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CARRIER, MAINTENANCE, FULL TRACKED, FV434 MKS 1 AND 1/1

MODIFICATION INSTRUCTIONS AND INDEX

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BY COMMAND OF THE DEFENCE COUNCIL

Ken Terui

Ministry of Defence Issued by DEFENCE LOGISTICS ORGANISATION

MARCOTRICTED

AMENDMENT RECORD

	 	
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PREFACE

Sponsor: DGES(A) File ref:

Publication Agency: DLO Chertsey Project No: 97/41c/217(240)

File ref: Admin 281

INTRODUCTION

- 1 The Publication Agency is responsible for the 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.

NOTE

The Publication Agency is responsible for the preparation and maintenance of the Instruction Index and will advise the Distribution Authority on the issue of completed and subsequent blank index pages necessary.

- 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 to DLO DTS.
- AESPs are issued under Defence Council authority and where AESPs specify action to be taken, the AESP will of itself be sufficient authority for such action and also for the demanding of the necessary stores.

MODIFICATION INSTRUCTION INDEX

Priority (Pty) is shown as: Immediate: I Routine: R

Instr No. (1)	Pty (2)	Page Nos. (3)	Amend- ment No. (4)	Subject (5)	Approval No./ Remarks (6)
1	(See Col 6)			EMER TV E 107/4 Mod Instr No. 1 to No. 27	Priority as detailed in each instruction
2	12_	4		FUEL TANK FILTER	43/0/0046
3	R	6	Concetted	2ª Astersa Borne bracket	43/4/0000
4	工	6		Ambor rotating barron	431410008
5	R	6		CONCERLMENT SET.	43/4/0002
6	1	4		HIGH VIS MARKER BONEDS	4314/0017
7	R	•		TORCH BATTERY CHAREING	43/4/0018
8		8		DRV+CHD SA80 STOWAGE	43/4/00/0
9	R	4		and introduction of blanking that	43/4/0020
10					

(continued)



MODIFICATION INSTRUCTION INDEX (continued)

instr No.	Pty	Page Nos.	Amend- ment No.	Subject	Approval No./ Remarks
(1)	(2)	(3)	(4)	(5)	(6)
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CARRIER, MAINTENANCE, FULL TRACKED, FV434 MKs 1 AND 1/1

MODIFICATION INSTRUCTION NO. 1

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Publication Agency:

ATSA Chertsey

Project No: 97/41c/217(240)

File ref: Admin 281

AMENDMENT RECORD

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

SUBJECT: EMER TV E 107/4 Modification Instructions No. 1 to No. 27

INTRODUCTION

1

- 1.1 The EMER decade (TV E 100/4 to E 109/4) that supports the FV434 is to be cancelled and replaced by AESP 2350-T-252-octad.
- 1.2 This AESP Modification Instruction No. 1 is a complete issue of EMER TV E 107/4 Modification Instructions No. 1 to No. 27 issued under the EMER system.
- 1.3 Subsequent Modification Instructions will be issued in AESP format, starting with Mod Instr No.2.
- 1.4 Where the EMER TV E 107/4 Modification Instructions refer to an associated EMER TV E 100 series publication, this information will be incorporated within the appropriate Modification Instruction.
- 1.5 Remove and retain EMER TV E 107/4 Modification Instructions No. 1 to No. 27 from the EMER folder.
- 1.6 Place this instruction in front of Modification Instructions removed at Sub-Para 1.5.
- 1.7 Open a new folder numbered 2350-T-252-811 and titled Carrier, Maintenance, Full Tracked, Mks 1 and 1/1 FV434 Modification Instructions, and place the EMER TV E 107 Modification Instructions within.
- 1.8 Limitations on use of equipment: As detailed within each Modification Instruction.

APPLICABILITY

2

2.1 FV434.

REASON FOR MODIFICATION

3

3.1 Code 6 - Publications change from EMER to AESP format.

0006\NTCP-0709a Jun 00

PRIORITY

4 Routine.

TABLE 1 MODIFICATION INSTRUCTION INDEX

Priority (Pty) is shown as:

Immediate unit: I/U Immediate field: I/F

Routine unit: R/U Routine field: R/F Routine base: R/B

Instr No.	Issue No.	Pages	Pty	Subject	Approval No./ Remarks
(1)	(2)	(3)	(4)	(5)	(6)
1	1	1-2	R/U	Coolant PRV drain tube	29353
2	1	1-5	R/B	Driver's seat operating lever clearance	29566
3	1	1-2	R/B	Stowage Concelled	29646
4	1	1-2	R/U	HIAB crane pressure hoses	29639
5				CANCELLED	31040/ 31041
6	1	1-3	R/U	Heater harness stowage	29663
7				CANCELLED	31040/ 31041
8	3 1	1-2 3-7	R	Improved stowage facilities - cooking vessel, jerry can Concelled	29543
9				CANCELLED	
10	1	1-2	R	HIAB crane, bracket, clamping booms Concelled	29758
11	1	1-4	R	Hull cargo compartment Concelled	29698
12	1	1-2	R	Harness changes	29527
13	2 1	1-2 3-5	R	Concelled Hydraulic controls Concelled	26943
					(continued)

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Instr No.	Issue No.	Pages	Pty	Subject	Approval No./ Remarks
(1)	(2)	(3)	(4)	(5)	(6)
14				CANCELLED	31040/ 31041
15	2	1-2 3-4	R	Stowage of Hollebone drawbar Con celled	29703
16	1	1-3	I	Rear draught connector	30809
17	1	1-4	R	Stowage compartment seals Concelled	30702
18	1	1-4	R	HIAB crane - Hydraulic pump clutch drive assembly	30912
19	1	1-2		Pintle assembly towing Concelled	36229
20				CANCELLED	30926
21	1	1-3	I/U	HIAB crane - Hydraulic cylinder check valve assembly	31070
22	1	1-8	R	Reflux valves fitted to crane hydraulic circuit	20/4/0009
23	1	1-10	R	Crane Hydraulic control replacement	20/4/0011
24	1	1-6	I	Fire extinguishers	43/4/0003
25	1	1-4	R	Concealment set array brackets	43/4/0002
26	1	1-6	1	Amber rotating beacon	43/4/0008
27				suspended JAN 98 - UNTIL FURTHER NOTICE	43/4/0006

PUBLICATION AMENDMENTS

NOTE

Necessary amendments will be issued separately.

5 Nil.



COMMENT(S) ON AESP*

To: DLO DTS 3.2 Ha-Ha Road	Fror			
Woolwich LONDON SE18 4QF		*********		
Sender's Reference BIN	l Number		Date	
AESP Title:				
Chapter(s)/Instruction Pag	ge(s)/Paragr	aph(s)		
If you require more space, please use the rev	erse of this f	form or a sepa	arate piece of paper.	
Comment(s):				
Signed:	•••••	Telephone	No:	
Name (Capitals):		Rank/Grad	e: Date:	
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DLO I	DTS 3.2 USE	ONLY		
To:		From:	DLO DTS 3.2 Ha-Ha Road Woolwich LONDON SE18 4QF	
Thank you for commenting on AESP				
Your reference	•••••	Dated:		•••••
Action is being taken to:	Tick			Tick
Issue a revised/amended AESP		Under inves		
Incorporate comment(s) in future amendment Remarks	ts	No action re	equired	
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* AESP or EMER				
AESP Form 10 (Issue 4.2 dated Apr 00)				

0006\NTCP-0709 Jun 00

UK RESTRICTED

ELECTRICAL AND MECHANICAL ENGINEERING REGULATIONS



TRACKED VEHICLES E 107/4

(By Command of the Defence Council)

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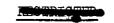
CARRIER, MAINTENANCE, FULL TRACKED, MKS 1 AND 1/1 (FV434)

TECHNICAL HANDBOOK - MODIFICATION INSTRUCTION INDEX

Notes: 1. This Issue 3, Pages 1-3 supersedes Issue 2, Pages 1-2 dated Jan 81

- 2. This Index is to be kept up to date by the User entering modification instructions issued under the above designation as and when they are published.
- 3. Priority codes I/U Immediate Unit. I/F Immediate Field R/U Routine Unit. R/F Routine Field R/B Routine Base
- 4. * Denotes stocks exhausted. These items are not automatically reprinted. Units should not demand these items without detailed justification.

INSTR NO	ISSUE NO	PAGES	PRIORITY	SUBJECT	APPROVAL No	REMARKS
a	b	С	d	е	f	
1*	1	1-2	R/U	Coolant PRV drain tube	29 35 3	
2*	1	1 – 5	R/B	Drivers seat operating lever clearance	29566	
3*	1	1-2	R/B	stowage Concelled	29646	
4*	1	1-2	R/U	HIAB crane pressure hoses	29639	
5*.	1	1-3	R/U	Extension exhaust pipe twage	29640	
6*	1	1-3	R/U	Heater harness stowage	29663	



INSTR NO	ISSUE NO	PAGES	PRIORITY	SUBJECT	APPROVAL No REMARKS
а	b	С	d	е	f
7*	1	1-4	R	Flotation screen change	29599
8*	3 1	1-2 3 - 7	R	Improved stowage facilities COONING VEISEL JORAY CAN	29543
9*			:	Cancellation HIAS CRAWE ONE CX VACUE	
10*	1	1–2	R	HIAB crane, bracket, clamping booms	29758
11*	1	1-4	R	Hull cargo compartment 433 Course PACE	29698
12*	1	1-2	R	Harness changes 3AAA	29527
13*	2	1-2 3-5	R	Hydraulic controls LOCKON 7 LEVER CURRS	29643
14*	1	1-4	R	BiOyars drieres &	29662
15*	2	1-2 3-4	R	Stowage of Hollebone drawbar Concolled	29703
16*	1	1-3	I	Rear draught connector	30809
17*	1	14	R	Stowage compartment seals BOWN STANDERN	30702
18*	1	14	R	HIAB crane - Hydraulic pump clutch drive assembly	30912



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INSTR NO	ISSUE NO	PAGES	PRIORITY	SUBJECT	APPROVAL NO REMARKS
а	b	С	d	е	f
19*	1	1-2		Pintle assembly towing	36229
20				Cancellation F111W- OF SIDE RYES 70 HULL	30926
21	1	1–3	I/U	HIAB crane hydraulic cylinder check valve assembly	31070
22	4	া/58	ور	Reflex values to crane hydraulic circuit.	20/4/0009
23	-	1-10	R	CRANG HYD CONTROL REPLACEMENT	20/4/9011
24	ŧ	1-6	I	FIRE & TINGUISHERS	43/4/000]
25	1	1-4	R	SUSPENDED MAY 98 CONCERLITENT SET MERAT BRACKETS	43/4/0002
26	1	1-6	I	ATTEN ROTATION BEACON	43/4/0008
27	1	1-6	I	Sava en sarapset sus Concelled sus	47/4/006
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70711 (32) Veh Br ALM 430/25





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CARRIER, MAINTENANCE, FULL TRACKED, FV434 MK 1 AND 1/1 MODIFICATION INSTRUCTION NO. 1 (EMER TV E107/4 Mod Instr No 1)

SUBJECT: Coolant PRV drain tube

CANCELLATION

INTRODUCTION

1 AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 Mod Instr No.1 dated Nov 67 is hereby cancelled. The details of this modification have been incorporated into the build standard.

- 2 Amend AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 modification index accordingly
- 3 File this Page 1/2 in place of Mod Instr No.1 dated Nov 67, all pages of which are to be destroyed.



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CARRIER, MAINTENANCE, FULL TRACKED, FV434 MK 1 AND 1/1 MODIFICATION INSTRUCTION NO. 1 (EMER TV E107/4 Mod Instr No 2)

SUBJECT: Drivers seat operating lever clearances

CANCELLATION

INTRODUCTION

AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 Mod Instr No.2 dated Jul 68 is hereby cancelled. The details of this modification have been incorporated into the build standard.

ACTION

- 2 Amend AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 modification index accordingly
- 3 File this Page 1/2 in place of Mod Instr No.2 dated Jul 68, all pages of which are to be destroyed.

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CARRIER, MAINTENANCE, FULL TRACKED, FV434 MK 1 AND 1/1 MODIFICATION INSTRUCTION NO. 1 (EMER TV E107/4 Mod Instr No 3)

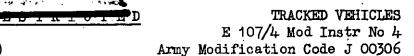
SUBJECT: Stowage

CANCELLATION

INTRODUCTION

AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 Mod Instr No.3 dated Nov 68 is hereby cancelled. The details of this modification have been incorporated into the build standard.

- 2 Amend AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 modification index accordingly
- 3 File this Page 1/2 in place of Mod Instr No.3 dated Nov 68, all pages of which are to be destroyed.



CARRIER, MAINTENANCE, FULL TRACKED, FV 434, MK 1 AND 1/1 Code: 0070.0140, 0070.0141

TECHNICAL HANDBOOK - MODIFICATION INSTRUCTION

SUB-TITLE:

HIAB crane pressure hoses

1. Introduction

To protect the two pressure hoses at base of inner boom, two elastic cord assemblies are to be fitted to support these hoses.

- Priority: Group 'B' (Mgmt N 097 refers)
- 3. Estimated time required:

Assembling: 1/4 man-hour

- 4. Item affected: Hydraulic pressure hoses, on vehicles with the following AD No OOED74 to O1ED59 inclusive.
- 5. Action required by:
 - a. Units and establishments holding equipment
 - (1) Enter EMER No, sub-title and Army Modification Code in equipment log book.
 - (2) Demand the stores required. Automatic issue will be made to BAOR units.
 - (3) On receipt of stores, request REME to modify equipment.
 - b. Units authorized to carry out unit, field or base repairs
 - (1) When requested by units or during overhaul carry out this modification.
 - (2) Record completion of modification in equipment log book against appropriate entry.
- 6. Stores, tools and equipment:-

Stores to be demanded:

The following stores are to be demanded as a set, quoting the registration number of the vehicle, and this EMER as authority. (Automatic issue will be made to BAOR units).

<u>VAOS</u> Section	Part No		Designation		Qty per veh
LV9 ACR	MOD 29639		Addition of elastic cords HIAB crane	to	1
			Comprising:-		
LV9 ACR	2590-99-808-2238 (FV 644173)	dia 3 ft	ably elastic rubber 3/8 in. long 0/A with plastic and plastic covered hook	(1)	
lÿ9 acr	2590–99–808–22 3 9 (FV 644174)	Cord assen	ably elastic rubber 3/8 in. long O/A with hook each	(1)	
Issue 1, 8	3 Jul 69		7		Page 1

Distribution - Class 291. Code No 2

TRACKED VEHICLES
E 107/4 Mod Instr No 4

7. Sequence of operations:-

Refer to User Handbook, Army Code 14811 Fig 32.

See Fig 1, and fit the two new cord assemblies (FV 644174, FV 644173) provided to the two hydraulic pressure hoses and secure to the existing hooks on bracket and inner boom as shown.

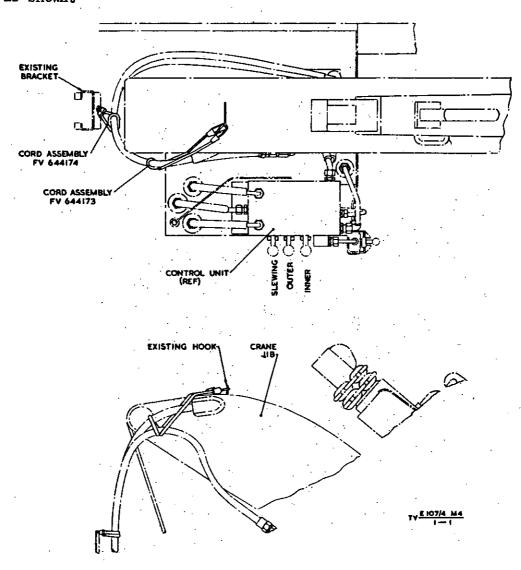


Fig 1 - Hoses - Assembly

FVRDE Approval 29639 Def and Mods 73814

Page 2

END

TRACKED VEHICLES E 107/4 Mod Instr No 5

(By Command of the Defence Council)

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CARRIER, MAINTENANCE, FULL TRACKED, MK 1 AND 1/1 (FV434)

TECHNICAL HANDBOOK - MODIFICATION INSTRUCTION

Note: This Issue 2, supersedes Issue 1, Pages 1-3 dated Oct 69.

