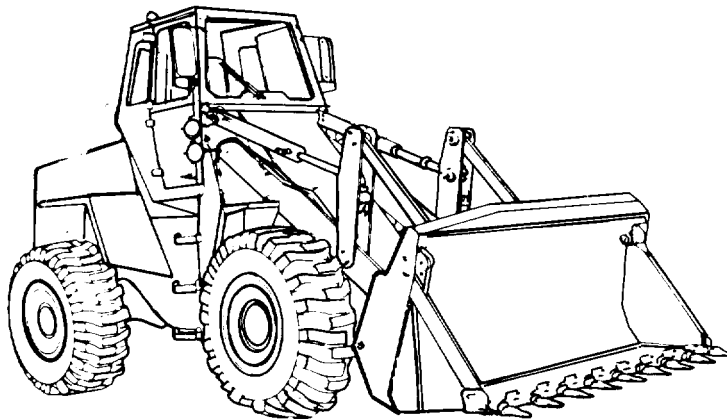


OPERATOR'S MANUAL



**LOADER, SCOOP TYPE, DED
4x4, ARTICULATED FRAME STEER,
2-1/2 CUBIC YARD
(J.I.CASE MODEL MW24C)
(NSN 3805-01-150-4814)**

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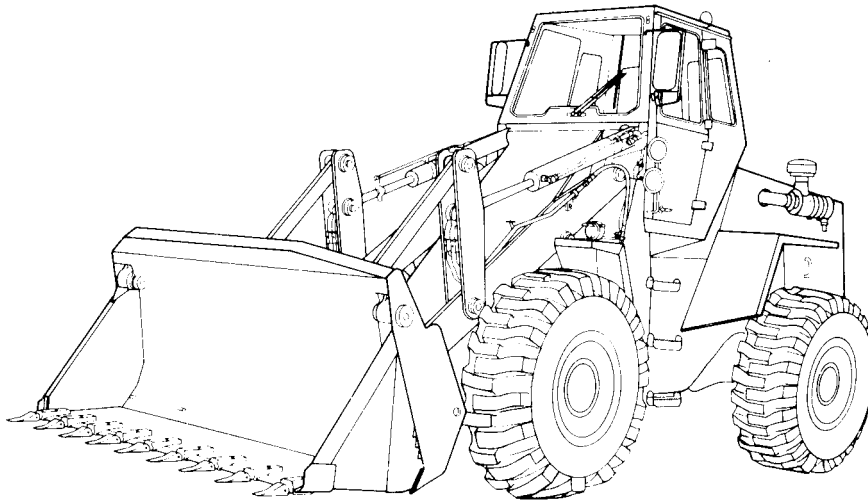
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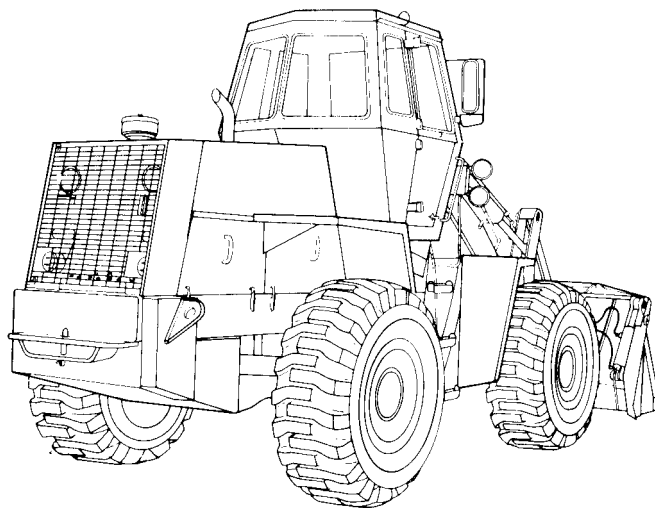
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Left Front View



Right Rear View

MW24C Loader

OPERATOR'S MANUAL

LOADER, SCOOP TYPE, DED, 4X4, ARTICULATED FRAME STEER,
2-1/2 CUBIC YARD
(J.I.CASE MODEL MW24c)
(NSN 3805-01-150-4814)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. 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 2028-2 located in back of this manual direct to: U.S. Army Tank Automotive Command, ATTN: AMSTA-MB, Warren, MI 48397-5000. A reply will be furnished to you.

