International Aero Engines

SERVICE BULLETIN

Mar. 19/99

Subject: Transmittal of Revision 2 to Service Bulletin V2500-ENG-71-0182.

Service Bulletin Revision History:

Event	Date
Initial Issue	Feb. 14/97.
Revision 1	Apr. 11/97.
Revision 2	Mar. 19/99.

Reason for Revision:

(1) Add part numbers to 2. Material Information.

(2) Editorial changes

Effect on Past Compliance:

None.

List of Effective Pages:

Page No.	Revision No.	Effective Date
1 to 30	Revision 2	Mar. 19/99.

International Aero Engines

SERVICE BULLETIN

POWER PLANT - EEC CHANNEL-A AND B HARNESSES (LOOM A AND B) - INTRODUCTION OF REVISED ENGINE DEDICATED ALTERNATOR CONNECTORS

MODEL APPLICATION

V2525-D5
V2528-D5

BULLETIN INDEX LOCATOR

71-51-00

Compliance Category Code

6

Internal Reference No.

EC96VR035

POWER PLANT - EEC CHANNEL-A AND B HARNESSES (LOOM A AND B) - INTRODUCTION OF REVISED ENGINE DEDICATED ALTERNATOR CONNECTORS

1. Planning Information

A. Effectivity

(1) Aircraft:

R (a) Boeing-Douglas MD-90.

(2) Engines:

(a) V2525-D5 Engines prior to Serial No. V20154.

(b) V2528-D5 Engines prior to Serial No. V20154.

B. Concurrent Requirements

This Service Bulletin must only be installed to engines which embody IAE V2500 Service Bulletin ENG 73-0096. (Refer to 1. L. (1)).

C. Reason

(1) Problem

R Unacceptable occurences of pin burning and connector overheating have been found on Loom-A
R (PI-8024) and Loom-B (PI-8017) of the Engine Dedicated Alternator (EDA). This is caused by
R the stator connectors which do not lock correctly. In addition wire chafing at the elbow of the 90
R degree backshell can result in the generation of fault messages.

(2) Evidence

A number of EDA stator connections for Loom-A and Loom-B were found to be inadequately locked on engines in service.

R (3) Objective

R The purpose of this Service Bulletin is to maintain engine reliability.

R (4) Substantiation

R A satisfactory engineering analysis has been carried out on the changes introduced by this
R Service Bulletin.

(5) Effect of Bulletin on:

R (a) Operation

Not affected.

R (b) Maintenance

Not affected.

R (c) Overhaul

Affected.

R (d) Repair Schemes

Affected.

R (e) Interchangeability

Affected.

R (f) Fits and Clearances

Not affected.

D. Description

(1) The changes introduced by this Service Bulletin are as follows:

R (a) The EEC harness assembly (Loom-A) has been revised, the changes are as follows:

R (i) The PI-8024 connector has been revised, to prevent Backing-off the locking mechanism
R has been made finer.

R (ii) The contact sockets have been revised to match the revised connector and the quantity is
R increased from 10 to 12.

R (iii) The sealing plugs have been revised to match the revised connector and the quantity is
R increased from two to four.

R (iv) The backshell at PI-8024 has been revised. The shape of the backshell has been changed
R from right-angled to straight.

R (v) Because of the re-routing of Loom-B, the excess length of the fire-wire harness is tied
R back to the main harness 2 in. from the clip position CP2346. (Refer to Figure 11).

R (b) The existing plug assembly, backshell assembly and sealing plug at PI-8024 have been
R deleted.

R (c) The EEC harness assembly (Loom-B) has been revised, the changes are as follows:

R (i) The PI-8017 connector has been revised, to prevent Backing-off the locking mechanism
R has been made finer.

R (ii) The contact sockets have been revised to match the revised connector and the quantity is
R increased from 10 to 12.

R (iii) The sealing plugs have been revised to match the revised connector and the quantity is
R increased from two to four.

R (iv) The backshell at PI-8017 has been revised. The shape of the backshell has been changed
R from right-angled to straight.

R (v) Because of the re-routing of Loom-B, the excess length of the fire-wire harness is tied
R back to the main harness 2 in. from the clip position CP2346. (Refer to Figure 11).

(d) Clip positions CP2684 and CP2112 are deleted.

(e) Clip positions CP2344 and CP2346 are revised.

(2) The existing EEC harness assemblies (Looms A and B) can be reworked. (Refer to Figures 1 to 11).

R E. Compliance

Category Code 6

R Accomplish when the subassembly (That is modules, accessories, components, bulid groups)is
R disassembled sufficiently to get access to all the affected subassemblies.

R F. Approval

R The part number changes and/or part modification are given in Section 2. and 3. of this Service
R Bulletin. They comply with the applicable Federal Aviation Regulations and are FAA-APPROVED
R for the engine models listed.

G. Manpower

R Estimate of man-hours necessary to embody this Service Bulletin in full:

(1) In Service 3 Hours 8 Minutes

(2) At Overhaul

R (a) To rework Looms A and B 2 Hours 50 Minutes

R NOTE: It is possible to get access to the parts affected by this Service Bulletin at overhaul.

H. Material - Price and Availability

(1) A modification kit is not necessary.

(2) Refer to the Material Information section for the prices and availability of future spares.

I. Tooling - Price and Availability

(1) The tools that follow are necessary to embody this Service Bulletin:

Torque Wrench	Range 0 to 2501bfin. (0. to 59 NM)
IAE IJ12018	EEC Harness wrench
Cable stripper	
Contact Extraction/Insertion tool	(Refer to Facilities Equipment Manual (FEM))
Contact crimping tool	(Refer to Facilities Equipment Manual (FEM))

J. Weight and Balance

(1) Weight Change

Plus 0.4lb (0,18 kg).

(2) Moment Arm

9.3 in. (236 mm) forward.

(3) Datum

Engine front mount centreline (Power Plant Station (PPS) 100).

K. Electrical Load Data

The aircraft electrical load is not affected by this Service Bulletin.

L. References

R (1) This Service Bulletin must be embodied after or at the same time as the Service Bulletin that
R follows:

(a) ENG 73-0096 ENGINE FUEL AND CONTROL - GENERATOR, STATOR ALTERNATOR - INTRODUCTION OF AN ENGINE DEDICATED ALTERNATOR (EDA) WITH REVISED CONNECTORS.

R (2) This Service Bulletin replaces the service Bulletins that follow:

(a) ENG 71-0176 POWER PLANT - EEC CHANNEL-A AND B HARNESSES (LOOM-A AND B) - INTRODUCTION OF ALTERNATIVE PLUG ASSEMBLIES.

(b) ENG 71-0092 POWER PLANT - EEC CHANNEL-A AND B HARNESSES (LOOM-A AND B) ENGINE DEDICATED ALTERNATOR HARNESS CONNECTORS WITH IMPROVED LOCKING FEATURE.

M. Other Publications Affected

R (1) Illustrated Parts Catalogue (IPC), Chapter/Sections 71-51-51 and 71-51-54.

R (2) MD-90 Aircraft Maintenance Manual (AMM), Harness Routing Change and Connector
R Illustration.

R (3) D5 Engine Manual (EMM), Harness Routing Change and Connector Illustration.

R (4) Component Maintenance Manual (CMM), Harness, Looms and Cables (HLC) - Wiring Manual
R List.

2. Material Information

R A. Kits necessary for this Service Bulletin:

None.

