POWER PLANT - ENGINE - EEC HARNESS FAN - REVISED CLIPPING OF LOOMS B AND D ADJACENT TO FUEL COOLED OIL COOLER - CATEGORY CODE 6 - MOD.ENG-71-0156



1. Planning Information

A. Effectivity

(1) Aircraft: (a) McDonnell Douglas MD-90

(2) Engine: (a) V2525-D5 Engines prior to Serial No.V20009.

(b) V2528-D5 Engines prior to Serial No.V20009.

B. Concurrent Requirements

None

C. Reason

(1) Condition

Limited clearance between the EEC harness adjacent to the Fuel Cooled Oil Cooler with the No.3 fan cowl hinge.

(2) Background

During assembly it was highlighted that limited clearance existed between the EEC harness looms B and D and the No.3 fan cowl upper door hinge.

(3) Objective

To eliminate possible harness foul.

(4) Substantiation

An assembly check of the re-run harness and altered clipping on a production engines has proved to be satisfactory.

(5) Effect of Bulletin on Workshop Procedures:

| | |
|---|---|
| Removal/Installation | Affected (see supplemental information) |
| Disassembly/Assembly | Not affected |
| Cleaning | Not affected |
| Inspection/Check | Not affected |
| Repair | Not affected |
| Testing | Not affected |

(6) Supplemental Information

The Removal/Installation will be revised to add the new configuration of this Service Bulletin.

D. Description

The changes introduced by this Service Bulletin are as follows:

(1) Clipping point 2045 is deleted and the harness previously clipped at this point is now transferred to new clipping point 2660 on flange FB along with new bracket at hole positions 61 and 62.

(2) Clipping point 2407 is amended by adding an additional spacer and a longer bolt.

E. 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.

F. Compliance

Category Code 6

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

G. Manpower

Estimated manhours to incorporate the full intent of this Bulletin:

| | Venue | Estimated Manhours |
|---|---|---|
| (1) | In Service | Not applicable |
| (2) | At Overhaul | Not affected |

H. Material - Price and Availability

(1) Modification Kit not required.

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

I. Tooling - Price and Availability

Special tools are not required.

J. Weight and Balance

| | | |
|---|---|---|
| (1) | Weight and Balance | T.B.A. |
| (2) | Moment arm | T.B.A. |
| (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.

EC94VR039

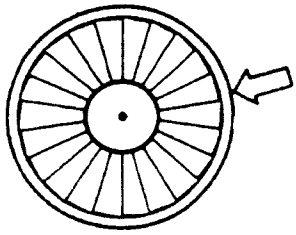
M. Other Publications Affected

(1) V2500 Illustrated Parts Catalog (S-V2500-3IA), Chapter/Section 71-51-54.

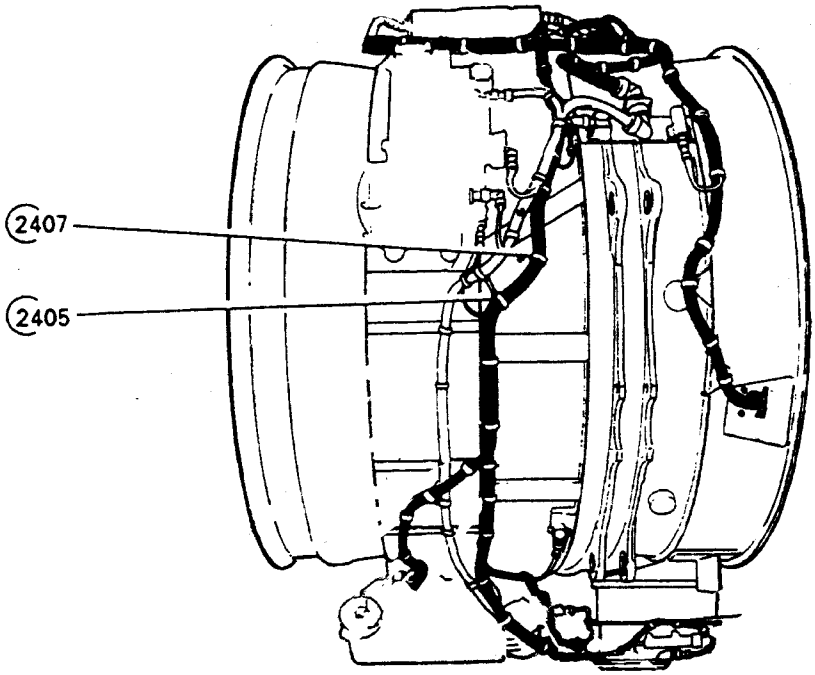
(2) V2500 Engine Manual (E-V2500-3IA), 72-00-32, Removal-02,-05 and Installation-01,-04.

