

RPJ70 RAIL PULLER

Reference # - TD014

Rev. - A

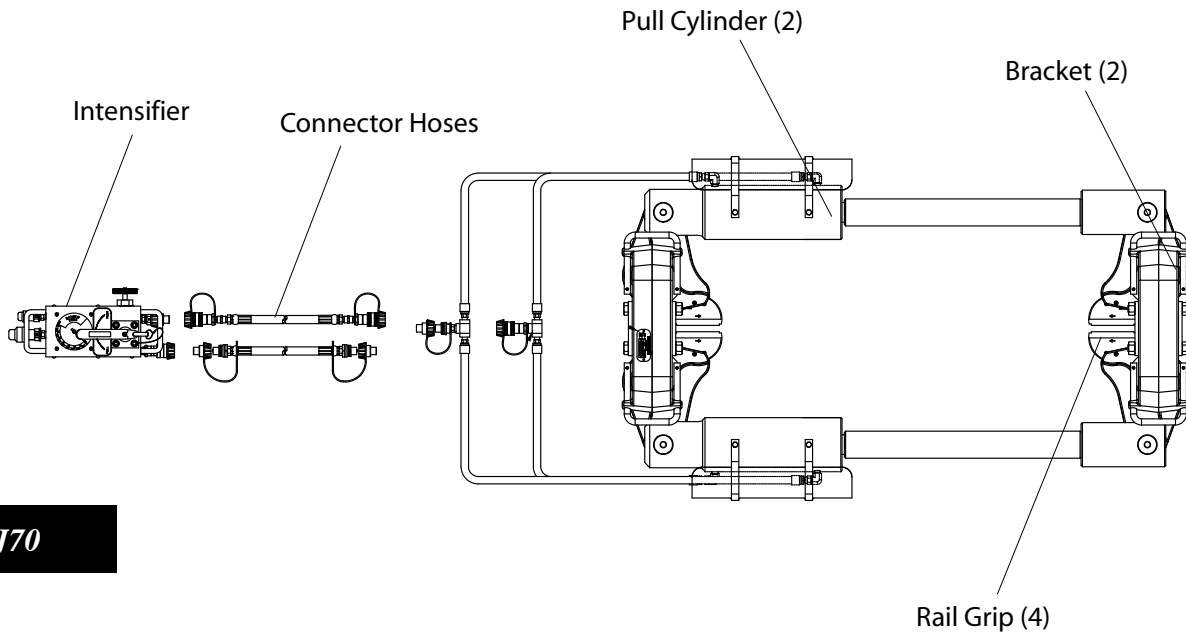
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- Note -

ENERPAC has taken every care in preparing this Operational Manual that is intended as a technical guideline only. ENERPAC accepts no liability in relation to any use or reliance made of any information in this Operational Manual. All information, illustrations and specifications in this Operational Manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice. Equipment operators and installers shall be responsible for ensuring that a safe working environment and safe systems of work are in place before operating the equipment.



RPJ70

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 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 Authorized Service Center for evaluation and repair.

1.0 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 with shipping damage.

2.0 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 arise, contact ENERPAC or a local Distributor for clarification.

The stressor's maximum working pressure is 8,860 PSI (611,3 Bar). Make sure that all hydraulics used with this stressor is rated at 8,860 PSI (611,3 Bar) 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 or service center for a free ENERPAC Hydraulic safety course.



Failure to comply with the following cautions and warnings can result in equipment damage and personal injury.

- **CAUTION** is used to indicate correct operating or maintenance procedures and practices to prevent damage 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.

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 equipment. Higher settings may result in equipment damage and/or personal injury.

CAUTION: Avoid damaging the 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 handles provided on cylinders and bracket assemblies.

CAUTION: Keep hydraulic equipment away from flames and heat. Excessive heat will soften or damage packing and seals, resulting in fluid leaks. Heat also weakens hose materials and packing. For optimum performance, never expose equipment to temperatures of 65° C (150° F) or higher. 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.

