

# OWNER'S MANUAL

## LOW-DUTY DUMPER

Models: BXD45-2500-48

Serial #: D-23273

Customer: Sigma Equipment

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## WELCOMETOCHERRY'SMATERIALHANDLING SOLUTIONS

Cherry's products reduce your costs in production, storage, retrieval and distribution with a wide variety of material handling solutions. We combine years of experience with state-of-the-art technology to bring a range of products that solve your lifting, rotating, tilting and transferring problems.

The LDD Series 135° Dumper is designed to allow faster, safer, and easier dumping of:

- Corrugated containers
- Combos
- Plastic Containers
- Metal Containers

Cherry's 135° Dumper easily and safely discharge parts, pellets, powders, ingredients and components onto conveyors, mixing vats or larger vessels for in plant use.

**Product applications.** Lift and rotate containers over a raised pivot point to dump contents onto a conveyor, auger or vat below.

**Product features.** End to end or side loading 135° Dumper are ideal for tipping boxes, metal and plastic containers to slowly discharge the contents at a raised height. Built around two design principles our models are custom fit to your unique warehouse needs,

Available in 3,000 lb capacity the 135° Dumper is easy to operate, with its hand held two button pendant and intermittent duty power pack with power on demand, and is best suited for low volume intermittent usage.

**CHERRY'S** Industrial  
Equipment®

**Options can include:** UL listed electric panels, lockout/maintenance stops, perimeter guards, chute, automated controls. To learn more about the 135° Dumper options, contact your Cherry's sales team at **800.350.0011** or **sales@cherrysind.com**

**Disclaimer.** Cherry's 135° Dumper may be used in a wide variety of industrial and warehouse settings. We have addressed the most common applications for our products within this manual, but we cannot anticipate all conditions or unique situations. If you are unsure of any instructions or guidelines, please contact our product support team at **877.350.2748** or **service@cherrysind.com**.

## **Terms used in this manual.**

**Caution!** Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

**Safety!** Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations typically for machine components, which, for functional purposes, cannot be guarded.

**Warning!** Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

**Remember to be responsible.** The instructions included in this manual are not necessarily all-inclusive, because Cherry's Industrial Equipment Corp. cannot anticipate all conceivable or unique situations. Your best assurance against accidents is a careful and responsible operator. If there is any portion of this manual or equipment operation you do not understand, contact your supervisor or Cherry's Support Team at **877.350.2748** or **service@cherrysind.com**.

**Warranty.** This Owner's Manual is not intended to be or to create any other warranty, express or implied, including any implied warranty of merchantability or fitness for a particular purpose, all of which are hereby expressly excluded. As set forth more specifically in the product warranty, Cherry's obligation under that warranty is limited to the repair or replacement of defective components, which shall be the buyer's sole remedy, and Cherry's shall not be liable for any loss, injury or damage to persons or property, not for any direct, indirect, or consequential damage of any kind resulting from product inversion, load transfer or retrieving damaged pallets.

**For details about Cherry's product warranty, see the Warranty section of this manual.**

# PRECAUTIONS



## **SAFETY**

In order to provide for safe operation of this 135° Dumper, Cherry's has identified certain hazards that may occur during the installation, maintenance and use of this machine. To prevent injury, any person handling this 135° Dumper must:

- Always follow the safe working practices as recommended by your Company, and all state and/or federal legal requirements that apply to the installation of machinery.
- Always visually check for hydraulic leaks before starting the machine at the beginning of each shift.
- Visually check that the machine is clear of any debris or tools, particularly in the loading area.
- Upon starting the machine, repeat the check for any visual fluid leaks.
- If leaks are apparent as stated above, lock-out/tagout and immediately inform the individual(s) responsible for maintenance.
- Always be certain any safety guards are in place, before commencing any movement cycle.
- Always check that personnel, transporters, forklift and static loads are clear of the machine before starting the cycle.
- Never try to adjust loads by hand while the machine is in motion or while the motor is running.
- Refer to the attached MSDS sheet on handling of, disposal of and treatment to exposure of MEDALLION PLUS® AW32 hydraulic oil.
- Consult with Cherry's in the event of any serious malfunction, or any visible or audible defect.

Contact our Support team at **877.350.2748** or **service@cherrysind.com**.



## **WARNING**

Your well-being is of the utmost importance to Cherry's Industrial Equipment Corporation. We have determined that the following precautions and environmental conditions will assure maximum safety standards:

- Personnel must always wear safety glasses and steel-toe reinforced safety shoes when operating or servicing the unit.
- Personnel must be properly trained in the safe use and maintenance of the total system.
- A preventative maintenance program should be established by your Company and then adhered to by trained personnel.
- A program to periodically review safety procedures should be established by your Company.
- A well-lit working environment must be provided.
- A safe method of transporting and loading pallets to and from the unit must be established.
- Cherry's Industrial Equipment accident prevention labels must never be blocked by any peripheral equipment.
- This 135° Dumper must never be overloaded or misused in any manner.



## **CAUTION**

This 135° Dumper must never be overloaded or misused in any manner. Sudden machine movements, and jogging basket back and forth quickly may lead to serious damage to the mechanical hinge points.

# DUMPER



## CAUTION

Cherry's has established the following set of precautions to be followed by all operators of this 135° Dumper:

**Guarding.** Safety guards should be provided if the unit is adjacent to aisle ways or other equipment.

Caution should be used around all pinch, shear, crush and trip points and guarded if needed.

Peripheral equipment that presents a hazard to individuals operating the unit must be redesigned. If redesign is not possible, then guarding should be considered.

**Electrical.** All equipment must be properly lockedout/tagged-out during any maintenance procedure to prevent accidental start up.

**Safe servicing.** All peripheral equipment must be properly positioned to allow for safe servicing of this unit. All technicians must be properly trained to safely service the unit.

**Placement.** The safety of operational or maintenance personnel must be considered when other equipment is installed near or incorporated with this 135° Dumper. The environment must be free of potential hazards, and all installation precautions must be followed.

## PROPER UNLOADING



## CAUTION

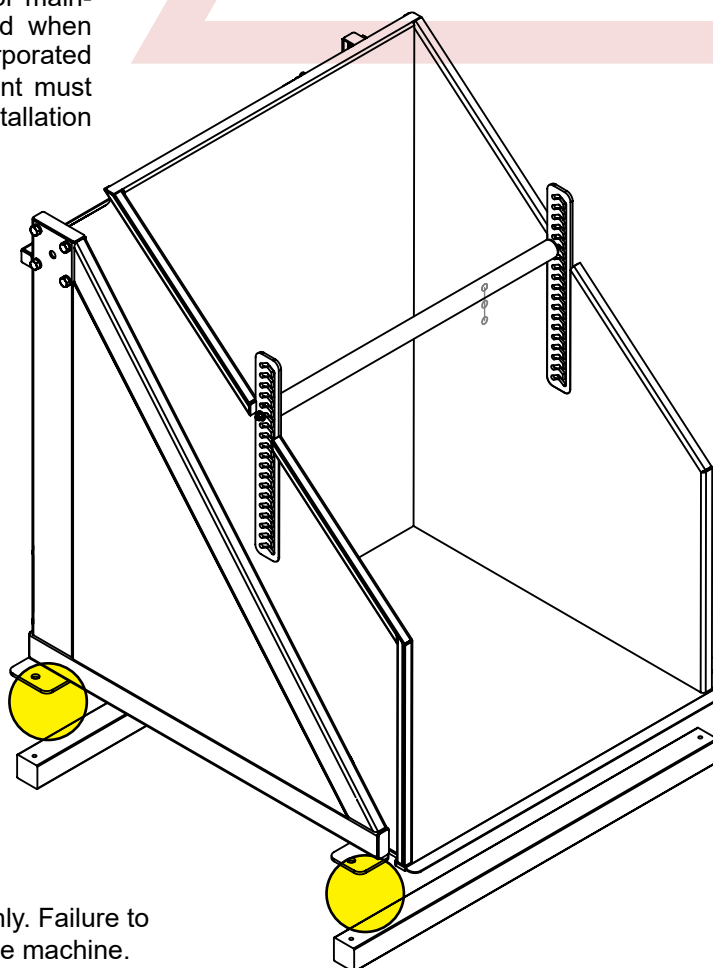
Use proper unloading points only. Failure to do so may cause damage to the machine.



## MSDS

Cherry's Industrial products utilize three chemicals covered by OSHA's MSDS requirements. They are:

- MEDALLION PLUS® AW32 hydraulic oil
- Harvest King Lith-Flex All Season Grease (Or Equivalent)
- Sherwin Williams



## LOCKOUT/TAGOUT PROCEDURES

Occupational Safety & Health Administration (OSHA) requires employers to establish a program and utilize procedures for affixing appropriate lockout devices or tagout devices to energy isolating devices, and to otherwise disable machines or equipment to prevent unexpected energization, start up or release of stored energy in order to prevent injury to employees.

When a tag is attached to an energy isolating means, it is not to be removed without authorization of the authorized person responsible for it, and it is never to be bypassed, ignored, or otherwise defeated.

Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use.

Lockout or tagout shall be performed only by the authorized employees who are performing the servicing or maintenance.

**Preparation for shutdown.** Before an authorized or affected employee turns off a machine or equipment, the authorized employee shall have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the method or means to control the energy.

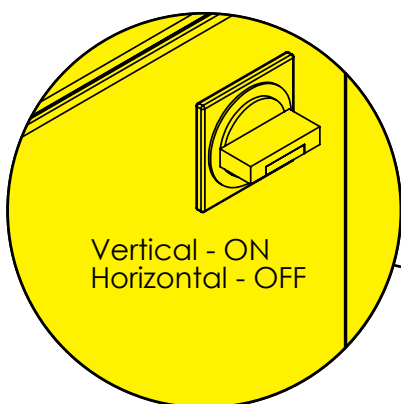
**Machine or equipment shutdown.** The machine or equipment shall be turned off or shut down using the procedures established for the machine or equipment. An orderly shutdown must be utilized to avoid any additional or increased hazard(s) to employees as a result of the equipment stoppage.

**Device application.** Lockout or tagout devices shall be affixed to each energy isolating device by authorized employees. Following the application of lockout or tagout devices to energy isolating devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained, and otherwise rendered safe.

**Verification of isolation.** Prior to starting work on machines or equipment that have been locked out or tagged out, the authorized employee shall verify that isolation and deenergization of the machine or equipment have been accomplished.

**Release from lockout/tagout.** After lockout or tagout devices have been removed and before a machine or equipment is started, affected employees shall be notified that the lockout or tagout device(s) have been removed.

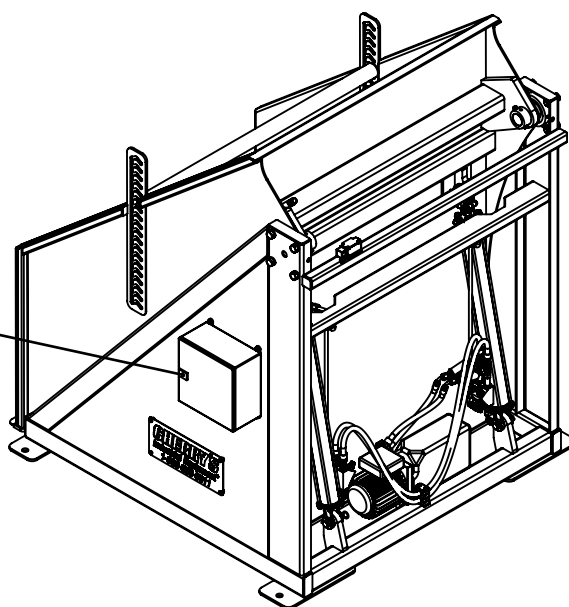
Taken from OSHA 1910.147 *The Control of Hazardous Energy (lockout/tagout)*. Consult your Company's specific safety procedures for additional lockout/tagout requirements.



If supplied with electrical panel.



Consult your Company's specific safety procedures for additional lockout/tagout requirements.



# INSTALLATION & REINSTALLATION

## CHERRY'S ONSITE SERVICES

Most customers take advantage of Cherry's onsite installation, start-up, and training services. A Cherry's support crew also can assist with moving services if a new location is desired. If using light curtains (optional), Cherry's recommends installation by a Cherry's qualified installation technician. To learn more, contact Cherry's Tech Support team at **877.350.2748** or **service@cherrysind.com**.

Customers performing their own installation and relocation should refer to the instructions provided in the hardware box (included in shipment of machine). If using light curtain sticks (optional), set aside and protect during machine set-up process and refer the light curtain installation instructions that follow.

## PRE-INSTALLATION SET-UP

**Damage report.** Cherry's Industrial Equipment assembly team inspects every piece of equipment prior to shipment. Machine is factory run and tested and resulting mark or scrapping can be seen. If structure damage or missing parts are apparent, and occurred during shipping, a freight claim must be filed with the freight company. Verify fluid levels.

**Unloading and inspecting.** Upon receipt of the 135° Dumper, inspect the equipment completely to determine if there has been any shipping damage and that the unit is complete.

