

**Index:**

English	1-7
Français	8-14
Deutsch	15-21
Italiano	22-28
Español	29-35
Netherlands	36-42
Portuguese	43-49
Finnish	50-56
Norwegian	57-63
Swedish	64-70
中文	71-77
日本語	78-84

**1.0 DESCRIPTION**

Enerpac GBJ Series hydraulic bottle jacks are designed for lifting loads. These products meet American National Standard specifications ANSI/ASME PALD 2009 and ASME B30.1-2009.



Read instructions and safety information carefully before attempting to assemble, operate or maintain the bottle jack. Failure to comply with instructions could result in personal injury and/or property damage. Retain instructions for reference.

Repair parts sheets for this product are available from the Enerpac web site at [www.enerpac.com](http://www.enerpac.com), or from your nearest Authorized Enerpac Service Center or Enerpac sales office.

**2.0 BOTTLE JACK SAFETY INFORMATION****2.1 Hazard Statements**

The following hazard alert statements are used in this instruction manual:

**DANGER:** Indicates imminent danger to the user. Failure to observe precaution may result in serious personal injury or death.

**WARNING:** Failure to observe precaution may result in personal injury or death.

**CAUTION:** Failure to observe precaution may result in personal injury and/or damage to jack.

Always read and understand all hazard statements before operating the jack or making repairs.

**2.2 General Bottle Jack Safety Precautions**

**DANGER:** Failure to heed the following precautions and instructions may result in serious personal injury or death and possible loss of load. Property damage and/or damage to the jack may also occur.

See Fig. 1.

- ① Read and understand all instructions and safety precautions in this manual before using jack.
- ② The jack is a lifting device only. Support the load immediately after lifting with appropriately rated stands or equivalent blocking. Never use the jack to support the load in the raised position after lifting is completed.
- ③ Use the jack only on a hard, level surface capable of sustaining the load. If used on an incline or soft ground, the jack may tilt, the saddle may slip and serious injury from falling objects may occur.
- ④ Do not work under a load supported by hydraulics. Never place your arm, leg or body under a load that is supported only by the jack. Working under vehicles and other heavy objects with the jack in the raised position is strictly forbidden. Serious personal injury or death may occur if the jack lowers unexpectedly or slips out from under the load.
- ⑤ Be sure lift point is stable and that load is centered on the jack saddle.
- ⑥ Pump handle force must not exceed maximum permitted for the jack model being used. See table in Section 4.0.
- ⑦ Keep jack away from flames and heat. Do not weld or modify jack.

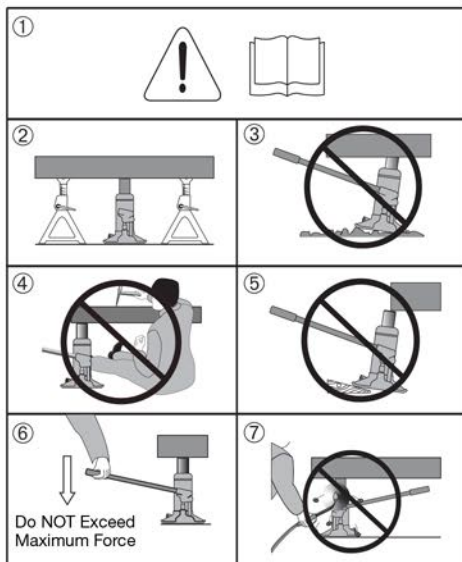


Fig. 1 - Safety Precautions

### 2.3 Additional Bottle Jack Safety Precautions

1. Do not overload the jack. Load must not exceed the jack's rated capacity.
2. Do not lift the load higher than necessary.
3. Do not place objects under the load being lifted by the jack.
4. Do not apply force to any object being lifted by the jack.
5. Remove the pump handle from the handle socket on jack when not in use. Use only the pump handle supplied with the jack or an exact replacement of the same specifications.
6. Do not remove the jack oil fill/air release plug for any reason unless jack is fully lowered.

