



SERVICE BULLETIN

ENGINE INDICATING - ENGINE - EXHAUST GAS TEMPERATURE (EGT) INDICATING SYSTEM
REPLACEMENT OF EGT LOOP CLAMP BRACKETS - CATEGORY CODE 5 - MOD.ENG-77-0003

1. Planning InformationA. Effectivity

- (1) Aircraft: Airbus A320
- (2) Engine: V2500-A1 Engines Serial No.V0003 through V0085 except Engine Serial No.V0007

B. Reason

(1) Condition

There is contact between the EGT Bracket, Loop Clamp, and Harness at six locations.

Contact causes distress of the C-Duct Heat Shielding and can cause fretting of the EGT Harness Bundle.

(2) Background

The distress condition was reported during the flight test portion of the Compliance Engine Test Program.

(3) Objective

Provide a new design for the EGT Harness Bracket (installed at six locations) which will permit the EGT Harness and Loop Clamps to fit closer to the Engine Case.

(4) Substantiation

Not considered necessary

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

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

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**C. Description**

- (1) Contact between the EGT Bracket, Loop Clamp and Harness is removed at six locations.

(a) This is done by providing a new EGT Harness Bracket and Loop Clamps.

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 5

Accomplish when the engine is disassembled sufficiently to afford access to the affected subassembly (i.e. modules, accessories, components, build groups) and to all affected spare assemblies.

F. Manpower

Estimated Manhours to incorporate the full intent of this Bulletin:

Venue	Estimated Manhours
(1) In Service	Not applicable
(2) In shop	TOTAL 29 minutes
(a) To gain access	
(i) Remove loop clamp brackets	12 minutes
(b) To embody	Not applicable (No rework carried out)
(c) To return to modular condition	
(i) Install replacement loop brackets	17 minutes

G. Material Price and Availability

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

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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 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.
88VA334
- (2) Other References
V2500 Standard Practices Manual

L. Other Publications Affected

- (1) V2500 Engine Illustrated Parts Catalog, Chapter/Section 77-21-43, Figure 1 and Chapter/Section 78-11-11, Figure 1, to add the new parts.

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2. Accomplishment Instructions

A. Rework Instructions

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

B. Assembly Instructions

- (1) Remove the Nuts and Bolts which hold the Loop Clamps to the Loop Clamp Brackets. Retain the Nuts and Bolts. Refer to Figure 1.
- (2) Remove the Nuts and Bolts which hold the Loop Clamp Brackets to the T Flange and discard the Nuts and Bolts. Refer to Figure 1.
- (3) Remove the Loop Clamp Brackets.
- (4) Install the 2A1992-01 Loop Clamp Bracket Assemblies (6 off) as follows:
 - (a) Lubricate the Nuts and Bolts with CoMat 10-039 Engine Oil.
 - (b) Put the 2A1992-01 Loop Clamp Bracket Assembly at the location of holes 16 and 17. Refer to Figure 1.
 - (c) Install the Nuts and Bolts, through the holes in the Flange and Bracket Assembly, and tighten them with your hand.
 - (d) Torque the Nuts to 100 to 140 lbfin (11,30 to 15,82 Nm), by the approved procedure in Reference (1), Chapter/Section 70-41-00, Torque Tightening Technique.
 - (e) Do steps (a) through (d) again until all the Brackets are installed (at locations of holes 19 and 20 and 22, 28 and 29, 31 and 32, and 33 and 34).
 - (f) Lubricate the threads of the Bolts (which are on the Loop Clamp Bracket Assemblies) and the 4W0001 Nuts (6 off) with CoMat 10-039 Engine Oil.
 - (g) Put one loop clamp on the Bolt (which is part of the loop clamp assembly) at one of the six bracket locations.
 - (h) Install the 4W0001 Nut. Refer to Figure 1.
 - (i) Torque the Nut to 36 to 45 lbfin (4,07 to 5,08 Nm) by the approved procedure in Reference (2), Chapter/Section 70-41-00, Torque Tightening Technique.
 - (j) Do steps (f) through (i) again until all loop clamps are connected.

