

OFF-ROAD ALTERNATIVES

Which mountain bike should you buy for about £800? Dan Joyce and Dave Wells test a classic hardtail, a full-suspension bike and a 29er



These days there are specialist mountain bikes for a host of different disciplines. Yet the do-it-all off-road bike hasn't disappeared, particularly at the £800 price point. That's well within 'proper mountain bike' territory but still at the shallow end when it comes to specialisms.

Mountain bike terminology doesn't stand still. Current key words for versatility for someone who likes to pedal are 'cross country' (abbreviated to XC) and 'trail'. Such bikes are light

and efficient enough to ride all day over moorland tracks and bridleways but still rugged enough for red and black graded routes at purpose-built trail centres. Cross-country bikes are aimed more at riding fast (racing, even) or far, while trail bikes are aimed at shorter, more technically challenging rides.

We're looking at the pros and cons for all-round usage of three different *configurations* of mountain bike: a classic hardtail (i.e. suspension at front only); a short-travel full-suspension bike; and a 29er (i.e. uses 700C wheels).

The Kona Cidercone is a hardtail

The Cidercone is the only bike of the three with frame eyelets, boosting its versatility

that's been around for 20 years. These days it sits in Kona's trail line up. Trail features include a shorter reach, so you sit a bit more upright; a sturdily built frame; a wide, oversize handlebar; and a larger front disc brake rotor.

The KHS XC 604 is a cross-country full-suspension bike, with 100mm travel at each end and a ready-to-ride weight of about 30lb. KHS sell direct to the customer, saving on dealer margins, and it's this that keeps the price of the bike so low. Most of its rivals cost at least another £200 or come with an inferior fork.

The Cobia is a 29er from the



strongest advocate of big wheel mountain bikes: Gary Fisher. Twenty-niners are huge in the United States but are still struggling for acceptance in the UK. The 29er choices here are limited, especially at this price point.

Frame & fork

The Kona's frame is TIG welded from butted aluminium tubes that have been hydroformed – that is, shaped by high-pressure hydraulic fluid. The down tube is reinforced and flares wider where it meets the head tube to add stiffness and front-end impact resistance. Chain stays S-bend in and out to provide both heel and tyre clearance; you could fit something a bit fatter than the 2.1in tyre present.

It's the only bike here with eyelets for a rear carrier – which should just about clear the disc caliper – and a full-length rear mudguard. You could fit different tyres and use the Kona for town use or rough-stuff touring, although you'd have to improvise front mudguard fixings with zip ties and P-clips.

The Kona's reach is more compact than the other bikes. As well as a shorter effective top tube length it's equipped with an inline seat post. Swapping the latter for a post with layback will give extra leaning-forward room if you want it. (We both did.)

The Kona's fork is a coil-spring Tora SL unit with 100mm travel. It's adjustable for preload (i.e. you can compress the spring so it doesn't sag unduly under your weight) and rebound (the rate at which the fork springs back), and it can be locked out. It's a step up from the heavier, narrower-stanchioned Dart forks you get on bikes costing little less than this. Yet like the Dart's we've used it was quite stiffly sprung. It was fine for Dave (89kg) but rather unyielding for me (69kg). A new softer spring for the fork would cost around £20 from any RockShox dealer – or online from, for example, Tftunedshox.com.

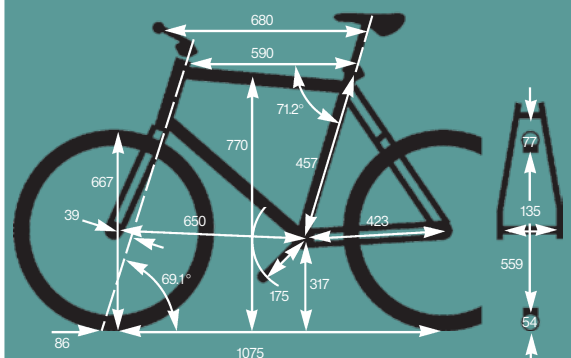
The KHS XC 604 is a full-suspension aluminium frame with just over 100mm rear wheel travel. It's a Horst Link four-bar, a design that has been around for years and for which KHS will have had to pay patent holders Specialized. It was groundbreaking in its day and is still effective today, with negligible suspension bob from pedalling and no propensity to lock up when you're braking.

