SERVICE BULLETIN REVISION NOTICE

AIR — BLEED VALVES, 7TH STAGE HIGH PRESSURE COMPRESSOR (HPC) — REPLACE THE BLEED VALVES TO IMPROVE RELIABILITY

Turbojet Engine Service Bulletin No. V2500-ENG-75-0123 Revision No. 1 dated November 6, 2018.

Revision History

Original Issue March 24, 2015

Revision 1 dated November 6, 2018

Reason for the Revision

To add the V2500-D5 engine model to the Effectivity Data, Material Information and Accomplishment Instructions.

To add References 11-15 to the References Section.

To add Concurrent Requirements for the V2500-D5 engine model.

To add Weight and Balance information for the V2500-D5 engine model.

To modify the Interchangeability statement from “directly interchangeable” to “freely and fully interchangeable”.

To add Figure 3 for location of the V2500-D5 engine model bleed valves.

To modify Chart A to show V2500-D5 engine model bleed valve progress.

Effect of Revision on Prior Compliance

None.

This is a Complete Revision (Not Applicable to the SGML version)

The format of this Service Bulletin has been changed from previous versions. This revision shows flow bars and the revision date on the bottom of every page. Technical changes incorporated in this revision are marked with revision bars. The contents are in accordance with the list of effective pages.

MODEL APPLICATION

V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5, V2525-D5, V2528-D5

BULLETIN ISSUE SEQUENCE

V2500 Series 75-0123

Page	Revision No.	Date
1 thru 15	1	November 6/18

A copy of this Revision Notice and any future revision notices must be filed as a permanent record with your copy of the subject bulletin.

SERVICE BULLETIN

AIR — BLEED VALVES, 7TH STAGE HIGH PRESSURE COMPRESSOR (HPC) — REPLACE THE BLEED VALVES TO IMPROVE RELIABILITY

MODEL APPLICATION

V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5, V2525-D5, V2528-D5

BULLETIN ISSUE SEQUENCE

V2500 Series 75-0123

ATA NUMBER

75-32-52

Export Classification: Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

Compliance Category

6

P&W Distribution Code

V2500

Summary

The purpose of this Service Bulletin is to replace or modify the three 7th stage High Pressure Compressor (HPC) bleed valves. Insufficiently closed 7th stage HPC bleed valves result in higher Exhaust Gas Temperature (EGT) and deteriorated Specific Fuel Consumption (SFC). Introduction of new bleed valve improves the reliability and hence maintain compressor operability characteristics as specified in the design intent.

Planning Information

Effectivity Data

Engine Models Applicable

V2500-A1
Engine Serial Nos. V0001 thru V0362

V2522-A5, V2524-A5, V2527M-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5
Engine Serial Nos. V10001 thru V13191

V2522-A5, V2524-A5, V2527M-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5
Engine Serial Nos. V15002 thru V17816*

V2525-D5, V2528-D5
Engine Serial Nos. V20001 thru V20285

* This estimate of engine serial numbers will be revised, if necessary, when parts are installed in engines at Pratt & Whitney.

Concurrent Requirements

For V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5 Engines:

For Bleed Valve position 7C (lower left hand), this Service Bulletin must be done at the same time or after Reference 7, Service Bulletin No. V2500-ENG-75-0071.

For V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5 Engines:

This Service Bulletin must be done at the same time or after Reference 8, Service Bulletin No. V2500-ENG-73-0197. (SCN19 or later software).

For V2525-D5, V2528-D5 Engines:

For Bleed Valve position 7A (upper left hand), this Service Bulletin must be done at the same time or after Reference 13, Service Bulletin No. V2500-ENG-75-0073.

For Bleed Valve position 7C (lower left hand), this Service Bulletin must be done at the same time or after Reference 14, Service Bulletin No. V2500-ENG-70-0979.