7. Never attempt to service, repair or adjust the jack while it is supporting a load.

8. Use the jack only in ambient temperatures between -4 to 158°F [-20 to +70°C].
9. Allow only trained and qualified hydraulic specialists to inspect and repair the jack. Use only genuine Enerpac replacement parts and Enerpac HF Series hydraulic oil.

### 3.0 RECEIVING INSTRUCTIONS

Visually inspect all components for shipping damage. Shipping damage is not covered by warranty. If shipping damage is found, notify carrier at once. The carrier is responsible for all repair and replacement costs resulting from damage in shipment.

### 4.0 SPECIFICATIONS


Model	◆ Capacity tons [kN]	Max. Stroke inch [mm]	Min. Height inch [mm]	Max. Height inch [mm]	Max. Pump Handle Force lb [kgf]	Ext. Screw Height inch [mm]	Net Weight lb [kg]	Base Area inch [mm]
GBJ-002	2 [19.6]	3.94 [100]	6.30 [160]	12.20 [310]	88.2 [40]	1.97 [50]	7.9 [3.6]	3.74 x 4.37 [95 x 111]
GBJ-002L	2 [19.6]	18.11 [460]	22.44 [570]	40.55 [1030]	88.2 [40]	*	21.1 [9.6]	5.00 x 5.00 [127 x 127]
GBJ-003	3 [29.4]	4.13 [105]	6.61 [168]	13.31 [338]	103.6 [47]	2.56 [65]	9.0 [4.1]	3.74 x 4.57 [95 x 116]
GBJ-005	5 [49]	5.91 [150]	8.35 [212]	17.20 [437]	110.2 [50]	2.95 [75]	11.0 [5.0]	3.74 x 4.84 [95 x 123]
GBJ-008	8 [78.4]	5.91 [150]	8.62 [219]	17.48 [444]	88.2 [40]	2.95 [75]	13.0 [5.9]	3.74 x 5.43 [95 x 138]
GBJ-010	10 [98]	5.91 [150]	8.62 [219]	17.48 [444]	88.2 [40]	2.95 [75]	14.3 [6.5]	3.74 x 5.59 [95 x 142]
GBJ-010S	10 [98]	2.44 [62]	5.16 [131]	8.78 [223]	88.2 [40]	1.18 [30]	12.1 [5.5]	3.74 x 5.59 [95 x 142]
GBJ-015	15 [147]	5.91 [150]	8.98 [228]	17.83 [453]	88.2 [40]	2.95 [75]	19.8 [9.0]	4.41 x 6.42 [112 x 163]
GBJ-020	20 [196]	5.91 [150]	9.21 [234]	18.07 [459]	88.2 [40]	2.95 [75]	26.7 [12.1]	5.00 x 6.73 [127 x 171]
GBJ-020S	20 [196]	4.13 [105]	7.48 [190]	13.78 [350]	88.2 [40]	2.17 [55]	22.0 [10.0]	5.00 x 6.73 [127 x 171]
GBJ-030	30 [294]	5.91 [150]	9.53 [242]	18.39 [467]	88.2 [40]	2.95 [75]	34.2 [15.5]	5.59 x 7.72 [142 x 196]
GBJ-050	50 [490]	5.91 [150]	9.92 [252]	15.83 [402]	88.2 [40]	*	62.8 [28.5]	7.09 x 9.06 [180 x 230]
GBJ-100	100 [980]	5.91 [150]	11.81 [300]	17.72 [450]	66.1 [30]	*	191.8 [87.0]	11.65 x 13.11 [296 x 333]

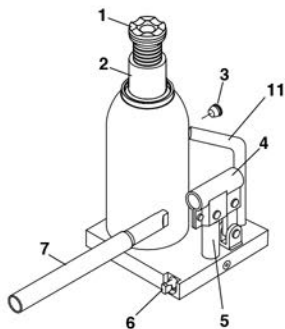
#### Notes:

◆ Capacities shown in tons are nominal, values in kN are actual.

