



## SERVICE BULLETIN

ENGINE - LP COMPRESSOR - PROVIDE A NEW FAN FRAME ASSEMBLY AND ELIMINATE A T2.5CM THERMOCOUPLE - CATEGORY CODE 7 - MOD.ENG-72-0211

1. Planning InformationA. Effectivity

- (1) Aircraft: (a) Airbus A320  
(b) Airbus A321
  - (2) Engine: (a) V2500-A1 Engines prior to Serial Number V0362  
(b) V2500-A5\* Engines, Serial Numbers V10001 through V10139,  
V10141 through V10143 and V10163
- (\* Including V2522-A5, V2524-A5, V2527-A5, V2527E-A5  
and V2530-A5 engine series)

B. Concurrent Requirements

This Service Bulletin must be incorporated subsequent to accomplishment of the IAE Service Bulletin V2500-ENG-72-0150 (V2500 Engine only).

C. Reason

## (1) Condition

See background

## (2) Background

It was found during review that the existing T2.5 condition monitoring system can function reliably with a reduced number of thermocouples.

## (3) Objective

To reduce quantity of T2.5 CM thermocouples from three to two and replace the Front Bearing Compartment (FBC) rear buffer chamber seal drain tube with flow-restricting pin that is installed into the internal of the fan frame assembly.

## (4) Substantiation

Analytically substantiated.

## (5) Effects of Bulletin on workshop procedure:

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

## (6) Supplemental Information

- (a) The assembly of the post-service bulletin configuration requires instruction for omission of installation of the seal drain tube.
- (b) Existing T2.5CM thermocouple replacement Repair Scheme, (VRS1727) is not applicable to the new fan frame assembly introduced by the service bulletin.

D. Description

- (1) The changes introduced by this Service Bulletin are as follows;
  - (a) to reduce quantity of T2.5CM thermocouples from three to two (See Figure 1).
  - (b) To eliminate the seal drain tube and modify the oil drain passage of fan frame assembly to restrict drain oil flow (See Figure 2).

E. Approval

The Part Number transaction shown under the Material Information portion of this Bulletin has been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the Engine Model listed.

F. Compliance

Category Code 7.

Accomplish when supply of superseded parts has been depleted.

G. Manpower

Estimated Manhours to incorporate the full intent of this Bulletin:

Venue	Estimated Manhours
(1) In Service .....	Not applicable
(2) At overhaul .....	Not affected

(No additional time is required to maintain the new configuration.)

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H. Material - Price and Availability

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

I. Tooling - Price and Availability

Special tools is not required to accomplish this Service Bulletin.

J. Weight and Balance

- (1) Weight Change ----- Not affected.
- (2) Moment Arm ----- No effect.
- (3) Datum ----- Engine front mount centerline  
(Powerplant Station (P.P.S.) 100)

K. Electrical Load Data

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

L. References

- (1) Internal Reference No.

EC93VJ041

- (2) Other References

V2500 Engine Illustrated Parts Catalog (S-V2500-1IA and S-V2500-2IA).

V2500 Engine Manual (E-V2500-1IA).

IAE Service Bulletin No. V2500-ENG-72-0150 "ENGINE -LP  
COMPRESSOR - PROVIDE A NEW WEIGHT REDUCED FAN FRAME  
ASSEMBLY AND ASSOCIATED DETAILS" (V2500-A1 Engine only).

M. Other Publications Affected

- (1) V2500 Engine Illustrated Parts Catalog (S-V2500-1IA and S-V2500-2IA), Chapter/Section 72-32-00, 72-32-03 and 72-32-38.
- (2) V2500 Engine Manual (E-V2500-1IA), Chapter/section 72-32-00, Disassembly-14 Config-1/2 and Assembly-02 Config-1/2.

