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SAFETY

IMPORTANT - READ CAREFULLY

This manual contains important information for the correct installation, operation and maintenance of this equipment. All persons involved in the installation, operation and maintenance of this equipment must be thoroughly familiar with the contents of this manual. To safeguard against the possibility of personal injury or property damage, follow the recommendations and instructions of this manual. Keep this manual for reference.

WARRANTY STATEMENT

Enerpac rail products are warranted to be free of defects in materials and workmanship under normal use for as long as the original purchaser owns them, subject to the guidelines and limitations listed. This warranty does not cover: normal wear & tear, cosmetic items, abuse, overloading, alterations, improper fluid, or use in a manner for which they are not intended. If the customer believes a product is defective, the product must be delivered, or shipped freight prepaid, to the nearest Enerpac Rail Authorized Service Center for evaluation and repair.

RECEIVING INSTRUCTIONS

Important! Make sure to inspect all of the components for shipping damage. If damage is found, notify carrier at once. Shipping damage will not be covered by warranty. The carrier is responsible for all loss associated to shipping damage.

SAFETY



Make sure to read the instructions, warnings and precautions carefully. Follow any recommended safety precautions to avoid personal injury or damage to the unit. Enerpac cannot be responsible for any damage or injury from unsafe use, lack of maintenance or incorrect operation. In the event any questions or concerns may arise, contact Enerpac or a local Distributor for clarification.

The pump's maximum working pressure is 10,000 PSI (700kg/cm²). Make sure that all hydraulic equipment such as rams, hoses, etc. used with this pump are rated at 10,000 PSI (700 kg/cm²) operating pressure.

Read all instructions, warnings, and cautions carefully. Follow all safety precautions to avoid personal injury or property damage during system operation. Enerpac cannot be responsible for damage or injury resulting from unsafe product use, lack of maintenance or incorrect product and/or system operation.

Contact Enerpac when in doubt as to the safety precautions and operations. If you have never been trained on high-pressure hydraulic safety, consult your distributor for a free Enerpac Hydraulic safety course.

Failure to comply with the following cautions and warnings could cause equipment damage and personal injury.

CAUTION is used to indicate correct operating or maintenance procedures and practices to prevent damage to, or destruction of equipment or other property.

WARNING indicates a potential danger that requires correct procedures or practices to avoid personal injury.

DANGER is only used when your action or lack of action may cause serious injury or even death.

SAFETY

WARNING: Wear proper personal protective gear when operating hydraulic equipment.

DANGER: To avoid personal injury keep hands and feet away from cylinder and work-piece during operation.

WARNING: Do not exceed equipment ratings. Never set the relief valve to a higher pressure than the maximum rated pressure of the intensifier. Higher settings may result in equipment damage and/or personal injury.

CAUTION: Avoid damaging hydraulic hose. Avoid sharp bends and kinks when routing hydraulic hoses. Using a bent or kinked hose will cause severe back-pressure. Sharp bends and kinks will internally damage the hose leading to premature hose failure. Do not drop heavy objects on hose. A sharp impact may cause internal damage to hose wire strands. Applying pressure to a damaged hose may cause it to rupture.

IMPORTANT: Do not lift hydraulic equipment by the hose or couplers. Use the lifting point on beam to position.

CAUTION: Keep hydraulic equipment away from flames and heat. Excessive heat will soften packing and seals, resulting in fluid leaks. Heat also weakens hose materials and packing. Protect hoses and cylinders from weld spatter.

DANGER: Do not handle pressurized hoses. Escaping oil under pressure can penetrate the skin, causing serious injury. If oil is injected under the skin, see a doctor immediately.

WARNING: Never use a cylinder with unconnected couplers. If the cylinder becomes extremely overloaded, components can fail catastrophically causing severe personal injury.

SAFETY FIRST!

- NEVER exceed the rated 2000 PSI input pressure.
- ALWAYS inspect before each use all system parts for wear, distortion, cracks or improper fit.
- NEVER use a puller that is leaking oil, replace the leaking component before use.
- **CAUTION:** non operating personnel should stand clear of the direction of force (directly in front of or behind the pullers) during the pull.
- ALWAYS be aware of pulling force & system pressure during the pull by monitoring the integrated tonnage (pressure) gauge while operating the system.
- Re-apply dust caps to quick couplers when not in use.
- Relieve any trapped pressure from puller by shifting the control valve before connecting or disconnecting PTO lines.
- Always disconnect PTO pressure lines before PTO tank lines.
- Always engage mechanical lock down device after clamping the puller on the rail.
- Always disengage mechanical lock down device after pulling force is released but before extending pulling cylinders to unclamp puller.
- **WARNING:** Never disconnect any other hydraulic connections on the rail puller to release trapped pressure. See Troubleshooting Guide for correct procedure to release trapped pressure in the rail puller hydraulic circuit.
- Review and understand proper use of all safety equipment before attempting to operate the rail puller.

