



## MODEL 72400 1/2 TON CAPACITY TELESCOPIC TRANSMISSION JACK **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.

### **⚠ WARNING**

- Adequately support the vehicle before starting repairs. Consult the in-ground or above-ground lift manufacturer for the recommended support procedure and under hoist support stand locating points.
- Support the engine with a stand before unbolting the transmission from the engine.
- Inspect the jack before each use. Do not use the jack if it is damaged, altered, modified, in poor condition, leaking air or hydraulic fluid or unstable due to loose or missing hardware. Take corrective action before using the jack.
- Do not use jack beyond its rated capacity. Do not lift or support the vehicle with this jack. Do not exceed 100 PSI air pressure.
- Use only on hard level surface.
- Be sure setup is stable and secure. Use this jack only with adapters and load restraints provided by Norco. Use of this

jack is limited to the removal installation and transportation (in the lowered position) of transmissions and transfer cases. Center load on saddle. Consult the vehicle manufacturer for the transmission's center of balance. Off-center loads can cause jack failure and/or loss of load. **IMPORTANT: WHEN LIFTING A LOAD, MAKE SURE THE LOCKING PAWL IS ENGAGED WITH THE AIR STAGE AT ITS MAXIMUM EXTENSION BEFORE OPERATING THE SECOND STAGE HYDRAULICS. WHEN LOWERING A LOAD, NEVER LOWER THE AIR STAGE UNLESS AN AIR HOSE IS HOOKED UP, THE "UP" FOOT PEDAL IS DEPRESSED JUST ENOUGH TO DISENGAGE THE LOCKING PAWL, AND THEN SLOWLY DEPRESS THE "DOWN" PEDAL TO LOWER THE LOAD.**

- Do not pull or push handle to move jack.
- No alterations shall be made to this jack and use only with factory approved adapters.

### **SETUP**

1. Refer to the exploded view parts drawing for identification, location and position of parts.
2. Install the swivel caster wheels on the jack legs with the washers and nuts provided.
3. Find a hard floor that is flat. Install the legs on the jack's base with the allen socket cap screws and washers provided. Do not tighten the allen socket cap screws until all four caster wheels are touching the floor and the jack appears vertical.
4. Back the hex head screw out of the saddle assembly ram receiver so the saddle assembly will slip onto the ram. Once mounted, tighten the hex head screw.
5. The chains and corresponding chain hardware are provided in order to secure the transmission to the saddle assembly and containing angles. One end of each chain should be anchored to a containing angle. The restraint system (chain, chain hardware, and containing angles) may be adjusted according to the specific transmission configuration.

6. Install an air disconnect of your choice on the air hose and the jack. Make the connection. Make sure the system air pressure supplied to the jack is clean and dry and does not exceed 100 p.s.i.

7. Sometimes air gets trapped in the hydraulic stage of the jack during shipment. An air bound hydraulic system feels spongy when pumped and sometimes the jack will not pump full incremental strokes.

#### **PURGING AIR FROM THE HYDRAULIC STAGE**

- a. Open the release valve knob by turning it in a counterclockwise direction two full rotations.
- b. Pump the handle 10 to 15 times.
- c. Close the release valve knob by turning it in a clockwise direction until it stops.
- d. Pump the handle until the hydraulic ram is raised to maximum extension. If the condition remains, repeat steps "a" through "d" until air is purged from the system.

## OPERATING INSTRUCTIONS

1. Lift the vehicle to the desired work height and support the vehicle in accordance with the lift manufacturer's recommended support procedure and the warnings given in this manual.
2. Use an under hoist stand rated greater than the weight of the engine to support the engine before unbolting the transmission from the engine.
3. Position the transmission jack directly under the transmission. Raise the air cylinder ram first by depressing the "up" pedal until the ram locks into its maximum height position.
4. Do not attempt to activate the hydraulic stage until the air stage is locked into position. Turn the release valve knob on the hydraulic stage all the way in a clockwise direction until it stops. Pump the handle and the saddle assembly will start to rise. Raise the saddle to a height very close to the center of balance point of the transmission oil pan but do not touch the transmission.
5. Adjust the saddle base and containing angles so the flange of the transmission pan will rest on the top edges of the containing angles. The containing angles must then be secured to the saddle by tightening the hex head screws. Now gently raise the saddle so the containing angles are supporting the transmission pan flange. Fore and aft saddle tilt adjustments are sometimes necessary to properly position the transmission. Side to side tilt positioning

may be necessary for the same reason and can be accomplished by activating the side to side tilt handle. **IMPORTANT: Do not put excessive pressure on either tilt handle to activate the tilt screws. Stop turning the handles when the threaded trunions or their cast brackets that contain them come close to contacting the slave trunions or the cast brackets that contain them.**

6. The restraint chains should be anchored to the containing angles on one side. The loose ends of the chains should be pulled over the center of balance portion of the transmission and secured to the two remaining containing angles. The chains should then be tightened to secure the transmission to the saddle.
7. Remove the transmission from the engine according to instructions in the vehicle service manual.
8. Once the transmission has been disconnected from the engine, very slowly turn the release knob on the jack's hydraulic stage in a counterclockwise direction until the hydraulic ram retracts all the way down.
9. Make sure an air hose is connected to the air stage of the jack. Very gently press the "up" pedal to disconnect the locking pawl from the air ram. Then lower the transmission by gently depressing the "down" pedal.

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## 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. Lubricate moving parts once a month with a general purpose grease. Spray a small amount of pneumatic oil in the window of the cylinder that accepts the locking pawl to lubricate the air stage.
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.**

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. Contact Norco Industries for a replacement label if your jack's label is unreadable.
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. Do not attempt to make any hydraulic repairs unless you are a qualified hydraulic repair person that is familiar with this equipment.

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## 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.  
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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.