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# TRAILER, FLAT PLATFORM, SPECIAL PURPOSE, 2 1/2 TONNE, 2 WHEELED, FV 2406, MK 3

## OPERATING INFORMATION

This publication contains information covering the requirements  
of Cat 2, 3 and 5.2 at level 1 and Cat 3 at level 2

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AMENDMENT RECORD SHEET

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**OPERATING INFORMATION**

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Chapter 2	Description
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Chapter 4	User maintenance and repair information
Chapter 5	Denial of equipment

## PREFACE

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## INTRODUCTION

1 Service users should forward any comments concerning this publication through the channels prescribed in AESP 0100-P-011-013. An AESP Form 10 is provided at the end of the publication; it should be photocopied and used for forwarding comments on this AESP.

2 The subject matter of this publication may be affected by Defence Council Instructions (DCIs), Standard Operating Procedures (SOPs) or by local regulations. When any such Instruction, Order or regulation contradicts any portion of this publication, it is to be taken as the overriding Authority.

## RELATED AND ASSOCIATED PUBLICATIONS

## Related publications

3 The Octad for the subject equipment consists of the publications shown below. All references are prefixed with the first eight digits of this publication. The availability of the publication can be checked by reference to the relevant Group Index (see AESP 0100-A-001-013).

Publication Title: <u>Trailer, flat platform, special purpose, 2 1/2 tonne, 2 wheeled, FV 2406, Mk 3</u>																	
CATEGORIES AND INFORMATION LEVELS																	
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2 UNIT MAINTENANCE	*	*	*	*	201	*	*	*	522	*	*	*	*	*	*	*	*
3 FIELD MAINTENANCE	*	*	*	*	*	*	*	*	522	*	*	*	*	*	*	*	*
4 BASE MAINTENANCE	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

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 5.4 Calibration Standards  
 6.0 Maintenance Schedules (RAF)  
 7.1 Illustrated Parts Catalogue  
 7.2 Commercial Parts List  
 8.1 Modification Instructions  
 8.2 General Instructions

\* Not published

**Associated publications**

<b>4</b>	<b><u>Reference</u></b>	<b><u>Title</u></b>
	AESP 2330-G-655 Octad	Trailer, Flat Platform, Special Purpose, 2 1/2 Tonne, 2 Wheeled, FV2406, Mk 3
	CES TBA	Complete Equipment Schedule
	EMER T & M A028, Chap 060	Inspection and Examination of Ball and Roller Bearings

**LIST OF ABBREVIATIONS**

AESP	Army Equipment Support Publication
Ah	Ampere Hour
CES	Complete Equipment Schedule
dB	Decibel
dc	Direct Current
DCIs	Defence Council Instructions
EMERs	Electrical Mechanical Engineering Regulations
GIE	Government Issued Equipment
GS	General Service
LCT	Landing Craft Tank
LST	Landing Ship Tank
NATO	North Atlantic Treaty Organisation
NSN	Nato Stock Number
SOPs	Standard Operating Procedures
UK	United Kingdom

# WARNINGS

## WARNINGS

(1) WHEN PARKING THE TRAILER, ENSURE THAT THE PARKING AREA IS AS FLAT AS POSSIBLE, THAT THE HANDBRAKE IS APPLIED FIRMLY, THAT THE REAR SUPPORT CLAMPING BOLTS ARE TIGHT, THE LOCKING PIN AND CLIP ARE CORRECTLY ENGAGED AND THAT THE JOCKEY WHEEL IS LOCKED FIRMLY BEFORE BEING WOUND DOWN.

▶ (2) PERSONNEL HAZARD. ENSURE THAT THE REAR SUPPORT LEGS ARE LOWERED AND SUPPORTING THE WEIGHT OF THE TRAILER BEFORE COUPLING TO OR UNCOUPLING FROM A PRIME MOVER.

(3) PERSONNEL HAZARD. BEFORE DRIVING THE PRIME MOVER WITH TRAILER ATTACHED, ENSURE THAT THE JOCKEY WHEEL AND REAR SUPPORT LEGS ARE SECURED IN THEIR STOWED POSITION.

(4) TRAILER LOADING. ENSURE THAT THE TRAILER PAYLOAD IS CORRECTLY DISTRIBUTED AND THAT THE DRAWBAR PREPONDERANCE WEIGHT IS STRICTLY OBSERVED.

(5) OBSERVE ALL APPROPRIATE SAFETY INSTRUCTIONS CONCERNING JACKING AND SCOTCHING WHEN CHANGING WHEELS OR EXAMINING BRAKE LININGS.

(6) MECHANICAL FITNESS. IF THE OPERATOR/DRIVER IS IN ANY DOUBT AS TO THE MECHANICAL FITNESS OF A TRAILER IT MUST NOT BE USED UNTIL ADVICE HAS BEEN SOUGHT.

(7) BERYLLIUM/BERYLLIA. THE FLEXIBLE HOSES IN THE HYDRAULIC BRAKE SYSTEM ARE FIXED TO THE CHASSIS WITH WASHERS INCORPORATING THE HIGHLY TOXIC MATERIAL BERYLLIUM. BERYLLIUM MATERIALS ARE ABSORBED INTO THE BODY TISSUES:

1 THROUGH THE SKIN, MOUTH OR A WOUND.

2 BY THE INHALATION OF DUST CREATED BY THE BREAKAGE OF BERYLLIA.

3 BY THE INHALATION OF TOXIC FUMES FROM BERYLLIUM/BERYLLIA INVOLVED IN A FIRE.

FURTHER INFORMATION ON THE HANDLING OF BERYLLIUM/BERYLLIA IS GIVEN IN EMER MANAGEMENT S 261.

(8) ELECTRICAL HAZARD. BEFORE COMMENCING WORK ON THE TRAILER, ENSURE THAT THE TRAILER ELECTRICAL PLUG IS DISCONNECTED FROM THE PRIME MOVER.

(9) TOXIN. THE WASHERS USED TO FIX THE HYDRAULIC MASTER CYLINDER TO THE CHASSIS AND THE HANDBRAKE SUPPORT PLATE TO THE CHASSIS ARE CADMIUM PLATED. CADMIUM DOES NOT PRESENT A HAZARD IN NORMAL USE, BUT MAY DO SO IF:

1 DUST IS RELEASED AS A RESULT OF DAMAGE, GRINDING, DRILLING OR FILING.

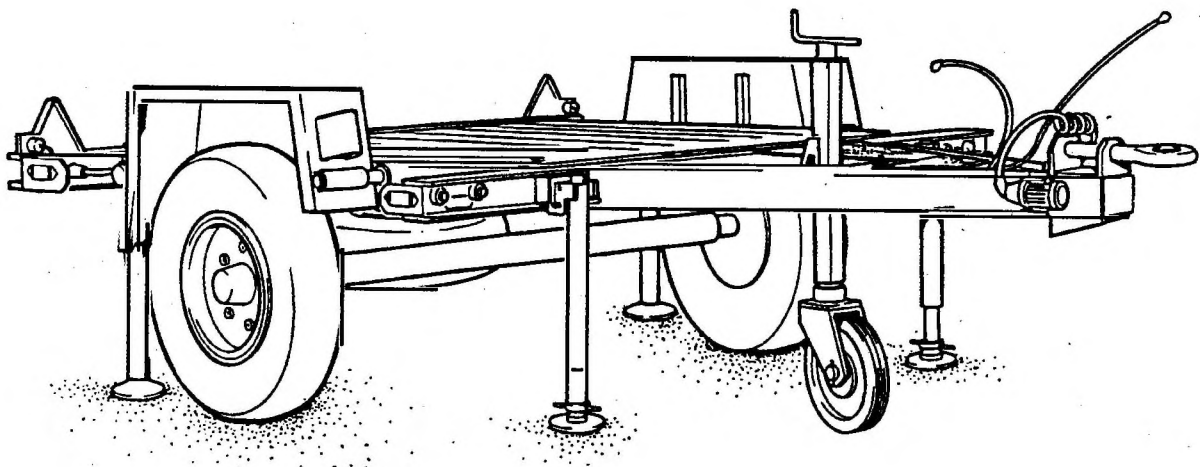
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**WARNINGS (continued)**

**2 FUMES ARE RELEASED AS A RESULT OF EXCESSIVE HEATING, WELDING, OR SIMILAR OPERATIONS.**

**SAFETY PRECAUTIONS TO BE OBSERVED WHEN HANDLING THIS MATERIAL ARE DETAILED IN AP 100B-10 ORDER 1804.**



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Frontispiece

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**CHAPTER 1**  
**INTRODUCTION AND DATA**  
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**INTRODUCTION**

1 The trailer, flat platform, special purpose, 2 1/2 tonne, 2 wheeled, normally carries the 8/12 kW, 24/16 kW or 40 kW generators. It can carry general loads of up to 2.5 tonnes (2.46 tons). It is normally towed by 4 tonne or 8 tonne General Service trucks. When coupled to its prime mover, the trailer can be embarked and disembarked from LCT 8 and 9 and LST 3 vessels. It may be transported by air in all types of transport aircraft currently in service use.

2 The chassis and drawbar frames are of integral construction and are fabricated from rolled and folded channel and hollow rectangular sections welded together. Brackets are fitted to the chassis to provide fixing points for the various assemblies attached to the trailer. The flat cargo platform is formed from proofed plywood, strengthened with metal wear strips. The cargo platform is bolted directly to the chassis. Mudshields, covering the wheel locations, are bolted to the chassis.

3 A standard size, fixed towing eye is attached to the drawbar. A standard NATO 12 pin plug is used to connect the trailer electrical circuit to the towing vehicle dc supply. Longitudinal stiffeners are incorporated into the chassis construction allowing a towing assembly to be attached to the rear crossmember of the trailer.

