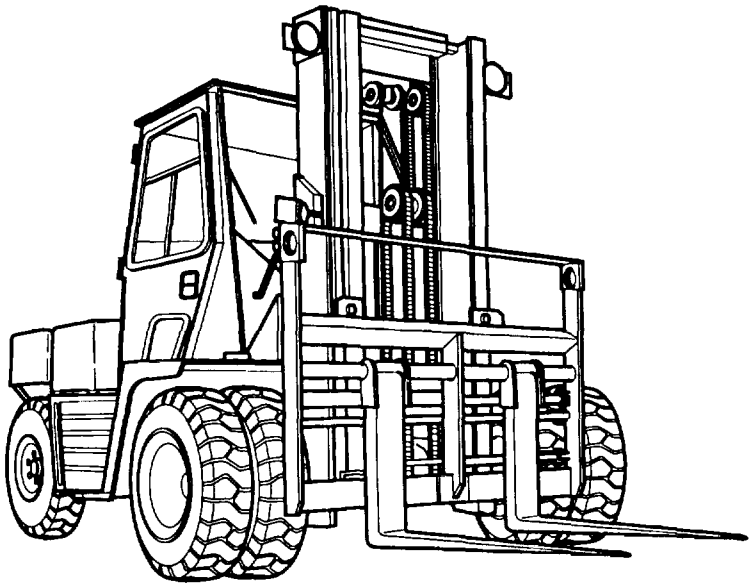
TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL, AND DIRECT SUPPORT/GENERAL SUPPORT MAINTENANCE MANUAL



INTRODUCTION AND GENERAL INFORMATION	1-1
OPERATING INSTRUCTIONS	2-1
OPERATOR SERVICE	3-1
MAINTENANCE AND OVERHAUL	4-1
REFERENCES	A-1
MAINTENANCE ALLOCATION CHART (MAC)	B-1
COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LISTS	C-1
COMMERCIAL OPERATOR'S MANUAL	G-1
COMMERCIAL PLANNED MAINTENANCE & ADJUSTMENT PROCEDURES	H-1
COMMERCIAL OVERHAUL MANUAL	I-1

TRUCK, FORKLIFT, DED, 15,000 LB CAPACITY
212 INCH LIFT, PNEUMATIC TIRES,
MHE MODEL NO. DPH-70-GOV,
NSN 3930-01-373-3625
CLARK PIN 2797882

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HEADQUARTERS, DEPARTMENT OF THE ARMY

MARCH 1995

TECHNICAL MANUAL

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DEPARTMENT OF THE ARMY

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REPORTING OF ERRORS

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, U.S. Army Tank-Automotive and Armaments Command, ATTN: AMSTA-MMAA, Warren, MI 48397-5000. A reply will be furnished to you.

This manual is an authentication of the manufacturer's commercial literature and does not conform with the format and content specified in AR 25-30, Military Publications. This technical manual does, however, contain available information that is essential to the operation and maintenance of the equipment.