Travel is controlled by an air shock. That's readily adjustable for rider weight: pump more air in if you're heavier; let some out if lighter. There's a dial to adjust the shock's rebound and a lever to adjust its compression

The Kona Cindercone is a trail-centre type bike for the shorter-distance rider

TECH SPEC

Bike	Kona Cindercone
Price	£770
Weight	12.9kg/28.4lb (no pedals)
Size	18in
Sizes available	14, 16, 17, 18, 19, 20, 22in
Frame and Fork	Kona 'All Mountain' butted aluminium, with fittings for rear carrier and two bottle cages. RockShox Tora SL coil fork, 100mm travel.
Wheels	54-559 Kenda Komodo tyres, Alex DP17 rims, 32x3 spokes, Formula disc front hub, Shimano M475 disc rear hub.
Transmission	Wellgo flat pedals (not used), FSA Alpha Drive Powerdrive crankset 175mm, 44/32/22T chainrings, FSA Powerdrive bottom bracket, Shimano HG53 chain, Shimano HG50 11-32 9-speed cassette. Shimano Deore front mech, Shimano SLX rear mech. Shimano Deore shifters. 27-speed, 18-105 inches.
Braking	Shimano M486 hydraulic disc, 180mm front rotor, 160mm rear.
Steering and Seating	Kona grips, Kona XC/BC riser handlebar, 31.8mm diameter, 660mm wide. Kona XC/BC stem, 6 degree rise, 90mm. TH threadless headset. WTB Speed V Sport SE saddle on Kona Thumb 27.2mm seatpost.
Accessories	None
Contact	konaworld.com





damping from 'not at all' to 'locked out' and anything in between.

The only downside of the KHS's suspension set up is that clearance isn't huge to the chain stay brace. In typical UK conditions, you won't want to use a tyre much wider than the 2.1in one that's there.

A lot of budget full-suspension bikes come with a sub-standard fork to keep the price down. This KHS is an exception. Its Manitou Drake air fork offers 100mm of light, well-controlled travel. It's very low pressure, so initial set up for your weight and preference takes some patience – small pressure adjustments having a bigger effect. But once done it feels great, and like the shock, it's adjustable for rebound and compression.

The Cobia is Fisher's second most affordable 29er after the Mamba (£625) in the 2010 line-up. In June this year, however, the Fisher brand was brought within that of its parent company Trek, with the Gary Fisher Collection now sitting in Trek's range. In *that* line-up, there's a couple of new entry-level 29ers – the Marlin and the Marlin Singlespeed – and the bikes above them have tweaked specifications. So be aware that there's *also* a new Cobia with a better fork – a Recon solo air – and hydraulic disc brakes for £100 more than our test bike.

The Fisher's frame is hydroformed aluminium, with a reinforcing curve to the down tube where it meets the head tube. That's common on 26in wheel frames too, particularly Specialized's. But there are some frame changes needed to accommodate bigger wheels. The bottom bracket is dropped further relative to the axles, to prevent you sitting higher in the air; and the head tube is shorter – and the fork is shorter travel – to keep the bars from being too high.

At the back, the chain and seat stays are bridgeless so that the rear



wheel can sit a little closer to the seat tube and prevent the wheelbase from becoming too long. This also means there's masses of mud room: you could fit 2.5in tyres in here, if you can find them in 29in diameter. There aren't any mudguard or carrier rack eyelets, which is a shame as this bike would make a decent rough-stuff tourer.

