

ENGINE – PROVIDE A NEW LP COMPRESSOR FRONT CASE ASSEMBLY AND A NEW LPC INLET GUIDE VANE ASSEMBLY – CATEGORY CODE 7 – MOD.ENG-72-0018

1. Planning Information

A. Effectivity

- (1) Aircraft: Airbus A320
- (2) Engine: V2500-A1 Engines prior to Serial No.V0021

B. Reason

(1) Condition

With the object of reducing weight, a critical review of the engine has been undertaken. As a result, it was decided to change the design features on the LP Compressor Front Case Assembly and the LP Compressor Inlet Guide Vane Assembly.

(2) Background

A design review for the LP Compressor Front Case Assembly and the LPC Inlet Guide Vane Assembly has shown that these assemblies are capable of reducing the weight.

(3) Objective

The changes in configuration recommended in this Service Bulletin are designed to reduce the engine weight.

(4) Substantiation

The configuration changes shown in this Service Bulletin have been subjected to a cycle testing on development engine with 2000 equivalent flight-cycles. The test results obtained were satisfactory.

(5) Effects 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

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**C. Description**

- (1) New LP Compressor Front Case Assemble and new LP Compressor Inlet Guide Vane Assembly which have the following changes have been introduced:
 - (a) The rear flange thickness of the LP Compressor Front Case Assembly has been reduced. (See Figures 1 and 3).
 - (b) The thickness of the LPC Inlet Guide Vane platform has been reduced. (See Figures 1 and 2).
 - (c) The molding shape of the damper rubber in the LPC Inlet Guide Vane inner ring has been changed to reduce a quantity of the damper rubber. (See Figures 1 and 2).
- (2) New LP Compressor Front Case Assembly will be available for future replacement purposes.
- (3) New LP Compressor Inlet Guide Vane Assembly introduced by this Service Bulletin will not be available as a spare for replenishment purposes but new 5A0179 which is introduced by IAE Service Bulletin No.V2500-ENG-72-0031 will be available for future replacement purposes. (See 1.K.(1)).

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 7

Accomplish when supply of superseded parts has been depleted.

F. Manpower

Estimated Manhours to incorporate the full intent of this Bulletin:

Venue	Estimated Manhours
(1) In service	Not applicable
(2) At overhaul	Not applicable

G. Material – Price and Availability

- (1) Modification Kit is not required. Parts supplied as single line items.

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- (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 | Minus 1.27 lb (0,576 Kg) |
| (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.

EC88VJ022

ECM88VJ022-02

- (2) Other References

IAE V2500 Service Bulletin Numbers

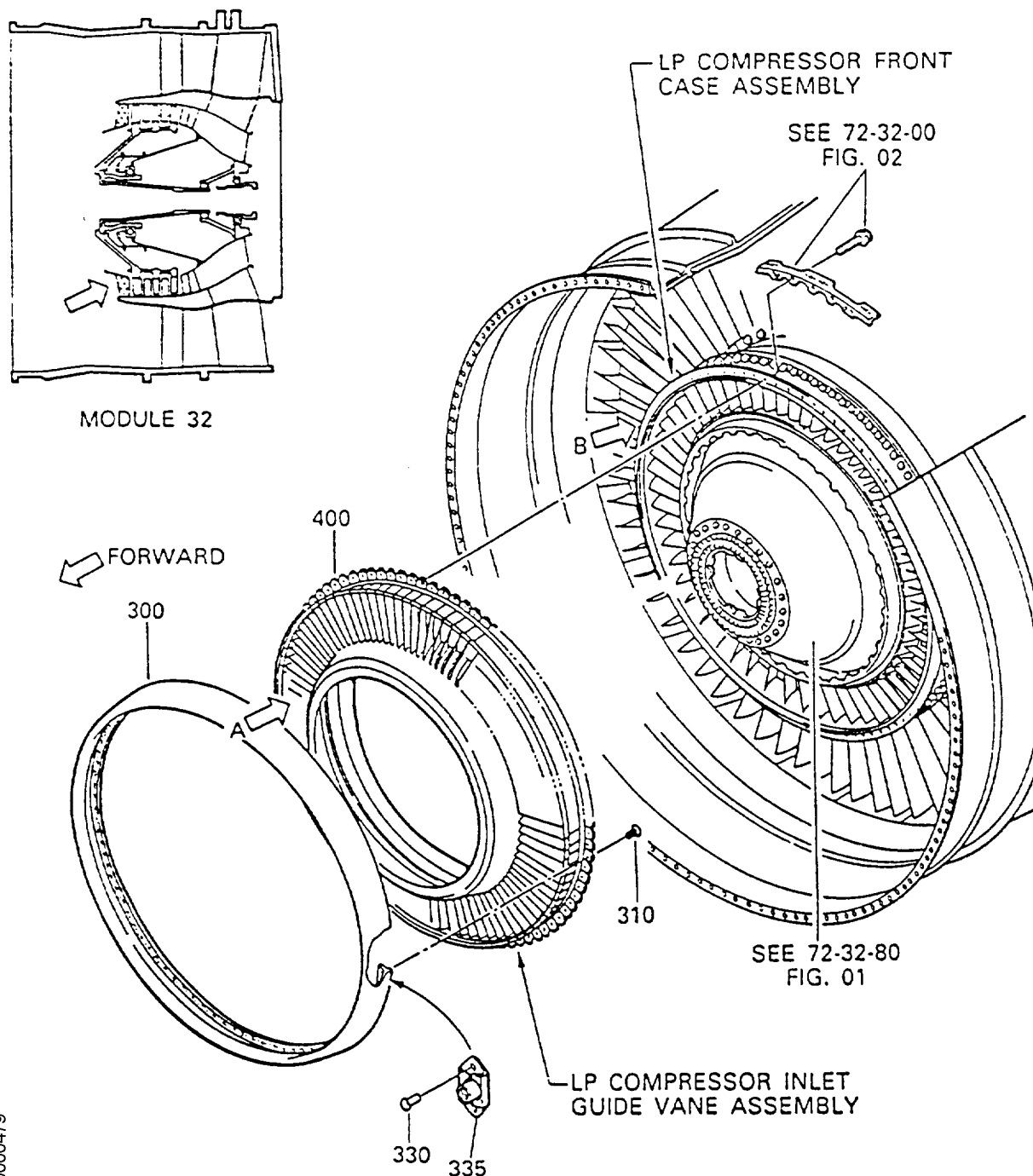
V2500-ENG-72-0031 (Engine - provide a seal for the Booster Stage Bleed Valve A/O and a replacement LPC Inlet Guide Vane Assembly).

