

IMPORTANT! Read all Instructions in this manual before operating pump. Champion Pump Company, Inc. reserves the right to change product without written consent.

> Champion Pump Company, Inc. P.O. Box 528 Ashland, OH 44805 Phone: 419-281-4500 Fax: 419-616-1100 www.championpump.com

Rev 02/21

SAFETY FIRST!

Please Read This Before Installing Or Operating Pump. This information is provided for SAFETY and to PREVENT EQUIPMENT PROBLEMS. To help recognize this information, observe the following symbols:

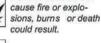


IMPORTANT! Warns about hazards that can result in personal injury or Indicates factors concerned with assembly, installation, operation, or maintenance which could result in damage to the machine or equipment if ignored.

CAUTION ! Warns about hazards that can or will cause minor personal injury or property damage if ignored. Used with symbols below.

WARNING ! Warns about hazards that can or will cause serious personal injury, death, or major property damage if ignored. Used with symbols below.







Extremely hot - Severe burns can occur on contact.

ous pressure, eruptions or ex-

plosions could cause personal

injury or property damage.

Biohazard can cause serious personal injury.



Rotating machinery Amputation or severe laceration can result.



Hazardous voltage can shock, burn or cause death.

Only qualified personnel should install, operate and repair pump. Any wiring of pumps should be performed by a qualified electrician.



WARNING ! - To reduce risk of electrical shock, pumps and control panels must be properly grounded in accordance with the National Electric Code (NEC) or the Canadian Electrical Code (CEC) and all applicable state, province, local codes and ordinances.

WARNING! - To reduce risk of electrical shock, always disconnect the pump from the power source before handling or servicing. Lock out power and tag.

Prevent large articles of clothing, large amounts of chemicals, other materials or substances such as are uncommon in domestic sewage from entering the system.

During power black-outs, minimize water consumption at the home(s) to prevent sewage from backing up into the house.

Always keep the shut-off valve completely open when system is in operation (unless advised otherwise by the proper authorities). Before removing the pump from the basin, be sure to close the shut-off valve. (This prevents backflow from the pressure sewer.)

Keep the control panel locked or confined to prevent unauthorized access to it.

If the pump is idle for long periods of time, it is advisable to start the pump occasionally by adding water to the basin.



CAUTION! Pumps build up heat and pressure during operation-allow time for pumps to cool before handling or servicing.



WARNING! - DO NOT pump hazardous materials (flammable, caustic, etc.) unless the pump is specifically designed and designated to handle them.

Do not block or restrict discharge hose, as discharge hose may whip under pressure.



WARNING! - DO NOT wear loose clothing that may become entangled in the impeller or other moving parts.



WARNING! - Keep clear of suction and discharge openings. DO NOT insert fingers in pump with power connected.

Make sure lifting handles are securely fastened each time before lifting. Do not operate pump without safety devices in place. Always replace safety devices that have been removed during service or repair.

Do not exceed manufacturers recommendation for maximum performance, as this could cause the motor to overheat.

Secure the pump in its operating position so it can not tip over, fall or slide.

Cable should be protected at all times to avoid punctures, cut, bruises and abrasions - inspect frequently.

Never handle connected power cords with wet hands.



To reduce risk of electrical shock, all wiring and junction connections should be made per the NEC or CEC and applicable state or province and local codes. Requirements may vary depending on usage and location.



Submersible Pumps are not approved for use in swimming pools, recreational water installations, decorative fountains or any installation where human contact with the pumped fluid is common.

Do not remove cord and strain relief. Do not connect conduit to pump.



Products Returned Must Be Cleaned, Sanitized, Or Decontaminated As Necessary Prior To Shipment, To Insure That Employees Will Not Be Exposed To Health Hazards In Handling Said Material. All Applicable Laws And Regulations Shall Apply.

