

# 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.

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# PITTSBURGH®

## 8 TON AIR/HYDRAULIC JACK



Item	58816
Weight Capacity	8 Tons (16,000 lb.)
Maximum Height	43"
Minimum Height	24"
Maximum Air Pressure	120 PSI
Air Inlet	1/4"-18 NPT

Visit our website at: <http://www.harborfreight.com>  
Email our technical support at: [productsupport@harborfreight.com](mailto: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.

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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.**

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## 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 INSTRUCTIONS


### WARNING

**Read all safety warnings and instructions.** Failure to follow the warnings and instructions may result in serious injury and DEATH from sudden failure of Jack or device. **Save all warnings and instructions for future reference.**

1. Study, understand, and follow all instructions before operating this device.
2. **Install ONLY on device designed for a Jack with the same rating:**
  - A device designed for a Jack with a higher rating may damage the Jack or cause it to suddenly fail under load.
  - A device designed for a Jack with a lower rating may be damaged or may suddenly fail under load.
3. **Mount properly as part of a device designed for this type of Jack before use. Mounting points, maximum length, and rating must be IDENTICAL.** Do not mount on different device or use while not mounted properly.
4. Do not use upside-down.
5. Do not adjust safety valve.
6. Wear ANSI-approved safety goggles and heavy-duty work gloves during use.
7. Keep clear of load while lifting and lowering.
8. Lower load slowly.
9. Do not use for aircraft purposes.
10. Inspect before every use; do not use if parts loose or damaged.
11. Keep your work area clean and well lit. Cluttered work areas invite accidents.
12. Keep bystanders, children, and visitors away while operating Jack.
13. Stay alert. Watch what you are doing, and use common sense when operating a Jack. Do not use a Jack while tired or under the influence of drugs, alcohol, or medication.





14. Jack 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 Jack, use only identical replacement parts. Follow instructions in the "Cleaning, Maintenance and Lubrication" section of this manual. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of injury.
16. Maintain labels and nameplates on the Jack. These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
17. Industrial applications must follow OSHA requirements.
18. 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.
19. Study, understand, and follow all instructions before operating this device.

## Air Source

1.  **Never connect to an air source that is capable of exceeding 200 psi.** Over pressurizing the tool may cause bursting, abnormal operation, breakage of the tool or serious injury to persons. Use only clean, dry, regulated compressed air at the rated pressure or within the rated pressure range as marked on the tool. Always verify prior to using the tool that the air source has been adjusted to the rated air pressure or within the rated air-pressure range.
2. **Never use oxygen, carbon dioxide, combustible gases or any bottled gas as an air source for the tool.** Such gases are capable of explosion and serious injury to persons.

## Symbol Definitions

Symbol	Property or statement
<b>PSI</b>	Pounds per square inch of pressure
<b>CFM</b>	Cubic Feet per Minute flow
<b>SCFM</b>	Cubic Feet per Minute flow at standard conditions
<b>NPT</b>	National pipe thread, tapered

Symbol	Property or statement
	WARNING marking concerning Risk of Eye Injury. Wear ANSI-approved eye protection.
	WARNING marking concerning Risk of Hearing Loss. Wear hearing protection.
	WARNING marking concerning Risk of Respiratory Injury. Wear NIOSH-approved dust mask/respirator.
	WARNING marking concerning Risk of Explosion.



