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Mar.22/91

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Subject: Transmittal of Revision 1 to Service Bulletin No. V2500-ENG-72-0079

Service Bulletin Revision History:

Event	Date
Basic Issue	Dec.7/90
Revision 1	Mar.22/91

Reason for Issuance of Revision:

To revise illustration and correct editorial errors

Effect on Past Compliance:

None

List of Effective Pages:

Bulletin Page No.	Rev. No.	Effective Date
R 1	1	Mar.22/91
2	BASIC	Dec.7/90
R 3	1	Mar.22/91
4	BASIC	Dec.7/90
R 5	1	Mar.22/91
6 and 7	BASIC	Dec.7/90
R 8	1	Mar.22/91
9 to 12	BASIC	Dec.7/90

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Transmittal
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V2500 Propulsion System — Engine

SERVICE BULLETIN

ENGINE - HP COMPRESSOR - INTRODUCE A STRENGTHENED NO.4
BEARING BUFFER AIR TUBE BRACKET ASSEMBLY

MODEL APPLICATION

V2500-A1

BULLETIN INDEX LOCATOR

72-40-00

75-22-00

Compliance Category Code

6

Internal Reference No.

EC89VJ003

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R Revision 1 Mar.22/91 Subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

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ENGINE - HP COMPRESSOR - INTRODUCE A STRENGTHENED NO.4 BEARING BUFFER AIR TUBE BRACKET ASSEMBLY

1. Planning Information

A. Effectivity

- (1) Aircraft: Airbus A320
- (2) Engine: V2500-A1 Engines prior to Serial No.V0122

B. Reason

(1) Condition

Resonance could occur on No.4 Bearing Buffer Air Tubes which are held by the clipping Brackets at CP5229, CP5230, CP5231, CP5232, CP5233 and CP5234 and this could cause the wear of tubes at clipping points.

(2) Background

This condition was observed on the development engine during the shake test.

A shake testing has shown that the gusset reinforcement of the clipping Brackets will prevent the resonances and the wear of tubes.

(3) Objective

To replace the clipping Brackets with new gusset reinforced Brackets to maintain engine reliability.

(4) Substantiation

Substantiation test is not required.

(5) Effect of Bulletin on workshop procedure:

Removal/Installation	Affected (See Supplemental Information)
Disassembly/Assembly	Not affected
Cleaning	Not affected
Inspection/Check	Not affected
Repair	Not affected
Testing	Not affected

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(6) Supplemental Information

The Removal/Installation of the Post-Service Bulletin configuration is affected due to the deletion of spacers.

C. Description

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

- (a) The existing six 5W8262, Brackets at the Flange FM are replaced with the three new 5W0101, Brackets with gussets and the three new 5W8397, Brackets with gussets to increase the strength of clipping Brackets (See Figure 3).
- (b) At each of clipping positions CP5229, CP5230, CP5231, CP5232, CP5233 and CP5234, the existing 5W1030, Spacer is deleted and also clipping Bolt is changed from 4W0109 to 4W0103 to decrease the length of Bolt (See Figure 2).

(2) A new Bracket will be available for future replacement purposes.

D. Approval

The Part Number changes and/or part modifications 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 6

Accomplish when the subassembly (i.e. Module, Accessories, Components Build groups) is disassembled sufficiently to afford access to the affected part and to all affected spare parts.

F. Manpower

Estimated Manhours to incorporate the full intent of this Bulletin:

Venue

Estimated Manhours

(1) In service Not applicable

(2) At Overhaul (Note: The parts affected by this Service Bulletin are accessible at overhaul).

- (a) To install the new
Brackets and clipping
parts

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G. Material Price and Availability

- (1) Modification Kit is not required. Parts supplied as single line items.
- (2) See "Material Information" section for prices and availability of future spares.

H. Tooling Price and Availability

Special tools are not required to accomplish this Service Bulletin.

