

**Central
Hydraulics®**

1100 LB. HIGH LIFT TRANSMISSION JACK

Model 33615

SET UP AND OPERATING INSTRUCTIONS



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**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.

Safety Alert Symbol and Signal Words

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.

IMPORTANT SAFETY INSTRUCTIONS

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

WARNING – When using tools, basic precautions should always be followed, including the following:

General

- a. To reduce the risks of electric shock, fire, and injury to persons, read all the instructions before using the tool.

Work area

- a. Keep the work area clean and well lighted. Cluttered benches and dark areas increase the risks of electric shock, fire, and injury to persons.
- b. *Keep bystanders, children, and visitors away while operating the tool.* Distractions are able to result in the loss of control of the tool.


Personal safety

- a. *Stay alert. Watch what you are doing and use common sense*

when operating the tool. Do not use the tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating the tool increases the risk of injury to persons.

- b. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair increases the risk of injury to persons as a result of being caught in moving parts.

- c. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.

- d.  **Use safety equipment.** A dust mask, non-skid safety shoes and a hard hat must be used for the applicable conditions. Wear heavy-duty work gloves during use.

- e.  **Always wear eye protection.** Wear ANSI-approved safety goggles.

Tool use and care

- a. **Do not force the tool.** Use the correct tool for the application. The correct tool will do the job better and safer at the rate for which the tool is designed.
- b. **Disconnect the tool from the air source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool

unintentionally. Turn off and detach the air supply, safely discharge any residual air pressure, and release the throttle and/or turn the switch to its off position before leaving the work area.

- c. **Store the tool when it is idle out of reach of children and other untrained persons.** A tool is dangerous in the hands of untrained users.
- d. **Maintain the tool with care.** Keep a cutting tool sharp and clean. A properly maintained tool, with sharp cutting edges reduces the risk of binding and is easier to control.
- e. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that affects the tool's operation.** If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools. There is a risk of bursting if the tool is damaged.
- f. **Use only accessories that are identified by the manufacturer for the specific tool model.** Use of an accessory not intended for use with the specific tool model, increases the risk of injury to persons.

Service





- a. **Tool service must be performed only by qualified repair personnel.**
- b. **When servicing a tool, use only identical replacement parts. Use only authorized parts.**
- c. **Use only the lubricants supplied with the tool or specified by the manufacturer.**



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SYMBOLS AND SPECIFIC SAFETY INSTRUCTIONS

Symbol Definitions

Symbol	Property or statement
n_o	No-load speed
.../min	Revolutions or reciprocation per minute
PSI	Pounds per square inch of pressure
ft-lb	Foot-pounds of torque
BPM	Blows per minute
CFM	Cubic Feet per Minute flow
SCFM	Cubic Feet per Minute flow at standard conditions
NPT	National pipe thread, tapered
NPS	National pipe thread, straight
	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.

Specific Safety Instructions

1. Do not exceed 1100 lb. weight capacity evenly distributed. Be

aware of dynamic loading! Sudden load movement may briefly create excess load causing product failure. **Exceeding the maximum capacity for this product is dangerous and can lead to serious injury or property damage.**

2. Do not suspend load for more than 30 minutes at a time.
3. **Always evaluate your task before using this jack.** This jack is designed to support a transmission or a differential as individual components. Use as intended only. **Do not use for aircraft purposes.**
4. Assemblies such as differential with axle, or transmission with bell housing, can be bulky and difficult to balance on the Saddle Plate (72). Wear appropriate safety gear, including heavy-duty work gloves and ANSI-approved safety goggles during use. **Lifting or supporting such assemblies, even within weight limit, can create an off-balance situation, causing Jack to tip over and MAY lead to serious personal injury or property damage.**
5. The load should be evenly distributed on the jack, and should not extend beyond the area of the castor wheelbase. Always use the Chain (71) to secure the load. If extra support is required, safety straps (not included) can also be used to secure the workpiece.
6. If you are working and the load becomes off-balance and/or the jack begins to tip over, **DO NOT ATTEMPT TO CATCH OR LIFT THE LOAD WHEN FALLING. SERIOUS PERSONAL INJURY CAN RESULT!**

In this event, clear the area as quickly and safely as possible in order to avoid injury from the falling load, including getting hit with flying fragments.

