



400 MAIN STREET, MAIL STOP 121-10
EAST HARTFORD, CT 06108, USA.
TELEPHONE:- 860 565 5515
FAX:- 860 565 0600

DATE: May 25/09

P.O. BOX 31, DERBY
TELEGRAMS - 'ROYCAR' DERBY
TELEX - 37645
TELEPHONE:- 44 (0) 1332 242424
FAX:- 44 (0) 1332 249936

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V2500-A1/A5 SERIES PROPULSION SYSTEMS SERVICE BULLETIN

This document transmits the Initial Issue of Service Bulletin V2500-ENG-72-0553 and the Initial Issue of the Supplement.

Service Bulletin Initial Issue

Remove	Incorporate	Reason for change
	Pages 1 to 26 of the Service Bulletin.	Initial Issue.

Supplement Initial Issue

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	Page 1 of the Supplement.	Initial Issue.

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Transmittal - Page 2

ENGINE – INTRODUCTION OF A NEW TRIM BALANCE PROBE AND DELETION OF RELATED POWERPLANT
VOLTAGE DIVIDER HARNESS ASSEMBLY

1. Planning Information

A. Effectivity

(1) Airbus A319

- (a) V2522-A5, V2524-A5, V2527M-A5 (A5 Standard and A5 SelectOne™ Retrofit Standard)

Engines prior to Serial No. V13185.

- (b) V2522-A5, V2524-A5, V2527M-A5 (A5 SelectOne™ Production Standard)

Engines from Serial Number V15002 to V15108 and Serial Number V15119 to V15256.

(2) Airbus A320

- (a) V2500-A1 Engines prior to Serial No. V0362.

- (b) V2524-A5, V2527-A5, V2527E-A5 (A5 Standard and A5 SelectOne™ Retrofit Standard)

Engines prior to Serial No. V13185.

- (c) V2524-A5, V2527-A5, V2527E-A5 (A5 SelectOne™ Production Standard)

Engines from Serial Number V15002 to V15108 and Serial Number V15119 to V15256.

(3) Airbus A321

- (a) V2530-A5, V2533-A5 (A5 Standard and A5 SelectOne™ Retrofit Standard)

Engines prior to Serial No. V13185.

- (b) V2530-A5, V2533-A5 (A5 SelectOne™ Production Standard)

Engines from Serial Number V15002 to V15108 and Serial Number V15119 to V15256.

B. Concurrent Requirements

None.

C. Reason**(1) Problem**

The new Arlon trim balance probe introduced by Service Bulletin V2500-ENG-72-0508 can cause intermittent amber crossing of the N1 vibration display in the aircraft cockpit at N1 speeds above 80 percent. This can cause a warning display in the aircraft cockpit.

(2) Background

As an initial solution, Service Bulletin V2500-ENG-71-0303 introduced a voltage divider harness assembly, connected between the trim balance probe and the Engine Vibration Monitoring Unit (EVMU) to reduce the output voltage.

(3) Objective

As a final solution, incorporation of this Service Bulletin is designed to ensure continual display of the N1 vibration in the cockpit.

(4) Substantiation

The changes introduced by this Service Bulletin were the subject of satisfactory engineering analysis. This Service Bulletin complies with the applicable engine certification basis.

(5) Effect of Bulletin on:**(a) Operation**

Not affected.

(b) Maintenance

Affected (Refer to paragraph 1.0. Other Publications Affected).

(c) Overhaul

Affected (Refer to paragraph 1.0. Other Publications Affected).

(d) Repair Schemes

Not affected.

(e) Interchangeability

Not affected.

(f) Fits and Clearances

Affected (Refer to paragraph 1.D. Description and section 3. Accomplishment Instruction).

D. Description

NOTE: With incorporation of this Service Bulletin the Voltage Divider Harness becomes incompatible. It is not permitted to operate the new Trim Balance Probe together with the Voltage Divider Harness.

- (1) A new trim balance probe is introduced. The air gap between the sensing face of the trim balance probe and the phonic wheel is increased.
- (2) The voltage divider harness, the floating connection and related attaching parts of the assembly are deleted.
- (3) The clip position CP5732 is changed.
- (4) The clip position CP6150 is deleted.
- (5) The clip position CP6151 is deleted, the original Pre-Service Bulletin V2500-ENG-71-0303 standard bolt and washer are installed.

E. Compliance

Category Code 7

Accomplish when supply of superseded parts has been depleted.

F. Approval

The part number changes and/or part modifications described in sections 2 and 3 of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine model(s) listed.

G. Manpower

- (1) In Service

Not applicable.

- (2) At Overhaul

Applicable (Hours not affected).

H. Material Price and Availability

Modification kit is not required; parts supplied as single line items.

For prices and availability of future spares, refer to supplement to this Service Bulletin.

I. Tooling Price and Availability

Special tools are not required.

J. Industry Support Information

Not applicable.

K. Weight and Balance**(1) Weight Change**

Minus 0.2 lb (0,11 kg).

(2) Moment Arm

1.1 in (28 mm) rearward of datum.

(3) Datum

Engine Front Mount Centreline (Power Plant Station (PPS) 100).

L. Electrical Load Data

This Service Bulletin has no effect on the aircraft electrical load.

M. Software Accomplishment Summary

Not applicable.

N. References

- (1) IAE V2500 Engine Manual (E-V2500-1IA), Chapter/Section 72-00-32, 72-32-00, 72-32-10 and 72-32-18.
- (2) IAE V2500 Illustrated Parts Catalogues (IPC) (S-V2500-1IA, S-V2500-2IA, S-V2500-2IB, S-V2500-2SA, S-V2500-2SB, S-V2500-5IA, S-V2500-5IB, S-V2500-5SA, S-V2500-5SB, S-V2500-6IA, S-V2500-6IB, S-V2500-6SA, S-V2500-6SB, S-V2500-7IA, S-V2500-7IB, S-V2500-7SA and S-V2500-7SB), Chapter/Section 71-52-43, 72-32-00, 72-32-10 and 72-32-18 will be revised to include the new part numbers (Refer to 2. Material Information).
- (3) V2500 Standard Practices/Processes Manual, Chapters 70-09-00, 70-41-01 and 70-43-01.

