



CSEBJ20T

20 Ton Air/Hydraulic
Bottle Jack

OPERATING MANUAL • WARNING INFORMATION • PARTS LIST

Manufactured to comply with the
ASME PASE-2019 Safety Standard



SPECIFICATIONS

Capacity	20 Tons at 110 psig
Low Height	10-5/16"
Raised Height	19-7/8"
Extension Screw Travel	3-1/4"
Ram Travel	6-5/16"
Flow Rate, No Load	8-1/2 CFM
Saddle Diameter	1-3/4"
Base	6-3/8" x 8-3/4"
Shipping Weight	34.7 Lbs.

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WARNING INFORMATION



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

WARNING

WARNING: Indicates a hazardous situation which, if not avoided, could result in death or serious injury.



IMPORTANT: READ THESE INSTRUCTIONS BEFORE OPERATING

BEFORE USING THIS DEVICE, READ THIS MANUAL COMPLETELY AND THOROUGHLY, UNDERSTAND ITS OPERATING PROCEDURES, SAFETY WARNINGS AND MAINTENANCE REQUIREMENTS.

It is the responsibility of the owner to make sure all personnel read this manual prior to using the device. It is also the responsibility of the device owner to keep this manual intact and in a convenient location for all to see and read. If the manual or product labels are lost or not legible, contact Cornwell for replacements. If the operator is not fluent in English, the product and safety instructions shall be read to and discussed with the operator in the operator's native language by the purchaser/owner or his designee, making sure that the operator comprehends its contents.

THE NATURE OF HAZARDOUS SITUATIONS

WARNING

The use of portable automotive supporting devices are subject to certain hazards that cannot be prevented by mechanical means, but only by the exercise of intelligence, care, and common sense. It is therefore essential to have owners and personnel involved in the use and operation of the equipment who are careful, competent, trained, and qualified in the safe operation of the equipment and its proper use. Examples of hazards are dropping, tipping or slipping of loads caused primarily by improperly securing loads, overloading, off-centered loads, use on other than hard level surfaces, and using equipment for a purpose for which it was not designed.

METHODS TO AVOID HAZARDOUS SITUATIONS

WARNING



- Read, study, understand, and follow all instructions before using.
- Inspect the jack before each use. Do not use if damaged, altered, modified, in poor condition, leaking hydraulic fluid or unstable due to loose or missing components. Make corrections before using.



- Lift only at points of the vehicle as specified by the vehicle manufacturer.
- User and bystanders must wear eye protection that meets ANSI Z87.1 and OSHA standards.
- Do not exceed rated capacity.



- No persons should be under vehicle when jack is in use.
- This is a lifting device only. Immediately after lifting, support the vehicle with appropriate means.
- No alterations shall be made to this product.
- Use only on a hard level surface capable of supporting the load.
- Always lower the jack slowly and carefully.
- Do not use saddle adaptors or saddle extenders between the stock lifting saddle and the load.
- Center load on saddle. Be sure setup is stable before working on vehicle.
- Failure to heed these warning may result in serious or fatal personal injury and/or property damage.



WARNING: This product can expose you to chemicals including nickel, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

CONSEQUENCES OF NOT AVOIDING HAZARDOUS SITUATIONS

WARNING

Failure to read this manual completely and thoroughly, understand its OPERATING INSTRUCTIONS, SAFETY WARNINGS, MAINTENANCE INSTRUCTIONS and not comply with them, and neglecting the METHODS TO AVOID HAZARDOUS SITUATIONS could cause accidents resulting in serious or fatal personal injury and/or property damage.



SETUP

⚠ WARNING

Failure to follow these Setup Instructions may result in serious injury or death, and/or property damage.

