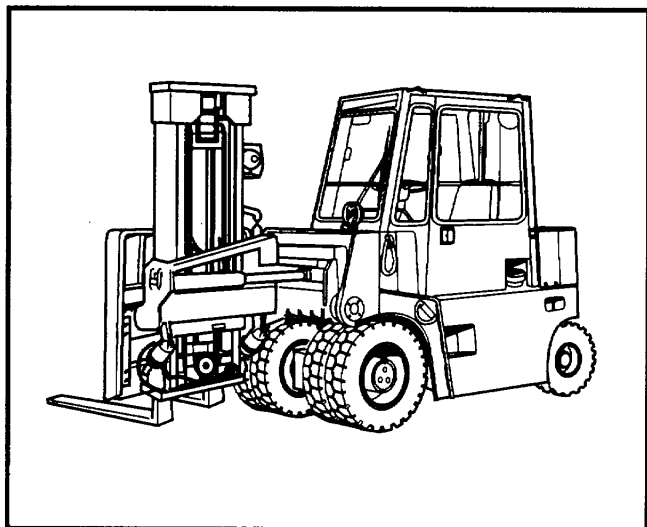

TECHNICAL MANUAL**OPERATOR'S MANUAL**

**TRUCK, LIFT, FORK, CLEAN BURN DIESEL,
FRONT/SIDE LOADING 6,000 LB CAPACITY
MODEL R60SL-DC NSN 3930-01-378-7497**

Approved for public release; distribution is
unlimited.

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HEADQUARTERS, DEPARTMENT OF THE ARMY

JANUARY 1997

TECHNICAL MANUAL

No. 10-3930-669-10

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 21 JANUARY 1997

OPERATOR'S MANUAL

TRUCK, LIFT, FORK, CLEAN BURN DIESEL, FRONT/SIDE
LOADING, 6,000 LB CAPACITY

MODEL R60SL-DC

NSN 3930-01-378-7497

Approved for public release; distribution is unlimited.

REPORTING OF ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Commander, US Army Tank-automotive and Armaments Command, ATTN: AMSTA-IM-OPIT, Warren, MI 48397-5000. A reply will be furnished to you. You may also provide DA Form 2028-2 information to TACOM via datafax or e-mail. TACOM's datafax number for AMSTA-IM-OPIT is (810) 574-6323 and the e-mail address is: amsta-im-opit@ cc.tacom-tech-pubs cc.tacom.army.mil.

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HOW TO USE THIS MANUAL

This manual is designed to help operate and maintain the forklift (NSN 3930-01-378-7497). Listed below are some of the special features that have been included to help locate and use the needed information.

A front cover Table of Contents is provided for quick reference to chapters and sections that will be used often.

Warning, caution, and note headings, subject headings, and certain other essential information are printed in bold type to make them easier to see.

The maintenance tasks describe what must be done to the forklift before starting the task and what must be done to return the forklift to operating condition after the task is finished.

The appendices are located at the end of the manual. They contain a reference guide to other manuals, guidelines to reading the Maintenance Allocation Chart (MAC), a list of expendable supplies and materials, and other material for maintaining the forklift. See TM 10-3930-669-20 for the Maintenance Allocation Chart.

In addition to text, there are exploded-view illustrations showing you how to take the part off and put it on. Cleaning and inspection procedures are also included, when required.

Chapters 1 and 2 of this manual are directed at the crew/operator of the forklift. These chapters include an overall description of the forklift and discuss the controls and indicators, their location and use, and the instructions for operation of the forklift under different circumstances.

Chapter 3 of this manual covers crew/operator lubrication, preventive maintenance checks and services, and basic troubleshooting. Crew/operator maintenance is also covered in this chapter.

FOLLOW THESE GUIDELINES WHEN USING THIS MANUAL

The operator must read through this manual and become familiar with the contents before attempting to operate the forklift.

Read all WARNINGS and CAUTIONS before performing any procedure.

The equipment conditions found in the maintenance procedures are of a general nature and the mechanic may be able to perform only certain tasks within a procedure to accomplish the equipment condition.

CHAPTER 1

INTRODUCTION

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Section I. GENERAL INFORMATION

1-1. SCOPE.

- a. Type of Manual.** This manual is used for operation and maintenance of the Truck, Lift, Fork, Clean Burn Diesel, Front/Side Loading, 6,000 lb Capacity.
- b. Model Number and Equipment Name.** Truck, Lift, Fork, Clean Burn Diesel, Front/Side Loading, 6,000 lb Capacity, NSN 3930-01-378-7497, produced by Drexel Industries, Model R60SL-DC.
- c. Purpose of Equipment.** The Truck, Lift, Fork, hereinafter referred to as the forklift, is designed to load and unload properly stored material in an ammunition igloo or bunker.

1-2. MAINTENANCE FORMS AND RECORDS.

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA PAM 738-750, The Army Maintenance Management System (TAMMS) (Maintenance Management UPDATE).

