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### Parts Manual Vermeer/ McLaughlin Mud System 230P

### SN 230P032611116 - Present

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#### MUD SYSTEM 230P

<b>Item</b> 1	<b>Qty</b> 1	<b>Part No.</b> P030200	<b>Description</b> Engine, Kohler 12HP
2	1	T100160	Pump, Hydraulic
	1	HM00099	Bell Housing
	1	HM00126	Coupling, Hub 1" Bore (for Engine)
	1	HM00130	Coupling, Hub 3/4" Bore (for Hydraulic Pump)
	1	HM00128	Coupling, Insert
3	1	T700080	Filter, Hydraulic Assembly
4	1	T200110	Motor, Hydraulic
	1	8011020	Mixing Motor Extension Arm
	1	8011023	Mixing Motor Mounting Plate
	1	8011024	Mixer Shaft Coupling
	1	8011027	Mixer Shaft
	1	8011028	Mixer Head
	1	8011032	Mixer Shaft Coupling Guard
5	1	8011056	Mud Relief Valve (1000psi / 69 bar)
6	1	X400040	Battery
	1	8040239	Battery Box
7	1	8011062	Pump, Mud Assembly
8	1	8011038	Valve, Hydraulic Flow Control
9	1	8030338	Mixing Tank (230 Gallon / 920 Quart)
	2	8040084	Strap, Mixing Tank
10*	1	8011061	Controller with 50 Ft / 1524 cm Cable w/ Male Connector
11*	1	J200072	Decal Kit Safety McL230P (CE Certified)
	1	J200073	Decal Kit Safety McL230P (Standard)

\*Not Shown

#### **Mud Pump**

# Model BP 100 Bentonite Pump

Triplex Ceramic Plunger Pump Operating Instructions/ Repair and Service Manual





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#### INSTALLATION INSTRUCTIONS

Installation of the Giant Industries, Inc., pump is not a complicated procedure, but there are some basic steps common to all pumps. The following information is to be considered as a general outline for installation. If you have unique requirements, please contact Giant Industries, Inc. or your local distributor for assistance.

1. The pump should be installed flat on a base to a maximum of a 15 degree angle of inclination to ensure optimum lubrication.

2. The inlet to the pump should be sized for the flow rate of the pump with no unnecessary restrictions that can cause cavitation. Teflon tape should be used to seal all joints. If pumps are to be operated at temperatures in excess of 194° F, it is important to insure a positive head to the pump to prevent cavitation.

3. The discharge plumbing from the pump should be properly sized to the flow rate to prevent line pressure loss to the work area. It is essential to provide a safety bypass valve between the pump and the work area to protect the pump from pressure spikes in the event of a blockage or the use of a shut-off gun. 4. Use of a dampener is necessary to minimize pulsation at drive elements, plumbing, connections, and other system areas. The use of a dampener with Giant Industries, Inc. pumps is optional, although recommended by Giant Industries, Inc. to further reduce system pulsation. Dampeners can also reduce the severity of pressure spikes that occur in systems using a shut-off gun. A dampener must be positioned downstream from the unloader.

5. Crankshaft rotation on Giant Industries, Inc. pumps should be made in the direction designated by the arrows on the pump crankcase. Reverse rotation may be safely achieved by following a few guidelines available upon request from Giant Industries, Inc. Required horsepower for system operation can be obtained from the chart on page 3.

6. Before beginning operation of your pumping system, remember: Check that the crankcase and seal areas have been properly lubricated per recommended schedules. Do not run the pump dry for extended periods of time. Cavitation will result in severe damage. Always remember to check that all plumbing valves are open and that pumped media can flow freely to the inlet of the pump.

Finally, remember that high pressure operation in a pump system has many advantages. But, if it is used carelessly and without regard to its potential hazard, it can cause serious injury.

#### IMPORTANT OPERATING CONDITIONS

Failure to comply with any of these conditions invalidates the warranty.

1. Prior to initial operation, add oil to the crankcase so that oil level is between the two lines on the oil dipstick. DO NOT OVERFILL

Use SAE 80-90W or Giant's p/n 01154

Crankcase oil should be changed after the first 50 hours of operation, then at regular intervals of 500 hours or less depending on operating conditions.

