

# Recumbent Cyclist

Issue No. 70  
July/August 2002

# News



## The Cycle Genius CG24

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## Coming Trends and Other Ramblings

I was recently talking with a friend about bicycle disc brakes. You see, I've always disliked these high-tech wonders. They either dragged on the pads or required automobile-type fluid, oil, etc. in the lines. Up until last year, I hated every set I tried.

Besides the disc-drag squealing on early models, my other problem is with the skills necessary for maintaining brakes with various fluids in the lines (especially automobile-type fluids). This dates back to Slumgullian '97, when nobody in a seeming who's who of recumbent people could repair a broken Magura line.

I've recently changed my tune. I first reviewed the Greenspeed GTO with Hope discs. I loved the brakes, but they are costly and still have fluid in the lines (which will eventually require an experienced technician for maintenance).

Then came the Cannondale Easy Rider. It has the disc-brake wonder of the universe—the Avid mechanical disc. I'm sold on these brakes. Finally, disc technology has come down to my own pedestrian level. I can actually change pads and cables and repair and maintain this system all by myself. Wow!

So, back to my conversation. This friend tells me of his brother, a masterful bike dealer/mechanic, and his brother's bike shop. Appar-

ently, you can now get disc brakes on \$500 mountain bikes. So all of the sudden, nobody wants a MTB with V-brakes if it costs over \$500. I was slow to jump on the V-brake bandwagon (liking retro sidepulls or BMX brakes), so it was with some delight when my thoughts turned to V-brakes heading to the pasture.

Near this time, I was having trouble with my own V-brakes: premature pad wear, black dust, finding replacements, etc. I was cursing them. I then peruse the RCN buyers' guide (#67) and notice how few recumbents use disc brakes. I then go to a bike parts catalog to check prices. LX V-brakes were about \$50 per set, and Avid Mechanical discs were \$200 per set (outright; retail price). So why don't all fancy recumbents have disc brakes? It is about time manufacturers look into offering discs as an option, an upgrade, or even as standard equipment. Mark my words: discs are a coming trend. The technology is finally within the realm of affordability. Heck, their coming on \$500 MTB's.

### Bob in ERRC

Connie and Laurie of the Easy Rider Recumbent Club newsletter have interviewed yours truly. It's a lengthy article—my recumbent story. Much of it has never been told in the pages of RCN. If you're not a member of ERRC, see the contact info on page 3 of this issue, send them five bucks, and ask for the "Bob Bryant Interview issue."

### Pedal Boats II

We forgot to list these informative sites where readers can find more info on recumbent

boats: [www.pedalpoweredboats.com](http://www.pedalpoweredboats.com) and [www.humanpoweredboats.com](http://www.humanpoweredboats.com).

### Pedal Boats III—Hobie

If you're interested in recumbent pedal boats, we've found a very cool one. Hobie, the maker of sailing cats, is now a big name in plastic SOT (sit-on-top) kayaks. They have a really cool drive system twin underwater flippers (MirageDrive pedaling system). They are said to go really fast. Hobie has just introduced a new model called the Odyssey. This kayak is wider, is set up for paddling, pedaling, and fishing, and even has an optional sail so you can do some sailing. Check out their website at [www.hobie kayaks.com](http://www.hobie kayaks.com).

Viva Recumbency!

Bob Bryant

[bob@recumbencyclistnews.com](mailto:bob@recumbencyclistnews.com) ♦



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**A Newsletter by and for  
recumbent bicycle enthusiasts  
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## The New "Spirit" from HP Velotechnik



Bike designers are at last beginning to address people's real needs. For too long cycling has been perceived as difficult and stressful. Nowadays people expect more.

At the bicycle future convention fahrrad.markt.zukunft, held in Bremen, Germany, on the weekend of March 2-3, 2002, the designers Paul Hollants and Daniel Pulvermüller from HP Velotechnik unveiled the new Spirit, their latest vision of an evolutionary comfort cycle.

Start from the point of view of users. They want to be comfortable and relaxed and to have a position on the bike that makes cycling as easy and efficient as possible. This is only possible by starting right from the beginning. For their new Spirit, HP Velotechnik combined a reclined, easy-riding position with the latest full-suspension bicycle technology.

HP Velotechnik is well known among bicycle enthusiasts for sport and touring recumbents. Now the company has applied its expertise to the needs of the everyday cyclist and leisure rider. The result is a fast, comfortable, and easy-to-ride machine that challenges convention.

Step over the low frame, sit down, and relax into the comfortable seat. Both feet rest easily on the ground. Your arms can grip the controls with no stress on the wrists, shoulders, or back. You have a clear view of the road ahead and complete control of your braking. Between you and the road is an advanced full-suspension system, and every Spirit is equipped with full disc brakes for complete all-weather control.

The designers from HP Velotechnik were especially keen that their bike should be suitable for the widest possible range of people. "There are many ordinary people who find conventional bikes unpleasant or even impossible to ride," says Paul Hollants. "Shorter people can't reach the ground when they stop, many people find the normal riding position awkward and uncomfortable, and women often find normal bike saddles painful. Our bike is suitable for the young and sporty as well as the active silver generation, people with a variety of health problems and people who are overweight. And it is an excellent way to introduce easy, non-stressful exercise to your lifestyle. Most important, it is great fun to

ride."

Due to its low step-over height and well-balanced geometry, the Spirit is easy to handle, even for untrained cyclists. The compact design gives good control even in narrow and crowded streets. And at 170 cm (67") long, the Spirit is no longer than the average touring bike—handy when you want to transport your Spirit with your car or on the train or when you need to carry it downstairs to the bike shed.

Not that this means you have to sacrifice performance. The Spirit will carry a full load of luggage with no adverse effect on the handling, and the suspension makes it ideal for rough tracks and off-road trails. It offers tourers all-day comfort and a fantastic view of your surroundings. You will find you can ride further and with less effort and without any of the discomfort you would expect from a long day in the saddle.

For everyday riding there is a waterproof bag that quickly clips on behind the seat. For longer trips you can attach two extra conventional bike panniers to a secure mounting point on the luggage carrier under the seat. This means the load is carried at a central point on the bike, lowering the center of gravity, increasing stability, and stabilizing the steering even further. There is a full range of essential accessories, including the most advanced lighting systems available, full mudguards for weather protection, and a prop stand for easy parking.

The complete bike weighs approximately 16.9 kg (39 lbs.). It will be available from specialist dealers from June 2002, with a starting price of 1,695 euros including 16% VAT (approximately £1,070/US \$1,495 excluding tax).



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# Recumbent News

**Reynolds Weld Lab**—George Reynolds has ceased production of his Wishbone, Nomad, and Redundant models. George has told RCN that he will now be working exclusively in titanium. The two new models will be called the T-Bone. These extreme racers will be outfitted with your choice of ASS or USS and with dual 26 or 26/20 wheel configurations. George writes: “The 2” x 3” titanium tube is simpler, lighter, and stiffer. With the T-Bone I don’t have to outsource bending, powdercoating, and nickel plating. This offsets the additional cost of titanium tubing and gas. The ovalized 2” x 3” tube makes a great mono frame; you can’t bend it, so a straight frame is way to go. I also ovalize chainstays from 1 1/4” x .035” tubing, same as the head tube, so I only use two tubes to make the bike.”

George says that the previous models were time consuming to build and that he can build a T-Bone for about the same price as a CroMoly Wishbone. The 26/20 will weigh in the low 20-pound range, have Shimano XT-level components, and be priced around \$2,500. The dual 26 is \$2,600 and has a carbon fiber fork. This pricing is extremely competitive compared to the competition (Rotator—low \$4,000 range, Bacchetta—high \$3,000 range, and Easy Racers—\$5,000 range). George will offer his Astroturf seat, as well as seat options from M5 or Gary Hill. Check out George’s new website at [www.reynoldsweldlabs.com](http://www.reynoldsweldlabs.com).

**Greengear DoubleDay!**—There is a new recumbent tandem coming. This new tandem will fold, pack into two suitcases. The bike will retail for between \$3,000 and \$5,000.

Greengear also has a new upright single/tandem conversion called the Project Q. This tandem has a removable mid- and tail sections and can be ridden as a single or a tandem. The price is slated to be \$2,295. Contact: [www.bikefriday.com](http://www.bikefriday.com).

**New Canadian Recumbent**—Canadian industrial designer Max Ahmady unveiled his new Maxarya CLWB at the Toronto bicycle show. The new recumbent has a CLWB for-



*The 2002 Reynolds T-Bone*

mat and a fairly high seat (28 inches) with an upright seat back. The pedals are a bit lower than the seat.

There will be two versions of the new bike, which will be designed and developed in Canada and built in Taiwan. Both models will have a curved, heat-treated aluminum 7005 T6 frame, rear suspension with 3 inches of travel, and mid-drive. The mid-drive allows greater flexibility in gearing (especially important with a small rear wheel) and also locates the front derailleur under the seat, leaving the front of the bike with a cleaner look. The bikes will hopefully be available by late spring.

The base model, the Ray-1, comes in yellow and blue has an estimated price of \$1,000 US. The Ray-1X has upgraded components and front suspension and has silver and metallic charcoal colors. The estimated price is \$1,500 US. For more information, visit [www.maxarya.com](http://www.maxarya.com).

**Linear Update**—It has been confirmed to us that Linear is out of business. In a final e-mail, the short-term third owner of Linear suggested that Linear riders may want to contact Peter Stull of The Bicycle Man in upstate New York (tel. 607-587-8835) for parts.

**Sun/Easy Racer Update**—The Gardner Martin designed Sun EZ Sport, the LWB ASS, curvy tube, 26/20 model is now available from Sun dealers or Easy Racers in Watsonville, California. There is also an aluminum version in the works. We have the first one here for testing. With the introduction of the Sport comes an underseat pannier rack for EZ series recumbents as well as a very cool seat bag.

**BikeE News**—The BikeE FX mountain recumbent is being discontinued. Apparently the majority of FX models were converted to road use (a road FX is an RX). “We are no longer pushing the FX model, but we still have it in-stock. Although a fun bike, it simply did not take off as we all thought it would,” according to BikeE’s Lee Eckroth.

The BikeE CT models are now being shipped with the SRAM Dual Drive System 3 x 8 (24-speed), as the 3 x 7 hub is no longer available. The CT has dual sided shifters developed in cooperation with BikeE. It will also have an interchangeable handlebar system.

BikeE has sold out of 2002 AT’s and they have not decided on whether to order any more. “The AT is getting squeezed on both sides from CT and RX, especially the RX. We have seen tremendous sell-through on the RX this spring and the order rate is way up.”

There is a management shuffle going on at BikeE. Gone are John Moreland (former CEO), David Ullman or Richard Rau (both with BikeE since the company’s inception). We wish them well.

Some good news—the new BikeE fairing is now available (it will fit CT, RX and other models).

