

Cycling answers

Your technical, legal and health questions answered by CTC's experts

THE EXPERTS



CHRIS JUDEEN
CTC Technical Officer and qualified engineer



PAUL KITSON
Partner at CTC's solicitors, Russell, Jones & Walker



JOE BEER
Cycling & triathlon coach

LEGAL CYCLE LANE PRIORITY

Q If there is a cycle lane running around the edge of a roundabout, without a solid line at its edge but marked in green tarmac, what are the implications for priority? If the cyclist is on the roundabout at the edge, any car driver exiting the roundabout will cross the cycle lane. Who has priority? And if the driver ran into the cyclist, presumably the cyclist could make a claim against the driver for damages?

What about another situation. Let's say that there is a car already on the roundabout when the cyclist wishes to join it. The cyclist does so, riding exclusively in the cycle lane. Does the cyclist have to give way to the driver or not, since the cyclist will be in a separate lane? What if there are no give way markings on the cycle lane itself?

Finally, if the cyclist chooses not to use the cycle lane on the roundabout but instead rides close to the centre, obeying all necessary traffic regulations, could a driver make a claim against a cyclist in the event of an accident? As I understand it, cyclists are not obliged to use cycle lanes yet drivers seem to expect cyclists to be there.

TL Eason, Potters Bar

A Negotiating roundabouts can sometimes be a tricky manoeuvre in heavy traffic, particularly for riders lacking experience and confidence. Quite rightly, rule 187 of the Highway Code makes it clear that motorists should in all cases watch out for cyclists and give them plenty of room.

The presence of a cycle lane marked in green tarmac around the edge of the roundabout ought to make motorists extra vigilant and also be of assistance to cyclists,



particularly the less experienced. Clearly, a motorist will have to give way to a cyclist when entering or exiting the roundabout. If there were a collision then a cyclist ought to be able to establish liability against the motorist and be able to pursue a claim for damages for any injuries or losses sustained.

The provision of a cycle facility on a roundabout ought to enhance safety for cyclists. Motorists should not drive on the cycle lane and this would therefore avoid a cyclist having to give way when joining the

and is entitled to negotiate the roundabout by signalling right and moving across to the centre if, for example, carrying out a right hand turn.

Mr Eason is correct to point out that motorists often expect cyclists to use cycle lanes provided. I am sure many readers will have encountered an irate motorist sounding their horn if they are not using a cycle lane. In this situation, the motorist still owes a cyclist the same duty of care as they would do if there was no cycle facility. If there were a collision then the cyclist would be able to pursue a claim against a negligent driver. It is possible that the vehicle insurers in this situation might argue that there should be a finding of contributory negligence on the part of the cyclist for not using a cycle lane. However, in my judgement it would be wrong of a trial judge to make such a finding.

Paul Kitson

“A cyclist is not obliged to use a cycle lane and is entitled to turn right at a roundabout by moving across to the centre”

roundabout. If there are no give way markings on the cycle lane itself then the cyclist will have priority. If the cycle lane is designed with give way markings then clearly the cyclist would have to give way to other road users.

The latest edition of the Highway Code published in 2007 states at rule 61 and rule 63 that the use of cycle routes, cycle facilities and cycle lanes are not compulsory and will depend on the experience and skill of the cyclist. The rules go on to state that these facilities can make journeys safer. A cyclist is therefore not obliged to use the cycle lane

PEDALS & SHOES GOING CLIPLESS

Q I have just got a Dawes Galaxy, which I am very much enjoying. (It was my dream bike as a teenager, and my wife bought me it for my 40th.) I have plans to do Lands End – John O’Groats and everyone is telling me I should switch from toe clips to clip-in pedals. The trouble is I am confused by the number on the market and the shoes to go with them. What would you recommend?

I would like shoes which I can comfortably walk around in, as I do like to stop and walk around places

of interest when I am touring. One last thing: do you think I am wise to switch?

Paul Kerr, Tattenhall, Cheshire

A Last thing first: yes. But there's a learning curve to twisting your foot outward rather than pulling it back, so I recommend your first clipless pedals should be the Shimano Multi-Purpose pedals. These come with a Multi-Release 'cleats' (the bits you attach to your shoes), which will also let go the pedal 'binding' when you twist your foot the wrong way or simply pull it up in a panic! Another advantage of the SPD (Shimano Pedalling Dynamics) system is adjustable binding tension: turn it to minimum when learning. With this equipment you shouldn't suffer the usual clipless 'TIMBERRR!' initiation ritual – something a mature person does well to avoid!

Multi-Purpose pedals have a binding on one side only and regular tread on the other. So you can pedal un-clipped if you feel the need, and have the option of riding the bike in regular shoes. That's handy if your tourer is also used for domestic errands – no need to change footwear before hopping on the bike. If you do have another bike you can transfer these pedals to that (once you've become used to the system) and get some double-sided SPDs for the tourer. These will come with normal cleats that release only with an outward twist: so you can pull up without coming un-clipped (one snag with the multi-release variety). Either cleat type works as intended with any SPD pedal. You choose between easy release and more aggressive pedalling, fit the appropriate cleat to your shoes, then fine-tune by adjusting the pedal.

SPD is one of many clipless



■ GEARING HOW MANY TEETH?

Q Do you know anyone who makes a chainring system that goes as low as 16 teeth on the inner? I read about one years ago. Failing that do you know of anyone who makes a chainring with very few teeth?

