



MODELS 76312 12 TON & 76320, 76720 & 76721 20 TON CAPACITY AIR/HYDRAULIC BOTTLE JACKS SETUP • OPERATING • MAINTENANCE INSTRUCTIONS

Note: Revision letters (A, B, C, D etc.) after model numbers have been omitted as they do not affect the setup, operating and maintenance instructions of a particular jack unless otherwise noted.

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. FAILURE TO DO SO COULD CAUSE ACCIDENTS RESULTING IN SERIOUS OR FATAL PERSONAL 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.

It is the responsibility of the owner to make sure all personnel read this manual prior to using this 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 is 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.

WARRANTY

This product is covered by a Limited Lifetime Warranty. For details see the back cover of Norco's product catalog or visit www.norcoindustries.com.

WARNING

- Before lifting a vehicle, refer to the vehicle's service manual or inquire from the vehicle manufacturer the recommended jack lifting points and jack stand support surfaces on the vehicle chassis.
 - Inspect the jack before each use. Do not use the jack if it is damaged, altered, modified, in poor condition, leaking hydraulic fluid, or unstable due to loose hardware. Take corrective action before using the jack.
 - This jack was designed for lifting purposes only. Do not attempt to work on the vehicle until jack stands rated equal to or greater than the rated capacity of the jack are positioned to support the load.
 - Do not move or dolly the vehicle while on the jack.
 - Do not use the jack beyond its rated capacity. Lift only dead weight.
 - Do not exceed 130 P.S.I. input air pressure.
 - Center load on saddle. Be sure setup is stable. Off-center loads can cause jack failure and/or loss of load.
 - Use the jack on a hard level surface.
 - Do not modify the jack or use saddle adapters or saddle extenders unless approved or supplied by Norco.
 - Do not position any part of your body directly above the lifting saddle when operating the jack.
 - When activating the jack with no load, the ram raises quickly, therefore never put your hands or any other part of your body between the lifting saddle and the load.
 - Do not use the jack in horizontal or angular positions.
 - Always lower the jack slowly and carefully.
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SETUP

IMPORTANT: Remove and discard the round red sticker covering the air vent hole on the top of the air motor. Failure to remove this sticker will prevent the air motor from operating properly.

PURGING AIR FROM THE HYDRAULIC SYSTEM

Sometimes the jack is shipped, handled or stored in a position other than vertical. This may cause air to be trapped in the pump and cause the ram to raise in increments instead of a smooth travel. To eliminate this condition perform the following steps:

1. Purge the air by turning the release valve knob two full turns in a counterclockwise direction from its closed position.
2. Then depress the air valve button for about 10 seconds.
3. Turn the release valve knob in a clockwise direction until it stops and is snug. The jack should function properly.

Repeat steps 1 through 3 until the jack's operation is satisfactory.

PURGING HYDRAULIC OIL FROM THE AIR MOTOR

Hydraulic oil can get into the air motor if the jack is handled or stored in a position other than vertical. This will cause a combination of air and hydraulic oil to be forced out of the air vent hole on the top of the air motor. To eliminate this condition perform the following steps:

1. Place the jack in a vertical position and hook it up to an air source.
2. Activate the push button air valve to force the air/hydraulic oil mixture from the air motor. (Note: Depending on how much hydraulic oil is in the air motor will depend on how long you have to continue to activate the push button air valve. If a lot of hydraulic oil is in the air motor it could take up to a dozen full stroke activations of the jack to remove all the hydraulic oil.) The air/hydraulic oil mixture will continue to come out of the air motor's air vent hole until all the hydraulic oil is purged. Then only air will vent through this hole.

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.

DAILY

1. Check the condition of all moving parts and replace or repair when necessary.
2. Check the condition of the air hose and replace when necessary.
3. Check for external hydraulic fluid leakage and correct the problem immediately.

MONTHLY

All checks mentioned in the "Daily Maintenance and Inspection" procedures must be conducted.

