

thewashingmachinepost

lightweight ventoux carbon wheels



almost exactly one year ago, carbon-sports in germany very kindly sent over a pair of lightweight standard wheels (if anything with the distinctive 'lightweight' logo could truly be described as standard), and as i recall i had a bit of a handful with those in islay's somewhat intractable crosswinds. with the standards having a rim depth of 53mm it has to be said that they do provide a largish moving target for any breezes hitting at right angles, and a couple of such almost separated bicycle from road while i was on it.

the lightweight ventoux effectively promised to half that problem, given that the carbon rim depth is only 27mm, providing a lot less for the wind to grab. so i have been pressing stefan behrens and david bergmann to send a pair of the lighter ventoux and let me prove it for myself. well, they very kindly complied, despite the fact that there is around an eight

month waiting list for a pair. (believe it or not, the review pair became available because, at 975 grams for the pair, they were too heavy - don't ask).

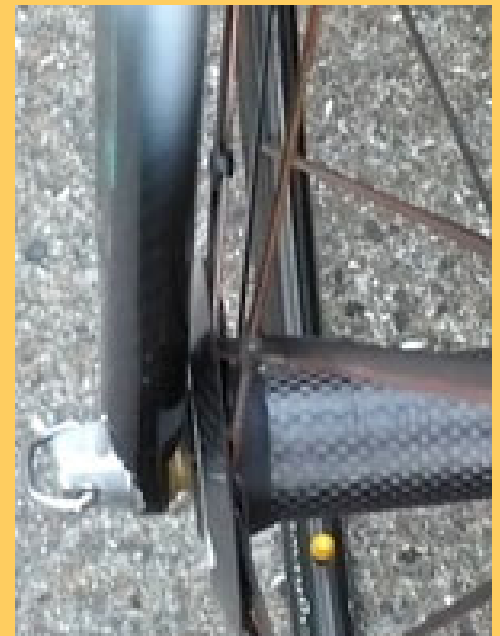
aside from the shallower rim depth, the ventoux differ from the standards in spoke count - they are only available with twenty spokes front and twenty four spokes at the rear. the standards have the relative luxury of twelve, sixteen or twenty on the front wheel, but to resist the torque applied to the rear wheels, they all come with twenty kevlar spokes. for the benefit of those not familiar with lightweight wheels, let me explain. the rims of all their wheels are hand-made from carbon fibre, with kevlar 'spokes' bonded into the rim and carbon hub flange. with the spokes able to withstand pulling forces of up to 1200kg, the ventoux can be constructed lighter than pretty much anything else on the

planet, while still retaining a considerable degree of strength.

while you or i might never notice the difference, the ventoux are not as stiff as the lightweight standards: if we follow logical reasoning here, that's a perhaps obvious feature. a deeper rim will result in a shorter spoke - a shallower rim the opposite. it is possible to force the rear wheel to rub the brake shoe under heavy climbing in a big gear, but in mitigation, the colnago c50 to which the ventoux were fitted had almost no extra brake cable when the wheels were switched, so the brakes were set slightly closer than i'd have liked. nonetheless, stiffness is a relative term: no worries at this end.

the principal visual difference between standard and ventoux lightweights is in the way the spokes enter the rim. on the standards, the spokes leave the hub flange and make their way directly to the inner bladed edge of the rim: on the ventoux, the spoke leaves the right side carbon hub flange but enter the rim on the left side. conversely the spokes from the left side. stefan behrens told me that the reason for doing so is to avoid bending the spokes and the stressline. it works.

on the standards there is a smudge



of a magnet on the rim to allow fitting of a fork sensor for a cycle computer (there is no way on this earth that a standard magnet can be affixed to the spokes). unable to find the magnet on the ventoux, i asked barry scott at bespokecycling if there was a secret procedure for finding the darned thing (my instruction book was all in german). apparently the magnet on the ventoux is affixed at the top of one of the spokes at the point where the spoke enters the rim. this means that if you own a pair of standards and a pair of ventoux, this removes the need to adjust the sensor position on the fork. i'm

just wondering who the heck has the wherewithal to own two pairs of lightweights! and while we're in the realm of brake shoes, the originals as fitted to the campagnolo chorus calipers are not recommended for carbon rims. carbon does not conduct heat, so it is necessary to fit something that wouldn't be melted when trying to stop - in this case a pair of campagnolo pads designed for their carbon rims. despite being very wary about all of this, the pads worked brilliantly, and there was never a moment when this face had

a worried look on it (and if you've ever been down the access road to caol ila distillery, you will realise just how impressive this is).

while i like to give off this air of mastery pertaining to all matters bicycle, i have so little experience fitting tubular tyres to any kind of rim, let alone something in the 'oh good grief' category, that i asked david bergmann if he would be so kind as to fit a yummy pair of those lightweight branded continental tubulars that i rode on last year. and he did. i would be oh so delighted if continental could ever see their way clear to making a pair of clinchers with the comfort, tenacity and tread pattern of these tubs. please? it's a

simple fact that you cannot separate the wheels from the tyres (from a reviewing point of view), but while not usually being a great fan of continental rubber, i am all but besotted with these tubulars, and even more so fitted to the ventoux.