Reason

1. Condition: Insufficiently closed 7th stage High Pressure Compressor (HPC) bleed valves result in higher Exhaust Gas Temperature (EGT) and deteriorated Specific Fuel Consumption (SFC).
2. Background: The 7th Stage HPC Bleed Valve, PN EB101729B stem carbon bushing is impregnated with aluminum and zinc phosphate to improve oxidation characteristics at high temperatures. Exposure to water may result in leaching of the zinc phosphate out of the carbon bushing onto the surface of the valve stem. Buildup of zinc

phosphate deposits on the valve stem over time may be sufficient to cause the valve to seize in the fully or partially open position.

3. Objective: Introduction of this new 7th Stage HPC Bleed Valve, PN EB101729C is designed to improve the reliability and hence maintain compressor operability characteristics as specified in the design intent.

4. Substantiation: The changes introduced by this Service Bulletin were the subject of satisfactory testing detailed in IAE-0302. This Service Bulletin complies with the applicable engine certification basis.

5. Effects of Bulletin on:

   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.

Description

Replace the three 7th stage HPC bleed valves.

Compliance

Category 6

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

Approval Data

The part number changes and/or part modifications specified in the Accomplishment Instructions and Material Information sections of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine model(s) given.

Manpower

1. In Service

   ..... Not Applicable.

2. At Overhaul

   ..... Not Applicable.

Weight and Balance

1. Weight Change

   For V2500-D5 Engines:

   A. Per Single Valve:

+ 0.69 lb (+ 0.31 kg)

B. Per Engine Set:

+ 2.07 lb (+ 0.94 kg)

For V2500-A1, V2522-A5, V2524-A5, V2527M-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5 Engines:

None.

2. Moment Arm

No Effect.

3. Datum

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

Electrical Load Data

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

Software Accomplishment Summary

Not Applicable.

References

NOTE: In 2014 IAE converted the V2500 Technical Publications to a new system. As a result of the conversion, some manuals were consolidated. All manuals received new P&W part numbers. To facilitate the use of this Service Bulletin, a Technical Publications conversion table is provided in the Appendix.

1. ATA Locator — 75-32-52.
2. V2500-A1 Series Illustrated Parts Catalog, P&W Ref. PN 2A4427, Chapter/Section 75-32-52.
3. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 75-32-52.
4. V2500 A1/A5 Component Maintenance Manual, P&W Ref. PN 2A4412, Chapter/Section 75-32-52.
5. V2500 Service Bulletin V2500-ENG-75-0053 (Air — HP Compressor Stage-7 Bleed Valves — Introduction Of Chevron Seals).
6. V2500 Service Bulletin V2500-ENG-75-0105 (Air — HP Compressor Stage 7 Bleed Valves — Introduction Of An Alternative Bleed Valve With New Design).
7. V2500 Service Bulletin V2500-ENG-75-0071 Air — HP Compressor Stage 7 Bleed Valves — Introduction Of Revised Bleed Valve Silencer With Integral Seal Land
8. V2500 Service Bulletin V2500-ENG-73-0197 Engine — Fuel And Control — To Provide A New Electronic Engine Control (EEC) With A5 SCN19/X Software
9. Meggitt Fluid Controls Service Bulletin EB101729-75-01 (Air — HPC Stage 7 Bleed — Introduction of Valve with Improved Carbon Bushing)
10. A319/320/321 Aircraft Maintenance Manual, Chapter/Section 75-32-52 Removal and Installation bleed valve.

11. V2500-D5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4426, Chapter/Section 75-32-52.
12. V2500 D5 Component Maintenance Manual, P&W Ref. PN 2A4423, Chapter/Section 75-32-52.
13. V2500 Service Bulletin V2500-ENG-75-0073 Air — HP Compressor Stage 7 Bleed Valves — Introduction Of Revised Bleed Valve Silencer With Integral Seal Land.
14. V2500 Service Bulletin V2500-ENG-70-0979 Information — Engine — Introduction Of A New HP Compressor 7C Bleed Valve Noise Attenuator.
15. MD-90 Aircraft Maintenance Manual, Chapter/Section 75-33-52 Removal and Installation Bleed Valve.

