MOUNTAIN BIKE ACTION

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YOUR EYES DON'T LIE

29"- WHEEL IN THE FRONT
26"- WHEEL IN THE BACK
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Moto'ing On Singletrack

The Carver 96'er lives up to its name

There is no denying the crossover between motocross and mountain bikes. It's a rapport that's not just about us jacking technology from Ricky Carmichael or James Stewart. Motocrossers have reaped just as much from us as we have from them. Bulge handlebars, lock-on grips, tapered aluminum, practical composite methodology and dual-tread tire compounds to mention a few. The same physics that apply to motocross suspension, traction and power delivery are very similar to what works best on mountain bikes.

BIG WHEEL PHYSICS

Motocross bikes not only use larger wheels than street motorcycles, they also use a larger wheel in the front than in the back. It's easy to see why this is so. Grab a wheelbarrow and push it straight into a curb. The curb stops the wheelbarrow dead in its tracks. You now have two choices. Either find a wheelbarrow with a larger diameter wheel, or turn the wheelbarrow around and back up and over with the wheel trailing.

Twenty-nine-inch front wheels make a lot of sense. They float over the bumps that bring a 26-inch wheel to a halt. The 26-inch size works in the back because the wheel trails behind and lifts easier over bumps, just like when backing the wheelbarrow up the curb.

THE BEST OF BOTH WORLDS

Designing a mountain bike with a 29-inch front wheel and a standard 26-inch rear wheel sounds pioneering. An idea too extreme for big brands, it's the perfect way for a custom bike builder to make a statement. That builder is a new bike company from the Pine Tree State called Carver Bikes.

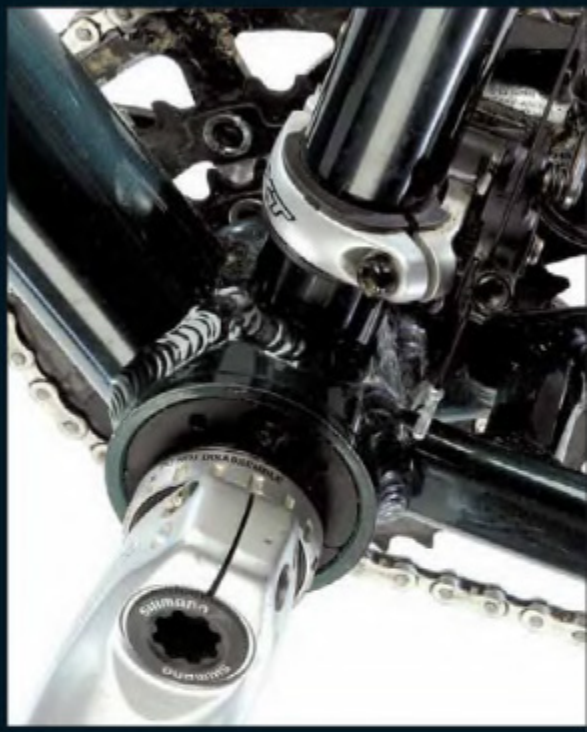
The 96'er is Carver's first production bike. The frame is designed in Maine and handmade in China. Signature characteristics include beefy hand welds, a curved top tube, machined hourglass head tube and replaceable drive-side dropout. The latter lets the owner choose between a dropout with or without a derailleur hanger. The machined, oversized, forged bottom bracket shell houses an adjustable aluminum eccentric insert.

Triple butted 7000 series aluminum is used to make the down and top tubes. The seat tube is double butted and the stays are taper butted. It takes either canti- or disc brakes. Our test frame weighed three pounds, 12 ounces.

ADJUSTABILITY AND OPTIONS

Carver's cleanly-designed, adjustable bottom bracket eccentric allows the bottom bracket assembly to be positioned up, down, in front or in the back of the oversized shell. It's possible to adjust up to an inch difference in the bottom bracket height and two degrees of seat angle. The eccentric also makes the 96'er single-speed or internally geared-hub ready by allowing the rider to set chain tension.

Carver offers the 96'er with a curved or straight top tube. It comes in custom powder coats or with a ball-burnished finish for a $50 upcharge. By itself, the frame goes for an outstanding $399. It's also sold built up as a single speed, internally geared, and with or without a suspension fork and disc brakes.



