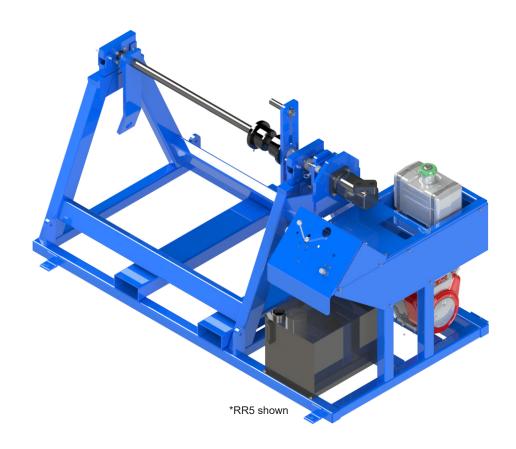


INSTALLATION, OPERATION & MAINTENANCE MANUAL

RR SERIES RE-REEVER

Models: RR5, RR10, RR15, RR20, RR30, RR50







MNL-0423-A-0323

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GENERAL INFORMATION

This manual is designed to serve as the operation and maintenance guide for your machine. The contents of this manual should be carefully read before attempting any phase of operation, or maintenance. Failure to follow the outlined procedures could result in personal injury or equipment damage.

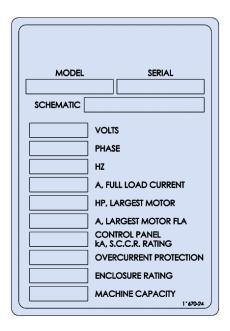
All information, specifications, and illustrations within this manual are those in effect at the time of release. **Reel Power Industrial™** reserves the right to change, or make improvements, without incurring any obligation to make changes or add improvements to products previously sold.

To facilitate maintenance, a spare parts list for the machine has been prepared and included within the manual. To request a quotation, place an order, or seek technical assistance, please contact Reel Power Industrial.

Customer Service

For customer assistance, please have the model number and serial number of your machine available.

Contact Customer Service at: 888-873-4000



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RECORD OF REVISIONS

Revision Date	Description

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WARRANTY

LIMITED WARRANTY

The goods ordered and agreed to be furnished by Vendor are warranted against defects in material or workmanship for a period of one year following the date of shipment. Vendor's obligation under this warranty is limited to repair or replacement, at vendor's option, of the defective goods at Vendor's factory (point of shipment) and does not extend to goods other than those manufactured by Vendor. This warranty shall not apply to any goods which have been subject to misuse, negligence, accident, or attempted or unauthorized repair or modification or are considered by Vendor to be damaged as a result of normal "wear and tear". Vendor may provide technical information or advise to assist Customer in the proper application and utilization of goods, in which case Vendor disclaims all warranties, express or implied, including without limitation implied warranties of merchantability or fitness for a particular purpose, or compliance with governmental regulations to which customer is subject. Vendor warrants that for a period of one year beginning on the date of invoice, service labor by Vendor technicians shall be free from defects in workmanship. This warranty does not cover damage due to external causes including without limitation accidents, abuse, misuse, problems with electrical power, servicing not authorized by Vendor, usage not in accordance with product instructions, failure to perform required preventive maintenance and problems caused by use of parts and components not supplied by Vendor. Vendor's responsibility is limited to repair or replacement at Vendor's option, at its designated facility. This warranty does not cover replacement or repair of materials due to normal "Wear and Tear."

OTHER THAN AS SPECIFICALLY SET FORTH ABOVE IN THIS SECTION 15, VENDOR MAKES NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ON GOODS OBTAINED FROM VENDOR, AND VENDOR DISCLAIMS ALL SUCH WARRANTIES. FURTHERMORE, NO PERSONNEL OF VENDOR ARE AUTHORIZED TO MAKE WARRANTIES OF ANY NATURE, VERBALLY OR OTHERWISE. ANY ADDITIONAL WARRANTIES MUST BE MADE IN WRITING AND SIGNED BY AUTHORIZED PERSONNEL OF VENDOR IN ORDER TO BE BINDING UPON VENDOR.

LIMITATION OF WARRANTY

IN NO EVENT, SHALL VENDOR BE LIABLE FOR ANY SPECIAL, INDIRECT, EXEMPLARY, INCIDENTAL, CONSEQUENTIAL, OR PUNITIVE LOSSES OR DAMAGES (INCLUDING, WITHOUT LIMITATION, BUSINESS INTERRUPTION, LOST REVENUE OR PROFITS, FEES OR FINES), EVEN IF VENDOR HAS BEEN ADVISED OR MADE AWARE OF THE POSSIBILITY OF ANY SUCH LOSSES OR DAMAGES AND REGARDLESS OF WHETHER THE CLAIM IS BASED ON CONTRACT, TORT, STRICT LIABILITY, OR OTHER THEORY OF LIABILITY. VENDOR'S CUMULATIVE LIABILITY FOR ALL LOSSES AND DAMAGES UNDER THESE TERMS (INCLUDING, WITHOUT LIMITATION, DAMAGES ARISING UNDER A THEORY OF CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, EXPRESS OR IMPLIED WARRANTIES, ETC.) SHALL NOT EXCEED (A) IN THE CASE OF ANY SERVICES PROVIDED OR TO BE PROVIDED BY VENDOR, THE AMOUNT OF THE FEES PAYABLE BY CUSTOMER FOR SUCH SERVICES, AND (B) IN THE CASE OF ANY GOODS PROVIDED OR TO BE PROVIDED BY VENDOR, THE FULL AMOUNT OF VENDOR'S LABOR AND/OR SERVICES ASSOCIATED WITH THE SALE OF THE GOODS.

WARRANTY

WARRANTY REPLACEMENT PARTS PROCESS

Please note, Reel Power Industrial's responsibility is limited to furnishing the customer replacement parts at no cost. The customer is responsible for outward shipping costs, labor to remove and install the part.