Extension exhaust pipe, stowage SUBJECT:

(MVEE Approval 29640)

CANCELLATION

- This modification has been cancelled under the authority of 'A' Veh D & M Committee Approvals 31040/31041.
- 2. Remove all copies of Issue 1, Pages 1-3 of this instruction and destroy.
- Against subject reference in modification instruction index add 'Cancelled'.

END

70811 (220) Vehs & Wpns Br REME ALM/43000 BUTATULED

ELECTRICAL AND MECHANICAL ENGINEERING REGULATIONS (By Command of the Defence Council) TRACKED VEHICLES
E 107/4 Mod Instr No 6
Army Modification Code J 00336

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CARRIER, MAINTENANCE, FULL TRACKED, FV 434,

Code 0070.0140

TECHNICAL HANDBOOK - MODIFICATION INSTRUCTION

SUB-TITLE: Heater harness stowage.

1. Introduction

To prevent heater harness at fan controller fouling snap hook on crew seat, an additional dummy receptacle is to be fitted for heater harness stowage.

- 2. Priority: Group 'B' (Mgmt N 097 refers)
- 3. Estimated time required: Stripping and assembling: 1 man-hour
- 4. Item affected:-

Fan controller mounting on AD Nos OOED74 to O2ED12 inclusive.

- 5. Action required by:
 - a. Units and establishments holding equipment
 - (1) Enter EMER No, sub-title and Army Modification Code in equipment log book.
 - (2) Demand the stores required. Automatic issue will be made to BAOR units.
 - (3) On receipt of stores, request REME to modify equipment.
 - b. Units authorized to carry out unit, field or base repairs
 - (1) When requested by units or during overhaul carry out this modification.

Issue 1, Nov 69 (24K)

Page 1



(2) Record completion of modification in equipment log book against appropriate entry.

6. Stores, tools and equipment:-

Stores to be demanded:-

The following stores are to be demanded as a set, quoting the registration number of the vehicle, and this EMER as the authority for demand.

VAOS Section	Part No	Designation	<u>Qty</u> per eqpt
LV9 ACR	Mod 29663	Mod set: Dummy receptacle for heater harness	1
•		comprising:-	-
LV6 MT4	FV 644310 5935-99-808-9679	Bracket, dummy receptacle Dummy receptacle	{1} {1}
LV6 MT4	(FV 634206) 593599-8089680 (FV 620712)	Protective cap	(1)
Z 2	ZB 13097	Screw, steel, hex hd,	(4)
Z 2	5310-99-944-0545 ZB 11475	BA No 6, $x \frac{1}{2}$ in. cad plated Washer, lock, 1/8 in. diameter Nut, steel, hex, BA No 6, cad plated.	(4) (4)

7. Sequence of operations:-

a. See Fig 1

- (1) Attach dummy receptacle (FV 634206) to bracket (FV 644310), using the four No 6 BA screws, nuts and 1/8 in. lock washers provided as shown.
- (2) Fit the bracket assembly to right of fan controller on cross bulk-head, using existing fixing items.
- (3) Fit protective cap (FV 620712) provided to existing dummy receptacle as shown.
- (4) Fit existing heater harness (fan controller heating JB, FV 582531 /1) to new dummy receptacle fitted as shown.

Issue 1, Nov 69

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ENGINEERING REGULATIONS

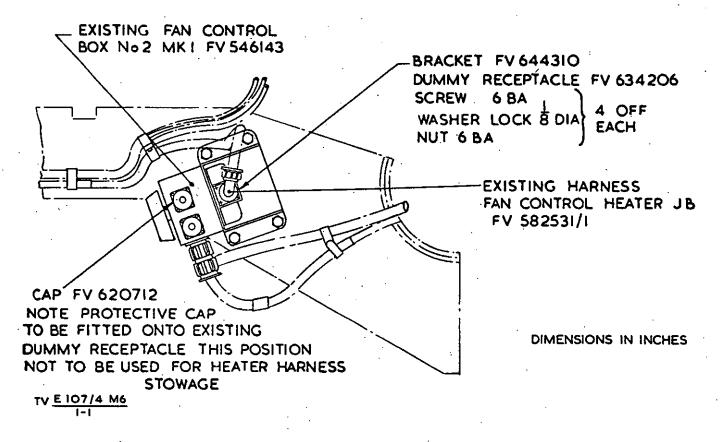


Fig 1 - Fan controller and harnesses assy

FVRDE Approval 29663 Def and Mods 73819

END

TRACKED VEHICLES
E 107/4 Mod Instr No 7

(By Command of the Defence Council)

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CARRIER, MAINTENANCE, FULL TRACKED, MK 1 AND 1/1 (FV 434)

TECHNICAL HANDBOOK - MODIFICATION INSTRUCTION

Note: This Issue 2 supersedes Issue 1, Pages 1-4 dated Jan 70.

SUBJECT:

Flotation screen change

(MVEE Approval 29599)

CANCELLATION

- 1. This modification has been cancelled under the authority of A* Veh D & M Committee Approvals 31040/31041.
- 2. Salvage any useful items from modification kit and return to maintenance stock. Scrap remaining items and dispose of through normal channels.
- 3. Remove all copies of Issue 1, Pages 1-4 of this instruction and destroy.
- 4. Against subject reference in modification instruction index add *Cancelled*.

END

70811 (225) Vehs & Wpns Br REME ALM/43000

Issue 2, Aug 83 (24K)

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CARRIER, MAINTENANCE, FULL TRACKED, FV434 MK 1 AND 1/1 MODIFICATION INSTRUCTION NO. 1 (EMER TV E107/4 Mod Instr No 8)

SUBJECT: Improved stowage facilities

CANCELLATION

INTRODUCTION

1 AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 Mod Instr No.8 dated May 71 is hereby cancelled. The details of this modification have been incorporated into the build standard.

- 2 Amend AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 modification index accordingly
- 3 File this Page 1/2 in place of Mod Instr No.8 dated May 71, all pages of which are to be destroyed.

- 1 This information is released by the UK Government for Defence purposes only.
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CARRIER, MAINTENANCE, FULL TRACKED, FV434 MK 1 AND 1/1 MODIFICATION INSTRUCTION NO. 1 (EMER TV E107/4 Mod Instr No 10)

SUBJECT: HIAB crane, bracket, clamping booms

CANCELLATION

INTRODUCTION

1 AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 Mod Instr No.10 dated May 70 is hereby cancelled. The details of this modification have been incorporated into the build standard.

- 2 Amend AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 modification index accordingly
- 3 File this Page 1/2 in place of Mod Instr No.10 dated May 70, all pages of which are to be destroyed.

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CARRIER, MAINTENANCE, FULL TRACKED, FV434 MK 1 AND 1/1 MODIFICATION INSTRUCTION NO. 1 (EMER TV E107/4 Mod Instr No 11)

SUBJECT: Hull, cargo compartment

CANCELLATION

INTRODUCTION

1 AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 Mod Instr No.11 dated Mar 71 is hereby cancelled. Abbot (FV433) has since gone out of service.

- 2 Amend AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 modification index accordingly
- 3 File this Page 1/2 in place of Mod Instr No.11 dated Mar 71, all pages of which are to be destroyed.

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CARRIER, MAINTENANCE, FULL TRACKED, FV434 MK 1 AND 1/1 MODIFICATION INSTRUCTION NO. 1 (EMER TV E107/4 Mod Instr No 12)

SUBJECT: Harness changes

CANCELLATION

INTRODUCTION

AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 Mod Instr No.12 dated Jul 70 is hereby cancelled. The details of this modification have been incorporated into the build standard.

- 2 Amend AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 modification index accordingly
- 3 File this Page 1/2 in place of Mod Instr No.12 dated Jul 70, all pages of which are to be destroyed.

LIKESTRIATES

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CARRIER, MAINTENANCE, FULL TRACKED, FV434 MK 1 AND 1/1 MODIFICATION INSTRUCTION NO. 1 (EMER TV E107/4 Mod Instr No 13)

SUBJECT: Hydraulic controls

CANCELLATION

INTRODUCTION

1 AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 Mod Instr No.13 dated Dec 70 is hereby cancelled. The details of this modification have been incorporated into the build standard.

- 2 Amend AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 modification index accordingly
- 3 File this Page 1/2 in place of Mod Instr No.13 dated Dec 70, all pages of which are to be destroyed.

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CARRIER, MAINTENANCE, FULL TRACKED, MK 1 AND 1/1 (FV 434)

TECHNICAL HANDBOOK - MODIFICATION INSTRUCTION

Note: This Issue 2 supersedes Issue 1, Pages 1-4 dated Dec 70.

SUBJECT: Buoyancy trimmer

(MVEE Approval 29662)

CANCELLATION

- 1. This modification has been cancelled under the authority of $^{\$}A^{\$}$ Veh D & M Committee Approvals 31040/31041.
- 2. Salvage any useful items from modification kit and return to maintenance stock. Scrap remaining items and dispose of through normal channels.
- 3. Remove all copies of Issue 1, Pages 1-4 of this instruction and destroy.
- 4. Against subject reference in modification instruction index add *Cancelled*.

END

70811 (224) Vehs & Wpns Br REME ALM/43000



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CARRIER, MAINTENANCE, FULL TRACKED, FV434 MK 1 AND 1/1 MODIFICATION INSTRUCTION NO. 1 (EMER TV E107/4 Mod Instr No 15)

SUBJECT: Stowage of hollebone drawbar

CANCELLATION

INTRODUCTION

1 AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 Mod Instr No.15 dated Feb 72 is hereby cancelled. The details of this modification have been incorporated into the build standard.

- 2 Amend AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 modification index accordingly
- 3 File this Page 1/2 in place of Mod Instr No.15 dated Feb 72, all pages of which are to be destroyed.

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ELECTRICAL AND MECHANICAL ENGINEERING REGULATIONS
(By Command of the Defence Council)

TRACKED VEHICLES
E 107/4 Mod Instr No 16
Army Modification Code J 00690

CONDITIONS OF RELEASE

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CARRIER, MAINTENANCE, FULL TRACKED, FV 434 MK 1 and 1/1 Code: 0070.0140; 0070.0141

TECHNICAL HANDBOOK - MODIFICATION INSTRUCTION

SUB_TITLE:

Rear draught connector

1. Introduction

To give added strength and prevent the securing bolts from being ''pulled through'' a mild steel backing plate is to be fitted.

- 2. Priority: IMMEDIATE (Mgmt N 097 refers)
- 3. Estimated time required:-

Embodiment: 1 man-hour

4. Items affected:

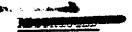
- a. Towing hook and rear draught connector on all FV 434 vehicles.
- b. of unmodified stock, held in RACC.

5. Action required by:-

- a. Units and establishments holding equipment and RACC holding unmodified stock
 - (1) Enter EMER No in equipment log book.
 - (2) Demand the stores required.
 - (3) On receipt of stores, request REME to modify equipment.

b. Units authorised to carry out unit, field or base repairs

(1) When requested by units or during overhaul carry out this modification.





(2) Record completion details of modification against appropriate entry in equipment log book.

c. All recipients of this EMER

Add particulars to Tkd Veh E 107/4 Mod Instr Index.

6. Stores, tools and equipment:-

a. Stores to be demanded

The following modification set is to be demanded quoting this EMER as authority for demand, and:-

- (1) Registration number of vehicle for equipments held by user units.
- (2) Scaling schedule for unmodified stock held in RAOC.

VAUS Section	Part No	<u>Designation</u>	Qty		
LV9	ACR/2510-99-822-3679	Mod Set: Rear Draught Connector	1		
comprising:					
	FV 644393	Washer, plate	(1)		
	FV 644394 - 7	Bolt, $5/8$ in UNF x 9.62 in. 1g	(4)		
G1	310-99-941-0930	Nut,5/8 in.UNF	(4)		
91	5310-99-948-2004	Washer, lock $5/8$ in single coil girder section	(4)		
, b.	Stores to be removed	and reduced to produce			
VAOS Section	Part No	Designation	Qty per veh		
G1 -	3 10-99-941-0930	Nut, 5/8 in UNF	4		
		Bolt, $5/8$ in.UNF x $9\frac{1}{4}$ in. 1g	4		
G1	5310-99-948-2004	Washer lock, 5/8 in., girder section	1 4		

7. Sequence of operations:-

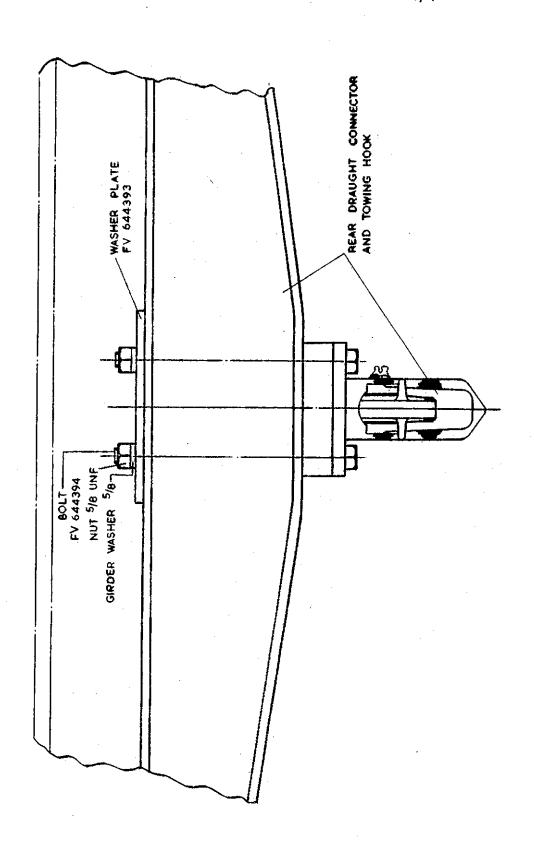
See Fig 1.

- a. Remove the existing 5/8 in UNF nuts and girder washers from the bolts which secure the towing hook to the rear draught connector.
- b. Replace each existing bolt in turn with a bolt from the mod-set. Fit backing plate (FV 644393) and secure with the new girder washers and nuts provided.



TEACO





DIMENSIONS IN INCHES

¥ 793/1

M60225 (230) Veh br ALM/FVO 4/7/30809

END

- Assembly Detail

Issue 1, Sep 75



4

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CARRIER, MAINTENANCE, FULL TRACKED, FV434 MK 1 AND 1/1 MODIFICATION INSTRUCTION NO. 1 (EMER TV E107/4 Mod Instr No 17)

SUBJECT: Stowage compartment seals

CANCELLATION

INTRODUCTION

1 AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 Mod Instr No.17 dated Sep 75 is hereby cancelled. The details of this modification have been incorporated into the build standard.

- 2 Amend AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 modification index accordingly.
- 3 File this Page 1/2 in place of Mod Instr No.17 dated Sep 75, all pages of which are to be destroyed.

ELECTRICAL AND MECHANICAL ENGINEERING REGULATIONS (By Command of the Defence Council)

TRACKED VEHICLES E 107/4 Mod Instr No 18

HNNBKBY APPRINTE This information may be disclosed only within the Defence Department of the recipient Government, except as other authorized by Ministry of Defence (Army). MANHICS. 240 x2 b

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CARRIER, MAINTENANCE, FULL TRACKED, FV 434, MK 1 AND 1/1

TECHNICAL HANDBOOK - MODIFICATION INSTRUCTION

SUBJECT: HIAB crane - Hydraulic pump clutch drive assembly

INTRODUCTION

ı.

