



ENGINE - FUEL AND CONTROL - FUEL METERING UNIT - INTRODUCTION OF REVISED PUSH ROD SEAL  
AND BEARING - PRESSURE RAISING AND OVERSPEED VALVES - CATEGORY CODE 4 -  
MOD.ENG-73-0057

1. Planning Information

A. Effectivity

- (1) Aircraft: (a) Airbus A320  
(b) Airbus A321  
(b) McDonnell Douglas MD90
- (2) Engine: (a) V2500-A5 Engines  
(b) V2500-D5 Engines
- (3) Fuel Metering Units : All FMU 530 MK 1

B. Concurrent Requirements

- (1) The following modifications will be fitted prior to or concurrently with this Service Bulletin.

Lucas Modification

CP6932  
CP6877  
CP6903

Lucas Service Bulletin

FMU 500-73-6932  
FMU 500-73-6877  
FMU 500-73-6903

C. Reason

(1) Condition

Wear of the push rod can lead to seal damage and consequent fuel leakage to drain.

(2) Background

This condition was identified during engine endurance running.

(3) Objective

Incorporation of the changes introduced by this Service Bulletin are designed to maintain unit reliability.

(4) Substantiation

The changes introduced by this Service Bulletin have been shown by component testing and analysis to alleviate the condition.

(5) Effect of Bulletin on Workshop Procedures.

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## SERVICE BULLETIN

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

## (6) Supplemental Information

None

C. Description

- (1) This Service Bulletin covers the fitment to engines of a fuel metering unit incorporating Lucas Modification CP.6946.
- (2) This Service Bulletin introduces new push rod seals and bearings which provide improved protection against wear.
- (3) Units incorporating this Service Bulletin will be identified by the type number FMU 530 Mk.2.

E. Approval

The part number changes 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 Engine Model listed.

F. Compliance

Category Code 4

Accomplish at the first visit of an engine or module to maintenance base capable of compliance with the accomplishment instructions regardless of the planned maintenance action or the reason for engine removal.

G. Manpower

Estimated manhours to incorporate the full intent of this bulletin:

Venue	Estimated Manhours
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V2500-A5 Engines

## (1) In Service

(a) To gain access .. ..	59 minutes
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(b) To embody (Refer to Lucas Service Bulletin FMU 500-73-6946)	
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(C) To return engine  
to flyable status                      1 hour 20 minutes  
TOTAL:                      2 hours 19 minutes

## (2) At Overhaul

(a) To embody (Refer to Lucas Service Bulletin FMU 500-73-6946)

## V2500-D5 Engines

## (1) In Service

(a) To gain access    ..    ..                      59 minutes

(b) To embody (Refer to Lucas Service Bulletin FMU 500-73-6946)

(C) To return engine  
to flyable status                      1 hour 20 minutes  
TOTAL:                      2 hours 19 minutes

## (2) At Overhaul

(a) To embody (Refer to Lucas Service Bulletin FMU 500-73-6946)

## H. Material - Price and Availability

(1) Modification kit not required.

(2) Refer to Lucas Service Bulletin FMU 500-73-6946

## I. Tooling - Price and Availability

Special tools are not required to accomplish this Service Bulletin.

## J. Weight and Balance

(1) Weight change ..    ..    ..                      None

(2) Moment arm    ..    ..    ..                      No effect

(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.

# V2500-ENG-73-0057



EC94VR029

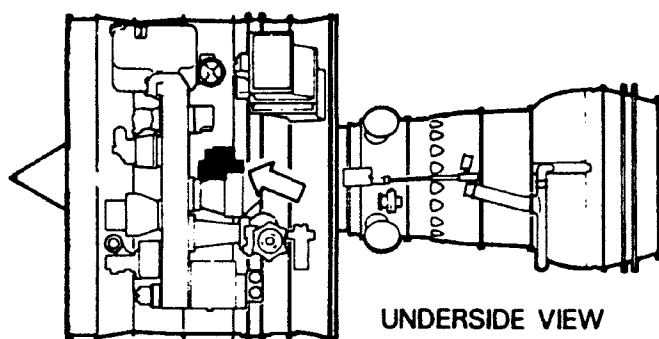
(2) Other references

Lucas Modification CP.6946 (Introduction of revised push rod and bearing  
– Pressure raising and overspeed valves).

