

Dawes Galaxy Twin £1500



Thorn Explorer £999



Orbit Andromeda £1999

Seb Rogers

DOUBLE FEATURE

Take one bike, two riders, and you double the cycling fun – Cass Gilbert tests tandems from Dawes, Thorn and Orbit

Twice the bike, twice the appeal? Riding a tandem is certainly a world apart from riding a solo, and unmatched for its sheer sense of fun. Swift across even terrain and blistering on long descents, tandems offer twice the power as a conventional bike. They also resolve the eternal conundrum of mixed ability couples – no need to wait around at the top of the hill, nor push yourself beyond what's comfortable. Of course, tandems are the ultimate in social riding too – chatting away has never been easier, even when riding at full tilt or on busy roads. But for many, the real ace up the tandemists' sleeve is the fantastic reaction they evoke. With their stretched frames (ours was dubbed the Limo) and their synchronised pedalling, tandems are crowd magnets and are sure to make people smile. Waves and a posse of excitedly pointing kids accompany any ride, be it across the plains of Kyrgyzstan or round Richmond Park.

To those new to tandeming, there's an etiquette, terminology and riding style to learn. The Captain is in charge of steering, changing gears and most importantly, stopping. Trusting the Captain is crucial. After all, would you be happy flying down a hill without your fingers on the brake levers? The Stoker helps propel the bike along, each pedal stroke linked to that of the Captain by way of the timing chain. Job perks include being shielded from the worst of the weather, enjoying the views on either side, as well as map reading, consulting the guidebook or snapping photos on the go. By nature of a tandem, a Stoker's cockpit can at first seem a little small, with a more upright position than you may be used to.

GETTING STARTED

Tandems are generally 'Captained' by the taller and heavier rider, who holds the bike steady as the Stoker sits on their saddle and assumes the start position: one pedal forward, the other back at the ten past two position. Make sure the front set doesn't scrape the Captain's calves in doing so – not a great debut to any outing. After a glance over the shoulder, the Captain hops up onto the saddle as the Stoker starts to pedal. Suiting the proportions of most couples, this setup helps keep the tandem stable.

A tandem handles very differently to a solo so don't be surprised if it takes a little practice to feel as comfortable as you are on your own. At slower speeds, a tandem is steered from the handlebars rather than by leaning, with the Stoker sitting upright. Cranking it up into the bigger gears – easily done with all that leg power – promises a fast cruising pace. With a little experience, both the Captain and Stoker can even lean heavily into bends, the sheer weight of two bodies ensuring tyres stick to the ground with incredible tenacity.

Initially the Captain will find himself calling out the bigger gear changes to ensure a clean shift, though you'll find this is anticipated as you become familiar with each other's cadence. The real sense of harmony that develops by tandeming is unique and certainly one of the greatest pleasures in riding one. An overly zealous Captain can easily undermine a Stoker's confidence, so it's important to remember that tandem riding is very much a team sport.

Nowadays, there's a sizeable selection on offer to suit most pockets and cycle-styles. While there are some very cheap tandems, it's well worth investing a little more to ensure it's one that's built to last, as components are subject to far more wear than solos and frames must be sufficiently well built for safe handling. If you're thinking of buying secondhand, steer clear of the Thirties and Forties models, which are generally heavy, awkward to steer and have hard to replace parts. The Tandem Club is an excellent source for well looked after secondhand bikes to suit all budgets – see box on page 33. Otherwise, the For Sale section of the *C+* forum (www.cyclingplus .co.uk) and Noticeboard are regulars for well-maintained machines. The pleasures and constraints of tandeming are not necessarily for everyone so if you're thinking of taking it up, it's a good idea to hire before you buy – the Tandem Club website can direct you to your closest hire shop.



The three models we've chosen represent a wide span in price as well as function. While cheaper ones are available, Thorn's Explorer, just shy of £1000, is still towards the budget end of good quality tandems, and includes a choice of drops or straights and 26in wheels. A jump up is Dawes' £1500 Galaxy Twin, with its drop handlebars, larger 700C wheels and full complement of racks. The £1900 Orbit Andromeda is a rarer breed altogether. A dual suspension tandem with discs for those tandemists seeking the ultimate in twosome off-road adventure.