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) V2500 Engine Illustrated Parts Catalog, Chapter/Section 72-40-00 and 75-22-49.
- (2) V2500 Engine Manual, 72-00-40, Installation, TASK 72-00-40-420-007.
- (3) V2500 Standard Practices/Processes Manual, 70-41-00, Torque Tightening Technique.

L. Other Publications Affected

- (1) V2500 Engine Illustrated Parts Catalog, Chapter/Section 72-40-00 and 75-22-49 will be revised to show the new Brackets and the new clipping parts.
- (2) V2500 Power Plant Illustrated Parts Catalog, Chapter/Section 72-40-00 and 75-22-49 will be revised to show the new Brackets and the new clipping parts.
- (3) V2500 Engine Manual, 72-00-40, Removal/Installation will be revised to show the new clipping configurations at CP5229, CP5230, CP5231, CP5232, CP5233 and CP5234.

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2. Accomplishment Instructions

A. Rework Instructions

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

B. Assembly Instructions

- (1) Install the clipping Brackets to the Flange FM as follows (Refer to Figure 3 and I.K.(3)):
 - (a) At Flange hole No.4 and 5, attach the new 5W0101, Bracket with the two 4W0471, Bolts and 4W0003, Nuts.
 - (b) At Flange hole No.18 and 19, attach the new 5W0101, Bracket with the two 4W0471, Bolts and 4W0003, Nuts.
 - (c) At Flange hole No.34 and 35, attach the new 5W0101, Bracket with the two 4W0471, Bolts and 4W0003, Nuts.
 - (d) At Flange hole No.74 and 75, attach the new 5W8397, Bracket with the two 4W0471, Bolts and 4W0003, Nuts.
 - (e) At Flange hole No.84 and 85, attach the new 5W8397, Bracket with the two 4W0471, Bolts and 4W0003, Nuts.
 - (f) At Flange hole No.94 and 95, attach the new 5W8397, Bracket with the two 4W0471, Bolts and 4W0003, Nuts.
 - (g) At Flange hole No.4, 5, 18, 19, 34, 35, 74, 75, 84, 85, 94 and 95, torque each Bolt to 180 to 220 lbfin (20,00 to 25,00 Nm).
- (2) Install the No.4 Bearing Buffer Air Tubes to the HPC System Module as follows (Refer to Figures 1, 2 and I.K.(3)):
 - (a) Connect the No.4 Bearing Buffer Air Tubes and torque the tube Nuts by the approved procedures in the Engine Manual, 72-00-40, Installation, TASK 72-00-40-420-007.
 - (b) At each of Clipping Positions CP5229, CP5230, CP5231, CP5232, CP5233 and CP5234, install the new 4W0103, Bolt, 5W1086, Washer, 5W1114, Clip 4W0043, Clip Nut to the Tube and the Bracket. Torque each Bolt to 36 to 45 lbfin (4,00 to 5,00 Nm).

C. Recording Instructions

- (1) A record of accomplishment is necessary.

