

# SERVICE BULLETIN

<u>ENGINE - FUEL AND CONTROL - FUEL METERING UNIT - INTRODUCTION OF FUEL METERING UNIT</u>
SUPPLIED BY WOODWARD GOVERNOR COMPANY - CATEGORY CODE 7 - MOD.ENG-73-0087

#### 1. Planning Information

#### A. <u>Effectivity</u>

- (1) Aircraft (a) Airbus A320
  - (b) Airbus A321
- (2) Engines (a) V2527-A5 Engines prior to Serial No.V10219
  - (b) V2530-A5 Engines prior to Serial No.V10219
  - (c) V2533-A5 Engines prior to Serial No.V10219

#### B. Concurrent Requirements

This Service Bulletin must only be installed to engines whichhave IAE V2500 modificiation 96V1007 (Refer to L(3)).

#### C. Reason

#### (1) Condition

It is necessary to replace the fuel metering unit supplied by Woodward Governor Company with a unit supplied by Lucas Engine Control Systems Ltd.

(2) Background

As above in (1).

(3) Objective

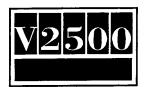
The purpose of this Service Bulletin is to satisfy customer standards.

(4) Substantiation

Satisfactory unit, rig and engine tests have been done on the changes introduced by this Service Bulletin.

(5) Effect of bulletin on workshop procedures

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Removal/Installation	Not	affected
Disassembly/Assembly	Not	affected
Cleaning	Not	affected
Inspection/Check	Not	affected
Repair	Not	affected
Testing	Not	affected

#### (6) Supplemental Information

When this Service Bulletin has been done, 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>

(1) The engine fuel and control system has a fuel metering unit supplied by Lucas Engine Control System Ltd. This Service Bulletin replaces it with a 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 done in the field in three parts:

- Part 1 Installation of a Woodward Governor FMU to replace of a Lucas FMU before aircraft delivery.
- Part 2 Installation of a Woodward Governor FMU to replace of a Lucas FMU in service.
- Part 3 Installation of a Lucas FMU to replace of a Woodward Governor FMU in service.

#### (2) A5 Models

- (a) When Part 1 of this Service Bulletin is completed, the engine identification plate is to be marked with AQO3 under 'Installation Arrangement'.
- (b) When Part 2 of this Service Bulletin is completed, the engine identification plate is to be marked with AQO3 under 'Installation Arrangement'.
- (c) When part 3 of this Service Bulletin is included, AQO2 is to be put on the modification plate below Installation Arrangement.



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### E. Approval

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

#### F. Compliance

Category 7

Do this Service Bulletin when there are no initial parts remaining.

#### G. Manpower

Estimate of Man-hours necessary to do this Service Bulletin in full:

Venue Estimated Man-hours

- (1) In service
  - (a) To gain access .. .. 11 minutes
  - (b) To replace the FMU .. 3 hours
  - (c) To return Engine to flyable status .. .. 17 minutes

Total 3 hours 28 minutes

#### (2) At overhaul

No additional time is necessary to do this Service Bulletin.

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

## H. <u>Material - Price and Availability</u>

- (1) A modification kit is not necessary.
- (2) See 'Material Information' section for prices and availability of spares.

#### I. Tooling - Price and Availability

Special tools are not necessary.



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### J. Weight and Balance

(1) Weight Change .. .. Minus 1,04 Kg (2.3lb.)

(2) Moment Arm .. .. 419 mm (16.5in.) Forward of datum

(3) Datum .. .. .. Engine front mount centerline (Power Plant Station - (PPS) 100)

#### K. Electrical Load Data

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

#### L. References

(1) Internal Reference No.

95VR007

96VI007A

(2) Other References

The V2500 Engine Illustrated Parts Catalogs.

The Aircraft Maintenance Manual.