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TABLE OF CONTENTS

Chap/Para	Title	Page
LIST OF ILLUSTRATIONS		iv
LIST OF TABLES		iv
SAFETY SUMMARY		v
	General Precautions	v
	General Safety Practices	v
	Safety Suggestions for Operating Truck	vi
	Safety Suggestions for Servicing Truck	vi
1	**INTRODUCTION AND GENERAL INFORMATION**	1-1
1-1	Introduction	1-1
1-2	Capabilities	1-1
1-3	Performance Characteristics	1-1
1-4	Description	1-2
1-5	Environmental Information	1-2
1-6	Tools and Test Equipment	1-6
1-7	Shipping and Handling Instructions	1-6
1-8	Storage Data	1-6
2	**OPERATING INSTRUCTIONS**	2-1
2-1	Introduction	2-1
2-2	Location and Use of Controls and Indicators	2-1
2-3	Preventive Maintenance Checks and Services Introductory Material	2-6
2-4	General PMCS Procedures and Conditions	2-7
2-5	Fluid Leakage Definition	2-8
2-6	PMCS Table Description	2-8
2-7	Preparation for Operation	2-16
2-8	Start-Up Procedures	2-16
2-9	Driving Instructions	2-18
2-10	Emergency Procedures	2-22
2-11	Unusual Environment/Weather	2-22
2-12	Nuclear, Biological, and Chemical (NBC) Decontamination Procedures	2-24
2-13	Shipment Instructions	2-24
3	**OPERATOR SERVICE**	3-1
3-1	General Lubrication Instructions	3-1
3-2	Troubleshooting Introduction	3-6
3-3	Troubleshooting Symptoms	3-6
3-4	Troubleshooting Procedures	3-7
3-5	Operator Maintenance Introduction	3-14
3-6	Engine Oil Level Check and Service	3-15
3-7	Engine Coolant Check and Service	3-17
3-8	Air Cleaner Inspection and Service	3-18
3-9	Fuel Tank Check and Service	3-19
3-10	Fuel/Water Separator Service	3-21
3-11	Hydraulic Fluid Tank Check and Service	3-22
3-12	Transmission Level Check and Service	3-23
4	**MAINTENANCE AND OVERHAUL**	4-1
4-1	Maintenance Introduction	4-1
4-2	General Removal Instructions	4-1
4-3	General Disassembly Instructions	4-1
4-4	General Cleaning Instructions	4-2
4-5	General Inspection Instructions	4-3
4-6	General Repair Instructions	4-4
4-7	General Assembly and Installation Instructions	4-5
4-8	Preventive Maintenance Checks and Services Introductory Material	4-6
4-9	Maintenance Forms and Records	4-6
4-10	General PMCS Procedures and Conditions	4-6
4-11	Fluid Leakage Definition	4-8
4-12	PMCS Table Description	4-8
4-13	Torque Limits	4-11
4-14	Troubleshooting Introduction	4-12
4-15	Troubleshooting Symptoms	4-12
4-16	Unit Troubleshooting Procedures	4-12
4-17	Troubleshooting Introduction	4-33
4-18	Troubleshooting Symptoms	4-33
4-19	DS/GS Troubleshooting Procedures	4-33
4-20	Engine Replacement	4-38
4-21	Air Intake System Replacement	4-43
4-22	Cold Start Kit Replacement	4-46
4-23	Exhaust System Replacement	4-48
4-24	Radiator Service and Replacement	4-51
4-25	Alternator Replacement	4-55
4-26	Starter Replacement	4-57
4-27	Gauges Replacement	4-58
4-28	STE/ICE-R Sensor and Switch Replacement	4-60
4-29	Electrical Components Replacement	4-70

Chap/Para	Title	Page
4-30	Transmission Replacement	4-79
4-31	Prop Shaft Replacement	4-89
4-32	Steer Axle Replacement and Repair	4-91
4-33	Drive Axle Replacement	4-97
4-34	Parking Brake Replacement	4-100
4-35	Parking Brake Cable Adjustment	4-103
4-36	Master Cylinders Check and Service	4-104
4-37	Master Cylinders Replacement	4-106
4-38	Service Brake Assembly Replacement	4-108
4-39	Steering Wheel, Column, and Pump Replacement	4-110
4-40	Steer Cylinder Replacement	4-116
4-41	Cab Replacement	4-118
4-42	Hydraulic Pump Replacement	4-122
4-43	Hydraulic Valves Replacement	4-124
4-44	Tilt Cylinder Replacement	4-133
4-45	Upright Assembly Replacement	4-136
4-46	Fork Replacement	4-139
4-47	General Hydraulic Hose Replacement	4-141
4-48	Hydraulic Filter Replacement	4-143
4-49	Sheet Metal Replacement	4-145
4-50	Main Frame Inspection	4-151

