

## FIERRG LT-19ME 3WZ-1507/1508/1510 Unloader Valve

# FIERRG LT-19ME 3WZ-1507/1508/1510 Triplex Plunger Pump Unloader Valve Instruction Manual

**Brand:** FIERRG | **Model:** LT-19ME 3WZ-1507/1508/1510 Unloader Valve

## 1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the FIERRG LT-19ME 3WZ-1507/1508/1510 Triplex Plunger Pump Unloader Valve. This component is designed for use with compatible high-pressure washing systems, ensuring efficient and safe operation. Please read this manual thoroughly before installation and use to ensure proper function and longevity of the product.

## 2. SAFETY INFORMATION

Always observe the following safety precautions when handling, installing, or maintaining the unloader valve or any part of a pressure washer system:

- Disconnect the pressure washer from its power source and water supply before performing any installation or maintenance.
- Wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Ensure all connections are secure and leak-free before operating the pressure washer.
- Do not modify the unloader valve or any other pressure washer component. Use only genuine replacement parts.
- Keep children and pets away from the work area during installation and operation.
- Refer to your pressure washer's main instruction manual for additional safety guidelines.

### 3. PRODUCT OVERVIEW

The FIERRG Unloader Valve is a critical component for triplex plunger pumps used in high-pressure washing applications. It is designed to divert water flow back to the pump inlet or a bypass line when the spray gun trigger is released, thereby reducing pressure on the pump and motor. This mechanism prevents overheating and extends the lifespan of the pump system.

#### Key Features:

- Constructed from durable metal for long working life.
- Ensures smooth operation and high efficiency in pressure washing tasks.
- Designed for compatibility with LT 3WZ-1507, 3WZ-1508, and 3WZ-1510 model pumps.



*Figure 1: FIERRG Triplex Plunger Pump Unloader Valve. This image shows the brass unloader valve with its internal components and O-rings, ready for installation into a compatible pump system.*

### 4. SETUP AND INSTALLATION

Proper installation is crucial for the correct function of the unloader valve. Follow these general steps:

1. **Preparation:** Ensure the pressure washer is turned off, unplugged, and disconnected from the water supply. Relieve any residual pressure in the system by squeezing the spray gun trigger.
2. **Locate:** Identify the existing unloader valve on your triplex plunger pump. It is typically located on the pump head where the high-pressure hose connects.
3. **Removal (if replacing):** Carefully unscrew and remove the old unloader valve. Be mindful of any springs or small components. Note the orientation for correct installation of the new valve.
4. **Inspection:** Inspect the pump housing for any debris or damage. Clean the area if necessary.
5. **Installation:** Insert the new FIERRG Unloader Valve into the designated port on the pump head. Ensure O-rings are properly seated and not pinched.
6. **Secure:** Hand-tighten the valve initially, then use an appropriate wrench to tighten it securely. Do not overtighten, as this can damage the valve or pump housing.
7. **Test:** Reconnect the water supply and power. Slowly turn on the water, then the pressure washer, and check for leaks. Test the unloader function by squeezing and releasing the spray gun trigger.

*If you are unsure about any step, consult a qualified technician or refer to your specific pressure washer's service manual.*

## 5. OPERATION

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The unloader valve operates automatically during pressure washer use. When the spray gun trigger is engaged, the valve directs pressurized water to the spray nozzle. When the trigger is released, the valve senses the pressure buildup and diverts the water flow into a bypass loop, typically back to the pump inlet or a water tank. This action maintains pump prime and prevents the pump from continuously working against a closed system, which would lead to excessive heat and wear.

Ensure that the unloader valve is functioning correctly by observing the pressure washer's behavior:

- When the trigger is released, the engine/motor should idle down or the pump should enter a bypass mode, indicated by a change in sound or reduced vibration.
- Upon squeezing the trigger, full pressure should be restored quickly and smoothly.

## 6. MAINTENANCE

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Regular maintenance of your unloader valve and pressure washer system will ensure optimal performance and extend product life:

- **Regular Inspection:** Periodically inspect the unloader valve for signs of wear, corrosion, or leaks. Check O-rings and seals for deterioration.
- **Cleaning:** If the valve appears dirty or clogged, disassemble it carefully and clean components with appropriate cleaning solutions, ensuring no abrasive materials are used.
- **Seal Replacement:** Worn or damaged O-rings and seals should be replaced immediately to prevent leaks and maintain proper pressure regulation.
- **Storage:** Before storing the pressure washer for extended periods, especially in freezing temperatures, ensure the pump and unloader valve are drained of all water or treated with pump protector/antifreeze.

## 7. TROUBLESHOOTING

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If you encounter issues with your unloader valve, consider the following common problems and solutions:

Problem	Possible Cause	Solution
<b>Pressure Fluctuations / Surging</b>	Worn or damaged unloader valve seals/springs, air in the system, clogged nozzle.	Inspect and replace unloader valve seals. Bleed air from the system. Clean or replace nozzle.
<b>No Bypass / Pump Overheating</b>	Unloader valve stuck closed, debris in valve, incorrect pressure setting.	Disassemble and clean unloader valve. Check for obstructions. Ensure correct pressure adjustment (if applicable).
<b>Constant Bypass / Low Pressure</b>	Unloader valve stuck open, damaged spring, worn seals, pump issues.	Inspect and replace unloader valve components. Check pump for internal wear.
<b>Leaks from Valve</b>	Damaged O-rings or seals, loose connections, cracked housing.	Tighten connections. Replace O-rings and seals. If housing is cracked, replace the valve.

For issues not listed here or if troubleshooting steps do not resolve the problem, contact FIERRG customer support or a certified service technician.

## 8. SPECIFICATIONS

Feature	Detail
<b>Brand</b>	FIERRG
<b>Model Compatibility</b>	LT 3WZ-1507, 3WZ-1508, 3WZ-1510 Triplex Plunger Pumps
<b>Part Type</b>	Unloader Valve
<b>Material</b>	Metal (Brass)
<b>Application</b>	High-pressure washing systems
<b>Standard/Nonstandard</b>	Standard
<b>Item Weight</b>	Approximately 1.76 pounds (800 grams)

## 9. WARRANTY AND SUPPORT

FIERRG products are manufactured to high-quality standards. For specific warranty information regarding your unloader valve, please refer to the documentation provided with your original purchase or visit the official FIERRG website. If you require technical assistance, replacement parts, or have any questions, please contact FIERRG customer support through their official channels.

*Please retain your proof of purchase for warranty claims.*



