

OWNER'S MANUAL

MODELS BEHLT (1-4K), BEHLTD (2K, 70RH) & BPST (1-3K),

43"-55" RAISED HEIGHTS

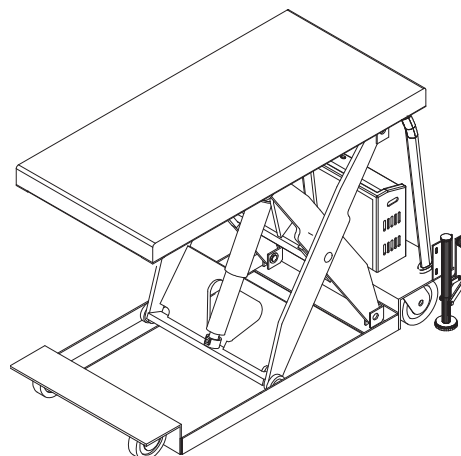
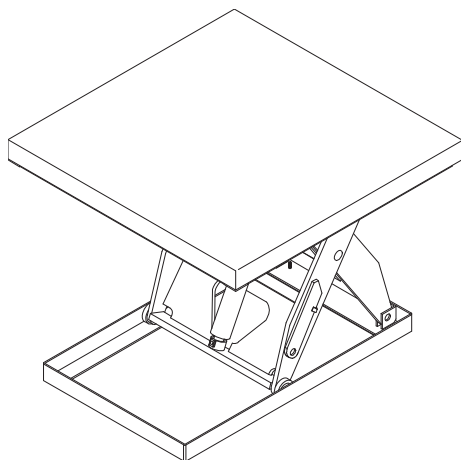
Serial number _____

| | | | |
|--|-----|---------------------------------------|-------|
| Installation Instructions | 2 | Electrical & Hydraulic Diagrams | 10-13 |
| Operation Instructions | 3-4 | Power Unit's Operation | 14 |
| Routine Maintenance & Safety Checks | 5 | DC Power Unit, Exploded Parts | 15-16 |
| Structural, Exploded Parts (BEHLT) | 6 | AC Power Unit, Exploded Parts | 17-19 |
| Structural, Exploded Parts (BPST)..... | 7 | Troubleshooting | 20 |
| Structural Bill of Materials (BEHLT & BPST)..... | 8 | Safety Label Identification | 21 |
| Structural Bill of Materials (BEHLTD)..... | 9 | Warranty | 22 |
| Motor & Transformer Connections..... | 10 | | |

IMPORTANT NOTES, WARNINGS AND SAFETY INSTRUCTIONS

Ensure that all employees understand and follow the following.

- ☞ **Failure to read and understand this owner's manual before using or servicing the scissor lift constitutes a misuse of the product.** All persons who will install, use, or care for this product must be familiar with this information.
- Non-portable units must be securely anchored to a level concrete surface.
- The scissor lift is intended for use only on level, concrete surfaces.
- The lift's load must be centered and evenly distributed on the platform.
- The platform should be lowered before transporting any loads (BPST only).
- The load must be removed and the platform fully lowered before any work is performed on the scissor lift.
- Do not use the scissor lift if any damage or unusual noise is observed.
- Always watch the load carefully when the scissor lift is in operation.
- Ensure that all information/ safety/warning labels remain in place and are legible. See the labels page.
- For battery-powered units, review the Battery Info page.
- Do not use brake fluid or jack oils in the hydraulic system. If oil is needed, use an anti-wear hydraulic oil with a viscosity grade of 150 SUS at 100°F, (ISO 32 cSt @ 40°C), or Dexron transmission fluid.
- Contact the manufacturer for any needed MSDS information.
- ◆ Do not perform any modifications to the scissor lift without the manufacturer's approval. Failure to receive authorization for changes to the equipment could void the warranty.
- ◆ Maintenance and repairs are to be done only by personnel qualified to perform the required work. Consideration will not be given for warranty repair charges without prior written authorization by the manufacturer.



WHEN ORDERING

REPLACEMENT PARTS:

We take pride in using quality parts on the equipment we manufacture. We are not responsible for equipment problems resulting from the use of unapproved replacement parts.

To order replacement or spare parts for this equipment, contact the factory.

In any communication with the factory please be prepared to provide the machine's serial number, which is indicated on the machine dataplate.

RECEIVING INSTRUCTIONS

It is possible that this product could incur damage during transit.

Inspect the unit closely when it arrives. *If you see evidence of damage or rough handling to either the packaging or to the product when it is being unloaded, **immediately** make a note of it on the Bill Of Lading!*

It is important that you remove the product's packaging upon its arrival to ensure that there is no concealed damage or to enable a timely claim with the carrier for freight damage.

Also verify that the product and its specifications are as ordered.

INSTALLATION INSTRUCTIONS – BEHLT (1-4K) & BEHLTD

Review this entire page before installing the scissor lift.

Consult the factory in the event there are any questions or problems at the time of installation, or for information regarding optional features not covered by the owner's manual.

The scissor lift must be removed from the shipping wood and securely anchored to a concrete surface before use!

- Modifications or additions to the scissor lift without prior manufacturer's authorization may void the lift's warranty (see ANSI MH29.1-2003, Safety Requirements for Industrial Scissor Lifts, Section 12.6). The addition of ancillary equipment to the lift may necessitate that its load capacity be reduced.
- The installation must be made so that it complies with all the regulations applicable to the machine and its location. The end-user must verify that the supplied equipment is installed so it will be suited to the environment in which it will be used.
- Installation must be performed by suitably trained personnel with access to the appropriate equipment. The electrical aspects of the installation should be performed by an electrician.

Note: If the unit is to be placed into a pit, you will need to first determine how the required electrical (and possibly hydraulic) connections will be made once the unit is in place.

For a typical installation of a standard scissor lift you will need the following:

1. A fork truck or hoisting means to unload the scissor lift from the freight truck and set it into place.
2. A smooth, level, and adequately strong concrete surface on which to mount the scissor lift.
3. Concrete anchors, a masonry drill, a masonry bit, hand tools, grout, and steel shims. Consult the building's architect or facility engineer to determine the best size and type of hardware with which to anchor the machine to the floor.
4. An appropriate power supply circuit and electrical disconnect matching the motor voltage and current requirements. Refer to the machine's dataplate, to the labels on the control enclosure, and to the electrical section in this manual for more information. The end-user is responsible for supplying the branch circuit's required ground fault and short-circuit protection. (Motor overload protection is provided by a thermostat built into the motor.)

To install a standard scissor lift:

1. The scissor lift must be lowered and fully supported under its frame when moved. Move the scissor lift into place with straps or forks that span underneath the entire width or length of the frame. Use care to avoid damage the electrical or hydraulic components inside the scissor lift.
2. Temporarily connect the power supply to the pigtail cord supplied with the scissor lift, and raise the platform so the lift's safety maintenance props can be installed between the legset's frame rollers and the end of the lift's frame. Lower the legset until the rollers rest on the props.
 - If the platform must be raised without first having the proper power supply connected, raise the platform at the end of the table through which the power supply cord enters the frame. Use caution to avoid damage to the perimeter pinch point (toe) guard! Use a hoist with straps or chain rigging, or insert a lift truck's forks, at the hinged end of the platform. *Take care to not damage the hanging aluminum toe guard.* The frame must be held down at the ends of the shipping 4 x 4's on the hinged end of the lift while the platform is raised.
3. Anchor the frame to the floor through the four 9/16" holes located in the frame.
4. Shim and/or grout under the full length of the frame sides.
5. Make permanent connection to the power supply, using an appropriate wiring method.
6. Operate the scissor lift through several full raise and lower cycles. Verify that the upper travel limit switch (mounted near the left-side frame hinge) and the toe guard switches (around the perimeter of the platform) function properly.
7. Check the hydraulic oil level. It should be filled to within 1" to 1½" of the reservoir's fill hole. If oil is needed, use an anti-wear hydraulic oil with a viscosity grade of 150 SUS at 100° F (ISO 32 at 40° C) or a non-synthetic automatic transmission fluid.
8. Clean up any debris or spilled oil, and verify that all of the information/safety/warning labels are in good condition.

OPERATION INSTRUCTIONS – BEHLT (1-4K), BEHLTD & BPST (1-3K)

- Consult ANSI MH29, Section 12 for the owner's/ user's responsibilities regarding the operation, care, and maintenance of this machine.
- Ensure that all employees involved in the operation of this scissor lift understand and follow these instructions!

The standard model scissor lift is suitable for use indoors in most non-classified industrial locations and many commercial locations. It is intended to be used to lift and transport (BPST only) stable, evenly-distributed, non-hazardous materials loads having a size or footprint approximately the same size as the platform.

Loading:

The load rating, in pounds, is shown on the machine dataplate located on the right corner of the hinged end of the platform. It indicates the net capacity of the scissor lift with a static load that is centered and evenly distributed on the platform.

When not fully lowered, the scissor lift's maximum single axle load is 50% of the rated capacity for side loading, and 75% for end loading. (The hydraulic hose and power cord are at one of the platform's ends.)

Warning: Do not exceed the scissor lift's load ratings. Injury to personnel or permanent damage to the lift could result from exceeding the listed capacity.

Warning: The platform's rollers are not captured. Therefore, do not overhang any load at the hinged end of the platform - that could cause the roller end of the platform to tip up and dump the load. For applications involving side or end edge loading, consult the factory.

Note: The addition of any ancillary equipment to the scissor lift by third parties must be taken into account when determining the maximum working load to be placed on the platform.

Operation:

Inspect the perimeter pinch point guards' operation daily.

Warning: Keep all personnel clear of the machine when it is in operation. Be certain no part of any person or object is under any part of the platform before lowering the unit.

Caution: Always carefully watch the area around the platform and any load on the platform when it is in operation.

The standard model BEHLT scissor lift table is furnished with an internally-mounted power unit and a constant-pressure (dead-man style) handheld pushbutton control.

- Pressing the "UP" pushbutton will turn on the power unit to raise the platform. The platform will raise only while the pushbutton is pressed. Upon releasing the pushbutton, the platform will stop and hold its position. When the platform reaches its maximum raised height, an upper travel limit switch will stop the lift from raising further.
- Pressing the "DOWN" pushbutton will energize the lowering valve to allow the platform to descend by gravity (the motor does not run). Again, releasing the pushbutton will stop the platform movement, and the unit will hold its position. In the event of an obstruction under the edge of the platform, the perimeter pinch point guard will raise to engage a switch and thereby de-energize the lowering valve.

