



**In the photos**  
**1** Kiddy-cranks and a Trail-Gator on a tandem, leaving York Cycle Show  
**2** Orbits are now sold by JD Tandems

WORDS DAN JOYCE

# PEDALLING PASSENGERS

Between pre-school and secondary school, family cycling is easiest using tandems or trailer-cycles.

**Dan Joyce** outlines the options

**B**y the time they start school most children are capable of riding a bicycle of their own. When you want to go further or faster, or on busier roads, it's easier if they literally cycle with you – on a trailer-cycle or tandem. Your child will be actively cycling yet under your control.

A trailer-cycle or a towing device is the cheapest option. A trailer-cycle is like a child's bicycle with no fork and an extended frame that hitches to a coupling on the back of an adult bike. A towing device, like the FollowMe and Trail-Gator, adds a towbar to an existing child's bike. Either way you get something like an articulated tandem. Neither is as good to ride as a tandem, but cheaper. You get what you pay for.

## TAGGING ALONG

Most trailer-cycles and towing devices suit children around the ages of four to nine. The upper limit is dictated by weight: your

tag-along passenger shouldn't exceed about half your bodyweight. A heavier passenger gives a tail-wags-dog effect that makes it harder to control the towing bike.

Trailer-cycles have enjoyed something of a renaissance recently, although with a few notable exceptions the modern versions are actually worse than the Rann trailers of yesteryear. That's because most modern trailer-cycles attach to and pivot at the seatpost.

This kind of trailer-cycle articulates on a plain bearing. At best, the turn pivot is vertical and on a bracket that's behind the seatpost; at worst, the turn pivot is the seatpost. Since a bike's seatpost isn't vertical (it's around 72-74 degrees rather than 90), this leads to a peculiar handling quirk in which the trailer-cycle leans out on corners.

Handling problems are compounded by the plain bearing: there's a fine line between too tight, which means the trailer won't articulate properly, and too loose, which >





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**In the photos**  
**3** Trailer-cycles will fit to most kinds of bike but a wide handlebar and good brakes are helpful for control  
**4** Bike Friday triplet and Dawes TwoCan tandem on a CTC tour in France

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## FAMILY TRAVELLERS

Snapshots of family cycling across the decades



70s & 80s

Anna & Tim Jackson

● Our children were born in 1971, '74 and '76, all girls. As regular cyclists we wanted to introduce them to cycling asap. Bikes for kids in the '70s and '80s were poor, ill fitting and ill equipped, and we struggled to find anything suitable. Childseats were no better: unstable and heavy, with little protection. For the first few years we managed with childseats, but the arrival of daughter number three meant drastic action. I bought an old Sun tandem through the CTC magazine, and then bought and fitted a kiddy-crank attachment. For a while we had daughter number two (cont. p49)

## “A TANDEM IS MORE SOCIABLE THAN A TRAILER-CYCLE... AND IT'S MORE EFFICIENT”

gives slop or play at the joint, letting the trailer-cycle rock from side to side.

A much better arrangement, used by Rann in the past and by Burley today, has the trailer-cycle's vertical (pitch) and horizontal (turn) pivots directly above the towing bike's rear axle. Both pivots articulate easily, on ball bearings, and the trailer-cycle tracks better after the towing bike instead of cutting corners.

To attach here, such designs use a rear rack that's like, and often doubles as, a pannier rack. Buying a second rack lets you swap the trailer-cycle between towing bikes.

The best trailer-cycle available at the moment is the Burley Piccolo; turn to page 72 for a full review. The best towing device is the FollowMe, which we reviewed in the Oct-Nov 2011 issue.

### A BIG NEW BIKE

A tandem is a better but more expensive solution. Handling is much steadier than a trailer-cycle; it's more sociable since you're sitting closer together; and it's more efficient – scarcely slower than an adult cycling alone. If you're touring, it means you can travel further. If you're doing the school run, it's easier to step

on it if you're late.

A tandem has to be built more sturdily than a solo bike because it carries more weight over a longer frame. To stop it flexing from side to side as you pedal, an extra frame tube or two is usually added, running roughly along the bike's torsional axis. That's a line from the head-tube, where the bike is steered, to the rear dropouts, which hold the rear wheel.