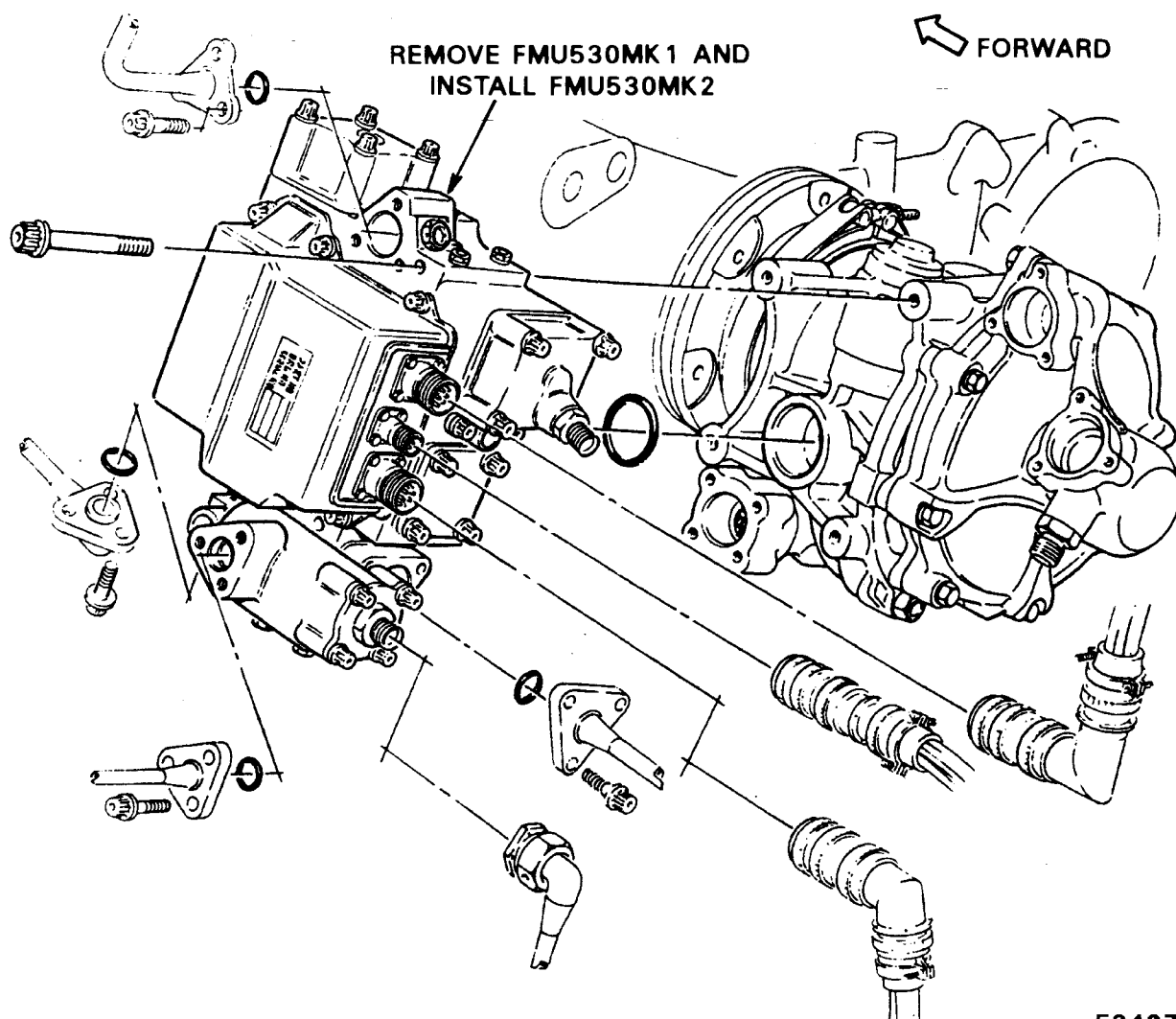
M. Other Publications Affected

- (1) V2500 Engine Illustrated Parts Catalog, 73-22-52 will be revised.
- (2) Lucas Component Maintenance Manual, Chapter 73-28-02.

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UNDERSIDE VIEW



E3437

Location of fuel metering unit (FMU)  
Fig.1

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## 2. Accomplishment Instructions

### A. Prerequisite Instructions

- (1) On the aircraft panel 115VU put a warning notice to tell persons not to start the engine.
- (2) Make sure that the engine has been shutdown for at least 5 minutes.
- (3) On the aircraft panel 50VU make sure that the ON legend of the ENG FADEC GND PWR push button switch is OFF and install a warning notice.
- (4) Open the left and right fan cowl doors with the instructions given in the A320 Aircraft Maintenance Manual or the A321 Aircraft Maintenance Manual, TASK 71-13-00-010-010 or the MD-90 Aircraft Maintenance Manual 71-13-01 Page Block 401 (left upper), 71-13-02 Page Block 401 (right upper), 71-13-03 Page Block 401 (left lower), 71-13-04 Page Block 401 (right lower).

### B. Rework Instructions

- (1) Incorporate the intent of Lucas Service Bulletin FMU 500-73-6946

### C. Assembly Instruction

- (1) Remove the FMU 530 MK 1 fuel metering unit with instructions given in the A320 Aircraft Maintenance Manual or the A321 Aircraft Maintenance Manual, TASK 73-22-52-000-010-A01 or -B01, or the MD-90 Aircraft Maintenance Manual 73-21-52 Page Block 401.
- (2) Install the FMU 530 MK 2 fuel metering unit with instructions given in the A320 Aircraft Maintenance Manual or the A321 Aircraft Maintenance Manual, TASK 73-22-52-400-010-A01 or -B01, or the MD-90 Aircraft Maintenance Manual 73-21-52 Page Block 401.

