6 TON A-FRAME
BENCH SHOP PRESS

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

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.

WARNING

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

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Table of Contents

| Safety ................................................. 2 | Maintenance ........................................ 9 |
| Specifications .................................... 3 | Parts List and Assembly Diagram ................. 11 |
| Assembly ............................................. 5 | Warranty ............................................. 12 |
| Operation ............................................. 8 |

Important Safety Information

1. Keep hands away from arbor plates and press pin during use.
2. Do not move workpiece while compressed.
3. Release load before service or maintenance.
4. Keep area under arbor plates clear. If arbor plates rest on obstruction (i.e. bolt, debris, etc.), it creates an uneven press, causing excess stress and possible breakage.
5. Avoid off-center loads. Do not operate if workpiece tilts or binds during compression.
6. STOP and release compression if you suspect imminent structural failure. If safe, inspect thoroughly and reposition before proceeding.
7. Do not compress springs or other elastic objects. They could disengage hazardously.
8. Wear ANSI-approved safety goggles, heavy-duty work gloves, and steel-toe work boots during set up and/or use.
9. Keep bystanders out of work area.
10. Do not stand directly in front of the press when loaded. Do not leave the press unattended when loaded.
11. Do not operate the hydraulic ram beyond rated capacity.
12. Inspect before every use; do not use if parts are loose or damaged.
13. Ram service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
14. When servicing a ram, use only identical replacement parts—refer to attached, product-specific parts list and diagram. Follow instructions in the “User - Maintenance Instructions” section of this manual. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of injury.
15. Only use with accessories rated to handle the forces exerted by this tool during operation. Other accessories not designed for the forces generated may break and forcefully launch pieces.

16. Use only with ram included with this press.

17. Industrial applications must follow OSHA requirements.

18. This product is not a toy. Keep it out of reach of children.

19. Maintain labels and nameplates on the Shop Press. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.

20. 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.

SAVE THESE INSTRUCTIONS.

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Capacity</td>
<td>6 Tons (12,000 lb)</td>
</tr>
<tr>
<td>Working Distance</td>
<td>2&quot; - 4&quot;</td>
</tr>
<tr>
<td>Press Pin Diameter</td>
<td>Ø5/8&quot;</td>
</tr>
</tbody>
</table>

For technical questions, please call 1-888-866-5797.
For additional information regarding the parts listed in the following pages, refer to the Parts List and Assembly Diagram near the end of this manual.

Components and Controls

Figure A
Assembly 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.

Wear ANSI-approved safety goggles, heavy-duty work gloves, and steel-toe work boots during set up and/or use.

**Note:** Finger tighten all connections until assembly is done. Unless directed otherwise, do not fully tighten the fasteners until ready to align the assembled press.

Assemble on a flat, level, hard surface.

Use a helper when necessary.

1. Attach Back (6) and Front (11) Frames to Foot (3) with two sets of Bolts (1), Washers (2), and Nuts (4).
   **Note:** Make sure holes align on Back and Front Frames.

2. Repeat for the other Frames and Foot.

3. Attach Spreader (5) to front and back of Frame/Foot assembly with two Bolts (1), Washers (2), and Nuts (4).

4. Repeat to attach other Frame/Foot assembly to the other end of the Spreader (5).

5. Slide Press Apron (15) over Foot/Frame assemblies and secure with Press Apron Support Pins (7).
   **WARNING!** Support Pins must be centered.

6. Attach lower Press Pin Guide (18) to Bottom Cross Beam (16) with two Bolts (1), Washers (2), and Nuts (4). Tighten securely.

7. Attach upper Press Pin Guide (18) to Top Cross Beam (17) with two Bolts (1), Washers (2), and Nuts (4). Tighten securely.
8. Slide Bottom Cross Beam assembly between Frame/Foot assemblies and attach with two sets of Bolts (9), Washers (2) and Nuts (4).

![Figure G](image)

9. Attach two Header Supports (29) together with Bolt (28), Washer (24), and Nut (23), leaving a gap for the Header.

10. Repeat for other two Header Supports.

![Figure H](image)

11. Slide Header (30) between Header Support assemblies and attach with two sets of Bolts (27), Washers (26) and Nuts (25).

**Note:** Tighten connections enough to avoid wobbling.

![Figure I](image)

12. Slide Top Cross Beam assembly between Frame/Foot assemblies and, at the same time, place Header Support assemblies outside Frame/Foot assemblies.

