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DATE: May 27/13

V2500-A5 SERIES PROPULSION SYSTEM NON-MODIFICATION SERVICE BULLETIN

This document transmits the Initial Issue of Non-Modification Service Bulletin V2500-ENG-73-0233.

Non-Modification Service Bulletin Initial Issue

Remove	Incorporate	Reason for change
	Pages 1 to 5 of the IAE Non-Modification Service Bulletin.	Initial Issue.
	Page 1 of the Appendix.	Initial Issue.
	Pages 1 to 8 of the Hamilton Sundstrand Service Bulletin EEC150-40-73-32.	Initial Issue.

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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

ENGINE – FUEL AND CONTROL – CONTROL, ELECTRONIC ENGINE (EEC) – REPLACEMENT OF BURNER
PRESSURE (PB) SENSORS ON A SPECIFIC EEC POPULATION

1. Planning Information

A. Effectivity

(1) Airbus A319

(a) V2522-A5, V2524-A5, V2527M-A5

Engine Serial Nos. – See Table 1

(2) Airbus A320

(a) V2527-A5, V2527E-A5

Engine Serial Nos. – See Table 1

(3) Airbus A321

(a) V2530-A5, V2533-A5

Engine Serial Nos. – See Table 1

Table 1

V16410	V16433	V16443	V16465
V16419	V16436	V16444	V16467
V16423	V16437	V16458	V16472
V16430	V16440	V16460	V16475
V16431	V16442	V16464	

B. Compliance

Category VB

Vendor Bulletin – See Reference 1, Hamilton Sundstrand Service Bulletin No. EEC150-40-73-32 for Compliance Category Code.

C. Approval Data

The compliance statement and the procedures described in this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the Engine Model listed.

D. References

(1) Hamilton Sundstrand Service Bulletin No. EEC150-40-73-32 (Engine Fuel And Control EEC150-40 – Replace Suspect PB Pressure Sensors).

- (2) V2500 Engine Illustrated Parts Catalogs (S-V2500-2IA, S-V2500-2IB, S-V2500-5IA, S-V2500-5IB, S-V2500-6IA, S-V2500-6IB, S-V2500-7IA, S-V2500-7IB), Chapter/Section 73-22-34.
- (3) V2500 Engine Illustrated Parts Catalogs (S-V2500-2SA, S-V2500-2SB, S-V2500-2NA, S-V2500-2NB, S-V2500-5SA, S-V2500-5SB, S-V2500-5NA, S-V2500-5NB, S-V2500-6SA, S-V2500-6SB, S-V2500-6NA, S-V2500-6NB, S-V2500-7SA, S-V2500-7SB, S-V2500-7NA, S-V2500-7NB), Chapter/Section 73-22-34.

E. Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts (No)

Added Data (Yes)

Revision to Table of Limits (No)

Inspection Procedures (No)

