

Sun EZ Tadpole (2005)

Sun Bicycles EZ Tadpole

“Tadpoling” within your means”

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Unbeknownst to most of us, Sun Bicycles and Easy Racers first thought about adding an affordable tadpole to their recumbent line almost five years ago. But the companies' usual suspects, the late Gardner Martin, Gabriel DeVault and Bill Tannen managed to effectively conceal their plans in a secret "wish list" until about 3 years ago. That's when Gabe decided to take on the tadpole challenge by designing and building a few tadpole prototypes with his own hands. Once the actual building began, the inevitable chit-chat and Internet gossip spread throughout our bent world. It seemed to only be a matter of time before Sun entered the tadpole fray but neither Easy Racers nor Sun Bicycles would confirm or deny these rumors. The bent world waited (somewhat) patiently until the fall of 2003, when a prototype was deemed good enough to be shown at Interbike. To our surprise, one more year of tadpole metamorphosis would slip away before the first batch of trikes (with a noticeably different frame and lower seat height) would reach the US shores. `BentRider managed to snatch a trike from the first batch and immediately set out to test the heck out of it for more than two and a half months to see if the EZ tadpole was worth waiting for.

As in the past, Bill Tannen himself delivered a fully assembled SX (steel frame) to my front door. As we lifted the trike off Bill's truck it struck me that this trike was built like a tank. At nearly 50 pounds, the steel framed EZ Tadpole SX might well qualify as one of the heaviest, if not the heaviest production tadpoles on the market. Being the "weight weenie" I know I am, I have to admit that my immediate reaction was less than positive. I always felt that a tadpole shouldn't weigh more than 40 pounds. The 15 pounds of excess lard around my waist line was

already hard enough to carry so in my prejudiced mind, I didn't need to haul any added weight. But more on that, later...

Much of the trike's heft can be attributed to its extensively triangulated frame and the fact it employs the same 7 lb. mesh seat as the other EZ bent models. Its very rigid and strong frame is quite capable of handling a 300 pound rider. We know this for a fact as it not only ignored my constant abuse, it also survived the incredibly heavy pounding of one of our most robust riders, a 255 lb rider who did his best to destroy it by riding it as recklessly as a demolition derby pilot would, flying over curbs, bumps, and insanely high obstacles - you know, the type that most "normal" riders just ride around to avoid hitting. The only damage incurred was a bent right steering knuckle... and even this turned out not to be our fault. We immediately reported the damage to Bill who, coincidentally, had just been alerted of a possible brake tab failure. To Sun Bicycle's credit, Bill immediately stopped the sales and, through his dealers contacted a small number of folks who had just purchased the trike. Within 6-7 weeks a new steering knuckle assembly with a re-enforced brake tab was available as a drop-in replacement for the defective part. Since this trike relies on a standard bicycle headset to secure these parts, it only took less than 10 minutes to do the actual swap. Issues like these are not uncommon during the first run of an overseas built bike. We've begun to almost expect them and think of them as "growing pains". What was definitely uncommon was Sun Bicycles quick action. Some may feel that 6-7 weeks was a long time to wait but when you consider that these parts are manufactured in Taiwan, it seems to me that it is pretty impossible to redesign a new part and have it readily available within this period of time. It was also good that Sun got all of the Tadpoles off the road as quick as they did. Only four had been sold when the "recall" occurred.

Our test trike wore a pretty good yellow powder coat but I thought it was much less impressive than that of other EZ products like the EZ Sport LTD. The frame welds looked OK and are undoubtedly strong, but their superficial appearance failed to alter my heart's rhythm. But overall, the trike is well built and has a number of unique features. It also managed to turn a few heads and receive a number of "cool bike" adulations from innocent bystanders.

The EZ tadpole's cross member has three, that's right, three head tubes. Two hold the headsets that set the kingpin's alignment and one holds the handlebar headset where an above the steering stem could easily be used instead of the standard USS configuration. This easy to do modification could improve the trike's turning radius and open the possibility of converting it into a velomobile where space is of the essence.

This trike is more adjustable than anything I've seen on the market. The seat can slide back and forth on its main tube and is easily secured with two quick release clamps. The EZ's seat can be reclined at will and its telescoping boom has neat graduations and a convenient alignment notch. The handlebars can not only be rotated, you can also pull or push them away from you by sliding them through a steering bar end collar.

The seat height is a practical 13 inches (as per our own measurement) placing the rider at near eye level with small car drivers. Perhaps, just the ticket for riders who were previously a bit too timid to commute in traffic on a tadpole trike.

Like most other products in the EZ line of recumbents, the SX parts are quite functional but admittedly fall in the low end of the spectrum. The two pound lighter CX model sports a chromoly frame and has slightly better components but nothing that would drive me to brag about them.

Our test model's Quad QMD-6 Mechanical Disc brakes did offer all the stopping power you'll ever need and the low pressure 20×1.50 Kenda Kwest, were comfy and bullet proof but were clearly not designed for performance.