FRAME

DAWES 9 THORN 8 ORBIT 7

The main requirement in a tandem frame is that it's both strong enough to share the load of two riders, and stiff enough laterally not to wobble at high speeds or flex under steering. For this reason, a lateral tube is often used. Thorn's Explorer is a Taiwanese-made TIG welded affair, largely similar in geometry to their higher end Discovery model. Thorn have chosen to use standard 135mm dropouts common to mountain bikes rather than the tandem specific 145mm, to avoid the need for a pricey tandem hub and wheel build. While this means the frame is destined to be limited in its load carrying, it should be fine for everything else. The backbone of the bike is a wide base tube running between both bottom brackets – or drainpipe as it's also known. Welds were neat, though the finish had a few minor imperfections. Thorn market the Explorer as a budget 'serious' tandem, suitable for weekend rides and light touring. As such, it comes with braze-ons for three bottle cages – four would have been better. The fork features braze-ons for 4-point racks, and there are mounts for dynamos, front and rear, while a double 8mm front seat clamp compensates for any power the Stoker might put through the handlebars. For hillier terrain, there is a mount and cable runners for a drum brake; more about that in Wheels. If the Eighties Day-Glo finish is too much for you, there is also a grey and black option.

With its striking silver and blue livery, Dawes' Galaxy Twin is a great looking tandem. It's a well thought out frame too. Disc mounts and even hydraulic cable runners, front and rear, make brake upgrades straightforward. The tandem specific 7005 T6 tubeset is extra thick to deal with the increased load patterns of two riders. Indeed, it's a beefy looking frame, with huge gusset welds on the tight double triangle at the front end, an ovalised base tube and conical top tubes. The rear end is considerably less pumped up, suggesting the Galaxy Twin is best suited to a stronger Captain than Stoker – often the case in tandem couples. The cromo fork we had fitted on our test model came with dual bosses for 700c and 26in, but those on the production models will be specific to 700C wheels. To top it off, the Galaxy is packed with braze-ons, with provision for six bottle mounts and a drag brake, as well as front and rear dynamos.

Dual suspension tandems are unusual and Orbit's Andromeda is a real head turner on the road. A huge oversized 6061 aluminium base tube provides plenty of lateral stiffness, a must to ensure crisp handling on the trail. Finish is good too, though the 'Hand built in Sheffield' sticker is a bit misleading,

Alternative Tandems

Tandems have come a long way in the last few years. There are several recumbent designs suited to those who wish to avoid an upright riding position, whether because of a back problem or simply to enjoy the added comfort. I toured on Greenspeed's GTT tandem trike with my disabled sister in Wales, which suited our needs perfectly as we didn't need to rely on balance to enjoy the ride. But at £4550 it's not cheap; www.wrhpv.com has more details. Another effective alternative is the compact Hase Pino, a combination of recumbent and upright that allows unrestricted views for both riders – the stoker is up front rather than being tucked away round the back. It's priced at £2320 and is also ideal for disabled people who are unable to sit in a conventional saddle – details at www.londonrecumbents.com. For a list of similar tandems available worldwide, try http://legslarry.crosswinds.net/misc/TwosCompany.htm

as the frame is made to Orbit's specifications in Taiwan. Forks are RST's tandem specific Gila, though it was the general agreement of the guys at *MBUK* that their weak crown could be prone to snapping under heavy use. A better option would have been a set of Marzocchis, fitted with uprated springs and heavier weight damping oil. Off-road tandemist Guy Kesteven also recommended fitting custom coil springs, as few elastomer forks are up to a tandem load. Equally budget minded was the rear shock, a Taiwanese made Shockworks, which could be improved by servicing them with a better quality oil to cope with the heat build-up. The Orbit's only available in one size, though an adjustable rear stem and long seatposts means it will suit most riders.

