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V2500-A5/D5 SERIES PROPULSION SYSTEM SERVICE BULLETIN

Printed in Great Britain

This document transmits Revision 2 to Service Bulletin EV2500-72-0361 and the Initial Issue of the Supplement

Document History

Service Bulletin Revision Status	Supplement Revision Status
Initial Issue Nov.24/99	
Revision 1 Jul.15/03	

Bulletin Revision 2

Remove	Incorporate	Reason for change
All pages of the Service Bulletin	Pages 1 to 8 of the Service Bulletin	Correction to Part Nos., Update Inst/Disposition codes, Add prices.
All pages of Appendix 1	Pages 1 to 3 of Appendix 1	Correction to Part Nos., Update Inst/Disposition codes, Add prices.

Supplement Initial Issue

Remove	Incorporate	Reason for change
	Page 1	Correction to Part Nos., Update Inst/Disposition codes, Add prices.

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Transmittal - Page 1 of 2

CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED
If any have not been received please advise Publication Services, Rolls-Royce plc, Derby, England
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LIST OF EFFECTIVE PAGES

The effective pages to this Service Bulletin following incorporation of Revision 2 to the Bulletin and the Initial Issue of the Supplement are as follows:

<u>Page</u>	<u>Revision Number</u>	<u>Revision Date</u>
Bulletin		
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Appendix 1		
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Supplement		
1		Apr.5/04

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ENGINE – HP TURBINE ROTOR ASSEMBLY – INTRODUCE NEW FIRST STAGE TURBINE BLADES WITH
BLADE ROOT ATTACHMENT COATING

1. Planning Information

A. Effectivity

(1) Airbus A319

Engine Models Applicable

V2522-A5, V2524-A5, V2527M-A5

Engine Serial Nos.V10001 thru V10675, V10676, V01678

(2) Airbus A320

Engine Models Applicable

V2527-A5, V2527E-A5

Engine Serial Nos.V10001 thru V10675, V10676, V01678

(3) Airbus A321

Engine Models Applicable

V2530-A5, V2533-A5*

Engine Serial Nos.V10001 thru V10675, V10676, V01678

NOTE: * V2533-A5 Base Line Serial Number is V10198.

(4) Boeing MD-90

Engine Models Applicable

V2525-D5, V2528-D5

Engine Serial Nos. V20001 thru V20285

B. Concurrent Requirements

There are no concurrent requirements.

C. Reason

- (1) Condition: Service experience has shown corrosion/pitting on the root attachment of the V2500-A5/D5 1st Stage HPT Blade.

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- (2) Background: V2500-A5/D5 1st Stage HPT Blade root attachment has shown to be susceptible to corrosion /pitting upon exposure to corrosive agents typically found in service. The subject blade's root attachment does not have a protective coating.
- (3) Objective: Apply a protective coating PWA 70 to the blade root attachment area.
- (4) Substantiation: Lab testing has demonstrated that the addition of PWA 70 coating provides increased corrosion pitting resistance. Extensive testing has demonstrated that part life is not affected by the application of PWA 70 coating to the blade root attachment.
- (5) Effects of Bulletin on:
 - 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.

D. Description

Replace the Stage 1 HPT Blades with new Blades that have had PWA 70 in addition to PWA 275 coating on the Blade Root Attachment.

E. Compliance

Category 7

Accomplish when supply of superseded parts has been depleted.

F. Approval Data

The part number changes and/or part modifications specified in the Accomplishment Instructions and Material Information sections of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine model(s) given.



The compliance statement and the procedures described in this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the Engine Model listed.

G. Manpower

- R (1) In Service
- R Not Applicable.
- R (2) At Overhaul
- R Not Applicable.

H. Weight and Balance

- R (1) Weight Change
- R None.
- R (2) Moment
- R No Effect.
- R (3) Datum
- R Engine Front Mount Centerline (Power Plant Station (PPS) 100)

I. Electrical Load Data

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

J. Software Accomplishment Summary

Not Applicable.

K. References

1. IAE V2500 Service Bulletin V2500-ENG-72-0146 (Engine - HP Turbine Rotor And Stator Assembly - Provide A New Stage 1 HPT Blade).
2. IAE V2500 Service Bulletin V2500-ENG-70-379 (Information - Engine - HP Turbine Rotor And Stator Assembly - To Announce The Availability Of A New Stage 1 HPT Blade With Improved Durability).
3. IAE V2500 Service Bulletin V2500-ENG-72-0220 (Engine - HP Turbine Rotor And Stator Assembly - Introduce New First and Second Stage Turbine Blades With More Durable Tips and Improved Repairability).

