

Gary Klein claims to be one of the originators of the welded aluminum, oversize-tubed bike. It was back in 1972 that he first built an aluminum track and road bike as a personal project in his spare time while taking chemical engineering at MIT. Since then, he's gone on to build high-end racing and touring frames that emphasize extreme lateral rigidity, long-distance comfort, and super light weight. His boron-reinforced aluminum bikes explore the lower limit of weight-savings practicality, floating onto the scales at 18 pounds or so.

I've ridden his road bikes. The first time I threw a leg over an aluminum bike was a cycling thrill to behold. The bike, a Klein Stage, being so stiff and light, leapt forward with each pedal stroke. It not only performed well, it also looked as if a lifetime of effort went into the bike's construction and aesthetics (big tube aluminum bikes need all the help they can get in the aesthetics category).

When Gary showed his entry into fat-tire land at the New York trade show last March, though, I balked. "Square chainstays?" I muttered to myself. "MIT education or not, this guy's been breathing too many welding fumes." But Gary presented a sensible argument for them. "I wanted to use a 26-inch rear wheel with a 2.125 tire and still keep the rear

THE MOUNTAIN KLEIN

The king of super stiff lightweight road bikes enters the world of fat tires

By Tom Walz

triangle as tight as possible. To get the tire and crank clearances I'd have to crimp round stays until they were square anyway." All I have to say is ugly, ugly, ugly, but okay, Gary, if it can bring a Klein mountain bike to the world for under a thousand bucks, have at it.

Square chainstays or no, I was delight-

ed to pluck our test bike from the box and see a nice loud red paint job. I feel that mountain bikes have to have outrageous colors. Gimme red, yellow, violet, orange, chartreuse, fuchsia or puce. With closer inspection, the Klein touches started to appear—internal shift cables and what's this? Radially laced wheels? (Sound the Death March.) Road weenie mentality comes to the surface. Mr. Klein, do you know what some of these high-intensity dirt riders do to their bikes?

"Aww, those wheels aren't what the bike will come with," Gary said when I called about the bike. "We had the bike ready to go but no wheels. We just scratched up the parts and threw them together." Boy, I wish I could throw together wheels like that. The hubs are tandem units from Hi-E and modified by Klein to fit the 130 mm mountain bike rear over-locknut width. Laced to these beauties are Araya's new lightweight RM-20 (485 g) rims. Thanks to the thick flanges on the hubs, it is possible to put radially laced wheels on a fat bike. "Ordinary hubs would self-destruct in short order," says Klein.

The Mountain Klein frame is an excellent piece. The welds are clean and everything is finished so that one tube flows into the other. Gary has been riding off-road for the past few years, but not until recently did he decide to build a

