

#### International Aero Engines

# SERVICE BULLETIN

# ENGINE - FUEL AND CONTROL - REPLACE THE TUBE CLIP AT CLIPPING POINT 0795 - CATEGORY CODE 4 - MOD.ENG-73-0021

#### 1. Planning Information

#### A. Effectivity

(1) Aircraft: Airbus A320

(2) Engine: V2500 A1. Engine prior to Serial No.V0122

#### B. Reason

#### (1) Condition

Fretting could occur on the fuel cooled oil cooler (F.C.O.C.) to fuel pump fuel tube in the area of clipping point 0795.

#### (2) Background

An instance of frettage between the 'P' clip at clipping point 0795 and the fuel tube has been reported.

The frettage results from relative movement between the clip and tube, the metal clip eventually wearing through the rubber sleeve to fret directly on the tube. The movement is permitted due to loose a fit of the clip on the tube.

#### (3) Objective

Incorporation of this Service Bulletin is designed to eliminate frettage.

#### (4) Substantiation

Vibration testing carried out using the new configuration has shown a marked reduction in movement of the tube at clipping point 0795. The reduction in movement will significantly improve the integrity of the clipping at this position.

#### (5) Effect of Bulletin on Workshop Procedures

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

#### (6) Supplemental Information

V2500-ENG-73-0021



None

#### C. <u>Description</u>

- (1) The changes introduced by this Service Bulletin are as follows:
  - (a) A tube clamp with a thicker rubber sleeve replaces the existing clip at clipping point 0795. The new clamp has a tighter fit with the tube compared to the existing clip.
  - (b) A longer spacer is introduced to avoid fouling between the new clamp and adjacent tubes and a longer bolt is introduced to accomodate the longer spacer.

#### D. Approval

The part number changes and/or part modifications 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 listed.

#### E. Compliance

Category Code 4

Accomplishment 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.

#### F. Manpower

Estimated manhours to incorporate the full intent of this bulletin

Venue Estimated Manhours

(1) In Service .. .. .. 30 minutes

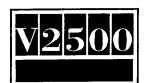
(2) At Overhaul .. .. 30 minutes

#### G. Material - Price and Availability

- (1) Modification kit is not required.
- (2) See "Material Information" section for prices and availability of future spares.

#### H. Tooling - Price and Availability

Special tools are not required.



#### International Aero Engines

# 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.

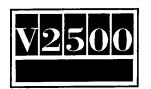
K. References

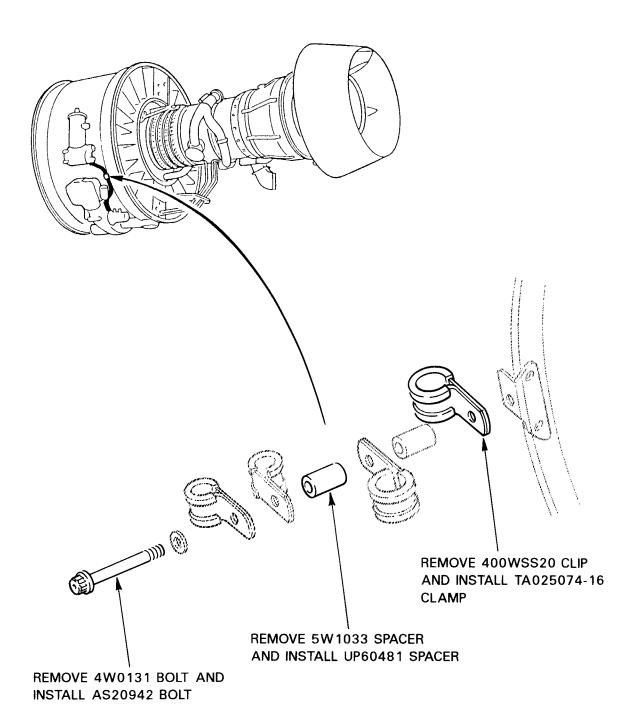
(1) Internal Reference No.