**Aerolope**—The fully faired SWB (S&B Recumbent based) is available again. See [www.aerolope.com](http://www.aerolope.com).


**Bent Wheel Recumbents**—Shane Harris of Bent Wheel will be producing a 23-pound SWB recumbent called the Renegade, as well as an off-road recumbent called the X-STREME. Bent Wheel is also working on a new composite low racer. For more information, see [www.Bent-Wheel.com](http://www.Bent-Wheel.com). ♦

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# Toronto Bike Show Report

by John Riley

The Toronto International Bicycle Show is a consumer show held every March at the National Trade Centre at Exhibition Place in Toronto, Ontario. Unlike in previous years, there was nary a Vision, RANS, or BikeE to be seen on the show floor. But there were some very interesting recumbents nonetheless.

The Canadian-designed Maxarya CLWB, called the Ray-1, made its debut at this show. The bike's designer, Max Ahmady, has started a company called Maxarya Design and Manufacturing, and this bike is its first product. According to Ahmady, the bicycle is result of three years of research, design, and development. His goal was to design a bike that would have broad appeal and be easy for a wide range of people to feel comfortable on, so he chose the CLWB format.

Trike Trails had an assortment of Optima recumbents as well as a variety of bikes for people with special needs. The Optima Stinger and Hopper made their first North American appearances, along with a Rider trike and a Baron. The Stinger is a low, laid-back bike with dual 20-inch wheels, rear suspension, and disc brakes. The rear swing arm has a unique elevated right stay that allows the chain to run beneath the stay rather than over. The Hopper is an entry-level bike with a 26-inch rear wheel and a 16-inch front. It has hub brakes, hub gears, and rear suspension.

Some bikes in the Optima line had been available in the United States through Yellowbike. At the moment, it looks like the Optima bikes will be available from Trike Trails, or direct from the Netherlands through Yellowbike, but under the Optima name, not the Yellowbike name.

At the show, Canada featured the Australian-made MR Components Swift trike. This trike is attractively priced at around \$1,700 US.



*The Maxarya Ray-1 (John Riley)*

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## A Long Bike

Attached is a picture of my just-completed homebuilt LWB ASS tandem I thought you might be interested in seeing. It has 48-speed intermediate drive and hydraulic discs and uses Rotator seats and handlebars. Steering is direct with no tiller motion, thanks to a 39-degree head tube angle and a centering spring. Though it has a large turning radius, it does ordinary street turns just fine. Handling is good and predictable, especially at speed. Monotube frame irons out bumps nicely.

Doug  
dmclean@blarg.net

## Turner T-Fun

Thanks to Harvey Stackpole of Tucson, Arizona, we have been installing a 406 mm rear wheel and a larger set of chainrings (60T large) on our Turner T-Lite. The bike is more fun than any other model we sell. This bike has a 349 mm front wheel, both tires are 120 psi. Several of my customers are now doing this.

Milton Turner  
Turner Recumbents

## Pedal Height Wars

I found the two articles "Pedal Height Wars" and "Numb Feet" very informative in that I have had troubles when I ride my recumbent exerciser with my legs to the point that I stopped. I had a chance to ride a Easy Racer with its lower bottom bracket placement and did not have problems with my legs. The ride convinced that the exerciser is going and to buy an Easy Racer.

rcrothers@dol.net

## Wants Big Shipping Case

I just bought a RANS Velocity Squared. I am going to be doing a century ride with the Leukemia and Lymphoma Society's Team In Training. Do you know where I would find a shipping case for my cycle?

slitschauer@msn.com

**Editor Comments:** *I don't know of anyone who makes recumbent cases. There are tandem cases, but I don't know that a recumbent would fit due to odd bits like the seat and fairing. Here are some ideas:*

- ✓ *Order a set of Easy Racer cardboard shipping boxes. These are large boxes that the bike should fit in. With a bit of luck, you can recycle and ship both ways.*
- ✓ *Try Crateworks at [www.crateworks.com](http://www.crateworks.com).*
- ✓ *Contact your airline about how to bring the bike to the airport. I have heard of some tandem riders bubble-wrapping their bikes at the airport so that the handlers can see that it is a big, expensive*

*bike. Taking your bike on the plane is much cheaper than shipping it in advance.*

- ✓ *Build your own custom box from plywood. Lightfoot Cycles does this. Perhaps you could buy one from them. Our Ranger 26/26 LWB test bike came in such a box. I once saw a Euro trike manufacturer use this case method; the box was transformed into a trailer he used on his USA trip.*

*Many recumbent riders buy a compatible bike for such events. The Greengear Sat R Day is the most compact recumbent money can buy. Word has it that there have been many updates since our last review. The Boulder Galaxy/Angletech Altitude also comes apart for travel, and there is the Brompton recumbent conversion.*

## Fold Gold

Great publication and great article about the Fold Gold in the most recent issue (68). How totally informative and captivating! Tempts me to abandon my SWB and numb feet!? I appreciate all the hard work involved in this great publication. Keep it up—the recumbent world needs you!

Kathryn Penn  
hotfarmgirl@hotmail.com

## Marketing 101 Response

Regarding Robert Clay's "Recumbent Marketing 101" article from RCN 68: My cycling experience is considerable. Twenty years racing, riding, designing, building, selling recumbent bicycles. Nothing less than a third-place finish in any competition, including international, national, or local level since 1995, and 40 years of commuting by bike.

Your comments about the recumbent manufacturers are misinformed. The implication is that unless the product is mass produced it has no merit. I contend that the truly elegant things in life are done by hand in low volume. Rotator Bikes has invested in shows at both the dealer and consumer level many different times over the years and has not found enough orders to repay the investment. Color brochures have been done to about the same results. The idea of the Midwest points racing series came from the 3 years that Rotator sponsored the concept in California from 1989, 1990, and 1991.

We have done press releases on a routine basis. Magazines don't always use them. RCN is not the most reliable way to get the message out. Our first review with them took 5 years and 5 bikes before it was published. We sent a test bike last July for a review that was to appear last fall. It is now spring. The internet

works for us with very little bother. May I ask a question of you? With all that experience, why did you settle, for what in the recumbent world would be considered a Big Mac?

Steve Delaere  
Rotator Bikes  
rotator@neteze.com

**Editor Comments:** *"Recumbent Marketing 101" was a freelance submission by RCN reader Robert Clay, who spent a lot of time writing and rewriting this article (to bring it down to printable length). Nobody will agree with every point in an article like this. If you come away with one good idea, the author has done his job.*

*Your comment that "The internet works for us with very little bother" is absolutely true. For the internet, you say what you want. The ad writer controls completely what is said in the marketing message. With RCN the message is more complex. It can be sent out in several ways:*

1. *Buy ads. This is easy. We sell ads; you can buy them if you like. They have nothing to do with our editorials or road tests.*
2. *Send press releases: We print them. Most sound contrived with phony quotes, and most are long winded. We use most of the information from press releases in one way or another, but we print the source.*
3. *Ask us to review your bike: With a dozen years of my being a known recumbent critic, there should be no surprises. If you're willing to go through the process, you do it. If you don't like it, don't do it. It's very simple. If you don't want me to review your bike, help me find somebody who is willing and capable.*

*The bottom line: critical editorial reviews should NOT be compared to internet website ad copy or ADvertorial. They are not the same.*

*I don't even remember that first review delay years ago. I didn't keep a time line or a first draft. Your bike evolved, most of our criticisms were worked out. I don't recall any review taking 5 years, but the final test bike was the best and the article was the best it could be. I'm still very proud of that article.*

## V2 Defense

I've tried to ignore the article "Easy Racer Tour Easy vs. RANS V2: A Comparison," but I can't keep quiet any longer. Let me identify myself as owner/rider of Velocity Squared frame #47; 2 years and 5000+ miles.

I was thrilled when I saw the title of the article; a subject of great interest to many. Upon reading the article, it became clear that this was no comparison of bicycles. It was a com-

parison of steering ergonomics by a fellow that was irritated because the V2 riding position was different from his position sitting at his computer. Adding insult to injury, the shop that assembled the test V2 installed the stem riser *upside-down*, an issue that affects the conclusions of the article profoundly. Yet the only acknowledgment by your mag is a half-hearted comment below a letter pointing out the discrepancy.

My experience on the V2 includes regular commuting, riding for exercise, and a cross state, supported tour that averaged 61 miles/day for 7 days on terrain that varied from the Blue Ridge Mountains to the coastal plain. In all those varied circumstances, I have never experienced the lack of control alluded to. If anything, the V2 steering position mimics that of an automobile, while that of the Tour Easy apparently is more like that of a computer operator. An objective look at the pictures in the article reveals that the higher bottom bracket of the V2 requires a higher handlebar position. As far as customer satisfaction with riding

position goes, I'm a very happy owner.

Your often repeated generalization that V2 riders are converts from SWB has no relevance here. I'm a LWB man through and through, who's realized that increased comfort and aerodynamics come from a higher bottom brackets and open riding position.

Sandy Mitchell  
sandalwood@southport.net

*Editor Comments: Please keep in mind that this was a reader-written submission to RCN. If you have a differing opinion, please by all means write an article about it.*

### Looking for Bebops

I have searched everywhere I know but have been unable to find any information concerning Bebops Clipless Pedals. Any help you can provide is appreciated. Thank You.

Dale Hostetter

*Editor Comments: Apparently we misspelled Bebop. Try [www.bebop.com](http://www.bebop.com).*

#### Send Letters to the Editor of RCN

If you have something to say, a differing viewpoint or experience—we want to hear from you! **Please limit letters to 300 words.** No charity ride sponsorship request letters. RCN reserves the right to edit submissions for clarity, content, and space limitations.

Send to [bob@recumbencyclistnews.com](mailto:bob@recumbencyclistnews.com)

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### Tandem Talk

I was one of those “wedgie” types that swore by my upright bike. My husband kept complaining that we didn't really ride “together.” I suggested we get a tandem recumbent. I wasn't sure about the recumbent style or that it was “cool” enough. The new bike arrived, we rode together, talked together, laughed together. What a complete joy. A whole new world has opened up for me and us. I am now a believer!

Joan Stern  
St. Louis, Missouri

### RCN Kudos and an E-Wiz

RCN is the most informative, honest and helpful magazine, in such a special and uncovered area, I have ever received. I originally was looking at recumbent bikes because I was beginning to feel the aches of age (71) and some difficulty breathing. After getting the RCN and some back issues I finally acknowledged some trouble in balance and decided on a tadpole trike. In issue 63 I saw the article by Tom Beuligmann about an electric-assist BikeE. I e-mailed him and he was very helpful.

I now have a Wizwheelz Terra trike and hooked up a Currie electric motor to help on the Colorado hills. I would not have been able to continue cycling where I live without all of your help.

