

SERVICE BULLETIN

ENGINE FUEL AND CONTROL — DATA ENTRY PLUG (DEP) — REPLACEMENT
OR MODIFICATION OF, TO PROVIDE SCN22/AB SOFTWARE AND REDUCED
GROUND IDLE (RGI) CAPABILITY

MODEL APPLICATION

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

BULLETIN ISSUE SEQUENCE

V2500 Series 73-0237

ATA NUMBER

73-22-35

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

Compliance Category

6

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Summary

The purpose of this Service Bulletin is to provide new Data Entry Plug (DEP), PN 2A4378 capable with SCN22/AB software and Reduced Ground Idle (RGI) capability for A5 engine configurations. The A5 SelectTwo™ engine configuration with RGI needs to be selectable by way of the DEP. The existing DEP does not have the capacity to support this new feature. Instructions for wiring the DEP are contained within Reference 4, Service Bulletin V2500-ENG-72-0285.

Planning Information

Effectivity Data

Engine Models Applicable

V2522-A5, V2524-A5, V2527M-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5
Engine Serial No. — All engines

Concurrent Requirements

This Service Bulletin must be done at the same time as Reference 5, Service Bulletin V2500-ENG-73-0236.

NOTE: This new DEP can be used for all V2500-A5 Engine Models with different variants introduced prior to this Service Bulletin**. To obtain the full benefits of previous variants, refer to the appropriate DEP modification Service Bulletins. If required, contact IAE Tech Services for technical assistance.

** — The list of the variants that were valid for SCN21 that are not supported by SCN22 are: 00, 03, 10, 30, 35, 40, and 50.

Reason

1. Condition: The A5 SelectTwo™ engine configuration with Reduced Ground Idle (RGI) needs to be selectable by way of the DEP. The existing DEP does not have the capacity to support this new feature.
2. Background: Spare pin configurations to accommodate RGI are not available in the current DEP.
3. Objective: Introduce a new part number and revise the capability of the DEP for SelectTwo™ engines incorporating SCN22/AB and RGI. Reprogrammed DEP configurations will be required to be wired (pinned) using even parity for SCN22/AB with A5 Standard, SelectOne™ and SelectTwo™ engines. Even parity DEP's will not be compatible with SCN21/AA and below software and the current DEP part number (odd parity) will not be compatible with SCN22/AB and above software.
4. Effects of Bulletin on:
 - Removal/Installation: Not affected.
 - Disassembly/Assembly: Not affected.
 - Cleaning: Not affected.
 - Inspection/Check: Not affected.
 - Repair: Not affected.
 - Testing: Affected (Reference 3, V2500-A5 Engine Manual, Test 11 will be updated).
5. Supplemental Information

None.

Description

Replace or do a modification of the DEP by rewiring per the instructions provided in this Service Bulletin.

Compliance

Category 6

Accomplish when the subassembly (i.e. modules, accessories, components, build groups) is disassembled sufficiently to afford access to the affected part and to all affected spare parts.

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 JAR 25 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. ATA Locator — 73-22-35.
2. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 73-22-35.
3. V2500 A1/A5 Series Engine Manual, P&W Ref. PN 2A4407, Chapter/Section 73-00-00-700-011.
4. V2500 Service Bulletin V2500-ENG-72-0285 (Engine — Conversion — Provide Instructions To Change The V2500-A5 Engine Rating By Modifying The Data Entry Plug).
5. V2500 Service Bulletin V2500-ENG-73-0236 (Engine Fuel And Control — Control, Electronic Engine (EEC) — Replacement Or Modification Of, To Incorporate SCN22/AB Software Configuration).
6. This Service Bulletin is subject to Aircraft modifications No. 154858 P13163 (classified major) and is covered by Aircraft Service Bulletin A320-73-1104. Under no circumstances shall the modified equipment, resulting from the application of this Service Bulletin be installed on the aircraft type unless its aircraft Service Bulletin is approved.

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 73-22-35.
2. V2500 A1/A5 Series Engine Manual, P&W Ref. PN 2A4407, Chapter/Section 73-00-00-700-011.

Interchangeability of Parts

Old and new parts are directly interchangeable.