Caution: Never use the scissor lift if any damage or unusual noise is observed, if it is in need of repairs, or if it seems to be malfunctioning. Notify your supervisor or maintenance personnel if you notice anything out of the ordinary.

Units with external, covered, modular power units also have pushbuttons and a key switch in the power unit cover. The key switch must be turned to the "ON" position for any of the controls to operate.

Standard model PST's are DC-powered and equipped with a covered, modular power unit having an on-board battery charger, and the 2-button handheld pushbutton control. It's operation is the same as the model BEHLT.

Warning: before raising the platform from its lowered position, the floor lock must be positively engaged with the floor. Also, the platform should be fully lowered when a load is being transported. Failure to do so could result in injury to personnel or damage to product or equipment due to the lift and its load becoming unstable during transport.

Note: attempting to raise the lift when the battery charge is low will cause the motor relay protection circuit to prevent the motor's operation. Adequate battery voltage is indicated by a green LED on the motor relay. See the next page for more notes regarding operation of battery-powered units.

PST's equipped with the optional two-speed foot pump are operated by repeatedly stepping on the foot pump treadle to raise the platform, and by stepping on the smaller release pedal on the left corner of the foot pump body to lower the platform. The pump's output (and therefore the lifting rate) can be changed by means of a slider at the top of the foot pump. The low-speed output must be used when the platform is loaded.

Ensure that all information/safety/warning labels stay in place and are legible. Refer to the labels page in this manual.

ADDITIONAL INSTRUCTIONS FOR BATTERY-POWERED UNITS

Note: If this product has the 24V powered traction-drive option, consult that option's information for more specific details regarding the batteries and battery charger.

Warning!

- ! Working with or near lead acid batteries is dangerous. Batteries contain sulfuric acid and produce explosive gases. A battery explosion could result in loss of eyesight or serious burns.
- ! Do not smoke or allow a spark or flame near batteries. Charge batteries in locations that are clean, dry, and well ventilated. Do not lay tools or anything metallic on top of any battery. All repairs to a battery must be made by experienced and qualified personnel.
- ! When working with batteries, remove personal items such as rings, bracelets, necklaces, and watches. Batteries can produce enough energy to weld jewelry to metal, causing a severe burn.
- ! Always have fresh water and soap nearby in case battery acid contacts skin, clothing, or eyes.
- ! Operating the battery with a low battery voltage can cause premature motor contact failure.
- ! Do not expose the lift or the charger to rain or adverse conditions.
- ! Replace defective cords or wires immediately.
- ! Check the battery's water level frequently.

Battery Charger Operating Instructions

Never operate the charger with either of the cables coiled. Operating a battery charger with the cord either coiled or wrapped around itself could cause the cord to overheat, melt, and cause a short-circuit or a fire.

Connection: the ribbed wire of the charger's output cord must be connected to the battery's negative (-) terminal. The non-ribbed wire (with words printed on it) must be connected to the battery's positive (+) terminal.

When properly connected, the charger will indicate the status of its output:

Flashing green LED - the charger is not seeing a good connection to the battery.

Solid yellow LED - the charger is providing charging current to the battery.

Solid green LED - the charger is maintaining a fully charged battery.

Plug a 115V, 3-prong extension cord into a standard 115V receptacle. Keep the cord as short as possible.

Caution: Remember to unplug the charger before moving the equipment. Failure to do so could cause damage to cords, receptacles, and other equipment.

The battery charger can be left connected to the battery indefinitely without risk of harming the battery.

Troubleshooting:

If the unit does not operate, check all of the wiring connections to make sure they're both mechanically and electrically sound - specifically at the battery, the motor, and at any location a wire is connected to the chassis. Also, make sure the quick-connect plug on the end of the pendant control cord is plugged in correctly (if applicable).

A fully charged lead acid battery in good condition at room temperature should read 12.65 volts. At 11.9 volts it is considered to be fully discharged and in need of charging. When checking battery voltage, wait at least 1/2 hour after the charger has been turned off before checking the battery's voltage.

If the batteries don't seem to be taking a charge, check the charger's 115V supply circuit and the charger's output with a voltmeter. If all check okay, confirm the battery's state of charge using a hydrometer or a voltmeter.

ROUTINE MAINTENANCE & SAFETY CHECKS – BEHLT (1-4K), BEHLTD & BPST (1-3K)

- *Warning: Care should be taken to identify all potential hazards and comply with applicable safety procedures before beginning work.*
- *Warning: Install the maintenance props before beginning any inspections or work on the unit. See below.*
- *Only qualified individuals trained to understand mechanical devices and their related electrical and hydraulic circuits, and the hazards associated with them, should attempt troubleshooting and repair of this equipment.*

Maintenance Prop Installation:

Always install the maintenance prop or fully lower the platform before beginning work on the scissor lift table. A maintenance prop is located on the outside of each of the outer legs of the legset.

To install the safety maintenance props:

- Raise the platform to its full raised height.
- Rotate each prop forward so that its free end drops down onto the lift table's frame.
- Lower the platform until the maintenance props rest against the end member of the frame.

(A) Inspect daily for:

- 1.) Frayed wires.
- 2.) Oil leaks.
- 3.) Pinched or chafed hoses.
- 4.) Damage to the casters. (Portable units.)
- 5.) Damage or structural deformation to the structural members, the cylinder brackets, etc.
- 6.) Unusual noise or binding, or evidence thereof.
- 7.) Proper functioning of all limit switches, including those on the perimeter pinch point guard (if applicable).

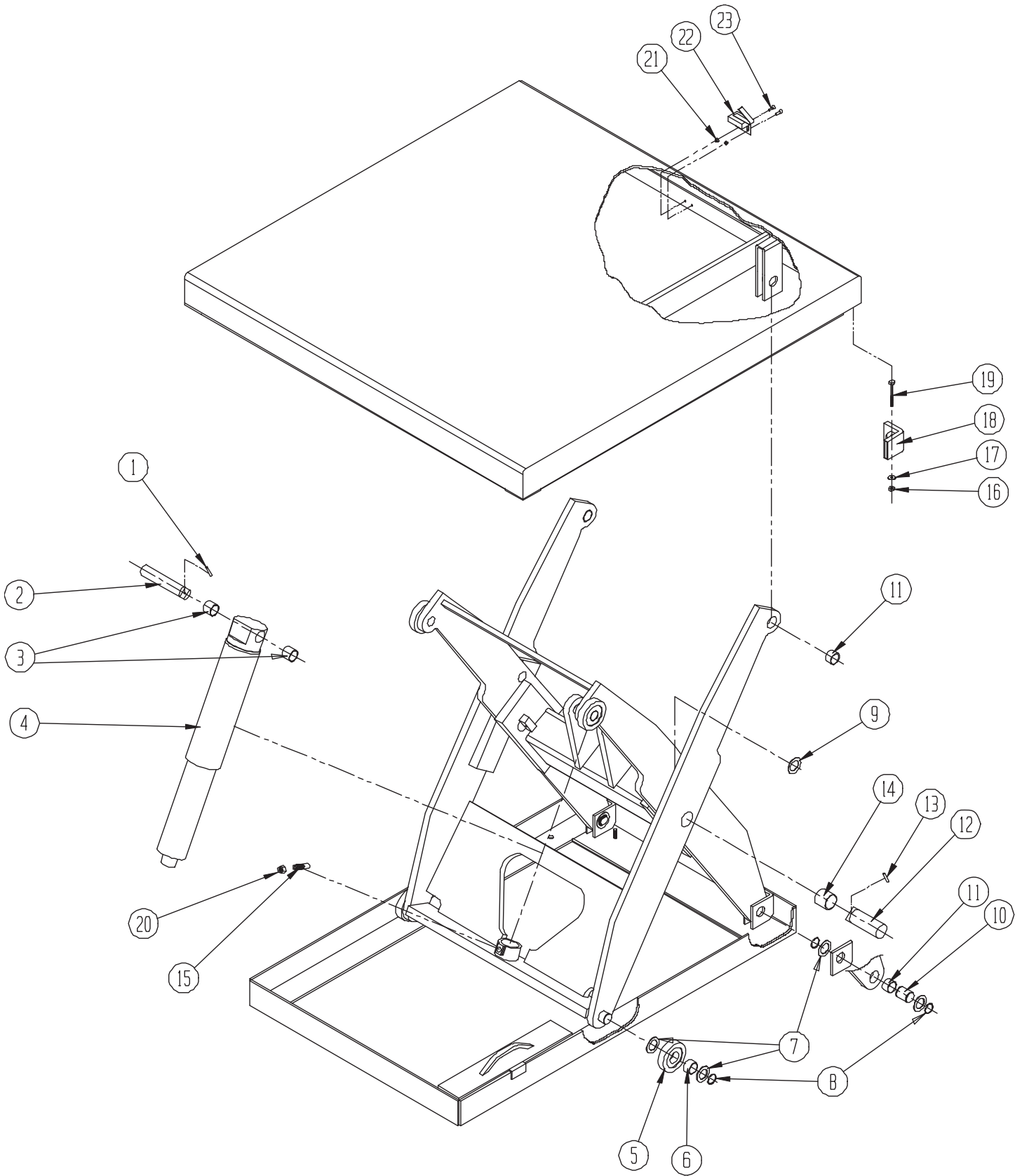
(B) Inspect monthly for:

- 1.) The oil level. Oil should be 1" to 1½" below the reservoir's fill hole with the platform in the fully lowered position. See below for the hydraulic oil specification.
- 2.) Worn or damaged hydraulic hoses and electrical wires.
- 3.) Pivot point wear.
- 4.) Rollers' looseness and wear.
- 5.) Integrity of the retaining hardware on all rollers and on all pivot point pins.
- 6.) The integrity of the frame anchor bolts, and for cracks in the concrete around them. (Non-portable units.)
- 7.) Looseness, wear, or damage to the casters' bearings, mounting hardware, or surface material. (Portable units.)
- 8.) Proper functioning of any hand- or foot-operated mechanisms.
- 9.) Proper water level in the battery (DC units.)
- 10.) Unusual noises or movement during operation.
- 11.) All the information/safety/warning labels being in place and in good condition.
- 12.) The need to clean off dirt and debris.

