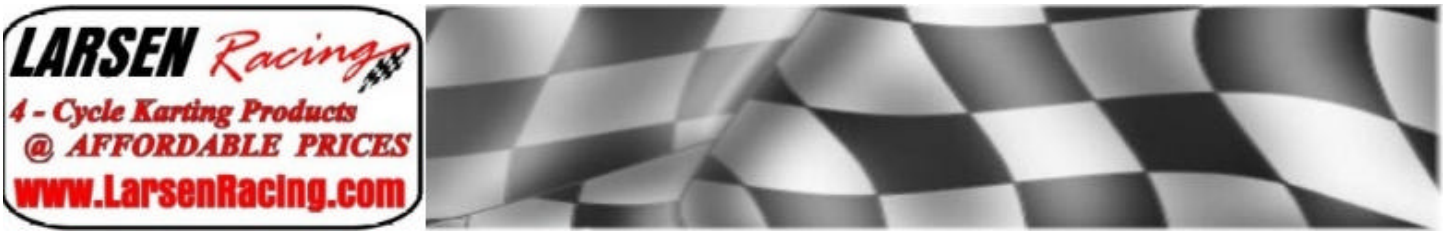

Burris Tire Set-Up Tips

Compliments of; http://www.burrisracing.com/

The simple task of mounting tires has long been neglected and misunderstood. Many times we have seen karters wrestling with new tires, using screwdrivers or tire irons trying to get them mounted on the wheels. In the process the wheels get gouged and bent which causes the tires to end up leaking and/or running out. Proper mounting can result in better, more consistent performance and wear. In the following presentation we will guide you through the entire procedure and explain not only how to mount your Burris tires, but why there are certain things to do and not to do during the process. Grab up your tools and follow along.

Before you even start, there are two items that you must have before you can go any farther!

Those being a Wheel Balancer and a, Beadmaster Tire Tool. The balancer is necessary to do a visual check on wheel runout and to balance your tires, while the Beadmaster will keep the tire from being stretched and deformed during the inflation process. (While you're at it you should take the time to occasionally check your rear axel for run out. This and bent wheels are one of the biggest reasons for tire runout on the kart!)

To start the procedure the wheel needs to be cleaned and inspected for runout.

After cleaning, check for burrs and nicks in the bead seating area and the outer diameter of the flange. This will allow the tire to slide over the bead lock smoothly (with less air pressure) while removing the burrs and nicks will help prevent cutting the rubber in the bead sealing area causing it to leak.

Mounting tires on one-piece wheels is a very simple task once you get the "hang" of it. The most important thing to remember is to always mount and dismount the tire from the backside of the rim and also keep the tire at an angle (approximately 30°) to the rim during this process.

Once the tire is on the rim, clamp the Beadmaster tightly around the tire. (Note that it is absolutely necessary to use a Beadmaster restraint that encircles the full circumference of the tire. Restraints with gaps in them cause the tire to stretch and go out of round at that point!)

Next you'll need to apply some bead lube to help the tire slide into position over the bead lock on the rim with out having to use excessive air pressure. We recommend, Track-Tac Ice-Blue Tire Mounting Lube.
We don't recommend aerosols like W-D 40 because, being a lubricant, we have seen instances where the tire comes back of the rim due to the slippery nature of the fluid. Also be careful to not get too much of the bead lube inside the tire as this causes abnormal air pressure increases when the tire heats up.

Now you're ready to inflate the tire. For safety reasons we use a remote mounted air chuck and stand off to the back. Once the tire is inflated and the beads are seated, release the pressure and remove the restraint. Keep in mind that as the width of the rim increases for a given size, the pressure needed to seat the bead also increases. Also note that there are wide variations in the bead seat diameter in the spun one-piece wheels, which can cause the pressure needed to seat the tire to be different from wheel to wheel. Burris, Douglas Q+, and WMS 6" wheels, being a true one piece wheel, CNC machines the bead seat diameter to a +/-.005" tolerance so every tire mounts the same from wheel to wheel.

