



April 1998

Adventure *Cyclists*

Tandem Buyer's Guide



1998 Tandem Buyer's Guide

A tandem bicycle isn't just a machine. . . it's a catalyst for a human experience.

As my daughter Marie and I sat on the front porch of the Spinnerstown General Store sharing a soda, a soft-spoken middle-aged guy shyly approached us and spent a minute examining our Burley Duet tandem. "I was admiring those things," he said, pointing to the crank shorteners which clamp onto the rear crankset and reduce the rear crank length from 170 mm to 145 mm. "I'm a machinist, and I like the way they're made."

We started chatting. A few minutes later, I learned, we had more important things to talk about than crank shorteners.

Our new friend was the son of a British professional road racer, who had ridden the Tour de France several times in the 1930s. After the second world war, the by-then-retired racer had moved to the United States and gone to work for RCA.

All too soon, the guy was gone. I never did get my fill of

60-year-old bike racing stories. Marie and I hopped back on the tandem. The next village was Steinsburg, where, alas, no general store remains in business. We passed through Steinsburg without stopping and then headed home.

This was the end of a long afternoon of riding that was near-magic for us. We didn't go terribly far (but hey, 27 miles is respectable stuff for a 10-year-old) and on those

demi-Appalachian hills our average speed didn't rate bragging rights. But boy, did we ever have fun on Marie's Tour de Villages with General Stores. We grooved to soft ice cream, the pinball machine, and buying joke novelties (whoopie cushions and exploding cigarette loads) in the Trumbauersville General Store. We shopped at a chocolate factory. We bought Marie a skirt at a garage sale. We talked endlessly about the kinds of crops the farmers were

growing, the architecture of the 18th-century farmhouses, the beautiful Unami Creek valley, and why Marie's little brother isn't such a bad guy after all.

We got home good and tired, and started plundering the house's lemonade supply.

This, to my mind, is what tandeming is all about. It's the enjoyment of teamwork with another rider, so that the ride



Bike Friday Two'sDay

By John Schubert

Tandem	Frame Sizes	Wheel Diameter	Rear top tube length	Components	Brakes
Aerolite Standard Ovalized	Custom	700c	72cm	Custom	Cantilevers or double-pivot
Aerolite Twin Tube	Custom	700c	Custom	Custom	Campy double pivots/hydraulic Disk
Bike Friday Tandem Two'sDay (folding)	To spec	20"	To spec	Sachs 3x7/Shimano STX	Sachs Drum Hub/Shimano LX V-Bks.
Bilenky Ergo Touring	To spec	700c	n/a	Campagnolo Chorus	Avid Tri-Align
Bilenky Hedgehog Twinn	To spec	26"	n/a	Shimano XT	Shimano M600 V-Brake
Bilenky Touring STI	To spec	700c	n/a	Shimano Ultegra	Shimano XT V-Brake
Bilenky Travel Air (folding)	To spec	700c	n/a	Campagnolo Record	Avid Tri-Align
Borthwick	To spec	To spec	To spec	To spec	To spec
Boulder Estes	Small, Medium and Large	700c	28"	Shimano Ultegra/XT	Shimano XT V-Brakes
Boulder Red Mountain	Small, Medium, Large	26"	28"	Shimano XT/Sachs	Shimano XT V-brakes
Burley Duet	20.5/18, 22/19.5, 23.5/21	700c	n/a	Shimano mixed	Shimano M600 V-Brake
Burley Rock 'n Roll	18/15, 19.5/17, 21/18.5	26"	n/a	Shimano	Shimano M600 V-Brake
Burley Rumba S&S (dismantles)	20.5/18, 22/19.5, 23.5/21	700c	n/a	Shimano mixed	Shimano MC40 V-Brake
Cannondale MT3000	18/16, 20/16, 20/18, 22/18, 22/20	26"	28", 29", 30"	Shimano/Sachs	Magura HS-11 hydraulics
Cannondale MT1000	18/16, 20/16, 20/18, 22/18, 22/20	26"	28", 29", 30"	Shimano/Sachs	Shimano LX V-Brakes w/Avid levers
Cannondale RT1000	21/19, 23/19, 23/21, 25/21, 25/23	700c	28", 28.9", 29", 30"	Shimano/Sachs	Shimano LX Long Arm Canti
Cannondale RT3000	21/19, 23/19, 23/21, 25/21, 25/23	700c	28", 28.9", 29", 30"	Shimano/Sachs	Magura HS-66 hydraulic

▼ Chart continued on page 22



Burley Duet

is the stuff of stories.

