



SERVICE BULLETIN

AIR - BEARING COMPARTMENT COOLING HPC AIR BLEED TUBES - ADDITIONAL CLIPPING FOR CORE
TUBES - SERVO AIR TO HANDLING BLEED SOLENOID VALVES - CATEGORY CODE 4 -
MOD.ENG-75-0049

1. Planning Information

A. Effectivity

- (1) Aircraft: (a) Airbus A320
(b) Airbus A321
- (2) Engine: (a) V2500-A1 Engines prior to Serial No.V0348
(b) V2500-A5 Engines prior to Serial No.V10036

B. Concurrent Requirements

V2500-A1 and A5 Engines

- (1) Service Bulletin V2500-NAC-26-0004 requires to be incorporated concurrently with Service Bulletin V2500-ENG-75-0049.

C. Reason

(1) Condition

Loosening of the coupling nut on the air supply tube to the handling bleed solenoid valves can occur.

(2) Background

The tube which supplies stage 12 (buffer) air from the diffuser case to the A.C.A.C. incorporates a tee-piece to which the tube supplying air to the handling bleed solenoid valves is connected.

(3) Objective

To maintain engine reliability by preventing loosening of the coupling nut and attendant air leakage.

(4) Substantiation

Vibration analysis of the improved clipping introduced by this Service Bulletin showed that vibration of the coupling nut and tube resonances had been considerably reduced.

A trial assembly on a mock-up engine demonstrated the acceptability of the new and revised clipping.

(5) Effect of Bulletin on Workshop Procedures:

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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

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

D. Description

This Service Bulletin introduces the following changes:

- (1) The air supply tube to the A.C.A.C. (5A9038) is now clipped with the No.5 bearing oil scavenge tube at CP5224. A re-designed bracket is required at the No.11 fuel spray nozzle to suit the modified clipping arrangement.
- (2) Service Bulletin V2500-NAC-26-0004 deletes CP5723 hardware from EBU.
- (3) The air supply tube to the solenoid valves (5A9043) is now clipped at CP5723 along with the core fire detection rail.
- (4) To provide adequate clearance with CP5723, the EGT harness clip at CP5529 is rotated 180 deg. and supported on a spacer.

E. Approval

The part number changes and/or part modifications 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 4

Accomplish at the first visit of an engine or module to a maintenance base capable of compliance with the accomplishment instructions regardless of the planned maintenance action or the reason for engine removal.

G. Manpower

Estimated manhours to incorporate the full intent of this Bulletin:

Venue	Estimated Manhours
(1) In Service	49 minutes

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(2) At Overhaul 9 minutes

H. Material - Price and Availability

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

I. Tooling - Price and Availability

Special tools are not required.

J. Weight and Balance

- (1) Weight change +0.2lb (+0,091 kg)
- (2) Moment arm 36.0 in (914 mm) rearward of datum
- (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.