That's not such an issue with a child on the back as it is an adult. An average adult plus a child will weigh the same as a heavy adult. So you're not making the same demands on the bike. Wheels with 36 spokes front and rear, rather than a rear with 40 or 48, can be fine. Two V-brakes will readily stop an adult and child on a tandem. If you're also carrying luggage or towing a trailer, it's worth adding a drag brake – a kind of hub brake that's designed to be held on during a long or steep descent to slow you down rather than stop you. Gears still need to go low, like a mountain bike's, to winch you up hills comfortably.

A tandem can only carry the same number of panniers as a solo bike, so if you plan to take yours touring (or even shopping), make sure there are eyelets to fit a carrier rack at the front as well as at the rear. If you're camping, you may need a luggage trailer as well.

### CHILD-BACK TANDEMS

A child-back tandem is made specifically for an adult pilot and a child stoker. The top-tube slopes down steeply from front to back, so that you can both have your saddles at the right height. Bike length is less too, since a child doesn't need the same reach to the



### In the photos

**5** The more you cycle, for touring or transport, the better the investment in a tandem becomes  
**6** Using the FollowMe, your child's bike can be detached during the journey



Right: Neil Wheadon. Above Right: Chris Juden

stoking with daughter number three in a childseat. Besides local rides from York, Scarborough and then Thornaby, our holidays were fixed centre, often YHA family annexes and holiday homes. The tandem was heavy, and hard work uphill, especially with two children aboard.

Quote from daughter number two (now 38): 'One of my first memories is of being scared going downhill; it was only later that I became the speed demon you know today. When chatting with your cycling cronies, you always have to mention "She was the best stoker I had." And I still have the thighs to prove it 30 years later!'

There was less traffic and it moved slower than today, but I do envy the modern parent. Bikes and equipment are better and cheaper all round, with plenty of choice. We now have four cycling grandchildren, so I suppose we had a lasting effect.



## Nineties

Chris Juden

• We already had a Mercian tandem (made for us, the second they'd ever constructed) and inherited the junior pedalling attachment my wife had once-upon-a-time 'stoked' behind her dad. So as soon as our son was ready – about 3½ – we put them together. When 2½ years later his sister Amy grew impatient to pedal like a grown-up, not sit like a baby, the CTC grapevine yielded a junior-back tandem, made by Gerry Marlow for his wife and daughter, that was also short enough for Helen to 'pilot' – and remarkably light.

We had no car so we used those tandems for local errands as well as weekend tours and longer holidays until each child went solo aged 8 or 9, although we'd still run them places by tandem in their teens.

It was the 1990s and our British travels were unfortunately limited to the shrinking circle of places you could (cont. p51)

› handlebars as an adult.

To an extent, a child-back tandem can grow with your child. A long seat-post is required, of course. Also useful is a telescoping stem for the stoker handlebars, so they can be moved further away as the years pass. Some tandems have 'double drilled' cranks, with two pedal holes in each crank. When the time is right, you unscrew and refit the pedals.

The main benefit of the child-back tandem over an adult tandem is that everything is scaled for your child from the start; you don't have to customise it. With the rear saddle so low down, your child won't need lifting onto it. Since the whole bike is a bit smaller, it's a little easier to live with than an all-adult tandem: easier to store and easier to get in or on a car.

Off-the-peg child-back tandems are relatively rare, and hence are not cheap. Buying one is an investment, even secondhand, but they hold their value so you'll be able to recoup some of this when your children outgrow it.

### ADAPTING AN ADULT TANDEM

Lowering the child down to the pedals via a child-back tandem isn't the only option. If you've already got an adult tandem – or would prefer to buy one so that you can convert it back again when your child is bigger – the pedals can come up to reach the child.

What you need are kiddy-crank. They are: a bottom bracket that bolts to the seat-tube under the child's saddle; a child-size chainset; an extra timing chain; and an extra chainring for the tandem's drivetrain to link the child's chain into the loop. For a

competent bike mechanic, this is a DIY job.

JD Tandems will sell you a complete kiddy-crank conversion kit from Santana for £295 ([tandems.co.uk](http://tandems.co.uk)). You can do it cheaper: St John Street Cycles ([sjscycles.co.uk](http://sjscycles.co.uk)) sell a kiddy crank seat-tube block for £61.27. Get a small (100-120mm cranks) chainset while you're at it (from about £20). You now need to add a chainring to the tandem's main drive, ideally no bigger than the child's chainring or you'll spin little legs like egg whisks, plus you'll need more chain.