Depending on the team members, the stories may differ—but all stories can be good in their own way. A tandem with two strong riders can enable feats of athletic der-ring-do that single bike riders can't match without the help of gasoline. (Two engines for the same amount of wind resistance equals vastly more speed.)

I once rode with a guy who won the Mount Washington Hill Climb, and my tandem felt like a rocket ship with his help. I have one tandem partner who combines good strength and endurance, spectacular, velvety smoothness, and the ability to read my mind. My afternoons with him are exceptional. My wife provides equally velvety smoothness, unexcelled mind-reading, decent strength, and the emotional rapport of our decades together.

A tandem ride can be a superb team athletic achievement. It can be the perfect sightseeing afternoon, with binoculars and camera in constant use by the rear admiral.

It can be a couples' social outing. It can be an exploration of general stores and garage sales. It can give a novice cyclist bragging rights and self confidence; it can allow one rider to demonstrate for another good bike riding habits and technique. It can become an "oh-wow" event such as long-distance touring, off-road trail riding, or stage racing.

For those of you who haven't experienced it, a tandem's speed feels like your single bike would if, say, you could be pedaling it with four legs. Two fairly ordinary riders can cruise at speeds in the mid-to-high 20s, and the slightest downhill is an excuse to go in the 40s. You'll feel in awe of the machine and giddy with appreciation for your partner when you ride at such unfamiliarly high speeds. You'll also enjoy the solid, secure feel that comes from the higher weight and, of all things, the superior stopping distances

(because a tandem is immune to pitchover accidents, which limit the stopping power of single bikes).

Or things might go wrong. A tandem can be a bone of contention. Sloppy riding

habits, mechanical problems, mismatched goals for the ride, or any disagreement not resolved ahead of time can make it a bitter, confining experience. The two riders need to mesh their efforts, to work together towards smoothness. Choppy riders especially need to change their habits, because the captive audience will not long tolerate the choppiness.

Should you fear that things will go wrong? Probably not. If you and your tandeming partner seriously want to ride a tandem, that desire will propel you to seek solutions to all these other problems.

The overwhelming majority of tandem teams are married couples in which the husband assumes the front seat. Your humble

author has received a certain amount of criticism from the sexism police for obliquely acknowledging this simple fact in previous articles. So let me state explicitly: Yes, sure, women can be good tan-

dem captains. In particular, one mistaken belief I've always rejected holds forth that captains are male because a tandem requires much upper body strength. Sheer nonsense. In 18 years of tandeming, I can't remember



Cannondale RT3000

Shifters	Hubs	Price	Address
Campy Ergo	Phil Wood or Hi-E	\$3495	Aerolite , 1343 W. 18th St., Merced, CA 95340; 209-383-4251; Website:
Campy Ergo	Custom	\$4500-5300	
Sachs Power Grip/Shimano STI	Sachs Neos	\$2,450 and up	Green Gear Cycling , 3364 W. 11th Ave., Eugene, OR 97402; (800) 777-0258; www.greengear.com
Campagnolo Chorus Ergo	Phil Wood	\$4,495	Bilenky Cycle Works, Ltd. , 5319 North Second St., Philadelphia, PA 19120; (215) 329-4744; Fax: (215) 329-5380; Website: artistry@bilenky.com
Shimano XT Rapid-Fire	World Class	\$3,295	
Shimano Ultegra 6500 STI	World Class	\$3,995	Borthwick Framesets, Inc. , 214 Rainbow Dr., Marshalltown, IA 50158; (515) 752-3208
Campagnolo Record Ergo	White Industries	\$7,895	
To spec	To spec	\$2,500+ (frame & fork)	Boulder Bikes , P.O. Box 1400, Lyons, CO 80540; (303) 823-5021; Fax (303) 823-5025
Shimano Ultegra STI	To spec	\$4198	
Sachs Powergrip or XT Rapidfire	To spec	\$3998	Burley Design Cooperative , 4020 Stewart Rd., Eugene, OR 97402; 1-800-311-5294; Fax (541) 687-0436; e-mail burleybike@aol.com
Shimano 105SC STI	Shimano XT tandem	Approx. \$2200	
Grip Shift SRT 800 XRAY	Shimano XT Tandem	Approx. \$1975	
Shimano RSX STI	Shimano tandem	Approx. \$2650	
Sachs Extreme	Coda 901 front; 900 rear	\$3000	Cannondale , Friendship Rd., RD #7, Bedford, PA 15522; 1-800-BIKE-USA; website: http://www.cannondale.com
Sachs Extreme	Shimano XT Tandem	\$1700-\$1853	
Shimano bar end	Shimano XT Tandem	\$1800-\$1950	
Shimano bar end	Phil Wood Tandem	\$3000-\$3250	

a time when I've had to use significant upper body strength.

