International Aero Engines

SERVICE BULLETIN

ENGINE - FUEL AND CONTROL - FUEL METERING UNIT - INTRODUCTION OF MOOG TORQUEMOTOR WITH IMPROVED FILTRATION - CATEGORY CODE 6 - MOD.ENG-73-0047



1. Planning Information

A. Effectivity

(1) Aircraft : Airbus A320

(2) Engine : V2500-A1 Engines

(3) Fuel Metering Units : All Mk.3 units

B. Reason

(1) Condition

Contamination within the torquemotors can lead to uncommanded valve movements if the nozzles become partially or totally blocked.

(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

Validation of the new torquemotors is by means of favourable comparison with previous contamination testing carried out on similar units, and successful rig testing of an FMU equipped with the proposed strainers.

(5) Effect of Bulletin on Workshop Procedures.

| | |
|---|---|
| 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.6902.

(2) This Service Bulletin introduces new torquemotors which incorporate improved protection against contamination.

(3) Units incorporating this Service Bulletin will be identified by the serial number FMU500MK4.

NOTE: The following modifications will be fitted prior to concurrently with this modification:

| Lucas Modification | Lucas Service Bulletin |
|---|---|
| CP6619 | FMU 500-73-6619 |
| CP6646 | FMU 500-73-6646 |
| CP6647 (Superseded by CP6645 from FMU S/N B265 onwards) | FMU 500-73-6647 |
| CP6734 | FMU 500-73-6734 |
| CP6847 | FMU 500-73-6847 |
| CP6874 (Supersedes CP6800) | FMU 500-73-6874 |
| CP6876 | FMU 500-73-6876 |

D. 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 the Engine Model tested.

E. Compliance

Category Code 6

Accomplish when the subassembly (i.e. modules, accessories, components, build groups) is disassembled sufficiently to afford access to the affected part and to all affected spare parts.

F. Manpower

Estimated manhours to incorporate the full intent of this bulletin:

| Venue | Estimated Manhours |
|---|---|
| (1) In service .. .. .. | Not applicable |
| (2) At overhaul .. .. .. | Refer to Lucas Service Bulletin FMU 500-73-6902 |

G. Material - Price and Availability

(1) Modification kit not required.

(2) Refer to Lucas Service Bulletin FMU 500-73-6902

H. Tooling - Price and Availability

Special tools are not required to accomplish this Service Bulletin.

I. Weight and Balance

| | | |
|---|---|---|
| (1) | Weight change .. .. .. | None |
| (2) | Moment arm .. .. .. | No effect |
| (3) | Datum .. .. .. .. | Engine front mount centreline (Power Plant Station (PPS) 100) |

J. Electrical Load Data

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

K. References

(1) Internal Reference No.

EC93VR028

(2) Other References

Lucas Modification

CP.6902 (Improved protection from contamination in Moog Servovalves)

L. Other Publications Affected

(1) V2500 Illustrated Parts Catalog, 73-22-52 will be revised.

(2) V2500 Engine Component Maintenance Manual, Chapter 73-22-52.

2. Accomplishment Instructions

A. Rework Instructions

Incorporate the intent of Lucas Service Bulletin FMU 500-73-6902.

B. Recording Instructions

(1) A record of accomplishment is necessary.

3. Material Information

Applicability: For each 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 |
|---|---|---|---|---|---|
| FMU500MK4 (73-22-52) | 1 | | Metering Unit, Fuel | FMU500MK3 (01-100) | (1D) |

C. Instructions/Disposition Code Statement:

(1D) Old and new parts are fully interchangeable.