Gene Schwarz  
[igenes@msn.com](mailto:igenes@msn.com)

### EZ Sport Report

Here is the best recumbent deal of 2002—the Sun EZ-Sport. My wife bought one through our local bike shop. It came in five days. It has a beautiful candy-apple red paint job and decent components. It is amazingly light for as long as it is. It has an entirely different feel than EZ-1 and BikeE CT. It tracks more like what I suppose the Easy Racer does. It is a very comfortable bike with a stunning frame design. She got it for same price as new BikeE and it's a lot more of a recumbent. I read your mag from cover to cover.

Marv Q.  
[marvin@interisland.net](mailto:marvin@interisland.net)

### Cannondale Comments

Thanks for your great article on the Cannondale recumbent (ex Easy Rider). I wrote it off early but have fallen in love with it after riding one with some minor upgrades: better tires (Kenda Qwest up front and Conti Top Touring 1.75 in the rear), handlebars with more rise, and better pedals.

My one issue is to find a rear rack that the bike easily fits into. Can be a trunk rack or (better) a hitch rack.

Peter Lewis  
[peterlewis@ameritech.net](mailto:peterlewis@ameritech.net) ♦

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## The Lightfoot Ranger Dual 26

by Bob Bryant

Lightfoot is an impressive little company from Darby, Montana, whose mission is sustainable bicycles for transportation and utility. The bikes are designed by Rod Miner, who has been designing recumbents since 1983. He and his significant other, Martha Stromberg, run Lightfoot. They build the frames, seats, handlebars, and even some of the forks for their bikes. We first met Rod and Martha at the Seattle Bike Expo eighteen months ago, though we were aware of their bikes long before this time. We then started discussing the possibility of a test bike for RCN.

The Ranger is a dual 26-inch-wheeled version of the Lightfoot 26/20 Explorer LWB ASS recumbent. This bike is not meant as a wimpy light-duty performance bike—it's a big boy with big, fat tires and a big, tough frame and fork, along with a big, plush sling/mesh seat. Although it's designed to be a "rough country tourer," the Ranger is equally at home cruising on city streets.

If you've read my reviews and rants, you know I've been looking for a super-tough bike that can haul a load as well as handle riding over diverse terrain. Well, I've finally met my match. This is perhaps the toughest, most tour-ready road warrior recumbent we've ever reviewed. This brawny bike will take on uneven road surfaces, potholes, abrupt pavement, gravel fire roads, singletrack, or the like with ease.

### Systems

**Frame and Fork**—The Ranger frame is hand-

built of CroMoly and high-tensile steel. The top tube is a square section, for an easy seat mount. An inverted "U" aluminum seat mount channel matches to the square steel top tube. The frame is nicely built to a more utilitarian standard, though we cannot criticize it at all. The finish looks better than that of a Taiwan-built entry-level recumbent, but not as refined as what you see on a more mainstream brand. The fork is a CroMoly behemoth custom built by Lightfoot for this bike—it's huge, stiff, and strong. Lightfoot makes all of their own forks.

**Paint**—The powdercoat finish is excellent, though not as shiny as some fancier paint.

**Steering**—The ASS unit relies on a typical MTB high-rise Aheadset stem, which attaches to alloy bars that are custom made for the bike by Lightfoot. The aluminum has a brushed finish, rather than polished. There is a bolt-on cross-brace. The bars are wider and more comfy than the Easy Racer bars, though not as aerodynamic.

**Weight**—The Ranger is rather heavy at 37-39 pounds. Ours weighed just over 40 pounds with pannier rack and fenders. Lightfoot is truthful about weights. This bike weighed in the same range as the Cannondale Easy Rider and BikeE RX XL/XXL.

**Drivetrain**—The Ranger has nearly a complete Shimano group—tried and true Deore 24-speed (chosen for its touring durability over the 9/27-speed)—including the brakes and levers. The exception is the shifters. The SRAM twistgrips worked perfectly with the bike. I had wondered how bar-cons might have worked,

### Lightfoot Mission

*Light foot* connotes not only "fleet-footed and quick" but also "treading lightly." As individuals, we enjoy cycles as an efficient and often exhilarating way to magnify the power, speed, and grace of our bodies. Beyond this, practical human-powered vehicles also hold great potential as a tool for stewardship in our communities and our world. Human power is an extremely important element in a vital, resource-wise economy in the forms of both pedestrian local-scale and cycle intermediate-scale transportation.

but the Lightfoot bars are probably too wide for them. Chain management is very good. The chain tube is effective but somewhat noisy. There is an MTB-style lower chain idler that is nearly silent. It's not the type that spring-loads additional chain for wide-range gearing (a la Easy Racer).

**Braking**—The V-braking was strong, and the Shimano stoppers worked flawlessly.

**Wheels and Tires**—The Ranger came outfitted with a big, beefy IRC Advantage Pro 26 x 2.0 tire. It certainly wasn't fast, but it was ideal for our test course's varied terrain.

**Integration**—This small company takes lots of time to make sure your bike is road-ready before it goes into the box. Our experiences with Lightfoot have been excellent.

### Comfort

**Seat**—Some have criticized the previous Lightfoot seat as being rather homebuilt in appearance. It has a sliding aluminum frame with a base section and a back section. The seat back and pad are covered with vinyl, making them perfect for utility or commercial use or for commuting/touring in wet climates. Riders who have gotten their Lycra-covered seat base wet will know what I'm talking about.

We were the first to try Lightfoot's new full-mesh seat. It is generously sized. The back is fairly typical, though not as form-fitting as some. The suspended feel of the mesh seat base should be popular among LWB customers.

Lightfoot's Rod Miner had this to say about this new seat: "We are working on movable add-on pads that can be placed for customized lumbar and shoulder support and multiple foam-pad set of seat cushions of different thickness and density, to be configured to suit the owner."

The Lightfoot mesh base is similar to a Vision base, but it is larger and more adjustable. A seat horn stretches the fabric forward, and a

belt allows you to adjust how far you sink into the seat. With this seat you can also adjust the seat horn's position. With the nonadjustable prototype and one foam layer, I was able to feel the seat horn (until I added a second layer of foam).

The seat foam on our test bike was open-cell and compressed quickly. A mix of open and closed cell is probably needed. I was able to experiment and did find it comfortable. The seat base pad has a zippered pocket that allows easy access to the foam. The pocket allowed for easy installation of a second layer of foam. The base pad attaches to the base mesh with Velcro.

The seat slides on an aluminum channel that sits over the top of the square-section steel top tube (similar to Sun EZ). The base clamp worked fine, but it looked a little rough (this was a prototype seat). Seat slippage is virtually impossible, since the seat is locked down securely at the base and back. At the seat back there is a real bicycle seatpost and seat tube behind the seat which allows adjustment of the recline angle and locks the seat in position.

**Ergonomics**—The Ranger has a wonderfully comfy riding position with a low pedal height (a la Easy Racer) and a fairly upright riding position. The mesh seat can be adjusted to provide more recline than an Easy Racer. Those who prefer this riding position will love the Ranger (or any of the Lightfoot models).

## Ride/Handling

I've tried all of the dual 26-inch LWB recumbents on the market (HPM Ranger and dual-700 Rotator), and the Ranger has the best steering geometry and fine-tuned handling of any of them. This bike is truly optimized for the 26-inch front wheel. I was ready to give up on the concept of dual big wheels (for all-round use, not high performance) for LWB's until this bike arrived. It tracks straight, steers nice, and has very refined road manners and overall handling. What it doesn't have is the high-speed stability and handling feel of an Easy Racers bike. The Ranger was not as fast as the dual-700 Rotator or a Tour Easy/Gold Rush, though it had lower gearing, more cargo-carrying capability, and was more suited to my home terrain/riding style.

**Maneuverability**—With the low pedal position and no heel or toe interference with the front wheel, low-speed stability is excellent (and feels very refined). Maneuvering this long bike at low speed is easier than you'd think. Turning around on a narrow one-lane road will require some practice. I did it several times and got good at it. If you have a fairing, you'll need to tuck your inside knee inboard of the fairing to make a tight turn.

**Speed/Efficiency**—The Ranger is heavy and has a low pedal position and a more reclinable seat (mesh model). I found that the bike cruised and went down hills faster than



*The Ranger as an urban commuter. The underseat pannier rack will take two panniers on each side. We also strapped our trusty L.L. Bean backpack to the seat back with one bungee cord. This bike can haul lots of stuff.*

average, and climbed slower than a typical SWB; it performed about the same as a high-end CLWB. Due to the bike's overall length, it is also more difficult to climb when switchbacks are required. The Ranger was a bit less surefooted at speed than an Easy Racers LWB.

The Ranger is not geared for performance, nor did it have performance tires. Though not as fast as a roadie-like LWB ASS, it is no slouch either. Lightfoot does offer more performance-oriented models in their line.

**User-friendliness**—Despite its size, the long and tall Ranger is easy to ride. The dual big wheels make it feel like an upright bike in some respects.

## Owning/Purchasing

**Versatility**—LWB ASS recumbents are known for their versatility. The Ranger could be used for nearly anything. Trying to haul it around in anything short of a full-size truck or van would be difficult (though not impossible; perhaps an ATOC LWB or tandem mount).

**Shipping/Assembly**—Lightfoot sells mainly direct to the public (few dealers). Our Ranger arrived by semi-truck/freight in a huge plywood box. With the aid of my trusty cordless screwdriver, I unpacked the bike and was on the road in 30 minutes. It needed no drivetrain adjustments and worked perfectly the entire time we had it here.

Our test bike arrived as scheduled. A typical delivery time can range from 7 to 9 weeks during peak season down to 5 to 6 weeks during the off-season.

**Quality/Durability**—Lightfoot designs their bikes supertough—for epic tours or to be

user-serviceable in remote locations.

**Cost/Depreciation**—This is a custom-built recumbent—built to suit the customer. It is built in the USA by a bike-builder craftsman. Even the fork is built by Lightfoot. It is a bargain.

**Sizing**—From the Lightfoot brochure: “The standard size for the Ranger is Large (39 pounds; with a 26” seat height), which will fit most persons from 5’8” to 6’4”. Shorter persons to 5’4” may be able to ride the Large frame, but likely will not be able to touch the ground flat-footed without sliding forward in the seat. The medium-size Ranger (37 pounds; with a 24” seat height) will fit most persons from 5’4” to 6’0”. Agile persons to 4’10” have successfully ridden the Medium. Due to the limitations of successfully combining seat height, tiller steering, and 26” wheels, there are no smaller sizes. For similar performance in a small package, consider the Lightfoot Rambler with dual 20” wheels.”

Most other Lightfoot models come in sizes XS-XXL to suit riders 4’ to 7’ tall and up to 450 pounds. The sizing factor alone moves it to the top of our list if you have special sizing needs. The reason this is so important with a LWB is that they can be heavy, and you don't want to be toting around any more weight than you have to.

