DISC-BRAKED TOURERS

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BIKE TEST





TOURING BIKES

Disc-braked tourers

Drop-bar bikes, including tourers, are increasingly being specified with disc brakes. Editor **Dan Joyce** tests two at a little over £1,000: the Kona Sutra and Raleigh Sojourn

HYDRAULIC DISC brakes for drop-bar bikes aren't here yet. Not unless you count hybrid systems that use mechanical levers, a 'junction box' under the stem, and hydraulic callipers, a fudge that's expensive and finicky. So for 'disc brakes' read mechanical discs, operated by a steel cable.

Mechanical discs aren't as powerful or as progressive as hydraulics; they're not any more powerful than decent rim brakes. Yet they still have advantages on an all-purpose bike like a tourer. They don't destroy the rim through abrasion, and you can still brake safely – and ride without brake rub – if the rim gets wet, dirty or bent out of shape.

The main issue with disc brakes is that the rotors get bent easily when a bike is packed as luggage. (A case in point: one of the Sutra's rotors was bent in transit.)

Another possible issue is brake fade, when the rotors heat up on long descents and the brake pads won't bite. It's unlikely to be a problem in the UK but could be on an Alpine tour. Avoid it by using good pads, the biggest rotors that the bike will safely accept, and by braking on and off rather than continuously.

Kona has its roots in mountain biking, where the disc brake is king, and they've offered the disc-equipped Sutra for some years. Raleigh's Sojourn is the top-end tourer with the Heron head badge.

Frame and fork

Both bikes have beefy steel frames and forks. Disc brakes can crack tubes or fork legs that are too spindly, and you don't want frame flex on a bike you'll hang with heavy bags. The Sutra's down tube is particularly big – about

20% fatter than a typical steel down tube. The extra torsional rigidity from this will be good news for heavy (or heavily laden) riders.

Both frames have touring fittings and similar geometry, though the Sutra's top tube slopes more steeply. The Sojourn's frame is Reynolds 631, the Sutra's chrome-moly. Reynolds 631 was developed from 531; it's a bit stronger and it air hardens after welding. It's a good, reliable choice for a tourer. But there's nothing wrong with chrome-moly when it's well put together.

The Sutra has a slightly taller head tube (140mm versus 130mm) and a longer steerer tube, which means a higher handlebar position. Both bikes have rather short front centres for touring. Slightly longer frames (and shorter stems) are wanted to stop feet interfering with steering. But thanks to an







unusually long fork offset, my size 8s just missed the Sojourn's mudguard.

Both bike frames have the rear disc calliper mounted on the chainstay. This is a better option than seatstay mounting, as a mechanical disc calliper protrudes quite a bit and can foul a rear rack or pannier in this position. There is a workaround for a seatstay-calliper – using a big spacer washer so the rack sits further out from the frame – but this makes it more likely that the rack attachment bolt will shear on that side.

The Sutra comes with a front rack as well as a rear one. It's unusual in that it attaches to the otherwise unused cantilever bosses on the Kona Project Two fork. It's not very elegant but it seems sturdy. Calliper clearance is an issue up front; I had to put a thin washer between fork and rack to stop the brake arm squeezing against the rack during braking.

Equipment

There is one snag with chainstay mounting a mechanical disc brake: the cable housing has to turn up to reach the calliper, so water and muck can drip down into it, creating friction and degrading brake performance. I'd plan to upgrade to Gore Ride-On cables on

either bike.

It takes a while to set up mechanical disc brakes. The pads need to be close to the rotor to offer sufficient power but not so close that they rub. Only one piston – the outer – moves when you squeeze the lever. You can adjust the position of the fixed piston by Allen key (the Sutra's Hayes CX5) or hand (the Sojourn's Avid BB5). But you can't adjust the position of the moving piston except by cable tension – unless you upgrade to Avid's BB7 brakes.

Once they were adjusted, the brakes on both bikes were fine. I had the opportunity to test the Sutra's to the limit of its tyres' traction, because a car pulled out in front of me when I was riding downhill. The Sojourn's brakes offered the same outright stopping power and had a smoother, more progressive feel through the lever.

The Sutra's combination of Deore, Deore LX and bar-end shifters is a better gearing solution for a touring bike than the Sojourn's mix of Sora, Alivio and STI shifters. That's not so much because bar-end shifters are a more reliable option further from civilisation, but because you're free to use whatever chainset and front mech you prefer. A Shimano STI front shifter restricts you to a road front mech and

- 1 Chainstay calliper location means the rack fits better, but water and muck gets into the upturned housing more easily
- 2 Bar-end shifters enable you to mix and match road and mountain bike gears more easily

hence a road chainset, which is why the Sojourn has a 50-39-30 road triple. (See p67 for more on this.)

Even though the Sojourn uses the more sensible cassette – an 11-34 rather than an 11-32 – it still has higher gears than the Sutra. I'd be happy with them on an audax bike but think they're too high for a loaded tourer, where I want a bottom gear of 20 inches or below and have no use for any gear above 90 inches. The Sutra's gearing isn't much lower but it would be relatively cheap and easy to reduce it.