7. **If in doubt about the safety of your project, we advise you to have the work done by a professional familiar with applicable safety practices.**
8. Use only on a hard, level and flat surface capable of bearing the combined weight of the Transmission Jack, the load being lifted, the operator and any tools being used.
9. The Legs (43) are on Casters (48). Make sure the casters are blocked before use.
10. The Transmission Jack is not designed to lift or lower a vehicle. Suspend the vehicle with an in-floor hydraulic jack (not included.)
11. The warnings and precautions 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.
12. Obey the manual for the air compressor used to power this tool.
13. Install an in-line shutoff valve to allow immediate control over the air supply in an emergency, even if a hose is ruptured.



SAVE THESE INSTRUCTIONS.

FUNCTIONAL DESCRIPTION

Specifications

Weight Capacity	1100 lb.
Lift Range	44-3/4" - 70-3/4"
Saddle Tilt	30°
Safety Chain	4' L x 3/16" Diameter

INITIAL TOOL SET UP/ ASSEMBLY



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.

Note: For additional information regarding the parts listed in the following pages, refer to the Assembly Diagram near the end of this manual.

Unpacking

When unpacking, make sure that the item is intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at 1-800-444-3353 as soon as possible.

NOTE: After unpacking, remove the Shipping Plug (14) from the side of the Oil Reservoir (17) and replace it with the Air Vent Valve (15).

ASSEMBLY

1. To assemble the bottom of the unit, line up the holes on the Pump Base (42) with the holes on each Leg Assembly (43). Fasten the Leg to Pump Base using the Spring Washers (46) and Bolts (47). Repeat

- on the other side. See Assembly Diagram on back of manual for reference.
2. Slide each Caster (48) up into a Leg. Fasten together using Spring Washer (45) and Nut (44).
 3. To assemble top unit, remove Retaining Ring (74) from Front Shaft (73) and insert Front Shaft through Saddle Plate (72). Replace Retaining Ring, locking Front Shaft in Saddle Plate.
 4. Remove Pin (84) and Nut (83) from Screw Rod (77). Slide off Washer (82) and Bearings (78). **NOTE:** When replacing Bearings, do not insert them upside down. The grooved faces should be towards the Ball Rack.
 5. Thread Screw Rod through Screw Rod Shaft (80). Slide one Bearing onto Screw Rod and insert Screw Rod through Rear Pivot Pin (81). Fasten in place using Bearing (78), Washer (82), Nut (83) and Pin (84).
 6. Fasten the Angle Brackets (68) to top of Saddle Plate using Bolts (69), Nuts (66) and Washers (67).
 7. Attach Corner Plates (64) to Angle Brackets using Bolts (69), Washers (67) and Nuts (66). **NOTE:** Do not tighten completely in case you need to adjust spacing.
 8. Attach Bar (61) to one Corner Plate using Washer (62) and Nut (65). Attach end link of Chain (71) to opposite Corner Plate using Bolt (70) and Washer (62).

9. Slide Saddle Base onto top of Cylinder Head (3). Attach using the Screw (86).

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.

Inspect tool before use, looking for damaged, loose, and missing parts. If any problems are found, do not use tool until repaired.

Tool Set Up



WARNING TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION: Remove load and lower Transmission Jack before performing any inspection, maintenance, or cleaning procedures.

TO PREVENT SERIOUS INJURY: Do not adjust or tamper with any control or component in a way not specifically explained within this manual. Improper adjustment can result in tool failure or other serious hazards.

General Operating Instructions

1. Designate a work area that is clean and well-lit. The work area must not allow access by children or pets to prevent distraction and injury.

2. Prior to initial use, jack up the Saddle and, using the Release Knob (9), attempt to lower it. Doing so will familiarize the use with the control functions and Jack, if needed.
3. Once the vehicle is safely and properly secured on an in-floor jack (not included), position the Transmission Jack underneath your vehicle.
4. Pump the Pedal (38) to raise the Jack to contact and bear transmission weight. After making contact with the transmission, make sure it is centered within the two brackets on the Saddle Plate (72). Use Adjustment Knob (75) to position Saddle Base (85).
5. After contact, lift the Jack another inch to transfer the weight of the transmission from the vehicle chassis to the Transmission Jack.
6. Unscrew transmission. With assistance, remove transmission bolts freeing it from the vehicle. Making sure there is nothing to restrict the movement of the transmission.
7. Back off transmission to free from engine.
8. Check the Saddle; make sure it is securely holding the transmission and not showing any signs of stress. Carefully lower it by turning the Release Knob (9).
9. Again check the Saddle Plate; making sure it is securely holding the transmission and not showing any signs of stress.
10. Secure the Chain (71) tightly over the transmission and safely move the Transmission Jack.
11. After removal, lower the Jack to the lowest possible point. **Warning!** The Jack is designed to lift loads only for short periods of time. Do not use to suspend a load for more than 30 minutes at a time.
12. To re-mount the transmission, reverse this procedure.

