



22-TON AIR/HYDRAULIC BOTTLE JACK

Model 66242

SET UP AND OPERATING INSTRUCTIONS



Diagrams within this manual may not be drawn proportionally.

Due to continuing improvements, actual product may differ slightly from the product described herein.

Distributed exclusively by Harbor Freight Tools®.

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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.

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.

IMPORTANT SAFETY INFORMATION

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

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

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

CAUTION

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.

General Safety Rules



WARNING! Read all instructions. Failure to follow all instructions listed below may result in serious injury. The term "tool" in all of the warnings listed below refers to your Bottle Jack.

SAVE THESE INSTRUCTIONS

1. **Work area safety**
 - a. Keep work area clean and well lit. *Cluttered or dark areas invite accidents.*
 - b. Do not operate tools 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.*
 - c. Keep children and bystanders away while operating this tool. *Distractions can cause you to lose control.*
3. **Personal safety**
 - a. Stay alert, watch what you are doing and use common sense when operating this tool. Do not use this tool while you are tired or under the influence of drugs, alcohol or medication. *A moment of inattention while operating this tool may result in serious personal injury.*

- b. Use safety equipment. Always wear ANSI-approved safety impact goggles and heavy-duty work gloves. *Safety equipment such as non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.*
 - c. Avoid accidental starting. Ensure that the Lock Lever of the Air Valve Assembly (5) is in the unlocked position before connecting to an air supply. *Connecting this tool with the Lock Lever engaged invites accidents.*
 - d. Stay out from under loads being lifted, even loads held by jack stands if possible.
 - e. Do not overreach. Keep proper footing and balance at all times. *This enables better control of the tool in unexpected situations.*
 - f. 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.*
- adjustments, changing accessories, or storing the tool. *Such preventive safety measures reduce the risk of starting the tool accidentally.*
 - d. Store idle tools out of the reach of children and do not allow people unfamiliar with the tool or these instructions to operate this tool. *Tools are dangerous in the hands of untrained users.*
 - e. Maintain this tool. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the tool's operation. If damaged, have the tool repaired before use. *Many accidents are caused by poorly maintained tools.*
 - f. Use the tool and its accessories in accordance with these instructions and in the manner intended for this particular type of tool, taking into account the working conditions and the work to be performed. *Use of this tool for operations different from those intended could result in a hazardous situation.*

Tool use and care

- a. Do not force the tool. Use the correct tool for your application. *The correct tool will do the job better and safer at the rate for which it was designed.*
- b. Do not use the tool if the Air Valve's on/off switch/valve does not operate properly. *Any tool that cannot be controlled with its Air Valve is dangerous and must be repaired.*
- c. Disconnect the air hose from the tool and release any remaining air pressure before making any

Service

- a. Have the tool serviced by a qualified repair person using only identical replacement parts. *This will ensure the safety of the tool is maintained.*

Specific Safety Rules

- 1. Maintain labels and nameplates on the Bottle Jack. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.

2. Use clean, dry, regulated, compressed air at **90-145 PSI**. Do not exceed the recommended maximum air pressure. Do not use oxygen, carbon dioxide, combustible gases, or any other bottled gas as a power source for this tool.
3. Do not exceed the **22 ton** (44,000 lbs.) capacity of the Bottle Jack.
4. Bleed the hydraulic system of the Bottle Jack before its initial use.
5. Always place the Bottle Jack on a dry, oil/grease free, solid, level floor surface capable of supporting the weight of the Jack and all other additional tools and accessories.
6. Apply the vehicle's parking brake and chock the tires before lifting the vehicle.
7. Lift the vehicle only by the manufacturer-recommended lifting points.
8. Stay out from under the load while it is being lifted or supported.
9. Avoid rapid load descent. Turn the Release Screw slowly.
10. Do not use for aircraft purposes.
11. Do not leave the tool unattended when it is connected to a compressed air supply. Release the tool's load, and disconnect it from its compressed air supply before leaving.
12. This product is not a toy. Keep it out of reach of children.
13. When lifting only one wheel, make sure to support the load immediately with one jack stand (not included) placed under the side of the vehicle being lifted. Align the saddle of the jack stand directly under the vehicle's seam or recommended lifting point.
14. When lifting the entire front end or rear end of a vehicle, make sure to support the load immediately with two jack stands. Align the saddles of the jack stands directly under the vehicle's frame or recommended lifting points. Also, make sure the jack stands are adjusted at the same height.
15. Use the Bottle Jack only on vehicles whose frames have lifting points (on its seam or frame) capable of aligning with the Bottle Jack.
16. Do not use the Bottle Jack with the vehicle's engine running. When running, the vehicle's engine produces carbon monoxide, a colorless, odorless, toxic fume that, when inhaled, can cause serious personal injury or death.
17. Always keep hands, fingers, and feet away from all moving parts of the Bottle Jack when applying or releasing a load. Remain clear of the vehicle being raised or lowered. People and animals should be kept at a safe distance when using the Bottle Jack.
18. Do not allow anyone in the vehicle when using the Bottle Jack. Keep all bystanders a safe distance away from the vehicle.
19. Never use Bottle Jacks to lift both ends of a vehicle at the same time.
20. Before lowering the Bottle Jack, make sure tool trays, jack stands, and all other tools and equipment are removed from under the vehicle.