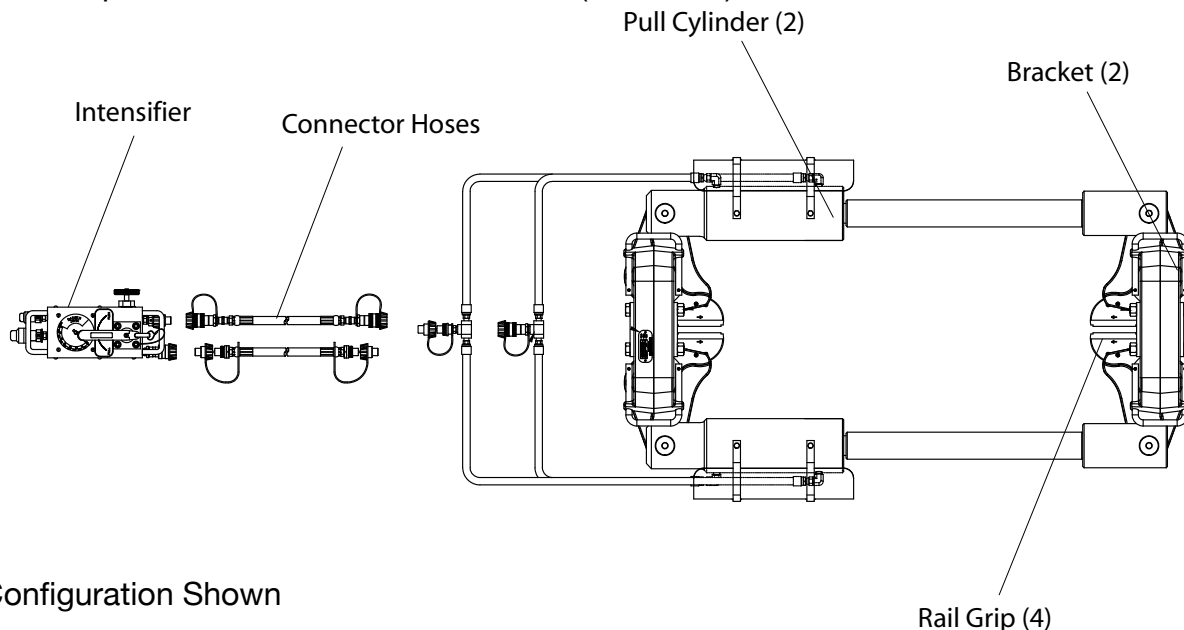
DANGER: Only use hydraulic cylinders in a coupled system. Never use a cylinder with unconnected couplers. If the cylinder becomes extremely overloaded, components can fail catastrophically, causing severe personal injury.

2.1 SAFETY FIRST!

- Never exceed the rated 8,860 PSI (611,3 Bar).
- Always inspect all system parts before each use for wear, distortion, cracks or improper fit.
- Never use the RPJ70 Stressor if leaking oil; replace the leaking component before use.
- Non-Operating personnel should always stand clear of the direction of force (directly in front of or behind the RPJ70 Stressor) during the pull.
- Always be aware of pulling force & system pressure during the pull by monitoring the tonnage (pressure) gauge while operating the system.
- Always re-apply dust caps to quick couplers when not in use.
- Always release any trapped pressure from puller by shifting the control valve on the power pack before connecting or disconnecting PTO lines.
- 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.
- Always review and understand proper use of all safety equipment before attempting to operate the rail puller.
- During transit, the RPJ70 Stressor should always be secured and kept away from all electrified lines.
- Always store the RPJ70 Stressor in a secure position.
- Always ensure that all hydraulic components and couplings are clean. Retract the rams and fit all quick release coupling dust caps after use.
- Before use, perform a Manual Handling Risk Assessment and always follow the assessment guide lines at all times. Use the handles provided.
- Always use a Power Pack that has been approved by ENERPAC and/or was supplied for use with the RPJ70 Stressor.
- Always consult to the Operating Manual supplied with the Power Pack for additional information.
- Always use the correct, clean oil, as defined in the technical specification. The RPJ70 Stressor and Power Pack have been filled and tested with clean, new hydraulic oil to this specification. They must be properly maintained and not contain contaminated oil. No liability will be accepted for failure or malfunction of the equipment if this condition is not met.

3.0 TECHNICAL SPECIFICATIONS

- Model: RPJ70
- Rated Pull Capacity: 70 Tons (63.630kg)
- Rated Push Capacity: 35 Tons (31.815kg)
- Power Source Requirements: Connect PTO source with a minimum of 2,000 psi, 5 gallons / minute flow to intensifier unit.
- Pump Set with a Maximum 8,860 PSI (611,3 Bar)



Pull Configuration Shown

3.1 OIL SPECIFICATIONS

Recommended oil;

ENERPAC Anti-wear hydraulic oil with an ISO viscosity grade 32.