1.0 INTRODUCTION

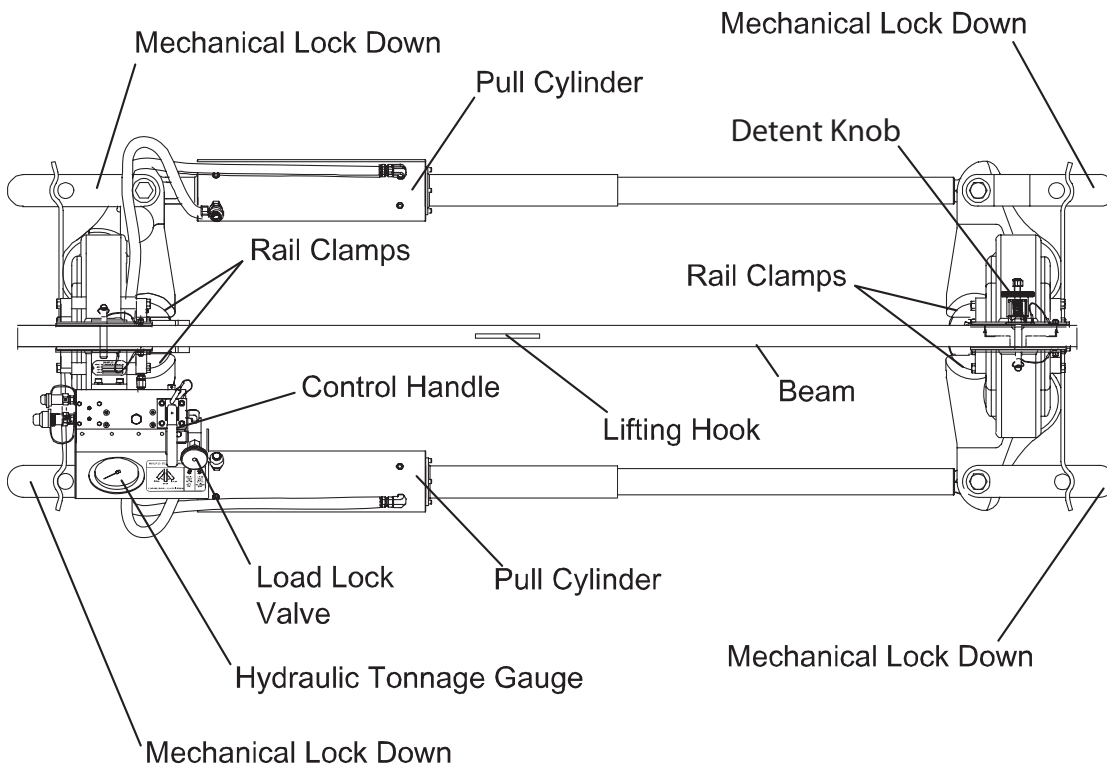
The RPG120 Rail Puller is designed to provide and hold up to 120 tons of pulling force during the weld process. Your new Puller is shipped with the rail clamps in the open position. Care should be taken during the unpacking of the rail puller from the shipping carton. Be sure to completely un-band the rail puller from the shipping carton before attaching the boom to the lifting hook.

KEY SPECIFICATIONS

- Model: RPG120
- Rated Pull Capacity: 120 tons
- Input power requirement: 5 GPM @ 2000 PSI
- Output Force after intensification: 10,000 PSI
- Weight 1130 LBS. (514 KG)

Refer to Diagram 1 to become familiar with the terminology and location of components to provide you of a better understanding of using this manual.

DIAGRAM 1 - Component Identification



1.0 INTRODUCTION

Refer to Diagram 2 to become familiar with the terminology and location of components to provide you of a better understanding of using this manual.