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 Lifting Capacity	22 Tons (44,000 lb.)
Required Air Pressure	90-145 PSI
Air Inlet Fitting	1/4" - 18 NPT
Minimum Height	13" without saddle
Maximum Lift Height	17-1/2" without saddle
Ram Travel	4-1/2"
Net Weight	85 lbs
Air Hose Length	54"
Jack Handle	49"L

UNPACKING

When unpacking, check to make sure that the item is intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

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. Assemble the Handle and its 6.x series parts that come in Box B. (See Assembly Drawing.)

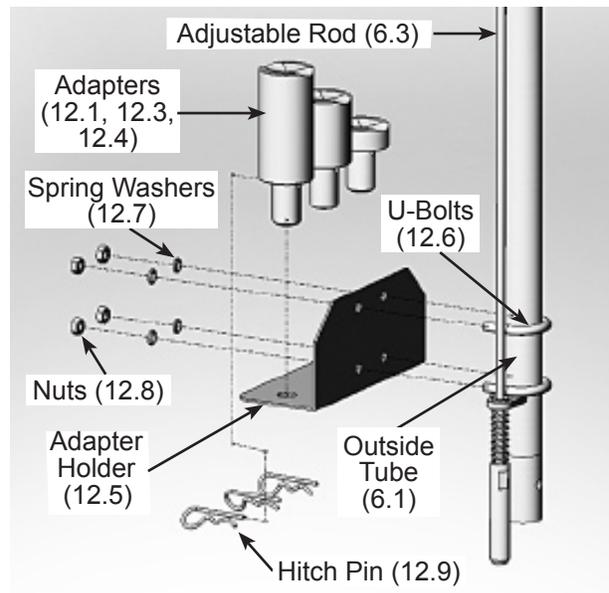


Fig. 1

2. Attach the Adapter Holder (12.5) to the Handle Assembly with two U-bolts (12.6), Lock Washers (12.7) and Nuts (12.8). (See Fig. 1.)
 - a. Tighten the Nuts to secure the Adapter Holder to the Handle.
3. Put height adjustment Adapters into the Adapter Bracket and lock each with a Hitch Pin (12.9). (See Fig. 1.)

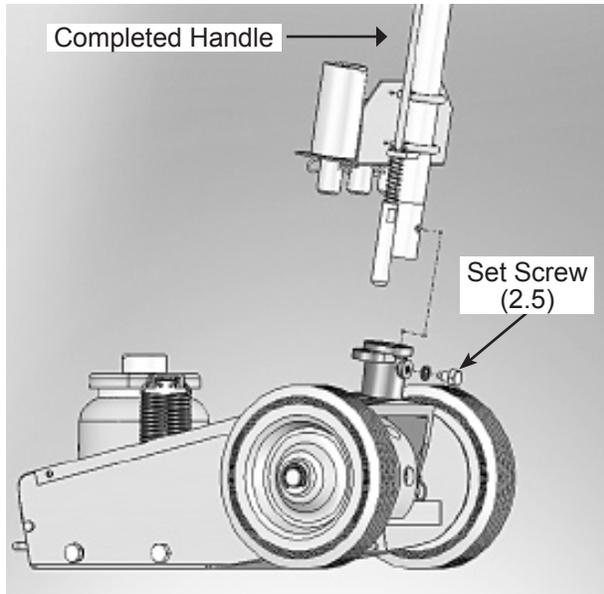


Fig. 2

- Put the Handle Assembly into Handle Socket and secure with Set Screw. (See Fig. 2.)

