

AMENDMENT RECORD

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PREFACE

Sponsor:
DGES(A)
File ref:

Publication Agency:
DLO Chertsey
Project No: 97/41c/217(248)
File ref: Admin 281

INTRODUCTION

- 1 The Publication Agency is responsible for the allocation of instruction numbers.
- 2 All general instructions as issued are to be recorded in manuscript by the recipient on the Numerical General 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.
- 4 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

GENERAL INSTRUCTION INDEX

SI: Servicing Instructions STI: Special Technical Instructions

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1		EMER TV E 109/4 Misc Instr No. 1 to No. 8	
2		FRONT HATCH HINGE REPLACEMENT	43/0/0032
3		DAMPER MOUNTING BRACKET REPAIR SCHEME	43/4/0012
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GENERAL INSTRUCTION INDEX (continued)

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COMMENT(S) ON AESP*

To: DLO DTS 3.2
Ha-Ha Road
Woolwich
LONDON SE18 4QF

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

Sender's Reference	BIN Number	Date
AESP Title:		
Chapter(s)/Instruction	Page(s)/Paragraph(s)	
If you require more space, please use the reverse of this form or a separate piece of paper. Comment(s):		

Signed: Telephone No:

Name (Capitals): Rank/Grade: Date:

✂

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Your reference Dated:

Action is being taken to:	Tick		Tick
Issue a revised/amended AESP		Under investigation	
Incorporate comment(s) in future amendments		No action required	
Remarks			

Signed: Telephone No:

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* AESP or EMER

AESP Form 10 (Issue 4.2 dated Apr 00)

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

GENERAL INSTRUCTION NO. 1

Sponsor:
DGES(A)

Publication Agency:
DLO Chertsey
Project No: 97/41c/217(248)
File ref: Admin 281

AMENDMENT RECORD

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SUBJECT: EMER TV E 109/4 Miscellaneous Instructions No. 1 to No. 8

INTRODUCTION

1

1.1 The EMER decade (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 General Instruction No. 1 is a complete issue of EMER TV E 109/4 Miscellaneous Instructions No.1 to No.8 issued under the EMER system.

1.3 Subsequent Miscellaneous Instructions will be issued in AESP format as General Instructions, starting with Gen Instr No. 2.

1.4 Where the EMER TV E 109/4 Miscellaneous Instructions refer to an associated EMER TV E 100 series publication, this information will be incorporated within the appropriate Miscellaneous Instruction.

1.5 Remove and retain EMER TV E 109/4 Miscellaneous Instructions No. 1 to No. 8 from the EMER folder.

1.6 Place this instruction in front of Miscellaneous Instructions removed at Sub-Para 1.5.

1.7 Open a new folder numbered 2350-T-252-821 and titled Carrier, Maintenance, Full Tracked, Mks 1 and 1/1 (FV434). General Instructions, and place the EMER TV E 109/4 Miscellaneous Instructions within.

1.8 Limitations on use of equipment: As detailed within each Miscellaneous Instruction.

APPLICABILITY

2 FV434.

REASON FOR MODIFICATION

3 Code 6 - publications changed from EMER to AESP format.

PRIORITY

4 Routine.

TABLE 1 GENERAL INSTRUCTION INDEX

Priority (Pty) is shown as:

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

Instr No. (1)	Issue No. (2)	Pages (3)	Pty (4)	Subject (5)	Approval No./ Remarks (6)
1	1	1-2	R/B	Stowage.	29598
2	1	1	R/U	Front L/H track guard.	29694
3	1	1	R/U	Sealing of hull rear bulkhead access cover plate.	29677
4	1	1-4	R/U	Modification status on entry to service.	
5	1	1-2	R/U	Introduction of new type filter for HIAB crane.	30957
6	1	1-2	R/U	Hydraulic pump mounting bush.	43/4/0004
7	1	1-5	I	Thermal identity beacon.	
8	1	1-6	R	Towing eye reclamation.	42/0/0005

PUBLICATION AMENDMENTS**NOTE**

Necessary amendments will be issued separately.

5 Nil.

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

TRACKED VEHICLES
E 109/4

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

TECHNICAL HANDBOOK - MISCELLANEOUS INSTRUCTION INDEX

- Notes: 1. This Issue 2, Pages 1-2 supersedes Issue 1, 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	c	d	e	f	
1*	1	1-2	R/B	Stowage	29598	
2*	1	1	R/U	Front l.h. track guard	29694	
3*	1	1	R/U	Sealing of hull rear bulkhead access coverplate	29677	
4*	1	1-4	R/U	Modification status on entry to service		
5	1	1-2	R/U	Introduction of new type filter for HIAB crane	30957	
6	1	1-2	R/U	Hydraulic pump mounting bush	43/4/0004.	

INSTR NO	ISSUE NO	PAGES	PRIORITY	SUBJECT	APPROVAL NO	REMARKS
a	b	c	d	e	f	
7	1	1-5	I	THORAL IDENTITY BEACON 434		
8	1	1-6	R	TOWING EYE RECLAMATION AMOT - JUL 98	42/0/0005	
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CARRIER, MAINTENANCE, FULL TRACKED, FV 434, MK 1 AND 1/1

TECHNICAL HANDBOOK - MISCELLANEOUS INSTRUCTION

SUB-TITLE: Stowage.

1. Introduction

To improve sealing of rear locker door handle a grommet is to be fitted.

2. Item affected: Rear locker door handle.

3. Action required by:

Units authorized to carry out base repairs

a. During overhaul demand the item required and carry out this instruction.

b. Enter details in equipment log book.

TRACKED VEHICLES
E 109/4 Misc Instr No 1

**ELECTRICAL AND MECHANICAL
ENGINEERING REGULATIONS**

4. Stores to be demanded:-

<u>VAOS Section</u>	<u>Part No</u>	<u>Designation</u>	<u>Qty per veh</u>
LV6ME1	5325-99-942-3468	Grommet	1

5. Detail:-

During overhaul, fit the grommet listed in para 4, to rear locker door handle (Refer to User Handbook, Army Code No 14811, Fig 16, item 10).

FVRDE Approval 29598
Def and Mods 73813

END

CARRIER, MAINTENANCE, FULL TRACKED, FV 434

TECHNICAL HANDBOOK - MISCELLANEOUS INSTRUCTION

SUB-TITLE: Front l.h. track guard

1. Introduction

To ensure effective fastening of l.h. front side plate LV9 ACR/2510-99-865-6534 (FV 485852) when new type thicker front top plate LV9 ACR/2510-99-803-4319 (FV 611722) is found fitted, longer bolts are to be introduced.

2. Item affected: Plate, track guard, front, left, LV9 ACR/2510-99-865-6534 (FV 485852).

3. Action required by:-

a. Units authorized to carry out unit, field or base repairs

(1) When new type top plate LV9 ACR 2510-99-803-4319 (FV 611722) is only secured by the 1/4 in. x 1/2 in. long UNF bolts of front side plate LV9 ACR/2510-99-865-6534 (FV 485852), demand three 1/4 in. x 5/8 in. long UNF bolts, G1 5305-99-941-0411, and on receipt carry out this instruction.

Note: New type top plate LV9 ACR/2510-99-803-4319 (FV 611722) is of 8 s.w.g. (0.16 in.). Old type top plate LV9 ACR/2510-99-865-6532 (FV 485846) is of 16 s.w.g. (0.064 in.).

(2) Record completion in equipment log book.

4. Detail

a. Remove and discard the three 1/4 in. UNF x 1/2 in. long bolts (G1 5305-99-941-0410) tack welded to l.h. front side plate LV9 ACR/2510-99-865-6534 (FV 485852).

b. Fit the three 1/4 in. UNF x 5/8 in. long bolts (G1 5305-99-941-0411) listed in para 3.a.(1), in their place and secure by tack weld.

