



SERVICE BULLETIN

ENGINE - HP TURBINE ROTOR AND STATOR ASSEMBLY - INTRODUCE A NEW STAGE 1 HP TURBINE AIR SEAL - CATEGORY CODE 8 - MOD.ENG-72-0194

1. Planning InformationA. Effectivity

- (1) Aircraft: Airbus A320, A321
McDonnell Douglas MD-90
- (2) Engine: V2527-A5 Engines before Serial No. V10076
V2530-A5 Engines before Serial No. V10076
V2525-D5 Engines before Serial No. V20009
V2528-D5 Engines before Serial No. V20009

B. Reason

(1) Condition

It is possible that unwanted oil can collect in the area between the Stage 1 HPT Air Seal and the Stage 1 HPT Turbine Hub.

(2) Background

It was found that the unwanted oil will not drain from the area unless there was a modification to the Stage 1 HPT Air Seal.

(3) Objective

To provide a Stage 1 HPT Air Seal with features that let the unwanted oil drain more quickly. These features include: Scallop cuts and the removal of the dirt discourager rail.

(4) Substantiation

Analysis of structural durability, performance, and part life verify configuration design integrity.

(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

V2500-ENG-72-0194



None.

C. Description

- (1) Improve the features of the Stage 1 HPT Air Seal so that more of the unwanted oil will drain from the area between the air seal and the Stage 1 Hub.
- (2) For the effect on declared life, see Reference (5) or (6), Time Limits Manual, Chapter/Section 5-10-01, Group A Parts Lives.

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 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	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 to accomplish Sub-division 2 of this Service Bulletin.

I. Weight and Balance

- | | | | | |
|-------------------|----|----|----|-----------|
| (1) Weight change | .. | .. | .. | None |
| (2) Moment arm | .. | .. | .. | No effect |

V2500-ENG-72-0194



- (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.

93VA124A

- (2) Other References

The V2500-A5 Engine Illustrated Parts Catalog (S-V2500-2IA)

The V2500-D5 Engine Illustrated Parts Catalog (S-V2500-3IA)

The V2500 Engine Manual (E-V2500-1IA)

The V2500 Engine Manual (E-V2500-3IA)

The Time Limits Manual (T-V2500-1IA)

The Time Limits Manual (T-V2500-3IA)

The Standard Practices/Processes Manual (SPP-V2500-1IA)

L. Other Publications Affected

- (1) The V2500-A5 Engine Illustrated Parts Catalog (S-V2500-2IA) Chapter/Section 72-45-13, Figure 1, to add the new part.
- (2) The V2500-D5 Engine Illustrated Parts Catalog (S-V2500-3IA) Chapter/Section 72-45-13, Figure 1, to add the new part.
- (3) The Time Limits Manual (T-V2500-1IA) Chapter/Section 5-10-01, Group A Parts Lives, to add the new part.
- (4) The Time Limits Manual (T-V2500-3IA) Chapter/Section 5-10-01, Group A Parts Lives, to add the new part.
- (5) The V2500 Engine Manual (E-V2500-1IA) Chapter/Section 72-45-13, Cleaning, to add the new part.
- (6) The V2500 Engine Manual (E-V2500-3IA) Chapter/Section 72-45-13, Cleaning, to add the new part.



- (7) The V2500 Engine Manual (E-V2500-1IA) Chapter/Section 72-45-13, Inspection, to add the new part.
- (8) The V2500 Engine Manual (E-V2500-3IA), Chapter/Section 72-45-13, Inspection, to add the new part.
- (9) The V2500 Engine Manual (E-V2500-1IA), Chapter/Section 72-45-13, Repair, to add the new part.
- (10) The V2500 Engine Manual (E-V2500-3IA), Chapter/Section 72-45-13, Repair, to add the new part.

V2500-ENG-72-0194



2. Accomplishment Instructions

A. Rework Instructions

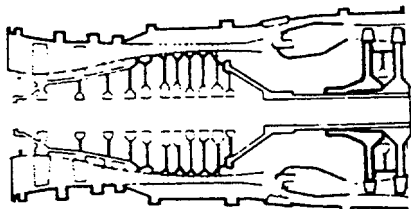
- (1) There are no rework instructions necessary to accomplish this Service Bulletin.

