## The ROP Shop RMW22G24-EZ

# The ROP Shop AR Annovi Reverberi RMW 2.2G24 EZ Pressure Washer Pump Instruction Manual

Model: RMW22G24-EZ



## 1. Introduction

This manual provides detailed instructions for the proper setup, installation, operation, and maintenance of your The ROP Shop AR Annovi Reverberi RMW 2.2G24 EZ Pressure Washer Pump. Please read all instructions carefully before use to ensure safe and efficient operation.

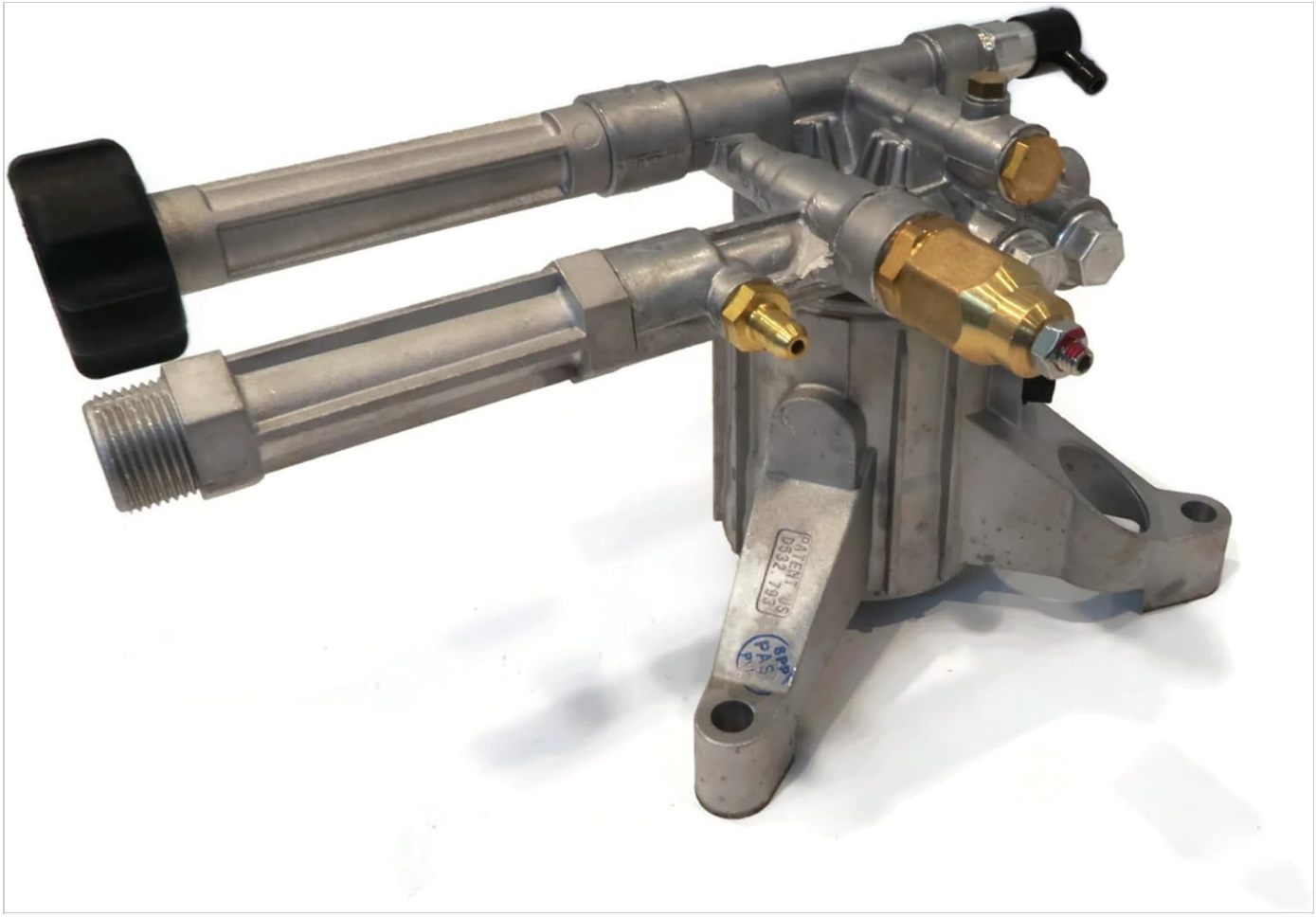

Image 1: The ROP Shop AR Annovi Reverberi RMW 2.2G24 EZ Pressure Washer Pump.