WHEELS

DAWES 8 THORN 8 ORBIT 8

Thorn have opted for a fairly lightweight set of 36 spoke rims to ensure lively handling. Built around well-sealed LX hubs, CR18s are best suited for day rides and light touring – if you're planning to ride regularly laden than you'll be better off fitting the heavier Rhynos, offered by SJSC at no extra cost. For stronger wheels, or for fitting a drag brake, a pricey 48 spoke hub will have to be specially built up to fit the 135mm spaced dropouts. This said, a 36-spoke wheel should be fine for most couples who aren't too heavy or planning extended tours – by nature of their size, they should be inherently as strong as 40 spoke 700C rims. We found the Panaracer Tourguard 1.75 tyres a little slow and sticky, thanks to a fairly low 40-65 psi rating. However, they have a good tread for all round riding, whether tarmac or canal paths, and a solid reputation for strong sidewalls, crucial for tandem riding. What's more, a wide tyre on a tandem also reduces the chance of snakebite punctures and increases Stoker comfort. The wheels are hand built by Thorn and stayed true during testing.

With speed, strength and loaded riding in mind, the Galaxy Twin comes with a 48-spoke wheelset on a 700C rim. Hubs are made by Quando, the company behind CODA and Bontrager products. While the rear is a tandem specific 145mm, sadly the one fitted to our test bike didn't feature a thread for a drag brake. Drag brakes can be used to control the speed of a tandem on a long descent, independently of other brakes, saving on rim wear. This seems like a wasted opportunity – to fit one, you'll need a new hub and wheel rebuild. Luckily, Dawes are planning to correct this on their next batch of bikes, a move we'd highly recommend – drag brakes are cheaper to fit than a full set of discs and are highly effective for loaded bikes. Tyres are the excellent Schwalbe Marathons, with a reflective sidewall, high pressure rating of 95psi and all round tread – fast on good tarmac and forgiving on rougher road surfaces.

The Andromeda uses heavyweight Hope Big 'Uns hubs, laced with 40 spokes. Traditionally, Big 'Uns are used for downhilling and feature an oversized flange. They're strong and well built, though a few reports on the Tandem Club forum reveal mixed feedback on the wear of the freewheel body. Even so, they're easily rebuilt and Hope's customer service is second to none. Rims are thick walled, triple box section Alesa Sputniks and should survive most trail thumping. Tyres are perhaps indicative of the kind of use Orbit expects the Andromeda to receive. With their knobbly outer rubber and smooth mid tread, they cope well on most off-road





DAWES GALAXY TWIN

£1500

"The more we rode it, the more we enjoyed it."

Dawes ☎ 01234 245929
www.dawescycles.com



AT A GLANCE:

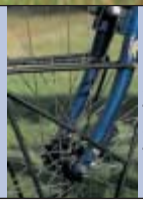
FRAME THORN 8 ORBIT 7	9
HANDLING THORN 9 ORBIT 8	8
EQUIPMENT THORN 8 ORBIT 9	7
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Cable eyelets help to preserve the paintwork around the head tube



Rider comfort is catered for by two suspension seat posts



Low rider racks are inlcuded and save on the cost of equipping the Dawes

conditions, whilst also running fairly smoothly on tarmac. This said, Orbit plans to refresh Andromeda's wheelset later this year – expect to see high-end Goldtech hubs and strong Rigida Aries rims instead. Despite abuse on the trail, wheels stayed true.

HANDLING

DAWES 8 THORN 9 ORBIT 8

Good handling and strong braking are key features in any tandem. We were immediately impressed with the way the Explorer handled. It had a real quality feel, rock like stability from the off, yet easy to control and very manoeuvrable. The Explorer is available with drops or straight bars; we opted for straight bars which we kept uncut – their width helped stabilise handling up front even more. Surprisingly nippy around corners, the Explorer also offered a good turn of speed, thanks to a light wheelset and a stiff frame that transferred power extremely well, with very little flex. Fast descents could be made with reassuring stability with the tandem holding its line well. V-brakes provided enough power to storm down the steep Dorset ridges without worrying about coming to a safe stop; though we did find the sticky Panaracers held us back on climbs. A good sign in any tandem is the ability of a Stoker to shift their weight around without too much impact on the steering – in this respect the Thorn also behaved well. Our only suggestion would be the addition of a suspension seat post. Although the steel frame was compliant enough for a basic comfort level, a suspension post saves calling out every bump and pothole that can't be seen.

