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## V2500-A1/A5 SERIES PROPULSION SYSTEM SERVICE BULLETIN

Printed in Great Britain

This document transmits Revision 3 to Service Bulletin V2500-ENG-72-0508 and Revision 3 to the Supplement

### Document History

#### Service Bulletin Revision Status

Initial Issue	Nov.21/05
Revision 1	Aug. 2/06
Revision 2	Jan. 9/07

#### Supplement Revision Status

Initial Issue	Nov.21/05
Revision 1	Aug. 2/06
Revision 2	Jan. 9/07

### Service Bulletin Revision 3

Remove	Incorporate	Reason for change
All pages of the Service Bulletin	Pages 1 to 7 of the Service Bulletin	To update the paragraph 1.B. Concurrent Requirements, 1.P. Interchangeability and 2. Material Information.

### Supplement Revision 3

Remove	Incorporate	Reason for change
All pages of the Supplement	Page 1 of the Supplement	To update the paragraph 1.B. Concurrent Requirements, 1.P. Interchangeability and 2. Material Information.

# V2500-ENG-72-0508

Transmittal - Page 1 of 1

CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED

If any have not been received please advise Customer Data Services, Rolls-Royce plc, Derby, England

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ENGINE – INTRODUCTION OF NEW SPEED AND TRIM BALANCE PROBES1. Planning InformationA. Effectivity

## (1) Airbus A319

(a) V2522-A5, V2524-A5, V2527M-A5 Engines prior to Serial No.V12221

## (2) Airbus A320

(a) V2500-A1 Engines prior to serial No.V0362

R (b) V2524-A5, V2527-A5, V2527E-A5 Engines prior to Serial No.V12221

## (3) Airbus A321

(a) V2530-A5, V2533-A5 Engines prior to Serial No.V12221

B. Concurrent Requirements

- (1) For all V2500-A1 Engines and V2500-A5 Engines prior to Serial No. V12221 which do not have this Service Bulletin incorporated:

R The Service Bulletin that follows must be incorporated together with the  
R new Trim Balance Probe introduced by this Service Bulletin:V2500-ENG-71-0303 - POWER PLANT – ENGINE ELECTRONIC CONTROLLER (EEC)  
HARNESS-CORE – INTRODUCTION OF VOLTAGE DIVIDER  
HARNESS ASSEMBLY BETWEEN THE THE TRIM BALANCE  
PROBE AND ENGINE HARNESS

- (2) For all V2500-A1 Engines and V2500-A5 Engines prior to Serial No. V12221 which have this Service Bulletin incorporated:

R The Service Bulletin that follows shall be incorporated together with the  
R new Trim Balance Probe introduced by this Service Bulletin, based on  
Operator's experience:V2500-ENG-71-0303 - POWER PLANT – ENGINE ELECTRONIC CONTROLLER (EEC)  
HARNESS-CORE – INTRODUCTION OF VOLTAGE DIVIDER  
HARNESS ASSEMBLY BETWEEN THE THE TRIM BALANCE  
PROBE AND ENGINE HARNESS

- (3) For V2500-A5 Engines from Serial No. V12221 to V12413:

R The Service Bulletin that follows shall be incorporated together with the  
R new Trim Balance Probe introduced by this Service Bulletin, based on  
Operator's experience:

V2500-ENG-71-0303 - POWER PLANT - ENGINE ELECTRONIC CONTROLLER (EEC)  
HARNESS-CORE - INTRODUCTION OF VOLTAGE DIVIDER  
HARNESS ASSEMBLY BETWEEN THE THE TRIM BALANCE  
PROBE AND ENGINE HARNESS

C. Reason

- (1) Problem

The current standard of Speed and Trim Balance Probe housings are made using 'Kinel 5504' material. The supply of this material is due to cease in the near future and it has therefore become necessary to produce new probes using an alternative housing material.

- (2) Evidence

The production of 'Kinel 5504', a glass thermosetting polyamide plastic, has been discontinued due to health concerns during manufacture.

- (3) Substantiation

The changes introduced by this modification have been the subject of full validation testing by the Vendor, engine testing and extensive engineering analysis by the Vendor and IAE Engineering.

- (4) Objective

Incorporation of this modification is designed to maintain engine reliability.