(3) V2500 Component Maintenance Manual (CMM-MECH-V2500-3IA), 71-51-54, Cleaning and Inspection/Check.

(4) V2500 Engine Maintenance Manual (M-V2500-3IA), 71-51-54, Removal/Installation and 71-51-61, Removal/Installation.

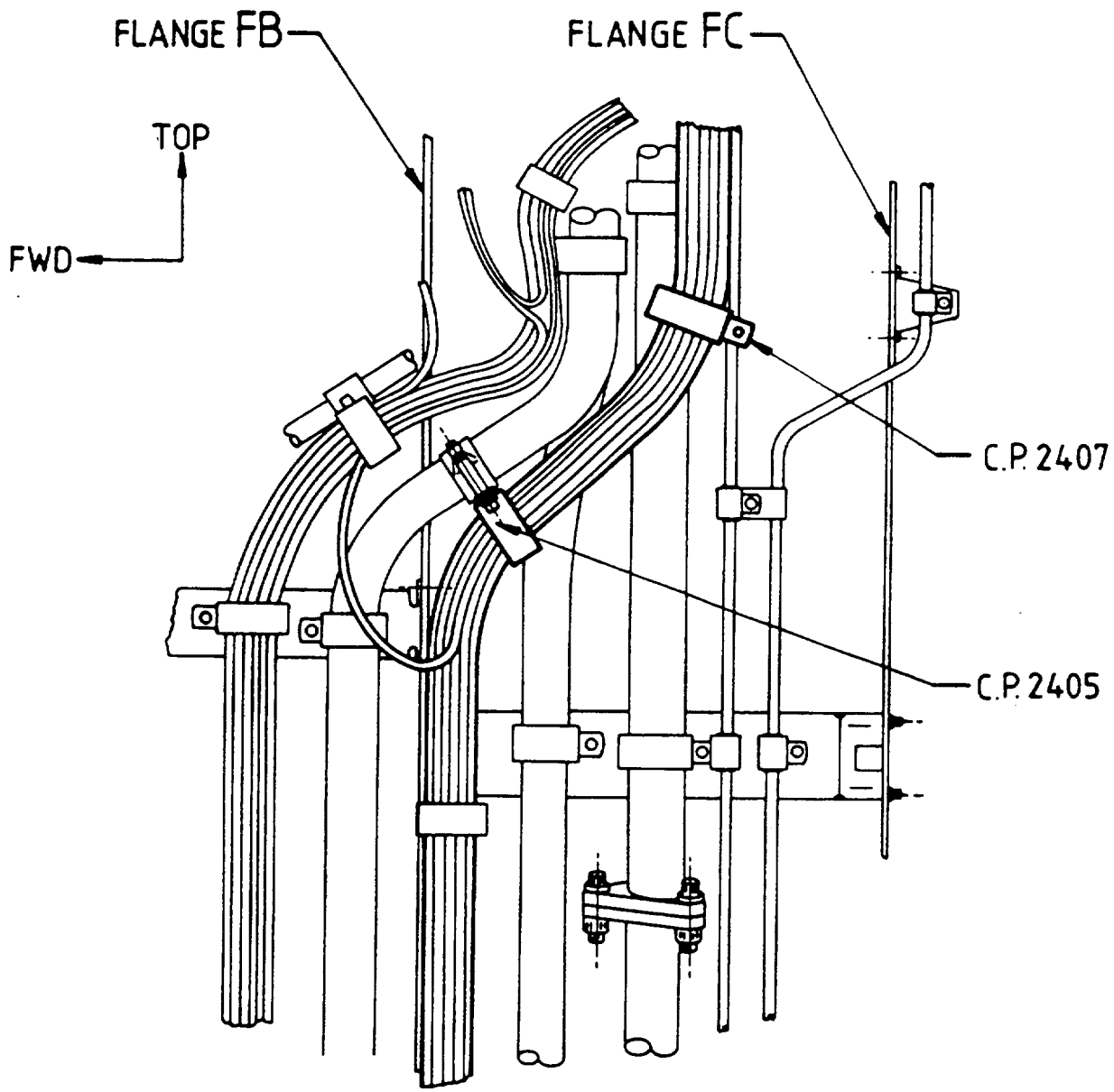


FORWARD

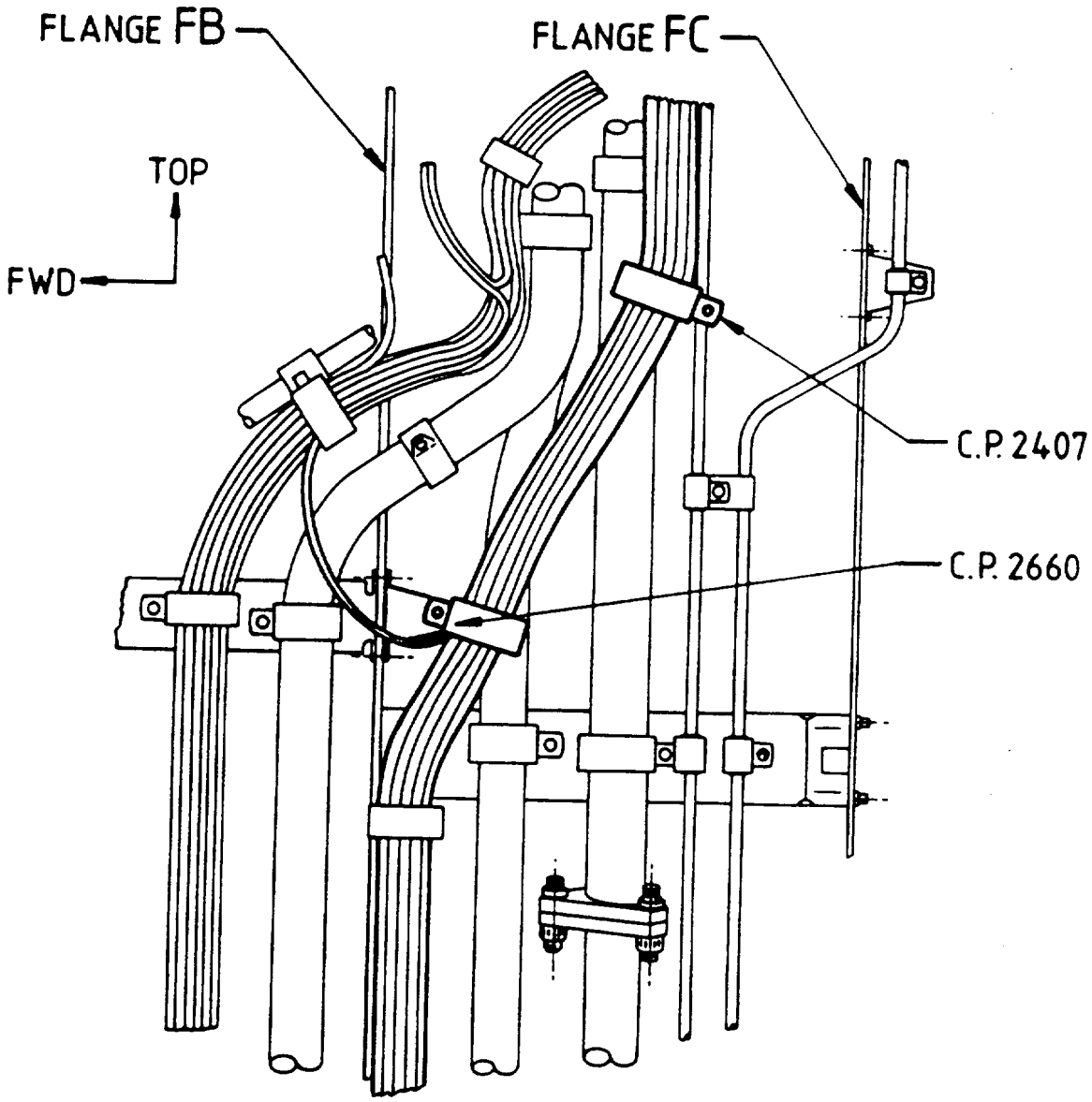



E3477

Location of clipping points 2405 and 2407
Fig.1

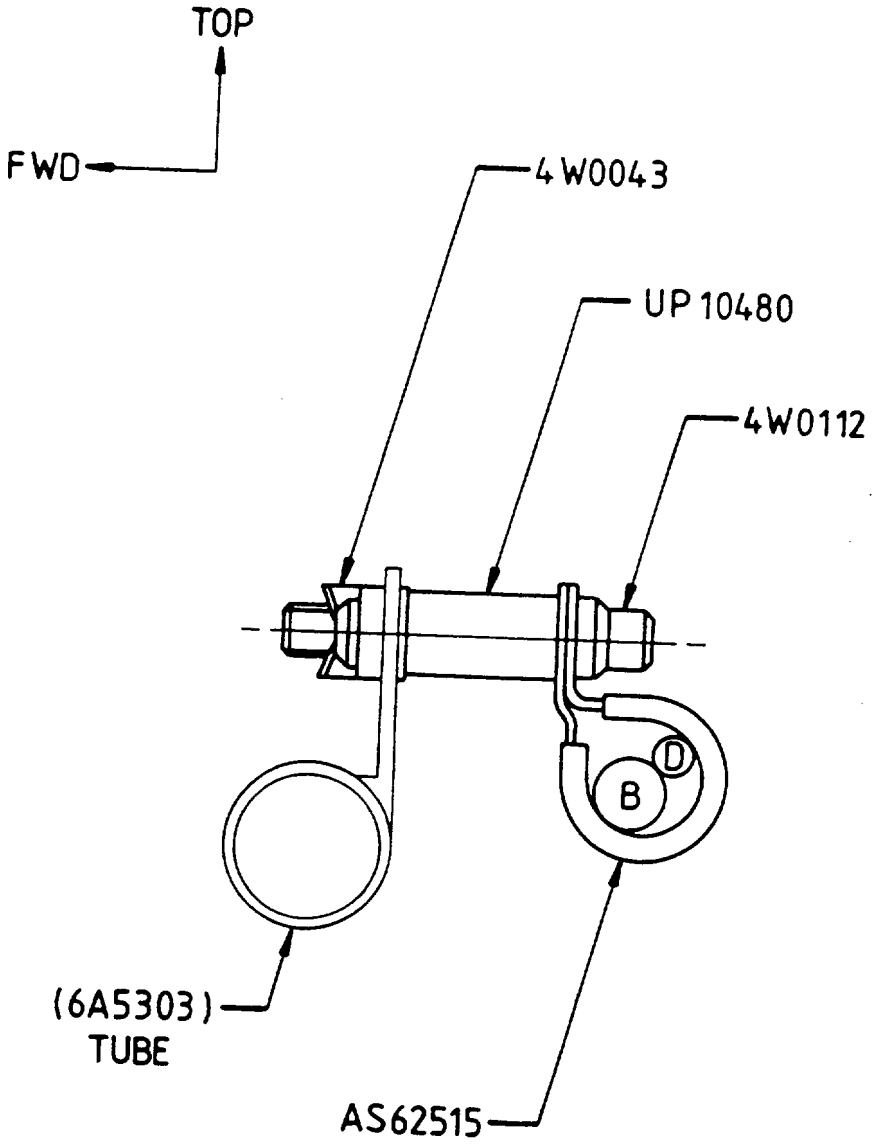



Part view on left hand side of engine - Before alteration
Fig.2



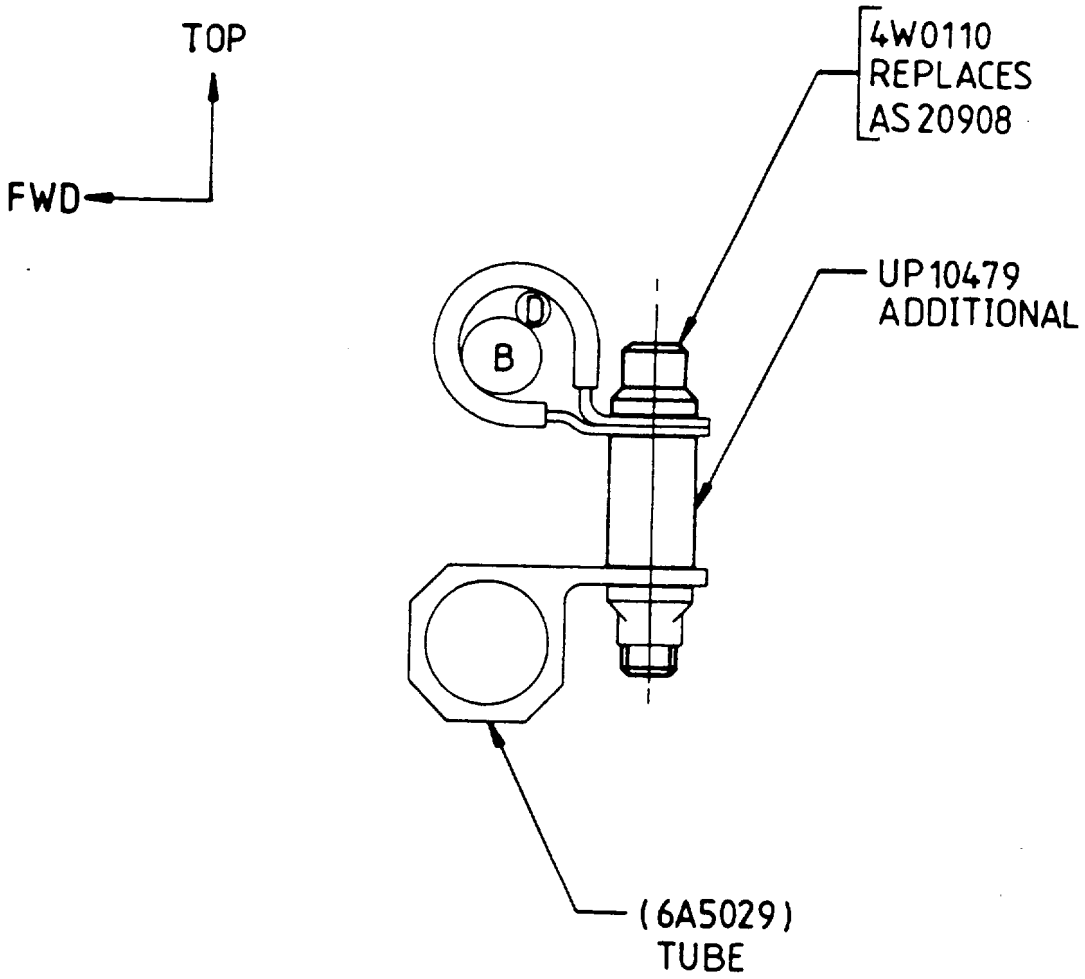

ded0000422