A tandem does require good bike handling skills and a high degree of concentration, and most guys, rightly or wrongly,



KHS Tandemania Comp

think they're better at that than most women. Among two people of equal skill, the heavier rider should be the captain.

This little fight for the front seat keeps a lot of people from ever trying tandems. It's a shame. The rear admiral gets to enjoy the scenery nonstop, without ever having to worry about potholes or traffic. And while I agree my back isn't much fun to look at, the good scenery is off to the side, just like it is on a train ride. If the captain is competent, the rear admiral gets all the fun of riding without having to scan for dead skunks. It's

the best seat in the house.

Moreover, tandems have become sort-of widely available, and the price of entry has plummeted. The first tandem in the Schubert household was over \$2,000 in 1981 dollars. Today, a used Burley or a new KHS can be had in the \$800 range. This isn't free, but it's a fairly low financial risk.

Most of you will wind up spending two or three times this lower figure to get started. For that you'll get a newer and/or better bike with nicer performance. This is your decision, but in my value system, a

good tandem is money very well spent. The magic of the shared experiences is so powerful that I'm willing to cut into my savings to make it the best it can be.

So what do you look for when you shop for a tandem?

Much as generals always fight the last war, cycling writers often wring their hands, and encourage you to wring yours, about problems that seldom exist in 1998. Two of these are frame rigidity and rear top tube length. Let me discuss each of these in turn:

•Frame Rigidity — A tandem is so big

that it needs to have extra bracing for rigidity. Otherwise, the frame twists under hard pedaling or hard cornering, giving an insecure feeling.

But just about every tandem you'll find today is at least adequately braced.

The internal tube which runs from the head tube to the rear bottom bracket is an excellent design for this (and we have Santana Tandems to thank for introducing and popularizing this design). Moreover, tandems commonly use tubing diameters and wall thicknesses that produce far more rigidity than traditional road bike tubing. (Single mountain bikes use tubing similar to that on road tandems, and early mountain bikes borrowed many construction ideas from the tandem business.)

Today, all mainstream-priced tandems have adequate rigidity. A more expensive



IBIS Cousin It

Tandem	Frame Sizes	Wheel Diameter	Rear top tube length	Components	Brakes
Co-Motion Breve	21/18, 22/19, 23/20	700c	27.55"	Shimano 105/Sugino	Shimano LX V-Brakes
Co-Motion Cappuccino	21/18, 22/19, 23/20	700c	27.55"	Shimano Ultegra/Ritchey	Shimano LX V-Brakes
Co-Motion Co-Pilot	21/18, 22/19, 23/20	700c	27.55"	Shimano Ultegra/Ritchey	Shimano LX V-Brakes
Co-Motion Speedster	21/18, 22/19, 23/20	700c	27.55"	Shimano Ultegra/Ritchey	Shimano LX V-Brakes
Coggs Double Softride Beam	To spec	700c or 26"	To spec	To spec	Hope or Hayes disk/To spec
Coggs Single Softride Beam	To spec	700c or 26"	To spec	To spec	Hope or Hayes disk/To spec
Coggs Traditional	To spec	700c or 26"	To spec	To spec	Hope or Hayes disk/To spec
da Vinci In-2-ition Road	Small, Medium, Large	26"	27.625"	Shimano/da Vinci	Avid 10 w/Travel Agent
da Vinci Joint AdVenture	Small, Medium, Large	26"	27.625"	Sram/Sachs/da Vinci	Avid S.D. 20 w/Rear Stiffy
da Vinci Joint Venture	Small, Medium, Large	26"	27.625"	Campy/Sachs/da Vinci	Avid 20 w/Travel Agent & Stiffy
da Vinci In-2-ition Off Road	Small, Medium, Large	26"	27.625"	Sram/Sachs/Sugino	Avid S.D. 10
Davidson Signature	To spec	700c or 26"	To spec	To spec	To spec
Green Gear Family Tandem	Adjustable (3' to 6'5" riders)	20"	n/a	Sachs	Tektro Cantilever V-Brakes
Ibis Cousin It	S, M, L, L/S	26"	28"	Shimano/Sugino	Shimano XT V-Brake
Ibis Touche	S, M, L, L/S	700c	71 cm	Shimano/Sugino	Shimano XT V-Brake
KHS Tandemania FXT (suspended)	20/18"	26"	n/a	Shimano/Sugino	Shimano LX V-Brakes
KHS Tandemania Comp	20/18", 18/16"	26"	n/a	Sachs/Shimano	PowerTools cantilever
KHS Tandemania Roma	20/16"	700c	n/a	Shimano/Sachs	Shimano LX V-Brakes

