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**GENERATOR SET DIESEL ENGINE DRIVEN 4.5 kW (5.6 KVA) 240 V AC,
SINGLE PHASE, 50 Hz (AIR-LOG 4169A)**

MODIFICATION INSTRUCTIONS AND INDEX

BY COMMAND OF THE DEFENCE COUNCIL

Ministry of Defence
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AMENDMENT RECORD

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PREFACE

Sponsor:
DGES(A)

Publications Approving Authority:
Vehs & Wpns Br REME
Project No: ES52c 3042(47)
File ref: KGA 4

INTRODUCTION

- 1 The publications approving authority is the authority for allocation of instruction numbers.
- 2 All modification instructions as issued are to be recorded in manuscript by the recipient on the Numerical Modification Instruction Index provided. Amendments to individual instructions are to be recorded on the Instruction Amendment Record. All extant instructions and amendments can be found listed in the main AESP index.
- 3 Service users should forward any comments on this publication through the channels prescribed in AESP 0100-P-011-013. An AESP form 10 is provided after the preliminary pages of this publication; it should be photocopied and used for forwarding comments on this AESP.
- 4 Priority codes:
 - I/U Immediate Unit
 - I/F Immediate Field
 - R/U Routine Unit
 - R/F Routine Field
 - R/B Routine Base

MODIFICATION INSTRUCTION INDEX

This index is to be kept up to date by the User entering modification instructions as and when they are published.

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To: Vehicles and Weapons Branch REME
Chobham Lane
Chertsey
Surrey KT16 OEE

From:
.....
.....
.....

Sender's Reference:

Tel No:

Date:

Title of AESP

COMMENT

Signed

To:
.....
.....
.....

From: Vehicles and Weapons Branch REME
Chobham Lane
Chertsey
Surrey KT16 OEE

Thank you for commenting on AESP

* Action is being taken to:

- * (i) Revise the AESP
- * (ii) Amend the AESP

* No action is considered necessary for the following reasons:

* Delete as necessary

Signed:

AESP Form 10

Date:

**GENERATOR SET DIESEL ENGINE DRIVEN 4.5 kW (5.6 KVA) 240 V AC,
SINGLE PHASE, 50 Hz (AIR-LOG 4169A)**

MODIFICATION INSTRUCTION No 1

Sponsor:
DGES(A)

Publications Authority:
Vehs & Wpns Br REME
Project No: ES52c 3042(47)
File ref: KGA4

AMENDMENT RECORD

Amdt No	Incorporated By (Signature)	Date	Amdt No	Incorporated By (Signature)	Date
1			4		
2			5		
3			6		

SUBJECT: Removal of existing 1.4 kg fire extinguisher/bracket and fitting a 2 kg dry powder fire extinguisher/bracket.

INTRODUCTION

1 This instruction introduces a replacement fire extinguisher to meet the requirements of the Montreal Protocol.

1.1 Limitations on use of equipment. Nil

APPLICABILITY

2 All subject generators.

2.1 Held by user units.

2.2 Unmodified stock, held at all levels of technical storage.

REASON FOR MODIFICATION

3 Code 6 - Montreal Protocol

PRIORITY

4 Army: Routine.

ESTIMATED TIME REQUIRED

5 Embodiment: 1 man-hour.

MODIFICATION IMPLEMENTATION PLAN

6

6.1 This modification is to be implemented by:

ARMY - Units authorised to carry out levels 2, 3 and 4 repairs.

6.2 Associated modification instructions: Nil

6.3 Modification plate strike action: N/A

Action required by

7

7.1 Units and establishments holding equipment.

7.1.1 Examine vehicle documents to see if modification is applicable.

7.1.2 Examine equipment to see if modification is embodied and where necessary Units with 1st line REME support demand the stores required.

7.1.3 On receipt of stores, request REME to embody the modification.

7.1.4 Record completion details of modification against appropriate entry in equipment documents.

7.2 Army Units authorised to carry out levels 2, 3 and 4 repairs.

7.2.1 ARMY: When requested by users or during overhaul of equipments on charge without REME 1st line support, obtain the items listed in Para 8 and carry out this modification.

7.2.2 ARMY: Record completion details of modification against appropriate entry in equipment documents.

Stores, tools and equipment

8

8.1 Stores to be demanded.

8.1.1 The following modification items are to be demanded quoting this instruction as authority for demand, and

8.1.2 Serial number of equipment held by user units.

8.1.3 Serial number of equipment for unmodified stock held at all levels of technical storage.

Item No	DMC	NSN/Part No	Designation	Qty per eqpt
1	6MT1	4210-99-839-9905	Fire extinguisher	1
2	6MT1	4210-99-839-9904	Bracket	1

Item No	DMC	NSN/Part No	Designation	Qty per eqpt
8.2 <u>Stores to be manufactured from locally obtained material.</u>				
3	G2	9515-99-964-7749	Backing plate	2
8.3 <u>Stores or suitable equivalent to be obtained locally.</u>				
4	G1	5305-99-948-0923	Screw machine	4
5	G1	5310-99-120-7577	Nut self locking	4
8.4 <u>Stores to be removed.</u>				
6			Fire extinguisher BCF	1
7			Bracket	1

Sequence of operations

NOTE

The 'item numbers' of Para 8 are used as reference throughout this instruction.

WARNING

THE VOLTAGES USED IN THIS EQUIPMENT CAN ENDANGER HUMAN LIFE. REPAIRS AND MODIFICATIONS ARE TO BE CARRIED OUT BY QUALIFIED TRADESMEN ONLY, USING AUTHORISED TOOLS AND TEST EQUIPMENT.

9 Carry out this instruction as follows:

9.1 Dismantling. Dismantle as follows:

9.1.1 Remove acoustic cover. Refer to AESP 6115-G-350-522 Chap 2.

9.1.2 Remove fire extinguisher from bracket.

9.1.3 Position acoustic cover to gain access to the inside.

9.1.4 Cut foam lining as shown in Fig 1.

9.1.5 Remove five bolts, nuts and washers securing extinguisher bracket and remove bracket.

9.2 Embodiment.

9.2.1 Seal redundant hole by fitting one of the five bolts, nuts and washers removed with old extinguisher bracket.

9.2.2 Manufacture backing plates (item 3) as shown in Fig 2.

9.2.3 Fit and secure bracket (item 2), backing plates (item 3), screws (item 4) and nuts (item 5) as shown in Fig 1 using existing holes in acoustic cover.

9.2.4 Apply a suitable adhesive to the cuts made in the foam lining and attach the lining to the acoustic cover.

9.3 Assembling.

9.3.1 Fit acoustic cover to generator and secure.

9.3.2 Fit fire extinguisher (item 1) into bracket (item 2) and secure.

9.3.3 Dispose of the BCF fire extinguisher (item 6) as follows:

Charged: Return through RLC for disposal

Discharged: Reduce to scrap.

Testing after embodiment

10 Nil.

EFFECT ON WEIGHT

11 Increase 0.6 kg.

PUBLICATION AMENDMENTS

12 Necessary amendments will be issued separately.

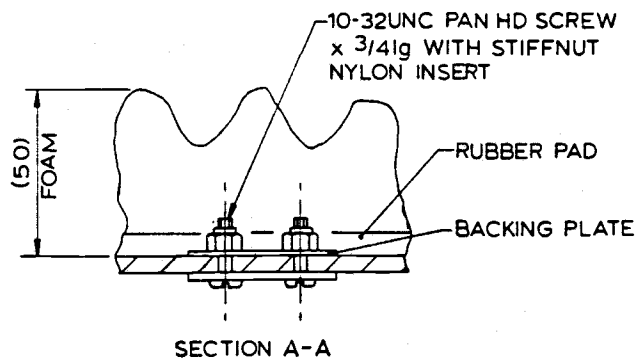
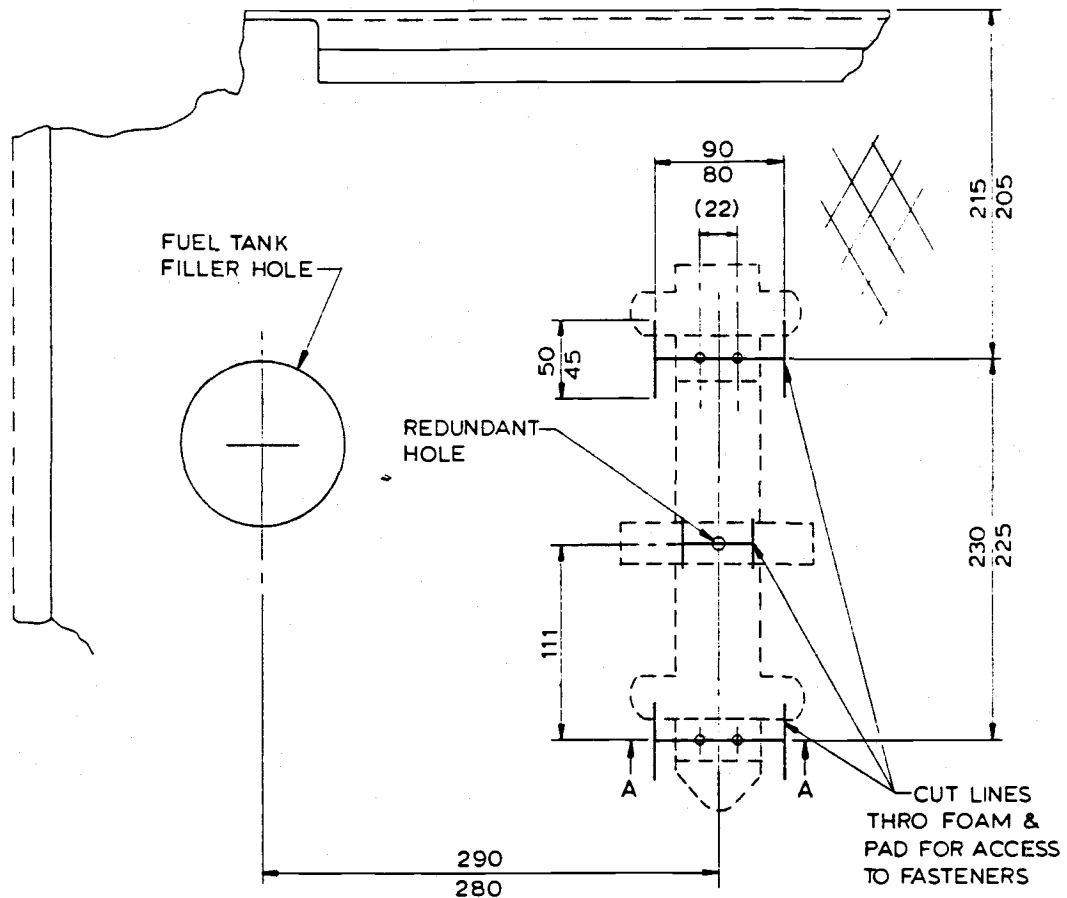