so what do you get for your, not insubstantial amount of cash? the short answer is you get everything and more than you ever thought possible on a bicycle, but as a campagnolo user, we had a small but not insurmountable problem to get over. lightweight produce two versions of the ventoux: the slightly cheaper dt model, based around a pair of dt



swiss 240 hubs (exactly the same as fitted to the standards) and the whoop de doos which have the dt up front, but a tune mag 160 at the rear. problem? well the dt hubs have an interchangeable freehub to suit your preference in cassettes. tune, however, offers shimano or campag, the choice being made at purchase. since i wasn't the one making the choice, the test wheel came with a shimano hub and campagnolo cassettes do not fit shimano splines.

(just on a brief aside, the tune version specifies a carbon axle - the test pair visually appear to have been fitted with an alloy axle so i can't tell you if there's any real difference.) there are, of course, cassettes avail-

able from marchisio that will give you ergopower shifting with shimano splines, or, if you're across the water, american classic do likewise. if you're able to afford a pair of lightweights in the first place, the cost of such a cassette (around £90 for the marchisio) is unlikely to trouble your plastic, but we received a much cheaper alternative (£32.50) from byercycles who purvey a 'giang mars evolution' campag cassette to fit a shimano freehub. from memory you can have an 11-23 or 12-25 - without a pair of legs that can do anything at all with an eleven sprocket, the lightweights were fitted with the 12-25.

shifting is impeccable.

the cassette needed a modest amount of gentle persuasion to slide on the tune splines, and the lockring needed a bit more welly than normal, but it was liberally spread with anti seize compound to make sure the same problem didn't occur when time came to remove it. despite tightening the lockring fully when fitting, the cassette did loosen after a few hundred kilometres, rattling at the back wheel giving the game away. since re-tightening, this has not (so far) re-occurred.

and if you look at the photo to your right, you will notice that the clearance between hub and front fork end is in the cigarette paper territory. while this gave minor cause for concern when fitting, in practice, it had no bearing on the performance whatsoever. however, depending on the forks fitted to your own cycle, it might be worth checking (i've not heard of any problems though). the ventoux exhibit a bit less of that 'to die for' carbon sound when rolling along, but the tune freehub makes just as loud a clicking noise as both the dt 240s and the freehub on a set of campag factory builds. it's a might disconcerting at first, but becoems your friend very rapidly.

and rapidly would be a very good way of describing the forward motion experienced on a pair of lightweights. as i've probably managed to mention more than once, these wheels were fitted to a colnago c50 resulting in an all up weight of around 6.5kg, then about halfway through the road test, the standard campag chainrings were removed and replaced with a pair of fibre lyte all carbon (teeth and all) chainrings, and i jest not when i say a good sneeze would have blown the bike away.

as bike techies have been at pains to point out to us for years, it's better to lose rotating weight than static weight, if for no other reason than it is a lot easier to accelerate light wheels than a light frame. so in the case of the ventoux, we have acceleration in bucket loads. on our regular sunday ride, i was vehemently advised by dave t to 'stick it in the big 'un' by which he was indicating that i should favour my 53 ring as opposed to the 39. you should understand that three of us were teeth to the bars into a headwind at this point, but having done as i was bid, along with an accelerating stamp on the pedals, i shifted from 28kph up to 40kph in a matter of metres. much to his anguish, dave t failed to



manage same:-)
i've pedalled hard up a fifteen percent climb with three gears to spare over my normal grovelling status. i've hammered it at 60kph downhill in a crosswind without ever feeling that a cold sweat was in the vicinity, and i've ridden over some of those roads that we keep for special occasions, (the sort that normally eat bikes and wheels for breakfast) without receiving so much as a loose dust cap.

in short, these wheels are quite stunning. i cannot imagine a situation where they would not prove themselves to be the ideal choice, whether by weight, strength, wind resistance or plain comfort. on the latter point, with an almost marginal lower stiffness factor than the standards, the ventoux do provide a more comfortable ride than could reasonably be expected, albeit aided by continental's superb rubber.

however, all this luxury comes at a price. the top of the range ventoux as tested retail for £2550 (usa price appears to be \$5200) while the ventoux dt model costs £2250 (\$4100). whether or not you feel that you, her indoors, or your bank manager can justify this amount of money on a pair of wheels is a moot point, since we all know that you'll need a bicycle of comparable quality on which to fit them.

for me after cycling these for well over 600km, if i had the money i wouldn't hesitate for a minute. lightweight wheels are exclusively sold in the uk through bespokecycling.com

www.carbonsports.com

www.thewashingmachinepost.net

