AIR - H.P.C. BLEED AIR TUBES - REVISED CORE ENGINE TUBES TO IMPROVE CLEARANCE WITH HARNESS IN BIFURCATION AREA - R.H. SIDE - CATEGORY CODE 7 - MOD.ENG-75-0016

1. Planning Information

A. Effectivity

(1) Aircraft: Airbus A320

(2) Engine: V2500 A1 Engines prior to Serial No.V0146.

B. Reason

(1) Condition

Insufficient clearance between core engine tubes and the core harness could occur.

(2) Background

The clearance between two bleed valve air tubes, one servo fuel drain tube and the harness on the core side of the bifurcation panel is considered inadequate.

(3) Objective

Incorporation of This Service Bulletin is designed to ensure adequate clearance between core engine tubes and the core harness.

(4) Substantiation

The revised tube clipping arrangement has been run on a mock up engine, and was found to have provided adequate clearance.

(5) Effect of bulletin on Workshop procedures:

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

(6) Supplemental Information

None

C. Description

(1) The changes introduced by this Bulletin are as follows:

(a) Two bleed valve air tubes and one servo fuel drain tube have been re-run to achieve an acceptable clearance between themselves and the core engine harness.

(b) The original servo fuel tube clipping point 5834 is deleted.

(c) Clipping point 5640 is amended to incorporate the re-run bleed valve air tubes and servo fuel drain tube. The existing clip at the now deleted clipping point 5834 is transferred to clipping point 5640 to clip re-run servo fuel drain tube.

D. Approval

The part number changes and/or part modification described in Sections 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 7

Accomplish when supply of superseded parts have been depleted.

F. Manpower

Estimated manhours to incorporate the full intent of this Bulletin:

	Venue	Estimated Manhours
(1)	In service	Not applicable
(2)	At overhaul	Not applicable

NOTE: No additional time is required to maintain the new configuration.

G. Material - Price and Availability

(1) Modification Kit not required.

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

H. Tooling - Price and Availability

Special tools are not required.

I. Weight and Balance

(1)	Weight change	None
(2)	Moment arm	No effect
(3)	Datum	Engine front mount centerline (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.