Other Publications Affected

NOTE: In 2014 IAE converted the V2500 Technical Publications to a new system. As a result of the conversion, some manuals were consolidated. All manuals received new P&W part numbers. To facilitate the use of this Service Bulletin, a Technical Publications conversion table is provided in the Appendix.

1. V2500-A1 Series Illustrated Parts Catalog, P&W Ref. PN 2A4427, Chapter/Section 75-32-52.
2. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 75-32-52.
3. V2500 A1/A5 Component Maintenance Manual, P&W Ref. PN 2A4412, Chapter/Section 75-32-52.
4. V2500 D5 Component Maintenance Manual, P&W Ref. PN 2A4423, Chapter/Section 75-32-52.

Interchangeability of Parts

Old and new parts are freely and fully interchangeable.

Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts (Yes)

Added Data (Yes)

Revision to Table of Limits (No)

Inspection Procedures (No)

Material Information

Material — Price and Availability

1. Part prices were not available at the time of Service Bulletin publication. Contact IAE Spares Management & Logistics for firm quotations.
2. There is no kit provided to do this Service Bulletin.
3. Part availability information is provided in material data Instructions — Disposition.

Industry Support Program

Not Applicable.

The material data that follows is for each engine.

For V2500-A1 Engines:

New PN	Qty	Estimate of Unit Price ($)	Keyword	Old PN	Instructions — Disposition
EB101729C	3	*	VALVE — BLEED STG.7	EB101729B (75-32-52-01-100)	(1)(B)(N)(P)(V)

The material data that follows is for each engine.

For V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5 Engines:

New PN	Qty	Estimate of Unit Price ($)	Keyword	Old PN	Instructions — Disposition
EB101729C	3	*	VALVE — BLEED STG.7	EB101729B (75-32-52-01-100)	(1)(B)(N)(P)(V)

The material data that follows is for each engine.

For V2525-D5, V2528-D5 Engines:

New PN	Qty	Estimate of Unit Price ($)	Keyword	Old PN	Instructions — Disposition
EB101729C	3	*	VALVE — BLEED STG.7	AC69924 (75-32-52-01-100)	(2)(A)(C)(V)

Instructions/Disposition Code Statements:

Parts Modification Conditions

Estimated part prices are provided when they are available at time of publication. The Estimate of Unit Price is only for planning purposes and does not constitute a firm quotation. An asterisk (*) is shown where part pricing information was unavailable. In either case, contact IAE Spares for firm quotations.

(1) The new part can be obtained by modification of the old part as specified in the Accomplishment Instructions.

(2) The new part is a replacement part only, and cannot be obtained by modification of the old part.

Spare Parts Availability

(A) The new part is available.

(B) The new part will be available approximately April 1, 2015

(C) The old part will continue to be supplied.

(N) The old part is not available.

(P) Procure the part directly from the Supplier referenced in Vendor Services or Special Components.

(V) This is the Meggitt Fluid Controls part number.

Vendor Services or Special Components/Materials

Vendor Services or Special Components/Materials

Vendor Designation	Name	Vendor Name & Address
EB101729-75-01	Service Bulletin	MEGGITT Control Systems Coventry — Repair and Overhaul Holbrook Lane Coventry CV6 4QY England Tel: + 44 (0) 24 76294270 Fax: + 44 (0) 24 76683236 Vendor Manufacturer's Code: U8976 OR MEGGITT (North Hollywood) Inc. — Repair and Overhaul 12838 Saticoy St. North Hollywood, CA 91605 USA Tel: + 1 (818) 765 8160 Fax: + 1 (818) 759 2190 Vendor Manufacturer's Code: 79318 OR Meggitt Aerospace Asia Pacific (MAAP) 1A Seletar Aerospace Link Seletar Aerospace Park Singapore 797552 Tel: + 65 65117200 Fax: + 65 65427069
EB101729C	VALVE — BLEED STG.7	

Tooling — Price and Availability

Special tools are not required to accomplish this Service Bulletin.

Reidentified Parts

Not Applicable.

Other Material Information Data

Not Applicable.

