



OIL - OIL REPLACE THE CLIPPING BRACKET ON THE AIR COOLED OIL COOLER AT CP0533 -
CATEGORY CODE 3 - MOD.ENG-79-0005

1. Planning Information

A. Effectivity

- (1) Aircraft: Airbus A320
- (2) Engine: V2500-A1 Engines, Serial No.'s V0014 through V0039

B. Reason

(1) Condition

Unacceptable vibration of the EEC Fan Harness and bend/twisting of the Raceway Lug may occur because of a resonance of the Clipping Bracket which holds the Harness at CP0534 through the Raceway attached to the Clipping Bracket on the Air Cooled Oil Cooler (ACOC) at CP0533.

The primary cause of the condition is considered that design of the Clipping Bracket does not adequately to prevent the resonance.

(2) Background

This condition has been noted during the shake test on a development engine. The unacceptable vibration occurred on the Harness at 60 Hz and the high lug stress on the Raceway at CP-533 was also observed.

The detail investigation revealed that a gusset-reinforced Bracket is effective to prevent the resonance on the Harness.

(3) Objective

To replace the Clipping Bracket on the ACOC with a new thicker gusset-reinforced Bracket to maintain engine reliability.

(4) Substantiation

Substantiation not required.

(5) Effects of Bulletin on the following shop functions:



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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

(4) The changes introduced by this Service Bulletin are as follows. (See Figures 1, 2 and 3)

- (a) A gusset is welded to new Clipping Bracket, of which stock thickness is also changed from 0.047in. (1,2 mm) to 0.063in. (1,6 mm) to clear the resonance.
- (b) The new Clipping Bracket is relocated downward by one hole of the ACOC attaching bolt holes.
- (c) At CP0533, the Clip Bolt is changed to use a new longer Bolt to accomodate with the new thickner Bracket.
- (d) Figure/Item Number of new Bracket is changed from 79-21-42 01-086 to 79-21-42 01-070.

(2) The existing Bracket must be replaced with the new Bracket.

(3) The new Bracket will be available for replacement purpose.

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 3

Accomplish prior to revenue service.

F. Manpower

Estimated Manhours to incorporate the full intent of this Bulletin:

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Venue

Estimated Manhours

(1) In service

(a) To gain access

(b) To embody

(c) To return engine to flyable
status

TOTAL

22 minutes

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 Not effect

(3) Datum Engine front mount centerline
(Powerplant Station (PPS) 100)J. Electrical Load Data

This Service Bulletin has no effect on the aircraft electrical load.

K. References

(1) Internal Reference No.

EC88VJ699

(2) Other References

V2500 Engine Illustrated Parts Catalog.

V2500 Aircraft Maintenance Manual, 71-13-00, Fan Cowl - Maintenance
Practices and 70-23-11, Torque Tightening Technique - Use of Torque
Wrenches and Power Tools.

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L. Other References Affected

- (1) V2500 Illustrated Parts Catalog, Figure Numbers 71-51-50 and 79-21-42.
- (2) V2500 Aircraft Manual, 72-00-32, Removal-04 and Installation-03.
- (3) V2500 Aircraft Maintenance Manual, 79-21-42, Air Cooled Oil Cooler - Removal/Installation.

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2. Accomplishment Instructions

A. Prerequisite Instructions

- (1) Open the Right Fan Cowl Door. (Refer to Aircraft Maintenance Manual, TASK 71-13-00-010-010). (Ref 1.K.(2)).

NOTE: For uninstalled engines (without the Fan Cowls), this step is not applicable.

B. Rework Instructions

Procedure	Supplementary Information
(1) Find the location of PN 5W8256, Bracket on PN CA2730-001, ACOC (Ref.).	Refer to Figure 1.
(2) Remove PN 4W0101, Bolt which attaches PN 5A8739, Raceway (Ref.) to PN 5W8256, Bracket at CP0533.	Refer to Figure 2.
(3) Remove PN 4W0169, Bolts (3 off) and PN AN960C416, Washers (3 off) which attach PN CA2730-001, ACOC (Ref.) to PN 5T0034, Air Inlet Duct (Ref.) at the Hole No.'s 62 63 and 64.	Refer to Figure 1.
(4) Remove PN 5W8256, Bracket from PN CA2730-001, ACOC (Ref.).	Refer to Figure 2.
(5) Remove PN 4W0043, Nut from PN 5W8256, Bracket.	Refer to Figure 2.
(6) Install PN 4W0043, Nut to New PN 5W0091, Bracket.	Refer to Figure 3.
(7) Install New PN 5W0091, Bracket to PN CA2730-001, ACOC (Ref.) at the Hole No.'s 63 and 64.	Refer to Figure 3.
(8) Install PN AN960C416, Washers (3 off) and PN 4W0169, Bolts (3 off) to PN CA2730-001, ACOC (Ref.) at the Hole No.'s 62, 63 and 64.	Refer to Figure 1.