DIAGRAM 2 - Control Panel Intensifier

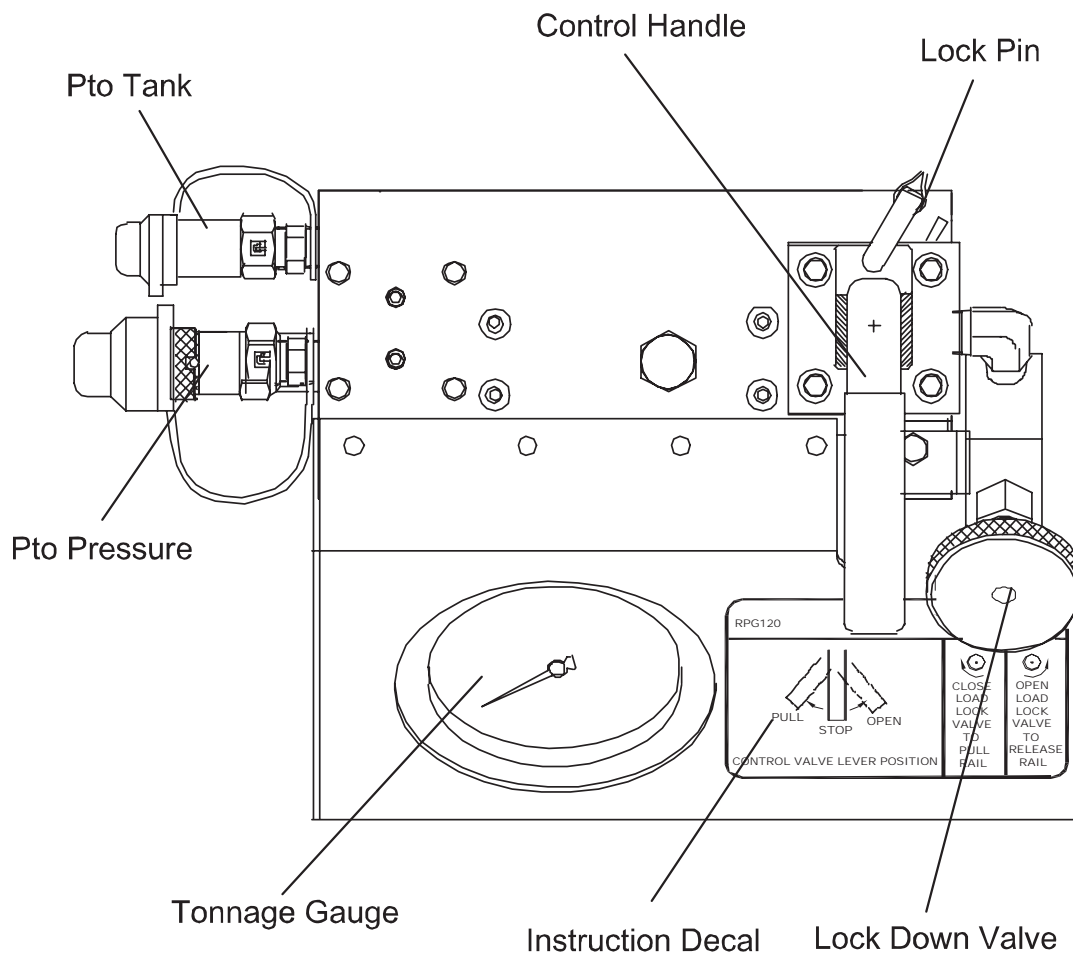


DIAGRAM 3
RAIL PULLER IN OPEN POSITION

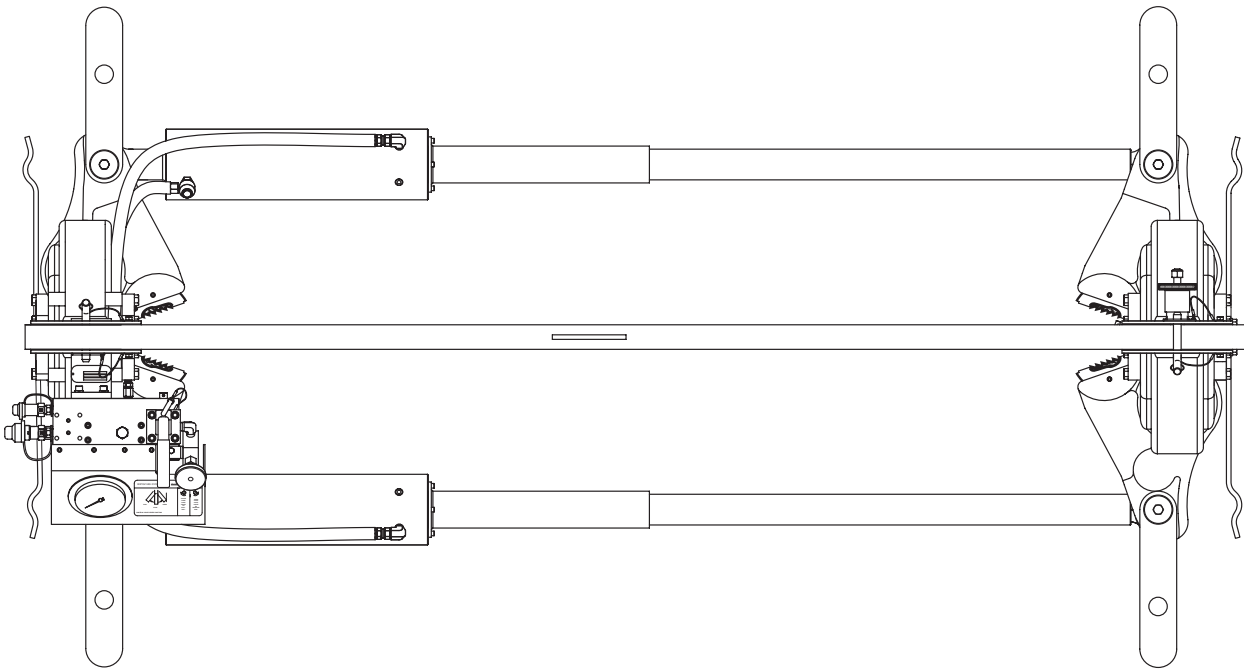
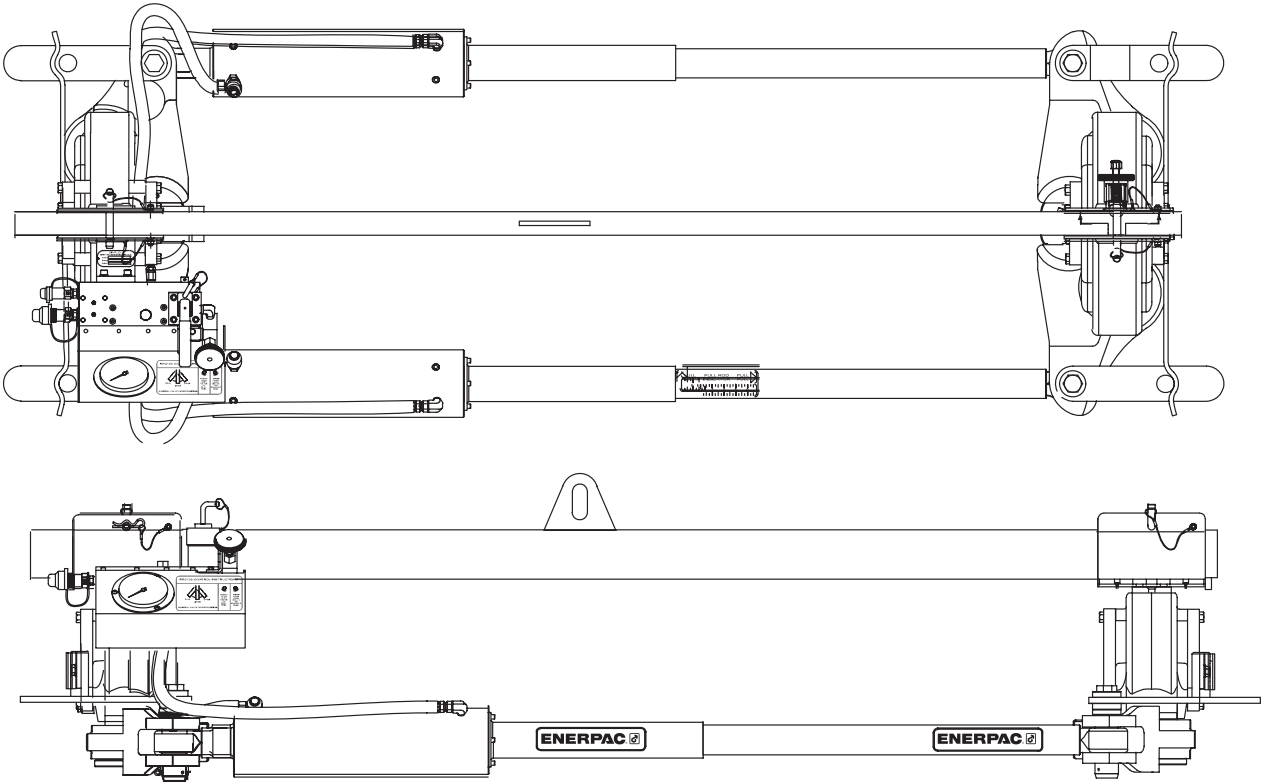


DIAGRAM 4
RAIL PULLER IN CLOSED POSITION



2.0 RPG120 OPERATING INSTRUCTIONS

Placing puller on rail:

Hoist the puller using the lifting shackle from the truck and lower directly on the rail head. Use the red locator arrow to center the puller over the rail gap.

