

ope, we can't deny that over the last year or so we've been almost endlessly oohing and aahing over the new, and increasingly complex components and suspension items. And while we usually enjoy dabbling in the new technology, there are still times (usually when we're completely frustrated at a bike that requires the finetuning touch of a Ferrari mechanic) that

RITCHEY COMP-23

Riding the beefed-up (but still feathery light) cousin of the Ritchey P-21, 22, and 23!



The Ritchey crank is feathery stuff. In fact, it's about the lightest standard bolt pattern cold-forged crank you can get.

we gravitate toward things that are less complex, more efficient, and not nearly as temperamental. Bikes and components like these bring us back to our roots, and help us to remember why we ride in the first place; for fun, to test ourselves physically, and for the escape. That's why we can always appreciate a bike that's stripped down to its essence — that gets you from Point A to Point B, very efficiently, and without hassle. But if it can do it with style and grace, ab, that's all the better.

These are the kind of bikes that Tom Ritchey has focused his attention on building for years. And he's been doing it at his own meticulous pace. But that's far from the whole story. In recent years, his Ritchey Logic component line has grown so large that there are very few pieces remaining on his bikes that don't fall under his own label. And these components are made in the same style: maximum performance from minimum weight. Nononsense stuff. Simple and effective.

IT'S CLASSIC (AS IN STYLE), NOT CLASSIC (AS IN RELIC)

In the beginning of '89, by building frames with thin chromoly tubing and shorter butted sections, and by carefully selecting components, Tom Ritchey began supplying his team riders with bikes that crashed boldly through the (then) unheard of 23-pound barrier. Later that same year, Don Myrah (who rode for Ritchey at the time) took the prestigious cross-country win at the NORBA World Championships at Mammoth Mountain riding one of the ultra-light P-23 bikes. It didn't take much more than that to quickly make a legend of the P-23, along with the fact that the original P-23 bikes truly were rare and wonderful items. But at the same time, their thin-walled chromoly tubes made them a tad on the fragile side for riders who lacked the style and grace of an antelope. So that brings us to '92, where Tom has since gone on to build two lighter versions of the P-23 (yup, you guessed it, the P-22, and the P-21 WCS!) for elite racers who want to push the envelope of performance and durability. But at the same time,

he's also repackaged the P-23 into a more durable and affordable (though still not cheap) model, dubbed the Comp-23.

So what is it about the Comp-23 that gives it its own identity? First and foremost is the frame. It shares much of the styling and design of the P-23, but the Comp's frame is actually stronger than the original P-23's, with slightly thicker tubes and reengineered butted sections in the top and down tubes. At the same time, beefed up doesn't mean fattened up, because, as you should be able to tell from its moniker it hasn't sacrificed so much weight that it's been K.O.'d from the 23-pound class. While much of the mountain bike

world subscribes to the "fatter is better" credo when it comes to frame design, the Comp-23 definitely looks like it has benefited from visits to a local Weight Watchers chapter. While the 1-1/8-inch top tube and 1-1/4-inch down tube aren't really so small, the combined effect of their



The seat clamp is a Ritchey trademark, and a great area to show off the filletbrazed welds. Note how the rear brake cable routes over the top of the clamp, and that it's not a stop, but a guide. It's different, but it works.



standard-sized head tube and the trin Ritchev Logic fork, gives it the impression of being slimmer than it is,

New in the rear are the cold-forget Ritchey dropouts, which mate nicely to the tapered seatstays, and the tapered and ovalized chainstays. These dropouts have the derailleur positioned more forward than standard to provide better chain wrap, allow more clearance between the chain and stays, and have a shorter hangar.

