



● TREK STACHE 7 29+

BIKE TEST

PLUS-SIZE HARDTAILS

Bigger tyres are transforming trail hardtails. Editor *Dan Joyce* reviews the Trek Stache 7 29+ and the Genesis Tarn 20

FATTER TYRES are one of the trends in 2016 mountain bikes. Not fat bikes, though they'll plough their own 4.8-inch furrow, but 'plus-size' bikes. Surly kickstarted the concept in 2012 with the Krampus, an oversized 29er with wide enough rims and big enough clearances to accommodate three-inch tyres. These can be run at low (8-15psi) pressures, offering some of the comfort and grip advantages of a fat bike without the same penalty in weight and rolling drag.

One bike doesn't make a trend. While a few other 29+ bikes and tyres followed, the floodgates opened when someone noticed that a 650B rim with a 3in tyre was more or less the same diameter as a 29er rim with a normal tyre. You could fit 650B+ wheels into 29er frames and forks with minimal (sometimes zero) modification, sidestepping the design challenges posed by the bigger 29+ platform. Thus we have two new standards: 29+ and 650B+. And so as one wheel-size debate ends, another begins...

Most plus-size bikes are 650B+. There's less retooling required and it'll be an easier

sell to customers daunted by the different ride feel of big wheels. Trek have bucked this trend, wholly redesigning their Stache hardtail range for 29+. The 7 is the middle bike of three: the 9 has nicer components, while the 5 is a 10-speed with a carbon fork.

For 2015, Genesis had a bike that was 29+ compatible, the Longitude. They've switched focus to 650B+ for 2016. The Tarn hardtail comes in two versions: the 10, with a rigid aluminium fork, and the 20 tested here.

FRAME AND FORK: STACHE

The Trek Stache 7 29+ looks more like a project bike designed to turn heads at trade shows than a production bike from a mainstream brand. The chainstays are so short that the 30T chainring overlaps the wheel. There's no chainring/chainstay interference because the drive-side chainstay doesn't swoop out to clear the enormous tyre. It's been lifted out of the way, using an elevated chainstay reminiscent of the 1990s. More space is saved by sacrificing the front derailleur. As a result,



● (Above) This is the OEM-only Comp version of the Manitou Magnum 34 fork. The Stache 5 has a rigid carbon fork instead, while the Stache 9 gets a Manitou Magnum 34 Pro fork, which has an improved air spring and better compression damping than the Comp



● GENESIS TARN 20

the chainstays are just 420mm, shorter than most mountain bikes with *any* size wheels.

Trek advertise the Stache as suitable for 29er and 650B+ wheels as well as 29+. That's the reason given for the adjustable dropouts, which can be set as short as 405mm with a smaller wheel. If I wanted to fit smaller wheels, I'd rather raise the bottom bracket to prevent pedal strikes than shorten already short chainstays. An eccentric bottom bracket (EBB) would give up to 15mm of adjustment up and down as well as back and forth. (An EBB bike could have vertical dropouts and would still have a big bottom bracket shell for frame stiffness.) The adjustable dropouts mean that the Stache can be converted to singlespeed use. A belt drive is possible thanks to that chainstay.

The Stache's frame and fork are designed for the new Boost standard developed by Trek and Sram. The hubs are 110mm and 148mm wide over-locknuts at the front and rear respectively. Boost hubs make sense for any new mountain bike because wider spoke flanges mean stiffer wheels, and they particularly suit taller wheels. They're good for plus-size tyres as the chainline is 3mm wider, increasing the gap between chain and tread lugs. The extra 3mm at the chainset is achieved by mounting the chainring further outboard rather than widening the bottom bracket. Pedal tread (Q factor) is unchanged.

There is a downside to having a rear triangle that's both short and wide: if you've

got big feet or big legs, or perhaps just an unusual pedalling style, you might clip the chainstays or seatstays. I didn't.

The 110mm travel Manitou Magnum Comp fork is the first suspension fork specifically designed for plus-size tyres. It's a much better solution than taking a file to the arch of a standard 29er fork! There's plenty of room for big tyres and mud. The rear-facing arch makes the axle-to-crown height a little lower – handy for 29+ – and helps keep the stanchions clean. I wasn't keen on the HexLock axle, which aims for QR-like convenience with through-axle stiffness and security. It's a solution in search of a problem compared with a 15mm screw-through, and the extra, grease-dependent moving parts might seize in soggy UK conditions.

FRAME AND FORK: TARN

The Genesis Tarn 20 is chrome-moly steel. The frame is more conventional than the Trek's, a solid angular plate in the longer chainstays providing chainring and tyre clearance. Yet it's a contemporary long-and-low design that marries a rangy top tube to a short stem and a slackish head angle. There's lots of standover above the dropped top tube, and when you drop the saddle right down for technical descents there's more room to move around the bike.