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.

WARNING

TO PREVENT SERIOUS INJURY

FROM ACCIDENTAL OPERATION:
Disconnect the Bottle Jack from its compressed air supply source, and release any compressed air from the tool before performing any set up and operating procedures.

Tool Set Up

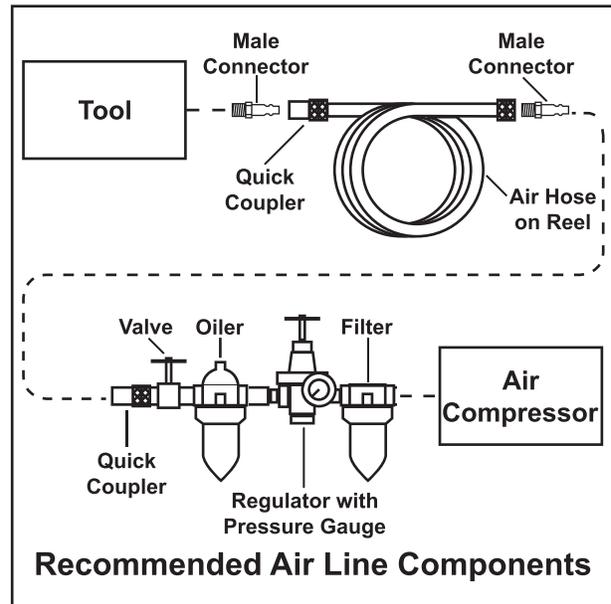


Fig. 3

- This Jack comes in two boxes and easily connects to an air compressor. For proper Jack/Air compressor connection, see Fig. 3.
 - Incorporate an in-line oiler, shut-off valve, regulator with pressure gauge, and filter for best service, as shown in the diagram above. **An in-line shut-off valve is an important safety device because it controls the air supply even if the air hose is ruptured.**
- 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.
- Attach an air hose to the compressor's air outlet. Connect the air hose to the Air Valve Assembly (5) of the Bottle Jack. Other components, such as a connector and quick coupler, will make operation more efficient, but are not mandatory.

IMPORTANT: Prior to use, check for proper hydraulic oil level in the Bottle Jack. (See page 9)

4. 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 purge its hydraulic system of air. To do so:
 - a. Turn Knob (6.11) counterclockwise until snug. **(See Assembly Diagram.)**
 - b. Wipe Filler Plug area with a clean and lint free rag. Remove the Filler Plug (1.19), and fill the Cylinder Base (1.14) reservoir with hydraulic oil (not included). **(See Assembly Diagram.)**
 - c. Rapidly pump the Handle several times to purge air from the system. **(See Assembly Diagram.)**
 - d. Then turn the Knob (6.11) clockwise until snug. **(See Assembly Diagram.)**
 - e. Top off the Cylinder Base (1.14) reservoir with hydraulic oil if needed. Note: Oil level should reach the edge of oil fill hole. Then replace the Filler Plug (1.19); and wipe the jack's exterior. **(See Assembly Diagram.)**

IMPORTANT: After bleeding the Bottle Jack, *test* the unit to ensure it operates properly.

5. Make sure the vehicle is parked on a flat, level, solid, ground surface.
6. Turn off the vehicle's engine. Place the vehicle's transmission in "PARK" (if automatic) or in its lowest gear (if manual). Set the emergency brake.

Then chock the wheels that *are not* being lifted.

7. Check to make sure the Bottle Jack is fully lowered. If not, turn the Knob (6.11) *counterclockwise* to lower the Jack. Once the Jack's ram is fully lowered, turn the Knob *clockwise* to close the Release Valve (3.23). **(See Assembly Diagram.)**
8. Carefully position the Saddle (1.2) of the Bottle Jack under the vehicle manufacturer's recommended lifting point. (See vehicle manufacturer's manual for location of *seam* lifting point when lifting only one wheel and *frame* lifting points when lifting the entire front or rear end of the vehicle.) **(See Assembly Diagram.)**

To raise the vehicle manually:

1. Pump the Handle Assembly until the top of the Bottle Jack's Saddle (1.2) has nearly reached the vehicle lifting point. The Jack should be positioned at 90° to the vehicle's lifting point to ensure the Bottle Jack's Saddle and vehicle lifting point are in alignment. If not, remove and reposition the Jack before lifting.
2. To lift the vehicle, pump the Handle assembly using smooth, full strokes. **(See Assembly Diagram.)**

To raise the vehicle, using compressed air:

1. Check to make sure the Knob (6.11) assembly is in its *locked* position (fully turned clockwise). Then connect an air hose (not included) to the Air Valve Assembly (5). **(See Assembly Diagram.)**

2. Turn on air compressor, and set its regulator to **90-145 PSI. Do not exceed 145 PSI.** Allow the compressor to build up pressure and cycle off.
3. Depress the Lever of the Air Valve Assembly (5) until the Saddle of the Bottle Jack has nearly reached the vehicle lifting point. The Jack should be positioned at 90° to the vehicle's lifting point to ensure the Bottle Jack's Saddle and vehicle lifting point are in alignment. If not, remove and reposition the Bottle Jack before lifting. **(See Assembly Diagram.)**
4. To lift the vehicle, continue to depress the Lever on the Air Valve Assembly (5). Once the vehicle is lifted, place the Lock Lever of the Air Valve Assembly (5) in its locked position. **(See Assembly Diagrams.)**
5. Once the vehicle is raised, slide a jack stand (not included) to the proper lifting point referred to in the vehicle manufacturer's manual. If using two jack stands, make sure they are at the same point on each side of the vehicle. Always raise the vehicle the least amount possible.
6. Slightly lower the Jack to ease the vehicle onto the jack stands. Do this by slowly turning the Knob (6.11) counterclockwise until the Saddle (1.2) lowers slightly.
7. While standing safely aside, gently rock the vehicle to determine if it is stable on the jack stand(s). If it is not, raise the vehicle, and reposition the jack stand(s). **WARNING!** When performing this procedure, be prepared to stand clear of the vehicle as the vehicle can fall off the jack

stand(s) causing personal injury and/or property damage.

8. When the repair work to the vehicle is completed, and prior to lowering the vehicle. Make sure to remove all tools, old vehicle parts, etc. from under the vehicle.

To lower the vehicle manually:

1. Make sure the Knob (6.11) assembly is turned completely *clockwise* to close the Release Valve Screw (3.23). Pump the Handle assembly to raise the vehicle slightly above the saddle(s) of the jack stand(s). Then remove the jack stand(s) from under the vehicle.
2. *Slowly* turn the Knob (6.11) assembly *counterclockwise* (never more than one full turns) to lower the vehicle to the ground. **(See Assembly Diagram.)**

To lower the vehicle, using compressed air:

1. Make sure the Knob (6.11) assembly is turned completely *clockwise* closing the Release Valve Screw (3.21). Release the Lock Lever on the Air Valve Assembly (5). Depress the Lever on the Air Valve Assembly (5) to raise the vehicle slightly above the saddle(s) of the jack stand(s). Place the Lock Lever in its *locked* position. Then remove the jack stand(s) from under the vehicle. **(See Assembly Diagrams.)**
2. *Slowly* turn the Knob (6.11) assembly *counterclockwise* (never more than one full turns) to lower the vehicle

onto the ground. (See Assembly Diagram.)

3. Lower the Bottle Jack completely (Be aware that it will take a good amount of effort to lower the ram down to be level with the reservoir). Do not hammer on the ram. Store the Jack in a clean, dry, safe location out of reach of children and other unauthorized people.

MAINTENANCE AND SERVICING



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

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:

Disconnect the Bottle Jack from its compressed air supply source and turn the Knob (6.11) assembly counterclockwise to loosen the Release Valve Screw before performing any inspection, maintenance, or cleaning procedures.

1. **BEFORE EACH USE**, inspect the general condition of the Bottle Jack. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged Air Hose, and any other condition that may affect its safe operation.
2. **AFTER USE**, clean external surfaces of the Bottle Jack with a clean, moist cloth and a mild detergent. Do not use solvents.