Bleeding Instructions

If the Transmission Jack is not working properly, it may be due to trapped air in the hydraulic system, and would require bleeding as described below.

1. Unscrew the Air Vent Valve (15) on the back side of the Oil Reservoir (17).
2. Back off the spring-loaded Release Knob (9).
3. Allow Saddle to retract fully. Pump the Pump Pedal (38) at least ten times to bleed all air from the system.
4. Top off with clean hydraulic fluid.
5. Replace and tighten the Air Vent Valve.
6. Close the release valve and test the unit.

INSPECTION, MAINTENANCE, AND CLEANING



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

⚠️ WARNING

TO PREVENT SERIOUS INJURY

FROM TOOL FAILURE:

Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

1. **Before each use**, inspect the general condition of the Transmission Jack. Check for oil leaks, jack operation, loose components, free rotation and pivoting of saddle adjustment components. If a problem occurs, have the problem corrected before further use.
Do not use damaged equipment.
2. **Before each use, thoroughly test the Transmission Jack for proper operation prior to its actual use. If the Jack appears *not* to be working properly, follow *Bleeding* instructions on page 7.**
3. **Change the hydraulic oil at least once every three years:**
 - a. With the Jack fully lowered, remove the Air Vent Valve at the top edge of the Cylinder Barrel (17).
 - b. Tip the Jack to allow the old hydraulic oil to drain out of the Housing completely, and dispose of the old hydraulic oil in accordance with local regulations.
- c. With the Jack upright, completely fill the Housing with a fresh hydraulic Jack oil (not included) until the oil just begins to run out of the Oil Fill Hole.
- d. Perform bleeding procedures under “Bleeding Instructions.”
4. Clean with a clean cloth with a detergent or mild solvent. Then, store the Jack in a safe, dry location out of reach of children and other non-authorized people.

Troubleshooting

▲WARNING

TO PREVENT SERIOUS INJURY:

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 it and lowering it fully, checking for proper operation, BEFORE RETURNING THE JACK TO OPERATION.

DO NOT USE A DAMAGED OR MALFUNCTIONING JACK!

POSSIBLE SYMPTOMS							PROBABLE SOLUTION (Make certain that the jack is not supporting a load while attempting a solution.)
Jack will not lift at its weight capacity	Saddle lowers under load	Pump stroke feels spongy	Saddle will not lift all the way	Handle moves up when jack is under load	Oil leaking from filler plug		
X	X						Check that Air Vent Valve is closed fully. Valves may be blocked and may not close fully. To flush the valves: 1. Lower the Saddle and securely close the Air Vent Valve. 2. Manually lift the saddle several inches. 3. Open the Air Vent Valve and force the saddle down as quickly as possible.
X	X			X			
		X	X				
					X		
							Jack may be low on oil. Check the oil level and refill if needed. Jack may require bleeding - see instructions on page 7.
							Unit may have too much hydraulic oil inside, check fluid level and adjust if needed.

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 (MAIN BODY)