Appendix/Section Title	Page
A REFERENCES	A-1
B MAINTENANCE ALLOCATION CHART (MAC)	B-1
C COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LISTS	C-1
D ADDITIONAL AUTHORIZATION LIST	D-1
E EXPENDABLE/DURABLE SUPPLIES AND MATERIAL LIST	E-1
F SCHEMATICS AND DIAGRAMS	F-1
G COMMERCIAL OPERATOR'S MANUAL	G-1
Know Your Truck	G-4
Safety	G-6
Operator's Compartment & Controls (Diesel)	G-17
Before Operation	G-18
Operating Hints	G-35
H COMMERCIAL PLANNED MAINTENANCE & ADJUSTMENT PROCEDURES	H-1
Engine Troubleshooting	H-27
Engine Tune-up	H-37
Fuel Nozzle Servicing	H-47
Fuel System Priming	H-51
Lubrication Charts	H-55
Cooling System Maintenance	H-59
Transmission Pressure Checks	H-65
Transmission Fluid Aeration Check	H-73
Transmission Oil Cooler	H-75
Transmission Drain and Refill	H-77
Alternator Test	H-79
Neutral Start Switch	H-81
Wiring Color Code	H-83
Differential Check	H-87
Tire and Wheel Maintenance	H-89
Brake Bleeding	H-107
Brake Pedal Adjustment	H-117
Service Brake Adjustment	H-119
Steering Pressure Check	H-121
Adjustments for Steering	H-123
Steer Wheel Bearings	H-127
Hydraulic Sump Tank Drain	H-131
Hydraulic System Pressure Check	H-133
Carriage Checks and Adjustments	H-135
Upright Roller Check and Adjustment Procedures	H-159
Check and Adjustment of Upright Lift Chains	H-167
Upright and Tilt Cylinder Drift Tests	H-169
Tilt Cylinder Adjustments	H-171
Lift Chain Maintenance	H-173
Adjusting Triple Stage Uprights	H-185
Full Free Lift Triple Stage Uprights	H-227
Counterweight Removal	H-267

Appendix/Section Title	Page
I COMMERCIAL OVERHAUL MANUAL	I-1
Engine	I-5
Transmission	I-89
Starter	I-161
Generator (Alternator)	I-181
Drive Axle	I-189
Hydrovac	I-209
Steering Gear	I-217
Steering Cylinder	I-229
Hydraulic Pump	I-235
Tilt Cylinder	I-243
Lift Cylinder	I-249
ALPHABETICAL INDEX	Index-1

LIST OF ILLUSTRATIONS

Figure	Title	Page
1-1	DPH70 15K Forklift Truck	1-5
3-1	Grease Fittings	3-3
3-2	Fluid and Filter Replacement - Short-Term Intervals	3-4
3-3	Fluid and Filter Replacement - Long-Term Intervals	3-5
F-1	Main Wiring Diagram	F-2
F-2	STE/ICE-R Wiring Diagram	F-3
F-3	Hydraulic Diagram	F-4

Table	Title	Page
1-1	Description	1-2
2-1	Controls and Indicators	2-2
2-2	Operator Preventive Maintenance Checks and Services	2-9
3-1	Operator Troubleshooting Symptom Index	3-6
3-2	Operator Troubleshooting Procedures	3-7
4-1	Unit Preventive Maintenance Checks and Services	4-9
4-2	U.S. Standard Torque Values (Wet)	4-11
4-3	Critical Fastener Torque Values (Dry)	4-12
4-4	Unit Troubleshooting Symptom Index	4-13
4-5	Unit Troubleshooting Procedures	4-14
4-6	DS/GS Troubleshooting Symptom Index	4-33
4-7	DS/GS Troubleshooting Procedures	4-34
E-1	Expendable/Durable Supplies and Material List	E-2

SAFETY SUMMARY

GENERAL PRECAUTIONS

The following are general safety precautions and instructions that personnel must understand and apply during many phases of operation and maintenance to ensure personnel safety and health. Portions of this information may be repeated in certain chapters of this publication for emphasis.

Cleaners/Chemicals Handling

Keep cleaners/chemicals in approved safety containers and in minimum quantities. Some cleaners/chemicals may have an adverse effect on skin, eyes, and respiratory tract. Observe manufacturer's WARNING labels and current safety directives. Use cleaners/chemicals only in authorized areas. Consult the local Bioenvironmental Engineer for specific precautions, protective equipment, and ventilation requirements.

Compressed Air

Use of compressed air can create an environment of propelled foreign particles. Air pressure shall be reduced to less than 30 pounds-per-square-inch gauged (psig) and used with effective chip guarding and personal protective equipment.

Batteries

When inspecting batteries, never smoke or expose battery to sparks of flames. Eye protection (face shield), acid resistant rubber apron, and gloves must be worn when working around batteries.

