

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

TECHNICAL MANUAL

OPERATORS MANUAL

CRANE, TRUCK MOUNTED, 3/4 CUBIC YARDS,

20 TON, w/CLAMSHELL,

DRAGLINE AND BACKHOE ATTACHMENTS, G.E.D.,

(HARNISCHFEGGER CORP MODEL M 320T2)

FSN 3810-151-4431

This copy is a reprint which includes current pages from Changes 3 and 4.
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H E A D Q U A R T E R S , D E P A R T M E N T O F T H E A R M Y

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TECHNICAL MANUAL

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W/ CLAMSHELL,
DRAGLINE AND BACKHOE ATTACHMENTS, G.E.D.,
(HARNISCHFEGER CORP MODEL M 320T2) FSN 3810-151-4431

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PART ONE
(CRANE (REVOLVING FRAME))

CHAPTER 1
INTRODUCTION

Section I. GENERAL

1-1. Purpose and Scope

a. This manual is for your use in operating and maintaining the Harnischfeger truck crane model M320T2.

b. The manual is divided into two parts. Part One contains instructions for the operation and maintenance of the crane (revolving frame) portion OF the machine. Part Two is for the operation and maintenance of the carrier portion of the machine.

c. Operator/ Crews- personnel should read the

instructions provided in both parts of this manual before operating, servicing or maintaining this equipment.

1-2. Recommending Improvement

You can improve this manual by recommending improvements, using DA Form 2028 (Recommended Changes to Publications) or a letter, and mail directly to Commanding General, U. S. Army Mobility Equipment Command, ATTN: AM-SME-MPP, 4300 Goodfellow Blvd., St. Louis. Mo. 63120. A prompt reply will be furnished directly to you.

Section II. DESCRIPTION AND DATA

1-3. Description

a. *General.* The Harnishfeger model M320T2 truck crane is designed for universal operation. And may be converted for use as a crane (fig. 1-1 and 1-2). clamshell (fig. 1-3). dragline (fig. 1-4). piledriver (fig. 1-5).

backhoe (fig. 1-6) or shovel (fig. 1-7). The front-end attachments are described, and detailed instructions for the operation of each attachment are given in chapter 2 of this manual. The military load class is E-29.