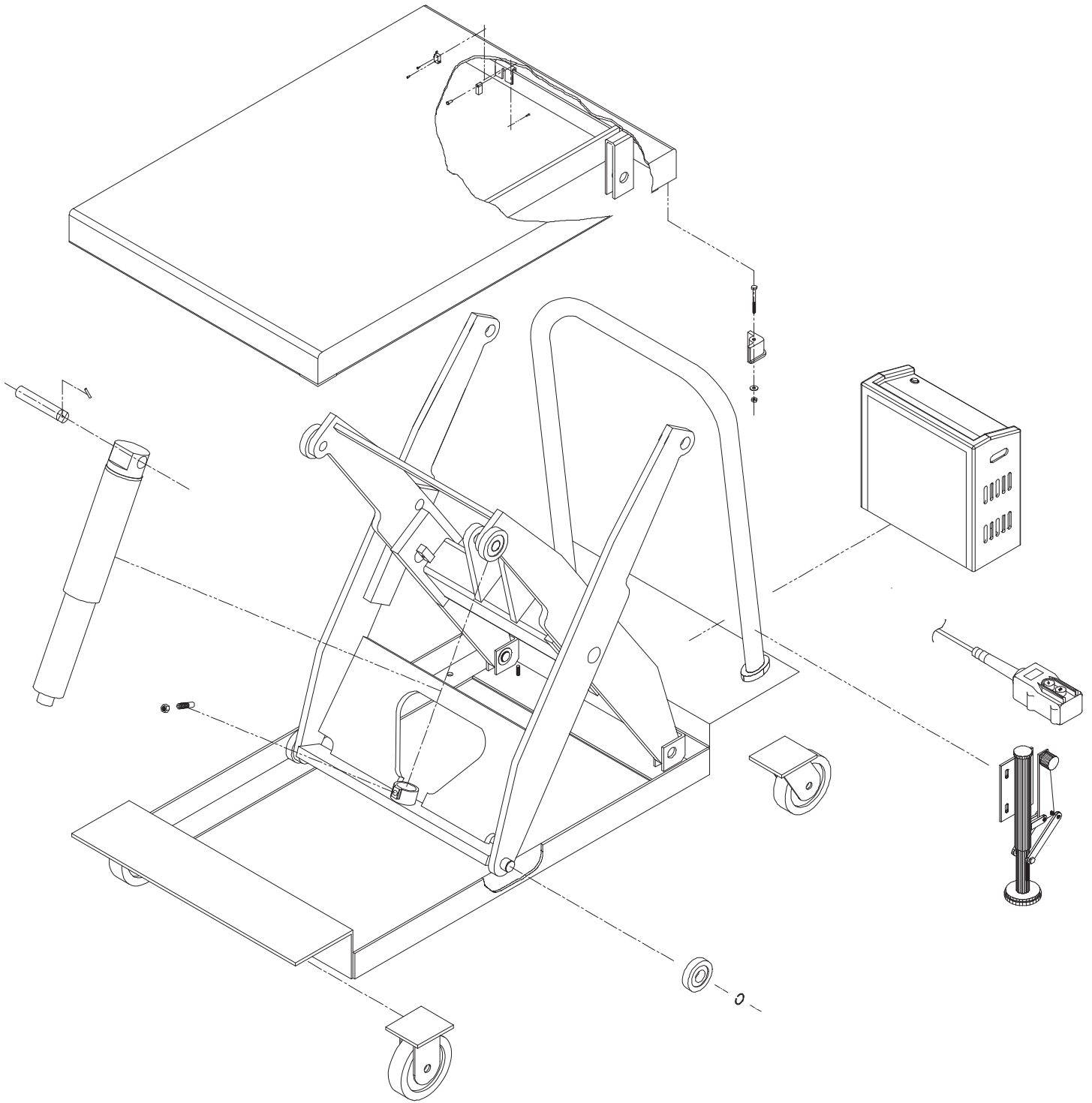
(C) Yearly inspection

The oil should be changed if the oil darkens, becomes gritty, or turns a milky color (indicating the presence of water). Replace with an anti-wear hydraulic oil with a viscosity grade of 150 SUS at 100°F, (ISO 32 at 40°C). Ex: AW 32 or HO 150 hydraulic oil, or a non-synthetic transmission fluid. You may use a synthetic transmission fluid if you flush the system with the synthetic fluid before filling the reservoir.

EXPLODED PARTS VIEW -- BEHLT (1-4K)



EXPLODED PARTS VIEW -- BPST (1-3K)



STRUCTURAL BILL OF MATERIALS -- BEHLT (1-4K) & BPST (1-3K)

| Item #: | Description | Part number | Qty. |
|----------------|--|--------------------|-------------|
| 1 | Pin, spring, $3/16"$ \varnothing x $1 1/8"$ long | A/L | 1 or 2 |
| 2 | Pin, pivot, $1 1/8"$ \varnothing x 8.65" OAL | 24-112-005 | 1 or 2 |
| 3 | Bearing, sleeve, $1 1/8"$ \varnothing x $3/4"$ long | 01-111-002 | 2 or 4 |
| 4 | Cylinder, hydraulic, 2" \varnothing x 10" stroke | 99-021-903 | 1 |
| | Cylinder, hydraulic, 2 1/2" \varnothing x 10" stroke | 99-021-906 | 1 or 2 |
| | Cylinder, hydraulic, 3" \varnothing x 10" stroke | 99-021-901 | 1 or 2 |
| 5 | Roller, $3 1/4"$ \varnothing x $3/4"$ wide | 01-027-001 | 4 |
| 6 | Bearing, sleeve, $1 1/8"$ ID x $5/8"$ long | 01-111-001 | 4 |
| 7 | Bushing, machinery, .06" thick x $1 1/8"$ ID | 01-115-001 | 16 |
| 8 | Snap ring, external, $1 1/8"$ ID | A/L | 12 |
| 9 | Bushing, machinery, .06" thick x $1 1/2"$ ID | 01-115-003 | 4 |
| 10 | Pin, hinge, $1 1/8"$ \varnothing x 1.81" OAL | 01-112-004 | 4 |
| 11 | Bearing, sleeve, $1 1/8"$ ID x $3/4"$ long | 01-111-002 | 4 |
| 12 | Pin, axle, $1 1/2"$ \varnothing x 4.53" OAL | 01-112-019 | 2 |
| 13 | Bolt, shoulder, $3/8"$ -18 UNC x $1 1/2"$ long | A/L | 2 |
| 14 | Bushing, sleeve, $1 1/2"$ ID x $1 1/2"$ long | 01-111-003 | 2 |
| 15 | Bolt, cylinder retaining, $1/2"$ -13 UNC x 2" OAL | 01-118-001 | 1 or 2 |
| 16 | Nut, hex, nylock, $1/4"$ -20 UNC | A/L | 4 |
| 17 | Washer, flat, $1/4"$ ID | A/L | 4 |
| 18 | Support, toe guard, corner | 01-015-009 | 4 |
| 19 | Bolt, hex head, $1/4"$ -20 UNC x $2 1/2"$ long | A/L | 4 |
| 20 | Nut, jamb, hex, $1/2"$ -13 UNC | A/L | 1 or 2 |
| 21 | Screw, FSHSC, #8-32 UNC x $1/2"$ long | A/L | 2 |
| 22 | Actuator, toe guard | 01-015-008 | 2 |
| 23 | Bolt, sex, #8-32 UNC x $3/8"$ deep | 01-145-010 | 2 |
| 24 | Switch, micro, normally-closed | 01-022-022 | 2 |
| 25 | Screw, BHSC, #4-40 UNC x $1/2"$ long | A/L | 4 |
| 26 | Extrusion, aluminum, perimeter pinch point (length varies) | 01-015-912 | 4 |

ONLY ON BPST (1-3K), NOT SHOWN ON STRUCTURAL LIST

| Item #: | Description | Part number | Qty. |
|----------------|--|--------------------------|-------------|
| 1 | Caster, phenolic, swivel, 2" wide x 8" \varnothing | PH-8/2-S 2 | |
| 2 | Caster, phenolic, rigid, 2" wide x 8" \varnothing | PH-8/2-R | 2 |
| 3 | Floor lock, side-mounted | FL-LK-SMR | 1 |
| 4 | Power unit, modular | MPU-(AC or DC)-(voltage) | 1 |
| 5 | Control, pendant, 2-button | See exploded parts list | 1 |

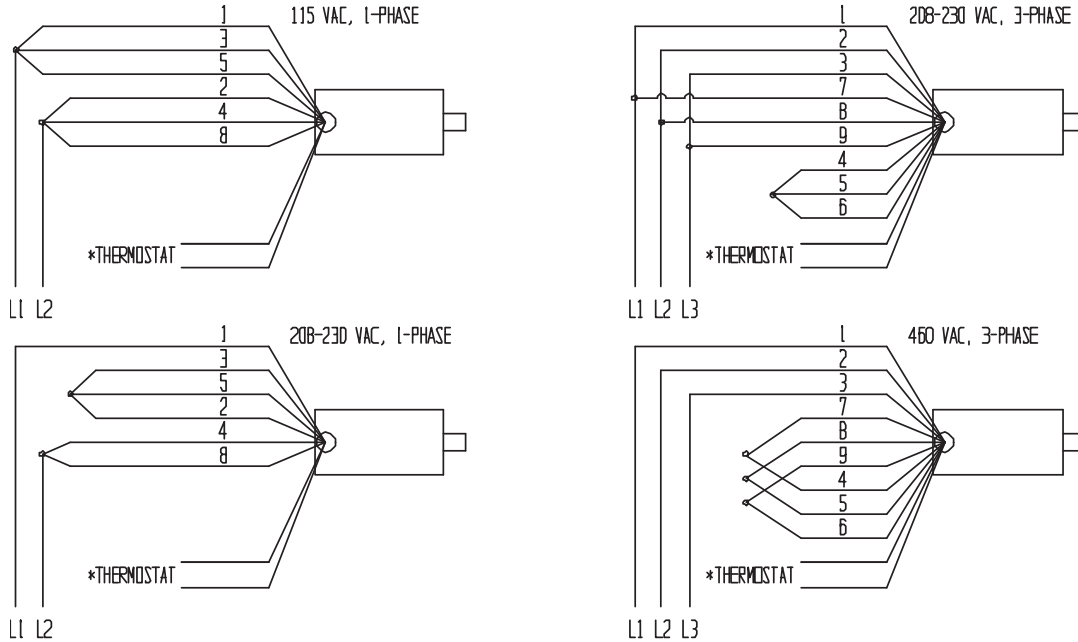
Structural Bill of Materials-- BEHLTD

| Item Number | Description | Part Number |
|-------------|---|-------------|
| 1 | Roll Pin | 64251 |
| 2 | Cylinder Pin | 24-112-005 |
| 3 | Roll Pin | 64251 |
| 4 | Cylinder Pin | 99-021-901 |
| 5 | Roller 3-1/4x3/4- with bearing pressed in | 01-527-001 |
| 6 | Leg Pivot Pin | 05-112-002 |
| 7 | Machinery Busing | 01-115-001 |
| 8 | Retaining Rings | 68021 |
| 9 | Maintenance Prop | 01-037-003 |
| 10 | Base Pivot Pin | 01-112-004 |
| 11 | Bushing | 01-111-002 |
| 12 | Main Axle Pivot Pin | 01-112-019 |
| 13 | Shoulder Bolt | 26333 |
| 14 | Bushing | 01-111-003 |
| 15 | Cylinder Retainer Bolt | 25670 |
| 16 | But | 37018 |
| 17 | Washer | 33004 |
| 18 | Toe Guard Corner | 01-015-009 |
| 19 | Toe Guard Corner Golt | 11013 |
| 20 | Cylinder Retainer Nut | 36209 |
| 21 | Screw | 24189 |
| 22 | Toe Guard Limit Switch | 01-022-022 |
| 23 | Limit Switch Screw | 24008 |
| 24-A | Toe Guard Rail End | ST-TGE-48 |
| 24-B | Toe Guard Rail Side | ST-TGS-48 |
| 25 | Toe Guard Actuator | 01-015-008 |
| 26 | Speciality Hardware (Acuator Sleeve Nut) | 01-145-010 |
| | Hose Kit For (BEHLTD-4848-2-70 | BEHLTD-HK |

