



M O U N T A I N B I K E A C T I O N T E S T

# CROSSTRAC SONOMA

*A beamer with a 4 on the floor*

■ What do you get when an ex-European road racer/photographer and an aerospace propeller-head engineer join forces to produce a full-suspension bicycle? That's what Tibor Fischl and J. Scot Strom decided to find out. These two men developed the Crosstrac Sonoma, a four-inch-travel, boom-tubed, subframed, high-pivoted, size-adjustable, air-oil, stamped-alloy, high-buck machine. If all that stuff sounds like aerospace, try outer space! These Crosstrac dudes haven't quite joined the fat-tire world, but at least they are in geosynchronous orbit.

MBA has tested Crosstracs in the past. After the stunned expressions left our faces, our initial impressions were favorable. There are still test riders of those original Crosstracs who rave about the bike's custom long-travel fork. To hear them tell it, a cyclist could smack a doghouse without actually feeling the impact. Four inches of front wheel travel would turn most mountain bikes into a 24-speed

marshmallow, but the Sonoma remained steady beneath us. Whenever these test riders start getting misty about that Crosstrac of the past, we remind them that there were downsides to the aerospace package. Their expressions quickly change as they vaguely recall the aspects that really got under our skin. Hmm . . . what could those things have been?

Oh, well, Tibor and J. Scot explained (these guys can talk endlessly about their product) the myriad of improvements that they had incorporated into their latest version of the Crosstrac: new fork seals and a switch to five-weight motorcycle shock fluid. "That's right," said a test rider. "I still have an oil spot on my bedroom floor from the first Crosstrac." Also on the improvement list are new fork and shock valving, higher bottom bracket, upgraded front brake mount and new reinforcements at the swingarm and seat strut attachment points. Every time Tibor and J. Scot told us of an improvement, a previ-

ous peeve drifted up from the depths of our memories.

It's strange how memory plays tricks on you. Some test riders remember only the good, others only the bad, but when we rolled the '94 Crosstrac Sonoma out into the California sun, the past was forgotten. This was a new bike!

#### SONOMA'S SCIENCE PROJECT

The Crosstrac features recognizable traits from other successful high-pivot designs. A monocoque, sheet aluminum swingarm and bolt-on, alloy, subframe, seat tower are very Mountain Cycle-esque. The Crosstrac's 2.5-inch-diameter boom-tube front section can be found on Cannondale's Super-V also. Cloning is a good thing, because the Crosstrac, Mountain Cycle and Super-V are all successful renditions of high-pivot, non-active suspension systems. If all three have evolved to a similar configuration, there must be a good reason.

Starting up front, the Sonoma has an

◀ **Crosstrac Sonoma: The frameset retails for \$1700 with seatpost, stem, fork, bottom bracket and Dia-Compe Aheadset. The combination of stamped monocoque swingarm, boom tube main frame and spider-like seat tube subframe give the Sonoma an otherworldly look.**

alloy, air-oil fork that is manufactured at Crosstrac's own northern California factory. The four-inch-travel unit has a wide, CNC-machined, billet fork crown which clamps oversized 1.25-inch anodized alloy fork tubes. The fork sliders are thin, polished, bonded alloy tubes with a combination fork brace/cantilever mount clamped to the backside of the fork. The rear-mounted cantilever brake counters the outward twisting that occurs under hard braking by friction generated at the rim. In laymen's terms, the rear-mounted cants have a mechanical advantage over their front-mounted cousins because brake forces pull the Crosstrac brake towards the brake bosses instead of away. One Presta valve delivers air to both sides of the fork via a clear plastic balance tube (running from cap to cap above the fork crown). Old motorcycles and some off-road racing cars have had crossover balance tubes, but we don't like it. It's just another thing hanging out there that can go wrong.

Fork action is smooth and there is a "float feature" in the fork valving that allows the front suspension to move easily for a half-inch up or down before engaging the resistance of its main compression and rebound piston.

#### THE MAIN FRAME

Crosstrac only produces one-sized boom tube frame-spine for all members of the fat-tire race. This solitary main tube is bent, drilled, tabbed, threaded and TIG-welded from one end to the other. Everything on the Crosstrac originates from this one tube. To reduce costs and accommodate various-sized humanoids, the seat subframe articulates forward or back in addition to the requisite vertical motion. This adjustable seat tube subframe changes the bike's effective seat angle. The difference between the tallest and shortest member of the *MBA* crew is 75 to 72 degrees. If you are choosy about your seat angle, Crosstrac suggests picking a longer or shorter stem as an option. We don't think either of these are win/win solutions because compensating for seat angle with stem length doesn't have positive effects in the handling department.

