# **OPERATING INSTRUCTIONS**

# **PAK PRESS**

#### PORTABLE WHEEL STUD REMOVER AND INSTALLER



#### TSI Model #PP-10-PF

(Includes Frame, Cylinder and Adapters ONLY) TSI Model #PP-10-PPK (Includes Frame, Cylinder, Air Pump, 6 Ft Hose, T-Adapter & Gauge)

### READ INSTRUCTIONS THOROUGHLY BEFORE OPERATING



800.223.4540

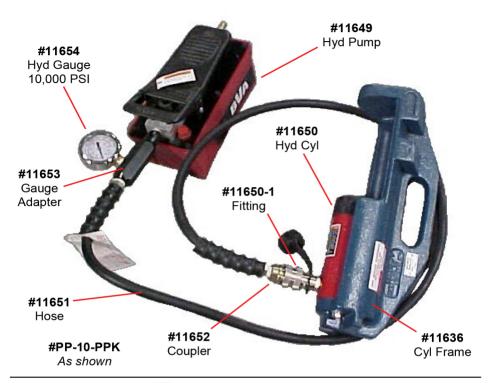
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# **PRIMARY PARTS**

FOOT PEDAL PIVOTS UP AND DOWN TO APPLY OR RELIEVE CYLINDER PRESSURE





## **PRIMARY PARTS continued**

Specially designed adapters standard with each kit.



#11637 Pak Tool #1 Installation



#11638 Pak Tool #2 Removal



#6261 Pak Tool #3 Installation



#6235 Pak Tool #4 Removal



#6236 Pak Tool #5 Installation



#6361 Pak Tool #6 Installation

Part for O-Ring replacement is TSI #12463.

#### **SAFETY INSTRUCTIONS**

## SAFETY GLASSES ARE REQUIRED FOR OPERATION!

## Before each use visually inspect the following items:

Check for loose bolts, fittings, leaking hydraulic fluid, damaged or improperly assembled accessory equipment/attachments, bent or damaged couplers and port threads. Examine the cylinder frame for damage and stress fractures.

Only operate hydraulic pump when safe to do so. If not carefully used fingers and hands can get pinched or crushed so use caution.

Have adapters properly in place before operating.

Do not wear loose clothing.

## **Specifications**

Review hydraulic pump instructions and procedures before operating this unit.

The power supply is air only. Operate at a maximum of 15 CFM@100 PSI.

Hydraulic pump is capable of delivering 10,000 pounds of force.

## **ASSEMBLY**

If purchased without the #6247 Cart proceed to page 6.

Remove parts from packaging to assemble cart (See Fig. 1.) Items are the wheeled base, center tower, rotating screw, handle, tool box and hardware.



Set aside the foot pedal, cylinder in frame and hydraulic hose for later.

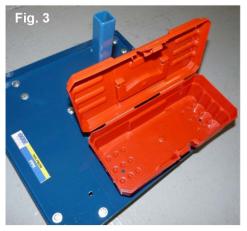
Refer to Fig. 2 and place center tower on base. Fasten with 4 of the 1/4-20 x 1" bolts, washers and nylon locking nuts.

Note orientation of gusset in relation to the handle mount. See arrows.

Use remaining two 1/4-20 x 1" Bolts, Washers and Indented Lock Nuts to fasten Tool Box (See Fig. 3 & 4.)



Note: These also fasten two of the Roller Wheels in the Base.





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Use the quick-disconnect end of hydraulic hose to connect to the cylinder fitting (Fig. 7 white

Note: Make sure the coupling is assembled properly and tightened with a pliers. Cylinder will not extend or retract if this is not assembled correctly.

arrow)

Place the hydraulic parts on cart as shown in Fig. 7. Place the adapters in tool box.

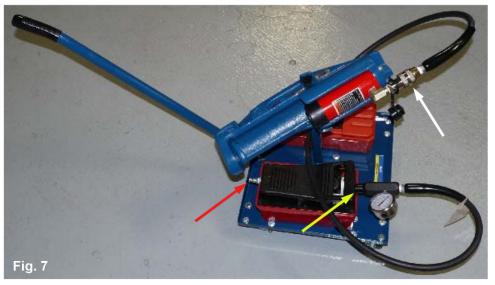
Position handle on mounting studs (See Fig. 5) and tighten down with the supplied wing nut.

