

Orbit Romany Cr-moly £895



Thorn Nomad £1210



Roberts Roughstuff £1400

Jonathan Gawler

THE TOUGH GET GOING

A big expedition requires a strong bike. *Cycling Plus*'s Round the world rider Cass Gilbert tests three of the toughest...

So you've made the decision: it's time for the Big Trip. You've saved your cash. You know where you want to go. Now it's just a matter of deciding what bike's going to get you there. Of course, there's nothing to stop you setting off with your tried and trusted Mtb hardtail. But experienced tourists generally agree that nothing beats the comfort and strength of a purpose built tourer, especially when the going gets tough, the road gets rough and you're carrying everything but the kitchen sink.

This month's test features three long haul contenders, all of which have benefited from years of manufacturing experience and are firmly established on every expedition wish list. Not that this means blowing half a year's budget before you even set off. As know-how, geometry and improved build quality have filtered down the ranges, prices are more affordable than ever. First is Orbit's XT-equipped Cr-Moly Romany, a budget £895 expedition bike based on the hand-built Romany Nivacrom frames. Likewise, the latest incarnation of Thorn's Nomad, at £1210, has benefited from the experience of its big brother, the EXP. Lastly, we've included a custom built, made to measure Chas Roberts Roughstuff, carefully specced to weigh in at an affordable £1400.

FRAME

ORBIT 7 THORN 9 ROBERTS 9

The main difference between an expedition frame and that of a traditional steel mountain bike is the emphasis on strength, comfort and its ability to carry loads. The Orbit Romany uses a TIG welded Taiwanese frame with Reynolds 520 double butted tubing – identical to Reynolds British made 525 – and it's here that Orbit have managed to trim costs. However, it's not at the expense of its design, similar in geometry to their own Nivacrom frameset used on the higher end Expedition model. Welds are neat and alignment is perfect. Available in five sizes, the head tube is sufficiently long to give an upright riding position. Top and down tubes are 0.9-0.6-0.9mm thick and the fork is a single butted cromo unicrown design. Less resilient to being slung on the roof of a Kyrgyz bus, it's a perfectly adequate frame for a budget expedition bike. Nothing fancy, it does the job and includes a full complement of braze-ons for three water bottles, mudguards, racks, a dynamo and pump peg. The frame is available in one colour and the stove enamel paint finish is fine, though the decals are rather cheap looking – peel them off and the frame looks much better. Rather misleadingly, Orbit have branded the frame: 'Handmade in





Sheffield' – when it's only assembled there.

Thorn's Nomad is built from Reynolds 531 double butted tubeset, a classic touring choice, with a lifetime warranty, sealed tubes to prevent internal corrosion and a draining cap under the bottom bracket. The frame is beautifully fillet brazed, with a lug on the seat tube for extra strength. Tube thickness is 1mm-0.7-1mm thick, which ensures the frame is both strong and resilient to denting. Chainstays are 1.1mm thick at the dropouts, beefing them up for loaded use. The frame is available in 12 sizes, including two lengths of top tube – short and medium/long. What's more, geometry is designed specifically for each particular size. This means for an off the peg frame, you should be getting as close as you'll get to the perfect frame size – one that will suit both male and female riders. Forks are 531SC, specific to each frame with a long rake to maximise comfort and chunky 'double' braze-ons to take dual armed low riders. The frame itself is also complete with all the braze-ons needed – three water bottles, front and rear mudguards, rack, dynamo and pump peg. Finished in Cobalt blue, one in a range of colours, the Nomad is complete with Thorn's traditional headbadge. Looking on the *C+* forum reveals several complaints about soft, easily chipped paint. If you go for the standard black finish – £50 less – you can always touch it up. Otherwise, the black satin is probably the toughest, most understated option of the lot.