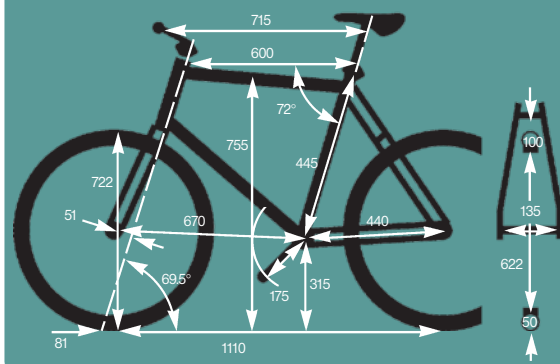
It's at the front end where Gary Fisher's geometry changes are most evident. Bigger wheels mean more trail and slower steering, other things being equal. One way to fix this is to steepen the head angle but that exacerbates the potential toe overlap issues of a big wheel, particularly in smaller frame sizes. Fisher increase the fork offset instead, which kills two birds with one stone: it reduces trail and moves the front wheel further from the feet. That's good news if you're shorter than average and still want a 29er. Fisher offer a 15.5in frame that should suit riders about 5'6" tall.

Its custom offset fork (51mm) means the Fisher actually has the lowest trail figure of all three bikes. It's only an 80mm travel fork. Bigger wheels roll better over bumps than smaller ones, so you don't need as much travel as a 26in wheel bike – which is just as well, as there's less room to accommodate suspension travel. The fork is easily settable to rider weight, since it's an air fork, and it has rebound adjustment

The 29er is the lightest bike here and steers as sharply as any of them

TECH SPEC

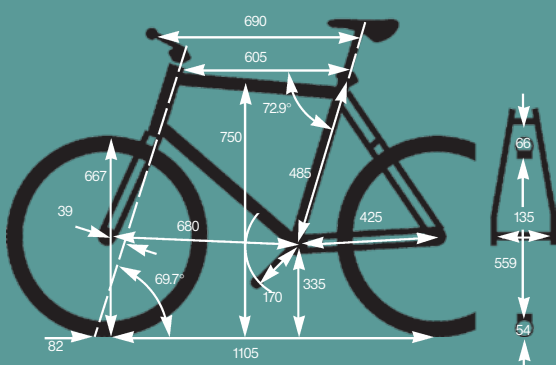
Bike	Fisher Cobia
Price	£800 (2010)
Weight	12.8kg/28.2lb (no pedals)
Size	M (17.5in)
Sizes available	S (15.5), M (17.5), L (19), XL (21in)
Frame and Fork	'Platinum Series' 6066 butted & hydroformed aluminium, with fittings for two bottles. RockShox Tora SL 29 solo air fork, 80mm travel.
Wheels	50-622 Bontrager 29-3 tyres, Bontrager Ranger Disc rims, 32x3 spokes, Shimano M475 disc hubs.
Transmission	Wellgo flat pedals (not used), Shimano M442 Octalink crankset, 175mm, 44/32/22T chainrings, Shimano ES25 Octalink bottom bracket, Sram PC951 chain, Sram PG950 11-34T 9-speed cassette. Shimano Deore front mech, Sram X5 rear mech. Sram X5 shifters. 27-speed, 18-114 inches.
Braking	Avid BB5 mechanical discs with 160mm rotors.
Steering and Seating	Bontrager Race Lite grips, Bontrager Big Sweep handlebar with 15-degree backsweep, 600mm wide. Bontrager SSR stem 85mm. Cane Creek threadless semi-integrated headset. Bontrager Race saddle on 27.2mm Bontrager SSR seatpost
Accessories	None
Contact	fisherbikes.com and trekbikes.com





