



ENGINE – HIGH PRESSURE TURBINE ROTOR AND STATOR ASSEMBLY – REMOVE THE STAGE 1 AND 2
TURBINE (INTERSTAGE FRONT OUTER) WIRE SEAL – CATEGORY CODE 6 – MOD.ENG-72-0158

1. Planning Information

A. Effectivity

(1) Aircraft: Airbus A320

Airbus A321

McDonnell Douglas MD-90

(2) Engine: V2500-A1 Engines before Serial No.V0323*

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.

V2500-A5 Engines before Serial No. V10010

V2500-D5 Engines before Serial No. V20007

B. Reason

(1) Condition

The stage 1 and 2 Turbine (Interstage Front Outer) Wire Seal can cause damage to the seal groove.

(2) Background

It was found that the Stage 1 and 2 Wire Seal was not necessary. The Engine can operate satisfactory without this seal.

(3) Objective

To remove the Stage 1 and 2 Turbine (Interstage Front Outer) Wire Seal from the High Pressure Turbine Rotor and Stator Assembly.

(4) Substantiation

Not considered necessary.

(5) Effects of Bulletin on Workshop Procedures:

V2500-ENG-72-0158



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) The Stage 1 and 2 High Pressure Turbine (Interstage Front Outer) Wire Seal is not considered necessary and is removed from the Engine. Refer to Figure 1.

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 Models 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:

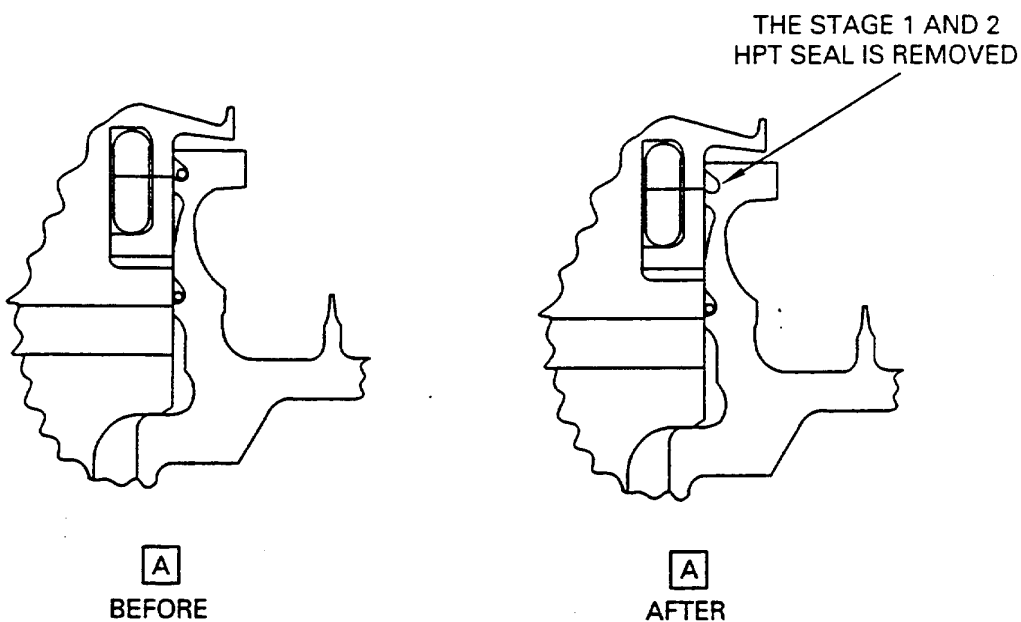
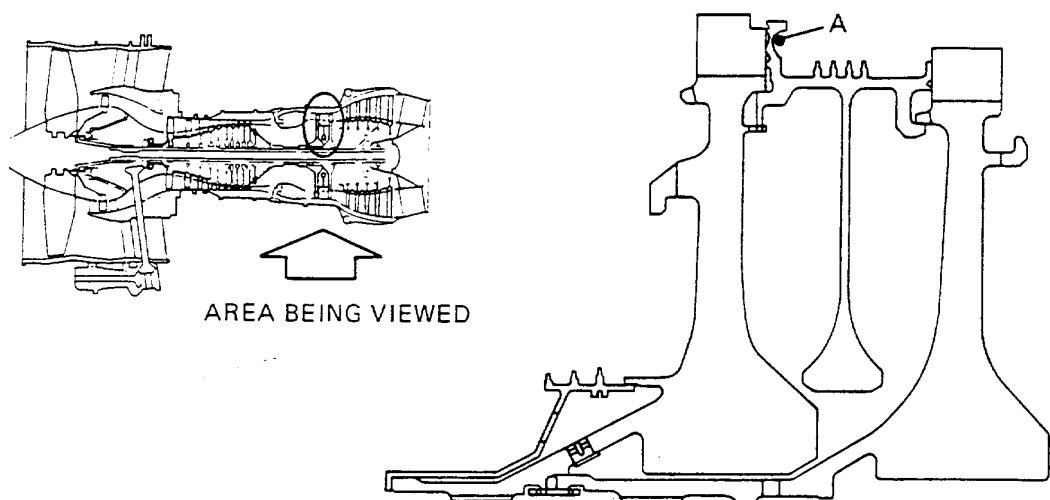
Venue	Estimated Manhours
(1) In service	Not applicable
(2) At overhaul	Not applicable

