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

REPRINTED INCORPORATING AMDT No. 3

PURPOSE AND PLANNING 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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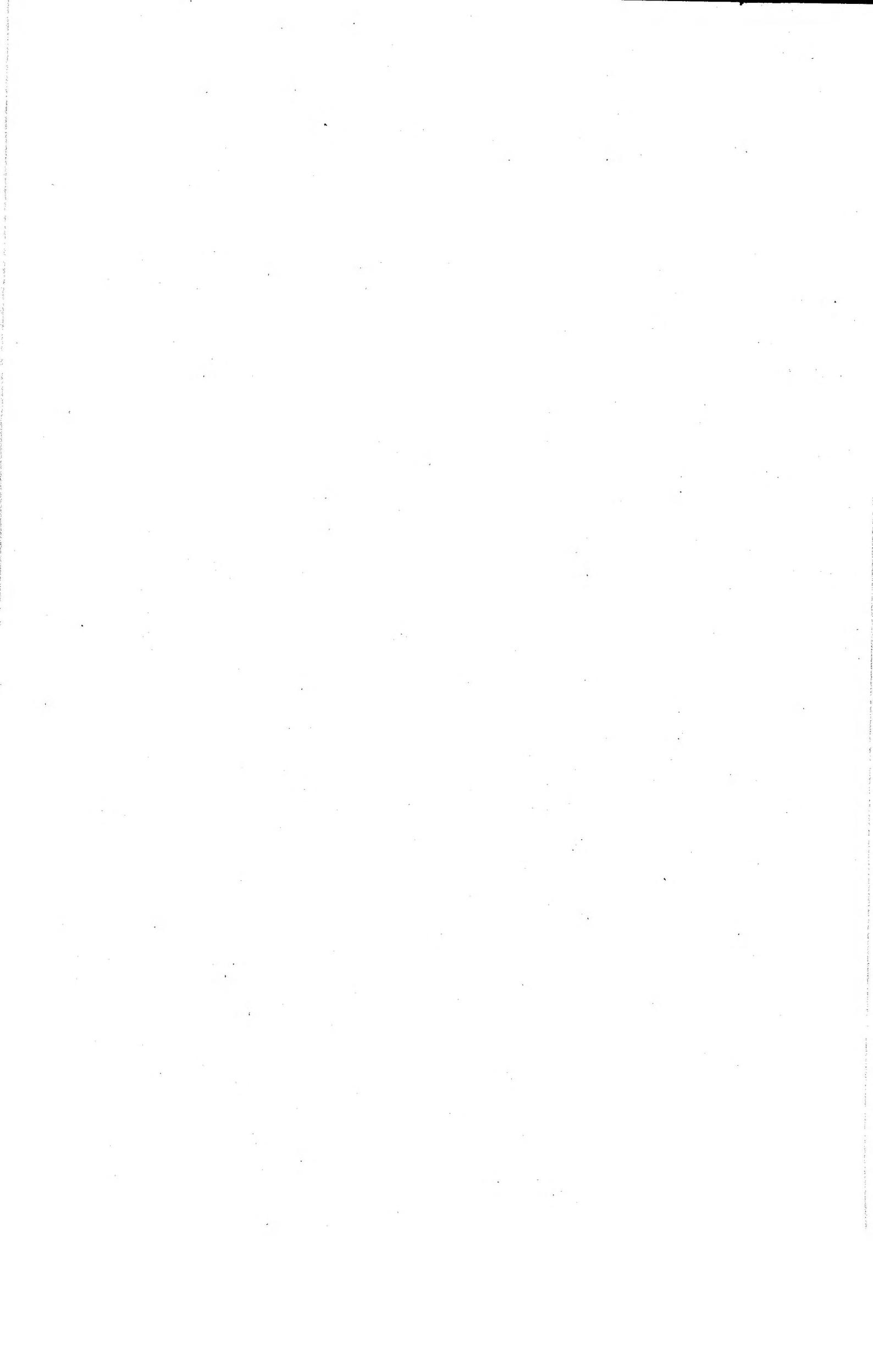
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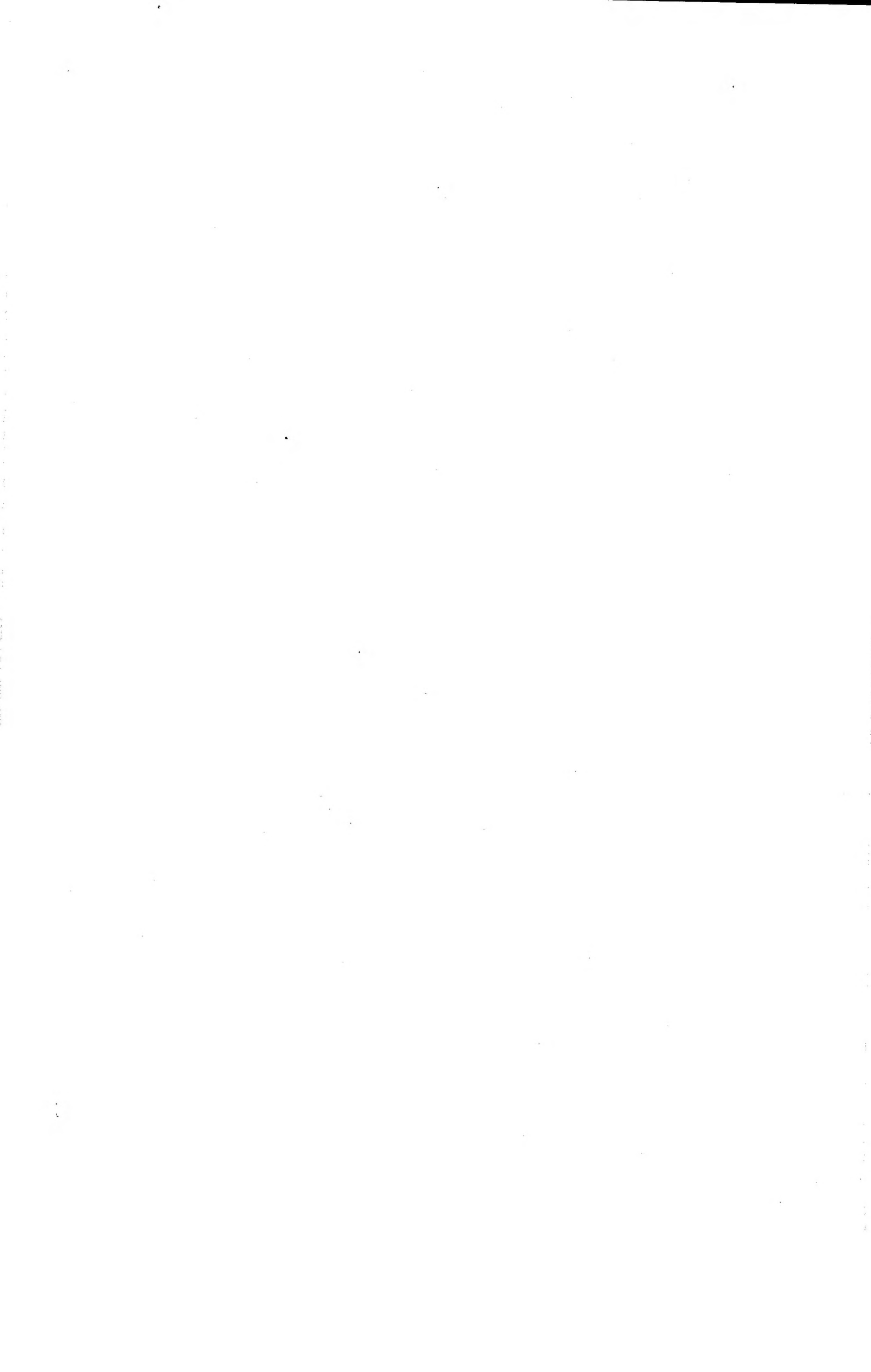
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PREFACE

