

Please read and save this Repair Parts Manual. Read this manual and the General Operating Instructions carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. The Safety Instructions are contained in the General Operating Instructions. Failure to comply with the safety instructions accompanying this product could result in personal injury and/or property damage! Retain instructions for future reference.

# Dewatering Pumps

Refer to form 1808-633-00 for General Operating and Safety Instructions.

## Inspection

Look over the unit to see that no parts are missing or broken in shipment. An engine instruction book and pump instruction and parts list are supplied with each pump. Read instruction book carefully.

## Placing Pump

Place the pump on a level, firm foundation, putting it as near as possible to the level of the liquid which is to be pumped, but never higher than 25 feet.

## Connecting Hose

Connect the hoses or pipes to the suction and discharge fittings. If hose is used, be sure to use strongly reinforced hose on the suction side. Tighten hose couplings firmly, using the rubber gaskets furnished with the couplings. Hose or pipes should be supported independently and not carried by the pump.

## Before Starting

1. A suction strainer should be attached to the suction hose or pipe. It is provided with holes or slots small enough to prevent big stones, etc. from damaging the

impeller. Keep the strainer clean. If possible, suspend it to keep it from working into the sediment.

2. Fill the engine crankcase with oil as specified in the engine manual.
3. Fill the fuel tank with unleaded gasoline.
4. Fill the pump with liquid through the priming port on top of the pump case. Remember the pump is self-priming only when the pump is filled. Refilling is necessary only if pump has been drained or if the fluid has been lost.

## Starting

Start the engine, following instructions in the engine manual.

**▲ WARNING** Do not use

**pump in explosive atmosphere.**

**▲ WARNING** Do not pump

**volatile or flammable liquids.**

## Priming Time

With a suction lift from 5 to 10 ft., the pump should discharge liquid in less than a minute. A suction lift of 25 ft. (at sea level) should require not more

than 2 minutes for initial prime. To further reduce priming time the engine speed may be increased after the engine is properly broken in. If pumping does not start within this time, shut off engine and check carefully to find the problem. (See Troubleshooting)

## Control

On high suction lifts, a higher engine speed is necessary than on low lifts. Therefore, on shallow lifts or when there is but little liquid to pump, save fuel and the engine by reducing the engine speed. (See engine manual).

## Check Valve

If discharge line runs vertically more than 30 ft., it is advisable to install a check valve in the discharge line near the pump to stop destructive liquid hammer when the pump is shut down. If this is done, it may be necessary to vent the top of the pump so that air can be expelled during automatic repriming. This air bleed may be accomplished by providing a 1/4" line from the top of the pump back to the liquid source. Manufacturer will not assume any responsibility

# Dewatering Pumps

for damage to the pump if no check valve is used in the discharge line.

Properly fueled and lubricated, your pump will run without attention.

## Draining

During freezing weather, be sure to drain pump when it is not in use.

Unscrew the drain plug and run engine about 30 seconds without pumping.

## Storage

When pump is out of service for long periods, drain it and store in dry, well-ventilated room. Pull engine hard against compression so that valves will be sealed. (Never run pump dry for more than 30 seconds or the shaft seal may be damaged.)

## Maintenance

To disassemble pump follow these steps:

1. Remove body bolts (Ref. No. 24) and nuts (Ref. No. 21).
2. Remove body (Ref. No. 18).
3. Remove the two stainless screws (Ref. No. 11).
4. Follow these instructions for removing the impeller (Ref. No. 2):
  - a. If there is a hex head screw in the center of the impeller, remove the screw and pry the impeller off the shaft (use two

short screwdrivers and pry behind the impeller with the screwdrivers at 3 o'clock and 9 o'clock).