C. Recording Instructions

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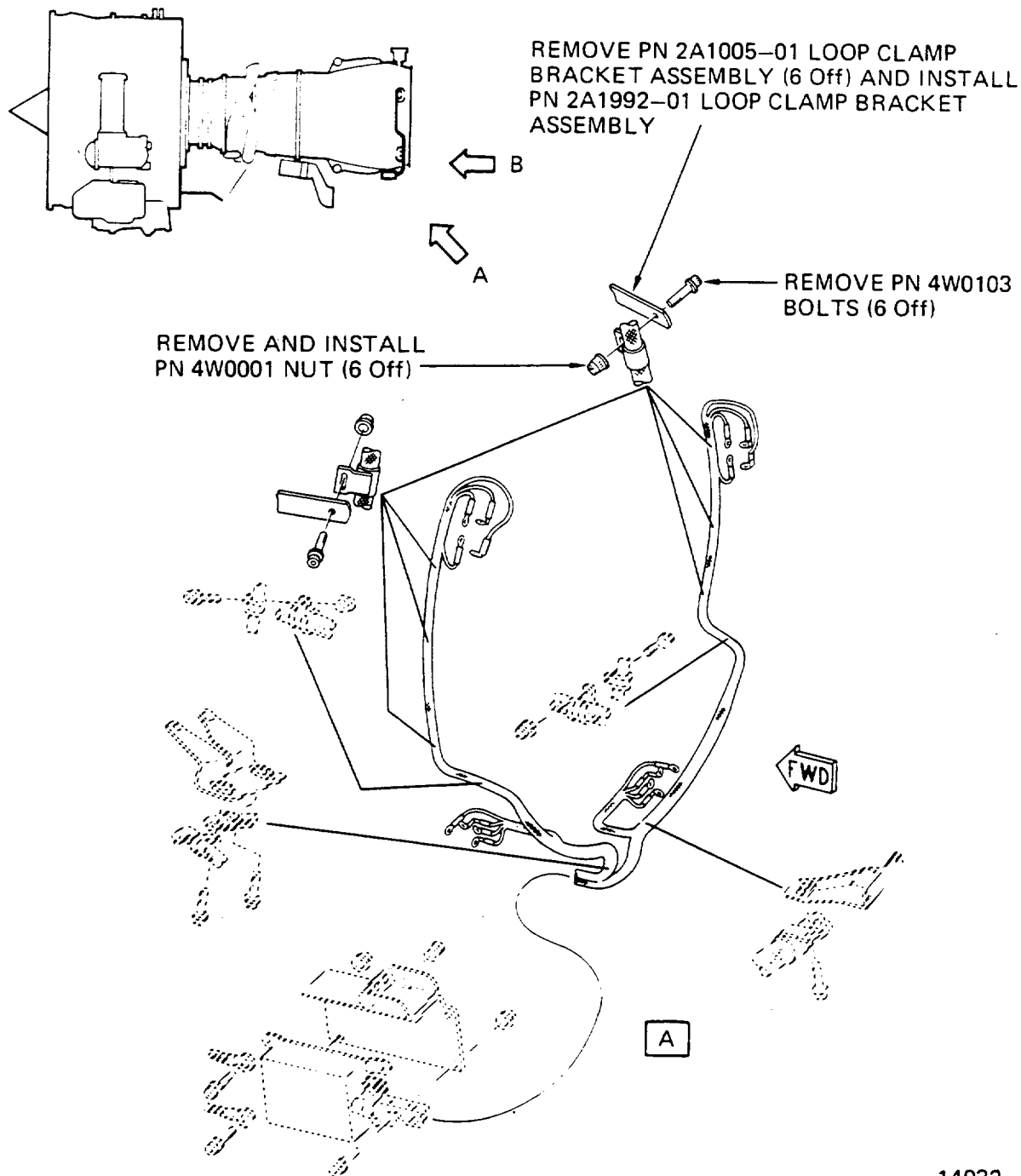
- (1) A Record of accomplishment is necessary.