Bronze/brass and bronze/brass fitted pumps may contain lead levels higher than considered safe for potable water systems. Lead is known to cause cancer and birth defects or other reproductive harm. Various government agencies have determined that leaded copper alloys should not be used in potable water applications. For non-leaded copper alloy materials of construction, please contact factory.



IMPORTANT! - Champion Pump Company is not responsible for losses, injury, or death resulting from a failure to observe these safety precautions, misuse or abuse of pumps or equipment.

USER GUIDE

Congratulations on your purchase of a Champion Pump grinder pump system. With proper care and by following a few simple guidelines, your grinder pump will give you many years of dependable service.

USE & CARE

The Champion grinder pump station is designed to handle routine, domestic sewage. Solid waste materials should be thrown in the trash. While you station is capable of accepting and pumping a wide range of materials, regulatory agencies advise that the following items should not be introduced into any sewer either directly or through a kitchen waste disposal:

Glass; Metal; Diapers; Socks, rags or cloth; Plastic objects (e.g., toys, utensils, etc.) Sanitary napkins or tampons.

In addition you must never introduce into any sewer: Explosives; flammable material; lubricating oil and or grease; strong chemicals; gasoline.

GENERAL INFORMATION

Your home wastewater disposal service is part of a low pressure sewer system. The key element in this system is the grinder pump station. The basin collects all wastewater from the house. The solids in the sewage are then ground to a small size suitable for pumping in the slurry. The grinder pump generates sufficient pressure to pump this slurry from your home to the wastewater plant.

POWER FAILURE

This Pump cannot dispose of wastewater or provide an alarm signal without electrical power. If electrical power service is interrupted, keep water usage to a minimum.

WARRANTY

Your pump is furnished with a warranty against defects in material or workmanship. A properly completed Start-Up/Warranty Registration form must be on file at the Champion factory in order to activate your warranty. In addition your pump must be installed in accordance with the installation instructions. If you have a claim under the provisions of the warranty, contact your installer.

For future reference, record the following information:

Pump Model #	Pump Serial #	
Installer	Installer Phone #	
Date Installed		

RECEIVING / UNPACKING

Upon receiving the pump, it should be inspected for damage or shortages. If damage has occurred, file a claim immediately with the company that delivered the pump. Unpack pump and record pump serial and model number before installing. If the manual is removed from the packaging, do not lose or misplace.

SHORT TERM STORAGE

For best results, pumps can be retained in storage, as factory assembled, in a dry atmosphere with constant temperatures for up to six (6) Months.

LONG TERM STORAGE

Any length of time exceeding six (6) months, but not more than twenty-four (24) months. The units should be stored in a temperature controlled area, a roofed over walled enclosure that provides protection from the elements (rain, snow, wind-blown dust, etc.), and whose temperature can be maintained between +40 deg. F and +120 deg.F. If extended high humidity is expected to be a problem, all exposed parts should be inspected before storage and all surfaces that have the paint scratched, damaged, or worn should be recoated with an air dry enamel paint. All surfaces should then be sprayed with a rust-inhibiting oil. Pump should be stored in its original shipping container. On initial start up, rotate shaft by hand to assure seal and motor rotate freely.

USER GUIDE

INSTALLATION

The pump is provided with a leg kit in case a rail lift out system is not used. Approximately 3" of clearance should be maintained between the pump and the basin bottom. If the feet are to be used, install the rubber threaded feet and lock with nut to ensure 3" clearance under pump for proper clearance of solids to enter pump inlet.

Assemble discharge piping or hose assembly to the pump. Discharge piping should be as short as possible. Both a check valve and a shut off valve are required for each pump being used. The check valve is used to prevent backflow into the sump. Excessive backflow can cause flooding and /or damage to the pump. The shut-off valve is used to stop system flow during pump or check valve servicing. If pump is installed with a discharge hose rather than a moveable fitting assembly, make sure the discharge pipe has a 1/8" hole approximately 5" from tend neatest volute and oriented towards the pump body.