▼ Chart continued on page 24



Otis Guy Off-Road

tandem will be even stiffer than a main-stream-priced tandem. Test ride several bikes to see how much you have to spend to be fully satisfied. Standard practice is to warn your stoker, secure his permission, scan for overtaking traffic and then wiggle down the road like a sine wave. This magnifies the frame's flex.

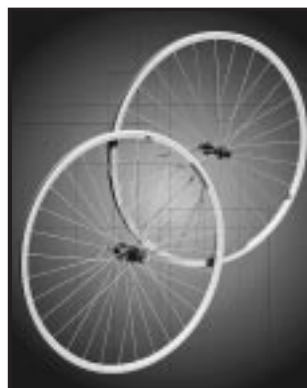
In the early 1980s and before, a large percentage of tandems were not braced well. Only if you're considering one of these antiques, or bottom fishing for an ultra-cheap new bike, should you worry about insufficient rigidity.

•Rear Top Tube Length — A tandem's rear top tube needs to be long enough for reasonable rear admiral comfort. Again, in new bikes this isn't a problem.

The top tube on my single bike is 21

1/2 inches long. Because the handlebar stem on the rear of a tandem points back, not forward, a tandem rear top tube should be longer than this. I've always been happy with the 25-inch rear top tube on my 1981 Santana; today most rear top tubes are an inch or two longer than this, and provide even more room. As always, though, following the "more is better" philosophy forever will get you into trouble. I've ridden tandems with some long rear top tubes—the longest was 32 inches—and I believe that extreme length hinders the captain's ability to steer this barge more than it helps the rear admiral feel more comfortable.

For people shopping among used, older tandems, a question will arise: what's the minimum tolerable rear top tube? The answer is one of personal preference, and my own minimum is 24 inches. When it gets any shorter, I do not feel comfortable as a stoker, nor as a captain do I relish the thought of subjecting stokers to such cramped quarters. Of course, child stokers



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won't mind these "tight quarters," and family cycling is a good use for many older tandems.

The technically curious will ask about many other details. Here are a few:

In today's market, your tandem will come with three chainwheels and wide-range gearing. Even if you're one of these young studs who turns his nose up at such

Shifters	Hubs	Price	Address
Shimano bar end	Shimano	\$2,495	Co-Motion , 222 Polk St., Eugene, OR 97402; (541) 342-4583; E-mail: comotion@teleport.com ; Website: www.teleport.com/~comotion
Shimano bar end	Phil Wood	\$3,125	
Shimano bar end	Phil Wood	\$4,085	
Shimano bar end	Phil Wood	\$2,895	
To spec	To spec	\$3,000+ (frame and stems)	Coggs Frameworks , 7 Bow Ridge Crescent, Cochrane, Alberta, Canada T0L 0W3; (403) 932-7251; (403) 850-7922
To spec	To spec	\$2,500+ (frame and stems)	
To spec	To spec	Frame: \$2,200; Bike: \$5,800+	
Shimano Ultegra Bar Ends	Shimano STX/Tandem	\$3,500	da Vinci Designs , 2225 So. Platte River Dr., Denver, CO 80223; 1-800-873-3214; Fax (303) 936-1241; website: www.teamspirit.net
Grip Shift ESP 9.0	White Industries	\$4,500	
Campy Chorus Ergo	White Industries	\$4,500	
Grip Shift ESP 7.0	Shimano STX/Tandem	\$3,500	
To spec	To spec	\$3,000+	Davidson Cycles , 2116 Western Ave., Seattle, WA 98121; (206) 441-8144; website: www.davidsonbicycles.com
Sachs Power Grip Plus	Sachs Neos	\$1,195	
Grip Shift 800 X-Ray	Hope	\$3,650	Ibis Cycles, Inc. , P.O. Box 275, Sebastopol, CA 95473; (707) 829-5615; Fax: (707) 829-8419; E-mail: info@ibiscycles.com
Shimano 105 STI	Hope	\$3,650	
Sachs Wavey 8	High flange alloy	\$3,999	KHS Bicycles, Inc. , 1264 E. Walnut St., Carson, CA 90746; (310) 632-7173; Fax (310) 632-3773
Sachs Wavey	Alloy high flange	\$1,099	
Campy Mirage	Shimano LX	\$2,199	