(4) V2500 Service Bulletin:

V2500-ENG-71-0303 - POWER PLANT - ENGINE ELECTRONIC CONTROLLER (EEC) HARNESS-CORE - INTRODUCTION OF VOLTAGE DIVIDER HARNESS ASSEMBLY BETWEEN THE TRIM BALANCE PROBE AND THE ENGINE HARNESS.

(5) V2500 Service Bulletin:

V2500-ENG-72-0508 - ENGINE - INTRODUCTION OF NEW SPEED AND TRIM BALANCE PROBES.

(6) Airbus Aircraft Modification No. 39837.

(7) Internal Reference No.

Engineering Change No.: 07VI004, 07VR008, 07VR008-02, 07VI004-02 and 07VR008-03.

(8) ATA Locators - 71-52-43, 72-00-32, 72-32-00, 72-32-10 and 72-32-18.

O. Other Publications Affected

- (1) IAE V2500 Illustrated Parts Catalogues (IPC) (S-V2500-1IA, S-V2500-2IA, S-V2500-2IB, S-V2500-2SA, S-V2500-2SB, S-V2500-5IA, S-V2500-5IB, S-V2500-5SA, S-V2500-5SB, S-V2500-6IA, S-V2500-6IB, S-V2500-6SA, S-V2500-6SB, S-V2500-7IA, S-V2500-7IB, S-V2500-7SA and S-V2500-7SB), Chapter/Section 71-52-43, 72-32-00, 72-32-10 and 72-32-18 will be revised to include the new part numbers (Refer to 2. Material Information).
- (2) IAE V2500 Engine Manual (E-V2500-1IA), Chapters 72-00-40, 72-32-00 and 72-32-10.
- (3) Trouble Shooting Manual, Chapters 77-00-00, PB201 and 77-30-00, PB201.

P. Interchangeability of Parts

Affected (Refer to paragraph 2. Material Information).

- (1) The trim balance probe is one-way interchangeable (new in place of old, only).

2. Material Information

A. The kit required consists of the following parts:

None.

B. Parts to be reworked:

None.

C. Parts to be re-identified:

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
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For A1 engines:

72-32-00

01-001	5W0255	1	LPC/intermediate case module	-	5W0227	(1D)
01-001	5W0273	1	LPC/intermediate case module	-	5W0016	(1D)
01-001	5W0274	1	LPC/intermediate case module	-	5W0102	(1D)
01-001	5W0275	1	LPC/intermediate case module	-	5W0127	(1D)
01-001	5W0276	1	LPC/intermediate case module	-	5W0142	(1D)
01-001	5W0277	1	LPC/intermediate case module	-	5W0153	(1D)
01-001	5W0278	1	LPC/intermediate case module	-	5W0156	(1D)
01-001	5W0279	1	LPC/intermediate case module	-	5W0160	(1D)
01-001	5W0280	1	LPC/intermediate case module	-	5W0175	(1D)
01-001	5W0281	1	LPC/intermediate case module	-	5W0161	(1D)



FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01-001	5W0282	1	LPC/intermediate case module	—	5W0162	(1D)
01-001	5W0283	1	LPC/intermediate case module	—	5W0163	(1D)
01-001	5W0284	1	LPC/intermediate case module	—	5W0164	(1D)
01-001	5W0285	1	LPC/intermediate case module	—	5W0165	(1D)
01-001	5W0286	1	LPC/intermediate case module	—	5W0176	(1D)
01-001	5W0287	1	LPC/intermediate case module	—	5W0177	(1D)
01-001	5W0288	1	LPC/intermediate case module	—	5W0178	(1D)
01-001	5W0289	1	LPC/intermediate case module	—	5W0179	(1D)
01-001	5W0290	1	LPC/intermediate case module	—	5W0180	(1D)
01-001	5W0291	1	LPC/intermediate case module	—	5W0229	(1D)
01-001	5W0292	1	LPC/intermediate case module	—	5W0230	(1D)
01-001	5W0293	1	LPC/intermediate case module	—	5W0231	(1D)
01-001	5W0294	1	LPC/intermediate case module	—	5W0232	(1D)
01-001	5W0295	1	LPC/intermediate case module	—	5W0233	(1D)
01-001	5W0296	1	LPC/intermediate case module	—	5W0234	(1D)
01-001	5W0297	1	LPC/intermediate case module	—	5W0235	(1D)

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01-001	5W0298	1	LPC/intermediate case module	—	5W0236	(1D)
01-001	5W0299	1	LPC/intermediate case module	—	5W0237	(1D)
01-001	5W0300	1	LPC/intermediate case module	—	5W0238	(1D)
01-001	5W0301	1	LPC/intermediate case module	—	5W0239	(1D)
01-001	5W0302	1	LPC/intermediate case module	—	5W0240	(1D)
01-001	5W0303	1	LPC/intermediate case module	—	5W0241	(1D)
01-001	5W0304	1	LPC/intermediate case module	—	5W0242	(1D)
01-001	5W0305	1	LPC/intermediate case module	—	5W0243	(1D)
72-32-10						
01-001	5W0252	1	Internal gearbox and support assembly	—	5W0099	(1D)
For A5 engines:						
72-32-00						
01-001	5W0254	1	LPC/intermediate case module	—	5W0228	(1D)
01-001	5W0256	1	LPC/intermediate case module	—	5W0130	(1D)
01-001	5W0257	1	LPC/intermediate case module	—	5W0150	(1D)
01-001	5W0258	1	LPC/intermediate case module	—	5W0157	(1D)

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FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01-001	5W0259	1	LPC/intermediate case module	—	5W0155	(1D)
01-001	5W0260	1	LPC/intermediate case module	—	5W0166	(1D)
01-001	5W0261	1	LPC/intermediate case module	—	5W0167	(1D)
01-001	5W0262	1	LPC/intermediate case module	—	5W0182	(1D)
01-001	5W0263	1	LPC/intermediate case module	—	5W0183	(1D)
01-001	5W0264	1	LPC/intermediate case module	—	5W0244	(1D)
01-001	5W0265	1	LPC/intermediate case module	—	5W0245	(1D)
01-001	5W0266	1	LPC/intermediate case module	—	5W0246	(1D)
01-001	5W0267	1	LPC/intermediate case module	—	5W0247	(1D)
01-001	5W0268	1	LPC/intermediate case module	—	5W0248	(1D)
01-001	5W0269	1	LPC/intermediate case module	—	5W0249	(1D)
01-001	5W0270	1	LPC/intermediate case module	—	5W0250	(1D)
01-001	5W0271	1	LPC/intermediate case module	—	5W0251	(1D)
01-001	5W0272	1	LPC/intermediate case module	—	5W0181	(1D)
72-32-10						
01-001	5W0253	1	Internal gearbox and support assembly	—	5W0131	(1D)