EC89VR039

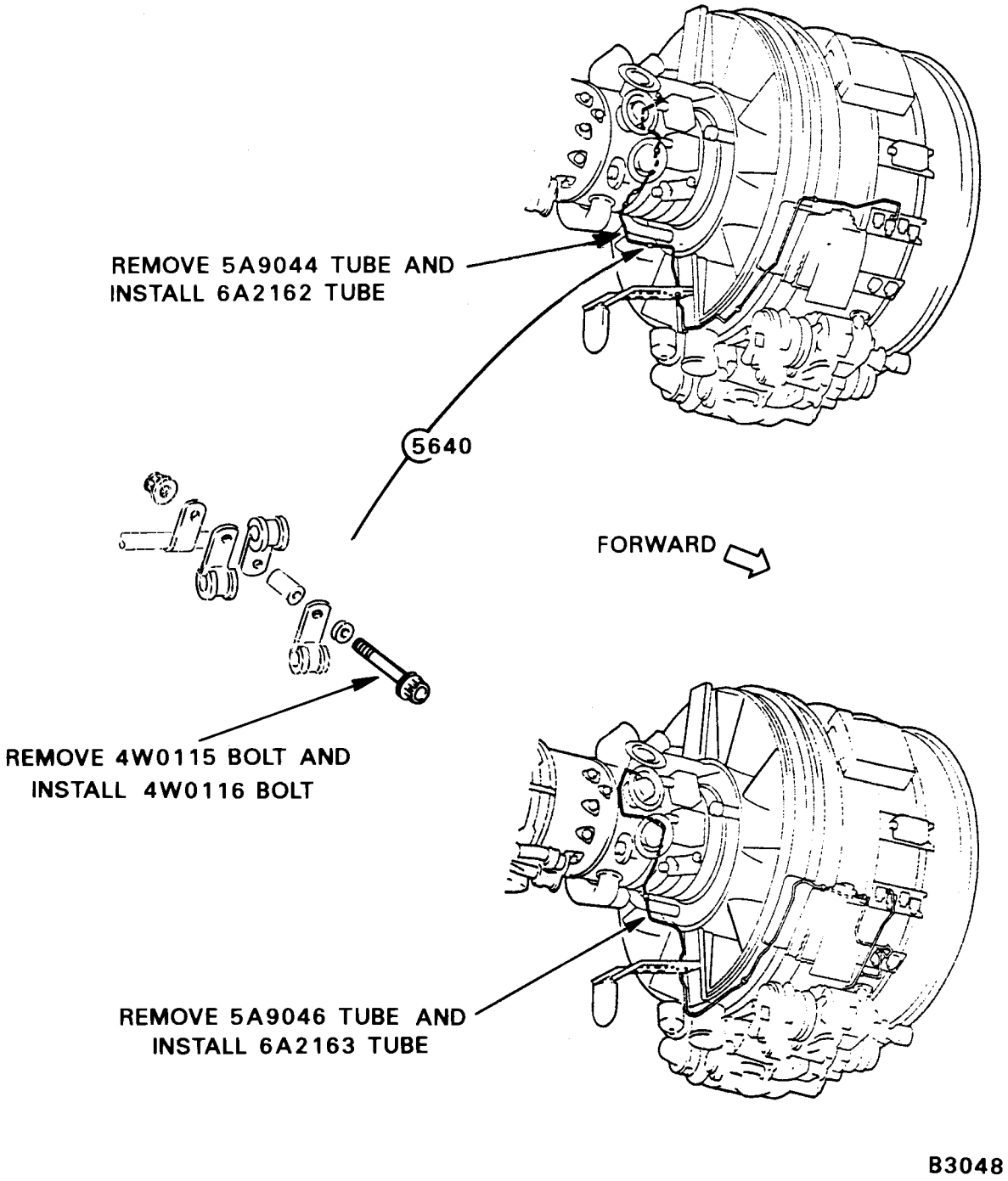
(2) Other references

V2500 Repair Schemes, VR1681, VR6470, VR6471, VR6472, VR6473.