crutches, you'll occasionally need them on the tandem. Sometimes, the riders' coordination bogs down on a steep ascent, and



Montague Triframe

those low gears are quite handy.

If you have a sharp eye and a passion for frame design, you'll see that your tandem has about an inch more fork rake than a single bike with the same head angle. This is because the extra fork rake reduces the amount of trail. Trail is the frame dimension that makes a bike steer in the direction that it's leaned in, and too much trail allows the rear admiral to steer the bike, not always in a direction to the captain's liking. (See the August 1997 issue of *Adventure Cyclist* for much more detail on trail.)

My kids started tandeming when they were four, which is about the age when most tandem-savvy parents start. Not everyone agrees with this age: Jacob Allen, son of bicycling writer John S. Allen, had sever-

al hundred tandem miles under his belt before he was out of diapers. Child stoker conversion kits (with the extra crank spindle mounted high on the rear seat tube) accommodate these little kids, and the crank shorteners that started that memorable conversation in Spinnerstown do nicely for slightly larger kids. By using these two options, I can accommodate stokers down to a typical four-year old. With a long rear seat post, I can accommodate stokers up to 6' 5" or so. I think that's pretty neat.

For tandem families who expect to have different size people riding all the time, the clean-sheet design Green Gear Family Tandem allows all these sizing options with quick-release ease. That's pretty neat too.

If I had to choose between tandeming and single bike riding, the decision would be a snap, and my lovely Bruce Gordon, Cannondale and Sequoia would all be up for sale. So I can't urge you strongly enough: if there's the slightest flicker of curiosity, try it out. A tandem is a tool to enjoy life to the max. Don't live your life without one. ●

*Technical Editor John Schubert began tandeming in 1980. He is author of the paperback book *The Tandem Scoop*, published by Burley and available through Adventure Cycling at (406) 721-1776. He swears he's no relation to Karl Schubert, German author of *Das Tandem*.*

COMMON TANDEM SHOPPING PROBLEMS

■ *I can't find a bike shop that knows how to sell tandems.* If the Yellow Pages haven't solved your problem, some shops specialize in helping out customers from long distance. Three that come to mind (I apologize in advance for all that I neglected to mention) are Tandems East in southern New Jersey (609/451-5104), Tandems Ltd. in Birmingham, Alabama (205/991-5519) and Mt. Airy Bicycles in Mt. Airy, Maryland (301/831-5151).

■ *I can't find my (our) size.* This is frustrating, because the available sizes from most manufacturers are limited. But often the problem is overstated, because you size a tandem differently from a single bike. This difference allows more versatility in the tailgunner's seat.

The captain needs traditional sizing: ample standover clearance, proper seat height, reasonable top tube length. But the tailgunner only needs proper seat height. The reach to the handlebars can be compromised because that rider isn't steering (and may even choose to lean on the captain's back), and standover clearance is immaterial because you can mount and dismount the bike like you do a horse.

As I've stated above, my two tandems—one with an 18-inch rear and one with a 21-inch rear—can both accommodate stokers

