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The 1997 Wheel Evoglide

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What's Coming Up!

RCN#39 May/June 1997: In this issue we are experimenting with a lighter weight paper inside, and a glossy stock on the cover and have added four pages in the process. If you DO NOT like the new paper and look of RCN#39, drop us a line or give us a call at 253/630-7200/T/Fax: 253/631-5728 (note our new area code).

RCN#40 July/August 1997: The new Linear CLWB/Wheel Evoglide gets tested (RCN#40 or #41), a Haluzak Hybrid Race should be in here and we have completed Turner T-Lite, S & B Beach Cruiser articles ready to go. See page 30 for details or call 206/630-7200 to get a copy of our new glossy brochure.
Riding in the NW Rain, Chilly Hilly and the "Bent Zone"

I've been a 'bent riding lunatic all winter. After being a weather-weenie for our NW ride last December due to torrential rain storm and a cold, I decided that I needed a new winter hobby, or to get prepared — so I'm getting prepared.

The first thing to do is set up a winter rain bike. The Gold Rush is just too nice to ride in the rain, it gets too dirty. The Rans Rocket seemed to fit the bill, however the Rans company gave me the OK to ride this bike in the rain. For those of you who don't live in rainy areas, you should know that one ride in the rain can put more wear on a bike than a season of dry rides. It can literally make a new bike look five years old in a few hours. Ever since our ill-fated Stealth test, I request permission before riding a test bike in the rain or snow.

Our test Rocket has the Avocet Fastgrip slicks, though they don't seem quite tough enough for the winter. A V-Monster or something with a beefy tread would be more desirable. The bike has 20" Eske fenders supplied by Rans. The new and latest seat cover is now on the Rocket. Early on, I rode one day in the rain with no fenders. During the course of this ride, I proceeded to soak the seat foam and cover, and then shrink the cover while drying it. The newest seat cover stretches on much easier and adds comfort and improved "feel" to the seat.

I should adapt a Zippiper fairing to the Rocket, but that fairing model is expensive and the point of the Rocket is to be an affordable bike. I've considered adapting the less expensive Vision Zippiper and rain poncho, though I think Vision may want me to use it on their bike (hint, hint).

As for my body, keeping warm has become a real adventure. My old Shimano SPD shoes leak from the cleat. I've tried Neoprene shoe covers (lasted 100 miles) and then poly covers (lasted 300 miles), to no avail. Next rainy season I plan some to get some Shimano Clip-in platform shoes and some nice wide-lined "duck" rain boots (I'm serious), and with a fairing/poncho, this should solve the cold feet blues.

The rain coat I use is one I've had for years that dries back to my sailing days. It's a Gore-Tex™-like material and keeps me pretty dry for a half day of rain riding. It has a hood that I put up under my helmet. The forward edge of the hood acts as a visor (my new Giro Exodus helmet has a visor). My rain pants are cheapies from REI that cost $35. During a sale, I picked up a Gore-Tex™ rain coat from REI for $139.

My hands are another matter. I've got some Pearl Izumi winter gloves that are great, though they eventually get wet. I went back to my local REI and purchased some Gore-Tex™ mittens that I wear over my gloves. They keep my hands toasty warm. These are not from the bike department, and the bike guys didn't have any idea these existed.

My best advice is to buy Gore-Tex™ where you can afford it. Try to wear a bright yellow or other reflective type color for your jacket, but buy black pants, otherwise the chain grime will stain the inside of your right foot leg grey-black.

GETTING INTO SHAPE

OK, now we're set to ride in the rain so we can't be called weather-weenies. How do we get in shape? For me, it was much easier than I thought it would be. I went from not enough winter miles per month in the off-season to 150 miles per week in three short months. The Schwinn Backdraft recumbent exerciser made the indoor miles easy (see pg. 20)

The five levels of resistance, intervals, hills and mountain climbing simulations and two 12 minute sessions a day did the trick. After 12 weeks, I now ride on the Backdraft for two 30 minute sessions a day, five days a week. I ride three 15-35 mile rides outside as well, rain or shine. The interval training has made such a difference, I now actively seek steep hills to climb. Recently, I rode up the steepest hill around Kent, a hill that I've never climbed before on a recumbent. I rode straight up it on a Rans Stratus (they aren't LWB machines supposed to be poor climbers?)

Along with all of this riding, I've been doing ab-crunches and leg lifts. I supplement my indoor rides by lifting with hand weights, I recently doubled my ab crunches (200 per day) and started getting some mid-back pain. I then tried out a friend's Home-Sculpt ab machine and now plan to order one. The Nordictrack version looks the best, though it's pricey. I'm hoping it will take the stress off my mid-back.

Along with the riding, it was time to go on a decent diet and lose some weight. I went down to the library and got Corvet Bailey's "Fit or Fat," and the companion "Fit or Fat Diet." This diet is a relatively simple low-fat diet that is based on calorie counting, but it's easily learned in a week or so and I haven't counted since, and the diet works. Another neat book that may be a bit "out there" for some, though it's helped me is Dr. Andrew Weil's "8 Weeks To Optimum Health." It's a best seller right now and easy to find. Both doctors are on PBS and well respected. It's a good idea to consult your physiologist before you start a diet or high mileage program.

An added bonus in my program has been what it's done to my metabolism. My body has become leaner, and noticeably more efficient. It's become like a finely tuned machine. It lets me know when it needs more fuel, as well as when the fuel is contaminated (too much sugar, caffeine, fat or grease). I literally have given up fast food, with the exception of an occasional taco salad.

The best benefit of the whole program is what it has done for my riding. I've always loved the freedom of the road and how a ride makes you feel, but it's been since I was an 18 year old road rider that I have reached such euphoric experiences from my cycling. If I don't get outside (rain or shine) every few days, I start to go a little crazy. The adrenaline has become addictive. I've always read about this, but never experienced it until now. Once out on the road, I'll ride for hours, and just when I start to get tired, a second wind comes along and sends you into another "sweet spot" that only cycling can bring.

One weekend our local ride was canceled. I was so looking forward to it, that I donned my rain gear and went out to brave a new 30-mile ride in Maple Valley (near Kent). I ended up getting turned around, lost, not knowing which direction I was going and literally rode around in circles, in the pouring rain on country roads for nearly three hours. I finally got back on track, though I did have a flat tire one block from my house. I coasted into the driveway on a mushy rear tire. And this was fun! Could it be that I had arrived in the "Bent Zone?"

The best experience of the new year so far has been on a popular NW winter ride, Chilly Hilly, where a dozen or so local bent riders enjoyed one of the most beautiful days of the year so far to ride 30+ miles and some of the steepest hills in the area. I was shocked and amazed at the roadides, accomplished cyclists and tandem teams, pushing their bikes up the hills — but not me. I rode up every hill. At the halfway point and during the second half of the ride, I could see that the hard upright seats and discomfort associated with wedge cycling were taking their toll on many riders, and the 'bent riders took advantage, which certainly led to some new positive perceptions of recumbents in the Northwest. It took me three days to come down from this ride and rather than wear me out, it energized me to ride even more. Again, an example of the "Bent Zone."

The most important message to readers has to do with perceived differences in bicycle performance. If I ride different bikes, some will feel fast, some slow and this can change in different conditions. We must not forget that the bicycles are the tool of the cyclist, but the engine is the human body. A training program, diet, and more miles and steeper hills will do more for your body than any parts-gram-counting, performance-too-dads, or small differences between models...well, at least short of a Gold Rush or F-40.

For '97 Buyers' Guide updates and corrections, see page 17 in this issue.

See You On The Trail!

Robert J. Bryant
Have you received your RCN#38 1997 Buyers Guide yet?

All active subscriber issue mailings should have reached their destinations by this time. If yours has not arrived—give us a call today. The illustrious postal service occasionally misplaces a bulk mail issue or two. Call 206-630-7200 "#" if you've had a problem.

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PROFESSIONALIZE THE RCN

I got a charge out of your Jan/Feb 1997 editorial in which you responded to an admonishment from a reader to “professionalize the RCN.” As the former editor in chief of Bicycle Guide, I have some idea of what real “professional” magazines cost. And as an industry consultant today, I have a pretty close bead on the ability your advertisers have to spend money to support you.

Uh, how do I say this? The Recumbent biz isn’t big enough to make RCN look like National Geographic! When your advertisers want (and want to pay for) a snazzier publication, you’ll know it. They’ll tell you.

I thought all of this was kind of self-evident, and I wondered how this reader could not notice this. Then I saw your answer! He’s a military officer! In a world of $7,000 toilet seats, a $10,000/monthly freelance budget may not seem like much. But that, and other expenses like it, is far beyond what a smaller publisher can afford.

I’ve said it before and I’ll say it again. I find RCN a wonderful information resource. It’s a lot of fun. (And to those of you who haven’t met Dr. Bob in person, rest assured—he’s more fun than a barrel of otters.) As for so-called “professionalism,” consider this: many a glossy magazine with dozens of Radcliffe graduates for assistant copy editors and photo stylists has vivid content. Every editor has his preferences. Bob tells you his. That’s as good as it gets.

John Schubert
The Limepout Marketing Group

1997 RCN BUYERS GUIDE I

The shouts and clapping of hands can be heard around the world! To put it mildly, it is great, outstanding, superb, insightful, and well, just one heck of a job! Thank you, Robert Bryant aka Dr Recumbent!

Bill Bruce, Fresno Ca
bill@bke@gsrw.com

1997 BUYERS GUIDE II

I just received this buyers guide issue in the mail today. In my opinion this is by far the best issue of RCN yet. Very nicely done. Lots of new stuff out there I didn’t know existed.

Zach Kaplan

1997 RCN BUYERS GUIDE III

Just got home from work and thumbed thru my new RCN. OUTSTANDING — GREAT JOB — LOVE IT. Will read it tomorrow. When I went bent over a year ago your 1996 Buyers Guide helped me so much. At that time I thought it and we bent riders were just a small fringe group and that RCN was just a small-time specialist mag. Well, have you changed this. This is classy, uptown, first class and a new major force. Congratulations! It also appears that the major manufacturers and dealers are now in full advertising support. I AM IMPRESSED.

Ed Logan
BOURBONMAN@worldnet.att.net

1997 RCN BUYERS GUIDE IV

I just got my RCN 1997 Buyer’s Guide in the mail yesterday. It’s sooooo beautiful! I am consuming it page by page. Jeff accused me of drooling on it, but they are tears of joy. Oy, I’m getting so feldempt... gotta go... Just talk amongst your-...selves...

Shari Bernhard
shari@group.malter.com

WHEEL & SPROCKET NOTES

We recently participated in a weekend promotion “Family Fest” sponsored by two local TV stations, so you can imagine how well the event was publicized. They brought in many of their show’s stars. Actors from Baywatch, Home Improvement, American Gladiators, really brought in the crowds.

We had a “booth” and displayed many of our recumbent bikes. It was really great to bring such a mass market attention to them. As a direct result, we can account for several recumbents sold. We are looking forward to participating in the event again next year.

We were just featured on a PBS show called, “Outdoor Wisconsin.” I am amazed at the draw it pulled. The show reaches all of Wisconsin, as well as northern Illinois. It was a “how-to” show on recumbents. We filmed both at our store, as well as the nearby park.

Wheel & Sprocket is invading the airwaves even more as we kick off our 30 minute TV program. We are covering all the aspects of our bike business, and featuring recumbents throughout the program. Our show will be on the local cable channel about four times a week, throughout April and May.

We attended the CABDA consumer show in Chicago, and the demo/test ride area was constant recumbent demo rides. Rans, BikeE and others were there. Rans had the new Gliss, a definite “11” on a scale of 1-10, due to the combination of rear suspension, hydraulics, ESP, and 20x20 Continental tire combo. We placed our orders right away.

I would like to thank John and Randy Schlotter and Mark Purdy of Rans, Steve Hance of Linear, and of course, Dick “the Godfather” Ryan for helping us to sell over 125 recumbents in one season!

Lastly, I must say how much I enjoy your publication! I’ve read every issue! It’s the best source for product knowledge that I require to determine what we sell.

In Recumbents We Trust
Harry Wozniak & The Wheel & Sprocket Gang

LONG & LOW MOST STABLE?

Thanks for the great coverage in RCN#37. I would say that it was fair and positive. If I might be allowed a follow-up:

Remember my vision is that streamlined bikes are the future and to that end we have found long and low bikes to be the safest and most stable. We know through years of tests that streamliners like a lot of castor (tail) effect. What the Interceptor taught us is that when combining aerodynamics with street-dynamics, the tilter effect is a good thing. In a cross wind situation, the
air pushes on the fairing in such a way that the bike wants to stay upright, rather than be blown over.

**KMC CHAIN FEEDBACK**

For many years, we have suffered through numerous broken (KMC) chains. At the Weed Championships, Rotator race, Stuart Delaire broke one in the sprint. Craig Delaire broke one in the road race. I'd say we've had a 10% chain failure rate. KMC told us this failure rate was due to our splicing together too many chains. We now use their "Magic Link" (splice link), which can be taken apart for cleaning. We use a continuous chain section that is purchased by the roll. KMC makes 96% of the Shimano chain as well. I think the KMC shifts great, and more importantly we haven't broken any—100% success!

Stephen Delaire
Rotator Bicycles

**RCN DEFENSE**

I read your editorial in the recent RCN with a deep sigh. I thought I'd let you know that some of your readership (ie, me) enjoys reading the publication, thinks you're doing a great job, and thinks that it is a high-quality magazine.

Let me say that (as a consumer) I especially appreciate your pointing out when a bike isn't well constructed—for instance, a poor weld or a cramped paint job. That kind of article encourages the manufacturers to improve their processes.

It's also worth pointing out that the best part of the RCN BG is the section in which you list your own personal opinions of the bike. I also think you can't have too many bike photos—that gives me more information than a column of specs.

Keep up the good work.

David M. Snyderman

**RCN BG MISINFORMATION?!**

I am writing to you on behalf of Bicycles By Haltuzak regarding misinformation printed in the 1997 Buyers' Guide. In the '97 ratings section the Hybrid Race and the Horizon are listed with "6" rider on tip-toes to hold up bike at stop." While we admit that the Hybrid and Horizon are rarer than other bicycles in their class, a rider with a 30" or longer inseam should have no difficulty starting, stopping, and holding up the bicycle. For those riders with inseams less than 30," we offer the Leprochaun with a 16" front wheel instead of a 20." The Hybrid Race also comes with a fat tire option, as well as a high performance tire option for the Horizon. In fact, because we build every bike custom, any of our models can be "Hybridized" to suit the rider.

Sincerely,

Bill Haltuzak
Owner Bicycles By Haltuzak

Bill, I am 6'1" tall and "bend" 44" X-seam. I can't put my feet flat on the ground while seated on a Horizon, Horizon. My feet meet the ground at the ball of my foot, which is some cases (tied parked on the side of a hill as one major intersection of our test loop requires) could be the tip-toes. Different manufacturers, dealers and riders have differing theories on what is acceptable clearance. This must be a personal decision, though we recommend riders do not buy a bike that requires you to be on your tip toes until they've tried it.

