## Core Remover Tool:




## Shaft Assembly:



A-1. Place the two medium sized" o-rings" inside the "nut". The O-rings need to be stacked and seated flat on the bottom of the "nut".


A-2. Place the "washer" on top of the two o-rings. This also needs to sit flat on top of the orings.


A-3. Install the "large o-ring" into the "nut". The "o-ring" should sit on top of the "gold washer".

A-4. Push the "o-ring" down towards the "gold washer" till it fits in the groove inside the "nut". This "o-ring" should hold the other parts in place.


A-5. Place the "shaft" and "knob" into fixture as shown. Notice there are two holes around the outside of the "knob", we will be using the larger of the two.

A-6. Rotate the "knob" until the larger hole is facing up, and twist the shaft until the holes of both parts are aligned. Install the longer "spring pin" into the shaft assembly using a hammer. Use a "punch" to ensure the "spring pin" is recessed into the "knob".


A-7. Place a small amount of this "high vacuum grease" onto the end of the shaft as shown. Notice the placement of the "grease". Do not put it directly on the end where the hole is.

A-8. Place the "pre-assembled nut" onto the shaft. Be sure the open end of the "nut" faces out when installing.

A-9. Slide the nut along the length of the shaft a few times to spread the "grease".


- Locate the smallest "o-ring" and the "clevis".


A-10. Place the "o-ring" inside the "clevis" as shown.


A-11. Push the "o-ring" into the "clevis" by inserting the "shaft assembly" into it. Push the parts together and align the hold on the "clevis" with the hole on the "shaft". Using a hammer, install the small "spring pin" into the hole. Use a "punch" to be sure the "pin" is fully inserted into the assembly.


## 18975

## Ball Valve Assembly:



- Locate this "arbor press" in the tool department.

B1. Place "ball valve with side port" into fixture as shown, and "blue handle sleeve" into pressing attachment. Hold "ball valve" in place, and press parts.


B2. Place the "gasket" into the tool shown. Install the gasket into the end of the "ball valve" closest to the "side port" (of the ball valve).


B3. Place "valve opener" into the "side port of ball valve" (gold end first). Use the "tightening tool" shown to screw in the "valve opener". Do not over tighten.


B4. Place the "cap strap" onto the "side port of the ball valve" as shown.