Part view on left hand side of engine - After alteration
Fig.3



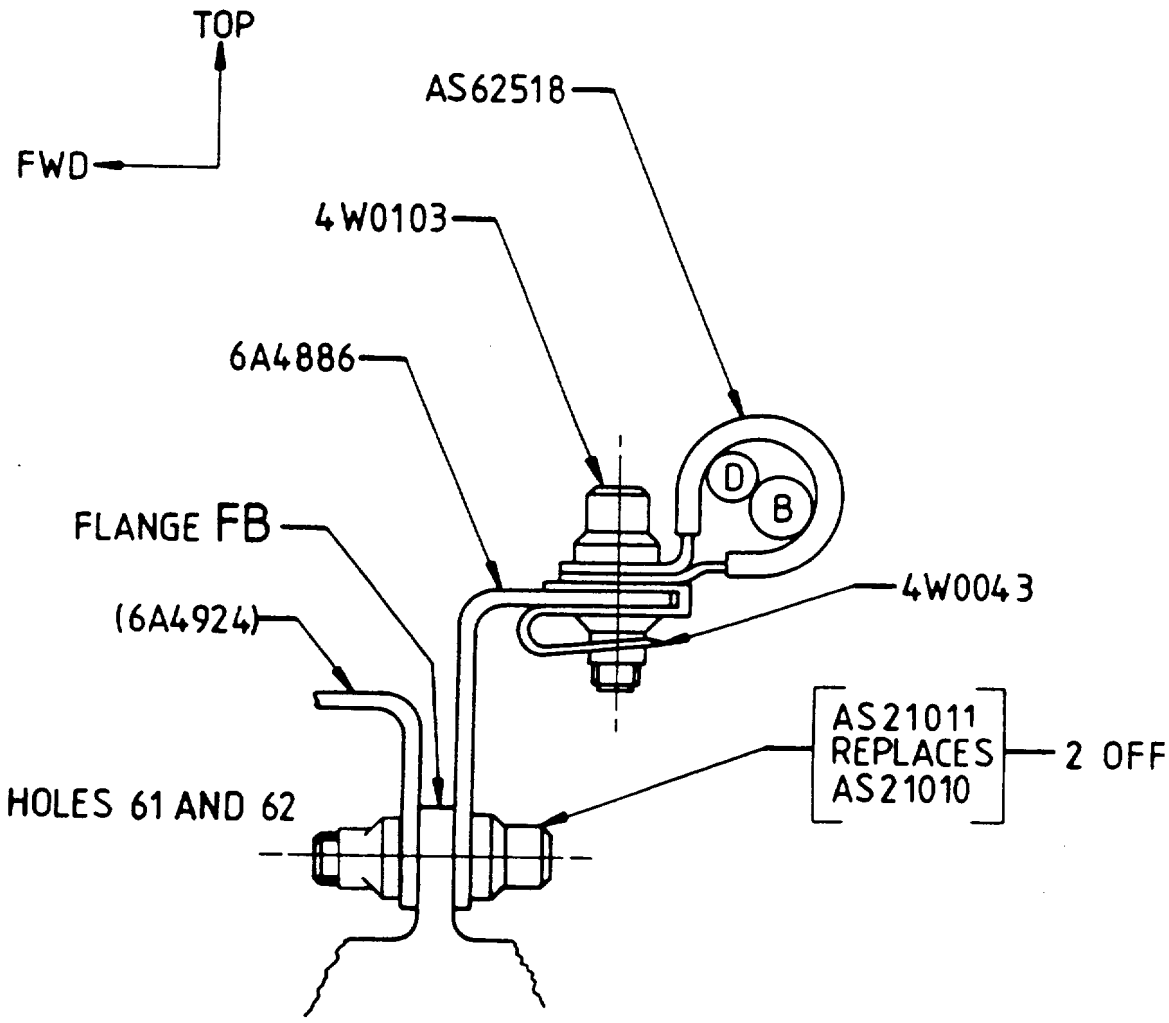

ded0000423

View on clipping point 2405 - Deleted
Fig.4




ded0000424

View on clipping point 2407 - Before and after alteration
Fig.5




ded0000425

View on clipping point 2660 - Additional
Fig.6

2. Accomplishment Instructions

A. Rework Instructions

(1) There are no rework instructions necessary to accomplish this Service Bulletin.

B. Assembly Instructions

(1) Find harness looms 'B' and 'D'. Refer to Figures 1 and 2.