D. New production parts:

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
For all engines:						
71-52-43						
01-310	4W0112	1	.Bolt (CP5732)	—	AS21425	(2D)(S1)
01-311	5W1086	1	.Washer (CP5732)	—		(2D)(S1)
72-32-00						
02-307	AS21014	1	.Bolt	—	—	(3D)(S1)
02-308	MS9321-10	1	.Washer	—	—	(3D)(S1)
72-32-10						
01-136	5A1917	6	.Shim, 0.020 in. (0,5 mm) thick	—	—	(S1)
01-137	5A1918	6	.Shim, 0.024 in. (0,6 mm) thick	—	5A5379	(S1)
01-138	5A1919	6	.Shim, 0.028 in. (0,7 mm) thick	—	5A5380	(S1)
01-139	5A1920	6	.Shim, 0.031 in. (0,8 mm) thick	—	5A5381	(S1)
01-140	5A1921	6	.Shim, 0.035 in. (0,9 mm) thick	—	5A5382	(S1)
01-141	5A1922	6	.Shim, 0.039 in. (1,0 mm) thick	—	—	(S1)
72-32-18						
01-300	1021-3-13	1	.Probe, Trim Balance	—	1021-2-12 (A)	(S1)

E. Redundant parts:

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
For all engines						
71-52-43						
01-314	-	1	.Spacer, 15 mm	-	UP10480	(A)(2D)
01-315	-	REF	.Spacer, sleeve	-	5W1030	(A)
06-005	-	1	.Voltage divider harness, assembly	-	6A8933	(A)
06-203	-	1	.Clip (CP5732)	-	AS62205	(A)(2D)
06-300	-	1	.Bolt assembly	-	6A8967	(A)(2D)
06-308	-	1	.Bolt (CP6150)	-	4W0344	(A)(2D)
06-311	-	1	.Clip (CP6150)	-	AS62203	(A)(2D)
06-314	-	1	.Nut (CP6150)	-	4W0001	(A)(2D)
06-320	-	1	.Nut	-	AS27831	(A)(2D)
72-32-00						
02-232	-	1	.Bracket	-	6A8958	(A)(2D)
02-233	-	1	.Bolt	-	AS21030	(A)(2D)
02-234	-	1	.Spacer	-	5A1909	(A)(2D)

F. Vendor units affected by this bulletin:

The type of equipment affected by this modification is listed below for information only:

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
72-32-18						
01-300	1021-3-13	1	.Probe, Trim Balance	-	1021-2-12 (A)(S1)	

G. Instruction disposition codes:

- (A) Old part becomes redundant upon embodiment of this Service Bulletin.
- (1D) Old part may can be re-identified to the new part number.
- (2D) Old part may can be used on other applications.
- (3D) Quantity increased from 2 to 3.
- (S1) New and additional parts must replace old parts as a complete set per engine.

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3. Accomplishment Instructions

A. Rework Instructions

NOTE: The re-identification procedure that follows has to be done after accomplishment of the Assembly Instructions of this Service Bulletin.

- (1) Re-identify the Low Pressure (LP) compressor/intermediate case module and the internal gearbox and support assembly.

(Refer to the Standard Practices/Processes Manual, Chapter 70-09-00)

(a) Consumable Materials

- (i) Refer to the table that follows:

COMAT NO.	DESIGNATION
05-126	Scotch Brite

For the details of the consumable material given in the table above refer to the Overhaul Processes and Consumables Index.

(b) Tools and Equipment

- (i) Refer to the table that follows:

REFERENCE	DESIGNATION
No Specific	Vibro-peen Equipment

NOTE: Characters are produced by a rapidly vibrating tool which may be hand guided but it is preferred, where practical, to be guided by a pantograph, stencil or other mechanical/electrical mechanism.

- (c) Use vibro-peen equipment to re-identify the LP compressor/intermediate case module.

- (d) Vibro-peen a line through the old part number. Vibro-peen the applicable new part number on the LP compressor/intermediate case module identification plate (Refer to the Illustrated Parts Catalogue, Chapter 72-32-85, 03-100) adjacent to the old part number (For the applicable part number refer to the table that follows):

NOTE: Use characters of the same height and width as used for the old part number.

- (i) For A1 Engines:

Old Part Number	New Part Number
5W0227	5W0255
5W0016	5W0273
5W0102	5W0274
5W0127	5W0275
5W0142	5W0276
5W0153	5W0277
5W0156	5W0278
5W0160	5W0279
5W0175	5W0280
5W0161	5W0281
5W0162	5W0282
5W0163	5W0283
5W0164	5W0284
5W0165	5W0285
5W0176	5W0286
5W0177	5W0287
5W0178	5W0288
5W0179	5W0289
5W0180	5W0290
5W0229	5W0291
5W0230	5W0292
5W0231	5W0293
5W0232	5W0294
5W0233	5W0295
5W0234	5W0296
5W0235	5W0297
5W0236	5W0298
5W0237	5W0299
5W0238	5W0300
5W0239	5W0301
5W0240	5W0302
5W0241	5W0303
5W0242	5W0304
5W0243	5W0305

(ii) For A5 Engines:

Old Part Number	New Part Number
5W0228	5W0254
5W0130	5W0256
5W0150	5W0257
5W0157	5W0258
5W0155	5W0259
5W0166	5W0260
5W0167	5W0261
5W0182	5W0262
5W0183	5W0263
5W0244	5W0264
5W0245	5W0265
5W0246	5W0266
5W0247	5W0267
5W0248	5W0268
5W0249	5W0269
5W0250	5W0270
5W0251	5W0271
5W0181	5W0272

(e) Use vibro-peen equipment to re-identify the internal gearbox and support assembly.

(i) For A1 Engines:

Old Part Number	New Part Number
5W0099	5W0252

(ii) For A5 Engines:

Old Part Number	New Part Number
5W0131	5W0253

(f) Use scotch brite (CoMat 05-126) to remove any raised metal or burrs which have been produced during the re-identification procedure of the LP compressor/intermediate case module or the internal gearbox and support assembly.