Warning! Be sure the tire is positioned on the wheel and has the correct "attitude" prior to inflating. Tires in the incorrect position require considerably more pressure to seat and can stretch the tire and/or the bead causing it to not stay on the rim.

What you do next depends on whether the tire is for the right or left side. Our normal procedure for right side tires is to initially inflate it to 25/30 psi and let it set for a couple of minutes and then bleed it down to your anticipated running pressure. This allows the tire to get the "kinks" out and assume its normal shape and diameter, otherwise the heat and stress generated during the course of racing will cause the tire to grow and throw off your stagger and gearing. We check the profile and diameter and if the tire has a dip or the diameter is

small we inflate it back up to about 40 psi to stretch it a bit and then drop the pressure back down and check the profile or diameter. If this still leaves you a little short do the same thing again and by adding 10/15 psi more until the desired results are achieved. On the left side tires it is not necessary to pre stretch them because the heat and loads are much less and they do not have as much tendency to grow like the rights do. After removing a left side tire from the restraint, simply add the desired amount of air pressure and check the diameter. If it is too small, use the method just mentioned to increase the diameter or if it is too big use a wider rim to reduce it.

Balancing your tires is important no matter what type of surface you race on!

Tires that are out of balance can greatly affect handling because as they rotate, the down force (load) on that tire increases and decreases every revolution. As the RPM of the tire picks up the frequency of the loading/unloading increases to a point where the tire skips across the racing surface instead of rolling smoothly.

To start the balancing process mount the tire on the balancer and let it roll to a stop. (You can speed up the process by slowing down the rotation each time the tire rotates past center until the heavy spot is found) Once the heavy spot is determined, mark a spot on the tire 180 degrees from it. Estimate how much weight (stick on type) you think it will require to bring it back in balance and using a little duct tape, (don't remove the adhesive strip yet.) tape them in place.

Rotate the tire until the weight is at three (or nine) o'clock and observe which direction it wants to rotate. If the weight wants to rotate back to 12 o'clock then you need to add more weight and of course if it wants to rotate to 6 o'clock you'll need to take some off. Do this until you can rotate the tire/wheel assembly to three or nine o'clock and let it go and there is little or no movement. After you determine the amount of weight it will take peel off the adhesive strip and permanently attach the weights to the wheel. Balancing your tires is a must and only takes a few minutes once you get the hang of it.

Now you are ready for the race track, but there is one more thing you must do before you can expect your tires to perform at their optimum.

They need to be scuffed in! We've heard way too many stories about how someone went out on a new set of tires and the kart was all over the place and came in and put their old tires on and picked right back up.

Well, 99% of the time the cause was that the tires didn't get scuffed in properly. This is very important, especially on the softer SS11, SS22 and SS33 compounds that normally run on slick, wet, non abrasive surfaces, as it allows the thin protective secondary skin on the tread to wear away and expose the primary rubber. Other than going out on the track and running laps to run the tires in, there are several methods you can use to accomplish this. The two most common ways are to find a safe, flat concrete or asphalt area and just run the kart in a tight circle until the tires seat in or use a disk grinder, or sanding block and lightly grind/sand and rough up the tread of the tire. (Cutting a tire substitutes for the grinding or scuffing process so that's why you've probably heard that "cuts" are faster than "stickers". With proper set up there should be little or no need for "cut" tires.)

Now with all that done you are Finally Ready To Get Out On The Track
And get your Kart Dialed in for the "Big Race"! Good Luck.

If you have any questions regarding this article or any other Burris products of a technical nature contact us at techinfo@burrisracing.com. We will be compiling a list of frequently asked questions (FAQ's) and will post them on the Burris site for future reference. Whenever possible we will try to answer your individual questions by e-mail.

If you have any questions about Tires and/or Wheels,
You may e-mail us at, Sales@LarsenRacing.com or call us directly at (708) 479-5129.

THANK YOU FOR CHOOSING LARSEN RACING!

"We appreciate your business and will do our best to give you Prompt, Efficient, Service."