

SERVICE BULLETIN REVISION NOTICE

ENGINE — HIGH PRESSURE (HP) COMPRESSOR — V2500 SELECTONE RETROFIT AND PRODUCTION — HP COMPRESSOR UPGRADE

Turbojet Engine Service Bulletin No. V2500-ENG-72-0560 Revision No.1 dated July 19, 2017.

Revision History

Original Issue May 30, 2012 Revision 1 dated July 19, 2017

Reason for the Revision

To remove Service Bulletin V2500-ENG-72-0416 from the Concurrent Requirements and References.

To renumber all references following the removal of Service Bulletin V2500-ENG-72-0416.

To update Engine Effectivity section format.

To update the Background by removing reference to the seal wires.

To update the Accomplishment Instructions with Engine Manual reference.

To remove Figure 1.

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

V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5

BULLETIN ISSUE SEQUENCE

V2500 Series 72-0560

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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

ENGINE — HIGH PRESSURE (HP) COMPRESSOR — V2500 SELECTONE RETROFIT AND PRODUCTION — HP COMPRESSOR UPGRADE

MODEL APPLICATION

V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5

BULLETIN ISSUE SEQUENCE

V2500 Series 72-0560

ATA NUMBER

72-00-00

IAE PROPRIETARY INFORMATION

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

Compliance Category

8

P&W Distribution Code

V2500

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V2500-ENG-72-0560



Summary

The purpose of this Service Bulletin is to provide improved reliability and enhance the V2500 engine to improve time on wing, efficiency and durability.

Planning Information

Effectivity Data

Engine Models Applicable

V2522-A5, V2524-A5, V2527M-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5 Engine Serial No. — All Engines

Concurrent Requirements

This Service Bulletin must be done after the Service Bulletins that follow (Baseline/Minimum Standard for SelectOne HP Compressor Modification):

Reference 6, V2500 Service Bulletin V2500-ENG-72-0488, Information — Engine — To Introduce A New LP Turbine Shaft.

Reference 7, V2500 Service Bulletin V2500-ENG-72-0202, Engine — HP Compressor — Introduce A Strengthened HPC Rear Shaft And A New Mating Rear Rotating Seal.

Reference 8, V2500 Service Bulletin V2500-ENG-72-0273, Engine — HP Compressor Discs (Stages 9-12) — Introduction Of A Revised Stage 3 To 8 Disc Assembly And Revised Stage 7 And 8 Sealing Wires.

Reference 9, V2500 Service Bulletin V2500-ENG-72-0300, Engine — Stage 3 To 8 HP Compressor Discs — Introduction Of A Revised Stage 3 To 8 Disc Assembly And Revised Stage 7 and 8 Sealing Wires.

Reference 10, V2500 Service Bulletin V2500-ENG-72-0334, Engine — Actuating Mechanism HP Compressor Variable Vanes — Introduction Of Revised Stage 3 And Stage 4 VSV Actuator Ring Levers With Increased Radius.

Reference 11, V2500 Service Bulletin V2500-ENG-72-0335, Engine — Actuating Mechanism HP Compressor Variable Vanes — Introduction Of Revised HP Compressor Stage 5 VSV Actuator Ring Levers With Increased Blend Radius.

Reference 12, V2500 Service Bulletin V2500-ENG-72-0347, Engine — HP Compressor Discs (Stages 9-12) — Introduction Of Revised HP Compressor Stage 9-12 Disc Assembly With Increased Abrasive Lining Bond Coat Thickness.

Reference 13, V2500 Service Bulletin V2500-ENG-72-0369, Engine — HP Compressor Ring Cases — Introduction Of HP Compressor Stage 6, 7 And 8 Rotor Paths With Revised Abradable Lining.

Reference 14, V2500 Service Bulletin V2500-ENG-72-0406, Engine — Actuating Mechanism HP Compressor Variable Vanes — Introduction Of A Fully Machined From Bar Crankshaft Assembly.

Reference 15, V2500 Service Bulletin V2500-ENG-72-0410, Engine — HP Compressor Variable Vane Inner Shrouds — Introduction Of Revised One Piece Bushes.



