

**CARE AND FEEDING OF YOUR CBN WHEEL – Spartan and 4-1 wheel only PLEASE READ BEFORE USING YOUR WHEEL!!!!!!**

**INSTALLATION:** There is really no set way to install these wheels. The goal is to get them mounted safely on the grinder and have them run true- no side to side movement- so you can utilize the radius and side grind features of the wheel (depending on the model you have). Here are the steps involved:

1. Spartan Model and 4-1 profile wheels can leave the guards on if desired or removed to gain better access to the side grind capability on the 4-1 wheel profile.
2. Remove old stone wheels. Try slipping the CBN wheel on. These wheels are made with tight tolerances and they may not always slip on easily. If they don't slip on easily-DO NOT FORCE THEM OR HIT THEM WITH A RUBBER OR ANY OTHER HAMMER. Instead- run the grinder with a bare shaft and polish the shaft with crocus cloth or sandpaper as it spins for a few moments. Wipe the shaft and try the wheel again. Do this as much as you need to until the wheel slips on.
3. If you purchased the Spherical Washer Set with the wheel, read here: if not go to step 4. The flat washer in the kit may or may not be used so put it to one side for now. Push the wheel up against the raised shoulder on the shaft (the part that gets thicker next to the motor). For the Spartan and 4-1 design wheel with the guards being left on it may be necessary to use a flat machined washer between the wheel and the shoulder to keep the wheel from rubbing on the inside guard cover. Take the spherical washer set and put the fat concave one against the outside of wheel (concave facing out) Put a film of grease in the cupped part of the concave washer. Then put the thin cupped convex one into the fat one. Do not use 3 in one oil or other thin lubricant. Make sure the Spherical Washer Set pieces are such that one is fitting inside the other like a ball and socket. If you have space to fill in because the nut won't reach use the flat washer between the nut and the spherical washer set. Hold the wheel with one hand and snug the nut down with a wrench with the other. If you still have any slight run out in the wheel when you turn the grinder on loosen the nut and move the washers around and retighten until you find the sweet spot.
4. Wheels without using the washer set will often install just fine by pushing the wheel right up against the shoulder of the shaft next to the motor. Put a good quality washer and then the nut. If you still have some run out you might want to order the Self Aligning Spherical Washer set.
5. 99% of the time, run out is caused by the face of the nut not being perpendicular to the shaft which cocks the wheel slightly to one side thus throwing off the rotation.

**DOS AND DON'TS** Avoid sharpening high carbon steel as they load the wheels up and make them "dirty" by filing in the pores. Carbide is also not suggested.

1. Clean the wheels when needed by placing them on the bottom of a bucket with a little kerosene and scrub them using a stiff brush.
2. Reversing direction of the wheels is ok, doesn't matter.
3. Properly cared for your wheels should last for years. Please keep this document and make sure you review your lifetime warranty on the reverse side of this page.
4. **DO NOT SHARPEN SPINDLE ROUGHING GOUGES BY PLACING THE HANDLE IN THE LONG ARM POCKET OF THE WOLVERINE JIG.** Instead- use the platform set to the angle you want and rotate the tool by hand. CBN wheels are pretty aggressive and I have seen cases where the grind got too close to center and sucked the tool down hurting the turner and ruining the wheel. Warranty is voided if damage to the wheel results because the long arm pocket was used for a Spindle roughing gouge or tool gets cached because not properly supported. Purchaser assumes all risk of use.