EC92VR372

EC92VR372A

EC92VR372D

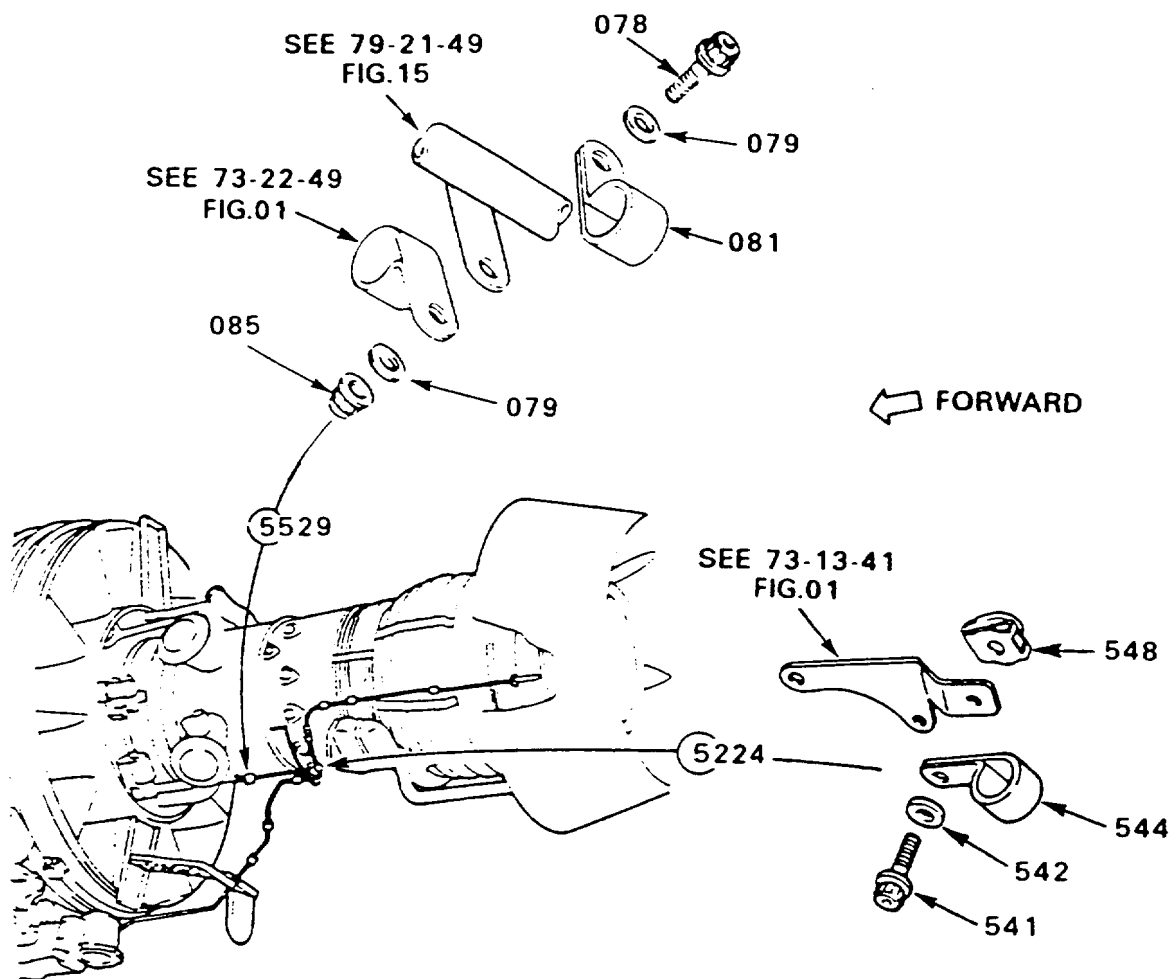
- (2) Other References

A320 Aircraft Maintenance Manual 70-40-11, 71-13-00 and 78-32-00.

M. Other Publications Affected

- (1) V2500 Illustrated Parts Catalog, 71-52-45, 73-13-41, 75-22-49, 75-32-49 and 79-22-49.
- (2) V2500 Engine Manual, 72-00-40 Removal-01 Config 1 and 2, 72-00-40 Removal-04, 72-00-40 Installation-07.
- (3) V2500 CMM-MECH 11A, 73-13-41 Cleaning-00 and 02, 73-13-41 Inspection/Check-00 and 04.

