

22 Ton Air/Hydraulic Bottle Jack



Assembly and Operating Instructions

Specifications

Working PSI: 90 - 145

Capacity: 22 Tons

Minimum Saddle Height: 9" without adaptor

Maximum Saddle Height: 17-11/16"; Saddle Hole: .985" Diameter

Stroke: 4-1/2"

Ram Diameter: 2.357"

Handle Length: 49"; Includes Handle Lock Lever

Wheel Diameter: 8"

Dimensions: 21-1/4" L x 12-13/16" W x 56-5/16" H

Includes Air Pump and Release Valve

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 or power tools in damp or wet locations. Don't expose to rain. Keep work area well lighted. Do not use electrically powered tools in the presence of flammable gases or liquids.
3. **Keep children away.** Children must never be allowed in the work area. Do not let them handle machines, tools, or extension cords.
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. **Do not force tool.** It will do the job better and more safely at the rate for which it was intended. Do not use inappropriate attachments in an attempt to exceed the tool capacity.
6. **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. Do not use a tool for a purpose for which it was not intended.

7. **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.
8. **Use eye and ear protection.** Always wear ANSI approved impact safety goggles at all times. Wear a full face shield if you are producing metal filings or wood chips. Wear an ANSI approved dust mask or respirator when working around metal, wood, and chemical dusts and mists.
9. **Do not overreach.** Keep proper footing and balance at all times. Do not reach over or across running machines.
10. **Maintain tools with care.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and, if damaged, have them repaired by an authorized technician. The handles must be kept clean, dry, and free from oil and grease at all times.
11. **Disconnect power.** Disconnect compressor when not in use.
12. **Remove adjusting keys and wrenches.** Check that keys and adjusting wrenches are removed from the tool or machine work surface before plugging it in.
13. **Stay alert.** Watch what you are doing, use common sense. Do not operate any tool when you are tired.
14. **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. Do not use the tool if any switch does not turn On and Off properly.
15. **Guard against electric shock.** Prevent body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerator enclosures.
16. **Replacement parts and accessories.** When servicing, use only identical replacement parts. Use of any other parts will void the warranty.
17. **Do not operate tool 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 operate the tool.

Note: The warnings and instructions contained in this instruction manual cannot cover all possible conditions and situations that may occur when using this product. It must be understood that common sense and caution are factors which cannot be built into this product. These factors must be supplied by the person operating the tool.

Warning:

Do not overload this jack. Maximum capacity is 22 tons.

Use of this jack is for properly trained personnel only.

This piece of equipment is for lifting purposes only. Do not use the jack for any other purpose. Always use appropriate vehicle stands to support vehicle before getting under it for any reason.

Only use on a surface that is stable, level, clean, dry and capable of sustaining the load.

Do not move the load while on the jack.

When lifting a vehicle, apply the emergency brake, and block all tires.

Assembling the 22 Ton Air/Hydraulic Bottle Jack

The jack comes fully assembled and easily connects to an air compressor. Figure 1 shows proper jack/air compressor connection. The air hose connecting the air compressor with the jack should be as short as possible. Installation of an air filter and oiler on the compressor end is recommended. Use of a 3 horsepower or larger compressor is recommended.