MOTOR & TRANSFORMER CONNECTION DIAGRAMS

CAUTION! *If the motor voltage is changed, the wire on the control transformer's primary wire has to be changed to match the new motor voltage also.*

MOTOR LEAD CONNECTION DIAGRAM FOR ALL
.5HP, .75HP AND 3HP SINGLE-PHASE MOTORS AND FOR
ALL 2HP, 5.5HP, AND 6.5HP THREE-PHASE MOTORS

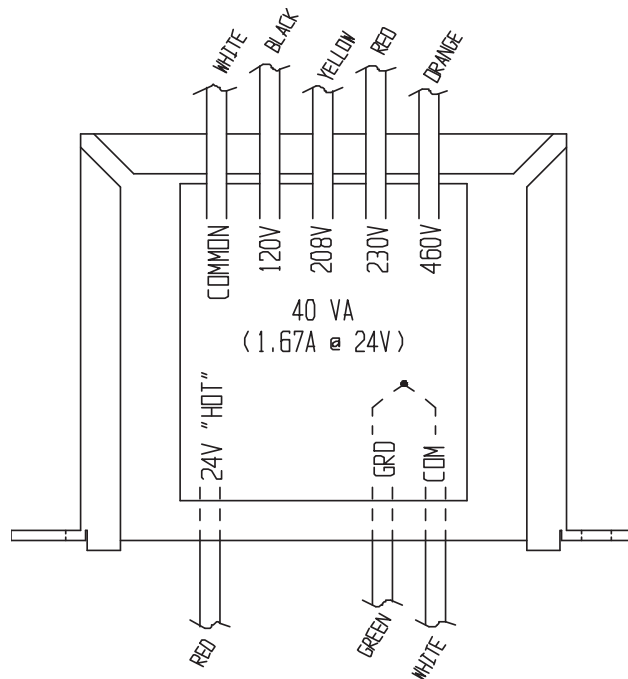


* The two thermostat leads go to: 1) the grounded side of the transformer secondary, and; 2) the motor relay coil, in either order.



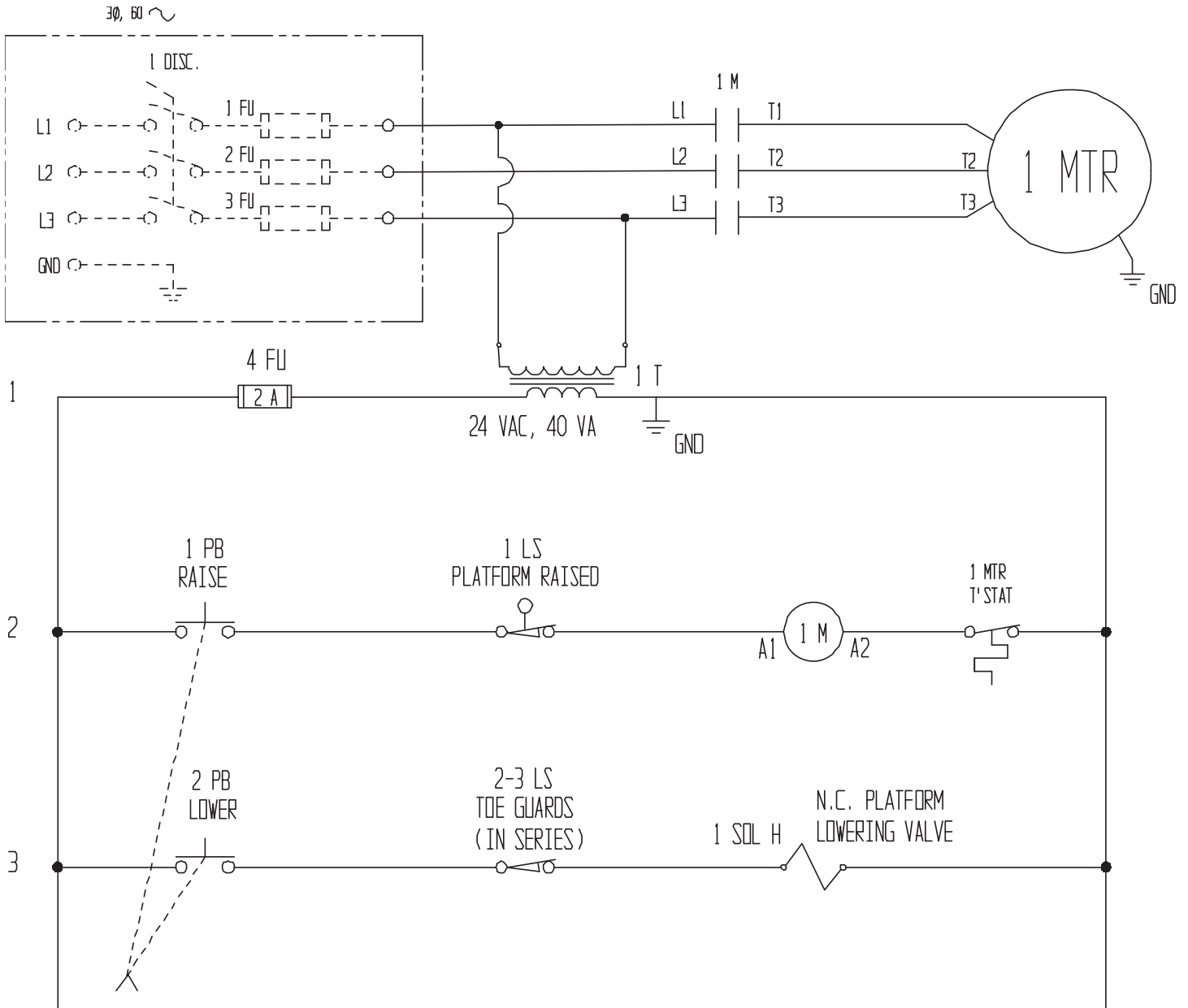
BE SURE ALL POWER IS OFF BEFORE ATTEMPTING TO WORK ON THIS EQUIPMENT!

CAUTION: SERVICE WORK SHOULD BE PERFORMED ONLY BY TRAINED & QUALIFIED PERSONNEL.



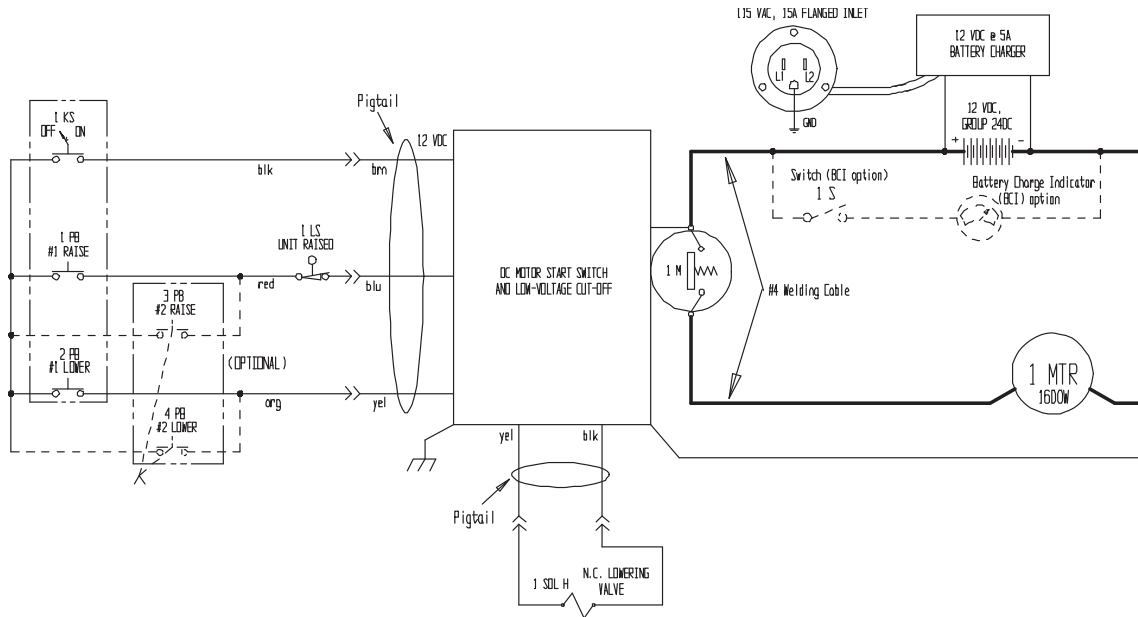
ELECTRICAL DIAGRAM -- BEHLT (1-4K) & BEHLTD

- **Warning:** Care should be taken to identify all potential hazards and comply with applicable safety procedures before beginning work. Ensure that all system pressure and power have been removed before attempting to work on the electrical or hydraulic systems.
- **Warning:** The load must be removed, and the platform either positively and adequately supported or fully lowered, before any work is performed on the scissor lift.
- **Only qualified individuals trained to understand mechanical devices and their associated electrical and hydraulic circuits, as well as the hazards associated with them, should attempt troubleshooting and repair of this equipment.**

