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DATE: Oct.17/11

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

This document transmits the Revision 2 of Service Bulletin V2500-ENG-75-0108.

# **Document History**

Service Bulletin Revision Status

Initial Issue. Sep. 4/08.

Revision 1. Dec. 7/09.

# Service Bulletin Revision 2

Remove Incorporate Reason for change

All pages of the Pages 1 to 9 of the To update the style and Service Bulletin. Service Bulletin. format.

To update the Material

Information.

To update the Illustrations.

Page 1 of the No change.

Supplement.

V2500-ENG-75-0108

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



# <u>AIR - ACTIVE CLEARANCE CONTROL (ACC) - INTRODUCTION OF A PERISEAL HOUSING WITH INCREASED INNER LIP DIAMETER</u>

## 1. Planning Information

## A. Effectivity

- (1) Airbus A319
- R (a) V2522-A5, V2524-A5, V2527M-A5 Engines prior to Serial No. V13071 (A5 R Standard and A5 SelectOne™ Retrofit Standard).
- R (b) V2522-A5, V2524-A5, V2527M-A5 Engines prior to Serial No. V15016 (A5 SelectOne™ Production Standard).
  - (2) Airbus A320
- R (a) V2500-A1 Engines prior to Serial No. V0362.
- R (b) V2527-A5, V2527E-A5 Engines prior to Serial No. V13071 (A5 Standard R and A5 SelectOne™ Retrofit Standard).
- R (c) V2527-A5, V2527E-A5 Engines prior to Serial No. V15016 (A5 SelectOne™ R Production Standard).
  - (3) Airbus A321
- R (a) V2530-A5, V2533-A5 Engines prior to Serial No. V13071 (A5 Standard and R A5 SelectOne™ Retrofit Standard).
- R (b) V2530-A5, V2533-A5 Engines prior to Serial No. V15016 (A5 SelectOne™ R Production Standard).
  - (4) Boeing MD-90
- R (a) V2525-D5, V2528-D5 Engines prior to Serial No. V20286.

# B. Concurrent Requirements

None.

#### C. Reason

R (1) Condition

The V2500 production engine suffer from wear as a result of contact R between the inner lip diameter of the periseal housing and the Active R Clearance Control (ACC) connector tube end.

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R (2) Background

The tube ends and the periseal housings have to be repaired or replaced very often.

(3) Substantiation

Due to shrinkage of the periseal seal ring as a result of high temperature exposure, contact between the inner lip diameter of the seal housing and the ACC connector tube end, upon which it sits, can occur. By increasing the lip diameter by 0.08 in. (2 mm), the problem can be obviated. A leakage check has been carried out successfully to confirm this.

(4) Objective

Introduction of new periseal housing with increased inner lip diameter by 0.08 in. (2 mm). For rework instructions of existing parts refer to Section 3. "Accomplishment Instructions" of this Service Bulletin.

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

Not affected.

(b) Maintenance

Affected (Refer to paragraph 1.0. Other Publications Affected).

(c) Overhaul

Affected (Refer to paragraph 1.0. Other Publications Affected).

(d) Repair Schemes

Affected (Refer to paragraph 1.0. Other Publications Affected).

(e) Interchangeability

Not affected.

(f) Fits and Clearances

Not affected.

# D. <u>Description</u>

R

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R

- (1) The changes introduced are:
  - (a) Introduction of a new periseal housing with increased inner lip diameter.

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R (b) Introduction of a rework for existing periseal housings.

# 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 Section 2 and 3 of this Modification 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
- R Applicable (Hours not affected).
  - (2) At Overhaul
- R (a) To rework and reidentify the ACC periseal housing 1 Hour.

Total - 1 Hour.

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

#### H. Material Price and Availability

Modification kit is not required; parts supplied as single line items.

For prices and availability of future spares see section 2. "Material Information".

# I. Tooling - Price and Availability

Special tooling is not necessary.

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

Not applicable.

#### K. Weight and Balance

(1) Weight Change

None.

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(2) Moment Arm

No effect.

(3) Datum

R

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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. <u>Software Accomplishment Summary</u>

Not applicable.

