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DATE: May 27/11

V2500-A1/A5 SERIES PROPULSION SYSTEMS SERVICE BULLETIN

This document transmits the Revision 1 of Service Bulletin V2500-ENG-79-0095 and the Initial Issue of Eaton Aerospace Service Bulletin 79-33-16-01.

Document History

Service Bulletin Revision Status

Initial Issue Sep.28/10.

Service Bulletin Revision 1

Remove Incorporate Reason for change All pages of the IAE Pages 1 to 7 of the To update the effectivity. Service Bulletin. IAE Service Bulletin To update the approval V2500-ENG-79-0095. paragraph. To update the references. All pages of the Page 1 of the To add the price. Supplement. Supplement.

V2500-ENG-79-0095

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

Remove

Incorporate

79-33-16-01.

Reason for change

All pages of the Eaton Pages 1 to 2 of the Aerospace Service Bulletin.

Eaton Aerospace Service Bulletin

No change.



ENGINE - OIL - NO.4 BEARING OIL PRESSURE TRANSDUCER RE-DESIGN

1. Planning Information

A. Effectivity

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- (1) Airbus A319
 - (a) V2522-A5, V2524-A5, V2527M-A5 Engines prior to Serial No. V13191 (A5 Standard and A5 SelectOne™ Retrofit Standard).

V2522-A5, V2524-A5, V2527M-A5 Engines prior to Serial No. V15651 and engines with serial number V15660, V15662, V15674, V15682, V15687, V15689, V15698, V15699, V15703, V15705 (A5 SelectOne™ Production Standard).

- (i) No.4 Bearing Pressure Transducer P/N 41SG272-5.
- (2) Airbus A320
 - (a) V2500-A1 Engines prior to Serial No. V0362.
 - (i) No.4 Bearing Pressure Transducer P/N 41SG272-5.
 - (b) V2527-A5, V2527E-A5 Engines prior to Serial No. V13191 (A5 Standard and A5 SelectOne™ Retrofit Standard).

V2527-A5, V2527E-A5 Engines prior to Serial No. V15651 and engines with serial number V15660, V15662, V15674, V15682, V15687, V15689, V15698, V15699, V15703, V15705 (A5 SelectOne™ Production Standard).

- (i) No.4 Bearing Pressure Transducer P/N 41SG272-5.
- (3) Airbus A321
 - (a) V2530-A5, V2533-A5 Engines prior to Serial No. V13191 (A5 Standard and A5 SelectOne™ Retrofit Standard)

V2530-A5, V2533-A5 Engines prior to Serial No. V15651 and engines with serial number V15660, V15662, V15674, V15682, V15687, V15689, V15699, V15703, V15705 (A5 SelectOne™ Production Standard).

- (i) No.4 Bearing Pressure Transducer P/N 41SG272-5.
- B. Concurrent Requirements

None.



C. Reason

(1) Condition

The No.4 bearing pressure transducer contains components that are obsolete.

R (2) Background

Certain components of the No. 4 bearing pressure transducer are obsolete. The supplier has decided to use up to date technology to re-design the internal electronics.

(3) Objective

Incorporation of this Service Bulletin is designed to provide a new No. 4 bearing pressure transducer which complies with the previous standard of the No. 4 bearing pressure transducer.

(4) Substantiation

The changes introduced by this Service Bulletin were the subject of satisfactory engineering analysis. This Service Bulletin complies with the applicable engine certification basis.

- (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.



D. <u>Description</u>

This Service Bulletin introduces a re-designed pressure transducer for the No. 4 bearing.

The changes are as follows:

- (1) The DC/DC converter assembly is removed.
- (2) The electronic sub-assemblies are re-designed.
- (3) The compensation foil resistors are removed from the sensor assembly.
- (4) A new standard of bonded foil strain gauges is introduced.
- (5) The flex circuit between the sensor assembly and the internal header is replaced by a Printed Circuit Board (PCB) and interconnection wire.
- (6) The housing is changed from a two piece design to a single piece design.
- (7) The bracket design is changed from two pieces welded to the housing, to a one piece design brazed to the housing.

E. Compliance

Category Code 7

Accomplish when the supply of superseded parts has been depleted.

F. Approval

The part modifications 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.

The technical content of this Service Bulletin has been approved under the authority of the EASA Design Organization Approval N° EASA.21J.031.

G. Manpower

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(1) In Service

2 hours.

(2) At Overhaul

Applicable (hours not affected).

H. Material Price and Availability

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

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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. Electrical Load Data

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

M. Software Accomplishment Summary

Not applicable.

N. References

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- (1) A319/320/321 Aircraft Maintenance Manual, Chapter/Section 79-33-16, Removal/Installation.
- (2) IAE V2500 Engine Manual (E-V2500-1IA), Chapter 72-00-32.
- (3) Internal Reference No.

