International Aero Engines

SERVICE BULLETIN

ENGINE - PROVIDE A SEAL FOR THE BOOSTER STAGE BLEED VALVE A/O AND A REPLACEMENT LPC INLET GUIDE VANE ASSEMBLY - CATEGORY CODE 7 - MOD.ENG-72-0031

1. Planning Information

A. Effectivity

(1) Aircraft: Airbus A320
(2) Engine: V2500-A1 Engines, prior to Serial Numbers V0051

B. Reason

(1) Condition

The final design of LPC inlet guide vane and booster stage bleed valve were not available at the time of the entry into service.

(2) Background

None

(3) Objective

The changes introduced by this Service Bulletin are to provide the latest design of the inlet guide vane and bleed valve.

(4) 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

(5) Supplemental Information

None

C. Description

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

(a) The LPC booster stage bleed valve A/O which has the front rubber seal, has been reintroduced as a performance benefit. (See Figure 1.)

(b) A new LPC inlet guide vane assembly which has the redesigned airfoil profile of the vane leading and trailing edge angles, has been introduced to improve the surge margin. (See Figure 2.)

D. Approval

The Part Number changes and 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Accomplish when supply of superseded parts has been depleted.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)	In shop	Not applicable

G. Material - Price and Availability

Modification Kit not required, part is supplied as single line item.

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 centerline (Powerplant Station (P.P.S.) 100)"

J. Electrical Load Data

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

K. References

(1) Internal Reference No.

EC88VJ268

RFA JZ231-91

EC91VJ061

(2) Other References

IAE V2500 Service Bulletin:

V2500-ENG-72-0018 - Engine - Provide a New LP Compressor Front Case Assembly and a New LPC Inlet Guide Vane Assembly.

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

V2500 Engine Manual, 72-32-70, Booster Stage Bleed Valve and Actuating Mechanism - Disassembly, TASK 72-32-70-040-001, - Assembly, TASK 72-32-70-440-001 and 72-32-91, Fan Outlet Inner Vane Assembly - Disassembly, TASK 72-31-91-040-001, - Assembly, TASK 72-32-91-440-001.

L. Other Publications Affected

(1) V2500 Engine Illustrated Parts Catalog, Chapter/Section 72-32-72 and 72-32-91.

(2) V2500 Engine Manual, 72-32-72, Cleaning-00, -01, and 72-32-91, Cleaning -00, Inspection/Check-00, -02.

2. Accomplishment Instructions

A. Rework Instructions

(1) Rework and reidentify the Valve Assembly.

	Procedure	Supplementary Information
(a)	Prepare the mating surfaces for the cold curing silicone rubber compound	Refer to Figure 3 (sheet 1) and Engine Manual, TASK 72-32-72-300-002, VRS1334
(b)	Apply the surface protection to the valve assembly	Refer to Figure 3 (sheet 1) and Engine Manual, TASK 72-32-72-300-002, VRS1334

