



ENGINE - HP TURBINE ROTOR AND STATOR ASSEMBLY - PROVIDE A NEW STAGE 1 HPT BLADE -
CATEGORY CODE 7 - MOD.ENG-72-0146

1. Planning Information

A. Effectivity

- (1) Aircraft: Airbus A320 and A321
McDonnell Douglas MD-90
- (2) Engine: V2500-A5 Engines before Serial No.V10007
V2500-D5 Engines before Serial No.V20003

B. Reason

(1) Condition

The pressures in the leading edge cavities are not equal.

(2) Background

It was found that the pressure in the leading edge cavities were not equal.

(3) Objective

To provide a new Stage 1 HPT Blade with revised crossover slots in the leading edge impingement rib of the casting and a shorter trailing edge platform.

(4) Substantiation

Satisfactory analytical review and air flow testing.

(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.

**C. Description**

- (1) Provide a new Stage 1 HPT Blade with revised crossover slots in the leading edge impingement rib of the casting and a shorter trailing edge platform.

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 7

Accomplish when supply of superseded parts has been depleted.

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 |
| (3) Datum | | Engine front mount Centerline
(Powerplant station P.P.S.100) |

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**J. Electrical Load Data**

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

K. Reference

- (1) Internal Reference No.

92VA010

- (2) Other References

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

V2500 Engine Manual.

MD-90 Engine Manual

V2500 Standard Practices Manual.

L. Other Publications Affected

- (1) The V2500 Engine Illustrated Parts Catalog Chapter/Section 72-45-14, Figure 1 (for both the V2500-A5 and V2500-D5), to add the new parts.
- (2) The V2500 Engine Manual Chapter/Section 72-45-14, Cleaning, to add the new parts.
- (3) The V2500 Engine Manual Chapter/Section 72-45-14, Inspection, to add the new parts.
- (4) The V2500 Engine Manual Chapter/Section 72-45-14, Repair, to add the new parts.
- (5) The MD-90 Engine Manual Chapter/Section 72-45-14, Cleaning, to add the new parts.
- (6) The MD-90 Engine Manual Chapter/Section 72-45-14, Inspection, to add the new parts.
- (7) The MD-90 Engine Manual Chapter/Section 72-45-14, Repair, to add the new parts.



2. Accomplishment Instructions

A. Rework Instructions

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

B. Assembly Instructions

For V2500-A5 Engines

- (1) Install the 2A8321 Stage 1 HPT Blades (64 off) by the approved procedure given in Reference (2), Chapter/Section 72-45-10, Assembly, and Figure 1.

(a) Identify the new Stage 1 Turbine Rotor Assembly as 2A8421.

- 1 Mark the new part number adjacent to the old part number by the approved procedure given in Reference (4), Chapter/Section 70-09-00 Marking of Parts.

For V2500-D5 Engines

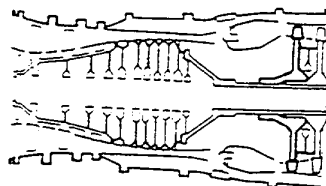
- (2) Install the 2A8321 Stage 1 HPT Blades (64 off) by the approved procedure given in Reference (3), Chapter/Section 72-45-10, Assembly, and Figure 1.

(a) Identify the new Stage 1 Turbine Rotor Assembly as 2A8421.

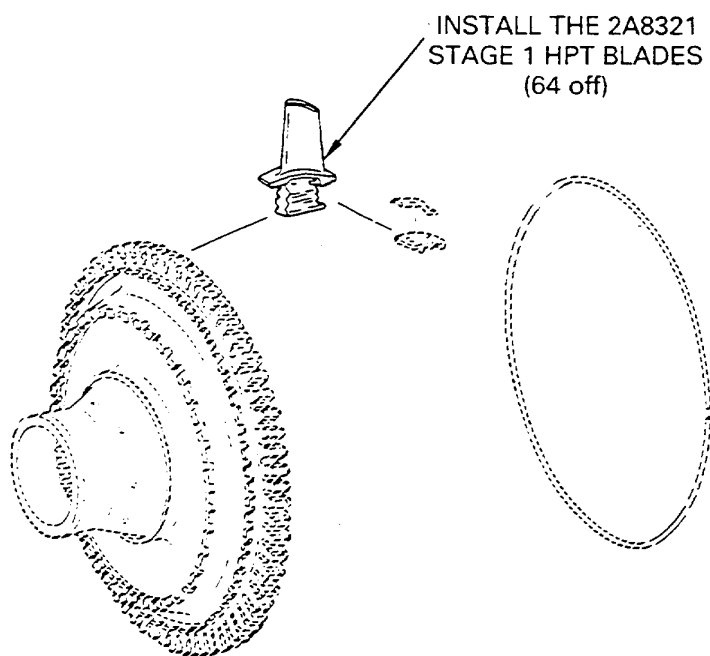
- 1 Mark the new part number adjacent to the old part number by the approved procedure given in Reference (4), Chapter/Section 70-09-00 Marking of Parts.

C. Recording Instructions

- (1) A record of accomplishment is necessary.



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B8840

Location of the Stage 1 HPT Blade
Fig.1

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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
2A8421 (72-45-10)	1	-	Turbine Rotor Assembly, Stage 1	2A6621 (01-010)	(S1) (1D) (A) (B)
2A8321 (72-45-14)	64	-	.Blade, HPT, Stage 1	2A2621 (01-010)	(S1) (B) (C) (C)

C. Instruction/Disposition Code Statements:

- (S1) New parts coded (S1) must replace old parts coded (S1) as a COMPLETE set per engine.
- (1D) Rework the old part number and identify as the new part number.
- (A) New part is supplied on a quotation basis only.
- (B) Old part is no longer available.
- (C) New part is currently available for sale.

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.