

Gear up

A cross-section of cycling products selected and reviewed by CTC staff, specialist journalists and CTC members

» Deore XT Evarious

Reviewed by CTC Technical Officer Chris Juden

Last year Shimano celebrated 25 years of Deore XT as 'the original mountain bike components', coincidentally coinciding with my time as CTC Technical Officer. Originally they were also the best touring bike components. The ebb and flow of mountain bike fashion has played around with them in the interrim, but Deore XT nevertheless remains the benchmark of lightweight durability for hard-haulin' touring bicycles.

You want hubs? Deore XT still have bearings you can re-grease and adjust at the side of the road, but nowadays with such good seals you shouldn't have to, rolling on races as smoothly polished as so-called sealed units.

Brakes are one of the parts that got modified for the exclusive benefit of mountain bikers. The original sticking-out cantilevers that worked with dropped as well as flat-bar levers first went low-profile –



which barely works with drops – then vertical – which doesn't at all. Disk brakes are the latest thing (XT are excellent examples by the way) and V-brakes are not fitted to up-market mountain-bikes except to save weight. So, to shave a few grams, XT's Vees have lost their parallel-push mechanism. With that feature I'd align the shoes square to the rim once and for all, then simply slip in new pads from time to time. It saved a lot of fiddle, so when I got wind of the change bought two sets of the old model!

HOLLOWTECH-2 FOR TREKKING

Flat bar tourists can use the whole XT groupset of course and this style of travel is popular on the continent. Germany even has a magazine devoted to the *Trekking Bike* and most Shimano mountain bike groupsets offer a chainset with four more teeth on each chainring, i.e. 26, 38 and 48. Why make the gears even higher on a bike that has larger wheels already and is used for gentle touring? That's because these bikes promise easier pedalling and more speed on the road, for which a bigger chainset looks the part! Plus the man in the street has a ponderous way of pedalling and might even use the 120-inch gear thus obtained! (That's assuming a 38mm tyre and typical mountain cassette with 11-tooth top. By comparison: 53x12 on a race bike with 23mm tyres makes only 116in.)

So when I received the new XT chainset to test, it was the bigger trekking version. Old XT cranks were hollow already so what's new about Hollowtech-2 is an oversized tubular axle and bearings outside of the shell. My sample came with a plastic guard attached to the outer ring but I removed this – not because I have any prejudice against guards but because others in this country think they look naff, so all UK imports will come as pictured, baring their teeth.



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You might suppose the middle ring of a triple should line up with the middle sprocket of a cassette, with any bias favouring the low gear end, since most people will engage big ring whenever the road tips down, but crank middle-and-bottom for all they're worth before dropping onto the inner. It makes sense that the more teeth you have in play and the better they line up, the more efficiently the bike is driven.



The middle sprocket of nine on a 135mm hub is 45.5mm from the bike centreline, however the middle ring on my existing XT chainset was at 50mm.

That's already one sprocket out in the wrong direction, so I wasn't best pleased to find the new one at 52.5mm! So I disobeyed the instructions and shuffled the washers to make it 49.5mm.

FRONT MECH

Then I fitted the new front mech, specially designed for trekking/touring bikes with 700C wheels. What difference does that make compared to a mountain bike? Well, the hub is higher (and the bottom bracket often lower) so the chain runs onto the chainset at a higher angle. Accordingly Shimano offer front mechs with their cages set 3° further around the clock. But they have the same model numbers so the only way to tell is by finding 63°–66° stamped on the back of the cage itself.

The mech I took off said 66°–69°. That's for mountain-bikes, but it had worked fine with the bar-end shifters on this bike – as did the new one. I guess that indexed front shifting (no trim positions in flat bar systems) may be more sensitive to exactly where the chain runs in the cage.

