

L2437 Rev. O 11/99

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 SAFETY ISSUES



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

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.



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



WARNING: 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.



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



WARNING: 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 350 bar [5,000 psi]. Do not connect a jack or cylinder to a pump with a higher pressure rating.



Never set the relief valve to a higher pressure than the maximum rated pressure of the pump. Higher settings may result in equipment damage and/or personal injury.



WARNING: The system operating pressure must not exceed the pressure rating of the lowest rated component in the system. Install pressure gauges in the system to monitor operating pressure. It is your window to what is happening in the system.



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 hoses or swivel couplers. Use the carrying handle or other means of safe transport.



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. For optimum performance do not 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.



WARNING: 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.



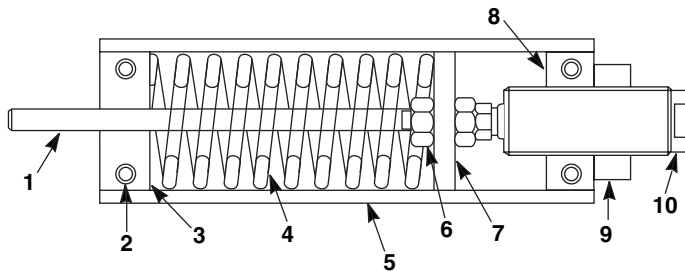
IMPORTANT: Hydraulic equipment must only be serviced by a qualified hydraulic technician. For repair service, contact the Authorized ENERPAC Service Center in your area. To protect your warranty, use only ENERPAC oil.



WARNING: Immediately replace worn or damaged parts by 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 PREPARATORY INSTRUCTIONS

1. Determine the hydraulic pressure of the fixture which the ACM-1 is going to be added on. The operating hydraulic pressure range is from 1,200-3,000 psi. If the hydraulic pressure is below 2,100 psi., loosen the hex nut (9) and turn the threaded cylinder (10) until the indicating rod (1) is extended 1/2" from the main housing (5). Then tighten the hex nut (9) to secure the threaded cylinder (10).
2. Use 1/8"-27 NPT connector to connect the ACM-1 to the hydraulic pressure line of the fixture. The ACM-1 can store as much as 0.124 cubic inches of fluid. Make sure that the power source can supply the extra volume of hydraulic fluid.
3. Measure and record the length of the indicating rod (1) above the housing (5). The indicating rod can be extended as much as 1/2". Turn the hydraulic system on. Measure and record the length of the indicating rod



(1) above housing (5) again. Subtract the first measurement from the second measurement and multiply the difference by 0.248 to give the volume of fluid reserved in cubic inches.

Note: For every .001" drop of the indicator, there is a loss of .00025 cubic inches of fluid and a drop of hydraulic pressure of 2 psi.

4.0 MAINTENANCE

4.1 To Disassemble the Unit

1. Clamp the ACM-1 in a vise on the end plates. Do not clamp on the indicating rod.



WARNING: The ACM-1 is assembled under spring pressure. Use caution when disassembling the end plates. Improper disassembly may result in serious personal injury and/or equipment damage.

2. Use a 3/16" pin to force out the spring pins (2) from the end plate (8).
3. Open the vise slowly to release the internal spring pressure.
4. Clean the disassembled parts with clean lint-free cloth. If changing the threaded cylinder, loosen the lock nut (9) and unscrew the cylinder.

4.2 To Assemble the Unit

1. Reverse the procedure from number 4 to 1 in section 4.1.

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