The customer may choose to send the reportedly defective part to The Seller for inspection, freight prepaid. Upon inspection, The Seller will either send a new replacement part, return repaired part, freight prepaid, or, if part found non-defective, return the part to customer, freight collect.

If the part is required immediately, a replacement part may be shipped to customer immediately. A customer purchase order is required prior to shipment of warranty replacement parts. The replacement part will be shipped via customer specified freight service, freight collect. The customer is required to return the reportedly defective parts to Oklahoma City, Oklahoma at The Seller's expense, per The Seller's specified freight carrier. When the part(s) is received, inspected, and the manufacturers defect is confirmed, the invoice for the warranty part will be credited. If no defect is found, the original part will be returned to the customer, freight collect and an invoice against the customer's PO will be issued for the replacement part already sent.

SAFETY INFORMATION

WARNINGS

WARNING

All operating personnel must read and understand all safety and procedures prior to the start of equipment operation.

A WARNING

Lifting and transport operations should be carried out with extreme caution by trained personnel and by utilizing the proper lifting accessories.

WARNING

Operate equipment with extreme caution. Pay particular attention to pinch points, rotating or moving components, including but not limited to chains, screws, gears, sprockets, reels, etc.

A WARNING

Turn off, lock-out, and tag-out the main electrical power before inspecting or servicing the equipment or opening the door of the electrical enclosure. Power must be de-energized before opening electrical enclosures. Potential hazardous voltages and currents are present within the system. Service should be performed only by qualified personnel.

A WARNING

Verify all reels are secured in place between the rollers and adjustable collars before attempting to rotate them.

WARNING

Do not operate equipment while wearing loose clothes, jewelry, long hair, facial hair, keychains, etc. Rotating parts can cause serious or fatal injuries.

A WARNING

Verify all hardware, tools, spare parts, and loose parts are removed from machinery before rotating or operating. Keep operating area clear of debris.

A WARNING

Ensure ground checks are conducted and pass before applying power. Verify voltage requirements before applying power.

WARNING

Power must be de-energized before opening electrical enclosures. Potential lethal voltages and currents are present within the system. Service should be done only by qualified personnel.

SAFETY INFORMATION

PRECAUTIONS

A CAUTION

Rotating machinery can be hazardous and should not come into contact with personnel. Personnel should be protected from all rotating machinery at all times. Always avoid contact with moving material at or near the reel as it is winding.

A CAUTION

Pressing the emergency stop (E-Stop) will remove all drive control power from each motor. System must be reset via the reset button to enable any powered function.

A CAUTION

Moving and lifting heavy reels may cause back injury and/or foot hazards. Always utilize proper lifting techniques and PPE (steel-toe shoes, etc.)

A CAUTION

Large and heavy reels can roll uncontrolled on slight inclines and/or uneven surfaces. Always be sure to use reel/wheel chocks or implement measures to secure the reel against unintentional movement. If unsure, please seek information from your facilities manager.

SAFETY INFORMATION

LOCKOUT / TAGOUT

▲ DANGER

Follow all lockout/tagout procedures before working on equipment or doing any scheduled maintenance.

▲ WARNING

All appropriate and mandated personal protection equipment shall be used while performing the operation described herein.

This procedure establishes the minimum requirements for the lockout of energy isolating devices whenever maintenance or servicing is done on machines or equipment. It shall be used to ensure that the machine or equipment is stopped, isolated from all potentially hazardous energy sources, and locked out before employees perform any servicing or maintenance where the unexpected energization or start-up of the machine or equipment or release of stored energy could cause injury.

SEQUENCE OF LOCKOUT

- 1. Notify all affected employees that servicing or maintenance is required on a machine, enclosure, panel or equipment. Any machine, enclosure, panel, or equipment must be shut down and locked out to perform the servicing or maintenance.
- The authorized employee shall refer to the company procedure in order to identify the type and magnitude of the energy that the machine or equipment utilizes, shall understand the hazards of the energy, and shall know the methods to control the energy.
- 3. If the machine, enclosure, panel or equipment is operating, shut it down by the normal stopping procedure (depress the stop button, open switch, close valve, etc.).
- 4. Deactivate the energy isolating device(s) so that the machine or equipment is isolated from the energy source(s).
- 5. Lock out the energy isolating device(s) with assigned individual lock(s).
- 6. Stored or residual energy (such as that in capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, air, gas, steam, or water pressure, etc.) must be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down, etc.
- 7. Ensure that the equipment is disconnected from the energy source(s) by first checking that no personnel are exposed, then verify the isolation of the equipment by operating the push button or other normal operating control(s) or by testing to make certain the equipment will not operate.

▲ CAUTION

Return operating control(s) to neutral or "off" position after verifying the isolation of the equipment.

8. The machine or equipment is now locked out.

INSTALLATION

INSTALLATION ENVIRONMENT

ENVIRONMENT	CONDITIONS	
Installation area	Indoors	
Ambient temperature	-10 °C to +40 °C System reliability improves in environments without wide temperature fluctuations. Do not allow ice to develop in and on the system	
Humidity	95% Rh or less and free of condensation	
Storage temperature	-20 °C to +60 °C	
Surrounding area	Install system in an area free from: • Oil, mist, and dust • Radioactive materials • Harmful gases and liquids • Excessive vibration	
Vibration	10 To 20 Hz @ 9.8 M/s ² 20 To 55 Hz @ 5.9 M/s ²	

ELECTRICAL SERVICE REQUIREMENTS

A rated service disconnect style plug and receptacle has been provided on the main electrical enclosure. Power is distributed within the main enclosure.

NOTICE

Prior to electrical hookup, equipment/machines must be inspected and comply with all regulations, codes, and requirements set forth by local regulatory bodies.

▲ WARNING

Electrical connections should be performed by qualified electrical personal only. All national and local wiring codes should be adhered to.

