

**Central  
Hydraulics®**

# HYDRAULIC PIPE BENDER

**12 TON**

**Model 32888**

**16 TON**

**Model 35336**

## SET UP AND OPERATING INSTRUCTIONS



**Distributed exclusively by Harbor Freight Tools®.**

3491 Mission Oaks Blvd., Camarillo, CA 93011

**Visit our website at: <http://www.harborfreight.com>**



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

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

Manual Revised 09f

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## SAVE THIS MANUAL

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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.

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### Safety Alert Symbol and Signal Words

In this manual, on the labeling, and all other information provided with this product:



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.



**DANGER** indicates a hazardous

situation which, if not avoided, will result in death or serious injury.



**WARNING** indicates a

hazardous situation which, if not avoided, could result in death or serious injury.



**CAUTION**, used with the safety

alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

## NOTICE

**NOTICE** is used to address practices not related to personal injury.

## CAUTION

**CAUTION**, without the safety alert symbol, is used to address practices not related to personal injury.

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## IMPORTANT SAFETY INSTRUCTIONS

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### INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

**WARNING** – When using tools, basic precautions should always be followed, including the following:

#### General

To reduce the risk of injury, read all the instructions before using this tool.

#### Work area

- Keep the work area clean and well lighted.** Cluttered benches and dark areas increase the risks of electric shock, fire, and injury to persons.
- Do not operate the tool in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Air and hydraulic tools create sparks which may ignite the dust or fumes.
- Keep bystanders, children, and visitors away while operating the tool.** Distractions are able to result in the loss of control of the tool.

## Personal safety

- a. **Stay alert. Watch what you are doing and use common sense when operating the tool. Do not use the tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating the tool increases the risk of injury to persons.
- b. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair increases the risk of injury to persons as a result of being caught in moving parts.
- c. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
- d. **Use safety equipment.** Wear heavy-duty work gloves during use. Non-skid safety shoes and a hard hat must be used for the applicable conditions.
- e. **Always wear eye protection.** Wear ANSI-approved safety goggles.

## Tool use and care

- a. **Do not force the tool.** Use the correct tool for the application. The correct tool will do the job better and safer at the rate for which the tool is designed.
- b. **Store the tool when it is idle out of reach of children and other untrained persons.** A tool is

dangerous in the hands of untrained users.

- c. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that affects the tool's operation.** If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools. There is a risk of bursting if the tool is damaged.
- d. **Use only accessories that are identified by the manufacturer for the specific tool model.** Use of an accessory not intended for use with the specific tool model, increases the risk of injury to persons.

## Service

- a. **Tool service must be performed only by qualified repair personnel.**
- b. **When servicing a tool, use only identical replacement parts. Use only authorized parts.**
- c. **Use only the lubricants supplied with the tool or specified by the manufacturer.**

## Specific Safety Rules

- 1. Maintain labels and nameplates on the Hydraulic Pipe Bender. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
- 2. Always place the Hydraulic Pipe Bender on a solid, flat, level surface, or a workbench capable of supporting the weight of the Pipe Bender and all other additional tools

and accessories. The Pipe Bender must always be bolted down to the workbench when used with a workbench.



**SAVE THESE  
INSTRUCTIONS.**

3. Make sure there is enough clearance around the Pipe Bender for the movement of the pipe ends as the pipe is bent into position.
4. Keep away from the area between the die and the rollers when operating the Bottle Jack to avoid injury. Do not place your hands between moving components.
5. Two Person Operation. For safety, when moving the Pipe Bender or bending large pieces of pipe, always use two people. When bending large pipe, one person is needed to balance the pipe in the bending dies, while a second person cranks the bottle jack's handle.
6. This product is not a toy. Keep it out of reach of children.
7. 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.
8. 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.