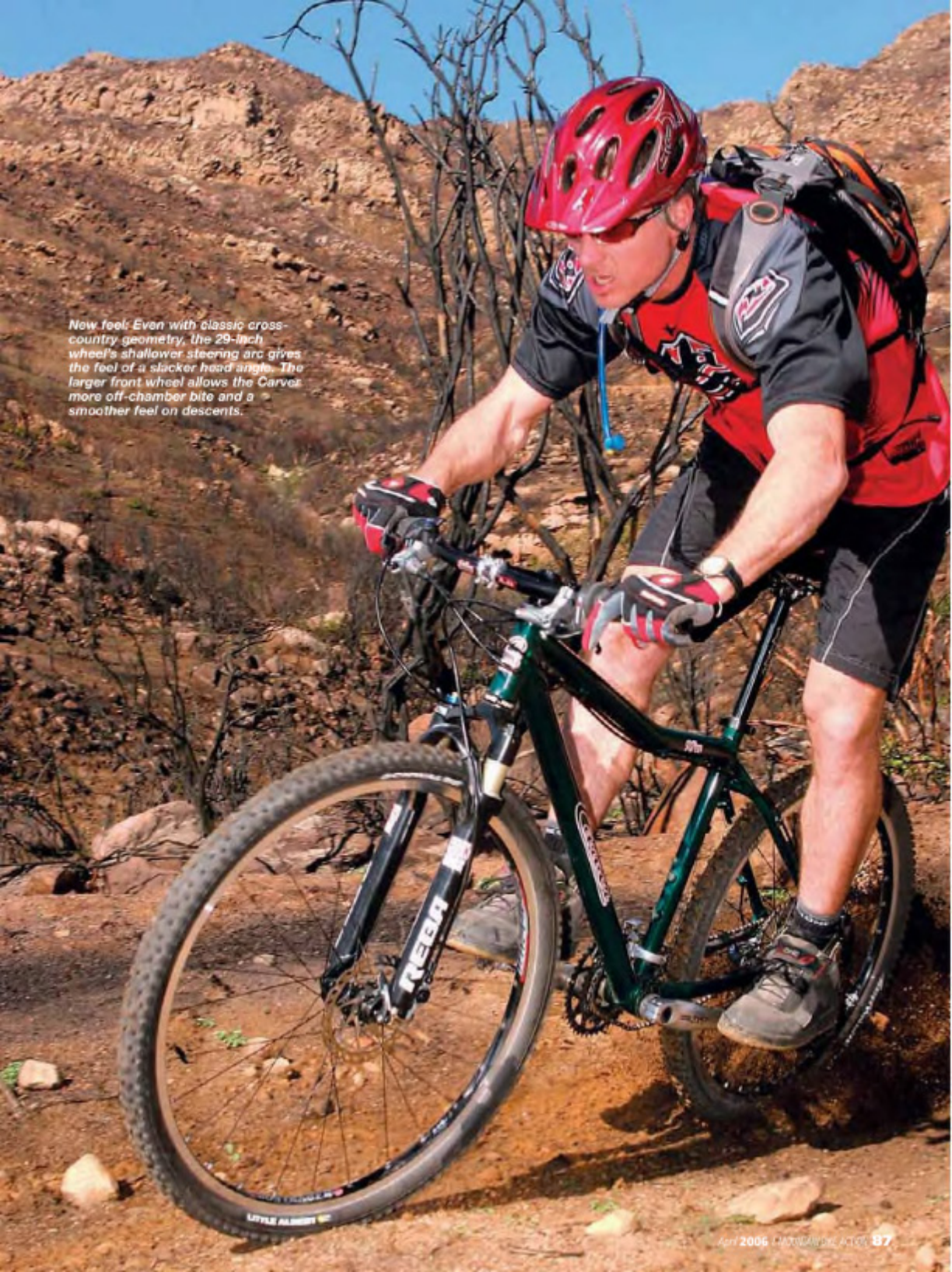
Quick tune: The adjustable bottom bracket makes the 96'er single-speed ready and allows for slight geometry tuning. Carver packages this and much more in a frame that carries a very affordable asking price.

THE 96 EXPERIENCE

We first saw the Carver 96'er early in 2005 at the Sea Otter Classic and felt the idea had a lot of promise. Travis Brown agreed. The Trek development rider raced a Trek single speed later in 2005 that experimented with the same 29-inch front and 26-inch rear wheel combination. The Carver idea was attracting attention, so we had to find out what all the fuss was about.

