

SERVICE BULLETIN REVISION NOTICE

ENGINE INDICATING — THERMOCOUPLE, IMMERSION — INTRODUCTION OF NEW
IMMERSION THERMOCOUPLE FOR IMPROVED DURABILITY

Turbojet Engine Service Bulletin No. V2500-ENG-77-0016 Revision No. 1 dated July 16, 2018.

Revision History

Original Issue September 21, 2017

Revision 1 dated July 16, 2018

Reason for the Revision

To remove PN 2A2159 from the Accomplishment Instructions.

To remove PN 2A2159, PN 2A2160, PN 2A3428, and PN 2A2224 from the Material Information and Vendor Services Sections.

To remove Weston Vinyls PLC from the Vendor Services Section.

Effect of Revision on Prior Compliance

None.

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

The contents are in accordance with the list of effective pages. All pages have the current revision number. Technical changes are marked with black bars.

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 77-0016

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1 thru 11	1	July 16/18

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.

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ENGINE INDICATING — THERMOCOUPLE, IMMERSION — INTRODUCTION OF NEW
IMMERSION THERMOCOUPLE FOR IMPROVED DURABILITY

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 77-0016

ATA NUMBER

77-21-15

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Supplier Service Bulletin

HARCO Service Bulletin SB1-77-21-15

Compliance Category

7

P&W Distribution Code

V2500

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Summary

The purpose of this Service Bulletin is to introduce a new immersion thermocouple with improved durability.

Planning Information

Effectivity Data

Engine Models Applicable

V2500-A1

Engine Serial Nos. V0001 thru V0361

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

Engine Serial Nos. V10001 thru V13190

Engine Serial Nos. V15001 thru V18651

Engine Serial No. V18653

V2525-D5, V2528-D5

Engine Serial Nos. V20001 thru V20285

Concurrent Requirements

There are no concurrent requirements.

Reason

1. Condition: Some immersion thermocouples have been returned due to high loop resistance.
2. Background: High loop resistance is caused by a fracture in the wire or a broken wire.
3. Objective: The new immersion thermocouple incorporates two short length Kn bus bars that allow for improved probe internal wire management, reduce cold working of the Kn wires and allow for optimized wire routing in the probe.
4. Substantiation: The means of compliance for the immersion thermocouple is by testing, similarity and analysis. The installation interface between Immersion Thermocouple, P/N 2A4529 and Immersion Thermocouple, P/N 2A4328 is the same. The FAA DER approved substantiation has been successfully completed and is documented in the FAA Summary Report IAEE-0239. The immersion thermocouple design objective has been successfully substantiated using supplier acceptance test procedures and analysis which has demonstrated the necessary design integrity about robustness of the Harco Immersion Thermocouple, P/N 2A4529 for production incorporation for the immersion thermocouple.
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

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None.

Description

Replace the immersion thermocouple.

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 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.

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 — 77-21-15.

2. Internal Reference No. — 15VZ019.

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3. V2500 Standard Practices and Processes, P&W Ref. PN 2A4414, Chapter/Section 70-00-00.
4. V2500-A1 Series Illustrated Parts Catalog, P&W Ref. PN 2A4427, Chapter/Section 77-21-15.
5. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 77-21-15.
6. V2500-D5, Series Illustrated Parts Catalog, P&W Ref. PN 2A4426, Chapter/Section 77-21-15.
7. V2500 Service Bulletin V2500-ENG-72-0063 (Engine — LP Turbine Rotor And Stator Assembly — Introduce New Tube Assemblies Required For Modified Turbine Exhaust Case).
8. V2500 Service Bulletin V2500-ENG-77-0011 (Engine — Thermocouple, Exhaust Gas Temperature (EGT) — Introduction Of).
9. HARCO Service Bulletin SB1-77-21-15.

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 77-21-15.
2. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 77-21-15.
3. V2500-D5, Series Illustrated Parts Catalog, P&W Ref. PN 2A4426, Chapter/Section 77-21-15.

Interchangeability of Parts

Old and new parts are directly interchangeable.

Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts (Yes)

Added Data (Yes)

Revision to Table of Limits (No)

Inspection Procedures (No)

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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
2A4529 (30404-000)	4	*	THERMOCOUPLE - IMMERSION	2A4328 (77-21-15-20-100G)	(2)(A)(N)

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
2A4529 (30404-000)	4	*	THERMOCOUPLE - IMMERSION	2A4328 (77-21-15-20-100C)	(2)(A)(N)

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
2A4529 (30404-000)	4	*	THERMOCOUPLE - IMMERSION	2A4328 (77-21-15-20-100C)	(2)(A)(N)

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.

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

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Spare Parts Availability

- (A) The new part is available.
(N) The old part is not available.

Vendor Services or Special Components/Materials

Vendor Services or Special Components/Materials

P&W Designation	Vendor Designation	Name	Vendor Name & Address
2A4529	30404-000	IMMERSION THERMOCOUPLE	HARCO LLC 186 Cedar St Branford, CT 06405 USA www.harcosemco.com
	SB1-77-21-15	SERVICE BULLETIN	
Vendor Manufacturer's Code: 00060 See Illustrated Parts Catalog Vendor Manufacturer's Code List			

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Tooling — Price and Availability

Special tools are not required to accomplish this Service Bulletin.

Reidentified Parts

Not Applicable.

Other Material Information Data

Not Applicable.