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International Aero Engines

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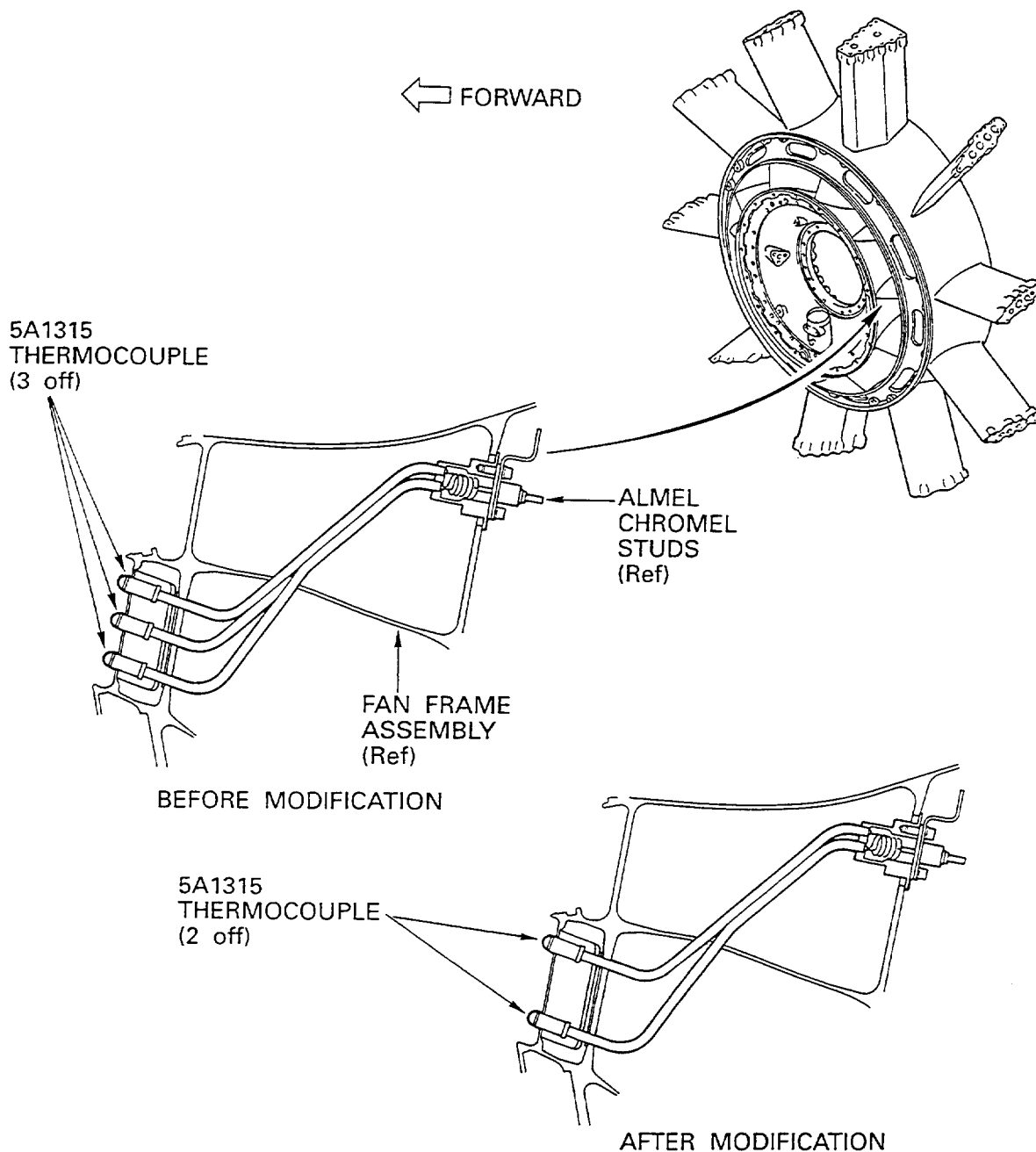
- (3) The new Repair Scheme (VRS1207) will be introduced for replacement purpose of T2.5 CM thermocouples on the fan frame A/0.

