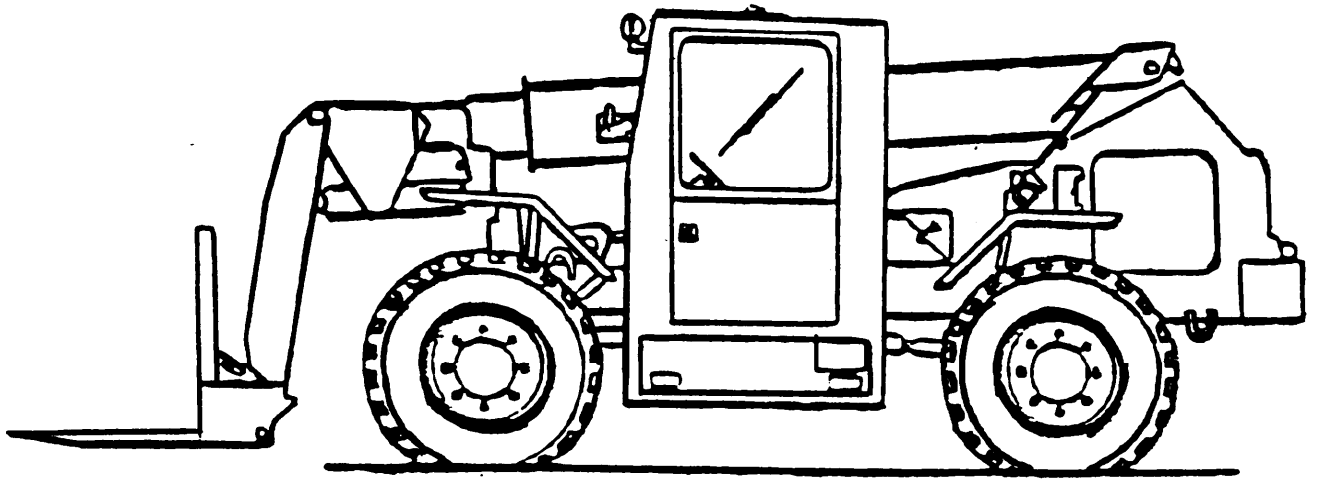


TECHNICAL MANUAL

**TRANSPORT GUIDANCE
FORKLIFT, 6000-LB, VARIABLE
REACH, ROUGH-TERRAIN
(NSN 3930-01-158-0849)
(ARMY MODEL MHE-269)**



Approved for public release; distribution is unlimited

HEADQUARTERS, DEPARTMENT OF THE ARMY

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		<i>Paragraph</i>	<i>Page</i>
Chapter	1. INTRODUCTION		
Section	I. GENERAL		
	Purpose and Scope	1-1	1-1
	Related Publications	1-2	1-1
	User Comments	1-3	1-1
	Definitions	1-4	1-1
	Warnings, Cautions, and Notes	1-5	?/?
	II. SAFETY		
	General	1-6	1-1
	Hazardous Material Consideration	1-7	1-2
	III. EQUIPMENT DESCRIPTION		
	General	1-8	1-2
	Technical Data	1-9	1-2
	Reduced Conjunction	1-10	1-2
Chapter	2. HIGHWAY TRANSPORT		
Section	I. GENERAL		
	General	2-1	2-1
	Self-Delivery	2-2	2-1
	II. MOTOR VEHICLE TRANSPORT		
	Prime Mover Selection	2-3	2-1
	Preparation	2-4	2-1
	Loading Procedures	2-5	2-1
Chapter	3. RAIL TRANSPORT		
Section	I. GENERAL		
	General	3-1	3-1
	II. RAIL LOADING		
	Railcar Selection	3-2	3-1
	Preparation	3-3	3-1
	Loading Procedures	3-4	3-1
Chapter	4. MARINE TRANSPORT		
Section	I. GENERAL		
	General	4-1	4-1
	II. SHIP LOADING		
	Preparation	4-2	4-1
	Loading Procedures	4-3	4-1
	Lifting Operations	4-4	4-2
Chapter	5. AIR TRANSPORT		
Section	I. GENERAL		
	General	5-1	5-1
	Safety	5-2	5-1
	Hazardous Material	5-3	5-1
	II. AIR TRANSPORT		
	USAF Cargo Aircraft	5-4	5-1
	Civil Reserve Air Fleet (CRAF)	5-5	5-1
	Preparation	5-6	5-1

	<i>Page</i>
Appendix A. References	A-1
B. Load Restraint Factors	B-1
C. Estimating Tiedowns	C-1

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Purpose and Scope

This manual is for transportation officers and other personnel responsible for safe transport of the 6,000-pound-capacity, variable reach, rough-terrain forklift (6K VRRTFL). It provides data for planning and executing movement of the forklift worldwide. Included are the physical characteristics of the forklift, safety precautions, technical data on transport modes, and lifting and tiedown procedures.

The major dimensions and weights given in this manual are in US customary and equivalent SI (metric) units. Approximate values appear in parentheses following the customary-unit value.

Transport modes are presented in chapter 2, "Highway Transport"; chapter 3, "Rail Transport"; chapter 4, "Marine Transport"; and chapter 5, "Air Transport."

1-2. Related Publications

Additional information on transport procedures can be found in:

FM 55-65, *Strategic Deployment by Surface Transportation*.

TB 9-2300-281-35, *Standards for Overseas Shipment or Domestic Issue of Special Purpose Vehicles*.