### D. Post-requisite Instructions

- (1) Close the left and right fan cowl doors with the instructions given in the A320 Aircraft Maintenance Manual or the A321 Aircraft Maintenance Manual, TASK 71-13-00-410-010 or the MD-90 Aircraft Maintenance Manual 71-13-01 Page Block 401 (left upper), 71-13-02 Page Block 401 (right upper), 71-13-03 Page Block 401 (left lower), 71-13-04 Page Block 401 (right lower).
- (2) Remove the warning notices from the aircraft panels 115VU and 50VU.

### E. Recording Instructions

- (1) A record of accomplishment is necessary.

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## SERVICE BULLETIN

3. Material Information

Applicability: For all V2500 Engine to incorporate this Bulletin.

A. Kits associated with this Bulletin:

None

B. Parts affected by this Bulletin:

New Part No. (ATA No.)	Qty	Est'd Unit Price (\$)	Keyword	Old Part No. (IPC No.)	Instructions Disposition
FMU530MK2 (73-22-52)	1		Metering Unit, Fuel	FMU530MK1 (01-100)	(A)(B)(1D) (S1)

C. Instruction/Disposition Code Statements:

(A) New part is currently available

(B) Old part is no longer available

(1D) Old part is capable of being reworked and re-identified as new part number

(S1) Old and new parts coded (S1) are freely and fully interchangeable

NOTE: The estimated 1994 unit price shown is provided for planning purposes only and does not constitute a firm quotation. Consult the IAE Price Catalog or contact IAE's Spare Parts Sales Department for information concerning firm prices.

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