

Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

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MADDOX™
SUPERIOR AUTOMOTIVE TOOLS

E1A1

Strut Spring Compressor



Visit our website at: <http://www.harborfreight.com>
Email our technical support at: productsupport@harborfreight.com

59467

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

⚠ WARNING

Read this material before using this product. Failure to do so can result in serious injury. SAVE THIS MANUAL.

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No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools. Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein. Tools required for assembly and service may not be included.

IMPORTANT SAFETY INFORMATION

1. Study, understand, and follow all instructions before operating the device.
2. Do not exceed rated capacity.
3. Use only for springs within coil and wire size limits.
4. Securely fasten the jaws to the spring.
5. Position the spring to compress evenly.
6. Failure to heed and understand these instructions and markings may result in personal injury and/or property damage.
7. Do not compress spring with an impact wrench.
8. Do not use the strut spring compressor if it is worn or damaged.
9. Do not compress strut springs exhibiting corrosion or damage.
10. If the spring is difficult to compress, or it bows or tilts, release the spring and reposition.
11. Compress the spring only enough for the strut to be loose in its mountings.
12. Do not loosen the strut piston rod nut if there is pressure on the spring mounting.
13. Replace damaged components immediately.
14. Do not leave the spring compressed.
15. Make sure the piston rod nut is fully engaged and tightened before releasing the compressed spring.
16. No alterations shall be made to this product.
17. Only attachments and adapters supplied by the manufacturer or supplier shall be used.
18. Wear appropriate personal protective equipment (PPE) as required by OSHA regulations.
19. Tighten and release evenly and slowly. Only use hand tools to tighten/release. Do not use any air, electric, or impact tools with this tool. Only operate this tool with a 3/4" socket and ratchet, 3/4" combination wrench, or other applicable hand tools. Power, air, or electric tools may compress the spring too quickly, leading to injury.
20. Use provided pins to secure spring in place before use.
21. Set compressed spring in safe area. Be careful when spring is compressed. Do not drop or jar spring. Doing so might result in the spring forcefully flying free, causing personal injury or damage.
22. Do not use on springs larger than 8" diameter.
23. Do not use on springs with coil wire diameter larger than 13/16".
24. Inspect before use; do not use if parts loose or damaged.
25. Observe work area conditions. Keep work area clean and well lit.
26. Use the right tool for the job. Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. Do not modify this tool and do not use this tool for a purpose for which it was not intended.
27. Stay alert. Watch what you are doing, use common sense. Do not operate any tool when you are tired.
28. Check for damaged parts. Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician.
29. Replacement parts and accessories. When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use accessories intended for use with this tool.
30. Do not operate tool if under the influence of alcohol or drugs. Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.
31. For your safety, maintenance should be performed regularly by a qualified technician. Have qualified service technician inspect this tool annually.
32. Only use this tool with MacPherson struts. Do not use with high pitched springs.
33. Tighten and loosen screws evenly.
34. If spring coils do not compress evenly, loosen the adjusting screw, reposition the strut spring, and retry.
35. Before initial use, apply grease to the Adjustment Bolt. Also, apply grease periodically during use.
36. When reaching the maximum torque (15 ft-lb) by tightening the Adjustment Bolt, discontinue, and loosen the screw. Reposition and retry.
37. Support vehicle on jack stands before working on it.
38. Follow instructions and precautions in vehicle's service manual.
39. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.



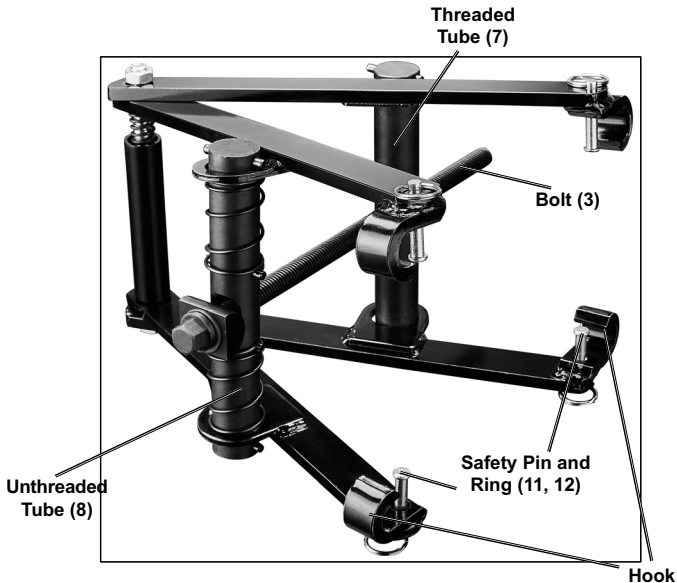
SAVE THESE INSTRUCTIONS

Specifications

Maximum Opening	8"
Maximum Spring Wire Diameter	3/4"
Minimum Spring Wire Diameter	7/16"
Maximum Spring Coil Diameter	8-1/4"
Minimum Spring Coil Diameter	3-3/4"
Lead Screw Torque	30 ft-lb maximum
Compressor Type	MacPherson Struts Only
Load Capacity	2000 lb

Setup - Before Use

Components



Assembly Instructions



Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this document including all text under subheadings therein before set up or use of this product.

1. Thread Washer (4) and Half Tube (6) onto Bolt (3).
2. Insert the Bolt (3) through the hole in the center of the Tube (8).
3. After inserting Bolt (3) through Unthreaded Tube (8), thread bolt through hole in center of the Threaded Tube (7).

Operating Instructions

⚠ WARNING

If removing MacPherson struts from vehicle before use, put the struts in a MacPherson strut vise prior to using the Strut Spring Compressor.

