

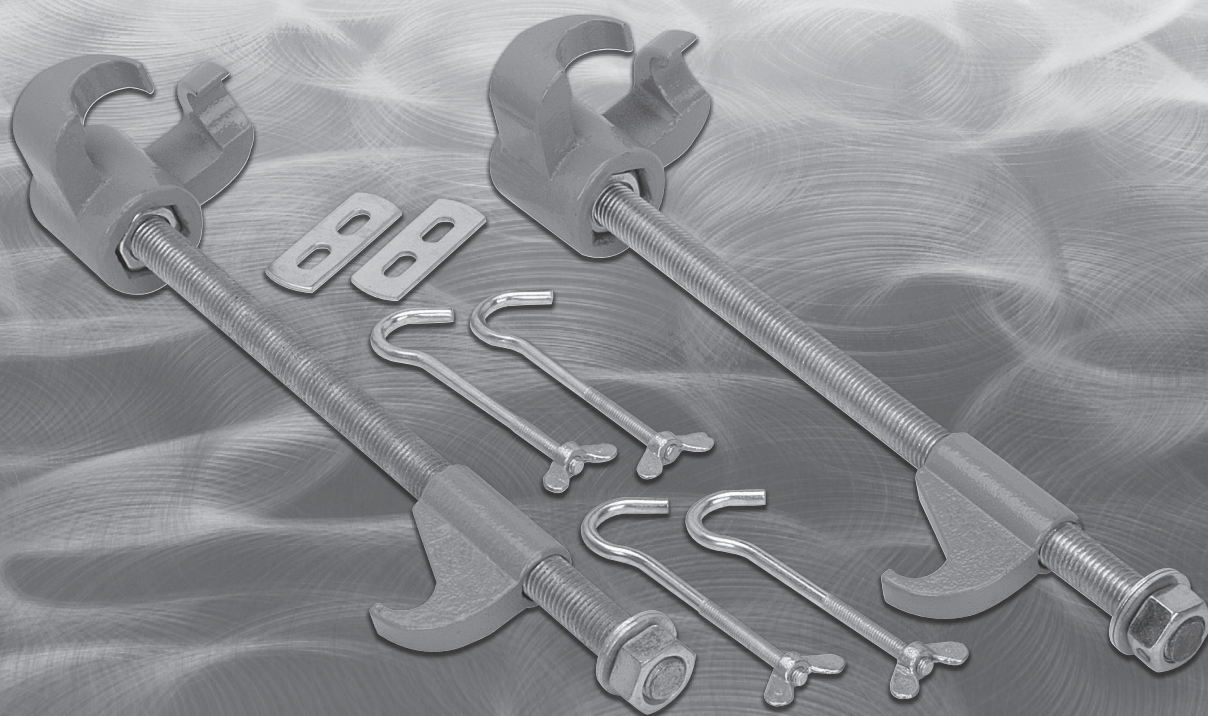
Owner's Manual & Safety Instructions

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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ITEM 61654

MacPherson Strut Spring Compressor Set



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

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-800-444-3353 as soon as possible.

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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.

⚠ WARNING

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

Specifications

Maximum Spring Diameter	5/8"
Maximum Compressible Spring Length	10"
Maximum Strut Spring Outside Diameter	6"

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IMPORTANT SAFETY INFORMATION

1. Use as a pair only. Tighten and release evenly and slowly. Only use hand tools to tighten/release.
2. Secure spring in place with pins before use.
3. Keep work area clean. Cluttered areas invite injuries.
4. Consider work area conditions. Don't use in damp, wet, or poorly lit locations. Don't expose to rain. Keep work area well lit.
5. This product is not a toy. Do not allow children to play with or near this item.
6. Store idle equipment. When not in use, tools should be locked up in a dry location to inhibit rust.
7. Don't force the machine or tool. It will do the job better and more safely at the rate for which it was intended.
8. Use as intended only.
9. 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.
10. Wear ANSI-approved safety goggles and heavy-duty work gloves during setup and use.
11. Don't overreach. Keep proper footing and balance at all times.
12. 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.
13. Stay alert. Watch what you are doing, use common sense. Don't operate any tool when you are tired.
14. Inspect before every use; do not use if parts are loose or damaged.
15. 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.
16. Do not use when tired or when under the influence of alcohol, drugs or medication.
17. Maintain product labels and nameplates. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.