## SPECIFICATIONS

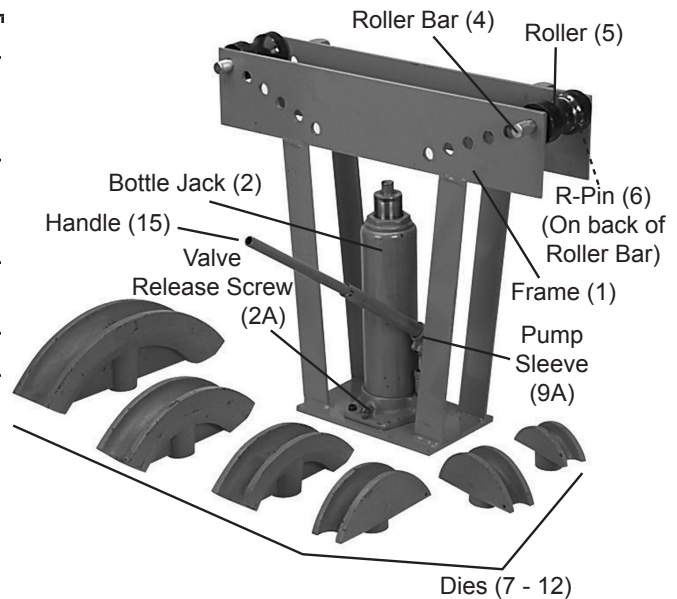
Description	Model # 32888	Model # 35336
Maximum Bending Capacity	12 Tons (24,000 pounds)	16 Tons (32,000 pounds)
Dies Included	1/2", 3/4", 1", 1-1/4", 1-1/2", 2"	1/2", 3/4", 1", 1-1/4", 1-1/2", 2", 2-1/2", 3"
Degree of Bend	Up to 90°	Up to 90°
Oil Type	Hydraulic Oil	Hydraulic Oil

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

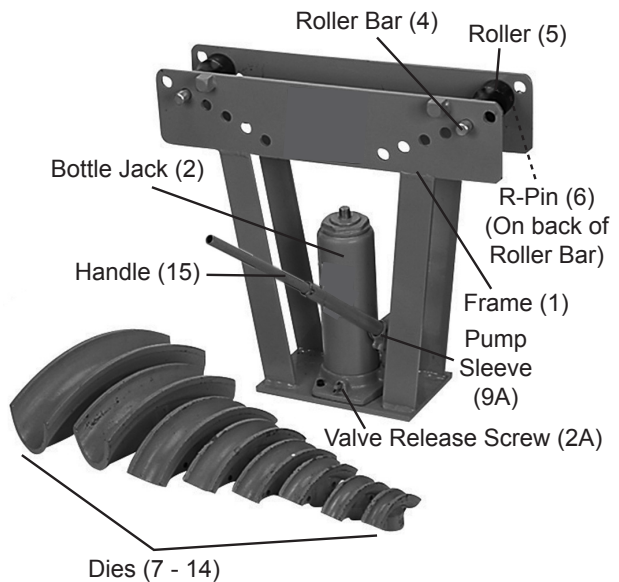
## Unpacking

When unpacking, make sure that the item is intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at 1-800-444-3353 as soon as possible.

## Components and Controls



**Figure 1 - Model # 32888 - 12 Ton**



**Figure 2 - Model # 35336 - 16 Ton**

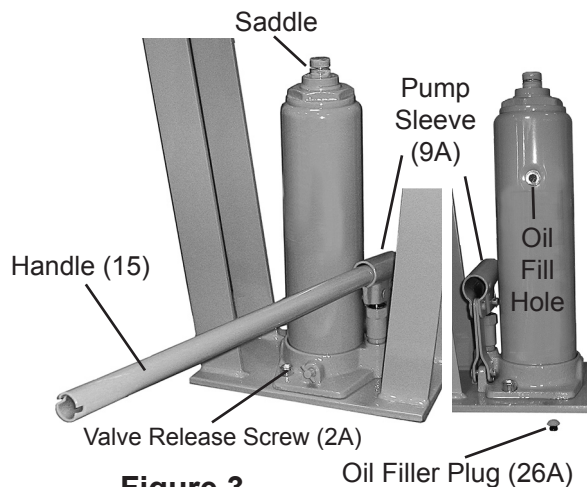
## **OPERATING INSTRUCTIONS**



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.