A WARNING

This unit must be properly grounded to prevent possible electrical shock to personnel. All grounding connections should be checked frequently. A machine frame ground connection has been provided for this purpose; it is the green wire located in the power cord of the machine. Care should be taken to see that it is connected to a system ground terminal at the power outlet device. The manufacturer recommends that additional grounding be attached for maximum operator safety.

NOTICE

Connection to a user's power supply should be through a fused disconnect switch, in accordance with the national electrical code and any applicable state and local codes. Final connection to the machine should be through a matching female twist locking receptacle or connector.

SPECIFICATIONS

GENERAL DESCRIPTION

The RR (Re-Reever) provides tension controlled pay-out and respooling for boom hoist and main lift line applications. The Re-Reeving series is available with customized torque capabilities and reel dimensions per customer required specs.

Includes:

- · Heavy-duty structural steel frame assembly with bolt down flanges, fork lift base, and lift eyes
- · Hand operated pressure relief valve to adjust torque
- Manual hand valve for speed and direction control
- · Heavy-duty reels shaft saddles with safety latches and quick-release ball detent pins to secure the reel shaft
- 2" diameter bearing mounted steel reel shaft with drive arm
- Adjustable 1.50" diameter drive pin
- · Diesel/gasoline engine powered hydraulic system
- Drive speed range of 0-20 rpm.
- Slide drive disconnect with heavy-duty slide drive couplings to allow for free-wheeling and easy drive engagement

Model	Reel Capacity	Weight	Hp Available	Power Type
RR5	60" OD, 48" Wide	5,000 lbs	16 hp, 22 hp, 44 hp Standard	Electric, Diesel, Gas
RR10	96" OD, 60" Wide	10,000 lbs	16 hp, 22 hp, 44 hp Standard	Electric, Diesel, Gas
RR15	96" OD, 60" Wide	15,000 lbs	16 hp, 22 hp, 44 hp Standard	Electric, Diesel, Gas
RR20	108" OD, 72" Wide	20,000 lbs	16 hp, 22 hp, 44 hp Standard	Electric, Diesel, Gas
RR30	108" OD, 75" Wide	30,000 lbs	16 hp, 22 hp, 44 hp Standard	Electric, Diesel, Gas
RR50	120" OD, 88" Wide	50,000 lbs	16 hp, 22 hp, 44 hp Standard	Electric, Diesel, Gas

SETUP

NOTICE

All electrical connections and maintenance should be performed by a certified electrician from your area. They can advise you of any local code requirements necessary to keep your machinery operating safely.

- 1. Unpack all parts while checking for damage from shipping.
- 2. Place and assemble the unit in the area it is to be used. When in use, secure firmly to the floor using the floor locks for mobile units or lagging bolts for stationary units.
- Ensure the disconnect is in the OFF position. Connect the unit to a fused disconnect switch of the proper voltage and amperage capacity. Attach a grounding conductor, which is connected to the power system grounding circuit, to the machine frame.
- Check the phase indicator, if incorrect, reverse phasing.

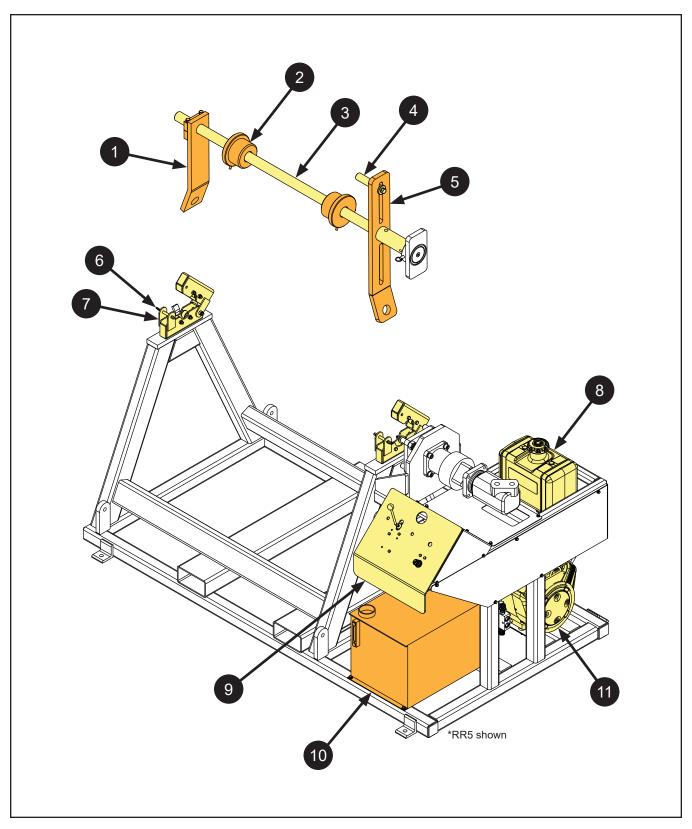
POWER-OFF INSPECTION

NOTICE

With all power disconnected, physically inspect all electrical components for proper tightness of connections, pin alignment, and grounding. Inspect all mechanical components and tighten any that may have possibly loosened during shipment.

- 1. Traverse and feed arm travel limits have been provided for safety of machine. Ensure they are in good working order and that adjustment fixtures are not slack or loose.
- 2. Inspect all interface cabling and make sure it has all been properly terminated and in good shape.

COMPONENTS



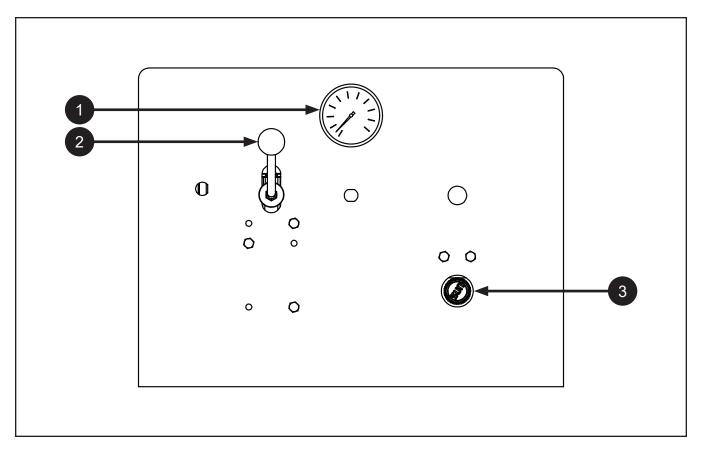
All pictures are for illustration purposes only. Due to product enhancements, all actual products may vary. Configuration of RR series is a trademark of Reel Power.

