



APPLEMAN BICYCLES: CUSTOM, MADE-IN- USA CARBON

by Clifford Lee

In 2008, Matt Appleman, an avid bike racer on the road and track, turned to framebuilding for personal reasons. He explained, "The first bike I built was for myself in 2008 to help remedy a knee injury I had for three years. Custom geometry saved the day and I could ride normally again!" He wondered, with his degree in composites engineering and work experience in the aerospace industry, why go to a custom builder when he had the background to design and build a frame himself?

Using the experience of his first bike, plus a few more he subsequently built, Appleman spent two years working on layup schedules and joint design, including destructive testing, before launching Appleman Bicycles as a full-time venture. In those defining early years, he worked on manufacturing technique and efficiency, creating a viable business that produces about a dozen bikes a year. Each handmade frame requires about 120 hours of labor. Every step is done by hand: Appleman molds his own dropouts and cable guides, and hand-miters and hand-wraps every joint. His current waiting time is five to six months, and he said his delivery has always been within a week of his estimate. The majority of his work is building one-of-a-kind custom frames, about a third of them being cyclocross frames, which is quite a big proportion for a custom builder. Appleman races cyclocross himself and said, "I did one cyclocross race when I was about 13 years old on my 35-pound mountain bike. My first cyclocross race was 'fun' enough that I didn't race again until this 2012 season. Then, I had a real blast and did about a dozen races. It helps a lot now that my bike weighs half of what it did when I was 13!"

His shop in Minneapolis is located within a community of other custom builders: Speedhound, Peacock Grove Bicycles, Vincent Dominguez, and Chris Kvale. Originally, he used tubes from ENVE Composites, but recently began working with a local composite manufacturer in Minnesota that can customize work to Appleman's specification. "I'm a Minneapolis native, born and raised," he explained. "I moved out of state after college to further my work experience in composites, and returned back to Minneapolis in 2010 to start Appleman Bicycles LLC."

Appleman's goal is to build the best carbon fiber bicycle in every respect, and that includes

building his "carbon everything" bicycle frame, eliminating bonding of metal components such as dropouts or bottom bracket or head tube inserts. His internal cable routing uses a guide tube for full cable housing runs and external cable stops are laminated onto the carbon fiber tubes rather than being bonded or riveted. He prefers Press Fit 30 to avoid any corrosion issues with a metallic insert, while simultaneously saving the cost and weight of the threaded insert. For cantilever brakes, Appleman uses a prefabricated rear seatstay arrangement from ENVE composites that includes pre-molded cantilever bosses. However, he prefers disc brakes on his cyclocross bikes and said, "On Appleman frames, the disc brake rear end is where my heart lies. With a disc brake Appleman, you get better braking, cleaner looks, internal cable routing and a deeper level of customization as opposed to cantis."

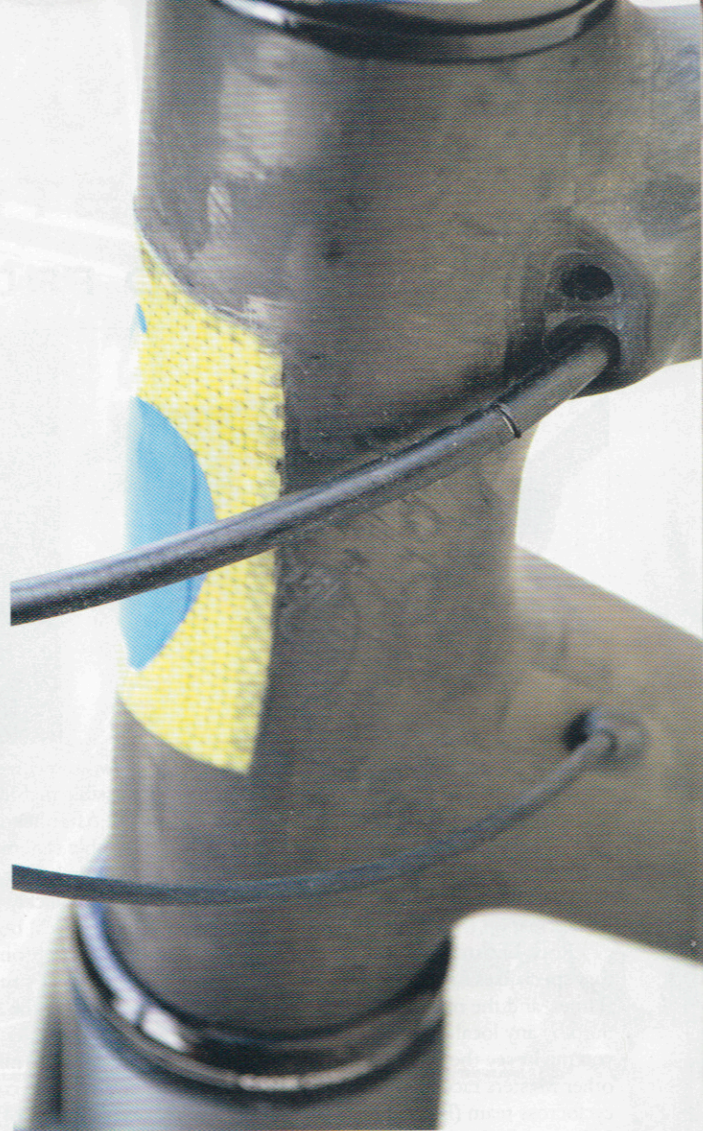
Appleman's style includes a raw, matte carbon finish, showing the carbon work and including a colored molded carbon logo. We discussed the UV resistance of the raw carbon finish versus a clear-coated version. Though the clear coat may add some surface durability from scratches and minor impact, the UV degradation isn't affected significantly either way.



