The 1995 Rans V-Rex

The Introduction to the V-Rex is more of a story of how it got built. It is the story of a recumbent enthusiast, RCN subscriber and friend to the cause. The story jumps around from LWB ‘bents, to homebuilt, to Prestos, Lightnings and onto the new V-Rex. I hope you enjoy it as much as I enjoyed writing it.

The new 1995 Rans V-Rex SWB recumbent marks the third new model from Rans this year. First the Response, then the new Tailwind and now the V-Rex, which marks an extremely positive change in direction for this company.

The V-Rex is the most interesting new recumbent to come out this year, partly because of the bike’s unique design history. It was designed by a recumbent enthusiast in cooperation with the R & D department and owners of Rans Recumbents. The parties involved are John & Randy Schlitter of the Rans Company and Mark Colliton, RCN East Coast Correspondent, RCN recumbent tester and WHRL member (DC rider group). This story is almost too good to be true, maybe a recumbent enthusiast’s fairy tale.

The beginning of the story takes us back to the Washington, DC suburb of Kensington, MD, where a bicycle enthusiast by the name of Mark Colliton gets the recumbent-bug in a big way. After connecting with RCN, local riders and doing major recumbent bicycle studies, Mark’s first bike was a Rans Stratus-B. Mark took an instant liking to the Rans design. The large main tube matched with a series of smaller secondary tubes offered both a fairly light LWB as well as a comfortable almost suspended ride.

After much experimentation, including the addition of a 24” front fork and wheel, Mark sold the Rans to pursue a homebuilt SWB project.

Another DC cyclist, Mark Mattarella, purchased the Stratus and has continued to make this bike into the most custom Rans recumbent around. The bike now has a HED 24” front wheel, a custom built lightweight front fork as well as a custom paint job. The word we have is this guy is fast, as is the bike.

Long time RCN subscribers may remember Mark’s next endeavor, the Flat-Black series....Continued on page 4.

EASY RACERS BREAKS WORLD 24 HOUR RECORD!

Dateline: Eureka, CA. August 2, 1994

Easy Racer pilot, Mhyee, rode the Gold Rush America, a fully streamlined, hard Kevlar body and suspended rear wheel former RAAM racer to a new 24 hour bike record. James Mergler, age 27 goes by just one name, “Mhyee,” one the 24 hour race even at the International Human Powered Speed Championships August 1-7. The object of the race is to ride for 24 hours non-stop. Mhyee on his Gold Rush America rode just over 607 miles, he continued on for another hour to make the one million meter record. This is the third time in less than a year that this record has been broken. Mhyee does intend to do some more long distance rides and plans to ride an HPV in the ’95 RAAM. Could we see a Gold Rush in RAAM next year?

The Gold Rush America is the closest of Gardner Martin’s race bikes to being a street useable vehicle having been ridden across America during HPV RAAM. The frame is actually a modified steel Tour Easy frame. Gardner Martin had this to say about the new record, “The superior ride and handling of the LWB Easy Racer allowed our rider, Mhyee, to stay in the bike seat for 24 hours straight, having never left the cockpit of the Gold Rush America. Again, proving the superiority of LWB racing HPV’s.”

What’s Inside

The Rans V-Rex Cover
Editorial License 2
Letters to the Editor 3
The Lightning Tailwind 5
View From The Big Chair 10
Awake Again on a Recumbent 12
Neat Publications 14
Homebuilders Corner 18
The 16” Wheel and What it Means 20
Recumbent News 21
Classified Ads 23
WELCOME RECUMBENT ENTHUSIASTS

This newest edition of RCN is a little different in both looks as well as content. We have some new staff members to help us to preach the recumbent gospel as best we can. The most notable is BJ Strauss who is bringing some neat new articles to RCN. Other RCN insiders who are not always on the forefront of each issue are correspondents who are always out there scouting information for us and keeping us connected with the recumbent world.

FALL SUBSCRIPTION DRIVE

We recently asked a respected bicycle industry insider what it would take to make RCN a REAL success. He said only one thing, "DOUBLES THE CIRCULATION." RCN sincerely wants to be "THE" HPV/ recumbent publication that readers consider as the BEST. We LISTEN when readers talk, write, call or email. RCN is not about selling bikes, nor do I have any secret agenda. RCN is for recumbent enthusiasts, all recumbent enthusiasts. I personally would like to know if anyone has a better way, idea or even a gripe that we should hear. If you are a bike shop that does not sell RCN issues or buyers guides, we hope that you will reconsider. Many bike dealers think having RCN (with classifieds and display ads) will lose them sales. Think again. RCN legitimizes the industry and will help you sell more recumbents!

Doubling circulation is a tall order, but, here we go. We have printed up a 1000 extra copies of this issue with plans to give them away as samples. If you know of anybody who you'd like to send a copy to, please send their name and $1 to cover first class postage and handling. For HPV clubs, bike shops or for recumbent/HPV events, we will send as many as we can stuff into a priority envelope (2 pounds worth!) for $2.90.

If you want samples, for a non-profit event and need us to send them grate, please drop us a line (attn: Robert) and we'll see what we can do. If you are a bike shop and just want some to sell, we have a deal for that too. This special "Fall Subscription Drive" offer is only good until the next RCN comes out (RCN#24) and is only valid for issue RCN#23 only!

As for the Buyers Guide (RCN#19-20), there are plenty left. We offer quantity discounts to shops and/ or individuals. Please call us or drop us a line and let us know how many you may need. Recumbent Dealers: we will make it worth your while to sell the Buyers Guide in your store.

INTERBIKE '94

We are planning to hand out a bunch of RCN #23's at the Interbike trade show. Our goal here is to bring RECUMBENTS to the attention of the average American independent bicycle retailer and to show them that recumbent bicycles are the future, and a force to be reckoned with. Dealers who get on the recumbent band-wagon soon, can develop a regional (on national...international) following.

