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## V2500-A5/D5 SERIES PROPULSION SYSTEM SERVICE BULLETIN

This document transmits the Revision 1 of Service Bulletin V2500-ENG-72-0279.

### Document History

#### Service Bulletin Revision Status

Initial Issue                      Dec.15/97.

#### Service Bulletin Revision 1

Remove	Incorporate	Reason for change
All Pages of the Service Bulletin.	Pages 1 to 8 of the Service Bulletin.	To correct the illustrations. To update the layout.
	Page 1 of the Supplement.	To add the Supplement.

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Transmittal - Page 1 of 1

**CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED**  
If any have not been received please advise IAE International Aero Engines AG

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ENGINE – LP COMPRESSOR – TO INTRODUCE A SMALL DIAMETER PIN ON THE LPC BLEED VALVE  
RING

1. Planning Information

A. Effectivity

R (1) Airbus A319

R (a) V2522-A5, V2524-A5, V2527M-A5 Engines prior to Serial No. V10322 (A5  
R Standard and A5 SelectOne™ Retrofit Standard).

R (2) Airbus A320

R (a) V2527-A5, V2527E-A5 Engines prior to Serial No. V10322 (A5 Standard  
R and A5 SelectOne™ Retrofit Standard).

R (3) Airbus A321

R (a) V2530-A5, V2533-A5 Engines prior to Serial No. V10322 (A5 Standard and  
R A5 SelectOne™ Retrofit Standard).

R (4) Boeing MD-90

R V2525-D5, V2528-D5 Engines prior to Serial No. V20199.

R B. Concurrent Requirements

R None.

C. Reason

(1) Condition

There is insufficient clearance between the pins and the spherical bearings on the LPC bleed valve ring. Choking of small metal particles produced by the fretting corrosion results in sticking the bleed valve.

(2) Background

R The track check fault message of 2.5 Bleed Valve Actuating System (2.5 BLD  
R ACT/HC/EEC) was observed on the cockpit monitor at some engines. The  
R Tri-Flow lubricant has been introduced to reduce friction load as a  
temporary measure.

(3) Objective

The clearance between the pins and spherical bearings to be increased by the incorporation of small diameter pins. This service bulletin intends to prevent the bleed valve sticking caused by the choking up with small particles. Further design change in pins will be introduced to significantly reduce the fretting corrosion.

(4) Substantiation

Substantiation analysis has been completed.

(5) Effects of Bulletin on Workshop Procedures:

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

(6) Supplemental Information

- (a) The Inspection/Check of the post-service bulletin configuration requires instructions for pin.
- (b) The Repair of the post-service bulletin configuration requires instructions for pin.

D. Description

- (1) This Service Bulletin introduces new small diameter pins on the LPC Bleed Valve Ring (see Figure 1).

E. Compliance

Category Code 6

R Accomplish when the sub-assembly (ie modules, accessories, components, build  
R groups) is disassembled sufficiently to get access to the affected part and to  
R all affected spare parts.

R F. Approval

R The part number changes and/or part modifications described in sections 2 and 3  
R of this Service Bulletin have been shown to comply with the applicable Federal  
R Aviation Regulations and are FAA-APPROVED for the engine models listed.

G. Manpower

R Estimated man-hours to incorporate the full intent of this Service Bulletin:

R (1) In Service

R Not applicable.

R (2) At Overhaul

R Applicable (hours not affected).

R H. Material Price and Availability

(1) Modification kit is not required.

R (2) See "Material Information" section for prices and availability of future  
R spares.

R I. Tooling Price and Availability

R Special tools are not required to accomplish this Service Bulletin.

J. Weight and Balance

R (1) Weight Change

R None.

R (2) Moment Arm

R No effect.

R (3) Datum

R Engine Front Mount Centerline (Power Plant Station (PPS) 100).

K. Electrical Load Data

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

L. References

(1) Internal Reference No.

R 97VJ015.