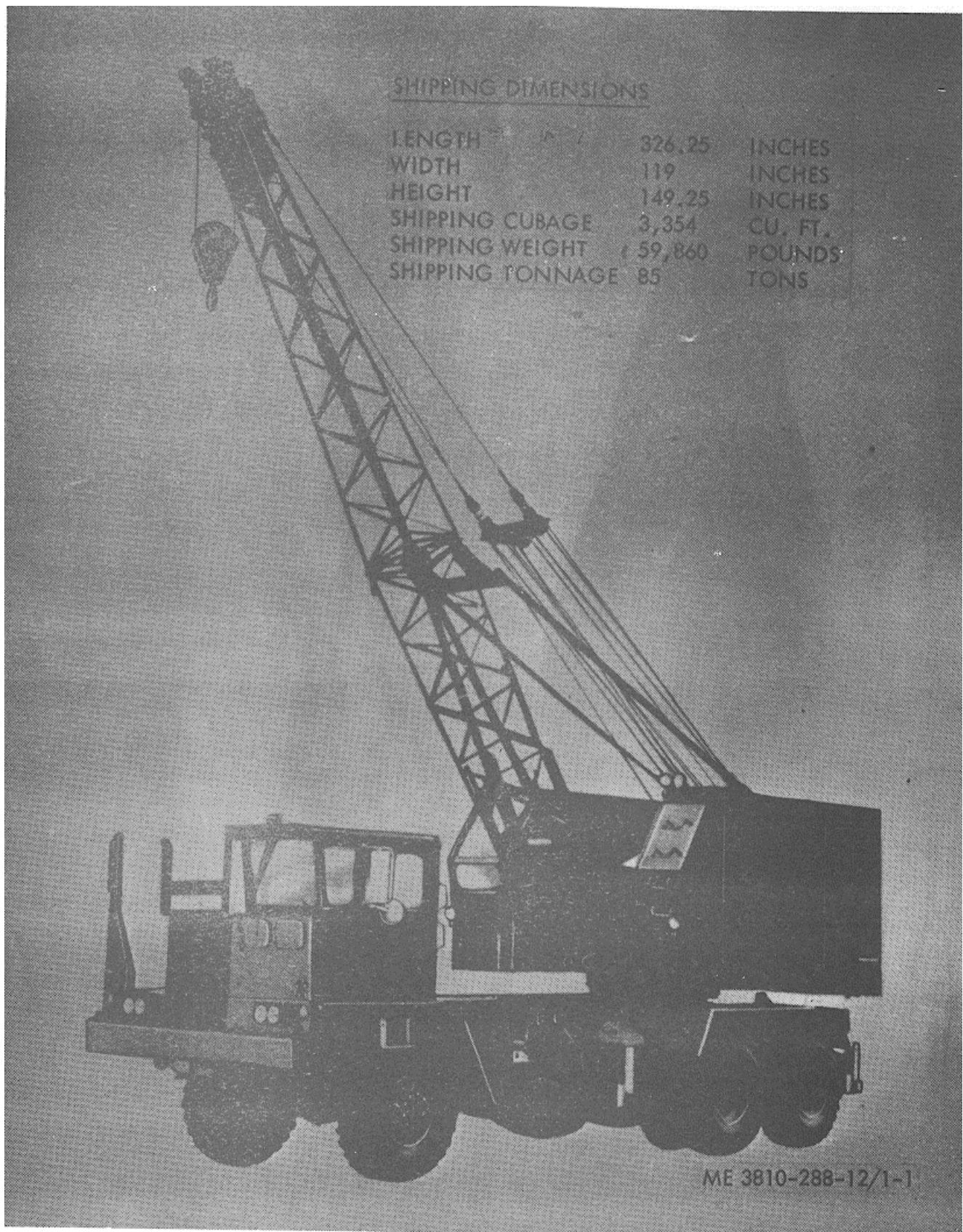
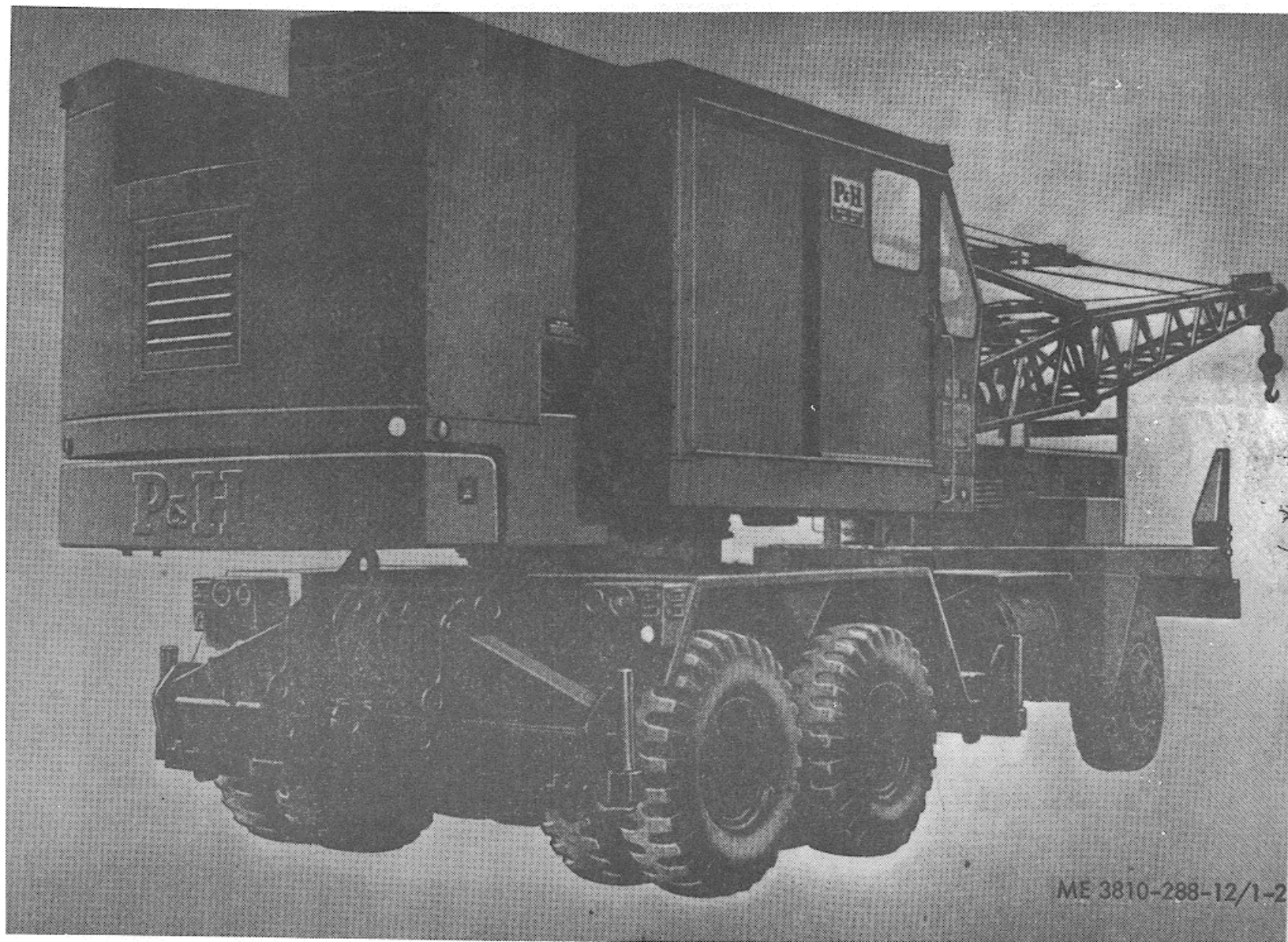
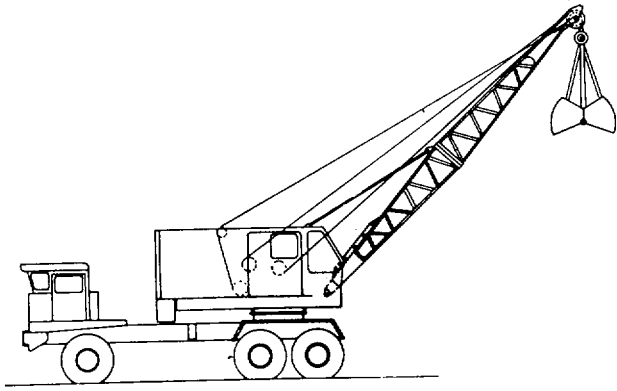