RCN INT'L GOOD WILL AMBASSADOR

Ron Schmid, just got back from a trip that took him to exotic destinations such as Lancaster, England to Bike Fest; Corvallis, Oregon to Da Vinci Days; and Eureka, California to IHPS (HPV Speed Champ's), to cover events for RCN. Ron gave out sample RCN's, hobb-knobbed with the who's who of the U.K. recumbent scene as well having a fantastic time. We have loads of pics and info from Ron's trip. We would also like to thank Gardner Martin who handed out sample RCN's at the races, however, at the next IHPS, I will have to come personally to keep Gardner away from the racing pits and in the parking lot hangin' with the "Crew." A sincere thank you to both of these great guys!

RCN T-SHIRTS

The official RCN T-Shirts and hats are now available. T-Shirts are the best quality we could find. They are 100% cotton Onea Power-T. T-shirts are white with two colors (Purple & Teal) printed on the front and back. RCN script written across the back and our new "wave recumbent" logo and "Recumbent Cyclist News" written on the front. Since the cotton shrinks a bit, we have ordered large sizes: L, XL, XXL, even a couple of XXX). Shirts are $16.99 + $3 shipping and handling. (XXL add $1.50).

RCN HATS

The hats are made in the USA high quality white material with a white braided cord across the top and teal "recumbent wave" logo graphics and purple "Recumbent Cyclist News" lettering. The hats also have a leather adjustable strap. RCN hats are $13.99 + $3 shipping & handling. SHIRT & HAT SPECIAL: Pick any size of shirt and hat, we will pay the shipping $30.98. Please send orders to: RCN, T-Shirts & Hats, PO Box 58755, Renton, WA 98058-1755. Washington residence please add 8.2% sales tax.

If you like the shirts & hats, and we sell out our initial order, we will start on a second design immediately, and we could do this two times per year! T-Shirt & Hat graphics were done by Mark Colliton of Kensington Design in Kensington, MD.

Viva Recumbency!
Robert Bryant, Publisher
INFINITY COMMENTS
Dear Robert,
Enclosed is my check for the European Encyclopaedia. I can’t wait to read it. By the way, you’re really showing some moxie if your reviews. The profile of the Infinity (RCN#22) was hard hitting and fair. Another great issue!
Best Regards,
David B. Seaver
Manhattan Beach, CA

Subj: WOW. WOW. WOW. WOW...
Date: 94-07-28 21:12:10 EDT
To: DrRecumbnt@aol.com (from Internet)
Dear Dr. Recumbent:
I’m famous! I’m on the cover of a real magazine!!
What a surprise to open up the packet this morning and find the collection of RCN with Pam and my picture on the cover. Thanks a million for the extra copies...one goes on the coffee table in my office in the morning!
In the idle conversation mode, WHIRL just had its “First Traditional Annual Summer Picnic” with a ride out to the gliderport where I keep my sailplane. We had about 18 recumbent enthusiasts, including six who rode out to the site in northern Virginia. Mark Matarella was there with his trike and tricked out Rans, a brand new Haluzak was there, my Infinity, a Linear, two Vanguards, a Lightening, and a Tour Easy. The group had much fun visiting the east coast “home” of the Vintage Soaring Association, Thanks again for the mag...
Jim Kellett

LIFE OUTSIDE OF THE TRENCH
Dear RCN,
Your magazine is excellent & detailed. You are going to have contradiction and complaints from many who live in a trench and can’t see over the edge. They can view in only one direction & often die there. Stay with your test-proven reviews. There will ALWAYS be some one who differs. Best wishes for your continued success.Cheers to those recumbent riders on the outside of the trench!
Very truly yours,
Phillip E. Reynolds

INFINITY RESPONSE
Dear RCN,
Thank you for the evaluation of and comments on the LWB Infinity recumbent in your past issue. It is always a pleasure to receive positive feedback concerning our product line. We appreciated the suggestions for improvement. They are being taken very seriously and are currently under consideration as to how they can best be implemented.
It is unfortunate that we have been unable to resolve the complaint of the dissatisfied customer to his satisfaction. We do, as you pointed out, want customers to be satisfied and we will continue offering service to back up the quality that has built our good reputation. We like getting to know our customers and hearing how much they enjoy our products.
It remains our goal to offer a QUALITY bike at a GREAT price. Thanks again for your articles. We enjoyed them and they gave us all a nice “boost.” We believe fun, relaxation, and enjoyment are what bikes are all about!
Sincerely,
Infinity Management.

JEALOUS AS HELL
Dear Robert,
A few Infinity observations: my three year old Infinity frame broke through the chainstay, near the lower center weld area. The factory sent me a piece of aluminum flat stock that was welded in place after the tube was repaired, which makes the weld area much more robust.
I modified the seat stay by extending the seat back rails 6” and spanning the tubes with three wide pieces of tent webbing. This material looks like a seat belt. The upper body support is really noticeable. I also sit on a piece of 1/2” thick closed cell foam. I tried the Thermarest pad but found that it raised me up to far.
As far as shifting is concerned, I found that the Shimano Tourney system from CycloPedia works very well. It slides into the rear dropout slot since the Infinity has no derailleur hanger. I had mine up, adjusted and running in 15 minutes.
The last item has to do with gearing. I was never a fast cyclist in my prime and I am definitely slowing down. I think there is too much emphasis put on upper gearing. I hardly ever push higher than 90 (gear inches) and I feel that a lot of readers don’t either. Simply state the range and let the reader make an educated choice.
In general, the magazine is excellent. I am jealous as hell of you seeing and riding the latest recumbents. Keep up the good work.
"Mr.Bill" Wagaman
Wescoville, PA

Dear Mr. Bill, thanks for the Infinity tips. Also, your gearing point is well stated and believe it or not, I agree with you. Back in ’92, I tested a Countpoint Presto (20” drive wheel) with a 102 gear inch high gear. I found that the bike would spin-out at near 30 mph (unfaired bike) and I know of few riders who can sustain 30 mph on an unfaired bike for very long. Big gears are for high performance riders, racers and those who want to pedal fast down big hills.□

Letters continued on page 14
of BMX-recumbent conversions (RCN back issue #9 available from RCN for $5 first class postage). These bikes were named for their simple black primer paint. These were probably the best article ever written on the subject of BMX conversions. Throughout the Flat-Black BMX conversion period, Mark utilized the easily mountable quick release Rans seat and mounting plate. This is an easy fix to the homebuilt recumbent seat dilemma.