\* Jack model not equipped with extension screw.

Dimensions shown are approximate. All product specifications are subject to change without notice.

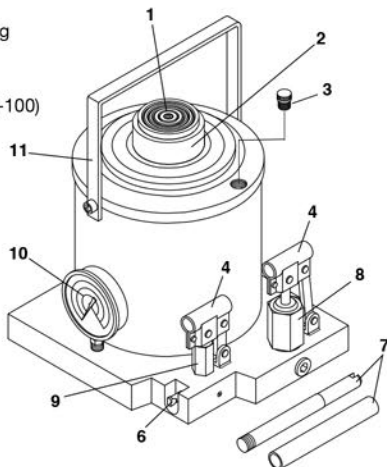
 This tool conforms with the requirements for CE Marking.



Models GBJ-002 - GBJ-050

**Key:**

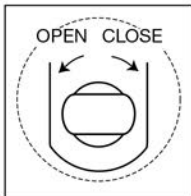
1. Saddle (all except GBJ-002L)
2. Ram
3. Oil Fill/Air Release Plug
4. Handle Socket
5. Pump (all except GBJ-100)
6. Release Valve
7. Pump Handle
8. Low Pressure Pump (GBJ-100 only)
9. High Pressure Pump (GBJ-100 only)
10. Pressure Gauge (GBJ-100 only)
11. Lifting Handle (GBJ-020 thru GBJ-100 only)



Model GBJ-100

**Fig. 2 - Features and Components****5.0 OPERATION****5.1 Before Using the Jack**

1. Inspect the condition of the jack before use. Do not use the jack if it is damaged, missing parts or if it is leaking oil. Refer to Section 6.3 for a detailed list of inspection items.
2. Lubricate the pump linkage and pivot pins with lubricating oil. Refer to Section 6.4 for lubrication points.
3. Remove oil fill/air release plug and check oil level. Refer to Section 6.1 for oil specifications and additional information.
4. Using rectangular end of pump handle, turn relief valve stem counter-clockwise to open valve (do not turn more than two revolutions). See Fig. 3.
5. Insert pump handle into handle socket. Operate handle 6 to 8 strokes. This will help lubricate the pump's internal parts prior to lifting.

**Fig. 3 - Release Valve**

**Note:** If ram rises erratically or if a spongy feel is noticed while pumping under load, perform air bleeding procedure. Refer to Section 6.2.

**5.2 Lifting the Load**

1. Using rectangular end of pump handle, turn relief valve stem clockwise until valve is fully closed.



**CAUTION:** To prevent damage, do not use excessive force when closing the release valve.

2. Position jack under proper lift point. Refer to Section 8.0 for jack transporting and positioning information.
3. Insert pump handle into handle socket. Length and quantity of handle segments will vary, depending on jack model.

**Note:** Model GBJ-100 has two pumps. For this jack model, insert pump handle into the socket on the low pressure pump.

4. Operate pump handle until the saddle makes solid contact with the load. On models equipped with an extension screw, adjust the screw height as required. Be sure that the load is perpendicular to the center of the jack saddle.



**WARNING:** During lifting, the inclined load must not exceed 6 degrees. See Fig. 4.

**Fig. 4 - Inclined Load**

3. Continue operating the pump handle as required to raise load to the desired height.

6. Model GBJ-100 only: After load is partially raised and pumping effort noticeably increases, move the pump handle to the high pressure pump. Continue pumping until the load is raised to the desired height.

**WARNING:** Model GBJ-100 is equipped with a pressure gauge calibrated to indicate the approximate weight being lifted. STOP pumping immediately if the gauge reading exceeds 100 metric tonnes [980 kN]. The jack is not designed to lift loads greater than 100 metric tonnes (110 short tons).

7. Immediately after lifting is completed, support the load with jack stands of the appropriate weight rating.

### 5.3 Lowering the Load

1. Operate pump handle one or two strokes, so that the load is raised off of the jack stands. Remove jack stands from under the load.