EC90VR009

## L. Other Publications Affected

- (1) V2500 Engine Illustrated Parts Catalogue, 73-11-49.
- (2) V2500 Engine Manual, 72-00-60, Removal-02 and 06, Installation-03 and 06.



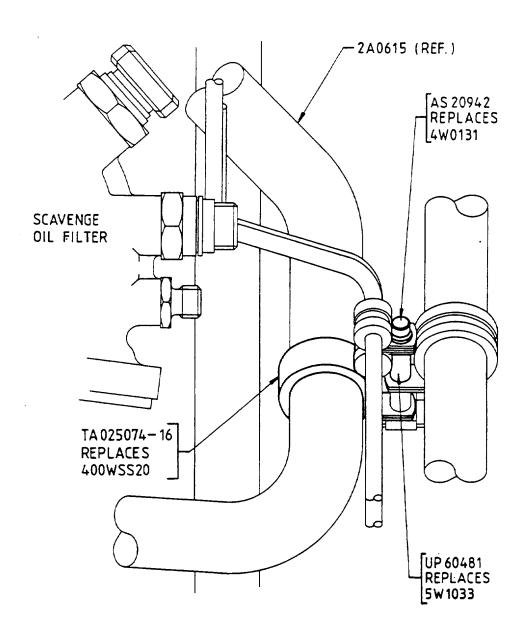


B3000

Location at clipping point 0795 Fig.1

V2500-ENG-73-0021

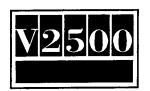




View of clipping point 0795 - Before and after alteration Fig.2  $\,$ 

V2500-ENG-73-0021

Jun.1/90

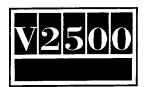


### 2. Accomplishment Instructions

- A. Prerequisite Instructions
  - (1) Open the left fan cowl door in accordance with the instructions in the A320 Aircraft Maintenance Manual, 71-13-00-010-010.
- B. Removal Instructions
  - (1) Remove the bolt 4W0131, the washer AN960XC10L, the two spacers 5W1033 and 5W1032 and the nut from clipping point 0795.
  - (2) Remove clip 400WSS20 from the FCOC to fuel pump tube.
  - (3) Discard bolt 4W0131, spacer 5W1033 and clip 400 WSS20.
- C. Rework Instructions

None

- D. Assembly Instructions
  - (1) Secure the F.C.O.C. to fuel pump fuel tube to clipping point 0795 using clamp TA025074-16, bolt AS20942, washer AN960XC10L, spacers UP60481 and 5W1032 and nut 4W0043 (refer to Figure 2).
- E. Post Requisite Instructions
  - (1) Close the left fan cowl door in accordance with the instructions in the A320 Aircraft Maintenance Manual 71-13-00-410-010.
- F. Recording Instructions
  - (1) A record of accomplishment is necessary.



#### 3. Material Information

Applicability: For each V2500 Engine to incorporate this Bulletin.

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

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
AS20942	1		Bolt, Machine Double Hex	4W0131	(S1)(1D)(A)
(73-11-49)			·	(05-133)	
TA025074-16	5 1		Clamp, Loop Style,	400WSS20	(S1)(A)(B)
(73-11-49)			Cushion	(05-133)	
UP60481	1		Spacer	5W1033	(S1)(A)(B)
(73-11-49)				(05-138)	

#### C. <u>Instructions/Disposition Code Statements:</u>

- (S1) Items coded (S1) must be fitted as a set.
- (1D) Old part coded (1D) will continue to be available for use at other applications.
- (A) New parts coded (A) are currently available for sale.
- (B) Old parts coded (B) will no longer be available.

NOTE: The estimated 1990 unit prices shown are provided for planning purposes only and do not constitute a firm quotation. Consult the I.A.E. price catalog or contact I.A.E.'s Spare Parts Sales Department for information concerning firm prices.

