



February 28, 2020

Subject: Service Bulletin V2500-ENG-74-0009 dated February 27, 2020; IGNITION — PLUG, IGNITER — INTRODUCTION OF A NEW IGNITER PLUG TO INCREASE PART DURABILITY

The subject Service Bulletin V2500-ENG-74-0009 is attached. A copy dated November 21, 2019 was inadvertently released to the Pratt & Whitney FleetCare Portal for a brief period on December 5, 2019. Please discard any copies that have a November 21/19 date.

I apologize for any inconvenience this may have caused.

A handwritten signature in black ink that reads 'Eva Selmi'.

Eva Selmi
Manager
Service Bulletins and Illustrated Parts Data/Catalogs
Customer Technical & Maintenance Services
Pratt & Whitney

SERVICE BULLETIN

IGNITION — PLUG, IGNITER — INTRODUCTION OF A NEW IGNITER PLUG
TO INCREASE PART DURABILITY

MODEL APPLICATION

V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5

BULLETIN ISSUE SEQUENCE

V2500 Series 74-0009

ATA NUMBER

74-21-41

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Supplier Service Bulletin

Champion Aerospace LLC Service Bulletin CH31991-74-001

Compliance Category

7

IAE Distribution Code

V2500

February 27/20

V2500-ENG-74-0009

Summary

The purpose of this Service Bulletin is to introduce a new igniter plug to improve the igniter plug 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 V18991*

* This estimate of engine serial numbers will be revised, if necessary, when parts are installed in engines at IAE.

Concurrent Requirements

There are no concurrent requirements.

Reason

1. Condition: The igniter plugs can fail to light because of ceramic insulator cracks.
2. Background: Igniter plugs that have a ground electrode with spark erosion damage can let the spring loaded ceramic insulator push into the eroded area when the engine is hot. While the engine cools, after engine shutdown, the ceramic insulator can apply a bending load/tensile stress that can crack the ceramic insulator.
3. Objective: To introduce a new igniter plug that has a nickel plated center electrode, an increased ceramic insulator shelf, and an increased ceramic insulator outer diameter to decrease the risk of possible ceramic insulator cracks.
4. Substantiation: The means of compliance for the new igniter plug is by similarity and analysis.
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 igniter plugs.

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 technical content under the JAR25 regulation of this document is approved under the authority of DOA ref. EASA.21J.031.

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. V2500 Standard Practices and Processes, P&W Ref. PN 2A4414, Chapter/Section 70-01-00.
2. V2500-A1 Series Illustrated Parts Catalog, P&W Ref. PN 2A4427, Chapter/Section 74-21-41.
3. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 74-21-41.

4. Champion Aerospace LLC Service Bulletin CH31991-74-001.
5. IAE Service Bulletin V2500-ENG-74-0007; Ignition — Plug, Igniter — Replace With A More Durable Igniter Plug. Issue Sequence 74-0007, V2500 Series.
6. This Service Bulletin is subject to aircraft Modification N° 167113 P20400 (classified minor).

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 74-21-41.
2. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 74-21-41.

Interchangeability of Parts

Old and new parts are directly interchangeable.

For interchangeability at the aircraft level, refer to the aircraft IPC.

Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts (Yes)

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 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
CH31991	2	*	PLUG — IGNITER	CH31964-1 (74-21-41-01-100 C)	(2)(B)(L)(V)

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
CH31991	2	*	PLUG — IGNITER	CH31964-1 (74-21-41-01-100 C)	(2)(B)(L)(V)

Modification and Spares Information

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.

Spare Parts Availability

(B) The new part will be available March 31, 2020.

(L) The old part will be supplied until the supply is fully used.

(V) Igniter Plug, PN CH31964-1 and PN CH31991 are Champion Aerospace LLC part numbers.

Vendor Services or Special Components/Materials

P&W Designation	Vendor Designation	Name	Vendor Name & Address
CH31991	CH31991	Igniter Plug	Champion Aerospace LLC 1230 Old Norris Rd Liberty, SC 29657 USA www.championaerospace.com
	CH31991-74-001	Service Bulletin	
Vendor Manufacturer's Code: 0AFL4 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