ELECTRICAL CONNECTIONS

Breaker Recommendations: **25 AMP** f or this 115V Single Phase pump. The quick connect cord assembly mounted to the pump must not be modified in any way except for shortening to a specific application. Any supply cables connections between the pump and the control panel must be made in accordance with the National Electric Code or the Canadian Electric Code and all applicable state, province and local electric codes. It is recommended that a junction box, be mounted outside the sump or be of at least Nema 4 (EEMAC-4) construction if located within the wet well. The Ground Wire of the pump power cord if spliced is a Blue-Green Color. **DO NOT USE THE POWER CABLE TO LIFT PUMP!**

These single phase grinder models are offered without a liquid level motor control switch (manual models) or with an attached piggy-back plug liquid level control switch. The manual models need a liquid level control for proper operation. A control panel cam be used with sensor level floats or a separate control switch rated for 15 amps can be used. The control switch can be easily mounted to the discharge piping and adjusted for different basin sizes and desired liquid levels. Normally mid-motor housing level and above for the "off" position of the switch liquid level is sufficient for most applications.

If additional cord is required, consult a qualified electrician for proper wire size. These single phase models have the type of in-winding overload protector referred to as an inherent overheating protector and operates on the combined effect of temperature and current. This means that the overload protector will trip out and shut the pump off if the winding becomes too hot, or the load current passing through them becomes too high. It will then automatically reset and start the pump up after the motor cools to a safe temperature. In the event of an overload, the source of this condition should be determined and rectified immediately. DO NOT LET THE PUMP CONTINUE TO RUN IF AN OVERLOAD CONDITION OCCURS. Full load amps are 13 amps for these single phase models.

SERVICE

Lubrication: Anytime the pump is removed from operation, the cooling oil in the motor housing should be checked visually for oil level and contamination.

Checking Oil: To check oil in the motor housing, set pump upright. Remove plug from motor housing. With a flashlight, visually inspect the oil in the motor housing to make sure it is clean and clear, light amber in color and free from suspended particles. Milky white oil indicates the presence of water. Oil level should be just above the motor when pump is in the vertical position.

Testing Oil: Place pump on it's side, remove plug from motor housing and drain oil into a clean, dry container. Check oil for contamination using an oil tester with a range to 30 Kilovolts breakdown. If oil is found to be clean and uncontaminated (measuring above 15KV. Breakdown), refill the motor housing. (See Replacing Oil below) If oil is found to be dirty or contaminated, the pump must be carefully inspected for leaks at the shaft seals, cord assemblies, O-rings, and plugs before refilling with oil. To locate the leak, perform a pressure test. After leak is repaired, dispose of old oil properly, and refill with new oil.

Replacing Motor Housing Oil: Drain all oil from motor housing and dispose of properly per local and environmental standards. Set unit upright and refill with new cooling oil. Fill to just above motor (approximately 66oz) as an air space must remain in the top of the motor housing to compensate for oil expansion. Apply pipe thread compound to threads on plug and insert and tighten into housing.

USER GUIDE

WARNING! Do not overfill oil. Over filling of oil can create excessive and dangerous hydraulic pressure which can destroy the pump and create a hazard. Overfilling oil voids warranty.

DIELECTRIC COOLING OIL : BP – Enerpar SE100: Conoco – Pale Paraffin 22; Mobile – D.T.E. Oil Light; G&G Oil – Circulating 22; Imperial Oil – Voltesso-35; Shell Canada – Transformer-10; Texaco – Diala-oil-AX; Woxo – Premium 100.

Pressure Test for pumps that have been disassembled.: If the pump has been disassembled, the oil should be drained before a pressure test. Remove plug from motor housing. Apply pipe sealant to a pressure gauge assembly and tighten into hole. Pressurize motor housing to 10 P.S.I. Use soap solution around the sealed areas and inspect joints for "air bubbles". If, after five minutes, the pressure is holding constant, and no signs of leaks are observed, slowly bleed the pressure and remove the gauge assembly. Replace oil. If the pressure does not hole, then the leak must be located and repaired.