The next chapter of the story leads Mark from the Flat-Black BMX recumbents into a quest for SBW performance. Mark purchased a demo 1991 Counterpoint Presto Performance from Angle Lake Cyclery in early '92 (Angle Tech). This was a very special Presto that was set up with 20" x 1-1/8" wheels with Campagnolo hubs (high performance option). This Presto was a common sight on the DC WHIRL rides as well as at the IHPS CYreka Speed Championships (hangin' in the parking lot).

With the next recumbent season, came the quest for even higher SWB performance and time for another bike. Mark took over testing of our RCN Lighting P-38 test bike #2 (a '93-1/2 model) and the bike was shipped back to the Washington, DC suburb of Kensington, MD. Mark had agreed to continue long term testing on the P-38 for an RCN review. Mark still has the P-38 and is still working on a review for RCN.

I suppose the Lightning relationship can be summed up as love-hate. The bike is an awesome performer, but this particular example had several problems. Among them was poor powder-coat paint, poor index shifting and component selection, wheel quality problems and to top it all off, a broken seat frame and Lightning is refusing to honor the factory warranty, which are stories for another day. Mark had found a fantastic performance recumbent, but his experience with the Lightning company have left him yearning for something more.

In the winter of '93/'94, Mark started considering a new SWB based upon a design he'd been thinking about for some time. We spoke several times about SWB design, geometry and wheelbase. A performance recumbent, short/medium wheelbase, lightweight, a stiff frame with triangulation and a design that was pleasing to the eye. A price lower than $2000 would also help. A few months later came a computer generated drawing of an MWB recumbent with a tube-set very much like a Rans Status-B. This yet unnamed design was later to become the V-Rex.

I suppose this was not much of a shock since when Mark was at Interbike '93 with the RCN Crew, we spent a fair amount of time examining the new offerings at the Rans booth.

So far, the entire project was enthusiastic speculation. No bike prototype or manufacturing deal had been made.

In the spring of this year, Mark took his design idea to the Rans Company. At this point in time, John & Randy Schlitter were very committed to the LWB design, with the new Response and Trailwind just entering the market. They are also LWB enthusiasts, however, the prospect of an SWB that could be built from parts already used in LWB production must have been intriguing.

In the months to come, Mark stayed in touch with John at Rans, sending him drawings, sketches and discussing theories on rake, trail and head tube angle. Over the next month, the phone lines between Hays, Kansas and Kensington, MD began to sizzle back and forth across the country. Mark wanted to have this bike built and Rans, John and Randy Schlitter were the chosen manufacturer.

In the past, and even elsewhere in this issue, I have said Rans is an under-rated and probably under appreciated recumbent company. Their facility in Hays, Kansas is very impressive, as Rans builds airplanes and airplane building kits. Much of the airplane building technology transfers directly to recumbent bicycles. You name it, composites (plastics), seat cushions, Lexan canopies, in-house painting and aircraft certified welders.

This company's in-house resources are capable of surpassing all others in the race for a mass market enthusiast recumbent. Heck, I can imagine a human-powered fully faired HPV with the Rans badge on the front.

A few weeks later, Rans agreed to build the prototype SWB to be designated, “V-Rex.” The bike was built utilizing many parts taken from other Rans models. New additions are the skateboard wheel idler and custom upright steering stem. The prototype sports a Rans custom in-house four color fade powder coat and has a 700c rear wheel and a 20" front wheel.

Over the July 4th weekend, Mark flew out to Hays, Kansas to ride the prototype and meet with John and Randy Schlitter. Mark was able to get the grand tour of the Rans plant, which is pretty spectacular. He was also offered a ride in one of the Rans airplanes, but Mark decided that experimental bicycles were enough excitement for his marathon trip to Kansas.

During this trip, an agreement was made between Mark and the Rans Company for Rans to build and market the V-Rex along with their existing line of bikes. Mark would continue to do R & D and testing and would take prototype #2 back to Kensington, MD. V-Rex #2 was built and shipped a few weeks later. It is all black and has the capability to accept two wheel sets. The primary set is the 700c/20" and the secondary is a 24/16" or 17." An option on the V-Rex will be the ability to have the two wheel sizes. This will be achieved by having two front forks and a side-pull brake up front. The rear brake will be side-pull for the 700c and cantilever for the 24." The V-Rex can be set up either way or equipped for both.

The 1995 Rans V-Rex will make it's debut to dealers at the Anaheim Interbike Trade Show in September of this year. The weight of the V-Rex should be less than 29 pounds and the slated prices will start at $1050 for a complete bike.

There are all kinds of stories that make publishing RCN fun, but when a bike design dream becomes reality, this is about as good as it gets.

Look for the Rans V-Rex at your Rans dealer. Also, keep your eye out for the new Rans brochure with the V-Rex photos. Write: Rans Recumbents, 4600 Highway 183 Alternate, Hays, KS, 67601. Phone #913-625-6346. To write to Mark Colliton: Recumbent Cyclist News, Mark Colliton, PO Box 58755, Renton, WA 98058. Q

....Rans article continued on page 9.
In early 1993, having decided to invest in a recumbent, I started looking at the various offerings. Primary decisions involved wheelbase length and handlebar locations. Recumbent literature suggested that the long wheelbase types are more stable. This got my attention, along with a few test rides. As for the steering systems, one advocate was reported to have suggested that "chopper" bars save perhaps as much as five percent on wind resistance as compared to the underseat bars. But another pointed out that highbar riders expend at least five percent more energy in holding their arms up as compared to riders with underseat bars. Then too, underseat bars allow the rider to lift himself partially off the seat for bad bumps and to change position.

