

Owner's Manual & Safety Instructions

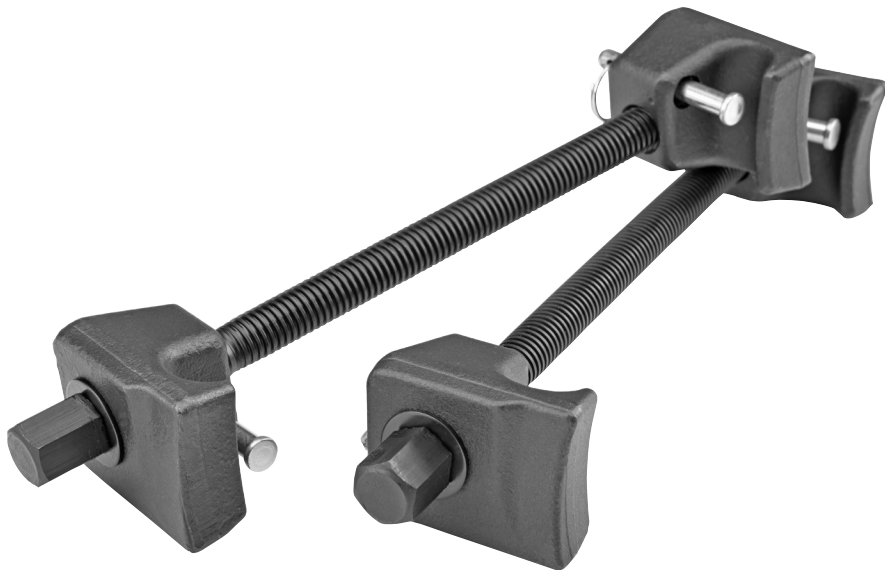
Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual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

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MADDOX™
SUPERIOR AUTOMOTIVE TOOLS

ME4-1

MacPherson Strut Spring Compressor Set



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

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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.

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⚠WARNING

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

Specifications

Maximum Spring Wire Diameter	5/8"
Maximum Compressible Spring Length	10"
Minimum Spring Coil Outer Diameter	2.5"
Maximum Spring Coil Outer Diameter	6"
Maximum Rated Capacity	2200 lb.

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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 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. Tighten and loosen the screws evenly.
8. Do not compress spring with an impact wrench.
9. Do not use the strut spring compressor if it is worn or damaged.
10. Do not compress strut springs exhibiting corrosion or damage.
11. If the spring is difficult to compress, or it bows or tilts, release the spring and reposition.
12. Compress the spring only enough for the strut to be loose in its mountings.
13. Do not loosen the strut piston rod nut if there is pressure on the spring mounting.
14. Replace damaged components immediately.
15. Do not leave the spring compressed.
16. Make sure the piston rod nut is fully engaged and tightened before releasing the compressed spring.
17. No alterations shall be made to this product.
18. Only attachments and adapters supplied by the manufacturer or supplier shall be used.
19. Wear appropriate personal protective equipment (PPE) as required by OSHA regulations.
20. Use as a pair only. Tighten and release evenly and slowly. Only use hand tools to tighten/release.
21. Secure spring in place with locking pins before use.
22. Keep work area clean. Cluttered areas invite injuries.
23. Consider work area conditions. Don't use in damp, wet, or poorly lit locations. Don't expose to rain. Keep work area well lit.
24. This product is not a toy. Do not allow children to play with or near this item.
25. Store idle equipment. When not in use, tools should be locked up in a dry location to inhibit rust.
26. Don't force the machine or tool. It will do the job better and more safely at the rate for which it was intended.
27. Use as intended only.
28. Dress properly. Don't wear loose clothing or jewelry. They can be caught in moving parts. Protective gloves and non-skid footwear are recommended when working. Wear restrictive hair covering to contain long hair, preventing it from getting caught in machinery.
29. Wear ANSI-approved safety goggles and heavy-duty work gloves during setup and use.
30. Don't overreach. Keep proper footing and balance at all times.
31. Maintain tools with care. Keep tools clean for better and safer performance. Follow instructions for lubricating and changing accessories. Keep handles dry, clean, and free from oil and grease.
32. Stay alert. Watch what you are doing, use common sense. Don't operate any tool when you are tired.
33. Inspect before every use; do not use if parts are loose or damaged.
34. Replacement parts and accessories. When servicing, use only identical replacement parts. Only use accessories intended for use with this tool. Approved accessories are available from Harbor Freight Tools.
35. Do not use when tired or when under the influence of alcohol, drugs or medication.
36. Maintain product labels and nameplates. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.



