



MANTIS XCR COMPOSITE

Off-road Ferrari



Certain riders demand qualities not found in all-steel or all-aluminum frame-and-fork sets: riders like former Supercross Champ Mike "Too Tall" Bell, for example. The torsional forces and all-terrain abuse a big guy like Bell can put on a bike are overwhelming. The hybrid XCR Composite rallied with rigidity and steel snap while offering the comfort and off-road damping qualities of aluminum.

Some people just gotta have the best. Nothing else will quite do. They fly Lear jets. They own original Picassos. They drive Ferraris, and, chances are, if they're into mountain biking, they ride a Mantis XCR Composite. The membership fee for this elite all-terrain club is a breathtaking \$1650. What you get for your investment is the dreamlike Mantis you've been praying for—an off-road Ferrari.

TEST-DRIVE DREAMS

Currently the Mantis XCR Composite is offered a couple of different ways: as a separate frame-and-fork set for...hang on...\$850

or, like our tester, a complete ready-to-race hand-built bike for right around \$1650. You can spend more if you wish. It's easy.

Our test bike was meticulously prepped for us by the largest Mantis dealership in the U.S., Sea Schwinn, located in Costa Mesa, California. In the sales department, it can't hurt that Sea Schwinn is the premier local dealership in Newport Beach, California, a capitalist's dream city with a rumored median income of \$70,000. Locally, Newport Imports sells Ferraris, Lagondas and Jaguars. Across town, Sea Schwinn sells their two-wheeled, human-powered counterparts. Please, whatever you

do, darling, don't spill your espresso or crumble your croissant while Gucci-loading your way through Sea Schwinn's thick-pile carpeted showroom of bicycle exotica. And show some control, huh? Don't drool on the Mantises. Besides, you might get some on your gold Rolex.

FORMULA 1 FRAME AND FORK

The man behind the Mantis is Richard Cunningham. For the last five years or so, Cunningham has been quietly handcrafting bikes out of his efficient yet modest Anaheim, California, shop. In the world of serious backcountry cyclists, his bikes are legendary for their innovative design, plush high performance and dreamy finishes. For years the Mantis man preferred to build bikes of super-light steel, complete with hand-braided, perfectly radiused joints finished in immaculate lemon polyurethane paint. Super-light steel bikes could easily be built as Cunningham so skillfully proved with his early Sharp and XCR models. But not without compromising the bikes' strength. In search of super-light weight, more than a few early prototypes, as they say, lightweighted out. However, these early experiments occurred after years of accumulated abuse by dirt riding demented who lie awake at night dreaming up ways in which to snap \$1000 handcrafted chassis like brittle twigs. Cunningham's early test pilots read like a veritable list of who's who in So-Cal off-road racing: Rye Sharp, Joe Skoup, Todd DeAngelis and former National Supercross motorcycle champ Mike "Too Tall" Bell, to name just a few. The stress these guys put a bike through in a season of riding, racing and training, most recreational riders wouldn't be able to put a bike through in a lifetime. These people are truly sick.

BEST OF BOTH WORLDS

In the midst of all this brutal R&D (riding and destroying) Cunningham had a vision: a hybrid off-road frameset combining featherweight, heat-treated aluminum with the stiffness of steel stays and forks. The result is today's Mantis XCR Composite. Up front, a triangle of oversized, heat-treated aluminum; in the rear, stays of 4130 chromoly. This lethal combination allows for ridiculously low vehicle weights. It is not unusual for a full-sized, ready-to-race XCR to weigh in at 27 pounds.



Besides bolting internally at the bottom bracket, the XCR Composite cleanly fastens at the top tube/seat tube junction. Beautiful chrome plating coats hand-brazed steel stays, while Incon polyurethane paints over meticulously heli-arc'd aluminum. Mantis' nylon carrying strap is invaluable in the outback.

Strip them of their two empty bottles and alloy cages, chromy Slice pump and clean carrying strap, and you've dieted away yet another pound! That's 26 pounds naked! That means there are a lot of embarrassed, skinny-tired road bikes out there.

These two previously incompatible metals obviously can't be welded, so they are, believe it or not, bolted together. The chromed chromoly seat stays fasten cleanly to the massive aluminum top tube, while the beefy chain stays join almost invisibly via an inner bottom bracket bolting system. Combined with the sanitary 4130 chromoly Unicrown forks, this unique chassis has a ride all its own. It displays the plush ride and superior road damping qualities of aluminum, with the no-whip stiffness and response of a short steel rear end. The Mantis flies!

