TIPS FOR BUYING A "PRE-OWNED" TANDEM

The author of this article has been an avid road cyclist for over 50 years, has completed over 100 century rides, and has been riding a tandem bicycle since 2019; in 2021, she founded the Facebook Group known as SoCal Tandem Riders, which (as of August 2026) has 428 members, most of whom live in Southern California. The views and opinions expressed in this article are solely those of the author and are based on the author's personal research, experience, and observations.

For purposes of this article, it is assumed that the "Captain" (who sits in front and controls the steering, braking and shifting of gears) is male and the "Stoker" (who sits in the rear and provides power and often serves as the navigator - - and photographer!) is female. However, that is by no means a universal practice, and the author apologizes in advance for any unintended sexism - - women can be great tandem captains, and mothers or fathers often captain a tandem with a son or daughter as stoker!

A. BASIC QUESTIONS. Begin your search by answering three basic questions:

1. What is your budget?

If you can spend a few thousand dollars, you can probably find a pretty nice used tandem. (A brand *new*, high-end road-style tandem with top-of-the-line components can easily cost between $14,000 - $20,000, but the value of tandem bikes depreciates very fast). If you want to spend only a few hundred, you'll find mostly "cruiser-type" tandems or road tandems that are older and/or not in great condition.

2. What SIZE tandem should we get?

If you plan to ride other than very short distances, **BIKE FIT IS PARAMOUNT**. If the frame is too large or too small (for the captain or stoker), you'll be miserable pretty quickly and could risk injury (*e.g.,* straining your knees, neck or back). If you're considering a tandem made by a company that has a website, you may be able to find a size chart on that website that can give you guidance as to the appropriate size frame for you. If you're considering buying a tandem from the original owners of a custom tandem, the bike might be a close enough fit if you're close in height and leg length to the original owners. Many Co-Motion and Calfee tandems are custom orders, as are all Hawthorne, Rodriguez, Seven and Landshark tandems; Trek, Cannondale and KHS are available only in standard sizes "off-the-shelf" (usually a combination of Small, Medium, and Large); these less expensive tandem brands did not make custom tandems (Trek, Cannondale and KHS have stopped making tandems, but their tandems are often available in the resale market and can be a solid, low-cost choice for the new tandem rider).

The fit for the captain is arguably more important, because the captain's "cockpit" area is less adjustable. If the captain knows what size frame he should have on a single road bike, he can ask what size road bike the seller uses. (For example, a captain who is 6' tall and rides a 58 cm road bike, would not want to buy a bike from a captain who is 5'6"

and rides a 52 cm road bike). A bike shop that sells high-end road bikes (and has an experienced, knowledgeable sales staff) should be able to advise you on what size frame is best. The Competitive Cyclist website has a guide that might help (see: https://www.competitivecyclist.com/service/bike-size-guide#road) or you can call one of their "gear heads" at the number shown on the site. The stoker has more flexibility - - she can change the handlebar, add an extension to move the handlebar closer and/or higher (call Mel at TandemsEast for a recommendation on this), and raise or lower the seat (or slide the seat forward or back on the rails).

Unless you are purchasing a recumbent tandem, make sure that the stand-over height is comfortable for both the captain and stoker, so that both can get on and off the bike easily. (Generally, having between 1" – 2" distance, or two finger-widths, between your crotch and the top tube, is considered a good stand-over height).

It's obviously best if you can test-ride a used tandem before committing to buy it. But if you can't do so, then you need to know both the dimensions of the tandem and the correct sizing for both the captain and stoker (and then determine if adjustments are needed, whether the adjustments are feasible, and for a reasonable cost).

3. **What type of riding do you plan to do?**

I recommend buying a bike for the type of riding you'd like to do, not just what you're capable of doing right now - - the hope being that you'll enjoy cycling and want to ride more frequently and longer distances, so get a bike that you can continue to enjoy as your riding improves (which would most likely be a road-style bike with dropped handlebars [for the captain] and a wide range of gears, and preferably disc brakes at least on the rear wheel). However, if you only want a tandem for short rides (around 20 miles or less) in the neighborhood, with minimal elevation changes, then you may be just fine with a flat-handlebar cruiser-type bike with fewer gears and cushier seats.

