

SERVICE BULLETIN REVISION NOTICE

NON-MODIFICATION SERVICE BULLETIN — ENGINE FUEL AND CONTROL — PUMP, FUEL,
LOW PRESSURE, HIGH PRESSURE — INSPECTION FOR SUSPECT LP/HP FUEL PUMPS

Turbojet Engine Service Bulletin No. V2500-ENG-73-0244 Revision No. 1 dated December 15, 2017.

Revision History

Original Issue December 5, 2017

Revision 1 December 15, 2017

Reason for the Revision

To update the Title Page with the Compliance category.

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

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

BULLETIN ISSUE SEQUENCE

V2500 Series 73-0244

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1 thru 15	1	December 15/17

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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SERVICE BULLETIN

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LOW PRESSURE, HIGH PRESSURE — INSPECTION FOR SUSPECT LP/HP FUEL PUMPS

MODEL APPLICATION

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

BULLETIN ISSUE SEQUENCE

V2500 Series 73-0244

ATA NUMBER

73-12-41

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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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Summary

The purpose of this Non-Modification Service Bulletin is to do an inspection to find and replace three (3) suspect Low Pressure High Pressure Fuel Pumps (LP/HP Fuel Pumps), out of a population of fifty-one (51), identified by serial number, that were determined to be non-conforming due to having housings with a tensile strength shortfall.

Planning Information

Effectivity Data

Engine Models Applicable

V2522-A5, V2524-A5, V2527M-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5 with a LP/HP Fuel Pump serial number listed in Table 1 currently installed.
Any engine as applicable.

Table1: Suspect LP/HP Fuel Pump and Affected Engine Serial Numbers (as shipped from IAE)

Engine SN (as shipped from IAE)	LP/HP Fuel pump SN	Engine SN (as shipped from IAE)	LP/HP Fuel pump SN	Engine SN (as shipped from IAE)	LP/HP Fuel pump SN
V17919	10056	V18015	10167	V18304	10133
V17925	10060	V18040	10127	V18310	10171
V17933	10062	V18052	10069	V18316	10087
V17941	10061	V18072	10067	V18328	10077
V17943	10088	V18074	10068	V18332	10022
V17947	10053	V18075	10180	V18339	10005
V17949	10085	V18085	10181	V18358	10128
V17953	10084	V18091	10175	V18396	10070
V17957	10080	V18100	10023	V18496	10126
V17961	10057	V18107	10137	V18576	10086
V17963	10074	V18132	10071	V18516	10072
V17967	10078	V18136	10076	V18534	10094
V17971	10081	V18156	10073	V18596	10054
V17973	10006	V18277	10182	V18597	10075
V17977	10059	V18294	10129	V18600	10055
V18007	10082	V18298	10132	V18604	10079
V18013	10058	V18302	10111	V18607	10097

Concurrent Requirements

There are no concurrent requirements.

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

Reason

1. Condition: The LP/HP Fuel Pump Housing casting supplier did not validate the tensile strength result of bar material for three (3) pump housings shipped in 2015.
2. Background: The LP/HP Fuel Pump life is determined by the structural integrity of the tie web area. Although the proof pressure test is performed for individual LP/HP Fuel Pump housing and LP/HP Fuel Pump assembly, it is not a good indicator of lifing properties. Three (3) specific non-conforming housings are part of the material batch to be replaced out of an identified population of fifty-one (51) LP/HP Fuel Pump serial numbers.
3. Objective: Inspect the fifty-one (51) identified LP/HP Fuel Pumps listed in Table 1 of the Effectivity Data section and replace the three (3) fuel pumps identified with specific information outlined in the accomplishment instructions. These three (3) pumps are recommended to be removed prior to accumulating 7500 flight cycles.
4. Substantiation: The requirement of this Non-Modification Service Bulletin is generated from the direction of External Inspection Review Order (EIRO) control number JA-20170626.
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

Do an inspection to find the three (3) suspect LP/HP Fuel Pumps, and remove and replace the suspect LP/HP Fuel Pumps.

Compliance

Category 3
Accomplish within 7500 cycles.

