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DATE: Jun. 20/13

V2500-A1/A5/D5 SERIES PROPULSION SYSTEMS SERVICE BULLETIN

This document transmits the Revision 4 of Service Bulletin V2500-ENG-72-0567.

Document History

Service Bulletin Revision Status

Initial Issue. Nov.27/08. Revision 1. May 11/09. Revision 2. May 3/10. Revision 3. May 29/13.

Service Bulletin Revision 4

Remove Incorporate Reason for change

All Pages of the Pages 1 to 7 of the To revise Disposition Code Service Bulletin. (A).

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All Pages of the Page 1 of the No change.

Supplement. Supplement.

V2500-ENG-72-0567

CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED If any have not been received please advise IAE International Aero Engines AG



<u>ENGINE - LOW PRESSURE (LP) TURBINE - INTRODUCTION OF NEW INNER AIRSEAL STAGE 6 WITH 4 VENTILATION HOLES, FOR BEARING NO.5 COMPARTMENT</u>

1. Planning Information

A. Effectivity

- (1) Airbus A319
 - (a) V2522-A5, V2524-A5 Engines from Serial No. V13020 onwards.
 - (b) V2522-A5, V2524-A5 Engines from Serial No. V15003 onwards.
- (2) Airbus A320
 - (a) V2500-A1 Engines from Serial No. V0362 onwards.
 - (b) V2527-A5, V2527E-A5, V2527M-A5 Engines from Serial No. V13020 onwards.
 - (c) V2527-A5, V2527E-A5, V2527M-A5 Engines from Serial No. V15003 onwards.
- (3) Airbus A321
 - (a) V2530-A5, V2533-A5 Engines from Serial No. V13020 onwards.
 - (b) V2530-A5, V2533-A5 Engines from Serial No. V15003 onwards.
- (4) Boeing MD-90
 - (a) V2525-D5, V2528-D5 from Engine Serial No. V20286 onwards.

B. Concurrent Requirements

This Service Bulletin must not be incorporated before the following Service Bulletin has been incorporated:

V2500-ENG-79-0093.

ENGINE - OIL - TO ANNOUNCE A NEW SCAVENGE OIL PUMP WITH IMPROVED COMPARTMENT NO.5 SCAVENGING PERFORMANCE

C. Reason

Introduction of new Inner Airseal Stage 6 with 4 ventilation holes in order to eliminate pressure reversal in bearing No.5 compartment and thus to avoid tailpipe smoke.

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(1) Background

A number of V2500-A1/A5/D5 powered Aircraft have experienced tailpipe smoke during aborted takeoffs.

(2) Objective

A new No.5 compartment Inner Airseal Stage 6 with 4 through holes will provide correct buffer air pressure for the Bearing Chamber. This change must be incorporated with an improved oil scavenge Pump (Refer to paragraph 1.B. "Concurrent Requirements").

(3) Substantiation

The new Inner Airseal Stage 6 was successfully tested in a development engine.

- (4) Effect of Bulletin on:
 - (a) Operation

Not affected.

(b) Maintenance

Not affected.

(c) Overhaul

Not affected.

(d) Repair Schemes

Affected.

(e) Interchangeability

Affected - Refer to paragraph 1.B. Concurrent Requirements.

(f) Fits and Clearances

Not affected.

(5) Supplementary Information

None.

D. <u>Description</u>

Introduction of new Inner Airseal Stage 6 with 4 ventilation holes.

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E. Compliance

Category Code 8

Accomplish based upon experience with the prior configuration.

F. Approval

The part number changes and/or part modification 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.

G. Manpower

(1) In Service

Not applicable.

(2) At Overhaul

Not applicable.

<u>NOTE</u>: The parts affected by this Service Bulletin are accessible at overhaul.

H. Material Price and Availability

- (1) Modification kit is not required.
- (2) Refer "Material Information" section for availability.

For prices see Supplement of this Service Bulletin.

I. Tooling Price and Availability

None.

J. <u>Industry Support Information</u>

None.

K. Weight and Balance

(1) Weight Change

None.

(2) Moment Arm

No effect.

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(3) Datum

Engine Front Mount Centerline (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) Internal Reference No.:

Engineering Change No. 07VM008, 07VM008-01, 07VM008-02, 07VM008-03, 07VM008-04 and 07VM008A.

0. Other Publications Affected

- (1) V2500 Engine Manual Chapter/Section 72-50-00, Cleaning, to add the new Part Numbers.
- (2) V2500 Engine Manual Chapter/Section 72-50-00, Inspection/Check, to add the new Part Numbers.
- (3) V2500 Engine Manual Chapter/Sections 72-50-00, Repair, to add the new Part Numbers.
- (4) The V2500-A1/A5/D5 Engine Illustrated Parts Catalogs (S-V2500-1IA, S-V2500-2IA, S-V2500-2IB, S-V2500-3IA, S-V2500-3IB, S-V2500-5IA, S-V2500-5IB, S-V2500-6IA, V-2500-6IB, S-V2500-7IA, S-V2500-7IB) will be revised to include the new part. Refer to Section 2. Material Information for ATA locations.
- (5) IAE V2500-A5 SelectOne™ Engine Illustrated Parts Catalogs (S-V2500-2SA, S-V2500-2SB, S-V2500-5SB, S-V2500-6SA, S-V2500-6SB, S-V2500-7SA, S-V2500-7SB) will be revised to include the new part. Refer to Section 2. "Material Information" for ATA locations.
- (6) V2500 Time Limits Manual (TLM).
 - (a) For the effect on declared life, the V2500 A1/A5 Time Limit Manual (T-V2500-1IA) Section 05-10-01, Group A Parts Life following TASKs will be updated:

05-10-01-200-001-A00 for V2500-A1 Engines.