To improve sealing between the pump drive housings FV 510322 and FV 454326, a gasket and two longer securing bolts are fitted.

APPLICABILITY

- 2. Hydraulic pump, clutch drive assembly:-
 - Fitted to subject vehicles (Code Nos 0070-0140, 0070-0141) held by user units.
 - Of unmodified stock, held in RAOC stores.

REASON FOR MODIFICATION

3. Code 3 - to improve reliability.

PRIORITY

Routine 4.

ESTIMATED TIME REQUIRED

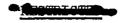
5. Embodiment: 1 man-hour

Manufacturing:

1 man-hour

MODIFICATION IMPLEMENTATION PLAN

- This modification is to be carried out by REME Workshops authorized to carry out unit, field or base repairs.
- 7. Action required by:-
 - Units and establishments holding equipment
 - (1) During repair or overhaul, obtain the items listed in para 8a and carry out this modification.
 - (2) Record completion details of modification in equipment documents.



(3) Complete AF G1084A (Mgmt J 020 refers) when reporting completion of the modification to REME Data Centre. The codes to be used for FORWARD reporting are:-

EQUIPMENT CODE:

0070-0140 and 0070-0141

ARMY MODIFICATION CODE:

J 00923

All recipients of this EMER b.

Add particulars to Tkd Vehs E 107/4 Mod Instr Index.

Stores, tools and equipment

8. Stores to be obtained locally

COSA Sect	Part No	Designation	<u>Qty</u> per eqpt
Н9	5330-99 -120- 5828	Gasket material	As reqd
LV10	5306-99-941-1541	Bolt, $5/16$ in. UNC $2\frac{1}{4}$ in. long	2
G1	5310-99-944-0549	Washer, lock, $5/16$ in. i.d.	2
b.	Stores to be removed an	nd reduced to produce	
LV10	5306-99-804-3303	Bolt, machine	2
G1	5305-99-944-0549	Washer, lock	2

Sequence of operations

- During repair or overhaul of the crane, manufacture the gasket 9. shown in Fig 1 from the material listed in para 8.a.
 - Remove and discard the two existing bolts and lockwashers in the positions marked 'x' in Fig 2.
 - Fit the gaskets between the pump clutch drive housings, and assemble with two bolts and lockwashers listed in para 8.a.

Testing after embodiment

10. Nil.

EMER AMENDMENTS

Nil 11.



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CARRIER, MAINTENANCE, FULL TRACKED, FV434 MK 1 AND 1/1 MODIFICATION INSTRUCTION NO. 1 (EMER TV E107/4 Mod Instr No 19)

SUBJECT: Pintle assembly towing

CANCELLATION

INTRODUCTION

1 AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 Mod Instr No.19 dated Oct 76 is hereby cancelled. The details of this modification have been incorporated into the build standard.

ACTION

- 2 Amend AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 modification index accordingly
- 3 File this Page 1/2 in place of Mod Instr No.19 dated Oct 76, all pages of which are to be destroyed.

Mod Instr No. 1 Page 1/2 IN THE THE BARY

10203

ELECTRICAL AND MECHANICAL ENGINEERING REGULATIONS

TRACKED VEHICLES E 107/4 Mod Instr No 20

(By Command of the Defence Council)

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CARRIER MAINTENANCE, FULL TRACKED, Mk 1 AND 1/1 (FV 434)

TECHNICAL HANDBOOK - MODIFICATION INSTRUCTION

Note: This Issue 2 supersedes Issue 1 pages 1-7 dated May 79 and Errata Page 0, Issue 1 dated May 80. Modification has been cancelled.

SUBJECT: Side eyes added to vehicle hull

CANCELLATION

- 1. This modification is cancelled under the authority of 'A' Vehicle D&M Committee Meeting No 251.
- 2. No further vehicles are to be modified. Vehicles modified will be restored to original condition ONLY when undergoing base repair.
- 3. Modification kits are to be broken down and returned to stock as individual items.
- 4. When action detailed in paras 2 and 3 has been completed, remove and destroy all copies of Issue 1, pages 0 to 7.
- 5. Against subject reference in Tkd Veh A OOl, and Modification Instruction Index add 'Cancelled'.
- This instruction is to be retained.

END

70611 (188)

Veh Br ALM FV4/7/30926

Data Centre Code FVF 7A

MITKDM.

ELECTRICAL AND MECHANICAL ENGINEERING REGULATIONS (By Command of the Defence Council)

TRACKED VEHICLES E 107/4 Mod Instr No 21

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CARRIER, MAINTENANCE, FULL TRACKED, FV 434 MK 1 AND 1/1

TECHNICAL HANDBOOK - MODIFICATION INSTRUCTION

Errata

Note: This Page O is to be filed immediately in front of Page 1.

Amend as follows:

1. Page 2, para 8.a., item 1

Delete: 9ACR 2590-99-836-1506

Insert: 8REGC 4820-99-815-4606

2. Page 3, para 10

Delete: 'Track Vehicles E 108 Part 1'

Insert: 'Nil'

MVEE Approval 31070 Veh Br ALM FV4/7/31070 Project No: 70711 (223)



ELECTRICAL AND MECHANICAL ENGINEERING REGULATIONS



(By Command of the Defence Council)

TRACKED VEHICLES E 107/4 Mod Instr No 21

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CARRIER, MAINTENANCE, FULL TRACKED, FV434 MK 1 AND 1/1

TECHNICAL HANDBOOK - MODIFICATION INSTRUCTION

HIAB crane hydraulic cylinder check valve assembly SUBJECT:

(MVEE Approval No 31070)

INTRODUCTION

To ensure correct operation of the check valve assembly in the event of an hydraulic hose failure, a modified check valve assembly is fitted.

APPLICABILITY

- HIAB crane 2.
 - Fitted to subject vehicles (Code Nos 0070.0140 and 0070.0141) held by user units.
 - Unmodified stock held in RAOC stores.

REASON FOR MODIFICATION

Code 1 - to improve safety

PRIORITY

Immediate 4.

ESTIMATED TIME REQUIRED

Embodiment: 5.

1 man-hour

Assembling:

0.5 man-hours

MODIFICATION IMPLEMENTATION PLAN

- This modification is to be implemented by units authorized to 6. carry out unit, field and base repairs.
 - Associated modification instructions:
 - Modification plate strike action: NA

Action required by:

- Units and establishments holding equipment 7.
 - Examine vehicle documents to see if modification is applicable.
 - Examine equipment to see if modification is embodied and where necessary demand the stores required.





- 7. On receipt of stores, request REME to modify equipment.
 - (4) Record Subject, EMER number and Modification Code in equipment documents.
 - Units authorized to carry out unit, field and base repairs b.
 - (1) When requested by users or during overhaul, obtain the item listed in para 8 and carry out this instruction.
 - Record completion details of modification against appropriate entry in equipment documents.
 - (3) Complete AF Gl084A when reporting completion of the modification to Data Centre using the following FORWARD codes:

EQUIPMENT CODE: See para 2 MODIFICATION CODE: X 00345

All units receiving this instruction, add particulars to Tkd Veh E 107/4 Modification Instr Index.

Stores, tools and equipment

8. a. Stores to be demanded

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

- Registration number of vehicle for equipment held by user units.
- Registration number of vehicle for unmodified stock held in RAOC stores.

No No	COSA Section BREGC	NSN/Part No w820-49-815-w606	Designation	<u>Qty</u> per eqpt
1	9ACR	-2590-99-836-1506- (FV 644404)	Check valve	2
	b. Stores	to be removed and reduced to	scrap	
2	LV8REGC	2590-99-804-5068 (FV 649296)	Check valve	2

Sequence of operations

Note: Refer to Tkd Veh E 104/4, Part 1, page 15, Fig 1, item 4.

- 9. Carry out the modification as follows:
 - Position the outer boom ram in the fully retracted position and disconnect the hydraulic hose pipe at the check valve assembly.
 - Remove valve assembly (FV 649296) together with adapter. b.
 - Transfer the adapter (LV8 REGC/4730-99-804-5065) to the new valve assembly (FV 644404) and refit to crane.
 - Repeat the above operations for the renewal of the inner boom check valve assembly.



Testing after embodiment

ex:1

10. Tracked Vehicles E 108 Part 1.

PUBLICATION AMENDMENTS

11. Nil

END

70712 (27) Veh Br ALM FV4/7/31070 Data Centre Code FVF 7A I Musc

フロー TRACKED VEHICLES E 107/4 Mod Instr No 22

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CARRIER, MAINTENANCE, FULL TRACKED,

FV 434, MK 1 AND 1/1

TECHNICAL HANDBOOK - MODIFICATION INSTRUCTION

SUBJECT: Reflux valves fitted to crane hydraulic circuits (MAE 20/4/0009)

Note ...

These Pages 1 to 4, Issue 2 supersede, Pages 1 to 4, Issue 1 dated Oct 88. Para 8 has been amended due to mod sets being unavailable.

INTRODUCTION

- 1 Original reflux valves will be replaced by new pattern valves proprietary to Vickers Systems Ltd. Old valves are no longer available, nor spares to effect repairs. New valves must only be fitted as a vehicle set, one for each hydraulic circuit, four off per vehicle.
 - 1.1 Limitations on use of equipment. NIL

APPLICABILITY

2 HIAB Crane fitted to FV 434 (code Nos 0070.0140, 0070.0141, 00.70.3000 and 0070.3001).

REASON FOR MODIFICATION

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

PRIORITY

4 Routine

ESTIMATED TIME REQUIRED

5 Embodiment: 2 man-hours

MODIFICATION IMPLEMENTATION PLAN

6

- 6.1 This modification is to be implemented by units authorised to carry out field or base repairs.
- 6.2 Associated modification instructions: Nil.
- 6.3 Modification plate strike action: NA.

71411(248) YA39-010709.1 Issue 2, Oct 89 (24K)



Action required by:

7

7.1 Units and establishments holding equipment

- 7.1.1 When a defective old pattern reflux valve needs replacing, request REME to modify equipment.
- 7.1.2 Record the modification Subject, EMER number and Modification Code in equipment documents.

7.2 Units authorised to carry out field or base repairs

- 7.2.1 When requested by users or during overhaul, (ie when a defective old pattern reflux valve needs replacing) obtain the items listed in para 8 and carry out this modification instruction.
- 7.2.2 Record completion details of modification against appropriate entry in equipment documents.
- 7.2.3 Complete AF G1084A when reporting completion of the modification to Data Centre using the following FORWARD codes:

EQUIPMENT CODE: See para 2 MODIFICATION CODE: NNØØØØ

7.3 All recipients of this instruction. Add particulars to EMER Tracked Vehicles E 107/4 Mod Instr Index.

Stores, tools and equipment

8

Note ...

The following list of stores required is relevant to equipment fitted with old pattern hoses with 7/8" UNF connections. If new pattern hoses are fitted with 1/2" BSP connections demand all items less qty 4 of item 4. In addition obtain qty 4 of Vickers No 520367 Adaptor 3/8" BSP x 1/2" BSP, and substitute for item 4 on the hose connections on FCV's.

8.1 Stores required

8.1.1 The following items are to be demanded quoting this instruction and the equipment registration number as authority.

Item No	COSA Section	NSN/Part No	Designation	<u>Qty</u> per eqpt
1	LV6MT9	4820-99-792-1408	Flow control valve	(4)
2	9ACR	5330-99-538-9333	Seal 3/8" (washer bonded)	(8)
3	6MT1	4730-99-513-1913	Adaptor/swivel 3/8" BSP x 3/8" BSP	(4)



$\frac{\texttt{Item}}{\texttt{No}}$	COSA Section	NSN/Part No	<u>Designation</u>	<u>Qty</u> per eqpt
4	6MT1	4730-99-495-4062	Adaptor 3/8" BSP x 7/8" UNF	(8)
5	9ACR	5330-99-729-3130	Seal 7/8" (washer bonded)	(4)
6 8.2	27KD GM(1 Stores	4820-99-102-9470 	Dome nut	(4)
7	6MT9	4820-99-813-4575 (FV 628291)	Reflux valve	4
8	6MT9	4730-99-804-6164	Adaptor straight pipe 7/8" UNF x 3/4" UNF	8
9	6MT1	5330-99-881-4515	Washer seal flat 7/8"	4
10	6MT1	5330-99-942-8454	Washer seal flat 3/4"	8

Note ...

A defective reflux valve(s) (item 7) must be replaced by a set of 4 new flow control valves (item 1). Any remaining serviceable valves can be utilised.

Sequence of operations

Notes ...

- (1) The reflux valves control the speed of operation of the crane by allowing free flow of fluid into the rams but restricting the flow from the rams. They are located as follows:
 - (1.1) The valves controlling the speed of the outer and inner boom rams are fitted to the outer right hand edge of the hull roof, adjacent to the rear of the main control valve assembly.
 - (1.2) The valves controlling the slewing rams are fitted forward of the control valve assembly adjacent to the king post.
- (2) To remove reflux valves (items 7 to 10 inc) refer to EMER Tkd Vehs E 104/4, Pt 1, Ch 9, Para 38 (see also note para 8.2 of this instruction).
- (3) Prior to installation of flow control valves, ensure all connections have been capped off and mounting locations free of debris and hydraulic fluid. The satisfactory operation of the system is dependent upon care in handling and scrupulous cleanliness being observed during the installation procedure.

CAUTION ...

Ensure when fitting control valves that the free flow arrows on the valve body are pointing in the correct direction.

NECTRICATED

<u>Crane Slew:</u> Towards the vehicle port connection (away from hose connection) Figure 1.

Inner and Outer Jib: Away from the vehicle connection (towards the hose connection) Figure 2.

- (4) Numbers in brackets refer to items listed in para 8 of this instruction.
- 9 Carry out the modification as follows:

Refer to Figs 1 and 2 and fit new flow control valves (items 1 to 6 inc) as detailed.

- 9.1 Fit seal (5) to male adaptor (4). Screw adaptor into vehicle port and torque tighten to 68 Nm (50 lb ft).
- 9.2 Fit seals (2) to adaptors (3 and 4), screw adaptors into flow control valves (1) and tighten to $30.5 \, \text{Nm}$ (22.5 lb ft). Ensure flow direction is correct (see Caution).
- 9.3 Fit valve assy to vehicle port adaptor, orientate valve (see Fig 3) and tighten female union of adaptor (3) to 30.5 Nm (22.5 lb ft).
- 9.4 Repeat the procedure for the remaining valves.
- 9.5 Connect hose unions.

Testing after embodiment

10

- 10.1 The rate of slew and jib raise/lower can be adjusted via the flow control valves (1).
- 10.2 Regulated flow can be increased or decreased, free return flow is not adjustable.
- 10.3 Regulated flow is used to limit the maximum rate at which each function can be controlled normal control is effected by the metering spools in the main control valve.
- 10.4 The slew cylinder valves must be adjusted to give precise throttled control in both directions and throughout arc of travel.
- 10.5 Adjustment for boom cylinder valves should allow crane to descend at slow enough speed for precise control (with full rated load at maximum and minimum radius).
- 10.6 To adjust valve, remove domed nut (if fitted) (item 6), slacken locknut and increase or decrease the regulated flow by screwing the adjuster in or out as required.
- 10.7 Tighten locknut, (replace domed cap).