For Aircraft: Refer to Reference 6, Airbus Service Bulletin A320-73-1104.

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 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
2A4378	1	7809.00	PLUG, KIT ASSY, DATA ENTRY	2A3106 (73-22-35-01-100)	(1)(A)(C)
2A2315 (HAA18704) (73-22-35-01-145)	AR	*	.LEAD, ELECTRICAL		(A)(E)
2A2304 (HAA19931) (73-22-35-01-155)	AR	141.00	.LEAD, ELECTRICAL		(A)(E)
2A2305 (HAA19932) (73-22-35-01-165)	AR	179.00	.LEAD, ELECTRICAL		(A)(E)
2A2306 (HAA19933) (73-22-35-01-175)	AR	212.00	.LEAD, ELECTRICAL		(A)(E)
2A3104 (73-22-35-01-105)	1	519.00	.LEAD, ELECTRICAL		(A)(E)
2A4288 (73-22-35-01-190)	AR	5.65	.PLUG, OPTION		(A)(E)
2A2324 (73-22-35-01-210)	AR	2.78	.CONTACT		(A)(E)
2A2303 (347-020) (73-22-35-01-130)	1	372.00	.BACKSHELL, ASSEMBLY		(A)(E)

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) The new part can be obtained by modification of the old part as specified in the Accomplishment Instructions.

Spare Parts Availability

- (A) The new part is available.
- (C) The old part will continue to be supplied.
- (E) The part is an expendable item necessary to do this bulletin.

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

For Engines Installed on The Aircraft

NOTE: Service bulletin incorporation on engines installed on aircraft may be desirable and should be individually evaluated.

1. Replace the Data Entry Plug (DEP) Assembly, PN 2A3106 with PN 2A4378 or do a modification of the DEP Assembly, PN 2A3106 as follows. See Figure 1.
 - A. Rewire the DEP to the specified engine variants as listed in Appendix, Table 1. Refer to the latest Reference 4, Service Bulletin No. V2500-ENG-72-0285 for instructions.
 - B. Appendix, Table 1 lists the engine variant numbers that are incorporated into the new DEP.

NOTE: Even though DEP, PN 2A4378 is introduced primarily for V2500-A5 SelectTwo™ Configurations, it can be used for both V2500-A5 Standard and SelectOne™ Configurations. See Figure 2 for explanation.

NOTE: New DEP can be used for all the engine variants that have been introduced in this Service Bulletin and earlier, however rewiring the DEP to previously introduced engine variant requires a DEP part number change. For example, if down changing software to SCN21/AA the DEP part number must change from PN 2A4378 to PN 2A3106.

NOTE: DEP, PN 2A4378 can be used for all V2500-A5 Engine Models with different variants introduced prior to this bulletin**. To obtain the full benefits of previous variants, refer to the appropriate DEP modification Service Bulletins. If required, contact IAE Tech Services for technical assistance.

** — The list of the variants that were valid for SCN21 that are not supported by SCN22 are: 00, 03, 10, 30, 35, 40, and 50.

- C. Appendix, Table 2 lists the Bump and RGI Enhancements.

NOTE: Bump designations for new DEP (PN 2A4378) include the old DEP (PN 2A3106) bump ratings in addition to RGI bump ratings.

2. Recording Instructions

- A. A record of accomplishment is required.

NOTE: Mark DEP PN on backshell (reference Figure 3) in accordance to Reference 4, Service Bulletin No. V2500-ENG-72-0285.

NOTE: Mark DEP PN on Engine Dataplate (reference Figure 4) in accordance to Reference 4, Service Bulletin No. V2500-ENG-72-0285.

For Engines Removed from The Aircraft

1. Replace the DEP Assembly, PN 2A3106 with PN 2A4378 or do a modification of the DEP Assembly, PN 2A3106 as follows. See Figure 1.
 - A. Rewire the DEP to the specified engine variants as listed in Appendix, Table 1. Refer to the latest Reference 4, Service Bulletin No. V2500-ENG-72-0285 for instructions.

- B. Appendix, Table 1 lists the engine variant numbers that are incorporated into the new DEP.