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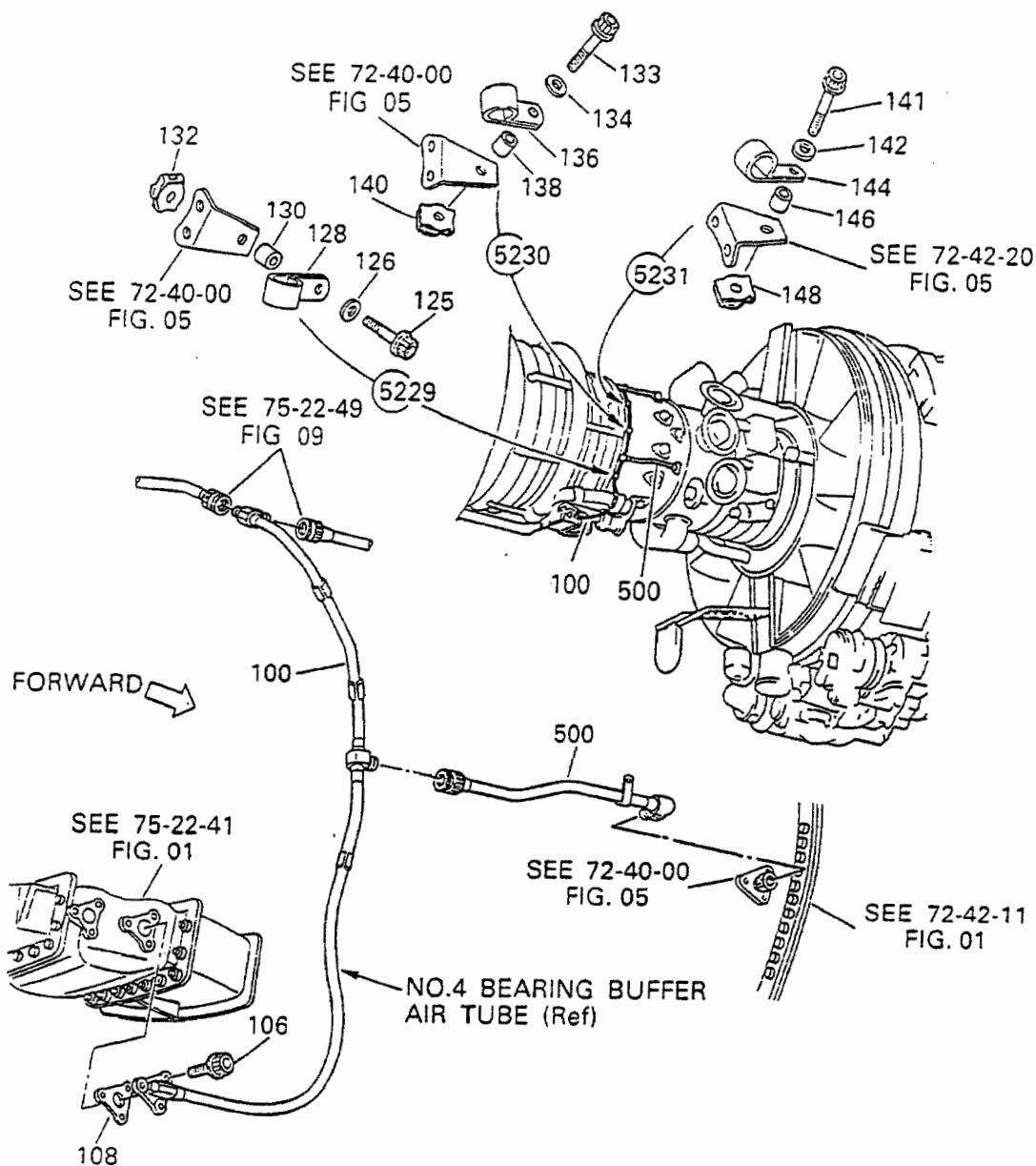
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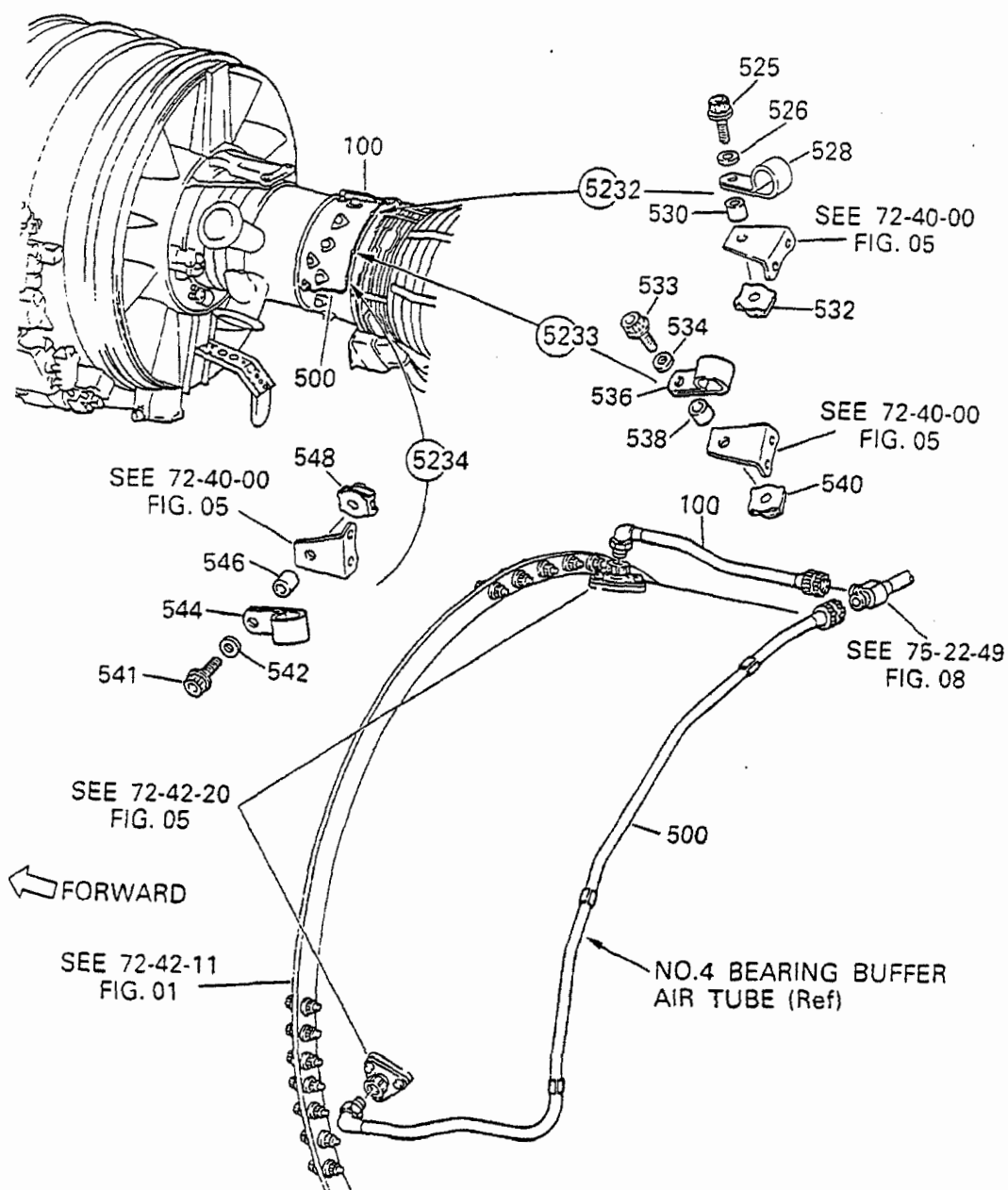