Accomplishment Instructions

NOTE: Service bulletin incorporation on engines installed on aircraft may be desirable and should be individually evaluated.

For V2500-A1 And V2522-A5, V2524-A5, V2527M-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5 Engines Installed On Aircraft

1. Replace the three 7th Stage HPC Bleed Valves, PN EB101729B with PN EB101729C. See Figure 1 or Figure 2 for the location of the parts.
   A. Remove old upper right 7A Bleed Valve, PN EB101729B, as specified in Reference 10, Aircraft Maintenance Manual, Task 75-32-52-000-010-A.
   B. Install new upper right 7A Bleed Valve, PN EB101729C, as specified in Reference 10, Aircraft Maintenance Manual, Task 75-32-52-400-010-A.
   C. Remove old lower right 7B Bleed Valve, PN EB101729B, as specified in Reference 10, Aircraft Maintenance Manual, Task 75-32-52-000-011-A.
   D. Install new lower right 7B Bleed Valve, PN EB101729C, as specified in Reference 10, Aircraft Maintenance Manual, Task 75-32-52-400-011-A.
   E. Remove old lower left 7C Bleed Valve, PN EB101729B, as specified in Reference 10, Aircraft Maintenance Manual, Task 75-32-52-000-012-A.
   F. Install new lower left 7C Bleed Valve, PN EB101729C, as specified in Reference 10, Aircraft Maintenance Manual, Task 75-32-52-400-012-A.
2. Modify the old valve as specified in Reference 9, Meggitt Service Bulletin EB101729-75-01 or send the valve to Meggitt for modification.
3. Recording Instructions
   A. A record of accomplishment is required.

For V2500-A1 and V2522-A5, V2524-A5, V2527M-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5 Engines Not Installed On Aircraft

1. Replace the three 7th Stage HPC Bleed Valves, PN EB101729B with PN EB101729C. See Figure 1 or Figure 2 for the location of the parts.
2. Modify the old valve as specified in Reference 9, Meggitt Service Bulletin EB101729-75-01 or send the valve to Meggitt for modification.
3. Recording Instructions
   A. A record of accomplishment is required.

For V2525-D5, V2528-D5 Engines Installed On Aircraft

1. Replace the three 7th Stage HPC Bleed Valves, PN AC69924 with PN EB101729C. See Figure 3 for the location of the parts.
   A. Remove old upper left 7A Bleed Valve, PN AC69924, as specified in Reference 15, Aircraft Maintenance Manual, Task 75-33-52-020-801.
   B. Install new upper left 7A Bleed Valve, PN EB101729C, as specified in Reference 15, Aircraft Maintenance Manual, Task 75-33-52-420-801.
   C. Remove old lower right 7B Bleed Valve, PN AC69924, as specified in Reference 15, Aircraft Maintenance Manual, Task 75-33-52-020-802.

D. Install new lower right 7B Bleed Valve, PN EB101729C, as specified in Reference 15, Aircraft Maintenance Manual, Task 75-33-52-420-802.

E. Remove old lower left 7C Bleed Valve, PN AC69924, as specified in Reference 15, Aircraft Maintenance Manual, Task 75-33-52-020-803.

F. Install new lower left 7C Bleed Valve, PN EB101729C, as specified in Reference 15, Aircraft Maintenance Manual, Task 75-33-52-420-803.

