

**IMPORTANT: RECEIVING INSTRUCTIONS**

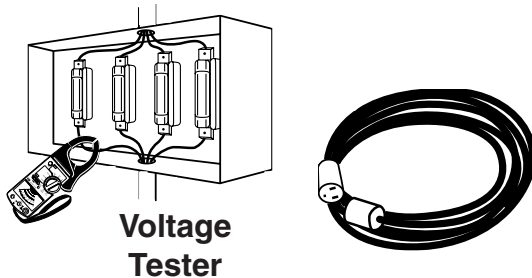
Visually inspect all components for shipping damage. If any shipping damage is found, notify carrier at once.

Shipping damage is NOT covered by warranty. The carrier is responsible for all repair or replacement costs resulting from damage in shipment.

**SAFETY FIRST**

**IMPORTANT--USER SAFETY AND PROTECTION:** In setting up systems, take care to select the proper components and design to ensure appropriate integration with your existing operations and equipment. Observe all safety measures to avoid the risk of personal injury and damage to property and equipment through improper usage.

GB ELECTRICAL, INC. CANNOT BE HELD RESPONSIBLE FOR DAMAGE OR INJURY CAUSED BY UNSAFE USE, MAINTENANCE OR APPLICATION OF ITS PRODUCTS. Please contact GB's technical service department for assistance if you are in doubt as to the proper safety precautions essential to designing and setting up your particular application.

**Electric**

- Have only qualified personnel check motor nameplate against power availability to prevent motor burnout or dangerous electrical overloading.
- Keep extension cord length to a minimum and sizes to electric code. Do not use standard electrical equipment in an explosive atmosphere. Use grounded receptacle.
- Adhere to all applicable local and national electrical codes.

**Upon receipt of pump...**

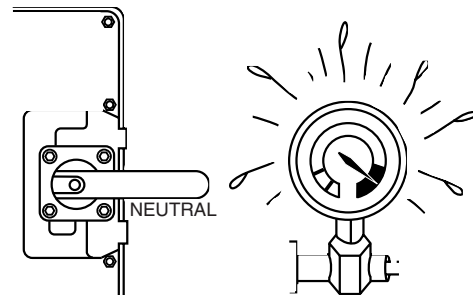
1. Remove oil fill plug.
2. Reservoir oil level should be checked (with all cylinders retracted).
3. If necessary, add ENERPAC hydraulic oil.

**CAUTION:** The use of other fluids may cause extensive damage to the pump. Such damage is not covered by GB Warranty.

4. Replace oil fill plug.

**Hydraulic**

- Check hydraulic oil level in reservoir to prevent pump failure.
- Start pump with directional valve in neutral position to prevent accidental lifting or moving of load.



- Do not exceed capacity of equipment attached to pump. Use a gauge in line and do not exceed pressure rating of lowest capacity pressurized component in the system.

**WARNING:** Pump overload protection is factory set. Adjustment by other than qualified personnel may cause malfunction and/or damage to component parts of the system.

**NOTE:** Maximum Hydraulic Pressure generated by this unit is 10,000 PSI.

# Instructions

## Electrical Hook-up

### Hushh-Pumps

#### (PE22J / PE24J Series Models)

Plug in unit, use 115 volt AC grounded power source. (Unit arrives wired for 115 volt operation.) See pump nameplate for pertinent electrical requirements. (Motor rotation must be counterclockwise looking down at shroud.) Motor is wired this way at factory.

### Hushh-Pumps (PE34J / PE34R

#### 30 Series, 40 Series and 50 Series Models)

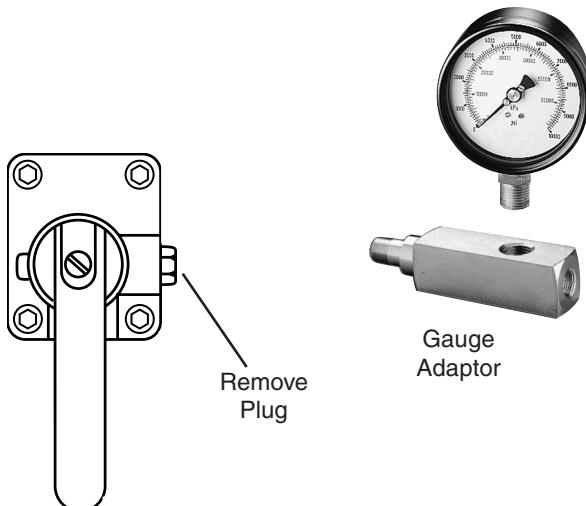
1. Check motor voltage on motor nameplate (located on side of motor housing). When shipped from factory, single phase, 110/220 volt, 60 cycle motors are wired for 110 volts. Three phase, 208/220/440 volt, 60 cycle motors have accessible motor leads under shroud. Motor rotation must be clockwise.
2. Plug cord into proper electrical outlet or provide wiring as required. To rewire single phase motors for 200 volts or three phase motors for 440 volts, see diagram on motor nameplate, or under motor cover. Have only qualified electrical personnel complete the necessary wiring.