13. Attach with two sets of Bolts (10), Washers (12) and Nuts (13).

**Note:** Tighten connections enough to avoid wobbling.

![Figure J](image)

14. Hang Springs (22) on Bolts (28) that connect Header Supports.

**Note:** Use a helper for the next step.
15. Attach both Eye Bolts (21) to Ram Plate (19) by threading Nuts (20) about 1/2" in only.


17. Align the assembled press. Square the bottom frame and tighten it. Level the top frame and square all components, then tighten all connections securely, except for Eye Bolts. **WARNING!** Press Apron Support Pins (7) must be centered.

18. Pull up on Ram Plate and attach Eye Bolts to Springs.

19. Push Ram Piston all the way down, then place Ram (31) on Ram Plate.

   **Note:** If more space is needed to install Ram, loosen Eye Bolts.

20. When Ram is in place, tighten Eye Bolts evenly, making sure the Ram Plate remains level.

21. Install Ram Handle (8) and pump it until Piston is seated firmly in Piston Ring. Verify alignment, then tighten Eye Bolts as needed. Verify the Jack is in line with the Ram and all connections are tight.

22. Place Arbor Plates (14) on Press Apron (15).

23. Follow instructions in **Bleeding the Ram on page 8**.

24. Locate Shop Press on a solid, level surface, capable of supporting the weight of the Shop Press and the workpiece.
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.

Inspect tool before use, looking for damaged, loose, and missing parts. If any problems are found, do not use tool until repaired. Wear ANSI-approved safety goggles, heavy-duty work gloves, and steel-toe work boots during set up and/or use.

Bleeding the Ram

IMPORTANT! Before first use, check for proper hydraulic fluid level in the Ram. Then thoroughly test the Ram for proper operation prior to its actual use. If the Ram appears not to be working properly, it may be necessary to bleed its hydraulic system of excess air. To bleed the Ram:

1. Remove the Fill Plug.
2. Place the slot on the Ram Handle over the Release Valve.
3. Turn the Ram Handle counterclockwise to open the Release Valve.
4. Insert the Ram Handle into the Fulcrum, then pump the Ram Handle quickly several times.
5. Check the Fill Hole and, if necessary, top off with hydraulic fluid.
6. Place the slot on the Ram Handle over the Release Valve Screw.
7. Turn the Ram Handle clockwise to close the Release Valve.
8. Replace the Fill Plug.
9. Test the Ram several times before putting into use.

General Operating Instructions

1. Adjust the Press Apron height as necessary.

Note: The Press Apron should be in the highest position possible with the workpiece as close as possible to the Press Pin.

2. Place the workpiece on the Arbor Plates. Adjust the Arbor Plates to support the stationary part of the workpiece.

WARNING! Keep area under Arbor Plates clear. If Arbor Plates rest on obstruction (i.e., bolt, debris, etc.), it creates an uneven press, causing excess stress and possible breakage.

WARNING! When pressing two items together, the items must be lined up vertically. If not, one may forcefully eject itself sideways from the unit.


4. Pump the Ram Handle until Press Pin contacts the workpiece. Continue to pump the Ram Handle to press the workpiece.

5. After work is completed, be careful when releasing Jack pressure. Slowly open the Release Valve, allowing the Ram Plate to rise.

6. WARNING! During the release process the Ram may rise quickly. Stay clear.

7. Store Shop Press out of reach of children.

WARNING! Before use, inspect the position of the Press Apron Support Pins (7) to be sure they are centered before and during operation.
User-Maintenance Instructions

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.

1. Before each use, inspect the general condition of the Shop Press and Ram. Check for broken, cracked, or bent parts, loose or missing parts, and any condition that may affect the proper operation of the product. If a problem occurs, have the problem corrected before further use. Do not use damaged equipment.

2. Before each use, thoroughly test the Ram for proper operation prior to its actual use. If the Ram appears not to be working properly, follow instructions in Bleeding the Ram on page 8.