**PLOTNIA V37 ARRIVES**

Well, the bike I ordered from Vern Bob finally arrived at the Recumbent Bar, It's a Plotnia V37, made in Zubekistan. I got the X-Treme model; that's with the 48" rear wheel and the 7" front wheel. The gearing is the Urney-Stubercher 37-speed internal. This is one of the few XLWB's, with a nine-foot wheelbase: it takes a little getting used to, but the side-to-side hinge in the middle of the frame helps a lot on corners. The pikel factory workers were quite amused by my first ride around their parking lot.

The entertainment console, which fits between the handlebars, has an am/fm radio, CD player, and air bag. I opted for the 13" TV, because the 19" was a bit ostentation for a conservative guy like me. Vern threw in a CD of his uncle Elno, the accordion player, featuring the early polkas of Beethoven (rarely heard these days). All-in-all, a pretty nice package, don't you think?

Recumbently yours,

Michael Phillips
Michael, Vern Bob tells me that you're the only Recumbent Bar customer to order a Plotnix V37. He says the XL/XTL seat and rider height gives the bike a limited appeal and is really only suitable for very tall riders, or those who want a view similar to that of their 4x4 truck. PS: If you're reading this and you absolutely know what we are talking about, we know that you:

**SEND CHAINS TO THE 3RD WORLD—RCN RACIST?!**

It's a great '97 Buyers' Guide except for one VERY inappropriate remark—to send the KMC chain to a 3rd world country (page 54).

Do we want our friends in other countries to tolerate bad chains? Check out your racism, Bob, and please don't let it happen again.

Keep up the good work.

Steve Zachary

Steve, this comment wasn't meant in any racist way in any shape or form. In fact, I did not mention race.

If I doubt that there are many 'bents in 3rd world countries. #2 Most 3rd world countries are filled with cheap, often cast-off single speed bikes where the KMC may be the best chain they've ever seen. #3 Most 3rd world countries can't afford expensive bike parts (or anything else for that matter), again, the KMC chains may be welcomed—especially for free. And finally, this was meant to be a tongue-in-cheek comment. I do have a sense of humor, and honestly don't expect ANY RCN readers to send their chains to the 3rd world.

**SEARCH FOR 'BENT FORK'**

In RCN/37 page 22 there is a picture of a homebuilt with an AMP suspension fork. Where can I get a lightweight suspension fork? Lynn Miller, Pearl City, HI

Lynn, the fork is an older model AMP fork that was shortened by the builder of the bike. AMP has been known to build custom forks, but they are very pricey. At the bike show last fall we were given varying minimum quantity orders for these forks, basically taking them out of the reach of recumbent customers. Currently available forks include the Lightning and Ballistic (Aigletech). Ostrad, the German manufacturer, now carried by Aigletech, uses a custom AMP fork, though we do not know whether it is shortened by Ostrad or custom by AMP. Q

Rcumbent Cyclist News #39
The Rans Stratus

by Robert J. Bryant

Rans—the innovator

Whether it be airplanes or bicycles, the folks at the Rans company are innovators. In the recumbent world, they have become a power-house. The Stratus is the classic of the line. Originally designed by Rans Company owner and chief designer, Randy Schlitter, in 1974, and marketed from 1978, the Stratus is the bike that helped to build this company—in both airplanes and bicycles, and it's a remarkably better bike today than ever before in its history.

Stratus—the bike

The LWB Stratus has benefitted from nearly twenty years of refinement and has seen many updates and changes. Through the years many RCN readers have fallen in love with the long-and-low Stratus due to it's prominence in the Rans color brochures. The lines are seductive and it rides every bit as good as it looks.

The Stratus has never really been paid it's due. Always playing second fiddle to the Tour Easy and there is really no reason for it. Well, possibly it's the Rans company that has held it back only due to the sheer size of their line, or maybe it's the current popularity of the SWB models (the V-Rex is Rans' best seller).

With the introduction of the new suspended Glass, and talk of a 2620 Glass-type hard-tail mountainer, it appears as though Rans may cut short the useful lifespan of this venerable friend. We hope they don't, as this is a fine machine.

Stratus—the design

Stratus technology set the pace for the full line of Rans bicycles. When Rans designs a bicycle, they pay close attention to the modular aspects of the bicycle. This is why handlebars, frame-tube sets, wheel-sets, and even steering geometries are inter-woven within the models. When one model improves, others eventually benefit as well. On the down-side, we have seen the Rocket, V-Rex and Screamer reach their peak evolution at age three (model years). The up-side is that we've seen other recumbent makes that haven't reached the peak evolution at five or even ten years, which proves another benefit of an in-house CAD design/ R & D center. Having an airplane fabrication department next door also helps.

The unique Rans frame design is no accident. The large diameter seat tube stiffens the frame, while the smaller diameter rear stays offer just enough passive suspension. This theory works well. It is noticeably softer than a stiff Tour Easy, though stiffer than a Rotator Pursuit. And it's easier to ride than those bikes as well. Interestingly enough, this theory in Rans design is cross-bred into most of their designs—enough stiffness so you don't lose power to a flexing frame, and just enough "give" to keep you comfy.

Stratus—the frame set

The Rans frames are beautifully built—possibly the nicest in the industry. The welds are aircraft certified and it shows. The Stratus frame is TIG welded 4130 chromoly tubing. Another nice touch are the Rans laser-cut dropouts with the Rans "R" cut out. The fork is a painted to match CroMo naked to Rans spec, though they are no longer built in house as on our '92 Stratus test bike.

There are two aluminum handlebars available for the Stratus: C-Bar. These are the closed loop bars and they are the most popular. They are similar to the bars found on the original Rans Stratus-A (remember, the one with the joy stick for controls). The C-Bars are fairly narrow and aerodynamic, yet offer multiple hand positions. They are stiffer than the B-Bars, though still flex up and down a bit (by 1-1.5") if you try.

This is our favorite bar for this bike, though we haven't tried the new T-Bar on the Stratus yet. C-Bars come from the factory with the stylish, durable Rans furring that does double duty as a dash board, junk storage or hydration system holder and it is standard on the bike.

B-Bar: This is an aluminum ape-hanger extraodinaire. It's tall, it's wide and it flexes. The B-Bar has a wide natural ergonomic position, though it's oversized to say the least. Cruisers will love it, performance riders should consider the C-Bar. During Stratus testing last summer, our test-bike had B-Bars and we could never reach dial-in-perfection.
We tried different stems and placed them forward and backward to no avail. When finally replacing them with the C-Bar, dial-in and road feel perfection was accomplished. The B-Bars come standard with a Rans fairing as well.

After spending time on each of the bar types, most riders prefer the C-Bar, however, they are different and take some getting accustomed to.

**Stratus—the paint**

The Rans paint is knock-out gorgeous and it’s done in house. The entry level Tailwind and Rocket have powdercoat, though everything else is wet-spray DuPont Chromabase with Imron clearcoats. There are no other recumbent manufacturers providing such a nice finish on a stock bike. Our Sharkskin Stratus is a bright gray that has a pearl rainbow depending on how the light hits the paint. It’s one of the nicest paint jobs of any stock recumbent we’ve seen. Rans also has custom logo graphics for each model and the Stratus logo (one of the nicest) is emblazoned on the large main tube of the bike.

**Stratus—the seat and adjustment**

The ultimate upgrade of the Stratus came in 1995 with the new seat. Rans uses a slightly different version of their seat designed to sit more upright, which can be a blessing or curse depending on your personal preference. After six months of Rocket testing, I prefer a more laid-back seat, though not far enough back to where my neck gets tweaked. The more upright seat angle of the Stratus works well and nearly everyone who climbs aboard will be at ease on this bike. If you need more seat recline adjustment, specify this to Rans when you order. Another interesting aspect of the Stratus is the ability to order it with 24" V-Rex, 24" or 23" rear wheel and either choice of 460mm or 451mm 20" front wheel. Available rubber matches across the spectrum of recumbent tires, from a fat tire touring, to a skinny tire speedster. Rans offers Haro, Avocet, Specialized, Continental and others.

The Rans quick release (Q.R.) sliding seat adjustment is the easiest to use in the industry. The seat assembly rears on an aluminum channel that is bolted to the frame. The adjustment system includes one Ritchey Quick Release (base mount) and two ball-detent pins on the rear stays (spring braces). A year ago we had some trouble with Q.R. seat slippage which has now been taken care of. We haven’t broken a seat loose in a climb in a long while. Winding up your seat Q.R. so it is good and tight is important. If you do not have an understanding on how to do this, be sure to ask your dealer for a demonstration.

We did experience a bad batch of Q.R. nut plates (the Q.R.’s custom nut built by Rans). Rans quickly replaced them, though this little part could leave you stranded, so you may want to carry an extra. Even with the peculiarities that come with the Rans Q.R. seat, I still prefer it to having to carry a wrench or mess with adjustable booms, boom bolts and time-consuming chain-length adjustments.

**Stratus—the fit**

With the three frame sizes (33°/37°/40°), the bike will fit virtually any adult. Rans has been known to build custom order stretch frames for very tall customers. The Stratus may be the optimum bike for shorter more petite riders. The small 33° Stratus can be built using a 24" or 26" rear wheel, which lowers the seat 1-2 inches and fits riders from a 38" X-seam. The total X-seam range of the Stratus is 38"-53".

**Stratus—the components**

Aside from the stolen Suntour part, the Stratus component mix for 1997 is excellent, but even better it works great. The package includes a Suntour XC Comp 24/36/46 crankset (outdated and out of production), Deore LX front and rear derailleurs, HG50 11-28 cassette, and Grip Shift SRT 600’s with a smooth running Sachs Sedsi chain (Rans doesn’t use KMC anymore). The Deore derailleurs and HG cassette shifted smoothly and crisply and better than our Rans SWB test bikes. The cable runs are easy and refined. Every aspect of the drive system was working in unison. The Suntour Grip Shift SRT 600’s offer noticeably less shifting resistance. They are quieter, smoother and crispier feeling than the 400’s on the Rocket (but not as sweet as the Grip Shift ESP upgrade on the Saturn-V and Glist). The other difference is a Deore LX front derailleur matched with the 24/36/46 chainrings (smaller chainrings shift better than the larger ones on the Rocket). Since I shift a lot on my hilly NW test loop, this extremely dialed drivetrain had me in gear-shifting nirvana. Where I dreaded my front shifts on the Rocket (SRT 400’s and a Suntour front derailleur), the Stratus practically shifts itself with a nudge from my wrist.

One of the greatest benefits from the 700c drive wheel and the otherwise stereotypical MTB drivetrain is an easy gearing selection. The Stratus easily achieves a 23-111 gear-inch range. The low gear is right where you want it for grunting up the steep ones and the 111 will keep you spinning over 30 mph. I found myself spinning out in high gear. A taller high gear could definitely be used on the Stratus as it’s a fast bike. A 32/42/53 is available as an option (31-130 gear inches). The wheels on our test bike are a 700c/20" 451mm with stainless steel spokes laced to 36 hole Alivio Parallax hubs. The front tire is a IRC Roadline 20" x 1-1/8" which is a tire that could have been designed for use on the front of LWB recumbents. The rear tire is a Specialized Transition 700c x 26. This set up is optimum for a LWB, though I am drawn to the 26/20 dual Continental Grand Prix’s because I like small wheels and the 26" size can be more durable. The Conti GP tire series are the best recumbent tires we’ve tested and they are available in 700c, 26 x 1" as well as 20" x 1.25" 451mm. Continental tires are a Rans option.

Our test bike has standard front and rear Deore LX cantilevers. A Magura hydraulic brake option is also available, though not necessary on this bike. V-brakes are an option on this bike. We didn’t like the feel of the dual LX cantis, matched with the long and low look of the sexy Stratus had it stopping on a dime with minimal effort. Even the front brake was a notable exception to how mediocre LWB front braking.

The Stratus chain idler is a high quality dual high/low ski wheel type. The roller wheels have cartridge sealed bearings that easily maneuver the chain away from the frame. We did experience some high-gear chain noise due to the chain angle as it passes over the idler in certain gears, and the drivetrain...
was noisier than our Rocket, though it's a smoother and more free-running system.

Something prospective Stratus owners might want to know is that Rans will upgrade components from other Rans model specs. Considerations could be that gorgeous Campy triple crank and bottom bracket from the V-Rex24, as well as the GripShift ESP drivetrain or even Magura brakes if you are so inclined.

After our test, the Stratus was sold locally through Angle Lake Cyclery and upgraded with a 3x7 hub, possibly the best upgrade for this bike due to the expanded gear range and EZ-3x7 shifting.

**Stratus—Options**

Rans has an optional kickstand, which is nice for this long bike. Rans sells BOB trailers and you can even get one painted to match your bike. Sachs 3x7, low-rider rack and pump-peg braze-ones are available options. All Rans seats have two pairs of water bottle mounting bolts (for two bottle cages) on the back side within easy reach, even in motion.

The Rans fairings work great. They are tough, durable and the price is right (standard feature with "B" and "C" bars). They make for a nice shelf for your junk. They cover and clean up the cables housing and really add to the looks and really do give you a performance boost, though not as much as a Super Zeppe.

Our favorite Rans option is the new and updated seat bag. It doesn't quite have the capacity of the AngleTech bag, but the hooks make it a truly quick release bag that is so attractive it could pull double duty as a briefcase. The red stitching and Rans logo are an added touch. We have been able to get a 6" cable lock, cellular phone, a few tools, spares, wallet, keys, and more stuffed inside.

Once in a while I need to reach behind to see if it's still there. If you have an early version, contact Rans for the seat-hook upgrade.

Component upgrades, tire choices and unmatched custom paint options will make your Stratus customization enjoyable. If there aren't enough options, check out AngleTech's "SS" and "GL 63" (Sachs 3x7 equipped) models.

**Stratus—Versus Gliss**

The Gliss is an exquisite machine with suspension to boot; though it's not yet in production. The seat will recline more than the Stratus, though when riding the Gliss, my center of gravity was farther rearward than on the Stratus. The Gliss bottom bracket position is higher, which can be a benefit, though the bike may not be as refined as the venerable Stratus (not yet, anyway). This consideration will come down to bottom bracket placement, suspension and price. The Stratus seems to have the flat land and downhill performance edge (though it's close). The Stratus is like a Tour Easy or Gold Rush Replica riding position—with a low seat and lower bottom bracket.

Suspension is an interesting topic. Personally, unless I can get both ends sprung, one wheel still shocks me when I hit the wooden Soo's Creek Bridge at 30 mph. Keep in mind that suspension adds complexity, more moving parts and added maintenance. It can effect precision, tracking ability and sometimes cuts short the limits of your performance, or at least changes the predictability while tracking through a fast corner. You also need a special pump for the shock (we had one helluva time finding one in Seattle).

**Stratus—Versus Tour Easy**

Many Easy Racer customers are buying bikes with Rans seats as an option. I can't help but wonder if they've considered a Stratus. The Stratus has the Rans seat as standard equipment. The Rans seat works much better on a Stratus than on an Easy Racer. The mounts place the seat higher on an Easy Racer, which can slightly throw off the ergonomics by raising the rider and possibly placing the rider farther away from the handlebars which could make the ultimate "dial-in" more of a chore.

