TRIMBLE CARBON CROSS

It's like no other bike you've ever seen

Why carbon? Carbon fiber is strong, stiff, light and virtually fatigue resistant. It can be molded into any shape and when used as part of the chassis can mimic moveable suspension.

To tell the truth the *MBA* test crew could care less if Brent Trimble's carbon fiber monocoque mountain bike handled like a garbage scow in high seas. It doesn't, but the most significant thing about the Trimble is that while all the manufacturers are fussin', feudin' and fighting for some hi-tech advantage over each other Brent Trimble went out and did it. This is the future! And it is the future *now!* That contradiction defines the Trimble more than anything else we could say. Half the people who saw it loved it, and the other half hated it. It has that effect on people. It's an emotional bike.

BUILT WITH EMOTION

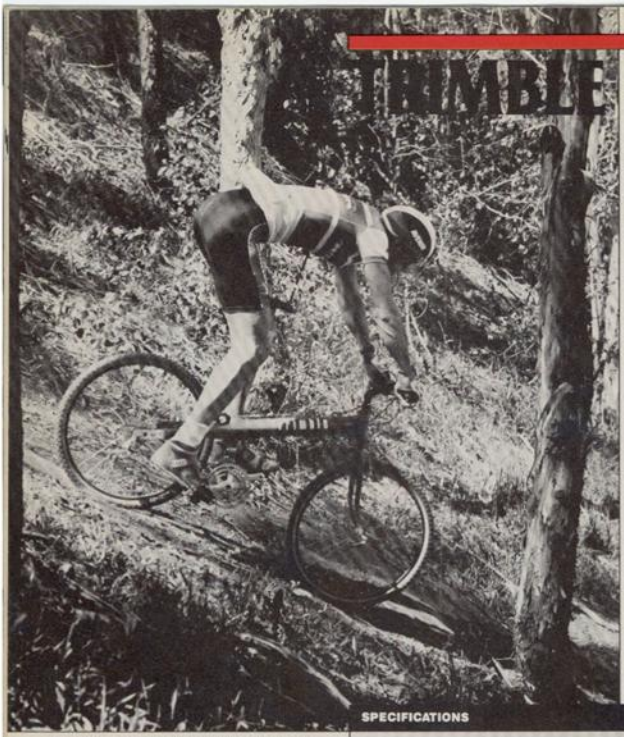
Brent Trimble isn't a scientist, he's a worker, and you can tell that by looking at the uniqueness of his design. A scientist would have brainstormed his way into alternative materials, blueprinted out a design, spent mega-bytes doing Computer Aided Design (CAD) studies and maybe in ten years pulled the wherewithal together to form a committee to see about putting togther a investment group to finance a market study. That's how scientists get futuristic things built.

Brent Trimble just went out and built it, and he built it well. The unique cross-frame, monocoque, jumbo-tubed carbon fiber frame is so basic that you know there were no committe meetings about the best way to do it. While the bicycle industry is talking about the best way to do it and about the upcoming revolution of alternative materials (i.e. carbon fiber) Brent Trimble bypassed the revolution and got down to the business of making carbon fiber bicycles.

IT ISN'T A CARBON FIBER BICYCLE

To call the Trimble a carbon fiber bicycle in the same breath as you would call a Vitus Carbon-7, Specialized Epic, Look or even a Kestral a carbon fiber bicycle is like saying that Eddy Merckx would have made a good paper boy. The other carbon fiber bikes aren't actually carbon fiber bicycles they are *alternative material* bicycles, because they are just standard issue steel bicycles with something other than steel (an alternative) in place of the three (or seven) main tubes.

The Trimble is the Eddy Merckx of carbon fiber standing amidst a field of kids on paperboy bikes.



the design, worksmanship and innovation that went into it will push the off-road envelope that much farther into improvement. But to tell the honest truth, we were the ones spending our time, energy, sweat, skin and time carving elipitical arcs across the trails on the Trimble. And innovative construction won't get you out of a major downhill tank slapper at 40 miles per. In the workshop we could care less; in the saddle we couldn't have cared more.

It's a uniquely different frame, and it throws the rider off at first. The lack of a top tube gives the bike an airy feeling, and the fact that the carbon fiber Trimble weighs less than any mountain bike we have ever tested enhanced that feathery feel. Hitting the scales at under 25 pounds puts it in a league with the Marin Titanium (another alternative material bicycle). It responds to pedal strokes with instant power pulses and can be whipped from side-to-side in a frenzied sprint with hardly any upper-body strength at all.

Thanks to its lightness, it climbs with effortless ease. Big benefits come whenever a builder gets the weight down, and those advantages are at their best in acceleration, climbing and nimbleness. These are the areas where the Trimble is a champ.

THE CHASSIS IS CLASSY

Carbon fiber is a marvelous material to build bicycles out of. It is strong, fatigue resistant and ultra-light. As the layers of material are bonded together the designer can customize the wrap to produce the exact type of strength that each part of the

Cross frame: This is the bike of the future. Maximum top tube clearance, no chain suck, the lightest bike in captivity, superb chain ring room and tuneable frame resilience. It may look odd, but get used to it.

A clean design should be rewarded. The Trimble is clean, phenomenally so! When the rest of the bicycle industry catches up to Brent Trimble this is what mountain bikes will look like (not today, not tomorrow, but someday).

Now, you are saying to yourself, wait a minute. Kestrel has taken giant steps into the advancement of carbon fiber forms, and Trek has a new model (road bike) that is based on molded carbon fiber. Let's give them some credit. Kestral and Trek deserve credit for moving large manufaturing institutions in the direction of new designs. But, did you know that Brent Trimble is, and was, one of the main players in both of those companies' designs? Credit where credit is due.