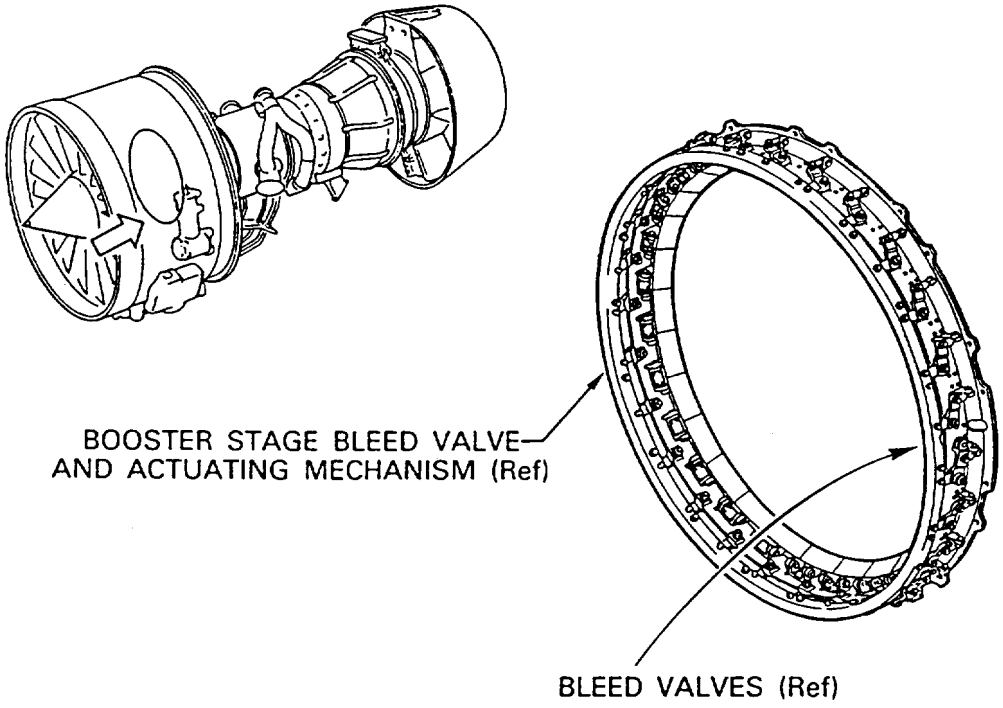
CAUTION: 1. DO NOT EAT ANYTHING OR SMOKE AT LOCATION WHERE THESE MATERIALS ARE USED.

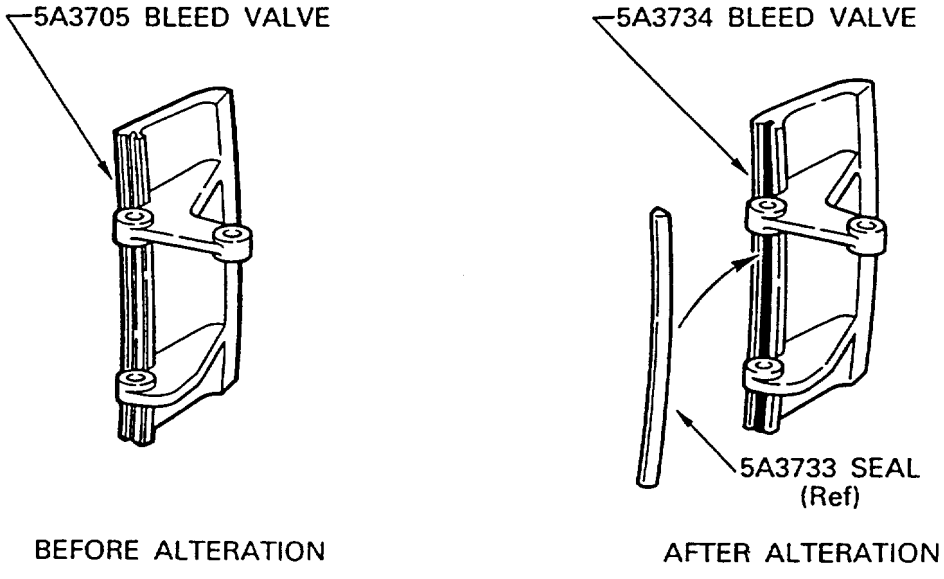
2. AFTER PREPARATION THE MATING SURFACES MUST BE FULLY CLEANED AND MUST NOT BE TOUCHED BY HAND TO PREVENT CONTAMINATION.

(c)	Apply and cure the cold curing silicone rubber compound	Refer to Figure 3 (sheet 1 and 2) and Engine Manual, TASK 72-32-72-300-002, VRS1334
(d)	Examine the repaired areas of the valve assembly	Refer to Figure 3 (sheet 2) and Engine Manual, TASK 72-32-72-300-002, VRS1334
(e)	Make a mark of the new part No. on the valve assembly adjacent to the old part No. and make two lines (====) on the old part No. to erase it	Use the Vibro-peen method Refer to Figure 3 (sheet 2) and SPM TASK 70-09-00-400 -001 Existing 5A3705 Renumber 5A3734

C. Recording Instructions

(1) A record of accomplishment is necessary.





