



SERVICE BULLETIN

ENGINE - HP TURBINE ROTOR AND STATOR ASSEMBLY - REPLACE THE STAGE 1 AND 2 HP TURBINE WIRE SEAL - CATEGORY CODE 6 - MOD.ENG-72-0022

1. Planning Information

A. Effectivity

- (1) Aircraft: Airbus A320
- (2) Engine: V2500-A1 Engine Serial No.s before V0060 and V0076 except V0058.

B. Reason

- (1) Condition

Nickel wire seals may not have sufficient durability.

(2) Background

The wire seal made from Nickel material is not durable as the new design which is made from Inconel 600.

(3) Objective

To provide a more durable Stage 1 and 2 Turbine Seal at the front flange OD location.

(4) Substantiation

Many hours of engine tests have shown that it is necessary to change the material of the wire seal.

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

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 HPT Stage 1 to 2 Seal is improved by a change from a nickel seal to a nickel alloy seal.

D. Approval

The Part Number changes and/or part modifications described in Sections 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 engine is disassembled sufficiently to afford access to the effected 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	Not applicable

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

I. Weight and Balance

- (1) Weight change None
- (2) Moment arm No effect
- (3) Datum Engine front mount centreline
(Power Plant Station (PPS) 100)

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J. Electrical Load Data

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

K. References

- (1) Internal Reference No.

88VA248

- (2) Other References

V2500 Engine Manual

L. Other Publications Affected

- (1) The V2500 Engine Illustrated Parts Catalog, Chapter/Section 72-45-00, Figure 1.
- (2) The V2500 Engine Manual Chapter/Section 72-45-00 Assembly to add the new part.



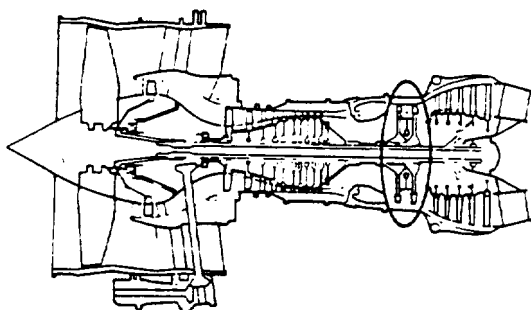
2. Accomplishment Instructions

A. Rework Instructions

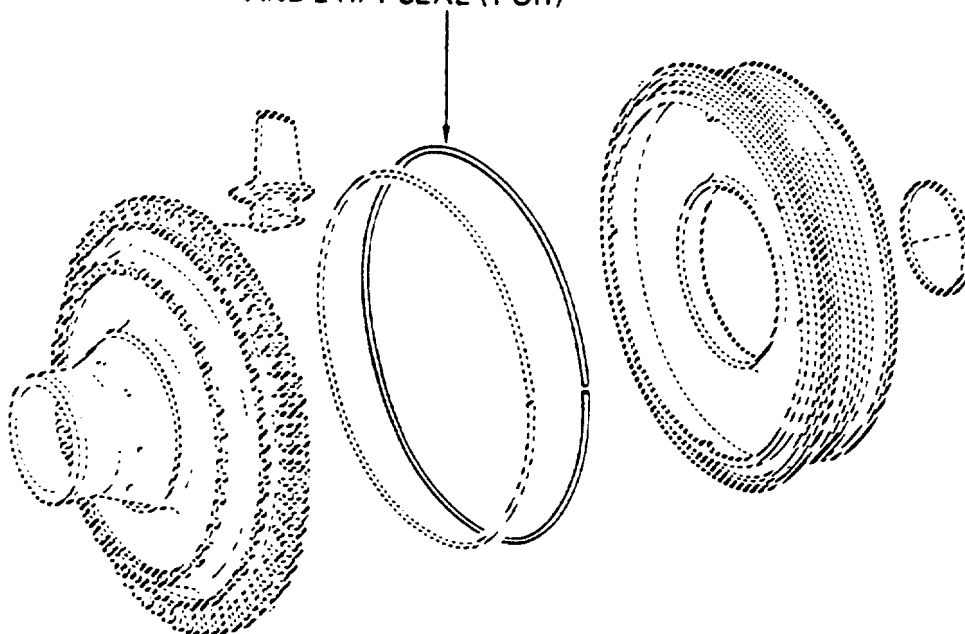
- (1) There are no rework instructions necessary to accomplish this Service Bulletin.

