AMZCNC 10000Psi Two Way

AMZCNC Electric Hydraulic Pump User Manual

Model: 10000Psi Two Way

Safety Information Product Overview Setup Operating Instructions Maintenance Troubleshooting Specifications Warranty & Support

1. Safety Information

Read and understand all safety warnings and instructions before operating this electric hydraulic pump. Failure to follow these instructions may result in electric shock, fire, and/or serious injury.

- **Unit Ships Without Oil:** The hydraulic pump unit is shipped without hydraulic fluid. It is critical to fill the unit with the appropriate hydraulic oil (AW-15# to 46#) before first use.
- **Do Not Start Before Refueling:** Operating the pump without sufficient hydraulic fluid will cause severe damage to the pump and void the warranty. Ensure the oil level is above half of the oil level observation window.
- **Electrical Safety:** Ensure the power supply matches the pump's requirements (110V/120V, 60Hz). Always use a grounded outlet. Disconnect power before performing any maintenance or adjustments.
- **Hydraulic Pressure:** This pump generates up to 10,000 Psi (10k psi) of pressure. Always use hydraulic hoses and components rated for this pressure. Never exceed the maximum rated pressure of your hydraulic system.
- **Personal Protective Equipment (PPE):** Wear appropriate safety glasses, gloves, and protective clothing when operating or maintaining the pump.
- **Work Area:** Operate the pump in a clean, well-lit, and dry area. Keep children and bystanders away.



Figure 1.1: Illustration of filling the hydraulic pump with oil. The unit ships without oil and must be filled with AW-15# to 46# hydraulic oil before operation. Ensure the oil level is visible in the observation window.

2. Product Overview

The AMZCNC Two Way Electric Hydraulic Pump is a robust power pack unit designed for various industrial applications requiring high hydraulic pressure. It features a two-stage flow rate system for efficient operation and a durable steel construction.

2.1 Key Features

- **Powerful Motor:** 1.2 HP, 110V/120V, 11.5A, 60HZ electric motor.
- **Two-Way Valve Action:** Allows for both extending and retracting hydraulic cylinders.
- **High Pressure Output:** Maximum hydraulic pressure of 10,000 Psi.
- **Two-Stage Flow Rate:**
  - 1st Stage: 1.32 US Gallon/Min (up to 290 Psi)
  - 2nd Stage: 0.185 US Gallon/Min (up to 10,000 Psi)
- **Large Hydraulic Fluid Capacity:** 2.11 US Gallons.
- **Efficient Operation:** Two-speed operation significantly reduces pump time compared to single-speed versions.
- **Durable Construction:** All steel tank and chassis designed for tough industrial environments.
- **Included Hoses:** Two 6-foot hydraulic hoses with 3/8" NPTF x CH-604 fittings.

2.2 Components



Figure 2.1: Front view of the AMZCNC Two Way Electric Hydraulic Pump, showing the main unit, pressure gauge, and valve controls.



Figure 2.2: Dimensions of the hydraulic pump, indicating a height of 20.27 inches, width of 8.2 inches, and depth of 11.2 inches.



Figure 2.3: The hydraulic pump shown with its accessories, including two 6-foot hydraulic hoses and the foot pedal controller.



Figure 2.4: Detailed view of the shockproof pressure gauge, which provides accurate and clear readings, and the 3/8" NPT standard thread for secure hose connections.



Figure 2.5: Close-up of the 6-foot control cord with a US standard grounding plug and the 1/4" ID x 6 ft 10000psi high-pressure hydraulic hoses with CH-604 Coupler 3/8".

3. Setup

1. **Unpacking:** Carefully remove the hydraulic pump and all accessories from the packaging. Inspect for any shipping damage.
2. **Placement:** Place the pump on a stable, level, and dry surface. Ensure adequate ventilation around the unit.
3. **Fill with Hydraulic Oil:** As the unit ships without oil, fill the reservoir with approximately 2.11 US Gallons of AW-15# to 46# hydraulic oil. Monitor the oil level observation window to ensure the fluid level is above half. *Do not operate the pump without sufficient oil.*
4. **Connect Hydraulic Hoses:** Connect the two 6-foot hydraulic hoses (3/8" NPTF x CH-604 fittings) to the pump's hydraulic ports. Ensure connections are tight and secure to prevent leaks. Connect the other ends of the hoses to your hydraulic cylinder or tool.
5. **Connect Power:** Plug the 6-foot US standard grounding plug into a compatible 110V/120V, 60Hz grounded electrical outlet.

4. Operating Instructions

The AMZCNC hydraulic pump features a two-way valve action and a two-speed operation for efficient and controlled hydraulic power.