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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																	
Category	1		2		3	4		5				6		7		8	
Level	0	0	1	2	0	1	2	1	2	3	4	0	1	1	2	1	2
1 USER/OPERATOR	101	201	*	*	201	*	*	*	201	*	*	601	*	711	*	*	*
2 UNIT MAINTENANCE	*	*	*	*	201	*	*	*	522	*	*	*	*	*	*	*	*
3 FIELD MAINTENANCE	*	*	*	*	*	*	*	*	522	*	*	*	*	*	*	*	*
4 BASE MAINTENANCE	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

1.0 Purpose and Planning Information
2.0 Operating Information
2.1 Special to Arms
2.2 Training Aids
3.0 Technical Description
4.1 Installation Instructions
4.2 Preparation for Special Environments
5.1 Failure Diagnosis

5.2 Repair Instructions
5.3 Inspection Standards
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

<u>4 Reference</u>	<u>Title</u>
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.

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

(6) 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:

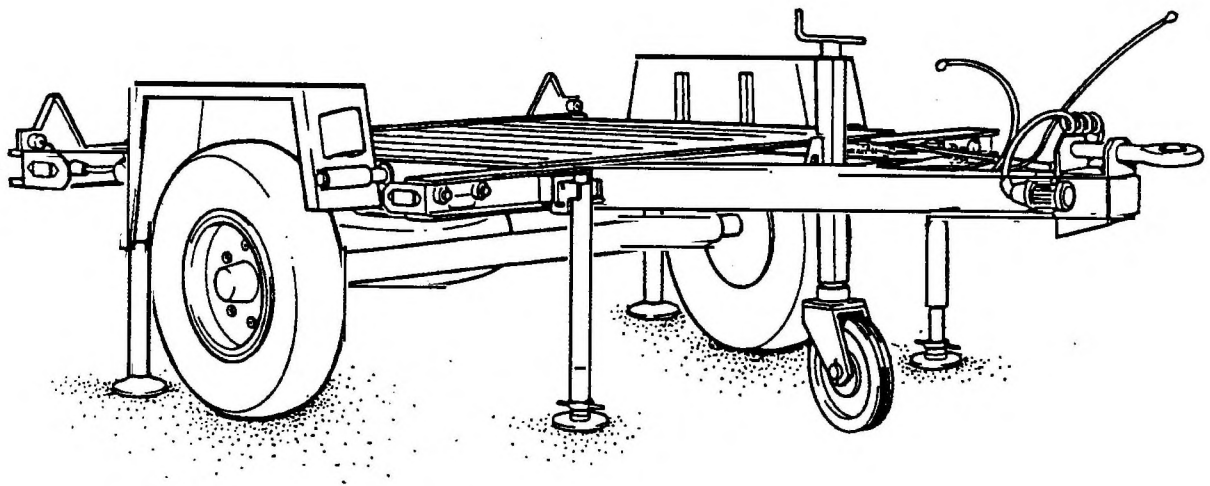
1 DUST IS RELEASED AS A RESULT OF DAMAGE, GRINDING, DRILLING OR FILING.

(continued)

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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Nov 96 (Amdt 1)

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

PURPOSE AND PLANNING INFORMATION

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EQUIPMENT IDENTITY

1 The trailer, flat platform, special purpose, 2.5 tonne, 2 wheeled, has been allocated a NATO Stock Number of 2330-99-893-8875