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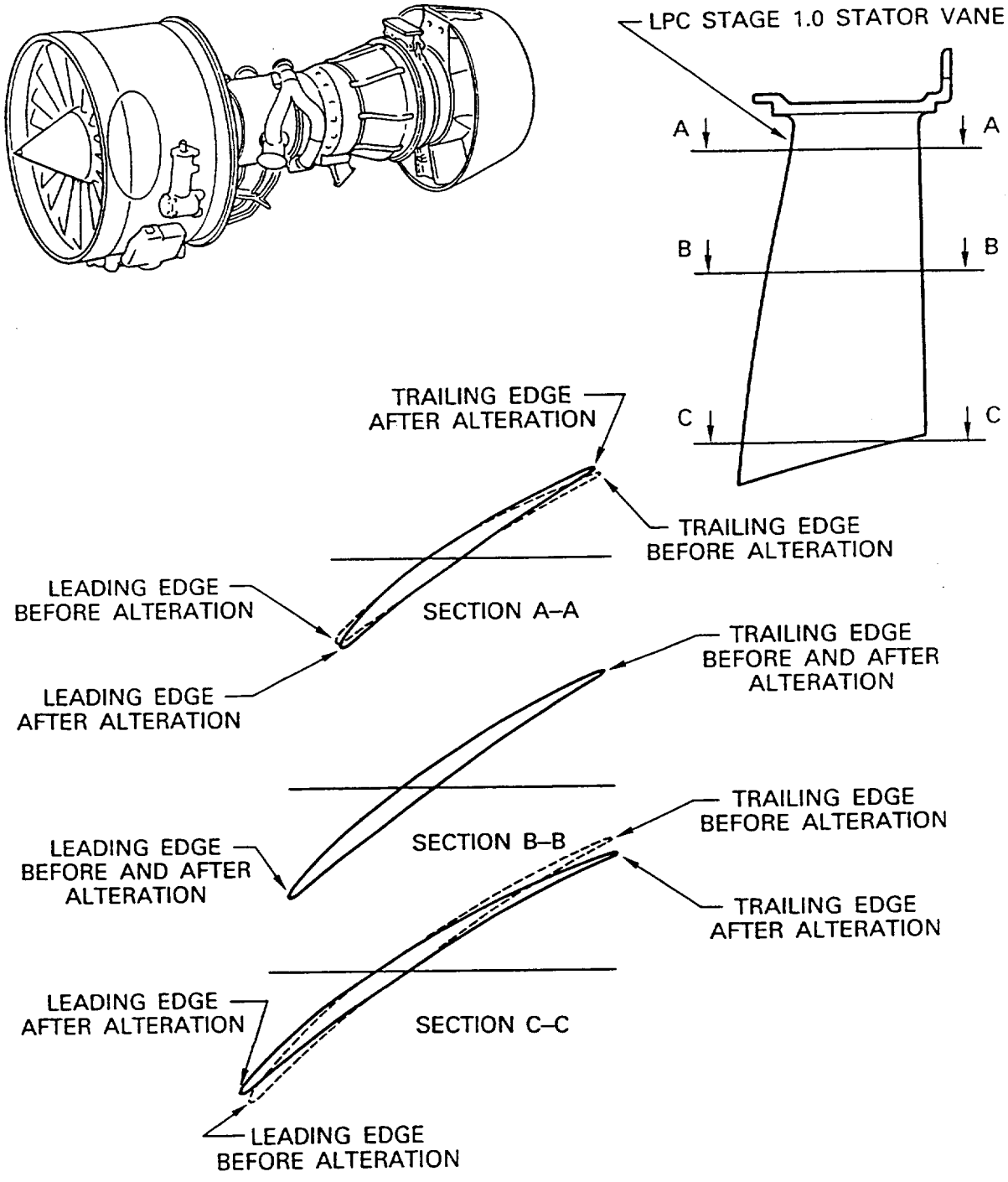
Booster stage bleed valve A/0 before and after alteration
Fig.1