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Location of No.4 Bearing Buffer Air Tubes and Clipping Positions
CP5229, CP5230, CP5231, CP5232, CP5233 and CP5234
Figure 1, Sheet 1 of 2

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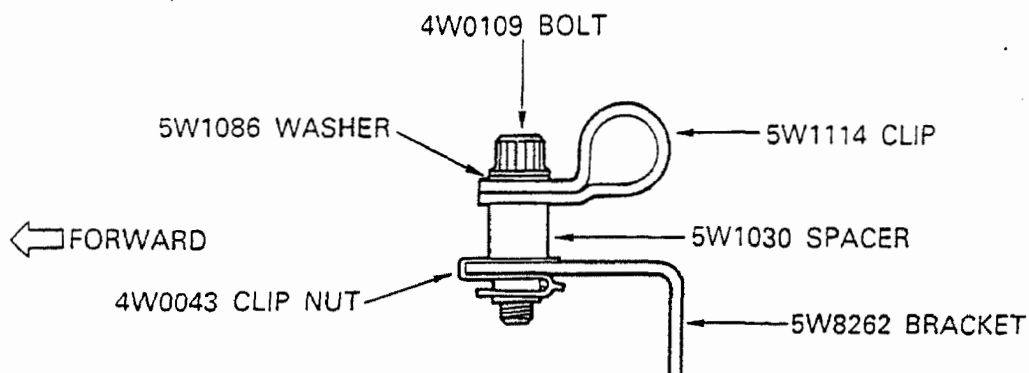
Location of No.4 Bearing Buffer Air Tubes and Clipping Positions
CP5229, CP5230, CP5231, CP5232, CP5233 and CP5234