(2) Disassemble clipping point CP2405, remove 4W0112 bolt, 4W0043 clipnut, UP10480 spacer and AS62515 clamp. Refer to Figures 2 and 4.

(3) Disassemble clipping point CP2407, remove AS20908 bolt and 4W0001 nut. Refer to Figures 2 and 5.

(4) Remove the AS21010 bolts (2 off) and 4W0002 nuts (2 off) at hole position numbers 61 and 62 on flange face 'B'. Refer to figures 3 and 6.

(5) Install the new 6A4886 bracket to flange face 'FB' at hole position numbers 61 and 62 using the new AS21011 bolts (2 off) and existing 4W0002 nuts (2 off). Torque the bolts to 85 to 105 lbfin (10 to 12 Nm). Refer to figures 3 and 6.

(6) At new clipping point CP2660 install harness looms 'B' and 'D' into new AS62518 clamp. Assemble new clipping point to 6A4886 bracket and using new 4W0103 bolt, new AS62518 clamp and new 4W0043 clipnut. Refer to Figures 3 and 6.

(7) At existing clipping point CP2407, assemble revised clipping point using new 4W0110 bolt, existing AS62518 clamp, new UP10479 spacer, existing 6A5029 tube and existing 4W0001 nut. Refer to Figures 3 and 5.

(8) Torque the clipping points CP2407 and CP2660 to 36 to 45 lbfin (4 to 5 Nm).