## 2. Setup

### 2.1 Tools Required

Before beginning the installation, gather the following tools:

- Correct size wrench for pump bolts.
- Correct size Allen wrench for set screws (if applicable).
- Blue threadlocker.
- Anti-seize compound.
- Cleaning solvent and rag.

Image 2: Essential tools for pump installation, including wrenches, threadlocker, and anti-seize.

### 2.2 Preparation

1. **Disconnect Spark Plug:** To prevent accidental starting, disconnect the spark plug wire from the engine.
2. **Positioning:** For vertical engine units (under-mounted pressure washers), it is recommended to perform pump removal and installation with the pressure washer in an upright position. Avoid laying the unit on its back to prevent oil pooling and potential leakage. If tilting is necessary, be aware of oil levels and potential spill points.
3. **Secure Unit:** Ensure the pressure washer is in a firm, stationary position to prevent damage to the unit, pump, or personal injury during the process.

Your browser does not support the video tag.

Video 1: Detailed instructions on how to install the pressure washer pump, including preparation steps.

## 3. Installation

### 3.1 Removing the Old Pump

1. **Remove Bolts:** Use the correct size wrench to remove the bolts attaching the old pump to the engine.
2. **Check for Set Screw:** Some pumps, especially those with a 7/8" shaft that originally had a strap-style pump, may have an additional set screw securing the pump to the engine shaft.
    - To access, gently pull the recoil start cable until the set screw moves into view through an access opening near the shaft.
    - Use the correct size Allen wrench to remove the set screw.
    - If the set screw falls into the housing, it can be retrieved once the pump is removed.
3. **Remove Pump:** Carefully slide the pump off the engine shaft. If it is difficult to remove due to corrosion, avoid excessive force. Some pumps have threaded holes on their base that can be used with bolts to gently separate the pump from the shaft. If no threaded holes are present, a pry bar may be used with caution to avoid damage.

### 3.2 Preparing for New Pump Installation

1. **Clean Shaft:** Clean the engine shaft thoroughly with a rag sprayed with cleaning solvent. Ensure the solvent does not directly contact the oil seal.
2. **Apply Anti-Seize:** Apply anti-seize compound to the shaft and keyway to prevent future corrosion and ease future removal.
3. **Install Keyway:** Place the keyway into its slot on the engine shaft. Do not install the pump without a keyway, as this will cause the shaft to spin freely or catch sporadically, potentially damaging the pump. You can put a small dent in one side of the keyway to help it wedge into place and prevent it from falling out. Do not use glue or adhesive.

### 3.3 Mounting the New Pump

1. **Align Pump:** Line up the new pump with the bolt holes on the engine. Ensure the water inlet and outlet are facing the desired direction.
2. **Align Keyway Slot:** Ensure the keyway slot inside the pump is facing you, matching the keyway on the shaft. You may need to gently turn the pump shaft allowance by hand or with a wrench (carefully, to avoid marring) to align it.
3. **Slide Pump On:** Carefully slide the pump onto the engine shaft. This may require several attempts to align the keyway on the pump with the key on the shaft.
4. **Hand-Tighten Bolts:** Once the pump is in place, use your fingers to hand-tighten the bolts. You can reuse original bolts if they are in good condition.
5. **Check for Spacers:** Dry fit the pump without the keyway. Check each leg of the pump. If there is any gap between the pump and the engine block, or if a metal ring hits the bottom of the pump's flange, spacers are needed. Use the same thickness and quantity of spacers for each bolt tab.
6. **Apply Threadlocker:** Apply blue threadlocker liquid to the non-threaded parts of the bolts to help prevent them from loosening due to vibration.
7. **Tighten Bolts:** Use a wrench to tighten down the bolts. To ensure even tightening, follow a cross-pattern similar to tightening lug nuts on a car tire. After tightening one bolt, tighten the bolt on the opposite side next.
8. **Reinstall Set Screw:** If your unit uses a set screw, reinstall it.
9. **Reconnect Spark Plug:** Reattach the spark plug cable.


