

## Hydraulic Bottle Jack

New Improved Welded Construction with leakage points reduced by 60% Viz. Conventional Jacks.

In-built load limiting device ensures safety of the user.

Advance base plate design: Forged steel base plate provides more stability even under high load as compared to cast iron base plate jacks available in the market

Machined and polished ram with die cut threads that reduce wear and tear

Powder coated 2 piece lifting lever rod with pressed ends for convenient opening & closing of pressure release valve

Longer life due to internally machined oil passages, smooth bearing surfaces and close tolerances. Knurled heat treated saddle head with non-slip surface for stronger grip

100% factory tested

50% safety overload factor

Ideal for use on heavy duty trucks, agriculture, construction, mining, automotive, and marine applications where lifting, pushing, spreading, bending, pressing, or straightening is required.



4 Ton



12 Ton



15 Ton



20 Ton



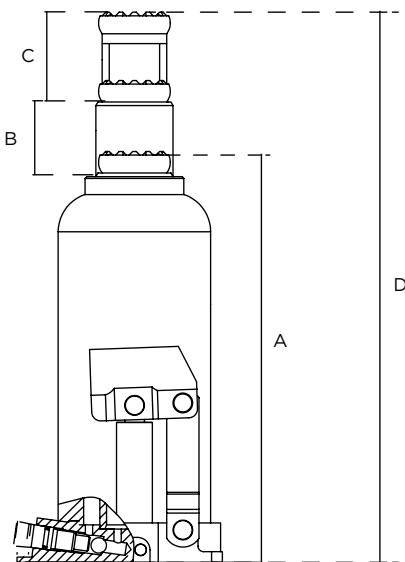
32 Ton



50 Ton

### ORDERING INFORMATION

CAT NR.	CAPACITY	MIN. HEIGHT (A)	LIFT HEIGHT (B)	ADJUSTABLE HEIGHT (C)	MAX. HEIGHT (D)
JACK/BT/2W	2 ton (1815 kg)	178mm (7")	112mm (4-13/32")	48mm (1-57/64")	338mm (13-11/32")
JACK/BT/4W	4 ton (3629 kg)	190mm (7-7/16")	118mm (4-11/16")	60mm (2-5/16")	368mm (14-13/16")
JACK/BT/6W	6 ton (3629 kg)	207mm (8-5/32")	125mm (4-59/64")	70mm (2-49/64")	402mm (15-53/64")
JACK/BT/12W	12 ton (10866 kg)	230mm (9-1/16")	155mm (6-1/16")	80mm (3-3/16")	465mm (18-5/16")
JACK/BT/15W	15 ton (13608 kg)	230mm (9-1/16")	155mm (6-1/16")	80mm (3-3/16")	465mm (18-5/16")
JACK/BT/20W	20 ton (18144 kg)	240mm (9-7/16")	150mm (5-15/16")	60mm (2-7/16")	450mm (17-11/16")
JACK/BT/32W	32 ton (29030 kg)	260mm (10-5/16")	160mm (6-5/16")	—	420mm (16-9/16")
JACK/BT/50W	50 ton (45359 kg)	280mm (11")	170mm (6-11/16")	—	450mm (17-11/16")


**BEFORE USE**

(Refer exploded view on page 4 & 5)

1. Before using the product, read the instruction manual completely and familiarize yourself thoroughly with the product and its components.
2. Assemble lifting lever rod together by fitting the smaller rod into the bigger rod.
3. Use the pressed end of the lifting lever rod to engage and turn the pressure release valve
  - a) Turn clockwise until firm resistance is felt to further turning. This is the 'CLOSED' pressure release valve position used to raise the ram plunger. (Fig 1)
  - b) Turn counter-clockwise, but not more than 1 turn from the closed position. This is the 'OPEN' pressure release valve position used to lower the ram plunger. (Fig 3A)
4. Check that the pump operates smoothly and that the screw extension will thread up/down easily before putting into service. (Fig 4)

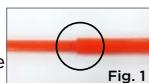


Fig. 1



Fig. 2



Fig. 3



Fig. 4

Rotate the saddle anti-clock wise to thread up the screw extension.