If you buy a cruiser-style bike, you'll want to stay on flatter ground and ride shorter distances; used tandems of this type should be plentiful and I wouldn't spend more than around $500 on a used "cruiser".

B. THINGS TO CONSIDER WHEN BUYING A "ROAD-STYLE" TANDEM.

I'm assuming you want to buy a more versatile road-style bike, which will probably have dropped bars (at least for the captain – the stoker's handlebars are available in a wide variety of styles and can usually be swapped out for another type easily). Following is a list of the "variables" you'll want to consider on a road-style tandem:

1 **Frame material**. Frames are (from least to most expensive) steel, aluminum, titanium or carbon fiber. Common attributes of each are:

a. steel: heaviest, which usually means more work to climb hills, and usually used on older bikes and the less expensive models in a company's line of bikes;

b. aluminum: lighter than steel but often a stiffer ride;

c. titanium: light-weight but more expensive than steel or aluminum, extremely durable (almost "bomb-proof"), comfortable ride and good handling;

d. carbon fiber: usually the most expensive (and the lightest weight), but one downside is that a carbon frame should be inspected regularly because it can crack or become compromised, especially after a crash. However, cracks can usually be repaired, but you need to take the bike to someone who knows what they're doing!

NOTE: higher-end bikes will all have a carbon FORK, however, because it will give you a much smoother ride, so **do** try to find a road tandem that has a carbon fork.

2. **<u>Drivetrain/components</u>**. Don't buy a road tandem that doesn't have either Shimano or SRAM components (derailleur, brakes, shifters - - what's commonly called the "groupo"). I don't know much about SRAM, but a lot of people love it, and it's generally considered "high-end" (you can research SRAM online if you need to), since I've always had Shimano (which used to be the most common). There's also Campagnolo (often called "Campy"), but Campy isn't used on many tandems, and it might be harder to find replacement Campy parts for older bikes with older Campy components. As for Shimano, from LEAST expensive (a.) to MOST expensive (d.), the order is:

a. Sora
b. 105
c. Ultegra
d. Dura-Ace

Shimano Ultegra is excellent - - function is similar to Dura-Ace, but Ultegra parts are a few grams heavier and thus less expensive than Dura-Ace. I would stay away from Sora (cheap and much less reliable). 105 is acceptable/reliable, and you often find 105 brakes combined with Ultegra shifters, so don't let that combination concern you.

By the way, if the seller of a used road tandem doesn't (or can't) provide a description of the components on the bike, especially if you're spending a few thousand dollars, I'd be wary . . . .

3. **<u>Double vs. Triple vs. "compact crank"</u>**: I recommend against a tandem with a "triple" (*i.e.,* three chainrings in the front derailleur) - - that is "old school", makes shifting more difficult, and requires frequent adjustments of the derailleur. The sole benefit of a triple is that it probably has lower gearing (*i.e.,* better for climbing hills), but you should be able to get almost the same range of gears with a compact double chainring, which will shift more easily. A "compact" crank IS a double crank (two chainrings), but just has a wider range of gears than a regular double. There is a 4th type of chainring set-up which is common on newer mountain bikes but is now being used more often on tandems, called a "1 x" (one by),which combines a single front chain ring and a wide range of gears in the cassette on the rear wheel. It's unlikely you'll see a "one by" on an older tandem unless the owner made a lot of upgrades.

The BEST type of shifting with Shimano is what's known as Di2 (or electronic shifting, ***not*** to be confused with an e-bike). Di2 is found on most high-end bikes these days and makes shifting very smooth but adds between $1,000 - $2,000 to the cost of a bike. Since Di2 is electronic, it has a small rechargeable battery, which needs to be charged

about every 1,000 miles or once every month or two, depending on how much you ride the tandem. A tandem equipped with Di2 should come with a USB cable; if it doesn't, you can buy one easily at most bike shops.