Approval Data

The compliance statement and the procedures described in this Non-Modification 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 inspection.

Manpower

1. For Engines Installed On Aircraft
 - A. To Gain Access 1.0 hour.

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- B. To Perform Inspection 0.5 hours.
- C. To Replace the LP/HP Fuel Pump 3.5 hours.
- D. To Close Access 1.0 hour.
- E. Total Necessary Man-hours 6.0 hours.
- 2. For Engines Not Installed On Aircraft
 - A. To Perform Inspection 0.5 hours.
 - B. To Replace the LP/HP Fuel Pump 3.5 hours.
 - C. Total Necessary Man-hours 4.0 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 Non-Modification 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 Non-Modification Service Bulletin, a Technical Publications conversion table is provided in the Appendix.

- 1. ATA Locator — 73-12-41.
- 2. Internal Reference No. — 17VC377.
- 3. V2500 Standard Practices and Processes, P&W Ref. PN 2A4414, Chapter/Section 70-00-00.
- 4. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 73-12-41.
- 5. V2500 A1/A5 Series Engine Manual, P&W Ref. PN 2A4407, Chapter/Section 72-00-60.
- 6. V2500 A1/A5 Aircraft Maintenance Manual

Other Publications Affected

Not Applicable.

Interchangeability of Parts

Not Applicable.

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Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts (No)

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 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

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
	1	*	PUMP - FUEL, HIGH PRESSURE, LOW PRESSURE	5009913G (73-12-41-01-100G)	(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 4, Illustrated Parts Catalog for applicable replacement parts

Vendor Services or Special Components/Materials

Not Applicable.

Vendor Services or Special Components/Materials

P&W Designation	Vendor Designation	Name	Vendor Name & Address
5009913G	5009913G	PUMP - FUEL, HIGH PRESSURE, LOW PRESSURE	UTC Aerospace Systems (UTAS) Electric, Environmental & Engine Systems (ES) 2421 11th Street Rockford, IL 61104-7217 USA Attention to: Quality Clinic - Todd Karnitz - Spec, Prob & Proc Quality www.customers.utcaerospacesystems.com
Vendor Manufacturer's Code: 99167 See Illustrated Parts Catalog Vendor Manufacturer's Code List			

NOTE: EXCEPT FOR WORK OR SUPPLIES TO BE PERFORMED OR FURNISHED BY IAE, IT IS UNDERSTOOD THAT IAE DOES NOT ENDORSE THE WORK PERFORMED BY THE COMPANY OR COMPANIES NAMED HEREIN OR ANY OTHER COMPANY AND DOES NOT ACCEPT RESPONSIBILITY TO ANY DEGREE FOR THE SELECTION OF SUCH COMPANY OR COMPANIES FOR THE PERFORMANCE OF ANY WORK OR PROCUREMENT OF SUPPLIES.

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.

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Accomplishment Instructions

FOR ENGINES INSTALLED ON AIRCRAFT

NOTE: Non-Modification Service Bulletin incorporation on engines installed on aircraft may be desirable and should be individually evaluated.