- i. Rotate the saddle anti-clock wise to thread up the screw extension.
- ii. Rotate the saddle clockwise to thread down the screw extension

5. Replace worn or damaged parts and assemblies with GROZ authorized replacement parts only.



Fig. 4

\*\* Screw extension available only in 2Ton, 4Ton, 12Ton, 15Ton & 20Ton Models

**OPERATION**
**(A) Raising the Ram**

1. Assemble the lifting lever rod. (See Fig. 1)
2. Park the vehicle with emergency brake on to prevent unwanted vehicle movement.
3. "CLOSE" the pressure release valve by turning it clockwise with the help of the pressed end of the lifting lever rod, until firm resistance is felt. (See Fig. 2 & 3)
4. Verify lift point as mentioned by the vehicle manufacturer, center the jack saddle under the lift point.
5. If the clearance height of the vehicle is much more than the jack height, rotate the saddle anti-clockwise to thread up the screw extension to an appropriate height (See Fig. 4)
6. Insert the lifting lever rod into the pump socket, then pump in order to raise saddle to contact lift point. To lift, continue pumping until load reaches desired height.
7. Immediately secure lifted load with appropriately rated jack stands

**WARNING**

- This is a lifting device only!
- Immediately after lifting, support the load with a pair of appropriately rated jack stands
- Lift only on areas of the vehicle as specified by the vehicle manufacturer
- Do not exceed rated capacity
- Use only on hard, level surface
- Never work on, under or around a load supported only by bottle jack
- Do not use adapters or accessories that are not provided in the pack
- No alterations should be made to this product
- Failure to follow these warnings may result in personal injury and/or property damage
- If lifting lever rod is worn, operates abnormally, or does not positively engage the pressure release valve, STOP, discontinue use of the jack until a factory replacement lifting lever rod can be acquired

**(B) Lowering the Ram**

1. Raise load high enough to clear the jack stands, then carefully remove jack stands.
2. Rotate the pressure release valve counter-clockwise to "OPEN" position, but no more than 1 turn, with the help of the lifting lever rod. (See Fig. 2 & 3A). If the load fails to lower:
  - c. Use another jack to raise the vehicle high enough to reinstall jack stands.
  - d. Remove the affected jack and then the stands.
  - e. Lower the load by turning the pressure release valve counter-clockwise, but no more than 1 turn.
3. After removing jack from under the load, rotate the saddle clockwise to thread down the screw extension (See Fig. 4) to retract it inside the ram and then push ram and Pump socket down to reduce exposure to rust and contamination.

**WARNING**

Make certain that all personnel are clear of the load before lowering. Control the rate of descent of the load at all times. The more you open the pressure release valve, the faster the load descends

**MAINTENANCE**

Lubrication is critical to jacks as they support heavy loads. Any restriction due to dirt, rust, etc., can cause either slow movement or extremely rapid jerks, damaging the internal components. Follow the steps below to keep your jack well lubricated:

1. Lubricate the ram, linkages, saddle and pump socket with light oil.
2. Visually inspect for cracked, bent, loose, or missing parts or hydraulic oil leaks.

3. If jack is subjected to abnormal load or shock, remove from service and have it examined by an Authorized Repair Service.
4. Clean all surfaces and maintain all labels and warnings.
5. Check and maintain oil level.

**Changing Oil**

Do not use brake or transmission oils, or regular motor oil as they can damage the seals. Always purchase and use products labelled "Hydraulic Jack Oil"