This Service Bulletin must be done with SB ENG-73-0097 (Intrduction of the FMU Flow Straightener). SB ENG-73-0097 gives the Woodward FMU for

the A320/A321 aircraft. This FMU has the part number 8061-632.

Aircraft Modification 26801

#### M. Other Publications Affected

(1) The V2500 Engine Illustrated Parts Catalog (EIPC), Chapter/Section 73-22-52.

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### 2. Accomplishment Instructions

The FMU removal/installation procedures are in the AMM ref.73-22-52-000-010.

- A. Part 1 Installation of a Woodward Governor FMU to replace of a Lucas FMU before aircraft delivery
  - (1) When the FMU is replaced before aircraft delivery the demountable power plant number, which is inked to the fancase, must be changed. Table 1 gives the correct number that should be shown for each model.

RATING	DPP GOVERNOR LH
27K	745-6001-501
27E	745-6001-505
30K	745-6001-507
33K	745-6001-503

TABLE 1
(Demountable Power Plant Numbers)

(2) The number is located below the TAI duct on the fan case. Use a rubber stamp and OMat O6-073 marking ink.

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

Existing numbers should be scored out with marking ink.

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

LUCAS AEROSPACE plc

WOODWARD GOVERNOR

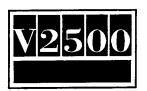
AQO2

AQ03

# TABLE 2 (Installation Arrangement Numbers)

- (a) Score out the Installation Arrangement Number (IAN) with a vibro engraving tool.
- (b) In a space adjacent to INSTL ARR on the data plate vibro engrave the correct number taken from Table 2.

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- (c) When this change to the data plate has been completed, a new data plate must be ordered on the attached proformas. This will make sure that any other changes to the IAN can be done without a decrease in space on the plate.
- B. Part 2 Installation of a Woodward Governor FMU to replace a Lucas FMU in service.
  - (1) The engine data plate must be changed to show a different installation arrangement number. Table 2 gives the numbers that should be shown for the different configurations.
    - (a) Score out the Installation Arrangement Number (IAN) with a vibro engraving tool.
    - (b) In a space adjacent to INSTL ARR on the data plate, vibro engrave the correct number from the Woodward Governor column on Table 2.
    - (c) When this change to the data plate has been completed, a new data plate must be ordered on the attached proformas. This will make sure that other changes to the IAN can be done without a decrease in space on the plate.
- C. Part 3 Installation of a Lucas FMU to replace of a Woodward Governor FMU in service.
  - (1) The engine data plate must be changed to show a different installation arrangement number. Table 2 gives the numbers that should be shown for the different configurations.
    - (a) Score out the existing Installation Arrangement Number (IAN) with a vibro engraving tool.
    - (b) In a space adjacent to INSTL ARR on the data plate, vibro-engrave the correct number from the Lucas Aerospace column on Table 2.
    - (c) When this change to the data plate has been completed, a new data plate must be ordered on the attached proformas. This will make sure any other changes to the IAN can be done without a decrease in space on the plate.
- D. Recording Instructions

A record of accomplishment is necessary.



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## 3. Material Information

Applicability: For each V2500 Engine to incorporate this Bulletin.

A. <u>Kits associated with this Bulletin:</u>

None

## B. Vendor unit affected by this modification:

New Part No. (ATA No.)	Qty	Est'd Unit Price (\$)	Keyword	Old Part No. (IPC No.)	Instructions Disposition
8061-632 (73-22-52)	1	Price on Request	Meter, fuel	FMU530MK2 (01-100)	(A)(B)(S1)

NOTE: The unit prices, if shown, are an estimate and they are given for the purpose of planning only. For information about actual prices, refer to the IAE Price Catalog or contact IAE's Spare Parts Sales Department.

## C. <u>Instructions disposition codes statements:</u>

- (A) New part is currently available.
- (B) Old part may be used on other V2500 model applications.
- (S1) Old and new parts are freely and fully interchangeable.

