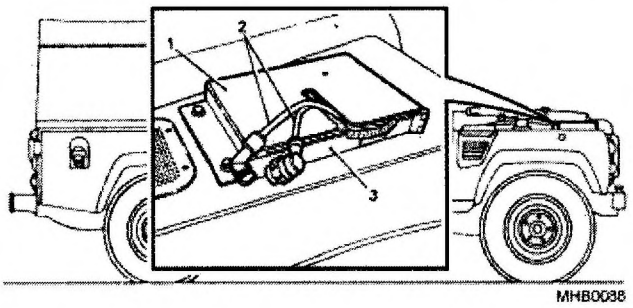
ANTENNA COAXIAL STOWAGE

6 Two antenna coaxial stowage compartments (Fig 2 (1)), one on each wing top, are provided for the stowage of antenna coaxial cable (2) for radio installations.

7 To gain access, locate the hinged cover (3) at the side of the stowage box and pull, this will release the cover.

8 Pull the coaxial aerials out and position them through the opening in the top of the stowage box cover and close. This allows the stowage to be completely closed while still using the antenna tuning units.



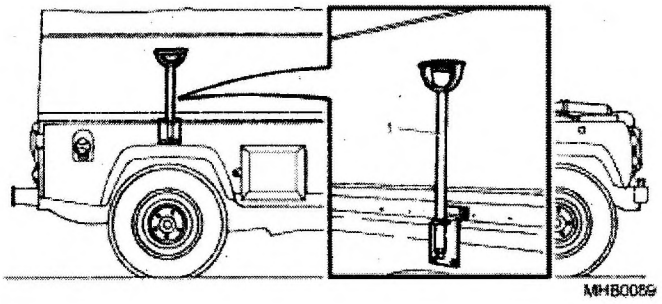
1 Stowage compartment
2 Antenna coaxial cable
3 Hinged cover

Fig 2 Antenna coaxial stowage

RADIO ANTENNA MOUNTING BASE

9 The radio antenna mounting base (Fig 3 (1)) is located on the side of the vehicles and is used for mounting the radio aerials.

10 Both radio antenna mounting bases on either side of the vehicle body can be removed by undoing the elongated captive hexagonal headed bolt and lifting the mounting from its antenna mounting bracket socket. A hole in the head of the bolt is provided to accept a tommy bar.



1 Radio antenna mounting base

Fig 3 Radio antenna mounting base

RADIO ANTENNA OUTLETS

11 The radio antenna outlets (Fig 4) are positioned on the sides of the vehicle body at the rear. There are two variants, one for hard top vehicles and one for soft top vehicles.

Hard top vehicles

12 The antenna outlet is covered by a swivel plate when not in use. Its purpose is to connect the external antenna to the radio pack inside the vehicle.

Soft top vehicles

13 A flap, integral with the hood, covers the antenna outlet when not in use. Its purpose is to connect the external antenna to the radio pack inside the vehicle.

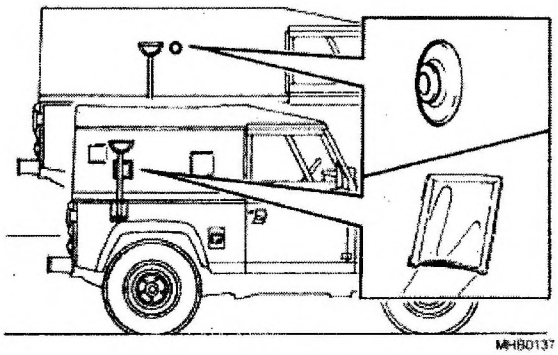
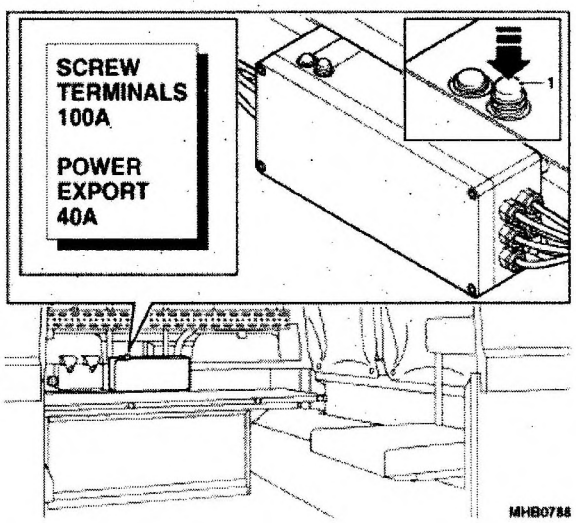


Fig 4 Radio antenna outlets

BATTERY ISOLATION SWITCH AND POWER IMPORT/EXPORT SYSTEM

Relay box and circuit breakers

14 The relay box contains two circuit breakers (Fig 5 (1)) to protect the auxiliary screw terminals (100 A) and the power export socket (40 A) circuits.



1 Circuit breakers

Fig 5 Relay box and circuit breakers

14.1 A circuit breaker protects electrical equipment against the effects of excess current.

WARNING

ALWAYS RECTIFY THE CAUSE OF A FAILURE BEFORE RESETTING THE CIRCUIT BREAKER. SEEK QUALIFIED ASSISTANCE IF NECESSARY.

14.2 If a circuit breaker trips out due to an electrical fault, reset the circuit breaker by pressing the button (1).

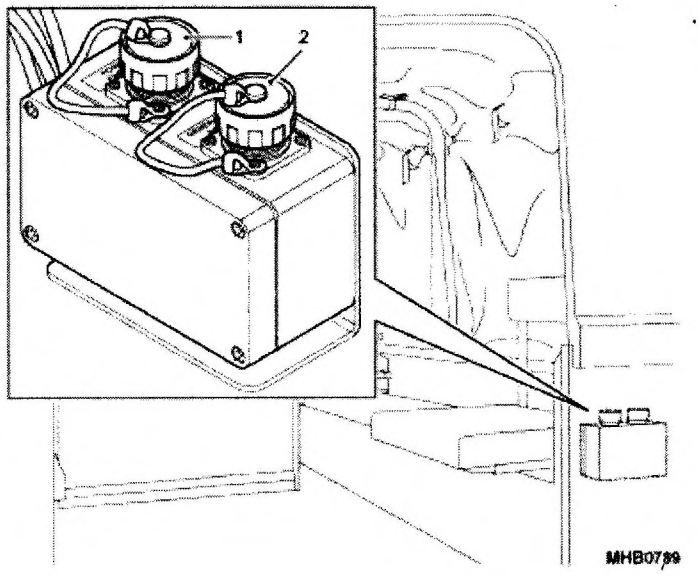
Power import/export socket

15 The power import/export socket (Fig 6) is provided to allow power to be imported from an external generator or exported from the vehicle charging circuit.

WARNINGS

(1) BEFORE CONNECTION ENSURE ANY AUXILIARY EQUIPMENT TO BE SUPPLIED WITH EXPORTED POWER IS OF THE CORRECT VOLTAGE.

(2) BEFORE CONNECTION ENSURE ANY EXTERNAL POWER SUPPLY TO BE CONNECTED IS OF THE CORRECT VOLTAGE.



1 Cap 2 Cap

Fig 6 Power import/export socket

15.1 To connect for power export, remove the cap (1) and plug in the power cable to the socket.

15.2 To connect to an external power source, remove the cap (2) and plug in the external power cable to the socket.

15.3 After use always replace the power socket cap.

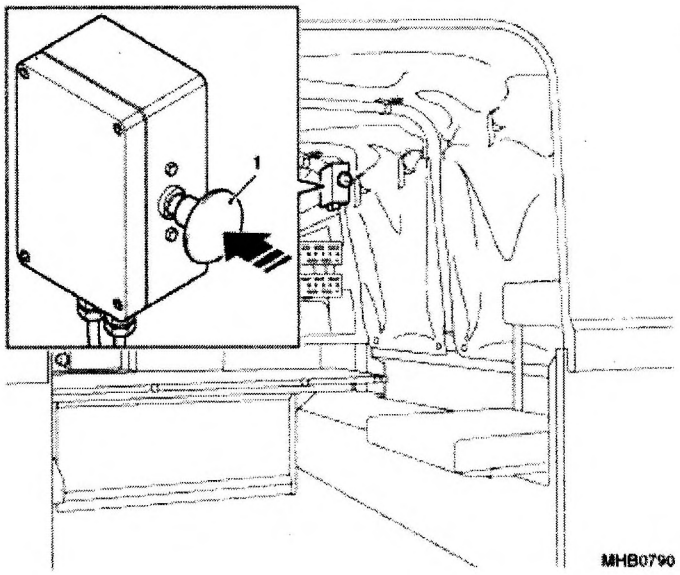
Battery isolation switch

16 The battery isolation switch (Fig 7) is provided so that power to both the auxiliary screw terminals and the export socket can be disconnected quickly in the event of an emergency or for maintenance.

16.1 To operate the isolation switch, press the button (1), this will cut the power to the circuit breakers on the relay box and isolate the auxiliary screw terminals and the power export socket.

16.2 To restore power, reset the isolation switch by twisting and pulling the button (1).

16.3 Reset the circuit breakers on the relay box (refer to Para 14).



1 Button

Fig 7 Battery isolation switch

CHAPTER 3-3

BATTLEFIELD AMBULANCE

CONTENTS

INTRODUCTION

1 This Sub-Chapter gives the operating instructions applicable to the Truck Utility Medium (TUM) Battlefield Ambulance HS.

JERRY CAN STOWAGE

2 There are two stowage facilities, one on either side of the vehicle. The left side stowage holds a water jerry can, while the right side holds a fuel jerry can.

3 Access is gained by operating the latch and swinging open the retaining bar (Fig 1).

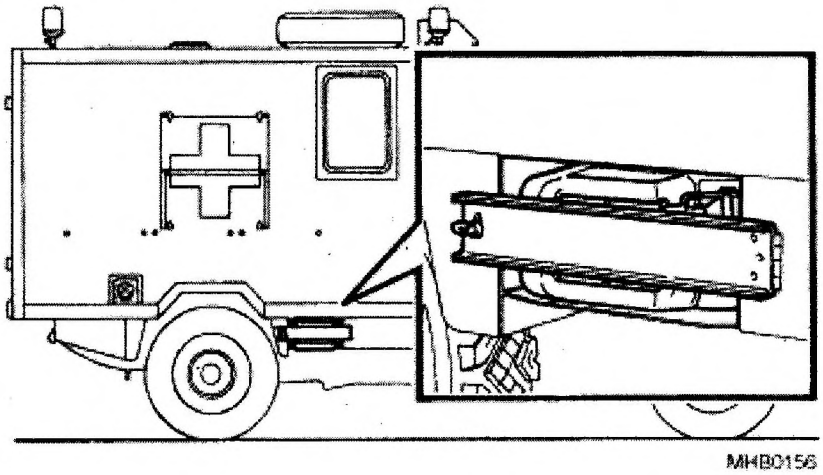


Fig 1 Jerry can stowage

STRETCHER SUPPORTS

4 There are four stretcher support frames, two lower frames and two upper frames.

Stretcher loading - lower support frames

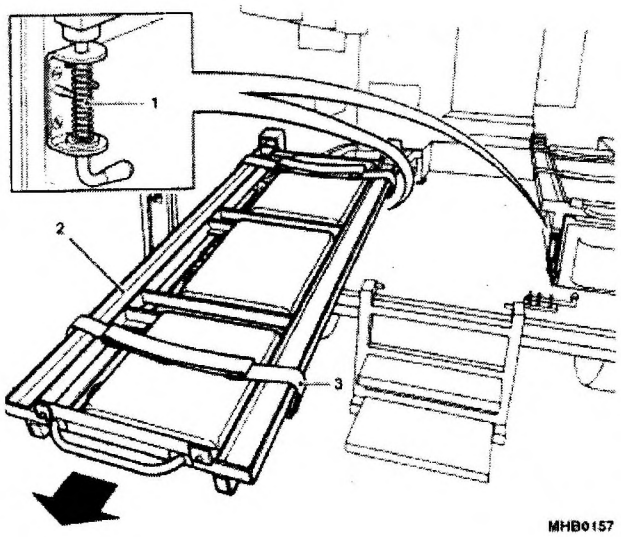
5 Load a stretcher into one of the lower support frames (Fig 2 (2)) as follows:

5.1 Open the rear doors of the vehicle (Refer to Chap 2-3).

5.2 Release the shoot bolt (1).

5.3 Pull the stretcher frame rearwards out of the vehicle as far as possible.

5.4 Carefully place stretcher, with casualty, onto the support frame - Guide the feet of the stretcher, sliding them into the rails on the support frame.



1 Shoot bolt
2 Support frames
3 Restraining straps

Fig 2 Stretcher loading - lower support frames

5.5 Secure the stretcher and patient to the support frame using the restraining straps (3).

5.6 Slide stretcher and support frame into ambulance compartment.

5.7 Operate shoot bolt (1) to lock the support frame in position.

5.8 Close the rear doors of the vehicle (refer to Chap 2-3).

Stretcher loading - upper support frames

6 Load a stretcher into one of the upper support frames as follows:

6.1 Open the rear doors of the vehicle (refer to Chap 2-3).

6.2 Release the spring-loaded locking pin from the gate at the rear of the stretcher support frame (Fig 3 (1)).

6.3 Using two hands, pull the gate rearwards using the bars (2) provided.

6.4 Move the gate and stretcher support frame assembly (3) rearwards and downwards to its lowest point where it will automatically lock.

6.5 Carefully place stretcher, with casualty, onto the support frame - Guide the feet of the stretcher, sliding them into the rails on the support frame.

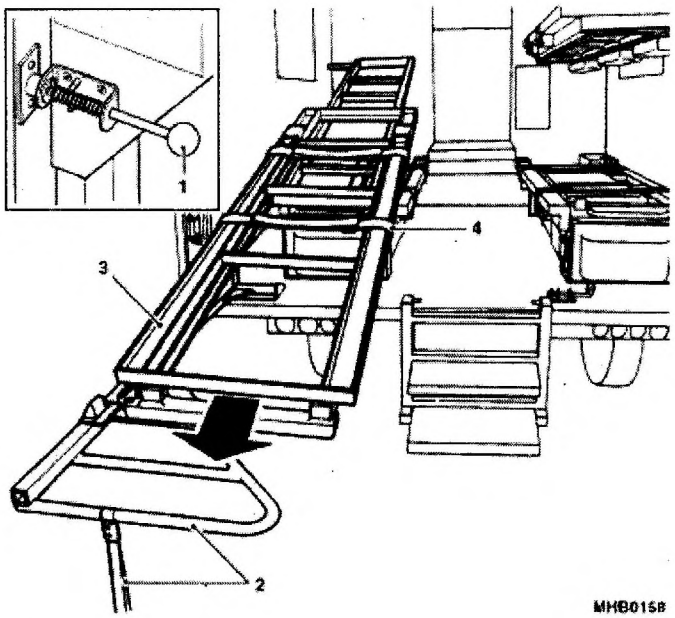
6.6 Secure the stretcher and patient to the support frame using the restraint straps (4).

6.7 Using two hands, lift and push the gate and stretcher assembly up into the ambulance compartment.

6.8 Secure the gate at the rear of the stretcher support frame using the spring-loaded locking-pin (1).

6.9 Secure support strut (refer to Para 7).

6.10 Close the rear doors of the vehicle (refer to Chap 2-3).



1 Spring-loaded locking pin
2 Bars
3 Stretcher support frame assembly
4 Restraint straps

Fig 3 Stretcher loading - upper support frames

UPPER STRETCHER SUPPORT STRUT

7 A support strut is stowed on the upper stretcher frame which can be used to stabilise the upper stretcher and enhance patient comfort whilst the vehicle is moving. Before the strut can be fixed into position the upper stretcher mechanism must be locked into its operational position. To operate and remove the strut carry out the following:

7.1 Operate. Unclip the end of the strut from its stowed position on the upper stretcher frame.

7.2 Locate the free end of the strut (Fig 4 (1)) into the bracket (2) on the lower stretcher frame.

7.3 Tighten the twist grip (3) to lock the strut in position.

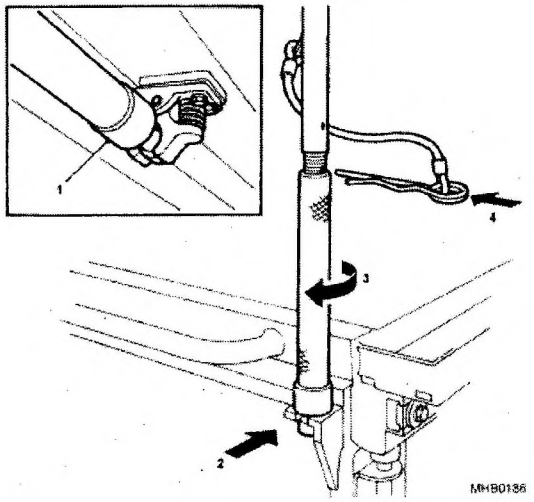
7.4 Locate the safety pin (4) into the locked position.

7.5 Removal. Remove the safety pin and stow.

7.6 Unscrew the grip to release the strut from the lower stretcher frame.

7.7 Swing free end of the strut upwards and locate in the clip mounted on the clip mounted on the upper stretcher frame.

7.8 Unlock and lower upper stretcher mechanism.



1 Strut
2 Bracket
3 Twist grip
4 Safety pin

Fig 4 Upper stretcher support strut

CHANGE OF ROLE

Stowing upper support frames

8 When required, the upper stretcher support frames can be stowed as follows:

8.1 Before stowing upper support frames the stretchers must be stowed away.

8.2 Remove stretchers from all support frames.

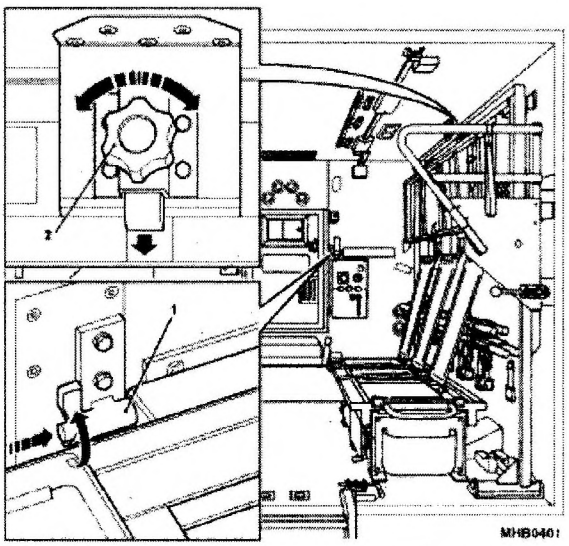
8.3 Fold each stretcher.

8.4 Using restraint straps, secure stretchers (Fig 5) to the side of the compartment (two stretchers on each support frame).

8.5 Release the locking-pin (1) at the front of the support frame.

8.6 Push the support frame fully up to its stowed position against the ambulance compartment wall.

8.7 Secure the support frame in the stowed position by engaging the support frame with the spring-loaded catch (2) on the ambulance compartment wall. Tighten catch and lock.



1 Locking pin 2 Spring loaded catch

Fig 5 Upper stretcher support frame locking mechanisms

Passenger seats

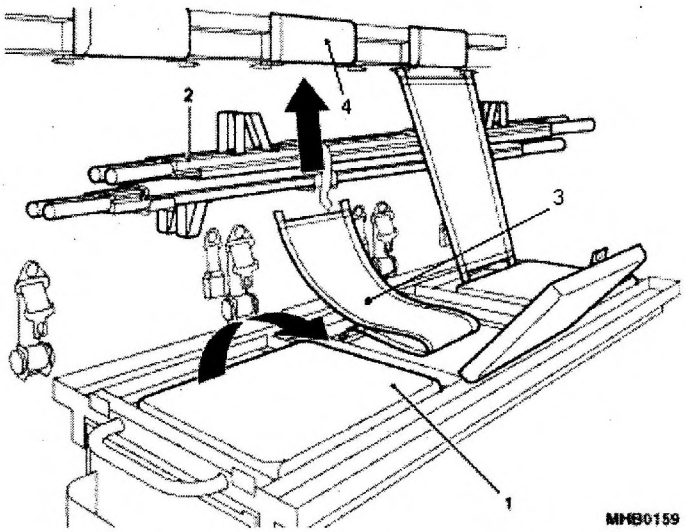
9 To utilise each of the six seats proceed as follows:

9.1 Stow away the upper support frame (Para 8).

9.2 From under the seat slabs (Fig 6 (1)) remove the back supports (3) and secure to the underside of the head pads (4).

9.3 To stow the back supports reverse the above procedure (Para 9.2).

9.4 Check that lap straps are fully retracted.



1 Seat slabs 3 Back supports
2 Stretcher 4 Head pad

Fig 6 Passenger seats

Unfolding upper support frames

10 Unfold each upper frame from its stowed position as follows:

10.1 Stow the seats as previously described.

10.2 Release the spring-loaded catch (Fig 5 (2)) securing the support frame to the ambulance compartment wall.

10.3 Hinge the support frame down to a horizontal position.

10.4 Engage the locking-pin (1) at the front of the support frame.

ATTENDANTS SEAT

11 An attendant's seat (Fig 7) is located against the bulkhead. The seat lifts up providing access to storage space underneath it. The space is used for the storage of equipment and kit.

12 A two-point lap belt for use by the attendant is fitted to the bulkhead.

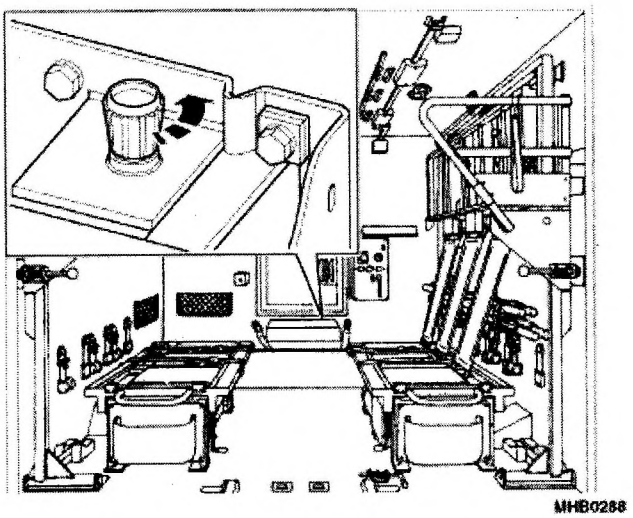


Fig 7 Attendants seat operation

13 A locking device retains the seat in the sitting position. To lift the seat, turn the knob located at the rear of the seat cushion counter clockwise and the seat base will raise automatically.

14 To return the seat to the sitting position, push the seat base down until the locking device clicks into position.

COMPARTMENT WINDOWS

15 On each side of the compartment, a single tinted glass window allows the passage of daylight and provides a means of emergency egress.

Blackout conditions

16 The window frame is surrounded with velcro strip (Fig 8). This allows the attachment of a roll down, light-proof panel when black-out conditions exist.

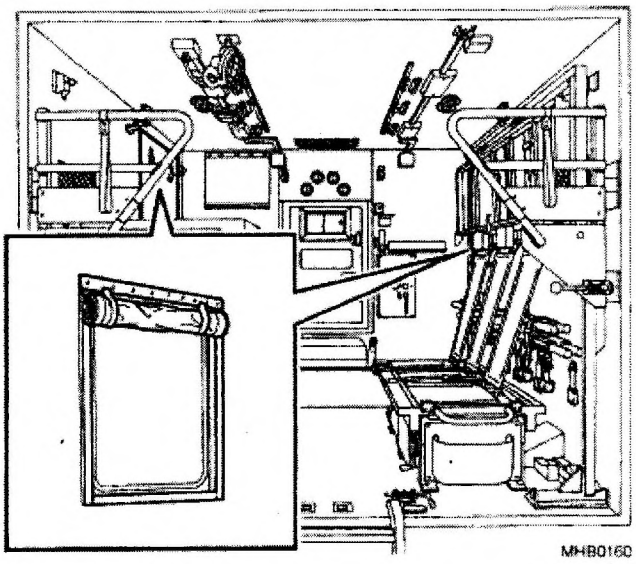


Fig 8 Blackout blinds

Emergency usage

17 Each window comprises a single pane of tinted glass set in a rubber glazing/sealing strip. A pull-ring is attached to the sealing strip at the top of the window. In an emergency, operation of the pull-ring causes the sealing strip to be removed and the window pane can be booted from the vehicle.

REAR STEP

18 The rear step (Fig 9) when not in use is stowed away on the compartment floor secured by a shoot bolt.

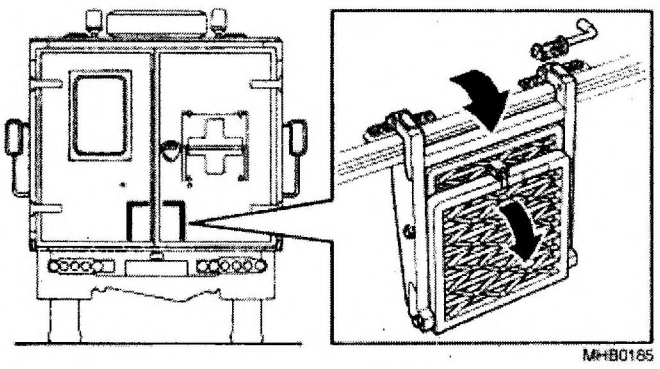


Fig 9 Rear step

Unfolding the step

19 To unfold the step proceed as follows:

19.1 Release the step from the shoot bolt.

19.2 Lower the step to the vertical position.

19.3 Undo the retaining catch and lower the steps.

Folding the step

20 To fold the step away, proceed as follows:

20.1 Fold up the steps ensuring that the lower step is locked into place.

20.2 Lift the steps and fold onto the compartment floor ensuring that it is secured with the shoot bolt.

TRANSPORTATION BY AIR

21 When transporting the vehicle by air the following items must be removed from the roof before the vehicle is loaded onto the transport aircraft:

21.1 Spare wheel.

21.2 Blue flashing beacons.

21.3 Mk 5 concealment kit.

22 These items must be removed to avoid the possibility of damage to the items and/or the transport aircraft.

TYRE PRESSURES

23 Emergency soft pressure (Table 1) should only be used in extreme conditions. When emergency pressures are used a maximum speed of 25 mph (40 km/h) should not be exceeded. Pressures should be returned to normal immediately firm ground is regained.

TABLE 1 PRESSURE FOR GOODYEAR G90 TYRES

Serial (1)	Vehicle (2)	Normal (3)		Emergency Unladen (4)		Emergency Laden (5)	
		Bar	lb/in^2	Bar	lb/in^2	Bar	lb/in^2
1	BFA front wheels	2.8	40	1.1	16	1.1	16
2	BFA rear wheels	4.6	65	1.1	16	1.6	23

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CHAPTER 3-4

WINTERISED/WATERPROOFED

CONTENTS

INTRODUCTION

1 This sub-chapter describes all the items applicable to Truck Utility Light (TUL) HS and Truck Utility Medium (TUM) HS Winterised/waterproofed vehicles which are not covered in the previous chapters.

SOFT TOP ESCAPE APERTURE

2 To open the escape aperture:

2.1 From inside the vehicle, release the lining support straps from the cam lock buckles on top of the windscreen surround.

2.2 Stow the straps.

2.3 Release the velcro strips securing the drivers cab lining only and remove the lining from the vehicle.

2.4 Fold and stow the lining in the rear side of the vehicle between the rear compartment lining and the soft top.

2.5 Unzip the soft top but not fully, stop just short of the top right hand drain channel (Fig 1 (1)).

2.6 Roll the soft top from the left hand corner (4).

2.7 Using straps supplied from the Stage B kit (refer to Cat 421 Instruction No 1), pass strap through farthest right hand windscreen buckle (2) and reroute back through the cam lock buckle (5).

2.8 Pass the other end of the strap (3) over the rolled hood and into the vehicle and hook over the windscreen cant rail on the right hand side of the right hand sun visor.

2.9 Pull the strap (6) through the cam lock buckle (5) to secure the soft top rail and maintain escape aperture.

3 To close the escape aperture:

3.1 Release the cam lock buckle and inside the vehicle unhook the strap from the windscreen cant rail.

3.2 Pull the other end of the strap through the cam lock buckle and release from the right hand windscreen buckle.

3.3 Stow the strap.

3.4 Unroll soft top and close zip.

3.5 Refit lining to drivers cab and secure with velcro strips and straps.

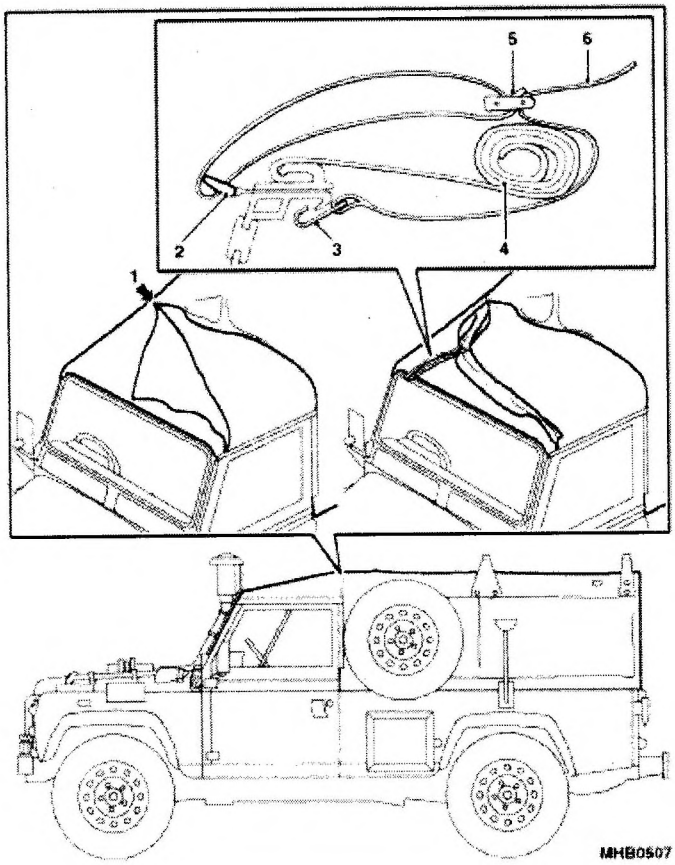
HARD TOP ESCAPE HATCH

4 To open the escape hatch:

4.1 From inside the vehicle, release the seven straps and remove the escape hatch.

4.2 Using the straps secure the hatch to the roll over cage in the rear body.

4.3 Ensure that any items stowed on the roof do not obstruct free movement through the hatch.



1	Soft top	3	Other end of strap	5	Lock buckle
2	Windscreen buckle	4	Left hand corner	6	Strap

Fig 1 Retaining the hood

VEHICLE BLINDS

5 There are five parts to the vehicle blinds (Fig 2).

Windscreen blind

6 To fit the blind:

6.1 Place the blind (2) on the windscreen and attach the four top straps to the cleats above the windscreen.

6.2 Open the doors and fit the two flaps over the "A" posts and shut the doors ensuring security of the flaps.

6.3 To remove, reverse the above procedure.

Side door blinds

7 To fit the blinds (4).

7.1 Open the side doors.

7.2 Place the blinds over the doors and pull down over the side windows.

7.3 To remove, reverse the above procedure.

Rear door blind

8 To fit the blind (1).

8.1 Open the rear door.

8.2 Place the blind over the door and pull down over the rear window.

8.3 Fold the flap into the door and close door ensuring security of flap.

8.4 To remove, reverse the above procedure.

Radiator blind

9 To fit the radiator blind (3).

9.1 Open the bonnet.

9.2 Place the blind on the radiator grille and attach the straps to the three cleats above the radiator grille.

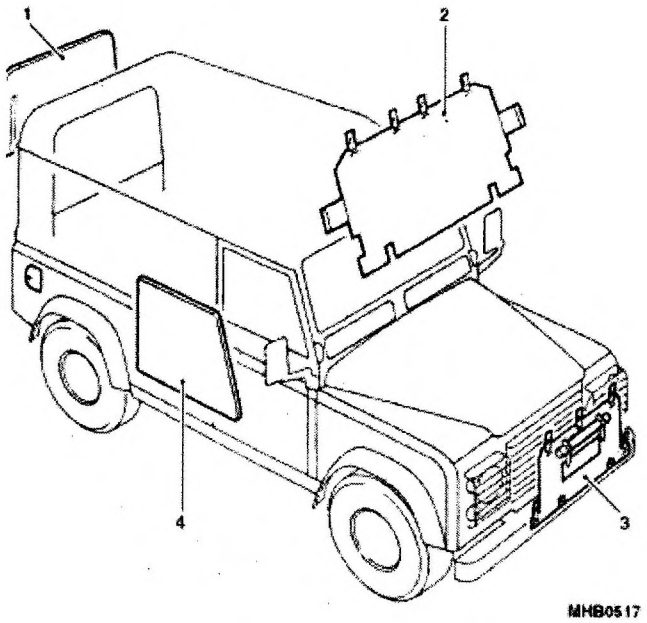
9.3 Secure the bottom of the blind to the vehicle.

WARNING

INJURY. TAKE CARE NOT TO TRAP FINGERS WHEN CLOSING BONNET WHEN SECURING RADIATOR BLIND.

9.4 Fold the blind into the top of the engine bay and close bonnet ensuring security of blind.

9.5 To remove, reverse the above procedure.



1 Rear door blind
2 Windscreen blind
3 Radiator blind
4 Side door blind

Fig 2 Vehicle blinds

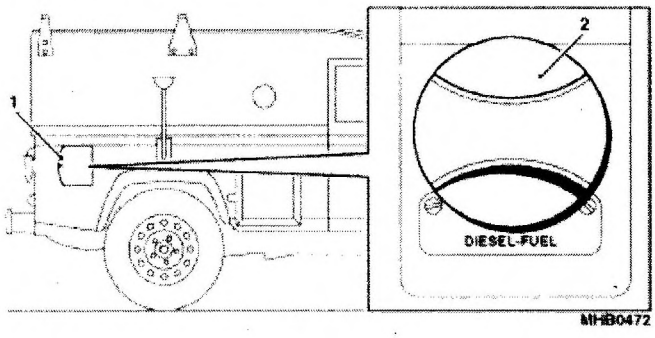
FILLER FLAP

10 The filler flap (Fig 3 (1)) protects the filler cap (2) from excessive cold and water penetration.

11 To open and close the flap, twist the turnbuckle in the appropriate direction to release or fasten the flap.

NOTE

When fastening the flap, ensure that turnbuckle is secure.



1 Filler flap 2 Filler cap

Fig 3 Filler flap

RADIATOR TAPS

12 There are two radiator taps (Fig 4), one mounted on the heel board for the battery box and the other mounted on the rear bulkhead for the back of the vehicle. These taps control the operation of the radiators especially in milder weather conditions and operate thus:

12.1 With the tap in the horizontal position – radiators are on.

12.2 With the tap in the vertical position – radiators are off.

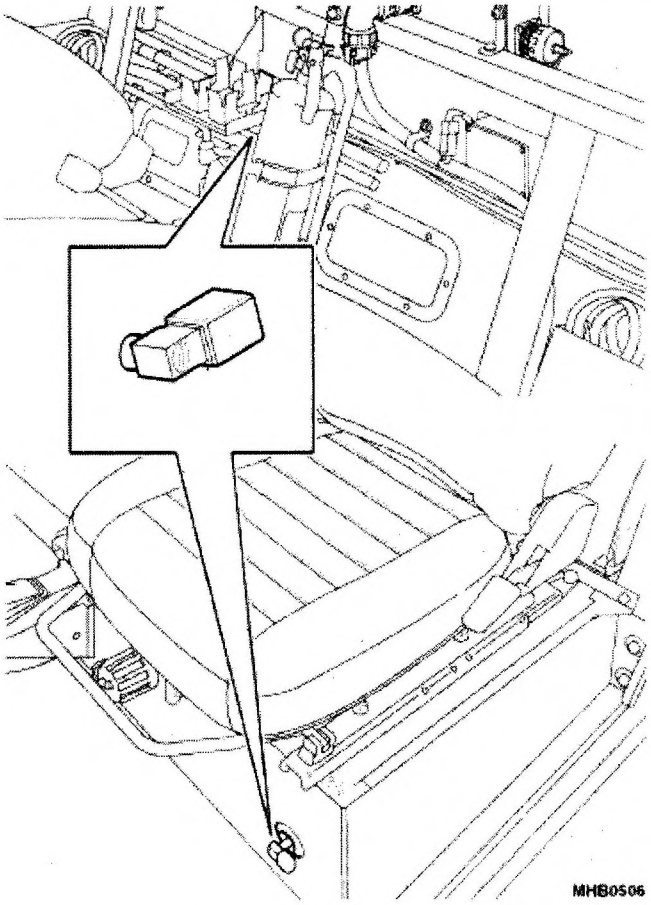


Fig 4 Radiator taps

CHAPTER 3-5

AIR DROPABLE

CONTENTS

INTRODUCTION

1 This sub-chapter describes all the items applicable to Truck Utility Light (TUL) HS Air dropable vehicles, which are not covered in the previous chapters.

FITTING THE FRONT ROLL CAGE – 1ST STAGE

2 To fit the front roll cage proceed as follows:

NOTE

Roll cage assembly comprises: front roll cage, weapons rack, radio rack and braces.

3 With assistance, locate front roll cage assembly (Fig 1), in sockets, ensuring weapons rack brackets locate in position at top of bulkhead.

4 Secure with hexagonal head bolts (10 places) but do not tighten.

5 Assemble rear diagonal brace (1) to the lower telescopic tube (5) and mounting bracket attached.

NOTE

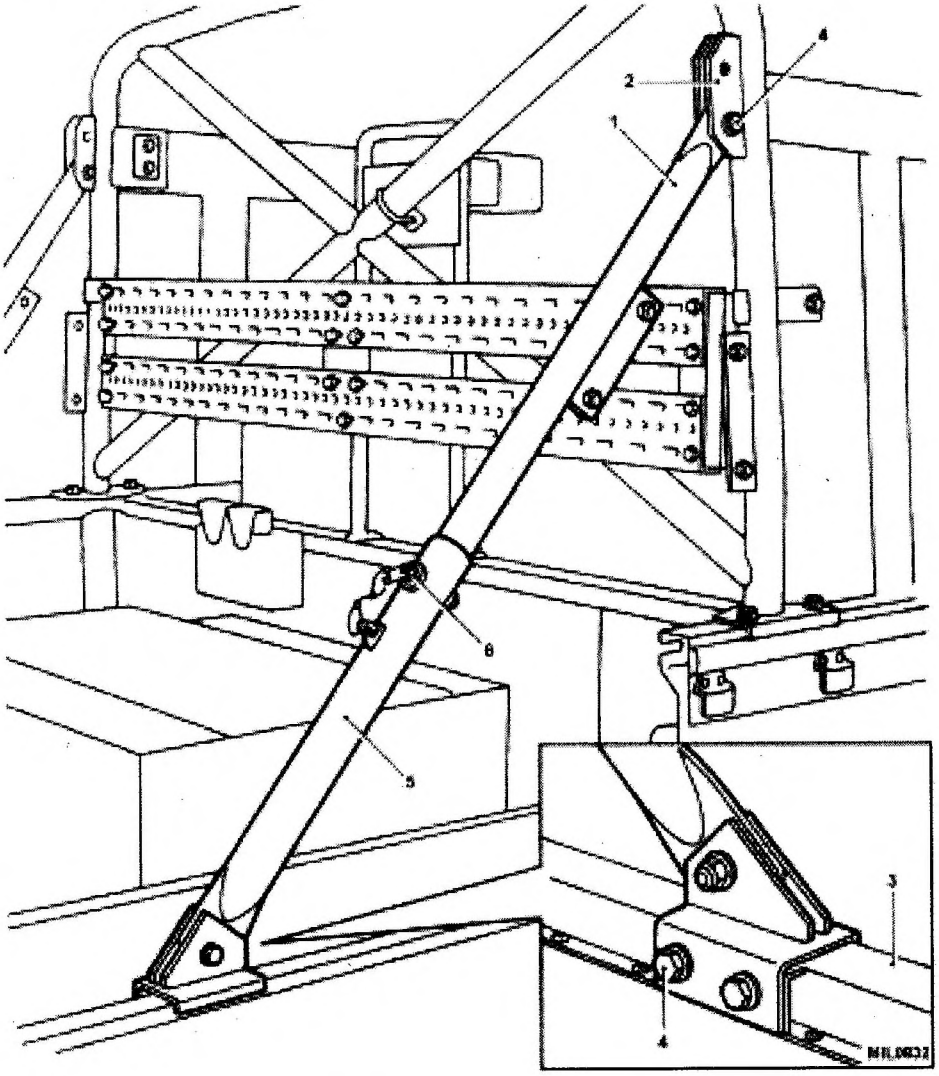
Do not fully tighten fixings at this stage.

6 Fix rear brace assembly at mounting point on front roll bar bracket (2).

7 Extend rear telescopic brace (5) and locate the release bolt (6) through both parts.

8 Locate in position on bodyside capping (3) and secure all fittings (4).

9 Fit the seat belts to the roll cage fixing points and tighten.



1	Diagonal brace	3	Bodyside section channel	5	Telescopic brace outer
2	Front roll bar bracket	4	Fixings	6	Release bolt

Fig 1 Front roll cage and support

FITTING THE FRONT ROLL CAGE – 2ND STAGE

10 To fit the front roll cage proceed as follows:

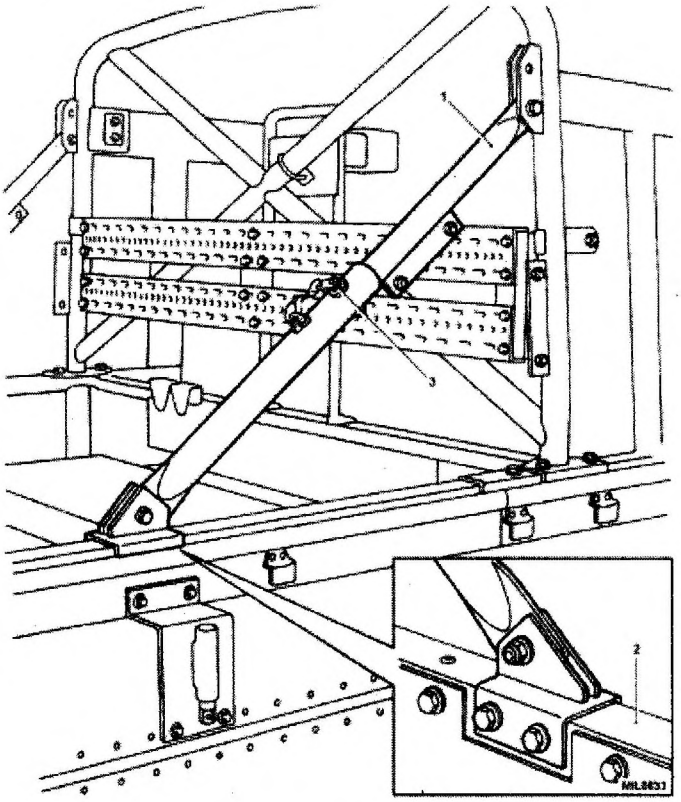
NOTE

Roll cage assembly comprises: front roll cage weapons rack, radio rack and braces.

11 Fit the two rear bodyside sections and secure with the shoot bolts.

12 Fit rear diagonal brace (Fig 2 (1)) as described previously this time using the alternative fixing points on the bodyside section channels (2) and secure with the release bolt (3).

13 Fit the seat belts to the roll cage fixing points and tighten.



1 Diagonal brace
2 Bodyside section channel
3 Release bolt

Fig 2 Rear diagonal brace and bodyside

CHAPTER 3-6

HELICOPTER SUPPORT VEHICLE

CONTENTS

INTRODUCTION

1 This sub-chapter gives the operating instructions applicable to the Truck Utility Medium (TUM) HS Helicopter support vehicle which are not covered in previous chapters.

SAFETY BARS

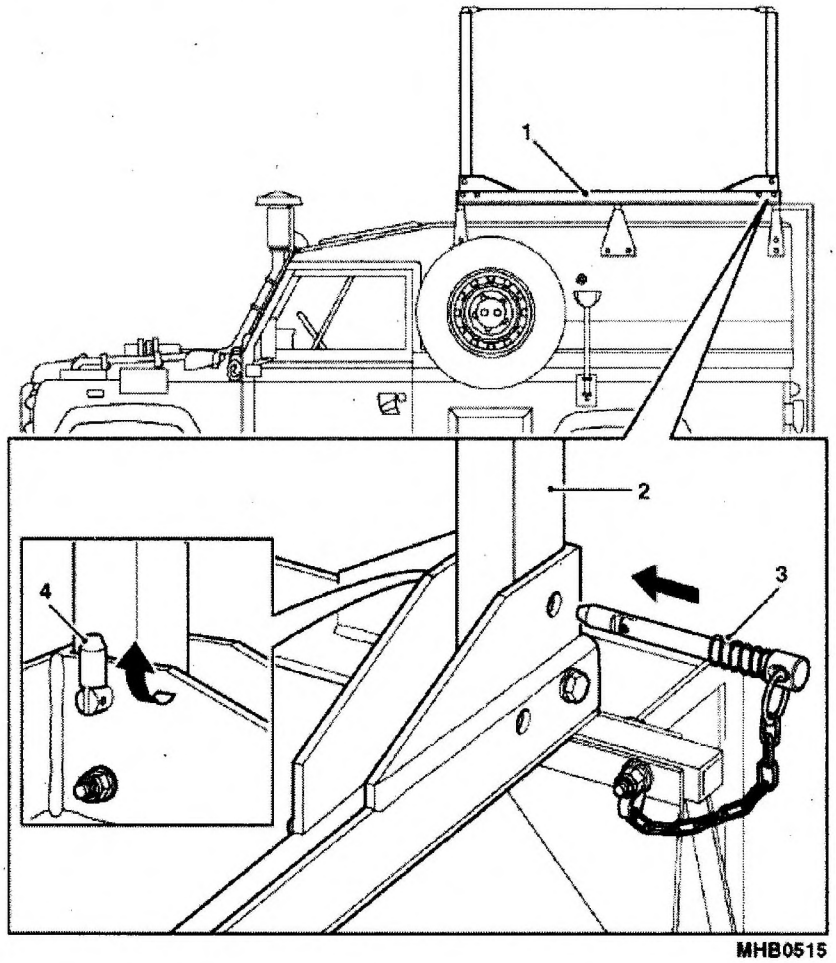
2 To raise and lower the safety bars carry out the following:

2.1 Remove the locking pin (Fig 1 (3) securing the safety bar (2) in the transportation position on the platform (1).

2.2 Lift the safety bars (2) into the vertical position and secure with the locking pin (3). Ensure the end of the pin (4) is turned through 90° to secure the pin in position.

