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

HEADQUARTERS, DEPARTMENT Of THE ARMY

6 JUNE 1980

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

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HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, *6 June 1980*

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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 OF 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 Publication and Blank Forms), or DA Form 2028-2 located in the back of this publication direct to: US Army Tank-Automotive Command, ATTN: DRSTA-MBP, Warren, MI 48090. A reply will be furnished to you.

PART ONE. CRANE SHOP MANUAL
TWO. CRANE REPAIR PARTS MANUAL
THREE. FRONT AXLE, TRANSMISSIONS, AND WINCHES

NOTE: Refer to TM 5-3810-293-14&P-1 for Crane Operator's Manual, Weighload Automatic Safe Load Indicator, Supplemental Maintenance and Repair Parts Instructions.
NOTE: Refer to TM 5-3810-293-14&P-3 for Engine Operator's Manual, Engine Service Manual, and Engine Parts Catalog.

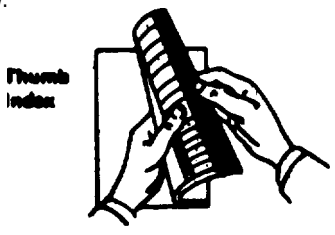
This technical manual is an authentication of the manufacturer's commercial literature and does not conform with the format and content specified in AR 310-3, Military Publications. This technical manual does, however, contain available information that is essential to the operation and maintenance of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

PART ONE
CRANE SHOP MANUAL

TABLE OF CONTENTS

How TO USE THIS SHOP MANUAL

This Shop Manual is divided into the major sections shown above. Each major section can be located using the margin tab marks on the right edge of this paga as shown in the sketch below.



This manual has been planned to allow new information to be added as design changes occur, this eliminating the need for new manuals on the same basic machine model. This will be the only Shop Manual on the Model T-250.

SECTION I
INTRODUCTION

SECTION I
INTRODUCTION

SCOPE

This manual provides maintenence personnel with information and instructions for servicing and repairing this machine. In order to becomes familiar with the various parts of the machine, it is urged that maintenance personnel study the instructions end illustrations in this manual and use it es a reference when performing repair or maintenance operations.

An Operators Manual is provided with each machine for the purpose of providing the essential information regarding day-today maintenance, adjustment, and lubrication of the machine.

NOTE

Sections I, II and Ill of the Operators Manuel have been duplicated as the first three sections of this manual to provide maintenance personnel with the tabulated data, controls and operation, and lubrication information that may be necessary in the per. formance of repair or maintenance operations.

GENERAL INFORMATION

The information, specifications and illustrations in this publication are based on the information in effect at the time this manual was printed. Continuing improvement and advancement of product design may cause changes to your machine which may not be included in this publication. Each publication is reviewed and revised, es required, to update and include these changes in later editions.

When a question arises regarding your machine, or this pub lication, please consult your Harnischfeger representative for the latest available information.

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

SAFETY

Proper maintenance of a machine is essential to its safe operation. Catalog 221, Safe Operating Practices, has been prepared es a guide to safe maintenance practices as well as to safe opereting practices. It is *strongly recommended* that all serviceman read and become familiar with Catalog 221 as a pert of service training for this machine.

One copy of Catalog 221 is furnished with each new machine. Additional copies of Catalog 221 are available, in reasonable quantities, at no cost. Submit such requests to the Harnischfeger Technical Publications Department.

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 correct parts are obtained, when ordered.

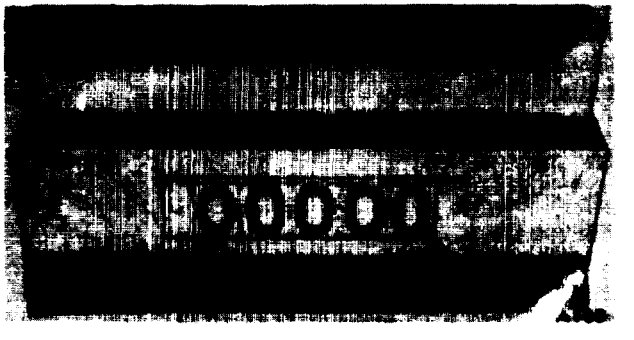


Figure 1-1. Machine Serial Number

WARRANTY

The terms under which this machine is guaranteed are clearly defined under the warranty which accompanies every Harnishfeger 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 the operation or capacity will void the warranty.

