

International Aero Engines

SERVICE BULLETIN

ENGINE FUEL AND CONTROL - FUEL TEMPERATURE THERMOCOUPLE - INTRODUCTION OF A
REVISED THERMOCOUPLE

MODEL APPLICATION

V2522-A5
V2524-A5
V2527-A5
V2527E-A5
V2530-A5
V2525-D5
V2528-D5

BULLETIN INDEX LOCATOR

73-35-00

Compliance Category Code

7

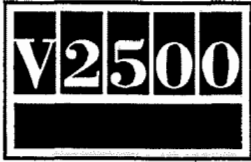
Internal Reference No.

EC96VI009
ECM96VI009-01

Dec.10/99

V2500-ENG-73-0142

Page 1 of 7



International Aero Engines

SERVICE BULLETIN

ENGINE FUEL AND CONTROL - FUEL TEMPERATURE THERMOCOUPLE - INTRODUCTION OF A REVISED THERMOCOUPLE

1. Planning Information

A. Effectivity

(1) Aircraft:

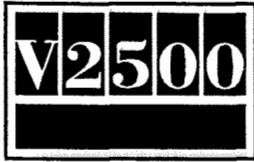
- (a) Airbus A319.
- (b) Airbus A320.
- (c) Airbus A321.
- (d) Boeing-Douglas Product Division MD-90.

(2) Engines:

- (a) V2522-A5 Engines Prior to Engine Serial No. V10685
- (b) V2524-A5 Engines Prior to Engine Serial No. V10685
- (c) V2527-A5 Engines Prior to Engine Serial No. V10685
- (d) V2527E-A5 Engines Prior to Engine Serial No. V10685
- (e) V2530-A5 Engines Prior to Engine Serial No. V10685
- (f) V2533-A5 Engines Prior to Engine Serial No. V10685
- (g) V2525-D5 Engines Prior to Engine Serial No. V20288
- (h) V2528-D5 Engines Prior to Engine Serial No. V20288

B. Concurrent Requirements

- (1) Not affected



International Aero Engines

SERVICE BULLETIN

C. Reason

(1) Problem

Premature deterioration of the fuel temperature thermocouple can occur. This can result in an open channel or intermittent signals in one or both circuits. The problem is caused by the thermocouple which is affected by the vibration from the engine fuel system.

(2) Evidence

The problem has been found on in-service units.

(3) Objective

The purpose of this Service Bulletin is to maintain unit reliability.

(4) Substantiation

A satisfactory engineering assessment, vendor electrical and environmental bench tests and a successful test on a V2500 development engine have been done on the changes introduced by this Service Bulletin.

(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.



International Aero Engines

SERVICE BULLETIN

(f) Fits and Clearances

Not affected.

D. Description

- (1) This Service Bulletin includes the installation of a fuel temperature thermocouple which has had the Harco Laboratories modification SB-22912-73-01-R1 embodied.
- (2) The changes introduced are as follows:
 - (a) The outside diameter of the measurement probe is increased from 0.092 in to 0.125 in. The resulting increase in the insulation thickness between the sheath and the internal wiring, results in an increase in the dielectric strength.
 - (b) To increase the fracture resistance of the thermocouple, the diameter of the internal alumel and chromel wiring has been increased from 22 AWG (0.025 in) to 20 AWG (0.032 in).
- (3) Units that embody this Service Bulletin will be identified by a new type number. (Refer 2. B.).

E. Approval

The part number changes and/or modifications are given in Section 2 and 3 of this Service Bulletin. They comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine models listed.

F. Compliance

Category Code 7

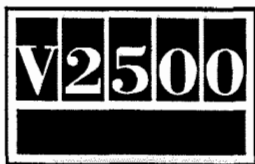
Accomplish when there are no superseded parts remaining.

G. Manpower

Estimate of man hours necessary to embody this Service Bulletin in full:

- | | |
|-----------------|--|
| (1) In Service | Not applicable. |
| (2) At Overhaul | No additional time is necessary to embody this Service Bulletin. |

NOTE: It is possible to get access to the parts affected by this Service Bulletin at overhaul.



International Aero Engines

SERVICE BULLETIN

H. Material - Price and Availability

- (1) A modification kit is not necessary.
- (2) Refer to 2. Material Information for prices and availability of future spares.

I. Tooling - Price and Availability

Special tools are not necessary.

J. Weight and Balance

- (1) Weight Change

None

- (2) Moment Arm

Not effected.

- (3) Datum

Engine front mount centreline - Power Plant Station (PPS) 100.

K. Electrical Load Data

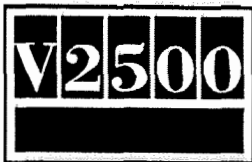
The aircraft electrical load is not affected by this Service Bulletin.

L. References

- (1) Harco Laboratories vendor Service Bulletin:
SB-22912-73-01-R1 INTRODUCTION OF HARCO PART NUMBER 22912-000 (IAE PART NUMBER 22912), THERMOCOUPLE, IMMERSION.
- (2) A319/A320/A321 Aircraft Maintenance Manual (AMM), Chapter/Section 73-35-15, Removal/Installation.
- (3) MD-90 Aircraft Maintenance Manual (AMM), Chapter/Section 73-32-02, Removal/Installation.
- (4) A5/D5 Engine Manual (EM), Chapter/Section 72-00-32, Removal-10, Installation-10.

M. Other Publications Affected

- (1) Illustrated Parts Catalogue (IPC), Chapter/Section 73-35-15.
- (2) Component Maintenance Manual (CMM), Chapter/Section 73-35-45.



International Aero Engines

SERVICE BULLETIN

2. Material Information

Applicability: For each V2500 for which this Service Bulletin is applicable.

A. Kits necessary for this Service Bulletin:

None.

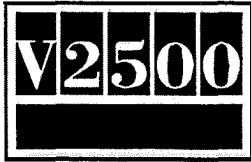
B. Parts affected by this Service Bulletin:

NEW PART No. (ATA No.)	QTY	EST'D UNIT PRICE (\$)	PART TITLE	OLD PART No. (IPC No.)	INSTR DISP
22912-000 (73-35-15)	1		.Thermocouple, fuel temperature (V7M726)	HAD22308 (01-100)	(A)(B)(S1)

NOTE: The unit prices, if shown, are an estimate and they are given for the purposes of planning only.
For actual prices, refer to the IAE Price Catalogue or contact IAE's spare parts sales department.

C. Instruction disposition code statements:

- (1) (A) New part will be available from October 1998.
- (2) (B) Old part will be discontinued.
- (3) (S1) Old and new parts are freely and fully interchangeable.



International Aero Engines

SERVICE BULLETIN

3. Accomplish Instructions

A. Rework Instructions

None

B. Assembly Instructions

(1) For the correct removal/installation procedures refer to:

(a) A319/A320/A321 Aircraft Maintenance Manual (AMM), Chapter/Section 73-35-15,
Removal/Installation

or

(b) MD-90 Aircraft Maintenance Manual (AMM), Chapter/Section 73-32-02,
Removal/Installation

or

(c) A5/D5 Engine Manual (EM), Chapter/Section 72-00-32, Removal-10/Installation-10.

C. Recording Instructions

(1) A record of accomplishment is necessary.