

Troy-Bilt 020413/020414/020415

Troy-Bilt Pressure Washer Pump Instruction Manual

Models: 020413, 020414, 020415

INTRODUCTION

This manual provides essential information for the safe and effective installation, operation, and maintenance of your Troy-Bilt pressure washer pump. Please read all instructions carefully before use.

Product Compatibility

- **Fits:** Troy-Bilt Pressure Washer Models 020413, 020414, 020415
- **Pressure Rating:** 2500-2800 PSI
- **Flow Rate:** 2.3 GPM
- **Engine Shaft:** Designed for 7/8" Vertical Crank Engines
- **Hose Connection:** 22 MM x 14 MM

SAFETY INFORMATION

Always prioritize safety when working with power equipment. Failure to follow safety instructions can result in serious injury or property damage.

- **Read Manual:** Familiarize yourself with all instructions before operating the pressure washer.
- **Eye Protection:** Always wear ANSI Z87.1 compliant eye protection.
- **Hand Protection:** Wear appropriate gloves to protect hands.
- **Stable Surface:** Ensure the pressure washer is on a stable, level surface during operation and maintenance.
- **Water Supply:** Never run the pump dry. Always connect to a water supply before starting the engine.
- **Pressure Release:** Release all pressure from the system before disconnecting hoses or performing maintenance.
- **Engine Off:** Turn off the engine and disconnect the spark plug wire before performing any service or maintenance.

PRODUCT OVERVIEW

This replacement pump is designed for specific Troy-Bilt pressure washer models, offering reliable performance for various cleaning tasks.



Figure 1: Overall view of the Troy-Bilt pressure washer pump.

Key Features

- Durable aluminum construction for longevity.
- Integrated thermal relief valve to prevent overheating.
- Designed for vertical shaft engines.
- Standard garden hose inlet and 22mm male outlet.