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- (9) At CP0533, install New PN 4W0102, Bolt which attaches PN 5A8739, Raceway (Ref.) to New PN 5W0091, Bracket.

Refer to Figure 3.

- (10) Tighten PN 4W0169, Bolts (3 off) which attach PN CA2730-001, ACOC (Ref.) to PN 5T0034, Air Inlet Duct (Ref.) to a torque of 85 - 105 lbfin (10,00 - 12,00 Nm),

Refer to Figure 1.
Refer to Aircraft Maintenance Manual 70-23-11, Torque Tightening Technique - Use of Torque Wrenchs and Power Tools.

- (11) Tighten New PN 4W0102, Bolt to a torque of 36 - 45 lbfin (4,00 - 5,00 Nm) at CP0533.

Refer to Figure 3.
Refer to Aircraft Maintenance Manual 70-23-11, Torque Tightening Technique - Use of Torque Wrenchs and Power Tools.

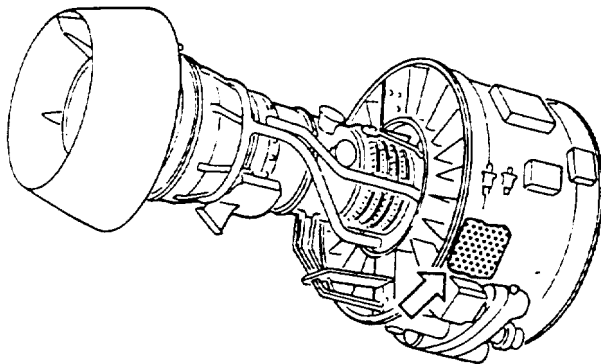
C. Post-Requisite Instructions

- (1) Close the Right Fan Cowl Door, (Refer to Aircraft Maintenance Manual, TASK 71-13-00-410-010). (Ref.1K.(2)).

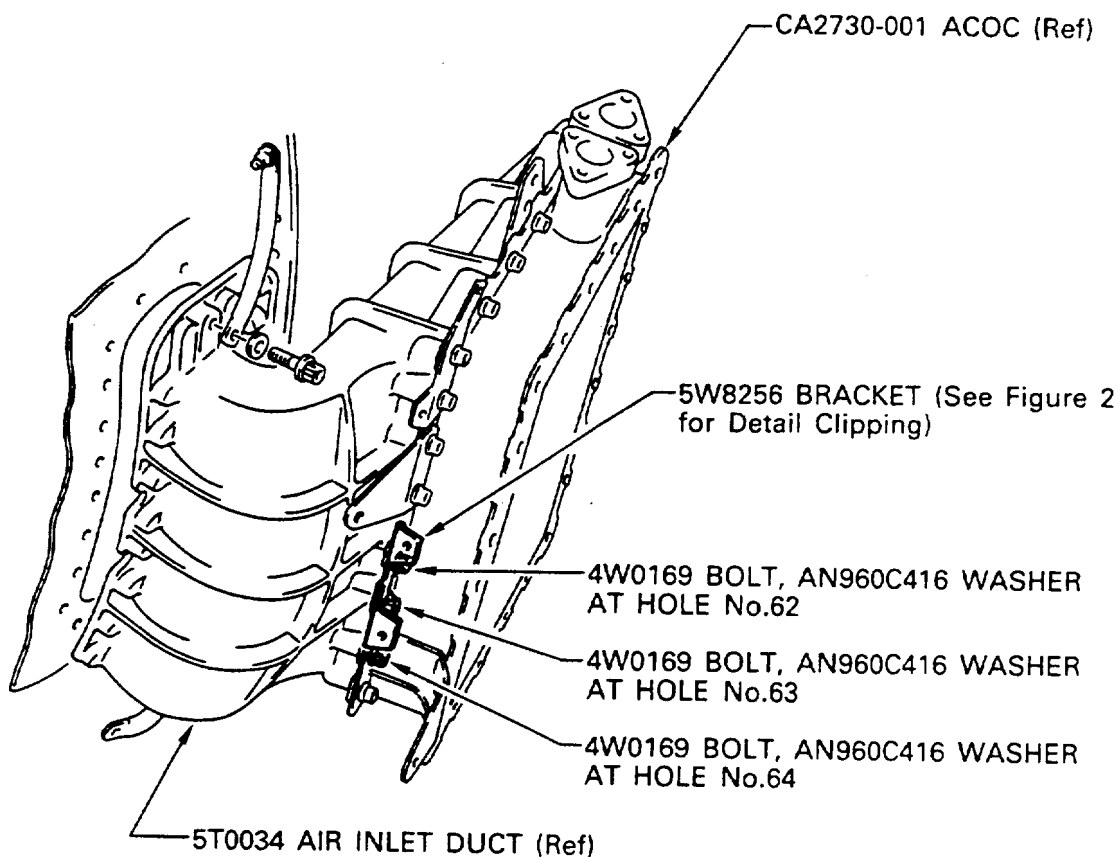
NOTE: For uninstalled engine (without the Fan Cowl), this step is not applicable.