## Options and Accessories

Our bike had a custom CroMoly underseat pannier rack that comes with a chain tube to keep the chain from cutting into your panniers. This pannier rack is capable of holding four panniers (two on each side). The bike had full fenders, a Super Zzipper fairing, and twin



*Explorer 26/20 (left) and Ranger 26/26 (right)*

water bottle cages (behind the seat), and even more options are available. This basic bike can be ordered with other wheel sizes (including the most popular 26/20) and even in a trike version (as seen in RCN 64).

Lightfoot offers optional fairings, body stockings, racks, and cargo carriers and also does factory power-assist options. If you don't think that's enough, there's a new heavy-duty cargo trailer (50" L x 24" W x 14" T) capable of carrying 8' pieces of lumber and up to 1,000 pounds!

**Power Assist**—Lightfoot offers factory power-assist options. They use the German Heinzman electric hub motor. They use three

varieties that vary up to 800 watts:

1. High-torque/low-speed carrier/cargo version for heavy loads and steep hills.
2. Medium-torque/medium-speed mountain version for medium loads and hills.
3. High-speed city or commuter version for continuous assist at speed (20 mph) on level or slightly rolling terrain.

"We use the mountain version most of the time, except on Pedicabs or large cargo vehicles," says Lightfoot's Miner. He also recommends powering the large (26-inch) wheel. Lightfoot is also working on both hybrid and

solar systems.

The Heinzman power assist adds about \$1,000 to the price of a recumbent. For more information, check out the "Power Assist" page at their website.

**Market Competition**—There really is no comparison when you consider the custom-built features of the bike. However, anyone considering a Lightfoot will be comparing it to the Easy Racers Tour Easy and RANS Stratus.

**Additional Notes**—There's a lot going on at Lightfoot these days. Although they're busy building bikes, they seem to make time for new models, prototypes, and accessories. Lightfoot offers fifteen models of recumbents. There is a tandem (T42 and ME2), cargo- and people-hauling cycle-trucks (Greenway, Roadrunner, Courier, Transporter, Pedicab, and Microcar), a low, fast LWB (Gazelle), and a kid-size mini-LWB 20/16 (Pixy).

Lightfoot is currently working on a Darlxxx waterproof stretch-fabric foul-weather full-coverage body stocking. They have been testing Lycra, which doesn't have nearly enough abrasion resistance, nor is it waterproof. These are designed more for the lower Lightfoot vehicles, but they can be cut for the Ranger.

## My Analysis

**Verdict**—You'll be hard pressed to find a



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*Note underseat CroMoly pannier rack (holds four panniers)*

manufacturer so committed to their mission (there is a great article about it at their website: Our Ecological Footprint)—especially one who will handcraft a bicycle especially to suit your needs, and at prices similar to those of production bikes.

The big Ranger may not be for everyone, though with the Lightfoot's many models, the chances are good that something in their line will work for you. What I'm finding out about dual-big-wheel recumbents is that although they look cool and they're all the rage, the bottom line is that you really need to have a good reason to want dual big wheels, or you should probably stick with the 26/20 wheel combo.

The Ranger has the most refined handling I've experienced in a dual-big-wheel LWB. The upside to the dual big wheels is that you'll have one wheel size, they roll over anything, and they're very robust. As Rod Miner says, "The Ranger is a big bike with enhanced mountain bike qualities."

The downside is the added length, (makes the bike less aero, and with a higher seat), the slightly worse aerodynamics, a more rearward center of gravity, and less weight on the front wheel (though the latter two were barely detectable).

Though the Ranger is similar in design to other classic style LWB ASS machines, the Lightfoot design is from a different perspective. While others may focus more on performance, the Ranger (and Explorer) are designed more for comfort, utility and touring dependability. This is a very worthwhile mission.

The Ranger is really an excellent bike. Our experience with Lightfoot was better than we've had with 90% of the bikes that come through here. This is an excellent small manufacturer that caters to recumbent cyclists who need real bikes for real-world uses. I enthusiastically recommend these bikes and can hardly wait to get my hands on a Lightfoot LWB ASS delta test trike.



*Lightfoot rear seatpost forks allow for recline adjust and keep the seat from slipping*



*My trusty L.L. Bean backpack straps on the Ranger with ease and rests on the rear seatpost forks (under backpack). Lower- and mid-level straps connect to the seat cross member, and a bungee cord is strapped from the backpack's top strap loop, down the inner framework of the seat back, and back up to the top strap loop. After fifteen years of recumbent riding, I've just discovered this simple cargo-carrying benefit of backpacks on sling/mesh seat backs.*

*It's truly the simplest and most affordable way to go. I've adapted this setup to several recumbent seats, including those from RANS, Easy Racers (with a rear fender), SUN EZ, Cannondale, and Cycle Genius—and I'm sure it will fit others.*

## Rating/Summary

Comfort: A-  
Design/style: B+  
Drivetrain: B+

Chain management: B  
Brakes/braking: B+  
Finish quality: B

## Pro

LWB ASS with a full-mesh seat  
Rugged, utilitarian LWB ASS  
Best dual-big-wheel handling/steering  
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## Con

Heavy  
Huge (72-inch wheelbase)  
Chain tube noise  
Somewhat utilitarian look and finish level  
No rear rack or seat bag (though see below)

## Access

Lightfoot Cycles  
Tel. 408-821-4750  
www.lightfootcycles.com  
e-mail: info@lightfootcycles.com

## Specifications

Model—Ranger; Type—LWB ASS dual 26;  
Steering—ASS; Wheelbase—72.5" (range 68-72");  
Seat height—27.5"; Pedal height—17.5";  
Weight—40 lbs.; Frame—TIG-welded CroMoly;  
Fork—Lightfoot CroMoly

## Price:

Bike	\$2100.00
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Underseat pannier rack	\$0075.00
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Est. shipping (motor freight)	\$0065.00

Price as tested \$2788.00

\* Lightfoot sets the bike up completely and then packs it in a custom plywood crate. The front wheels, seat, fairing, front fender, and handlebars are removed before packing (no cables are disconnected).

## Components

Crank—Shimano Deore 22/32/44; Bottom bracket—Shimano sealed; Headset—Aheadset; Derailleurs—Shimano Deore; Shifters—SRAM MRX Plus twistgrip 24-speed; Cassette—Shimano 11-34 8-speed; Chain—SRAM (Sachs) PC-48; Gear-inch range—17-104 gear inches; Pedals—Wellgo ATB; Wheels—26"; Rims—Odyssey T-1000; Tires—IRC Advantage 26 x 2.0" 60 psi (off-road) or IRC Metro Tour (on-road); Hubs—Shimano Deore; Brakes—Shimano Deore V-brakes and levers; Colors—powdercoat. ♦

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## The Rotator Pursuit Dual 700c

by Bob Bryant

With big-wheel SWB recumbents all the buzz, we knew it wouldn't be long until we saw a performance big-wheel LWB. Steve Delaire has now adapted his Rotator Pursuit to dual 700c. It is definitely a big-wheeler with a different bent.

Steve Delaire has been building and selling his Rotator recumbents for years from his small shop in Santa Rosa, California. The Pursuit is unique among LWB ASS recumbents. First, it has a monotube frame with cantilevered rear stays which offers a built-in passive suspension. Second, it has a higher pedal position (there are higher and lower seat options on this bike) with a more reclinable seat (full mesh).

The Pursuit has traditionally had dual 20-inch wheels with a dual rear derailleur cassette mid-drive. A few customers asked for non-mid-drive versions, and another asked for a larger drive wheel. The natural progression was to a model with dual big wheels and a standard road bike drivetrain.

### Systems

**Frame and Fork**—Delaire's Rotators are handcrafted in California one at a time of CroMoly (or titanium). The frame are brazed to perfection. This is unique these days, as most recumbents are TIG-welded. The forks vary

depending on front-wheel size. Our test bike had the ability to accept a 20-inch or 700c front wheel (and both rode great).

**Steering**—When you take a LWB, raise the pedal height, and recline the seat, you move the rider farther away from the controls. This requires a long handlebar stem and creates a trait known as "tiller effect." *Tiller* can be defined as the front wheel wanting to gravitationally pull (slightly) to one side or the other in low-speed tight turns. The bars also tend to fall to the right or left when the bike is parked. Some describe this as "fork flop." Tiller is not a positive or a negative trait—it can be considered either, depending on the rider's viewpoint. The dual 700 Pursuit has a fair amount of tiller effect.

The benefit of tiller is in rock solid high speed stability. With a fairing mounted, the tiller handling and fairing can also act like a weather vane, which further improves high speed handling.

Those who don't like the tiller-type handling feel may want to opt for a SWB. Rotator builds a heck of a nice one in the Tiger.

**Seat/Comfort**—The Rotator full-mesh seat is very comfortable. Full-mesh seats are rare and are truly the most comfortable type of seat if you'll be on the road for a long ride. Rotator offers five sizes of their seat with varying heights and widths (which allow you to fur-

ther refine your riding position).

**Drivetrain**—The drivetrain on our test bike was high-performance Shimano Ultegra. The gears were high and set up for a fit roadie doing performance riding. The drivetrain was smoother than the mid-drive version and worked great.

The Rotator mid-drive is time-proven and durable. Some may find it less intuitive than a standard drivetrain, but Delaire has been making it for years and it works well. Mid-drive offers a vast range of gears in smaller increments than is possible with a normal drivetrain. The mid-drive comes in a 6 x 8 (48-speed) or 6 x 9 (54-speed) drivetrain with an incredible range from 20-150 gear inches.

Rotator has used KMC chains for years. Though KMC is not a premium brand and is mostly found used as original equipment by manufacturers, it could be less trouble than the 9-speed SRAM chain, which we've had trouble with recently.

**Chain Management**—The mid-drive (dual 20) and idler (700c) offer excellent chain management. The chain line is good, and the power transmission is directed with minimal noise. The dual-700 non-mid-drive was quieter and seemed to run smoother and with less friction. You'd think the mid-drive would add friction and slow you down. However, we have no factual data that it actually does in real-world riding conditions. Our suggestion is to go with whichever one best suits your needs.

**Braking**—Our test bike had Tektro V-brakes. These aren't the best you can find, but they stop well and they're durable and trouble-free.

**Wheels and Tires**—The stock wheels have Shimano 105 hubs, a Sun rim, and stainless spokes. Our test bike had optional skinny Shimano Ultegra performance wheels. These wheels have 16 radially laced bladed 14-gauge spokes. This option adds \$350. These wheels are light and roll fast, though they have more lateral flex than a standard spoked wheel. Perhaps they're OK for roadies, but it's not something a commuter/utility rider would opt for. Delaire says that several customers have opted for a Velocity Deep V rim/wheel combo. This adds about \$100 to the price of the bike. We recommend the Velocity wheels over the stock Sun wheels.