(g) Make sure the areas where the new part numbers have been marked are not damaged and are clean and contain no unwanted material.

B. Assembly Instructions

APPLICABLE FOR ENGINES 'AT OVERHAUL'

(1) General

CAUTION: DO NOT BEND THE ELECTRICAL CABLE CONDUIT TOO MUCH WHEN YOU DISCONNECT/CONNECT THE ELECTRICAL CONNECTOR. THE CONDUIT CAN BE DAMAGED AND CAN CAUSE ELECTRICAL CIRCUIT DEFECTS.

CAUTION: MAKE SURE ELECTRICAL CONNECTORS DO NOT HAVE BENT PINS AND THAT THEY ARE CLEAN BEFORE YOU CONNECT THEM. DAMAGE OR CONTAMINATION OF THE ELECTRICAL CONNECTORS CAN CAUSE DAMAGE TO THE COMPONENTS.

- (a) Obey all the WARNINGS and CAUTIONS in the procedures that are referred to.
 - (b) Consumable Materials
 - (i) Refer to the Overhaul Processes and consumable index.
 - (c) Tools and Equipment
 - (i) Refer to the related Manual tasks given in this instruction.
 - (d) Refer to the Standard Practices/Processes Manual, Chapter 70-41-01 for all torque procedures.
 - (e) Refer to the Standard Practices/Processes Manual, Chapter 70-43-01 for the procedure to connect electrical connectors.
- (2) Remove the intermediate case module from the engine (Refer to the Engine Manual, Chapter/Section 72-00-32, Removal).
 - (3) Disassemble the intermediate case module (Refer to the Engine Manual, Chapter/Section 72-32-00, Disassembly).
 - (4) Disassemble the internal gearbox and support assembly (Refer to the Engine Manual, Chapter/Section 72-32-10, Disassembly)
 - (a) Remove the old trim balance probe (72-32-18, 01-300), P/N 1021-2-12 from the mounting bracket.

- (5) Assemble the internal gearbox and support assembly (Refer to the Engine Manual, Chapter/Section 72-32-10, Assembly)

CAUTION: DO NOT GET THE TRIM BALANCE PROBE NEAR ANY MAGNETS, THIS CAN DAMAGE THE FUNCTION OF THE PROBE.

NOTE: Make a check for electrical conductivity before the gap is set between the trim balance probe and the dummy phonic wheel.

- (a) Install the new trim balance probe

- (i) Install the new trim balance probe (72-32-18, 01-300), P/N 1021-3-13 on the mounting bracket.
 - (ii) Torque tighten the two nuts to 36 to 45 lbf in. (4,00 to 5,00 Nm).
 - (iii) Use a thickness gauge to measure the gap between the sensing face of the trim balance probe and the dummy phonic wheel.
 - (iv) Calculate and select a maximum of two shims to give a gap of 0.067 to 0.075 in. (1,7 to 1,9 mm).
 - (v) Remove the trim balance probe.
 - (vi) Install the selected shims between the trim balance probe and the bracket.
 - (vii) Torque tighten the two nuts to 36 to 45 lbf in. (4,00 to 5,00 Nm).
 - (viii) Use a thickness gauge to measure the gap between the sensing face of the trim balance probe and the dummy phonic wheel.
- (1) If the gap is within the limits given above proceed with step (6) of this Service Bulletin.
 - (2) If the gap is outside the limits given above repeat steps (5)(a)(iv) to (5)(a)(viii).

- (6) Get access to the right inner area of the intermediate case.

- (7) Remove the parts at the clip position CP6150 on the bracket (72-32-00, 02-232) (Refer to Figure 1, Sheets 1 and 2)

- (a) Remove the old nut (71-52-43, 06-320), P/N AS27831 that attaches the terminal lug D of the voltage divider harness assembly (71-52-43, 06-005) and the trim balance sensor lead 4000VS-8 of the fan speed/trim balance probes harness (72-32-37, 01-100) to the bolt assembly (71-52-43, 06-300).

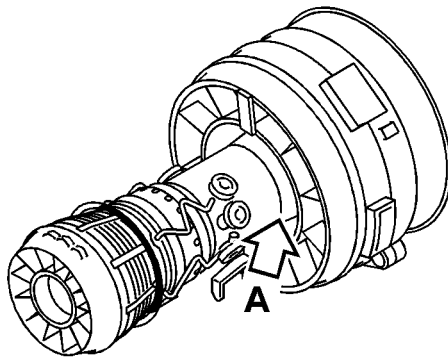
- (b) Remove the terminal lug D of the voltage divider harness assembly (71-52-43, 06-005) and the trim balance sensor lead 4000VS-8 of the fan speed/trim balance probes harness (72-32-37, 01-100) from the bolt assembly (71-52-43, 06-300).
 - (c) Remove the old bolt (71-52-43, 06-308), P/N 4W0344 and the old nut (71-52-43, 06-314), P/N 4W0001 that attach the grounding terminal lug E of the voltage divider harness assembly (71-52-43, 06-005) and the clip (71-52-43, 06-311) to the bracket (72-32-00, 02-232).
 - (d) Remove the old clip (71-52-43, 06-311), P/N AS62203 with the old bolt assembly (71-52-43, 06-300), P/N 6A8967.
- (8) Remove the parts at the changed clip position CP5732 on the bracket (75-27-49, 01-050) (Refer to Figure 1, Sheets 1 and 3)
- (a) Remove the old bolt (71-52-43, 01-310), P/N AS21425, the old spacer (71-52-43, 01-314), P/N UP10480 and the spacer (71-52-43, 01-315) that attach the clip (71-52-43, 06-203), the grounding terminal lug C of the voltage divider harness assembly (71-52-43, 06-005) and the clip (71-52-43, 01-313) to the bracket (75-27-49, 01-050).
 - (b) Remove the old voltage divider harness assembly (71-52-43, 06-005), P/N 6A8933.
 - (c) Remove the old clip (71-52-43, 06-203), P/N AS62205.
- (9) Install the parts at the changed clip position CP5732 to the bracket (75-27-49, 01-050) (Refer to Figure 2, Sheets 1 and 3)
- (a) Install the new bolt (71-52-43, 01-310), P/N 4W0112, the new washer (71-52-43, 01-311), P/N 5W1086 and the spacer (71-52-43, 01-315) that attach the clip (71-52-43, 01-313) with the core harness (71-52-43, 01-005) to the bracket (75-27-49, 01-050).
 - (b) Torque the bolt (71-52-43, 01-310) to 40 lbf in. (4,5 Nm).
- (10) Remove the parts at the clip position CP6151 from the terminal block (1) of the fan speed/trim balance probe harness (72-32-37, 01-100) (Refer to Figure 1, Sheets 1 and 2 and to Figure 2, Sheets 1 and 2)
- (a) Remove the old bolt (72-32-00, 02-233), P/N AS21030 and the old spacer (72-32-00, 02-234), P/N 5A1909 that attach the old bracket (72-32-00, 02-232), P/N 6A8958 to the terminal block (1).
 - (b) Install the new bolt (72-32-00, 02-307), P/N AS21014 and the new washer (72-32-00, 02-308), P/N MS9321-10 that attach the terminal block (1) to the intermediate case.
 - (i) Torque the bolt (72-32-00, 02-307) to between 85 and 105 lbf in. (10 and 12 Nm).