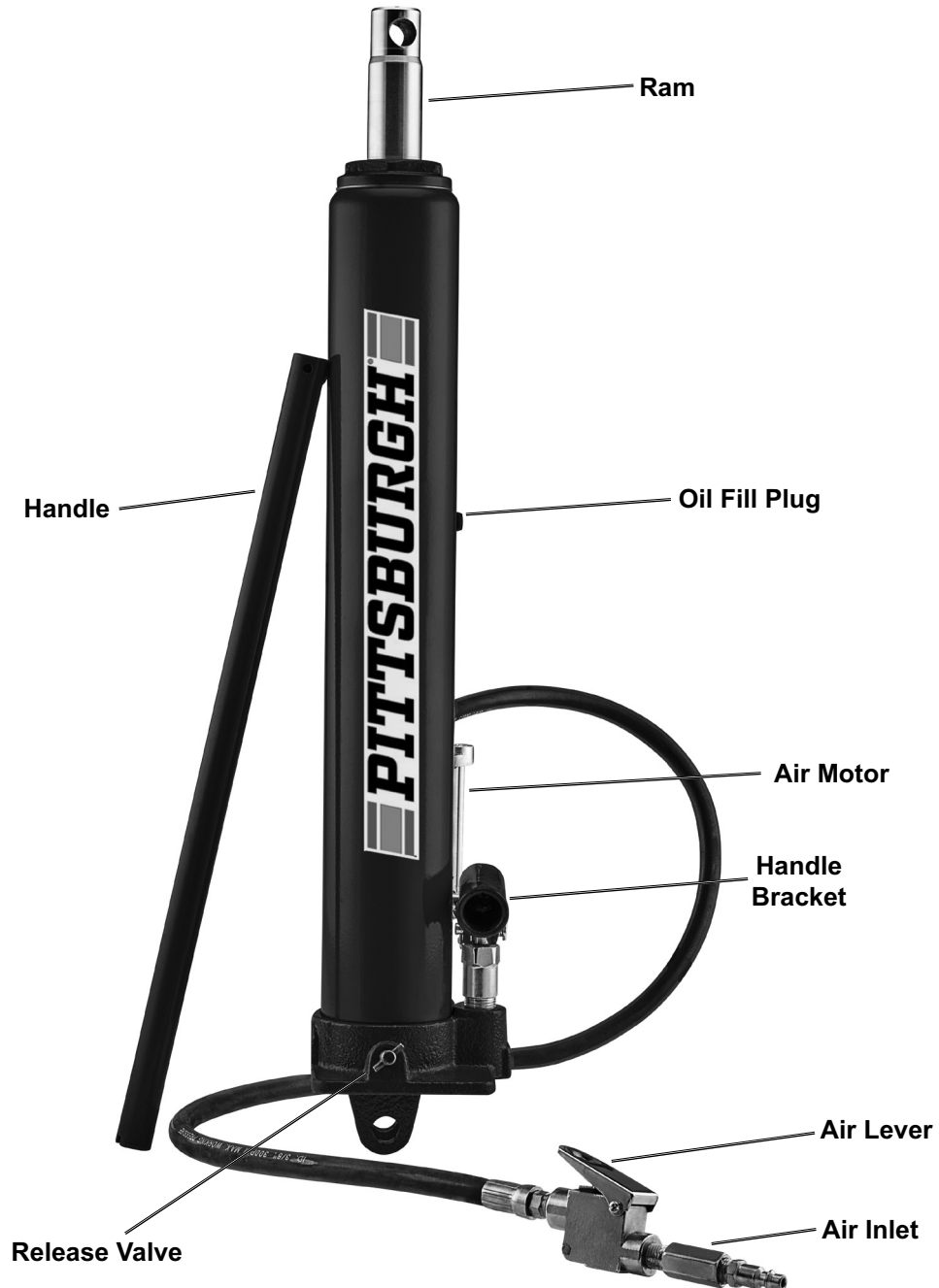
**SAVE THESE INSTRUCTIONS.**

## Initial Tool Set Up



Read the **ENTIRE IMPORTANT SAFETY INSTRUCTIONS** section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

## Components and Controls



## 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.

## Mounting

**WARNING! TO PREVENT SERIOUS INJURY:** Install **ONLY** on device designed for a Jack with the same rating:

- A device designed for a Jack with a higher rating may damage the Jack or cause it to suddenly fail under load.
- A device designed for a Jack with a lower rating may be damaged or may suddenly fail under load.