**Pedals**—I'm generally not one to rant on about pedals, but I love the pedals that come stock on Rotator bikes. They're a basic CroMoly steel beartrap pedal—semi-oval with jagged teeth on them. Some bike shops don't sell them because they have a tendency to bite your legs (and scratch them). They're wide, offer lots of support, and are cheap. When the bike went back to Rotator, I kept the pedals.

## Comfort

The Rotator Pursuit is unique in that it combines a world-class full-mesh seat (perhaps the best mesh seat available today) with a LWB frame and a relatively high pedal position. The seat height can actually be set up for the rider, as there are both low- and high-profile models. Ours was the taller/wider seat. The Rotator seat clamps to the bike with radiator hose clamps. These have never been my favorite, but once set (and not messed with often) they work fine.

Another aspect of Rotator comfort is the long handlebars. On recumbents with higher pedals and the ability to recline the seat, the bars get farther away from the rider. I have a long torso, and this has been a problem for me on this and previous Pursuit test bikes. If it's a problem for you, Rotator can fabricate a longer stem/bar.

## On the Road

**Stability**—Once at speed, the dual-700 Pursuit tracked with ease and was very stable. With its big front wheel, long ASS bars, and more reclined head tube, this bike is a bit floppy. The front end holds straight, but it wants to fall to one side or the other when you move away from the center. This bike is optimized for the dual 20's, but the 700/20 and dual 700c work well.

**Maneuverability**—This is not the Rotator dual 700's strong point. The laid-back seat, high pedals, and big wheels make it more difficult to maneuver in tight spots. This performance machine will do best on the open road. Even our daily commute was a bit difficult on this bike.

**Performance**—Most dual-big-wheel LWB ASS's feel faster than their smaller-wheeled brethren. The dual-700c Pursuit seemed to roll up to speed faster, but we're not sure the bike was actually any faster than the 700/20 version. However, it did coast farther.

Steve said that in coast-down tests on his standard road (which is somewhat rough) the dual-700 and dual-20 models coasted the same distance, but the dual-20 model reached a higher maximum speed. This makes sense. The 20-inch wheels' aerodynamic advantage gave them a higher maximum speed, while the lower rolling resistance of the 700c wheels allowed them to continue rolling farther at low speed.

**User-friendliness**—This particular Pursuit model is not the most user-friendly, but it is within the realm of any experienced recumbent rider.

## Market Competition

The only other big-wheel LWB recumbents are those that fit in the "all-rounder" category, not performance bikes (HPM Roadster and Lightfoot Ranger). The dual-700 Pursuit is truly in a league of its own. Due to the long



*The dual-20 Rotator Pursuit*

bars, steering geometry, and shifting (rear derailleur mid-drive), it can take longer to get accustomed to this bike than to a more traditional LWB ASS recumbent.

## Extras

The Pursuit will accept different wheel sizes, fenders, racks, fairings, and just about anything else you can think of to mount on the bike. Just be sure you consult with Steve Delaire about what your plans are in advance.

One of the neatest options is the Rotator corrugated plastic (coroplast) fairing. This sells for \$500 for either the Pursuit or the Tiger. Steve uses high-tech tape, combined with structural plastic inside for strength. An extended version is available in kit form (the Sprint; see RCN 69, p. 6). There are also more custom full-body streamliner and carbon fiber fairing options.

## Verdict

I've long been a fan of Steve Delaire and Rotator Bicycles. Steve builds them the way he feels they should be built. No apology or explanation is needed. He's an HPV pioneer and knows his business. He oversees the entire process, and he's not afraid to go against the grain. He rides, races, and uses bikes for transportation and utility. Unlike many other manufacturers these days, Steve walks the walk—or should I say rides the ride—by advocating bicycle use over automobiles. Builders like this are the real deal.

Rotators are fast bikes that perform well. Delaire can provide fairings and modifications and can give you advice on how to build up your dream Pursuit. After riding them all, I do see a benefit to big wheels and a more stan-

dard and simpler drivetrain. I found this big-wheel performance machine a bit too much bike for me (roadie gears, skinny tires and all). During my research and communications with Steve, he convinced me that the reasoning behind the dual-20 model with a mid-drive met more with my real-world criteria for a (fast) daily commuter. For more roadie-oriented riders, who want something completely different, the dual-700 model may be the way to go.

## Rating/Summary

Seat Comfort: A  
Design/style: B+  
Drivetrain: B- (standard); A- (mid-drive)  
Brakes/braking: B  
Finish quality: B

## Pro

Built in the USA by Steve Delaire  
Your choice of steel or titanium  
Great mesh seat (in five sizes)  
A fast roadie LWB  
Nothing else like it on the road

## Con

Tiller steering  
Passive suspended frame (flex)  
High roadie gears  
Skinny Shimano wheels\*  
Not the best all-rounder\*  
Mid-drives are more complicated, can add friction and are less intuitive for some.\*\*  
\* Dual skinny big-wheel model.  
\*\* Mid-Drive equipped dual 20-in. model.

## Contact

Rotator Bicycles  
707-539-4203  
www.rotatorrecumbent.com





*Our test Pursuit had the taller and wider seat*

### Specifications

Model—Pursuit Dual 700c; Type—LWB ASS; Steering—ASS; Wheel-base—75"; Seat height—18-23"; Pedal height—18-21" (700c); Weight—see below; Frame—brazed CroMoly; Fork—CroMoly; Price—\$1,735 (level 1), \$2,850 (level 2), \$4,700 (level 3)



*700/20 Pursuit (same bike, different front fork and wheel)*

### Components

Rotator Pursuits are offered with one of three component groups:

1. CroMoly frame and fork with SRAM Attack/Shimano 105 mix with Tektro V-brakes. Weight: 31-32 pounds.
2. CroMoly frame and fork with SRAM Attack/Shimano Dura-Ace mix with Paul Motolite brakes. Weight: 27 pounds.
3. Titanium frame and fork (3.2-pound frame) with components from group 2. Weight: 23 pounds (2 pounds heavier than dual-20 version).

Dual-20 versions are equipped with 48- or 54-speed mid-drive. The dual-700 version is a 3 x 9 27-speed. ♦

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## The Cycle Genius CG24 CLWB

by Bob Bryant

The Cycle Genius CG24 is a new entry-level recumbent that sells for just \$550. The CG has the feel of a SWB, but in a CLWB package. This means no heel overlap or overly quick handling—both of which can be important traits for new riders. The bike has a full-mesh sling seat—which is an added treat and a rarity these days. Best of all, here’s a new, very affordable CLWB that offers exceptional recumbent value. I was pleasantly surprised at just how rideable and comfortable this new bike is.

So, who are these folks who have come out of nowhere to label their bike a “Genius”? The friendly folks from Texas are Adam Potter and Danny Savitzky. They are the designers and principals in Cycle Genius. Both have run Planetary Cycle over the last seven years. Besides the CG, they sell RANS, Vision, BikeE, and Sun recumbents.

### Systems

**Frame and Fork**—The CG has a unique X-frame design that mixes square high-tensile (mild steel) steel and round CroMoly steel. The fork is high-tensile. This isn’t as good as CroMoly, but the CG is overbuilt and stiff. The X-frame doesn’t have the design simplicity of, say, a BikeE, but it’s unique, different, and it works—and we like that.

**Paint**—Our CG came in a unique green-blue fade. This isn’t your usual recumbent paint job, and we’d prefer the other choice of basic red.

**Steering**—The CG has an all-aluminum bar and stem with a quick height-position adjuster (ball detent pin; neat idea). No tools are necessary for adjustment. The handlebars remind me of those on a Lightning P-38.

**Weight**—At 40.5 pounds, the CG24 is heavy, though it’s a lot less expensive than some other 40-pounders we’ve recently tested.

**Drivetrain**—“Bargain basic” is how to best describe the CG drivetrain. The SRAM mix shifted fine, and the bike has excellent chain management (relatively short chain; no idlers). The drivetrain operated smoothly and quietly.

**Braking**—The basic model Alhonga V-brakes stopped the CG with ease.

**Wheels and Tires**—The CG has a 20/16 wheel combo. I highly recommend changing out the tires before you roll the CG off the showroom floor. The stock tires are low-pressure recreational bike tires. We had a serious blowout on one test ride that blew the rear tire off the rim and ruined both the tire and the tube. The optional tires are Primo Comets (1.75- or 1.35-inch)—though these are still a bit on the wimpy side (performance tires), the quality is superior. The optional Kenda Kwests are the right choice for the bike.

### Comfort

**Seat**—The CG offers a full-mesh sling seat with a unique spring system. The seat looks like your standard full-mesh recumbent seat. The seat back and base are separate and hinge together. The independent back and base mesh sections attach under the seat with two rods (one on each end) that are zip-tied together. I’d never seen a seat go together like this. Though more complex than some, it works very well.

The CG has chrome-plated “S” spring strips running across both the seat back and base. These unique springs are held into the frame by spring tension. You can remove one or all to custom adjust how springy you want the seat. The result a very comfortable CLWB seat. I’ll admit to not having any problem with any CLWB seats, but having a full-mesh seat was really nice.

The folks at Cycle Genius suggested that to optimize comfort, first try removing two bottom springs first and perhaps all. You may spend an hour or so messing with this.

The CG has a seat-back recline adjustment. A monostay with a quick-release holds the seat back up, and when detached it allows the seat to fold forward.

The seat easily slides on the square frame to adjust for different rider heights.

**Ergonomics**—The CG has more extreme ergonomics than do the CLWB models from Sun, BikeE, Cannondale, or RANS. The higher pedals move the rider rearward, away from the controls. Some larger/taller riders may find a slight hyperextension problem (long reach to the controls) and even a heavily loaded rear wheel/light front end. I was initially concerned about both, but I didn’t experience either.

Pull-back handlebars are available as an option, though these may increase knee interference with the bars.

### Ride/Handling

**Stability**—The CG rides like a very stable SWB. It handles and tracks with ease, offering a pleasant and unique road feel. The small front wheel gives the bike the zip of a SWB, but the longer wheelbase gives it more stability. The front end did feel lighter than on most SWB recumbents.

The CG is very maneuverable and easy to ride, though the higher pedals are more enthusiast oriented and take longer to get accustomed to in comparison with other CLWBs.

**Speed/Efficiency**—The CG is a quick CLWB. I was getting around town faster on the CG than on my BikeE RX, and it was perhaps even a bit faster than our Cannondale Easy Rider. The added CLWB performance of this bike comes from the stiff frame, a lack of

rear suspension (no possibility for pogo), and a smooth-running drivetrain (no idlers/mid-drive). The package offers superior power transfer from the pedals to the rear wheel (over what is currently available in CLWB recumbents). The only performance detractor was the bike's weight.