*Stewart A Neely,
Crowthorne, Berks*



A I guess you've heard of the Avid Microadapter, which adapted 58mm×5 bolt circle chainrings, of 20 or 22 teeth, to the original MTB standard inner ring 74mm bcd, on which 24T is the smallest that can be fitted. It only worked with some designs of crank (the adapter replaced inner ring spacers) and Avid stopped making it several years ago, but St John Street Cycles still have some. Nowadays 22T inners are standard, on a 64×4 bcd, and TA can still accommodate 20T on their Vega and Carmina systems.

I think you may have heard of the custom milled chainrings made by Chris Bell at www.highpath.co.uk (01570 470035). I believe that something as small as 16 teeth can thus be made for old TA 5-pin cranks at least.

Chris Juden

systems where the cleat is designed to sit in a recess in the sole. So there's any number of available shoes, boots, even sandals that are also good to walk in. A shoe I'd particularly recommend for touring is the Exustar Stelvio, as it's the only one I know of with an un-perforated black leather upper, so it resists the wet and can be kept looking smart with a dash of polish. The sole is also better for walking than most.

Chris Juden

■ FITNESS BEATS ME

Q I use a heart rate monitor when exercising either on my bike or when running to ensure that training is taking place in the right zone, i.e. 60-80% of maximal heart rate, which represents aerobic metabolism. I have found that when cycling the rates can go quite high (160-170 beats per minute) and it will feel fairly comfortable and sustainable, yet when running these heart rates would be flat out running



82 beats per minute is easy by any standard, but to find your limit you need a 'max test'

and not very sustainable at all. Can you offer any explanation for this phenomenon?

Also, in order to find out your maximal heart rate, would a stress test be more accurate than simply using 220 minus your age? I feel this latter calculation is quite arbitrary and does not reflect the activity of the subject, where for example an active older person may tolerate higher heart rates than a younger sedentary person. Finally, do you have any suggestions for integrating a cycling and running training regime for general fitness? Can the two sports be harmoniously and effectively combined, or are there any pitfalls to be aware of?

Sue Booth, Bolton

A Firstly, your higher heart rate (HR) while cycling than running cycling is unusual.

As running requires more physical support and there's no freewheeling effect, HR is generally higher running than cycling. Maximum heart rates are also higher while running. However, if your muscles are more trained to cycling than running, or are better at the former than the latter you may find the perceived



Cycling and running can be used together for general fitness. They can be combined at specific times by elite athletes but they do have differing requirements and as such peak fitness in a sport comes largely from training in that sport. For general fitness, running gives you a constant training load and is a good time-

OVER TO YOU

NO JUDDER WITH DUAL-PIVOTS

Regarding the Dawes Super Galaxy review (p64 Feb/Mar08 Cycle) I have a Dawes Horizon and had very similar problems with the Tektro Oryx brakes: front wheel judder and squeal.

I decided to fit Tektro long reach dual-pivot sidepull brakes (R556). These worked well right from the outset, no front wheel judder or squeal, and now that they have bedded in are a much better brake.

The only problem I had was that the fork crown and frame bridge each had only a small threaded hole, that I had to drill out to 6mm.

David Millerchip, Reading

Also see the review of Tektro CR520 cantilevers on p62. Their firmer action reduces the feedback between fork flex and cable hanger that can cause judder in front cantilevers. It looks like Tektro have all the answers!

Chris Juden

“Running is a time-efficient way to train, but injury rates for runners are very high in comparison to cyclists”

exertion is higher running because you are more efficient at cycling. In both cases, the point at which you have to convert from nose-breathing to opening your mouth represents around 80% of maximum.

And yes, you are right: a stress test, better known as a max-test, is the best way to ascertain your maximum heart rate. This is very strenuous. It requires a couple of light days of exercise beforehand and a willing person to motivate you and note the data at maximum. You can get a max test protocol at www.jbst.com/MAXtest.html. If you can volunteer for any of the many studies that take place at universities and colleges, you can get tested, help to further science and get to learn a bit about yourself.

efficient way to train. As it involves moving yourself over the ground under your own muscular frame it also works very well to accelerate fat loss. The downside is that the impact of running on tarmac, concrete or in poorly chosen shoes means injury rates in runners are very high in comparison to cyclists.

Cycling isn't so time efficient for getting fit but injury rates are lower, because it is low impact. You can keep cycling for longer periods and it is simultaneously useful for errands and transport. However, more equipment, mechanical problems and less time efficiency in very short sessions means it tends to be better when time is plentiful or you are combining training and life's chores.

For mixing running with cycling, an example week could be:

Mon: lunchtime run on soft surface, 20-40 mins

Tues: rest

Wed: cycle errands/transport, 1-2 hours

Thurs: cycle commute + evening run 20-30 mins

Fri: quick morning run on soft surface, 20 mins

Sat: rest

Sun: long cycle, 2-5 hours

Joe Beer

CONTACTING THE EXPERTS

Each issue, *Cycling Answers* addresses a selection of questions that we receive. We regret that *Cycle* magazine cannot answer all unpublished queries. Please note, however, that general and technical enquiries can also be made via the CTC Information Office, tel: 0844 736 8450, cycling@ctc.org.uk. And don't forget that CTC operates a free-to-members advice line for personal injury claims, tel: 0844 736 8452.

Enquiries for possible publication should be sent to the Editor (see p80). Technical enquiries can be sent to the Editor but will get there quicker if they go direct to Technical Officer Chris Juden (same address as the Information Office).

Cycle is looking to recruit a medical correspondent. Interested and qualified parties should contact Dan Joyce: editor@ctc.org.uk.