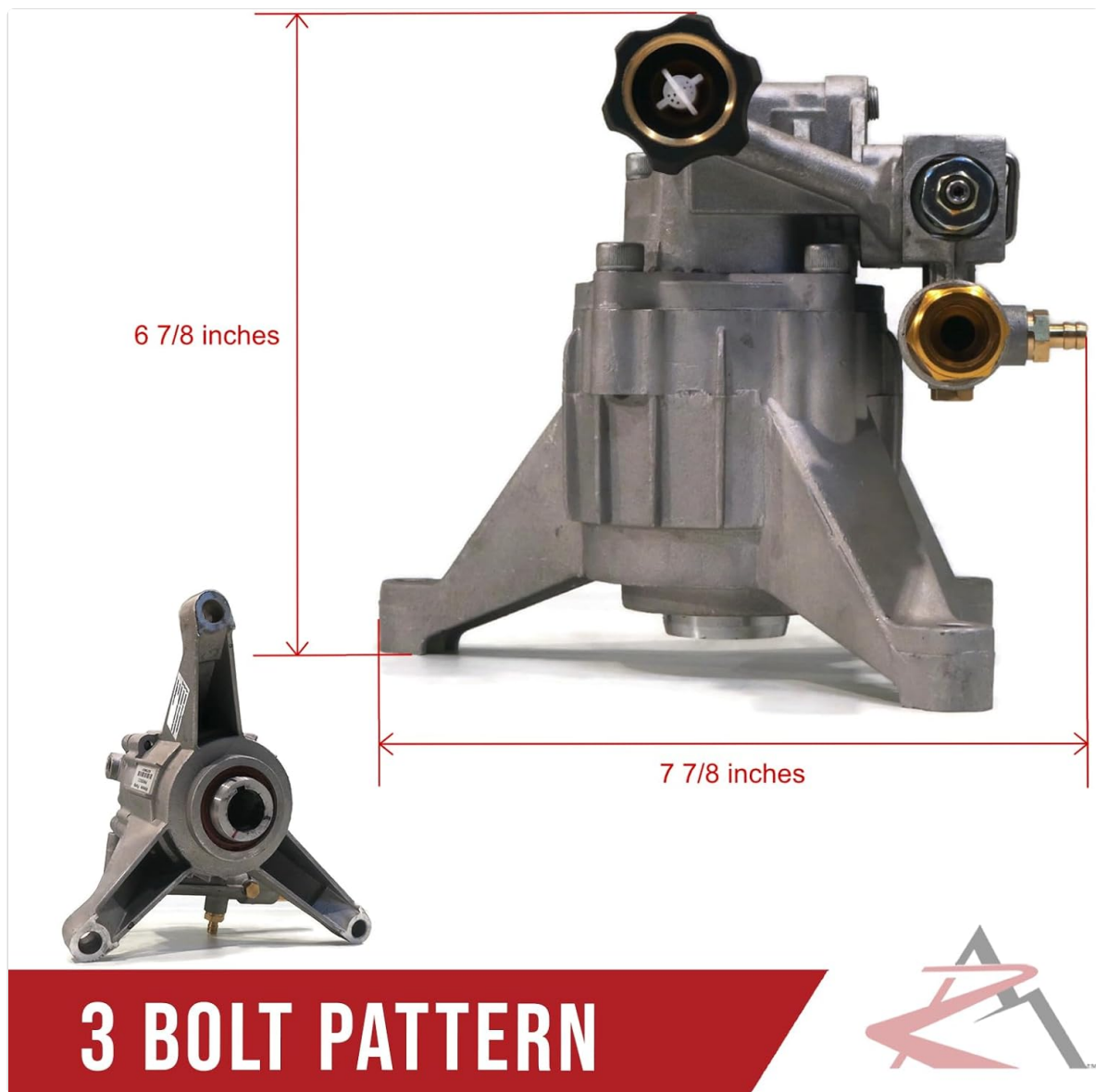


Figure 2: Diagram illustrating the pump's connections, including the standard garden hose inlet, 22mm high-pressure outlet, unloader, chemical injector, and thermal relief valve.



Figure 3: Close-up view of the thermal relief valve, which protects the pump from overheating during bypass mode.

SETUP AND INSTALLATION

Proper installation is crucial for optimal pump performance and longevity. Refer to the following steps and videos for guidance.

Pre-Installation Checks

- Ensure the pressure washer engine is turned off and cooled down.
- Disconnect the spark plug wire to prevent accidental starting.
- Shut off the water supply and release any residual pressure by squeezing the trigger gun.
- Confirm the new pump's specifications match your pressure washer's requirements (PSI, GPM, shaft type, and connection sizes).

Pump Removal

1. Remove the bolts securing the old pump to the engine block.
2. Carefully slide the old pump off the engine shaft. If the pump is stuck due to corrosion, apply penetrating oil and allow it to soak. Avoid excessive force.
3. Clean the engine shaft thoroughly, removing any rust or debris.

New Pump Installation

1. Insert the new shaft key into the engine shaft keyway.
2. Apply a thin layer of anti-seize lubricant to the engine shaft to prevent future corrosion.
3. Align the keyway on the new pump with the shaft key and carefully slide the pump onto the engine shaft.
4. Secure the new pump to the engine block using the provided bolts. Tighten them evenly in a crisscross pattern. If there is a gap between the pump flange and the engine block, use washers as spacers to ensure a secure fit without over-tightening.
5. Reconnect the spark plug wire.

Installation Videos

Video 1: Detailed installation guide for pressure washer pumps. This video covers the entire process from removal to reassembly.

Video 2: Step-by-step instructions on how to install a pressure washer pump, including transferring the thermal relief valve.

Video 3: Installation process for a vertical 7/8" shaft pressure washer pump, demonstrating key steps for proper fitment.

Video 4: Quick guide on replacing a 7/8" shaft vertical pressure washer pump, highlighting essential installation steps.

OPERATING INSTRUCTIONS

Follow these steps to operate your pressure washer safely and effectively after pump installation.

1. **Connect Water Supply:** Attach a garden hose to the pump's water inlet. Ensure the connection is tight.
2. **Connect High-Pressure Hose:** Attach the high-pressure hose to the pump's outlet.
3. **Prime the Pump:** Turn on the water supply fully. Squeeze the trigger gun to purge air from the pump and hoses until a steady stream of water emerges. This prevents damage from dry running.
4. **Start Engine:** Follow your pressure washer's engine starting procedure.

5. **Begin Cleaning:** Direct the spray gun at the cleaning surface, maintaining a safe distance.
6. **Shut Down:** When finished, turn off the engine, shut off the water supply, and squeeze the trigger gun to release all remaining pressure.

MAINTENANCE

Regular maintenance extends the life of your pressure washer pump.

- **Inspect Connections:** Before each use, check all hose connections for leaks or damage.
- **Clean Inlet Filter:** Regularly inspect and clean the water inlet filter to prevent debris from entering the pump.
- **Winterization:** In freezing temperatures, always winterize your pump by flushing it with pump protector or antifreeze solution to prevent internal damage.
- **Storage:** Store the pressure washer in a dry, protected area.

TROUBLESHOOTING

Here are common issues and potential solutions for your pressure washer pump.

Low Pressure or No Pressure

- **Check Water Supply:** Ensure the garden hose is fully open and kink-free.
- **Air in System:** Prime the pump by squeezing the trigger gun until all air is purged.
- **Clogged Inlet Filter:** Clean the water inlet filter.
- **Nozzle Obstruction:** Check the spray nozzle for clogs and clear if necessary.