In frame design and finish, the Roberts Roughstuff is a breed apart. Immediately noticeable is the fantastic quality of the fillet brazing. Every frame is individually designed, depending on the purpose of the bike as well as the weight and build of the rider, and should fit you like a tailor made suit. Allow an hour to be measured up – if you're planning on handing over £1400 enjoy the pampering! The bike made for me used an 853 Reynolds top tube – 0.8mm to 0.5mm to 0.8mm in thickness – and a 725 tapered down tube and a Colombus Nivacrom bulge butted seat tube, with Reynolds 531 forks. Chainstays were around 0.9mm thick, thicker towards the Ritchey dropouts. It's a great all round frame, though lighter and less dent proof than the Thorn. With its mountain bike-like sloping top tube, it's an appealing design, right down to the beautifully minimal CR headbadge. Disc mount options are also possible, as are thicker tube specs if you're planning a pan-continental odyssey. Forks are identical to the Thorn, with chunky front braze-ons to take strong low riders, while the rest of the frame benefits from the same attention to detail – three water bottles, mudguards, rack, dynamo and pump peg. The red finish is perhaps a little too eye-catching for touring and seemed to chip fairly easily, though there are plenty of other colours to choose from. It's worth noting that unless unusually proportioned, a custom frame might not fit you any better than a well chosen off the peg frame. However, there's a definite appeal to having your own, unique, tourer.

ORBIT ROMANY CR-MOLY

£895

"a great bike for everything but extreme use"

Orbit Cycles ☎ 0114 275 6567
www.orbit-cycles.co.uk



AT A GLANCE:

FRAME THORN 9 ROBERTS 9	7
HANDLING LOADED 7 **UNLOADED** 9 THORN 9/7 ROBERTS 8/9	
EQUIPMENT THORN 7 ROBERTS 8	9
WHEELS THORN 9 ROBERTS 7	8



Reynolds 520 Taiwanese frame is the same as 525 in Britain. Welds are neat, and alignment perfect



Handbuilt wheels: XT hubs and a two year guarantee on rims and spokes. Nice one, Orbit



Avid's Arch Rival brakes are excellent as is the rear rack, though the front can catch on uneven terrain

WHEELS

ORBIT 8 THORN 9 ROBERTS 7

Along with the frame, wheels are the most crucial factor to consider when setting up an expedition bike, particularly if riding with heavy loads in remote regions. Nowadays, parts subject to wear and tear can be expressed out via one of the courier firms that inhabit every capital city in even the furthest corners for the world. A set of replacement wheels or rims, however, is large and expensive to send. Shimano parts that will tide you over can be found everywhere – a good set of rims is another matter.

All three bikes rely on XT hubs – 36 holes in the cases of the Romany and the Nomad, and 32 for the Roberts. Durable and well-sealed units, they should prove maintenance free on all but the longest and most extreme tours. What's more, cones and axles are non-specific if you do run into problems – mine lasted 25,000km and are still going strong. Choice of rims, spokes and tyres varied between manufacturers. Orbit has chosen Zac 2000 Rigida rims, with butted stainless spokes and a machined breaking surface. At 1980g and 2400g respectively for the front and rear, the rims strike a good balance in weight and strength and should cope well with most on and off-road touring. Hand-built by Orbit, a two-year guarantee on rims and spokes is also included. Wheels remained true during testing and Rigida have a good reputation for long-term survival. Teamed with Schwalbe's excellent Marathon XR 1.75, a favourite among tourers, Orbit have chosen a good wheelset for general travelling.

Thorn has opted for the no-compromise approach. Built up with stainless straight gauge spokes, Sun Rhynos are probably the heaviest duty touring rims around. The Nomad comes with Schwalbe Marathon XRs, this time the 26x1.90 model, which should be good for up to 10,000kms, and they have very robust sidewalls. A wide and giving tyre, they soak up bumps in the road, roll well for their weight and are good all-rounders for tarmac and trail. Handbuilt by Thorn, rims also stayed true during testing. Remember though that the choice of rim should really be dictated also by the kind of riding you intend to do and how much load you plan to carry. From the experience of breaking conventional rims in the back of beyond, Rhynos are definitely the ones I would choose on a long tour. As a rider with an average weight (75kg) and a bike that can weigh 50kg, they offer peace of mind and have a braking surface that should outlast most trips. Rhynos have the best reputation among extreme tourers, who agree that the extra weight is a more than worthwhile trade-off for their superlative strength. Both Thorn and Roberts can provide different rims depending on customer preference and intended use of the bikes.