(2) Other References

V2500 Engine Illustrated Parts Catalogs (S-V2500-2IA and S-V2500-3IA)

V2500 Engine Engine Manuals (E-V2500-1IA and E-V2500-3IA)

**M. Other Publications Affected**

- (1) V2500 Engine Illustrated Parts Catalogs (S-V2500-2IA and S-V2500-3IA), Chapter/Section 72-32-70 will be revised to add the new part numbers.
- (2) V2500 Engine Manuals (E-V2500-1IA), Chapter/Section 72-32-70, ASSEMBLY-01 CONFIG-2 will be revised to add new Fits and Clearance information.
- (3) V2500 Engine Manuals (E-V2500-3IA), Chapter/Section 72-32-70, ASSEMBLY-01 will be revised to add new Fits and Clearance information.
- (4) V2500 Engine Manuals (E-V2500-1IA), Chapter/Section 72-32-70, INSPECTION/CHECK-03 and -04, CONFIG-1 will be revised to add new procedure.
- (5) V2500 Engine Manuals (E-V2500-3IA), Chapter/Section 72-32-70, INSPECTION/CHECK-03 and -04, will be revised to add new procedure.
- (6) V2500 Engine Manuals (E-V2500-1IA and E-V2500-3IA), Chapter/Section 72-32-70, REPAIR 004 (VRS 1739), will be revised to add new part number.

## 2. Material Information

### R A. Kits associated with this Service Bulletin:

R None.

### R B. Parts affected with this Service Bulletin:

R	FIG	NEW	QTY	PART TITLE	MAT	OLD	INSTR
R	ITEM	PART				PART	DISP
R	NO.	NO.				NO.	
R	72-32-70						
R	02-240	5A1793	2	.Pin	-	5A0473	(A)(B)(S1)
R	02-270	5A1794	8	.Pin	-	5A0478	(A)(B)(S1)

### R C. Instruction disposition codes:

R (A) New part is currently available for sale.

R (B) Old part will no longer be available for sale.

R (S1) Old and New parts are freely and fully interchangeable  
R both physically and functionally.

### 3. Accomplishment Instructions

R A. Rework Instructions

R There are no rework instructions necessary to accomplish this Service Bulletin.

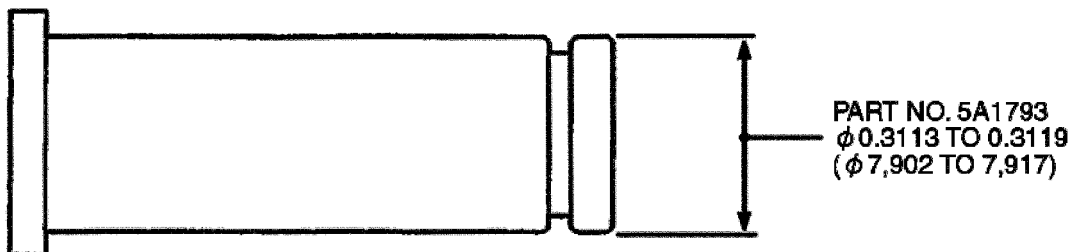
R B. Assembly Instructions

R (1) Install the new 5A1793, two pins and the new 5A1794, eight pins into the  
R LPC Bleed Valve Ring by the approved procedures of Reference (2),  
R Chapter/Section 72-32-70, ASSEMBLY-01 CONFIG-2 (For V2500-A5) and  
R Chapter/Section 72-32-70, ASSEMBLY-01 (For V2500-D5). (Refer to Figure 2)

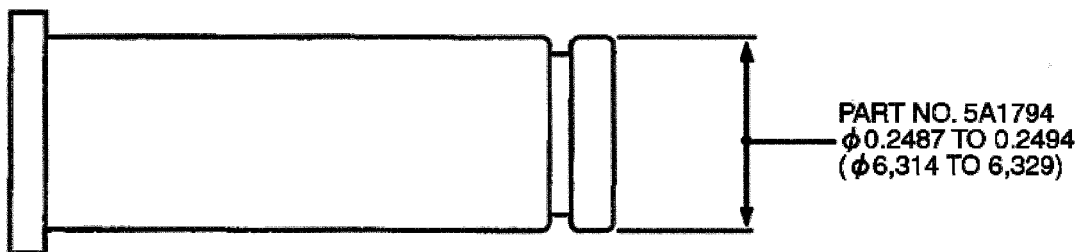
R C. Recording Instructions

R A record of accomplishment is required.