First feel: The Carver felt a little taller at the bar than your average 26 incher, but a quick measurement revealed that the grips were less than an inch taller, which means a good part of the feel comes from the larger wheel, as well as its slower turning arc when leaned.

On the gas: Don't confuse the slow turning arc with slow steering. When you turn the bar, the 96er responds just like good cross-country geometry should. What the 29-inch wheel's shallower turning arc means is that it is less affected by the lean angle of the bike—a trait beneficial to mountain bike handling. The 96'er sprints like a dragster with a pointed feel and full power transfer. When maneuvering technical singletrack, the



New feel: Even with classic cross-country geometry, the 29-inch wheel's shallower steering arc gives the feel of a slacker head angle. The larger front wheel allows the Carver more off-chamber bite and a smoother feel on descents.

Bigfoot: A 29-inch wheel smoothly rolls over the terrain that will bring the 26-inch size to a halt. The trailing 26-inch wheel easily claws up the same obstacle. Carver's 96'er combines the best of both worlds.

bar stays straighter and the Carver simply motos over choppy ground.

Rolling over bumps: It rules! Bikes that use two 29-inch wheels have sluggish, stop-and-go acceleration. The Carver isn't like that; it feels like a conventional, responsive bike at the pedals. The 29-inch front wheel takes a smooth lead that helps keep the bike flowing through the roughest, most undulating terrain. On the 96'er, you get up to speed quicker and hold more speed when coasting.

Climbing: More praise. The 96'er is unaffected by the trail chatter that causes a bike with a 26-inch wheel to pause and reconsider. You point the Carver straight up and go. The larger front wheel adds stability that all but eliminates scissoring the bar while negotiating tricky climbs.

Descending: The 29-inch front wheel gives the Carver purpose. When you lean and turn, the wheel steers just the right amount. The larger-diameter wheel tracks better through soft dirt. On the Carver, there's much less chance of washing out or making a handling faux pas.

29 INCH ISSUES

Toe overlap (when your foot comes into contact with the front wheel in a turn) may be an issue for some riders. We never experienced it when trail riding, but when doing a nose wheelie and a 180 tail whip, the front tire hits your toes. This will become a bigger and bigger problem on the two smaller Carver frames with shorter top tubes—or if you adjusted your bottom bracket to the forward position.

Big wheel issues: The toes can make contact with the front tire while turning tightly during slow speed riding. This rider's clearance problem could be eliminated by adjusting the bottom bracket to a more rearward position.

Since you have two different size wheels, you'll need to carry twice as many tubes. A 26-inch tube can be stretched to fit a 29-inch wheel in a pinch (get it?), but it's not optimal.

IS A 96'er IN YOUR FUTURE?

This test proved to us that there is no limitation to mountain bike design. The Carver is a great bike that handles rough singletrack better than any hardtail we've tried before. It rolls like a 29'er without the design limitations of trying to stuff a 29-inch wheel into a frame that barely fits a 26-inch wheel. What remains to be seen is how well this concept applies to full suspension and how well it stands the test of time. The clock is ticking, so we'll keep you posted. ❑

CARVER 96'er

Price...$2395
Country of origin...China
Weight...22.9 pounds

Size tested	18.5"
Bottom bracket height	11.8"
Chainstay length	16.8"
Top tube length	23"
Head angle	70°
Seat tube angle	71°
Standover height	31"
Wheelbase	42.8"
Suspension travel (front)	3.1"
Suspension travel (rear)	None

Frame material	Aluminum
Fork	RockShox Reba Race
Shock	None
Rims	Bontrager Race Lite (fr)/Bontrager Mustang (r)
Tires	Schwalbe Little Albert (2.1")
Hub	Bontrager Race Lite (fr)/DT Swiss (r)
Brakes	Hayes El Camino
Brake levers	Hayes El Camino
Crankset	Shimano XT
Shifters	SRAM X.O Gripshift
Front derailleur	Shimano XT
Rear derailleur	SRAM X.O
Chainrings	Shimano (44/32/22)
Cassette	SRAM PG990 (11-32)
Pedals	None
Hotline	(207) 442-7840