- b. If there is not a hex head screw in the center of the impeller hub, remove the impeller by rotating the impeller counterclockwise. It may be necessary to strike the end of one of the impeller vanes with a wood block and hammer to start the counterclockwise rotation.
5. If the mechanical shaft seal (Ref. No. 8) needs replacing:
  - a. With a screwdriver, pry the white seal ring and its rubber boot out of the back of the impeller.
  - b. Remove the pump bracket (rear housing) (Ref. No. 13) by removing the four bolts (Ref. No. 4).
  - c. To remove the seal assembly from the rear housing, drive it out from behind.
6. To replace the seal component in the rear housing, coat the bore in the housing where the seal goes with gasket material (Permatex or equivalent), and press the seal component into housing by using an arbor press or drill press. Use a short piece of pipe that fits on the small flange of the seal case so that you are not pressing on the delicate, finely finished carbon seal ring. Do not damage the seal face.
7. To replace the seal component in the impeller hub, lubricate the outside of the rubber boot with vegetable oil, or soap and press the white ring and rubber boot into the hub using your two thumbs. Be certain that the seal ring is all the way down and even with the back of the impeller so that the ring does not wobble when the impeller rotates on the shaft. Do not damage the surface of the white ring.
8. Re-assemble the pump in the reverse manner from the disassembly. Use thread sealant on four bolts (Ref. No. 4) that bolt bracket to engine.

**For Repair Parts, contact dealer where pump was purchased.**

Please provide the following information:

-Model number

-Serial number (if any)

-Part description and number as shown in parts list

Part Number for Models		2G3/2G5	3G5	2G3K/2G5K	3G5K	Qty.
Ref. #	Description					
1	ENGINE 2G3/2G5	3 HP/5 HP	5 HP	3 HP/5 HP	5 HP	1
2	IMPELLER 2G3	2-109	N/A	N/A	N/A	1
2	IMPELLER 2G5	2-141	N/A	N/A	N/A	1
2	IMPELLER 3G5	N/A	2-107	N/A	N/A	1
2	IMPELLER 2G3K	N/A	N/A	2-140	N/A	1
2	IMPELLER 2G5K	N/A	N/A	2-142	N/A	1
2	IMPELLER 3G5K	N/A	N/A	N/A	2-172	1
3	SEALING WASHER (SET OF 4) +,++	16-233-1	16-233-1	16-233-1	16-233-1	1
4	BOLT 5/16-24 X 1.38 SS	19-216	19-216	19-216	19-216	4
5	SLINGER +,++	12-117-B	12-117-B	12-117-B	12-117-B	1
6	SHAFT SLEEVE, SS +,++	4-110	4-110	N/A	N/A	1
8 STD	SHAFT SEAL, EPDM	1640-162-93	1640-162-93	1640-162-93	1640-162-93	1
11	VOLUTE SCREW	*	*	*	*	2
13 STD	BRACKET	5-128-1A	5-128-1A	5-128-1A	5-128-1A	1
13 ALT	BRACKET CAST IRON	5372-1A	5372-1A	5372-1A	5372-1A	1
15 STD	BODY O-RING, EPDM*	+	+	+	+	1
15 ALT	BODY O-RING, VITON®++	++	++	++	++	1
17	PLUG	3827-176-00	3827-176-00	3827-176-00	3827-176-00	2
17	O-RING, EPDM	+	+	+	+	2
17	O-RING, VITON®	++	++	++	++	2
18 STD	BODY	6-129-1A	6-131-1A	6-129-1A	6-131-1A	1
18 C.I. ALT	BODY, CAST IRON	6-370-1A	6-371-1A	6-370-1A	6-371-1A	1
19	VOLUTE	1-113-A	1-108-A	1-113-A	1-108-A	1
20 STD	CHECK VALVE, EPDM	7-136-1	7-137-1	7-136-1	7-137-1	1
20 ALT	CHECK VALVE, VITON®	7-136-1A	7-137-1A	7-136-1A	7-137-1A	1
21	LOCKNUT 5/16	*	*	*	*	10
22	BOLT 5/16 X 3/4	*	*	*	*	2
23	RUBBER FEET	1508-000-00	1508-000-00	1508-000-00	1508-000-00	4
24	BOLT 5/16 X 1-1/2	*	*	*	*	6
25	FLAT WASHER 5/16 X 1-1/2	*	*	*	*	4
26	BOLTS 5/16 X 1-1/2	*	*	*	*	2
28 STD	VOLUTE O-RING EPDM +	+	+	+	+	1
28 ALT	VOLUTE O-RING VITON® ++	++	++	++	++	1
29	IMPELLER CAP	N/A	N/A	9-126	9-126	1
30	IMPELLER BOLT 5/16-24 X 1 SS	N/A	N/A	19-166	19-166	1
31	KEY 3/16 X 1/2	N/A	N/A	24-205	24-205	1
33	ROLL PIN SS	21-298	21-298	21-298	21-298	2
35	SHIM SST (SET OF 4) +, ++	22-252-1	22-252-1	22-253-1	22-253-1	1
	NOT SHOWN - STRAINER	C575-90	C519-90	C575-90	C519-90	1
	NOT SHOWN - OPTIONAL ROLL FRAME KIT	3120-105-K0	3120-105-K0	3120-105-K0	3120-105-K0	1
	+ INCLUDED IN SEAL & O-RING KIT EPDM STD	50-001	50-003	50-002	50-004	
	++ INCLUDED IN SEAL & O-RING KIT VITON® ALT	50-001-A	50-003-A	50-002-A	50-004-A	