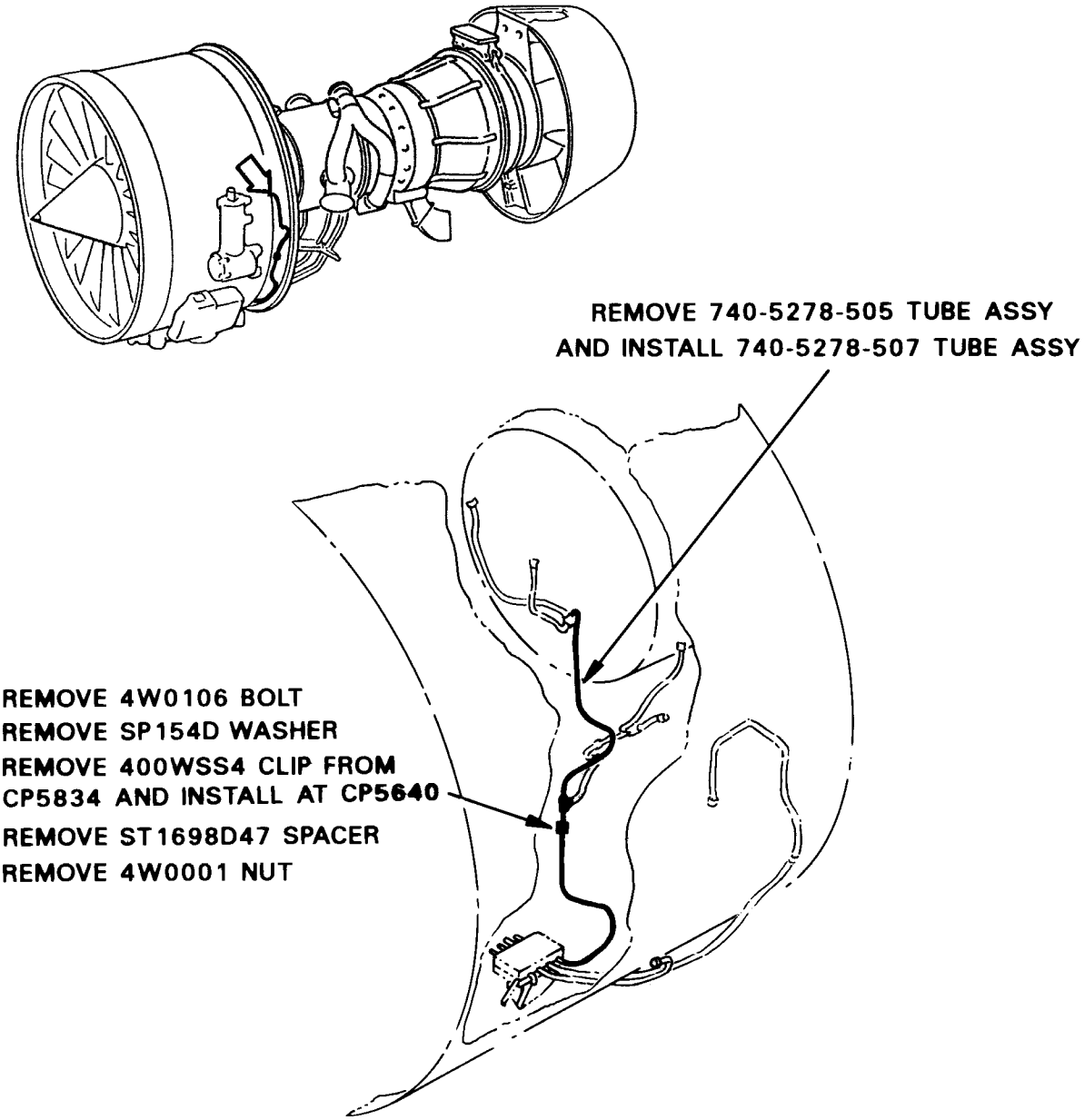
L. Other Publications Affected

(1) The A320 Engine Illustrated Parts Catalog, Chapter/Section 71-71-49 and 75-32-49

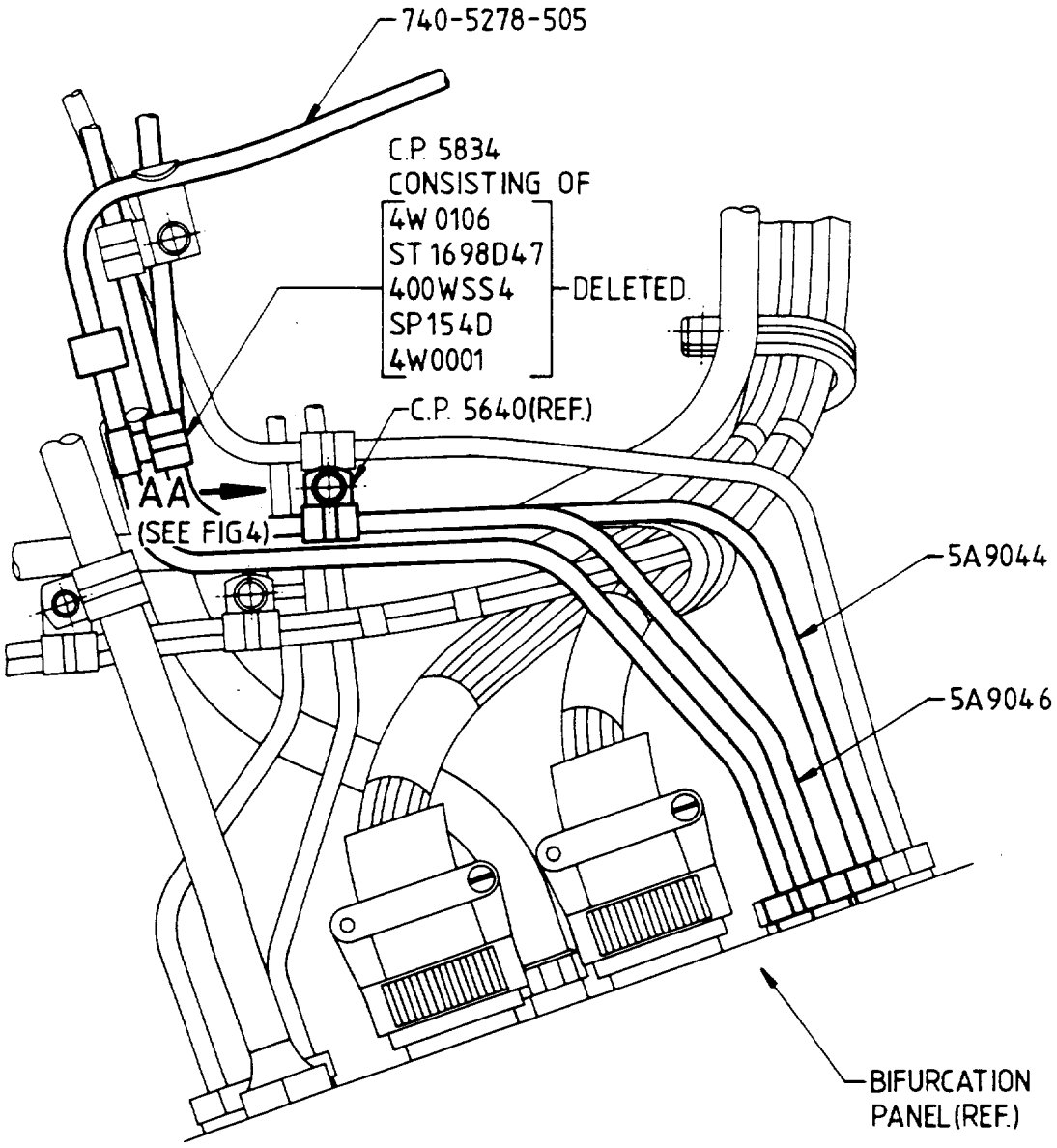
(2) The V2500 Engine Manual, 72-00-40, Removal and Installation, and 75-32-49, Cleaning and Inspection/Check.