1. Refer to the exploded view drawing on page 6 to identify jack components.
2. Assemble the pump handle sections together to make one complete handle. One end of the handle has a cut out that will fit over the cross pin in the release valve in the base of the jack. This connection enables the user to turn the release valve in a clockwise direction until tight in preparation for pumping the jack and raising the load. Slowly turning the release valve in a counterclockwise direction will lower the load. It is not necessary to open the release valve more than two full rotations.
3. The opposite end of the pump handle must be inserted in the pump piston receiver linkage in preparation for pumping the jack. Install an air quick disconnect fitting of your choice in the back of the air valve. The jack can be pumped up manually or by depressing the air valve.
4. The ram is that portion of the jack which extends when the jack is pumped. There is a round saddle at the end of the ram which is the part that makes contact with the load to be lifted. The saddle is actually part of a threaded extension screw that fits on the inside of the ram. The saddle height can be extended by turning it in a counterclockwise direction. Extending the height of the saddle sometimes is necessary when the full stroke of the ram is not adequate to lift a load to its desired work height.
5. Sometimes air gets trapped in the hydraulic system during shipment. An air bound hydraulic system feels spongy when pumped and may not allow the jack to pump full incremental strokes.

PURGING AIR FROM THE HYDRAULIC SYSTEM:

- a. Open the release valve by turning the handle in a counterclockwise direction two full turns from its closed position.
- b. Pump the handle ten full strokes.
- c. Close the release valve by turning the handle in a clockwise direction until tight.
- d. Pump the jack until the ram is extended to maximum height.
- e. Repeat steps "a" through "d" until air is purged from the system.

OPERATION

⚠ WARNING

Failure to follow these Operating Instructions may result in serious injury or death, and/or property damage.

1. Do not lift more than one wheel of a vehicle at a time. Activate the hazard warning flasher, turn off ignition, move automatic selector to park position or reverse gear if it is a manual transmission and set parking brake. The wheel diagonally opposite from the wheel being lifted shall be chocked in both directions. Consult the vehicle manufacturer for the tire changing procedure and lift points.
2. Position the jack at the appropriate lift point. Estimate the required ram travel to raise the load to the desired height. If the desired height exceeds the entire ram travel, unscrew the extension screw to make up the difference.
3. Pump the jack up until the saddle comes close to the lift point. Make sure the lift point is flat, parallel to the ground and free from grease, any kind of lubricant, or debris. Continue pumping the jack to lift the load to the desired height. During lifting, inspect the position of the jack in relation to the ground and the saddle in relation to the load to prevent any unstable conditions from developing. If conditions look like they are becoming unstable, slowly lower the load and make appropriate setup corrections after the load is fully lowered.
4. When the load is lifted to its desired height, immediately place jack stands in their designated locations and adjust the stands' support columns up as close to the designated supports points as possible. Although jack stands are individually rated, they are to be used in a matched pair to support the load. Slowly and carefully open the release valve of the jack in order to gently lower the load onto the jack stands. Make sure the load is safely supported by the jack stands' saddles and not the locating lugs of the saddles. Inspect the relationship of the jack stands with the ground and the jack stand columns and saddles with the load to prevent any unstable conditions. If conditions look unstable, close the jack's release valve and pump the jack to raise the load off the jack stands. Make the appropriate setup changes and slowly and carefully lower the load onto the jack stand saddles. **DO NOT CRAWL UNDER VEHICLE WHEN PLACING/REMOVING STANDS.**
5. After the work is done, close the release valve and pump the jack high enough to remove the load from the jack stand saddles. Be sure the load is stable. If it is not, lower the load back onto the jack stands. Make appropriate setup corrections and repeat the step again. Remove the jack stands from under the load, being very careful not to move the load. **DO NOT CRAWL UNDER VEHICLE WHEN PLACING/REMOVING STANDS.**
6. Open the jack's release valve very slowly and carefully to lower the load to the ground.



PREVENTATIVE MAINTENANCE

⚠ WARNING

Failure to follow these Preventative Maintenance instructions may result in serious injury or death, and/or property damage.

