Cylinder Hone

Item 97163 – Brake Caliper Cylinder Hone

Item 97164 – Engine Cylinder Hone

INSTRUCTIONS AND PRECAUTIONS
Visit our website at: http://www.harborfreight.com

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

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.

Copyright© 2007 by Harbor Freight Tools®. All rights reserved. No portion of this document 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 document 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.

For technical questions or replacement parts, please call 1-800-444-3353.

Manual Revised 11b

Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>97163</th>
<th>97164</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>Brake Caliper</td>
<td>Engine</td>
</tr>
<tr>
<td>Capacity</td>
<td>3/4”–2-1/2”</td>
<td>2”–7”</td>
</tr>
<tr>
<td>Shaft</td>
<td>5/16”</td>
<td>5/8”</td>
</tr>
</tbody>
</table>

Important Safety Information

1. Wear ANSI-approved safety goggles during use.
2. Keep work area clean and well lit.
3. Keep bystanders out of the work area.
4. Do not use when tired or when under the influence of drugs or medication.
5. This product is not a toy. Do not allow children to play with or near this item.
6. Use as intended only.
7. Inspect before every use; do not use if parts are loose or damaged.
8. Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
9. Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contains chemicals known [to the State of California] to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
Lead from lead-based paints
Crystalline silica from bricks and
cement or other masonry products
Arsenic and chromium from
chemically treated lumber
Your risk from these exposures
varies, depending on how often
you do this type of work. To
reduce your exposure to these
chemicals: work in a well ventilated
area, and work with approved
safety equipment, such as those
dust masks that are specially
designed to filter out microscopic
particles. (California Health &
Safety Code § 25249.5, et seq.)

10. 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.

Operating Instructions

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.

1. Connect the hone to an appropriate
size drill or drill press.

2. Hone the cylinder per the cylinder
manufacturer’s directions.

WARNING! After honing, clean the
cylinder thoroughly. Otherwise the
remaining dust from the honing
procedure will cause critical failure.

3. To prevent accidents, remove
the hone from the drill.
Clean, then store the tool indoors
out of children’s reach.

Maintenance And Servicing

1. BEFORE EACH USE, inspect
the general condition of the
tool. Check for loose screws,
misalignment or binding of moving
parts, cracked or broken parts,
and any other condition that
may affect its safe operation.

2. AFTER USE, clean external
surfaces of the tool with
clean, dry cloth.

3. Replace the hone blocks as needed
by removing the screws that attach
the blocks to the hone arms and
fastening on new blocks. Replace
all blocks at the same time.
## Parts List and Assembly Diagram

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shaft</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Hone Blocks</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

### 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.
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.