ENGINE – FUEL AND CONTROL – ENGINE FUEL AND CONTROL – FUEL SYSTEM TUBES – ENGINE – INTRODUCTION OF A REVISED TUBE ASSEMBLY WITH MATERIAL CHANGE AND REVISED CLIPPING – CATEGORY CODE 6 – MOD.ENG-73-0102

1. Planning Information

A. Effectivity

(1) Aircraft: (a) Airbus A320

(2) Engines: (a) V2500-A1 Engines prior to Serial No.V0362

B. Concurrent Requirements

None.

C. Reason

(1) Condition

Early deterioration of the fuel tube assembly between the FMU and the ACOC can occur.

Frettage can occur between the Fuel Metering Unit to ACOC fuel tube assembly and the supporting silicon cushion clips.

(2) Background

The problem has been found by operators of in-service A1 engines.

(3) Objective

The purpose of this Service Bulletin is to maintain reliability.

(4) Substantiation

The changes contained in this Service Bulletin have been the subject of a satisfactory trial installation on a class III mock-up engine.

(5) Effect of bulletin on Workshop Procedures

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

(6) Supplemental Information

None.

D. Description

(1) The changes introduced are:

(a) The fuel tube between the Fuel Metering Unit and the ACOC has changed. The changed are as follows:

(i) The material has changed from titanium to steel.

(ii) The tube routing has changed to make the clipping better.

(iii) An additional in-line lug is added for clip point C1049.

(b) Clip point CP1049 has changed, the changes are as follows:

(i) The clip that holds the fuel tube assembly is deleted.

(ii) The length of the bolt has been increased.

(iii) Another spacer has been added.

(c) The clips of CP0946, CP1041 and CP1042 have been changed from 400WSS range to AS62400 range.

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 Model Listed.

F. Compliance

Category Code 6.

Do this Service Bulletin when the subassembly (that is modules, accessories, components, build groups) is disassembled sufficiently to get access to all the affected parts.

G. Manpower

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

	Venue	Estimated Man-hours
(1)	In service	Not applicable
(2)	At overhaul	No more 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. Material - Price and Availability

(1) The kit necessary to do this Service Bulletin is given in 3. Material Information section. The kit is available at 50 per cent of the usual price to all affected customers, for a specified period.

Customers should submit a purchase order for the quantity necessary. Each purchase order must give the serial number of the affected engine and the IAE Tracking No.S.278UI. The purchase order must be sent to:

IAE Spares Division
400 Main Street
Mail Stop 121-0
East Hertford
CT 06108
USA

A thirty day lead time can be expected for all purchase orders. Thekits with the decreased price are available between September 1997 and August 1999.

(2) See "Material Information" section for prices and availability of spares.

I. Tooling - Price and Availability

Special tools are not necessary.

J. Weight and Balance

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

K. Electrical Load Data

This modification has no effect on the aircraft electrical load.

L. References

(1) Internal Reference No.

EC97VR001

M. Other Publications Affected

(1) V2500 Illustrated Parts Catalog (IPC), Chapter/Section 73-11-49.

(2) Component Maintenance Manual, Chapter/Section 73-11-49, PB 601, 801 and 901.

(3) V2500 Engine Manual (EM), Chapter/Section 72-00-60, Installation-03, PB 401.

(4) Airbus A320 Aircraft Maintenance Manual (AMM), Chapter/Section 72-60-00, PB 401.

2. Acomplishment Instructions

A. Rework Instructions

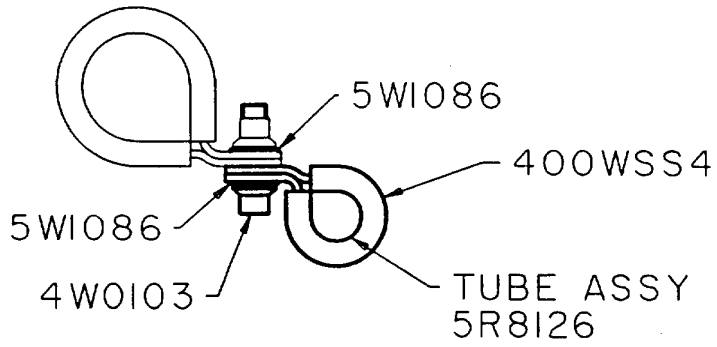
None.

