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DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR AND ORGANIZATIONAL
MAINTENANCE MANUAL

TRUCK, FORK, LIFT, ELECTRIC, SOLID RUBBER TIRES,
2,000 LBS CAPACITY, 144 IN. LIFT,
BAKER MODEL FTD-020-EE-SS, ARMY MODEL MHE-204,
FSN 3930-935-7864

HEADQUARTERS, DEPARTMENT OF THE ARMY

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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope

These instructions are published for the use of personnel responsible for the operation and organizational maintenance of Truck, Fork, Lift, Electric, Solid Rubber Tires, 2,000 Pound Capacity, Baker Model FTD-020-EE-SS, Army Model MHE-204, Federal Stock No. 3930-935-7864.

1-2. Maintenance Forms and Records

The DA forms and records used for equipment maintenance will be only these prescribed in TM 38-750.

1-3. Report of Equipment Manual Improvements

Report of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to DA Publications) and forwarded direct to the Commanding General, U.S. Army Mobility Equipment Command, ATTN: AMS-ME-MPP, 4300 Goodfellow Boulevard, St. Louis, MO. 63120.

Section II. DESCRIPTION AND DATA

1-4. Description

a. *General.* Army Model MHE-204 (Baker Model-FTD-020-EE-SS, type EE, spark enclosed) is a nonntactical fork-Lift truck designed for warehouse operation. This truck (fig. 1 and 2) can be used to load, transport, unload, and stack loads weighing as much as 2,000 pounds at a load center of 24 inches. (The load center is measured from the heel of the forks.) The truck is designed to lift loads to a height of 144 inches.

b. *Truck.* Power for travel and lifting is by a 36-volt battery. The travel system includes motor, motor controls, and power axle assembly to provide stepless speeds forward and reverse. The lifting system includes an electric motor, pump, controls, reservoir, lift and tilt cylinders, mast assembly, and forks. Hydraulic service brakes, and both hand and automatic parking brakes are used.

c. *Power Axle and Motor Assembly.* The power train consists of the travel motor, coupling; power axle with differential, axle shafts, and wheels. Power is transmitted direct from the travel motor through an adapter incorporating

reduction gearing, to a bevel ring gear and pinion in the axle, through the axle drive shafts and wheels.

d. *Control System.* The travel motor power and vehicle speed and direction are regulated by a system which includes relays, an electronic SCR control system, an accelerating master switch and directional switch providing stepless speeds forward or reverse. A foot accelerator operates the accelerating master switch to control the speed of the truck.

e. *Steering System.* The steering system includes a recirculating ball type steering gear mounted at front of truck, connected by a drag-link to the steering bellcrank, tie rods, and steering knuckles, mounted on the trailing axle.

f. *Brake System.* The brake system consists of a mechanical parking brake and a hydraulic foot brake. The mechanical brake operates on a drum on the travel motor armature shaft. This brake is applied either by a handle on the steering column, or automatically through spring action as the driver rises from the seat. The hydraulic brake is a conventional automotive type system, effective only on the front (drive) wheels.