 Pump operation must not exceed rated pressure, volume, or RPM. <u>A pressure relief</u> <u>device must be installed in the discharge of the</u> <u>system</u>.

 Acids, alkalines, or abrasive fluids cannot be pumped unless approval in writing is obtained before operation from Giant Industries, Inc.

 Run the pump dry approximately 10 seconds to drain the water before exposure to freezing temperatures.

## **Mud Pump**



BP100 HORSEPOWER REQUIREMENTS						
RPM	GPM	500 PSI	1000 PSI	1500 PSI	2000 PSI	
250	2.0	0.7	1.4	2.0	2.7	
350	2.8	0.9	1.9	2.8	3.8	
450	3.5	1.2	2.4	3.7	4.9	
550	4.3	1.5	3.0	4.5	6.0	
650	5.1	1.8	3.5	5.3	7.0	
750	5.9	2.0	4.1	6.1	8.1	

## **Mud Pump**



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### WARRANTY RETURN GOODS POLICY

#### LIMITED WARRANTY

The Manufacturer warrants its products to be free from defects in material and workmanship for a period of twelve months from the date of shipment from the factory. The Manufacturer shall not be responsible for any damage resulting to or caused by its products by reason of installation, improper storage, unauthorized service, alteration of the products, neglect or abuse, or use of the product in a manner inconsistent with its design. The warranty does not extend to any component parts not manufactured by Manufacturer; however, Manufacturer's warranty herein shall not limit any warranties made by manufacturers of component parts which extend to Buyer.

Claims for defects in material and workmanship shall be made in writing to Manufacturer within ten days of discovery of defect. Manufacturer may either send a service representative or have the product returned to its factory at Buyer's expense for inspection. Upon notification of defect, Manufacturer will issue a return goods authorization number to Buyer. The return goods authorization number must accompany the product returned. If judged by the Manufacturer to be defective in material or workmanship, the product will be replaced or repaired at the option of the Manufacturer, free from all charges except authorized transportation. Buyer shall be responsible for all maintenance services consisting of lubrication and cleaning of equipment, replacing expandable parts, making minor adjustments, and performing operating checks, all in accordance with procedures outlined in Manufacturer's maintenance literature.

THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES AND NO REPRESENTATIONS, GUARANTEES, OR WARRANTIES, EXPRESS OR IMPLIED, (INCLUDING BUT NOT LIMITED TO A WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), ARE MADE BY THE MANUFACTURER IN CONNECTION WITH THE MANUFACTURE OR SALE OF ITS PRODUCTS. NO EMPLOYEE, DISTRIBUTOR, OR REPRESENTATIVE IS AUTHORIZED TO CHANGE THIS WARRANTY ON BEHALF OF MANUFACTURER. THE REMEDIES OF BUYER SET FORTH HEREIN ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER REMEDIES. THE LIABILITY OF MANUFACTURER WHETHER IN CONTRACT, TORT, UNDER ANY WARRANTY, OR OTHERWISE SHALL NOT EXTEND BEYOND ITS OBLIGATION TO REPAIR OR REPLACE, AT ITS OPTION ANY PRODUCT OR PART FOUND BY MANUFACTURER TO BE DEFECTIVE IN MATERIAL OR WORKMANSHIP. MANUFACTURER SHALL NOT BE LIABLE FOR COST OF INSTALLATION AND/OR REMOVAL OR BE RE-SPONSIBLE FOR DIRECT, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE.

#### **GENERAL RETURNS OF MERCHANDISE**

- 1. All returns must be pre-authorized
  - A. Please call our parts department for an RGA number
  - B. Please include RGA number on the outside of box
  - C. Include any required paper work or special instructions
  - D. Items returned without an RGA number will not be accepted
- 2. All returns are subject to a 20% restock charge.
- 3. Special items are non-returnable
  - A. Non-stock parts
  - B. Custom parts

C. If you are unsure about a parts status when ordering, ask your McLaughlin representative if the item fits on of the above conditions.

- 4. Items must be returned within thirty days of original order date.
- 5. Items not returned within 30 days from the date of RGA is issued will not be accepted.
- 6. The item(s) must be in new condition. Used item(s) are not returnable.

### **Maintenance Record**

DATE	SERVICE PERFORMED	BY
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# Maintenance Record

DATE	SERVICE PERFORMED	BY