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V2500-A1 SERIES PROPULSION SYSTEM SERVICE BULLETIN

This document transmits Revision 8 of Service Bulletin V2500-ENG-72-0138 and Revision 8 to the Supplement

Document History

Service Bulletin Revision Status		Supplement Revision Status	
Initial Issue	Apr.29/94	Initial Issue	Apr.29/94
Revision 1	Dec. 6/02	Revision 1	Dec. 6/02
Revision 2	Sep.19/03	Revision 2	Sep.19/03
Revision 3	Jan.22/04	Revision 3	Jan.22/04
Revision 4	Mar.13/06	Revision 4	Mar.13/06
Revision 5	Mar.23/06	Revision 5	Mar.23/06
Revision 6	Jan. 8/07	Revision 6	Jan. 8/07
Revision 7	Nov.26/08	Revision 7	Nov.26/08

Service Bulletin Revision 8

Remove	Incorporate	Reason for change
All pages of the Service Bulletin	Pages 1 to 8 of the Service Bulletin	To revise the Material Information section.

V2500-ENG-72-0138

Transmittal - Page 1 of 2

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Supplement Revision 8

Remove
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Supplement

Incorporate
Page 1 of the
Supplement

Reason for change
None.

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Transmittal - Page 2

ENGINE – LP TURBINE – ROTOR AND STATOR ASSEMBLY – INTRODUCE NEW LP TURBINE BLADES AND
VANES

1. Planning Information

A. Effectivity

Airbus A320

V2500–A1 Engines prior to Serial No. V0266

B. Concurrent Requirements

None.

C. Reason

(1) Condition

New V2500 models required a redesign of LP turbine airfoils.

(2) Background

To introduce a new set of airfoils and a new ring assy support.

(3) Objective

To allow installation of latest standard LP turbine airfoils in to V2500–A1 engines to achieve commonality between all V2500 models.

(4) Substantiation

Engineering assessment has concluded that change introduced by this modification will be beneficial.

(5) Effect of Bulletin on:

(a) Operation

Not affected.

(b) Maintenance

Not affected.

(c) Overhaul

Not affected.

(d) Repair Schemes

Not affected.

(e) Interchangeability

See Material Information.

(f) Fits and Clearances

Not affected.

(6) Supplementary Information

None.

D. Description

(1) The changes introduced are:

(a) Aluminized coating has been introduced to stage 5 vanes.

(b) Aluminized coating has been introduced to stage 4 blades.

(c) New seal strips have been introduced.

(d) All airfoils have been modified, interchangeable as a complete set stage 3 to 7.

(e) A hard face coating has been introduced on the ring assy support.

(f) A hard face coating has been introduced on the front face of the stage 3 vane inner platform.

E. Compliance

Category Code 7

Accomplish when supply of superseded parts has been depleted.

F. Approval

The Part Number changes and/or part modification 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.

G. Manpower**(1) In Service**

Not applicable.

(2) At Overhaul

No additional work required during module assembly/disassembly.

NOTE: The parts affected by this Service Bulletin are accessible at overhaul.

H. Material – Price and Availability

(1) Modification kit not required. Parts supplied as single line items.

(2) See Material Information section for availability of future spares.

For prices see Supplement to this Service Bulletin.

I. Tooling – Price and Availability

None.

J. Industry Support Information

None.

K. Weight and Balance**(1) Weight Change**

None.

(2) Moment Arm

No effect.

(3) Datum

Engine Front Mount Centreline (Power Plant Station (PPS) 100).

L. Electrical Load Data

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

M. Software Accomplishment Summary

Not applicable.

N. References

- (1) Engineering Changes 90VM008, 90VM008-01, 92VM022 and 92VM022-01.
- (2) V2500 Engine Illustrated Parts Catalogue.
- (3) V2500 Engine Manual.
- (4) V2500 Standard Practices/Processes Manual.
- (5) Service Bulletin V2500-ENG-72-0359.
- (6) ATA Locator - 72-50-00.

O. Other Publications Affected

- (1) V2500 Engine Illustrated Parts Catalogue, Chapter/Section 72-50-22, 72-50-24 and 72-50-32 to add the new Part Numbers.
- (2) V2500 Engine Manual Chapter/Section 72-50-22, 72-50-24, and 72-50-32 Cleaning, to add the new Part Numbers.
- (3) V2500 Engine Manual Chapter/Section 72-50-22, 72-50-24, and 72-50-32 Inspection/Check, to add the new Part Numbers.
- (4) V2500 Engine Manual Chapter/Section 72-50-22, 72-50-24 and 72-50-32 Repair, to add the new Part Numbers.

P. Interchangeability of Parts

To claim this Service Bulletin as embodied, it is required that the new parts introduced by this Service Bulletin are fitted as a complete set per engine.

Partial embodiment to replace the stage 7 turbine blades only to Service Bulletin ENG-72-0138 standard is permitted.

2. Material Information

A. The kit required consists of the following parts:

None.

B. Parts to be reworked:

None.