TECH SPEC

Bike	KHS XC 604
Price	£849.99
Weight	13.4kg/29.5lb (no pedals)
Size	L
Sizes available	S, M, L
Frame and Fork	6061 butted aluminium frame, with four-bar Horst Link rear suspension using an X-Fusion 02RC air shock. Fittings for one bottle. Manitou Drake air fork, 100mm travel.
Wheels	54-559 Kenda Nevegal tyres, Mavic XM-317 disc rims, 32x3 spokes, KK alloy disc hubs.
Transmission	Wellgo flat pedals (not used), Truvativ Firex 3.0 crankset, 175mm, 44/32/22T chainrings, Truvativ GXP outboard bearing bottom bracket, KMC Z900 chain, Shimano HG50 11-34T 9-speed cassette. Shimano Deore front mech, Shimano XT Shadow rear mech. Shimano Deore shifters. 27-speed, 17-105 inches.
Braking	Hayes Stroker Ryde hydraulic disc with 160mm rotors.
Steering and Seating	WTB WeirWolf grips, FSA XC-300 handlebar, 31.8mm diameter, 680mm wide. 70mm BBB stem mm. Cane Creek A-headset Zero Stack. WTB Silverado Comp saddle on 31.6mm FSA Q2 alu micro-adjust seatpost.
Accessories	None
Contact	khsbikes.co.uk



and lockout. There's no compression damping, unlike the KHS's Manitou.

Equipment

The Kona comes with the wider (660mm) oversize-diameter handlebar you want on a trail bike. Compared to a narrow bar it offers more leverage, enabling you to ride with a firm rein on bumpy singletrack, tight turns, descents and drops. Kenda's Komodo tyres are slightly lighter treaded than the Nevegals on the KHS, but they're still decent all-rounders that rolled fine on a variety of summer surfaces.

The groupset is Shimano's workhorse Deore, with a low-profile Shadow SLX rear derailleur. This tucks in closer to the cassette to reduce rock strikes, and comes with a straight cable run into the mech, which should keep shifting performance sweeter for longer due to the reduced cable friction. Stopping is via Shimano's M486 hydraulic discs. They're well modulated for budget brakes.

If the specification of the Kona is about what you'd expect at the price, that of the KHS is a welcome surprise. The Shadow XT rear mech is a rare sight even on hardtails at this price and the cassette goes to 34T rather than 32T, which makes long climbs less of a chore. Areas often scrimped on like tyres, bottom bracket, bar and stem are all good. The Hayes Stroker Ryde brakes took a while to bed in – likely new pads had been fitted to this test bike – but they eventually worked fine.

The Fisher shows some economies in its specification, notably its Avid BB5 mechanical disc brakes. But while they look a bit cheap, so long as

you set them up carefully so the pads are very close to the rotors they work reasonably well. And you get plenty of braking feel through the lever.

Neither of us liked the bars. Dave didn't get on with the back sweep and both of us wanted something wider. The saddle turned out to be awkward too. The forked rear end easily hooks your shorts if you hang off the back of it. You could upgrade the contact points, but spending even £50 on a £800 is a significant extra.

The wheels feature decent eyeleted Bontrager rims on Shimano M475 hubs. They're shod with Bontrager tyres too, oddly named 29-3 given their 2.0in width. I'd have liked something wider, which would easily fit. I washed out the front tyre a couple of times where a wider tyre run softer might have held. I'd swap these Bontragers for Kenda Small Block Eights or Schwalbe Racing Ralphs.

The ride

The Kona's shorter reach is evident as soon as you climb aboard. It reminded me of Giant's Talon 1 (tested in Cycle Dec 09/Jan 10). It was most fun when I wasn't actually pedalling – freewheeling through short, humpbacked swoopy sections of singletrack or twisting down steep switchback descents, where its wide bar and decent brakes paid dividends and where its short reach made it feel manoeuvrable.

That's what it's for really: it's a trail-centre type bike for the shorter-distance rider. It was less fun pedalling quickly along flatter trails, where it felt both cramped and slow compared to



the easy-rolling Fisher. And on long climbs the front wheel had a tendency to wander. It wasn't a surprise to find it had the longest trail figure here.

For all that the KHS is a cross-country full-suspension bike, it's still more enjoyable when you're heading downwards. The suspended rear end doesn't get kicked about like a hardtail's, so you can descend smoothly, confidently and – if you wish – quickly. The Horst Link suspension worked just as well on the chatter of rough trail surfaces as it did over bigger step downs and drops.