4 Trailer suspension comprises of a pair of heavy duty torsion bars mounted in a one piece steel tube attached to the chassis, with swinging arms and stub axles at each end. Damping is by two telescopic shock absorbers. Aeon rubber springs are fitted to the chassis to check upward movement of the swinging arms. Downward movement is checked by the action of the torsion bars.

5 The trailer has an air servoed, hydraulically operated, expanding shoe type braking system. The air supply to operate the system is obtained from the prime mover braking system through two air lines at the drawbar. Air filters are provided to remove any contamination in the air supply. A relay emergency valve detects the presence of normal air pressure and applies the trailer brakes if air pressure fails for any reason. A pressure limiting device ensures that any over pressure in the system is vented. A load sensing device, attached to a right hand torsion bar, matches the braking effort applied to the trailer brakes to the load on the trailer. A parking handbrake is provided on the drawbar. Two jacks at the front of the chassis and two stands at the rear of the chassis, together with a jockey wheel, provide trailer stability when parked. The spare wheel carrier, fitted under the cargo platform, is winched down to access the spare wheel.

6 The trailer electrical circuit operates from the towing vehicle 24 V dc supply. Normal tail, turn, brake and rear fog lights are fitted, together with number plate, convoy plate and front mounted running lights. Reflectors are fitted to the front, sides and tail of the trailer.

**TECHNICAL DATA**

**Dimensions** See Fig 1 (Frame B06)

**Weights**  
 Unladen  
 Laden (maximum)  
 Capacity

Drawbar preponderance (laden)



**Bridge classification**  
 Unladen 1  
 Laden 4

**NOTE**  
 The bridge classification does not include the prime mover.

► **Fording depth** Without preparation - fresh or sea water  
 0.50 m (19.68 in.)  
 With preparation - fresh or sea water 1.00 m  
 (39.37 in.)

**Shipping tonnage**



**Performance**  
 Towing speeds - fully laden  
 Good roads 72 kph (45 mph)  
 Rough roads 24 kph (15 mph)

**Retardation** Stopped from a speed of 48 kph (30 mph) at  
 minimum peak retardation of 5.88 m per second<sup>2</sup>  
 (19.3 ft per second<sup>2</sup>)

**Parking**  
 Held in both directions Gradient up to 1 in 4

**Tyres**  
 Main wheels  
 Size 0.210 m x 0.406 m (8.25 in x 16 in)  
 DEF STAN 26-13, SECT C, TABLE 1A  
 2610-99-809-6900  
 Pressure 75 lbf/in<sup>2</sup> (5.16 bar)  
 Inner tube DEF STAN 26-14, SECT C, TABLE 1  
 2610-99-895-8602 (8.25 x 16)

Jockey wheel  
Size 400 x 8 - 4 ply industrial type (T991) or approved equivalent  
Pressure 60 lbf/in<sup>2</sup> (4.13 bar)  
Inner tube IT 19 or approved equivalent

**Wheels**

Main wheels  
Type Well base  
Size 6.50 H x 16

Jockey wheel  
Type HG1  
Size 0.053 m x 0.203 m (2.125 in. x 8 in.)

**Brakes**

Type Extending shoe brakes, air servoed, hydraulically operated. Mechanical parking handbrake.

**Suspension**

A pair of torsion bars damped by telescopic shock absorbers, with Aeon rubber springs to check upward movement.

**Electrical equipment**

Stop/tail/turn combined cluster 6220-12-151-4411  
Hella 2SD 001 698-001

Number plate and convoy plate lights 6220-12-121-9007  
Hella 2KA 324 LRB 241

Fog light 6220-12-152-8600  
Hella 2NE002481-001

Front position light and end outline light (white) Rubbolite 50/04/00

End outline light (red) Rubbolite 50/05/00

Lamps

<u>Light</u>	<u>Volts</u>	<u>Watts</u>	<u>Type</u>
Stop, turn, fog	24	24	6240-99-995-3244
Tail, number plate, convoy plate	24	6	6240-99-995-2236
Position, outline	24	6	6240-99-995-2254

**Reflectors**

Front reflectors

White reflector  
Rubbolite 77/03/00

Side reflectors

Amber reflector  
Rubbolite 77/02/00

Rear reflectors

Triangular reflector  
Rubbolite 71/03/00

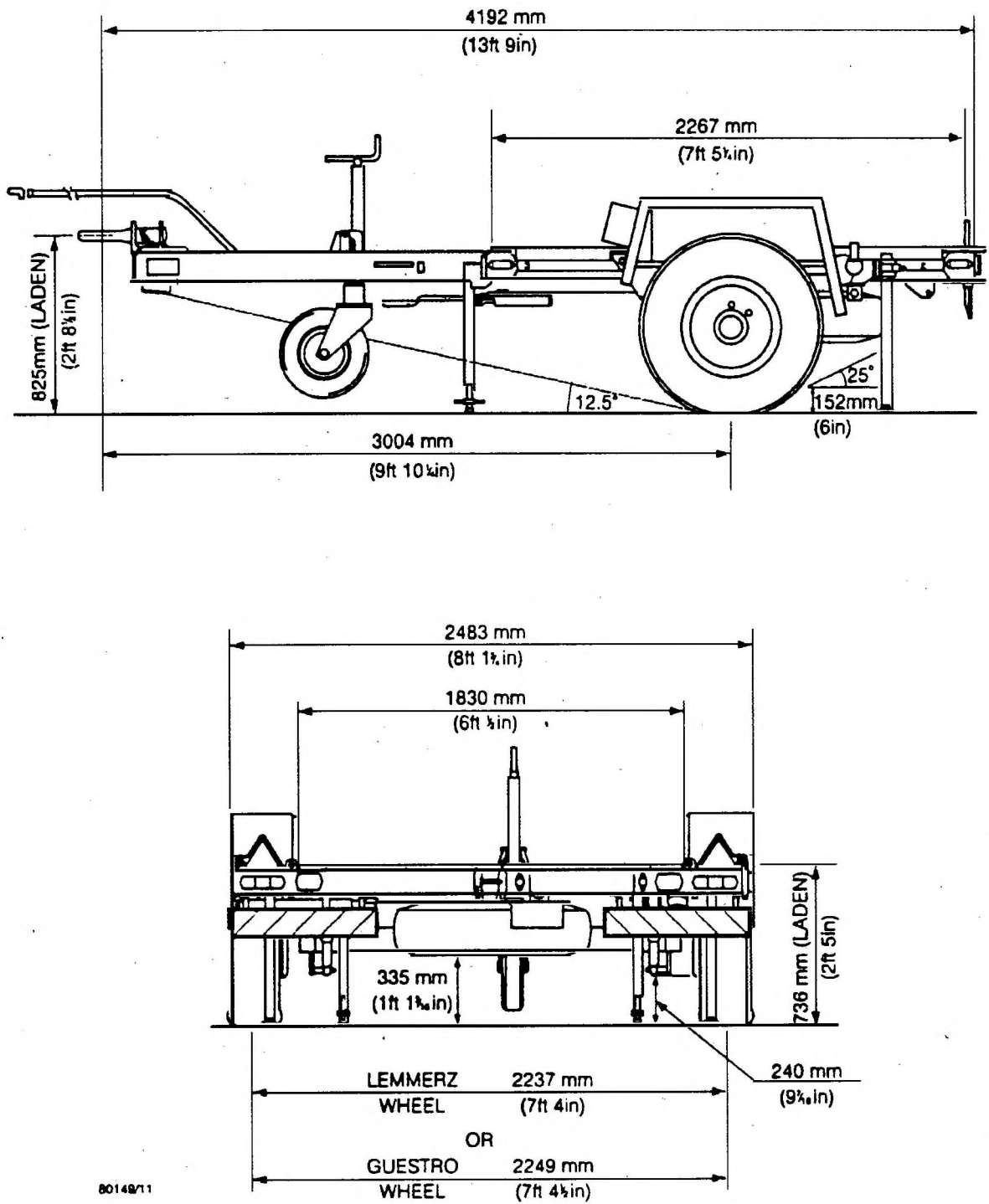
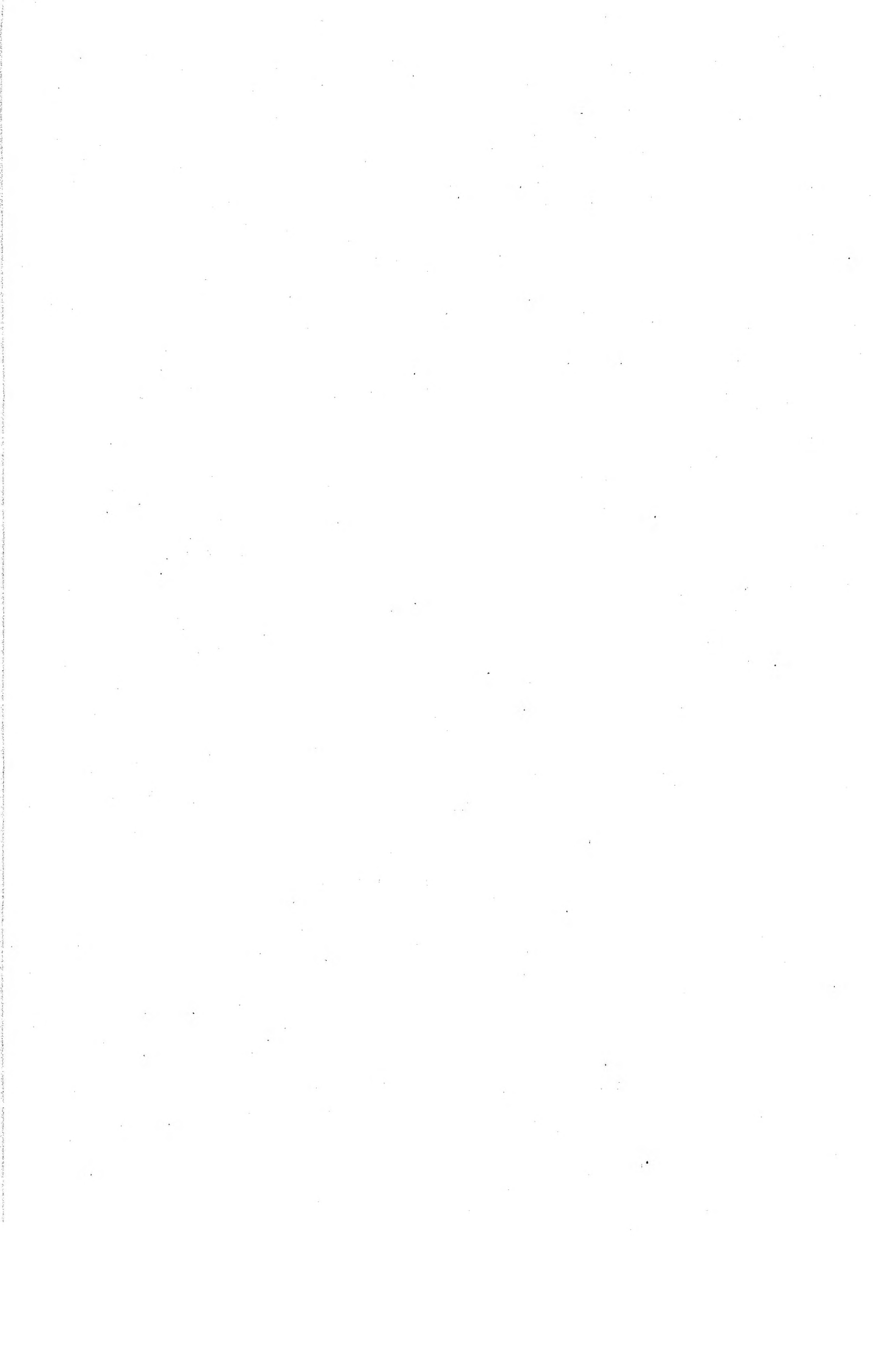


