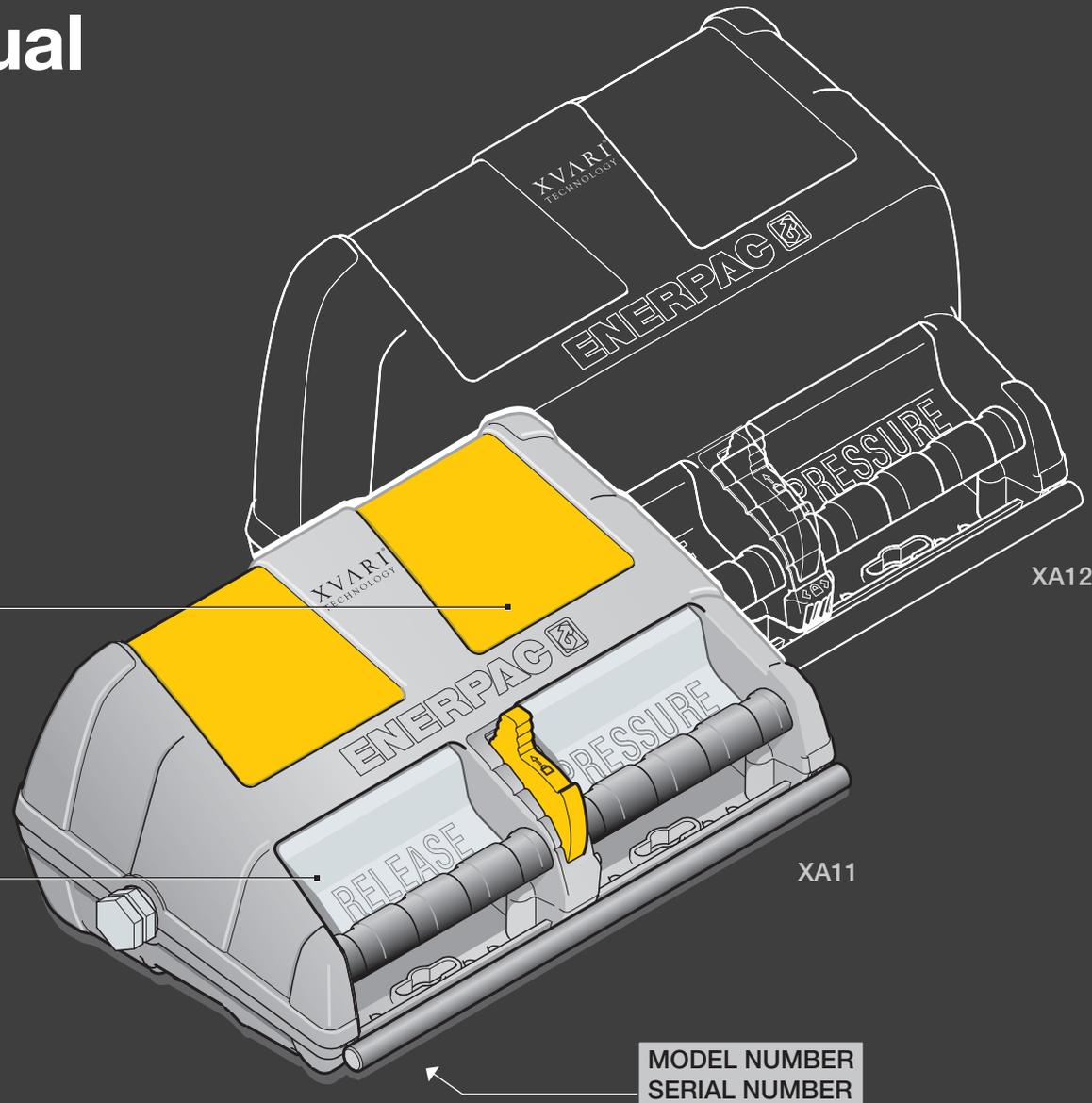


## Instruction manual

EN



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### 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 Issues / Safety first

Read all instructions, DANGER, WARNING and CAUTION paragraphs 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 information about an Enerpac Hydraulic safety course.

### DANGER

Danger icons are only used when your action or lack of action may cause serious injury or even death.



Never set the relief valve to a higher pressure than the maximum rated pressure of the pump. Higher settings may result in equipment damage or personal injury. Do not remove relief valve.



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

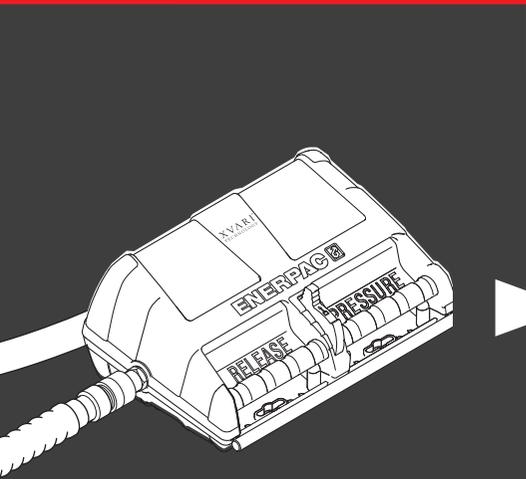


Do not handle pressurized hoses. Escaping oil under pressure can penetrate the skin, causing serious injury. If oil is injected under the skin, see a doctor immediately.

