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› OEMTOOLS 24470 Rotary Barrel Pump User Manual

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Model: **24470**

For Water-Based Solutions and Petroleum Products

1. INTRODUCTION

This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your OEMTOOLS 24470 Rotary Barrel Pump. Please read this manual thoroughly before initial use to ensure proper handling and to prevent damage or injury.

The OEMTOOLS 24470 Rotary Barrel Pump is a hand-operated pump designed for transferring various liquids from drums. Its construction with a polypropylene body, Ryton (PPS polyphenylene sulfide) rotor, and vanes provides resistance to a range of chemicals. It is suitable for water-based chemicals, acid, alkalis, salt solutions, some organic solvents, water, and all petroleum products. It is also compatible with most organic acids, waxes, plating solutions, detergents, and water-soluble inorganic chemicals.





Figure 1: The OEMTOOLS 24470 Rotary Barrel Pump, a hand-operated pump designed for efficient liquid transfer.

2. SAFETY INFORMATION

WARNING: Always wear appropriate personal protective equipment (PPE) such as safety glasses, gloves, and chemical-resistant clothing when operating this pump, especially when handling hazardous materials.

- Do not use this pump with nitric acid or gasoline.
- Always verify the compatibility of the pump's materials with the liquid being pumped. Incompatible liquids can damage the pump and create hazardous conditions.

- Ensure the drum is stable and secured before pumping to prevent tipping.
- Do not overfill containers.
- Keep hands and clothing clear of moving parts during operation.
- Store the pump in a clean, dry place away from direct sunlight and extreme temperatures.
- This pump is intended strictly for use in professional and industrial environments.

3. PARTS LIST

Before assembly, ensure all components are present and undamaged.



Figure 2: Exploded view of the OEMTOOLS 24470 Rotary Barrel Pump components, including the pump body, handle, suction tubes, and spout.

1. Pump Body with Rotary Mechanism
2. Hand Crank Handle
3. Suction Tube Sections (typically 3 sections)
4. Discharge Spout (3/4" outlet)

5. Bung Adapter (1.25" and 2" NPT compatible)
6. Tube Clamp
7. PTFE Thread Seal Tape (for connections)

4. SETUP AND ASSEMBLY

Follow these steps to assemble and install your rotary barrel pump.

1. **Assemble Suction Tube:** Thread the suction tube sections together. The total length of the suction tube is 42 inches. Ensure connections are tight.
2. **Attach Pump Body:** Thread the assembled suction tube into the bottom of the pump body. Apply PTFE thread seal tape to ensure a leak-free connection.
3. **Attach Handle:** Secure the hand crank handle to the rotary mechanism on the pump body using the provided bolt and nut. Ensure it rotates freely.
4. **Attach Discharge Spout:** Thread the discharge spout onto the outlet of the pump body. Use PTFE thread seal tape for a secure seal.
5. **Install Bung Adapter:** Select the appropriate bung adapter (1.25" or 2" NPT) for your drum. Thread the pump assembly into the drum's bung opening.

FITS 15, 30 AND 55 GALLON DRUMS WITH 1.25" AND 2" NPT BUNG



Figure 3: Close-up view of the bung adapter, designed to fit 15, 30, and 55 gallon drums with 1.25" and 2" NPT bung fittings.

6. **Secure Pump:** Use the tube clamp to secure the pump to the drum, if desired, for added stability.

5. OPERATING INSTRUCTIONS

Once assembled and installed, the pump is ready for operation.

1. **Prepare Drum and Receiving Container:** Ensure the drum containing the liquid is stable. Place the receiving

container below the discharge spout.

2. **Prime the Pump (if necessary):** For initial use or after extended storage, it may be necessary to prime the pump by pouring a small amount of the liquid into the discharge spout to create a seal.
3. **Begin Pumping:** Rotate the hand crank handle clockwise steadily. The pump is designed to transfer material at approximately 10 ounces per stroke, achieving 6.5 gallons per minute at 70 revolutions per minute.



Figure 4: Illustration of the hand-operated pump in action, showing the rotational movement of the handle and indicating a transfer rate of 11 ounces per stroke.

WITHSTANDS TEMPERATURES UP TO 130°F



Figure 5: A user demonstrating the operation of the rotary barrel pump, highlighting the manual cranking action.

4. **Monitor Flow:** Continue rotating the handle until the desired amount of liquid is transferred. The pump can handle liquids with temperatures up to 130 degrees Fahrenheit.
5. **Stop Pumping:** Stop rotating the handle once transfer is complete. Allow any remaining liquid in the spout to drain.

6. MAINTENANCE

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

- **Cleaning:** After each use, especially when transferring different types of liquids, flush the pump with a compatible cleaning solution or water to prevent residue buildup and cross-contamination.
- **Inspection:** Periodically inspect all connections, the handle, and the pump body for any signs of wear, cracks, or damage. Replace worn or damaged parts immediately.
- **Storage:** Store the pump in a clean, dry environment. If storing for an extended period, ensure it is thoroughly cleaned and dried.

7. TROUBLESHOOTING

Refer to this section for common issues and their solutions.

Problem	Possible Cause	Solution
Pump not priming or no flow	• Air leak in connections • Suction tube not fully submerged • Pump not primed • Debris in pump mechanism	• Check and tighten all connections, apply more PTFE tape if needed. • Ensure suction tube reaches liquid level. • Pour small amount of liquid into spout to prime. • Disassemble and clean pump mechanism.
Reduced flow rate	• Partial blockage • Worn rotor or vanes	• Clean pump and suction tube. • Inspect and replace rotor/vanes if worn.
Liquid leaking from connections	• Loose connections • Insufficient thread seal tape • Damaged threads	• Tighten connections. • Reapply PTFE tape generously. • Inspect threads for damage; replace part if necessary.

8. SPECIFICATIONS

Technical details for the OEMTOOLS 24470 Rotary Barrel Pump.

**CONSTRUCTED WITH A POLYPROPYLENE BODY,
RYTON (PPS POLYPHENYLENE SULFIDE) ROTOR,
AND VANES FOR RESISTANCE TO CHEMICALS**



Figure 6: The OEMTOOLS 24470 Rotary Barrel Pump, illustrating its construction materials and approximate height of 52.25 inches when fully assembled.

Feature	Detail
Model Number	24470

Feature	Detail
Pump Type	Rotary Hand Pump
Body Material	Polypropylene
Rotor/Vane Material	Ryton (PPS polyphenylene sulfide)
Capacity per Revolution	300 CC (approx. 10 ounces per stroke)
Flow Rate	Up to 6.5 gallons per minute (at 70 RPM)
Max. Liquid Temperature	130°F (54°C)
Suction Tube Length	42 inches
Suction Tube Diameter	1 inch
Inlet Connection Size	1.25 inches
Outlet Connection Size	0.75 inches
Bung Adapter Compatibility	1.25" and 2" NPT
Applicable Drum Sizes	15, 20, 30, and 55 Gallon
Item Weight	4.84 pounds (2.2 kg)
Product Dimensions (L x W x H)	14.9 x 8.5 x 6.5 inches

9. WARRANTY AND SUPPORT

For warranty information or technical support, please contact OEMTOOLS customer service. Keep your purchase receipt as proof of purchase.

OEMTOOLS Customer Service: Refer to the official OEMTOOLS website or product packaging for the most current contact information.

Online Resources: Visit the [OEMTOOLS Store on Amazon](#) for additional product information and support.