While the Roughstuff also uses Sun rims, Roberts have opted instead for Rhyno Lites, similar in weight to the Rigidas and a popular choice for general touring. A generous 27.5mm



THORN NOMAD

£1210

"A Rugged overlander, ideal for long term use"

Saint John Street Cycles ☎ 01278 441502
www.sjscycles.com



AT A GLANCE:

FRAME (ORBIT 7 ROBERTS 9)	9
HANDLING LOADED (ORBIT 7/9 ROBERTS 8/9)	9
UNLOADED	7
EQUIPMENT (ORBIT 9 ROBERTS 8)	7
WHEELS (ORBIT 8 ROBERTS 7)	9



Wide 46cm handlebars are a sensible choice, but the stem was swapped for a shorter one



Despite being dearer than the Orbit, the Thorn only has an LX rear mech, though the 11-32 block offers a good gear range



Stopping power is provided by Avid Shorty 6 cantis – not as strong as the Orbit's Avid Arch Rivals



wide, they can take wider tyres well and are stiffer than narrower rims of the same weight. However, the Rhyno Lites aren't a versatile rim and won't take a tyre like the 1.3 Vredestein S-licks, a handy set of spares that fold for packing and roll well on good tarmac. They are though are well suited to the Roughstuff's Continental Goliaths – wider and more giving than their 1.6in size suggests. With their smooth central tread and grippy sides, Goliaths are a well-respected choice for riding on mixed terrain. The only real disappointment in this wheelset is Roberts' surprising choice of fitting 32-hole hubs. For the small increase in weight of a few butted spokes, I'd have much preferred to have seen the 36-hole version, which is definitely recommended for any long distance touring – particularly on the rear wheel.

HANDLING

LOADED ORBIT 7 THORN 9 ROBERTS 8
UNLOADED ORBIT 9 THORN 7 ROBERTS 9

First and foremost, we've tested the bikes fully laden, both on and off-road seeing as that's really what they're built for. Of course, different tours will demand different payloads. Equally, some cyclists travel minimally, whilst others are less fanatical about packing. To get an overall picture of what the bikes are capable of, we loaded them up with panniers both front and rear, with loads from 20-35kg – the kind of weight you might well haul about on a self sufficient tour. However, seeing as most cyclists will also want to maximise the use of their bikes once they're back home, we've also marked them on how they've fared unloaded. Bear in mind though that these bikes are built with long haul expeditions in mind. To transform them into robust commuting bikes, for example, you'll really need to fit lighter wheelsets and racks.

At just over 15.2kg, the Orbit Romany was the heaviest on test. But with its steeper head tube and short chainstays, it handled excellently unloaded, more lively than would be expected for its weight. Riding position was upright and comfortable, ideal for more relaxed touring, largely due to a short top tube and a steep 40° stem. Loaded moderately for general touring, it continued to handle well, becoming a little jittery only on fast descents when weighed down with a full complement of equipment. Off-road, the Orbit powered its way through sandy trails with surprising assurance, helped in part by a stiff frame that hardly flexed. This said, a stiff frame can also induce more rider fatigue over longer distances, which is perhaps why Orbit have opted for a suspension seat post. An excellent idea in theory, the Tranz-X model fitted as standard proved difficult to adjust effectively, and I would question its long-term reliability. On the size tested, the bottom bracket was around a centimetre lower than the Thorn and the Roberts, making the bike that bit more manageable with your feet down. For the same reason, it's also less suited to rougher terrain.

At 15kg, the Thorn had a reassuringly solid feel to it. Unloaded, it actually felt heavier and less sprightly to ride than the Orbit. However, it's worth remembering that handling is also greatly dictated by wheel choice. Sun Rhyno's are real heavyweights – 2kg on the front and 2.74kg on the back. Ideal for an expedition, they're overkill for day to day use, as the gyroscopic effect of

ROBERTS ROUGHSTUFF

£1400

"individual in design and guaranteed to last..."