So I decided that the bike for me would be long wheelbase with underseat steering. I located a number of competing brands and launched an in-depth study. Price was at first one of my major considerations, and with figures ranging from under $700 to more than $1500 I found myself leaning toward the low side. However, the more I studied them, the more I realized that restricting my search to low end models would perhaps be unwise. This was to be a lifetime purchase, and so it was far better to wait until I had saved up enough so that price would not dominate as my main concern. Quality of construction, frame integrity, fit adjustability, ride characteristics, ease of disassembly: these now became the most important factors in my search.

And so the process of elimination began. The frame of a new aluminum recumbent that I test-ride was conspicuously out of line. One contestant rejected. More than one of the others had quick release on only the front wheel, and most did not have it on the seat. Gear changing on one was uncertain and difficult. Seat adjustability on another was a complicated process requiring tools and patience. More contestants eliminated. Then there was the model whose handlebars were so low that I had to slump to reach the brake levers. Straight-legged forks on two of them gave no help at all in shock control up front. On still another the chain idlers added perceptible opposition to the pedaling process. A notable absence of bottle braze-ons and computer mountings on several of them was quite annoying.

In the end, I bought a "Tailwind," made by Lightning Cycle Inc. In addition to the above considerations, here's why: It is constructed entirely of 4130 chromium-molybdenum stainless aircraft tubing. The bottom bracket is fully lugged. All stress joints are TIG welded for extra strength, while filet brazing with brass at the remaining joints provides a smooth and effective bond. The aluminum handlebars are three-dimensionally adjustable, to suit arm length or other personal preference. And the vertical tube to which the handlebars attach is equipped with a grease fitting; aircraft quality, at that! "Powder Coat" paint, used on other recumbents, is inferior to Imron paint, which the Tailwind has, from end to end.

While my riding style is not as precipitate as some, I must say that I have never experienced chain slap with my idler-free Tailwind. Maybe the chain is just the right length for the drive train. Or maybe the spring action in the Shimano Deore XT rear derailleur is firmer than others. Then too, the uninterrupted run of chain permits use of all 21 gear combinations, as it fully eliminates excessive chain/sprocket bias.

The Tailwind is the only recumbent of the group that has not just a single bottom tube, but a parallel pair, each tube smaller in diameter and thus lighter than normal, but as a set far stronger, designed and fully able to prevent frame distortion, both lateral and torsional. I took an unpleasant spill one day, my own damn fault. Picked myself up and hurried to my bike shop where, after extensive testing, the bicycle was pronounced as true as ever. What a relief!
YOU CAN NOW CHARGE YOUR RCN Subscription, Renewal, Back Issues & Buyers Guides

For your convenience you are now able to charge your Recumbent Cyclist News subscriptions, back issues and complete issue sets by simply by giving us a call.

PEOPLE MOVERS CALL 714-633-3663 VISA-MASTERCARD DISCOVER

Fast and Friendly same day service!

Introspect Cycle

Selling Recumbents Since 1990

Call or Write For Info/Video.

1029 Amberwood Road
Sacramento, CA. 95864
Phone 916 / 973-1945

Rotator Bicycles introduces the all new Pursuit

"Clean Air Technology for the 90's"

Rotator Bicycles
915 Middle Rincon Rd,
Santa Rosa, CA. 95409
Call Today For Information: (707) 539-4203

INTRODUCING A NEW DAWN IN BIKING

A TRULY AFFORDABLE RECUMBENT

The Reveille is built with a strong and rugged steel frame for durability, a mesh seat with back support for comfort, and 18 speeds for riding enjoyment.

For more information and a Dealer near you, contact:
MAXAN INCORPORATED
11236 Sebring Drive
Cincinnati, Ohio 45240
Phone: (513) 648-0022

Recumbent Cyclist News
A MAN CALLED ME

EUREKA! Another World Record is set on a Team Easy design. An Arizona man who goes by the single name of Mhyee pedaled 607 miles in 24-hours. He rode a modified Tour Easy recumbent bike mounted inside a Gold Rush streamlined body. His 607-mile record was sanctioned by the IHPVA at the 20th Annual Human-Powered Vehicle Speed Championships held during August 1994 in Eureka, CA.

DEATH RIDE RON BOBB

Not content with his 1993 conquest of the then five-Sierra-pass Tour of the California Alps, 48-year-old Ron Bobb met the 1994 six-pass Death Ride challenge. He rode his stock Gold Rush Replica and finished ahead of many un-recumbent riders. After climbing 18,000 ft and covering more than 144 miles in one day, Ron says:

"This is one recumbent that can climb."

Ron Bobb also rode The Terrible Two, considered the toughest Double Century in California. His Gold Rush Replica performed flawlessly as he climbed over 16,000 ft while covering 211 hot miles near Santa Rosa, CA.

Dynamite Video...

...$5 gets you a rich info pack...four-color brochure, glossy spec sheets, order form and a twelve-minute professionally-made color video. Serious stuff.

Gene Lemle, the unsung genius of Lightning Cycle

Gene Lemle, the unsung genius of Lighting Cycle Inc. of Ohio, is the sort of person anyone would be only too glad to count as a friend. He is highly innovative, a perfectionist, and almost astonishingly retiring. His little ads in the cycling periodicals are about as modest as such things can be, reflecting perhaps the remarkable humility of the man. Yet who else could have conceived the beautifully balanced ergonomic frame with its subtly canted rear triangle to snug in the seat position and share road shock absorption with the curved fork? Who else might have thought to route the front brake cable through the steering tube? Or devise the amazing double bottom tubes, guarantors of frame integrity, that then widen out to become the chain stays! Who else has engineered a QR seat attachment that serves not only for instant seat removal but also as a means of ample and instant seat adjustment and as an opportunity to invent — are you ready for this — a quick release rear luggage rack! Who else would readily agree to install chainrings and cassette clusters according to the buyer’s specific gearing requests, or modify the seat design and angles to fit peculiar demands, or swap the standard wheels and tires for others on request, or provide a choice of paint jobs, or offer unlimited test rides, day-long if desired; and still hold to very competitive price!
Though the norm for touring bicycles is around 30 pounds, Lemle freely concludes 33 lbs of overall Tailwind weight, citing the seat as the main reason. He firmly espouses an absolutely rigid seat frame and invokes the cogent argument that one’s pedaling effort should go wholly to the drive train and not be dissipated in a flexing seat. Thus aluminum is out, chrome-moly steel is in. For one who has experienced the difference between Tailwind pedaling efficiency and that of several other contestants, his point is hard to dispute. Then too, I recalled the day I came back from test riding one of the aluminum offerings with a question regarding its weight. The shop owner confidently hung the bike on a suspension scale and immediately regretted having done so. To our mutual astonishment, this FOB bare factory model weighed out at 37 full pounds.