TM 38-250/AFR 71-4, *Preparation of Hazardous Materials for Military Air Shipment*.


1-3. User Comments

Please send comments and recommendations for improving this manual. Send them by letter, on DA Form 2028, or on a marked copy of a page or pages of the manual to Commander, MTMC Transportation Engineering Agency, ATTN: MTTE-TR, PO Box 6276, Newport News, VA 23606-0276.

1-4. Definitions

a. *Technical terms* that may be helpful while using this manual include:

(1) *Axle Limits*. A load limit set by highway officials or designers of ship decks and aircraft as the maximum axle (or group of axles) weight that can be supported.

(2) *Center of Gravity (CG)*. The balance point of a suspended item. The VRRTFL counterweight is used to shift the CG to the rear. CG location is indicated by. . . 

(3) *Curb Weight (CW)*. Total weight of operable 6K VRRTFL including fuel, all system fluids, and on-vehicle basic issue items (BII). CW does not include crew weight, which in this case is less than 1 percent of the gross vehicle weight.

(4) *Gross Vehicle Weight (GVW)* CW plus payload. For transport purposes, a forklift has no payload. Therefore, the GVW equals the CW.

(5) *Safe Working Load (SWL)*. The SWL is the maximum recommended load that should be exerted on an item. SWL is also referred to as "working load," "working load limit," and "resultant safe working load." Such rated load values are for in-line pull.

(6) *Loading Restraint Factors (LRF)*. The LRF given (app B) for the surface and air modes are considered to be the "G" factors that can be expected in military transport.

b. *Warnings, Cautions, and Notes*. Throughout this manual, warnings, cautions, and notes emphasize important or critical information.

WARNING

Instructions that must be followed to prevent serious injury to or death of personnel.

CAUTION

Instructions that must be followed to avoid health hazards, or to prevent equipment damage.

NOTE

An operating procedure that should receive special attention.

Section II. SAFETY

1-6. General

Even though the 6K VRRTFL has no special hazardous or dangerous characteristics during ex-

posure to normal transportation environments, several general safety considerations and precautions are important.

TM 55-3930-660-14

- a. Check the entire vehicle to be sure loose items are properly secured.
- b. Have fire extinguishers readily available when operating the forklift.
- c. Make sure only qualified personnel operate the forklift.
- d. Never permit riders, this is a one-person machine.
- e. Do not leave the forklift unattended when the engine is running.
- f. Do not allow the forklift to exceed 3 miles per hour during loading and unloading operations

g. Do not drive the forklift on public highways without appropriate safety equipment.

h. Adhere to all local, State, Federal, and/or host-nation safety laws and regulations applying to commercial carriers.

1-7. Hazardous Material Considerations

The basic 6K VRRFTFL does not contain hazardous material. Regulations or transportation procedures covering diesel-fuel-powered vehicles will apply.

Section III. EQUIPMENT DESCRIPTION

1-8. General

The 6K VRRFTFL is used in support of ammunition and quartermaster units. It can load and unload palletized material from the ground or from trailer-mounted ISO/MILVAN containers. The 6,000-pound rated load (24-inch load center) is at a reach of up to 15 feet. At the maximum reach of 23.5 feet, the lift capacity is 4,000 pounds.

This forklift has a special lifting tool for handling multiple launcher rocket system (MLRS) pods.

The operator position has built-in rollover protective structure (ROPS) and falling objects protective structure (FOPS).

The 6K VRRFTFL has a six-cylinder, turbocharged diesel engine rated at 160 horsepower. The hydraulically powered steering is operable in three modes: two-wheel, four-wheel, and crab. Both axles are full-time, all-wheel drive. The front axle is equipped with limited slip differential.

More information is available in the 6K VRRFTFL Operator's Manual, TM 10-3930-660-10.

1-9. Technical Data

The following forklift characteristics and data apply to the specific model with NSN 3930-01-158-0849. Changes in the model or NSN may alter the data and guidance as presented in this manual.

Line item number (LIN)	T48944
Gross vehicle weight (GVW)	27,100 lb (12 290 kg)
Length:	
Operational	312 in. (7.9 m)
Without forks	272 in. (6.9 m)
Width	102 in. (2.59 m)

Height	101 in. (2.57 m)
Floor area:	
Operational	220 ft ² (20 m ²)
Without forks	190 ft ² (18 m ²)
Volume:	
Operational	1,860 ft ³ (52 m ³)
Without forks	1,620 ft ³ (46 m ³)
Turning radius (four-wheel steering):	
Curb level	15 ft (4.5 m)
Entire vehicle	18 ft (5.5 m)
Turning lane width ...	10 ft (3 m)
Tires:	
Size	17.5 x 25 L2
Pressure:	
Front	45 psi (310 KPa)
Rear	40 psi (280 KPa)
Ground pressure (at 27,100 pounds GVW):	
Front wheel	36 lb/in. ² (2.5 kg/cm ²)
Gear wheel	30 lb/in. ² (2.1 kg/cm ²)

1-10. Reduced Configuration

There are no recommended ways to reduce the VRRFTFL physical dimensions for transport. A cost saving is obtainable by reducing deck space or overall volume needed to transport an item. With most forklift trucks, configuration reduction usually involves removing the forklift tines and securing them to the vehicle. Because of the amount of disassembly required, this is not advisable with the VRRFTFL.