2.3 Lower the safety bars by removing the locking pin and securing in the transportation position with the locking pin.

2.4 Ensure the safety wires are stowed safely on top of the platform.



1 Platform
2 Safety bars
3 Locking pin
4 End of the pin

Fig 1 Raising the safety bars

BATTERY STOWAGE BOX

3 A battery stowage box (Fig 2) is located in the rear of the vehicle over the left hand wheel arch. The box is for the stowage of the sealed battery starter system which is used for starting helicopters and other vehicles. The system can be recharged by plugging it into the vehicle charging system via a lead from the terminal box.

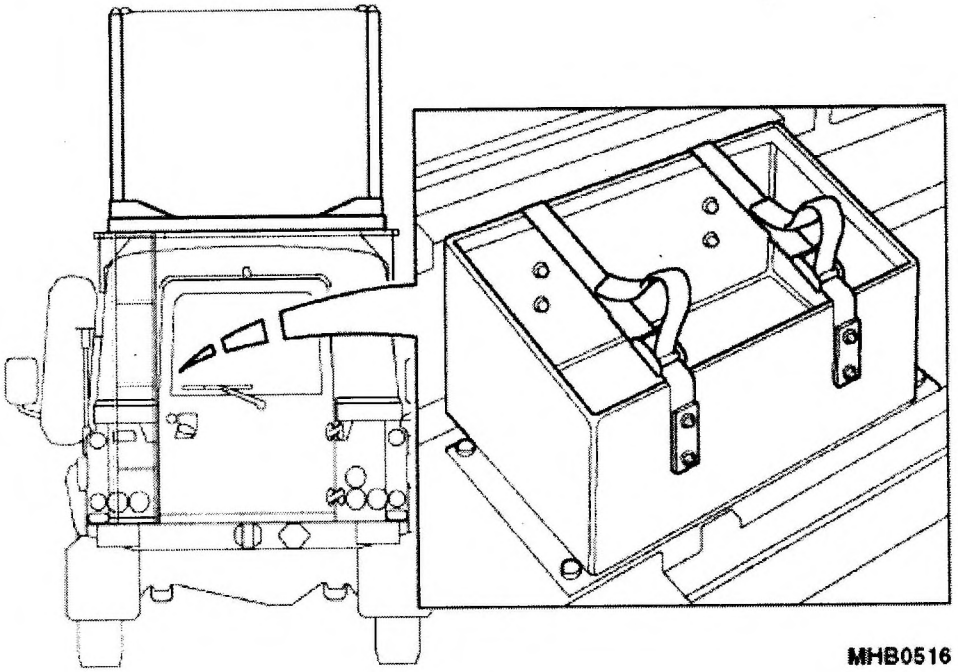


Fig 2 Battery stowage box

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CHAPTER 3-7

COMMANDERS IK

CONTENTS

INTRODUCTION

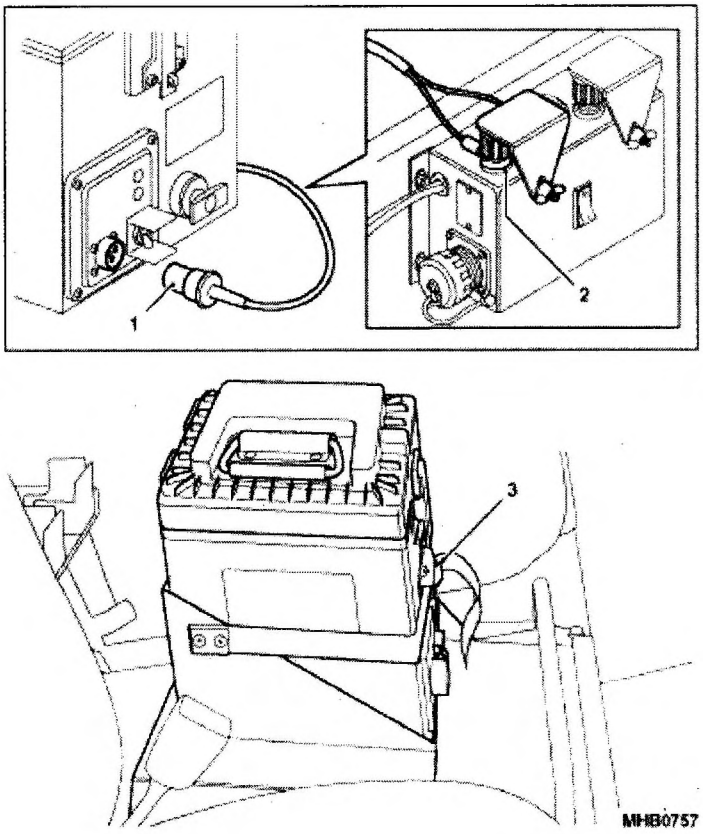
1 This sub-chapter gives the operating instructions applicable to the Truck Utility Medium (TUM) HS Commanders IK which are not covered in previous chapters.

BOILING VESSEL

2 The prime purpose of the boiling vessel is to heat water. The vessel is restrained by a strap which wraps around it and fastens using the buckle (Fig 1 (3)).

2.1 Connect the harness to the terminal box via the black and red terminals (1) on top of the box.

2.2 Connect the other into the vessel via the plug (2).



1 Red and black terminal
2 Plug
3 Buckle

Fig 1 Boiling vessel

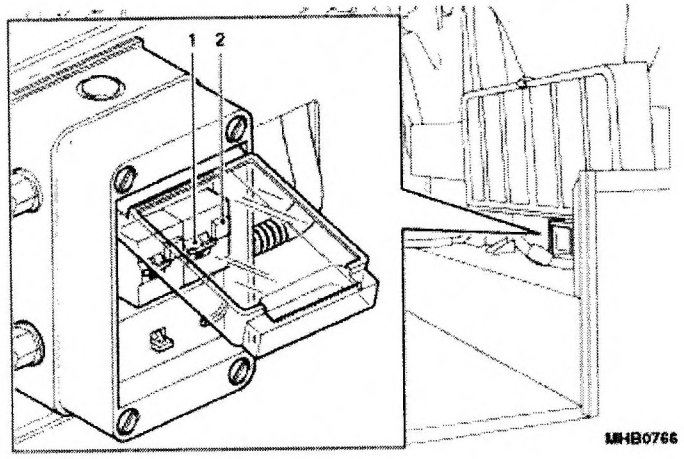
RESIDUAL CURRENT DEVICE (RCD)

3 The residual current device (RCD) (Fig 2) protects the harness system in the rear of the vehicle.

3.1 If the circuit breakers should trip, lift the clear cover and press the switch (2) back into the on position.

3.2 There are individual switches (1) for each of the circuit so that each circuit can be isolated individually.

3.3 Should this happen repeatedly the fault should be investigated and corrected.



1 Switch 2 Clear cover

Fig 2 Residual current device (RCD)

INPUT SOCKET

4 The input socket (Fig 3) allows for an outside current supply.

4.1 Undo the cap then inset the plug.

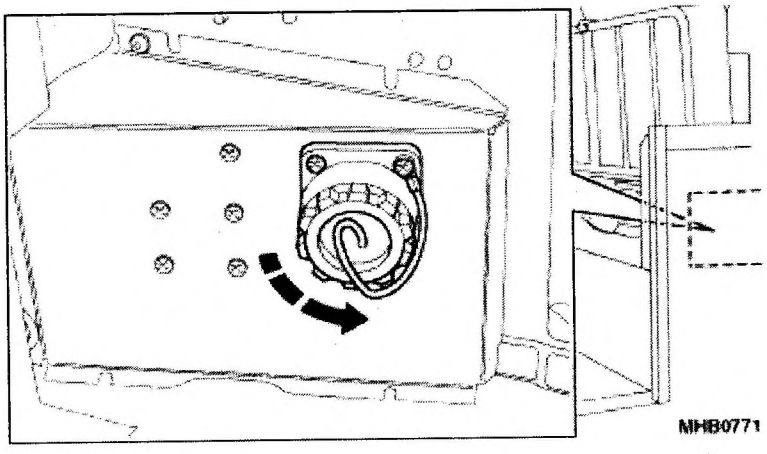


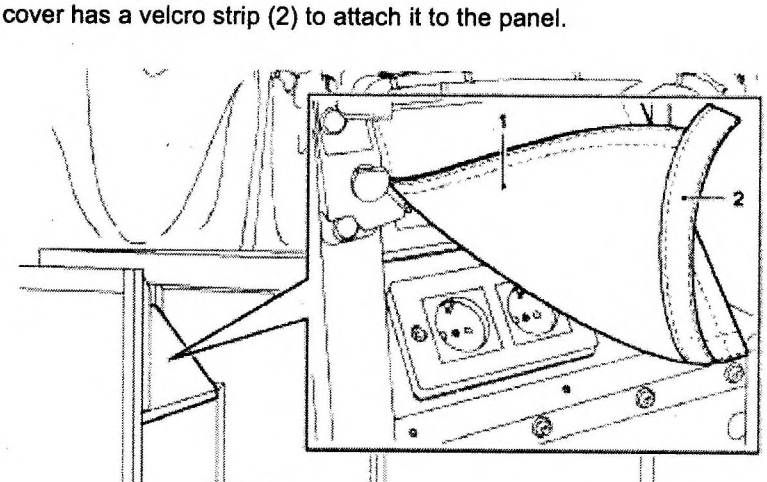
Fig 3 input socket

SOCKET PANEL

5 The socket panel (Fig 4) has three different means of connection for various devices.

5.1 Lift the cover (1) from the panel to use the sockets.

5.2 The cover has a velcro strip (2) to attach it to the panel.



1 Cover 2 Velcro strip

Fig 4 Socket panel

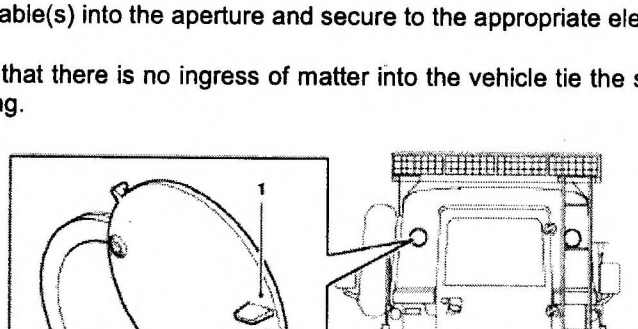
INPUT/OUTPUT SOCK

6 The input/output sock (Fig 5) allows for electrical cables to access the rear of the vehicle. There are two, one on each side of the vehicle.

6.1 Swivel the cover (1) in an upward direction to access the sock.

6.2 Feed the cable(s) into the aperture and secure to the appropriate electrical terminal.

6.3 To ensure that there is no ingress of matter into the vehicle tie the sock around the cable(s) using the draw string.



1 Cover

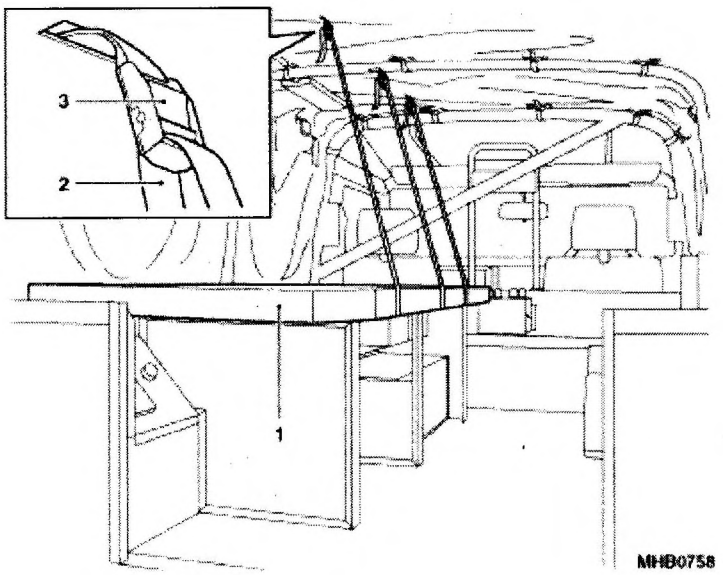
Fig 5 Input/output sock

BED

WARNING

THE BED SHOULD NOT BE USED WHEN THE VEHICLE IS MOVING.

7 The bed (Fig 6 (1)) doubles up as a map board when in the upright position. When the map board mode it is secured using straps (2) mounted in the roof. These same straps are used to restrain the person when using it as a bed. To lower the bed into the horizontal position, release the straps from its catches (3).



1 Cover
2 Cable(s)
3 Aperture

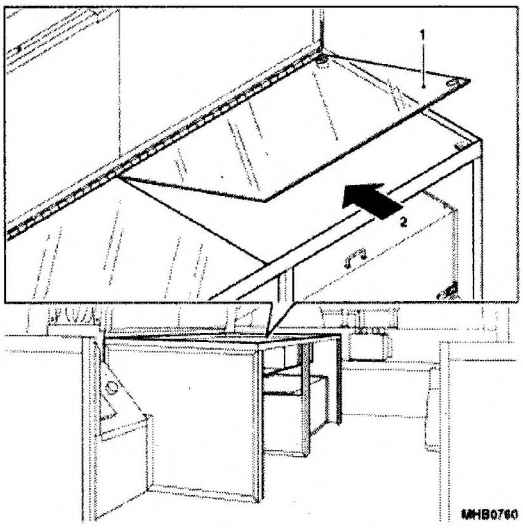
Fig 6 Bed restraining straps

DESK/MAP BOARD

8 When the vehicle is in operational mode the bed is in the upright position revealing the desk and map board.

Desk

9 The desk has two clear plastic covers (Fig 7 (1)), which can be lifted out for ease of use.



1 Clear plastic cover 2 Desk

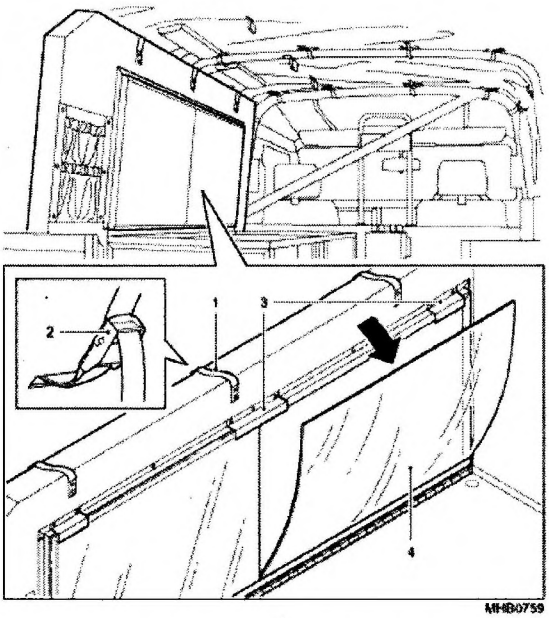
Fig 7 Desk

Map board

10 The map board (Fig 8) has two clear plastic sheets, which can be removed so that maps can be placed behind them for the ease of viewing. 10.1 Straps (1) attached to the bed and then secured to the side of the vehicle using catches (2) secure it.

10.1 Release the plastic sheet (4) from the retaining brackets (3).

10.2 Place the map inside and replace the plastic sheet by easing it gently into the retaining brackets.



1 Straps 3 Brackets
2 Catches 4 Plastic sheet

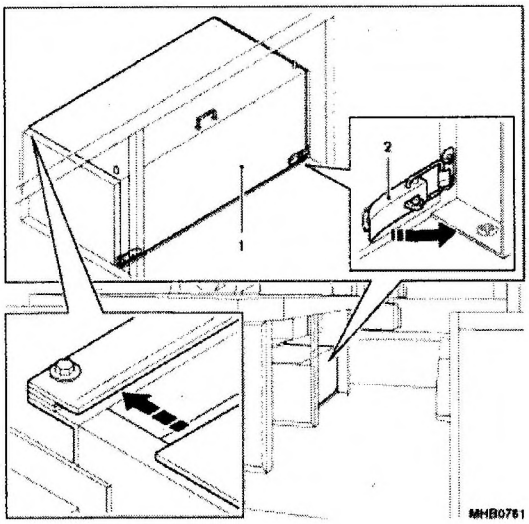
Fig 8 Map board

BATTERY COVER

11 The battery cover (Fig 9) is located towards the front of the vehicle on the left hand side.

11.1 Undo the two overcentre catches (2) at the bottom of the cover (1).

11.2 Remove the cover by sliding it out of its slot, at the rear of the box, in a horizontal position then gently lifting up as well as outwards.



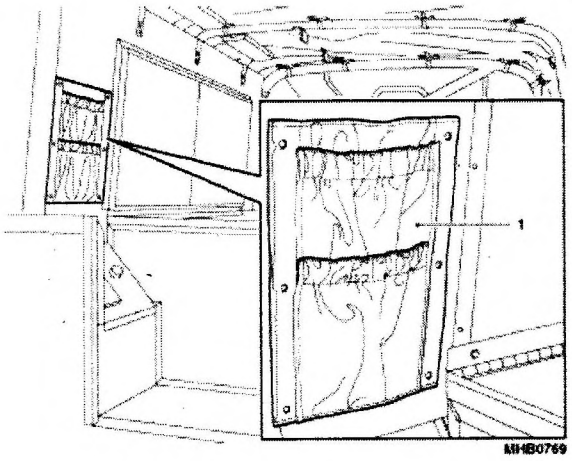
1 Cover 2 Overcentre catches

Fig 9 Battery cover

DOCUMENT POCKETS

12 The document pockets (Fig 10) are adjacent to the map board and are for various documents while the vehicle is operation.

12.1 The document pockets (1) are elasticated to hold the contents more securely.



1 Document pockets

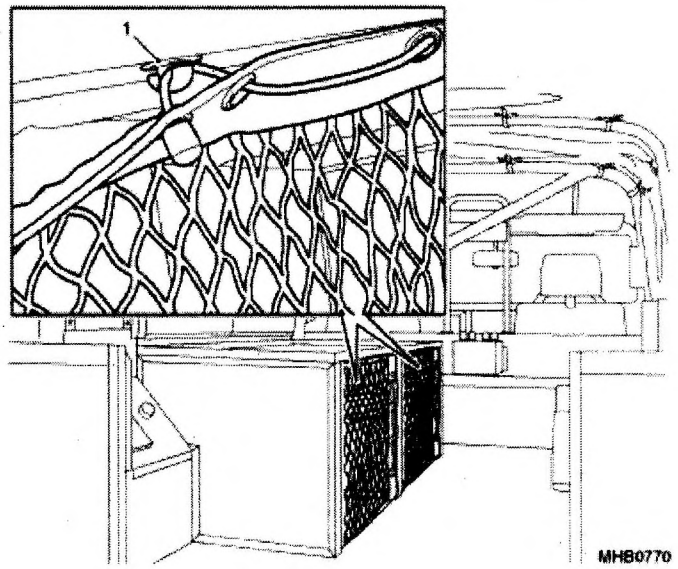
Fig 10 Document pockets

STOWAGE AREA

13 The stowage area is underneath the desk and can be used for a variety of purposes. The blackout curtain is stowed here.

13.1 To release the netting (Fig 11), unclip from the hooks (1) positioned around the aperture. The net is secured to the floor of the vehicle for ease of use.

13.2 To fasten the netting, place the chord securely over the hooks.



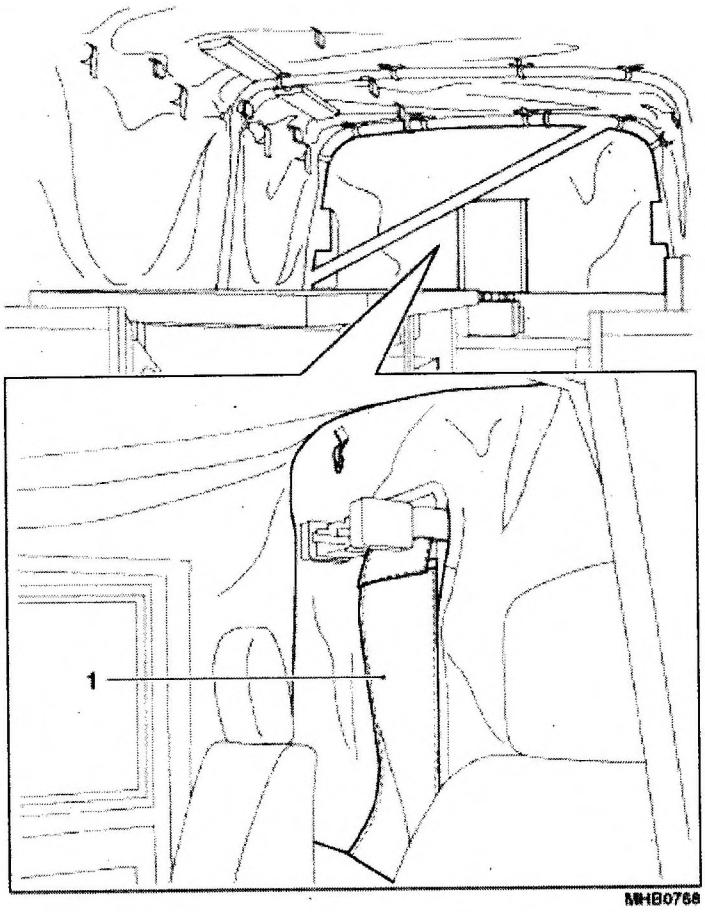
1 Hooks

Fig 11 Restraining netting

BLACKOUT CURTAIN

14 The blackout curtain (Fig 12) is to shut out any light coming from the front of the vehicle also separating it from the driving cabin.

14.1 Fit the curtain around the rifle clip bracket and attach to the roof using velcro strips. The centre of the curtain (1) fits through the top of the rifle bracket and down into the drivers cabin.



1 Curtain

Fig 12 Blackout curtain

ROOF RACK AND COVER

CAUTIONS

(1) When loading the roof rack the maximum weight allowed is 70kg only.

(2) The roof rack cover can only be used when there is a load on the roof rack.

15 The roof rack fitted to the top of the vehicle can take a load of up to 70 kg.

16 Load the rack in accordance and guidelines laid out in the appropriate documents.

17 When loaded the cover (Fig 13) can be placed over it to safe guard the contents. Ensure that the cover is secured by the elasticated straps over the brackets provided from them on the racking.

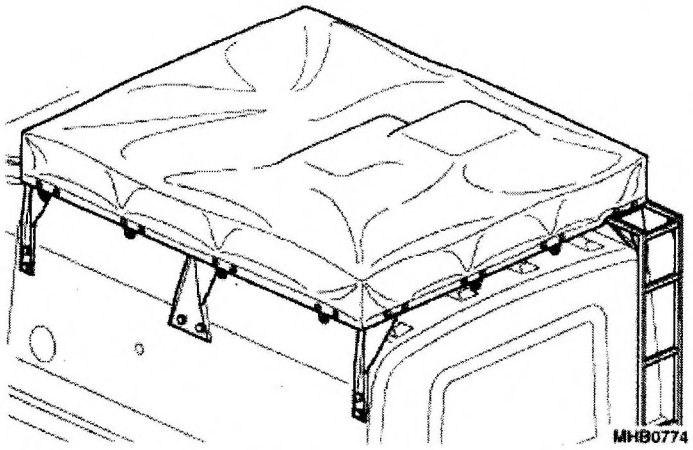


Fig 13 Roof rack cover

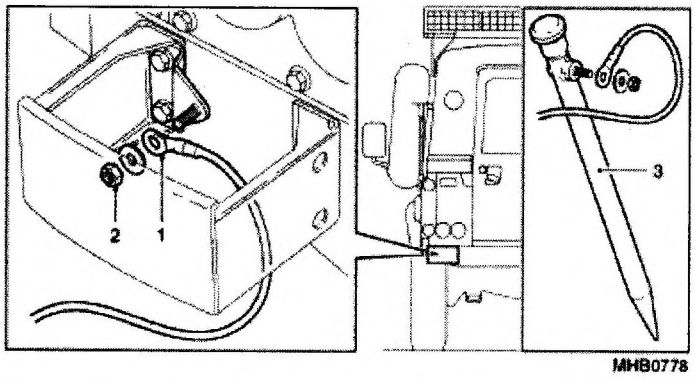
EARTH SPIKE

18 The earth spike (Fig 14) and cable are stowed in the rear of the vehicle and are to dissipate any charge to ground therefore protecting the personnel and vehicle from harm.

19 To install the earth spike, proceed the following:

19.1 Fit the cable (1) to the earth spike (3) and also to the vehicle using fixings (2).

19.2 Place the spike and drive into the ground.



1 Cable
2 Fixings
3 Earth spike

Fig 14 Earth spike

CHAPTER 3-8

WEAPONS MOUNTED INSTALLATION KIT (WMIK)

CONTENTS

CONTENTS (continued)

INTRODUCTION

1 This sub-chapter describes all the items applicable to the Truck Utility Medium (TUM) Weapons Mounted Installation Kit (WMIK) vehicles, which are not covered in the previous chapters.

CANOPY

2 The canopy is used when moving the vehicle in a peacetime condition. When it comes to fitting the canopy follow the steps below:

2.1 If fitted, remove the wire cutter support tube (Fig 1 (2)) by removing a single bolt (1) at the lower attachment point.

2.2 Remove the two fixings (3) at the top of the wire cutter.

2.3 Ensure that the windscreen is fitted correctly.

2.4 Fit the canopy support tubes above the front door apertures.

2.5 Fold the Folding Interface Mount (FIM) (Fig 14 (2)) and the gunners support (Fig 15 (8)) through the slewing ring.

2.6 Fold the slewing ring winding handle (Fig 11 (2)) and reposition the slewing ring handles (Fig 12 (2)).

2.7 The rear canopy support hoop should be placed in position and locked into place using the two stays attached to rear roll bar. Secure using "R" clips.

2.8 Unfold the canopy and place on top of the roll cage with the front edge towards the front of the vehicle with the sides hanging down.

2.9 Locate the strip at the front of the canopy and place into the header rail on top of the windscreen. Ensure that the canopy is centrally positioned otherwise the connection plates will be difficult to fit.

2.10 Fit the canopy connection plates to the sides of the windscreen and "A" pillar using the bolts already fitted to the vehicle.

2.11 Hook the side tension rope over the front loop situated at the rear of the door aperture just below the capping on each side of the vehicle, then position the pocket in the canopy over the same loop.

2.12 Continue along the sides of the vehicle hooking the rope underneath the cleats, then tension rope before securing in the cam cleat.

2.13 Working inside the vehicle cab feed the front tensioning straps back over the front roll hoop then bring forward onto the windscreen or the short straps that exist, then tension straps to remove sagging.

2.14 Working inside the rear of the vehicle fit the side securing flaps around the diagonal bars and join them using the velcro pads provided.

2.15 Roll back roof panel, feed straps through slots in roll cage top hamper plate at sides, back and front and secure.

2.16 Refit the roof panel ensuring the rope is passed through the eyelet at the rear before securing the rope in the cam cleat.

2.17 Feed the rear tensioning straps over the rear canopy hoop and hook under the rear capping, then tension straps to remove sagging from roof section.

2.18 Secure each side of the rear hatch using the rope hooks and eyes, then tension the rope and secure in the cam cleats.

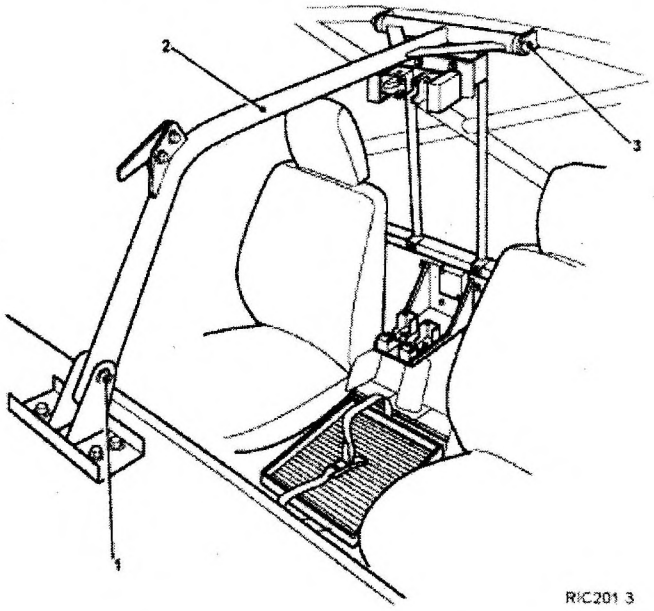
2.19 Hook the bungee straps on the inside of the rear hatch under the three hooks located on the inside face of the rear pannier, ensure the flap on the rear hatch is over the outside of the pannier top tube.

2.20 Fully zip up each door and hook bungee straps under the cleats located down the "B" pillar.

2.21 Finally check the overall fit, and adjust tension of straps if necessary.

WIRE CUTTER

3 To remove the wire cutter (refer to Para 2.1 and 2.2). To fit the wire cutter is the reverse of removing.



1 Bolt
2 Support tube
3 Fixings

Fig 1 Wire cutter

[redacted]

4 [redacted]

[redacted]

TYRE PRESSURES

5 [redacted]

CAUTION

The tyres should not be run in a partially deflated condition, (such as "emergency soft pressure" on soft sand) as internal tyre damage may result.

TABLE 1 PRESSURE FOR MICHELIN LT235/85 R16 TYRES

Serial (1)	Vehicle/wheel (2)	Pressure (3)	
		Bar	Lb/in^2
1	RWMIK front wheels	3.1	45
2	RWMIK rear wheels	5.4	78

TABLE 2 WHEELS

Serial (1)	Vehicle (2)	Wheels (3)	Valves (4)	Wheel nut torque (5)	
				Nm	Lb/ft
1	WMIK	NSN 7WMK 2530 99 226 6614	Metal NSN 7RU 2610 99 405 6007	255	188

JERRY CAN STOWAGE

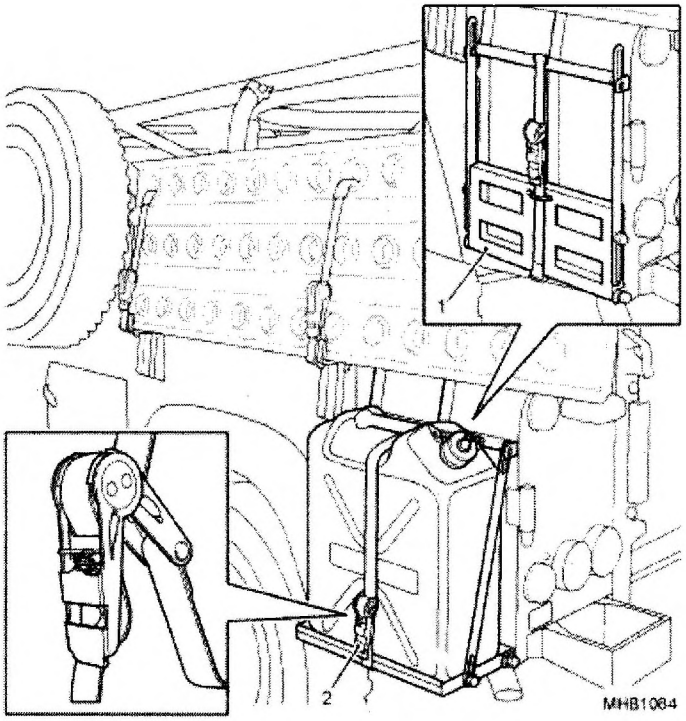
6 There is provision for the stowage of 2 jerry cans. One mounted on each side at the vehicle at the rear. The jerry can is strapped to a folding steel frame bolted to the side of the vehicle and secured with a ratchet and strap.

6.1 To unfold the jerry can stowage frame, lift the lever on the ratchet and pull the strap from the ratchet to release the platform, lower the platform (Fig 2 (1)).

6.2 To fold the jerry can stowage frame, lift the platform and secure with ratchet strap, operate the ratchet to secure the platform.

6.3 To release the jerry can, lift the lever on the ratchet (2) and pull the strap from the ratchet to release the jerry can.

6.4 To stow the jerry can, position the jerry can on the steel frame and operate the ratchet to secure the strap through the handle of the jerry can.



1 Platform 2 Lever

Fig 2 Jerry can stowage

SAND CHANNELS

7 Sand Channels are provided to assist in the recovery of the vehicle in arduous conditions. The channels are mounted to the side of the vehicle on brackets and secured with ratchets and straps.

WARNINGS

(1) FALLING OBJECTS. ALWAYS SUPPORT THE SAND CHANNELS ON THE BRACKETS WHILST RELEASING OR FASTENING THE RATCHETS.

(2) SHARP EDGES. HANDLE THE SAND CHANNELS WITH CARE.

8 To remove the sand channels from the vehicle:

8.1 Release the ratchets (Fig 3 (1)) by lifting the ratchet handles upwards and slackening off the straps through the rear of the ratchet.

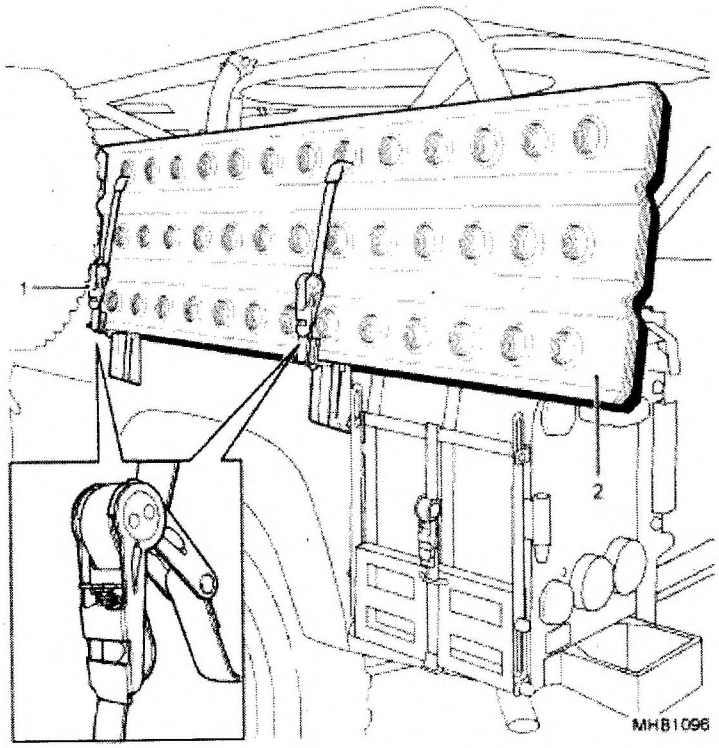
8.2 Free the straps from the sand channels and with the aid of an assistant lift the sand channels (2) clear of the mounting brackets.

9 To secure the sand channels to the vehicle:

9.1 With the aid of an assistant, lift the sand channels onto the mounting brackets on the side of the vehicle.

9.2 Feed the straps through the holes in the sand channels and into the rear of the ratchet. Ensure the reinforcing sleeve is located correctly through the sand channel hole.

9.3 Tighten the ratchets until the slack is removed from the straps and the channels are unable to move. DO NOT over tighten.



1 Ratchets 2 Sand channels

Fig 3 Sand channel stowage

BARREL CLAMPS

10 Barrel clamps are provided for the stowage of either two HMG or with a barrel clamp adaptor two GPMG barrels across the roll cage. The clamp system is similar for both types of barrel.

11 To install barrels into the clamps, proceed as follows:

11.1 Unlock the handles (Fig 4 (2)) on both sides of the vehicle.

11.2 Open the top clamps (1) and position the ends of the barrel into the clamps.

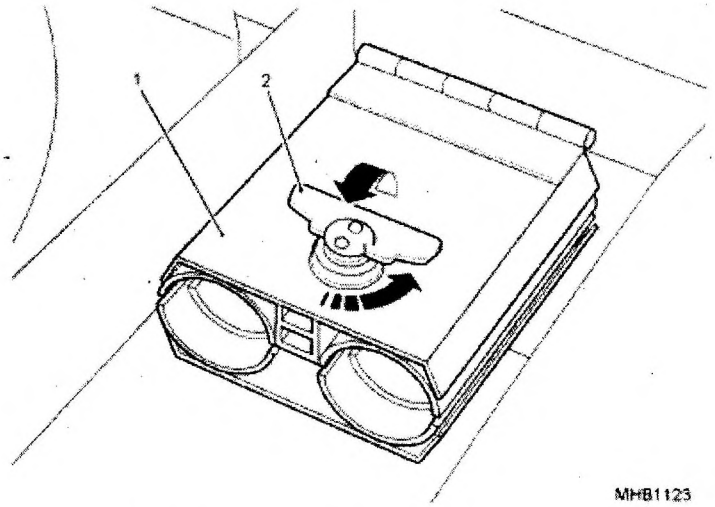
11.3 Close the clamps and turn the handle into the locked position.

12 To remove the barrels from the clamps, proceed as follows:

12.1 Unlock the handles on both sides of the vehicle.

12.2 Open the top clamps and remove the barrel from the clamps.

12.3 Close the clamps and turn the handle into the locked position.

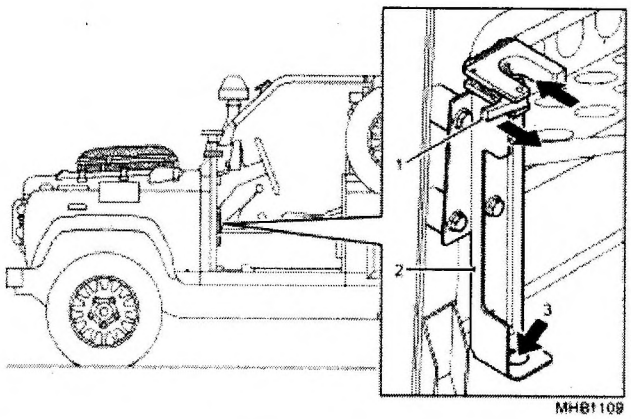


1 Top clamps 2 Handles

Fig 4 Barrel clamps (HMG)

UPRIGHT BARREL CLAMP

13 A vertical barrel clamp is provided for 7.62mm barrel stowage on the left hand side of the commander's foot well.



1 Lever 2 Clamp
3 Hole

Fig 5 Upside barrel clamp

13.1 To install barrel into the barrel clamp, proceed as follows:

13.2 Insert the barrel into the hole (Fig 5 (3)) on the clamp (2).

13.3 Pull the lever (1), slide barrel into the clamp and release lever.

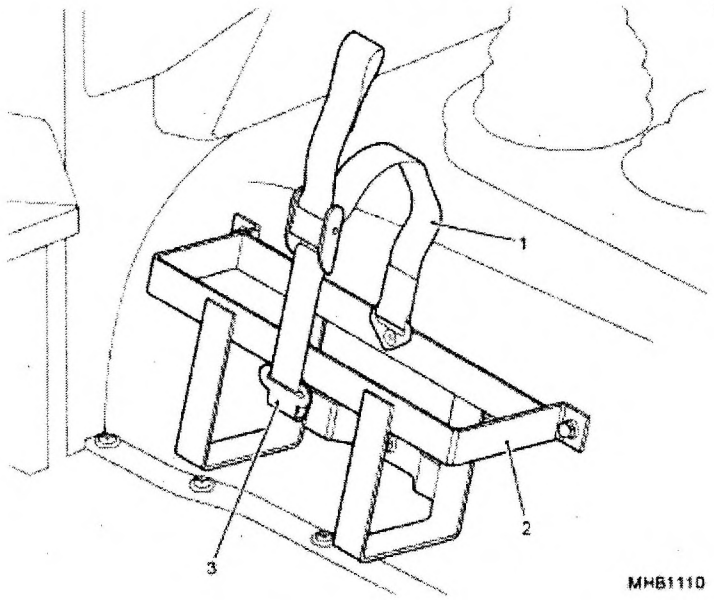
14 To remove the barrel from the clamp, proceed as follows:

14.1 Pull the lever, slide the barrel from the clamp.

14.2 Remove the barrel from the hole.

AMMO TRAY H84

15 A H84 ammo tray is mounted on the commander's side of the transmission tunnel.



1 Strap
2 Mount
3 Hook

Fig 6 Ammo tray H84

16 To install ammo tray into mount, proceed as follows:

16.1 Slide ammo tray into mount (Fig 6 (2)) from above.

16.2 Locate hook (3) under rail and tighten strap (1).

16.3 To remove ammo tray from mount. Release and unhook strap securing the ammo tray.

16.4 Lift the ammo tray from the mount.

AMMO TRAY - COMMANDERS FOOTWELL

17 An ammo tray is mounted in the commander's footwell.

18 To install ammo tray into mount, proceed as follows:

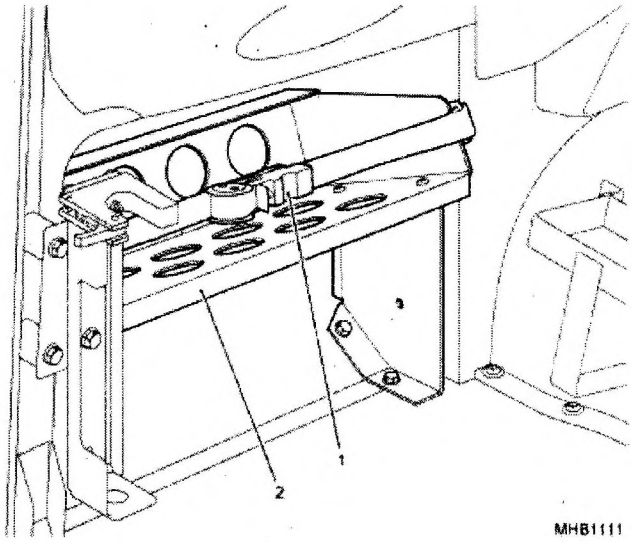
18.1 Release the ratchet strap (Fig 7 (1)).

18.2 Slide ammo tray onto mount (2) secure ammo tray with ratchet strap.

19 To remove ammo tray from mount, proceed as follows:

19.1 Release Ratchet strap securing the ammo tray.

19.2 Slide the ammo tray from the mount.



1 Ratchet strap 2 Mount

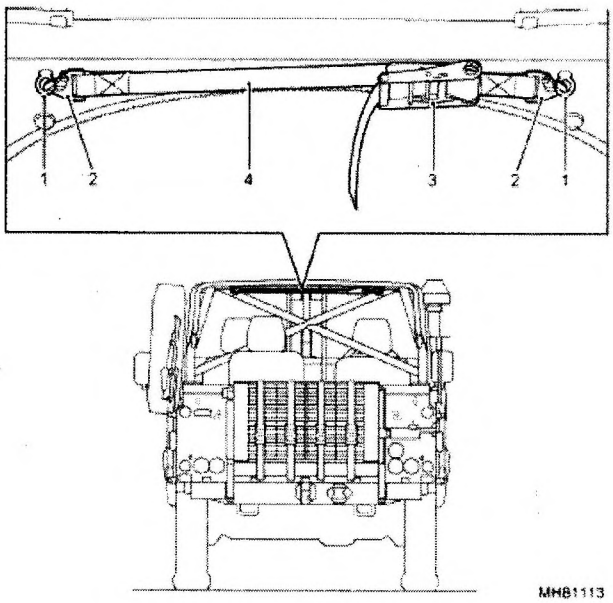
Fig 7 Ammo tray - Commanders footwell

AGL SUPPORT STRAP

20 A support strap is provided to secure the automatic grenade launcher (AGL). The ratchet strap is mounted on two eyebolts on the rear of the gun ring mount.

20.1 Release the ratchet (Fig 8 (3)) by lifting the ratchet handle and slackening off the strap (4) through the rear of the ratchet. Reverse procedure to tighten.

20.2 If necessary, the straps can be removed from the mounting by releasing the spring loaded catches (2) from the fixing point (1).



1 Fixing point 2 Catches
3 Ratchet 4 Strap

Fig 8 AGL support strap

BERGAN STRAPS

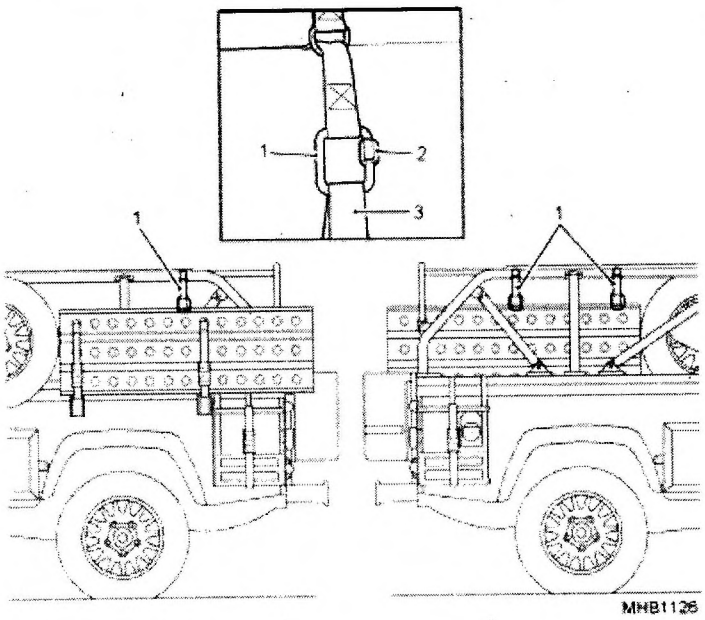
21 Bergan straps are provided on both sides of the vehicle.

