

Q & A

Your technical, legal and health questions answered.

This issue: hub dynamo advice; avoiding cable run on bar bags; carbon's strengths; broken ankle rehab; and flooded roads

QUESTION
OF THE
MONTH

● Highway authorities are responsible for maintaining roads, which includes clearing road drains and gullies



LEGAL

FLOODED ROADS

Q Are there any legal requirements for councils to provide a specified number of gullies or drains in road gutters? The A230 near me has a considerable flow of rainwater after even moderate rain, as the gullies are hundreds of metres apart. It forces me to cycle further into the road than I want to.

IAIN STURGES

A Standing water on a road surface is a hazard for cyclists and other road users. Tyres are more likely to lose traction and it is difficult to see hazards beneath the water such as potholes.

There is no legal requirement for a specific number of gullies or drains, but I have pursued claims against highway authorities alleging failure to *maintain*

drains or gullies. A highway authority has a statutory duty to maintain the highway pursuant to Section 41(1) of the Highways Act, 1980. Does the highway authority's duty to maintain the highway extend to its drainage system? The leading authority on this is the 1968 case of *Burnside v Emerson*, considered by the celebrated Judge Lord Denning (then the Master of the Rolls). In that case, the plaintiffs (prior to 1998, claimants were called plaintiffs) were injured when their car, travelling at about 25mph in very wet conditions, was struck by another car, which swerved on entering a pool of water on the road.

There was evidence that the other car must have been travelling at approximately 50mph at the time of collision; its driver was killed. There was also evidence that the particular part of the road was frequently flooded in wet weather and that this was due: (a) to a drain not being placed at the lowest part of the road; and (b) to a lack of cleaning of the drain by the highway authority. A

MEET THE EXPERTS



CHRIS JUDEN

CTC Technical Officer
and qualified engineer



DR MATT BROOKS

Cycling GP



PAUL KITSON

Partner from Slater & Gordon
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claim was brought against the highway authority under the Highways Act 1959 (the previous version of the 1980 Act).

Lord Denning MR held where there is a permanent danger in the highway by reason of non-repair, failure to maintain may be inferred. Where there is a transient danger due to the elements, the existence of danger for a short time is not evidence of a failure to maintain. In this case, Lord Denning MR upheld the findings of the trial judge that the plaintiffs had established a cause of action against the highway authority because it failed to maintain the drainage gully, which had not been cleared of detritus and vegetation, thus causing the standing water.

It has been argued by some highway authorities that Lord Denning's case is no longer good law. However, in 2006 the Court of Appeal in *DETR v Mott MacDonald* held that the highway authority's duty to maintain the highway did extend to drains and gullies, not just the road surface. So it remains possible to pursue a claim for damages if the injury or death was caused by a failure to maintain.

PAUL KITSON



• The J-shaped 'noodle' from a V-brake can be used to create a 90 degree bend in gear cables

TECHNICAL

DYNOTOUR QUESTION

Q I read with interest the review of a Spa tourer with dynamo hub. A dynamo seems perfect for touring, but what about strength? If I am carrying 20kg in my front panniers, will a dynamo handle it? And do they last as long? And which lights and mobile charger should I pair it with?
MR WILKES

A Don't worry about a dynohub's load-carrying ability: that should never be a problem, even with the extraordinary frontal load of 20kg.

If you want the best, that'll be Schmidt's new SON28. On my tourer, I have Shimano's top model dynamo hub. It's almost as efficient, reasonably light and durable, but cost less than half as much. The SP hub on the Spa tourer is intermediate in price, equals the SON28 in efficiency and looks very neat, but its closer flanges build a slightly weaker wheel and its small 'sealed' bearings are unlikely to last as long, I think, as

Shimano's cup and cone. We won't really know about that for a year or three.

I use a Busch & Müller E-Werk transformer, but that's because (in addition to the usual USB devices) I have a 7.6V camera battery. If all you want to charge is a phone and other USB devices, the best lamp will be the Busch & Müller Luxos IQ2-U, which is not only a most excellent headlamp, but also incorporates the electronics to power a USB socket (with a small internal cache battery to keep it powered when you pause), saving the expense and clutter of a separate transformer and its wiring.