C. 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 |
|---|---|---|---|---|---|---|
| 4W0110 (71-51-54) | 1 | | Bolt | CP2407 | AS20908 (01-381) | (A)(B) (S1) |
| UP10479 (71-51-54) | 1 | | Spacer | CP2407 | - (01-386) | (A)(C) |
| - (71-51-54) | 1 | | Bolt | CP2405 | 4W0112 (01-389) | (B) |
| - (71-51-54) | | | Clamp | CP2405 | AS62515 (01-392) | (B) |
| - (71-51-54) | | | Spacer | CP2405 | UP10480 (01-394) | (B) |
| - (71-51-54) | | | Nut | CP2405 | 4W0043 (01-396) | (B) |
| 4W0103 (71-51-54) | 1 | | Bolt | CP2660 | - (01-889) | (A)(C) |
| AS62518 (71-51-54) | 1 | | Clamp | CP2660 | - (01-892) | (A)(C) |
| 4W0043 (71-51-54) | 1 | | Nut | CP2660 | - (01-896) | (A)(C) |
| AS21011 (71-51-54) | 2 | | Bolt | CP2660 | AS21010 (05-326) | (A)(B) (S1) |
| 6A4886 (71-51-54) | 1 | | Bracket | CP2660 | - (05-630) | (A)(C) |

C. Instruction/Disposition Code Statements:

(A) New parts are currently available.
(B) Old parts can be used up on other applications.
(C) Additional part.
(S1) New parts may be used in place of old parts, but not vice-versa.

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