

Instruction Sheet

Integrated Spreader Model WR-13

L2913 Rev. A 06/09

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DeutschN/A
ItalianoN/A
Español N/A
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Norwegian
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中文N/A
日本語

Repair Parts Sheets for this product are available from the Enerpac web site at www.enerpac.com, or from your nearest Authorized Enerpac Service Center or Enerpac Sales office.

1.0 IMPORTANT RECEIVING INSTRUCTIONS

Visually inspect all components for shipping damage. Shipping damage is not covered by warranty. If shipping damage is found, notify carrier at once. The carrier is responsible for all repair and replacement costs resulting from damage in shipment.

SAFETY FIRST

2.0 GENERAL SAFETY INFORMATION



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 distribution or service center for a free Enerpac Hydraulic safety course.

Failure to observe the hazard statements contained in this document could result in equipment damage, personal injury or death.

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

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

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

2.1 Integrated Spreader Safety Precautions

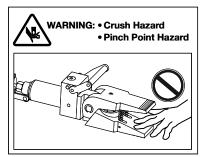


DANGER: Failure to observe the following precautions could result in serious personal injury or death!

- Wear proper personal protective gear when operating the spreader. Use of safety footwear, thick gloves, overalls and safety glasses is mandatory. These items are in addition to any other safety equipment required at your site.
- Do not exceed the spreader's rated load. The spreader has a maximum capacity of 3000 lbs [13.4 kN]. Never attempt to lift, push or separate objects that will result in larger loads.
- Keep fingers, hands, feet and other body parts clear of the spreader upper and lower jaws during spreader operation.



- Never place fingers, hands, feet or other body parts between the spreader's upper and lower jaws.
- Keep fingers, hands, feet and other body parts clear of the area under the load being lifted by the spreader.



- After lifting, always support the load with blocking, cribbing or other suitable supports. Never allow persons to reach or work under a load supported by the spreader
- Items that are pushed sideways or spread apart can be under tremendous force. Always support these items with blocking, cribbing or other suitable supports before allowing persons to reach or work inside the danger zone.
- Be alert while operating the spreader. If items become unstable or begin to shift or tip, stop operating the spreader immediately. Install suitable blocking and/or cribbing as needed to prevent items from tipping, falling or shifting.
- The spreader pressure relief valve is factory set for 10,000 PSI [700 bar]. Never attempt to disable the pressure relief valve or change the valve setting. Allow only qualified hydraulic technicians to check and adjust the pressure relief valve setting.
- Do not loosen or remove any plugs on the spreader while it is in use.
- Never perform maintenance, adjustments or repairs while the spreader is in use.
- Do not attempt to lift vehicles, such as cars and trucks, using the spreader. The spreader is not intended for lifting vehicles.
- No modification or alteration of this product is allowed. Do not use the spreader for any purpose other than for which it is intended.
- Do not loosen release valve screw more than one turn counter-clockwise from fully closed.
- Keep the spreader away from flames and heat. Excessive heat will soften packings and seals, resulting in fluid leaks. For optimum performance do not expose equipment to temperatures of 150°F [65°C] or higher. Protect the spreader from weld spatter.

▼ SPECIFICATIONS

External Dimensions (See Figure 1) inch [mm]							Cylinder Capacity*	Cylinder Effective Area	Oil Capacity	Weight	
A Overall Length	B Handle Width	C Jaw Width	D Overall Height	E Max. Spread	F Tip Clearance	G Pump Length	H Handle Height	lbs [kN]	in ³ [cm ³]	in ³ [cm ³]	lbs [kg]
17.9 [455]	4.6 [118]	2.4 [60]	6.4 [163]	3.7 [94]	1.0 [25]	10.0 [253]	14.8 [372]	3000 [13.4]	1.76 [11.34]	7.3 [120]	26.4 [12]

^{*}At 10,000 psi [700 bar] maximum operating pressure.