Fig 1 Dimensions





**CHAPTER 2**  
**DESCRIPTION**  
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**DESCRIPTION**

**Flat cargo platform**

1 The flat cargo platform is formed from two pieces of 19 mm plywood, resin bonded and impregnated with exterior weatherproof bonding to BS1455. Metal wear strips, bolted and screwed to the plywood, hold the two pieces of plywood together to form the flat cargo platform.

2 Front, side and rear edges of the platform are protected by metal U section pieces which locate the platform onto the chassis. Bolts through the platform and side metal edges fix the cargo platform to the chassis. Twelve removeable lashing rings are attached to the chassis by pins. The lashing rings may be removed from the chassis by removing the pins and then the lashing rings and associated washers. If the lashing rings are removed from the trailer, they must be stored in a safe place for subsequent use.

**Chassis**

3 The trailer chassis and integral drawbar are formed from rectangular section steel tube, cut and welded to form the frame and crossmembers. Strengthening plates and mounting brackets are attached to the frame to carry various assemblies. The rear crossmember is stiffened to provide a strong point for a rear facing towing pintle.

4 The drawbar is drilled to provide fixing points for the towing eye, the handbrake assembly, the air brake components and the swing down jockey wheel. A spring clip holds the trailer electrical connector and the air plugs are plugged into dummy connectors, when they are not in use. A skid and tie down hoops are attached to the drawbar. Further tie down hoops are attached to the chassis side members at the rear of the mudshields.

5 Brackets and fixing points are attached to the main part of the chassis frame to provide anchor points for the spring assisters, shock absorbers and mudshields. Two swing down jacks are attached to the front crossmember and two swing down support legs are attached to the rear crossmember.

### Braking system

6 The air hoses which connect the prime mover service and emergency air braking supplies to the trailer are located at the drawbar end of the trailer. Dummy connectors are fitted to the drawbar to retain the hose connectors when the trailer is parked. The air supply hoses are connected to two filters located under the drawbar front tread plate. The service supply (Yellow) is taken from the filter through pipes and connectors to the load sensing valve, located near, and connected to, the right hand torsion bar. From the load sensing valve, the service supply is taken to the relay emergency valve, located under the drawbar rear tread plate, alongside the jockey wheel. The emergency air supply (Red) is taken from its filter directly to the relay emergency valve. In normal circumstances, the relay emergency valve connects the service supply to the air reservoir tank, located under the cargo platform, between the front and second crossmember, and to the air/hydraulic cylinders, located under the cargo platform on the right hand side of the trailer, to the rear of the axle tube. In the air/hydraulic cylinders, the service supply to the air cylinder causes the hydraulic cylinder ram to force hydraulic fluid to both wheel brake cylinders when the prime mover brakes are applied. A hydraulic fluid reservoir for this system is located on the front of the right hand mudshield.

7 If a loss of service supply is detected by the relay emergency valve, the valve operates such as to close off the service supply line and connect the air/hydraulic cylinders to the reservoir, applying the trailer brakes.

8 Air pressure test points are located on the relay emergency valve, the load sensing valve and the air/hydraulic cylinders. A pressure limiting valve fitted to the system outlet of the relay emergency valve limits the supply pressure to 5.7 bars (85 psi).

9 The handbrake lever is operated horizontally and is fitted under the left hand drawbar sidemember. The handbrake is of the 'fly off' type. When operated, the brake is held on by a spring loaded locking mechanism. To release the handbrake, the lever is moved clockwise about its pivot point until the linkage goes over centre, when spring action will release the brakes. The handbrake lever is connected to the wheel brakes by rods and cables. Once commissioned, the handbrake rods and cables should require no further adjustment unless in the course of the replacement of damaged/malfunctioning components. All subsequent brake adjustments should be made at the brake backplate.

### Axle, hubs, wheels and suspension

10 The axle tube is fabricated from steel tube and runs transversely across the trailer. The torsion bars are located at each end of the axle tube. The stub axle attached to a torsion bar carries the brake backplate and brake mechanism and, attached to the stub axle by inner and outer bearings, the brake drum, wheel studs and wheel.

11 A shock absorber is fitted between each torsion bar and the trailer chassis. An Aeon spring assister is fitted to the chassis directly at each torsion bar rebound point.

### Jockey wheel, steady legs, towing pintle and spare wheel carrier

12 The jockey wheel mounting bracket is welded to the drawbar. By removing a locking pin, the jockey wheel assembly can be swung through 90 degrees on its mounting bracket to lie inside the drawbar, giving good ground clearance while being towed. The locking pin must be replaced for safety.

13 When swung down, the locking pin is utilised to locate the jockey wheel assembly vertically. The jockey wheel can be wound up and down to the desired height using the handle at the top of the assembly. A spring clip is used to hold the jockey wheel in the stowed (towing) position, the handle being positioned with the crank uppermost. The locking pin is replaced for safety. The jockey wheel has a pneumatic inner tube.

14 The two front mounted jacks are used in conjunction with the jockey wheel and two rear mounted steady legs to provide stability when the trailer is parked. The front mounted jacks are used by removing a snap ring cotter pin from the end of the jack leg and a locking pin from the stowage bracket, a jack leg can be swung down through 90 degrees from the stowed position, the top of the jack leg located in a hole in a chassis bracket and the snap ring cotter pin replaced to lock the leg to the chassis bracket. The jack leg can then be screwed out to the appropriate length.

15 The two rear mounted steady legs are used in conjunction with the jockey wheel and the front jack legs to provide stability when the trailer is parked. A steady leg is dropped vertically from its stowed position by removing a locking pin and releasing the clamp bolt. When approximately level the locking pin should be replaced and the clamp bolt retightened. A snap ring cotter pin is used to retain the locking pin in place.

16 A towing pintle is fitted to the rear chassis crossmember. During normal use, the pintle should be in the stowed position and only used in the deployed position during emergency tandem towing operations.

17 A spare wheel carrier is fitted to the trailer, fitted under the cargo platform. Access to the spare wheel is through the operation of a winch which winds down the spare wheel carrier when it is required. The winch is operated by applying the prime mover wheel brace to the operating bolt head visible at the underside of the trailer just behind the left hand wheel.

#### Electrical equipment

18 The electrical equipment on the trailer is powered and controlled by the towing vehicle supply and switches. The trailer is connected to the towing vehicle through a standard 12 pin plug on a flexible cable. The plug is clipped to the trailer drawbar when not in use. As supplied, the trailer is equipped with 24 V dc lamps. Fig 1 illustrates the electrical diagram of the trailer. The trailer is equipped with the normal lights and indicators required for military vehicles. Additionally, a pressure switch operated by the service air supply is connected to the prime mover to warn the driver if a loss of pressure occurs at the trailer.

