International Aero Engines

SERVICE BULLETIN

POWER PLANT - ENGINE - PROVIDE A P2/T2 LINE BRACKET WITH LOCKWIRE HOLES - CATEGORY CODE 4 - MOD.ENG-71-0108

1. Planning Information

A. Effectivity

(1) Aircraft: Airbus A320

(2) Engine: V2500-A1 Engines prior to Serial Numbers V0069

B. Reason

(1) Condition

There is a possibility of unsatisfactory wire locking of the P2/T2 flexible hose nut and the locking nut which secures th P2/T2 air tube onto line Bracket.

(2) Background

An engineering review for the existing wire locking of the P2/T2 flexible hose nut and the air tube locking nut has shown that both nuts must be wire-locked independently to the Bracket to prevent looseness of the nuts.

(3) Objective

The change in configuration recommended in this Service Bulletin is designed to faciliatate positive wire locking and maintain the engine reliability.

(4) Substantiation

Substantiation test is not required.

(5) Effect of Bulletin on workshop procedure:

Removeal/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

The Removal/Installation of the Post-Service Bulletin configuration is affected due to a new Bracket with lockwire holes being introduced.

C. Description

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

(a) A new Bracket 5W0089 which has the four lockwire holes is introduced to wire-lock the Nut on Flexible Hose and the locking Nut of P2/T2 Air Tube through the lockwire holes, see Fig.2.

(2) The existing Bracket can be reworked to a new configuration, see Fig.3.

(3) Revised wire locking for the Nut on Flexible Hose and Locking Nut of P2/T2 Air Tube, see Fig.4.

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 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 the engine removal.

F. Manpower

Estimated Manhours to incorporte the full intent of this Bulletin:

Venue		Estimated Manhours
(1) In service		TOTAL 48 minutes
(a) To gain access		7 minutes
(b) To embody		33 minutes
(c) To return to flyable status		8 minutes
	TOTAL	48 minutes
(2) At overhaul		TOTAL 33 minutes

NOTE: The parts affected by this Service Bulletin are accessible at overhaul.

(a) To embody		33 minutes
	TOTAL	33 minutes

Printed in Great Britain

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 centreline (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.

EC88VJ645

(2) Other References

V2500 Illustrated Parts Catalog, Chapter/Section 71-51-49.

A320 Aircraft Maintenance Manual, 71-13-00, Maintenance Practices.

V2500 Overhaul Processes and Consumables Index.

L. Other Publications Affected

(1) V2500 Power Plant Illustrated Parts Catalog, Chapter/Section 71-51-49.

(2) V2500 Engine Illustrated Parts Catalog, Chapter/Section 71-51-49.

(3) V2500 Engine Manual, 72-00-32, LP Compressor/Intermediate Case Module - Removal, TASK 72-00-32-020-002, and Installation, TASK 72-00-32-420-004.

2. Accomplishment Instructions

A. pre-requisite Instructions

(1) Open the Right Fan Cowl by the approved procedures in the Aircraft Maintenance Manual, 71-13-00, Maintenance Practices, TASK 71-13-00-010-010. Refer to 1.K.(2).

B. Removal Instructions

(1) Find 5W1988, Bracket, where is attached on the Relay Box Mount Bracket, refer to Fig.1.

(2) Cut and discard the Lockwire on the Nut on 5A0148, Flexible Hose, and MS9201-06, Nut.

(3) Disconnect the Nut on 5A0148, Flexible Hose, from 5A8738, P2/T2 Air Tube.

(4) Remove MS9201-06, Locking Nut, from 5A8738, P2/T2 Air Tube, and 5W1988, Bracket.

(5) Remove two 4W0103, Bolts, from the Relay Box Mount Bracket.

(6) Remove 5W1988, Bracket, from the Relay Box Mount Bracket.