The Tour Easy/Gold Rush Replica handling is legendary and it's LWB perfection, it has a bit more oversteer and a more dialed steering geometry. The Stratus handles nearly as well, though the handling finesse is not quite at the level of Easy Racers. Less advanced or experienced riders may actually prefer the Rans as the seat is more upright, there is no knee/fairing/handlebar interference and the Rans seat offers 0-pressure points, better comfort and full breathable back support.

If there is a handling deficiency, Rans has made up for it in other ways, the components are slightly upgraded, Deore LX derailleur and SR100 shifters versus SR400's on the Tour Easy; the Stratus has dual LX cantilevers versus the XCF Pro/ FSE or Weinman 400 combo; the Rans seat is more comfortable than the Tour Easy seat; the Stratus feels lighter; the frame and bars are livelier (more flex, shock absorption, and comfort); the Stratus comes with a fairing; the Rans paint is nicer. The Rans factory frame warranty is an impeccable lifetime to the original owner with just one year on the seat. Not be be outdone, Easy Racers has just introduced their "Double Lifetime Warranty" (see page 32).

The Easy Racer idler wraps more chain and allows for a wider stock gearing, though gearing is not usually a problem on LWB recumbents with full size rear wheels. Both bikes are world class and the choice will be a difficult one. We like the Easy Racer toughness and straightforward systems, though the slightly suspended ride of the Stratus and availability of the 2x3x7 rival the Tour Easy and beg to prove which is the truly the best LWB machine.

**Stratus—Versus Rocket**

The Stratus is actually more comparable to the V-Rex in spec, though because of my recent familiarity with the Rocket, I will use it for comparison. After months of riding the Rocket, I had the chance to keep the Seattle Bike Expo Stratus around for a few weeks. After several rainy rides on the Rocket, the weather broke one Saturday afternoon. I put the Stratus in the stand, dialed her in and took off down the road. My first thought was, "this thing is fast!" Immediately after I left my driveway, leading out to the downhill sections of my test loop, the Stratus was noticeably faster than the Rocket. I was cruising 2+ mph faster with ease and spinning out the Stratus 111-inch high gear (versus the Rocket's 103-inch high gear).

I hadn't been on my Gold Rush test bike since December of last year, and have been logging mostly SWB miles through the winter. I've been managing 150 miles a week since January. The miles have been equally split between the Rans Rocket and the Schwinn Backdraft AirDync recumbent exerciser. So, I've had equal training in both SWB and LWB modes.

The LWB Stratus definitely has less rolling resistance with the 700c rear and 20" x 1-1/8" high psi front, no question about it. The Rans fairing makes the effect that much better. I had forgotten how fast a long and low LWB can be. The Stratus is noticeably faster on descents, roller-coaster hills (fast down one side, coast up the other side) and flat terrain, though the high bottom bracket of the Rocket seems to get more power to the rear wheel, faster and I
FEEL more efficient in steep climbs on the SWB. High flat-land speeds and super-high speed descents have eluded me on the Rocket, as it is a fairly high bike.

Just when I thought I had it all figured out, I rode the Stratus up "Sunrise Hill," the steepest hill I know of here in Kent, Washington. Before today, I have been unable to climb this hill on ANY recumbent. The Stratus cruised straight up with no problem whatsoever. It has a lower low gear than the Rocket, which made low-speed spinning easier. On these kinds of really steep climbs (I rode the Chilly Hilly on the Rocket this past February), the Rocket has a tendency to bunny-hop the front wheel (well, at least the nose isn't heavily loaded). After careful analysis and discussions with knowledgeable riders, I believe that it's because my 6' body is at the upper extreme of the Rocket's one-size-fits-all frame, especially with the seat laid back the way I have it. This is a between the lines pitch for the V-Rex, which comes in two sizes, 37" and 40" where riders should not experience this problem (unless they are really tall, in which case they should order a custom length frame).

High bottom bracket SWB bikes sometimes give me a déjà vu flipping over backwards feeling on steep climbs, so the lower bottom bracket on the Stratus was a plus. To climb steep grades on a LWB, I have developed a side-to-side handlebar-pull-away technique that helps to imitate the switchbacks you can do on uprights (or SWB models). You slightly move your arms back and forth, pull one bar, while pushing the other, thus simulating switchbacks. This maneuver should not make you swerve, as your track should only vary slightly if you doing this move correctly. This especially helps to maintain balance at under 4 mph. The Stratus is a very capable climber and the LWB will be my choice the next time I climb Sunrise Hill.

The Stratus—the finale
The Stratus is a fast, stylish and dependable machine with user-friendly performance that you won't find in SWB or USS bikes. I feel more comfortable on long-low LWB ASS bikes sometimes at twice the speeds of SWB bikes, especially those with USS. The systems on the Stratus are proven and dialed. At a time when SWB recumbents are getting lots of press and kudos, we should not overlook the LWB ASS recumbent which works better than any other design, at least until you have to find a roof rack that works and lift the long bike onto the roof of your car.

If you are a Stratus fan, you may want to let the Rans company know this before it's too late. Drop them a line and tell them you read about the "Strut" in Recumbent Cyclist News.

For more, contact Rans Recumbents, 4600 Hwy 183 Alternative, Hays, KS 67601. Ph#913/625-6346 Fax#913/625-2795.

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Recumbent Touring

Miles for Clean Air
A Tour of the Canadian Rockies by Double Vision

Story & photos by Rick Snodgrass

It really all started some years ago, when I talked my bride, Sheryl, into going on bike rides with me. At that time we both had single standard, or "wedgie" bikes, as we now call them. This lasted for only a few rides. We had trouble talking and felt like we weren't riding together or would get separated altogether because of traffic or different riding abilities. Soon we weren't enjoying our outings as much as we had hoped. We then bought our first "wedgie" tandem. We really enjoyed always being together, being able to talk. We also found that a tandem really is great for riders with different riding abilities. You both put what you can into it and your net performance is the result. Our riding improved as we began to go on more and more organized rides.

We began having some trouble with back pain on longer rides. I had big problems with my hands and arm going numb. This took a lot of our fun away. We worked hard to change our riding style and different things on the bike to correct this. With very little success we got pretty frustrated.

Then it happened! I rode a recumbent bike. At that point I had to have one! After Sheryl rode one it was an easy sell. So after much research we bought a "Double Vision" recumbent from Advanced Transportation Products in Seattle, Washington. From that time on we really began to truly enjoy our riding. What an awesome move for our riding pleasure and comfort. We began doing more rides and much longer rides. No more back aches, no more sore shoulders and hands. What a pleasure!

Our favorite fund raisers are the ones put on by the American Lung Association of Washington (ALAW). When we heard about a ride they were putting on, Sheryl thought this would be a great long-distance test for our new tandem. Only a few years before, Sheryl thought a trek of 5 miles to Starbucks was a big ride!

It's called the Kalispell to Calgary, Four Parks Ride, it was a 10-day trip with 8 days of riding with 2 layover days. We met at a campground in Kalispell, Montana. About 55 riders rolled in throughout the day. As we pulled our bike out folks gathered around to ask if that was what we were going to ride on the whole trip? Tents started popping up and new friendships began.

DAY 1—WHITEFISH

After breakfast, the day's course briefing, and last minute packing—we were off. The warmth of the sun was wonderful as we pedaled back roads, taking in the beautiful farms with snow capped mountains in the background and enjoying the flat roads. This was a great warm up day, taking our time, getting to know fellow riders. Passing through several small Montana towns like Whitefish, the day's temperature climbed to the mid 90's.

After about thirty miles we came to a water park which we just could not resist. We donned our suits and hit the water. We stayed for several hours, enjoying the sun and the water slides. A sign should be posted at the biggest slide - hold on to your shorts! Everyone got a nuclear wedge going down this 80 foot drop! We found several other trekkers tempted by the cool water. After lunch we were back on the road completing about 45 miles total for the day as we rolled into West Glacier, Montana.

DAY 2—GLACIER

At the Glacier National Park boundary, day 2 was an early start. We had to be over the top of "Going to the Sun Highway" by 11:00 am. We started the day almost 40 miles from the summit with 20 miles being a constant 6% grade. This is such a powerful area it was hard to keep pushing ahead. So many things to see, big lodges and cold clear lakes. We nearly made the top when we had a flat tire. This was by far the most beautiful place I have ever changed a flat! I really didn't seem to mind the work. With more steep cliffs and awesome waterfalls, we made the summit, Logan's Pass.

This is our first crossing of the continental divide. At 6664 feet, we are on top of the world. Our bike was running great. We found the recumbent to climb at the same pace as our conventional tandem, but with a lot more comfort. After going on a little walk through the snow to see mountain goats at the visitors center we returned to our bike ready to try this baby on the downhill! With 20 miles of downhill we didn't let our speed climb too much, because we were enjoying the scenery of what seemed to be an endless U-shaped glacier cut valley. Our drum brake was just the ticket for maintaining our speed. Near the bottom we did cut it loose and the speedometer showed our maximum speed at 52 miles per hour.
We ended the 60 mile day near St. Marys, Montana at the tribal owned Chewing Blackbones Campground. A beautiful spot with camping on a lake. We were fortunate to be there during a Pow Wow and the camping area across the lake was full of teepees. Once camp was set up, we enjoyed a great dinner and enjoyed the growing friendships of fellow trekkers. That evening I gave recumbent demo's to curious riders. Many asked, "is there a shock on the back? The ride is so smooth." Just before sunset the sky blackened and we found ourselves having to tuck away in our tents to keep dry. Other campers were not so lucky, trying to use anything available to keep the rain out.

DAY 3—CANADA

The rain had ended and soon the sun was out again. We traveled north reaching the Canadian Border to Alberta. Passing through Customs the agents were more interested in our bike than where we were from. At this point we also entered Waterton National Park. The park was great to ride in with wide roads and shoulders. This day was just the perfect temperature for cycling. Shorts and tee shirts all day. We had many stops for photo opportunities. The last downhill before lunch our speed was up to 55 mph. Sheryl was thrilled to know how stable the bike felt at that speed. It was to become a challenge for her to go faster and faster. Lunch took us to the Prince of Wales Lodge with many other riders. It was a beautiful spot along Waterton Lake looking back towards the Rocky Mountains. We stayed too long and ate too much, but we finally dragged ourselves away. Just a few miles from our lunch stop, we saw a bear and her cub. We rode out onto the plains of southwestern Alberta. Long straight stretches of rolling country roads took us to Pincher Creek ending a 79 mile day. The city park we camped in was next to the municipal pool with a hot tub and showers. This was our night to help with the cooking detail. We were impressed with the type and amount of food that was made available to us. The American Lung Association ride leader went shopping each day for fresh food and special requests like local micro brews. That night around midnight we awoke to a very impressive thunder and lightning storm followed by strong winds that all but blew us all out of the park.

DAY 4—ALBERTA

This was our longest day and not because of the mileage. We started the morning with warm, sunny skies over the rolling hills, enjoying the lack of traffic on the wide back roads. Turning out of Pincher Creek, we saw an entire hillside covered with windmills used to generate electricity. RED FLAG. As we rode on we soon found why these giant propellers were located there. A strong headwind of at least 20 mph with gusts reaching higher was coming in at us on our side in the distance. Pedaling closer we found ourselves at the base of this site. We stopped and took in the awesome power of Mother Nature in Frank, Alberta.

In 1903, Frank was a small mining town at the base of a large ridge of a mountain. Around 4:00 a.m. one morning, the ridge gave way and the entire hillside slid, covering Frank in thousands of tons of dirt and stone. The slide continued to push its way to the other side of this valley. Years later the road was built over the debris. The size of the hillside and the remaining debris some 94 years later was humbling.

Continuing on we wound our way back across the Continental Divide for the second time to enter British Columbia. The wind was calmer on the west side and we had lunch in Sparwood, B.C. The afternoon ride followed the country highway west to the winter ski town of Fernie, BC were we ended the day with 80+ miles. We stayed at the local youth hostel/motel. We helped prepare another satisfying meal of homemade pizza, salad and tons of ice cream. After hot showers, we wandered around Old Town Fernie with vintage buildings and a train station, looking for the next morning's bakery and coffee shop fix.

DAY 5—BENT LATTE

With fresh pastries and lattes, we were on our way. Sheryl loves the ability to sit back and pedal, with her cold hands wrapped around her latte, warming her hands (a distinctly Northwest pastime). We passed some very jealous "Wedgie Bikers," their coats up around their ears wishing for some warmth. Other riders commented on how content they looked as we zipped down the road. We rode with a group of 10 or so riders over the rolling country roads which were starting to head north again. Passing rivers and through valleys, by mid-morning we were enjoying warm sunny skies. Midday we stopped to swim and take in more food. It had been 60 miles since breakfast. Two flat's later and with a very cranky, blood sugar depleted stoker we made it to Fort Steele, British Columbia. Fort Steele was a booming river town in the late 1800's. Nearby Cranbrook obtained the railroad contract which took most of the businesses out of Fort Steele. Locals have turned the original town buildings and homes into a "Heritage Town."

The entire history of the town is played out from start to finish during the day through mini productions. These productions are acted out in the streets by employees of Fort Steele in period costumes. Lunch at one of the opening hotels was a step back in time as well. We were happy to have gotten in early enough to have this experience. Two miles up the road we camped and enjoyed a swim in the campground pool.

DAY 6—BLUE DOG

This was one of the longest mileage days coming in around 85 miles. The route was fairly mellow and relaxing. We took the back way around Lake Windermere, as Highway 1 was full of traffic. We were thrilled to have miles of a quiet trafficless road along the glacier-fed river to the lake. We stopped in for lunch in Windermere at the Blue Dog. People came out of stores and the restaurant to look at our bike. It was easy to spot where we had parked the bike with the crowd around it. Making our way over the last pass of the day, we were dreaming about Radium Hot Springs. Once in the town of Radium, we decided
to splurge and spend the night in a real bed.

DAY 7—KOOTENAY

The first order of business was the hot springs. Within the boundaries of Kootenay National Park and steep canyon walls, a wonderful facility with snack bars, locker rooms, and of course the huge pools where the hot water is brought into was calling our names. We soaked, had massages at the treatment center 10 steps from the water. We stayed most of the day visiting with people from all over the world. Dragging ourselves out from our bliss to finish the day, we headed back to the motel to do laundry. We met up with several other trekkers at a local pub and danced the evening away.

DAY 8—THE LONGEST DAY

The trip through Kootenay National Park was a continuation of long climbs over 90+ miles. Starting with an 8% grade, Sinclair Canyon made us glad we had a good breakfast. It was hard to pass the hot springs on this damp, cool morning. Once out of the canyon, we made our way up the next 10 mile hill. The day grew darker and at the top we all stopped for more clothing. We had a great downhill run even with the rain beginning to fall. We enjoyed the ride, but by the bottom we were wet and cold. Again, the Magura Hydraulic brakes have been a dream come true for stopping power on the tandem.