#### Electrical equipment

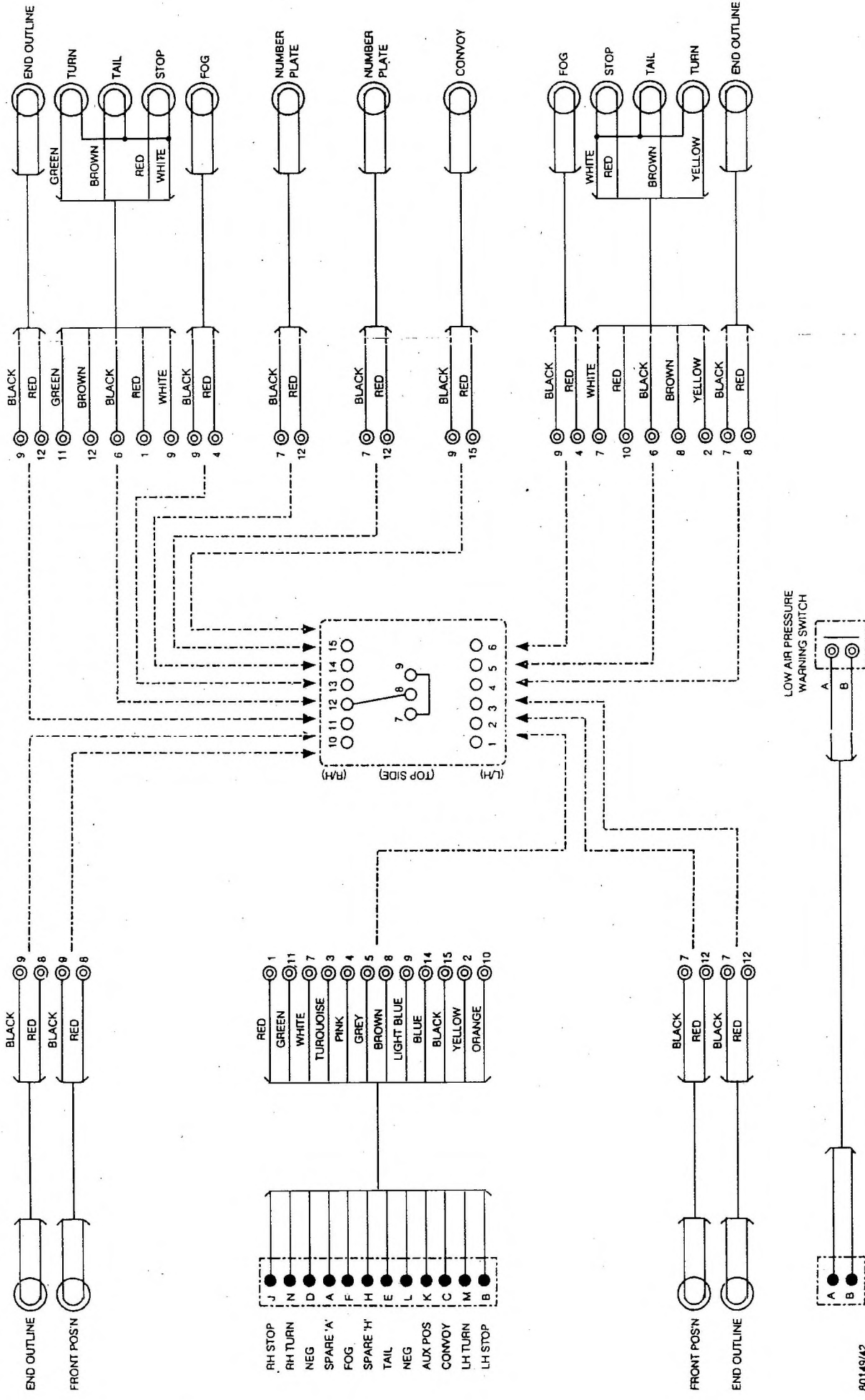
Stop/tail/turn combined cluster	6220-12-151-4411 Hella 2SD 001 698-001
Number plate and convoy plate lights	6220-12-121-9007 Hella 2KA 324 LRB 241
Fog light	6220-12-152-8600 Hella 2NE002481-001
Front position light and end outline light (white)	Rubbolite 50/04/00
End outline light (red)	Rubbolite 50/05/00

Lamps

<u>Light</u>	<u>Volts</u>	<u>Watts</u>	<u>Type</u>
Stop, turn, fog	24	24	6240-99-995-3244
Tail, number plate, convoy plate	24	6	6240-99-995-2236
Position, outline	24	6	6240-99-995-2254

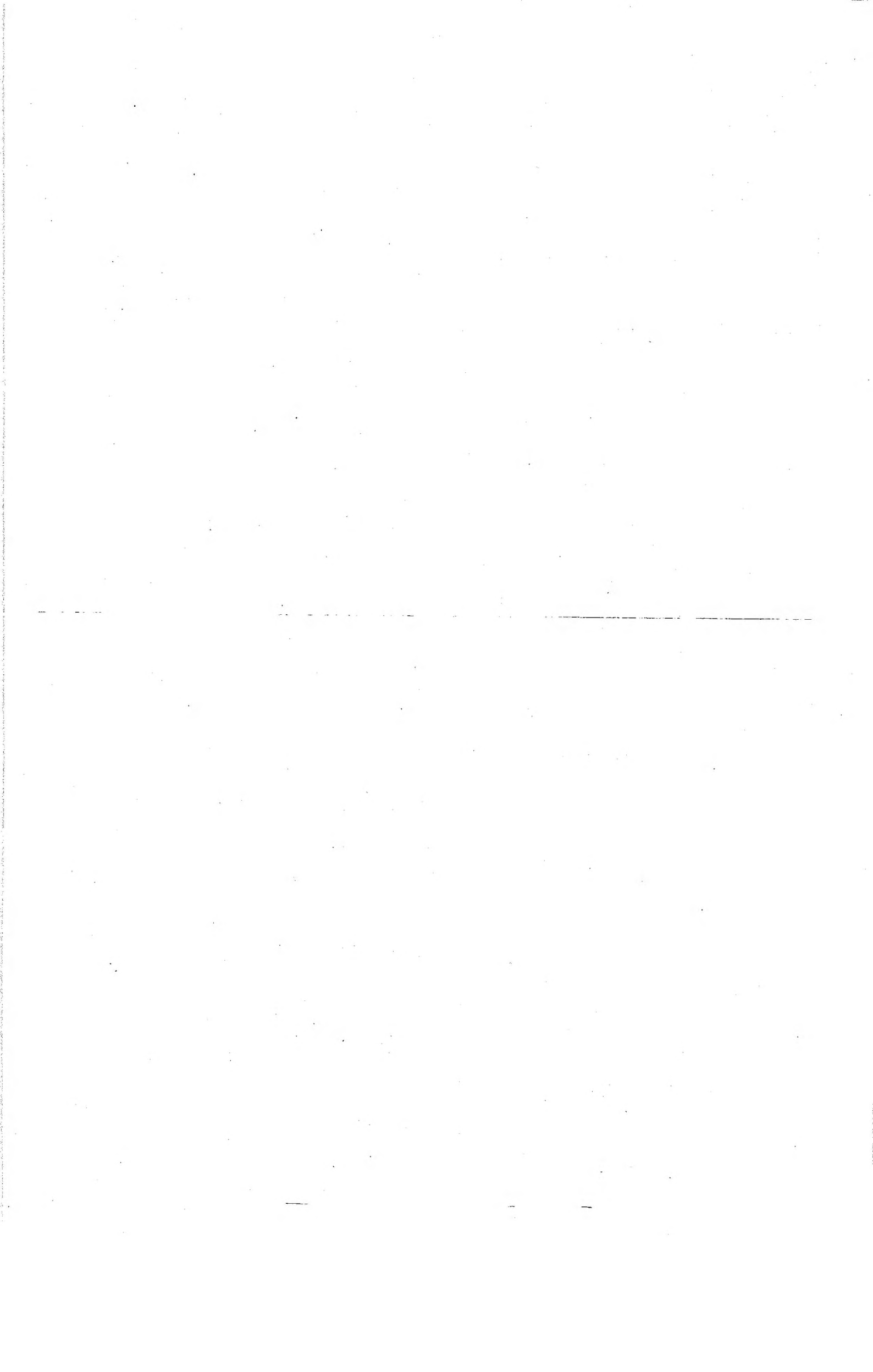
**Reflectors**

Front reflectors	White reflector Rubbolite 77/03/00
Side reflectors	Amber reflector Rubbolite 77/02/00
Rear reflectors	Triangular reflector Rubbolite 71/03/00



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Fig 1 Electrical diagram



**CHAPTER 3**  
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**WARNING**

**MECHANICAL FITNESS. REFER TO THE MECHANICAL FITNESS WARNING IN THE PRELIMINARY PAGES.**

**BEFORE USE CHECKS**

**General**

- 1 Examine the trailer for damage and/or failure of welding.
- 2 Examine the trailer for security and if necessary tighten any details likely to work loose during use.

**Tyres**

- 3 The tyres should be checked taking the following points into account.
  - 3.1 Replace any missing valve caps.
  - 3.2 Check the tyre pressures against those required (see Chap 1 Frame B03). Checking and adjustment should always be done when the tyres are cold.
  - 3.3 Remove any flints or stones from the tyre treads and check for cuts or damage due to 'kerbing'.
  - 3.4 Remove any oil or grease from the tyres by cleaning with a sparing application of petrol.

**Electrical equipment**

- 4 Check the electrical equipment as follows.
  - 4.1 Check all leads for security of connectors and any deterioration of cables.
  - 4.2 Check the trailer plug for damage and security.
  - 4.3 Check all lamps, lights, light lenses and reflectors for cleanliness, operation (where appropriate) and security.

**OPERATION****Handbrake**

- 5 Always test the handbrake system before attaching the trailer to the prime mover.

**Braking system**

- 6 Check the level of brake fluid in the reservoir on the front of the right hand mudshield. The reservoir level should be within 5 mm of the lower face of the cover plate. Top up with brake fluid OX 8, if necessary.

**Jockey wheel**

- 7 The jockey wheel mounted on the drawbar provides extra stability for the trailer while it is being loaded. If the front jack legs and rear support stands are subsequently stowed, then the trailer can be manually positioned for coupling to a prime mover. To lower the jockey wheel, proceed as follows. Numbers in brackets refer to the key at Fig 1.

- 7.1 Support the weight of the jockey wheel and remove the snap ring cotter pin (6) at the handle locating bracket and the locking pin and snap ring cotter pin (2) from the swivel bracket.

