

## **SANDY Full Review**

Several folks have been asking how we like our new Schlitter Encore 20's. Some folks don't even know what an Encore 20 is! It's an Encore - carbon-framed rear-wheel drive recumbent - with a 20" front wheel. Since the Encores are adaptable, the E20 frameset could be built with 406's or 451's in the front, and 700, 650, 26, 650b...you know the drill...in the rear.

Since we've already got a small herd of Musashis, we were most interested in having our E20's be compatible with what we already had, so we're running 700/451 and rim brakes.

We built these bikes up from framesets shipped to us directly from John and Jacquie. Packing and shipping were awesome – everything we needed was clear and well-laid out.

Received from Vite - Encore 20 frame, fork, headset, J Bars, and carbon seat. Frame is stiff, beefy, and light. They've integrated the idler mount into the seat mount - less complication. LOVE IT!

**Drivetrain**: I hadn't built a bike up for a while, so it took me a bit of time to get re-oriented to the market. Cranks and bottom bracket choices have exploded! We ended up with:

- SRAM Red cranks
- Black Box GXP bottom brackets
- Rotor Q rings (52/36, with Bill getting the blingy red aero ring to set the bikes apart).
- SRAM tt shifters mounted on Paul Thumbies. But apparently we'll be the last humans to do that; Paul has discontinued SRAM thumbies and I had to scramble to get two sets.
- Shimano 105 front derailleur a workhorse, good leverage, and it plays nicely with the Q rings
- SRAM X0 rear derailleur, long cage
- 11-36 rear cassette; effective gearing is 27-127 inches
- Cabling the bikes was straightforward; the internally-routed rear brake and derailleur housing are pre-installed. Would be nice to know whether the cables are pre-lubed; I assumed they weren't.

**Brakes** – the 451 front wheel/rim brake option on the Schlitter gives you some legwork to do. The front 451 rim brake is only caliper, and the rear is only V brake. What we ended up with is X-eyed front brakes, and TRP CX 8.4 mini-V's in the rear. The mini-V's were a bit fussy to set up, but they take the same lever pull as the X-eyeds, which means that you can have matching brake levers.

**Brake levers** – Tektro FL750's. They're simple, light, and not expensive, feel nice in the hands, and for my money would be a strong recommend for anyone using short pull rim brakes on a 'bent.

**Wheels** – part of the Encore 20 vision was that we would be able to use all the wheels we already have from our 451/700 Musashis. So – of course – what do I do while we're waiting for the Encore frames to show up? Buy new wheels! We went with dependable, durable, but not over-heavy: FLO 30 rear wheels and custom fronts: Velocity A23 rims, White Industry



hubs (red, ), 28 DB spokes. These rims are really nice – not exotic, which is fine by me, and neither heavy nor light.

Accessories: Adem headrest, Ventisit pad, Catamount cages (red), X-eyed Brain boxes.

**Build notes:** Don't overlook the included dropout shims that you'll need for a 130-spaced wheelset. *One thing the bike could ship with, but doesn't, is a spare derailleur hanger. The part number at derailleurhangers.com is 289. It's nice to have a spare on hand.* 

If you can swing disc brakes, do it! We held the line at rim brakes so that all of our wheels will work on any bike, but as fast as these bikes descend, discs would be a nice addition.

**Training rides.**..we spent about a month doing shorter rides and tweaking our position on the bikes. The thumbies came after a few rides when I just couldn't get comfortable with the tt shifters poking out of the J bars. It took longer than I thought it would to get the position nailed on the J bars. The strength, and to some extent the curse, of the J bars is that you could have ANY position. So you kinda feel obligated to try them all!

One consideration that is specific to the E20 and J bar setup is that the slacker head tube angle means that the J bars end up angling down a bit more (because the head that holds the bars is perpendicular to the head tube). I suspect that's more of a factor for smaller riders – and especially, and significantly for me, smaller riders with monster thighs. Every time I moved the handlebars back, the ends of the bars moved down more than I expected. Then they'd hit my thighs in the turn, and I'd have to make another adjustment. I don't know if it's possible to make an "eccentric" top to the riser so that the elevation of the J bar would stay constant as it moves in and out, but that's something that I'd probably like.

I was wondering if the back end of the bike was going to have appreciably more flex in it than the Catbike, which is built on the Space Frme concept and is incredibly tight and stable. The short answer: not really. The T-cycle struts/clamp system is STOUT. *NOTE: installation instructions for the seat clamps are on the T-cycle.com website; it would be great to include hardcopy with the bikes. Another suggestion would be to include a torque table for those of us building a frame at home.* 

**Position-wise,** the bike is mainly similar to the Musashi, which is a format that I'm really familiar with. Relative to the Musashi, the crank is at almost exactly the same height, the head rest is about 2" higher, and the seat pan is about 4" higher. So I am a little MORE reclined from the waist up, and a little LESS reclined from the waist down. There are distinct differences in muscle recruitment. The E20 position is working my central quads more, and my inner quads less. It will take some time on the bike, and probably some time in the weight room, to optimize our muscles for what seems like it ought to be a small change. But so far what Bill notices is less knee stress, and what I notice is less stress on my inner thighs, which are my predictably cramping muscles on long efforts. So this may be a very good thing in the long run.

**Finally, out on the road!** Our first real impression of the bikes was, "oh, my – these bikes like to go straight and fast". That is to say, they track really well, hold speed very well, and – damn. Fast. Bikes. Then we took them climbing. At least on moderate grades we were



both climbing about 1 mph faster than we expected to be. At higher grades I'm still feeling my way through the higher center of gravity, but that will come with time. So the bike is definitely good to go on the flats – and on climbs.

But if a bike that's designed by John Schlitter had to be good at one thing, and one thing only, don't you think it would be descending? Hell yes! I'm not a "go for the gusto" descender like Bill is, but even I can feel it – very intuitive, comfortable cornering. When I can feel counter-steer and be happy about it, it's a hit out of the ballpark.

We race-tested the Encore 20's at the Silver State 508, which was our first training race for RAAM. We held off a strong 4-man recumbent team for over 480 miles, proving the E20 to be a more than capable machine. The major highlight was watching Bill descend off of Carroll Summit. It had been a tough go to get up there, and a smaller, fresher racer passed him shortly before the summit. Not every bike+rider combination can pull back a 2 minute gap in 4 miles of descending – but if you had to bet on someone who wasn't John Schlitter doing that, smart money says that they'd better be riding one of his bikes.