Image 3: Guide for identifying engine shaft size and orientation, crucial for correct pump selection and installation.

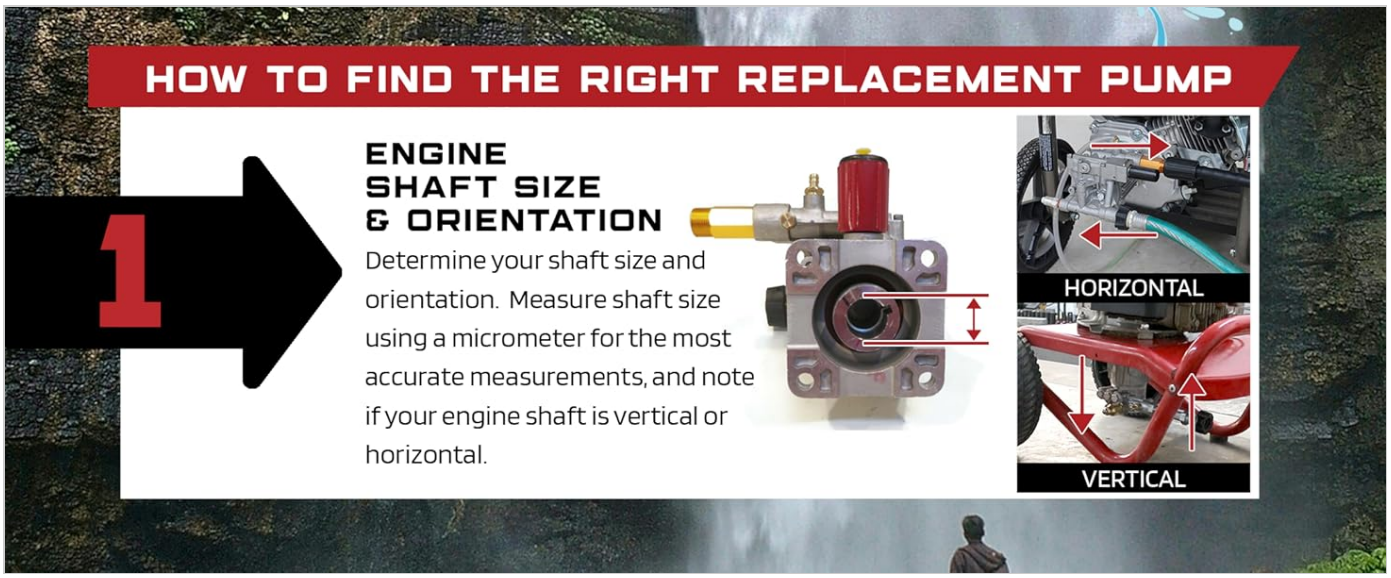


Image 4: Illustration of various bolt patterns for pressure washer pumps, aiding in proper alignment.


Image 5: Visual comparison of front-facing and rear-facing water inlets/outlets on pressure washer pumps.

## 4. Operating Instructions

### 4.1 Initial Start-up

Before starting the pressure washer, ensure all connections are secure and the water supply is connected and turned on. Do not run the pressure washer pump without water, as this can destroy the bearings.

### 4.2 Pump Features

- **Maximum Pressure:** 2400 PSI
- **Maximum Flow:** 2.2 GPM
- **Maximum Pump Speed:** 3400 RPM
- **Shaft Size:** 7/8" Vertical Shaft
- **Maximum Fluid Temperature:** 140° F

- **Inlet Type:** 3/4" GHA
- **Outlet Type:** 22mm x 14mm
- **Oil Capacity:** 2.2oz