Note: Care should be taken while lowering the puller onto the rail to prevent injury or damage to the puller.

Connecting Truck PTO Lines:

1. Remove the dust caps.
2. Connect the Tank line to the coupler and turn collar to secure.
3. Connect the Pressure line to the coupler and turn collar to secure.

Note: Turning the collars will prevent accidental disconnection while in use.

To prevent contamination, ensure the couplers are free of debris before coupling together.

Setting up for a pull:

1. Close the LOAD LOCK VALVE by turning clockwise until it mechanically stops and turn on PTO.
2. Shift the control valve to the left to clamp and pull the rail until the tonnage gauge moves, then shift back to center position and engage the four (4) mechanical lock downs.
3. Shift back to the Pull position to close the gap to the desired width, and then shift back to center.
4. Turn off PTO.
5. To clear the workspace, remove the BEAM COTTER PINS and LOCK PINS and hoist beam from puller. (Loosening the detent knob will aid in beam removal and reinstallation.)

Welding and grinding:

Once the beam is cleared from puller, the RPG120 has ample clearance for all standard thermite welding equipment, hydraulic rail shears and grinders.

Relieving pressure and setting the beam back into position:

With PTO off:

1. Hoist beam back onto the puller and reinstall pins and turn detent knob counterclockwise.
2. Shift the control lever to open position and open the load lock valve by turning the knob counter clockwise.
3. The pressure reading on the tonnage gauge should be zero. Shift the control valve back to center.
4. Disengage four (4) mechanical lockdowns from safety springs.
5. Restart the PTO and shift the control lever to open until the cylinders are fully retracted, and then shift the control lever back to the center position.

Disconnecting and Hoisting:

1. With the PTO off, shift control valve back and forth to release any trapped pressure. Shift control valve back to center and replace the lock pin.
2. Disconnect the hydraulic lines for the PTO at the quick disconnect couplers.
3. Remove the puller by hoisting at the lifting point.

3.0 RPG120 TROUBLESHOOTING GUIDE

If the procedures listed below do not remedy the problem - the equipment will require service and should be taken to an Enerpac Rail Authorized Service Center for repair.

PROBLEM	POSSIBLE CAUSE - SOLUTION
Puller Fails to Operate.	<ol style="list-style-type: none">1. Check pressure and tank connections for PTO.2. Make sure PTO is turned on.3. Check PTO for required pressure 2000 psi and flow 5 GPM minimum.4. Throttle speed control valve downward.5. Check cylinder hose connections.6. Check for external leaks.7. Take unit to Enerpac Rail Authorized Service Center for repairs.
Puller Operates But Fails to Build Full 120 Tons of Pulling Force.	<ol style="list-style-type: none">1. Check for required pressure 2000 psi and flow 5 GPM minimum.2. Check cylinder hose connections.3. Check for external leakages.4. Check for faulty gauge.5. Check for booster operations (clicking sound)6. Take unit to Enerpac Rail Authorized Service Center for repairs.
Unable to Connect or Disconnect PTO Lines. Trapped Hydraulic Pressure in the Rail Puller. Hydraulic Circuit. Rail Puller Hydraulically Locked on the Rail.	<ol style="list-style-type: none">1. Make sure the PTO is off.2. Remove the lock pins. Shift both control valves through all positions.3. Open the release screw valve on the back of the intensifier manifold by turning counter clockwise 1 to 1.5 turns using pliers and a rag to protect yourself from possible oil spray. Shift the control valve through all positions to release remaining trapped pressure.

4.0 RPG120 MAINTENANCE

1. Lubricate pivot point annually with anti seize compound.
2. Keep contact surfaces of swing arms and clamp brackets clean and oiled so swing arms move freely.
3. Inspect and clean grip teeth before each use.

Note: For repair parts documentation, please visit www.enerpac.com.

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