2. Recording Instructions

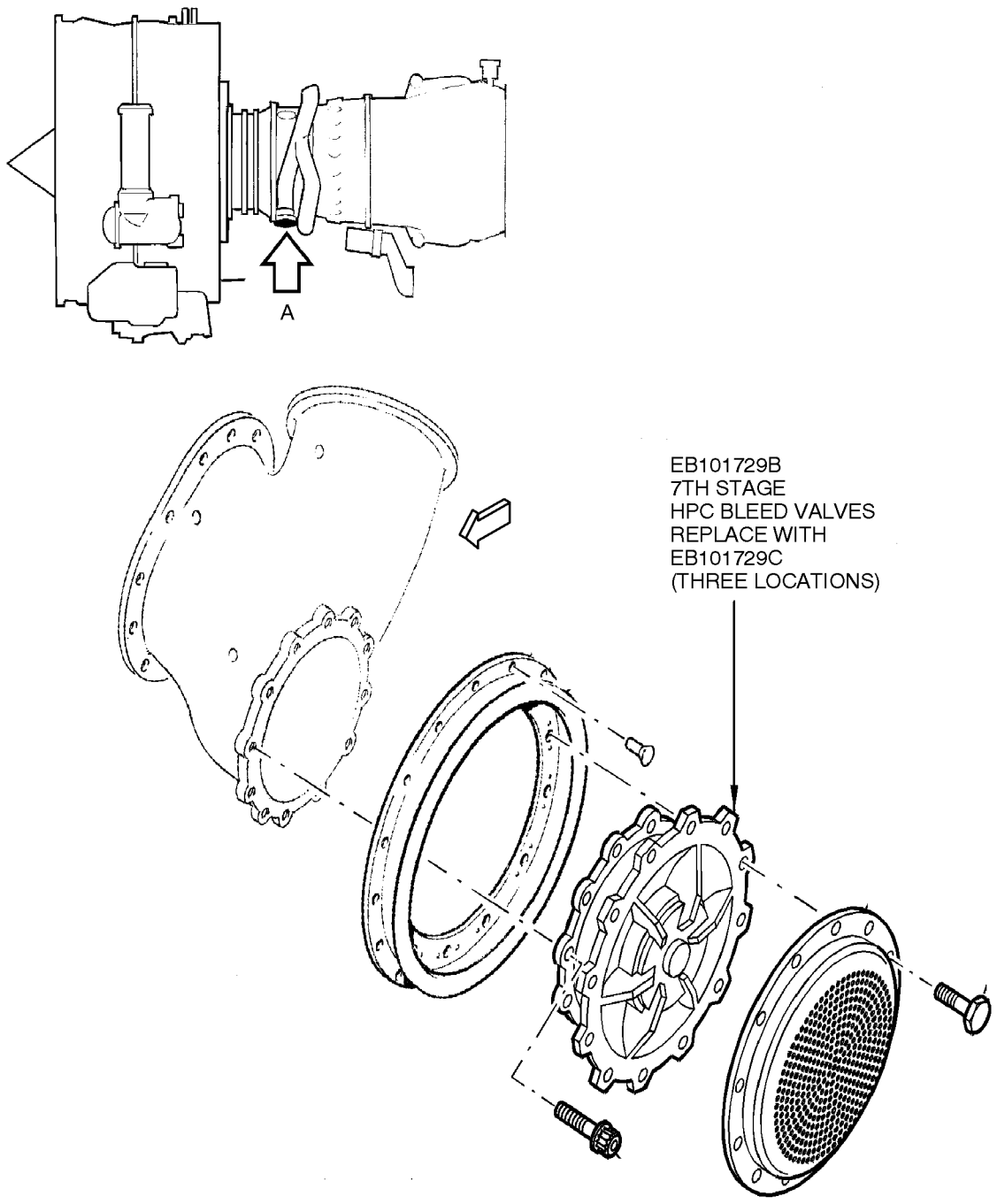
A. A record of accomplishment is required.

For V2525-D5, V2528-D5 Engines Not Installed On Aircraft

1. Replace the three 7th Stage HPC Bleed Valves, PN AC69924 with PN EB101729C. See Figure 3 for the location of the parts.