B. Assembly Instructions

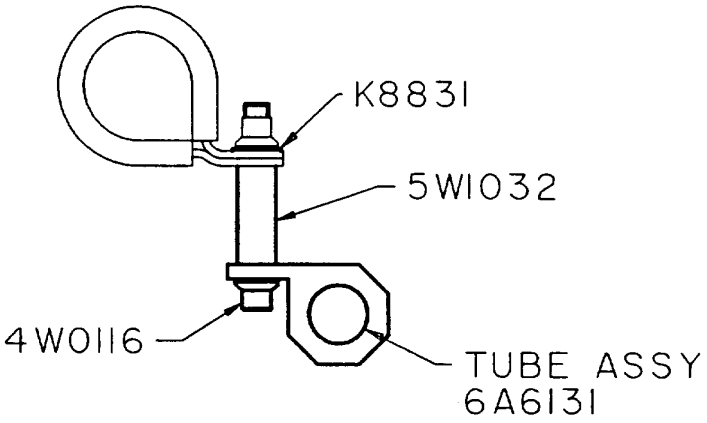
For the Removal/Installation of the fuel tube assembly, refer to Airbus A320 AMM, Chapter/Section 72-60-00, PB401.

C. Recording Instructions

A record of accomplishment is necessary.



SCHEMATIC VIEW OF CLIP
POINT 1049 BEFORE CHANGE



SCHEMATIC VIEW OF CLIP
POINT 1049 AFTER CHANGE

Clip point CP1049 - Before and after alteration
Fig. 1

3. Material Information

Applicability: For each V2500 Engine to incorporate this Bulletin.

A. Kits associated with this Bulletin:

MKV700101

B. Parts affected by this Bulletin:

New Part No. (ATA No.)	Qty	Est'd Unit Price ($)	Keyword	Old Part No. (IPC No.)	Instructions Disposition
AS62404 (71-71-48)	1		Clip (0.250 dia)(Rohr) CP0946	400WSS4 (02-138)	(A)(S2)(1D)
4W0116 (73-11-49)	1	12.40	Bolt, machine double hex (0.190 dia x 1.1312) (CP1049)	4W0103 (07-525)	(A)(S1)(1D)
K8831 (73-11-49)	1	0.19	Washer (CP1049)	5W1086 (07-526)	(1D)(2D)
5W1032 (73-11-49)	1	12.70	Spacer, sleeve (20 mm)(CP1049)	- (07-530)	(A)(B)
6A6131 (73-11-49)	1	630.00	Tube, A/0 - fuel - FMU to AC0C - Disconnect to disconnect	5R8126 (22-100)	(A)(C)(S1)
- (73-11-49)	1		Clip (0.250 dia)(CP1049)	400WSS4 (22-136)	(E)(1D)
AS62404 (73-11-49)	1	21.50	Clip (0.250 dia)(CP1041)	400WSS4 (22-144)	(A)(S2)(1D)
AS62404 (73-11-49)	1		Clip (0.250 dia)(CP1042)	400WSS4 (22-152)	(A)(S2)(1D)

NOTE: The 1997 unit prices 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. Instructions Disposition Codes:

(A) New part is currently available.
(B) Additional part.
(C) Old part will be discontinued.
(E) Redundant part.
(S1) Old and new parts are not interchangeable.
(S2) Old and new parts are freely and fully interchangeable.
(1D) Old part may be used up on other applications.
(2D) Quantity decreased from 2 to 1.