A complete shipment consists of the 135° Dumper, power unit, guarding and operator control unit. Refer to the Bill of Materials for additional components that may have been purchased. Optional Light Curtains Kit. If optional light curtains kit was purchased, set parts aside to avoid damage. Kit includes:

- 2 light sticks
- 2 mounting posts
- 2 anchor pads
- 2 cables
- 12 floor anchors 1/2"x 6"
- 2 Light curtain protector
- 1 Light curtain alignment pointer

**NOTE:** Cherry's recommends installation of light curtains by a trained Cherry's technician.

**Electrical power.** A dedicated, 230-460 VAC 60 kHz 3 phase grounded power source is required. If 120 VAC Single-phase option has been selected, a dedicated 20 amp circuit is required.

**Installation equipment checklist.** The following items are required to perform the installation of the Cherry's 135° Dumper:

- 5,000 lb. capacity forklift
- 1/2 drive Socket set 3/8-1 1/18
- Allen wrench set
- Standard and Phillips screwdrivers
- Pneumatic or electric impact wrench
- Hammer drill.
- Masonry drill bits - 3/8 & 3/4
- 3/8-1 1/8 wrench set
- Level
- Steel shims
- Cutoff wheel, hacksaw or portable Bandsaw
- Mini sledge or weighted mallet
- Shop vacuum
- Grease gun
- Electrical multimeter



## MACHINE PLACEMENT

1. With a forklift, position machine where it will be installed. Always ask for plant layout drawings, if available, to confirm what is beneath the installation location and to ensure that there are no obstructions (pipes, electrical lines, water lines, etc.) beneath the chosen site.
2. Placement should not be near any flooring cracks or freeze lines.
3. As a general practice, the back of machine should be no closer than 36" from a wall, and machine should be no closer than 36" from an aisle way or door. Also, disconnect panels should have a minimum of 36" in front of the electrical box for machine maintenance. Keep in mind if you have crash guards you will need to add the width of the crash guards to the 36" clearance.
4. Check state and local codes for additional setback requirements.
5. Your Company may have additional requirements. Refer to your Company's safety manager and/or plant manager for placement.
6. Confirm all warning labels are in place.

Operator/maintenance training. A Cherry's Industrial Equipment representative will schedule onsite training sessions once the installation is complete. To maximize equipment operation uptime, it is essential to have all operators and maintenance personnel at these sessions. For maintenance reference after training, one Owner's Manual (on CD) is included with each unit.

Safety apparel and other safety precautions. As with any piece of heavy equipment, operators of Cherry's 135° Dumper should have operator permits and wear standard safety apparel including hard hat, safety glasses, gloves, steel-toe shoes and yellow or orange safety vest. Your Company may have additional requirements. Refer to your Company's safety and/or regulations manual for details.



### CAUTION!

Placement of Cherry's 135° Dumper should be on a concrete floor with a minimum thickness of six inches (6"). Machine anchor bolts must be installed no closer than eight inches (8") to crack or joint in the floor.



### CAUTION!

The unit systems are designed to operate on a flat, level plane. If the floor is not completely level, steel shims can be added up to a maximum thickness of one-quarter inch (1/4"). If leveling cannot be obtained with 1/4" of shims, please contact Cherry's product support team at **877.350.2748** or **service@cherrysind.com**.

## MACHINE RUN-THROUGH PRIOR TO ANCHORING

Check for signs of damage, especially to the electrical and hydraulic components. Check all connections for tightness. Check for any bent or damaged metal parts.

1. Confirm the correct line voltage. Check to see if power for machine is ready for the installation and that electrician is on site to help. Check for the nearest 110V power source for use with hand tools.
2. Have a qualified electrician connect 3 phase power to the supplied motor starter or disconnect panel. Verify pump/motor rotation by pressing the start, then stop button on the operator panel, check that the pump is running in the direction of the arrow. To determine direction, remove the orange cover to view the motor.
3. Power up and do a run through of all machine movements clamp, unclamp, lay down and stand up.
4. Power down machine and use Lockout/Tag out to ensure that the power is turned off completely if left unattended.



### WARNING!

Cherry's Industrial machinery is designed for intermittent use, anticipating interaction with manual forklifts and motorized pallet trucks. 135° Dumper base unit must be lagged to the floor in specified locations (per drawings) locations. Do not use equipment until completely anchored to the floor.

## MACHINE ANCHOR INSTALLATION



### **WARNING!**

Failure to use the correct design could result in unstable machine.

An anchor systems kit designed for your application has been supplied with your machine. Determine your environmental conditions and select an appropriate anchor.

### DRY ROOM

Drill to 6" depth. Use shop vac to remove all dust from holes. Check the hole for a solid bottom. If the hole is deeper than 6", then fill the hole with a wooden dowel pin. If the drill breaks through the slab at less than 5", do not proceed. Call Cherry's technical support group at **877.350.2748** or **service@cherrysind.com**.

### Wet or Extreme Cold Rooms

Always follow the anchor manufacturer's instructions. Cherry's recommends that epoxy/anchor designed for wet or cold areas below 25°F be used. Consult the anchor manufacturer's direction before proceeding. Insure that all anchors in all base plates are installed before operating machine.

Always follow manufacturer's instructions. Operate machine for five (5) cycles then retighten.



Do not use Cherry's 135° Dumper if there appears to be any damage. In the event of any malfunction, any visible or audible defect, or any other serious problem, immediately consult Cherry's product support team at **877.350.2748** or **service@cherrysind.com**.

## PREPARING TO ANCHOR

1. Confirm that the surroundings are adequate for an installation, that they are clean and dry, and that they are free of any activity or traffic.
2. Install safety guards (optional). Leave loose (hand-tight) for the time being.
3. Double check with supervisor that machine is in correct location. If machine is not in correct location, reposition machine in accordance with the supervisor's criteria. Ensure that machine placement instructions (page #) are followed. Once machine is in correct position, proceed to step 4.
4. Tighten guarding system (optional) as the instructions in the hardware box (included in shipment of 135° Dumper) direct.
5. Use 3/4" anchors for machine and 3/8" anchors for guards (optional). Confirm correct drill bit size. Do not substitute drill bit size.
6. Check for complete contact of machine base to floor, machine should be squared to its surroundings. Basket should be in horizontal position. Ensure that machine is sitting flat and level.
7. Confirm that the floor can be drilled into at a depth of six inches (6"). Confirm that cooling lines, electrical lines and drainpipes are not present under the location of the equipment.
8. Drill the holes in the floor and anchor machine following the manufacturer's instruction on the anchors.
9. Power up and do a run through of all machine movements (UP and DOWN).
10. Proceed with training all personnel.

### ANCHOR INSTALLATION INFORMATION

	Symbol	Units	Nominal Anchor Diameter (in.)			
			3/8*	3/4**		
Anchor outer diameter	$d_0$	in	0.375	0.750		
Nominal carbide bit diameter	$d_{bit}$	in	3/8	3/4		
Effective embedment depth	$h_{ef}$	in	1-3/4	2-5/8	3-1/2	4-3/4
Min hole depth	$h_o$	in	2-1/2	3-3/8	4-3/4	6
Min slab thickness	$h_{min}$	in	4	5	6	8
Installation torque	$T_{inst}$	ft-lb	25	110		
Min hole diameter in fixture	$d_h$	in	7/16	13/16		

\* anchors for the guards

\*\* anchors for the machine

# LIGHT CURTAIN INSTALLATION

The light curtains require sensitive calibrations. Cherry's recommends that customers purchasing optional light curtains have them installed by a Cherry's qualified technician. Contact Cherry's technical services group at 877.350.2748 or [service@cherrysind.com](mailto:service@cherrysind.com).

**Improper installation could create additional hazards.**

The following instructions assume:

- Floor is flat and leveled. If not, the floor will need work to comply; small amount of shims can be added if necessary.
- Guarding has been assembled and anchored properly
- Left and right orientation when facing loading side of machine

1. Check that 2 brackets are attached to each post and have not moved during shipping. (Photo 1).
2. Lay down each post.

Assemble light curtain as follows:

3. Slide emitter onto left post and receiver onto right post with connector ends down. Position the bottom of each light curtain, 10" up from ground level and tighten down. (Photo 2).
4. Connect yellow emitter cable to emitter quick disconnect located on the bottom of the main panel. Connect the black receiver cable to the receiver quick disconnect located on the bottom of the main panel (if quick disconnect supplied).
5. Route emitter and receiver cables from panel through the bottom of the high style guards utilizing the "through holes" (Photo 4).
6. Connect light curtain to panel, Emitter to Emitter cable and Receiver to Receiver cable.
7. Carefully stand up each post 1/2" away from high style guard end with brackets from each post facing each other (Photo 5).
8. Power up machine.
9. Light Curtain Alignment Check: Rotate posts with the light curtain components facing each other until the proper alignment is achieved. Consult the follow table for proper light sequence.

Light Curatin Operating LED (Photo 3A & 3B):

- I. Emitter: "TST" = Yellow LED,  
"PWR" = Green LED.
- II. Receiver: "PWR" = Green LED,  
"OSD" = Yellow LED,  
"LEVEL" = 1 Red LED and  
3 Green LEDs

9. Once correct alignment is verified, mark off and install one anchor of each post then check alignment again.
10. Remove light curtain from each post.
11. Drill and install the second anchor, diagonally across from the first, on each post. Replace the light curtain and check alignment again.
12. Remove light curtain from each post.
13. Install the third and fourth anchors.
14. Tighten down all anchors and replace the light curtain. Verify proper light curtain alignment.
15. Remove light curtain jumper wires
16. Verify operation with a run through of all machine movements.
17. The light curtain installation is complete.

## Light Curtain Parts:

1. 1 Left Post and 1 Right Post (Pre-Assembled-with Brackets)
2. 1 Emitter Curtain (Left side) and 1 Receiver Curtain (Right side)
3. 1 Pendant Holder (On Post (OPTIONAL))
4. 8 (3/8" X 5" Anchors)

# DUMPER



PHOTO 1

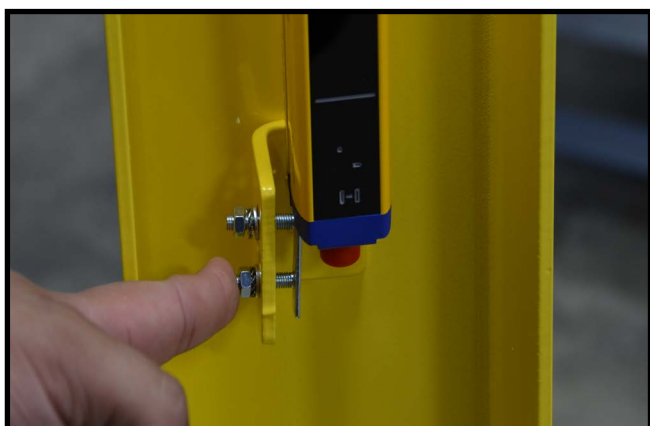


PHOTO 2



PHOTO 4



PHOTO 3A



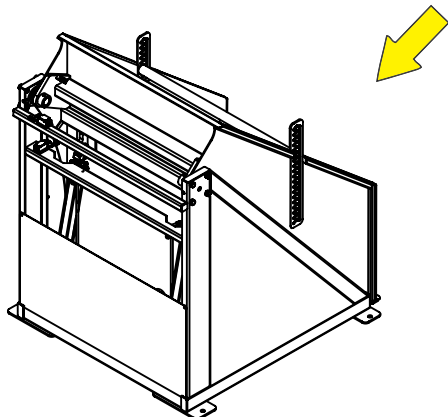
PHOTO 3B



PHOTO 5

## OPERATION INSTRUCTIONS

### 135° DUMPER



Pallet jack operator places the container into the dumper from the side, making sure that the container is up against the sidewall and underneath the hold down bar.

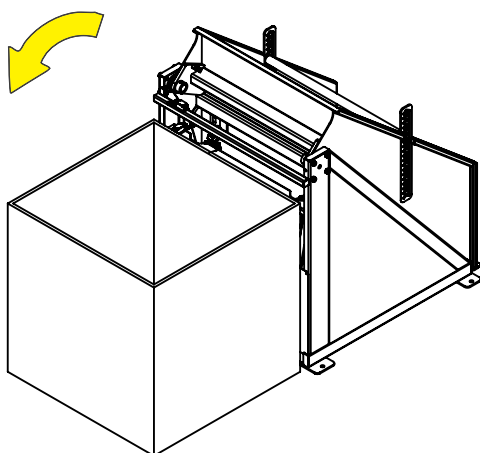
This will prevent the container from slipping out during the cycle.



**CAUTION:** Ensure that no personnel are within the machine enclosure.



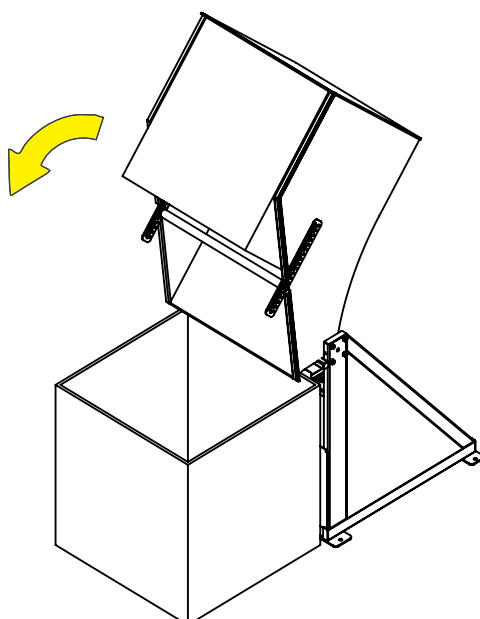
**CAUTION:** Make sure that the area around the machine is clear of debris, wood splinters, etc.