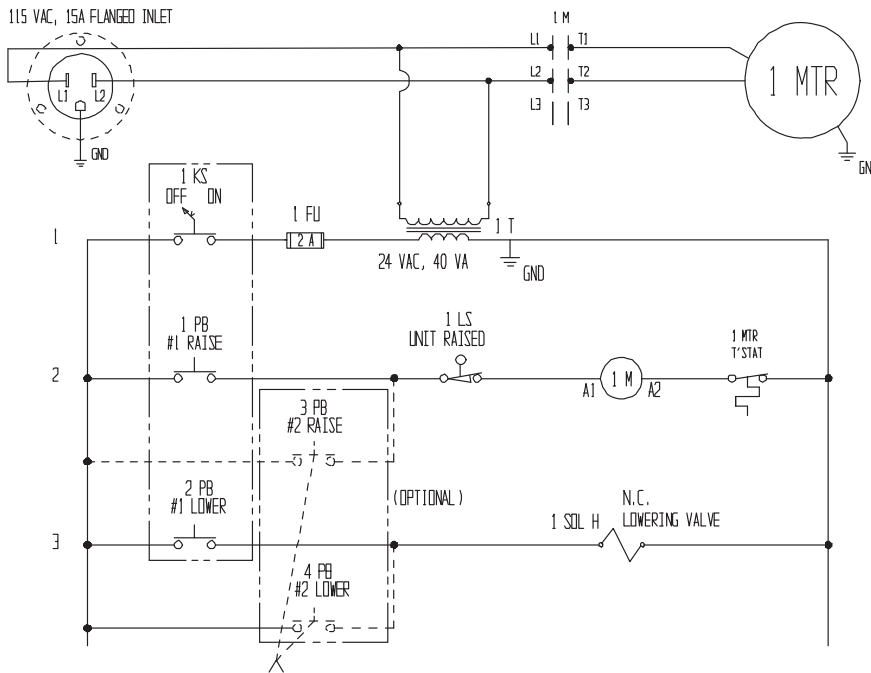


ELECTRICAL DIAGRAMS -- BPST (1-3K)

- **Warning:** Care should be taken to identify all potential hazards and comply with applicable safety procedures before beginning work. Ensure that all system pressure and power have been removed before attempting to work on the electrical or hydraulic systems.
- **Warning:** The load must be removed, and the platform either positively and adequately supported or fully lowered, before any work is performed on the scissor lift.
- **Only qualified individuals trained to understand mechanical devices and their associated electrical and hydraulic circuits, as well as the hazards associated with them, should attempt troubleshooting and repair of this equipment.**



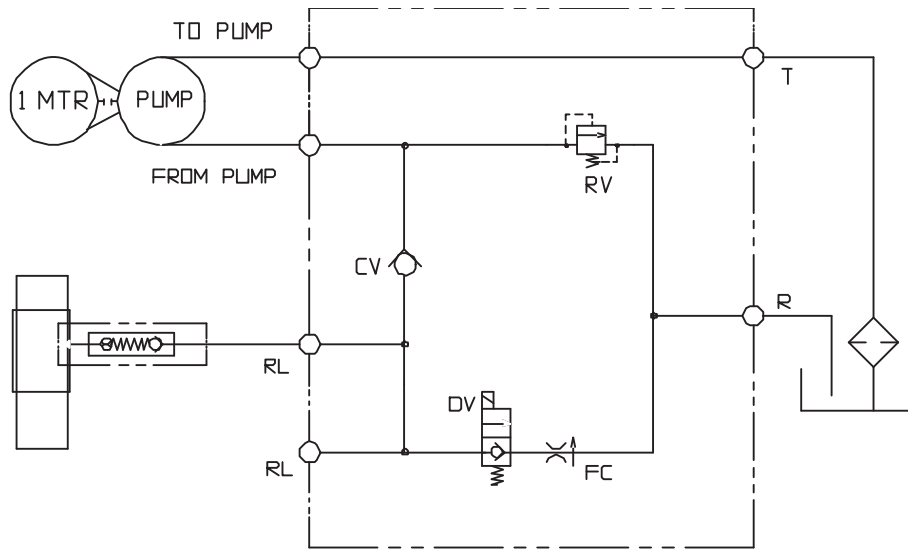
OVERCURRENT & SHORT-CIRCUIT PROTECTION, AND DISCONNECT, ARE TO BE PROVIDED BY THE END-USER PER THE NEC (NFPA 70) AND LOCAL CODES.



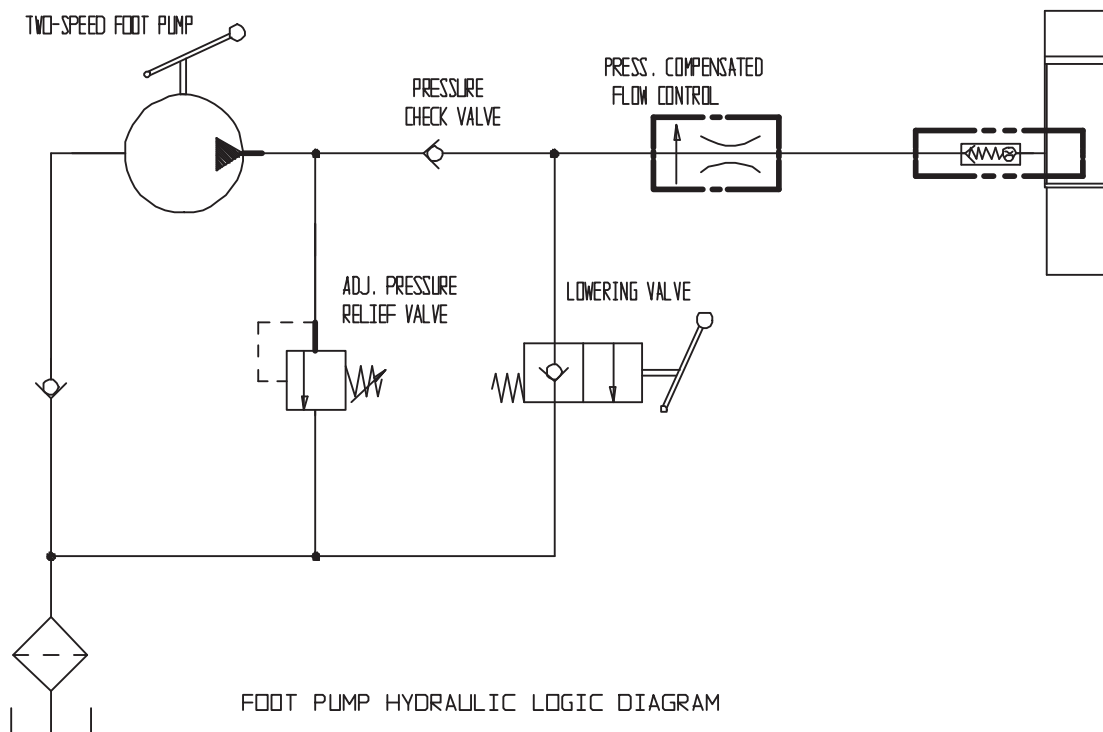
BE SURE ALL POWER IS OFF BEFORE ATTEMPTING TO WORK ON THIS EQUIPMENT!
CAUTION: SERVICE WORK SHOULD BE PERFORMED ONLY BY TRAINED & QUALIFIED PERSONNEL

HYDRAULIC DIAGRAMS – BEHLT (1-4K), BEHLTD & BPST (1-3K)

- *Warning: Care should be taken to identify all potential hazards and comply with applicable safety procedures before beginning work. Remove the load, rest the legset on the maintenance props or fully lower the platform to the floor, and ensure that all system pressure and power have been removed before attempting to work on the electrical or hydraulic systems.*
- *Remove the load, raise the lift and install the maintenance props before beginning any inspections or work on the unit.*
- *Only qualified individuals trained to understand mechanical devices, their associated electrical and hydraulic circuits, and their associated hazards, should attempt troubleshooting and repair of this equipment.*
- *Caution: Do not use brake fluid or jack oils in the hydraulic system. If oil is needed, use an anti-wear hydraulic oil with a viscosity of 150 SUS at 100°F (ISO 32 @ 40°C), or non-synthetic transmission fluid.*



GEAR PUMP HYDRAULIC LOGIC DIAGRAM



FOOT PUMP HYDRAULIC LOGIC DIAGRAM

THE POWER UNIT'S OPERATION – BEHLT (1-4K), BEHLTD & BPST (1-3K)

The electric / hydraulic scissor lift utilizes an electric motor directly coupled to a gear-type hydraulic pump to produce the needed fluid pressure and flow to allow the cylinders to perform the work of lifting the platform load. A hydraulic manifold houses the hydraulic control components, and is bolted directly onto the gear pump.

The power unit's hydraulic components are all rated for 3,000 psi working pressure.

↗ Important parts of the power unit include:

- The electric motor. Motors are available for operation on single- or three-phase AC supplies (all are dual-voltage), or a 12 VDC battery (portable units).
- The gear pump. Its shaft is coupled directly to the shaft of the electric motor. Several displacements are available, depending on the motor horsepower used.
- The check valve. Its purpose is to prevent the backflow of fluid through the pump. In this way it allows the platform to be held at a given elevation indefinitely.
- The pressure relief valve. Its job is to open a path for fluid to flow back to the reservoir in the event that the fluid pressure built up by the pump exceeds 3,000 psi. Thus the pump cannot generate more than 3,000 psi.
- The lowering solenoid valve. This is an electrically-operated cartridge valve. It contains a screen to keep contaminants from entering the valve.
- The pressure-compensated flow control spool. This is installed in a port beside the lowering valve, and regulates the fluid flow back to the reservoir when the valve opens. It allows the table to always lower at the same rate regardless of whether there is a load on the platform or not. Several flow rates are available.
- The hydraulic lift cylinder(s). These are displacement-style cylinders. They have a bleeder valve located at their top end to allow air to be bled from the hydraulic system.
- The safety velocity fuse. This is a device that is installed in the cylinder's hose port. It closes quickly in the event of a catastrophic hose failure to prevent the lift from collapsing down. The platform remains stationary until pressure is reapplied to the cylinder.
- The hydraulic fluid. The system uses HO150 hydraulic fluid. Any anti-wear hydraulic oil with a viscosity grade of 150 SUS at 100°F (ISO 32 at 40°C) such as AW 32 or a non-synthetic transmission fluid is acceptable.

When the platform is to be raised, press the "UP" pushbutton or foot switch. The motor turns, and in turning it spins the hydraulic gear pump. Oil is drawn from the reservoir through the suction filter and into the pump. The pump pushes the then-pressurized oil through the check valve and out to the lift cylinders.

