

SERVICE BULLETIN

ENGINE - NO. 4 BEARING COMPARTMENT - PROVIDE A NEW NO. 4 BEARING SEAL ASSEMBLY WITH NUTS SILVER PLATED ON THE THREADS ONLY - CATEGORY CODE 8 - MOD.ENG-72-0163

1. Planning Information

3. Effectivity

- (1) Aircraft: Airbus A320, A321
McDonnell Douglas MD-90
- (2) Engine: V2500-A1 Engines before Serial No.V0354*
V2500-A5 Engines before Serial No.V10044*
V2500-D5 Engines before Serial No.V20007

*The serial number data 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

It is possible for the titanium No. 4 Bearing Seal Support Assembly to develop corrosion when contacted by silver plated nuts.

(2) Background

Stress corrosion develops when the silver plated nuts contact the No. 4 Bearing Seal Support Assembly.

(3) Objective

To provide nuts with silver plate only on the threads, and prevent corrosion on the Support Assembly surfaces that touch the nuts.

(4) Substantiation

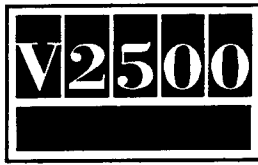
None.

(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

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None.

C. Description

(1) The new nuts are silver plated only on the threads.

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 8.

Accomplish based upon experience with the prior configuration.

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 modification and identification of the No. 4 Bearing Seal Support Assembly	43 Minutes
(b) To accomplish the identification of the No. 4 Bearing Front Seal Assembly	2 Minutes
	Total: 45 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

None.

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**SERVICE BULLETIN****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) Internal Reference No.

92VA105

- (2) Other References

V2500 Engine Illustrated Parts Catalogs (V2500-A1, V2500-A5 and V2500-D5).

V2500 Standard Practices Manual.

V2500 Engine Manual.

MD-90 Engine Manual.

L. Other Publications Affected

- (1) The V2500 Engine Illustrated Parts Catalog Chapter/Section 72-42-33, Figure 1 and 72-42-33 Figure 1 (for the V2500-A5 and V2500-D5), to add the new parts.
- (2) The V2500 Engine Manual Chapter/Section 72-42-33 Cleaning, to add the new parts.
- (3) The V2500 Engine Manual Chapter/Section 72-42-33 Inspection, to add the new parts.
- (4) The V2500 Engine Manual Chapter/Section 72-42-33 Repair, to add the new parts.
- (5) The MD-90 Engine Manual Chapter/Section 72-42-33 Cleaning, to add the new parts.
- (6) The MD-90 Engine Manual Chapter/Section 72-42-33 Inspection, to add the new parts.

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International Aero Engines

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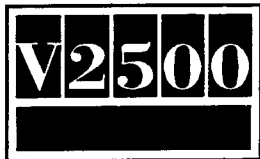
- (7) The MD-90 Engine Manual Chapter/Section 72-42-33 Repair, to add the new parts.
- (8) VRS3085 will be affected by the this Service Bulletin.

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2. Accomplishment Instructions

A. Rework Instructions

- (1) Do a modification to the 2A0851 No. 4 Bearing Seal Support Assembly (See Reference (1), Chapter/Section 72-42-33, Figure/Item No. 01-020) and identify as follows:

Procedure	Supplementary Information				
(a) Remove the self locking clinch nuts from the No. 4 Bearing Support Assembly as follows: 1 Drill out the nuts with the applicable size drill.	Refer to Figures 1 and 2.				
(b) Install the new self locking clinch nuts from the ST1738-10 Nut Option (30 off) by Figure 2 and as follows: 1 Put the nut in position on the front face of the rear flange. 2 Flare the nut as shown in Figure 2. 3 Do the procedures again until nuts are installed at all locations.	Refer to Figures 1 and 2.				
(c) Mark the new part number adjacent to the old part number. Use the vibration peen method.	<table><tr><th>Old Part Number</th><th>New Part Number</th></tr><tr><td>2A0851</td><td>2A2833</td></tr></table> Refer to Figure 2 requirements. Refer to the approved procedure Reference (2), Control No./TASK No. 70-09-00-400-501.	Old Part Number	New Part Number	2A0851	2A2833
Old Part Number	New Part Number				
2A0851	2A2833				

H. Assembly Instructions

- (1) For V2500-A5 Engines proceed as follows:
- (a) When you assemble the No. 4 Bearing Front Seal Assembly, install the 2A2833 No. 4 Bearing Seal Support Assembly (1 off) by the procedure given in Reference (3), Chapter/Section 72-42-33, Assembly. Refer to Figure 1.