C. Rework Instructions

	Procedure	Supplementary Information
(1)	Mark position of the four holes and center punch the hole centers	Refer to Fig.3
(2)	Drill the four lockwire holes in 5W1988, Bracket	Refer to Fig.3. Clamp the Bracket in the vice on a pillar drill and use 0.063in. (1,6 mm.) mm.) drill
(3)	Remove all the burrs from around the drilled holes	
(4)	Visually examine the drilled holes for cracks	No cracks are permitted
(5)	Renumber by the Vibro-Peen adjacent to the existing Part Number	Refer to Fig.3 Existing Renumber 5W1988 5W0089

D. Assembly Instructions

(1) Attach the new 5W0089, Bracket, with two 4W0103, Bolts, to the Relay Box Mount Bracket, refer to Fig.2.

(2) Torque each of two 4W0103, Bolts, to 36 - 45 lbfin (4,00 - 5,00 Nm).

(3) Install MS9201-06, Locking Nut, to 5A8738, P2/T2 Air Tube, and the new 5W0089, Bracket. Tighten MS9201-06, Locking Nut, with a torque of 70 - 80 lbfin (7,9 - 9,0 Nm).

(4) Connect the Nut on 5A0148, Flexible Hose, to 5A8738, P2/T2 Air Tube. Tighten the Nut on 5A0148, Flexible Hose, to a torque of 182 - 199 lbfin (20,5 - 22,5 Nm).

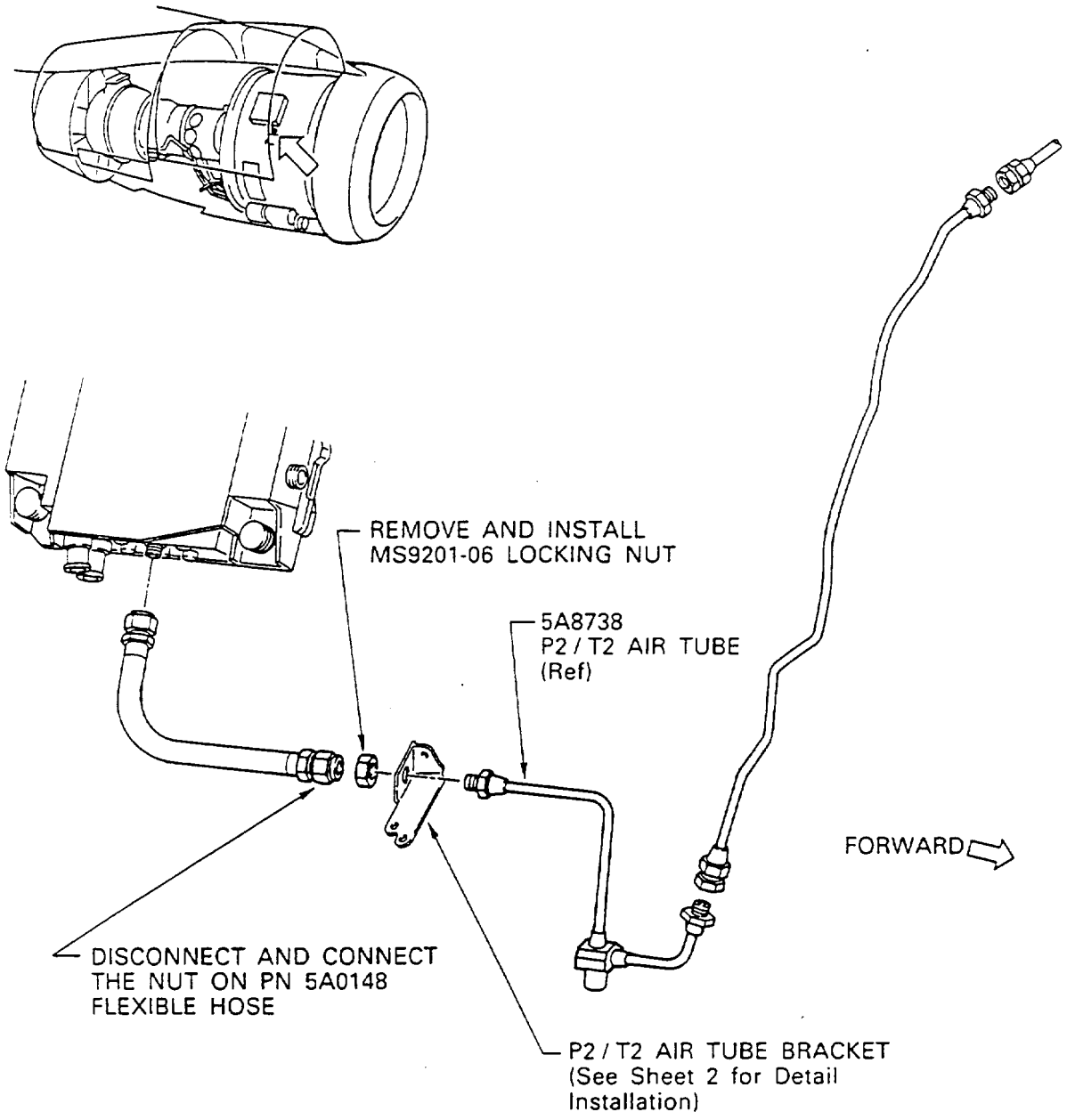
(5) Safety the Nut on 5A0148, Flexible Hose, and MS9201-06, Locking Nut, with CoMat 02-126, Lockwires, independently to the new 5W0089, Bracket, refer to Fig.4 and 1.K.(3).