- Reference 16, V2500 Service Bulletin V2500-ENG-72-0418, Engine Actuating Mechanism HP Compressor Variable Vanes Introduction Of Unison Ring Assemblies And Bridge Piece Assemblies With Revised One Piece Lever Pin Bushes.
- Reference 17, V2500 Service Bulletin V2500-ENG-72-0477, Engine HP Compressor Ring Cases Deletion Of Stage 8-11 Heatshields.
- Reference 18, V2500 Service Bulletin V2500-ENG-72-0487, Engine HP Compressor Blades Introduction Of A Stage 3 Blade With A Revised Clapper.
- Reference 19, V2500 Service Bulletin V2500-ENG-72-0509, Engine HP Compressor Blades Introduction Of HP Compressor Lockplates With Revised Profile.
- Reference 20, V2500 Service Bulletin V2500-ENG-72-0555, Engine High Pressure (HP) Compressor Pinch Point Reduction On Stage 3, 4, 5 And Introduction Of Stage 4 Shrouds With Close Tolerance Bolts.

This Service Bulletin must be done at the same at the same time as the following Service Bulletins:

For A5 Standard, SelectOne Retrofit Standard engines:

- Reference 22, V2500 Service Bulletin V2500-ENG-72-0562, Engine High Pressure Turbine (HPT) V2500 SelectOne Production And Retrofit —HPT Upgrade.
- Reference 25, V2500 Service Bulletin V2500-ENG-72-0565, Engine Provide The Requirements For Modification To The V2500 SelectOne Retrofit Standard.
- Reference 26, V2500 Service Bulletin V2500-ENG-73-0203, Engine Fuel And Control Provide A New Electronic Engine Control (EEC) With A5 SCN20/Y Software.

For SelectOne Production Standard engines:

- Reference 21, V2500 Service Bulletin V2500-ENG-72-0561, Engine High Pressure (HP) Compressor V2500 SelectOne Producation HP Compressor Upgrade.
- Reference 22, V2500 Service Bulletin V2500-ENG-72-0562, Engine High Pressure Turbine (HPT) V2500 SelectOne Production And Retrofit —HPT Upgrade.
- Reference 23, V2500 Service Bulletin V2500-ENG-72-0563, Engine LP Turbine Introduction Of Turbine Vane Stage 3.
- Reference 24, V2500 Service Bulletin V2500-ENG-72-0564, Engine High Pressure (HP) Compressor V2500 SelectOne Production Introduction Of Redesigned Variable Stator Vance (VSV) System.
- Reference 26, V2500 Service Bulletin V2500-ENG-73-0203, Engine Fuel And Control Provide A New Electronic Engine Control (EEC) With A5 SCN20/Y Software.

Reason

- 1. Condition: None.
- 2. Background: The V2500 SelectOne is a committed program to enhance the V2500 engine for improved time on wing, efficiency and durability. The package features an optimized aerodynamic and mechanical design of the HP compressor blades

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and vanes for stages 3 to 8. The VSV inner shrouds and shroud bushes have been modified and the schedule for the VSV stages 3 and 4 has been revised.

- 3. Objective: Incorporation of this Service Bulletin is designed to improve the reliability.
- Substantiation: The changes introduced by this Service Bulletin were the subject 4. of satisfactory engineering analysis, extensive engine testing and flight test. This Service Bulletin complies with the applicable engine certification basis.
- Effects of Bulletin on: 5.

Removal/Installation: Not Affected. Disassembly/Assembly: Not Affected.

Cleaning: Not Affected.

Inspection/Check: Not Affected.

Repair: Affected (VRS6010, VRS6011, VRS6012, VRS6013, VRS6014, VRS6034, VRS6035, VRS6036, VRS6038, VRS6039, VRS6040, VRS6050, VRS6051, VRS6052, VRS6053, VRS6054, VRS6066, VRS6067, VRS6068, VRS6069, VRS6070, VRS6076, VRS6077, VRS6078, VRS6085, VRS6107, VRS6108, VRS6109, VRS6150, VRS6151, VRS6152, VRS6181, VRS6182, VRS6183, VRS6184, VRS6214, VRS6215, VRS6275, VRS6364, VRS6486, VRS6495, VRS6496, VRS6497, VRS6631, VRS6649, VRS6650, VRS6651, VRS6653, and VRS6677).

Testing: Not Affected.

Supplemental Information

None.

