RIDE IMPRESSION/ NEAK PEEK

ANSWER MANITOU SUSPENSION BIKE

The Answer Manitou is no newcomer to racing. Travis Brown has been riding prototypes all year, and the R&D time certainly appears to have paid off in such a dialed-in bike.

There's a certain strangeness to all of this. The Answer Manitou is both a known commodity and an uncertainty at the same time. Doug Bradbury's rear suspension design and subsequent bikes have been around for a while, and while the price tag for his bikes is high, we've never met a rider who didn't like the ride of a Manitou.

On the flip side, all previous Manitous have come out of Doug's Colorado shop. Not just most, all. If you've seen a Manitou suspension bike, it wasn't one of Answer's new production Manitous.

That's where this feature begins. Rather than test "out there" prototypes, we waited patiently for the first available "production" Manitou. After all, we know that Doug builds nice handbuilts, but can that translate into full-blown production units? That, for us, was the real question.

While Answer made many advanced prototype pieces, parts, and frames, "P-day" finally arrived. A call came over our Bat Phone, announcing the news of the first production units. At that time also came an inquiry, asking if we'd like to get one of the first batch. You needn't even bother to guess what our answer was.

Other than a few minor adjustments, the bike we got was off the same line that bikes in the shops will be. (The first Manitous will be appearing in bike shops by October.)

DOUG'S DAY

In keeping with our philosophy of testing bikes in the light of their designed purpose, we spoke with Doug Bradbury about his intentions. A rider himself, Doug set out to build a suspension bike for more than just downhilling.

"It had to climb well," he told us. "If all you want to do is go down the Kamikaze, this isn't the bike for you. I wanted to build a suspension bike that worked going uphill as well."

To accomplish this, Doug was a lot more "minimalistic" in his approach than the bike actually appears. Doug believes that unless we get a lot stronger, unless we stop going uphills, and unless we stop riding technical single-tracks, there's no reason for two-plus inches of travel on both ends.

Having tested a lot of bikes boasting tons of travel, Doug felt the bikes lost some of their best qualities. His design would do everything possible to minimize the problems of those bikes, meaning too much bouncing around, and keep the good qualities that riders enjoy from rigid bikes, namely a lack of flex, an abundance of stiffness, and excellent overall handling.

In talking with Answer, it was pretty impressive to see how little they tried to influence Doug. Carte blanche is the term *that comes to mind in trying to describe* the parameters Answer gave Doug. "We're going with his design," an Answer higher-up told us. "If Doug said an 18-inch high bottom bracket and 17-inch top tube is the best thing, that's what we'd make. That's how much we believe in him."

Answer isn't exactly blind to everything, though. What worked so well in the case of the Manitou suspension fork is what Answer is hoping will come through on the bike. And what worked so well is Answer's ability to manufacture very high-quality items in a reasonably short period of time, and for reasonable cost. They don't want to build the most of anything, but they do want to build the best.

While many Bradbury devotees may not want to hear this, we believe it to be the case: Answer has probably improved on Doug's designs by being able to manufacture with more consistency and to more exacting tolerances. That's one of the benefits of having a full-time machine shop, welding shop, fabrication shop, and R&D center all under your own roof. (By the way, of the parts that Answer does sub out, they're notorious for rejecting parts that don't live up to spec. With a lot of former aerospace suppliers nearby, quality control is not something Answer has had problems with.)

FUN STUFF

The frame begins with a sound Easton Program 7005 series heat-treated main section. On the face, it's pretty plain and simple. Big oversize tubes are used all the way around, as Doug is a devoted oversize disciple. The head tube gets extra reinforcing rings at the headset area, designed to help keep the head tube nice and round during manufacturing and serious off-road abuse.

As for angles, you get a 70.5-degree head angle, and a 73-degree seat angle. Again, pretty basic on the surface. Doug measures the seat tube from the center of the bottom bracket to the top of the seat collar. Ours was a 17-inch model, measuring 16.75 inches at the top of the seat collar. The effective high for a horizontal top tube would be 18.5 inches.