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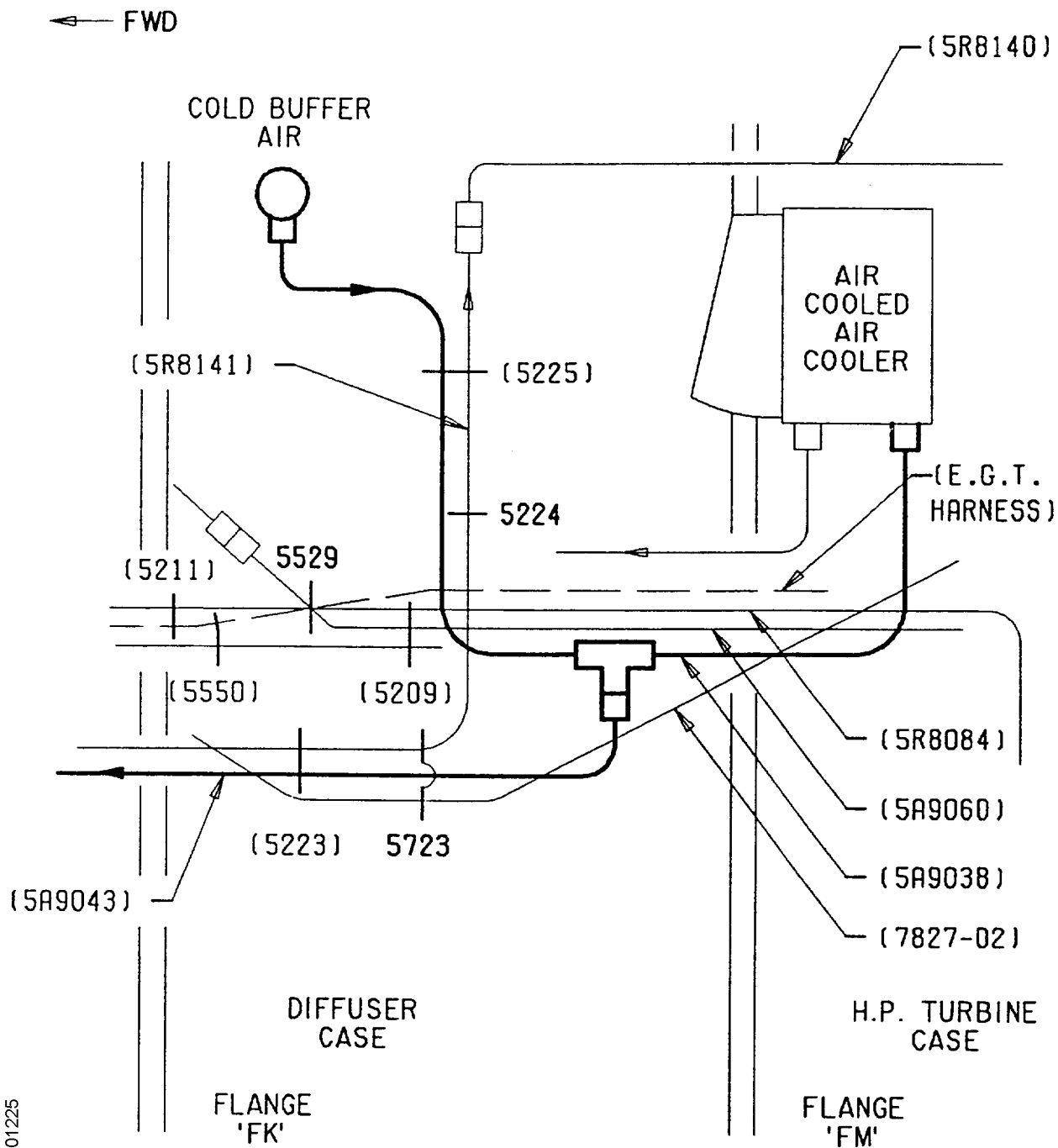
E1415

