

## Procedure for Removing and Replacing Spindle Wear Sleeves



**1.** Remove hub unit from spindle. Use a large sized and sharpened chisel to split open wear sleeve. Try not to chisel into the spindle; if possible, only chisel into the wear sleeve. Wear sleeve should spring open.



**2.** Once the press-fit bond of the wear sleeve has been broken, remove the old wear sleeve from the spindle



**3.** Use various "grit" emery or crocus cloth to remove any burs on the spindle that may have occurred from the chisel. Start with a coarse grade emery or crocus cloth working your way towards a fine grade. Example: Start with 80 grit, then use 120-160 grit, then use 240-320 grit emery or crocus cloth. Purpose is to repair any damage created on the O-ring seal groove section of the spindle.



**4.** Once any and all burs and sharps have been removed, replace the old spindle/wear sleeve O-ring with a new O-ring; lightly lubricate the O-ring prior to assembly. Inspect O-ring for any damage prior to assembly over the spindle. Ensure O-ring is fully seated inside of the seal groove.

**NOTE:** O-ring only required for oil bath hubs, not needed for grease lubrication.

**5.** By hand, position the new wear sleeve over the spindle. **IMPORTANT: INSPECT WEAR SLEEVE.** Great care must be taken to not damage the wear sleeve surface. If there are any scratches, dents, or burs, obtain a new wear sleeve. The wear sleeve is responsible for providing the primary sealing surface for the rear hub seal. Any damage to the wear sleeve may affect seal ability of the rear hub seal.



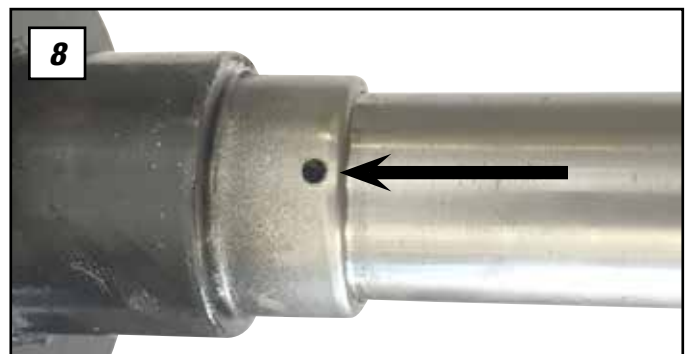
**6.** Use the wear sleeve assembly tool to properly align the wear sleeve.



**7.** Once the wear sleeve is positioned with the wear sleeve assembly tool, strike the back of the assembly tool with a small sledge, or a large sized hammer. Make sure that the wear sleeve bottoms out on the on the spindle's wear sleeve machining detail.



**8.** Wear sleeves do not come with a hole for the Super Lube System. If your spindle has Super Lube and the old wear sleeve has a hole near the edge as shown in picture 8, you have the option of not using the zerc fitting on the end of the spindle to fill the hub with grease, OR you can carefully drill a 1/8" hole thru the wear sleeve into the hole in the spindle. Mark the spindle where the hole is located. Drill the 1/8" hole after fully seating the wear sleeve on the spindle. Any "burr" created when drilling the grease port, must be fully removed with a fine emery cloth. If you are not comfortable doing this, DON'T Do It.



**9.** Assemble hub/rotor unit onto spindle. Be sure to lightly lubricate with grease both the wear sleeve surface and the rear hub seal's sealing lips. This will yield greater life on the seal. Pre-load the bearings to at least 45 ft./lbs. Use an oscillating motion when applying torque to the castle nut to ensure that the bearings fully seat. Once the bearings have set, loosen the castle nut. By hand, tighten the castle nut until resistance is felt by the bearings. Insert cotter pin, and bend cotter pin around the castle nut. **IMPORTANT: After hand tightening, if the cotter pin hole is covered by one of the notches on the castle nut, loosen the castle nut to the previous notch; do not tighten to the next castle nut notch.**



**10.** For Turbo Lube hub units, with O-ring assembled over turbo lube cap, fill the entire Turbo Lube cap with either Schaefer oil, or an 80 weight or higher gear oil. Hint: To prevent spilling oil, before filling the cap with oil, check that the cap will thread onto the hub. If the cap will not thread onto the hub, check that the assembled cotter pin is not creating interference with the Turbo Lube cap, and that the threads on both the cap and hub are not damaged.



**11.** With the Turbo Lube cap filled with oil, position the cap perpendicular to the hub with the top thread of the cap lined up with the bottom thread of the threaded hub. Flip cap up 90 degrees and thread the cap onto the hub. If done correctly, no oil should spill from the cap. Torque cap to 10 ft/lbs.