R B. Parts affected by this Service Bulletin:

	NEW PART No. (ATA No.)	QTY	EST'D UNIT PRICE ($)	PART TITLE	OLD PART No.	INSTR DISP (IPC No.)
	For engines that embody ENG 71-0175:					
	6A6525 (71-51-51)	1		.Harness Assy - Fancase EEC Loom-A	6A6459 (01-005)	(A)(S1)(1D)
	For engines that embody ENG 71-0159 and ENG 71-0175:					
	6A6528 (71-51-51)	1		.Harness Assy - Fancase EEC Loom-A	6A6445 (01-005)	(A)(S1)(1D)
	For engines that embody ENG 71-0175, but not ENG 71-0159:					
	6A6529 (71-51-51)	1		.Harness Assy - Fancase EEC Loom-A	6A6447 (01-005)	(A)(S1)(1D)
	For engines that embody ENG 71-0154:					
	6A6569 (71-51-51)	1		.Harness Assy - Fancase EEC Loom-A	6A5940 (01-005)	(A)(S1)(1D)
	4W0116 (71-51-51)	1		.Bolt, machine double hex (.190 dia x 2.000) (CP2346)	AS20909 (01-317)	(B)(S1)(4D)
	UP10481 (71-51-51)	1		.Spacer (20,0 mm) (CP2346)	- (01-322)	(B)(S1)(E)
R R	- (71-51-51)	1		.Bolt, bihexagonal head (.190 dia x 1.125) (CP2684)	AS20918 (02-241)	(G)(4D)
R R	- (71-51-51)	1		.Spacer (10 mm) (CP2684)	UP10479 (02-246)	(G)(4D)

	NEW PART No. (ATA No.)	QTY	EST'D UNIT PRICE ($)	PART TITLE	OLD PART No.	INSTR DISP (IPC No.)
R R	- (71-51-51)	1		.Nut, self locking dbl hex (.190 dia) (CP2684)	4W0001 (02-248)	(G)(4D)
R R	- (71-51-51)	1		.Clip (1.125 dia) (CP2684)	AS62418 (02-252)	(G)(4D)
	3100631 (71-51-51)	1AR	1.07	.Braid	T085 (03-070)	(B)
	U322742 (71-51-51)	1AR	1.18	.Tape	- (03-090)	(F)
	T3-4020-36LD (71-51-51)	2	0.42	.Contact, pin	- (04-118)	(C)(F)
	or					
	5000 068-0020 (71-51-51)	2		.Contact, pin	- (04-118)	(C)(F)
R R	- (71-51-51)	1		.Plug	TSK1213-98SN (04-260)	(C)(G)(J)
R	or					
R R	- (71-51-51)	Ref		.Plug assembly	MT938T1213-K98S (04-260)	(C)(G)(J)
R	or					
R R	- (71-51-51)	Ref		.Plug assembly	59000K13-98SN (04-260)	(C)(G)(J)
R R	- (71-51-51)	1		.Clamp, backshell assembly	388HH104-E13 (04-275)	(C)(G)(J)
R	or					
R R	- (71-51-51)	Ref		.Clamp, backshell assembly	92H3-13-8JCCAD (04-275)	(C)(G)(J)

	NEW PART No. (ATA No.)	QTY	EST'D UNIT PRICE ($)	PART TITLE	OLD PART No.	INSTR DISP (IPC No.)
R R	- (71-51-51)	Ref		.Clamp, backshell assembly	273E13 (04-275)	(C)(G)(J)
	or					
	- (71-51-51)	Ref		.Backshell assembly	388HH104D13 (04-275)	(C)(G)(J)
	or					
	- (71-51-51)	Ref		.Backshell assembly	92H3-13-4ECCAD (04-275)	(C)(G)(J)
	or					
	- (71-51-51)	Ref		.Backshell assembly	273D13 (04-275)	(C)(G)(J)
	73-4120-36LD (71-51-51)	6	1.07	.Contact, socket	- (04-293)	(C)(F)
	or					
	5100-101-120 (71-51-51)	6		.Contact, socket	- (04-293)	(C)(F)
	6A6526 (71-51-51)	1		Cable assembly	- (04-900)	(E)
R R	ESC53-27 (71-51-51)	1		Bush	- (04-938)	(B)(E)(H)
R R	ESC10SE61212SN0 (71-51-51)	1		Connector	- (04-940)	(B)(E)(H)
R R	ESC30S20BC (71-51-51)	12		Contact, socket	- (04-941)	(B)(E)(H)
R R	ESC65E12 (71-51-51)	1		Clamp, backshell	- (04-942)	(B)(E)(H)

	NEW PART No. (ATA No.)	QTY	EST'D UNIT PRICE ($)	PART TITLE	OLD PART No..	INSTR DISP (IPC No.)
R R	ESC36-20 (71-51-51)	4		.Plug, sealing	- (04-949)	(B)(C)(E) (H)
R	or					
R R	1016132 (71-51-51)	Ref		.Plug, sealing	- (04-949)	(B)(C)(E) (H)
R R	- (71-51-51)	2		.Plug, sealing	T3-4020-59L (04-988)	(C)(G)(J)
R	or					
R R	- (71-51-51)	Ref		.Plug, sealing	3400-043-0020 (04-988)	(C)(G)(J)
	For engines that embody SB ENG 71-0175:					
	6A6527 (71-51-54)	1		.Harness Assy - Fancase EEC Loom-B	6A6460 (01-005)	(A)(S1)(1D)
	For engines that embody ENG 71-0159 and ENG 71-0175:					
	6A6530 (71-51-54)	1		.Harness Assy - Fancase EEC Loom-B	6A6446 (01-005)	(A)(S1)(1D)
	For engines that embody ENG 71-0175, but not ENG 71-0159:					
	6A6531 (71-51-54)	1		.Harness Assy - Fancase EEC Loom-B	6A6448 (01-005)	(A)(S1)(1D)
	For engines that embody ENG 71-0154:					
	6A6570 (71-51-54)	1		.Harness Assy - Fancase EEC Loom-B	6A5941 (01-005)	(A)(S1)(1D)
	- (71-51-54)	1		.Bolt, bi-hexagonal head (.190 dia x .875) (CP2112)	AS20914 (01-569)	(G)(4D)
	- (71-51-54)	1		.Clamp, loop style, cushion (.312 dia) (CP2112)	AS62505 (01-572)	(G)(4D)

	NEW PART No. (ATA No.)	QTY	EST'D UNIT PRICE ($)	PART TITLE	OLD PART No.	INSTR DISP (IPC No.)
	- (71-51-54)	1		.Spacer (10,0 mm) (CP2112)	UP10479) (01-574)	(G)(4D)
	- (71-51-54)	1		.Nut, self locking dbl hex (.190 dia) (CP2112)	4W0001 (01-576)	(G)(4D)
	- (71-51-54)	1		.Clamp, loop style, cushion (.312 dia) (CP2346)	AS62505 (01-580)	(B)(S1)(4D)
R R	- (71-51-54)	1		.Clip (1.125) (CP2684)	AS62418 (01-900)	(G)(4D)
	ESC10SE61212S60 (71-51-54)	1		.Connector	T3K1213-98SA (04-085)	(A)(B)(S1)
	or					
	- (71-51-54)	Ref		.Plug assembly	MT938T13-K98S (04-085)	(G)
	ESC30S20BC (71-51-54)	12	2.22	.Contact, socket	T3-4120-36LD (04-093)	(A)(B)(S1) (2D)
	- (71-51-54)	Ref		.Contact, socket	5100-101-0120 (04-093)	(G)
R	ESC65E12 (71-51-54	1	136.00	.Clamp, backshell	388HH104E13 (04-100)	(A)(B)(S1)
	- (71-51-54)	Ref		.Clamp, backshell assembly	92H3-13-8JCCAD (04-100)	(G)
	- (71-51-54)	Ref		.Clamp, backshell assembly	273E13 (04-100)	(G)
	- (71-51-54)	Ref		.Backshell assembly	388HH104D13 (04-100)	(G)
	- (71-51-54)	Ref		.Backshell assembly	92H3-13-4ECCAD (04-100)	(G)

	NEW PART No. (ATA No.)	QTY	EST'D UNIT PRICE ($)	PART TITLE	OLD PART No.	INSTR DISP (IPC No.)
	- (71-51-54)	Ref		.Backshell assembly	273D13 (04-100)	(G)
R	ESC36-20 (71-51-54)	4		.Plug, sealing	T3-4020-59L (04-983)	(A)(B)(C) (S1)(3D)
R	or					
R	1016132 (71-51-54)	Ref		.Plug, sealing	3400-043-0020 (04-949)	(A)(B)(C) (S1)
	AS62505 (71-51-59)	1		.Clamp, loop style, cushion (.312 dia) (CP2344)	AS62511 (01-0176)	(G)(4D)

R NOTE: The unit prices, if shown, are an estimate and they are given for the purpose of planning only.
R For actual prices, refer to IAE Price Catalog or contact IAE's spare parts sales department.