The downside of this design would be the more heavily loaded rear end, which could be a concern for larger/taller riders. I thought it would be more of a problem than it turned out to be. During our CG review, it rained or the pavement was wet on most of my test rides (wet pavement can make a lightly loaded front end more easily lose traction) I had no problem pushing the bike on my usual daily ride.

**User-friendliness**—The Cycle Genius is not quite as user-friendly as some other CLWB models. The pedals are higher than on most other CLWB's, and the mesh seat base is less suitable for shorter riders because the base side rails make it more difficult to put your feet down. The use of clipless pedals is also more difficult because it takes longer to get your feet up to the pedals to clip in/out.

**Fun Factor**—Given the great price and the more advanced feel of this bike, you can't help but to have a blast on it.

## Owning/Purchasing

**Versatility**—Though probably not as versatile as a BikeE or EZ1 (due to its more enthusiast/less user-friendly riding position), the CG can be set up to do most anything.

**Shipping/Assembly**—The CG is built to be assembled by your local bike shop. I don't suggest buying this bike mail-order and setting it up yourself. If you do buy it mail-order, take it to your local bike shop for setup.

**Quality/Durability**—The Cycle Genius recumbents are built in the same Taiwan factory as the Sun EZ1, so the quality is very similar. We did have some minor problems. We broke a seat quick-release, and the bike had some missing parts. The folks at Cycle Genius were quick to send us everything we needed in quick fashion. Ours was one of the first production models from Taiwan. Though glitches like this can be a hassle, it wouldn't have happened if I was buying from a recumbent dealer.

**Cost/Depreciation**—At \$550 retail, you can't lose much. The CG should hold its value better than most recumbents (the more you spend, the more you lose when you resell).

**Options and Accessories**—Fenders are coming. We haven't heard about a seat bag yet, though our BikeE bag and my trusty L.L. Bean backpack both strapped on with ease. There are optional tire choices and even component upgrades. A matching Zipper fairing sells for \$250. Kenda Kwest 1.5-inch tires with a puncture-resistant casing are a listed option, but

they were not yet available when this article was written. A comfort seat pad is also in the works (not that this bike really needs it). A kickstand is available. A performance Shimano 30/42/52 triple crankset is an available option.

The CG24AL, an upgraded aluminum-frame model, is due out in 2003. It should be several pounds lighter and will sell for about \$800.

**Market Competition**—The CG models are very similar in value and pricing to the EZ1 and EZ1 SC Lite. There is more value in the CG than with the BikeE CT. The CG doesn't have the refined looks of a BikeE or the track record and design heritage of the Sun EZ1, but it's an excellent addition to entry-level recumbency. From what we are hearing, the bike is selling quite well.

Low-cost entry-level recumbents have a history of price fluctuations. The most recent example is with the \$550 BikeE CT, which is now selling for \$699 (without Sweet Seat). Sometimes the deals don't last very long. Currently the Cycle Genius and Sun EZ1 are the exceptional buys in recumbency.

## My Analysis

**Verdict**—A few problems: our bike was missing some washers for the seat mounting, we bent a seat quick-release (you don't need to overtighten these), and the derailleur hanger threads were full of powdercoat. We couldn't thread the derailleur and didn't have chasing tool, and before we realized there was a problem the threads were messed up. It took our local bike shop about 10 minutes to fix the problem. According to Cycle Genius, the reason for shipping with the derailleur off is to avoid bending the derailleur hanger—which makes sense to us.

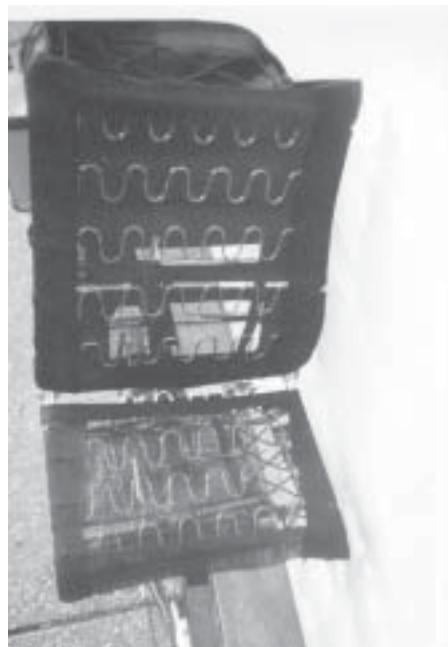
The Cycle Genius has a slick "no tools" adjustable (ball detent) ASS steering column, a comfy full-mesh sling seat, and a robust steel frame. The lack of suspension will make for a stiff ride, but you won't have pogo or shock problems with this bike.

What sets the CG apart from all other American CLWB's is the higher pedals and the adjustable (full-mesh sling) seat. This will allow better comfort on long rides than the competition. This is primarily due to the seat, but the higher pedals and reclinability allow the riding position to be tilted back. The competition offers lower seat heights, which means a more upright riding position (more possibility for recumbent butt).

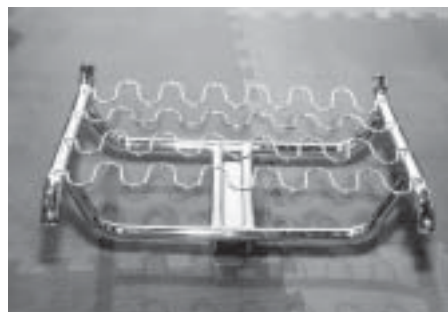
The bottom line is that the CG24 is a decent and affordable performance-oriented CLWB. At \$550, the bike is a supreme bargain and excellent addition to the recumbent market. Given the fact that it comes from a new upstart company, we're quite impressed!



*The optional CG Zipper fairing*



*Above and below: The CG24 sling/mesh seat. Note removable springs.*





*Our CG24 test bike with Primo Comet replacement tires*

### Rating/Summary

Comfort: A-  
 Design/style: B-  
 Drivetrain: B  
 Chain management: A  
 Brakes/braking: B  
 Finish quality: B-

### Pro

An exceptional buy  
 Decent CLWB performance

Excellent CLWB comfort (mesh sling seat)  
 Unique bike  
 Upgrades available

### Con

Higher pedals are less user-friendly for first-time riders  
 Somewhat complex seat was not as intuitive as some to assemble  
 Some low-grade parts (easily upgradable)  
 Heavy

May be hard to find/test-ride

### Access

Cycle Genius  
 713-666-BIKE (2453)  
 or 866-901-BIKE (2453)  
 www.cyclegenius.com

### Specifications

Model—Cycle Genius CG24S; Type—CLWB  
 ASS; Steering—ASS; Wheelbase—52"; Seat  
 height—24"; Pedal height—21.5"; Weight—  
 40.5 pounds; Frame—High-tensile square with  
 CroMoly secondary; Fork—High-tensile;  
 Price—\$550

### Components

Crank—Dotek 170 mm triple 28/38/48; Bot-  
 tom bracket—Shimano; Headset—NA;  
 Derailleur(s)—SRAM 5.0 (r), Falcon (f);  
 Shifters—SRAM 3.0 twist; Cassette—11-28  
 8-speed; Chain—KMC; Gear-inch range—19-  
 83; Pedals—composite; Wheels—406 mm  
 20" (r)/305 mm 16" (f); Rims—alloy;  
 Spokes—14g w/brass nipples; Tires—Kenda  
 40 psi; Hubs—alloy QR; Brakes—Alhonga V-  
 brake (r); Colors—Red or green-blue fade.

An aluminum model (CG24AL) will be  
 available next year and weigh 8 to 10 pounds  
 less. It will have better components, including  
 double-wall rims and better/higher-pressure  
 tires, and will sell for about \$800. ♦

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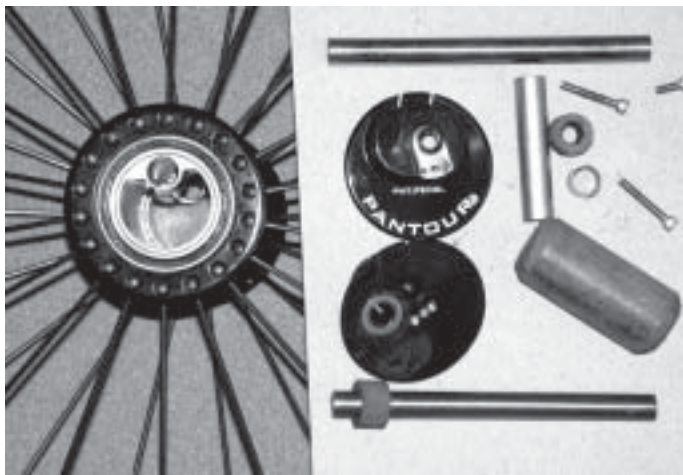
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## The Pantour Suspension Hub

### Instant Suspension for Every Bike

by Matt Schneps, [mschneps@cfa.harvard.edu](mailto:mschneps@cfa.harvard.edu), and  
Bill Cook, [barcroftcycles@cox.rr.com](mailto:barcroftcycles@cox.rr.com)

Until now, recumbent riders yearning for after-market suspension simply had to do without and endure rough roads—even chipped teeth. Under-seat steering, complex chain routing, or unusual wheel sizes often made it impossible to find a suspension that would work. And even when suspension forks are available, they add from one to four pounds to the weight of the bike.

Pantour, a small California company, has a wonderfully innovative solution to this problem. They put the suspension right into the hub. Suddenly, there's a suspension option for virtually any bike—recumbent or upright. There's no need to change the fork or modify the frame. With the Pantour hub, adding suspension is as almost as simple as flipping a quick-release lever and changing the wheel. And to top it off, the Pantour suspension hub is light! It adds only 50 to 100 grams to the wheel—hardly more than a few good swigs of water. This makes the Pantour hub one of the lightest suspension options available.

Even better, the Pantour suspension hub works really well. Our first impression on the road with the new suspension was that the ride is surprisingly plush. The hub has only about 12 mm of travel (as opposed to 25-35 mm of travel on a typical suspension fork), but this seemed to be plenty to deal with nearly everything my local New England roads dish out. Frost heaves, tree roots, and bad repairs were handled without problem. Even deep, teeth-shattering potholes became manageable. In

fact, since the hub has very little stiction, it seems to handle the most common small bumps better than the FOX Air RC suspension I use for the rear, and better than the Ballistic suspension fork I used previously on the front. Bill's experiences were similar. The Pantour hub makes those annoying road ripples just melt away.

### No Stunts, Please

You have to pick your battles, though. There's only so much 12 mm of travel can handle. While the Ballistic suspension fork would let me ride up a two-inch-high cement curb at 16 mph without even breaking speed, this same curb proved too challenging for the Pantour hub. The thunk, though considerably lessened, was uncomfortable. The same curb at 12 mph was no problem at all, however. (With no suspension I had to slow to a walking pace.) Still, I found myself slowing down for major obstacles I might have otherwise ridden through had I been using a standard suspension fork.