**WARNING! TO PREVENT SERIOUS INJURY:** Mount properly as part of a device designed for this type of Jack before use. Mounting points, maximum length, and rating must be **IDENTICAL**. Do not mount on different device or use while not mounted properly.

**Note:** Do not mount upside-down.

## Bleeding

**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 appears not to be working properly, it may be necessary to bleed its hydraulic system of excess air.

1. Remove Oil Fill Plug.
2. Turn Release Valve counterclockwise.
3. Insert Handle into Handle Bracket.
4. Apply pressure to the lifting point, and pump Handle quickly several times.
5. Check the Oil Fill Hole and, if necessary, top off the Oil Fill Hole with hydraulic oil.
6. Replace Oil Fill Plug.
7. Test the Jack several times for proper operation before attempting to lift a load. **If, after purging, 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.**
8. Remove Fill Plug. Fill with hydraulic fluid (sold separately) to full level, if necessary.
9. Place slotted end of Jack Handle over the Release Valve, then turn *counterclockwise* to open Release Valve.

**Note:** Jack must have load on Ram to retract.

**WARNING! TO PREVENT SERIOUS INJURY:** Only use pins that are capable of supporting the rated load, and ensure that the pins are properly secured before use. Make sure the pins' diameters are a push fit with just enough clearance so they move freely.

Secure the Base to the device:

1. Insert a pin (not included) through the holes in the Round Base and in the device, properly securing it.
2. Insert another pin (not included) through the device and Ram Pin Hole.
3. Secure pins in place with appropriate retaining rings or cotter pins (both sold separately).

10. Insert Jack Handle into Handle Bracket, apply downward pressure to the Ram, then pump Handle quickly several times.
11. Check fluid level and, if necessary, top off with hydraulic fluid.
12. Close Release Valve by turning it *clockwise*, then replace Fill Plug.

**IMPORTANT:** After bleeding the Jack, test the Jack for proper operation prior to its actual use.

13. If, after bleeding, the Jack does not appear to be working properly, do not use it until repaired by a qualified service technician.

# Air Supply

## ⚠ WARNING



### TO PREVENT SERIOUS INJURY FROM EXPLOSION:

Use only clean, dry, regulated, compressed air to power this tool. Do not use oxygen, carbon dioxide, combustible gases, or any other bottled gas as a power source for this tool.

1. Incorporate a filter, regulator with pressure gauge, oiler, in-line shutoff valve, and quick coupler for best service, as shown on Figure A: Portable Air Supply Setup on page 8 and Figure B: Stationary Air Supply Setup on page 9. **An in-line shutoff ball valve is an important safety device because it controls the air supply even if the air hose is ruptured. The shutoff valve should be a ball valve because it can be closed quickly.**
2. Attach an air hose (not included) to the compressor's air outlet. Connect the air hose to the Jack's Air Inlet. Other components, such as a connector and quick coupler, will make operation more efficient, but are not mandatory.
3. Close the in-line shutoff valve between the compressor and the tool.
4. Turn on the air compressor according to the manufacturer's directions and allow it to build up pressure until it cycles off.
5. Adjust the air compressor's output regulator so that the air output is enough to properly power the tool, but the output will not exceed the tool's maximum air pressure at any time. Adjust the pressure gradually, while checking the air output gauge to set the right pressure range.
6. Inspect the air connections for leaks. Repair any leaks found.
7. If the tool will not be used at this time, turn off and detach the air supply, safely discharge any residual air pressure, and release the throttle to its off position to prevent accidental operation.

**Note:** If an automatic oiler system is not used, add a few drops of Pneumatic Tool Oil to the airline connection before operation. Add a few more drops after each hour of continual use.

## ⚠ WARNING! TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:

**Do not install a female quick coupler on the tool.** Such a coupler contains an air valve that will allow the air tool to retain pressure and operate accidentally after the air supply is disconnected.