Location of H.P. Compressor Bleed Air Tubes
Fig.1 (Sheet 1 of 2)



Location of Fuel Drain Tubes
Fig.1 (Sheet 2 of 2)



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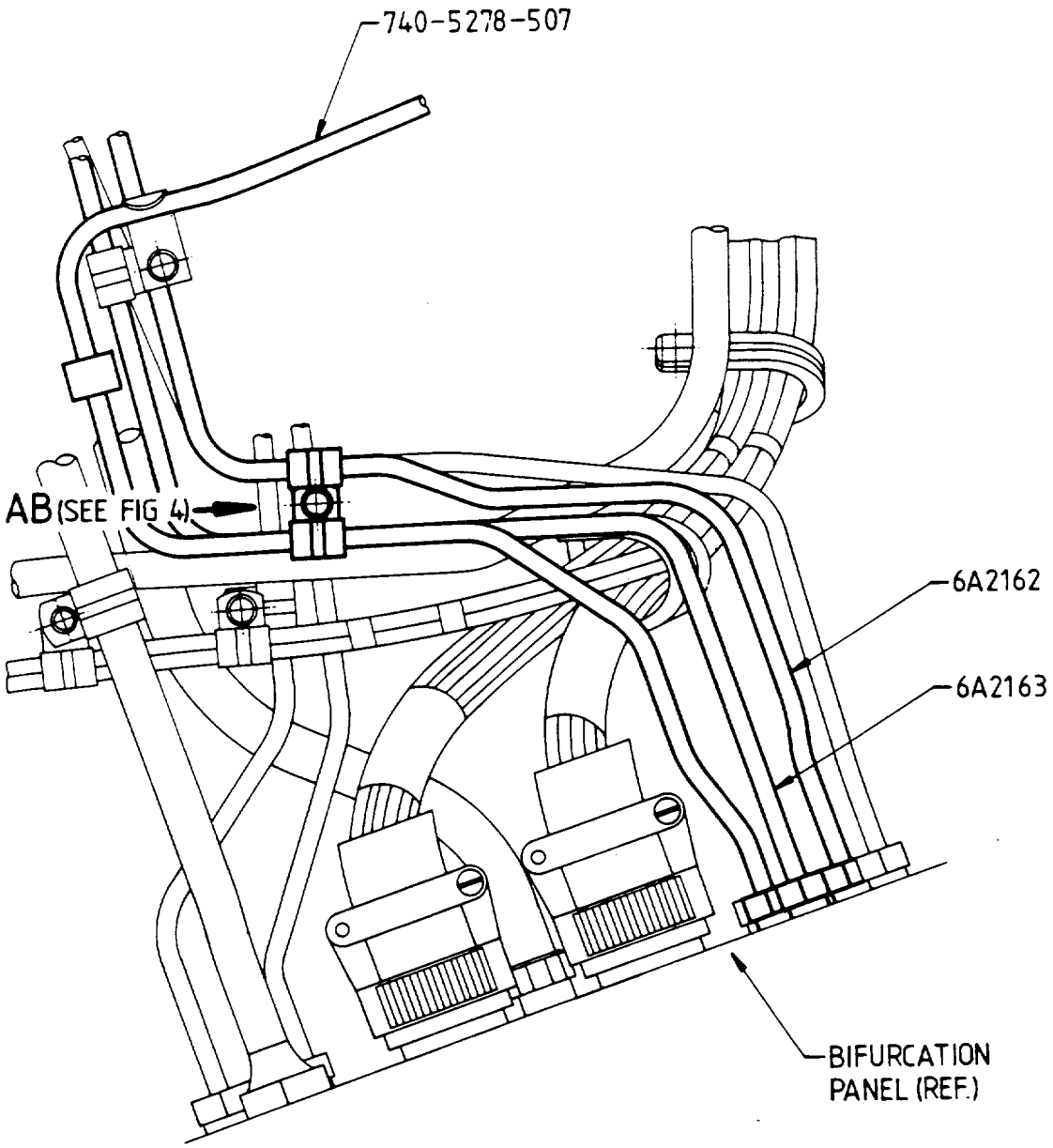
Location of Fuel Drain Tubes (Before alteration)
Fig.2