**WARNING:** Turn the release valve slowly in the following step. If release valve is opened too quickly, the object being lowered may drop suddenly, possibly causing the jack to become dislodged from beneath the load. Serious personal injury and/or property damage could result.

**CAUTION:** Avoid "shock loads" created by quickly opening and closing the release valve as load is being lowered. Shock loads may overload the jack's hydraulic circuit and damage the jack.

2. Using rectangular end of pump handle, slowly turn the release valve stem counter-clockwise until the valve opens and the ram begins to retract (do not turn more than two revolutions). Allow the ram to continue retracting until the load is fully lowered.

3. Remove jack from the lifting area.

4. Press down on the ram to return it to the fully retracted position. Turn the extension screw (if equipped) all the way down so that threads are fully recessed and protected from damage.

### 5.4 Horizontal Operation (all models except GBJ-100)

When operated horizontally, the jack must be oriented so that the pump is positioned down - closest to the ground. The jack will not operate properly if the pump is positioned up. See Fig. 5 for horizontal operating positions.

**WARNING:** Support the jack during horizontal operation so that it does not drop.

**WARNING:** Jack capacity is 50 percent or less than normal rating when operated horizontally. Use care to ensure that jack is not overloaded during horizontal operation.

**WARNING:** Always use appropriately rated blocking and/or supports to retain objects that have been pushed apart and/or that are under tension. Never place your hands, feet or body in between objects being supported only by the jack.

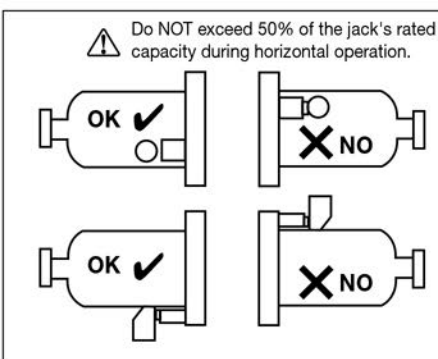


Fig. 5 - Horizontal Operation (all models exc. GBJ-100)

**Note:** Model GBJ-100 should not be used in the horizontal position.

## 6.0 MAINTENANCE

### 6.1 Adding Hydraulic Oil

If oil level is low, add additional oil as described in the following steps. Be careful to avoid dirt entry during filling.

1. With ram fully retracted, set the jack in the upright position. Be sure surface under jack is level.
2. Remove the oil fill/air release plug. On all jacks except model GBJ-100, the plug is located on the side of the cylinder housing. On model GBJ-100 only, the plug is located at the top of the cylinder housing.

**IMPORTANT:** Use only Enerpac HF Series hydraulic oil (ISO Grade 32) poured from a clean container.

**WARNING:** The use of motor oil, brake fluid, alcohol, glycerin, vegetable oil or other unapproved fluids will damage the jack, resulting in possible failure or malfunction of the device. Personal injury and/or property damage may occur.

3. All models except GBJ-100: Fill until oil level is even with bottom edge of the oil fill hole. See Fig. 6.
4. Model GBJ-100 only: Fill until oil level is about 3 inches [75 mm] below the oil fill hole. See Fig. 7.



Fig. 6 - Oil Level, all models except GBJ-100

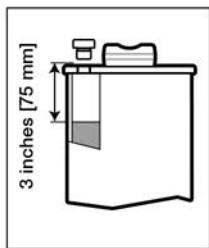


Fig. 7 - Oil Level, Model GBJ-100 only



**CAUTION: DO NOT OVERFILL!** With ram fully retracted and jack in upright position, oil level should not be higher than shown in Fig. 6 or Fig. 7 (as applicable for your jack model).

5. Reinstall oil fill/air release plug.
6. Bleed air as described in Section 6.2.

### 6.2 Air Bleeding

The following procedure should be performed after adding oil and whenever a "spongy" feel is noticed during jack operation.