Figure 1-1. Truck crane model M320T2 with crane attachment. front three-quarter view and shipping dimensions.

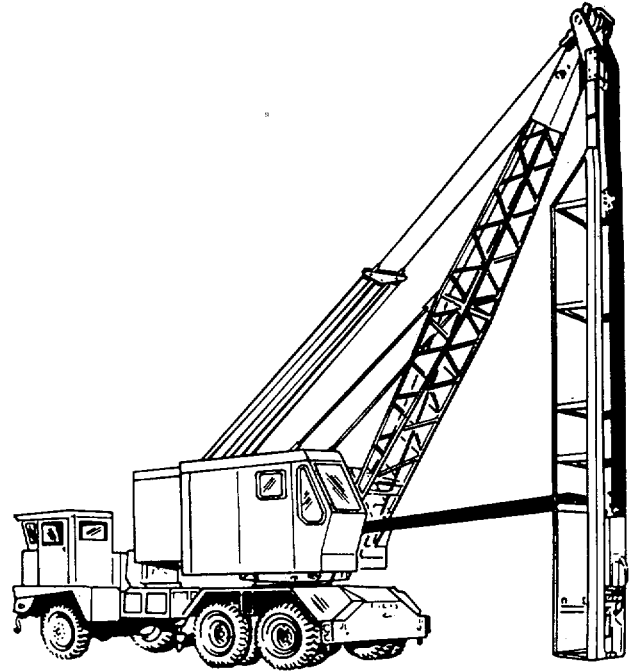


*Figure 1-2. Truck crane model M320T2 with crane attachment.
Rear three-quarter view.*



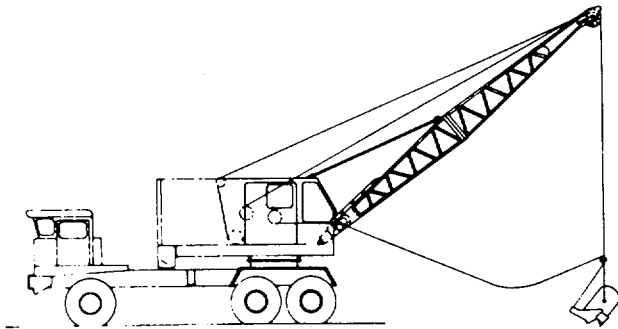
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Figure 1-3. Clamshell attachment.



