

BIGGER-WHEELED FOLDERS

BIKE TEST



1

TERN JOE D24



2

£550 AND £1500 FOLDING BIKES

Bigger-wheeled folders

While small wheels take up less room, bigger wheels roll better.

Editor **Dan Joyce** tests a 24-inch wheel Airnimal and a 26-inch wheel Tern

» **COMPACTS LIKE** the Brompton are supremely convenient, but the best-riding folding bikes either have full-suspension – like the Birdy or the ‘demountable’ Moulton – or bigger wheels. The tagline for Tern’s Joe D24 is ‘for the road less repaired’, while the Airnimal Joey Explore Drop is billed as ‘the ultimate folding bike for excursioning or heavy-duty touring’.

Frame & fold: Tern

The Tern’s aluminium frame has a beefy hinge in the middle, where the monolithic main frame tube meets the forward-extended seat stays and two tubes triangulated from the seat tube. There’s a lot of metal, adding strength, stiffness, and weight. Recommended

1 Tern have two more bikes like the Joe D24: the P24, with disc brakes, and the C21, with 21-speed gearing

2 Leaving the bar loose reduces the bike’s folded size, but re-attaching makes wheeling it easier

maximum rider weight is 115kg.

To fold, you undo the safety catch and hinge lever and bring the front part of the bike back on itself, so that the front wheel remains pointing forward – an ‘N fold’, Tern call it. It takes seconds. A magnetic catch between the right-hand fork dropout and left-hand rear dropout stops the bike falling open. It stands up like this and can be rolled on its wheels. That’s best; it’s heavy.

Folded width is compromised by the transverse handlebar. But this comes off easily without the headset falling apart. There’s a sleeve on the steerer, held in place by the top cap. The stem lifts off past this. You need a 5mm Allen key, which Tern provide in the right hand-grip. You can then re-fix the stem

and bar at 90 degrees or, for a smaller package, leave it loose. With the saddle lowered, the bike then measures 900×825×430mm. It takes about 40–45 seconds – unfolding similarly – and a carry bag is available (£109.99).

There are eyelets and room for mudguards, which don’t affect the fold. Fitting a rear rack is complicated by the magnetic dropout clip. You’ll want a rack that dog-legs back at the dropout, or that will fit to the extra eyelets part way up the seat stays. The latter puts your panniers higher and further forward, limiting heel clearance.

Frame & fold: Airnimal

The Airnimal also has an aluminium frame and a (better quality) steel fork.



AIRNIMAL JOEY EXPLORE DROP



There are no hinges as such; the non-suspended rear triangle pivots underneath and other parts detach. To begin, you telescope the upper seat post into the lower post. Then you remove the front wheel.

If the bike has a front mudguard, like ours, you need to pop the stays out of the plastic Secu-Clips (a procedure I was never happy with), then turn the handlebar 180 degrees so that the fork points backwards. This enables the fork and loose guard to sit snugly on top of the tucked-under rear wheel.

Next, you undo the rear triangle frame catch at the seat tube and flip the rear wheel under the main frame tube. Then you drop the lower seat post through the seat tube, which prevents the folded bike flopping open when you pick it up. The Commuter Kit, which I'd recommend, includes a pronged mount on the back of the seat stays that keeps the folded bike stable. This kit also includes a mount for the front wheel, which attaches via its own quick release. This enables the folded (and hefty) Airnimal to be rolled around.

A quick release lever above the headset enables the conical steerer

extender to lift off, bringing the stem and bar with it. The last part of the Commuter Kit is a clip that fixes to the bottle mounts, into which you can fit the stem or steerer extender to secure the handlebar. This works best with a flat bar; I left this bike's drop bar loose.

All this is the 'first fold'. It's meant to take 30-60 seconds, although I never got under a minute. It measures 980×850×350mm like this, a similar size to the Tern and small enough for many trains. I had a fight getting it into its optional soft bag (£59.99) but a new design is apparently coming.

You can break the Airnimal down further – removing the rear wheel, pedals, seatpost etc – for transport by air or Eurostar. It will pack into a Traveller Case (£279) measuring 840×660×350mm. With Airnimal's Trailer Kit (£175), that case converts into a bike trailer that you can put your touring gear in. Neat!

Unfolding the Airnimal takes the about the same time as folding. I wouldn't want to do it daily on station platforms but it's not difficult, so long as you take care with cable runs and quick releases. You're left with a fully-

fledged touring bike, with a maximum recommend rider weight of 110kg.

The position of the disc calliper on the test bike meant that none of my pannier racks would fit. Airnimal recommend a disc-specific Topeak Super Tourist DX. If you specify a rear V-brake, you can fit a more compact Racktime (Tubus) 24in rear rack. I used a Topeak beam rack during testing.

Components

Since it's a £550 bike that also folds, the component level of the



3 507 size wheels provide a 'normal' feeling ride

4 With the Commuter Kit, you can roll the bike on its front wheel

Also available



1) Birdy Touring £1549

Suspension front and rear gives this small wheel (355) folder a comfortable, efficient ride. Its Sram Dual Drive hub gives 3x8 gearing. Folds to 79×61×36cm. [r-m.de](#)



2) Surly Trucker Deluxe Frameset £899.99

S&S couplings are fitted to this chrome-moly touring frameset so it splits apart. It takes 26in wheels and V-brakes. [ison-distribution.com](#)



Tern is not high. Gripshift makes sense, as there are no levers to snag in transit, but Sram 3.0 shifters feel clunky. The 8-speed rear worked the Sram derailleur adequately but the non-indexed front and Microshift mech were vague whatever adjustments I made. I often had to overshift to move the chain and then trim the mech to stop it rubbing. But I've no other complaints at this price.