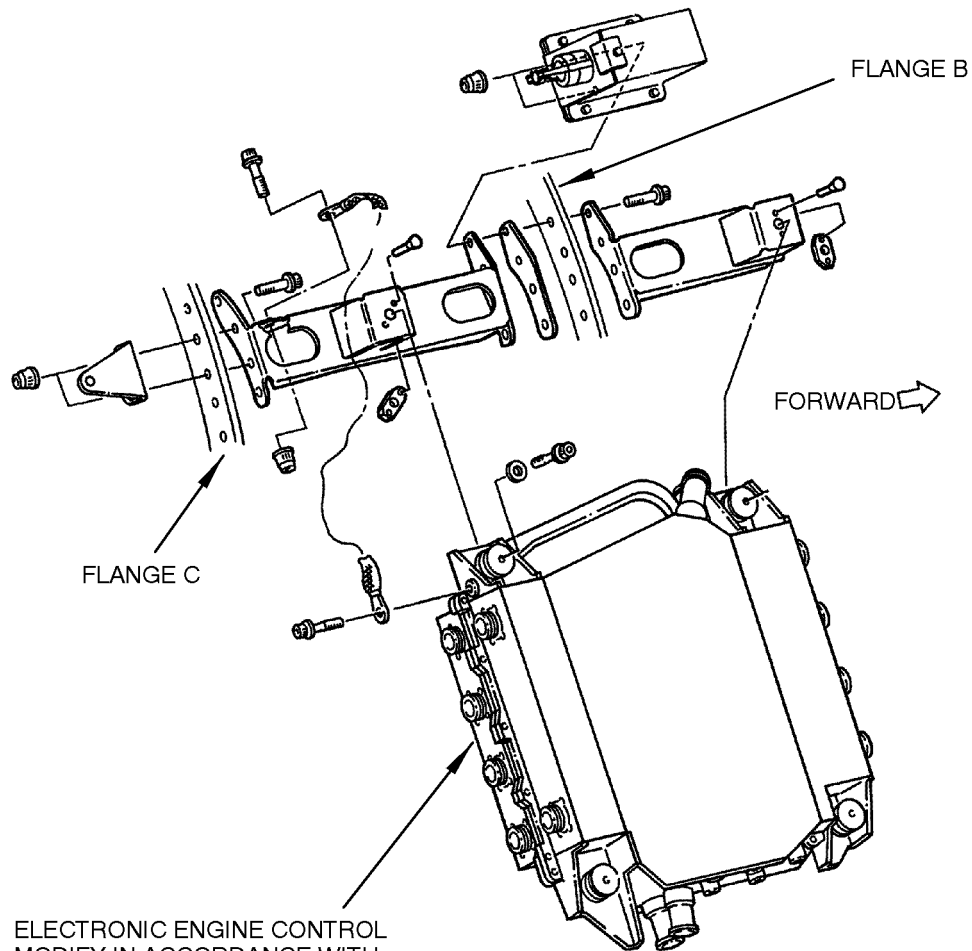
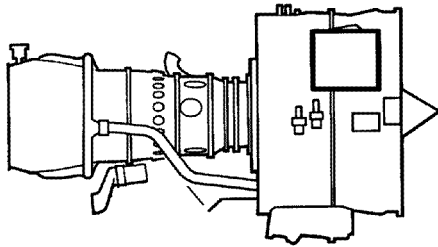
2. Material Information

Not applicable.



3. Accomplishment Instructions

- (1) Modify your Electronic Engine Control (EEC) in accordance with Reference 1, Hamilton Sundstrand Service Bulletin No. EEC150-40-73-32. See Figure 1 for the location of the EEC.
- (2) Recording Instructions
 - (a) A record of accomplishment is required.



ELECTRONIC ENGINE CONTROL
MODIFY IN ACCORDANCE WITH
REFERENCE 1, HAMILTON SUNDSTRAND
SERVICE BULLETIN NO. EEC150-40-73-32

pw0b525039

LOCATION OF THE ELECTRONIC ENGINE CONTROL
73-22-34
FIGURE 1

APPENDIXAdded Data

Internal Reference Information

Revision No.	Reference Document	Origination
Original	EA13VC050	PS/CMS

Number values shown in parentheses adjacent to U.S. values are International System of units (SI) equivalents.

Reference 1, Hamilton Sundstrand Service Bulletin No. EEC150-40-73-32 follows:



Hamilton Sundstrand

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SERVICE BULLETIN

ENGINE FUEL AND CONTROL - EEC150-40 - REPLACE SUSPECT PB PRESSURE SENSORS

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1. PLANNING INFORMATION

A. Effectivity

- (1) All Hamilton Sundstrand EEC150-40, part number 824972-11-XXX series used on A319, A320 and A321 aircraft with the serial numbers listed in Table 1.