Description

The SelectOne Retrofit and Production Service Bulletin packages feature an improved aerodynamic and mechanical design for the HP compressor rotor blades stages 4 to 8 and vanes stages 3, 4 and 5, deletion of the rotor stages 6, 7 and 8 damping wires, modified VSV inner shrouds and shroud bushes and a revised VSV schedule for the stages 3 and 4.

- 1. The basic contour for the HP compressor rotor blade stages 4 to 8 and vane stages 3, 4 and 5 leading edges has been changed from circular to an elliptical shape and the aerofoil, fillet and annulus surfaces given an improved finish.
- The HP compressor stage 4 rotor blade tip radius is slightly increased and the blade 2. tip angle is slightly decreased.
- The HP compressor stages 3, 4 and 5 VSV have a revised aerofoil definition and the inner shrouds have a revised design which increases the shroud counterbore by 0.008 in (0.2 mm). This gives an increased cold build clearance by 0.008 in (0.2 mm) to reduce the thermal pinch between the VSV and the inner shrouds.
- The material for the VSV inner shroud bushes is changed, along with minor dimensional changes to give increased clearance and improved durability.
- The HP compressor rotor blades stages 4, 5 and 6 have a changed aerofoil definition. 5. The HP compressor rotor blades stages 7 and 8 have changes to the blade root.
- The HP compressor stage 8 lock blades are changed to accommodate a circular lock nut instead of a rectangular lock nut.

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7. Modified stages 3 and 4 crankshaft actuation levers are introduced along with revised positions for the low speed rigging holes in the stages 3 and 4 setting brackets, to give improved stall margins during engine start.

Compliance

Category 8

Accomplish based upon experience with the prior configuration.

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.

The aircraft Type Certificate (TC) holder has been informed of this change.

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| 1. | In Service | |
|----|-------------|----------------|
| | | Not Applicable |
| 2. | At Overhaul | |
| | | Not Applicable |

Weight and Balance

- 1. Weight Change
 - 0.5 lb (- 0.23 kg)
- 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 — 72-41-11, 72-41-13, 72-41-15, 72-41-32, 72-41-33 and 72-41-34.

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- 2. Internal Reference No. EC07SEL01R, EC07SEL01RA, EC07SEL01RB, EC07SEL01R-01, EC07SEL01R-02, EC06VR003 and 16VC244
- 3. V2500 Standard Practices and Processes, P&W Ref. PN 2A4414, Chapter/Section 70-41-01.
- 4. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 72-41-15, 72-41-32, 72-41-33, and 72-41-11.
- 5. V2500 A1/A5 Series Engine Manual, P&W Ref. PN 2A4407, Chapter/Section 72-00-00, 72-41-10, 72-41-15, 72-41-32, 72-41-33, and 72-41-34.
- V2500 Service Bulletin V2500-ENG-72-0488, Information Engine To Introduce A New LP Turbine Shaft.
- 7. V2500 Service Bulletin V2500-ENG-72-0202, Engine HP Compressor Introduce A Strengthened HPC Rear Shaft And A New Mating Rear Rotating Seal.
- 8. V2500 Service Bulletin V2500-ENG-72-0273, Engine HP Compressor Discs (Stages 9-12) Introduction Of A Revised Stage 3 To 8 Disc Assembly And Revised Stage 7 And 8 Sealing Wires.
- V2500 Service Bulletin V2500-ENG-72-0300, Engine Stage 3 To 8 HP Compressor Discs — Introduction Of A Revised Stage 3 To 8 Disc Assembly And Revised Stage 7 and 8 Sealing Wires.
- V2500 Service Bulletin V2500-ENG-72-0334, Engine Actuating Mechanism HP Compressor Variable Vanes — Introduction Of Revised Stage 3 And Stage 4 VSV Actuator Ring Levers With Increased Radius.
- V2500 Service Bulletin V2500-ENG-72-0335, Engine Actuating Mechanism HP Compressor Variable Vanes — Introduction Of Revised HP Compressor Stage 5 VSV Actuator Ring Levers With Increased Blend Radius.
- V2500 Service Bulletin V2500-ENG-72-0347, Engine HP Compressor Discs (Stages 9-12) Introduction Of Revised HP Compressor Stage 9-12 Disc Assembly With Increased Abrasive Lining Bond Coat Thickness.
- V2500 Service Bulletin V2500-ENG-72-0369, Engine HP Compressor Ring Cases Introduction Of HP Compressor Stage 6, 7 And 8 Rotor Paths With Revised Abradable Lining.
- V2500 Service Bulletin V2500-ENG-72-0406, Engine Actuating Mechanism HP Compressor Variable Vanes — Introduction Of A Fully Machined From Bar Crankshaft Assembly.
- V2500 Service Bulletin V2500-ENG-72-0410, Engine HP Compressor Variable Vane Inner Shrouds — Introduction Of Revised One Piece Bushes.
- 16. V2500 Service Bulletin V2500-ENG-72-0418, Engine Actuating Mechanism HP Compressor Variable Vanes Introduction Of Unison Ring Assemblies And Bridge Piece Assemblies With Revised One Piece Lever Pin Bushes.
- V2500 Service Bulletin V2500-ENG-72-0477, Engine HP Compressor Ring Cases Deletion Of Stage 8-11 Heatshields.
- 18. V2500 Service Bulletin V2500-ENG-72-0487, Engine HP Compressor Blades Introduction Of A Stage 3 Blade With A Revised Clapper.