Fig 1 Cover assembly

V11929/1

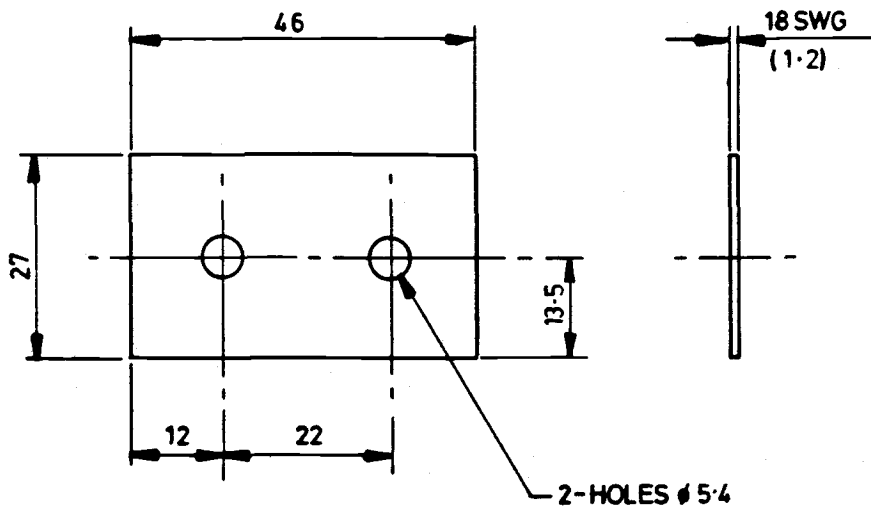


Fig 2 Backing plate

V11953/1

**GENERATOR SET, DIESEL ENGINE DRIVEN,
4.5 kW (5.6 kVA), 240 V A.C., SINGLE PHASE, 50 Hz
(AIR-LOG 4169A)**

**MODIFICATION INSTRUCTION No. 2
(Completely Revised)**

Sponsor:
DGES(A)

Publication Agency:
ATSA Chertsey
Project No: 72111(164)
File ref: KGA4

AMENDMENT RECORD

Amdt No.	Incorporated By (Signature)	Date
1		
2		9-9-96
3		

Amdt No.	Incorporated By (Signature)	Date
4		
5		
6		

SUBJECT: Fitting of CECC 007 style connectors to the output sockets 1, 2 and 3, and power cables .

INTRODUCTION

1 This instruction details the fitting of a new-style CECC 007 connectors to replace the existing items on the output sockets, plus the instructions required to assemble new free-end connectors to existing power cables, see Sub-Para 9.1. Should units experience problems with this instruction, advice can be obtained from Field Equipment and Recovery Group, ATSA, on Chertsey Mil 5222:

1.1 Limitations on use of equipment. Nil.

APPLICABILITY

2 Generator Set, 4.5 kW, Air-Log 4169A (NSN Z2/6115-99-795-5786), all variants:

2.1 Fitted to subject vehicles held by user units.

2.2 Unmodified stock, held at all levels of technical storage.

REASON FOR MODIFICATION

3 Code 1 - to improve safety. (Reduced risk of mis-aligned connector terminals.)

PRIORITY

4 ARMY: Immediate.

ESTIMATED TIME REQUIRED

5

- 5.1 Output sockets 1 to 3:
 - 5.1.1 Dismantling: 1.1 man-hours.
 - 5.1.2 Embodiment: 0.2 man-hour.
 - 5.1.3 Assembling: 1.0 man-hour.
 - 5.1.4 Testing: 0.6 man-hour.
 - 5.1.5 Assembling: 0.3 man-hour per cable end.

MODIFICATION IMPLEMENTATION PLAN

6

- 6.1 This modification is to be implemented by:
 - 6.1.1 ARMY - Units authorized to carry out levels 2, 3 and 4 maintenance.
 - 6.1.2 Vehicle Depots - before issue of vehicle.
- 6.2 Associated modification instructions. Nil.
- 6.3 Modification plate strike action: After carrying out this modification, strike out Modification No. 2.

Action required by:

7

- 7.1 Units and establishments holding equipment:
 - 7.1.1 Examine documents to see if modification is applicable.
 - 7.1.2 Examine equipment or modification record plate to see if modification is embodied and where necessary Units with 1st Line REME Support demand the stores required.
 - 7.1.3 On receipt of stores, request REME to modify equipment.
 - 7.1.4 Record the modification subject and AESP number in equipment documents.
- 7.2 Army units authorized to carry out levels 2, 3 and 4 maintenance:
 - 7.2.1 When requested by users or during overhaul of equipments on charge without REME 1st Line Support, obtain the items listed in Para 8 and carry out this modification.
 - 7.2.2 Erase Modification No. 2 from modification record plate.
 - 7.2.3 Record completion details of modification against appropriate entry in equipment documents.
- 7.3 All recipients of this instruction. Add particulars to AESP 6115-G-350 Mod Instr Index.

Stores, tools and equipment

8

8.1 Stores to be demanded.

8.1.1 The following items are to be demanded quoting this instruction as authority for demand, and

8.1.2 Serial number of equipment held by user units.

8.1.3 Serial number of equipment for unmodified stock held at all levels of technical storage.

Item No.	DMC	NSN/Part No	Designation	Qty per eqpt
1	Z32	5935-99-300-6739	Connector, socket 3-pin, 15 A, 1-phase	2
2	Z32	5935-99-535-3948	Connector, socket 4-pin, 30 A, 1-phase	1
3	Z32	5935-99-902-2017	Cover, protective, socket, shell size 18	2
4	Z32	5935-99-793-5028	Cover, protective, socket, shell size 22	1
5	Z1	5330-99-588-0559	Gasket	2
6	Z1	5330-99-256-4168	Gasket	1
7	Z32	5935-99-998-8981	Connector, free-end 3-pin, 15 A, 1-phase	As reqd
8	Z32	5935-99-322-3131	Connector, free-end 4-pin, 30 A, 1-phase	As reqd
9	Z32	5935-99-087-8804	Cover, protective, free-end, shell size 18	As reqd
10	Z32	5935-99-370-9477	Cover, protective, free-end, shell size 22	As reqd

8.2 Stores to be removed and reduced to scrap.

11	Z32	5935-99-038-5550	Connector, socket, 3-pin, 30 A, 1-phase	1
12	Z32	5935-99-038-5542	Connector, socket, 3-pin, 15 A, 1-phase	2
13	Z32	5935-99-038-5638	Cover, protective	1
14	Z32	5935-99-038-5637	Cover, protective	2
15	Z1	5330-99-038-5646	Gasket	1
16	Z1	5330-99-038-5645	Gasket	2

8.3 Special tools and test equipment required.

17			Soldering iron	1
18	Z4	6625-99-252-3606	Digital multimeter, Fluke 25	1

Item No.	DMC	NSN/Part No	Designation	Qty per eqpt
19	Z4	6625-99-620-9108	Megohmmeter, Evershed & Vignoles 70514 Mk 2	1
20	F1	6115-99-215-5189	Spanner, cable assembly, shell size 18	1
21	F1	6115-99-968-1319	Spanner, cable assembly, shell size 22	1

8.4 Items to be modified.

22	Y3	6145-99-017-2679	Existing power cables (see Sub-Para 9.1 Warning) or Cable, 3 core, 41 A per phase rating, shell size 18	As reqd
23	Y3	6145-99-017-2681	Cable, 3 core, 73 A per phase rating shell size 22	As reqd

Sequence of operations

NOTES

- (1) The item numbers of Para 8 are used as references throughout this instruction.
- (2) The warning stated below is to be applied to all equipments employing voltages of 230 V d.c. and 50 V a.c. or more.

WARNING

LETHAL VOLTAGES. THE VOLTAGES USED IN THIS EQUIPMENT CAN ENDANGER HUMAN LIFE. REPAIRS AND MODIFICATIONS ARE TO BE CARRIED OUT BY QUALIFIED TRADESPERSONS ONLY, USING AUTHORIZED TOOLS AND TEST EQUIPMENT.

- 9 Carry out the modification as follows:

9.1 Assembly of power cables:

WARNING

POWER CABLE SPECIFICATION. THE EXISTING POWER CABLES CAN BE USED ONLY IF THEY ARE OF THE CORRECT DIAMETER AND POWER CARRYING CAPABILITY TO FIT THE FREE END CONNECTORS. THE ITEMS DETAILED IN SUB-PARA 8.4 ABOVE ARE KNOWN TO MEET THESE REQUIREMENTS AND ARE THE RECOMMENDED ALTERNATIVES. IF PROBLEMS WITH THE CABLES ARE ENCOUNTERED, CONTACT FIELD EQUIPMENT AND RECOVERY GROUP FOR ADVICE. THE INSTRUCTION DETAILED BELOW APPLY TO ONE CABLE END. ALL ASSEMBLY DETAILS REFER TO FIG 1.

9.1.1 Strip the cable to the dimensions given, and tin the ends of the cable.

9.1.2 Slide the following items onto the cable, ensuring that they fitted in the correct order and orientation:

9.1.2.1 Grommet nut.

9.1.2.2 Thrust ring.

9.1.2.3 Cable seal.

9.1.2.4 Braid clamp.

9.1.2.5 Outlet assembly.

9.1.3 Place the individual conductors through the grommet, ensuring that each is in the correct hole, and slide the grommet onto the cable as far as possible. Since the pilot connector (required for protective conductor loop monitoring (PCLM)) is not present on the listed cables, one hole in the grommet will not be used.

9.1.4 Feed and solder the conductors into their respective contacts of the free shell assembly, ensuring that they are not twisted.

9.1.5 Slide the grommet forward onto the rear of the free shell, with the grommet face-to-face with the rear of the insert.

9.1.6 Offer the free shell assembly into the coupling nut assembly. Rotate and manoeuvre until the 'clicker' spring fitted to the inside of the coupling nut meshes with the serrated edge of the free shell. Locate the circlip into position inside of the coupling assembly, ensuring that it is fully located and expanded in the groove thereby retaining the free shell assembly against the 'clicker' spring. Check that coupling nut rotates, and that the 'clicker' spring is audibly operating.

9.1.7 Apply sleeve lubricant to the outside of the grommet and outlet assembly O-ring. Tighten the accessory nut onto the free shell to a torque of 70 lb in. using spanner (item 20 or 21), aligning the tactile indicator with the earth pin, and ensuring that the serrations on both free shell and outlet assembly mesh. This process is best carried out with the free shell and coupling nut clamped to an output connector.

9.1.8 Slide the braid clamp, cable seal and thrust ring along the cable onto the outlet assembly.

9.1.9 Loosely screw the grommet nut onto the outlet assembly. Push the cable forward into the outlet body to remove any strain from the solder joints, and then tighten the grommet nut to 70 lb in. using item 20 or 21.

9.1.10 Fit protective cover (item 9 or 10) onto coupling nut, thread retaining braid through hole in grommet nut and knot.

9.2 Replacement of output sockets 1 to 3:

9.2.1 Ensure that the generator is not running. Disconnect the interconnecting cable at the fixed box connector, placing the free end of the cable through the frame and onto the acoustic cover. Undo the seven quick-release fasteners that secure the acoustic cover to the frame. Using a minimum of two persons, remove the acoustic cover clear of the chassis assembly.

9.2.2 Disconnect the negative lead from the engine starting battery.

9.2.3 Locate the fixed box; remove the sixteen countersunk screws that secure the left hand cover of the box. Pull cover away from box, extending internal wiring loom as required.

9.2.4 Remove the protective cover (item 14) from output socket 3 (item 12). Remove the four 10/32 UNF screws, washers and stiffnuts securing the socket. Retain screw, washers and nuts for later use.

9.2.5 Pull back the rubber sleeves on the wires; de-solder wires from terminals pins using soldering iron (item 17). Remove and discard items 12, 14 and gasket (item 16).