- 7.2 Carefully swing the jockey wheel down through 90 degrees and lock into the upright position against the bumper stop (4) using the locking pin and snap ring cotter pin through the jockey wheel bracket and the swivel bracket. Replace the snap ring cotter pin (6) at the handle locating bracket for safe keeping.

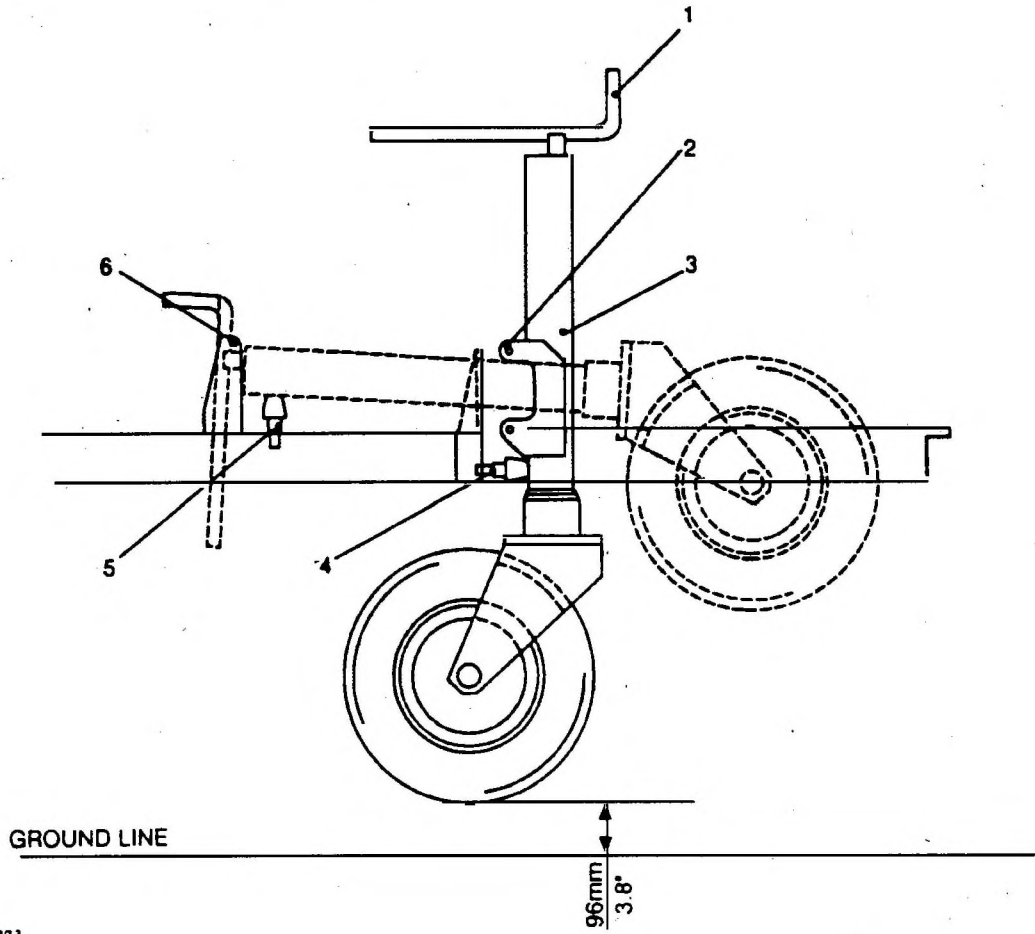
- 7.3 Wind the jockey wheel (3) to ground level with the handle (1).

- 7.4 Check that the bumper stop (4) is pressing against the jockey wheel outer tube (3), preventing any movement. If not, adjust the position of the bumper stop (4) in or out until the requirement is met.

- 8 To raise the jockey wheel after coupling to a prime mover, proceed as follows. Numbers in brackets refer to the key at Fig 1.

- 8.1 Use the handle (1) to wind the jockey wheel (3) up to its stop (approximately 96 mm (3.8 in.) above ground level).





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**KEY TO FIG 1**

- 1 Handle
- 2 Locking pin and snap ring cotter pin
- 3 Jockey wheel assembly
- 4 Bumper stop
- 5 Bumper stop
- 6 Snap ring cotter pin

Fig 1 Jockey wheel

8.2 Remove the locking pin and snap ring cotter pin (2) from the swivel bracket and the snap ring cotter pin (6) from the handle locating bracket.

8.3 Align the jockey wheel (3) and handle (1) fore and aft and swivel the jockey wheel assembly through 90 degrees to lie against bumper stop (5) and inside the handle locating bracket.

8.4 Fit the snap ring cotter pin (6) at the handle locating bracket and the locking pin and snap ring cotter pin (2) at the swivel bracket.

8.5 Check that the bumper stop (5) is pressing against the jockey wheel outer tube (3), preventing any movement. If not, adjust the position of the bumper stop (5) in or out to meet the requirement.

### Rear support stands

9 Both rear support stands must be lowered and supporting the trailer when it is being loaded and after completion of loading, until the trailer is coupled to a prime mover. To lower a rear support stand, proceed as follows. Numbers in brackets refer to the key at Table 1.

9.1 Remove the spring clip (7) from the rear support stand locking pin (6). Remove the locking pin from the rear support stand (1).

9.2 Undo the locking lever (5) on the clamp bracket (2) to release the support stand (1), allowing the stand to slide through the clamp until it reaches ground level, remembering to keep your feet clear of the stand.

9.3 Refit the locking pin (6) into the hole immediately below the clamp bracket. Refit the spring clip (7) through the locking pin.

9.4 Retighten the locking lever (5) on the clamp bracket.

10 To raise a rear support stand when coupling the trailer to a prime mover, proceed as follows. Numbers in brackets refer to the key at Table 1.

10.1 Release the locking lever (5) on the clamp bracket (2). Remove the spring clip (7) from the locking pin (6) and remove the locking pin from the steady support stand.

10.2 Lift the steady support stand, sliding it through the clamp bracket until the lowest hole is visible above the clamp bracket. This ensures that the departure angle of the trailer is maintained. Refit the locking pin through the steady support leg and refit the spring clip.

### KEY TO FIG 2

- 1 Rear support stand
- 2 Clamp bracket
- 3 Clamp bracket bolts
- 4 Chassis
- 5 Locking lever
- 6 Locking pin
- 7 Spring clip

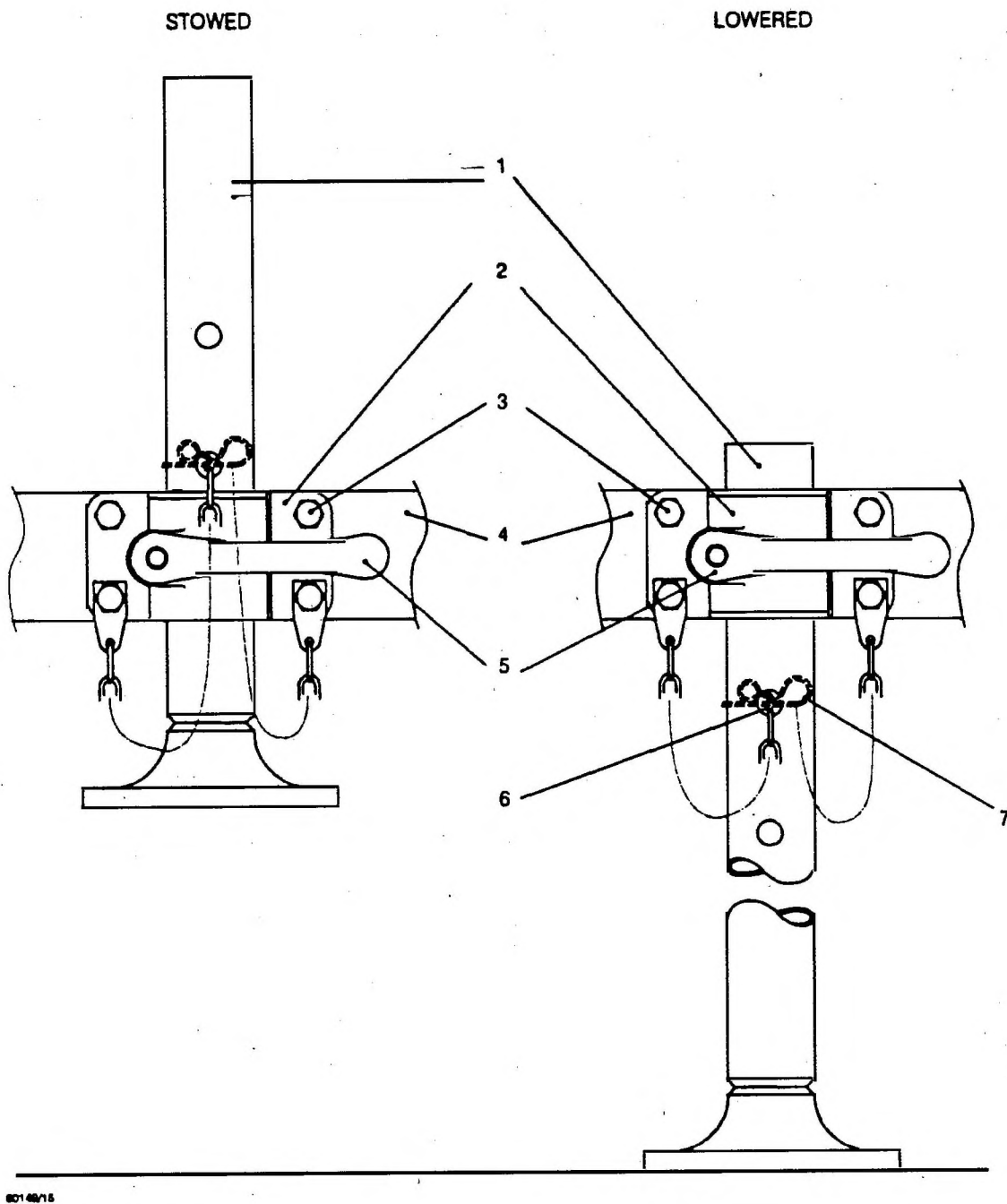


Fig 2 Rear support stand (typical)

10.3 Allow the steady support leg to slide down through the clamp bracket (2) until the locking pin rests on the bracket. Retighten the locking lever.