Chas Roberts ☎ 0208 684 3370
www.robertscycles.com



AT A GLANCE:

FRAME ORBIT 7 THORN 9	9
HANDLING LOADED 8 UNLOADED 9 ORBIT 7/9 THORN 9/7	
EQUIPMENT ORBIT 9 THORN 7	8
WHEELS ORBIT 8 THORN 9	7



Sugino XD cranks, a UN52 bottom bracket and Campag Centaur front mech shows a willingness to mix and match



All three bikes came with XT hubs, but the Roberts surprisingly had 32 rather than 36-spoke wheels



A classic Rolls saddle, XT cantilevers and excellent Tubus racks finish off the Roughstuff's componentry



an increase in wheel weight will always be most noticeable when unladen. Indeed, when the wheelset was switched to the lighter cross-country Sun CR18s, handling improved significantly. Back with the Rhynos and a moderate load, the Thorn remained assured and predictable, though less nimble than the Orbit. Pile on the kilos and the Nomad really excels. Incredibly stable, it handled fast descents well, both on and off-road. Relaxing to ride, the Nomad required minimal effort to steer in a straight line, even when pedalling hard out of the saddle. There was no need to waste effort by fighting to control the bike when loaded; the Nomad seemed to glide effortlessly along. Extended chainstays kept heels from clipping panniers though we did find the handlebars quite stiff – a little extra padding would be good.

As you'd expect from Chas Roberts, the Roughstuff was a lovely bike to ride, with a far more responsive feel than you'd imagine from a bike designed for expedition use. At 13.44kg, it was the lightest of the group by a fair margin and definitely felt it. As with the Thorn, long chainstays ensured the bike rode smoothly in a straight line, as well as keeping feet from clipping panniers at the back. Roberts also chose to fit a 170mm crankset, offering more room between the front of the foot and the mudguard, handy for technical riding or if you're wearing boots. However, a shorter crankset also made the bike that bit trickier to handle on tiptoes, due to a slightly higher saddle. Once loaded up with a tent, sleeping bag, pans, stove and anything else I could cram into the panniers, the Roughstuff lived up to its name. Whilst lacking the Nomad's solid feel, it was equally at ease on trails as tarmac. The sloping top tube offers plenty of clearance too. The only real disappointment was the narrow handlebars, 4cm less than the others. With a full cargo, wider bars give more assured handling, particularly off-road when more control is required to handle extra weight on the front fork. The narrow bars also meant my knees clipped the bar-end shifters when riding out of the saddle, even knocking them out of gear on climbs. Roberts fit varying width 'bars depending on shoulder width. However, I'd recommend erring on the wide side for expedition touring.

EQUIPMENT

ORBIT 9 THORN 7 ROBERTS 8

Immediately apparent is the excellent value the Orbit offers for your money. With an almost full complement of XT components, the Romany should pose few problems with long-term

Straights or Drops?

Whether to fit straight or drop handlebars is a subject guaranteed to incite debate among tourists. There are advantages and disadvantages to both – my own preference lies with straight handlebars fitted with fairly bullhorn-like bar-ends.

Drops offer a variety of hand positions, which helps alleviate fatigue in the wrists and hands, caused by the repetitive vibrations transmitted through the forks. It's a tiny movement but one that can induce numbness and in the worst scenarios, a permanent loss of feeling in the fingers. Plus, bar-end shifters are easy to set up and maintain with their dual friction/index settings. However, straight handlebars offer more assured handling on precarious descents, easier shifting during climbs and descents, and are better for general off-road riding. They are also easier to set up with V-brakes, which offer significantly improved braking with a fully loaded bike. If you're coming from a mountain bike background, you'll probably feel more comfortable with them. In fact, it's mainly the Brits who like a curl in their bars. Everyone else tends to ride with straights, except the Dutch who favour the comfortable but less performance inclined butterfly design. Cycling from Sydney to London, I used a Specialized Rockhopper with straight bars. But if I did the same ride again, I'd definitely opt for a purpose built machine – the geometry is far better.