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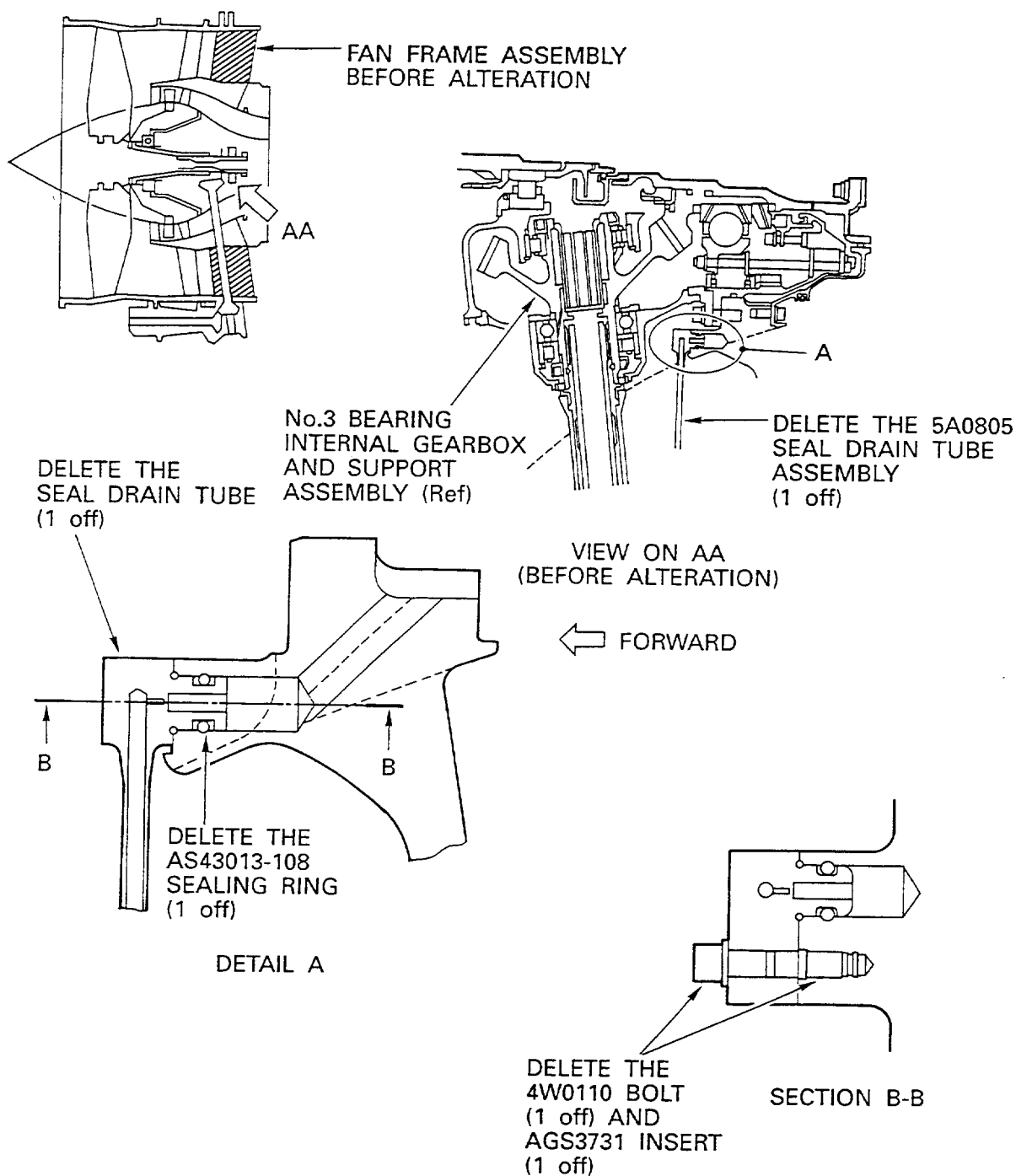
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Modification of the thermocouple  
Fig.1

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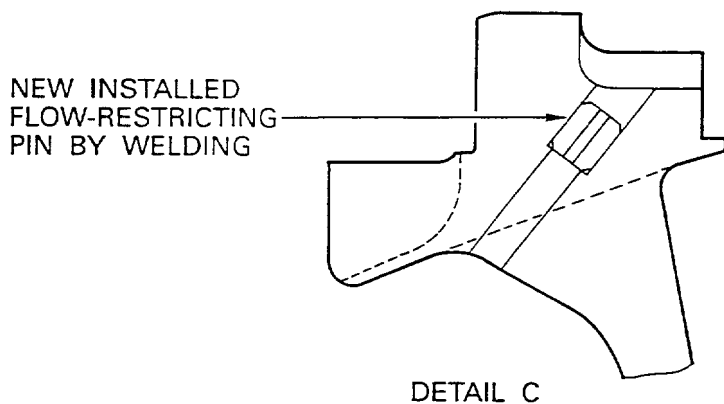
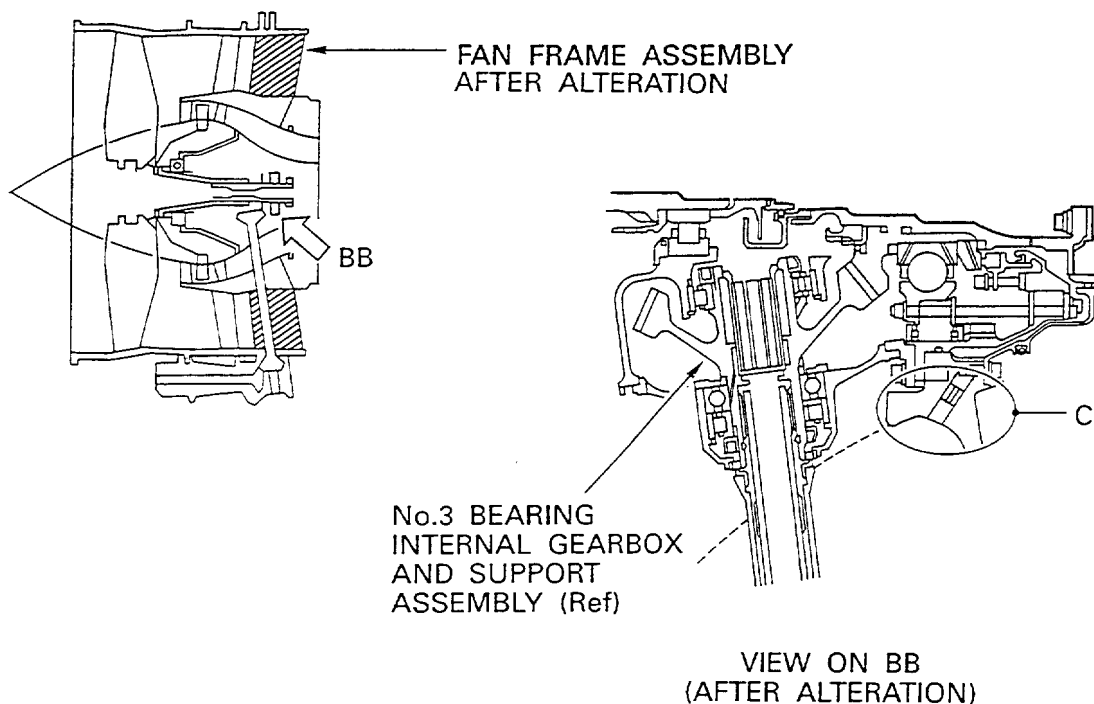
Fan Frame Assembly - Before and After Alteration  
Fig.2 (Sheet 1 of 2)