**Note:** Air flow, and therefore tool performance, can be hindered by undersized air supply components. The air hose must be long enough to reach the work area with enough extra length to allow free movement while working.

**Note:** Residual air pressure should not be present after the tool is disconnected from the air supply. However, it is a good safety measure to attempt to discharge the tool in a safe fashion after disconnecting to ensure that the tool is disconnected and unpowered.

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# Raising and Lowering

**Note:** If the tool requires more force to accomplish the task, verify that the tool receives sufficient, unobstructed airflow (CFM) and increase the pressure (PSI) output of the regulator up to the maximum air pressure rating of this tool.

**CAUTION! TO PREVENT INJURY FROM TOOL OR ACCESSORY FAILURE:**

**Do not exceed the tool's maximum air pressure rating.**

If the tool still does not have sufficient force at maximum pressure and sufficient airflow, then a larger tool may be required.

**1. Manual Operation:**

- a. Place Jack Handle into Handle Bracket.

- b. Pump Handle until Jack reaches desired height.
- c. Remove Jack Handle.

**2. Pneumatic Operation:**

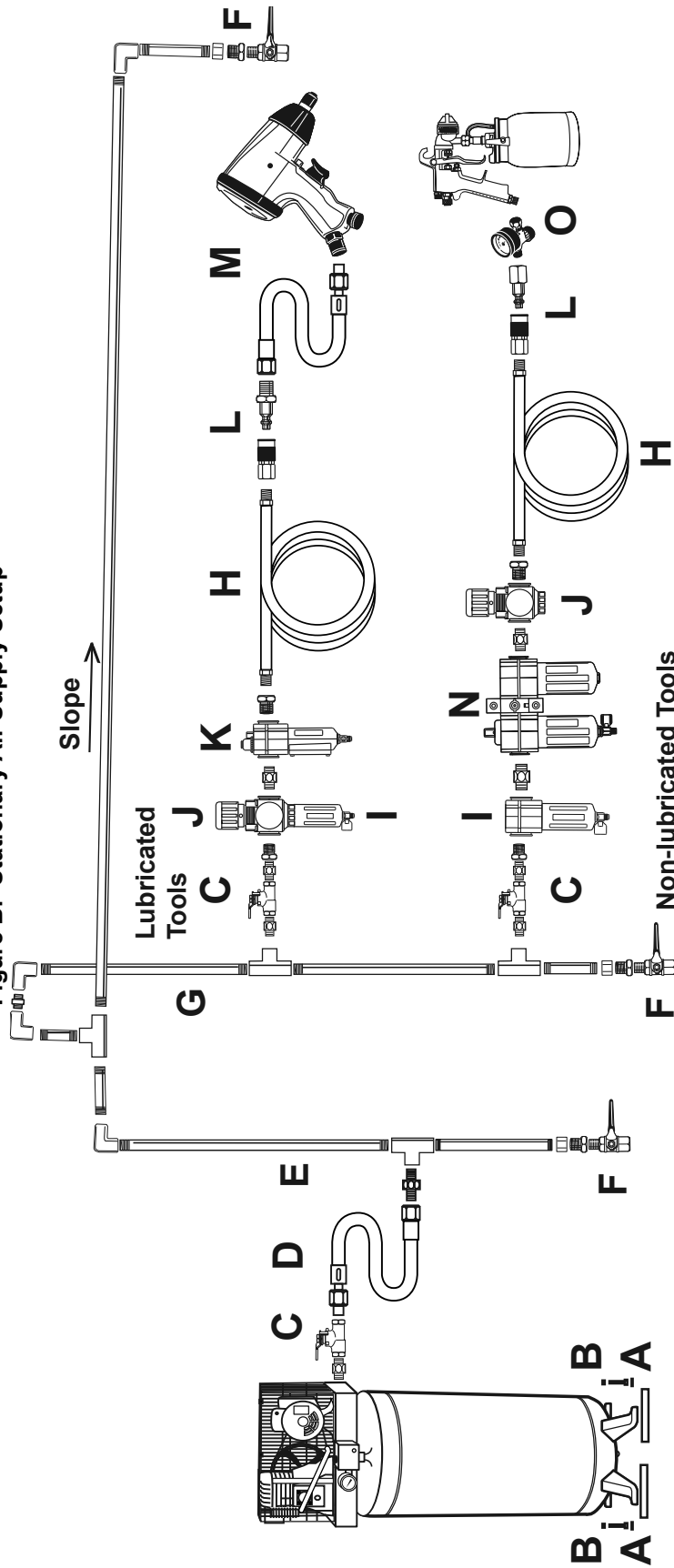
- a. Connect the compressor's air hose to the Air Inlet.
  - b. Press Air Lever until Jack reaches desired height.
3. To lower, place slotted end of Jack Handle over Release Valve and *slowly* turn the Release Valve *counterclockwise*.