Table 1
Serial Number Effectivity

2540-5089	2540-5106	2540-5111	2540-5127
2540-5093	2540-5107	2540-5112	2540-5132
2540-5095	2540-5108	2540-5117	2540-5137
2540-5096	2540-5109	2540-5123	2540-5140
2540-5104	2540-5110	2540-5125	

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- (2) All Pb sensor P/N 1015080-3 with serial numbers listed in Table 2.

Table 2
Suspect Pb sensor P/N 1015080-3 Serial Numbers

74973	75172	75178	75185
74974	75173	75179	75186
74978	75174	75181	75481
75158	75175	75182	
75166	75176	75183	
75170	75177	75184	

B. Concurrent Requirements

- (1) None

C. Reason

- (1) Problem:
- (a) EEC150-40's experienced Pb sensor failures during Environmental Stress Screening test at Hamilton Sundstrand production. EEC's in service will result in a scheduled maintenance report (SMR) dispatchable Pb heater fault (PBHWAF) with the clear language message (EEC1/2) if the heater fails.
- (2) Cause:
- (a) Sensors exhibit marginal nickel plating adhesion to the heater element that may cause an open heater circuit.
- (3) Solution:
- (a) Replace suspect Pb pressure sensor with one with correctly manufactured heater.

D. Description

- (1) This bulletin gives the instructions to inspect and replace suspect Pb pressure sensors.

E. Compliance

- (1) Code 4 - Incorporation of this service bulletin is to be accomplished at the first shop visit for all removals.

F. Approval

- (1) Use the applicable approval statement, which should be provided by the customer if necessary.

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G. Manpower

- (1) Approximately 2.0 man-hours are required to accomplish this Service Bulletin.

H. Weight and Balance

- (1) None

I. Electrical Load Data

- (1) Not changed

J. Software Accomplishment Summary

- (1) Not Applicable

K. References

- (1) Hamilton Sundstrand Component Maintenance Manual (CMM) 73-28-02
- (2) Hamilton Sundstrand Illustrated Parts Catalog (IPC) 73-28-02
- (3) Hamilton Sundstrand Standard Practices Manual (SPM) 20-00-02
- (4) International Aero Engines Engineering Authorization 13VC050

L. Other Publications Affected

- (1) Hamilton Sundstrand CMM and IPC 73-28-02 will be revised to incorporate this bulletin.

M. Interchangeability or Intermixability of Parts

- (1) The incorporation of this bulletin does not affect the interchangeability or intermixability of the Pb pressure sensor.

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2. MATERIAL INFORMATION

A. **Material - Price and Availability**

- (1) Hamilton Sundstrand will supply (or install) the replacement parts required for accomplishment of this bulletin on a no-charge basis until **Dec 15, 2015**. The replacement parts are currently available in limited quantities (refer to Table 3 of this bulletin for the parts breakdown). Operators approved by Hamilton Sundstrand to perform the modification of units at their facility should place a single “no-charge” order to Hamilton Sundstrand. Operators can forward these orders to their assigned Hamilton Sundstrand Commercial Spares Administrator (or fax to +1-815-226-2624, if the responsible Administrator is not known). In addition, operators can also use the Hamilton Sundstrand website at www.hamiltonsundstrand.com to contact the Commercial Spares group. Upon entering the website, select “Customer Service” followed by “Commercial Spares” for other contact and order processing options that are available. Orders must clearly reference fleet requirements, noting the bulletin number, serial numbers of affected units, total quantity of parts, and anticipated incorporation schedule. Hamilton Sundstrand will acknowledge the operator order with an established delivery rate.

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B. Industry Support Information

- (1) If the unit was a scheduled removal, and it is returned to a Hamilton Sundstrand repair facility, the operator may be subject to charges for work done beyond the scope of this bulletin.

Hamilton Sundstrand will incorporate this modification into returned units at no charge until **Dec 15, 2015**. Operators should contact their applicable Hamilton Sundstrand Worldwide Repair Station for scheduling information. For a listing of the Hamilton Sundstrand worldwide repair stations and contact information, operators should use the Hamilton Sundstrand website at www.hamiltonsundstrand.com. (Upon entering the website, select "Customer Service" followed by "Worldwide Repair Services". Then, select the link for your Worldwide Repair Station.)