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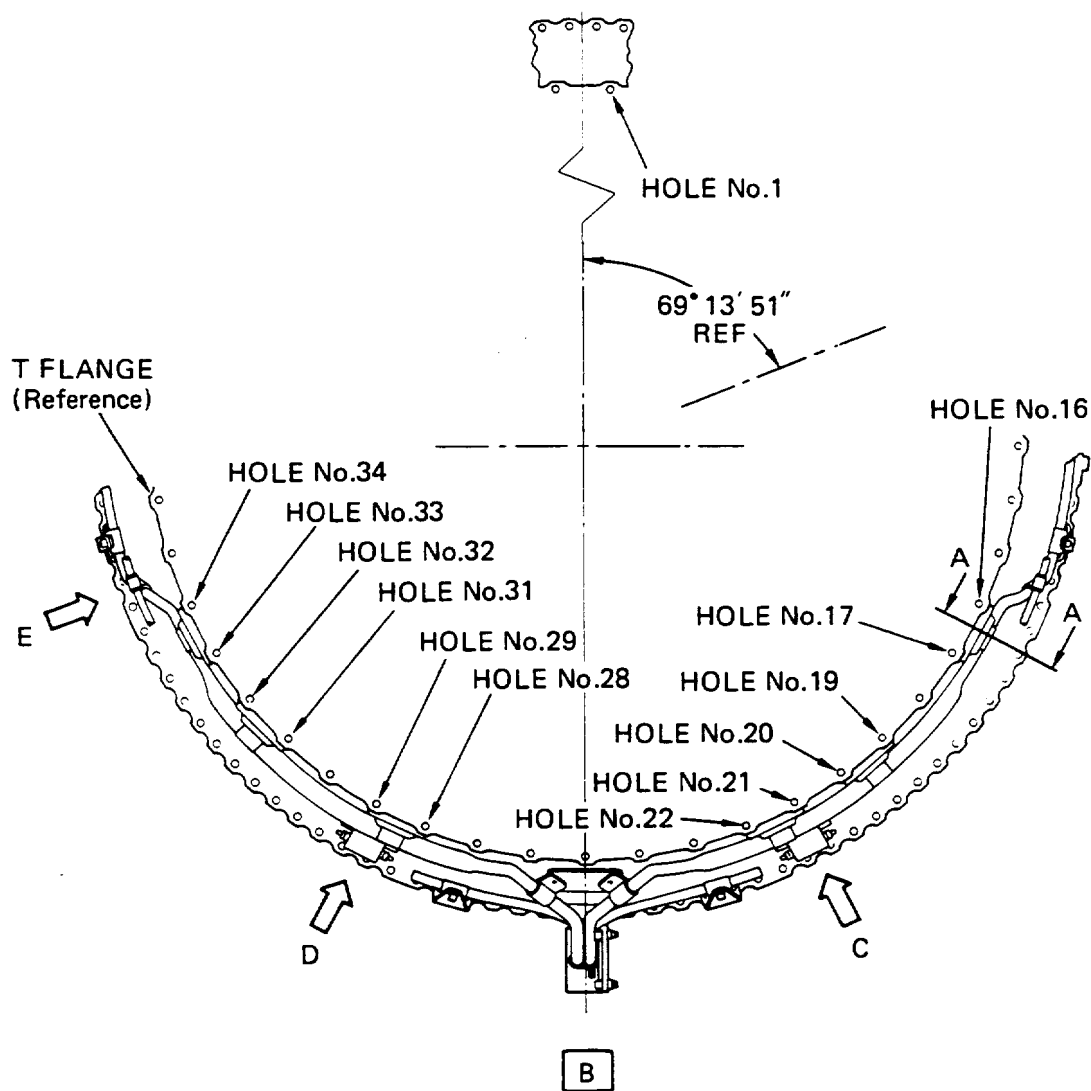
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Replacement of Exhaust Gas Temperature (EGT) Indicating System Loop Clamp Brackets
Fig.1 (Sheet 1 of 3)