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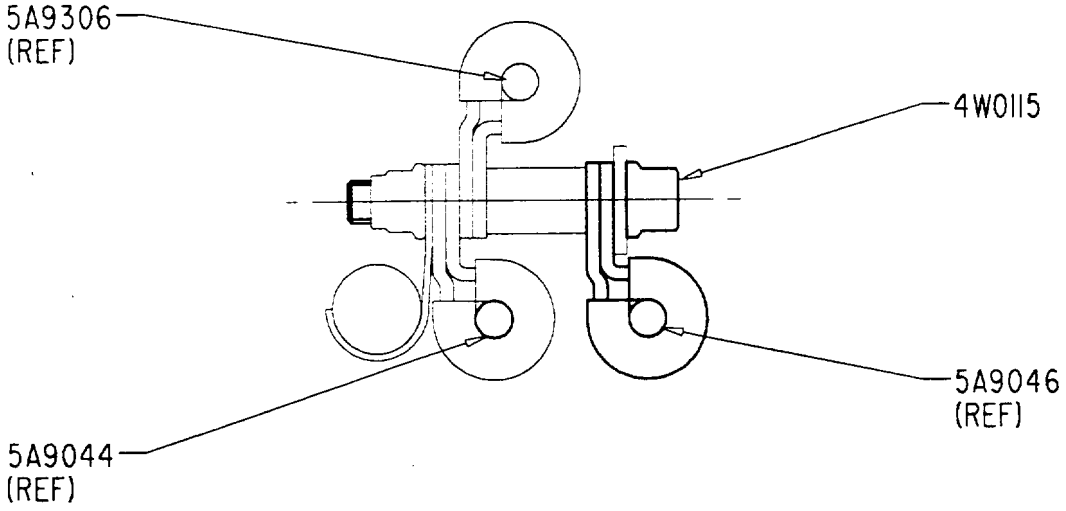
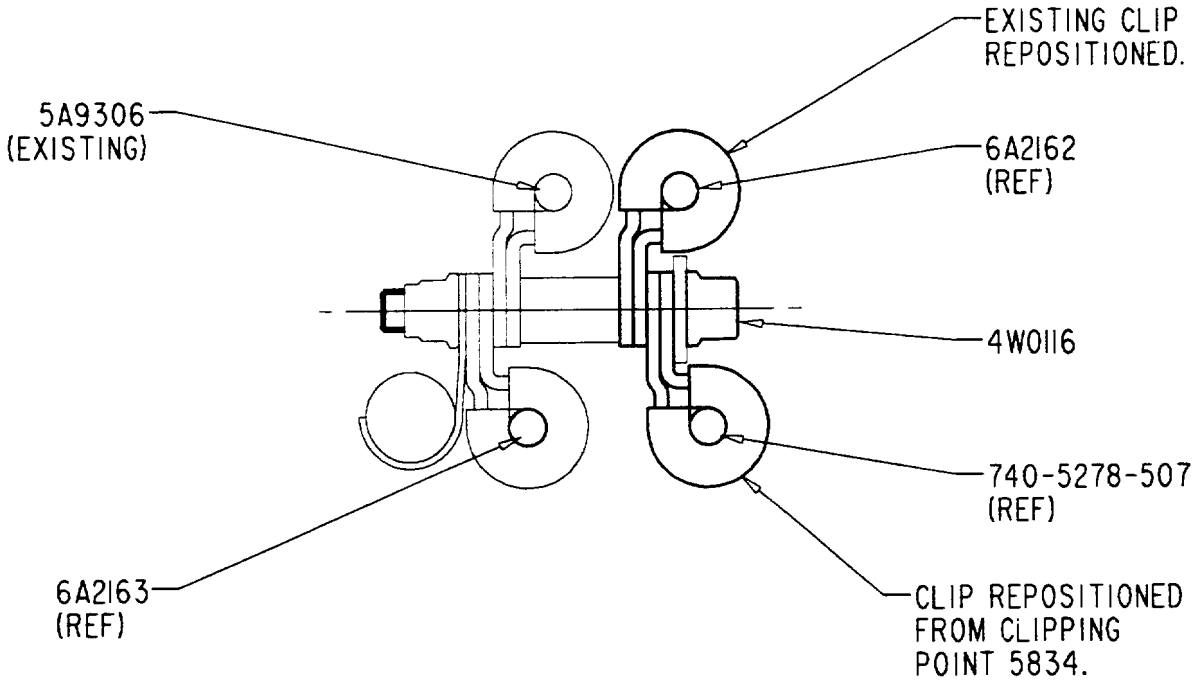
Location of Fuel Drain Tubes (After alteration)
Fig.3