I’ve had my Tailwind for six months now, and it has become clear that my early impressions were remarkably valid. Every time I ride I am impressed anew with the efficient power delivery. Responses to all orders (gearing, braking, accelerating, steering) are immediate and smooth, and the frame’s fine blend of strength with agility is most reassuring. On rough surfaces and even in sharp turns the bicycle feels exceptionally sure-footed, reinforcing my sense of security in the cockpit. As I flow comfortably up hills I am sometimes reminded of the question of weight, because this too has become a non-problem. I feel an affinity with this machine that was marginal at best with the others.

Earnest advice from a happy Tailwind owner to anyone in the market for a bicycle:

Do yourself a favor and write for info to: Lightning Cycle, Inc., 3819 Route 295, Swanton, Ohio 43558.

Lightning Cycle Tailwind LWB recumbent complete bikes sell for $1595. A frameset is $795. The Micro model is $1695 for a complete bike and $795 for a frameset only.

BUILDERS NOTE:
Lightning Cycle Tailwind and Micro (20”/20” OR 20”/16” wheels) recumbents and framesets are built to order to the customers specifications. This includes seat backs, seat angles, wheelbase etc. The patented quick release seat fittings have proven to work quite well. As do our optional custom quick release racks. For complete bike orders, we have upgraded the component package to include Shimano Deore XT shifters and derailleurs and Shimano 105 wheel hubs and brakes. Bikes are available as complete ready to ride bike or frameset only.

Gene Lemle

The all New "1994 21st Century"

Infinity

All-Aluminum Recumbent

Lighter, Stronger, Faster & more Agile.

NOW AT NEW LOW PRICES... from $349

Discover the aerodynamics and mechanical efficiency of the Infinity design, the stability of under-seat steering, and the strength of square sectioned aluminum tubing. Above all, discover the shock-free comfort of Infinity’s fully supported seat, a comfort you must ride to believe!

For catalog, send $1.00 to: Ace Tool & Engineering P.O. Box 326 Mooresville, IN 46158 Call Today For Information (317) 831-8798

Recumbent Cyclist News
Dear Robert,

Here are some new photo’s the V-Rex. As you know this all got started at Interbike last fall when I mentioned not to rule out the possibility of Rans making a SWB recumbent.

I believe it was January when Mark (Colliton) called and asked if we would be interested in doing a SWB recumbent for him. With Randy’s OK (Schlitter-Rans Co. owner), I gave Mark the go ahead to send us some drawings of his proposed design.

Mark, as you know, was a former Stratus rider until he converted to SWB recumbents. He said that he almost chapped up his Stratus to make a SWB, but it was too good to do that. So low and behold, one of Mark’s designs was a 40” size Stratus frame converted to SWB. The original design called for a 700c/16” wheel combination, but with the success of the Vision, there was a temporary shortage of the 16” chro-moly fork. Wanting to put this bike out at a reasonable price, I didn’t want to build the forks in house. I told Mark that I would build the prototype with a 700c/20” setup. Maybe this would hold him until the 16” forks became available.

Early in May, the V-Rex was starting to take shape and I was getting pretty excited about checking this new machine out, when a local driver put an end to everything for me by making an unannounced left turn in front of me while I was riding my Honda Shadow 1100. This added about a month delay to the V-Rex program.

Shortly before the July 4th weekend, I got the V-Rex up and running. Mark must have caught the excitement in my voice, even though I’ve been a long time LWB ‘bent rider. He was able to fly out to Kansas during the holiday weekend and check the bike out.

Well, to make a short story that’s getting long, Mark liked the bike as it was and with very few changes to the bike, we’re now able to offer the V-Rex.

The stock model is equipped the same as the Stratus and Nimbus models with Deore LX derailleurs, a double or triple (option) crank, etc. etc. Racks, kickstand and mirrors are options. The seat is currently a modified stock Rans. The modification is that the front is cut away and narrower overall.

The fiberglass seat makes a really good racing bucket seat, but I PROMISE YOU THAT YOU’LL SEE A RANS MESH SLING SEAT AT INTERBIKE that will retrofit to all of the Rans bikes, however, the complaint department has been real quiet with our existing seat.

John Schlitter
Rans Company

---

Rans V-Rex Specifications

| FRAME SIZE: | 40" |
| WHEEL BASE: | 40.25" |
| OVERALL HEIGHT: | 68.5" |
| HANDLEBAR WIDTH: | 22" |
| SEAT HEIGHT: | 27" |
| SEAT WIDTH: | 13.5" |
| SEAT TO CRANK ANGLE: | 44 degrees |
| FRAME SIZE RANGE: | 40.5"-51" |
| SEAT ADJUST RANGE: | 12.5" |
| SEAT TILT RANGE: | 25 degrees |
| SEAT MATERIAL: | hand laid fiber glass |
| CUSHION: | 1.5" open cell hidensity foam |

| COVER: |
| FRAME MATERIAL: |
| 1/4” quilted material |
| TIG welded 4130 aircraft grade |
| chro-moly steel |
| DuPont Chroma Base |

| FINISH: |
| WHEEL SIZE REAR: |
| 700c/24" |
| WHEEL SIZE FRONT: |
| optional |
| 20" x 1.375/16 |

| WEIGHT: | 28.8 LBS |

---

RCN’s First Ever Back Issue Blow Out Sale

We are in the process of reorganizing the list & availability of RCN back issues that we offer for sale. Some early back issues may be phased out completely. If you have ever been interested in a complete set of RCN issues, now is the time to order! To validate this offer, please clip out or photocopy this ad. Offer valid through October 1994 only! No other discounts apply.