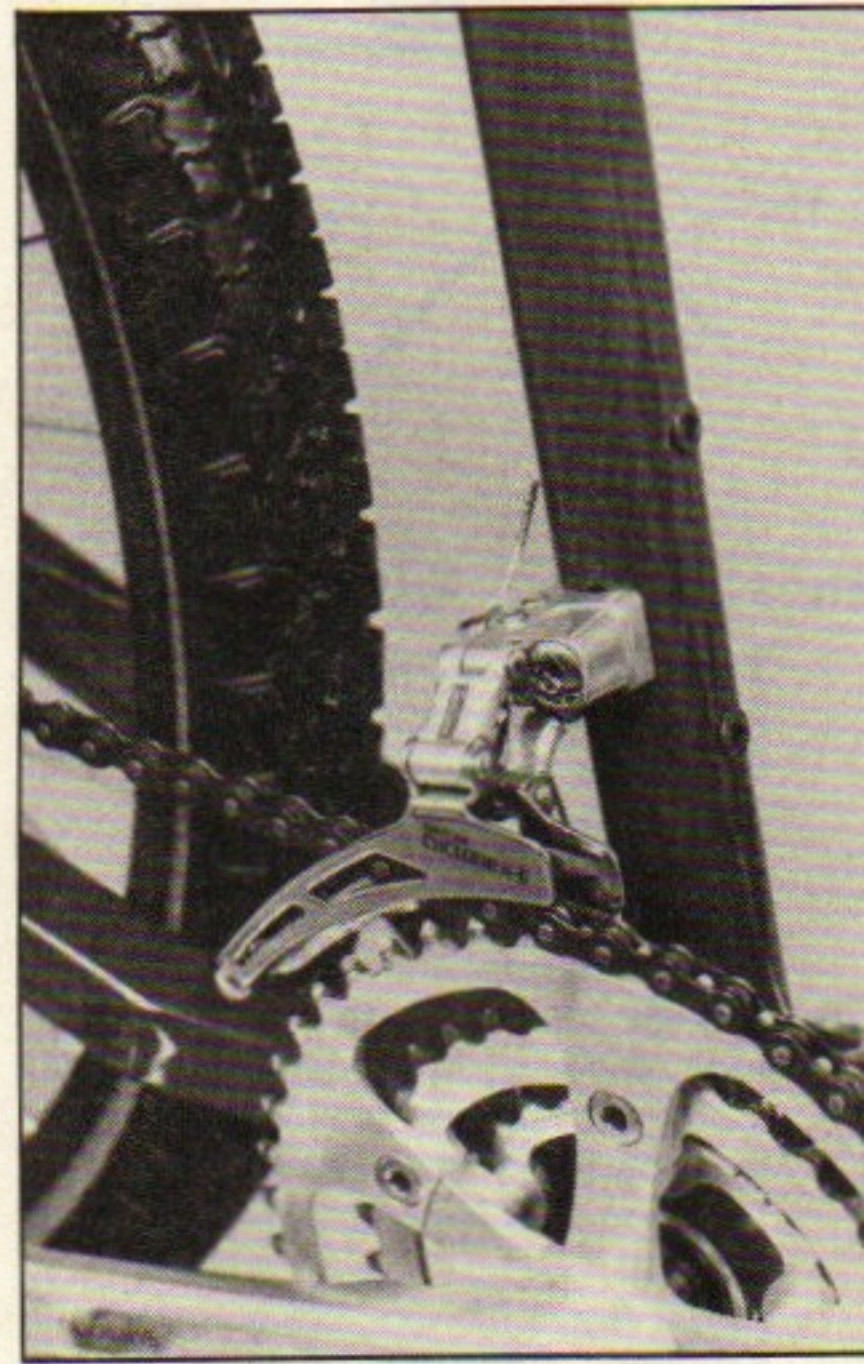


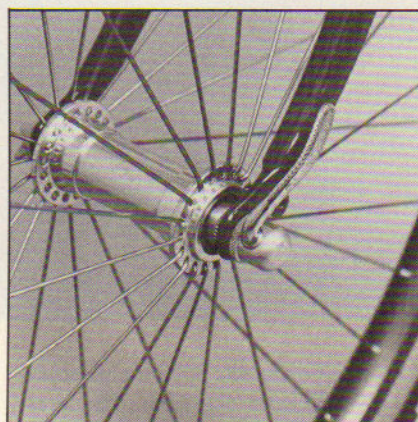
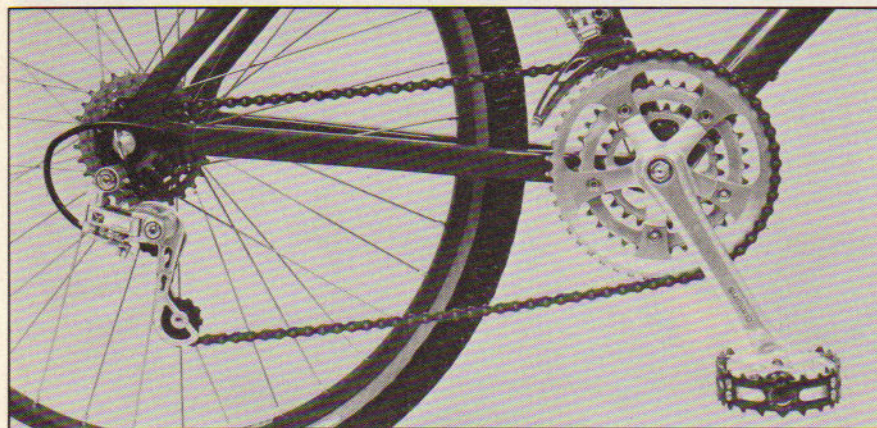