22 To attach bergan, proceed as follows:

22.1 Unscrew the gate (Fig 9 (2)) on the karabiner (1).

22.2 Insert the strap of the bergan (3) on to the karabiner.

22.3 Tighten the gate on the karabiner.



1 Karabiner 3 Bergan
2 Gate

Fig 9 Bergan straps

CREW PROTECTION WEAPONS MOUNT (CPWM)

WARNINGS

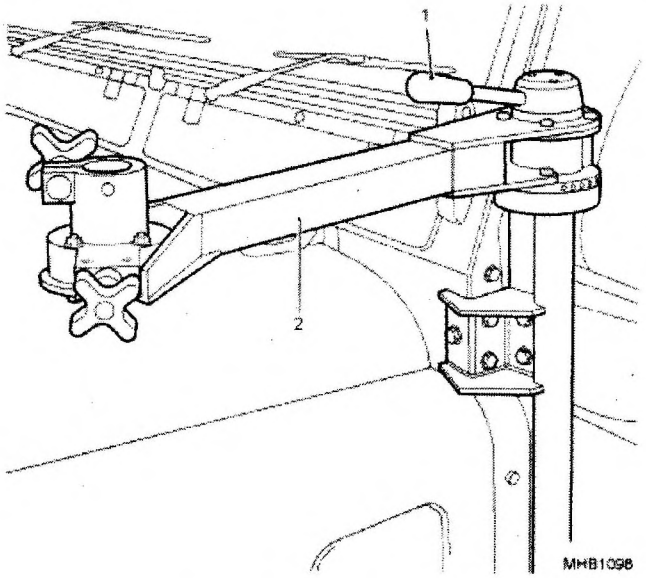
(1) DANGER TO PERSONNEL. THE SWING ARM SHOULD BE STOWED IN THE NORMAL LOCKED POSITION DURING TRANSIT. FAILURE TO LOCK THE SWING ARM DURING TRANSIT COULD RESULT IN INJURY TO THE OPERATOR AND/OR OTHER PERSONNEL CAUSE BY THE MECHANISM SWINGING FREELY AND WITHOUT CONTROL.

(2) FINGER TRAP. THE CPWM ROTATES ABOUT THE SWINGING ARM AND THE SWINGING ARM ROTATES ABOUT THE MOUNTING POST. INJURY WILL RESULT IF FINGERS OR HANDS ARE ALLOWED TO BE TRAPPED BETWEEN THE MOVING PARTS.

23 The Commander's crew protection mount is operated as follows:

23.1 Turn lever (Fig 10 (1)) counterclockwise and rotate swing arm (2) to required position.

23.2 Turn lever (1) clockwise to lock swing arm in position.



1 Lever 2 Swing arm

Fig 10 Commanders crew protection mount

SLEWING RING MOUNT

24 The slewing ring mount operation is described in the following Paras:

Slewing ring winding handle

25 To rotate slewing ring using the winding handle:

25.1 Unlock the Slewing Ring by operating the brake mechanism (Fig 13 Slewing ring breakFig 13).

25.2 Hold the knurled grip (Fig 11 (1) and wind the handle (2) in a clockwise/counteclockwise direction to rotate the slewing ring (3) to the desired position.

25.3 Reapply the brake mechanism and check that the brake is correctly applied.

Slewing ring cam lock

WARNING

INJURY TO PERSONNEL. THE SLEWING RING CAM LOCK LEVER SHOULD BE LEFT IN THE ENGAGED POSITION (HORIZONTAL) WHEN LEFT UNATTENDED. IF LEFT IN THE DISENGAGED POSITION (VERTICAL) IT MAY RESULT IN INJURY TO AN OPERATOR WORKING IN THE REAR OF THE VEHICLE.

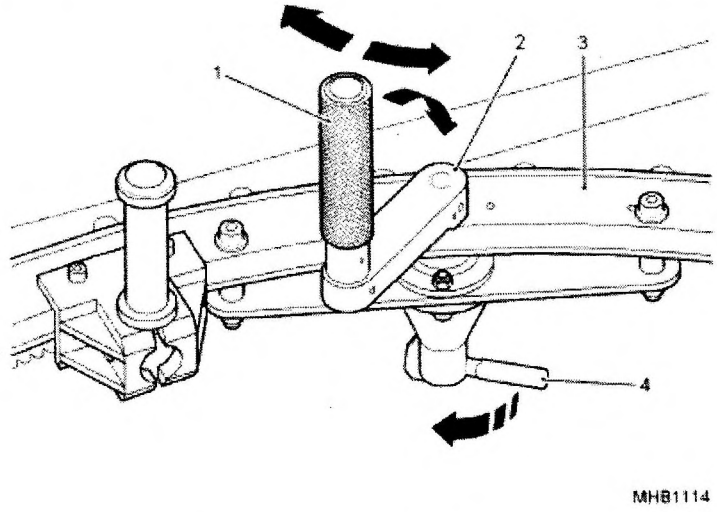
26 The slewing ring cam lock (3) is operated by a lever which engages/disengages the winding mechanism as follows:

26.1 To engage the winding handle mechanism; move the lever (4) up into the horizontal position.

26.2 To disengage the winding handle mechanism; move the lever down into the vertical position.

26.3 To fold winding handle; lift the spring loaded knurled grip (1) and fold towards the handle (2).

26.4 To unfold winding handle; fold the knurled grip upwards away from handle until it locates vertically.



1 Knurled grip
2 Handle
3 Cam lock
4 Lever

Fig 11 Slewing ring winding handle

Slewing ring mount handles

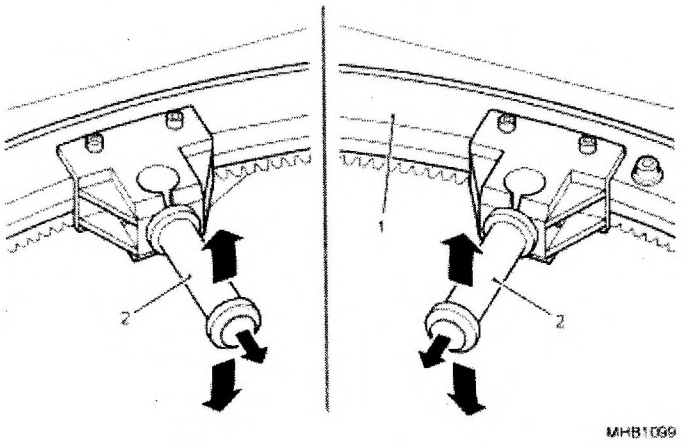
27 Two handles (Fig 12 (2)) are fitted, set at 180 degrees from each other, and provide hand grips for the operator to aid the manual rotation of the ring (1).

WARNING

INJURY TO PERSONNEL. LEAVING THE SLEWING HANDLES IN THE HORIZONTAL POSITION MAY RESULT IN INJURY TO AN OPERATOR SEATED OR WORKING WITHIN THE RING.

27.1 The Slewing Ring handles may be set in 3 positions, downwards, horizontal or upwards.

27.2 The handles are spring loaded and are moved by pulling the handle out to disengage from the mounting bracket and returned to the position of choice.



1 Ring 2 Handle

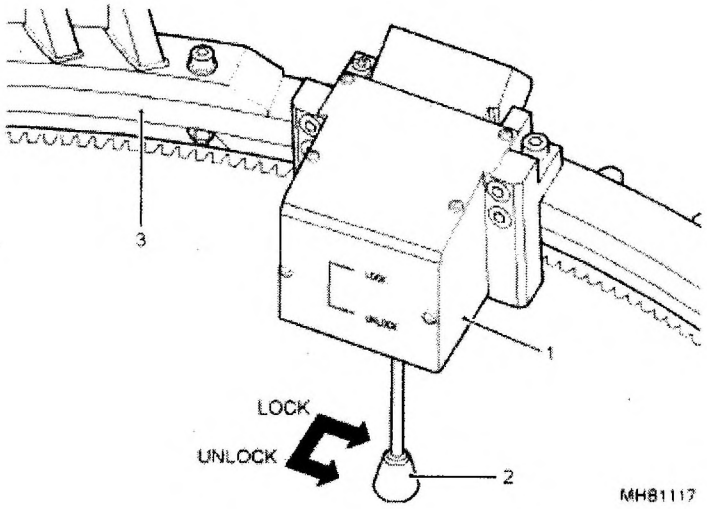
Fig 12 Slewing ring handles

Slewing ring brake

28 The Slewing Ring (Fig 13 (3)) is locked in position by a lock (1).

28.1 The Slewing Ring lock is operated by a single lever (2), which is spring loaded and may be placed in either the LOCKED or UNLOCKED positions.

28.2 The lock handle acts as a lever and positions a locking bar between the studs on the upper and outer edge of the ring.



1 Lock 3 Slewing ring
2 Lever

Fig 13 Slewing ring break

Slewing ring rotation

29 To rotate the slewing ring proceed as follows:

WARNING

INJURY TO PERSONNEL. LEAVING THE SLEWING HANDLES IN THE HORIZONTAL POSITION MAY RESULT IN INJURY TO AN OPERATOR SEATED OR WORKING WITHIN THE RING.

29.1 Grasp the Slewing Ring handles and select the desired handle position (Fig 12 (2)).

29.2 Unlock the Slewing Ring by operating the brake mechanism (Fig 13).

29.3 Brace against the gunners support and rotate the Slewing Ring to the desired position.

29.4 Reapply the brake mechanism and check that the brake is correctly applied.

29.5 Return the handles to the vertical position.

FOLDING INTERFACE MOUNT (FIM)

30 The folding interface mount is operated as follows:

WARNINGS

(1) DANGER TO PERSONNEL. IF THE WEAPON HAS BEEN FIRED CARE SHOULD BE TAKEN AS PARTS OF THE WEAPON MAY BE EXTREMELY HOT AND COULD CAUSE INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT.

(2) PERSONNEL INJURY HAZARD. THE PROCEDURE OF INVERTING THE WEAPON THROUGH THE SLEWING RING MUST BE CARRIED OUT BY TWO PERSONS. FAILUR TO DO SO MAY RESULT IN INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

CAUTION

EQUIPMENT DAMAGE. If the .50 HMG is the weapon in use, remove the barrel and place in the spare barrel stowage bracket, prior to inverting the mount. Failure to do so could result in fouling, and/or equipment damage.

Inverting the weapon mount

31 The weapon and soft mount is inverted through the opening of the slewing ring in the following way:

31.1 Make sure that the mounted weapon is in the UNLOADED condition.

31.2 Slew the ring into a position, which allows sufficient space within the vehicle to accept the mounted weapon when folded through the Slewing Ring.

31.3 Lock the Slewing Ring in position by use of the Slewing Ring locking mechanism (Fig 13).

31.4 Operate the lever ratchet assembly (Fig 14 (3)) and loosen the clamping bolt (6) on the front of the FIM (2).

31.5 Remove the "R" clip (4) from the main cross pin (1).

31.6 Support the weight of the weapon and remove the main cross pin.

31.7 Control the weight of the weapon, and swing the mount up and over allowing the body of the weapon to swing through the Slewing Ring mount.

NOTE

If the 0.50 HMG is fitted, the barrel must be removed prior to inverting the mount and weapon through the slewing ring.

31.8 Replace the main cross pin into the FIM and refit the "R" clip.

Returning the weapon mount to the ready position

CAUTION

EQUIPMENT DAMAGE. The ratchet handle must be folded back against the FIM to prevent the ratchet from coming into contact with the rear ROPS frame, when the weapon mount is being inverted, otherwise damage to the ratchet may result, rendering the FIM unserviceable.

32 To return the weapon mount to the ready position proceed as follows:

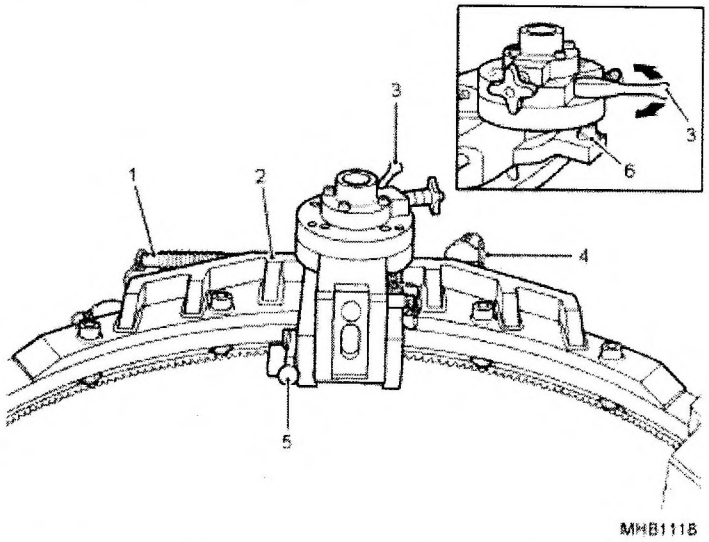
32.1 Remove the "R" clip and main cross pin from the FIM.

32.2 Control the weight of the weapon and depress the release locking mechanism (5) on the left hand side of the FIM.

32.3 Swing the weapon up through the slewing ring, maintaining control of the mount and weapon. Fit the main cross pin and "R" clip.

32.4 Operate the lever ratchet assembly and tighten the clamping bolt against the cross pin.

32.5 Fold the ratchet handle back against the FIM.



1	Main cross pin	3	Ratchet handle	5	Locking mechanism
2	FIM	4	"R" clip	6	Clamping bolt

Fig 14 Folding interface mount

GUNNERS SUPPORT

33 To adjust height of gunners support:

33.1 Remove two gate pins (Fig 15 (3)) from each side of support frame (4).

33.2 Position support frame at required height.

33.3 Refit two gate pins through brackets on each side of support frame.

34 To adjust the height of the gunners support backrest, proceed as follows:

34.1 Remove two gate pins (1) from each side of support frame (4).

34.2 Position backrest (2) at required height.

34.3 Refit two gate pins through support frame on each side of backrest.

35 To adjust the rake of the backrest, proceed as follows:

35.1 Remove gate pin (10) from each side of support frame (9).

35.2 Pull/push support frame to align with alternative holes

35.3 Refit gate pin on each side of support frame.

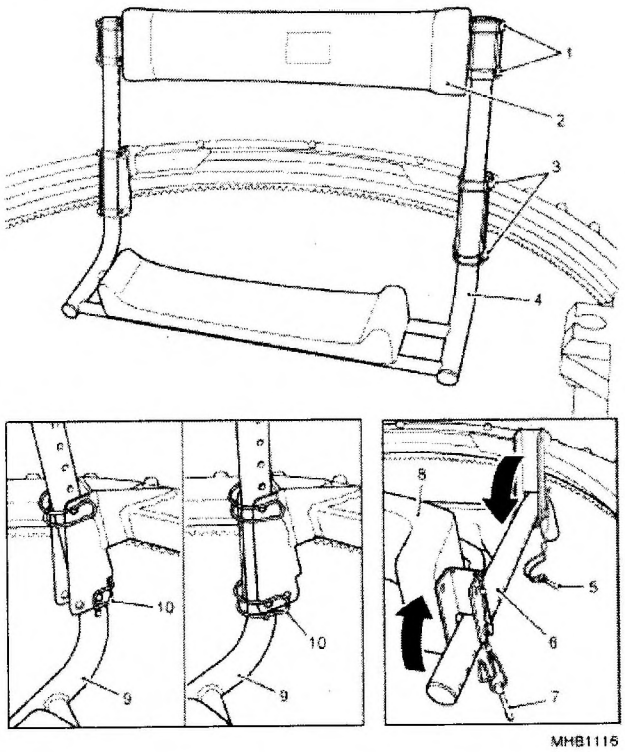
36 To fold the gunners support, proceed as follows:

36.1 Remove gate pins (5) from both sides of support frame (6).

36.2 Pivot support frame (6) forwards.

36.3 Remove gate pins (7) from both sides of support frame.

36.4 Pivot backrest backwards (8).



1	Gate pins	5	Gate pins	9	Support frame
2	Backrest	6	Support frame	10	Gate pin
3	Gate pins	7	Gate pins		
4	Support frame	8	Backrest		

Fig 15 Gunners support

GUNNERS PLATFORM

37 The gunners platform (Fig 16) is stowed folded in the rear of the vehicle and is secured with a strap when not in use.

Unfolding the Platform

38 To unfold the platform proceed as follows:

38.1 Release the strap (1) securing the folded platform (2)

38.2 Pivot the platform downwards using handle (4).

38.3 Pull the release cable (9) to adjust the height of the platform (8) if required.

38.4 Unfold the platform extension (3), pull the release cable (6) to allow adjustment of the arms (7).

WARNING

THE PLATFORM EXTENSION (3) IS NOT SELF SUPPORTING AND MUST BE HELD WHEN LIFTING /LOWERING.

38.5 Lower the platform onto the support bracket (5).

Folding the Platform

39 To fold the platform, proceed as follows:

39.1 Lift the platform from the support bracket.

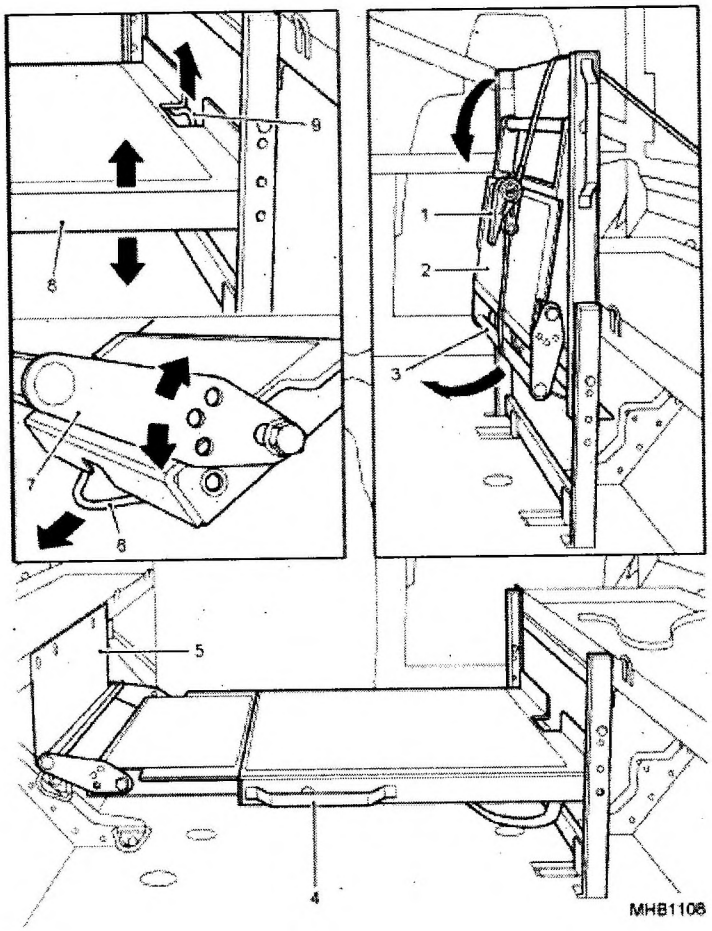
39.2 Pull the release cable and fold the platform extension (3).

WARNING

THE PLATFORM EXTENSION (3) IS NOT SELF SUPPORTING AND MUST BE HELD WHEN LIFTING /LOWERING.

39.3 Pivot the platform upwards using handle.

39.4 Fix the folded platform in position with securing strap.



1	Securing strap	4	Handle	7	Arms
2	Folded platform	5	Support bracket	8	Platform
3	Platform extension	6	Release cable	9	Release cable

Fig 16 Gunners platform

SHOWER PROOF DASH COVER

40 A shower proof dash cover is provided for the protection of the dashboard during adverse weather conditions. To fit the shower proof dash cover, proceed as follows:

40.1 Release the bonnet catch and raise the bonnet (refer to Chap 2.1).

40.2 Release the wire cutter from the dash mount (Fig 17 (1)).

40.3 Position shower proof cover (2) over dash ensuring the wire cutter is passed through the sock and the Velcro strap (3) is attached under the steering column.

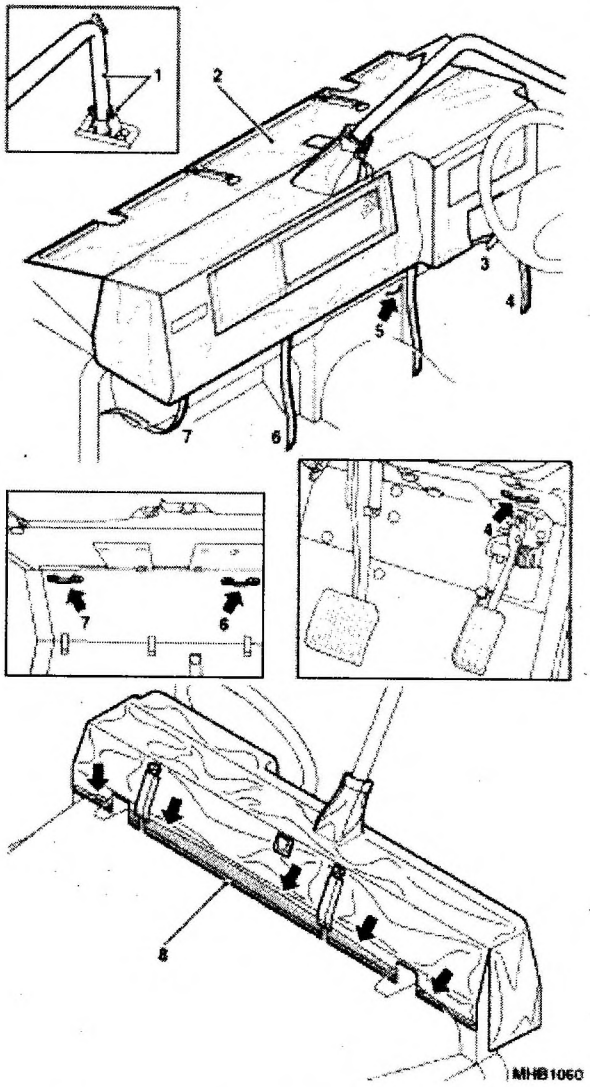
40.4 Re-attach the wire cutter to the dash mount and pull the cord tight around the sock.

40.5 Tuck the front of the cover (8) in between the bonnet and front scuttle ensuring that all apertures line up with the appropriate part.

40.6 Attach the Velcro straps (4-7) to the staples on the scuttle at positions shown.

40.7 Close the bonnet.

40.8 Removal of the cover is the reversal of the above.



1	Dash mount	4	Velcro straps	7	Velcro straps
2	Shower proof cover	5	Velcro straps	8	Front of cover
3	Velcro strap	6	Velcro straps		

Fig 17 Shower proof dash cover

[redacted]

41 [redacted]

[redacted]

(1) [redacted]

[redacted]

[redacted]

[redacted]

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[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Driving on uneven terrain

44 Rock crawling, ditch crossing and other challenging terrain can make it impossible to keep all four wheels on the ground. [redacted]

45 Plan your route across obstacles so you don't compromise the vehicles centre of gravity and roll the vehicle. Use low range and idle throttle where possible and proceed slowly.

Driving uphill

46 If possible align the vehicle straight up the incline [redacted] Apply gentle throttle, do not wheelspin.

Descending steep slopes

47 If possible align the vehicle straight down the incline. Use engine braking on the descent. [redacted]

Traversing slopes

48 When traversing a slope on a surface with low or unpredictable traction leave both [redacted].

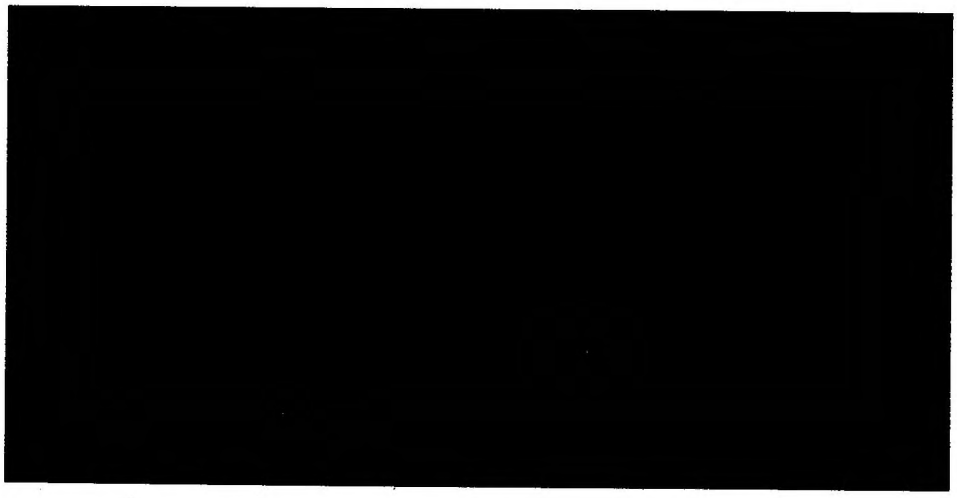
[redacted]

49 [redacted].

49.1 [redacted]

49.2 [redacted]

49.3 [redacted]



1 [redacted] 3 [redacted]
2 [redacted]

Fig 18 [redacted]

CHAPTER 3-9

TROPICAL FIELD AMBULANCE

CONTENTS

INTRODUCTION

1 This sub-chapter describes all the items applicable to the Tropical Battlefield Ambulance which are not covered in the previous chapters.

General

2 All information appertaining to these vehicles can be found in sub-chapter 3-3 Battlefield Ambulance.

NOTES

To maximise the operation of the air conditioning system:

(1) The vehicles doors and windows should be kept closed as much as possible.

(2) The temperature control should be rotated to the maximum cold setting and the air fan switch to maximum speed.

(3) When the desired temperature is reached it should be regulated with both controls.

AIR CONDITIONING

3 The controls for the air conditioning system are located in the ambulance on the main control panel and the re-circulation grille. They consist of a temperature control switch, and a blower motor fan speed control. Air distribution is achieved via a series of vents located in a roof-mounted duct in the ambulance and in the drivers cab by vents mounted in the side of the evaporator unit.

TEMPERATURE CONTROL SWITCH

4 To operate the temperature control switch, located in the air outlet duct, (Fig 1), rotate clockwise to reduce the ambient temperature within the compartment.

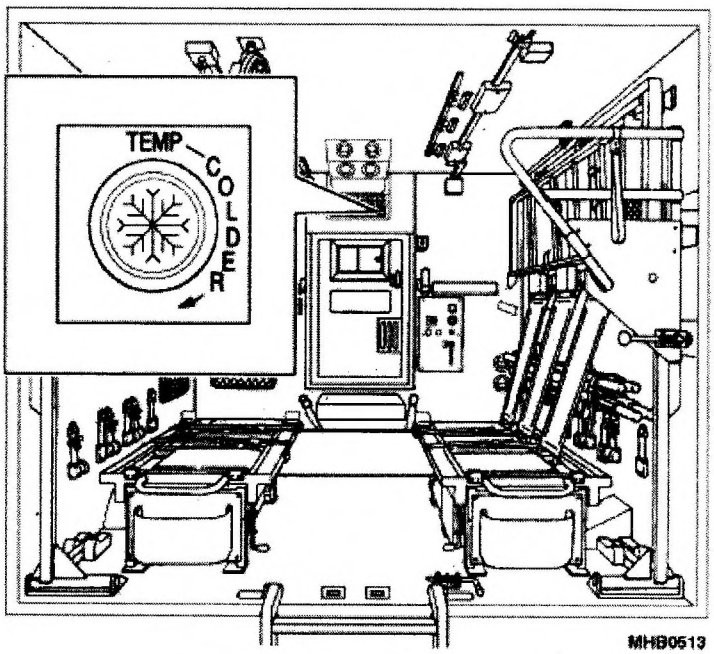


Fig 1 Temperature control switch

BLOWER MOTOR FAN SPEED CONTROL SWITCH

5 This is a rotary switch (Fig 2) with 4 settings as follows:

5.1 Off – the fan is non-operational.

5.2 Low – The fan operates at a low speed.

5.3 Med – The fan operates within the middle range.

5.4 High – The fan operates at its optimum level.

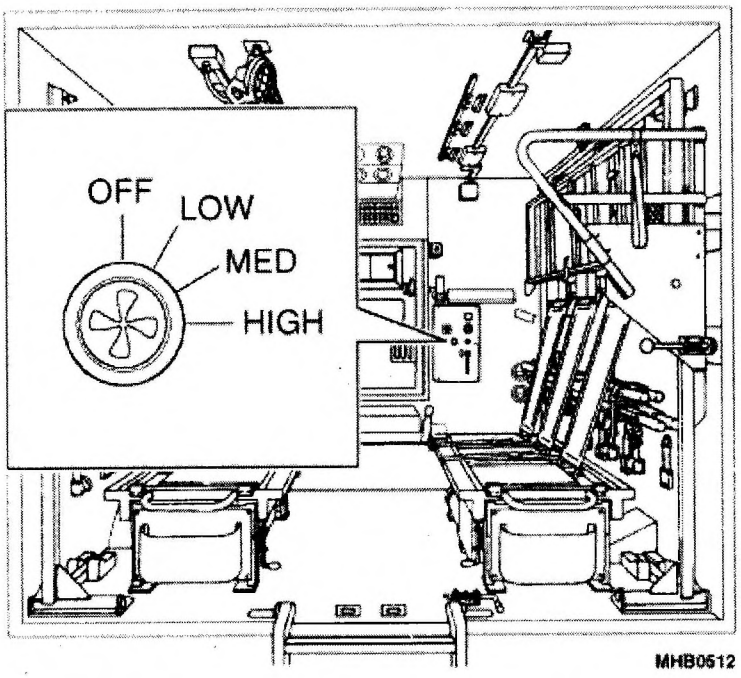


Fig 2 Blower motor fan speed control switch

CIRCUIT BREAKERS

WARNING

CIRCUIT BREAKERS. CB.3 MUST BE SWITCHED OFF WHEN 12V SUPPLY SOCKETS ARE NOT IN USE.

6 There are 5 circuit breakers contained in the panel and they protect the following circuits:

6.1 CB.1 – Air conditioning.

6.2 CB.2 – Blowers.

6.3 CB.3 – 12 volt socket.

6.4 CB.4 – Lights.

6.5 CB.5 – 24 volt sockets.

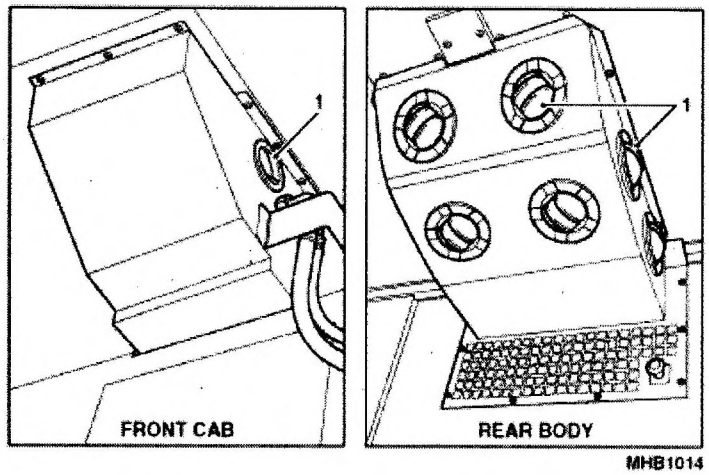
VENTILATION DEFLECTORS

7 Air distribution is achieved via a series of vents (Fig 3 (1)) located in a roof mounted duct in the ambulance (rear body) and in the drivers front cab by vents mounted in the side of the evaporator unit. These vents can be adjusted to alter the direction of air flow.

WARNINGS

(1) DO NOT OPERATE THE SYSTEM WITH ALL OF THE VENTS CLOSED.

(2) DO NOT OPERATE THE SYSTEM IF THE RECIRCULATION GRILLE IS BLOCKED.



1 Vents

Fig 3 Ventilation deflectors

CHAPTER 3-10

WINTERISED/WATERPROOFED BATTLEFIELD AMBULANCE

CONTENTS

INTRODUCTION

1 This sub-chapter describes all the items applicable to the Winterised/Waterproofed Battlefield Ambulance vehicles, which are not covered in the previous chapters.

General

2 All information appertaining to the Winterised/Waterproofed Battlefield Ambulance vehicles can be found in sub-chapter 3-3.

FUEL FILLER FLAP

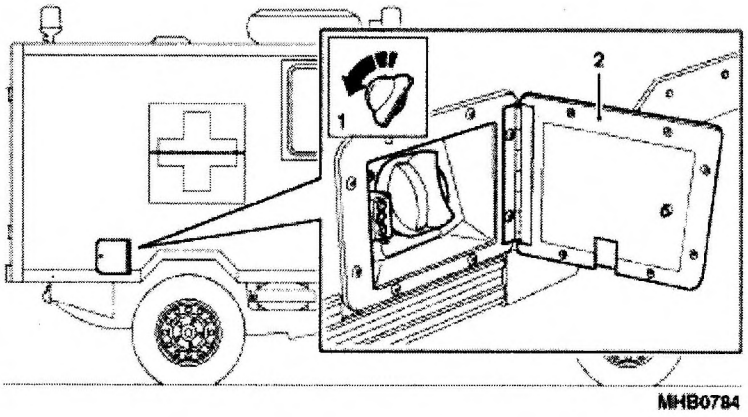
3 The fuel filler flap protects the filler cap (Fig 1 (2)) from excessive cold and water penetration.

To open and close the flap

NOTE

When fastening the flap ensure that turnbuckle is secure.

4 Twist the turnbuckle (1) in the appropriate direction to release or fasten the flap.



1 Turnbuckle 2 Filler cap

Fig 1 Fuel filler cap

CHAPTER 3-11

WATERPROOFED WEAPONS MOUNTED INSTALLATION KIT

CONTENTS

INTRODUCTION

1 This sub-chapter describes all the items applicable to the Waterproofed Truck Utility Medium (TUM) Weapons Mounted Installation Kit (WMIK) vehicles, which are not covered in the previous chapters.

RAISED AIR INTAKE

2 The fixed raised air intake can be extended by the use of an extension tube. To fit the extension tube refer to Cat 421.

REMOVABLE WINDSCREEN

WARNING

HEAVY OBJECTS. THE REMOVABLE WINDSCREEN IS HEAVY. USE AN ASSISTANT WHEN REMOVING OR REFITTING THE SCREEN.

3 To remove the windscreen, carry out the following:

3.1 Remove the canopy side doors (if fitted).

3.2 Remove the windscreen wiper arms (Fig 1 (1)).

3.3 Slacken the cap nuts (2) on the windscreen clamps.

3.4 Pull the clamps out of the brackets and rotate clear of the windscreen.

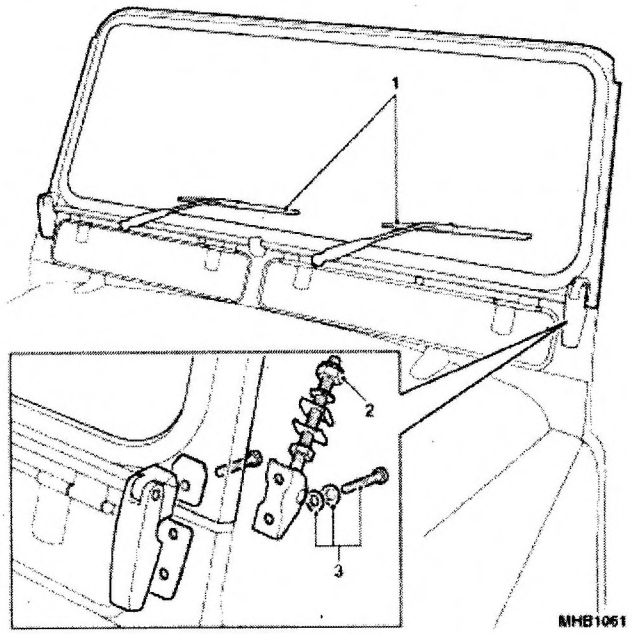
3.5 Remove the two fixings (3) securing the clamp brackets to the bulkhead on both sides of the windscreen.

3.6 With the aid of an assistant lift the windscreen clear of the vehicle.

3.7 Collect the hinge gaskets from both sides of the bulkhead mountings.

3.8 Stow the windscreen and its components in a safe place.

4 Refit the windscreen in the reverse order of the removal.



1 Wiper arms
2 Cap nuts
3 Fixings

Fig 1 Removable wipers

SPARE WHEEL CARRIER

5 Where it has been approved by the Equipment Manager at DLO, an additional spare wheel carrier may be fitted to the opposite side of the vehicle using existing in service equipment and a long arm mirror. To remove and refit the spare wheel refer to Chap 4-1.

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CHAPTER 4

USER MAINTENANCE

CONTENTS

INTRODUCTION

1 This chapter describes the User Maintenance applicable to Truck Utility Light (TUL) HS, Truck Utility Medium (TUM) HS and (TUM) Battlefield Ambulance HS variants listed in the following sub-chapters:

1.1 Chapter 4-1 Basic Vehicle.

1.2 Chapter 4-2 Fitted For Radio (FFR).

1.3 Chapter 4-3 Battlefield Ambulance.

1.4 Chapter 4-4 Winterised/Waterproofed.

1.5 Chapter 4-5 Air Dropable.

1.6 Chapter 4-6 Helicopter Support Vehicle.

1.7 Chapter 4-7 Commanders IK.

1.8 Chapter 4-8 Weapons Mounted Installation Kit.

1.9 Chapter 4-9 Tropical Battlefield Ambulance.

1.10 Chapter 4-10 Winterised/Waterproofed Battlefield Ambulance.

1.11 Chapter 4-11 Waterproofed Weapons Mounted Installation Kit.

General

2 The information given in this chapter is applicable to both left and right hand drive vehicles.

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CHAPTER 4-1

BASIC VEHICLE

CONTENTS

(continued)

CONTENTS (continued)

(continued)

CONTENTS (continued)

INTRODUCTION

1 This Sub-Chapter describes all the user maintenance applicable to the Truck Utility Light (TUL) HS and Truck Utility Medium (TUM) HS vehicles.

General

2 All the service intervals for the subsequent paragraphs are to be found in the following document: (Cat 601, Table 4 and 5). For the most efficient use of the vehicles, the service intervals should be adhered to.

BULBS

CAUTION

24 VOLT. All the bulbs incorporated in the vehicle are of the heavy duty 24 Volt type and should be changed immediately they have failed. Failure to do so will result in operating in an unreliable condition e.g. warning lights not indicating failure especially with the brakes, vehicle charging and 24 volt charging circuits.

3 The bulbs are either the push or the bayonet types. The appropriate bulb ratings are to be found in the "User Spares Data" (Chap 5). The following paras describe how to replace all the bulbs on the vehicle.

Map reading light

4 The map reading light is situated to the left of the main lighting switch, in front of the passenger seat.

4.1 Disconnect the negative earth lead from the battery.

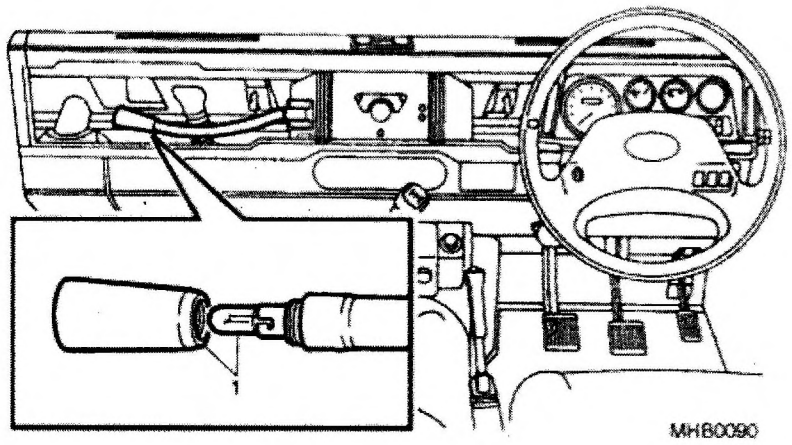
4.2 Carefully unscrew the bulb guard (Fig 1 (1)) from the end of the light unit.

4.3 Push and twist against spring pressure to remove the bulb and discard.

4.4 Insert a new bulb.

4.5 Refit the bulb guard on to the light unit.

4.6 Reconnect the negative earth lead to the battery.



1 Bulb guard

Fig 1 Map reading light

Warning lights

5 The warning lights panel is an integral part of the instrument panel which is situated in front of the steering wheel console and contains eleven bulbs.

5.1 Disconnect the negative earth lead from the battery.

5.2 Remove the two screws (Fig 2 (1)) retaining the warning lights panel and ease the panel forward to gain access to the bulbs.

5.3 Remove the appropriate plug connector (2) from the rear of the warning lights panel.

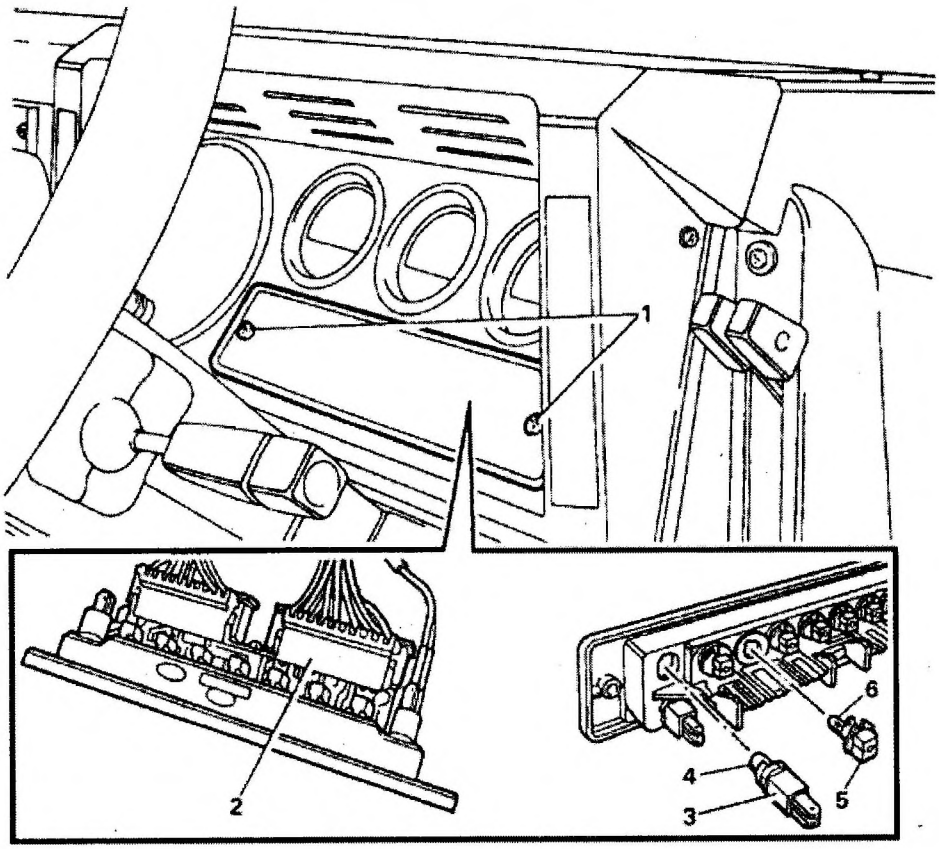
5.4 Twist the bulb holder (3) (5) and pull it from its socket.

5.5 Pull the bulb (4) (6) from its holder and discard.

5.6 Fit a new bulb and replace the holder into its socket.

5.7 Replace the plug connector and carefully fit the warning lights panel.

5.8 Secure with the two screws to the instrument panel.



1	Screws	3	Bulb holder	5	Bulb holder
2	Plug connector	4	Bulb	6	Bulb

Fig 2 Warning lights

Instrument panel

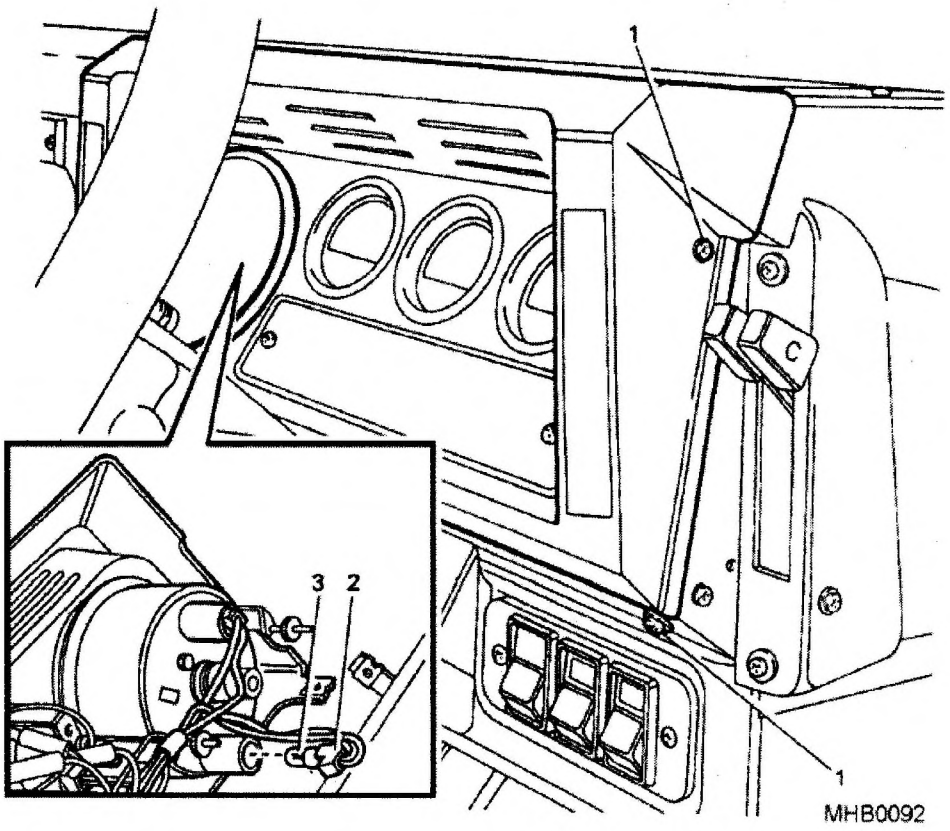
6 The instrument panel is situated in front of the steering wheel console and contains three bulbs.

6.1 Disconnect the negative earth lead from the battery.

6.2 Remove the four screws (Fig 3 (1)) retaining the instrument panel and ease the panel forward to gain access to the bulbs.

NOTE

If required remove the drive cable from the speedometer to make access easier.



1 Screw
2 Bulb Holder
3 Bulb

Fig 3 Instrument panel lights

6.3 Twist and pull the bulb holder (2) from its socket.

6.4 Pull the bulb (3) from its holder and discard.

6.5 Fit a new bulb and replace the holder into its socket.

6.6 Reconnect the speedometer drive cable if removed, then replace the instrument panel carefully, so as not to twist or damage the wiring at the rear.