To remove air from the jack:

1. Using rectangular end of pump handle, turn the release valve stem counter-clockwise to open valve (do not turn more than two revolutions).
2. Insert pump handle into handle socket. Operate handle 6 to 8 strokes.
3. Using rectangular end of pump handle, turn the release valve stem clockwise until valve is fully closed.
4. Insert pump handle into handle socket. Operate handle until ram is fully extended.
5. Operate pump handle an additional 5 to 6 strokes.
6. Using rectangular end of pump handle, turn the release valve stem counter-clockwise to open valve (do not turn more than two revolutions).
7. Push the ram all the way down until it is fully retracted.
8. Using rectangular end of pump handle, turn the release valve stem clockwise until valve is fully closed. **Do not overtighten!**
9. All models except GBJ-100: Using fingers, push the rubber oil fill/air release plug to the side to release any trapped air.
10. Model GBJ-100 only: Loosen oil fill/air release plug 1 to 2 turns to release any trapped air. Tighten plug after releasing air.

### 6.3 Inspection

Visually inspect the jack before each use. Remove the jack from service immediately and take corrective action if any of the following problems are found:

- a. Cracked or damaged housing.
- b. Excessive wear, bending or other damage.
- c. Leaking hydraulic fluid.
- d. Scored or damaged piston rod (ram).
- e. Incorrectly functioning extension screw.
- f. Loose hardware.
- g. Modified or altered equipment.



**WARNING:** If the jack appears damaged in any way and/or shows signs of malfunctioning, it must be immediately removed from service. The jack must remain out of service until it has been inspected and repaired by an Enerpac Authorized Service Center or other qualified hydraulic service facility.

### 6.4 Periodic Maintenance

Thoroughly lubricate all pivot pins and linkages with lubricating oil before using the jack and after every 10 ram up/down cycles. See Fig. 8.

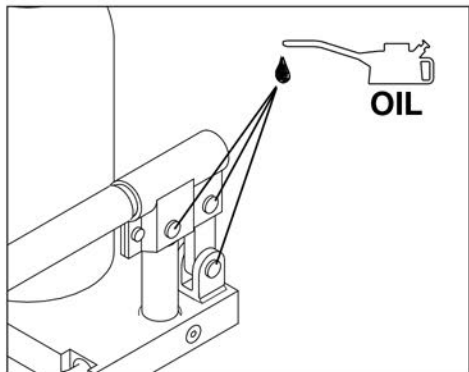


Fig. 8 - Lubrication

Periodically check the ram for signs of corrosion. Clean as needed and wipe with an oil saturated cloth.

### 7.0 STORAGE

Before storing the jack:

- Push the ram all the way down, so that it is fully retracted and protected from damage and corrosion.
- Be sure that extension screw (if equipped) is turned all the way down to protect the threads from damage.
- Wipe off any dirt or oil.
- Be sure that the release valve is fully closed.

Always store the jack in the upright position, in a protected location where it will not be exposed to corrosive vapors, abrasive dust or any other harmful elements.

### 8.0 TRANSPORTING AND POSITIONING THE JACK

- Models GBJ-002 through GBJ-050: These models can be transported and positioned by hand, without use of an auxiliary lifting device. For added convenience, a lifting handle is provided on models GBJ-020, GBJ-020S, GBJ-030 and GBJ-050.
- Model GBJ-100: This model must be transported and positioned using a hoist or other auxiliary lifting device of appropriate capacity. Attach the lifting device hook to the jack lifting handle.

**Note:** Models GBJ-020 through GBJ-100: Refer to Fig. 2 for location of jack lifting handle (item #11).

### 9.0 PRESSURE GAUGE INSTALLATION (GBJ-100 ONLY)

A pressure gauge is used on Model GBJ-100 only. The gauge is shipped loose and must be installed prior to jack operation. See Fig. 9.