- 9.2.6 Repeat Sub-Para 9.2.4 and 9.2.5 for output sockets 2 and 1.
- 9.2.7 Using new output socket 3 (item 1) and gasket (item 5), re-solder wires to terminal pins as given in Table 1 using item 17. Relocate rubber sleeves on all terminal pins.
- 9.2.8 Refit items 1, 5 and protective cover (item 3) to fixed box using the four 10/32 UNF screws, washers and stiffnuts.
- 9.2.9 Repeat Sub-Para 9.2.8 for output sockets 1 and 2 (items 1, 2, 3, 4, 5 and 6).
- 9.2.10 Refit the left hand cover using the sixteen countersunk screws, ensuring that the RF/Environmental gasket is correctly seated and that the wiring loom is not trapped between the cover and box.
- 9.2.11 Reconnect the negative battery lead.
- 9.2.12 Refit the acoustic cover in the reverse order to Sub-Para 9.2.1.

TABLE 1

Output socket	Terminal pin identifier	Wire number(s)
1, 30 A, (item 2)	L	202
	N	198 and 199
	E	192 and 193
2, 15 A (item 1)	L	203
	N	197 and 198
	E	191 and 192
3, 15 A (item 1)	L	204
	N	197 and 153
	E	191

Testing after embodiment**10 Test the modification as follows:**

10.1 Continuity. Set POWER ON switch and all circuit breakers for outputs 1 to 5 to 'ON'. Check for continuity between pin-L of output socket 1 and pin L of output sockets 2 and 3 using the digital multimeter (item 18). Repeat continuity checks for pin-N and pin-E of all sockets. Also check for continuity between pin E of all sockets to generator frame.

10.2 Insulation. Set POWER ON switch and all circuit breakers for outputs 1 to 5 to 'OFF'. Using the megohmmeter set to 500 V (item 19), check the insulation resistance between pins-L and pin-N, pin L to frame, and pin N to frame for each output socket. The insulation resistance in each case must not be less than 1 megohm.

10.3 Functional. With the generator under normal operating conditions, check for the correct output on all sockets 1, 2 and 3.

EFFECT ON WEIGHT

11 Negligible.

PUBLICATION AMENDMENTS

NOTE

Necessary amendments will be issued separately.

12 Nil.

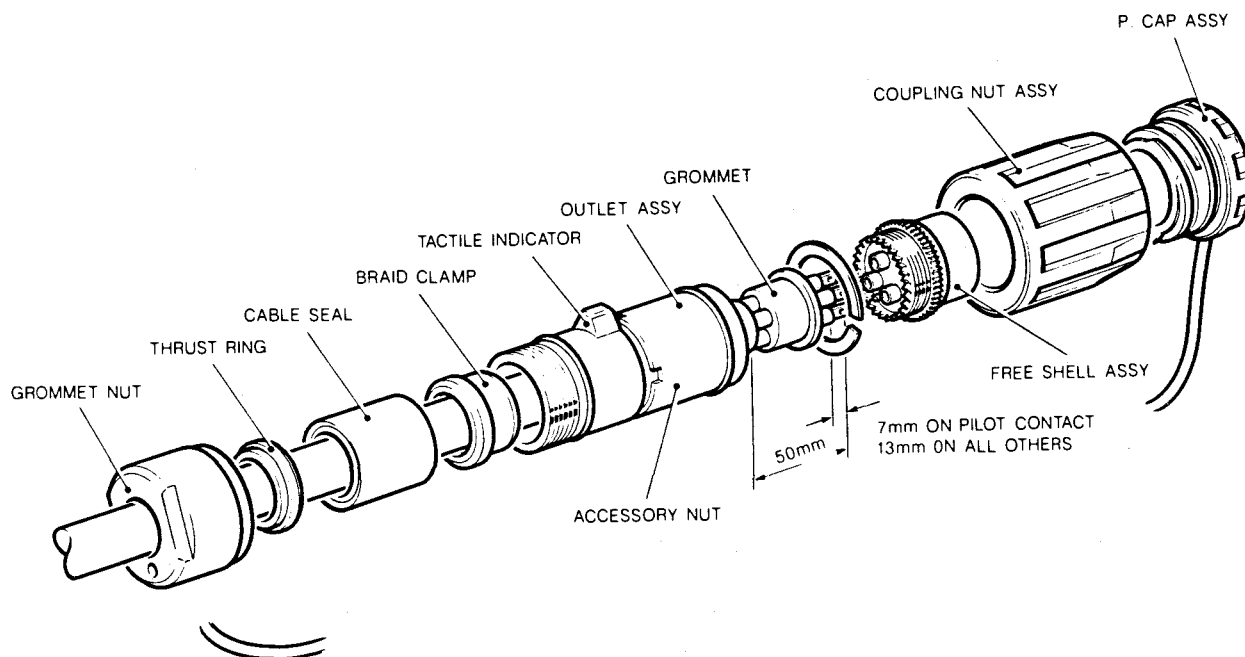


Fig 1 Assembly of free end connector

V12992/1

**GENERATOR SET, DIESEL ENGINE DRIVEN,
4.5 kW (5.6 kVA), 240 V, SINGLE PHASE, 50 Hz
(AIR-LOG 4169A)**

MODIFICATION INSTRUCTION No 3

Sponsor:
DGES(A)

Publication Agency:
Vehs & Wpns Br REME
Project No: 72012(54)
File ref: KGA4

AMENDMENT RECORD

Amdt No.	Incorporated By (Signature)	Date
1		
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Amdt No.	Incorporated By (Signature)	Date
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SUBJECT: Replacement of obsolete Residual Current Sensor

INTRODUCTION

1 This instruction details the fitting of a new Residual Current Sensor to replace the existing sensor, a pattern no longer available via commercial stores.

1.1 Limitations on use of equipment. Nil.

APPLICABILITY

2 Residual Current Sensor, type SDU1, NSN X2/5945-99-700-3190, as fitted to Generator Set, 4.5 kW, Air-Log (all variants).

2.1 Fitted to subject vehicles held by user units.

REASON FOR MODIFICATION

3 Code 5 - to conform to changes in pattern of commercial stores.

PRIORITY

4 ARMY: Routine on failure of subject item.

ESTIMATED TIME REQUIRED

5 Dismantling: 0.75 man-hours
Embodiment: 0.50 man-hours
Assembling: 0.75 man-hours
Testing: 0.20 man-hours

MODIFICATION IMPLEMENTATION PLAN

6

- 6.1 This modification is to be implemented by
ARMY - Units authorised to carry out levels 2, 3 or 4 maintenance.
- 6.2 Associated modification instructions. Nil.
- 6.3 Modification plate strike action: NA.

Action required by

7

- 7.1 Units and establishments holding equipment.
- 7.1.1 Examine equipment to see if the instruction is embodied and where necessary, Units with 1st line REME support demand the stores required.
- 7.1.2 ARMY - On receipt of stores, request REME to modify the equipment.
- 7.2 Army units authorized to carry out levels 2, 3 and 4 maintenance.
- 7.2.1 ARMY - When requested by users or during overhaul of equipments on charge without REME 1st line Support, obtain the items listed in Para 7 and carry out this modification.
- 7.3 All recipients of this instruction. Add particulars to AESP 6115-G-350-811 Mod Instr Index.

Stores, tools and equipment

8

- 8.1 Stores to be demanded.
- 8.1.1 The following modification set is to be demanded quoting this instruction as authority for demand, and
- 8.1.2 Serial number of equipment held by user units.

Item No	DMC	NSN/Part No	Designation	Qty per eqpt
	X2	6115-99-562-7690	Mod Set: Earth leakage sensor Comprising:	1
1	X2	6625-99-420-9863	Earth leakage sensor, ELS series, 240 V 50 Hz 30 mA trip, Blakey electronics	(1)
2			Screw, pan hd, steel, M4 x 16 mm lg	(2)
3			Nut, full hex, steel, M4	(2)
4			Washer, spring, steel, M4	(2)
5			Washer, plain, steel, M4	(2)

Item No	DMC	NSN/Part No	Designation	Qty per eqpt
6			Grommet, blanking, rubber, Ø5 mm	(2)
8.2 <u>Stores or suitable equivalent to be obtained locally.</u>				
7			Cable ties	As reqd
8			Nut, full hex, steel, M4	2
8.3 <u>Stores to be removed and reduced to scrap.</u>				
9	X2	5945-99-700-3190	RCD sensor	1
10			RCD mounting bracket	1

Sequence of operations

NOTES

- (1) The item numbers of Para 8 are used as references throughout this instruction.
- (2) The warning stated below is to be applied to all equipments employing voltages of 230 V d.c and 50 V a.c or more.

WARNINGS

(1) LETHAL VOLTAGES. THE VOLTAGES USED IN THIS EQUIPMENT CAN ENDANGER HUMAN LIFE. REPAIRS AND MODIFICATIONS ARE TO BE CARRIED OUT BY QUALIFIED TRADESPERSONS ONLY, USING AUTHORISED TOOLS AND TEST EQUIPMENT.

(2) GENERATOR STABILITY. WHEN THE GENERATOR IS ELEVATED FOR ACCESS TO THE FIXINGS ON THE UNDERSIDE, ENSURE THAT THE GENERATOR IS FULLY AND STABLY SUPPORTED.

9 Carry out the modification as follows:

9.1 Ensure that the generator is not running. Remove the generator from its trailer (if fitted) in accordance with AESP 6115-G-350-411.

9.2 Disconnect the interconnecting cable at the fixed box connector, placing the free end of the cable through the frame and onto the acoustic cover. Undo the seven quick-release fasteners that secure the acoustic cover to the frame. Using a minimum of two persons, remove the acoustic cover clear of the chassis assembly.

9.3 Disconnect the negative lead from the engine starting battery.

9.4 To gain access to the fixing bolts which attach the fixed box assembly to the generator floor pan, raise or support the complete generator above the ground or, alternatively, raise and support the fixed box side only.

9.5 Locate the fixed box; remove the sixteen countersunk screws that secure the left hand cover of the box. Pull cover away from box, extending internal wiring loom as required.

9.6 Undo and remove the four M6 bolts and washers holding the fixed box to the floor pan, and retain for re-assembly.

9.7 Locate and remove the residual current detector (RCD) (item 9) from its mounting bracket in the base of the fixed box. De-solder wires numbered '205' and '206' from circuit breaker No 4 (CB4), (after noting which wire is connected to which terminal), cut cable ties as required to release wires and un-thread from the RCD aperture.

9.8 Cut the eight RCD wires (two brown, two green, red, blue, yellow and yellow/green) as close to the RCD as possible. Discard the (unterminated) yellow and yellow/green wires. Discard item 9.

9.9 Remove and discard the RCD mounting bracket (item 10) by releasing the two screws, nuts and washers.

9.10 Referring to Fig 1, mark out and drill two Ø4.2 mm holes in the rear panel of the fixed box.

9.11 Insert the blanking grommets (item 6) into the redundant holes.

9.12 Strip approximately 10 mm of insulation from the cut ends of the six wires, and connect to the new earth leakage sensor (item 1) in accordance with Table 1.

9.13 Thread wires '205' and '206' through RCD sensor aperture, and reconnect to their original terminals on CB4.

9.14 Using screw, nuts and washers, (items 2, 3, 4, 5 and 8), refer to Fig 1 and assemble RCD onto the fixed box rear panel. Re-secure wiring loom using cable ties as required.