It's easiest to add a chainring to the right-hand side of the pilot's chainset – using a new single-ring right-hand crank if the timing chain is on the left, or a new double- or triple-ring crank in place of the existing single if the timing chain is on the right. It's also possible to run the child's timing chain to the pilot's left-hand crank or to the left-hand stoker crank; the latter is neatest. Get a tandem specialist to advise – [sjscycles.co.uk](http://sjscycles.co.uk), [tandems.co.uk](http://tandems.co.uk), [longstaffcycles.co.uk](http://longstaffcycles.co.uk).

That's not quite it yet. You also need to let your child reach the handlebars. A telescopic stoker stem (from £25) is one option. Another solution is a bit DIY but arguably works better for smaller children.

You will need: two pairs of drop handlebars; ›

**“CHILD-BACK TANDEM  
HOLD THEIR VALUE  
SO YOU'LL BE ABLE TO  
RECOUP THE COST”**

still take tandems on the recently privatised railways. But we had some great foreign adventures: flying to Legoland for a fortnight's CTC tour of Denmark and attending Tandem Club rallies in Belgium, Netherlands and France. At these rallies our kids spent all day riding and playing with a great group of others from all over Britain, which surely helps when you're the only one in your school who rides a weird bike with their mum and dad! If we did it again we'd still choose tandems, for their superior efficiency, stability and closer communication compared to other junior pedalling devices. More fun per unit effort basically. But nowadays we'd need the car to network with other cycling families. Without that, I'm afraid the gentle cycle-touring bug is usually swatted by peer-group pressure.



### Noughties

David Dowling

● I was drawn to the Trail-Gator for simplicity, versatility and price. I could enjoy all the benefits of a trailer-cycle but my child could ride for a while by themselves and then re-hitch to my bike when they were tired or where traffic was heavier. They were cheap enough at £80 for us to buy two so my wife and I could tow a child each. The Trail-Gator was a little fiddly to fit and needed to be set up perfectly straight. A small misalignment is exaggerated and your child can end up at an alarming angle. Even when perfect, your child has their front wheel off the ground so their saddle is not level and their bars are higher. My wife hated the towing experience and avoided using it. Even I cannot remember a single occasion when I actually unhooked or reattached the system during a ride. Despite all that, this is a useful solution. The hitch on the adult's bike is fit-and-forget. It will fit almost any type of bike and attaches to the seatpost so you can still use a rack and panniers.



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Photos by Mark Waters, Chris Juden, Sally Joyce



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#### In the photos

**7** Bike Friday tandems fit into a couple of suitcases  
**8** Dan and sons in the Peak District. Both the Thorn triplet and Burley trailer-cycle are still in production  
**9** Events like CTC's Birthday Rides are an opportunity to meet other cycling families

## “TOE-CLIPS KEEP LITTLE FEET IN PLACE AND STOP LEGS BEING WHACKED AS THE PEDALS CIRCLE”

➤ an extra stoker stem; two broom handles; lots of handlebar tape. Fit one pair of drop bars in the normal stoker stem, upside down, bar ends pointing backwards. Fit the other stoker stem pointing back from the child's seatpost, and in that fit the other pair of drop bars, also upside down but with the ends facing forwards. Saw down a broom handle so that it is several centimetres longer than the distance between the bar ends and wedge one end in each bar end, if necessary wrapping the broom handle in insulation tape to provide a tighter fit. Repeat with the other broom handle. When you've done this, tighten all bolts and wrap the lot in handlebar tape. Your child now has handlebars all down each side and can hold on anywhere.

As your child grows, you can lower the kiddy-crank attachment block down the seat-tube and/or raise the saddle. And one day you can remove the whole caboodle and be left with a standard tandem.

#### CAN YOU RIDE TANDEM?

Riding a tandem is easier than riding a solo bike plus trailer-cycle. The long wheelbase of a tandem makes it very stable, although the bus-like cornering at slow

speed takes some getting used to. There is very little 'tail wagging dog' effect, even with a heavier child and/or lighter parent.