Ensure that any hydraulic oil alternatives that are used meet the same specifications.

3.2 OPERATING PRESSURE

The maximum operating pressure of the Stressor is; 8,860 PSI (611,3 Bar).

4.0 OPERATING INSTRUCTIONS

The following procedure outlines the correct method for operation. Should any of the inspection criteria fail, do not use the equipment. All work should only be performed by qualified personnel. Always follow local regulations. Observe Manual Handling Regulations.

4.1 HOISTING ONTO THE RAIL

Placing puller on rail:

Hoist the puller, using the lifting shackle from the truck and lower directly on the rail head.

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

4.2 INSPECTING STRESSOR COMPONENTS BEFORE USE

Carefully inspect all pivot points of the stressor for any unusual wear, contamination or debris. Keep all pivot points clean and apply never-seize lubricant only where specified.

If any damage or unusual wear is noted, remove immediately from service to have the stressor inspected by an Authorized Enerpac Service Center.



4.3 HYDRAULIC CONNECTIONS

Connecting the Intensifier to the stressor:

All ENERPAC cylinders and tools are equipped with quick-disconnect couplings. These couplings ease the assembly of your system and must be assembled by hand. Wrenches or pliers should not be required for this operation. If couplings will not fully turn, you will need to release system pressure at the external power source that may have been built up.

Note: All components, cylinders, intensifiers, pumps and hoses may have built up pressure since their last use. This pressure may be sufficient to prevent proper hand coupling. A simple test is to depress the steel ball in the end of the coupling with a soft tool (wood, aluminum, etc.) If the ball can be easily depressed, coupling may be assembled.

If the ball cannot be depressed by hand, you must tighten couplers together until the pressure of the mating coupler is released. Wrenches and pliers may be necessary to perform this operation.

Great care must be taken as to not damage female coupler threaded sleeve. Threaded connections such as fittings, gauges, etc. must be securely tightened and leak free. DO NOT over tighten connections. Connections need only be secure and leak free. Over tightening can cause premature thread failure. Never disconnect or connect any hydraulic hoses or fittings without first unloading the cylinders.

If the system includes a gauge, double check the gauge to assure pressure has been released.



Zero gap before hand tightening collar

CAUTION: Loose or cross threaded fittings can be potentially dangerous if pressurized. Never hold or stand directly in line with any hydraulic connections while pressurizing. Never grab, touch or in any way come in contact with a hydraulic pressure leak. Escaping oil can penetrate the skin and cause serious injury.

Connecting Truck PTO Lines to the intensifier:

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.

4.4 OPERATING AND REMOVAL OF THE STRESSOR

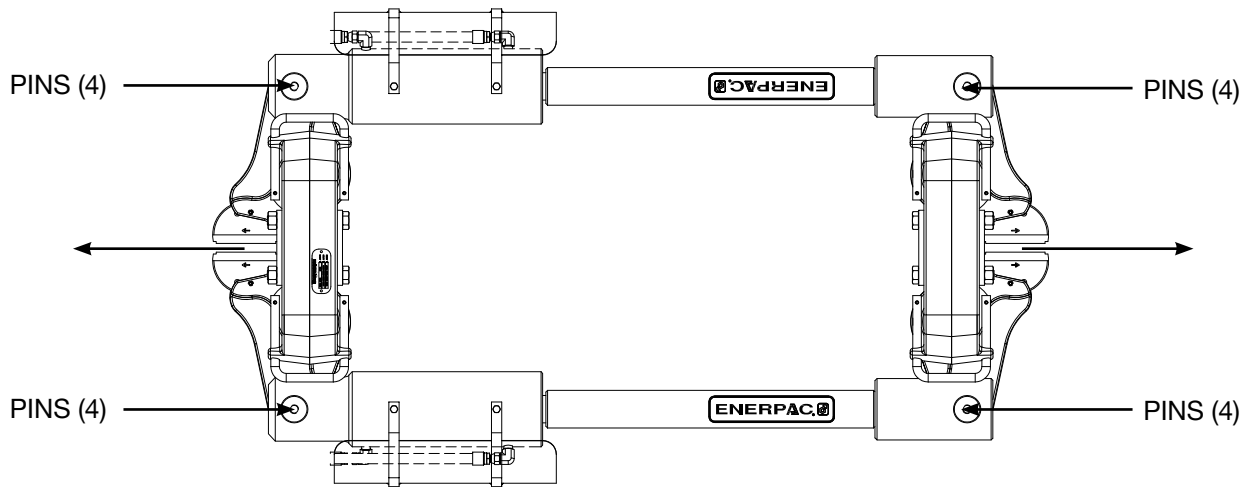
1. Operate the external power source in accordance with the Operating Instructions so that the hydraulic cylinders are fully extended / retracted as desired.
2. Close load lock valve.
3. Operate the external power source until the required gap is obtained.