Engineering Change No. 06VI002 and 06VI002-02.

(4) This Service Bulletin is subject to Aircraft Modification No. 150973

Under no circumstances shall the modified equipment, resulting from the application of this SB, be installed on the aircraft type unless the corresponding modification, and if applicable, its aircraft SB are approved.

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(5) ATA Locator - 79-33-16.

0. Other Publications Affected

(1) IAE V2500 Engine Illustrated Parts Catalogues (S-V2500-1IA, S-V2500-2IA, S-V2500-2IB, S-V2500-2SA, S-V2500-2SB, S-V2500-5IA, S-V2500-5IB, S-V2500-5SA, S-V2500-5SB, S-V2500-6IA, S-V2500-6IB, S-V2500-6SA, S-V2500-6SB, S-V2500-7IA, S-V2500-7IB, S-V2500-7SA and S-V2500-7SB), Chapter 79-33-16 will be amended to incorporate the new part numbers (Refer to paragraph 2. Material Information).

P. <u>Interchangeability of Parts</u>

Not affected.



2. <u>Material Information</u>

A. The kit required consists of the following parts:

None.

B. Parts to be reworked:

None.

C. New production parts:

For all V2500-A1/A5 engines:

FIG	NEW	QTY	PART TITLE	MAT	OLD	INSTRUCTION
ITEM	PART				PART	DISPOSITION
NO.	NO.				NO.	

79-33-16

01-100 41SG272-6 1 .No.4 bearing pressure - 41SG272-5 (S1)(A) transducer

D. <u>Redundant parts:</u>

None.

- E. <u>Instruction disposition codes:</u>
 - (S1) Old and new parts are fully interchangeable.
 - (A) New part is available for sale.



3. Accomplishment Instructions

- A. Rework Instructions
 - (1) None.
- B. Assembly Instructions
 - (1) For the correct Removal/Installation procedure of the No. 4 bearing pressure transducer refer to one of the manuals that follow:
 - (a) A319/320/321 Aircraft Maintenance Manual, Chapter/Section 79-33-16, Removal/Installation.
 - (b) IAE V2500-A1/A5 Engine Manual, Chapter/Section 72-00-32, Removal/Installation.
 - (2) Remove the old No. 4 bearing pressure transducer (79-33-16, 01-100), P/N 41SG272-5.
 - (3) Install the new No. 4 bearing pressure transducer (79-33-16, 01-100), P/N 41SG272-6.
- C. Recording Instructions
 - (1) A record of accomplishment is required.



ENGINE - OIL - NO.4 BEARING OIL PRESSURE TRANSDUCER RE-DESIGN

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:

Unit Price US Dollars

Part No. Description

R 41SG272-6 .No. 4 bearing 15,070.00

pressure transducer

Part is currently available for sale.

3. <u>Tools</u>

None.



Aerospace LLC – Bethel, CT (CAGE Code 02750)

SERVICE BULLETIN

NO 4 BEARING PRESSURE TRANSDUCER PN 41SG272-5 REPLACEMENT

1. PLANNING INFORMATION

- A. <u>Effectivity</u> This bulletin applies to Oil Pressure Differential Transmitter, Eaton Aerospace LLC PN 41SG272-5.
- B. <u>Concurrent Requirements, if applicable, or Reason</u>
 - (1) Problem: Electronic Component obsolescence.
 - (2) Solution: Replacement with new pressure transmitter PN 41SG272-6 with updated electronics.
- C. Description Remove old transmitter and replace with new.
- D. <u>Compliance</u> Not mandatory. Accomplish when necessary to replace current installed PN 41SG272-5.
- E. <u>Approval</u> This service bulletin is approved by IAE/IHI and has been shown to comply with the applicable Federal Aviation Regulations and is FAA Approved for the Oil Pressure Differential Transmitter listed.
- F. <u>Manpower</u> No additional man-hours are required if accomplished at the next suitable maintenance period.
- G. Weight and Balance None.
- H. <u>Electrical Load Data</u> Not changed.
- I. References None.
- J. <u>Other Publications Affected</u> Abbreviated Component Maintenance Manual, ATA number 79-33-16.
- K. Interchangeability PN 41SG272-5 is interchangeable with PN 41SG272-6.

2. MATERIAL INFORMATION

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Number 4 Bearing Pressure Transducer Eaton PN 41SG272-6

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NO 4 BEARING PRESSURE TRANSDUCER PN 41SG272-5 REPLACEMENT

- 3. <u>ACCOMPLISHMENT INSTRUCTIONS</u>
 - A. Remove potentially failed Eaton Aerospace LLC Part Number 41SG272-5.
 - B. Install Eaton Aerospace LLC Part Number 41SG272-6.

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