- (11) Disconnect the voltage divider harness assembly (71-52-43, 06-005) and the core harness (71-52-43, 01-005) from the terminal block (1) of the fan speed/trim balance probes harness (72-32-37, 01-100) (Refer to Figure 1, Sheets 1 and 2)
 - (a) Remove the nut (71-52-43, 01-009) and the washer (71-52-43, 01-007) that attach the terminal lug A1 of the voltage divider harness assembly (71-52-43, 06-005) to the stud 8 of the terminal block (1).
 - (b) Remove the terminal lug A1 of the voltage divider harness assembly (71-52-43, 06-005) from the stud 8 of the terminal block (1).
 - (c) Remove the nut (71-52-43, 01-009) and the washer (71-52-43, 01-007) that attach the terminal lug B1 of the voltage divider harness assembly (71-52-43, 06-005) and the trim balance sensor lead 4000VS-7 of the core harness (71-51-43, 01-005) from the stud 7 of the terminal block (1).
 - (d) Remove the terminal lug B1 of the voltage divider harness assembly (71-52-43, 06-005) from the stud 7 of the terminal block (1).

NOTE: The trim balance lead 4000VS-7 remains installed.
- (12) Do an electrical resistance check for the loops of the harness and the probe (Refer to the Engine Manual, Chapter/Section 72-32-00, PB 1001).
- (13) Connect the core harness (71-52-43, 01-005) to the terminal block (1) of the fan speed/trim balance probes harness (72-32-37, 01-100) Refer to Figure 2, Sheets 1 and 2)
 - (a) Install the trim balance sensor lead 4000VS-8 of the core harness (71-52-43, 01-005) to the stud 8 of the terminal block (1).
 - (b) Install the nut (71-52-43, 01-009) and the washer (71-52-43, 01-007) that attach the trim balance sensor lead 4000VS-8 of the core harness (71-52-43, 01-005) to the stud 8 of the terminal block (1).
 - (i) Torque the nut (71-52-43, 01-009) to between 10 and 14 lbf in. (1,13 and 1,58 Nm).
 - (c) Install the nut (71-52-43, 01-009) and the washer (71-52-43, 01-007) that attach the trim balance sensor lead 4000VS-7 of the core harness (71-52-43, 01-005) to the stud 7 of the terminal block (1).
 - (i) Torque the nut (71-52-43, 01-009) to between 10 and 14 lbf in. (1,13 and 1,58 Nm).
- (14) Make sure that the work are is clean and clear of tools, equipment and other unwanted materials.

C. Recording Instructions

- (1) A record of accomplishment is required.

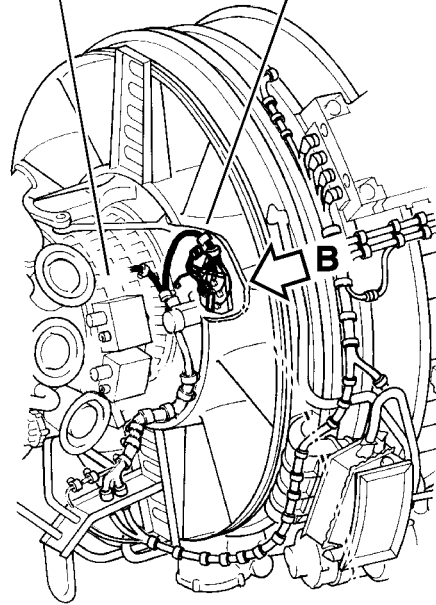


PRE SB

HIGH PRESSURE (HP)
COMPRESSOR FRONT
CASE

INTERMEDIATE
CASE

A



B



CP5732

VOLTAGE
DIVIDER
HARNESS
ASSEMBLY
71-52-43
06-005

CORE
HARNESS
71-52-43
01-005

NOTE: SOME PARTS NOT
SHOWN FOR CLARITY.

