TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS INFORMATION AND SUPPLEMENTAL MAINTENANCE INSTRUCTIONS) FOR CRANE, TRUCK MOUNTED, HYDRAULIC, 25 TON (CCE) HARNISCHFEGER MODEL MT-250 NON-WINTERIZED NSN 3810-00-018-2021 HARNISCHFEGER MODEL MT-250, WINTERIZED NSN 3810-00-018-2007

This copy is a reprint which includes current pages from Changes 1 through 3.

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
15 SEPTEMBER 1980

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TECHNICAL MANUAL

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HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 15 September 1980

OPERATOR, ORGANIZATIONAL, DIRECT SUPPORT GENERAL SUPPORT AND DEPOT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS INFORMATION AND SUPPLEMENTAL MAINTENANCE INSTRUCTIONS) FOR CRANE, TRUCK MOUNTED, HYDRAULIC, 25 TON (CCE) HARNISCHFEGER MODEL MT-250. NON-WINTERIZED (NSN 3810-00-018-2021) HARNISCHFEGER MODEL MT-250, WINTERIZED (NSN 3810-00-018-2007)

REPORTING ERRORS

You can help improve this publication. 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 20282 located in back of this manual direct to: US Army Tank Automotive Command, ATTN: DRSTAMBP, Warren, MI 48090. A reply will be furnished to you.

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TWO WEIGHLOAD AUTOMATIC SAFE LOAD INDICATOR 2-1-1
THREE SUPPLEMENTAL MAINTENANCE AND REPAIR PARTS INSTRUCTIONS 3-1-1

NOTE: Refer to TM 5-3810-293-14&P-2 for Crane Shop Manual, Crane Repair Parts Manual, Front AxleTransmissions, and Winches

NOTE: Refer to TM 5-3810293-14&P-3 for Engine Operator's Manual, Engine Service Manual, Engine Parts Catalog

This technical manual an authentication of the manufacturer's commercial literature and does not conform with the format and content specified In AR 310-3, Military Publications. This technical manual does, however, contain available information that is essential to the operation and maintenance of the equipment.

PART ONE

CRANE OPERATOR'S MANUAL

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SECTION I

INTRODUCTION

SCOPE

This manual provides operating instructions and information concerning routine lubrication and service as required for the most efficient use of this machine.

Overhaul and repair information is provided in a separate shop manual. Overhaul information on the engine and certain other purchased components is not included in the shop manual, since the original manufacturer's manuals are both authoritative and complete.

GENERAL INFORMATION

The information, specifications and illustrations in this publication are based on the information in effect at the time of approval for printing. This publication is revised and reprinted periodically. It is recommended that the user contact the Harnischfeger Technical Publications Department for information on the latest revisions. The Harnischfeger Corporation reserves the right to make changes to this manual at any time without prior notice or obligation.

Any part numbers which appear in this manual are for reference only, refer to the P&H Replacement Parts Manual when ordering parts.

SAFETY

A separate publication, Catalog 221, Safe Operating Practices, is furnished with each machine. It is most important that operators and maintenance personnel read and be familiar with the information in Catalog 221 and this manual before operating or servicing this machine, both for personal protection and for the safety of other workmen and bystanders.

Additional copies of Catalog 221 are available, in reasonable quantities, to Owners of P&H hydraulic excavators and cranes at no cost. Submit such requests to the Harnischfeger Technical Publications Department.

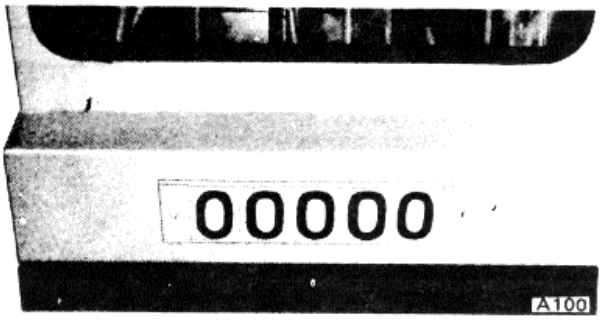

Figure 1-1. Machine Serial Number

SERIAL NUMBER LOCATION

Figure 1-1 illustrates the machine serial number which is located on the lower front side of the operator's cab. Always indicate the machine serial number in all correspondence to properly identify the machine, and to ensure that the correct parts are obtained, when ordered.