2. Recording Instructions

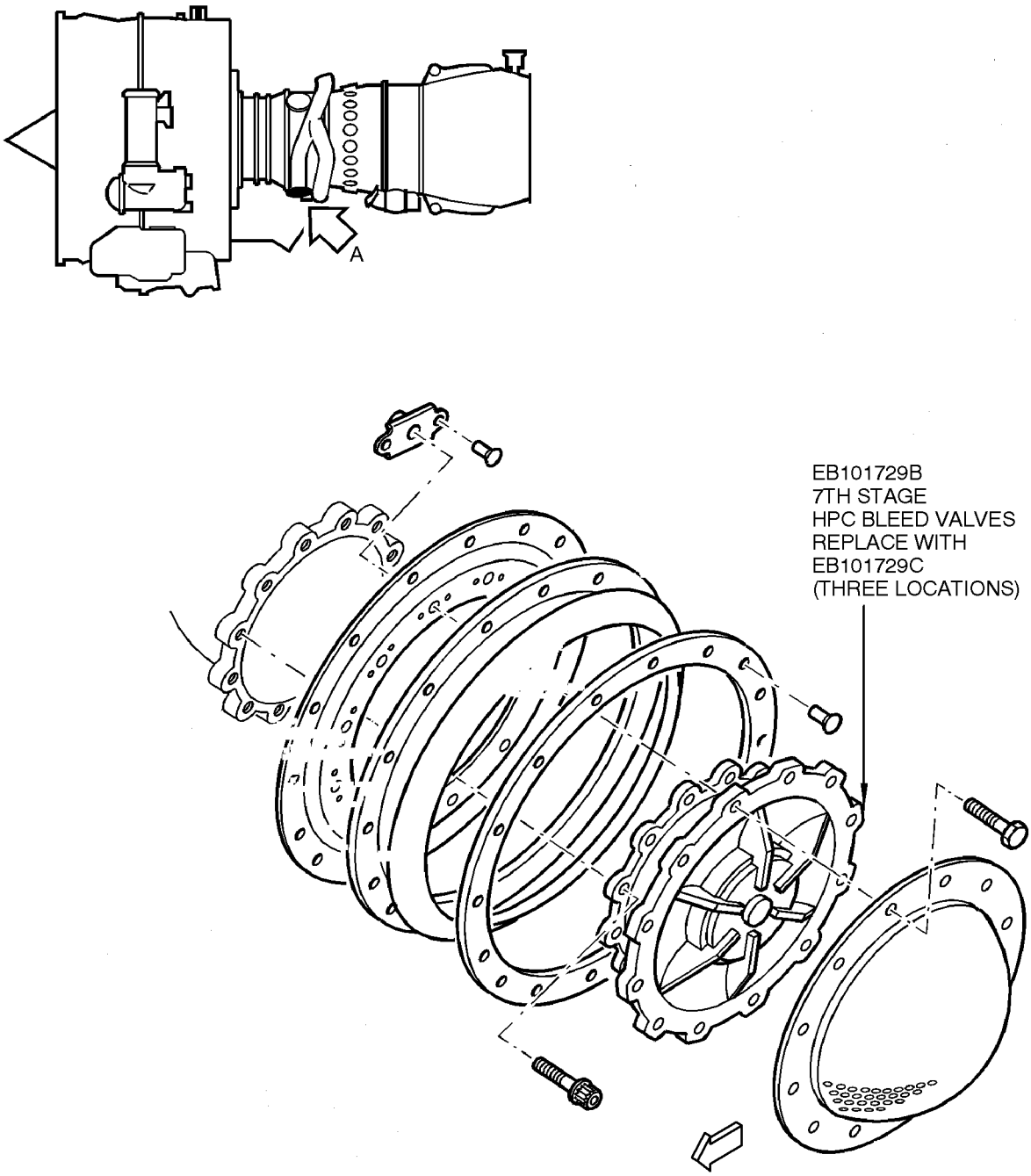
A. A record of accomplishment is required.