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- 19. V2500 Service Bulletin V2500-ENG-72-0509, Engine HP Compressor Blades Introduction Of HP Compressor Lockplates With Revised Profile.
- V2500 Service Bulletin V2500-ENG-72-0555, Engine High Pressure (HP) Compressor
 Pinch Point Reduction On Stage 3, 4, 5 And Introduction Of Stage 4 Shrouds With
 Close Tolerance Bolts.
- 21. V2500 Service Bulletin V2500-ENG-72-0561, Engine High Pressure (HP) Compressor V2500 SelectOne Production HP Compressor Upgrade.
- 22. V2500 Service Bulletin V2500-ENG-72-0562, Engine High Pressure Turbine (HPT) V2500 SelectOne Production And Retrofit —HPT Upgrade.
- 23. V2500 Service Bulletin V2500-ENG-72-0563, Engine LP Turbine Introduction Of Turbine Vane Stage 3.
- V2500 Service Bulletin V2500-ENG-72-0564, Engine High Pressure (HP) Compressor
 — V2500 SelectOne Production Introduction Of Redesigned Variable Stator Vance
 (VSV) System.
- 25. V2500 Service Bulletin V2500-ENG-72-0565, Engine Provide The Requirements For Modification To The V2500 SelectOne Retrofit Standard.
- 26. V2500 Service Bulletin V2500-ENG-73-0203, Engine Fuel And Control Provide A New Electronic Engine Control (EEC) With A5 SCN20/Y Software.
- 27. Airbus Aircraft Modification No. 37868 and 38554.

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-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 72-41-11, 72-41-13, 72-41-15, 72-41-32, 72-41-33, and 72-41-34.
- 2. V2500 A1/A5 Series Engine Manual, P&W Ref. PN 2A4407, Chapter/Section 72-00-00, 72-41-10, 72-41-15, 72-41-32, 72-41-33, and 72-41-34.
- 3. Airbus Aircraft Maintenance Manual, Chapter/Section 72-00-00.

Interchangeability of Parts

Old and new parts are interchangeable only in complete sets. Refer to Materials Information section for complete part interchangeability information.

Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts (No)

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 a kit, number MKVA572056001/2/3/4/5/6/7/8 and 9 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.

NOTE:

The new parts are introduced as a baseline standard for V2500-A5 engines which have installation arrangement number SQ02 or SQ03 (SelectOne) engraved on the engine data plate on the same Fig/Item No. as the old parts of the V2500-A5 engines which have installation arrangement number AQ02 or AQ03 engraved in the engine data plate. The old parts are mentioned for information only.

