

Orion Motor Tech SCS

Orion Motor Tech 3 Ton Hydraulic Spring Compressor
Instruction Manual

Model: SCS

1. INTRODUCTION

This manual provides comprehensive instructions for the safe and effective operation, setup, maintenance, and troubleshooting of your Orion Motor Tech 3 Ton Hydraulic Spring Compressor, Model SCS. This robust tool is designed to safely compress and decompress automotive coil springs, facilitating strut and shock absorber replacement or repair. Please read this manual thoroughly before use to ensure proper handling and to prevent injury or damage to the equipment.

2. SAFETY INFORMATION

WARNING: Improper use of this equipment can result in serious injury or death. Always follow these safety guidelines:

- Always wear appropriate personal protective equipment, including safety glasses, gloves, and sturdy footwear.
- Ensure the spring compressor is placed on a stable, level, and non-slip surface before operation.
- Never exceed the maximum load capacity of 3 tons (6600 lbs).
- Inspect the equipment for any damage or wear before each use. Do not use if any components are damaged.
- Ensure the spring is securely seated in both clamps and the safety chain is properly engaged before applying pressure.
- Keep hands and other body parts clear of moving parts during operation.
- Do not modify the equipment in any way. Use only original replacement parts.
- Keep children and unauthorized personnel away from the work area.
- Release pressure slowly and carefully.

3. PRODUCT OVERVIEW AND COMPONENTS

The Orion Motor Tech Hydraulic Spring Compressor is designed for efficient and safe spring compression. Familiarize yourself with its main components:

Main Unit: The primary structure housing the hydraulic mechanism and adjustable column.



Image 3.1: The complete Orion Motor Tech 3 Ton Hydraulic Spring Compressor, showing the main red frame, hydraulic pump, foot pedals, and the two spring clamps. Four additional clamp sizes are shown separately.

Adjustable Column: Features 7 holes for height adjustment, allowing the tool to accommodate various spring lengths.

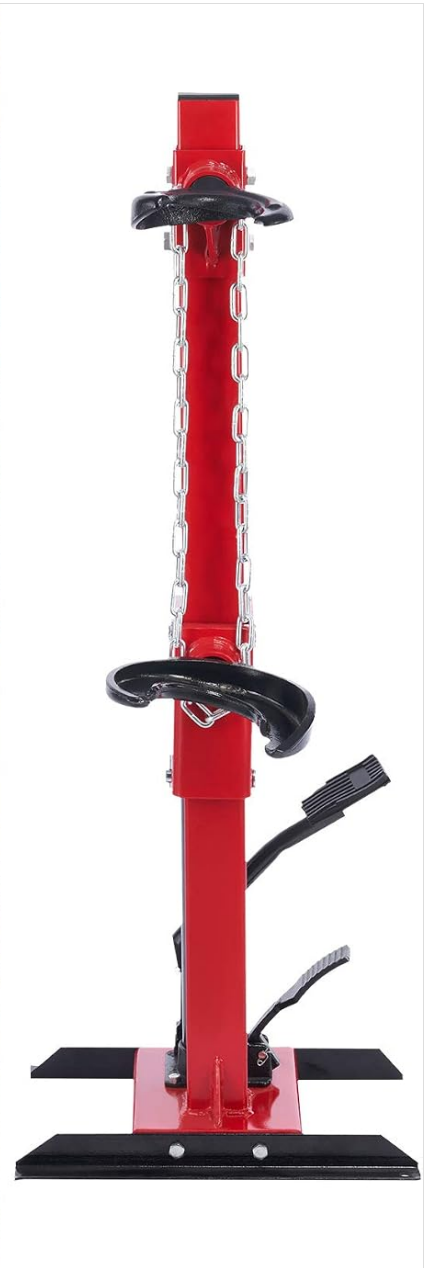


Image 3.2: A close-up side view of the compressor's vertical column, highlighting the seven adjustment holes for setting the desired working height of the spring clamps.

Spring Clamps: Two robust clamps designed to securely hold the coil spring.