The Dawes Galaxy Twin offered a different ride altogether. It was actually harder to find our rhythm at first; but the more we rode it, the more we enjoyed it. Surprisingly, the aluminium frame felt less stiff than the Thorn, and we could really feel it when we weren't riding in sync. But as we became more accustomed to the way it responded, the Galaxy became an increasingly rewarding bike to ride. It cornered fantastically with both of us leaning hard into a bend – traction on the Schwalbes was superb, with the weight of two riders pinning them securely to the ground. On the downside, braking was considerably underpowered. Although the Dia Compe hoods are designed to run with V-brakes, we found they just weren't up to the job; bad news when you're hurtling down a hill at 50mph. The bars, both front and back, were also narrow for a touring tandem, which limited Stoker comfort and made handling feel heavier at slow speeds. While the suspension seat post took the edge off the bumps, it wasn't as adjustable as we'd like, and sometimes felt like it was throwing us out of rhythm by bouncing too much. Worth an upgrade.

If you thought tandem riding was fun, just wait until you try one off-road. The Andromeda adds a whole new dimension to trail riding. While the RST forks are severely lacking in response, they're burly enough to iron out the biggest potholes along rough trails. We found the rear shock was up to the forest trails we threw at it – it's a bit bouncy, particularly if you hit two potholes in succession, but at least it didn't bottom out. In fact, thanks to the sheer momentum of a tandem and its massive weight, it's easier to tackle some terrain than on a solo – such as bridleways that are rock hard with mud. Negotiating tree roots is also a doddle: the Andromeda simply storms over them like a tank,

Transporting a tandem

Aside from storage space, the main problem with tandems is transporting them. While politeness and smiles will often help, putting tandems on trains can be fraught with difficulties – pick up a leaflet at your local station for a list of which companies do and don't carry them, or visit www.atob.org.uk/Bike_Rail.html.

A pricier option for steel frames is to fit S&S couplings – joints that allow a tandem to be quickly broken down into two or three pieces without causing any flex, costing from £500-1000. Alternatively, there are specialised car racks available. Visit roofbox.co.uk – Pendle's tandem rack is recommended at £136.95.