FVRDE Approval 29694
Def and Mods 73824

END

CARRIER, MAINTENANCE, FULL TRACKED, FV 434

(Code No 0070.0140)

TECHNICAL HANDBOOK - MISCELLANEOUS INSTRUCTION

SUB-TITLE: Sealing of hull rear bulkhead access cover plate

1. Introduction

To ensure an effective seal, an additional rubber gasket is to be fitted.

2. Item affected: Seal sheet rubber FV 510548.

3. Action required by units authorized to carry out unit, field or base repairs

When rear bulkhead access cover plate is removed, or during overhaul, carry out this instruction.

4. Stores to be obtained locally

<u>VAOS</u> <u>Section</u>	<u>Part No</u>	<u>Designation</u>	<u>Qty</u> <u>per veh</u>
H9	5330-99-120-7071	Sheet rubber, neoprene 1/8 in. thick	as reqd

5. Detail

Manufacture an additional rubber gasket for the rear bulkhead access cover plate, from the 1/8 in. neoprene rubber sheet, using the existing gasket as a pattern.

Notes: It is anticipated that a new 1/4 in. thick gasket will be introduced by Dec 69. The full designation will be as follows: LV9/ACR 2510-99-806-9166 Gasket, rubber irregular shape 1/4 in. thick, with eight holes.

FVRDE Approval 29677
Def and Mods 73823

END

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CARRIER, MAINTENANCE, FULL TRACKED, FV 434

Code 0070.0140

TECHNICAL HANDBOOK - MISCELLANEOUS INSTRUCTION

SUMMARY

1. This instruction describes the method whereby the Service is informed of the Modification State of vehicles on entry.
2. Item affected: Army Book 413.
3. Action required: For information only.

DETAIL

- a. When new vehicles enter the Service they are allotted a type letter to indicate the modifications which should have been embodied during production. No vehicle will necessarily be 'true to type' and therefore to ascertain the true modification state of a vehicle, reference should be made to the type letter and to the AB 413. The AB 413 will list those modifications applicable to the type which HAVE NOT been incorporated and those modifications additional to the type which HAVE been incorporated.
- b. Type letters are a special coding system and may only be quoted in the Service when the modification state of vehicles is under discussion.
- c. The first vehicles off production should have incorporated the modifications specified in Table 1. These vehicles were allotted type letter 'A'.

d. As production proceeded the additional modifications specified in Table 2 were introduced and the type letter advanced to 'B'.

e. Details of later type letters will be published as and when they are introduced.

Table 1 - Type 'A' Modifications

Approval No	Tkd Veh Instr No	Description of Modifications
28110		Modification to radio equipment support bracket
29309		Restrainer added to periscope
29354		Painting of ventilation ducting
29356		Addition of mudflap to rear track guards
29384		Access plate added to engine cover for gov dipstick
29411		Introduction of flat gasket to replace 'U' seal in smoke discharger terminal box
29423		Track adjuster and clearance increased
29428		Modification to accept cold starting kit
29431		Addition of bosses for electrical equipment, rear load compartment
29432		Modification to studs and bosses of hull plates for electrical installation
29433		Modification to brkts, studs and bosses for electrical installation
29438		Stiffening channel added to locker
29439		Modification to bosses for heater control box mtg
29440		Modification to suit installation of revised hydr manifold
29441		Modification to improve clearance of lock-out damper units
29442		Addition to harness item list, due to deletion of steering unit oil temperature switch
29443		Re-location of lock-out suspension pipes
29444		Addition of pipe lengths
29445		Various modifications to assist production
29446		Introduction of clamp bracket to crane
29465		Addition of headrest and harness for crew members
29469		Addition of fittings to accomodate stowage items
29470		To facilitate production, bulkhead duct now made in three parts
29474		Paint specification of fuel tank changed
29477		Modification to headrest of l.h. crew seat
29479		Modification to armoured outlet

Table 1 - (cont)

Approval No	Tkd Veh Instr No	Description of Modifications
29503		Introduction of rear locker items for stowage of welding kit
29504		Minor modification to headrest and seat harness mtg items
29505		Repositioning of hull r.h. roof plate breather pipe
29506		Addition of bosses and studs for No 2 connector box
29514		Wiring changes to duplicate engine switchboard
29515		Change to fixing points for commander's seat harness
29516		Additional items added to crane and ventilation ducting
29517		Minor changes to crane boom attachment bracket
29518		Stud position changed to enable fuel lines to be fastened to bulkhead, and fuel tank pads changed

Table 2 - Type 'B' Modifications

29359	E 107 Mod Instr 11	Position of key tube earth socket changed
29527		Introduction of new type harnesses
29548		Modification to battery cover stowage
29553		Introduction of new type heater harness
29567		Holes elongated on crane mtg base
29579		Introduction of new type boards for work bench
29591	E 107 Mod Instr 1	Deletion of shims from track adjuster pivot arm
29597		Addition of sealing welds to stowage brackets
29598	E.109/4 Misc Instr 1	Addition of grommet to rear door handle
29604		Modification to fuse box tray, to improve clamping of fuses
29605		Minor modifications to internal ventilation ducting
29608		Modification to floor plate, lockers and studs to facilitate assembly
29609		Addition of earth braid to radio harness
29618		Modification to fixing lug
29625		Modification to louvre torsion bar bracket

Table 2 - (cont)

Approval No	Tkd Veh Instr No	Description of Modifications
29637		Introduction of improved design misc hull fittings
29638	E 107/4 Mod Instr 4	Addition of facing plates to crane mtg channels
29639		Introduction of elastic cords to protect pressure hoses
29642		Introduction of tapped pads in place of studs for seat back rest
29643		Introduction of guard for lockout lever
29646	E 107/4 Mod Instr 3	Minor stowage and dimensional changes
29677	E 109/4 Misc Instr 3	Sealing of hull rear bulkhead access cover plate
29678		Modification to rear bulkhead plate and catwalk support bracket
29684		Fuel tank vent pipe reshaped
29685		Addition of pipe clip to crane

Table 3 - Type 'C' Modifications

29498		Ident labels replace colour code on power pack fuel lines
29543	E 107/4 Mod Instr 2	Improved stowage layout
29551		Modification to final drive driving flange and alignment mandril
29566		Improved clearance to driver's seat operating lever
29590		Introduction of No 4, Mk 1 smoke discharger junct box
29599		Introduction of improved flotation screen
29622		Minor modifications to various items in crew compartment
29641		Deletion of stowage brackets for vice
29660		Addition of clip to Pyrene equipment
29662		Introduction of stiffening angle to deflector board
29663		Facility for heater harness stowage
29668	E 109/4 Misc Instr 2	Introduction of new type stillage planks
29682		Improved stowage for crane and jack
29694		Introduction of longer bolts to suit new type l.h. front hull side plate
29696		Modification to clamp bracket on crane
29713		Number of track links reduced to 90

Def and Mods 73827

END

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CARRIER, MAINTENANCE, FULL TRACKED (FV434)