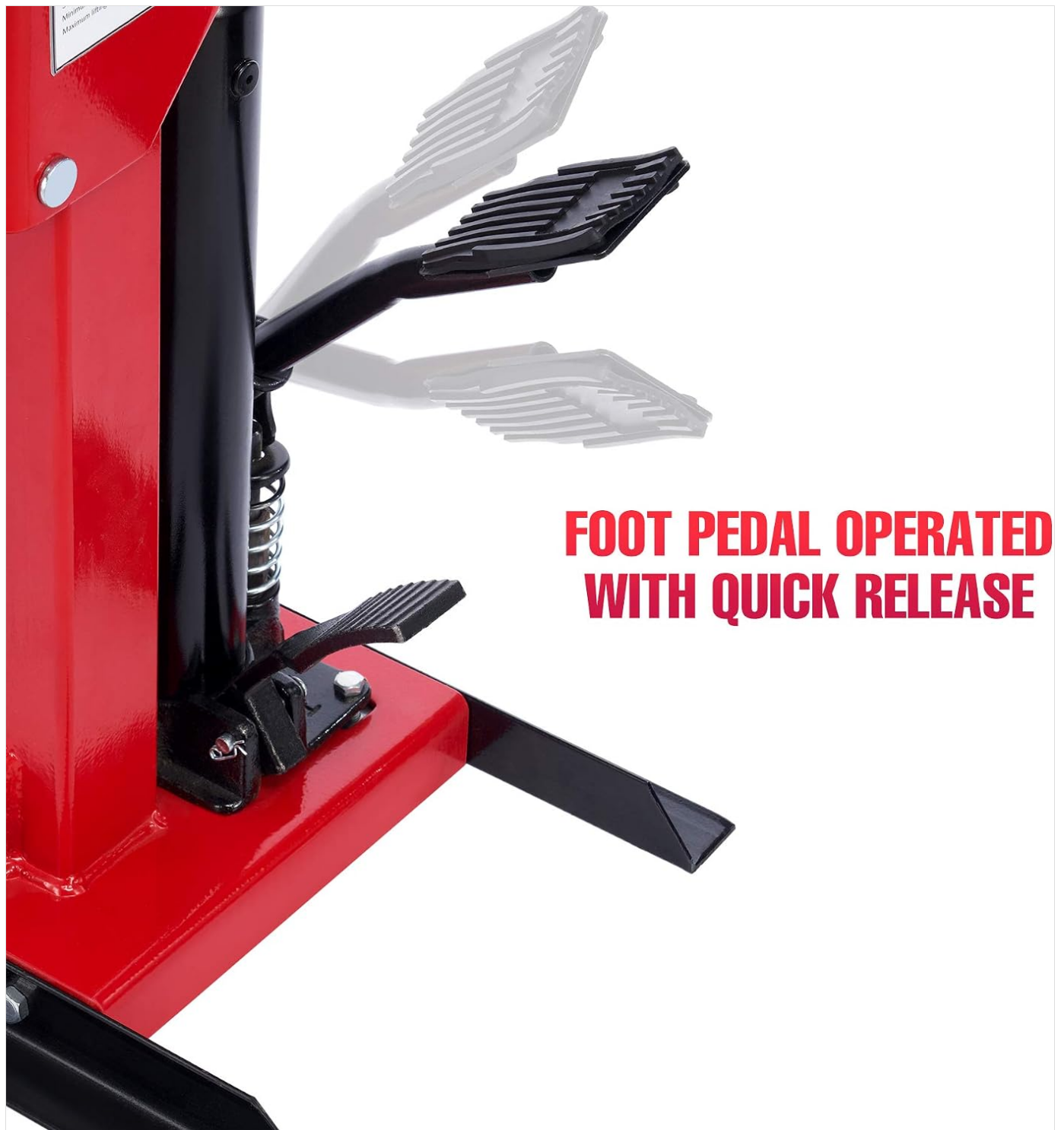
COIL SPRING COMPRESSOR

2.5 TONNE



Image 3.3: A detailed view of one of the spring clamps, showing its robust construction and the attached product specification label.

Hydraulic Power Unit and Foot Pedals: The hydraulic pump mechanism operated by foot pedals for compression and release.