Figure 1, Sheet 2 of 2

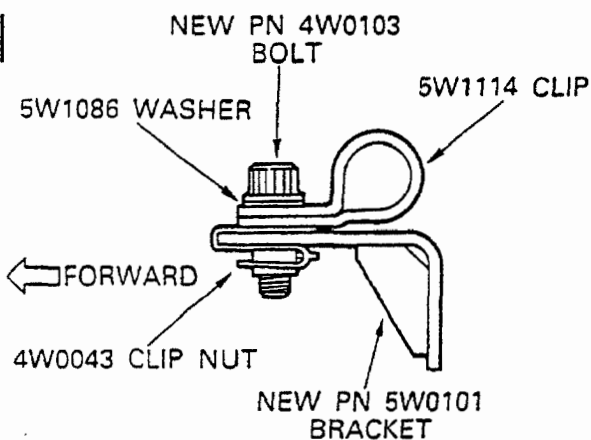


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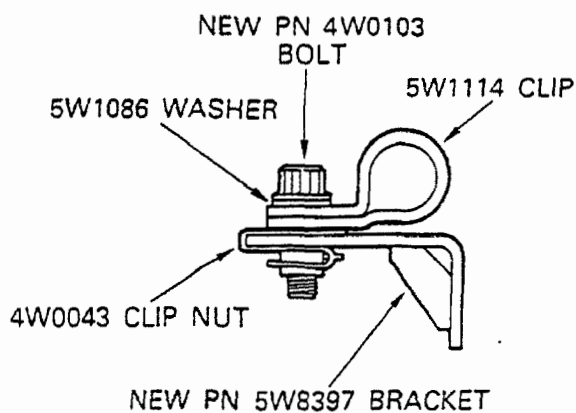
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CLIPPING DETAIL AT CP5229, CP5230, CP5231, CP5232,
CP5233 AND CP5234 - BEFORE ALTERATION