TECHNICAL HANDBOOK - MISCELLANEOUS INSTRUCTION

SUBJECT: Introduction of new type filter for HLAB crane

INTRODUCTION

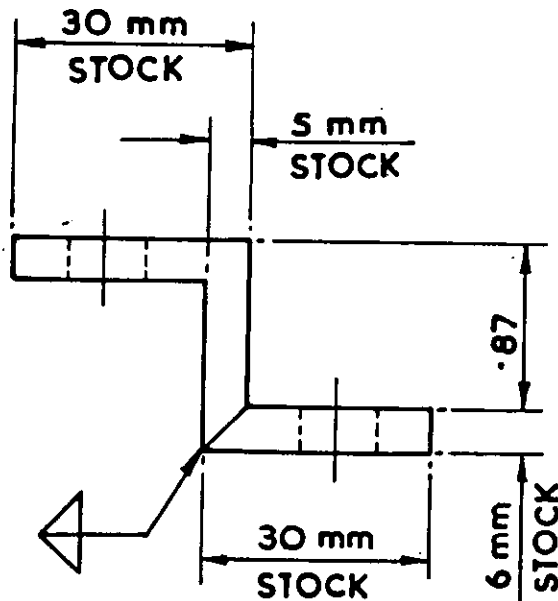
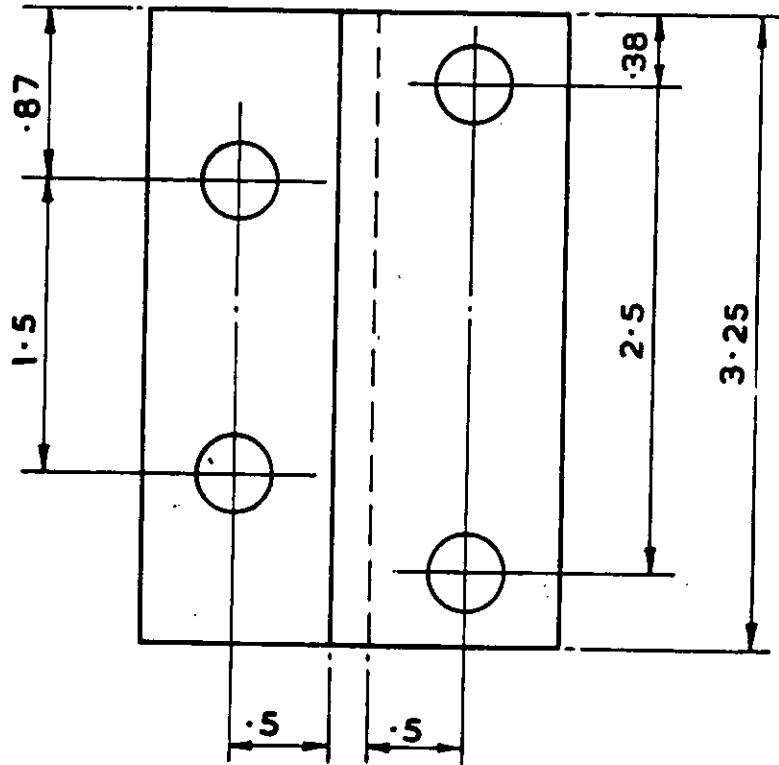
1. The original oil filter is now out of production and is replaced by oil filter Part No 6MT1/4330-99-524-2681.

Action required by:

2. Units authorized to carry out unit, field and base repairs

a. When the new type oil filter Part No 6MT1/4330-99-524-2681 is fitted, a bracket is to be manufactured as detailed in Fig 1 using local stores.

b. The bracket is to be fitted on to existing filter securing studs and the new filter on to the bracket.



MAT:-
STEEL ANGLE
AND FLAT TO BS 4360
GRADE 43A
TOLS ± 0.01
DIMS IN INCHES & mm

WELDING SYMBOLS TO BS 499
WELD TO EMER WKSP O360

Fig 1 - Oil, filter bracket

V4521/1

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

TECHNICAL HANDBOOK - MISCELLANEOUS INSTRUCTION

SUBJECT: Hydraulic pump mounting bush

(Approval No 43/4/0004)

INTRODUCTION

1

1.1 Bushes have been introduced to prevent rotation/misalignment of the hydraulic pump due to the increase in size of the mounting flange holes.

1.2 This instruction details the stores required to fit the later type pump.

APPLICABILITY

2 FV 434 Mk 1 and Mk1/1 (Code No 0070-0140, 0070-0141, 0070-3000 and 0070-3001) held by user units.

Action required by

3

3.1 Units and establishments holding equipment.

3.1.1 Record the subject EMER number in equipment documents.

3.2 Units authorized to carry out levels 2, 3 and 4 maintenance.

3.2.1 When the larger holed hydraulic pump requires fitting, carry out this instruction.

3.3 All recipients of this EMER add particulars to Tkd Veh E109/4 Misc Instr Index.

Stores, Tools and Equipment

4

4.1 Items to be obtained locally

Item No	DMC	NSN/Part No	Designation	Qty per eqpt
1	G2	4710-99-965-6131	Pipe steel 8 mm OD x 0.71 mm wall thickness	As reqd

Sequence of operations

NOTE

The item numbers quoted in brackets refer to those listed in Para 4 of this instruction.

5 Carry out the modification as follows:

5.1 On receipt of latest pump supplied with 8.5 mm mounting holes it will be necessary to fit bushes (FV952597) to prevent rotation and misalignment. Cut bushes (quantity 4) 18.5 mm in length from (Item 1).

5.2 Assemble pump and bushes to clutch housing.

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

TECHNICAL HANDBOOK - MISCELLANEOUS INSTRUCTIONS

SUBJECT: Towing eye reclamation.

(Approval No. MAE 42/0/0005)

INTRODUCTION

1 This instruction introduces a method of reclamation for front and rear worn/damaged towing brackets:

- 1.1 Limitation on use of equipment. Nil.

APPLICABILITY

2

2.1 Fitting to subject vehicles Code No. 0070-0140, 0070-0141, 0070-3000 and 0070-3001 held by user units.

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

REASON FOR MISCELLANEOUS INSTRUCTION

3 Code 4 - to improve maintainability.

PRIORITY

4 Routine.

ESTIMATED TIME REQUIRED

5

5.1 Embodiment: 3.6 man-hour.

5.2 Testing: 0.5 man-hours.

5.3 Manufacturing: 0.5 man-hours.

IMPLEMENTATION PLAN

6

6.1 This instruction is to be implemented by:

6.1.1 Units authorised to carry out levels 3 and 4 maintenance.

Action required by

7

7.1 Units and establishments holding equipment:

7.1.1 Examine equipment to see if this instruction is applicable.

7.1.2 Request REME to carry out this instruction.

7.2 Units authorized to carry out levels 3 and 4 maintenance:

7.2.1 Carry out this instruction when requested by the holding unit, or during overhaul.

7.2.2 Upon completion, record details of this instruction in equipment documents.

STORES, TOOLS AND EQUIPMENT

8

8.1 Stores to be demanded:

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

Item No.	DMC	NSN/Part No.	Designation	Qty per eqpt
1	9MCV	2510-99-660-8528	Bush towing eye (1 in.)	As reqd
2	9ACR	2510-99-838-1429 FV952583	Towing eye assy	As reqd

Sequence of operations

9 Carry out this instruction as follows:

NOTE

Refer to EMER Workshop O 360 Chapter 12 for welding ferrous armour.

9.1 When the front towing eyes are within repairable limits:

9.1.1 Bore eyes to dimensions shown in Fig 1 and tack weld in each new bush in eight places as shown.

avoid overheating of armour plate.

on Destructive Testing (NDT), dye penetrant,

degrees C.

Make the initial root weld across the top of the squareness. Hammer eyes flat to plate.

position across the bottom of the towing

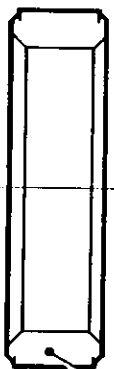
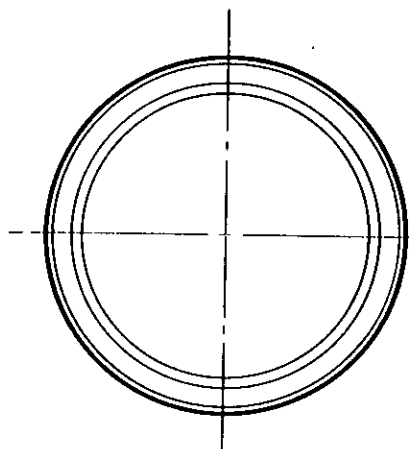
the vertical welds. Alternate from side to side to avoid distortion.

Hammer eyes with capping passes.