Jewelry

Jewelry (rings, bracelets, metal watches, or neck chains) shall not be worn while working on exposed equipment.

Personal Protective Equipment

Wear protective clothing/equipment (gloves, apron, eye protection, protective mask, etc.) approved for the materials, procedures, and tools being used as necessary.

GENERAL SAFETY PRACTICES

Read and thoroughly understand all instructions contained in this and all vendor manuals before attempting to operate or service the 15K Forklift Truck.

Only the operator is allowed on the truck during operation.

Clothing worn by all personnel working close to the truck should be close fitting and belted. Loose jackets, shirts, or pants should never be worn because of the danger of getting caught in moving parts.

Be certain that hand brake is set and the directional control and range shift levers and all switches are in the OFF or centered positions before starting the engine.

Make sure everyone is clear of the truck before starting so they cannot be struck by or caught in moving parts.

Keep operator's platform clean. Do not use it as a place to carry loose tools, lunch boxes, etc.

Refuel truck only when engine has been shut off. Do not permit sparks, open flames, or smoking within 50 feet of truck when refueling.

Escaping hydraulic fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Before disconnecting lines, be sure to relieve all pressure. Before applying pressure to a system, be sure all connections are tight and that lines, tubes, and hoses are not damaged. Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands, to search for suspected leaks.

If injured by escaping fluid, get medical attention at once. Serious infection or reaction can result if proper medical treatment is not administered immediately.

Refill the radiator only when the engine is stopped. The truck has a pressure cooling system. To avoid being scalded when radiator cap is removed, first turn cap slightly to the stop which allows steam to escape through the overflow pipe. After all pressure is relieved, remove cap.

Never lubricate or service truck when it is operating.

SAFETY SUGGESTIONS FOR OPERATING TRUCK

Be sure all hoods and doors are closed before operating truck.

Be certain the directional control and range shift lever are in NEUTRAL positions before starting engine.

Check all functions of the truck for proper operation. Never attempt to use a malfunctioning machine.

Never permit anyone to climb or stand on the truck.

Keep all persons clear of forks when operating truck.

Before leaving the operator's seat always be sure that all control switches are in the **OFF** or centered position, hand brake is applied, forks are lowered, ant engine is shut off.

Never attempt to attach or remove any part or assembly on the truck while it is operating.

SAFETY SUGGESTIONS FOR SERVICING TRUCK

Before attempting to service, attach, or remove any part of assembly on the truck, make certain that:

(1) All controls and switches are in the OFF or centered position.
(2) Hand brake is applied.
(3) Forks are lowered.
(4) Engine is shut off, unless otherwise instructed.

Batteries produce explosive gases. Keep all sparks and open flames away from batteries. If a battery needs recharging, avoid sparks by turning off the charger before making connections or disconnections. Sulfuric acid in batteries is a poison and could cause severe bums. Avoid contact with skin, eyes, and clothing. When working around batteries, protect eyes and face from battery fluid and possible explosion.

Before starting the engine, be sure there is plenty of ventilation. If it is necessary to operate the engine inside an enclosed service area, be sure exhaust is properly vented.

Make sure everyone is clear of the truck before starting so they cannot be struck by or caught in moving parts.

CHAPTER 1

INTRODUCTION AND GENERAL INFORMATION

1-1. INTRODUCTION.

a. Purpose of this Manual. This is a supplemental manual designed to provide information concerning operation and maintenance not already covered in vendor manuals for the 15K Forklift Truck, hereafter referred to as the truck, manufactured by Clark Material Handling Company, Lexington, KY. This manual contains the following:

(1) Chapter 1 - Introduction and General Information: General information about the make-up of this manual, including a general description of the truck and specifications table.

(2) Chapter 2 - Operating Instructions: Instructions for operation of the true When relevant procedures are presented in a vendor manual, that manual will be referenced.

(3) Chapter 3 - Operator Service: Instructions for lubrication, preventive maintenance, and troubleshooting presented in this chapter.

(4) Chapter 4 - Maintenance and Overhaul: Instructions for preventive maintenance of the truck.

