

CURTLO MOUNTAINEER

• True Temper has an investment in the steel bicycle. As the only American manufacturer of high-quality butted bicycle tubing, the Tennessee-based steel company has seen their production increase 400 percent in the last couple of years. More and more American mountain bike builders are turning to True Temper for their tubes. Why? Why not go to the traditional sources like Italy, France or Japan for tubes? True Temper has built their growing clientele by being responsive to the needs of small mountain bike frame builders, by building short-run one-off tube sets and by being flexible.

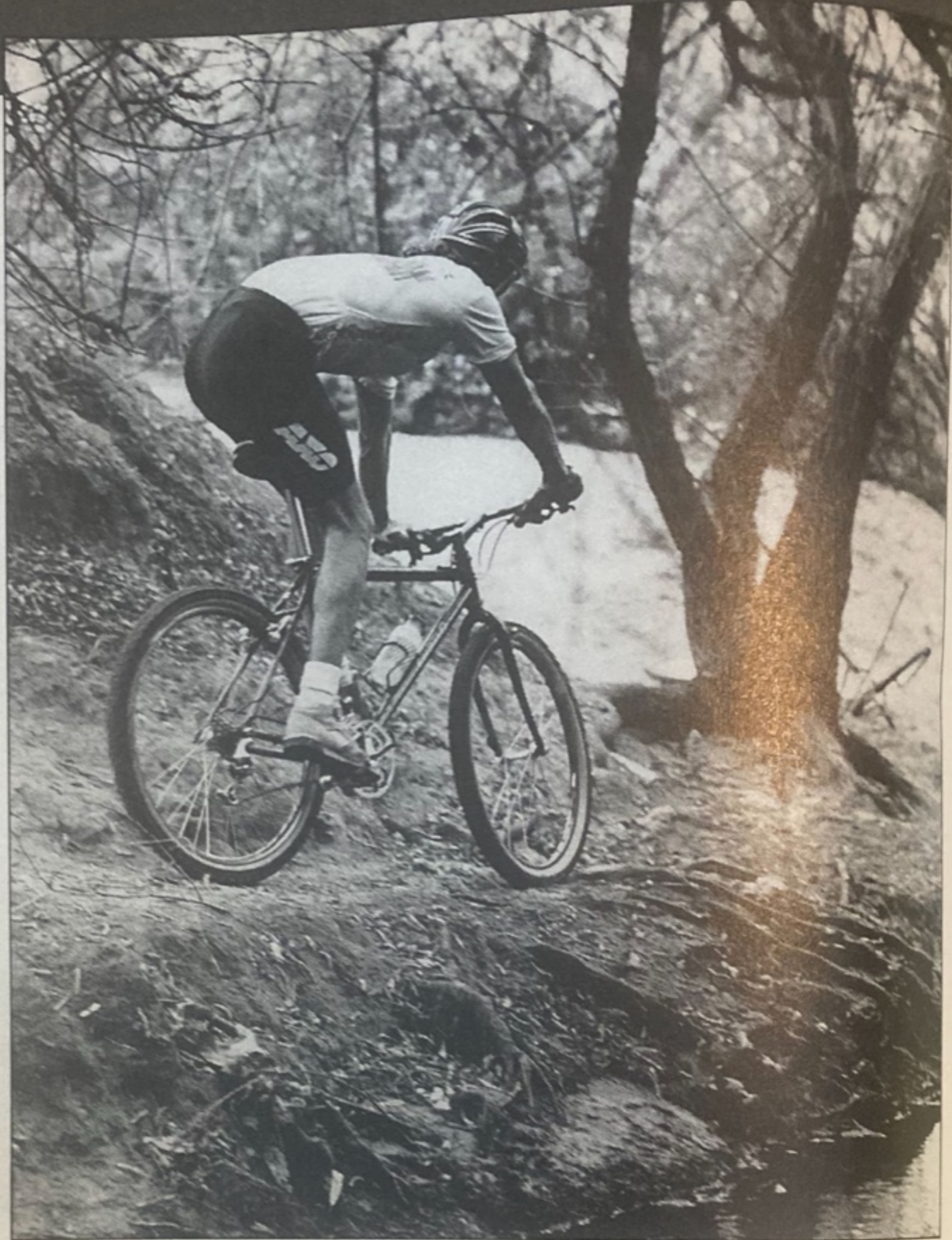
It's important to note that bicycle tubing is not the same as steel tubing, pipe or conduit. The demands of bicycle builders are so unique that tubes drawn for high-end bicycles have to be made with no other potential customers in mind. The end result is a small number of companies capable of investing in the technology that can be used by only one industry. True Temper joins Tange, Columbus, Ishiwata and a handful of other tube manufacturers in the battle to keep steel on top.