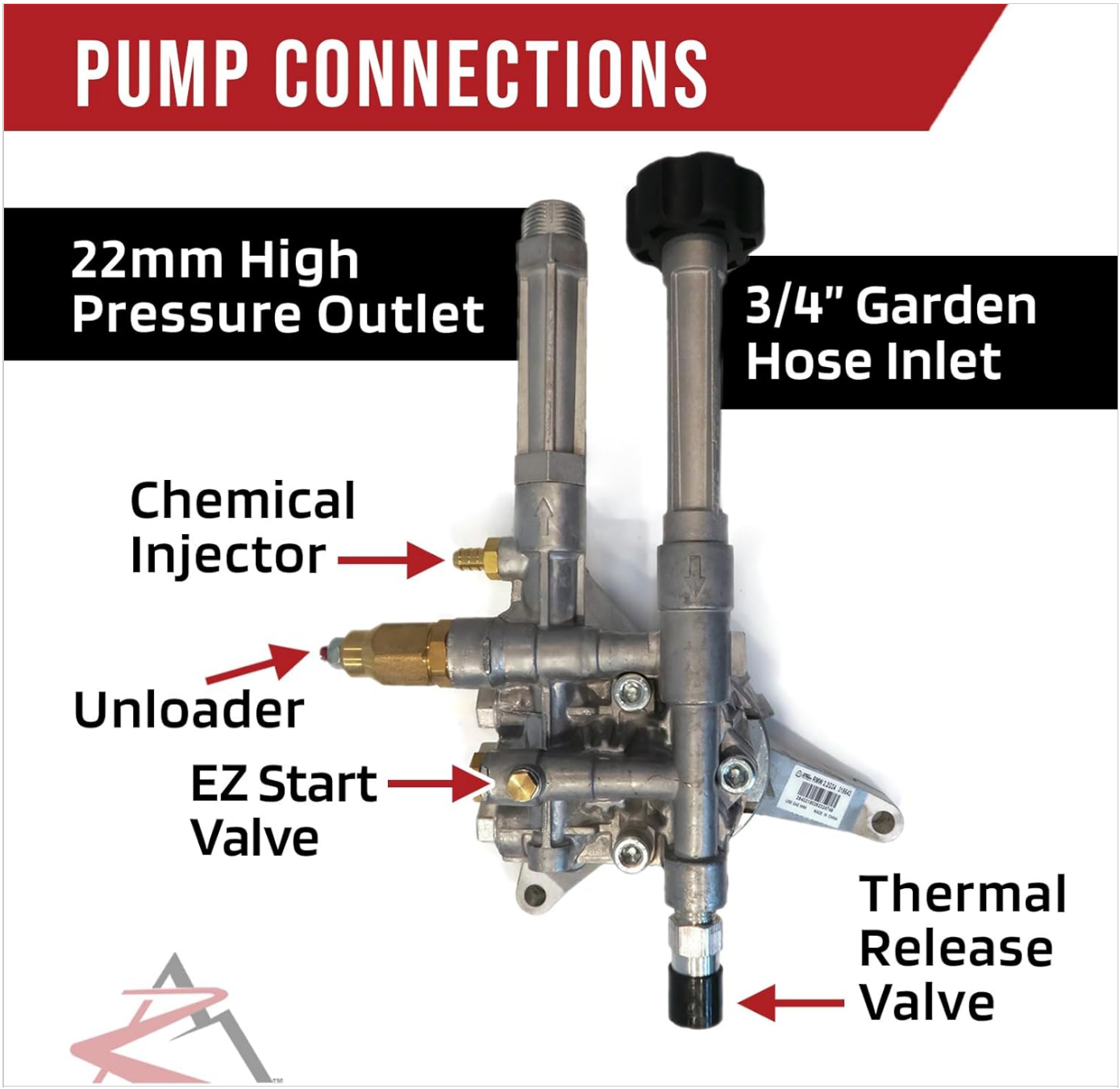


Image 6: Key pump connections and components, including the 22mm high-pressure outlet, 3/4" garden hose inlet, chemical injector, unloader, EZ start valve, and thermal release valve.


Image 7: Summary of the pump's key specifications and features.

## 5. Maintenance

### 5.1 Preventing Corrosion

To prevent future corrosion issues, regularly clean the engine shaft with a rag sprayed with cleaning solvent. Ensure the solvent does not directly contact the oil seal. Applying anti-seize compound to the shaft and keyway during installation and reassembly can also help prevent corrosion.

### 5.2 General Care

Periodically inspect all bolts and connections for tightness. Ensure the pump is free from debris and blockages. Refer to your pressure washer's engine manual for engine-specific maintenance requirements.