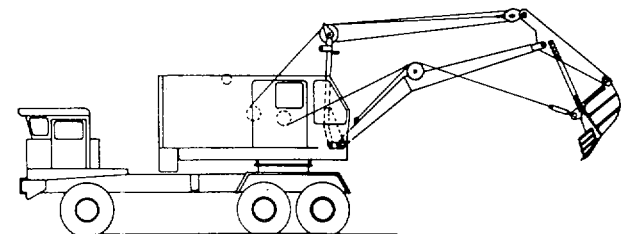
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Figure 1-5. Piledriver attachment.



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Figure 1-4. Dragline attachment.



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Figure 1-6. Backhoe attachment.

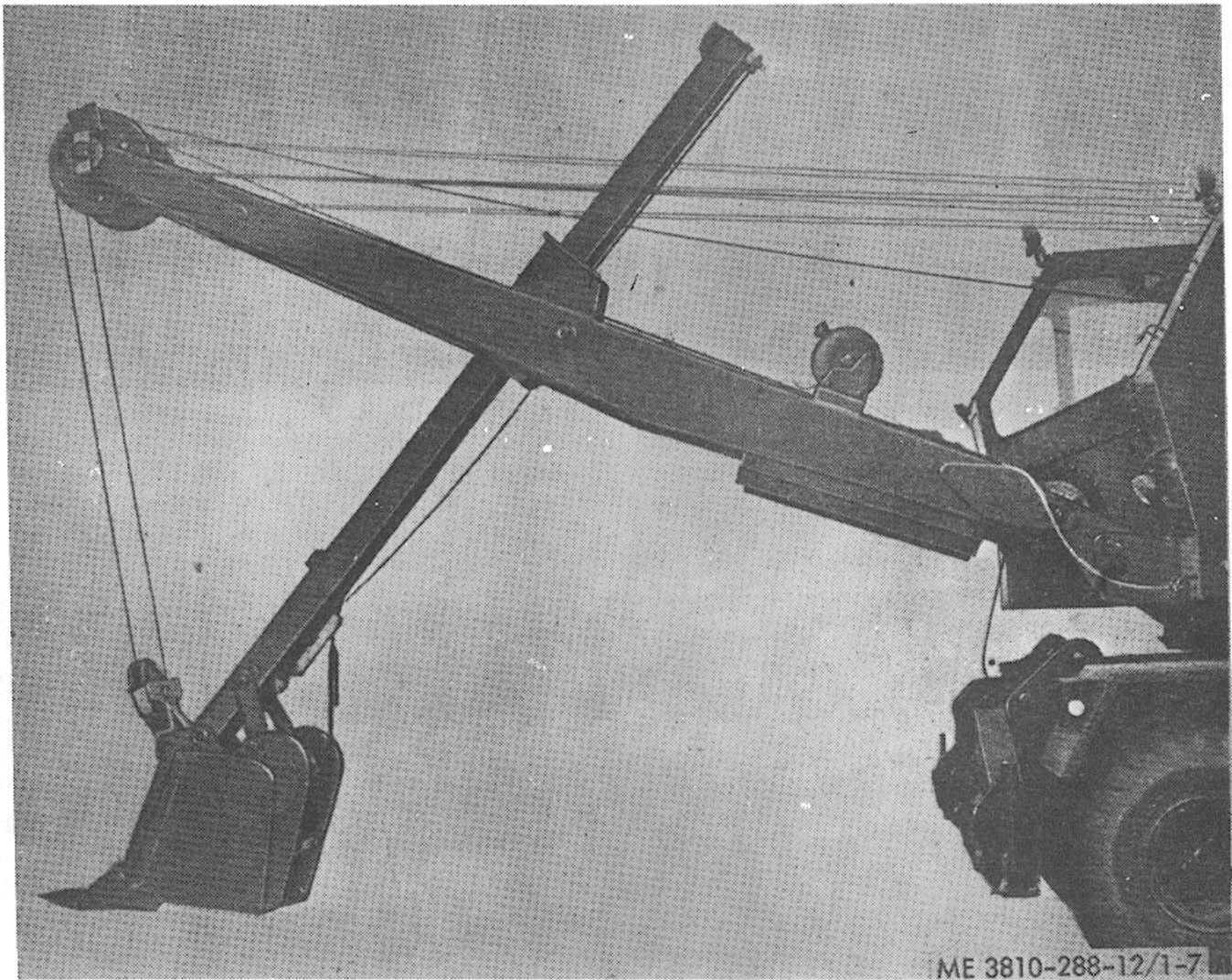


Figure 1-7. Shovel attachment.

b. Crane. The crane includes a revolving frame, rotating machinery, gasoline engine, and an operator's cab. Lugs are provided at the front of the revolving frame, to which the front-end attachments are installed. A counterweight is installed at the rear of the revolving frame. The carrier in which the crane is mounted is described in paragraph 4-3 of this manual.

c. Crane Attachment. The crane boom is used with a hook block to lift, swing, and position heavy loads. It is used also in conjunction with the clamshell and dragline buckets, and the piledriver. The clamshell bucket (fig. 1-3) or dragline