VIEW A

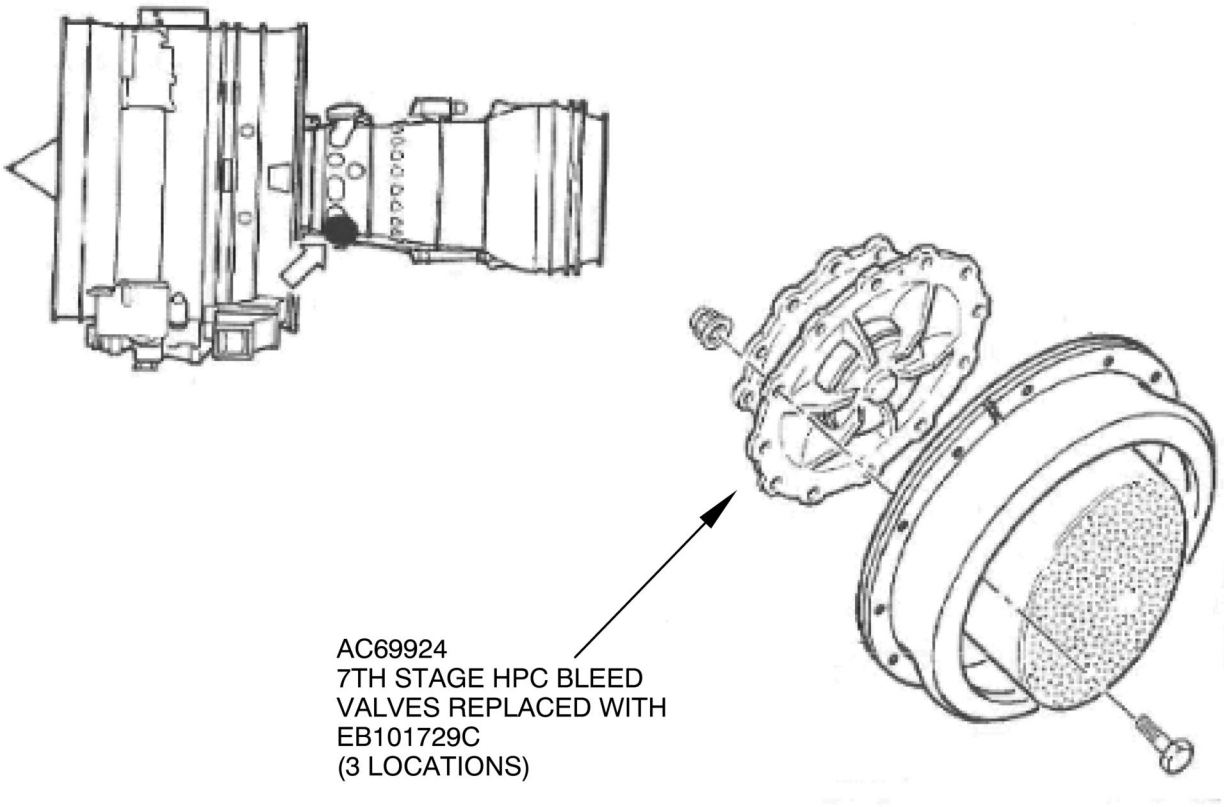
B525566

LOCATION OF THE V2500-A1 ENGINE MODELS 7TH STAGE HPC BLEED VALVES
75-32-52
FIGURE 1



B525568

LOCATION OF THE V2500-A5 ENGINE MODELS 7TH STAGE HPC BLEED VALVES
75-32-52
FIGURE 2

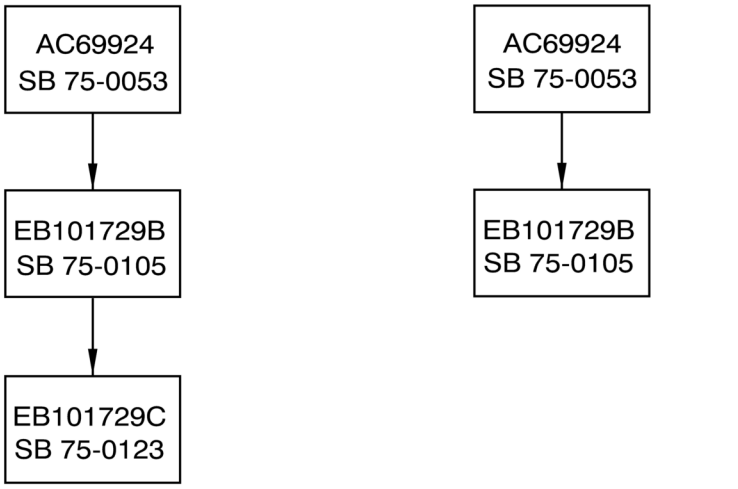


B527652

LOCATION OF THE V2500-D5 ENGINE MODELS 7TH STAGE HPC BLEED VALVES
75-32-52
FIGURE 3

Appendix

Parts Progression To Show the Changed Part in Relation to Other Parts



FOR V2500-A1 AND A5 ENGINES

FOR V2500-D5 ENGINES

B525567A

7TH STAGE HPC BLEED VALVES
CHART A

Added Data

Internal Reference Information

Revision No.	Reference Document	Origination
Original	EC 13VI007	KB/IEL
1	EC 18VI002	LA/RCM

NOTE: In 2014 IAE converted the V2500 Technical Publications to a new system. As a result of the conversion, some manuals were consolidated. All manuals received new P&W part numbers. To facilitate the use of this Service Bulletin, the following Technical Publications cross reference table is provided.

Technical Publications Cross Reference Table

Publication	Engine Model(s)	IAE IETM Pub Ref	P&W Part Number
ENGINE MANUAL — A1, A5	All	E-V2500-1IA	2A4407
CMM-EHC — A1, A5	All	EHC-V2500-1IA	2A4409
CMM-FN — A1, A5	All	FN-V2500-1IA	2A4410
CMM-MMC — A1, A5	All	MECH-V2500-1IA	2A4411