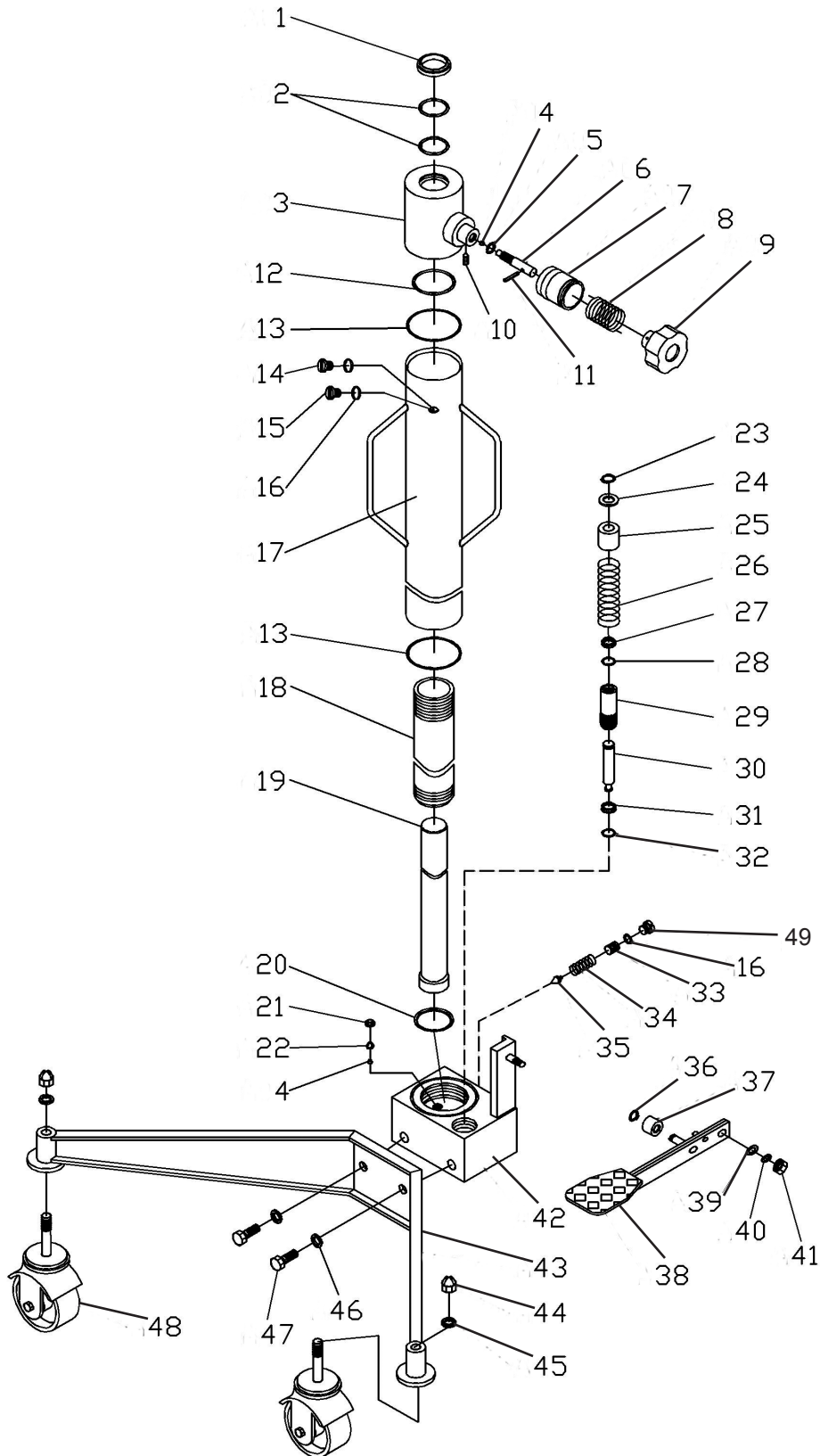
Part	Description	Q'ty	Part	Description	Q'ty
1	Dust Seal 30	1	26	Spring	1
2	O-Ring 35 x 3.1	2	27	Dust Seal 16	1
3	Cylinder Head Assembly	1	28	O-Ring 20 x 2.4	1
4	Steel Ball 1/4"	2	29	Piston Housing	1
5	O-Ring 15 x 2.4	1	30	Pump Piston	1
6	Release Rod	1	31	U-Cup Seal 16 x 8 x 6	1
7	Bushing	1	32	O-Ring 22 x 2.4	1
8	Spring	1	33	Screw	1
9	Release Knob	1	34	Spring	1
10	Set Screw M5 x 8	1	35	Taper Valve	1
11	Spring Pin 4 x 20	1	36	Retaining Ring 12	1
12	O-Ring 45 x 3.1	1	37	Bushing	1
13	O-Ring 60 x 3.1	2	38	Pump Pedal	1
14	Shipping Plug	2	39	Washer 12	1
15	Air Vent Valve	1	40	Washer 10	1
16	O-Ring 12 x 1.9	3	41	Lock Nut M10	1
17	Oil Reservoir	1	42	Pump Base Assembly	1
18	Cylinder	2	43	Leg Assembly	2
19	Ram Assembly	1	44	Nut M12	4
20	O-Ring 36.5 x 1.8	1	45	Spring Washer 12	4
21	Screw	1	46	Spring Washer 10	4
22	Steel Ball 9.5	1	47	Bolt M10 x 20	4
23	Retaining Ring 16	1	48	Caster Assembly	4
24	Washer 16	1	49	Screw	1
25	Bushing	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.