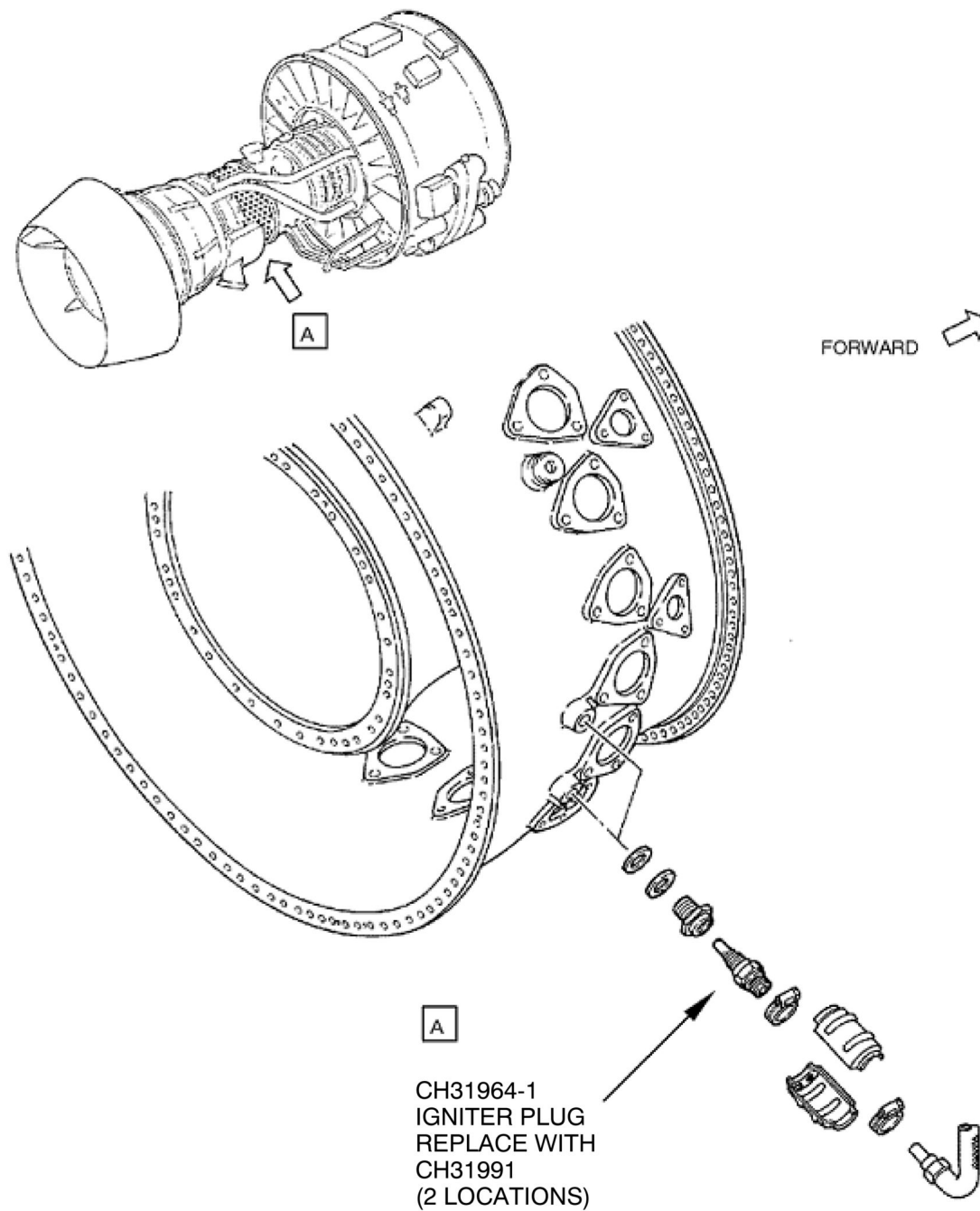
Not Applicable.

Other Material Information Data

Not Applicable.

Accomplishment Instructions

1. Replace the two Igniter Plugs, PN CH31964-1 with PN CH31991. See Figure 1.
2. Recording Instructions
 - A. A record of accomplishment is required.



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LOCATION OF THE IGNITER PLUGS
74-21-41
FIGURE 1

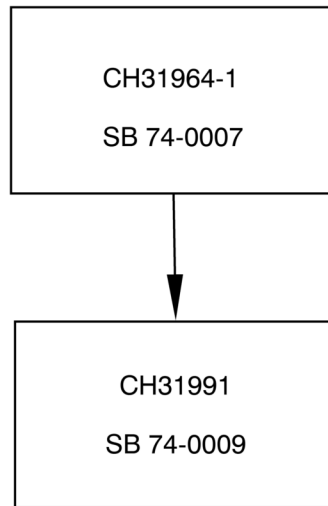
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Appendix

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



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IGNITER PLUG
FIGURE 2

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Added Data

Internal Reference Information

Revision No.	Reference Document	Origination
Original	EC19VI008	HB/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	