STAYING ON TOP

To guarantee future sales the steel manufacturers have to be responsive to the needs of the bicycle business, but not just the mass producers. The small builders play a bigger role in mountain bike development, design and direction than they do in road bikes, BMX bikes, discount bikes or juvenile bikes. Tubing companies that can supply the small builder, who makes up for his low production runs with high-profile consumer awareness, have a better chance of garnering increased business down the road.

That is where a corporate giant like True Temper and a custom bicycle company like Curtlo join hands. Curtlo isn't a big-name mass producer, but they have a need for special tubes, maybe a greater need than a giant manufacturer because of their desire to stay on the leading edge. Thus Curtlo chose to go with True Temper OX Ultra tubing for the 1990 Mountaineer.

OX Ultra offers Curtlo the terrific weight-to-strength ratio that has fueled the oversize movement. Historically, oversize tubing has been a trademark of the mountain bike, but the modern trend towards oversize tubing isn't driven by the limitations of available tubing as in the past. Today's mountain bike builder has a wide range of quality tubes to select from. The oversize choice is a practical one because the larger-diameter cross-section allows the tube to be made of thin-wall material. Somewhere on the graph the increased rigidity of oversize tubes meets the decreased weight of thin-wall tubes to pro-



Mini-brazed: The Curtlo Mountaineer uses American-made True Temper OX Ultra tubing and hand-held California brazing.

duce the perfectly balanced combination of weight and strength. The goal: a frame that is strong in the right places, absorbent when it needs to be and as light as possible.

THUS COMES THE CURTLO MOUNTAINEER

Curtlo brazes together the oversize True Temper tubes to form the basis of the Mountaineer, but old-fashioned fillet brazing is relegated by the Curtlo boys to the realm of artwork, not reality. The excess buildup material and the stylish filing that were the hallmark of previous brazed frames worry Curtlo. They have developed a low-temperature process called "mini-brazing" that allows them to build a small fillet around the joint with less heating time. The result of less heat, less filing and less material is a stronger tube. It's no secret that fillet brazing is rife with dangers (as far as tube strength goes). The excess heat weakens the tube strength and finish filing often removes too much material or notches the joint to form a stress riser. Mini-brazing gives Curtlo a

clean, smooth, unfiled and strong joint.

Mini-brazing isn't new or original with Curtlo, but it is part of the renewed concern about the proper use of steel tubing. What's the sense of starting with a heat-treated tube if you are going to barbecue the strength out of it?

WHAT ABOUT THE BIKE?

Our 19-inch Curtlo Mountaineer was a beautifully built bike. It showed off-road savvy at every angle and bend. The 70/73 head/seat angles are classics that are hard to fault. The 70-degree head angle may seem slack to riders weaned on the ultra-steep bikes of modern ad copy, but a 70-degree head angle mated to a medium-length 22.5-inch top tube, long five-inch stem and accurate 1.8-inch offset fork produce as light a steering as any 72-degree bike made.

There is a trend to bust the 11.5-inch bottom bracket standard in 1990. Race bike builders tend to go lower, while trail bike designers are going for 11.75 inches. There are handling differences between the two extremes, most noticeable at high speed, but on the Curtlo we liked the 11.75-inch ground clearance. Since it's a custom bike with options available, we don't feel that the lack of eyelets or rack mounts pushes the Curt-