The guy came out of nowhere and did it. He built, not just another bicycle, but the bicycle of tomorrow.

NO DISCLAIMER NEEDED

MBA prefaced this test by saying that we could care less if the Trimble carbon fiber bike handled like a garbage scow because

SPECIFICATIONS

Model: Trimble Carbon Cross.
Manufacturer: Trimble Bicycles. P.O. Box 246 Berryville, AR 72616
Sizes available: 18", 20", 22".
Finishes available: Red.
Retail price: $1200 (frame and fork)

COMPONENTS
Front derailleur: Shimano Deore XT.
Rear derailleur: Shimano Deore XT.
Front brake: Shimano Deore XT cantilever.
Rear brake: Shimano Deore XT U-brake (inverted on seat stays).
Cranks: Shimano Deore XT, 170mm, 26, 38, 48.
Freewheel: Shimano Deore XT cassette, 13, 15, 18, 21, 25, 30.

FRAME
Tubing: Molded carbon fiber.
Head angle: 70°.
Seat angle: 73°.
Tob tube length: 22".
Chain stay length 17".
Braze-ons: Single rack eyelets on front.

NOTE: The MOUNTAIN BIKE ACTION test crew rides its test bikes under controlled circumstances, on private property and with respect for the environment. No wilderness or environmentally sensitive areas are used.

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Rear fork: Other bikes may have chain stays, but the Trimble has a unique rear fork that provides a plush ride, smooth lines and the potential for optimum tire clearance.

Crank arm: There is a degree of flexibility in the carbon fiber cross-style frame that emanates from the low-slung crank support. Chain ring clearance is the best in the business because there's nothing to clear.

chassis needs. Additionally, in a molded monocoque design the frame is structurally reinforced by the depth, size, diameter and shape of the form. We knew that the cross-frame layout (two intersecting tubes-one vertical and one horizontal) was the way to go for rigidity, simplicity and strength. So we were shocked by how flexible the Trimble was. It wasn't exactly a Flexy Flyer, but by the same token, it was no bridge abuttment either. It had a soft ride, and absorbed hard hits with a resilient ping.

The seat tube which doubled as the crank tube (for want of a better definition) was mated to the down tube, which split into the rear fork. Aluminum plates served as the dropouts for the rear wheel and the aluminum pieces were wrapped in carbon fiber for several inches to increase the strength of the rear sub-section. Much of the springyness emanated from the rear fork, which acted very much like a suspension system.

Depending on who you talk to in the bicycle world, the flexible nature of the frame could be either a blessing or a curse. Stiffness is a diety to roadies, but most contemporary mountain bike designers are working at getting more give into their designs for a better ride over rough ground. Trimble has used the carbon fiber in much the same way that torsion bar suspension is used on other vehicles. The structure absorbs the loads, and unwinds the forces before they get to the rider. Overall, we didn't find the flexiness (or springiness) to be objectionable in light of the Trimble's other virtues.

WHAT WE DIDN'T LIKE ABOUT IT

Even the bike of the future is subject to the *MBA* wrecking crews scrutiny. The frame will accept a wide range of riders (after all the top tube doesn't just slope away it is non-existent), but for practical purposes the Trimble is a 20.5 inch frame. It is best suited to riders who would normally ride a 20.5 inch conventional frame (5'10" to 6'). The head tube is tall, which requires a super low stem to accomodate the effective top-

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tube length. Trimble needs to equip the bike with a 4.5-inch long stem with a three- to four-inch rise (no more). The longer stem will bring the top tube, steering response and rider positioning into the ballpark.

The fork offset (and the forks aren't anything special) is an excessive 2.5 inches. This is too much offset for a bike with a 70-degree head-tube angle. Two inches of offset would stop the front end from wiggling on climbs and pushing in the turns. And it does push out in fast turns. Both the longer stem and decreased offset would cure this immediately. Easy fixes at the factory.

Front gear selection is inaccurate because of the flexiness in the crank tube/support, and the size of the tube demands that special front derailleur bracketry be made by Trimble. In future production most of the flexiness, mounting hassles and inboard clearance kinks can be worked out with minor mold changes.

Trimble set our test bike up with Bontrager rims and 1.5-inch Specialized Tri-Cross tires—poor choice of rubber for such a serious mountain bike. The small tires were light, but they knifed in the soft stuff, and really aggravated the tendency for the front end to push, washout and wander. Plus we blew the Tri-Crosses off of the rims on a gnarly downhill.

What else: Rather than your common steel or aluminum frame the Trimble utilizes a carbon fiber material that fits into a casting mold, which is pressurized to form the monocoque structure. Tube diameters are massive, but light.

Winged wonders: A steel core is the basis for the molded aerodynamic bar/stem combo on the Trimble. The steel extends most of the way up the stem (underneath the carbon) to provide added security, while the molded shape increases rigidity.

Short cranks (170mm) are only acceptable for off-road use on small frames. We would vastly prefer 175mm units on the Trimble.

Componentry is straight Shimano Deore XT, with the exception of the Tange G-Master headset. Excellent stuff.

THE BASE LINE

Even in its base prototype form Brent Trimble has worked wonders. There are flaws in his design, but they are so far overshadowed by the pluses that the glitches seem nitpicky. The frame design is the ultimate off-road chassis. It eliminates chain suck, top tube interference, chain stay tire clearance and adds new possibilities to getting an absorptive ride without the use of suspension components.

When bicycle designers sing the praises of carbon fiber remember that the song isn't complete until you blend the material and design into a perfect harmony. Brent Trimble is the maestro. □