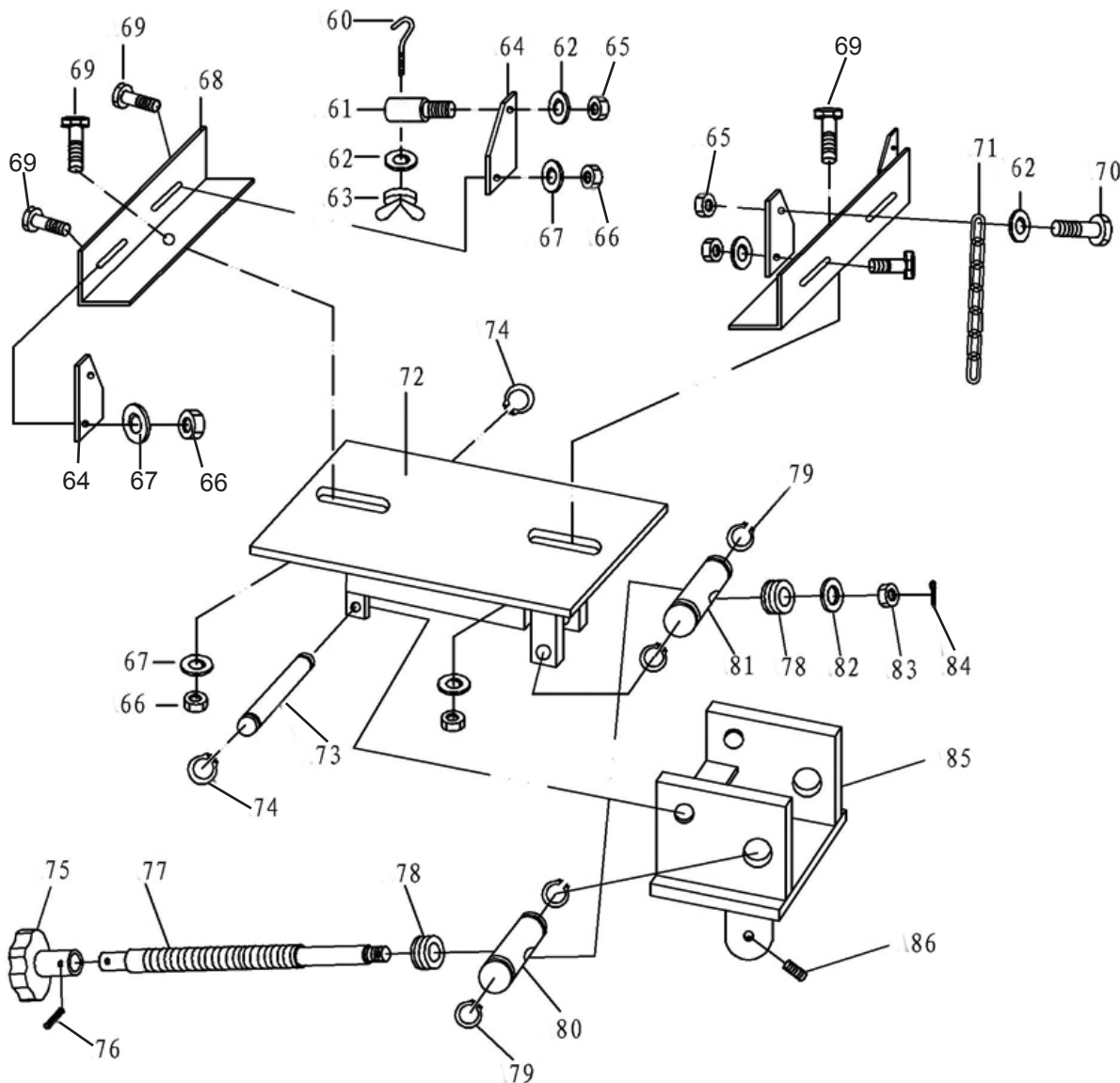
ASSEMBLY DIAGRAM (MAIN BODY)



PARTS LIST AND DIAGRAM (UPPER UNIT)

Part	Description	Q'ty
60	Tension Screw	1
61	Bar	1
62	Washer 8	3
63	Fly Nut M8	1
64	Corner Plate	4
65	Nut M8	2
66	Nut M10	6
67	Washer 10	6
68	Angle Bracket	6
69	Bolt (M10 x 1.5 x 25)	2
70	Bolt (M8 x 1.25 x 25)	1
71	Chain	1
72	Saddle Plate	1
73	Front Pivot Pin	1

Part	Description	Q'ty
74	Retaining Ring 16	2
75	Adjustment Knob	1
76	Spring Pin 4 x 24	1
77	Spindle	1
78	Bearing	2
79	Retaining Ring 30	4
80	Screw Rod Shaft	1
81	Rear Pivot Pin	1
82	Washer 12	1
83	Castle Nut M10	1
84	Split Pin 2.5 x 25	1
85	Bracket	1
86	Screw (M8 x 1.25 x 10)	1



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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