

**TECHNICAL MANUAL
OPERATOR'S MANUAL**

FOR

**CONTAINER CRANE, 40-TON,
ROUGH TERRAIN, MODEL RT875CC
NSN 3810-01-205-2716**

This manual shall be used in place of the GROVE Manufacturing Company Commercial Operator's and Safety Handbook Manual No. 1-187-000004-1 dated 1 Feb 89 and the PAT Advanced Technology, Inc., Operator's Handbook DS-350M dated January 1989 that were originally overpacked with the crane.

Approved for public release; distribution is unlimited.

**HEADQUARTERS, DEPARTMENT OF THE ARMY
25 FEBRUARY 1993**

TECHNICAL MANUAL
No. 5-3810-306-10

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington D.C., 25 February 1993

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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 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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CHAPTER 1 - INTRODUCTION

Section I - GENERAL INFORMATION

SCOPE

Type of Manual

This Operator's Manual provides information for the operation of the Container Crane, Rough Terrain, Wheel Mounted, Hydraulic, Diesel Powered, Model RT875CC.

NOTE

Throughout this manual, reference is made to left, right, front and rear when describing locations. These reference locations are to be considered as those viewed from the operator's seat with the boom facing forward over the front of the carrier frame.

Purpose of Equipment

The crane is used to pick and position 40-foot ISO containers within a 22-foot load radius and 20-foot ISO containers within a 27-foot load radius at U.S. Army supply depots.

Special Limitations on Equipment

Refer to the Load Chart, Appendix F.

MAINTENANCE FORMS, RECORDS, AND REPORTS

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. Accidents involving injury to personnel or damage to material will be reported on DA Form 285 (Accident Report) in accordance with AR385-40. Explosives and ammunition malfunctions will be reported in accordance with AR75-1.

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)

If your RT875CC Container Crane 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. Put in on an SF 368 (Quality Deficiency Report). Mail it to us at U.S. Army Tank - Automotive Command, Attn: AMSTA-QRT, Warren, MI 48090. We'll send you a reply.

EQUIPMENT IMPROVEMENT REPORT AND MAINTENANCE DIGEST (EIR MD).

The quarterly Equipment Improvement Report and Maintenance Digest, TB 43-0001-39 series, contains valuable field information on the equipment covered in this manual. The information in the TB 43-0001-39 series is compiled from some of the Equipment Improvement Reports that you prepared on the vehicles covered in this manual. Many of these articles result from comments, suggestions, and improvement recommendations that you submitted to the EIR program. The TB 43-0001-39 series contains information on equipment improvements, minor alterations, proposed Modification Work Orders (MWOs) warranties (if applicable), actions taken on some of your DA Forms 2028-2 (Recommended Changes to Publications), and advance information which will help you in doing your job better and will help in keeping you advised of the latest changes to this manual. Also refer to Appendix A, References, of this manual.

WARRANTY INFORMATION

The Container Crane is warranted by Grove Manufacturing Co. for 18 months. It 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 maintenance shop. Refer to Warranty Technical Bulletin TB 5-3810-306-14.

Section II - EQUIPMENT DESCRIPTION**EQUIPMENT CHARACTERISTICS, CAPABILITIES AND FEATURES**

The crane is fully self-contained. All functions are either electrically or hydraulically controlled and hydraulically operated. Main functions include:

- a. Raising and lowering the boom.
- b. Extending and retracting the boom.
- c. Raising and lowering loads with the hoist(s).
- d. Swinging the boom.
- e. Extending and retracting the outrigger beams and stabilizers.