Crosstrac makes its own rear damper. The rear unit has a Presta-valved plastic balance tube that connects the rear of the slender damper to a Firestone rubber air

**Best-case scenario: The rougher the trail, the better the Sonoma (and the test riders) liked it. Not a great sprinter, climber or road bike, the Sonoma's long-travel suspension needs a reason to work. Abject pounding gives the Sonoma a reason to exist. ▶**

bladder (which functions as the rear spring). What the balance tube does on the shock is classified information. Every time the *MBA* test crew referred to the air bladder as a "plumber's helper," Tibor and J. Scot went ballistic, so we promised not to mention the "Power Plunger" again. The plumber's helper-like (we lied) bladder has a large air volume that thankfully makes the Crosstrac shock a low pressure system. Only 50 to 70 psi is needed to suspend *MBA*'s test crew. Both ends can be serviced with a bicycle pump.

The shock is driven by a TIG-welded monocoque swingarm. The boomerang-shaped sheet aluminum box section is arched high above the Sonoma's front derailleur, giving the unit plenty of room to clear big downhill chainrings (a big concern for high-pivot designs). Square-ish, utilitarian rear-entry dropouts finish off the design. We would be remiss if we didn't report some of the things test riders said while trying to remove the wheel from the rear entry dropouts, but there was a 19-minute gap in our office tape recordings. It wasn't nice.

Our Crosstrac is outfitted with titanium hardware, which is standard on the company's top two versions. Overall, the

Crosstrac's construction is very good. The bike is definitely ready to boogie out of the box.

#### COMPONENT LOWDOWN

Our Sonoma is built up as an ultimate custom bike. The company offers what amounts to a potpourri Ritchey/GripShift/Shimano/Hugi ensemble for its regular complete bicycle spec. The heart and soul of our test Crosstrac transmission are '93 Shimano Deore XT derailleurs and a Deore XT 12-30 seven-speed cluster. Cranks are Ritchey Logics with 24/36/46 chainrings spinning on a White Industries Ti bottom bracket. GripShift directs the chain to the proper sprockets. White Industries also supplies the hubs that house the 32-spoke rear and 28-spoke front aero-profile Sun Mistral rims. The 15/17-gauge spokes support wide, 2.2 Ritchey Megabyte Z-Max blackwalls.

Brakes are Dia-Compe's 986 cantilevers with Ritchey pads and SunTour servocams (instead of straddle cables). Grafton brake levers control deceleration. In the rider's compartment, multi-position handlebars ensure a multitude of hand positions. A 125mm, negative-ten-degree stem helps keep the tall bike's handlebars as low as practical. A carbon-rail Bontrager saddle finishes off the ensemble.



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## MARKINGS & MEASUREMENTS

Our Sonoma weighs in at 25.5 pounds as tested. Front and rear suspension travel is an abundant four inches. Chainstays are right on at 16.625 inches and the bike's wheelbase is a short 41.625 inches. The Crosstrac's bottom bracket height is a surprisingly low 11.625 inches. Because the Sonoma has a dual-adjustable



**Rock and roll:** By loosening the seat collar clamp the seat tube can be adjusted across a 4° arc. Some test riders hated the fact that they had to mess with the seat tube angle to get the top tube length dialed in. Those who took the time liked the bike "beaucoup" more.



**Big fork:** If this looks like the front of the Sonoma fork, turn the page and hold it up to a light. Crosstrac's 4"-travel air/oil fork has the cantilevers and fork brace mounted on the back side of the 1.25" fork legs. The air forks use a crossover tube to balance air pressure.

seat tube, the bike's theoretical top tube measurement and seat angle are variable. A quick check revealed that a 22-inch top tube length generates a 75-degree-plus seat angle and a 24-inch top tube works out close to 72 degrees.

The one-size-fits-all frame is available in three configurations: Sonoma frame kit, Sonoma Ultra and complete bike. The Sonoma frame kit includes a seatpost, stem, frame, fork (with a Ti steerer), bottom bracket and a Dia-Compe Aheadset for \$1700. The Sonoma Ultra includes the basics listed above and a White Industries Ti bottom bracket, complete Ti hardware kit, sealed headset and your choice of three colors for \$2300. Want a complete bicycle? Add another \$1250 for a Shimano Deore XT, Ritchey WCS/Logic, GripShift and Hugi-equipped flyer. An extra-large subframe is available. Transparent powder coat colors are Ultra Green, Ultra Blue and Three-D Orange. Call Tibor or J. Scot at (707) 874-1874.