D. Recording Instructions

- (1) A record of accomplishment is necessary.

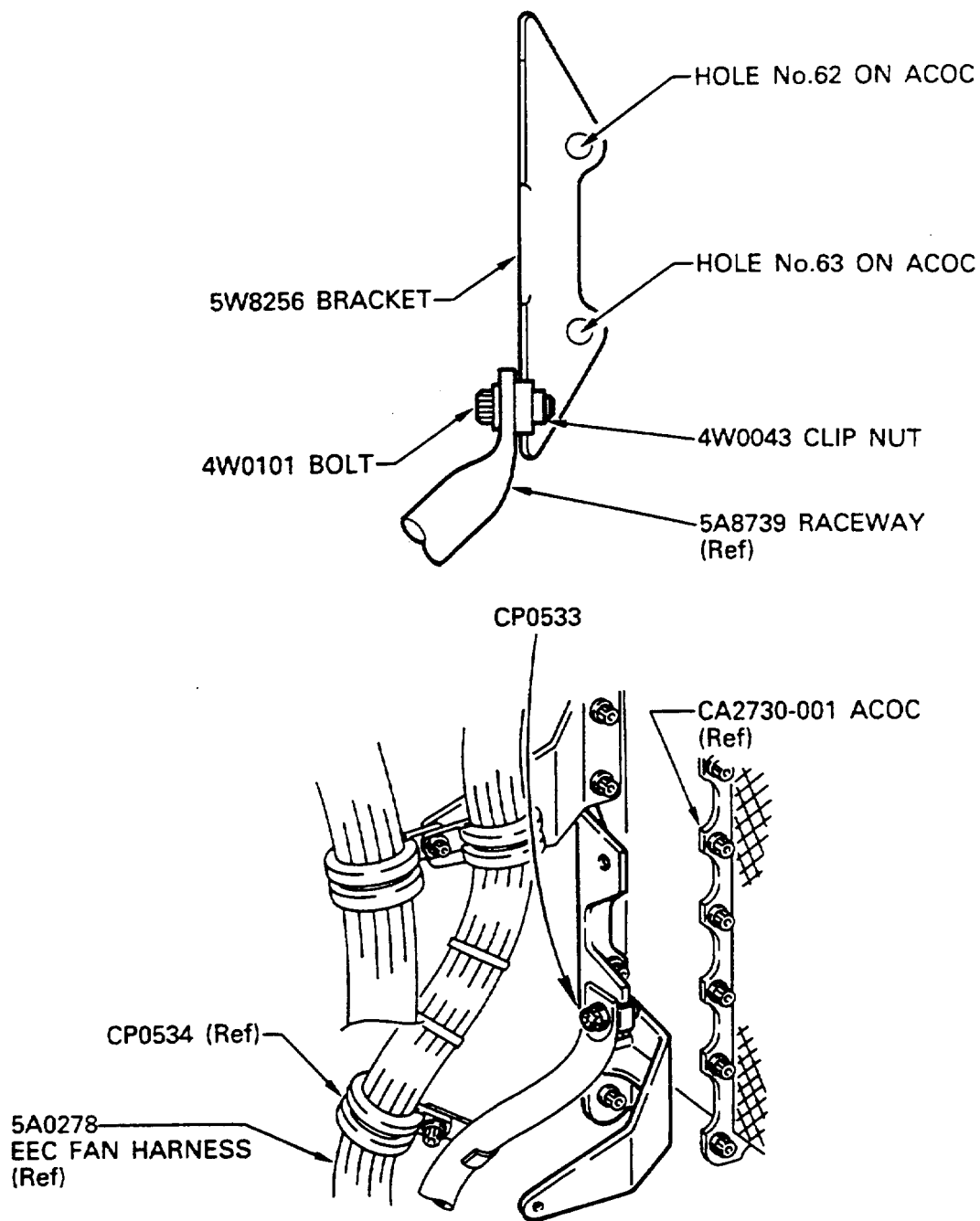


STARBOARD LOWER REAR

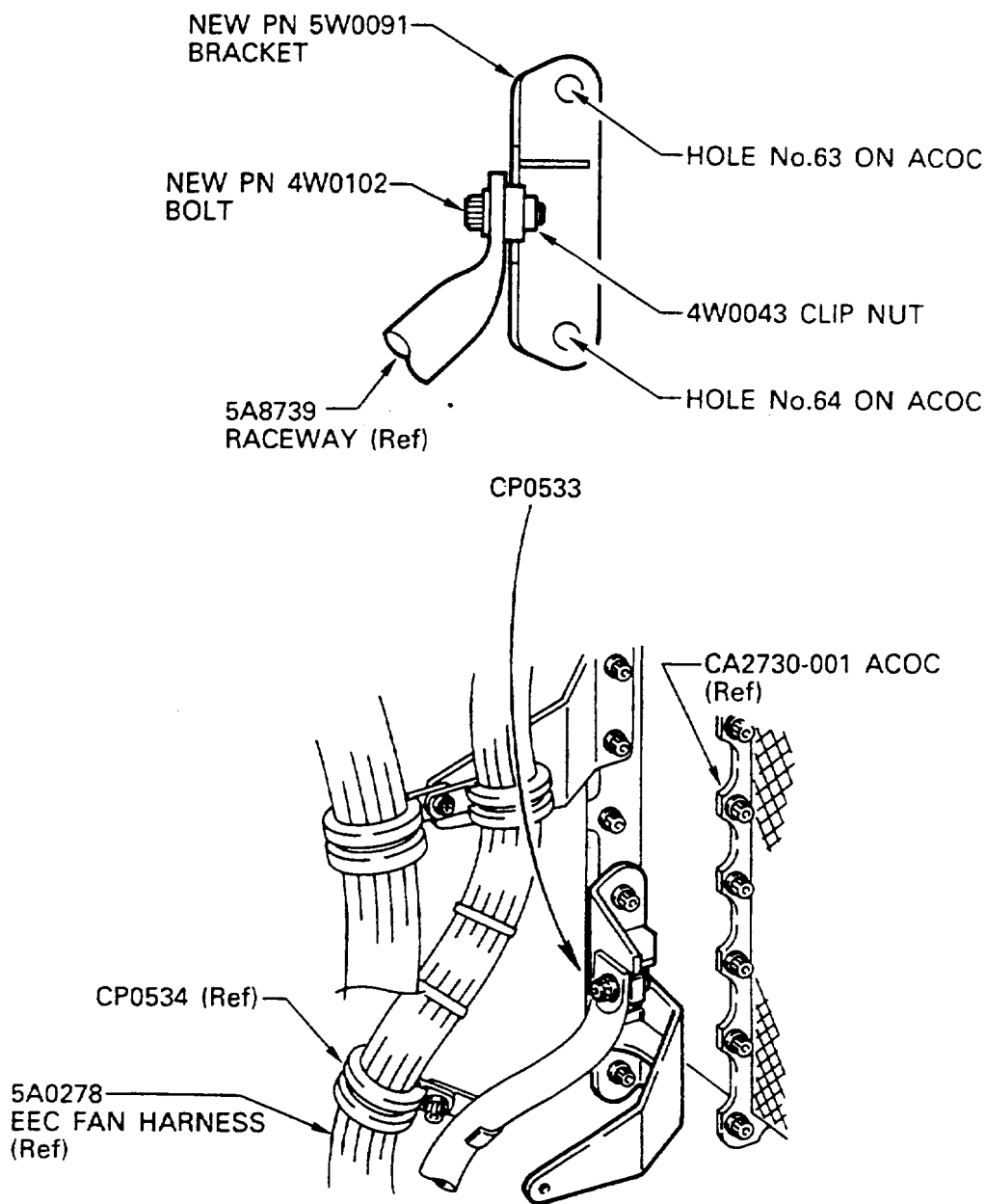


Location of clipping bracket on the ACOC
Fig.1

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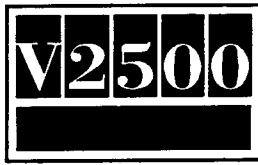


View on clipping bracket on the ACOC at CP0533 - Before alteration
Fig.2



View on clipping bracket on the ACOC at CP0533 - After alteration
Fig.3

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3. Material Information

New Part No. (ATA No.)	Qty	Est'd Unit Price (\$)	Keyword	Old Part No. (IPC No.)	Instructions Disposition
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Applicability: For each V2500 Engine to incorporate this Bulletin.

A. Kits associated with this Bulletin:

None

B. Parts affected by this Bulletin:

4W0102 (71-51-50)	1	2.87	Bolt, CP0533	4W0101 (01-101)	(S1)(S2)
- (79-21-42)	1	-	Bracket,	5W8256 (01-086)	(1D)(B) (See Note)
5W0091 (79-21-42)	1	38.10	Bracket,	- (01-070)	(S1)(A) (See Note)

C. Instruction/Disposition Code Statements:

- (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.
- (1D) Old Part destroyed during rework.
- (A) New Part is currently available.
- (B) Old Part no longer available for sale.

NOTE: Figure/Item Number of new Bracket is changed from 79-21-42 01-086 to 79-21-42 01-070.

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.

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