WARRANTY

The terms under which this machine is guaranteed are clearly defined under the warranty which accompanies every P&H product. This warranty, while generous, will be voided if the machine is operated with loads in excess of the rating plate maximums, under unsafe operating conditions, or with accessories or attachments not designed and furnished, or approved by the Harnischfeger Corporation. Modifications made upon the machine which will affect its operation or capacity will void the warranty.

SECTION I **INTRODUCTION**

DESCRIPTION

This truck crane is a fully hydraulic machine. All work functions are performed by fluid power. Hydraulic cylinders are used to raise or lower and extend or retract the boom; hydraulic winches raise or lower the load on the main hoist and jib lines; a hydraulic motor swings (rotates) the upper of the machine on the carrier.

The carrier engine serves as the power supply for both the upper and lower. A pump drive, mounted at the front of the engine drives the hydraulic pumps which provide the hydraulic power for the upper. Hydraulic fluid under pressure is delivered through a swivel to the control valves in the upper. When the operator engages the controls in the operator's cab, the control valves direct the fluid to the boom cylinders, swing motor, and winch motors.

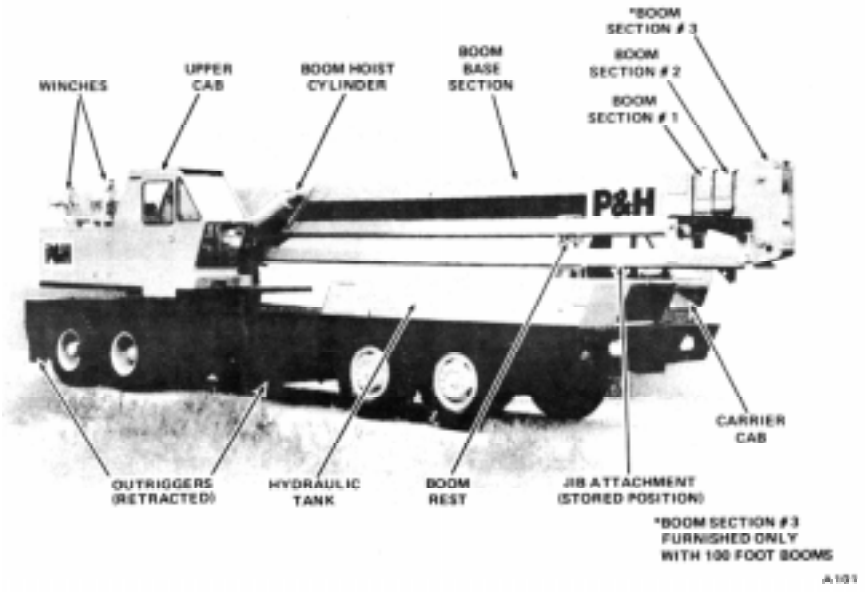

Figure 1-2. Crane Terminology

TABULATED DATA

DIMENSIONS AND TRANSPORTATION DATA

Overall length, with boom in travel position ..... 38'-1-3/8" (11.62 m)
Overall length, without boom ..... 33'-1-1/2" (10.10 m)
Overall width ..... 8'-" (2.44 m)
Overall height ..... '-0" (3.00 m)
Ground clearance ..... 0'-10-1/2" (0.27 m)
Gross vehicle weight, with main and auxiliary winches, jib, bottom block, 4,500 lb (2,041 kg) counterweight, & 1/2 tank of fuel ..... 80' Boom (24.38 m) 64,400 lbs. (29,211 kg)
100' Boom (30.48 m) 65,300 lbs. (29,620 kg)
Weight Distribution
Front axle ..... 80' Boom 26,600 lbs (12,066 kg)
100' Boom 27,200 lbs (12,338 kg)
Rear axle ..... 80' Boom 37,800 lbs (17,146 kg)
100' Boom 38,100 lbs (17,282 kg)