VIEW ON ARROW **AA** (SEE FIG 2)



VIEW ON ARROW **AB** (SEE FIG 3)

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Clipping point 5640
Fig.4

2. Accomplishment Instructions

A. Removal Instructions

(1) Remove 740-5278-505 tube assembly drain (Figure 2).

(a) Remove bolts, washers, spacers and clips at clipping position 5833.

(b) Remove 4W0001 nut, SP154D washer, 400WSS4 clip, ST1698D47 spacer and the 4W0106 bolt from the 5834 clipping point.

(c) Disconnect 740-5279-507 tube assembly drain (02-100) from 740-5278-505.

(d) Disconnect 740-5277-505 tube assembly drain (01-500) from 740-5278-505.

(e) Disconnect 740-5278-505 from 740-5688-509 (03-400) at the bifurcation panel and the active clearance control (ACC) actuator and remove 740-5278-505.

(2) Remove 5A9044 tube air HPC 7th B.VAL A/O (75-32-49, 13-100).

(a) Remove the 4W0001 nut, the 6A2134 raceway, the 400WSS4 clip, the 5W1031 spacer, the 400WSS4 clip, the 5W1086 washer, and the 4W0115 bolt from the 5640 clipping point (refer to Figure 4).

(b) Disconnect 5A8776 tube assembly air HPC 7th BLD (13-500) from 5A9044.

(c) Disconnect 5A9044 tube air HPC 7th B/VAL A/O (13-100) at the bifurcation panel and remove 5A9044.

(3) Remove 5A9046 tube air HPC 10th B/VAL A/O (14-100, 75-32-49).

(a) Disconnect 5A8755 tube A/O air (14-500) from 5A9046.

