

# SERVICE BULLETIN

NON-MODIFICATION SERVICE BULLETIN — ENGINE — CASE, DIFFUSER, ASSEMBLY—  
REPLACEMENT OF SUSPECT DIFFUSER CASE ASSEMBLIES

## MODEL APPLICATION

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

## BULLETIN ISSUE SEQUENCE

V2500 Series 72-0707

## ATA NUMBER

72-42-11

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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

3

## P&W Distribution Code

V2500

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# V2500-ENG-72-0707

## Summary

The purpose of this Non-Modification Service Bulletin (NMSB) is to replace five (5) suspect Diffuser Case Assemblies PN 2A2891-01, identified by serial number. Production defects have been reported that may impact the design life of these five (5) parts.

## Planning Information

### Effectivity Data

#### Engine Models Applicable

V2522-A5, V2524-A5, V2527M-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5  
Engine Serial Nos. V18654, V18669, V18745, V18751, and V18782.

### Concurrent Requirements

There are no concurrent requirements.

### Reason

1. Condition: Certain diffuser case assemblies may exhibit manufacturing defects which could impact the part design life. These parts will require replacement within the time limits of this NMSB.
2. Background: Production defects have been reported by the manufacturer that may impact the design life of these parts. Five (5) parts are known to be affected. There is no method to inspect for these defects; requiring replacement.
3. Objective: Replace the affected parts within the time limits of this NMSB.
4. Substantiation: Structural analysis based on the location of reported manufacturing defect.
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 Diffuser Case Assembly, PN 2A2891-01 if it has a serial number listed within Table 1.

### Compliance

#### Category 3

Accomplish replacement of the Diffuser Case Assembly, PN 2A2891-01 identified by serial number and cycle limit specified in Table 1.

Table 1

Serial Number	Threshold
PGGUBB8267	Replace part at first shop visit when the subassembly (i.e. modules, accessories, components, build groups) is disassembled sufficiently to afford access to the affected part and all affected spare parts or prior to accumulating 10,000 cycles since new, whichever is first.
PGGUBB8271	Replace part at first shop visit when the subassembly (i.e. modules, accessories, components, build groups) is disassembled sufficiently to afford access to the affected part and all affected spare parts or prior to accumulating 10,000 cycles since new, whichever is first.
PGGUA95825	Replace part at first shop visit when the subassembly (i.e. modules, accessories, components, build groups) is disassembled sufficiently to afford access to the affected part and all affected spare parts or prior to accumulating 10,000 cycles since new, whichever is first.
PGGUA95827	Replace part at first shop visit when the subassembly (i.e. modules, accessories, components, build groups) is disassembled sufficiently to afford access to the affected part and all affected spare parts or prior to accumulating 10,000 cycles since new, whichever is first.
PGGUBB8264	Replace part at first shop visit when the subassembly (i.e. modules, accessories, components, build groups) is disassembled sufficiently to afford access to the affected part and all affected spare parts or prior to accumulating 10,000 cycles since new, whichever is first.

#### Approval Data

The compliance statement and the procedures described in this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine model listed.

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

#### Manpower

1. For Engines Installed On Aircraft

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..... Not Applicable.

2. For Engines Not Installed on Aircraft

A. To Remove/Replace the Diffuser Case ..... 70 Hours.

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. V2500 Standard Practices and Processes, P&W Ref. PN 2A4414, Chapter/Section 70-00-00.
2. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 72-42-00.
3. V2500 A1/A5 Series Engine Manual, P&W Ref. PN 2A4407, Chapter/Section 72-00-31, 72-00-42, 72-00-44, 72-00-45 and 72-00-50.

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 72-42-00.

Interchangeability of Parts

Not Applicable.

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 Non-Modification Service Bulletin publication. Contact IAE Spares Management & Logistics for firm quotations.
2. There is no kit provided to do this Non-Modification Service Bulletin.
3. Part availability information is provided in material data Instructions — Disposition.

### Industry Support Program

Please contact your Customer Fleet Director or Fleet Manager if you have any questions.

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
	1	*	CASE, DIFFUSER, ASSY OF	2A2891-01 (72-42-11-01-010 E) (72-42-11-01-010 F)	(4)(X)

### 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.

(4) Do an inspection as specified in the Accomplishment Instructions.

#### Spare Parts Availability

(X) See Reference 2, Illustrated Parts Catalog for applicable replacement parts.

#### Vendor Services or Special Components/Materials

Not Applicable.

### Tooling — Price and Availability

Special tools are not required to accomplish this Non-Modification Service Bulletin.

### Reidentified Parts

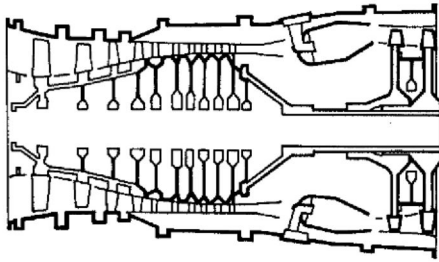
Not Applicable.