We rode past more crystal blue glacier-fed rivers, over rolling hills, some of the more lucky riders saw a moose and her calf. By this time we were wet and very cold. The temperature was in the upper 40’s. Quite a change from our 90 and 100 degree days. We happened upon the Kootenay Park Lodge. Most of the trekkers were stopping to dry out and regroup. The lodge was in the middle of nowhere and powered by generator and propane. The log structure was the picture of peace and quiet. We were very disappointed when we found that they were closed between meal sittings! After seeing all our noses pressed against the window, they opened us up just for us. The owners put together a feast of potato, eggs with cheese, toast and pots of hot coffee. We all made ourselves at home. The old rock fireplace was covered with baking tongs, Sheryl was curled up in a blanket on one of their couches, and everyone was running around in stocking feet. It looked like an off-home Christmas party. Once warm, we had a hard time returning to the cold mist that waited for us. Once on the road, the mist stopped and we enjoyed the quiet ride north.

with reservations at the Banff Springs Hotel and Spa. Built at the turn of the century by the railroad to attract Victorian tourists, the hotel stands on one end of town like a castle. What an outrageous place! Riding up to the hotel to check-in, the valets came from three separate stations, gathered in the center of the parking area and looked at us for a long moment trying to decide which of them was going to have to park this crazy thing. Another great night inside, warm and dry. The trekkers that were still camping did not have these luxuries.

DAY 9—LAKE LOUISE

We awoke to fresh snow on the mountain tops and temperatures in the upper 30’s. The day was a mixed bag of weather. We hiked the trails, watched as a herd of elk grazed on the driving range of the hotel golf course and explored the town. Some ventured up to the hot springs or took a bus trip to Lake Louise. Funny no one wanted to ride the 40 mile round trip? We met at a great restaurant with others from the ride. Still cold from the night before, we felt guilty when asked “Where did you guys stay last night?”

After dinner we checked into a small Bed and Breakfast with other trekkers who wanted a real bed. The evening was a combination of celebratory and somber emotions. This was our last night on the road before Calgary, but the near end of an incredible trip.

DAY 10—CALGARY

Packing up we felt sad and excited, 80 miles to Calgary. This morning was the coldest yet. By mid morning we were stripping down to shorts and tee shirts. With flat-rolling roads and a wonderful tail wind pushing us, our speed was up as we moved out from the Rockies onto the rolling open areas of Alberta. Gliding past herds of buffalo and through Indian Reservations I was thinking of how well the recumbent tandem had done for us and how well we had done on the bike as a team. No problems other than a few flats and a small adjustment to the derailleur. No hands falling asleep, no back and shoulder pain and best of all no butt pain. Sitting upright and looking around is the only way to ride as far as we’re concerned. We stopped for pie in Cochrane. Climbed a nasty hill with too much food in our bellies that set us on top of the plateau that we would follow into Calgary.

The ride ended at the Canadian Olympic Park, site of the Winter Olympics in the late 80’s. Now it is used for training Canadian Olympic hopefuls and tourists. The lower end of the U.S. course offered rides to those crazy enough to try. Sheryl was the first in line.

What a ride!! To think this was only the lower quarter of the course. We were sad, happy, wishing it could go on, glad it was over, wanting a long, very long hot shower. The evening came with group photos, dinner, prizes, and laughter. Friends and family. We drifted off to sleep all under one roof of the huge garden tent set up for us by the park.

DAY 11—KALISPELL BY BUS

This was final pack up day. The American Lung volunteers and organizers treated us wonderfully the entire trip and were even more gracious as we loaded bikes and bodies into trucks and buses. The 4.5 hours it took us to return to Kalispell replaced part of our trek. Past the Frank slide, lunch in Fernie and one last look and the “Largest Water Park in Montana” we pulled into the camp ground where we all first met 12 days before.

The trip was great. ALAW puts on the best rides. But it was having a bike that allowed speed, comfort and my bride to enjoy riding so much again, that made the experience one I had to share.

1997 Update: Sheryl is talking about riding coast to coast with next summer. Ya hoo she’s hooked!
Recumbent Touring

'Bents In Paradise

by Lynn Miller

The sun rising over Diamond Head heralds the first day of my vacation in Hawaii. What should I do first? Stroll along the beach? Check out the zoo, aquarium, or just soak up some sun? Oh no... Not for this guy! I didn’t fly all the way over here to do the regular tourist thing—

I came to ride... It’s time to see what kind of shape I’m in after the long cold winter. I’m glad I at least had that indoor trainer and a few weeks to prepare.

I read somewhere that it’s over ninety miles around the island in the tropical sun. Are you sure you are ready for this old son? I said out loud. It’s a good thing that the trade winds are blowing or I’d cook for sure. Speaking of trade winds, I heard, the best way to take advantage of them is to travel counter clockwise. Where should I go first? What is there to see? Well, they said counter clockwise and that means Diamond Head. After slithering on the sun screen, I’m off.

The ‘Bent is working beautifully and I feel great. From the top of Diamond Head look out. I looked down and, far below, were wind surfers skittering and arcing across the waves like so many water bugs. After a short stop to watch, I’m off again. From here it is a breeze, down-

Waikiki Beach with Diamond Head in the background—Robert J. Bryant

hill through a residential neighborhood to Kalanianaole Hwy. Don’t ask me to pronounce it. It’s a good thing I picked up this map. The state however, was thoughtful enough to provide nice wide bike lanes on both sides, clear out to Hanauma Bay. It’s flat all the way except for the last hill up to the bay. The view is postcard perfect. I’m sure glad that I borrowed this camera from Fred. Too bad he couldn’t get off work to join me. Well at least he’ll have all these great pictures to drool over. From Hanauma Bay the two lane black top winds its way down along rocky cliffs with plenty of turn outs. Look sharp, there is a good chance that you can see a whale, so say the guide books. After spending the winter frolicking in the warm Hawaiian waters, they leave in the spring on their annual migration to Alaska.

The next stop on my migration is Sandy Beach where in addition to the body surfing, and bikini watching, Ooops! Better get a picture of that for Fred, the local kite flyers put on quite an exhibition. There is even one who uses a big kite to pull himself along on a kind of three wheel land sailer. Wonder if he’s ever ridden a ‘bent? Leaving Sandy Beach behind, it’s off to Waimanalo, passing numerous beaches along the way. Waimanalo is home to the best Mexican food I ever had. The locals say the food at Bueno Nalo is one. (Ono means delicious in Hawaiian) Go ahead and grind, you burn um off before you get to Waikiki—if you make it.

After a siesta it is time to push on to Kailua and Kaneohe. They said if I feel like I’ve had enough I can take the Pali or Like Like (that’s pronounced leaky leaky) highway over the mountains back to Honolulu. “You not even half way yet brat,” said one, “Mo betta you catch da bus,” said another with a laugh. But I feel good, the sun is shining and, Hey, I could be stuck back on the mainland with poor Fred. After leaving Kaneohe behind it’s on to Turtle Bay. This portion is like a tropical rain forest that you can ride through. Giant ferns, banana groves, and huge trees right out of Jurassic Park. I half expect to see a T-Rex jump in front of me. I heard they shot the movie over on Kauai in an area like this. The two lane road leads right along the water’s edge which is shallow and clear as crystal. It is hard not to jump in and cool off. Watch it brat they warned. You get one Hawaiian Stoke. Den all you do is lay under one palm tree in a dream of Pina Coladas and hula girls.

On the way to Turtle Bay is the town of Laiea, home of the Brigham Young University Hawaii campus. It is just after this point that the gentle trade winds pick up force, especially in the afternoon. They literally blow you along, all the way past Turtle Bay, to the north shore. World famous for its huge winter surf, with such magical place names as Waimea Bay, Sunset Beach, and the Banzai Pipeline. Every winter, surfers from all over the world flock here for the giant waves and surfing competitions. The last town on the north shore is quaint little Haleiwa. A ride through Haleiwa would not be complete without a stop at Matsumoto’s General Store. The best shave ice in the world is in this little mom and pop store. It’s not a snow cone mind you. Shave ice is exactly what the name implies. They start with a block of ice and literally shave it into a fine snow-like consistency, then add various flavored syrups. Ice Cream? Azuki beans? Why not, I’m adventurous! It was one-licious. Almost broke da mouth. After picking out a T-shirt for Fred, I climb back on my trusty steed and I’m off. I still feel pretty good, a little tired maybe, but
hey... this is too much fun. Not a hundred yards out of town is the hill from Hell. Climbing through pineapple and sugarcane fields where, as you round each bend, sure that it is the top, you find that it just keeps on going and going and going.... And I'm not the energizer bunny either.

The old quads are smoking by the time I finally roll into Waialua. It's your typical town on the edge of a military base. But it still looks beautiful to me. After a much needed rest and a long cold drink on the shore of Lake Wilson, I reluctantly push on. It is mostly downhill for the next several miles. After cruising through Mililani Town and screaming down Kipapa Gulch at over forty miles per hour, I climbed up to see Pearl Harbor in the distance. By the time I get there, I know I'll be in no condition to visit the Arizona Memorial. Better plan on that for another day. I did ride by it, however. There's a cool bike path that follows the harbor edge all the way from the Ewa (west) end of Pearl; at least it is flat the rest of the way. This last section goes past the airport, along the waterfront with its colorful fishing fleet, past downtown Honolulu and finally through Ala Moana beach park to Waikiki.

Man am I glad to see that hotel! The desk clerk wonders how I can ride clear around the island and still have this goofy grin on my face. I explain that my mind is bent. RecumbENT that is. He thinks 'bent' Right... More likely warped. Even after a long hot shower, I don't think I'll go dancing tonight, however. I believe I will have one of those Pina Coladas. A big one. Here's to you Fred! Maybe next time we can do Maui.

There are several recumbent riders in Hawaii. On any given day there is likely one or more that would love to show you around. If you want to try it on your own, there are plenty of maps available. If it sounds like fun, come join us. Drop a letter or card. I love getting mail and try to reply to everyone. Lynn Miller 98-1382 Hoakamoa St. Pearl City, HI 96782. See also RCN #31.

EDITORS NOTE: We are thinking that a winter organized recumbent Hawaii tour would be just the ticket. If you do as well, drop us (RCN) an SASE. If we get enough interest, we will pursue it. Watch for a Haluzak Hybrid Race test in an upcoming RCN.

RCN BACK ISSUES FOR SALE

We still have limited quantities of the following RCN back issues. Now is the perfect time to complete your set. The prices are $6 each postpaid or six for $25 postpaid (USA).

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- RCN#10 Turner-E/Tebis trike
- RCN#11 Counterpoint Presto
- RCN#12 Rams Stratus
- RCN#13 EZ Rider Trike
- RCN#15 Lightning/ReBike
- RCN#16 Trice
- RCN#17 Bike E
- RCN#21 Gold Rush Rep/Vision
- RCN#22 Infinity/Haluzak
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May/June 1997 15
Spring is hitting hard here in Skookum, and it’s bringing all the recumbent riders who have been in Winter suspended animation out on to the byways of our little town. We’ve had ice storms, floods, and torrential rains, but, as the county picks up the drowned branches and sweeps the shoulders, the riding is getting almost pleasant. I committed all winter in to school, and Felicity rode when she could. Now we’re out and about almost every day. We’ve discovered another interesting oddity about our adopted town and it’s beauty of recumbent riders. This town and its environs has some of the quirkiest dogs we’ve ever encountered.

Sure, we’ve had plenty of canine contact in our recumbent rides in the suburbs before we moved to Skookum. Those dogs did typical doggie stuff as we rode by their lairs on our ‘bents. We felt that peculiar kind of vulnerability that recumbent riders are prone to. More of our flesh is available to determined dogs on our bikes. Radically low-slung "bents can even find themselves at eye level with a German Shepherd or Rottweiler. In the suburbs we encountered the highly territorial, yippy, yuppy dogs. These little fluffballs would start yipping at you crossed that imaginary line that they considered their territory, and they maintained this noise until you crossed over the boundary that marked the end of their domain. They were mostly all show and no bang. Occasionally, you passed yards that had dogs that could do you real damage. Those dogs were often fast, loud, but usually confined in fenced yards. Even with the fences, our hearts would beat faster as we screamed by wondering whether the dog had defecated the fence somehow or if the owners had left a gate open. Once in a while, a dog with speed and who seemed openly "recumbentious" would show up on one of our riding routes. Those opportunistic canines roamed free of their houses and yards and considered all of Western Washington their territory. Felicity and I would most often change our route and avoid the danger area on future rides. Although we sometimes considered packing an aerosol can of "Doggie Doom," we usually could create labyrinthine detours to avoid the bad dogs and eliminate the need to go on the offensive. Nothing prepared us, however, for the dogs of Greater Skookum.

We began to realize that something was a little strange in Skookum when we were down at Vern Bob’s Recumbent Barn one Saturday morning drooling over a ‘bent tandem that Felicity and I had been coveting for some time. Our conversation turned eventually to the best rides in the immediate Skookum area.

"Don’t you have a copy of The Guide?" Vern Bob asked incredulously.

"What guide is that?" I replied.

"Let me see if I can dig one up for you.

Vern Bob began rummaging around some boxes in the corner of his showroom. Vern Bob’s organization system is famous in town. What appears as chaos to some mortals is an efficient information retrieval system to V. B. Sure enough, Vern Bob lifted up a box of "Whizbang Bicycle Customer Suspension Donuts" and, under it, found what he was looking for. He brushed a little dust off a small booklet and handed it to me.

"That’ll tell you all you need to know," Vern Bob announced.

"It’ll tell you about all the rides within a thirty mile radius. Each one is described and given a name."

The booklet was titled, "The Low Down Guide to ‘Bent Rides In and Around Greater Skookum."

I handed it to Felicity. She looked at the table of contents and looked confused.

"What’s with the ride names?" she asked.

"Which one do you mean?" Vern Bob responded.

"Well, this first one for instance...it’s named ‘Alice, Ol’ Mickey, and Rex: The Border Collie Ramble.’"

Oh, yeah. Each one is identified by the Skookum dogs you’ll encounter on the route. All the "benters have come to know each of them beasts intimately. Rest assured, none of us have lost a body part to any of them. All I can tell you is to follow the routes as described; the dogs will introduce themselves to you somewhere along the way."

Felicity and I thanked Vern Bob for the help. We went outside and got on our recumbents. The sun was poking through the morning clouds, and we were itching to ride.

"Do you want to try one of these from Vorn’s book?" Felicity asked.

"Sure. You choose and I’ll ride.

Felicity paged through the contents giggling to herself occasionally. Finally, she laughed aloud.

"Here it is. We’re doing ‘Tiny Tim’s Salt Lick Loop.’ If we’re going to encounter a dog, we’ll choose the smallest."

"Fine with me."