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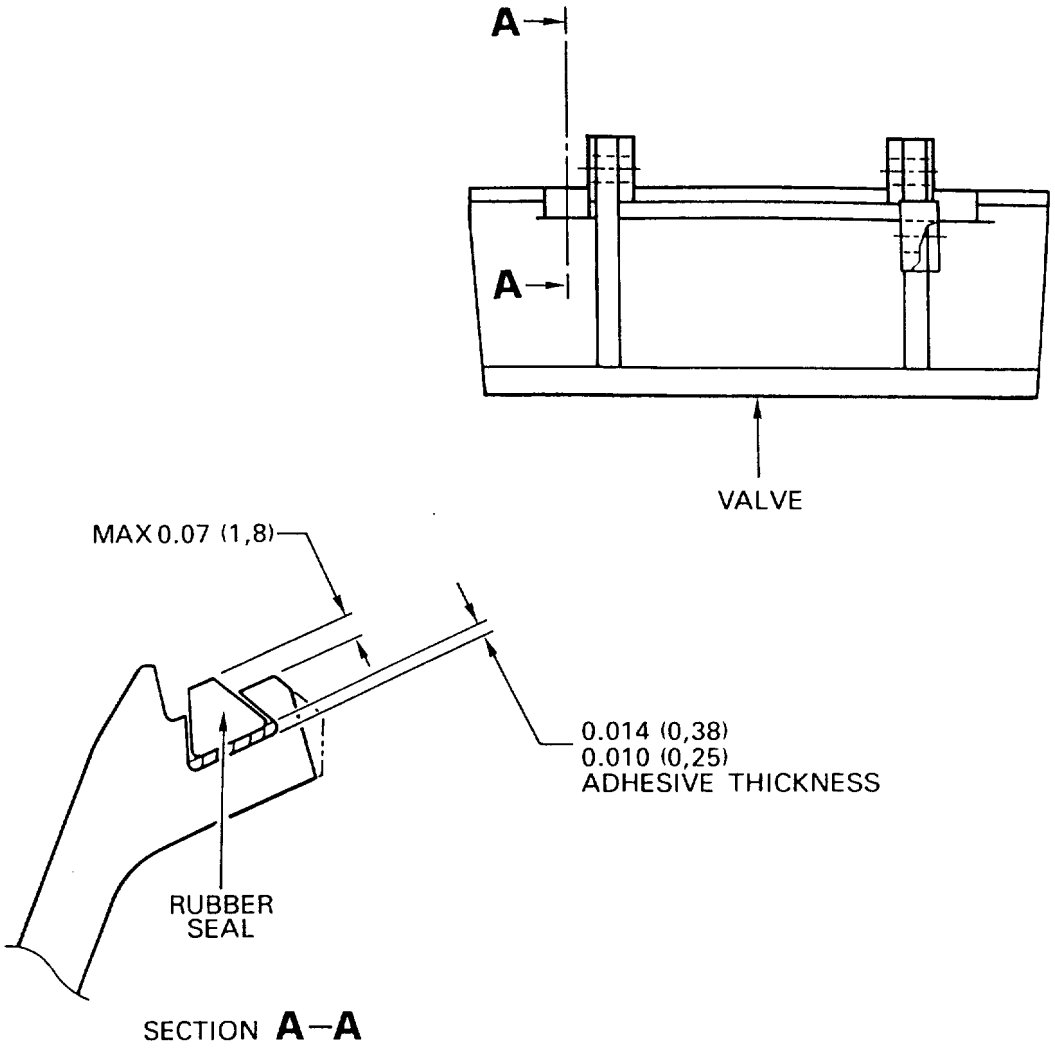
LPC inlet guide vane assembly before and after alteration
Fig.2



