

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR AND ORGANIZATIONAL
MAINTENANCE MANUAL

PUMP, CENTRIFUGAL
FRESH WATER; GASOLINE DRIVEN
2 WHEEL MOUNTED; 4 IN
500 GPM, 30 FT HEAD
(CARVER MODEL K400S) FSN 4320-810-7311
(LESS ENGINE)

This copy is a reprint which includes current pages from Changes 1 through 5

HEADQUARTERS, DEPARTMENT OF THE ARMY
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CHAPTER 1 INTRODUCTION

Section I. GENERAL

1. Scope

a. These instructions are published for the use of personnel to whom the Carver Centrifugal Pump, Model K400S, is issued. They contain information on the operation and organizational maintenance of the equipment. This manual also provides a description of the main units and their functions in relationship to other components.

b. Appendix I contains a list of publications applicable to this manual. Appendix II contains the maintenance allocation chart and appendix III contains the basic issue items authorized for use of the operator of this equipment. The organizational maintenance repair parts and special tool lists are in TM 5-4320-215-20P.

c. The numbers placed in parentheses on illustrations within this manual indicate quantity.

d. Report all deficiencies as specified in AR 700-38. Submit recommendations for changes, additions, or deletions to The Commanding General, U.S. Army Engineer Maintenance Center, Corps of Engineers, ATTN: EMCDM, P. O. Box 119, Columbus 16, Ohio. Direct communication is authorized.

2. Operator and Organizational Maintenance Record and Report Forms

For record and report forms, applicable to the first and second echelons of maintenance, refer to TM 5-505.

Section I. DESCRIPTION AND DATA

3. Description

a. *General.* The Carver Centrifugal Pump (figs. 1 and 2), Model K400S, is a self-contained, wheel-mounted, fresh water pump. It consists of a gasoline engine (fig. 1) and a centrifugal-type pump (fig. 2). The engine of the pumping unit is completely enclosed and is equipped with doors for easy access to all components. The unit is equipped with two 12-v (volt), 100-amp (amperes) batteries and box (fig. 1), a battery-charging generator and the necessary controls and instruments. A lifting bail (fig. 1) is provided for lifting the pumping unit.

b. *Pump.* The pump (fig. 2) is a self-priming, pedestal-mounted, centrifugal-type unit designed for pumping fresh water. The pump is directly coupled to the engine (fig. 1).

4. Identification

This pumping unit has one identification and instruction plate. The data on this plate can be found in paragraph 6.

5. Differences in Models

This manual covers only the Carver Model K400S Pumping Unit. No known unit differences exist for the model covered by this manual.

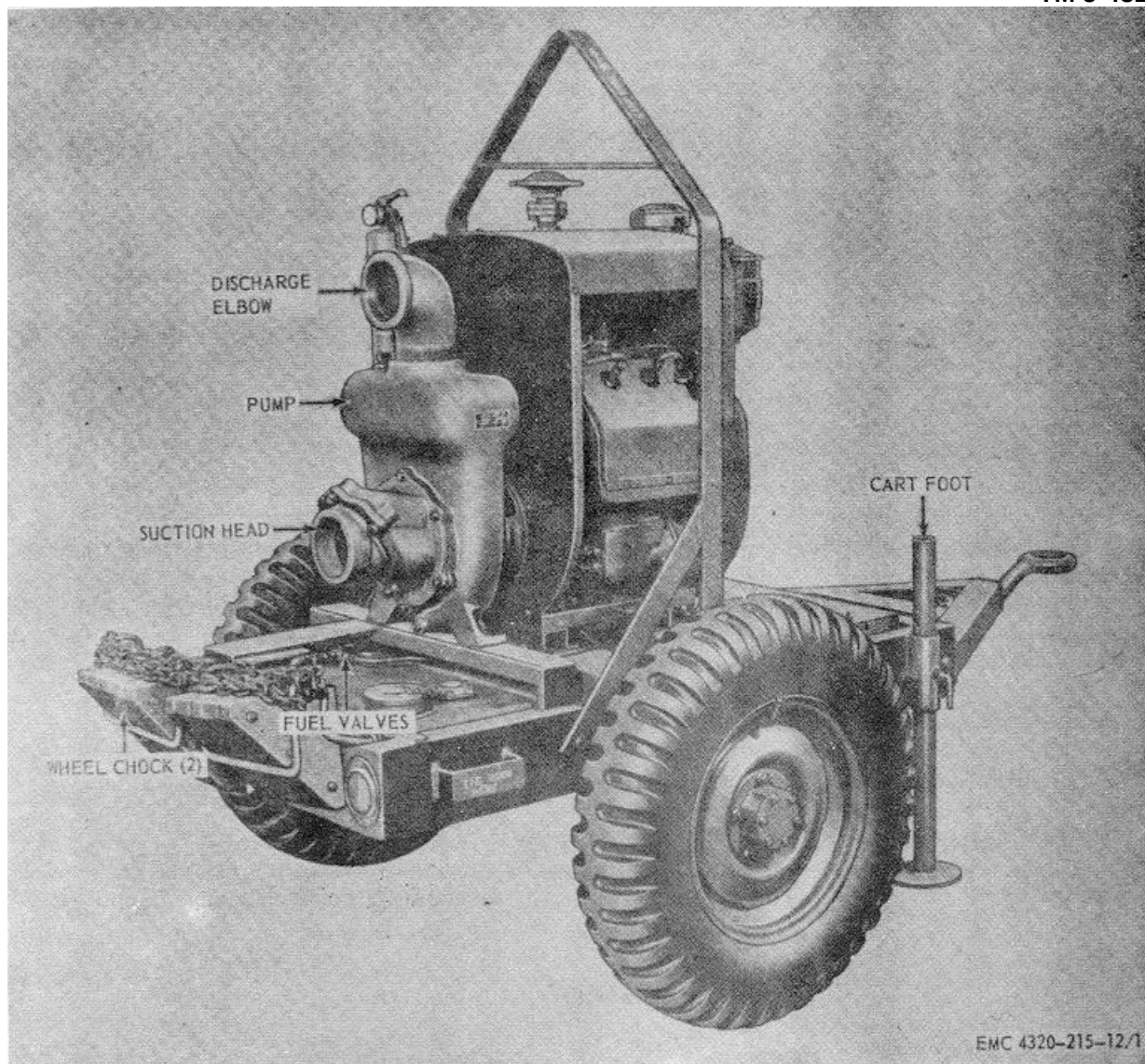


Figure 1. Centrifugal pump, right rear, three-quarter view.

6. Tabulated Data

a. General.

ManufacturerCarver Pump Company
 Model.....K400S
 TypePortable, gasoline-driven
 MountWheel-mounted

b. Engine.

ManufacturerWisconsin Corporation
 Model.....MVF4D

Motor

Number of cylinders.....4
 TypeAir cooled
 Rated horsepower.....18.2 net continuous
 Compression ratio.....5.8 to 1

c. Pump.

ManufacturerCarver Pump Company
 Model.....K400S
 TypeCentrifugal
 Maximum capacity.....703 gpm (gallons per minute)
 Rated capacity5600 gpm