We pedaled out of town and headed east on Vinegar Road past the pickle factory. A quick right on Bovary Avenue put us firmly on Tiny Tim’s Salt Lick Loop as described in the book. The miles rolled by, and we wondered when Tim was going to show himself. Maybe Tiny Tim had met his demise since the book was published. We soon forget about the dog and lost ourselves in the early Spring ride. A blur of white, streaking fur a hundred yards to our right caught our eye and yanked us from our reverie. Barking identified the object as a dog. This one was smart. He had gauged our speed accurately and was moving at the correct angle to intercept us at about an eighth of a mile ahead. At times like these Felicity and I usually began our evasive tactics. We both accelerated. We’ve always thought that the last recumbent in a group is the one that the dog might bother. We were trying to leave each other behind. Neither of us wanted to be the trailing bike, easy prey to Tiny Tim’s devices. Felicity was a woman possessed and left me several yards behind as the dog loped in alongside me. This dog was not tiny by any means. It looked like it had Newfoundland in it along with some Golden Retriever and not a small amount of Whippet. The dog came up on my right, fixed its eyes on my thigh, and moved its muzzle over toward the flesh of my leg below my shorts. I began to weave, but the dog deftly adjusted remaining fixedate on my leg.

"This dog is serious," I shouted to Felicity. "Don’t slow down!"

At that moment, Tiny Tim struck. With mouth open and tongue lolling, the dog began licking my thigh. As he ran, he moved in for a series of sloppy licks. When I became sure that the licks weren’t precursors to a bite, I relaxed into a comfortable cadence and steadied myself up. From behind me I heard a shout.

"Tiny, you cut that out! Get back here!" someone hollered from the distance behind me.

Tiny Tim took one lick and broke off his pursuit. He became just a dot in my mirror as I caught up with Felicity.

"Thanks for leaving me to Tiny Tim’s mercy. I’ve just been nearly licked to death."

We finished the loop and Felicity laughed all the way. Tiny was af-
ters salt and recognized the recumbent rider as a ready source. When we got home, I showered off the dog spit. Felicity read the booklet from cover to cover while I was in the shower. When I came in to the living room, Felicity was bursting with new knowledge.

"Tomorrow we'll do the next ride in the book. It's called 'Phyllis and Muffin: The Pomeranian Recumbent Jumper Jaunt,'" she announced.

"Fine with me," I said. "Only this time, when the doggies appear, you ride shotgun."

Well, that's it from Skookum where the dogs are strange, the people are low down and laid back, and recumbents are the transportation of choice.

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**RCN#38 1997 Buyers Guide Updates**

The RCN "97 buyers' guide has been very successful. It had fewer mistakes than previous versions, though there were a few.

Zep Design and Zach Kaplan's websites have been corrected in their ride. The HFM "Trike" may be mislabeled as a "Sprint!" The weight for a Tour Easy is not 25 pounds, but more like 20-30, depending on the size and without options.

As for updates, the one we knew wouldn't last is the Vidim Moton price which has now gone up $100. Dick Ryan has a new address (see ad) and Tideman's future is up in the air at this time.

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**RANS**

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May/June 1997
The idea for the RCN Road Test Notebook is to keep readers informed on our progress obtaining test bikes, dealing with manufacturers and the actual delivery, setup, and testing procedure. This will include glitches, problems as well as the high points during the test.

Manufacturers are invited and encouraged to submit long-term test bikes to RCN. These test bikes may qualify for a feature test, and/or will be reported on here as long as they are in the test fleet.

This is a “no strings” test format. Manufacturers need to supply a current model-year test bike in as-new condition, with as many factory options as you wish to equip the bike with. We prefer factory assembly for a direct-mail customer with all documentation, instructions, etc.

We prefer to keep the bike for a period of no less than three months. We like longer 4-season test bikes for a period of 12+ months. 4-season test bikes will be ridden in the rain, snow, well-used, well-worn and dirty. The bikes will also be written about on a regular basis. Manufacturers will need to pay round trip shipping and in some cases, customs duty, delivery and possibly assembly (rate).

A perfect example of what we like to see is the Rans company. Rans has supplied us with a Scrambler Tailwind, Stratus, Rocket test and V-Rex34. Their Prototype Gliss #1 was shipped back to Kansas, but we are on the list to get an early production test model and there are other surprises on the way. At any time, RCN always has a Rans test bike.

For issues like RCN #39, this is a real BONUS to Rans—and RCN. Our Maxum test bike is very late, our S & B arrived with a broken derailleur and our Turner has a long list of problems that we are working on with the manufacturer. The Linear CLWB/Wheel EvoGLIDE has not arrived yet, the Windsheetah is a vapor trike and the Triton and Black Gold are due any day. RCN #39 is the prime issue of the road-test year, and we’re short of bikes to test. This shouldn’t last very long, because sure enough they’ll all show up at once and we’ll be buried in bikes.

Let us extend these words to RCN readers: Manufacturers: Send us long-term test bikes. We ride them, we get accustomed to them and they get compared to other bikes and written about. For 1997, we plan a long-term road test column that updates readers on our test bike fleet as we ride and learn more about them.

Downtown Seattle ride. Tony’s Metro has a Super Zipper fairing on the front of it as well as other trick upgrades which we will report on later.

EASY RACERS

Our favorite test bike of all time was returned to Easy Racer’s this past month. It was a 1992 Gold Rush Replica (GRR). This bike was a tried and true friend. Faster than any other RCN test bike in our history and the most dependable test bike as well. Upon final inspection there was not a single problem with any component or frame. Throughout the five years of this bike, it had two seats, the original, and then last year a new custom seat with allowances for my then broken tailbone.

I should mention the wheels. Fast Freddy built the 700c/451mm 20” combo when the bike was new and they only needed to be trued once over the years. The wheels have been passed on to new homes as they hadn’t reached even 50% of their useful life.

During the summer of 1995, I ran Aeroskopes front and rear. They were noisier, less true, rougher riding and heavier than the Freddy-built wheels, though they looked very fast. The Aeroskopes were faster on flats, but slower up hills. Other neat options outfitted on the test GRR were a custom Zepp Design Super Zipper fairing with “T”-Bracket “gullwing” mounts, an AirZound horn from People Movers and dual water bottle cages on the handlebars. The bike also had a handlebar bag borrowed from a test EZ-1. During the five years, the bike was stripped to the bare frame twice for maintenance (and therapy) and it was polished twice (even better therapy).

The replacement Gold Rush Replica Black Gold will be delivered to RCN in early May. It will be run with a Super Zipper while we await delivery of the Black Gold carbon fiber fairing and body sock.

Gardner Martin mentioned that Steve Delaire stopped by on his way back home from the San Diego streamliner races. Steve, Gardner and Ron Bobb took a Gold Rush Replica with Super Zipper and body stocking, a Gold Rush Replica with Super Zipper and Steve’s Solar Cat.
RANS ROCKET
This is our January 1997 test bike. Rans turned it over to us for long term testing, which means four season abuse. The Rocket survived the winter exceedingly well, and it's still my personal favorite SWB. The primary reason why is that I like to have two recumbents, one as an all-around-train bike, and one as a high performance bike. The Rocket is the ultimate all-rounder.

After six months of Rocket testing, mostly in the rain, our bike was... (text continues on next page)

HPM TRITAN
This is the trike that was originally designed by Dick Ryan and sold as the Ryan trike in the early 1990's. When Dick ceased production, Jan VanderTuin took over and Dick left off and has continued the design evolution and fine-tuned the design. Our test trike will have a rear disk brake. The HPM trike should arrive any day and we're excited!

LIGHTNING
We had requested an updated Stealth test bike last year, though that was canceled by Lightning. The new bikes look a lot better than our previous test bikes, though Lightning does not seem to have any interest in an RNC road test of any model at this time.

MAXAM
Our promised Reveille test bike has been delayed again and is overdue. Chris Dow called to let us know it is now promised for late April.

RANS GLOSS
Prototype Gloss #1 was packed and returned to Rans in mid-March. This dual Conti Grand Prix equipped speedster is one of the smoothest riding recumbents I've ever ridden. The higher-BB seems to make a difference in hill climbing efficiency, though nothing conclusive yet. We hope to do some timed tests when the production Gloss comes in later this year.

We have a completed S & B Beach Cruiser test ready for print.

RANS SCREAMER
The Seattle Bike Expo Screamer is sitting in our shop. Daughter Amy (age 8) can't reach the pedals and Dan (age 4) digs the ride, but really can't reach the pedals... (text continues on next page)

REBIKE
We did informally request a ReBike 2600 test bike last Winter, but nothing is scheduled.

RYAN
A '97 test bike with updated BB position is on the way.

S & B BEACH CRUISER
This test bike arrived in early... (text continues on next page)
Our Turner T-Lite has been a problematic bike. We are waiting for feedback from Turner and will have a full report in an upcoming RCN.

March. Here is what we have:
- Base Beach Cruiser ........................................ $955.00
- Alloy wheel upgrade ........................................ $555.00
- Double rack upgrade ........................................ $900.00
- Chrome steel "Low Rider" fenders ....................... $320.00
- Edge look-a-like rack ........................................ $15.00
- Whitewall tire upgrade ..................................... $16.00
- Seat Striping option ......................................... $15.00
- Kit stand ...................................................... $15.00
- Purple powdercoat (w/aero arms) .............. NC
- Ground UPS Shipping ...................................... $40.00
- Total Cost ...................................................... $873.00

The Cruiser was shipped assembled and ready to ride. Only after pretest adjustments did we notice a broken cable adjuster on the Sachs center rear derailleur. We’ve had bad luck with this range of Sachs derailleur. This is the 3rd one we’ve trashed. S & B was notified and has been slow in sending a replacement. It finally arrived after six weeks.

This will be a difficult bike to test because performance comparisons are out of the question. Most of these “cruiser” type options add weight and do nothing but slow you down, though some may think they look cool. Our bike is a 10-speed. There is an indexed 5-speed rear derailleur and a front double crank. We don’t know how that happened. We were expecting a 12, 14, or even 21-speed bike. The 5-speed freewheel with a double crank is not even an officially offered option according to the S & B spec (or RCN BC). The standard Beach Cruiser is a 6-speed.

TRICUMBENT (Raven)
A company reorganization has production on hold for the time being. Apparently, one partner called it quits and he was the fabricator.

TURNER T-LITE
Our test T-Lite arrived in early March as well. It’s a stock black large size T-Lite with the following equipment:
- T-Lite SWB .................................................. $1350.00
- Bar ends ....................................................... $100.00
- Front gearing ................................................ $100.00
- New gearing ................................................ $100.00
- Front hub ..................................................... $150.00
- Handlebars ................................................... $100.00
- Shimano wheel .............................................. $400.00
- Shimano frame .............................................. $400.00
- Shimano seat ............................................... $100.00

The bar-end upgrade usually includes bar-con, bar-end shifts, though ours had bar-ends only with Twist Grip shifters mounted on the handlebars, while the brake levers were mounted on the bar-ends. This is an odd and potentially unsafe setup. Luckily, this option is not generally available to customers. We have removed the bar ends.

In the two months we’ve had the T-Lite, it’s become labeled a problematic bike. There is a rear wheel spacing problem, missing wheel spacers and loose cups and cones. The hub problem was taken care of thanks to Winkel Wheel in Kent, WA, though we’re not convinced this is a one-time deal as the problem relates to the inadequate frame drop-out thickness and incorrect hub spacing to match the frame’s drop-out spacing. This is a design issue that needs to be worked out.

The Turner chain killer is among the noisiest that we’ve ever experienced. Some owners are updating the stock idler to an ATP Vision R-40 model (see T-Lite in RCN#38).

Turner has sent a list of problems and we are giving him some time to respond, send replacement parts or an updated bike.

WHEEL/LINEAR CLWB
We expect two of these any day. This bike is built by Linear and sold as the Wheel EvoGlide (direct from Wheel only) or as the Linear CLWB (available at Linear dealers everywhere except Wisconsin).

The only real difference is that the Wheel version has slightly lower price (about $50) and they are working on custom options such as a Zipper fairing and bar-end controls. Wheel will also do custom spec. We even have a picture of one that has a drilled out frame. Bikes are in stock and available now. We hear that they are selling quite well. Look for our test in RCN#40.

WIZWHEELZ
No test is scheduled, though we are confident that it will happen. It seems reader response to the buyers’ guide coverage is keeping them hopping. We’ve only seen pictures of this trike, so don’t ask us about it; ask WizWheels to send a test trike.
The Vision Zzipper & Poncho

In an area like the Pacific Northwest, rain is a way of life......

Story & photos by Terry Parker

In an area like the Pacific Northwest, rain is a way of life especially on the wet, western side of the Cascade Mountains. I was used to the moist conditions and at least I thought I was until last year. During the 1996 Seattle-to-Portland Ride, all of the riders received a tor- rential baptism on the second day of the event. That day was a series of the "fill-up-your-shoes" kind of downpours. Recumbent riders, because of their generally lower profile, suffer more in wet spray that still wanted to plague me. I made the flap out of an old mountain bike inner tube attached with judicious and tasteful use of some black duct tape.

Next, I purchased a fairing from Vision. On my bike with its configuration, the fairing provided me with warm legs and dry feet even in the most vicious deluges. All the claims about aerodynamic advantages of the fairing appear to be true, but the comfort with a good rain jacket or pants, something else might be required.

My continued search led me to try the Vision Rain Poncho. This bright yellow, coated nylon poncho is made to work with the Vision fairing. It attaches to the fairing with black nylon webbing straps at two points. One strap extends over the leading edge of the fairing and snaps on to its supporting framework. A strap and buckle system also holds the poncho over the rear third of the fairing. Both of those attachments are flowing through the zipper. The zipper, incidentally, is accessed from below to allow for adjustment while riding and for easy entry and exit while stopped.

So, how does it work? I've had lots of opportunities to use the poncho during the monsoons of the last several months, and I find it convenient and practical. It solves the water in the lap problem. It keeps my hands dry and warm, and it's easy to take on and off. My poncho is adjusted to provide enough tension on the first addition to my bike were fenders front and back. That kept me from being pelled by my own spray. My front wheel is a 16", and I found I needed a little rain and mud flap extending from the back of that front fender to block the pesky fort in the cold and rain turned out to be the fairing's strongest selling point for me.

When I ride in the rain, I almost always have my rain gear on except when I'm caught by surprise or when my ride is short enough to not care about the moisture. Even with the fairing and the fenders, I did notice that water pooled in my lap and that my gloves would get soaked quickly. If you've got good rain gear, the inconvenience of having a lake in your lap is no big deal, but if you leak anywhere or if you are caught without a secure and easy to connect. Tensioning buckles on the straps allow you to customize the fit for you and your bike. The poncho fits over your head and drapes over your shoulders. The rear of the poncho is held in place by being between your back and the mesh seat. Vision has attached a yellow lycra extension on the back of the poncho so that you can easily reach behind your back and pull the lycra flap down to position the poncho on your shoulders.

There is an ample, zipper opening for your helmeted head. A flap with a velcro closure keeps rain from it to allow water to run off. It doesn't flap noisily when I'm in a fast descent. The yellow color increases my visibility as well.

I am hard-pressed to find disadvantages, but there are a few thoughts. In really splashy conditions, the poncho won't protect from spray entering from the sides because it does not fully enclose you and is not intended to do that. With the fairing, fenders and rain poncho, however, I've ridden for close to an hour in light rain in street clothes and stayed relatively dry.

