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DATE: Apr. 16/12

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

This document transmits the Revision 2 of Non-Modification Service Bulletin V2500-ENG-73-0218.

#### **Document History**

Service Bulletin Revision Status

Initial Issue. Jan.22/10.

Revision 1. Apr.28/10.

# Non-Modification Service Bulletin Revision 2

Remove Incorporate Reason for change

All pages of the Pages 1 to 8 of the To update the Effectivity.

Non-Modification To update the Accomplishment
Service Bulletin. Instructions.

To remove the Accomplishment Form.

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Transmittal - Page 1 of 1

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 - ENGINE FUEL AND CONTROL - INSPECTION OF FUEL MANIFOLD FOR CHAFING BY THE EXHAUST GAS THERMOCOUPLE (EGT) HARNESS

#### 1. Planning Information

#### A. Effectivity Data

- R (1) Airbus A319/A320/A321
- R (a) All V2500-A1 Engines of Pre Service Bulletin V2500-ENG-79-0098 standard.
  - (b) All V2500-A5 Engines of Pre Service Bulletin V2500-ENG-79-0098 standard.

NOTE: For an Engine not to require an inspection in accordance with this Non-Modification Service Bulletin, Service Bulletin V2500-ENG-79-0098 must be incorporated.

#### B. Concurrent Requirements

None.

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# C. Reason

#### (1) Condition:

The minimum clearance of 0.20 in. (5,0 mm) between the Exhaust Gas Thermocouple (EGT) harness and the fuel manifold may not be achieved because of excessive harness slack between two clamps on the EGT harness. The excessive slack may cause the EGT harness to chafe against the fuel manifold and cause a fuel leak.

# (2) Background:

One Operator and one engine overhaul shop have recently reported chafing on the fuel manifold. Further investigation has shown that it is possible for the EGT harness to contact the fuel manifolds, caused by additional slackness in the EGT harness. Chafing of the EGT harness against the fuel manifold may cause a fuel leak.

This Non-Modification Service Bulletin introduces a one time inspection of the EGTharness clearance with the fuel manifold, to prevent any further occurrences of chafing.

# (3) Objective:

Do a one time inspection of the fuel manifolds installed on the engines.

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(4) Substantiation:

Chafing of the fuel manifolds by the EGT harness has been reported, caused by excessive slack in the EGT harness.

- (5) Effects of Bulletin on:
  - (a) Removal/Installation:

Not affected.

(b) Disassembly/Assembly:

Not affected.

(c) Cleaning:

Not affected.

(d) Inspection/Check:

Not affected.

(e) Repair:

Not affected.

(f) Testing:

Not affected.

(6) Supplemental Information

None.

# D. <u>Description</u>

A check is done of the clearance between the EGT harness and the fuel manifold. An inspection is made for evidence of chafing.

- (1) Inspect for a minimum clearance of 0.20 in. (5,0 mm) between the EGT harness and fuel manifold and adjust the harness if necessary.
- (2) Do an inspection for evidence of chafing. If chafing exists and is outside the given limits, replace the fuel manifold as required.

<u>NOTE</u>: The Accomplishment Instruction of this Service Bulletin is divided into two INSTRUCTIONs as follows:

INSTRUCTION I - Applicable for engines "In Service".

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

# E. Compliance

Category 3

Accomplish within 1500 hours.

# F. Approval

The compliance statement and the procedures described in 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

- (1) In Service
  - (a) To Gain Access:
    - 45 Minutes
  - (b) To Perform The Inspection:
    - 30 Minutes
  - (c) To Return The Engine To A Serviceable Status:
    - 45 Minutes
  - (d) Total Necessary Man-hours:
    - 2 Hours.

NOTE: Manhours provided for planning purposes only.

(2) At Overhaul

Applicable (Hours not affected).

# H. 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)

I. Electrical Load Data

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

J. <u>Software Accomplishment Summary</u>

Not Applicable.

# K. References

- (1) Airbus A319/A320/A321 Aircraft Maintenance Manual.
- (2) IAE V2500 Engine Manual (EM), Chapters 72-00-40 and 73-11-41.
- (3) Engineering Change No. 10VR508, 10VR570 and 10VR570A.
- (4) ATA Locator 73-11-41.
- L. Other Publications Affected

None.

M. Interchangeability of Parts

Not Applicable.



# 2. Material Information

A. <u>Material - Price and Availability</u>

None.

B. Industry Support Program

Not Applicable.

C. The material data that follows is for each engine.

This Non-Modification Service Bulletin is for inspection only.

D. <u>Instructions/Disposition Code Statements:</u>

Parts Modification Conditions

Not Applicable.

Spare Parts Availability

Not Applicable.

Cleaning, Inspection and Repair Information

Inspection procedure (Refer to 3.A. Accomplishment Instructions).

E. Tooling - Price and Availability

None.

F. Reidentified Parts

Not Applicable.

G. Other Material Information Data

Not Applicable.