The welds and plates are crack free.

able limits:

and tack weld each new bush in eight

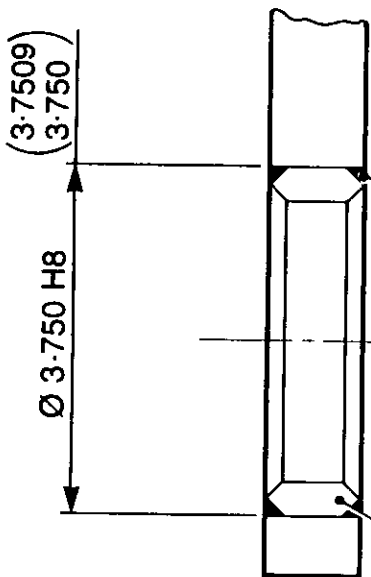


LOWER FRONT PLATE

1 BUSH FV952585

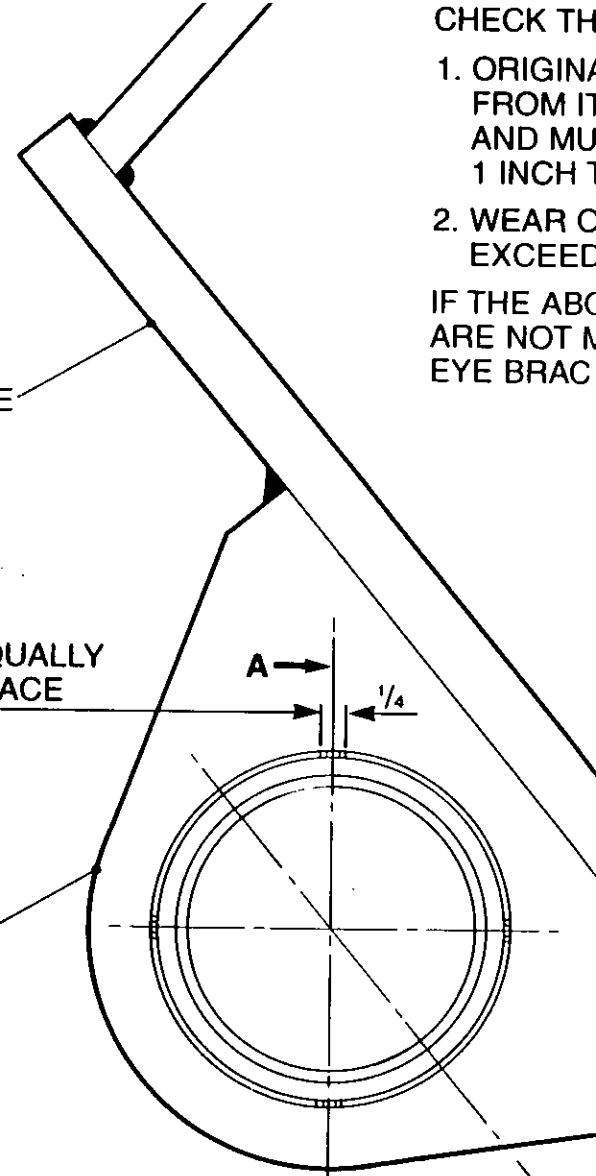
EQUALLY SPACE

SECTION A-A



TOWING EYE
2-OFF PER
VEHICLE

4 PLACES



A → 1/4

A →

CHECK THE
1. ORIGINAL
FROM IT
AND MU
1 INCH T
2. WEAR O
EXCEED
IF THE ABC
ARE NOT M
EYE BRAC

RECLAMATION PROCEDURE:

- 1 DRILL OUT TOWING EYE AS SHOWN
- 2 ASSEMBLE BUSH - DETAIL 1

SPECIFICATIONS

WELD TO MVEE SPEC 1031

FINISH TO MVEE SPECIFIC

- 9.2 When one, or both front towing eyes are outside repairable limits:
- 9.2.1 Cut off both front towing eyes to within 6 mm of armour plate.
 - 9.2.2 Remove remaining metal by grinding, avoid overheating of armour plate.
 - 9.2.3 Finish smooth armour surface and use Non Destructive Testing (NDT), dye penetrant, to establish that no surface cracks are present.
 - 9.2.4 Mark out position of new towing eyes.
 - 9.2.5 Check steel temperatures are above 12 degrees C.
 - 9.2.6 Using a 3.25 mm diameter electrode make the initial root weld across the top of the towing eyes, inspect for accuracy of position and squareness. Hammer eyes flat to plate.
 - 9.2.7 Make the next root weld in the overhead position across the bottom of the towing eyes.
 - 9.2.8 Using a 5 mm diameter electrode make the vertical welds. Alternate from side to side completing no more than 2 in. at a time, to minimise distortion.
 - 9.2.9 Complete welds on top and bottom of towing eyes with capping passes.
 - 9.2.10 Inspect after 72 hours with NDT that the welds and plates are crack free.
- 9.3 When one or both rear towing eyes are in repairable limits:
- 9.3.1 Bore eyes to dimensions shown in Fig 2, and tack weld each new bush in eight places as shown.

TESTING AFTER EMBODIMENT

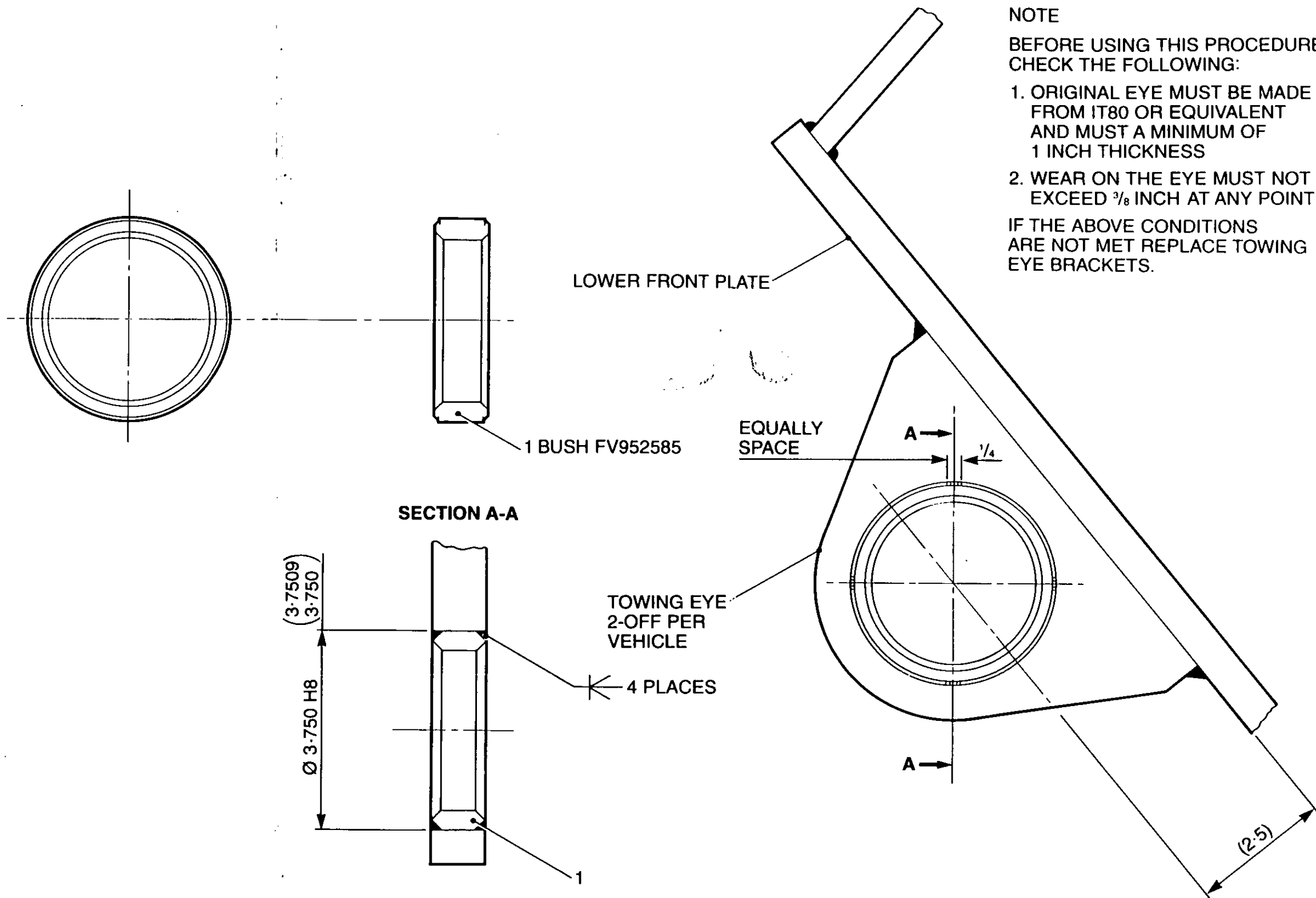
10 Nil.