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to see your feet, and some people who need to look at the pedals to get their feet connected might find that disconcerting at first. I had no problems with that myself. People with mirrors set low on USS bikes will have their rear view obscured. A helmet mirror might be necessary. With my ASS arrangement, I have the mirror mounted on the end of the handlebars. It extends beyond the edge of the poncho, so visibility is no problem. Vision wisely suggests to try this poncho out in controlled situations before using it on a regular basis.

The price for the poncho is $100 from Vision (the Vision Zzipper fairing is not included, though necessary). I think it is worth the price if you have to regularly deal with the capricious weather like ours here in the Pacific Northwest. My commute in the morning is at times dry, and I don’t always bring my rain gear. On my way home in the afternoon, the weather often takes a turn toward the soggy. I can quickly attach the poncho and get home in my regular clothes without being soaked. I always carry it with me.

I’m not sure if the poncho adds any to my aerodynamic efficiency, but it’s as close to a streamliner as I’ll ever get. The fairing on my LWB is aesthetically pleasing, and the poncho seems like a natural extension. Vision has created a practical piece of equipment here in this dandy little poncho, and it’s worthy of your consideration. The only suggestion that I would make is that the sides of the poncho are an excellent place for some reflective material. It could increase your side visibility in dim conditions. In the final analysis, my ultimate test for equipment is whether I use it a lot. I do. It’s always on my bike in use or on my rack bag. I don’t leave home without it. ☺
Going Hybrid

by BJ Strass

It seems that no matter how eccentric, unusual, futuristic, forward thinking and open-minded someone considers themselves they can still be offended by something too unusual...too far from their comfort zone. We BentHeads have been keen observers of this for years. We ride unusual, futuristic, forward thinking bikes. Are we embraced as prophets and saviors by the cycling community?...Hardly! It never fails that we offend other cyclists, thinking of themselves as open minded, but turning out to be "prudes." We are accused of cheating through use of such witchcraft as "aerodynamics" and "comfort." Our futuristic bikes, by mere presence, can offend these people. It doesn't matter how much carbon fiber or titanium is in the composition of their bike, or how fast, far or comfortably we can ride. It doesn't matter that it is all about fun, exercise, environmentalism and most importantly a better, more appropriate, mode of transportation. We are still too far out there for these prudes to comprehend.

Over the years I have dealt with the occasional vocal taunting of these individuals in many ways: anger, sarcasm, rhetoric, and finally just by ignoring. The fact that the public is beginning to accept recumbents eases the way but the prudes are still out there. I like to feel that these incidents have brought BentHeads closer together as a group, bonding in a brother/sisterhood of sorts. Well folks, over the summer I found a totally new way to bring out the cycling prudes, and this time some of them are recumbent riders. How is this possible brother BJ? Easy, take your bike and stick a motor on it!

WHY?!
Why in the world would someone want to take a perfectly good bike, especially a recumbent, and stick a motor on it. Well there are many reasons. Generally the idea of "Going Hybrid" is to allow the rider a greater top speed, easier hill climbing and/or longer range with the same effort. The concept is that you still pedal, but get a power boost. It's not an effort to turn a bike into a motor cycle though some of these units can almost turn your bike into a moped. Here are some reasons for going hybrid:

1. Commuting: If you live a long distance from work or need to arrive reasonably perspiration free.
2. Hills: Hills can be fun to climb but can also much limit your distance.
3. Special needs: Many riders go to recumbents due to a physical problem. An auxiliary motor can allow a rider to keep up with a faster group.
4. Touring: crossing the Rockies, Great Plains or Appalachians could be in reach of more people if they had an assist for the more difficult sections.
5. Environmental Impact: The proper setup can put commuters on bikes that they would not otherwise ride. Also a small motor, electric or gas, would have much less negative impact on the environment, than an automobile.

Here's a good example. A few years ago John Tetz rode his recumbent on a tour of the east coast. He had built an assist using a tiny two cycle gas motor geared so that it was only good for speeds under about 10 mph. It was used primarily for hill climbing and consumed only about $11 worth of gas for the entire trip. Obviously this application worked out very well as he had the auxiliary power when needed and was able to cover a great distance while using a very small amount of fossil fuel.

TYPES OF HYBRID ASSISTS
As more and more power boost/motor assists come onto the market the selection can get confusing. It is important to first consider what will be the unit's main use. Long commutes? Touring? Short jaunts to the market? The unit can be tailored to the usage. Do you want just a boost on hills or do you want to greatly increase speed over long distances? Do you want the flexibility and high power of gas or the clean quietness of electric? Over the summer I took the opportunity to study and use as many of these hybrid units as I could. So is brother BJ now a confirmed "Hybrid BentHead?" Not just yet...but I am considering it very strongly.

DIMENSION EDGE
The Dimension Edge motor kit is designed to mount to most traditional bikes. It is light, at around 10.5 pounds and powerful at two horse power. As with most kits, the motor unit powers the bike through a friction drive but this unit has a system to engage and disengage the drive wheel. When the lever is engaged the motor unit forces it's urethane roller onto the bike's rear tire. Friction drives keep the unit simple, light and fairly reliable. The Dimension Edge drive wheel is a 1-1/4" urethane roller mounted onto an extension of the motor's drive shaft. Urethane seems to be a good choice as it has high adhesion and wears well. The motor unit mounts similar to a rear rack. There are two, two piece struts which screw on to the dropout rack eyelets and then a front mount which mounts to the seat post (on a traditional bike).

We chose to test the motor unit on a '96 Maxam Revelle as the rear triangle is similar to a conventional bike, and the Revelle is a very strong, though heavy, bike. Mounting the motor unit was not overly difficult, but did require some fabrication and modification of new front brackets due to the lack of a seat post. A bit of bending and drilling of a new aluminum bracket and the motor unit was on the bike. Next we had to mount the throttle control and engagement lever.

I first mounted the engagement lever to the stem as it would be on a conventional bike. In testing the action of the lever I found it was too far to reach so it was moved to the frame tube forward of the seat. The cable and housing were too short for a long wheelbase, and so a tandem brake cable and longer housing were substituted. With the engagement lever now mounted the throttle control was next. As with the engagement lever the throttle control cable/housing were also too short and a tandem derailleur cable and matching length of housing were used. The throttle control unit is actually a generic, non-indexing mountain bike thumb shifter. We mounted it upside down under the brake lever and were able to control the throttle using the thumb and forefinger.

After mixing up a half gallon or so of gasoline premix with a good quality synthetic two-cycle oil, I filled the tank. This was an immediate problem as the angle of the motor unit and fuel tank would only allow the tank to be 30% full. Undaunted, I engaged the choke. Flipped the tiny power switch on, and began pulling the starter rope. After four or five
pulls the motor started and idled along happily like an anxious leaf blower after a fall wind storm. I allowed the motor to run for fifteen or so minutes at a fast idle, as a preliminary break-in period, and shut off the kill switch. Now it was time for a test run.

I wheeled the Reveille out onto the street and pedaled up to about 10 mph, reached down, and pulled back the engagement lever. The drive wheel met the tire but was not tight enough so the tire slipped and the motor didn't start. Back to the shop for adjustments and out on the road again. I repeated the same scenario, and this time the motor fired easily. I slowly increased the throttle to about half open and the bike sprinted easily to over 20 mph. At this point pedaling was almost useless. The motor had much more power to speed along than my leg muscles could supply. A few laps around the block and I decided to open it up to see what top speed would be. I shifted the bike into high gear while pedaling and increasing the speed until the gears topped out, but the bike kept accelerating. By top speed we clocked the bike at around 38 mph, but trust me, it felt like I had just taken ten G's on the space shuttle. This was way fast. Too fast!

Also I had discovered that in trying to make turns at speeds lower than 7-8 mph the motor would choke out unless disengaged. With the first test over it was time to go back into the shop and work out a few of the bugs.

First I removed the drive wheel and checked it on my lathe. The surface is cylindrical and the diameter was 1 1/4" by about 3" wide. I cut the wheel down to a 1 1/8" diameter and rounded it into a concave shape. The outer edges remained 1 1/4", but the center was now 1 1/8". This, I felt should gear down the motor and allow slower turns and top speed, while the concave shape would improve tire contact. While I was doing this my riding pal, Cornell, fabricated a new front mount allowing the front of the motor unit to tip upward and the tank to hold more fuel. I then installed a small spring on the throttle cable forcing the throttle to return to idle when released. Installing the drive wheel and readjusting the drive contact and the bike was ready for the main test, the seven mile commute from my shop to home.

With a small backpack slung across the back of the seat and a nearly full tank of fuel I started out. My shop is situated in a semi industrial area on the outskirts of town, and the constant engaging and disengaging became a detriment and I was happy to shut off the motor while at one of the last stoplights and finish the ride solely under my own power.

Over the next two months we rode the hybrid Reveille quite a lot running errands and in a couple of more commutes with no real reliability problems. The adjustment struts needed occasional minor adjustment built, U.S. made, light and very powerful. If using a gooseneck two cycle oil mix can be cut to around 50:60 to 1 ratio and smoking is minimal. I would expect this motor to run well for a long time. We didn't check the fuel economy but after doing in the prexim found it to be good. Dimension Edge claims you can get over 200 miles per gallon and I feel this may be possible.

Overall I was reasonably pleased with the kit. It did have to be modified to mount but we BentHeads are already adept at adapting weld bike parts and accessories for our recumbent. The finish and overall look of the aluminum struts and housing were very industrial and unpolished, though powder coated units are available. While mounting the motor unit I found the inside edges of the housing were very sharp so I placed a 2" gash along the palm of my left hand. This since has been corrected so all the units are now laser cut opposed to shear cut. The rear struts are also of a thicker gauge which should reduce bouncing on rough roads.

Can I recommend this product? Sure if the user understands and accepts the quirks as well as the benefits of adding the Dimension Edge motor kit to a bike. If you live in a rural or semi rural area with minimal stoplights and lots of open road the unit is great. It allows someone to cover long distances without the worry of the battery going flat. Also someone with a physical or stamina problem can benefit from the hill climbing capability. Being that the power is gas derived it is possible to tour long distances using the unit as fill ups are only a service station away, you just carry a small bottle of two cycle oil. Also at $589 the unit's cost is reasonable as compared to some of the electric boosts on the market and it is much more powerful. The Dimension Edge people are very enthusiastic and willing to work with BentHeads to meet their needs. They will custom install a kit on your bike if you are willing to ship it to them.

THE ZAP

ZAP (standing for Zero Air Pollution) is one of the old timers and most successful in the hybrid conversion market. They have been building units for a few years and are one of the better known. The ZAP consists of the power unit which mounts over the rear wheel, a battery pack, made to fit into the triangle area of a conventional bike, and the two speed power switch. The power unit is basically two identical elec-

BJ's Golfe pedal/electric golf cart—BJ Stress
One drawback I felt was the inability of the rider to disengage the unit from the tire. If you are going along without the "power on" the unit is still engaged and you pedal pushing the drag of the motors. The drag is not horrendous, and you are recharging the batteries, infinitely, but still selective disengaging would be a nice option.

ZAP has had quite a bit of success in hybrid racing domestically and in Japan with two world records. Also they have successfully outfitted many police mountain bikes with specially modified units. If you want a fairly long distance electric unit offering good speed, and don't mind the added weight, the ZAP could meet your needs. Like the weight the list price for a ZAP is also hefty, with a basic unit starting at $499.

HAMMER BY CHRONOS

Unfortunately I have not had the opportunity to use a Chronos Hammer. It is electric like the ZAP but otherwise there are few similarities. The Hammer is light, at about 7 pounds for the entire unit including battery. The battery is an oversize water bottle type, similar to some lighting systems, and takes little room on the bike. The Hammer is meant as a hill assist with a range of 5-12 mph.

I have had no luck in getting Chronos to return my calls. I can't say for sure whether they are still in business or not.

EROS/OMNI INSTRUMENTS

The EROS is perhaps the best deal on the market, at least for electric. It is simple, versatile, offers lots of options and has the best cost. I have used two of the kits to convert bikes I have built. One was a custom Meridian recumbent and the other was a one-off recumbent trike cart. Both worked well and were very reliable.

The motor unit of the EROS appears to be the same as used on the ZAP except EROS uses one motor instead of two, and thus the EROS is not as powerful or heavy. The EROS is a booster system, that when mounted allows the use a boost on hills as well as cruising speed up to about 15 mph. Weight of the kit is also pretty good at about 12 lbs including the battery pack. Also there is an option which can be ordered that allows the unit to be disengaged when no drag or power assist is desired. The kit comes with a simple mount to attach the unit to the seat tube of a conventional bike placing the drive wheel on the rear tire. This will not work on most recumbents but an adapted mount can be made to place the unit similarly on a recumbent or you can order the optional front mount allowing the unit to be placed on the front wheel. The battery pack is likewise designed to be placed on a conventional bike but I had no problem making minor modifications to mount it elsewhere.

The power switch is a simple trigger which velcros to the handlebar grip. There is one speed only.

In using the unit I found that an average scenario would be: riding along with the unit disengaged while on the flat, engaging the unit with the power on when coming to, and climbing a hill, leaving the unit engaged with the power off on the downhill, and disengaging the unit when back on the flat. If the engaging and disengaging became a problem in heavy traffic, I left the unit engaged and just pedaled along adding power as desired. EROS rates the unit at a 8-10 mile range of constant use while pedaling but this should easily be more in periodic use. I commuted about seven miles each way in this manner and found I need only charge once a day. I also enjoyed the quietness the unit offered and found most people had no idea the bike had a motor in use.

When building up the aforementioned bikes I found Joe Stevenson, owner of Omni Instruments and designer of the EROS, to be very helpful and open to recumbent use of his kits. The EROS can be ordered as a complete kit or in different stages of completion. Joe will also sell individual components. This is great for the endlessly tinkering Benthead. The basic kit for the EROS starts at a very reasonable $199. Joe has also stated he is working on two new systems due out in the spring. The first will be similar to the present unit but offers better efficiency at lower weight, and the second will be a super compact system similar in use to the Chronos Hammer.

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Petaluma, CA 94954
Phone: #707/765-6992

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Recumbent Tech

The Dimension Edge Power Kit

Story & photos by Linda Smith-Weinberg

Since becoming a fan of recumbent travel and living around the hills of San Francisco, I have been looking for auxiliary power means for a recumbent to negotiate the ups and downs. Electric vs. Fuel

I began by reading an electric auxiliary power review of a Zap-equipped Tour Easy in the RCN last year. I then went to the 1996 Anaheim Interbike trade show and studied the two electric and one gas-powered alternatives represented there. Since I was in a research mode, I thought I would test all, but the representative at one of the electric power booths had just made a deal with Shaper Image for his folding bike and electric motor and was not interested in what less than 200 pieces actually he did not even know what a recumbent bike was, nor did he seem interested, unless I wanted 200 or more, so I stopped that pursuit. At the other electric-power booth, a company was also only interested in large quantity sales or setting me a manual about the history of electric power for a few hundred dollars.

At the Dimension Edge booth, I met Robert and Kristin, who had already sold a gas-powered engine to a Vision customer, would sell in any quantity, and were willing to work with the customer. After reading their material, I became even more interested in this system as it offered the ability to start from a standstill manually as well as by a power-grip handle from a relatively slow speed pedaling, compared to the electric versions. I was told that an electric would require a speed of about 10-15 MPH to initiate the motor and continuous pedaling.

