TECHNICAL MANUAL

OPERATOR, ORGANIZATIONAL, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LISTS

ROLLER, TOWED, VIBRATING, AIRMOBILE, GASOLINE ENGINE DRIVEN

ESSICK MODEL VR55TM

FSN 3895-252-5276

This copy is a reprint which includes current pages from Change 3.

HEADQUARTERS, DEPARTMENT OF THE ARMY

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Current as of 29 September 1971

List of illustrations

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope

a. This manual is published for the use of the personnel to whom the Essick Company Model VR55TM Roller is issued. It contains information on the operation and organizational, direct and general support maintenance of the equipment.

b. Numbers in parentheses on illustrations indicate quantity. Numbers preceding callouts on illustrations indicate the preferred maintenance sequence.

c. Refer to TM 740-90-1 (Administrative Storage of Equipment) for information and instructions pertaining to organizational administrative storage.

d. Refer to TM 750-244-3 (Procedures for Destruction of Equipment to Prevent Enemy Use) for information and instructions on destruction of equipment to prevent enemy use.

1-2. Forms and Records

Maintenance forms, records and reports, which are to be used by maintenance personnel at all maintenance levels are listed in and prescribed by TM 38-750.

1-3. Reporting of Errors

Report of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications) and forwarded direct to the Commanding General, U. S. Army Mobility Equipment Command, ATTN: AMSME-MPP, 4300 Goodfellow Boulevard, St. Louis, Mo. 63120.

Section II. DESCRIPTION AND DATA

1-4. Description

The Essick Model VR55TM Roller is a single, smooth drum, vibratory towed vehicle, designed to compact soil to high density. It is powered by a 10 H. P. Military Standard Gasoline Engine Model 2A042-3. Vibrations are delivered to the ground by a rotating eccentric shaft within the drum. The vibrations are isolated from the main frame by use of two large rubber mounts. The roller has a front draw bar with adjustable front towing hitch.

1-5. Differences in Models

This manual covers the Essick Model VR55TM only.

1-6. Identification and Tabulated Data

a. Identification. The roller has four identification and instruction plates.

(1) Identification Plate - specifies the nomenclature, manufacturer's name and serial number, contract number and FSN number. It is located on right side of lower front frame member (fig. 1-1).

(2) Transportation Plate-specifies the nomenclature, tie-downs, lifting eyes, overall length, height and width, shipping weight and cubage. It is located on right side of lower front frame member (fig. 1-1).

(3) Instruction Plate - specifies the procedure for starting and operation of controls, It is located on top of belt guard (fig. 1-1).

(4) Engine Plate - located on the engine's air shroud (fig. 1-1). This is a Military Standard Engine (TM 5-2805-258-14 for further information).

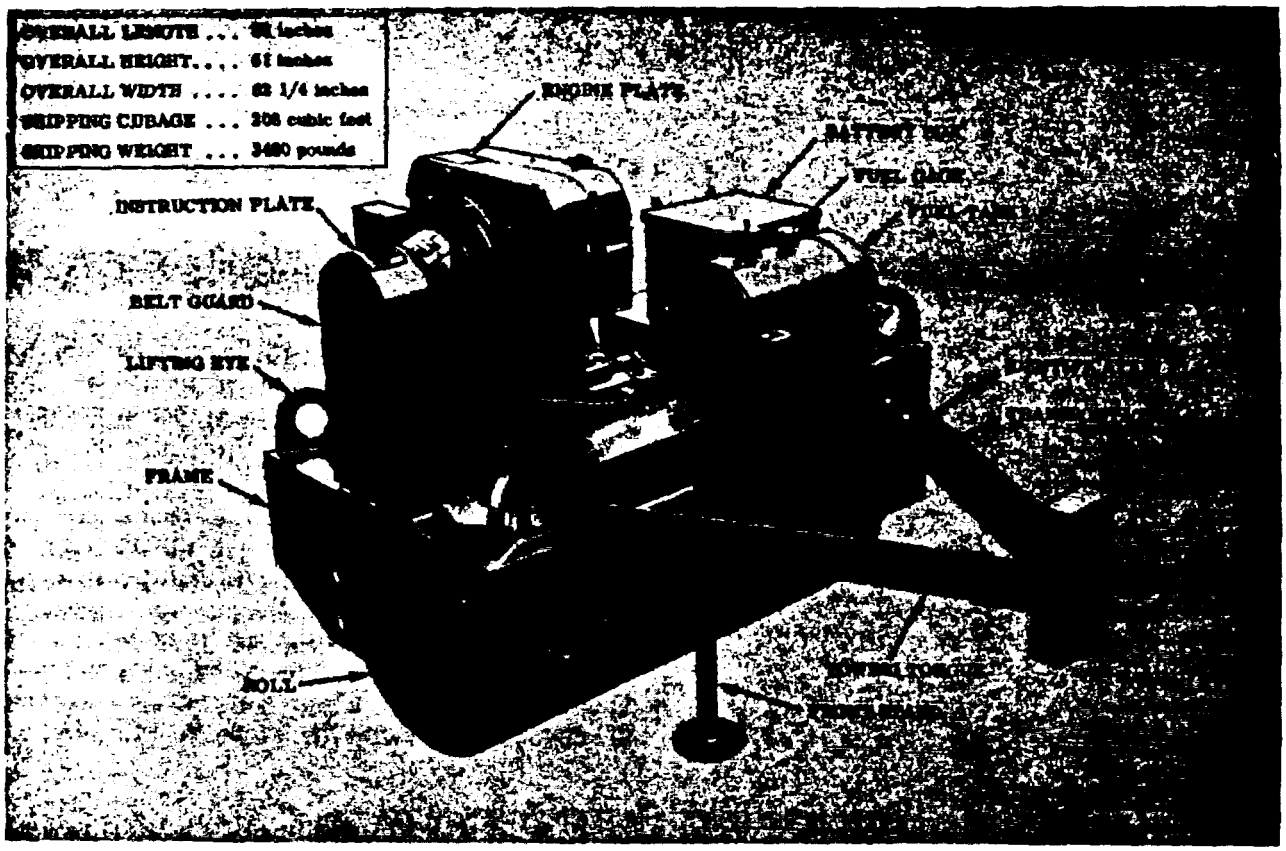

Figure 1-1. Roller, three-quarter right front view.

