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DATE: Sep.22/08

V2500-A5 SERIES PROPULSION SYSTEM SERVICE BULLETIN

This document transmits the Initial Issue of Service Bulletin V2500-ENG-72-0571 and the Initial Issue of the Supplement <u>Service Bulletin Initial Issue</u>

Remove Incorporate Reason for change

Pages 1 to 8 of the Initial Issue.

Service Bulletin

<u>Supplement Initial Issue</u>

Remove Incorporate Reason for change

Pages 1 to 2 of the Initi

Supplement

Initial Issue.

V2500-ENG-72-0571

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ENGINE - HIGH PRESSURE (HP) COMPRESSOR - V2500 SELECTONE PRODUCTION - INTRODUCTION OF A BAULKING FEATURE IN THE VARIABLE STATOR VANE (VSV) SYSTEM TO PREVENT MISASSEMBLY OF LEVER ARMS

1. Planning Information

A. Effectivity

- (1) Airbus A319
 - (a) V2522-A5, V2524-A5, V2527M-A5 Engine from Serial No. V15002 onwards (SelectOne Production Standard).
- (2) Airbus A320
 - (a) V2524-A5, V2527-A5, V2527E-A5 Engine from Serial No. V15002 onwards (SelectOne Production Standard).
- (3) Airbus A321
 - (a) V2530-A5, V2533-A5 Engine from Serial No. V15002 onwards (SelectOne Production Standard).

B. Concurrent Requirements

None.

C. Reason

(1) Condition

The V2500 SelectOne stage 5 Variable Stator Vane (VSV) to lever arm interface can be assembled incorrectly. This can result in the vanes being 90 degrees out of its correct position.

During the V2500 SelectOne development testing, one stage 5 Variable Stator Vane (VSV) to lever arm interface was assembled incorrectly, with the vane 90 degrees from its correct position. A redesign of the VSV and lever arms introduces a baulking feature to prevent misassembly.

(2) Background

A stage 5 VSV lever arm was assembled incorrectly on a V2500 development engine. This resulted in the release of a stage 6 rotor blade airfoil.

(3) Objective

Incorporation of this Service Bulletin is designed to prevent incorrect assembly of the stage 5 VSV lever arms by introducing a baulking feature.

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(4) Substantiation

The changes introduced by this Service Bulletin were the subject of satisfactory engineering analysis. This Service Bulletin complies with the applicable engine certification basis.

- (5) Effect of Bulletin on:
 - (a) Operation

Not affected.

(b) Maintenance

Not affected.

(c) Overhaul

Affected (Refer to paragraph 1.0. Other Publications Affected).

(d) Repair Schemes

Affected (VRS6033, VRS6034, VRS6035, VRS6036, VRS6075, VRS6076, VRS6077, VRS6078, VRS6181, VRS6182, VRS6183, VRS6184, VRS6190, VRS6192, VRS6194, VRS6196, VRS6259).

(e) Interchangeability

Not affected.

(f) Fits and Clearances

Not affected.

D. <u>Description</u>

The changes introduced by this Service Bulletin are as follows:

- (1) Revised Variable Inlet Guide Vanes (VIGV) and lever arms.
- (2) Revised stages 3, 4 and 5 VSV and lever arms.
- (3) A baulking feature to prevent incorrect assembly.

E. <u>Compliance</u>

(1) For Serial No. V15002 only:

Category Code 6



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

(2) For Serial No. V15003 onwards:

Category Code 8

For Information only.

F. Approval

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

The authorizing IAE document is EC 08VR001.

G. Manpower

(1) In Service

Not applicable.

(2) At Overhaul

Not applicable.

H. Material Price and Availability

Modification kit is not required; parts supplied as single line items.

For prices and availability of spares, refer to the supplement to this Service Bulletin.

I. Tooling Price and Availability

Special tools are not required.

J. <u>Industry Support Information</u>

Not applicable.

