

## How to ride a tandem with a stoker

*“Look further ahead and plan further ahead”*



### **The tandem partnership**

Tandeming is a great way to enjoy cycling with another person. Tandems are serious business too. The front rider (CAPTAIN) is entirely responsible for the well-being of the other rider (STOKER). The cycle is bigger, heavier, and less forgiving of sloppy riding habits. A tandem captain can't be as spontaneous as a rider on a single, nor can the captain make the same kinds of last-minute recoveries from errors in judgment. Look further ahead and plan further ahead.

Most of the stokers we take out for rides at Cycling4All Shropshire will need additional support due to a disability or health condition. A captain riding more than once with the same stoker will help to build trust and confidence and create an effective tandem team/partnership.

### **The Captain's Responsibility**

The captain should be an experienced and confident rider of solo bikes and with reasonable body strength for good control. The captain steers. The captain decides when to pedal and when to coast. When starting and coasting, the captain decides where to position the pedals.

The captain is responsible for controlling the bike when stopped (keeping brakes on, holding the bike upright) so that the stoker can mount and dismount safely. The captain is responsible for making sure the stoker is happy, comfortable, and enjoying the ride. Good communication is paramount.

The captain must stop when the stoker wants or needs to, she/he must slow down if the stoker wants to and should keep the stoker (who cannot see the road ahead) warned about bumps, potholes, and overhanging branches ahead so that the stoker is ready for them.

The captain's primary job is to make the stoker happy so they will want to share the ride again! So you must reassure your partner with careful, methodical riding habits.

Once you're moving, both riders are chained together and (on most tandems) have to pedal simultaneously – even if that means you pedalling and dragging the stoker pedals around too. With practice, tandem riders will be able to synchronise their pedalling efforts more effectively.

Anticipate manoeuvres, beginning them far in advance and be alerted to shifting needs. Don't fix your eye on the problem – such as the pothole but be looking to your best line around it.

A too-fast or too-slow cadence (pedalling speed) is doubly annoying to the stoker because she/he can't fix it. Watch the road or cycle path ahead and make your steering and braking corrections smoothly.

Ride slightly farther out from the curb, or from parked cars (give a 'door and more'), than you would on a single bike. This is particularly important turning into junctions and around corners. Give yourselves quite a large area to account for lateral movement - 'deviation' when in motion. Some riders might be jerky so give yourselves a good safety margin.

When you conduct a manoeuvre, such as merging across traffic to make a turn or steering around a pothole, make your decision early. A decisive captain will ride smoother, and that will make the stoker happier.

Most new tandemists find captaining exhausting, and they get sore shoulder muscles from being tense. This will pass. As you become accustomed to the requirements of captaining a tandem, you'll develop a lighter touch.

If your stoker is nervous, ride slowly. In time, the stoker may become more confident and ask for more speed. But if she/he wants to go slow, go slow. The more conservative voice must prevail.

### **The Stoker**

If possible, encourage the stoker to provide a good burst of power when setting off, to help get the tandem up to speed (and therefore improve stability and handling) as quickly as possible.

Also to keep balanced – sitting upright and looking ahead rather than down at your feet. Sudden lurches or shifting in the saddle make handling of the bike more difficult for the captain. Hold your head high and enjoy the scenery.

Pedal—at an agreed-upon (importance of communication again!) effort level. Try to pedal smoothly, so your pedalling doesn't make your upper body move around.

The stoker has to trust the captain and not try to steer or tense up.

Unless experienced, don't delegate making hand turning signals to the stoker.

If your tandem has a brake lever on the stoker's handlebars, discourage its use so the captain can take full control.

### **Before Getting Underway – the tandem**

#### ***Allow time for a complete pre-ride tandem inspection.***

In addition to sizing and comfort issues for each individual, the cycle must be made to accommodate the interaction between the two riders. The best configuration for any pair of cyclists on a tandem will be the result of experimentation.

The stoker uses the same seat-to-pedals distance as on a single bike. But the handlebars can often be closer (which is okay since the stoker doesn't need to steer). If they are dropped handlebars, encourage the stoker to put their hands on the top of the bars.

The tyres need to be inflated to the highest pressure marked by the manufacturer on the side of the tyre. Tyres should be checked before each ride, and if they are worn or damaged should be replaced.

Brakes should be in good condition, correctly adjusted and effective at stopping the bike. Brakes should be checked before each ride, and if there is any doubt or concern take the bike to a local bike shop or experienced repairer. Stopping a tandem requires much more braking force than a solo bike, and effective brakes are needed.

If your ride might involve riding after lighting up time, the bike will need working front and rear lights to comply with the law, and to ensure you are visible to other road users for your safety.

Any luggage must be secured before setting off. The captain cannot see the rear panniers while riding, and loose straps or buckles will eventually get amongst the spokes if they can.

Saddle height: Your somewhat nervous stoker will probably want their saddle height to be lower than the optimum to begin with and run with this. But adjust upwards as confidence build. Make small adjustments from here once you have ridden a bit and see what feels right.

Both riders should wear CSAS hi viz jackets, as much for safety as promoting the brand!