SAVE THESE INSTRUCTIONS.

Operation



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

Setup

For the purposes of this manual, it is assumed you will be removing a strut spring from a MacPherson-style strut assembly which has been removed from the vehicle.

1. Place the strut assembly down on a workbench or other solid work surface.
2. Examine the strut spring inside the strut assembly. Identify areas at each end of the strut spring to attach the Puller Hooks of the Strut Spring Compressor. There needs to be enough space between the coils for the Puller Hooks to fit between and still allow you enough compression to collapse the spring enough for safe removal. Ideally the Puller Hooks should be placed towards the outer ends of the coil spring.
3. Adjust the head of the Screw (3) to move the Threaded Puller Hook (1) to the end of the Screw, as shown in Figure A.
4. With the Locking Pins (4) in the unlocked position, place the Threaded Puller Hook around the strut spring at the spot you identified in Step 2, as shown in Figure B.

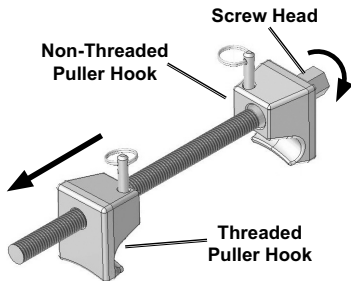


Figure A

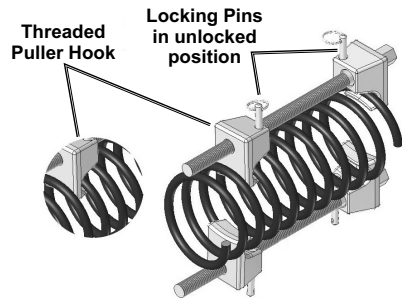


Figure B

5. Adjust the Non-Threaded Puller Hook (2) to fit around the strut spring at the end opposite from Step 4. Make sure the Strut Spring Compressor is parallel (straight up and down) with the strut assembly, as shown in Figure C.

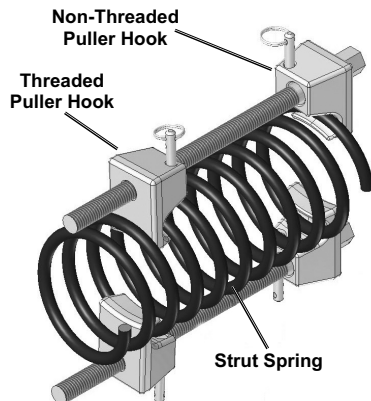


Figure C

6. Tighten the head of the Screw until it contacts the Non-Threaded Puller Hook.

7. Push in the Locking Pins on both the Threaded and Non-Threaded Puller Hooks until they snap into locked position. Refer to Figure D: and Figure E:.
8. Repeat Steps 2 through 7 with the second Strut Spring Compressor Assembly.

WARNING! Always use both Strut Spring Compressors on the same spring, at the same time.

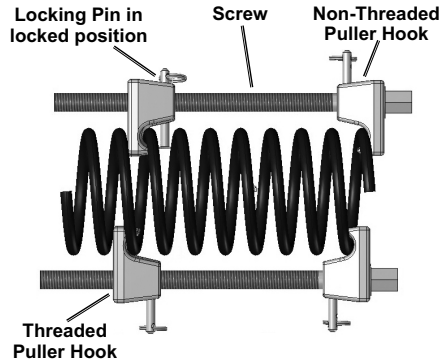


Figure D:

Removing The Strut Springs

1. Check the Locking Pins to ensure they are in the locked position. Refer to Figure E:.
2. Rotate the strut assembly so the head of the Screw can be easily accessed on each Strut Spring Compressor.
3. Begin to tighten the head of the Screw on one Strut Spring Compressor as shown in Figure E:.. Tighten the Screw about one inch, then tighten the Screw of the other Strut Spring Compressor an equal amount.