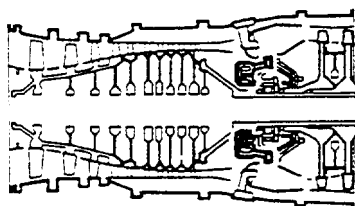
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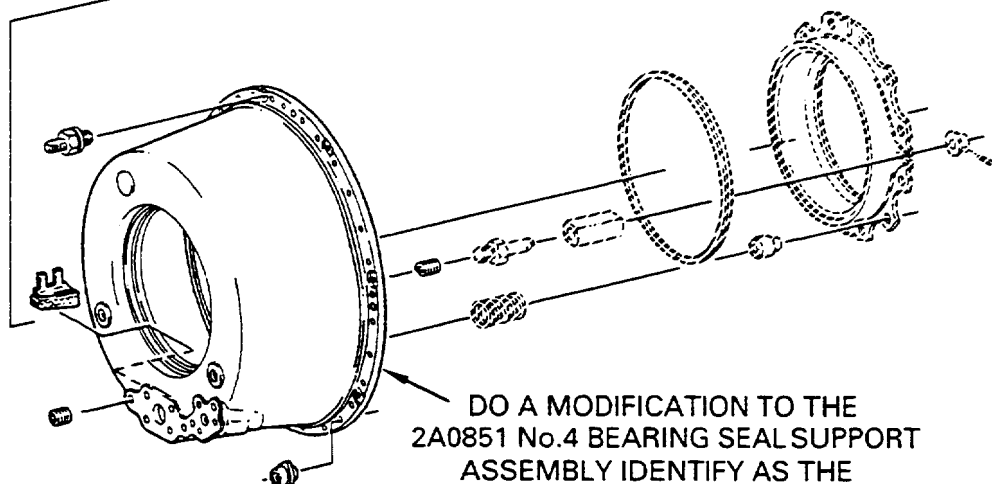
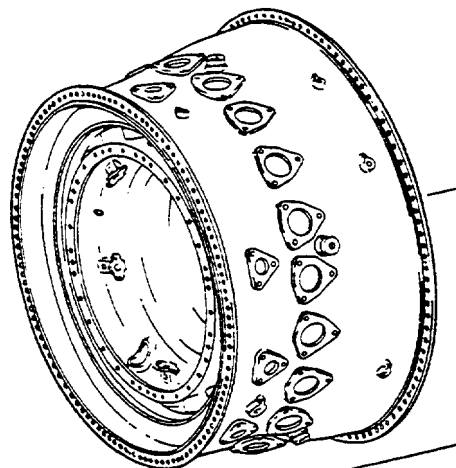
- (b) Identify the 2A2055 No. 4 Bearing Front Seal Assembly as 2A2834 by the procedure given in Reference (2), Chapter/Section 70-09-00, Marking of Parts.
 - (c) Install the 2A2834 No. 4 Bearing Front Seal Assembly by the procedure given in Reference (3) Chapter/Section 72-42-30, Assembly.
- (2) For V2500-D5 Engines proceed as follows:
- (a) When you assemble the No. 4 Bearing Front Seal Assembly, install the 2A2833 No. 4 Bearing Seal Support Assembly (1 off) by the procedure given in Reference (4), Chapter/Section 72-42-33, Assembly. Refer to Figure 1.
 - (b) Identify the 2A2055 No. 4 Bearing Front Seal Assembly as 2A2834 by the procedure given in Reference (2), Chapter/Section 70-09-00, Marking of Parts.
 - (c) Install the 2A2834 No. 4 Bearing Front Seal Assembly by the procedure given in Reference (4) Chapter/Section 72-42-30, Assembly.

C. Recording Instructions

- (1) A record of accomplishment is necessary.