V2500 Engine Illustrated Parts Catalog, Chapter/Section 72-32-83 and 72-32-91.

L. Other Publications Affected

- (1) The V2500 Illustrated Parts Catalog, Chapter/Section 72-32-83 and 72-32-91.
- (2) V2500 Engine Manual, 72-32-83, Cleaning, Inspection/Check, Repair and 72-32-91, Cleaning, Inspection/Check, Repair.

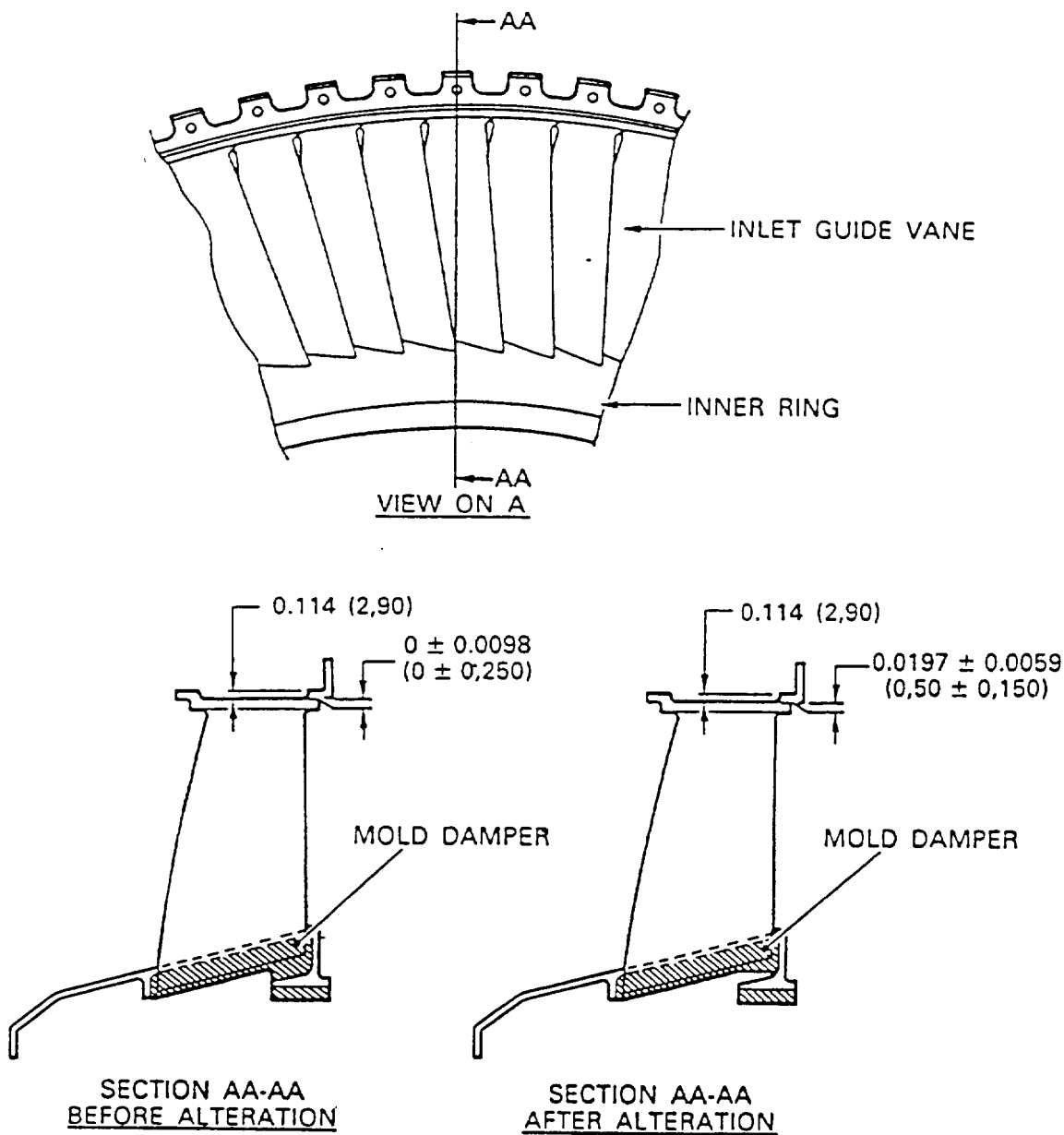
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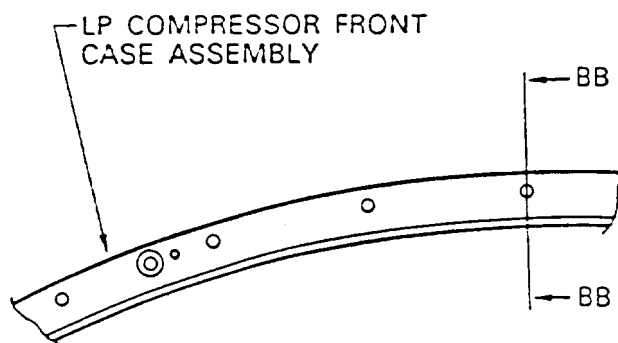
Location of the LP Compressor Inlet Guide Vane Assembly and the LP Compressor Front Case assembly
Fig.1

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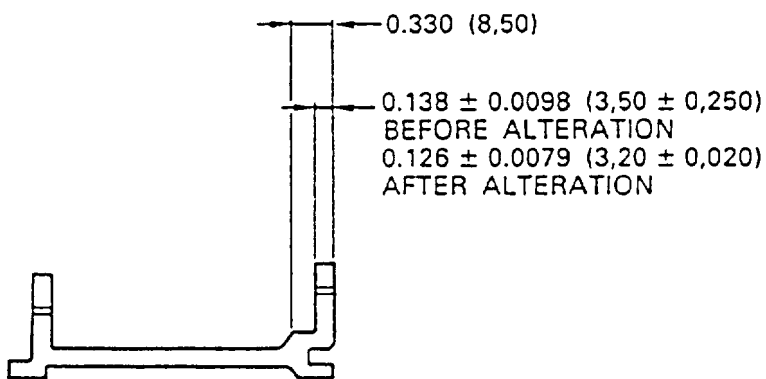


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LP Compressor Inlet Guide Vane Assembly - Before and After alteration
Fig.2



VIEW ON B



SECTION BB-BB
BEFORE AND AFTER ALTERATION

LP Compressor Front Case Assembly - Before and After alteration
Fig.3



2. Accomplishment Instructions

Not applicable.



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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
5A0062 (72-32-83)	1	4,242.00	Case, A/O Front LPC	5A7399 (01-350)	(A)(C)(S1)
5A0060 (72-32-91)	1	-	Vane, A/O Guide Inlet	5A7381 (01-400)	(B)(C)(S1)
5A0061 (72-32-91)	46	421.00	Vane, Stg 1 LPC A	5A7382 (01-500)	(A)(D)(S2)
5A0064 (72-32-91)	46	421.00	Vane, Stg 1 LPC B	5A7385 (01-510)	(A)(D)(S2)

C. Instruction/Disposition Code Statements:

- (A) New part(s) is(are) currently available.
- (B) New part is not available as a spare for replenishment purpose.
- (C) Old part will no longer be available for sale.
- (D) Old part will continue to be available for sale.
- (S1) Old and New Part is freely and fully interchangeable, both physically and functionally.
- (S2) New parts must be fitted as a SET. Mixing of old and new parts is not permissible.

NOTE: The estimated 1991 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.

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