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Fan Frame Assembly – Before and After Alteration  
Fig.2 (Sheet 2 of 2)

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## 2. Accomplishment Instructions

NOTE: This Service Bulletin must be incorporated subsequent to accomplishment of the IAE Service Bulletin V2500-ENG-72-0150 (V2500-A1 Engine only).

### A. Rework Instructions

None.

### B. Assembly Instructions

#### (1) For V2500-A1 Engines;

Install the 5A1502, fan frame assembly in accordance with Engine Manual (E-V2500-1IA), 72-32-00 Assembly-02 Config-1. The 4W0110, bolt, the AS43013-108, sealing ring and the 5A0805, seal drain tube are not necessary to install.

#### (2) For V2527-A5 and V2530-A5 Engines;

Install the 5A1654, fan frame assembly in accordance with Engine Manual (E-V2500-1IA), 72-32-00 Assembly-02 Config-2. The 4W0110, bolt, the AS43013-108, sealing ring and the 5A0805, seal drain tube are not necessary to install.

### C. Recording Instructions

A record of accomplishment is necessary.





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3. Material Information

Applicability: For each V2500-A1 and V2500-A5 Engines 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.)	Instruction /Disposition
----- (72-32-00)	1	---	.Bolt, Machine Double Hex	4W0110 (02-215)	(C)(S1) (S2)
----- (72-32-00)	1	---	.Ring, Sealing Toroidal	AS43013-108 (02-220)	(C)(S1) (S2)
5A1652 (72-32-03)	1	---	.Frame, A/O Fan (For V2500-A1)	5A1448 (03-100)	(A)(B)(F) (S1)
5A1654 (72-32-03)	1	---	.Frame, A/O Fan (For V2500-A5)	5A1424 (03-100)	(A)(B)(F) (S2)
----- (72-32-03)	1	---	...Insert	AGS3731 (03-141)	(C)(E)
5A1315 (72-32-03)	2	---	..Thermocouple, A/O T2.5CM	5A1315 (03-890)	(E)(S3)
----- (72-32-38)	1	---	.Tube, A/O Seal Drain	5A0805 (01-200)	(C)(S1) (S2)

C. Instruction/Disposition Code Statements:

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- (A) New part is currently available.
- (B) Old part is no longer available for sale.
- (C) Old part will continue to be supplied.
- (E) Repair part for Frame A/0, Fan.
- (F) Part is not normally a provisioned item. Contact IAE Spare Parts Department for a firm part price quotation.
- (S1) New parts coded (S1) must replace old parts coded (S1) as a COMPLETE SET per engine.
- (S2) New parts coded (S2) must replace old parts coded (S2) as a COMPLETE SET per engine.
- (S3) Quantity of Part No. decreased from three to two.

NOTE: The estimated 1996 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.