Pull up on the E-stop button on the hand held pendant.

Press the blue “Reset” button. It will illuminate when machine safety is operational.

Press and maintain the UP button on the hand held pendant to tip the container.

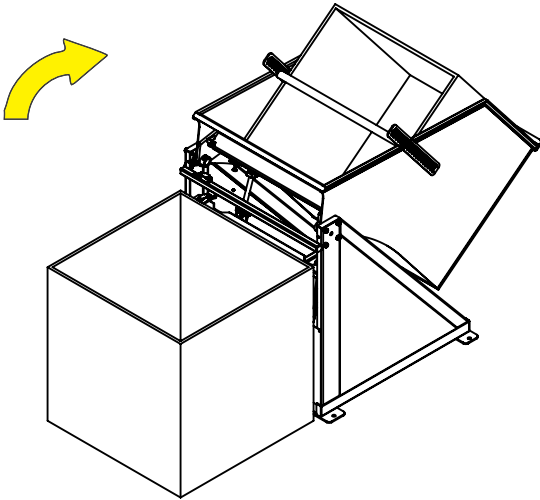


Release UP button once the full container is rotated 135° and resting against the stop.

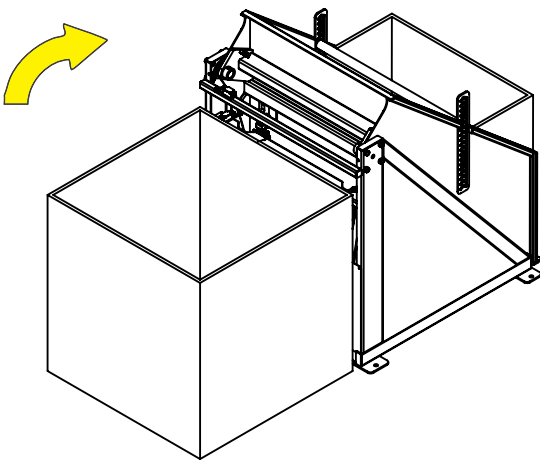
Note: All movement buttons are press and maintain.



# DUMPER

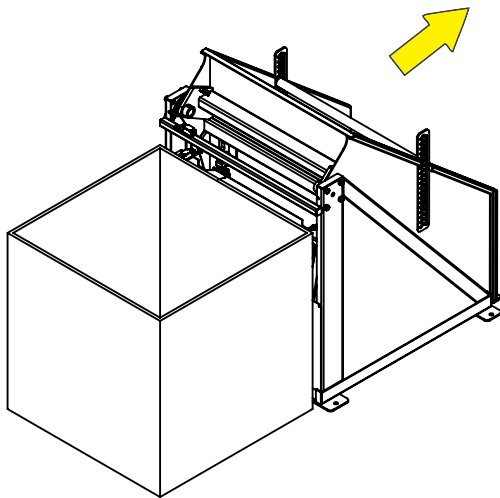


Press and maintain the DOWN button on the hand held pendant to tip the empty container.



Release DOWN button once the basket is rotated and flush with the floor.

Note: All movement buttons are press and maintain.



Remove container from machine.

Return the machine to the home position.

Prepare next load, and repeat.

Upon completion of work task and/or shift return the machine to the home position.

Press the E-stop button on the hand held pendant to disable.



**CAUTION:** Ensure that no personnel are within the machine enclosure.



**CAUTION:** Make sure that the area around the machine is clear of debris, wood splinters, etc.



**CAUTION:** Never leave loads semi-tipped. Always remove loads during long periods of inactivity (i.e. annual shutdown periods).

# MAINTENANCE

## ROUTINE MAINTENANCE

Cherry's has established the following series of maintenance activities that will help to keep Cherry's 135° Dumper in good operating order.

Refer to the maintenance illustration, next page.



**Follow lockout/tagout procedures detailed on the preceeding page before conducting all maintenance activities.**

### WEEKLY

1. Sweep and clean in and around the machine.
2. Ensure the internal load area and approach to the machine is clear and free from debris.
3. Check all electrical cables and conduits for signs of wear and abrasions.
4. Check that all gauges are working correctly.
5. Grease all grease points, with particular attention to where the basket attaches the base frame and grease nipple on cylinder rod eye and bearings. Tighten base frame anchor bolts. Tighten set screws on rod eye and collars.

### EVERY 6 WEEKS

1. Check and tighten all bolts on the machine.
2. Grease all grease points, with particular attention to where the basket attaches the base frame and grease nipple on cylinder rod eye. Tighten base frame anchor bolts. Tighten set screws on rod eye and collars.
3. Check condition of the stop material and replace if necessary.
4. Check all hydraulic hoses and fittings for signs of wear and abrasions.
5. Check all fluid levels and check filter gauge (when needle is in red replace filter).



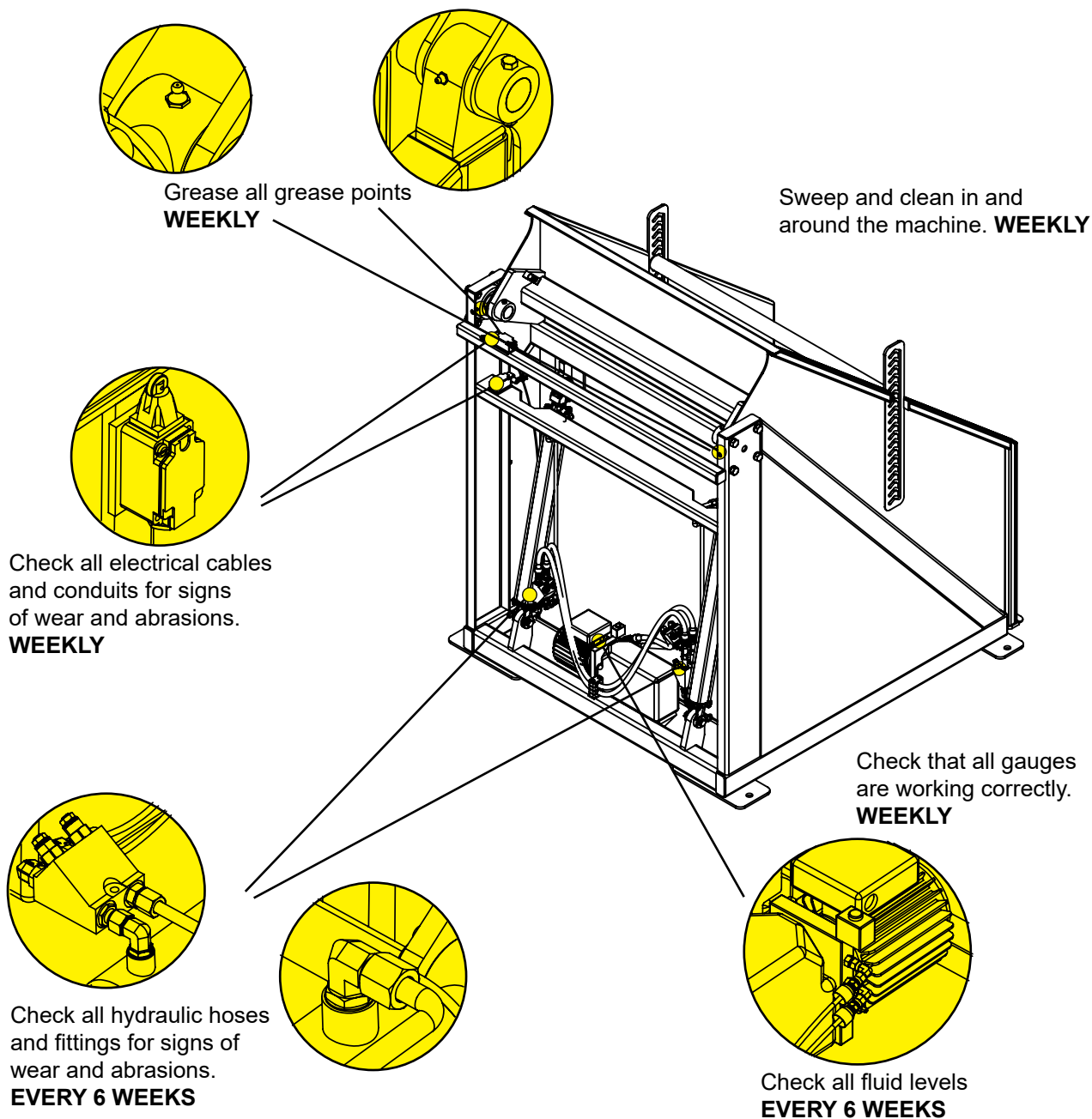
Maintenance intervals are recommended based on single shift usage. If usage changes contact Cherry's product support team for recommended maintenance schedules: **877.350.2748 or service@cherrysind.com.**

### EVERY SIX MONTHS

1. Drain and change filter and hydraulic oil. Use MEDALLION PLUS® AW32 hydraulic oil or equivalent.
2. Fill oil level to two inches below the top of the tank.



In the event of any malfunction, any visible or audible defect, or any other serious problem, immediately consult Cherry's product support team at **877.350.2748 or service@cherrysind.com.**



Ensure the internal load area and approach to the machine is clear and free from debris. **DAILY**

Check and tighten all bolts on the machine. **EVERY 6 WEEKS**

Grease all grease points, with particular attention to where the basket attaches the base frame and grease nipple on cylinder rod eye. Tighten base frame anchor bolts. Tighten set screws on rod eye and collars. **WEEKLY**

Drain and change filter and hydraulic oil. Use MEDALLION PLUS® AW32 hydraulic oil or equivalent. **6 months**



# TROUBLESHOOTING

Fault	Possible Cause
Motor will not start.	Check that main motor isolator is in the “on” position. Check for input supply.
Motor runs but machine fails to operate.	Check that motor rotation as labeled on motor (counterclockwise). Confirm the correct main system pressure.
Motor runs. Machine will not turn in one/ both directions.	Check the stand up and layback counterbalance valves have not been adjusted and the tamper caps still remain intact.
Motor runs. Machine turns extremely slow in one/ both directions.	Check system pressure on main gauge.
Excessive noise from hydraulic pump.	Check hydraulic oil level.
Excessive noise when turning.	Check turning basket assembly for obstructions.  Check level of lubrication on hinge pins and bushings. Inspect for broken welds or visible cracks.
Loss of hydraulic oil.	Check machine for leaks.
Fall in hydraulic pressure (after any complete movement).	Check for worn hydraulic pump.

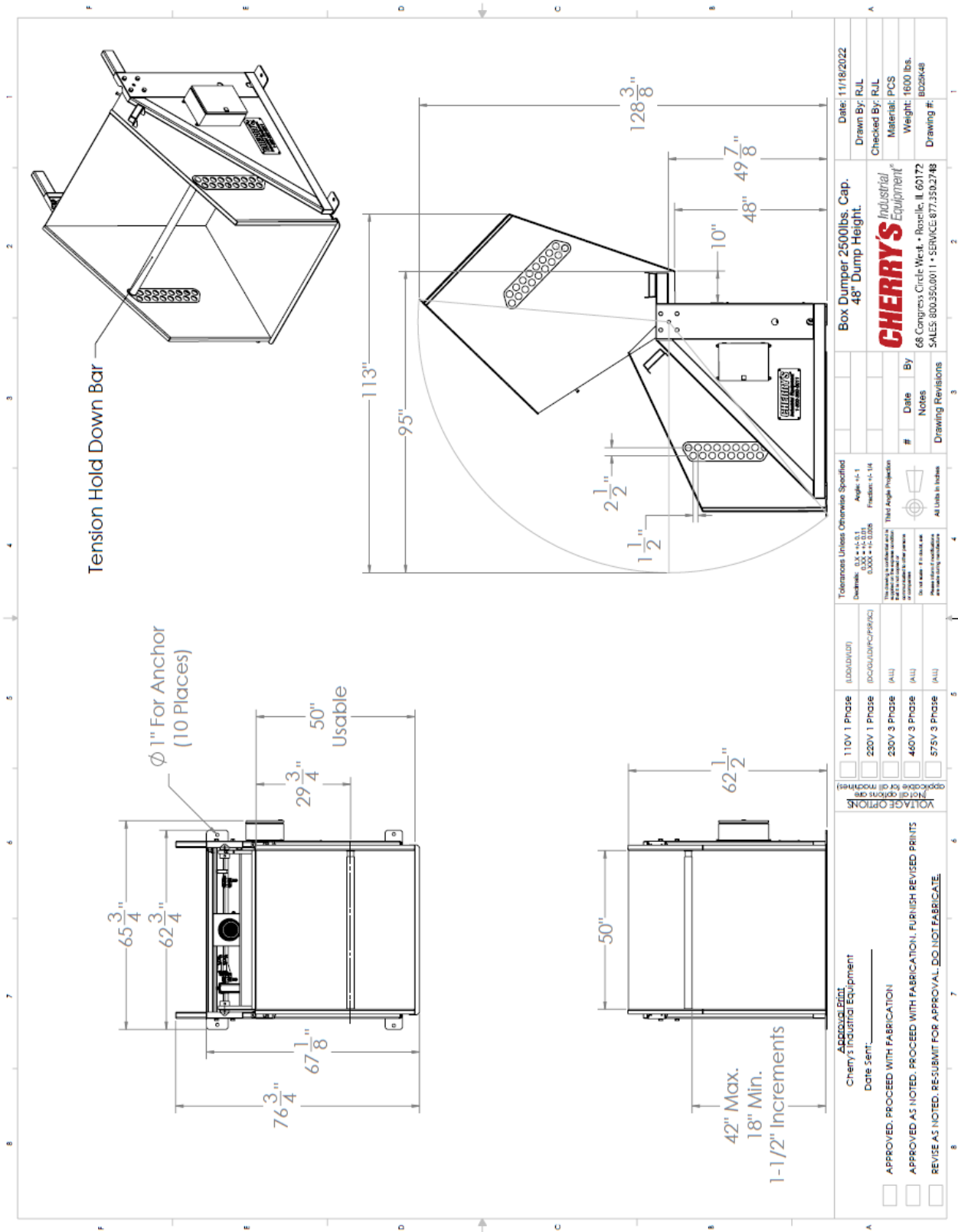


This troubleshooting guide addresses the most common machine faults and does not encompass all possible faults.