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Figure B: Stationary Air Supply Setup



	Description	Function
A	Vibration Pads	For noise and vibration reduction
B	Anchor Bolts	Secures air compressor in place
C	Ball Valve	Isolates sections of system for maintenance
D	Isolation Hose	For vibration reduction
E	Main Air Line - 3/4" minimum recommended	Distributes air to branch lines
F	Ball Valve	To drain moisture from system
G	Branch Air Line - 1/2" minimum recommended	Brings air to point of use
H	Air Hose	Connects air to tool
I	Filter	Prevents dirt and condensation from damaging tool or workpiece
J	Regulator	Adjusts air pressure to tool
K	Lubricator (optional)	For air tool lubrication
L	Coupler and Plug	Provides quick connection and release
M	Leader Hose (optional)	Increases coupler life
N	Air Cleaner / Dryer (optional)	Prevents water vapor from damaging workpiece
O	Air Adjusting Valve (optional)	For fine tuning airflow at tool

## Maintenance Instructions



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

### **WARNING**

#### **TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:**

Turn off the tool, detach the air supply, safely discharge any residual air pressure in the tool, and release the throttle and/or turn the switch to its off position before performing any inspection, maintenance, or cleaning procedures.

#### **TO PREVENT SERIOUS INJURY FROM TOOL FAILURE:**

Do not use damaged equipment. If abnormal noise, vibration, or leaking air 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 or housing,
  - misalignment or binding of moving parts,
  - damaged air hose,
  - cracked or broken parts, and
  - any other condition that may affect its safe operation.
2. **BEFORE EACH USE**, thoroughly test the Jack for proper operation prior to its actual use. If the Jack appears not to be working properly, follow Bleeding on page 5.
3. **DAILY - Air Supply Maintenance:**  
Every day, maintain the air supply according to the component manufacturers' instructions. Drain the moisture filter regularly. Performing routine air supply maintenance will allow the tool to operate more safely and will also reduce wear on the tool.
4. **AFTER USE**, clean external surfaces of the Jack with a clean, moist cloth and a mild detergent. Do not use solvents.
5. **WHEN STORING**, turn Release Valve *counterclockwise* to its open position. Store the Jack in a clean, dry, safe location out of reach of children and other unauthorized people.
6. **ONCE OR TWICE A MONTH**, lubricate the air motor with good quality hydraulic fluid. Add oil through the air valve while holding down the lever.
7. **PERIODICALLY**, check the condition of the hydraulic fluid. Change the hydraulic fluid as needed :
  - a. With the Jack fully retracted, remove the Fill Plug.
  - b. Tip the Jack over to allow the old hydraulic fluid to drain out completely. Dispose of the old hydraulic fluid in accordance with local regulations.
  - c. With the Jack upright, completely fill the Reservoir with high grade hydraulic fluid until the oil is 1/4" below the top of the Fill Port.
  - d. Place the slotted end of the Jack Handle over the Release Valve, then turn *counterclockwise* to open the Release Valve.
  - e. Pump the Handle quickly several times to purge air from the system.
  - f. Recheck fluid level and re-fill as needed.
  - g. Thoroughly bleed jack after changing fluid according to Bleeding on page 5.