bucket (fig. 1-4) may be installed on the crane boom for excavating or moving loose material. Boom inserts are used to increase the boom length, or to extend the working range of the crane.

d. Piledriver Attachment. The piledriver attachment (fig. 1-5) is used in conjunction with the crane boom and is used for driving piling into the ground in the construction of foundations, piers, and bases. The piledriver is attached to the crane boom point and is supported at the bottom by a catwalk.

e. Backhoe Attachment. The backhoe attachment (fig. 1-6) is designed to work below the ground level by pulling the dipper toward the machine, and is used for digging trenches, ditches, and similar excavations.

f. Shovel Attachment. The shovel attachment (fig. 1-7) is designed to work above ground level by lifting the dipper upward and outward, and is used for digging into the side of a hill or bank.

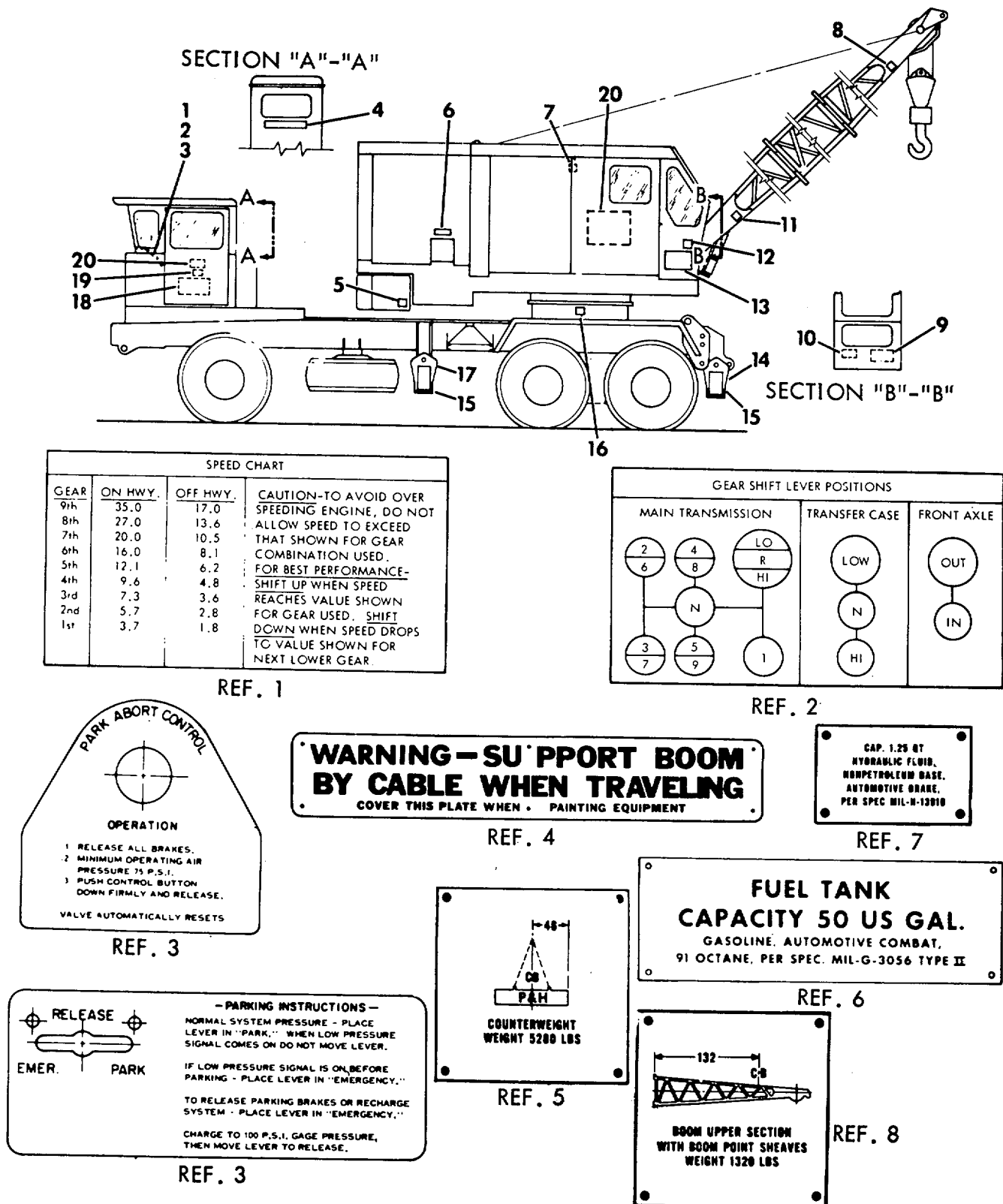
g. Additional Components. If you need a detailed