SAVE THESE INSTRUCTIONS.

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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. You will need to 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 you will place the Puller Hooks towards the outer ends of the coil spring.
3. Adjust the Support Bar Nut (9) to move the Double Puller Hook (2) to the end of the Support Bar (3), as shown in Figure A.
5. Adjust the Puller Hook 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.

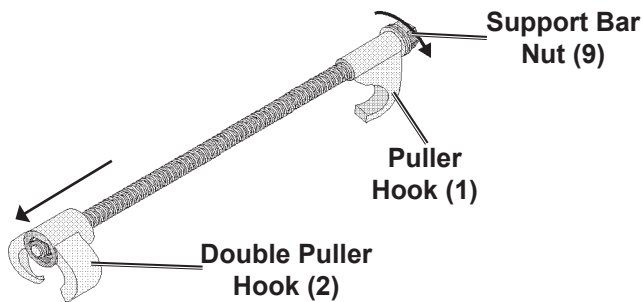


Figure A: Adjusting the Puller Hook

4. Place the Double Puller Hooks (2) around the strut spring at the spot you identified in Step 2, as shown in Figure B.

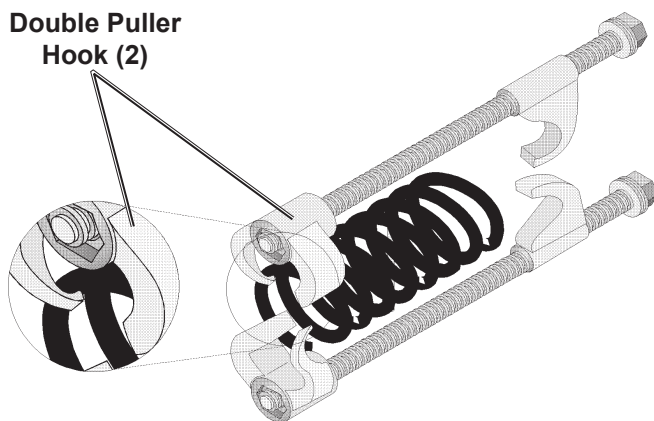


Figure B: Proper Hook Placement

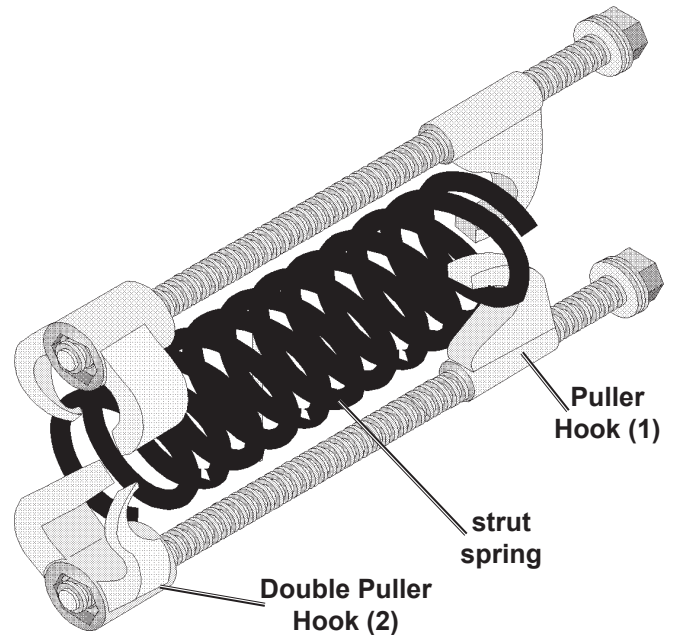


Figure C: Compressor-Spring Alignment

6. Tighten the Support Bar Nut (9) until it contacts the Puller Hook (1).
7. Remove the Wing Nuts (4) from two of the Safety Hooks (6).