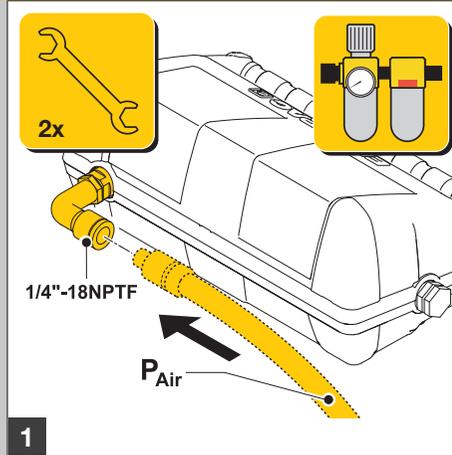
 <b>WARNING</b>	Indicates a potential danger that requires correct procedures or practices to avoid possible serious personal injury or death.
	Immediately replace worn or damaged parts by genuine ENERPAC parts. Non genuine Enerpac parts may break causing personal injury and property damage. ENERPAC parts are designed to fit properly and withstand high loads.
	Stay clear of loads supported by hydraulics. A cylinder, when used as a load lifting device, should never be used as a load holding device. After the load has been raised or lowered, it must always be blocked mechanically.
	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.
 	Use only rigid pieces to hold loads. Carefully select steel or wood blocks that are capable of supporting the load. Never use a hydraulic cylinder as a shim or spacer in any lifting or pressing application.
	Avoid situations where loads are not directly centered on the cylinder plunger. Off-center loads produce considerable strain on cylinders and plungers. In addition, the load may slip or fall, causing potential danger.
	The system operating pressure must not exceed the pressure rating of the lowest rated component in the system. Install pressure gauge in the system to monitor operating pressure. It is your window to see what is happening in the system.
	Do not exceed equipment ratings. Never attempt to lift a load weighing more than the capacity of the cylinder. Overloading causes equipment failure and possible personal injury. The cylinders are designed for a max. pressure of 700 bar/10,000 psi/70 MPa. Do not connect a jack or cylinder to a pump with a higher pressure rating.
	Wear proper personal protective gear when operating hydraulic equipment.
 	Be sure setup is stable before lifting load. Cylinders should be placed on a flat surface that can support the load. Where applicable, use a cylinder base plate for added stability. Do not weld or otherwise modify the cylinder to attach a base or other support.

 <b>CAUTION</b>	Is used to indicate correct operating or maintenance procedures and practices to prevent minor or moderate injury or damage to / destruction of equipment or other property.
	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.
	Distribute the load evenly across the entire saddle surface. Always use a saddle to protect the plunger.
	Do not lift hydraulic equipment by the hoses or swivel couplers. Use the carrying handle.
	Keep hydraulic equipment away from flames and heat. Excessive heat will soften packings and seals, resulting in fluid leaks. Heat also weakens hose materials and packings. For optimum performance do not expose equipment to temperatures of 65 °C [150 °F] or higher. Protect all hydraulic equipment from weld spatter.
	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.
 	Use of an air line lubricator is strongly recommended. Set the lubricator to provide one drop of oil per minute of continuous operation. Use a high quality air tool oil such as Mobil Almo 525, Shell Torcula 32 or equivalent.
	Do not connect a cylinder or tool to the pump with the plunger extended. Extra oil in the system will cause damage to the pump bladder.

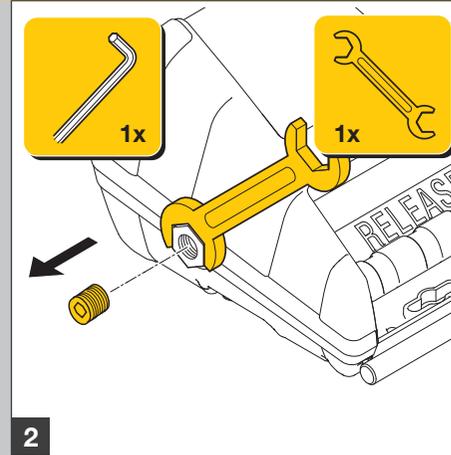
Failure to comply with the above or the following DANGER, WARNING and CAUTION paragraphs could cause equipment damage and personal injury.



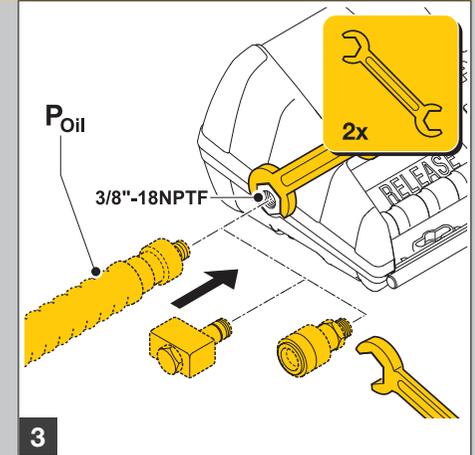
## XA



  1x  /minute  
Mobil Almo 525  
Shell Torcula 32

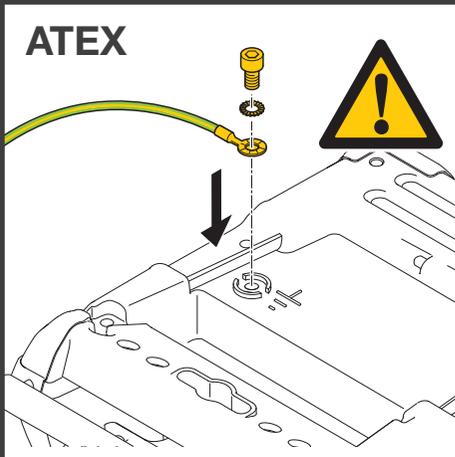


 5/16"