**NOTE**

Two versions of the rear support stand are in use. Both versions are fitted to the trailer and are operated in the same way and differ only in small manufacturing details from each other.

**Front jack legs**

11 Both front jack legs must be lowered and supporting the trailer when it is being loaded, and after completion of loading, until the trailer is coupled to a prime mover. To lower a front jack leg, proceed as follows. Numbers in brackets refer to the key at Table 2.

11.1 Remove the snap ring cotter pin (2) from the top (4) of the jack leg. Remove the spring clip (6) from the locking pin (11) in the jack leg stowage bracket (7).

11.2 Disengage the jack leg handle (10) from the stowage bracket by lifting the jack handle up from the location position (9) and sliding the jack leg backwards. Replace the locking pin (11) and the spring clip (6) in the stowage bracket (7) when the jack leg is clear of the stowage bracket.

11.3 Lower the jack leg forwards through 90 degrees and slide the leg upwards into the jack locating bracket (3). Refit the snap ring cotter pin (2) to the top end of the leg.

11.4 Adjust the jack leg length by turning the handle (10) to lower the base plate (8) to ground level.

12 To raise a front jack leg when coupling the trailer to a prime mover, proceed as follows. Numbers in brackets refer to the key at Table 2.

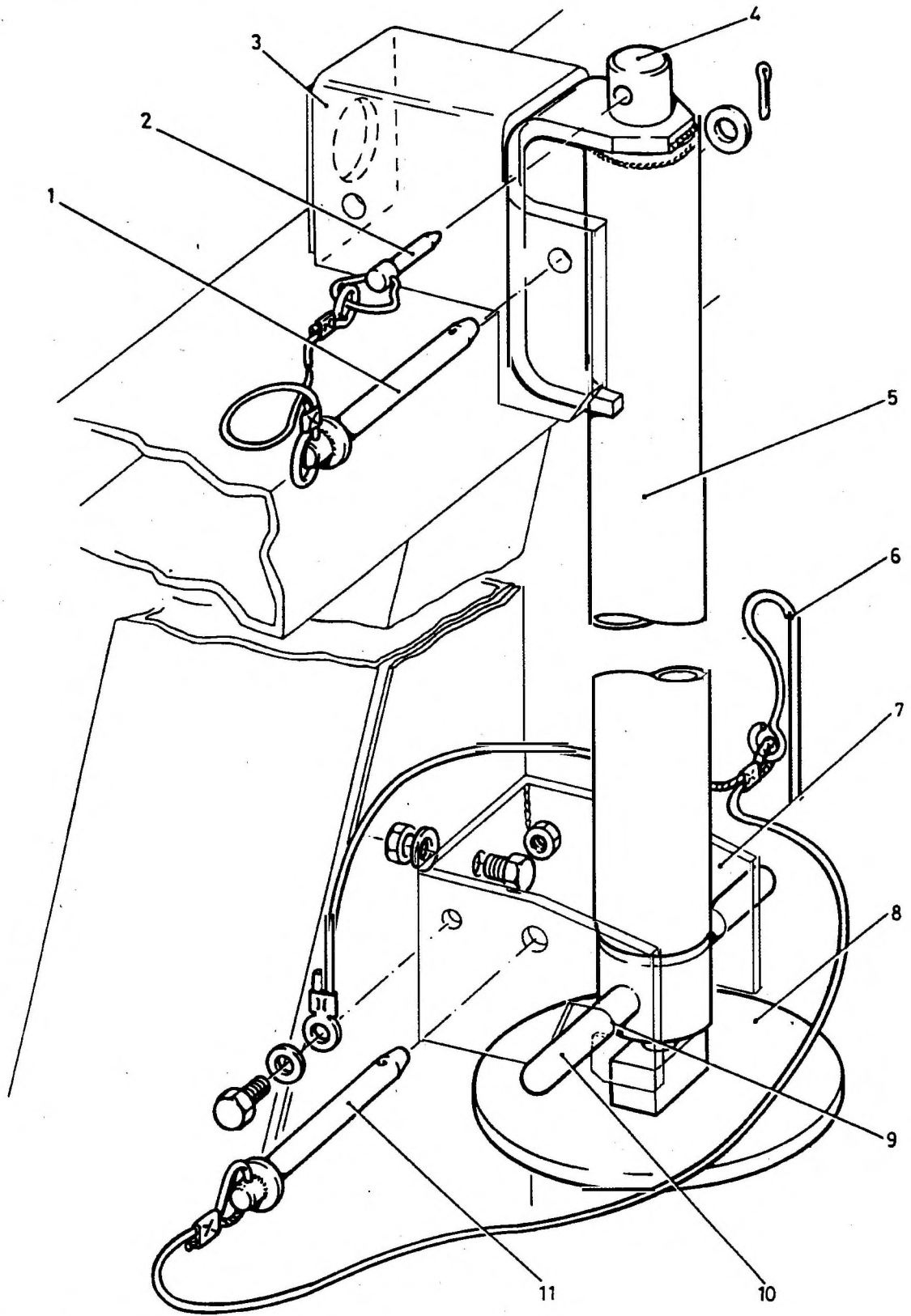
12.1 Raise the base plate (8) with the handle (10) until the jack leg is as short as possible. Remove the snap ring cotter pin (2) from the top of the jack leg.

12.2 Remove the spring clip (6) from the locking pin (11) in the stowage bracket (7) and remove the locking pin from the stowage bracket.

12.3 Disengage the top (4) of the jack leg from the jack locating bracket (3). Swing the jack leg backwards through 90 degrees and engage the handle (10) in the location position (9) on the stowage bracket (7).

**KEY TO FIG 3**

- 1 Swivel pin
- 2 Snap ring cotter pin
- 3 Jack locating bracket
- 4 Top of jack leg
- 5 Jack leg
- 6 Spring clip
- 7 Stowage bracket
- 8 Base plate
- 9 Location position
- 10 Handle
- 11 Locking pin



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Fig 3 Front jack leg (stowed)

12.4 Refit the locking pin (11) to the stowage bracket and secure with the spring clip (6). Refit the snap ring cotter pin (2) to the top of the jack leg.

### Trailer coupling

13

### ▶ WARNINGS

(1) **PERSONNEL HAZARD. ENSURE THAT THE REAR SUPPORT LEGS ARE LOWERED AND SUPPORTING THE WEIGHT OF THE TRAILER BEFORE COUPLING TO OR UNCOUPLING FROM A PRIME MOVER.**

(2) **PERSONNEL HAZARD. BEFORE DRIVING THE PRIME MOVER WITH TRAILER ATTACHED, ENSURE THAT THE JOCKEY WHEEL AND REAR SUPPORT LEGS ARE SECURED IN THEIR STOWED POSITION.**

(3) **TRAILER LOADING. ENSURE THAT THE TRAILER PAYLOAD IS CORRECTLY DISTRIBUTED AND THAT THE DRAWBAR PREPONDERANCE WEIGHT IS STRICTLY OBSERVED.** ◀

### Caution

**The draught eye on the trailer is of the non-rotating type and must not be coupled to a prime mover which has a fixed towing pintle.**

13.1 Ensure that the trailer handbrake is on.

13.2 Lower the jockey wheel and adjust its height so as to raise or lower the drawbar eye as required.

13.3 Reverse the prime mover to the front of the trailer, manoeuvre the trailer slightly if required, and couple the trailer to the vehicle.

### NOTE

It may be necessary to adjust the rear support legs to line up the towing eye.

13.4 Connect the air lines to the prime mover, Service to Service (Yellow), Emergency to Emergency (Red), and open cocks on the prime mover to charge the trailer reservoir.

13.5 Connect the low air pressure warning cable to the prime mover.

13.6 Ensure that the trailer air reservoir is fully charged.

13.7 Connect the trailer electrical plug into the socket of the prime mover and check operation of all lamps.

13.8 Raise and secure the rear support stands and the front jack legs.

13.9 Raise and secure the jockey wheel and release the handbrake.

### Checks during a journey

14 Constantly monitor the trailer low pressure warning indication, by lamp or audible indication, or both, depending upon the prime mover, during the journey. Stop after travelling approximately the first mile and carry out the following checks.

14.1 The security of the load and the draught eye.

14.2 The tyres for punctures and embedded flints and stones.

14.3 The wheel hubs and brakes for overheating, as described in Chapter 4 of this publication.

14.4 Check the level of brake fluid in the hydraulic reservoir fitted to the right hand mudshield. Top up the level to within 5 mm of the lower face of the cover plate with OX 8 brake fluid, if necessary.

15 Repeat the checks detailed in Para 14 after every subsequent four hours travelling time.

### Trailer uncoupling

#### WARNING

**PERSONNEL HAZARD. ENSURE THAT THE REAR SUPPORT LEGS ARE LOWERED AND SUPPORTING THE WEIGHT OF THE TRAILER BEFORE COUPLING TO OR UNCOUPLING FROM A PRIME MOVER.**

16 Uncouple the trailer from the prime mover as follows.

16.1 Apply the trailer handbrake.

16.2 Disconnect the air lines from the prime mover. This will apply the trailer air brakes. Park the air line couplings in the dummy connectors on the drawbar.