C. New production parts:

72-50-10

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	OLD PART NO.	INSTR DISP
--	3A1041	-	Turbine,LP Case and Rotor	3A1032	(1D)

72-50-22

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	OLD PART NO.	INSTR DISP
01-010	3A1827	32	Vane A/O, Turbine Stg 7	3A1783CL50	(A)(B) (S1)
01-175	3A1826	33	Vane A/O, Turbine stg 6	3A2057CL50	(A)(B) (S1)
01-350	3A1825	31	Vane A/O, Turbine stg 5	3A0025CL45	(A)(B) (S1)
01-500	3A1801	31	Seal strip	3A0022	(A)(B) (S1)
01-510	3A1799	31	Seal strip	3A0032	(A)(B) (S1)
01-520	3A1800	31	Seal strip	3A0031	(A)(B) (S1)
01-530	3A1802	31	Seal strip	3A0038	(A)(B) (S1)
01-550	3A2274	30	Vane A/O, Turbine stg 4	3A0637CL45	(A)(B) (S1)
01-700	3A1795	30	Seal strip	3A0009	(A)(B) (S1)
01-720	3A1796	30	Seal strip	3A0011	(A)(B) (S1)
01-750	3A2073CL33	27	Vane A/O, Turbine stg 3	3A1729CL45	(A)(B) (S1)
01-780	3A2077CL33	2	Vane A/O, Turbine stg 3	3A1733CL45	(A)(B) (S1)

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	OLD PART NO.	INSTR DISP
01-900	3A1819	29	Seal strip	3A0058	(A)(B) (S1)
01-910	3A1818	29	Seal strip	3A0056	(A)(B) (S1)
01-920	3A1818	29	Seal strip	3A0056	(A)(B) (S1)
01-930	3A1822	29	Seal strip	3A0060	(A)(B) (S1)
01-940	3A1821	29	Seal strip	3A0059	(A)(B) (S1)

72-50-24

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	OLD PART NO.	INSTR DISP
01-170	3A1560	1	Ring, assembly support	3A0113	(A)(B) (S1)

72-50-32

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	OLD PART NO.	INSTR DISP
01-010	3A1807	89	Blade, Turbine stage 7	3A0887	(A) (S1)(S3)
01-050	3A1806	85	Blade, Turbine stage 6	3A0886	(A)(B) (S1)
01-100	3A1805	87	Blade, Turbine stage 5	3A0885	(A)(B) (S1)
01-150	3A1804	99	Blade, Turbine stage 4	3A0884	(A)(B) (S1)
01-200	3A2055	97	Blade, Turbine stage 3	3A0883	(A)(B) (S1)

D. Redundant parts:

Not applicable.

E. Instruction/Disposition Code Statements

(A) New part is available for sale.

(B) Old part continues to be available for sale.

(S1) Old and new parts are interchangeable as complete set per engine.

(S3) Partial embodiment to replace stage 7 blades only is permitted, old and new parts are interchangeable as a complete set per engine in isolation.

(1D) Because of replacement of internal parts (upgrade) a reidentification is necessary.

3. Accomplishment Instructions

A. Removal Instructions

- (1) Disassemble the LP turbine module by the instructions given in Reference (3), Chapter/Section 72-50-10.

B. Assembly Instructions

- (1) Replace the old Part Number, refer to Section 2, to accomplish this Service Bulletin.
- (2) Assemble LP turbine module by the instructions given in Reference (3), Chapter/Section 72-50-10, Assembly.

C. Recording Instructions

- (1) A record of accomplishment is necessary.

NOTE: Replacement of Stage 7 Turbine Blades only does not mean that Service Bulletin ENG-72-0138 is incorporated.

ENGINE - LP TURBINE - ROTOR AND STATOR ASSEMBLY - INTRODUCE NEW LP TURBINE BLADES AND VANES

SUPPLEMENT - PRICES AND AVAILABILITY

The prices, if 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 catalogue for current prices.

1. Modification Kit

Not applicable. Parts supplied as single line items

2. New Production or Rework Parts

Part No.	Desc.	Unit Price US Dollars
3A1041	Turbine,LP Case and Rotor	Price on request
3A1827	Vane, stg 7	3,877.00
3A1826	Vane, stg 6	3,578.00
3A1825	Vane, stg 5	3,262.00
3A1801	Seal strip	8.58
3A1799	Seal strip	7.30
3A1800	Seal strip	6.06
3A1802	Seal strip	8.58
3A2274	Vane, stg 4	5,545.00
3A1795	Seal strip	6.04
3A1796	Seal strip	6.04
3A2073CL33	Vane, stg 3	6,659.00
3A2077CL33	Vane, stg 3	7,367.00
3A1819	Seal strip	9.72
3A1818	Seal strip	8.58
3A1822	Seal strip	9.72
3A1821	Seal strip	8.58
3A1560	Ring, assembly support	20,680.00
3A1807	Blade, stg 7	1,406.00
3A1806	Blade, stg 6	1,361.00
3A1805	Blade, stg 5	1,279.00
3A1804	Blade, stg 4	1,432.00
3A2055	Blade, stg 3	1,389.00