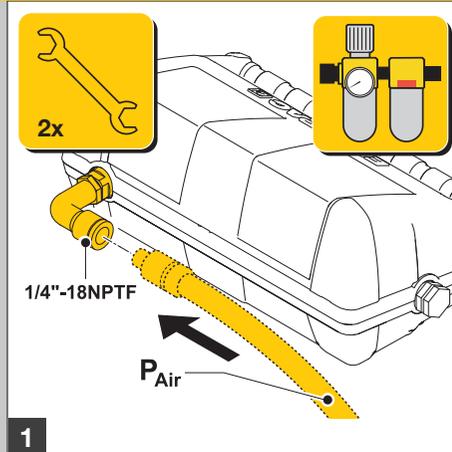


 88-102 Nm  
65-75 FT LBS

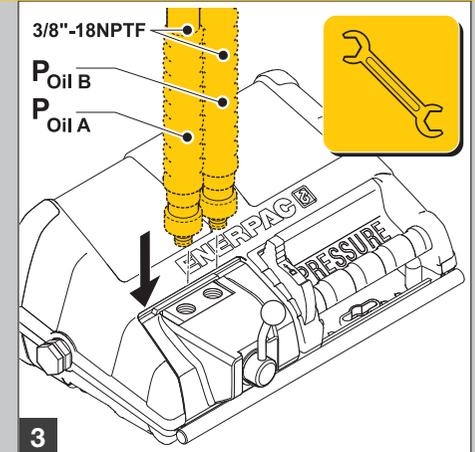
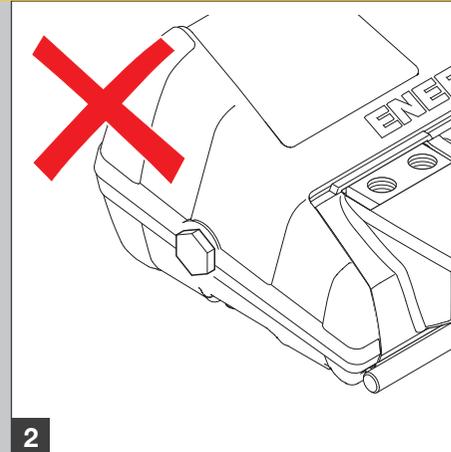
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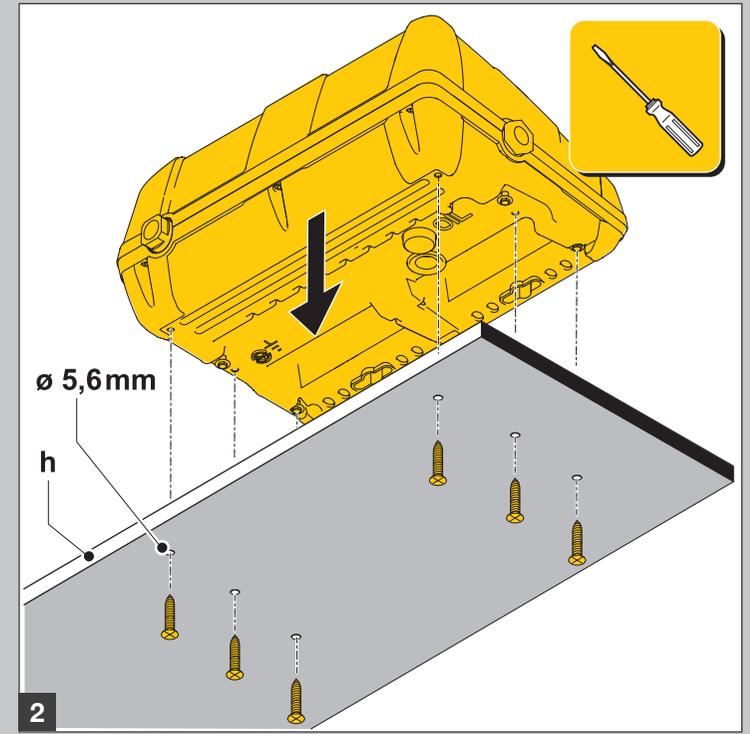
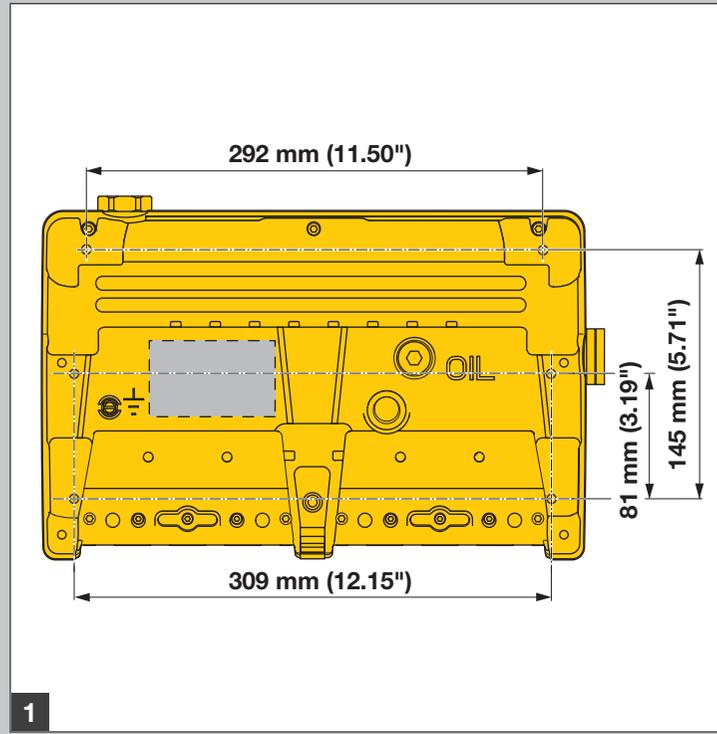
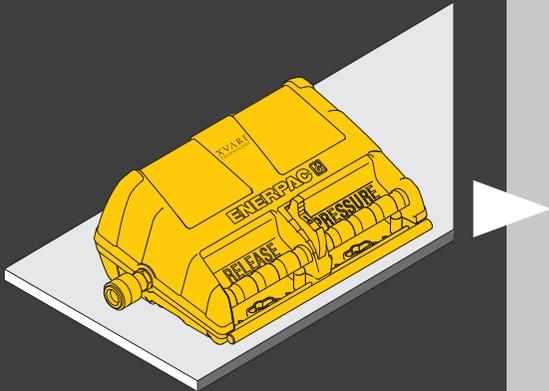