Bill concurs that the Pantour hub, as good as it is, is not a complete substitute for a suspension fork. The superb, lightweight Action-Tec fork he uses on his Dakota S allows him to jump off curbs and hit potholes, something he would not recommend with the Pantour. But the Pantour provides almost all of what you want in a suspension fork—without the weight.

### Why Suspension?

Suspension helps smooth the ride for both rider

*Don't ride down this road without a map! The complex internal workings of the Pantour hub. The bearings are sealed inside the ring that surrounds the cylindrical suspension chamber. The "hot dog" is the elastomer.*

and bike. More important, it helps you maintain control, keeping the wheel on the road where it belongs. The faster you go on rough roads, the greater the advantage you'll feel. Long, very fast downhill runs are simply less dangerous with suspension.

A large bump taken at speed without suspension can send your steering flying—spokes can snap, rims can dent, tires can blow out, all with disastrous effect. SWB recumbents, which put more stress on the (often small) front wheel, are especially vulnerable. With suspension, you can ride with greater confidence and speed, particularly when conditions are less than certain. Once you get used to suspension it's hard to go back. Suspension makes the bike feel more secure, all the while easing the stress of the ride.

### Our Tests

We conducted independent tests of two Pantour hubs under varying conditions on different bikes. I mounted my hub on a rear-suspended SWB Challenge Wizard from Holland, and I rode the bike on familiar New England roads broken with frost heaves, potholes, and numerous repairs. Bill mounted his hub on an SWB Barcroft Virginia GT he builds, and he rode it over his favorite routes in northern Virginia.

The first thing you notice when you take the Pantour hub out of its box is that this little miracle is packaged very small. Except for an oversized flange that houses the sealed roller bearings, the suspension is hardly any bigger than an ordinary hub. Once you put it on the bike, it just seems to disappear. And unlike big, imposing suspension forks, the hub is so unobtrusive that it's almost incredible that this tiny little thing can work. But it does!

### Careful Design

The Pantour hub is a very clever bit of engineering. The hub is easily opened for service, and it needs no special tools. Once you pry off the dust covers, you can see the oversized bearings surrounding the aluminum suspension chamber. The wheel spins freely around the suspension chamber, which is held by an axle fixed in place by the fork with a standard quick-release lever. When the wheel hits a bump, the suspension chamber slams into an elastomer, and this absorbs the bump without

restricting the wheel's spin.

Pantour sells the hub separately, or they can build a custom wheel for you using virtually any rim you specify, so long as the braking surface is at least 12 mm wide. The hub comes in black or in polished metal. I ordered mine in black to match my all-black bike. I had the hub built onto a black 406 mm Sun Ringle Rhyno Lite XL rim, to accommodate the extra-wide Tioga Comp Pool tires I like to ride. The wheel arrived beautifully built and true, with radially laced spokes (cross lacing is not recommended). Bill mounted his hub on a Velocity Razor rim using 32 spokes, radially laced, fitted with a Schwalbe Stelvio tire.

In all the excitement over the suspension, we have to remember that this is also a hub, and it has to perform like one. The bearings are sealed against dirt and water, and they allow the wheel to spin freely. The axle is held firm and square in the fork, and I didn't notice any mushiness or slippage when I leaned hard into turns. Thirty-five mile per hour downhill were a piece of cake—the bike ran rock-steady and true. Bill took his bike downhill at about 32 mph and found that, because the tire hugged the road better, the ride felt more stable than it would have without the hub.

## Trailing Link Suspension

Any road bump can be thought of as combination of small steps up or down. A step down would be like launching off a curb: the force of the impact on the wheel is largely vertical. And since most bike frames are fairly pliant in this dimension, many bikes can absorb a jump off a curb, for example, without additional suspension. Riding up a curb (a rising step) can be another story entirely. Here the impact, at least initially, is largely horizontal. Bikes are often built stiff in this direction, so hitting a rising step up without suspension can be quite a jolt.

While most suspension forks only compensate for motions along the long, vertical axis of the fork, the Pantour hub is a "trailing link" design: it pivots backward around an axis. When you hit a bump, the wheel moves di-



*The Pantour hub/wheel*

agonally back, damping both the horizontal and vertical components of the force. Small setscrews on the side of the hub allow you to vary this angle of attack. Different screw positions change how the hub is held in the drop-outs so that the direction of travel is more vertical or more horizontal. (One nit I have is that these screws are not metric, and you need to carry yet another tool on the road.)

You can further tune the hub to your ride by changing the elastomer inside the hub. Pantour offers three grades of elastomer, classed by user weight. You may need to experiment to find the right one. A LWB will need a much softer elastomer than an SWB, just as a lighter rider will need a softer elastomer than a heavier one. In general, you want to select the most pliant elastomer you can get away with without introducing so much sag from your weight that you lose effective travel. Changing elastomers is relatively easy, but I found the instructions provided with the hub difficult to follow. Reassembling the hub was like putting together a watch without directions. (Pantour promises to improve their directions.)

## Braking

A major drawback of building the suspension into the hub is that as the wheel moves up and down in the fork, the rim moves up and down relative to the brake pads. At any given moment, depending on the bumps, the brake pads can be higher or lower than their optimal position along the center of the rim. If the total travel of the suspension is more than twice the height of the rim's braking surface, then it's possible that at some point the brake pads may

actually miss the rim entirely.

Pantour deals with this problem by restricting the suspension's travel. By limiting travel to 12 mm diagonally, the pads cannot move more than a few millimeters above or below the optimal line of braking. Most rims are tall enough to accommodate such a small range of motion. Shorter rims, of course, are not recommended for use with this hub. Installation instructions advise that the brakes be set so that when the rider's full weight is on the bike, the brakes fall along the center line of the rim's braking surface. Thus, even at the extreme ranges of the suspension, more than half the brake pad can be counted on to be in contact with the rim.

In practice, both Bill and I found that braking was not an issue; it was confident and assured. While Bill's alloy rim with machined sidewalls worked well right from the start, it took me about 100 miles to break in the rather slick black-anodized rim so that the brakes worked smoothly. But once my rim was sufficiently roughened, the brakes worked predictably and smoothly, even in panic stops at speed. I found that wear patterns in the rim after about 200 miles of riding confirmed that the brakes consistently gripped the center of the rim's braking surface.

## Fat Tires and Fenders

Many SWB recumbent riders use wide tires in the front, and there is a concern whether the fat tires will clear the crown of the fork and the fenders. Since, with the suspension hub, the wheel is free to move in relation to the fork's crown, there's a chance that the wheel could hit a bump and slam into the fork or fender. Pantour deals with this problem by lowering the wheel in the fork, to provide sufficient clearance to accommodate the wheel's travel. Thus, if your fat tires and fenders managed to clear before you installed the suspension hub, they'll likely continue to work fine after you add suspension. My ultra-wide Tioga Comp Pools, mounted on wide (29.2 mm) rims, worked flawlessly, though both Bill and I had to set our brake jaws slightly further apart

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EZ-Steel    EZ-9 Tire    EZ-18 Steel

EZ-Series Recumbents are distributed by Sun Bicycle Co./J&B Importers and available from most bicycle shops.  
[www.sunbicycles.com](http://www.sunbicycles.com) / [www.jbimporters.com](http://www.jbimporters.com)

to prevent the sidewall from rubbing the pads when there was no load on the suspension (for example, when walking the bike).

Since the rim is set further from the crown of the fork, in mounting the wheel you have to set your brake pads further down as well. Most brakes are likely to provide enough slop in the positioning of the pads to allow for this, but if yours don't have the range of adjustment you could be out of luck. In this case, the company advises using a file to elongate the brake's mounting slots to allow them to sit lower—not a very satisfactory solution, in my opinion. Although Bill had no trouble at all fitting his Tektro mini V-brake for the hub, my Magura rim brakes couldn't be set low enough. When I mentioned this to Pantour, they took the hub back (they even paid the postage) and made a minor modification that made it work out fine. All this is to say that some may find setting the brakes tricky, and if you're not handy about such things, it's best to have your bike mechanic set the brakes for you.

### Water and Grit

Suspension is most handy when riding in bad conditions like those we find in New England in winter. On the Pantour hub, the critical roller bearings are sealed, and they are not likely to be affected by grit or water getting through the seals. Though the suspension chamber is protected by a dust cover, this cover is not sealed, and it is possible that water might leak into the suspension chamber during heavy

rains or cleaning. There's not much inside the hub that is likely to get damaged by water in the hub, but getting water inside is probably not a good idea. It's therefore best to clean the hub with a damp cloth and to keep the hub away from pressurized water.

### Rear Suspension Coming!

Pantour is already working on a rear suspension hub, as well as another version of the front hub designed for disc brakes. The rear suspension hub should be on the market by sometime in May 2002, according to Pantour. An even lighter-weight front hub is also coming, at a somewhat higher price. These additions will undoubtedly make the Pantour hub the most versatile suspension for recumbents.

Pantour backs its product with excellent service. They're eager to build a following, and though they are aiming at the broader bike market, they are courting recumbent riders. They know the difference between an LWB and an SWB and will build their hub into rims of any size, offering stock rims as small as 16 inches. The company has an excellent website ([www.Pantour.com](http://www.Pantour.com)), and it promises to include well-illustrated maintenance instructions there in the near future.

While the Pantour hub won't substitute for a hefty suspension fork for off-road riding, it certainly does a good job of taking care of the irritating irregularities in the road. The hub can't be beat for weight, and it can provide suspension for even the most finicky of bents.

Though the price (\$199 for the hub, \$299 for a built wheel) is high, the hub is competitive with, and perhaps cheaper than, many after-market suspensions offered for recumbents. And when you factor in that you are also getting a hub, the price is reasonable. This is an interesting innovation many will wish to investigate. ♦

### Pro

Simple to install  
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### Con

Some brakes may not work, or brake modification may be required  
Limited travel can't handle the biggest bumps

### Access

[www.pantourhub.com](http://www.pantourhub.com)

*Matt Schneps is the director of SportSmarts ([www.SportSmarts.org](http://www.SportSmarts.org)), a science education initiative of the Harvard-Smithsonian Center for Astrophysics in Cambridge, Massachusetts.*

*Bill Cook is the owner of Barcroft Cycles ([www.barcroftcycles.com](http://www.barcroftcycles.com)), in Falls Church, Virginia, makers of high-end touring and racing recumbent single and tandem bikes.*

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# The Kal-Haven Trail Ride of 2001

Or . . . Two Old Men and a Couple of 'Bents

by John Rome  
jrome@dliis.dla.mil

This story came about by accident. I began keeping a ride log because I couldn't remember from one day to the next when and where I'd ridden. Maybe it's old age, but if you asked me where and when I rode last month, I couldn't begin to tell you. So I began sitting down after a ride and typing on the computer anything that came to mind about this recent ride. Normally I write with a pen in the ride log, but this time I needed more.

