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V2500-A1/A5/D5 SERIES PROPULSION SYSTEM SERVICE BULLETIN

This document transmits the Initial Issue of IAE Service Bulletin V2500-ENG-75-0112 and the Initial Issue of Aero Engine Controls Service Bulletins VSVA 1685-75-8409 and VSVA 2607-75-8409.

Service Bulletin Initial Issue

Remove	Incorporate	Reason for change
	Pages 1 to 9 of the IAE Service Bulletin V2500-ENG-75-0112.	Initial Issue.
	Page 1 of the Supplement to IAE Service Bulletin V2500-ENG-75-0112.	Initial Issue.
	Aero Engine Controls Service Bulletins VSVA 1685-75-8409 and VSVA 2607-75-8409.	Initial Issue.

V2500-ENG-75-0112

Transmittal - Page 1 of 1

AIR – VARIABLE STATOR VANE (VSV) ACTUATOR – INTRODUCTION OF NEW VSV ACTUATOR MARK
NUMBER DUE TO MODIFIED SERVO VALVE PORT FILTERS AND REDESIGNED HOUSING SEAL FOR THE
CONSTANT PRESSURE VALVE

1. Planning Information

A. Effectivity

(1) Airbus A319

- (a) V2522-A5, V2524-A5, V2527M-A5 Engines prior to Serial No. V13167 (A5 Standard and A5 SelectOne™ Retrofit Standard).

V2522-A5, V2524-A5, V2527M-A5 Engines prior to Serial No. V15153, Engine Serial No. V15154 and Engines with Serial No. from V15156 to V15158 (A5 SelectOne™ Production Standard).

- (i) VSV Actuator, P/N 1685MK7 and P/N 2607MK2.

(2) Airbus A320

- (a) ALL V2500-A1 Engines

- (i) VSV Actuator, P/N 1685MK7.

- (b) V2524-A5, V2527-A5, V2527E-A5 Engines prior to Serial No. V13167 (A5 Standard and A5 SelectOne™ Retrofit Standard).

V2524-A5, V2527-A5, V2527E-A5 Engines prior to Serial No. V15153, Engine Serial No. V15154 and Engines with Serial No. from V15156 to V15158 (A5 SelectOne™ Production Standard).

- (i) VSV Actuator, P/N 1685MK7 and P/N 2607MK2.

(3) Airbus A321

- (a) V2530-A5 Engines prior to Serial No. V13167 (A5 Standard and A5 SelectOne™ Retrofit Standard).

V2530-A5 Engines prior to Serial No. V15153, Engine with Serial No. V15154 and Engines with Serial No. from V15156 to V15158 (A5 SelectOne™ Production Standard).

- (i) VSV Actuator, P/N 1685MK7 and P/N 2607MK2.

- (b) V2533-A5 Engines prior to Serial No. V13167 (A5 Standard and A5 SelectOne™ Retrofit Standard).

V2533-A5 Engines prior to Serial No. V15153, Engine Serial No. V15154 and Engines with Serial No. from V15156 to V15158 (A5 SelectOne™ Production Standard).

- (i) VSV Actuator, P/N 1685MK7 and P/N 2607MK2.

- (4) Boeing MD-90

- (a) ALL V2525-D5, V2528-D5 Engines.

- (i) VSV Actuator, P/N 1685MK7 and P/N 2607MK2.

B. Concurrent Requirements

This Service Bulletin must be done when both of the following Service Bulletins have allready been embodied:

V2500-ENG-75-0110 AIR – VARIABLE STATOR VANE ACTUATOR (VSVA) –
INTRODUCTION OF SEAL HOUSING WHICH INCLUDES A
CONSTANT PRESSURE VALVE (CPV) PISTON TRAVEL STOP

V2500-ENG-75-0111 AIR – VARIABLE STATOR VANE ACTUATOR (VSVA) – CHANGE
TO SERVO VALVE PORT FILTERS

C. Reason

- (1) Condition

To introduce a new mark number to identify a new Variable Stator Vane (VSV) Actuator part number, after a new Constant Pressure Valve (CPV) travel stop and new Servo Valve port filter have been incorporated.

- (2) Background

After incorporation of a new Constant Pressure Valve (CPV) travel stop and a new Servo Valve port filter the VSV Actuators have to be identified with a new mark number to the part number.

- (3) Objective

Introduction of this Service Bulletin is designed to improve the VSV Actuator identification.