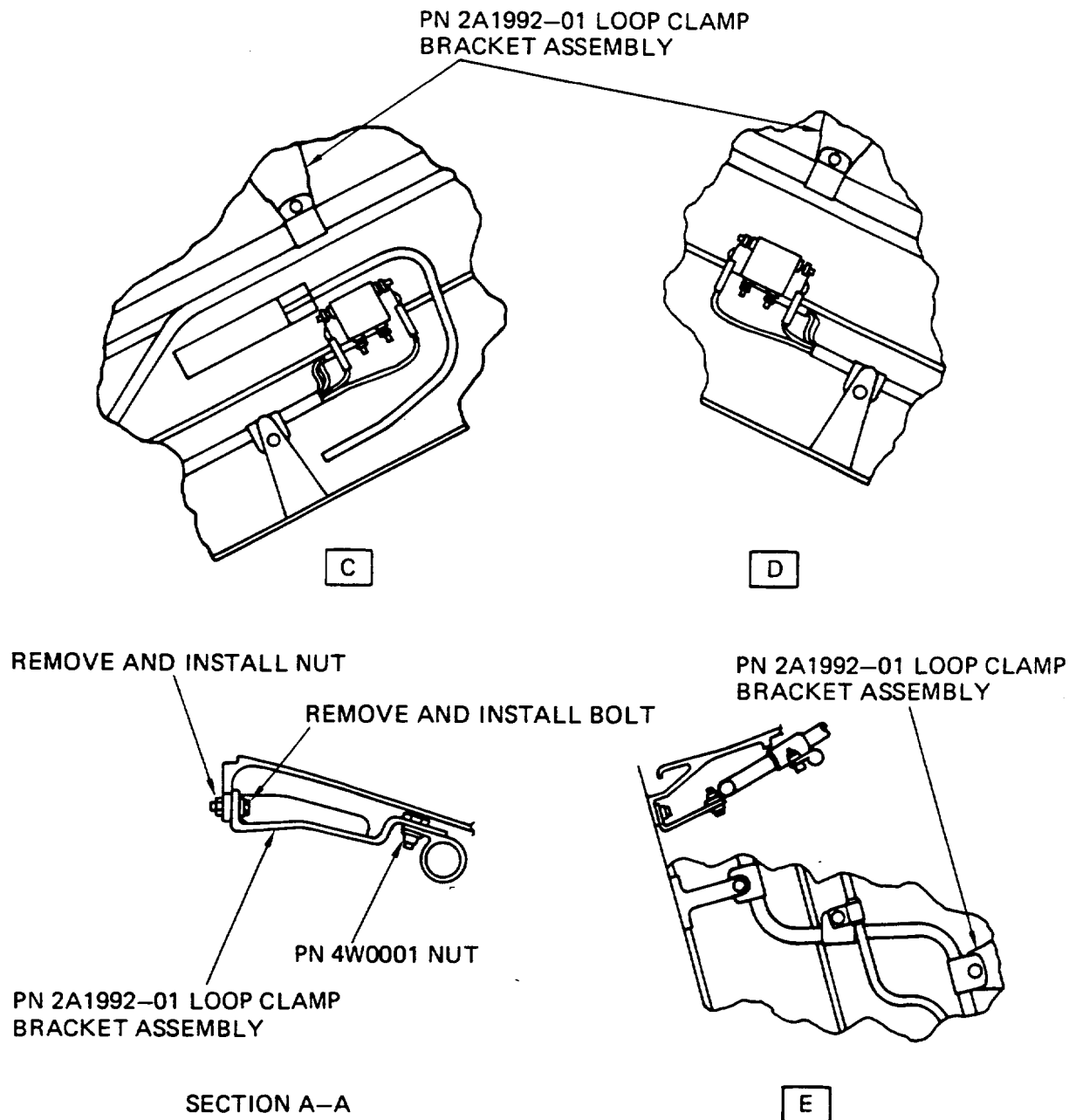
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Replacement of Exhaust Gas Temperature (EGT) Indicating System Loop Clamp Brackets
Fig.1 (Sheet 2 of 3)

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Replacement of Exhaust Gas Temperature (EGT) Indicating System Loop Clamp Brackets
Fig.1 (Sheet 3 of 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:

2A1992-01 (78-11-11)	6	85.10	Bracket - Loop Clamp assembly	2A1005-01 (01-060)	(S1)(A) (B)
- (78-11-11)	6		Nut Option Consisting of:	4W0038 (01-070A)	(C)
			Nut	AS3262-03	
			Nut	AS46725	
- (78-11-11)	12		Rivet	AN123468 (01-080)	(C)
- (77-21-43)	6		Bolt Option Consisting of:	4W0103 (01-195) (01-200) (01-205) (01-210) (01-215) (01-220)	(S1)(C)
			Bolt	AS21408	
			Bolt	MS9556-06	
4W0001 (77-21-43)	6		Nut Option Consisting of:	- (01-195) (01-200) (01-205) (01-210) (01-215) (01-220)	(S1)(A) (E)
			Nut	AS20624	
			Nut	AS3066-09	
			Nut	AS3067-09	
			Nut	AS3068-09	
			Nut	AS3069-09	
			Nut	AS3070-09	

C. Instruction/Disposition Code Statements:

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- (S1) New Parts Coded (S1) must replace Old Parts Coded (S1) as a complete set at each bracket location.
- (A) New part is currently available.
 - (B) Old part will no longer be available.
 - (C) Old part will continue to be available for lesser units, for use at other locations.
 - (E) New part is now used at some engine locations and will be supplied in increased units for use at new locations.

NOTE: The estimated 1990 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.