TRACKED VEHICLES E 107/4 Mod Instr No 22

EFFECT ON WEIGHT

11 Negligible

PUBLICATION AMENDMENTS

12 Necessary amendments will be issued separately.

YA39-010709.5 Issue 1, Oct 88

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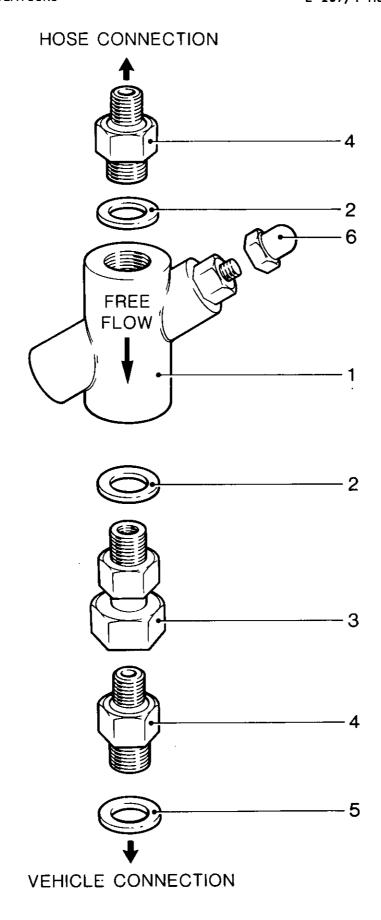


Fig 1 Flow Control Valve (2) (Crane Slew)

V8778/2

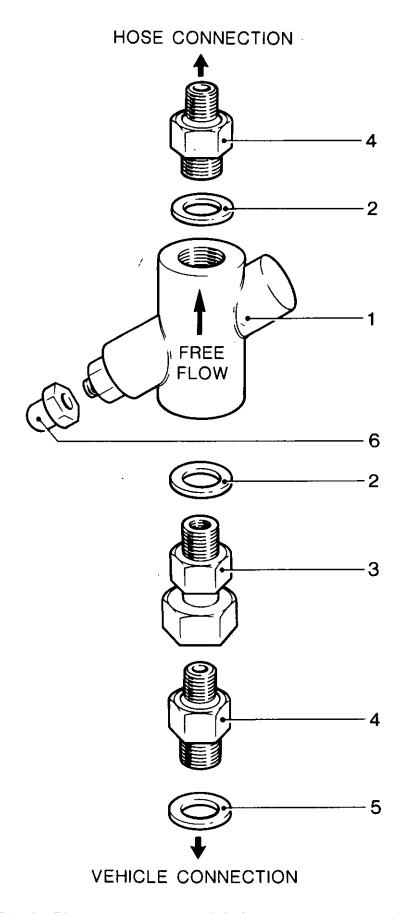
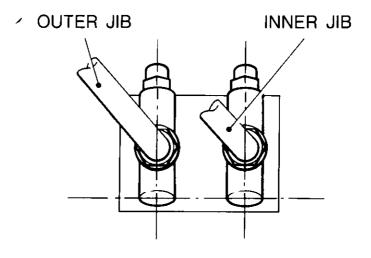
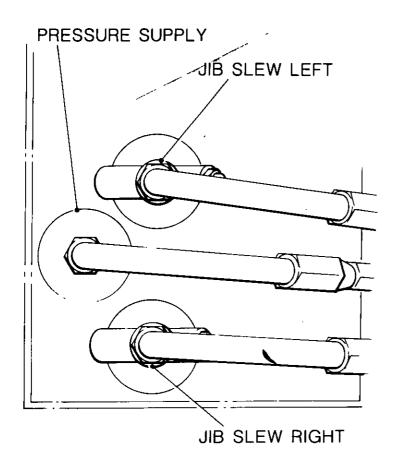


Fig 2 Flow Control Valve (2) (Inner and Outer Jib)

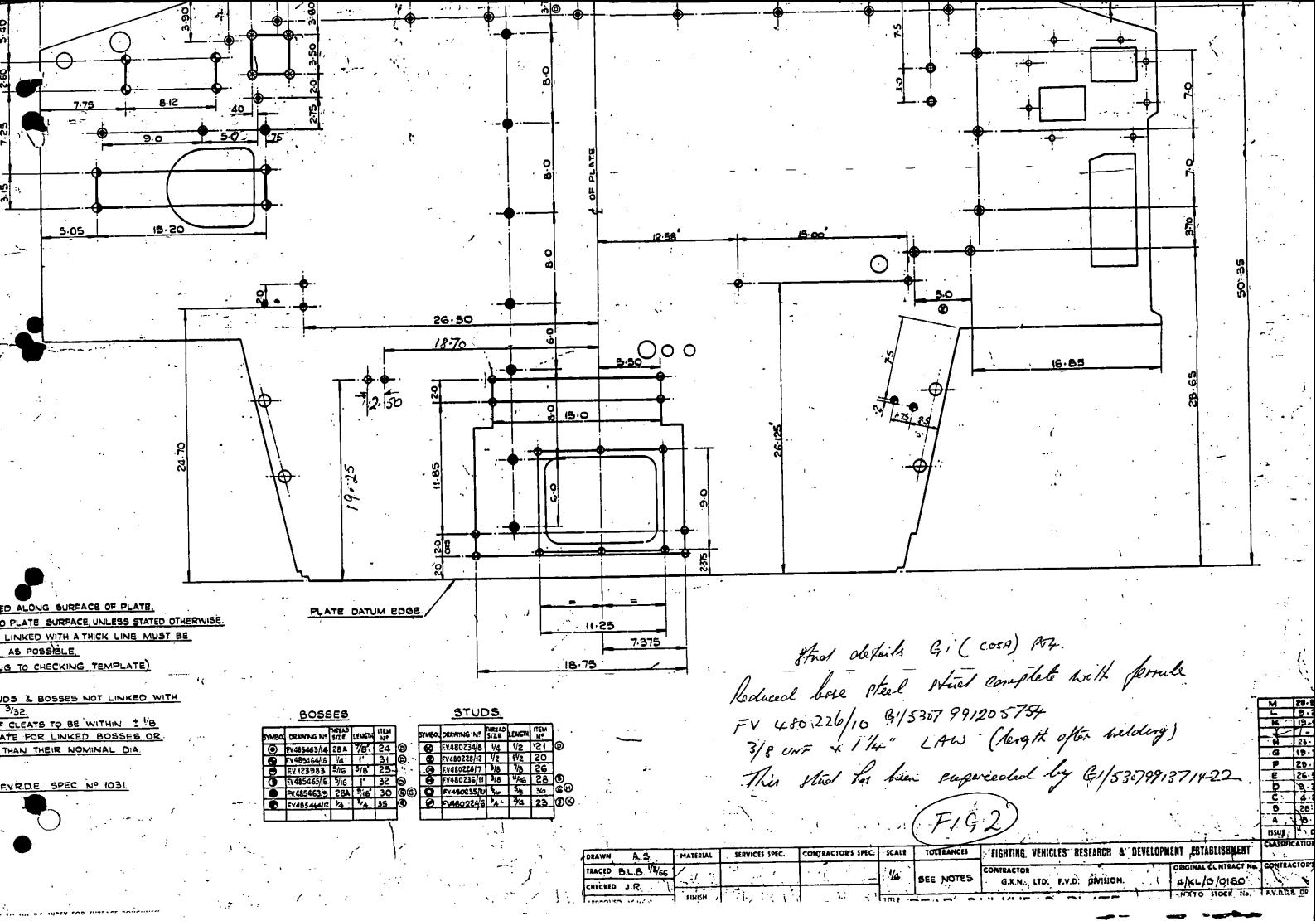
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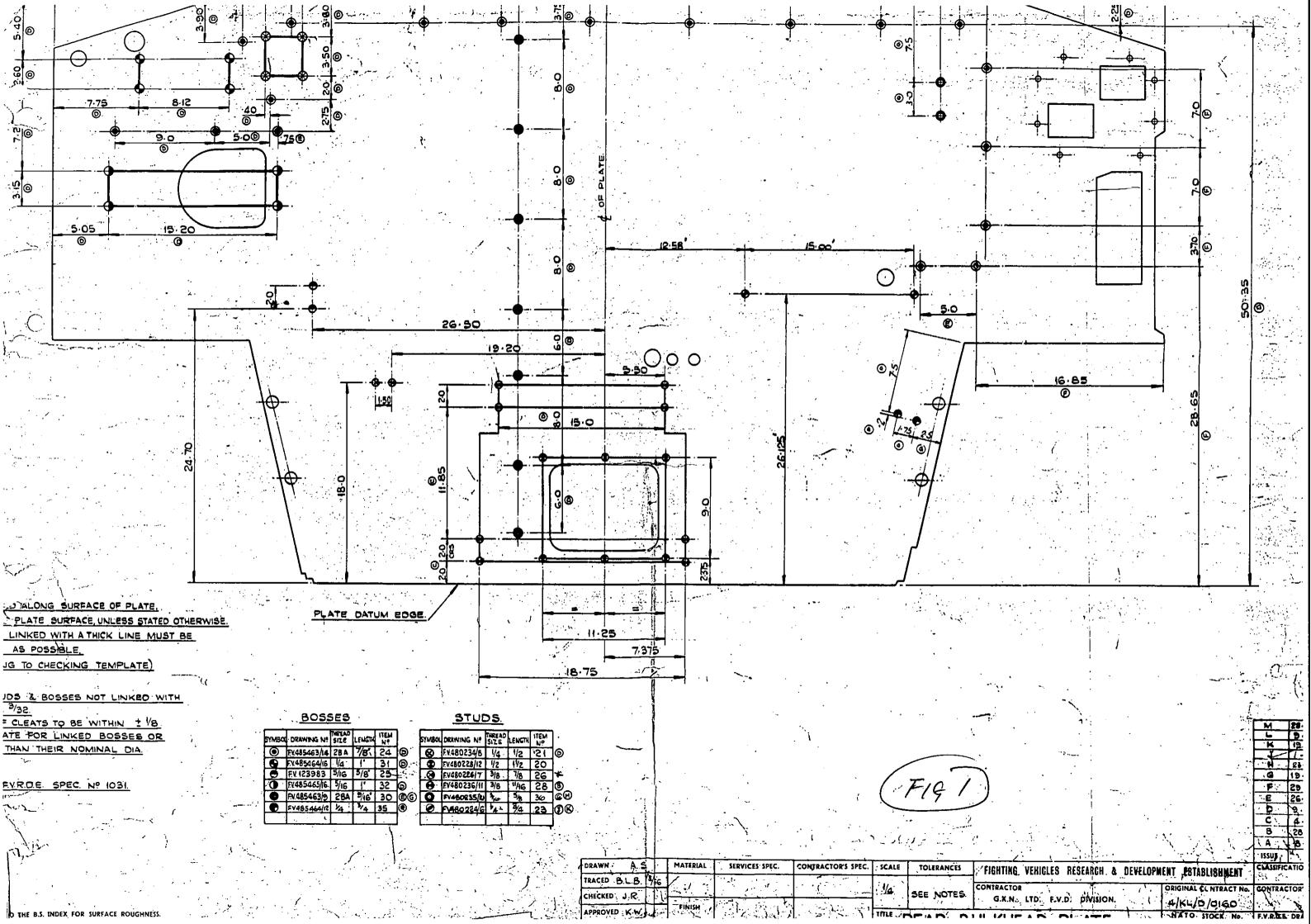




V8778/3

Fig 3 Orientation of Flow Control Valves







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CARRIER MAINTENANCE, FULL TRACKED, FV 434, MK 1 AND 1/1

TECHNICAL HANDBOOK - MODIFICATION INSTRUCTION

SUBJECT: Crane hydraulic control

(Approval No. 20/4/0011)

INTRODUCTION

- 1 Replacement of the original crane hydraulic controls to interface with the existing pipework and vehicle layout. Old pattern equipment is no longer available nor spares to effect repairs. Whilst it is essential for vehicles on Base Overhaul to incorporate this modification, it is acceptable for the old pattern crane hydraulic control to be replaced only on failure at Field level.
 - 1.1 Limitations on use of equipment. Nil.

APPLICABILITY

2 HIAB Crane fitted to FV 434 (Code Nos. 0070 0140, 0070 0141, 0070 3000 and 0070 3001).

REASON FOR INSTRUCTION

3 Code 6 - to conform to changes in pattern of commercial stores.

PRIORITY

4 Routine.

ESTIMATED TIME REQUIRED

5

5.1 Dismantle:

2.5 man-hours.

5.2 Embodiment:

5 man-hours.

5.3 Testing:

2 man-hours.

72211(21) ATSA Chertsey



IMPLEMENTATION PLAN

6

- 6.1 This instruction is to be implemented by units authorized to carry out field or base repairs.
- 6.2 Associated instructions. EMER Tracked Vehicles E 107/4 Mod Instr No. 22 details replacement of old pattern reflux valves when defective.
- 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 demand the stores required.
 - 7.1.3 On receipt of stores, request REME to modify equipment.
 - 7.1.4 Record the modification subject and EMER number in equipment documents.
- 7.2 Units and establishments holding equipment:
 - 7.2.1 When requested by users or during overhaul of equipment 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 <u>All recipients of this instruction</u>. Add particulars to EMER Tracked Vehicles E 107/4 Mod Instruction.

STORES, TOOLS AND EQUIPMENT

Stores required

8

8.1 Stores to be demanded:

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

Item No.	DMC	NSN/Part No.	Designation	Qty per eqpt	Notes
	9ACR	2590-99-708-8440	Mod set: Hydraulic control system comprising:	1	
1	9ACR	4720-99-125-7159 (FV 644408)	Hose 555 mm lg (1/2 BSP Fem.)	(1)	Valve block.

item No.	DMC	NSN/Part No.	Designation	Qty per eqpt	Notes
2		4720-99-905-9327 (FV644412)	Hose 505 mm lg (1/2 BSP Fem.)	(2)	Valve block.
3		4730-99-282-4205 (FV 644413)	Hose 590 mm lg. (1/2 BSP Ferm.)	(2)	Pair from valve block.
4		4730-99-282-4204 (FV 644414)	Hose 670 mm lg. (3/4 BSP Fem.)	(1)	Return.
5		FV 644415	Kit fitting (7/8 UNF-1/2 BSP)	(3)	Adaptor and washer.
6		FV 644416	Kit fitting (3/4 BSP-1 UNF)	(1)	Adaptor and washer 3/4.
7		FV 644417/1	Flow control valve kit.	(2)	7 and 8 flow control valves
8		FV 644417/2	Flow control valve kit.	(2)	b and f washers.
		Sev Av	الما تراعما الم	(Adaptors: c 3/8-3/8
		No com	of man intermed a	(d 1/2-3/8 e 3/8-7/8
9		5305-99-222-7320 (FV 644419)	Kit screw cap hd. 3/8 UNC 1.25 lg.	(3)	Mounting plate.
10		4720-99-499-8439 (FV 644424)	Hose 2200 mm lg 1/2 BSP Fem.	(1)	Inner boom.
11		4720-99-742-0346 (FV 655525)	Hose 2600 mm lg 1/2 BSP Fem.	(1)	Inner boom.
12	,	4828-49-5170961	Assembly valve.	(1)	
13		4710-99-987-4999	Pipe assembly.	(1)	
14	6MT1	4730-99-881-6333	Nipple blank.	(1)	
15	6MT1	4730-99-881-6332 (FV 2074797/5)	Nut union 9/16 UNF.	(1)	FV 847571
16	G1	5310-99-944-0176	Pin split 1/16 x 5/8 lg.	(1)	
8	3.2 Stores	s to be obtained locally	:		
17	6MT1	4730-99-930-6825	Adaptor straight pipe 1/2 BSP male, 1/2 BSP fem.	(2)	
18	МЗ	5310-99-962-2300	Washer 10 mm ID	(2)	