C. Instruction Disposition Codes

R (1) (A) Old part will be discontinued.

R (2) (B) New part is available.

R (3) (C) Alternatives.

R (4) (E) Additional.

R (5) (F) Existing part required for rework of fancase Loom-A harness assembly.

R (6) (G) Redundant part.

R (7) (H) Part of cable assembly at ATA 71-51-51 IPCNo. 04-900.

R (8) (J) This part is replaced by cable assembly at ATA 71-51-51 IPC No. 04-900.

R (9) (S1) Old and new parts are not interchangeable.

R (10) (1D) Old part can be reworked and re-identified with the new part number.

R (11) (2D) Quantity increased from 10 to 12.

R (12) (3D) Quantity increased from 2 to 4.

R (13) (4D) Old part can be used on other applications.

R 3. Accomplishment Instructions

R A. Preliminary Work

(1) Make the aircraft electrically safe. (Refer to the Aircraft Maintenance Manual (AMM)).

R (2) Locate the EEC fan harness connections PI-8017, PI-8024 on the Engine Dedicated Alternator
R (EDA) and connections PI-8027, PI 8030 on the EEC. (Refer to Figures 3, 4, 5, 7 and 11).

R (3) If installed, remove and discard the parts incorporated by SB ENG 73-0092.

(4) Disconnect the EEC harness electrical connectors PI-8017 and PI-8024 from the EDA Stator. (Refer to Figures 4 and 11).

R (5) With the IAE IJ12018 EEC Harness wrench, disconnect the electrical connectors PI-8027 and
R PI-8030 form the EEC. (Refer to Figure 3).

R (6) To remove the PI-8024 connector, cut the EEC fan harness 1.299 in. (33,00 mm) from clipping
R position CP2646. (Refer to Figure 4).

R (a) Make sure the identification sleeves stay attached to the harness.

R (b) To prevent damage, with CoMat 02-148 Adhesive tape (Electrical). protect the cut end of the
R harness.

R (7) With white lacing tape, tie back the cut harness to the existing EEC fan harness.

R (a) Make sure that the identification sleeves can stll be read. (Refer to Figures 4, 5 and 6).

R B. Rework Instructions

R (1) Standard Equipment

R Cable stripper
R Contact crimping tool
Contact extraction/insertion tool
Standard workshop equipment

R (2) Consumable Materials

CoMat 02-148	Adhesive tape (Electrical)
R CoMat 06-131	Marking Pen

R (3) Rework the parts that follow:

R EEC fan harness (Loom A), 6A5940, 6A6459, 6A6445 and 6A6447 at positions
R PI-8024, PI-8027 and PI-8030.

Procedure	Supplementary Information
(a) Move the identification sleeves away from the PI-8027 and PI-8030 connector ends.	
(b) Remove two contacts from connector PI-8027.	Identify pins M and e in the connector. Use the applicable contact extraction/insertion tool. (Refer to Figures 4 and 5).
(c) Cut off the two contacts 1.299 in. (33,00 mm) from clipping position CP2193. Make sure the identification sleeves remain attached to the harness.	Use standard workshop equipment (Refer to Figure 4).
(d) To prevent damage, protect the cut end.	Use CoMat 02-148 adhesive tape (Electrical).
(e) Tie back the cut ends to the existing EEC fan harness. Make sure that the identification sleeves can still be read.	Use 310063 lacing (White tape) as necessary. (Refer to Figure 6).
(f) Remove the six contacts from connector PI-8030.	Identify sockets A, B, W, X, Y, and j in the connector. Use the applicable contact extraction/insertion tool. (Refer to Figures 4 and 5).
(g) Cut off the six contacts 1.299 in. (33,00 mm) from clipping position CP2234 Make sure that the identification sleeves stay attached to the harness.	Use standard workshop equipment. (Refer to Figure 4).
(h) To prevent damage, protect the cut ends.	Use CoMat 02-148 adhesive tape (Electrical).
(i) Tie back the cut ends to the existing EEC fan harness. Make sure that the identification sleeves can still be read.	Use 310063 lacing (White tape) as necessary. (Refer to Figure 6).

R (4) Install the new EDA Stator (73-22-38, 01-100) to the EDA rotor. (Refer to the D5 Engine Manual (EM), Chapter/Section 73-22-38, Removal/Installation).

R (5) For Loom-A install cable assembly 6A6526 to EDA receptacle A. From connector PI-8024 face to CP2344, the length should be 300,0 mm. (Refer to Figure 2).

R (6) Disassemble CP2344 sufficiently to install the new leads through the clipping position.

R (7) Disassemble the remaining EEC Harness clipping points.

R (8) Install the new leads. All the new harness cables should be clipped through CP2344 and CP2343,
R then clipped and tied with the harness through CP2646 to CP2278. (Refer to Figures 2 and 3).

R (9) Check each clip size to make sure that the loom is clipped correctly at all positions. (Refer to
R Figures 2 and 3).

R (a) All clips must grip the harness bundle so that it cannot move through the clip.

R (b) Because of recognised differences in the external diameter of the harness bundles, the
R specified clip can sometimes be too large or too small. Therefore it is possible to use clips
R three sizes larger or three sizes smaller than the nominal size of the specified clip.

R (c) Only clips fron the PN range must be selected.

R (d) Where the size of a bundle is between two clip sizes, the larger of the clips must be selected.
R Then, to increase the diameter of the bundle, put tape around it.

R (e) Clips must not be installed over ties. If a tie is in the same position as a clip, it must be
R removed and then installed again at the side of the clip.

R (10) One cable pair, ident 6A068B20 to be clipped and tied through CP2198 to CP2193 for EEC
R connector PI-8027. The other three cable pairs, ident 6A057B20, 6A058B20 and 6A059B20
R to be clipped and tied through CP2312 to CP2234 for EEC connector PI-8030. (Refer to Figures
R 3 and 5). The distance between harness ties made from 3100631 lacing tape (White), must be no
R more than 1.97 in. (50,0 mm). (Refer to Figures 5 and 6).

R (11) Rework the parts that follow:

EEC fan harness (Loom B), 6A5940, 6A6459, 6A6445 and 6A6447 at positions PI-8024, PI-8027 and PI-8030.

Procedure	Supplementary Information
R (a) Cut the leads of the new cable to a length R sufficient to allow them to be used twice R at both PI-8027 and PI-8030 EEC connectors.	Use standard workshop equipment. (Refer to Figures 4 and 5).

	Procedure	Supplementary Information
R R R	(b) To expose the wire for the new contact sockets, remove 0.16 in. (4,0 mm) of the cable insulation.	Use a cable stripper. (Kinatics hot stripper or equivalent is preferred).

CAUTION: MAKE SURE THAT YOU USE THE CORRECT LOCATOR AND THAT THE CRIMP TOOL IS SET CORRECTLY. IF NOT, THE LEAD OR CONTACT CAN BE DAMAGED OR THE CONTACT INCORRECTLY ATTACHED TO THE LEAD.

R R R R R	(c) For harness connector PI-8027, install the contacts at positions M and e of the new leads. For harness connector PI-8030, install the sockets at positions A, B, W, X, Y and j.	Pin T3-40420-36LD Socket T3-4120-36LD Use a crimping tool. (Daniels M2252011-02 or equivalent). (Refer to Figures 4 and 5).
	(d) Do a check of the crimped joint.	To make sure that it is satisfactorily attached to the wire, pull the contact socket.
	(e) Install the contact socketS and pins in the PI-8027 and PI-8030 connectors.	Use the applicable contact extraction/insertion tool. (Refer to Figures 4 and 5).
	(f) Identify the wires and loom connections on the new leads at positions PI-8027 and PI-8030. (Refer to Figure 5).	Use CoMat 02-148 adhesive tape (Electrical) and CoMat 06-131 marking pen. (Refer to the Standard Practices Manual (SPM), TASK 70-09-00-400-501, SUB TASK 70-09-00-400-002.
	(g) Cancel the old part numbers on the reworked EEC Fan harness and identify with the new part numbers.	Refer to the Standard Practices Manual (SPM), TASK 70-09-00-400-501, SUBTASK 70-09-00-400-002.

