



PROFESSIONAL LIFTING EQUIPMENT

## MODELS 78013, 78014 12 TON & 78022, 78023 20 TON CAPACITY SHOP PRESSES

### 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 PRESS, 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 hydraulic shop presses 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 part breakage resulting in flying parts, slipping and dropping of components to be pressed caused primarily by not using guards or protective blankets over the components, improperly securing adjustments on the press,

improperly securing components to be pressed, overloading and off-center loads.

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

These presses are covered by a Limited Lifetime Warranty. For details see the back cover of Norco's product catalog.

#### WARNING

- Always use a guard or protective blanket during pressing applications to avoid possible injury caused by flying parts. There are a multitude of possible press uses, therefore it is impossible to design a guard that will meet every application. The press owner must provide his own guarding or protective blanket.
- Inspect the press before each use. Do not use the press if it is damaged, altered, modified, in poor condition, leaking hydraulic fluid, or has loose or missing hardware or components. Take corrective action before using the press.
- Do not use press beyond its rated capacity. Standard presses are not equipped with pressure/force gages. If you are uncertain of forces being applied during any press operations, the owner/ user must purchase and install the optional Norco Model 78021 Gage with adapters.
- Wear protective eye wear during press operation. If possible position the press in an isolated area and shield it to prevent possible injury to others.
- Before operating a 20 ton capacity press make sure the threads on the push ram are fully engaged with the threads on Norco adapters or extension rams to prevent thread stripping under load.
- Use only Norco adapters and accessories.
- During the press operation, keep hands out of the area between the press head channel and press bed. Also keep body parts out from under the press bed.
- Do not alter or modify this press. This press is designed for shop maintenance applications.
- Make sure setup is stable. Components to be pressed shall be well supported and aligned to prevent slippage and breaking. Make sure press bed pins are inserted in the upright frame holes all the way and the pins are fully supporting the press bed channel flanges before pressing.
- Press owners are responsible for the placement, maintenance and safe operation of the press in accordance with federal (OSHA), state, and local safety standards.

#### SETUP (STANDARD)

1. Standard model presses require very little setup. Insert the two piece handle in the jack's handle receiver and you're ready to go.
2. Sometimes air gets trapped in the hydraulic system 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 SYSTEM (Standard Model Presses)

- 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. If the condition remains, repeat steps "a" through "d" until air is purged from the system.

#### SETUP (DELUXE)

1. Deluxe model presses are equipped with an air/hydraulic foot pump which has a red reservoir fill plug that prevents oil from leaking out of the pump during shipment. The red fill plug must be replaced with the black vented fill plug before using the press.
2. Sometimes air gets trapped in the air/hydraulic system during shipment. An air bound air/hydraulic system feels spongy when pumped and sometimes the jack will not pump full incremental strokes.

##### PURGING AIR FROM THE AIR/HYDRAULIC SYSTEM (Deluxe Model Presses)

- a. Press down on the "pump" end of the pedal on the air/hydraulic foot pump with one hand while simultaneously depressing the button located under the "release" end of the pedal with a finger of the other hand. Hold this position for 10 to 15 seconds and then release both hand and finger.
- b. Now depress the "pump" end of the pedal with your foot and raise the jack to maximum height. If the condition remains, repeat steps "a" and "b" until air is purged from the system.

## OPERATING INSTRUCTIONS

1. Determine the required distance between the end of the ram plunger and the press bed based on the setup and required press stroke. Adjust the press bed height accordingly. Make sure the press bed pins that support the press bed are fully engaged with the holes in the flanges of the upright press frames and the pins are fully supporting the flanges of the bed plate channel.
2. The hydraulic power unit is bearing mounted for horizontal movement on the press head channel. Determine the desired location of the power unit, unscrew the two wing nuts at the top of the power unit and slide the power unit into position. Tighten the two wing nuts to secure the power unit in place on the press head channel.
3. Make the press work setup in accordance with all the warnings previously mentioned in the "WARNING" section of this manual including the guard or protective blanket required to prevent injury.
4. In order to operate the jack in standard model presses, the black release valve knob must be turned all the way in a clockwise direction until it stops. Pumping the handle up and down will activate the ram plunger. The ram plunger can be retracted by turning the black release valve knob in a counterclockwise direction. The farther you turn the knob the faster the ram plunger retracts. It is not necessary to turn the knob in a counterclockwise direction more than two full turns. You may, of course, stop the retraction of the ram at any time by turning the knob in a clockwise direction until it stops.
5. In order to operate the air/hydraulic system in deluxe model presses it is important to become familiar with the pedal operation of the air/hydraulic foot pump before using the press under load. Depressing the foot pedal end marked "Pump" extends the ram plunger. To extend the plunger a small distance it is necessary to use incremental taps of your foot on the foot pedal until the

plunger reaches the desired position. Releasing the plunger 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" releases the plunger slower than if you depress the pedal all the way down. If you want to release the plunger slower than the slow speed release, use gentle incremental taps of your foot on the "Release" pedal.

### WARNING

You cannot use the pump and release mechanism on the foot pump in conjunction with the pump and release mechanism on the jack. For example: You cannot use the foot pump to extend the ram plunger and then use the release valve on the jack to release the plunger. You cannot use the manual pump on the jack to extend the ram plunger and then use the release mechanism on the foot pump to release the ram. When you are using the foot pump, you must operate the pump and release mechanisms on the foot pump.

The ram plunger should not be pumped to maximum extension too often because oil being pumped from the foot pump will by-pass to the reservoir in the jack instead of the foot pump's reservoir. Both actions result in improper fluid levels in the jack and foot pump. At this time the efficiency of the system will be dramatically changed or affected to the point of inoperability. Improper fluid levels can be corrected by placing the jack in a vertical upright position with the ram retracted all the way.

The fluid level in the reservoir should be no higher than the bottom edge of the oil fill plug hole. The foot pump's fluid level should be checked and corrected accordingly. All operators should be made aware of these instructions.

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## PREVENTATIVE MAINTENANCE

1. Always store the press in a well protected area where it will not be exposed to inclement weather, corrosive vapors, abrasive dust, or any other harmful elements.
2. Lubricate moving parts once a month with a general purpose grease. Do not lubricate the bed plate bearing surface or ram plunger.
3. It should not be necessary to refill or top off the jack or air/hydraulic foot pump reservoirs 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 or air/hydraulic foot pump.**

4. Every press owner is responsible for keeping the label clean and readable. Use a mild soap solution to wash external surfaces of the press but not any moving hydraulic components. Contact Norco Industries for a replacement label if your press label is unreadable.
5. Inspect the press before each use. Do not use the press if any component is cracked, broken, bent, shows sign of damage, or leaks hydraulic fluid. Do not use the press if it has loose or missing hardware or components, or is modified in any way. Take corrective action before using the press 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.  
Compton, CA 90220  
(310) 639-4000 • Fax: (310) 639-7411  
[www.norcoindustries.com](http://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.