ROLE

2 The trailer is normally used for carrying the 8/12 kW, 24/16 kW or 40 kW generators.

BRIEF DESCRIPTION

3 The trailer has a flat, wooden floor, attached directly to the chassis. Twelve cargo tie downs are provided, attached directly to the chassis. The trailer suspension comprises a pair of heavy duty torsion bars mounted in a one piece steel tube 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. The trailer has an air servoed, hydraulically operated, expanding shoe type braking system. The two line air supply to operate the braking system is obtained from the prime mover and operates through an emergency relay valve. A load sensing valve on the trailer controls the applied braking force and a limiting valve prevents excessive air pressure in the system. A mechanical handbrake is also provided. A jockey wheel, two front jack legs and two support legs provide stability when the trailer is parked. The jockey wheel and jack legs are swung clear of the ground and the rear support legs are lifted clear of the ground when the trailer is coupled to the prime mover. A towing pintle is fitted to the chassis rear crossmember. A spare wheel is attached to a carrier assembly under the trailer cargo platform.

PHYSICAL DATA

4 Dimensions of the FV 2406 Mk 3 trailer are given in Figure 1.

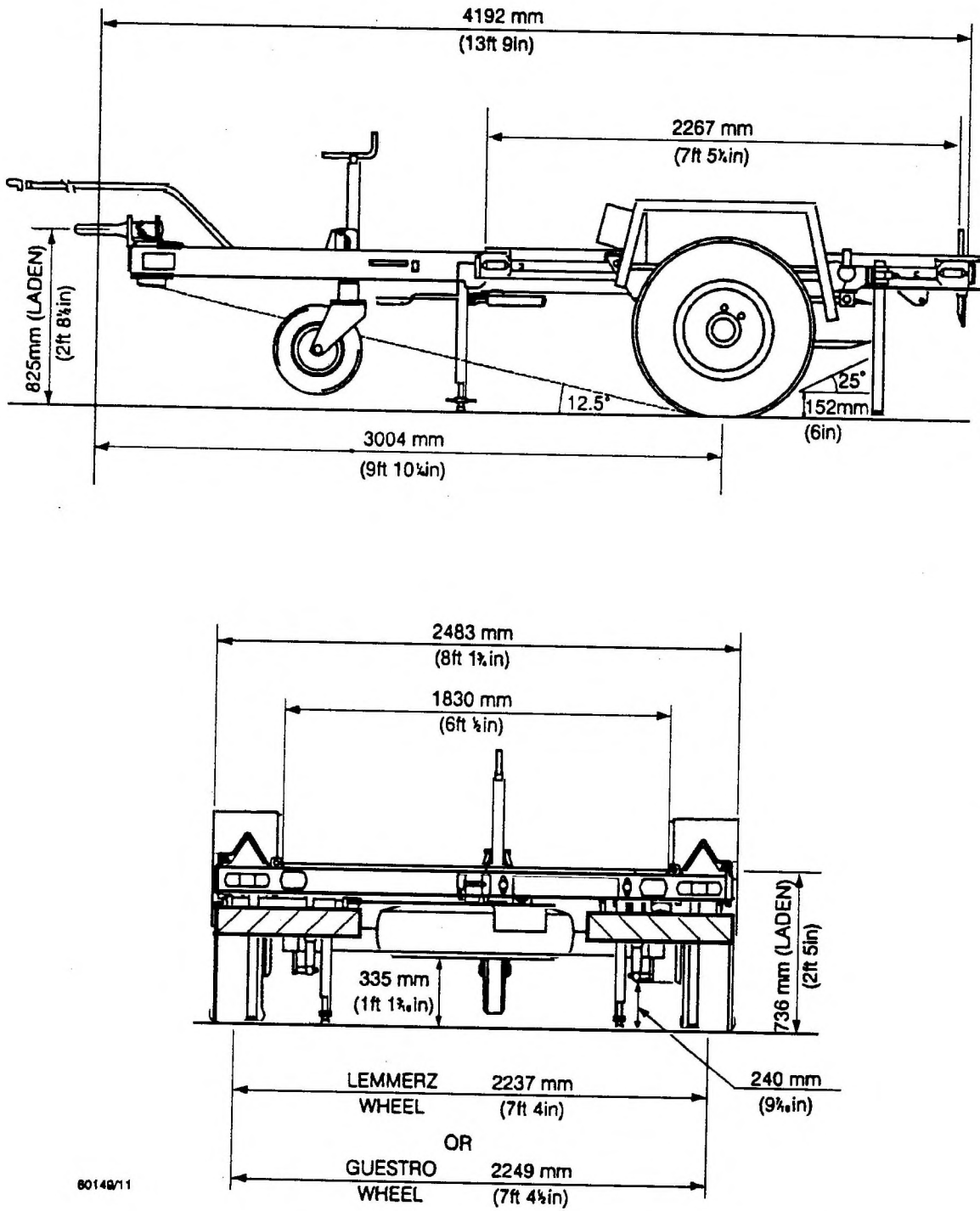


Fig 1 Dimensions

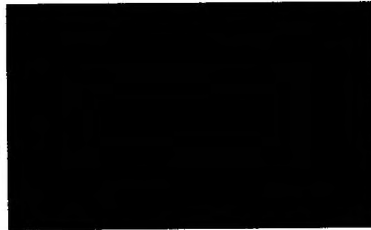
OPERATIONAL DATA

5 Operational data relating to the trailer is given in the following paragraphs.

5.1 Weights

Unladen
Laden (maximum)
Capacity

Drawbar preponderance
(laden)



5.2 Bridge classification

Unladen 1
Laden 4

NOTE

The bridge classification does not include the prime mover.

▶ **5.3 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.)

5.4 Shipping tonnage



5.5 Performance

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

5.6 Retardation

Stopped from a speed of 48 kph (30 mph) at minimum peak retardation
of 5.88 m per second² (19.3 ft per second²)

5.7 Parking

Held in both directions Gradient up to 1 in 4

5.8 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/in² (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/in² (4.13 bar)
Inner tube IT 19 or approved equivalent