(b) Disconnect 5A9046 tube air HPC 10th B/VAL A/O (14-100) at the bifurcation panel and remove 5A9046.

B. Rework Instructions

None

C. Installation Instructions

(1) Install the tube 740-5278-507 tube assembly drain (02-500).

(a) Connect 740-5278-507 to the ACC actuator and to 740-5688-509 at the bifurcation panel.

(b) Connect 740-5278-507 to 740-5277-505 tube assembly drain (01-500).

(c) Connect 740-5278-507 to 740-5279-507 tube assembly drain (02-100).

(d) Torque the tube connectors (in steps (A), (B) and (C)) to 157 - 177 lbfin (18 - 20 Nm) and safety with CoMat 02-126 lockwire.

(e) Install the clip, the washer and the bolt, at the clip position 5833. Torque the nut to 36 - 45 lbfin (4 - 5 Nm).

(2) Install the 6A2162 tube air 7th B/VAL A/O (75-32-49, 13-100).

(a) Connect 6A2162 to the bifurcation panel (13-100).

(b) Connect 6A2162 to 5A8776 tube assembly air HPC 7th BLD (13-500).

(c) Torque the tube connectors to 157 - 177 lbfin (18 - 20 Nm) and safety with CoMat 02-126 lockwire.

(3) Install 6A2163 tube air HPC 10th B/VAL A/O (75-32-49, 14-100).

(a) Connect 6A2163 tube air HPC 10th V/VAL A/O at the bifurcation panel (14-100).

(b) Connect 6A2163 to 5A8755 tube A/O air (14-500).

(c) Install the 5640 clipping point, the 4W0116 bolt, the 5W1086 washer, the 1st 400WSS4 clip repositioned from clipping point 5834, the existing 400WSS4 clip repositioned, the 5W1031 spacer, the existing 400WSS4 clip, the 6A2134 raceway with the 40001 nut (refer to Figure 4), torque the nut to 36-45 lbf.in. (4-5 Nm).

(d) Torque the tube connectors to 157-177 lbf.in. (18-20 Nm), safety with CoMat 02-126 lockwire.

3. Material Information

New Part No. (ATA No.)	Qty	Est'd Unit Price ($)	Keyword	Old Part No. (IPC No.)	Instructions Disposition
Applicability: For each V2500 engine to incorporate this bulletin.					
A. Kits associated with this Bulletin:					
None.					
B. Parts affected by this Bulletin:					
740-5278-507 (71-71-49)	1		Tube assy, drain	740-5278-505 (02.500)	(S1)(B) (3D)
- (71-71-49)	1		Bolt, machine double hex (CP.5834)	4W0106 (02.549)	(1D)(2D) (S1)
- (71-71-49)	1		Washer (CP.5834)	SP154D (02.550)	(1D)(2D) (S1)
400WSS4 (71-71-49)	1	4.34	Clip, loop type (CP.5640)	Existing* (02.552)	(A)(S1)
- (71-71-49)	1		Spacer (CP.5834)	ST1698D47 (02.554)	(1D)(2D) (S1)
- (71-71-49)	1		Nut (CP.5834)	4W0001 (02.556)	(1D)(2D) (S1)
6A2162 (75-32-49)	1	318.00	Tube, air HPC 7th B/VAL A/O	5A9044 (13.100)	(S1)(B) (3D)
4W0116 (75-32-49)	1	8.86	Bolt, machine double hex (CP.5640)	4W0115 (13.133)	(1D)(S1)
6A2163 (75-32-49)	1	265.00	Tube air HPC 10th B/VAL A/O	5A9046 (14.100)	(S1)(B) (3D)

* was fitted at clipping point 5834

C. Instruction/Disposition Code Statements:

(A) Transferred from CP.5834 to CP.5640.
(1D) Retain for spares for other application
(2D) Quantity decreased from 1 to 0.
(S1) New Parts coded (S1) must replace Old Parts coded (S1) as a COMPLETE SET per engine.
(B) New parts will be available after existing stock of old parts are exhausted.
(3D) Old parts will continue to be available until stock has been exhausted.

NOTE: The estimated 1991 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.

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