4. **Brakes**. If you plan to ride in any hilly areas, whether now or in the future, you should look for a tandem that has DISC BRAKES, at least on the rear wheel, if not on both wheels. Due to the weight of a tandem (both of the bike itself and two riders), a tandem descends faster than a single road bike and requires more braking time and effort. Disc brakes make it **much** easier to maintain a safe speed when descending a steep hill and to come to a full stop when necessary.

5. **Wheels & Tires**. I recommend getting a bike with 700c wheels, which is the most common size wheel, and thus takes the most common size tubes (so if you get a flat tire and run out of tubes, it's more likely that someone will have a 700c tube to lend to you, and more likely that a bike shop will have what you need in stock). It is more difficult to find tires and tubes for 26" or 650c wheels, and the selection is more limited. The type of tires on the bike is less important, since you'll need to change the tires after a while in any event. Note that 28mm to 32mm is the typical range of tire width for a road tandem. 28mm is usually a lighter tire, which may make the ride a bit faster, but some tandem riders prefer the heavier/wider 32mm for the better traction and arguably smoother ride and better durability. There are many online articles and YouTube videos comparing different brands and widths of tires. Some tandem riders like Continental Gatorskin tires because they are more heavy-duty and less prone to punctures (although they are heavier than other tires and may slow your ride a little).

6. **Bike Seats**. Don't be too concerned about what type of seats are on the bike, because you'll probably want to replace them anyway. The type of seat that works best for you is a very individual decision. There's a ton of information on-line, and you can ask your cyclist friends for recommendations or pose the question on an on-line forum and get many different answers. I recommend you go to a high-end bike shop that has several seats you can try out, or one that allows you to return a seat for a full refund if you don't like it. IMO, the best seats for longer distance rides are firm (almost hard) and have indents or cut-outs in the center.

Any seat will be uncomfortable if it's in the wrong position on the rails or at the wrong height. There are many articles online and YouTube videos about bike fit and seat position, but the best way to find the best saddle position is to get a professional bike fit, which can cost upwards of $200. Although they make look more comfortable, I would *avoid* the very cushy gel-style seats, which are usually much too wide and will become very uncomfortable after a few miles.

7. **Pedals**. Don't be concerned if a bike is being sold without pedals. Many sellers will want to transfer their pedals to a new bike, and bike pedals are relatively inexpensive. The main decision you'll need to make is whether to use flat pedals, toe-clips (which are very "old-school"/retro and IMO risky because your shoes can get caught in the straps/clips), or clipless pedals. Clipless pedals are definitely the most efficient (using them improves your pedal stroke and increases your pedaling

efficiency/speed), but it takes some time and training to get used to them - - but that's a discussion for another time! Shimano SPD (clipless) pedals are a popular choice for tandem riders, especially when paired with mountain bike style cycling shoes (which have tread on the soles (which makes them good for walking and protects the cleats), rather than road bike style shoes, which have smooth (and often slippery) soles, leave the cleats more exposed to dirt and pebbles, and are less suited for walking.

8. **Bike Model**. Each of the major tandem companies makes numerous models, which can be very confusing. To understand the "hierarchy" of these models (*i.e.*, which model is "high-end" vs. "lower-end" - - for example, the difference between a Co-Motion Macchiato and a Speedster, or between a Santana "Sovereign" and a "Journey"), you can get a lot of insight, even with respect to an older bike with the same model name as the current model, by looking at the company's website. While the components may have changed, the basic differences (*e.g.,* frame material, type of riding for which the model is intended, and where the model fits in the pricing hierarchy) will be pretty much the same as they were when the bike you are considering was made. Check out (and click on the model you want to learn about):