### **Bleeding the Bottle Jack**



**Figure 3**

**IMPORTANT!** Before first use, check for proper hydraulic oil level in the Jack. Then thoroughly test the Jack for proper operation prior to its actual use. If the Jack does not work properly, bleed excess air from its hydraulic system as follows:

1. Open the Release Valve.
2. Remove the Oil Filler Plug (26A) and fill the Jack with hydraulic fluid to full level.

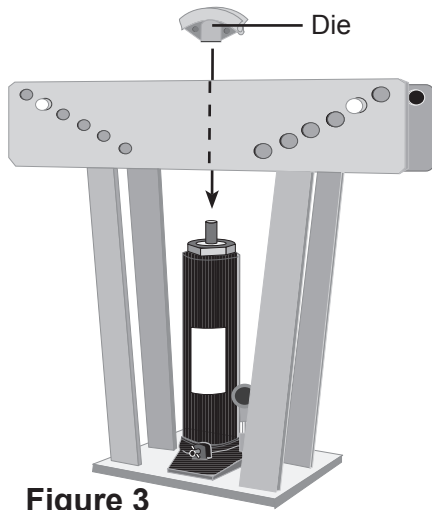
3. Apply pressure to the Saddle, and pump the Handle (15) quickly several times.
4. Check the Oil Fill Hole and, if necessary, top off the Oil Fill Hole with hydraulic oil.
5. Replace the Oil Fill Plug and close the Release Valve
6. Test the Jack several times for proper operation before putting into use. If, after bleeding, the Jack still does not appear to be working properly, do not use the Jack until it has been repaired by a qualified service technician.

### **Tool Set Up**

**Note:** The Pipe Bender is designed to bend water pipe and heavy gauge galvanized pipe. When bending conduit or thin walled pipe, you may experience problems with kinks or creases. To help limit the problem, fill the pipe with sand and cap both ends before bending.

1. Always use this Pipe Bender with the Jack in its upright position. Make sure that there is room on all sides of the Pipe Bender for the length of pipe you intend to bend.
2. Place the unit on a solid, flat, level surface capable of supporting the weight of the Pipe Bender, pipes, and all other tools and accessories. The Pipe Bender must always be clamped or bolted down to the workbench when used with a workbench.

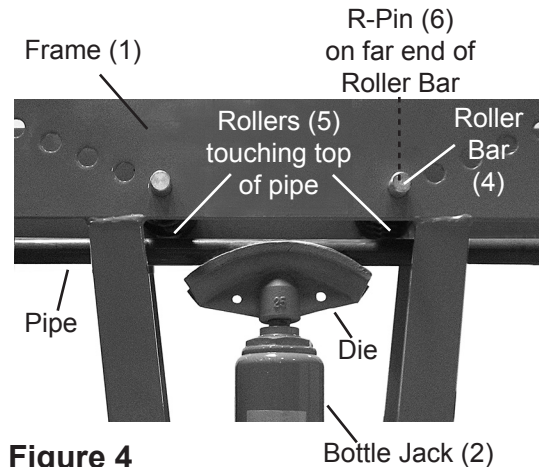




**Figure 3**

3. Select the Bending Die that matches the size of pipe you wish to bend. Each Die is stamped with the pipe size. Place the selected bending Die onto the Bottle Jack (2) - **See Figure 3.**
4. The Rollers (5) need to be adjusted so that the top of the pipe to be bent rests against the bottom of the Rollers.

Pipe can be bent from a shallow curve up to a 90° angle, depending on the position of the Rollers and the level of the Bottle Jack Saddle before operation.



**Figure 4**

To adjust the Rollers:

- a. Remove the R-Pins (6) from the two Roller Bars (4) and slide the Roller Bars out of the Rollers (5), and remove the Rollers from the Frame.
- b. Place the pipe to be bent on the Die and note the holes in the Frame (1) where you need to place the Rollers so the top of the pipe will rest on the bottom of the Rollers.
- c. Remove the pipe.
- d. Hold one of the Rollers over the chosen hole and slide a Roller Bar through the hole in the front of the Frame, the Roller, and the hole in the back of the Frame.
- e. Lock in place with an R-Pin.
- f. Repeat **d.** and **e.** with the remaining Roller, Roller Bar and R-Pin.