Welding and grinding:

The stressor has ample clearance for all standard thermite welding equipment, hydraulic rail shears and grinders.

4. When the operation has been completed, release the load lock valve and extend the Hydraulic cylinders until fully extended.
5. Disconnect the Hoses and refit all quick release coupling dust caps.

**Push Configuration Shown - Arrow indicates outward rail grip orientation.
TO SETUP, REMOVE PINS AND REVERSE BRACKET ASSEMBLY ON BOTH SIDES.**



4.5 PRESSURE IN HOSES AND RAMS

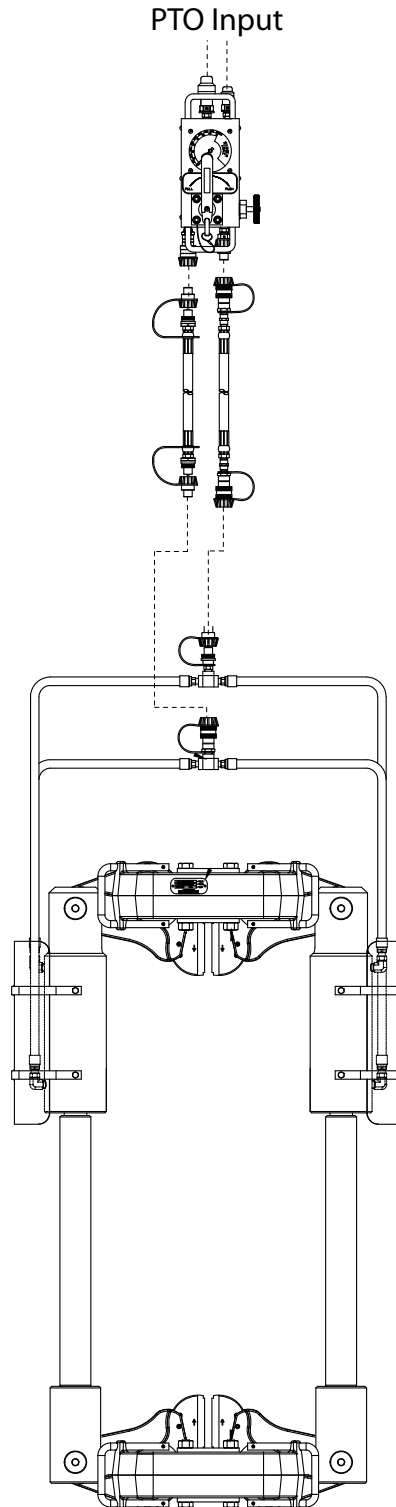
Ensure that the hydraulic hoses are kept out of the sun, as the heat may cause an increase in internal pressure, causing difficulties when connecting. Should a hose or ram uncouple while pressurized, the hose or ram assembly should be returned to the nearest Authorized Service Center.

* Refer to Section 4.2 for instructions on releasing trapped pressure.

5.0 MAINTENANCE AND STORAGE

1. Pins and bracket pivot bearings are coated to provide protection from wear and corrosion. Lubrication of these surfaces is not required. Apply oil as a rust preventer to the inside surfaces of swingarms and at holes for latch pins.
2. Keep contact surfaces of swingarms and clamp brackets clean and oiled allowing swingarms to move freely.
3. Inspect and clean grip teeth before each use.
4. Lubricate behind grips with light oil to prevent corrosion.

5.1 SETUP WITH POWER SOURCE, HOSES AND GAUGE



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