$19.95 Sampler Pack 1: Issues #8, #9, #10, #13, #15, #18 &21 First Class Postpaid
$24.95 Oldie Sampler: Issues #2, #3, #4, #5, #6 and #7 Postpaid

Write To: RCN Back Issues, 17650-B6-140th Ave. SE, Ste. 341, Renton, WA 98058
I had always wanted to take trips on bike. As a teenager I can remember riders crossing the country on the new transcontinental route and really envied them. I painfully recall my first tour in the mid 80's, a ride from my home near Portland OR., to the coast. I managed to ride the 76 miles but was badly saddle sore and had numb hands. The next day I was so sore I couldn’t make the return trip. Dejected, I called for a ride and decided to forget bike touring forever.

A few years later I realized the dream never did really die and I tried to train for a tour again. Many dollars were spent trying pads, new seats, different gloves and different bikes to get that elusive comfortable fit. After another two years and getting nowhere I was ready to give up again. Then something wonderful happened, I discovered the RECUMBENT. At last I was able to sit and pedal a bike until I was physically exhausted from exertion, not soreness.

The summer of ’93 was my first major “successful” tour. My wife, Monica, and I rode down the west coast from Victoria, Canada through Washington and Oregon into Northern CA. We rode two SWB (short wheelbase) recumbents with all our gear packed on the bikes. We camped, stayed in AYH hostels and spent one very rainy night in a motel. In all the trip was nothing short of wonderful. I was hooked! Our recumbent allowed us a wonderful view of the scenery, great loaded handling, excellent visibility to traffic, and never, ever was I sore from anything other than exertion. I will always remember the cheers and gasps of the locals in small towns as we rode through, the fresh fruit at roadside stands, humpback whales frolicking along the coast, and the many hours spent allowing sore but enthusiastic “conventional bike tourists” try our bikes at the campgrounds. We had many great experiences on that trip and so can you. This is why I want to encourage YOU to do it, TAKE THAT TRIP ON YOUR RECUMBENT!

There are many good books on touring, equipment, and preparing yourself and your bike. One of my favorites is “The Bicycle Touring Book” by Rob Van Der Plas. Most of this information will parallel touring on a recumbent so I will generalize a bit and also talk of some of the differences for everybodys.

A good general rule to use when packing for a trip such as bike touring is to get together only the essentials you need, divide this in half, and then divide it again. Take what is left. This may sound extreme but the first timer (as I was) always seems to want to bring the kitchen sink. As a general rule try to keep the load to a weight of lighter than 55 lbs. If you absolutely need more, use a good touring trailer. I like the B.O.B. (Beast of Burden) out of Santa Barbara, CA. This is a single wheel trailer so it tracks behind the bike and keeps a narrow profile. Burley trailers and the like will work also but are more cumbersome.

Loading a recumbent for touring is similar to any other bike but with some benefits to take advantage of. As with any bike, you want to keep your weight secure, balanced and low. A good quality touring rack is essential. I use a copy of a Blackburn SX-1 Expedition rack. This rack is probably strong enough to stand on. The type of recumbent you own will have a lot to do with how you set up your load. Most LWB (long wheelbase) recumbents such as Tour Easy’s and Vanguards can be fitted with modified front racks. This can be important for a LWB as most of the weight is already on the rear wheel. Small panniers on the front will help by spreading out the weight and thus lessening the chance for spoke breakage and rear wheel failure. A short wheelbase (SWB) will have the weight pretty much evenly distributed between the wheels so loading the rear is less of a problem. On a recumbent there is no problem with heel clearance for the panniers (saddle-bags) as on a conventional bike so you can use as large as you want. Because of the width of the seat on a recumbent they can be loaded wider than a conventional bike and most of your gear will be out of the way. Heavier items (i.e. cook stove, etc.) go in the bottom of the panniers and lighter items (i.e. extra clothes) near the top. It is a good idea to keep everything in little separate bags to make organization easier. Use the small exterior pockets for items needed often such as sun screen and snacks. The big panniers also make a good platform to place your sleeping bag/sleep pad crosswise along the back of the seat instead of lengthwise on the rack, thus more room is available. These items can be secured with bungee cords.

Tents have come a long way in the last few years and can be had very light and sturdy. We prefer a bit of extra room so ours is a 3 man tent of fairly large size. When packed it is also fairly light. I place the tent crosswise behind the seat either above or below the seat’s crossbar. To secure I run short bungee cords from the seat frame above the tent to the seat frame below the tent. This pushes the weight forward and keeps it out of the way. Small tool bags or handle bar bags can be hung on the bike in various places to keep tools, camera, and other small items.

Water is the stuff of life and it is important to make sure you have enough to drink along the way. Most tourists will be in areas where water is fairly accessible. I have yet to have someone say no to filling my waterbottle. Most recumbents have at least one waterbottle mount. It needs to be easily accessible while riding so you get into the habit of drinking often. I recommend using 2 large waterbottles on the bike in normal circumstances and more if water accessibility may be a problem. A nice item is the Blackburn bottled water holder which holds either a 1 or 1.5 litre Etrian type bottled water. Water is sold literally everywhere and ensures you will have good water in questionabale parts of the world. The bottles can also be refilled and reused as needed.

We carry our own cookset and do a fair amount of cooking. You may decide to forego the cookset to save weight and space and eat along the way. It is nice to have hot coffee and oatmeal first thing in the morning though.

Tools are a place not to skimp. Bring enough tools to repair and maintain your bike.
Visibility is a concern for all tourists and you can take advantage of the recumbent position to your benefit. Use one, two or even three of those orange flags mounted on the rear of the bike. We use one per bike along with two signs I had made at a sign shop of bright orange heavy vinyl. In black lettering on the back they say “CLEAN AIR R.V.”. These are attached to the rear of the bike against the load. They help stabilize the load, good naturally poke fun at the monster R.V.’s that chug by us and really add to visibility.

