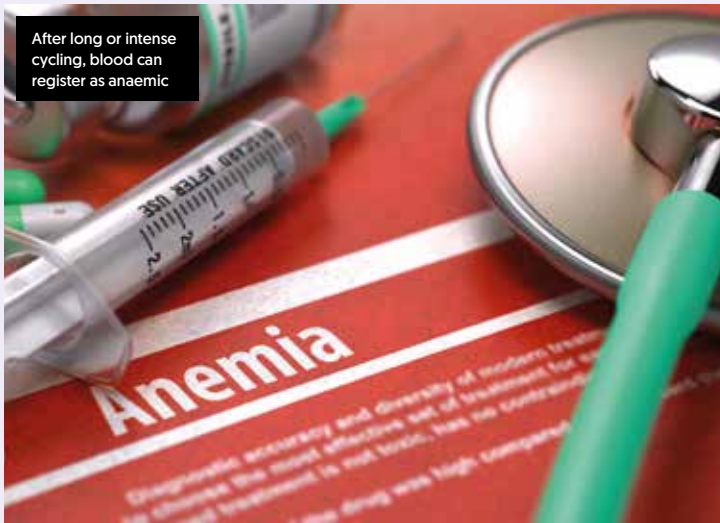


CYCLOPEDIA

Questions answered, subjects explained – Cyclopedia is your bimonthly cycling reference guide

Right: Alamy



After long or intense cycling, blood can register as anaemic

Left: Alamy



Technical Drivetrain dilemma

Q I have been searching for replacement chainrings for a 4-arm Truvativ FireX, ISIS Drive, triple 28-38-48T 104/64BCD. It appears that Truvativ/SRAM 104 BCD rings are no longer made in the size I would like and I can't find old, unused stock. Do you know of any good quality chainring brands that will fit this triple crank?
Simon Steel

A The likelihood of finding direct replacements for nine-speed four-arm 104/64mm BCD chainrings in the specific sizes you require is low. Given the limitations of the ISIS drive bottom bracket design, which offers no significant advance on the proven square-taper system, a conventional triple chainset with square-taper axle fitting would offer an easy, long-term solution at a cost not much greater than that of a pair of chainrings. Touring specialist Spa Cycles (**spacycles.co.uk**) sells cranks and chainrings separately, allowing you to fit the chainrings of your choice.

Richard Hallett



Technical Gears for touring

Q The review of the Genesis Tour de Fer 30 in the Feb/Mar issue comments on the fact that the gearing is too high for a touring, and I agree. In a letter in the next

Q & A Health Cyclists' anaemia?

Q Twice when I went to give blood, after cycling six miles at speed, my blood wasn't taken as a test showed it to be low in iron. I then had a test by the local GP and found I wasn't anaemic. Why is this?
Tom Ambrose

A Healthy people who donate blood may be told after intense or long-distance cycling that they are anaemic and iron deficient, yet they're not when retested later.

This phenomenon has been recognised in marching soldiers since 1881, and subsequently in long-distance runners. It has only recently been described in cyclists and swimmers, who don't heavily impact their feet.

There are several elements to the anaemia: the red blood cells get physically smashed with impact to the feet; the blood volume of an endurance athlete can be 6-7 litres rather than 4-5 litres, so the blood is diluted and has a lower haemoglobin concentration due to the excess plasma volume; and there is a small loss of blood into the gut during endurance sports. This all contributes to the abnormal tests after exercise.

It isn't an illness but a normal consequence of heavy training and sports performance.
Dr Kate Hattersley

Your Experts



DR KATE HATTERSLEY
Cycling GP
{Health}



RICHARD HALLETT
Cycle's
Technical Editor
{Technical}



RICHARD GAFFNEY
Principal Lawyer,
Slater + Gordon
Lawyers
{Legal}

Coronavirus

For up-to-date cyclists' advice regarding Covid-19, visit: cyclinguk.org/coronavirus

month's magazine, a reader said he has swapped the Tiagra chainset for a Deore 48-38-26 one. My local shop says you can't mix Tiagra shifters with a Deore chainset. What is your advice about the compatibility issue?