When the platform is to be lowered, press the "DOWN" pushbutton or foot switch. The lowering valve opens, bypassing the check valve and allowing the oil in the cylinders to return back to the reservoir through the return hose. The rate at which the platform lowers is regulated by the internal pressure-compensated flow spool.

↗ In the event that the platform creeps down slowly after releasing the "DOWN" control, it will be necessary to remove the lowering cartridge valve for inspection and cleaning, as follows:

- ◆ Remove any load from the platform.
- ◆ **Warning:** Raise the lift and install the maintenance props. Lower the platform until the lift rests on the props.
- ◆ Remove the nut holding the solenoid coil on the valve stem, then remove the coil, and then unscrew the valve from the manifold.
- ◆ Inspect the valve for contaminants, and the valve's o-rings and back-up washers for cuts, tears, or other damage.
- ◆ With the valve immersed in mineral spirits or kerosene, use a thin tool such as a small screwdriver or a small hex wrench to push the poppet in and out several times from the bottom end of the valve. The valve should move freely, about 1/16" from closed to open position. If it sticks in, the valve stem could be bent and will need to be replaced if it doesn't free up after cleaning. Blow the valve off with a compressed-air gun while again pushing the poppet in and out.
- ◆ Inspect the bottom of the manifold's valve cavity for contaminants.
- ◆ Remove the plug located in the corner of the manifold next to the lowering valve. Inspect for contaminants that might be plugging up the flow control located at the bottom of the cavity.
- ◆ With the thin tool, press down on the center of the flow control spool. It should move down and back up freely.
- ◆ Reinstall the plug, then the valve, tightening the valve with approximately 20 lb-ft of torque.

↗ If the platform lowers extremely slowly, or not at all, the cylinder's velocity fuse could be closing. This can be caused by air in the hydraulic cylinders.

To bleed the air from the system:

- ◆ Remove any load from the platform.
- ◆ **Warning:** Raise the lift and install the safety maintenance props. Lower the platform until the rollers nearly rest on the props.

Hold a rag over the cylinder's bleeder valve (it looks like a grease zirk) and open the valve about 1/2 turn with a 1/4" wrench. Oil and air will sputter from the valve - once no air is observed, close the valve.

DC MODULAR POWER UNIT PARTS BREAKDOWN -- BPST (1-3K)

- Note: Motors, cylinders, and pumps can vary by model. Consult the manufacturer to determine the exact part numbers for these items.

| REV. | ENG # | REV. | ECR # | DATE | REVISIONS | INITIAL |
|------|-------------|------|-------|------|-----------|---------|
| | 073003JY-1A | | | | | |

| ITEM | REQ | PART NO. | DESCRIPTION |
|------|-----|-------------|-----------------------------|
| 1 | 1 | 4JY1119 | BASE |
| 2 | 1 | 1212SR | BATTERY CHARGER |
| 3 | 1 | 01-033-024 | 18/3 W4 PIN PLUG |
| 4 | 4 | 37927 | TINNERMAN CLIP |
| 5 | 1 | 99-023-001 | RESERVOIR |
| 6 | 1 | 99-034-013 | BATTERY STRAP |
| 7 | 1 | 24DC36 | BATTERY |
| 8 | 1 | BV-48 | BREATHER |
| 9 | 1 | 15-533-013 | CABLE, BATTERY 23" BLACK |
| 10 | 1 | 15-533-014 | CABLE, BATTERY 23" RED |
| 11 | 2 | 23305 | SHCS UTILITY GRADE |
| | 2 | 33688 | HIGH COLLAR LOCK WASHER |
| | 2 | 33008 | USS FLAT WASHER Z PLATED |
| 12 | 1 | 99-135-011 | MOTOR, 12VDC |
| 13 | 1 | 15-022-004 | RELAY, START SOLENOID |
| 14 | 1 | HS64 | CLAMP, WORM GEAR |
| 15 | 1 | BG-12V | GAUGE, BATTERY INDICATOR |
| 16 | 3 | ZB2BZ009 | BASE, CONTACT BLOCK |
| 17 | 3 | ZB2BE101 | CONTACT BLOCK N.O. |
| 18 | 2 | ZB2BA2C | OPERTOR, BLACK, NON-ILLUM. |
| 19 | 1 | | KEY SWITCH, 2 POSITION |
| 20 | 1 | 01-134-007 | LEGEND, ON - OFF |
| 21 | 1 | 091802JY | FIBERGLASS COVER |
| 22 | 1 | HS52 | CLAMP, WORM GEAR |
| 23 | 1 | 01-143-906 | PUMP |
| 24 | 1 | 01-627-010 | MANIFOLD ASSM (SEE PAGE 2) |
| 25 | 2 | 29201 | TPHMS, Z PLATED |
| 26 | 2 | 29185 | TPHMS, Z PLATED |
| 27 | 4 | 23255 | SHCS UTILITY GRADE |
| | 4 | 33687 | HIGH COLLAR LOCK WASHER |
| 28 | 1 | 152400-03 | MOLDED CORD |
| 29 | 1 | 150CCTM.OEM | CONNECTOR, CHARGE |
| 30 | 10" | 3MT ST3540 | 1"HOOK&LOOOPPRESS SENSITIVE |

| REMOVE ALL BURRS AND SHARP EDGES | | |
|----------------------------------|---|-----------|
| CONCENTRIC | .006 TIR | .060 TIR |
| ANGLES | +/- .0° 30' | +/- 1° 0' |
| DECIMALS | xxx +/- .005 xx +/- .010 x +/- .025 | +/- .015 |
| FRACTIONS | +/- 1/32 | +/- 1/16 |
| TOLERANCE | MACHINE | WELDMENT |

Beacon Industries, Inc

SCALE: NTS APPROVED BY: DRAWN BY: J.YOUNG

DATE: 07/30/03 SIZE: A

DC MODULAR POWER UNIT

DRAWING NUMBER: 073003JY-1A REV:

DC MODULAR POWER UNIT PARTS BREAKDOWN -- BPST (1-3K)

- Note: Motors, cylinders, and pumps can vary by model. Consult the manufacturer to determine the exact part numbers for these items.

| | | | | | | | |
|---|------|-------------|------|--------|------|-----------|---------|
| DRAWING NUMBER 073003JY-1B * REV. | REV. | ENG # | REV. | ECHR # | DATE | REVISIONS | INITIAL |
| | | 073003JY-1B | | | | | |
| | | | | | | | |

| ITEM | REQ | PART NO. | DESCRIPTION |
|------|-----|----------------|-------------------------|
| 31 | 1 | 568-015-BN70 | O-RING |
| 32 | 1 | 568-011-BN70 | O-RING |
| 33 | 1 | 99-153-015 | VALVE, CARTRIDGE, NC |
| 34 | 1 | 99-034-010 | COIL, WEATHER TITE PLUG |
| 35 | 1 | 99-153-006 | VALVE, PRESSURE RELIEF |
| 36 | 1 | 568-334-BN70 | O-RING |
| 37 | 1 | 99-531-005 | FILTER |
| 38 | 1 | 99-153-038 | FLOW CONTROL, 1.0 GPM |
| 39 | 1 | 01-127-010 | MANIFOLD |
| 40 | 1 | 6801-06-06-NOW | MJ-MAORB 90 DEG. |
| 41 | 1 | 99-153-011 | VALVE, CHECK |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| | | |
|----------------------------------|---|-----------|
| REMOVE ALL BURRS AND SHARP EDGES | | |
| CONCENTRIC | .006 TIR | .060 TIR |
| ANGLES | +/- 0° 30' | +/- 1° 0' |
| DECIMALS | X.XXX +/- .005 X.XX +/- .010 X.X +/- .025 | +/- .015 |
| FRACTIONS | +/- 1/32 | +/- 1/16 |
| TOLERANCE | MACHINE | WELDMENT |

| | | | |
|-------------------------------|-----------------------------|-------------------|--|
| Beacon Industries, Inc | | | |
| SCALE: NTS | APPROVED BY: | DRAWN BY: J.YOUNG | |
| DATE: 07/30/03 | | SIZE: A | |
| DC MODULAR POWER UNIT | | | |
| MATERIAL: | DRAWING NUMBER: 073003JY-1B | REV: | |

AC MODULAR POWER UNIT PARTS BREAKDOWN -- BPST (1-3K)

- Note: Motors, cylinders, and pumps can vary by model. Consult the manufacturer to determine the exact part numbers for these items.

| REV. | ECR# | DATE | REVISIONS | INITIAL |
|------|------|------|-----------|---------|
| | | | | |
| | | | | |
| | | | | |

| ITEM | REQ | PART NO. | DESCRIPTION |
|------|-----|------------|-----------------------------|
| 1 | 1 | 4JY1119 | BASE |
| 2 | 1 | | ELECTRIC BOX (SEE PAGE 2) |
| 3 | 1 | 21-034-005 | AC ADAPTER PLUG |
| 4 | 4 | 37927 | TINNERMAN CLIP |
| 5 | 1 | 99-023-001 | RESERVOIR |
| 6 | 1 | | MOTOR BRACE |
| 7 | 4 | 23255 | SHCS UTILITY GRADE |
| 8 | 4 | 33687 | HIGH COLLAR LOCK WASHER |
| 9 | 1 | BV-48 | BREATHER |
| 10 | 2 | 29185 | TPHMS, Z PLATED |
| 11 | 2 | 29201 | TPHMS, Z PLATED |
| 12 | 2 | 23305 | SHCS UTILITY GRADE |
| 13 | 2 | 33688 | HIGH COLLAR LOCK WASHER |
| 14 | 2 | 33008 | USS FLAT WASHER Z PLATED |
| 15 | 1 | 01-627-010 | MANIFOLD ASSM (SEE PAGE 2) |
| 16 | 1 | 01-143-906 | PUMP |
| 17 | 1 | HS52 | CLAMP, WORM GEAR |
| 18 | 1 | 091802JY | FIBERGLASS COVER |
| 19 | 3 | ZB2BZ009 | BASE, CONTACT BLOCK |
| 20 | 3 | ZB2BE101 | CONTACT BLOCK N.O. |
| 21 | 2 | ZB2BA2C | OPERATOR, BLACK, NON-ILLUM. |
| 22 | 1 | ZB2BG4C | SWITCH, KEY, 2 POSITION |
| 23 | 1 | 01-134-007 | LEGEND, ON - OFF |
| 24 | 1 | 99-135-003 | MOTOR, ELECTRIC, 1PH |
| 25 | 6 | 11005 | HHCS, Z PLATED |
| 26 | 6 | 33004 | USS FLAT WASHER, Z PLATED |
| 27 | 6 | 33618 | LOCK WASHER, Z PLATED |
| 28 | 6 | 36102 | HEX NUT, Z PLATED |

| REMOVE ALL BURS AND SHARP EDGES | | | Beacon Industries, Inc | | |
|---------------------------------|----------------|-----------|------------------------|-----------------|--------------------|
| CONCENTRIC | .006 TIR | .040 TIR | SCALE: NTS | APPROVED BY: | DRAWN BY: J. YOUNG |
| ANGLES | +/- 0° 30' | +/- 1° 0' | DATE: 07/30/03 | | SIZE: A |
| DECIMALS | x.xxx +/- .005 | | AC MODULAR POWER UNIT | | |
| | x.xx +/- .010 | | | | |
| | x.x +/- .025 | +/- .015 | | | |
| FRACTIONS | +/- 1/32 | +/- 1/16 | | | |
| TOLERANCE | MACHINE | WELDMENT | MATERIAL: | DRAWING NUMBER: | REV: |
| | | | | 073003JY-2A | |

