

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.



20 TON SHOP PRESS



Plate design may differ.

Visit our website at: <http://www.harborfreight.com>
Email our technical support at: productsupport@harborfreight.com **ITEM 32879**

REV 14i

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.**

Table of Contents

Safety	2	Maintenance	9
Specifications		Parts List and Diagram	10
Setup	4	Warranty	12
Operation.....	8		

SAFETY



SETUP

OPERATION

MAINTENANCE

WARNING SYMBOLS AND DEFINITIONS	
	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
	Addresses practices not related to personal injury.

IMPORTANT SAFETY INFORMATION

WARNING Read all safety warnings and instructions. *Failure to heed these markings may result in personal injury and/or property damage.* Save all warnings and instructions for future reference.

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.

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. Bolt to floor before use.
5. 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.
6. Avoid off-center loads. Do not operate if workpiece tilts or binds during compression.
7. STOP and release compression if you suspect imminent structural failure. If safe, inspect thoroughly and reposition before proceeding.
8. Do not compress springs or other elastic objects. They could disengage hazardously.
9. Wear ANSI-approved safety goggles, heavy-duty work gloves, and steel-toe work boots during set up and/or use.
10. Keep bystanders out of work area.

11. Do not stand directly in front of the press when loaded. Do not leave the press unattended when loaded.
12. Do not operate the hydraulic ram beyond rated capacity.
13. Inspect before every use; do not use if parts are loose or damaged.
14. Ram service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
15. 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.
16. 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.
17. Use only with Ram included with this Press.
18. Industrial applications must follow OSHA requirements.
19. This product is not a toy. Keep it out of reach of children.
20. Maintain labels and nameplates on the Shop Press. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
21. 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

Maximum Capacity	20 Tons (40,000 pounds)
Fluid Type	Hydraulic Fluid

Note: 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.

SAFETY

SETUP

OPERATION

MAINTENANCE

Setup - Before Use:



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.

WARNING

Inspect tool before use, looking for damaged, loose, and missing parts. If any problems are found, do not use tool until repaired.

Components of this Shop Press are heavy. You will need a helper to safely assemble this product.

Note: For additional information regarding the parts listed in the following pages, refer to the Assembly Diagram near the end of this manual.

Assembly

1. Have a helper stand the Press Frame (1) upright and hold it steady until the Feet (4) are secured in place.
2. Slide each Foot (4) under the Press Frame legs, lining up the bolt holes, as shown above. Insert the Foot Bolts (9) through the Press Frame (1) and the Feet (4), then secure in place with the Nuts (12). See Figure A.

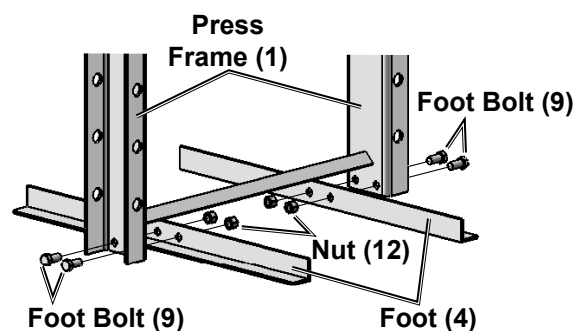


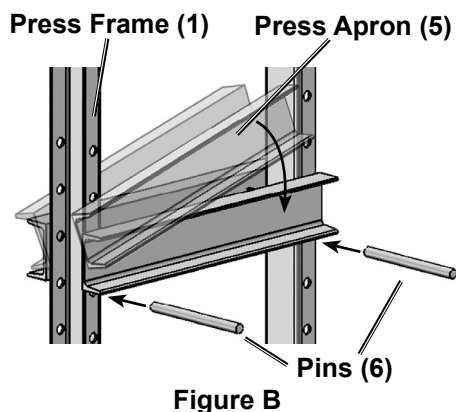
Figure A

Assembly (cont'd)

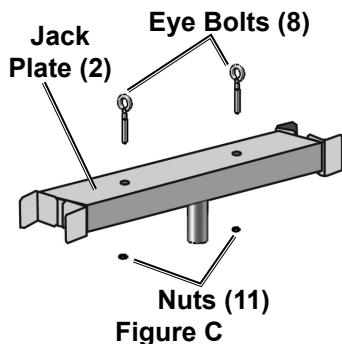
- Determine where you want to use the Press and bolt it to the floor (see Mounting to the Floor on page 6).
- Slide the Pins (6) into the holes in the Press Frame (1).