- (4) Substantiation

The changes introduced by this Service Bulletin were the subject of satisfactory engineering analysis and testing. 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

Not affected.

(d) Repair Schemes

Not affected.

(e) Interchangeability

Affected (Refer to paragraph 1.B. Concurrent Requirement).

(f) Fits and Clearances

Not affected.

D. Description

(1) In January 2009 two Service Bulletins were introduced to address the issues of VSV Actuator mal-scheduling events and in-built contamination.

(a) The IAE Service Bulletin V2500-ENG-75-0110 introduces a new Constant Pressure Valve (CPV) travel stop and covers the Goodrich Engine Control Systems Service Bulletins as follows:

(i) VSVA 1685-75-8407.

(ii) VSVA 2607-75-8407.

(b) The IAE Service Bulletin V2500-ENG-75-0111 introduces a new Servo Valve port filter and covers the Goodrich Engine Control Systems Service Bulletins as follows:

(i) VSVA 1685-75-8406.

(ii) VSVA 2607-75-8406.

(2) This Service Bulletin introduces a new part number for the VSV Actuator, if both Service Bulletins V2500-ENG-75-0110 and V2500-ENG-75-0111 are incorporated and covers the Aero Engine Controls Service Bulletins as follows:

(a) VSVA 1685-75-8409.

(b) VSVA 2607-75-8409.

NOTE: The Company name has changed from Goodrich Engine Control Systems to Aero Engine Controls.

E. Compliance

Category Code 6

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

F. Approval

The part number changes and/or part modification described in Section 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 Models listed.

G. Manpower

(1) In Service

Not affected.

(2) At Overhaul

Not affected.

H. Material Price and Availability

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

I. Tooling – Price and Availability

Special tooling is not necessary.

J. Industry Support Information

Not applicable.

K. Weight and Balance**(1) Weight Change**

None.

(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. Software Accomplishment Summary

Not applicable.

N. References

- (1) Airbus A319/A320/A321 Aircraft Maintenance Manual, Chapter 75-32-41 Removal/Installation of VSV Actuator.
- (2) Boeing MD 90 Aircraft Maintenance Manual, Chapter 75-31-01 Removal/Installation of VSV Actuator.
- (3) IAE V2500-A1/A5/D5 Engine Manual (E-V2500-1IA, E-V2500-3IA), Chapter/Section 72-00-40, Removal/Installation of VSV Actuator.
- (4) Aero Engine Controls Service Bulletins 1685-75-8409 and 2607-75-8409 dated Mar 20/09.
- (5) Airbus Aircraft Modification No. 39890/P11399 and 39890/P11404.
- (6) Internal Reference No.:
Engineering Change No. 09VI001, 09VI001-01, 09VI001-02 and 09VI001A.
- (7) ATA Locator - 75-32-41.

O. Other Publications Affected

- (1) IAE V2500 Engine Illustrated Parts Catalogs (S-V2500-1IA, S-V2500-2IA, S-V2500-2IB, S-V2500-3IA, S-V2500-3IB, S-V2500-5IA, S-V2500-5IB, S-V2500-6IA, S-V2500-6IB, S-V2500-7IA, and S-V2500-7IB), Chapters/Sections 75-32-41 to add the new part number.



- (2) IAE V2500 SelectOne™ Engine Illustrated Parts Catalogs (S-V2500-2SA, S-V2500-2SB, S-V2500-5SA, S-V2500-5SB, S-V2500-6SA, S-V2500-6SB, S-V2500-7SA, and S-V2500-7SB), Chapters/Sections 75-32-41 to add the new part number.

P. Interchangeability of Parts

Not affected.

2. Material Information

A. The kit required consists of the following parts:

None.

B. Parts to be reworked:

Applicability: For all V2500-A1 Engines

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
75-32-41						
01-100	1685MK8	1	.Actuator - Variable Stator- Vane		1685MK7	(1D)(S1)

Applicability: For all V2500-A5/D5 Engines

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
75-32-41						
01-100	1685MK8	1	.Actuator - Variable Stator- Vane		1685MK7	(1D)(S1)
01-100	2607MK3	1	.Actuator - Variable Stator- Vane		2607MK2	(1D)(S1)

C. New production parts:

Applicability: For all V2500-A5/D5 Engines

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
75-32-41						
01-100	2607MK3	1	.Actuator - Variable Stator- Vane		2607MK2	(A)(S1)

D. Redundant parts:

None.