One thing I did notice about the new front mech was my reduced chainline took it to the limit. Any less and it wouldn't have shifted inner ring. My collection of Shimano catalogues charts a persistent outward drift in chainline. Up to 2003, all mountain bike mechs would accommodate 47.5mm. Very few now will do less than 50. So operators of older machinery in need of a new front mech might have to get a longer bottom-bracket – and to pedal like a duck! In that regard the new chainset isn't actually much different from old XT. Both are within half a millimetre of 180mm across end faces: some 20mm wider than other triples in my stable. Maybe that's why we need a stiffer axle! However I can't say I felt any difference in that department.

Bottom brackets with oversized external bearings might last longer, if the extra size packs bigger balls and better seals. I've not worn one out yet, but I know people who have – much sooner than good ol' square taper. Apparently the bearings are easy to replace. It is the way of the modern world.



SHADOW REAR

The new XT thing I was most keen to try is the Shadow rear mech. Where most rear mechs stick out a bit and tend to knock against things, Shimano have re-arranged the mechanism and trimmed 12mm.

That may not sound a lot, but it's enough for the mech to tuck out of harm's way in the shadow (sic) of the Big Gripper dropouts on my mountain bike. The altered cable attachment also works really well with the top routing on this and many other suspended frames: almost in a straight line instead of the usual friction-prone loop.

A week in a Spanish rockery provided plenty of opportunities to clobber this rear mech on something hard and it did have one close encounter of the limestone kind. I heard the chink and found the mark, but no real damage. Any normal mech, with another 12mm of conflict, might well have bent.

I got in a lot more miles and shifts by fitting this mech on a touring bike, where it's low-profile shouldn't be needed unless your panniers are unusually deep – but I have seen some that really did hang that low! The chainstay cable route didn't go as neatly here, even compared to a conventional mech, but it shifted perfectly with bar-end controls over a fortnight of very hilly touring.

In conclusion: an ideal rear mech for general mountain biking, or any bike with top-routed cable. After seeing it in action several of my off-road buddies went straight out and bought one!

Details: www.shimano.com and www.ultimatepursuits.co.uk.
Individual parts are available from CTC Shop, tel: 0844 736 8459, www.ctcshop.com



» Sram i-Motion 9

£239.99 (hub and brake), £36.99 (shifter)

Reviewed by CTC Technical Officer Chris Juden

The gap between ordinary internal gears and Rohloff got a little smaller last year when Sram leap-frogged Shimano, moving up from 7 to 9-speed. The first version of the i-Motion 9 came with a coaster brake and I wanted to test one straight away, but Sram didn't get back to me. Finally I was able to borrow one from Roman Road Cycles, and although the 'freewheel' version (a coaster can also freewheel actually) should now be available, even those seem hard to get over here.

All versions (there's also one for disc-brake) offer 9 gears (obviously) at 17% intervals, apart from 14% top and tail, with a 340% total range and direct drive in middle gear (5th). The coaster hub weighs 2.4kg, 440g more than the other versions, which is heavy for a brake. But I'm quite a fan of coasters. I appreciate the hands-free operation and maintenance-free reliability. If the bike still has a chain it'll stop as well as go! This is a very good one with a firm and progressive action, easy to control without skidding.

The gear cable fits between frame and chain, minimising the risk of accident damage. That's good, but I don't like the factory-sealed cable, which cannot be dismantled for fitting through frame guides or shortened to remove a friction-adding surplus loop in front of the handlebars. The cable joint at the hub interfered with my chaincase, so I had to remove the lower half.

After some running in, the hub shifted well and ran smoothly in all gears. Some ratios buzzed with many ratchets, but nothing objectionable. Over several weeks it did good service on the run to work, until becoming a little reluctant to disengage 1st gear. As the hub came with a 20T sprocket (it's not the standard type and I doubt that anything smaller could be fitted) and I have a 33T chainwheel, I didn't need bottom gear often. But after using it with a vengeance on one very steep bit of badly designed cyclepath, the hub absolutely refused to shift up and slipped its cable joint when I forced the issue. Unable to re-connect, I rode the remaining eight miles in a 24in gear. End of test. However the connection did not appear to be damaged when I removed the wheel and all gears shifted again. Maybe if I'd persisted in attempting to re-connect the control... but my hands had gotten black enough already!