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.

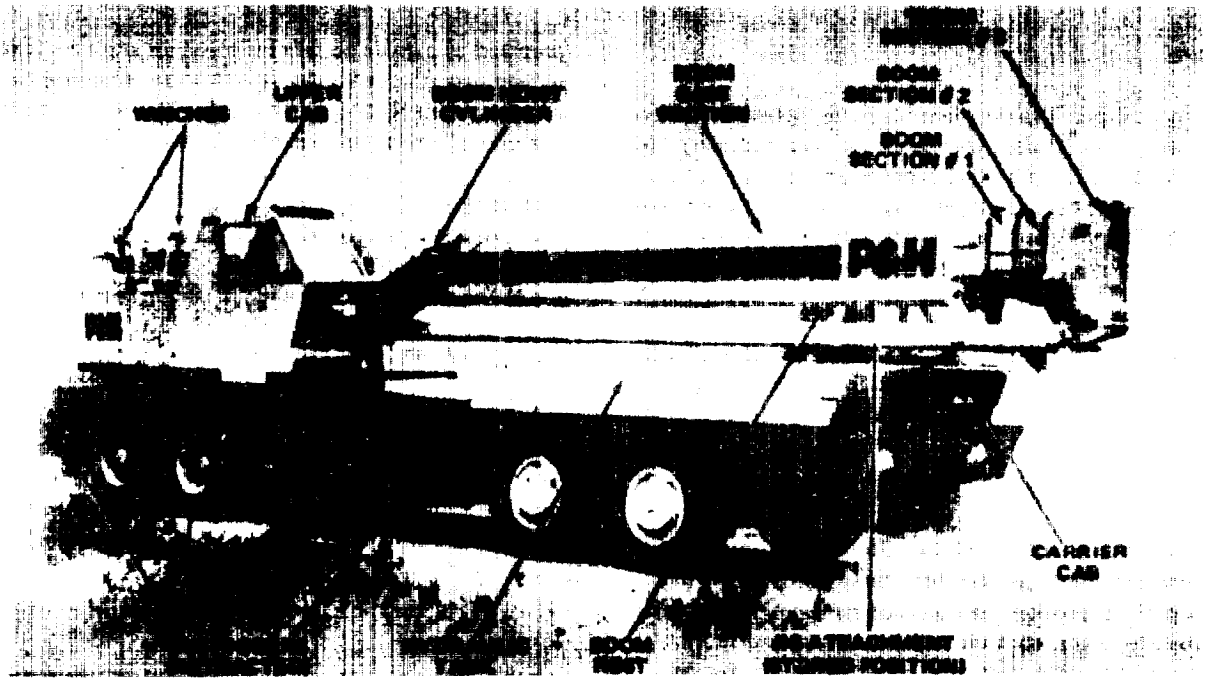


Figure 1-2. Crane Terminology

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'-0"(2.44mm)
Overall height	9'-10" (3.00 m)
Ground clearance	0'-10-1/2' (0.27 m)

	80' Boom (24.39 m)	100' Boom (30.46 m)
Gross vehicle weight, with main and auxiliary winches, jib, bottom block, 4500 lb. (2041 kg) counterweight, and 1/2 tank of fuel	64,400 lbs. (29.211 kg)	65.300 lbs. (29.620 kg)
Weight distribution		
Front axle	26.600 lbs. (12,066 kg)	27,200 lbs. (12,336 kg)
Rear axle	37,800 lbs. (17,146 kg)	38,100 lbs. (17,282 kg)