

MODEL 72035 300 LBS. CAPACITY AIR/HYD. UNDER HOIST CLUTCH 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 JACK, 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 clutches 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 floor service jack is covered by a Limited Lifetime Warranty. For details see the back cover of Norco's product catalog.

A WARNING

- DO NOT operate the foot pump after the ram has reached its full extension! This may cause over-pressurization of the hose and fittings causing fluid leakage.
- Adequately support the vehicle before starting repairs.
- Consult the in-ground or above-ground lift manufacturer for the recommended support procedures and under hoist support stand locating points.
- 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 or missing hardware. Take corrective action before using the jack.
- · Do not lift or support vehicle with this jack.
- · Do not use the jack beyond its rated capacity.

- Do not exceed 100 PSI air pressure.
- Be sure setup is stable and secure.
- · Use only on a hard level surface.
- Use of this jack is limited to the removal, installation, and transportation (in the lowered position) of clutches and flywheels. Never move the jack with the load any higher off the ground than necessary.
- · Move the jack cautiously around corners to prevent tipping.
- Slowly depress the "RELEASE" portion of the pump's pedal to lower the load.
- No alterations or modifications shall be made to this jack.

SETUP

- 1. This clutch jack is designed to remove, install and transport (in the lowered position) 14" and 15-1/2" double disc clutches and/or flywheel assemblies. The 2" diameter spline shaft included with the jack is for use with 15-1/2" clutches. Optional 1-3/4" diameter spline shaft for use with 14" clutches and an optional flywheel adapter are available. Raise the tilting saddle in a vertical position and install the appropriate spline shaft or flywheel adapter shaft through the saddle receiver bushing. The spline or flywheel shaft should enter the saddle receiver bushing from the side of the receiver that does not have the round boss. Secure the spline or flywheel shaft to the saddle receiver with the detent pin provided.
- ${\bf 2.}$ Refer to the exploded view parts drawing for identification, location and position of parts.
- **3.** Before operating jack, open the black vent knob (index #10) on top of the cylinder nut (index #9) by turning it all the way in a counterclockwise direction.

- **4.** The air quick disconnect configuration of your choice can be installed in the threaded hole beneath the index #59 foot pedal.
- **5.** Lay the power unit on a table top with the hydraulic block end over the edge of the table. Install the index #56 legs onto the bottom of index #49 hydraulic block with the bolts and washers provided.
- **6.** Install the index numbers 60 and 132 caster wheel assemblies on to the ends of the legs and secure them with the nuts and washers provided.
- 7. Install the clutch saddle assembly (index #133) on top of the index #28 ram and secure them with the index #134 bolt.
- **8.** Make sure the shop's system air pressure supplied to the jack is clean and dry and does not exceed 100 p.s.i.

OPERATING INSTRUCTIONS

REMOVAL

- 1. IMPORTANT: Become familiar with the pedal operation of the air/hydraulic foot pump before using the jack under load. Depressing the foot pedal end marked "Pump" raises the jack. To raise the jack a small distance it is necessary to use incremental taps of your foot on the foot pedal until the jack reaches the desired height. Lowering the jack is accomplished by depressing the foot pedal end marked "Release". The pump is equipped with a two speed release mechanism. Gently depressing the foot pedal end marked "Release" lowers the jack slower than if you depress the pedal all the way down. If you want to lower the load slower than the slow speed release, use gentle incremental taps of your foot on the "Release" pedal.
- 2. 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.
- **3.** Push the jack under the vehicle. Raise the jack slowly so the clutch saddle with spline shaft is raised close to the position of the clutch. Using the clutch saddle's round handle, turn the handle so the angle of the spline shaft matches the vehicle clutch assembly. Turning the round handle in a clockwise direction raises the spline shaft. Turning the round handle in a counterclockwise direction lowers the spline shaft.
- 4. Match the free end of the spline shaft with the opening of the clutch assembly by pumping and moving the jack in position. Once the spline shaft is in position rotate the splines on the shaft until they meet with the splines in the clutch assembly. It may be necessary to turn the round handle again to completely engage the splines on the shaft with the internal splines of the clutch assembly. Lock the jack's caster wheels. Once the splines are completely engaged, pull the clutch assembly completely on to the jack's spline shaft.
- **5.** Disengage the jack's locking caster wheels. Pull the jack along with the clutch away from the flywheel.
- **6.** Once the clutch assembly is free from the flywheel, lower the jack very slowly all the way down.

INSTALLATION

- **1.** Turn the clutch adapter's round handle until the spline shaft is in a vertical position. Load the clutch on to the spline shaft.
- 2. Turn the handle so the spline shaft is in a horizontal position to the floor. For a 15-1/2" clutch the spline shaft must pass completely through all components. In the case of a 14" clutch, place the new front clutch disc and intermediate plate into the pot type flywheel and load the pressure plate and new rear disc on the jack's spline shaft.
- **3.** Push the jack under the vehicle. Turn the clutch saddle's round handle so the clutch assembly matches the angle of the flywheel.
- **4.** Raise the jack so the clutch assembly is at the correct height. Roll the clutch jack forward to insert the end of the spline shaft into the flywheel pilot bearing. Align the splines. Bolt the clutch to the flywheel. (For a 14" clutch the clutch disc in the flywheel is slightly lower than the center line of the pilot bearing. It may be necessary to raise the spline by pumping the jack up a little to correctly align the spline shaft with the pilot bearing).
- **5.** Slightly release pressure off the spline shaft by gently tapping the "RELEASE" end of the foot pedal. If it is difficult to remove the clutch jack spline shaft from the clutch assembly, turn the round handle until the spline shaft aligns with the clutch.
- **6.** Back the jack away slowly from the clutch assembly. Once the spline shaft clears the clutch, slowly depress the "RELEASE" end of the pedal until the jack comes all the way down.

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.
- 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.

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.