Location of additional clipping for core tubes
Fig.1

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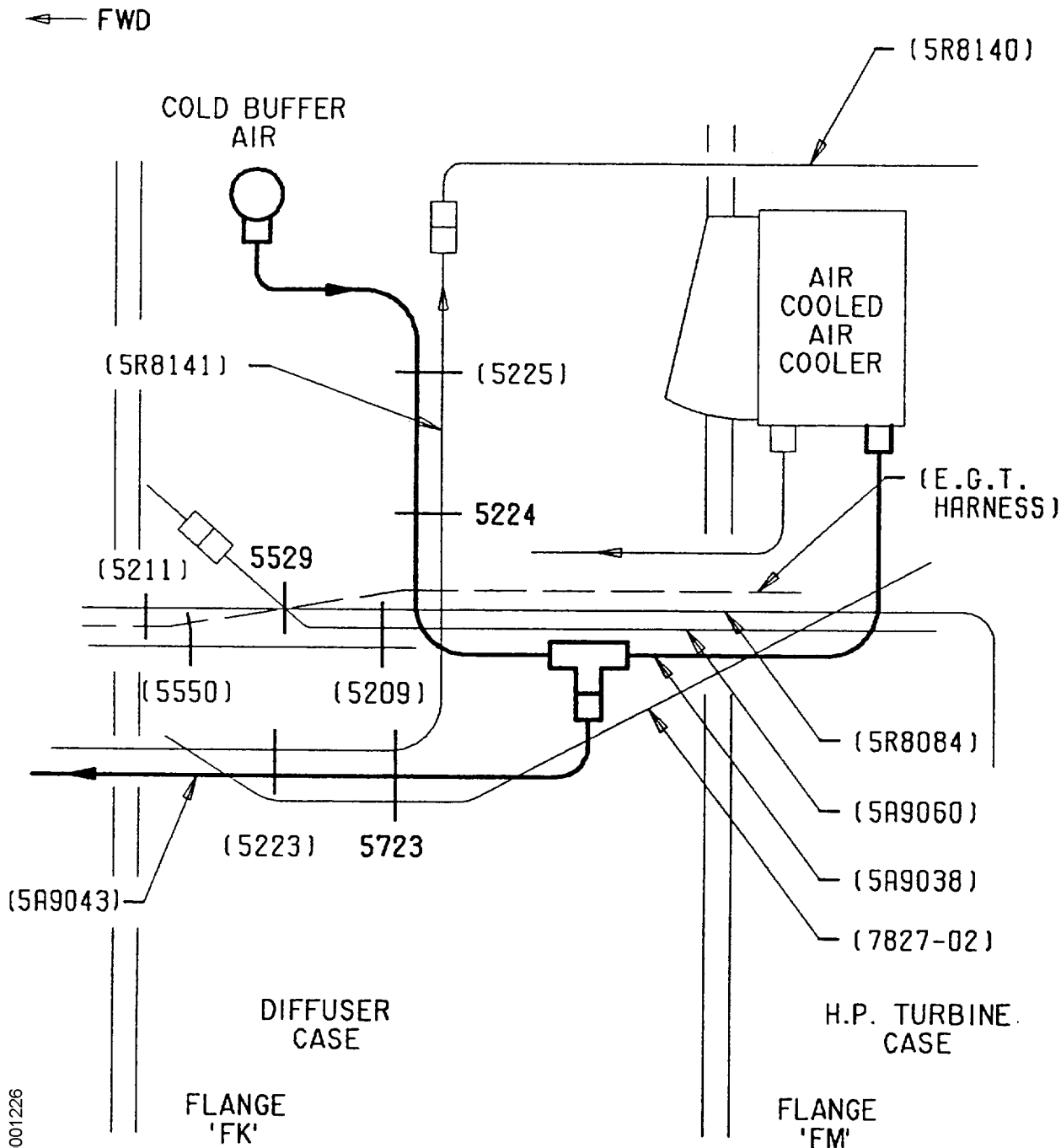
Schematic view of bearing compartment cooling and HPC air bleed tubes showing clipping point arrangement before alteration