COMPONENTS

PART NUMBER	PART DESCRIPTION
1	Lifting Lug Weldment
2	Arbor Bushing
3	Reel Shaft
4	Drive Pin
5	Drive Arm
6	Ball Lock Pin
7	Reel Shaft Mount
8	Fuel Tank
9	Operator Control Panel
10	Hydraulic Reservoir
11	Engine

CONTROLS

OPERATOR CONTROL PANEL



- 1. Hydraulic Pressure Gauge Gauge displaying the pressure resistance increase and decrease controlled by the pressure relief valve.
- 2. Directional Control Valve Handle The control valve handle stays in the center (Off) position and requires the operator to hold the lever in the forward (up) or reverse (down) position. The selected handle position will move the drive arm forward or reverse.
- 3. Pressure Relief Valve Hand knob that allows the operator to adjust the resistance on the line during material pay-out.

OPERATING PROCEDURE



Failure to adhere to this procedure can result in unexpected results which can cause equipment damage and/or personal injury. Before attempting any startup procedures refer to the electrical schematic provided and verify all electrical interconnections and interlocks have been made.

LOADING THE REEL

- 1. Remove the ball lock pins, allowing the operator to open the reel shaft mounts, and remove the reel shaft.
- 2. Position the spool in line with the re-reever machine.
- 3. Be sure that the correct arbor bushings are placed on the reel shaft to properly fit the arbor hole of the spool being used.
- 4. Slide the reel shaft through the spool arbor and place the reel shaft ends into the reel shaft mounts.
- 5. Lock the reel into place by placing the safety latches over the reel shaft mounts, and insert the ball lock pins to prevent the reel from being pulled out during operations.
- 6. Attach the adjustable drive pin on the drive arm at the appropriate location to insert it into the spool.
- Make sure that the drive pin is tightened so that the pin cannot come loose during operation of the
 equipment. If the drive pin is loose, it can bend or break during pay-out and take-up operations, and can
 cause serious injury.

STARTING THE ENGINE

- 1. Check for any fuel, coolant, oil, or hydraulic fluid leaks before attempting to start the engine. If any leaks are found, remedy the problem(s) before starting the engine.
- 2. Make sure that the throttle adjustment is at the lowest setting.
- 3. Check all fluid levels and top off to correct levels before attempting to start the engine.
- 4. Check that the relief valve on the control panel is adjusted to the lowest possible setting.
- 5. Make sure that the directional control valve handle is in the center (Off) position.
- 6. Check the fuel level in the fuel tank to make sure that there is sufficient fuel to complete the operation. Do not run out of fuel when the engine is running or during operation.
- 7. After performing the pre-start checklist, use the following steps to start the engine.
 - A. Use the choke mechanism on the engine and follow the directions for starting that are shown near the choke control

OPERATING PROCEDURE

- B. Once the engine has started, let the engine run for about 20-30 seconds and return the choke control to the "Run" position before trying to adjust the throttle control on the operator control panel.
- C. If the engine does not continue running, follow steps A & B above.
- D. If the engine still will not continue running, use the throttle control to increase the throttle setting slightly, and repeat steps A & B.
- E. If the engine does not continue running, please check the engine manual that was shipped with your machine and follow the troubleshooting guide for a possible cause.
- F. If you are unable to perform the necessary troubleshooting checks, please contact Reel Power Industrial's Customer Care department.
- G. Once the engine is running and idling correctly, you can increase the throttle until the engine speed reaches the maximum speed allowed by the engine's governor. This is the proper engine speed for maximum horsepower and torque output.
- H. With the machine loaded and the engine running at full throttle, you can then move on to tension-controlled pay-out and take-up operations by following the instructions listed below.

TENSION CONTROLLED PAY-OUT



Never use any straps, ropes, or other materials to tie the directional control valve handle down into forward or reverse positions, as this can result in difficulty starting the engine, and can damage the machine and cause serious personal injury.

NOTICE

Always return the pressure relief valve to the lowest possible setting by turning the hand knob counterclockwise after every operation.

- 1. The basic setting for tension-controlled pay-out operation is to set the relief valve at the lowest possible setting (pressure gauge should read near zero).
- 2. Once the winch in the crane begins taking up rope, the operator should begin to slowly pull the lever on the directional valve in the reverse direction to begin increasing the line tension. Gauge pressure should begin to increase as the handle is pulled further away from the center (Off) position.
- 3. While pulling the forward/reverse lever back (down) in the reverse direction, you will see the gauge pressure increase due to the resistance of the wire rope weight and the increased line tension or speed.
- 4. At this point, the operator can begin to slowly increase the pressure setting by turning the hand knob clockwise on the pressure relief valve while monitoring the pressure gauge to increase the line tension to the desired level without stalling the winch rotation.
- 5. Once the winch has completed taking up rope, maintain enough line tension on the rope until the free end can be anchored to avoid tangling the rope in the boom or in the sheaves.

OPERATING PROCEDURE

TENSION CONTROLLED TAKE-UP

NOTICE

The forward (upward) position on the directional control valve hand lever is the correct direction for taking up material.

- 1. Forward operation is simply the reverse of the pay-out operations
- 2. If another spool is to be loaded, simply repeat the entire process.
- 3. Make sure that the engine throttle is returned to idle (lowest setting) before turning the key switch to the "Off" position.

MAINTENANCE

▲ CAUTION

Service should be done only by qualified personnel.