If not removing MacPherson struts from vehicle, vehicle must be securely supported prior to using the Strut Spring Compressor.

Only use hand tools with the Strut Spring Compressor. Do not use any air, electric, or impact tools with this tool. Only operate this tool with a 3/4" socket and ratchet, 3/4" combination wrench, or other applicable hand tool. Power, air, or electric tools may compress the spring too rapidly, leading to injury.

1. Follow the vehicle service manual's instructions to remove the MacPherson Strut from the vehicle.
2. Position the strut into a strut vise.
3. Shut the vise and tighten.
8. Turn the Adjustment Bolt (3) clockwise to compress the strut spring. **ONLY COMPRESS THE SPRING ENOUGH TO REMOVE THE DRIVE NUT.**

WARNING! IF THE SPRING DOESN'T COMPRESS EVENLY, LOOSEN AND REPOSITION.

WARNING! TO PREVENT SERIOUS INJURY: DO NOT OVERTIGHTEN. Do not allow contact between spring coils or between the arms of the Strut Spring Compressor.

4. Open the Spring Compressor up to 8". Do not open more than 8" or a long strut may slip off of the tool.
5. Make sure the nut on top of the Bolt (3) is facing up.
6. Position the top hooks over the strut springs and tighten the Bolt (3) so that the lower hooks will fit over the spring. See Figure A.
9. Remove the strut rod nut, mounting plate, and spring seat.
10. Carefully remove the spring with the strut spring compressor still attached.
11. Repair or replace the strut (See vehicle service manual).
12. Set the spring over the repaired or new strut and re-install the rod nut, mounting plate, and spring seat.
13. Loosen the strut spring compressor and remove it.
14. Remove the strut from the strut vise.

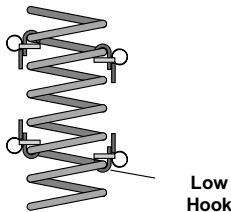


Figure A: Lower Hook

7. Make sure the same number of coils are between the hooks on each side of the spring. Make sure the hooks are securely fastened and sit in line with the center axis of the spring. See Figure B.

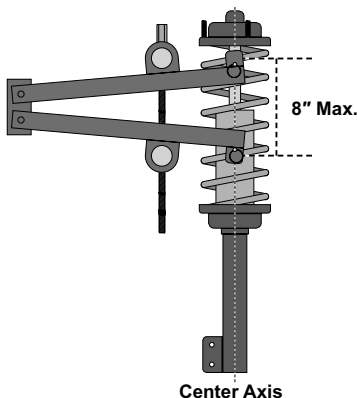


Figure B: Hook Location

Maintenance



Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this document including all text under subheadings therein before set up or use of this product.

1. Grease the Adjustment Bolt (3) threads regularly.
2. An annual Strut Spring Compressor inspection is recommended. Only qualified service technicians should inspect this tool. If the tool is used extensively, more frequent inspections are recommended.

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS DOCUMENT AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

Record Serial Number Here:

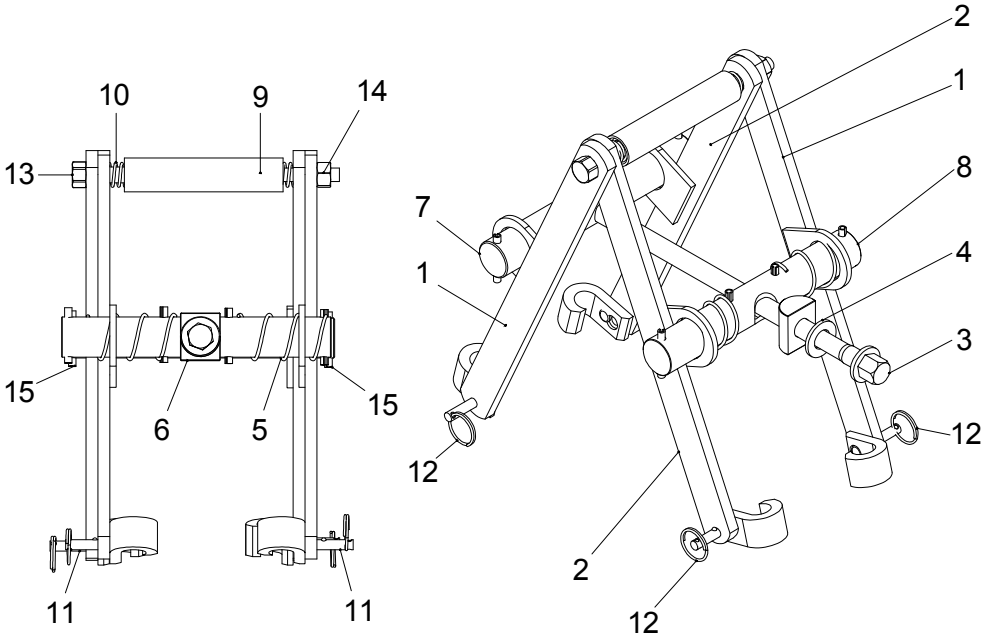
Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts. Specify UPC 193175471758 when ordering parts.

Parts List and Diagram

Part	Description	Qty
1	Pillar (Left)	2
2	Pillar (Right)	2
3	Bolt	1
4	Washer	1
5	Spring	2
6	Half Tube	1
7	Tube w/ Bolt Threads	1
8	Tube w/o Bolt Threads	1

Part	Description	Qty
9	Tube (Top)	1
10	Spring	1
11	Safety Pin	4
12	Ring	4
13	Hex Bolt	1
14	Hex Screw	1
15	Pin for Tube	6



Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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26677 Agoura Road • Calabasas, CA 91302 • 1-888-866-5797