As we head back, though, things start to look a lot different. First off, the bottom bracket appears somewhat high. Ours measured 12.375 inches high at the crank spindle center, which is a bit high. BUT!!! Doug does this so that under the sag of a rider's weight, the bike will be in the high eleven-inch range, exactly where he (and we) like it to be.

Chainstays, well, Doug is somewhat of

Doug designs it, Easton tubes it, then Answer puts it all together. The rear swingarm is very well executed, clean in design, and it works. The only trade-off is a little bit of bobbing, but only during hardpack and road riding. And lateral flex? Not much, thank you.

What's that, adjusters on the forks? You betcha'! They're not only better than the original forks, they make it easy to balance front and rear suspension of the bike.

The first riding impression of the Answer Manitou fully suspended mountain bike!

a single-track climbing fanatic, so the 16.375-inch chainstays, while short in measurement, don't come as any surprise to us. Add in a little more than 25 inches of front center, and you get a total wheelbase of 41.5 inches.

Despite the idiosyncrasies of the geometry, it's nothing compared to the interesting stuff going on with the rear suspension.

The first thing to catch your eye is the rear suspension crown. Behind and below the seat collar is a simple bracket holding the first set of Teflon-impregnated nylon bushings. The bushings hold a piece of drilled, milled, manipulated, cut, chamfered alloy that looks like something from inside an aircraft wing. It's one of the most impressive pieces we've ever seen on a mountain bike. Likewise, to some of our riders' eyes, it was also one of the scariest. Immediately the "flex" flag went up.

The rear crown holds the two rear suspension units in place. These are, in effect, shortened versions of the famous Manitou front forks. The final production units will have hard-chromed alloy stanchions, while ours used chromo units. The net difference will be a slight loss of weight. The elastomers in the unit are virtually the same as in the front. We got about 1.25 inches of visible rear suspension travel, though the Answer engineers tell us a touch more is actually occurring inside.

A second set of bushings is mounted at the lower rear shock pivot. These help the units travel smoothly, limiting stiction along the way. These pivots, by the way, are three-plus inches above the rear dropouts, keeping all the working stuff well out of harm's and the rear gear area's way.

The swingarm is another sweet piece. It begins as specially drawn 7005 aluminum from Easton, but gets the full Answer treatment. The forward pivot is just behind the top and trailing edge of the bottom bracket. (More on this critical placement later.)

We noticed the long welds on the swingarm, joining the pivoting "horseshoe" piece up front and the dropouts in the rear to the chainstay arms. All the pieces are joined along long diagonal joints, creating weld areas that are long and strong. And speaking of the "horseshoe" piece, it's another piece that gave the machinist a lot to do.

MANI-ONE, MANI-TOU, MANI-THREE

The tech stuff kept us intrigued for a while, but honestly, we got on the bike and

ANSWER MANITOU

FRAME & FORK:	Easton ProGram 7005 series aluminum main, Easton 7005 series suspension.
SIZES:	15, 17, 19, 20.5
WEIGHT:	26 lbs.
PRICE:	$2500 (includes frame, Manitou fork, A-Tac stem, Shimano XTR front derailleur, and custom seatpost)
MORE INFO:	Answer Products 27460 Avenue Scott Valencia, CA 91355 (805) 423-0273
HEAD TUBE ANGLE:	70.5°
SEAT ANGLE:	73°
EFFECTIVE TOP TUBE LENGTH:	22.75"
CHAINSTAY LENGTH:	16.375"
FORK RAKE:	1.5"
BOTTOM BRACKET HEIGHT:	12.375" (unloaded)
WHEELBASE:	41.5"
REAR WHEEL TRAVEL:	approx. 1.5"

rode it before we tried to figure anything out. (Can you blame us?) Here's what we learned.

Let's start off with the worst first. Leg clearance isn't great. As Doug stated, "I know I'm pushing the limits there, but I believe in wide spacing." Doug's custom bikes have oversize width spacings both front and rear to prove it. While we never smacked anything, we did do our share of rubbing and glancing. It never happened when pedaling in the saddle, it was only a factor when standing up, usually when riding off the back of the saddle such as on descents.

