

# BIKE TEST



**STEEL AUDAX BIKES, £1200**

## Year-round road bikes

Road bikes with deeper drop brakes and mudguards better suit typical UK conditions.

**Chris Juden** reviews a Spa Steel Audax and a Charge Juicer Hi

» **LIGHTWEIGHT BIKES** nowadays usually have frames of aluminium, titanium or carbon (-fibre reinforced plastic). But steel still has its merits and is enjoying a bit of a comeback with riders of a nostalgic bent and those who want something other than the mass-market.

Mudguards, for instance, don't fit easily into most road bike frames, and if you want something better than a bodge, the frame will most likely be steel – although a few alloy and titanium ones can be found that will also fit tyres up to 28mm. One good example is Spa Cycles Ti Audax (reviewed F/M 2011).

Their Steel Audax is much the same bike for £350 less and only 280g more, thanks to a frame made instead from Reynolds 725.

Charge, meanwhile, claim that Tange Prestige steel tubing gives their steel-framed road bikes – many of which also come with mudguards – 'a svelte and titanium-like feel'. Their Juicer-Hi is also in the audax/sportive style and its horizontal top-tube betokens a retro twist.

### Frame, fork and ride

Spa's choice of Reynolds 725 is what we used to call 'oversize', in which the top-tube,

down-tube and seat-stays are each 1/8in fatter than the glory days of steel frames, whereas Tange Prestige is the premium Japanese tubeset from those days. Its fractionally slimmer tubes maintain the Juicer's retro theme and look especially elegant in that pale grey colour that turns lilac in the shade. But you'd better not chip it, because such enigmatic finishes cannot be touched up. A dab of Henry Ford's favourite colour, on the other hand, is easy to apply. And whilst oversize steel is not fat by modern standards, every girl knows that things look slimmer in black!



SPA AUDAX

So how do they ride? Just like a good bike should. Provided a frame is stiff enough not to shimmy, and these didn't, I don't think what it's made of makes a tangible difference. I've never felt the notorious harshness of aluminium or the mythic comfort of carbon and reckon most such musings must either be imagined or down to something else, such as tyres, saddle, handlebar shape, steering geometry, or a different riding position.

Spa give you the best chance of a perfect position by offering a choice of stem extensions and leaving the fork steerer long. A stack of spacers doesn't look so pretty, but keeps your options open. You can cut the steerer down and cut out some spacers when you've decided on your bar height. (Angle the stem down so you can flip it over to raise the bars a couple of cm when age and arthritis dictate a more upright posture.)

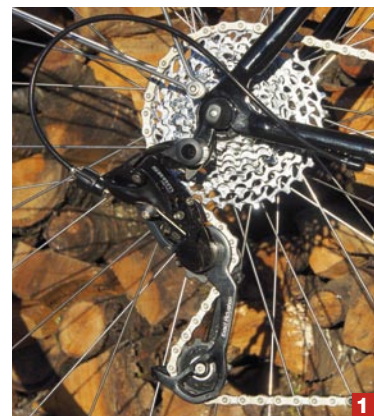
Charge make their bike look good in the showroom with a cut-down steerer and a meagre 15mm of spacers. I'm glad I picked the medium

size. Even so, the bars were a little low for me (having reached the stage of life when they must come up higher) and predictably too far away for my short torso, but by borrowing Spa's stem I got close enough for comfort.

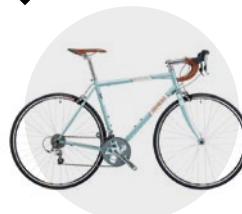
Spa's geometry is as close to their well-judged specification as I can measure, whereas it's probably a good thing that very few of Charge's dimensions correspond with the table of random numbers on their website! 'L' shorter than 'M'? Unlikely!

The main actual differences between the two test bikes are angles, top-tube slope and length. The Juicer's one degree steeper seat tube simply means you'll slide the saddle further back on its post, so it ends up just as far behind this bike's head in spite of the horizontal top tube being 1cm shorter than the Audax's equivalent dimension. The Juicer, having a steeper head, shortens its front centres into the toe overlap zone, whereas the Audax mudguard just clears my size sevens. The Juicer's guard clears

1 Sram Apex cassette puts mountain gears on a road bike



Also consider



1) Genesis Equilibrium 10 £1150 Reynolds 725 frame, carbon fork, Shimano Tiagra gearing with 12-28 cassette, 57mm-drop brakes. Comes with SPD pedals. [genesishikes.co.uk](http://genesishikes.co.uk)



2) Kinesis Racelight TK2 £1200 Aluminium frame, carbon fork (alloy fork version is £150 cheaper), 57mm brakes, Shimano Tiagra (12-28 cassette), Shimano R500 wheels. [kinesisbikes.co.uk](http://kinesisbikes.co.uk)



CHARGE JUICER HI

too – but only because they've cut it short!

Charge keep the retro thing going with a steel fork, but a straight one, whilst Spa's carbon prongs have a gentle curve. I didn't detect much difference even there (handlebars and tyres, even narrow ones, deflect further) and though the steering geometries differ by a degree, trail and hence handling is near enough the same.

I was a teeny bit happier to let the Audax gather speed when riding downhill, perhaps because its longer front centres allow slightly harder braking.