description of any components of the M320T2 truck crane, refer to TM 5-3810-294-20.

shows the location of all major instruction and identification plates. Each such plate is numbered and illustrated as a portion of this illustration.

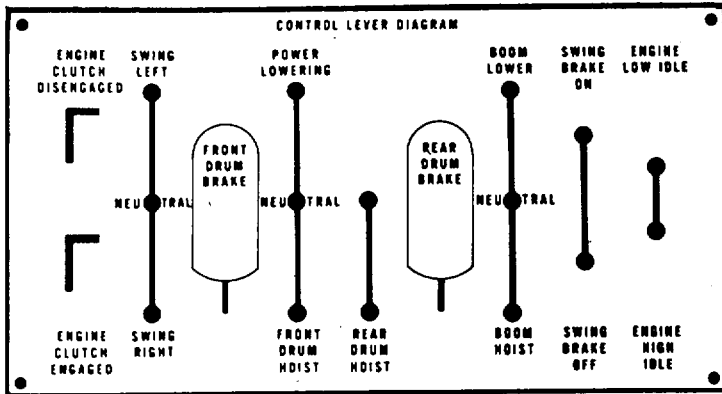
1-4. Tabulated Data

- a. Identification and Instruction Plates.* Figure 1-8

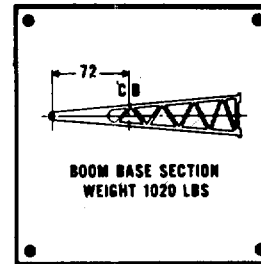


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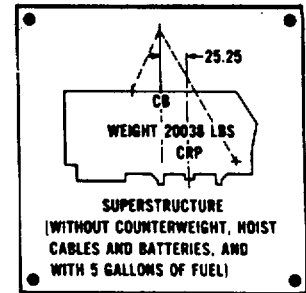
Figure 1-8. Identification and instruction plates (sheet 1 of 4).



