



# SERVICE BULLETIN

ENGINE - HP TURBINE - PROVIDE A NEW STAGE 2 HP TURBINE HUB ASSEMBLY WITH REVISED  
METERING PLUGS - CATEGORY CODE 6 - MOD.ENG-72-0101

## 1. Planning Information

### A. Effectivity

- (1) Aircraft: Airbus A320
- (2) Engine: V2500-A1 Engine Serial No.V0170 and all engines before Serial No. V0159, except V0126, V0127, V0129, V0142, V0156 and V0157 which incorporate Reference (1).

### B. Reason

#### (1) Condition

The original metering plugs may not retain the Heatshield sufficiently. If the Heatshield is permitted to shift, it can liberate the plugs, which can cause damage to the shaft.

#### (2) Background

Instances of inadequate Heatshield retention have been observed at the assembly sites.

#### (3) Objective

To provide improved Heatshield and Metering Plug retention.

#### (4) Substantiation

Analytical review of this configuration compared to the previous substantiated parts indicates that technical requirements are satisfied.

#### (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.

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**C. Description**

(1) New Metering Plugs are provided to improve Heatshield retention.

**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 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 (Note: The parts affected by this Service Bulletin are accessible at Overhaul.)	
	Total: 10 Minutes
(a) To accomplish the reidentification of the Stage 2 Turbine Rotor Assembly	10 Minutes
	Total: 10 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**

Special Tools are not required.

**I. Weight and Balance**

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

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- (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. References

- (1) Internal Reference No.

90VA120

- (2) Other References

- (1) V2500-ENG-72-0075 (Engine - HP Turbine Rotor and Stator Assembly - Introduce Recontoured Stage 1 and 2 Turbine Rotor Hubs).
- (2) V2500 Illustrated Parts Catalog
- (3) V2500 Engine Manual
- (4) V2500 Standard Practises Manual

L. Other Publications Affected

- (1) The V2500 Engine Illustrated Parts Catalog Chapter/Section, 72-45-31, Figure 1, to add the new parts.
- (2) The V2500 Engine Manual Chapter/Section, 72-45-31, Cleaning, to add the new parts.
- (3) The V2500 Engine Manual Chapter/Section, 72-45-31, Inspection/Check, to add the new parts.

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## 2. Accomplishment Instructions

### A. Rework Instructions

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

### B. Assembly Instructions

- (1) For Engines incorporating V2500-ENG-72-0011\* and V2500-ENG-72-0075.

NOTE: \*This configuration is kept only for the record.

- (a) Assemble the Stage 2 Turbine Rotor Assembly by the approved procedure in Reference (3), Chapter/Section 72-45-30, Assembly. See Figure 1.

- (i) Use the 2A2403 Stage 2 HPT Metering Plug (4 off).

- (ii) Remove the assembly identification mark 2A1802 that is written on the Stage 2 Turbine Hub Assembly by the approved procedure in Reference (4), Chapter/Section 70-09-00, Marking of Parts. Use the vibration peen method.

NOTE: Make sure that you only remove the 2A1802 Assembly mark and not the 2A1202 hub part number mark.

- (iii) Identify the 2A1922 Stage 2 Turbine Rotor Assembly as 2A2422 by the approved procedure in Reference (4), Chapter/section 70-09-00, Marking of Parts. Use the vibration peen method.

- (2) For engines which incorporate V2500-ENG-72-0011\*, but do not incorporate V2500-ENG-72-0075.

NOTE: \*This configuration is only shown for the record. Engines with this modification will incorporate V2500-ENG-72-0075.

- (a) Assemble the Stage 2 Turbine Rotor Assembly by the approved procedure in Reference (4), Chapter/Section 72-45-30, Assembly. See Figure 1.

- (i) Use the 2A2403 Stage 2 HPT Metering Plug (4 off).

- (ii) Remove the assembly identification mark 2A1702 that is written on the Stage 2 Turbine Hub Assembly by the approved procedure in Reference (4), Chapter/Section 70-09-00, Marking of Parts. Use the vibration peen method.

NOTE: Make sure that you only remove the 2A1702 Assembly mark and not the 2A1302 hub part number mark.

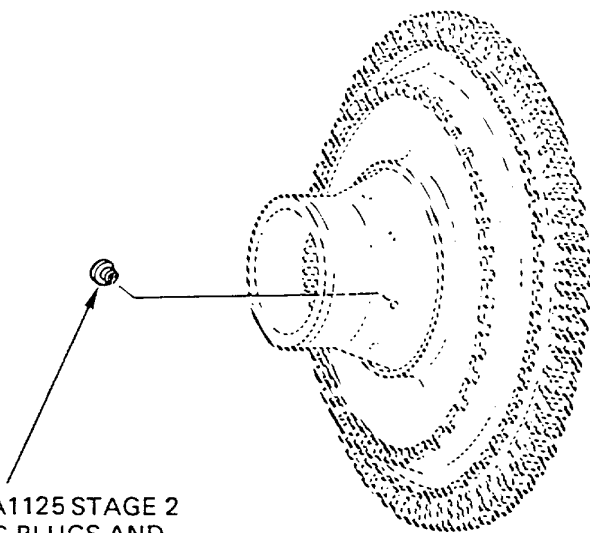
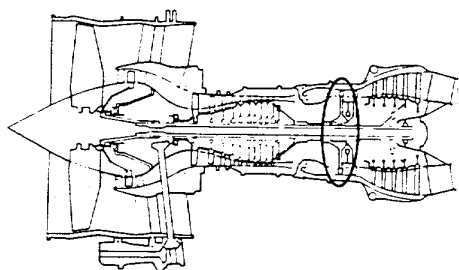
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- (iii) Identify the 2A1722 Stage 2 Turbine Rotor Assembly as 2A1722-001 by the approved procedure in Reference (4), Chapter/section 70-09-00, Marking of Parts. Use the vibration peen method.