8. Place one Safety Hook (6) on each side of the Puller Hook (1) and around each strut spring, as shown in Figure D.
9. Place the Bracket (5) over the two threaded ends of two Safety Hooks (6). The Brackets (5) should hold the two Safety Hooks (6) together next to the Puller Hook (1).
10. Thread one Wing Nut (4) onto each Safety Hook (6) then tighten the Bracket (5) against the Puller Hook as shown in Figure D. The Wing Nuts (4) should be finger tight.
11. Repeat Steps 2 through 10 with the second Strut Spring Compressor Assembly.

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

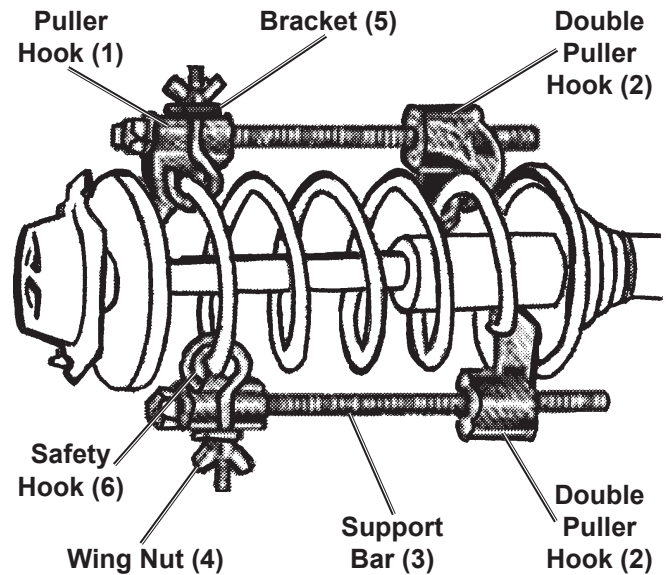


Figure D: Safety Hook Positioning

Removing The Strut Springs

1. Check the Safety Hooks (6) to ensure they are installed correctly.
2. Rotate the Strut Assembly so you can easily access the Support Bar Nut (9) on each Strut Spring Compressor.
3. Begin to tighten the Support Bar Nut (9) on one Strut Spring Compressor as shown in Figure E. Tighten the Support Bar Nut (9) about one inch, then tighten the Support Bar Nut (9) of the other Strut Spring Compressor an equal amount.

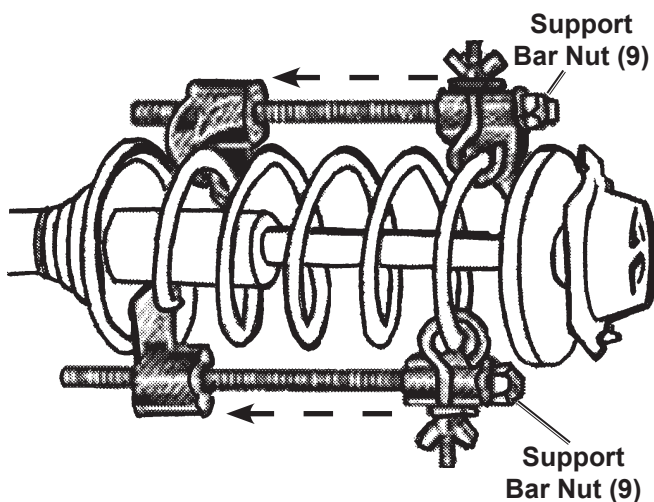


Figure E: Tighten the Nuts Evenly

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

4. As you tighten the Support Bar Nut (3) on each Strut Spring Compressor, you will be compressing the strut spring. When you compress the strut spring 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. You can now remove the compressed strut spring.

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

5. If you have tightened the Coil Spring Compressors 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 Coil 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 6.
6. Do not store a compressed coil spring for ANY length of time, even if you are immediately replacing the Strut. Loosen the Support Bar Nuts (9) on the Coil Spring Compressors **EVENLY** to reduce pressure.