Your Reel Power machine has been designed to require a minimum amount of maintenance, but a regularly maintained machine will prolong the life of the equipment.

Daily Maintenance:

- Clean surfaces of debris and grime; this ensures proper operation.
- · Inspect all buttons and switches.
- Visually inspect the unit for loose nuts, bolts, hydraulic hoses, and fittings that might have vibrated loose.
 Check the electrical system for loose or damaged wires, and verify that connections are tight and protected as required.
- If applicable, check and maintain proper oil level in hydraulic reservoir with LUBSOIL Super Hyd 32AW or equivalent.

Monthly Maintenance:

 Grease all non-sealed bearings, bearing bosses, and shafts. Visually inspect all other bearings and replace or apply grease as needed

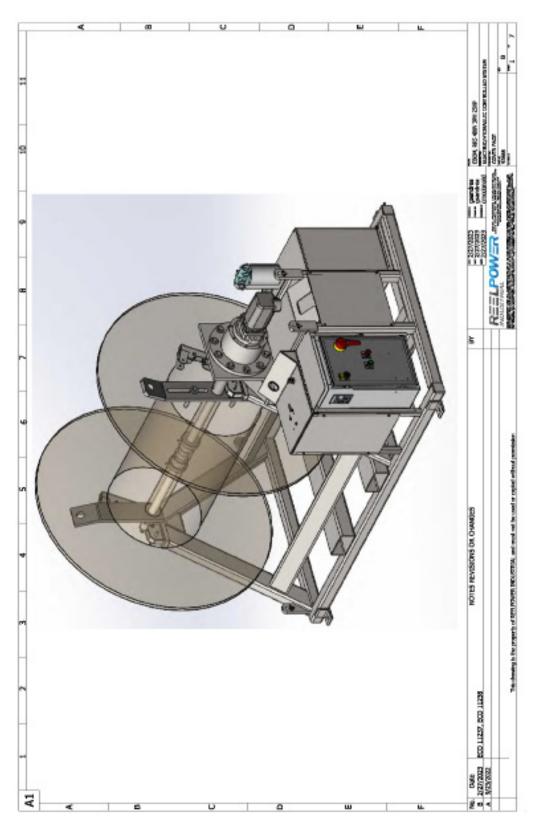
Periodic Maintenance:

- Periodically inspect dust filters on all electrical boxes to make certain screws are tight enough to keep dust filters from entering and fouling electrical contacts.
- · Thoroughly clean the machine and inspect for any damage or signs of wear.
- · Replace any hydraulic oil filters after every 1500 hours of operation or yearly, whichever comes first.
- If applicable, check hydraulic fluid annually for contamination. Also replace suction strainer and filter if needed.
- Follow the engine manual that came with your machine for engine oil and coolant change intervals.

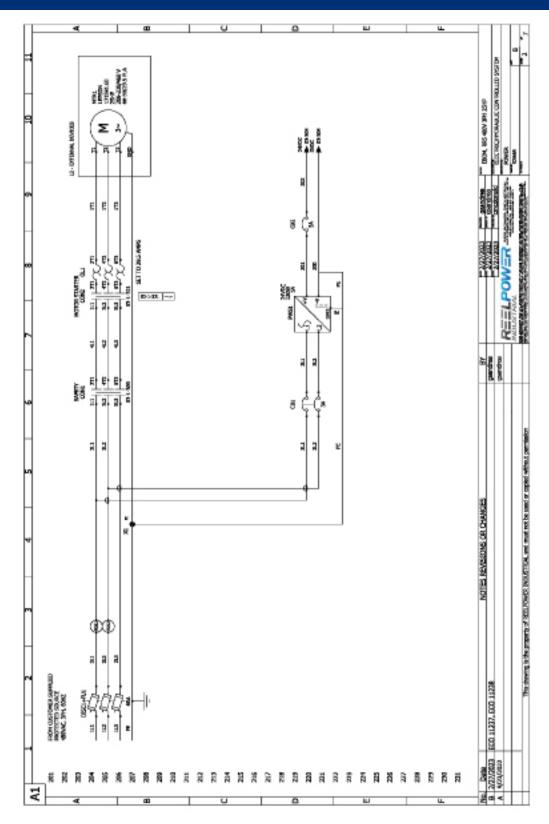
MECHANICAL SPARE PARTS LIST

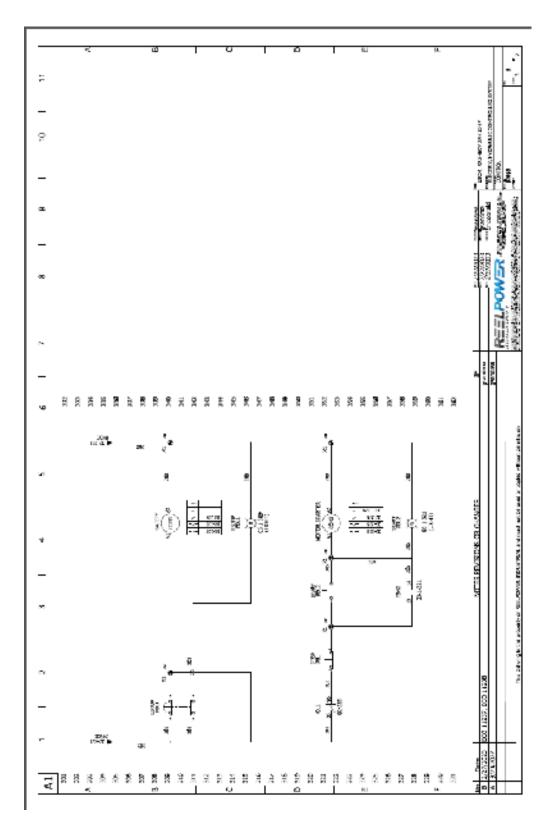
Below is a list of spares that are recommended to have in inventory for general maintenance.