## **General Operating Instructions**

1. Slide the pipe you wish to bend through the Pipe Bender, between the Die and the Rollers.

**Note:** You may wish to first practice using the Pipe Bender on scrap material.

2. Using the slotted end of the Handle (15), tighten (clockwise) the Release Valve on the Bottle Jack (2).
3. Insert the Handle into the Pump Sleeve (9A) and pump it up and down to raise the Bottle Jack and bend the pipe.
4. When the pipe has been bent to the desired angle, remove the Handle from the Bottle Jack and use it to loosen (turn counter-clockwise) the Valve Release Screw up to one full turn. This will release the pipe from the Pipe Bender and allow you to carefully remove it.

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## USER-MAINTENANCE INSTRUCTIONS

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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 Pipe Bender. 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 Bottle Jack (2) for proper operation prior to its actual use. If the Bottle Jack appears *not* to be working properly, follow *Bleeding* instructions on page 7.**
3. **Change the hydraulic oil at least once every three years. To change the hydraulic oil:**
  - a. With the Jack fully lowered, remove the Oil Filler Plug.
  - b. Tip the Pipe Bender to allow the old hydraulic oil to drain out of the Housing completely, and dispose of the old hydraulic oil in accordance with local regulations.
  - c. Completely fill the Housing with a high quality hydraulic jack oil (not included) until the oil just begins to run out of the Oil Fill Hole.
  - d. Then, reinstall the Oil Filler Plug.
4. Clean with a clean cloth using a detergent or mild solvent and wipe dry. Then, store the Pipe Bender in a safe, dry location, in an upright position, out of reach of children and other non-authorized people.

## Troubleshooting

### **⚠WARNING**

#### **TO PREVENT SERIOUS INJURY:**

**Use caution when troubleshooting a malfunctioning jack.**

**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 jack before use.

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

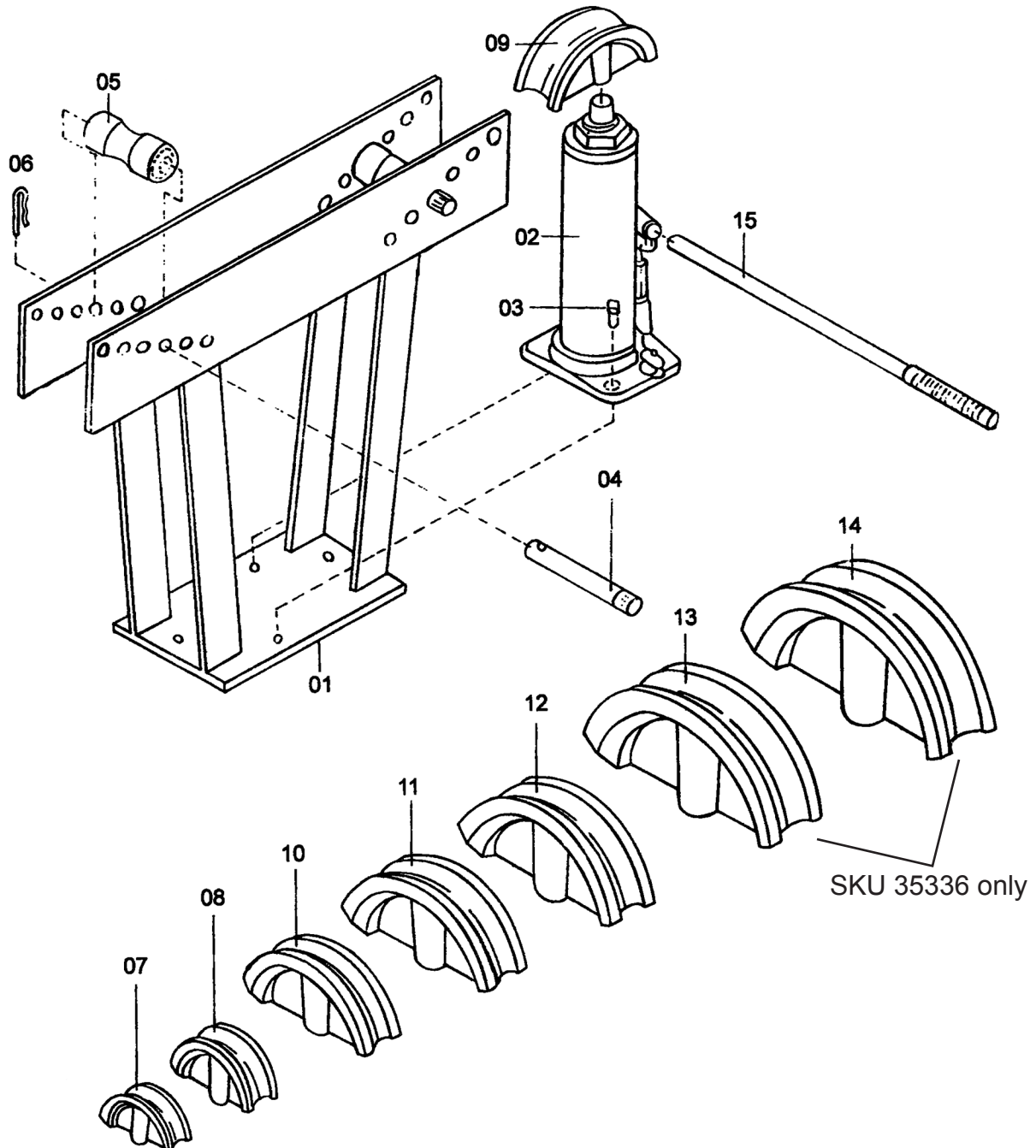
#### **DO NOT USE A DAMAGED OR MALFUNCTIONING JACK!**

