



PROFESSIONAL LIFTING EQUIPMENT

BOTTLE JACK

SETUP • OPERATING • MAINTENANCE INSTRUCTIONS

IMPORTANT: READ THESE INSTRUCTIONS BEFORE OPERATING

BEFORE USING THIS DEVICE, READ THESE INSTRUCTIONS COMPLETELY AND THOROUGHLY, UNDERSTAND AND FOLLOW ALL OPERATING PROCEDURES, SAFETY WARNINGS AND MAINTENANCE REQUIREMENTS. FAILURE TO DO SO COULD CAUSE DEATH, SERIOUS INJURY AND/OR PROPERTY DAMAGE.

The use of portable automotive lifting devices is 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 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 motor vehicles or their components 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. **While these instructions apply to most bottle jacks, the following model number long stroke bottle jacks were not designed to be used for lifting**

vehicles; 76402, 76402G, 76403, 76403G, 76403L, 76403LG, 76406G, 76420G and 76603. Long stroke bottle jacks are primarily used as original equipment for manufacturers of shop cranes, lift tables and equipment requiring long hydraulic stroke. Norco Industries, Inc. cannot be held responsible for equipment designed and/or manufactured by an entity other than Norco that include in its design the use of any Norco bottle jacks.

It is the responsibility of the owner to make sure all personnel read these instructions prior to using this device. It is also the responsibility of the device owner to keep these instructions intact and in a convenient location for all to see and read. If these instructions are lost or not legible, contact Norco Industries, Inc. for a free replacement. 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.

WARNING

- Before each use of the portable automotive lifting device visually inspect for abnormal conditions, such as cracked welds, excessive wear, leaks, and damaged, loose, or missing parts. If the visual inspection reveals any problems, remove the device from service until repaired by a Norco Authorized Service Center. Contact the Norco Customer Service Office for the location of the nearest Norco Authorized Service Center.
- A device which is believed to have been subjected to an abnormal load or shock should be inspected by a Norco Authorized Service Center.
- Owners and/or operators must have the device annually inspected by a Norco Authorized Service Center and have any defective parts, decals, or safety labels replaced with Norco's specified parts.
- Because of potential hazards associated with this type of device, do not make any alterations or modifications and do not use any attachments and/or adapters unless supplied by or approved by Norco.
- This device was designed for lifting purposes only. Do not attempt to work on a vehicle until jack stands rated equal to or greater than the rated capacity of the jack are positioned to support the load. **Long stroke bottle jack models 76402, 76402G, 76403, 76403G, 76403L, 76403LG, 76406G, 76420G and 76603 shall not be used for lifting a vehicle.**
- Before lifting a vehicle, identify the recommended jack lifting points and jack stand support surfaces on the vehicle chassis by referring to the vehicle's service manual or by calling the vehicle manufacturer.
- Do not exceed rated capacity. Lift only dead weight.
- Use only on a hard level surface.
- During lifting, inspect the position of the jack and its saddle in relation to the vehicle and the ground to prevent any unstable conditions from developing. If conditions could become unstable, slowly lower the load to the ground and make the appropriate setup corrections.

BEFORE OPERATING

1. Fit the two handle halves together. 30 and 50 ton capacity models come with long one piece handles.
2. The 50 ton bottle jack is supplied with an air vent. Open the air vent before using by turning the knurled valve cap two full turns in the counterclockwise direction.
3. 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.

TO PURGE AIR FROM THE HYDRAULIC SYSTEM

- a. Open the release valve by turning the handle in a counterclockwise direction two full turns.
- 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. If the condition remains, repeat steps "a" through "d" until all the air is purged from the system.

OPERATING INSTRUCTIONS

1. Become familiar with the identification and function of the operating jack components.

- a. The one or two-piece handle serves two purposes. One end of the handle is crimped so that it can fit onto the swaged release valve and turn it in either direction. The handle can be removed from the release valve and inserted in the handle receiver which is located on top of and connected to the pump piston. Once installed, the pump piston can be pumped by moving the handle in an up and down motion.
- b. The swaged release valve is the shaft that sticks out from the pump housing at the base of the jack. Using the handle to turn the release valve all the way in a clockwise direction until it stops (closed position) prepares the jack for pumping or lifting the load. Using the handle to turn the release valve in a counterclockwise direction (open position) very slowly and carefully lowers the load. It is not necessary to open the valve more than two full turns.
- c. The ram is the shaft that comes out of the top of the jack with every pump stroke and lifts the load.
- d. The saddle is the round pad located on top of the ram which comes in contact with the load to be lifted.
- e. The extension screw is part of the saddle which can be unscrewed to extend the ram if there is not enough hydraulic stroke to raise the load to the desired height.

2. Long stroke bottle jacks do not include saddles and extensions screws and therefore are not designed to lift a vehicle.

3. 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.

4. Position the jack at the appropriate lift point. Estimate the

required ram travel to raise the vehicle to the desired height. If the desired vehicle height exceeds the entire ram travel, unscrew the extension screw to make up the difference.

5. 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 vehicle 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.

6. When the vehicle or 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 vehicle support points as possible. Although jack stands are individually rated, they are to be used in a matched pair to support the vehicle. Slowly and carefully open the release valve of the jack in order to gently lower the vehicle onto the jack stands. Make sure the vehicle 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 vehicle to prevent any unstable conditions. If conditions look unstable, close the jack's release valve and pump the jack to raise the vehicle off the jack stands. Make the appropriate setup changes and slowly and carefully lower the vehicle onto the jack stand saddles.

7. After the work is done, close the release valve and pump the jack high enough to remove the vehicle or 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 vehicle being very careful not to move the vehicle.

8. Open the jack's release valve very slowly and carefully to lower the vehicle or load to the ground.

PREVENTATIVE MAINTENANCE

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, or grit 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 but not the saddle. A general purpose grease must be applied to the three rivets that are part of the handle receiver and pump assembly.

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 qualified hydraulic repair personnel who are familiar with this equipment. Norco Authorized Service Centers are recommended. **IMPORTANT: In order to prevent seal damage and jack failure, never use alcohol, hydraulic brake fluid, or transmission oil in the jack. Use Chevron Hydraulic Oil AW ISO 32 or its equivalent Unocal Unax AW 150.**

4. Every jack owner is responsible for keeping the jack label clean and readable. Use a mild soap solution to wash external surfaces of the jack but not any moving hydraulic components.

5. Do not attempt to make any hydraulic repairs unless you are a qualified hydraulic repair person that is familiar with this equipment.

REPAIR SERVICE

If your Norco product requires service or repair, contact the Norco Customer Service Department for the location of the nearest Norco Authorized Service Center.

Norco Industries, Inc.
365 West Victoria St.
Compton, CA 90220
(310) 639-4000 • Fax: (310) 639-7411
www.norcoindustries.com

It will be necessary to provide the Norco Authorized Service Center with a copy of the bill of sale if requesting warranty repair. If the authorized service center determines your product is eligible for warranty repair, the repair will be made at no charge and returned freight prepaid. The cost of non-warrantable service, repair, and return freight is the customer's responsibility.