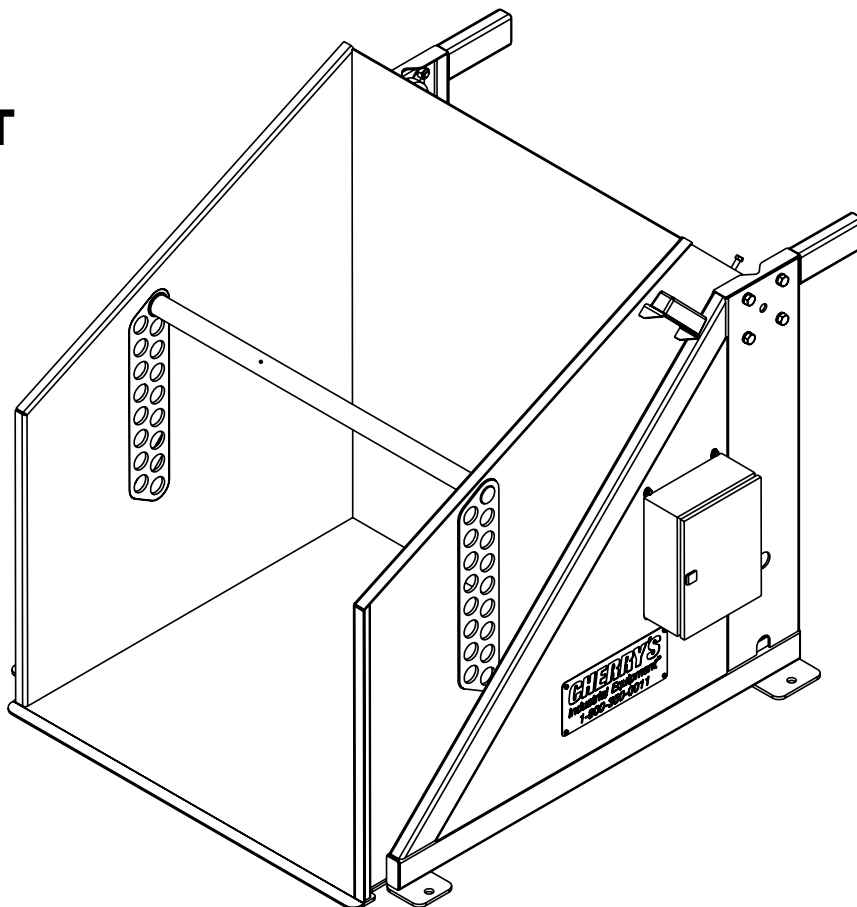
In the event that these recommendations do not rectify the fault please consult the factory immediately at **877.350.2748** or **service@cherrysind.com**.

DUMPER

LAYOUT DRAWING

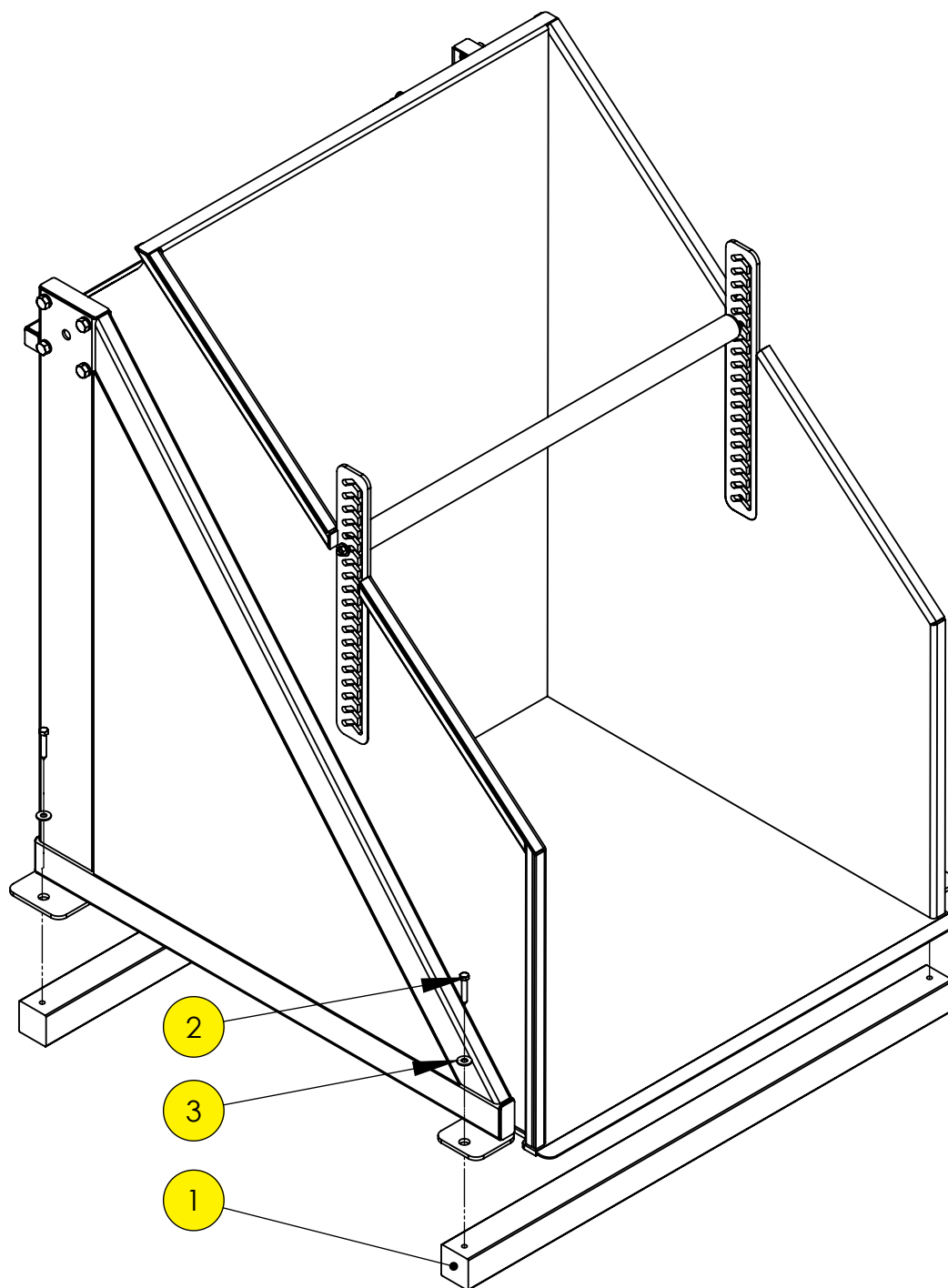


## PARTSLIST



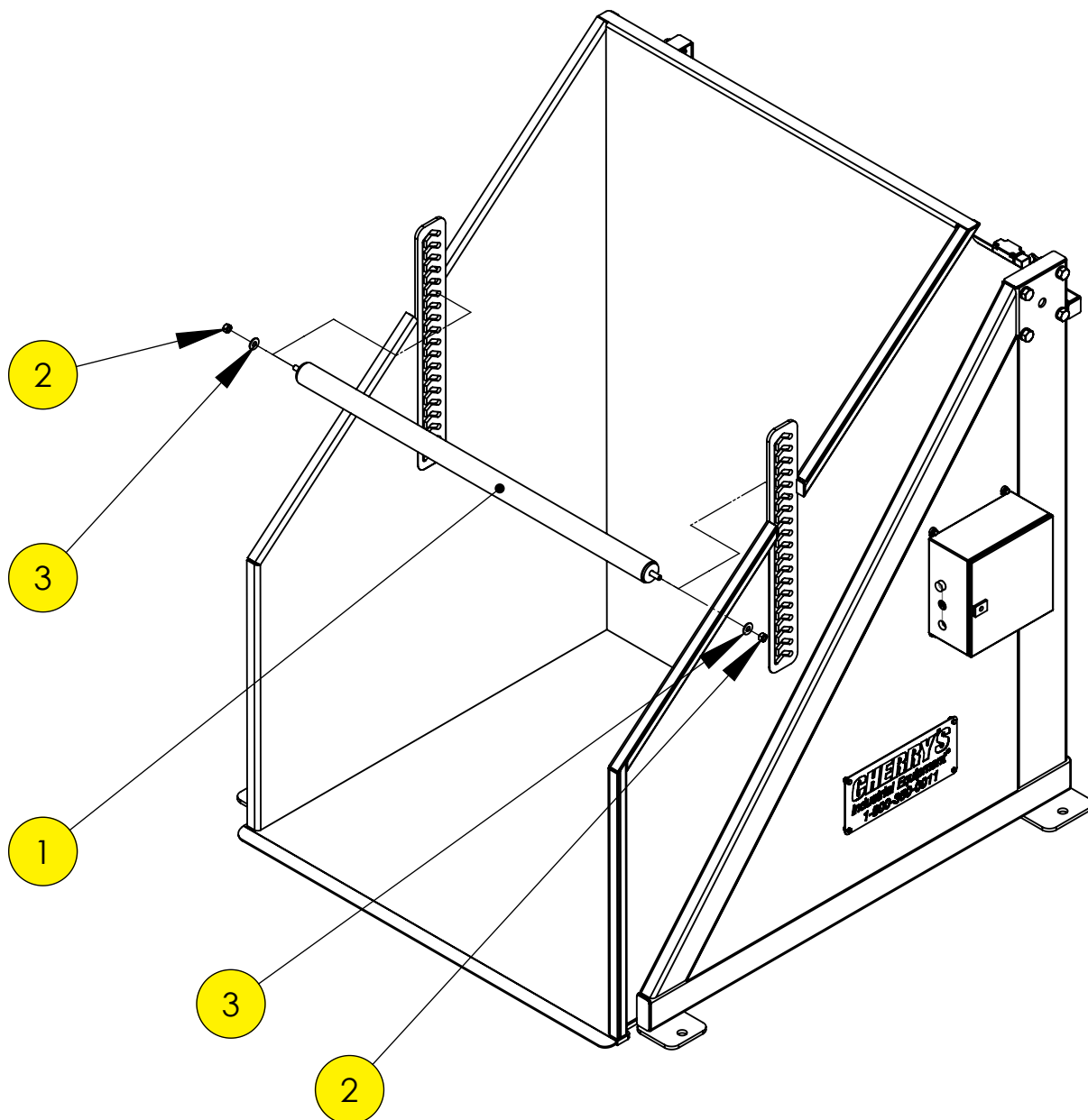
Item #	Part #	QTY	Description
1	211-357/C	2	3" x 24" Cylinder
2		1	
3	SCLP01_Rev2	1	16" x 7" Logo Plate
4	UCF211-32	2	
5	50555	4	1" I.D. Spherical Bearing
6	2599991	1	Power Unit
7			
8	SIGMA-01-BA14	2	2" x 5" Hinge Pin
9	SIGMA-02-BA02a	1	Outer Hold Down Bar
10	SIGMA-02-BA03a	1	Inner Hold Down Bar
11	KD96485K131	1	Spring 3" x 1.938" x .192"
12		8	3/4" x 2" Bolt
13		8	3/4" Lock Washer
14		8	3/4" Nut
15		2	1/2" x 3" Bolt
16		2	1/2" Nut
17		4	3/8" Nut
18		4	3/8" x 1" FHSB Bolt
19		4	3/8" x 3-1/2" bolt
20		4	5/16" x 1-1/4" Bolt
21		8	5/16" x 3/4" Bolt
22		4	5/16" Flat Washer
23		12	5/16" Nut