mountain bike of his own. When the time came, he didn't spend months in front of a drawing board devising the ultimate bike. He simply talked to riders and studied existing designs, mixed this knowledge with his penchant for a light, stiff bike and came up with the Mountain Klein.

Klein followed the fat-tire philosophy of form follows function. The great mountain bike philosopher, Fat Eddie, says, "If it looks pretty but doesn't work, who cares, it's dumpster food." Klein agrees, and that's why this bike sports square chainstays and a non-traditional sloping top tube. These clever features

At just over 24 pounds, the Klein is the lightest mountain bike we've ever tested



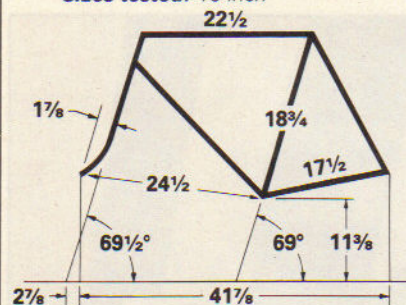


MOUNTAIN KLEIN

\$965 (price may vary; wheels in test optional)

Sizes available: 19, 21, 23 inch

Sizes tested: 19 inch



Total weight: 24 lbs, 2 1/2 oz

Frame without fork: 3 lbs, 13 1/2 oz

Fork only: 1 lb, 10 1/2 oz

Front wheel only: 3 lbs, 15 oz

Rear wheel only: 4 lbs, 8 oz

Frame: 6061-T6 aluminum tubing; Klein dropouts rear, Shimano front; bosses for two water bottles, top tube cable guides, derailleur cable stops and guides, brake cable stop, rack (on newer models) and fenders. Shimano 600 sealed cone and cup headset.

Rims: Araya RM-20, 485 g

Spokes: 36 spokes, 14 gauge, laced radial front, radial/cross-three rear

Hubs: Hi-E low flange front, high/low flange rear, cartridge bearings, quick-release

Tires: Avocet/Ritchey Quad XC, 26 x 1.9, 45-80 psi

Crank: Shimano 600, 175 mm arms

Derailleurs: Shimano Deore XT rear, SunTour Cyclone M-II front with SunTour Microlite thumb ratchet-type shift levers

Freewheel: SunTour New Winner (Shimano on newer models)

Chain: D.I.D. Lanner

Saddle: Cinelli, nylon base with leather cover and foam padding

Seatpost: American Classic, double bolt micro-adjust, 280 mm long, 27.4 mm diameter

Brakes: Shimano Deore XT cantilevers with SunTour XC levers

Pedals: SunTour XC-I beartrap

Handlebars: Specialized heat treated upright, 24 inches wide, with Grab-On foam grips and SunTour XC stem

GEARING in inches:



**	24	34	45
	14	45	63
	16	39	55
	18	35	49
	21	30	42
	25	25	35
	30	21	29

Manufactured by:
Klein Bicycle Corp.
207 S. Prairie Rd.,
Chehalis, WA 98532

and a host of others are incorporated into a unit that feels like a winner.

The major thing that makes the Klein a delight is its ultra-light weight. Gary is a light weight fanatic and he has, without a doubt, succeeded in paring off the ounces beyond any dirt rider's dreams. How does he do it? With big touches like his large-tube, thin-wall aluminum frame, and little ones like the Hi-E tandem hubs and Omas aluminum quick-releases.