FOOT PEDAL OPERATED WITH QUICK RELEASE

Image 3.4: A close-up of the foot-operated pedals, one for activating the hydraulic compression and the other for quick release of pressure.

Safety Chain: Provides additional security to prevent the spring from dislodging during compression.

Solid Base: Ensures stability during operation.



Image 3.5: An annotated diagram highlighting key components of the spring compressor, including the spring clasp, metal rod, power unit assembly, solid base, and foot pedal.

4. SETUP

1. **Unpack and Inspect:** Carefully remove all components from the packaging. Inspect for any shipping damage or missing parts.
2. **Assemble the Unit:** Follow the assembly instructions provided with your specific model. Ensure all bolts and fasteners are securely tightened.
3. **Position the Compressor:** Place the unit on a firm, level, and stable surface capable of supporting the weight of the compressor and the force exerted during compression.
4. **Adjust Clamp Height:** Based on the length of the spring you intend to compress, adjust the position of the upper and lower spring clamps using the 7 adjustment holes on the column. Secure them firmly with the provided pins and

fasteners. The lifting height range is between 495 mm and 820 mm.

5. OPERATING INSTRUCTIONS

Always refer to the safety information before operating this equipment.

- 1. Prepare the Strut Assembly:** Remove the strut assembly from the vehicle according to the vehicle manufacturer's service manual.
- 2. Load the Spring:** Carefully position the coil spring assembly between the upper and lower clamps of the compressor. Ensure the spring is centered and securely seated within the clamps.
- 3. Engage Safety Chain:** Attach the safety chain around the spring and the compressor column to provide an additional layer of security.
- 4. Compress the Spring:** Slowly and steadily operate the foot pedal to activate the hydraulic lever. This will cause the clamps to move closer, compressing the spring. Observe the spring carefully during compression to ensure it remains properly seated and does not bind.
- 5. Decompress the Spring:** Once the spring is compressed sufficiently to allow removal or installation of components, use the release pedal to slowly decompress the spring. Control the rate of decompression to prevent sudden movements.
- 6. Remove the Spring:** Once fully decompressed, carefully remove the spring assembly from the clamps.

6. MAINTENANCE

Regular maintenance ensures the longevity and safe operation of your hydraulic spring compressor.

- **Cleaning:** After each use, clean the unit to remove dirt, grease, and debris.
- **Lubrication:** Periodically lubricate all pivot points and moving parts with a suitable grease.
- **Hydraulic Fluid:** Check the hydraulic fluid level regularly. Top up with appropriate hydraulic oil if necessary. Refer to the manufacturer's recommendations for fluid type.
- **Inspection:** Regularly inspect the clamps, chains, and structural components for signs of wear, cracks, bends, or other damage. Replace any damaged parts immediately.
- **Storage:** Store the spring compressor in a clean, dry place, away from moisture and corrosive materials.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Compressor does not lift or lifts slowly.	Low hydraulic fluid level; Air in hydraulic system; Overload.	Check and refill hydraulic fluid; Bleed air from the system (refer to specific hydraulic unit instructions); Ensure load does not exceed 3 tons.
Pressure does not hold.	Leaking seals; Release valve not fully closed.	Inspect and replace seals if necessary; Ensure release pedal is fully disengaged.
Spring slips from clamps.	Improper seating of spring; Clamps worn or damaged; Safety chain not used.	Re-seat spring correctly; Inspect and replace clamps if worn; Always use the safety chain.

8. SPECIFICATIONS

Brand: Orion Motor Tech

Model: SCS

Load Capacity: 3 Tons (6600 LBS)