Next, a couple of our riders sensed a small amount of independent shock movement in the rear. Translated, that means flex. In all fairness, though, our rear brace was not up to spec. Answer has since gone to a brace without the cut-outs ours had. Likewise, our swingarm wasn't up to material and heat-treating spec. That, too, would yield a little under hard pedaling pressure. All said and done, since the flex was very minimal compared to most other rear suspension bikes, we'll give 'em the benefit of the doubt.

The Manitou did exude a little extra shock bounce during fast pedaling on hard-packed surfaces. Doug concedes that he'd rather give up a little bounce on the smooth stuff for a system that's working full-time. Thank the low swingarm pivot position for that. While the movement bugged us at first, we got used to it. We also found the Manitou felt better in harder terrain. So, in reality, this negative kind of turned into a positive. Oh, well, so we should have stuck this paragraph somewhere else.

Okay, now for the final beef. The Manitou will cost about $2500. That will set you up with the frame, the new Manitou fork, a front derailleur (with an extra-wide band), an A-Tac stem, and a specially made Ringlé/Easton/Answer seatpost. Add a nice set of wheels and components, and you're looking at around $4000-plus. Is the Manitou worth that kind of money? Is any bike? Beauty is in the eyes . . . oh, read on before you decide.

Now onto the good stuff. One of the best parts of the test bike we rode wasn't in the frame itself. It's the new Manitou fork. Way cool. We'll be doing a complete write-up in the near future, so we won't dwell on it now, but suffice to say there's a lot more going on than just some spiffy new graphics. How about butted chromoly stanchions, a milled-out crown (without the slotting), easy preload adjusting knobs, stiffer braces, and about a half a pound less weight. The result is a fork which is lighter, livelier, and stiffer in both the fore/aft and lateral directions.

Another big plus is that the fork matches the rear end perfectly. Our riders found the rear end, while remaining active all the time, wasn't overpowering either the front suspension or the rider (due to rebound). In fact, one rider noted he liked the fact that while the rear travel was well over one inch, it didn't feel like it was moving up and down all the time. This is especially nice for the higher-end riders. There's nothing like having your bike bouncing up and down in rough terrain, changing a bike's geometry and attitude every millisecond. The Manitou always felt like a bike, and not like a motorcycle without an engine.

This article isn't really about the fork, but it impressed us enough that we wished it had been. New graphics, a shorter and stiffer brace, a lighter and stiffer crown, and instant preload adjustment are the biggest changes. Elastomer technology strikes back!

Climbing is very good on the Manitou. The rear wheel stays hooked up almost all the time. You also don't feel like you're losing a lot of power during hammering sessions. For that reason alone, the Manitou is probably one of the best full suspension bikes for technical trails.

Fast, rough mountain biking was where the Manitou really excelled. It just seemed to make great use of what suspension it had, without a lot of the drawbacks that the longer travel bikes have. Hey, isn't that what Doug said he wanted it to do? What do ya' know?

Finally, we really liked the fact that everything worked, it worked well, and it didn't require a lot of wrenching to keep it that way. There was no oil to change or leak. The preload up front was easily adjusted with the flip of a wrist. And we didn't have to adjust our riding style at all, save for the slight bobbing on fast road rides. As Doug says, "Ride more dirt, or smooth out your pedaling style." He's probably right.

ALL IN ALL

The Answer Manitou is definitely the best elastomeric suspension bike we've ridden. And with the new Manitou forks, it's a much more balanced package than we originally thought it would be.

On the other hand, it didn't have as "different" a feel as we originally thought it would. This should come as a caution to those who can afford to pop for one of these. Don't expect a bike that feels "way out there." The Answer Manitou is more dialed, balanced, and traditional in feel than you might expect.

There's a whole lotta air in there! The rear crown is gorgeous, and is stiffer than we thought. The brace won't have windows in final production, though, as a buffer against any excess flex.

Is it worth all the money? That's a tough one. Since our staffers and test riders kept fighting for the bike, we're guessing that a lot of people might think so. On the other hand, we ran the price by some more "average" (read: sane) people, and they thought $4000 was too high for any bike.

One guy came up to our car when we had the bike on the back. His comment was how cool the machine work was. We told him how much the bike cost and he casually answered, "Oh, I can see that, easy." Guess he'll be a happy camper when production really gets rolling and he can get one. (Ours isn't for sale!)

•