(5) Appendices - Army-specific and Vendor Information: Vendor material is tabularly arranged as appendices this manual.

b. Function of this Manual. This manual provides instructions, illustrations, and associated data for operations, maintenance, repair, and overhaul. This manual shall enable an average journeyman to operate, maintain, repair, and overhaul the truck.

c. WARNINGS, CAUTIONS, and NOTES. Warnings, cautions, and notes used in this manual are defined as:

(1) A warning identifies an operation or maintenance procedure, practice, condition, statement, etc., which, if not strictly observed, could result in damage to, or destruction of, equipment or loss of life.

(2) A caution identifies an operation or maintenance procedure, practice, condition, statement, etc., which, if not strictly observed, could result in damage to, or destruction of, equipment or loss of mission effectiveness.

(3) A note highlights an essential operation or maintenance procedure, condition, or statement.

1-2. CAPABILITIES.

The truck is a 6-wheeled piece of material handling equipment capable of lifting palletized and certain loose loads, when appropriate, up to a maximum weight of 15,500 lb (7030 kg). Over smooth and level surfaces, the truck can reach a maximum speed of 14 mph (22.5 kph) unloaded and 12 mph (19.3 kph) with a full load, when safety conditions merit.

1-3. PERFORMANCE CHARACTERISTICS.

a. Engine. The truck is powered by a Perkins, water-cooled, 4-cylinder, in-line diesel engine. Engine model 4.248.2 has 248 cubic inch (4.06 l) displacement and develops 78 hp (58.2 kW) at 2500 rpm.

b. Transmission. Two-speed transmission delivers maximum torque, 201 lb-ft (278 N.m) at 1400 rpm, in both forward and reverse.

c. Upright. Three-stage upright allows loads up to 15,500 lb (7030 kg) to be lifted to a maximum height of 212.5 inches (5398 mm). Hydraulic tilt capability allows a maximum arc of 3 degrees forward tilt and 10 degrees reverse tilt.

d. Lifting Forks. Width between forks is hydraulically adjustable from 0 to 54 inches (1371.6 mm). Forks shift left or right, in tandem, a total distance of 87.3 inches (2217.4 mm).

1-4. DESCRIPTION.

A fully closed cab, accessible from either side of truck keeps operator isolated from the weather while providing full protection and excellent visibility. A personnel heater keeps cab at a comfortable temperature while truck is in operation. Three independent windshield wipers help maintain visibility by keeping windows clear of rain and snow. STE/ICE-R circuitry allows simple troubleshooting of key electrical components. Dual wheels in front of truck provide stability and ruggedness. Safety equipment includes an automotive horn, operable from steering wheel, and a beeper that operates when vehicle is in reverse. Two floodlights on the upright help illuminate the area in front of the truck while two floodlights on the back of the cab illuminate the area behind truck. Brakelight at the back of truck illuminates whenever brake or inching pedal is depressed.

1-5. ENVIRONMENTAL INFORMATION.

The truck has sound suppression, air cleaner with replaceable element, and replaceable engine, transmission, and hydraulic oil filters.

Table 1-1. Description

Nomenclature	Description
Type of Vehicle	15K Forklift Truck
Manufacturer	Clark Material Handling Company
Model Number	DPH-70-GOV
Truck Capacity	15,500 lb (7030 kg) @ 24-inch load center
Weight	19,735 lb (8952 kg)
Overall Length	
With Forks	191.5 in. (4864 mm)
Without Forks	143.5 in. (3645 mm)
Overall Width	82.7 in. (2100 mm)
Height (Top of Cab)	96.9 in. (2460 mm)
Maximum Lift Height	212.5 in. (5398 mm)
Collapsed Mast Height	.113.125 in. (2873 mm)
Ground Clearance	
Under Mast	6.25 in. (159 mm)
Under Truck	8 in. (203 mm)
Service	.2-wheel Drum
Parking	Disc on Drive Axle
Maximum Gradeability	
With Load	24%
Without Load	25%
Drawbar Pull	
With Load	12,030 Pounds-force (53510 N)
Without Load	7670 Pounds-force (34115 N)
Travel Speed	
With Load	12 mph (19.3 kph)
Without Load	14 mph (22.5 kph)