HNARL 107271

HNARL Hydraulic Lowering Valve 107271 Instruction Manual

For Skyjack Lift Models SJIII3015, SJIII3215, SJIII4620, SJIII4632

1. Introduction

This manual provides essential information for the safe and effective installation, operation, and maintenance of the HNARL Hydraulic Lowering Valve, model 107271. This valve is specifically designed for use with Skyjack Lift models SJIII3015, SJIII3215, SJIII4620, and SJIII4632. Please read this manual thoroughly before attempting any procedures to ensure proper function and safety.

2. Safety Information

Always observe standard safety precautions when working with hydraulic systems and heavy machinery. Failure to follow safety guidelines can result in serious injury or equipment damage.

- Ensure the lift is powered off and secured before beginning any installation or maintenance.
- Wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Consult a qualified technician if you are unsure about any procedure.
- Relieve hydraulic pressure before disconnecting any hydraulic lines or components.
- Dispose of hydraulic fluids and components according to local regulations.

3. Product Overview

The HNARL Hydraulic Lowering Valve 107271 is a precision-engineered component crucial for controlling the lowering function of compatible Skyjack aerial lifts. It is constructed from high-grade steel and plastic components for durability and reliable performance.

3.1 Key Features

- **Precision-Engineered:** Designed for specific Skyjack Lift models.

- **Durable Construction:** Made with high-grade steel and plastic for longevity.
- **Direct Replacement:** Facilitates straightforward replacement of existing valves.

3.2 Components

The package includes one (1) HNARL Hydraulic Lowering Valve 107271.



Figure 1: HNARL Hydraulic Lowering Valve 107271, showing the red knob and threaded body.

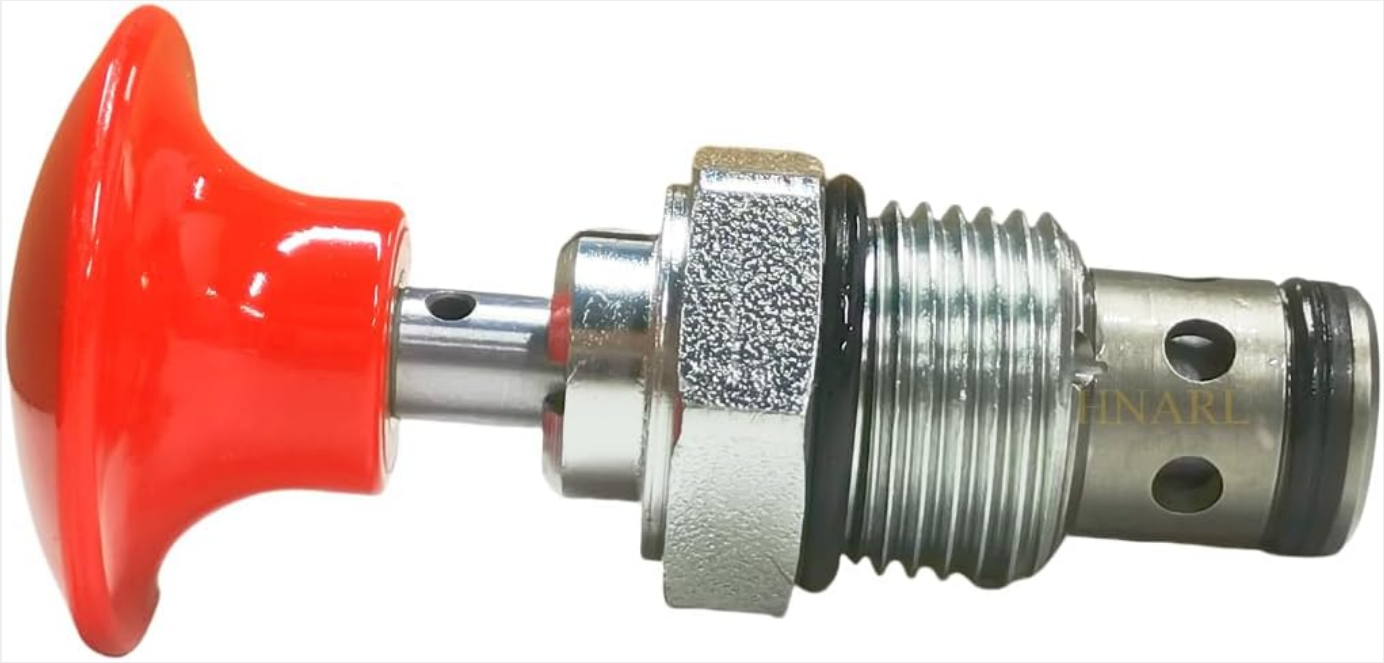


Figure 2: Side view of the valve, highlighting the threaded connection and overall compact design.