Note: For set-up, position the pins at least several holes down from the top holes in the Frame legs so you have room to place the Jack Plate (2). You can re-adjust the placement of the Press Apron after assembly.

- Angle the Press Apron (5) so the rails of the Press Apron straddle the Legs of the Press Frame, then lower into place so the Press Apron rests on the Pins. See Figure B.



- Insert the Eye Bolts (8) into the holes in the Jack Plate (2) and secure in place with the Nuts (11). See Figure C.



- Place the Arbor Plates (3) on the Press Apron.
- Angle the Jack Plate (2) the same way you placed the Press Apron and slide it down the Press Frame so it rests on the Arbor Plates. See Figure D.

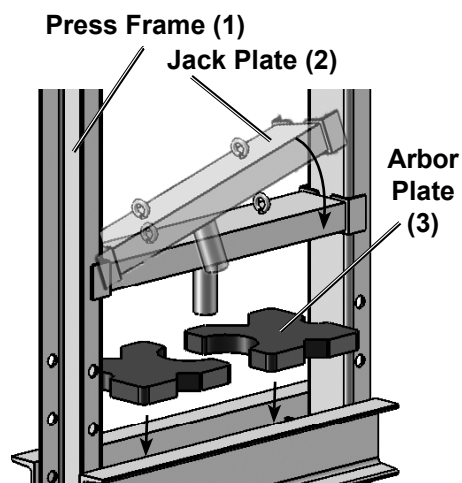


Figure D

- Insert the Spring Bolts (10) through the top of the Press Frame (1) and secure with the Nuts (11). Hang the Springs (7) on the Spring Bolts. See Figure E.

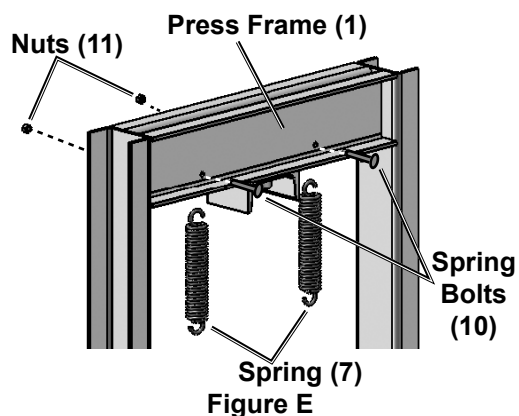


Figure E

- Bleed the Ram (see Bleeding the Ram on page 8) and make sure it is fully collapsed.



Hang the Ram

1. Hang the Springs (4) on the bars of the Ram Ring Header (1). See Figure F.

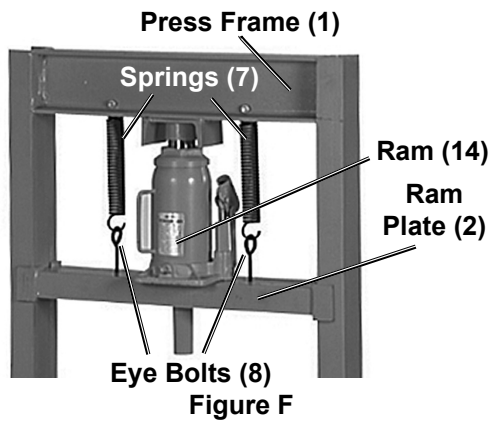


Figure F

2. Place the Bottle Jack (14) on the center of the Jack Plate (2).
3. Slide the Jack Plate up the Press Frame (1) so the Bottle Jack Saddle fits in the bracket (center underside of top of frame).
4. Hook the Springs (7) into the Eye Bolts (8) to secure the Bottle Jack/Jack Plate in place.

SAFETY

Mounting to the Floor

1. To mount the Shop Press, with assistance, move the unit to the location where it is to be used. If needed, drill four 1/2" diameter mounting holes in the feet and use as a template to mark the spots where four 1/2" diameter holes will be drilled in the concrete or wood floor. Check for any hidden wiring or cables and adjust the location for the holes as needed. Then, temporarily set the Shop Press aside.
2. Use a masonry drill bit to drill the four 1/2" diameter holes (about 3"-4" deep) into the concrete. Make sure to blow out the concrete dust from the drilled holes.
3. Set the Shop Press back to the location where it is to be used, and align the four 1/2" diameter mounting holes in its feet with the four pre-drilled 1/2" holes in the concrete or wood. Then use four minimum 3" long, 1/2" diameter, concrete anchor bolts or lag bolts (not included) to secure the Shop Press to the concrete or wood floor.