CAUTION! Pressure builds up extremely fast. Too much pressure will damage seal.

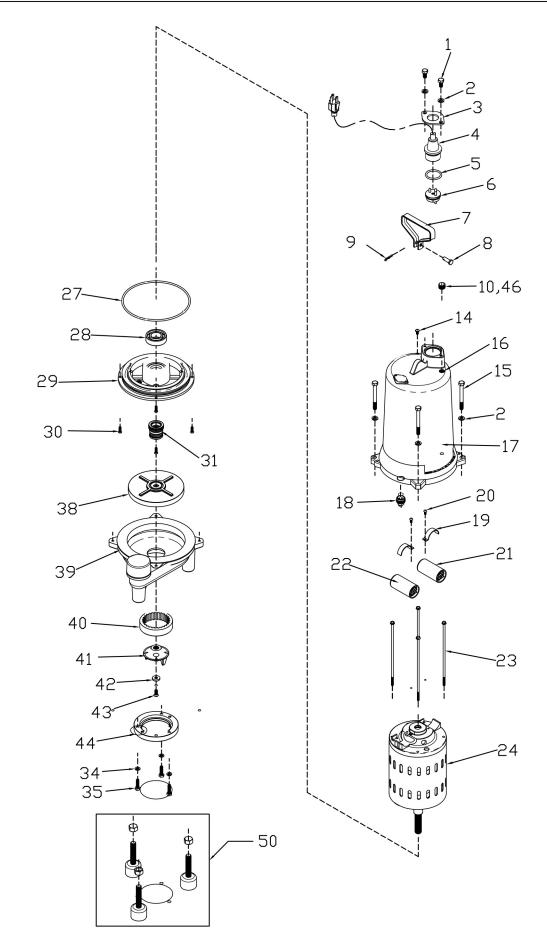
Pressure Test for pumps that have not been disassembled.: The pressure test may be done with the oil at its normal level. Remove plug from motor housing. Apply pipe sealant to a pressure gauge assembly and tighten into hole. Pressurize motor housing to 10 P.S.I. Use soap solution around the sealed areas above the oil level and inspect joints for "air bubbles". For sealed areas below the oil level, leaks will seep oil. If, after five minutes, the pressure is holding constant, and no signs of leaks are observed, slowly bleed the pressure and remove the gauge assembly. Replace oil. If the pressure does not hole, then the leak must be located and repaired.

TROUBLE SHOOTING

CAUTION ! Always disconnect the pump from the electrical power source before handling. If the system fails to operate properly, carefully read instructions and perform maintenance recommendations. If operating problems persist, the following chart may be of assistance in identifying and correcting them: **MATCH "CAUSE" NUMBER WITH CORRELATING "CORRECTION" NUMBER**.

NOTE: Not all problems and corrections will apply to each pump model.