Important to carry some basic tools for adjustments, first aid kit and water/snack. Mobile phone too.

### **Before Getting Underway – the route**

***If the captain is not familiar with riding a tandem and/or the particular tandem itself, they should ride the tandem alone first. Getting used to the controls and handling is much easier on your own.***

If you can, practise somewhere safe first (school playground, local car park or quiet side streets) and get used to starting off and stopping safely before moving to the main roads or into traffic.

Consider a suitable route – generally a short one to begin with, with plenty of off road/traffic free stretches and where you can keep riding continuously without lots of stop starts. Also with few steep hills. Ideally the captain should be familiar with the route in advance so as to have carried out a 'live' risk assessment.

## Starting Off

Think about where precisely to start from. If there's a footway to the side of the road, you can both mount from the safety of the kerb – and the additional height will make it easier to get your legs over. (The reverse of this can also be helpful when you come to stop). Great if you can find either a flat or slightly downhill starting place so you can pick up speed quickly.

Always position the tandem so that you are setting off in a straight line and not immediately into a turn.

Make sure the tandem is in a comfortably low gear.

**The captain mounts first.** Before, and only before the stoker gets on the cycle, it can be leaned over to lower the clearance to straddle the bike. Make sure the stoker is standing clear as you get your leg over.

Straddle the top tube, plant your feet on the ground, and spread your legs to clear the pedals. Firmly hold the bike upright and squeeze both brakes.

You can lean the tandem just long enough to make it easier for the stoker to get their leg over. Keeping it then upright is important as the tandem is not only heavy, but also top heavy.

The stoker gets on now. Because the captain is holding the bike rock solid, the stoker can mount it like a horse. An option is for the stoker to put one foot on a pedal and swing the other leg rearward over the saddle. Now the stoker puts both feet on the pedals.

The stoker says, "ready."

Discuss getting your pedals

Now the captain can start. Pick up one foot, put it on a pedal and set the pedal at about 2 o'clock when viewed from the right, to give maximum power on the first push. (You could refer to this as "pedal set" or "pedal ready"). Stand on it while steering straight ahead. The captain should not try to start in the saddle as this makes the tandem unstable.

When the captain is ready use your agreed start words – count down "**3,2,1, go**" or "ready, steady, go" or whatever you agree on, and then GO with a firm push. A tandem has rubbish handling at low speed, so the trick is to get moving quickly and smoothly, and in a straight line. This is where the stoker's contribution is really important.

After you've started the first pedal stroke, get in the saddle, put your other foot on the backside of the pedal, and continue pedalling and steering.

Encourage the stoker to look up, not to try to steer but just relax and look where they want to go.

## Stopping

If you stop briefly, say, for a traffic light, the captain stops the bike while the stoker stays with feet on pedals. The captain takes one foot off the pedal, dismounts from the seat, and

puts the foot on the ground while holding the bike absolutely upright. Starting up again is just like your initial start-up. The captain should let the stoker know what's happening —talk to one another —and get the pedal in the ready position and way you go.

To stop and dismount, reverse the mounting procedure. The captain gets off the seat, spreads legs to clear the pedals and brace the bike upright while the stoker climbs off. Then the captain can dismount.

Once stopped, if you are going to both dismount rather than move off straight away, then the **stoker should climb off first** while the captain holds the bike steady and still again.

## **Riding**

Tandems are stable and easy to manoeuvre at slow speeds. But they need a confident captain who doesn't overcorrect or induce wobbling. A smooth style is the key to good slow-speed riding. After you've got to know your tandem well, you'll find you can make a U-turn on a narrow two-lane road.

While riding along, keep the pace steady at first, and make any gear changes carefully, after letting the stoker know in advance. After a while, this becomes more natural and you don't need to announce them, but it usually helps to ease pedalling pressure but keep the pedals moving when changing gear.

## **Communication**

Encourage lots of communication if possible. You can inform each other of bumps, shifts, when you need to slow down due to pedestrians sharing the path ahead, and if a stop for a drink is needed.

One important coordination activity may require talking, at least at first: **gear shifting**. The reason: on a single bike, riders intuitively let up on the pedals when they're shifting. On a tandem, the stoker doesn't necessarily do that.

This is hard on derailleurs (especially front derailleurs) and may make shifts more difficult. Make sure you both let up on the pedals during critical shifts. Whether you do that by talking (you might shout "shifting") or by the stoker feeling when captain is about to shift is up to you.

Happy tandeming!

## **References and further information**

Charlottes Tandems

<http://charlottestandems.weebly.com/uploads/5/1/3/4/5134339/ridingtandems.pdf>

Cycling UK

<https://www.cyclinguk.org/article/cycling-guide/guide-tandems>

JD Tandems

<https://www.tandems.co.uk/tandem-talk/>

Cannondale's Owner's Manual

[file:///H:/Road%20Safety/Cycling4All/Tandem%20Training%202022/130594\\_TANDEM\\_051113\\_CE\\_EN\\_scr.pdf](file:///H:/Road%20Safety/Cycling4All/Tandem%20Training%202022/130594_TANDEM_051113_CE_EN_scr.pdf)

Ray Hughes, C4AS July 2022