Water Leaks

- **Loose Connections:** Tighten all hose connections.
- **Damaged O-rings/Seals:** Inspect O-rings and seals for wear or damage and replace if needed.
- **Cracked Pump Housing:** Inspect the pump housing for cracks. If found, the pump may need replacement.

Troubleshooting Video

Video 5: Guide on how to fix leaking issues by replacing the pump head assembly for a pressure washer.

SPECIFICATIONS

| Feature | Specification |
|------------------|------------------------|
| Brand | Troy-Bilt |
| Model Numbers | 020413, 020414, 020415 |
| Maximum Pressure | 2800 PSI |

| Feature | Specification |
|--------------------|------------------------------|
| Maximum Flow Rate | 2.3 Gallons Per Minute (GPM) |
| Shaft Type | 7/8" Vertical Crank Engine |
| Hose Connection | 22 MM x 14 MM |
| Material | Aluminum |
| Product Dimensions | 9 x 8.25 x 8 inches |
| Item Weight | 0.01 Ounces |

WARRANTY



This product comes with a **1 Year Warranty Against Manufacture Defects**. Please retain your proof of purchase for warranty claims. The warranty does not cover damage due to improper installation, misuse, or normal wear and tear.





SUPPORT

For further assistance, product information, or to explore other Troy-Bilt products, please visit the official Troy-Bilt store:

[Visit the Troy-Bilt Store](#)

Related Documents - 020413/020414/020415

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|  | <p>Troy-Bilt 020416-0 3,000 PSI Pressure Washer Parts Manual</p> <p>Detailed parts list and torque specifications for the Troy-Bilt 020416-0 3,000 PSI pressure washer, including diagrams and hardware identification.</p> |
|  | <p>Troy-Bilt 3,100 PSI Pressure Washer Parts Manual</p> <p>Comprehensive parts manual for the Troy-Bilt 3,100 PSI pressure washer (Mfg. No: 020678-00), detailing main unit and pump components, along with essential torque specifications for maintenance and repair.</p> |

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|  <p>The cover of the Troy-Bilt 2550 PSI Pressure Washer Operator's Manual features the brand logo at the top left. Below it is a photograph of the pressure washer unit, which is a black and grey wheeled sprayer. A small warning icon is visible in the top left corner of the manual cover.</p> | <p>Troy-Bilt 2550 PSI Pressure Washer Operator's Manual</p> <p>This operator's manual provides comprehensive instructions for the safe assembly, operation, maintenance, and troubleshooting of the Troy-Bilt 2550 PSI Pressure Washer. Learn about its features, proper fuel and oil requirements, storage guidelines, and warranty information to ensure years of dependable service.</p> |
|  <p>The cover of the Troy-Bilt Pressure Washer Quick Setup Guide is a technical document. It includes a small image of the pressure washer and a large section of text with various diagrams and icons illustrating the setup and operation steps.</p> | <p>Troy-Bilt Pressure Washer Quick Setup Guide</p> <p>A concise guide to setting up and operating your Troy-Bilt pressure washer, including safety warnings, assembly instructions, and operating procedures.</p> |
|  <p>The cover of the Troy-Bilt TB360, TB370, TB380ES Premium Drive Self Propelled Mower Operator's Manual shows two different models of the mower. The text on the cover identifies the models as TB360, TB370, and TB380ES. A warning section is also visible at the bottom of the cover.</p> | <p>Troy-Bilt TB360, TB370, TB380ES Premium Drive Self Propelled Mower Operator's Manual</p> <p>Comprehensive operator's manual for Troy-Bilt Premium Drive Self Propelled Mowers, models TB360, TB370, and TB380ES. Covers setup, safe operation, maintenance, and troubleshooting.</p> |
|  <p>The cover of the Troy-Bilt 682J-Horse, E686N-Horse, E682L-Horse Operator's Manual features a photograph of a rear-tine PTO tillage implement. The text on the cover lists the models: 682J-Horse, E686N-Horse, and E682L-Horse. A warning section is also visible at the bottom of the cover.</p> | <p>Troy-Bilt 682J-Horse, E686N-Horse, E682L-Horse Operator's Manual</p> <p>This Operator's Manual from Troy-Bilt LLC provides essential guidance for the safe and effective operation, maintenance, and repair of Troy-Bilt rear-tine PTO tillers, including models 682J-Horse, E686N-Horse, and E682L-Horse. It details safety instructions, comprehensive parts lists with diagrams, and operational procedures for optimal performance.</p> |