

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.

211

MADDOX™
SUPERIOR AUTOMOTIVE TOOLS

MD12

Large Valve Spring Compressor



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

58802

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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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.

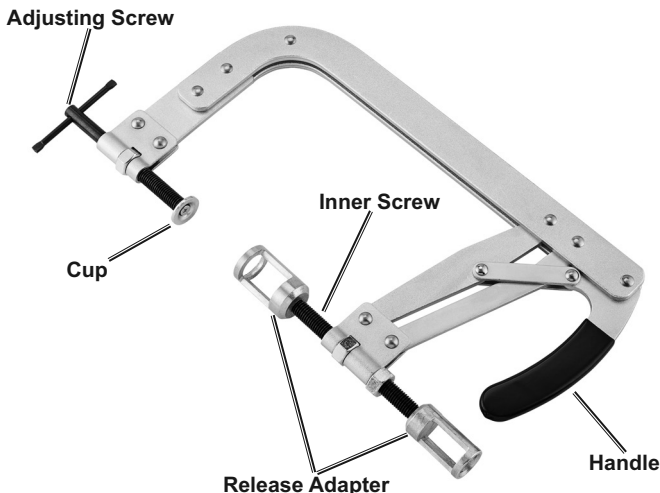
Specifications

Jaw Opening	1-3/8" (35mm) to 5-5/8" (142mm)
Throat Clearance	5-7/8" (150mm)
Valve Spring Adapter Sizes	1" (25mm) and 1-3/16" (30mm)

IMPORTANT SAFETY INFORMATION

1. **Block drive wheels before use. Set parking brake and put gear selector in neutral for manual transmission or park for automatic transmission. Risk of sudden vehicle movement!**
2. **Read vehicle's service manual before use.**
3. **Keep away from hot or moving engine parts.**
4. **Inspect before every use; do not use if parts loose or damaged.**
5. **Wear ANSI-approved safety goggles during use.**
6. **Maintain product labels and nameplates.** These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
7. The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors, which cannot be built into this product, but must be supplied by the operator.

Functions



Operating Instructions



Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this document before set up or use of this product.

Note: Refer to vehicle service manual for engine head removal process.

1. Remove head, then place head on a stable work bench or head stand.
2. Secure head in a position where valves are facing down and do not make contact with work bench surface to prevent damage to valve.
3. Place a properly sized socket onto spring retainer cap.
4. If needed for clearance, place an extension onto socket.
5. Lightly tap socket or extension with a striking tool to loosen collets from spring retainer cap and valve spring keepers.
6. If applicable, remove the clip from the valve keeper.
7. Determine which Release Adapter best fits the circumference of spring retainer cap and thread onto Inner Screw.

CAUTION: TO PREVENT PROPERTY DAMAGE: ensure Cup and Release Adapter to not make contact with head while locking Valve Spring Compressor.

8. Carefully center Cup onto valve and Release Adapter onto spring retainer cap.
9. Grip Valve Spring Compressor with both hands and push Handle forward to lock.
10. Turn Adjusting Screw clockwise to compress valve spring to expose collets.
11. Remove collets using a magnet.
12. Loosen Adjusting Screw to release pressure before removing Compressor.
13. Hold valve in place and remove spring assembly.
14. Carefully remove valve.

Note: Refer to vehicle service manual for engine head assembly and installation process.

Inspection, Maintenance and Cleaning



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

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.

1. **BEFORE EACH USE**, inspect the general condition of the tool. Check for cracked or broken parts, damaged hoses, loose fittings, misalignment or binding of moving parts, and any other condition that may affect its safe operation.
2. **AFTER USE**, clean external surfaces of the tool when necessary with a clean, damp cloth and mild detergent. Store the Valve Spring Compressor tool in a clean, dry, safe location out of reach of children.

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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