G. Material – Price and Availability

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

V2500–ENG–72–0158

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Before and After views of configuration changes that affect the High Pressure Turbine Rotor and Stator Assembly
Fig.1

V2500-ENG-72-0158

May.28/93

Page 3



H. Tooling - Price and Availability

Special tools are not required to accomplish Sub-division 2 of this 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.

93VA008

- (2) Other References

V2500 Engine Manual.

L. Other Publications Affected

- (1) The V2500-A1 Engine Illustrated Parts Catalog Chapter/Section 72-45-00, Figure 1, to remove the Stage 1 and 2 HPT Seal.
- (2) The V2500-A5 Engine Illustrated Parts Catalog Chapter/Section 72-45-00, Figure 1, to remove the Stage 1 and 2 HPT Seal.
- (2) The V2500-D5 Engine Illustrated Parts Catalog, Chapter/Section 72-45-00, Figure 1, to remove the Stage 1 and 2 HPT Seal.
- (4) The V2500 Engine Manual Chapter/Section 72-45-00, Assembly, to remove the Stage 1 and 2 Wire Seal.



2. Accomplishment Instructions

A. Rework Instructions

- (1) There are no rework instructions necessary to accomplish this Service Bulletin.

B. Assembly Instructions

For V2500-A1 Engines

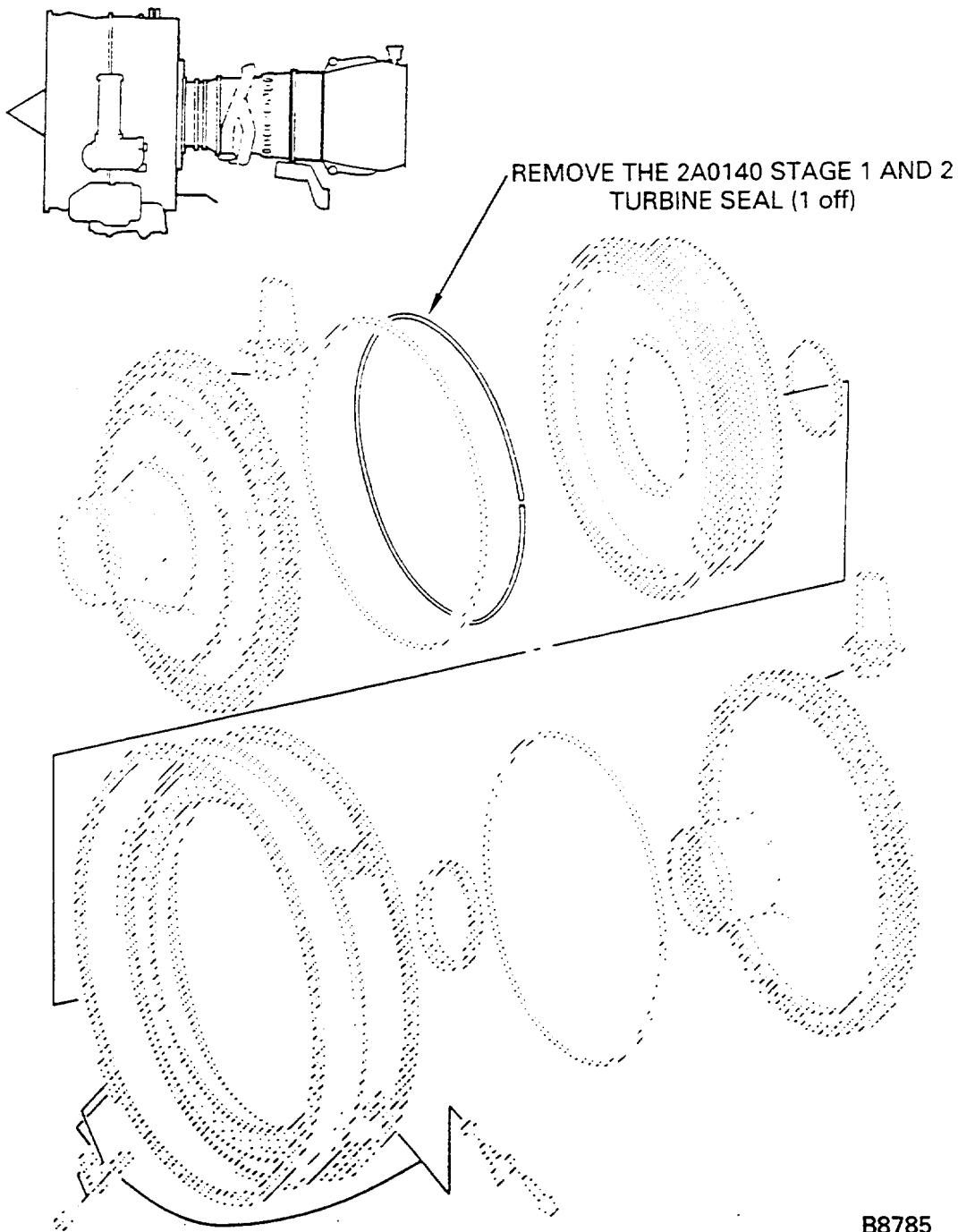
- (1) When you assemble the HP Turbine Rotor and Stator Assembly by the approved procedure given in Reference (4), Control No./TASK No. 72-45-00-430-001-A00 or Control No./TASK No. 72-45-00-430-001-B00 do not install the Stage 1 and 2 Turbine (Interstage Front Outer) Wire Seal. See Figure 2.

For V2500-A5 and V2500-D5 Engines

- (1) When you assemble the HP Turbine Rotor and Stator Assembly by the approved procedure given in Reference (4), Control No./TASK No. 72-45-00-430-001-C00 do not install the Stage 1 and 2 Turbine (Interstage Front Outer) Wire Seal. See Figure 2.

C. Recording Instructions

- (1) A record of accomplishment is necessary.



Location of the Stage 1 and 2 Turbine (Interstage Front Outer) Wire Seal
Fig.2

V2500-ENG-72-0158



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 Dispositon
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For V2500-A1 Engines

2A6700 (72-45-00)	-	-	Rotor and Stator Assy. - HPT Module	-	(A)
- (72-45-00)	1	-	.Seal - Stage 1 and 2 Turbine	2A0140 (01-105)	(B) (C)

Applicability: For each V2500-A1 Engine to incorporate this Service Bulletin that incorporates V2500-ENG-72-0002.

