CENTRAL HYDRAULICS_© **2 TON FOLDABLE SHOP CRANE**



ASSEMBLY & OPERATING INSTRUCTIONS



3491 Mission Oaks Blvd. / Camarillo, CA 93011 Visit our Web site 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 and replacement parts, please call 1-800-444-3353.

SAVE THIS MANUAL

You will need this manual for the safety instructions, assembly and operating instructions and parts list. Put it in a safe, dry place for future reference. Keep your invoice with this manual. Write the invoice number on the inside of the front cover.

READ ALL INSTRUCTIONS BEFORE ASSEMBLING OR OPERATING THE SHOP CRANE.

SAFETY WARNINGS & CAUTIONS

- 1. **KEEP WORK AREA CLEAN.** Cluttered areas invite injuries.
- 2. **KEEP CHILDREN AWAY.** All children should be kept away from the work area. Don't let them handle the tool.
- 3. **DO NOT ASSEMBLE OR OPERATE THE CRANE IF UNDER THE INFLUENCE OF ALCOHOL OR DRUGS.** Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not attempt to assemble or operate.
- 4. **AVOID MOVING PARTS DURING OPERATION.** Keep fingers and hands away from all moving parts.
- 5. **USE EYE PROTECTION.** Wear ANSI approved impact safety goggles. Goggles are available from Harbor Freight Tools.
- 6. **DRESS SAFELY:** Protective, gloves and nonskid footwear or safety shoes are recommended when working with and operating the Crane. Don't wear loose clothing or jewelry. They can get caught in moving parts. Also, wear a protective hair covering to prevent long hair from getting caught in the Crane.
- 7. **DON'T OVERREACH.** Keep proper footing and balance at all times.
- 8. **STAY ALERT.** Watch what you are doing. Use common sense. Do not operate any tool when you are tired.
- 9. **2 TON LIMIT.** Do not operate the hydraulic jack beyond rated capacity.
- 10. **REPLACEMENT PARTS AND ACCESSORIES.** When servicing, use only identical replacement parts. Only use accessories intended for use with this Shop Crane. Approved accessories are available from Harbor Freight Tools.
- 11. **STORE IDLE EQUIPMENT.** When not in use, Shop Crane should be stored in "closed" position and in a dry location to reduce rust. For safety, store the Shop Crane in a locked cabinet, out of reach of children.

UNPACKING

When unpacking the Shop Crane, check to make sure the following parts are included. If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual.

	Box A			Box B	
ltem	Description	Qty	ltem	Description	Qty
1	BASE ASSEMBLY	1	7	SUPPORTS	2
2	JACK	1	8	POST	1
3	HANDLE	1	9	BOOM	1
4	JACK HANDLE	1	10	BOOM EXTENSION	1
6	LEGS	2	11 - 29	ASSEMBLY HARDWARE	Lot

ASSEMBLY

For safety and ease of assembly, use two people to assemble the Shop Crane.

WARNING!

To ensure safe operation, it is ESSENTIAL that the correct bolts are used during assembly. If an improper bolt is used, this unit could fail, potentially causing SERIOUS PERSONAL INJURY or DEATH.

Carefully compare the bolts to the *Bolt Grade Identification* illustrations and the measurements shown in the parts list on page 9, and the hardware diagrams on the page 10 to make sure that the correct bolts are used in the correct place. If any doubts arise regarding proper assembly, contact Harbor Freight Tools at the number at the bottom of this page BEFORE use.

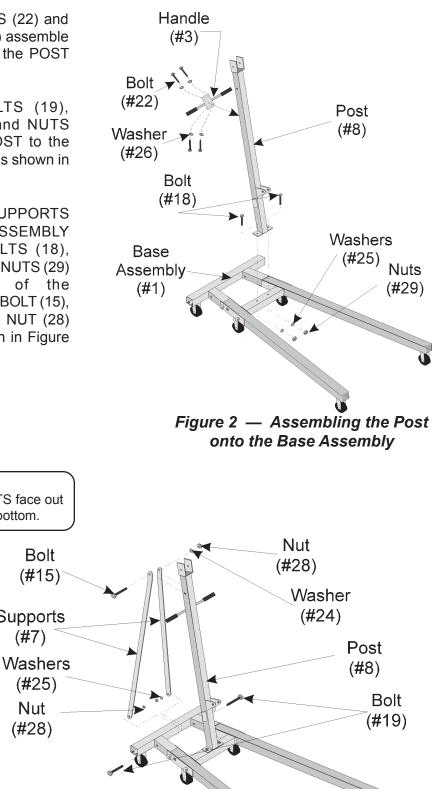
Step 1: Using four RING PINS (12), assemble the LEGS (6) to the BASE ASSEMBLY (1) - see Figure 1.