Old part No.	New part No.
6A5940	6A6569
6A6459	6A6525
6A6445	6A6528
6A6447	6A6529

R (12) With the IAE IJ12018 EEC Harness Wrench, connect the PI-8027 and PI-8030 electrical connectors to the EEC Fan harness and torque load them to 32 lbfin. (3,6 Nm). (Refer to Figure 5).

R (13) Assemble the remaining clipping points. Torque load the nuts to between 36 and 45 lbfin. (4,0 and 5,0 Nm). (Refer to Figure 3).

R (14) Rework the parts that follow:

EEC Fan harness Loom-B, 6A5941, 6A6460, 6A6446 and 6A6448 at position PI-2017.

Procedure	Supplementary Information
(a) Remove the contacts from connector PI-8017.	Use the applicable contact extraction/insertion tool.
(b) Cut off the eight existing sockets A, B, C, D, E, F, G and j from PI-8017.	Use standard workshop equipment.
(c) Remove the ties from the fire harness between a position 2.0 in. from CP2346 and terminal B20.	
(d) Remove clips at CP2112, CP2344 and CP2346 from Loom-B. Keep the clip from CP2112 for CP2346.	
(e) Install Loom-C with the new clip (AS62505) at CP2344.	Torque the nuts to between 36 and 45 lbfin. (4,0 and 5,0 mm).
(f) From CP2233, put Loom-B between the fancase and raceway 6A6033.	
R (g) With the clip removed at (d) and a R 20,0 mm spacer , install Loom-B at R CP2346.	Torque load the nuts between 36 and 45 lbfin. (4,0 and 5,0 Nm). (Refer to Figure 10).
(h) Move the existing wire idents back along Loom-B so that they are less than 14.0 in. (355,6 mm) from CP2346. Alternatively, identify the wires and loom connections of the new leads at the EDA PI-8017. (Refer to Figure 7).	Use CoMat 02-148 adhesive tape (Electrical) and CoMat 06-131 marking pen. Refer to the Standard Practices Manual (SPM), TASK 70-09-00-400-501, SUBTASK 70-09-00-400-002.
(i) Cut the four cables to the EDA harness connector PI-8017 14.0 in. (335,6 mm) from CP2346.	
(j) For harness connector PI-8017, install the contact sockets to the leads at contact positions 11, 10, 9, 8, 7, 6, 5 and 4.	Socket part number, ESC30-S20BC. Use a crimping tool. (Daniels M2252011-02 or equivalent).

	Procedure	Supplementary Information
R R	(k) Do a check on the crimped joint.	To make sure that it is satisfactorily attached to the wires, pull the contact socket.
	(l) Install the contact sockets to connector PI-8017. (ESC 10SE61212S60 and ESC 65E12 Backshell).	Use a crimping tool. (Daniels M2252011-02 or equivalent. (Refer to Figure 7).
R	(m) Connect the EDA connector of Loom-B.	With your hand only, tighten the connector.
	(n) Tie the four cables between the EDA connector and CP2346.	Refer to Figures 6, 7 and 11.
R R R R	(o) To remove the unwanted length of cable, (Approximately 10.0 in. (254 mm)) make a loop with the fire wire harness from CP2557 to CP2346.	Make sure that the bends of the loop are not less than 5 times the diameter of the wire. (Refer to Figure 11).
	(p) Cancel the old part number on the reworked EEC Fan harness and identify with the new part numbers.	Use CoMat 01-148 adhesive tape(Electrical) CoMat 06-131 marking pen. Refer to the Standard Practices Manual (SPM), TASK 70-09-00-400-501, SUBTASK 79-09-00-400-002.

Old Part No.	New Part No.
6A6460	6A6527
6A6446	6A6530
6A6448	6A^531
6A5941	6A6570

(17) Do an operational test of the EEC.

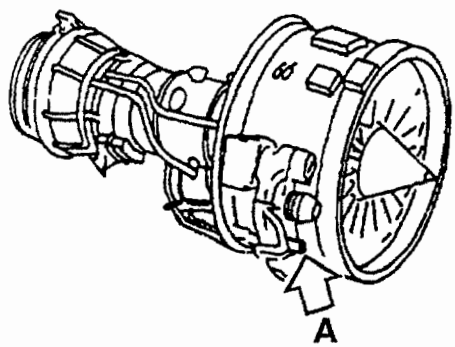
(18) Do an operational test of the FADEC system.

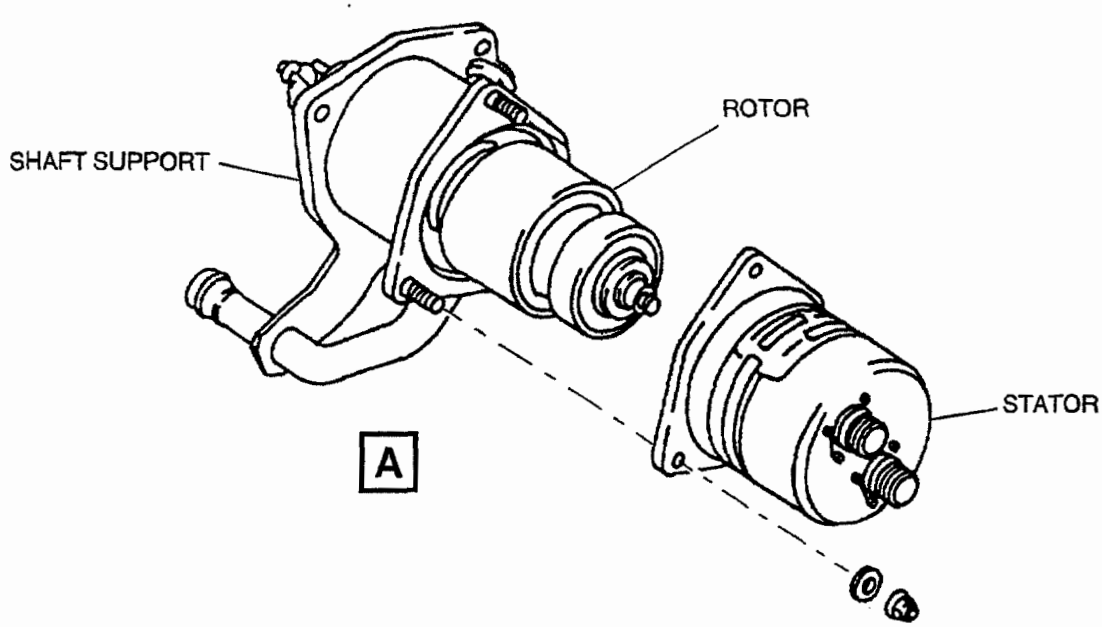
B. Assembly Instructions

None.

C. Accomplishment Instructions

A record of accomplishment is necessary.





