

# GRASS ROOTS

## TECH BARN

with: Jimmy Rivers

# This is how we roll... Free!

The last few months of the "Grassroots Tech Barn" we have covered cleaning and maintaining your kart. This month, we want to dive into our wheel bearings, front and rear. Properly maintained bearings are essential for a kart to freely roll down the straights as well as the corners.

Bearing care and maintenance is really quite simple, however many racers ignore their bearings until there



is a problem. As far as I am concerned, any bearing making noise is an issue, regardless of how free it appears to spin. Dirt and grit inside the bearing is the main cause of this. More often than not, a noisy bearing cannot be cleaned and oiled back to health and needs replacement. Any movement between the inner and outer race of a bearing is also a sure sign that it needs replacing.

Let's start fresh by replacing the bearings in the front hubs. Each hub has two bearings, and they are



usually separated by a spacer to spread the load between both bearings. Remove the hubs from the kart and open a bench vise just enough to catch the outer edges of the hub on top of the jaws. Take a pin punch or other blunt object, and through the bore of the top bearing, drive the lower bearing out of the hub. Turn the hub over and repeat, and you should have a bare hub. Keep track of your inner spacer if so equipped.

To replace the bearings, place the hub on a good solid surface and align the new bearing into the bore. Place a block of solid wood or metal onto the top of the new bearing and drive it home with a larger hammer. Turn the hub over, insert the spacer if necessary, and repeat the procedure. Make certain that the bearings are both firmly seated



into the counterbore. If either of the bearings are cocked, the inner races will not be parallel and the hub will not slide freely onto the spindle arm. If this problem arises, make sure each bearing is fully seated.

Care and maintenance of the front hubs begins with keeping the bearings away from the water hose. I prefer to spray my hubs down with brake cleaner. This way, I am able to fully clean them and keep the moisture away. Moisture leads to rust, and rust to,,,well you get the picture. Once the hubs are clean, I gently pick the outer seal away and add a couple drops of my bearing oil. Spin each bearing and inspect, and you are ready to place back on the kart. Make sure to add a little oil to the spindle arm to allow the hub slide freely.

Rear axle bearings are extremely important, and

can be a source of serious drag. Look for movement within the bearing, and listen for any grit or grinding sounds, just like the front. Some racers remove the axle assembly before washing and clean it just like we described above for the hubs. If you prefer to leave the axle in the kart, the

ple thoughts on bearing selection. Bearings are available in many grades, and this is certainly an area where cheaper is not necessarily better. A two dollar axle bearing can spin



only way to clean, flush, and oil the bearings is to remove the metal dust cover and add a removable bearing shield. Bending the dust cover, or prying it away to add oil, will allow dust and dirt to enter and the oil to escape. The way I see it, you have two choices, either replace the bearings on a regular basis, or add the shields, any other method of maintenance for the axle bearings will be short lived at best. Since we are replacing bearings, let me add a cou-

just like a hundred dollar bearing when you spin it on your hand, but think about this; do you honestly think it is rolling as free in the center of the corner when it is fully loaded? I think you know the answer. Don't buy a top of the line chassis and get cheap when it comes to bearings, always use quality components.

See ya next month!

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