durability. Both front and rear mechs are XT, the tougher '98 models at that, while bottom bracket is the well sealed UN72. Transmission is via a Sugino XD crankset, fitted with two aluminium rings and a cheaper steel inner. Very much a road set-up, its 26-36-48 range won't suit those riding with heavy loads, though you'll have plenty of gears in hand for the descents. Teamed with an 8-speed 11-30 cassette, the smallest gear will just about do for a marathon of 20km switchback climbs. At 46.5cm, the ITM handlebars are nice and wide. The Dia Compe brake levers work well with the powerful Avid Arch Rivals, whose retail price alone is £70. As a result, the Orbit's performance when braking under a load was the best in the group. The Linea Soft saddle is comfortable enough on a day ride but offers far too little support for long-term use. The Romany comes ready to tour, with alloy pedals, toe-clips and fairly flimsy mudguards. Racks are Tubus. Whilst the rear is of their usual high quality, the front suffers from a poor design. Simple and strong, take care if you plan to ride on very uneven terrain, as the low rider has a tendency to catch on rocks. Finally, there's a compass/bell, handy for getting round strange cities – It won't get you heard above the roar of the Indian highway or stop you getting lost in a Syrian souq, but is a nice touch.

Despite its steeper price, the Thorn is less lavishly endowed than the Orbit. There's an LX rear derailleur, a Deore front mech and a UN52 bottom bracket. Deore cranks are solid and long lasting, though the chain rings may need to be tailored to individual requirements and only the outer is hard wearing aluminium. Both the inner and the frequently used middle ring will need to be upgraded for a long trip. With its 11-32 9-speed block, there are plenty of small gears for tough climbs, sparing your knees. On the other hand, you might find yourself running out on the descents if you're used to pushing big gears. At 46cm, the 3T 'bars are wide and comfortable, though I'd have appreciated a little more padding. The 10cm stem is cold forged with a 17° rise. This is very much down to personal taste and a sticker indicates the length and rise, making a replacement easy if need be – I swapped it for a 12cm stem with 12° rise. Headset is the fit-and-forget FSA Orbit XL2, while brakes are Avid Shorty 6s, powerful as cantilevers go. SKS mudguards are well-fitted and amply accommodate the Marathon XRs without rubbing. Lastly, a significant part of the budget has gone towards Thorn's own 531 tubed reinforced rear rack and low loader, priced at £100 and £70, which are perhaps the strongest and most repairable racks available.

The Roughstuff's equipment strikes a balance between the other two. Again, XT has been chosen for the rear mech, with a Campag Centaur at the front. Bottom bracket is UN52. Like the Orbit, the Roughstuff uses the Sugino XD cranks with an 8-speed cassette. The 42cm bars could do with being wider, though the XT cantilever brakes worked well. Tubus again provide the racks, this time with an improved double armed low rider, similar in design to the Nomad. Like the Thorn, SKS 'guards are well fitted and the Rolls saddle was comfy straight away. Mind you, I have spent two years on one...



RIVALS

Dave Yates Wayfarer	**£1150**
Koga Miyata World Traveller	**£1135 (approx)**
Orbit Romany Expedition	**£1275**
Argos custom retro-fit	**£variable**

Dave Yates offers a couple of 26in tourers, including the **Wayfarer**, with a fillet brazed sloping top tube, LX kit and racks for £1150 (contact M Steel Cycles www.msteelcycles.co.uk, ☎ 0191 234 4375,). It's worth looking at the other models within the ranges of the manufacturers tested, such as Orbit's **Romany Expedition** at £1275. If the sky's the limit, Thorn's **EXP**, at £1600 ready to go, is sheer indulgence. There are more options on the continent, such as Koga Miyata's **World Traveller** (contact www.koga.com) with an alloy 7005 frame, full XT and Tubus racks for around £1135, a very popular touring brand with the Dutch. Another viable option is to use a conventional steel Mtb with a BOB Yak trailer, £235, including dry sack holdall (www.bobgear.com). Or retro-fit your own hardtail with rack mounts and extra bottle carriers with quality framebuilders like Bristol based Argos (☎ 01179 724730, www.argoscycles.com) – though you will probably need a fork with a longer steerer too.