1. Perform job set up as specified in Reference 6, Aircraft Maintenance Manual TASK 73-12-41-000-010-B paragraphs 2 and 3.
2. For the engines listed in Table 1, do an inspection for the associated suspect LP/HP Fuel Pump, PN 5009913G, serial number. See Figure 1.
 - A. For LP/HP fuel pump with a serial number not listed in Table 1:
 - (1) Complete the attached inspection form, see Figure 3, and perform close up as specified in Reference 6, Aircraft Maintenance Manual TASK 73-12-41-400-010-B paragraph 5.
 - B. For LP/HP fuel pump with a serial number listed in Table 1:
 - (1) Continue to Step 3.
3. Using an extension mirror and a flashlight inspect the LP/HP fuel pump main housing for three (3) markings engraved (vibro-etched) on the main housing casting. See Figure 2 Sheet 1 and Figure 2 Sheet 2.
 - A. Do an inspection for the following three (3) sequences of markings on the LP/HP fuel pump main housing casting.
 - (1) HT 4359, MT 24636, Circled X Marking 5202
 - (2) HT 4359, MT 24636, Circled X Marking 5203
 - (3) HT 4359, MT 24636, Circled X Marking 5291
 - B. Record the HT, MT, and Circled X numbers on the inspection form. See Figure 3.
 - C. If the LP/HP fuel pump housing contains the markings listed in Step 3.A.(1), Step 3.A.(2) or Step 3.A.(3) proceed to Step 4.
 - D. If the LP/HP fuel pump housing does not contains the markings listed in Step 3.A.(1), Step 3.A.(2) or Step 3.A.(3) perform close up as specified in Reference 6, Aircraft Maintenance Manual TASK 73-12-41-400-010-B paragraph 5.
 - E. Continue to Step 7.
4. Remove the suspect LP/HP Fuel Pump, PN 5009913G, as specified in Reference 6, Aircraft Maintenance Manual TASK 73-12-41-000-010-B paragraph 4.
5. Install a non-suspect LP/HP fuel pump as specified Reference 6, Aircraft Maintenance Manual TASK 73-12-41-400-010-B.
6. Return the removed LP/HP fuel pump to the vendor listed in the Vendor Services or Special Components/Materials section and a replacement LP/HP fuel pump will be provided.
7. Recording Instructions
 - A. A record of accomplishment is required.
 - B. Complete the attached inspection form, see Figure 3, and return to your local IAE field office.

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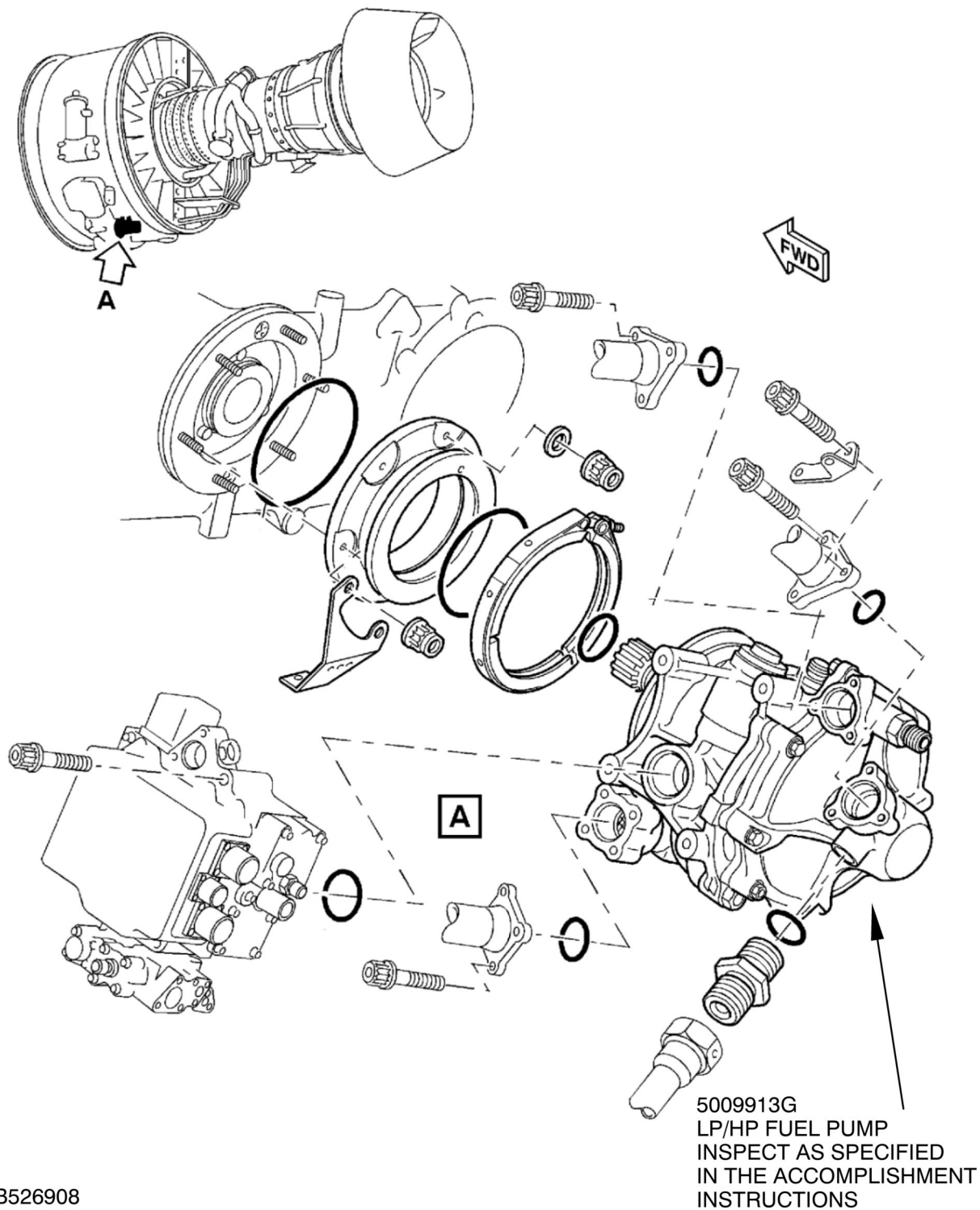
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FOR ENGINES NOT INSTALLED ON AIRCRAFT