2A1300 (72-45-00)	-	-	Rotor and Stator Assy. - HPT Module	-	(A)
- (72-45-00)	1	-	.Seal - Stage 1 and 2 Turbine	2A0140 (01-105)	(B) (C)

Applicability: For each V2500-A1 Engine to incorporate this Service Bulletin that incorporates V2500-ENG-72-0002, V2500-ENG-72-0013.

2A0400 (72-45-00)	-	-	Rotor and Stator Assy. - HPT Module	-	(A)
- (72-45-00)	1	-	.Seal - Stage 1 and 2 Turbine	2A0140 (01-105)	(B) (C)

Applicability: For each V2500-A1 Engine to incorporate this Service Bulletin that incorporates V2500-ENG-72-0002, V2500-ENG-72-0011 and V2500-ENG-72-0046, but does not incorporate V2500-ENG-72-0013.

2A5200 (72-45-00)	-	-	Rotor and Stator Assy. - HPT Module	-	(A)
- (72-45-00)	1	-	.Seal - Stage 1 and 2 Turbine	2A0140 (01-105)	(B) (C)

Applicability: For each V2500-A1 Engine to incorporate this Service Bulletin that incorporates V2500-ENG-72-0002 and V2500-ENG-72-0046, but does not incorporate V2500-ENG-72-0011 and V2500-ENG-72-0013.

V2500-ENG-72-0158



SERVICE BULLETIN

2A5100	-	-	Rotor and Stator	-	(A)
(72-45-00)			Assy. - HPT Module		
-	1	-	.Seal - Stage 1 and 2	2A0140	(B) (C)
(72-45-00)			Turbine	(01-105)	

Applicability: For each V2500-A1 Engine to incorporate this Service Bulletin that incorporates V2500-ENG-72-0002, V2500-ENG-72-0013, and V2500-ENG-72-0046.

2A1700	-	-	Rotor and Stator	-	(A)
(72-45-00)			Assy. - HPT Module		
-	1	-	.Seal - Stage 1 and 2	2A0140	(B) (C)
(72-45-00)			Turbine	(01-105)	

Applicability: For each V2500-A1 Engine to incorporate this Service Bulletin that incorporates V2500-ENG-72-0002, V2500-ENG-72-0013, V2500-ENG-72-0046, and V2500-ENG-72-0111.

2A4400	-	-	Rotor and Stator	-	(A)
(72-45-00)			Assy. - HPT Module		
-	1	-	.Seal - Stage 1 and 2	2A0140	(B) (C)
(72-45-00)			Turbine	(01-105)	

Applicability: For each V2500-A1 Engine to incorporate this Service Bulletin that incorporates V2500-ENG-72-0002, V2500-ENG-72-0013, and V2500-ENG-72-0111, but does not incorporate V2500-ENG-72-0046.

2A4500	-	-	Rotor and Stator	-	(A)
(72-45-00)			Assy. - HPT Module		
-	1	-	.Seal - Stage 1 and 2	2A0140	(B) (C)
(72-45-00)			Turbine	(01-105)	

Applicability: For each V2500-A1 Engine to incorporate this Service Bulletin that incorporates V2500-ENG-72-0002 and V2500-ENG-72-0111, but does not incorporate V2500-ENG-72-0013 and V2500-ENG-72-0046.

2A4600	-	-	Rotor and Stator	-	(A)
(72-45-00)			Assy. - HPT Module		
-	1	-	.Seal - Stage 1 and 2	2A0140	(B) (C)
(72-45-00)			Turbine	(01-105)	

Applicability: For each V2500-A1 Engine to incorporate this Service Bulletin that incorporates V2500-ENG-72-0002, V2500-ENG-72-0046, and V2500-ENG-72-0111, but does not incorporate V2500-ENG-72-0011 and V2500-ENG-72-0013.