BIKE SPEC
Orbit Romany* Cr-moly

Replacement value £895
Orbit ☎ 0114 275 6567, www.orbit-cycles.co.uk
* While the test bike was labelled Caraway, future models will carry the Romany name

FRAME AND FORKS
Size tested: 56cm
Sizes available: 44, 48, 52, 56, 61cm
Weight: 15.22kg/33.5lb without pedals
Frame: Reynolds 520
Frame weight: 2400g/5.3lb
Fork: single butted cromo
Fork weight: 979g/2.2lb

BIKE DIMENSIONS
Top tube: 57.0cm/22.4in
Seat tube (c-c): 51.5cm/20.3in
Chainstays: 42.5cm/16.7in
Wheelbase: 103.5cm/40.7in
Head tube angle: 71.5°
Seat tube angle: 73.0°
Fork offset: 4.5cm/1.8in
Trail: 6.3cm
B/b height: 27.5cm/10.8in
Standover height: 82.2cm/32.4in
Braze ons: 3x water bottle, rack & mudguard f&r, pump peg

FRAME ALIGNMENT
Head tube : perfect
Rear triangle : perfect
Fork : perfect

TRANSMISSION
Chainset: Sugino XD500, 26-36-48T, 175mm
Freewheel: Shimano Powerflow
Chain: Connex
Gear lever: Ultegra bar-end shifters
Bottom Bracket: Shimano UN72
Rear mech: Shimano Deore XT
Front mech: Shimano Deore XT
Pedals: none

GEAR RATIO (IN)

Chainring \ Sprocket	11	12	14	16	18	21	24	30
26	61	56	48	42	38	32	28	23
36	85	78	67	59	52	45	39	31
48	113	104	89	78	69	59	52	42

WHEELS
Front and rear: 36H Rigida Zac 2000 rims, Shimano XT hubs, butted stainless spokes
Tyres: Schwalbe Marathon 26x1.75
Wheel weight: f: 1980g/4.35lb: r: 2400g/5.28lb

OTHER COMPONENTS
Stem: unbranded, 100mm
Handlebars: ITM, 46.5cm
Headset: VP
Saddle: Linea Soft
Seatpost: Tranz-X suspension
Brakeset: Avid Arch Rivals
Accessories: mudguards, Tubus f&r racks, pump, 3x bottle cages, compass bell

BIKE SPEC
Thorn Nomad

Replacement value £1210
SJSC ☎ 01278 441502, www.sjscycles.com

FRAME AND FORKS
Size tested: M with M/L top tube
Sizes available: XXS, XS, S, M, L and XL and 2 top tube lengths
Weight: 15.045kg/33.2lb without pedals
Frame: Reynolds 531
Frame weight: 2480g/5.5lb
Fork: Reynolds 531SC
Fork Weight: 1073g/2.4lb

BIKE DIMENSIONS
Top tube: 59.0cm/23.2in
Seat tube (c-c): 49.5cm/19.5in
Chainstays: 45.0cm/17.7in
Wheelbase: 107.5cm/42.3in
Head tube angle: 71.0°
Seat tube angle: 72.0°
Fork offset: 5.0cm/2.0in
Trail: 6.1cm
B/b height: 28.8cm/11.3in
Standover height: 80.2cm/31.6in
Braze ons: 3x water bottle, f&r mudguard & rack, pump peg, dynamo

FRAME ALIGNMENT
Head tube : perfect
Rear triangle : perfect
Fork : perfect

TRANSMISSION
Chainset: Shimano Deore, 22-32-44T, 175mm
Freewheel: Shimano HG70
Chain: Shimano HG73
Gear lever: Ultegra bar-end shifters
Bottom Bracket: Shimano UN52
Rear mech: Shimano LX
Front mech: Shimano LX
Pedals: none

GEAR RATIO (IN)

Chainring \ Sprocket	11	12	14	16	18	21	24	28	32
22	52	48	41	36	32	27	24	20	18
32	76	69	59	52	46	40	35	30	26
44	104	95	82	72	64	54	48	41	36

WHEELS
Front and rear: 36H Sun Rhyno on XT hubs with stainless straight gauge spokes
Tyres: Schwalbe Double Defence Marathon XR, 26x1.90in
Wheel weight: f: 2000g/4.4lb; r: 2740g/6.03lb

OTHER COMPONENTS
Stem: Thorn, 120mm
Handlebars: 3T, 46cm
Headset: FSA Orbit XL2
Saddle: Rolls
Seatpost: Kalloy
Brakeset: Avid Shorty 6
Accessories: 3x cages, SKS chromoplastic mudguards f&r, Thorn lo-loader racks f&r