EFFECT ON WEIGHT

11 Negligible.

PUBLICATION AMENDMENTS

12 Nil.



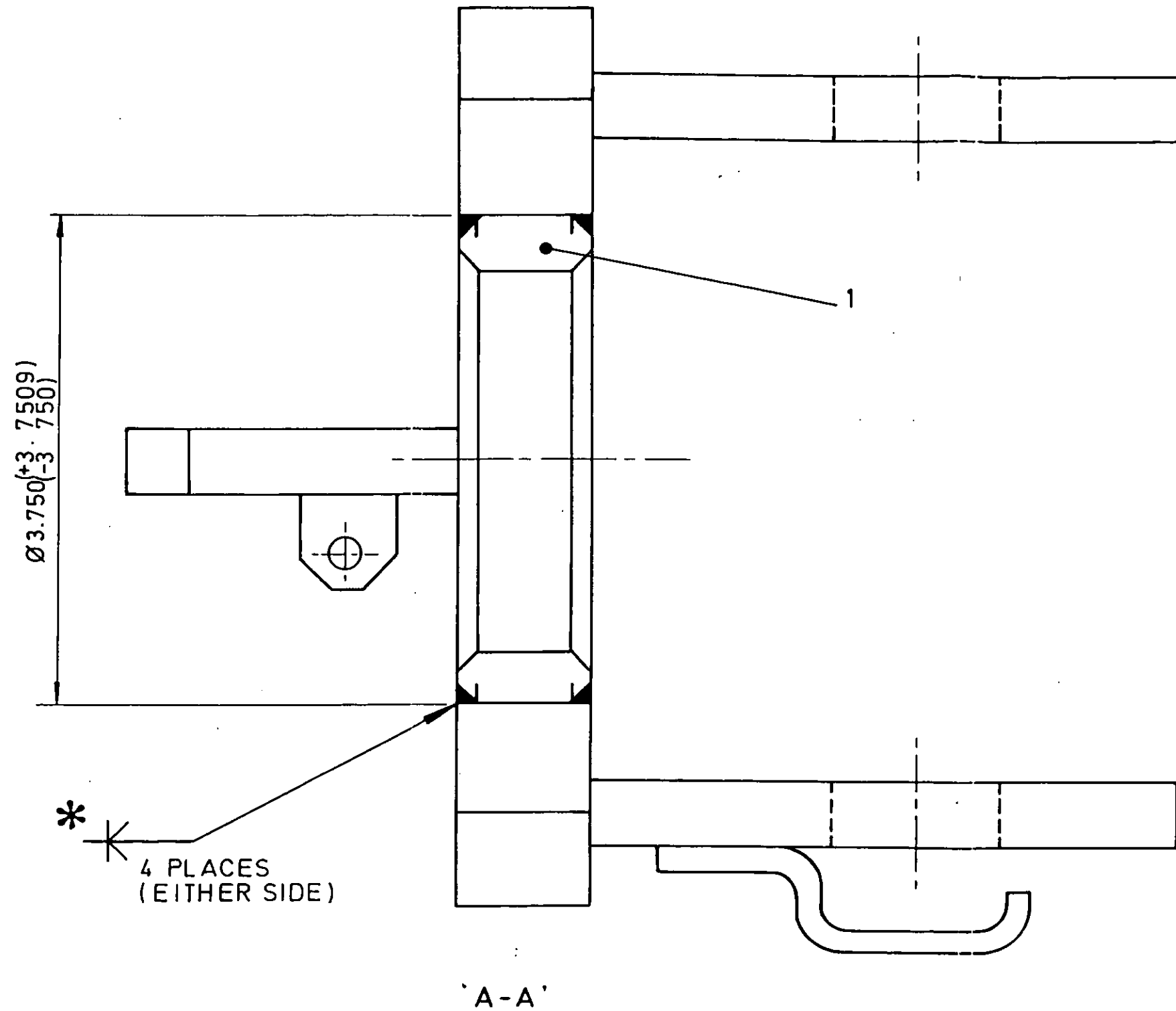
NOTE
BEFORE USING THIS PROCEDURE
CHECK THE FOLLOWING:
1. ORIGINAL EYE MUST BE MADE
FROM IT80 OR EQUIVALENT
AND MUST A MINIMUM OF
1 INCH THICKNESS
2. WEAR ON THE EYE MUST NOT
EXCEED $\frac{3}{8}$ INCH AT ANY POINT
IF THE ABOVE CONDITIONS
ARE NOT MET REPLACE TOWING
EYE BRACKETS.

RECLAMATION PROCEDURE:
1. DRILL OUT TOWING EYE AS SHOWN
2. ASSEMBLE BUSH - DETAIL 1
3. TACK WELD TO SECURE

SPECIFICATIONS
WELD TO MVEE SPEC 1031
FINISH TO MVEE SPECIFICATION 666 PART 2-3
COLOUR AS PER CONTRACT

Fig 1 Front towing eye

V13613/2



NOTE :-
TACK WELD TO SECURE AT *

Fig 2 Rear towing eye

V13612/1

CARRIER, FULL TRACKED, FV 434 MK 1 AND 1/1
GENERAL INSTRUCTION NO. 2

OLIS
CMRS 15553
18 JUL 2001
LASS

Sponsor:
DGES(L)

Publication Agency:
DLO Chertsey
Project No: S01008 (368)
File ref:

AMENDMENT RECORD

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

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

SUBJECT: Front hatch hinge replacement
(Approval No. 43/0/0032)

INTRODUCTION

- 1 This instruction introduces a method of replacing the front hatch hinges.
 - 1.1 Limitations on use of equipment. Nil.

APPLICABILITY

- 2 All FV 434 vehicles when the front hatch hinges require replacement.
 - 2.1 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: 2.00 man-hours.

MODIFICATION IMPLEMENTATION PLAN

- 6
 - 6.1 This instruction is to be implemented by Units authorized to carry out levels 3 or 4 maintenance
 - 6.2 Associated instructions. Nil

Action required by

7

7.1 Units and establishments holding equipment:

7.1.1 Examine equipment documents to see if modification is applicable.

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

7.2.1 When requested by units or during overhaul of equipment 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-252-821 Gen Instr Index.**Stores, tools and equipment**

8

8.1 Stores to be demanded:

8.1.1 The following items are to be demanded, as required, quoting this instruction as the authority.

Item No.	DMC	NSN/Part No.	Designation	Qty per eqpt
1	9ACR	2540-99-728-2035	Hinge, front access cover, hatch half.	2
2	9ACR	2540-99-831-1116	Hinge, front access cover, hull half.	2
3	9ACR	5315-99-804-5525	Pin.	2

Repair schemes

NOTE

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

9 Carry out this instruction, as follows, using items 1, 2 and 3 as required:

9.1 To replace the front access cover hinges (hatch), follow the repair scheme detailed at Fig 1.

or

9.2 To replace the front access cover hinges (hull), follow the repair scheme detailed at Fig 2.

or

9.3 To replace the front access cover hinges (hull and hatch), follow the repair scheme detailed at Fig 3, followed by the repair scheme detailed at Fig 1.