The Sutra has the better wheels too.
Its rims are narrower, less suited
to touring-width tyres than the

Also consider



1) Surly Disc Trucker £1249.99
Avid BB7-equipped version of the tourer we tested – and liked – in the Oct/Nov 2011 issue. Available with 700C or 26in wheels.

ison-distribution.com



2) Singular Peregrine £565
Price is for the frame and fork. It's
a steel, disc-braked tourer with
clearance for up to 50mm tyres
and an eccentric bottom bracket.
singularcycles.com



Sojourn's, but they have 36 spokes apiece rather than the Raleigh's 32, so they're stronger. They roll better as well, being shod with Continental Contact tyres rather than the stodgier Vittoria Randonneurs on the Sojourn.

Both bikes have mudguards. The Sutra's chromoplastic ones are a bit too narrow but do come with plastic snap joints to break away in a jam. The Sojourn's steel ones are heavy and don't have any breakaway clips.

The Brooks B17 complements the Sojourn's classic styling, and will be a welcome addition to those who like leather saddles. I preferred the Sutra's WTB saddle, however.

The ride

Despite its front rack, the Sutra is marginally lighter than the Sojourn. It feels it too, and by more than the difference in grams, because its tyres are more efficient and because you're in the right chainring more often.

The Sutra's riding position is more comfortable than the Sojourn because the handlebar is higher. You're not putting as much pressure on your hands and you can look around more easily. It's a more relaxed posture that makes you more inclined to cruise than ride semi-competitively, so the weight of the bike intrudes less on your ride.

The Sutra's steering is robust, a consequence of a decent amount of trail and a wider handlebar. This is exactly what I want in a touring bike. By contrast, the steering of the long-offset





4 You can adjust the Avid BB5 fixed piston position without tools; you just turn this dial. There's no adjuster for the moving piston, unlike the Avid BB7



Sojourn is a little light. The Sojourn also has a narrower handlebar, which reduces steering leverage.

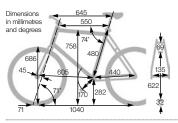
If you use front panniers as well (I seldom do), these will slow down the steering of either bike.

Summary

The Kona Sutra is a rock-steady touring bike that's comfortable and, by and large, sensibly equipped; I preferred it to the Raleigh Sojourn. I'd go up a size and fit a shorter stem in order to win some toe room. I'd also fit different mudguards and Avid BB7 brakes.

The Raleigh Sojourn is a puzzle. It falls between two stools as a tourer: not light and fast enough for saddlebag-equipped day rides or club runs; and not low-geared or sturdy enough for use as heavily laden tourer. I'd be inclined to use it less for sojourns and more for shorter-distance utility journeys such as the ride to work.

Tech specs



KONA SUTRA

Price: £1199 Weight: 14.1kg (no

pedals)

Sizes: 49, 53, 56, 59, 61cm

Frame and Fork:

Chrome-moly steel

Wheels: 32-622 Continental Contact tyres, Freedom Ryder 15mm rims, 2.0mm stainless spokes 36×3, Shimano Deore hubs.

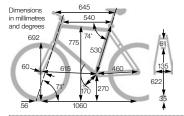
Transmission: no pedals, Shimano Deore chainset with 48-36-26 rings, Shimano BB51, Deore 9-speed 11-32 cassette. Shimano 7700 barend shifters, Deore front derailleur, Deore LX rear. 27speed, 22-113in.

Braking: Tektro RL340 levers, Hayes CX5 discs with 160mm rotors

Steering & seating: Kona Deluxe road bar 420×31.8mm, 7'×95mm Kona stem, TH848 headset, 27.2mm Kona seatpost, WTB Rocket V saddle

Extras: Sunnywheel chromoplastic mudguards, front and rear racks.

Web: konaworld.



RALEIGH SOJOURN

Price: £1100

Weight: 14.3kg (no pedals)

Sizes: 50, 53, 55, 57cm

57cm
Frame and Fork:

Reynolds 631 frame, chromemoly fork

Wheels: 35-622 Vittoria Randonneur Cross tyres, Freedom Ryder 17mm rims, 2.0mm spokes 32×3, Shimano M435 hubs

Transmission:

Wellgo M21 pedals, Shimano Sora chainset with 50-39-30 rings, Shimano external BB, Shimano HG50 9-speed 11-34 cassette. Sora STI shifters, Sora front derailleur, Alivio rear. 27-speed, 24-124in.

Braking: Sora levers, Avid BB5 discs, 160mm rotors

Steering & seating: Avenir 200 handlebar 400×31.8mm, 6'× 95mm stem, 1 1/8in threadless headset, 27.2mm seatpost, Brooks B17 saddle

Extras: steel mudguards, rear pannier rack

Web: raleigh.co.uk