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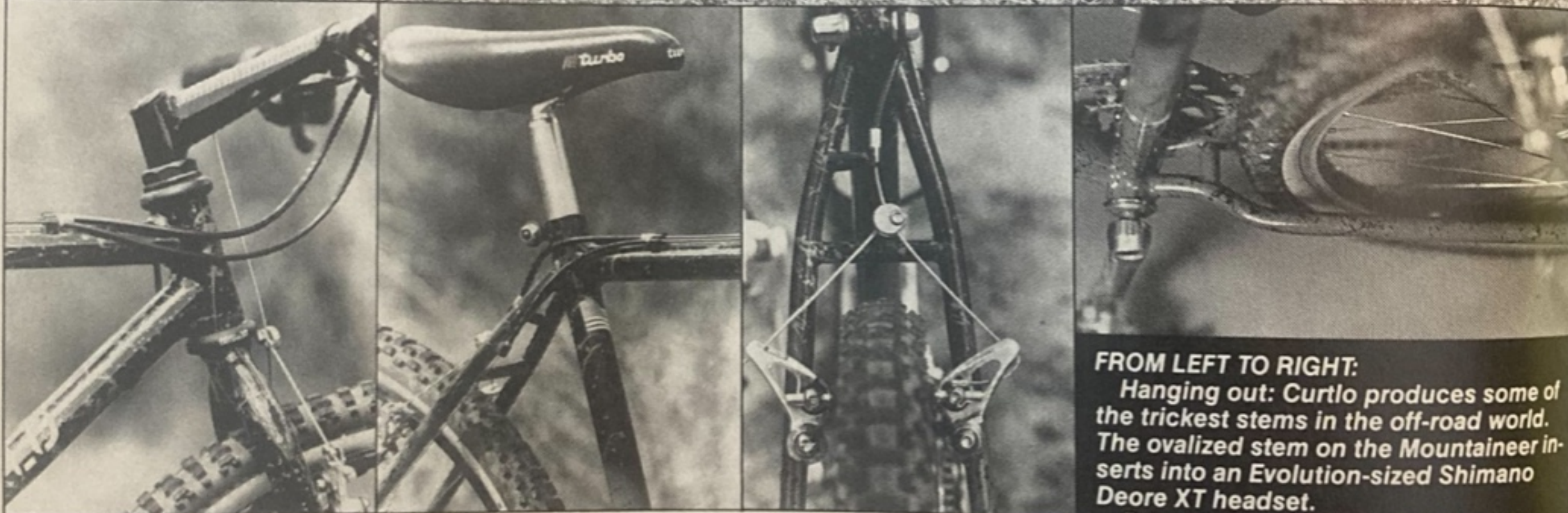
Manufacturer: Curtlo Frames, 26356 Rainbow Glen Dr., Newhall, CA 91321; (805) 251-9582.
Sizes available: 16", 17.5", 19", 20.5", 22".
Finishes available: Coral red, grabber blue.

Suggested retail price: \$1700.

COMPONENTS

Front derailleur: Shimano Deore XT STI.
Rear derailleur: Shimano Deore XT STI.
Front brake: Shimano Deore XT cantilever.
Rear brake: Shimano Deore XT cantilever.

Cranks: Shimano Deore XT, 175mm, 46/36/24.
Freewheel: Shimano cassette, 12-28 T.
FRAME
Tubing: True Temper OX Ultra.
Head angle: 71°.
Seat angle: 73°.
Top tube length: 22.5".
Chainstay length: 16.8".
Braze-ons: Dual water bottle.



FROM LEFT TO RIGHT:

Hanging out: Curtlo produces some of the trickiest stems in the off-road world. The ovalized stem on the Mountaineer inserts into an Evolution-sized Shimano Deore XT headset.

Driver's seat: A classic SunTour XC seatpost slips into a reinforced seat collar. The top-driven brake and derailleur cable are housed in Mountain Goat cable guides. Patriotism and True Temper tubing account for the American flag.

Diet-conscious: Simplicity is the handmaiden of good design. Curtlo uses a one-sided post as the rear brake cable guide. Components are Shimano Deore XT.

Switchbacks: Curtlo's chainstays feature the Gary Fisher-popularized S-bend that allows for improved tire and chainring clearance. Eagle eyes can spot the ovalized seat and down tube.

lo solely into the mode of NORBA racer.

Chainstays are S-bend tubes that have been popularized by Gary Fisher. This swerving design offers improved chainring clearance and good tire clearance. The 16.8-inch chainstays are constructed out of untapered .75-inch tubing. Seat stays are .625 inches.

Cable routing is two up and one down. We vastly prefer three top-driven cables. After all, if it makes sense to get two cables up out of the mud, why doesn't it apply to the front derailleur cable? Curtlo uses Mountain Goat Bi-Stop cable guides to flow the cables smoothly down the right side of the top tube.

The oversize tubing (1.250-inch top tube, 1.375-inch down tube and 1.250-inch steerer tube) is carried over into the forks. The gradual taper and slight bend of the fork

blades allow for uniform flex in the 1.125-inch fork blades.

Weighing in at 26.5 pounds, the Curtlo Mountaineer is reasonably light for a bike that didn't take any component shortcuts. The shifters, derailleurs, hubs, brakes and cranks are all Shimano Deore XT Rapid Fire units. Obviously, the customer is able to choose his own component package when buying a custom bike, but he would have to go some to improve on the SunTour XC seatpost, Mavic rims, Bicycle Group Reaction tires, Answer Taperlite bars, 1.250 Fisher-sized Deore XT headset and ultra-trick Curtlo stem. Nice construction touches are obvious in the ovalizing of both the down tube and seat tube at the bottom bracket, reinforced seat collar and slightly sloping top tube.

Retail price for the Curtlo Mountaineer is approximately \$1800, although frames are available for \$935. Curtlo proves that steel isn't dead and that even the ancient arts (fillet brazing) can be given new life. □