6.7 Secure the panel with the four screws.

6.8 Reconnect the negative earth lead to the battery.

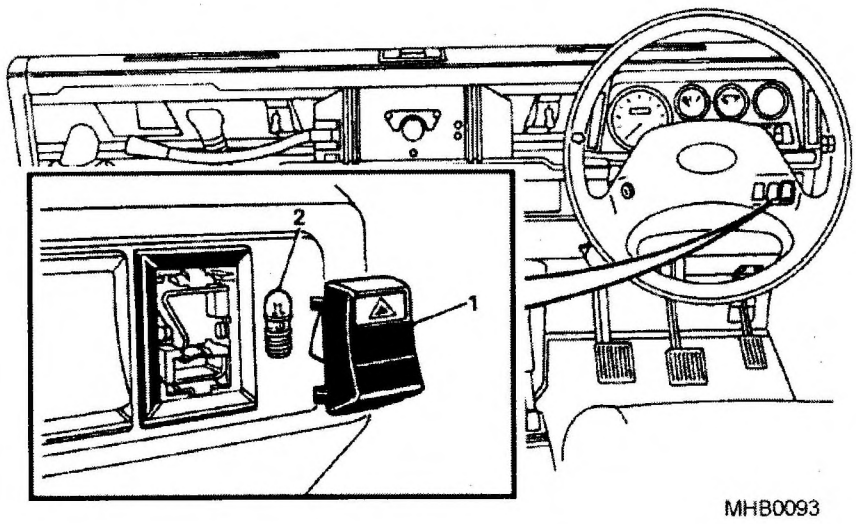
Hazard warning light

7 The hazard warning switch is located below and to the right of the instrument panel.

7.1 Disconnect the negative earth lead from the battery.

7.2 Ease the hazard switch cover (Fig 4 (1)) off.

7.3 Ease the bulb (2) from its holder within the switch and discard.



1 Hazard Switch Cover 2 Bulb

Fig 4 Hazard warning light switch

7.4 Fit a new bulb into its housing and refit the cover.

7.5 Reconnect the negative earth lead to the battery.

Convoy light

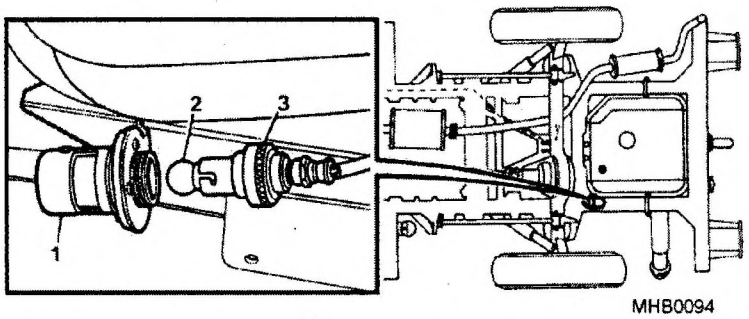
8 The convoy light is situated underneath and to the rear of the vehicle. It is located on the right hand chassis member.

8.1 Disconnect the negative earth lead from the battery.

8.2 Clean the exterior of the light (Fig 5 (1)) if dirty so access can be made more easily.

8.3 Unscrew the retaining cap (3) and remove the bulb holder from the convoy light.

8.4 Press and twist to release the bulb (2) from the holder and discard.



1 Exterior
2 Bulb
3 Retaining Cap

Fig 5 Convoy light

8.5 Fit a new bulb into the holder.

8.6 Refit the bulb holder and secure by tightening the retaining cap.

8.7 Reconnect the negative earth lead to the battery.

Side, tail, stop, and front turn lights.

9 The side, tail, stop, and front turn lights are all of the same type and therefore the following instructions are common.

9.1 Disconnect the negative earth lead from the battery and release the front lamp guard.

9.2 Remove the two screws (

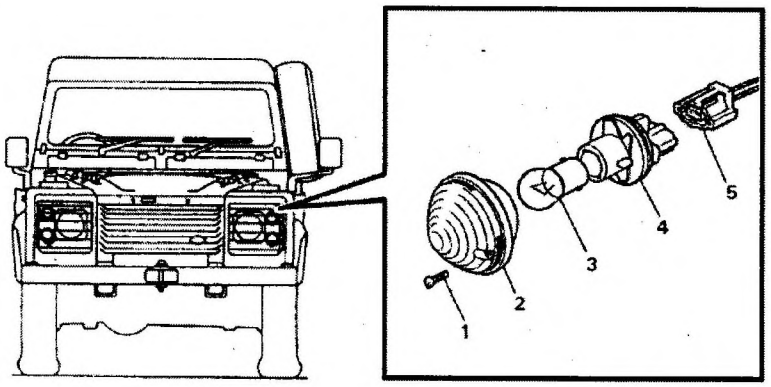
9.3 1 Screw 3 Defective Bulb 5 Connector
2 Light Bulb 4 Bulb Holder

9.4 Fig 6 (1)) and withdraw the light unit (2) from the vehicle.

9.5 Pull connector (5) from bulb holder (4).

9.6 Whilst holding the light unit (2) twist and withdraw the bulb holder (4) from the rear of the unit.

9.7 Push defective bulb (3) inwards, twist and withdraw it from the bulb holder.



1 Screw
2 Light Bulb
3 Defective Bulb
4 Bulb Holder
5 Connector

Fig 6 Side, tail, stop and front turn lights

9.8 Discard bulb.

9.9 Renew bulb.

9.10 Refit the light unit by reversing the order of removal.

Rear Fog, rear turn and reverse lights

10 The rear fog, rear turn and reverse lights are of the same type and therefore the following instructions are common.

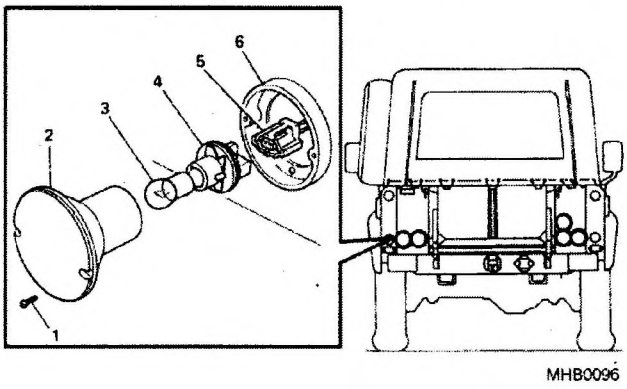
10.1 Disconnect the negative earth lead from the battery.

10.2 Remove the two screws (Fig 7 (1)) securing the light unit to the vehicle mounted spacer (6).

10.3 Pull connector (5) from bulb holder (4).

10.4 Whilst holding the light unit (2), twist the end withdraw the bulb holder (4) from the rear of the unit.

10.5 Push defective bulb (3) inwards, twist and withdraw it from the bulb holder.



1 Screw
2 Light Unit
3 Defective bulb
4 Bulb holder
5 Connector
6 Mounted spacer

Fig 7 Rear fog, rear indicator and reverse lights

10.6 Discard bulb.

10.7 Renew the bulb.

10.8 Refit the light unit by reversing the order of removal.

10.9 Reconnect the negative earth lead to the battery.

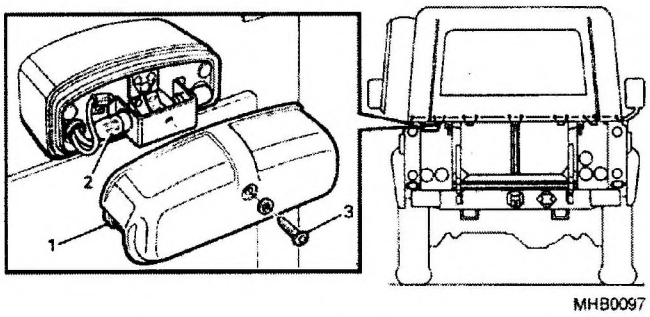
Rear number plate light

11 The rear number plate light has two bulbs; check that the correct bulb is replaced to ensure full working capacity.

11.1 Disconnect the negative earth lead from the battery.

11.2 Slacken the securing screw (Fig 8 (3)) and remove the cover from the light body (1).

11.3 Pull out the appropriate bulb (2) and discard.



1 Light Body 3 Securing Screw
2 Bulb

Fig 8 Rear number plate light

11.4 Fit a new bulb into the holder.

11.5 Fit the cover and secure with the screw.

11.6 Reconnect the negative earth lead to the battery.

Headlights

12 The headlights contain quartz halogen bulbs and the procedure for renewing the bulb is as follows:

12.1 Disconnect the negative earth lead from the battery.

12.2 Release the lamp guard from the front of the vehicle.

CAUTION

ADJUSTMENT SCREWS. Care must be taken not to disturb the headlight beam adjustment screws.

12.3 Prise the headlight unit (Fig 9 (2)) from the headlight beam adjustment screws (1) and remove. The headlight lens can now be removed.

12.4 Pull off the electrical connection (3) to the headlight, remove the rubber boot (4), release bulb retaining clip (5) and withdraw the bulb (6).

12.5 Fit new bulb and secure with retaining clip.

12.6 Clean the headlight and rubber boot of old grease and recoat with silicon grease.

12.7 Refit the rubber boot and electrical connector.

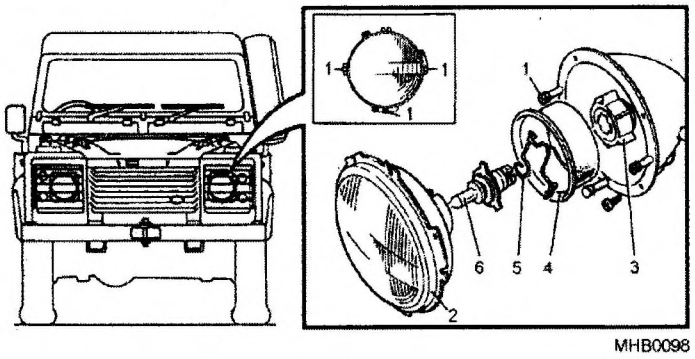
12.8 Refit the headlight unit to the headlight beam adjustment screws.

12.9 Reconnect the negative earth lead to the battery.

12.10 Refit the lamp guard to the front of the vehicle.

NOTE

The lights should be checked using the specialised headlight alignment equipment available.



1 Screws
2 Headlight Unit
3 Electrical Connection
4 Rubber Boot
5 Retaining Clip
6 Bulb

Fig 9 Headlights

Side repeater lights

13 The side repeater lights are located on either side of the vehicle wings mounted towards the front.

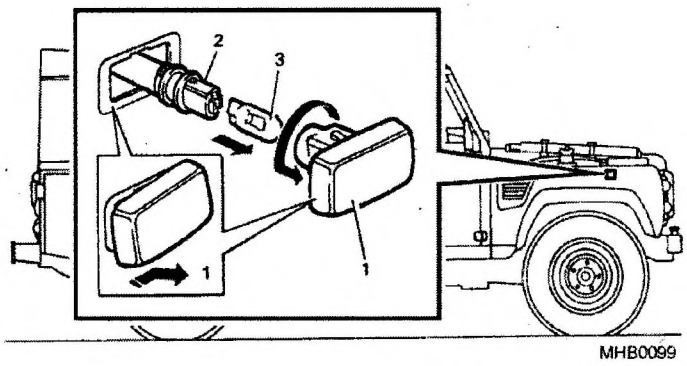
13.1 Disconnect the negative earth lead from the battery.

13.2 Push the lens (Fig 10 (1)) forward and pull outward to detach lens and bulb holder (2) from vehicle.

13.3 Pull the bulb (3) from the holder without turning and renew.

13.4 Refit the repeater light in the reverse order of removal.

13.5 Reconnect the negative earth lead to the battery.



1 Lens
2 Bulb Holder
3 Bulb

Fig 10 Side repeater lights

FUSE BOXES

WARNING

VEHICLE PROTECTION. THE UNDERBONNET FUSE BOX CONTAINS FUSES WHICH PROTECT THE VEHICLE MAIN HARNESSES. SHOULD ANY OF THESE FUSES FAIL THE VEHICLE SHOULD BE TAKEN TO THE WORKSHOP AND THE FAULT RECTIFIED IMMEDIATELY.

14 There are two fuse boxes containing all the vehicles fuses. The 20 Way fuse box is located inside the vehicle below the fascia, in front of the main gear lever and the second fuse box is located to the rear of the engine compartment. To change a fuse proceed as follows:

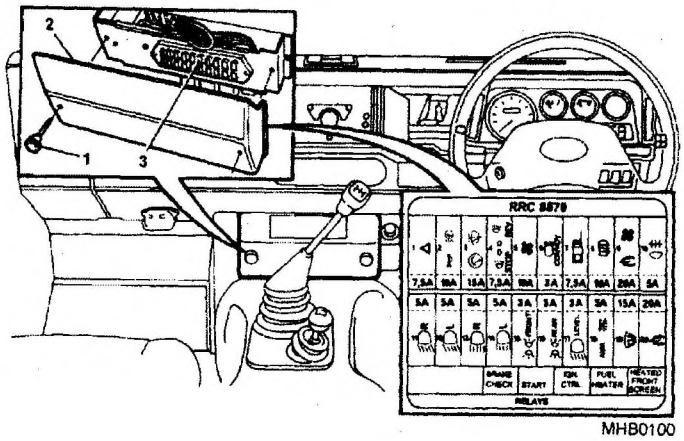
14.1 20 Way fuse box only. Disconnect the negative earth lead from the battery.

14.2 Undo the fixings (Fig 11 (1)) and remove the fuse box cover (2).

14.3 Replace the failed fuse (3), ensuring the correctly rated one is fitted (check the fuse label inside the cover for the correct rating).

14.4 Fit the fuse cover and secure with the two fixings.

14.5 Reconnect the negative earth lead to the battery.



1 Fixings
2 Fuse Box Cover
3 Fuse

Fig 11 Way fuse box

WARNING

FUSES. THESE FUSES PROTECT THE MAIN HARNESS, IF ANY OF THESE FUSES FAIL REPORT IT IMMEDIATELY. TO CONTINUE WOULD RESULT IN SERIOUS DAMAGE.

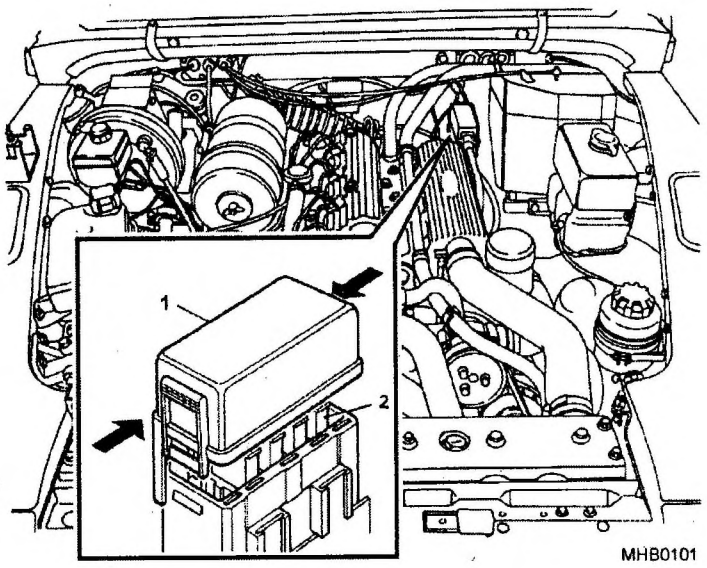
14.6 Under bonnet fuse box only. Disconnect the negative earth lead from the battery.

14.7 Remove the fuse box cover (Fig 12 (1)).

14.8 Replace the failed fuse (2), ensuring the correctly rated one is fitted (check the fuse label inside the cover for the correct rating).

14.9 Fit the fuse cover and secure.

14.10 Reconnect the negative earth lead to the battery.



1 Fuse box cover 2 Fuse

Fig 12 Under bonnet fuse box

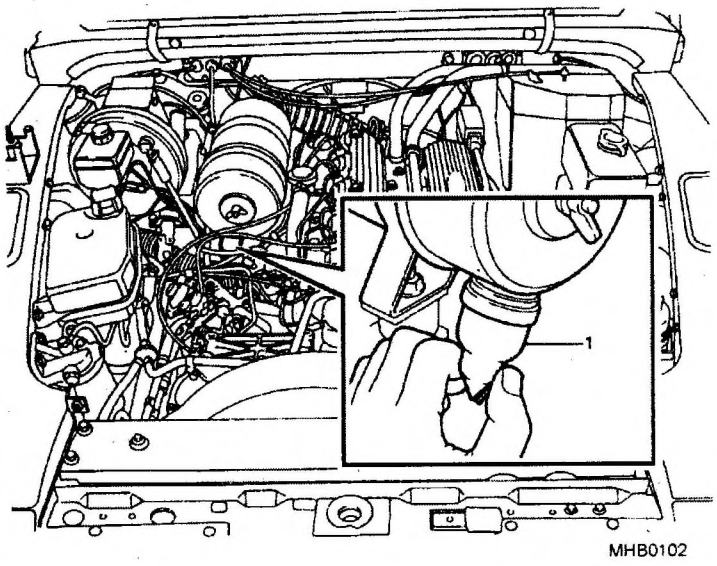
COOPERS AIR CLEANER

15 The air cleaner is situated in the engine compartment on the right hand side.

To check the dump valve - Coopers

16 The dump valve provides an automatic drain for the air cleaner, and is fitted to the base of the air cleaner. The dump valve can be checked as follows:

16.1 Squeeze open the dump valve (Fig 13 (1)) and check that the interior is clean.



1 Dump valve

Fig 13 To check the dump valve – Coopers

16.2 Check that the rubber is flexible and in good condition.

16.3 If necessary, remove the dump valve to clean the interior.

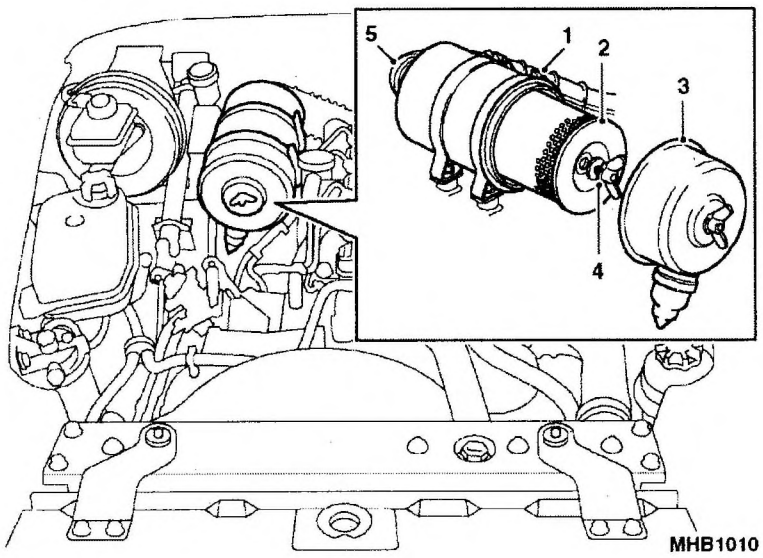
16.4 Fit a new valve if the original one is in poor condition.

17 Under heavy conditions such as dusty, deep wading or field, attention must be more frequent.

TO RENEW THE AIR CLEANER ELEMENT - COOPERS

18 The air cleaner element is integral to the cleaner. The air cleaner element can be replaced as follows:

18.1 Slacken the clip (Fig 14 (1)) and if required, disconnect the hose (5) from the air cleaner.



1 Clip
2 Element
3 End cover
4 Seal assembly
5 Hose

Fig 14 To renew the air cleaner element – Coopers

18.2 Pull up the clips and raise the air cleaner from the cradle.

18.3 Undo the external wing nut and remove the end cover (3).

18.4 Undo the internal wing nut and seal assembly (4) remove the element (2) and discard.

18.5 Fit a new element and secure with the wing nut and seal assembly.

18.6 Fit the end cover and secure with the wing nut.

18.7 Place air cleaner back in cradle and secure with clips.

18.8 Fit the hose to the cleaner and secure with the clip.

DONALDSON AIR CLEANER

19 The air cleaner is situated in the engine compartment on the right hand side.

To check the dump valve - Donaldson

20 The dump valve provides an automatic drain for the air cleaner, and is fitted to the base of the air cleaner. The dump valve can be checked as follows:

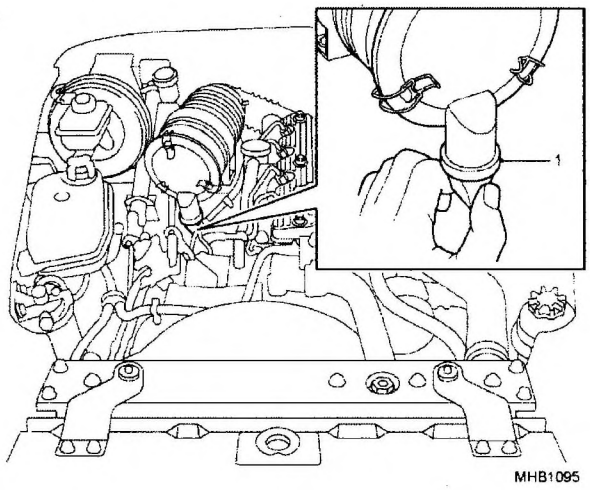
20.1 Squeeze open the dump valve (Fig 15 (1)) and check that the interior is clean.

20.2 Check that the rubber is flexible and in good condition.

20.3 If necessary, remove the dump valve to clean the interior.

20.4 Fit a new valve if the original one is in poor condition.

21 Under heavy conditions such as dusty, deep wading or field, attention must be more frequent.



1 Dump Valve

Fig 15 To check dump valve – Donaldson

To renew the air cleaner elements - Donaldson

22 The air cleaner element is integral to the cleaner. The air cleaner elements can be replaced as follows:

22.1 Release the two screws (Fig 16 (7)), washers (8) and springs (9) securing the air cleaner (2) to the retaining clip (1).

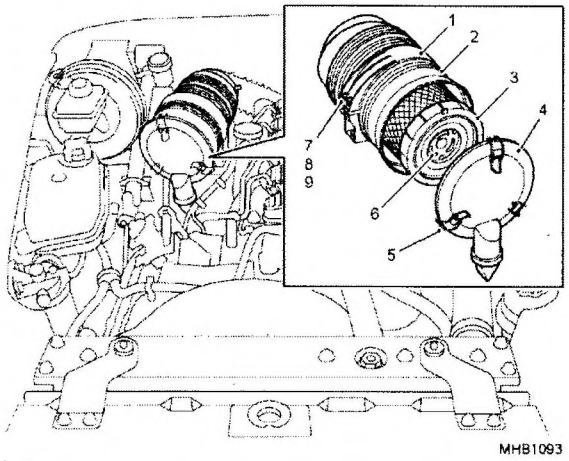
22.2 Release the air cleaner from the retaining clip.

22.3 Release the catches (5) and remove the end cover (4).

22.4 Using a slight rocking motion pull out the outer element (3) and then the inner element (6) from the air cleaner body.

22.5 Fit new inner and outer elements ensuring the elements are seated correctly inside the air cleaner body.

22.6 Fit the end cover and secure the catches.



1	Retaining clip	4	End cover	7	Screws
2	Air cleaner	5	Catches	8	Washers
3	Outer element	6	Inner element	9	Springs

Fig 16 To renew the air cleaner elements – Donaldson

Fuel filter

23 The fuel filter is mounted on the right hand inner wing of the engine compartment.

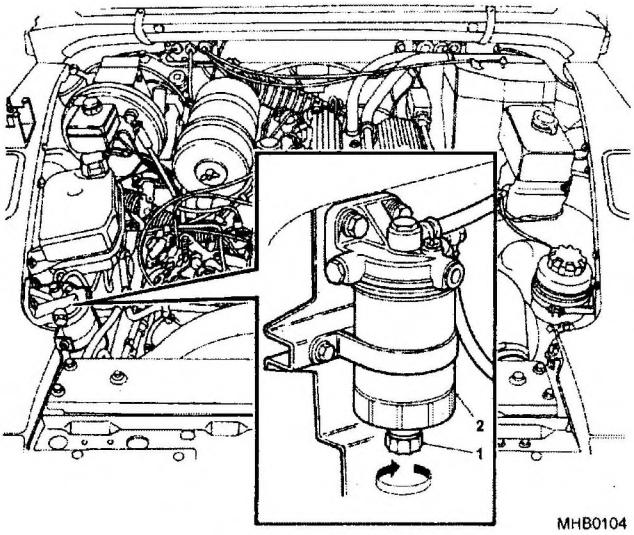
Draining the filter

24 The fuel filter can be drained as follows:

24.1 Slacken the drain plug (Fig 17 (1)) at the bottom of the filter (2) to allow the water to run out.

24.2 When pure diesel fuel is emitted, tighten the drain plug and wipe any excess away.

24.3 Check for any seepage around the drain.



1 Drain Plug 2 Filter

Fig 17 To drain the filter

Renewing the filter

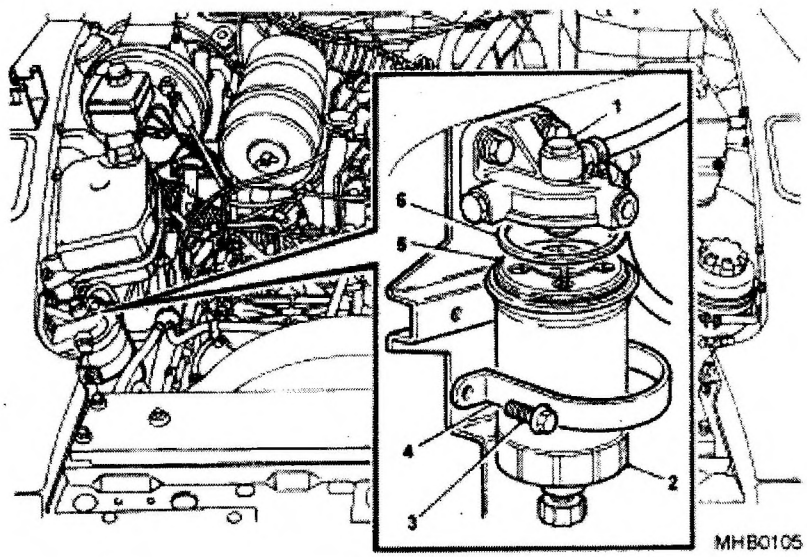
25 The fuel filter can be replaced as follows:

25.1 Supporting the filter canister (Fig 18 (2)), unscrew the bolt (1) on the top of the filter.

25.2 Undo the two bolts (3) holding the bracket (4) and remove the bracket.

25.3 Remove the filter canister.

25.4 Remove the element (5) and discard.



1	Drain plug	3	Two Bolts	5	Element
2	Filter	4	Bracket	6	Rubber washers

Fig 18 To renew the filter

25.5 Check and renew the large and small rubber washers (6) in the filter top, also the large rubber washer in the filter canister if necessary.

25.6 Wash the filter canister in petrol, fluid oil or equivalent.

25.7 Fit the new element onto the filter top spigot with the holes of the element facing to the top.

25.8 Fit the filter canister and secure with the bolt on the top of the filter.

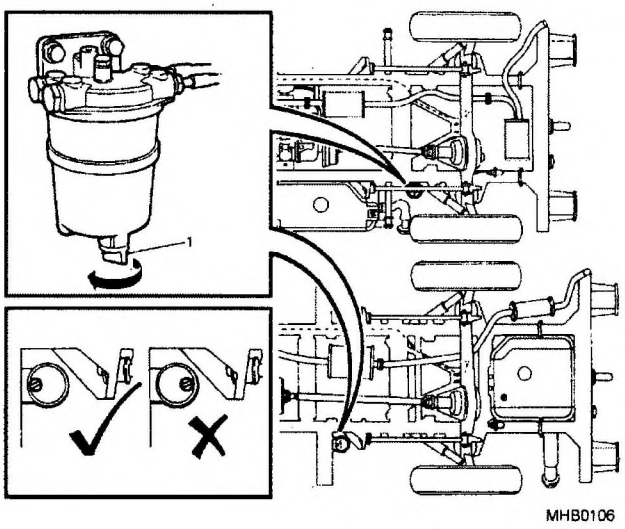
25.9 Refit the bracket using the two bolts.

FUEL SEDIMENTER

26 The sedimenter is positioned in a different location for the TUL as against the TUM. On the TUL the sedimenter is attached to the chassis frame, on the right-hand side in front of the rear wheel. On the TUM the sedimenter is attached to the chassis frame, on the right-hand side forward of the rear wheel.

To drain the sedimenter

27 Locate the drain tap (Fig 19 (1)) at the bottom of the sedimenter and slacken off until pure diesel fuel is emitted then close tap.



1 Drain tap

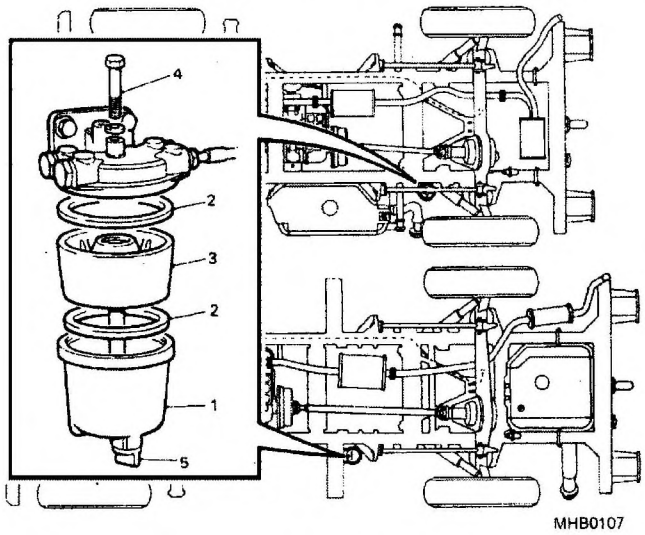
Fig 19 To drain the sedimenter

To clean the element

28 The fuel sedimenter element can be cleaned as follows:

28.1 Disconnect the fuel inlet pipe from the sedimenter and raise the pipe above the level of the fuel tank supporting it in this position to prevent fuel draining from the tank.

28.2 Support the bowl (Fig 20 (1)) and unscrew the bolt (4) on top of the unit and remove.



1 Bowl 3 Element 5 Drain tap
2 Seals 4 Bolt

Fig 20 To clean the element

28.3 Remove the bowl, element (3) and seals (2).

28.4 Discard the seals and clean all the other parts in kerosene or an equivalent fluid.

28.5 Reassemble the sedimenter fitting new seals.

28.6 Slacken off the drain tap (5) until pure diesel fuel is emitted then close tap.

28.7 Start the engine and check the sedimenter for leaks.

NOTE

Ensure filter bowl is fitted with the drain tap rotated towards the front of the vehicle (see Fig 19, TUM only).

BRAKE FLUID RESERVOIR

CAUTION

CARE. When topping-up a reservoir, care must be taken to ensure that fluid does not come in contact with any paintwork on the vehicle.

29 The tandem brake fluid reservoir is integral with the servo unit and the master cylinder.

Brake reservoir level sensor

30 The reservoir cap has a fluid level sensor built into it, this informs the driver via the warning light when the brake fluid is low.

31 Top up the brake reservoir fluid as follows:

31.1 Hold the centre terminal block (Fig 21 (3)) stationary and undo the reservoir cap.

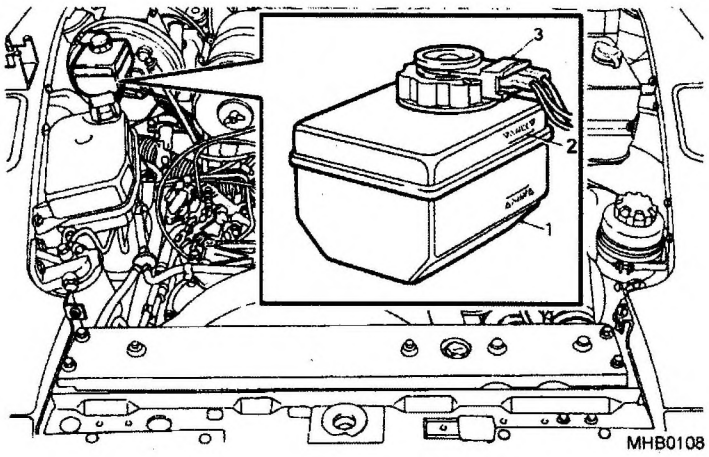
31.2 Check the fluid level in the reservoir. The level is indicated on the translucent reservoir body (1).

31.3 Top up to the "max" mark (2) with the specified fluid.

31.4 Replace the filler cap and secure.

NOTE

If a significant topping-up is required, check the master cylinder, callipers and brake pipes for leakages; any leakage must be reported immediately for rectification.



1 Reservoir body 3 Terminal block
2 'Max' mark

Fig 21 Brake fluid reservoir

CLUTCH FLUID RESERVOIR

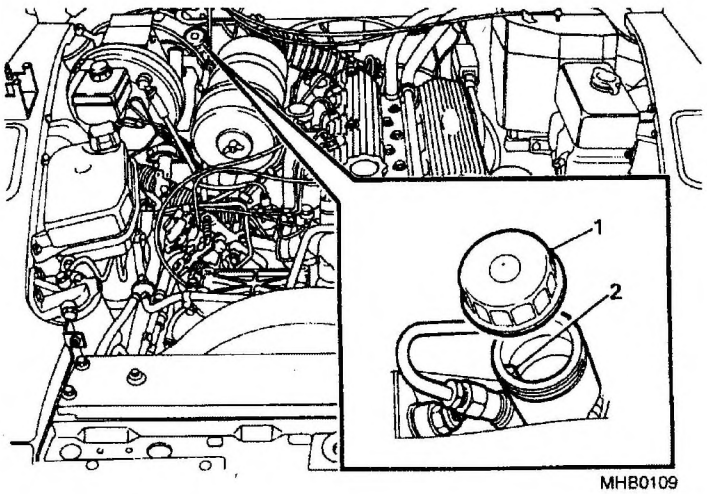
32 The clutch fluid reservoir is mounted on the left-hand side of the brake fluid reservoir within the engine compartment. To top-up proceed as follows:

32.1 Remove the cap (Fig 22 (1)) and check the level.

32.2 If low, top-up with the specified fluid to the fluid level mark (2).

32.3 If significant topping-up is required, check for leaks at the master cylinder, slave cylinder and connecting pipes.

32.4 Refit the filler cap and secure.

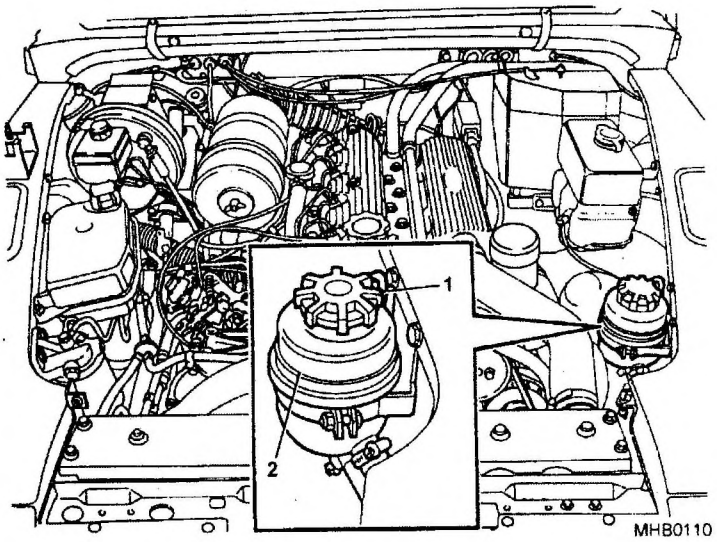


1 Cap 2 Fluid Level mark

Fig 22 Clutch fluid reservoir

POWER STEERING RESERVOIR

33 The power steering reservoir is located on the left hand inner wing in the engine bay. The fluid level can be observed through the translucent reservoir body and should be checked as follows:



1 Reservoir Cap 2 Reservoir

Fig 23 Power steering reservoir

33.1 Check that the fluid is up to the high mark (Fig 23 (2)) on the reservoir, if low remove the reservoir cap (1) and top up to the correct level with the specified oil.

NOTE

Clean the area around cap and top of reservoir before removing cap to ensure no dirt enters the reservoir and contaminates the fluid.

33.2 Refit the reservoir cap and clean any surplus oil away.

ENGINE

WARNINGS

(1) HEALTH. PROLONGED AND REPEATED CONTACT WITH USED ENGINE OILS MAY CAUSE SERIOUS SKIN DISORDERS, INCLUDING DERMATITIS AND CANCER.

(2) CLEANLINESS. AVOID EXCESSIVE CONTACT AND WASH THOROUGHLY AFTER CONTACT.

CAUTION

OIL LEVEL. The oil level must never be above the "FULL" mark as engine damage may be caused.

34 The engine oil is checked by using the dipstick which is located on the left hand side of the engine.

NOTE

Whenever possible the oil level should be checked with the engine hot.

To check the engine oil level

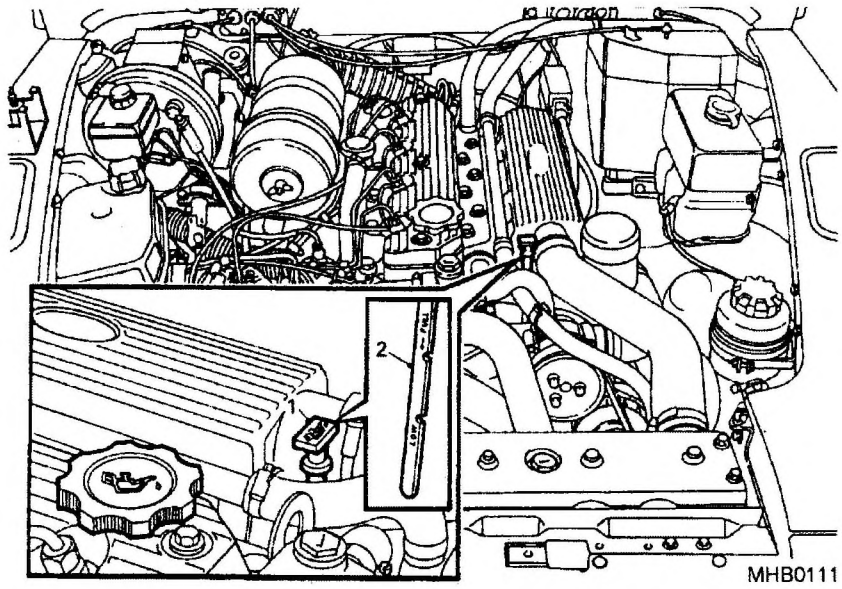
35 To check the oil level when the engine is hot proceed as follows:

35.1 The vehicle must be sited on level ground.

35.2 Wait at least fifteen minutes after the engine has stopped.

35.3 Withdraw the dipstick, (Fig 24 (1)) wipe clean and re-insert into its tube, ensuring it is pushed fully home.

35.4 Withdraw the dipstick and take note of the oil level (2).



1 Dip stick 2 Oil level

Fig 24 Checking the engine oil level

35.5 If the oil level is low add the appropriate amount of oil and re-check the level after five minutes.

36 To check the oil level when the engine is cold proceed as follows:

36.1 The vehicle must be sited on level ground.

36.2 DO NOT START THE ENGINE

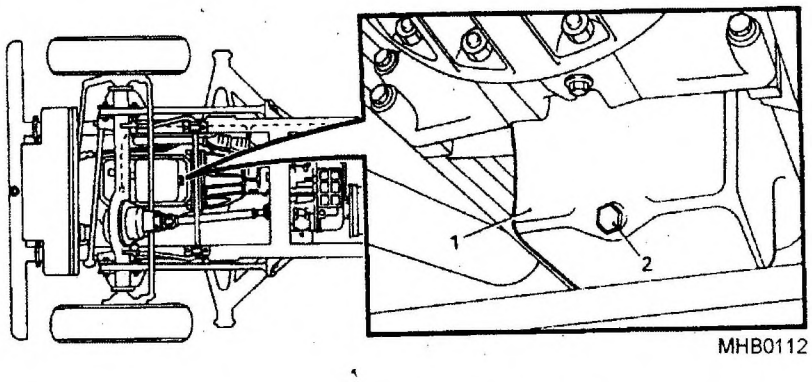
36.3 Proceed to check the oil level as in Paras 31.3 to 31.4.

36.4 If the oil level is low add the appropriate amount of oil.

36.5 If it is necessary to recheck the oil, or if the engine has been started without being thoroughly warmed up, wait at least forty minutes to confirm that the oil level is correct.

Engine oil change

37 When changing the engine oil, the engine oil filter should be changed at the same time.



1 Engine sump 2 Drain plug

Fig 25 Draining the sump

38 To change the engine oil and oil filter, proceed as follows:

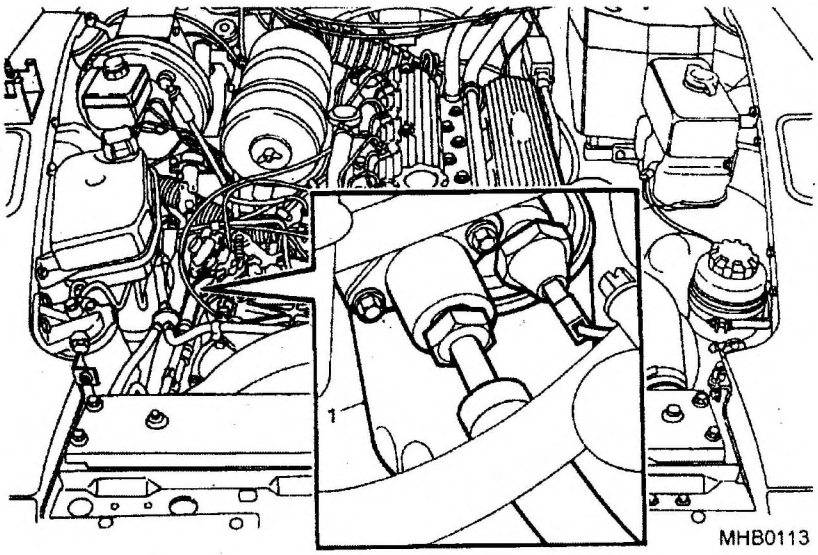
38.1 Run the engine, to warm up the oil, and then disconnect the negative earth lead from the battery.

38.2 Place a suitable container under the engine sump (Fig 25 (1)).

38.3 Remove the drain plug (2) in the sump and allow the oil to drain away completely then refit the plug.

38.4 Remove the filter (Fig 26 (1)) using a strap spanner.

38.5 Place the new rubber washer (2) on to the filter and fit the new filter on to the adapter.



1 Filter

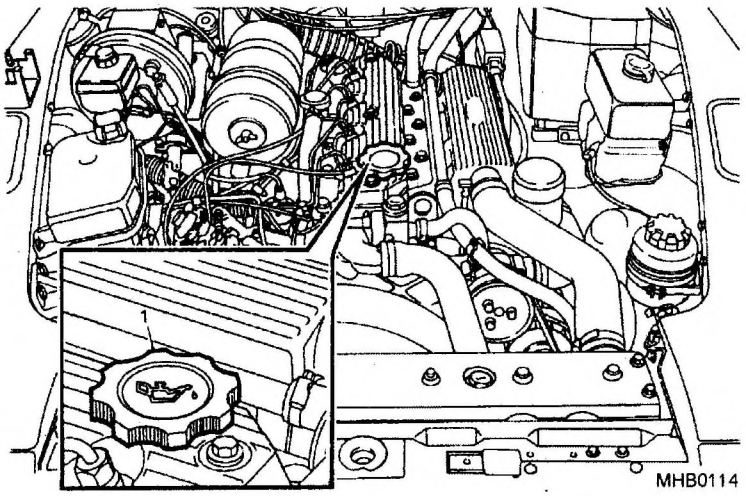
Fig 26 Engine oil filter

38.6 Remove the engine oil filler cap (Fig 27 (1)) located on top of the rocker box.

38.7 Fill the engine with the correct quantity of the specified oil through the top of the rocker box cover.

38.8 Refit the engine oil filler cap.

38.9 Reconnect the negative earth lead to the battery, then run the engine checking for leakages at the filter joint and the sump drain plug.



1 Engine oil filler cap

Fig 27 Engine oil filler cap

GEARBOX

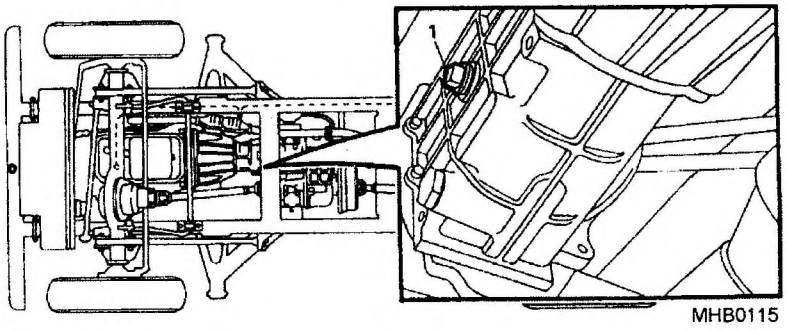
39 The gearbox drain and filler plugs are situated under the vehicle.

40 To check/top up the gearbox, proceed as follows:

40.1 Locate the filler plug (Fig 28 (1)) on the right-hand side of the gearbox and undo.

40.2 Top up with the specified oil until it begins to run out of the filler/hole.

40.3 Fit and tighten the gearbox filler/level plug and clean any surplus oil away.



1 Filler plug

Fig 28 Gearbox filler/level plug

41 To change the gearbox oil, proceed as follows:

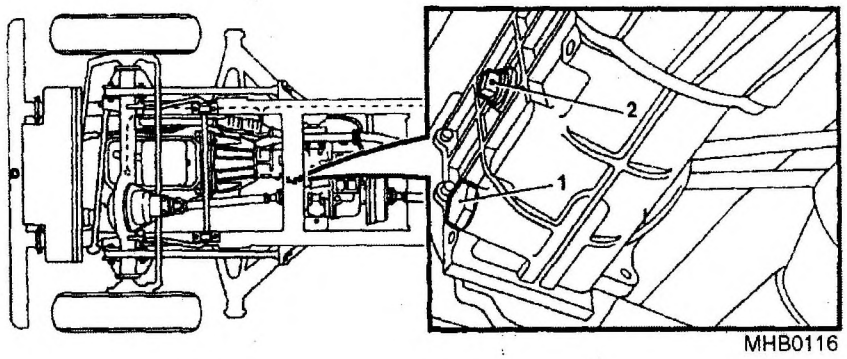
41.1 Place a suitable container under the gearbox drain plug.