#### N. References

- (1) IAE V2500 Component Maintenance Manual Tubes, Hoses and Ducts THD-V2500-1IA and THD-V2500-3IA.
- (2) Internal Reference No.:

Engineering Change No. 05VM005, 05VM005-01 and 05VM005-02.

(3) ATA Locator - 75-24-49.

#### 0. Other Publications Affected

- (1) Airbus A319/A320/A321 Aircraft Illustrated Parts Catalogue (AIPC) will be revised.
- (2) Boeing MD-90 Aircraft Illustrated Parts Catalogue (AIPC) will be revised.
- (3) IAE V2500 Engine Illustrated Parts Catalogues (EIPC) will be revised.
- (4) IAE V2500 Component Maintenance Manual (CMM), THD-V2500-1IA and THD-V2500-3IA Cleaning, Inspection, Repair to add the new part number.
- (5) IAE V2500 Component Maintenance Manual (CMM), THD-V2500-1IA and THD-V2500-3IA to cover rework instruction.

#### P. Interchangeability of Parts

Refer to section 2. "Material Information" of this Service Bulletin.

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# 2. Material Information

# A. The kit required consists of the following parts:

None.

# B. Parts to be reworked

Refer to section 3. "Accomplishment Instructions" of this Service Bulletin.

## C. New production parts:

	FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
	75-24-4	9					
R	01-500	3A3064	1	.Connector-Assy, Periseal	-	-	(D)
R	01-540	3A3014	1	Housing, Periseal	-	3A0562	(A)(B)(C) (S1)
R	01-620	3A3065	1	.Connector-Assy, Periseal	-	-	(D)
R	01-630	3A3017	1	Housing, Periseal	-	3A0188	(A)(B)(C) (S1)
R	01-720	3A3065	1	.Connector-Assy, Periseal	-	-	(D)
R	01-730	3A3017	1	Housing, Periseal	-	3A0188	(A)(B)(C) (S1)

# D. <u>Instructions disposition codes:</u>

- (A) New part is available for sale.
- (B) Old part will continue to be supplied available until supply is depleted.
- (C) Old part can be reworked and reidentified with new part number.
- (D) For spares, all parts are available as separate items, but not as assembly.
- (S1) Modified and new parts are freely and fully interchangeable.

# E. <u>Tooling - Price and Availability</u>

Not applicable.

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#### 3. Accomplishment Instructions

A. Rework Instructions

Rework V2500 A1/A5/D5 Engines existing ACC periseal housing (75-24-49)

Affected Parts: 3A0562

3A0188

(1) Tools

Not applicable.

(2) Consumable Materials

Not applicable.

PROCEDURE SUPPLEMENTARY INFORMATION

(3) Examine the periseal Refer to CMM THD TASK 75-24-49-200-100. housing

a)
Do not rework parts
that do not satisfy
serviceability
requirements in the
CMM.

- (4) Machine the periseal Refer to Figure 1 or Figure 2. housing. Use applicable machining equipment.
- (5) Examine the machined Refer to Figure 1 and Figure 2. area dimensionally. Use applicable inspection equipment.
- (6) Examine the machined Refer to SPP TASK 70-23-05-230-501. area for cracks. Use medium sensitivity level. No cracks are permitted.
- (7) Clean the periseal Refer to SPP TASK 70-11-34-300-503. housing.
- (8) Reidentify the Reidentify adjacent to the existing part number as given below.

  Refer to SPP TASK 70-09-00-400-501. Use shallow electrochemical marking method.

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NEW PART NUMBER OLD PART NUMBER