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 |
|--------|-----------|-----------------------------|----------------------------------|-----------------------------|----------------------------|
| 6A8738 | 38 | 1,286.00 | .BLADE - ASSEMBLY, STAGE 4 | 6A7635 (72-41-15-01-500) | (1)(A)(C)(S1) |
| 6A8736 | 64 | * | .BLADE - ASSEMBLY, STAGE 5 | 6A8451 (72-41-15-01-800) | (1)(A)(C)(S1) |
| 6A8797 | 2 | 781.00 | .BLADE - STAGE 6, LOCKING LH | 6A8322 (72-41-15-02-170) | (1)(A)(C)(S1) |
| 6A8798 | 2 | 781.00 | .BLADE - STAGE 6, LOCKING R/H | 6A8323 (72-41-15-02-185) | (1)(A)(C)(S1) |
| 6A8732 | 52 | 675.00 | .BLADE - STAGE 6, NOMINAL | 6A8320 (72-41-15-02-200) | (1)(A)(C)(S1) |
| 6A8732 | 23 A/R | 675.00 | .BLADE - STAGE 6, NOMINAL | 6A8320 (72-41-15-02-215) | (1)(5)(A)(C)(S1) |
| 6A8733 | 23 A/R | 675.00 | .BLADE - STAGE 6, UNDERSIZED | 6A8321 (72-41-15-02-217) | (1)(5)(A)(C)(S1) |
| 6A8743 | 2 | 781.00 | .BLADE - STAGE 7, LOCKING LH | 6A8314 (72-41-15-02-270) | (1)(A)(C)(S1) |
| 6A8744 | 2 | 781.00 | .BLADE - STAGE 7, LOCKING RH | 6A8315 (72-41-15-02-285) | (1)(A)(C)(S1) |
| 6A8741 | 63 | 688.00 | .BLADE - STAGE 7, NOMINAL | 6A8312 (72-41-15-02-300) | (1)(A)(C)(S1) |

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| New PN | Qty | Estimate of Unit Price (\$) | Keyword | Old PN | Instructions — Disposition |
|--------|-----------|--------------------------------|---|--------------------------------|-------------------------------|
| 6A8741 | 26 A/R | 688.00 | .BLADE - STAGE 7, NOMINAL | 6A8312 (72-41-15-02-315) | (1)(5)(A)(C)(S1 |
| 6A8744 | 2 | 781.00 | .BLADE - STAGE 7, LOCKING RH | 6A8315 (72-41-15-02-285) | (1)(A)(C)(S1) |
| 6A8744 | 2 | 781.00 | .BLADE - STAGE 7, LOCKING RH | 6A8315 (72-41-15-02-285) | (1)(A)(C)(S1) |
| 6A8741 | 63 | 688.00 | .BLADE - STAGE 7, NOMINAL | 6A8312 (72-41-15-02-300) | (1)(A)(C)(S1) |
| 6A8741 | 26 A/R | 688.00 | .BLADE - STAGE 7, NOMINAL | 6A8312 (72-41-15-02-315) | (1)(5)(A)(C)(S1 |
| 6A8742 | 26 A/R | 675.00 | .BLADE - STAGE 7, UNDERSIZED | 6A8313 (72-41-15-02-317) | (1)(5)(A)(C)(S1 |
| 6B1088 | 2 | 423.00 | .NUT - SCREW, LOCK, ASSEMBLY | 6A4110 (72-41-15-02-365) | (1)(A)(C)(S1) |
| 6A8747 | 2 | 781.00 | .BLADE - STAGE 8 LOCKING LH, COMPRESSOR | 6A6464 (72-41-15-02-370) | (1)(A)(C)(S1) |
| 6A8748 | 2 | 781.00 | .BLADE - STAGE 8 LOCKING RH, COMPRESSOR | 6A6465 (72-41-15-02-385) | (1)(A)(C)(S1) |
| 6A8745 | 56 | 694.00 | .BLADE - STAGE 8 NOMINAL, COMPRESSOR | 6A6470C01 (72-41-15-02-400) | (1)(A)(C)(S1) |
| 6A8745 | 24 A/R | 694.00 | .BLADE - STAGE 8 NOMINAL, COMPRESSOR | 6A6470C01 (72-41-15-02-415) | (1)(5)(A)(C)(S1 |
| 6A8746 | 24 A/R | 675.00 | .BLADE - STAGE 8 NOMINAL, COMPRESSOR | 6A6470C01 (72-41-15-02-417) | (1)(5)(A)(C)(S1 |
| 6A8720 | 30 | 1,389.00 | .VANE - STAGE 3 LONG SPINDLE | 6A7729 (72-41-32-02-500) | (2)(A)(C)(S1) |
| 6A8721 | 2 | 1,855.00 | .VANE, STAGE 3, SHORT SPINDLE | 6A7730 (72-41-32-02-600) | (2)(A)(C)(S1) |
| 6A8731 | 50 | 1,436.00 | .VANE - STAGE 4 | 6A7558 (72-41-32-03-500) | (2)(A)(C)(S1) |
| 6A8725 | 60 | 1,917.00 | .VANE - STAGE 5 SHORT SPINDLE | 6A7559 (72-41-32-04-500) | (2)(A)(C)(S1) |