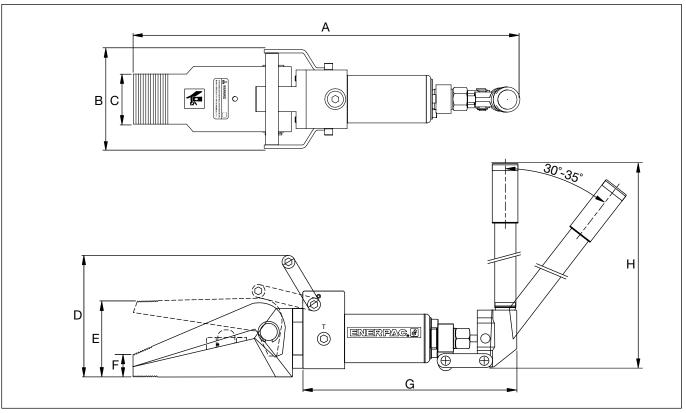


Figure 1, External Dimensions

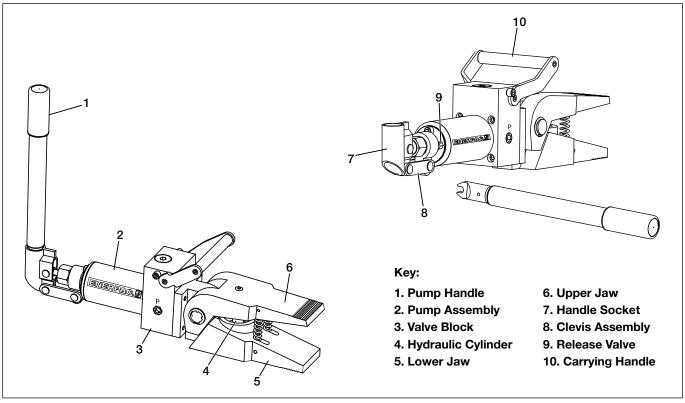


Figure 2, Features and Components

- Hydraulic equipment must only be serviced by a qualified hydraulic technician. For repair service, contact the Authorized ENERPAC Service Center in your area. To protect your warranty, use only ENERPAC oil.
- Immediately replace worn or damaged parts with genuine ENERPAC parts. Standard grade parts will break causing personal injury and property damage. ENERPAC parts are designed to fit properly and withstand high loads.

3.0 DESCRIPTION

The WR-13 is an integrated hydraulic spreader and hand pump. It is designed for lifting, pushing and separating objects of up to 3000 lbs [13.4 kN]. Refer to Figure 1 for external dimensions. See Figure 2 for an overview of spreader major features and components.

4.0 OPERATION

4.1 Air Removal

Air can become trapped in the spreader hydraulic system during shipment. Before using the spreader for the first time, remove trapped air as described in the following steps:

- 1. Be certain that there is no load on the spreader jaws.
- 2. Open the release valve by turning it counter-clockwise about ½ turn. See Figure 3 for release valve details.
- 3. Place the spreader on its side, with the "T" port facing up. See Figure 4 for plug location.
- 4. At the "T" port, loosen the oil fill plug about two turns. Use an 8mm Allen wrench.
- 5. Place pump handle in handle socket. Operate the handle 10 full strokes to purge air from the hydraulic system.
- 6. Tighten the oil fill plug at the "T" port.
- 7. Close the release valve by turning it fully clockwise.
- Extend and retract the upper jaw several times to check for proper operation. Verify that upper jaw extends smoothly as pump handle is operated.

4.2 Lifting, Pushing or Separating Objects

- Inspect the spreader before each use. Do not use if components are worn or damaged.
- 2. Be sure that the release valve is closed (turned fully clockwise) and that the upper jaw is fully retracted.

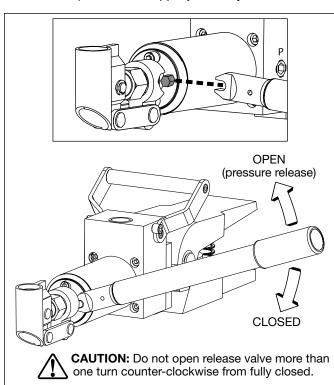


Figure 3, Release Valve Operation

- 3. Place the spreader jaws under or beside the load to be lifted or moved (as required).
- Operate the pump handle until the upper jaw makes solid contact with the load.
- Continue pumping until the load is lifted or moved the desired amount.

WARNING: If the spreader begins to twist or becomes dislodged during operation, stop pumping immediately. Release pressure and reposition spreader before continuing.

 After the load has been lifted or moved, install suitable load supporting devices (blocking, cribbing, etc.) to support the load.

WARNING: Do not allow persons to reach into or work inside the danger zone until suitable load supporting devices have been installed and the spreader has been removed.

4.3 Retracting the Upper Jaw

1. Be sure blocking, cribbing or other suitable load supporting devices are in place.

CAUTION: Upper jaw will retract immediately when release valve is opened.

- SLOWLY open the release valve (turn counter-clockwise) to retract the upper jaw. See Figure 3 for release valve details.
- 3. Remove the spreader from the work area.

5.0 MAINTENANCE

5.1 Changing the Oil

Note: Periodic oil changes are not necessary unless it is suspected that the oil is contaminated or that moisture has entered the system.

Change oil as described in the following steps:

- Place the spreader in a suitable pan to catch the used oil to be drained.
- To provide venting during draining procedures, open the release valve by turning it counter-clockwise about ½ turn. See Figure 3 for release valve details.
- 3. Using an 8mm Allen wrench, remove the oil fill plug at the "T" port. See Figure 4 for plug location.