FERRARI FIT

Cunningham slaps his bikes so you can ride an inch-smaller frame than you normally would without feeling cramped. Combine the longest top tubes with one of the Mantis' three custom chromoly stems, and the XCR offers plenty of room to move about. You'll need it. The key to making the Mantis fly is weight distribution. That's why Cunningham contends that bikes with 68/73-degree head/seat angles and bikes with 71/71-degree angles both work. It's not so important what the angles are, but rather where the weight is. The XCR emerges as an incredibly balanced bike. Weight shifts to counter changes in terrain require only subtle movements. Our 21-inch tester, with its twin 71-degree head and seat angles and super-short 17-1/4-inch chain stays, climbed like a bighorn sheep, seldom losing its sure footing in steep terrain.

Whether we were hammering out of the saddle or sitting tight, the Composite constantly surprised us. Previously unrideable sections that had plagued us over the years became rideable. Even through slippery shale or rhythm-breaking chatter ruts, the Mantis sticks to the ground. Possessing the power to climb is one thing. Putting that power to the ground and keeping it there has always been the trick. The Mantis is a hillclimbing magician.

COMPETITION COMPONENTRY

Up until now, we haven't really gone into the componentry supplied on our XCR. And we won't. What you choose to bolt on your frame-and-fork set should be a very personal thing. Our tester came equipped with pre-

XCR

dominantly SunTour XC running gear, Araya RM-20 rims, Ritchey Quad trees, Shimano's excellent HB-MN-72 sealed hubs and Specialized triple touring crankset. Again, as we said earlier, you could spend more. It's easy.

Some other nice touches that bear mentioning are Mantis' super-sano sealed bottom bracket. It's simply two .35mm oversized sealed bearings retained on one side (chain ring) by a shoulder in the BB shell and on the other by a single circlip. Removing and replacing this bulletproof bearing setup is a snap.

Another clean setup is the riveted and threaded cable guides. No messy heli-arc blobs here, just sanitary threaded-in cable guides riveted on under-the-bottom-bracket routing. Very clean. And we can't forget the pump peg on the seat stay bridge or the welcome nylon carrying strap. The closer you look, the better the XCR looks. Details, that's what you're paying for. Details that make you, and your riding look better than they've ever looked before. That leaves only one little detail... money. Speed costs. How fast do you want to go? ☐



Look closely. No, closer. The blissful but unlikely marriage of 6061 T-6 aluminum and 4130 chromoly consumes almost invisibly inside the sanitary sealed-bearing bottom bracket via internal bolting. Overall fabrication quality is dreamlike.



SPECIFICATIONS:

MODEL: XCR Composite
 MANUFACTURER: Mantis Bicycle Co., 350 E. Orangehouse, #21, Placentia, CA 92683; (714)993-4821
 SUGGESTED RETAIL PRICE: \$860 frame-and-fork set, \$1650 complete bike
 SIZES AVAILABLE: 18", 19", 20", 21", 22", 23", 24"
 SIZE TESTED: 21"
 FRAME: Composite, 6061 oversized aluminum front triangle, heli-arc welded, 4130 chromoly rear triangle, heli-arc brazed
 FINISH: Front triangle painted with polyurethane enamel, rear triangle chromed. Custom paint available on request
 DIMENSIONS: HEADSLIDE: 43-1/4" BOTTOM BRACKET HEIGHT: 11-3/4"

FORK OFFSET: 1.58" HEAD TUBE ANGLE: 70° SEAT TUBE ANGLE: 70° TOP TUBE: 24-1/2" CHAIN STAY: 17 1/4"

WEIGHT: 27.5 lbs. when water bottles and cages, Slice pump, carrying strap
 *Note: All dimensions are for bike tested. Tube lengths are measured center to center unless otherwise noted.

TEST BIKE SET UP: Araya RM-50, hand-anodized alloy rims, Shimano HB-MN-72 alloy, 16-splange, quick-release, sealed hubs, 14-gauge stainless steel spokes, Ritchey 28" x 1.50" Quad tree (40-48 psi), SunTour XC group including roller cam brakes, front and rear derailleurs, droppers, brake levers, seatpost (26mm), Specialized crankset, 175mm 48T/36T/24T, Turo saddle, Mantis chromoly stem, alloy bars.