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| New PN | Qty | Estimate of Unit Price (\$) | Keyword | Old PN | Instructions — Disposition |
|--------|-----|-----------------------------|--|-----------------------------|----------------------------|
| 6A8728 | 4 | 1,917.00 | .VANE - STAGE 5 LONG SPINDLE | 6A7560 (72-41-32-04-600) | (2)(A)(C)(S1) |
| 6B1137 | 40 | 62.80 | .BUSH - VIGV INNER SHROUD | 6A7728 (72-41-33-01-190) | (2)(A)(C)(S1) |
| 6B1137 | 32 | 62.80 | .BUSH - STAGE 3 INNER SHROUD | 6A7728 (72-41-33-02-190) | (2)(A)(C)(S1) |
| 6B1156 | 2 | 6,062.00 | .SHROUD - ASSEMBLY, STAGE 3, HALF | 6A7719 (72-41-33-02-200) | (2)(A)(C)(S1) |
| 6B1137 | 50 | 62.80 | .BUSH - STAGE 4 INNER SHROUD | 6A7728 (72-41-33-03-190) | (2)(A)(C)(S1) |
| 6B1175 | 2 | 6,358.00 | .SHROUD - ASSEMBLY, STAGE 4, HALF | 6A7561 (72-41-33-03-200) | (2)(A)(C)(S1) |
| 6B1137 | 64 | 62.80 | .BUSH - STAGE 5 INNER SHROUD | 6A7728 (72-41-33-04-190) | (2)(A)(C)(S1) |
| 6B1158 | 2 | 10,030.00 | .SHROUD - ASSEMBLY, STAGE 5, HALF | 6A7563 (72-41-33-04-200) | (2)(A)(C)(S1) |
| 6A8682 | 1 | 2,517.00 | .LEVER - ACTUATING | 6A7439 (72-41-34-01-520) | (3)(A)(C)(S1) |
| 6A8681 | 1 | 2,476.00 | .LEVER - ACTUATING, STAGE 3 | 6A7807 (72-41-34-01-560) | (3)(A)(C)(S1) |
| 6A8683 | 1 | 2,540.00 | .BRACKET | 6A7409 (72-41-34-03-770) | (3)(A)(C)(S1) |
| 6A8683 | 1 | 2,540.00 | .BRACKET - STAGE 3, RIG PIN LOCATION | 6A5474 (72-41-34-03-770) | (3)(A)(C)(S1) |
| 6A8684 | 1 | 2,692.00 | .BRACKET, STAGE 4, RIG PIN LOCATION | 6A7410 (72-41-34-04-770) | (3)(A)(C)(S1) |
| 6A8684 | 1 | 2,692.00 | .BRACKET, STAGE 4, RIG PIN LOCATION | 6A5475 (72-41-34-04-770) | (3)(A)(C)(S1) |



| New PN | Qty | Estimate of Unit Price (\$) | Keyword | Old PN | Instructions — Disposition |
|--------|-----|-----------------------------|------------------------------------|-----------------------------|----------------------------|
| | 1 | * | .WIRE - SEAL, STAGE 6, FRONT | 6A8339 (72-41-11-01-386) | (E) |
| | 1 | * | .WIRE - SEAL, STAGE 6, REAR | 6A8340 (72-41-11-01-388) | (E) |
| | 1 | * | .WIRE - SEAL, STAGE 7, FRONT | 6A8341 (72-41-11-01-390) | (E) |
| | 1 | * | .WIRE - SEAL, STAGE 7, REAR | 6A8342 (72-41-11-01-392) | (E) |
| | 1 | * | .WIRE - SEAL, STAGE 8, FRONT | 6A8343 (72-41-11-01-394) | (E) |
| | 1 | * | .WIRE - SEAL, STAGE 8, REAR | 6A8344 (72-41-11-01-396) | (E) |

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) This part is part of the modification group 01 (HP Compressor rotor assembly). To have interchangeability between old and new standards, this part must be changed at the same time with the other parts of this modification group.
- (2) This part is part of the modification group 02 (VIGV and VSV assembly). To have interchangeability between old and new standards, this part must be changed at the same time with the other parts of this modification group.
- (3) This part is part of the modification group 03 (Stages 3 and 4 VSV control rod assembly). To have interchangeability between old and new standards, this part must be changed at the same time with the other parts of this modification group.
- (5) The quantity of the parts to be installed must be calculated during assembly of the High Pressure (HP) compressor rotor assembly.