41.2 Remove the gearbox case drain plug (Fig 29 (1)) and allow the oil to drain completely.

41.3 Using a new washer, fit the drain plug ensuring it is secure.

41.4 Fill the gearbox with the specified oil until the oil begins to run out of the filler/level hole (2).

41.5 Fit and tighten the gearbox filler/level plug and clean any surplus oil away.



1 Drain plug 2 Filler/level plug

Fig 29 Gearbox drain plug

TRANSFER GEARBOX

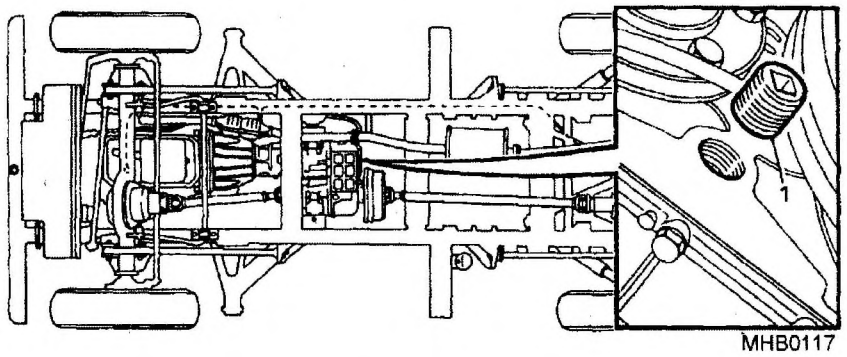
42 The transfer gearbox is situated to the rear of the main gearbox.

43 To check/top up the transfer gearbox, proceed as follows:

43.1 To check/top up the transfer gearbox. Locate the filler/level plug (Fig 30 (1)) at the back of the transfer gearbox and undo.

43.2 Top up with the specified oil until the oil begins to run out of the filler/level hole.

43.3 Fit and tighten the transfer gearbox filler/level plug and clean any surplus away.



1 Filler/level plug

Fig 30 Transfer gearbox filler plug

44 To change the transfer gearbox oil, proceed as follows:

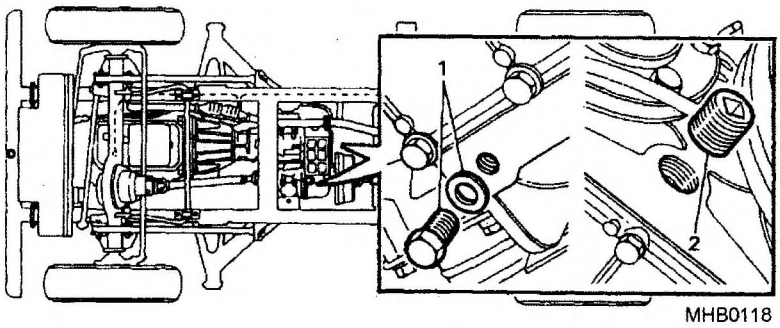
44.1 Place a suitable container under the transfer gearbox drain plug.

44.2 Remove the drain plug and washer (early models) (Fig 31 (1)) or drain plug only (later models) and allow the oil to drain completely.

44.3 Fit the drain plug (1) and washer (early models) tighten.

44.4 Remove the filler/level plug (2) and fill the transfer gearbox with the specified oil until it begins to run out of the filler/level hole.

44.5 Fit and tighten the transfer gearbox filler/level plug and clean any surplus away.



1 Drain plug & washer (early models) 2 Filler/level plug

Fig 31 Transfer gearbox filler/drain plug

FRONT AND REAR DIFFERENTIAL AXLES

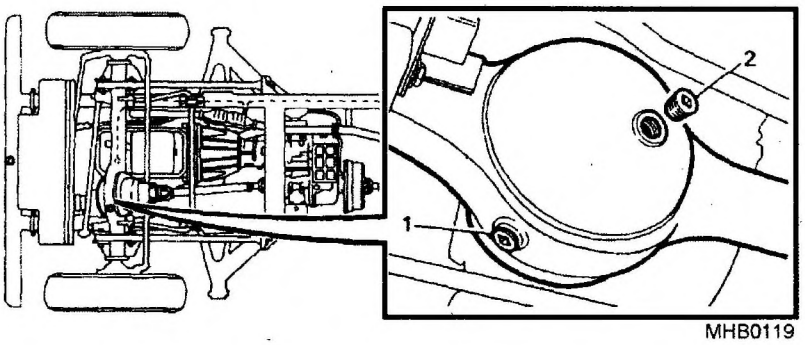
45 TUL vehicles are equipped at the front and rear with "Rover" type differential axles. TUM vehicles are equipped with the same front axles and "Rover" heavy duty rear axles.

46 To check/top up the differential axle oil, proceed as follows:

46.1 Locate and undo the filler/level plug (Fig 32 (2)) on the differential axle.

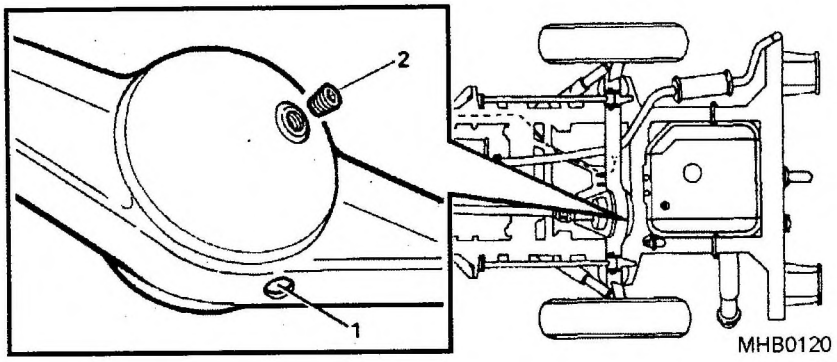
46.2 Top up with the specified oil until it begins to run out of the hole.

46.3 Fit and tighten the differential axle filler/level plug and clean any surplus oil.



1 Drain plug 2 Filler/level plug

Fig 32 Rover differential axle filler/drain plug (TUL/TUM)



1 Drain Plug 2 Filler/Level Plug

Fig 33 Rover heavy duty differential axle filler/drain plug (TUM)

47 To change the differential axle oil, proceed as follows:

47.1 Immediately after a run, when the oil is warm drain the differential axle by removing the drain plug (Fig 32 and Fig 33 (1)) located at the bottom of the axle casing.

47.2 Fit the drain plug and tighten.

47.3 Remove the filler/level plug (2) and fill the differential axle with the specified oil until it begins to run out of the filler/level hole.

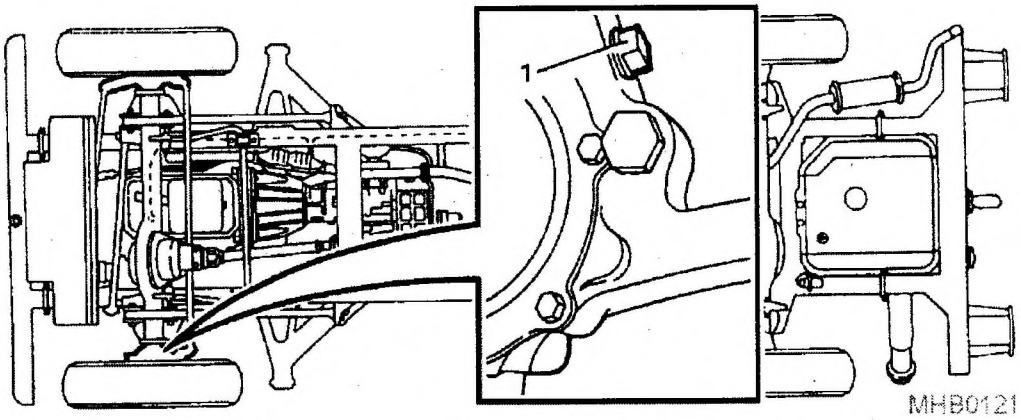
47.4 Fit and tighten the differential axle filler/level plug and clean any surplus oil away.

SWIVEL PIN HOUSING

48 The swivel pin housings are located at the end of the front axle and the grease lubricates the constant velocity joints, swivel pins and front hubs. They are packed for life and do not require any maintenance.

49 If any damage is found on inspection, report it immediately for further investigation.

50 There is a filler plug (Fig 34 (1)), this is for maintenance only.



1 Filler plug

Fig 34 Swivel pin housing filler plug

BATTERIES

51 The batteries are located underneath the left hand seat.

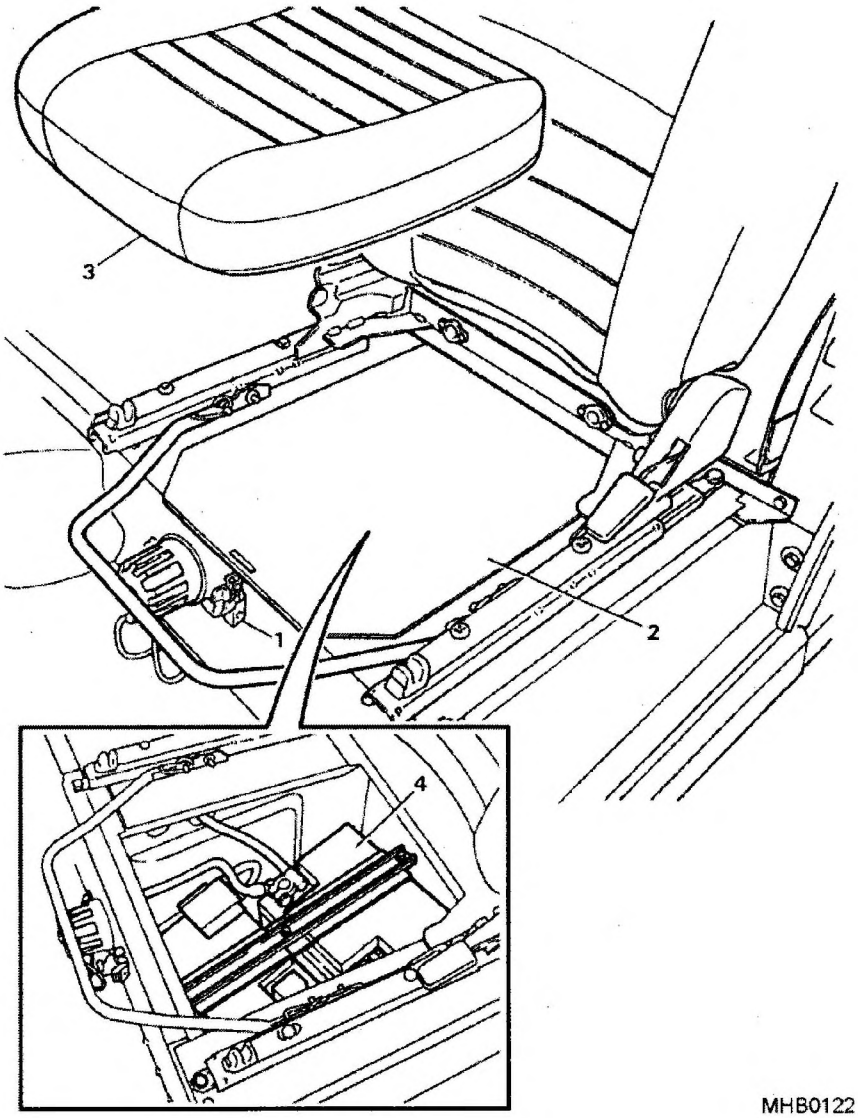
52 To check the batteries electrolyte levels, proceed as follows:

52.1 Lift off the left hand seat cushion (Fig 35 (3)).

52.2 Undo the overcentre catch (1) and slide the cover (2) from the seat base.

52.3 Disconnect the negative earth lead from the batteries.

52.4 Gently screw off the vent cover (4) and inspect the electrolyte level of the centre cell. If low top up with distilled water to a maximum of 3 mm (0.12 in.) above the plates.



1 Overcentre cover
2 Cover
3 Seat cushion
4 Vent cover

Fig 35 Batteries

52.5 Replace the vent cover, also clean and grease the battery terminals with the specified grease.

52.6 Reconnect the negative earth lead to the batteries.

52.7 Slide the cover back into place and secure using the overcentre catch.

52.8 Refit the seat cushion.

NOTE

If air portable batteries fail to recharge refer to Cat 512 Chap 13-1 Chart No. 5.

AXLE BREATHING SYSTEM

53 There are two axle breather pipes, (Fig 36), one from each axle tube, which terminate inside the engine compartment.

CAUTION

BREATHER PIPES. Blocked breather pipes may cause damage to the axles, so ensure that regular servicing is carried out. When the vehicle has undergone rugged and difficult conditions more frequent servicing may be required.

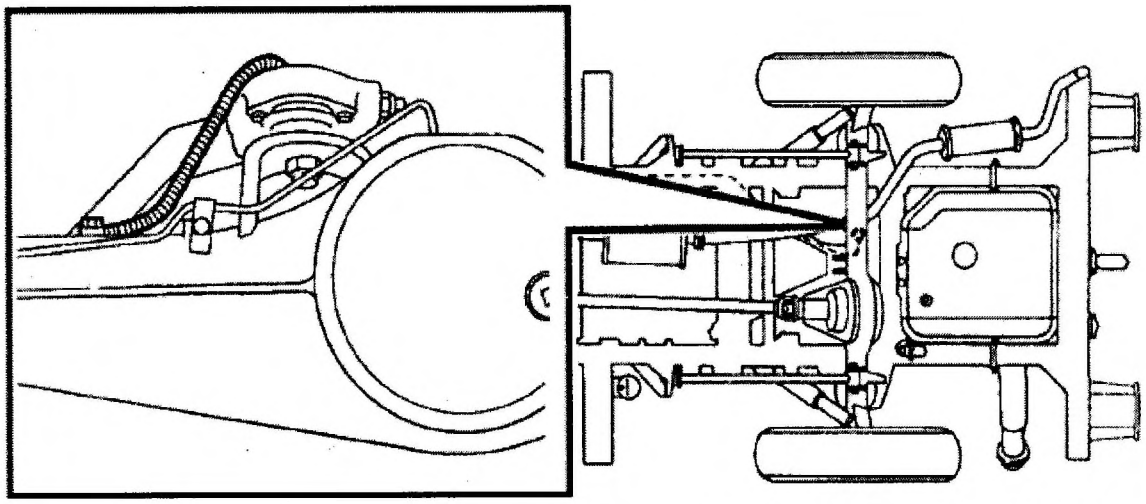


Fig 36 Axle breathing system

53.1 To clean the axle breather pipes, proceed as follows:

53.2 Check that both pipes are clear of mud or debris and are not kinked, split or damaged.

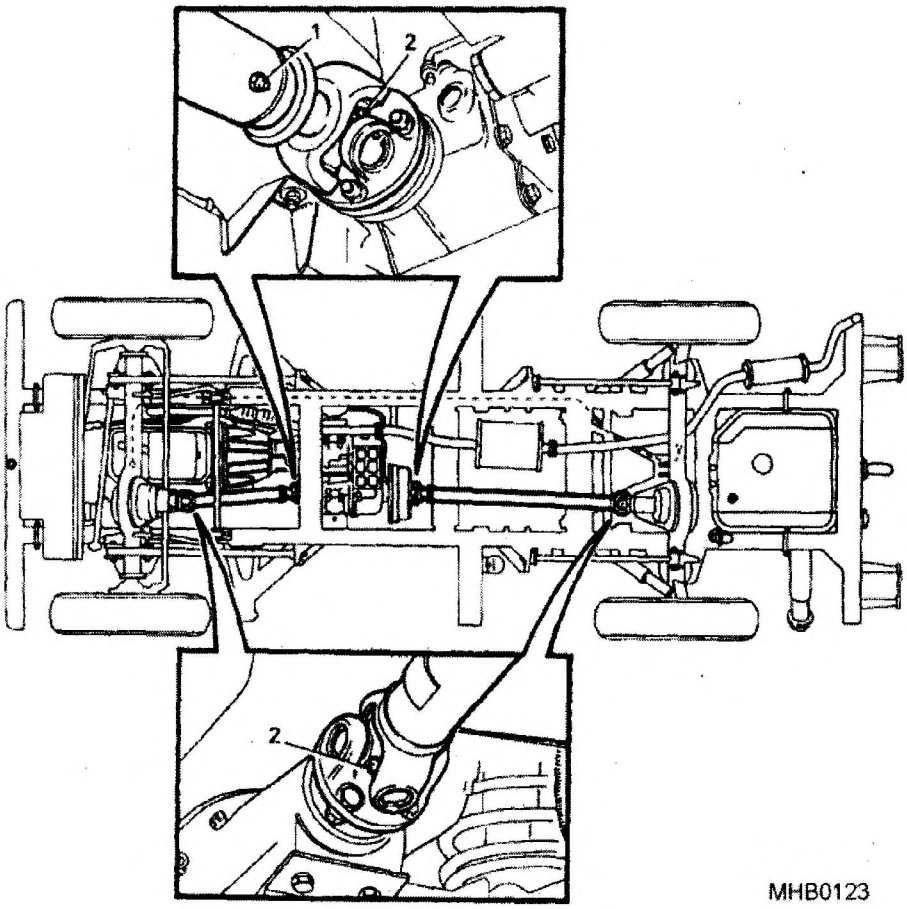
53.3 If a pipe is blocked, undo the nut and release the banjo on the appropriate axle tube and remove the pipe.

53.4 Carefully clean the pipe until the blockages have been removed.

53.5 Refit the pipe and secure to the axle tube with the banjo bolt.

PROPELLER SHAFTS

54 The propeller shafts are located underneath the vehicle and connect the transfer box to the front and rear differential axles.



1 Grease Nipples at the Sliding End of Each Shaft
2 Grease Nipples Inside Each of the Universal Joints.

Fig 37 Propeller shafts

NOTE

Due to the type of sliding joint used on these shafts, only light greasing is required.

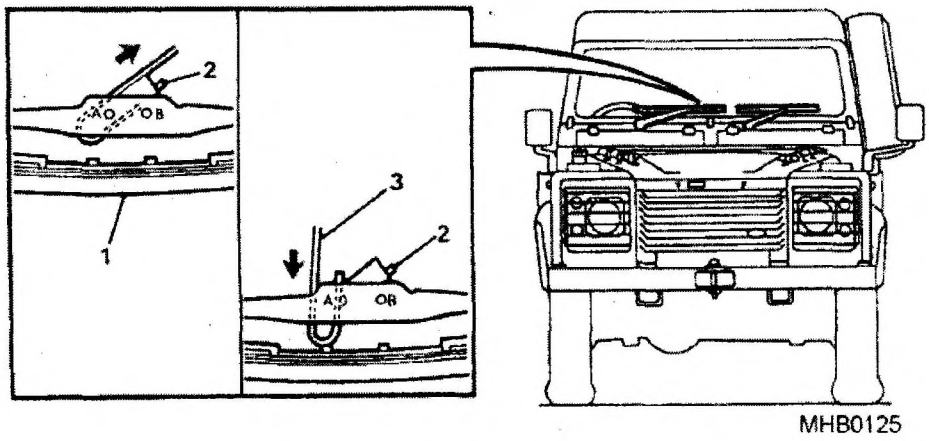
55 Lubricating the propeller shafts. Apply the recommended grease to the grease nipples (Fig 37 (1)) at the sliding ends of each shaft, also to the grease nipples (2) inside each of the universal joints.

WINDSCREEN WIPER BLADES

56 Check the windscreen wiper blades and if necessary, renew using the following procedure:

56.1 Lift the wiper arm away from the windscreen.

56.2 Squeeze the spring clip (Fig 38 (2)) and push the blade towards the windscreen.



1 Blade
2 Spring clip
3 Wiper arm

Fig 38 Windscreen wiper blade

56.3 To free the blade (1), unhook from the wiper arm (3).

56.4 To fit, push the new blade over the wiper arm.

56.5 Hook the arm into the swivel bracket on the blade ensuring that the remaining clip is engaged.

JACKING THE VEHICLE

57 To operate the jack proceed as follows:

WARNINGS

(1) PROCEDURE. IT IS IMPORTANT THAT THE JACKING PROCEDURE DESCRIBED IN THIS HANDBOOK IS FOLLOWED. WHEELS SHOULD BE CHOCKED UNDER ALL CIRCUMSTANCES.

(2) CHOCKING. THE HANDBRAKE ACTS ON THE TRANSMISSION, NOT THE REAR WHEELS AND MAY NOT HOLD THE VEHICLE WHEN JACKING UNLESS THE FOLLOWING PROCEDURE IS USED. IF ONE FRONT WHEEL AND ONE REAR WHEEL ARE RAISED NO VEHICLE HOLDING OR BRAKING EFFECT IS POSSIBLE. WHEELS SHOULD BE CHOCKED UNDER ALL CIRCUMSTANCES.

(3) STABILITY. IT IS UNSAFE TO WORK UNDER THE VEHICLE WITH ONLY THE JACK TO SUPPORT IT. ALWAYS USE STANDS OR OTHER SUITABLE SUPPORTS TO PROVIDE ADEQUATE SAFETY.

(4) SAFETY. WHEN JACKING THE VEHICLE ENSURE THE JACK IS USED ON LEVEL AND FIRM GROUND ONLY.

(5) PROCEDURE. TO ENSURE SAFETY WHEN USING THE JACK THE FOLLOWING PROCEDURE SHOULD BE FOLLOWED:

(5.1) DIFF LOCK. ALWAYS ENGAGE DIFFERENTIAL LOCK BEFORE JACKING.

(5.2) SAFETY. NO PERSON SHOULD REMAIN IN A VEHICLE BEING JACKED.

(5.3) BRAKING. APPLY THE HANDBRAKE AND ENGAGE FIRST GEAR IN THE MAIN GEARBOX.

(5.4) GEARS. ENGAGE LOW GEAR IN THE TRANSFER BOX.

(6) MAINTENANCE. NEGLECT OF THE JACK MAY LEAD TO DIFFICULTY IN A ROAD SIDE EMERGENCY. EXAMINE THE JACK OCCASIONALLY. CLEAN THE THREAD TO PREVENT THE FORMATION OF RUST.

57.1 Position the jack under the vehicle, as described for front or rear wheels.

57.2 Assemble the two piece operating handle.

57.3 Use the handle to close the valve at the base of the jack by turning it fully clockwise.

57.4 To raise the jack, insert the handle into the sleeve on the side of the jack and pump the handle up and down.

57.5 To lower the jack, slowly open the valve by turning the handle counterclockwise.

57.6 Remove the jack, dismantle the handle and stow in the vehicle.

57.7 To jack up a front wheel, position the jack so that when raised it will engage with the front axle casing, immediately below the coil spring where it will locate between the flange at the end of the axle casing and the large bracket to which the suspension members are mounted.

57.8 To jack up a rear wheel, position the jack so that when raised it will engage with the rear axle casing, immediately below the coil spring and as close to the shock absorber mounting bracket.

WHEEL CHANGING

58 When changing any of the wheels on the vehicle use the wheel brace as supplied.

WARNINGS

(1) STABILITY. IT IS UNSAFE TO WORK UNDER THE VEHICLE USING ONLY THE JACK TO SUPPORT IT. ALWAYS USE STANDS OR OTHER SUITABLE SUPPORTS TO PROVIDE ADEQUATE SAFETY.

(2) BRAKING. THE HANDBRAKE ACTS ON THE TRANSMISSION NOT ON THE REAR WHEELS AND MAY NOT HOLD THE VEHICLE WHEN JACKING UNLESS THE FOLLOWING PROCEDURE IS USED. IF ONE FRONT WHEEL AND ONE REAR WHEEL ARE RAISED NO VEHICLE HOLDING OR BRAKING EFFECT IS POSSIBLE. WHEELS SHOULD BE CHOCKED AT ALL TIMES.

(3) TRAILER. IF THE VEHICLE IS COUPLED TO A TRAILER, DISCONNECT THE TRAILER FROM THE VEHICLE BEFORE COMMENCING JACKING. THIS IS TO PREVENT THE TRAILER PULLING THE VEHICLE OFF THE JACK AND CAUSING PERSONAL INJURY.

CAUTIONS

(1) WHEELBRACE. When using the wheel brace from the vehicle tool kit apply hand pressure only. Do not use foot pressure or extension tubes as this could overstress the wheel studs.

(2) WHEELS. When changing the wheels of the vehicle, ensure that all the precautions as previously stated are carried out.

(3) SPARE WHEEL. Ensure the spare wheel is removed from its stowed position prior to jacking the vehicle.

59 To change a road wheel, proceed as follows:

59.1 Using the wheel brace, remove the spare wheel from its stowed position (refer to Para 46) and slacken the nuts on the wheel to be removed before jacking the vehicle.

59.2 Jack up the relevant corner of the vehicle sufficiently to allow a wheel, with a fully inflated tyre, to be fitted.

59.3 When the wheel is clear of the ground, remove the wheel nuts and lift off the wheel.

59.4 Place a drop of oil or grease on the wheel studs to assist in the replacement, if available.

59.5 Fit spare wheel.

59.6 Fit the nuts and tighten until the wheel is secure, without over-tightening the nuts.

59.7 Lower the vehicle to the ground and finally tighten the road wheel nuts in the correct sequence to the specified torque (refer to Fig 39).

59.8 Re-check wheel nuts for tightness using torque spanner or wheel brace after 30 minutes whether the vehicle has moved or not OR after the vehicle has travelled between 40 to 80 km (25 to 50 miles). This is critical. If a calibrated torque wrench is unavailable (i.e. puncture) the CES wheel brace can be used, however a red Wheel Nut Indicator must be fitted to each wheel that has not had the torque validated with a calibrated torque wrench. The red Wheel Nut Indicator will act as a safety indicator, notifying the User that the wheel requires tightening with a calibrated torque wrench, in accordance with the vehicle handbook, at the earliest opportunity. Once the wheel nut tightness has been validated with a calibrated torque wrench the red Wheel Nut Indicator must be replaced with a grey Wheel Nut Indicator. Each red Wheel Nut Indicator must be retained within a safe place with the vehicle CES. If you have any doubts, you shall seek advice from the vehicle maintenance section / MT workshop.

NOTES

(1) Wheel Nut Indicators must be fitted after tightening of wheel nuts.

(2) Any assets that actively operate on airfields are to have the wheel nut indicators removed at the local commander's discretion as they may present a FOD hazard. However, vehicles not being used on airfields, or where their use requires them to operate on the Public Road after a period of operating on an Airfield, are to have wheel nut indicators refitted immediately.

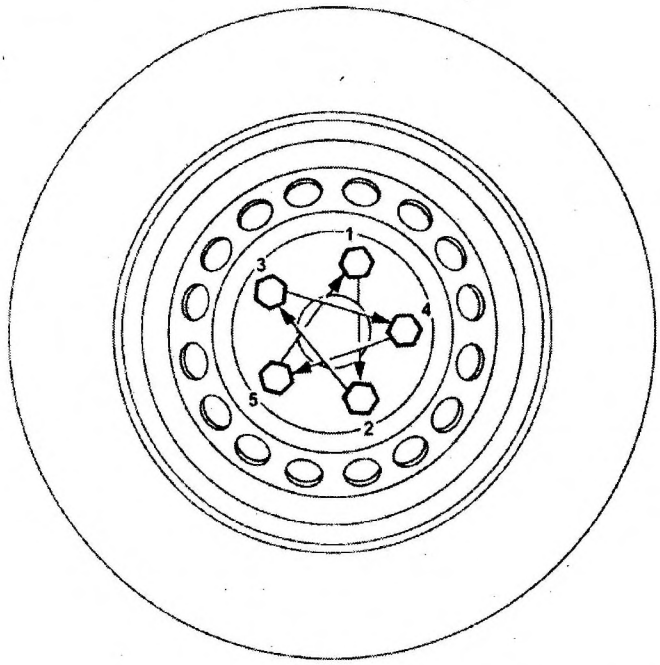
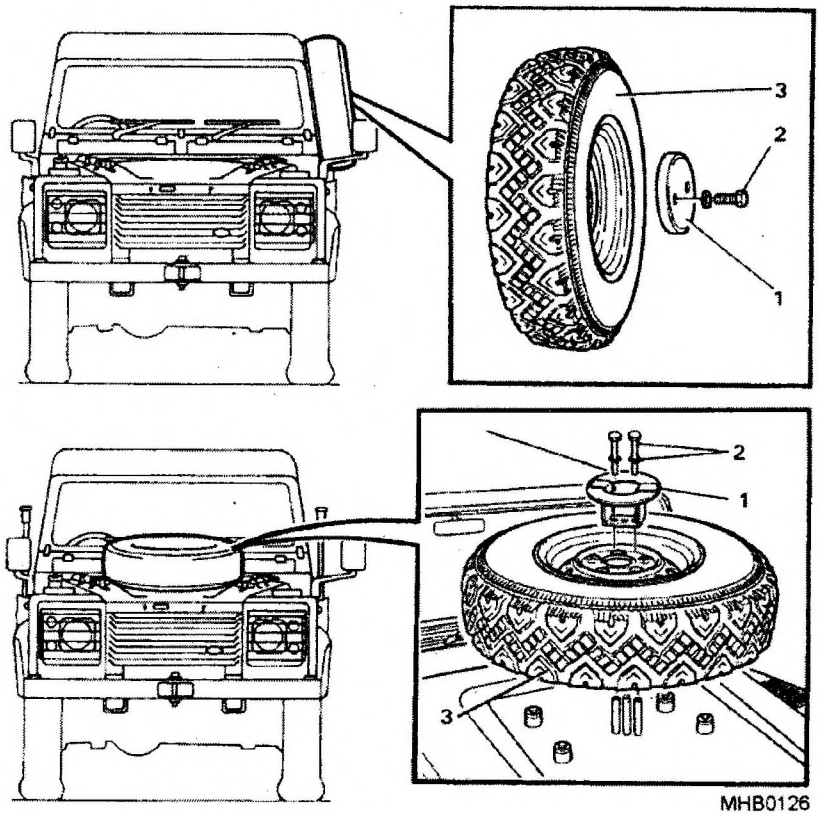
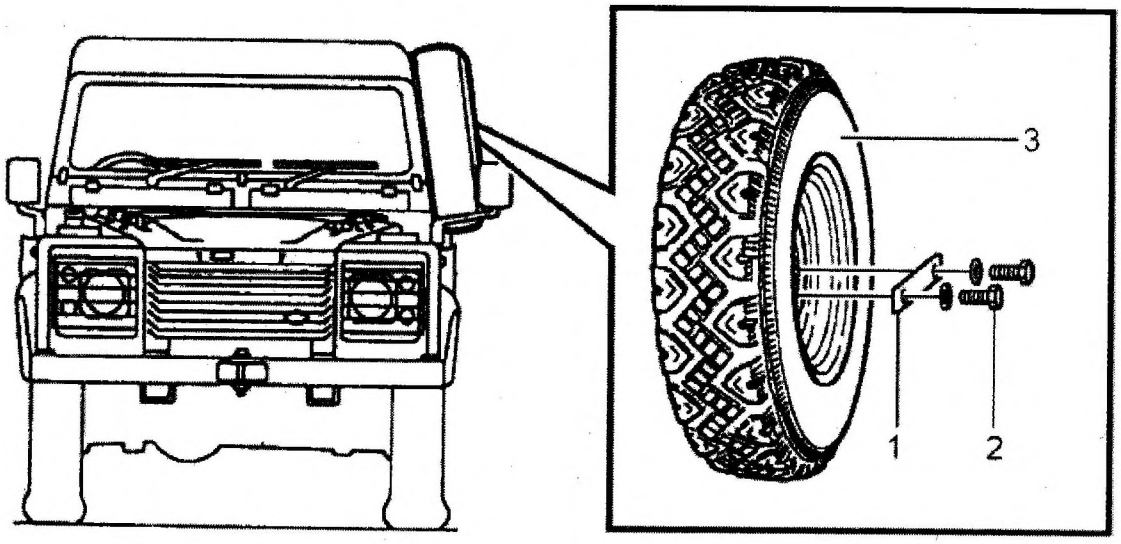


Fig 39 Tightening sequence for wheel nuts



1 Clamp plate
2 Retaining bolts
3 Spare wheel

Fig 40 Removing the spare wheel



MHB1087

1 Clamp plate
2 Retaining bolts
3 Spare wheel

Fig 41 Removing the spare wheel (Bowman mount)

SPARE WHEEL

WARNING

LIFTING. THE SPARE WHEEL IS HEAVY TO LIFT, TAKE CARE WHEN LIFTING IT ON AND OFF. THIS WILL REQUIRE TWO MEN UNLESS THE SPARE WHEEL LIFTING HARNESS IS USED.

60 Mounting the spare wheel on the bonnet is only approved when the vehicle is being transported by rail, ship or air. At all other times the spare wheel must be mounted on the side of the vehicle.

61 In normal use the spare wheel should be mounted on the side of the vehicle.

CAUTIONS

(1) The Spare wheel should always be mounted on the side of the vehicle nearest the roadside kerb.

(2) The mirrors should also be changed around if necessary. The long arm mirror assembly should always be fitted to the side of the vehicle that has the spare wheel mounted.

62 To remove the spare wheel, proceed as follows:

62.1 Undo and remove the two retaining bolts (Fig 40 and Fig 41 (2)) and clamp plate (1).

62.2 Remove the spare wheel (3) from its location.

63 To replace the spare wheel, proceed as follows:

63.1 Place the spare wheel on to its location.

63.2 Fit the clamp plate and secure with the two bolts.

Spare wheel lifting harness

Spare wheel lifting harness - Side mounted spare wheel

64 A spare wheel lifting harness can be fitted to the position on the side of the vehicle to enable the driver to remove and re-stow the spare wheel unassisted.

65 To remove the spare wheel, proceed as follows:

65.1 Undo and remove the two retaining bolts (Fig 40 and Fig 41 (2)) and clamp plate (1).

65.2 Pull the top of the wheel away from the vehicle and off the spare wheel carrier (Fig 42 (1)). Let the harness take the weight of the wheel and gently rotate the wheel downwards against the side of the vehicle (2) until the harness is fully extended (3).

65.3 Release the adjustment cleats (Fig 43 (1)) and lower the wheel to the ground.

65.4 Remove the plastic stops (2) from the wheel stud holes and the valve extension tube from the air valve. The spare wheel is now ready for use.

66 To replace the spare wheel, proceed as follows:

66.1 Position the spare wheel under the harness with the front face of the wheel facing outwards and refit the valve extension tube to the air valve.

66.2 Push the plastic stops through the wheel stud holes from the back of the wheel ensuring that they are one wheel stud hole apart.

66.3 Lift the wheel off the ground by pulling the harness adjusting straps through the cleats until they meet the metal buckles.

66.4 Stow the excess straps in the bag in the centre of the harness assembly.

66.5 Using both hands, lift the lower edge of the wheel and turn it through 180 degrees against the side of the vehicle, so that the centre of the inverted wheel locates up against the wheel carrier.

66.6 Push the wheel upwards to locate it on the spare wheel carrier.

WARNING

FALLING OBJECTS. THE SPARE WHEEL MUST ALWAYS BE SUPPORTED IN POSITION ON THE WHEEL CARRIER UNTIL THE CLAMP AND BOLTS ARE FITTED.

66.7 Fit the clamp plate and secure with the two bolts.

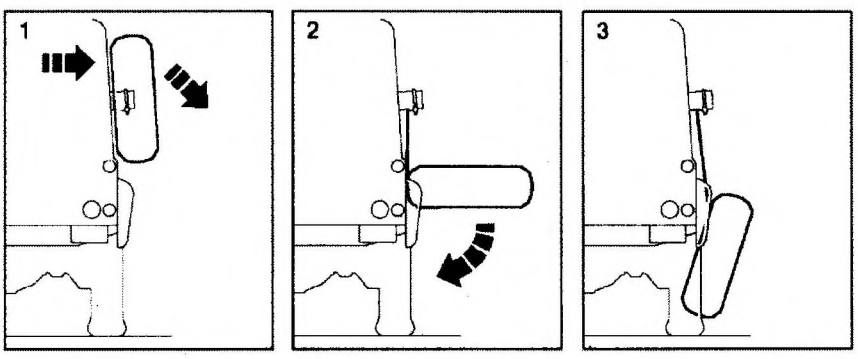
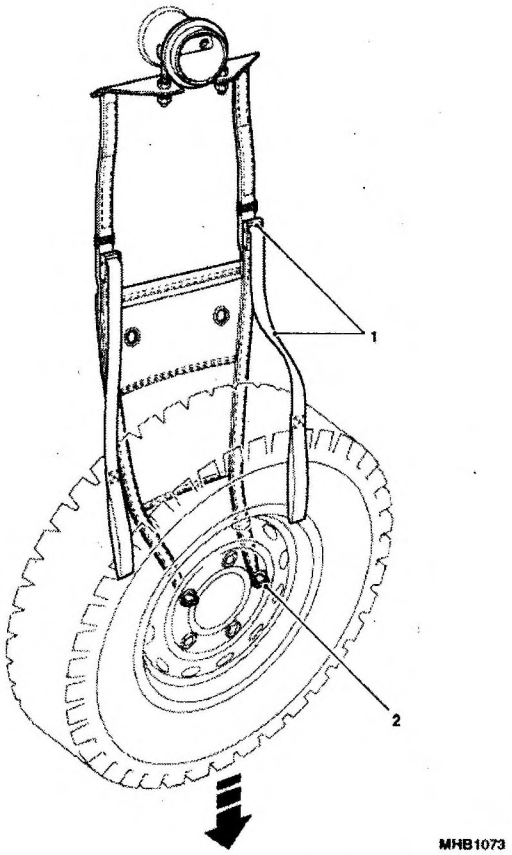


Fig 42 Removing the side mounted spare wheel using the lifting harness



1 Adjustment cleats 2 Plastic stops

Fig 43 Lowering the side mounted spare wheel using the lifting harness

Spare wheel lifting harness - Rear mounted spare wheel

67 A spare wheel lifting harness can be fitted to the spare wheel carrier on the rear of the vehicle to enable the driver to remove and re-stow the spare wheel unassisted.

68 To remove the spare wheel, proceed as follows:

68.1 Remove the three wheel nuts securing the spare wheel.

68.2 Pull the top of the wheel away from the vehicle and off the spare wheel carrier (Fig 44 (1)). Let the harness take the weight of the wheel and gently rotate the wheel downwards (2) onto the ground (3).

68.3 Remove the plastic stops (Fig 45 (1)) from the wheel stud holes. The spare wheel is now ready for use.

69 To replace the spare wheel, proceed as follows:

69.1 Position the spare wheel under the harness with the front face of the wheel facing inwards.

69.2 Push the plastic stops through the wheel stud holes from the front of the wheel ensuring that they are one wheel stud hole apart.

NOTE

The harness adjusting straps (2) do not require adjustment.

69.3 Using both hands, lift the lower edge of the spare wheel and rotate wheel so that the centre of the wheel locates up against the wheel carrier on the side of the vehicle.

69.4 Push the wheel upwards to locate it on the spare wheel carrier.

WARNING

FALLING OBJECTS. THE SPARE WHEEL MUST ALWAYS BE SUPPORTED IN POSITION ON THE WHEEL CARRIER UNTIL THE WHEEL NUTS ARE FITTED.

69.5 Support the spare wheel in the stowed position while securing the wheel with wheel nuts.

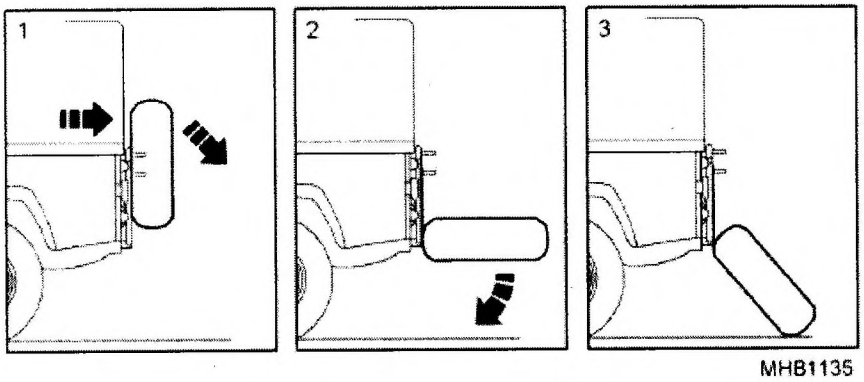
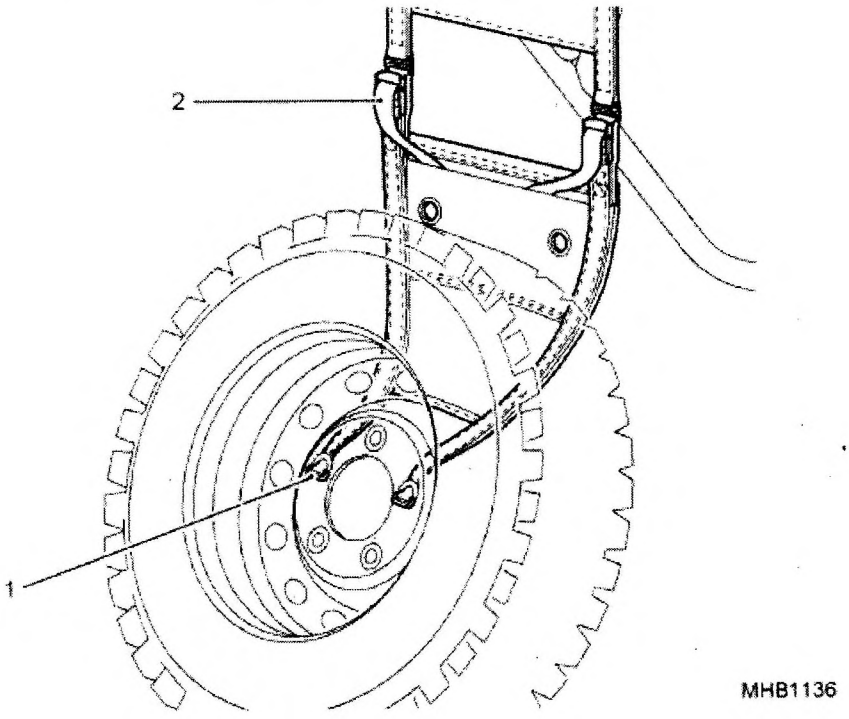


Fig 44 Removing the rear mounted spare wheel using the lifting harness



1 Plastic straps 2 Adjusting straps

Fig 45 Rear mounted lifting harness

ENGINE COOLING SYSTEM

WARNING

EXPANSION CAP. DO NOT REMOVE THE EXPANSION CAP WHEN THE ENGINE IS HOT BECAUSE THE COOLING SYSTEM IS PRESSURISED AND PERSONAL SCALDING COULD RESULT.

CAUTIONS

(1) EXPANSION CAP. Failure to tighten the expansion cap may result in coolant loss with possible damage to the engine through overheating.

(2) COOLANT. Never run the engine without coolant, not even for a very brief period, otherwise the injectors may be seriously damaged. This is due to the very high rate of heat transfer in the region of the injector nozzles.

(3) CORROSION. As a precaution against corrosion, the cooling system should be drained and flushed out as specified.

70 The cooling system is located inside the engine compartment and comprises of the expansion tank connected to the radiator by way of the engine. The engine coolant is a mixture of two fluids and is an aid to protecting the engine from overheating.

Expansion tank

71 The expansion tank is located on the right hand wing valance.

72 When removing the filler cap (Fig 46 (1)) proceed as follows:

72.1 Turn the cap anti-clockwise a quarter of a turn and allow the pressure to escape, before turning further in the same direction to lift it off.

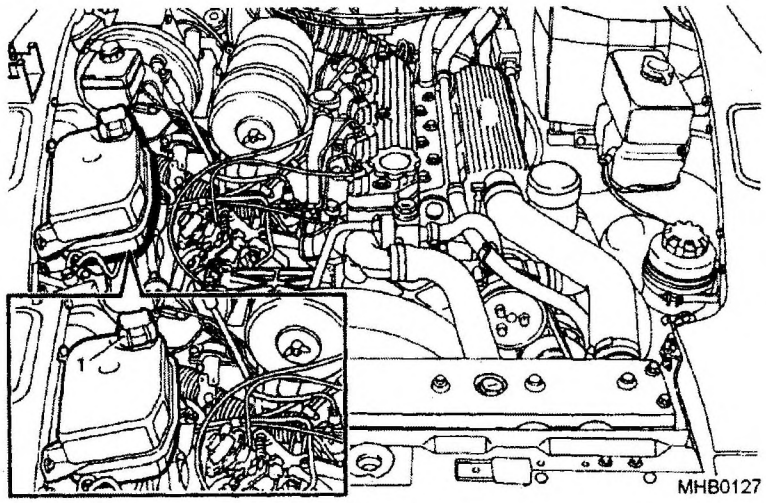
72.2 When refitting the expansion tank cap, it is important that it is tightened down fully.

Cooling system protection

73 The cooling system should be protected as follows:

73.1 In cold climates against frost and corrosion by using the anti-freeze as specified.

73.2 It is essential therefore if the cooling system is drained or topped-up at any time either in winter or summer, to refill with a solution of water and the correct type of anti-freeze, otherwise damage to the engine will result.