# DUMPER



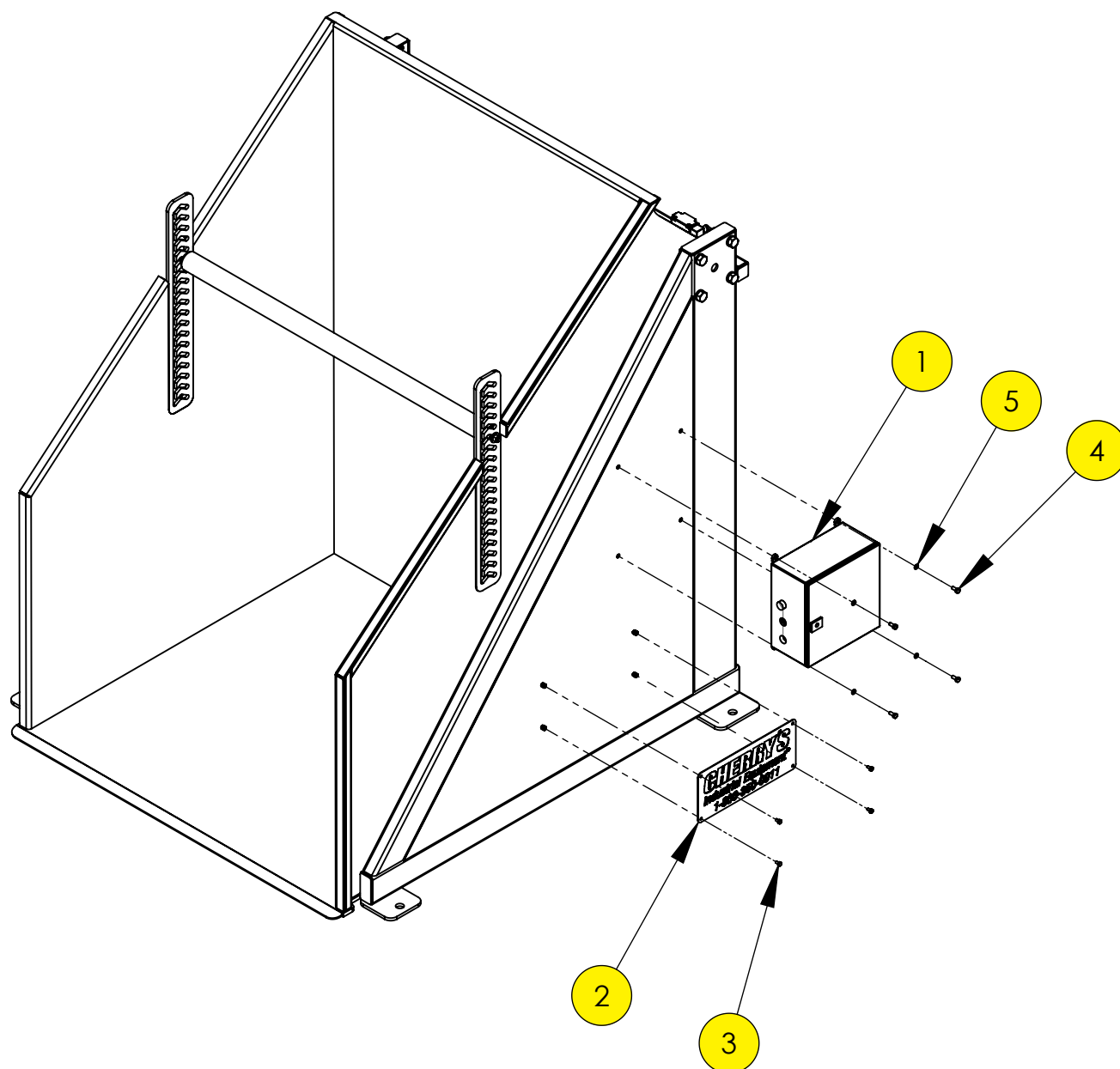
**TUNNEL ASSEMBLY**

Item #	Part #	QTY	Description
1		2	4" x 4" Board @ 63"
2		4	1/2" x 3" Lag Screw
3		4	1/2" Flat Washer



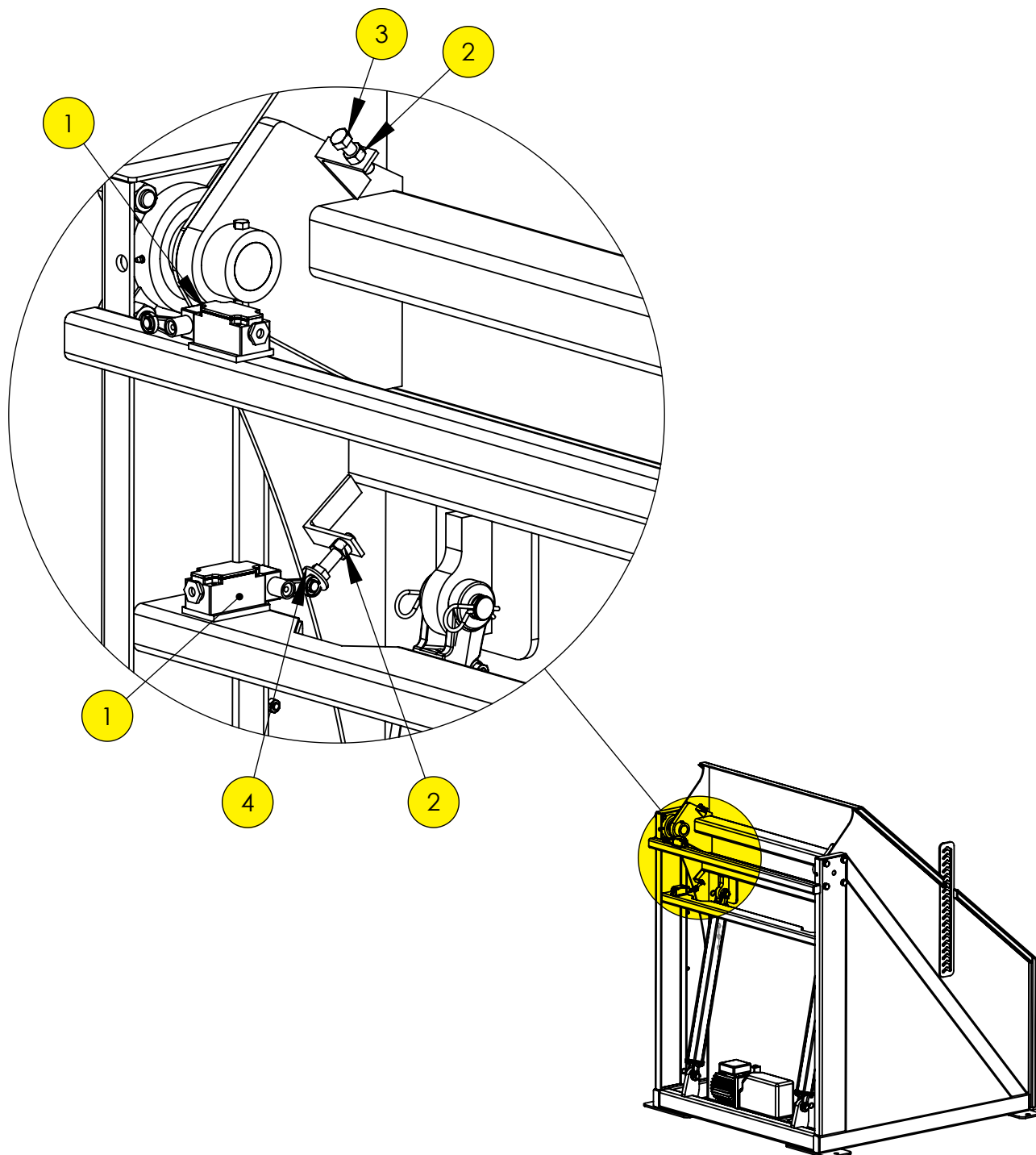
## RETAINING BAR ASSEMBLY

Item #	Part #	QTY	Description
1	OMG-02-BA02a	1	Outer Hold Down Bar
1a	OMG-02-BA03a	1	Inner Hold Down Bar
2		2	1/2" Lock Nut
3		2	1/2" Flat Washer



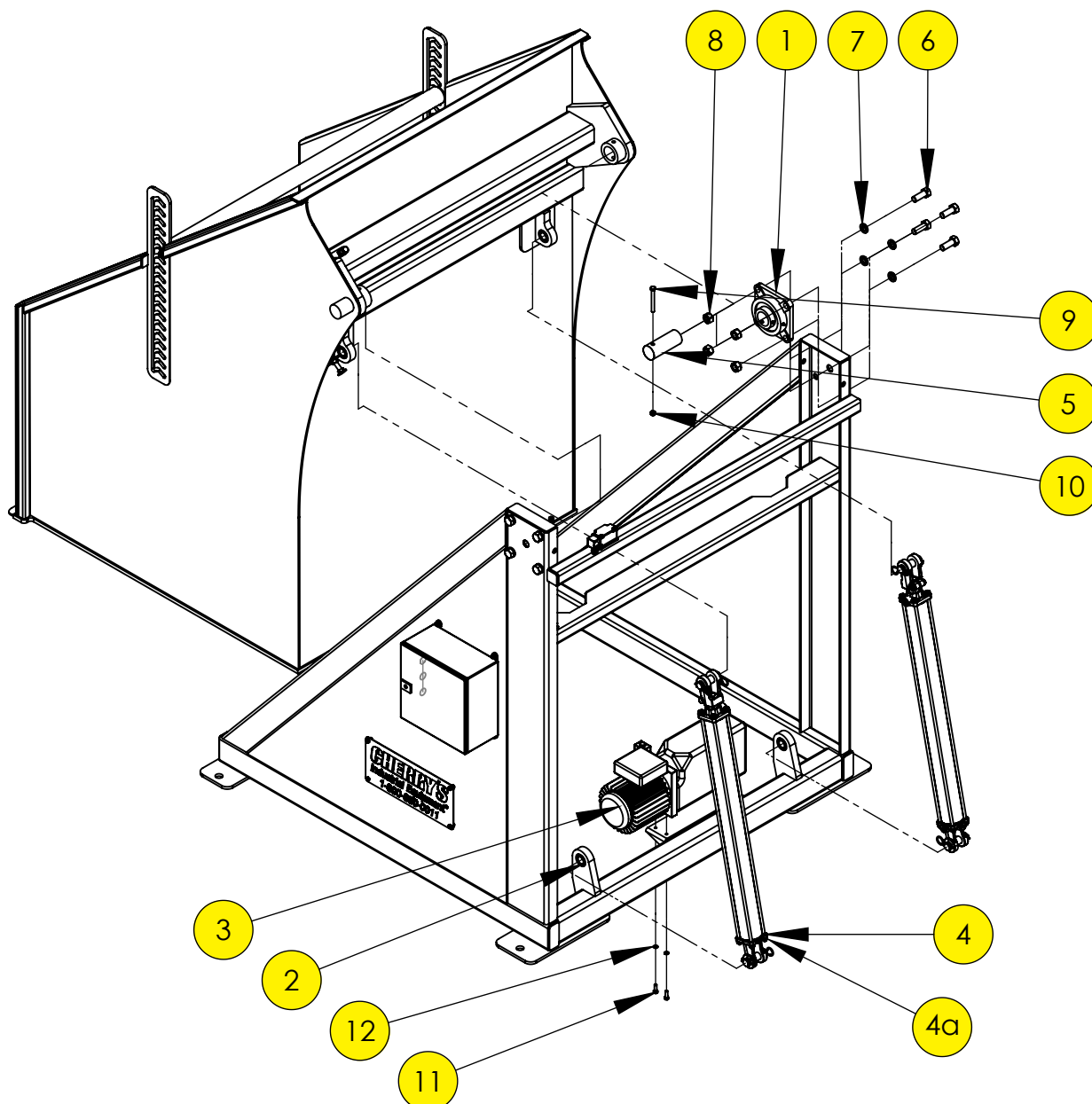
## ELECTRICAL PANEL ASSEMBLY

Item #	Part #	QTY	Description
1	E10858	1	480V Electrical panel w/ disconnect
2	SCLP01-Rev2	1	Logo Plate
3		4	1/4" x 1/2" Bolt
4		4	5/16" x 3/4" Bolt
5		4	5/16" Lock Washer