E. Instructions disposition codes:

(A) New part will be made available as future spare.

(1D) Rework old part number and re-identify to the new part number.

(S1) The old and new parts are fully interchangeable.

3. Accomplishment Instructions

A. Rework Instructions

Refer to the attached Aero Engine Controls Service Bulletins VSVA 1685-75-8409 and VSVA 2607-75-8409.

B. Assembly Instructions

- (1) For the correct Removal/Installation procedures of the VSV Actuator, refer to one of the manuals that follow:
 - (a) A319/320/321 Aircraft Maintenance Manual, Chapter/Section 75-32-41, Removal/Installation.
 - (b) MD90 Aircraft Maintenance Manual, Chapter/Section 75-33-41, Removal/Installation.
 - (c) IAE V2500-A1/A5/D5 Engine Manual, Chapter/Section 72-00-40, Removal/Installation.
- (2) For further information, refer to the attached Aero Engine Controls Service Bulletins VSVA 1685-75-8409 and VSVA 2607-75-8409.

C. Recording Instructions

- (1) A record of accomplishment is required.

AIR – VARIABLE STATOR VANE (VSV) ACTUATOR – INTRODUCTION OF NEW VSV ACTUATOR MARK
NUMBER DUE TO MODIFIED SERVO VALVE PORT FILTERS AND REDESIGNED HOUSING SEAL FOR THE
CONSTANT PRESSURE VALVE

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
2607MK3	.Actuator – Variable Stator Vane	108,733.00

3. Tools

None.



A Rolls-Royce plc and Goodrich Corporation joint venture

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SERVICE BULLETIN TRANSMITTAL

VARIABLE STATOR VANE ACTUATOR, TYPE: VSVA 1685

ATA REF 75-32-41

THIS PAGE TRANSMITS THE INITIAL ISSUE OF SERVICE BULLETIN VSVA 1685-75-8409

Please note the Company name has changed from Goodrich Engine Control Systems to Aero Engine Controls.

Reason for issue

To change the mark number of the unit from Mk7 to Mk8, after SB VSVA 1685-75-8406 and VSVA 1685-75-8407 have been included.

Action

Keep this SB with the Component Maintenance Manual. Put in this SB Transmittal page and the SB pages 1 thru 4 dated Mar 20/09.

APPROVED FOR AERO ENGINE CONTROLS

Signed:

Date: Mar 20/09

Mar 20/09
301300

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VSVA 1685-75-8409 TRANSMITTAL
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Aero Engine Controls
SERVICE BULLETIN

ENGINE - FUEL AND CONTROL - VARIABLE STATOR VANE ACTUATOR, TYPE VSVA 1685

CHANGE VSVA 1685 MK7 TO VSVA 1685 MK8

1. Planning Information

A. Effectivity

VSVA 1685 Mk7 units.

B. Concurrent Requirements

Service Bulletin VSVA 1685-75-8406.

Service Bulletin VSVA 1685-75-8407.

C. Reason

(1) Problem

Modification CP 8406 introduces new servo flow port filters (Ref Service Bulletin VSVA 1685-75-8406) and modification CP8407 introduces a piston travel stop (Ref Service Bulletin VSVA 1685-75-8407). Airbus Industries have requested that when both modifications CP8406 and CP8407 have been included in a VSVA 1685 unit, this must be clearly identified by a change to the unit part number.

(2) Solution

A new modification, CP8409, gives the instructions to increase the mark number of a VSVA 1685 unit from Mk7 to Mk8, after both modifications CP8406 and CP8407 have been included in the unit.

D. Description

This Service Bulletin gives details of the instructions to change the unit mark number of a VSVA 1685 unit that has had both Service Bulletin VSVA 1685-75-8406 and Service Bulletin VSVA 1685-75-8407 included, at an approved maintenance facility.

E. Compliance

Category Code 6

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

F. Approval

Service Bulletin No VSVA 1685-75-8409 was technically approved by IAE on Mar 19/09. The procedures described in this bulletin have been shown to comply with the appropriate Federal Aviation Regulations and are FAA approved for those unit types listed in this bulletin.

Mar 20/09

VSVA 1685-75-8409

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SERVICE BULLETIN

G. Manpower

(1) In Repair:

30 minutes.

H. Weight and Balance

None.

I. Electrical Load Data

Not Changed.

J. Software Accomplishment Summary

Not applicable.

