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DATER Sep.11/01

V2500-D5 PROPULSION SYSTEMS SERVICE BULLETIN

This document transmits Revision 1 to Service Bulletin EV2500-73-0085

Document History

Service Bulletin Revision Status Supplement Revision Status

Initial Issue Oct.18/96

Bulletin Revision 1

Remove Incorporate Reason for change

All pages of the Pages 1 to 8 of the Correction to Part Number Service Bulletin in Material Information.

V2500-ENG-73-0085

Transmittal - Page 1 of 2

CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED If any have not been received please advise Publication Services, Rolls-Royce plc, Derby, England © Rolls-Royce plc (date as above) Printed in Great Britain

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LIST OF EFFECTIVE PAGES

The effective pages to this Service Bulletin following incorporation of Revision 1 are as follows:

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<u>ENGINE - FUEL AND CONTROL - FUEL METERING UNIT - INTRODUCTION OF FUEL METERING UNIT SUPPLIED BY WOODWARD GOVERNOR COMPANY</u>

1. Planning Information

A. Effectivity

(1) Boeing - Longbeach Division MD-90

V2525-D5, V2528-D5 Engines

- (2) ATA locator 73-00-00
- B. Concurrent Requirements

None

C. Reason

(1) Condition

There is a requirement to install a fuel metering unit supplied by Woodward Governor Company in place of the unit supplied by Lucas Engine Control Systems Ltd.

(2) Background

As above in (1).

(3) Objective

Incorportion of this Service Bulletin (Modification) is designed to satisfy customer requirements.

(4) Substantiation

The changes introduced by this Service Bulletin have been the subject of satisfactory unit, rig and engine testing.

- (5) Effect of bulletin on workshop procedures
 - (a) Removal/Installation

Not affected

(b) Disassembly/Assembly

Not affected

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(c) Cleaning

Not affected

(d) Inspection/Check

Not affected

(e) Repair

Not affected

(f) Testing

Not affected

(6) Supplemental Information

With incorporation of this Service Bulletin the installation arrangement number located on the engine identification plate is changed from AQO2 to AQO3. See D. Description for effectivity and procedure for recording this change.

D. <u>Description</u>

The current engine fuel and control system utilises a fuel metering unit supplied by Lucas Engine Control System Ltd. This Service Bulletin replaces it with a similar unit supplied by Woodward Governor Company. The unit is located in the same position on the propulsion system and all attaching parts remain unchanged.

The bulletin is accomplished in the field in three parts:

Part 1 Installation of a Woodward Governor FMU in place of a Lucas FMU prior to aircraft delivery.

Part 2 Installation of a Woodward Governor FMU in place of a Lucas FMU in service.

Part 3 Installation of a Lucas FMU in place of a Woodward Governor FMU in service.

E. Approval

The part number changed and/or part modification described in section 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 models listed.

F. Compliance

Category 8

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Accomplish based on experience with prior configuration.

G. Manpower

Estimated Manhours to incorporate the full intent of this Bulletin:

- (1) In service
 - (a) To gain access
 - 11 minutes
 - (b) To replace the FMU
 - 6 hours
 - (c) To return engine to flyable status
 - 17 minutes
 - (d) Total 6 hours 28 minutes
- (2) At overhaul

No additional time is required to maintain the new configuration

<u>NOTE</u>: The parts affected by this Service Bulletin are accessible at overhaul

H. Material - Price and Availability

(1) Modification kit is not required.

See 'Material Information' section for prices and availability of spares.

I. Tooling - Price and Availability

Special tools are not required.

J. Weight and Balance

(1) Weight Change

None

(2) Moment Arm

No effect

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(3) Datum

Engine Front Mount Centreline (Power Plant Station - PPS 100).

K. Electrical Load Data

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

L. <u>References</u>

(1) Internal Reference No.

95VR007A

- (2) The V2500 Engine Illustrated Parts Catalogs.
- (3) The MD-90 Aircraft Maintenance Manual

M. Other Publications Affected

(1) The V2500 Engine Illustrated Parts Catalogs.