Iain Kitt

A The spacing of the 10-speed chainrings should be the same. An MTB bottom bracket assembly is 5mm wider than a road BB so the Deore chainline will be 2.5mm further outboard, but the Tiagra triple front mech should be able to handle this if adjusted to suit.

Richard Hallett

Dan Joyce adds: As proof of this, you can buy off-the-peg touring bikes that mix mountain bike triple chainsets and road front derailleurs. Surly's Disc Trucker (pictured) has a 48-36-26 Shimano Alivio mountain bike chainset and a Shimano Sora road bike front derailleur. (Alivio and Sora are one tier lower than Deore and Tiagra respectively.)



You can report thorns or mud on the road using fillthathole.org.uk

Legal

Thorn in my side

Q Last winter was grim not only because of the wet weather but because of punctures caused by hedge clippings and mud with sharp stones strewn across country roads for mile upon mile. Are farmers under any legal obligation to clear up the mess they make? Is there any statutory advice as to what is reasonable, as opposed to what is unacceptable or presents a danger?

Simon Gardner

A Along with highway authorities and other private landowners, farmers owe a duty of care to the public by ensuring that their actions do not create a dangerous situation in the normal everyday usage of the road.

When you encounter a road dangerously littered with thorn hedge trimmings or covered in thick layers of mud from a farm entrance, I would recommend that you contact the police or local council. They can take the appropriate action to make the road safe for use. And if someone is subsequently injured, the responsible party will be unable to deny that they were unaware of the problem.

If you are injured or suffer property damage as a result of a third party's negligence, you may have the basis of a legal claim. In order to establish liability for failure to maintain a highway, the claimant must prove:

- That the highway was in such condition that it was dangerous to traffic and/or pedestrians in the sense that, in the ordinary course of human affairs, danger may be reasonably foreseen from its continued use by the public.

- The dangerous condition was created by the failure to maintain or repair the highway.

- The injury or damage resulted from such failure.

Failure to establish any of the three criteria above will result in the claim being dismissed.

The test for creating a dangerous situation was viewed as a test of reasonably foreseeable harm to the users of the highway.

The cases of Mills v Barnsley and Griffiths v Gwynedd CC introduced a fourth element when dealing with highway authorities: that of practicality. Practicality is an analysis of cost, benefit, and location. In Griffiths v Gwynedd CC, a cyclist swerved to avoid debris but cycled into a defect known by the authority and fell on a mountain road. The case and appeal were dismissed as the remoteness of the accident location made it impractical for the authority to repair the defect.

If you have been injured or your property damaged in such circumstances, take a high-quality photograph or video that shows the size and location of the obstruction(s)

or defect(s). Such evidence also provides a record, because defects/obstructions can be removed or repaired at short notice.

Richard Gaffney



The Swytch kit, like many hub motors, can be built into a suitable 20in wheel

Technical E-bike conversion

Q I have a Tern Verge folding bike and wonder if this can be converted to electric? If so, what motor would you recommend and who could do it?

Andrew Davidson

A The Tern Verge X11 rolls on 28-451 tyres, or 20x1 1/8" in old money. The easiest option would be to fit a 20" front wheel conversion kit. They are straightforward to fit, although many outlets will do the conversion if you'd prefer not to do it yourself. Just make sure that the 20" wheel rim diameter is the same as your current one: 451mm if your Tern has the same size wheels as the Verge X11.

Richard Hallett

Get in touch

EMAIL your technical, health, or legal questions to editor@cyclingsuk.org or write to Cyclopedia, Cycle, PO Box 313, Scarborough, YO12 6WZ. We regret that Cycle magazine cannot answer unpublished queries. But don't forget that Cycling UK operates a free-to-members advice line for personal injury claims, **TEL: 0330 107 1789**.