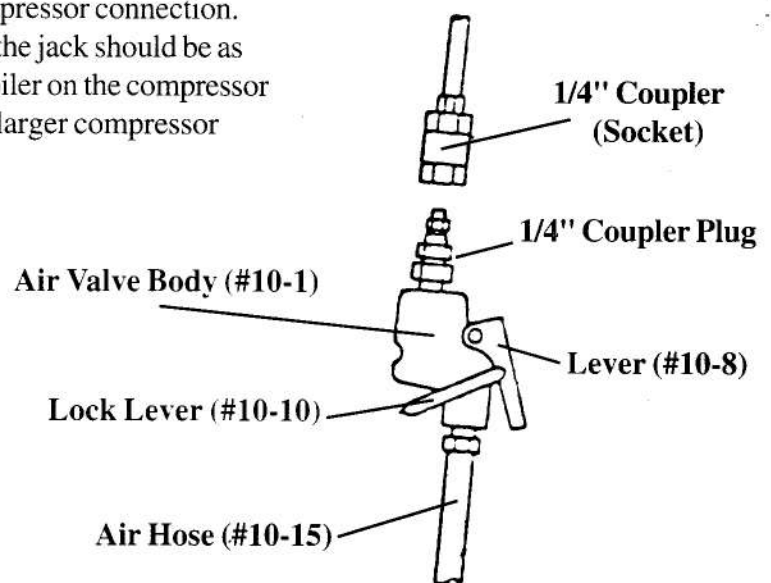


Figure 1

The Adapter Holder (#12-5) needs to be assembled to the Handle (#5-1) as shown in Figure 2. Use 2 U-Bolts (#12-6), 2 Nuts (#12-7) and 2 Spring Washers (#12-8) to complete this assembly.

The three spare Adapters fit on the Adapter Holder when not being used. Be sure to lock each Adapter in place on the Adapter Holder by using a Hitch Pin (#12-9).

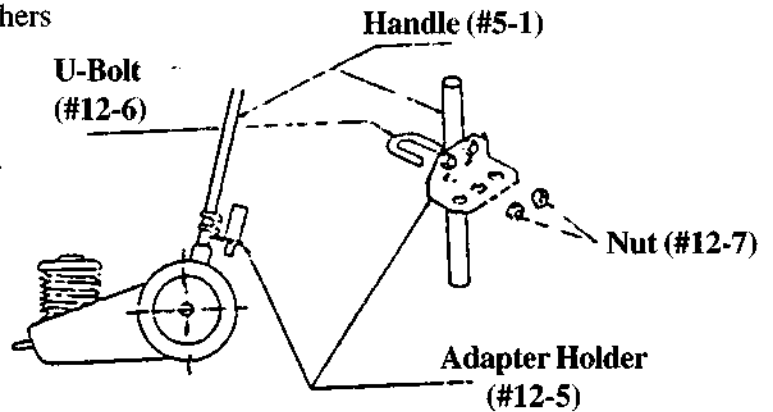


Figure 2

Operating the 22 Ton Air/Hydraulic Bottle Jack

With the air compressor hose properly hooked up to the Air Valve Assembly (#10-30), the jack is ready to be used. Test the jack before attempting to lift a vehicle.

Remove the Air Valve Assembly from the Handle, and squeeze the Lever (#10-8) to raise the Piston. By locking the Lock Lever (#10-10) in place, the Piston will be raised automatically.

To stop the Piston movement, release the Lock Lever (squeeze the Lever tightly against the Air Valve Body and swing away the Lock Lever), and release the Lever, allowing it to return to its original position.

To Lower the Piston: As shown in Figure 3, slowly turn the handle Knob (#5-2) counterclockwise to open the release valve. When the Piston is lowered, close the handle Knob by turning clockwise.

To change the Handle position (see Figure 3), pull up the Lock Lever (#5-6) which will release the Handle lock. Position the Handle in one of the three available positions. Make sure the handle engages in one of the three position holes, and push down on the Lock Lever to lock the Handle in place.

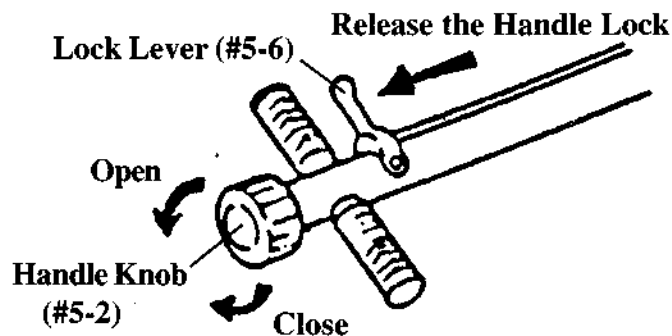


Figure 3

The Handle is to be used only for moving the jack. When using the Jack, never apply your body weight to the Handle.