Lastly, and most easily overlooked, is attitude. Get into a laid back state of mind, don’t worry, slow down and allow the world to pass calmly. Keep a loose itinerary. It is easy to over do at first. Make the first days short and with rewards. Our tour day one and two were near hell as we encountered hills of which we were unaccustomed along with the long miles I planned. By the third day we had adapted and everything looked brighter. Just always remember this IS A VACATION and it should not hurt!

As for Monica and I, we take short tours as we can. Our next major tour will be for one month in the summer of ’95. We will be going to the IHPVA (Int’l Human Powered Vehicle Association) Speed Championships in the Netherlands, touring there and then also in Great Britain. There is also talk of a winter tour in New Zealand, and then maybe a tour across the U.S, and ........................................

My Other Vehicle Is Human Powered!

The graphic above is BJ's new bumper sticker that he designed. It is available from his company, Introspect Cycle for $3 each. Write: BJ Strass, 1029 Amberwood Rd. Sacramento, CA 95864

Ryan Recumbent Cycles, Inc.

"The best Recumbent Value." says Robert Bryant of Recumbent Cyclist News

"Could be the safest and most comfortable bike in the world"
Bicycling-Aug. ’94

Ryan Recumbents
1-Chestnut St.
4th Floor
Nashua, NH 03060
Phone/Fax
(603)-598-1711

The Finest Touring & Commuting Bicycles Available.
Test ride a Ryan today and find out for yourself.
“Awake Again” on a Recumbent

By Martin Kreig  Part One of Two

Having pretty much given up on riding bikes that go fast because of the discomfort factor, I just about lost my mind when I saw, then rode my first recumbent in 1981. I swapped, begged and borrowed for one that somehow made it out to nearby Berkeley from somewhere in New England. A homebuilt, long wheel base, it was beat up but well built. Its seat, the nerve center of every recumbent, was made out of a reconverted back pack that creaked and cracked every time I pushed hard into the pedals. But it was still heaven, for me a magic carpet ride.

You see, my body already misaligned from an automobile wreck, had been further traumatized by the tool that had first been used to rehabilitate it, the upright bicycle. In late 1977, I had been a passenger in a car that collided with a good sized truck. The two-month coma, paralysis and clinical death that then ensued had left my body in a completely debilitated condition.

Months later, after learning how walk, talk, go to the bathroom and balance myself without assistance, I started riding my bicycle. On it, I found that I could move around without slamming, jerking or pounding. It quickly became my number one rehabilitation tool. Not because it was comfortable, but because it was the less of the many evils I found myself having to resort to in order to get better. Winding my back up as tight as a clock was far better than feeling my jaw clink every time I took a step. I discovered that numb hands and a sore behind were preferable to tripping over my own two feet.

Besides, on a bicycle, my handicaps were not as obvious for others to see. So I rode and rode and got stronger and stronger.

When it became time to assess the completeness of my recovery, I decided to perform such an acid test with a bike ride across the country. I would do so on the best touring machine I could find in 1979. Well, the 15-speed Eisenbrait that I pressed into service got me from one coast to the other, but it was still painful. In my new book, Awake Again, I detail that ride and many of the ways I pushed myself through the pain of upright cycling.

While the confidence and people skills that my first TransAmerica bike ride helped me to rebuild far outweighed my physical discomfort, I paid the price of losing interest in bicycle touring.

For the next two years, I traipsed around my hometown, back in the San Francisco Bay Area, on an old English 3-speed that I had found at a garage sale. The more erect seating position and the padded seat seemed to agree more with my body. But I went slow and my rides were short.

When I then experienced that first recumbent ride, I had to overcome some initial resistance. I remember conversations with myself about the value of working through the pain and then a sentimental allegiance to the one tool that had been such a huge part of my rehabilitation. When I was quickly able to reassure myself that it was all right to be comfortable while riding a bike, I felt as though I had found a new religion. I would spread the recumbent gospel.

But either people laughed at me or they turned their heads away. How could anyone tamper with their childhood memories of the bicycle, they seemed to be asking themselves. The only people that are “allowed” to look comfortable when they are shuttling themselves about, they appeared to reason, are those that have paid the price of internal combustion. How could anyone be so bold as to transport themselves on the roads I pay for and not pay for gasoline, insurance, registration, upkeep or repairs? And they look like they’re having a good time, they look comfortable. Must be a weirdo.

But I was used to that kind of treatment. I had answered the doubters and hecklers and name callers with my first bike ride across the States in 1979. So I rode and rode the miles all over again. Only this time I did so in comfort on the recumbent I talk about at the beginning of this article.

Then in 1983, Dan Kirchner, Eli Rubin, Clive Buckler, myself and a few others formed the Berkeley Area Recumbent Club so we could show off our bikes at loosely organized club musters. As more and more groups started to crop up, I went to recumbent club meetings and musters and IHPVA events all over the state of California in search of the best one that I could go long distance on. I did so in the unlikely event that the TransAmerica road would call out to me again.

During this period, I had the opportunity to sample just about every different type of recumbent that has ever been made. From tricycles to tandems to hand and arm powered to short, medium and long wheelbase, cheap and expensive, I rode a great number of them. Then at the 1986 Interbike trade show I happened upon the beauty that would take me from ocean to ocean once again.

Called a Via and expertly crafted by Mark Hajek of Houston Texas, this under the seat, long wheelbase demanded that I put it to the test. I was on the TransAm road four months later towing the state-of-the-art trailer that Mark also built for me.

Except for the shakedown part of the ride where the spring on the trailer tongue hadn’t been strong enough, the bike performed perfectly. Unlike my first crossing, where I forced myself through my nightly camping chores, I had energy at the end of the day. I saw the country and not just the asphalt roadway. I worked my abdominal. I was able to get a great tan on the part of my body that I saw. My mind was not distracted by all of the upper body discomfort one must experience in order to move the pedals around on an upright. In fact, I oftentimes barely knew I was riding a bicycle. In my book, Awake Again, I show what it’s like on the recumbent road and how I reached 40 million people with my head injury message right up until the day I meet then Governor Michael Dukakis at the state house in Boston.

