



#TechTipTuesday

Camber

Camber... What is it? When should you adjust it?

Camber is defined as the lean or angle of the tire when viewed from the rear of the kart looking forward. If the top of the tire is leaning in towards the center of the kart, then it is referred to as NEGATIVE (-) camber. If the top of the tire leans outward (away from the center of the kart), then the camber is POSITIVE (+). On nearly all oval tracks, you will run positive LF camber and negative RF camber.

The most common effect of more positive LF camber is to put more "bite" in the LF, creating more turning power. Although it can effect the entire turn, you will feel it's effects more on corner exit. Too much LF camber can cause a kart to be loose (especially center-out), and could cause the RR to be overused/overworked.

If reducing LF camber, you will see opposite results - less LF bite, less turnability, and can "calm" a kart that is too loose.

Now, let's switch to the RF... more negative RF camber takes bite OUT. And because the RF is heavily loaded thru the corner, the effect is felt all the way through the turn. Obviously, less negative RF camber will yield opposite results. Less RF camber will put more of the tire's surface on the ground - creating more turn-ability. RF camber will effect how the LR unloads and reloads at corner entry and exit. More negative RF camber can cause the LR to unload slightly earlier and reload a little bit later in the corner. Less negative RF camber = LR unloads later and reloads earlier. However, LR effects caused by RF camber changes are ultra-fine, and many less experienced drivers will probably not notice.

RF camber is also an adjustment which can be used based on the track's grip/bite level. On a high bite track, a given kart may run -3 RF camber, and on a much slicker track it may run -2 1/4. This is aimed at helping the RF produce more grip/bite to keep the kart from picking up a push.

Most Phantom kart's "sweet spot" for camber is between 0 to +3/4 LF, and -2 to -3 RF. A normally suggested starting point is +1/4 LF and -2 3/4 RF camber. Remember, any time you change caster (or camber), recheck your scaling numbers - especially camber and toe.