Maintenance



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

Before and after each use, inspect the Safety Hooks, Brackets, and the Puller Hooks on the Strut Spring Compressors. **Do not use if you find any cracks or other damage.**

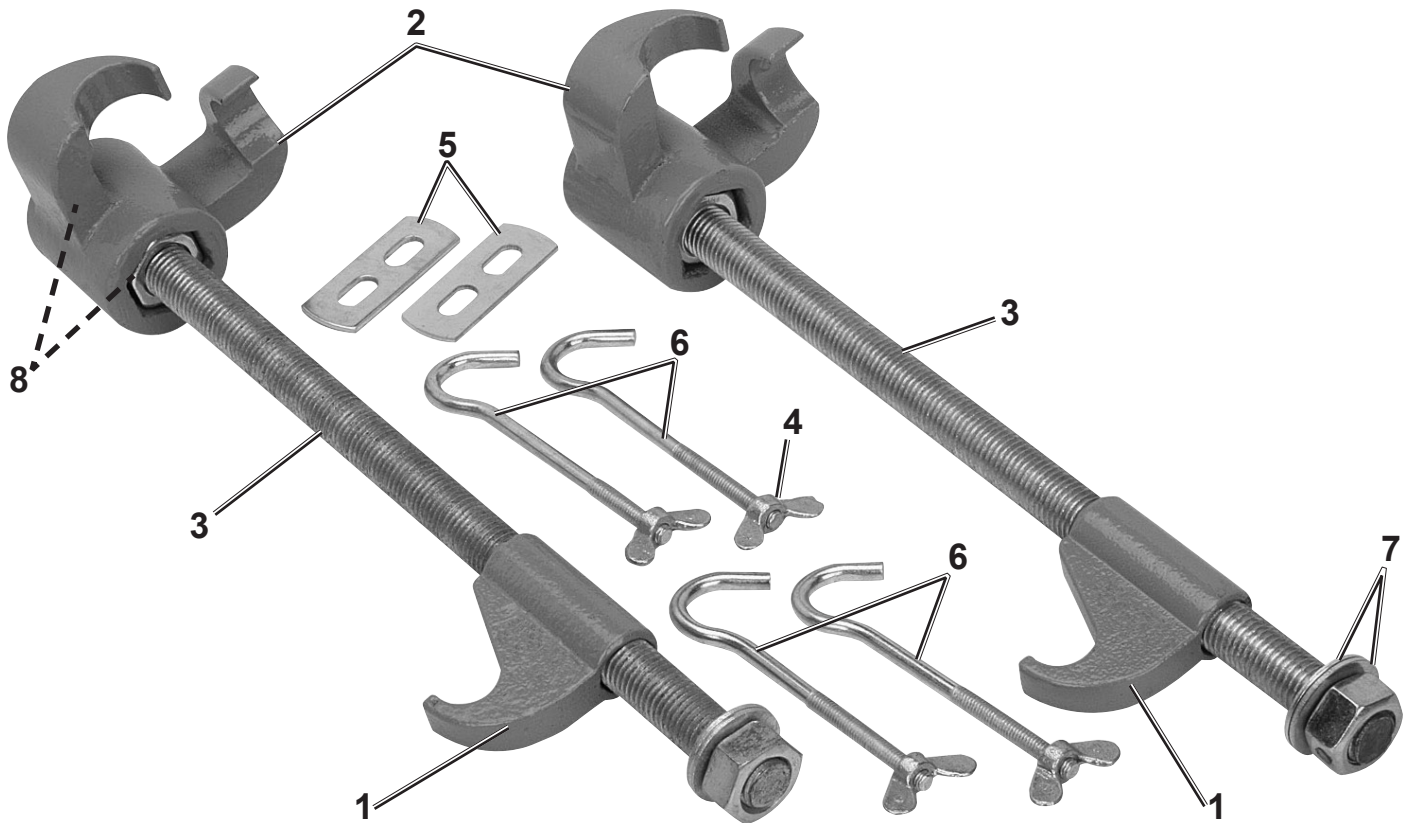
NOTE: Keep thread clean and lubricated at all times.

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Parts List And Assembly Diagram

Part	Description	Qty
1	Single Puller Hook	2
2	Double Puller Hook	2
3	Support Bar	2
4	Wing Nut	4
5	Bracket	2

Part	Description	Qty
6	Safety Hook	4
7	Washer	4
8	Nut (hidden inside part 2)	4
9	Support Bar Nut	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.

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