B. Assembly Instructions

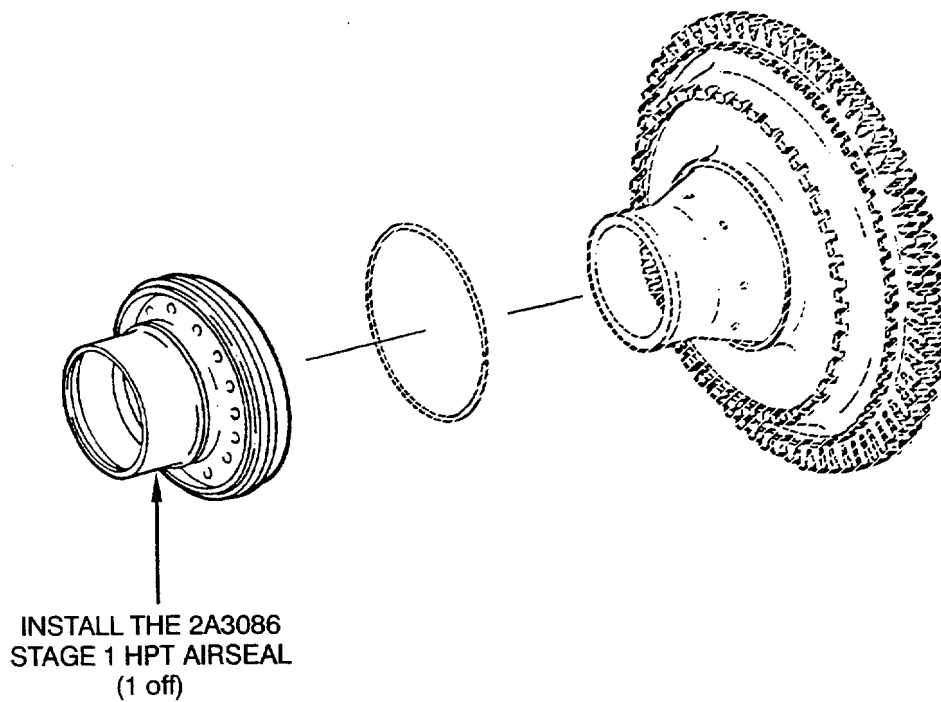
- (1) Install the 2A3086 Stage 1 HPT Air Seal (1 off) by the approved procedure given in References (3) or (4), Chapter/Section 72-45-10 Assembly. See Figure 1.
- (2) Identify the new Stage 1 Turbine Rotor Assembly as 2A8921 by the procedure given in Reference (7), Chapter/Section 70-09-00, Marking of Parts.
 - (a) Use the vibration peen method.
 - (b) Mark the new part number adjacent to the old part number.

C. Recording Instructions

- (1) A record of accomplishment is necessary.



MODULE 40



Location of the Stage 1 HPT Air Seal
Fig.1

V2500-ENG-72-0194



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 Disposition
2A8921 (72-45-13)	1	-	..Turbine Rotor Assy. Stage 1	2A8721 (01-010)	(S1) (A) (B)
2A3086 (72-45-13)	1	19,050.00	...Seal - Air, HPT, Stage 1	2A3033 (01-020)	(S1) (B) (C)
- (72-45-13)	1	-	or ...Seal - Air, HPT, Stage 1	2A3069 (01-020)	(B)

C. Instruction/Disposition Code Statements:

(S1) The old part and the new part are directly interchangeable.

(A) The new part will be supplied on a "quote basis" only.

(B) The old part will no longer be supplied.

(C) The new part is currently available.

NOTE: The estimated 1995 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.

V2500-ENG-72-0194

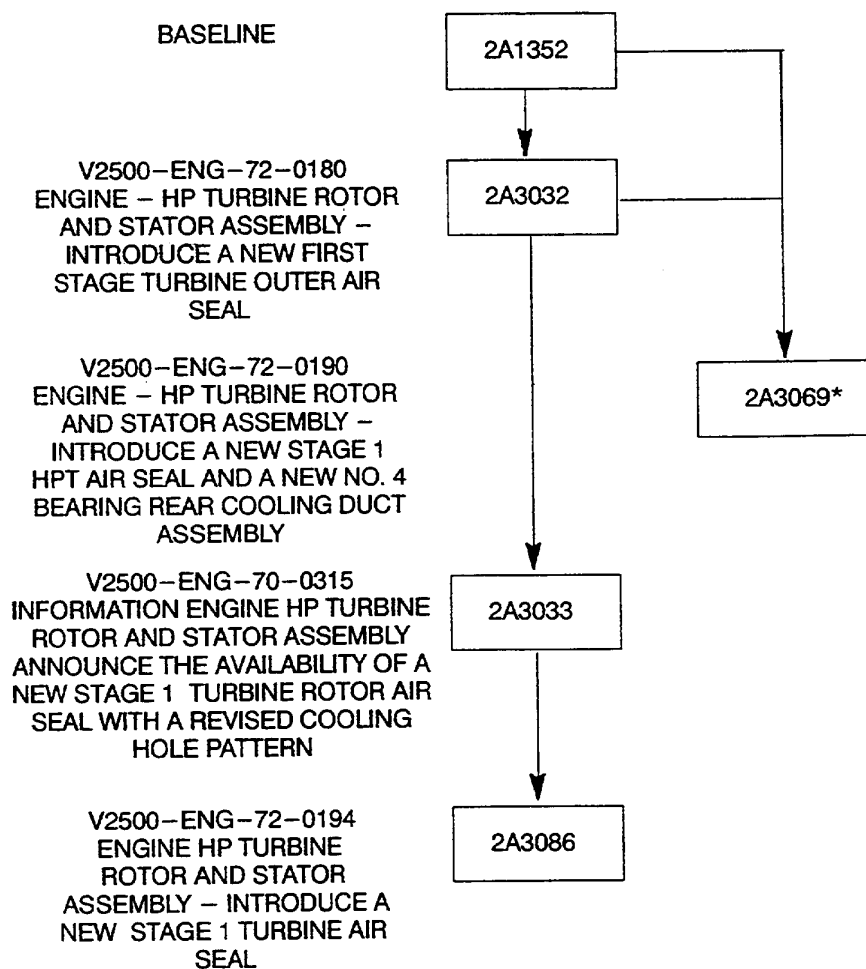


SERVICE BULLETIN

MODIFICATIONS

PART NUMBER CHANGE

BASELINE



*NOTE: THERE IS NO PROCEDURE TO ADVANCE THIS CONFIGURATION

E2180A

Location of the Stage 1 HPT Air Seal
Fig.2

V2500-ENG-72-0194



International Aero Engines

SERVICE BULLETIN

Printed in Great Britain

V2500-ENG-72-0194

Jun. 30/95

Page 9