POSSIBLE SYMPTOMS						PROBABLE SOLUTION (Make certain that the jack is not supporting a load while attempting a solution.)
Jack will not bend pipe	Saddle lowers under load	Pump stroke feels spongy	Saddle will not lift all the way	Handle moves up when jack is under load	Oil leaking from filler plug	
<b>X</b>	<b>X</b>					Check that Release Valve is closed fully. Check for internal oil leaks.
<b>X</b>	<b>X</b>			<b>X</b>		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.
<b>X</b>		<b>X</b>	<b>X</b>			Jack may be low on oil. Check the oil level and refill if needed. Jack may require bleeding - see instructions on page 6.
					<b>X</b>	Unit may have too much hydraulic oil inside, check fluid level and adjust if needed.

## PARTS LIST & ASSEMBLY DIAGRAM

Part	Description	Qty
1	Frame	1
2	Bottle Jack	1
3	Hex Bolt	2
4	Roller Bar	2
5	Roller	2
6	R-Pin	2
7	1/2" Bending Die	1
8	3/4" Bending Die	1

Part	Description	Qty
9	1" Bending Die	1
10	1 1/4" Bending Die	1
11	1 1/2" Bending Die	1
12	2" Bending Die	1
13	2 1/2" Bending Die (SKU 35336 only)	1
14	3" Bending Die (SKU 35336 only)	1
15	Handle	1

