International Aero Engines

SERVICE BULLETIN

ENGINE - REVISED CLIPPING AT CP5737 AND THE CLIPPING BRACKET MODIFICATION - CATEGORY CODE 4 - MOD.ENG-72-0039

1. Planning Information

A. Effectivity

(1) Aircraft: Airbus A320

(2) Engine: V2500-A1 Engines Serial No.s V0014 through V0067, V0070, V0071, V0073 and V0075

B. Reason

(1) Condition

A foul occurs between the P4.9 Pressure Rake Tube (Fuel System Air Tube) and the RH side C-Duct Hold Open Rod when the RH side Hold Open Rod is in a stowed position.

The contact area is where tube run changes from axial to circumferential above the EGT Harness Junction Box, with the top rear edge of the stowed Hold Open Rod.

The cause of condition is due to unsatisfactory tube run of the P4.9 Pressure Rake Tube.

(2) Background

This condition has been noted on certain engines during assembling the RH side C-Duct to the engines.

An examination has shown that unsatisfactory clipping and bracket arrangement at CP5737 can cause the P4.9 Pressure Rake Tube to contact the RH C-Duct Hold Open Rod.

(3) Objective

The changes in configuration recommended in this Service Bulletin are intended to maintain engine reliability.

(4) Substantiation

The changes introduced by this Service Bulletin (Modification) utilize the existing clipping and bracket and no new feature which is considered to require the engine test or a trial installation is defined.

(5) Effect of Bulletin on workshop procedure:

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

(6) Supplemental Information

None

C. Description

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

(a) The existing CP5737 which safties the P4.9 Pressure Rake Tube and the clipping Bracket has been rearranged to reroute the tube. (See Figures 1 and 2).

(b) The existing clipping Bracket PN 5W8356 is modified to prevent a foul to the rerouted P4.9 Pressure Rake Tube. (See Figure 3).

(2) The existing clipping Bracket can be reworked to a new configuration. (See Figure 3).

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

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.

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 accomplish rework of CP5737 arrangement and the bracket modification .. ..

Total: Hours Minutes

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.

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.

EC89VJ051

ECM89VJ051-01

(2) Other references

Aircraft Maintenance Manual, 71-13-00, Maintenance Practices, 78-32-00, Maintenance Practices, 70-23-11, Torque Tightening Technique.

V2500 Facilities Equipment Manual.

M. Other Publications Affected

(1) V2500 Power Plant Illustrated Parts Catlog, Chapter/Section 72-50-00 and 73-22-49.

(2) V2500 Engine Illustrated Parts Catalog, Chapter/Section 72-50-00 and 73-22-49.

(3) V2500 Engine Manual, 72-00-50, Removal-01 and Installation-07.

Printed in Great Britain

2. Accomplishment Instructions

A. Prerequisite Instructions

(1) Open the Fan Cowls. (Refer to the Aircraft Maintenance Manual, 71-13-00, Maintenance Practices, TASK 71-13-00-010-010).

(2) Open the Thrust Reverser Halves. (Refer to the Aircraft Maintenance Manual, 78-32-00, Maintenance Practices, TASK 78-32-00-010-010).

B. Rework Instructions

(1) Find PN 5W8356, Clipping Bracket, which is used for the clipping position CP5201 and CP5737. (Refer to Figure 1).

(2) At CP5737, remove PN 4W0102, Bolt, PN 5W1086, Washer, PN 5W1109, Clip, and PN 4W0043, Clip Nut, from the P4.9 Pressure Rake Tube and PN 5W8356, Clipping Bracket. (Refer to Figures 1 and 2).

(3) At CP5201, remove PN 4W0104, Bolt, PN5W1086, Washer, PN5W1109, Clip, and PN 4W0043, Clip Nut, from the Oil Weep Tube and PN 5W8356, Clipping Brcket. (Refer to Figures 1 and 2).

(4) Remove the two PN 4W0002, Nuts, and two PN 4W0587, Bolts, which attach PN 5W8356, Clipping Bracket, to the Flange FP. (Refer to Figure 3, Sheet 1).

(5) Remove PN 5W8356, Clipping Bracket, from the Flange FP.

(6) Remove the inner contours of PN 5W8356, Clipping Bracket, with a File. (Refer to Figure 3, Sheet 2).

(7) Blend the removed contours smoothly and remove all the sharp edges and burrs with a Hand held Pneumatic Grinder. (Refer to Figure 3, Sheet 2 and the Facilities Equipment Manual, Identification No. RB010).

(8) Renumber by the Vibropeen adjacent to the existing Part Number on the Clipping Bracket.