9.15 Re-bolt the fixed box to the floor pan using the bolt and washers retained in Para 9.6.

9.16 Re-assemble the left hand cover to the fixed box using the sixteen screws retained in Para 9.5, ensuring that the RF/Environmental gasket is correctly seated and that the wiring loom is not trapped between the cover and fixed box.

9.17 Re-connect the negative battery lead.

9.18 Refit the acoustic cover in the reverse order to Para 9.2.

9.19 Lower the generator to the floor or refit to trailer.

TABLE 1

Wire No	Wire Colour	Wire Remote End Location	Earth Leakage Sensor Terminal
223	Green	RCD test button (S5), terminal 3	A1
224	Green	RCD test button (S5), terminal 4	T
225	Brown	Circuit breaker 4 (CB4), terminal 4	A2
226	Brown	Circuit breaker 4 (CB4), terminal 2	A1
227	Blue	Circuit breaker 4 (CB4)	COM
228	Red	Circuit breaker 4 (CB4)	NO

Testing after embodiment

10 Test the modification as follows:

10.1 Start and operate the generator in accordance with AESP 6115-G-350-211. Check for normal output.

10.2 Connect a load to Output Socket 4, set CB4 to 'ON' and select 'POWER ON'.

10.3 Open the Emergency Output Terminal Hinged Cover and press the 'RCD TEST' button. Ensure that the load is automatically disconnected by the tripping of CB4.

10.4 Re-set CB4 and ensure that the load is re-connected.

10.5 Set CB4 and 'POWER ON' switch to their 'OFF' positions. Stop engine and disconnect the load.

EFFECT ON WEIGHT

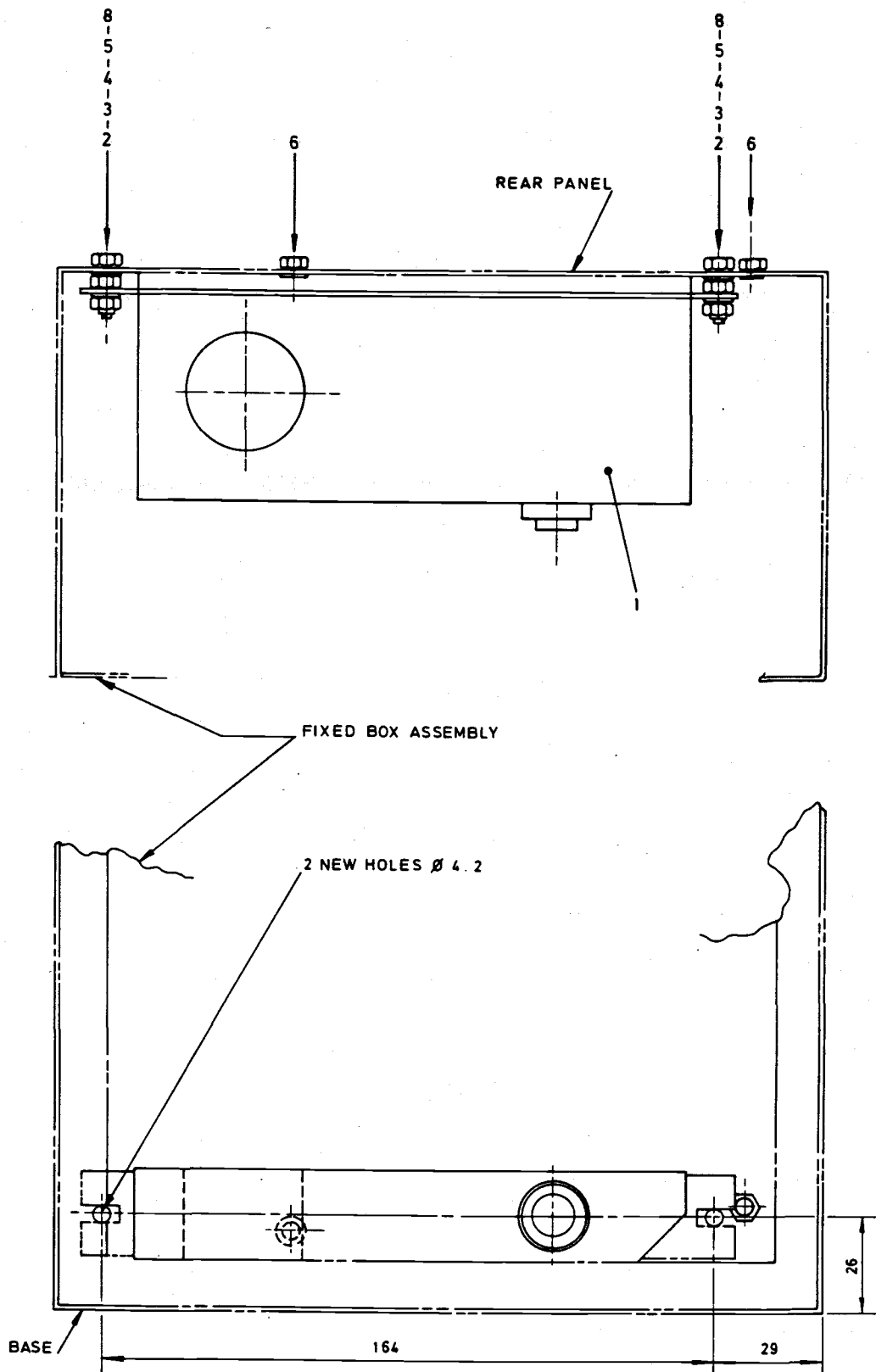
11 Nil.

PUBLICATION AMENDMENTS

NOTE

Necessary amendments will be issued separately.

12 Nil



V12651/1

Fig 1 Fixed box assembly, RCD sensor location and fixings

GENERATOR SET DIESEL ENGINE DRIVEN 4.5 KW (5.6 KVA) 240 V AC,
SINGLE PHASE, 50 HZ (AIRLOG 4169A)
MODIFICATION INSTRUCTION NO. 4

Sponsor:
DGES(A)

Publication Agency:
ATSA Chertsey
Project No: 72212(355)
File ref: KGA4

AMENDMENT RECORD

Amdt No.	Incorporated By (Signature)	Date
1		
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Amdt No.	Incorporated By (Signature)	Date
4		
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SUBJECT: Earth bonding

INTRODUCTION

1 Asset code JE 5927 3302 consists of two Airlog 4.5 kW generators mounted on a 2.5 tonne FV 2406 trailer. This instruction details the earth bonding of the generators to the trailer when supplied in this configuration.

1.1 Limitations on use of equipment. Nil.

APPLICABILITY

2 Twin Airlog 4.5 kW generators mounted on 2.5 tonne, FV 2406 trailer. Asset code JE 5927 3302.

2.1 Held by user units.

2.2 Unmodified stock, held at all levels of technical storage.

REASON FOR MODIFICATION

3 Code 1 - to improve safety.

PRIORITY

4 ARMY: Immediate.

ESTIMATED TIME REQUIRED

5 Assembling: 1 man-hour.

MODIFICATION IMPLEMENTATION PLAN

6

6.1 This instruction is to be implemented by:

6.1.1 ARMY - Units authorized to carry out levels 2, 3 or 4 maintenance.

6.2 Associated instructions. Nil

6.3 Strike plate action: N/A

Action required by

7

7.1 Units and establishments holding equipment:

7.1.1 Examine equipment documents to see if instruction is applicable.

7.1.2 Examine equipment or modification record plate to see if modification is embodied and where necessary Units with 1st Line REME Support demand the stores required.

7.1.3 ARMY - On receipt of stores, request REME to modify equipment.

7.1.4 ARMY - Record the AESP and instruction number in equipment documents.

7.2 Army units authorized to carry out levels 2, 3 and 4 maintenance:

7.2.1 ARMY - When requested by units or during overhaul of equipment on charge without REME 1st Line Support, obtain the items listed in Para 8 and carry out this modification.

7.2.2 Record completion details of modification against appropriate entry in vehicle documents.

7.3 All recipients of this instruction. Add particulars to AESP 6115-G-350-811 Instr Index.**Stores, tools and equipment**

8

8.1 Stores to be demanded:

8.1.1 The following modification kit is to be demanded quoting this instruction as the authority.

8.1.2 Registration number of trailer for equipment held by user units.

Item No.	DMC	NSN/Part No.	Designation	Qty per eqpt
	X2	6115-99-898-5000	Mod set: Modification Kit, Earth Bonding comprising:	1
1		2-4169-1/191	Cable bonding.	(2)
2		3-4169-1/195	Collar.	(2)
3		BS3692	Screw, hex hd M6 x 60 mm lg.	(2)

Item No.	DMC	NSN/Part No.	Designation	Qty per eqpt
4		BS4320	Washer, plain, form A, M6.	(4)
5		BS4464	Washer, spring, single coil, M6.	(4)
6		DIN6797	Washer, shakeproof, ext teeth, form A, M6.	(2)
7		BS3692	Nut, full, M6.	(4)
8		DIN4398	Nut.	(2)
9			Holesaw, 20 mm dia.	(1)
10			K1 arbor.	(1)

Sequence of operations

9 Carry out this instruction as follows:

NOTE

The item numbers of Para 8 are used as reference throughout this instruction.

9.1 Referring to Fig 1 and 2 mark out the earth stud positions on the trailer deck.

9.2 Drill 20 mm holes (item 9), in the positions marked, through the trailer wooden deck allowing the holesaw pilot drill to continue through the steel floor below. If necessary use a suitable size drill to open out the holes in the steel floor to allow clearance for the M6 screws (item 3).

9.3 Remove the paint around the holes, on the underside of the steel floor, to a diameter of approximately 22 mm.

9.4 Referring to Fig 3 assemble the earth studs and earth bonding cables (item 1, 2, 3, 4, 5, 6, 7 and 8).

TESTING AFTER EMBODIMENT

10 Nil.

EFFECT ON WEIGHT

11 Negligible.

PUBLICATION AMENDMENTS

NOTE

Necessary amendments will be issued separately.