PROBLEM	CAUSE	CORRECTION		
Pump will not run	 Poor electrical connection, blown fuse, tripped breaker or other interruption of power, improper power supply. Motor or switch inoperative (to isolate cause, go to manual operation of pump). Float movement restricted. Switch will not activate pump or is defec- tive. Insufficient liquid level. 	 Check all electrical connections for security. Have electrician measure current in motor leads, if current is within ±20% of locked rotor Amps, impeller is probably locked. If current is 0, overload may be tripped. Remove power, allow pump to cool, then recheck current. Reposition pump or clean basin as required to provide adequate clearance for 		
Pump will not turn off	 2a. Float movement restricted. 2b. Switch will not activate pump or is defective. 4. Excessive inflow or pump not properly sized for application. 9. Pump may be airlocked. 14. H-O-A switch on panel is in "HAND" position 	float. 2b. Disconnect level control. Set ohmmeter for a low range, such as 100 ohms full scale and connect to level control leads. Actuate level control manually and check to see that ohmmeter shows zero ohms for closed switch and full scale for open switch. (Float Switch). 3. Make sure liquid level is at least equal to suggested turn-on point.		
Pump hums but does not run	 Incorrect voltage Cutter jammed or loose on shaft, worn or damaged, inlet plugged. 	 Recheck all sizing calculations to determine proper pump size. Check discharge line for restrictions, 		
Pump delivers insufficient capacity	 Incorrect voltage. Excessive inflow or pump not properly sized for application. Discharge restricted. Check valve stuck closed or installed backwards. Shut-off valve closed. Cutter jammed or loose on shaft, worn or damaged, inlet plugged. Pump may be airlocked. Pump stator damaged/torn. 	 including ice if line passes through or into cold areas. 6. Remove and examine check valve for proper installation and freedom of operation. 7. Open valve. 8. Check cutter for freedom of operation, security and condition. Clean cutter and in of any obstruction. 9. Loosen union slightly to allow trapped at to escape.Verify that turn-off level of switch is set so that the suction is always flooded Clean vent hole. 		
Pump cycles too frequently or runs periodically when fixtures are not in use	 Check valve stuck closed or installed backwards. 11. Fixtures are leaking. 15. Ground water entering basin. 	 Remove & examine for damage. Replace pump stator if required. Repair fixtures as required to eliminate leakage. 		
Pump shuts off and turns on indepen- dent of switch, (trips thermal overload protector). CAUTION! Pump may start unexpectedly. Disconnect power supply.	 Incorrect voltage. Excessive inflow or pump not properly sized for application. Cutter jammed, loose on shaft, worn or damaged, inlet plugged. Excessive water temperature. 	 12. Check pump temperature limits & fluid temperature. 13. Replace portion of discharge pipe with flexible connector. 14. Turn to automatic position. 15. Check for leaks around basin inlet and 		
Pump operates noisily or vibrates excessively	 4. Operating at too high a pressure. 5. Discharge restricted. 8. Cutter broken. 13. Piping attachments to buiding structure too rigid or too loose. 	outlets.		



	#	PART NUMBER	Q
	1	14-0007-1000 CAPSCREW	2
	2	16-0002-1000 LOCKWASHER	6
+	3	6-0005-1000 CORD PLATE	1
+	4	SEE TABLE 1 POWER CORD	1
	5	11-1003-2030 D-RING	1
	6	SEE TABLE 1 ELECTRICAL TERMINAL	1
	7	10-0003-1001 HANDLE	1
	8	19-0003-1000 HANDLE PIN	1
	9	19-0003-1001 HOLD PIN	1
	10	20-0000-1000 PIPE PLUG	1
	10	20-0000-1000 PIPE PLUG	2
	14	14-0002-1004 SCREW	1
	15	14-0008-1000 CAPSCREW	4
	15	14-0011-1000 CAPSCREW	4
	16	21-0001-0000 DIL	84.5oz
	17	4-0004-3000 MOTOR HOUSING	1
	18	22-0005-2020 ELEC, TERMINAL	1
*	19	19-0004-0000 CAPACITOR CLAMP	2
	20	14-0009-1000 SCREW	4
*	21	SEE TABLE 1 START CAPACITOR	1
*	22	SEE TABLE 1 RUN CAPACITUR	1
*	23	14-0009-0000 SCREW	4
*	24	SEE TABLE 1 MOTOR	1
	27	11-1001-2030 D-RING	1
		L	