- (5) Effect of Bulletin on:

- (a) Operation

Not affected.

- (b) Maintenance

Not affected.

- (c) Overhaul

Not affected.

(d) Repair Schemes

None.

(e) Interchangeability

Affected (Refer to 1.B. Concurrent Requirements).

(f) Fits and Clearances

Not affected.

#### D. Description

- (1) This modification covers the fitment of new Weston Aerospace Speed and Trim Balance Probes.

The changes introduced are a revised Speed and Trim Balance Probes similar to the existing parts except for the following changes:

- (a) The housing material has been changed from 'Kinel 5504' to 'Arlon 1163'.
- (b) The return pole has been deleted (Speed Probe only, the Trim Balance Probe has no pole).
- (c) The solid constantan terminal wire from the coil to the terminal has been changed to a constantan tag.
- (d) The tag board and tag assembly components have been deleted (Trim Balance Probe only, the Speed Probe has no tag board), and is replaced by wire leadout.
- (e) A redesigned coil assembly has been introduced.

#### E. Compliance

Category Code 7

Accomplish when supply of superseded parts has been depleted.

#### F. Approval

The part number changes and/or 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 model(s) listed.

**G. Manpower****(1) In Service**

Not applicable.

**(2) At Overhaul**

Not affected.

**H. Material – Price and Availability**

Modification Kit is not required.

For prices and availability of future spares, see Supplement to this Service Bulletin.

**I. Tooling – Price and Availability**

Special tools are not required.

**J. Industry Support Information**

Not applicable.

**K. Weight and Balance****(1) Weight Change**

Minus 0.2 lb (0.10kg)

**(2) Moment Arm**

2.9 in (74mm) forwards of datum.

**(3) Datum**

Engine Front Mount Centreline (Power Plant Station PPS100).

**L. Electrical Load Data**

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

**M. Software Accomplishment Summary**

Not applicable.

**N. References**

(1) Engine Manual, 72-32-10, Removal/Installation.

(2) IAE Engineering Change – EC 00VI005.

(3) ATA Locator – 72-32-18

0. Other Publications Affected

Engine Manual, 72-32-18 Cleaning and Inspection.

P. Interchangeability of Parts

R Affected (Refer to section 2. Material Information).

R (1) The old and new speed probes are fully interchangeable and can be  
R intermixed without restriction.

R (2) The trim balance probe is interchangeable new for old only, with the  
R restriction stated in paragraph 1.B. Concurrent Requirement.

## 2. Material Information

### A. The kit required consists of the following parts:

None.

### B. Parts to be reworked:

None.

### C. New production parts:

None.

### D. Vendor units affected by this bulletin:

The type of equipment affected by this modification is listed below for information only:

72-32-18

	FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
R	01100	1020-2-12	1	Probe, Speed (VOAM53)	-	788-1-13	(A)(S1) (S3)
R	01200	1020-2-12	1	Probe, Speed (VOAM53)	-	788-1-13	(A)(S1) (S3)
R	01300	1021-2-12	1	Probe, Trim Balance (VOAM53)	-	789-1-13	(A)(S2) (S3)
R	01400	1020-2-12	1	Probe, Speed (VOAM53)	-	788-1-13	(A)(S1) (S3)

### E. Instruction disposition codes:

(A) New standard of unit will be made available from December 2005.

R (S1) Old and new speed probes are fully interchangeable and can be intermixed  
R without restriction.

R (S2) The trim balance probe is interchangeable new for old only, with the  
R restriction stated in paragraph 1.B. Concurrent Requirement.

R (S3) The new or old standards of the speed probes can be used together with new  
R or old standards of the trim balance probe.



### 3. Accomplishment Instructions

#### A. Rework Instructions

- (1) None.

#### B. Assembly Instructions

- (1) For the correct removal/installation instructions refer to the Engine Manual, Chapter/Section 72-32-10 Removal and Installation

#### C. Recording Instructions

- (1) A record of accomplishment is necessary.



ENGINE – INTRODUCTION OF NEW SPEED AND TRIM BALANCE PROBESSUPPLEMENT – 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. Parts required:

Part No.	Description	Unit Price US Dollars
1020-2-12	Probe, speed	Refer to IAE
1021-2-12	Probe, trim balance	Refer to IAE

3. Tools

None.