Most of Appleman's present orders are word-of-mouth referrals from around the country, but his work has reached around the world.

Appleman has plans to slowly establish a dealer network, which will be a partnership with selected local bike shops, to reach out to more customers and aid the fit process. Until then he said, "With the moral support of my incredible loved ones, I do everything on my own. Framebuilding, fitting, design, repairs, accounting, marketing, shipping/receiving, and ordering materials... I do it all. I recently took over the website design/content as well." His business has picked up significantly in the past year, thanks in part to his attendance at NAHBS. Busy as he may be, he's easy to reach by email or phone if you pre-arrange the phone time with him. "I really enjoy working directly with customers," Appleman said, and you can tell by the tone of his emails or when you chat on the phone.

If you have decided Appleman will be the maker of your dream bike, you leave a deposit via Paypal and he will have you fill out his four-part online fit form. Each section can be filled out and sent in separate from the others. They include: riding style and bike desires, body measurements, present bike fit, and lastly, specific new bike options such as an integrated seatpost, clear coat, variations of cable routing, integrated



electronic shift wiring, etc. He has an integrated laminated handlebar-stem combination, similar to Calfee Design's BarStem, that eliminates the faceplate interface and improves strength and durability and saves weight. Of course, he prefers his customers to opt for this, as it is one of his signatures. Make sure to communicate bar width, stem extension and bar rotation with this option. One of his other signatures is that Appleman includes something personal related to the customer, whether it be a touch of color or something else about the finish.

After he receives your deposit and reviews your completed fit form, Appleman will make an arrangement for a phone conversation to discuss the form and answer any other questions. He likes to have the interview very soon after receiving the fit form, so initial details can be clarified and the frame can come together conceptually.

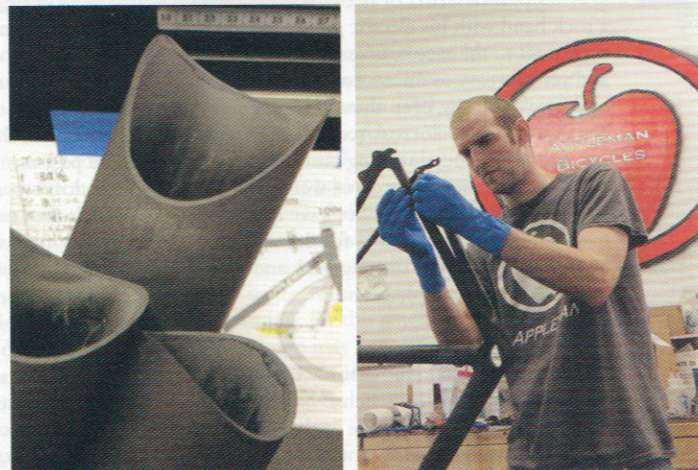
While I have certain and specific geometry preferences, I gave Appleman the opportunity to make many of the style and structural decisions so he could show the "Appleman Style."

Within a couple of weeks of

submitting the Appleman online fit form and verbally discussing my riding and aesthetic preferences, Appleman sent me a drawing of the initial bike design, along with an approval form specifying every parameter on the drawing in writing. I asked questions and gave comments and together we came up with a modified design that met his and my criteria. Based on my experience working with other builders in *Cyclocross Magazine's* "Considering Custom" series, I knew which details needed extra attention, and I think Appleman's approval system has the right amount of detail to assure that misunderstandings are avoided.

Our final design was for a race-specific "dream bike," not for long trail adventures, but for cyclocross race courses whether they be fast, wide-open power courses, or tight and technical. I wanted fast steering with minimal toe overlap and to be able to sit in to power through rough sections, yet still have the efficiency for the sand pit and finishing sprint. Tall order? Matt posted the bike on

...continued on page 84



A FIVE FIGURE PRICE TAG is hard to justify for any complete bike, but certainly defines dream bike. (Opposite, Andrew Yee)

FLUID- OR ELECTRIC-READY makes the Appleman future-proof. (Top, Clifford Lee)

MITERED MINNESOTA CARBON ready to form a frame. (Bottom left) **APPLEMAN SPENDS THREE WEEKS** hand-building a typical frame. (Bottom right, 2x courtesy of Matt Appleman)

Appleman (continued from page 77)

his website before he sent it out, which only increased the anticipation.

I received the bike, installed brakes and glued on tires just as this issue was heading to print, but I was able to get a couple of rides on familiar courses. I will only say that the bike does not disappoint in any way, aesthetically or physically. Just what the doctor ordered, the Appleman custom 'cross bike left me smiling after each ride. Look forward to our full review and scrutiny in Issue 22, after miles of mixed terrain rides and early cyclocross practices. △

FRAME AND BUILD HIGHLIGHTS:

Frame: custom U.S. manufactured carbon tubes, hand-mitered tube-to-tube construction, custom-molded carbon dropouts, PF30 BB

Fork: ENVE Cross Disc

Available Sizes: full custom sizing and geometry

Saddle: Ritchey Stream

Seatpost: Thompson Elite

Cockpit: ENVE carbon bar, stem custom wrapped as "Applestem"

Shifters: Shimano DuraAce 9070 Di2

Derailleurs: Shimano DuraAce 9070 Di2

Crankset: Shimano CX70, 36/46

chainrings

Brakes: TRP Spyre Carbon dual piston disc calipers

Wheels: HED Stinger 3 disc tubular, 38mm carbon rim

Tires: Vittoria XG tubulars

Weight: 16.5 pounds with wheels, 10.5 pounds without wheels (no pedals). Frame only: 1075 grams (2.37 pounds).

Country of Origin: Minneapolis, Minnesota, USA

Price: \$4,300 frame with headset and ENVE disc fork; \$11,300 as tested

More Info: ApplemanBicycles.com