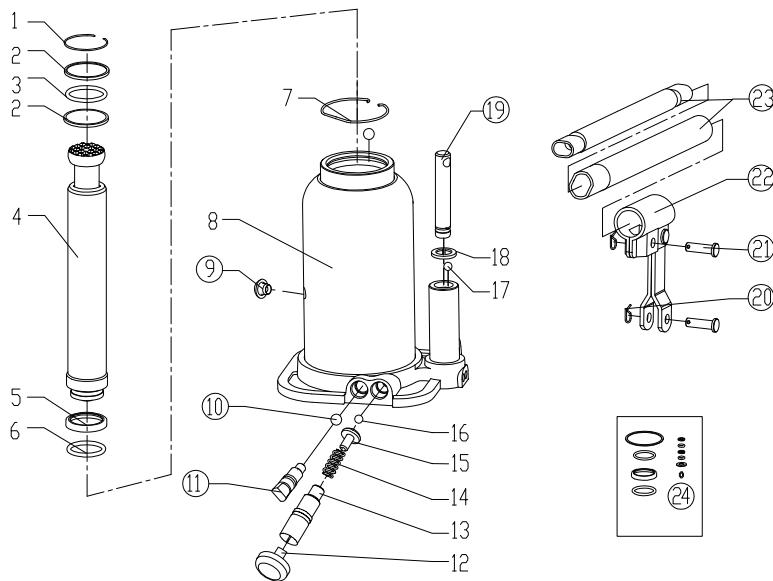
1. Turn pressure release valve counter clockwise to allow ram to fully retract. It may be necessary to apply force to the saddle for lowering. (See Fig. 3A)
2. Place the jack in vertical position with saddle at the top.
3. With jack in level position remove oil filler plug. Oil should be even with the bottom of the hole. If not, top up. Do not overfill. Always fill with new, clean hydraulic jack oil.
4. Make sure there are no air bubbles in the oil.
5. Reinstall the oil filler plug.
6. Check jack operation.

**Cleaning**

Periodically check the pump plunger and ram for signs of rust or corrosion. Clean as needed and wipe with an oily cloth

