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DATE: Dec.20/11

V2500-A1/A5 SERIES PROPULSION SYSTEMS NON-MODIFICATION SERVICE BULLETIN

This document transmits the Initial Issue of Non-Modification Service Bulletin V2500-ENG-79-0103.

Non-Modification Service Bulletin Initial Issue

Remove Incorporate Reason for change

Pages 1 to 9 of the Non-Modification Service Bulletin.

Initial Issue.

V2500-ENG-79-0103

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



NON-MODIFICATION SERVICE BULLETIN - OIL - AIR COOLED OIL COOLER (ACOC) - ACOUSTIC EMISSION TEST FOR UNITS NOT TESTED DURING NEW PRODUCTION

1. Planning Information

A. Effectivity

- (1) Airbus A319
 - (a) V2522-A5, V2524-A5, V2527M-A5 Engines (A5 Standard, SelectOne™ Retrofit Standard).
 - (i) Air Cooled Oil Cooler (79-21-42, 01-100), P/N 50069001-1, prior to Serial No. HEX35-2731.
 - (b) V2522-A5, V2524-A5, V2527M-A5 Engines (SelectOne™ Production Standard).
 - (i) Air Cooled Oil Cooler (79-21-42, 01-100), P/N 50069001-1, prior to Serial No. HEX35-2731.

(2) Airbus A320

- (a) V2500-A1 Engines.
 - (i) Air Cooled Oil Cooler (79-21-42, O1-100), P/N 50069001-1, prior to Serial No. HEX35-2731.
- (b) V2527-A5, V2527E-A5 Engines (A5 Standard, SelectOne™ Retrofit Standard).
 - (i) Air Cooled Oil Cooler (79-21-42, 01-100), P/N 50069001-1, prior to Serial No. HEX35-2731.
- (c) V2527-A5, V2527E-A5 Engines (SelectOne™ Production Standard).
 - (i) Air Cooled Oil Cooler (79-21-42, 01-100), P/N 50069001-1, prior to Serial No. HEX35-2731.

(3) Airbus A321

- (a) V2530-A5, V2533-A5 Engines (A5 Standard, SelectOne™ Retrofit Standard).
 - (i) Air Cooled Oil Cooler (79-21-42, 01-100), P/N 50069001-1, prior to Serial No. HEX35-2731.



- (b) V2530-A5, V2533-A5 Engines (SelectOne™ Production Standard).
 - (i) Air Cooled Oil Cooler (79-21-42, 01-100), P/N 50069001-1, prior to Serial No. HEX35-2731.

B. Concurrent Requirements

None.

C. Reason

(1) Condition

Oil loss has been experienced on pre SB V2500-ENG-79-0094 standard Air Cooled Oil Coolers (ACOC) with a locally insufficient brazed condition that resulted in a rupture of the ACOC matrix.

(2) Background

To minimize the risk for an oil loss on the ACOC by performing an Acoustic Emissions test.

(3) Objective

Incorporation of this Non-Modification Service Bulletin is designed to introduce an Acoustic Emissions test, able to detect an insufficient brazing condition in the ACOC matrix.

(4) Substantiation

The Acoustic Emissions test offered with this Non-Modification Service Bulletin is capable of detecting an insufficient brazing condition and were the subject of satisfactory engineering analysis and testing.

D. <u>Description</u>

There is the potential for an oil leak on the ACOC if the partially insufficient brazing condition is present.

This Non-Modification offers an Acoustic Emissions test that is capable of detecting an insufficient brazing condition.

E. Compliance

Category Code 6

Accomplish when the sub-assembly (ie Modules, accessories, components, build groups) is disassembled sufficiently to afford access to the affected part and to all affected spare parts.

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F. Approval

The compliance statement in paragraph 1.E. and the procedures in part 3 of this Non-Modification 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 on one engine.

- (1) In Service
 - 2 hours.
- (2) At Overhaul

Applicable (Hours not affected).

H. Material Price and Availability

If scheduled, return the removed ACOC to Sumitomo Precision Products Co. Ltd (SPP) for an Acoustic Emissiond test.

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 Non-Modification Service Bulletin has no effect on the aircraft electrical load.

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M. Software Accomplishment Summary

Not applicable.

N. References

- (1) A319/A320/A321 Aircraft Maintenance Manual, Chapter 71-13-00 Opening/Closing and 79-21-42, Removal/Installation.
- (2) IAE V2500 A1/A5 Engine Manual (E-V2500-1IA), 72-00-32, Removal/Installation.
- (3) Internal Reference No.
 Engineering Change No. 11VR784.
- (4) ATA Locator 79-21-42.
- 0. Other Publications Affected

None.

P. Interchangeability of Parts

Not affected.



2. Material Information

Α.	<u>The</u>	kit	required	consists	of	the	following	parts:

None.

B. Parts to be reworked:

None.

C. New production parts:

None.

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

None.