**B. Recording Instructions**

- (1) A record of accomplishment is necessary.



REMOVE PN 2A1125 STAGE 2  
HPT METERING PLUGS AND  
INSTALL PN 2A2403 STAGE 2  
HPT METERING PLUG (4 off)

B5021

Location of Stage 2 HPT Metering Plug  
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
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Applicability: For each V2500 engine to incorporate this Service Bulletin which incorporates V2500-ENG-72-0011\* and V2500-ENG-72-0075.

\*NOTE: This Service Bulletin is replaced by V2500-ENG-72-0075 for Engines which must incorporate this change.

2A2422 (72-45-31)	1	-	Turbine Rotor - Stage 2, Assembly	2A1922 (01-010)	(S1)(1D) (A)
- (72-45-31)	1	-	Hub Assembly	2A1802 (01-010)	(C)
- (72-45-31)	1	-	Turbine - Stage 2	2A1041 (01-020)	(S1)(E)
- (72-45-31)	1	-	Heatshield, Stage 2	2A1125 (01-030)	(S1)(C)
- (72-45-31)	4	-	HPT	2A1202 (01-011)	(S1)(E)
- (72-45-31)	1	-	Metering Plug, Stage 2, HPT	-	(S1)(B)
2A1041 (72-45-31)	1	3249.00	Hub - Turbine, Stage 2	-	(S1)(B)
2A2403 (72-45-31)	4	35.80	Heatshield, Stage 2	-	(S1)(B)
2A1202 (72-45-31)	1	-	HPT	-	(S1)(B)
			Metering Plug, Stage 2, HPT	-	(S1)(B)
			Hub - Turbine, Stage 2	-	(S1)(B)

Applicability: For each V2500 engine to incorporate this Service Bulletin which incorporates V2500-ENG-72-0011\* but does not incorporate V2500-ENG-72-0075.

\*NOTE: This configuration is shown only for the record. Engines with this modification must incorporate V2500-ENG-72-0075.

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2A2422-001	1	-	Turbine Rotor - Stage	2A1722	(S1)(1D)
(72-45-31)			2, Assembly	(01-010)	
-	1	-	Hub Assembly	2A1702	(C)
(72-45-31)			Turbine, Stage 2	(01-010)	
-	1	-	Heatshield, Stage 2	2A1041	(S1)(E)
(72-45-31)			HPT	(01-020)	
-	4	-	Metering Plug,	2A1125	(S1)(C)
(72-45-31)			Stage 2, HPT	(01-030)	
-	1	-	Hub - Turbine,	2A1302	(S1)(C)
(72-45-31)			Stage 2	(01-011)	
2A1041	1	3249.00	Heatshield, Stage 2	-	(S1)(E)
(72-45-31)			HPT	(01-020)	
2A2403	4	35.80	Metering Plug,	-	(S1)(B)
(72-45-31)			Stage 2, HPT	(01-030)	
2A1302	1	-	Hub - Turbine,	-	(S1)(C)
(72-45-31)			Stage 2	(01-011)	

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C. Instruction/Disposition Code Statements:

- (S1) New Parts coded (S1) must replace Old Parts coded (S1) as a COMPLETE SET per engine.
- (1D) Old Part can be reworked and reidentified to the New Part number.
- (A) This assembly is available and will be supplied on a full lead time quote basis only.
- (B) New part is currently available.
- (C) Old part will no longer be supplied.
- (E) Old part will continue to be supplied.

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.

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## MODIFICATIONS

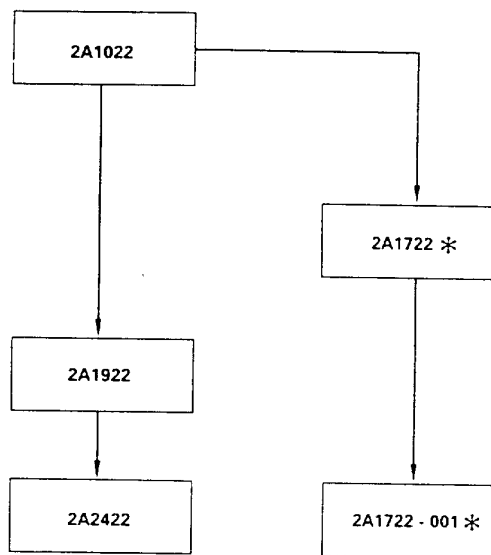
## BASE LINE

V2500 - ENG - 72 - 0011 \*  
ENGINE - HP TURBINE ROTOR  
AND STATOR ASSEMBLY - REWORK THE  
STAGE 2 TURBINE HUB ASSEMBLY  
TO INCORPORATE A TURBINE  
HUB HEATSHIELD

V2500 - ENG - 72 - 0075  
ENGINE - INTRODUCE RECONTOURED  
STAGE 1 AND 2 TURBINE ROTOR HUBS

V2500 - ENG - 72 - 0101  
ENGINE - HP TURBINE - PROVIDE A NEW  
STAGE 2 HP TURBINE HUB ASSEMBLY  
WITH REVISED METERING PLUGS

## PART NUMBER CHANGE



\* THIS INFORMATION IS GIVEN ONLY FOR THE RECORD. THIS CONFIGURATION WAS NOT ASSEMBLED AND IS REPLACED BY THE CONFIGURATION GIVEN IN V2500 - ENG - 72 - 0075. IF IT BECOMES NECESSARY TO INCORPORATE THE APPLICABLE MODIFICATION, YOU MUST DO V2500 - ENG - 72 - 0075.

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Family Tree - Stage 2 Turbine Rotor Assembly  
Fig.2

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International Aero Engines

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