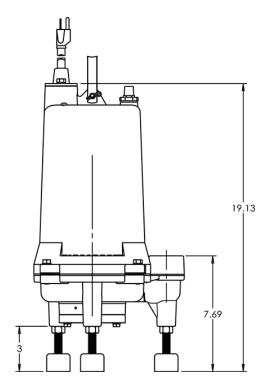
	#	PART NUMBER	Q	
ж	28	15-0002-0000 BEARING	1	
	29	6-0003-3000 BEARING/SEAL PLATE	1	
	30	14-0005-1000 SCREW	4	
	31	7-0002-2101 MECHANICAL SEAL	1	
	38	3-0002-3004 IMPELLER	1	
	39	2-0007-3004 VOLUTE	1	
	40	15-0001-1014 SHREDING RING	1	
	41	3-0003-1014 CUTTER	1	
	42	16-0000-1000 retainer washer	1	
	43	14-0004-1000 SCREW	1	
	44	19-0002-3004 CLAMP	1	
	46	 PERMATEX 2C 	I	
	50	028-0008-0000 LEG KIT		
		(NOT NEEDED IF USING RAIL SYSTEM)		

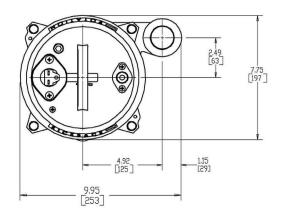
+ WHEN DRDERING ITEM 4: ITEM 3 IS INCLUDED ◇WHEN DRDERING ITEM 13: ITEM 12 IS INCLUDED * WHEN DRDERING ITEM 24: ITEM 19,20,21,22,23 AND 28 ARE INCLUDED

TABLE 1								
VOLTS	Ph.	CABLE	WIRES	ITEM 4	ITEM 6	ITEM 21	ITEM 22	
115	11		10'	3	9-0020-1401	22-0002-2020	22-0004-0150	22-0004-0030
115	-	20'	3	9-0020-1402	22-0002-2020			
230	1	20'	3	9-0020-1402	22-0002-2020	22-0004-0150	22-0004-0030	
	1 ¹	50′	3	9-0050-1405	22-0002-2020	22-0004-0150	22-0004-0030	
230 1	1	20′	4	9-0021-1405	22-0003-2020	CAP/RE	LAY KIT	
	1	50′	4	9-0051-1405	22-0003-2020	28-00	09-0000	
208	1		SAME AS ABOVE				22-0004-0030	
208	1	SAME AS AB⊡∨E				CAP/RE 28-00	LAY KIT 09-0001	

Specifications

SHAFT SEAL - (SINGLE SEAL)
Carbon - Ceramic
Buna-N- Elastomer
300 Series Stainless Steel - Hardware
BEARING (UPPER & LOWER
Single Row, Ball. Oil Lubricated
HARDWARE
HARDWARE
O-RINGSBuna-N
CORD10' Length Standard
UL / CSA (SJOW) 14ga (.375OD)
CORD ENTRYQuick Disconnect Pin Terminals





Champion Pump Company Limited 3 Year Warranty

We warrant that products of our manufacture will be free of defects in material and workmanship under normal use and service for 3 years from the date of purchase when installed and maintained in accordance with our instructions.

