



# INSTRUCTION MANUAL & PARTS BREAKDOWN



**# 14461**

**20 TON LOW PROFILE AIR  
HYDRAULIC BOTTLE JACK**

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# INSTRUCTION MANUAL

## Specifications

### WARNING!!

FAILURE TO READ THESE WARNINGS MAY RESULT IN PROPERTY DAMAGE AND OR PERSONAL INJURY.

Use as lifting device only.  
Use only on hard, level surface.  
Support load by appropriate means after lifting.

Do not exceed rated capacity.  
Do not modify jack.  
Center load on the jack.

Only use attachments and/or adapters supplied with or sold specially for the jack.

Only lift areas of the vehicle designed by the vehicle manufacturer.

Failure to comply with all of these warnings may result in loss of load, damage to jack, and/or failure resulting in personal injury or property damage.

Lifting Capacity (Ton)	Max. Height (mm)	Min. Height (mm)	Gross Weight (kg)	Net Weight (kg)	Air Pressure (Mpa)	Package Size (mm)
20	259	148	11	10	0.7-1.0	355X165X165

### Owner/Operator Responsibility

It is the owner/operator responsibility to properly use and maintain this equipment and the legibility of all warnings and instruction labels. Carefully read and understand the instructions and warnings in this manual before operating this equipment. Keep this manual in a safe location for future reference.

### Inspection

Prior to each use, visually inspect for leaking hydraulic oil, damaged, loose or missing parts. If jack is worn or damaged, remove from service and contact your nearest service center for repair.

### Maintenance

Check oil level. With the jack in an upright position and the ram completely retracted, open the release valve (turn counter-clockwise) and remove the filler plug. The oil level should be just up to the hole. Fill if necessary with clean hydraulic jack oil.

Lubricate internal components. With the release valve open, pump the jack for a while. Purge the hydraulic system of air. During transit the unit may become "air-bound", causing a spongy ram action. To purge the system, close the release valve (turn clockwise). Pump the jack to full height. Open the release valve and push down on the ram. Repeat these steps if necessary to completely purge the system.

Keep the jack clean. Occasionally lubricate the handle socket pivot point, extension screw, release screw thread, and air valve to prevent corrosion.



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## Operation

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1. Jack operation is controlled by external air pressure. Connect to an external air pressure source (clean connections prior to assembly).
2. To raise the jack, turn the release valve clockwise until tight and while connected to an air supply depress the air valve.
3. To lower the jack turn the release valve counter-clockwise slightly and very slowly. Be careful not to turn valve quickly or more than twice, otherwise, dangerous sudden lowering may occur.