3. Change the hydraulic fluid at least once every three years. To change the hydraulic fluid:
   a. With the Ram fully lowered, unhook the Springs from the Eye Bolts, then remove the Ram from the Ram Plate.
   b. Remove the Filler Plug.
   c. Tip the Ram to allow the old hydraulic fluid to drain out of the unit completely, and dispose of the old hydraulic fluid in accordance with local regulations.
   d. Completely fill the unit with a high quality hydraulic fluid (not included) until the fluid just begins to run out of the Fill Hole.
   e. Reinstall the Filler Plug.
   f. Clean with a clean cloth using a detergent or mild solvent.
   g. Replace the Ram onto the Ram Plate.
**Troubleshooting**

**WARNING**

**TO PREVENT SERIOUS INJURY:**

Use caution when troubleshooting a malfunctioning ram.

**Completely resolve all problems before use.** If the solutions presented in the Troubleshooting guide do not solve the problem, have a qualified technician inspect and repair the ram before use.

**After the ram is repaired:** Test it carefully without a load by raising it and lowering it fully, checking for proper operation, BEFORE RETURNING THE RAM TO OPERATION.

**DO NOT USE A DAMAGED OR MALFUNCTIONING RAM!**

<table>
<thead>
<tr>
<th>POSSIBLE SYMPTOMS</th>
<th>PROBABLE SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pump stroke feels spongy</td>
<td>X</td>
</tr>
<tr>
<td>piston will not lift all the way</td>
<td>Check that Release Valve is closed fully.</td>
</tr>
<tr>
<td>Handle moves up when ram is under load</td>
<td>X</td>
</tr>
<tr>
<td>Fluid leaking from filler plug</td>
<td>Valves may be blocked and may not close fully. To flush the valves:</td>
</tr>
<tr>
<td></td>
<td>1. Lower the piston and securely close the Release Valve.</td>
</tr>
<tr>
<td></td>
<td>2. Manually lift the piston several inches.</td>
</tr>
<tr>
<td></td>
<td>3. Open the release valve and force the piston down as quickly as possible.</td>
</tr>
<tr>
<td>X X</td>
<td>Ram may be low on fluid. Check the fluid level and refill if needed.</td>
</tr>
<tr>
<td></td>
<td>Ram may require bleeding - see instructions on page 8.</td>
</tr>
<tr>
<td>X</td>
<td>Unit may have too much hydraulic fluid inside, check fluid level and adjust if needed.</td>
</tr>
</tbody>
</table>

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.
### Parts List

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bolt M10 x 20</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>Washer M10</td>
<td>14</td>
</tr>
<tr>
<td>3</td>
<td>Foot</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Nut M10</td>
<td>14</td>
</tr>
<tr>
<td>5</td>
<td>Spreader</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Back Frame</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>Press Apron Support Pin</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>Ram Handle</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Bolt M10 x 100</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>Bolt M12 x 110</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>Front Frame</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>Washer M12</td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>Nut M12</td>
<td>2</td>
</tr>
<tr>
<td>14</td>
<td>Arbor Plate</td>
<td>2</td>
</tr>
<tr>
<td>15</td>
<td>Press Apron</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>Bottom Cross Beam</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>Top Cross Beam</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>Press Pin Guide</td>
<td>2</td>
</tr>
<tr>
<td>19</td>
<td>Ram Plate</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>Nut M8</td>
<td>2</td>
</tr>
<tr>
<td>21</td>
<td>Eye Bolt M6</td>
<td>2</td>
</tr>
<tr>
<td>22</td>
<td>Spring</td>
<td>2</td>
</tr>
<tr>
<td>23</td>
<td>Nut M6</td>
<td>2</td>
</tr>
<tr>
<td>24</td>
<td>Washer M6</td>
<td>2</td>
</tr>
<tr>
<td>25</td>
<td>Nut M12</td>
<td>2</td>
</tr>
<tr>
<td>26</td>
<td>Washer M12</td>
<td>2</td>
</tr>
<tr>
<td>27</td>
<td>Bolt M12 x 45</td>
<td>2</td>
</tr>
<tr>
<td>28</td>
<td>Bolt M6 x 40</td>
<td>2</td>
</tr>
<tr>
<td>29</td>
<td>Header Support</td>
<td>4</td>
</tr>
<tr>
<td>30</td>
<td>Header</td>
<td>1</td>
</tr>
<tr>
<td>31</td>
<td>Ram (6-Ton Jack)</td>
<td>1</td>
</tr>
</tbody>
</table>

### Assembly Diagram

![Assembly Diagram](image-url)
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.

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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.

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