# **CENTRAL HYDRAULICS**8 5 TON LONG FRAME JACK

**Model** 94641

# ASSEMBLY AND OPERATING INSTRUCTIONS





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

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

# **Specifications**

Lifting Capacity	5 Tons (10,000 Lbs.)
Minimum Saddle Height	5.5"
Maximum Saddle Height	22.5"
Handle Length	38"
Overall Dimensions	56" L x 15" W x 6" H
Hydraulic Fluid Capacity	0.9 Quarts

#### Save This Manual

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

# **Safety Warnings and Precautions**

WARNING: When using tool, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment.

#### Read all instructions before using this tool!

- 1. **Keep work area clean**. Cluttered areas invite injuries.
- 2. **Observe work area conditions**. Do not use machines in damp or wet locations. Don't expose to rain. Keep work area well lit.
- 3. **Keep children away**. Children must never be allowed in the work area. Do not let them handle the Jack.
- 4. **Store idle equipment**. When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
- 5. **Use the right tool for the job**. Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this tool and do not use this tool for a purpose for which it was not intended.
- 6. **Dress properly**. Do not wear loose clothing or jewelry as they can be caught in moving parts. Protective, electrically non-conductive clothes and non-skid footwear are recommended when working. Wear restrictive hair covering to contain long hair.
- 7. **Use eye protection**. Always wear ANSI approved impact safety goggles.
- 8. **Do not overreach**. Keep proper footing and balance at all times. Do not reach over or across Jack or Jack Stands during use.

- 9. **Maintain tools with care**. Keep tools clean for better and safer performance. Follow instructions for lubricating and changing accessories. The handle must be kept clean, dry, and free from oil and grease at all times.
- 10. **Stay alert**. Watch what you are doing, use common sense. Do not operate any tool when you are tired.
- 11. **Check for damaged parts**. Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician.
- 12. **Replacement parts and accessories**. When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use accessories intended for use with this tool. Approved accessories are available from Harbor Freight Tools.
- 13. **Do not operate tool if under the influence of alcohol or drugs**. Read warning labels if taking prescription medicine to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.
- 14. **Maintenance**. For your safety, service and maintenance should be performed regularly by a qualified technician.

Warning: The warnings, cautions, 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.

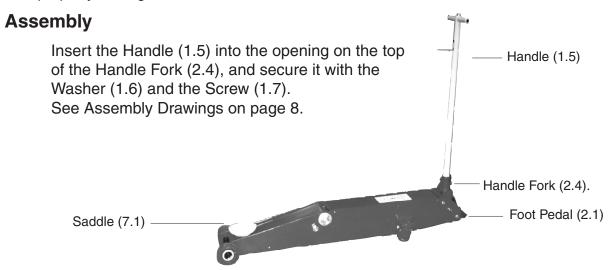
# Unpacking

When unpacking, check to make sure the parts listed on pages 9 & 10 are included. If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual as soon as possible.

# **Specific Jack Safety Precautions**

**Warning!!** Stand clear of the Jack when raising or lowering a vehicle.

- Jack Capacity. Never exceed the Jack's capacity of 10,000 Lbs. (5 Tons). Check the vehicle's owner's manual to determine the actual gross weight of your vehicle before attempting to lift it
- 2. **Never ride on the Jack**. Never ride on the Jack, and never have people or pets in the vehicle you are raising.
- 3. **Only use Jack to raise vehicle**. After raising the vehicle, use jack stands to keep the vehicle suspended for periods of time. Do not work on or under the vehicle while it is supported by the Jack. The Jack is designed for lifting the vehicle only.
- 4. **Place Jack on correct surface**. Only use this Jack on a stable, level, clean and dry surface that is capable of sustaining the load.
- 5. **Stabilize the load**. Ensure that the load remains stable at all times. Do not move the load while it is on the Jack.
- 6. **Vehicle lifting**. When lifting a vehicle, apply the emergency brake and block all of the wheels that will remain on the ground.
- 7. **Center load**. Center the load on the Jack Saddle (7.1). Off-center loads can damage seals, causing Jack failure.
- 8. **Lift only using correct vehicle lift points**. Read the vehicle manual to find the proper lifting points for the vehicle.
- 9. **Never use the Jack unless it is filled with hydraulic fluid**. Filling with hydraulic fluid is covered in the maintenance section of this manual.
- 10. NEVER USE THIS JACK FOR AIRCRAFT PURPOSES.
- 11. Caution: Always be aware of Dynamic Loading. If you drop a weight on the Long Frame Jack, it may create for a brief instant, an excess load. The Long Frame Jack is designed for a maximum load of 10,000 lbs.; do not exceed this lifting capacity.
- 12. **Bypass Valve (6.34) is preset by the factory and must not be adjusted by the user.** Any adjustment in the Bypass Valve could result in failure of the jack, personal injury and/or property damage.