Fig.2

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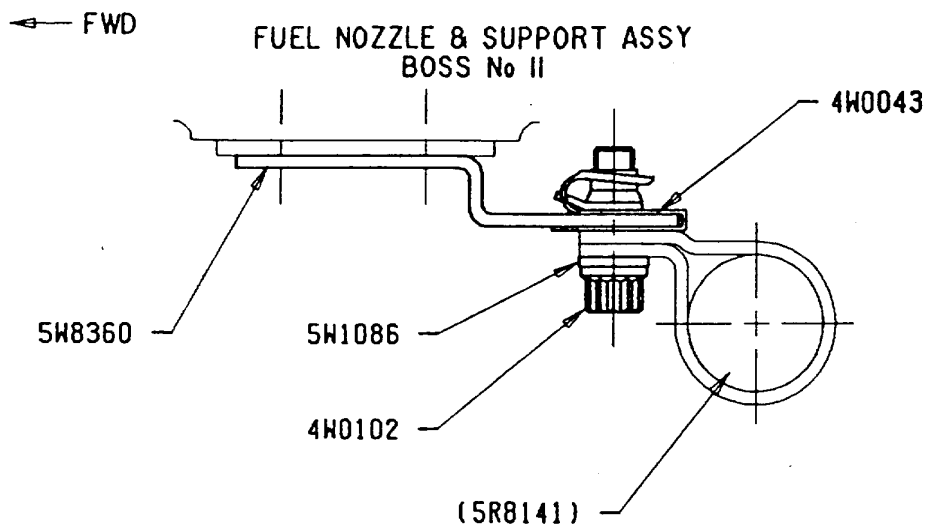
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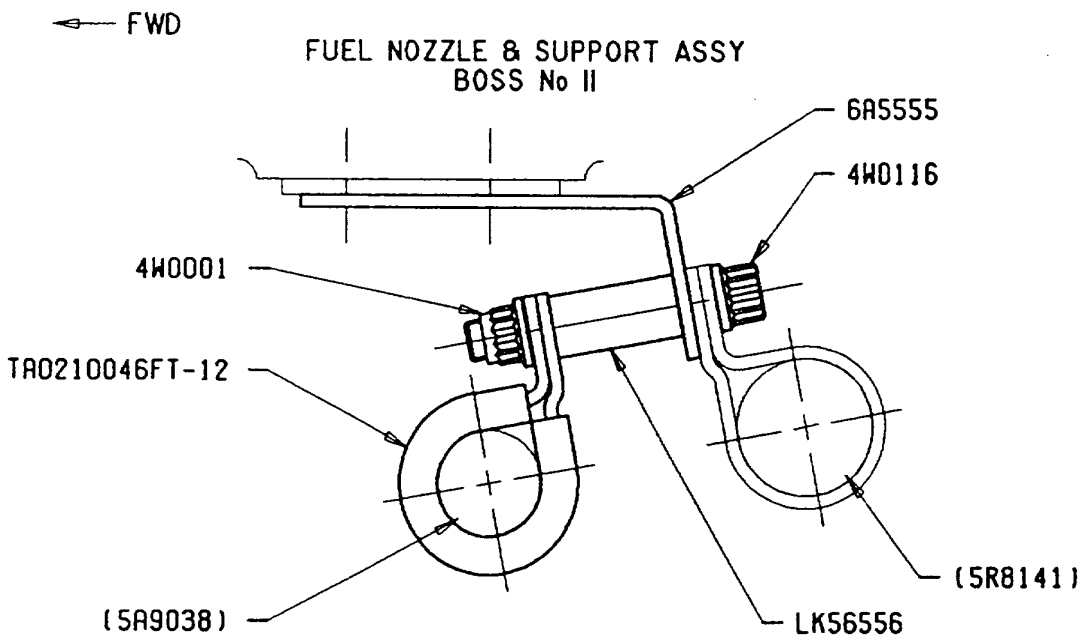
Schematic view of bearing compartment cooling and HPC air bleed tubes showing clipping point arrangement after alteration

