# Sun EZ Tandem

# Sun Bicycles EZ Tandem "EZ 2 ride & EZ 2 own"

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Referred to as the "great equalizers" by some and revered as the perfect "marriage counselor" by others, tandems bikes in general, have turned out to be the answer to cycling many a couple have been looking for. And not surprisingly, recumbent tandems can add a whole new dimension of comfort and enjoyment to one of our favorite modes of reclined diversion. Yet, with so many good attributes going for them, and in spite of a gradually growing popularity, a casual bent tandem sighting is still as likely as a close encounter of the third kind. If you asked me why this is so, I'd have to list a number of earthly concerns (like transportation, storage, etc) not the least of which is a sticker price that can be as traumatizing as an alien abduction of the weird kind.

Alas, recumbent tandems are simply harder to design, build and mass-produce than their single siblings. But should this translate to a higher sticker price? Should the phrase "affordable recumbent tandem" go down in the annals of language evolution as an "oxymoron? " Well, not if Bill Tannen and the good folks at Sun Bicycles and Easy Racers have any control over this. According to Bill Tannen, they intend to make it easier for folks to own and enjoy recumbent cycling. So they set out to extend this concept to a recumbent tandem and produce an easy to ride recumbent with a "blink-proof" price tag.

Bill's relationship with Sun Bicycles and J&B Importers, with its vast distribution network was to take care of the "affordable" part while his association with the Gardner Martin of Easy Racers, was to take care of the "easy to ride" part. To reach the "easy to ride" goal, Gardner Martin visited and re visited his drawing board a number of times as a couple of prototypes were produced, tested, tweaked and re-tweaked over the span of a several months. Two prototypes and a number of enhancements later, the EZ Tandem landed and, as promised, we gave it a full workout in hopes to see what this two-seater baby can do.

Reviewing this tandem turned out to be a challenging task. A bike built for two can't simply be tested by one. So I "drafted" a small platoon for this job. This article actually compiles the perception of 13 very different riders. My test pilots came in all kinds of sizes, ages, and experience levels. I recruited experienced folks who I'm sure many of you have heard about – like the infamous Shari Bernhard of BROL and RCN fame and Joe Keenan from M.A.R.S. I recruited my family - Susan, Kevin and Jenny - and also a number of folks who had never, ever been on a bent tandem before – like my dear friend and co-worker, Steve Spoerl and his very lovely 9 year old daughter Stephanie. (pictured right) My small army of testers also included Sergio Agramontes, my riding buddy and a couple of bike shop owners (Peyton Walters from <a href="http://www.bicyclespot.com">http://www.bicyclespot.com</a> and Larry Leveen from http://www.olybikes.com). My most sincere thanks go out to each of my volunteers, not the least of which a very special couple who actually risked their marriage to help me test the EZ1. As Arthur Nassau, a good friend and a very active member of our local group (The South Florida Recumbent Riders) recalls: "Some years ago my wife, Rea, and I rented a D.F. tandem to ride along the beach in Santa Monica, Ca. After about 20 yards (yeah, I did say yards) we traded it in for two regular bikes, thereby saving the vacation and the marriage. Twenty-three years later we are still on our honeymoon and still tandemless. That is until our friend and guru Jose Hernandez asked us to put our marriage on the line and test the new EZ Tandem." The risks some of us are willing to take in the name of "recumbency" are just amazing!

#### **Highlights**

A fully assembled EZ Tandem was delivered to my front door by no other than Bill Tannen himself, giving me a great chance to ask a bunch of questions about their new bike. Bill took the time to answer the ones he could and swiftly recruited Gardner's help to answer the rest. The one thing I failed to ask was for permission to destroy the bike during my test. But that's Okay because as it turned out, the new bike's frame is significantly stronger than the one prototype I had already failed to destroy. Also, the bike was ready to ride so it would be safe enough as long as my tools and the bike were stored in separate locations.

The EZ Tandem and its smaller relative, the EZ1 cruiser do share strong family

ties and the same or similar "facial" features (same seats, ape-hanger bars and similar morphology) but this is not to say that the Tandem is simply a stretched out version of the EZ1 Cruiser. The similarities are only skin deep. The important stuff, as you will see, penetrates a lot deeper.

The EZ Tandem's chromoly TIG Welded frame is of course much longer than its EZ1 relative but it also sports a much thicker top square tube and a pretty large <u>round</u> bottom tube. As the result, the EZ Tandem offers a very stiff/strong frame – much stiffer and beefier than any of its ancestors. According to Gardner: "Stiffness or flex between the front and rear of such a long bike is important. Torsional stiffness goes up exponentially as the diameter increases and a round tube is better than square in torsion. Of course, the well-triangulated framework helps too. The first prototype was way too flexy. On the number two prototype we enlarged the diameter of the main, top & bottom tubes but still, it wasn't enough. So we further enlarged the diameter of the main bottom tube for production."

