

OWNER'S MANUAL & SAFETY INSTRUCTIONS

Save This Manual Keep this manual for the safety warnings and precautions, operating, assembly, inspection, maintenance and cleaning procedures. Keep this manual in a safe and dry place for future reference.

Transmission Jack *0.5 Ton*








⚠WARNING

Read carefully and understand all **ASSEMBLY AND OPERATION INSTRUCTIONS** before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

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WARNING SYMBOLS AND DEFINITIONS

	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.
	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
	Addresses practices not related to personal injury.

IMPORTANT SAFETY INFORMATION

WARNING

Read all safety warnings and instructions. *Failure to heed these markings may result in personal injury and/or property damage.*

Save all warnings and instructions for future reference.

The warnings, precautions, and instructions 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.

Work area

1. **Keep the work area clean and well lighted.** Cluttered benches and dark areas increase the risk of injury to persons.
2. **Keep bystanders and children away while operating the tool.** Distractions can result in loss of control of the tool.

Personal safety

1. **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.
2. **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.
3. **Do not overreach.** Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.
4. **Use safety equipment.** Wear safety goggles and heavy-duty work gloves during use.

Tool use and care

1. **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.
2. **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.
3. **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.
4. **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.
5. **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.
6. **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

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

Specific Safety Rules

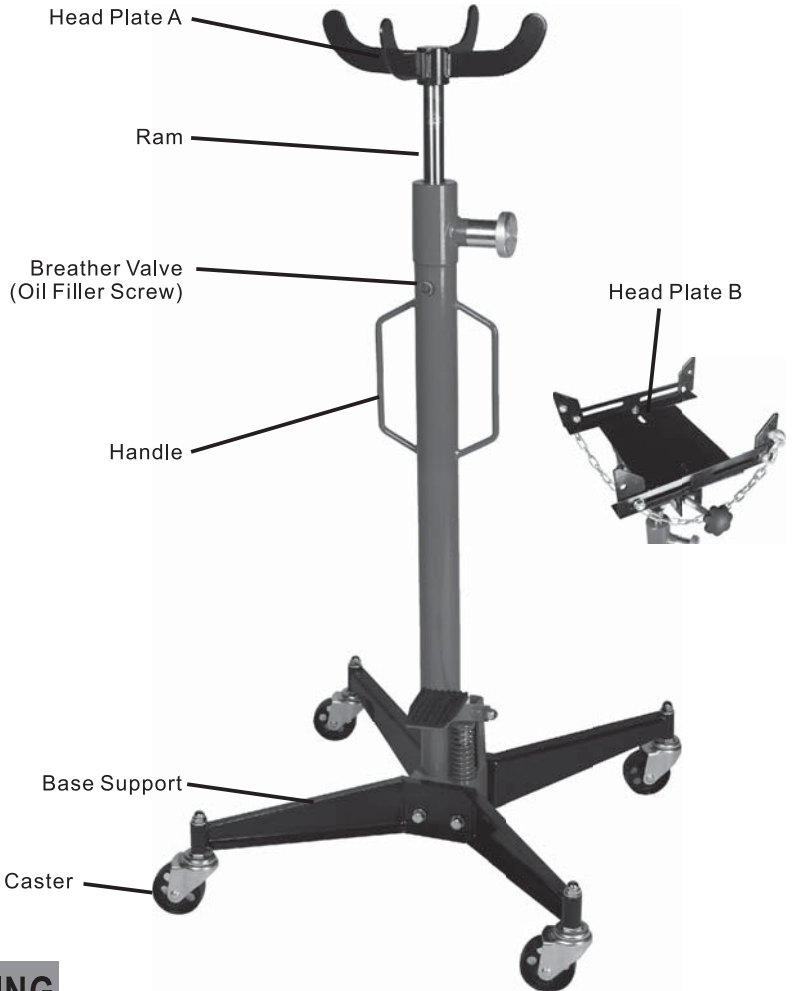
1. Do not exceed 1100 lb. weight capacity evenly distributed. Be aware of dynamic loading! Sudden load movement may briefly create excess load causing product failure. Exceeding the maximum capacity for this product is dangerous and can lead to serious injury or property damage.
2. Do not suspend load 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 Head Plate (1). Wear appropriate safety gear, including heavy-duty work gloves and 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 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!**
7. 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 Base Support (37) are on Casters (45). 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

Specifications

Maximum Capacity	0.5 Ton (A)	0.5 Ton (B)
Min. Height	1130 mm	1240 mm
Max. Height	1940mm	2050 mm



⚠WARNING

1. Do not **overextend** the Ram.
2. Do not **overload** the capacity.
3. Do not attempt to **operate** jack unless the Breather Valve is open.

Assembly Instructions



Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this document 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.

Using the Components photo (Page 5) and the Parts List and Assembly Diagram near the end of the manual, lay out and identify all pieces before assembly.

1. To assemble the bottom of the unit, line up the holes on the Pump Base (31) with the holes on each Base Support (37). Fasten the Base Support to Pump Base using the Washers (40), Spring Washers (39) and Bolts (38). Repeat on the other side. See Assembly Diagram on back of manual for reference.
2. Slide each Caster (45) up into a Leg. Fasten together using Spring Washer (44) and Nut (43).
3. Slide Head Plate (1) onto top of Piston (13).