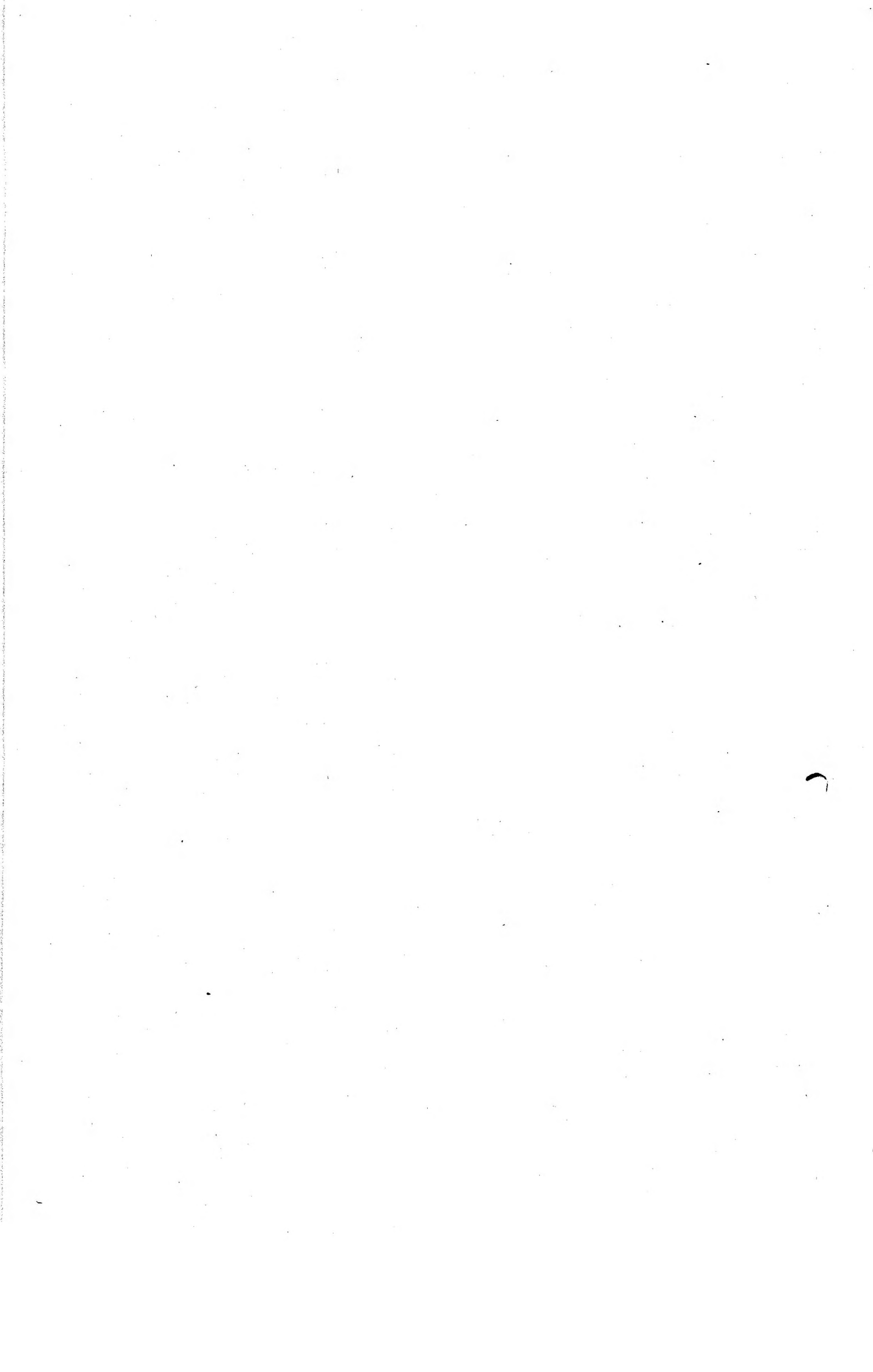
16.3 Vent off air in the trailer reservoir by pulling the handle on the left hand side of the trailer forward of the wheel. This will release the trailer brake.

16.4 Swing down and extend the rear support stands, front jack legs and the jockey wheel.

16.5 Disconnect the trailer electrical plug and the low pressure warning cable from the prime mover sockets and stow the plugs in the stowage clips provided on the drawbar.

16.6 Adjusting rear support stands, jack legs and the jockey wheel as necessary, uncouple the trailer and drive away the prime mover.

16.7 Re-adjust the trailer stands, jack legs and jockey wheel to level the trailer.





**CHAPTER 4**  
**USER MAINTENANCE AND REPAIR INFORMATION**  
**CONTENTS**

Frame Para

		<b>Maintenance</b>	
E03	1	Responsibilities	
E03	2	Periodicity	
E03	3	Records	
E03	4	Lubrication	
E05		<b>Repair</b>	
E05	5	Initial checks	
E05	6	Wheel hubs and brakes	
E06	8	Replacing a road wheel	
E07	9	Lamp, lens and reflector replacement	

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E06	1	Wheel nut tightening sequence.....	5

**WARNING**

**REFER TO THE WARNINGS PAGE IN THE PRELIMINARY PAGES OF THIS PUBLICATION.**

**MAINTENANCE****Responsibilities**

1 The unit commander is responsible for ensuring that the maintenance operations detailed in this chapter are properly carried out.

**Periodicity**

2 User maintenance should be carried out at intervals as specified in Tables 1 and 2. The unit commander may, however, order any operation to be carried out more frequently than is specified if the conditions under which his equipments are operating render it necessary. He should consult his REME advisor before ordering such changes. Maintenance intervals may also be adjusted, by plus or minus 10%, by the local commander to suit local circumstances.

**Records**

3 Servicings and inspections are to be recorded in the vehicle documents. Refer to Cat 601 for service intervals and lubricants.

**Lubrication**

4 OMD 80 and XG 279 are recommended for oiling and greasing respectively. Changes of grade may be required at very low temperatures.

**TABLE 1 DRIVER'S CHECKS**

	Operation	Daily or as used	During halts	Weekly
1	Check wheel hubs and brakes for overheating		X	
2	Check wheel nut tightness	X		
3	Check wheel nut tightness using a torque wrench			X
4	Check tyre pressures			X
5	Test handbrake	X		
6	Check level of brake fluid in reservoir cylinder. Top up if necessary	X	X	

TABLE 2 PERIODIC SERVICING

Operation	500 mile/ Initial	3000 mile/ 6 monthly	6000 mile/ 12 monthly	12000 mile 24 monthly
Grease gun lubricate:				
1 Jockey wheel pivot	X	X	X	X
Steady	X	X	X	X
Thrust nut	X	X	X	X
2 Handbrake cables (2 grease nipples) *	X	X	X	X
3 Torsion bar bearings (2 grease nipples each torsion bar)	X	X	X	X
Oil can lubricate:				
4 All brake linkages, devices, pins and yokes	X	X	X	X
5 Handbrake lever	X	X	X	X
6 All cargo restraint rings, pivot pins, devices and linkages	X	X	X	X
Other operations:				
7 Spare wheel carrier assembly	X	X	X	X
8 Lightly grease the pin and snap ring cotter pin assemblies	X	X	X	X
9 Lightly grease any other working details not listed above	X	X	X	X
10 Top up brake fluid level	X	X	X	X
11 Inspect brake shoes for excessive wear	X	X	X	X

\* Grease nipples not fitted to handbrake cables incorporating inner cables with protective coatings.

**REPAIR****WARNING**

**MECHANICAL FITNESS. REFER TO THE MECHANICAL FITNESS WARNING IN THE PRELIMINARY PAGES.**

**Initial checks**

5 Examine the trailer for damage and cleanliness, paying particular attention to the following points.

- 5.1 The condition of the draught eye.
- 5.2 Any items liable to work loose in transit.
- 5.3 The condition of the tyre treads.
- 5.4 The condition, security and (if possible) operation of the lights, reflectors and associated cabling.
- 5.5 The air reservoir should be drained regularly to remove moisture by pulling on the handle on the left hand side of the trailer forward of the wheel.
- 5.6 Check the condition and security of the air/hydraulic brake connections, air and hydraulics lines and all flexible hoses.
- 5.7 Check the condition of the connections between the right hand torsion bar and the load sensing valve, particularly after off-the-road use.

**Wheel hubs and brakes**

- 6 User repair to wheel hubs and brakes is limited to the actions detailed below.
- 7 Proceed WITH CAUTION as follows.
  - 7.1 Visually inspect each hub in turn for obvious signs of overheating such as smoke or sizzling grease.
  - 7.2 If obvious signs of overheating are absent, place a hand close to each component being checked. If excessive heating is detected, do not touch the component, but 'report'.
  - 7.3 If excessive heating is not apparent, touch the parts CAUTIOUSLY. If the heat is greater than can comfortably be borne by hand, then 'report'.
  - 7.4 Check the level of brake fluid in the master cylinder reservoir. Top up to the mark if necessary.

### Replacing a road wheel

8 The procedure for replacing a road wheel is as follows.

8.1 Engage the handbrake and then scotch the road wheel on the opposite side of the trailer.

8.2 Place the jack under the axle tube and then slacken the wheel securing nuts. Jack up the wheel.

#### NOTE

The left hand wheel studs are left hand threaded, the right hand wheel studs are right hand threaded.

8.3 From underneath the trailer, using the prime mover wheel brace, slacken and remove the two nuts holding the spare wheel carrier to the chassis.

8.4 Using the prime mover wheel brace applied to the nut at the left hand side of the chassis behind the wheel, wind down the spare wheel carrier.

8.5 Remove the spare wheel from the carrier.

8.6 Remove the nuts and then lift the wheel off the hub. Care should be taken not to damage the studs.

8.7 Manoeuvre the replacement wheel as close as possible to the trailer and then lift it onto the hub, again taking care not to damage the studs.