1. For the engines listed in Table 1, do an inspection for the associated suspect LP/HP Fuel Pump, PN 5009913G, serial number. See Figure 1.
 - A. For LP/HP fuel pump with a serial number not listed in Table 1:
 - (1) Complete the attached inspection form, see Figure 3.
 - B. For LP/HP fuel pump with a serial number listed in Table 1:
 - (1) Continue to Step 2.
2. Using an extension mirror and a flashlight inspect the LP/HP fuel pump main housing for three (3) markings engraved (vibro-etched) on the main housing casting. See Figure 2 Sheet 1 and Figure 2 Sheet 2.
 - A. Do an inspection for the following three (3) sequences of markings on the LP/HP fuel pump main housing casting.
 - (1) HT 4359, MT 24636, Circled X Marking 5202
 - (2) HT 4359, MT 24636, Circled X Marking 5203
 - (3) HT 4359, MT 24636, Circled X Marking 5291
 - B. Record the HT, MT, and Circled X numbers on the inspection form. See Figure 3.
 - C. If the LP/HP fuel pump housing does not contain the markings listed in Step 2.A.(1), Step 2.A.(2) or Step 2.A.(3) continue to Step 6.
 - D. If the LP/HP fuel pump housing contains the markings listed in Step 2.A.(1), Step 2.A.(2) or Step 2.A.(3) continue to Step 3.
3. Remove the suspect LP/HP Fuel Pump, PN 5009913G, as specified in Reference 5, Engine Manual TASK 72-00-60-050-008-A00.
4. Install a non-suspect LP/HP fuel pump as specified Reference 5, Engine Manual TASK 72-00-60-450-008-B00.
5. Return the removed LP/HP fuel pump to the vendor listed in the Vendor Services or Special Components/Materials section and a replacement LP/HP fuel pump will be provided.
6. Recording Instructions
 - A. A record of accomplishment is required.
 - B. Complete the attached inspection form, see Figure 3, and return to your local IAE field office.