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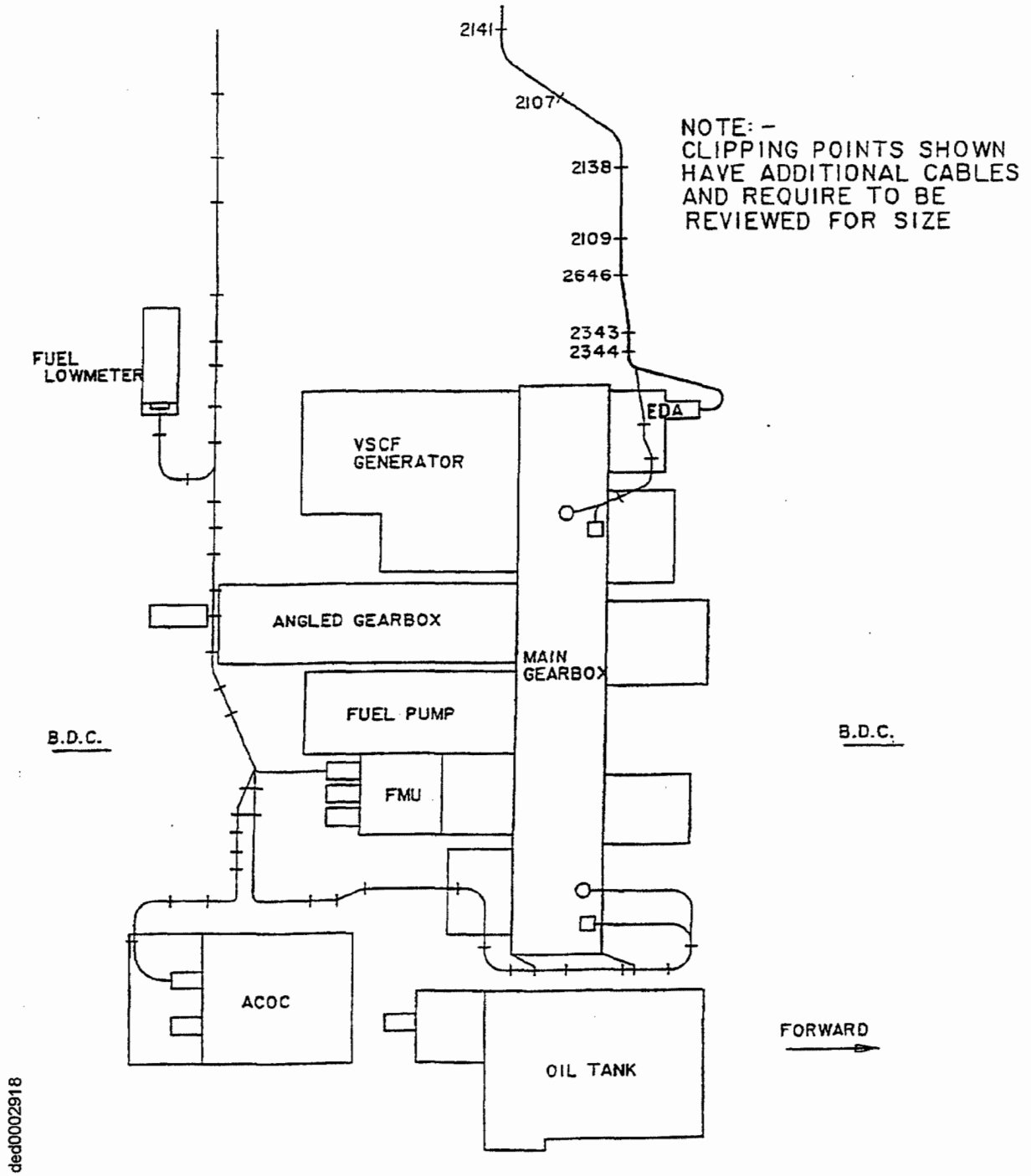
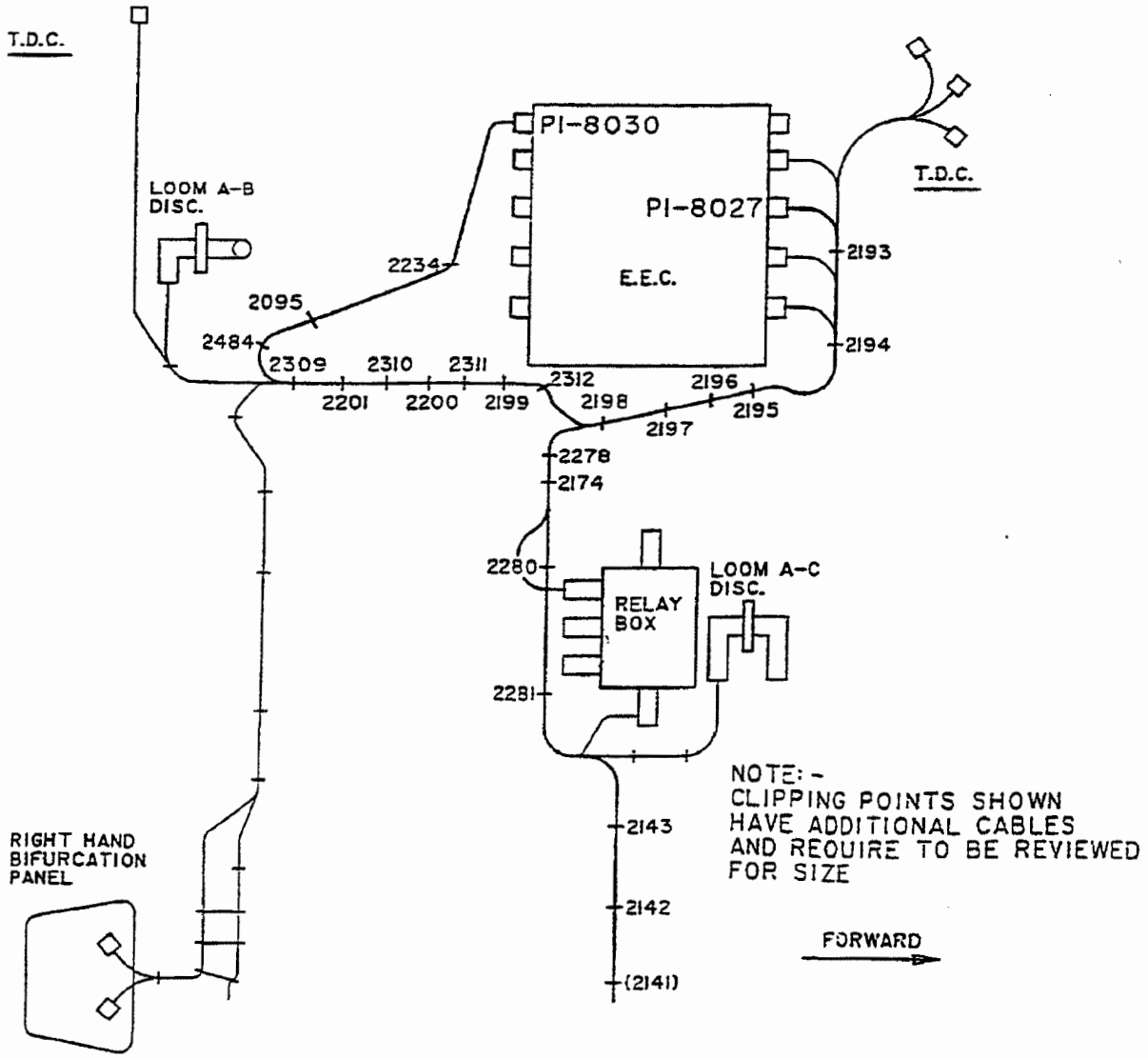
General view
Figure 1