AC MODULAR POWER UNIT PARTS BREAKDOWN -- BPST (1-3K)

- Note: Motors, cylinders, and pumps can vary by model. Consult the manufacturer to determine the exact part numbers for these items.

| REV. | DWG #: | REV. | ECR # | DATE | REVISIONS | INITIAL |
|------|-------------|------|-------|------|-----------|---------|
| | 073003JY-2B | | | | | |
| | | | | | | |
| | | | | | | |

| ITEM | REQ | PART NO. | DESCRIPTION |
|------|-----|----------------|---------------------------|
| 1 | 4 | 71616 | TSHMS. SS |
| 2 | 1 | 01-129-001 | TRANSFORMER |
| 3 | 1 | 132560 | CONTACTOR, MOTOR |
| 4 | 4 | 27531 | PHSMS, Z PLATED |
| 5 | 4 | 32028 | HWH TEK DRILL & TAP |
| 6 | 3* | TB-TRACK | RAIL, DIN |
| 7 | 1 | 01-029-006 | JUNCTION BOX |
| 8 | 1 | AB66JP | PANEL, JUNCTION BOX |
| 9 | 4 | C500 | CONNECTOR, ROMEX, 2 SCREW |
| 10 | 1 | 01-127-010 | MANIFOLD |
| 11 | 1 | 6801-06-06-NOW | MJ-MAORB 90 DEG. |
| 12 | 1 | 99-153-011 | VALVE, CHECK |
| 13 | 1 | 568-015-BN70 | O-RING |
| 14 | 1 | 568-011-BN70 | O-RING |
| 15 | 1 | 99-153-015 | VALVE, CARTRIDGE, NC |
| 16 | 1 | 99-034-008 | COIL, 24V AC |
| 17 | 1 | 99-153-006 | VALVE, PRESSURE RELIEF |
| 18 | 1 | 568-334-BN70 | O-RING |
| 19 | 1 | 99-531-005 | FILTER |
| 20 | 1 | 99-153-038 | FLOW CONTROL, 1.0 GPM |

| REMOVE ALL BURRS AND SHARP EDGES | | |
|----------------------------------|---|------------|
| CONCENTRIC | .004 TIR | .040 TIR |
| ANGLES | +/- .0° 30' | +/- .1° 0' |
| DECIMALS | x.xxx +/- .005 x.xx +/- .010 x.x +/- .025 | +/- .015 |
| FRACTIONS | +/- 1/32 | +/- 1/16 |
| TOLERANCE | MACHINE | WELDMENT |

Beacon Industries, Inc

SCALE: NTS APPROVED BY: DRAWN BY: J. YOUNG

DATE: 07/03/03 SIZE: A

AC MODULAR POWER UNIT

MATERIAL: DRAWING NUMBER: 073003JY-2B REV:

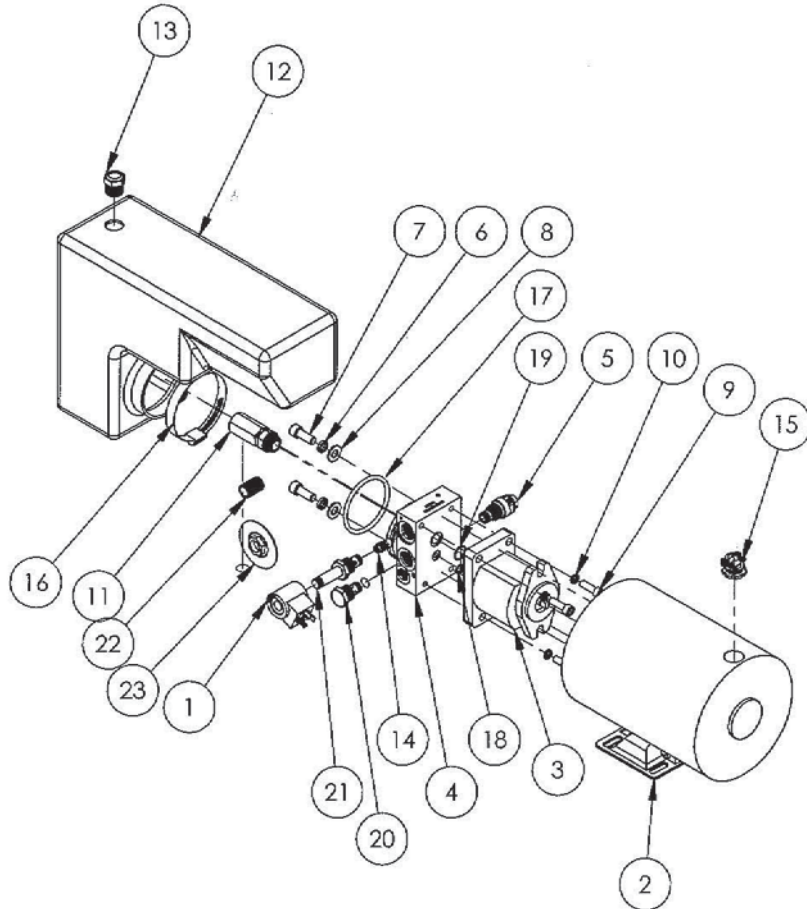
DWG NO: 26-126-001

LOCATION: K:\ARCHIVE\21-30\

MODEL: 26-126-001

WEIGHT: 89.70

| REVISIONS | | | | |
|-----------|------|-------------|------|---------|
| ECR | REV. | DESCRIPTION | DATE | INITIAL |



| 23 | 99-031-018 | ACCESSORIES, HYDRAULIC, SCREEN | 1 |
|----------|-------------|---|------|
| 22 | 99-031-033 | CLOSE PIPE NIPPLE | 1 |
| 21 | 99-153-015 | VALVE, CARTRIDGE, NC w/o COIL | 1 |
| 20 | 99-153-011 | VALVE, CHECK, STANDARD | 1 |
| 19 | 99-144-009 | O-RING, MANIFOLD | 1 |
| 18 | 99-144-008 | O-RING, MANIFOLD | 1 |
| 17 | 99-144-007 | O-RING, 3" BOSS | 1 |
| 16 | 99-145-061 | Clamp, Worm Gear Hose, 2 13/16 - 3 3/4 | 1 |
| 15 | 99-034-037 | ACCESSORIES, ELECTRICAL, ROMEX .375" | 1 |
| 14 | 99-153-040 | FLOW CONTROL, PRES. COMP., 2.0 GAL. | 1 |
| 13 | 01-116-003 | BREATHER, 1/2" NPT | 1 |
| 12 | 99-023-002 | RESERVOIR, NON TORSIONAL, 3" BOSS | 1 |
| 11 | 99-116-001 | SUCTION FITTING, MINI MANIFOLD | 1 |
| 10 | 33687 | LOCK WASHER, HI COLLAR, 5/16" | 4 |
| 9 | 23255 | 5/16-18 X 1 SOCKET HEAD CAP SCREW | 4 |
| 8 | 33008 | Ø3/8 USS FLAT WASHER Z PLATED | 2 |
| 7 | 23305 | SHCS, UTILITY GRADE, 3/8 - 16 x 1 LG. | 2 |
| 6 | 33688 | LOCK WASHER, HIGH COLLAR, 3/8 | 2 |
| 5 | 99-153-006 | VALVE, PRESSURE RELIEF, 210 BAR | 1 |
| 4 | 01-127-010 | MANIFOLD, LHL | 1 |
| 3 | 01-143-908 | PUMP, HYDRAULIC, GEAR, 0.153 DISP. | 1 |
| 2 | 99-135-005 | 2 HP, 3 PH, 1725 RPM, 208-230/460 VOLT, 56F | 1 |
| 1 | 99-034-008 | COIL WITH DIN CONNECTOR | 1 |
| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |

| | | | |
|---|--------------|---|----------|
| UNLESS OTHERWISE SPECIFIED: REMOVE ALL BURRS AND SHARP EDGES | | Beacon Industries, Inc. | |
| DIMENSIONS ARE IN INCHES | | DESCRIPTION: PARTS BREAKDOWN, POWER UNIT | |
| CONCENTRIC | .005 TIR | PRODUCT MODEL NO: | |
| ANGLES | ± 0° 30' | DRAWN BY: | DATE: |
| | | J BRANDT | 3/4/2013 |
| DECIMALS | x.xxx ± .005 | SCALE: 1:8 | SIZE |
| | x.xx ± .010 | | A |
| FRACTIONS | ± 1/32 | MAT'L: | REV |
| TOLERANCES | MACHINE | DWG. NO. | |
| COMMENTS: | WELDMENT | 26-126-001 | |
| DO NOT SCALE DRAWING | | | |

TROUBLESHOOTING GUIDE -- BEHLT (1-4K) & BPST (1-3K)

- **WARNING:** Care should be taken to identify all potential hazards and comply with all applicable safety procedures before beginning troubleshooting or repairs. Disconnect or disable all energy sources utilizing proper lock-out / tag-out procedures.
- **CAUTION:** Before performing any troubleshooting or repairs, the load must be removed from the platform. Then either raise the platform and install the maintenance props or fully lower the platform to the floor.
- Only qualified individuals trained to understand mechanical devices and their associated electrical and hydraulic circuits, along with the hazards that could result from them, should attempt troubleshooting and repair of this equipment.