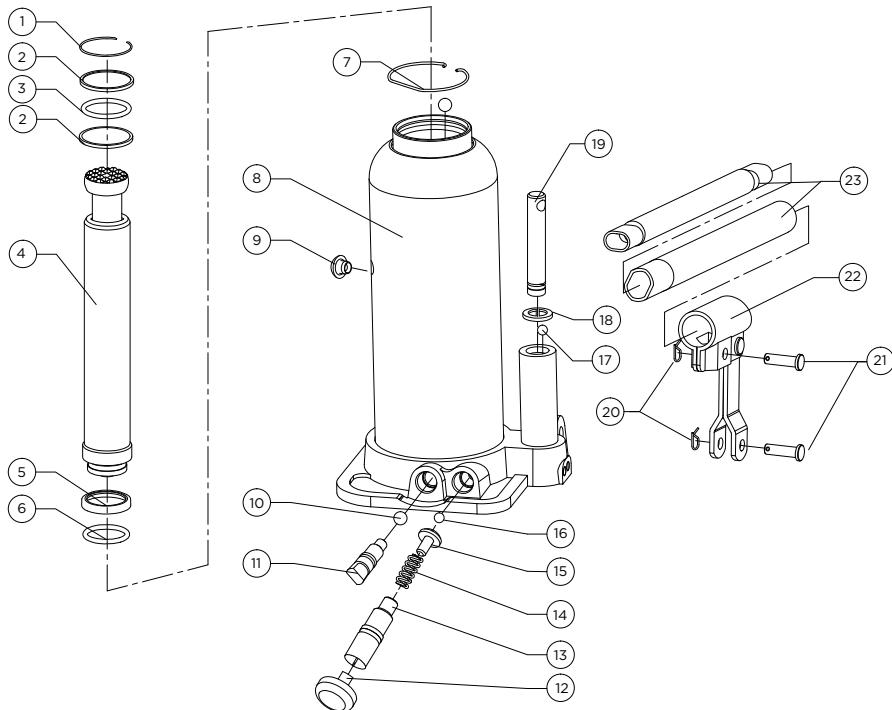
**Storage**

When not in use, store the jack with pump plunger and ram fully retracted

**EXPLODED VIEW (2 TON)**

**PART LIST (2 TON)**

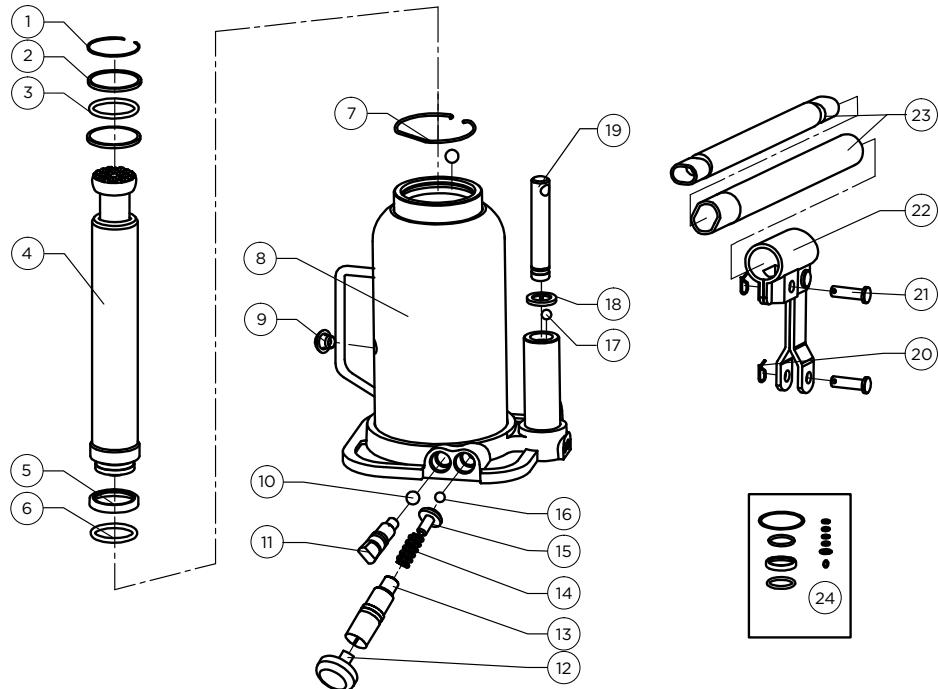
REF. NO.	DESCRIPTION	QTY.
1	Round wire snap ring	1
2	Rectangular ring	2
3	O-Ring	1
4	Ram assembly	1
5	Bowl washer	1
6	O-Ring	1
7	Round wire snap ring	1
8	Base Welding Parts	1
9	Oil Plug	1
10	Steel Ball bearing Ø6mm	1
11	Release valve assembly	1
12	Plastic Plug	1
13	Safety Valve	1

REF. NO.	DESCRIPTION	QTY.
14	Spring	1
15	Spring Holder	1
16	Steel Ball bearing Ø3mm	1
17	Steel Ball bearing Ø5mm	2
18	Bowl washer	1
19	Pump Plunger Assembly	1
20	Reusable cotter pin Ø1.2 X 18 mm	2
21	Pin	2
22	Handle socket assembly	1
23	Handle assembly	1
24	Spring	1
25	Seal Kit	1