WI RESTRICTED

Item No.	DMC	NSN/Part No.	Designation	Qty per eqpt	Notes	
8	3.3 <u>Store</u>	s to be removed and r	educed to scrap:			
					ISPL 14	
					Plate	Plate ref
19	9ACR	2590-99-805-0590	Hose assy 15 in. lg.	(2)	U7	29
20	9ACR	2590-99-805-0589	Hose assy 23.75 in. lg.	(1)	U7	28
21	9ACR	2590-99-805-1374	Hose assy.	(1)	U7	36
22	9ACR	2590-99-805-1375	Hose assy.	(1)	U7	37
23	8REGC	2590-99-804-5067	Hose assy 98 in. lg.	(1)	U7	31
24	6MT1	4730-99-801-1938	Union pipe.	(3)	U7	25
25	8 REGC	2590-99-804-5002	Hose HP oil.	(1)	U7	32
26	9ACR	4730-99-805-0583 (FV 611552)	Adaptor straight pipe to hose 1 in. UNF to 11/16 in.	(1)	U7	16
27	6MT1	5330-99-881-4516	Washer seal flat 1 in. FV(S) 108-21.	(1)		
28	6MT1	4720-99-805-7773	Hose rubber syn 5/8 in. i.d. 29/32 o.d.	(1)	U7	17
29	6MT1	4730-99-942-9463	Clamp hose worm drive.	(2)	U7	18
30	9ACR	2590-99-805-0584	Pipe brass 8.25 in. lg.	(1)	U7	19
31	6MT1	4820-99-813-4575	Reflux valve.	(4)	U4	
32	6MT9	4730-99-804-6164	Adaptor straight pipe 7/8 in, UNF 3/4 in. UNF	(8)	U7	30
33	6MT1	5330-99-881-4515	Washer seal flat 7/8 in.	(4)		
34	6MT1	5330-99-942-8454	Washer seal flat 3/4 in.	(8)		
35	8REGC	2590-99-804-5014 (FV 649488)	Hydraulic control valve hoist valve body assy.	(1)		
36			Nut 3/8 in, UNC.	(3)		
37			Washer 3/8 in. UNC.	(3)		
38			Studs 3/8 in. UNC.	(3)		
39	8REGC	4730-99-804-5065	Adaptor straight pipe.	(2)	U6	55



Sequence of operations

9 Carry out this instruction as follows:

NOTES

- (1) The flow control valves (FCV) control the speed of operation of the crane by allowing free flow of fluid into the rams, but restricting the flow from the rams. They are located as follows:
 - (1.1) The FCVs controlling the speed of the outer and inner boom rams are fitted to the outer right hand edge of the hull roof, adjacent to the rear of the main control valve assembly.
 - (1.2) The FCVs controlling the slewing rams are fitted forward of the control valve assembly adjacent to the king post.
- (2) Prior to installation of hydraulic parts, ensure all connections have been capped off and mounting locations are free of debris and hydraulic fluid. The satisfactory operation of the system is dependent upon care in handling and scrupulous cleanliness being observed during the installation procedure.
- (3) The item numbers used in this instruction are the item numbers listed in Para 8. The alphabetical references used are those of the relevant figures and refer to components of the assembly.

Refer to EMER Tracked Vehicles E 104/4, Part 1, Chapter 9, Paragraph 18 and 38.

9.1 Remove items 19 to 39 as listed in Para 8.

Refer to Fig 1 and 2 and fit new flow control valve (FCV) assemblies (items 7 and 8) as detailed.

- 9.2 Fit seal (f) to male adaptor (e). Screw adaptor into vehicle port and torque tighten to 68 Nm (50 lbf ft).
- 9.3 Fit seals (b) to adaptors (c and d), screw adaptors into flow control valves (a) and tighten to 30.5 Nm (22.5 lbf ft).
- 9.4 Fit valve assembly to vehicle port adaptor **ensuring flow direction is correct,** orientate valve (see Fig 2) and tighten female union on adaptor (c) to 30.5 Nm (22.5 lbf ft)
- 9.5 Repeat the procedure for the remaining FCVs.
- 9.6 Remove the union nut of pipe (h) from the tee fitting installed to valve port 'D' and slacken the union nut at the pressure gauge connection, but do not separate.
- 9.7 Remove the bolts (qty 2) and washers from pipe clamp (i), remove pipe clamp and pressure gauge from valve block to gain access to base plate mounting bolt.
- 9.8 Disengage lever lock (j) from the adjacent operating lever.
- 9.9 Remove bolts (k) qty 4 and washers from valve block (1) Lift valve block (1) clear of baseplate (m) and place in a suitable clean dry container.
- 9.10 Position baseplate (m) on vehicle hull, secure with bolts (9) and washers, qty 3, and tighten to 100 Nm (73 lbf ft).
- 9.11 Position valve block (1) on base plate (m) and loosely secure with bolts (k) and washers. Do not tighten bolts at this stage.



- Fully engage lever lock (j) with adjacent valve operating lever, hold valve block firmly and progressively tighten each bolt until valve block is secure. Check for freedom of movement of all valve spools by operating each lever in turn then tighten securing bolts fully to 16 Nm (12 lbf ft). Recheck for free movement of valve spools.
- 9.13 Refit pressure gauge, pipe clamp and pipe, fully tighten unions and mountings.
- 9.14 Ensure adaptor pressure test point (o) is fitted to valve block port 'I', FV 644408, between these fittings.
- Connect hose (2), FV 644412, between valve port 'A' and the 'jib slew left' FCV (7). 9.15
- 9.16 Connect second hose (2), FV 6444412, between valve block port 'H' and the 'jib slew right' FCV (7).
- Fit seal to screw fitting kit (5), screw into vehicle outer jib connection. Connect hose (3), FV 644413, between valve block port 'G' and the vehicles outer jib connection.
- Fit seal to screw fitting kit (5), screw into vehicle inner jib connection. Connect second hose (3), FV 644413, between valve block port 'F' and the vehicle inner jib connection.
- Fit seal to male adaptor (6), screw adaptor into vehicle port. connect hose (4), FV 644414, between valve block port 'J' and hull. (Connect valve block port first).
- Connect hose (10), FV 644424, between the inner jib FCV (8) and the inner jib using connector (17) and washer (18), routing the hose so no damage occurs when the crane is operated.
- Connect hose (11), FV 644425, between the outer jib FCV (8) and the outer jib using connector (17) and washer (18), routing the hose so no damage occurs when the crane is operated.
- 9.22 Fit pipe (13) from accumulator to tee junction on valve block port 'D'.
- 9.23 Fit blanking nipple, union and split pin (14, 15 and 16) to redundant port on accumulator.

NOTE

On prototype vehicles this may require a section of existing pipework to be removed and a new piece to be made up, then joined to the remaining existing pipework via suitable adaptors.

TESTING AFTER EMBODIMENT

10

All relief valves have been adjusted by the manufacturer to crack at the following pressures + 1 bar g (15 lbf in²):

Main relief valve:	193.1 bar g	(2800 lbf/in ²)
Outer jib, inner jib service:	172.4 bar	(2500 lbf/in ²)
Outer jib, inner jib pilot:	137.9 bar	(2000 lbf/in ²)
Slew left, slew right:	137.9 bar	(2000 lbf/in ²)
Suspension lockout:	103.4 bar	(1500 lbf/in²)

These settings are not to be altered.

- 10.2 The rate of slew and jib raise/lower can be adjusted via the FCVs (7 and 8).
- Regulated flow can be increased or decreased, free return flow is not adjustable. 10.3
- Regulated flow is used to limit the maximum rate at which each function can be controlled normal control is effected by the metering spools in the main control valve.

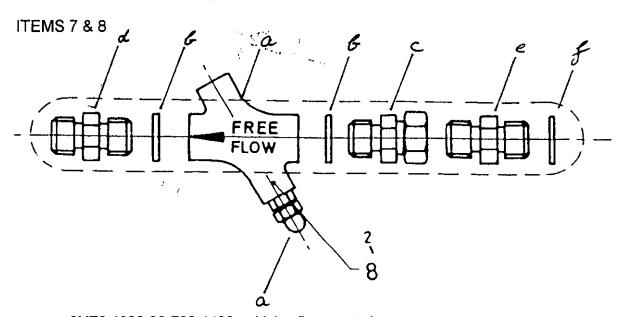
Mod No 23

ITEM 5

9ACR 4730-99-842-2247 Adapter 7/8 UNF – ½ BSP 9ACR 5330-99-729-3130 Washer bonded 7/8

ITEM 6 205-0581

M 6 **2**05-058 I 9ACR 4730-99-120-9727 Adapter ¾ BSP - 1.0 UNF 9ACR 5330-99-125-7167 Washer bonded ¾ BSP



a. 6MT9 4820-99-792-1408

b. 9ACR 5330-99-538.9333 W

c. 6MT1 4730-99-513-1913

d. 9ACR 4730-99-168-7208

e. 6MT1 4730-99-495-4062

f. 9ACR 5330-99-729-3130

g. 6MT1 5310-99-787-2102

Valve flow control

Washer bonded 3/8.

3/8 - 3/8 BSP Adapter male/female swivel

Adapter 1/2 - 3/8 BSP

3/8 - 7/8 UNF Adapter

Washer bonded 7/8

Nut domed

15/6/98

INSTALLATION PROCEDURE

MODEL: MBIT-CMB7-10-EA1 (FV644418)

- 4.19 Connect hose kit (17) between valve block port 'J' and the vehicle 'return port' connection, (connect valve port first, then hull).
- 4.20 Connect the vehicle suspension lock-out solid pipe to the valve block side connection adjacent to valve port 'D'.

Note: (On the prototype vehicles, this may require a section of existing pipework to be removed, a new piece to be made up, then joined to the remaining existing pipework via suitable adaptors).

Setting Up Procedures

5.1 <u>Control Function Pressure Relief Valves</u>

5.1.1 All relief valves will have been adjusted during factory testing to crack at the following pressures <u>+</u> 1 barg (15 psig):

Main relief valve	193.1 barg (2800 psig)
Outer jib, inner jib service	172.4 barg (2500 psig)
Outer jib, inner jib pilot	137.9 barg (2000 psig)
Slew left, slew right	137.9 barg (2000 psig)
Suspension lock-out	103.4 barg (1500 psig)

It is strongly recommended that unless absolutely necessary these settings are not altered or tampered with.

5.1.2 Should it become necessary to readjust these pressures, this can be achieved via the adjustment controls located directly underneath the main control valve spools.

Note In order to be able to measure the pressure it will be necessary in the case of the slew and jib controls, to disconnect the appropriate hoses at the point where they adjoin the main control valve and to insert a pressure gauge. (It is envisaged that a proprietary adaptor, hose and gauge assembly would be provided for this purpose). In order to measure the pilot port pressure it will be necessary to remove the plugs in ports 'B' and 'C', upon which the pressure gauge can be connected.

5.1.3 It will be observed that some hydraulic fluid will be found to leak past the adjuster when slackened off. This is a normal occurence and the seal will be re-effected when the adjuster and lock nut is retightened.

5.2 Flow Control Valves

The rate of slew and jib raise/lower can be adjusted via the flow control valves 520558 (FV 644421).

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CARRIER, MAINTENANCE, FULL TRACKED

FV 434, Mk I AND Mk 1/1

TECHNICAL HANDBOOK - MODIFICATION INSTRUCTION

SUBJECT: 2 Kg Dry Powder Fire Extinguisher

(MAE 43/4/0003)

INTRODUCTION

- 1 This instruction details additional external fittings for the Amerex fire extinguisher which replaces the BCF type.
 - 1.1 Limitations on use of equipment. Nil

APPLICABILITY

2

- 2.1 FV 434 Mk 1 and Mk 1/1 (Code No 0070-014-, 0070-0141, 0700-3000 and 0070-3001) 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 Immediate.

ESTIMATED TIME REQUIRED

5 Embodiment: 1.5 man-hours.

MODIFICATION IMPLEMENTATION PLAN

6

- 6.1 This modification is to be implemented by units authorised to carry out Unit, Field or Base 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 equipment to see if modification is embodied and where necessary demand the stores required..
 - 7.1.2 On receipt of stores, request REME to modify equipment.
 - 7.1.3 Record the modification Subject and EMER Number in equipment documents.
- 7.2 Units authorised to carry out Unit, Field and Base repairs.
 - 7.2.1 When requested by users or during overhaul, obtain the modification sets and local stores items listed in Para 8 and carry out this modification 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 EMER Tracked vehicles E 107/4 Mod Instruction. 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 Registration number of vehicle for equipment held by user units.
 - 8.1.3 Registration number of vehicle for unmodified stock held at all levels of technical storage.



NOTE

These Pages 3 to 6, Issue 2 supersede Pages 3 to 6, Issue 1 dated Jan 94. Text and figures have been amended.

Item No	DMC	NSN/Part No	Designation	Oty per eqpt
	9ACR	2540-99-496-0321 (FV 952589)	Mod Set: External Fire Extinguisher Replacement Scheme comprising:	1
1	9ACR	4210 -9 9-736-3532 (FV 952586)	Mounting plate front glacis I.h.	(1)
2	9ACR	4210-99-851-0258 (FV 952587)	Mounting plate front glacis r.h.	(1)
3	G1	5305-99-122-5360	Screw hex hd M6 x 16 mm lg	(18)
4	G1	5306-99-122-2792	Bolt hex hd M12 x 70 mm lg	(4)
5	G1	5310-99-137-9232	Washer s/coil lock M6	(18)
6	G1	5310-99-138-9229	Washer s/coil lock M12	(4)
7	G1	5310-99-122-5295	Nut pl hex M6	(18)
8	G1	5310-99-122-5298	Nut pl hex M12	(4)
	8.2 Stores	to be manufactured.		
9		FV 2200586	Spacer	2
	8.3 Stores	to be removed and discard	led.	
10	G1	6306-99-941-0343	Bolt hex hd UNF 1/2 in. x 2 in. lg	4
11	G1	5310-99-941-0917	Nut pl hex UNF 1/2 in.	4
12	G1	5310-99-941-6658	Washer lock s/coil lock 1/2 in.	4

Sequence of operations

NOTE

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

- 9 Carry out this instruction as follows:
 - 9.1 Remove existing extinguishers and brackets from rear plate (1-off) and front plate upper (2-off). Return extinguishers to stores, to be used for replacement of internal hand extinguishers.
 - 9.2 Attach fire extinguishers brackets to mounting plates (items 1 and 2) using screws, washers and nuts (items 3, 5 and 7).



NOTE

See Fig 1 for manufacture of spacer (item 12).

- 9.3 Remove bolts, nuts and washers (items 10, 11 and 12) from smoke discharger (Fig 1). Attach mounting plates (items 1 and 2) and spacers (item 9) to smoke discharger brackets using screws, washers and nuts (items 4, 6 and 8).
- 9.4 Refer to Fig 2 remove three welded studs (2BA x 7/16 lg) from rear plate, finish smooth and flush to plate.
- 9.5 Mark out and drill six holes (0.281 in. dia) through rear plate (Fig 2) for hole positions.
- 9.6 Repair paint, finish to DTD 5555 and Def Stan 03-32.
- 9.7 Attach fire extinguishers bracket to the rear plate using screws, washers and nuts (items 3, 5 and 7).
- 9.8 Clip on fire extinguishers Qty 3.

Testing after embodiment

10 Nil.

EFFECT ON WEIGHT

11 Nil.

PUBLICATION AMENDMENTS

NOTE

Page 4

Necessary amendments will be issued separately.