Tandem Club

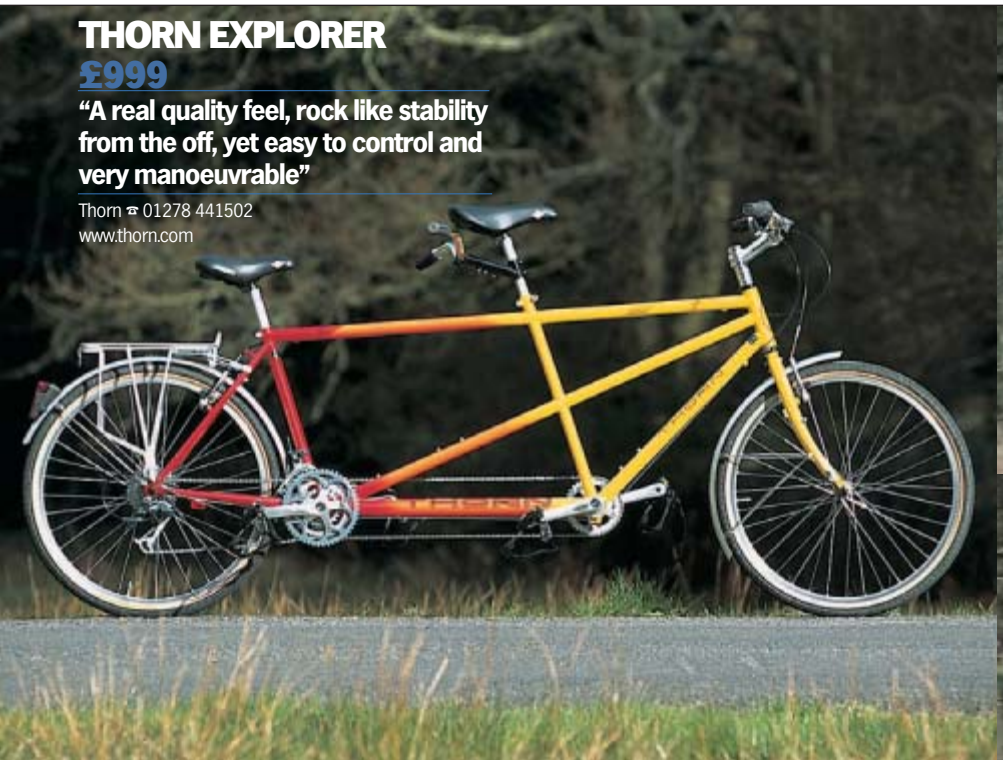
The Tandem Club has over 5,000 members worldwide, publishes its own magazine and has a list of forthcoming events around the country: ☎ 01376 347035 for membership forms or visit www.tandem-club.co.uk. The site includes a list of places to hire tandems, local clubs and links to British tandem manufacturers. The club also has a disabilities liaison officer, as tandems are also a wonderful opportunity for blind and other disabled riders to experience the sensation of cycling.

THORN EXPLORER

£999

"A real quality feel, rock like stability from the off, yet easy to control and very manoeuvrable"

Thorn ☎ 01278 441502
www.thorn.com

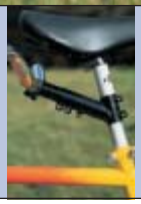




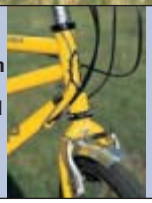


AT A GLANCE:

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Thorn's optional adjustable stem boosts stoker comfort for and extra tenner





Left: Explorer's V-brakes are good stoppers
Right: Sram Gripshift works smoothly with the Shimano drivetrain

Two-up travelling

Touring by tandem can be an awesome touring experience, and quite unlike riding on two solo bikes. They can go anywhere and on our expedition, highlights included lending shepherds the tandem to round up their sheep on the Kyrgyz plains, VIP treatment from border guards in return for a quick spin, and endless children leaping onto the back to hitch a ride. Travelling by tandem is also a very intense experience and will certainly bring out the best and worst in any relationship! See www.TandemToTurkestan.com, www.cornelis.med.rug.nl/Tibet/index.html and www.beijingtobangkokonabike.com to see what tandemists get up to all over the globe.

RIVALS

Dawes Double Edge	**£899**
Orbit Routier	**£995**
Cannondale MT2000	**£2599**

Dawes Double Edge
7005 HT tandem specific alu, Deore components, 26in 40H Rigida rims; well specced and priced package with strong wheels. www.dawescycles.com

Orbit Routier
7005 DB alu frame, Deore/Alivio kit, 36H 26in Alex wheels, rear sus seatpost and option of an extra mechanical disc brake for £60. 0114 275 6567, www.orbitcycles.co.uk.

Cannondale MT2000
£2599: Mountain tandem frame, RockShox Boxxer Race fork, 40H rims on Mavic D521 rims, a true Mtb tandem classic. C'dale also make the RT1000 (£2699) – fast and desirable tourer, but far from cheap. www.cannondale.com

Specialist manufacturer's include: Bob Jackson ☎0113 255 9844; www.bobjacksoncycles.co.uk, George Longstaff ☎01782 561966; www.cobr.co.uk /longstaff and Chas Roberts ☎0208 684 3370; www.robertscycles.com

without the front wheel skitting about. Riding singletrack is more of a challenge as it takes getting used to the long vehicle status of a tandem, though the frame was amply stiff enough not to flex on sharp turns. Braking from the Hope discs is awesome, something for which you'll be grateful once your confidence builds and you start really going for it. As you'd expect, the Andromeda is not for roadies – pedal dive makes it energy consuming on anything but the flat, though a rear shock with a lockout should help. Overall, the Andromeda is ideally suited to fire trails and forest tracks, which is what many will be using it for. Take it on anything too extreme and it will start to struggle. You'll enjoy having a go at it though, and nothing can beat the look from fellow cyclists as they see you hurtling towards them!