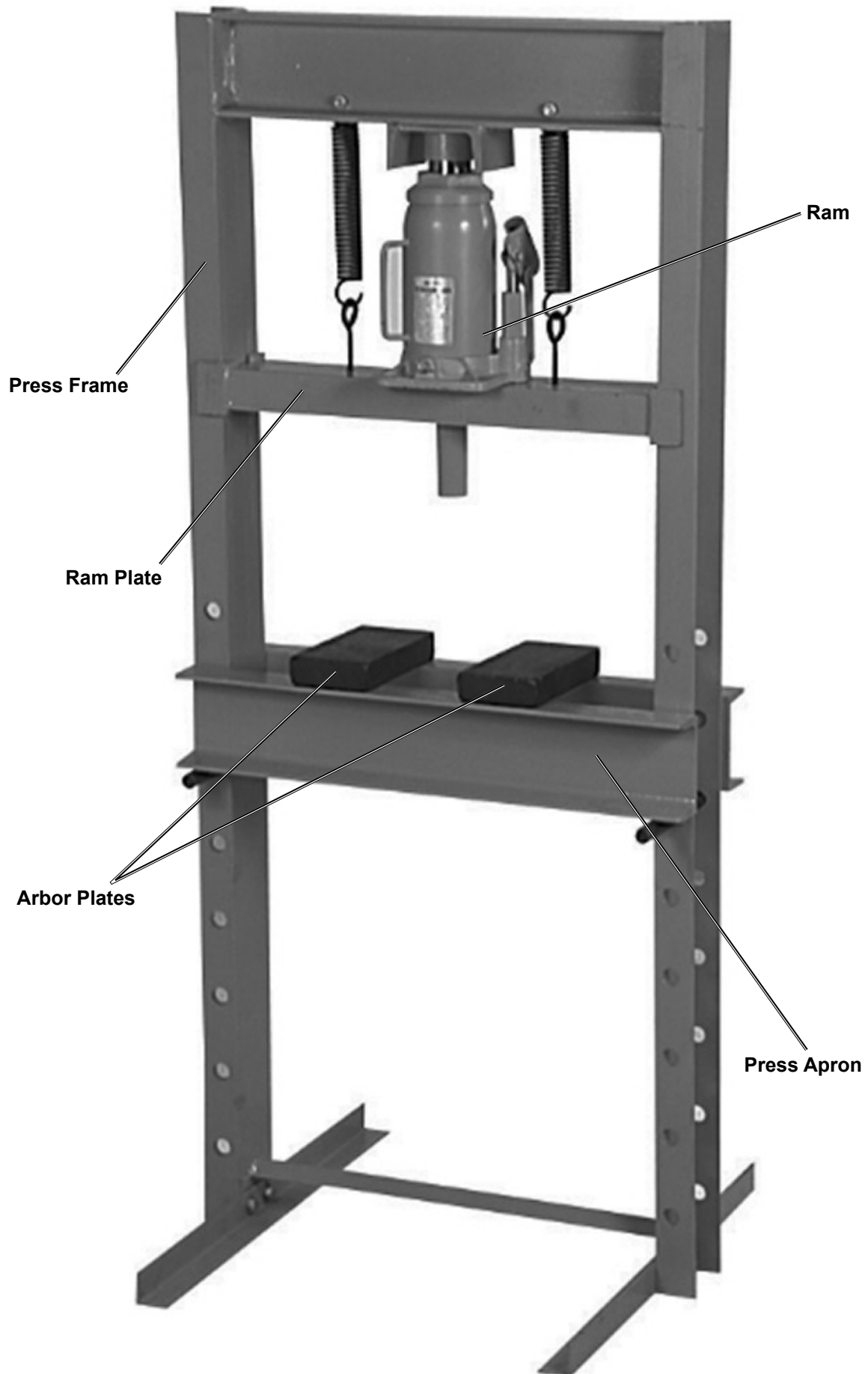
SETUP

OPERATION

MAINTENANCE



Functions



SAFETY

SETUP

OPERATION

MAINTENANCE

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.

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 Fluid Filler Plug. Insert the slot on the lower portion of the Handle over the Valve Release Screw. Turn the Handle counterclockwise to close the Valve Release Screw. See Figure G.