GB/ENERPAC		SPECIFICATIONS AND INSTRUCTIONS	
<small>WARNING: READ ALL PERTINENT INSTRUCTIONS BEFORE OPERATING HIGH VOLTAGE AND ROTATING PARTS CAN CAUSE BURNS OR FATAL INJURY. INSTALLATION, OPERATION AND MAINTENANCE OF ELECTRICAL MACHINERY SHOULD BE PERFORMED BY QUALIFIED PERSONNEL. MAKE SURE THAT THE MOTOR AND EQUIPMENT ARE GROUNDED AND PROTECTED IN ACCORDANCE WITH THE NATIONAL ELECTRIC AND LOCAL CODES. SEE NEMA MG-2 SAFETY STANDARDS. CAUTION: BEFORE STARTING PUMP, OPEN AIR VENT VALVE. MAINTAIN OIL TEMPERATURE BELOW 130°F. USE ENERPAC OIL. OVERLOAD PROTECTION FACTORY SET FOR 10,000 PSI OPERATION.</small>			
<b>MOTOR SPECIFICATIONS</b> <input type="checkbox"/> 1 HP <input type="checkbox"/> 1.3 SERVICE FACTOR <input type="checkbox"/> 115/230 VOLTS SINGLE PHASE <input type="checkbox"/> 60 HZ <input type="checkbox"/> 19/95 AMPS		MODEL NO <input type="text"/> SERIAL NO <input type="text"/> <b>PUMP SPECIFICATIONS</b> <b>RATED DELIVERY</b> CU. IN./MIN.   330   240   42 P.S.I.   0   500   10,000 USABLE OIL CAP — 190 CU. IN. <b>VALVE:</b> <input type="checkbox"/> ELECTRIC <input type="checkbox"/> 2-WAY <input type="checkbox"/> MANUAL <input type="checkbox"/> 3-WAY <input type="checkbox"/> <input type="checkbox"/> 4-WAY	
ENERPAC, BUTLER, WISCONSIN U.S.A. DIVISION OF APPLIED POWER INC.			
<small>CA416 026</small>			

GB/ENERPAC		SPECIFICATIONS AND INSTRUCTIONS	
<small>WARNING: READ ALL INSTRUCTIONS BEFORE OPERATING. HIGH VOLTAGE AND ROTATING PARTS CAN CAUSE AND INJURY. INSTALLATION AND MAINTENANCE OF ELECTRICAL MACHINERY MUST BE PERFORMED BY QUALIFIED PERSONNEL. MAKE SURE THE MOTOR AND EQUIPMENT ARE GROUNDED AND PROTECTED IN ACCORDANCE WITH THE NATIONAL ELECTRIC AND LOCAL CODES. SEE NEMA MG-2 SAFETY STANDARD. CAUTION: BEFORE STARTING PUMP, OPEN AIR VENT VALVE. MAINTAIN OIL TEMPERATURE BELOW 130°F. USE ENERPAC OIL. RELIEF VALVE IS SET AT 10,000 P.S.I. OPERATION FOR OVERLOAD PROTECTION.</small>			
<b>MOTOR SPECIFICATIONS:</b> <input type="checkbox"/> 1.5 HP <input type="checkbox"/> 60 HZ <input type="checkbox"/> 1.2 SERVICE FACTOR MOTOR CONNECTED PHASE <input type="checkbox"/> SINGLE <input type="checkbox"/> THREE VOLTS <input type="checkbox"/> 115 <input type="checkbox"/> 230 <input type="checkbox"/> 460 <b>CIRCUIT REQUIRED</b> <input type="checkbox"/> 15 <input type="checkbox"/> 20 <input type="checkbox"/> 30 AMPS <b>PUMP DUTY CYCLE</b> CONTINUOUS — 8,000 P.S.I. INTERMITTENT — 50% BASED ON FIVE MINS — 10,000 P.S.I.		MODEL NO <input type="text"/> SERIAL NO <input type="text"/> <b>PUMP SPECIFICATIONS</b> <b>RATED DELIVERY</b> CU. IN./MIN.   720   500   62 P.S.I.   0   400   10,000 <b>USABLE OIL CAPACITY</b> GALLONS <input type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 10 <b>VALVE</b> <input type="checkbox"/> MANUAL <input type="checkbox"/> ELECTRIC <b>TYPE</b> <input type="checkbox"/> 2-WAY <input type="checkbox"/> 3-WAY <input type="checkbox"/> 4-WAY <input type="checkbox"/> DUMP	
ENERPAC, BUTLER, WISCONSIN U.S.A. DIVISION OF APPLIED POWER INC.			
<small>GS32 026</small>			