BLEEDING INSTRUCTIONS:

3. Before each use or when the Bottle Jack lacks in performance, make sure to check for excessive air and proper hydraulic oil level in the Bottle Jack. If the Jack appears not to be working properly, it may be necessary to purge its hydraulic system of excessive air. To do so:
4. Grasp the handle and pump it up and down quickly 5-6 times. Then turn the Knob (6.11) 1-1/2 turns counterclockwise releasing pressure. (See Assembly Diagram.)
5. Remove the Filler Plug (1.19), and fill the Cylinder Base (1.14) reservoir with hydraulic oil (not included). (See Assembly Diagram.)
6. Rapidly pump the Handle several times to purge air from the system. (See Assembly Diagram.)
7. Turn the Knob (6.11) clockwise until snug to hold pressure. (See Assembly Diagram.)
8. Top off the reservoir with hydraulic oil. Then replace the Filler Plug (1.19). (See Assembly Diagram.)

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

NOTE: To prevent damage to the Bottle Jack, check for excessive air and/or low hydraulic oil regularly.

9. **WHEN STORING**, turn Lock Lever (6.5) to its open position (counterclockwise). Always store the Bottle Jack and its accessories in a clean, dry, safe location out of reach

of children and other unauthorized people.

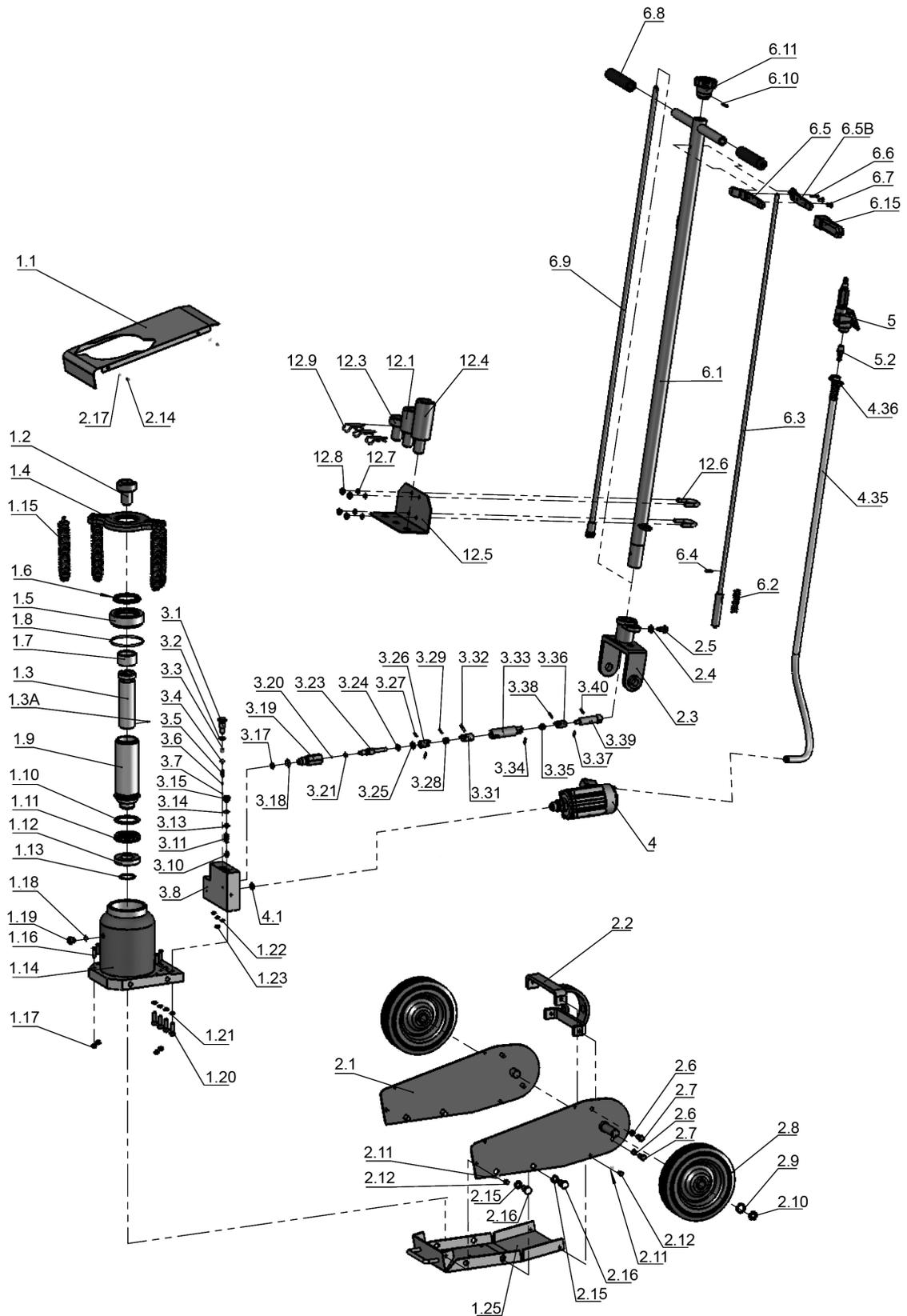
PLEASE READ THE FOLLOWING CAREFULLY

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.

TROUBLESHOOTING

Bottle Jack will not raise the Bottle Jack ram when pumping the Handle <i>manually</i>.	<ol style="list-style-type: none">1. Turn the Lock Lever clockwise until snug.2. Bleed the Air Bottle Jack of excess air.
Bottle Jack will not raise the Bottle Jack ram when using the <i>pneumatic</i> function.	<ol style="list-style-type: none">1. Turn the Lock Lever clockwise until snug.2. Check to make sure the regulator of the air compressor is set at 90-145 PSI.3. Check for loose air connections and damaged air hoses.4. Bleed the Bottle Jack of excess air.