TESTING AFTER EMBODIMENT

10 Check front access hatch to ensure that it opens, closes and seals correctly.

EFFECT ON WEIGHT

11 Negligible.

PUBLICATION AMENDMENTS

NOTE

Necessary amendments will be issued separately.

12 Nil.

NOTES

- (1) This scheme is to be used when hinges on front access cover assembly are replaced.
- (2) Welding is to be carried out to EMER Wksp O 360 Chap 12, using a 3.25 mm rod.
- (3) Before commencing with repair, remove front access cover from the vehicle.

- 1 Remove existing access cover hinges by gas cutting or gouging within 6 mm of armour plate.
- 2 Remove remaining metal by grinding. Avoid overheating of armour plate.
- 3 Finish smooth armour plate and use NDT (penetrant dye) to establish that no surface cracks are present.

NOTE

If cracks are present a separate repair procedure will be required.

- 4 Locate front access cover on vehicle and set to 3.8 mm from inside edge of protection strip and clamp in position.
- 5 Set first front access cover hinge to 1.2 mm from first hull hinge and align hole centres using hinge pin (item 3). Make initial root weld along bottom edge of hinge and cover.
- 6 Set second front access cover hinge to 1.2 mm from second hull hinge and align hole centres using hinge pin (item 3). Make initial root weld along bottom edge of hinge and cover.
- 7 Check accuracy of hinge for position and squareness and use hinge pin (item 3) to ensure clearance when pivoting. See detail 'B'.
- 8 Unclamp front access cover and remove from vehicle.
- 9 Complete welding of front access hinges as shown.
- 10 Inspect.
- 11 After 72 hours, check with NDT that welds and plates are crack free.
- 12 Finish to DEF STAN 03-32 Part 2, colour as per contract.

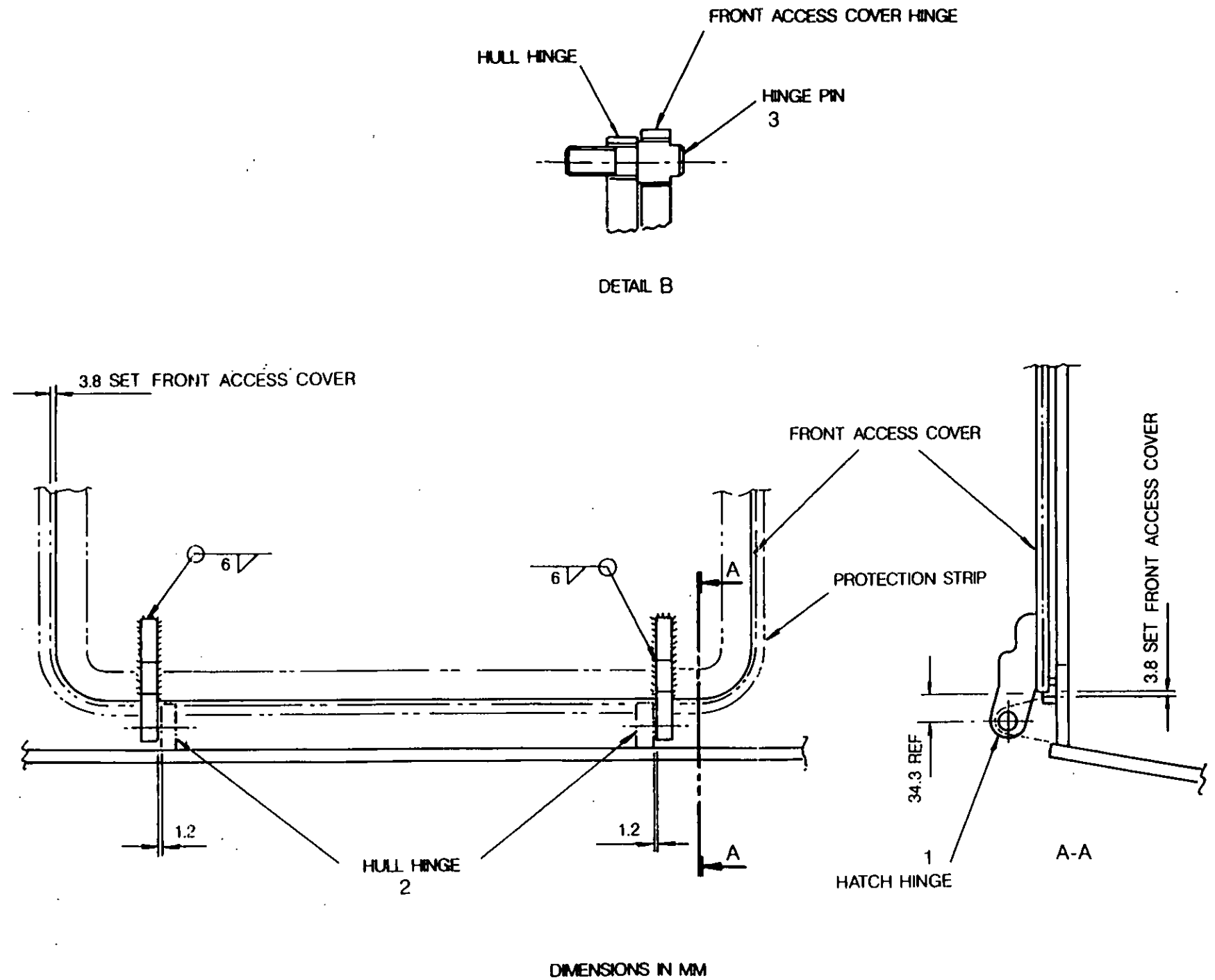


Fig 1 Replacement of the front access cover hinges (hatch), set from the hull hinges

V14677/3

UNRESTRICTED

NOTES

- (1) This scheme is to be used when only the hinges on the hull are to be replaced. Hull hinge positions are set from existing front access cover assembly hinges.
- (2) Welding is to be carried out to EMER Wksp O 360 Chap 12, using a 3.25 mm rod.
- (3) Before commencing with repair, remove front access cover from the vehicle.

- 1 Remove existing hull hinges by gas cutting or gouging to within 6 mm of armour plate. Avoid damaging protection strip.
- 2 Remove remaining metal by grinding. Avoid overheating of armour plate.
- 3 Finish smooth armour plate and protection strip and use NDT (penetrant dye) to establish that no surface cracks are present.

NOTE

If cracks are present a separate repair procedure will be required.

- 4 Replace weld removed from edge of protection strip during ops 1, 2 and 3 with a fillet weld as indicated on detail 'B'.
- 5 Locate front access cover on vehicle, set to 3.8 mm and clamp in position.
- 6 Set first hull hinge to 1.2 mm from first front access cover hinge and align holes centres using hinge pin (item 3). Make initial root weld along bottom edge of hinge and hull.
- 7 Set second hull hinge to 1.2 mm from second front access cover hinge and align holes using hinge pin (item 3). Make initial root weld along bottom edge of hinge and hull.
- 8 Check accuracy of hinge for position and squareness and use hinge pin (item 3) to ensure clearance when pivoting. See detail 'D'.
- 9 Unclamp front access cover and remove from vehicle.
- 10 Complete fillet welding of hull hinges as shown.
- 11 Replace weld removed from hull nose plates during ops 1, 2 and 3 with a fillet weld as indicated as detail 'C'.
- 12 Inspect.
- 13 After 72 hours, check that welds and plates are crack free.
- 14 Finish to Def Stan 03-32 Part 2, colour as per contract.