EQUIPMENT

DAWES 7 THORN 8 ORBIT 9

Tandems put far more stress through components than solos, so it's vital they're up to the job and don't wear out quickly. The Thorn is supplied with reliable LX mechs and a Thorn crankset. While it's a fairly budget affair, its main advantage is that crank lengths are available from 140mm to 180mm in length. This is of particular use to the tandemist, as most riders will have different leg lengths – using the same cranks will mean the speed of a pedal stroke is unlikely to feel right for both of you. Basic SRAM shifters worked well and gave some adjustment with the chainline – more of an issue when tandeming as its harder to see what gear you're in when looking down, as the chainrings are further back. There's a KF rack and the SKS mudguards included. The budget Comfort Gel perches didn't live up to their label though. Thorn offers their own stoker bars. We didn't find them comfortable, opting instead for a free conversion to risers – a more upright position that gave more room at the back. We found the Stoker stem supplied too short, so we upgraded to the adjustable one for £10, putting a little extra distance between the Stoker and the Captain's backside…

For a £1500 bike, we were a little disappointed to find Deore components on the Dawes, though they shifted well with the bar end levers. The Truvativ crankset is tandem specific and matches the slightly wider chainline required for the 145mm rear end. An adjustable front stem and Stoker stem means there are plenty of possibilities to get the right ride position, from aggressive racing to upright cruising. I could have done with more padding on the handlebars, especially as the brakes took so much work. Wider bars would probably suit most riders too, as the rear cockpit felt a little cramped and the front was hard to steer when laden. A four point front and standard rear racks are included as standard, and should cope fine with most tours. The mudguards fitted to the test bike were unbranded and flimsy, though the production model will have better SKS versions.

The Andromeda boasted an XT drivetrain, with a strong, high quality Sugino XD drivetrain to deal with all that torque. Stems were cold forged, adjustable on the rear and amply strong enough for off road riding, with riser bars giving a comfortable position – just as well, as only one frame size is available. Shifting was smooth despite the conditions on the trail, with a mega range rear block helping out on the more gruelling climbs. Undoubtedly though stand out components are Hope's Enduro 4 hydraulic disc brakes, the envy of all the mtbers we met. The Andromeda is a very well specced package that should survive plenty of trail abuse.





ORBIT ANDROMEDA

£1999

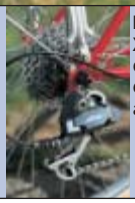
"A well specced package that should survive the abuse of the trail"

Orbit UK ☎ 01908 282626
www.orbitbike.co.uk



AT A GLANCE:

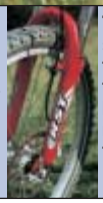
FRAME DAWES 9 THORN 8	7
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Left: Shimano XT takes care of gear changes front and rear



Hope Enduro discs make control on steep descents a cinch



The RST fork should be fine for light trail duties, but isn't the most refined fork available



BIKE SPEC

Dawes Galaxy Twin

Replacement value £1500
Contact: Dawes ☎ 0121 765 2000
www.dawescycles.com

FRAME AND FORKS

Size tested:
Sizes available:
Weight as tested: 20.355kg/44.9lb no pedals
Frame: 7005 T6 Aluminium
Fork: 4130 Cromo

BIKE DIMENSIONS

Top tube: 58.0/71.0 cm
Seat tube (c-c): 46.0/36.5 cm
Chainstays: 46.2cm
Wheelbase: 179.0cm
Head tube angle: 72.0°
Seat tube angle: 72.5/72.5°
Fork offset: 4.3cm
Trail: 6.5 cm
B/b height: 31.5 cm
Standover height: 81.0/70.0cm
Braze-ons: 6x water bottle, f&r mudguard, f&r rack, f&r disc brake, r roller brake