## LIMIT SWITCH ASSEMBLY

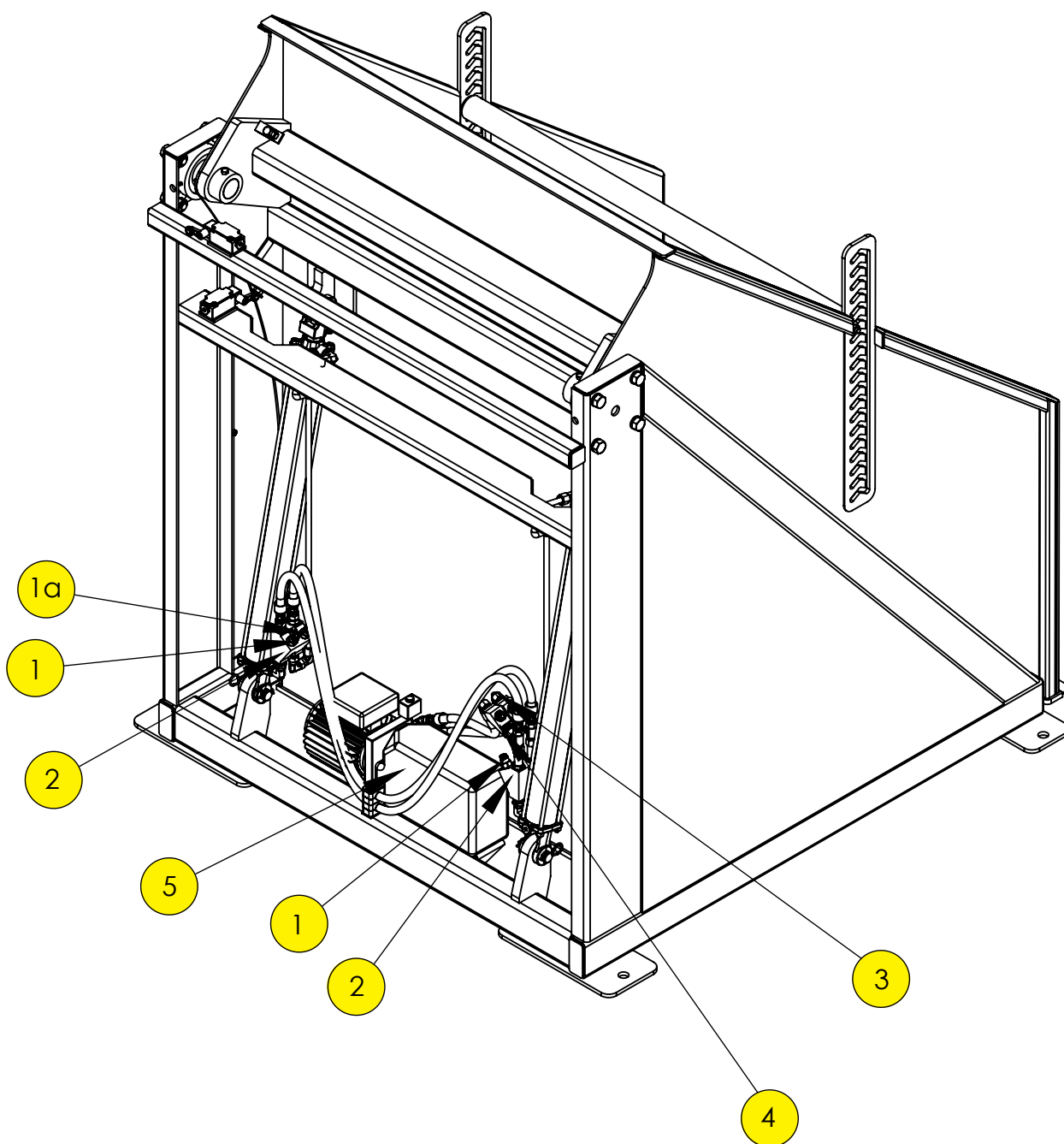
Item #	Part #	QTY	Description
1	E49M11AP1	2	Limit Switch
2		4	1/2" Nut
3		1	1/2" x 2" Bolt
4		1	1/2" x 2" Bolt with Welded Washer



**HYDRAULIC TANK, MOTOR, & CYLINDER ASSEMBLY**

Item #	Part #	QTY	Description
1	UCF21132/P	2	Mounted Bearing
2	50555	4	1" I.D. Spherical Bearing
3	J12725	1	480V All-In-One Power Unit 2HP 1.9 GPM pump
4	211-357/C	2	3" Bore x 24" Turnover Cylinder
4a	211-357/C-SK	2	3" Bore Seal Kit
5	BD45K-60-BA14	2	2" x 5" Hinge Pin
6		8	3/4" x 2" Bolt
7		8	3/4" Lock Washer
8		8	3/4" Nut
9		2	3/8" x 3-1/2" Bolt
10		2	3/8" Nut
11		2	5/16" x 1" Bolt
12		6	5/16" Lock Washer

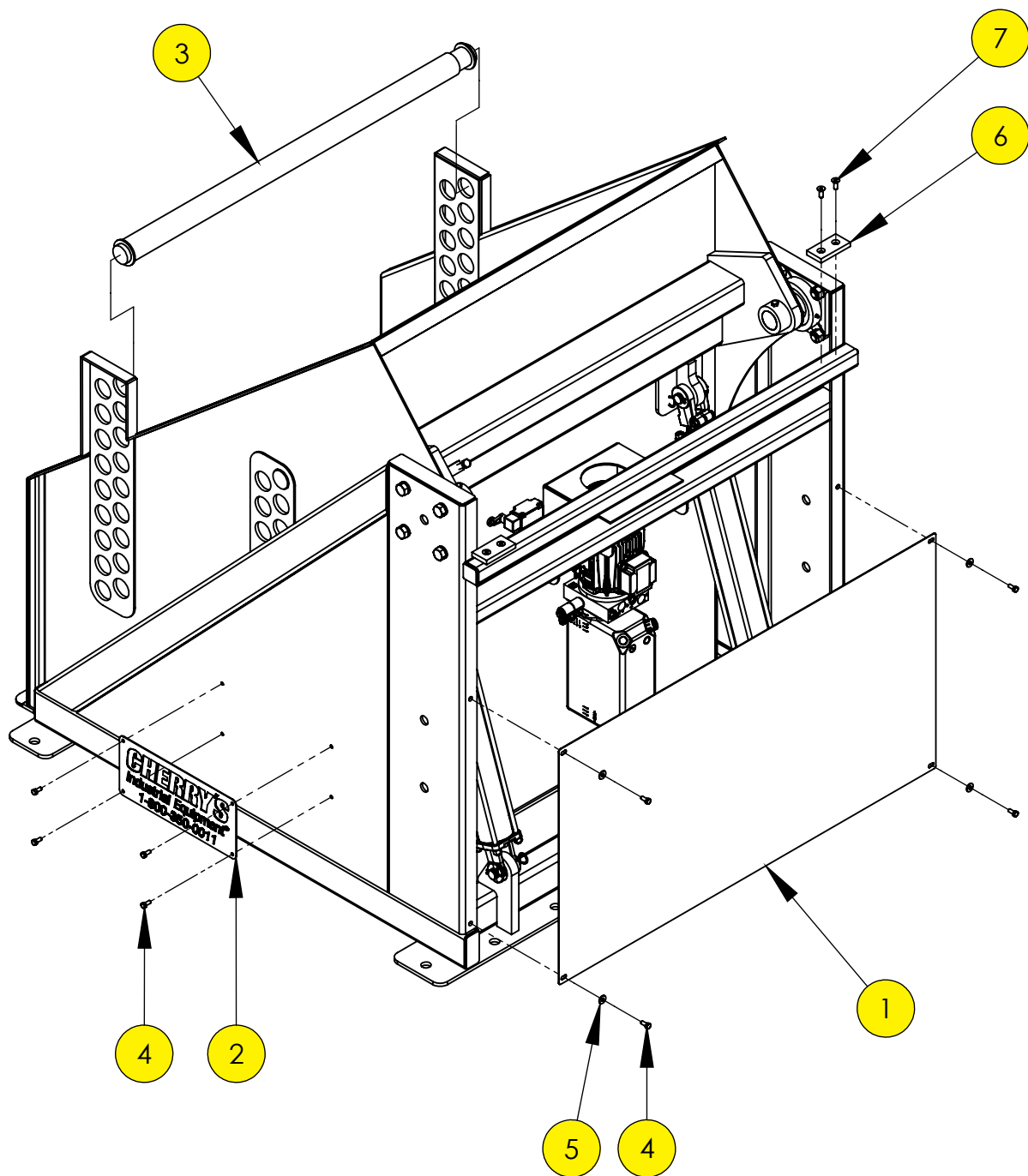




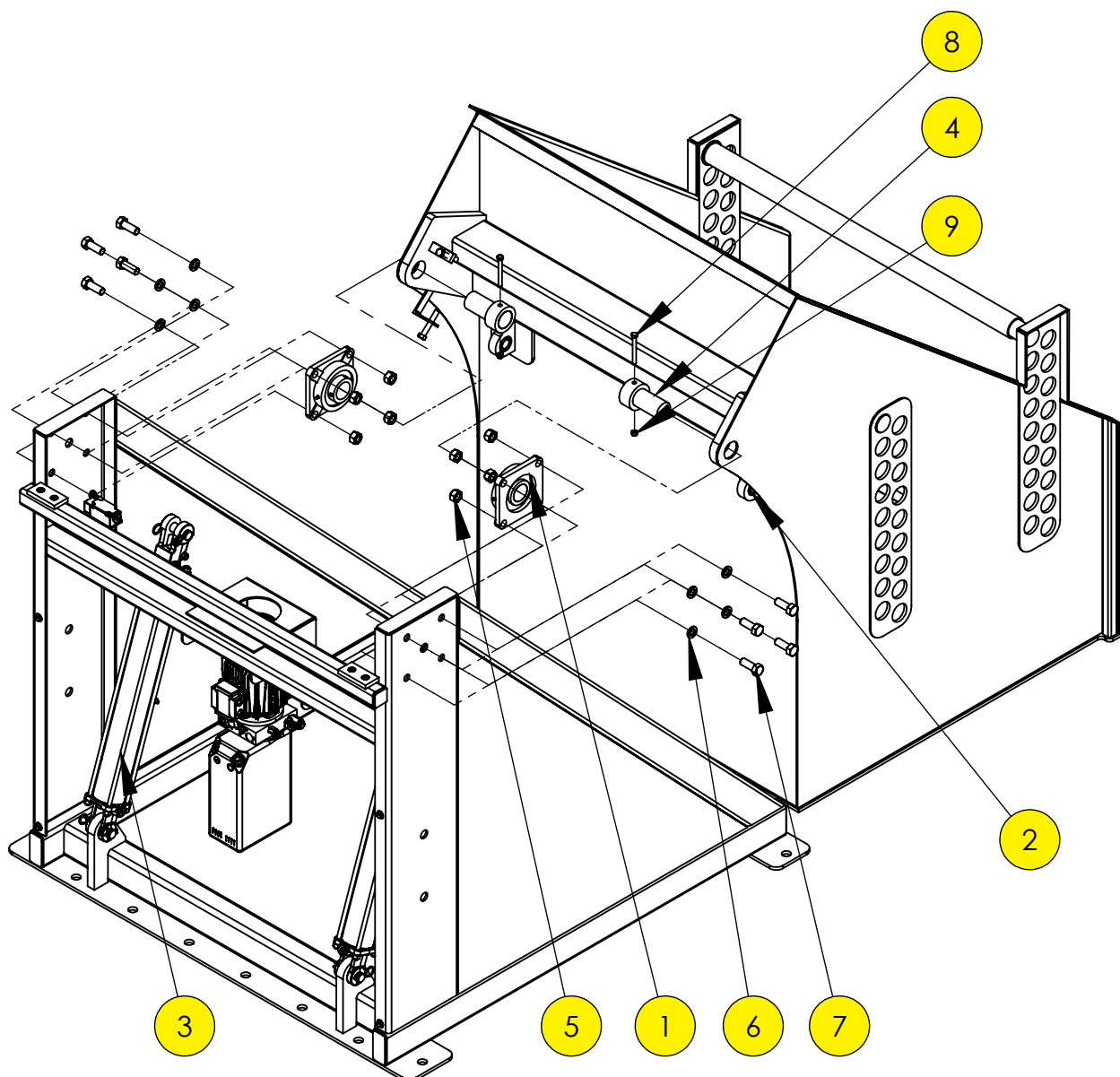
## FLOW CONTROL & COUNTERBALANCE VALVES ASSEMBLY

Item #	Part #	QTY	Description
1	CBCA-LHN	2	Counterbalance valves (Cap End)
1a	CKCB-XCN	2	PO Check Valves (Rod End)
2	XEJ	2	Body for counterbalance valve
3	FDBA-LAN	2	Pressure compensated flow controls
4	GCJ	2	Body for flow controls
5	J12725	1	230/480V All-In-One Power Unit 2HP 1.9 GPM pump

# DUMPER



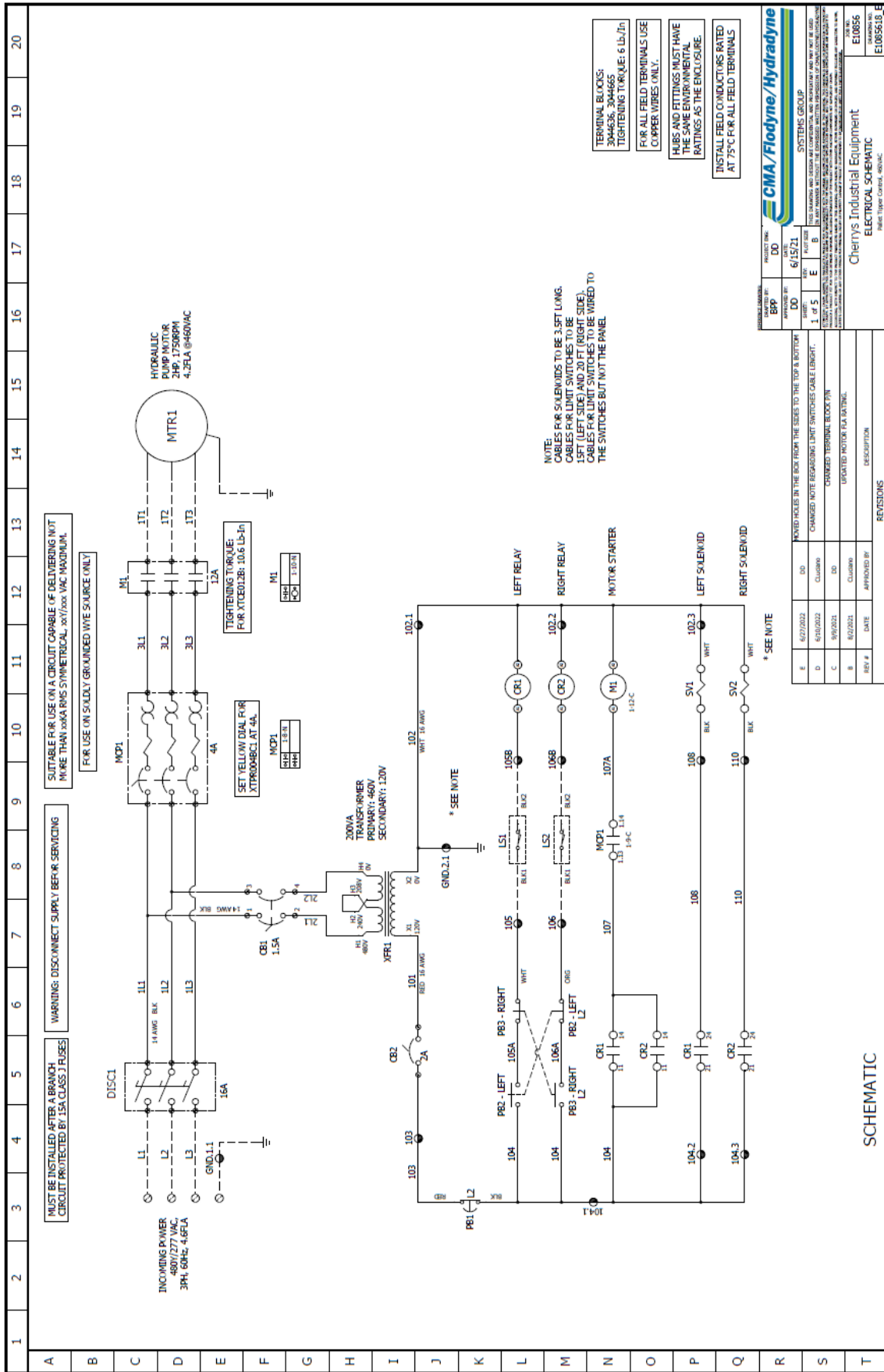
Item #	Part #	QTY	Description
1	OMG-01-BF20	1	Back Cover Plate
2	SCLP01_Rev2	1	Cherry's Logo Plate
3	OMG-02-BA02A	1	Outer Hold Down Bar
3a	OMG-02-BA03A	1	Inner Hold Down Bar
4		8	5/16" x 3/4" Bolt
5		4	5/16" Flat Washer
6	OMG-01-BF23	2	UHMW Plate
7		4	3/8" x 1-1/4" SHSC