\*Standard Hardware Available Locally

N/A = Not Applicable

Viton is a registered trademark of DuPont Dow Elastomers

**For Repair Parts, contact dealer where pump was purchased.**

Please provide the following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

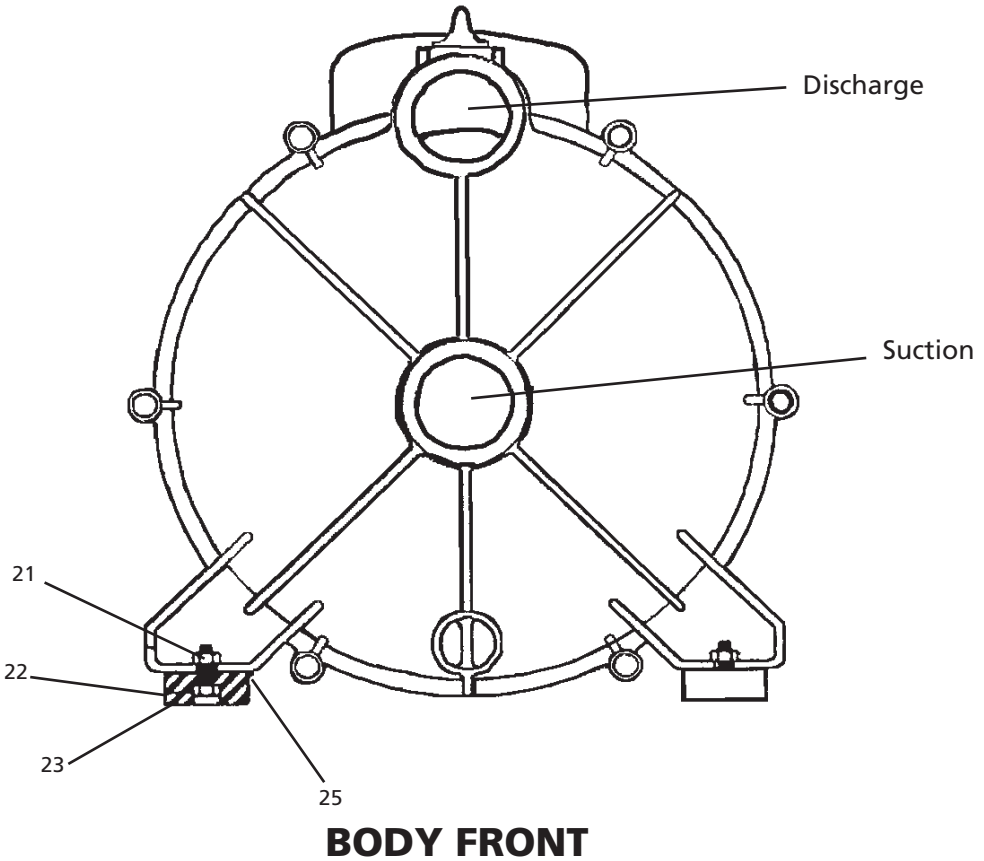


Figure 1

**For Repair Parts, contact dealer where pump was purchased.**

Please provide the following information:

- Model number
- Serial number (if any)
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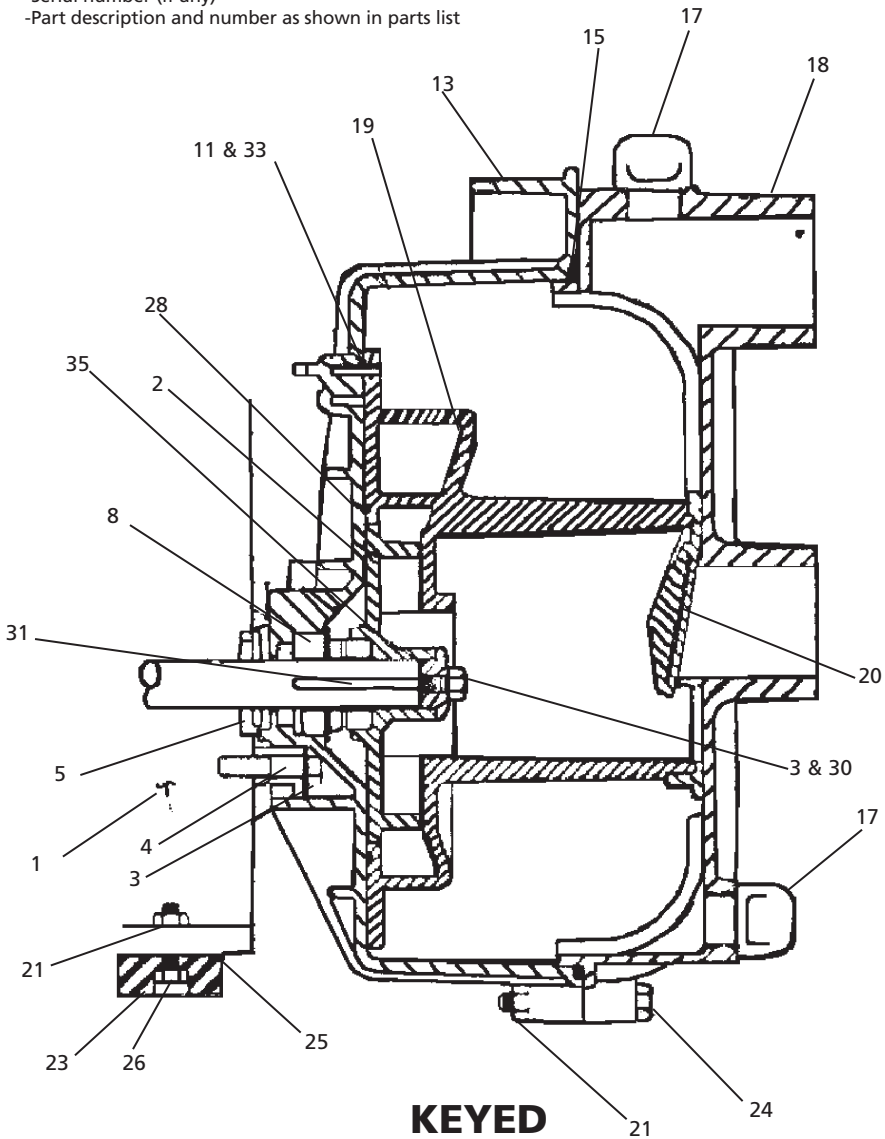


Figure 2

**For Repair Parts, contact dealer where pump was purchased.**

Please provide the following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