Existing	Renumber
5W8356	5W8393

(Refer to Figure 3, Sheet 2).

(9) Attach the reworked PN 5W8393, Clipping Bracket; with two PN 4W0587, Bolts, and two PN 4W0002, Nuts, to the FP Flange. (Refer to Figure 3, Sheet 1).

(10) Tighten two PN4W0002 Nuts, on two PN 4W0587, Bolts, with a torque of 85-95 lbfin (9,6-10,7 Nm). (Refer to Figure 3, Sheet 1 and the Aircraft Maintenance Manual, 70-23-11, Torque Tightening Technique).

(11) At CP5201, attach PN 4W0043, Clip Nut, PN 5W1109, Clip, PN 4W0104, Bolt, and PN 5W1086, Washer, to PN 5W8393, Clipping Bracket, and the Oil Weep Tube. Tighten PN 4W0104, Bolt with a torque of 36-40 lbfin (4.07-4,52 Nm). (Refer to Figure 2 and the Aircraft Maintenance Manual, 70-23-11, Torque Tightening Technique).

(12) At CP5737 with a new clipping configuration, attach PN 4W0043, Clip Nut, PN 5W1109, Clip, PN 4W0102, Bolt, and PN 5W1086, Washer, to PN 5W8393, Clipping Bracket, and the P4.9 Pressure Rake Tube. Tighten PN 4W0102, Bolt with a torque of 36-40 lbfin (4,07-4,52 Nm). (Refer to Figure 2 and the Aircraft Maintenance Manual, 70-23-11, Torque Tightening Technique).

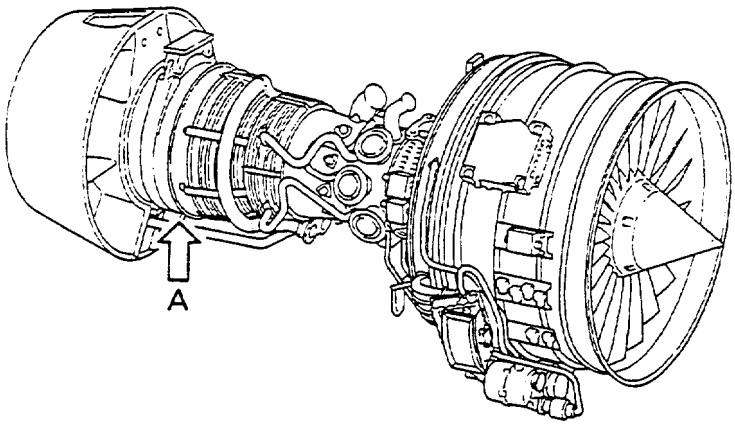
C. Post-requisite Instructions

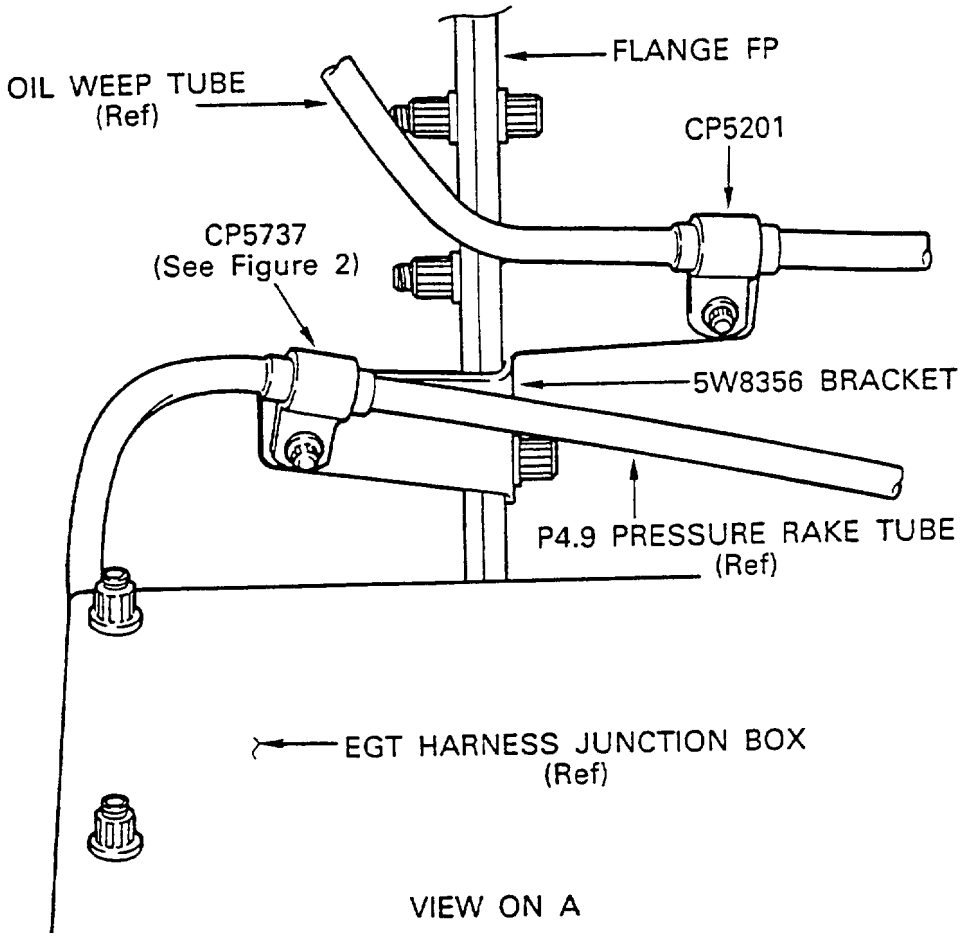
(1) Close the Thrust Reverser Halves. (Refer to the Aircraft Maintenance Manual, 78-32-00, Maintenance Practices, TASK 78-32-00-410-010).