12 Nil.

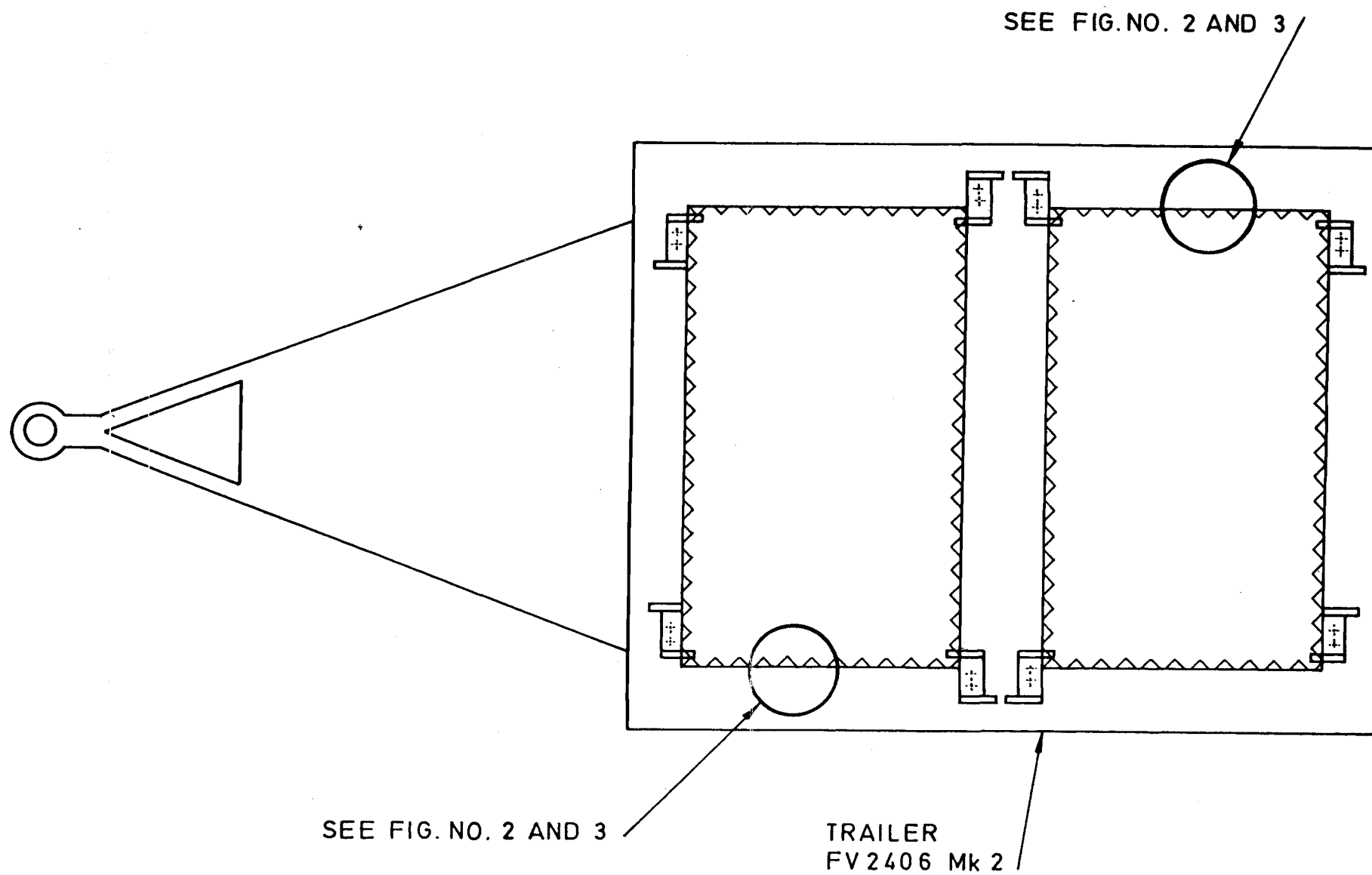
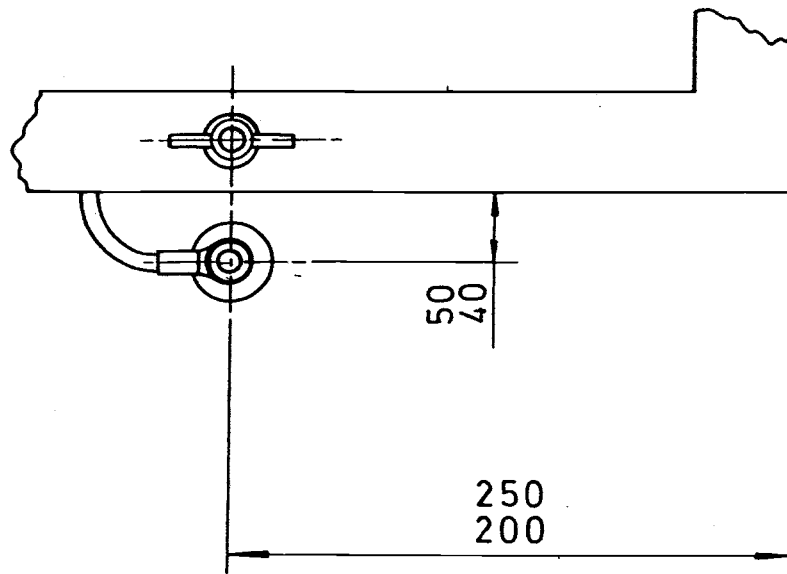


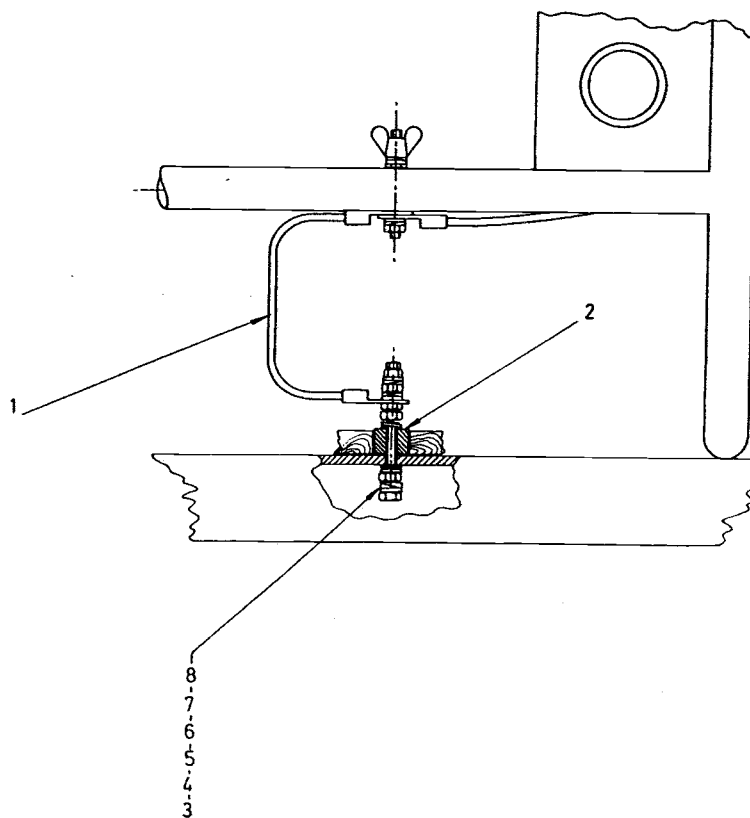
Fig 1 General arrangement

V14378/1



V14378/2

Fig 2 Positional detail



V14378/3

Fig 3 Earth stud and cable assembly

**GENERATOR SET, DIESEL ENGINE DRIVEN, 4.5 KW (5.6 KVA), 240 V AC,
SINGLE PHASE, 50 HZ, (AIR-LOG 4169A)
MODIFICATION INSTRUCTION NO. 5**

Sponsor:
DGES(A)

Publication Agency:
ATSA Chertsey
Project No: 72212(354)
File ref: KGA4

AMENDMENT RECORD

Amdt No.	Incorporated By (Signature)	Date
1		
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Amdt No.	Incorporated By (Signature)	Date
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SUBJECT: Earth bonding

INTRODUCTION

1 Asset code JE 5927 3301 consists of a single Air-Log 4.5 kW generator set mounted in a 0.75 tonne FV 2380 trailer. This instruction details the earth bonding of the generator to the trailer.

1.1 Limitations on use of equipment. Nil.

APPLICABILITY

2 Single Air-Log 4.5 kW Generator Set Mounted in 0.75 Tonne, FV 2380, Trailer, Asset Code JE 5927 3301.

2.1 Held by user units.

2.2 Unmodified stock, held at all levels of technical storage.

REASON FOR MODIFICATION

3 Code 1 - to improve safety.

PRIORITY

4 ARMY: Immediate.

ESTIMATED TIME REQUIRED

5 Assembling: 1 man-hour.

MODIFICATION IMPLEMENTATION PLAN

6

6.1 This instruction is to be implemented by:

6.1.1 ARMY - Units authorized to carry out levels 2, 3 or 4 maintenance.

6.2 Associated instructions: Nil

6.3 Strike plate action: N/A

Action required by

7

7.1 Units and establishments holding equipment:

7.1.1 Examine equipment documents to see if instruction is applicable.

7.1.2 Examine equipment or modification record plate to see if modification is embodied and where necessary Units with 1st Line REME Support demand the stores required.

7.1.3 ARMY - On receipt of stores, request REME to modify equipment.

7.1.4 ARMY - Record the AESP and instruction number in equipment documents.

7.2 Army units authorized to carry out levels 2, 3 and 4 maintenance:

7.2.1 ARMY - When requested by units or during overhaul of equipment on charge without REME 1st Line Support, obtain the items listed in Para 8 and carry out this modification.

7.2.2 Record completion details of modification against appropriate entry in vehicle documents.

7.3 All recipients of this instruction. Add particulars to AESP 6115-G-350-811 Instr Index.**Stores, tools and equipment**

8

8.1 Stores to be demanded:

8.1.1 The following modification kit is to be demanded quoting this instruction as the authority.

8.1.2 Registration number of trailer for equipment held by user units.

Item No.	DMC	NSN/Part No.	Designation	Qty per eqpt
	X2	6115-99-474-4763	Mod set: Modification Kit, Earth Bonding comprising:	1
1		2-4169-1/191	Cable bonding.	(2)
2		BS4183	Screw, hex hd, M6 x 16 mm lg.	(2)
3		BS4320	Washer, plain, form A, M6.	(2)

Item No.	DMC	NSN/Part No.	Designation	Qty per eqpt
4		BS4464	Washer, spring, single coil, M6.	(2)
5		BS3692	Nut, full, M6.	(2)

Sequence of operations

9 Carry out this instruction as follows:

NOTE

The item numbers of Para 8 are used as reference throughout this instruction.

9.1 Referring to Fig 1 and 2 mark out the earth stud positions on the trailer floor and trailer chassis frame.

9.2 In the positions marked drill suitable size clearance holes for the M6 earth stud screws (item 2).

9.3 Remove the paint, to a diameter of approximately 22 mm, around the trailer floor hole on the top side and around the trailer chassis frame on the underside.

9.4 Referring to Fig 3 assemble the earth bonding cables (item 1, 2, 3, 4 and 5).

TESTING AFTER EMBODIMENT

10 Nil.

EFFECT ON WEIGHT

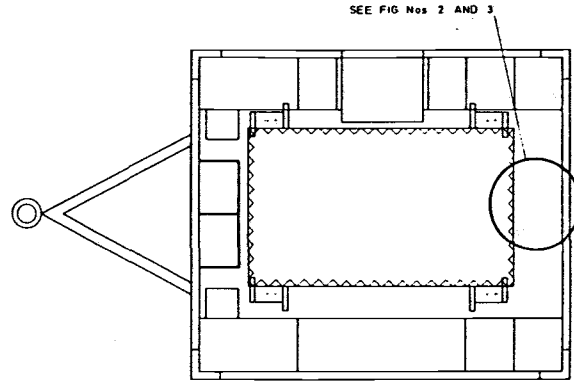
11 Negligible.

PUBLICATION AMENDMENTS

NOTE

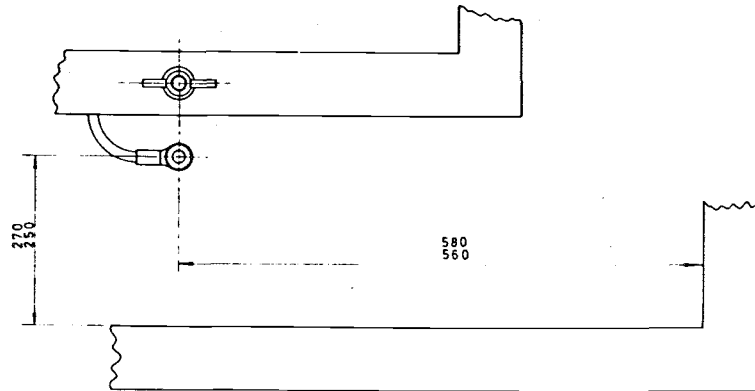
Necessary amendments will be issued separately.