1 Filler cap

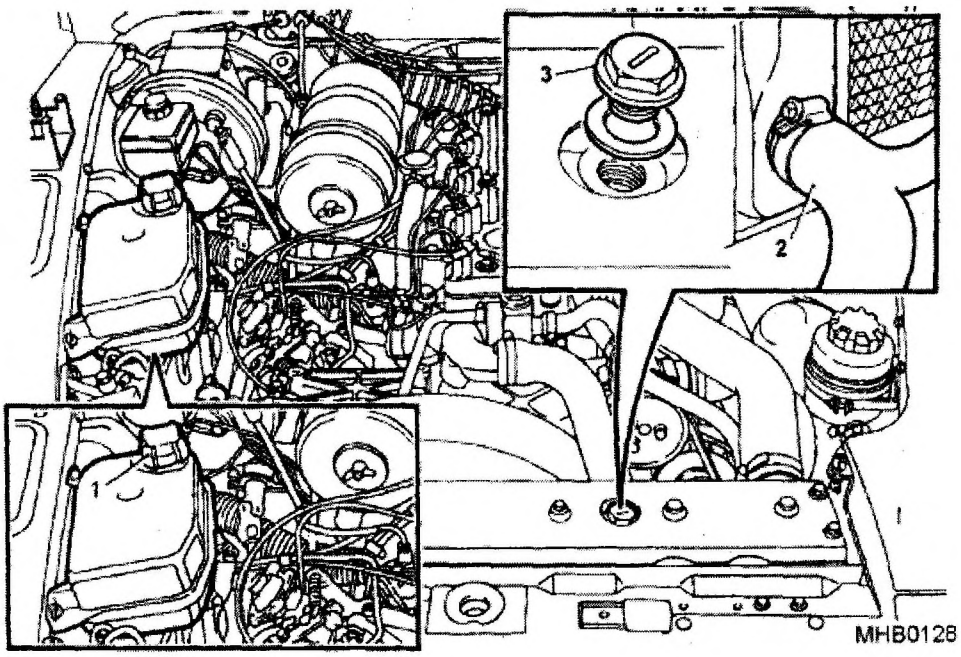
Fig 46 Expansion tank

Flushing the engine cooling system

74 To flush the engine cooling system, proceed as follows:

74.1 Remove the expansion tank (Fig 47 (1)) and radiator filler caps (3).

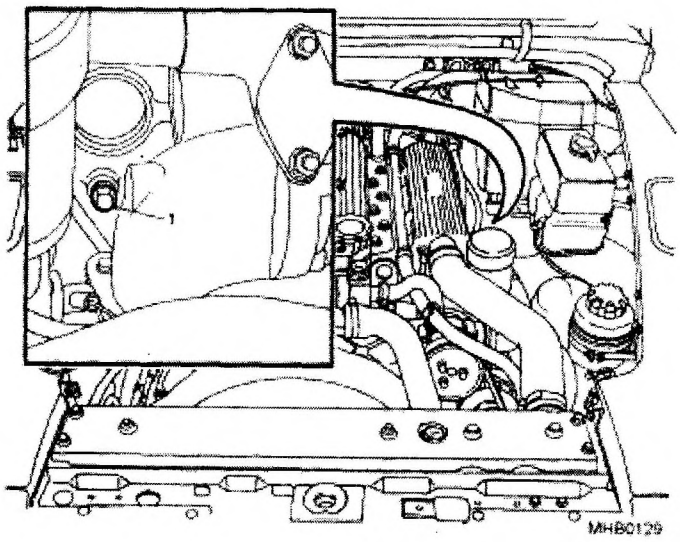
74.2 Remove radiator bottom hose (2).



1 Expansion tank
2 Bottom hose
3 Filler caps

Fig 47 Radiator and expansion tank

74.3 Remove the cylinder block drain plug (Fig 48 (1)) which is on the left hand side of the engine.



1 Cylinder block drain plug

Fig 48 Cylinder block drain plug

74.4 To drain the expansion tank, disconnect the hose from the tank.

74.5 Flush the system thoroughly.

74.6 Fit the pipe, engine drain plug and radiator drain plug/bottom hose.

74.7 Fill the system with the correct solution of water and anti-freeze through the expansion tank until half full.

74.8 Fit the expansion tank cap and radiator filler plug, run the engine until the operating temperature has been achieved, allow to cool and check level, top up if necessary.

NOTES

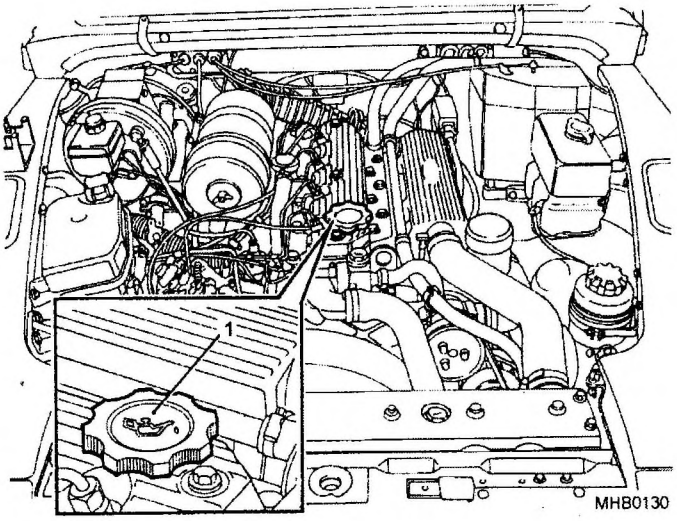
(1) Never use salt water with anti-freeze or an inhibitor, otherwise corrosion will occur.

(2) In certain territories where the only available water supply may have some salt content, use only clean rainwater or distilled water.

(3) (After draining, flushing and refilling the system, the engine must be run for 5 minutes to ensure elimination of any air locks from within the cooling system.

ENGINE OIL FILLER CAP

75 The engine oil filler cap (Fig 49 (1)) is situated on top of the rocker box cover towards the forward end of the engine. If the engine oil level is low it can be topped up through the filler cap.



1 Engine oil filler cap

Fig 49 Engine oil filler cap

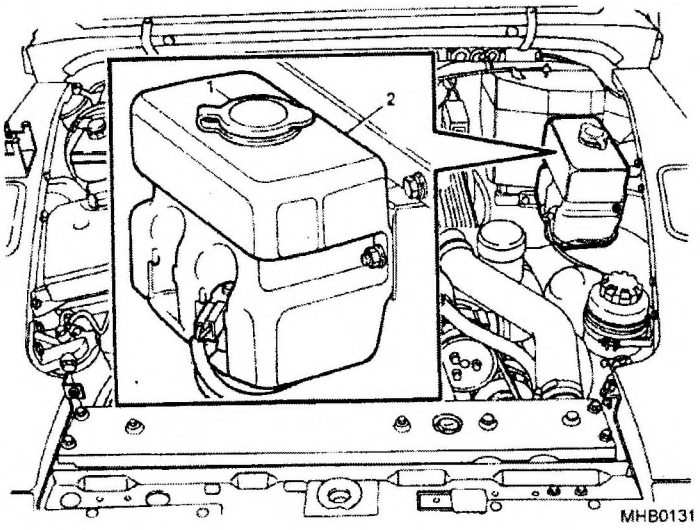
WINDSCREEN WASHER RESERVOIR

76 The reservoir (Fig 50 (2)) is located on the wing valance and has provision for two pumps to feed the front and rear (where fitted) wash/wipe system.

77 To top up the reservoir, proceed with the following:

77.1 Remove reservoir cap (1).

77.2 Top-up to within approximately 25 mm (1.0 in) below the bottom of the filler neck.



1 Reservoir cap 2 Reservoir

Fig 50 Windscreen washer reservoir

77.3 Use a screen washer solvent in the container, it will assist in removing mud, flies and road film from the windscreen.

77.4 Keep the washer bottle filled with clean water and solvent.

DRIVE BELT

78 Examine the pulley for damage and check that there are no pebbles or grit trapped in the grooves that could damage or reduce the life of the drive belt.

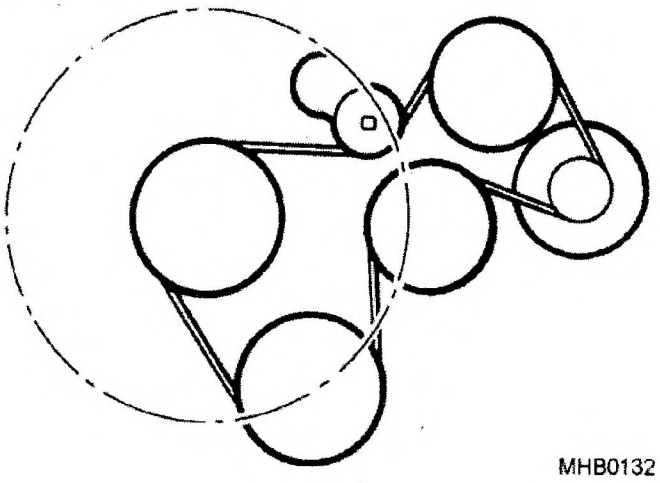


Fig 51 Serpentine drive belt

79 The vehicle operates on a normal 24V electrical system. The ancillaries are driven from a single serpentine belt. The belt has an automatic adjustment system therefore does not require adjusting.

80 To remove the serpentine belt, proceed with the following:

80.1 Using a 15mm ring spanner, move the auto tensioner so that the belt is free.

80.2 Whilst releasing the tension, remove the belt from the pulleys.

80.3 To fit the serpentine belt. Loop the belt over the cooling fan

80.4 Loop the belt around the pulleys leaving the top one till last.

80.5 Tension the auto tensioner and loop the belt over the last two pulleys.

80.6 Release the tensioner slowly so there is no sudden pressure put on to the drive belt.

DAILY AND WEEKLY CHECKS

81 The following are the daily and weekly checks that are required for the correct operation of the vehicle.

82 Daily checks require you to do the following:

82.1 Examine the vehicle for obvious signs of damage.

82.2 Ensure that the vehicle has sufficient fuel, oil and coolant for the journey.

82.3 Examine and operate the doors, locks, safety catches and bonnet catches.

82.4 Examine for clarity and damage the windscreen and windows.

82.5 Examine for cracks and deterioration of reflective surfaces of the rear view mirrors.

82.6 Examine and operate the seat belts and attachments.

82.7 Ensure the vehicle is fitted with serviceable fire extinguisher(s).

82.8 Ensure correct operation of the lamps, horn, windscreen wipers and washers, direction indicators, hazard warning lights, heaters and demisters, instruments and gauges.

82.9 Examine for damage and operate the obligatory front and rear lights and headlights.

82.10 Check level and replenish as necessary the windscreen washer reservoir.

82.11 Examine for security of attachment and damage of the windscreen washer reservoir.

82.12 Examine for cuts and other damage, check tread depth and pressures of the tyres (including spare wheel).

82.13 Visually examine wheels for security.

82.14 Examine registration, marker and legal plates.

82.15 Examine for damage and security of attachment of the reflectors.

82.16 Examine the towing pintle ensuring that the locking latch is free and locking pins are in place and attached by securing chains.

82.17 Ensure correct operation of the brakes and steering.

83 Weekly checks require you to do the following:

83.1 Examine the alternator (FFR only) and serpentine belts for fraying and correct tension.

83.2 Check level and replenish as necessary the power steering reservoir.

83.3 Check level and replenish as necessary the brake and clutch reservoirs.

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CHAPTER 4-2

FITTED FOR RADIO (FFR)

CONTENTS

INTRODUCTION

1 This sub-chapter describes the User Maintenance applicable to the Fitted For Radio (FFR) Truck Utility Light (TUL) and Truck Utility Medium (TUM) vehicles, which are not covered in the previous chapters.

BULBS

2 The bulb replacement for the basic vehicles are covered in Sub-Chap 4-1 except for the following items:

AMMETER

3 The ammeter is situated in the centre of the auxiliary panel, below the main lighting panel. To replace a defective bulb in a ammeter, proceed as follows:

3.1 Disconnect the negative earth lead from the battery.

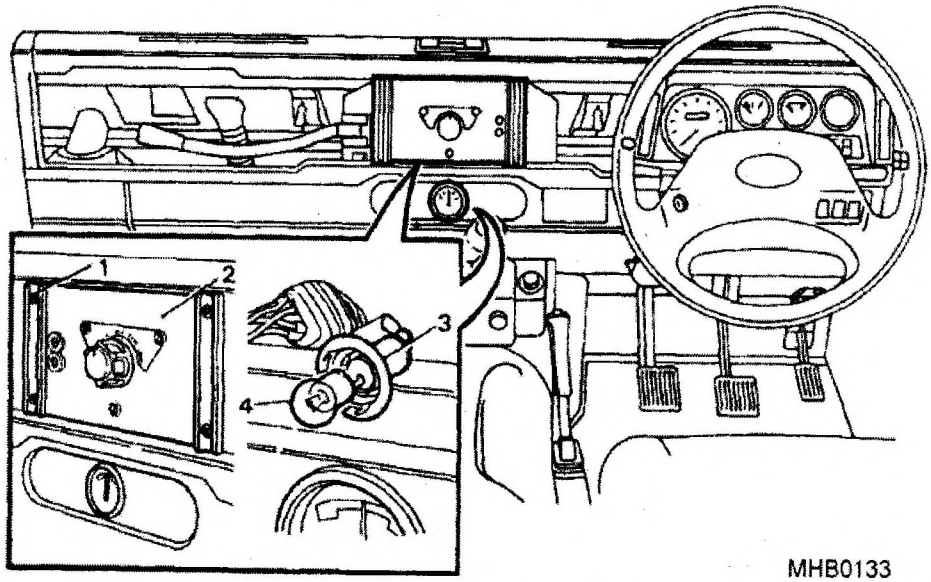
3.2 Undo the four screws (Fig 1 (1)) retaining the main lighting switch panel (2).

3.3 Ease the panel forward as far as possible to gain access to the bulb holder (3).

3.4 Remove the defective bulb (4) and discard.

3.5 Fit a new bulb and refit the main lighting switch panel securing it with the four screws.

3.6 Reconnect the negative earth lead from to the battery.



MHB0133

1 Screws
2 Switch panel
3 Bulb holder
4 Defective bulb

Fig 1 Ammeter

FAST FUSE

4 The fast fuse is located behind the front seats attached to the bulkhead. To replace the fuse proceed as follows:

4.1 Disconnect the negative earth lead from the battery.

4.2 Undo the two screws (Fig 2 (1)) and remove the cover (2).

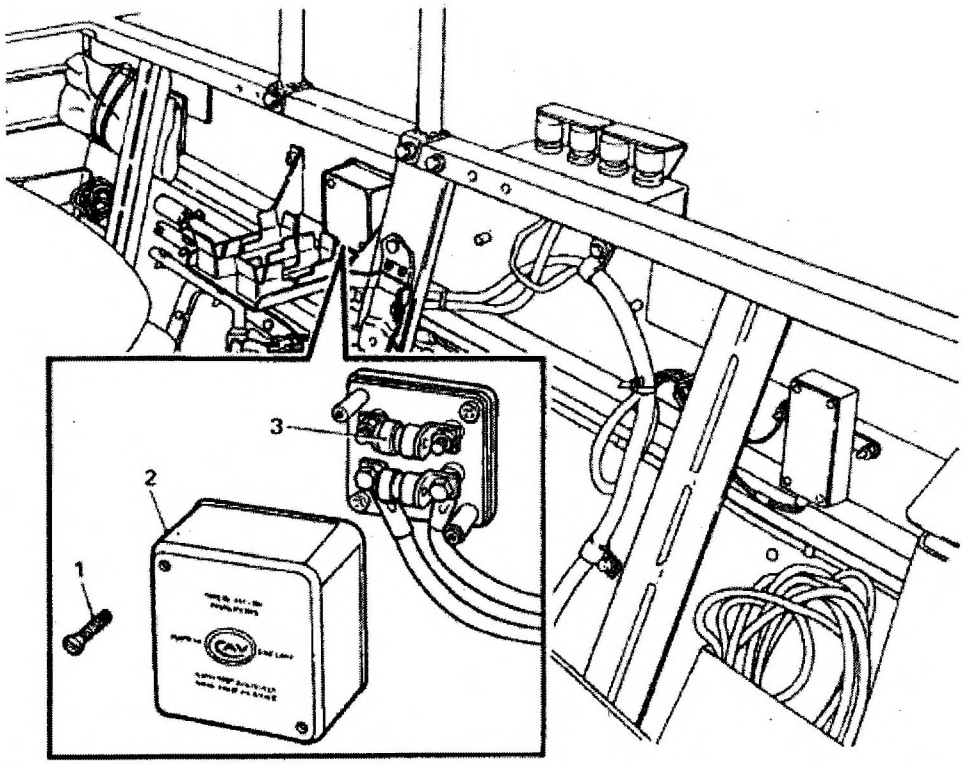
4.3 Renew the defective fuse with the spare (3), located in the box.

NOTE

If the spare is used report it as soon as possible so that another replacement fuse may be fitted.

4.4 Fit the cover and secure with the two screws.

4.5 Reconnect the negative earth lead to the battery.



MHB0134

1 Screws 3 Spare fuse
2 Cover

Fig 2 Fast fuse

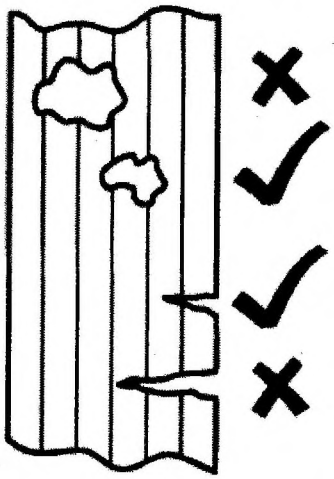
ALTERNATOR DRIVE BELT

5 Examine all pulleys for damage and check that there are no pebbles or grit trapped in the grooves that could damage or reduce the life of the drive belt. The radio batteries operate off a 24V supply.

6 The construction of the belt allows for a degree of visible damage (Fig 3) within its service life as follows.

6.1 That multiple holes, splits or punctures within the body of the belt exceed two adjacent ribs.

6.2 That no splits/tears or holes exist in either edge of the belt exceed one rib width.



MHB0172

Fig 3 Belt damage

7 A separate belt drives the alternator from the engine crankshaft pulley and the drive is permanent whilst the engine is operating. The 24 V alternator charges the radio batteries located in the rear of the vehicle.

Tensioning the belt

8 To check the auxiliary drive belt apply finger pressure between the alternator pulley (Fig 4 (1)) and the crankshaft pulley (2). Adjust the belt tension as follows.

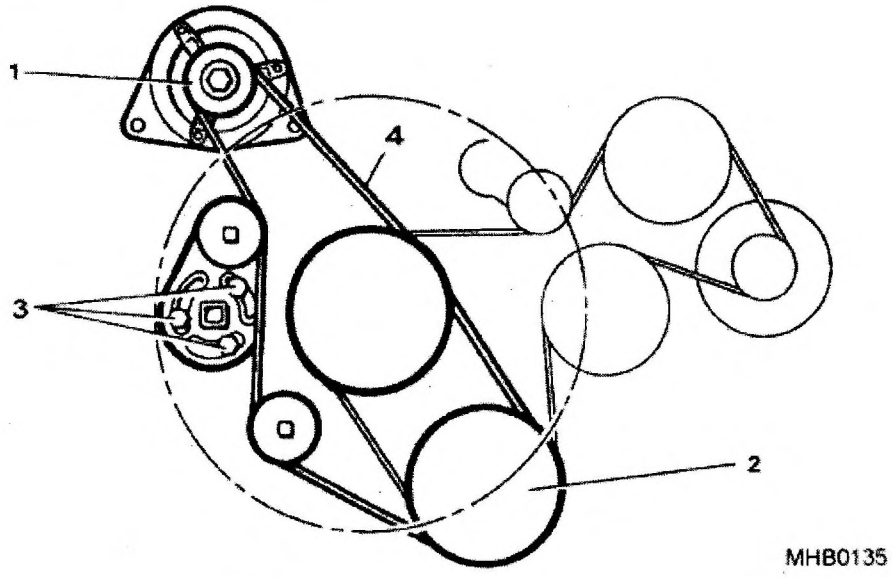
8.1 Slacken the tensioner pulley bolts (3).

8.2 Adjust the belt (4) to the correct tension by moving the tensioner in or out as required (refer to Cat 601, table 3, serial 2).

8.3 Tighten the tensioner securing bolts.

NOTE

Check that the belt tension has been maintained during the tightening sequence.



1 Alternator pulley
2 Crankshaft pulley
3 Pulley bolts
4 Belt

Fig 4 Alternator serpentine belt

Fitting a new belt

9 After establishing that the belt is no longer serviceable, (refer to Para 6) renew the belt immediately.

9.1 Removing the belt. Remove the engine serpentine belt (Chap 4-1).

9.2 Slacken the tensioner pulley bolts (3).

9.3 Remove the belt (4).

9.4 Fitting the belt. Loop the belt around the pulleys.

9.5 Tension the belt (refer to Para 8.3).

9.6 Tighten the tensioner securing bolts.

NOTE

Check that the belt tension has been maintained during the tightening sequence.

9.7 Refit the engine drive belt (Chap 4-1).

RADIO BATTERIES

10 The radio batteries are stowed inside the battery stowage box directly under the radio table in the rear of the vehicle. To change the batteries:

10.1 Isolate both vehicle batteries by removing the vehicle battery negative lead. Isolate the radio batteries by removing the battery lead plug from the auxiliary terminal box. Press the battery isolation switch to isolate the Communications system.

10.2 Undo the two retaining screws (Fig 5 (8)) located on top of the box.

10.3 Ease the front cover forward then lift out.

10.4 Using the handles slide the radio battery trays far enough out of the battery box to access the negative battery leads.

NOTE

Avoid snagging the battery breather tubes and the warning buzzer wiring when removing the battery tray from the radio table.

10.5 Disconnect the vehicle Radio battery negative leads from both banks of batteries by loosening the wing nut (1) and unhooking the leads from the battery terminals. The battery clamps should be transferred to new batteries as necessary. Make sure the negative leads are stowed correctly in the clips provided as shown on the negative battery stowage label (7).

10.6 Fully slide the battery trays out of the battery box to access the radio battery positive leads. Loosen the wing nuts and unhook the positive leads from the battery clamps. Stow the positive battery leads on the positive lead isolation post (3) provided.

10.7 Disconnect the connecting lead from between the two radio batteries and place safely to one side ready for refitting.

10.8 Undo the two wing nuts (4) and release the battery, clamp plate (6).

10.9 Move the "j" bolts (5) away and remove the clamp plate. The batteries can now be removed from the stowage trays (2).

10.10 With the battery box empty check all cables for signs of damage, wear or chaffing. Examine the negative battery retention clips for signs of damage. Check the positive isolation posts and other fixings for looseness or damage. Any problems should be rectified as necessary before proceeding.

10.11 Transfer the battery lugs to the replacement batteries and place in the stowage trays. Confirm that the batteries are correctly installed as shown on the battery configuration label on the inner face of the battery box door (Fig 6). Using the Clamp Plate, "J" bolts and wing nuts secure the batteries to the battery trays, ensuring the clamp plates are clear of all battery lugs and battery clamps.

NOTE

When only 2 radio batteries are installed the positive lead not in use should be connected to the isolation post. The negative lead not in use is stowed as indicated on the negative battery stowage label.

10.12 Reconnect the positive leads to the radio batteries. Refit the interconnecting leads and then slide the battery trays into the battery box.

10.13 Reconnect the negative leads to the radio batteries.

WARNING

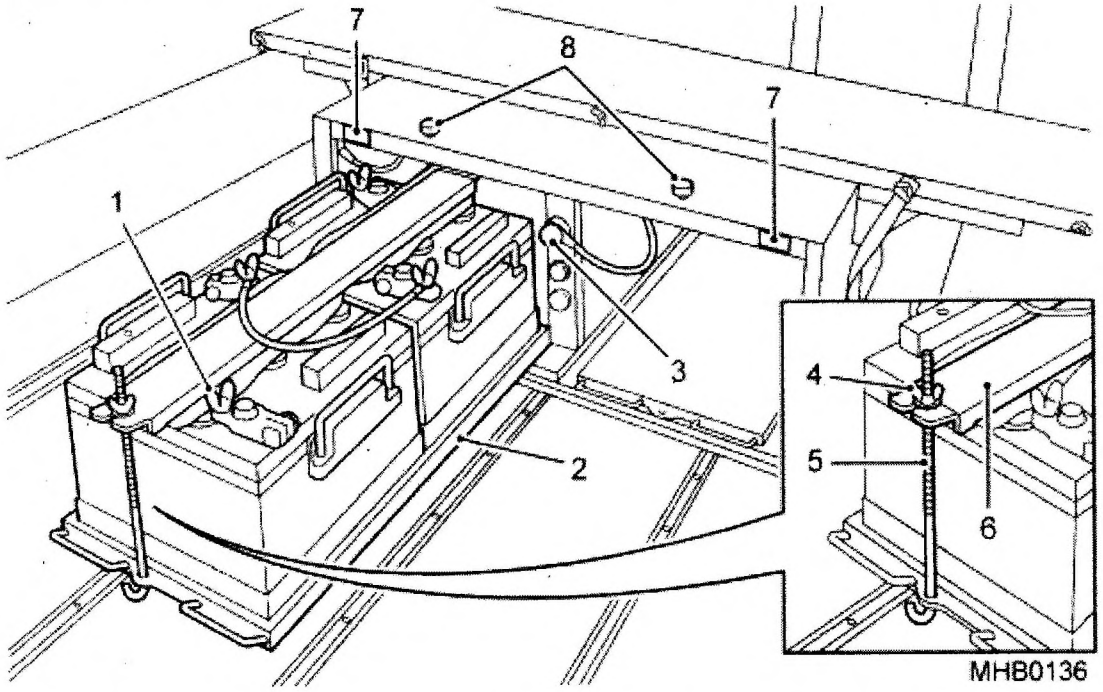
IF THE WARNING BUZZER SOUNDS AT THIS STAGE THE BATTERIES HAVE BEEN CONNECTED INCORRECTLY. CHECK BATTERY CONFIGURATION (PARA 11) AND RECTIFY.

10.14 If the warning buzzer has not sounded, push the test button, which will result in the warning buzzer sounding to confirm the system is fully operational.

10.15 Reconnect the batteries to the alternator by connecting the battery lead plug to the auxiliary terminal box.

10.16 Replace the front cover and secure with the two retaining screws.

10.17 Reconnect the vehicle battery negative lead.



1	Wing nut	4	Wing nuts	7	Negative battery stowage label
2	Stowage tray	5	"J" bolt	8	Retaining screws
3	Positive lead isolation post	6	Clamp plate		

Fig 5 Radio batteries

BATTERY CONFIGURATION

11 Ensure that when replacing radio batteries that they are in their correct sequence with negative pole first (refer to Fig 6).

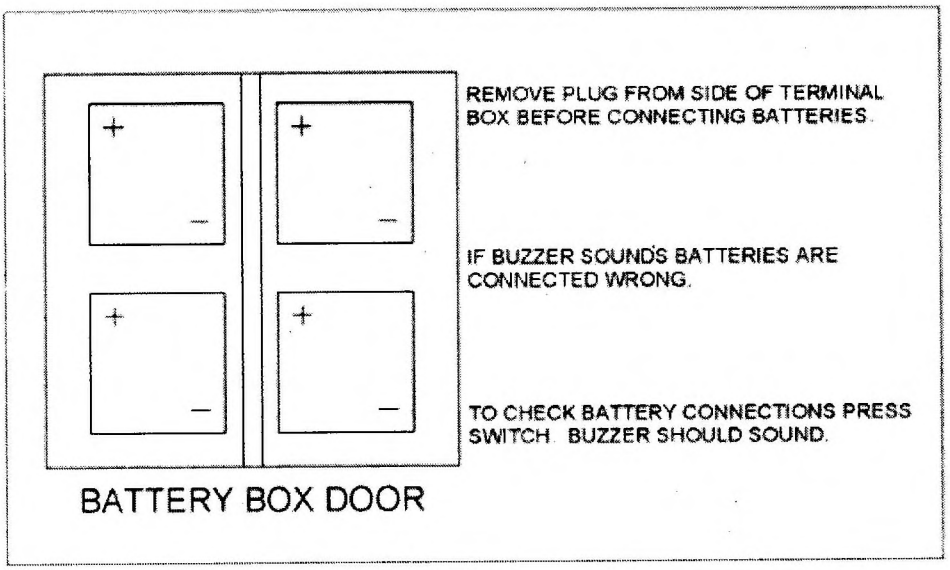


Fig 6 Battery configuration level

BATTERY ISOLATION SWITCH AND IMPORT/EXPORT SYSTEM

Relay box - 3 Amp Fuse renewal

12 A 3 amp fuse is provided to protect the power export relay. To renew the fuse carry out the following:

12.1 Disconnect any external power cables from the import/export socket.

12.2 Press the battery isolation switch to isolate the system (refer to Chap 3.2).

12.3 Disconnect the battery box power lead plug from the auxiliary terminal box.

12.4 Remove the four screws securing the relay box cover and remove the cover (Fig 7 (1)).

12.5 Renew the fuse (2) with the spare supplied.

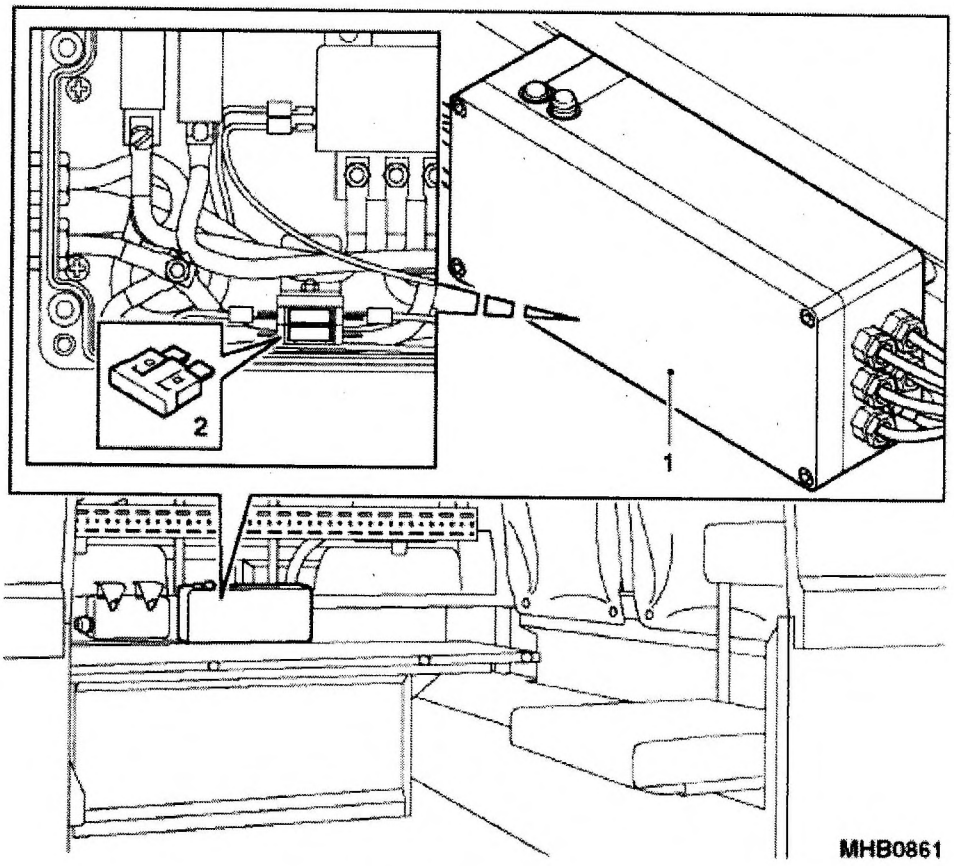
12.6 Refit the cover.

12.7 Connect the battery box power lead plug to the auxiliary terminal box.

12.8 Reset the isolation switch (refer to Chap 3.2).

12.9 Reset the circuit breakers on the relay box to restore power to the system (refer to Chap 3.2).

12.10 Replace the spare fuse as soon as possible.



1 Cover 2 Fuse

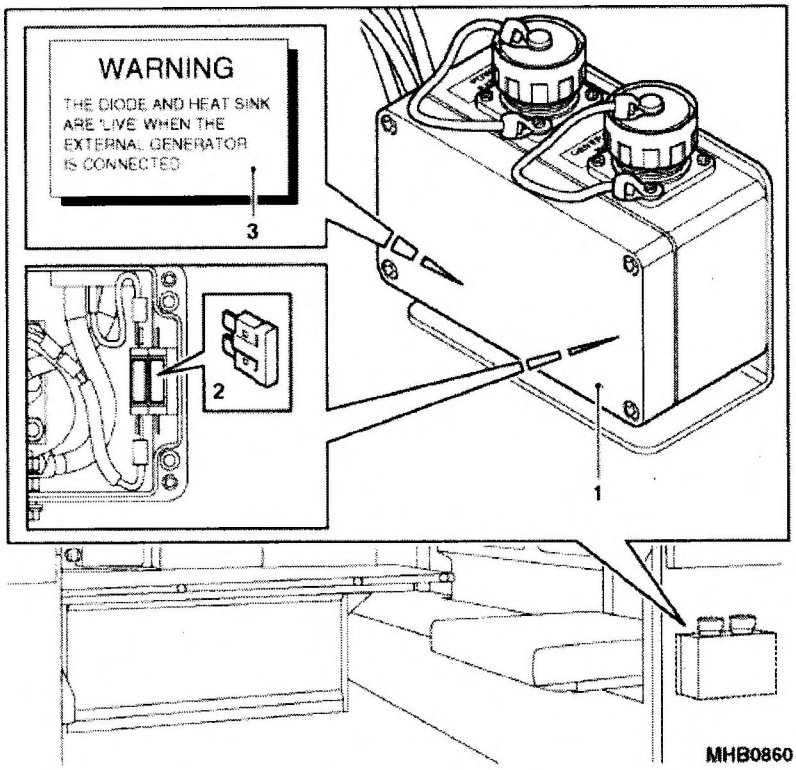
Fig 7 Rely box fuse renewal

Power import/export socket - 3 amp fuse renewal

13 A 3 amp fuse is provided to protect the power import relay. To renew the fuse carry out the following:

13.1 Disconnect any external power cables from the import/export socket (refer to warning label (3)).

13.2 Press the battery isolation switch to isolate the system (refer to Chap 3.2).



1 Cover 3 Warning label
2 Fuse

Fig 8 Import/export socket fuse renewal

13.3 Remove the four screws securing the power import/export cover and remove the cover (1).

13.4 Renew the fuse (2) with the spare supplied.

13.5 Refit the cover.

13.6 Reset the isolation switch (refer to Chap 3.2).

13.7 Reset the circuit breakers on the relay box to restore power to the system (refer to Chap 3.2).

13.8 Replace the spare fuse as soon as possible.

Warning buzzer and test button

14 A warning buzzer and test button (Fig 9) is provided to prevent the radio batteries from being reconnected incorrectly.

WARNING

TO ALLOW THE BUZZER TO WARN OF INCORRECT CONNECTION IT IS IMPORTANT THAT THE RADIO BATTERIES HAVE BEEN ISOLATED FROM THE AUXILIARY TERMINAL BOX - REFER TO PARA 10.

15 The buzzer operates as follows:

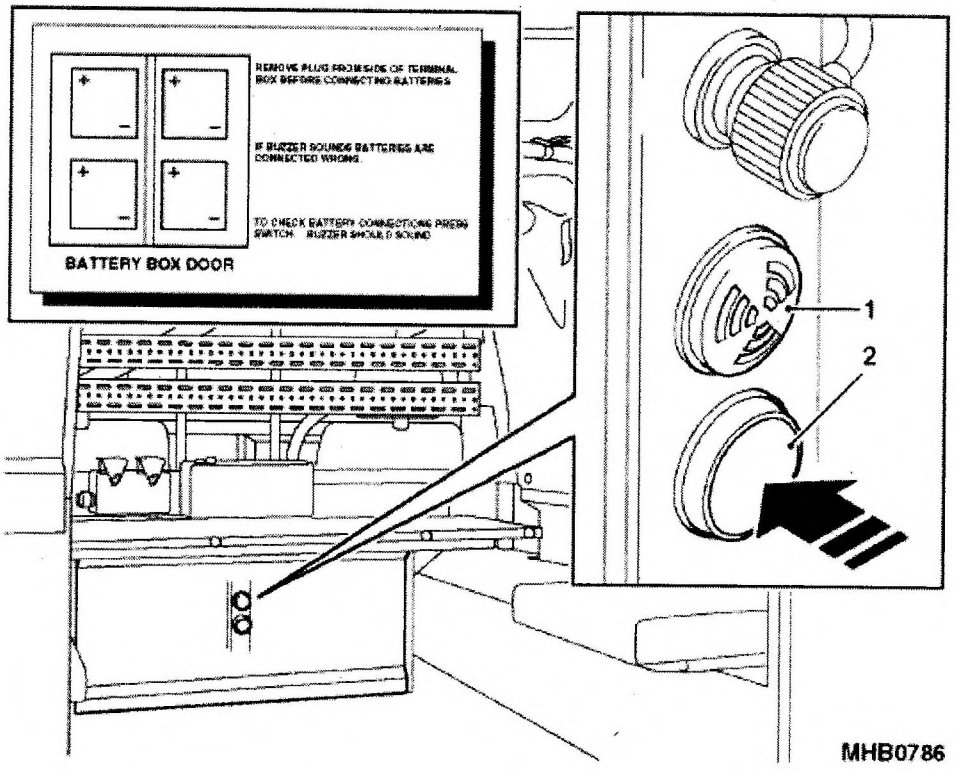
15.1 Refit the batteries (refer to Para 10)

15.2 If the batteries are connected correctly the buzzer will not sound.

15.3 If the buzzer sounds, refer to Para 10.8.

15.4 To confirm that the buzzer is operational, depress the 'press to test' button. If the buzzer now sounds, correct reconnection of the batteries is confirmed and the battery lead to the auxiliary terminal box can be reconnected.

15.5 Refit the battery box cover (refer to Para 10).



1 Buzzer 2 Test button

Fig 9 Warning buzzer and test button

CHAPTER 4-3

BATTLEFIELD AMBULANCE

CONTENTS

INTRODUCTION

1 This sub-chapter describes all the user maintenance applicable to the Battlefield Ambulance, which are not covered in the previous chapters.

General

2 All the service intervals for the subsequent paras are to be found in the following documents: (Cat 601, Table 4 and 5). For the most efficient use of the vehicles, the service intervals should be adhered to.

BULBS

CAUTION

All the bulbs incorporated in the vehicle are of the 24 Volt type and should be changed immediately they have failed. Failure to do so will result in operating in an unreliable condition e.g. warning lights not indicating failure especially with the brakes, vehicle charging and 24 volt charging circuits.

3 The bulbs are either the push or the bayonet types. The appropriate bulb ratings are to be found in the "User Spares Data" (Chap 5). The following paragraphs describe how to replace all the bulbs on the vehicle.

Headlights/sidelights

4 The headlights contain quartz halogen bulbs and incorporate the side lights.

CAUTION

ADJUSTMENT SCREWS. Care must be taken not to disturb the headlight beam adjustment screws.

5 Renew the sidelight bulb, proceed as follows:

5.1 Disconnect the negative earth lead from the battery.

5.2 Prise the headlight unit (Fig 1 (2)) from the headlight adjustment screws (1) and remove. The headlight lens can now be removed.

NOTE

To renew the headlight bulb refer to Chap 4-1.

5.3 Pull off the electrical connection (3) to the headlight and remove the rubber boot (4).

5.4 Withdraw the side light bulb holder (5) and withdraw the bulb (6).

5.5 Fit new bulb to the bulb holder.

5.6 Refit the bulb holder into main lens.

5.7 Clean the headlight and rubber boot of old grease and recoat with silicon grease.

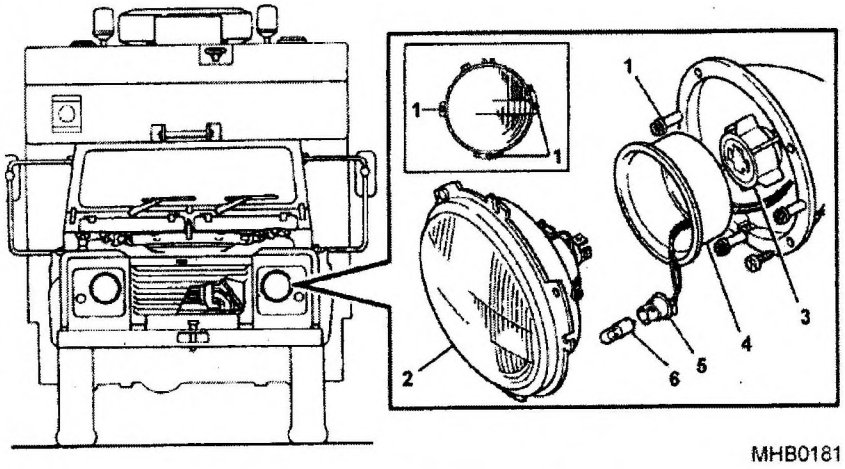
5.8 Refit the rubber boot and cable connector.

5.9 Refit the headlight unit to the headlight beam adjustment screws.

5.10 Reconnect the negative earth lead to the battery.

NOTE

The lights should be checked using the specialised headlight alignment equipment available.



1 Adjustment screws
2 Headlight unit
3 Electrical connection
4 Rubber boot
5 Side light bulb holder
6 Bulb

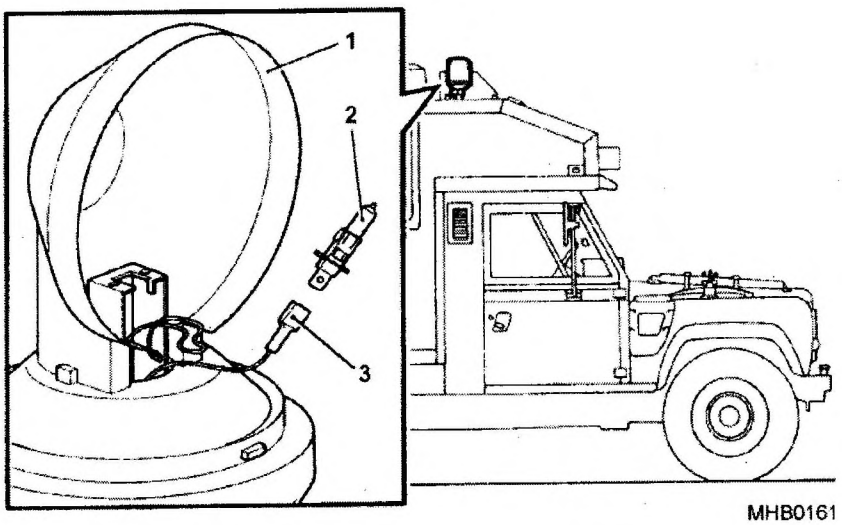
Fig 1 Side light bulb replacement

Rotating beacons

6 The blue rotating flashing beacons are located externally on the ambulance compartment roof.

6.1 Renew the bulb. Disconnect the negative earth lead from the battery.

6.2 Remove the lens from the beacon base (Fig 2 (1)).



1 Beacon base
2 Electrical lead
3 Bulb

Fig 2 Rotating beacons

6.3 Using thumb and forefinger squeeze spring clips and ease the bulb holder from the base plate.

6.4 Disconnect the electrical lead (2) from the bulb (3). Remove and discard defective bulb.

6.5 Insert new bulb into holder and connect electrical lead.

6.6 Refit bulb holder to base plate.

6.7 Refit lens to base plate.

6.8 Reconnect the negative earth lead to the battery.

Moonlight

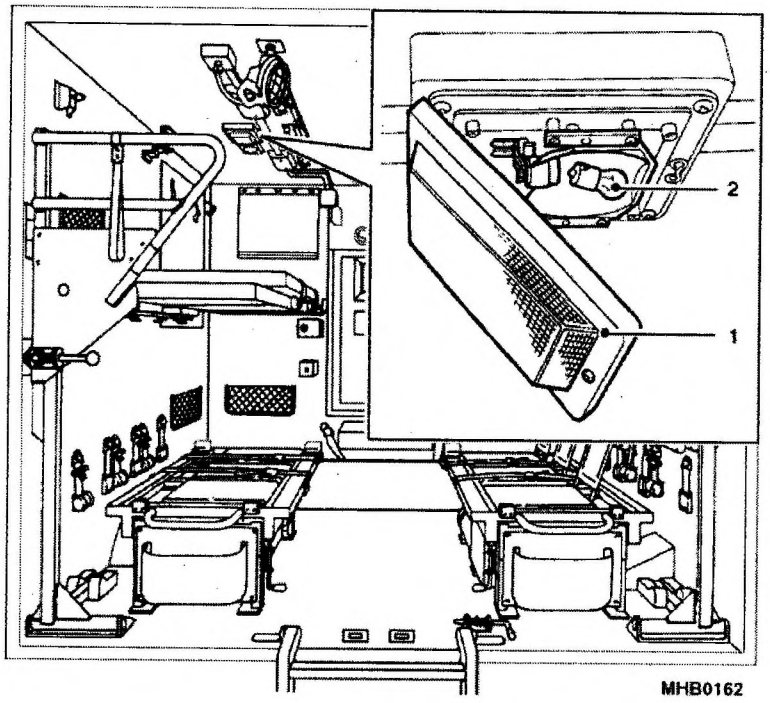
7 The moonlight is roof-mounted in the ambulance compartment, on the left side between the fluorescent lights.

8 To renew the bulb, proceed as follows:

8.1 Disconnect the negative earth lead from the battery.

8.2 Remove the screw securing the cover (Fig 3 (1)) to the body of the light unit. Hinge down the cover.

8.3 Remove defective bulb (2) from bayonet fitting in holder. Discard bulb.



1 Cover 2 Defective bulb

Fig 3 Moonlight

8.4 Fit new bulb in holder.

8.5 Hinge up the cover and secure with a screw to the body of the light unit.

8.6 Reconnect the negative earth lead to the battery.

Fluorescent roof lights

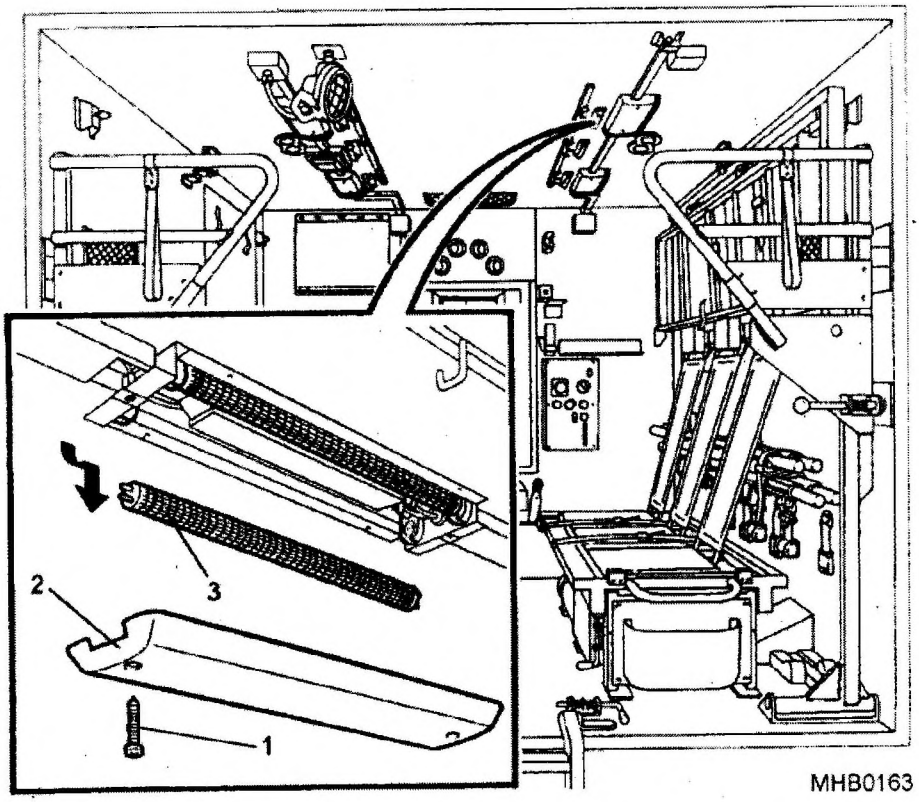
9 Four twin tube units are roof-mounted in the ambulance compartment, two units on either side.