ASSEMBLY DIAGRAM



PARTS LIST

Part	Description
1.1	Cover
1.2	Saddle
1.3	Extension Screw
1.3a	Spring Pin
1.4	Spring Support
1.5	Screw Bushing
1.6	Y-Shape Seal Ring
1.7	Head Nut
1.8	O-Ring
1.9	Piston Rod
1.10	Stop Ring
1.11	U-Shape Seal Ring
1.12	Piston Head
1.13	Elastic Stop Ring
1.14	Cylinder
1.15	Spring
1.16	Nut
1.17	Screw
1.18	O-Ring
1.19	Filler Plug
1.20	Screw
1.21	Washer
1.22	O-Ring
1.23	O-Ring
1.24	O-Ring
1.25	Chassis Base
2.1	Side Plate
2.2	Angle Bracket
2.3	Handle Fork
2.4	Washer
2.5	Set Screw
2.6	Washer
2.7	Bolt
2.8	Wheel
2.9	Washer
2.10	TRack Ring
2.11	Washer
2.12	Screw

Part	Description
2.13	
2.14	Screw
2.15	Washer
2.16	Bolt
2.17	Washer
3.1	Screw
3.2	Washer
3.3	Spring
3.4	Steel Ball
3.5	Valve Core
3.6	Spring
3.7	Steel Ball
3.8	Cylinder Base
3.9	Steel Ball
3.10	Valve
3.11	Spring
3.12	
3.13	Screw
3.14	O-Ring
3.15	Screw
3.16	Pump Body
3.17	Washer
3.18	O-Ring
3.19	Release Valve Body
3.20	Steel Ball
3.21	O-Ring
3.22	
3.23	Release Valve Screw
3.24	Washer
3.25	Stop Ring
3.26	Fork Axle With Hole
3.27	Steel Wire
3.28	Connecting Block
3.29	Spring Pin
3.30	Spring Pin
3.31	Fork Axle
3.32	Pin
3.33	Joint

Part	Description
3.34	Steel Wire
3.35	Connecting Block
3.36	Fork Axle With Hole
3.37	Spring Pin
3.38	Spring Pin
3.39	Connecting Axle
3.40	Spring Pin
4	Air Pump
4.1	Packing
4.35	Rubber Hose
4.36	Spring
5	Air Valve Assembly
5.2	Filter Nozzle
6.1	Outside Tube
6.2	Spring
6.3	Adjustable Rod
6.4	Split Pin
6.5	Lock Lever
6.6	Spring Pin
6.7	Hexagon-Headed Screw
6.8	Handle
6.9	Control Rod
6.10	Spring Pin
6.11	Knob
6.15	Handle Cap
12.1	Adapter-A
12.3	Adapter-C
12.4	Adapter-D
12.5	Adapter Holder
12.6	U-Bolt
12.7	Spring Washer
12.8	Nut
12.9	Hitch Pin

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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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.