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HOW TO USE THIS TECHNICAL MANUAL

This manual is designed to help you operate and maintain the MW24C loader. It's divided into chapters, sections, and appendices. The chapters contain general information, operating procedures, and maintenance procedures. Chapters are divided into sections containing equipment description, principles of operation, description of operating controls and indicators, operating procedures, and troubleshooting and maintenance procedures.

Appendices contain supplemental information which you require to operate and maintain the loader.

Procedures in this manual tell you several things:

- how to perform your PMCS and how often
- how to start the loader including locations of all controls and indicators
- how to operate the loader safely and efficiently
- how to troubleshoot the loader
- how to maintain the loader

All operating, troubleshooting, and maintenance procedures include illustrations to help you quickly locate the items on your equipment.

To quickly locate data in this manual, let's say you want to find out the function and use of the hydraulic control levers mounted to the right of your seat. There are two ways you can locate this information.

a. Use the alphabetical index:

- (1) Look on the front cover index for ALPHABETICAL INDEX.
- (2) See that there is a black box drawn to the right of ALPHABETICAL INDEX.
- (3) Flip through the pages starting at the back of this manual stopping at the page that has a black box in line with the box on the front cover index. This is the alphabetical index.
- (4) The alphabetical index contains subject matter listed in alphabetical sequence. Look up Hydraulic control levers or Loader controls. In some cases, subject matter may be listed in several different ways to help you locate the information. Across from these two entries you will find the page number 2-19.
- (5) Turn to page 2-19 where you will find a short functional description and operation of the hydraulic control levers.

(b) Use the front cover index:

- (1) Look on the front cover index for DESCRIPTION AND USE OF OPERATOR'S CONTROLS AND INDICATORS.
- (2) See that there is a black box drawn to the right of this entry.

(3) Flip through the pages starting at the back of this manual stopping at the page that has a a black box in line with the box on the front cover index. This is the DESCRIPTION AND USE OF OPERATOR'S CONTROLS AND INDICATORS, page 2-1.

(4) Look in the section index and locate Loader Controls. It states the loader controls are provided in paragraph 2-10.

(5) Flipping through the pages, see that paragraph numbers are always located at the top of the left page. Now, go to paragraph 2-10 (page 2-21) to locate the information you want.

This manual has been designed so that you can quickly locate data you are looking for. Either look in the ALPHABETICAL INDEX for the subject matter, refer to the front cover index, table of contents, chapter index, or section index to locate the data.

CHAPTER 1

INTRODUCTION

CHAPTER OVERVIEW

The purpose of this chapter is to acquaint you with the maintenance forms, records, and reports that you must maintain for the MW24C loader, to familiarize you with the purpose and capabilities of the vehicle, and to give you a brief description of its different systems and components.

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Section I. GENERAL INFORMATION

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NOTE

The equipment described herein is non-metric and does not require metric common or special tools; therefore, metric units are not supplied. Tactical instructions for sake of clarity will also remain non-metric.

a. Type of Manual. Operator's Manual, including operating, maintenance, and troubleshooting instructions.

b. Model Number and Equipment Name. MW24C Diesel Engine Driven, 4 by 4, Articulated Frame Steer, 2-1/2 Cubic Yard Scoop Type Loader.

1-1. SCOPE (CONT)

c. Purpose of Equipment. Loading trucks from stockpiles, stockpiling materiel, and excavating undisturbed and compacted soil. Unit also used as a clamshell to handle irregular shaped objects, as a dozer for general bulldozer work, and as a scraper.

1-2. MAINTENANCE FORMS,AND RECORDS

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA PAM 738-750, The Army Maintenance Management System (TAMMS).

1-3. HAND RECEIPT (-HR) MANUALS

This manual has a companion document with a TM number followed by "-HR" (which stands for Hand Receipt). The TM 5-3805-262-10-HR consists of preprinted hand receipts (DA Form 2062) that list end item related equipment (i.e., COEI, BII, and AAL) you must account for. As an aid to property accountability, additional -HR manuals may be requisitioned as outlined in DA PAM 310-10.