Tandem	Frame Sizes	Wheel Diameter	Rear top tube length	Components	Brakes
Litespeed Taliani	To spec	To spec	To spec	Shimano Ultegra/XT	Shimano XT cants
Montague Triframe (folding)	21/17"	26"	26.3"	Shimano Deore XT/LX	Shimano Deore LX
Otis Guy Smoothie	Small, Medium, Large	700c	28"	To spec	To spec
Otis Guy Softail (off-road)	Small, Medium, Large	26"	28"	To spec	To spec
Outback Custom Tandems	To spec	700c or 26"	To spec	To spec	To spec
Santana Arriva	S, M, L, XL	700c	n/a	Shimano 105/XTR	Shimano LX V-Brake
Santana Encore	S, M, L	26"	n/a	Shimano 105/XTR	Shimano LX V-Brake
Santana Picante	S, M, L	26"	n/a	Shimano 105/XTR	Shimano LX V-Brake
Santana Sovereign	S, M, L, XL	700c	n/a	Shimano 105/XTR	Shimano LX V-Brake
Santana Visa	S, M, L, XL	700c	n/a	Shimano/Aeromax	Shimano LX cants
Santana Vision	S, M, L	26"	n/a	Shimano/Aeromax	Shimano LX cants
Signal Melbourne Express	20/19	26"	n/a	Shimano	Tektro cantilevers
Ti Cycle	To spec	To spec	To spec	To spec	To spec
Trek T100	50/46, 54/50, 57/47, 58/53cm	700c	27.7"/27.5"/27.7"/28.3"	Shimano/Sugino	Shimano STX
Trek T200	50/46, 54/50, 57/47, 58/53cm	700c	27.7"/27.5"/27.7"/28.3"	Shimano/Sugino	Shimano Deore XT V-Brakes
Univega Tandem Sport	20/17	26"	n/a	Shimano STX	Tektro V-Brakes

ranging from four-year-olds up to six-foot-four types. The only non-negotiable requirement is that the front must be sized to be easy for me (5'8") to control.

■ *It'll require lots of expensive repairs.* Only sort-of. In my experience, the wear-and-tear items need replacement more frequently than on single bikes (chains, tires, front derailleurs, and the like) but overall, the bike is reliable. If you never let maintenance unravel, it doesn't become a problem. But do keep your tandem in perfect mechanical condition. Anything less isn't fair to the stoker.

■ *It's hard to transport.* Guilty as charged, but

it only takes money to solve the problem. A tandem will fit on top of just about any car with a roof rack, and there are even roof racks that lift the bike onto the roof for you. Or you can go the stretch-minivan route and put it inside.

■ *I'm unconvinced.* Try it and see. Take the back seat while a seasoned captain shows you why tandeming is fun. Freed from having

to watch the road, you'll see scenery you never noticed before, and you'll enjoy the stable, solid feeling of that big rigid frame.

■ *I need to know more.* You can start with (ahem) my book, "The Tandem Scoop," available through Adventure Cycling at (406) 721-1776. Or you can select "The Tandem Book," by Angel Rodriguez and Carla Black, available from Info Net Publishing, phone (714) 489-9292. (Angel and Carla are tandem experts of decades' standing, dating back to Angel's years as one of the nation's leading framebuilders. And they're repeat house guests at my place.) Tandem and Family Cycling Magazine, available by calling (541) 485-5262, is terrific. A wonderfully helpful group of 700 or so people will answer any question you can imagine if you subscribe to the Internet's Tandem Mailing List. (Write "Subscribe Tandem <your first name> <your last name>" to listserv@hobbes.ucsd.edu. Or to learn more, help or get tandem tandem.faq to the same address.)

-John Schubert



PHOTO COURTESY OF KHS BICYCLES

Shifters	Hubs	Price	Address
Shimano Ultegra STI	Hope	\$6,750	Litespeed , P.O. Box 22666, Chattanooga, TN 37422; (423) 238-5530; Fax (423) 238-4999
Gripshift 400i	Suzue	\$2495	Montague Corp. 432 Columbia St., Cambridge, MA 02141; (617) 491-7200; e-mail: bicycle@Montagueco.com
To spec	To spec	\$2,180 (frame, fork, beam)	Otis Guy Cycles , 115 Ridge Rd., Fairfax, CA 94930; (415) 456-4132; Fax: (415) 453-9650
To spec	To spec	\$2,180 (frame, fork, beam)	
To spec	To spec	\$2,200 +	
Shimano 105 STI	Hadley cassette	\$3,695	Santana Cycles, Inc. Box 206, La Verne, CA 91750; (909) 596-7570; Fax: (909) 596-5853; E-mail: santanainc@aol.com
Shimano 105 STI	Hadley cassette	\$4,295	
Ritchey Twist Grips	Hadley cassette	\$4,295	
Shimano 105 STI	Hadley cassette	\$4,295	
Shimano bar ends	Shimano cassette	\$2,795	
Shimano bar-ends	Shimano cassette	\$2,795	
Grip Shift MRX 170	Tandem	\$570-\$600	G. Joannou Cycle Co. , 151 Ludlow Ave., Northvale, NJ 07647; (201) 768-9050
To spec	To spec	\$2,125 (frame/fork); \$4,450 (bike)	Ti Cycles , 824 Post Ave., Seattle, WA 98104; (206) 624-9697, E-mail: info@ticycles.com
Grip Shift SRT 4.0	Shimano STX tandem	\$1,399	Trek Bicycle Corp. , 801 W. Madison St., P.O. Box 183, Waterloo, WI 53594; 1-800-369-TREK; website: www.trek-bikes.com
Shimano Ultegra bar end	Shimano XT tandem	\$1,999	
Grip Shift	Shimano RM40	\$650	Raleigh USA , 22710 72nd Ave. S., Kent, WA 98032; (253) 395-1100; Website: www.raleighusa.com