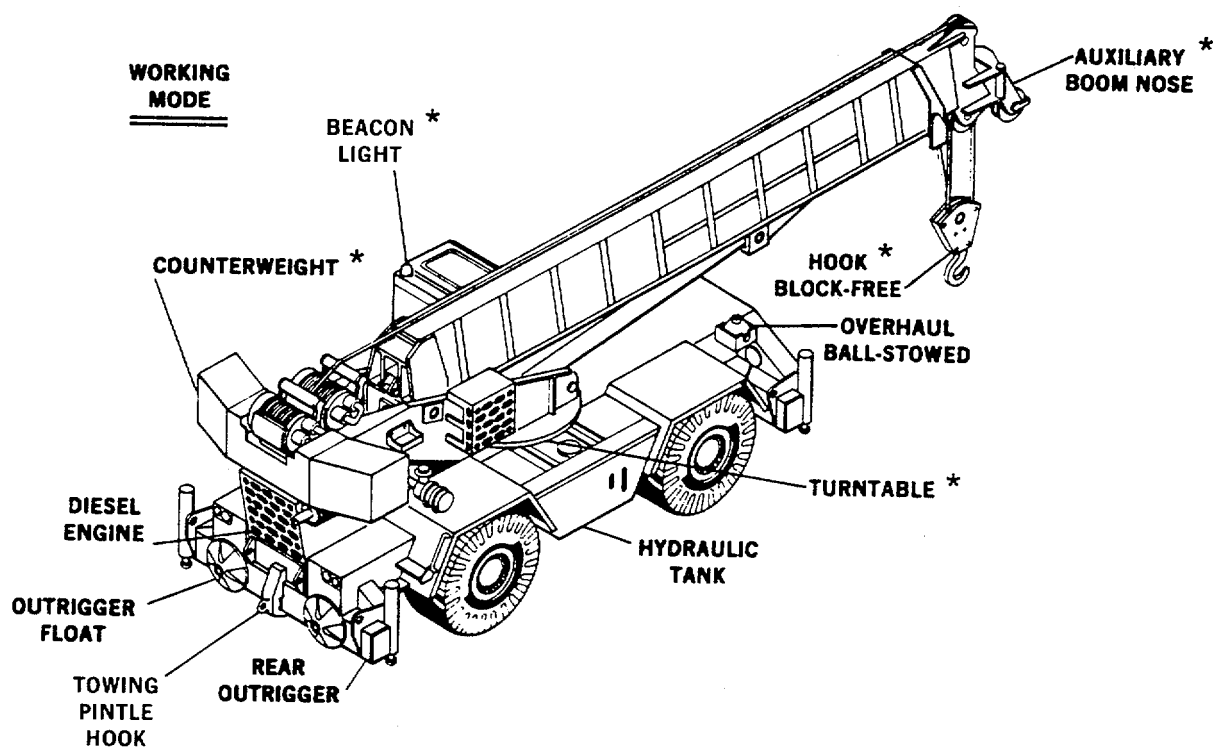
A diesel engine provides drive power for the hydraulic pumps and also drives a compressor and an alternator which supply air and electrical power for control, accessory and lighting systems. The engine also provides power to the axles through a remote mounted,

six-speed (forward and reverse) transmission to drive the crane. Planetary drive axles provide four-wheel drive. Axle steering is accomplished through hydraulic steer cylinders.

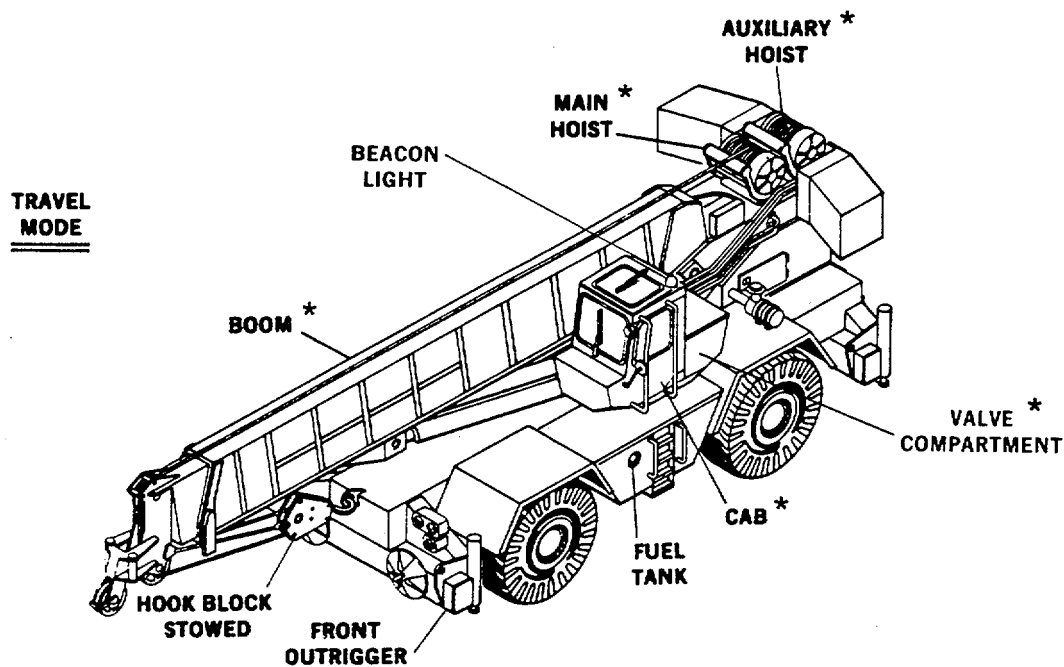
The carrier frame features an integral fifth wheel, to which the rear axle is mounted, to allow the axle to pivot. Axle pivot lockout is automatic when the superstructure rotates more than five degrees in either direction from its straight ahead position. The carrier frame has towing lugs located front and rear.

Air and hydraulic flow and electrical power are transferred from the carrier frame to the superstructure by swivels located at the center of rotation. Hydraulic cylinders activate the elevation, telescope and outrigger systems. The hoist and swing systems are driven by hydraulic motors.

The superstructure is capable of 360- degree continuous rotation in either direction. The crane is equipped with a two-section boom. Lifting is provided by a main hoist and an auxiliary hoist.



Right Side, Exterior



Left Side, Exterior

NOTE: Items marked * form the crane's superstructure.