1-3. CORROSION PREVENTION AND CONTROL (CPC).

Corrosion Prevention and Control (CPC) of Army materials is a continuing concern. It is important that any corrosion problems with the forklift be reported so that the problem can be corrected and improvements can be made to prevent the problem in the future.

While corrosion is typically associated with rusting of metals, corrosion can also include deterioration of other materials, such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem.

If a corrosion problem is identified, it can be reported using Standard Form 368, Product Quality Deficiency Report. Use of key words such as "corrosion, rust, deterioration, and cracking" will ensure that the information is identified as a CPC problem.

The form should be submitted to the address specified in DA PAM 738-750.

1-4. DESTRUCTION OF ARMY MATERIAL TO PREVENT ENEMY USE.

Command decision, according to the tactical situation, will determine when the destruction of the forklift will be accomplished. A destruction plan will be prepared by the using organization unless one has been prepared by a higher authority. For general destruction procedures for this equipment, refer to TM 750-244-6, Procedures for Destruction of Tank-Automotive Equipment to Prevent Enemy Use (US Army Tank-automotive and Armaments Command).

1-5. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR).

If your 6,000 lb forklift needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. Put it on a SF368 (Product Quality Deficiency Report). Mail it to Commander, US Army Tank-automotive and Armaments Command, ATTN: AMSTA-TR-E/MPA, Warren, MI 48397-5000. A reply will be furnished to you.

1-6. WARRANTY INFORMATION.

The warranty starts on the date found in block 23, DA Form 2408-9 in the logbook. Report all defects in material and workmanship to your supervisor, who will take the appropriate action. Warranty information is listed in Appendix A.

1-7. NOMENCLATURE CROSS-REFERENCE LIST.Common List

Forklift

Official NomenclatureTruck, Lift, Fork, Clean Burn Diesel, Front/Side Loading,
6,000 lb Capacity, NSN 3930-01-378-7497, Model
R60SL-DC**1-8. LIST OF ABBREVIATIONS**

Corrosion Prevention and Control	(CPC)
Reporting Equipment Improvement Recommendations	(EIR)
The Army Maintenance Management System	(TAMMS)
Milliliter	(mm)
Mile Per Hour	(mph)
Kilometer Per Hour	(kph)
kilogram	(kg)
Kilowatt.....	(kw)
Horsepower	(hp)
Pound	(lb)
Feet Per Minute	(fpm)
Rotation Per Minute	(rpm)
Kilopascal	(kPa)
Gallons Per Minute	(gpm)
Pounds per Square Inch	(psi)
Preventive Maintenance Checks and Services	(PMCS)
Nuclear, Biological, and Chemical	(NBC)

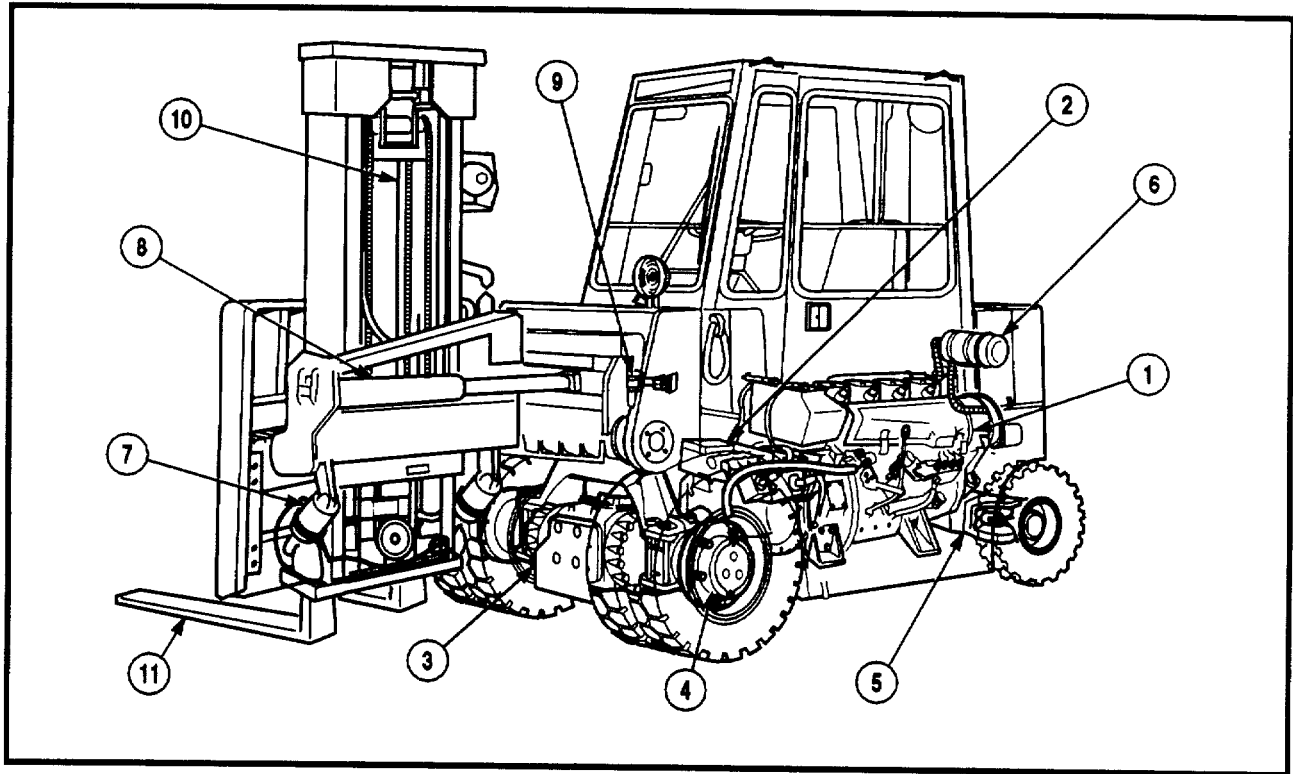
Section II. EQUIPMENT DESCRIPTION**1-9. EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES.****CHARACTERISTICS**