BIKE SPEC
Chas Roberts Roughstuff

Replacement value £1400
Roberts Cycles ☎ 0208 684 3370, www.robertscycles.com

FRAME AND FORKS
Size tested: custom
Sizes available: custom
Weight: 13.440kg/29.6lb without pedals
Frame: Reynolds 853 top tube, Reynolds 725 down tube, Colombus Nivachrom seat tube
Frame weight: 2300g/5.1lb
Fork: Reynolds 531
Fork Weight: 1161g/2.6lb

BIKE DIMENSIONS
Top tube: 57.3cm/22.6in
Seat tube (c-c): 45.5cm/17.9in
Chainstays: 45.0cm/17.7in
Wheelbase: 108.5cm/42.7in
Head tube angle: 70.0°
Seat tube angle: 72.0°
Fork offset: 5.0cm/2.0in
Trail: 6.7cm
B/b height: 28.6cm/11.3in
Standover height: 78.8cm/31.0in
Braze ons: 3x water bottle, mudguard and rack f&r, dynamo, pump peg

FRAME ALIGNMENT
Head tube : perfect
Rear triangle : perfect
Fork : perfect

TRANSMISSION
Chainset: Sugino XD, 26-36-48T, 170mm
Freewheel: Shimano HG50
Chain: Sachs PC58
Gear lever: Ultegra bar-end shifters
Bottom Bracket: Shimano UN52
Rear mech: Shimano XT
Front mech: Campag Centaur
Pedals: none

GEAR RATIO (IN)

Chainring \ Sprocket	11	13	15	17	20	23	26	30
26	61	52	45	40	34	29	26	23
36	85	72	62	55	47	41	36	31
48	113	96	83	73	62	54	48	42

WHEELS
Front and rear: 32H Rhyno Lite rims on XT Hubs with stainless butted spokes
Tyres: Continental Goliath Semislick, 26x1.6in
Wheel weight: f: 1820g/4lb; r: 2420g/5.3lb

OTHER COMPONENTS
Stem: unbranded, 100mm
Handlebars: 3T, 42cm
Headset: Shimano cartridge
Saddle: Rolls
Seatpost: Kalloy
Brakeset: Shimano XT cantilever
Accessories: 3x Elite cages, Tubus rack r, SKS mudguards f&r

CYCLING PLUS Verdict

All three bikes tested this month are well thought out, benefit from years of experience and would be very capable machines for long haul tours. As you'd expect from its price, Orbit's Romany is the least extreme alternative. However, while its frame doesn't have the rugged durability of the Thorn or the panache of the Roberts, the Romany Cr-Moly is incredibly well kitted out - all that XT for £895 represents real value for money. With a new seat post and saddle, the bike's ready to ride to South Africa. In fact, I know four riders who recently returned from such a trip, reporting that their Orbits behaved impeccably.

The Roberts is lovingly built, individual in design and guaranteed to last a lifetime. However as it stands, I'd recommend a couple of changes to ensure it's truly effective as an overlander. Fit 36-hole hubs and a wider handlebar – it won't cost you anything extra – and the package is complete. £699 of its £1400 price tag pays for one of the best frames in the business. Tailor made to your own requirements, the Roughstuff is a fantastic all rounder which should give you miles of non-touring pleasure too.

It's a tough call but if I were planning a remote, trans-continental journey, it would probably be the Thorn that I'd choose. For an off the peg bike, build quality is excellent and frame strength errs on the side of caution. At £1210, it's definitely not as well kitted out as the other two for its price, though attention has been given to the right components. An upgraded drivetrain would complete the package – but also push up the bill even more. However, if the Big Trip is what you're after, the Nomad will carry you through. And go back for more.

ORBIT
OVERALL RATING 8/10
Excellent value for money, the Orbit is a great bike for everything but extreme use. With the money you save, you can even buy a flight home.

ROBERTS
OVERALL RATING 9/10
Just a couple of changes are needed to complete this fantastic custom all rounder

THORN
OVERALL RATING 9/10
The ultimate expedition machine? Rugged, load carrying overlander, ideal for long term use