Install the gauge as described in the following steps:

1. Be certain that the ram is fully retracted and that no load is placed on the saddle.
2. Using a 17 mm open-end wrench, remove shipping plug (A) from gauge port.
3. Be sure that O-Ring (B) is seated at the bottom of the threaded port.
4. Position the gauge (C) over the port with the dial facing out, toward the user.
5. While firmly holding the gauge housing so that it does not move, thread the gauge swivel fitting into the port. Tighten the fitting by hand using a 22 mm open-end wrench.

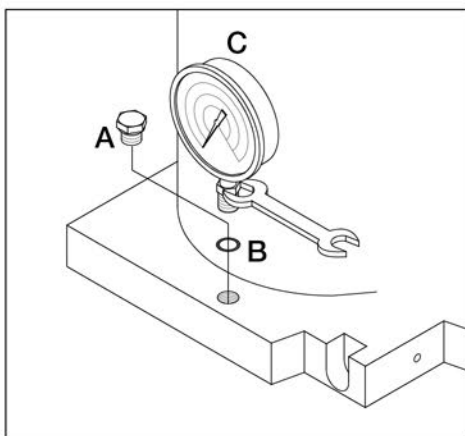


Fig. 9 - Gauge Installation (GBJ-100 Only)

**IMPORTANT:** To prevent damaging the O-Ring, do not use a wrench extension when installing the gauge.

### 10.0 TROUBLESHOOTING

Refer to the troubleshooting table for a list of common bottle jack symptoms, possible causes and solutions.

For repair service, contact an Enerpac Authorized Service Center. Inspection and repairs should be performed only by an Enerpac Authorized Service Center or other qualified hydraulic service facility.

#### TROUBLESHOOTING TABLE

SYMPTOM	POSSIBLE CAUSE	SOLUTION
1. Erratic action.	Air in system.	Bleed air from unit. Refer to Section 6.2 for air bleeding instructions.
	Hydraulic oil viscosity too high.	Drain all old oil from the reservoir. Refill to proper level with Enerpac Type HF hydraulic oil (ISO Grade 32). Refer to Section 6.1. <b>IMPORTANT:</b> Dispose used oil in accordance with all applicable laws and regulations.
	Ram sticking or binding.	Remove any dirt or gummy deposits from jack. Be sure that jack is not misaligned under load.
	Seal wear and/or internal damage.	Have jack inspected and repaired by Enerpac Authorized Service Center.
2. Ram does not advance.	Release valve is open.	Close release valve.
	Low oil level.	Fill reservoir to the proper level with Enerpac Type HF hydraulic oil (ISO Grade 32). Refer to Section 6.1.
	Jack hydraulic circuit is air locked.	Bleed air from unit. Refer to Section 6.2 for air bleeding instructions.
	Load is greater than capacity of jack.	Use a higher capacity jack of appropriate load rating.

TROUBLESHOOTING TABLE (Continued)

SYMPTOM	POSSIBLE CAUSE	SOLUTION
3. Ram extends only partially.	Low oil level.	Fill reservoir to the proper level with Enerpac Type HF hydraulic oil (ISO Grade 32). Refer to Section 6.1.
	Ram is binding.	Remove any dirt or gummy deposits from jack. Be sure that jack is not misaligned under load.
4. Ram advances slowly.	Pump assembly worn or damaged.	Have jack inspected and repaired by Enerpac Authorized Service Center.
	Seal wear and/or internal damage.	Have jack inspected and repaired by Enerpac Authorized Service Center.
5. Ram advances but does not hold pressure.	Check valve not working.	Have jack inspected and repaired by Enerpac Authorized Service Center.
6. Visible oil leakage on jack housing and/or components.	Seal wear and/or internal damage.	Have jack inspected and repaired by Enerpac Authorized Service Center. <b>Note:</b> A small amount of oil residue on the surface of the ram is normal during routine jack operation.
7. Ram will not retract or retracts slowly.	Release valve is closed.	Open release valve.
	Reservoir overfilled.	Drain oil to correct level. Refer to Section 6.1.
	Internal damage.	Have jack inspected and repaired by Enerpac Authorized Service Center.