12 Nil.



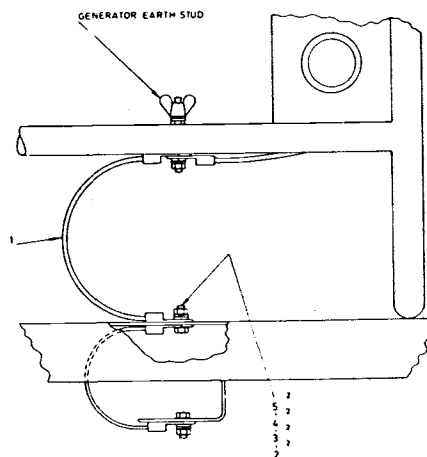
V14378/4

Fig 1 General arrangement



V14378/5

Fig 2 Positional detail



V14378/6

Fig 3 Earth stud cable assy

**GENERATOR SET, DIESEL ENGINE DRIVEN, 4.5 KW (5.6 KVA), 240 V AC,
SINGLE PHASE, 50 HZ, (AIR-LOG 4169A)**

MODIFICATION INSTRUCTION NO. 6

Sponsor:
DGES(A)

Publication Agency:
ATSA Chertsey
Project No: 72212(256)
File ref: KGA4

AMENDMENT RECORD

Amdt No.	Incorporated By (Signature)	Date
1		
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Amdt No.	Incorporated By (Signature)	Date
4		
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SUBJECT: Removal of engine mounted, mechanically operated, Hours Run Meter (HRM)

INTRODUCTION

1 The air-log 4.5 kW generator is fitted with two HRMs. One is electrically operated and mounted on the front panel of the remote control box (RCB). The other is mechanically operated and is mounted in a bracket on the engine assembly. The control box HRM is accurate and easy to read and therefore this instruction authorises the removal of the mechanical HRM.

NOTE

In order to keep an accurate record of running time the RCB must be retained with its associated generator at all times. If replacement of the RCB is necessary then a record of running time must be made in the equipment documentation. The serial number of the generator is stencilled on the bottom of the RCB.

1.1 Limitations on use of equipment. Nil.

APPLICABILITY

2 Air-Log 4.5 kW Generator Set, All Variants X2/6645-12-166-2094 Meter - Time Totalizing.

2.1 Fitted to subject generators held by user units.

2.2 Unmodified stock, held at all levels of technical storage.

REASON FOR MODIFICATION

3 Code 6 - Removal of redundant components.

PRIORITY

4 ARMY: Routine on failure or at next service.

ESTIMATED TIME REQUIRED

5 Dismantling: 0.5 man-hours.

MODIFICATION IMPLEMENTATION PLAN

6

6.1 This instruction is to be implemented by:

6.1.1 ARMY - Units authorized to carry out levels 2, 3 or 4 maintenance.

6.2 Associated instructions. Nil

6.3 Strike plate action: N/A

Action required by

7

7.1 Units and establishments holding equipment:

7.1.1 Examine equipment documents to see if instruction is applicable.

7.1.2 Examine equipment or modification record plate to see if modification is embodied and where necessary Units with 1st Line REME Support demand the stores required.

7.1.3 ARMY - On receipt of stores, request REME to modify equipment.

7.1.4 ARMY - Record the AESP and instruction number in equipment documents.

7.2 Army units authorized to carry out levels 2, 3 and 4 maintenance:

7.2.1 ARMY - When requested by units or during overhaul of equipment on charge without REME 1st Line Support.

7.2.2 Record completion details of modification against appropriate entry in vehicle documents.

7.3 All recipients of this instruction. Add particulars to AESP 6115-G-350-811 Instr Index.

Stores, tools and equipment

8

8.1 Stores to be removed and reduced to scrap:

Item No.	DMC	NSN/Part No.	Designation	Qty per eqpt
1	X2	6645-12-166-2094	Meter - Time Totalizing.	1

Sequence of operations

9 Carry out this instruction as follows:

NOTE

The item numbers of Para 8 are used as reference throughout this instruction.

9.1 Remove the two bolts fixing the HRM (item 1) mounting bracket to the engine. Remove the bracket and earth bonding cable. Discard the HRM (item 1), bracket, and one fixing bolt.

9.2 Using the remaining fixing bolt replace the earth bonding cable.

TESTING AFTER EMBODIMENT

10 Nil.

EFFECT ON WEIGHT

11 Negligible.

PUBLICATION AMENDMENTS

NOTE

Necessary amendments will be issued separately.

12 Nil.

**GENERATOR SET DIESEL ENGINE DRIVEN 4.5 KW (5.6 KVA) 240 V AC,
SINGLE PHASE, 50 HZ (AIR-LOG 4169A)
MODIFICATION INSTRUCTION NO. 7**

Sponsor:
DGES(A)

Publication Agency:
ATSA Chertsey
Project No: S9900049(521)
File ref: KGA4

AMENDMENT RECORD

Amdt No.	Incorporated By (Signature)	Date
1		
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Amdt No.	Incorporated By (Signature)	Date
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SUBJECT: Modification of control box cable assembly, X2/6150-99-623-8290

INTRODUCTION

1 This instruction modifies the control box cable assembly to prevent the ingress of water into the control box connector:

- 1.1 Limitations on use of equipment. Nil.

APPLICABILITY

2 Control box cable assembly X2/6150-99-623-8290:

- 2.1 Fitted to subject equipment, EAC JE59273301, JE59273302 or JE59273303 held by user units.
- 2.2 Unmodified stock, held at all levels of technical storage.

REASON FOR MODIFICATION

3 Code 2 - to improve operational performance.

PRIORITY

4 ARMY: Immediate.

ESTIMATED TIME REQUIRED

5 Embodiment: 1.0 man-hours.

MODIFICATION IMPLEMENTATION PLAN

6

6.1 This instruction is to be implemented by:

6.1.1 ARMY - Units authorized to carry out levels 2, 3 or 4 maintenance.

6.2 Associated instructions: Nil.

6.3 Strike plate action: N/A.

Action required by

7

7.1 Units and establishments holding equipment:

7.1.1 Examine equipment to see if modification is embodied and where necessary Units with 1st Line REME Support demand the stores required.

7.1.2 ARMY - On receipt of stores, request REME to modify equipment.

7.1.3 Record the AESP and instruction number in equipment documents.

7.2 Army units authorized to carry out levels 2, 3 or 4 maintenance:

7.2.1 When requested by users without 1st Line REME Support, obtain the items listed in Para 8 and carry out this modification.

7.2.2 Record completion details of modification against appropriate entry in equipment documents.

7.3 All recipients of this instruction. Add particulars to AESP 6115-G-350-811 Instr Index.**Stores, tools and equipment**

8

8.1 Stores are to be obtained from Item 4:

Item No.	DMC	NSN/Part No.	Designation	Qty per eqpt
1	Z42	5970-99-640-1141	Self amalgamating tape.	As reqd
2	Z42	5970-99-887-6317	Tubing 4:1 heat shrink, black 50 mm diameter.	12 cm

8.2 Items/stores to be modified:

3 X2 6150-99-623-8290 Cable assembly (0.75 m). 1

8.3 Special tools and test equipment required:

4 W3 4940-99-839-8288 General purpose electrical cable repair kit. 1

Sequence of operations

NOTE

The item numbers of Para 8 are used as reference throughout this instruction.

9 Carry out the modification as follows:

9.1 Remove the cable assembly (item 3) from the subject equipment.

9.2 Using the tape (item 1) form a taper, which is to extend 8 cm from the base of plug 5.

9.3 Using the electrical cable repair kit (item 4) heat the tape to give a watertight seal.

9.4 Slide a 12 cm length of tubing (item 2) over the plug end of the cable. Ensuring that the ends of the tubing are cut square.

9.5 Position the tubing over the taped taper to give an equal overlap at either end.

9.6 Using the electrical cable repair kit (item 4) shrink the tubing to give a watertight seal.

TESTING AFTER EMBODIMENT

10 Nil.

EFFECT ON WEIGHT

11 Negligible.

PUBLICATION AMENDMENTS

12 Nil.

GENERATOR SET DIESEL ENGINE DRIVEN 4.5 KW (5.6 KVA) 240 V AC

SINGLE PHASE, 50 HZ (AIR-LOG 4169A)

MODIFICATION INSTRUCTION NO. 8

Sponsor:
DGES(L)

Publication Agency:
DLO Chertsey
Project No: S01024 (88)
File ref: FP&MEE 20

AMENDMENT RECORD

Amdt No.	Incorporated By (Signature)	Date
1		
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Amdt No.	Incorporated By (Signature)	Date
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SUBJECT: Replacement of alternative transformer

INTRODUCTION

1 The transformer fitted to the generator is no longer available from commercial stores. The new transformer is a different pattern but comes complete with a mounting plate that ensures existing holes can be used. This instruction details the fitting of the alternative transformer upon failure of the existing transformer.

1.1 Limitations on use of equipment. Nil.

APPLICABILITY

2 Current transformer NSN Z37 5950-99-352-4761 superseded by new transformer NSN X2 6115-99-479-5468, ref. AESP 6115-G-350-711, Chap 2-5, Fig 3, Item 6, fitted to Air-Log 4.5 kW Generator Set, NSN X2/6115-99-795-5786.

REASON FOR MODIFICATION

3 Code 5 - to conform to changes in pattern of commercial stores.

PRIORITY

4 Routine on failure of subject transformers.

ESTIMATED TIME REQUIRED

5

5.1 Dismantling: 0.25 man-hours.

5.2 Embodiment: 0.50 man hours.

5.3 Assembling: 0.25 man-hours.

5.4 Testing: 0.2 man-hours.

MODIFICATION IMPLEMENTATION PLAN

6

6.1 This instruction is to be implemented by:

6.1.1 ARMY - Units authorized to carry out levels 2, 3 or 4 maintenance.

6.1.2 RAF - Units as appropriate.

6.2 Associated instructions. Nil.

6.3 Strike plate action: N/A.

Action required by

7

7.1 Units and establishments holding equipment:

7.1.1 Examine equipment documents to see if instruction is applicable.

7.1.2 Examine equipment to see if modification is embodied and where necessary Units with 1st Line REME Support demand the stores required.

7.1.3 ARMY - On receipt of stores, request REME to modify equipment.

7.1.4 ARMY - Record the AESP and instruction number in equipment documents.

7.1.5 RAF - Record modification details.

7.2 Army units authorized to carry out levels 2, 3 and 4 maintenance and RAF units:

7.2.1 ARMY - When requested by units or during overhaul of equipment on charge without REME 1st Line Support, obtain the items listed in Para 8 and carry out this instruction.