The jack comes with four lifting Adapters (#12-1, 12-2, 12-3, and 12-4). The Adapters are used individually and drop into the top of the Piston Rod Assembly (#2-0). Before lifting a vehicle, inspect the vehicle's contact point which will come in contact with the jack Adapter. Pick an Adapter which has the the right size and shape to match this contact point.

Always make sure the contact point and the Adapter are clean and grease free before attempting to lift the vehicle. Make sure the Adapter is positioned directly under the contact point before attempting to jack up the vehicle.

Maintenance

Note: The jack's safety valve has been calibrated by the manufacturer. Never attempt to disassemble the safety valve.

As shown in Figure 4, use a good quality hydraulic tool oil once or twice per month to lubricate the Air Valve.

Oil in the Oil Tank (#2-20) should be replaced once per year, or more often with heavy use. Use only good quality hydraulic tool oil. See Figure 5 - To access the oil tank, remove the Screw (#2-23).

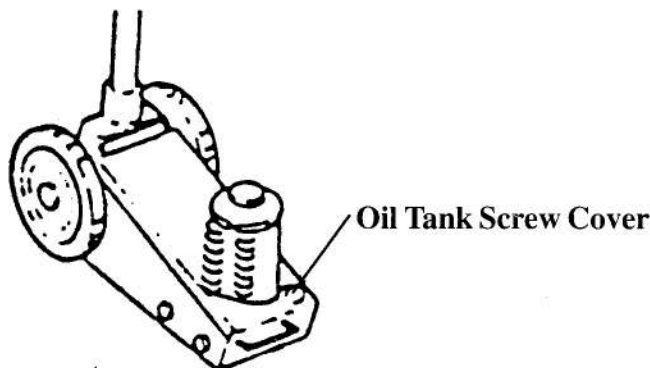


Figure 5

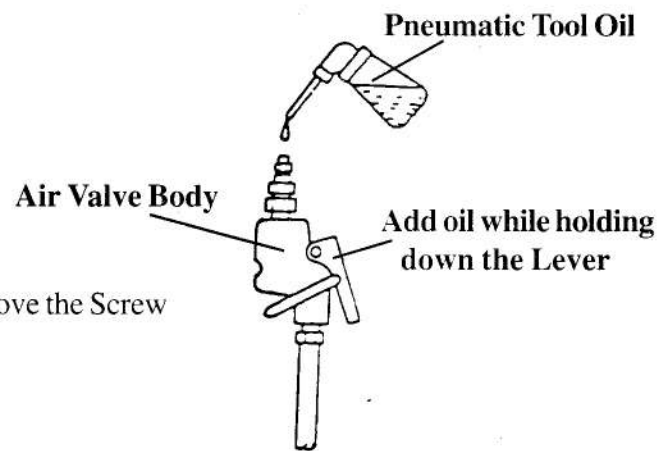


Figure 4

Note: Occasionally, air bubbles can become trapped inside the hydraulic system thereby reducing the efficiency of the jack. Purge air from the hydraulic system as needed by following the below listed steps (see Figure 6):

1. Remove the Upper Cover (#6-6).
2. Loosen the Bolt one half a turn.
3. Close the Release Valve.
4. Operate the Air Pump while repeatedly tightening and loosening the Bolt.
5. Tighten the Bolt when the piston begins to rise. Verify that the piston can rise to the maximum height position.