K. Weight and Balance

(1) Weight Change

Plus 0.2 lb (0,11 kg).

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(2) Moment Arm

No effect.

(3) Datum

Engine Front Mount Centreline (Power Plant Station (PPS) 100).

L. Electrical Load Data

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

M. <u>Software Accomplishment Summary</u>

Not applicable.

N. References

(1) Internal Reference No.

Engineering Change No. 08VR001.

(2) ATA Locator -72-41-32 and 72-41-34.

0. Other Publications Affected

- (1) Airbus A319/A320/A321 Aircraft Maintenance Manual, Chapter 75-32-42.
- (2) IAE V2500 Engine Manual (E-V2500-1IA), Chapters 72-00-40, 72-41-00, 72-41-30, 72-41-32 and 72-41-34.
- (3) IAE V2500 Engine Illustrated Parts Catalogue (S-V2500-2SA, S-V2500-2SB, S-V2500-5SA, S-V2500-5SB, S-V2500-6SA, S-V2500-6SB, S-V2500-7SA, S-V2500-7SB), Chapter/Section 72-41-32 and 72-41-34 will be amended to incorporate the new part numbers (Refer to 2. Material Information).

P. Interchangeability of Parts

Affected (Refer to paragraph 2.E. Instruction disposition codes).



2. <u>Material Information</u>

A. The kit required consists of the following parts:

None.

B. <u>Parts to be reworked:</u>

None.

C. New production parts:

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
72-41-32						
01-500	6B1269	38	.Vane, Assembly, Inlet, Variable Long	-	6B1170	(\$1)
01-600	6B1270	2	.Vane, Assembly, Inlet, Variable Short	-	6A8833	(\$1)
02-500	6B1271	27	.Vane, Assembly, Long Spindle, Stage 3	-	6B1171	(\$1)
02-550	6B1273	3	.Vane, Assembly, Intermediate, Stage 3	-	6A9021	(S1)
02-600	6B1272	2	.Vane, Short Spindle, Stage 3	-	6A8836	(\$1)
03-500	6B1274	45	.Vane, Assembly, Long Spindle, Stage 4	-	6A8837	(S1)(3D)
03-600	6B1275	5	.Vane, Assembly, Short Spindle, Stage 4	-	6A8838	(S1)(2D)
04-500	6B1277	36	.Vane, Short Spindle, Stage 5	-	6A8840	(\$1)
04-600	6B1276	28	.Vane, Long Spindle, Stage 5	-	6A8839	(S1)
72-41-34						
02-100	6B1278 or 6B1287	38	.Lever, Assembly, VIGV, Standard	-	6B1127 or 6B1146	(S1) (A)

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FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
02-140	6B1308 or 6B1309	2	.Lever, Assembly, VIGV, Ball Up	-	6B1128 or 6B1147	(S1) (A)
03–100	6B1279 or 6B1288	27	.Lever, Assembly, VSV3, Standard	-	6B1129 or 6B1148	(S1) (A)
03–120	6B1281 or 6B1290	3	.Lever, Assembly, VSV3, Cranked	-	6B1131 or 6B1150	(S1) (A)
03-140	6B1280 or 6B1289	2	.Lever, Assembly, VSV3, Ball Up	-	6B1130 or 6B1149	(S1) (A)
04-100	6B1282 or 6B1291	45	.Lever, Assembly, VSV4, Standard	-	6B1132 or 6B1151	(S1)(3D) (A)
04-102	AS48513	45	.Bolt, Bihex Head	-	AS48513	(S1)(3D)
04-120	6B1283 or 6B1292	3	.Lever, Assembly, VSV4, TDC	-	6B1133 or 6B1152	(S1) (A)
04-140	6B1284 or 6B1293	2	.Lever, Assembly, VSV4, Cranked Up	-	6B1134 or 6B1153	(S1)(1D) (A)
04-142	AS48513	2	.Bolt, Bihex Head	-	AS48513	(S1)(1D)
05–100	6B1286 or 6B1295	36	.Lever, Assembly, VSV5, Ball Up	-	6B1136 or 6B1155	(S1) (A)
05–140	6B1285 or 6B1294	28	.Lever, Assembly, VSV5, Ball Down	-	6B1135 or 6B1154	(S1) (A)

D. <u>Redundant parts:</u>

None.