One of the more attractive areas of the frame is the seat cluster, which is pretty much a Ritchey trademark. The seat tube (which itself is ovalized where it meets the bottom bracket) has a collar added to the top of the tube, and provisions for a small. single-bolt (non-quick-release) seatpost clamp fillet brazed at the rear. The seatstays meet the clamp at this point, and all this is wrapped up in an attractive filletbrazed package. Simple, strong, and effective. Another trick spot is on the top of one side of the seat clamp, where you'll find a single slim guide for the rear brake cable. "Guide" is the correct word, too. There's no cable stop, just a small loop that guides the plastic-sheathed cable on its path to the cantilevers. Nice stuff.

Now that we mention it, the method of joining the tubes is one area where the P-23 and the Comp-23 differ. While the P-23s used all fillet-brazed construction. the Comp is a mixture of TIG welding and fillet joints. The frames are TIG-welded in Japan, and are then shipped to Ritchev. Tom then works his fillet-brazed magic on the seat cluster, braze-ons, and bridges. along with doing all the final frame inspection and alignment checks as he goes.

One area where Ritchev's bikes really differ from the rest of the world is in sizing. Take your pick of any of the ten (yes, ten) frame sizes! The Comp-23 is available in one-inch increments from 14 to 23 inches. If you can't find a bike among the available choices (and they're all anatomically correct) that will fit you like a glove, you probably have knuckles that drag on the ground, or some other such fit problem.

As we mentioned, the frame geometry and corresponding measurements depend on which size you're talking about. Our 19-incher had 71/74 head/seat angles.

The front end features plenty of Ritchey Logic goodies (in fact, that includes everything but the Shimano Ultegra front hub and the top-mount shifters), but probably what's most interesting is what you can't see. While the chromoly frame tubes are still on the lean side, the butting specs are different, which makes it a more durable frame than the original P-23

along with a 22.3-inch (level) top tube. The chainstavs measured in at a slightly longish 16.9 inches, and the fork offset is a very stable 1.8-inch measurement. Nope, no Rock Shox options, and not a single suspension item in sight - well, except for the frame and fork themselves. While it would be easy to call this design classic, and thus associate it by definition to relegation as a museum piece, we'd have to point out that it's still very valid, even in competition. Just ask Thomas Frischknecht, he's finished in the silver medal spot in the last two mountain bike World Championships, among a sea of suspension-equipped riders.

WHERE'S THE LOGIC?

A better question is, "Where isn't the Logic?" . . . components that is. How prolific is the Ritchey parts list these days? Well, it's a lot easier to tell you that Shimano supplies the hubs (Ultegra front, Deore XT rear), front and rear derailleurs, top-mount shifters, and pedals (which are all tried and true Deore XT parts). Everything else, and we do mean everything, is a Ritchev item. While the frame was strengthened, and thus gained four ounces of heft, the weight of the com-



If you've grabbed onto older-model Logic brake levers and cringed at the hard edge, never fear, this year's model is more finger-friendly.

ponents was reduced by over a pound, which is why there's no net gain in overall weight. Let's look from the ground up at all the pieces that glue it together.

Tires are the Megabite Z-Max WCS (World Championship Series) in a 2.1-inch size. These Keylar-beaded tires also use a low-density rubber compound that's used mostly for its weight-reduction capabilities (these tires weigh in at about 560 grams), but it doesn't hurt that as a side benefit the low-density compound offers good traction.

The rims on both ends are the Ritchev Vantage Comps, which were the topof-the-line rims - at least before the Pro WCS model was introduced this year. How much difference is there? A sparse 20 grams per rim. The dimensions (at least when it comes to width) are the same, but the Comp isn't as "out there" as the Pro WCS when it comes to wall or bead section thickness. Both wheels use 32 spokes, rather than the 28 front/32 rear setup on the original P-23. Oh, and the wheels are built by the wizards at Wheelsmith. We can tell you from experience. they know what they're doing.