# Troubleshooting

## **⚠️WARNING**

### **TO PREVENT SERIOUS INJURY AND DEATH:**

Use caution when troubleshooting a malfunctioning Jack. Stay well clear of the supported load. 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 and lowering it fully, checking for proper operation, **BEFORE RETURNING THE JACK TO OPERATION.**

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

<b>Problem</b>	<b>Possible Causes</b>	<b>Possible Solution</b>
Jack will not lift load.	<ol style="list-style-type: none"><li>1. Release Valve not tightly closed.</li><li>2. Overload condition.</li><li>3. Air supply inadequate.</li><li>4. Air trapped in system.</li></ol>	<ol style="list-style-type: none"><li>1. Close Release Valve firmly.</li><li>2. Do not exceed 8 ton lifting capacity.</li><li>3. Ensure adequate air supply.</li><li>4. Purge air from system.</li></ol>
Jack will lift, but will not maintain pressure.	<ol style="list-style-type: none"><li>1. Release Valve not tightly closed.</li><li>2. Overload condition.</li><li>3. Hydraulic unit malfunction or defective seals.</li></ol>	<ol style="list-style-type: none"><li>1. Close Release Valve firmly.</li><li>2. Do not exceed 8 ton lifting capacity.</li><li>3. Have a qualified service technician check the hydraulic unit.</li></ol>
Jack will not lower after it is raised.	<ol style="list-style-type: none"><li>1. Reservoir overfilled.</li><li>2. Linkages binding.</li></ol>	<ol style="list-style-type: none"><li>1. Drain oil to proper level.</li><li>2. Clean and lubricate moving parts.</li></ol>
Poor lift performance.	<ol style="list-style-type: none"><li>1. Hydraulic oil level low.</li><li>2. Air trapped in system.</li></ol>	<ol style="list-style-type: none"><li>1. Add oil to proper level.</li><li>2. Purge air from system.</li></ol>
Will not lift to maximum height.	Hydraulic oil level low.	Add oil to proper level.

## **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.

Parts List

Part	Description	Qty
1	Base	1
2	Steel Ball	5
3	Ball Seat	1
4	Spring	1
5	Screw	1
6	O-Ring	1
7	Screw	1
8	Decorative Cap	1
9	Steel Ball	6
10	Steel Ball	2
11	Spring	2
12	Copper Washer	2
13	Screw	2
14	Seal	1
15	Release Valve	1
16	Oil Filter Screen	2
17	Spring	1
18	Steel Ball	1
19	Copper Washer	2
20	Base for Pump Piston	1
21	O-Seal Ring	1
22	Nylon Retaining Ring	1
23	Back-Up Ring	1
24	Pump Piston	1