Fig.3

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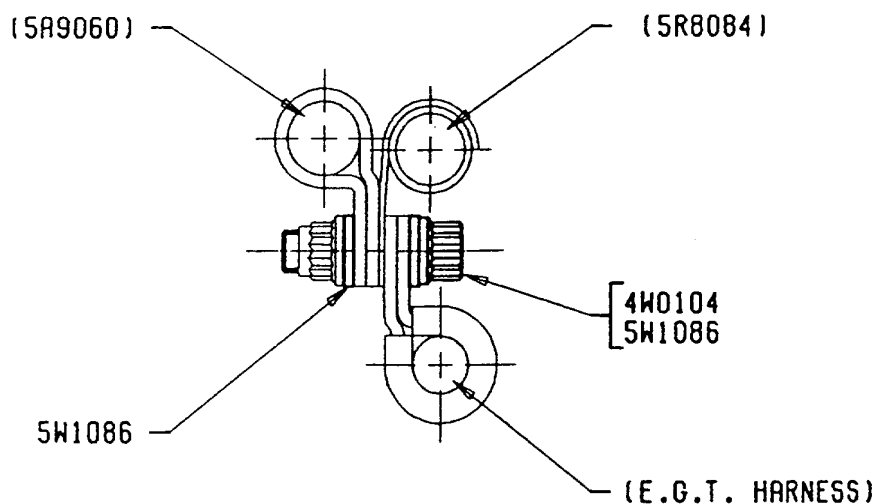
CLIPPING POINT 5224
BEFORE ALTERATION



CLIPPING POINT 5224
AFTER ALTERATION

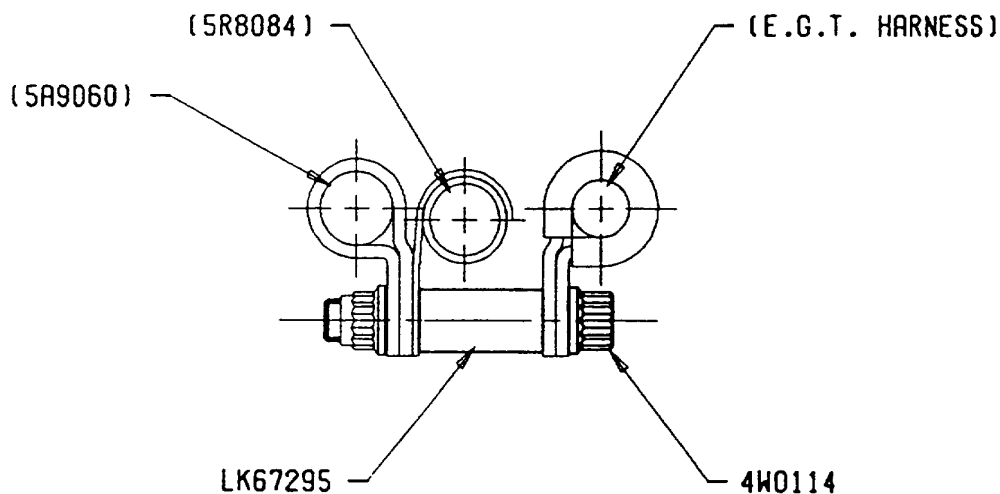
Clipping point 5224 - Before and after alteration
Fig.4