10 To renew the tube, proceed as follows:

10.1 Disconnect the negative earth lead from the battery.

10.2 Remove the two screws (Fig 4 (1)) securing the cover (2) to body of light unit.

10.3 Remove defective tube (3) by twisting it through 90 degrees and pulling it from between its holders. Remove screen and discard tube.



1 Screws 3 Defective tube
2 Cover

Fig 4 Fluorescent roof lights

10.4 Fit screen to new tube then insert between holders; line up pins at each end of tube with slots in holders. Slide pins into slots and twist tube through 90 degrees.

10.5 Refit cover to body of light unit. Secure using two screws.

10.6 Reconnect the negative earth lead to the battery.

Flood light

11 The floodlight is located above the rear doors in the ambulance compartment.

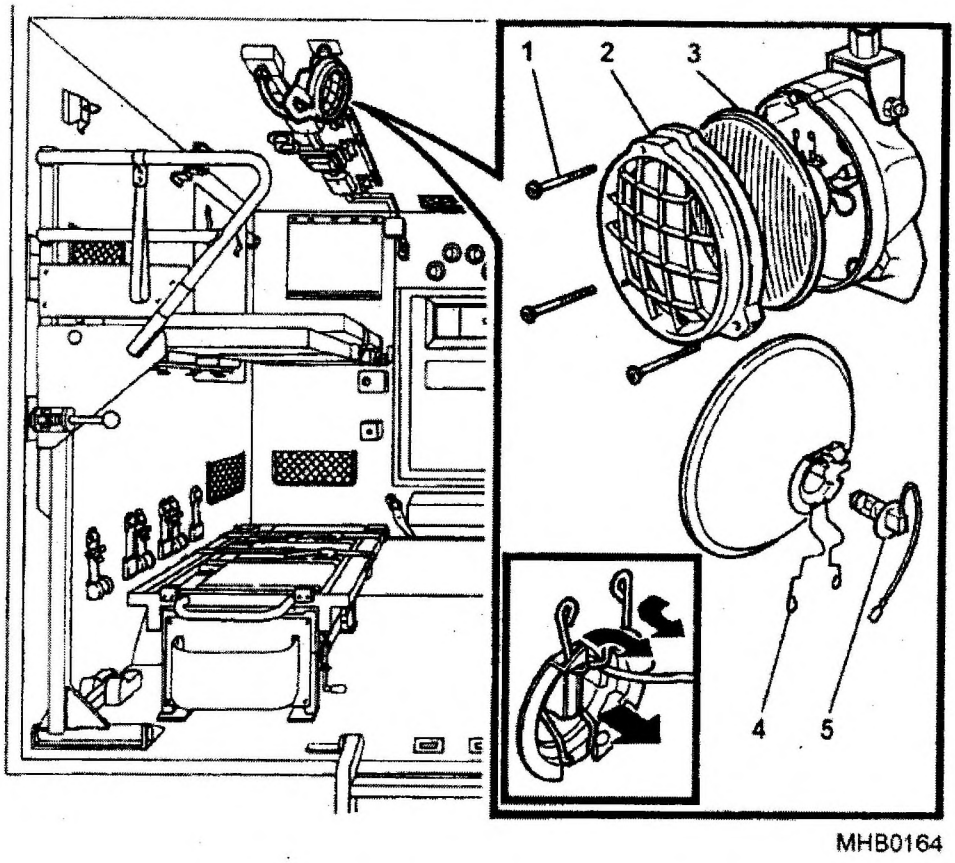
12 To renew the bulb, proceed as follows:

12.1 Remove three screws (Fig 5 (1)) from front cover (2) and remove cover.

12.2 Pull lamp unit (3) from rear cover.

12.3 Disconnect electrical lead from bulb (5).

12.4 Squeeze and release retaining clips (4), then remove and discard defective bulb.



1 Screws 3 Lamp unit 5 Bulb
2 Cover 4 Retaining clips

Fig 5 Floodlight

12.5 Fit new bulb.

12.6 Reconnect electrical lead.

12.7 Refit lamp unit to rear cover.

12.8 Refit front cover and secure with three screws.

Interior cab light

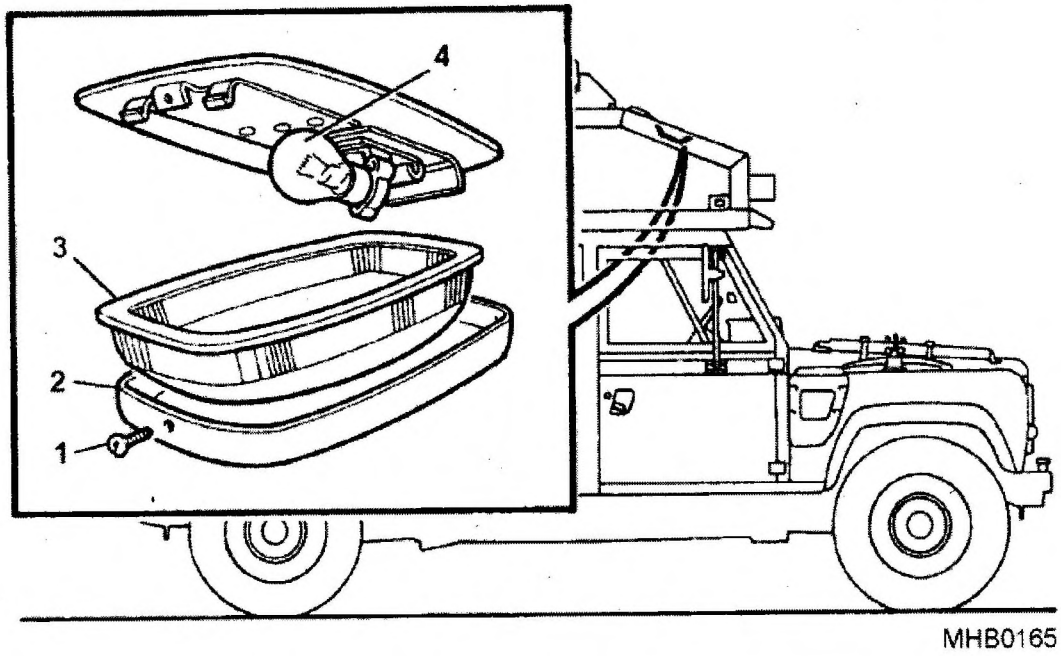
13 This is located on the right hand side above the drivers head.

14 To renew the bulb, proceed as follows:

14.1 Undo screw (Fig 6 (1)) retaining the rim (2) and cover (3) and remove the rim and cover.

14.2 Replace bulb (4).

14.3 Refit cover and rim.



1 Screw 3 Cover
2 Rim 4 Bulb

Fig 6 Interior cab light

FUSES

15 There are two fuses located behind the centre dash panel. These fuses are for the siren and beacon relay.

16 To replace the fuse, proceed as follows:

16.1 Remove the centre dash panel (refer to Chap 4-2).

16.2 Ease panel forward as far as possible to gain access to fuses.

16.3 Locate the defective fuse and replace with the same type of fuse.

16.4 Refit centre dash panel (refer to Chap 4-2).

SPARE WHEEL

17 The spare wheel is located on the ambulance compartment roof and retained by a clamp and two bolts.

WARNING

WHEEL. THE SPARE WHEEL IS HEAVY TO LIFT, TAKE CARE WHEN LIFTING IT ON AND OFF. THIS WILL REQUIRE TWO MEN.

18 To remove the wheel, proceed as follows:

18.1 Undo and remove the two retaining nuts (Fig 7 (2)) and clamp plate (3).

18.2 Taking care not to damage the vehicle, lower the wheel (1) down to the bonnet.

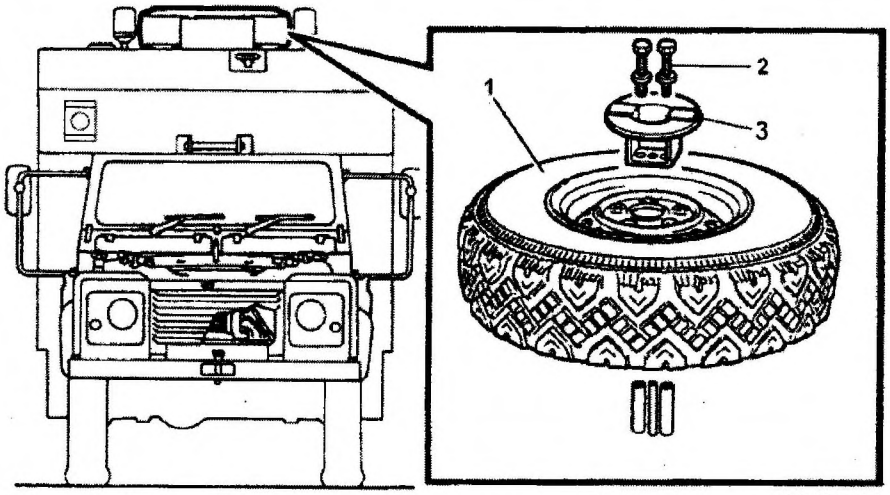
18.3 From the bonnet lower the wheel onto the ground.

19 To replace the wheel, proceed as follows:

19.1 Place the spare wheel on to the bonnet.

19.2 Taking care not to damage the vehicle move the wheel from the bonnet to its location on the roof.

19.3 Fit the clamp plate and secure with the two retaining nuts.



MHB0166

1 Wheel
2 Retaining nuts
3 Clamp plate

Fig 7 Removing the spare wheel

VENTILATOR GRILLE FILTER

20 The ventilator grille filter is situated behind the grille panel, which is located on the right-hand side of the vehicle behind the cab door.

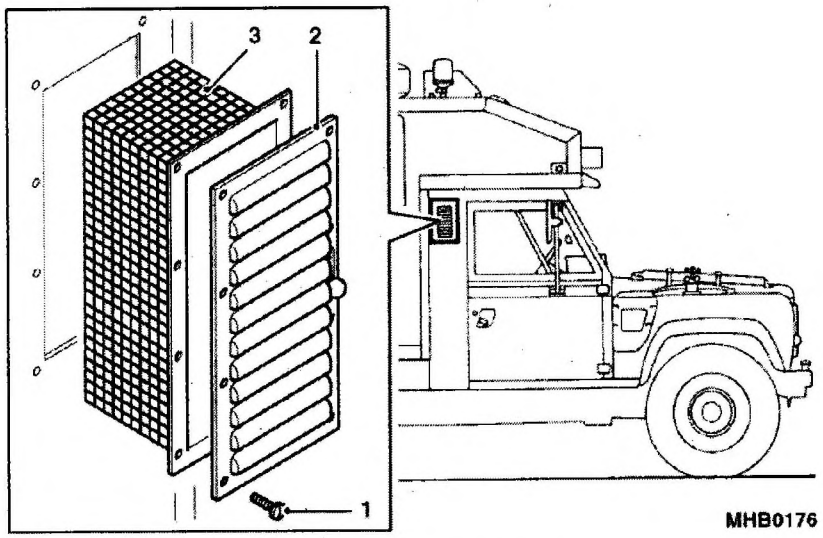
21 To replace the filter, Proceed as follows:

21.1 Undo the four screws (Fig 8 (1)) holding the panel (2) and remove panel.

21.2 Withdraw the filter (3) from its location and discard.

21.3 Fit a new filter.

21.4 Replace the panel and secure with the four screws.



1 Screws
2 Panel
3 Filter

Fig 8 Ventilator grille filter

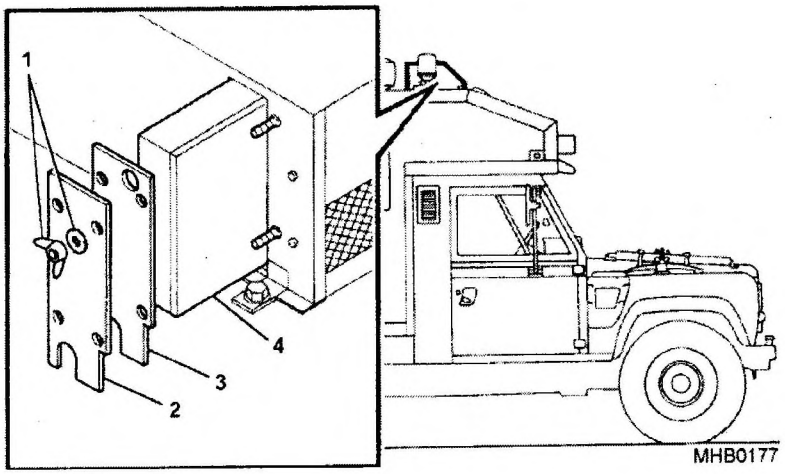
HEATER/AIR INTAKE FILTER

22 The heater/air intake filter is located in the rear of the intake box.

22.1 Replace the filter. Undo the four wing nuts and washers (Fig 9 (1)) holding the cover plate (2) and gasket (3) and remove the filter (4).

22.2 Fit a new filter.

22.3 Replace the panel and secure with the four screws.



1 Nuts
2 Cover plate
3 Gasket
4 Filter

Fig 9 Heater/air intake filter

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CHAPTER 4-4

WINTERISED/WATERPROOFED

CONTENTS

INTRODUCTION

1 This Sub-Chapter describes all the user maintenance applicable to the Truck Utility Light (TUL) HS and Truck Utility Medium (TUM) HS Winterised/waterproofed vehicles that are not covered in the previous chapters.

General

2 All the service intervals for the subsequent paragraphs are to be found in the following document: (Cat 601, Table 4 and 5). For the most efficient use of the vehicles, the service intervals should be adhered to.

BULBS

CAUTION

24 VOLT. All the bulbs incorporated in the vehicle are of the heavy duty 24 Volt type and should be changed immediately they have failed. Failure to do so will result in operating in an unreliable condition e.g. warning lights not indicating failure especially with the brakes, vehicle charging and 24 volt charging circuits.

3 The bulbs are either the push or the bayonet types. The appropriate bulb ratings are to be found in the "User Spares Data" (Chap 5). The following paras describe how to replace all the bulbs on the vehicle.

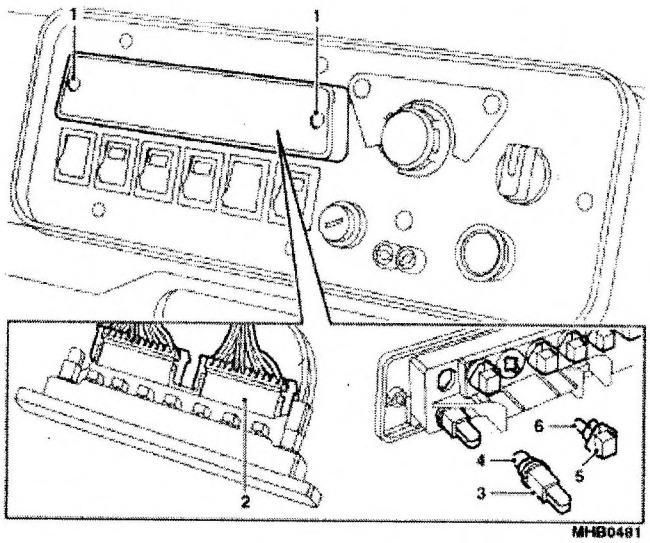
Warning lights

4 The warning lights panel is an integral part of the instrument console that is situated the centre of the dash and it contains eleven bulbs.

5 When replacing the bulb in the warning light, proceed as follows:

5.1 Disconnect the negative earth lead from the battery.

5.2 Remove the two screws (Fig 1 (1)) retaining the warning lights panel and ease the panel forward to gain access to the bulbs.



1	Screws	3	Bulb holder	5	Bulb holder
2	Plug conductor	4	Bulb	6	Bulb

Fig 1 Warning lights

5.3 Remove the appropriate plug connector (2) from the rear of the warning lights panel.

5.4 Twist the bulb holder (3) (5) and pull it from its socket.

5.5 Pull the bulb (4) (6) from its holder and discard.

5.6 Fit a new bulb and replace the holder into its socket.

5.7 Replace the plug connector and carefully fit the warning lights panel.

5.8 Secure with the two screws to the instrument panel.

Rocker switches

6 The rocker switches are located in the instrument console and are replaced thus:

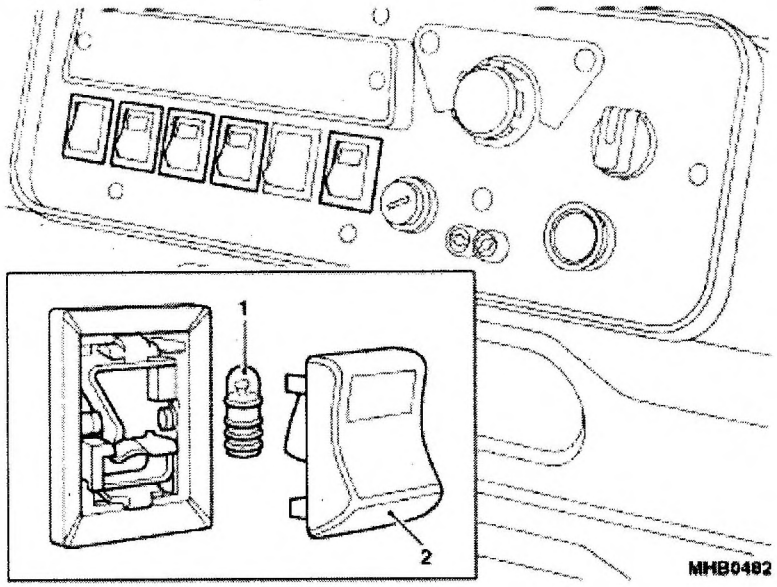
NOTE

There are four switches in the console where bulbs can be replaced.

6.1 Disconnect the negative earth lead from the battery.

6.2 Ease the rocker cover (Fig 2 (1)) off.

6.3 Ease the bulb (2) from its holder within the switch and discard.



1 Cover 2 Bulb

Fig 2 Rocker switches

6.4 Fit a new bulb into its housing and refit the cover.

6.5 Reconnect the negative earth lead to the battery.

Convoy light

7 The convoy light is situated underneath and to the rear of the vehicle. It is located on the right hand chassis member.

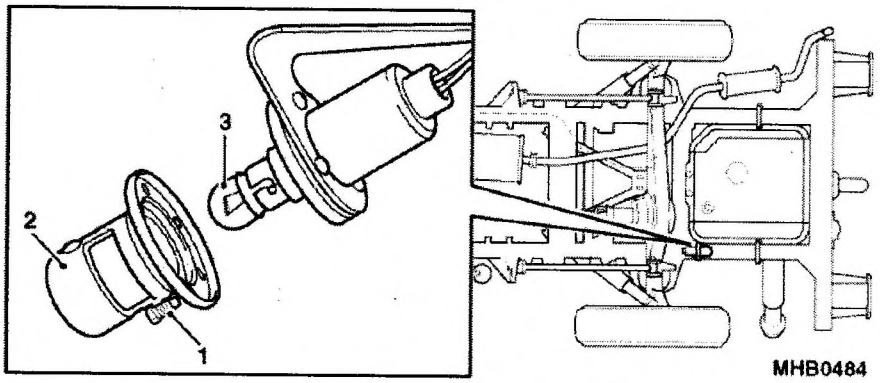
8 When replacing the bulb in a convoy light, proceed as follows:

8.1 Disconnect the negative earth lead from the battery.

8.2 Clean the exterior of the light (Fig 3 (2)) if dirty so access can be made more easily.

8.3 Unscrew the retaining cap (1) and remove the bulb holder from the convoy light.

8.4 Press and twist to release the bulb (3) from the holder and discard.



1 Retaining cap 3 Bulb
2 Exterior of light

Fig 3 Convoy light

8.5 Fit a new bulb into the holder.

8.6 Refit the bulb holder and secure by tightening the retaining cap.

8.7 Reconnect the negative earth lead to the battery.

Headlights

9 The headlights contain quartz halogen bulbs and the procedure for renewing the bulb is as follows:

CAUTION

ADJUSTMENT SCREWS. Care must be taken not to disturb the headlight beam adjustment screws.

9.1 Disconnect the negative earth lead from the battery.

9.2 Release the lamp guard from the front of the vehicle.

9.3 Prise the headlight unit (Fig 4 (2)) from the headlight beam adjustment screws (1) and remove. The headlight lens can now be removed.

9.4 Pull off the electrical connection (3) to the headlight, remove the rubber boot (5), release bulb retaining clip (5) and withdraw the bulb (6).

9.5 Fit new bulb and secure with retaining clip (5).

CAUTION

SEALANT. Ensure that the rubber boot is clean and free of old grease to ensure a secure seal when replaced.

9.6 Clean the headlight and rubber boot of old grease and recoat with silicon grease.

9.7 Refit the rubber boot (4) and electrical connector.

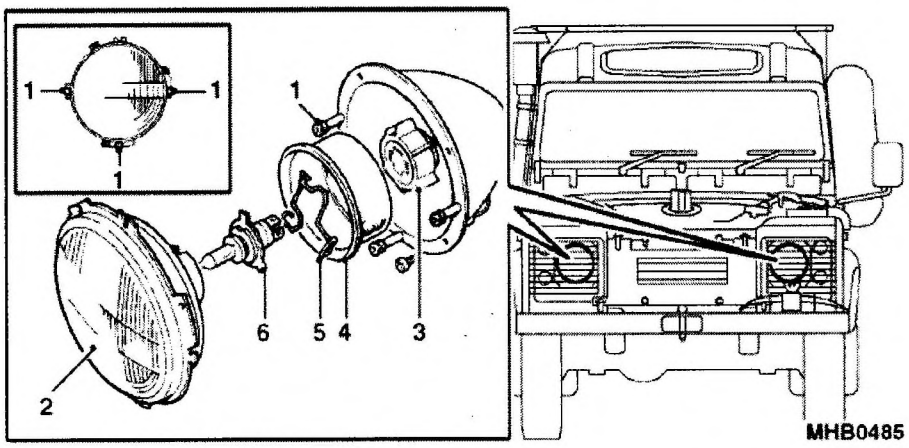
9.8 Refit the headlight unit to the headlight beam adjustment screws.

9.9 Reconnect the negative earth lead to the battery.

9.10 Refit the lamp guard to the front of the vehicle.

NOTE

The lights should be checked using the specialised headlight alignment equipment available.



1	Adjustment screws	3	Electrical conductor	5	Retaining clip
2	Headlight unit	4	Rubber boot	6	Bulb

Fig 4 Headlights

Side repeater lights

10 The side repeater lights are located on either side of the vehicle wings mounted towards the front.

10.1 Disconnect the negative earth lead from the battery.

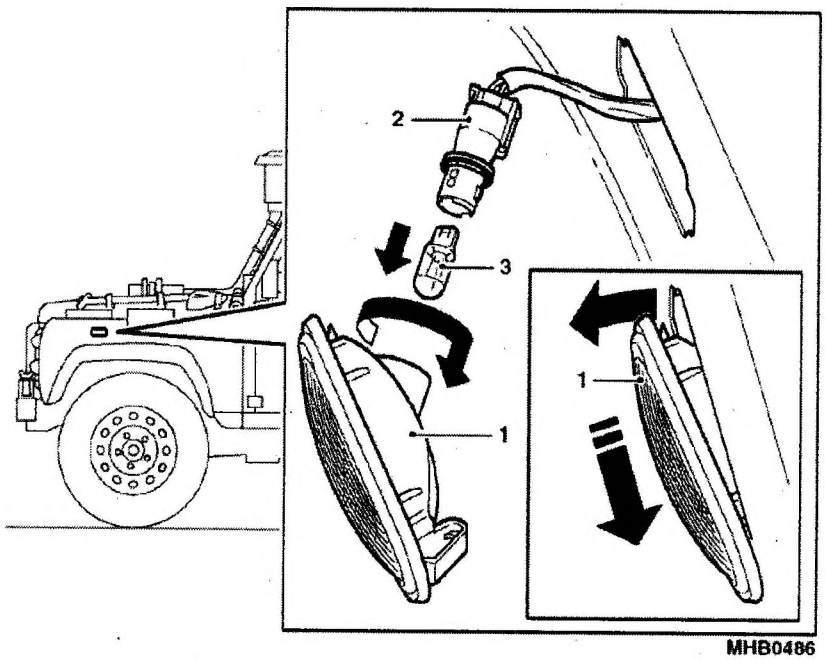
10.2 Push the lens (Fig 5 (1)) forward and ease outward to detach lens and bulb holder (2) from vehicle.

10.3 Remove the bulb holder from the lens.

10.4 Pull the bulb (3) from the holder and renew with new bulb.

10.5 Refit the repeater light in the reverse order of removal.

10.6 Reconnect the negative earth lead to the battery.



1 Lens 3 Bulb
2 Bulb holder

Fig 5 Side repeater lights

FUSE BOXES

WARNING

VEHICLE PROTECTION. THE MAIN HARNESS FUSEBOX CONTAINS FUSES WHICH PROTECT THE VEHICLE MAIN HARNESSES. SHOULD ANY OF THESE FUSES FAIL THE VEHICLE SHOULD BE TAKEN TO THE WORKSHOP AND THE FAULT RECTIFIED IMMEDIATELY.

11 There are two fuse boxes, the main fuse box and the main harness fuse box.

Main fuse box

12 The main fuse box (Fig 6) is located inside the vehicle to the left of the instrument console. It contains twenty fuses of the following values: 3; 5; 7.5; 10; 15 and 20 amperes.

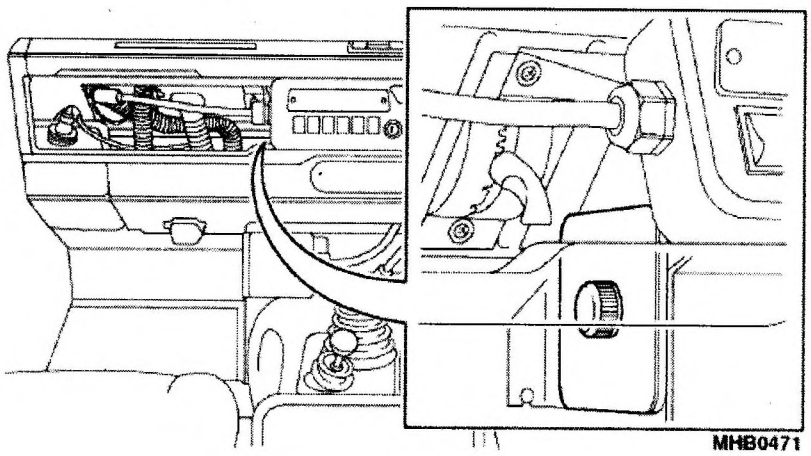


Fig 6 Main fuse box

12.1 Disconnect the negative earth lead from the battery.

12.2 Unscrew the knob and remove the fuse box cover.

12.3 Replace the failed fuse, ensuring the correctly rated one is fitted. (Check the fuse label (Fig 7) inside the cover for the correct rating).

12.4 Fit the fuse cover and secure ensuring a water tight seal.

12.5 Reconnect the negative earth lead to the battery.

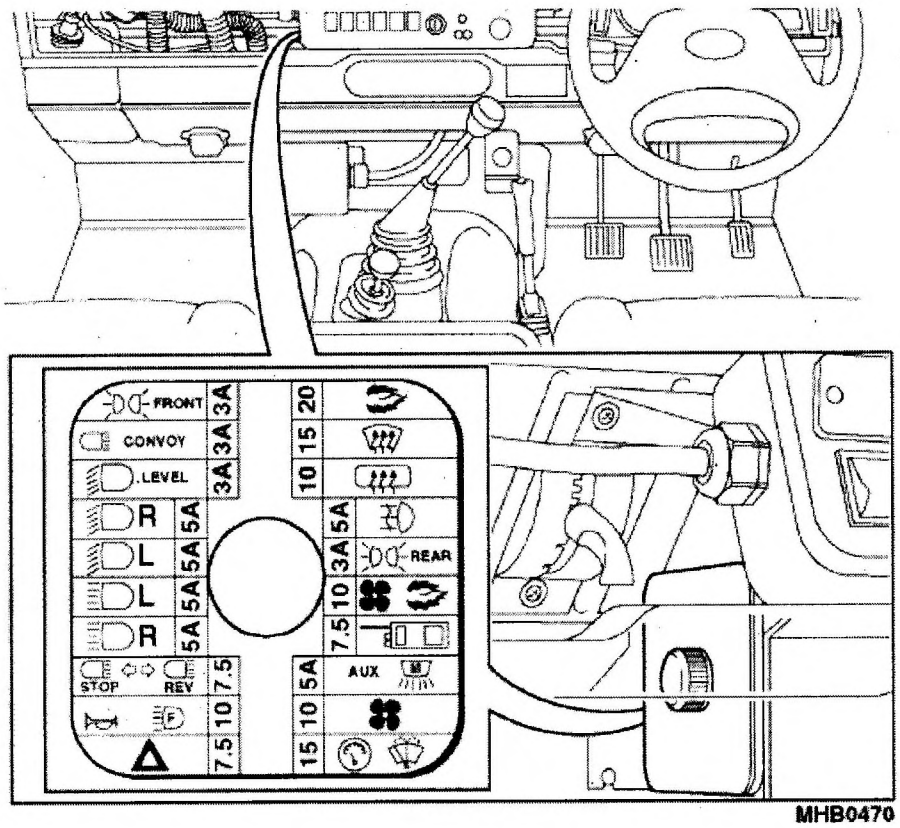


Fig 7 Main fuse box label

Main harness fuse box

13 The main harness fuse box (Fig 8) located below the fascia adjacent to the main gear change lever and contains 4 fuses of the following values: 20, 30 and 40 amperes.

14 Only spade type fuses of the correct rating should be used as replacements. The location and the items protected by the fuses are shown in the chart attached to the inside of the fuse box cover.

WARNING

FUSES. THESE FUSES PROTECT THE MAIN HARNESS, IF ANY OF THESE FUSES FAIL REPORT IT IMMEDIATELY. TO CONTINUE WOULD RESULT IN SERIOUS DAMAGE.

14.1 Disconnect the negative earth lead from the battery.

14.2 Undo the four screws and remove the fuse box cover.

14.3 Replace the failed fuse, ensuring the correctly rated one is fitted. (Check the fuse label inside the cover for the correct rating).

14.4 Fit the fuse cover and secure ensuring that it is water tight.

14.5 Reconnect the negative earth lead to the battery.

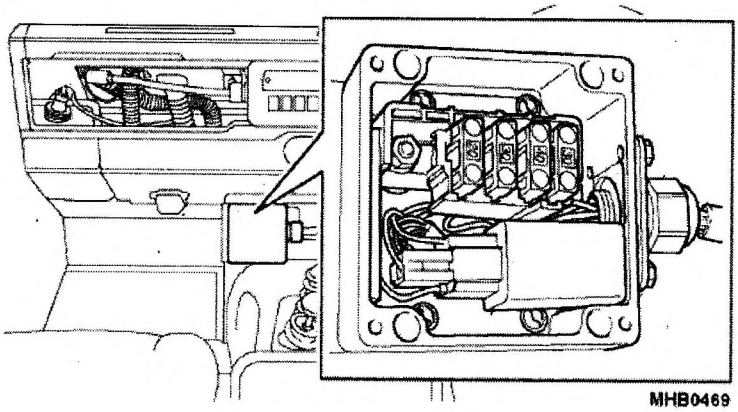


Fig 8 Main harness fuse box

RAISED AIR INTAKE

To check the dump valve

15 The dump valve provides an automatic drain for the air cleaner, and is fitted to the base of the air cleaner.

16 When checking the dump valve, proceed as follows:

16.1 Squeeze open the dump valve (Fig 9) and check that the interior is clean.

16.2 Check that the rubber is flexible and in good condition.

16.3 If necessary, remove the dump valve to clean the interior.

16.4 Fit a new valve if the original one is in poor condition.

16.5 Under heavy conditions such as dusty, deep wading or field, attention must be more frequent.

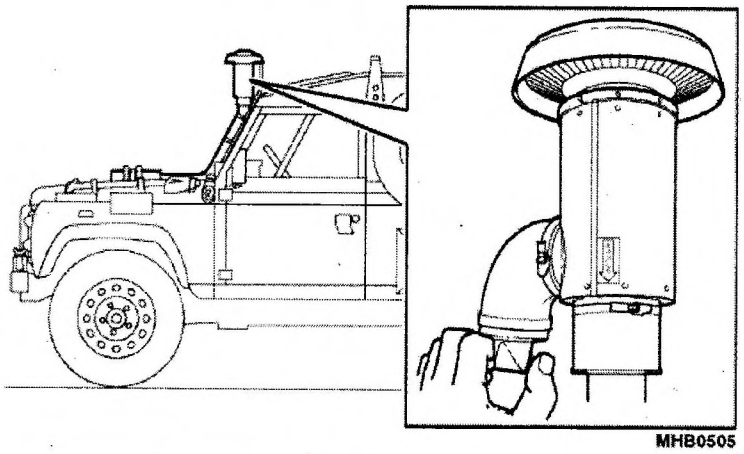


Fig 9 To check the dump valve

AIR CLEANER

17 The air cleaner is situated in the engine compartment on the right hand side.

To renew the air cleaner element

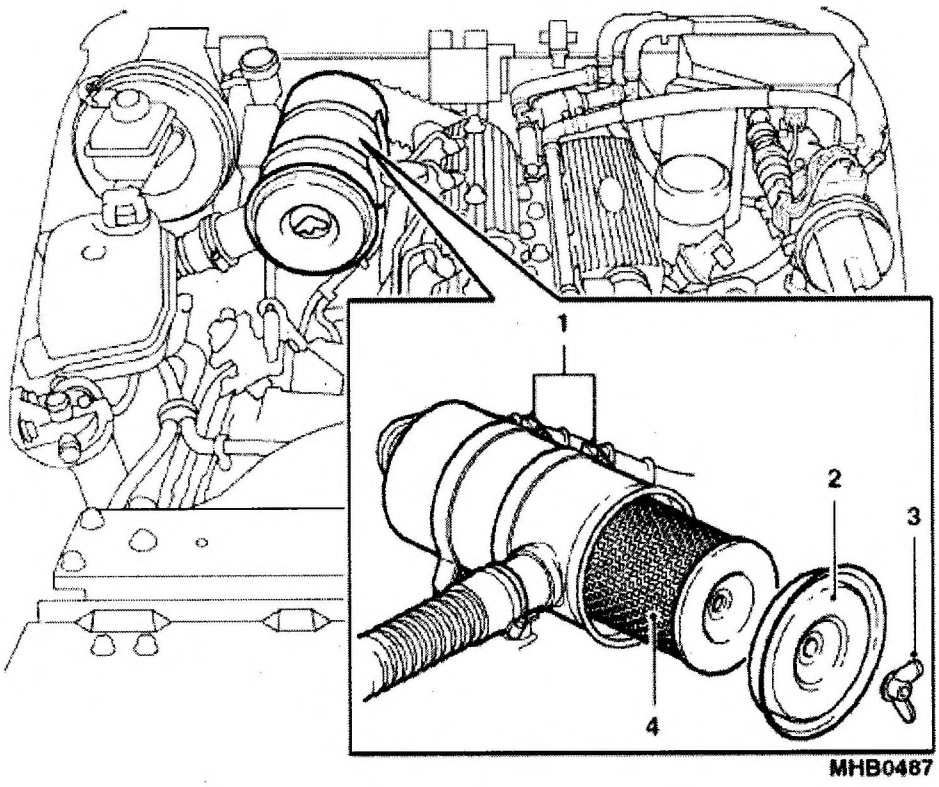
18 The air cleaner element is integral to the cleaner.

18.1 Pull up the clips (Fig 10 (1)) and raise the air cleaner from the cradle.

18.2 Undo the wing nut (3) and remove the end cover (2).

18.3 Undo the internal wing nut securing the element (4).

18.4 Remove the element and discard.



1 Clips 3 Wing nut
2 Cover 4 Element

Fig 10 To renew the air cleaner element

18.5 Fit a new element and secure with internal wing nut.

18.6 Fit the end cover and secure with the wing nut.

18.7 Place air cleaner back in cradle and secure with clips.

BREATHER MANIFOLD DRAIN

19 The breather manifold drain is to release any fluids, which may have entered the breather system after deep wading.

20 To drain the system:

20.1 Unscrew the clip and remove the drain plug (Fig 11) from the pipe that is situated on the right hand side of the vehicle at the rear of the wheel arch.

20.2 When draining has been completed fit the plug back into the pipe and secure with the clip.

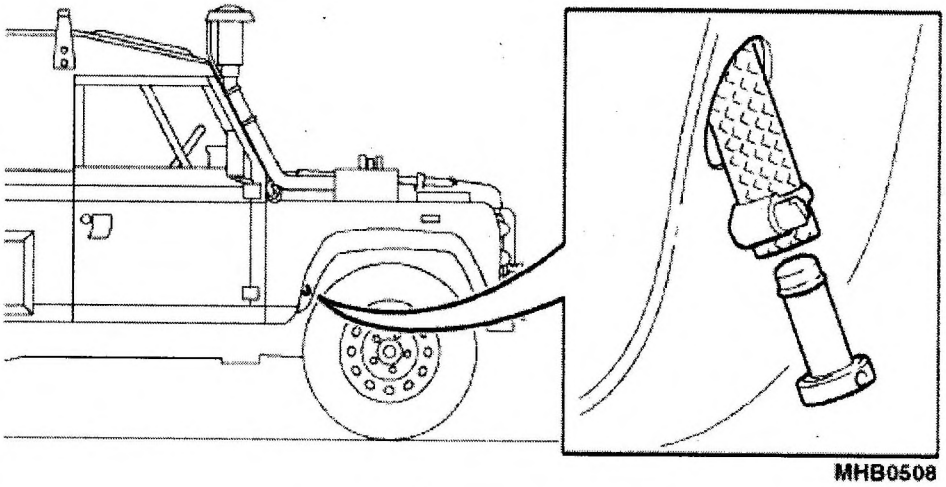


Fig 11 Breather manifold drain plug

COOLING SYSTEM

WARNING

EXPANSION CAP. DO NOT REMOVE THE EXPANSION CAP WHEN THE ENGINE IS HOT BECAUSE THE COOLING SYSTEM IS PRESSURISED AND PERSONAL SCALDING COULD RESULT.

CAUTIONS

(1) EXPANSION CAP. Failure to tighten the expansion cap may result in coolant loss with possible damage to the engine through overheating.

(2) COOLANT. Never run the engine without coolant, not even for a very brief period, otherwise the injectors may be seriously damaged. This is due to the very high rate of heat transfer in the region of the injector nozzles.

(3) CORROSION. As a precaution against corrosion, the cooling system should be drained and flushed out as specified.

21 The cooling system is located inside the engine compartment and comprises of the expansion tank connected to the radiator by way of the engine. The engine coolant is a mixture of two fluids and is an aid to protecting the engine from overheating.

Expansion tank

22 The expansion tank is located on the right hand wing valance.

23 When removing the expansion tank cap (Fig 12 (1)) proceed as follows:

23.1 Turn the cap anti-clockwise a quarter of a turn and allow the pressure to escape, before turning further in the same direction to lift it off.

23.2 When refitting the expansion tank cap, it is important that it is tightened down fully.

Cooling system protection

24 The cooling system should be protected as follows:

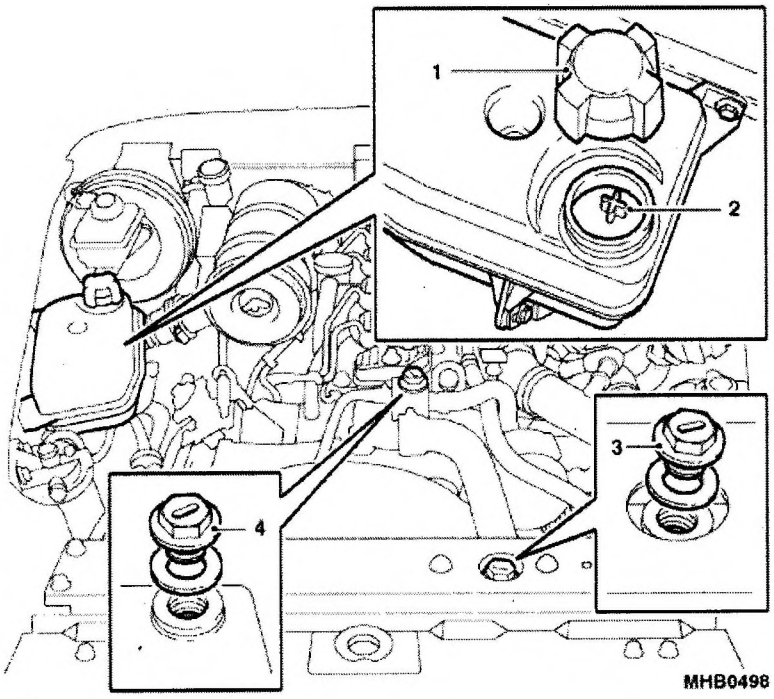
24.1 In cold climates against frost and corrosion by using the anti-freeze as specified.

24.2 It is essential therefore if the cooling system is drained or topped-up at any time either in winter or summer, to refill with a solution of water and the correct type of anti-freeze, otherwise damage to the engine will result.

Flushing the engine cooling system

25 To flush the system, proceed as follows:

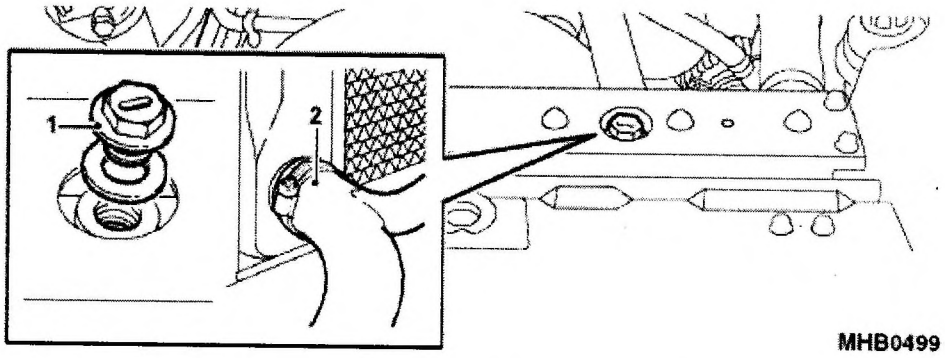
25.1 Remove the expansion tank cap (1), the radiator bleed plug (3) and thermostat bleed plugs (4).



1 Expansion tank cap
2 Tank coolant level
3 Radiator bleed plug
4 Thermostat bleed plug

Fig 12 Radiator, thermostat and expansion tank

25.2 Remove radiator bottom hose (Fig 13 (2)).



1 Radiator bleed plug 2 Radiator bottom hose

Fig 13 Radiator bottom hose

25.3 Remove the cylinder block drain plug (Fig 14), which is on the left hand side of the engine.

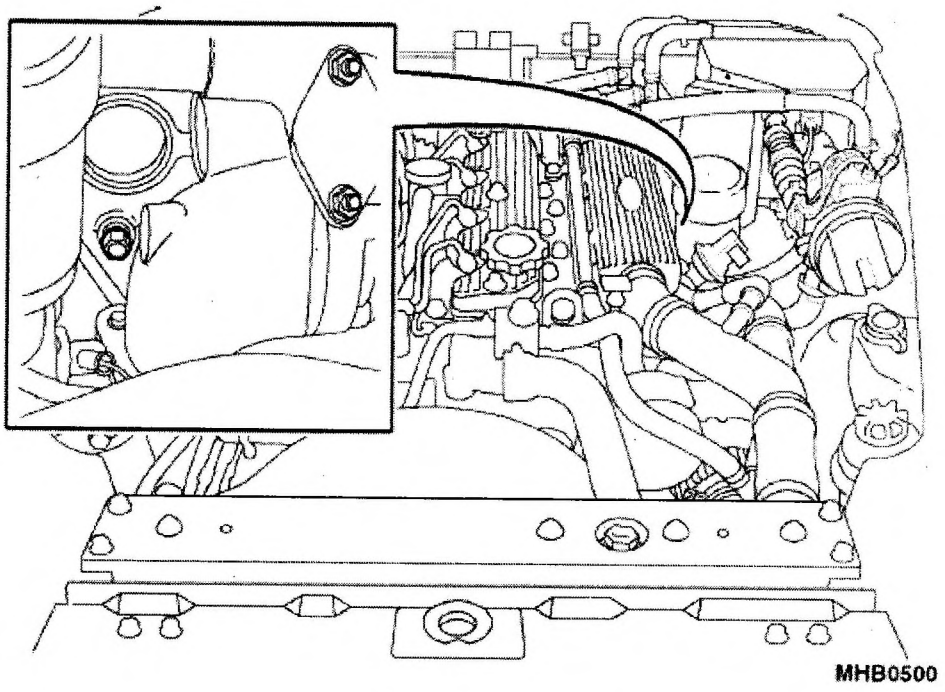


Fig 14 Cylinder block drain plug

25.4 To drain the expansion tank, disconnect the hose from the bottom of the tank.

25.5 Flush the system thoroughly.

25.6 Fit the expansion tank hose, engine drain plug and radiator bottom hose.

25.7 Fill the system with the coolant mixture of water and anti-freeze through the expansion tank until coolant appears at radiator bleed plug hole.