### Other Material Information Data

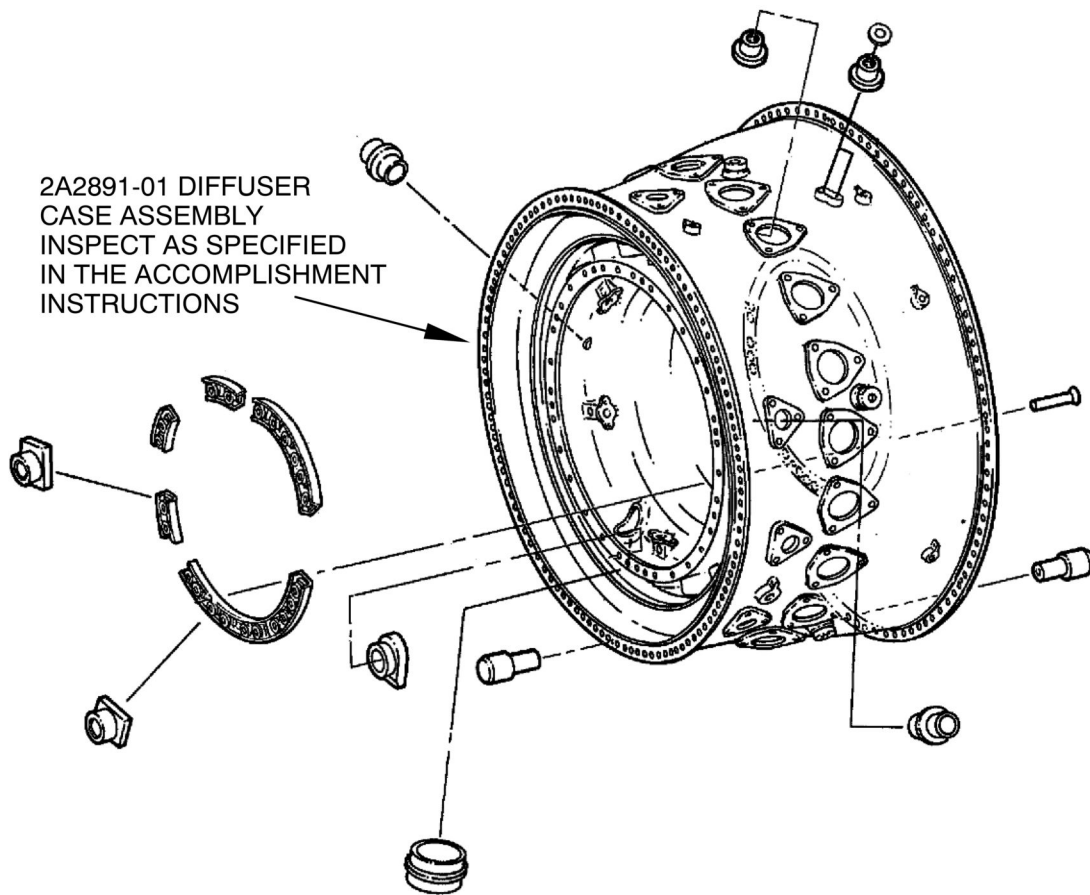
Not Applicable.

## Accomplishment Instructions

1. Inspect the Diffuser Case Assembly, PN 2A2891-01 for serial number listed in Table 1. See Figure 1.
  - A. For engines that do not have a diffuser case assembly with serial number listed in Table 1.
    - (1) No further action is required.
  - B. For engines that do have a diffuser case assembly with a serial number listed in Table 1.
    - (1) Disassembly instructions for diffuser case:
      - (a) Remove the Fan Module as specified in Reference 3, Engine Manual, Chapter/Section 72-00-31.
      - (b) Remove the Low Pressure Turbine (LPT)/Turbine Exhaust Case (TEC) as specified in Reference 3, Engine Manual, Chapter/Section 72-00-50.
      - (c) Remove the High Pressure Turbine Assembly as specified in Reference 3, Engine Manual, Chapter/Section 72-00-45.
      - (d) Remove the Stage 1 Turbine Nozzle Assembly as specified in Reference 3, Engine Manual, Chapter/Section 72-00-44.
      - (e) Remove the suspect diffuser case assembly as specified in Reference 3, Engine Manual, Chapter/Section 72-00-42.
    - (2) Replace suspect diffuser case:
      - (a) Replace the suspect case assembly with a case that doesn't have a serial number listed in Table 1.
      - (b) The Diffuser Case Assembly, PN 2A2891-01 identified by serial number in Table 1 must be either returned to IAE or scrapped locally. If scrapped, a photograph or digital image of the mutilated diffuser case, and a copy of the scrap tag, countersigned by the local IAE Representative, must be provided to IAE Warranty.
    - (3) Assembly:
      - (a) Install the non-suspect diffuser case assembly as specified in Reference 3, Engine Manual, Chapter/Section 72-00-42.
      - (b) Install the Stage 1 Turbine Nozzle Assembly as specified in Reference 3, Engine Manual, Chapter/Section 72-00-44.
      - (c) Install the High Pressure Turbine Assembly as specified in Reference 3, Engine Manual, Chapter/Section 72-00-45.
      - (d) Install the LPT/TEC as specified in Reference 3, Engine Manual, Chapter/Section 72-00-50.
      - (e) Install the Fan Module as specified in Reference 3, Engine Manual, Chapter/Section 72-00-31.- 2. Recording Instructions
  - A. A record of accomplishment is required.



MODULE 40



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LOCATION OF CASE ASSEMBLY  
FIGURE 1

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## Appendix

### Added Data

#### Internal Reference Information

Revision No.	Reference Document	Origination
Original	EA19VC149	BD/RCM

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

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#### 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-V2500-3IA	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	