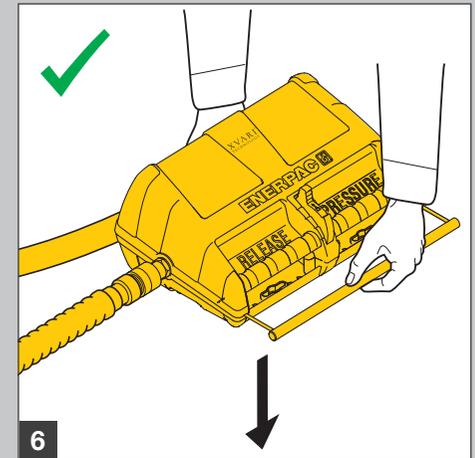
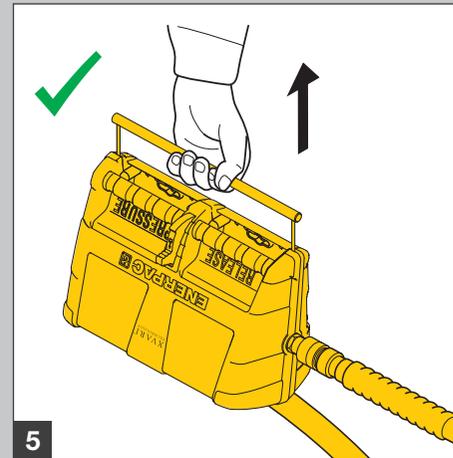
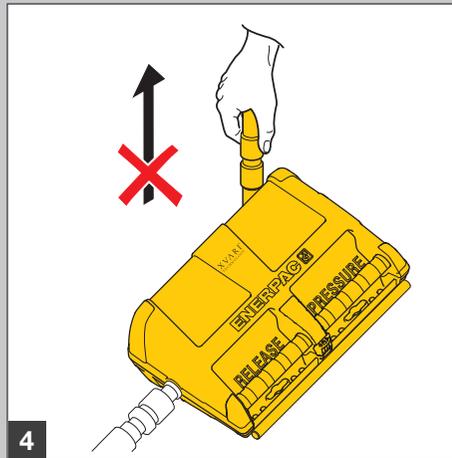
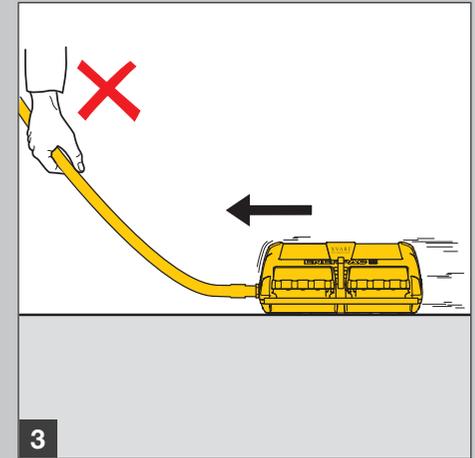
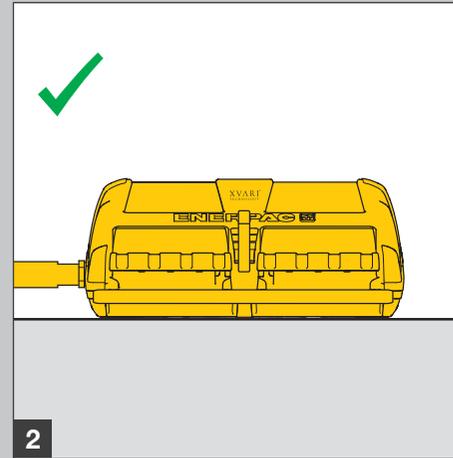
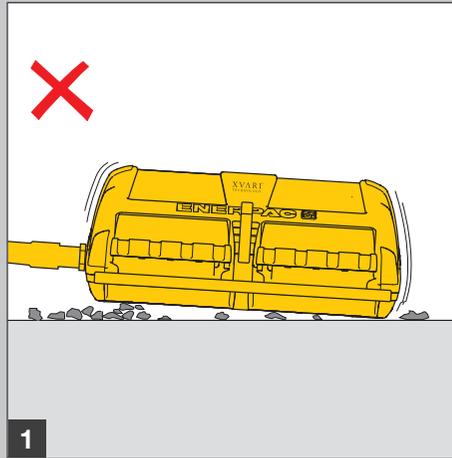
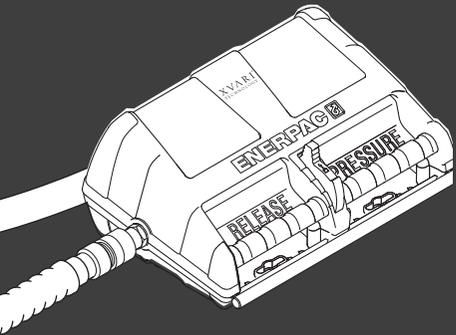
  1x  /minute  
Mobil Almo 525  
Shell Torcula 32

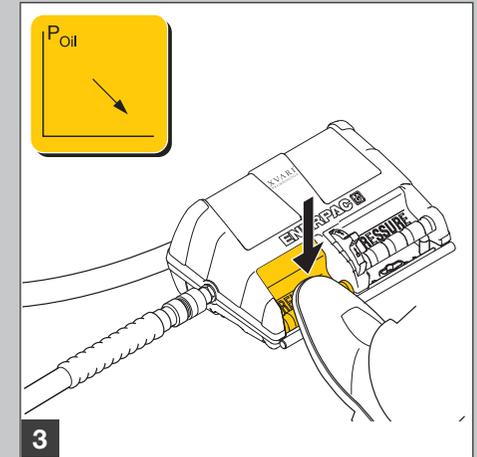
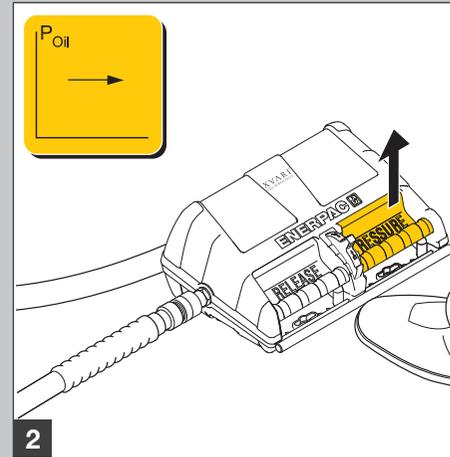
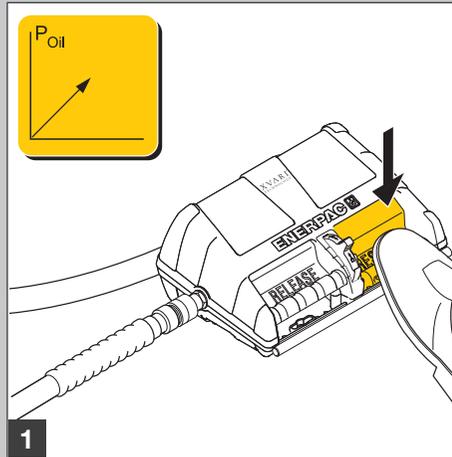
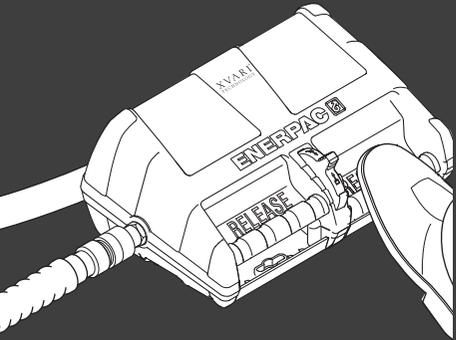