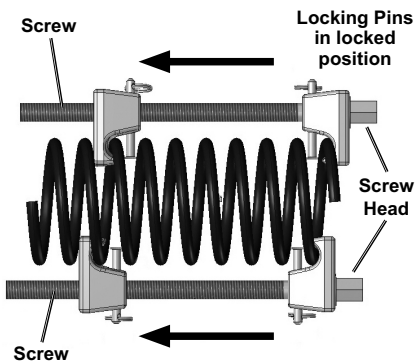


Figure E:

WARNING! To prevent serious injury or DEATH from the spring suddenly launching free: Tighten the Screws **EVENLY**. Do not tighten one Strut Spring Compressor all at once.

4. As the Screw on each Strut Spring Compressor is tightened, the strut spring will begin to compress. When the strut spring has been compressed enough to allow free play of the coil spring on the strut assembly, you may remove the strut bearing nut at the top of the strut assembly and remove the strut bearing and top hat. The compressed strut spring can now be removed.

WARNING! To reduce the pressure on the spring and maintain better stability, only tighten as much as is necessary.

5. If the Strut Spring Compressors have been tightened as far as possible and there is no free play of the coil spring on the strut assembly, **DO NOT REMOVE** the strut bearing nut. Remove the Strut Spring Compressors evenly and place the Puller Hooks further apart on the coil spring in order to compress more of the coil spring. Repeat Steps 2 through 4.
6. Do not store a compressed coil spring for ANY length of time, even if you are immediately replacing the strut. Loosen the Screws on the Strut Spring Compressors **EVENLY** to reduce pressure.



Procedures not specifically explained in this manual must be performed only by a qualified technician.

WARNING

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE:

Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

Cleaning, Maintenance, and Lubrication

1. **BEFORE EACH USE**, inspect the Locking Pins, Screws, and Puller Hooks on the Strut Spring Compressors. Check for:

- loose hardware
- misalignment or binding of moving parts
- cracked or broken parts
- any other condition that may affect safe operation.

Do not use if you find any cracks or other damage.

NOTE: Keep threads on Screws clean and lubricated at all times with a premium quality, light weight machine oil.

2. **AFTER USE**, wipe external surfaces of the tool with clean cloth.
3. When storing, keep the Strut Spring Compressor Set in its Carrying Case.

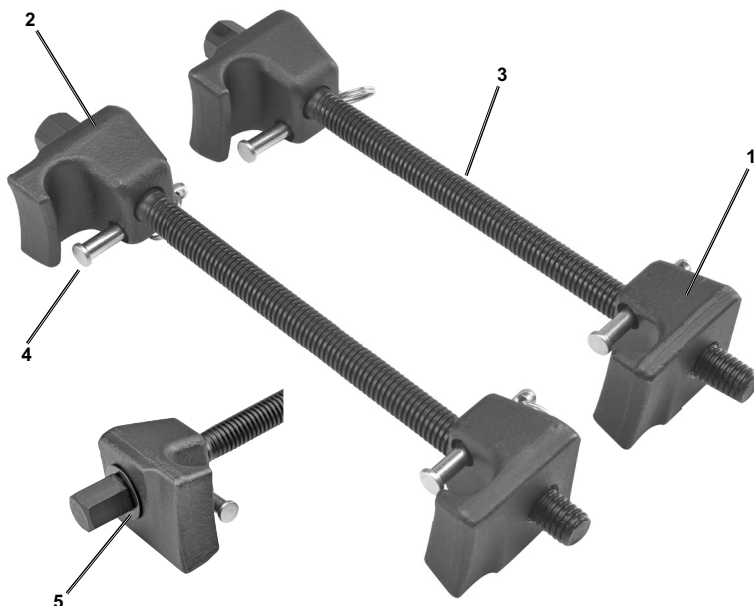
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Parts List And Assembly Diagram

Part	Description	Qty
1	Threaded Puller Hook	2
2	Non-Threaded Puller Hook	2
3	Screw	2

Part	Description	Qty
4	Locking Pin	4
5	Washer	2



Record Product's 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.

Visit harborfreight.com/parts for a list of in stock parts. Reference UPC792363632621.

Limited 90 Day Warranty

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

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