First, I should tell you that I ride an EZ-1 SC and my friend Keith rides a homebuilt that looks like a copy of one of the popular SWB 'bents. To the seasoned recumbent rider it looks homebuilt, but it's a well-made copy. It has a 20-inch 406 mm wheel on the front and a 26-inch 559 mm on the back. We're both relatively new to recumbents—I bought mine in September 2000, and Keith bought his in June 2001. Both of us have ridden bikes most of our lives, but we were tired of the pain of uprights. We had planned to ride the Kal-Haven Trail (actually called a state park) for some time, but something always seemed to get in the way.

I finally got the OK from my better half (she said, "If you die on the trail I will never speak to you again"). My riding has usually been 11 to 16 miles going to the local donut shops and such, so long rides were not the norm in my

case. Now, for those of you who don't know what the Kal-Haven Trail is, I will explain. It is a converted railroad bed with a crushed limestone surface. It's dusty and sometimes a little loose, but we did see a couple of roadies on skinny-tire wedgies who managed to keep it upright. It runs from Kalamazoo, Michigan, to South Haven and is 33.5 miles in length. Now, the brochure states it is 33.5 miles long, but our bike computers both read 36 miles. It runs through or close to several small towns along the way, and every 5 miles or so there is an oasis, which usually includes a picnic table, a hand-pump water well, and an outhouse. Since the trail is an old railroad bed, it doesn't have any real hills. There are some gentle downhills and some gentle uphill, but the ride requires constant pedaling.

The plan was to meet at Keith's house and drive to South Haven with both cars, leave one car in South Haven, and then drive back to Kalamazoo with the bikes to start the ride. Then we would ride to South Haven and bring the bikes back to Kalamazoo when finished. So we ate a quick breakfast at Mikey D's in Battle Creek and headed out. Keith brought along his walkie-talkies for the trip, which made it nice to stay in touch while driving over in separate cars. One thing I hate is to lose someone in traffic when I'm trying to follow

him to a specific destination.

Well, we finally made it to the trailhead at Kalamazoo and started out at 0900 exactly. Now, mind you, I've been up since 0430 anticipating this ride, and we didn't start until 0900, so I'm really ready to ride. The temperature for the day got up to 75 degrees by the afternoon, clear blue skies—What a day for a ride! Before starting we noticed there was a female runner doing her stretches, and we asked her to take our picture in front of the trailhead. I thought we would never get going, but finally we set out. The trail is beautiful. There are trees covering it nearly the all of the way—95% shade! We passed a few bicycles while traveling the trail. The trail wasn't too crowded on this Monday (the weekends are another story, we're told). We saw several recumbents—which surprised me. We saw a Vision R40, a RANS Screamer, and a couple of BikeE's. We passed several families out for walks and bike rides, and they all did the usual oohs and ahhs. We were clicking off the miles at about 11 mph average at first. Then the average speed seemed to drop as we went along. Oh well, my engine is getting older now, and we weren't trying to do a speed run anyway. I think I was so pumped up with anticipation (and coffee) that I cranked it a little hard at first. The first 3 miles are somewhat downhill going west out of Kalamazoo, then it flattens out and it's a series of slight downhill to flat to slight uphill.

The trail passes close by many small towns and villages. Some of them are Alamo, Kendall, Gobles, Bloomingdale, Grand Junction, and Lacota. If you look at a Michigan map you can pick these out easily between Kalamazoo and South Haven and get an idea of the route we took. There are numerous bike racks at most of the stops, which is good for wedgies and is an attempt at being bike-friendly, but they don't seem to fit recumbents very well.

At about the halfway point, the trail goes directly through Bloomingdale. This is where the best oasis is located—the Bloomingdale Deli. The place is small, and one could ride right past it without seeing it (you could miss the whole village if you blinked) except for one thing—they're cooking hamburgers on the gas grill out front, and the smell draws you in like a magnet. By this time we're ravenous and have to have a burger or die. We ate our food at a nice outside table.

After lunch, we had about 20 miles to go and the day was waning. At this point the ride is fast becoming my longest nonstop ride, and I'm beginning to feel the effects of the ride and the food. Remember, I'm pedaling a 40+ pound recumbent.

As we started back on the trail I noticed a



weed-infested building with an old banana-seat bike welded to a sign above the doorway. It was an old bike rental place that looked like it had gone out about 10 years ago. We remarked that we were glad we had recumbents and not banana-seat single-speed bikes on this trip.

The next 10 miles were pretty uneventful and were quickly becoming a chore for me, but we pushed on with great enthusiasm. By "uneventful" I mean there was absolutely nothing out there but bike trail and us. It was one of the areas that didn't have many trees, and I felt like I was breaking trail for the first time in a new territory. It would have been a bad place to break down. I imagined it as the settlers saw Michigan for the first time. Thoughts crossed my mind like "maybe I should have purchased those spare tubes." The terrain was desolate with swampy land on both sides, really spooky.

As we approached one of the last villages, we had to cross over a set of railroad tracks. A sign says, "Walk your bikes." We thought that was strange, but when we arrived at the tracks we could see why. There were craters at the tracks that would swallow up my 20-inch wheel with no problem, let alone my 16-inch front tire. So we walked the bikes like it said. Apparently there is no plan to fix these monster holes, because the signs seem permanent. We stopped at the oasis on the other side of the tracks and saw that we were in Grand Junction. We talked with a couple that had stopped there. They were riding a RANS Screamer, and as I watched them mount up to continue their ride I was struck by how coordinated some people are. They looked like they'd been riding the Screamer for years. I forgot to mention, the first time we saw the couple on the Screamer, they passed us at a fairly fast pace. Keith looked over and said, "That woman on the back is not pedaling." When we talked to them later I didn't mention this observation to them. No need to start any trouble. Come to think of it, the guy did say it was a little tough going today. We loaded up with cold well wa-

ter and were off. Now that I think back, I hope these wells were tested for water purity.

The last few miles we just pedaled along. People who saw us probably thought we weren't very friendly but could tell by the determined look on our faces that we were going to make it or else. The last mile of the trail is in South Haven and is paved in asphalt and really nice. The last 300 yards to the parking lot was not really nice. It is a very steep climb and took the last bit of strength out of my legs. I was glad to be finished. After I caught my breath, I felt like I had accomplished a goal



Author John Rome

that needed to be done in my golden years. This was a short-term goal, as I want to complete a century within the next year. I guess I forgot to mention our ages. Both of us are fifty-seven. Not as old as some I've seen but still not young either.

So now it's time to pack up and go home. We unbolted the seat from the homebuilt and stuffed the bike in the trunk of the Lincoln Town Car (it's a crater), put the seat in the backseat of the car, mounted mine on a bike rack on the trunk lid, and we're off. We almost lost the EZ-1 off the car on the way back to Kalamazoo because it's a narrow bike rack, but other than that it was a good trip. The two BikeE riders were at the original starting point

when we returned. We checked out each other's bikes and noted that the new CT's look nice. One thing I liked about the BikeE was the fact that the seats come off quite easily for transport; the seat on the EZ-1 has to be unbolted. Those animals said they road the full 36 miles in just 3.5 hours. The ride took us 6 hours. Of course, if you factor in the outhouse breaks and the great lunch at the Bloomingdale Deli, we did pretty good.

The BikeE riders were from Terre Haute, Indiana, and were flyin' Joes now because they purchased their bikes at Dave Doty's Valley Bikes in Crawfordsville, Indiana (no plug intended). Never been there, but I get the flyin' Joe newsletter. Small world, huh? I read stories of recumbent riders riding many more miles than I have completed on some of the newsgroups and in RCN. Someday I may get there, but for now I'll be happy just being able to ride a two-wheeled lounge. My hat is off to all who do long rides. Hope I didn't bore you too much with my little ride story. ♦

*The author is married and has two daughters. He works for the government during the day and rides anytime he is able. The golf game is suffering and the lawn needs mowing.*

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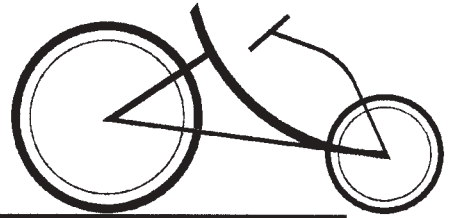
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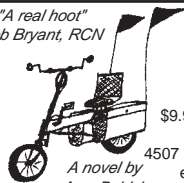
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# Easy Racers: Our Customers Speak

**SUBJECT: How Does That Thing Climb? April 4, 2001**

Just a quick update on the Gold Rush Replica that I purchased about two months ago. Great!!! The weather in Cincinnati is just starting to break. I have over 900 miles on my trainer since February, and about 120 miles on the GRR. With the weather breaking the GRR should see about 150 miles a week.

The GRR becomes more of a blast the more I ride it. I did my first climb out of the river valley where our major bike path is located. Everyone warned me that I would be in trouble on a climb. So I was somewhat apprehensive as I started the 1.5-mile climb out of the valley.

First, I never got out of the mid chainring. I think I could have stayed in the large (53). I held between 13 and 17 mph for most of the climb. I never dropped below 11 mph. I was very impressed. I have climbed this hill hundreds of times on my Trek OCLV and felt far worse at the top of the climb than on the GRR.

As a matter of fact, I felt great on the GRR!!! No back pain; nothing. The ride back down was a hoot. I had a friend with me (about 5 minutes behind me up the hill) as I descended down into the valley. I was hitting 40 mph without moving my legs, and using the brakes into the turns because I was not sure what to expect from the GRR at speed around the turns. My friend had to pedal like a madman and he still couldn't keep up. The GRR felt like a sports car going down the hill. What fun!!! I wish I had started



*Double Century Man, Ron Bobb  
out training for the Terrible Two*

this 30 years ago instead of my mid fifties!!!!

Best regards,  
Doug Pendery

**SUBJECT: GRR Update  
April 25, 2001**

This past Saturday I rode with a few friends that have conventional racing bikes (Wedgies; I think you call them). We climbed out of the valley up the Route 48 hill. This climb goes for about 1.5 miles. I pulled my friends up the hill at about 18 miles per hour and crested at over 20 mph. Needless to say they were out of their saddles trying to stay up. I must say I was winded, but so were they. Their comment was, "I guess your recumb-bent doesn't have a problem going up hills."

In my younger days (about 8 years ago) I would have pushed myself to my limit to go 18 miles per hour up this hill on my Trek OCLV. My point is the GRR is a great recumbent. I enjoy going up hills on it more than my OCLV. I am more relaxed, my back doesn't hurt, and my legs aren't killing me from being out of the saddle trying to lever the OCLV up a hill.

By the way I had a tailwind on one stretch of the ride. I managed to get up to 36 mph in the flats. Nobody passed me . . . It was a real hoot!!!

Best regards,  
Doug Pendery

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