SERVICE BULLETIN

INFORMATION — HIGH PRESSURE (HP) COMPRESSOR BLADES — ADDITIONAL UNDERSIZE ADJUSTMENT BLADES ON STAGES 6 TO 8 FOR IMPROVED CIRCUMFERENTIAL GAPPING

MODEL APPLICATION

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

BULLETIN ISSUE SEQUENCE

V2500 Series 70-1006

ATA NUMBER

72-41-15

EAR Export Classification: ECCN 9E991

Compliance Category

7

P&W Distribution Code

V2500

Summary

The purpose of this Service Bulletin is to provide new HPC Stage 6 to 8 undersize blades. This Service Bulletin provides new blades for SelectOne and SelectOne retrofit engines.

Planning Information

Effectivity Data

Engine Models Applicable

V2522-A5, V2524-A5, V2527M-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5 that HAVE incorporated Reference No. 3, Service Bulletin V2500-ENG-72-0560
Engine Serial Nos. V10001 thru V13191

V2522-A5, V2524-A5, V2527M-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5
Engine Serial Nos. V15001 thru V17183

Concurrent Requirements

There are no concurrent requirements.

Reason

1. During the High Pressure (HP) compressor build, the HP compressor stages 6 to 8 blades are lined up in a circumferential slot of the stage 3 to 8 drum. The blades make contact with each other at the blade platforms. The required circumferential gap is set by variation of the quantity of undersize blades. The undersize blades are 0.016 inch (0.4 mm) narrower than the nominal blades. The undersize blades are used on an as-required basis and a permitted maximum quantity is specified for each of the stages.

   Stress and design investigations demonstrated that a large circumferential gap can cause increased and uneven wear on the blade root.

   The circumferential gap on the HP compressor stage 6 to 8 must decrease to prevent movement of the HP compressor blades in the disc slot.

2. Supplemental Information

   None.

Description

This Service Bulletin introduces new HP compressor stages 6 to 8 Blades to decrease the remaining gap. The decreased gapping cannot be achieved with the current undersize blades, thus new adjustment undersize blades are being introduced. Only one adjustment undersize blade at each stage is permitted.

Compliance

Category 7

Accomplish when supply of superseded parts has been depleted.

Approval Data

The part number changes and/or part modifications specified in the 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

   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 — 72-41-15.
2. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 72-41-15.
3. V2500 Service Bulletin V2500-ENG-72-0560 Engine — High Pressure (HP) Compressor - V2500 SelectOne Retrofit And Production — HP Compressor Upgrade.

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/A5 Series Engine Manual, P&W Ref. PN 2A4407, Chapter/Section 72-41-10.
2. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 72-21-15.

Interchangeability of Parts

Old and new parts are directly interchangeable.

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. The estimated price of new material to do this Service Bulletin using new replacement parts is $2715.00.
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 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
6B1494 (72-41-15-02-216)	1	931.00	• HIGH PRESSURE (HP) COMPRESSOR STAGE 6 ADJUSTMENT UNDERSIZE BLADE		(1)
6A8733	22	599.00	• HIGH PRESSURE (HP) COMPRESSOR STAGE 6 UNDERSIZE BLADE	6A8733 (72-41-15-02-217)	(1)(A)
6B1495 (72-41-15-02-316)	1	942.00	• HIGH PRESSURE (HP) COMPRESSOR STAGE 7 ADJUSTMENT UNDERSIZE BLADE		(1)
6A8742	25	599.00	• HIGH PRESSURE (HP) COMPRESSOR STAGE 7 UNDERSIZE BLADE	6A8742 (72-41-15-02-317)	(1)(B)

New PN	Qty	Estimate of Unit Price ($)	Keyword	Old PN	Instructions — Disposition
6B1496 (72-41-15-02-416)	1	842.00	• HIGH PRESSURE (HP) COMPRESSOR STAGE 8 ADJUSTMENT UNDERSIZE BLADE		(1)
6A8746	23	599.00	• HIGH PRESSURE (HP) COMPRESSOR STAGE 8 UNDERSIZE BLADE	6A8746 (72-41-15-02-417)	(1)(C)

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 a modification group. To have interchangeability between the old and new standards, this part must be changed at the same time with the other parts of this modification group.
The required quantity of the part to be installed must be calculated during the assembly of the High Pressure (HP) compressor rotor assembly.

Spare Parts Availability

(A) The quantity of the part is decreased from 23 to 22.

(B) The quantity of the part is decreased from 26 to 25.

(C) The quantity of the part is decreased from 24 to 23.

Vendor Services or Special Components/Materials

Not Applicable.

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

1. None

Appendix

Added Data

Internal Reference Information

Revision No.	Reference Document	Origination
Original	EC12VR006	RR/JP

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
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

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	