For a little while, I was thinking that I shouldn’t be using fuel for the environment’s sake, but the fuel economy is such that Dimension Edge claims that you can achieve more than 200 miles per gallon (which is mixed 100:1 gas to oil), or less than one cent per mile (including oil). The fuel tank has a capacity of 3.5 cups of fuel.

One of my concerns with the electric motor had been that there would not be sufficient juice if I needed it until the next charge or would have to carry around supplemental, heavy, large batteries. I could always get gas and oil at a gas sta-

Installation

There is a detailed 10-page step-by-step installation manual with photos and drawings included in the original package if you’re mechanically inclined and patient. Just recently, a video has been prepared for steel handle. We were then in touch with Dimension Edge, who stressed the importance of having the handle pull toward the rider. Since we originally received our order, the handle has been improved as have other parts that would cause trouble: all have been made tougher.

A Vision dealer reported to Dimension Edge that the handle on the captain’s seat had broken. We’ll have to see how it did it and maybe we’ll revise our setup.

Start Your Engines

To start the engine, push the switch on, then you can manually pull it to start or you can be riding and engage the start-up handle when you are traveling as slow as 5 MPH (maybe at higher speed if the engine is not warmed up). Dimension Edge says that when engaging the engine on a tandem, for safety’s sake, there should be a pause in pedaling. Once the engine has engaged and your hands are back in diagonal control (more important if the captain is engaging), then you can pedal as desired.

Our first test ride began in a large parking lot and moved immediately to a trip around a lake (Lake Merced, for you locals). At about 7 miles per hour, I turned on the motor by pulling the handle which simply lowers a drivewheel onto the rear tire the motor began to pull all at once without any problems. The sound the motor makes is comparable to a leaf blower and of course fluctuates, depending on how much gas is administered and what level of surface you are traveling (uphill, downhill, level).

The sound that the motor made and the fact that it was moving my husband and me so quickly around, without pedal power, made us laugh and giggle, or maybe for me it was the slightly tickling vibration I felt from the motor behind me. Once the motor was warmed up, you can shut it down by closing the throttle and disengaging the drivewheel (moving the handle forward) and you are able to restart at a slower speed. I found if

"View from right side. Dimension Edge system in place on tandem stoker's seat. Aluminum handle is on stoker's right side. Note that cable is looped, but should be cut down to be in as straight a line as possible."

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we came to a very slow speed or stopped suddenly, the motor would stop but would restart as soon as we accelerated or started up again.

Another concern I had with this engine was that the sound of the motor would be offensive, but seated just in front of the motor or standing on the street listening, the sound is not that noticeable and not as loud as those skateboards with motors or, of course, motorcycles. However, communication between the captain and stoker is affected: the captain can hear the stoker, but not vice versa, but that is also directionally affected. We have developed some hand signals, but have also used voice-activated walkie talkies (but that's another story).

Adjustments

After our second outing, we became aware of how important it was to make sure all parts are checked to see if they need tightening or other adjustments before each trip: the vibration of cycling and running the motor vibrated some parts loose. On one trip, we rode alone, we drooped the drivewheel and assembly into the street, but not before melting the plastic drivewheel. Fortunately the package had included another urethane drivewheel. We could see that the drivewheel we replaced had not been centered on the rear tire since only one side of the drivewheel had melted and degraded; we found nothing had happened to the rear tire itself. There are specific materials about tire wear and when to use the dry-weather drivewheel versus urethane drivewheel. There is also a warning about pea gravel, rock holes, and oil slicks. Once, we inadvertently hit a couple of bumps and the support legs loosened the drivewheel onto the rear tire. We had to adjust the legs with tools before we could continue as the drivewheel had locked down.

There is a Remote Kill Switch included in the kit, which we have not yet installed as we are planning to test this motor on the LWB and SWB Visions. On the tandem, we eventually plan to mount the Kill Switch with the captain, although the cable is not long enough, so we will replace or splice it. Once the switch is installed, the On-Off button on the engine no longer functions, which means the engine is always ready to go on with the engaging of the handle: unless you buy and install a T-connector at an electrical store.

When you order your engine either through a dealer or directly from the company, you can specify which two wheels you want to come with your engine. There is also a six-pack available ($40), which includes all the types of wheels including the new aluminum wheel (for rough and hill terrain), the all-weather aggregate wheel (for wet and dry conditions), and the urethane wheel (dry, basic conditions).

To eliminate the unknown intricacies of installation, you may want Dimension Edge to give you custom-made parts for your particular recumbent, for about $30. They are also very amenable to helping make the changes necessary to fit any bike and open to feedback. There is a full-year warranty on all component against breakdown: the engine has a warranty of 90 days; all through Dimension Edge.

Speed and Hill Test

Finally, with new improved parts, a new drivewheel in its proper place, and all adjustments and inspections made, we ran a test with a speedometer at the lowest throttle speed, we were between 17 and 25 MPH, depending on the incline, with no pedaling involved, two heavily dressed adults, everything included at a total weight of about 380 pounds. Since we were traveling through Golden Gate park, the stoker did not feel comfortable going faster than 25 MPH, but it seems that speed is no problem. As with all gas-powered vehicles, at higher speeds, fuel consumption will increase. On short distances, we found with pedaling we were nearly doubling our speed.

The main reason I wanted this engine was to be able to climb the hills to our home approach at the end of a pleasant ride. It’s been a strain when you’ve been out riding (without your motor) and you’re faced with three major hills to climb to get home: well, this little engine could – it passed my test. With the engine running and slight pedaling, we were up the hills in no time. I think my husband was more interested in this engine with his need for speed; so, both of our needs were met and we haven’t yet refilled the fuel tank.

If you contact Dimension Edge, please let them know you read about them in the Recumbent Cyclist News and have your bike specs on hand. You can reach Dimension Edge at 2800 Virginia, Billings, MT 59102, Email: edgekit@wpt.net, Fax: 406/256-0253, Tel: 800-652-8495, 406/245-5380.

EDITORS NOTE: Though powerkits may adapt to bicycles, their use may void warranties or cause premature component failures. You should discuss policies and use with your specific manufacturer.

From what we can tell, custom power-kit mounting is not for everyone. If you are a skier or mechanical by nature, this project could be for you. Dimension Edge is working on written details for recumbent model-specific installations at this time. (The only installation that we’ve heard of that doesn’t work is the Easy Rider Tour Easy).

Our best recommendation is to seek out a model or dealer that has had power-kits mounted successfully. Dimension Edge and People Movers have adapted the BikeE, though we are not aware of BikeE’s policy on this. Dimension Edge also sells folding bikes with kits installed.

This report is not an endorsement of the Dimension Edge product, as we RCN have not tried it, however, no other auxiliary power-kit maker has tried harder to work with our micro-industry and we love companies that are committed to the recumbent world.

These reviews are freelance submissions to RCN.
I have never been overly concerned about comfort when designing a bike. It's not that comfort is unimportant, but for me it has always taken a back seat to performance. As far as I am concerned any recumbent is so much more comfortable than an upright that there is no need to worry about it.

This is the first bike that I have designed purely for comfort. It has both front and rear suspension. I was determined to build this bike without compromising the performance. To do that, I knew I would need to lighten the frame to compensate for the extra weight of the suspension.

I have had previous experience with composites when building my tandems and streamliners. I decided to go with a combination of carbon and Kevlar. The front section of the bike was made from the molds I made for my tandem, so that part was quick and easy. The rear section of the frame was another story. I figured that I would have to make some changes, so I decided to make a plug and mold. This takes a long time and it's very hard to make changes. Instead, I decided to do a one-off frame. That means I carved the frame out of foam, and then covered it with carbon and kevlar. This allows the builder to make changes quickly and easily if needed be, but it's harder to get a good finish, and of course, if you want to make more than one bike, you're out of luck.

All of my bikes are FWD (front-wheel-drive), and this presents a real challenge when it comes to front suspension. There are several ways of doing it, and what I finally settled on is what I will describe as a leading-link suspension. The whole front is connected to the steering tube by two arms of unequal length. Because of this, the front section does not simply move parallel to the steering tube, but through an arc. The center of the arc is located at the bottom bracket. As a result when the wheel hits a bump and rebounds upward, the bottom bracket and pedals do not. This was necessary because I didn't want the weight of the front

An elastomer block is mounted between the fork and main frame. The front suspension does a great job of absorbing pot holes and rough spots in the road, but here is what really smooths out the ride. I use 24" x 1" wheels both front and back. I wanted the same sized wheels so that I didn't have to carry two sets of tubes on long rides and it also allows me to shorten the wheelbase and overall length of the bike. This bike is well within the parameters of USCF regulations for racing. The wheelbase is 41 inches, the bottom bracket height is 17 inches and the overall length with the pedal extended is 73 inches. The elastomer block in the rear suspension can be changed in a matter of minutes, and doing so will lower or raise the seat level and inversely the bottom bracket. The given measurements are those that I find the most comfortable, but can be changed depending on the size of the elastomer.

I wish I could settle off a long list of impressive components, but as is the case with all of my bikes, the components are either used or outdated, or middle of the line. I am still using friction bar-end shifters. I bought a bag of them eight years ago for three dollars a set. I used the last set on this bike. I have no idea what I will do for the next bike, as I love those shifters. The brake levers are from the Nashbar catalog. The only other component I bought new was the rear derailleur, which is a Shimano Dore XT with a long cage. The front derailleur is made from an old rear derailleur. The gearing ranges from 29-112 inches. I tried a cassette hub for the first time, thinking it would be easier to change the gears, but not so. They used to sell individual gears, but now they only sell the whole cluster that is riveted together. Although the gear ratios are not exactly what I wanted, they are acceptable, and the bike shifts pretty well.

Overall, I am really pleased with this bike, it took a long time to work out all of the bugs, but it's been worth it. It is as fast as any of my unfaired bikes on level ground, and faster on the hills. It's also quicker through the slalom, and is definitely the smoothest riding bike I have. It's become my bike of choice for all types of riding, whether it is long, short, flat or hilly, fast or just cruising.

EDITORS NOTE: Tom Traylor has a worldwide reputation for his FWD recumbents and he is very fast on his bikes. Tom sells building plans for his homemade steel version. Plans are $14. Tom Traylor, 22407 Winterside Ave., Torrance, CA 90705.
1997 EVENTS

ALTERNATIVE BICYCLE RIDES
- Bike Rides: Folders, Randalls, and HPVs
- Every Saturday, at Bicentennial Park in Southcenter/Tukwila area. Meet at 6:45 to 7:00 a.m. and ride to Valley View, West on Sounder Blvd., one block, right to Bicentennial Park.
Contact: Bob Fitch 206-631-9728 or Dr. Rebecca @wsu.com

RECUMBENT DEMO/RISE
- Sunday, May 25th, 8:30 a.m. to 10:00 a.m.
- Yoshimori, Michigan (near Ann Arbor)
- Demo 9:00 a.m., 25 mile ride at 10:00 a.m.
- Bob Knezakins at 705 Wright, Yoshimori, MI 48191.
- Phone: 517-437-9058 or Email: BobKnezakins@compuserve.com

MIDWEST 'BENT ROUND-UP
- May 24 & 25, 1997
- Hales Corners, WI
- Wheel & Sprocket @ 414-202-6600
- Bob Tour @ GE
- Saturday, May 24, 10-12, Gas Works Park

MICHIGAN HPV RALLY
- July 6, 1997
- Waterford, MI
- S.A.S.E. to Michael Elschoff, 2700 Lake Shore Dr., #307, St. Joseph, MI 49085

MIDWEST RECUMBENT RALLY
- June 14th and 15th, 1997
- Stevens Point, WI
- Hostel Shoppe phone: 715-734-3878

FATHER'S DAY 'BENT RACE
- June 1997
- Elkinsburg, MD
- Contact: Larry Black @ 301-854-6876 or email: blakie@acol.com

CENTRAL CALIFORNIA BENT RALLY
- Saturday, June 7th
- Fresno, CA
- 56 miles/85 miles/85 miles options
- Fresno Cycling Club, PO Box 11531, Fresno, CA 93773
- Contact: Bill Smith @ 209-256-3517 or email: billblye@jcom.com

NATIONAL HPV CHAMPIONSHIPS
- June 28 & 29, 1997
- Burlington & Kenosha, WI
- Contact: HPRR, event see below

RCN OPEN HOUSE/RISE
- To be announced
- Kent, WA
- SASE to RCN for info.

HPV WORLD CHAMPIONSHIPS
- July 25-26, 1997
- Cologne, Germany
- Contact: We have not been supplied with contact info for this event.

EASTERN CANADA RECUMBENT RIDE
- August 3, 1997
- Mahone Bay, Nova Scotia, Canada
- This ride will be part of the Atlantic Canada Bicycle Festival, For more information, call Kevin Baker (206) 287-0119 or fax 206-468-6840

NORTHBRIDGE
- August 1997
- Northbridge, IL
- Contact: HPRR, event see below

MT. AIRY BEVENT
- August 23 & 24, 1997
- Mt. Airy, MD
- Larry Black @ 301-854-6876 or email: blakie@acol.com

INTERBIKE INTL. BIKE EXPO
- September 4-7, 1997
- Anaheim, CA
- Contact: Interbike @ 714-376-6161

PEOPLE MOVERS BENT BASH CHALLENGE Event and Ride to the Beach
- September 6, 1997
- Orange, CA
- Contact: People Movers @ 714-853-3083

LASERR RECUMBENT RALLY
- Day 6, 7 & 8, 1997
- Daytona Beach, Florida
- Contact: SASSE to Fred Ungewitter, 1004 Forest Ave., Daytona Beach, FL 32119-1591, phone: 904-777-5788, fax: 904-777-5789, email: fredo@ameritech.com

USA RIDER GROUPS
- ALABAMA/GEORGIA (North state): First Sat. of every month, 9 a.m. from Hokes Bluff, AL, City Hall.Call Dave @ 205-482-3454 or Email: dave@cybrian.com
- CALIFORNIA, EASY RIDERS (Watsonville): 3rd Saturday of each month, 9:30 a.m., phone 408-722-9797.
- CALIFORNIA, (LA area): Second Sun. of every month, 10 a.m. at Burbank Freeway, Van Nuys, CA. Call Steve at 213-952-2499.
- CALIFORNIA, PEOPLE MOVERS, (Orange County): Monthly rides to the beach in Orange County, phone: 714-693-2963.
- CALIFORNIA, (San Diego): Last Sat. of every month from the Mission Bay Visitors Center, 2366-70 Lagoon Drive, Carlsbad CA 92007, phone: 619-524-8123, Email: bill_volk@rightspans.com.
- CALIFORNIA, EASY RIDERS (San Dimas): 25 mi. E. of LA: Casual ride, meet Sat. 10-11 A.M., call Leo Ketterman @ 909-599-0698 or look @usunet
- FLORIDA, FOOLS CROW Cycles, (Tallahassee): Call for schedule and Sunday Bike Church ride. Call Ed Beach at 904-244-2747 or email: edbeach@frankstlavga
- FLORIDA, LASERR, (Daytona Beach, FL, GA, AL): SASE to Fred Ungewitter, 1004 Forest Ave., Daytona Beach, FL 32119-1591, phone: 904-777-5788, fax: 904-777-5789, email: fredo@ameritech.com
- ILLINOIS, WISIHL HPVers, (Chicago area): Meets the 2nd Sat. of each month. Contact: Tom Brunkalla, 260 S. Champaign, Apt. #1, Elgin, IL 60120-6619.
- ILLINOIS, (Chicago area), Contact: Joe Dickman @ 708-325-2031 Call to find out about when & where.
- ILLINOIS, (Chicago area), Contact: Tom Smith @ 708-325-2031 Call to find out about when & where.
- WASHINGTON, (Vancouver area) recumbent rides through the Vancouver Bicycle Club meet on the 3rd Saturday of the month from the Old Holland Bakery, Ride starts at 6:00 a.m. Contact: Bice Simpson @ 360-891-1947

NORTHWEST RECUMBENT RIDERS
- If you were planning to attend any NW recumbent events this season, please check our above NEW ride info!