TANDEM TALK



PHOTO COURTESY OF YURI SAMER

Yuri Samer and 11-year old daughter Roxanne cycling and talking.

Scott's commands echo back to me, "Ready...pedal up...go." At an elevation of 6800 feet during a mountain bike race in Tahoe City, Scott and I soar together along Nordic ski trails like a roller coaster—up, down, swing left, swoop right, 21 miles of gearing up, gearing down. Hooting and hollering down the last hill on our tandem bicycle, we round the final turn. Cranking hard toward the finish line, our lactic legs burn deep.

Interaction between us is perfect—until the very end. Scott fails to mention to me his intention to "grand stand" and impress the crowd. Without warning, he grabs the brakes. We slide in the bark and mulch pathway, skidding, and the bike starts to go down right in front of the race officials, time keepers, and spectators. Scott lies on the ground, semi-tangled in the bike. Somehow, I land standing, straddling the bike frame. We're unharmed, lucky to suffer only embarrassment. We could have avoided our graceless finale if Scott had stuck to his usual rule: Communication is the key to successful tandeming. And that goes for both the pilot, or captain (the rider at the front of the tandem) and the stoker (the rider at the back).

Communication starts even before you both get on the tandem. Talk about what commands to use. In the beginning, one- and two-word commands work best. Keep it short and simple. Try not to use words that sound similar. Usually, the pilot calls out the commands, although the stoker may give commands too.

The pilot can say, "ready, go," to start riding. Use "left pedal up," when wanting the pedal to be raised. "Pause" or "coast" are good words to signal stop pedaling. Stokers will appreciate the warning: "bump".

Use a five-number system to signify how hard to pedal. For easy pedaling, the pilot calls out number one. Number five denotes an all-out sprint—seven seconds maximum time. This system works well, especially when racing.

When shifting gears, the pilot can use "shift up" or "shift down" to tell the stoker to ease up on the pedal stroke. The stoker can also use these commands when pedaling becomes too hard or too fast. "Shift up" means to make the pedal stroke harder while "shift down" means to make the

pedal stroke easier.

After riding together for a while, concentration on communicating dwindles because you know one another's riding technique. The captain doesn't have to hear the stoker groan from the pain of pushing gears which are too high before shifting.

"An experienced stoker should feel comfortable with the captain," says Ann Fuller. "Talk about the distance or time you plan to ride. Express your feelings. Say if busy traffic makes you feel unsafe or that you are starting to feel tired."

Ann and her husband Ian started riding together in 1989, when he took her on a 20-mile ride in Virginia, through a canopy of trees along the asphalt pathway from Ashbury to Leesburg. They now live in Eugene, Oregon, where they cruise on the bike path along the Willamette River, fringed by emerald tall grass, coniferous trees and feathery ferns.

"Keep things in perspective," Ian says. "We ride for fun. It's great when, toward the end of a ride, the least fit of the two of us wants to ride a bit farther. Learn your limits and communicate them to one another."

Sitting less than two feet from each other, this close proximity makes for easy communication.

I can whisper sweet nothings in Peter's ear while we ride," Ruthie Paulding says. "Tandeming has been the best marital aide—it makes us talk to each other."

On a group ride from their hometown of Plymouth, Massachusetts, to the tip of Cape Cod, Peter and Ruthie traveled eight miles round-trip, breathing sea mist and soaking in the sunshine.