2. Material Information

A. Kits associated with this Service Bulletin

None

B. Vendor unit affected by this Service Bulletin

Applicability: For each V2500 engine to incorporate this Bulletin

73-22-52

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01100	8061-626	1	Meter, fuel	-	FMU530MK2	(A)(B) (S1)

C. <u>Instruction Disposition Codes</u>

- (A) New part is currently available.
- (B) Old part will be discontinued.
- (S1) Old and new parts are freely and fully interchangeable

NOTE: The estimated unit prices, if shown are provided for planning purposes only and do not constitute a firm quotation. Consult the IAE Price Catalog or contact IAE's Spare Parts Sales Department for information concerning firm prices

3. Accomplishment Instructions

A. Part 1 Installation of a Woodward Governor FMU in place of a Lucas FMU prior to aircraft delivery.

NOTE: The FMU Removal/Installation procedures are located in the AMM ref. 73-22-52-000-010

(1) Replacement of the FMU prior to aircraft delivery requires that the demountable power plant number, which is inked to the fan case, is changed. Table 1 indicates the correct number that should be displayed in each case. The numbers should be chosen from the Woodward Governor column. (The Lucas numbers are added for information). The number will be dependent on the engine variant and position.

LUCAS ALKUSTACE DIC	LUCAS	AEROSPACE	plc
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WOODWARD GOVERNOR

VARIANT	RATING	LH	RH	LH	RH
15	25K	290-6000-507	290-6001-507	290-6000-515	290-6001-515
20	25/28K	290-6000-511	290-6001-511	290-6000-517	290-6001-517
10	28K	290-6000-513	290-6001-513	290-6000-519	290-6001-519

TABLE 1 (Demountable Power Plant Numbers)

(2) The number is located just below the TAI duct on the fan case. Use a rubber stamp and Omat O6-073 marking ink to re-identify the demountable power plant.

Refer to the IAE V2500 Standard Practices/Processes Manual Chap. 70-90-00

Existing numbers should be obliterated again using marking ink.

(3) The engine data plate also equires to be changed to reflect a different installation arrangement number. Table 2 indicates the numbers that should be displayed for the different configurations.

LUCAS AEROSPACE plc

WOODWARD GOVERNOR

AQ02

AQO3

TABLE 2 (installation Arrangement Numbers)

- (a) Obliterate existing Installation Arrangement Number (IAN) using a vibro engraving tool.
- (b) In a space aligned with INSTL ARR on the data plate vibro engrave the correct number taken from Table 2.



- (c) On completion of this change to the data plate, a new data plate should be ordered using the attached proforma. This will ensure any future requirements to alter the IAN can be done without incurring space limitations.
- B. Part 2 Installation of a Woodward Governor FMU in place of a Lucas FMU in service
 - (1) The engine data plate requires to be changed to reflect a different installation arrangement number. Table 2 indicates the numbers that should be displayed for the different configurations.
 - (a) Obliterate existing Installation Arrangement Number (IAN) using a vibro engraving tool.
 - (b) In a space aligned with INSTL ARR on the data plate vibro engrave the correct number taken from the Woodward Governor column on Table 2.
 - (c) On completion of this change to the data plate, a new data plate should be ordered using the attached proforma. This will ensure any future requirements to alter the IAN can be done without incurring space limitations.
- C. Part 3 Installation of a Lucas FMU in place of a Woodward Governor FMU
 - (1) The engine data plate requires to be changed to reflect a different installation arrangement number. Table 2 indicates the numbers that should be displayed for the different configurations.
 - (a) Obliterate existing Installation Arrangement Number (IAN) using a vibro engraving tool.
 - (b) In a space aligned with INSTL ARR on the data plate vibro engrave the correct number taken from the Lucas Aerospace column on Table 2.
 - (c) On completion of this change to the data plate, a new data plate should be ordered using the attached proforma. This will ensure any future requirements to alter the IAN can be done without incurring space limitations.
- D. Recording Instructions

A record of accomplishment is required

Internatio	onal Areo Engines Ag.	Request For Data Plate Information DATA PLATE NUMBER. 5A9036		
From	Name: Dept: International M/S 121-10	al Aero Engines AG	Date: / / Tel.Ext	
То:				
Present T	ake Off Rating	Revised Take Off	Rating	
Present E	ngine Type And Model	Revised Engine T	ype And Modei	
Present Ir	nstallation Arrangement N	No Revised Installation	n Arrangement No	
Present E	EC Program Plug	Revised EEC Prog	gram Plug	
Type Cert	ificate	Production Certific	ate	
Name and	Address of present Own	ner of Engine:		
	Previous Owner: ansfer of Ownership:	1 1		
Name and	Address of ultimate Own	ner of Engines:		
Reason fo	r change:			
APPROVE	:D:	DATE	atr. tt	

Proforma

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