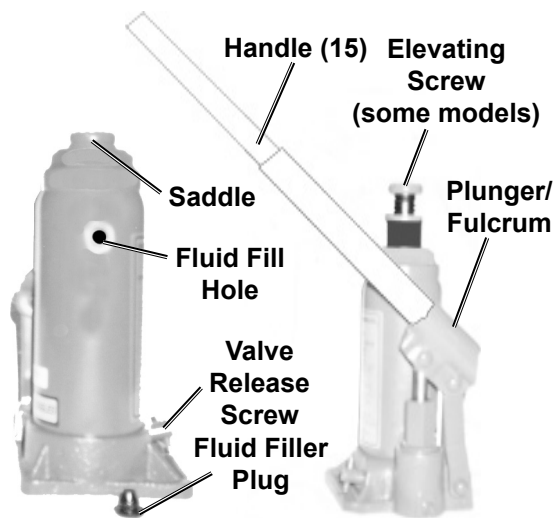


Figure G

2. Insert the Handle into the Plunger/Fulcrum Assembly. Apply pressure to the Saddle, and pump the Handle quickly several times.
3. Check the Fluid Fill Hole and, if necessary, top off the Fluid Fill Hole with hydraulic fluid.
4. Replace the Fluid Filler Plug.
5. Test the Ram several times before putting into use. If, after purging, the Ram still does not appear to be working properly, do not use the Ram until it has been repaired by a qualified service technician.

SAFETY

SETUP

OPERATION

Tool Set Up

1. Use the Support Pins (6) to adjust the height of the Press Apron (5).
2. Position the Press Apron as high as possible while positioning the workpiece as close as possible to the ram of the Ram Plate (2).

WARNING: Keep area under Arbor Plates clear of stray bolts or debris. Such items create an uneven surface which can cause the Arbor Plates to break under pressure.

Workpiece Set Up

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

MAINTENANCE

General Operating Instructions

1. Place the item to press between the Arbor Plates (3).
2. Using the Ram Handle (15), jack down the Ram Plate until the ram of the Ram Plate contacts your workpiece. If you are pressing two items together, line them up vertically.
3. Continue to operate the Handle to press the workpiece.
4. When the task is completed, carefully release the Ram pressure. For safety, remove the Handle, and use it to slowly turn the Valve Release Screw on the Ram, allowing the Ram Plate to rise.

WARNING: Stay clear of the rising Ram. The Ram may rise quickly during the release process.

5. Clean, then store the tool indoors out of children's reach.

Maintenance and Servicing



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

WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:

Turn the Power Switch of the tool off before performing any procedure in this section.

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

1. **BEFORE EACH USE**, inspect the general condition of the tool. Check for:
 - loose hardware,
 - misalignment or binding of moving parts,
 - cracked or broken parts, and
 - any other condition that may affect its safe operation.
2. **BEFORE EACH USE**, test the Ram (5) for proper operation. If the Ram appears not to be working properly, follow instructions in Bleeding the Ram on page 8.
3. **AFTER USE**, wipe external surfaces of the tool with clean cloth.

Hydraulic Fluid

Change the hydraulic fluid at least once every three years. To change the hydraulic fluid:

1. With the Ram fully lowered, unhook the Springs from the Eye Bolts and remove the Ram from the Shop Press.
2. Remove the Fluid Filler Plug.
3. 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.
4. Completely fill the unit with a high quality hydraulic fluid (not included) until the fluid just begins to run out of the Fluid Fill Hole.
5. Reinstall the Fluid Filler Plug.
6. Clean with a clean cloth using a detergent or mild solvent.
7. Replace the Ram onto the Shop Press (See Hang the Ram on page 6).

Troubleshooting

SAFETY

⚠️ 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!

SETUP

POSSIBLE SYMPTOMS						PROBABLE SOLUTION (Make certain that the Ram is not supporting a load while attempting a solution.)
Ram will not function at its weight capacity	Saddle lowers under load	Pump stroke feels spongy	Saddle will not lift all the way	Handle moves up when Ram is under load	Fluid leaking from filler plug	
X	X					Check that Release Valve is closed fully.
X	X			X		Valves may be blocked and may not close fully. To flush the valves: 1. Lower the Saddle and securely close the Release Valve. 2. Manually lift the saddle several inches. 3. Open the release valve and force the saddle down as quickly as possible.
X		X	X			Ram may be low on fluid. Check the fluid level and refill if needed.
						Ram may require bleeding - see instructions on page 8.
					X	Unit may have too much hydraulic fluid inside, check fluid level and adjust if needed.