NOTE: Even though DEP, PN 2A4378 is introduced primarily for V2500-A5 SelectTwo™ Configurations, it can be used for both V2500-A5 Standard and SelectOne™ Configurations. See Figure 2 for explanation.

NOTE: New DEP can be used for all the engine variants that have been introduced in this Service Bulletin and earlier, however rewiring the DEP to previously introduced engine variant requires a DEP part number change. For example, if down changing software to SCN21/AA the DEP part number must change from PN 2A4378 to PN 2A3106.

NOTE: DEP, PN 2A4378 can be used for all V2500-A5 Engine Models with different variants introduced prior to this bulletin**. To obtain the full benefits of previous variants, refer to the appropriate DEP modification Service Bulletins. If required, contact IAE Tech Services for technical assistance.

** — Variants 00, 03, 10, 30, 35, 40, and 50 are not supported by SCN22/AB software.

- C. Appendix, Table 2 lists the Bump and RGI Enhancements.

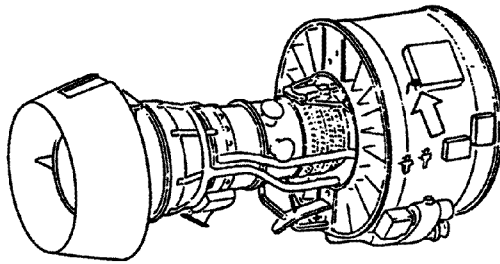
NOTE: Enhancements or Bump designations for DEP, (PN 2A4378) include the DEP, (PN 2A3106) bump ratings in addition to RGI bump ratings.

2. Recording Instructions

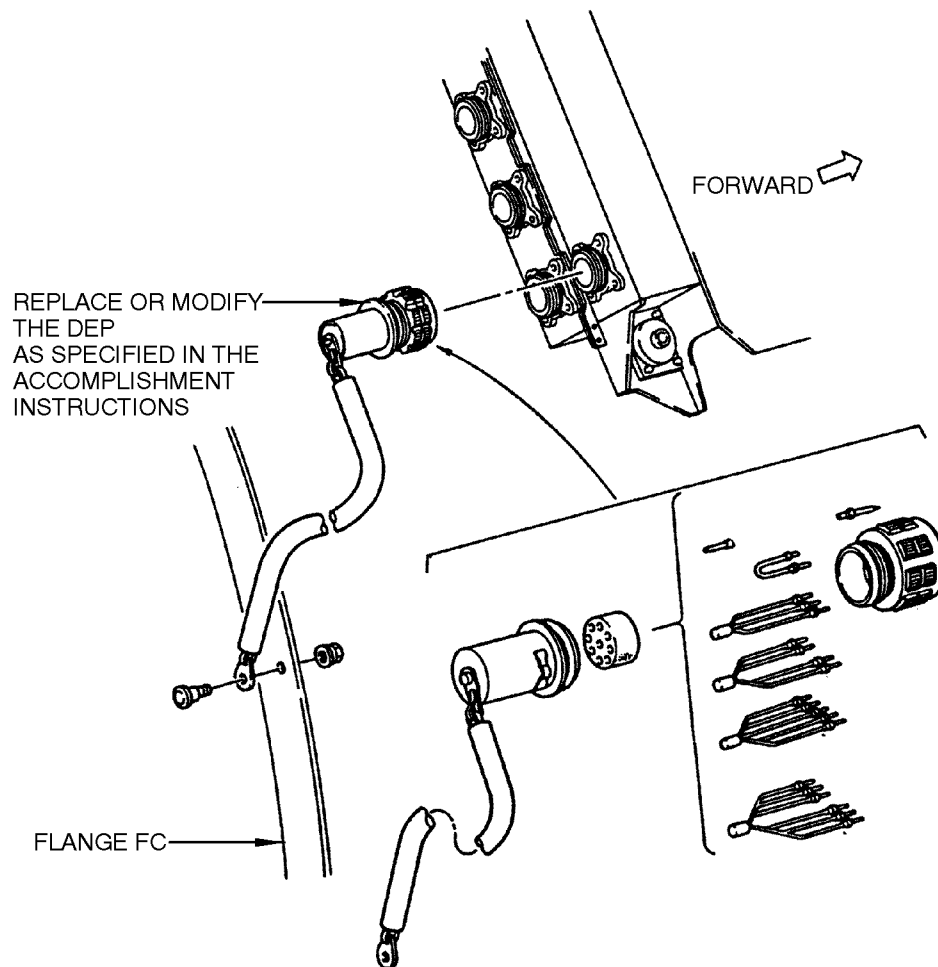
- A. A record of accomplishment is required.