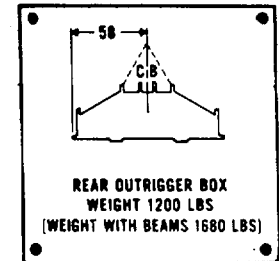
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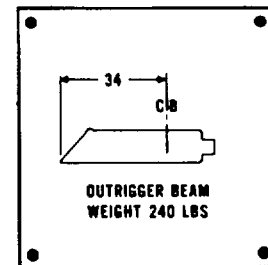
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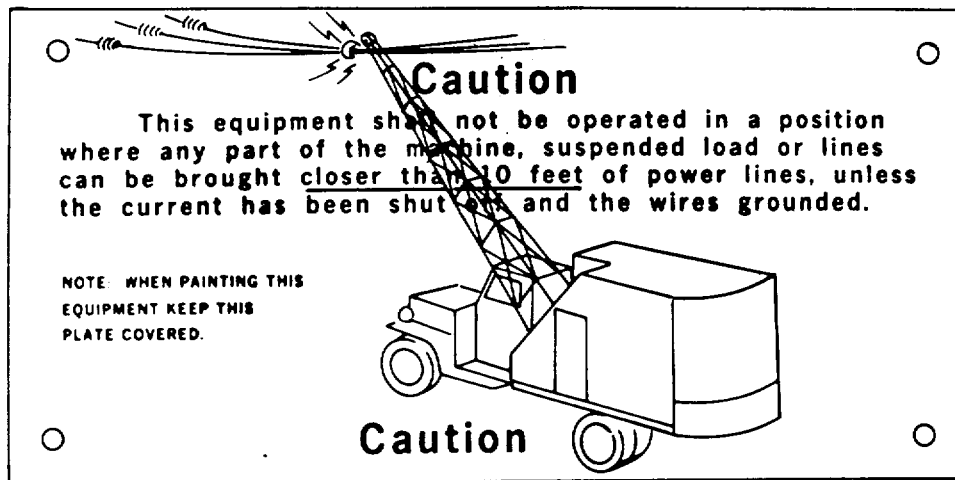
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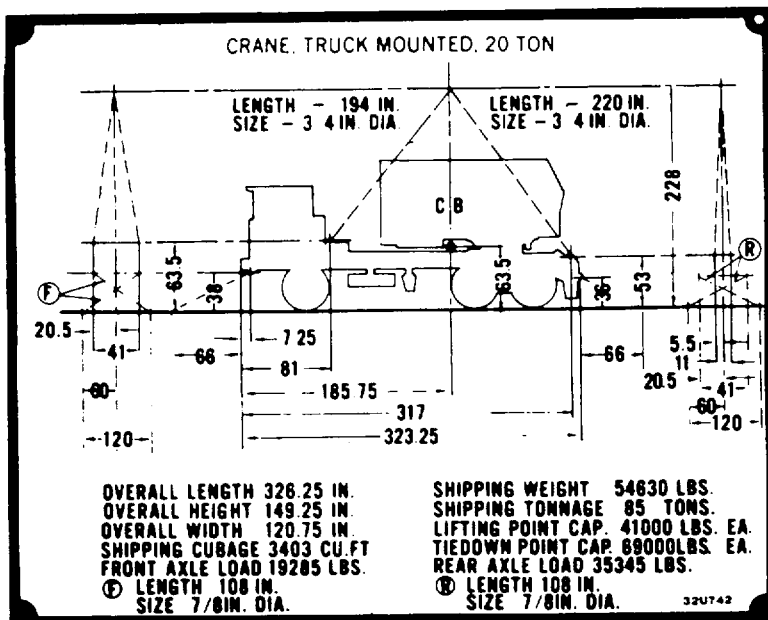
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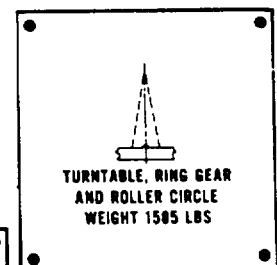
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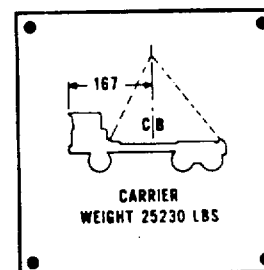
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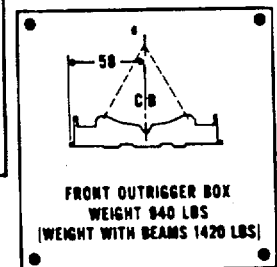
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Figure 1-8. Identification and instruction plates (sheet 2 of 4).