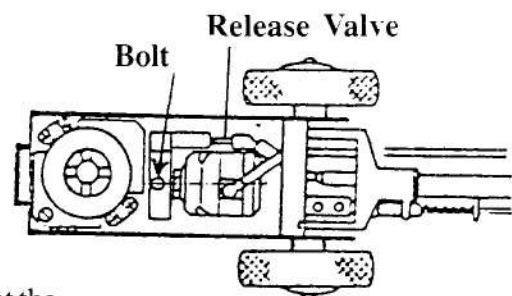


Figure 6

Maintenance (continued)

Cleaning the Air Filters:

1. Periodically remove the Air Filter (#10-22) located inside the Air Valve Body (#10-1)- see Figure 7. Wash the Air filter in a suitable solvent, and air blow dry, making sure all dust and particles are removed from the filter.

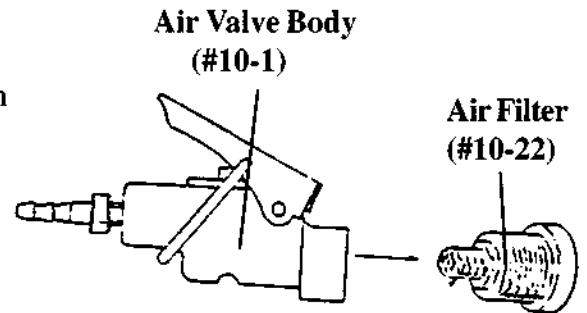


Figure 7

2. Periodically remove the screw-in type Air Filter shown in Figure 8. Wash and air blow dry as described in paragraph above.

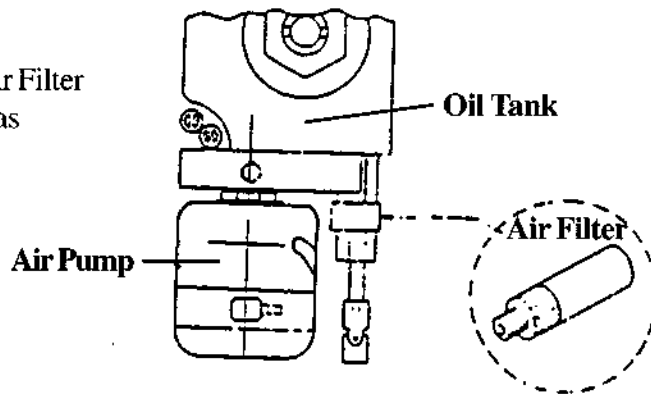


Figure 8

Storage:

When the jack is not in use, always make sure the the Piston Rod Assembly is fully collapsed.

Do not leave the jack outdoors. Always store indoors in a dry, clean location.

When in working, remove the oil Tank Screw Cover, install the breathing-screw. But should be always use the oil Tank Screw Cover, when in transport. otherwise maybe cause oil leakage.

