

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR, ORGANIZATIONAL

DIRECT SUPPORT AND GENERAL SUPPORT

MAINTENANCE MANUAL

INCLUDING

REPAIR PARTS AND SPECIAL TOOL LISTS

PUMP, RECIPROCATING, DIAPHRAGM
100 GPM, LESS MIL STD ENGINE
(REX CHAINBELT MODEL 4DG)
FSN 4320-063-7363

This copy is a reprint which includes current
pages from Changes 6 and 7.

HEADQUARTERS, DEPARTMENT OF THE ARMY
DECEMBER 1968

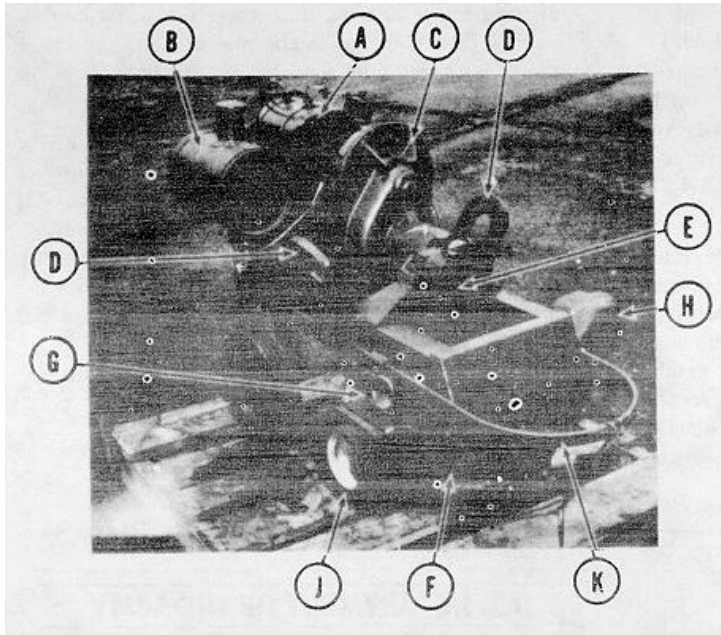
OPERATOR, ORGANIZATIONAL, DIRECT SUPPORT
AND GENERAL SUPPORT MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST

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(REX CHAINBELT MODEL 4DG)
FSN 4320-063-7363
CURRENT AS OF 1 October 1968

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- A. Engine
- B. Engine Fuel Tank
- C. Pump Reduction Case
- D. Lifting Device
- E. Pump Connecting Rod
- F. Pump Body
- G. Priming Cap
- H. Outlet Side
- J. Inlet Side
- K. Towing Bail

FIGURE 1 RECIPROCATING PUMP.

CHAPTER I - GENERAL

1. Description - The REX Model MBG Diaphragm Pump is a positive displacement type pump powered by a military standard Model 2A016 (FSN2805-0724871) air cooled engine. The pump and engine are mounted on a common frame and is trailer mounted. 4" inlet and outlet valves are bolted to the pump body to which the suction and discharge lines are fitted. (Engine maintenance and parts are covered in TM 5-2805- 257-14).

The main operating part of the pump is its flexible rubber diaphragm. The outer edge of the diaphragm is secured to the rim of the pump body. A connecting rod fastened to the diaphragm center moves it up and down. As it is lifted, it creates a vacuum which draws liquid into the pump body. As the diaphragm is forced down, it forms a pressure which simultaneously closes the inlet valve and opens the out-let valve.

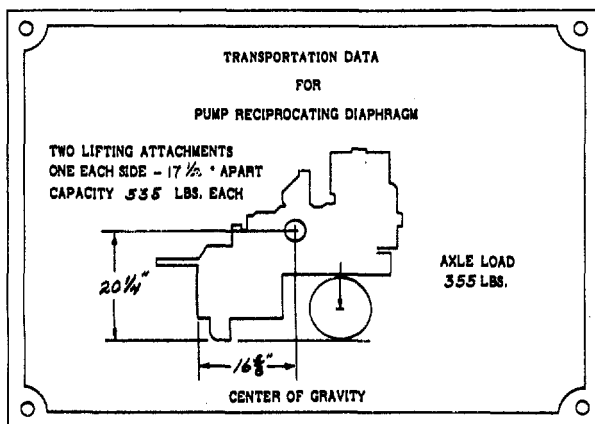


Figure 1A
TRANSPORTATION DATA PLATE

2. Application - The Model MBG Diaphragm Pumps are utilized for dewatering jobs where the liquid carries a high percentage of trash, mud or sand, or where there is a variable seepage of water, such as in trench work.

Where slow water seepage and high suction lift is encountered, the use of a foot valve at the end of the suction line is recommended. This addition will facilitate priming and help maintain a dry excavator. (A foot valve is a flap type valve which opens with the suction stroke of the pump and closes with the discharge stroke, thus the suction line is always full of water after the suction line is filled.)

CAUTION: A strainer must be used on suction hose to prevent entrance of stones into the pump.

3. Pump Data Plate - Engine Data Plate-Trans. Data Plate.

U.S. DEPARTMENT OF THE ARMY			
PUMP, RECIPROCATING, DIAPHRAGM			
MODEL	4D-G	CAPACITY	
SER		YEAR OF MANUFACTURE	1967
ENG SER NO.			INSP STAMP
REGISTRATION NO.			
FSN	2320-063-7343	CONT NO.	DAAK01-C-A534
SHIPPING WT.	570	LB. GROSS VEHICLE WT.	425 LB.
OVERALL HEIGHT	32 1/4	IN. WIDTH	31 1/8 IN LENGTH
WARRANTY	6 MO OR	MI DATE SHIP	
MFD. BY REX CHAINBELT INC.			

Figure 1B
PUMP DATA PLATE



Figure 1C ENGINE DATA PLATE