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.

Bleeding Instructions

IMPORTANT! Before first use, check for proper hydraulic oil level in the Jack. Then thoroughly test the Jack for proper operation prior to its actual use. If the Jack operation feels spongy, or the Ram lowers while the Release Valve is closed, there may be air in the Hydraulic System, and would require Bleeding as described follows:

1. Unscrew the Breather Valve (46) on the Reservoir (22).
2. Back off the spring-loaded Release Valve (9).
3. Pump the Pump Pedal (34) at least ten times to bleed all air from the system.
4. Top off with clean hydraulic fluid.
5. Replace and tighten the Breather Valve.
6. Close the release valve and test the unit.

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 Valve (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 (34) 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 Head Plate (1).
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 Head Plate; make sure it is securely holding the transmission and not showing any signs of stress. Carefully lower it by turning the Release Valve (9).
9. Again check the Head Plate; making sure it is securely holding the transmission and not showing any signs of stress.
10. Secure the Chain(not included) 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.

User-Maintenance Instructions



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

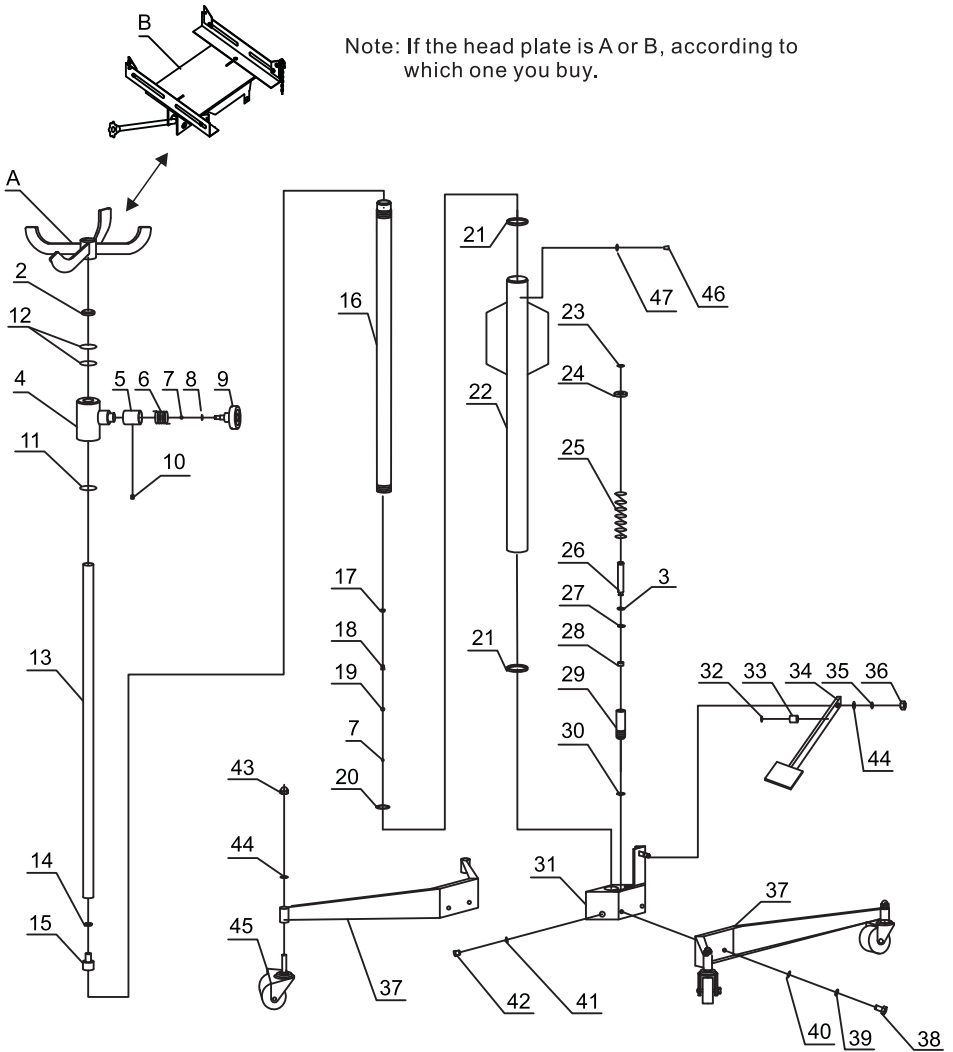
⚠️ WARNING

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 broken, cracked, or bent parts, loose or missing parts, and any condition that may affect the proper operation of the product. If a problem occurs, have the problem corrected before further use.
2. Before each use, thoroughly test the Transmission Jack for proper operation prior to its actual use. If the Pump appears not to be working properly, follow Bleeding instructions.
3. Change the hydraulic oil at least once every year. To change the hydraulic oil:
 - a. With the Jack fully lowered, remove the Breather Valve (46) on the Reservoir (22).
 - 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.