25.8 Fit the radiator bleed plug (refer to Fig 12 (3)).

25.9 Continue to fill until coolant appears at thermostat bleed plug hole.

25.10 Replace thermostat bleed plug (4).

25.11 Check expansion tank coolant level (2) is correct to the half way mark.

25.12 Fit the expansion tank cap (1), run the engine at idle for only 5 minutes, allow to cool and check level in expansion tank adding or removing coolant as necessary.

NOTES

(1) Never use salt water with anti-freeze or an inhibitor, otherwise corrosion will occur.

(2) In certain territories where the only available water supply may have some salt content, use only clean rainwater or distilled water.

(3) (After draining, flushing and refilling the system, the engine must be run for 5 minutes to ensure elimination of any air locks from within the cooling system.

WINDSCREEN WASHER RESERVOIR

26 The reservoir (Fig 15 (2)) is located under the wing valance on the left hand side and feeds the front and rear wash/wipe system.

27 To top up the reservoir, proceed as follows:

27.1 Remove reservoir cap (1).

27.2 Top-up to within approximately 25 mm (1.0 in) below the bottom of the filler neck.

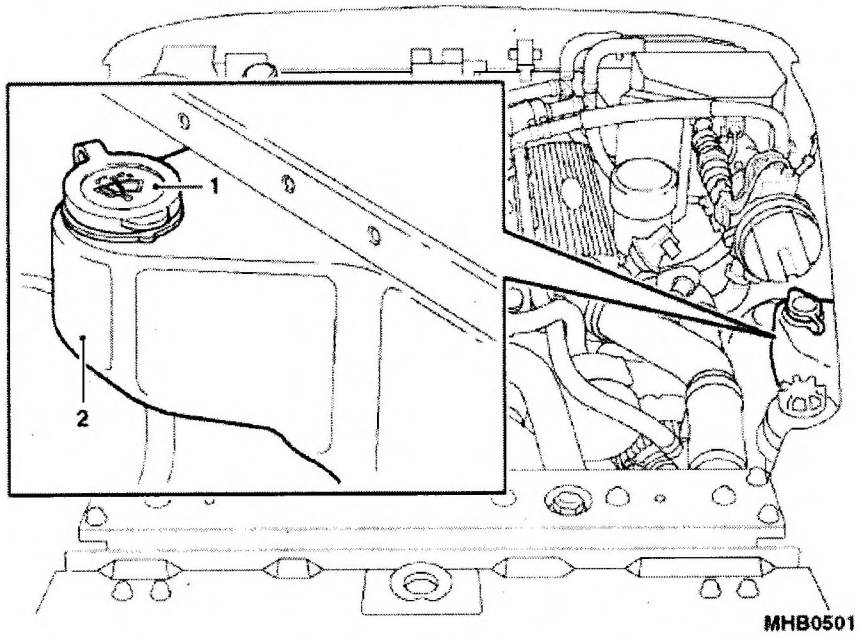


Fig 15 Windscreen washer reservoir

27.3 Use a screen washer solvent in the container, it will assist in removing mud, flies and road film from the windscreen.

27.4 Keep the washer bottle filled with clean water and solvent.

DAILY AND WEEKLY CHECKS

NOTE

Refer to the Cat 601 for a complete check of the system and at what intervals.

28 The following are the daily and weekly checks that are required for the correct operation of the vehicle.

29 When conducting a daily check, proceed as follows:

29.1 Examine the vehicle for obvious signs of damage.

29.2 Ensure that the vehicle has sufficient fuel, oil and coolant for the journey.

29.3 Examine and operate the doors, locks, safety catches and bonnet catches.

29.4 Examine for clarity and damage the windscreen and windows.

29.5 Examine for cracks and deterioration of reflective surfaces of the rear view mirrors.

29.6 Examine and operate the seat belts and attachments.

29.7 Ensure the vehicle is fitted with serviceable fire extinguisher(s).

29.8 Ensure correct operation of the lamps, horn, windscreen wipers and washers, direction indicators, hazard warning lights, heaters and demisters, instruments and gauges.

29.9 Examine for damage and operate the obligatory front and rear lights and headlights.

29.10 Check level and replenish as necessary the windscreen washer reservoir.

29.11 Examine for security of attachment and damage of the windscreen washer reservoir.

29.12 Examine for cuts and other damage, check tread depth and pressures of the tyres (including spare wheel).

29.13 Visually examine wheels for security.

29.14 Examine registration, marker and legal plates.

29.15 Examine for damage and security of attachment of the reflectors.

29.16 Examine the towing pintle ensuring that the locking latch is free and locking pins are in place and attached by securing chains.

29.17 Ensure correct operation of the brakes and steering.

30 When conducting a weekly check, proceed as follows:

30.1 Examine the alternator (FFR only) and serpentine belts for fraying and correct tension.

30.2 Check level and replenish as necessary the power steering reservoir.

30.3 Check level and replenish as necessary the brake and clutch reservoirs.

CHAPTER 4-5

AIR DROPABLE

CONTENTS

INTRODUCTION

1 This sub-chapter describes all the items applicable to Truck Utility Light (TUL) HS Air dropable vehicles, which are not covered in the previous chapters.

General

2 All information appertaining to the air dropable vehicles can be found in sub-chapters 1-1 and 1-2.

CHAPTER 4-6

HELICOPTER SUPPORT VEHICLE

CONTENTS

INTRODUCTION

1 This sub-chapter describes all the items applicable to the Truck Utility Medium (TUM) HS Helicopter Support vehicles, which are not covered in the previous chapters.

General

2 All information appertaining to the Helicopter support vehicles can be found in sub-chapters 4-1 and 4-2.

CHAPTER 4-7

COMMANDERS IK

CONTENTS

INTRODUCTION

1 This sub-chapter gives the User Maintenance applicable to the Truck Utility Medium (TUM) HS Commanders IK.

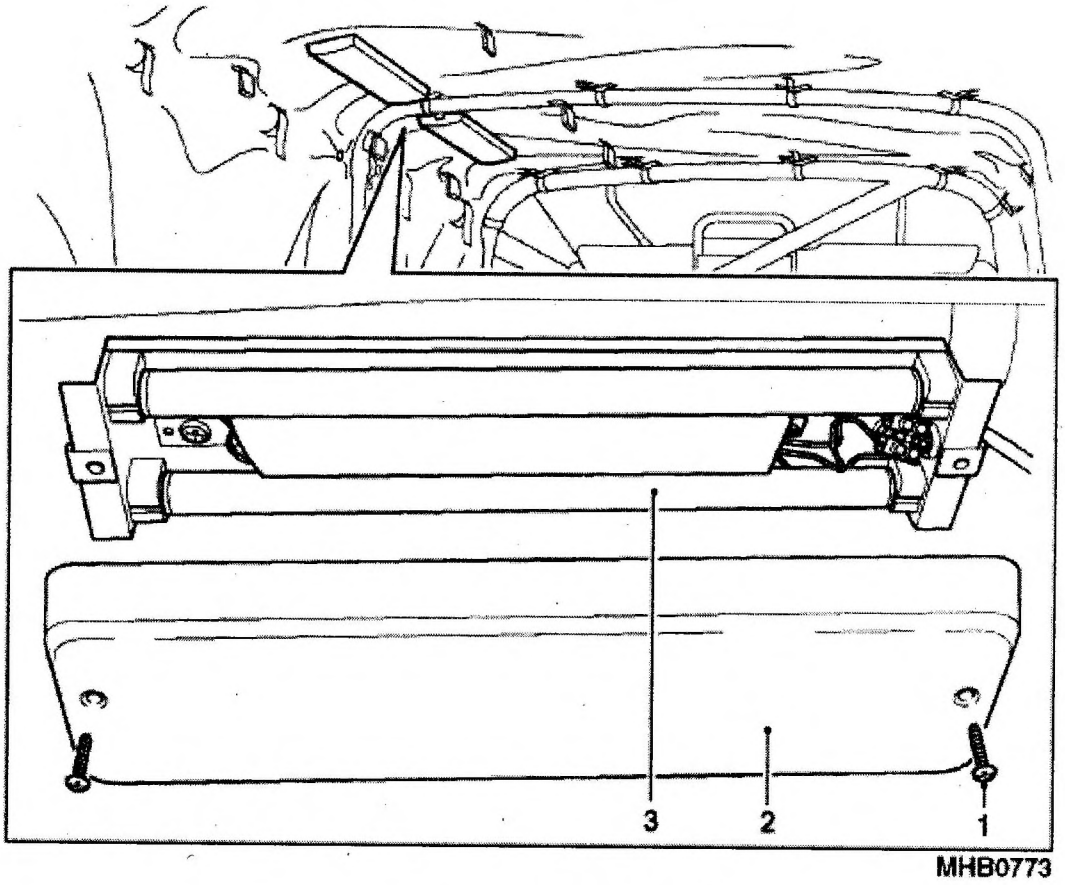
INTERIOR LIGHT

2 To change the strip light (Fig 1) proceed as follows:

2.1 Undo the two screws (1) and lower the light cover (2).

2.2 Remove the strip light (3) and fit new one.

2.3 Replace the cover and secure with the two screws.



1 Screw 3 Strip light
2 Cover

Fig 1 Interior light

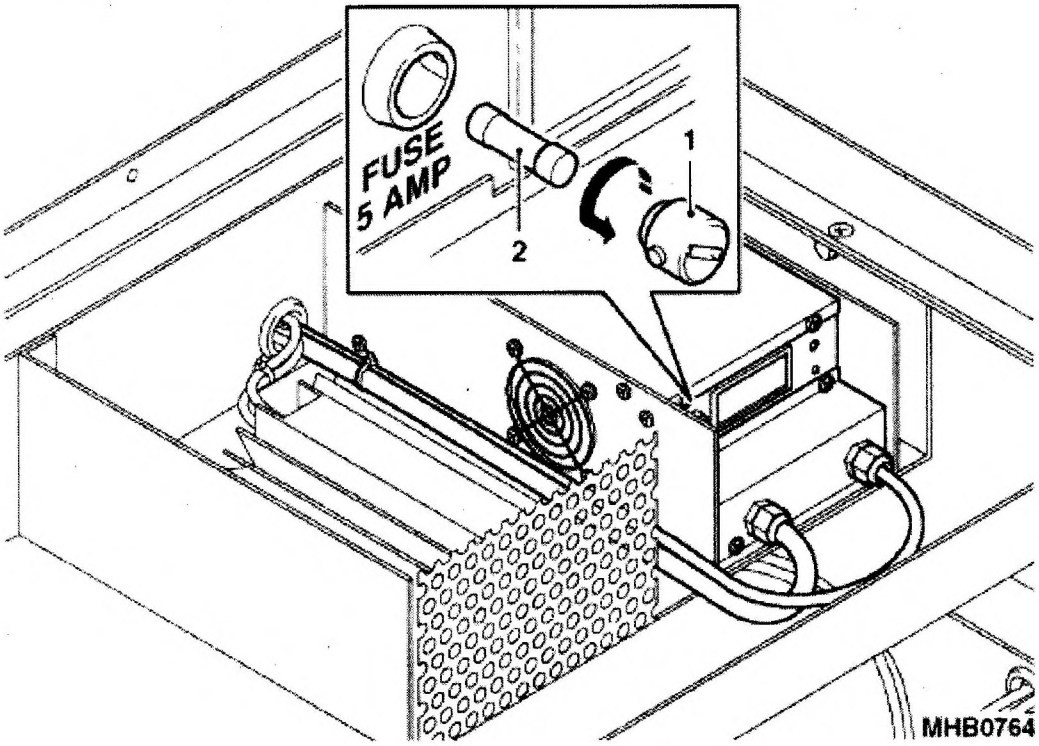
FUSES

Charger fuse

3 To change the fuse accesses the charger (Fig 2) from underneath the desk, proceed as follows:

3.1 Using a spade type screwdriver undo the capping (1) and remove the fuse (2).

3.2 Fit new fuse and replace capping.



1 Capping 2 Fuse

Fig 2 Charger fuse

In line fuses

4 To access the inline fuses (Fig 3) remove the battery cover.

4.1 Locate the fuses and remove the failed fuse.

4.2 Replace with new fuse and replace battery cover.

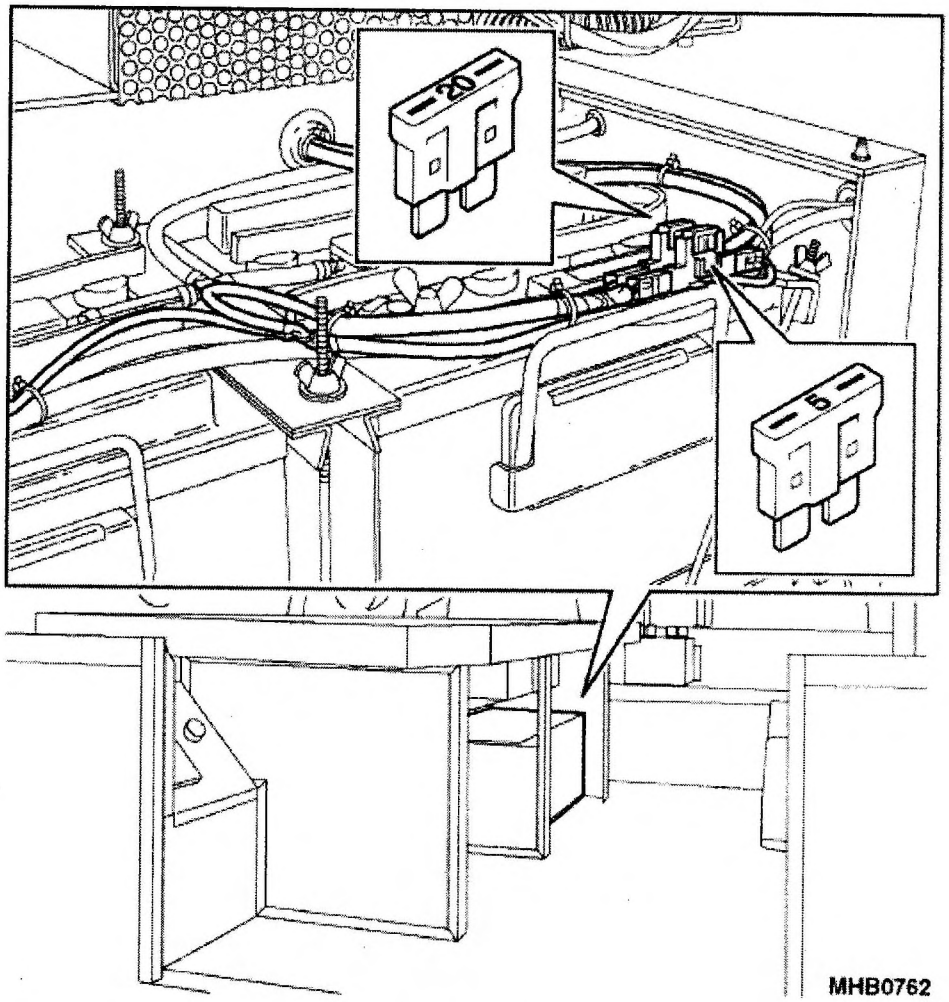


Fig 3 In line fuse

CHAPTER 4-8

WEAPONS MOUNTED INSTALLATION KIT

CONTENTS

Para

Fig Page

INTRODUCTION

1 This sub-chapter describes all the items applicable to Truck Utility Medium (TUM) HS Weapons Mounted Installation Kit (WMIK) vehicles, which are not covered in the previous chapters.

SPARE WHEEL

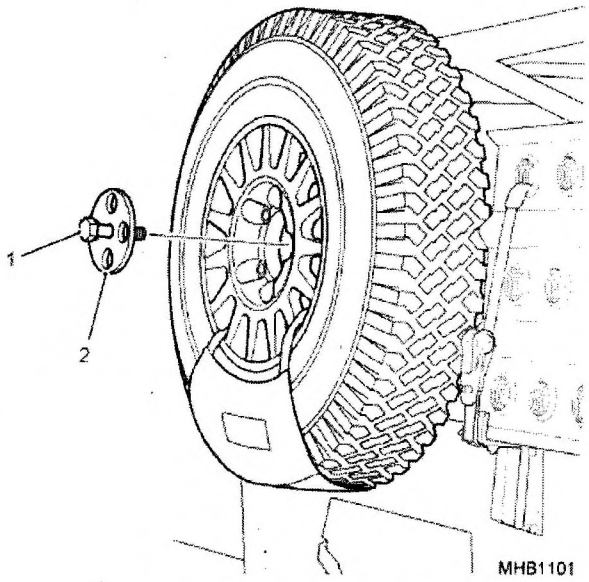
2 The spare wheel is stowed on a mounting bracket attached to the roll cage on the side of the vehicle and is retained with a clamp plate and bolt.

SPARE WHEEL LIFTING HARNESS

3 A spare wheel lifting harness is fitted on the side of the vehicle to enable the driver to remove and re-stow the spare wheel unassisted.

4 To remove the spare wheel, proceed as follows:

4.1 Undo and remove the retaining bolt (Fig 1 (1)) and clamp plate (2).



1 Retaining bolt 2 Clamp plate

Fig 1 Removing the spare wheel

4.2 Pull the top of the wheel away from the vehicle and off the spare wheel carrier (Fig 2 (1)). Let the harness take the weight of the wheel and gently rotate the wheel downwards against the side of the vehicle (2) until the harness is fully extended (3).

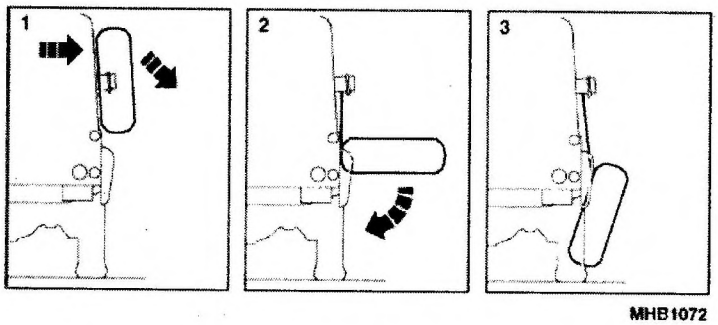
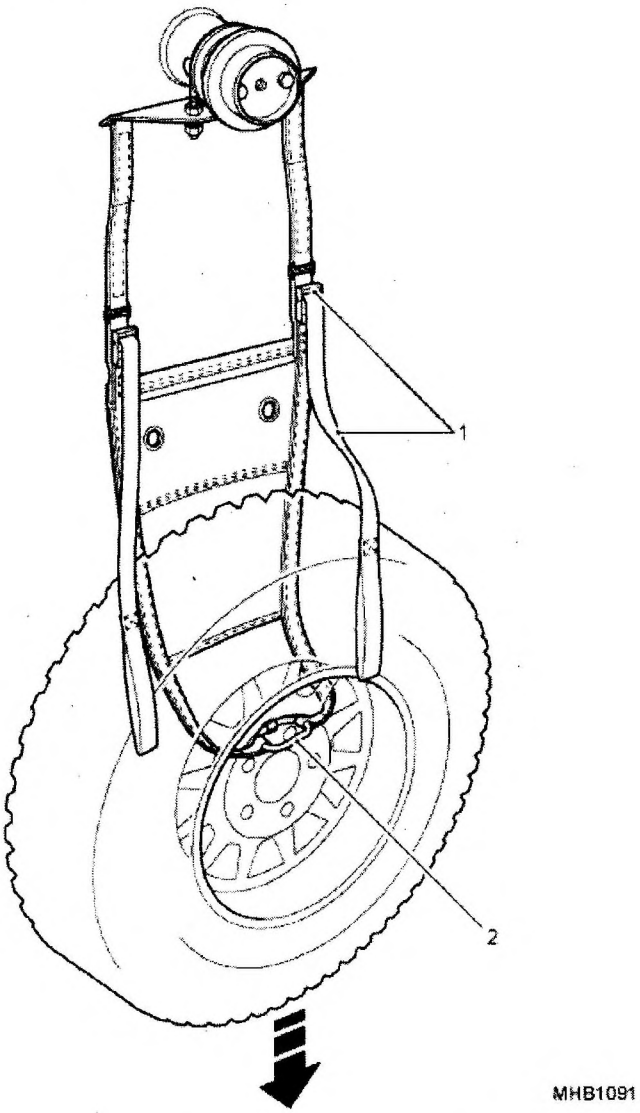


Fig 2 Removing the spare wheel using the lifting harness

4.3 Release the adjustment cleats (Fig 3 (1)) and lower the wheel to the ground.

4.4 Remove the straps from the carbine (2), remove the straps from the spoke holes. The spare wheel is now ready for use.



1 Adjustment cleats 2 Carbine

Fig 3 Lowering the spare wheel using the lifting harness

5 To replace the spare wheel, proceed as follows:

5.1 Position the spare wheel under the harness with the rear face of the wheel facing outwards.

5.2 Push the straps through the spoke holes from the front of the wheel ensuring that they are three spoke holes apart.

5.3 Hook the straps on to the carbine and secure.

5.4 Lift the wheel off the ground by pulling the harness adjusting straps through the cleats until they meet the metal buckles.

5.5 Stow the excess straps in the bag in the centre of the harness assembly.

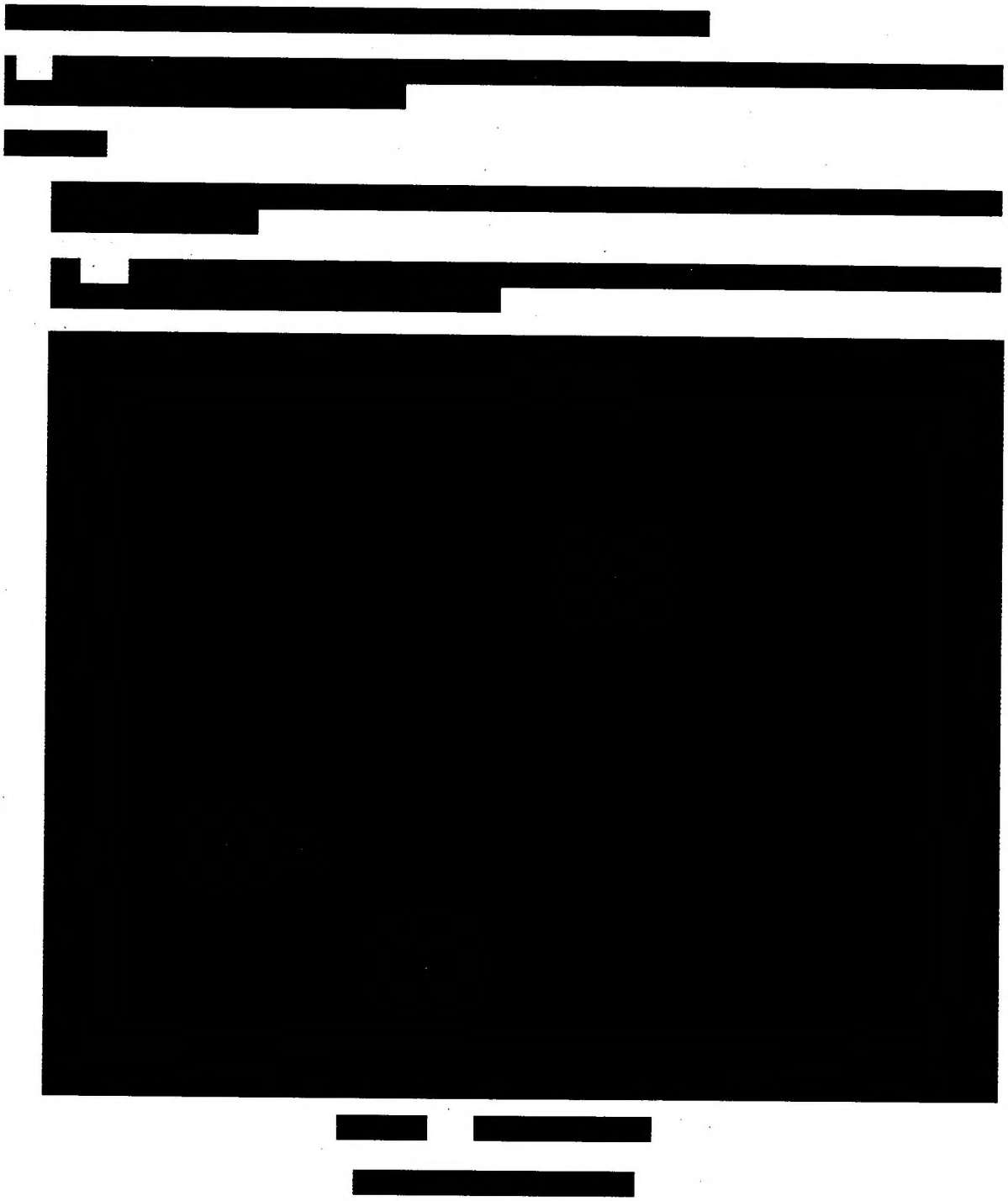
5.6 Using both hands, lift the lower edge of the wheel and turn it through 180 degrees against the side of the vehicle, so that the centre of the inverted wheel locates up against the wheel carrier.

5.7 Push the wheel upwards to locate it on the spare wheel carrier.

WARNING

FALLING OBJECTS. THE SPARE WHEEL MUST ALWAYS BE SUPPORTED IN POSITION ON THE WHEEL CARRIER UNTIL THE CLAMP AND BOLTS ARE FITTED.

5.8 [redacted]



6.2 [redacted]

[redacted]

[redacted]

FFR BATTERIES

7 The FFR batteries are located underneath the right hand seat. To change the batteries, proceed as follows:

7.1 Isolate the radio batteries from the alternator by removing the battery lead plug from the auxiliary terminal box.

7.2 Lift of the right hand seat cushion (Fig 6 (1)).

7.3 Undo the over centre catch (2) and slide the cover plate (5) from the seat base.

7.4 Disconnect the vehicle battery and radio battery negative leads.

7.5 Disconnect the vehicle battery and radio battery positive leads.

7.6 Disconnect the connecting lead from between the two radio batteries.

7.7 Undo the three nuts, which secure the battery, clamp plate (4).

7.8 Release the "J" bolts and remove the clamp plate (4), the batteries (3) can now be changed.

7.9 When the batteries have been replaced and secured reconnect the connecting lead between the two batteries.

7.10 Reconnect the vehicle and radio battery positive leads.

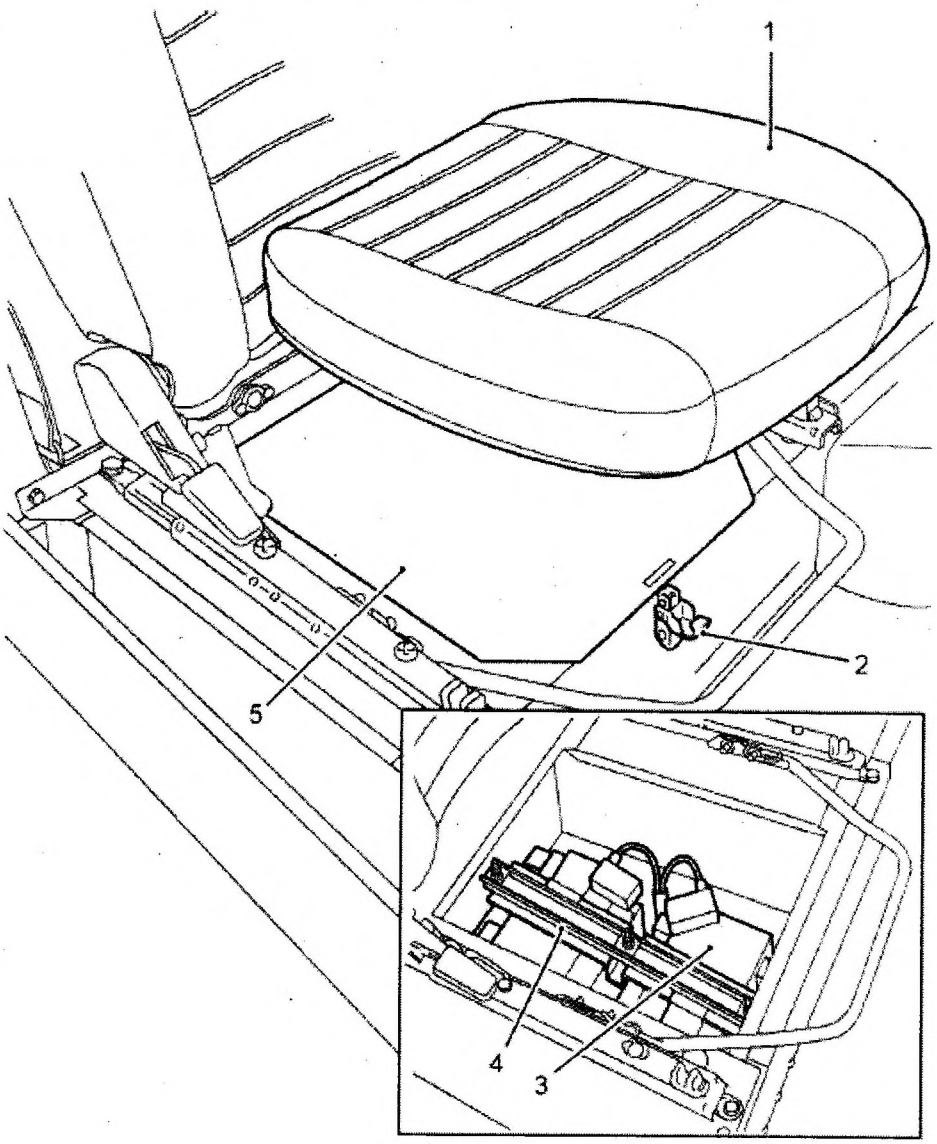
7.11 Reconnect the vehicle and radio battery negative leads.

7.12 Grease the battery terminals with the specified grease.

7.13 Slide the cover back into place and secure using the over centre catch.

7.14 Replace the seat cushion.

7.15 Reconnect the battery lead plug to the auxiliary terminal box.



MHB1092

1 Seat cushion
2 Centre catch
3 Batteries
4 Clamp plate
5 Cover plate

Fig 6 FFR batteries

FFR BATTERY CONFIGURATION

8 Ensure that when replacing FFR batteries they are positioned and connected in the correct sequence (refer to Fig 7).

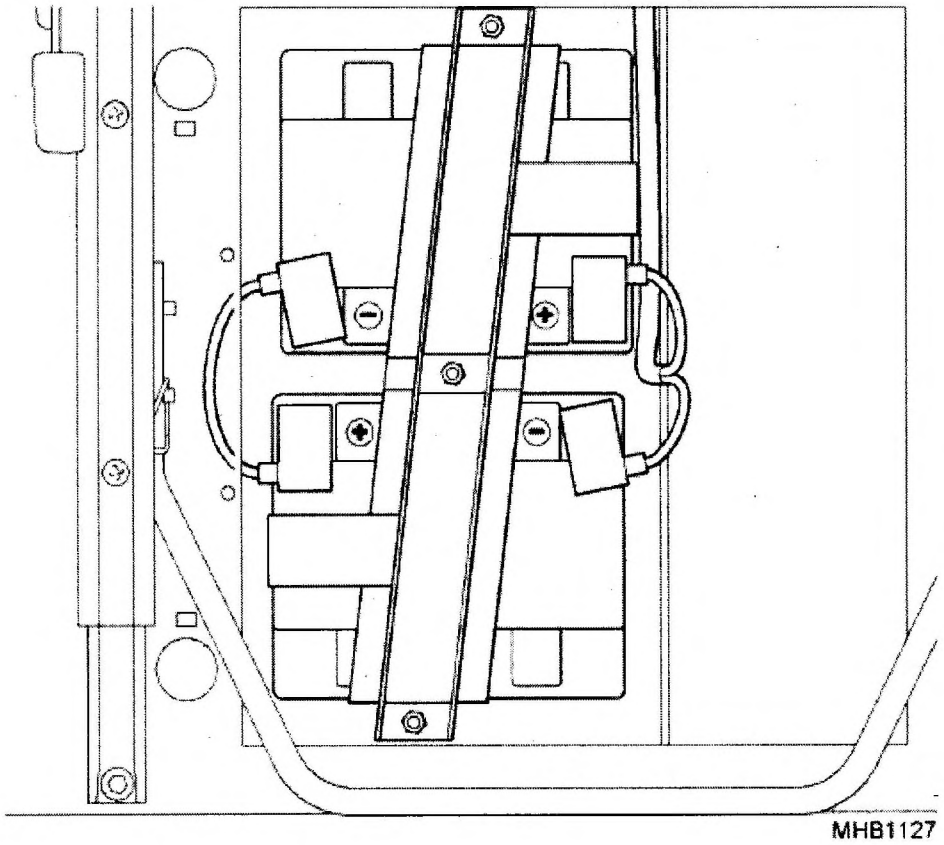


Fig 7 FFR battery configuration

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CHAPTER 4-9

TROPICAL BATTLEFIELD AMBULANCE

CONTENTS

INTRODUCTION

1 This sub-chapter describes all the items applicable to the Tropical Battlefield Ambulance vehicles, which are not covered in the previous chapters.

General

2 All information appertaining to the Tropical Battlefield Ambulance vehicles can be found in sub-chapter 4-3.

NOTES

(1) Operate Air conditioning system for 10 minutes once a week set at maximum cold and maximum fan speed.

(2) In humid conditions ensure that the condensate drain tube is clear when operating the system.

CHAPTER 4-10

WINTERISED/WATERPROOFED BATTLEFIELD AMBULANCE

CONTENTS

INTRODUCTION

1 This sub-chapter describes all the items applicable to the Winterised/Waterproofed Battlefield Ambulance vehicles, which are not covered in the previous chapters.

General

2 All information appertaining to the Winterised/Waterproofed Battlefield Ambulance vehicles can be found in sub-chap 4-3.

CHAPTER 4-11

WATERPROOFED WEAPONS MOUNTED INSTALLATION KIT

CONTENTS

INTRODUCTION

1 This sub-chapter describes all the items applicable to Waterproofed Truck Utility Medium (TUM) HS Weapons Mounted Installation Kit (WMIK) vehicles, which are not covered in the previous chapters.

General

2 All information appertaining to the Waterproofed WMIK vehicles can be found in sub-chap 4-4.

CHAPTER 5

USER SPARES DATA

CONTENTS

INTRODUCTION

1 This chapter gives all the User Spares Data for carrying out all operations mentioned in this publication.

General

2 The information given in this Chapter is applicable to Truck Utility Light (TUL) HS, Truck Utility Medium (TUM) HS and (TUM) Battlefield Ambulance HS. Where any information is applicable to FFR or Battlefield Ambulance it will be identified as such.

BULBS

3 Table 1 consists of the bulb ratings for the lights located around the vehicles. For the location of the bulbs and replacement instructions, see Chap 4-1, 4-3 and 4-7.

FUSES

4 Table 2 consists of the fuse ratings and the items they protect. For location of the fuses, see Chap 2-1, 2-2, 2-3 and 2-4. Also for instructions on replacing the fuses, see Chap 4-1, 4-2, 4-3, 4-4 and 4-7.

TABLE 1 BULBS

Serial (1)	Bulb identification (2)	Rating (3)	
1	Headlight Right/left hand drive	24 V	75/70 W
2	Side lights	24 V	5 W
3	Side repeater lights	24 V	4 W
4	Indicator lights	24 V	21 W
5	Stop lights	24 V	21 W
6	Tail lights	24 V	5 W
7	Rear fog guard lights	24 V	21 W
8	Reversing lights	24 V	21 W
9	Number plate light (2 Bulbs)	24 V	4 W
10	Convoy light	24 V	7 W
11	Warning lights panel	24 V	1.2 W
12	Instrument panel	24 V	3 W
13	Hazard warning light	24 V	0.6 W
14	Map reading light	24 V	4 W
15	Ammeter light (FFR only)	24 V	3 W
16	Moonlight (Ambulance only)	24 V	10 W
17	Fluorescent light strip (Ambulance only)	24 V	8 W
18	Cab interior light (Ambulance only)	24 V	21 W
19	Flood light (Ambulance only)	24 V	70 W
20	Inspection lamp (Ambulance only)	24 V	60 W
21	Rotating beacon (Ambulance only)	24 V	70 W
22	Interior lights (Commanders IK only)	24 V	5 W

TABLE 2 FUSES

Serial (1)	Fuse rating (2)	Circuits protected (3)	Colour (4)
1	7.5 Amp	Hazard warning lights	Brown
2	10 Amp	Horn and Headlamp flash	Red
3	15 Amp	Instruments and Wash/wipe	Light blue
4	7.5 Amp	Stop, Turn and Reverse lamp	Brown
5	10 Amp	Heater blower	Red
6	3 Amp	Convoy light	Purple
7	7.5 Amp	Radio (FFR only)	Brown
8	10 Amp	Heated rear windscreen	Red
9	20 Amp	Webasto heater blower (Winterised only)	Yellow
10	5 Amp	Rear fog	Tan
11	5 Amp	Right hand headlight - Dipped	Tan
12	5 Amp	Left hand headlight - Dipped	Tan
13	5 Amp	Right hand headlight - Main	Tan
14	5 Amp	Left hand headlight - Main	Tan
15	3 Amp	Front side lights	Purple
16	3 Amp	Rear side lights	Purple
17	3 Amp	Headlamp levelling	Purple
18	5 Amp	Auxiliary and interior lights	Tan
19	15 Amp	Heated front windscreen (Winterised only)	Light blue
20	20 Amp	Webasto heater (Winterised only)	Yellow
21	3 Amp	Siren (Ambulance only)	Purple
22	15 Amp	Flashing beacon relay (Ambulance only)	Light blue
23	80 Amp	50 Amp circuit (FFR only)	-
24	5 Amp	Charger (Commanders IK only)	-

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CHAPTER 6

DESTRUCTION OF EQUIPMENT TO PREVENT ENEMY USE

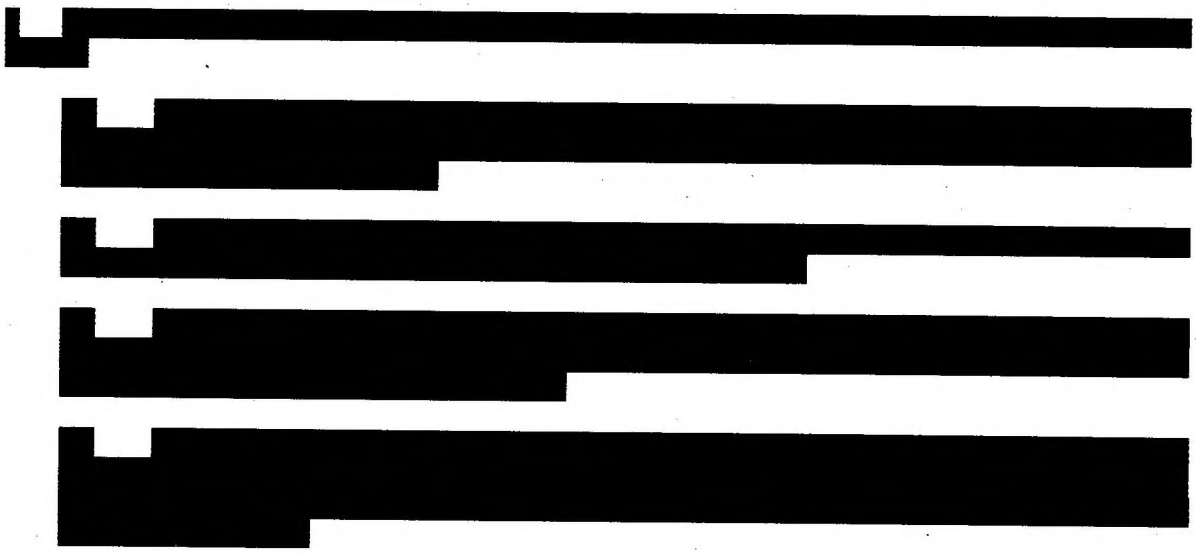
CONTENTS

MANDATORY DIRECTIVE

1 Destruction of the equipment when subject to capture by the enemy, will be undertaken by the user arm, ONLY WHEN, in the judgement of the unit commander concerned, such action is necessary with orders of, policy established by the army or Divisional Commanders.

2 The reporting of the destruction of the equipment is to be done through command channels.

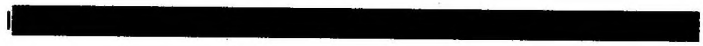
Degree of damage

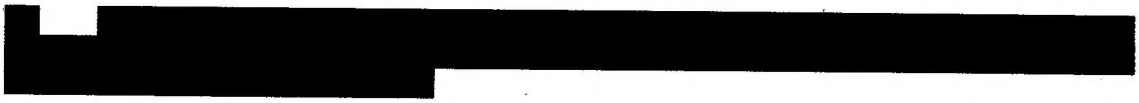


SPARE PARTS

4 

MEANS AND PROCEDURES

5 



OBSERVANCE OF APPROPRIATE SAFETY PRECAUTIONS

6 The following information is for guidance only. Of the several means of destruction, those most generally applicable are as follows:

Mechanical

7 This requires an axe, pick, crowbar or similar implement. The equipment should be destroyed in accordance with the priorities given in (Table 1).

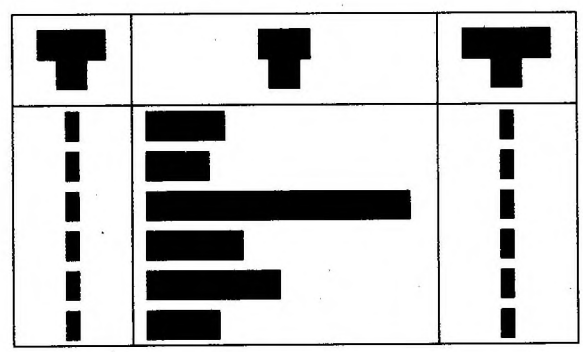
Burning

WARNING

DUE CONSIDERATION SHOULD BE GIVEN TO THE HIGHLY FLAMMABLE NATURE OF GASOLINE AND ITS VAPOUR. CARELESSNESS IN ITS USE MAY RESULT IN PAINFUL BURNS.

8 This requires gasoline, oil or other flammable.

9



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ARMY EQUIPMENT AND SUPPORT PUBLICATION (AESP) AND ELECTRICAL AND MECHANICAL ENGINEERING REGULATIONS (EMER) - FORM 10

*AESP/EMER NUMBER:		*IS THIS SAFETY RELATED?	Yes ☐	No ☐

Send Form 10 via the Email or Post address. However email is preferred.	Tel	030 679 71141 or 9679 71141
Email: [redacted] (Save a copy of the form and email to the above address. If the link fails, copy address and paste into email client)	Post to	Form 10 Cell Land Equipment Elm 3b #4330 MOD Abbey Wood Bristol BS34 8JH

ORIGINATORS DETAILS			
*Address		*Name	
		Rank / Grade	
		*Phone	
		*Senders Reference	
		*Date Raised	
* E-Mail		Eqpt Asset Code (If applicable)	

AESP/EMER DETAILS							
*Full Title of AESP/EMER (Not the AESP/EMER Number)							
*Edition	*Amendment	*Chapter	*Page	*Paragraph	Figure	Instruction	Other

*Comments: If additional information is to be supplied, please e-mail with the Form 10 as separate attachments.

FORM 10 CELL USE			
*Date Received		*Form 10 Reference	
*Date Sent to PT / SME		Problem Report	

PROJECT TEAM / SME RESPONSE TO COMMENTS:			
Project Team (PT) / SME		*Sponsors Name	
*Phone		Rank / Grade	
*Email		*Date Received	

*The following action is to be carried out:	Mark:		Mark:
Issue a revised/amended AESP/EMER:		Under investigation:	
Incorporate comment(s) in future amendments:		No action required:	

Remarks:

SPONSOR/PT FINAL CLOSURE STEPS	Mark:	Form 10 Cell notified of Date action taken	Date:
Form 10 Originator notified of the action taken:			

* Mandatory Fields for Originator

* Mandatory Fields for Sponsor.

ARMY EQUIPMENT AND SUPPORT PUBLICATION (AESP) AND ELECTRICAL AND MECHANICAL ENGINEERING REGULATIONS (EMER) - FORM 10

Form 10 Guidance

Form 10 can be found within the AESP or, as a template, from the JAMES Portal (Hot Topic – Forms) & TDOL (FORM10).

Originator responsibility is to enter the following details marked *:

- In the **AESP/EMER Number:** cell enter the full document number e.g. AESP 1256-I-400-711.
- Is this **Safety Related**? – select Yes or No as appropriate.
- Originator Details:
  - Full address Inc Post Code or BFPO NO.
  - Originator email address
  - Senders Reference – that must be unique.
- AESP Details shall enter the following details:
  - The Full Title of AESP/EMER should not include the AESP/EMER Number
  - Enter details in all other mandatory fields marked *.
  - Additional information relating to the Comments (AESP copies, additional text details or photographs) should be attached to the Email at the same time.
- Originator makes up the Form 10 & Sends to Form 10 cell via
  - Email: Save a copy of the form and send to [redacted] Copy the address and paste it into your email client
  - Post to Form 10 Cell Form 10 Cell, Land Equipment, Elm 3b #4330, MOD Abbey Wood, Bristol, BS34 8JH.
  - **Any AESP that holds a Security marking higher than 'Restricted' should be securely circulated.**

FORM 10 CELL responsibilities:

The Form 10 Cell enters:

- Date Received
- Form 10 Reference
- Date sent to Sponsor
- Register all Form 10 details in the MOSS Form 10 Tracker.

Sponsor Responsibility

The Sponsor will:

- Enter their name, email address & phone contact details.
- Enter Date Received
- Enter Details in the non-mandatory field as & when required.
- Acknowledge receipt of Form 10, within 5 working days, by email to Form 10 Cell.
- Assess the contents of comments and details received.
- Mark the relevant Action box and fill out the Remarks field.
- Enter date when the Form 10 is returned to Form 10 Cell.
- Email copy of completed Form 10, within 6 weeks, to the Form 10 Cell and Originator.

Form 10 Cell on receipt will:

- Record final stage of the Form 10 into the MOSS Form 10 Tracker.
- Close off the Form 10 and archive.

* Mandatory Fields for Originator

* Mandatory Fields for Sponsor.