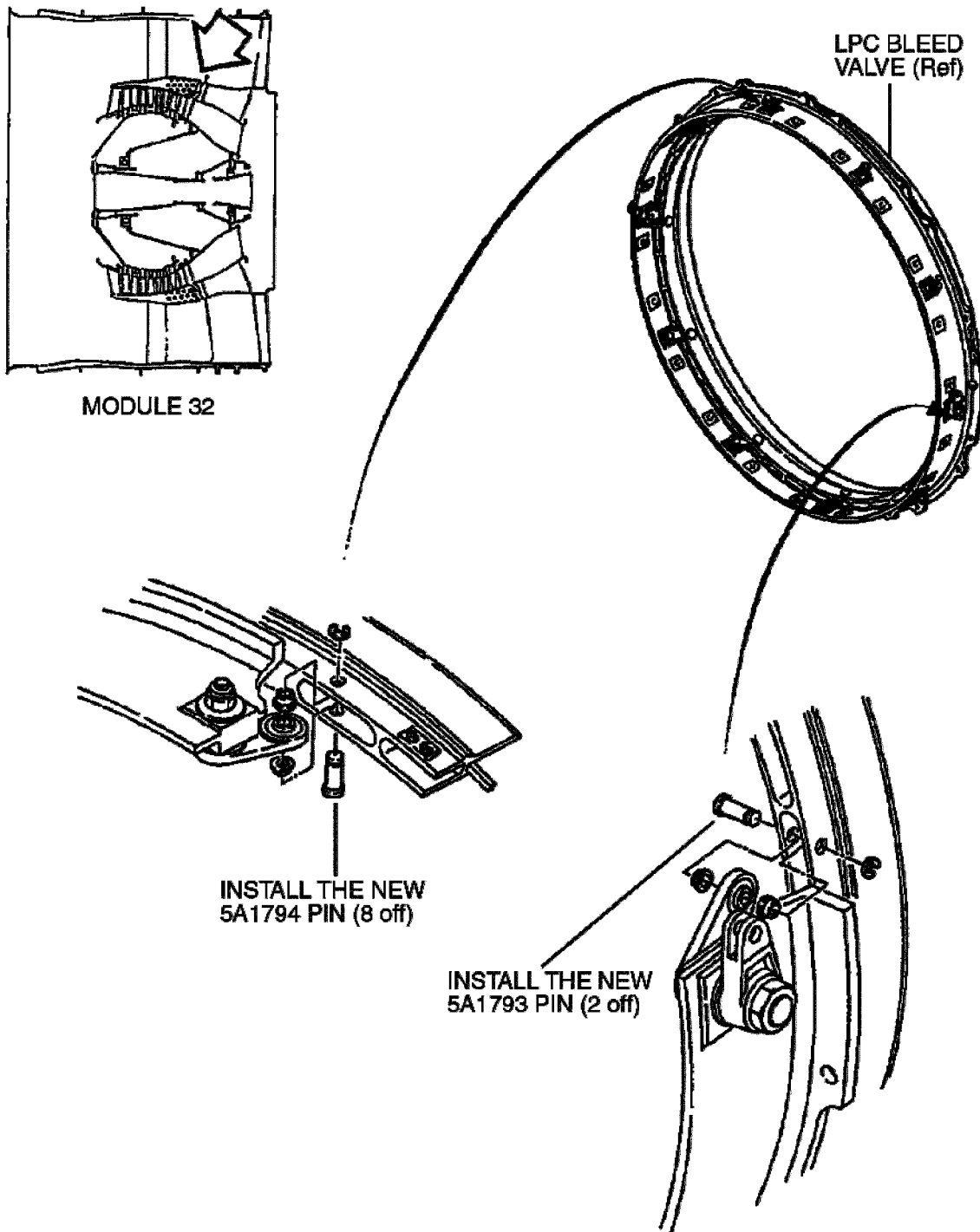
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R  
R

Size of new pins  
Fig.1



Booster Stage Bleed Valve and Actuating Mechanism  
Fig.2

ENGINE – LP COMPRESSOR – TO INTRODUCE A SMALL DIAMETER PIN ON THE LPC BLEED VALVE  
RING

R SUPPLEMENT – PRICES AND AVAILABILITY

R The prices (if shown) are for estimating purposes only and as such are given in good  
R faith, without commercial liability for advanced planning purposes only. Refer to  
R IAE Spares and/or current price catalogue for current prices.

R 1. Modification Kit:

R Not applicable.

R 2. New Production Parts:

R			Unit Price
R	Part No.	Description	US Dollars
R	5A1793	Pin	P.O.A.
R	5A1794	Pin	P.O.A.

R 3. Tools

R None.