## Installing Gauge

1. Screw the gauge adaptor into valve port ( $\frac{3}{8}$ " NPT).
2. A shut-off valve is recommended when using a hydraulic gauge.
3. Screw gauge into gauge adaptor.
4. Make sure connections are tight. If necessary seal threaded connections with pipe dope or teflon tape.



## Hose Connection

1. Screw  $\frac{3}{8}$ " NPT hose end into gauge adaptor.
2. Connect hose half of high-flow coupler to cylinder half of coupler (furnished with all GB cylinders).
3. Tighten both connections.

**NOTE:** Make sure couplers are wiped clean when making or breaking a connection. High-flow coupler halves seal themselves against oil leakage when disconnected. Dust caps should be attached to prevent dirt from entering exposed ends of high-flow coupler when disconnected.

Gauge



Gauge Adaptor



Hose

# Instructions Continued

## Pump Operation

### PE22J/PE24J

Start the unit using the 3 position toggle switch located in the shroud.

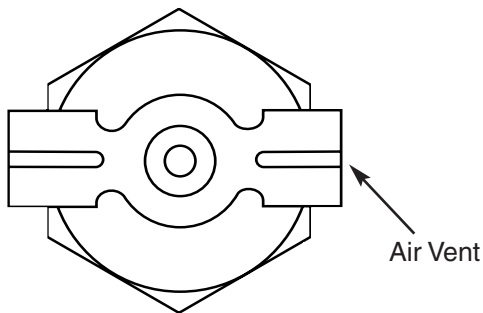
Regular: **Switch up** is for continuous operation; **Switch down** is for jogging operation; **Off** is in the center position.

Remote Jog with a remote control jog pendant station:

**Switch up** is for continuous operation; **Switch down** is for remote jogging; **Off** is in the center position.

### Hushh-Pumps (PE34J/PE34R)

1. Make sure all hose connections are tight and the power cord is connected properly.



2. Turn air vent screw counterclockwise 2 or 3 turns.
3. Push motor switch to "On" position.
4. Let pump idle for a few minutes.
5. To advance plunger, press the "advance" button on the push-button station. For manual valves, place valve in "advance" position.
6. To retract plunger, press the "retract" button on the push-button station. For manual valves, place the valve in "retract" position.

**NOTE:** For operation and control of 3 and 4-way valves, see valve instruction sheet.

### Removal of Air

The hydraulic system, when connected for the first time, will have air in the system. The air must be removed for safety and proper operation. Air can generally be removed from the system by fully advancing and retracting the hydraulic cylinder

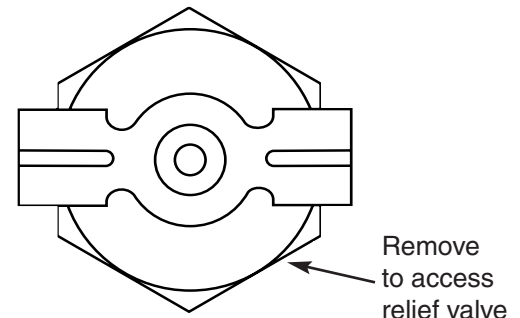
several times. When the trapped air is removed from the hydraulic circuit, the cylinders will advance and retract smoothly. Sluggish cylinder action is usually the first sign of air in the system.

**WARNING:** Do not exceed cylinder capacity or stroke.

### Adjusting Relief Valve

#### PE22J/PE24J

1. Gauge adaptor, gauge, and shut-off valve must be installed in the system between pump and cylinder. Remove the air vent.
2. Start motor. Purge air from the system.
3. Press the advance button or place the manual valve in advance.
4. Insert  $\frac{7}{32}$ " Allen wrench through hole and into adjusting screw.