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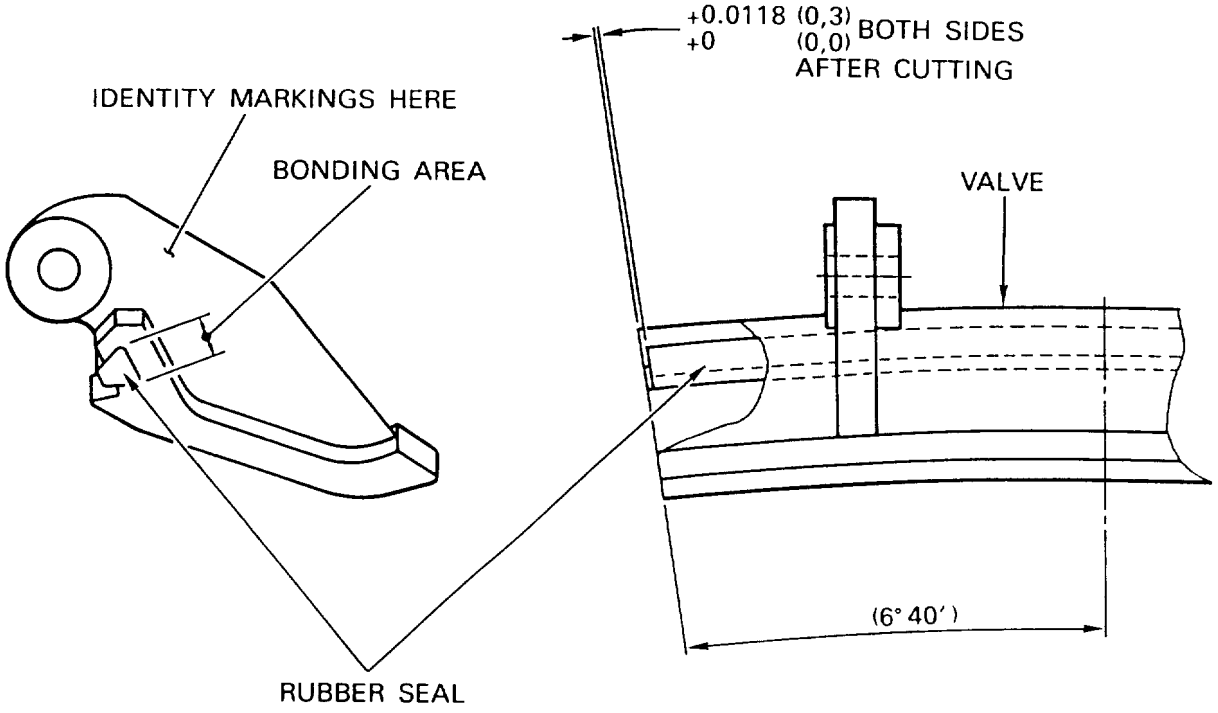
Rework the valve assembly
Fig.3 (sheet 1)



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Rework the valve assembly
Fig.3 (sheet 2)

3. Material Information

New Part No. (ATA No.)	Qty	Est'd Unit Price ($)	Keyword	Old Part No. (IPC No.)	Instructions Disposition
5A3734 (72-32-72)	27		.Valve, A/O	5A3705 (01-100)	(A) (B) (S1) (S2)
5A3733 (72-32-72)	1		..Seal	- (01-120)	(A) (1D)
5A0179 (72-32-91)	1		.Vane, Assy Guide LPC Inlet	5A0060 (01-400)	(A) (C) (S1)
5A0180 (72-32-91)	46		..Vane, Stg 1.0 LPC A	5A0061 (01-500)	(A) (B) (S2) (S3)
5A0181 (72-32-91)	46		..Vane, Stg 1.0 LPC B	5A0064 (01-510)	(A) (B) (S2) (S3)

Applicability: For each V2500 Engine to incorporate this Bulletin.

A. Kits associated with this Bulletin:

None

B. Parts affected by this Bulletin:

NOTE: The unit prices, if shown, are an estimate and they are given for the purpose of planning only. For information about actual prices, refer to the IAE Price Catalog or contact IAE's spare parts sales department.

C. Instruction/Disposition Code Statements:

(A) New Parts are currently available for sale.
(B) Old Parts will continue to be available for sale.
(C) Old Part is not available as a spare for replenishment purpose.
(S1) New parts corded (S1) must replace Old parts coded (S1) as a COMPLETE SET per engine.
(S2) New parts must be fitted as a set. Mixing of old and new parts is not permissible.
(S3) Old and new parts are not interchangeable, either physically or functionally.
(1D) Additional Part.