

JPE's Guide to Buying or Building a Cyclocross Bike

While many manufacturers sell ready to ride Cyclocross bikes, here are some of my thoughts/tips on frame/fork sizing, components, bike setup, etc. Remember, these are simply suggestions, from my 10+ years of cyclocross experience, and should not be taken as gospel.

Bike Purpose

- When shopping for a cyclocross bike you have to 1st ask yourself, what do I want this bike to do?
- Do I want a featherweight race-only rig, a year round commuter/tourer that can handle fenders, full racks and panniers, or do I want a lightweight CX bike that can occasionally carry a rear rack/mini panniers for a weekend tour???
- You'll hear lots of folks go on and on about carbon fiber, scandium, etc. and that may be your gig; but the great thing about Cyclocross bikes is that there are lots of inexpensive models out there that can serve as great dual purpose bikes, too.
- Many manufacturers make their bikes suited to the above extremes, but most are designed to fill the gap, too.
- Head to your LBS with your goals firmly in your mind and let them help you steer in the right direction.
- Finally, if you're new to CX try to stick to the basics and not get caught up in the details over tires, gearing, etc. Below are my thoughts to help get you started down the right track.

Frame & Fork

Frame Sizing and Geometry:

- In some circles there is a common practice of sizing your CX rig with a 1 cm shorter top tube length than your road bike. While generally, I may agree with this practice, I do not believe it is always the best approach. Are you low and stretched out on your road bike, or do you sit more upright???. CX is not about Aerodynamics, but about bike handling and ensuring you get plenty of O2 into your lungs in the 30-60 minute race.
- Also, due to the varied terrain encountered in a cyclocross race a slightly shorter stem with plenty of spacers is often required. Start with your handlebars about 4-6 cm higher and a 1-2 cm shorter reach than your road bike, and adjust from there. Again, do not be bashful sitting "upright" a little bit, you'd be surprised how much better you'll be able to ride thru technical terrain.
- Many cyclocross bike manufacturers have adopted sloping top tubes. I am not a fan of the compact style frameset on cyclocross bikes as it makes it harder to get your arm through the main triangle to shoulder the bike for the climbs. I think "slightly" sloping top tubes are OK. On very small frames sloping top tubes are required for proper stand-over height.
- Cyclocross bikes make great dual purpose rigs, as many cyclocross frames come equipped with mounts for fenders, racks, etc. Consider what uses you require of your cyclocross rig when purchasing, as some "racy" cyclocross frames don't even have water bottle mounts.

Frame Material:

- It used to be easy to select a frame material: Steel or Aluminum. But now with different materials and grades/qualities of each, it may be hard to decide.
- Aluminum seems to have taken over as the most popular choice, I assume due to its low weight. Aluminum won't rust, or degrade as fast as steel, so it may be your best choice if you live in our Northern climates, but steel has an incredible dampening quality....a plus on rough terrain.
- If you are going to use the bike for light touring, too, ensure it has "sturdy" tubing.
- Titanium and Carbon Fiber are great, as they are ultra-light and strong, but can be costly.
- Remember, cyclocross can be harsh on equipment such as derailleurs, chains, etc., so money invested on a good frame is worth it as you upgrade parts over time.

Forks:

- When looking at forks, ensure they have provisions for racks or fenders if so required, for you.
- I love the ride of a steel fork off road, but many are put off by their heavy weight. Best for loaded touring.
- Aluminum forks are light (sometimes lighter than C-F), pretty strong, reasonably priced and have a great ride

quality.

- Just a few years ago carbon fiber CX forks were a luxury, but their costs have come down tremendously and they can be found on inexpensive CX models, now.
- Carbon fiber forks are awesome; as they are light, strong and tuned to meet particular ride qualities.
- With any fork for cyclocross, clearance for mud, fat CX tires & ability to open and close cantilever brakes w/out interference should be a concern and something you check before purchasing.
- I am not a fan of suspension forks for cyclocross racing, but if your cyclocross bike will be used in single-track often, it may be a worthwhile investment. Maybe, opt for a rigid fork with clearance for 42 width tire, and let the tire provide some suspension??
- If your bike comes with a low cost fork, you can always upgrade later.