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VIEW LOOKING FORWARD

CLIPPING POINT 5529
BEFORE ALTERATION



VIEW LOOKING FORWARD

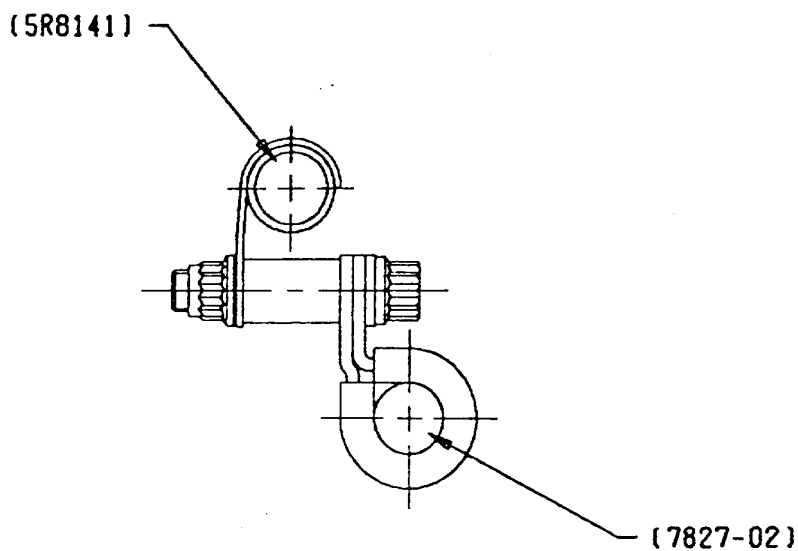
CLIPPING POINT 5529
AFTER ALTERATION

Clipping point 5529 - Before and after alteration
Fig.5

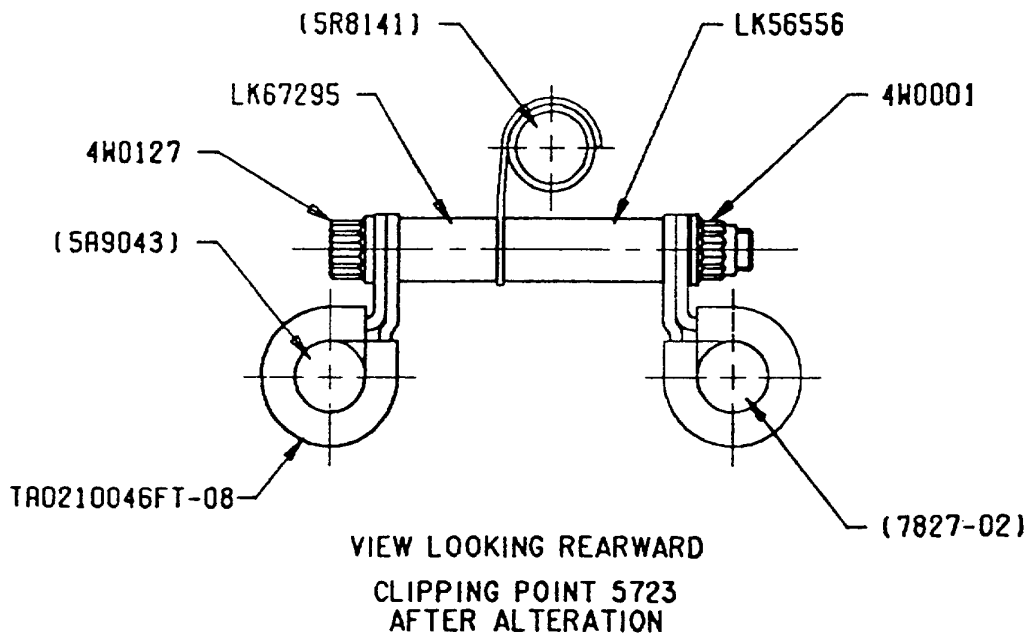


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VIEW LOOKING REARWARD
CLIPPING POINT 5723 (EBU)
BEFORE ALTERATION (REF)



Clipping point 5723 - Before and after alteration
Fig.6

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2. Accomplishment Instructions

A. Pre-Requisite Instructions

- (1) On the aircraft panel 115Vu put a warning notice to tell persons not to start the engine.
- (2) Make sure that the engine has been shut down for at least 5 minutes.
- (3) On the aircraft panel 50Vu make sure that the ON legend of the ENG FADEC GND PWR push button switch is OFF and install a warning notice.
- (4) Open the left and right fan cowl doors as instructed in the A320 Aircraft Maintenance Manual, TASK 71-13-00-010-010.
- (5) Open the left and right thrust reverser halves as instructed in the A320 Maintenance Manual, TASK 78-32-00-010-010.

B. Removal Instructions

- (1) Find clipping points 5224 and 5529. Refer to figures 1 and 2.
- (2) Disassemble clipping point 5224, remove 4W0102 bolt, 5W1086 washer, 5R8141 tube and the 4W0043 clipnut from the 5W8360 bracket. Refer to figure 4.
- (3) Cut lockwire and remove the MS9573-13 bolts (2 off) and remove 5W8360 bracket from the No.11 fuel spray nozzle.
- (4) Disassemble clipping point 5529, remove the 4W0001 nut, 5W1086 washer, 4W0104 bolt and the 5W1086 washer. Refer to figure 5.

