

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



3491 Mission Oaks Blvd., Camarillo, CA 93011 Visit our website at: http://www.harborfreight.com

TO PREVENT SERIOUS INJURY, READ AND UNDERSTAND ALL WARNINGS AND INSTRUCTIONS BEFORE USE.

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

Lifting Capacity	8 Tons (~16,000 Pounds)
Required Air Pressure	110 ~ 120 PSI
Air Inlet Size	1/4" - 18 NPT
Minimum Height	24-1/4"
Maximum Height	42-7/8"
Ram Diameter	1.336"
Stroke	18-5/8"
Ram Mounting Hole	16.5 mm (.65")
Handle Length	19-5/8" X 13/16" O.D.
Hose Length	48"
Unit Weight	35.15 Pounds

SPECIFICATIONS

Save This Manual

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Write the product's serial number in the back of the manual near the assembly diagram, or write month and year of purchase if product has no number. Keep this manual and invoice in a safe and dry place for future reference.

GENERAL SAFETY RULES

READ AND UNDERSTAND ALL INSTRUCTIONS Failure to follow all instructions listed below may result in electric shock, fire, and/or serious injury. SAVE THESE INSTRUCTIONS

- 1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
- 2. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Power tools create sparks which may ignite the dust or fumes.
- 3. **Keep bystanders and children away while operating a power tool.** Distractions can cause you to lose control. Protect others in the work area from debris such as chips and sparks. Provide barriers or shields as needed.

PERSONAL SAFETY

- 1. **Stay alert.** Watch what you are doing, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.
- 2. **Dress properly.** Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.
- 3. **Avoid accidental starting.** Do not depress Lever (A34) until you are ready to begin work.
- 4. **Do not overreach.** Keep proper footing and balance at all times. Proper footing and balance enables better control of the power tool in unexpected situations.
- 5. **Use safety equipment.** Always wear eye protection. Dust mask, nonskid safety shoes, hard hat, or hearing protection must be used for appropriate conditions. Always wear ANSI-approved safety goggles and a dust mask/respirator when using or performing maintenance on this tool.

TOOL USE AND CARE

- 1. **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 is designed. Do not force the tool and do not use the tool for a purpose for which it is not intended.
- 2. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
- 3. **Maintain tools with care.** Properly maintained tools are less likely to bind and are easier to control. Do not use a damaged tool. Tag damaged tools "Do not use" until repaired.
- 4. 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 serviced before using. Many accidents are caused by poorly maintained tools.
- 5. Use only accessories that are recommended by the manufacturer for this model. Accessories that may be suitable for one tool may become hazardous when used on another tool.

SERVICE

1. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.

2. When servicing a tool, use only identical replacement parts. Follow instructions in this manual. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of injury.

SPECIFIC SAFETY RULES

- 1. NEVER use the Flat Bottom Jack unless it is properly and securely attached first.
- 2. WARNING: DO NOT exceed the maximum lift capacity of 8 Tons (~16,000 pounds). Exceeding the maximum lifting capacity is dangerous and could cause serious injury or property damage.
- 3. **Maintain labels and nameplates on the tool.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
- 4. **Maintain a safe working environment.** Make sure there is adequate surrounding workspace. Do not use this product in a damp or wet location.
- 5. **Do not alter Flat Bottom Jack's 16.5 mm (0.65") mounting hole.** A mounting pins (not included) must be used that is rated to support at least 8 Tons of pressure and it must have R-Pins (not included) to lock the pin in place.
- 6. Use the Flat Bottom Jack only on a flat, level and solid surface capable of supporting the combined weight of the lifting equipment, crane and load.
- 7. **The Flat Bottom Jack is designed to lift loads only for short periods of time.** Do not use Long Ram Jack to suspend a load for more than 30 minutes at a time.
- 8. **Immediately after lifting, brace load with support equipment rated to handle the load capacity.** Do not work under a load suspended only by the Flat Bottom Jack.
- 9. **Do not attempt to move or shift object being lifted.**
- 10. Twisting or sideways force exerted on the Jack could cause it to fail.
- 11. **Do not attempt to move a load while it is supported by the Flat Bottom Jack.** The Jack must be used in a fixed position when lifting and lowering loads.
- 12. Before lowering a load, be certain that the area underneath the load is clear of obstructions and personnel.
- 13. Industrial applications must meet OSHA requirements.
- 14. **Use compressed air only.** Use only clean, dry, regulated, compressed air between 110 and 120 PSI. Never use Oxygen, Carbon Dioxide, combustible gases or any other bottled gas as a power source for this product.

- 15. **The Flat Bottom Jack is designed for vertical use only.** Do not use in a horizontal or upside down position.
- 16. NEVER attempt to adjust the factory pre-set Safety Valve on the Long Ram Jack.
- 17. Not to be used for aircraft purposes.
- 18. **Avoid unintentional starting.** Make sure you are prepared to begin work before turning on the tool.
- 19. **WARNING!** The warnings and cautions discussed in this 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.

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.

OPERATION

1. Place the Flat Bottom Jack on a solid, level surface capable of bearing the combined weight of the tool and load. Due to the variety of applications possible for this jack, proper hardware suited for the application must be supplied by the user and proper mounting procedures must be followed by the installer. If you are not familiar with this type of work or have any doubt about your capability to safely install this jack, have a qualified technician install the jack for you. To secure the top of the Hydraulic Jack, slide a pin (not included) through the product and Ram (13). Make sure the pin's diameter is a push fit with just enough clearance so that it can move freely. The pin should be held in place with appropriate clips or hardened cotter pins (not included)..