The Tandem's wheel set is not only different from its EZ1 ancestor but it is actually quite impressive. 20-inch front and 26-inch rear wheels were favored over the smaller alternatives. But Sun Bicycles didn't just settle for off-the-shelf rims, hubs or tires. In fact, they contracted three



different companies to provide the

Tandem's wheel components. Sun came up with 48-hole rear and 20" front Singletrack disc specific rims. The glossy black rims are made of aluminum, triple-hollow construction with nickel-plated brass eyelets. American Classic provided the 48-hole rear hubs and Kenda custom built a heavy duty Tandem rated 100psi Kwest tires. These tires can support a whopping 330lbs each (150kg). Dual Shimano Deore disc brakes add a nice final touch as they not only embellish the EZ Tandem's hot looking wheels but also inspire a feeling of enhanced safety and reliability.

The bike is available in gold, gold or gold, whichever you prefer and the list of optional accessories includes fenders, rear rack, under seat pannier rack, rear basket, Canopy, messenger bag and a twin rear kickstand. We all agreed that the twin kickstand is a must have option.

## Other Component Trivia

To me, bicycle component talk is as exciting as going to a distant relative's three-year-old birthday party or ... Ok...ANY three-year-old birthday party. The previous section already went over some of the most impressive parts and so I hope I succeed in making this section as short and painless as possible. A full list of components is, of course, readily available from the maker's web site (http://www.easyracers.com or

http://www.sunbicycles.com/moreinfo/eztandem.htm
). For the most part , the bike's components are not too shoddy and in fact, considering the bike's MSRP, the chosen parts are actually pretty nice.

Power transfer is achieved via two medium sized KMC chains and a 1:1 midgear drive. A Shimano front Flat Bar and rear Deore derailleurs, low end Shimano (11-34) 9 speed freewheel and a very functional no-name 170 mm three speed (52-42-30) aluminum crank collaborate to give the



bike's 27 speeds an approximate 23-

123 gear inch range. We found the drive train to be pretty quiet and shifting was, for the most part, uneventful though we did have to ask our friend Peyton Walters from the <u>Bicycle Spot</u> to adjust the derailleurs a couple of times. These adjustments were necessary right after one of our brave volunteers ran into shifting difficulties and immediately after I popped a cable from its frame guide as I struggled to squeeze this bike into my minivan. (Note: the bike WILL fit in a minivan provided you remove the seats, front wheel and you don't have a center console between the driver's and passenger seats).

The SRAM's Vario shifters features a pretty cool looking gear indicator which was liked by all but one of our testers who felt the large gear indicators were "gimmicky".

Shimano Deore disc brakes offer all the stopping power any of us would ever need but most of us thought the Tektro Brake Levers, especially the one controlling the rear brake felt a bit spongy.

#### One Size fits "MOST"

The makers of this bike will be the first ones to tell you that their tandem may

not fit all riders. Gardner explains this a whole lot better than I can: "One of the most challenging aspects was that for good handling it is necessary to get the two rider positions as close together as possible without interference of feet and knees. This was further complicated by the current design restriction of a one size fits all being necessary. The result is we really can't fit all size people. Very tall and very short won't fit, and some combinations of height won't work." But as our very disparately sized testers found out, one size really does fit most.

This seat/bracket design allows for a virtually infinite range of seat adjustments. Sufficient fore and aft seat adjustments are possible for a



combinations thanks to two seat slide brackets and one strut slide bracket that fit perfectly, and slide effortlessly along the full length of the top square tube. Once your optimal seat position is determined, the seat is securely held in place by a few quick release levers. Recline adjustment as well as seat back support is achieved with three cylindrical telescoping struts. A single aluminum telescoping strut supports the Captains seat back while a pair of similarly designed struts hold the stoker's back in place. A couple of our strongest pilots noted that the Captain support strut exhibited a bit too much flex during "allout" sprints and suggested a beefier replacement, something that the maker is already considering. However, most of our testers did not notice anything unusual in this regard.

The stoker's back seat adjustment was limited by a strut design oversight, which, by the time you read this has already been corrected. The rear struts could not be attached in their intended eyelet because the disc brakes got in the way. To get around this, the rear struts are attached to the eyelets intended for the bike rack which is Okay but does limit the stoker's recline range and obviously negates your ability to install a bike rack. However, this little issue only affected the first production tandems and a new bent strut is already available. Alternatively, if your stoker needs to recline the seat a bit more, you can always ask your local bike shop to shorten the original struts.