12 Army code No 14811 User Handbook.

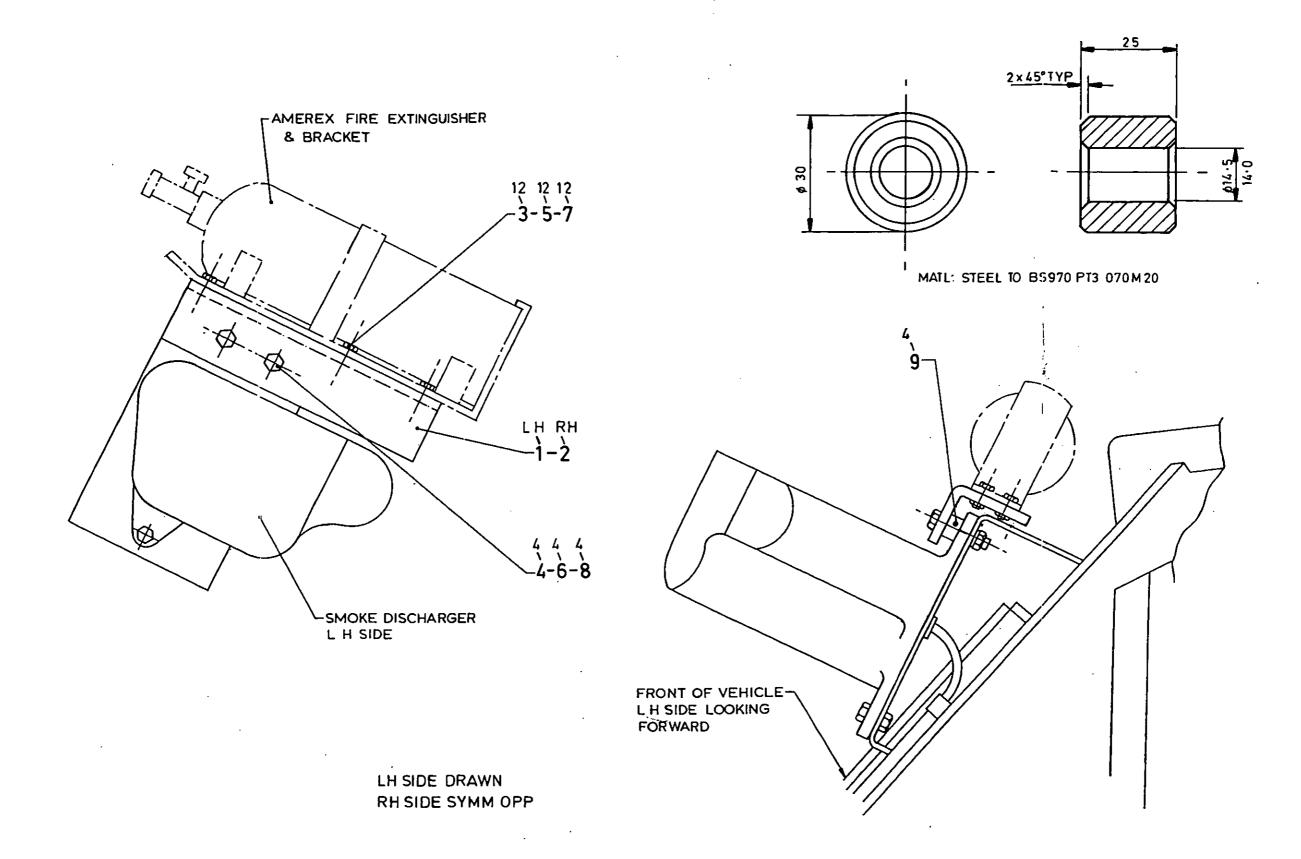


Fig 1 Fire extinguisher mounting front

V10924/1

2350-T-252-811

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CARRIER, FULL TRACKED, FV 434 MK 1 AND 1/1

MODIFICATION INSTRUCTION NO. 1

SUBJECT:

2

CANCELLATION

INTRODUCTION

- 1 AESP 2350-T-252-811 Mod Instr.No. 1, EMER E 107/4 Mod Instr.No. 26 is hereby cancelled. The mounting bracket of the Amber Beacon fouls on the hydraulic pipelines of the valve block installed in Mod Instr.No. 23.
- 2 A revised Mod Instruction will be issued in AESP 2350-T-252-811.

ACTION

- 3 Amend AESP 2350-T-252-811 Mod Instr No. 1, EMER E 107/4 modification index accordingly.
- 4 File this Page 1/2 in place of AESP 2350-T-252-811 Mod Instr No. 1, E 107/4 Mod Instr No. 26 all pages of which are to be destroyed.

S01008(55) DLO Chertsey

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CARRIER, MAINTENANCE, FULL TRACKED, FV434 MK 1 AND 1/1 MODIFICATION INSTRUCTION NO. 1 (EMER TV E107/4 Mod Instr No 27)

SUBJECT: Driver and commanders SA80 stowage

CANCELLATION

INTRODUCTION

AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 Mod Instr No.27 dated Sep 97 is hereby cancelled. The details of this modification have been amended and re-issued as AESP 2350-T-252-811 Mod Instr No.8.

ACTION

- 2 Amend AESP 2350-T-252-811 Mod Instr No.1, EMER TV E107/4 modification index accordingly
- 3 File this Page 1/2 in place of Mod Instr No.27 dated Sep 97, all pages of which are to be destroyed.



CARRIER, FULL TRACKED, FV 434 MK 1 AND 1/1

MODIFICATION INSTRUCTION NO. 2

Sponsor: DGES(L) Publication Agency: DLO Chertsey

Project No: \$01008(347)

File ref:

AMENDMENT RECORD

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

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

SUBJECT: Fuel tank filter

(Approval No. 43/0/0046)

INTRODUCTION

- 1 This instruction introduces the installation of a fuel strainer element to the fuel tank filler neck to reduce fuel contamination.
 - 1.1 Limitations on use of equipment. Nil.

APPLICABILITY

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

REASON FOR MODIFICATION

3 Code 4 - to improve maintainability.

PRIORITY

4 Routine.

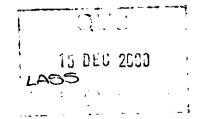
ESTIMATED TIME REQUIRED

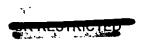
5 Embodiment: 0.15 man-hours.

MODIFICATION IMPLEMENTATION PLAN

6

- 6.1 This instruction is to be implemented by:
 - 6.1.1 Units authorized to carry out levels 2, 3 or 4 maintenance.





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CARRIER, MAINTENANCE, FULL TRACKED, FV434 MK 1 AND 1/1 AESP 2350-T-252-811, MODIFICATION INSTRUCTION NO. 3

SUBJECT: 2nd antenna base bracket

CANCELLATION

INTRODUCTION

1 AESP 2350-T-252-811 Mod Instr No.3, dated Nov 01 is hereby cancelled. The details of this modification were in support of an Urgent Operational Requirement (UOR), which is no longer required.

ACTION

- 2 Amend AESP 2350-T-252-811, modification index accordingly.
- 3 File this Page 1/2 in place of Mod Instr No.3 dated Nov 01, all pages of which are to be destroyed.

CARRIER, MAINTENANCE, FULL TRACKED, MK 1 AND 1/1, FV 434

MODIFICATION INSTRUCTION NO. 4 Sponsor: DGES(L) 21 FEB 2002

Publication Agency: DLO Chertsey

Project No: S01008(236)

File ref:

AMENDMENT RECORD

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

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

SUBJECT: Amber rotating beacon

(Approval No. 43/4/0008)

INTRODUCTION

- This instruction details the initial fitting/relocation of an amber rotating beacon in a revised location. The original modification instruction, AESP 2350-T-252-811 Mod Instr No. 1, E107/4 Mod Instr No. 26 was cancelled due to a foul of the mounting bracket on the hydraulic pipelines of the valve control block.
 - Limitations on use of equipment. Nil. 1.1

APPLICABILITY

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

REASON FOR MODIFICATION

3 Code 1 - to improve safety.

PRIORITY

Immediate.

ESTIMATED TIME REQUIRED

Embodiment: 2 man-hours.

MODIFICATION IMPLEMENTATION PLAN

6

- 6.1 This instruction is to be implemented by:
 - Units authorized to carry out levels 2, 3 or 4 maintenance.

Action required by

7

- 7.1 Units and establishments holding equipment:
 - 7.1.1 Examine equipment 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 AESP and instruction number in equipment documents.
- 7.2 Army units authorized to carry out levels 2, 3 and 4 maintenance and RAF units:
 - 7.2.1 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 2350-T-252-811 Mod Instr Index.

Stores, tools and equipment

8

8.1 Stores to be demanded:

- 8.1.1 The following item(s)/set are/is to be demanded quoting this instruction as the authority.
- 8.1.2 Registration/Serial number of vehicle/engine/assembly for equipment held by user units.

iter No.		DMC	NSN/Part No.	Designation	Qty per eqpt
		9ACR	2540-99-745-4600	Mod set: comprising	. 1
1			FV 2200650	Beacon, amber, assy, comprising:	(1)
	1.1	9ACR	2590-99-805-5791	Guard, beacon.	(1)
	1.2	9AHY	6220-99-112-5612	Lens, amber beacon.	(1)
	1.3	X5	6240-99-995-2519	Bulb, H1, 24V.	(1)
	1.4	6MT3	6220-99-838-5677	Light, warning.	(1)
	1.5	9MCV	6220-99-895-7727	Pole.	(1)
	1.6	9ACR	2590-99-580-3019	Wiring harness.	(1)
2		9ACR	2540-99-127-3008	Base assembly.	(1)
3			FV 2200658	Bracket.	(1)
4			FV 2200655	Harness ext. lead-light socket to base.	(1)



Item No.	DMC	NSN/Part No.	Designation	Qty per eqpt
5	6MT1	5340-99-838-1364	Tie, cable.	(2)
6	G1	5305-99-122-8760	Screw, hex hd, M8 x 35 lg.	(4)
7	G1	5310.64-139-0313 5305-99-122-8760	Nut, hex thin, M8.	(4)
8	G1	5310-99-138-7965	Washer, plain, M8, large, OD.	(4)
9	G1	5310-99-138-9227	Washer, spring s/coil, M8.	(4)
10	G1	5315-99-139-5252	Pin, 6 mm x 40 lg.	(1)

Sequence of operations

NOTE

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

- 9 Carry out this instruction as follows:
 - 9.1 If AESP 2350-T-252-811 Mod Instr No. 1, E107/4 Mod Instr No. 26, amber rotating beacon modification has been embodied on the vehicle, it is to be removed in accordance with Sub-Para 9.2 and refitted in accordance with Sub-Para 9.3 onwards. If the amber beacon modification has not been fitted go to Sub-Para 9.3.
 - 9.2 Remove the amber beacon assy (item 1) from the base assy (item 2), remove the base assy and harness (item 2 and 4) with fixings (item 8, 9, 10 and 11) from bracket (item 3). Remove bracket (item 3) from the HIAB crane and restore the paint finish to current regulations. Retain all items.

Refer to Fig 1 and 2

- 9.3 Weld the bracket (item 3) to the HIAB in the position shown and restore the paint finish to current regulations.
- 9.4 Fit base assy and harness (item 2 and 4) to bracket (item 3) using (item 8, 9, 10 and 11). Secure harness (item 4) to hydraulic pipelines using (item 7), allowing sufficient free cable for crane movement, and plug into external light socket by crane operator's hatch.
- 9.5 If not previously fitted, fit roll pin (item 12) in pre-drilled hole, in base assy (item 2). Fit amber beacon assy (item 1) to base assy (item 2).

TESTING AFTER EMBODIMENT

10 Switch on auxiliary junction box switch No. 1 and check for correct operation of the amber beacon.

EFFECT ON WEIGHT

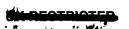
11 Negligible.

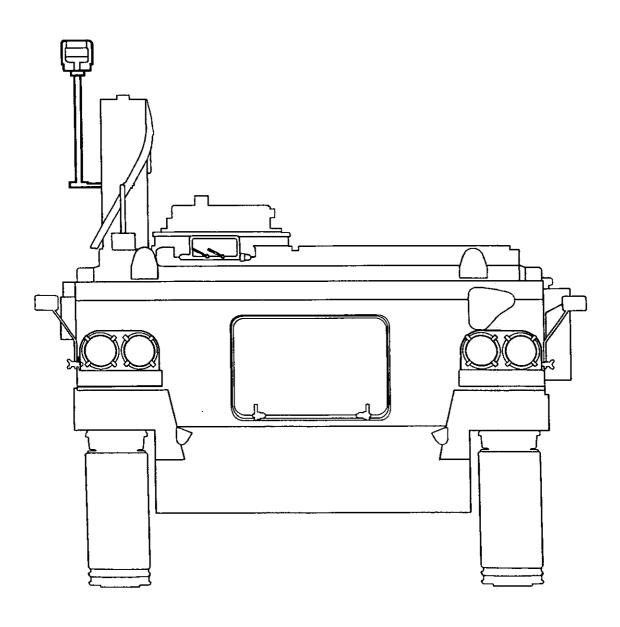
PUBLICATION AMENDMENTS

NOTE

Necessary amendments will be issued separately.

12 Nil.





V13890/3

Fig 1 Location of amber beacon on vehicle

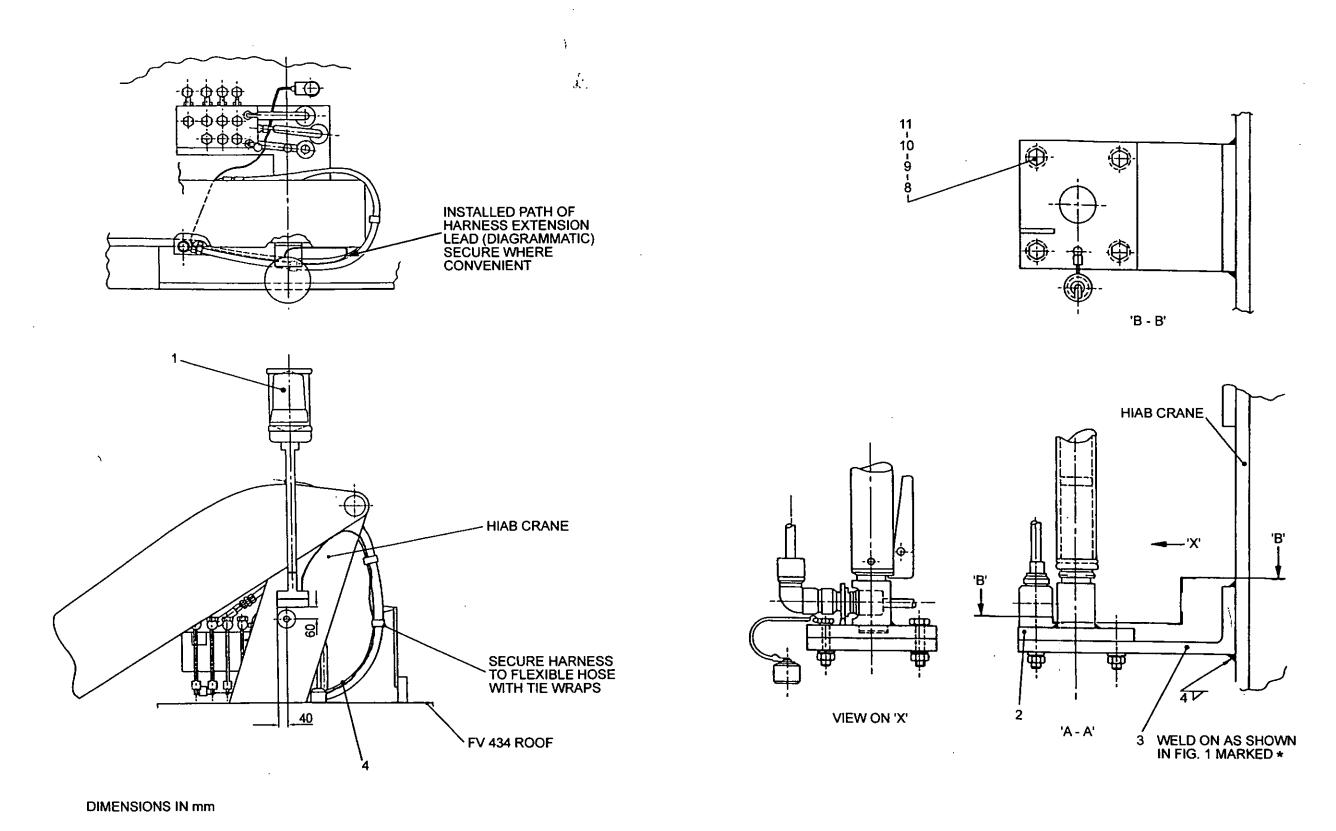


Fig 2 Detail of location and fitment of amber beacon

V13890/4

CARRIER, MAINTENANCE, FULL TRACKED, MK 1 AND 1/1, FV434

MODIFICATION INSTRUCTION NO. 6

Sponsor: DGES(L) Publication Agency: DLO Andover Project No: S01008()

File ref: 43/4/0017

AMENDMENT RECORD

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

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

SUBJECT: High visibility marker boards

(Approval No. 43/4/0017)

INTRODUCTION

- 1 This instruction introduces the fitment of two high visibility marker boards and brackets to the rear mudflap mountings on either side of the vehicle. The marker boards can be reversed to show green/black to match the vehicle when required.
 - 1.1 Limitations on use of equipment. Nil.