For Co-Motion: https://co-motion.com/collections/tandem-bikes
For Santana: https://santanatandem.com/tandems/
For Calfee: https://calfeedesign.com/tandems/
For Bike Friday: https://bikefriday.com/ (Family Tandem & Two's Day Tandem)
For DaVinci: https://www.davincitandems.com/
For Hawthorne: https://www.houseoftandems.com/articles/hawthorne-tandems-pg118.htm
For Hokitika: https://tandemseast.com/hokitika-tandems/

9. **Couplers & Airline Travel.** If you plan to travel with your tandem on an airplane, couplers are almost essential. Couplers allow you to take the frame apart so that the bike will fit in one or two bike cases. Couplers do not affect the way the bike rides or the frame integrity/safety, but they do add between $1,500 - $2,500 to the cost of a *new* coupled tandem (therefore, used coupled tandems will usually be priced higher than uncoupled tandems).

Santana sells a single bike case (which it calls a SafeCase) that is designed ONLY for Santana's coupled tandems (it will probably not work with other tandem brands), but IMO a two-case packing system is preferable, because the loaded SafeCase is both overweight and oversize, and thus can currently cost up to $500 in checked baggage fees per flight ($1,000 round-trip!) on most airlines, unless you fly business or first class. The two-case system (and I recommend S & S cases (http://www.sandsmachine.com/ac_hard.htm) (we have the black "butterfly latch" hard case) works well because you can pack clothes and bike accessories in the cases and stay under the 50 lb. limit for each case, and incur no additional baggage fees (other than any fee required for a 2nd checked bag).

If you want to pack an UNcoupled tandem for airline travel, your choices are limited to (1) buying a large cardboard tandem box from Santana Tandems; (2) taping two bike

boxes together; or (3) having a custom case made (which is extremely expensive). Bike boxes don't have wheels and are extremely difficult to carry through airports (even on a wheeled luggage carrier), although you might be able to "jerry-rig" some wheels on one corner of the bike box and attach a pull strap). Also, there's a higher risk of damage to a tandem that is packed in a cardboard box.

C. <u>WHERE TO LOOK FOR USED TANDEMS</u>.

1. eBay

2. CraigsList (you can narrow your search by location by going to craigslist.org and then typing in the county in which you wish to search in the box at the top of the home page).

3. www.tandemclassifieds.com

4. Tandems East (https://tandemseast.com/classifieds/) Mel at Tandems East is also a great resource to help with all your tandem questions.

5. Facebook Groups:

   a. Tandem Bicycle – sales, parts and service
   https://www.facebook.com/groups/605593516666723

   b. Tandem Marketplace:
   https://www.facebook.com/groups/349267049059642

If buying a bike in person, it's a good idea these days to meet in a public location (such as the parking lot of a police station), unless you feel very comfortable that the seller is legit.

If you need to have a tandem shipped to you, note that it will probably require some assembly, for which you'll either need to have good mechanical skills or know a good bike mechanic who is familiar with tandems (and a good bike mechanic will probably charge at least $100 to assemble a tandem). You'll also need to make sure that the seller will package the tandem well, to decrease the chance of damage during shipment (If you are buying a coupled tandem and the seller is including the hard cases, then the seller should know how to pack the bike in the cases and use the cases for shipment). BikeFlights.com is a very reliable (and usually the lowest priced) company to use for shipping a bike (much less expensive than FedEx or UPS). You can get an estimate of shipping costs on the BikeFlights website.

D. **<u>OTHER INFO</u>.** You can find several articles online about what to look for when buying a tandem (which apply to both new and used bikes). Following are links to a few of these:

https://www.pedalonline.com/articles/buyers-guide-to-tandem-bicycles-pg93.htm#:~:text=The%20best%20way%20to%20gauge,and%20recommend%20the%20best%20bike.&text=One%20of%20the%20biggest%20decisions,26%2Dinch%20or%20700c%20wheels.

https://momentummag.com/a-tandem-bicycles-guide-everything-from-best-models-to-history-and-technique/

https://www.bikeradar.com/advice/buyers-guides/tandem-cycles-explained