DIAGRAM

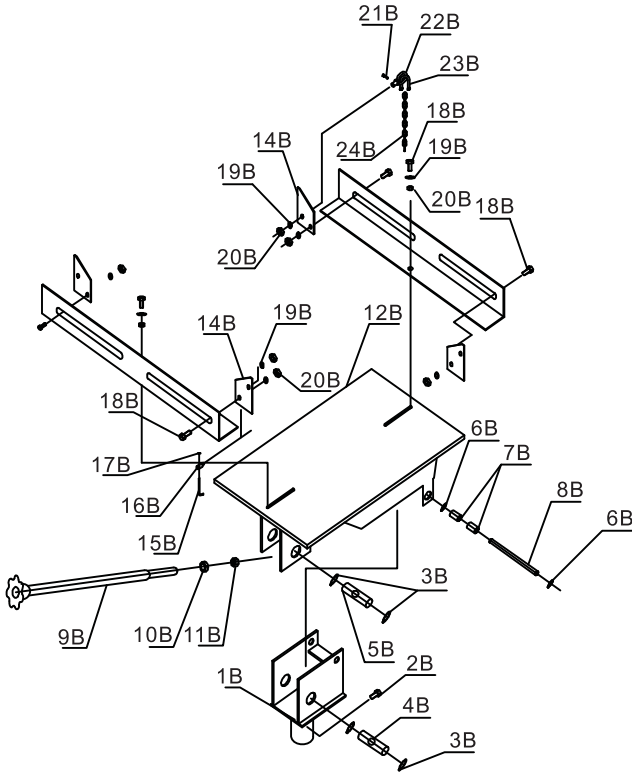


PARTS LIST

Part	Description	Qty
1(A or B)	Head Plate	1
2	Dust Cover	1
3	Nylon-Ring	2
4	Ram Head	1
5	Bushing	1
6	Spring	1
7	Steel ball	2
8	O-Ring	1
9	Release Valve	1
10	Set Screw	1
11	O-Ring	1
12	O-Ring	2
13	Piston	1
14	Spring Washer	1
15	Bushing	1
16	Cylinder	1
17	Spring Screw	1
18	Spring	1
19	Steel Ball	1
20	Washer	1
21	Piston Ring	2
22	Reservoir	1
23	Retaining Ring	1
24	Bushing	1

Part	Description	Qty
25	Spring	1
26	Pump Piston	1
27	O-Ring	1
28	Y-Ring	1
29	Piston Bushing	1
30	Washer	2
31	Pump Base	1
32	Retaining Ring	1
33	Bushing	1
34	Pump Pedal	1
35	Washer	1
36	Nut	1
37	Base Support	2
38	Bolt	4
39	Spring Washer	4
40	Washer	4
41	O-Ring	1
42	Bolt	1
43	Nut	4
44	Spring Washer	5
45	Caster	4
46	Oil Filler Screw	1
47	O-Ring	1

DIAGRAM AND PARTS LIST (B)



Part	Description	Qty
1B	Adaptor base	1
2B	Bolt	1
3B	Retainer Ring	4
4B	Pin	1
5B	Pin	1
6B	Retainer Ring	2
7B	Lock Bushing	2
8B	Pin	1
9B	Adjustment Screw	1
10B	Washer	1
11B	Locknut	1
12B	Support Plate	1

Part	Description	Qty
13B	Angle Iron	2
14B	Blade	4
15B	Hook	1
16B	Hooks Seat	1
17B	Butterfly Nut	1
18B	Bolt	4
19B	Washer	8
20B	Nut	8
21B	Butterfly Bolt	1
22B	Ring Bolt	1
23B	U-Buckle	1
24B	Chain	1

TROUBLE SHOOTING



TO PREVENT SERIOUS INJURY:

Use caution when troubleshooting a malfunctioning jack.

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 Ram and Pump are repaired: Test it carefully without a load by raising it and lowering it fully, checking for proper operation, BEFORE RETURNING THE PUMP TO OPERATION. For technical questions, please mail support@tonglimachine.com

Problem	Possible Cause	Solution
Ram does not operate when handle is pumped	Release valve not tightly closed	Firmly close the release valve
	Air in the pump	Please follow the steps: 1. Open the release valve by turning it counter-clockwise, pump 10-15 times 2. Close the release valve by turning it clockwise, pump 5-10 times 3. Repeat step 1 and 2 for about 3 times
	The steel ball is immersed inside for too long time	
Ram will not hold load	Release valve not tightly closed	Firmly close the release valve
	Malfunction in pump such as dirt inside valve mechanism	Please follow the steps: 1. Open the release valve by turning it counter-clockwise, pump up the handle 10-15 times 2. Close the release valve by turning it clockwise, pump 5-10 times 3. Repeat the step 1 and 2
Ram reluctant to lower when load removed	Oil reservoir overfilled	Drain oil to correct level
	Piston binding	Clean and lubricate moving parts
	Overextend the ram	Replace ram
Ram will not extend to full range of stroke	Low oil level	Add hydraulic oil to the reservoir
Ram tries to tilt to one side	Incorrect of connection or unbalance of the footing	Stop work and re-position ram and base, ensuring it is well supported and as close to perpendicular to the repair as possible