CHRIS JUDEN

TECHNICAL STI 'WASHING LINES'

Q In the review of the Spa Cycles tourer in the April/May issue, Chris Juden says: 'it puts gear cables in the way of a bar-bag but there are workarounds'. I've never found one. I don't want to replace my old Shimano 105 gear levers, which work fine. If you could point me in the direction of the workarounds, I'd be most grateful.
KEN KENYON

A I mentioned one commonly recommended workaround, Nokon flexible casings, in a Q&A on 'Chafing Gear Cables' in the previous issue (p61 F/M '14). And as a follow-up to that I received an even better suggestion (more readily available and much cheaper!) from John Kinahan in Belfast. He uses a pair of 'noodle' guide pipes intended for V-brakes, to impart sharp 90° bends on exit from the shifters, which as you can see in the photo keep his cables just clear of the bar bag. These pipes are sized for thicker cable, so could introduce some indexing slop, but over such a short length this



• Dynamo hubs are ideal for tourers. Don't worry about front pannier weight



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● Carbon fibre is literally a black art. Be guided by manufacturers' warranties and rider-weight limits

» does not seem to be a problem.

It's interesting how these ideas get around. John saw this on a CTC tour in France, on the bike of Oxford member Eve Thornton, who got it from...?

I'll add another suggestion: wider handlebars. Unless you care about tiny aerodynamic gains, there's no such thing as a too-wide dropped handlebar. Even the widest available drops are narrow compared to other shapes of bar.

CHRIS JUDEN

**TECHNICAL
STRENGTH OF CARBON**

Q I enjoyed the article (Feb/Mar issue) comparing Ribble and Hewitt carbon road bikes. I am a 17-stone rider who enjoys 30-plus mile rides a few times a week. I am considering buying a carbon fibre framed bike but have reservations about the strength of carbon fibre, particularly the strength of fork. I would appreciate your comments on my reservations concerning my weight before making a purchase.

DAVID AYLETT

A Anything is strong enough if you use enough of it in the right way, and in the case of carbon fibres you don't have to use a whole lot. But the way of using them is crucial and there's my problem.

From the outside of a 'carbon' frame or fork it's impossible to tell anything about how those fibres are disposed within the plastic matrix. Unlike metal, where fitness

for purpose may be inferred from the alloy specification, tube diameters and wall thickness (known or guessed from weight), a carbon component must be taken entirely on trust, and all we 'outsiders' can do is observe the pattern of success or failure.

In the early days of carbon forks and frames, there were quite a few failures, but we seem to be beyond the learning stage now. You must nevertheless accept that sports equipment – regardless of what it's made from – is made for performance rather than long-term durability, so it WILL fail sooner or later: sooner if you're heavier than average, but later if you ride less than average. Let the manufacturer's warranty be your guide – it's all there is to go on. I rather like the fact that Cannondale give a lifetime warranty – or they did last time I checked.

Some manufacturers specifically exclude use by riders of more than a certain weight, so do check those warranty conditions.

CHRIS JUDEN

**HEALTH
BROKEN ANKLE REHAB**

Q I recently had an ankle operation and will be in plaster for six weeks followed by six weeks in a boot. After this, I have been told that I can start walking and cycling again. I was cycling 120 to 150 miles a week and doing a number of sportives and audaxes, which I want to get back to as soon as possible. Please can you

advise me on the best training to regain my fitness?

DAVID MORRIS

A There are several general principles here and I'm afraid I'll have to resort to a few clichés. Firstly, everyone is different so your recovery will depend on a number of factors, including the type of injury and surgery you had.

Next, the more you put in, the more you'll get out, so do persevere with the exercises, tedious as they may be. Thirdly, don't try and do too much too soon. Once back on the bike, build up your mileage steadily, listen to your body and don't overdo it.

The internet is awash with anecdotal advice and personal experiences, some very useful and some less so. I came across several cyclists who were advocating use of a turbo trainer (if you have access to one) during the recovery period after ankle surgery, on the basis that it allows you to control the stress on the ankle joint.

Exercises to strengthen and improve flexibility of the ankle after the boot is removed will pay off in the long-term. You could take the opportunity to concentrate on other activities like walking and swimming during the initial stages of your recovery. If you get the chance to see an NHS physiotherapist, they will be able to advise you on appropriate exercises. If you need basic exercises and have not been provided with any, try typing 'ankle exercises NHS' into an internet search engine of your choice for some NHS hospital physio advice leaflets which can be downloaded. You might also want to consider seeing a sports physio for some more specific advice.

MATT BROOKS



● Exercises for strength and flexibility when the boot comes off much improve recovery

Contact the experts Send health and legal questions to the Editor (details on p3). We regret that Cycle magazine cannot answer unpublished health and legal queries. Technical and general enquiries, however, are a CTC membership service. Contact the CTC Information Office, tel: 0844 736 8450, Email: cycling@ctc.org.uk (general enquiries) or Chris.Juden@ctc.org.uk (technical enquiries). You can also write to: CTC, Parklands, Railton Road, Guildford, GU2 9JX. And don't forget that CTC operates a free-to-members advice line for personal injury claims, tel: 0844 736 8452.