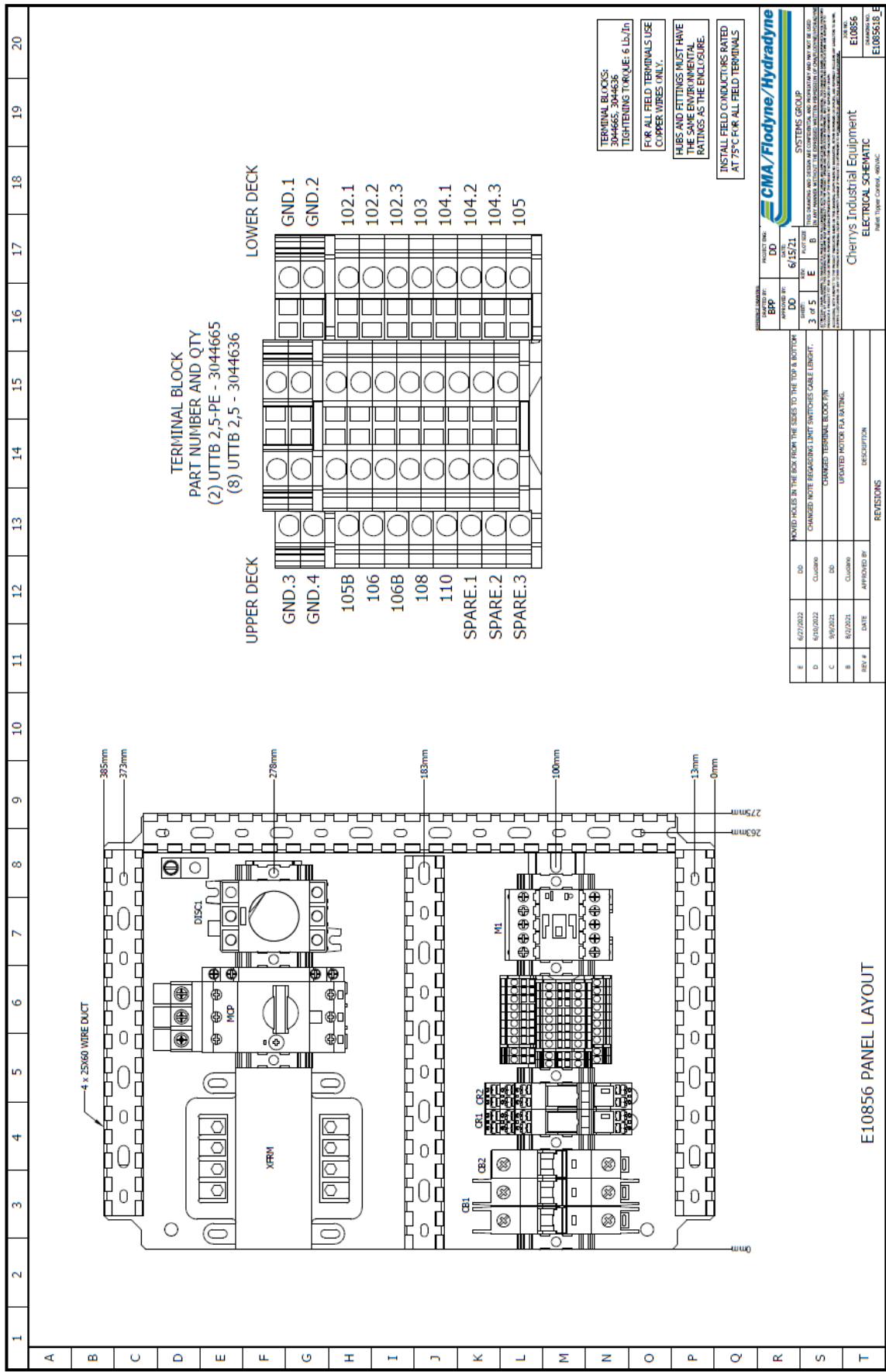
## BASKET BEARING ASSEMBLY

Item #	Part #	QTY	Description
1	UCF211-32	2	Flange Bearing
2	50555	4	1" I.D. Spherical Bearing
3	211-357/C	2	3" bore x 24" stroke Turnover Cylinder with pins
4	OMG-01-BA05a	2	Hinge Pin Assembly
5		8	3/4" Nut
6		8	3/4" Lock Washer
7		8	3/4" x 1-3/4" Bolt
8		2	3/8" x 3-1/2" Bolt
9		2	3/8" Lock Nut

## ELECTRICIAlDRAWINGS









# DUMPER

-> L2-PENDANT

Component mark	Quantity	Description	Reference	Manufacturer
L2	2	PENDANT ROUND MAGNET	TYRIB04002	GLOBAL EQUIPMENT
L2	2	WASHER, FLAT, M4	90955A150	MCMASTER CARR
PB1	1	CONTACT BLOCK,PUSH-BUTTON,INC.BASE MOUNT,SCREW TERMINAL WITH SCREW TERMINALS	M22-KC01	EATON
PB1	1	LEGEND PLATE,SQUARE,YELLOW ETCHED EMERGENCY-STOP	M22-KZK-GB99	EATON
PB1	1	PUSH-BUTTON HOUSING,EMERGENCY STOP,PUSH-PULL,RED,NOH-ILLUM	M22-PV	EATON
PR2 - PB3	2	CONTACT BLOCK,PUSH-BUTTON,INC.BASE MOUNT,SCREW TERMINAL WITH SCREW TERMINALS	M22-KC01	EATON
PR2 - PB3	2	CONTACT BLOCK,PUSH-BUTTON,NO BASE MOUNT,SCREW TERMINAL WITH SCREW TERMINALS	M22-KC10	EATON
PR2 - PB3	2	LEGEND PLATE HOLDER WITHOUT LEGEND PLATE INSERT, FOR PUSH-BUTTON	M22S-ST-X	EATON
PR2 - PB3	2	PLATE,BUTTON,BULK	M22-ND-S	EATON
PR2 - PB3	2	PUSH-BUTTON HOUSING,BUTTONLESS,FLUSH,MOM,SILVER,BEZEL,NOH-ILLUM	M22-D-X	EATON

REFERENCE DRAWING		CMA/Flodyne/Hydradyne	
REVISED BY	REVISED DATE	DATE	PLACED BY
BPP	DO	6/15/21	DO
APPROVED BY	DO	5 of 5	E
SYSTEMS GROUP			
THIS DRAWING AND DESIGN ARE CONFIDENTIAL AND PROPRIETARY AND NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF CMA/Flodyne/Hydradyne.			
CHERRY'S Industrial Equipment			
ELECTRICAL SCHEMATIC			
E100956			
E100956.01			

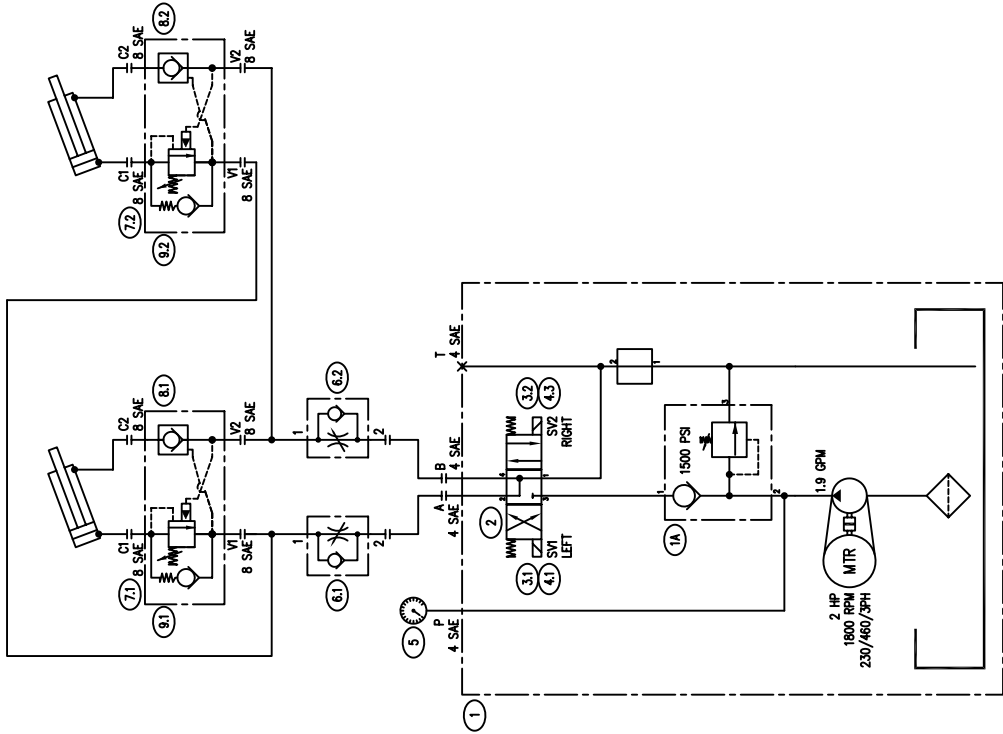
REV #	DATE	APPROVED BY	DESCRIPTION
E	6/22/2021	DO	MOVED HOLES IN THE BOX FROM THE SIDES TO THE TOP & BOTTOM
D	6/16/2021	CLUBBRO	CHANGED WHITE REGAULING LIMIT SWITCHES CABLE LENGTH
C	9/9/2021	DO	CHANGED TERMINAL BLOCK PIN
B	8/22/2021	CLUBBRO	UPDATED MOTOR FLA RATING



# DUMPER

## HYDRAULIC DRAWINGS

ITEM	QTY	DESCRIPTION	PART NO.	MANUFACTURER
1	1	HYDRAULIC POWER UNIT	02598981	HYDAC
1A	1	RELIEF VALVE	RV06G01-CA-300V	HYDAC
2	1	SOLENOID VALVE	WKG6J1-CA-0	HYDAC
3	2	24VDC COIL	COIL 24DC-32-1329	HYDAC
4	2	CONNECTOR	0260570	HYDAC
5	1	PRESSURE GAUGE	25-901-3000-PSI64-R-BP3	NOSHOK INC
6	2	FLOW CONTROL VALVE	FBDA-LAN-GCJ	SUN HYDRAULICS
7	2	LINE MOUNT BODY	XEJ	SUN HYDRAULICS
8	2	PO CHECK VALVE	CKCB-XCN	SUN HYDRAULICS
9	2	COUNTERBALANCE VALVE	CBQA-LHN	SUN HYDRAULICS





PROJECT ENGINEER:  
SV

DATE:  
10.02.18

REVISIONS: 1 / 1

APPROVED BY:  
JS

DATE:  
10.02.18

REVISIONS: 1 / 1

PROJECT ENGINEER:  
SV

DATE:  
10.02.18

REVISIONS: 1 / 1

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CHERRY'S INDUSTRIAL

HYDRAULIC DIAGRAM

TIPPER

J12725

J1272518\_H

## REPLACEMENT LABELS

1. **MAINTENANCE**

**EVERY WEEK**  
SWEEP AND CLEAN IN AND AROUND MACHINE. ENSURE INTERNAL LOAD AREA AND APPROACH TO MACHINE ARE CLEAR OF DEBRIS. CONFIRM THAT EMERGENCY STOP BUTTON AND ALL LIMIT OR PROXIMITY SWITCHES ARE FUNCTIONING CORRECTLY. CHECK ALL ELECTRICAL CABLES AND CONDUITS FOR SIGNS OF WEAR AND ABRASIONS. CHECK THAT ALL GAUGES ARE WORKING PROPERLY, & GREASE GREASE POINTS (PAY PARTICULAR ATTENTION TO CENTRAL SHAFT).