## **Operation**

## Raising the Vehicle.

- 1. Position the Jack so that the Saddle (7.1) is at one of the recommended lifting points. Pull back on the Screw Rod (1.4) and turn it to the right (see label on handle) to lock the release valve. Pump the Handle (1.5) or the Foot Pedal (2.1) until the Saddle (7.1) fully engages the lifting point, then continue to pump the Jack to the needed height.
- 2. Use jack stands (not included) that are capable of supporting the weight of the vehicle being lifted. Use your vehicle's owner's manual to determine the specified points on the vehicle to safely position jack stands.
- 3. Once the vehicle is safely positioned over the jack stands, slowly turn the Screw Rod (1.4) to the left and move the Handle (1.5) back and forth until the Screw Rod drops as far as it will go. Turn the Screw Rod (1.4) right to open the release valve and lower the vehicle onto the jack stands. Caution: Press lightly on the Screw Rod until you are able to judge the rate at which the vehicle is being lowered.
- 4. To determine if the vehicle is safely up on jack stands, stand away and attempt to gently rock the vehicle. Caution: Be prepared for the vehicle to suddenly drop if the jack stands are not properly placed. If it sways and seems unstable, repeat the procedure and reposition the jack stands. Test again.

## **Lowering Vehicles**.

- 1. First, clear any tools or equipment from under the vehicle. Make sure there are no obstructions and that people are at a safe distance from the vehicle.
- 2. Position the Jack so that the Saddle (7.1) is at one of the recommended lifting points. Pull back on the Screw Rod (1.4) and turn it to the right (see label on handle) to lock the release valve. Pump the Handle (1.5) until the Saddle (7.1) fully engages the lifting point, then continue to pump the Jack to the needed height above and clear of the jack stands.
- 3. Remove the jack stands. **Note:** Position yourself safely so that you are not under any part of the vehicle before lowering the Jack or removing the jack stands.
- 4. Slowly turn the Screw Rod (1.4) to the left and move the Handle (1.5) back and forth until the Screw Rod drops as far as it will go. Now, turn the Screw Rod (1.4) right to open the release valve and lower the vehicle.
- 5. Pull the Jack clear of the vehicle and store in a safe place.

#### **General Maintenance**

- 1. Keep the Jack clean and dry.
- 2. Periodically lubricate the bearing and axles on the caster wheels with high quality grease. Use a grease gun (not included) to service the Jack's zerk fittings.
- 3. Have a qualified service technician periodically dismantle and lubricate the handle assembly and all lift arm linkages.
- 4. Watch for hydraulic oil leaks. Fill oil if necessary. If leaks persist, contact an authorized service technician. Never use the Jack if it is leaking hydraulic oil.
- 5. If the Jack does not lift to satisfaction, it may have air in the hydraulic system and need to be bled. **Note:** Bleeding and oil fill instructions follow on page 6.

# Maintenance (continued)

If the Jack is not performing properly, it may have air in the hydraulic system and need to be bled. Never attempt to bleed the Long Frame Jack while it is lifting a vehicle or object.

## Bleeding and filling the Jack with hydraulic oil.

See the Assembly Drawing on page 8.