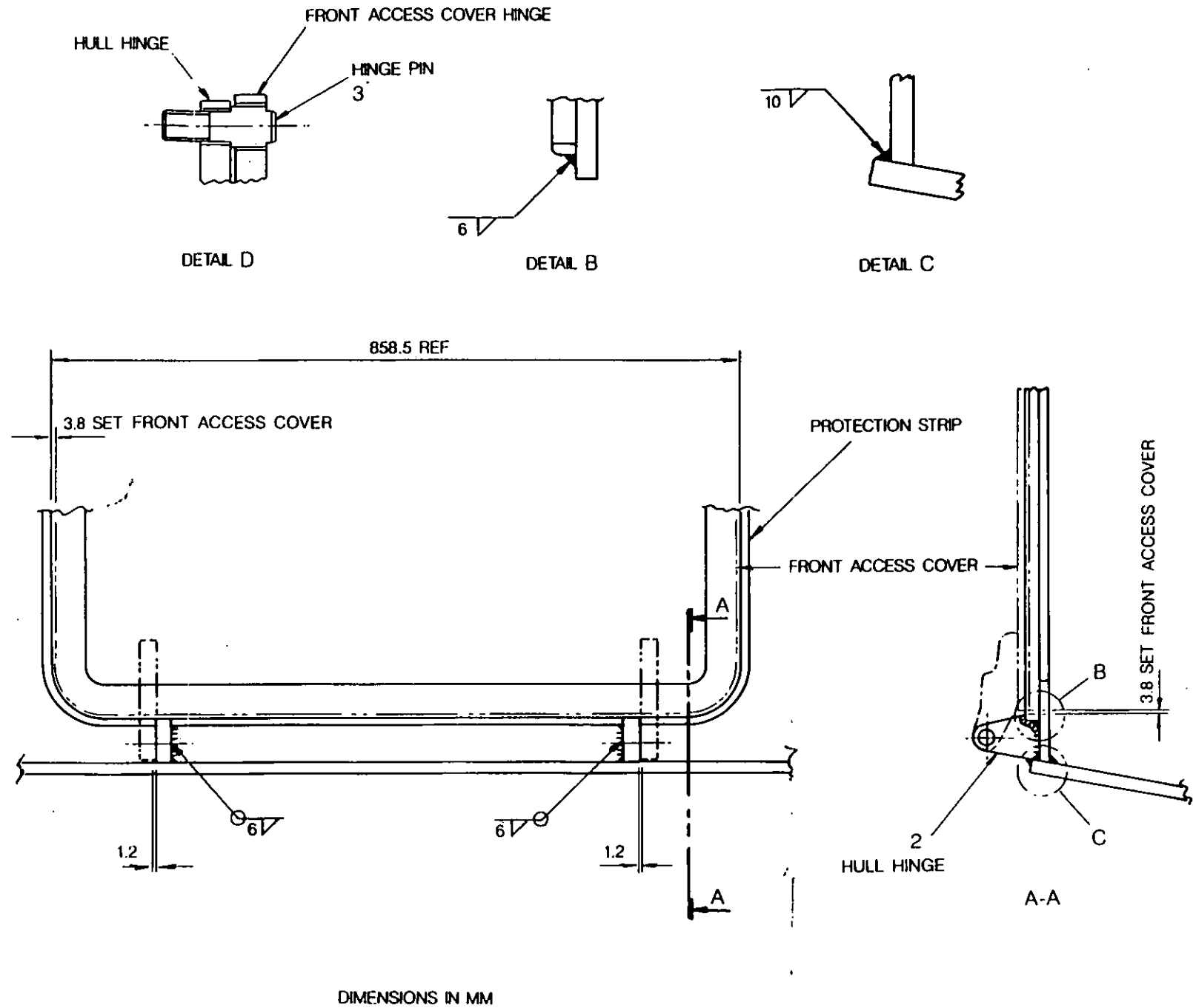


Fig 2 Replacement of the front access cover hinges (hull), set from the hatch hinges

V14677/2

UNRESTRICTED

NOTES

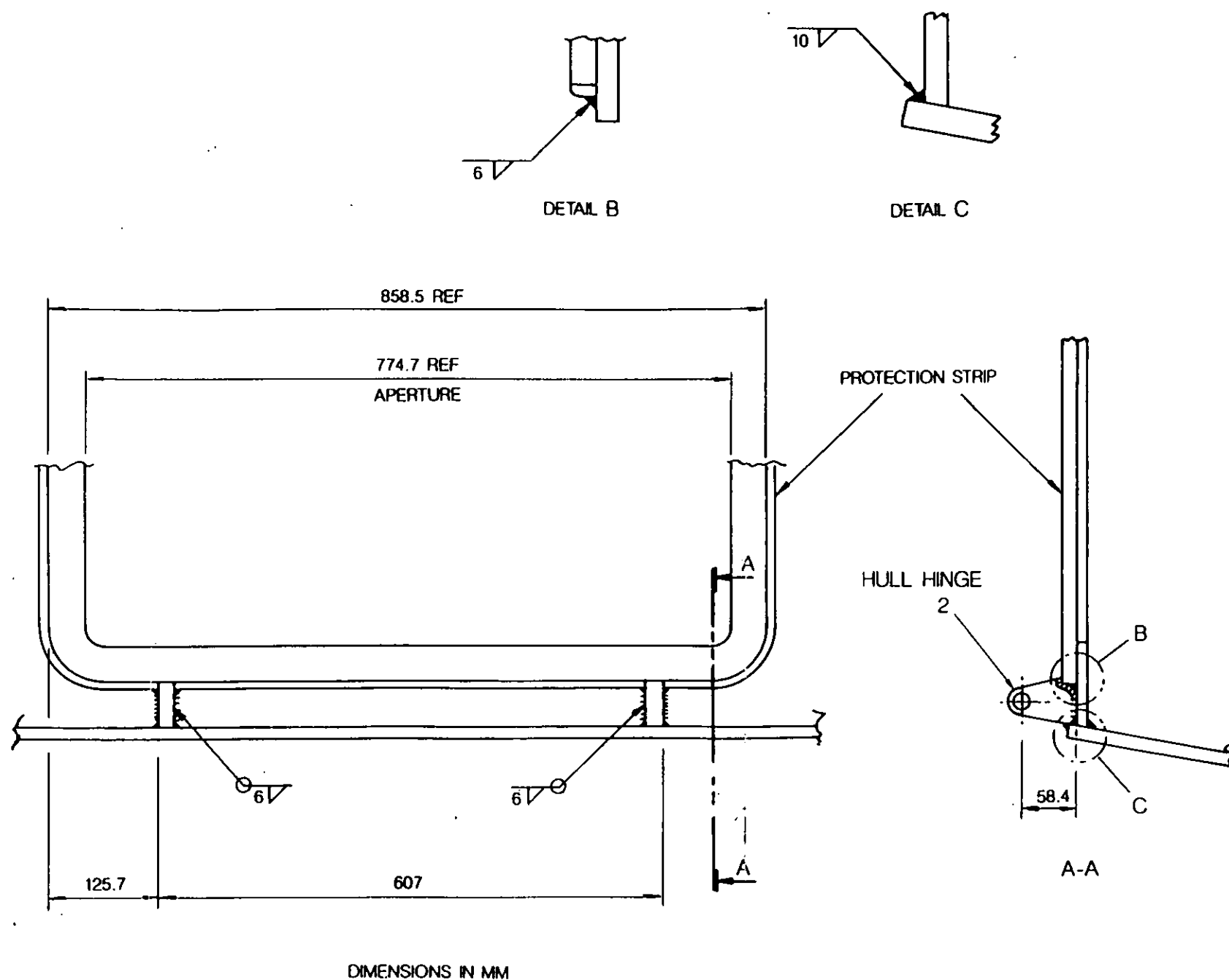
- (1) This scheme is to be used when the hinges on hull and front access cover are to be replaced. Use this scheme to replace the hull hinges, followed by the scheme detailed at Fig 1, to replace the front access cover hinges.
- (2) Welding is to be carried out to EMER Wksp O 360 Chap 12, using a 3.25 mm rod.
- (3) Before commencing with repair, remove front access cover from the vehicle.