7.2.2 Record completion details of modification against appropriate entry in equipment documents.

7.3 All recipients of this instruction. Add particulars to AESP 6115-G-350-811 Instr Index.

Stores, tools and equipment

8

8.1 Stores to be demanded:

Item No.	DMC	NSN/Part No.	Designation	Qty per eqpt
	X2	6115-99-479-5468	Modification kit transformer comprising:	1
1			Modified transformer.	(1)
2			M6 plain washer, steel.	(2)
3			M6 single coil spring washer, steel.	(2)

Item No.	DMC	NSN/Part No.	Designation	Qty per eqpt
4			M6 terminal ring tongue, insulated.	(2)
5			M6 hex hd screw x 12 lg, steel.	(2)
6			M6 full nut, steel.	(2)
7			M8 hex hd screw x 18 lg, steel.	(2)
8			M8 plain washer, steel.	(2)
9			M8 single coil spring washer, steel.	(2)
10			M8 full nut, steel.	(2)
11			M6 hex hd screw x 16 lg, steel.	(4)
12			M6 seloc washer, rubber covered (Dowty).	(4)

Sequence of operations

9 Carry out this instruction as follows:

NOTE

The item numbers AESP 6115-G-350-711, Chap 2-5, Fig 3, are used as reference throughout this instruction.

- 9.1 Disable generator by disconnecting negative and positive battery leads.
- 9.2 Remove new transformer and fittings from packaging, taking note of white label indicating terminal identification.
- 9.3 Remove the 16 counter sunk screws securing the front cover of the fixed box assembly to gain access to the existing transformer.
- 9.4 Remove two screws holding relay DC (see Fig 1) and pull it down and out of the way to give easier access to existing transformer.
- 9.5 Remove four bolts holding existing transformer (item 6).
- 9.6 Disconnect secondary terminals S1 and S2, cut wires as close as possible to existing terminal crimps and discard.
- 9.7 Bare wires back and crimp new M6 rings provided.
- 9.8 Secure to secondary terminals using new fittings in the order S1 then S2, ensure that fittings are used in such a way that maximum clearance is achieved between them and the back of the fixed box assembly.
- 9.9 Offer up new transformer in mounting position indicated in Fig 1.
- 9.10 Use four bolts and dowty washers provided to secure new transformer in place.
- 9.11 Remove the primary wires from the existing transformer and discard transformer.
- 9.12 Connect primary wires to new transformer.

- 9.13 Check clearance around all of the newly connected terminals.
- 9.14 Replace relay DC.
- 9.15 Replace the fixed box assembly front cover with existing fittings.
- 9.16 Reconnect battery.

TESTING AFTER EMBODIMENT

10 Nil.

EFFECT ON WEIGHT

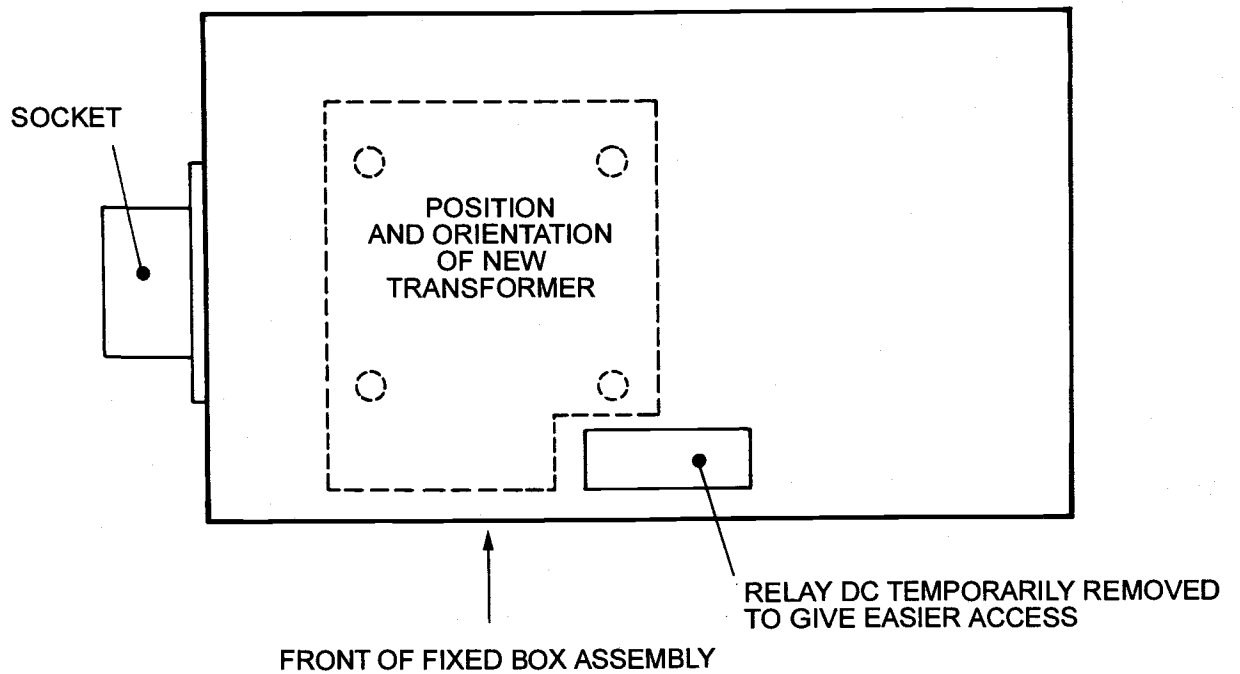
11 Negligible.

PUBLICATION AMENDMENTS

NOTE

Necessary amendments will be issued separately.

12 Nil.



V14813/1

Fig 1 Position and orientation of new transformer viewed from above fixed box assembly

**GENERATOR SET DIESEL ENGINE DRIVEN 4.5 KW (5.6 KVA) 240V AC
SINGLE PHASE, 50 HZ (AIR-LOG 4169A)**

MODIFICATION INSTRUCTION NO. 9

Sponsor:
DGES(L)

Publication Agency:
DLO Chertsey
Project No: S01024(148)
File ref: FF&MEE 20

AMENDMENT RECORD

Amdt No.	Incorporated By (Signature)	Date
1		
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Amdt No.	Incorporated By (Signature)	Date
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SUBJECT: Replacement of mounts resilient

INTRODUCTION

1 The mounts resilient fitted to the generator are not very effective and a replacement has been found that will replace the old style. The new mount resilient is different. On failure of one mount, all four are replaced. This instruction details the fitting of the new mounts resilient upon failure of the existing mounts.

1.1 Limitations on use of equipment. Nil.

APPLICABILITY

2 Current mount resilient NSN X2 5340-99-255-2665 superseded by new vibration mount NSN 6MT1 5340-99-660-7800, reference AESP 6115-G-350-711, Chap 2-1, Fig 1, Item 11, fitted to Air-Log 4.5 kW Generator Set, all variants.

REASON FOR MODIFICATION

3 Code 3 - to improve reliability.

PRIORITY

4 All Users: Routine on failure of subject mounts.

ESTIMATED TIME REQUIRED

5

- 5.1 Dismantling: 0.25 man-hours.
- 5.2 Embodiment: 0.25 man-hours.
- 5.3 Assembling: 0.25 man-hours.
- 5.4 Testing: 0,2 man-hours.

MODIFICATION IMPLEMENTATION PLAN

6

- 6.1 This instruction is to be implemented by:
 - 6.1.1 ARMY - Units authorized to carry out levels 2, 3 or 4 maintenance.
 - 6.1.2 RAF - Units as appropriate.
- 6.2 Associated instructions. Nil
- 6.3 Strike plate action: N/A

Action required by

7

- 7.1 Units and establishments holding equipment:
 - 7.1.1 Examine equipment documents to see if instruction is applicable.
 - 7.1.2 Examine equipment to see if modification is embodied and where necessary Units with 1st Line REME Support demand the stores required.
 - 7.1.3 ARMY - On receipt of stores, request REME to modify equipment.
 - 7.1.4 ARMY - Record the AESP and instruction number in equipment documents.
 - 7.1.5 RAF - Record modification details.
- 7.2 Army units authorized to carry out levels 2, 3 and 4 maintenance and RAF units:
 - 7.2.1 ARMY - When requested by units or during overhaul of equipment on charge without REME 1st Line Support, obtain the items listed in Para 8 and carry out this instruction.
 - 7.2.2 Record completion details of modification against appropriate entry in vehicle documents.
- 7.3 All recipients of this instruction. Add particulars to AESP 6115-G-350-811 Instr Index.

Stores, tools and equipment

8

8.1 Stores to be demanded:

Item No.	DMC	NSN/Part No.	Designation	Qty per eqpt
	X2	6115-99-414-9141	Mod set: AV mounts comprising:	1
1		Stopchoc EIE 11 S38 AC	Miniature isolator (AV mount).	(4)
2		GKN	Screw, M5 x 12 lg, hex hd, steel, zinc plated.	(4)
3		BS 4463	Washer, M5, crinkle, beryllium copper.	(4)
4		BS 4320	Washer, M4, plain, zinc plated.	(16)
5		AGS 2050/540	Pop rivet, 5/32 in. dia, dome head.,	(16)
6		3-4169-1/504	Warning label (lift only).	(1)

Sequence of operations

9 Carry out this instruction as follows:

- 9.1 Remove remote box from mounting tray by releasing two toggle clamps.
- 9.2 Undo the seven quick release fasteners that secure acoustic cover to frame. Using a minimum of two persons, remove the acoustic cover.
- 9.3 Unscrew four M4 hex head screws retaining mounting tray to gain access to resilient mounts.
- 9.4 Pull back the acoustic lining on the opposite side to the 'HOT AIR' outlet as required. This allows access to fit washers to the underside of the pop rivets. No fitting of washers or removal of acoustic lining is necessary when pop riveting the mounts on the 'HOT AIR' side as an aluminium under plate is fitted.
- 9.5 Drill through the rivets retaining the existing mounts using a 4 mm drill.
- 9.6 Discard old resilient mounts.
- 9.7 Open up the four holes in the new mounts using 4 mm drill to accommodate the pop rivets supplied.

Refer to Fig 1

- 9.8 Fit the new resilient mounts (utilizing the two existing drilled holes) using the pop rivets and washers supplied. Use washers on opposite side of cover to the resilient mount to prevent rivet from pulling through fibreglass.
- 9.9 With new mount held in place with two pop rivets, drill through remaining holes.
- 9.10 Use remaining pop rivets and washers to complete fitting.
- 9.11 Open up the holes in the mounting tray using a 5.5 mm drill to accept new resilient mount screws.

9.12 Secure mounting tray to acoustic frame using screws and washers provided.

9.13 Replace acoustic cover.

9.14 Replace remote control box.

TESTING AFTER EMBODIMENT

10 Nil.

EFFECT ON WEIGHT

11 Negligible.

PUBLICATION AMENDMENTS

NOTE

Necessary amendments will be issued separately.