Hairpins To insert the front RING Note: Assembly (#13)PINS, lift up on the front (#1) of the BASE ASSEMBLY until the holes line up. After all four RING PINS are inserted, insert one HAIRPIN (13) though the small hole at the end of each of the RING PINS until it snaps into place. Ring Pins Legs Make sure that all RING (#12) (#6) PINS are secure before proceeding. Figure 1 — Assembling Legs

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- Step 2: Using four BOLTS (22) and four WASHERS (26) assemble the HANDLE (3) to the POST (8). (See Figure 2).
- Step 3: Using the BOLTS (19), WASHERS (25), and NUTS (29) secure the POST to the BASE ASSEMBLY as shown in Figure 2.
- Assemble the SUPPORTS Step 4: (7) to the BASE ASSEMBLY using the two BOLTS (18), WASHERS (25) and NUTS (29) for the bottom of the SUPPORTS and the BOLT (15), WASHER (24), and NUT (28) for the top as shown in Figure 3.

NOTE: The bends of the SUPPORTS face out at the top and in at the bottom.





Bolt

(#15)

Supports (#7)

(#25)

Nut

(#28)

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- Step 5: Place the BOOM (9) onto the POST (see Figure 4) and secure with BOLT (14), WASHER (23) and NUT (27).
- Step 6: Assemble the lower end of the JACK (2) to the POST using the BOLT (17), WASHER (24) and NUT (28) as shown in Figure 5.
- Step 7: Secure the top of the JACK to the BOOM using BOLT (21), WASHER (25) and NUT (29). (See Figure 5).

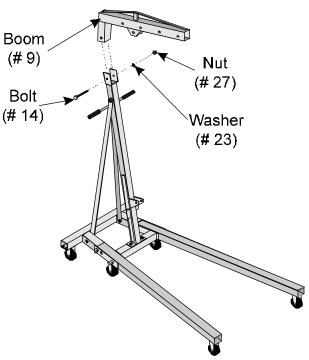


Figure 4 — Placing the Boom onto Post

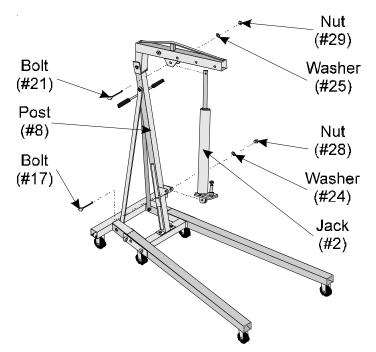


Figure 5 — Assembling the Jack to the Post and Boom

Step 8: Slide the BOOM EXTENSION (10) into the BOOM and secure, at the desired load rating, using BOLT (16), WASHER (24) and NUT (28). (See Figure 6).

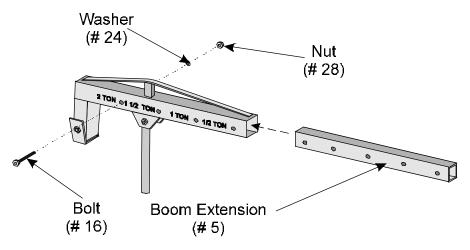


Figure 6 — Inserting the Boom Extension

Step 9: Attach the HOOK & CHAIN (11) to the end of the BOOM EXTENSION (See Figure 7) using BOLT (20), WASHER (25) and NUT (29).

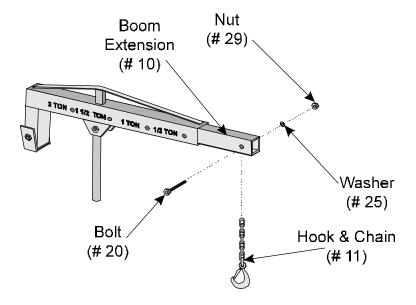


Figure 7 — Attaching the Hook & Chain

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OPERATION

Note: Not to be used for aircraft purposes.

Step 1: Adjust the BOOM EXTENSION (10) to a weight limit position (See Figure 8) that exceeds the weight you will be lifting. Securely tighten the BOLT (16), WASHER (24) and NUT (28).

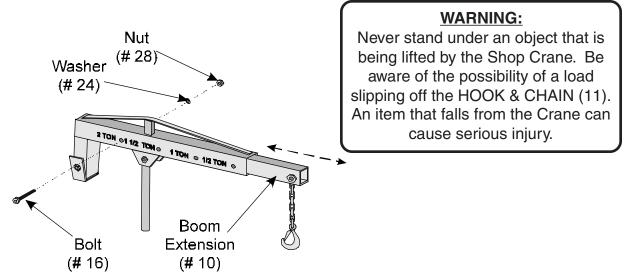


Figure 8 — Adjusting Boom Extension

CAUTION:

DO NOT MOVE THE CRANE WHEN UNDER LOAD. The Casters are not designed to be rolled when the Crane is lifting heavy objects.

Step 2: Move the Crane so that the HOOK & CHAIN (11) is directly above the item to be lifted.

Step 3: Securely attach the HOOK & CHAIN to the item.

Step 4: To raise the BOOM (9), turn the JACK's (2) release valve fully clockwise (right). Insert the HANDLE (3) into the JACK and pump (up and down) repeatedly until the item has been lifted to the desired height.