05-10-01-200-001-B00 for A5 V2527E/V2530 Engines.

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05-10-01-200-001-C00 for A5 V2522/V2524/2527/V2527M Engines.

05-10-01-200-001-D00 for A5 V2533 Engines.

05-10-01-200-001-E00 for A5 V2527E/V2530 SelectOneTM Engines.

05-10-01-200-001-F00 for A5 V2522/V2524/V2527/V2527M SelectOne $^{\rm TM}$ Engines.

05-10-01-200-001-G00 for A5 V2533 SelectOne™ Engines.

(b) For the effect on declared life, the V2500 D5 Time Limit Manual (T-V2500-3IA) Section 05-10-01, Group A Parts Life following TASKs will be updated:

05-10-01-200-001-A00 for V2500 D5 V2525 Engines.

05-10-01-200-001-B00 for V2500 D5 V2528 Engines.

P. Interchangeability of Parts

Affected - Refer to Section 2. "Material Information".



2. Material Information

A. The kit required consists of the following parts:

None.

B. Parts to be reworked:

Not applicable.

C. New production parts:

See supplement of this Service Bulletin.

FIG	NEW	QTY	PART	TITLE	MAT	OLD	INSTR
ITEM	PART					PART	DISP
NO.	NO.					NO.	

A1/A5/D5 Engines:

72-50-00

01-240 3A3063 1 Seal Air, Turbine, - 3A0078 (A)(B)(S1) Inner, Stage 6

- D. <u>Instruction and Disposition Codes:</u>
- R (A) Old part will continue to be supplied until stock is exhausted.
 - (B) New part is spareable for refurbishment only.
 - (S1) Old and new part are not interchangeable.
 - <u>NOTE</u>: The configuration "new Inner Airseal Stage 6" with "old Scavenge Pump" (pre SBE 79-0093) is not permitted due to impact to the required correct buffer air.

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3. Accomplishment Instructions

- A. Examine LP-Turbine Module number after accomplishment of this Service Bulletin as subsequent given.
 - (1) Make sure that the module part number reflect the correct module numbering as given below.
 - (2) If required cross out old number and reidentify the module with the new number as given below (Refer to SPP TASK 70-09-00-400-501).

Use vibro-peening method.

A1 Engines:

NEW PART NUMBER OLD PART NUMBER

4W5222 4W5192

A5 Engines 22 to 30k

NEW PART NUMBER OLD PART NUMBER

4W5227 4W6423

A5 Engines 33k

NEW PART NUMBER OLD PART NUMBER

4W5224 4W6243

A5 SelectOne™ Engines

NEW PART NUMBER OLD PART NUMBER

4W5225 4W6253

D5 Engines:

NEW PART NUMBER OLD PART NUMBER

4W5223 4W6427

B. Assembly Instructions

(1) None.

C. Recording Instructions

(1) A record of accomplishment is required.

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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.

2. New Production Parts:

Part No.	Description	Unit Price US Dollars
3A3063	Seal Air, Turbine, Inner, Sta.6	24,550.00

3. Tools

None.



SERVICE BULLETIN FEEDBACK FORM

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Yes

2

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3

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No

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Please use this form to give feedback on the quality of this Service Bulletin. The input you provide will be used to analyse areas of improvement and to take action to further improve on the quality of our Service Bulletins.

We thank you for the time you spent in completing this form.

<u>Please rate on a scale of 1 to 5, with 5 being the highest score:</u>

- General quality rating of this Service Bulletin

- Is this Service Bulletin easy to understand?

- Quality rating of the Illustration

- Quality rating of the Accomplishment Instructions

If you have had difficulties to description of the issue:	perform this Service Bull	etin please quote below the	area(s) and give a short	
Planning In Secti		Material Information Section:	Accomplishment Instruction Section:	
☐ 1.A. ☐ 1.B. ☐ 1.C. ☐ 1.D. ☐ 1.E. ☐ 1.F. ☐ 1.G.	☐ 1.I. ☐ 1.J. ☐ 1.K. ☐ 1.L. ☐ 1.M. ☐ 1.N. ☐ 1.O. ☐ 1.P.	☐ 2.A. ☐ 2.B. ☐ 2.C. ☐ 2.D. ☐ 2.E. ☐ 2.F.	☐ General ☐ Get Access ☐ Removal/Installation ☐ Inspection ☐ Test ☐ Close the Access ☐ Log Book Entry	
1.H Explanatory notes:	1.P.			
Operator:		Overhaul Site:		
Name/Title:		Date:		

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