1. Always store the jack in a well protected area where it will not be exposed to inclement weather, corrosive vapors, abrasive dust, or any other harmful elements. The jack must be cleaned of water, snow, sand, grit, oil, grease or other foreign matter before using.
2. The jack must be lubricated periodically in order to prevent premature wearing of parts. A general purpose grease must be applied to the threads on the extension screw. Do not lubricate any portion of the lift saddle and make sure the saddle is free from grease, any kind of lubricant, or debris before using the jack. Worn parts resulting from inadequate or no lubrication are not eligible for warranty consideration.
3. It should not be necessary to refill or top off the reservoir with hydraulic fluid unless there is an external leak. An external leak requires immediate repair which must be performed in a dirt-free environment by an authorized service center.

⚠ WARNING

In order to prevent seal damage and jack failure, never use alcohol, hydraulic brake fluid or transmission oil in the jack. Use hydraulic jack oil only.

4. Every jack owner is responsible for keeping the jack labels clean and readable. Use a mild soap solution to wash external surfaces of the jack but not any moving hydraulic components.
5. Inspect the jack before each use. Do not use the jack if any component is cracked, broken, bent, shows sign of damage or leaks hydraulic fluid. Do not use the jack if it has loose or missing hardware or components, or is modified in any way. Take corrective action before using the jack again.
6. Any hydraulic repairs within the warranty period must be performed by an authorized service center.

INSPECTION

⚠ WARNING

Failure to follow these Inspection instructions may result in serious injury or death, and/or property damage.

Visual inspection should be made before each use of the jack, checking for leaking hydraulic fluid and damaged, loose or missing parts. Each jack must be inspected by a manufacturer's repair facility immediately if subjected to an abnormal load or shock. Any jack which appears to be damaged in any way, is found to be badly worn, or operates abnormally **MUST BE REMOVED FROM SERVICE** until necessary repairs are made by a manufacturer's authorized repair facility. It is recommended that an annual inspection of the jack be made by a manufacturer's authorized repair facility and that any defective parts, decals or warning labels be replaced with manufacturer's specified parts. A list of authorized repair facilities is available from the manufacturer.

PROPER STORAGE

It is recommended that the jack be stored in a dry location with all wheels touching the ground on a relatively level surface.

TROUBLESHOOTING

PROBLEM	ACTION
1. Unit will not lift rated load.	Purge air from hydraulic system by following procedure under SETUP.
2. Unit will not sustain rated load or feels "spongy" under rated load.	Purge air from hydraulic system as above.
3. Unit will not lift to full height.	Purge air from hydraulic system as above.
4. Unit still does not operate.	Contact Cornwell Customer Service.



WARRANTY COVERAGE

Cornwell Quality Tools Company ("Cornwell") warrants against defects on this product for a period of TWO (2) YEARS from the date of original retail purchase. Subject to the conditions and limitations set forth below, Cornwell will, at its option, either repair or replace any part of the product(s) that proves defective by reason of improper workmanship or materials.

This warranty does not cover any damage to this product that results from accident, abuse, misuse, natural or personal disaster, or any unauthorized disassembly, repair, or modification. Repairs, disassembly and modification are only authorized to be made by Cornwell or a warranty service center approved by Cornwell.

WARRANTY SERVICE

To obtain warranty service, contact your Cornwell dealer.