1
TERMINAL BLOCK
OF THE FAN SPEED/TRIM
BALANCE PROBES HARNESS
72-32-37
01-100

CP6150

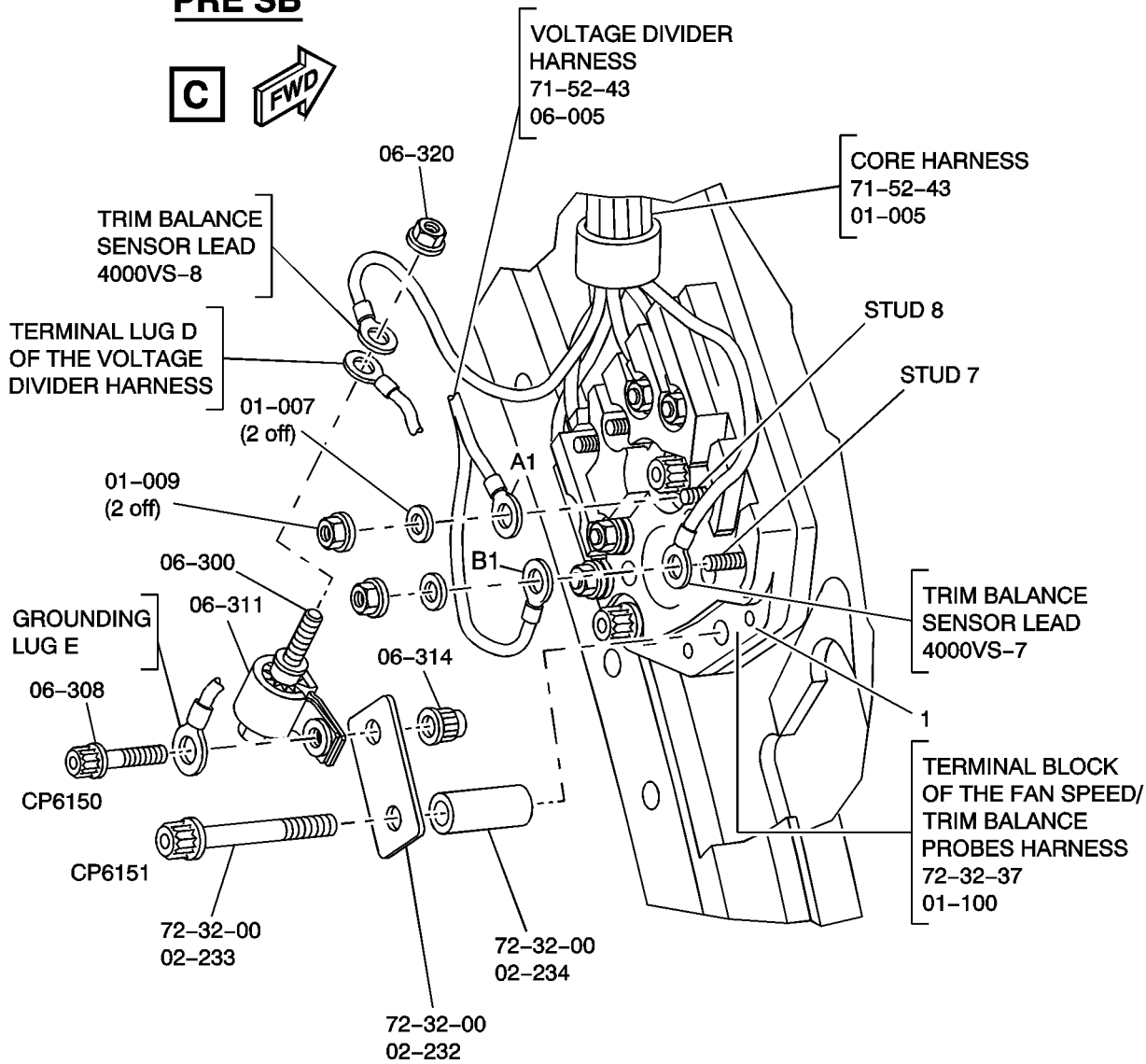
CP6151



bmi0003523

Removal of the Speed Probe Harness and Voltage Divider Harness Assembly
Figure 1 (Sheet 1 of 3)

PRE SB

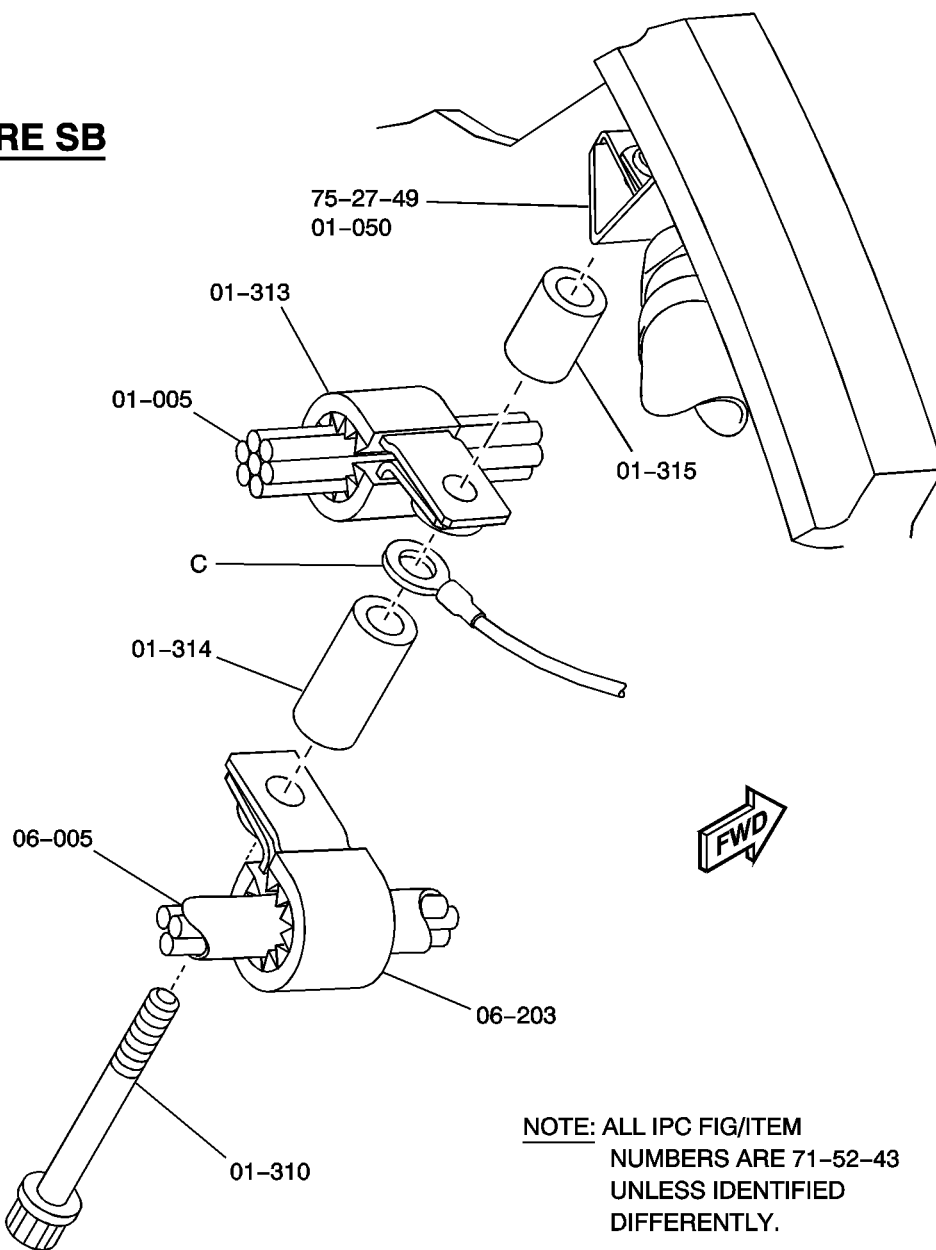


NOTE: SOME PARTS NOT SHOWN FOR CLARITY.