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Accomplishment Instructions

1. Replace the Immersion Thermocouple, PN 2A4328, with PN 2A4529. See Figure 1.

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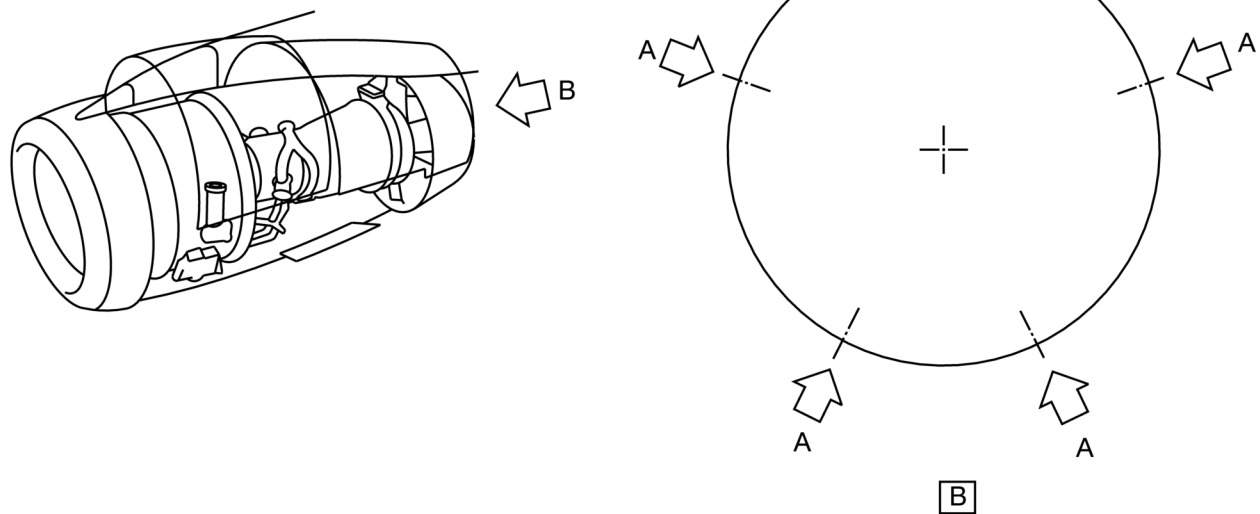
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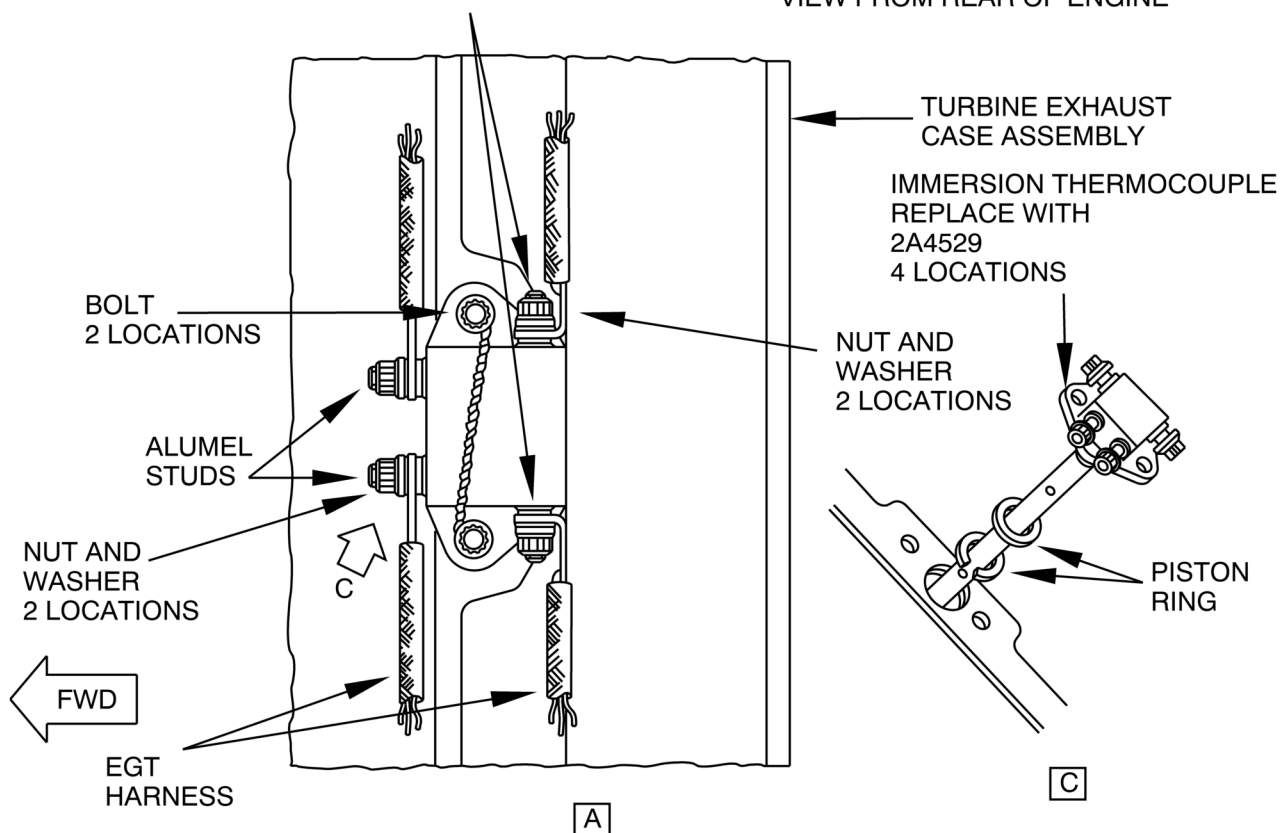
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CHROMEL STUDS

VIEW FROM REAR OF ENGINE



B526466

DETAIL AT 4 LOCATIONS

LOCATION OF FOUR IMMERSION THERMOCOUPLES
FIGURE 1

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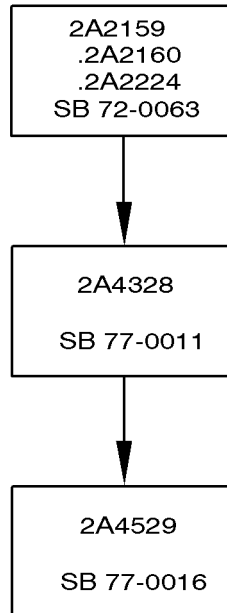
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Appendix

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



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IMMERSION THERMOCOUPLE
CHART A

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Added Data

Internal Reference Information

Revision No.	Reference Document	Origination
Original	EC15VZ019	HB/RCM
1	EC15VZ019	HB/JEJ

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-V2500-3IA	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

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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	

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