This warranty gives you specific legal rights, and there may also be other rights which vary from state to state. In the event the product is covered by the Federal Consumer Product Warranties Law (1) the duration of any implied warranties associated with the product by virtue of said law is limited to the same duration as stated herein, (2) this warranty is a LIMITED WARRANTY, and (3) no claims of any nature whatsoever shall be made against us, until the ultimate consumer, his successor, or assigns, notifies us in writing of the defect, and delivers the product and/or defective part(s) freight prepaid to our factory or nearest authorized service station. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply. THE SOLE AND EXCLUSIVE REMEDY FOR BREACH OF ANY AND ALL WARRANTIES WITH RESPECT TO ANY PRODUCT SHALL BE TO REPLACE OR REPAIR AT OUR ELECTION, F.O.B. POINT OF MANUFACTURE OR AUTHORIZED REPAIR STATION, SUCH PRODUCTS AND/OR PARTS AS PROVEN DEFECTIVE. THERE SHALL BE NO FURTHER LIABILITY, WHETHER BASED ON WARRANTY, NEGLIGENCE OR OTHERWISE. Unless expressly stated otherwise, guarantees in the nature of performance specifications furnished in addition to the foregoing material and workmanship warranties on a product manufactured by us, if any, are subject to laboratory tests corrected for field performance. Any additional guarantees, in the nature of performance specifications must be in writing and such writing must be signed by our authorized representative. Due to inaccuracies in field testing if a conflict arises between the results of field testing conducted by or for user, and laboratory tests corrected for field performance, the latter shall control. RECOMMENDATIONS FOR SPECIAL APPLICATIONS OR THOSE RESULTING FROM SYSTEMS ANALYSES AND EVALUATIONS WE CONDUCT WILL BE BASED ON OUR BEST AVAILABLE EXPERIENCE AND PUBLISHED INDUSTRY SUCH RECOMMENDATIONS DO NOT CONSTITUTE A WARRANTY OF SATISFACTORY INFORMATION. PERFORMANCE AND NO SUCH WARRANTY IS GIVEN.

This warranty shall not apply when damage is caused by (a) improper installation, (b) improper voltage (c) lightning (d) excessive sand or other abrasive material (e) scale or corrosion build-up due to excessive chemical content. Any modification of the original equipment will also void the warranty. We will not be responsible for loss, damage or labor cost due to interruption of service caused by defective parts. Neither will we accept charges incurred by others without our prior written approval.

This warranty is void if our inspection reveals the product was used in a manner inconsistent with normal industry practice and/or our specific recommendations. The purchaser is responsible for communication of all necessary information regarding the application and use of the product. UNDER NO CIRCUMSTANCES WILL WE BE RESPONSIBLE FOR ANY OTHER DIRECT OR CONSEQUESTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOST INCOME, LABOR CHARGES, DELAYS IN PRODUCTION, IDLE PRODUCTION, WHICH DAMAGES ARE CAUSED BY ANY DEFECTS IN MATERIAL AND/OR WORKMANSHIP AND/OR DAMAGE OR DELAYS IN SHIPMENT. THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

No rights extended under this warranty shall be assigned to any other person, whether by operation of law or otherwise, without our prior written approval.

Champion Pump Company, Inc. P.O. Box 528 Ashland, Ohio 44805 PH: 419-281-4500 FAX: 419-616-1100

Start-Up Report / Warranty Registration

Please fill out the following questions as completely and accurate as possible. Please mail to Champion Pump Company, Inc. – P. O. Box 528 – Ashland, OH 44805.

REPORTS THAT ARE NOT RETURNED CAN DELAY OR VOID WARRANTY.

Pump Owner's					
Name:					
Address:					
Location of installation:					
Phone:					
Purchased from:					
Pump ModelS	erial #	Date Code:			
NOTE: CPG2022DSL MODELS	<u>S MUST HAVE CAPACI</u>	<u>TOR KIT #28-0009-0000 OR</u>			
WARRANTY IS VOID.					
D.4. L. 4.11.1					
Date Installed: Does impeller turn freely by hand Condition of cord jacket? Goo	19 VEC	NO			
Condition of condicates?	l' IES	NO			
Was againment stand?	Du <u>Fair</u>	Poor			
Was equipment stored?	How long?				
Liquid being pumped Debris in bottom of station?	XX7 1 1	·			
Debris in bottom of station?	was debris removed	in your presence?			
Discharge pipe size?	Length of pipe?	Static lift?			
Does station appear to operate at	the proper rate? P	ump down time?			
Voltage At Wiring Terminal L1-	$L_2 \qquad \overline{L_2-L_3}$	L1-L3			
Run Amps L1	L_2 L_3	21 20			
3 Phase Models – Check Proper I	Rotation? Yes / NO				
1					
Difficulties during start up:					
Terret Costie man of the local terret					
I certify this report to be accurate		Dete:			
Employed by	L	Date:			