 88-102 Nm  
65-75 FT LBS



 L max. = h + 20 mm (.79")  
M5 selftapping  
#10-16 UN selftapping

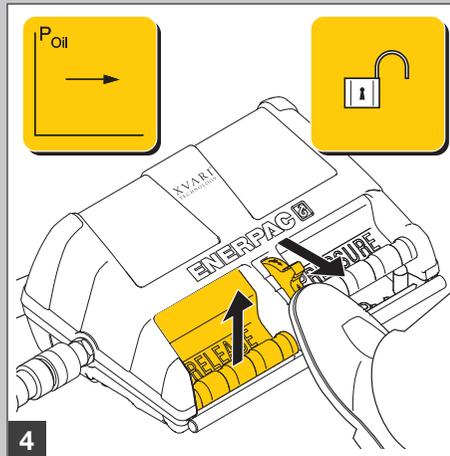
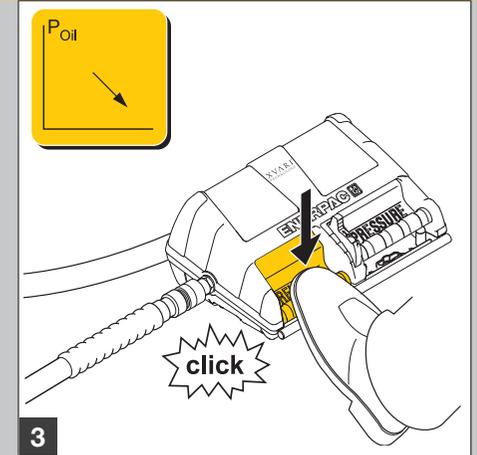
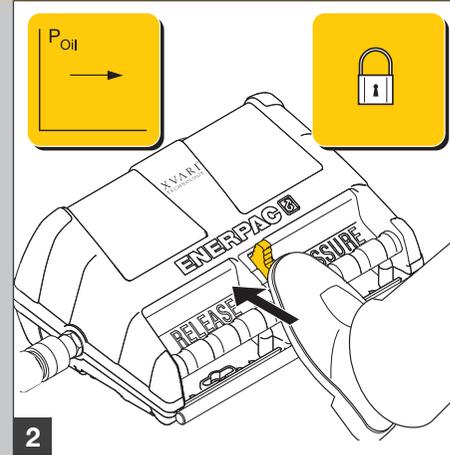
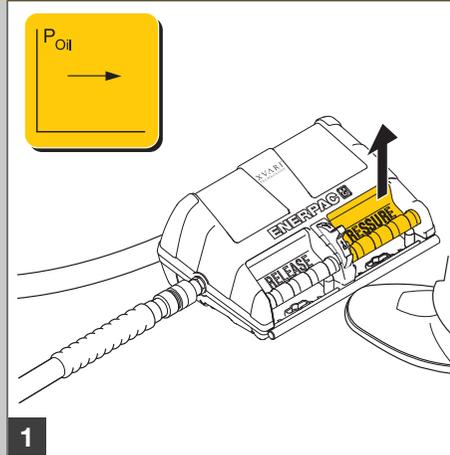
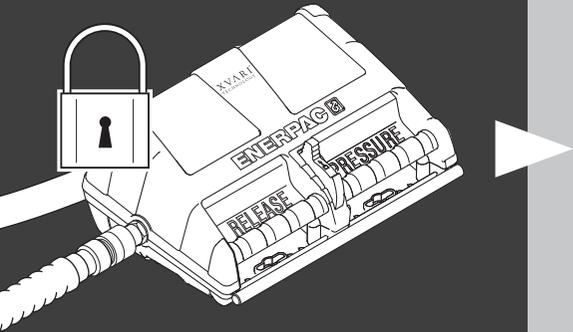