## 6. Troubleshooting

- **Pump Difficult to Remove:** If the old pump is difficult to slide off, check for a set screw (especially on 7/8" shafts) and ensure it's removed. Corrosion may also be a factor; use threaded holes on the pump base with bolts to gently separate it, or a pry bar with extreme caution.
- **Pump Not Functioning After Installation:** Ensure the keyway is correctly installed between the engine shaft and the pump. Installing the pump without a keyway will prevent it from functioning correctly and can cause damage.
- **Damage from Overtightening:** Overtightening bolts without using necessary spacers can damage the pump, engine shaft, and pump legs. This type of damage is not covered under warranty.
- **Pump Damage from Dry Running:** Running the pressure washer pump without water can destroy the bearings. Always ensure the water supply is connected and flowing before starting the unit.

## 7. Specifications

| Feature | Detail |
| --- | --- |
| Product Dimensions | 13 x 8.13 x 8 inches |
| Item Weight | 7 pounds |
| Manufacturer | The ROP Shop |
| Item model number | RMW22G24-EZ or RMW22G24EZ |
| Maximum Pressure | 2400 PSI |
| Maximum Flow | 2.2 GPM |
| Maximum Pump Speed | 3400 RPM |
| Shaft Size | 7/8" Vertical Shaft |
| Maximum Fluid Temperature | 140° F |
| Inlet Type | 3/4" GHA |
| Outlet Type | 22mm x 14mm |
| Oil Capacity | 2.2oz |