The SRAM 3.0 twist shifters are not our favorite for an under the seat steering bent but they worked pretty well, especially after we got used to them. Shifting the rear sprocket was crisp and quick but our failure to remove a few chain links after we shortened the boom extension caused the chain to derail cracking the plastic SRAM 3.0 derailleur cage in the process. Shifting the front chaining proved to be a bit slower with some grinding noises but once the gears are fully engaged, the drive train felt smooth and quiet. Chain behavior is kept in check with two chain tubes and a single crossover idler.

We thought that the placement of the seat's water bottle holder was inconveniently high or hard to reach and found that the seat mesh adjustment straps loosened periodically requiring a quick adjustment every 15 miles. These minor issues are likely to be corrected very soon.

Lastly, it is nice to know that a number of optional accessories like fenders, racks, etc. are readily available for this trike. Ours came with a great looking rear rack.

The EZ Tadpole owes its handling character to a steering geometry that accounts for Center Point Steering (zero scrub radius), Ackerman Adjustment, zero wheel camber and 10 degrees of caster with 1.75 inches of positive trail. Like other trikes on the market, the steering geometry is fixed which means the camber and caster are set and therefore, not adjustable. Through trial and error, we found that the trike's best handling and performance was ensured with a 0-3 mm toe in adjustment. The trike's kingpin inclination is secured by standard bicycle headsets, a setup that any bike shop can service and contributes to a smooth steering feel.

One immediately notices that the trike steering is self centering - it just wants to roll in a straight line. Turn the wheel right or left, let go of the handlebars for a moment and the bars come back to the center on their own. I can only describe the trike steering as good, neutral, and confident. The EZ tadpole tracked nicely as we rolled down a few bridges at 20-25 MPH. At that speed, little if any steering correction was necessary as long as we were just rolling and NOT pedaling.

This is because the trike's pedal steer is pretty noticeable, especially when under power. Because of the self correcting steering tendency of this trike, this is not as big an issue as it could be. The EZ's steering did not seem to be affected by bumps but it did still have some brake steer.

The turning circle is, as per our own measurement, about 21 ft in diameter which is not as tight as other similar trikes on the market but still adequate.

Cornering is fairly good in spite of the trike's relatively high center of gravity. We think this is so because of its wider than "normal" track (you won't be able to roll this trike through a normal door). Properly shifting one's weight into a turn is necessary to keep all three wheels on the ground especially when making a high speed turn. Though this trike is stable enough for its intended purpose of leisure to moderate rides and touring, it really can't be expected to be as sure footed as other trikes on the market with much lower seat heights.

Though its acceleration is somewhat sluggish, and climbing is not the trike's forte, maintaining 15-17 MPH on the flats during several 25-30 mile rides wasn't particularly difficult. In spite of its massive heft, the trike did manage to conquer our South Florida bridges. Sure, the climbing speed was slow but the thought of getting off and pushing the trike up the bridge never crossed my mind. Tis the joy of three wheels. As previously mentioned, our SX (steel frame) model came with low pressure tires and thus, we would expect the CX model (chromoly frame) with its standard high pressure tires to perform even better.

Though I was able to maintain a very good cruising speed on the flats, I do suspect that neophytes and or "average" leisure riders are probably NOT going to obtain these results. Nevertheless, I'd venture to say that most recreational riders are more concerned about comfort, nice handling and low price than speed, and this is pretty much what the EZ tadpole intends to deliver.

Riding a trike is fun and riding the EZ tadpole was no exception. I had a great time riding and testing this trike and was pleasantly surprised by its nice handling, overall performance and price tag that is very hard to ignore. It is not a speed demon but I see it as a practical machine for, fitness, recreational and commuting purposes. At the very least, I view this trike as the quintessential beach/bike path cruiser. If my very reliable crystal ball is right, it is destined to be a top seller for Sun Bicycles.

Bryan's take - I also had the chance to take a few short rides on an EZ Tadpole SX while visiting Hampton's Edge bike shop in Florida. I mostly agree with Jose's opinions. I was also fairly disturbed by the trike's weight but once I was up and running it wasn't too much of a concern. I experienced cruising speeds were pretty close to that of the other trikes I tried that weekend. But as Jose said, we're probably a bit stronger than Sun's target market and the added heft may matter more to these newbies. Jose and I both road the EZ-Tadpole in flat Florida. If we'd had the trike in more vertical terrain we may have been more annoyed by the extra bulk.

The trike's handling was pretty good. Definitely not as refined as a Greenspeed or an ICE but it does cost one third to one quarter as much and is definitely a great first effort from Gabe Devault and Sun. It's definitely better than the price tag would indicate anyway. The high CG made me a bit nervous but I think that you would have to be asleep at the wheel or really cranking it to actually flip the thing.

Tadpoles are becoming very popular in the United States right now despite their average price tag of about \$2500. A competent \$1100 trike like the EZ Tadpole SX is sure to sell very well. In other words... I would expect to see a lot of these trikes on the local bike paths in the near future.

SUN EZ TADPOLE

- Highs
 - Nice personality at tantalizing price
 - Adjustable to an EXTREME degree
 - built to last
- Lows
 - Noticeable pedal & brake steer
 - VERY heavy
 - sluggish acceleration
- MSRP
 - \$1100
- More Info
 - www.sunbicycles.com