E. Post-requisite Instructions

(1) Close the Right Fan Cowl by the approved procedures in the Aircraft Maintenance Manual, 71-13-00, Maintenance Practices, TASK 71-13-00-410-010, refer to 1.K.(2).

F. Recording Instructions

(1) A record of accomplishment is necessary.



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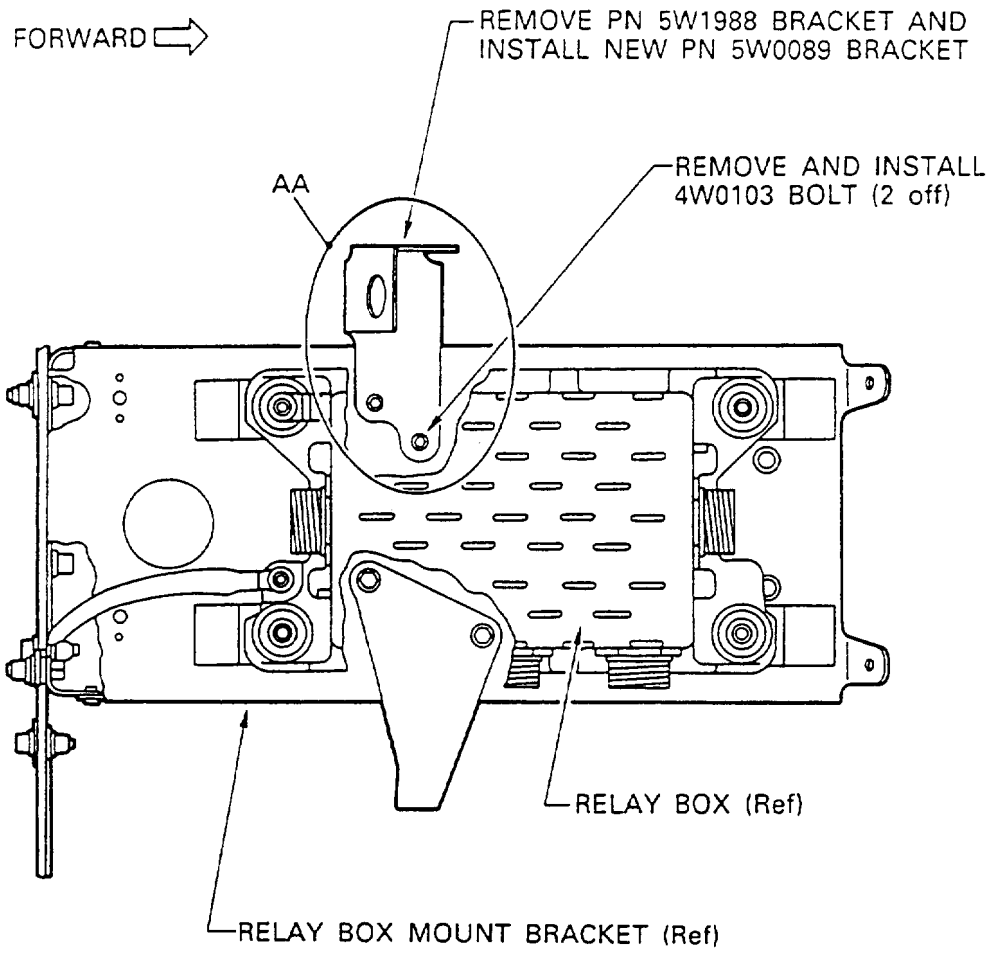
Location of the P2/T2 Air Tube Bracket
Fig.1 Sheet 1 of 2