REPAIR PARTS LIST

PARTS NO	PARTS NAME	Q' TYSET	PARTS NO	PARTS NAME	Q' TYSET
1-1	WHEEL SHAFT	2	5-17	SPRING PIN	1
1-2	WASHER	2	5-18	SPRING PIN	1
1-3	WHEEL	2	5-19	SPRING PIN	1
1-4	SNAP RING	2	5-20	COTTER PIN	1
2-0	PISTON ROD ASS'Y	1	5-21	BOLT	2
2-1	PISTON ROD	1	5-22	SPRING WASHER	1
2-2	PACKING	1	6-1	FRAME	1
2-3	SCREW	1	6-3	HANDLE FORK BRACKET	1
2-4	BUSH	1	6-6	UPPER COVER	1
2-5	SNAP RING	1	6-7	MACHINE SCREW	4
2-7	PACKING RETAINER	1	6-8	LOCK WASHER	4
2-8	CYINDER	1	6-9	BOLT	4
2-12	BOLT	2	6-12	BOLT	4
2-13	PACKING	2	6-13	BOLT	4
2-14	SPRING RETAINER	1	6-14	SPRING WASHER	4
2-15	SAFETY VALVE	1	6-15	LOWER COVER	1
2-16	SPRING	1	7-1	PACKING WASHER	1
2-17	NUT	1	7-2	MUFFLER COVER	1
2-18	OIL SEAL	1	7-3	"O"RING 23.6x3.55	1
2-19	"O"RING	2	7-4	VALVE ROD	1
2-20	OIL TANK	1	7-5	RUBBER PAD	1
2-21	SPRING	4	7-6	PACKING WASHER	1
2-22	SPRING NUNGER	1	7-7	COVER	1
2-23	MACHING SCREW	4	7-8	SPRING WASHER	1
2-24	NUT	4	7-9	HEX-SOCKET SCREW	4
2-25	OIL STRAINER	1	7-10	FILTER ELEMENT	1
2-29	PACKING	1	7-11	FILTER	1
2-31	SNAP RING	1	7-12	φ2.5 STEEL BALL	1
2-32	BACK UP RING	1	7-13	φ6 STEEL BALL	2
3-2	OIL BOX	1	8-1	PLUNGER COVER	1
3-4	BOLT	1	8-2	AIR PUMP BODY	1
3-5	SPRING	1	8-3	NL RETAINER	1
3-6	STEEL BALL	1	8-4	"O"RING 11.2x2.65	1
3-7	STEEL BALL	1	8-5	PACKING GUIDE	1
3-8	COPPER PACKING	1	8-6	NUT	1
3-9	SEPARATOR	1	8-7	SPRING	1
3-10	BACK-UP RING	1	8-8	WASHER	1
3-12	"O"RING	3	8-9	PLUNGER	1
3-13	BOLT	3	8-10	RETAINER	1
3-14	SPRING WASHER	3	8-11	"O"RING 25x3.56	1
4-0	RELEASE VALVE ASS'Y	1	8-12	"O"RING 56x5.30	2
4-1	VALVE	1	8-13	PISTON	1
4-2	"O"RING	1	8-14	φ3 STEEL BALE	2
4-3	GUIDE	1	10-30	AIR VAVLE ASS'Y	1
4-4	UNIVERSAL JOINT	1	10-1	VALVE BODY	1
4-5	SPRING PIN	1	10-2	NUT	1
4-6	SPRING PIN	1	10-3	"O"RING	1
4-8	"O"RING	1	10-4	"O"RING	1
4-9	WASHER	1	10-5	PACKING	1
4-10	PACKING	1	10-6	THROTTLE	1
4-11	SNAP RING	1	10-7	SPRING	1
5-0	HANDLE ASS'Y	1	10-8	LEVER	1
5-1-1	UPPER HANDLE	1	10-9	LEVER PIN	1
5-1-2	LOWER HANDLE	1	10-10	LOCK LEVER	1
5-2	KNOB	1	10-12	PUMP ELBOW	1
5-3-1	CONNECTING ROD	1	10-13	HOSE CONNECTOR	1
5-3-2	CONNECTING ROD	1	10-14	SPRING	1
5-4	SPRING PIN	1	10-15	AIR HOSE	1
5-5-1	STOPPER	1	10-16	HOSE BAND	2
5-5-2	STOPPER	1	10-22	FILTER	1
5-6	LOCK LEVER	1	50-0	POWER UN ASS'Y	1
5-7	SPRING PIN	1	12-0	HOLDER ADAPTOR ASS'Y (OPTION)	1
5-8	SPRING	1	12-1	ADAPTOR-A	1
5-9	WASHER	3	12-2	ADAPTOR-B	1
5-11	HANDLE FORK	1	12-3	ADAPTOR-C	1
5-12	BOLT	1	12-4	ADAPTOR-D	1
5-13	SPRING WASHER	1	12-5	HOLDER ADAPTOR	1
5-14	CONNECTING ROD	1	12-6	U-BOLT	2
5-15	CONNECTING ROD	1	12-7	NUT	4
5-16	UNIVERSAL JOINT	1	12-8	SPRING WASHER	4
5-23	BOLT	1	12-9	HITCH PIN	4

Parts Diagram