Next up is the Logic crankset, which uses a pair of cold-forged duraluminum arms with a low "Q" factor (151mm) and a hidden pin design. The hidden pin means that one of the chainwheel bolts (Continued on page 110)



MFG. OR DIST.: Ritchey Mountain Bikes 1326 Hancock Ave. Redwood City, CA 94061 (415) 368-4018
APPROXIMATE SUGGESTED RETAIL PRICE:\$1795
COLORS AVAILABLE: Team red
SIZES AVAILABLE: 14", 15", 16", 17", 18", 19", 20", 21", 22", 23"
SIZE TESTED:19"
FRAMESET:
Head Angle
Seat Angle74 degrees
Top Tube Length
Chainstay Length
Wheelbase Length42.1"

DRIVETRAIN:	
	Shimano Deore X
	Shimano Deore XT, short cage
Chainrings	
Freewheel/Freehub	Shimano Hyperglid
Gearing	
Chain	Shimano UG-9
PedalsShimano	Deore XT, with Shimano clips and strap
STEERING:	
	Ritchey Force Lite, aluminum
	Ritchey Logi
Grips	Ritchey True Grip
BRAKES:	
Levers	Ritchey Logic
SEATING:	
Saddle	Ritchey Logi
Seatpost	Ritchey Force Directional, 330mm
Seatpost Binder	Allen ke
WHEELS:	

Hubs Shimano Ultegra front, Shimano Deore XT rear

Frame Material(s)..... Ritchey Logic Comp Prestige chromoly Frame Construction......TIG-welded/fillet-brazed

Bottom Bracket Height.....

(Continued from page 32)

mounts directly into the crank arm itself, rather than an independent fifth "arm." That means less material, and less weight. They also have an extra-slick polished finish. The cranks are available in every 2.5mm increment between 170mm and 180mm, and our Comp-23 got the 175mm model. Its 650-gram claimed weight is only one gram off of Sunflour's notoriously lightweight XC Pro Micro Drive crank. Impressive!

The chaimwheels are a 26/36/48-tooth setup to mate up with the 12-28-tooth Hyperglide rear. The bottom bracket is a Logic Comp model, which assists in keeping the "Q" factor low, with its hollow, 120mm chromoly spindle, and sealed cups with bearing steel races.

We really didn't give you too graphic a description of the fork before, so let's do that now. It has triple-butted legs that taper from 27mm at the top down to 17mm down by the dropout. They also have a force directionally butted steerer. What's that? Simply put, the steerer is thicker on its stressed areas (front and rear) than its nonstressed areas. The fork has a smooth, large radius bend for the legs, and a rather generous 1.8-inch offset. The overall look matches the rest of the bike quite nicely. This fork is mated to a Logic headset. What's the story of the headset in a nutshell? Rather than go to oversized cups and steerer, it uses oversized bearings in its lower half.

The Ritchey Logic cantilevers' brakes are kissin' cousins to Dia-Compe's 986 cantis, but without the spring-tensioning adjusters. Performance is similar, too. That's to say, extremely good if you know the ins and outs of setting up these brakes, and merely okay if you don't. Keeping the straddle cable fairly low is one tip we can offer. (An inch or so is pretty good, but

the lower the better. We rode a set of these brakes where the straddle was about a little less than 3/4 of an inch above the tall center knobs on a 2.1-inch tire, and they were about the best we've felt.) They do have the same cold-forged construction and the bushing pivots that slide over your regular canti posts. These bushing pivots ensure that the cantilevers have a smooth, well-machined surface to ride on. The brakes are activated by a set of Ritchey Logic brake levers, which have a three-finger design and cold-forged construction.

This leaves us with two areas to look over: the bar/stem and the seating. The stem is a Ritchey Force Comp, which is constructed of butted, heat-treated chromoly. There's no hangar on the stem, as was the norm with Ritchey stems in the past. This task it handled with a headset-mounted Ritchey aluminum Cliff Hangar. The bars are 2014-T6 aluminum Ritchey Force Lites, which they claim is nearly 50 percent stronger than 6061 T-6. The Ritchey True grips deserve cheers for their comfortable shape, sticky compound, and long life, but jeers for their lack of traction when wet. We still love em.