Hamilton Sundstrand Corporation
A United Technologies Company
Dock W
One Hamilton Road
Windsor Locks, CT 06096-1010
USA
FAA Repair Station License Number S13R842L

OR

Hamilton Sundstrand Customer Service Center Maastricht
Maastricht Airport
6190 AG Beek (L)
The Netherlands

FAA Repair Station License Number CW5Y794M

- (2) The operator can perform the procedures in this Service Bulletin at their own location. Hamilton Sundstrand will give a maximum labor allowance of **2.0** man-hours multiplied by the operator's current approved hourly rate for accomplishment of this bulletin. The labor allowance will expire **Dec 15, 2015**. No labor allowance will be provided if the EEC150-40 is completely disassembled for another reason.

Operators should forward a claim for labor reimbursement to their assigned Hamilton Sundstrand Rockford Warranty Administrator. If the responsible Administrator is not known, the claim should be mailed to Warranty Administration, 4747 Harrison Ave., Rockford, IL 61108-7929, USA, MS 106-6. The claim should reference the bulletin number, serial numbers modified, date modified, total hours, and approved labor rate.

C. Material Necessary For Each Unit

- (1) Refer to Hamilton Sundstrand CMM and IPC 73-28-02 for expendable parts information.
- (2) Material to be Purchased

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Table 3
New Parts Required

New Part Number	Keyword	Old Part Number	Qty	Unit Price (Note 1)	Special Instructions/Disposition
1015080-3	Pressure Sensor	1015080-3 (Note 2)	23	Not Applicable	Remove and replace

Table 3 Note 1: Hamilton Sundstrand will provide (or install) the noted part at no charge (refer to paragraph 2.A. of this bulletin for details).

Table 3 Note 2: P/N 808120-7 can be used as an alternate for P/N 1015080-3.

(3) Material Supplied by the Operator

(a) None

D. Material Necessary For Each Spare

(1) The same as the material necessary for each unit.

E. Reidentified Parts

(1) Not Applicable

F. Tooling - Price and Availability

(1) No tooling other than that required for shop maintenance of the EEC150-40 is required to do this modification.

3. ACCOMPLISHMENT INSTRUCTIONS

A. General

(1) The facility performing the work (user) should obtain the material safety data sheets [Occupational Safety and Health Act (OSHA) Form 20 or equivalent] from the manufacturers or suppliers of materials to be used. The user must become completely familiar with the manufacturer/supplier information and adhere to the procedures, recommendations, warnings, and cautions of the manufacturer/supplier for the safe use, handling, storage, and disposal of these materials. The user should also read the long version of the warnings contained in this bulletin. The long version warnings are contained in Hamilton Sundstrand Warnings Registry 341-006 available free of charge to all organizations that are on distribution for this bulletin. The Warnings Registry 341-006 is also available at myhs.hamiltonsundstrand.com.

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CAUTION: THE UNIT IS ELECTROSTATIC DISCHARGE SENSITIVE (ESDS). OBEY THE INSTRUCTIONS FOR HANDLING OF ESDS DEVICES (IN SPM 20-10-01) WHEN HANDLING THE UNIT OR ITS COMPONENTS. THE UNIT AND ITS ESDS COMPONENTS CAN BE DAMAGED BY ELECTROSTATIC DISCHARGE, WHICH CAN BE TRANSMITTED BY TOUCH. DO NOT SUBJECT TO ELECTROSTATIC, ELECTROMAGNETIC, MAGNETIC, OR RADIOACTIVE FIELDS UNLESS PROTECTED BY A STATIC-SHIELDED CONTAINER. REMOVE ESDS DEVICES FROM PROTECTIVE CONTAINERS ONLY AT ELECTROSTATIC FREE WORK STATIONS.