12 Nil.

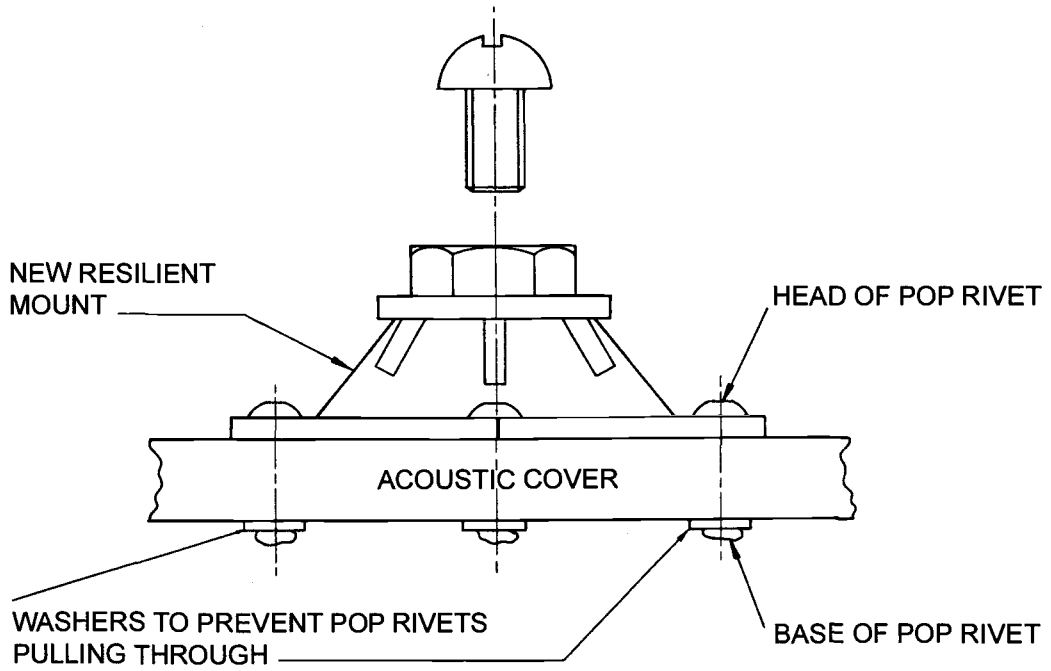


Fig 1 Resilient mount

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GENERATOR SET, DIESEL ENGINE DRIVEN, 4.5 KW (5.6 KVA), 240 V AC,

SINGLE PHASE, 50 HZ, (AIR-LOG 4169A)

MODIFICATION INSTRUCTION NO. 10

Sponsor:
DGES(L)

Publication Agency:
DLO Chertsey
Project No: S01024(182)
File ref: BI 20

AMENDMENT RECORD

Amdt No.	Incorporated By (Signature)	Date
1		
2		
3		

Amdt No.	Incorporated By (Signature)	Date
4		
5		
6		

SUBJECT: Stud terminal cover

INTRODUCTION

1 To comply with safety legislation this modification is designed to prevent access to the stud terminals whilst live.

1.1 Limitations on use of equipment. Nil.

APPLICABILITY

2 Air-Log 4.5 kW Generator sets all variants.

2.1 Fitted to subject equipment held by user units.

2.2 Unmodified stock, held at all levels of technical storage.

REASON FOR MODIFICATION

3 Code 1 - to improve safety.

PRIORITY

4

4.1 ARMY: Immediate.

4.2 RAF: Class 1.

ESTIMATED TIME REQUIRED

5

- 5.1 Dismantling: 0.5 man-hours.
- 5.2 Embodiment: 0.5 man-hours.
- 5.3 Assembling: 0.5 man-hours.
- 5.4 Testing: 0.25 man-hours.

MODIFICATION IMPLEMENTATION PLAN

6

- 6.1 This instruction is to be implemented by:
 - 6.1.1 ARMY - Units authorized to carry out levels 2, 3 or 4 maintenance.
 - 6.1.2 RAF - Units as appropriate.
 - 6.1.3 Storage depots before issue of equipment.
- 6.2 Associated instructions. Nil.
- 6.3 Strike plate action: N/A.

Action required by

7

- 7.1 Units and establishments holding equipment:
 - 7.1.1 Examine equipment documents to see if instruction is applicable.
 - 7.1.2 Examine equipment or modification record plate to see if modification is embodied and where necessary Units with 1st Line REME Support demand the stores required.
 - 7.1.3 ARMY - On receipt of stores, request REME to modify equipment.
 - 7.1.4 ARMY - Record the AESP and instruction number in equipment documents.
 - 7.1.5 RAF - Demand stores and carry out this modification.
- 7.2 Army units authorized to carry out levels 2, 3 and 4 maintenance:
 - 7.2.1 ARMY - When requested by units or during overhaul of equipment on charge without REME 1st Line Support, obtain the items listed in Para 8 and carry out this modification.
 - 7.2.2 Record completion details of modification against appropriate entry in vehicle documents.
- 7.3 All recipients of this instruction. Add particulars to AESP 6115-G-350-811 Instr Index.

Stores, tools and equipment

8

8.1 Stores to be demanded:

8.1.1 The following modification kit is to be demanded quoting this instruction as the authority.

Item No.	DMC	NSN/Part No.	Designation	Qty per eqpt
	X2	6115-99-299-0168	Mod set: comprising	1
1			Cover assembly.	(1)
2			Spacer.	(1)
3	G1	5305-99-977-3332	Screw, pan HD, M3, 12 mm lg.	(1)
4	G1	5310-99-643-0703	Washer, lock, single coil, M3.	(3)
5	G1	5305-99-914-9806	Screw, pan HD, 6-32 UNC, 5/16 lg.	(2)
6	G1	5340-99-628-3347	Latch, steel, zinc.	(2)
7			Rivet, dome HD.	(2)
8	X2	6115-99-671-5117	Label, instruction.	(1)

8.2 Special tools and test equipment required:

9			Drill, 4.1 mm HSS.	1
10			Pop rivet gun.	1

8.3 Stores or equivalent to be obtained locally:

11		DTD 369	Jointing compound.	A/R
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8.4 Stores to be removed and reduced to scrap:

12

Sequence of operations

NOTE

- (1) The item numbers of Para 8 are used as reference throughout this instruction.
- (2) The warning stated below is to be applied to all equipments employing voltages of greater than 50 volts.

WARNING

LETHAL VOLTAGES. THE VOLTAGES IN THIS EQUIPMENT CAN ENDANGER HUMAN LIFE. REPAIRS AND MODIFICATIONS ARE TO BE CARRIED OUT BY QUALIFIED TRADESPERSONS ONLY, USING AUTHORIZED TOOLS AND TEST EQUIPMENT.

9 Carry out this instruction as follows:

- 9.1 Ensure the generator is not running.
- 9.2 Disconnect the interconnecting cable between generator and control box.
- 9.3 Undo the quick release fasteners that secure acoustic cover. Using a minimum of two people remove cover.
- 9.4 Disconnect generator battery.
- 9.5 On the stud cover assembly release the catch on the left hand side.
- 9.6 On the right hand side of the cover remove the hinge pin, remove old cover and discard.
- 9.7 On the front panel remove the two screws holding the emergency output 30A isolator, taking care not to disturb the isolator. Discard the two screws.
- 9.8 Place the new cover (item 1) in position over the stud terminals such that the holes in the two hinges align with the two holes left by removing the two screws in Sub-Para 9.7. Temporarily attach the cover using the two screws (item 5) to enable the positioning of the new latch (item 6).
- 9.9 To ascertain the vertical position of the new latch, place it onto the cover so it engages the existing clip, refer to Fig 1 for the correct distance from cover edge to ensure latch locks down firmly. Mark cover using a marker pen.
- 9.10 Remove cover and using a 4.1 mm drill, drill two holes in the cover. Using a rivet gun and rivets supplied (item 7) attach new latch.
- 9.11 Remove old spacer on emergency output 30A isolator lever and attach new spacer (item 2) using screw (item 3) and locking washer (item 4).
- 9.12 Refit the cover using screws (item 5) and locking washers (item 4).
- 9.13 Reconnect batteries, replace acoustic cover and reconnect cable between generator and control box.

TESTING AFTER EMBODIMENT

- 10 With the emergency output 30A isolator set to the **on** position release cove assembly latch. Lift cover and ensure the emergency output 30A isolator moves to the **off** position.

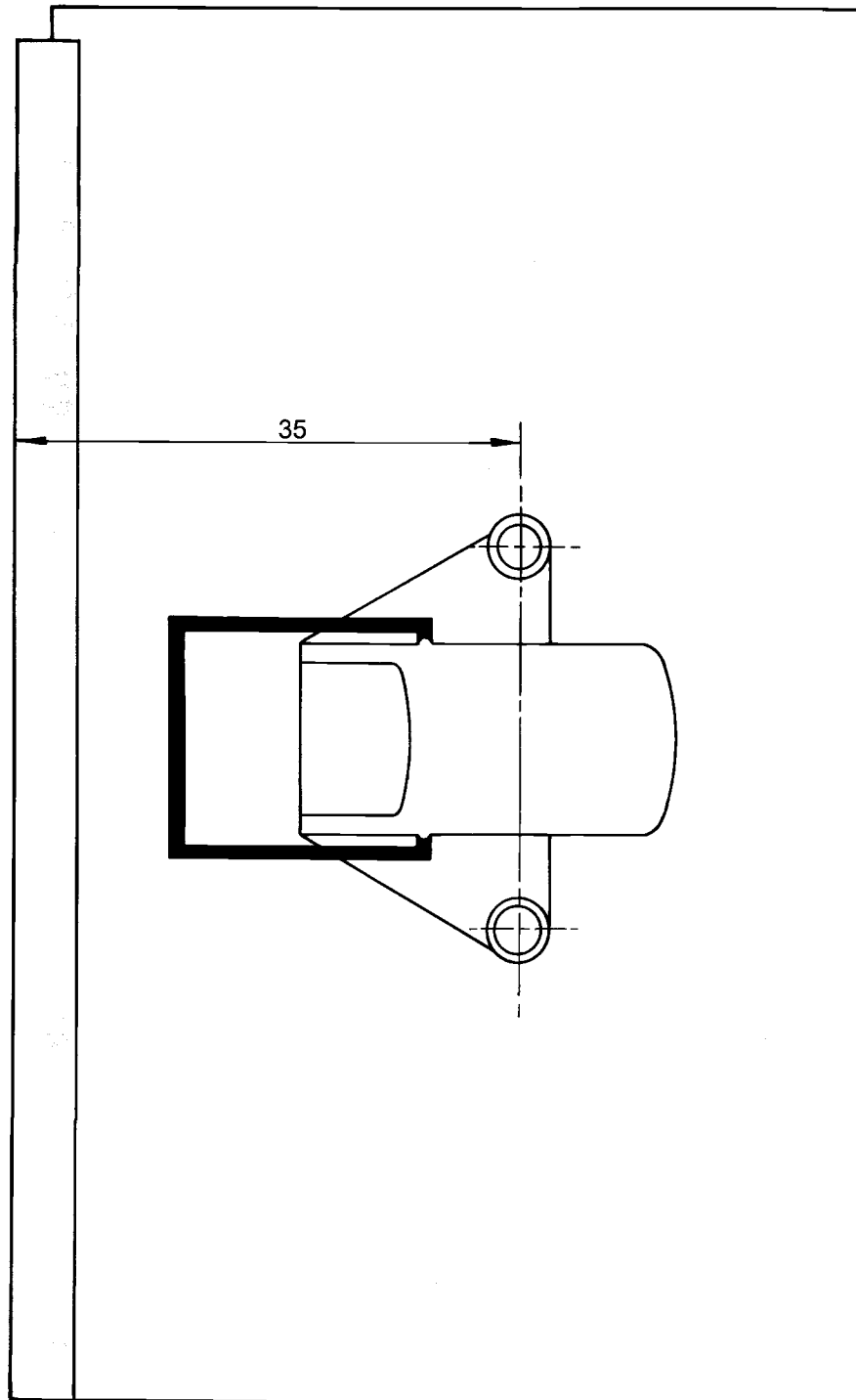
EFFECT ON WEIGHT

- 11 Negligible.

PUBLICATION AMENDMENTS**NOTE**

Necessary amendments will be issued separately.

- 12 Nil.



SIDE VIEW

Dimensions in mm

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Fig 1 Latch position