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4. IAE V2500 Service Bulletin V2500-ENG-72-0242 (Engine - HP Turbine Rotor And Stator Assembly - Provide New Stage 1 HPT Blades).
5. IAE V2500 Service Bulletin V2500-ENG-72-0302 (Engine - HP Turbine Rotor And Stator Assembly - Introduce New First and Second Stage Turbine Blades Which Have Protective Coating in the Damper Pocket Area Under the Platform).
6. IAE V2500 Service Bulletin V2500-ENG-72-0357 (Engine - HP Turbine Rotor Assembly - Introduce New First Stage Turbine Blades With Protective Coating on The Internal Cavities).
7. V2500 Engine Illustrated Parts Catalogs (S-V2500-2IA, S-V2500-2IB, S-V2500-3IA, S-V2500-3IB, S-V2500-5IA, S-V2500-5IB, S-V2500-6IA, S-V2500-6IB, S-V2500-7IA, and S-V2500-7IB), Chapter/Section 72-45-14.
8. V2500 Engine Manual (E-V2500-1IA), Chapter/Section 72-45-14.
9. V2500 Engine Manual (E-V2500-3IA), Chapter/Section 72-45-14.
10. Internal Reference No. - 99VC042B.
11. ATA Locator - 72-45-00.

L. Other Publications Affected

1. V2500 Engine Illustrated Parts Catalogs (S-V2500-2IA, S-V2500-2IB, S-V2500-3IA, S-V2500-3IB, S-V2500-5IA, S-V2500-5IB, S-V2500-6IA, S-V2500-6IB, S-V2500-7IA, and S-V2500-7IB), Chapter/Section 72-45-14 to add the new part.
2. V2500 Engine Manuals (E-V2500-1IA and E-V2500-3IA), Chapter/Section 72-45-14 Cleaning, Inspection and Repair, to add the new part.

M. Interchangeability of Parts

Old and new parts are directly interchangeable.

N. Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts (Yes)

Added Data (No)

Revision to Table of Limits (No)

Inspection Procedures (No)



2. Material Information

A. Material – Price and Availability

- R 1. The estimated price of new material is \$372,800.00 to do this Service Bulletin
R when the part modification procedure is used.
2. There is no kit provided to do this Service Bulletin.
3. Part availability information is provided in material data Instructions – Disposition.

B. Industry Support Program

Not Applicable.

C. The material data that follows is for each engine.

NOTE: The prices shown are for estimating purposes only and as such are given in good faith without commercial liability for advanced planning purposes only. Refer to IAE Spares and/or current Price Catalog for current prices.

For V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5, V2525-D5, V2528-D5 Engines:

New PN	Qty	Estimate of Unit Price (\$)	Keyword	Old PN (ATA/Figure/Item)	Inst - Disp
2A9041	1		.Turbine Rotor	2A9031	(S1)(A)
			Assy of, 1 Stg	(72-45-10-01-010)	(D)(NP)
2A9201	64	5,825.00	..Blade, HPT,	2A9101	(S1)(A)
			1Stg	(72-45-14-01-010)	(D)

D. Instructions/Disposition Code Statements:

Parts Modification Conditions

(S1)Old and New Parts are freely and fully interchangeable.

Spare Parts Availability

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

(D) The new part is currently available.

R (NP) The part is an item that is usually not procured as a spare item.

E. Tooling – Price and Availability

Special tools are not required to accomplish this Service Bulletin.



F. Reidentified Parts

Reidentified Parts Data for 1Stg Turbine Rotor Assy.		
New PN	Keyword	Old PN
2A9041	Turbine Rotor Assy of, 1Stg	2A9031

Reidentified Parts Data for 1Stg HPT Blade.		
New PN	Keyword	Old PN
2A9201	Blade, HPT, 1Stg	2A9101

R

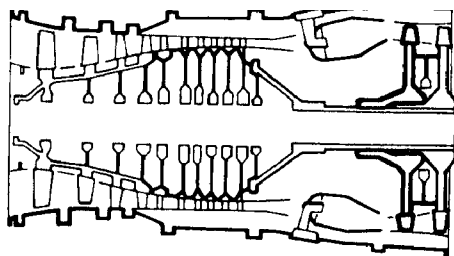
G. Other Material Information Data

Not Applicable.