R



R Schematic view of harness Loom-A - Bottom of engine
R Figure 2



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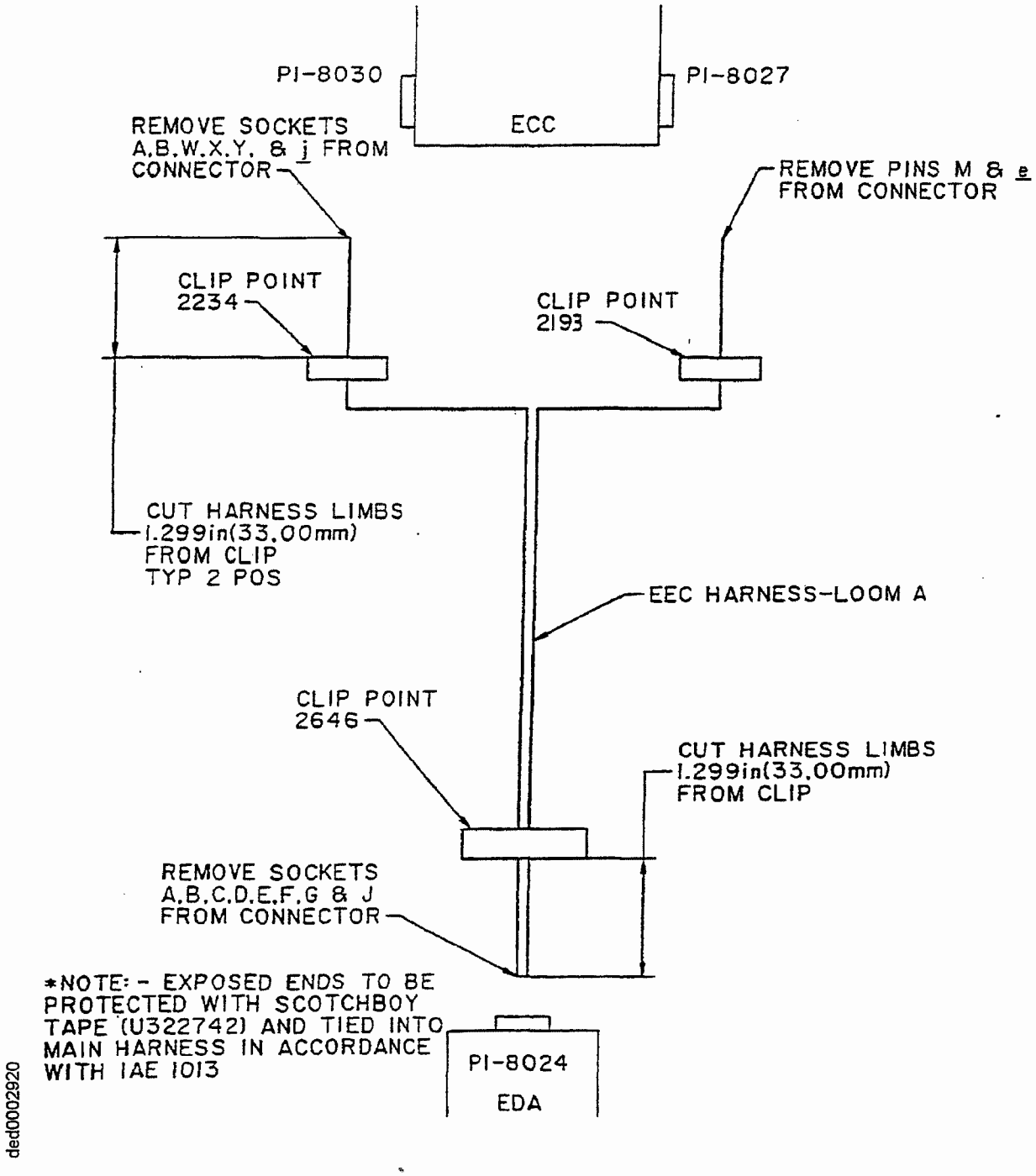
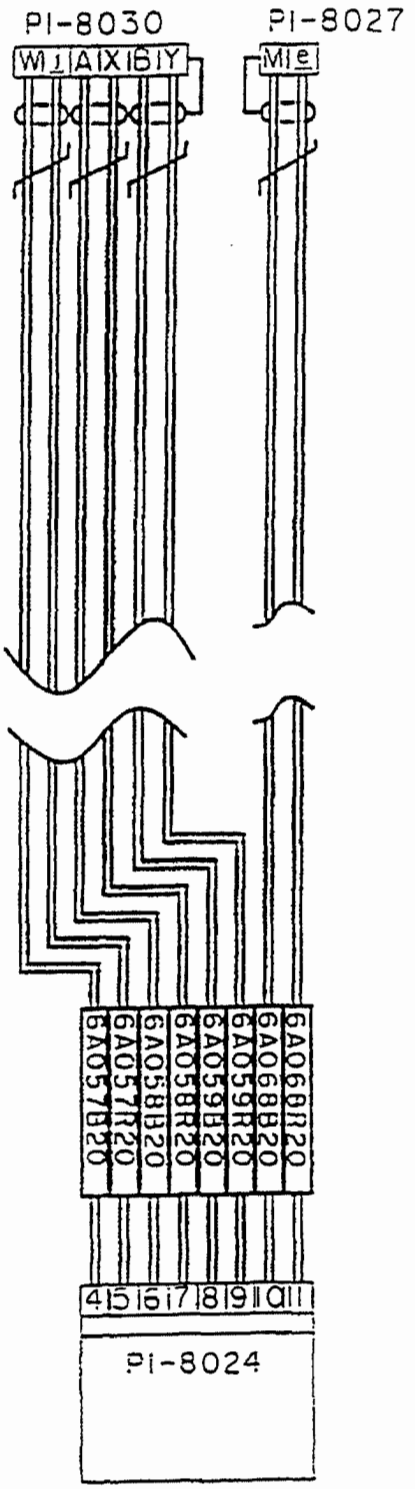
R Schematic view of harness Loom-A - Top of engine
R Figure 3



R Schematic view - Rework of Loom-A
R Figure 4



Wiring diagram - Loom-A - After alteration
Figure 5

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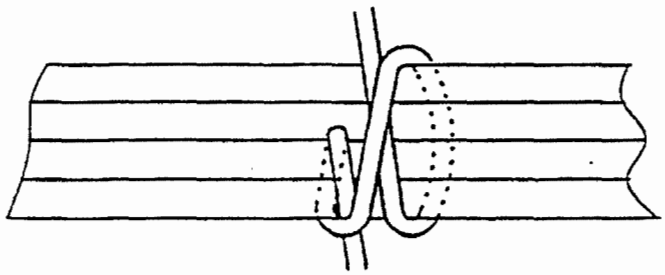
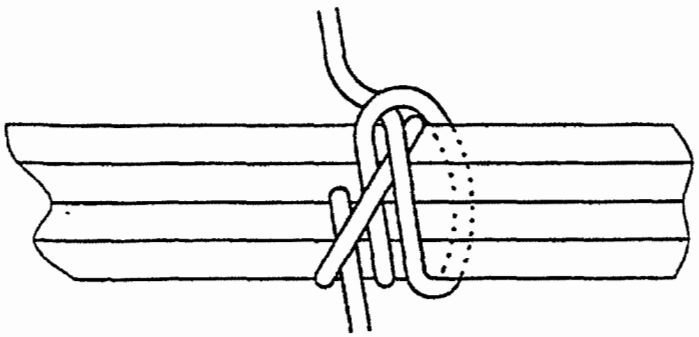
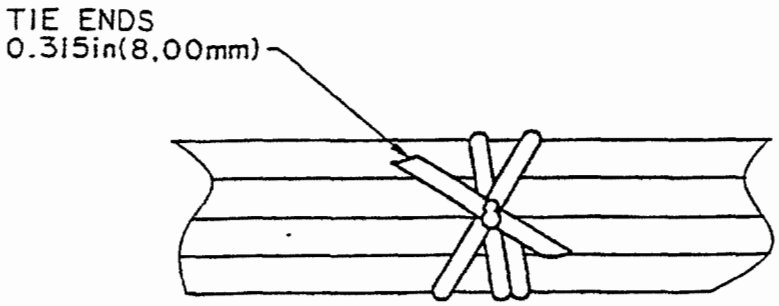
R



STEP 1



STEP 2



STEP 3

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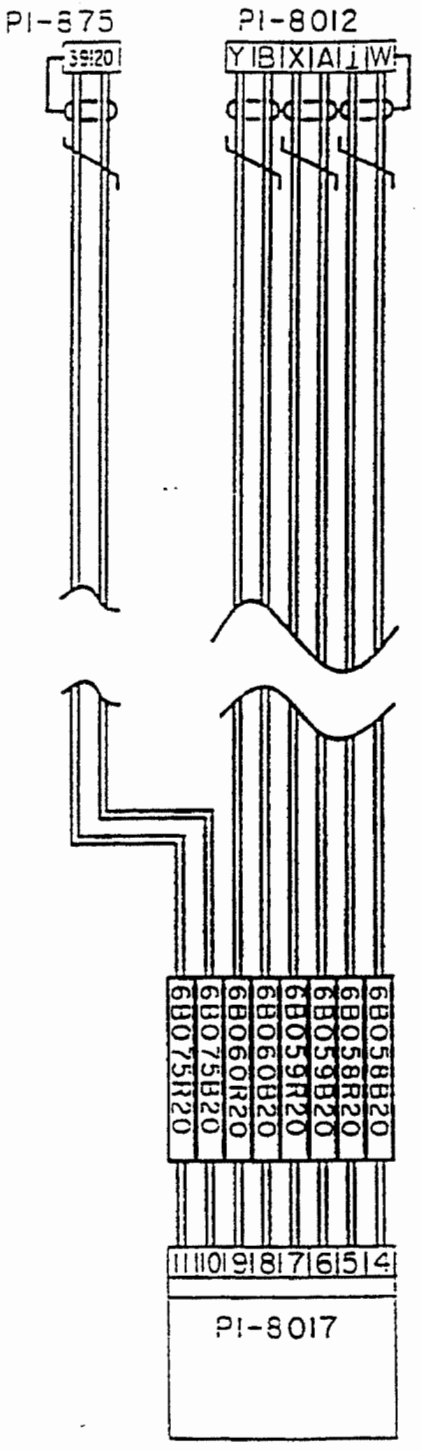
R Installation of lacing ties to harness
R Figure 6