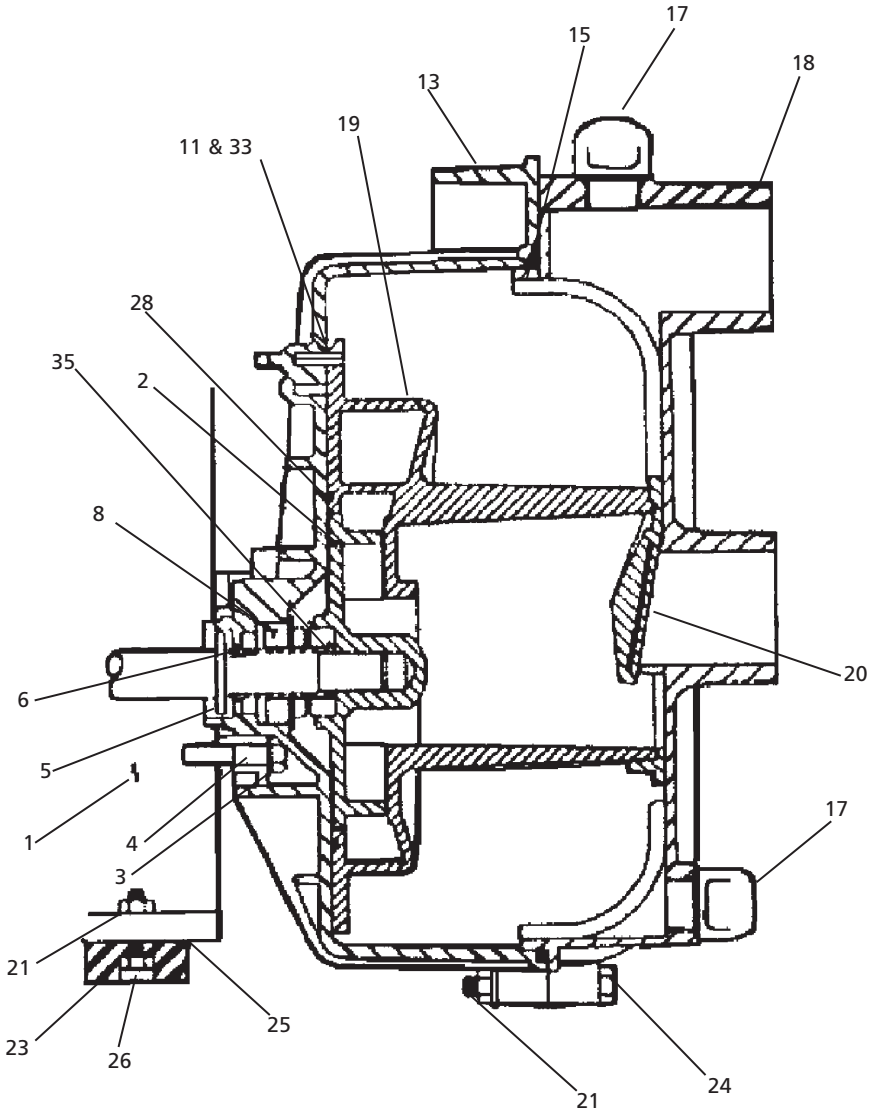


Figure 3

# Dewatering Pumps

If difficulties are experienced, in the majority of cases they can be traced to well-known causes. We suggest you check these points first to save needless expense.

## Troubleshooting Chart

1. Make sure that pump casing is full of cool liquid.
2. If difficulty continues, remove suction hose, start engine and hold a flat piece of rubber sheet, or other suitable material against the suction inlet. If the pump develops a strong pull against the material, the trouble is not in the pump. If there is no pull, the shaft seal may need replacing.
3. Examine suction hose or pipe connections. Air leaks in the suction line and connection to pump are the most frequent causes of priming trouble. Use new gaskets in hose coupling. New couplings sometimes require 2 gaskets. Lining of hose may also become loose and clog the hose.
4. Keep pump as close as possible to the level of the liquid being pumped. It will give best performance on suction lifts less than 15 feet, and is not guaranteed to handle any lift over 25 feet at sea level.
5. Be sure strainer is not clogged.
6. There are no parts or valves to become clogged or out of adjustment. The only requirement is that the pump case is full of liquid.
7. Keep your pump unit clean and properly serviced. Care in this respect will repay in many years of trouble-free operation.