NOTE: Mark DEP PN on backshell (reference Figure 3) in accordance to Reference 4, Service Bulletin No. V2500-ENG-72-0285.

NOTE: Mark DEP PN on Engine Dataplate (reference Figure 4) in accordance to Reference 4, Service Bulletin No. V2500-ENG-72-0285.



STARBOARD UPPER REAR



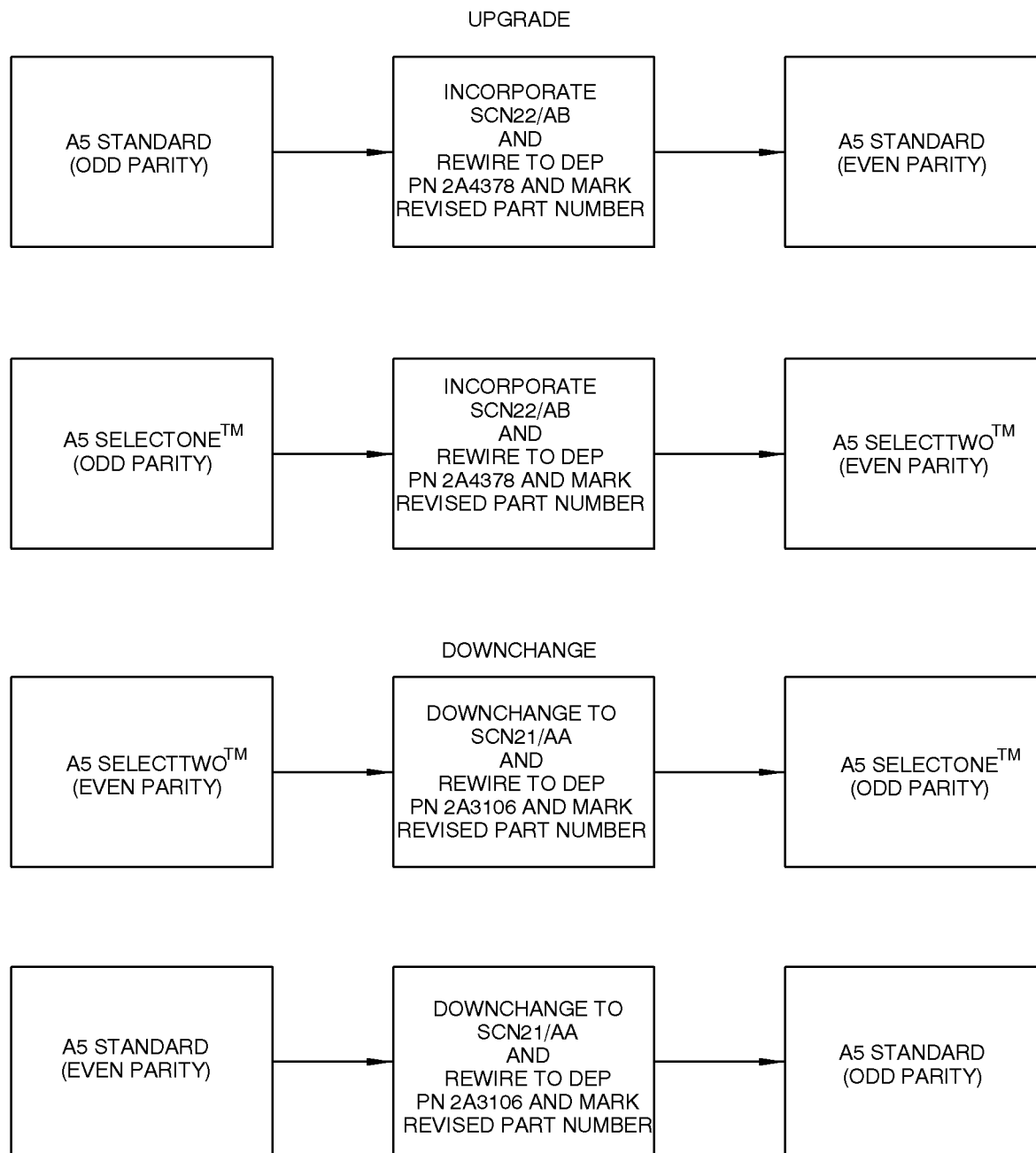
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LOCATION OF DEP ASSEMBLY
73-22-35
FIGURE 1