Step 5: To lower the Crane, **SLOWLY** turn the JACK's release valve counterclockwise (left).

Folding the Frame

NOTE: Do not fold crane while loaded.

- Step 1: Lower Crane all the way.
- Step 2: Remove HAIRPINS (13) from the front RING PINS (12). Remove the front RING PINS (12). Leave rear RING PINS in.
- Step 3: Raise LEG (6) until it rests against HANDLE (3).
- Step 4: Insert a front RING PIN into the middle hole of the BASE ASSEMBLY (1).
- **Note:** Be certain that, when unfolding, both RING PINS (12) and HAIRPINS (13) are placed back in the proper places.

PARTS LIST

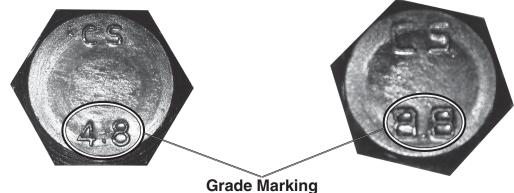
PART	DESCRIPTION	Q'TY
1	BASE ASSEMBLY	1
2	JACK	1
3	HANDLE	1
4	JACK HANDLE	1
6	LEG	2
7	SUPPORT	2
8	POST	1
9	BOOM	1
10	BOOM EXTENSION	1
11	HOOK & CHAIN	1
12	RING PIN	4
13	HAIRPIN	4
14	BOLT (M18 X 4- ⁵ / ₁₆ ") GR. 8.8	1
15	BOLT (M16 X 4- ⁵ / ₁₆ ") GR. 4.8	1
16	BOOM ADJ. BOLT (M16 X 3-9/16") GR. 4.8	1

PART	DESCRIPTION	Q'TY
17	BOLT (M16 X 3- ⁹ / ₁₆ ") GR. 8.8	1
18	BOLT (M14 X 4- ⁵ / ₁₆ ") GR. 4.8	2
19	BOLT (M14 X 3- ¹⁵ / ₁₆ ") GR. 4.8	2
20	BOLT (M14 X 3- ¹ / ₈ ") GR. 8.8	1
21	BOLT (M16 X 3 ⁻³ / ₄ ") GR. 8.8	1
22	BOLT (M8 X ¹ / ₂ ")	4
23	WASHER (M18)	1
24	WASHER (M16)	4
25	WASHER (M14)	5
26	WASHER (M8)	4
27	NUT (M18)	1
28	NUT (M16)	4
29	NUT (M14)	5
30	MANUAL	1

Bolt Grade Identification



Grade 8.8



PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER NOR 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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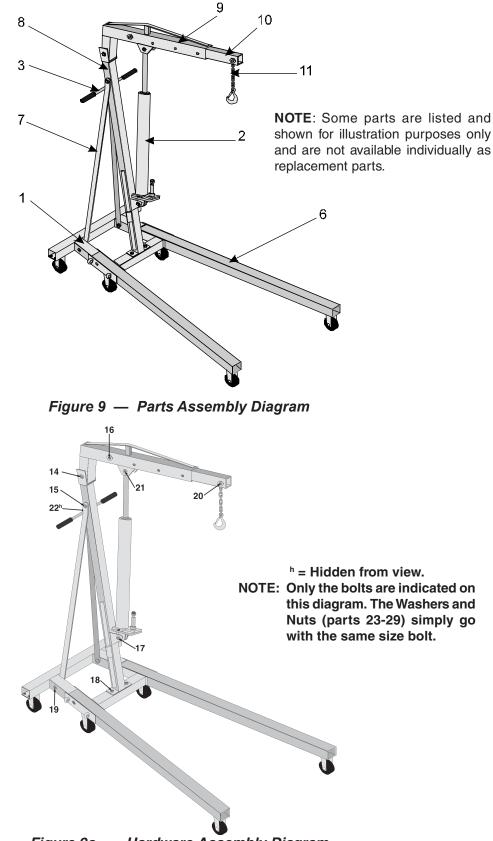


Figure 9a — Hardware Assembly Diagram



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

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HYDRAULIC JACK

PARTS LIST

ASSEMBLY DIAGRAM

PART	DESCRIPTION	Q'TY
1	BASE SET	1
2	STEEL BALL	1
3	SEAL	1
4	VALVE RELEASE SCREW	1
5	WASHER	1
6	CYLINDER	1
7	COPPER WASHER	1
8	VALVE	1
9	SEAL	1
10	COVER	1
11	PUMP CYLINDER	1
12	O-RING	1
13	SEAL	1
14	PISTON	1
15	PLUNGER & FULCRUM ASSY	1
16	PIN	1
17	COTTER PIN - R TYPE	1
18	LINK BOLT	1
19	WASHER	1
20	OIL TANK	1
21	WASHER	1
22	RAM	1
23	COLLAR	1
24	O-RING	2
25	CUP SEAL	1
26	C-RING	1
27	END CAP	1
28	O-RING	1
29	PLUNGER	1
30	HANDLE	1
31	GRIP	1
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