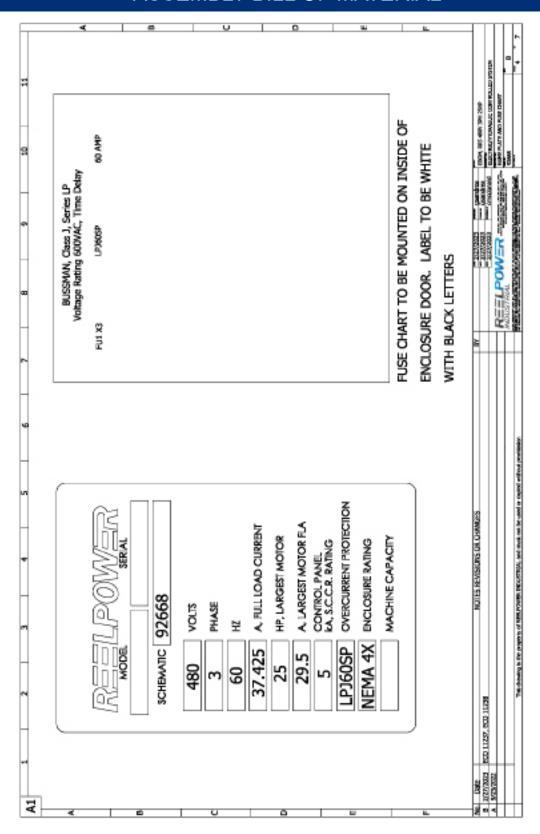
PART NUMBER	PART DESCRIPTION
16910-526	VALVE, RELIEF RPEC-OBN, HAND KNOB WITH PANEL MOUNT, 50 - 1500 PSI ADJ RANGE
2011-268	DRIVE PIN, ASSY FMP 1 1/2" DIA FOR USE WITH CONE BUSHINGS
10250-37	BALL LOCK PIN .50 IN DIAMETER X 3.00 IN LONG 98320A510