C. Assembly Instructions

- (1) Install the new 6A5555 bracket to the No.11 fuel spray nozzle using MS9573-13 bolts (2 off). Torque the bolts to 65 to 85 lbfin (7,3 to 9,6 Nm). Safety the bolts with V02-141 lockwire, as instructed in the A320 Aircraft Maintenance Manual, TASK 70-40-11-911-012. Refer to figures 3 and 4.
- (2) Re-assemble existing clipping point 5224. Install new TA0210046FT12 clip to 5A9038 tube. Install new 4W0116 bolt to 5R8141 tube clip, 6A5555 bracket, LK56556 spacer, TA0210046FT12 clip and the 4W0001 nut. Torque the nut to 36 to 45 lbfin (4 to 5 Nm). Refer to figures 3 and 4.
- (3) Re-assemble existing clipping point 5529. Remove harness clip, rotate and reinstall to harness. Install new 4W0114 bolt to harness clip, LK67295 spacer, 5R8040 tube, 5A9060 tube and the 4W0001 nut. Torque the nut to 36 to 45 lbfin (4 to 5 Nm). Refer to figures 3 and 5.

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- (4) Re-assemble existing clipping point 5723. Install new TA0210046FT08 clip to 5A9043 tube. Install new 4W0127 bolt to TA0210046FT08 clip, LK67295 spacer, 5R8141 tube, LK56556 spacer, 7827-02 firerail and new 4W0001 nut. Torque the nut to 36 to 45 lbfin (4 to 5 Nm). Refer to figures 3 and 6.

D. Post-Requisite Instructions

- (1) Close the left and right thrust reverser halves as instructed in the A320 Aircraft Maintenance Manual, TASK 78-32-00-410-010.
- (2) Close the left and right fan cowl doors as instructed in the A320 Aircraft Maintenance Manual, TASK 71-13-00-410-010.
- (3) Remove the warning notices from the aircraft panels 115Vu and 50Vu.

E. Recording Instructions

- (1) A recording of accomplishment is necessary.



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3. Material Information

Applicability: For each V2500 Engine to incorporate this Bulletin.

A. Kits associated with this Bulletin:

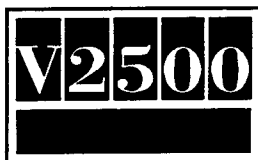
None.

B. Parts affected by this Bulletin:

New Part No. (ATA No.)	Qty	Est'd Unit Price (\$)	Keyword	Old Part No. (IPC No.)	Instructions Disposition
4W0114 (71-52-45)	1		Bolt, bi-hex)	4W0104 (01-078)	(A)(B)
- (71-52-45)	2		Washer)	5W1086 (01-079)	(B)
LK67295 (71-52-45)	1		Spacer)	CP5529 - (01-083)	(A)(D)
6A5555 (73-13-41)	1		Bracket)	CP5224 5W8360 (01-260)	(A)(C)
TA0210046FT 12 (75-22-49)	1		Clip)	CP5224 - (10-120)	(A)(D)
4W0127 (75-32-49)	1		Bolt, bi-hex)	- (01-157)	(A)(D)
TA0210046FT 08 (75-32-49)	1		Clip)	- (01-160)	(A)(D)
LK56556 (75-32-49)	1		Spacer)	CP5723 - (01-162)	(A)(D)
LK67295 (75-32-49)	1		Spacer)	- (01-163)	(A)(D)
4W0001 (75-32-49)	1		Nut)	- (01-164)	(A)(D)

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4W0116 (79-22-49)	1	Bolt, bi-hex)	4W0102 (01-541)	(A)(B)
-	1	Washer)	CP5224 5W1086 (01-542)	(B)
LK56556 (79-22-49)	1	Spacer)	- (01-546)	(A)(D)
4W0001 (79-22-49)	1	Nut)	CP5224 4W0043 (01-548)	(A)(B)

C. Instructions/Disposition Code Statements:

- (A) New parts are currently available.
- (B) Old part can be used up in other applications.
- (C) Old part will no longer be available.
- (D) Additional part.

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