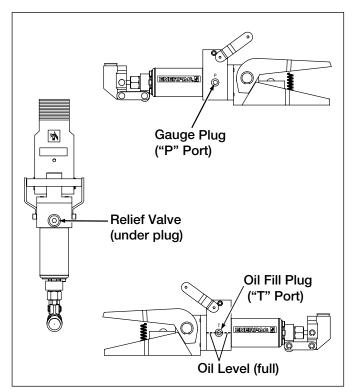


Figure 4, Plugs and Ports

4. Tilt the spreader so that the "T" port is facing down. Allow all used oil to drain into the pan.

Note: Dispose of used oil in accordance with all applicable laws and regulations.

- 5. Close the release valve by turning it fully clockwise.
- 6. Position the spreader on its side so that the "T" port is facing up.
- 7. Place a funnel in the "T" port. Slowly pour approximately 7.3 cubic inches [120 cm³] of new Enerpac HF oil into the funnel. Allow time for the oil to flow into the spreader.

Note: Oil reservoir is FULL when spreader is in the normal upright position, upper jaw is fully retracted, and oil level is up to - but not above - the "T" port. See Figure 4.

- Using an 8mm Allen wrench, reinstall the oil fill plug in the "T" port.
- 9. Close the release valve by turning it fully clockwise.
- Remove air from spreader hydraulic system as described in Section 4.1. After air removal procedure is completed, check for proper operation before returning spreader to use.

5.2 Pressure Relief Valve

The spreader's pressure relief valve is factory preset at 10,000 psi [700 bar]. It is located under the pipe plug at the top of the valve block. See Figure 4.

The pressure relief valve setting should not require checking or readjustment unless the spreader has been repaired, or if it is suspected that the setting has been changed.

IMPORTANT: Allow only qualified hydraulic technicians to check and adjust the pressure relief valve setting.

5.3 Pressure Gauge "P" Port

The "P" port is provided to allow installation of a 0-15,000 psi [0-1000 bar] hydraulic pressure gauge. It is to be used only by qualified hydraulic technicians for troubleshooting and analysis purposes. See Figure 4 for "P" port location.

WARNING: Be certain that the upper jaw is fully retracted before removing plug from "P" port. The upper jaw will retract immediately and load will drop if "P" port plug is removed while spreader is in use. High pressure oil leakage will also occur.

5.4 Lubrication

Periodically lubricate all pivot pins and linkages with grease. See Figure 5.

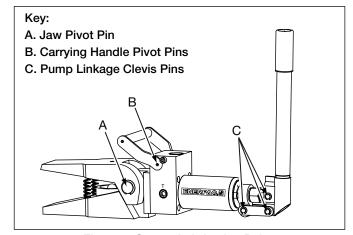


Figure 5, Grease Lubrication Points

6.0 STORAGE

- 1. Be sure the spreader is filled with oil.
- 2. Check that release valve is fully closed to avoid oil spillage and dirt entry. Also, check that plugs at "P" and "T" ports are tight.
- Store the spreader in a clean and dry location. Place a suitable covering over the spreader to protect it from dust and dirt.
- Operate the spreader at least once every 30 days to keep internal parts lubricated.

7.0 TROUBLESHOOTING

Allow only qualified hydraulic technicians to service the spreader and its components.

The troubleshooting chart is to be used only as an aid in determining if a problem exists. For repair service, contact your local Authorized Enerpac Service Center.

WARNING: Before performing any adjustments, repairs or maintenance, be sure that load is removed and upper jaw is fully retracted.

Troubleshooting Chart						
Problem	Possible Cause	Action				
Spreader will not lift load or lift performance is poor.	Release valve not tightly closed.	Tighten release valve.				
possession in process	Air trapped in spreader.	Remove air as described in Section 4.1.				
	Low oil level.	Add Enerpac HF oil as required.				
	Excessive load.	Reduce load. Spreader is rated for a maximum load of 3000 lbs [13.4 kN].				
	Internal leakage in spreader.	See Authorized Enerpac Service Center.				
2. Spreader will not hold load.	Release valve not tightly closed.	Tighten release valve.				
	Internal leakage in spreader.	See Authorized Enerpac Service Center.				
3. Spreader will not lower after	Release valve not fully open.	Check that release valve is fully open.				
unloading.	Spreader overfilled with oil.	Drain excess oil as required.				
	Jaw return springs weak or damaged.	Replace return springs.				
	Spreader hydraulic cylinder jammed.	See Authorized Enerpac Service Center.				
Handle effort decreases and upper jaw stops moving.	Pressure relief valve opening.	Reduce load. Spreader is rated for a maximum load of 3000 lbs [13.4 kN].				

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