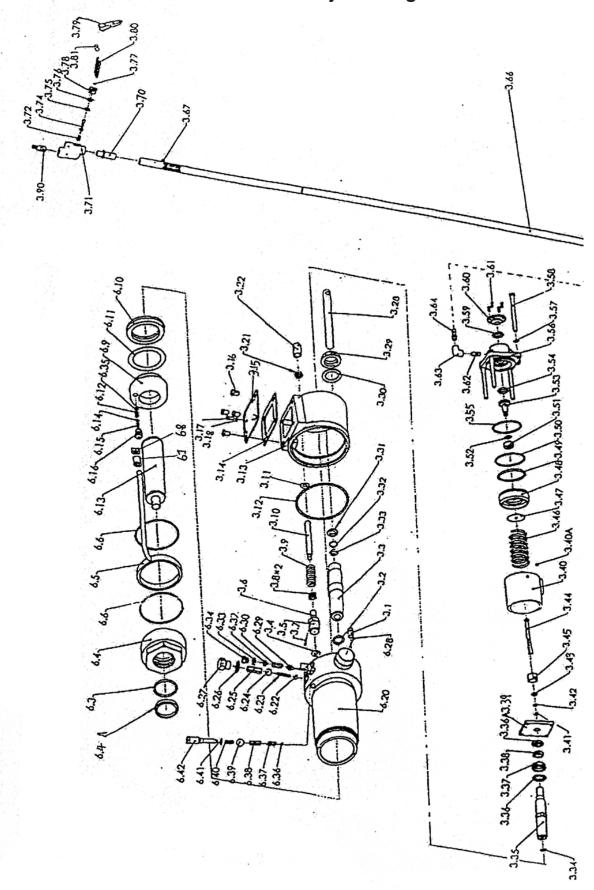
#### **Filling**

- 1. Place the Jack on a flat, level, solid surface.
- 2. If just filling the Jack, open the Cover (8.1) with a standard slot screwdriver by removing the two Screws (8.5). Swing the Cover (8.1) open (the two Rivets (8.3) act as hinges). Then, remove the Cover Plate (3.15) by unthreading the 4 Bolts (3.16), and remove the Paper Washer (3.14). Note: Take care not to damage or get debris on the Paper Washer (3.14) or Cover Plate (3.15).
- 3. Using a high quality hydraulic oil, fill to the top of the Cylinder Body (3.13).
- 4. Replace the Cover Plate (3.15), Paper Washer (3.14), and the Bolts (3.16). Close the Cover (8.1) and tighten on the Screws (8.5).

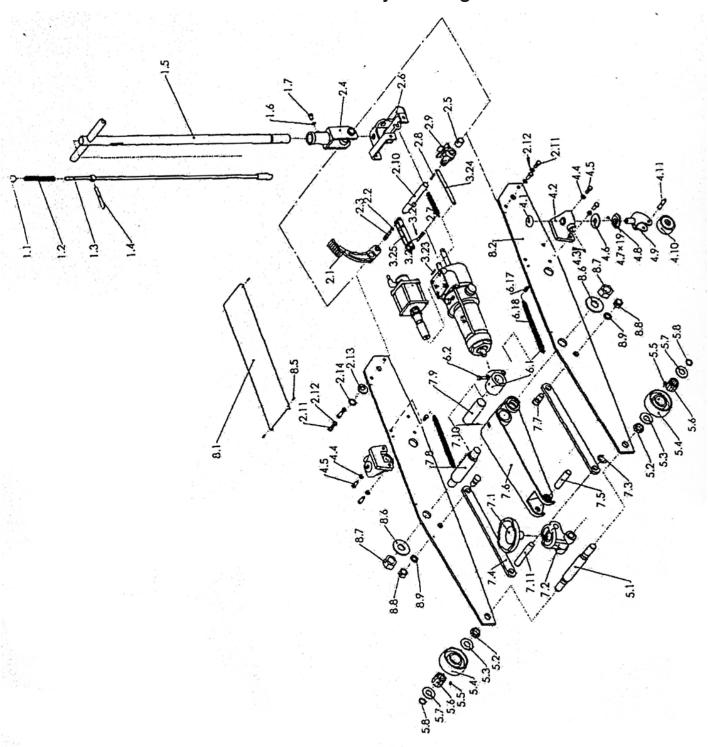
#### **Bleeding**

- 1. Follow Step 2 (as explained above) to fill the Cylinder Body (3.13) as if you were filling with oil.
- 2. Apply pressure on the Saddle (7.1), holding it down. Put the Handle (1.5) in the vertical position. Turn the Screw Rod (1.4) to the left, it should fall down into place. Now, turn the Screw Rod (1.4) right to open the release valve and hold it there. Pump the Foot Pedal (2.1) quickly, ten times. This will bring all the air out of the system. Continue pumping until no more air bubbles appear. Fill to the top with a high quality hydraulic oil if necessary. Put the Screw Rod back into the normal operating position.
- 3. Replace the Paper Washer (3.14), Cover Plate (3.15) and the Bolts (3.16). Close the Cover (8.1) and tighten the Screws (8.5).
- 4. Test the Floor Jack. Make sure it is functioning properly before attempting to lift a vehicle. Move the Saddle (7.1) up and down several times to make sure it is working properly. If not, repeat the above process.