**EXPLODED VIEW (4 TON, 12 TON & 20 TON)**

**PART LIST (4 TON, 12 TON & 20 TON)**

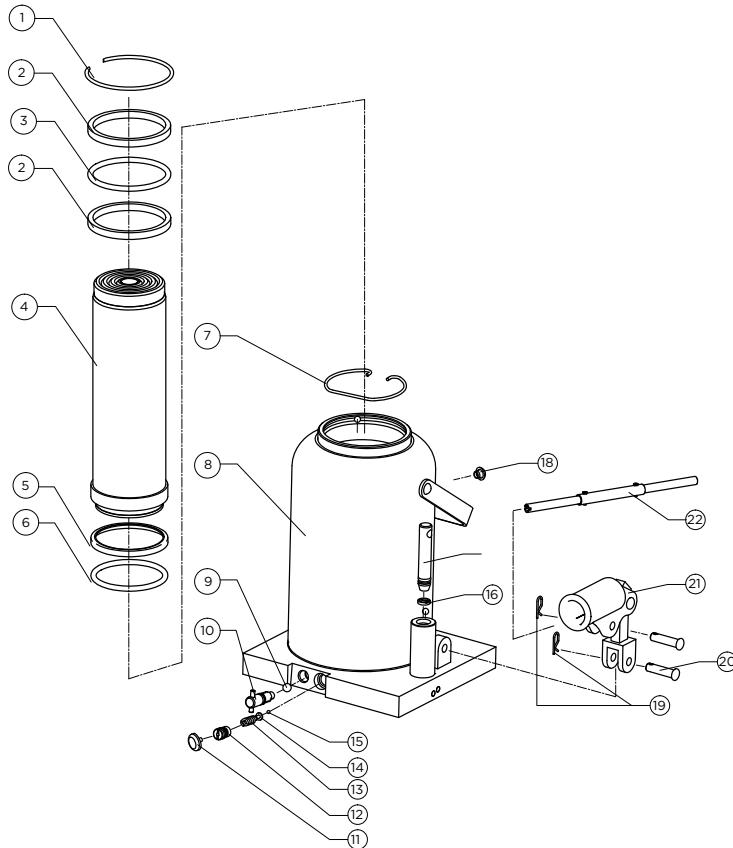
REF. NO.	DESCRIPTION	QTY.
1	Round wire snap ring	1
2	Rectangular ring	2
3	O-Ring	1
4	Piston rod assembly	1
5	Bowl washer	1
6	O-Ring	1
7	Round wire snap ring	1
8	Cylinder	1
9	Oil filler Plug	1
10	Steel Ball 6mm	1
11	Pressure release valve assembly	1
12	Plastic Plug	1

REF. NO.	DESCRIPTION	QTY.
13	Adjusting screw assembly	1
14	Spring	1
15	Spring Holder	1
16	Steel Ball 3mm	1
17	Steel Ball 5mm	2
18	Bowl washer	1
19	Pump Plunger Assembly	1
20	Cotter pin	2
21	Pin	2
22	Pump socket assembly	1
23	Lifting lever rod assembly	1

**EXPLODED VIEW (15 TON)**

**PART LIST (15 TON)**

REF. NO.	DESCRIPTION	QTY.
1	Roundwire snap ring	1
2	Rectangular ring	2
3	O-Ring	1
4	Ram assembly	1
5	Bowl washer	1
6	O-Ring	1
7	Roundwire snap ring	1
8	Base welding parts	1
9	Oil plug	1
10	Steel ball bearing Ø6mm	1
11	Release valve assembly	1
12	plastic plug	1

REF. NO.	DESCRIPTION	QTY.
13	Safety valve	1
14	Spring	1
15	Spring holder	1
16	Steel ball bearing Ø3mm	1
17	Steel ball bearing Ø5mm	2
18	Bowl washer	1
19	Pump plunger assembly	1
20	Reusable cotter pin Ø1.2X18mm	2
21	Pin	2
22	Handle socket assembly	1
23	Handle assembly	1
24	Seal kit	1

**EXPLODED VIEW (32 TON & 50 TON)**

**PART LIST (32 TON & 50 TON)**

REF. NO.	DESCRIPTION	QTY.
1	Roundwire snap ring	1
2	Rectangular ring	2
3	O-Ring	1
4	Piston rod assembly	1
5	Bowl washer	1
6	O-Ring	1
7	Roundwire snap ring	1
8	Cylinder	1
9	Steel ball 6mm	1
10	Pressure Release valve assembly	1
11	Plastic plug	1

REF. NO.	DESCRIPTION	QTY.
12	Adjusting screw assembly	1
13	Spring	1
14	Spring holder	1
15	Steel ball 3mm	1
16	Bowl washer	1
17	Pump plunger assembly	1
18	Oil filler plug	1
19	Cotter pin	3
20	Pin	2
21	Pump socket assembly	1
22	Lifting lever rod assembly	1

**REPAIR AND SPARE PARTS PROGRAMME**

Refer Exploded View

Repair Kit Consist of

**For 2, 4, 12, 20 Ton:**
**Seal Kit:**

S.NO.	DESCRIPTION	PART LIST REF. NO.	QTY.
a.	Roundwire Snap Ring	1	1
b.	Rectangular Ring	2	2
c.	O-Ring	3	1
d.	Bowl Washer	5	1
e.	O-Ring	6	1