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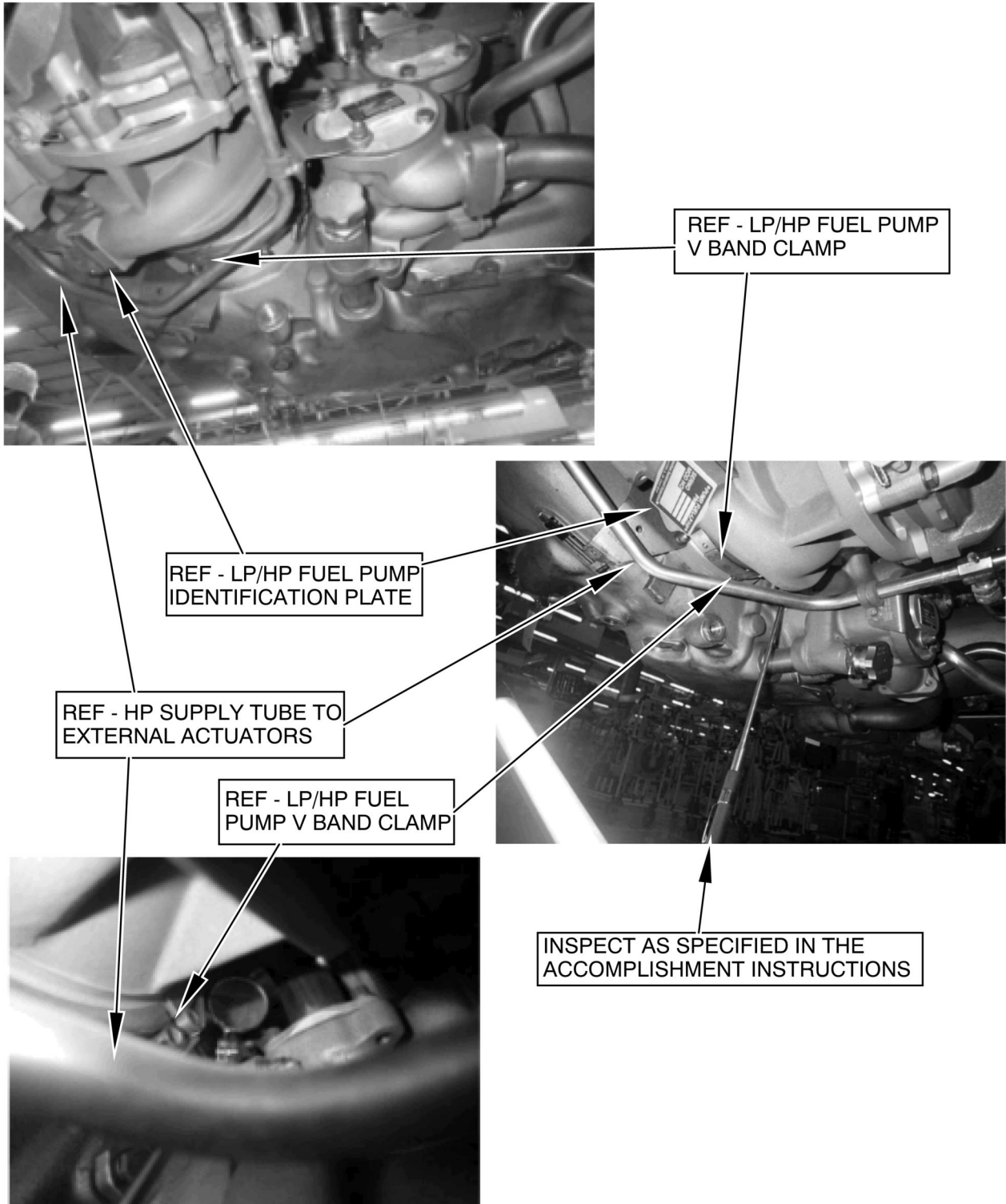
LOCATION OF THE LP/HP FUEL PUMP
FIGURE 1

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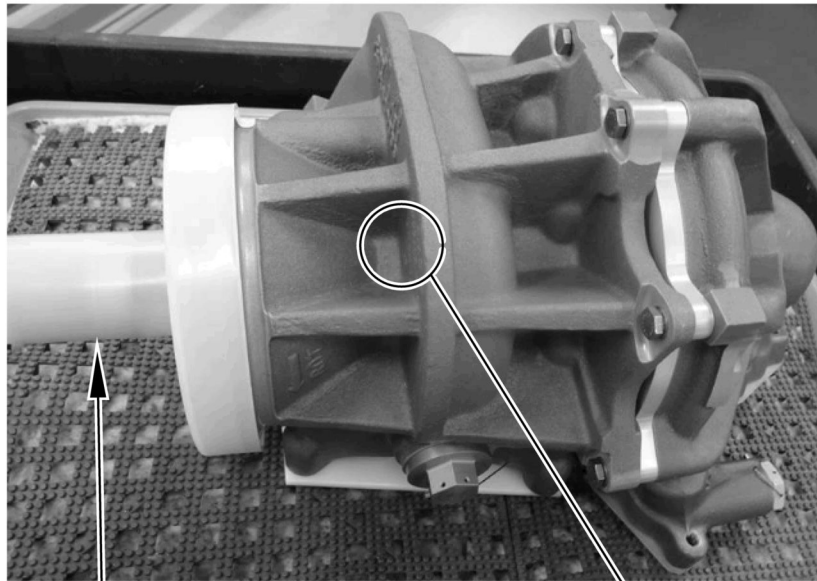
LOCATION OF THE LP/HP FUEL PUMP HOUSING HT, MT AND CIRCLED X MARKINGS
FIGURE 2, SHEET 1