1-4. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR'S)

If your MW24C loader needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. Put it on an SF 368 (Quality Deficiency Report). Mail it to us at: Commander, US Army Tank-Automotive Command, ATTN: AMSTA-MV Warren, MI 48397-5000. We'll send you a reply.

1-5. WARRANTY INFORMATION

The MW24C loader is warranted by J.I. Case Company, Racine, Wisconsin for 15 months or 1500 hours of operation, whichever occurs first. Warranty starts on the date, found in block 23, DA Form 2408-9 in the logbook. Report all defects in material or workmanship to your supervisor who will take appropriate action through your organizational shop.

1-6. ORIENTATION

The loader bucket is mounted at the front of the MW24C and the engine faces the rear. Controls for operating the bucket (lift arm, bucket tilt, clam) are located to the right when you are sitting in the operator-s seat. All references to right, left, front, or rear are from the viewpoint of the operator when he is sitting in the operator's seat.

1-7. LIST OF ABBREVIATIONS

ABBREVIATION	DEFINITION
A	After
AAL	Authorized allowance list
AMP	Amperes
AR	Army regulations
ATTN	Attention
B	Before
BII	Basic issue items
BRT.	Bright
B.O.	Black out
C	Celsius
COEI	Components of end items
COMPT	Compartment
CONT	Continued
CONV	Converter
D	Daily
DA	Department of the Army
dB	Decibel
EIR	Equipment improvement recommendations
etc.	Etcetera (unspecified additional things)

ABBREVIATION	DEFINITION
F	Fahrenheit
H	High (forward)
HR	Hand receipt
L	Low (forward)
lb-ft	Pounds feet
M	Monthly
MI	Michigan
MO	Missouri
MPH	Miles per hour
N	Neutral
NEUT.	Neutral
Para	Paragraph
PMC S	Preventive maintenance checks and services
PRESS	Pressure
psi	Pounds per square inch
R	Reverse
rpm	Revolutions per minute
SER.	Service
TEMP	Temperature
TM	Technical Manual
W	Weekly

Section II. EQUIPMENT DESCRIPTION

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1-8. EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

a. Purpose of MW24C Loader. Loading trucks and railcars from stockpiles, stockpiling materiel, and excavating undisturbed and compacted soil. Unit also used as a clamshell to handle irregular shaped objects, as a dozer for general bulldozer work, and as a scraper.

b. Capabilities and Features.

- (1) Two and one-half yard capacity bucket.
- (2) Operates over rough terrain.
- (3) Four speed ranges in forward; two speed ranges in reverse.
- (4) Declutch pedal disengages transmission during loader operation to provide maximum hydraulic power when needed.
- (5) Diesel engine driven.
- (6) Power steering.
- (7) Power assisted air over hydraulic brakes.
- (8) Enclosed operator's compartment.
- (9) Auxiliary steering automatically cuts-in if primary steering is disabled.
- (10) Bucket height control to automatically stop loader lift arms at a preselected dump height.
- (11) Bucket return-to-dig control to automatically return bucket to preselected position.
- (12) Four-in-one bucket used as a scraper, blade, clamshell, or standard bucket.
- (13) Ford depths up to 30 inches.
- (14) Collapsible steering wheel for air transport.

1-9. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS

ENGINE. J.I. Case Model A504BD Diesel engine having a displacement of 504 cubic inches. Accessories mounted on and considered a part of the engine include the alternator, air compressor, starting motor, fuel injection pump, and fuel filters.

FUEL SYSTEM. Consists of fuel injectors, fuel injection pump, electric fuel pump, air cleaner, fuel filters, and cold start kit.

EXHAUST SYSTEM. Consists of muffler and exhaust pipe. Muffler mounted on top of engine.

COOLING SYSTEM. Includes radiator mounted in rear of loader, thermostat and housing, engine driven water pump, and fan.

ELECTRICAL SYSTEM. 24 volt, negative ground. Includes engine driven alternator, starter motor, instrument panels, light system, and two 12 volt batteries connected in series.

BRAKES. Disk brakes, air over hydraulic. Air actuated drum type parking brake located on transmission output shaft.

STEERING SYSTEM. Consists of steering wheel, steering column and gear, and two steering cylinders. Power assist provided by hydraulic pump mounted on and driven by transmission. Also includes auxiliary steering system.