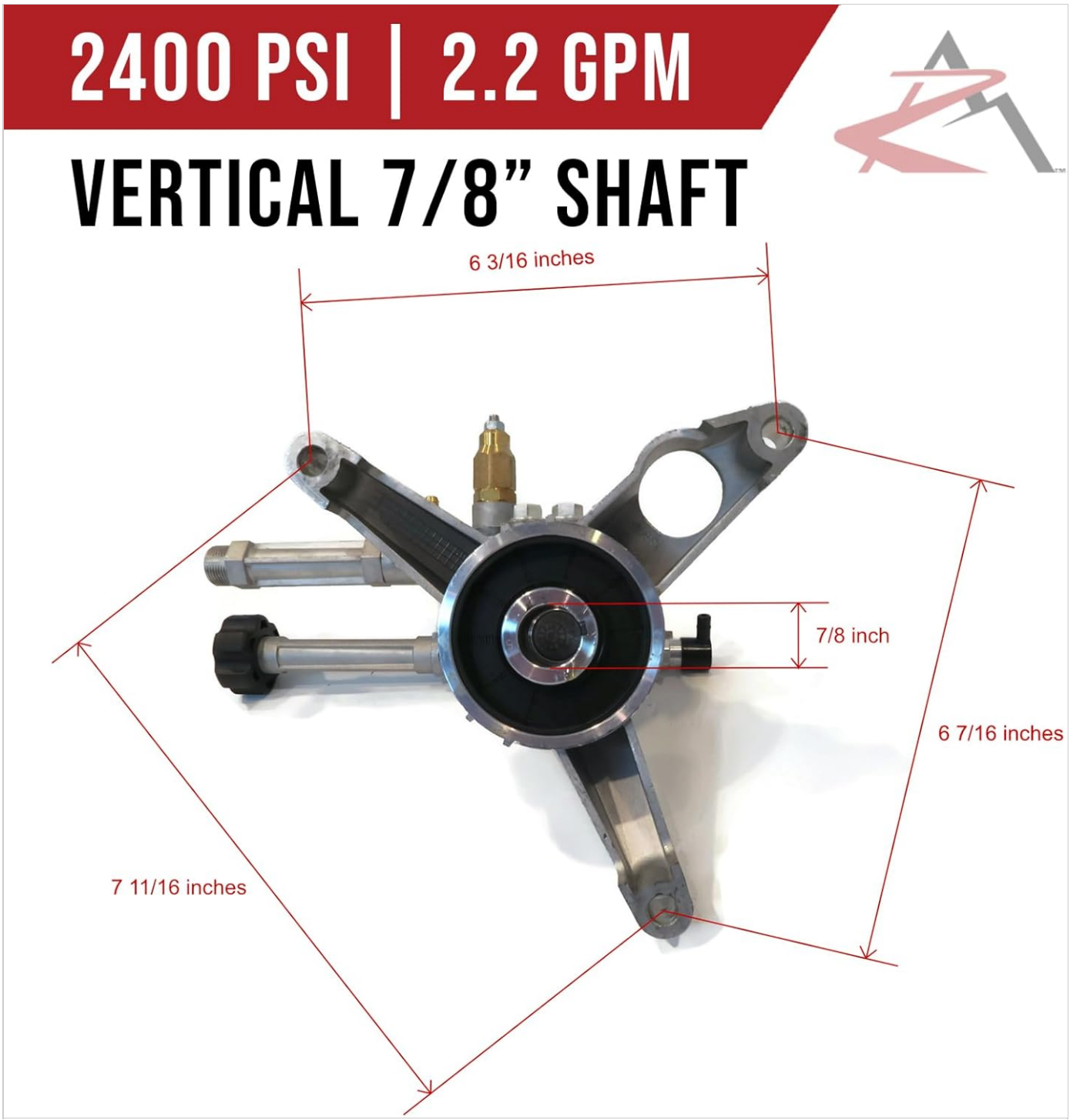


Image 8: Top-down view of the pump, illustrating key dimensions and shaft size.