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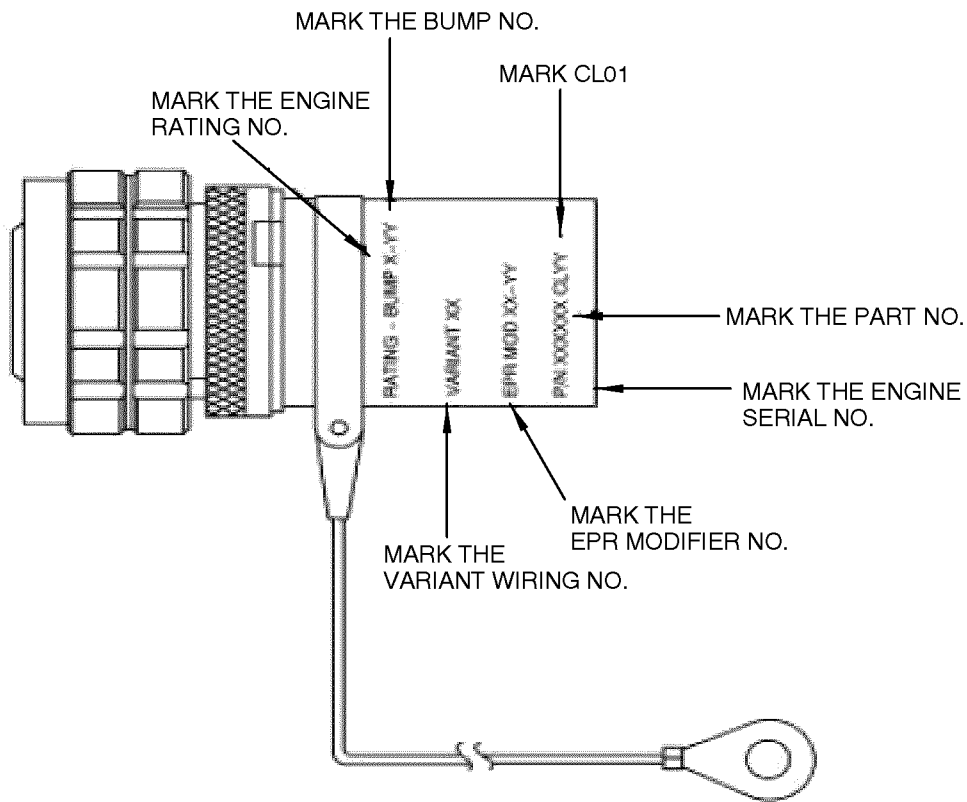
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B525485

UPGRADE AND DOWNGRAPH INSTRUCTIONS
FIGURE 2



B525540


IDENTIFICATION OF THE DATA ENTRY PLUG ASSEMBLY TO THE NEW PART NUMBER
FIGURE 3

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MARK THE PART NO.

		DEP <input type="checkbox"/> P/N <input type="checkbox"/> SPR <input type="checkbox"/> MOD <input type="checkbox"/>	
MODEL V2533-A5 TAKE-OFF RATING-BUMP 31600 IDEAL 2- <input type="checkbox"/> <input type="checkbox"/>		EMISSIONS FAR34 COMPLY INSTL APPR <input type="checkbox"/>	
MODEL V2530-A5 TAKE-OFF RATING-BUMP 29900 IDEAL 3- <input type="checkbox"/> <input type="checkbox"/>		TYPE CERTIFICATE <input type="checkbox"/> PROD CERTIFICATE 114NE	
MODEL V2527-A5 TAKE-OFF RATING-BUMP 24800 IDEAL 6- <input type="checkbox"/> <input type="checkbox"/>		MODEL V2527M-A5 TAKE-OFF RATING-BUMP 24800 IDEAL 9- <input type="checkbox"/> <input type="checkbox"/>	
MODEL V2527E-A5 TAKE-OFF RATING-BUMP 24800 IDEAL 7- <input type="checkbox"/> <input type="checkbox"/>		MODEL V2524-A5 TAKE-OFF RATING-BUMP 24480 IDEAL 8- <input type="checkbox"/> <input type="checkbox"/>	
SER NO. <input type="checkbox"/>		DATE <input type="checkbox"/>	