The Tarn 20 comes with a dropper seatpost and, like the Trek, has frame guides for a remote dropper should you wish to



● (Above) This Boosted RockShox Reba is designed for a 110mm-axle 29er wheel but fits a 650B+ just fine. The Tarn's hub is a standard one with spacers to make it fit the wider fork – a strange economy on a near £2k bike

upgrade. Other frame features include a couple of bracing struts, for the seat tube and the rear disc brake, two bottle mounts, and, best of all, a 73mm threaded bottom bracket. Having seen (and heard...) the problems my riding buddies have had with press-fits, this immediately endeared me to the Tarn. Tyre clearances are generous, even around these big tyres.

The fork is a 120mm Rockshox Reba RL in a new Boost version for 29ers. Like the





● TREK STACHE 7 29+



● (Left) Trying not to run over the self-timer camera on Dalby Forest's World Cup course
 (Above) 'Stranglehold' dropouts provide 15mm of fore-aft adjustment, in theory to accommodate 29er or 650B+ wheels too

Other options



1) SURLY KRAMPUS £1,599

The original 29+ bike. Chrome-moly frame and fork, 1×10-speed SLX drivetrain, Avid BB7 brakes and Knard tyres. surybikes.com



2) SPECIALIZED FUZE EXPERT 6FATTIE £1,800

Aluminium 650B+ hardtail with Manitou Magnum Comp fork and 1×10 Sram GX gearing. One of three models. specialized.com

» Manitou Magnum, it's a 'solo' air fork, with one valve to inflate positive and negative air chambers. The Reba's uppers are 32mm rather than 34mm like the Magnum. This didn't make any difference to me but I'm not a heavy or aggressive rider.

COMPONENTS

Both bikes use 11-speed drivetrains with a wide-ratio cassette and a single 30T chainring. It's not impossible to combine multiple chainrings with plus-size tyres, but the chain can end up sawing into the tyre if you get your clearance calculations wrong. A single chainring frees up space, and with the 10-42 and 11-42 cassettes here still yields a good range. The Stache's Sram GX gears shifted more smoothly, once I'd bent a damaged gear hanger back into shape, but the stiffer-shifting Shimano XT on the Tarn had a more effective clutch derailleur that made for a quieter ride.

The Tarn has a Kindshock dropper seatpost with a lever under the saddle. It drops the saddle smoothly like an office chair, and you can stop it anywhere over a 125mm range. While it works well, with minimal side-to-side saddle movement, I often wanted to drop the seat just when riding one-handed was a bad idea.

Some plus-size bikes have tyres that are optimistically labelled, with nominal 2.8in tyres measuring little bigger than some 2.4in

tyres. The 29+ Bontrager Chupacabra tyres on the Stache and 650B+ Maxxis Chronicles on the Tarn really are 3in wide.

They're tubeless ready. As Genesis sent me some rim strips and sealant, I converted the Tarn after a few weeks. I broke a tyre lever (and nearly a finger) doing so: these Maxxis tyres are super tight on the WTB Scraper rims. They are prototypes, however, as I tested an early sample of the Tarn 20. Production tyres may be easier. On the plus side (sic), they didn't leak a drop of sealant.

I'm a late adopter of tubeless, having had few problems with tubes. After converting my Genesis Longitude to tubeless (Rabbit Hole rims, Knard tyres), it's all I'd use on a fatter-tyred bike. It's not that you can run the tyres softer, as they'll be at 10psi or so already. The benefit is the weight saving: you're swapping two innertubes weighing around 400g each for two 100ml measures of sealant. Tubeless plus-size wheels pick up speed noticeably easier, and rolling resistance seems lower too.

The Stache uses Boost hubs front and rear. The Tarn's front hub is a conventional one, spaced out to fit the Boost fork. This feels like a stopgap solution on a £1,900 bike, and there's no stiffness advantage.

RIDE

Fatter tyres provide a lovely floated feel over bumps. You do need to get the pressure right for your weight: too low and you get some self-steer in corners, especially on hard surfaces; too high and they'll rebound like Space Hoppers. Traction is excellent and rolling performance seems to be as good or better on everything but hardpack or tarmac. »

“For a trail hardtail, I can't see why you wouldn't want plus-size tyres. You get more comfort, more traction and more confidence”



● GENESIS TARN 20



● (Above) The Tarn employs a belt-and-braces approach to keeping the chain on: a RaceFace narrow-wide chainring plus a Yung Fang CD-04E chain keeper

» I won a cyclocross race on 29+ tyres! Bigger tyres aren't a like-for-like replacement for telescopic suspension. They can't soak bigger bumps or repeated hits like well-tuned shocks, so if you like hammering down rocky trails at speed, you'll be faster on full-suspension. Yet the Trek Stache 7 29+ and the Genesis Tarn 20 are capable enough for most riders' needs.

The Tarn's fork is plusher than the Stache's, which felt muted in comparison. The Tarn's dropper post is another plus, enabling you to get low over the bike on technical descents. And the Tarn's longer top tube and short stem provide both a roomier reach and more steering feedback. I'd go a size bigger on the Trek and downsize its 80mm stem to get the same effect.