Spare Parts Availability

- (A) The new part is available.
- (C) The old part will continue to be supplied.
- (E) The old part is an expendable item necessary to do this Service Bulletin.
- (S1) New parts coded (S1) must replace old parts coded (S1) as a COMPLETE SET per Engine (or Nacelle).

Vendor Services or Special Components/Materials

May 30/12



Not Applicable.

Tooling — Price and Availability

Special tools are not required to accomplish this Service Bulletin.

Reidentified Parts

Not Applicable.

Other Material Information Data

The kits required consist of the parts that follow:

Modification kit MKVA572056001 consists of the parts that follow:

| Figure Item No. 72-41-32 | Part No. | QTY | Part Title |
|-----------------------------|----------|-----|----------------------------------|
| 02-500 | 6A8720 | 30 | .VANE - STAGE 3 LONG SPINDLE |
| 02-600 | 6A8721 | 2 | .VANE, STAGE 3, SHORT SPINDLE |

Modification kit MKVA572056002 consists of the parts that follow:

| Figure Item No. 72-41-32 | Part No. | QTY | Part Title |
|--------------------------|----------|-----|-----------------|
| 03-500 | 6A8731 | 50 | .VANE - STAGE 4 |

Modification kit MKVA572056003 consists of the parts that follow:

| Figure Item No. 72-41-32 | Part No. | QTY | Part Title |
|--------------------------|----------|-----|----------------------------------|
| 04-500 | 6A8725 | 60 | .VANE - STAGE 5 SHORT SPINDLE |
| 04-600 | 6A8728 | 4 | .VANE - STAGE 5 LONG SPINDLE |

Modification kit MKVA572056004 consists of the parts that follow:

| Figure Item No. 72-41-15 | Part No. | QTY | Part Title |
|--------------------------|----------|-----|----------------------------------|
| 01-500 | 6A8738 | 38 | .BLADE - ASSEMBLY, STAGE 4 |



Modification kit MKVA572056005 consists of the parts that follow:

| Figure Item No. 72-41-15 | Part No. | QTY | Part Title |
|--|----------|-----|--------------------------------------|
| 01-800 | 6A8736 | 64 | .BLADE - ASSEMBLY, STAGE 5 (*) |
| NOTE: Parts marked with /*\ have been superceded by Corvine Pulletin | | | |

NOTE: Parts marked with (*) have been superseded by Service Bulletin V2500-ENG-72-0587.

Modification kit MKVA572056006 consists of the parts that follow:

| Figure Item No. 72-41-15 | Part No. | QTY | Part Title |
|-----------------------------|----------|-----|----------------------------------|
| 02-170 | 6A8797 | 2 | .BLADE - STAGE 6, LOCKING LH |
| 02-185 | 6A8798 | 2 | .BLADE - STAGE 6, LOCKING R/H |
| 02-200 | 6A8732 | 52 | .BLADE - STAGE 6, NOMINAL |
| 02-215 | 6A8732 | 17 | .BLADE - STAGE 6, NOMINAL |
| 02-217 | 6A8733 | 6 | .BLADE - STAGE 6, UNDERSIZED |

Modification kit MKVA572056007 consists of the parts that follow:

| Figure Item No. 72-41-15 | Part No. | QTY | Part Title |
|--------------------------|----------|-----|---------------------------------|
| 02-270 | 6A8743 | 2 | .BLADE - STAGE 7, LOCKING LH |
| 02-285 | 6A8744 | 2 | .BLADE - STAGE 7, LOCKING RH |
| 02-300 | 6A8741 | 63 | .BLADE - STAGE 7, NOMINAL |
| 02-315 | 6A8741 | 9 | .BLADE - STAGE 7, NOMINAL |
| 02-317 | 6A8742 | 17 | .BLADE - STAGE 7, UNDERSIZED |