CLIPPING DETAIL AT CP5229, CP5230,
AND CP5231 - AFTER ALTERATION



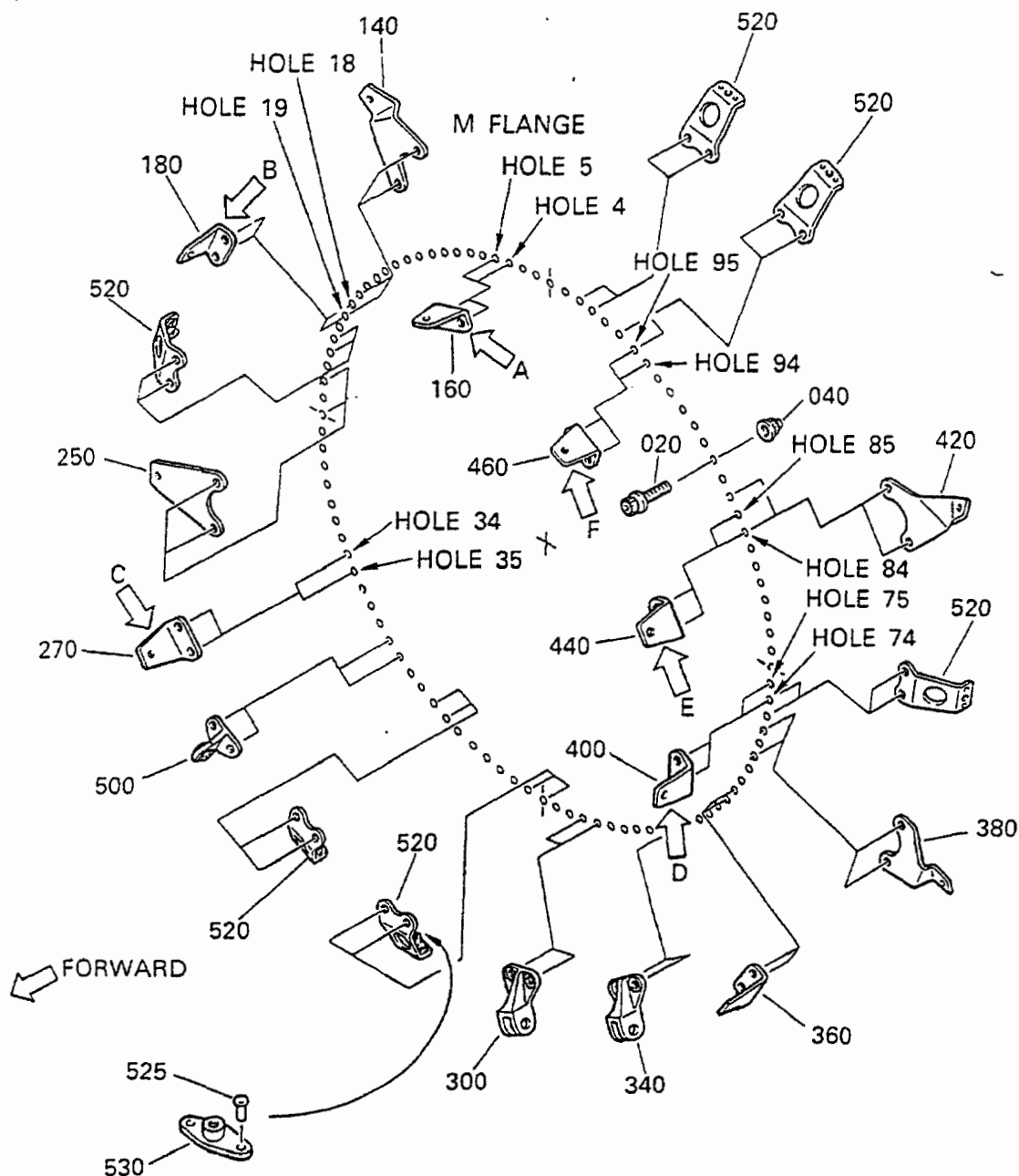
CLIPPING DETAIL AT CP5232, CP5233,
AND CP5234 - AFTER ALTERATION

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Clipping Detail at CP5229, CP5230, CP5231, CP5232, CP5233 and CP5234 -
Before and After Alteration
Figure 2

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Clipping Brackets at Flange FM — Before and After Alteration
Figure 3 Sheet 1 of 2