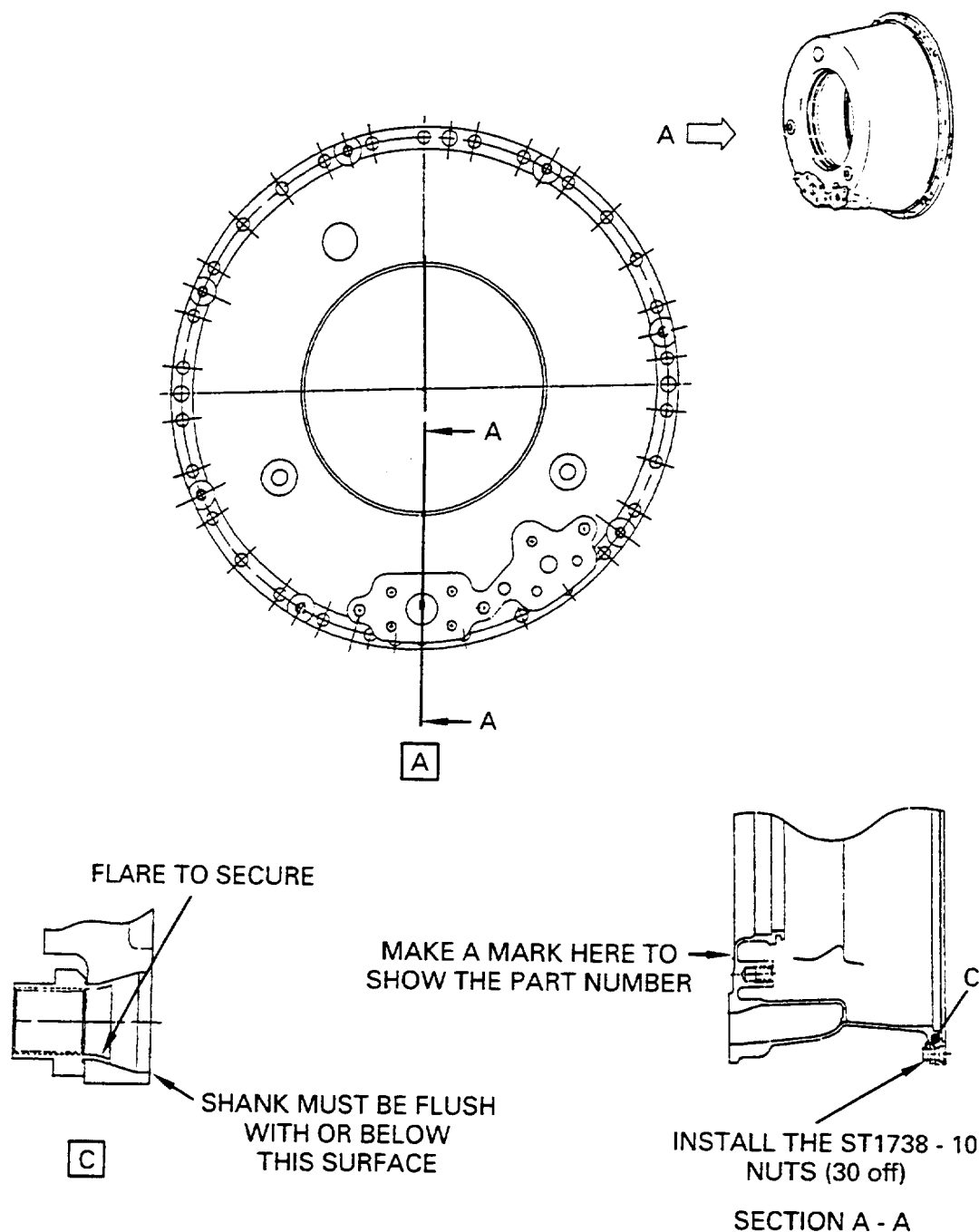
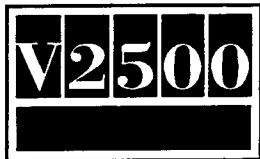
MODULE 40



DO A MODIFICATION TO THE
2A0851 No.4 BEARING SEAL SUPPORT
ASSEMBLY IDENTIFY AS THE
2A2833 No.4 BEARING SEAL SUPPORT
ASSEMBLY (1 off) AND INSTALL

B8981

Location of the No. 4 Bearing Seal Support
Fig.1



B8982

Modification of the No. 4 Bearing Seal Support
Fig.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
2A2834 (72-42-33)	1	-	.Seal Assembly, No. 4 Bearing Front	2A2055 (01-010)	(S1) (1D) (A) (B)
2A2833 (72-42-33)	1	-	..Support, Assembly, No. 4 Bearing Seal	2A0851 (01-020)	(S1) (1D) (B) (C)
ST1738-10 (72-42-33)	30	30.00	...Nut Option Consisting of:	1A3893 (01-080)	(S1) (B) (E)
ST1739-10 (72-42-33)	Ref.	-	...Nut, Self Locking	774773 (01-080)	(S1)
ST1740-10 (72-42-33)	Ref.	-	...Nut, Self Locking	774774 (01-080)	(S1)
- (72-42-33)	Ref.	-	...Nut, Self Locking	774776 (01-080)	(S1)

C. Instruction/Disposition Code Statements:

- (S1) New parts coded (S1) and old parts coded (S1) are directly interchangeable.
- (1D) You can do a modification to the old part and identify it as the new part number.
- (A) New part will be supplied on a quotation basis only.
- (B) Old part is no longer available.
- (C) New part is currently available.
- (E) Old part will continue to be available for use at other locations.

Note: The estimated 1994 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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