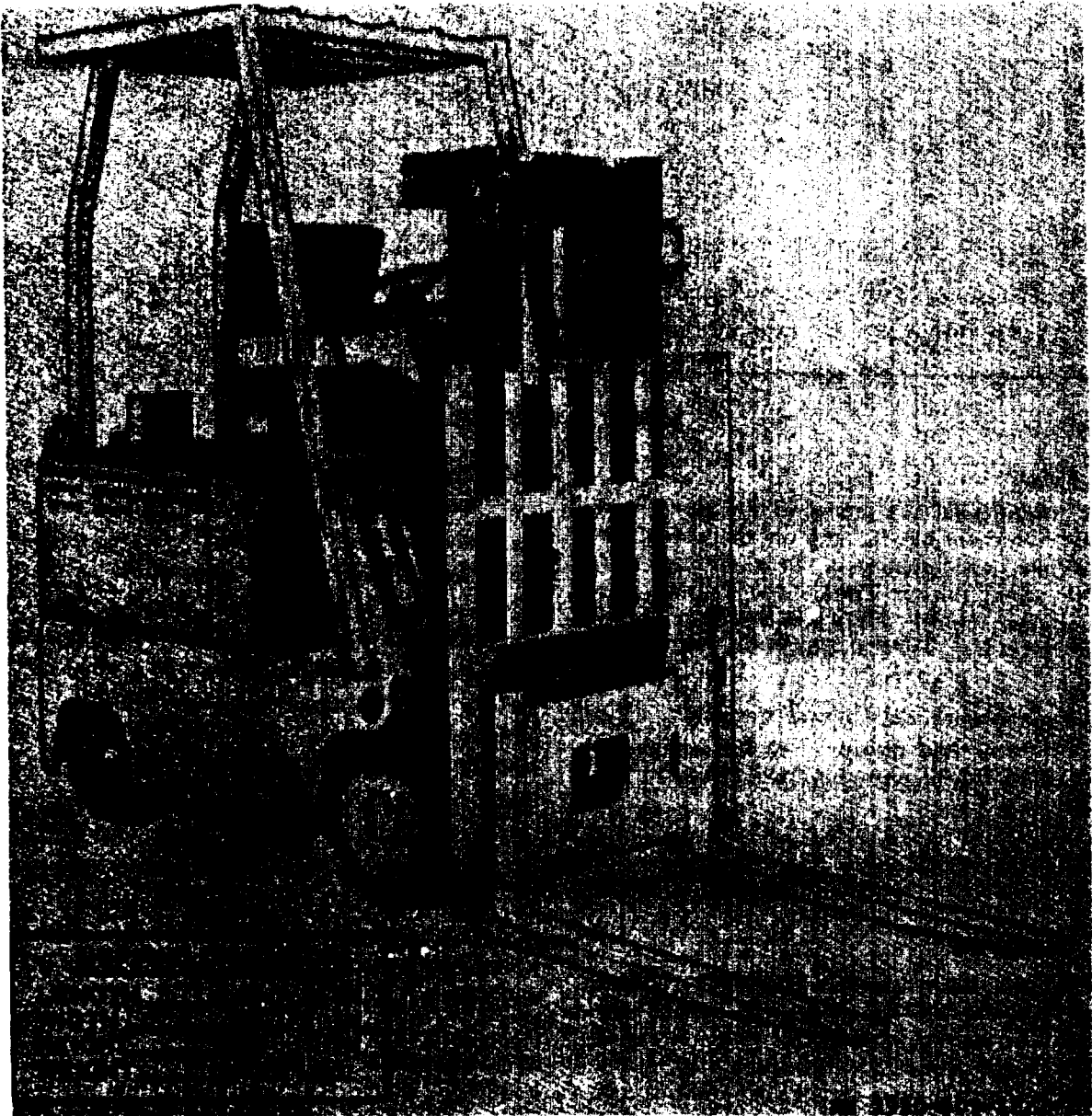


Figure 1-1. Truck, three-quarter front view, with shipping dimensions.

g. Mast Assembly. The mast assembly consists of five main assemblies as follows:

(1) *Outer upright assembly.* The outer upright assembly is a welded one-piece assembly that is mounted on the frame assembly and incloses the hoist cylinder, intermediate upright assembly and inner upright assembly.

(2) *Inner upright assembly.* The inner upright assembly is a welded one-piece assembly that is mounted within the intermediate upright assembly. The hoist cylinder, mounted in the

base of the outer upright assembly, is secured to the inner upright assembly. The inner upright assembly is raised or lowered by action of the hoist cylinder.

(3) *Intermediate upright assembly.* The intermediate upright assembly positioned between the inner and outer uprights provides additional mast rigidity and an overall lower truck profile while permitting a lift height of 145 1/2 inches. As the inner upright approaches its extended height, the intermediate upright starts to raise