E. <u>Instruction disposition codes:</u>

(1D) Quantity increased from 1 to 2.

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- (2D) Quantity increased from 4 to 5.
- (3D) Quantity decreased from 46 to 45.
- (S1) Old and new parts are not interchangeable. The parts must be installed as a complete set.
- (A) Alternative Parts.

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3. Accomplishment Instructions

- A. Rework Instructions
 - (1) None.
- B. Assembly Instructions
 - (1) For Serial No. V15002 only:

For the accomplishment instructions to incorporate the content of this Service Bulletin, contact IAE Technical Services.

(2) For Serial No. V15003 onwards:

This Service Bulletin is for information only.

All engines from Serial No. 15003 onwards have this Service Bulletin SB-V2500-72-0571 standard already incorporated at new production. Therefore no Operator action is required.

- C. Recording Instructions
 - (1) For Serial No. V15002 only:

A record of accomplishment is required.



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SUPPLEMENT - PRICES AND AVAILABILITY

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

1. Modification Kit:

Not applicable.

2. New Production Parts:

Part No.	Description	Unit Price US Dollars
6B1269	Vane, Assembly, Inlet, Variable Long	P.O.A.
6B1270	Vane, Assembly, Inlet, Variable Short	P.O.A.
6B1271	Vane, Assembly, Long Spindle, Stage 3	P.O.A.
6B1272	Vane, Short Spindle, Stage 3	P.O.A.
6B1273	Vane, Assembly, Intermediate, Stage 3	P.O.A.
6B1274	Vane, Assembly, Long Spindle, Stage 4	P.O.A.
6B1275	Vane, Assembly, Short Spindle, Stage 4	P.O.A.
6B1276	Vane, Long Spindle, Stage 5	P.O.A.
6B1277	Vane, Short Spindle, Stage 5	P.O.A.
6B1278	Lever, Assembly, VIGV, Standard	P.O.A.
6B1279	Lever, Assembly, VSV3, Standard	P.O.A.
6B1280	Lever, Assembly, VSV3, Ball Up	P.O.A.
6B1281	Lever, Assembly, VSV3, Cranked	P.O.A.
6B1282	Lever, Assembly, VSV4, Standard	P.O.A.
6B1283	Lever, Assembly, VSV4, TDC	P.O.A.

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Part No.	Description	Unit Price US Dollars
6B1284	Lever, Assembly, VSV4, Cranked Up	P.O.A.
6B1285	Lever, Assembly, VSV5, Ball Down	P.O.A.
6B1286	Lever, Assembly, VSV5, Ball Up	P.O.A.
6B1287	Lever, Assembly, VIGV, Standard	P.O.A.
6B1288	Lever, Assembly, VSV3, Standard	P.O.A.
6B1289	Lever, Assembly, VSV3, Ball Up	P.O.A.
6B1290	Lever, Assembly, VSV3, Cranked	P.O.A.
6B1291	Lever, Assembly, VSV4, Standard	P.O.A.
6B1292	Lever, Assembly, VSV4, TDC	P.O.A.
6B1293	Lever, Assembly, VSV4, Cranked Up	P.O.A.
6B1294	Lever, Assembly, VSV5, Ball Down	P.O.A.
6B1295	Lever, Assembly, VSV5, Ball Up	P.O.A.
6B1308	Lever, Assembly, VIGV, Ball Up	P.O.A.
6B1309	Lever, Assembly, VIGV, Ball Up	P.O.A.
AS48513	Bolt, Bihex Head	P.O.A.

3. <u>Tools</u>

None.