The Airnimal has Shimano Sora 9-speed STI shifters, a road triple, and a mountain bike rear derailleur. The gear range is a little better than 700C tourers that take this approach, as the smaller wheels yield smaller gears. Custom specs are possible if you go direct to Airnimal, so you could, for example, have bar-end shifters and a mountain bike triple if you preferred.

Brakes are Avid BB7 Road discs with 160mm rotors. I liked their braking performance and easy adjustability. Yet I'd specify V-brakes unless I were also buying a hard case. Disc rotors are easily bent in transit, and the front wheel's is particularly vulnerable.

Riding

With 26-inch wheels and no flex from its huge frame hinge, the Tern feels like any other 14-kilo hybrid. Nippy it's not, but it's sedately comfortable. The contact points are okay and the 50-559 Schwalbe Big Apple tyres easily cope with cobbles and potholes that are tooth rattling or terrifying on smaller-wheeled bikes. For longer rides, I felt the reach was a little short for a medium-sized bike with a flat bar, so I'd get the large.

The Airnimal is also flex free. It rides much like a solidly-built 26-inch wheel tourer. That's not surprising: there's less difference in diameter between 507 wheels and 559 than there is between 559 and 622. And its 47mm Marathons also cruised easily over choppy roads. The Airnimal's steering was perhaps a little lighter than that of a bigger-wheeled bike. And it may have shed speed a little faster when freewheeling. But neither was a concern. For a touring bike, the bottom bracket is unusually high.

Summary

Both bikes are perhaps best thought of not as folding bikes per se but as conventional bikes that can fold. The Tern is a hybrid, the Airnimal a tourer.

The Tern would suit a casual cyclist or else the rail commuter who can normally secure a bike space but who wants the folding option just in case. If you're happy to spend some money on it, however, it might be converted into a capable folding touring bike, rather like engineer Chris Bell's customised Dahon Cadenza (Feb-Mar 2010).

The Airnimal Joey Explore Drop is a good option for the touring cyclist who often begins rides a long train or aeroplane journey from home. It might also suit someone who wants a tourer but doesn't have space to store one. Unless you must have drops, I think the flat-bar Joey Explore is the better buy. Whether it's better than alternatives such as the Birdy Touring or Surly Trucker Deluxe will depend on exactly where you want to compromise between portability and rideability.



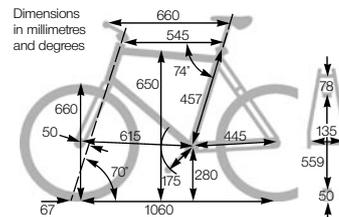
5 Magnetic clips hold the folded Tern together

6 The extra dropout is part of the Commuter Kit. It's where the front wheel attaches when the bike is folded

7 The Tern's beefy hinge is flex-free

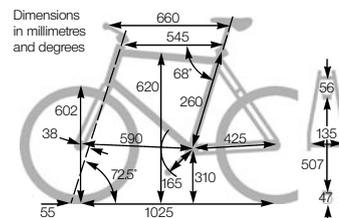
8 A sprung pin in the Airnimal's upper post pops into place in the lower post's slot, so you need only eyeball the height of the lower post when unfolding

Tech specs



TERN JOE D24 (2013)

- Price:** £550
- Weight:** 14kg (M)
- Sizes:** S (16in), M (18in), L (20in)
- Folded size:** 900x825x430mm
- Frame & fork:** 6061 aluminium, hi-ten steel fork. Fittings for mudguards, rear rack, one bottle
- Wheels:** 50-559 Schwalbe Big Apple tyres, alu' rims, Formula hubs, 32x3 2.0mm ss spokes
- Transmission:** flat pedals, Sram S250 175mm 48-38-28 chainset, square-taper BB, 12-32T
- Braking:** V-brakes
- Steering & seating:** Biologic Arx grips with T-Tool, 600mmx31.8mm riser bar, 110mm Axis 3Djust stem. Sport saddle, 350x31.6mm s/post
- Equipment:** Kickstand, Magnetix 2.0 frame clips
- Contact:** paligap.cc (ours was from evanscycles.com)



AIRNIMAL JOEY EXPLORE DROP

- Price:** £1528.98*
- Weight:** 13.95kg*
- Sizes:** one size (fits 4ft 10in to 6ft 5in)
- Folded size:** first fold* 980x850x350
- Frame & fork:** alu' frame, chrome-moly fork. Fittings for disc brakes (& rear V), mudguards, rear rack, one bottle
- Wheels:** 47-507 Schwalbe Marathon tyres, alu' rims, 32x3 2.0mm spokes (front), 36x3 (rear), Centrelock Deore hubs
- Transmission:** no pedals, 165mm
- 52-39-30 chainset, square taper BB, 11-32T 9-speed cassette. Sora STI 9-speed shifters, Ultegra front mech, Deore rear. 27-speed, 22-112 in**
- Braking:** Sora STI levers, Avid BB7 Road discs
- Steering & seating:** 430x26.0mm drop bar, 120mm stem, steerer extender. Telescopic post (upper 30.0mm, inline), sport saddle
- Equipment:** guards (SKS), Commuter Kit
- Web:** airnimal.com
- * as tested**