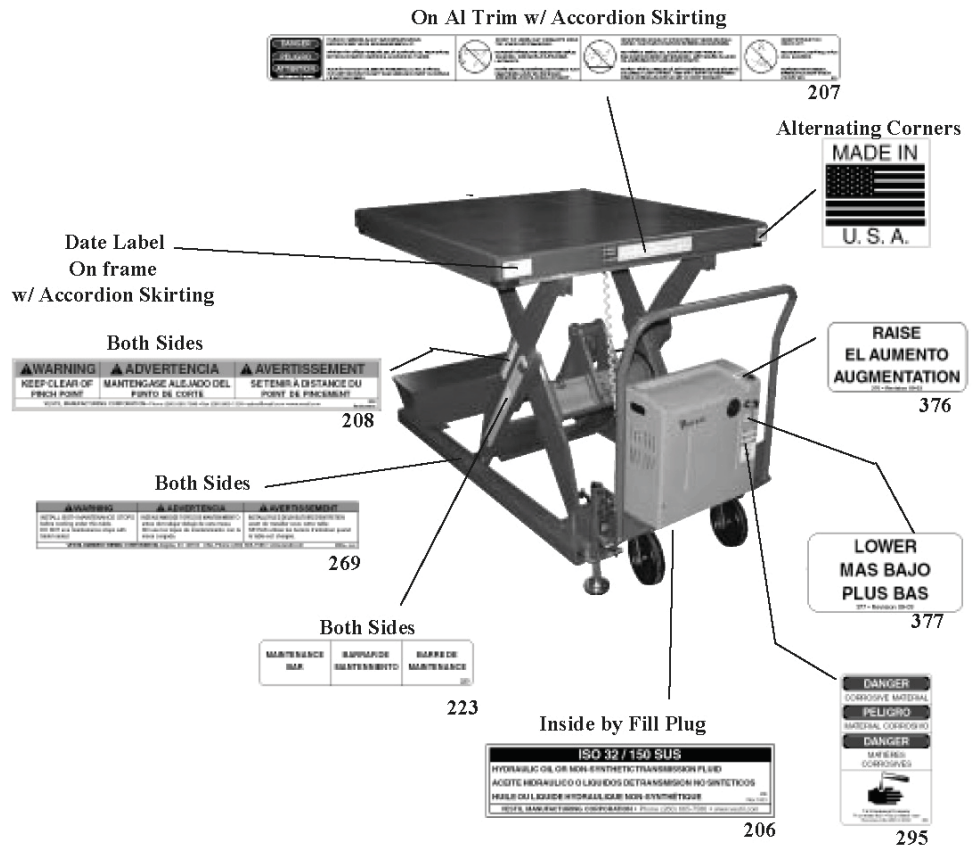
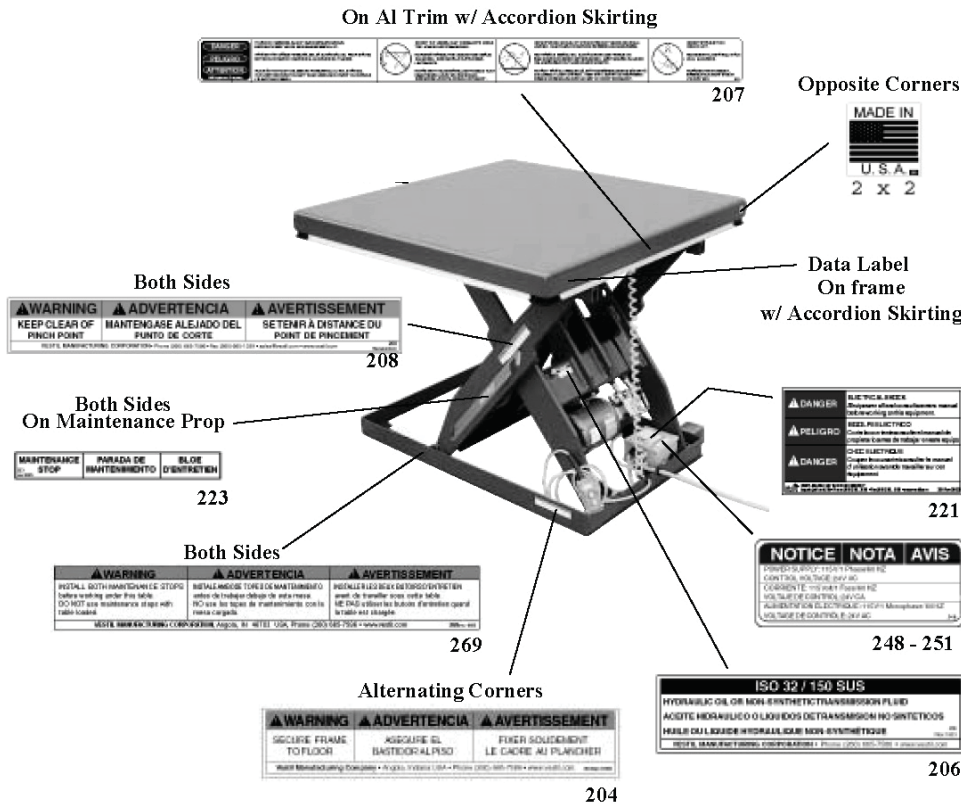
Consult the factory for any problems not addressed in this manual.

- * Check the DC notes page for troubleshooting other problems specific to batteries and chargers.

| <u>Problem:</u> | <u>Possible cause(s)</u> | <u>Action</u> |
|--|---|--|
| Power unit doesn't run when "UP" button is pressed. | Transformer fuse is blown. No supply voltage. Upper-travel limit switch is engaged or bad. Bad control transformer. Bad motor relay coil. Bad solenoid start switch (DC units). Battery voltage low (DC units). | Test with meter; replace if bad. Test with meter. Check fuses, breakers, and overloads to determine the cause. Inspect , test switch. Replace if bad. Check for 24 VAC; replace if bad. Test with meter; replace if bad. The green LED on motor relay will be off, or will turn off when the UP pushbutton is pressed. Test with meter. Charge battery if low (is motor relay LED on?) |
| Motor runs, platform doesn't move. Power unit not noisy. | Motor rotation is wrong (AC-powered units only). Pump is failing to build pressure. | Verify the motor runs CW, opposite the shaft end. Consult factory. |
| Motor hums or pump squeals, but the platform does not move, or the platform moves only slowly. | See last paragraph, above. Excess voltage drop to motor, due to power wire size too small, wire run too long, or incoming voltage too low. Motor is "single-phasing". Pressure relief opening at full pressure. | Same as above. Check power installation for adequacy. Check incoming voltage <i>while motor is running</i> . Correct problem found. Determine cause of loss of voltage on one phase; correct. Check for structural damage or binding of the scissor legs, etc. Check for platform overload condition. |
| Platform raises, then drifts down. Spongy or jerky platform movement. | Contamination holding open the lowering valve or the check valve. See last paragraph, above. Excessive air in the hydraulic cylinders. | Remove and inspect. Clean per instructions in "Power Unit Operation." Same as above. Bleed air per procedure described in "Power Unit Operation." |
| Platform won't lower. | Toe guard is actuated. Toe guard switch, or wire, broken. Solenoid coil is bad. Physical blockage of the structure. | Check for a toe guard extrusion or rubber corner that is stuck. Adjust if necessary. Inspect visually, check with mutimeter. Repair as needed. Check with multimeter on diode-check function. (Reading for ohms will not provide an accurate test of the coil.) Inspect for foreign material or objects that might block the leg set or its rollers. |
| Platform lowers too slowly. | Solenoid valve, flow control, or suction hose screen plugged. Pinched hose. Velocity fuse locking (platform only slowly creeps down). Flow control spool sticking. | Remove and inspect. Clean per instructions in "Power Unit Operation." Check pressure, supply, and return hoses for kinks. Same as for jerky platform movement. Remove plug from FC port; push on flow spool to ensure it is fully pressed into the cavity. Pull and clean the spool if necessary. |
| Platform lowers too quickly. | See last paragraph, above. | Same as above. |

SAFETY LABEL IDENTIFICATION

* Product safety signs or labels should be periodically inspected and cleaned by the product users as necessary to maintain good legibility for safe viewing distance -- ANSI 535.4 (10.21). Contact the manufacturer for replacement labels.





12300 Old Tesson Rd. St. Louis, MO 63128-2247 USA
OFFICE: 314-487-7600 FAX: 314-487-0100

BEHLT, BEHLTD & BPST Series Hydraulic Lift 1 Year Limited Warranty

Standard Limited Warranty is 1 year. The equipment is warranted to be free from defects in materials and workmanship under normal use and service for a period of one (1) year from the date of shipment if used within the rated capacity. Rated capacity is classified as evenly distributed load. Axle side loads and Axle end loads are rated 50% of evenly distributed rated load. This includes a one-year structural warranty and component manufacturers' warranties.

Hydraulic parts limited warranty includes:

- Power unit – 1 year from date of shipment
- Hydraulic cylinders – 1 year from date of shipment
- Hoses and fittings – 1 year from date of shipment

All warranty claims must be approved in writing by the factory prior to any work being done.

Warranty does not cover labor, scheduled service requirements, adjustments or consequential damages.

Warranty shall not apply to unauthorized repair, alterations, freight damage, negligence, accidents, abuse, misuse or correctness of fit.

This warranty is Beacon's exclusive expressed warranty.

Beacon expressly disclaims all implied warranties including the implied warranties of merchantability and fitness.

In the event of any defects covered by this warranty, Beacon will remedy such defects by repairing or replacing any defective equipment or parts, bearing all of the costs for parts, from Beacon to site. This shall be the exclusive remedy for all claims whether based on contract, negligence, or strict liability. **Beacon shall not, in any event, be liable for any loss of the use of any equipment or incidental or consequential damages of any kind.**

Standard equipment can only be returned if approved in writing by the factory with a return authorization number. All returns are subject to a minimum 20 percent restocking charge plus applicable freight charges. Details are listed on the return authorization form.

Custom built (non-standard) equipment requires a signed approval drawing prior to fabrication. Approval drawing changes must be made in writing and must be acknowledged and accepted by the factory. Custom built equipment is non-returnable. Warranty is not valid for equipment on past-due invoices. Warranty is valid after full payment is made.

The Original purchaser must have the lift maintained and serviced as prescribed in the Owners Manual. The original purchaser must present to Beacon with a maintenance schedule to show that the lift has been maintained and serviced on a calendar quarterly basis in accordance with the Beacon's Owner's Manual. The quarterly Preventative Maintenance Schedule Log must be kept to keep Warranty active. The validated maintenance schedule must be submitted whenever a claim is made under this Warranty.

The provisions of this warranty shall be construed and enforced in accordance with the Uniform Commercial Code and laws enacted in the State of Missouri.

Date: _____

Quote No: _____

Accepted By: _____

Form: BEHLTD-W1(WTY-91)
Publish Date: 2/24/20