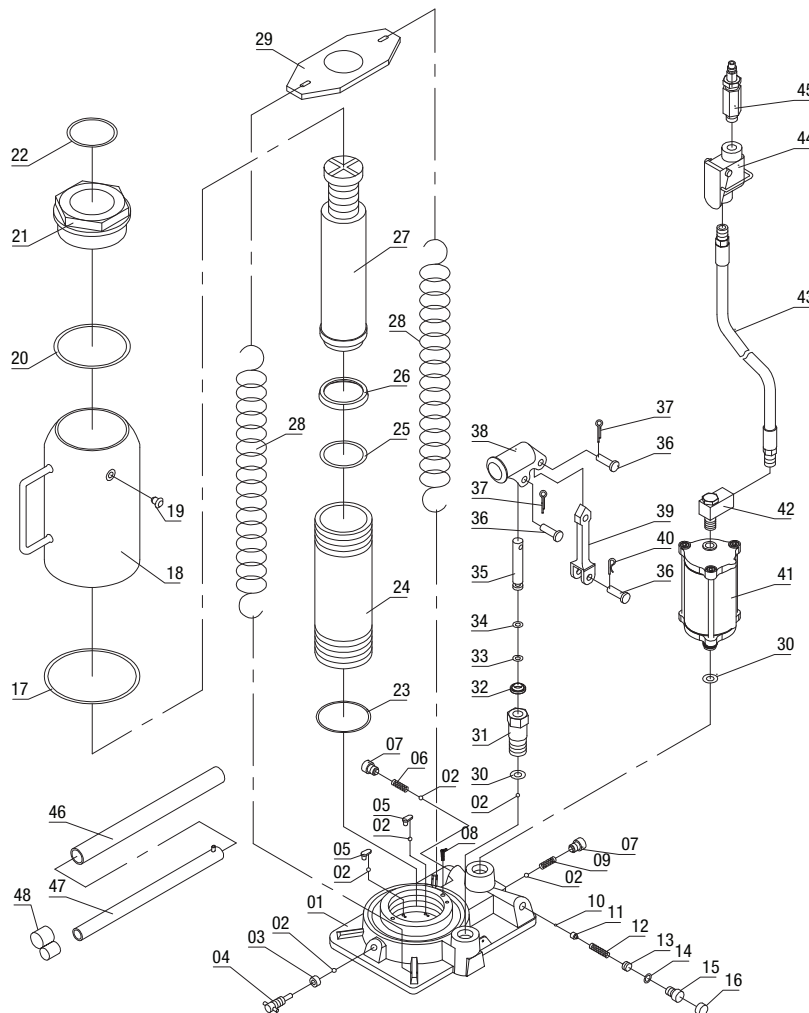
EXCLUSIONS AND LIMITATIONS

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Some states do not allow the exclusion or limitation of incidental or consequential damages or exclusions or limitation on the duration of implied warranties or conditions, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary by state.

Repair kits and replacement parts are available for many Cornwell products, regardless of whether or not the product is still covered by a warranty plan.

PARTS LIST



Item No.	Part No.	Description	Qty.	Item No.	Part No.	Description	Qty.	Item No.	Part No.	Description	Qty.
1		Base	1	18		Reservoir	1	35	RS2300B30	Piston	1
2	*	Ball	6	19	*	Filler Plug	1	36		Pin	3
3	*	Seal Ring	1	20	*	Nylon Ring	1	37		Cotton Pin	2
4	RS2320B04BL	Release Valve	1	21	RS2320B18BL	Top Nut	1	38	RS2300B34BL	Handle Bracket Assembly	1
5	*	Ball Cup	2	22	*	O-Ring	1	39		Connector	1
6	*	Spring	1	23	*	Washer	1	40		R-Pin	1
7		Screw	2	24		Cylinder	1	41	RS2300B42	Air Motor	1
8		Filter	1	25	*	O-Ring	1	42		Air Connector	1
9	*	Spring	1	26	*	Washer	1	43	RS2300B43	Air Hose	1
10	*	Steel Ball	1	27	RS2320B13BK	Ram with Extension	1	44	RS2300B55A	Air Valve Assembly	1
11	*	Ball Cup	1	28	RS2320B21	Spring	2	45		Quick Coupler-Male	1
12	*	Spring	1	29		Spring Plate	1	46	RS2300B60	Handle Assembly (incl. #47, 48)	1
13		Screw	1	30	*	Washer	2	47		Handle-2 (incl. w/ #46)	1
14	*	O-Ring	1	31		Pump Cylinder	1	48		Handle Cap (incl. w/ #46)	1
15		Screw	1	32	*	Dust Ring	1		RSCSEBJ20TPLK	Product Label Kit (not shown)	1
16		Cap	1	33	*	O-Ring	1				
17	*	Packing	1	34	*	Nylon Ring	1				

Only index numbers identified by Part Number are available separately. * Only available in Hydraulic Repair Kit, RS2320BRK.