Modification kit MKVA572056008 consists of the parts that follow:

| Figure Item No. 72-41-15 | Part No. | QTY | Part Title |
|--------------------------|----------|-----|---|
| 02-370 | 6A8747 | 2 | BLADE - STAGE 8 LOCKING LH, COMPRESSOR |
| 02-385 | 6A8748 | 2 | .BLADE - STAGE 8 LOCKING RH, COMPRESSOR |
| 02-400 | 6A8745 | 56 | .BLADE - STAGE 8 NOMINAL, COMPRESSOR |
| 02-415 | 6A8745 | 8 | .BLADE - STAGE 8 NOMINAL, COMPRESSOR |
| 02-417 | 6A8746 | 16 | .BLADE - STAGE 8 NOMINAL, COMPRESSOR |

Modification kit MKVA572056009 consists of the parts that follow:

| Figure Item No. 72-41-15 | Part No. | QTY | Part Title |
|-----------------------------|----------|-----|---|
| 02-365 | 6B1088 | 2 | .NUT - SCREW, LOCK, ASSEMBLY |
| Figure Item No. 72-41-33 | Part No. | QTY | Part Title |
| 01-190 | 6B1137 | 40 | .BUSH - STAGE 5 INNER SHROUD |
| 02-190 | 6B1137 | 32 | .BUSH - STAGE 5 INNER SHROUD |
| 02-200 | 6B1156 | 2 | .SHROUD - ASSEMBLY, STAGE 3, HALF (*) |
| 03–130 | AS20624 | 24 | .NUT - SELF LOCKING |
| 03-134 | AS26094 | 48 | .WASHER - DEE FLAT |
| 03-138 | AS22919 | 24 | .BOLT - CLOSE TOL, BIHEX HD (*) |
| 03-190 | 6B1137 | 50 | .BUSH - STAGE 5 INNER SHROUD |



| | | | _ |
|--------------------------|----------|-----|---|
| 03-200 | 6B1175 | 2 | .SHROUD - ASSEMBLY, STAGE 4, HALF (*) |
| 04-190 | 6B1137 | 64 | .BUSH - STAGE 5 INNER SHROUD |
| 04-200 | 6B1158 | 2 | .SHROUD - ASSEMBLY, STAGE 5, HALF (*) |
| Figure Item No. 72-41-34 | Part No. | QTY | Part Title |
| 01-520 | 6A8682 | 1 | .LEVER - ACTUATING |
| 01-560 | 6A8681 | 1 | .LEVER - ACTUATING, STAGE 3 |
| 03-770 | 6A8683 | 1 | .BRACKET - STAGE 3, RIG PIN LOCATION |
| 04-770 | 6A8684 | 1 | .BRACKET, STAGE 4, RIG PIN LOCATION |

NOTE: Parts marked with (*) are also available with Reference 20, Service Bulletin V2500-ENG-72-0555.



Accomplishment Instructions

- Rework Instructions
 - A. None.
- 2. Assembly Instructions
 - A. Refer to Reference 5, V2500-A5 Engine Manual, Chapter/Section 72-00-00, 72-41-10, 72-41-15, 72-41-32, 72-41-33 and 72-41-34 for assembly instructions.
- 3. Recording Instructions
 - A. A record of accomplishment is required.



Appendix Added Data

Internal Reference Information

| Revision No. | Reference Document | Origination | |
|--------------|---|-------------|--|
| Original | EC07SEL01R, EC07SEL01RA, EC07SEL01RB, EC07SEL01R-01, EC07SEL01R-02 and EC06VR003 | IAE | |
| 1 | EA16VC244 | MJM/RCM | |

Number values shown in parentheses adjacent to U.S. values are International System of units (SI) equivalents.

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 |
| SPPM (SPM) — A1, A5, D5 | All | SPP-V2500-1IA | 2A4414 |



| Publication | Engine Model(s) | IAE IETM Pub Ref | P&W Part Number |
|-------------|-------------------------|------------------|--------------------|
| | V2522/V2524/V2527M-AQ02 | S-V2500-6IA | |
| | 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 | |
| EIPC — A5 | V2527/V2527E-SQ05 | S-V2500-7NB | 0.4.400 |
| EIPC — A5 | V2530-AQ02 | S-V2500-2IA | 2A4428 |
| | 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 | |