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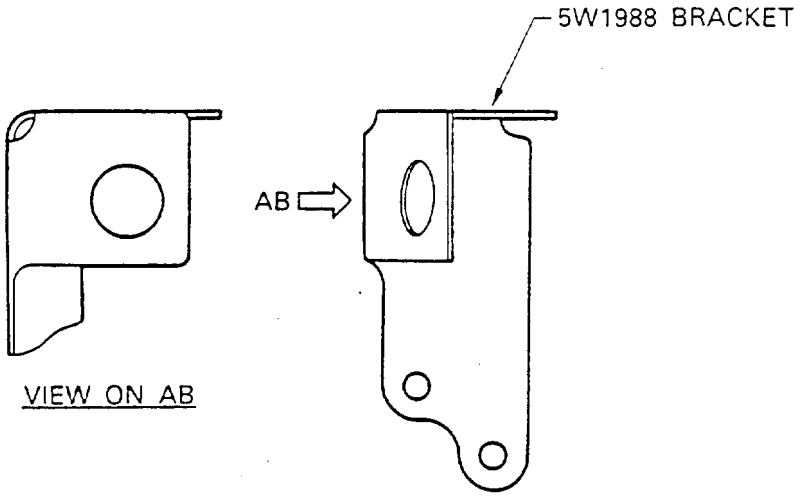
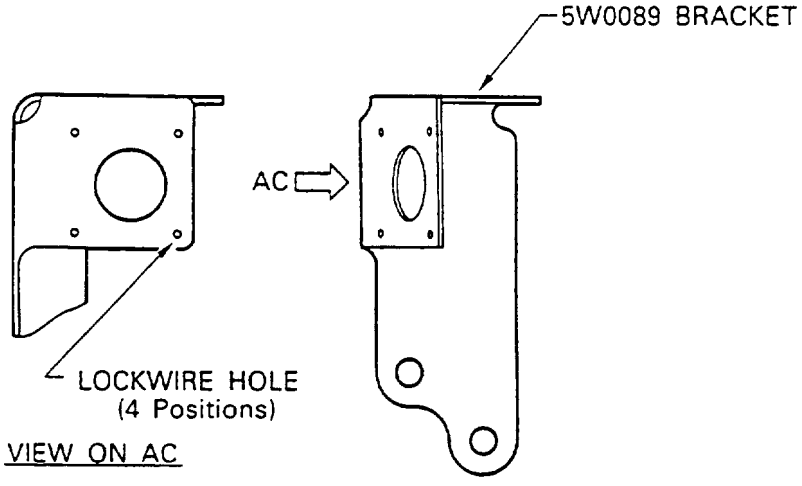
Location of the P2/T2 Air Tube Bracket
Fig.1 Sheet 2 of 2