(2) Close the Fan Cowls. (Refer to the Aircraft Maintenance Manual, 71-13-00, Maintenance Practices, TASK 71-13-00-410-010).

D. Recording Instructions

(1) A record of accomplishment is necessary.





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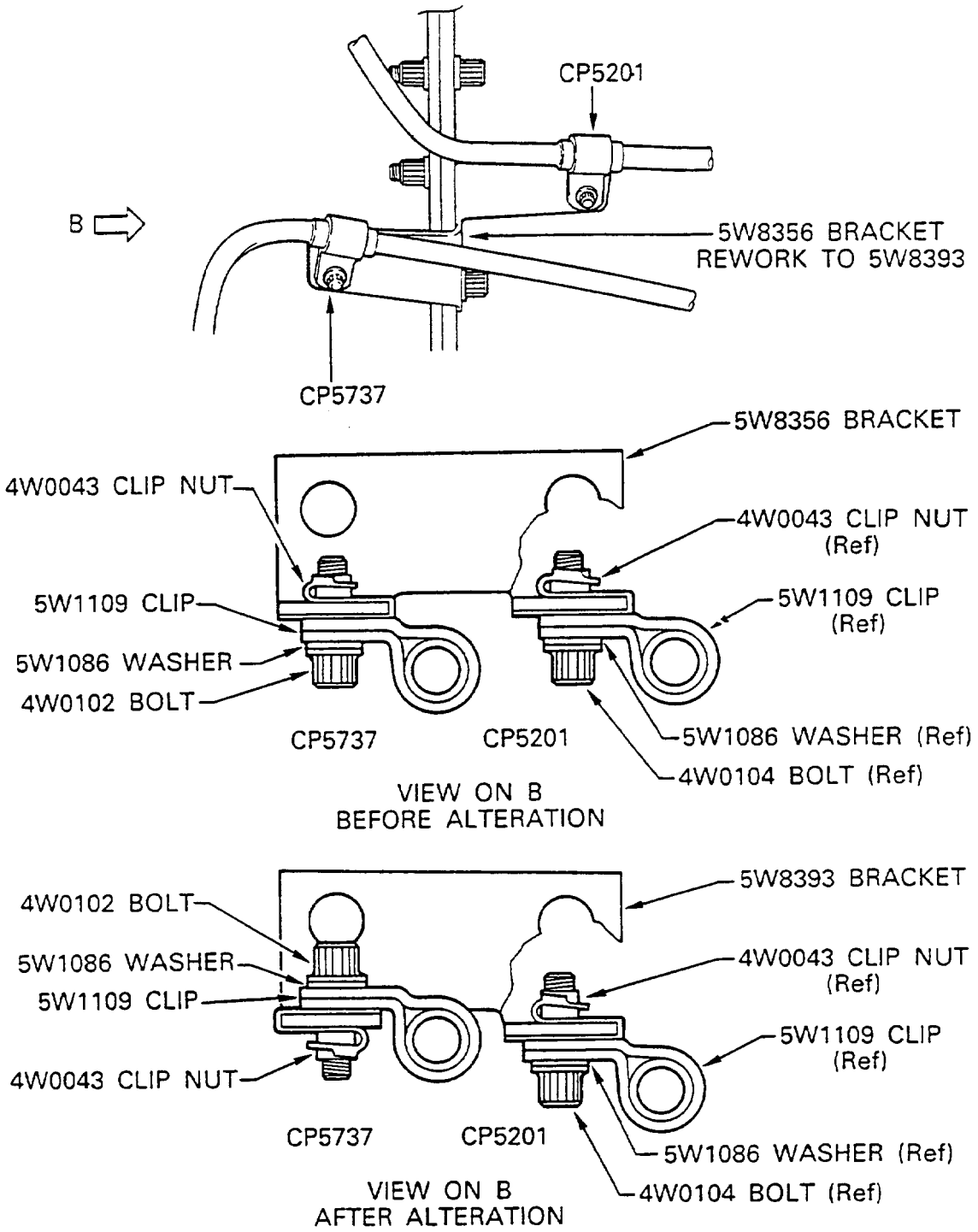
Location of the clipping position CP5737 and the clipping bracket
Fig.1