8.8 Fit the wheel nuts and tighten to torque load 472 to 544 Nm (350 to 400 ft lbs) following the sequence shown in Fig 1. It may be necessary to lower the wheel into contact with the ground in order to achieve the torque values quoted.

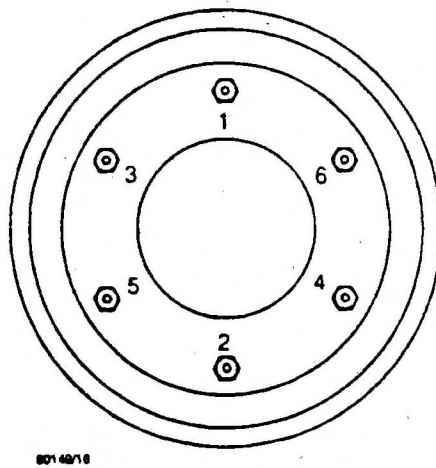


Fig 1 Wheel nut tightening sequence

**Lamp, lens and reflector replacement**

- 9 Refer to Table 3 below when replacing lenses, lamps and reflectors on trailer.

**TABLE 3 LAMP, LENS AND REFLECTOR REPLACEMENT**

No	Item	Access and remarks
1	Rear triangular reflectors	Unscrew
2	Corner and front reflectors	Unscrew
3	Numberplate lights and convoy light	Unscrew and remove cover
4	Fog, brake and rear sidelights	Unscrew lens
5	Front sidelights and outline lights	Pull out carefully, peel back rubber surround, remove lens

**CHAPTER 5**  
**DENIAL OF EQUIPMENT**  
**CONTENTS**

Frame Para

F02		General
F02	1	Destruction
F02	4	Degree of damage
F03	5	Priorities for destruction
F03	6	Spare parts
F03	7	Equipment being carried on the trailer
F03	8	Methods of destruction
F03	9	Mechanical
F04	10	Burning
F04	11	Gunfire

	Table		Page
F03	1	Priorities for destruction .....	2

**GENERAL**

**Destruction**

1 Destruction of the equipment, when subject to capture by the enemy will be undertaken by the user arm **ONLY WHEN** ordered to do so by divisional or higher commanders, who may delegate the authority to subordinate commanders should the situation require it.

2 Destruction of the equipment is to be reported through command channels.

3 In general, destruction of essential parts, followed by burning, will usually be sufficient to render the equipment useless. However, selection of the particular method of destruction requires imagination and resourcefulness in the utilization of the facilities at hand under the existing conditions. Time is usually critical. If destruction is ordered, due consideration should be given to:

3.1 Selection of a point of destruction that will cause greatest obstruction to enemy movement but not prove a hazard to friendly troops from fragments or ricocheting projectiles which may occur incidental to the destruction by gunfire.

3.2 Observance of appropriate safety precautions.

**Degree of damage**

4 The degree of damage inflicted to prevent the equipment being used by an enemy shall be as follows.

4.1 Methods of destruction should achieve such damage to equipment and essential spare parts that it will not be possible to restore the equipment to a usable condition in the combat zone either by repair or by cannibalization.

4.2 Classified equipment must be destroyed in such degree to prevent whenever possible, duplication by the enemy or the revelation of function or operation.

4.3 Any classified documents, notes, instructions or other written material pertaining to function, operation, maintenance or employment including drawings or parts lists must be destroyed in a manner to render them useless to the enemy.

### Priorities for destruction

5

5.1 Priority must be given to the destruction to classified equipment and associated documents.

5.2 When lack of time and/or stores prevents complete destruction of equipment, priority is to be given to the destruction of essential parts, and the same parts are to be destroyed on all like equipment.

5.3 A guide to priorities for the destruction of this equipment is shown below.

**TABLE 1 PRIORITIES FOR DESTRUCTION**

No	Parts	Priority
1	Tyres and suspension	1
2	Braking system	2
3	Frame	3

### Spare parts

6 The same priority, for destruction of component parts of a major item necessary to render the item inoperable, must be given to the destruction of similar components in spare parts storage areas.

### Equipment being carried on the trailer

7 Equipment being carried on the trailer should be destroyed in accordance with the priorities for the equipment itself, taking into account the relative importance of the equipment being carried and the trailer itself.

### Methods of destruction

8 The following information is for guidance only. Of the several means of destruction, those most generally applicable are as under.

#### Mechanical

9 This requires an axe, pick, crowbar or similar implement. The equipment should be destroyed in accordance with the priorities given in Para 5 above.



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. GASOLINE SHOULD ALWAYS BE HANDLED IN ACCORDANCE WITH THE REQUIREMENTS OF JSP 317.**

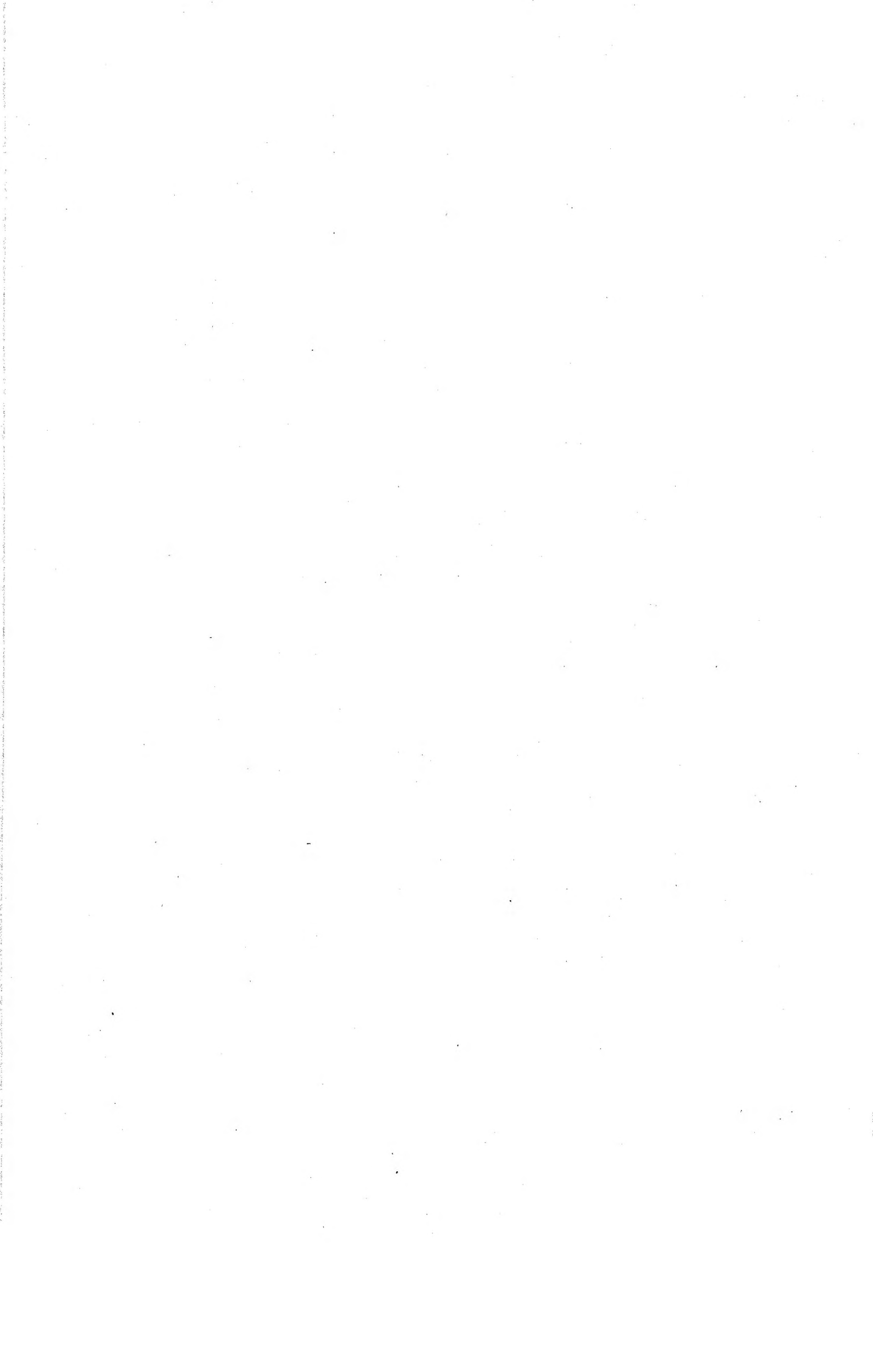
- 10 This requires gasoline, oil or other flammables.
  - 10.1 Smash all vital parts, in accordance with the priorities given in Para 5.
  - 10.2 Pour gasoline and oil in, on and over the entire equipment.
  - 10.3 Ignite by means of an incendiary grenade fired from a safe distance, by a burst from a flame thrower, by a combustible train of suitable length, or other appropriate means.
  - 10.4 Take cover immediately.

Gunfire

**WARNING**

**FIRING ARTILLERY AT RANGES OF 500 YARDS OR LESS SHOULD BE FROM COVER. FIRING RIFLE GRENADES OR ANTI-TANK ROCKETS SHOULD BE FROM COVER.**

- 11 When destroying the equipment by gunfire proceed as follows.
  - 11.1 Smash all vital parts, in accordance with the priorities given in Para 5.
  - 11.2 Destroy the equipment by gunfire, using adjacent gun tanks, self-propelled guns artillery, rifles using rifle grenades or launchers using anti-tank rockets. Fire on the equipment aiming at the road wheels. Although one well-placed direct hit may render the equipment temporarily useless, several hits are usually required for complete destruction unless an intense fire is started, in which case the equipment may be considered destroyed.



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