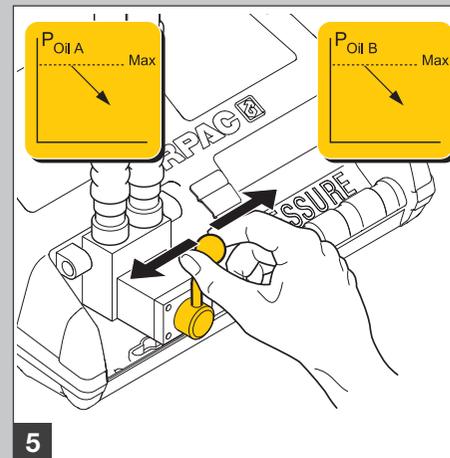
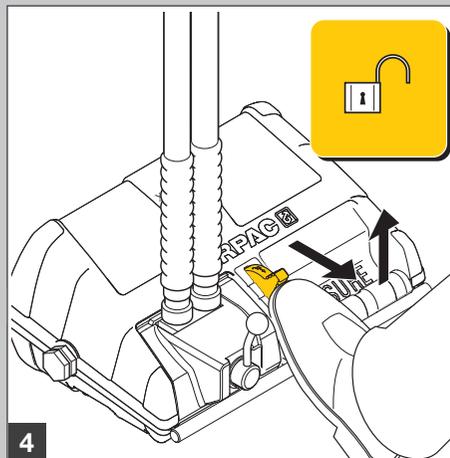
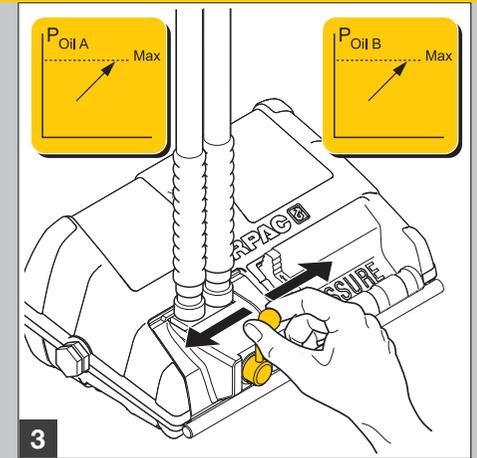
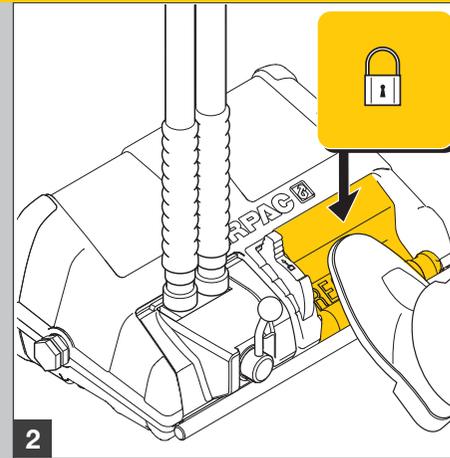
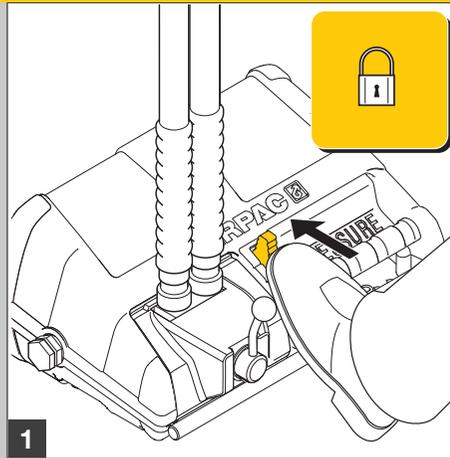
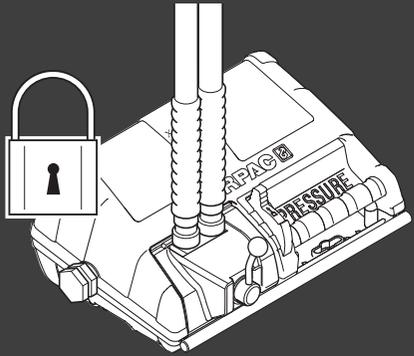
XVARI® Technology enables users to continuously and precisely control the amount of hydraulic oil flow in advance and retract mode and thereby the speed of the hydraulic cylinder or tool that the pump is powering. Specifically for jobs that require accurate load positioning, aligning and lowering, XVARI® Technology enables the user to better control the hydraulic application.

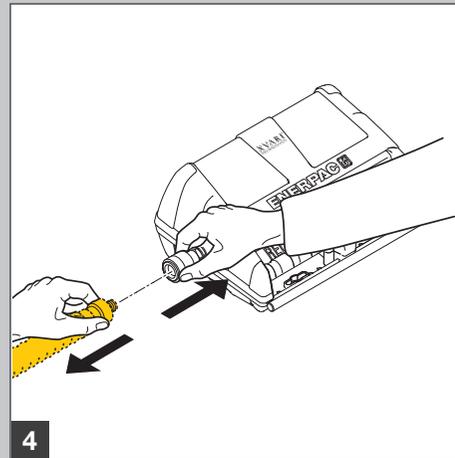
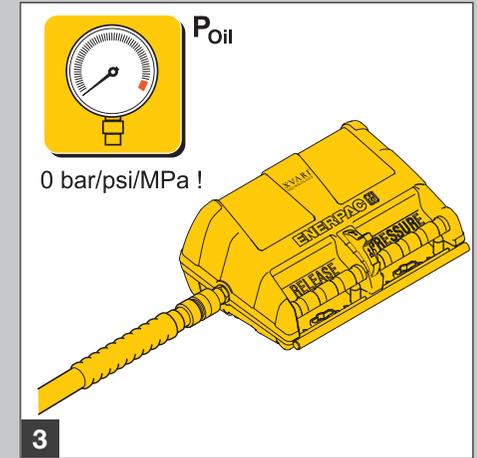
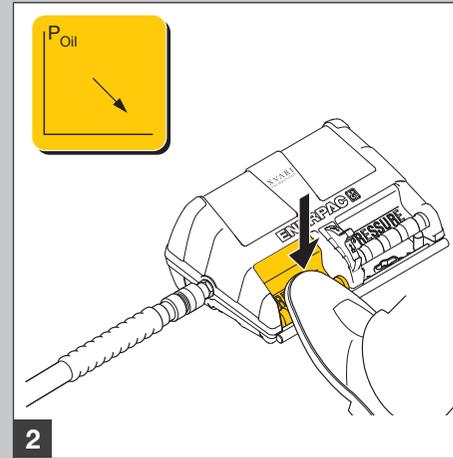
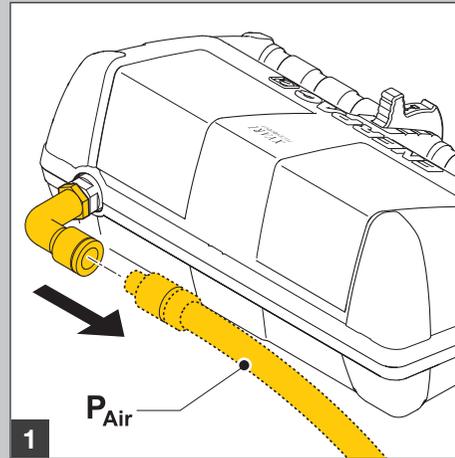
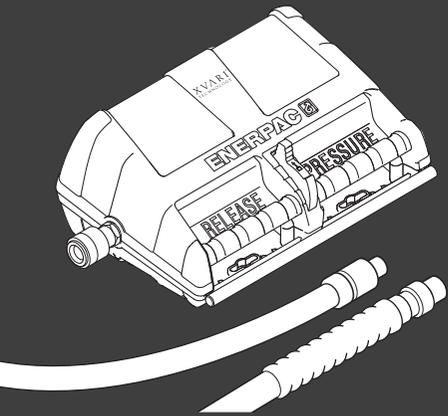
XVARI® Technology improves productivity, enhances process quality and makes the workplace safer.