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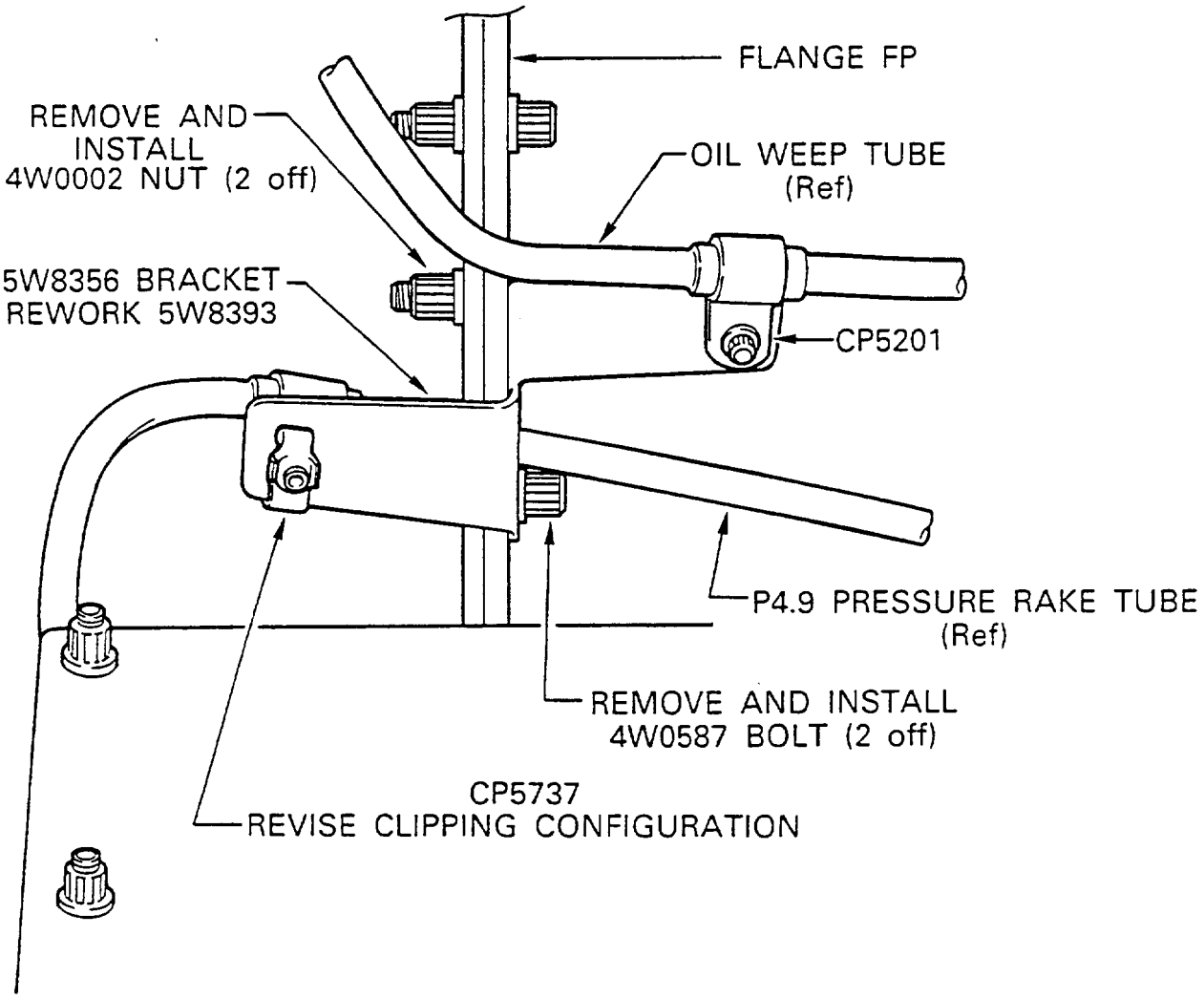
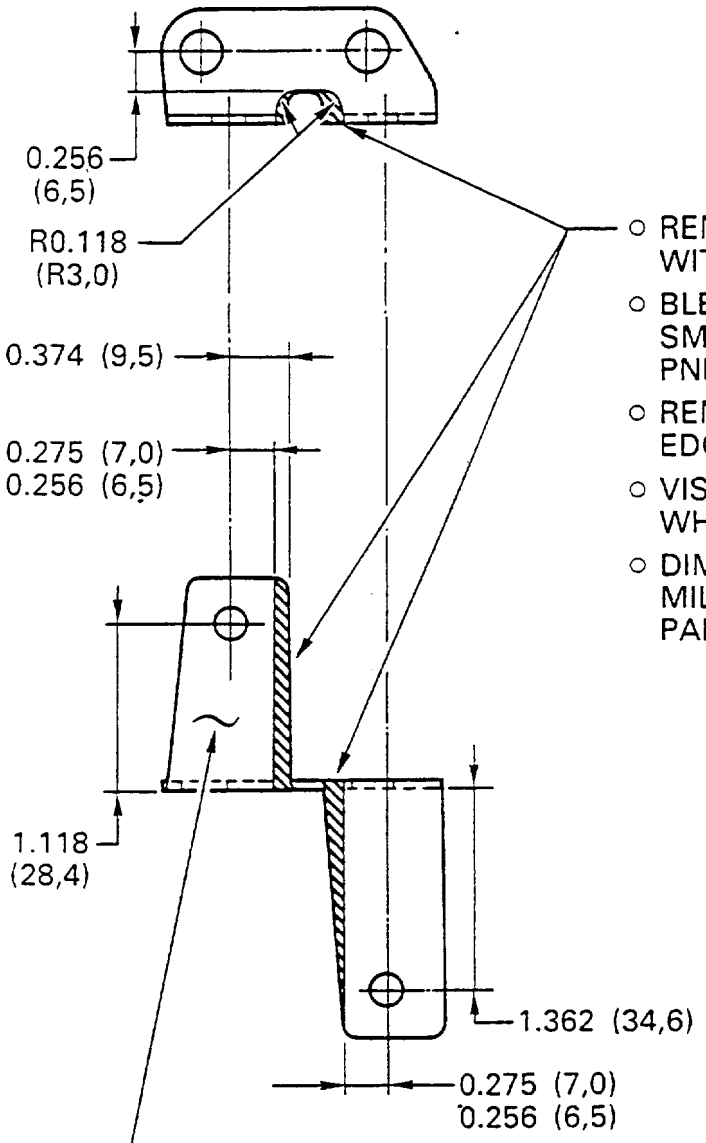
Clipping detail at clipping position CP5737 - Before and after alteration
Fig.2