FRAME ALIGNMENT

Head tube: perfect
Rear triangle: within 2mm
Fork: perfect

TRANSMISSION

Chainset: Truvativ Five D Tandem, 28-38-48T, 175/170mm
Bottom bracket: cartridge
Freewheel: Shimano HG50
Chain brand: Shimano HG72
Derailleurs: Shimano Deore
Gear levers: Shimano Ultegra Bar Ends
Pedals: none

GEAR RATIO (IN)

Chainring \ Sprocket	11	12	14	16	18	21	24	28	32
28	69	63	54	47	42	36	32	27	24
38	93	86	73	64	57	49	43	37	32
48	118	108	93	81	72	62	54	46	41

WHEELS

Front & Rear: 48H Rigida tandem rims on Quando hubs with plain gauge spokes
Tyres: Schwalbe Marathon 700x32c
Wheel weight: f: 2.015g, r: 2.580g

OTHER COMPONENTS

Handlebar stem: ITM Ahead, 80cm
Handlebars: Deda Elementi 4 Girls, 38cm
Headset: VP Internal
Saddle: Fizik CP Vitesse
Seatpost: unbranded
Brakeset: Dawes
Accessories: none



BIKE SPEC

Thorn Explorer

Replacement value £999
Contact: Thorn ☎ 01278 441502
www.sjscycles.com

FRAME AND FORKS

Size tested: M/M (20/18in; 50.0/45.5cm)
Sizes available: S/S (18/16in c-c), M/M (20/18in), L/S (19/14in)
Weight: 19.270kg/42.5lb no pedals
Frame: Cromo
Fork: Cromo

BIKE DIMENSIONS

Top tube: 57.0/68.0cm
Seat tube (c-c): 50.0/45.5cm
Chainstays: 42.3cm
Wheelbase: 174.0cm
Head tube angle: 70°
Seat tube angle: 71.0°/73.5°
Fork offset: 5.0cm
Trail: 6.7cm
Bottom bracket height: 27.5cm
Standover height: 79.5/75.0cm
Braze-ons: 3x water bottle, f&r mudguard, f&r rack, rear roller brake

FRAME ALIGNMENT

Head tube: perfect
Rear triangle: perfect
Fork: perfect

TRANSMISSION

Chainset: Thorn, 24-38-48T, 170/170mm
Bottom bracket: Shimano 105
Bottom bracket: cartridge
Freewheel: Shimano HG50
Chain brand: Shimano HG73
Derailleurs: Shimano LX
Gear levers: SRAM Attack
Pedals: none

GEAR RATIO (IN)

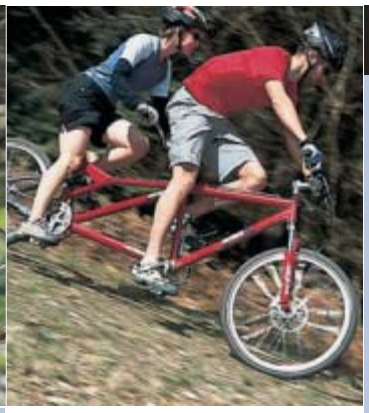
Chainring \ Sprocket	11	12	14	16	18	21	24	28	32
28	66	61	52	46	40	35	30	26	23
38	90	82	71	62	55	47	41	35	31
48	113	104	89	78	69	59	52	45	39

WHEELS

Front & Rear: 36H Sun CR18 rims on LX Shimano hubs, S/S plain gauge spokes
Tyres: Panaracer Pesela TourGuard, 26x1.75in
Wheel weight: f: 1600g, r: 2170g

OTHER COMPONENTS

Handlebar stem: unbranded, 100mm
Handlebars: unbranded riser, 26in
Headset: FSA Orbit XL II
Saddle: Selle Bassano
Seatpost: unbranded
Brakeset: Shimano Deore
Accessories: none