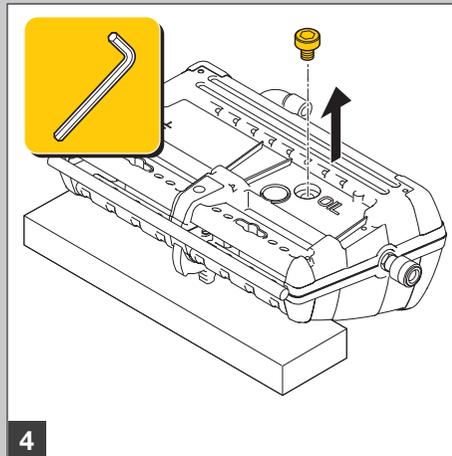
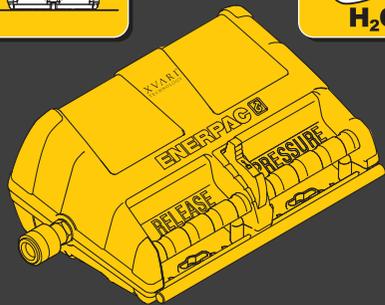
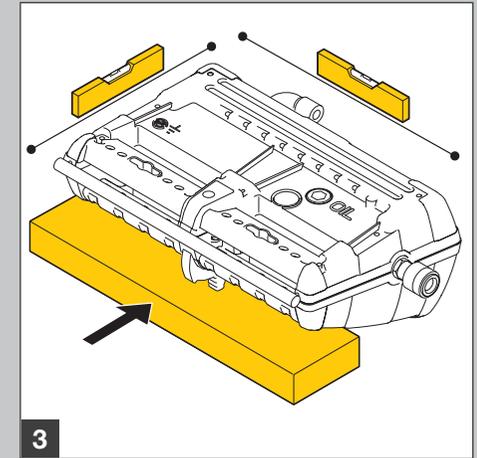
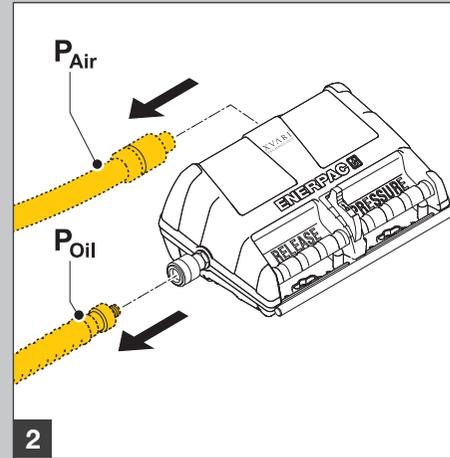
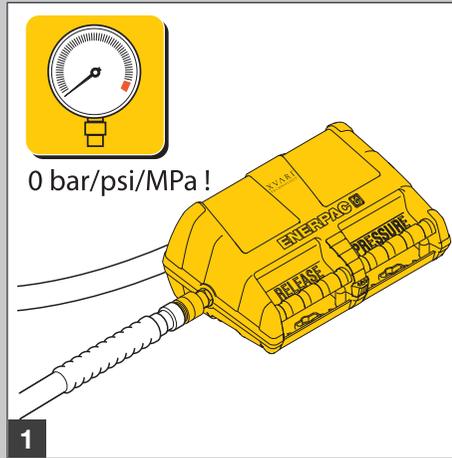
## XA / XA-V



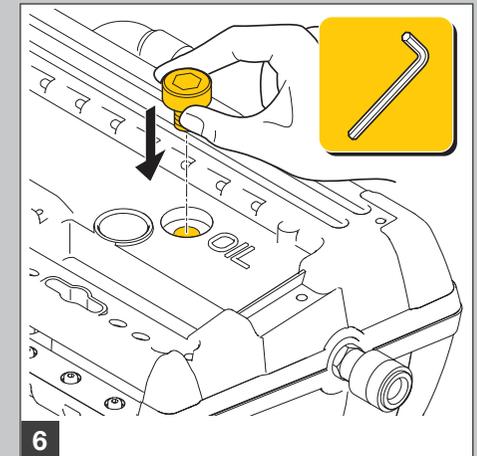
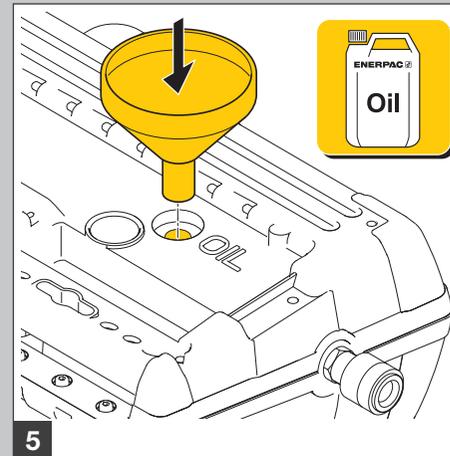
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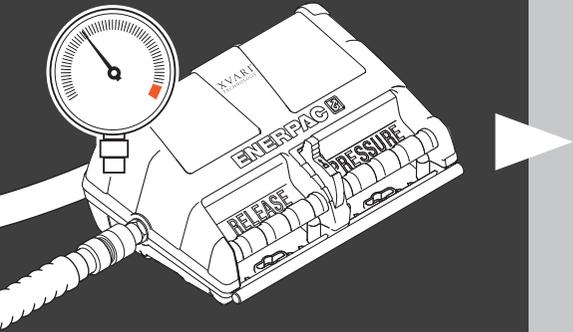