- 1 Remove existing hull hinges by gas cutting or gouging to within 6 mm of armour plate. Avoid damaging protection strip.
- 2 Remove remaining metal by grinding. Avoid overheating of armour plate.
- 3 Finish smooth armour plate and protection strip and use NDT (penetrant dye) to establish that no surface cracks are present.

NOTE

If cracks are present a separate repair procedure will be required.

- 4 Replace weld removed from edge of protection strip during ops 1, 2 and 3 with a fillet weld as indicated at detail 'B'.
- 5 Set first hinge to 125.7 mm from inside of protection strip and make initial root weld along bottom edge of hinge.
- 6 Check accuracy of hinge for position and squareness .
- 7 Complete fillet welding of hinge as shown.
- 8 Set second hinge to 607 mm and make initial root weld along bottom edge of hinge.
- 9 Check accuracy of hinge for position and squareness .
- 10 Complete fillet welding of hinge as shown.
- 11 Replace weld removed from hull nose plates during ops 1, 2 and 3 with a fillet weld as indicated at detail 'C'.
- 12 Inspect.
- 13 After 72 hours, check with NDT that welds and plates are crack free.
- 14 Finish to Def Stan 03-32 Part 2, colour as per contract.



DIMENSIONS IN MM

Fig 3 Replacement of the front access cover hinges (hull), set to the original build standard



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

GENERAL INSTRUCTION NO. 3

Sponsor:
DGES(L)

Publication Agency:
DLO Chertsey
Project No: S01008(44)
File ref:

AMENDMENT RECORD

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

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

SUBJECT: Damper mounting bracket repair scheme
(Approval No. 43/4/0012)

INTRODUCTION

- 1 This instruction introduces wear limits and a repair scheme for the hull damper mounting brackets.
 - 1.1 Limitations on use of equipment. Nil.

APPLICABILITY

- 2 All FV 434 vehicles.

REASON FOR MODIFICATION

- 3 Code 4 - to improve maintainability.

PRIORITY

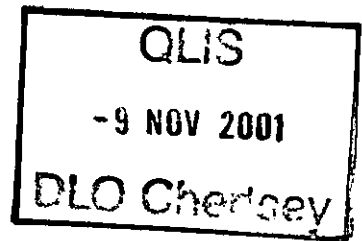
- 4 Routine.

ESTIMATED TIME REQUIRED

- 5 Embodiment: 2 man-hours.

MODIFICATION IMPLEMENTATION PLAN

- 6
 - 6.1 This instruction is to be implemented by Units authorized to carry out level 4 maintenance.
 - 6.2 Associated drawings. ABRO BOV 1622.



Action required by

7

7.1 Units and establishments holding equipment:

7.1.1 Record the AESP and instruction number in equipment documents.

7.2 Army units authorized to carry out level 4 maintenance:

7.2.1 When requested by units or during overhaul of equipment 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 2350-T-252-821 Instr Index.**Stores, tools and equipment**

8

8.1 Stores to be manufactured, as required:

Item No.	DMC	NSN/Part No.	Designation	Qty per eqpt
1		FV510185	Boss.	4
2		FV510183	Support plate LH.	2
3		FV510184	Support plate RH.	2
4		FV510191	Stiffener.	4

8.2 Stores to be obtained locally:

5	9ACR	5305-99-802-6687	Pin.	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 Inspect the threaded boss (item 1) for wear and damage, remove threaded boss and clean surrounding area by grinding or plasma cutting if required.

9.2 Manufacture new threaded boss (item 1).

9.3 Using pin (item 5) to assist in locating the threaded boss (item 1), weld in position.

NOTE

The repair below refers to the left hand support plate (item 2). This repair can also be applied to the right hand damper bracket support plate (item 3).

9.4 Inspect the support plate (item 2) and measure the hole diameter for damper mounting pin (item 5).

9.5 For diameters in excess of 1.505 in., but not exceeding 1.545 in., the hole can be weld repaired.

9.6 Weld fill the worn area of the support plate (item 2), and machine to size.

NOTE

The procedure detailed below refers to the replacement of the left hand support plate (item 2). This replacement procedure can also be applied to the right hand damper bracket support plates (item 3).

9.7 Inspect the support plate (item 2) and measure the hole diameter for damper mounting pin (item 5).

9.8 For diameters in excess of 1.545 in., the support plate (item 2) and stiffener (item 4) are to be replaced.

9.9 Remove the support plate (item 2) and stiffener (item 4) by grinding or plasma cutting.

9.10 Manufacture support plate (item 2) and stiffener (item 4).

9.11 Modify support plate (item 2) I.A.W drawing ABRO BOV 1622.

9.12 Using pin (item 5) to assist in locating the support plate (item 2). weld support plate (item 2) and stiffener (item 4) in position.

9.13 Repair paint finish to DTD 5555 and Def Stan 03-32.

TESTING AFTER EMBODIMENT

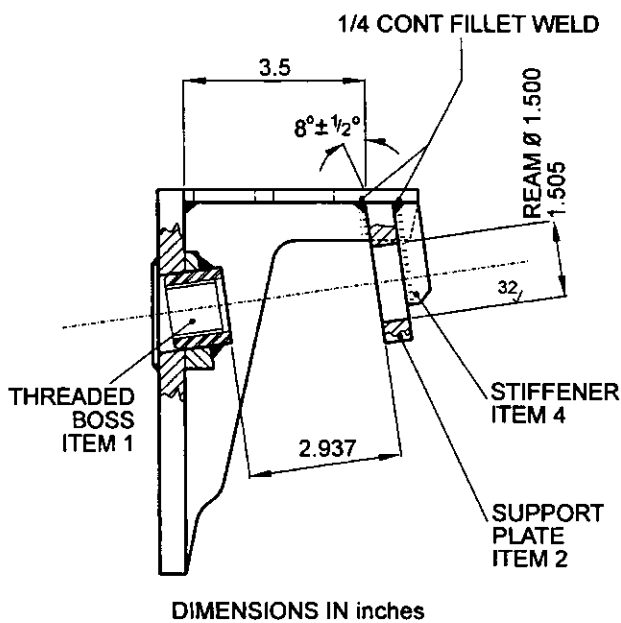
10 Nil.

EFFECT ON WEIGHT

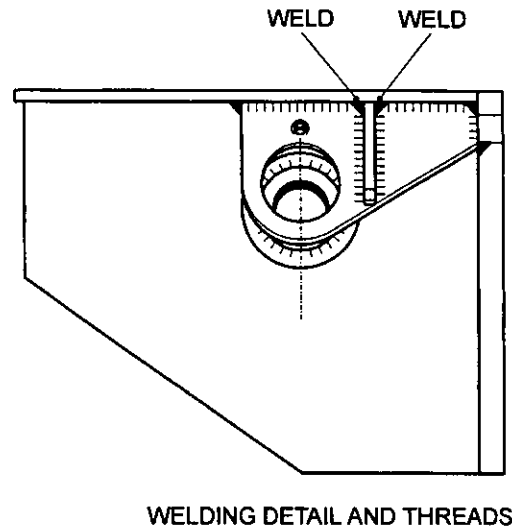
11 Negligible.

PUBLICATION AMENDMENTS

12 Nil.



WELDING TO CONFORM TO FVRDE SPEC. NO. 1031
UNLESS OTHERWISE STATED ALL WELDS TO BE
3/16 CONT FILLET



V14781/1

Fig 1 Lockout damper bracket LH