# **Handle Assembly Drawing**



# **Jack Assembly Drawing**



# **Parts List**

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Item No.	Description	Item No.	Description	Item No.	Description
1.1	end cover	3.24	connecting rod	3.61	screw
1.2	compression spring	3.25	driying brush	3.62	screw tube
1.3	deflector rod	3.26	wire	3.63	elbow joint
1.4	screw rod	3.27	pin	3.64	union
1.5	control rod	3.28	piston rod	3.65	spiral clamp ring
1.6	washer	3.29	locking nut	3.66	rubber hose
1.7	fastening screw	3.30	ring	3.67	spring
2.1	foot pedal	3.31	dust -proof ring	3.69	
2.2	circlio	3.32	seal ring	3.70	filter nozzle
2.3	pin	3.33	dust -proof ring	3.71	case
2.4	fork member	3.34	dust -proof ring	3.72	spring
2.5	bush	3.35	outside tube	3.73	
2.6	base	3.36A	washer	3.74	piston rod
2.7	spring	3.36	ring	3.75	seal ring
2.8	pin	3.37	fastering nut	3.76	rubber ring
2.9	сар	3.38	nut	3.77	rubber ring
2.10	shaft	3.39	cylinder base	3.78	throttle
2.11	screw	3.40	pump body	3.79	handle cover
2.12	washer	3.40A	o-ring	3.80	locking spring
2.13	washer	3.41	rubber ring	3.81	pin
2.14	clamp ring	3.42	seal ring	3.90	union
3.1	filter	3.43	plug bush	3.91	
3.2	washer	3.44	plug	4.1	cover
3.3	outside tube	3,45	сар	4.2	wheel cover
3.4	washer			4.3	injecting oil nozzle
3.5	valve seat			4.4	washer
3.6	needle	3.46	copped spring	4.5	screw
3.7	wire	3.47	spring holder	4.6	bearing cover
3.8	nut	3.48	piston	4.7	steel ball
3.9	spring	3.49	rubber o-ring	4.8	bearing holder
3.10	screw rod			4.9	wheel fork
3.11	robber ring	3.50	seal ring	4.10	wheel
3.12	robber ring	3.51	seal throattle	4.11	rivet
3.13	cylinder body	3.52	washer	5.1	axle
3.14	cover plate	3.53	throattle rod	5.2	nut
3.15	cover	3.54	rudder o-ring	5.3	stop ring
3.16	bolt	3.55	rudder o-ring	5.4	wheel
3.17	bolt	3.56	air pump body	5.5	pressure filter port
3.18	washer	3.57	washer	5.6	roller
3.21	nut	3.58	bolt	5.7	stop ring
3.22	connecting brush	3.59	rudder o-ring	5.8	split ring
3.23	wire	3.60	end cover	6.1	joint

# (Continued) Parts List

6.2	screw	6.24	steel ball	7.3	stop ring
6.3	seal ring	6.25	large ball rod	7,4	level supporting rod
6.4	large nut	6.26	washer	7.5	axle
6.4A	dust-proof ring	6.27	bolt	7.6	rocker
6.5	ring	6.28	steel ball	7.7	bolt
6.6	washer	6.29	valve	7.8	axle
6.7	bush	6.30	spring	7.9	axle
6.8	seal ring	6.32	screw	7.10	injecting oil nozzle
6.9	piston rod	6.33	sest ring	7.11	split ring
6.10	rubber cup	6.34	screw	8.1	cover plate
6.11	stop ring	6.35	washer	8.2	side plate
6.12	spring			8.3	rivets
6.13	piston rod	6.36	steel ball	8.4	
6.14	steel ball	6.37	spring	8.5	screw
6.15	push needle	6.38	valve seat	8.6	washer
6.16	valve seat	6.39	steel ball	8.7	nut
6.17	screw	6.40	spring	8.8	nut
6.18	spring	6.41	washer	8.9	washer
6.20	outer body	6.42	scrcw		
6.22	steel ball	7.1	tray		
6.23	small push rod	7.2	joint		:



#### LIMITED 90 DAY WARRANTY

Harbor FreightTools 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 ninety 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, or loaks 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 EXPRESSIVE 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 guickly 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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#### PLEASE READ THE FOLLOWING CAREFULLY

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