Note: MARNING! The Pin must be rated to support at least 8 tons (~16,000 pounds) of pressure. (See Figure A.)

- 2. Insert the Handle (21) into the Handle Bracket (31).
- 3. Raising and Lowering:
 - To raise the Flat Bottom Jack turn the Release Valve (4) clockwise until the valve is tightly closed. Pump the Handle (21) to raise the Jack. Continue to pump the Handle (21) until the Flat Bottom is at the desired height.
 - To lower the Jack, first verify that the area under the object is clear, then turn the Release Valve (4) counterclockwise. This will release pressure in the Jack and cause the Jack to lower.

4. Adding Hydraulic Oil:

• Turn the Release Valve (4) counterclockwise until Jack is completely lowered. Remove the Filler Plug (17) from the Reservoir (16). Fill the Reservoir (16) with oil. Use a high quality hydraulic oil.

5. Hydraulic System Bleeding Instructions:

<u>Caution</u>: Never bleed the system while Flat Bottom is under a load.

- a. To bleed the Flat Bottom Jack, remove the Filler Plug (17) located on the Reservoir (16).
- b. Open the Release Valve (4). Press and hold piston down.
- c. Insert the Handle (21) in the Handle Bracket (31) and slowly pump the Handle at least 10 times. Continue pumping until no more air bubbles appear.
- d. Leave Handle in "down position" and turn clockwise to close Release Valve.
- e. Raise Handle and check oil level, if necessary, top off the Reservoir with hydraulic oil.
- f. Replace the Filler Plug.
- g. Test the Flat Bottom Jack's performance several times before attempting to lift an object with the shop crane.

Once satisfied that the shop crane is operating properly, then the crane is ready to lift an object. (See Figure D.)

INSPECTION, MAINTENANCE, AND CLEANING

BEFORE EACH USE, inspect the general condition of the tool. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use. Do not use damaged equipment.

THE OBELOTION THE							
Problem	Possible Causes	Possible Solution1. Close Release Valve firmly.2. Do not exceed 8 ton lifting capacity.3. Ensure adequate air supply.4. Purge air from system.					
Jack will not lift load.	 Release Valve not tightly closed. Overload condition. Air supply inadequate. Air trapped in system. 						
Jack will lift, but will not maintain pressure.	 Release Valve not tightly closed. Overload condition. Hydraulic unit malfunction or defective seals. 	 Close Release Valve firmly. Do not exceed 8 ton lifting capacity. Have a qualified service technician check the hydraulic unit. 					
Jack will not lower after it is raised.	 Reservoir overfilled. Linkages binding. 	 Drain oil to proper level. Clean and lubricate moving parts. 					
Poor lift performance.	 Hydraulic oil level low. Air trapped in system. 	 Add oil to proper level. Purge air from system. 					
Will not lift to maximum height.	Hydraulic oil level low.	Add oil to proper level.					

TROUBLESHOOTING

	AIR PUMP ASSEMBLY									
Part	Description	QTY	Par	t Description	QTY		Part	Description	QTY	
A02	Nut	1	A18	Small piston	1		A35	Nut	1	
A03	Sealing ring	1	A19	O-ring	1		A36	O-ring	1	
A04	Nylon ring	1	A20	O-ring	1		A37	O-ring	1	
A05	Copper ring	1	A21	Sealing ring	1		A38	Packing	1	
A06	Air cylinder seat	1	A22	Bolt	3		A39	Throttle	1	
A07	Nut	1	A23	Nylon ring	1		A40	Spring	1	
A08	Spring	1	A24	O-ring	2		A41	Lock nut	1	
A09	Air pump piston	1	A26	Air cylinder cap	1		A42	Bolt	1	
A10	O-ring	2	A27	Bolt	4		A43	Valve body	1	
A11	Big piston	1	A28	Coupler seat	1		A44	Screw	1	
A12	Air cylinder	1	A29	Retaining ring	1		A45	Screen	1	
A13	Screw	2	A30	O-ring	2		A46	O-ring	1	
A14	Lock washer	2	A31	Coupler	1		A47	Quick coupler-	1	
A15	Safety cover	1	A32	Air hose	1			male		
A16	Filter	1	A33	Lock lever	1		A48	Coupler seat	1	
A17	Silencing pad	1	A34	Lever	1					



	GENERAL ASSEMBLY								
Part	Description	Qty	Part	Description	Qty	Part	Description	Qty	
1	Base	1	15	Packing	1	29	R-Pin	3	
2	Ball	6	16	Reservoir	1	30	Connector	1	
3	Seal	1	17	Filler Plug	1	31	Handle Bracket	1	
4	Release Valve	1	18	Nylon Ring	1	32	Air Valve	1	
5	Ball Cup	2	19	Top Nut	1	33	Air Hose	1	
6	Spring	1	20	O-Ring	1	34	Air Motor	1	
7	Spring	1	21	Handle	1	35	Ball	1	
8	Screw	2	22	Copper Washer	1	36	Ball Cup	1	
9	Nylon Ring	1	23	Pump Cylinder	1	37	Spring	1	
10	Cylinder	1	24	O-Ring	1	38	Screw	1	
11	O-Ring	1	25	Nylon Ring	1	39	O-Ring	1	
12	Cup Seal	1	26	Back-Up Ring	1	40	Screw	1	
13	Ram	1	27	Piston	1	41	Plastic Cap	1	
14	Ring	1	28	Pin	3				



For technical questions, please call 1-800-444-3353.

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEM-BLY 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 1 YEAR 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 one year from the date of purchase (90 days if used by a professional contractor or if used as rental equipment). This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, 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, INCLUD-ING 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.