APPLICABILITY

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

REASON FOR MODIFICATION

3 Code 1 - to improve safety.

PRIORITY

4 Immediate.

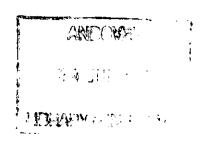
ESTIMATED TIME REQUIRED

5 Embodiment: 1.0 man-hour.

MODIFICATION IMPLEMENTATION PLAN

6

- 6.1 This instruction is to be implemented by:
 - 6.1.1 Units authorized to carry out levels 2, 3 or 4 maintenance.



Action required by

7

- 7.1 Units and establishments holding equipment:
 - 7.1.1 Examine equipment 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 AESP and instruction number in equipment documents.
- 7.2 Army units authorized to carry out levels 2, 3 and 4 maintenance:
 - 7.2.1 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.
 - 7.2.3 When the modification has been embodied, complete and return Annex A.
- 7.3 All recipients of this instruction. Add particulars to AESP 2350-T-252-811 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 the authority.
- 8.1.2 Registration/Serial number of vehicle/engine/assembly for equipment held by user units.

Item No.	DMC	NSN/Part No.	Designation	Qty per eqpt
1	6MT1	9905-99-837-2954	Marker plate (pair)	1
2	9ACR	2540-99-665-7533	Holder assembly	2
3	9ACR	2540-99-490-4049	Bracket	2
8.2	Stores or	suitable equivalent to be obta	ined locally:	
4	G1	5305-99-122-5360	Screw hex hd M6 x 16 lg	8
5	G1	5310-99-122-5295	Nut hex M6	8
6	G1	5310-99-137-9232	Washer spring M6	8



Sequence of operations

NOTE

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

9 Carry out this instruction as follows:

WARNING

PAINT PROCESSES TO BE CARRIED OUT IAW AESP 0200-A-221-013 FOLLOWING ALL NECESSARY SAFETY PRECAUTIONS

9.1 Paint, to current regulations, the rear surface of the marker plates (item 1) green/black to match the rear of the vehicle.

Refer to Fig 1

- 9.2 Remove and retain four of the five fittings per side that attach the mudflaps to the rear of the vehicle. Fit the brackets (item 3) and secure the mudflaps to the rear of the vehicle using the original fittings.
- 9.3 Fit holder assemblies (item 2) to bracket (item 3) using fittings (item 4, 5 and 6) ensuring that the opening for the marker plates (item 1) is to the outside of the vehicle.
- 9.4 Fit the marker plates (item 1) in to the holder assemblies (item 2).

TESTING AFTER EMBODIMENT

10 Nil.

EFFECT ON WEIGHT

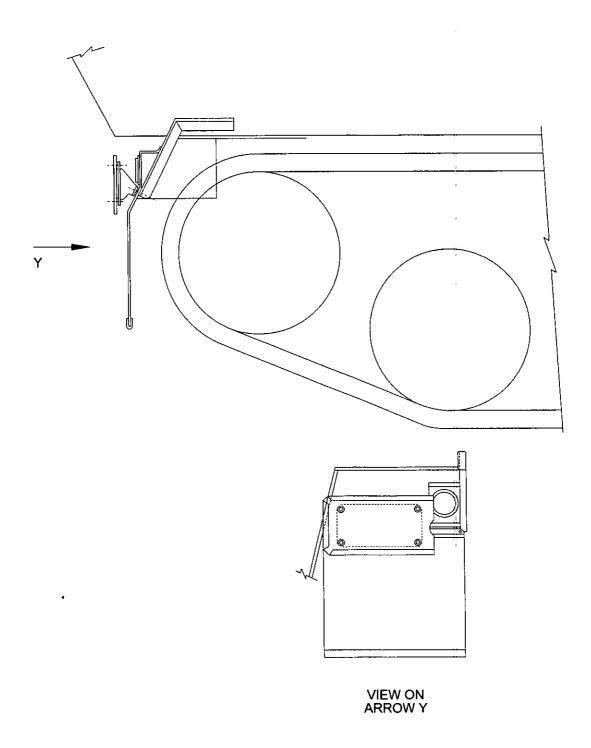
11 Negligible.

PUBLICATION AMENDMENTS

NOTE

Necessary amendments will be issued separately.

12 Nil.

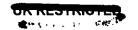


V14963/3

Fig 1 Fitment of bracket and holder assemblies

FV430 ESM LASS IPT DLO

Vehicle registration number(s)



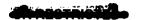
MODIFICATION INSTRUCTION NO. 6

ANNEX A

To enable accurate modification records to be maintained for all FV430 series vehicles, all units are to complete and return this form when the modification has been embodied. Multiple equipment returns can be submitted.

Monxton Road Andover Hampshire SP11 8HT		
From:		
Unit:	UIN:	
Name:	Signature:	
Modification No. 6		Date embodied:





CARRIER, MAINTENANCE, FULL TRACKED, FV434, MK 1 AND 1/1

MODIFICATION INSTRUCTION NO. 7

Sponsor: DGES(L) **Publication Agency: DLO Andover**

Project No: S01008

File ref:

AMENDMENT RECORD

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

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

SUBJECT: Removal of the torch battery charging facility

(Approval No. 43/4/0018)

INTRODUCTION

- This instruction details the removal of the torch battery charging equipment that is no longer used.
 - 1.1 Limitations on use of equipment. Nil.

APPLICABILITY

Unmodified stock, held at all levels of technical storage.

REASON FOR MODIFICATION

Code 6 - other reasons.

PRIORITY

Routine.

ESTIMATED TIME REQUIRED

Embodiment: 1.0 man hour.

MODIFICATION IMPLEMENTATION PLAN

6 This instruction is to be embodied by the BOWMAN Platform Presentation Team.

Action required by

7

- Units and establishments holding equipment:
 - 7.1.1 Record the AESP and instruction number in equipment documents.

ANDOVER 10 JUL 2003 UHARY & INFO SVC.





- 7.2 Army units authorised to carry out levels 2, 3 and 4 maintenance:
 - 7.2.1 Record completion details of modification against appropriate entry in vehicle documents.
- 7.3 All recipients of this instruction. Add particulars to AESP 2350-T-252-811 Instr Index.

TESTING AFTER EMBODIMENT

8 Nil.

EFFECT ON WEIGHT

9 Negligible.

PUBLICATION AMENDMENTS

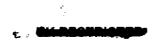
NOTE

Necessary amendments will be issued separately.

10 Nil.

ANDOVER

1 0 JUL 2003



CARRIER, FULL TRACKED, FV 434 MK1 AND 1/1

MODIFICATION INSTRUCTION NO. 8

Sponsor: DGES(L) Publication Agency: DLO Andover Project No: S01008 File ref:

AMENDMENT RECORD

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

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

SUBJECT: Driver and commanders SA80 stowage

(Approval No. 43/4/0010)

INTRODUCTION

1 This instruction details the internal fittings for the stowage of the SA80.

1.1 Limitations on use of equipment. Nil.

APPLICABILITY

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

REASON FOR MODIFICATION

3 Code 1 - to improve safety.

PRIORITY

4 Immediate.

ESTIMATED TIME REQUIRED

5 Embodiment: 3.00 man-hours.

MODIFICATION IMPLEMENTATION PLAN

6

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

ANDOVER

S & JUL 2003

LIBRARY & INFO CVG.

Mod Instr No. 8

Jun 03



Action required by

7

- 7.1 Units and establishments holding equipment:
 - 7.1.1 Examine equipment documents to see if modification is applicable.
 - 7.1.2 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 and 4 maintenance:
 - 7.2.1 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 2350-T-252-811 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 the authority.
- 8.1.2 Registration number of vehicle for equipment held by user units.

Item No.	DMC	NSN/Part No.	Designation	Qty per eqpt
	9ACR	2540-99-356-0023	Mod set: comprising	1
1		FV 643908	Mounting lug.	(1)
2		FV 643906	Mounting lug.	(1)
3		FV 643903	Mounting lug.	(1)
4	9ACR	2540-99-190-6909	Front mounting bracket SA80.	(1)
5	9ACR	2540-99-504-1740	Rear mounting bracket SA80.	(1)
6	46MT1	2540-99-740-7338	Assy barrel clip.	(2)
7	6MT1	2540-99-724-5832	Assy butt clip.	(2)
8	G1	5305-99-122-5361	Screw hex hd M6 x 20 lg.	(4)
9	G1	5305-99-122-5366	Screw hex hd M8 x 20 lg.	(10)
10	G1	5305-99-135-0451	Screw pan hd M8 x 20 lg	(1)

	EQUIPME ORT PUBL		NEOIMOTE	2350-T-252-811
11	G1	5310-99-122-5295	Nut hex M6.	(4)
12	G1	5310-99-122-5296	Nut hex M8.	(12)
13	G1	5310-99-137-9232	Washer spring s/coil M6.	(4)
14	G1	5310-99-138-9227	Washer spring s/coil M8.	(12)
15	G1	5310-12-348-5894	Washer flat M8.	(6)
8.:	2 <u>Items</u>	to be modified:		
16		FV 563335	Engine cover.	(1)
17		FV 643911	BV tray.	(1)
8.	3 <u>Store</u>	s to be removed and reduced	to scrap:	
18		FV 563337	Ammunition tray.	(1)

Sequence of operations

NOTE

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

9 Carry out this instruction as follows:

WARNINGS

- (1) A FULL AND THOROUGH RISK ASSESSMENT MUST BE CARRIED OUT IAW JSP 375 BEFORE EMBODIMENT OF THIS MODIFICATION, PAYING PARTICULAR ATTENTION TO THE FOLLOWING:
- (2) PAINT PROCESSES TO BE CARRIED OUT IAW AESP 0200-A-221-013 FOLLOWING ALL NECESSARY SAFETY PRECAUTIONS
- (3) ASBESTOS. DUE TO THE POSSIBILITY OF ASBESTOS ON THE INTERNAL LINING SURFACE (ENGINE SIDE) OF THE ENGINE COVER FV 563335, APPROPRIATE PROTECTIVE CLOTHING MUST BE WORN WHEN DRILLING AND HANDLING DURING THE MODIFICATION.
- 9.1 Remove the engine cover (item 16) from the vehicle.

Refer to Fig 1

9.2 Remove and retain the BV tray (item 17) and fittings. Completely remove and discard both sections of the ammunition tray (item 18) from the engine cover.

Refer to Fig 2

9.3 Modify the BV tray (item 17) to prevent fouling of the rear access plate and the rear SA80 mounting bracket when fitted.



Refer to Fig 3

- 9.4 Weld, to current regulations, the new BV mounting lugs (item 1, 2 and 3) to the engine cover (item 16) using the BV tray and original BV mounting lugs as a guide. Remove the original mounting lugs. Mark out and drill holes for the SA 80 mounting brackets, paying particular attention to section A A. Modify the rear access plate handle if it fouls on the new BV mounting lugs.
- 9.5 Restore paint finish to current regulations of all of the above reworked items.
- 9.6 Refit BV tray (item 17) using the fittings retained at Para 9.2.

Refer to Fig 4

- 9.7 Attach barrel clips (item 6) to front mounting bracket (item 4) using fittings (item 9, 12 and 14).
- 9.8 Attach butt clips (item 7) to rear mounting bracket (item 5) using fittings (item 8, 11 and 13).
- 9.9 Attach rear mounting bracket (item 5) to engine cover (item 16) using fittings (item 9, 12, 14 and 15).
- 9.10 Attach front mounting bracket (item 4) to engine cover (item 16) using fittings (item 9, 10, 12, 14 and 15).
- 9.11 Refit engine cover (item 1).

TESTING AFTER EMBODIMENT

10 Check that the SA80 stowage operates correctly.

EFFECT ON WEIGHT

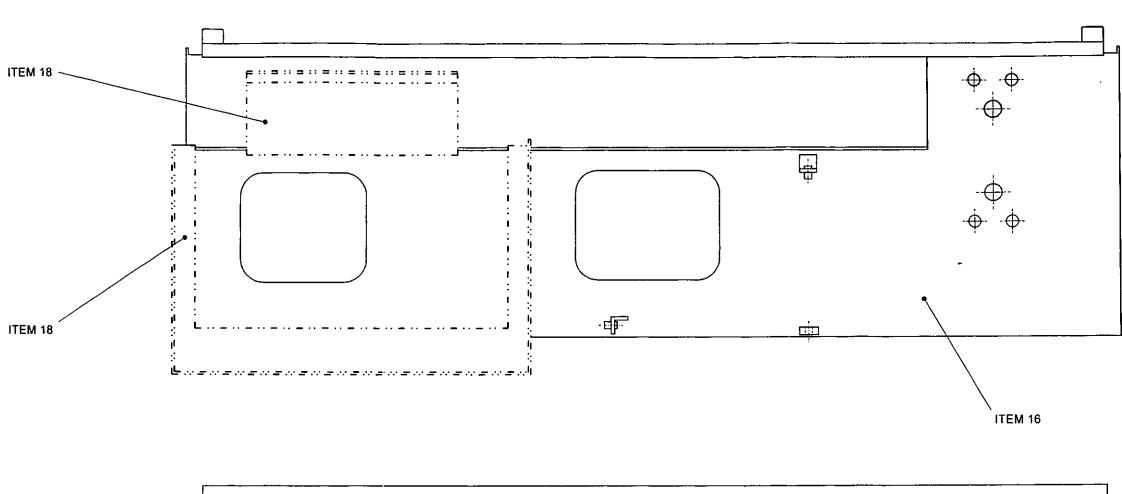
11 Negligible.

PUBLICATION AMENDMENTS

NOTE

Necessary amendments will be issued separately.