5. Turn adjusting screw to obtain desired pressure (or load) reading on gauge:  
**Counterclockwise to reduce** gauge reading;  
**Clockwise to increase** gauge reading.  
**WARNING:** Do not exceed the pump operating pressure.
6. Check valve setting by operating the valve several times in the advance and retract positions. Maximum gauge reading should remain constant.

### Hushh Pumps (PE34J/PE34R)

1. Remove flush pipe plug from side of reservoir.
2. Insert  $\frac{5}{16}$ " Allen wrench into adjusting screw.
3. Turn adjusting screw to obtain desired pressure (or load) reading on gauge.

# Instructions concluded

## Periodic Maintenance

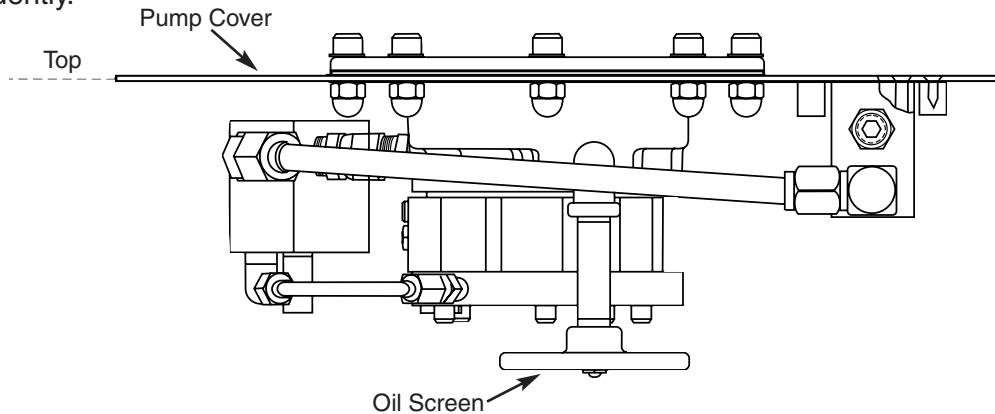
1. Check hydraulic oil level every 40 hours of operation. Add ENERPAC hydraulic oil when necessary to maintain proper level.

**WARNING:** Do not overfill or add oil with hydraulic cylinders advanced.

2. Completely change hydraulic oil every 300 hours of operation. In extremely dusty or dirty areas, the oil must be changed more frequently.

## Cleaning Oil Filter Screen

1. Remove cap screws.
2. Lift pump unit and cover off the reservoir. Be careful not to damage gasket.
3. Remove screen retainer screw on bottom of pump unit.
4. Flush screen with clean solvent or similar cleaning agent.



## Power Unit Servicing (Electric Motor)

### 1. Out-of-Service Protection (30 days or more)

- A. Wipe entire unit to remove all dirt, etc.
- B. Provide a suitable cover over the entire unit.
- C. Make sure all electrical connections are disconnected to prevent accidental starting.
- D. Priming if needed:

Tilt unit and jog motor unit (switch down) several times - allow motor to idle to a complete stop between "jogs". Return unit to an upright position. Switch to the "run" position (switch up) and allow unit to operate

for about five (5) minutes. The foregoing steps are essential to prime the high pressure pistons.

### 2. Temperature Protection

- A. See that nothing obstructs the air flow around the motor and pump.
- B. Keep motor clean (internal and external) for maximum cooling.
- C. In areas of high temperature, it may be necessary to provide additional cooling. Install an air cooled heat exchanger available from your GB Distributor.

**REPAIR AND SERVICE INSTRUCTIONS:** For repair service and parts contact your nearest GB ELECTRICAL Service Center. The Service Center will provide complete and prompt service on all GB ELECTRICAL products.

**PARTS AND SERVICE:** For quality workmanship and genuine GB ELECTRICAL parts, select an Authorized GB Service Center for your repair needs. Only repairs performed by an Authorized Service Center displaying the official GB Authorized sign are backed with full factory warranty. Contact GB Electrical (414) 352-4160 for the name of the nearest GB Authorized Service Center.

**WARRANTY:** GB ELECTRICAL, INC. warrants its products against defects in workmanship and materials for 1 year from date of delivery to user. Chain is not warranted. Warranty does not cover ordinary wear and tear, abuse, misuse, overloading, altered products or use of improper fluid.

**WARRANTY RETURN PROCEDURE:** When question of warranty claim arises, send the unit to the nearest GB Authorized Service Center for inspection, transportation prepaid. Furnish evidence of purchase date. If the claim comes under the terms of our warranty the Authorized Service Center will REPAIR OR REPLACE PARTS AFFECTED and return the unit prepaid.



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