BIKE SPEC

Orbit Andromeda

Replacement value £1999
Orbit UK ☎ 0114 275 6567
www.orbit-cycles.co.uk

FRAME AND FORKS

Size tested 20/17
Sizes available: 20/17
Weight as tested: 21.700 kg/ 47.8 lb no pedals
Frame: 7005 series aluminium w/ Shoxk Works coil shock
Fork: RST Gila TL

BIKE DIMENSIONS

Top tube: 62.0/71.0cm
Seat tube (c-c): 44.0 / 40.0 cm
Chainstays: 42.5 cm
Wheelbas : 181.0 cm
Head tube angle: 72.0°
Seat tube angle: 73.5/72.0°
Fork offset: na
Trail: na cm 33
B/b height: 32.0 cm
Standover height: 81.5/68.0cm
Braze-ons: 4x water bottle

FRAME ALIGNMENT

Head tube: perfect
Rear triangle: na
Fork: na

TRANSMISSION

Chainset: Sugino XD Tandem Chainset, 28-38-48T, 170/170mm
Bottom bracke: cartridge
Freewheel: SRAM 5.0
Chain brand: Connex
Derailleurs: Shimano XT
Gear levers: Shimano XT
Pedals: none

GEAR RATIO (IN)

Chainring \ Sprocket	11	12	14	16	18	21	26	32
28	66	61	52	46	40	35	28	23
38	87	80	74	69	61	55	50	45
48	107	99	92	86	76	68	61	56

WHEELS

Front & Rear: 40H Alsa Sputnik rim on Hope Big Un hub with stainless double butted spokes
Tyres: Schwalbe Land Cruiser, 26x1.9in
Wheel weight: f: 24000g; r: 2820g

OTHER COMPONENTS

Handlebar stem: unbranded, 90mm
Handlebars: Kalloy Uno, 24.5in
Headset: FSA DH Pig
Saddle: Lookin
Seatpost: Kalloy
Brakeset: Hope Enduro-4 Hydraulic
Accessories: none

CYCLING PLUS Verdict

All three bikes performed very well, as you'd expect from manufacturers with years of tandem experience. We were particularly impressed with the Explorer, which will suit both the beginner and the enthusiastic leisure rider. It's a lot of bike for the money, with a good frame and respectable kit – choosing crank lengths and rims is a real bonus. It's versatile: fit some drops and narrower tyres and you can easily audax. Its only limiting factor is the complication in fitting a drag brake. This is reflected in the price – it's clearly not aimed at long haul touring. But as a bike for day rides and light touring on the flat, it really excels with first rate handling.

The Galaxy Twin has a lot going for it too. A very well specced frame, a reasonable level of equipment and good wheels make up a competitive package. With a little experience, the Galaxy corners brilliantly, flies along the flat and climbs well too. But it's more of a challenge to get the most out of it, and it will suit more serious riders. For touring, it's almost ready to roll. It's just about okay as it stands for Europe's sealed roads, a drag brake is needed to boost stopping power if you plan on tackling anything alpine. Let's hope the new hubs can take one, otherwise an upgrade to discs is recommended.

The Orbit is great fun. It would have been a real bargain if it had a more responsive fork. But with dual sussers a rarity in the UK, it's to Orbit's credit that they've managed to spec a full sus package well below two grand. The Andromeda's appeal will be fairly specialised, as it's not up to extreme use and is hard work on tarmac. However, I've never ridden anything as much fun on trails, and its forgiving handling means anyone can enjoy having a blast. As a stepping stone to a more dedicated machine, or simply to head off down the trails and bridleways in comfort, there's nothing available to match it.

ORBIT
OVERALL RATING 8/10

Dubious RST forks aside, a well priced, well specced tandem for off road adventures – great fun!

THORN
OVERALL RATING 9/10

Great value all-rounder with superb handling, plenty of options too

DAWES
OVERALL RATING 8/10

Well-built fast tourer for the serious cyclist, eminently updgradeable but better braking needed for touring