CMM-THD — A1, A5	All	THD-V2500-1IA	2A4412
TLM — A1, A5	All	T-V2500-1IA	2A4408
ENGINE MANUAL — D5	All	E-V2500-3IA	2A4416
CMM-EHC — D5	All	EHC-V2500-31A	2A4418
CMM-FN — D5	All	FN-V2500-3IA	2A4419
CMM-MMC — D5	All	MECH-V2500-3IA	2A4420
CMM-THD — D5	All	THD-V2500-3IA	2A4423
TLM — D5	All	T-V2500-3IA	2A4417
SPPM (SPM) — A1, A5, D5	All	SPP-V2500-1IA	2A4414
EIPC — A1	V2500-A1102Q00	S-V2500-1IA	2A4427

Publication	Engine Model(s)	IAE IETM Pub Ref	P&W Part Number
EIPC — A5	V2522/V2524/V2527M-AQ02	S-V2500-6IA	2A4428
	V2522/V2524/V2527M-AQ03	S-V2500-6IB	
	V2522/V2524/V2527M-SQ02	S-V2500-6SA	
	V2522/V2524/V2527M-SQ03	S-V2500-6SB	
	V2522/V2524/V2527M-SQ04	S-V2500-6NA	
	V2522/V2524/V2527M-SQ05	S-V2500-6NB	
	V2527/V2527E-AQ02	S-V2500-7IA	
	V2527/V2527E-AQ03	S-V2500-7IB	
	V2527/V2527E-SQ02	S-V2500-7SA	
	V2527/V2527E-SQ03	S-V2500-7SB	
	V2527/V2527E-SQ04	S-V2500-7NA	
	V2527/V2527E-SQ05	S-V2500-7NB	
	V2530-AQ02	S-V2500-2IA	
	V2530-AQ03	S-V2500-2IB	
	V2530-SQ02	S-V2500-2SA	
	V2530-SQ03	S-V2500-2SB	
	V2530-SQ04	S-V2500-2NA	
	V2530-SQ05	S-V2500-2NB	
	V2533-AQ02	S-V2500-5IA	
	V2533-AQ03	S-V2500-5IB	
	V2533-SQ02	S-V2500-5SA	
	V2533-SQ03	S-V2500-5SB	
	V2533-SQ04	S-V2500-5NA	
	V2533-SQ05	S-V2500-5NB	
EIPC — D5	V2525/V2528-AQ02	S-V2500-3IA	2A4426
	V2525/V2528-AQ03	S-V2500-3IB	
	V2525/V2528-AQ04	S-V2500-3IC	