The Stache handles well for a bike with such big wheels. Unsurprisingly, you can ride it down and over just about anything, but it feels fine through twisting singletrack. Even I could lift the front wheel up easily to land small drops, a consequence of its short chainstays.

The 29+ wheels roll better. When I rode

the bikes back-to-back on the same test loop at the same heart rate, the Stache was 31 seconds quicker over 28 minutes. That's about a second a minute or just under 2% faster. It's the same margin I've found between normal 650B and 29er hardtails.

SUMMARY

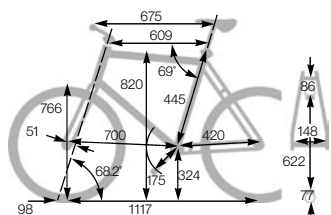
The 650B revolution that swept mountain biking left me bemused ('Meet the new boss. Same as the old boss'), but plus-size tyres are palpably different. They make hardtails and even fully-rigid bikes viable alternatives to full-suspension for many kinds of riding. And they're fun – funner than they were in the noughties, when a 26x3in Nokian Gazzaloddi weighed 1.7kg, sat on a narrow rim, and wasn't tubeless. Plus-size tyres are now supple and relatively light. That's key.

There's still some extra rotating weight but rolling performance is good and you get more comfort, more traction, and more confidence. After gliding around on 10-12psi, 25-30psi feels harsh and skittery. Lower pressure tyres, in some form, are here to stay. For cross-country hardtails and full-suspension bikes of all types, that may turn out to be dual-chamber tyres like Schwalbe's Procure. For a trail hardtail, I can't see why you wouldn't want plus-size tyres.

The Genesis Tarn 20 and Trek Stache 7 29+ are both among the best trail hardtails I've ridden. Aside from its non-Boost front hub, wheel size is the one thing I'd change about the Tarn 20: 29+ would improve its pace and rollover ability. But for Strava-free singletrack fun, it's a hoot.

Despite my reservations about its bottom bracket and fork, the Trek Stache 7 29+ is an excellent bike. Yet if I were going to buy a Stache 29+ (and I nearly did), it would be the lighter and cheaper Stache 5. With plus-size tyres, a rigid bike isn't a hair-shirt option.

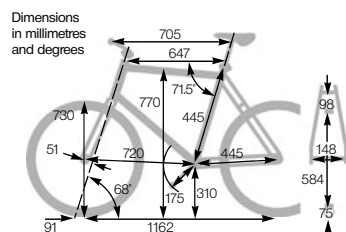
Tech Specs



TREK STACHE 7 29+

- PRICE:** £1,800 (175mm, 30T), PressFit 92 BB, SRAM PC 1130 chain, SRAM XG-1150 10-42T cassette, SRAM GX1 11-speed shifter and GX1 Type 2.1 derailleur. 11 ratios, 22-90in
- SIZES:** 15.5, 17.5, 18.5, 19.5, 21.5
- WEIGHT:** 13.22kg* (*no pedals)
- FRAME & FORK:** Aluminium frame with fittings for two bottles and dropper post. Manitou Magnum 34 Comp 110mm fork
- WHEELS:** 78-622 Bontrager Chupacabra tyres, SUNringlé Mulefut 50mm rims, 32x3 butted spokes, Boost110 front hub, Boost148 rear hub
- TRANSMISSION:** SRAM GX 1000 X-Sync chainset
- STEERING & SEATING:** 750x31.8mm Bontrager Low Riser alloy bar, 80mmx7° Bontrager Rhythm Comp stem, FSA IS-2 tapered headset. Bontrager Evoke 2 saddle, 400x31.6mm Bontrager alloy post

- BRAKING:** SRAM DB5 hydraulic disc, 180mm rotors
- trekbikes.com**



GENESIS TARN 20

- PRICE:** £1,899.99 X-type Team XC 73mm BB, KMX X11 chain, Shimano CS-HG800-11 11-42T cassette. Shimano XT SL-M800-R shifter and RD-M800-GS derailleur. 11 ratios, 20-78in
- SIZES:** S, M, L, XL
- WEIGHT:** 14kg*
- FRAME & FORK:** Double-butted chrome-moly frame with fittings for two bottles and dropper post. 120mm RockShox Reba RL Solo Air Boost fork
- WHEELS:** 76-584 Maxxis Chronicle tyres, WTB Scrapper i45 rims, 32x3 butted spokes, KT hubs (front 100mm with spacers, rear 148mm)
- TRANSMISSION:** RaceFace Aeffect chainset (175mm, 30T), RaceFace
- BRAKING:** Shimano BL-M506 levers, Shimano BR-M447 callipers, 180mm & 160mm rotors
- STEERING & SEATING:** 740x31.9mm Genesis bar, 55mmx0° stem, FSA No21/12B/44 headset. Genesis saddle, 385x31.6mm Kindshock Dropzone post (125mm)

genesisbikes.co.uk