The seating equipment goes like this. The seatpost is a 2014 alloy, with a forged clamp and a force directional design similar to the fork steerer we discussed earlier. That keeps the weight down and the strength up. The rails of the Logic saddle have been shortened to minimize the weight, while a medium-density padding and a sheepskin cover keep things comfortable.

ASIDE FROM THE PRODUCT DESCRIPTIONS, HOW DOES IT HANDLE?

Ah, now we're getting into the part we really like. Taking the bikes out, giving them their time to shine — or fail — in the elements they were designed for.

First impression on the Comp-23 is that it feels exactly like you'd expect for a bike with an over-\$1700 price tag (about \$1795, to be exact). It's aggressive. No, not overly so, but the rider postioning does let you know that it means business. So do your first few pedals. The light weight is immediately apparent, even during the intital parking lot inspection tour after unloading the bikes at the first test zone. Step on 'em, hard, and things get moving in a hurry. There's no lag-time response.

Now, our staffers are somewhat divided when it comes to the subject of bike weight. One editor, while not a gramcounting fanatic, usually keeps his bikes relatively light, while another's normal activity list includes globbing on every available accessory in sight in an attempt to see how much he can get a bike to weigh. He's blissfully unconcerned with weight usually. How did he react to riding the Comp-23? Well, the minimalist style even rubbed off on him. He marveled at the light weight. He waxed eloquent on the slightly more precise ride (compared to the P-23), and (gasp) he even considered

"This isn't any tourist bike. There's nary a single eyelet for mounting a rack. High-performance riders who like the no-nonsense design, and the function that goes along with it, will be the kind who most appreciate this bike."

putting his personal bike on a crash diet in an attempt at achieve a similarly slim, trim, scale reading . . . well, for a couple of minutes, at least. He promptly decided that there would never be enough titanium, or money available for such a lofty goal. It'd be much easier, and cheaper, to do some, ah, extended testing on the Ritchey.

Seriously, riding a bike this light is an amazing thing. If it fits your style, that is. While we enjoy the extra horsepower we feel on uphills, we wouldn't recommend this as a bike for riders who endure the uphills only as a means of getting to the next banzai downhill. What it makes up for in performing on tough, grinding climbs, it gives away a bit of in technical terrain. This isn't a knock on the handling. In fact, we'd classify it as absolutely spot-on. It's stable, but without requiring extra muscle to negotiate corners, and equally comfortable whether at speed or in slow situations. Our only knock relates to the same light weight we just praised, where the



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How many Ritchey components can you find in one photo? A bunch. In this one they include the cantilevers, the Megabite Z-Max tire, the Vantage Comp rims, and the Logic fork and headset.

What's it like riding a 23-pound blke? Like adding instant horsepower. How much more? That depends on the weight of the bikes you've been riding up to that point. Even a couple of pounds can make a big difference, but if you've been riding a 27or 28-pounder, it's even more impressive. Handling is another of the Comp-23's strong suits. We can't think of a single thing to grump about. Grr.

bike just plain reacts faster to bumps, ruts, and rocks. You just need to pay a bit more attention to what's going on. But we also think this something that a good rider can adapt to in short order.

WHO'S IN THE SADDLE?

Who can we picture as owners of the Comp-23? Racers for sure. This isn't any tourist bike. There's nary a single eyelet for mounting a rack. High-performance riders who like the no-nonsense design, and the function that goes along with it, will be the kind who most appreciate this bike. Of course, another part of the appeal of these bikes is that they're not stamped out with cookie-cutter imprecision. Each frame still gets personal attention from Tom Ritchey, and the fact is, he's not building as many bikes as he used to. Besides all that, he's never been one to attach his name to inexpensive bikes. So when you see the Ritchey logo on the down tube, you know it's a fairly serious bike, and there's probably a serious rider to match. Besides, it's fun riding a bike that not everyone else has, right?