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DATE: Jul. 21/10

V2500-A1/A5 SERIES PROPULSION SYSTEM SERVICE BULLETIN

This document transmits the Initial Issue of Service Bulletin V2500-ENG-72-0597.

Service Bulletin Initial Issue

Remove Incorporate Reason for change

Pages 1 to 6 of the Service Bulletin.

Initial Issue.

Page 1 of the Supplement.

Initial Issue.

V2500-ENG-72-0597

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





<u>ENGINE - EXTERNAL GEARBOX - INTRODUCTION OF OPTIMIZED ROLLER BEARINGS FOR THE DEOILER</u> <u>GEAR</u>

1. Planning Information

A. <u>Effectivity</u>

- (1) Airbus A319
 - (a) V2522-A5, V2524-A5, V2527M-A5 Engines prior to Serial No. V13191 (A5 Standard and A5 SelectOne™ Retrofit Standard).
 - (b) V2522-A5, V2524-A5, V2527M-A5 Engines prior to Serial No. V15415 (A5 SelectOne™ Production Standard).
- (2) Airbus A320
 - (a) All V2500-A1 Engines.
 - (b) V2527-A5, V2527E-A5 Engines prior to Serial Number V13191 (A5 Standard and A5 SelectOne™ Retrofit Standard).
 - (c) V2527-A5, V2527E-A5 Engines prior to Serial Number V15415 (A5 SelectOne™ Production Standard).
- (3) Airbus A321
 - (a) V2530-A5, V2533-A5 Engines prior to Serial Number V13191 (A5 Standard and A5 SelectOne™ Retrofit Standard).
 - (b) V2530-A5, V2533-A5 Engines prior to Serial Number V15415 (A5 SelectOne™ Production Standard).

B. Concurrent Requirements

None.

C. Reason

(1) Condition

A number of engines have generated debris on the Master and External Gearbox right-hand magnetic chip detectors. The debris resulted from early fatigue distress on the deoiler drive gear rear roller bearing.

(2) Background

Investigation has shown the tolerance stack-up of the rollers and outer raceway of the bearings could potentially create a condition of edge contact, resulting in early distress.

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(3) Objective

Introduction of optimized rear deoiler gear bearings to maintain reliability.

(4) Substantiation

By comparative design analysis between the distressed bearings and those bearings that did not show early distress.

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

Not affected.

(b) Maintenance

Not affected.

(c) Overhaul

Not affected.

(d) Repair Schemes

Not affected.

(e) Interchangeability

Not affected.

(f) Fits and Clearances

Not affected.

- (6) Supplemental Information
 - (a) The new parts can replace the old parts but not vice versa.

D. <u>Description</u>

This Service Bulletin introduces a new standard of bearing with higher durability and reliability. The rollers and the raceway of the new bearing have been optimized to eliminate the previous tolerance stack-up condition.

E. Compliance

Category Code 7

Accomplish when supply of superseded parts has been depleted.

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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 Models listed.

G. Manpower

Estimated man-hours to incorporate the full intent of this Service Bulletin:

(1) In service

Not applicable.

(2) At overhaul

Applicable (hours not affected).

H. Material Availability

A modification kit is not required; parts are supplied as single line items.

For prices and availability of spares refer to the Supplement to this Service Bulletin.

I. Tooling Price and Availability

Special tools are not required.

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

Not applicable.

K. Weight and Balance

(1) Weight Change

None.

(2) Moment Arm

No effect.

(3) Datum

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

L. <u>Electrical Load Data</u>

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. 08VF006.
- (2) IAE V2500 Engine Manual, Chapter 72-60-29.
- (3) IAE V2500 Engine Illustrated Parts Catalogue (IPC), Chapter 72-60-29.
- (4) ATA Locator -72-60-29.

0. Other Publications Affected

- (1) IAE V2500-A1/A5 Engine Illustrated Parts Catalogues (S-V2500-1IA, S-V2500-2IA, S-V2500-2IB, S-V2500-5IA, S-V2500-5IB, S-V2500-6IA, S-V2500-6IB, S-V2500-7IA, S-V2500-7IB) will be revised to include the new parts. Refer to Section 2. "Material Information" for ATA Locations.
- (2) IAE V2500-A5 SelectOne[™] Production Standard Engine Illustrated Parts Catalogues (S-V2500-2SA, S-V2500-2SB, S-V2500-5SA, S-V2500-5SB, S-V2500-6SA, S-V2500-6SB, S-V2500-7SA, S-V2500-7SB) will be revised to include the new parts. Refer to Section 2. "Material Information" for ATA Locations.
- (3) IAE Engine Manual E-V2500-1IA will be revised to include the new parts. The inspection criteria of Task 72-60-29-200-005 examine the Roller Bearing are applicable to the new parts.

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:

None.

C. New production parts:

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP		
72-60-29								
04 /00	/ 70445	4	Danis Dallan		/ T040/	(A)(B)(04)		
01–490	4T0115	1	.Bearing, Roller	_	4T0106	(A)(B)(S1)		
01-490	_	1	.Bearing, Roller	_	4T0108	(B)		
01-490	4T0107	1	.Bearing, Roller	_	4T0109	(A)(B)(S1)		

D. Instruction/Disposition Codes:

- (A) The new parts coded (A) are available.
- (B) The old parts coded (B) will be discontinued.
- (S1) The new parts coded (S1) can replace the old parts coded (S1) but not vice versa.



3. Accomplishment Instructions

- A. Rework Instructions
 - (1) None.
- **B.** Assembly Instructions

APPLICABLE FOR ENGINES "AT OVERHAUL"

- (1) General
 - (a) Obey all the WARNINGS and CAUTIONS in the procedures that are referred to.
 - (b) Consumable Materials
 - (i) Refer to the related manual tasks given in this instruction.
 - (c) Tools and Equipment
 - (i) Refer to the related Manual tasks given in this instruction.
- (2) For the correct Removal/Installation procedures, refer to the manual that follows:
 - (a) IAE V2500-A1/A5 Engine Manual, Chapter/Section 72-00-60, Removal/Installation of the External Gearbox Module.
 - (b) IAE V2500-A1/A5 Engine Manual, Chapter/Section 72-60-00, Disassembly/Assembly of the External Gearbox Module.
 - (c) IAE V2500-A1/A5 Engine Manual, Chapter/Section 72-60-00, Disassembly/Assembly of the Main Gearbox Assembly.
 - (d) IAE V2500-A1/A5 Engine Manual, Chapter/Section 72-60-29, Disassembly/Assembly of the Deoiler Gear and Impeller.
- C. Recording Instructions
 - (1) A record of accomplishment of this Service Bulletin 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, parts supplied as single line items.

2. New Production Parts:

Part No.	Description	Unit Price US Dollars
4T0115	Bearing, Roller	\$ 2,318.00
4T0107	Bearing, Roller	\$ 2,318.00

Parts are currently available for sale.

3. <u>Tools:</u>

None.