I'm only 70kg, but perhaps my low gearing overloaded the hub. And the mechanism did un-jam eventually. However I cannot overlook this occurrence which threatened the Sram i-Motion 9, while nice for gentle riding, is not such a sturdy gearbox as my Sachs Super-7. That has tolerated identical abuse for years with little maintenance and no complaint.

Details: www.sram.com and www.fisheroutdoor.co.uk



« The CTC Guide to Family Cycling

£9.99

Reviewed by A to B magazine and Bicycle Trade and Industry magazine

Any review we write about our own book is going to be a bit subjective, so instead here are excerpts from the first two external reviews. *A to B* magazine called it 'a super commonsense guide to cycling with children', adding: 'The real strengths of *Family Cycling* are the chapters on getting started, choosing bikes as children grow, and the thorny subject of helmets... Other chapters cover roadcraft, clothing, child seats, trailers, trailer bikes and tandems. Dan does an excellent job, providing oodles of useful information on the how, what, why and where.'

Bicycle Trade and Industry called it: 'a book that deserves to be on every [bike shop] counter, by every checkout, put so decision-making parents can see how easy it is to live by two wheels alone.'

Details: ISBN 9780954817640, turn to page 26 to order

» Specialized top mount brake lever extensions

£14.99/pair

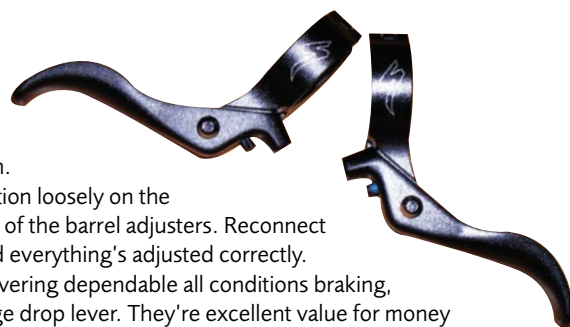
Reviewed by touring and commuting cyclist Michael Stenning

These auxiliary levers are designed to allow braking when riding on the tops, which can be a godsend when touring or a more upright posture is required – hence their popularity amongst cyclo-crossers. Available in two clamp diameters (23.8 for standard road bars and 31.8 for oversize) these work by interrupting the main cable run.

Fitting is straightforward: unravel the bar tape a few turns, open the clamps and position loosely on the bars. Disconnect the inner wire(s) and cut the outer cables so they slot flush either side of the barrel adjusters. Reconnect the inner cable, tighten the top mount clamps and re-tape the bars once you're satisfied everything's adjusted correctly.

Modulation and feel are excellent paired with cantilevers or dual-pivot sidepulls, delivering dependable all conditions braking, even when heavily laden. Their performance is almost comparable to that of a mid-range drop lever. They're excellent value for money and consume nominal bar space but are better suited to touring and commuting duties given a tendency to become slippery in muddy conditions.

Details: 80g/pair, www.specializeduk.com





« Steripen Classic

£70

Reviewed by expedition cyclist Cass Gilbert

Drinking clean water in developing countries is fundamental to keeping healthy (and thus happy) on tour. The Steripen uses a UV lamp, one of the most effective means of sterilising water, and zaps even those evil giardia parasites, bane of many a tourer. We used the filter in Laos and found it both effective and easy to use. Press the button once and stir the 'pen' around. Ninety seconds later, a litre of water is ready to drink. A blue light is emitted, signalling the filter is working. We drew our water from village taps so sediment wasn't an issue – otherwise you'll need to let the water settle. The only issue in remote areas is battery life. Four NiMH AA batteries offer up to 100 litres of filtration, though in practice we had trouble finding reliable electricity to top up our batteries. Lithium batteries (100 litres) and Alkalines (a pitiful 10-20) can also be used, but we didn't like the idea of disposables. A low battery indicator would have been handy, as ours cut out unexpectedly on a few occasions – the newer Journey features this. All in all though, a quick, easy and effective filtration system as long as you're within range of charging your batteries. I'd recommend bringing some purification tablets as a backup.