Once you're moving, both riders are literally chained together and have to pedal simultaneously. Since you're so much bigger and stronger, you set the tempo and your son or daughter can join in or go through the motions as desired. The thing to watch for with a child stoker is his or her feet coming off the pedals and getting whacked as the pedals come round again. Use toe-clips to keep little feet in place.

The hardest part of tandem riding is starting and stopping. To get on, the pilot (you) straddles the bike, feet on the floor, holding the brakes on. Leave the left-hand pedals at the bottom of the stroke, so that the stoker can use the rear left pedal as a mounting step to get onto the saddle – without spinning a front pedal into your shin.

You may have to lift your child onto the saddle. That's possible by yourself, although easier if the tandem has a drag brake which can be left switched on. You can then put the drag brake on, straddle the bike to hold it steady, and lift your stoker onto the saddle. When you get on, do not swing your leg over your saddle: you will kick your stoker in the head. Step over the top-tube instead.

#### TANDEM AND TAG-ALONG TIPS

Be aware that on longer rides your child will tire before you do, even though you're doing most of the work. Check morale and energy levels

**FEATURE**  
Family  
cycling

Photos by Mark Waters, CTC, and relevant manufacturers



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regularly by keeping a conversation going, and if necessary boost both with stops and snacks. Adults can feel themselves getting more tired; children can conk out in moments. They can even fall fast asleep while pedalling or being towed. A handlebar mirror is helpful to keep an eye on them.

Tandems are harder to transport than solo bikes. You'll need a special roof-rack adapter for your car, such as the Pendle Tandem Rack (£199, [pendle-bike.co.uk](http://pendle-bike.co.uk)). Estates or MPVs may accommodate a tandem inside, with one or both wheels off.

Some Intercity train services will accept tandem bookings – East Coast, for example. Most trains won't. Some tandems fold or come apart for easier transportation. The Berndts folding tandem ([bernds.de](http://bernds.de)) should just fit a solo bike space with its back wheel tucked under, while Bike Friday tandems ([bikefriday.com](http://bikefriday.com)) pack down completely... given time. Conventional tandems with S&S couplings offer the same convenience for touring holidays that include public transport. Trailer-cycles can fit on any train that will carry a solo bike. Book the trailer-cycle aboard as if it were a solo bike – this will prevent arguments.

How long you'll use your tandem or trailer-cycle will depend not just on the size of your offspring but on their level of self-consciousness. There may come a time when they don't want to be seen on a 'funny bike' that draws attention. Fortunately, this should coincide with them becoming ready to ride their own bike.

If you want more information or inspiration, consider joining the Tandem Club (£10, [tandem-club.org.uk](http://tandem-club.org.uk)), which was founded by CTC members in 1971. ☺

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**In the photos**  
10 Bike Friday triple tandems start at \$2,995, plus shipping, duties and VAT. Email [daves@bikefriday.com](mailto:daves@bikefriday.com) for details  
11 Nijland Sunny Nindo tandem: pilot sits at the rear

## FINE FAMILY TRANSPORT

Family cycles are specialist products in the UK. Go online to purchase – or to locate your nearest stockist.



### FollowMe Tandem £210

A secure and stable handling way to couple your child's bike to yours. Fits children's bikes with 12-20 inch wheels. The FollowMe can be left on the adult bike, partially folded. [followmetandem.co.uk](http://followmetandem.co.uk)



### Burley Piccolo £349.99

A rack-fitting trailer-cycle that offers superior handling and good growing room. It comes with the rack, which will accept panniers. Single-speed Kazoo also available for £50 less. [extrauk.co.uk](http://extrauk.co.uk)



### Circe Duo £1199

A versatile family tandem with fat-tired 20-inch wheels. Lots of seatpost and stoker stem adjustment allow an adult or child stoker. Can be adapted to fit two childseats or lots of luggage. [circecycles.com](http://circecycles.com)



### Thorn Me 'n' U2 £1999.99

Suits a pilot from about 5ft 4in up, a middle rider aged roughly 7-12, and a rear rider aged 4-10. Comes with additional rear disc brake, guards and rack. Also available as just a frame for £899.99. [sjscycles.co.uk](http://sjscycles.co.uk)



### Hase Pino Allround £3265

Upright/recumbent tandem that takes up scarcely more space than a solo bike and offers your stoker a great view. Suits children as short as 90cm, as well as disabled stokers. [hasebikes.com](http://hasebikes.com)