Dave usually rides a longer-travel trail full-suspension bike, albeit with a similar wide bar and short stem, and said it felt 'like coming home'. I liked the extra reach of this nominally large KHS compared to the Kona, and would be happy to ride it all day. The overall weight is low for a budget full-suspension bike, and the suspension at both ends feels refined and fine-tunable. It doesn't just plod along like some sprung bikes. You can ride it at pace on the flat, and it even climbs tolerably well thanks to its bigger rear sprocket and suspension that can be limited or locked out. So long as you're a more or less wheels-on-the-ground rider, it's hard to think of any UK terrain where this KHS wouldn't cope.

Some cyclists – often those who have never ridden one – complain that

29ers are heavy and sluggish steering. Neither of these things is true of the Fisher Cobia. It's the lightest bike here and it steers as sharply as any of them. Its bigger wheels roll better, so you can go further or faster for the same effort. This is most noticeable on draggy surfaces like grass or sand.

The Fisher was the first big wheeler that Dave had ridden and it was the only bike of the three that he rode to the top of a steep, energy-sapping 500m-long climb. In fact, he overtook me on the way up. The Fisher's longer reach is better for getting power down, which helps, and its bigger wheels climb more easily over bumps and roots that smaller wheels can stall on without an extra kick of energy. (A given bump hits the circumference of a bigger wheel at a shallower angle and so deflects the wheel upwards less. On a bumpy trail, bigger wheels roll, as it were, along a shallower sine wave.)

The Fisher was less good on descents. With its narrower, lighter treaded tyres, narrower handlebar, less powerful brakes, and shorter-travel fork, it didn't engender the same confidence as the other two bikes. You could fix these things with upgrades – at a price. As it is, the bike better suits longer rides with fewer hazards.

Summary

The Kona Cindercone would suit a couple of different types of rider. Type one is the thrills and spills trail-oriented rider like Dave, who said he would happily own this bike if it were fitted with a different seat post. Type two is the relative beginner who wants

a more upright, more sedate do-it-all hardtail and who might appreciate the versatility provided by the Kona's frame fitments. Lighter riders might want a different fork spring and the Cindercone isn't especially keenly priced either, but on the whole it's a good example of a trail hardtail.

The KHS XC 604 is exceptional value for money. Most full suspension bikes at this price feel compromised in one area or another, often the fork, to the extent that a hardtail at the same price will be simply better. That's not the case with this KHS. It's not just one of the best full suspension bikes for £850, it's one of the best mountain bikes of any kind at this price. For more technical riding, it is the most capable and most enjoyable bike here, yet it's not too heavy for all-day rides either.

The Fisher Cobia is a cross-country hardtail that happens to have bigger wheels. These genuinely roll better in the rough, boosting both comfort and efficiency. The drawback is that 29ers are slightly more expensive than an equivalent 26in-wheel bike, so to keep the price competitive there are a few economies in terms of the handlebar, stem, tyres and brakes. It's these rather than the big wheels that take the edge off the Cobia's technical abilities. This is nevertheless a mountain bike and not a hybrid, and the frame and fork are good enough to upgrade (or how about the new Trek/Fisher Collection Cobia?). Even without upgrades, if you want a mountain bike for long days out or exploring rather than hammering around trail centres, this is the best option of the three.

The Rivals



26in hardtail: Giant Talon 0
£870

A similar shorter-reach 'trail hardtail' to the Kona, the extra £100 gets you a Tora air fork rather than a coil and some component upgrades – such as SLX shifters and an XT rear mech.

giant-bicycles.com



29er: Kona Kahuna
£870

Better brakes, tyres and handlebar than the Fisher but an inferior fork: a RockShox Dart 3 that you'll want to upgrade sooner rather than later. Otherwise directly comparable.

konaworld.com



Full sus: Boardman FS Comp
£850

Like the KHS, this has an excellent spec for the money. It's a lightweight 120mm-travel bike with RockShox Recon air fork, Sram X5/X7 gearing and Avid Juicy 3 hydraulic disc brakes.

boardmanbikes.com