**Oil Filler Kit:**

a.	Oil Filler Plug	9	1
b.	Steel Ball 6 mm	10	1

**For 32, 50 Ton:**
**Seal Kit:**

S.NO.	DESCRIPTION	PART LIST REF. NO.	QTY.
a.	Roundwire Snap Ring	1	1
b.	Rectangular Ring	2	2
c.	O-Ring	3	1
d.	Bowl Washer	5	1
e.	O-Ring	6	1

**Oil Filler Kit:**

a.	Oil Filler Plug	18	1
b.	Steel Ball 6 mm	9	1

**REPLACEMENT OF SEAL KIT (COMMON FOR ALL)**

1. Remove the Roundwire snap ring (1) from the top using a scribe.
2. Use the pump socket assembly to lift the piston rod assembly.
3. Pull out the piston rod assembly completely from the cylinder by hand.
4. Drain out the hydraulic jack oil from cylinder.
5. Open the pressure release valve assembly (11) to remove the Steel Ball (10 in 2, 4, 12, 20 Ton and 9 in 32, 50 Ton) and drain out residual hydraulic jack oil.



6. Remove the rectangular ring (2), O-Ring (3) from the top of the piston rod assembly by hand.



7. Use a scribe to remove the bowl washer (5) and O-Ring (6) from the bottom of piston rod assembly.



8. Replace the old parts with new parts (roundwire snap ring, rectangular ring, O-Ring, bowl washer & O-Ring) from the repair kit in the following manner:

- Bowl Washer and O-Ring assembly to be attached to the bottom.



- Rectangular Ring (Flat), O-Ring and Rectangular Ring (Taper) in bottom up order from the top.



9. Reinsert the steel ball and slightly tighten the pressure release valve assembly.



10. Refill the cylinder with clean and fresh hydraulic jack oil.



11. Push the piston rod assembly completely into the cylinder. A scribe can be used to set the rings in the cylinder.



12. Completely tighten the pressure release valve assembly.


**CAUTION**

- Make sure not to lose/misplace the Steel Ball while draining hydraulic jack oil out of pressure release valve assembly.



**TROUBLE SHOOTING**

PROBLEM	CAUSE	SOLUTION
Jack will not lift load	Pressure release valve not tightly closed	Ensure pressure release valve is tightly closed
	Overload condition	Remove overload condition
Jack will lift, but not maintain pressure	Pressure release valve not tightly closed	Ensure pressure release valve is tightly closed
	Overload condition	Remove overload condition
	Hydraulic unit malfunction	Contact Authorized Service Station
Jack will not lower after unloading	Reservoir overfilled	Ensure load is removed, then drain fluid to proper level
Poor lift performance	Fluid level low	Ensure proper fluid level
Jack will not lift to full extension	Fluid level low	Ensure proper fluid level

**DISPOSAL**

The components or the used products must be given to companies that specialize in the disposal and recycling of industrial waste.







#### **GROZ WARRANTY POLICY**

Groz makes all efforts to ensure that its products meet the highest standards of quality and durability and warrants to the original purchaser its range of products for a period of 12 months from Groz Invoice date, against defects in materials and workmanship. If the Groz product is part of a set, only the portion that is defective is subject to this warranty.

This warranty does not apply to damage due directly or indirectly, to misuse, abuse, wear and tear, negligence or accident, repairs or alterations outside Groz plants, or to lack of maintenance. Groz 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 its products. It is upto the user to determine suitability and safety of the product for their intended use, and the user assumes all risks and liability herewith.

In no event, shall Groz's liability exceed the invoiced cost of the product In case of identification of defect covered under this warranty, the same must be notified in writing to Groz /Groz designated authorized service location. Proof of purchase date must accompany the complaint. Groz reserves the right to call back the faulty unit, all charges including transportation prepaid. On verification of the defect, the unit will be repaired or replaced with a new or reconditioned product or part of equal utility or a full refund given at Groz's discretion. The repaired /replaced units will be returned to the user freight prepaid, using most economical freight carrier. However if determined that the defect resulted from causes not within the scope of the warranty, then the cost of returning the product would be to buyer's account.

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