Once parts are assembled tighten all hardware until firmly snug.

Place rotating screw in center tower as shown in Fig. 6 below.

Connect hydraulic hose (gauge end) to port on hydraulic pump. See yellow arrow below in Fig. 7.





### **OPERATING INSTRUCTIONS**

#### Use

The Pak Press unit can be used to remove and install wheel studs. To assist in using an otherwise heavy tool TSI has created a cart to wheel it around on and to help do the heavy lifting.

Have the vehicle on a lift or jack stands with the tires removed. Provide clear access to the wheel hub so the Pak Press unit has room to maneuver.

#### **Set-up Preparations**

If you purchased the Pak Press Wheel Stud Remover separately without TSI #6247 Cart, you will need to connect hydraulic hose (gauge end) to port on hydraulic pump. Refer to the yellow arrow on page 5, Fig. 7.

In the same picture refer to the white arrow and connect the quick-disconnect end of hydraulic hose to the cylinder fitting.

The power supply is air only. Input air supply must be lubricated and free of moisture. Operate at a maximum of 15 CFM@100 PSI.

Refer to page 5, Fig. 7 and connect your air supply to the hydraulic pump to where the green arrow is pointing.

#### Stud Removal

Place Tool #1 in Fig. 8, firmly into threaded end of cylinder ram.

The hole bored in this adapter needs to line up with the centerline of Tool #1 in the hydraulic cylinder. So, adjust the two hex nuts on Tool #4 to approximate location shown in Fig. 9.

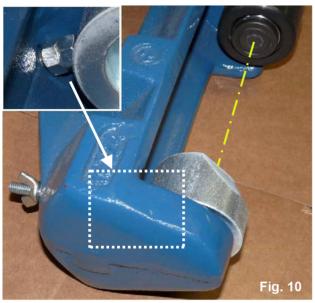
The inner nut will act as a stop against the wall of the cylinder frame.

Make the necessary adjustments with the hex nuts to align these two parts then tighten the hex nuts to lock them in position. See page 7, Fig. 10.

This will only have to be done once if done correctly.







An illustration to better identify how to line-up these parts for the Pak Press to be more effective.

Once Tool #4 is located as shown, fasten wing nut to tighten into place.

If these are not lined up properly wheel studs could break and damage to the adapters or Pak Press unit could occur.



With adapters 'in place' wheel the cart into hub area and adjust height of the cradle that holds the hydraulic frame.



Position the frame unit over the stud being removed. Center the hydraulic frame and adapters. With the pump foot pedal apply pressure until both adapters make contact against the stud. (See Fig. 11.)

If they center correctly and make good contact proceed to apply more pressure with the foot pedal until the stud is unseated.

Press the foot pedal with your heel to retract the air cylinder. Make sure the hydraulic frame is supported as you do this

Remove all the studs from the wheel hub. Turn hub to line-up Pak Press to remove each stud. (It's not necessary to readjust cart height each time.)

Then exchange adapters and replace with new studs.

#### **Broken Stud Removal**

A broken stud will need a flat surface to push against. If necessary grind the broken end of the stud until flat. Follow the same instructions for stud removal but replace tool #1 in the hydraulic cylinder with tool #2. See Fig. 12.





#### **Piloted Hubs**

The Pak Press unit can also remove and install studs on piloted hubs using tool #3 and tool #5 together. Please refer to page 3 for tools. Follow the stud removal and installation instructions as described in this guide.

#### Stud Installation

Put tool #3 into the hydraulic cylinder and rotate to desired position. (Fig. 13.) *Note: Remove tool #4 it is not used when installing wheel studs.*TSI recommends applying an anti-cease or lubricant on the shoulder of stud.

Align new stud into position to be pressed in hub. Apply hydraulic pressure using the foot pedal on pump. Most of the stud will be within the slotted area in tool #3. As the frame comes into contact with the hub apply pressure until fully seating the stud. Visually inspect to make sure the stud is completely seated, then release hydraulic pressure and continue as necessary.

**NOTE:** For service maintenance of air-hydraulic pump or hydraulic cylinder please refer to included manufacturer's service literature and parts lists.



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