

TM 10-3930-235-20

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

ORGANIZATIONAL MAINTENANCE MANUAL

TRUCK, LIFT, FORK, GASOLINE 4,000-LB. CAPACITY

TOWMOTOR MODELS	ARMY MODEL	FSN
462SG4024-100 (Solid Tire)	MHE-191	3930-781-3856
462S64024-144 (Solid Tire)	MHE-191	3930-781-3855
502PG4024-144 (Pneumatic Tire)	MHE-190	3930-083-9222

This copy is a reprint which includes current pages from Changes 3 and 4.

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TECHNICAL MANUAL

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HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D. C., 15 October 1964

Organizational Maintenance Manual

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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1. Scope

These instructions are published for the use of personnel responsible for the organizational maintenance of the truck, lift, fork, solid rubber tired wheels, 4,000-lb capacity, Towmotor models 462SG4024-100 (FSN 3930-781-3856) and 462SG4024-144 (FSN 3930-781-3855) respectively, Army model MHE-191, procured under contract number DSA-4-014877-MP310, and Towmotor model 502PG 4024-144 (FSN 3930-073-9222), Army model MHE-190, 4,000-lb capacity, pneumatic rubber tired wheels, procured under contract number DSA-4-014863-MP310.

2. Appendixes

Appendix I is a list of current references. Appendix II is the maintenance allocation chart. The repair parts and special tools list authorized for use at organizational maintenance is published in TM 10-3930-235-20P.

3. Forms, Records, and Reports

The maintenance forms, records, and reports to be used in the organization maintenance of

this equipment are listed and described in TM 38-750.

4. Reporting of Equipment Manual Improvements

The direct reporting by the individual user of errors, omissions, and recommendations for improving this manual is authorized and encouraged. DA Form 2028 (Recommended Changes to DA Publications) will be used for reporting these improvements. This form will be completed in triplicate using pencil, pen, or typewriter. The original and one copy will be forwarded direct to the Commanding Officer, U.S. Army Mobility Equipment Center, ATTN: SMOME-MM, P.O. Drawer 58, St. Louis, Mo. 63166. One information copy will be provided to the individual's immediate supervisor (e.g., officer, noncommissioned officer, supervisor, etc.).

5. Orientation

Throughout this manual, the use of the terms right, left, front, and rear, with respect to engine and truck are determined with the operating sitting in the seat of the truck.

Section II. DESCRIPTION AND DATA

6. Description

a. Refer to TM 10-3930-235-10 for a general description of the truck.

b. Additional descriptive material will be found in sections of this manual that pertain to a particular assembly.

7. Tabulated Data

a. Capacities.

Cooling System-	-----	11 qt
Crankcase (with filter)-	-----	5 qt
Differential	-----	5 pt
Fuel tank	-----	5.8 gal
Air cleaner	-----	1 pt

Hydraulic system ----- 61½ gal
 Brake master cylinder ----- 8 oz
 Power steering system ----- 2 qt
 Steering gear housing ----- 21½ pt
 Transmission ----- 11 qt

b. Engine.

Make ----- Continental
 Model ----- FS162
 Firing order ----- 1-3-4-2
 Governed speed ----- 2400 rpm
 Idle speed ----- 500 rpm
 Valve clearances:
 Intake ----- 0.014 in. hot
 Exhaust ----- 0.014 in. hot
 Spark plug gap ----- 0.030 in.
 Distributor point gap ----- 0.020 in.
 Oil pressure (normal
 operating speed) ----- 30 to 40 psi.
 Cylinder head nuts ----- 60-65 ft-lb torque
 Spark plugs ----- 15-20 ft-lb torque

c. Electrical System.

Generator:
 Rated voltage ----- 12
 Rotation ----- Clockwise
 Ground polarity ----- Negative
 Brush spring tension ----- 18-36 ounces
 Field current draw ----- 1.6-1.7 amperes at
 12 volts
 Motoring draw ----- 2.9-3.0 amperes at
 12 volts
 Output ----- 25 amperes at
 15 volts 2200 rmp
 Control ----- 3 element regulator

Starting motor:
 Rated voltage ----- 12 volts
 Rotation (drive end) ----- Clockwise
 Brush spring tension ----- 18-36 ounces
 Armature end play ----- 0.005 in. min
 No load test ----- 55 amperes
 10 volts, 5200 rmp
 Stall torque test ----- 235 amperes
 4 volts

Generator regulator:
 Rated voltage ----- 12 volts
 Ground polarity ----- Negative
 Circuit breaker (cutout
 relay) :
 Armature airgap ----- 0.025-0.027 in.
 Contact point gap ----- 0.015 in.
 Contact open ----- 3.0-5.0 amperes
 Contact close ----- 12.6-13.6 volts
 Current limiting regulator:
 Armature airgap ----- 0.048-0.052 in.
 Operating amperes ----- 25
 Voltage regulator:
 Armature airgap ----- 0.048-0.052 in.
 Operating voltage ----- 14.5 @ 80°F.

Battery:
 Negative ground ----- 12 volts
 Capacitors:
 (At ignition switch) ----- 0.001 MFD
 100 volt dc
 (At voltage regulator) ----- 0.001 MFD
 100 volt dc
 (At coil) ----- 0.001 MFD
 100 volt dc
 (At generator) ----- 0.001 MFD
 100 volt dc