Rework of the clipping bracket
Fig.3



- REMOVE THE HATCHED PORTIONS WITH A FILE.
- BLEND THE REMOVED CONTOURS SMOOTHLY WITH A HAND HELD PNEUMATIC GRINDER.
- REMOVE BURRS AND BREAK SHARP EDGES 0.002 (0,05) TO 0.019 (0,5).
- VISUALLY INSPECT THE SURFACES WHICH NO CRACKS ALLOWED.
- DIMENSIONS ARE IN INCH WITH MILLIMETERS CONVVERSIONS IN PARENTHESES.

USE VIBRO-PEEN TO IDENTIFY NEW PN 5W8393 ADJACENT TO EXISTING PN 5W8356 IDENTIFIED HERE.
MARK TWO LINES (═══) ON EXISTING PN WITH VIBRO-PEEN TO ERASE IT.

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Rework of the clipping bracket
Fig.3 (Sheet 2 of 2)

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
5W8393 (72-50-00)	1	31.60	Bracket	5W8356 (01-370)	(A)(B)(S1) (1D)

C. Instruction/Dispostion Code Statements:

(A) New part is currently available.

(B) Old part is no longer avilable for sale.

(S1) Old and new part are freely and fully interchangeable, both physically and functionally.

(1D) Old part can be reworked and reidentified to the New Part Number.

NOTE: The estimated 1989 unit prices shown are provided for planning purposes only and do not constitute a firm quotation. Contact IAE's Spare Parts Sales Department for information concerning firm prices.