"One time on the Cape, a teenage boy on a single bike wanted to race us," Ruthie recalls. They took the challenge. Their bodies pumped up with adrenaline. The other riders shouted out "go." Peter whispered to her "up," and off their seats they stood. Ruthie and Peter put every bit of energy into the pedals, shot off like a bullet, and left the teen behind like he was standing still. When he finally caught up to them at a stop sign, Ruthie said to him, "Never challenge a guy with four legs."

Yuri Samer has ridden tandem for 25 years, the last four with his 11-year old daughter, Roxanne. "Kids are much different to ride with," says Yuri. "You have to watch out more for them, checking to make sure they are comfortable, or if they need to eat or rest. They tend to trust you more than adults do, so there's more of a safety issue to consider.

"For children, judging distance and timing is more difficult. When Roxanne and I stand, I call out to her, 'one, two, three,' to give her notice before we even stand. We then stand up and both count the number of pedal strokes. Usually, 10 is her limit.

"I do the signaling," Roxy says. "I like mountain bike tandeming more than road riding. It's hard to turn on switchbacks, 'cause the corners are so tight. But it's cool when we clear a corner without falling over."

By Donna L. Taylor

Robert Hernandez and his seven-year old son Jayden Traister have been trekking tandem on trails together for about three years. They compete in mountain bike races, though the tandem category is small. The glorious greenery of the Cascade Mountains is their playground, and they recently rode in the quaint San Juan Islands.

When tandeming with kids, converse in a more normal way. Robert says, "Push harder, Jayden, to get us over the hill," when he needs more energy expended from his son.

"It's also important to check in with kids, to make sure they aren't getting cold," Rob says. "I've had to stop and literally dress Jayden; he doesn't always register how cold he is, nor can he judge the distance or time we have to travel before we are finished.

"Sometimes we're flying fast down hill," Jayden exclaims, "So I say, 'Rob, you're going too fast!' Or I tell him to shift when it's too hard for me to pedal."

Mountain biking on a tandem is certainly the most difficult and challenging form of tandeming. Singletrack trails test your abilities to balance, maneuver, and coordinate with one another.

"Off-road tandeming is technically challenging, crossing over rocks and tree roots, while warning the stoker of upcoming hazards. The stoker doesn't see what's coming,

so 'duck' warns of a possible slap by a branch," says Tom Lawrence. "I feel responsible for my stoker's safety. I don't want to crash and injure my partner."

Tom and his wife Colleen Wolfe mountain bike tandem mostly in the Willamette National Forest, race on trails in the Siskiyou Mountains and cruise along the McKenzie River Trail. They have also cycled many roads in Oregon's Land County.

"We have become better riders overall since we've been tandeming together. She has taught me how to gear down and spin more when climbing," Tom says.

"We had to work on our riding styles as a team," Colleen explains. "You learn to compromise. Tom chooses better lines, goes much faster, and rides more technical stuff than I would attempt on my single bike. I'm not comfortable attempting to cross a rocky section of trail sided by a 100-foot ravine. Be patient with one another. Talk about things — don't get over your head by trying something that one of you doesn't want to."

My husband, Scott, and I have challenged old wagon trails in the Palisades overlooking the St. Helena wine country, trekked miles of trails in the Cascades, and cranked through the timberlands of Steamboat Springs, Colorado. We have raced in the Lost River Range in Mackay, Idaho, journeyed 130 miles over the forest-

ed, paved roads of the Aufderheide, and have twice survived the only national tandem-stage race, the gruelling four-day Burley Classic.

We have had lots of fun over the years riding tandem. Our goal for each ride is threefold: to enjoy our experience, to be inspired to ride more, and to talk to each other. This is attainable — just keep the lines of communication flowing.

Two years after our Tahoe incident, we attempted the Burley Classic for the second time. The finish line of the last day's race was among residential housing. Rounding the last corner, a younger couple pressed close along side of us. They stood to sprint for position and started to pull away.

"Stand," Scott yelled out.

"Not yet," I replied.

Then a distance marker came into view. "Now," I yelled out. We simultaneously stood, powering the pedals to the max. We gained ground. The young couple blew their energy level and we slung past, crossing the finish line ahead of them. Scott the grandstander had obeyed his rule. ●

Donna Taylor took up bicycling when she was 38. She and her husband use their tandem as marriage counselor and tension releaser. They live in Eugene, Oregon.

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