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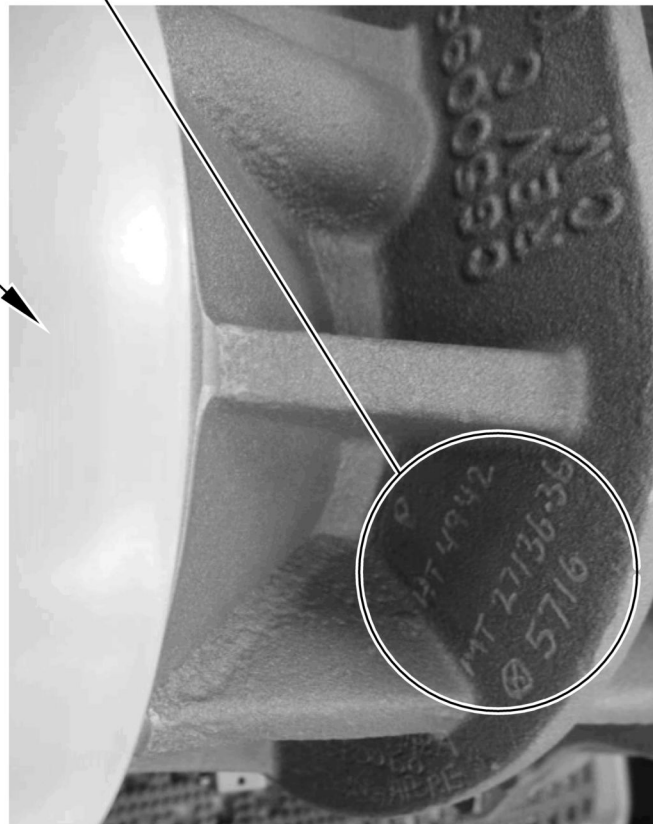
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REF - LP/HP FUEL PUMP
DRIVE SHAFT & MOUNTING
WITH SHIPPING ENCLOSURE



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LOCATION OF THE LP/HP FUEL PUMP HOUSING HT, MT AND CIRCLED X MARKINGS
FIGURE 2, SHEET 2

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Engine Serial Number:		LP/HP Pump PN:	5009913G
		LP/HP Pump SN:	
Complete if LP/HP Fuel Pump is listed in Table 1. Record the HT, MT, and <input checked="" type="checkbox"/> numbers	HT:	MT:	<input checked="" type="checkbox"/> :
Inspection Results:			
Engine and LP/HP Fuel Pump Serial number Match Table 1 (circle one)		Yes	No
Inspection complete LP/HP Fuel Pump Suspect (circle one) [LP/HP Fuel Pump has the sequence of numbers listed in paragraph 3.A.(1), (2) or (3) for Engines installed on Aircraft or paragraph 2.A.(1), (2) or (3) for Engines not installed on Aircraft]		Yes	No

Note: Provide a copy of these results to the IAE Field Office.
IAE Field Office to send the completed form to IAE CTS Accessories Team.

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LP/HP PUMP INSPECTION RESULTS FORM
FIGURE 3

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AppendixAdded DataInternal Reference Information

Revision No.	Reference Document	Origination
Original	EA 17VC377	RG/JAC
1	EA 17VC377	RG/JAC

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

To calculate part life, include the hours and/or cycles since the part was made. Use the total hours or cycles to calculate life limits that are the result of part modification, a part used in an engine with different thrust, or for some other reason.

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 Non-Modification 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
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	