- (2) The unit is electrostatic discharge sensitive. Refer to SPM 20-00-02 when handling ESDS components.
- (3) A unit modified according to this service bulletin might be returned to the shop for maintenance or repair before the new or modified part numbers or procedures in this bulletin are incorporated into the applicable CMM.

Until this service bulletin is incorporated into the CMM, operators are allowed to disassemble, clean, check, repair, assemble, and test the unit according to the applicable CMM, using the new or modified part numbers or procedures in this bulletin.

After this service bulletin is incorporated into the CMM, the CMM procedures will supersede this bulletin.

- (4) For instructions to check inventory stock for suspect Pb sensors, proceed to paragraph 3.B.
- (5) For modification procedure to replace a Pb sensor, proceed to paragraph 3.C.

B. Instructions to check inventory stock for suspect Pb sensor.

NOTE: Accomplishment of this inventory stock check is on a one-time basis only.

- (1) Check spares inventory shelves for serial numbers listed in Table 2.
 - (a) If suspect sensors are found, contact your Commercial Spares Administrator for replacement.

C. Modification of Pb sensor procedure.

(1) Inspection

- (a) If serial number is listed in Table 1, inspect housing for "SB32" marking.

1 If "SB32" marking is visible, no further action is required.

2 If "SB32" marking is not visible, continue to paragraph 3.C.(2)

(2) Disassembly

- (a) Disassemble the EEC150-40 (refer to the DISASSEMBLY section of CMM 73-28-02 to gain access and to perform the required modification).

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(3) **Modification**

- (a) Replace the Pb sensor (refer to Table 3 and the DISASSEMBLY section CMM 73-28-02).

(4) **Assembly**

- (a) Assemble the EEC150-40 (refer to the ASSEMBLY section of CMM 73-28-02).

(5) **Test**

- (a) Test the EEC150-40 (refer to the TESTING AND FAULT ISOLATION section of CMM 73-28-02).

(6) **Identification**

- (a) To show that this Service Bulletin has been accomplished, mark "SB32" on the housing next to the identification plate (40, IPL Figure 1). Refer to the marking procedure in the 20-00-02 Standard Electronic Practices Manual.

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We thank you for the time you spent in completing this form.

Please rate on a scale of 1 to 5, with 5 being the highest score:

- General quality rating of this Service Bulletin	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
- Quality rating of the Accomplishment Instructions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
- Quality rating of the Illustration	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
- Is this Service Bulletin easy to understand ?	<input type="checkbox"/> Yes	<input type="checkbox"/> 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:
<input type="checkbox"/> 1.A.	<input type="checkbox"/> 1.I.	<input type="checkbox"/> 2.A.	<input type="checkbox"/> General
<input type="checkbox"/> 1.B.	<input type="checkbox"/> 1.J.	<input type="checkbox"/> 2.B.	<input type="checkbox"/> Get Access
<input type="checkbox"/> 1.C.	<input type="checkbox"/> 1.K.	<input type="checkbox"/> 2.C.	<input type="checkbox"/> Removal/Installation
<input type="checkbox"/> 1.D.	<input type="checkbox"/> 1.L.	<input type="checkbox"/> 2.D.	<input type="checkbox"/> Inspection
<input type="checkbox"/> 1.E.	<input type="checkbox"/> 1.M.	<input type="checkbox"/> 2.E.	<input type="checkbox"/> Test
<input type="checkbox"/> 1.F.	<input type="checkbox"/> 1.N.	<input type="checkbox"/> 2.F.	<input type="checkbox"/> Close the Access
<input type="checkbox"/> 1.G.	<input type="checkbox"/> 1.O.		<input type="checkbox"/> Log Book Entry
<input type="checkbox"/> 1.H.	<input type="checkbox"/> 1.P.		
<u>Explanatory notes:</u>			

Operator:	Overhaul Site:
Name/Title:	Date:

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Email: GP1AECUSTCOM@IAEV2500.COM**