12 Nil.



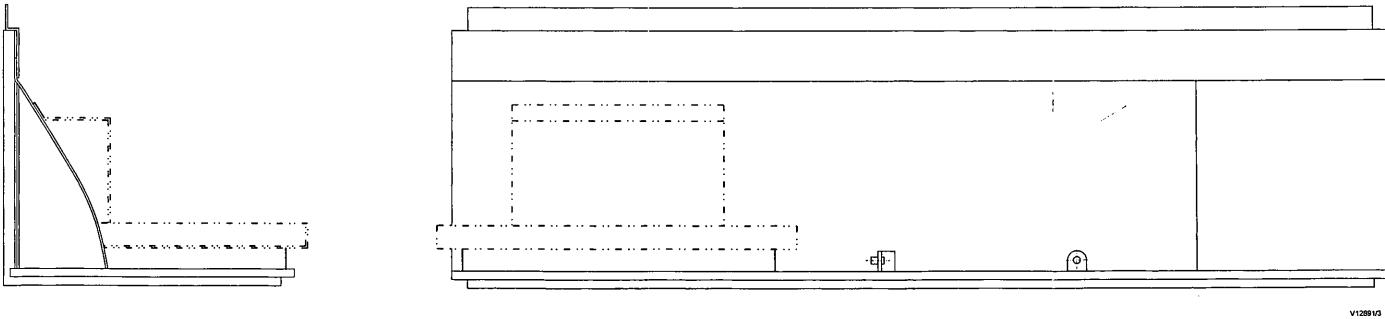
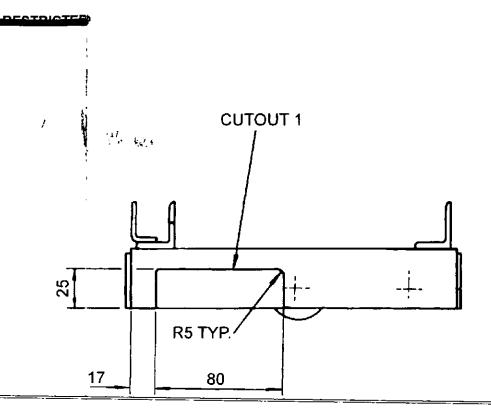
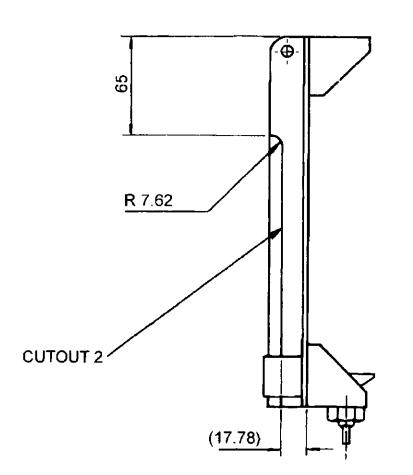
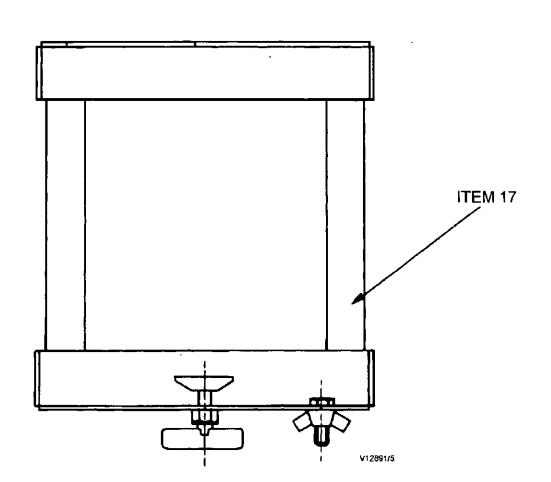


Fig 1 Removal of ammunition tray

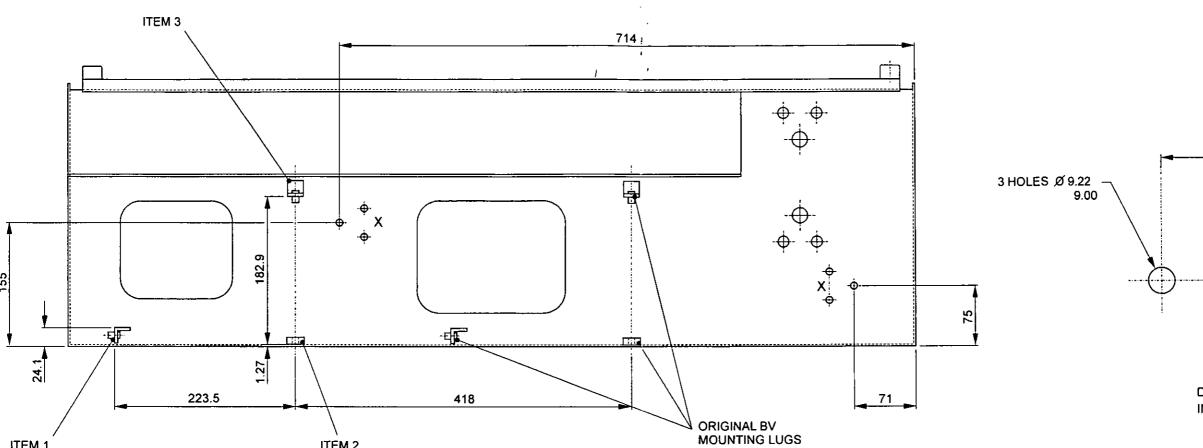


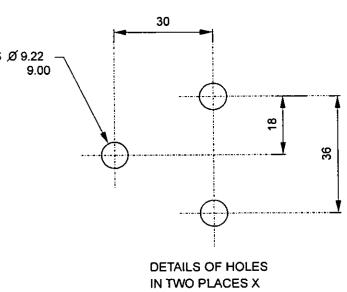




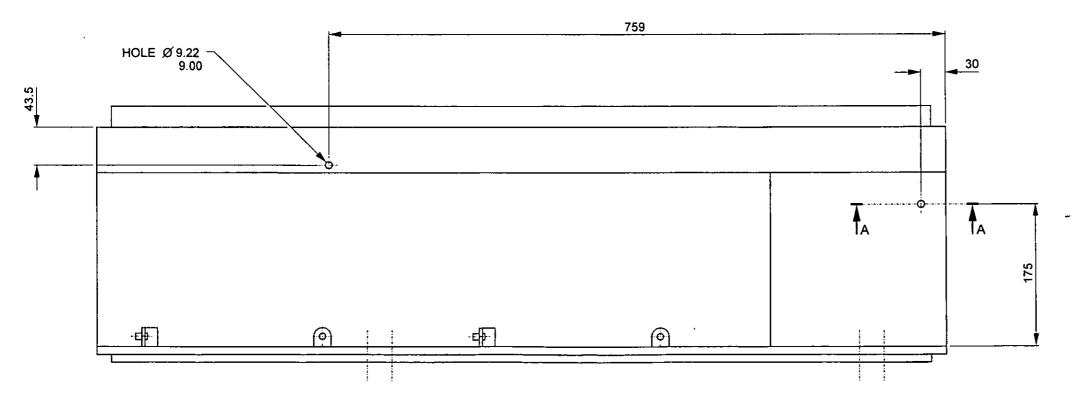
DIMENSIONS IN mm

Fig 2 Modification of BV tray

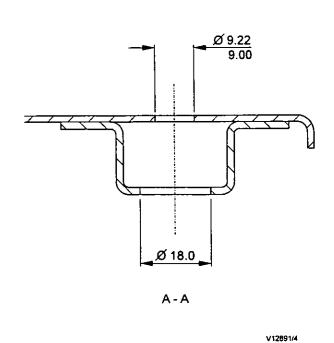




2350-T-252-811



ITEM 2



DIMENSIONS IN mm

Fig 3 BV tray fittings

ITEM 1

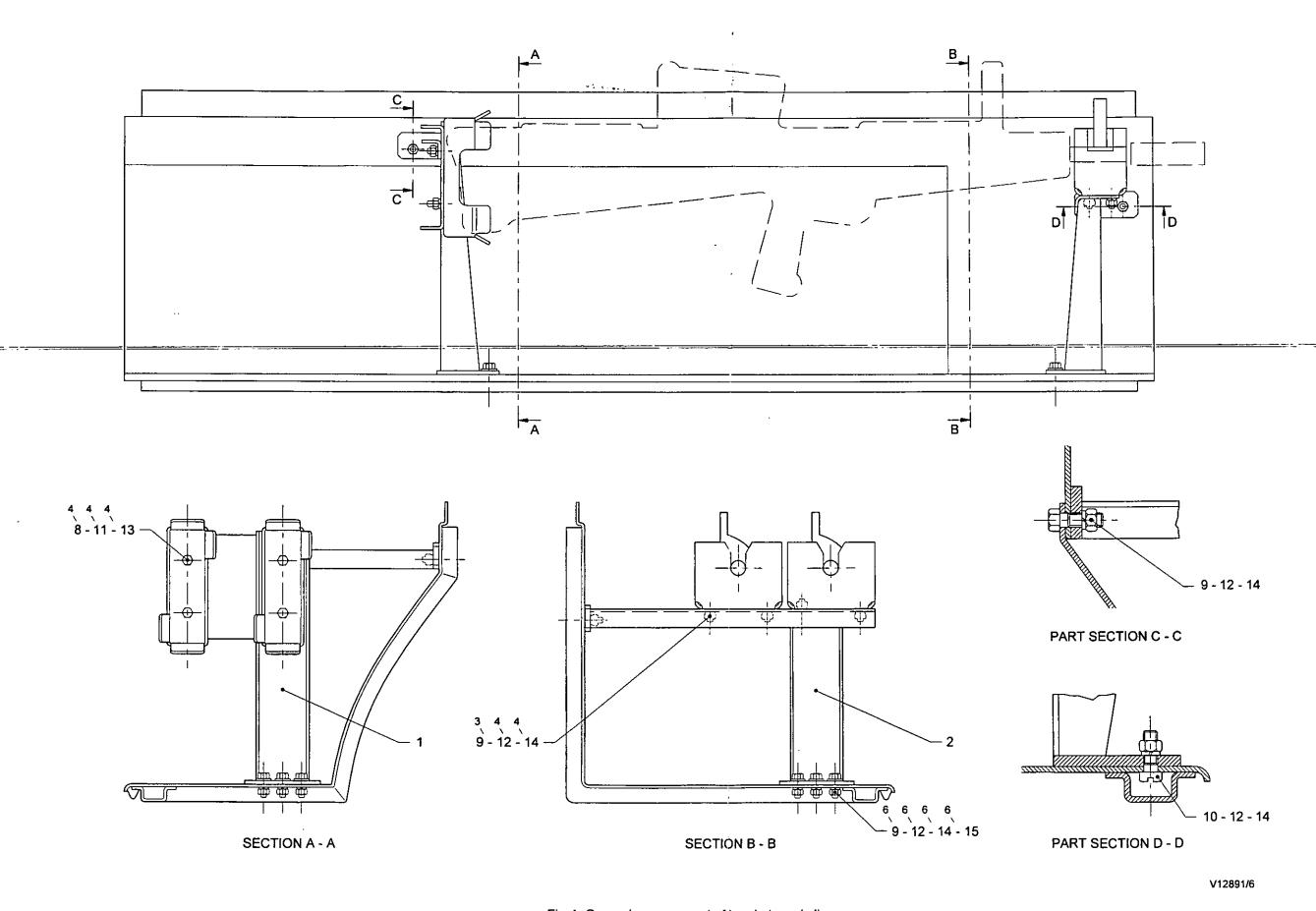


Fig 4 General arrangement of brackets and clips

UTT RESTRICTED

MODIFICATION INSTRUCTION NO. 8

ANNEX A

To enable accurate modification records to be maintained for all FV430 series vehicles, all units are to complete and return this form when the modification has been embodied. Multiple equipment returns can be submitted.

FV430 ESM	
LASS IPT	
DLO	
Monxton Road	
Andover	
Hampshire SP11 8HT	

From:

Unit:	UIN:
:	
Name:	Signature:
<u>.</u>	

Modification No. 8

Date embodied

Vehicle registration number(s)



FV434 SERIES, VEHICLES, ALL MARKS

MODIFICATION INSTRUCTION No. 9

Sponsor:

Publication Agency

DGES(L)

BAE Systems Land Systems (Weapons & Vehicles) Ltd

Task No.: 13136

AMENDMENT RECORD

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

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

SUBJECT: Removal of LH antenna mount and introduction of blanking plate

(Approval No. 43/4/0020)

INTRODUCTION

This instruction details the procedure to remove the LH antenna mount and the introduction of a blanking plate to cover the existing hole. This modification is only applicable if Modification Instruction No. 3 has been implemented. Modification Instruction No. 3 has been cancelled and is no longer applicable.

APPLICABILITY

- This Modification Instruction is applicable to:
 - 2.1 Carrier Maintenance Full Tracked FV434 Mk 1 and 1/1.

REASON FOR MODIFICATION

Code 6 - Change in build standard

PRIORITY

Routine.

ESTIMATED TIME REQUIRED

Embodiment:

1.5 man-hours.

IMPLEMENTATION

This Modification Instruction is to be implemented by units authorized to undertake level 2 maintenance and above.



Action required by

7

- 7.1 Holding units and establishments:
 - 7.1.1 Examine equipment documents to see if this instruction is applicable and where necessary, demand modification kit.
 - 7.1.2 On receipt of the stores, request level 2 maintenance to modify the equipment.
 - 7.1.3 Record the Modification Instruction subject and AESP details in the equipment documents (AB 413).
- 7.2 Units authorised to complete level 2 maintenance and above:
 - 7.2.1 When requested by users, obtain the items listed in Para Rand carry out this instruction, by contacting LASS IPT (9)43-11 crt 5725/3668
 - 7.2.2 Record completion details of Modification Instruction in equipment documents (AB 413).
- 7.3 All recipients of this instruction: Add particulars to AESP 2350-T-252-811 Mod Instr Index.

Stores, tools and equipment

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

8.1	Stores to be demanded. Requested from LASE IPT			
Item (1)	DMC (2)	NSN/Part No. (3)	Designation (4)	Qty (5)
1		FV2249270	Blanking plate	1
8.2	Stores to b	e removed and reduced to s	scrap.	
Item	DMC	NSN/Part No.	Designation	Qty
(1)	(2)	(3)	(4)	(5)
2		FV2218881	Antenna mast assy.	1

Sequence of operations

WARNINGS

- (1) PERSONAL INJURY. SERIOUS INJURY CAN OCCUR FROM METAL DEBRIS AND ARC WELDING DURING THE PROCEDURES DESCRIBED IN THIS REPAIR SCHEME. THE APPROPRIATE CLOTHING AND EYE PROTECTION MUST BE WORN THROUGHOUT.
- (2) HEALTH HAZARD. 2 PAC PAINT IS HAZARDOUS TO HEALTH. CONSULT THE SAFETY DATA SHEET FOR 2 PAC PAINT. DIRECTIONS FOR THE REMOVAL AND APPLICATION OF 2 PAC PAINT IS TO BE ADHERED TO.
- 9 Embody this Modification kit as follows:
 - 9.1 Ensure the vehicle is parked on firm level ground with the parking brake applied and the vehicle master switch in the 'OFF' position.
 - 9.2 If fitted remove the antenna mount from the aerial base, disconnect and withdraw back into the vehicle any cables fitted to the aerial base to be modified.



- 9.3 Ensure the surface on which the repair is to be affected is prepared as detailed in AESP 0200-A-221-013.
- 9.4 Remove the LH antenna mount (item 2) complete and remove all previous weld material flush to the vehicle hull.
- 9.5 Weld in the blanking plate (item 1) as shown in Fig 1 to DEF STAN 03-34 in accordance with AESP 0200-A-201-013.
- 9.6 Restore the paint finish in accordance with AESP 0200-A-221-013.

Testing after embodiment

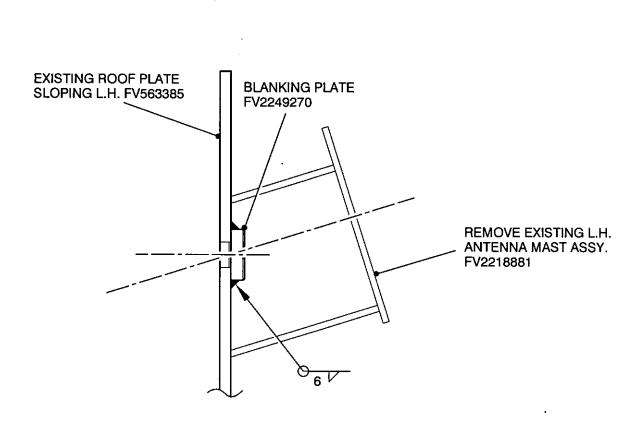
10 Nil.

EFFECT ON WEIGHT

11 Negligible.

PUBLICATION AMENDMENT

12 Modification Instruction No. 3 is cancelled.



430/80005

Fig 1 LH Antenna mount and blanking plate