Components:

Tires:

- There are lots of great brands, tread designs and styles (tubular, clincher, tubeless, etc.) out there now.
- Unfortunately, the wide variety available has only made it more confusing to the newcomer and asking veteran CXers for advice may make you only more confused.
- While many die-hard cyclocrossers may preach the benefits of tubulars, I recommend clinchers (32-35cm size) over tubulars, to most, for their ease of removal/installation and cost. Ritchey and Michelin are "my" favorites.
- If you are new to cyclocross try a knobbier set of tires first and upgrade to semi-slicks later as your bike handling skills improve. For most courses, I feel a knobby on the front & semi-slick on the rear, is perfect.
- Watching the pros race on nearly slick tires is proof that cyclocross teaches you bike handling skills.
- I used to not be a fan of tubulars, but have been converted. I feel the traction and performance they provide, at low pressure (~28-32 psi), with no risk of pinch flats, is well worth the hassle of gluing them on. Unfortunately, they are pricey at \$75-200/Each.
- Tubeless for CX is just catching on, and I can offer no advice.
- I recommend filling your tubes or tires with sealant. The sealant will seal up many leaks and allow you to limp to the wheel pit and/or finish line.

Tire Pressure:

- This is the #1 place where most folks (new and old to CX) go wrong. If you head out to any event you'll hear advice from 20-80# of pressure.
- So here's the deal....a tire with too much pressure will not flex, causing you to slide out in corners and bounce all over the uneven terrain. And, a tire with too little pressure will roll off the rim in turns and potentially pinch flat on the uneven terrain.
- So, start at ~40 psi and adjust up or down from there. A high volume tire (32-40 width) can afford a little less pressure. Also, a lighter rider can get away with less tire pressure than a heavier rider.

STI vs. Bar-End Shifters:

- I prefer the quick action of integrated shift/brake levers for Cross racing.
- It's "Cross," so I do NOT worry about going Dura-Ace/Record/Red quality. Heck, I think Tiagra level STI levers are perfect for CX.
- Tip: Don't over-tighten the STI levers to your handlebar; so they'll move instead of breaking if you take a spill.
- Bar end shifters are more durable and you can still use them in friction mode if you bend your rear derailleur. Also, if cost is a concern these work great.

Brakes and Braking Setup:

- I prefer to run my rear brake on the Left side of the handlebars, so I can easily apply the brakes from the handlebar tops, as I approach a dismount. This takes a few rides to get used to, but it's a worthwhile change in my mind.
- Top Mount Brake Levers: As stated above: I love them. I prefer the Salsa or Tektro brands, due to cost, ease of install/removal and barrel adjusters. Some brands mount closer to the stem, which is a plus.
- (V-Brake vs. Canti) I love the early 90's Shimano LX-XTR cantis, and I can usually find them cheap. However, lots of manufacturers are making great canti's now that use V-Brake style pads.
- Some folks run Linear Pull/V Brakes, but you need to run an adapter. I know they work great once you set them up, but I am not a fan of "adapters" as they add complexity in a place where I feel simple is better.

- The old style of Wide Cantilever Brakes is making a comeback, for their ability to not clog up with mud as easily and they open wide for wheel changes. Mafac, Spooky, or Froglegs style brakes are popular styles. Many of the newer styles are easier to set up, but usually they require a specialist to get them working properly.
- Discs: There was a big push for disc equipped bikes from Redline, Cannondale and others. I know they provide superior stopping power in all conditions, but they come with a weight penalty. However if you were to use your CX bike to commute year round or ride in very muddy conditions, discs may be a good option. Note: UCI sanctioned races (Elites Only, usually) do not allow the use of disc brakes.

Gearing:

- Here's another subject where veterans will offer up what they feel is the best option, and it may be completely different to someone else's advice.
- Remember it's a cyclocross race, and the fastest way up the hill may be running with your bike on your shoulder, so ultra low gearing is useless in my mind when it's usually faster to run, than bike up a climb
- Double Crank: 36-42 Inner & 44-48 Outer...It's all personal preference. My race bike is a 38x44 setup, and that's the setup, I like. Outer rings bigger than 48 are not required, unless you're a powerful rider.
- Single Ring Setup: I have not had any experience with this setup, but it seems to make sense for most races. Proper setup with a chain keeper and outer chain guard, to prevent "chain-drop," is key.
- Triple Road Crankset: Not required for a Cyclocross bike, but if you're bike is dual purpose rig and equipped with a triple, you can probably just run the whole race in your 42 tooth middle chainring.
- Mtn. Crankset: Converting an old mountain crank by ditching the granny ring is a great option, too.
- Cassette: I prefer a 12x26 SRAM 9 speed cassette, or a Shimano 12x27. Many folks love the low gearing afforded with a mountain bike cassette (12-32), but it may require a long cage derailleur.
- 10 Speed vs. 9 Speed: OK, I know many of the new CX bikes come with 10 speed, but I do not feel it offers you any advantages. 9 speed works just fine for CX and purchasing used 9 speed parts is usually cheap and easy.
- Single Speed: Plenty of folks have been converted to SS over the recent years. I'll have to admit the simplicity and lightweight design has made me think it's not a bad option.

Derailleur:

- Rear: I prefer to run a short cage rear mountain bike derailleur (they have stiff return springs) to help prevent the chain from dropping. Standard road or mountain bike derailleur's work great, too. Run the chain as short as possible to prevent it from dropping; no matter what derailleur you use.
- Front: I run whatever I have on hand, as this is usually a non-critical part. Run the limit screws tight to prevent the chain from falling off.

Wheels:

- It used to be you laced up 36 spoke 3 cross wheels with heavy & strong rims for Cyclocross, but that's not required anymore with improved hub, spoke & rim technology.
- While the pros (heck, lots of local Cat IV's, too) use expensive carbon rims with ultra low spoke count, most road wheelsets work great. A wheelset's durability is nearly a direct reflection of weight. Obviously, heavier riders need beefier wheels, though.
- If your new bike comes with heavy and durable wheels, you can always use them for winter training, or as your spare wheelset for the race wheel-pit.
- If you can afford to wreck your \$2000+ carbon wheelset hitting a rock in a cross race...well, the more power to ya.

Pedals:

- I am a fan of the newer Shimano mountain pedal, with its mud shedding design, and positive entry and exit "click."
- The new Egg Beaters and Time Alium XS pedals are also great designs
- It's a good idea to lower the pedal entry/release spring tension. This will reduce the chances of crashing into a barrier with your feet and shoes still attached to your bike.
- Toe Spikes on your mountain bike shoes give you added traction on the running sections.

Seatpost and Saddle:

- You're jumping on and off these 2 parts a lot, so durability (not ultra-lightweight) is a requirement.
- Many people use short travel suspension seatposts for cyclocross, such as the Rock-Shox brand. Their "Comfort" factor may outweigh their "Weight" factor, in your mind.
- I never recommend ultra-light carbon fiber seatposts, or carbon fiber saddles for cyclocross, unless you are light and can jump on your saddle "gently." Even then I'd be nervous.

Handlebars and Tape:

- Run wide handlebars; about 2-4cm wider than your road setup. You'll need the stability and leverage they provide, off road.
- Since you'll spend almost no time in the drops, mount your STI levers up high for stability.
- I love the Ritchey brand, because their design has a short reach and a large wide platform on the tops.
- I prefer the "poly" type handlebar tape. It's kind of "rubbery and tacky" feeling, doesn't absorb H2O, washes easily and comes in Orange color (Orange is Cool). Deda, Bontrager, Profile and Off The Front have similar bar tapes available.
- Planet Bike and others offer gel inserts that go under your handlebar tape. For bumpy CX, this stuff rocks.

Spare Bike:

- As you move up the ranks, you may feel the urge, or need to get a spare cyclocross rig.
- This can be an expensive venture, or not.
- Your mountain bike or hybrid, stripped of its bar ends, bottle cages, etc.; and fat tires swapped for 1.5" semi slicks can make a perfect spare rig to put in the bike exchange/wheel pit.
- Don't have a spare set of clipless pedals....no worry; flat pedals will still get you to the finish line, and last place is better than DNF.

Support Your Local Bike Shop!

- While many Internet Sites claim to be the only place to purchase cyclocross specific bikes and parts, most cyclocross specific bikes and parts can be purchased through your Local Bike Shop.
- Granted they may not be in stock, but they can order most anything and have it within a few days, and I have found them to be very competitive in pricing.

John Ericsson-- Brazen Dropouts Cycle Club, Madison, Wisconsin

jpebikes@gmail.com

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