### **! WARNING !**

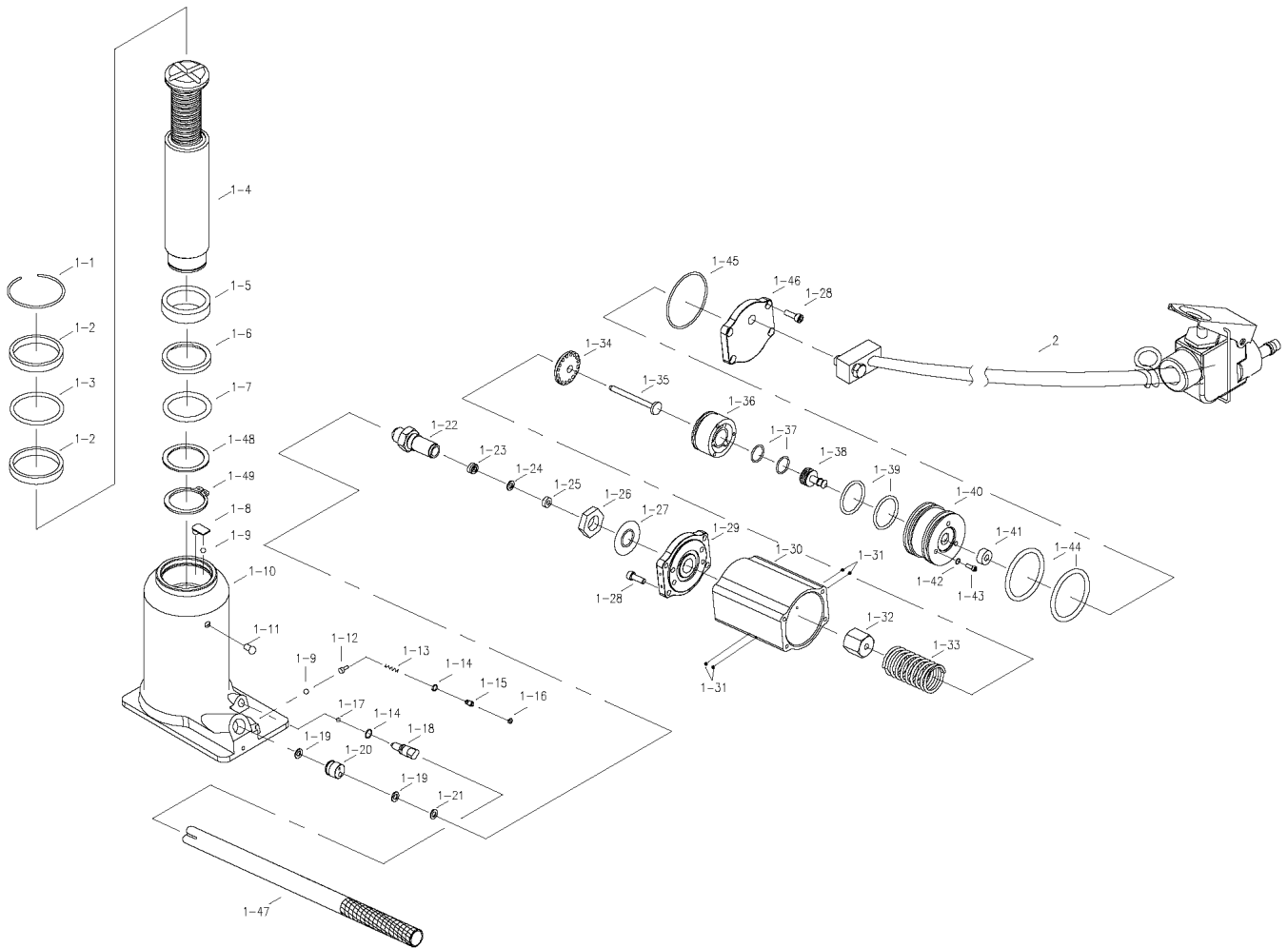
#### **FOR YOUR SAFETY**

**USE JACK FOR LIFTING ONLY. LOAD MUST BE SUPPORTED IMMEDIATELY BY OTHER APPROPRIATE MEANS.**



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## Parts Diagram





# Parts List

Item No.	Description	Q'TY	Item No.	Description	Q'TY
1-1	Snap Ring	1	1-26	Nut	1
1-2	Bushing	2	1-27	Spring	1
1-3	O-ring	1	1-28	Screw	8
1-4	Ram Assy	1	1-29	Front Cover	1
1-5	Piston Ring	1	1-30	Air Motor Housing	1
1-6	Seal Washer	1	1-31	Steel Ball	4
1-7	O-ring	1	1-32	Screw	1
1-8	Retainer	1	1-33	Spring	1
1-9	Steel Ball	2	1-34	Washer	1
1-10	Oil Tank Assy	1	1-35	Pump Plunger	1
1-11	Oil Filler Plug	1	1-36	Piston Base	1
1-12	Ball Seat	1	1-37	O-ring	2
1-13	Spring	1	1-38	Air Shuttle Valve	1
1-14	O-ring	2	1-39	O-ring	2
1-15	Screw	1	1-40	Air Piston	1
1-16	Nut Cap	1	1-41	Shuttle Valve Seal	1
1-17	Steel Ball	1	1-42	O-ring	3
1-18	Release Rod Assy	1	1-43	Screw	3
1-19	Copper Washer	2	1-44	O-ring	2
1-20	Valve Block Assy	1	1-45	O-ring	1
1-21	Nylon Gasket	1	1-46	Back Cover	1
1-22	Pump Cylinder	1	1-47	Handle	1
1-23	Y-seal	1	1-48	Washer	1
1-24	Nylon Gasket	1	1-49	Snap Ring	1
1-25	Copper Bush	1	2	Air Valve Assy	1



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## Trouble Shooting

Symptom	Causes	Remedy
Jack will not lift the load.	<ol style="list-style-type: none"> <li>1. The release valve is not tightly closed.</li> <li>2. The jack is overloaded.</li> <li>3. Inadequate air supply.</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten the release valve.</li> <li>2. Rectify the overload condition.</li> <li>3. Check and ensure adequate air supply.</li> </ol>
Jack bleeds off after lifting.	<ol style="list-style-type: none"> <li>1. The release valve is not tightly closed.</li> <li>2. The jack is overloaded.</li> <li>3. The hydraulic unit malfunctions.</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten the release valve.</li> <li>2. Rectify the overload condition.</li> <li>3. Contact the local service center.</li> </ol>
Jack will not lower after unloading.	<ol style="list-style-type: none"> <li>1. The reservoir is overfilled with hydraulic fluid.</li> <li>2. Linkage binding.</li> </ol>	<ol style="list-style-type: none"> <li>1. Drain fluid to the proper oil level.</li> <li>2. Clean and lubricate moving parts.</li> </ol>
Poor lifting performance.	<ol style="list-style-type: none"> <li>1. Low fluid level.</li> <li>2. Air is trapped inside the hydraulic system.</li> </ol>	<ol style="list-style-type: none"> <li>1. Ensure proper fluid level.</li> <li>2. With the ram retracted, remove the oil filler plug. Pump the jack with the release valve open to pressurize the air. Reinstall the oil filler plug.</li> </ol>
The jack will not lift to its maximum height.	<ol style="list-style-type: none"> <li>1. Low fluid level.</li> </ol>	<ol style="list-style-type: none"> <li>1. Ensure proper fluid level.</li> </ol>

Service: Contact your nearest authorized service center for repairs and/or replacement parts.