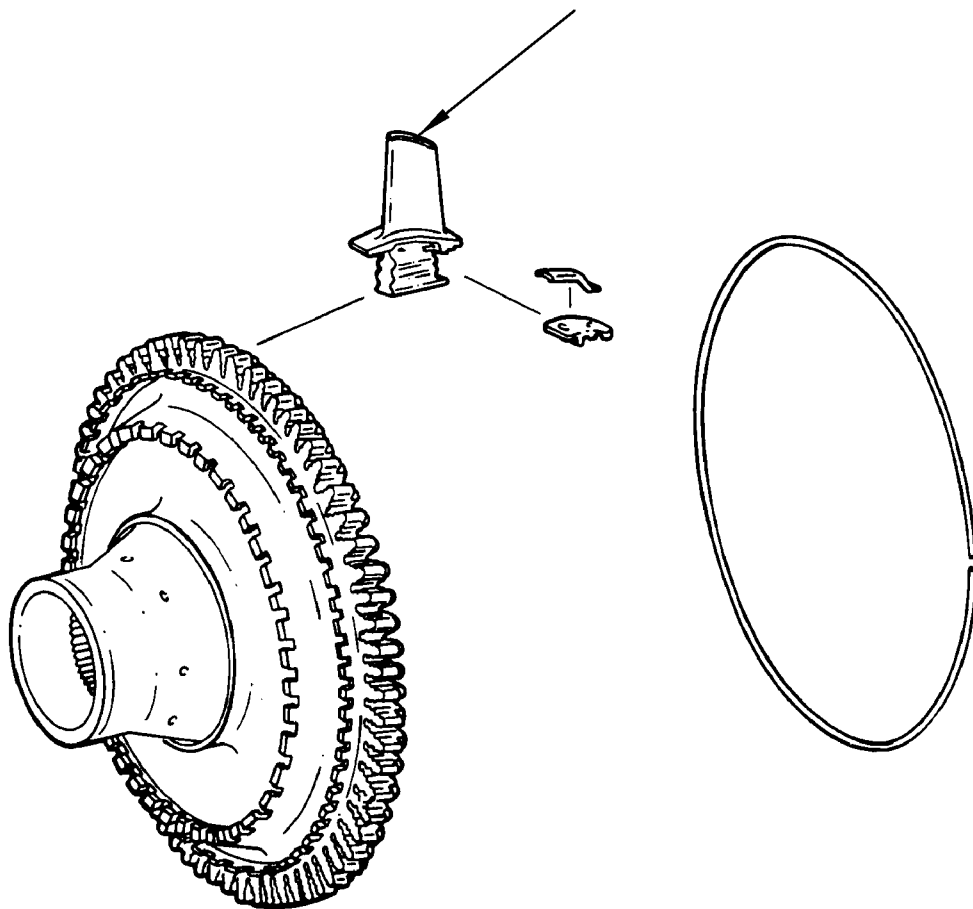
3. Accomplishment Instructions

- (1) Replace the Stage 1 HPT Blades (64 off) by the approved procedure given in Reference (8), Chapter/Section 72-45-10, Assembly-01 and Figure 1. for V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5 and V2533-A5 Engines.
- (2) Replace the Stage 1 HPT Blades (64 off) by the approved procedure given in Reference (9), Chapter/Section 72-45-10, Assembly-01 and Figure 1 for V2525-D5 and V2528-D5 Engines.
- (3) Recording Instructions
 - (a) A record of accomplishment is required.



MODULE 40

REPLACE THE STAGE 1
HPT BLADE 2A9101 WITH
NEW STAGE 1 HPT BLADE 2A9201



LOCATION OF THE STAGE 1 HPT BLADE
Figure 1

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International Aero Engines

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APPENDIX 1

Parts Progression To Show the Changed Part in Relation to Other Parts

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MODIFICATIONS

PART NUMBER CHANGE

V2500-ENG-
72-0302

2A9021

V2500-ENG-
72-0357

2A9031

V2500-ENG-
72-0361

2A9041

SERVICE BULLETIN V2500-ENG-72-0361 DOES NOT PROGRESS FIELD IDENTIFIED ROTORS

FAMILY TREE - STAGE 1 TURBINE ROTOR ASSEMBLY REF. CATALOG SEQUENCE NUMBER 72-45-14.

FIG. 01 ITEM 010

Figure 2

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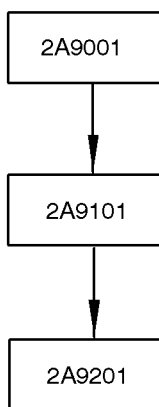
MODIFICATIONS

PART NUMBER CHANGE

V2500-ENG-
72-0302

V2500-ENG-
72-0357

V2500-ENG-
72-0361



pw0b512042

SERVICE BULLETIN V2500-ENG-72-0361 DOES NOT PROGRESS FIELD IDENTIFIED BLADES

FAMILY TREE – STAGE 1 HPT BLADE REF. CATALOG SEQUENCE NUMBER 72-45-14. FIG. 01 ITEM 010

Figure 3

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ENGINE - HP TURBINE ROTOR ASSEMBLY - INTRODUCE NEW FIRST STAGE TURBINE BLADES WITH
BLADE ROOT ATTACHMENT COATING

R SUPPLEMENT - PRICES AND AVAILABILITY

R The prices (if shown) are for estimating purposes only and as such are given in good
R faith, without commercial liability for advanced planning purposes only. Refer to
R IAE Spares and/or current price catalogue for current prices.

R 1. Modification Kit:

R Not applicable.

R 2. Parts required:

R			Unit Price
R	Part No.	Description	US Dollars
R	2A9201	Blade, HPT, 1 Stg	5,825.00

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