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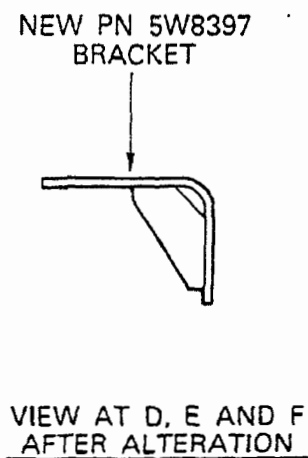
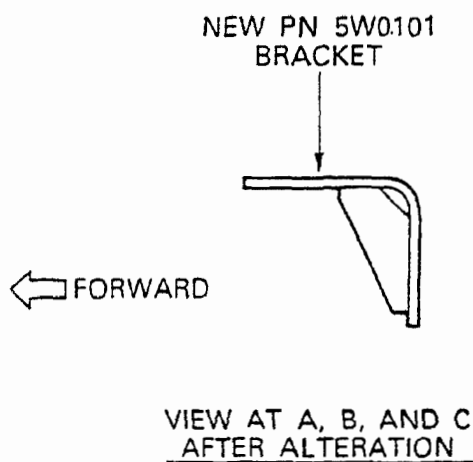
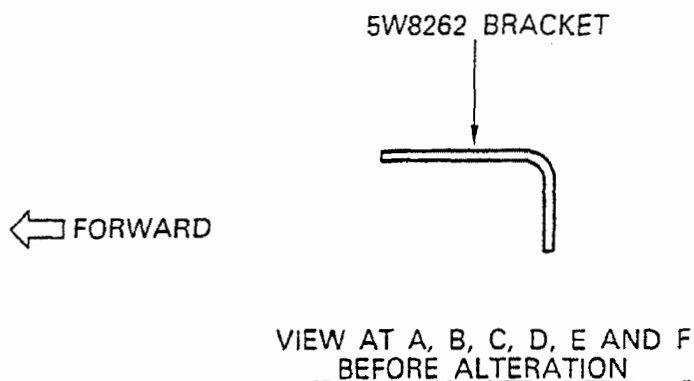
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Clipping Brackets at Flange FM — Before and After Alteration
Figure 3 Sheet 2 of 2

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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
5W0101 (72-40-00)	1	33.00	.Bracket, CP5229	5W8262 (05-160)	(A)(B)(S1)
5W0101 (72-40-00)	1	33.00	.Bracket, CP5230	5W8262 (05-180)	(A)(B)(S1)
5W0101 (72-40-00)	1	33.00	.Bracket, CP5231	5W8262 (05-270)	(A)(B)(S1)
5W8397 (72-40-00)	1	37.20	.Bracket, CP5232	5W8262 (05-400)	(A)(B)(S1)
5W8397 (72-40-00)	1	37.20	.Bracket, CP5233	5W8262 (05-440)	(A)(B)(S1)
5W8397 (72-40-00)	1	37.20	.Bracket, CP5234	5W8262 (05-460)	(A)(B)(S1)
4W0103 (75-22-49)	1	10.10	.Bolt, CP5229	4W0109 (08-125)	(A)(C)(S1) (S2)
- (75-22-49)	1	-	.Spacer, CP5229	5W1030 (08-130)	(C)(S1)(S2)
4W0103 (75-22-49)	1	10.10	.Bolt, CP5230	4W0109 (08-133)	(A)(C)(S1) (S2)
- (75-22-49)	1	-	.Spacer, CP5230	5W1030 (08-138)	(C)(S1)(S2)
4W0103 (75-22-49)	1	10.10	.Bolt, CP5231	4W0109 (08-141)	(A)(C)(S1) (S2)
- (75-22-49)	1	-	.Spacer, CP5231	5W1030 (08-146)	(C)(S1)(S2)
4W0103 (75-22-49)	1	10.10	.Bolt, CP5232	4W0109 (09-525)	(A)(C)(S1) (S2)
- (75-22-49)	1	-	.Spacer, CP5232	5W1030 (09-530)	(A)(S1)(S2)
4W0103 (75-22-49)	1	10.10	.Bolt, CP5233	4W0109 (09-533)	(A)(C)(S1) (S2)
- (75-22-49)	1	-	.Spacer, CP5233	5W1030 (09-538)	(C)(S1)(S2)
4W0103 (75-22-49)	1	10.10	.Bolt, CP5234	4W0109 (09-541)	(A)(C)(S1) (S2)
- (75-22-49)	1	-	.Spacer, CP5234	5W1030 (09-546)	(C)(S1)(S2)



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New	Est'd	Old	
Part No.	Unit	Part No.	Instructions
(ATA No.)	Qty	(IPC No.)	Disposition

C. Instruction/Disposition Code Statements:

- (A) New part will be available by 7 October 1990.
- (B) Old part will no longer be available for sale.
- (C) Old part will continue to be available for sale on the other applications.
- (S1) New parts coded (S1) must replace old parts coded (S1) as a COMPLETE SET per engine.
- (S2) Old part can be used up on other applications.

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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