E. <u>Instruction disposition codes:</u>

None.



3. Accomplishment Instructions

A. Rework Instructions

None.

B. Assembly Instructions

INSTRUCTION I - Applicable for engines "In Service".

(1) General

CAUTION:

IN ORDER TO REDUCE THE POTENTIAL FOR MULTIPLE ENGINE IN-FLIGHT SHUT DOWN, POWER LOSS, OR OTHER ANOMALIES DUE TO MAINTENANCE ERROR, IAE RECOMMENDS THAT OPERATORS AVOID PERFORMING MAINTENANCE ON MULTIPLE ENGINES INSTALLED ON THE SAME AIRCRAFT AT THE SAME TIME. IF IT IS NOT POSSIBLE TO AVOID MAINTENANCE ON MORE THAN ONE ENGINE AT THE SAME TIME, IAE RECOMMENDS THAT ADDITIONAL CONTROLS BE APPLIED IN ORDER TO ENSURE THAT MAINTENANCE TASKS HAVE BEEN COMPLETED AS DEFINED. MAINTENANCE GUIDELINES SHOULD BE REVISED WHERE POSSIBLE TO PROMOTE THIS RECOMMENDATION.

<u>WARNING</u>: DO NOT TOUCH THE ENGINE COMPONENTS FOR A SHORT TIME AFTER THE ENGINE IS SHUT DOWN. THE COMPONENTS STAY HOT AND CAN CAUSE INJURY.

- (a) Obey all 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) Get access to the Air Cooled Oil Cooler (ACOC) that is installed in the lower right side area of the fan case
 - (a) Open the applicable fan cowl doors (Refer to the Aircraft Maintenance Manual, Chapter 71-13-00 Opening/Closing).
- (3) Make a check of the serial number of the ACOC
 - (a) If the serial number listed on the data plate of the ACOC is before HEX35-2731, the ACOC can be sent for an Acoustic Emissions test.



- (4) If scheduled, remove the old ACOC (79-21-42, 01-100), P/N 50069001-1 from the engine (Refer to the Aircraft Maintenance Manual, Chapter 79-21-42, Removal/Installation)
 - (a) Return the removed ACOC to:

Sumitomo Precision Products Co. Ltd (SPP)

1-10, Fuso-cho, Amagasaki, Hyogo, 660-0891 Japan.

Attention: Manager, Product Support Section, International Business Department.

Tel: +81-6-6489-5884.

Fax: +81-6-6489-5889.

for an Acoustic Emissions test.

(5) Install a tested or new ACOC (79-21-42, 01-100), P/N 50069001-1 on the engine (Refer to the Aircraft Maintenance Manual, Chapter 79-21-42, Removal/Installation).

NOTE: Units prior S/N HEX35-2731, that have been tested, are marked with the letters "AE" adjacent to the identification plate and are qualified for the installation in accordance with this Non-Modification Service Bulletin.

- (6) Close the access to the ACOC
 - (a) Close the applicable fan cowl doors (Refer to the Aircraft Maintenance Manual, Chapter 71-13-00 Opening/Closing).



INSTRUCTION II - Applicable for engines "At Overhaul/Shop Visit"

- (1) General
 - (a) Obey all 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) Make a check of the serial number of the ACOC
 - (a) If the serial number listed on the data plate of the ACOC is before HEX35-2731, the ACOC can be sent for an Acoustic Emissions test.
- (3) If scheduled, remove the old ACOC (79-21-42, 01-100), P/N 50069001-1 from the engine (Refer to the Engine Manual, Chapter 72-00-32, Removal/Installation)
 - (a) Return the removed ACOC to:

Sumitomo Precision Products Co. Ltd (SPP)

1-10, Fuso-cho, Amagasaki, Hyogo, 660-0891 Japan.

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for an Acoustic Emissions test.

(4) Install a tested or new ACOC (79-21-42, 01-100), P/N 50069001-1 on the engine (Refer to the Engine Manual, Chapter 72-00-32, Removal/Installation).

<u>NOTE</u>: Units prior S/N HEX35-2731, that have been tested, are marked with the letters "AE" adjacent to the identification plate and are qualified for the installation in accordance with this Non-Modification Service Bulletin.

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C. Recording Instructions

- (1) If the ACOC is replaced, contact your local IAE office and provide the serial number of the ACOC that has been removed and installed with reference to Non-Modification Service Bulletin V2500-ENG-79-0103.
- (2) Record the incorporation of Non-Modification Service Bulletin V2500-ENG-79-0103 in the applicable engine record.



SERVICE BULLETIN FEEDBACK FORM

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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 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.	□ 1.0.		☐ Log Book Entry			
□ 1.H	□ 1.P.					
Explanatory notes:						
Operator:		Overhaul Site:				
Name/Title:		Date:				

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Please send the completed Service Bulletin Feedback Form to IAE, Customer Support.

Email: GPIAECUSTCOM@IAEV2500.COM

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