



# OPERATOR'S MANUAL

10446



## 20 TON AIR/MANUAL BOTTLE JACK



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## Main data of 20 Ton AIR/MANUAL BOTTLE JACK

LIFTING -CAPACITY	MIN. HEIGHT	MAX. HEIGHT	N.W. (KG)	G.W. (KG)	PACKAGE SIZE	WORKWLT RANGE
20 Ton	9.64"	18.7"	35.2 lbs	39.6 lbs	1.26 x .94 x 1.18"	101.5-145 psi

### 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.



**WARNING**

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

- Support load by appropriate means after lifting
- Do not exceed rated capacity.
- Center load on the jack.
- Only use attachments and/or adapters supplied with or sold specifically for the jack.
- Only lift areas of the vehicle designated by the vehicle manufacturer.
- Use as lifting device only.
- Use only on hard, level surface.
- Do not modify jack.

### 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, manually pump the handle six times.

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). Manually 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.

### OPERATION

1. Jack operation is controlled either manually or by external air pressure. Either insert the handle into the handle socket to manually operate or 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 either manually pump with the provided handle or while connected to an air supply depress the air valve.



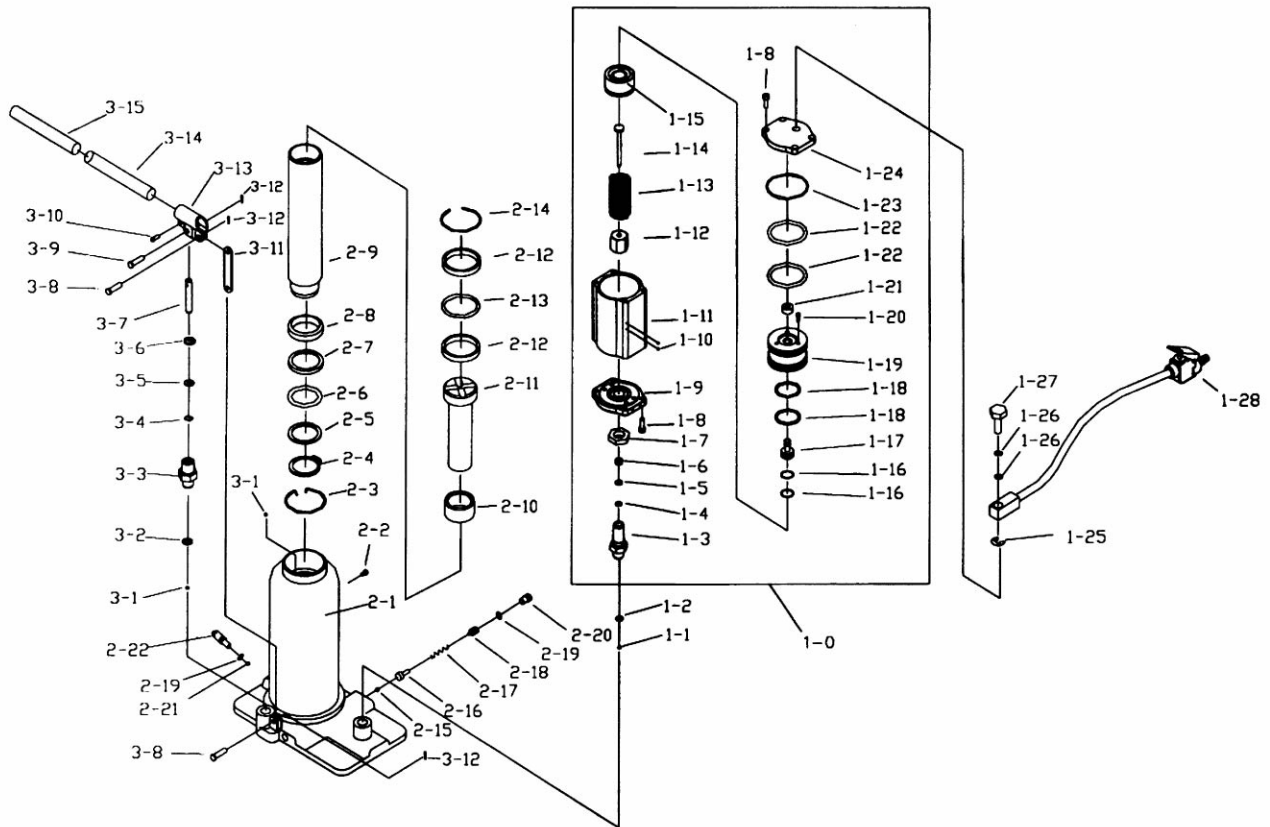
**WARNING**

**FOR YOUR SAFETY**

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

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.





### PART LIST

No.	Description	QTY	No.	Description	QTY	No.	Description	QTY
1-0	Air motor ass'y	1	1-28	Bolt	1	3-4	O ring	1
1-1	Steel ball	2	1-29	Air control valve	1	3-5	Washer	1
1-2	Copper washer	1	2-1	Oil cylinder ass'y	1	3-6	Dustproof ring	1
1-3	Oil pump	1	2-2	Oil filler plug	1	3-7	Pump plunger	1
1-4	Y- sealing washer	1	2-3	Snap ring	1	3-8	Pin	2
1-5	Washer	1	2-4	Snap ring	1	3-9	Pin	1
1-6	Washer	1	2-5	Washer	1	3-10	Rivet	1
1-7	Nut	1	2-6	O ring	1	3-11	Rod joint	1
1-8	Bolt	8	2-7	Washer	1	3-12	Pin	3
1-9	Front cover	1	2-8	Piston ring	1	3-13	Handle socket	1
1-10	Steel ball	4	2-9	Piston rod	1	3-14	Front handle	1
1-11	Cylinder body	1	2-10	Nut	1	3-15	Rear handle	1
1-12	Nut	1	2-11	Screw	1			
1-13	Spring	1	2-12	Washer	2			
1-14	Pump plunger	1	2-13	O ring	1			
1-15	Piston body A	1	2-14	Snap ring	1			
1-16	O ring	2	2-15	Steel ball	2			
1-17	Air release rod	1	2-16	Ball seat	2			
1-18	O ring	2	2-17	Spring	2			
1-19	Piston body B	1	2-18	Load limiting valve	2			
1-20	Bolt	3	2-19	O ring	3			
1-21	Sealing washer	1	2-20	Bolt	2			
1-22	O ring	2	2-21	Steel ball	1			
1-23	O ring	1	2-22	Oil release valve	1			
1-24	Rear cover	1	3-1	Steel ball	2			
1-25	Snap ring	1	3-2	Copper washer	1			
1-26	O ring	2	3-3	Oil pump	1			



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## TROUBLE SHOOTING

PROBLEM	CAUSE	SOLUTION
Air pump will not operate	low air pressure Air outlet is frozen Lack of oil Other	Keep air pressure between 0.7-1.0 MPA Stop using and thaw frozen outlet. Supply oil to air valve Contact service center
Air pump acts but ram won't rise	Release valve is open Lack of hydraulic oil "Air-bound" system Other	Close valve clockwise Supply hydraulic oil See maintenance Contact service center
Ram will not rise to highest position	Lack of hydraulic oil Release valve not fully closed	Supply hydraulic oil Close valve clockwise
Ram will lower slowly	Outlet valve dirty or defective Air pump packing defective	Contact service center
Ram will rise slowly	Filter is full Air pump packing defective Release valve not fully closes	Contact service center
Oil blowing from air pump	Air pump packing defective	Contact service center
Ram will not lower	Release valve/circuit defective	Contact service center

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