K. References

Goodrich VSVA 1685 Component Maintenance Manual - Chapter 75-32-41.

Service Bulletin VSVA 1685-75-8406.

Service Bulletin VSVA 1685-75-8407.

L. Other Publications Affected

Goodrich VSVA 1685 Component Maintenance Manual - Chapter 75-32-41.

M. Interchangeability or Intermixability of Parts

Not affected.

2. Material Information

A. Material - Price and Availability

NOTE: If necessary, use the equivalent alternatives for the items given in the table below:

P/N	Description	Availability	List Price
215-4030	Plate, identification	On quotation	On quotation
215-410	Strap, label retaining	On quotation	On quotation

B. Industry Support Information

The cost of the parts, tools and manpower necessary to accomplish this service bulletin will be accepted by the customer.

Mar 20/09

VSVA 1685-75-8409

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Aero Engine Controls

SERVICE BULLETIN

C. Material Necessary for Each Component

NOTE: If necessary, use the equivalent alternatives for the items given in the table below:

New P/N	Description	Old P/N	Qty	Instruction
N/A	Plate, identification	215-4030	1	Replace
215-4030	Plate, identification	215-4012	1	Replace
215-4030	Plate, identification	215-408	1	Replace
N/A	Strap, label retaining	215-410	1	Replace

D. Reidentified Parts

Not applicable.

E. Tooling - Price and Availability

Not applicable.

3. Accomplishment Instructions

A. General

- (1) If a VSVA 1685 unit is received at an approved maintenance facility with both of the Service Bulletins that follow included, continue from Para 3.B.:
 - Service Bulletin VSVA 1685-75-8406.
 - Service Bulletin VSVA 1685-75-8407.
- (2) If a VSVA 1685 unit is received at an approved maintenance facility with none, or just one, of the Service Bulletins specified in Para 3.A.(1) included, do the Service Bulletins that are not included, before you continue from Para 3.B.

NOTE: If a Service Bulletin from Para 3.A.(1) is done concurrently with this Service Bulletin, do NOT complete the Recording Action in Para 3.C. of Service Bulletin VSVA 1685-75-8406, or Para 3.B. of Service Bulletin VSVA 1685-75-8407.

B. Procedure (Ref. CMM 75-32-41)

- (1) Remove the identification plate (P/N 215-408, 215-4012 or 215-4030), but keep it, Ref. DISASSEMBLY section.
- (2) Discard the label retaining strap (P/N 215-410).

Aero Engine Controls
SERVICE BULLETIN

- (3) Use an applicable process to put the unit information shown on the identification plate kept at step (1), on a new identification plate (P/N 215-4030), with the changes that follow:
 - (a) Show the unit type number as 1685 Mk8.
 - (b) Do not show modification numbers CP8406 or CP8407.
- (4) Discard the identification plate kept at step (1).
- (5) Install the new identification plate (215-4030), Ref ASSEMBLY section.

C. Recording Action

- (1) When the accomplishment instructions have been completed successfully, record Service Bulletin number VSVA 1685-73-8409 on the applicable unit documentation.



A Rolls-Royce plc and Goodrich Corporation joint venture

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SERVICE BULLETIN TRANSMITTAL

VARIABLE STATOR VANE ACTUATOR, TYPE: VSVA 2607

ATA REF 75-32-61

THIS PAGE TRANSMITS THE INITIAL ISSUE OF SERVICE BULLETIN VSVA 2607-75-8409

Please note the Company name has changed from Goodrich Engine Control Systems to Aero Engine Controls.

Reason for issue

To change the mark number of the unit from Mk2 to Mk3, after SB VSVA 2607-75-8406 and VSVA 2607-75-8407 have been included.

Action

Keep this SB with the Component Maintenance Manual. Put in this SB Transmittal page and the SB pages 1 thru 4 dated Mar 20/09.

APPROVED FOR AERO ENGINE CONTROLS

Signed:

Date: Mar 20/09

Mar 20/09
301301

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VSVA 2607-75-8409 TRANSMITTAL
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Aero Engine Controls
SERVICE BULLETIN

ENGINE - FUEL AND CONTROL - VARIABLE STATOR VANE ACTUATOR, TYPE VSVA 2607

CHANGE VSVA 2607 MK2 TO VSVA 2607 MK3

1. Planning Information

A. Effectivity

VSVA 2607 Mk2 units.