- a.** Forklift operates as a conventional, counterbalanced, front-loading forklift.
- b.** Forklift is fully operational in storage aisles as narrow as 66 inches (1,676 mm).
- c.** The mast assembly shift and pivot features simulate the right angle turning of a conventional, frontloading forklift in a wide storage aisle.
- d.** When the mast assembly is pivoted out 90 degrees and shifted to the right, the forklift operates as a side loader.
- e.** The forklift is 'heavier than conventional forklifts of similar size.
- f.** The forklift is designed for operation on hard surfaces.

CAPABILITIES AND FEATURES

- a.** Maximum Load: 6,000 lb (2,722 kg)
- b.** Maximum speed with maximum load evenly distributed: 10 mph (16 kph)

1-10. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS.



1. **Engine.** Air-cooled diesel engine rated at 60 hp (44 kilowatt).
2. **Transmission.** Transmission is a two-speed range, forward and reverse shifting unit. Power is transmitted by constant-mesh helical gears and multiple-disc clutch packs.
3. **Front Axle.** Front axle powers the front wheels driving the vehicle.
4. **Wheel Ends (Planetary).** Planetary wheel ends increase the power at the front wheels by increasing final gear ratio.
5. **Steer Axle.** Steer axle provides vehicle steering capabilities at the rear of the vehicle.
6. **Air Cleaner.** Dry type air cleaner prevents dust and debris from entering the air induction system.
7. **Tilt Cylinder.** Tilt cylinder allows the mast assembly to tilt forward and back.
8. **Pivot Cylinder.** Pivot cylinder allows the mast assembly to swing right.
9. **Shift Cylinder.** Shift cylinder allows the mast assembly to shift right and left.
10. **Lift Cylinder.** Lift cylinder raises and lowers forks.
11. **Lift Forks.** Lift forks provide surface upon which the load is placed.

1-11. EQUIPMENT DATA.

Table 1-1 is a list of equipment data for the forklift.

Table 1-1. Equipment Data

Type of Vehicle	6K Forklift Truck
Manufacturer	Drexel Industries, Inc.
Model Number	R60SL-DC
Truck Capacity	6,000 lb (2727 kg) 24-inch load center
Weight (dry)	20,200 pounds (9,235 kg)
Overall Length	
With Forks	164 inches (4,166 mm)
Without Forks	122 inches (3099 mm)
Overall Width	54 inches (1,372 mm)
Height (Top of Cab)	91 inches (2,311 mm)
Minimum Lift Height	144 inches (3,658 mm)
Collapsed Mast Height	92 inches (2,337 mm)
Ground Clearance (Minimum)	
Under Mast	.8 inches (203 mm)
Under Truck	5 inches (127 mm)
Brakes	
Service	2-wheel disc
Parking	Disc on drive axle
Minimum Gradeability	
With Load	20%
Without Load	20%
Drawbar Pull (Minimum)	
With Load	5200 Pounds-force (23,131 N)
Without Load	4800 Pounds-force (21,351 N)
Travel Speed	
With Load	10 mph (16 km)
Without Load	10 mph (16 km)
Turning Radius	106 inches (2,692 mm)
Wheels	
Type	Solid pneumatic
Size (front)	7.50 x 15, Dual ply
Size (rear)	6.50 x 10, Single ply
Drift	
Lift Cylinders	Should not exceed 2 inches
.....	(51 mm) in a 10-minute period
Tilt Cylinders	Should not exceed 1 degree
.....	in a 10-minute period
Upright Speed (Minimum)	
Lifting - With Load	60 fpm (0.305 m/s)
Lifting - Without Load	60 fpm (0.305 m/s)
Lowering - With Load	80 fpm (0.406 m/s)
Lowering - Without Load	40 fpm (0.203 m/s)
Pivot & Shift	
Reach	2 inches (50 mm)
Sideshift	21 inches (533 mm)