Details: Rosker, 023 9252 8711, www.rosker.co.uk

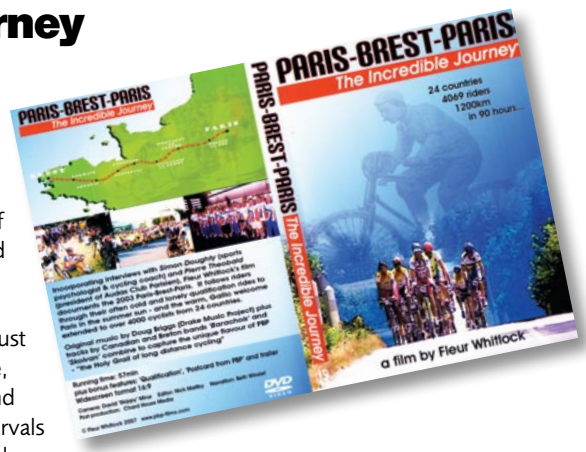
» Paris-Brest-Paris – The Incredible Journey

£15 plus £1.50 p&p

Reviewed by Sheila Simpson, editor of *Arrivée* magazine

If you have ever wondered how far you could cycle, if you just kept on going, with regular restaurant meals and a few naps, then this is the film for you, though it is difficult to capture the flavour of PBP, which Audax Club Parisien stage so magnificently every four years. Even in the qualifying rides in Britain, we can see the necessary grim determination in the faces of both riders and organisers whilst, interviewed on the day before the event, my own focused tension is clearly visible. The enthusiasm and goodwill of spectators and riders at the start is infectious and throughout the ride, day and night, the wonderful French public cheer the riders and hand out much-needed water and black coffee. But most of the participants are just ordinary cyclists and fatigue and sleep deprivation begin to drain riders and volunteers alike, the brave smiles look forced, and viewers will wonder why they continue, indeed we see and hear from some of the 15-20% who abandon, their expectations dashed. By contrast, at intervals throughout the 57-minute video, a relaxed, smiling Simon Doughty (sports psychologist and cycling coach) sits in his office, offering valuable comment and explanation.

Details: from www.pbp-films.com



« Velo-re Recycled Tyre Belt

£15 plus £1.50 p&p

Reviewed by expedition cyclist Cass Gilbert

Velo-re produce a variety of very cool and unusual belts from worn out tyres, and their green credentials even extend to collecting them from local shops with a bike and trailer. The standard belt is £30; you can pick from a choice of slick and semi slick, with a variety of buckles to suit your taste. Or for £42 you can stand out with one of their one-off designs, whether it uses a streaky yellow race rubber, a blue BMX tyre or a skinny green cyclo-cross model. Being an expedition tourist at heart, I opted for a standard semi slick, using Vredestein's classic Spyder (in a 700x35C), which was well worn after 1,800 miles of London commuting, so the accompanying tag informed me. Steam cleaned and neatly riveted together, it quickly proved the envy of all my biking friends.

As a belt, it performed perfectly well, the only downside being the aggressive outer tread that can catch on belt loops – probably not

something that was built into the tyre's design parameters! For the ultimate in personal touch, Velo-re will gracefully retire your own well-travelled tread, so it can spend the rest of its life wrapped around your waist. What better way to celebrate the completion of an epic tour, or the end of a race season? The charge for this is £29, excluding outward but including return shipping. I've a journey planned in South America next year – I know where my tyres will be going as soon as they're brought me safely back home.

Details: tel: 07796 788 259, www.velo-re.com