B. Concurrent Requirements

Service Bulletin VSVA 2607-75-8406.

Service Bulletin VSVA 2607-75-8407.

C. Reason

(1) Problem

Modification CP 8406 introduces new servo flow port filters (Ref Service Bulletin VSVA 2607-75-8406) and modification CP8407 introduces a piston travel stop (Ref Service Bulletin VSVA 2607-75-8407). Airbus Industries have requested that when both modifications CP8406 and CP8407 have been included in a VSVA 2607 unit, this must be clearly identified by a change to the unit part number.

(2) Solution

A new modification, CP8409, gives the instructions to increase the mark number of a VSVA 2607 unit from Mk2 to Mk3, after both modifications CP8406 and CP8407 have been included in the unit.

D. Description

This Service Bulletin gives details of the instructions to change the unit mark number of a VSVA 2607 unit that has had both Service Bulletin VSVA 2607-75-8406 and Service Bulletin VSVA 2607-75-8407 included, at an approved maintenance facility.

E. Compliance

Category Code 6

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

F. Approval

Service Bulletin No VSVA 2607-75-8409 was technically approved by IAE on Mar 19/09. The procedures described in this bulletin have been shown to comply with the appropriate Federal Aviation Regulations and are FAA approved for those unit types listed in this bulletin.

Mar 20/09

VSVA 2607-75-8409

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SERVICE BULLETIN

G. Manpower

(1) In Repair:

30 minutes.

H. Weight and Balance

None.

I. Electrical Load Data

Not Changed.

J. Software Accomplishment Summary

Not applicable.

K. References

Goodrich VSVA 2607 Component Maintenance Manual - Chapter 75-32-61.

Service Bulletin VSVA 2607-75-8406.

Service Bulletin VSVA 2607-75-8407.

L. Other Publications Affected

Goodrich VSVA 2607 Component Maintenance Manual - Chapter 75-32-61.

M. Interchangeability or Intermixability of Parts

Not affected.

2. Material Information

A. Material - Price and Availability

NOTE: If necessary, use the equivalent alternatives for the items given in the table below:

P/N	Description	Availability	List Price
215-4030	Plate, identification	On quotation	On quotation
215-410	Strap, label retaining	On quotation	On quotation

B. Industry Support Information

The cost of the parts, tools and manpower necessary to accomplish this service bulletin will be accepted by the customer.

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C. Material Necessary for Each Component

NOTE: If necessary, use the equivalent alternatives for the items given in the table below:

New P/N	Description	Old P/N	Qty	Instruction
N/A	Plate, identification	215-4030	1	Replace
215-4030	Plate, identification	215-4012	1	Replace
N/A	Strap, label retaining	215-410	1	Replace

D. Reidentified Parts

Not applicable.

E. Tooling - Price and Availability

Not applicable.

3. Accomplishment Instructions

A. General

- (1) If a VSVA 2607 unit is received at an approved maintenance facility with both of the Service Bulletins that follow included, continue from Para 3.B.:
 - Service Bulletin VSVA 2607-75-8406.
 - Service Bulletin VSVA 2607-75-8407.
- (2) If a VSVA 2607 unit is received at an approved maintenance facility with none, or just one, of the Service Bulletins specified in Para 3.A.(1) included, do the Service Bulletins that are not included, before you continue from Para 3.B.

NOTE: If a Service Bulletin from Para 3.A.(1) is done concurrently with this Service Bulletin, do NOT complete the Recording Action in Para 3.C. of Service Bulletin VSVA 2607-75-8406, or Para 3.B. of Service Bulletin VSVA 2607-75-8407.

B. Procedure (Ref. CMM 75-32-61)

- (1) Remove the identification plate (P/N 215-4012 or 215-4030), but keep it, Ref. DISASSEMBLY section.
- (2) Discard the label retaining strap (P/N 215-410).
- (3) Use an applicable process to put the unit information shown on the identification plate kept at step (1), on a new identification plate (P/N 215-4030), with the changes that follow:
 - (a) Show the unit type number as 2607 Mk3.
 - (b) Do not show modification numbers CP8406 or CP8407.
- (4) Discard the identification plate kept at step (1).

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SERVICE BULLETIN

(5) Install the new identification plate (215-4030), Ref ASSEMBLY section.

C. Recording Action

(1) When the accomplishment instructions have been completed successfully, record Service Bulletin number VSVA 2607-73-8409 on the applicable unit documentation.