ENGINE IDENTIFICATION PLATE (PN 5A1942) BLANK FOR MARKING OF DEP VARIANT AND BUMP RATING

B525541

ENGINE IDENTIFICATION PLATE
FIGURE 4

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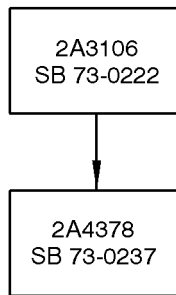
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Appendix

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

B525486



DEP ASSEMBLY
CHART A

Added Data

Internal Reference Information

Revision No.	Reference Document	Origination
Original	EC11VZ009	PStO/IEL

Appendix

Table 1 — New DEP PN 2A4378 Variants

Variant number	Applicable Engine Configuration	Thrust Level	Bump number	Crank (sec)	RGI Capable	Thrust Enhancements (if applicable)
01	A5-Standard	V2533	00	30	No	VSV More Open Schedule
02	A5-Standard	V2533	00	30	No	
04	A5-Standard	V2533	02	30	No	Enhanced MCL
06	A5-SelectTwo™	V2533	00	30	No	
07	A5-SelectTwo™	V2533	01	30	No	Bump Enabled
08	A5-SelectTwo™	V2533	02	30	No	Enhanced MCL
09	A5-SelectTwo™	V2533	03	30	No	Bump Enabled, Enhanced MCL
11	A5-Standard	V2533	02	30	No	Enhanced MCL, VSV More Open Schedule
12	A5-Standard	V2530	00	30	No	
14	A5-SelectTwo™	V2530	00	30	No	
15	A5-SelectTwo™	V2533	10	30	Yes	
16	A5-SelectTwo™	V2533	12	30	Yes	Enhanced MCL
17	A5-SelectTwo™	V2533	11	30	Yes	Bump Enabled
18	A5-SelectTwo™	V2533	13	30	Yes	Bump Enabled, Enhanced MCL
19	A5-SelectTwo™	V2530	10	30	Yes	
20	A5-SelectTwo™	V2527	10	30	Yes	
21	A5-SelectTwo™	V2527E	10	30	Yes	
22	A5-SelectTwo™	V2527E	11	30	Yes	Bump Enabled
23	A5-SelectTwo™	V2527M	10	30	Yes	
24	A5-SelectTwo™	V2524	10	30	Yes	
25	A5-SelectTwo™	V2522	10	30	Yes	
32	A5-Standard	V2527	00	30	No	
34	A5-SelectTwo™	V2527	00	30	No	
37	A5-Standard	V2527E	00	30	No	
42	A5-Standard	V2524	00	30	No	
47	A5-Standard	V2527M	00	30	No	

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Variant number	Applicable Engine Configuration	Thrust Level	Bump number	Crank (sec)	RGI Capable	Thrust Enhancements (if applicable)
49	A5-SelectTwo™	V2527M	00	30	No	
52	A5-Standard	V2522	00	30	No	
54	A5-SelectTwo™	V2522	00	30	No	
55	A5-SelectTwo™	V2524	00	30	No	
59	A5-SelectTwo™	V2527E	00	30	No	
60	A5-SelectTwo™	V2527E	01	30	No	Bump Enabled

Table 2 New DEP (PN 2A4378) “Enhancements or Bump” Designations

Bump Number	Description
00	No Bump
01	Bump Available for Take Off
02	MCL Activated
03	Bump for Take Off and MCL (both available)
10	RGI with no Bump
11	RGI with Bump Available for Take Off
12	RGI with MCL Activated
13	RGI with Bump for Take Off and MCL (both available)

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

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	