NOTE: ALL IPC FIG/ITEM NUMBERS ARE 71-52-43 UNLESS IDENTIFIED DIFFERENTLY.

Removal of the Speed Probe Harness and Voltage Divider Harness Assembly
Figure 1 (Sheet 2 of 3)

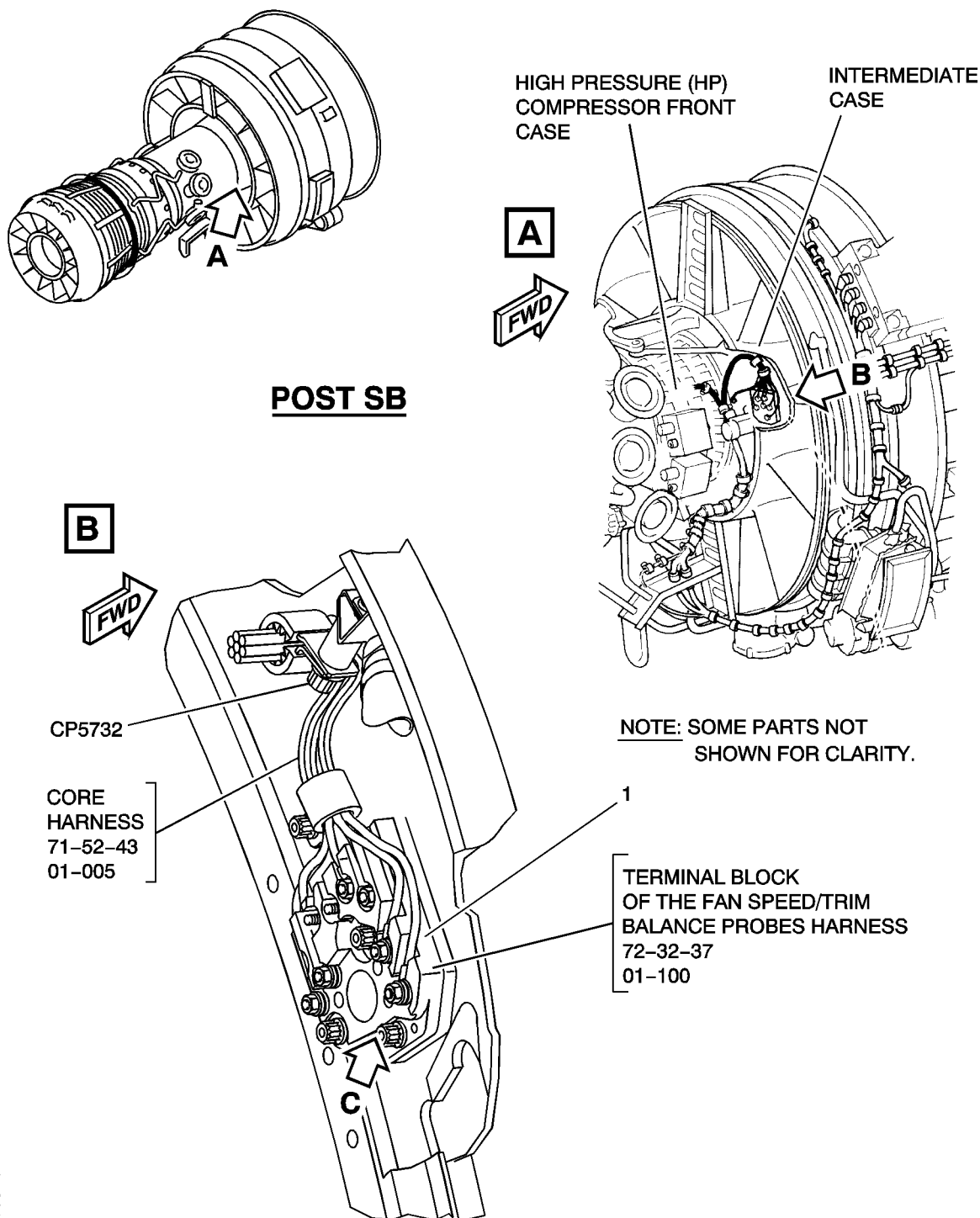
PRE SB



CP5732

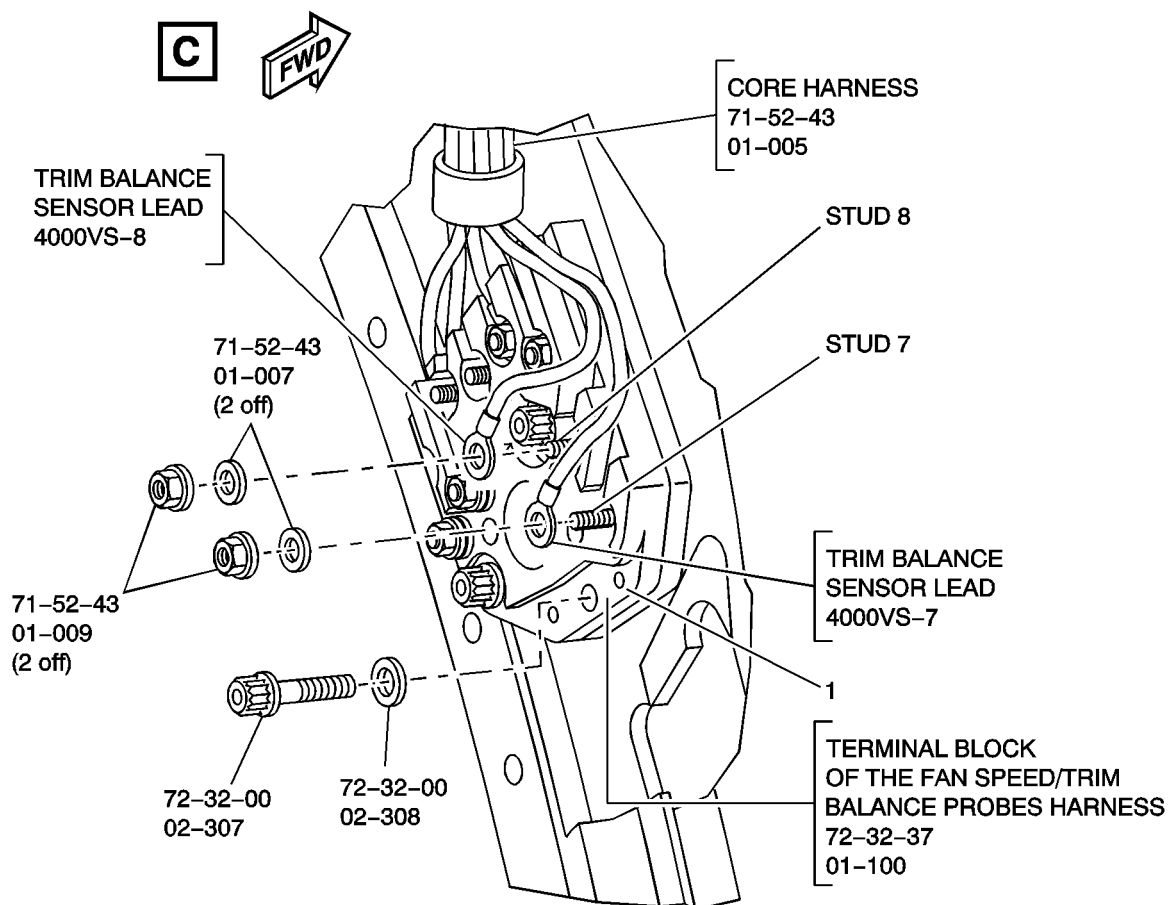
bmi0003525

Removal of the Speed Probe Harness and Voltage Divider Harness Assembly
Figure 1 (Sheet 3 of 3)



Installation of the Speed Probe Harness Assembly
Figure 2 (Sheet 1 of 3)

POST SB

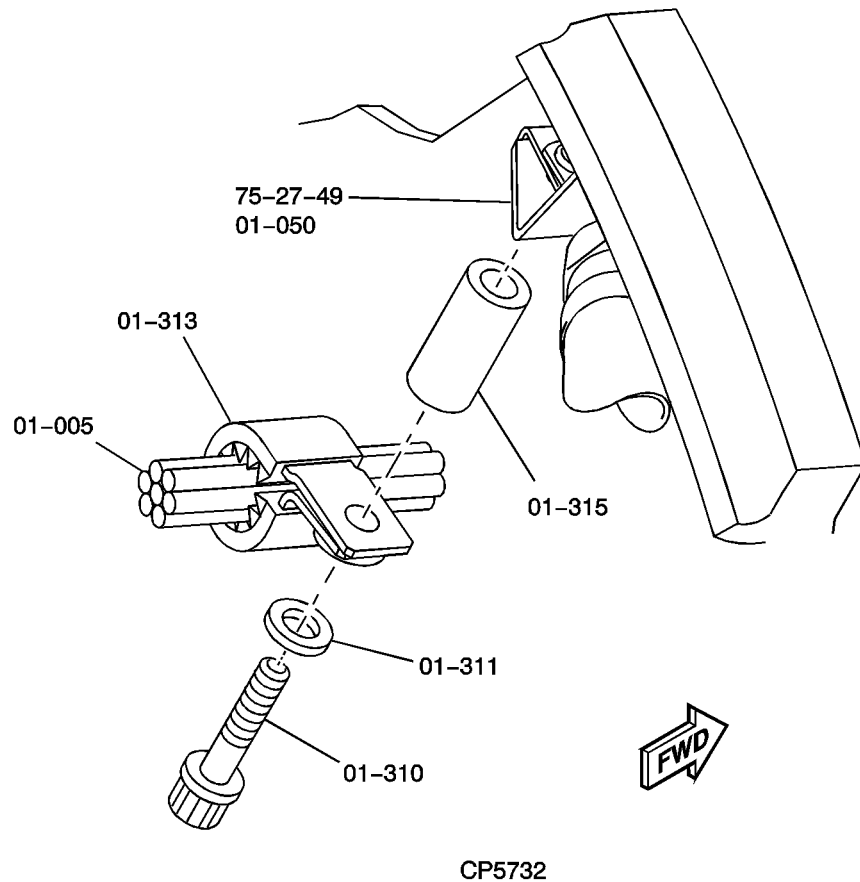


NOTE: SOME PARTS NOT
SHOWN FOR CLARITY.

bmi0003527

Installation of the Speed Probe Harness Assembly
Figure 2 (Sheet 2 of 3)

POST SB



NOTE: ALL IPC FIG/ITEM
NUMBERS ARE 71-52-43
UNLESS IDENTIFIED
DIFFERENTLY.

Installation of the Speed Probe Harness Assembly
Figure 2 (Sheet 3 of 3)

bmi0003528

ENGINE – INTRODUCTION OF A NEW TRIM BALANCE PROBE AND DELETION OF RELATED POWERPLANT
VOLTAGE DIVIDER HARNESS ASSEMBLY

SUPPLEMENT – PRICES AND AVAILABILITY

The prices (if shown) are for estimating purposes only and as such are given in good faith, without commercial liability for advanced planning purposes only. Refer to IAE Spares and/or current price catalogue for current prices.

1. Modification Kit:

Not applicable.

2. New Production Parts:

Part No.	Description	Unit Price US Dollars
4W0112	Bolt (CP5732)	5.39
5W1086	Washer (CP5732)	0.70
AS21014	Bolt	6.06
MS9321-10	Washer	0.69
5A1917	Shim, 0.020 in. (0,5 mm) thick	25.50
5A1918	Shim, 0.024 in. (0,6 mm) thick	25.50
5A1919	Shim, 0.028 in. (0,7 mm) thick	25.50
5A1920	Shim, 0.031 in. (0,8 mm) thick	25.50
5A1921	Shim, 0.035 in. (0,9 mm) thick	25.50
5A1922	Shim, 0.039 in. (1,0 mm) thick	25.50
1021-3-13	Probe, Trim Balance	1,620.00

3. Tools

None.