1. 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.
2. Remove the in-line filter and clean the debris from the filter element and inside the filter housing.

3. Remove any signs of rust and lubricate (except on saddle) the area to inhibit further rusting.

4. 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.**

5. 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.

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

OPERATING INSTRUCTIONS

CAUTION For Your Safety: This jack was designed for jacking purposes only. After jacking always use safety stands to support the load before making repairs.

1. Check the vehicle's tires that will not be lifted off the ground prior to lifting the vehicle and if available, apply the emergency brake or any other method of braking.

2. The air motor is designed to work at maximum efficiency between 100 and 130 p.s.i. system air pressure. It will be necessary to have between 100 and 130 p.s.i. air pressure at the pump in order for the jack to lift its maximum capacity. **DON'T use the air hose to pull the weight of the jack as it may cause damage to the fittings and/or air hose. DON'T neglect the components, fittings, adapters, and hoses by rough handling of the jack.**

CAUTION For Your Safety: Use jack on hard level surface, center the load on the saddle and make sure the setup is stable. Poor operator judgement and/or unstable setup could cause load to slip off the jack saddle and cause personal injury and/or property damage.

3. Position the jack under the load and determine how much stroke is required to lift the load to the required height. Any ram stroke used to raise the extension screw saddle to the load reduces your lift stroke. The extension screw saddle is used to make up the distance between the saddle and the load so that you will have the most available hydraulic ram stroke. **DON'T use the ram without the extension screw saddle as this could cause damage to the counterbore of the ram.** This paragraph does not apply to Model 76721.

4. Close the release valve knob by turning it in a clockwise direction until it stops and is snug. **IMPORTANT:** Use the vehicle manufacturer's recommended lifting procedures and lifting points before lifting loads.

5. Depress the air valve button to raise the saddle to the load. Before lifting the load make sure the saddle is centered on the load and the setup appears stable. If not, reposition the jack and saddle contact with the load until the setup is stable. **DON'T use the jack in unstable setup conditions as the load could slip off the saddle and cause damage to jack components and cause personal injury and/or property damage.**

6. Depress the air valve button to lift the load to the desired height. During lifting, inspect the position of the jack in relationship to the ground and the ram 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 the appropriate setup corrections after the load is fully lowered.

7. When the vehicle or load is lifted to its desired height, immediately place safety support stands (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 one end of a vehicle only. Stands are not to be used to simultaneously support both ends or one side of a vehicle. Slowly and carefully turn the release knob in a counterclockwise direction to gently lower the vehicle onto the safety support stands (jack stands). Make sure the vehicle is safely supported by the safety support stands' (jack stands') saddles and not the locating lugs of the saddles. Inspect the relationship of the safety support stands (jack stands) with the ground and the safety support stand (jack stand) columns and saddles with the vehicle to prevent any unstable conditions. If conditions look unstable, close the jack's release knob and depress the air valve to raise the vehicle off the safety support stands (jack stands). Make the appropriate setup changes and slowly and carefully lower the vehicle onto the safety support stand saddles.

8. After the work is done, close the release knob and depress the air valve until the jack is high enough to remove the vehicle or load from the safety support stand saddles. Be sure load is stable. If it is not, lower load back onto safety support stands. Make appropriate setup corrections and repeat the step again. Remove the safety support stands from under the vehicle being very careful not to move the vehicle.

9. The jack should be stored in its normal use position. **NOTE:** The jack is designed with an additional air line that adds pressure to the oil in the reservoir and forces the oil into the hydraulic pump. The air line is vented by way of a hole located in the top of the air motor. Oil from the reservoir can seep out of the hole if the jack is used or stored with the handle assembly end of the jack pointing or angling down. Excessive leaking from this hole could reduce the required oil level in the reservoir and render the jack inoperable. Slight or occasional leakage from this hole should not cause any concerns.

IMPORTANT: The oil fill level should be no higher than one inch below the air inlet on the oil reservoir when the ram is completely retracted. Use hydraulic jack oil or turbine oil only.

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.

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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.