3A3014 3A0562

3A3017 3A0188

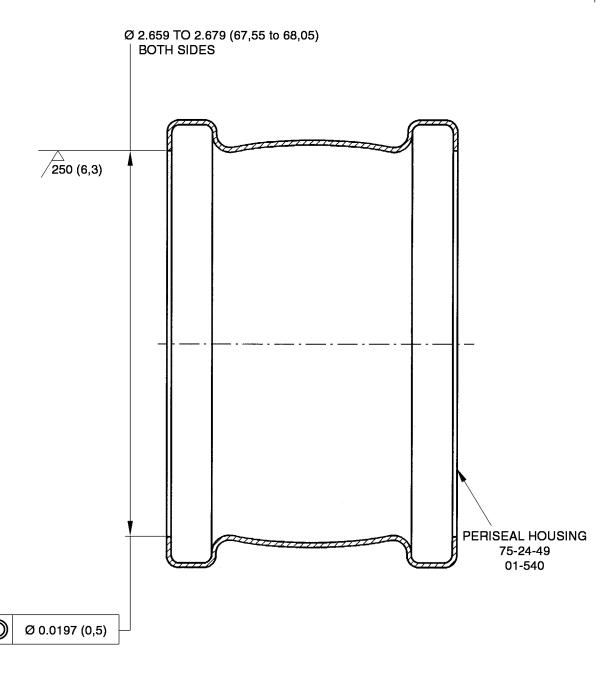
B. Assembly Instructions

For installation instructions refer to Engine Manual TASK 72-00-50-420-000.

C. Record Instructions

A record of accomplishment is required.

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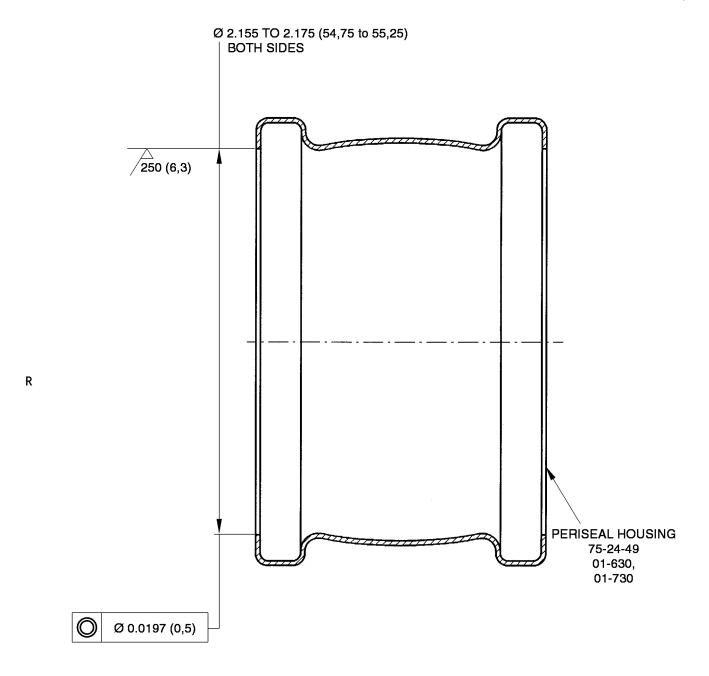
R

R

- NOTE: 1. All dimensions are in in. and (mm)
  - 2. Roughness rates are given in microinch and (micrometer)

Figure 1 - Rework Limits of Periseal Housing 01-540

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R

NOTE: 1. All dimensions are in in. and (mm)

2. Roughness rates are given in microinch and (micrometer)

Figure 2 - Rework Limits of Periseal Housing 01-630 and 01-730

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# <u>SUPPLEMENT - PRICE AND AVAILABILITY</u>

The prices shown are for estimating purposes only and 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.

Part No	Description	Unit Price (US Dollars)
3A3014	Housing, Periseal	329.00
3A3017	Housing, Periseal	388.00

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General quality rating of this Service BulletinQuality rating of the Accomplishment Instructions

- Quality rating of the Illustration

- Is this Service Bulletin easy	y to understand?	☐ Yes	□ No		
If you have had difficulties to description of the issue:	perform this Service Bullet	in please quote below the a	area(s) and give a short		
Planning In Section		Material Information Section:	Accomplishment Instruction Section:		
□ 1.A.	□ 1.I.	□ 2.A.	☐ General		
□ 1.B.	□ 1.J.	□ 2.B.	☐ Get Access		
☐ 1.C.	□ 1.K.	□ 2.C.	☐ Removal/Installation		
□ 1.D.	□ 1.L.	□ 2.D.	☐ Inspection		
□ 1.E.	□ 1.M.	□ 2.E.	☐ Test		
☐ 1.F.	□ 1.N.	□ 2.F.	☐ Close the Access		
□ 1.G.	□ 1.O.		☐ Log Book Entry		
□ 1.H	☐ 1.P.				
Explanatory notes:					
Operator:		Overhaul Site:			
Name/Title:		Date:			

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