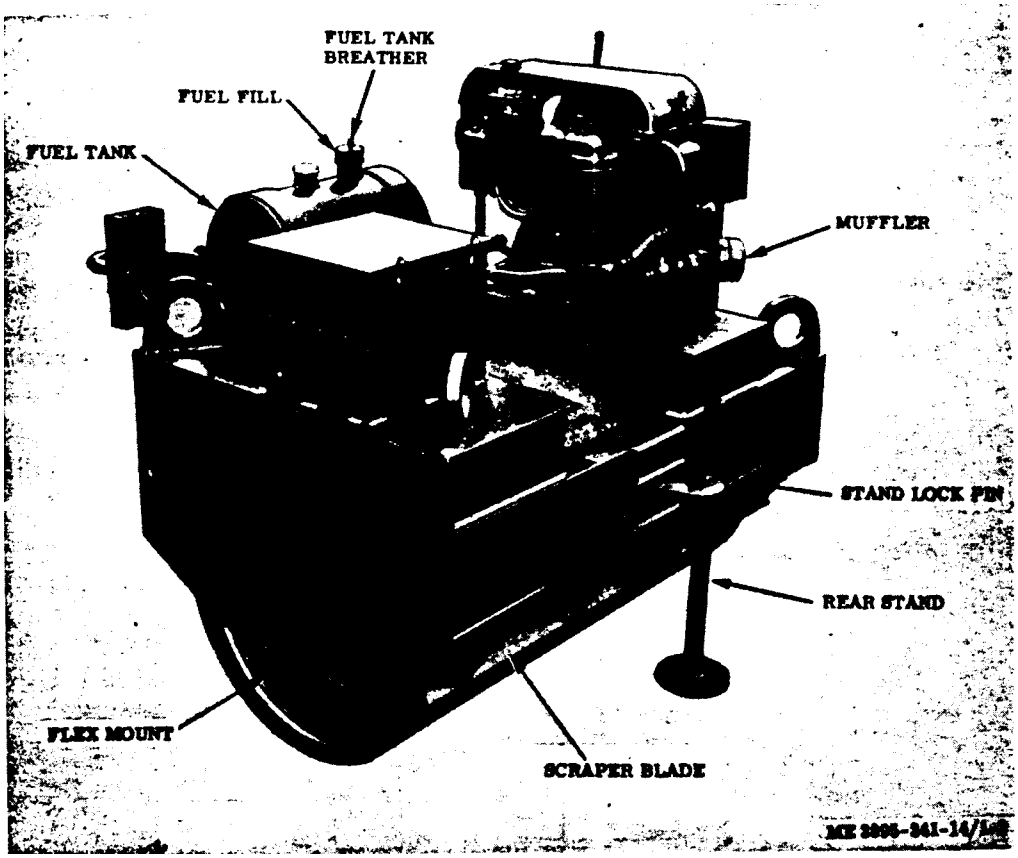

Figure 1-2. Roller, three quarter left rear view.

b. Tabulated Data.

(1) *Roller.*

Manufacturer.....Essick Manufacturing Co.
Model.....VR55TM
Type .....Vibrating Towed
Normal Towing Speed .....1 ½ M. P. H.
Maximum Towing Speed .....3 M. P. H.
Roll Diameter.....30 inches
Roll Width .....55 inches
Weight .....3,460 lbs.
Vibrating Force .....10,300 lbs.
Vibrations per Minute .....1,300 to 1,600
Engine RPM-Full Throttle.....3550

(2) *Engine*. This is the Military Standard Engine Model 2A042-3, FSN 2805-872-5971. For all data and maintenance requirements, consult TM 5-2805-258-14 and TM 5-2805-258-24P.

(3) *Accessory items.*

Fuel Gage
  Manufacturer.....Rochester Gauges, Inc.
  Model.....6680-L12-H70
Hourmeter
  Manufacturer.....Hamilton Watch Co.
  Model 771
Ammeter
  Manufacturer .....Stewart Warner
  Model 359L
Oil Pressure Gauge
  Manufacturer .....Stewart Warner
  Model 505T
Power Take-Off
  Manufacturer .....Twin Disc, Inc.
  Model C106SP6-3372
Air Inlet Housing
  Manufacturer .....Alton Iron Works
  Model .....FSN 2805-895-3050
  Muffler
  Manufacturer .....Wisconsin Motor Corporation
  Model WD-66
Toggle Switches
  Manufacturer .....Kulka Electric Corporation
  Model MS-35058-29
  Model MS-35058.30
  Model MS-35059-23
Pulleys
  Manufacturer .....Dayco
  Model 4-3V36-QD
  Model 4-3V80-D
Drive Belt
  Manufacturer .....Dayco
  Model .....4R / 3V-850

(4) *Capacities*

Fuel Tank .....10 gallons