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Wiring diagram - Loom-B - New connections
Figure 7

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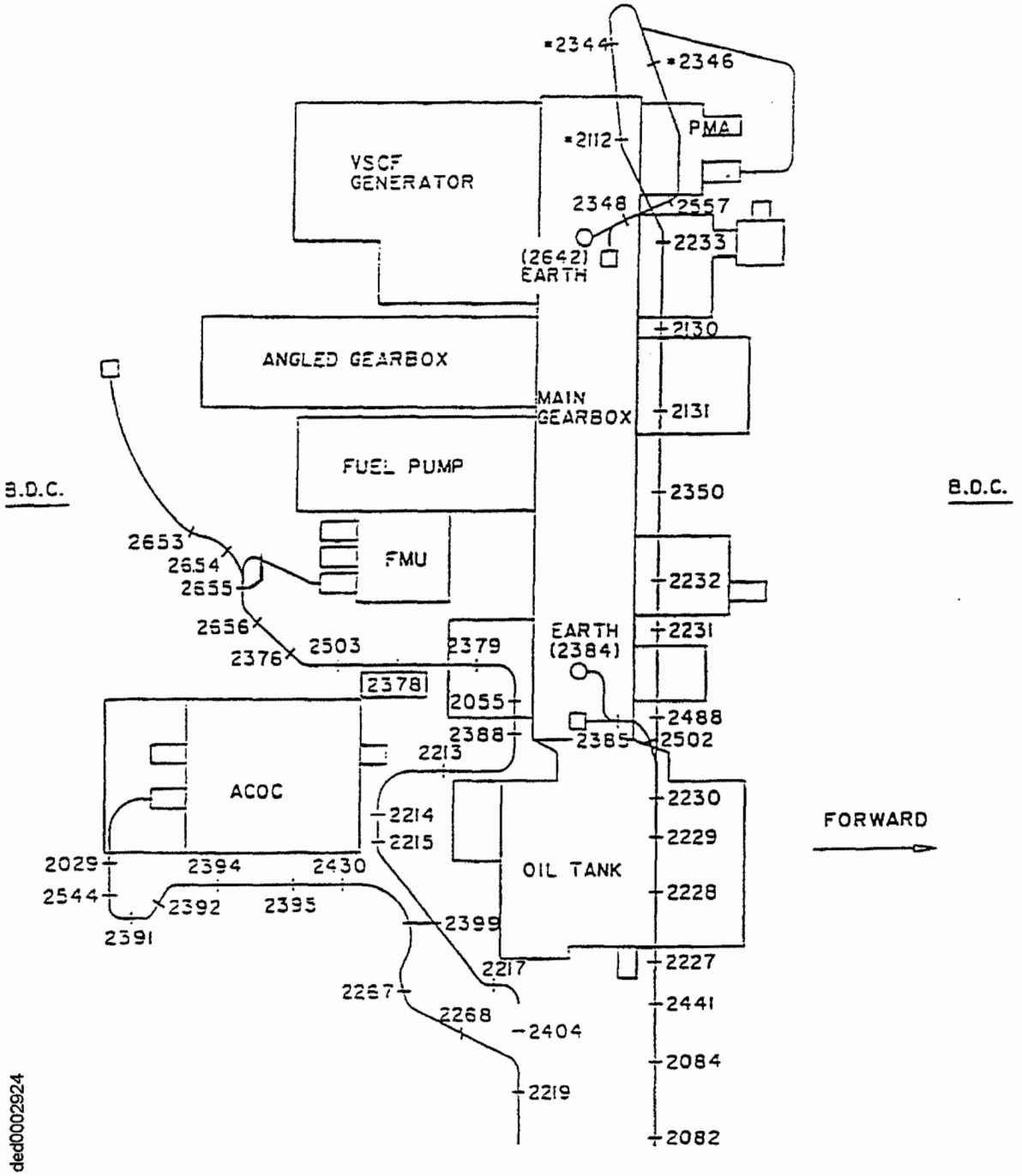
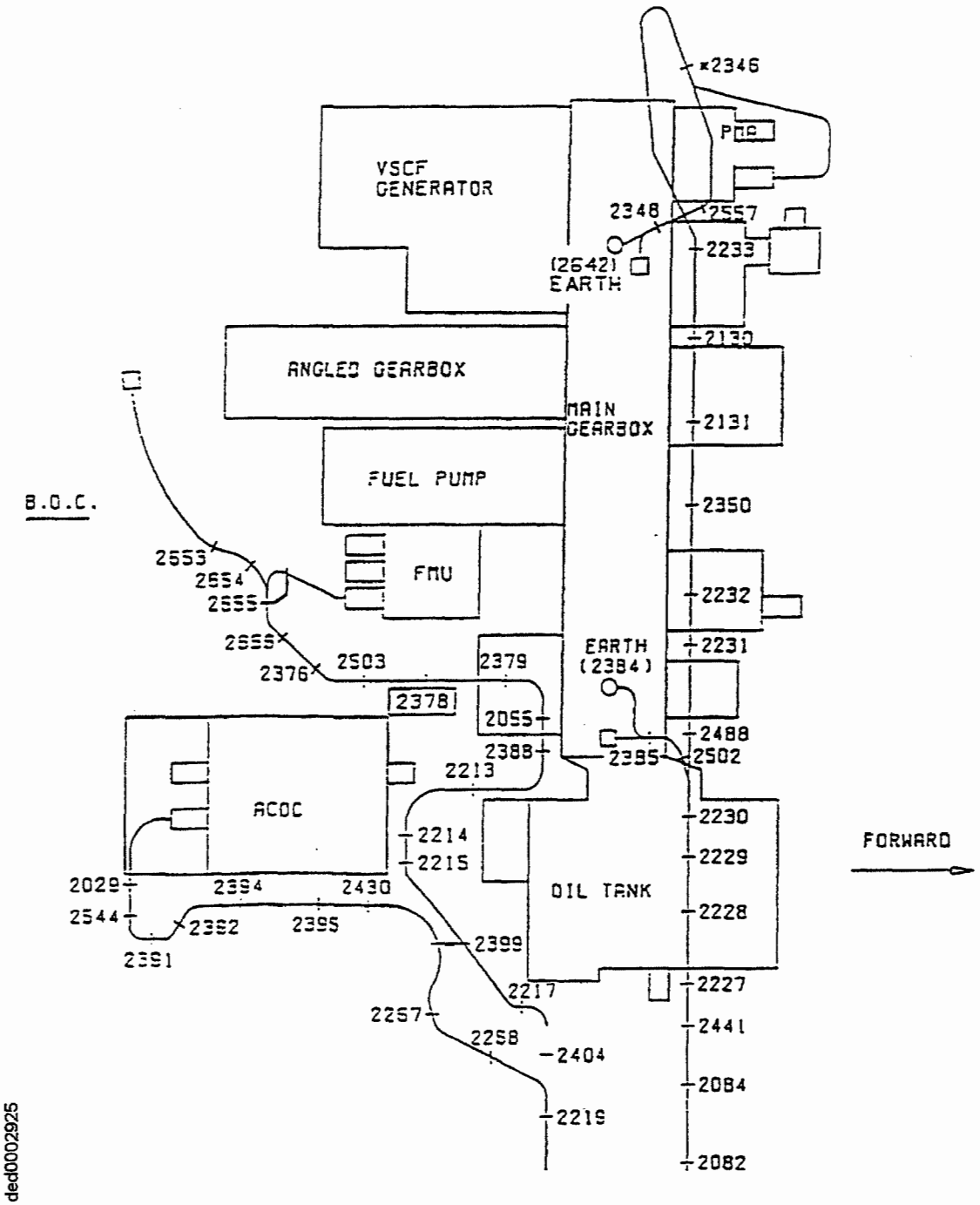
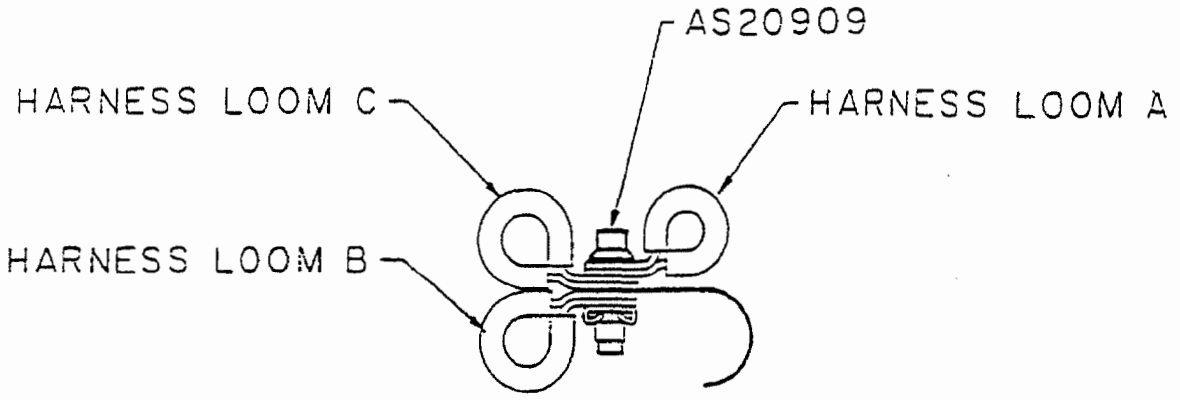
R