However, it is important to know that none of the testers felt that the stoker seat recline was an issue because the stoker's very low bottom bracket begs for a very upright riding position.

Most of our testers agreed that the seats themselves are quite comfortable and quite efficiently insulate the riders from most of the punishment a bad road or path can possibly dish out. A couple of my test pilots reported feeling a bit of pressure on their backs from the single mesh tension adjustment strap. However, I think this is just a matter of adjusting the strap's tension to one's personal comfort level.



Some of our six-foot testers found

that the handlebar reach was a bit much for comfort and changing the angle resulted in some handlebar-knee interference. The solution to this issue is really simple: all you really need is a longer handlebar stem, which should be readily available from your local bike dealer.

#### Handling

Rider friendliness and very good handling is simply one of the EZ Tandem's best features. As we learned from our testers, previous experience is NOT necessary. The "newbies" just took off with zero or very little initial hesitation. Their post ride exclamations were not all that different from the statement I got from Arthur Nassau:

"The bike was delivered on Thursday morning. Clad in shorts and sandals I pealed out of the driveway. It was like riding a regular LWB until, THE FIRST TURN. If you traced my path, the waves would make you nauseous. But after a couple of turns, it was another story. The learning curve on this bike is quite short. Soon, it was time for the stoker. I have read about seasoned tandem riders taking many false starts and about half an hour to get in sync. This is not the case with the EZ Tandem. From the first start to the last ride we stayed together. The stoker has to learn that each movement is amplified for steering purposes but I got used to the movement quickly and Rea relaxed and stopped excess movement."

All of us agreed that this bike just feels stable and solid at ANY speed. Cornering is excellent and we blame the tandem's very stiff frame and excellent wheels for that.

Our testers found that handling was excellent on paved roads. My riding buddy Sergio and I found that it also does real well over dirt, gravel or even grassy paths. The bike feels stable over "any" surface – Okay, not really, we didn't ride it over a frozen lake. However, no stability issues were observed as our test tandem ignored most of the surface imperfections below though the vibrations transmitted through its very stiff frame reminded us that some of the patches we rode over were better suited for a lunar ATV.

#### **Speed Performance**

While this Tandem rolls guite well and is well suited for leisure to moderate 10 -60 mile tours, you shouldn't expect it to easily keep up with a fast "roadie" pace line or be competitive at an HPRA race. Speed performance evaluations are tricky and in the end it is almost impossible to come up with a conclusion that is in harmony with the experience of other folks. So keep in mind that while this shows our findings. Your own mileage may vary. Let's also keep in mind that this bike was NOT designed to be a racer. As Shari said: "The EZ Tandem will do just fine on a tour as long as the riders are not out for blood" Our collective "comfortable" cruising speed was around 13-14 MPH. Very fit folks like Peyton, Sergio and Shari were comfortable at 15-17MPH, though they did tell me their legs were a bit stiff after a 30 mile ride. Less fit riders were comfortable at around 10-12 MPH. Higher speeds were of course possible for the more experienced/fit riders but were hard to maintain for a long time. Joe Keenan and my wife Susan felt the stoker's extremely low bottom bracket was not optimal for power delivery and complained of the dreaded recumbent butt or lower back pain.

During hard sprints (and I mean HARD, ALL OUT sprints) we noticed quite a bit of seat flex, especially the captain's seat. A stiffer support strut may remedy this and as already mentioned, it is being considered by the maker. We also noticed lots of side to side motion or pedal steer that was noticeable ONLY during these "all-out" sprints. One possible solution to pedal steer is to experiment with an "out of phase" crank position alternative. However, this is probably not necessary for "normal" use.

Climbing on the other hand was surprisingly good in spite of the bike's heft. At 59 pounds, this bike is 10-15 pounds heavier than its competitors. However, climbing wasn't all that difficult on this bike. This is not to say we floated over our South Florida bridges but we all agreed that the bike comes with enough gears to let you conquer all but the most abusive inclines.

### Conclusion

Overall we found this bike to be extremely easy and enjoyable to ride. We also thought that it is built well enough to yield many years of bent tandem pleasure. Its budget friendly price tag combined with its extremely rider friendly character are simply impossible to ignore and thus, if you're in the market for your first bent tandem, you'll be well advised to add the EZ tandem

to your shopping list.

MSRP: Just Under \$2000

**Highs:** Great handling, best tandem value in the market

Lows: Performance, weight

More Info: <a href="http://www.easyracers.com">http://www.easyracers.com</a> or

http://www.sunbicycles.com/moreinfo/eztandem.htm

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