OPERATION

Parts List and Diagram

Parts List

Part	Description	Qty
1	Bolt M8×38	2
2	Nut M8	2
3	Frame Assembly	1
4	Spring	2
5	Ram	1
6	Eye Bolts	2
7	Jack Plate	1
8	Nut M8	2

Part	Description	Qty
9	Arbor Plate (Shape may differ.)	2
10	Press Apron	1
11	Support Pin	2
12	Bolt M12×25	4
13	Nut M12	4
14	Base Supports	2
15	Handle	1

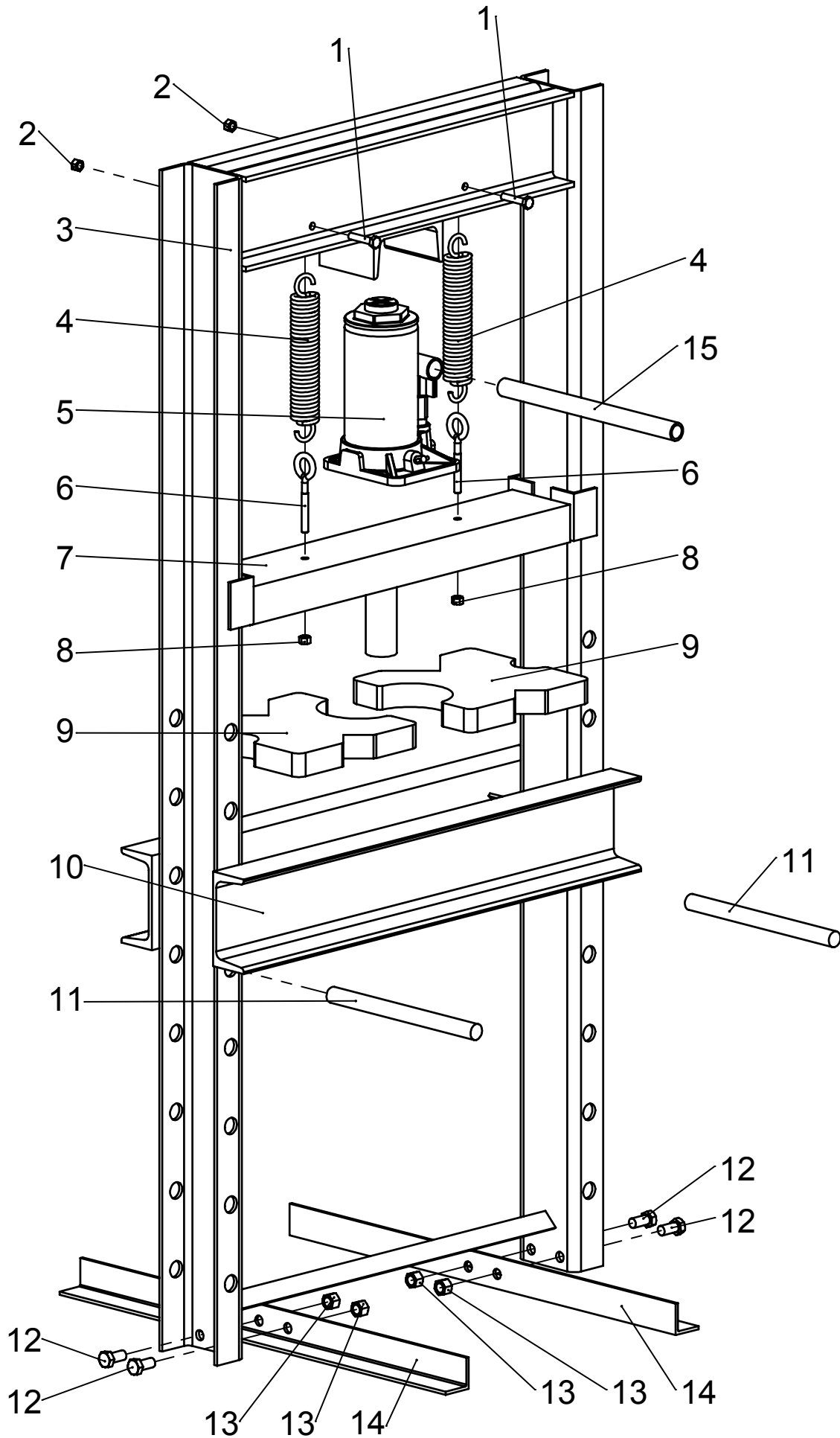
MAINTENANCE

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.

Assembly Diagram



SAFETY

SETUP

OPERATION

MAINTENANCE

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL 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.

