

## **Cyclo-Cross Position: Minor Changes = Major Improvements**

By Kenneth Lundgren

In my opinion, the cyclo-cross position is different than the road bike position... I am manic about bike set-up, and when I set up guys for cyclo-cross competition, I always look to make these changes:

Set up the front-end so it's slightly tighter than the road position. The reach should feel closer... This can be accomplished by simply using a shorter stem or by raking the handlebars in and the brake hoods up. On a road bike, I always adjust the drops first. I rake them in until my wrists are completely straight when reaching for the brakes. Then I go out and sprint in the drops, making sure my wrists completely clear the top handlebar. I've learned most riders can't sprint well not because they can't sprint but because their bikes are not set up to allow them to sprint...

On a cross bike, you are rarely in the drops. To adjust the front end properly, you can do two things: still rake the drops in so you have wrist clearance when sprinting. If you do this, you will have to loosen the brake hoods and dramatically bring them up. This brings the bars (drops and hoods) much closer. On some bars, this will leave the brake levers far away when in the drops, and when riding on the hoods you will have little place to put your hand on the bar because the hoods are so far up...

You are not in the drops a great amount on a cross bike, so you can simply just turn the bars up without having to move the brake levers. Even though you won't be able to "sprint" as well from the drops (I've found when out of the saddle for anything on a cross course, you should be on the hoods anyway!), the brakes and shifters will be in much closer proximity when you're down there, and more importantly the hood position will be exponentially more comfortable.

So, we want your front-end closer. Shorter stem or rake the hoods closer. By turning the bars up, you are also raising the height of the brake hoods, which is important. You are opening your hip angle, which in turn will allow you to pedal more powerfully. And even though you become less aerodynamic, this upright position will put your body weight more on the rear wheel, which will help with traction issues. I find that some cross racers like to spin a smaller gear to stay more aerobic, and this can make traction even more of a problem – especially if the bike is not set up properly.

Some coaches like to recommend longer cranks for cross bikes. I am not a huge fan of this and actually think you should run the same length on all your bikes, get the femurs adjusted to the same pedal stroke on all bikes. But I've heard guys say they can really feel the extra leverage with the longer cranks. Going up 2.5mm is the "idea," especially if you are a shorter rider. Trick is to find what works and just go with it...

Regarding the saddle, I like to slide it back, again to improve traction AND to improve power. By sliding it back, you have to lower it (just like on that TT bike, when you slide

the saddle forward you are decreasing the saddle height so you then must RAISE it). Moving the saddle back and down also keeps you lower to the ground, making you much better prepared to whip through some technical courses.

Also, cross courses are usually chock full of steep, hard climbs, one after the other. Although seated more forward you may feel more powerful, trust me during the race you will wish you were further back! Further forward, you are more aerodynamic and more powerful over short periods. You can utilize your quads more powerfully, but little else.

When you slide back on the saddle, you can utilize all of the muscles involved in the pedal stroke: the quads, the hamstrings, the calves, the hip flexors, the lower back. This is why climbers often are seated a little further back, so they can draw on more muscle groups for longer, steadier efforts. Climbing, by nature, is harder than pedaling on flat terrain, so it's best to find the most powerful position.

In cyclo-cross, aerodynamics are not key – power and efficiency are. I am an avid fan of PowerCranks, and it's no coincidence that strong PowerCrankers I know – Roger Aspholm, Troy Kimball, and Maria Murphy – are also wicked cross riders. And on PowerCranks, you want to be further back, allowing you to better use all the muscles to develop a perfect pedal stroke. Trust me: I've tried all positions on my PowerCrank bike and further back is certainly much better...

So, let's get to Seat Position and how to set it. In a TT position, we are all way forward. Road bike, when you drop the plumb from the knee we want it to intersect with the tip of the crankarm. On the cross bike, you want that plumb on or just behind the pedal axle. In most cases, this means you are one-half to three-quarters of an inch back from your road position...

I should also mention that on PowerCranks, I found that the lower my seat, the better I could ride them. In short, I've ended up lowering the saddles on my road and TT bikes, too, to help me pedal in perfect circles. I would also recommend the cyclo-cross rider lowering the saddle a smidge. On my road bike, my knee bend using the goniometer is 30 degrees (on the low side) but on my TT bike my bend is 34 degrees (even lower), which is what I also recommend for cross.

With this lower saddle on the cross bike, the rider will be better able to handle the bike, but the rider will also be able to better utilize his/her hamstring, an important aspect of the downstroke. The slower you go on cross courses, the more you realize you need a very economical pedal stroke – it's just not mash mash like a piston. You'll learn VERY QUICKLY that you need to pedal in smooth circles, and lowering the saddle a smidge will help you do just that.