B. Assembly Instructions

- (1) Install the PN 2A0140 Stage 1 and 2 HPT Air Seal (1 off) by the approved procedure in Reference (1), Chapter/Section 72-45-00, Assembly, Figures 1 and 2 as follows:
 - (a) Make sure that the PN 2A0140 stage 1 and 2 HPT Air Seal (Part B) is trimmed to the gap shown in Figure 2.



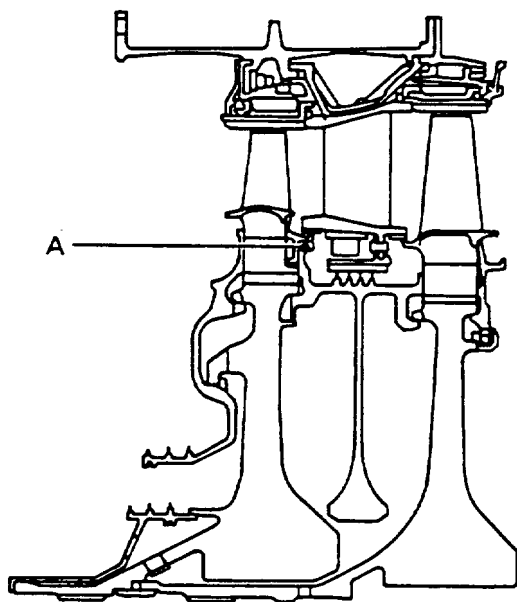
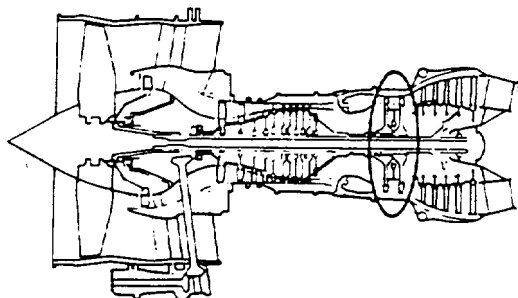
REMOVE THE PN 2A0044 STAGE 1
AND 2 HPT SEAL (1 Off) AND
INSTALL THE PN 2A0140 STAGE 1
AND 2 HPT SEAL (1 Off)



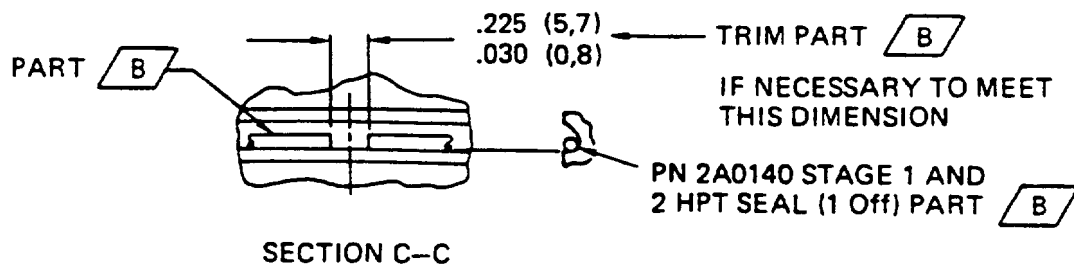
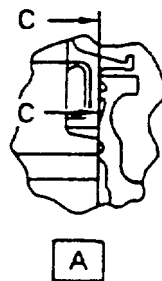
Location of Stage 1 and 2 HPT Seal
Fig.1

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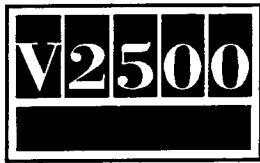
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SECTION THROUGH HPT



Location of Stage 1 and 2 HPT Seal
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:

2A0140 (72-45-00)	1	26.20	Seal - Stage 1 and 2 Turbine	2A0044 (01-100) (01-105)	(S1)(A)(B)
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C. Instruction/Disposition Code Statements:

- (S1) Two seals are currently used at location 01-100. PN 2A0140 replaces the rear seal, reducing the number of PN 2A0044 seals at 01-100 from two to one. New parts replace old parts at location 01-105.
- (A) New part is currently available for sale.
- (B) Old part will continue to be available for other applications.

NOTE: The estimated 1090 unit prices shown are provided for planning purposes only and do not constitute a firm quotation. Contact IAE's Spare Parts Department for information concerning firm prices.

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