

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 (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.

23a

PITTSBURGH® **COMPRESSION TEST KIT**



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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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

Pressure Scale	0 <-> 300 PSI / 0 <-> 20 BAR
Air Release Type	Push Button Release
Hose Fitting	M10, M12, M14, M18 (Male, With "O" Ring)
Hose Size	1/2" Diameter x 20" Long

IMPORTANT SAFETY INFORMATION

- 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!
- Read vehicle's service manual before use.**
- Keep away from hot or moving engine parts.**
- Use with gasoline engines only.**
Do not exceed gauge range.
- Secure connections before use.**
- Inspect before every use; do not use if parts loose or damaged.**
- Wear ANSI-approved safety goggles during use.**
- Use the Tester only in well-ventilated areas.** A running gasoline engine produces carbon monoxide.
Carbon monoxide is a colorless, odorless, gas that can cause serious injury or death.
- Maintain labels and nameplates on the Compression Tester.**
These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
- People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.
Caution is necessary when near coil, spark plug cables, or distributor of running engine. Engine should be off during distributor adjustment.
- 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.



Instructions



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

NOTE: Performing a compression test requires the work of *two* individuals; one person to operate the vehicle's ignition switch while the other person operates the Compression Tester.

1. Prepare the engine for compression testing by starting the engine and allowing it to warm up to its normal operating temperature. Then, switch off the ignition.
WARNING! TO PREVENT SERIOUS INJURY: Avoid carbon monoxide poisoning! Never run a gasoline engine in an enclosed garage or other contained area.
2. Once the engine has been turned off, disconnect both coil wires from the coil of the engine. Insulate coil wires or route them away from each other and all metal surfaces.
3. Remove all of the spark plugs. Make note of which spark plug wires go to each spark plug locations.
4. Attach either the Adapter Fitting or Hose and Hose Fitting to the Gauge.
5. Connect the Compression Tester to the first cylinder of the engine. With the gas pedal pressed all the way down, crank the engine for at least eight revolutions.
6. While cranking the engine, observe the Gauge. Record the maximum reading.
7. After recording the maximum reading, stop cranking the engine. Then, release the air pressure in the Gauge by pressing the Air Release Button.
8. Remove the Compression Tester from the first engine cylinder. Then repeat Steps #5, #6, and #7 for the remaining engine cylinders.

NOTE: Good engine cylinder compression will be indicated with a high initial reading, and a progressive build-up to the final maximum reading. Poor engine cylinder compression will be indicated with a low initial reading, and a much slower build-up to the final maximum reading. The compression readings for all of the engine cylinders should not vary by more than 10%. Check service manual for acceptable pressure ranges.

Parts List

Part	Description
1	Gauge
2	Hose
3	Angled Adapter Fitting
4	Straight Adapter Fitting
5	M18 Hose Fitting
6	M14 Hose Fitting
7	M12 Hose Fitting
8	M10 Hose Fitting

Record Serial Number Here: _____

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

Note: Some parts are listed for illustration purposes only, and are not available individually as replacement parts. Reference UPC 193175487391.

PLEASE READ THE FOLLOWING CAREFULLY

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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.

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