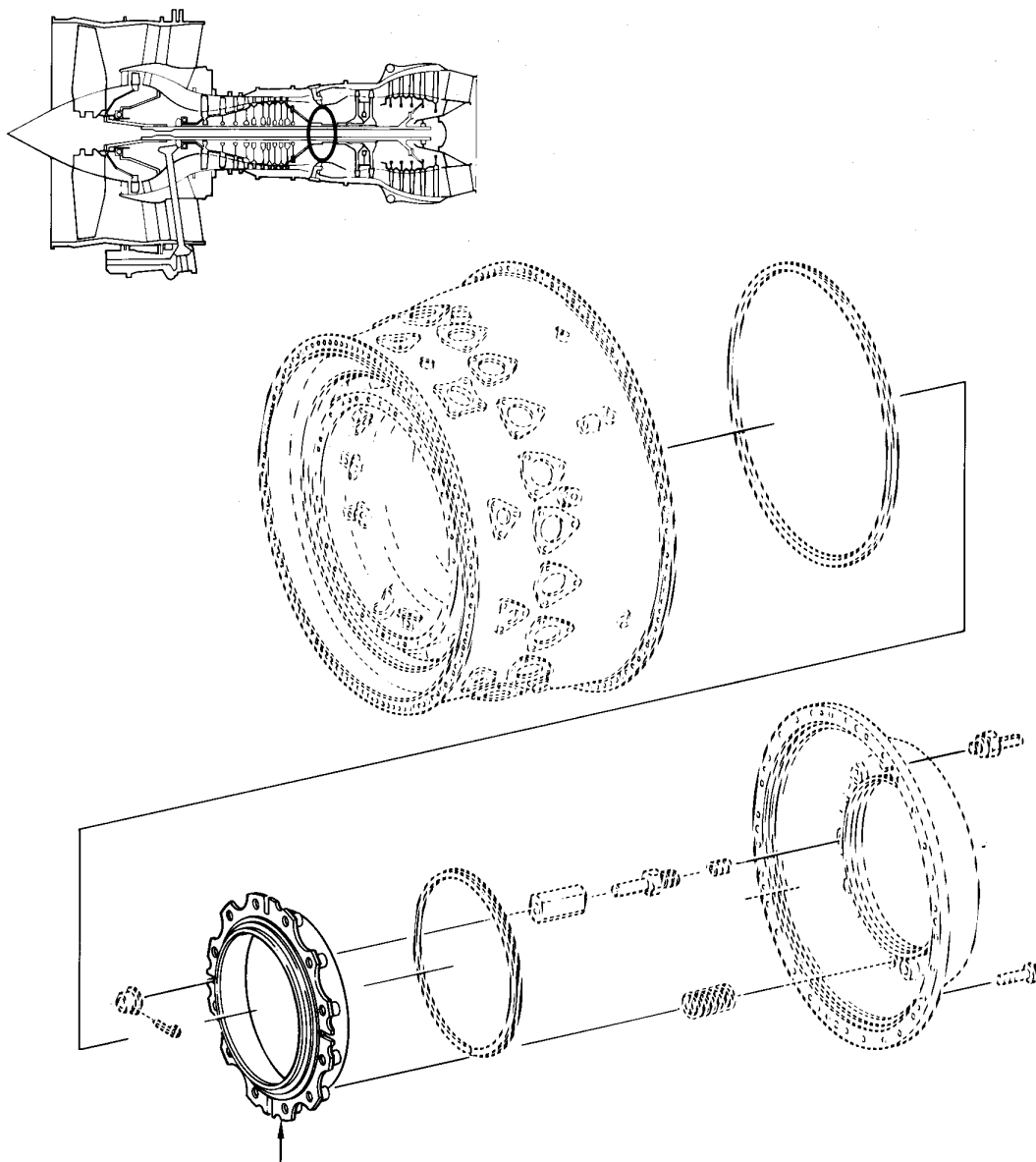
- (1) A record of accomplishment is necessary.



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Location and Modification of the No.4 Bearing Front Seal Assembly (2A2055)
Fig.1

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REMOVE THE PN 2A0856 NO.4 BEARING
FACE SEAL ASSEMBLY (1 OFF) AND
INSTALL PN 2A2053 NO.4 BEARING
FACE SEAL ASSEMBLY (1 OFF)

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Location and Modification of the No.4 Bearing Rear Seal Assembly (2A2056)
Fig.2

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3. Material Information

New Part No. (ATA No.)	Qty	Est'd Unit Price (\$)	Keyword	Old Part No. (IPC No.)	Instructions Disposition
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Applicability: For each V2500 Engine to incorporate this Bulletin.

A. Kits associated with this Bulletin:

None

B. Parts affected by this Bulletin:

2A2055 (72-42-33)	1	-	Seal Assmbly - No.4 Bearing, Front	2A0853 (01-010)	(1D)(A) (B)(C)
2A2053 (72-42-33)	1	3971.00	Seal-Face, No.4 Bearing, Assembly	2A0856 (01-220)	(2D)(A) (B)
2A2056 (72-43-20)	1	-	Seal Assembly - No.4 Bearing, Rear	2A0849 (01-020)	(1D)(A) (B)(C)
2A2053 (72-43-20)	1	3971.00	Seal-Face, No.4 Bearing, Assembly	2A0856 (01-180)	(2D)(A) (B)

C. Instructions/Disposition Code Statements:

- (1D) A modification can be made to the Old Part and it can then be identified as the New Part Number.
- (2D) Send the part to one of the approved vendors given in the Accomplishment Instruction for modification and identification to the new part number.
- (A) New part is currently available.
- (B) Old part will no longer be available.
- (C) Part is a major assembly that is not commonly sold.

NOTE: The estimated 1990 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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