4. Specifications

Attribute	Detail
Model Number	107271
Brand	HNARL
Compatible Lift Models	Skyjack SJIII3015, SJIII3215, SJIII4620, SJIII4632
Material	Plastic, Steel
Dimensions (L x W x H)	4.72 x 3.94 x 3.94 inches (12 x 10 x 10 cm)
Item Weight	10.6 ounces (0.3 kg)
Exterior Finish	Metal
Connection Type	Threaded (Inlet and Outlet)
Color	Red/Silver

5. Setup and Installation

This section outlines the general procedure for replacing the hydraulic lowering valve. It is recommended that installation be performed by trained personnel.

5.1 Required Tools

- Wrench set (appropriate sizes for hydraulic fittings)
- Hydraulic fluid collection pan
- Clean rags
- New hydraulic fluid (if required for top-off)
- Personal Protective Equipment (PPE)

5.2 Installation Steps

1. **Prepare the Lift:**
    - Position the Skyjack lift on a level, stable surface.
    - Lower the platform completely.
    - Turn off the lift's power supply and disconnect the battery to prevent accidental operation.
    - Engage all safety locks and chocks.
2. **Relieve Hydraulic Pressure:**
    - Consult the Skyjack lift's specific service manual for instructions on safely relieving hydraulic system pressure. This is critical to prevent injury.
3. **Locate the Existing Valve:**
    - Identify the hydraulic lowering valve within the lift's hydraulic manifold. Refer to the lift's service manual for exact location.
4. **Remove the Old Valve:**
    - Place a collection pan beneath the valve to catch any residual hydraulic fluid.
    - Carefully disconnect the hydraulic lines connected to the valve using appropriate wrenches.
    - Unthread and remove the old lowering valve from its housing.
5. **Install the New Valve:**
    - Inspect the new HNARL 107271 valve for any damage.
    - Ensure all O-rings and seals are correctly seated on the new valve.
    - Carefully thread the new valve into the housing. Do not overtighten.
    - Reconnect the hydraulic lines, ensuring they are securely fastened.
6. **Refill and Bleed System:**
    - Top off the hydraulic reservoir with the recommended hydraulic fluid, if necessary.
    - Follow the Skyjack lift's service manual for instructions on bleeding air from the hydraulic system.
7. **Test Operation:**
    - Reconnect the battery and restore power to the lift.
    - Perform a functional test of the lowering mechanism in a controlled environment, ensuring smooth and proper operation.
    - Check for any leaks around the newly installed valve.



Figure 3: Bottom view of the valve, showing the threaded section and ports for hydraulic fluid flow.

6. Operating Instructions

The HNARL Hydraulic Lowering Valve 107271 functions as part of the lift's hydraulic system to control the descent of the platform. Its operation is integrated with the lift's control panel.

- Refer to your Skyjack lift's operator manual for specific instructions on controlling the platform's lowering function.
- The valve is activated by the lift's control system to allow hydraulic fluid to return to the reservoir, enabling a controlled descent.
- Ensure the lift is operated within its specified load limits and on stable ground.

7. Maintenance

Regular maintenance ensures the longevity and reliable performance of the hydraulic lowering valve and the overall lift system.

- **Visual Inspection:** Periodically inspect the valve and surrounding hydraulic lines for any signs of leaks, corrosion,

or damage.

- **Cleanliness:** Keep the valve and hydraulic system components clean to prevent contamination.
- **Fluid Levels:** Regularly check and maintain proper hydraulic fluid levels according to the lift manufacturer's recommendations.
- **Seal Replacement:** If leaks are detected from the valve, consider replacing the internal seals or the entire valve if damage is significant.

8. Troubleshooting

This section provides guidance for common issues related to the hydraulic lowering valve. For complex problems, consult a qualified technician.

Problem	Possible Cause	Solution
Lift platform lowers slowly or erratically.	◦ Low hydraulic fluid level. ◦ Air in the hydraulic system. ◦ Partially clogged valve or lines. ◦ Worn or damaged valve seals.	◦ Check and top off hydraulic fluid. ◦ Bleed the hydraulic system (refer to lift manual). ◦ Inspect and clean valve/lines; replace if necessary. ◦ Inspect valve seals; replace valve if seals are compromised.
Lift platform does not lower.	◦ Completely blocked valve. ◦ Electrical issue preventing valve activation. ◦ Severe internal valve failure.	◦ Inspect valve for obstructions; replace if blocked. ◦ Check electrical connections and control system. ◦ Replace the hydraulic lowering valve.
Hydraulic fluid leak around the valve.	◦ Loose fittings. ◦ Damaged O-rings or seals. ◦ Cracked valve body.	◦ Tighten all hydraulic fittings. ◦ Replace O-rings or seals. ◦ Replace the entire valve if the body is cracked.

9. Warranty and Support

For specific warranty information regarding the HNARL Hydraulic Lowering Valve 107271, please refer to the purchase documentation or contact HNARL customer support directly.
If you encounter issues not covered in this manual or require further assistance, please contact your supplier or HNARL customer service. When contacting support, please have your product model number (107271) and purchase details available.
HNARL Customer Service: Refer to the official HNARL website or your product packaging for contact details.

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