

## TECH: FRONT END SETUP

### SETTING UP YOUR PHOENIX FRONT END

Your Phoenix Race Kart is equipped with two camber/caster adjusters per side, on the top and bottom of each C-Section. The adjusters locate the kingpin in an eccentric hole, so that when you rotate the adjuster, the angle of the kingpin changes.

To change your camber or caster, loosen the kingpin nut until you can turn the adjusters by hand.

#### CAMBER/CASTER ADJUSTER



The hole in the adjuster is offset away from the grub screw. Once you've loosened the kingpin nut, get a feel for the way the kingpin moves by turning the top and bottom adjusters and watching what happens. At Phoenix, we always describe the adjusters as "pointing" in the direction of the grub screw and lock nut, so we will use that terminology in this article. To achieve a standard, neutral caster setting, point both adjusters towards the front of the kart.

For maximum caster, you want to lean the kingpin back as much as possible, and to achieve that you need to point the top adjuster to the front of the kart, and the bottom adjuster to the rear of the kart. Try it yourself and watch the kingpin move, as it's important to understand what you're really doing to the kart.

For minimum caster, of course, you'll need to achieve the exact opposite, so set the top adjuster facing the back of the kart, and the bottom

adjuster facing the front of the kart. Now that we understand how to set the caster where we want it, we need to look at camber.

Usually, you'll need to set up a kart with somewhere around +1 to +5 **static** positive camber - so that the **loaded** setting - when you put the kart on the ground and climb into the seat - it settles down around 0 camber, achieving maximum tyre contact.

To create positive camber you need to lean the kingpin out a touch. Once you have caster set in one of the three standard positions, you can dial in some positive camber by turning the top adjuster towards the centre of the kart, and the bottom adjuster away from the centre of the kart.

#### POSITIVE CAMBER



Once you have your camber and caster set where you want them, tighten the kingpin nut firmly.

### CONCLUSION

The front end settings of your kart are critical to its performance. Hopefully this article has shed some light on the "how and why" of front end setup, and we encourage you to experiment with your front end in practice, and as always, be diligent in recording your results.