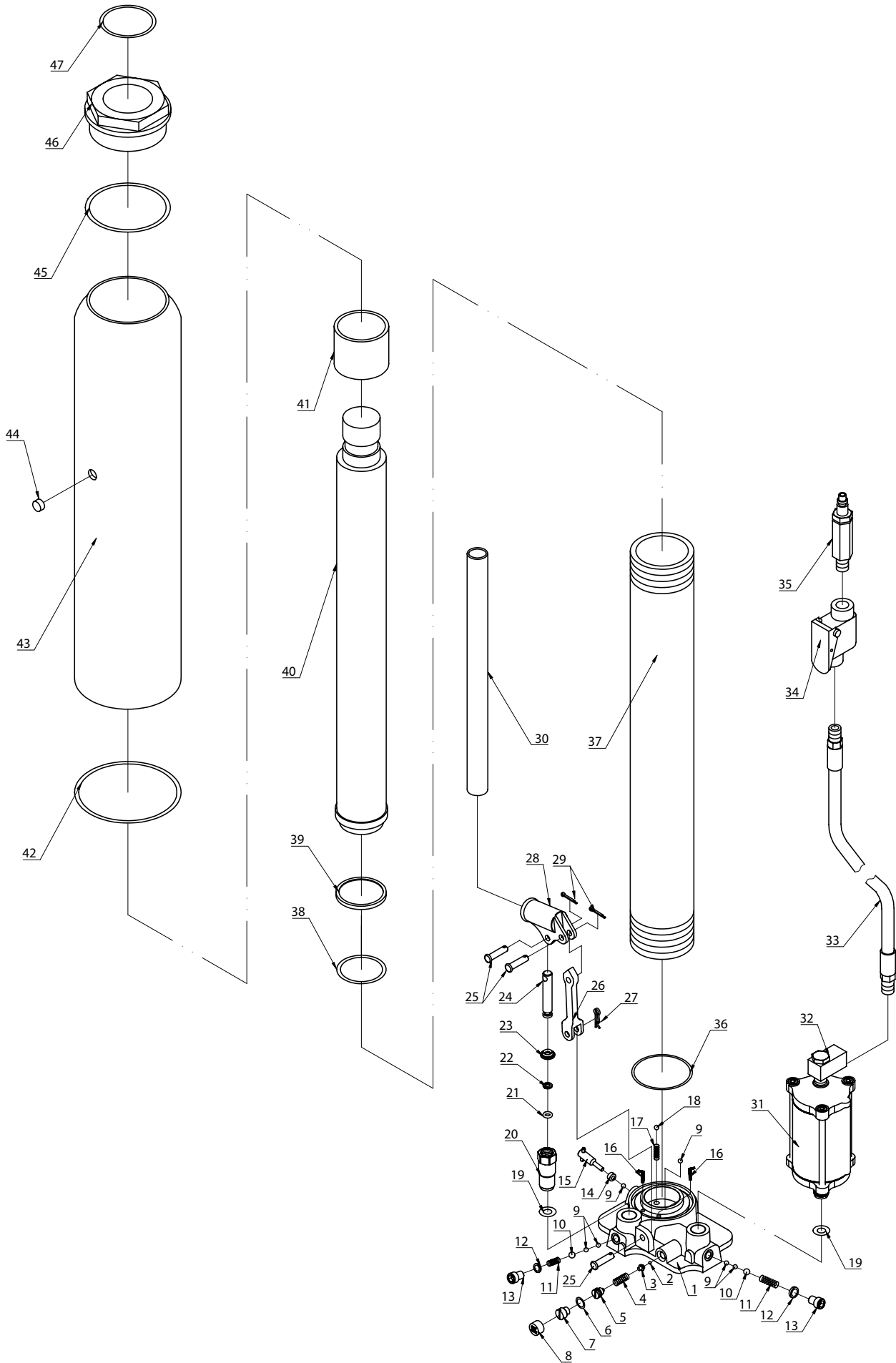
Part	Description	Qty
25	Pin	3
26	Connector	1
27	R-Pin	1
28	Handle Bracket	1
29	Cotter Pin	2
30	Handle	1
31	Air Motor	1
32	Rotary Joint	1
33	Air Hose	1
34	Air Valve	1
35	Air Pipe Connector	1
36	Nylon Ring	1
37	Cylinder	1
38	O-Ring	1
39	Cup Seal	1
40	Ram Assembly	1
41	Spacing Ring	1
42	O-Ring	1
43	Reservoir	1
44	Filler Plug	1
45	Nylon Washer	1
46	Top Nut	1
47	O-Ring	1

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 may not be interchangeable. Specify UPC 193175447142 when ordering parts.

# Assembly Diagram



SAFETY

SETUP

OPERATION

MAINTENANCE

## 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.

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