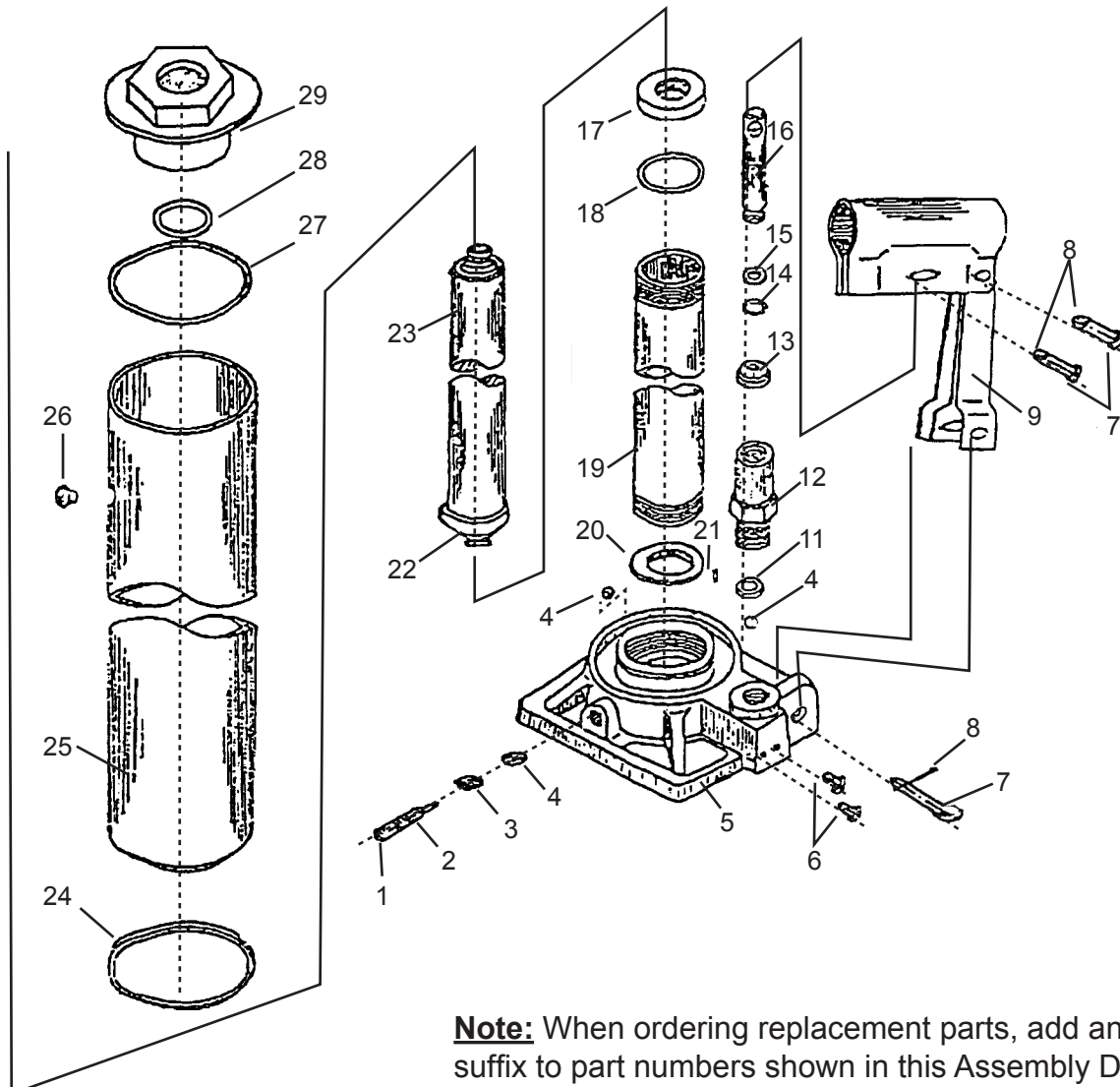


# BOTTLE JACK

## PARTS LIST & ASSEMBLY DIAGRAM

Part	Description	Qty
1A	Pin	1
2A	Valve Release Screw	1
3A	Valve O-Ring	1
4A	Valve Ball Bearings	3
5A	Base Assembly	1
6A	Bolt	1
7A	Pin	3
8A	Split Pin	3
9A	Pump Sleeve	1
11A	Washer	1
12A	Pump Cylinder	1
13A	Dust Band	1
14A	O-Ring	1
15A	Washer	1

Part	Description	Qty
16A	Piston	1
17A	Collar	1
18A	O-Ring	1
19A	Cylinder	1
20A	Washer	1
21A	Dust Pipe	1
22A	Plunger Chip	1
23A	Plunger Rod	1
24A	Seal Kit	1
25A	Housing	1
26A	Oil Filler Plug	1
27A	Seal Kit	1
28A	O-Ring	1
29A	Cap	1



**Note:** When ordering replacement parts, add an "A" suffix to part numbers shown in this Assembly Diagram.

## **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.

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## **LIMITED 90 DAY WARRANTY**

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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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**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.