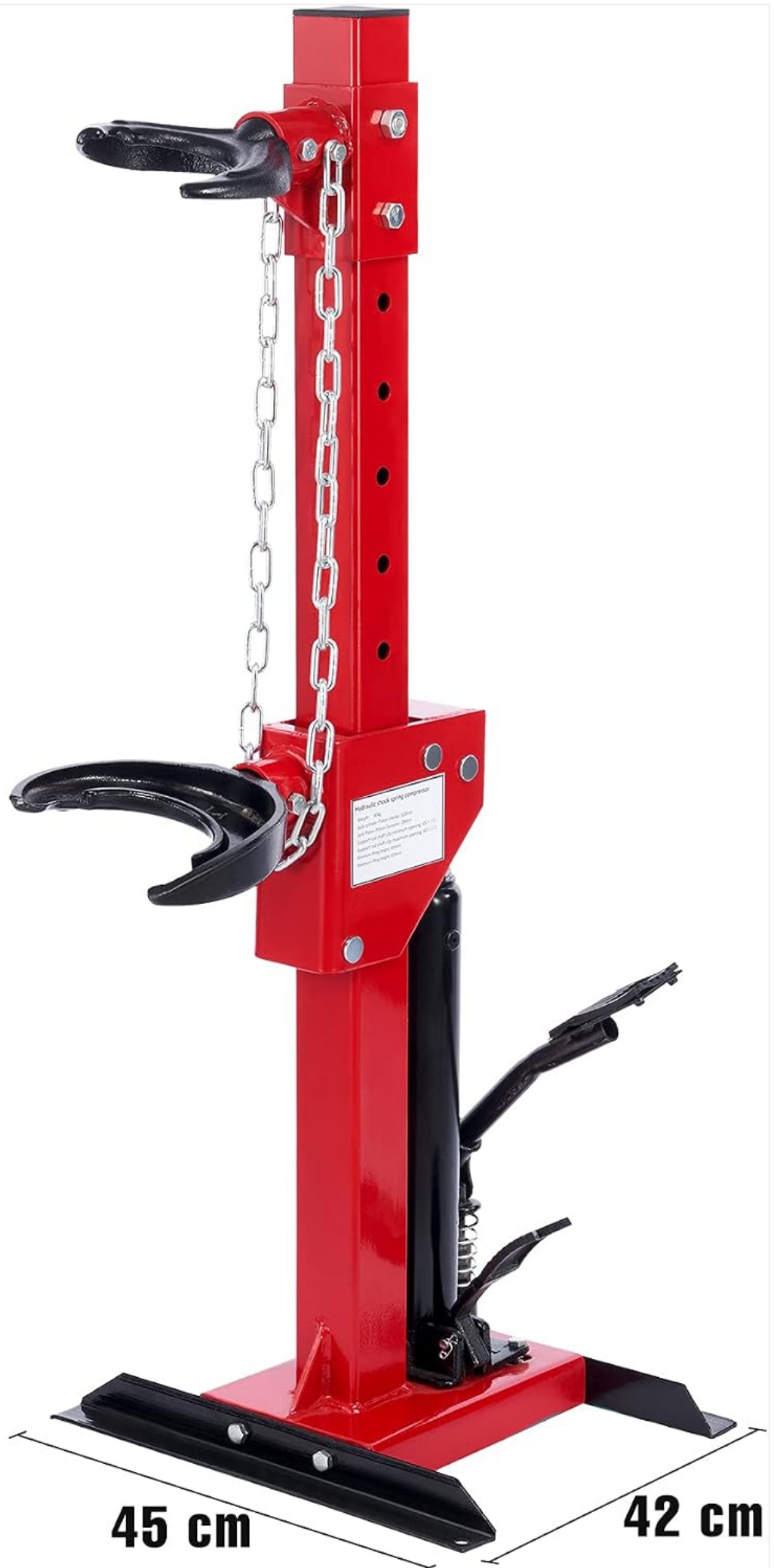
Adjustable Height Range: 495 mm - 820 mm

Product Dimensions (L x W x H): 107.01 x 27 x 21.01 cm

Item Weight: 28 Kilograms

Material: Premium Quality Iron with protective coatings

106 cm



45 cm

42 cm

Image 8.1: Dimensional drawing of the Orion Motor Tech Hydraulic Spring Compressor, indicating a height of 106 cm, a length of 45 cm, and a width of 42 cm.

9. WARRANTY AND SUPPORT

Orion Motor Tech is committed to providing high-quality products and customer satisfaction. For any questions, technical assistance, or warranty claims, please contact Orion Motor Tech customer service. We offer 24/7 customer support to assist you.

Please retain your proof of purchase for warranty purposes.

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