## SONOMA, SONOMA ON THE RANGE

Most MBA test bikes and test riders can be matched, more or less, by fooling with the handlebar controls and moving the saddle or seat post on one plane. Theoretically, the Sonoma requires the same. Although adjusting the Sonoma's subframe is a simple and straightforward process, some of the MBA staff wimped out, drawing the line at raising or lowering the seatpost. This is a mistake! Those who take the time to set their approximate top tube length are rewarded with a more balanced ride (slackers risk ending up with odd-length top tubes and unbalanced handling). The procedure is simple. Measure your old bike's top length (from center of head tube to center of seat tube on a horizontal plane) and then duplicate that measurement on the Sonoma.

Once set up and ready for the dirt, the Crosstrac doesn't display any bad manners in the handling department. It works like this:

**Cornering:** The front end requires a little heft on the outside handlebar to keep it carving tight corners and the Sonoma's custom wheels cause some grief when the bike is pushed to the limit. The narrow rims aren't wide enough to support the bike's huge 2.2 Z-Max tires. The leverage at the bead causes the rubber to squish around under cornering loads. Rather than leaning the Sonoma through each bend, the best technique is to steer it through and bank the bike into the turns with your hips. The bike responds better when it is being shoved around a bit.

**Downhill:** The Crosstrac is most fun in rough, choppy, fast going. Even under hard braking, that big fork keeps working hard. The front suspension proves the benefits of more travel. It soaks things up.

Conversely, with the rear brakes on, the Crosstrac effectively becomes a hard-



**Plumber's helper:** The rear suspension is unique and different. The springing is handled by a rubber air bladder, which is pressurized through a presta valve. The valve does double duty by charging the shock's compensator chamber at the same time. Weirdly different.



**Hate, hatred, hateful:** For some reason Crosstrac put difficult-to-use rear entry dropouts on the Sonoma's swingarm. To make matters worse, the axle nuts are recessed into the machined axle plate. Safety dropouts on the rear? Give us a break—or a hammer.

tail bike. Brake forces stiffen the rear suspension to the point of lockout very quickly. Keeping a light hand on the rear brake lever is the key to control, especially when entering tight turns. This is a tough juggling act: high speeds, bumpy entrances and a light touch on the brake. Obviously, if you don't do it right the rear end has a tendency to brake-slide. The brakes are good, but lack a firm feel at the lever. Even so, once test riders had a few minutes on the bike, all but one said modulation was no problem (switching the Grafton levers to a lower pivot would return some feel).

Although the swingarm is very stiff under pedaling loads, laterally, the box section moves around. The lateral flex only rears its head when the rear end breaks loose in bumpy, sweeping corners. The rear tire chatters around until the rider can put some weight back on the tire.

**Climbing:** Working the Sonoma out of the saddle feels solid at the cranks and a bit soft in the suspension. Any long-travel bike is going to feel strange at first (especially on climbs). Test riders who owned full-suspension mounts had no complaints in the climbing trials. Although the rear suspension is inactive even under a slight pedaling load, the Sonoma's fat Ritchey tires, tallish handlebars, built-in negative travel and short chainstays virtually pin the rear wheel to the dirt.

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**Sprinting:** Hammering this bike like a track sprinter is not an efficient act. The Crosstrac Sonoma is at its best when all-out efforts are made with a smooth application of copious amounts of power. Out-of-the-saddle sprinters should be careful when maneuvering out of the saddle: the Crosstrac fork's wide crown can collide with a rider's kneecap (ouch!).

## ENVELOPE, PLEASE

What do you get when you join an ex-European road racer/photographer and an aerospace propeller-head engineer? A bike like no other! The Crosstrac is one of those bicycles that requires a week or so to get acquainted with. The front-rear shock bias is pretty close (which is an improvement over previous Crosstracs and especially for a high-pivot design). The key to enjoying this bike is in taking the time to dial it in to fit your riding style. The Sonoma seems to be at its best tackling varied terrain on long, adventurous, epic rides. It's light, tough and, surprisingly, easy to work on. Few suspension bikes (if any) can offer four inches of useful suspension travel at both ends. We think this bike is a bit too tall for riders on the small side of the scale (5'6" or shorter based on handlebar height). Its designers built the Sonoma as an all-around cross-country specialist. In this role, the Crosstrac Sonoma is well placed. □