5.9 Wheels

Main wheels

Type
SizeWell base
6.50 H x 16

Jockey wheel

Type
SizeHG1
0.053 m x 0.203 m (2.125 in. x 8 in.)**5.10 Brakes**

Type

Expanding shoe brakes, air servoed,
hydraulically operated. Mechanical parking
handbrake.**5.11 Suspension**

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

5.12 Electrical equipment

As supplied all lamps are 24 Volts dc working.

ENVIRONMENTAL DATA

6 The trailer may be operated in ambient air temperatures in the range -3.9° C to +51.7° C (+25° F to +125° F) without modification. Storage temperature range is -45.6° C and +71.1° C (-50° F and +160° F). It is capable of shallow fording to a depth of 0.76 m (30 in.) in fresh or salt water without preparation.

TRANSPORTATION DATA

7 The shipping tonnage of the trailer is [REDACTED] with a generator set mounted. The bridge classification of the trailer is 1 (unladen), 4 (laden). The bridge classification figures are for the trailer only and do not include the towing vehicle. The trailer, when coupled to its prime mover, is capable of being embarked and disembarked from LCT 8 and 9 and LST 3 vessels. The trailer may be transported by air in all types of transport aircraft currently in service use. For full details of transportability, see JSP 71 (Transportation Diagrams for Wheeled and Tracked Vehicles).

MANNING REQUIREMENTS

8 The trailer may be coupled and uncoupled to and from a prime mover by one man.

POWER REQUIREMENTS

9 As supplied, the trailer electrics operate from the prime mover 24 V dc system. Current consumption is 3 A continuous and 6.5 A peak.

MAINTENANCE

10 The maintenance policy for the trailer is summarised as follows:

10.1 User repair (level 1) is limited to the replacement of lamps, lamp covers and wheel changing.

10.2 Unit repair (level 2) is limited to the repair of cable assemblies, handbrake adjustment, tyres and brake shoes.

10.3 Field repair (level 3) is limited to the repair and replacement of towing and brake assembly parts, wheels and other running gear.

10.4 Base repair (level 4) undertakes the complete overhaul of the trailer, refurbishing and rebuilding of complete assemblies.



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