At a shade over 24 pounds, this is *the* lightest mountain bike I have ever ridden. Just as a bantamweight frame and gossamer wheels make a road bike more responsive, there's something special about a light mountain bike. The Fat Chance Team Compe (tested in our June issue), the Stumpjumper Team, and the Klein are all lighter than average, and they all feel more alive than their competition. They dash up hills and accelerate like they have rockets in their chain-stays. On the Klein, I zipped from one of Mother Nature's little challenges to another, looking for the next hill or wild whoop-dee-doo.

The rigidity versus weight trade-off seems to pay off more towards the light weight side in mountain bikes. How could that be? Long cranks mashed by standing riders must flex a frame like crazy, right? Sure. However, off-road hills are much, much steeper than road hills, and dragging those couple extra pounds up a hill in the name of Gibraltar-like stiffness makes a noticeable difference. A penalty in bottom bracket rigidity is more than worthwhile. Also, a flexier frame doesn't beat you up as much. This is a major concern if you intend to spend hours at a time aboard the bike.

But is the Klein all that flexible? Highly unlikely, knowing Mr. Klein and his passion for stiffness. So it beats you up a little, doesn't it? No, it doesn't. Aluminum's ability to absorb shock is better than steel's. I rode on pavement with 80 psi in the tires and road shock was at an entirely tolerable level. I remember the time I tried 90 psi in the tires of an early Ritchey. . . . Ouch.

No bike test goes by without a couple beefs. The Klein's liabilities lie not in its impeccable frame, but in the parts hung upon it. The SunTour Micro-Lite shifters landed on earth slightly after the stone age of mountain bikedom. At one time they were the way to go, but no

more on a bike of this quality. All of the test riders as well as myself would rather see SunTour's new XC or Shimano's reliable XT levers on such a fine bicycle. Gary and his crew also decided that SunTour's Cyclone M-II front derailleur was the best they tried. After the test horde and I adjusted and readjusted this particular road bike mechanism, we came to the conclusion that this decision was definitely a bunch of equine byproduct. The first derailleurs they should have tried, Shimano's Deore XT or SunTour's XC, are designed for mountain bikes and work great. The Cyclone doesn't have sufficient reach to throw the chain across three chainwheels mounted on a wider fat-bike spindle, nor does it cope well with mass quantities of mud and water.

As the mechanic here at BG, I'm the one burdened by trick stuff whether it is cool or not. Klein's internal shifter cables on our model are a nice touch but just not cool when it comes time for assembly. After slipping the cables into the great void of that humungous down-

tube, it takes about twenty minutes to fish the wires through the proper holes at the other end. Fortunately, newer models will have internal tubes to guide the cables through, easing the lives of us chrome-spinners.

Another beef I have is with aluminum headsets. The Klein has one. Every aluminum headset I've used on a mountain bike—including the one on the Klein—loosens up after just a few miles of thrashing. It's bad enough having to fiddle with these troublesome bearings before every ride, but to have to adjust them *during* a ride is ridiculous.

Despite the minor problems we had, this bike still was one of the test team's favorites. "It's like a pit bike. You can throw it, whip it and zip around tight places effortlessly," said Fat Eddie. "It's so light and responsive it almost feels like a BMX bike," said Harry, a.k.a. The Beast From the East, who eyed those radially spoked wheels with bad intent. Harry's efforts availed him nothing, by the way; the wheels were bumped, jumped, slid and crashed, and held true

throughout it all. Still, they may be trick and rad, but if I had a choice, I'd feel better with a stout pair of cross-four laced wheels beneath me.

The Mountain Klein we sampled was serial-numbered 004. Among the changes you'll see in standard production models will be the wheels. They will most likely have Shimano XT or SunTour XC hubs and a cross-three or -four pattern (if you want the radical radials you can have them on special request). Also, Klein plans to mount a SunTour Power Brake (roller cam) on the rear under the chainstays. This is the only bike on which these brakes may work well in this location because Klein's design will protect the cam from fouling with mud. Other future add-ons include rack mounts and a Shimano freewheel.

I was delighted to see Klein producing a bike for a price that, compared to his magnificent road machines, is relatively inexpensive. At the going price of \$965, you get a super lightweight, agile and well-equipped fun bike that can take on NORBA races right out of the box. □

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