#### 3. Accomplishment Instructions

INSTRUCTION I - APPLICABLE FOR ENGINES "IN SERVICE"

NOTE: PRIOR TO INSPECTION, ENSURE SUFFICIENT SPARE PARTS ARE AVAILABLE

- A. Get access to the EGT harness that is installed on the right side of the engine
  - (1) Open the applicable cowl doors (Refer to the Aircraft Maintenance Manual (AMM), Chapter 71-13-00)
- WARNING: YOU MUST BE CAREFUL WHEN YOU DO WORK ON THE ENGINE PARTS AFTER THE ENGINE IS STOPPED. THE ENGINE PARTS CAN STAY HOT FOR ALMOST ONE HOUR.
- <u>WARNING</u>: DO NOT TOUCH HOT PARTS WITHOUT APPLICABLE GLOVES. HOT PARTS CAN CAUSE AN INJURY.
  - (1) Do an inspection of the EGT harness and the fuel manifold
    - (a) Clearance.
      - (i) A minimum clearance of 0.20 in. (5,00 mm) between the fuel manifold and EGT harness between clip positions CP5211 and CP5529 - Accept.
      - (ii) Less than (i) adjust the harness and clips to make the minimum clearance 0.20 in. (5,0 mm).
    - (b) Chafing.

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- (i) Not more than 0.0625 in. (1,588 mm) long, 0.010 in. (0,254 mm) wide, 0.003 in. (0,076 mm) deep, with chafed areas not less than 12.0 in. (304,80 mm) apart with no sharp edges Accept.
- (ii) More than (i) Replace in accordance with AMM Chapter 73-11-41.
- B. Close the access to the EGT harness
  - (1) Close the applicable cowl doors (Refer to the Aircraft Maintenance Manual (AMM), Chapter 71-13-00).
- C. Make sure that the work area is clean and clear of tools, equipment and other unwanted materials.
- D. Recording Instructions
  - (1) Record the incorporation of Non-Modification Service Bulletin V2500-ENG-73-0218 in the applicable engine records.

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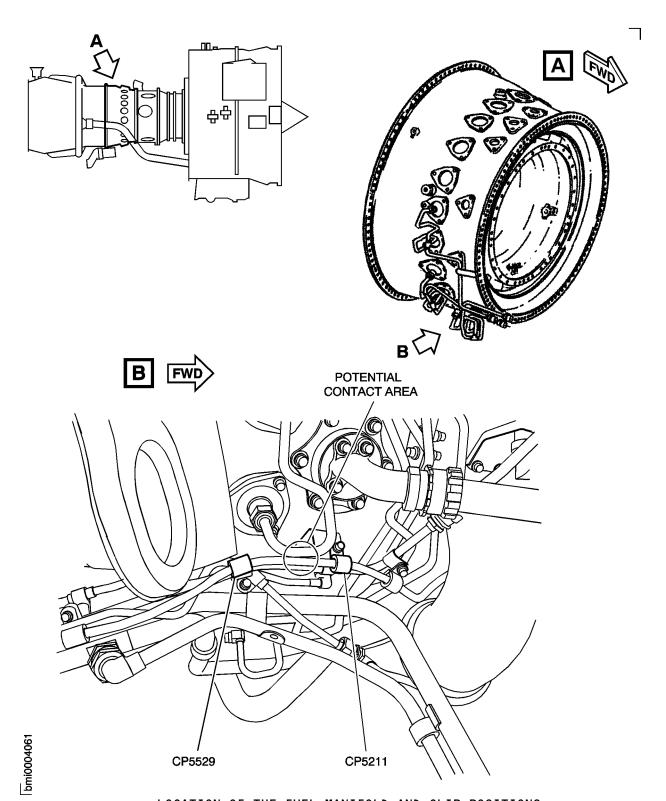
INSTRUCTION II - APPLICABLE FOR ENGINES "AT OVERHAUL/SHOP VISIT"

- E. Get access to the EGT harness that is installed on the right side of the engine
  - (1) Do an inspection of the EGT harness and the fuel manifold
    - (a) Clearance.
      - (i) A minimum clearance of 0.20 in. (5,00 mm) between the fuel manifold and EGT harness between clip positions CP5211 and CP5529 Accept.
      - (ii) Less than (i) adjust the harness and clips to make the minimum clearance 0.20 in. (5,0 mm).
    - (b) Chafing.
      - (i) Not more than 0.0625 in. (1,588 mm) long, 0.010 in. (0,254 mm) wide, 0.003 in. (0,076 mm) deep, with chafed areas not less than 12.0 in. (304,80 mm) apart with no sharp edges Accept.
      - (ii) More than (i) Replace in accordance with EM Chapter 72-00-40.
- F. Make sure that the work area is clean and clear of tools, equipment and other unwanted materials.
- G. Recording Instructions

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R (1) Record the incorporation of Non-Modification Service Bulletin V2500-ENG-73-0218 in the applicable engine records.





LOCATION OF THE FUEL MANIFOLD AND CLIP POSITIONS Orientation of potentially chafed section of fuel manifold can lie either perpendicular or parallel to adjacent EGT harness.

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# SERVICE BULLETIN FEEDBACK FORM

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 to understand?		☐ Yes	□ No
If you have had difficulties to perform this Service Bulletin please quote below the area(s) and give a short description of the issue:			
Planning Information 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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