 8 mm



 8 mm



## Standard

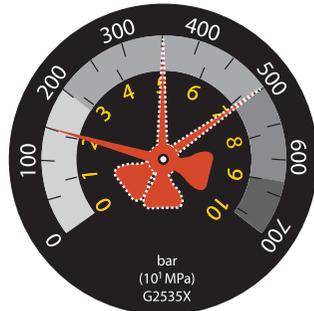
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1

## Adjusted

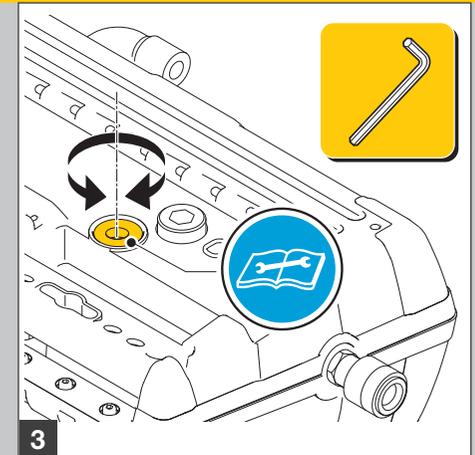
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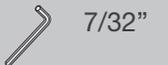
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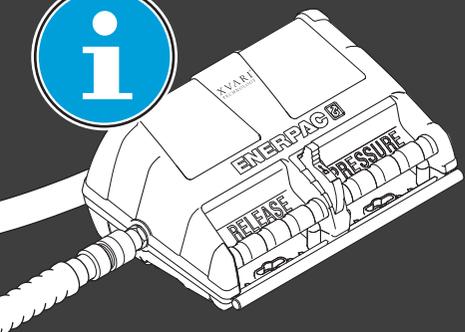


2



3

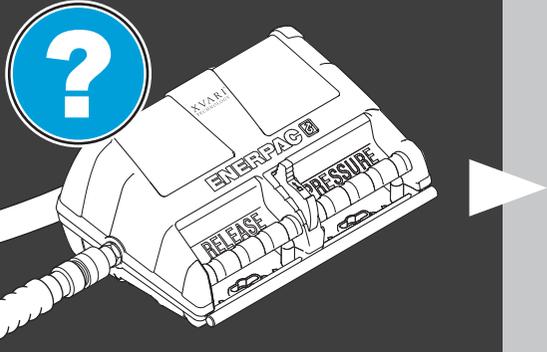




Used with cylinder	Usable oil capacity		Model Number <sup>(1)</sup>	Pressure Gauge	3-way 3-pos. Valve	4-way 3-pos. Valve	Weight		Model number <sup>(1)</sup>
	Litres	in <sup>3</sup>					kg	lbs	
Single acting	1,0	61	XA11	No	Yes	No	8,6	19.0	XA11
	2,0	122	XA12	No	Yes	No	10,2	22.4	XA12
Single acting	1,0	61	XA11G	Yes	Yes	No	8,8	19.4	XA11G
	2,0	122	XA12G	Yes	Yes	No	10,4	22.9	XA12G
Double acting	1,0	61	XA11V	No	No	Yes	10,1	22.3	XA11V
	2,0	122	XA12V	No	No	Yes	11,7	25.7	XA12V
Double acting	1,0	61	XA11VG	Yes	No	Yes	10,3	22.7	XA11VG
	2,0	122	XA12VG	Yes	No	Yes	11,9	26.2	XA12VG

<sup>(1)</sup> High-Flow coupler CR-400 must be ordered separately.

Maximum Pressure	Output Flow Rate @ 6,9 bar/100 psi/0,69 MPa		Pump Series	Valve function	Dynamic Air Pressure Range	Air Consumption
	No Load	Load				
700 bar	2,0 l/min.	0,25 l/min.	XA1	Adv./Hold/Retract	2,1 - 8,6 bar	283 - 991 l/min.
10.000 psi	120 in <sup>3</sup> /min.	15 in <sup>3</sup> /min.	XA1	Adv./Hold/Retract	30 - 125 psi	10 - 35 ft <sup>3</sup> /min.
70 MPa	2,0 l/min.	0,25 l/min.	XA1	Adv./Hold/Retract	0,21 - 0,86 MPa	283 - 991 l/min.



PROBLEM	POSSIBLE CAUSE	SOLUTION
Pump will not start	The air is turned off	Turn on air
	Too low air pressure	Increase air pressure
	The air line is blocked	Unblock air hose
	The air line leaks	Fix air leak
	Air motor malfunction	Contact Enerpac service center
	Object stuck under "Pressure" pedal	Clear pedal from foreign objects
	Low oil level	Replenish oil
	Prolonged storage	Lubricate air motor
	No lubrication of air motor	Lubricate air motor
Pump fails to build pressure	External leakage	Fix leak- Replace hose and/or actuator
	Internal leakage in pump	Contact Enerpac service center
	Low oil level	Replenish oil
	Object stuck under "Pressure" pedal	Clear pedal from foreign objects
	Pump malfunction	Contact Enerpac service center
Pump builds less than full pressure	Low air pressure	Increase air intake pressure
	Internal relief valve set low	Reset relief valve
	External system leak	Fix leak- Replace hose and/or actuator
	Internal leak in the system	Contact Enerpac service center
	Pump malfunction	Contact Enerpac service center
Pump builds pressure but load does not move	Load exceeds cylinder capacity	Use cylinder with higher capacity
	Hydraulic flow to cylinder is blocked	Check hydraulic hose
	Hydraulic coupler not tight	Tighten coupler
Pump does not hold pressure	External system leak	Fix leak- replace hose and/or cylinder
	Internal leak in the system	Contact Enerpac service center
Cylinder will not return	Object stuck under "Release" pedal	Clear pedal from foreign objects
	No load on a "load return" cylinder	Add "return" load on cylinder
	Return spring broken in cylinder	Change/repair cylinder
	Release valve malfunction	Contact Enerpac service center





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**Rev. B/02/2019**

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**Internet: [www.enerpac.com](http://www.enerpac.com)**

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