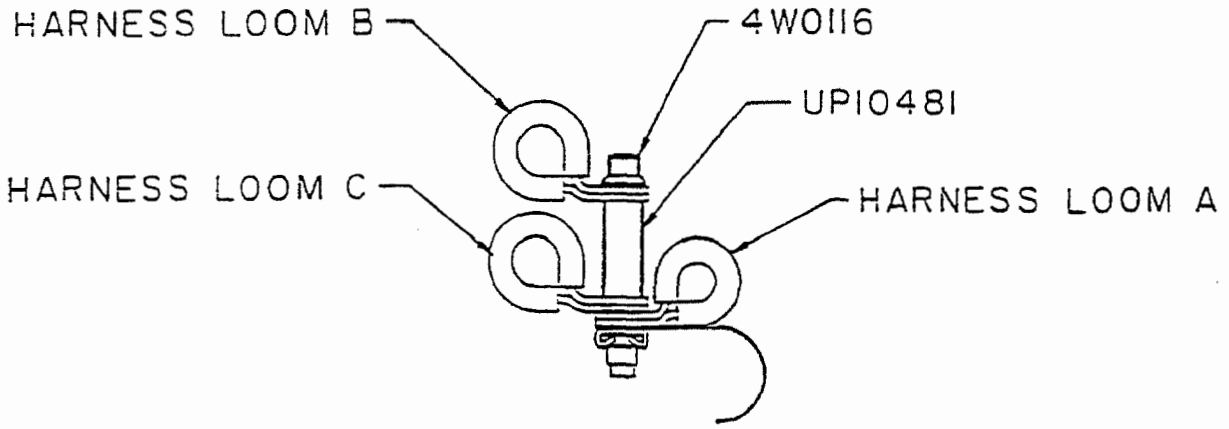
R Schematic view - Part of Loom-B - Before alteration
R Figure 8



R Schematic view - Part of Loom-B - After alteration
R Figure 9



SCHEMATIC VIEW OF CLIP
POINT 2346 BEFORE CHANGE



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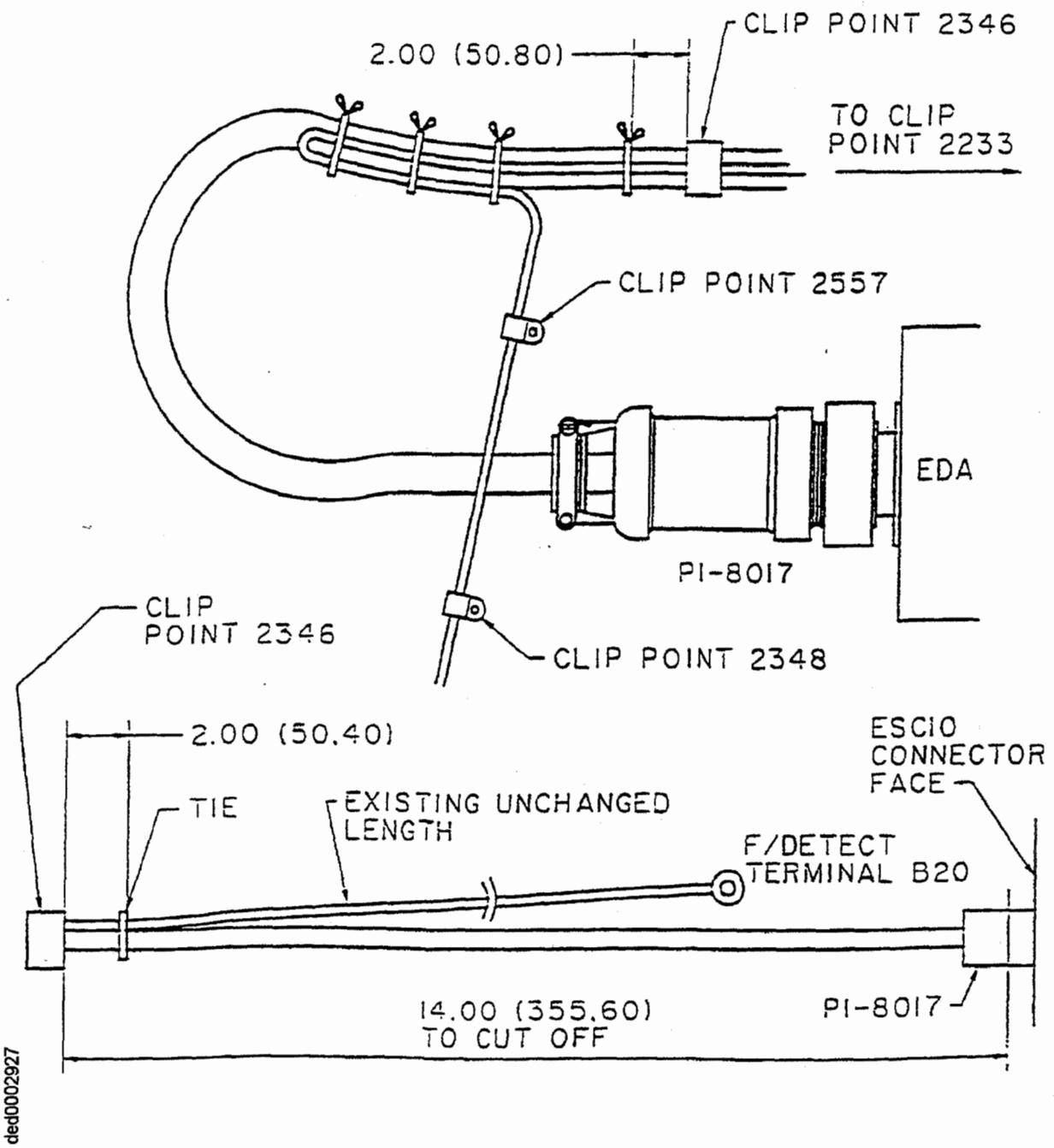
SCHEMATIC VIEW OF CLIP
POINT 2346 AFTER CHANGE

R Schematic view - Clip Position CP2346 - Before and after alteration
R Figure 10



R View from BDC - Install the loop on the fire wire harness.
R Figure 11