1. **Pre-Operation Check:** Before each use, verify the hydraulic oil level, check all hose connections for leaks, and ensure the power cord is in good condition.
2. **Power On:** Turn on the main power switch on the pump unit.
3. **Controlling the Pump:** Use the foot pedal controller to operate the pump.
    - Pressing one side of the pedal will activate the pump to extend the hydraulic cylinder.
    - Pressing the other side of the pedal will activate the pump to retract the hydraulic cylinder.
    - Release the pedal to stop the pump.
4. **Two-Stage Operation:** The pump automatically switches between its two stages based on pressure demand:
    - The 1st stage provides a high flow rate (1.32 US Gallon/Min) for rapid initial movement up to 290 Psi.
    - The 2nd stage provides a lower flow rate (0.185 US Gallon/Min) but generates high pressure (up to 10,000 Psi) for heavy lifting or pressing applications. This two-speed operation significantly reduces overall pump time.
5. **Monitoring Pressure:** Observe the shockproof pressure gauge during operation to ensure the pressure does not exceed the rated capacity of your hydraulic system or the pump's maximum of 10,000 Psi.
6. **Shut Down:** After use, release the foot pedal, turn off the main power switch, and disconnect the pump from the power outlet.

5. Maintenance

Regular maintenance ensures the longevity and optimal performance of your AMZCNC hydraulic pump.

- **Hydraulic Fluid Level:** Check the hydraulic fluid level regularly, especially before each major operation. Refill with AW-15# to 46# hydraulic oil as needed.
- **Fluid Replacement:** Replace the hydraulic fluid periodically, typically every 1000 hours of operation or annually, whichever comes first. Consult a qualified technician if unsure.
- **Bleeding the System:** If the pump's performance degrades or it makes unusual noises, air may be trapped in the hydraulic system. Bleed the air out of the system by cycling the cylinder without load several times, allowing air bubbles to return to the reservoir.

- **Hose and Connection Inspection:** Regularly inspect hydraulic hoses for signs of wear, cracks, or leaks. Ensure all fittings are tight and secure. Replace damaged hoses immediately.
- **Cleaning:** Keep the pump unit clean and free from dirt, dust, and debris. Wipe down the exterior with a clean, dry cloth. Avoid using harsh chemicals.
- **Storage:** When not in use, store the pump in a dry, clean environment, protected from extreme temperatures and moisture.

6. Troubleshooting

This section provides solutions to common issues you might encounter with your hydraulic pump.

Problem	Possible Cause	Solution
Pump does not start or operate.	• No power supply. • Power switch off. • Faulty power cord or plug.	• Check power outlet and circuit breaker. • Ensure main power switch is ON. • Inspect power cord; replace if damaged.
Low or no hydraulic pressure.	• Insufficient hydraulic fluid. • Air in the hydraulic system. • Leaking hoses or fittings. • Relief valve setting incorrect. • Pump malfunction.	• Check and refill hydraulic fluid. • Bleed the hydraulic system (cycle cylinder without load). • Inspect all connections and hoses for leaks; tighten or replace as needed. • Consult a qualified technician for relief valve adjustment or pump repair.
Pump makes unusual noises.	• Air in the system (cavitation). • Low hydraulic fluid. • Internal pump issue.	• Bleed the hydraulic system. • Check and refill hydraulic fluid. • Contact customer support for further diagnosis.
Hoses do not connect properly.	• Incorrect hose fittings. • Damaged threads on pump or hose.	• Ensure you are using the correct 3/8" NPTF x CH-604 fittings. • Inspect threads for damage; if damaged, contact customer support for replacement parts.

7. Specifications

Attribute	Value
Model	10000Psi Two Way

Attribute	Value
Motor Horsepower	1.2 HP
Voltage	110V/120V
Amperage	11.5A
Frequency	60HZ
Valve Action	Two Way
Max Hydraulic Pressure	10,000 Psi
Flow Rate (1st Stage)	1.32 US Gallon/Min (290 Psi)
Flow Rate (2nd Stage)	0.185 US Gallon/Min (10,000 Psi)
Hydraulic Fluid Capacity	2.11 US Gallon
Item Weight	65.9 pounds
Package Dimensions	18.5 x 14.37 x 10.8 inches
Material	Steel
Hose Length	6 Feet (x2)

8. Warranty & Support

For specific warranty information regarding your AMZCNC Electric Hydraulic Pump, please refer to the documentation provided with your purchase or contact AMZCNC directly. Warranty terms typically cover manufacturing defects for a specified period from the date of purchase.

For technical support, replacement parts, or any inquiries not covered in this manual, please contact AMZCNC customer service. You can often find contact information on the manufacturer's official website or through the retailer where the product was purchased.

Visit the official AMZCNC store for more information:**AMZCNC Store**

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