**EVERY 6 WEEKS**  
CHECK AND TIGHTEN BELTS. LUBRICATE AND GREASE ALL FITTINGS (PAY PARTICULAR ATTENTION TO THE CLAMP SLIDER ASSEMBLY AND RACK & PINION). CHECK ALL HYDRAULIC HOSES AND FITTINGS FOR SIGNS OF WEAR AND ABRASIONS. CHECK ALL FLUID LEVELS AND CHECK FILTER GAUGE (WHEN NEEDLE IS IN RED, REPLACE FILTER), & CONFIRM THAT ALL INTERNAL MECHANICAL SLIDES AND COMPONENTS ARE SECURE.

**EVERY 6 MONTHS**  
CHANGE HYDRAULIC OIL AND OIL FILTERS (WE RECOMMEND EP HYDRAULIC OIL 32 OR AN EQUIVALENT MEDIUM GRADE, MINERAL-BASED HYDRAULIC OIL). CHECK ALL BOLTS, & ENSURE THAT ALL COUNTER SUNK SCREWS AND HYDRAULIC CONNECTIONS ARE TIGHT (ESPECIALLY 4 BOLTS SECURING CROSSHEAD ON REAR MAST).

IN THE EVENT OF ANY MALFUNCTION, VISIBLE OR AUDIBLE DEFECT, OR OTHER SERIOUS PROBLEM, IMMEDIATELY CONSULT THE MANUFACTURER OR A REPRESENTATIVE OF THE MANUFACTURER.

3. **WWW.PALLETINVERTER.COM**

SALES DEPARTMENT 800.350.0011  
SALES@CHERRYOND.COM

**CHERRY'S**  
EQUIPMENT

SERVICE DEPARTMENT 877.350.2748  
SERVICE@CHERRYOND.COM

WWW.CHERRYOND.COM

9. **STAND UP LIMIT SWITCH**

SP 302 0012

10. **LAYBACK LIMIT SWITCH**

SP 302 0013

6. **WARNING**  
STAND CLEAR OF THE MACHINE WHILE IN OPERATION

W00401



6. **WARNING**  
STAND CLEAR OF THE MACHINE WHILE IN OPERATION

W00401

2. **NOTICE**

Cherry's Industrial Equipment Corp. provides partial guarding and/or barriers for some of its equipment. However, Cherry's Industrial Equipment Corp. does not represent or warrant that such guardings and/or barriers constitute all of the safety or other protections that be needed or required by law.

The responsibility to provide adequate safety and other protections for such installations rests with you, our customers, not with Cherry's Industrial Equipment Corp.

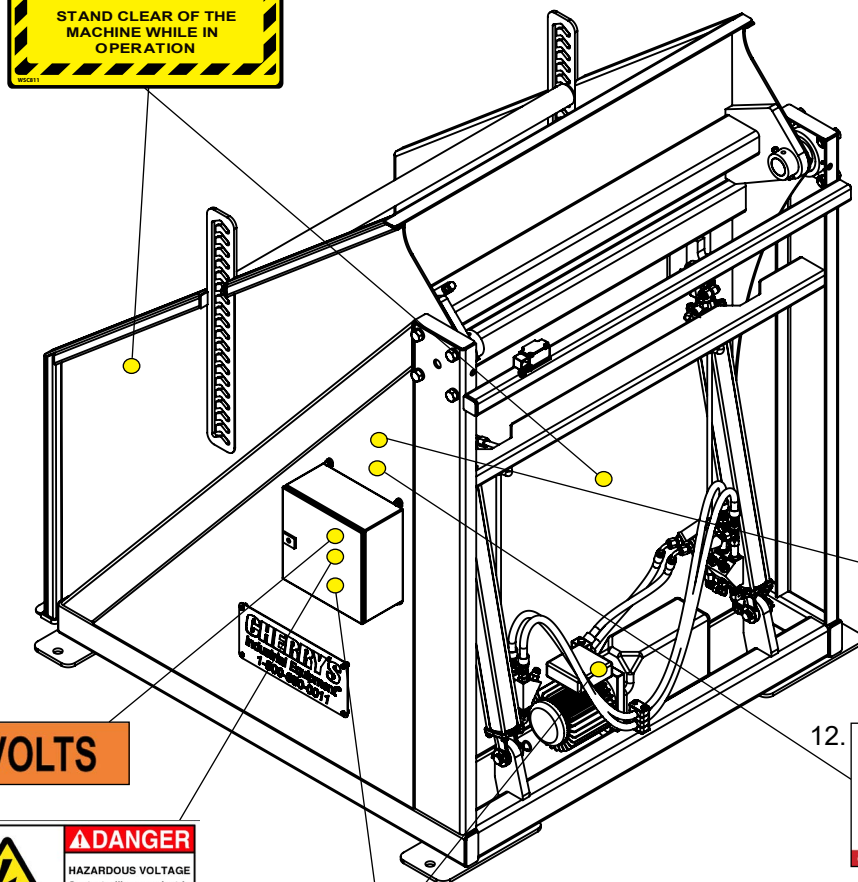
NOTE46

CHERRY'S

11. **MADE IN**

**U. S. A.**

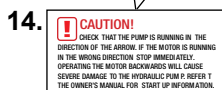
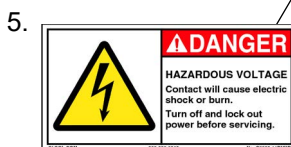
# DUMPER



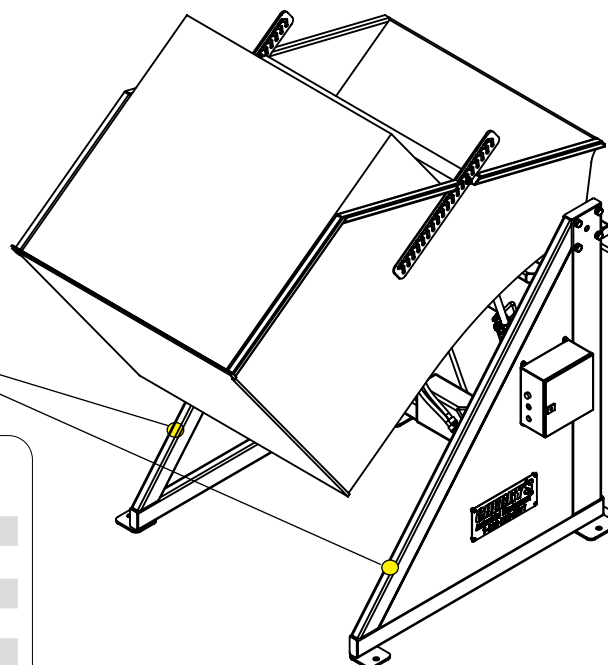
7.

CHERRY'S Industrial Equipment	
MODEL:	XXXXX Inverter
SERIAL #:	PH-XXXXXX
ELECTRIC #:	E-XXXXX
HYDRAULIC #:	J-XXXXX
CLAMP CYLINDER:	XXXXXX / X
SEAL KIT:	XXXXXXX
TURNOVER CYLINDER:	XXXXXX / X
SEAL KIT:	XXXXXXX
VOLTAGE:	XXX V
GUARDING:	XXXXXX Rolling
MAX LOAD CAPACITY:	XXXXX LBS
DATE OF PRODUCTION:	XX / XXXX

4. **480 VOLTS**



13. **CAUTION PINCH POINT** ↓ ↓ ↓



Item #	Part #	Item#	Part#
1	DUMP_MAINT	8	93242
2	GEN_NOTE	9	RET_SULS
3	GEN_CHERRYSIND.COM	10	TIP_LLS
4	GEN_480V14	11	USA504
5	C82002-11DHYD	12	GEN_SERVICE
6	GEN_WSC	13	GEN_CPPb
7	DUMP_ID_Plate	14	GEN_MOTOR_ROTATION

# SPARE PARTS LIST

## RECOMMENDED SPARE PARTS

Item #	Part #	QTY	Description
1	E49M11CP1		Rocker Style Limit Switch
2	211-357/C		3" bore x 24" Turnover Cylinder
3	211-357/C-SK		3" bore Seal Kit
4	50333 (10390)		Pin 1" x 3-3/4"
5	UCF21132/P		Pillow block mounted bearing
6	BD45K-60-BA14		2" x 5" Hinge Pin
7	CBCA-LHN		Counterbalance Valve
8	CKCB-XCN		PO Check Valve
9	XEJ		Valve Body
10	FDBA-LAN-GCJ		Flow Controls
11	M22-PVT		E-Stop PB
12	M22-KC01		NC Contact
13	M22-DL-X		Illuminated PB w/o Lens
14	M22-XDL-B		Blue Lens
15	M22-LEDC-W		White LED 24VDC
16	M22-KC10		NO Contact
17	M22-D-X		Push Button w/o Plate
18	XTPR6P3BC1		Motor Protector 2HP 460V 4-6.3A
19	SHR00N4X		Handle Red/Yellow
20	SF150SH5X5		Extension Shaft
21	4A-1812		Cable 18AWG 12 Cond

**CHERRY'S INDUSTRIAL EQUIPMENT**  
**600 MORSE AVE.**  
**ELK GROVE VILLAGE, IL 60007**

**SERVICE, PARTS, & SUPPORT:** **877.350.2748**  
**service@cherrysind.com**

**CHERRY'S** Industrial Equipment®

Thank you for your recent purchase. As you know Cherry's Industrial Equipment has a reputation for building Pallet Inverting and Pallet Handling Equipment that is rugged, dependable and built to last. The key to maximizing machine uptime is following the recommended preventative maintenance program and using OEM parts. We offer filters, seal kits and other consumables needed for scheduled maintenance and over time other replacement parts needed for repair. Cherry's Industrial maintains a large inventory of parts, available for immediate shipment and offers ongoing technical support to keep the machine in operation. The spare parts list above itemizes the most common replacement parts requested over the life of a machine. Please contact Cherry's Industrial Equipment parts department at **877-350-2748** to provide a quote specific for your needs.

# DUMPER

## NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## WARRANTY

Cherry's Industrial Equipment Corp. warrants this product to be free from defects in material or workmanship for a period of (1) year of single shift usage from date of shipment, providing claim is made in writing within that time period. This warranty shall not cover modified designs for special applications, failure or defective operation caused by misuse, misapplication, negligence or accident, exceeding recommended capacities, failure to perform required maintenance or altering or repairing, unless alteration is authorized by Cherry's Industrial Equipment Corp. Except as set forth herein, there are no other warranties, express or implied, including the warranties of merchantability and fitness for a particular purpose, all of which are hereby excluded.

Cherry's Industrial Equipment Corp makes no warranty or representation with respect to the compliance of any product with state or local safety or product standard codes, and any failure to comply with such codes shall not be considered a defect of material or workmanship under this warranty. Cherry's Industrial Equipment Corp shall not be liable for any direct or consequential damages arising out of such noncompliance.

Cherry's Industrial Equipment Corp's obligation under this warranty is limited to one (1) year labor and one (1) year parts of the replacement or repair of defective components at its factory or another location at Cherry's Industrial Equipment Corp's discretion. This is the buyer's sole remedy. Except as stated herein, Cherry's Industrial Equipment Corp will not be liable for any loss, injury or damage to persons or property, nor for direct, indirect, or consequential damage of any kind, resulting from failure or defective operation of said product.

The stated warranty does not cover standard components categorized as wear or maintenance parts. These parts include, but are not limited to, buttons, contacts, chains & drive pins, track rollers, filters and wear pads. For a full list of components considered wear or maintenance parts please contact your Cherry's Industrial Equipment representative.

Feel free to contact us via our toll-free number or email:

**SERVICE, PARTS, & SUPPORT:** 877.350.2748 or [service@cherrysind.com](mailto:service@cherrysind.com)

**SALES:** 800.350.0011 or [sales@cherrysind.com](mailto:sales@cherrysind.com)

Thank you for your business.

IF YOUR MACHINE IS UNDER WARRANTY, WE WILL REPLACE THE DEFECTIVE COMPONENT  
AND YOUR COMPANY WILL BE INVOICED AT THAT TIME.

WE WILL ISSUE A WARRANTY CREDIT UPON THE RETURN OF THE DEFECTIVE ITEMS  
FOR THE FULL AMOUNT OF THE INVOICE.

**CHERRY'S** *Industrial  
Equipment®*

**CHERRY'S INDUSTRIAL EQUIPMENT**

600 Morse Ave.  
Elk Grove Village, IL 60007  
800.350.0011



**Cherry's Industrial Equipment Corp.**  
600 Morse Ave., Elk Grove Village, Illinois 60007

Telephone: **800.350.0011 or 847.364.0200**  
Fax: **800.350.8454 or 847.690.0481**  
Web: **[www.cherrysind.com](http://www.cherrysind.com)**  
Email: **[sales@cherrysind.com](mailto:sales@cherrysind.com)**  
or  
**[service@cherrysind.com](mailto:service@cherrysind.com)**