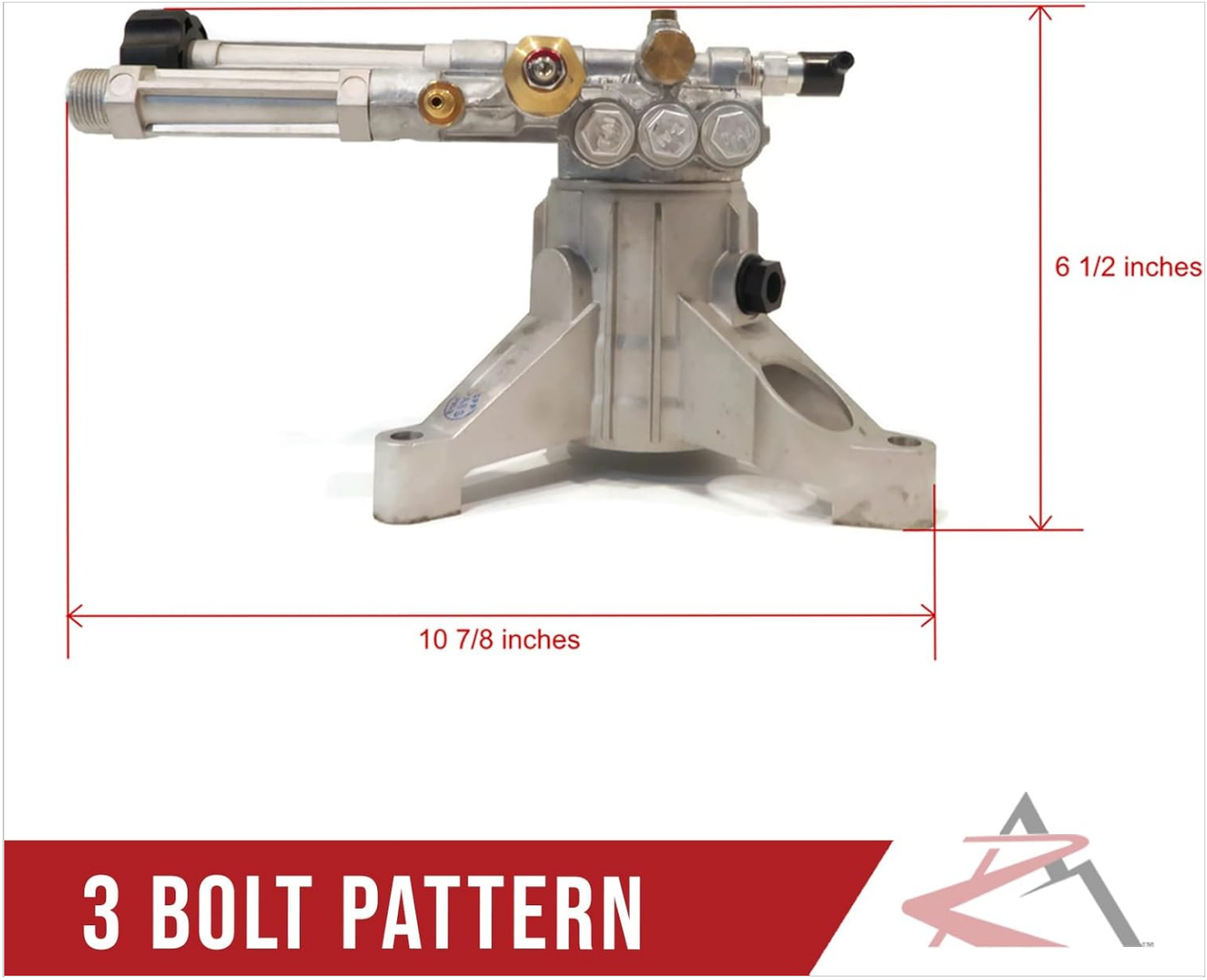


Image 9: Side view of the pump, showing overall dimensions and bolt pattern.

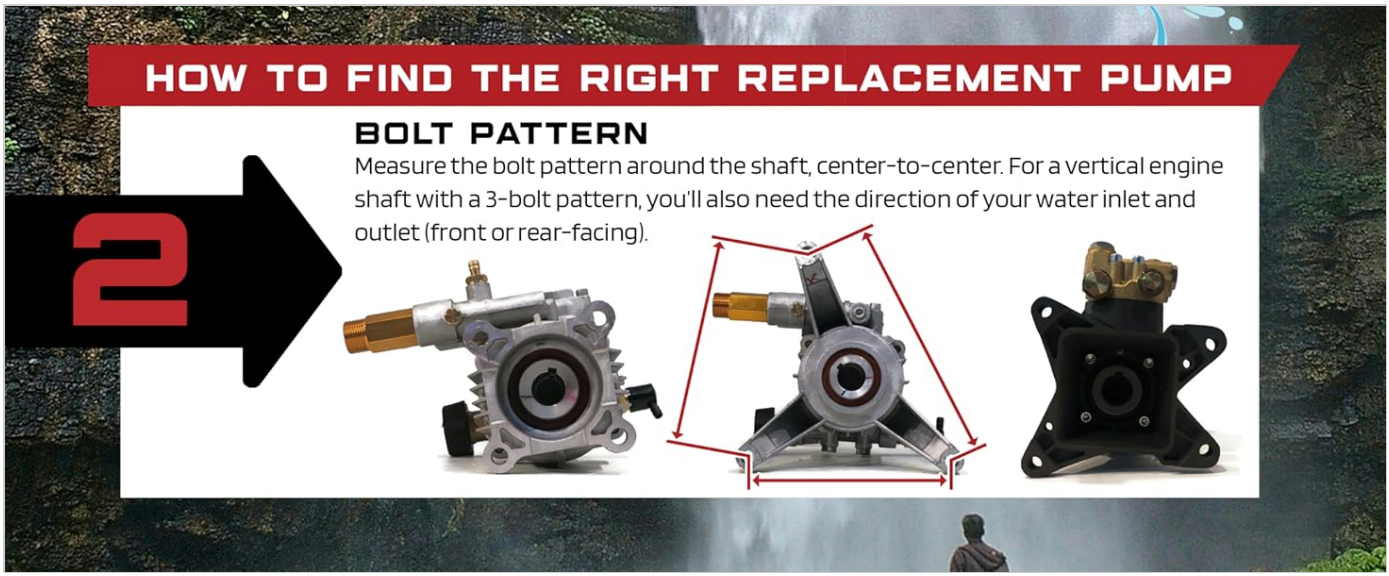


Image 10: Engine horsepower to PSI compatibility chart.

## 8. Warranty & Support

### 8.1 Warranty Information

Damage resulting from improper installation, such as overtightening bolts without necessary spacers, is not covered under the manufacturer's warranty on the pump. Additionally, damage caused by running the pump without water is not covered. For specific warranty details, please refer to the documentation provided with your purchase or contact The ROP Shop directly.

## 8.2 Customer Support

For further assistance or inquiries, please contact The ROP Shop customer support. You can find contact information on their official website or through your purchase platform.