2A5400	-	-	Rotor and Stator	-	(A)
(72-45-00)			Assy. - HPT Module		
-	1	-	.Seal - Stage 1 and 2	2A0140	(B) (C)
(72-45-00)			Turbine	(01-105)	

V2500-ENG-72-0158



SERVICE BULLETIN

Applicability: For each V2500-A1 Engine to incorporate this Service Bulletin that incorporates V2500-ENG-72-0002, V2500-ENG-72-0011, V2500-ENG-72-0046, and V2500-ENG-72-0111, but does not incorporate V2500-ENG-72-0013.

2A5500	-	-	Rotor and Stator	-	(A)
(72-45-00)			Assy. - HPT Module		
-	1	-	.Seal - Stage 1 and 2	2A0140 (B) (C)	
(72-45-00)			Turbine	(01-105)	

Applicability: For each V2500-A1 Engine to incorporate this Service Bulletin that incorporates V2500-ENG-72-0002, V2500-ENG-72-0046 and V2500-ENG-72-0123, but does not incorporate V2500-ENG-72-0011 and V2500-ENG-72-0013.

2A6200	-	-	Rotor and Stator	-	(A)
(72-45-00)			Assy. - HPT Module		
-	1	-	.Seal - Stage 1 and 2	2A0140 (B) (C)	
(72-45-00)			Turbine	(01-105)	

Applicability: For each V2500-A1 Engine to incorporate this Service Bulletin that incorporates V2500-ENG-72-0002, V2500-ENG-72-0011, V2500-ENG-72-0046 and V2500-ENG-72-0123, but does not incorporate V2500-ENG-72-0013.

2A6300	-	-	Rotor and Stator	-	(A)
(72-45-00)			Assy. - HPT Module		
-	1	-	.Seal - Stage 1 and 2	2A0140 (B) (C)	
(72-45-00)			Turbine	(01-105)	

Applicability: For each V2500-A1 Engine to incorporate this Service Bulletin that incorporates V2500-ENG-72-0002, V2500-ENG-72-0046, V2500-ENG-72-0111 and V2500-ENG-72-0123, but does not incorporate V2500-ENG-72-0011 and V2500-ENG-72-0013.

2A6500	-	-	Rotor and Stator	-	(A)
(72-45-00)			Assy. - HPT Module		
-	1	-	.Seal - Stage 1 and 2	2A0140 (B) (C)	
(72-45-00)			Turbine	(01-105)	

Applicability: For each V2500-A1 Engine to incorporate this Service Bulletin that incorporates V2500-ENG-72-0002, V2500-ENG-72-0011, V2500-ENG-72-0046, V2500-ENG-72-0111, and V2500-ENG-72-0123, but does not incorporate V2500-ENG-72-0013.

2A6600	-	-	Rotor and Stator	-	(A)
(72-45-00)			Assy. - HPT Module		
-	1	-	.Seal - Stage 1 and 2	2A0140 (B) (C)	
(72-45-00)			Turbine	(01-105)	

For V2500-A5 Engines

V2500-ENG-72-0158



SERVICE BULLETIN

2A4200	-	-	Rotor and Stator	-	(A)
(72-45-00)			Assy. - HPT Module		
-	1	-	.Seal - Stage 1 and 2	2A0140 (B) (C)	
(72-45-00)			Turbine	(01-105)	

For V2500-D5 Engines

2A7000	-	-	Rotor and Stator	-	(A)
(72-45-00)			Assy. - HPT Module		
-	1	-	.Seal - Stage 1 and 2	2A0140 (B) (C)	
(72-45-00)			Turbine	(01-105)	

C. Instruction/Disposition Code Statements:

- (A) HPT module number given as a reference.
- (B) Part will not continue to be used at the location specified.
- (C) Part will be retained for lesser units.

NOTE: The estimated 1993 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.