USA NATIONALS
- June 26 & 27, 1997
- Burlington & Kenosha, WI
- Contact: HPRR, event see below

RCN RIDE GROUPS
- MICHIGAN: Michael Elschoff, 2708 Lake Shore Dr., #307, St. Joseph, MI 49085, Phone: 517-998-4056.
- MINNESOTA: MnHPVRs (Mpls.): Meets 2nd and 4th Thurs., 7 p.m. Lake Nokomis Community Center. Call: Meets Tuesday May 6th, 7:30 p.m. Call 126-2372.
- NEBRASKA, County Cruisers (Omaha): Ride on the 2nd Sun., 6-30 p.m. Contact: Armand Gibbons, No fees, no dues, just lots of fun. Phone: 402-393-4472.
- OREGON HPVRs (Greater Portland): Meetings, rides and a monthly newsletter. Monthly ride contact: Jeff Walters @ 503-254-7356 Email: jwalters@prodigy.com or DHVRP, PO Box 614, Beaverton, OR 97007.
- TEXAS: BENT Recumbent Bicycle Enthusiasts of North Texas, Monthly group ride, 4th Saturday. Call for time and location. Phone: 214-389-1355. WEB: http://web2.l a i n e . n e t / m b e n t / b o r r o d i . h t m
- WASHINGTON, NW Recumbent Riders Alternative Bicycle Rides (Seattle, King County): No host led back group meets every Saturday, at Bicentennial Park in Southcenter/Tukwila area, 1:30-2:30 to Valley View, West on Sounder Blvd., one block, right into Bicentennial Park. Contact: Bob Fitch @ 206-354-6876 or Dr. Rebecca @wsu.com
- WASHINGTON, (Vancouver area) recumbent rides through the Vancouver Bicycle Club meet on the 3rd Saturday of the month from the Old Holland Bakery, Ride starts at 6:00 a.m. Contact: Bice Simpson @ 360-891-1947
- WASHINGTON, Home builder Group: Contact: Nick Helm @ 206-226-7560.
- WASHINGTON DC AREA: W.H.R.L. Meets Saturdays weekly 6 a.m. (or a.m.) Winter at the Ward Mill Rec Center, MD, north of and north of Beach Dr., weather permitting, at 8 a.m. Contact: Vic Beesman @ 301-887-8589 or vic@clarknet.net. WHRL: majoraonline@glomex.org, Message board: SUBSCRIBE WHRL

Rider Groups
- Rider Groups: Let us know if you’re on a list and would like to be added to our database. Please send us the dates, time, location, and contact info to: RCN Riders, PO Box 59756, Renton, WA 98059, or email: Dr. Rebecca@wsu.com

RCN Renewal Info
- RCN has been printed and mailed out since 1990. RCN Renewals are mailed quarterly via bulk/4th class mail. They are prepared a month in advance and can take five weeks to get to you. They can be delayed by ten weeks by the time you receive them. If you have any questions about your renewal or if you think we’ve made a mistake, drop us a note.

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• European Service, Contact Future Cycles, Friends Yard, London Road, Forest Row, East Sussex, England, RH10 5EE. Ph: 01342 622 847. UK rates are £25.95. Australian customers contact Greenspeed, Ph: +61 3 9752 4115 Email: greenspeedoz@hotmail.com.au. Distributor's prices may vary.

MAIL TO: RCN, PO Box 58755 Renton, WA 98058
BIKEE “RoadE” OFFERS PERFECT BALANCE OF SPEED & COMFORT
Corvallis, OR—Imagine yourself speeding down the road on your bicycle, wind rushing through your hair—all the time sitting up comfortably and enjoying the view. With BikeE Corporation’s new RoadE high-performance semi-recumbent bicycle, riders enjoy this ideal balance of comfort and speed.

“The RoadE is a perfect alternative for those who are interested in the BikeE’s comfortable cruising position, but desire speed and power for climbing and sprinting,” said Andrew Letton, BikeE racer and enthusiast. “I was pleasantly surprised with how well the RoadE performed compared to other vehicles at last year’s World HPV Championships. Consistent high placings in all the events, including a win in the 200-meter Sprint, earned me the overall win in my class.”

With the enhancements of high-pressure Primo tires, Sun M14A Aero rims, and front and rear dual pivot caliper brakes to the trademark BikeE aluminum frame, the RoadE offers a faster, more efficient ride—without sacrificing the comfort of the BikeE. The RoadE is priced from $910.

“First and foremost, BikeE’s emphasis is on comfort—we have never considered ourselves a manufacturer of racing bicycles,” said John Moreland, president and CEO, BikeE Corporation. “After the success of racers like Andrew, however, we’ve come to realize that with high-performance enhancements, the BikeE does hold its own and is extremely quick off the line. We look forward to offering the RoadE to the group of riders who desire high performance as well as comfort.”

BikeE Corporation is based in Corvallis, Oregon, where it manufactures both 7- and 21-speed bicycles (semi-recumbents) and a complete line of accessories. For more information on the dealer nearest you, contact BikeE at 1-800-231-3136; 5460 SW Philomath Blvd., Corvallis, OR 97333.

OPUS RETURNS AS BILENKY VIEWPOINT
Philadelphia, PA—Bilenky Cycle Works of Philadelphia has just acquired the exclusive rights to produce the Bilenky Viewpoint (formerly Counterpoint Opus IV). The Viewpoint is a semi-recumbent tandem, in which the stoker rides recumbent in the front with a full view of the road, and the captain rides upright in the rear with a full view of the road and the stoker. With its independent stoker pedaling and hand crank option available, the Viewpoint is ideal for tandem teams of disparate sizes, ages, and/or abilities. Production begins Spring ’97. Contact Steve Bilenky at 1-800-213-6388 or http://bilenky.com

FULLY FAIRED GREENSPEED TRIKES
Victoria, Australia—Greenspeed’s aim is to produce a Human Powered Vehicle in which an ordinary person can maintain 60kph or the urban speed limit, thus providing an attractive nonpolluting alternative to the motor car. It is envisaged that this vehicle will be a practical streamlined triicycle, with or without power assistance.

In 1992 a 3/4 fairing was fitted to an early Greenspeed touring trike. This consisted of a lightweight fiberglass nose cone which completely covered the legs of the rider, and was flush with the disc-covered front wheel. A fabric tail was attached to the inside of the nose cone with Velcro, and extended over the rider’s shoulders to a point or rather a tailfin formed by a frame attached to the rear carrier, forming a teardrop shape.

This trike was used successfully in the 1992 Energy Challenge, winning its class, with Gerry Tatrai pedaling it, covering 153kms at an average speed of 28.8kph, through Sydney traffic. A rolling resistance test showed it a kg drag at 60kph against 6kg for a similar unfaired trike. And a hill coast test showed a 69kph maximum against 45kph for the unfaired trike. My suburban average commuting speed increased from 25kph to 30 kph.

This body was awkward to get in and out of, didn’t provide full weather protection, or efficiency, and weighed a total of 32kg. Thus work was concentrated on further developing and reducing the weight.

The resulting Sports Tourer and GTR 20/20 Touring Trikes proved to be quite successful machines. The growing demand for them has prevented us from building more fairings. Thus we have been working with Don Elliot of Reflex Fairings to develop and produce fully fared trikes using our Sports Tourer design. These will have a stronger frame, and the Briggs Comp Pool tires, plus a wider track at 90mm, the same as our tandem trikes. Gearing is an 80-tooth chaining, Schindler Mountain Drive, and Sachs 3x7 hub with an 11-28 cassette. The body is similar to that shown at our web site.

In January of this year one was run in the Adelaide to Melbourne Solar Cycle Race via Broken Hill. It came in 2nd, covering 1,500kms in 6 days. The winning trike was also a Greenspeed trike, using a larger pedaling team, better assist motor, and a much larger solar array, with a Reflex nose cone.

The problems I have found for practical use with the full fairing are the noise inside, stability in cross winds, getting in and out, vision at night in the wet, and ventilation. We are working on all of these problems. A modular system has been developed so that the hard canopy shown on the web site can be replaced with a front screen, removable roof, roll up side screens, and removable rear bar, with a detachable rear panel. This will provide easier entry and exit, less noise, and good weather protection, at the expense of some loss of efficiency.

The next step is to alter the steering geometry to suit the fared trike, and also to modify the fairing...
to improve stability over 60 kph. Also under development is a new 3/4 fairing, similar to the 1992 fairing, and a full tandem fairing. We now have a Heinzmann solenoid/electric hub motor for testing. It will be fitted to a trike soon for road testing. GREGGSPED, Ph# 613 975 3541 Fax# 613 975 4115. E-mail greggspeed@ozemail.com au

Backsafer to Offer CLWB

Miami, Fl—We have an exciting new development with our company. We are building a newly designed compact long wheelbase recumbent with out patented Backsafer seat and a proposed retail sales price of just $599. There is also an indoor trainer for an additional $100. Our CLWB will be particularly user-friendly with conventional front frame geometry and steering.

Our now out of production SWB model is now on closeout special. For more information, call Backsafer at 1-800-815-BACK.

New Bike Set-Up Video

Watsonville, CA—In our continuing efforts to improve service to customers, we are introducing two new videos that will be available to customers at no charge. These videos take Tour Easy and EZ-1 customers step-by-step through the assembly process. To ensure speedy and correct assembly each video begins with opening/unpacking and concludes with testing/maintenance tips. EZ-1 owners will receive the approximately 15 minute video covering their new bike; the Tour Easy video runs about 30 minutes. Feedback on further improvements is welcomed and will be incorporated in future releases. Our thanks to the many customers who provided input for these first two assembly videos.

Easy Racers to Offer Double Lifetime Warranty

Watsonville, CA—We would like to announce the world’s longest and best guarantee for bicycle frames. Easy Racers Inc. proudly offers the Double Lifetime Frame Guarantee. We will repair or replace any Easy Racers manufactured frame that fails through normal use for the lifetime of the original owner and for the lifetime of his/her first born child. This guarantee applies to 1997 and later frames only. Easy Racers front forks will be guaranteed for five years as before. Over the past eighteen years Easy Racers has earned the reputation of being the most reliable recumbent bicycles in the world. Easy Racers Inc. 408/772-9797, email: ezracers@easyraces.com

Editors Note: Some bicycle parts and components will not last forever. A word of caution to buyers of any bicycle that any front fork can fatigue over time and mileage and has the potential for failure. Bicycling Magazine recommends that road racer types who ride ten thousand miles or more a year, should replace their forks every two years. Factors influencing fatigue are road surface roughness, pot holes, rider weight and load carried, miles ridden, fatigue pressure, corrosion from high humidity or salt air and other variables. Thus it would be hard to predict ultimate time or mileage limits. Certainly after ten years or thirty thousand miles, any bicycle fork could be suspect and should be replaced.

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RECENT VIDEO

- 1996 WHPVC VIDEOTAPES - 190 minutes of the road test, drag race, TT and 'last-man-out' events at Las Vegas. Summer 1996 - Two VHS tapes $30 postpaid - Gregory Du Vall, 2930 Colorado Ave, RD-12, Santa Monica, CA 90404-3647 or Ph # 310/829-5662 (CA/39)

- 1995 WORLD HPV CHAMPIONSHIP VIDEO - Now available, video of HPV races held in Lebystad, Belgium. Late, but great 2-hour VHS video by Brian Doddington. Send $25 U.S. Funds, check/money order to: Steve Nels, 5419 Crestdale Dr. E, Canton, OH 44730

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AD DEADLINE FOR RCN#40: June 13, 1997.

FOR SALE: 1994 COUNTERPOINT PRESTOTI Loaded: Titanium frame and fork. XTR front and back, 23" to 26" tires, 10-speed. Backpck for commuting, fender, mirror, computer, lockjaw bottle cage, 20" X 1 1/8" wheels, Zippes front and rear buyers. Speedplay pedals and chain. $3500 or B/O. Call Bruce at 707/252-2785 (CA/41)

FOR SALE: TURNER LAID BACK, SWB US$ 7-sp., fits rider 5'1" to 5'7" tall. Like New, $500 + shipping. If interested please call 715-394-7900 even CST, ask for Steve (39).

FOR SALE: VANGUARD, red, set-up for touring, 1-speed Deore XT, Roadfire shifter, Phil Wood rear hub, better than new. Call Dave @ 205/492-3454. (AL/39)


FOR SALE: 1989 TOYOTA EASY $899. Medium size (riders 5'7"-5'11"), 18-speed, new Shimano XT dearteils, standard Zippes, bike cage, new. Steve@ (306)362-5022, Seattle (WA/40)

FOR SALE: 1993 RYAN DUPLICEX TANDEM Purple, Touring Gears, Hydraulic Brakes, Zippes Faring, Fenders, Blackburn Mountain Rack, Zound Air Horn. Secure cartop transport on standard bike rack, $2800. Dick and Marian Baldy, 916-342-3468 Chico CA. Email: rbaldy@oavas.csuchico.edu (CA/39)


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RCN ACS, P.O. Box 86785, Ranton, WA 98685.

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FOR SALE: LIGHTNING P-35. Excellent condition, medium frame, red, padded seat, 1000 miles, 17 Mouton, 700c. Campagnolo, new tires & tubes, rack, computer, 18-speed, $1200, Craig @ (503)759-1034 (AZ/39)

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FOR SALE: REBKE, approx. 2 years old, 14-speed, lowered seat, HP tires, alloy rear wheel, flats, $300 + shipping. HOME BUILT, 21/26'' SWB, $200 + shipping, David Tamowski, 1405 Morning Dr, Leland, NC 28531. Ph:910/669-1512 (leave message) (CO/40)


FOR SALE: 1996 Lightning Stealth frame set, red 27'' front wheel/26'' rear wheel, medium size, Tige seat bag and Tige headset included. Ridden 350 miles, $800. Call Kevin (408)375-3325. (40)

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• RCN#37—Jan/Feb '97
• RCN#38—Mar/Apr '97
• RCN#39—May/Jun '97
• RCN#40—Jul/Aug '97
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