VIEW AT AA BEFORE ALTERATION



VIEW AT AA AFTER ALTERATION

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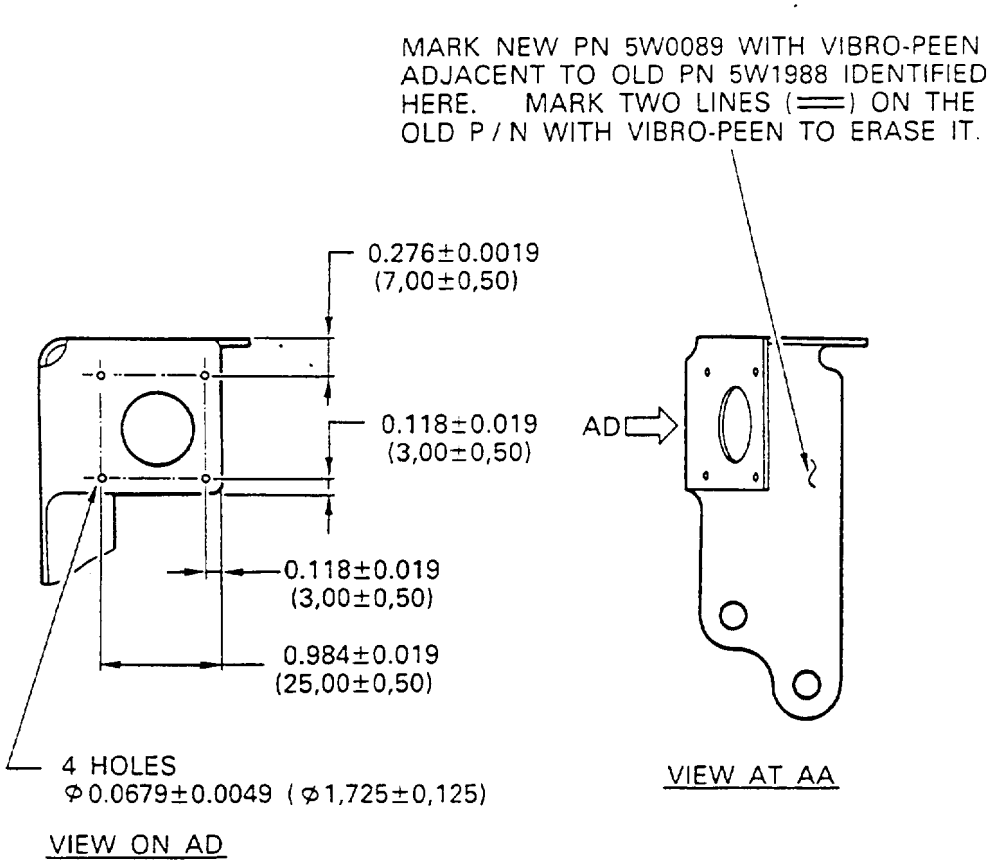
Modification of the P2/T2 Air Tube Bracket - Before and After Alteration
Fig.2



REWORK OF P2/T2 AIR TUBE BRACKET

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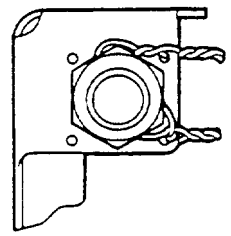
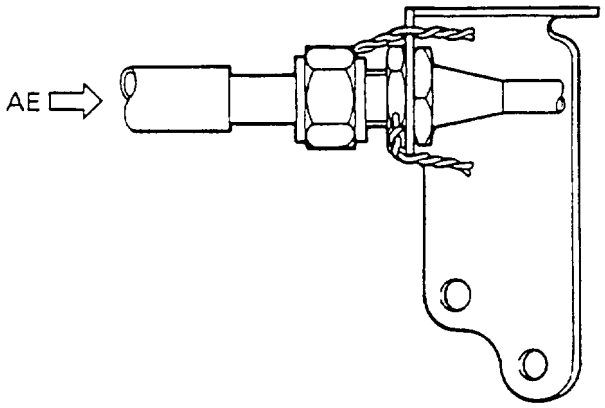
Modification of the P2/T2 Air Tube Bracket
Fig.3



VIEW ON AE



REPEAT VIEW AT AA
SHOWING CONNECTIONS LOCKED
FOR SAFETY WITH LOCKWIRE
AFTER MODIFICATION

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Modification of the P2/T2 Air Tube Bracket
Fig.4

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
5W0089 (71-51-49)	1	54.80	.Bracket	5W1988 (01-390)	(A)(B)(1D)

C. Instruction/Disposition Code Statements:

(A) New part is currently available for sale.
(B) Old part will no longer be available for sale.
(1D) Old part can be reworked and reidentified to the New Part Number.

D. Expendables required to incorporate this Bulletin:

None

E. Consumables required to incorporate this Bulletin:

(1) CoMat No.02-126, Lockwire.

NOTE: The estimated 1991 unit price shown are provided for planning purposes only and do not constitute a firm quotation. Consult IAE Price Catalog or contact IAE's Spare Parts Sales Department for information concerning firm prices.