**Devil in the detail**

Although both bikes fit what used to be standard but are nowadays mistakenly called 'long'-reach brakes, only the Audax fully exploits their clearance. The Juicer's blocks are mid-slot and whilst its mudguard fixing looks neat, the under-brake boss wastes another 5mm.

A similar contrast between pretty and practical can be found in other

- 2 Charge put their mark on well-matched parts...
- 3 ...but fail to exploit the brake clearance

details. Spa mount the front mech on a lumpish bracket that goes any height you like, whereas Charge limit your gearing options with an elegant braze-on. Spa's bottle bosses are plain round, whilst Charge's have diamond-shaped settings – poorly brazed to leave rust traps.

With wheels, Spa connect rim to hub the traditional hand-built way and Charge fit Shimano factory hoops. Both ameliorate rear wheel dish in their own different ways, Spa with differential spoking (plain gauge on the right, double-butted on the left) and Shimano with an offset rim. I'm happy with either. Charge save a couple of hundred grams with those wheels, but put half of that back on with steel-beaded tyres.

I was pleased to see Sram Apex on the Audax; it's the groupset that makes a so-called compact double chainset really useful by adding a wide-range cassette. The Juicer doesn't even fit the biggest sprocket allowed by Shimano 105, so lacks low gears, but I didn't go anywhere too steep on it. Had I



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» ridden this bike where I took the Audax, I would have struggled.

Whereas Spa fit value parts of several brands, Charge put their own name on as much as they can and achieve a more coordinated look. Their 'Spoon' for example, is basically the same Velo saddle as that fitted by Spa. They were equally comfy to sit on and matching brown bar-tape didn't make the Juicer's traditional bends more ergonomic than modern-shaped bars on the Audax.

The Juicer's shortie front guard wasn't as useless as I expected, but why steel – to be chipped and rusted by tyre-sprayed stones and water? Some things really are better in plastic! Speaking of rust, note that a rear cut-out in the Juicer's stem reveals the steel fork steerer. If this has any corrosion protection it must be very thin.

Two things I didn't like so much about the Audax were the Tioga headset – which was difficult to

adjust without being either loose or stiff – and a plastic rim tape that slipped sideways to let the edge of an eyelet puncture the tube. (Adhesive cloth tapes are now fitted by Spa.)

The Audax comes with two bottle cages, the Juicer with none. I fitted one of those cages and a pair of SPD pedals to each bike for the riding and the weighing, in which the Audax was just a tad lighter.

### Conclusion

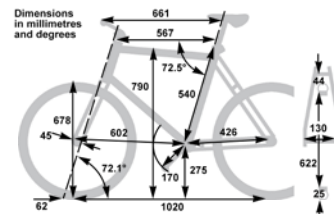
Both bikes look good and work well enough, but it's nevertheless a choice between form and function.

Charge make a very pretty bike and equip it with matching components, but overlook a few details that customers won't notice until they've had it a while. Spa sweat those details and build the most practical bike they can for the money, then simply rely upon black to look smart. Southern style or northern substance? You choose!

4 We saw a prototype of Spa's Steel Audax at the York Cycle Show last summer, where the weather underscored the value of mudguards

5 Bottle boss rust trap on the Charge

## Tech specs



### SPA STEEL AUDAX

**Price:** £1200

**Weight:** 10.32kg

**Sizes:** 52, 54, 56, 58cm

**Frame and Fork:**

Reynolds 725 db crommo steel, 2 bottle bosses, mudguard & rear carrier eyes. Carbon fork

**Wheels:** Shimano 105 hubs, 36x3 spokes, Exal XR2 rims, Schwalbe Durano 25-622 tyres

**Transmission:** 20-speed 28-121in. Sram 34-50T

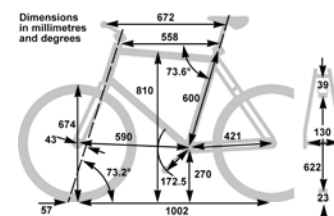
external bearing chainset, 11-32T cassette, chain, Apex mechs & double-tap shift/brake levers

**Braking:** Miche Performance 57mm dual-pivot

**Steering & seating:** Tioga headset, 100mm spacers, Deda Zero-1 6"x90mm stem. Velo Passport saddle on Uno post

**Extras:** Stronglight S-35 mudguards, 2 bottle cages

**Web:** spacycles.co.uk



### CHARGE JUICER-HI

**Price:** £1200

**Weight:** 10.46kg

**Sizes:** XS, S, M, L

**Frame and Fork:**

Tange Prestige db crommo steel, also fork, 2 bottle bosses, mudguard eyes

**Wheels:** Shimano RS10 wheelset, Continental 23-622 Ultra-Race tyres

**Transmission:** 20-speed 36-121in. Sugino Alpina 34-50T chainset on FSA Square-taper BB, Shimano 11-

25T cassette, YBN chain, Shimano 105 mechs & STI shift/brake levers

**Braking:** Tektro R737 Quartz 57mm dual-pivot

**Steering & seating:** FSA headset, 15mm spacers, Charge Shield 6"x110mm stem, dropped bar & tape. Charge Spoon (Velo) saddle on Chopstick post

**Extras:** Steel mudguards  
**Web:** chargebikes.com