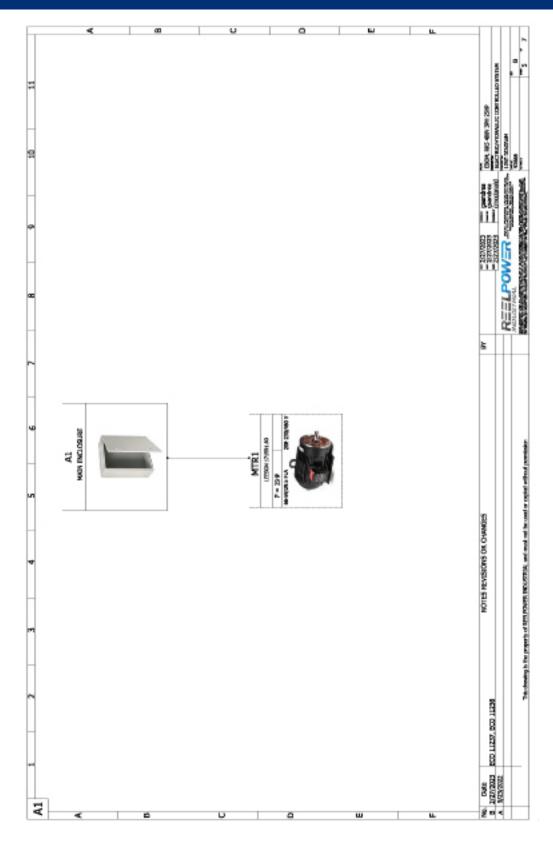


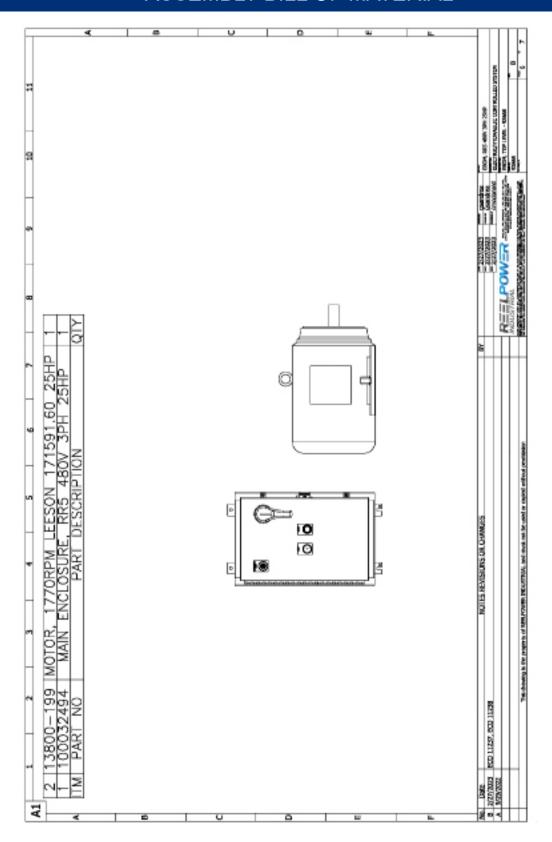
ELECTRIC / MECHANICAL BILL OF MATERIAL

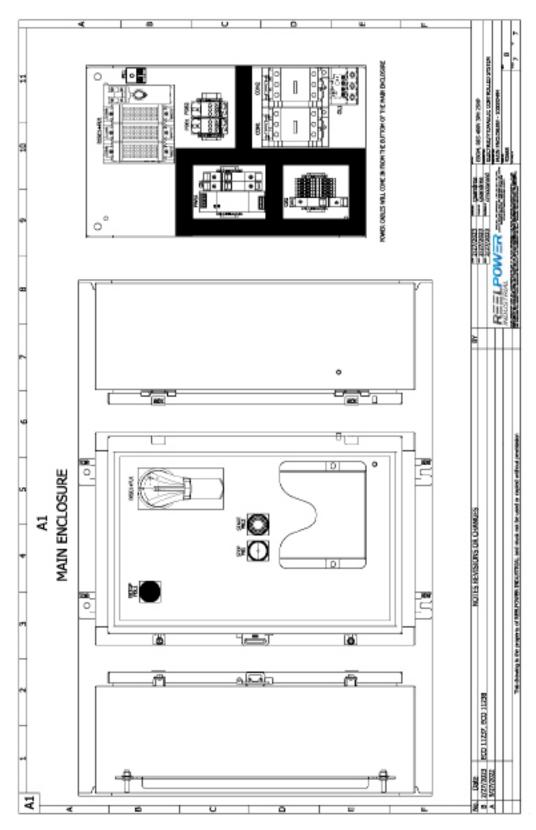




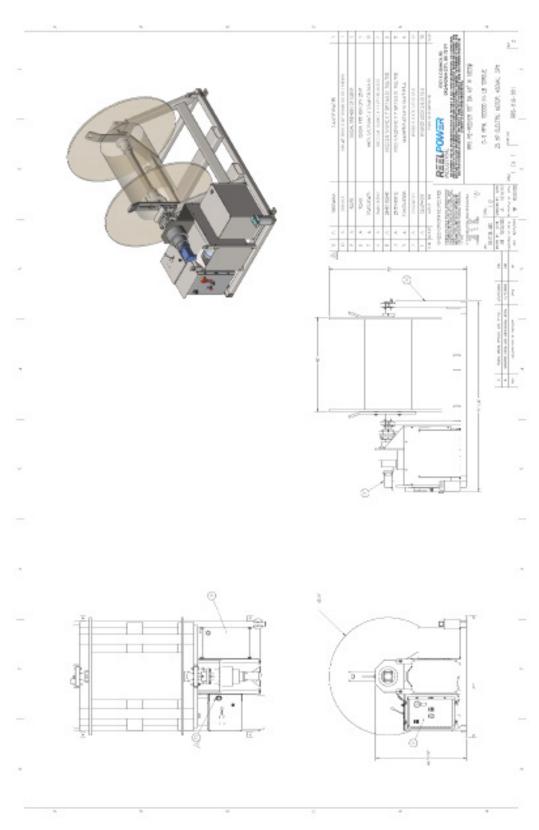


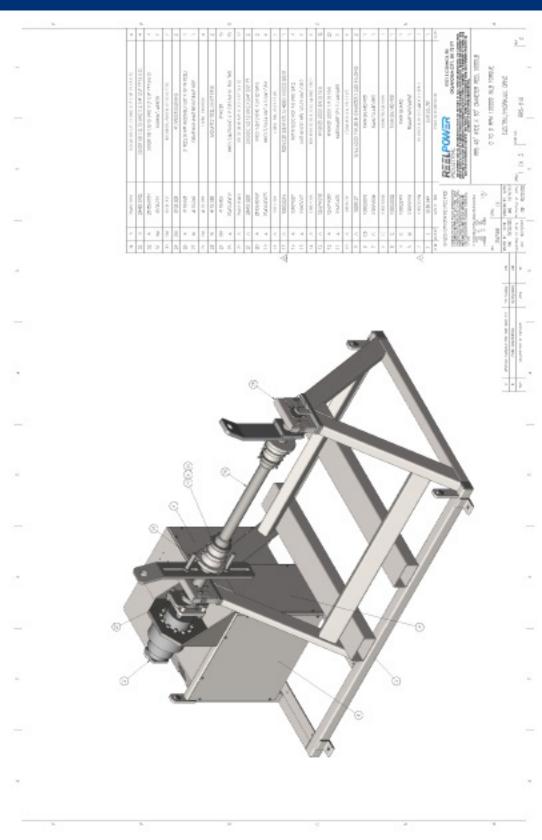


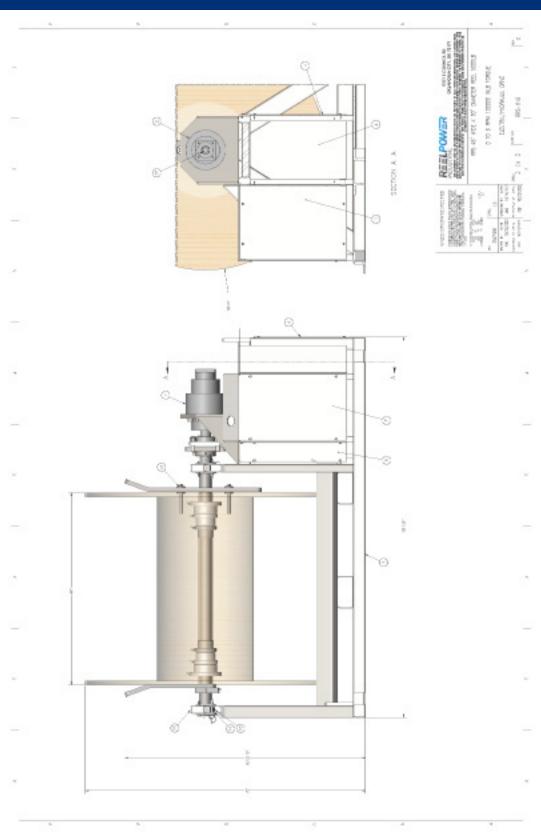


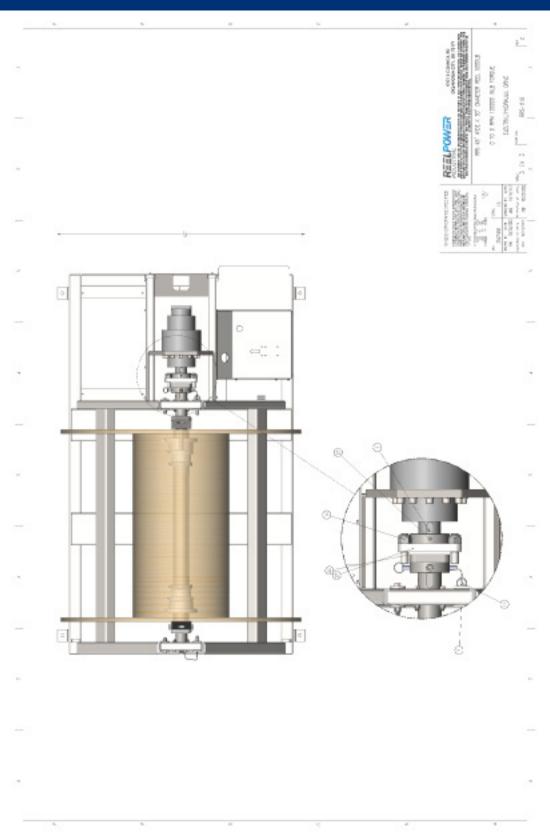


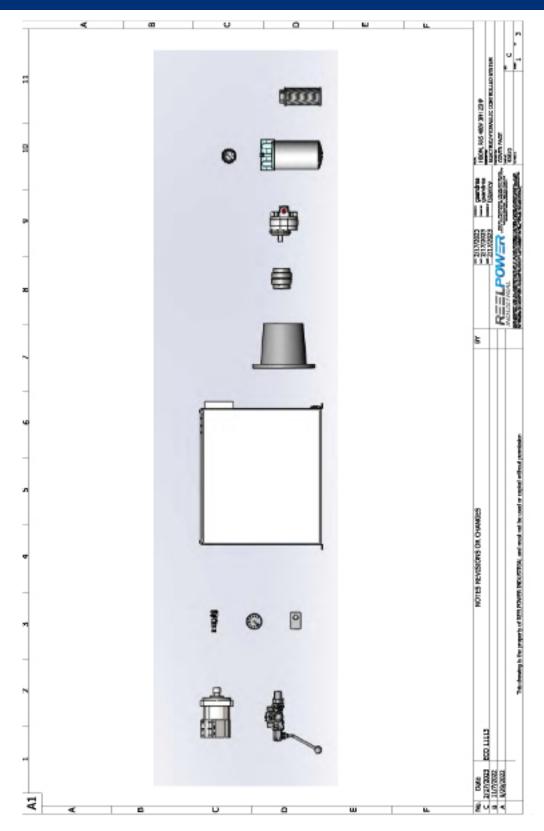
ELECTRICAL BILL OF MATERIAL

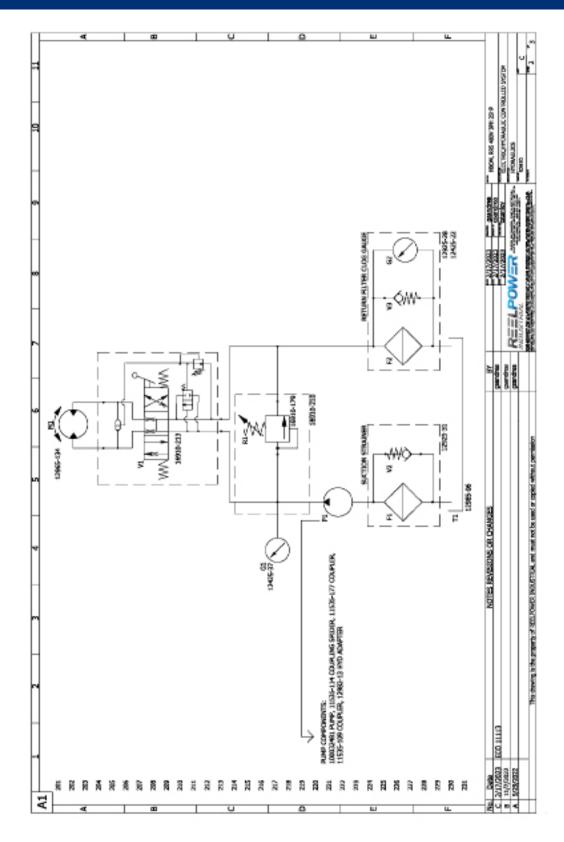


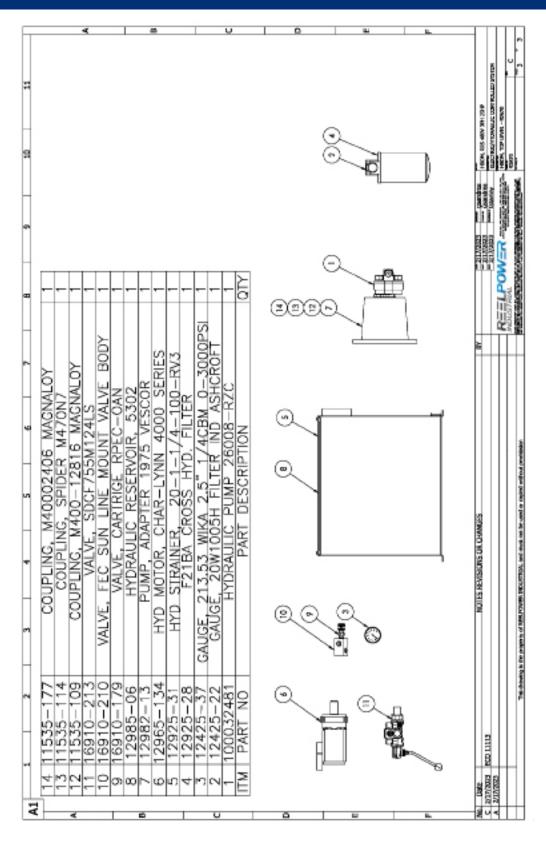












SEQUENCE OF RESTORING

When the servicing or maintenance is completed and the machine or equipment is ready to return to normal operating condition, the following steps shall be taken.

- 1. Check the machine or equipment and the immediate area around the machine to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact.
- 2. Check the work area to ensure that all employees have been safely positioned or removed from the area.
- 3. Verify that the controls are in a neutral position.
- 4. Remove the lockout devices and re-energize the machine or equipment.

NOTICE

The removal of some forms of blocking may require re-energization of the machine before safe removal.

5. Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready for use.

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