I used the next seven years to promote recumbents and the coast-to-coast bicycle highway called the National Bicycle Greenway with my small directory book publishing company called Cycle America. During that time, I published 70,000 books in four different areas of California and had the opportunity to talk with many different people in the small recumbent industry. A good number of them (Ryan, DH, Easy Racer, Linear, Cyclopedia, Lightning, Infinity, Laid Back, Angle Lake, Elliptic and Zip Designs), supported my efforts with advertising. I also road tested a lot of their bikes. Then when Robert Bryant started his recumbent newsletter in 1990 I watched the industry double then triple in size.

Martin Kreig’s new book, Awake Again, All the Way Back from Head Injury, is available at bookstores everywhere. He will be biking across the US for a third time next summer. His next TransAmerica crossing will benefit the National Bicycle Greenway. If you can’t locate his book, would like to ride with him in 1995, or would like to help Martin with the 501c3 nonprofit National Bicycle Greenway, you can reach him c/o Cycle America, 147 River St. S. #222 Santa Cruz CA 95060. 408/426-7702.

Recumbent Cyclist News
T-Shirts are the best quality available. They are 100% cotton Oneita Power-T. T-shirts are white with two colors (Purple & Teal) printed on the front and back, RCN script written across the back and our new “wave recumbent” logo and “Recumbent Cyclist News” written on the front. Sizes: L, XL, XXL. Shirts are $16.99 + $3 shipping and handling. (XXL add $1.50). RCN HATS The hats are made in the USA of high quality white material with a white braid cord across the top and teal “recumbent wave” logo graphics and purple “Recumbent Cyclist News” lettering. The hats also have a leather adjustable strap. RCN hats are $13.99 + $3 shipping & handling. SHIRT & HAT SPECIAL: Pick any size of shirt and a hat, we will pay the shipping $30.98 Washington residence please add 8.2% sales tax.

Order Yours Today: RCN, POB 58755, Renton, WA 98058

Zzip Designs
Home of the Zzipper Road Fairing

Streamline your dreams with a Zzipper Fairing

Send $2 for our new color brochure!

Zzip Designs
P.O. Box 14
Davenport, California
95017-0014
Fax: (408) 425-1167
(408) 425-8650

The New Counterpoint
Presto Zzipper Fairing

We manufacturer fairings for most makes & models of recumbent bicycles!

COUNTERPOINT
OPUS IV
TANDEM
The tandem which allows different pedaling cadences and better maneuverability

PRESTO
RECUMBENT
"The Best SWB recumbent of 1994."
Recumbent Cyclist
New! 3-person Opus, Titanium Presto, Prista Trike, & Presto with front suspension fork!

NEW!
PRESTO SE63
Send $2.00
For Catalog
"ANGETECH"
P.O.Box 1893 518 N.Highway 67
Woodland Park, CO. 80866
719.687.7475 800.793.3038
"BIKE TECHNOLOGY FROM A DIFFERENT ANGLE."
Neat Publications You Should Read
(Besides RCN)
by Robert Bryant

Bike Culture #2 hit the streets some time ago. This full color HPV oriented (not 100% recumbent) is the finest bike magazine in the world (and we're jealous). With writings from the likes of Mike Burrows and Jim McGurn (editor), how could it go wrong? We especially like the loads of practical bike information that is not found in USA bike publications. There are always some new "bents that we haven't seen before, updates on ones we have, as well as information on excellent European components (like drum brakes). If you want to take a look at Bike Culture, call Open Road Publications in England at (0904) 654654 (code from outside England + 44904). Monday thru Friday, credit cards accepted. Bike Culture 2 costs £7. The new 1994/95 Encyclopedia is £18. Bike Culture is published four times per year. Encyclopedia is published once per year. Both are available in selected bike shops in the USA.

Out Your Back Door #6 I think the cover sub-title sums up the issue pretty well: "Homemade Civilization, Roadmap To Swell Reading, Low Budget Misadventure, Econo-Style Living, Real Life Travel and Bike Culture." This is a wild publication that is a personal favorite of mine. Editor Jeff Potter is self-styled and has created something special. OYB #6 had a recumbent article called, "Dawn of the Way Cool Bikes" which starts out with the phrase, "I used to be a racing bike snob..." and gets better from there. OYB is a 'zine somewhat similar to RCN, but a little closer to the edge. If you like alternative reading material, check out OYB. Send a check for $3 to receive OYB #6 to: Out Your Back Door, 4686 Meridian Rd., Williamson, MI 48895.

HPV News June '94 Relatively new HPV News editor, former recumbent manufacturer, co-founder of the Chicago HPV group and all around good guy, Leonard Brunekalla, (with the help of several co-editors) is slowly bringing HPV News back to where it was in its heyday in the late 1980's. The new monthly schedule seems to be working quite well, with the only notable exception being that RCN was deleted from the mailing list for a short time. I have been impressed with Len's commitment and willingness to push through the IHPVA sometimes overbearing bureaucracy. HPV News attempts to cover the broad spectrum of human power from (our favorite) road vehicles, to airplanes and yes, even submarines. HPV News is still my favorite club publication. Also included in an IHPVA membership is the quarterly, "Human Power," edited by the distinguished David

Gordon Wilson. IHPVA, PO Box 51255, Indianapolis, IN 46251-0255.

I don't mean to pick on the IHPVA because RCN wouldn't exist if it wasn't for them, but the word bureaucracy comes to mind when I consider that it has taken over a year (so far) to negotiate an ad trade and I see no end in sight. LATE NOTE: Word from the IHPSC Speed Championships in Eureka, CA, was that the IHPVA has yet another new editor and management team for HPV News. We wish them the best of luck.

......Letters ....Continued from page 3

MIND & HEART & LUNGS & ARMS & LEGS & WHEELS
Dear RJB & Friends, Neighbors & Relatives:
You have probably read at least some of my bombastic ranting and raving about just what is possible with HPV's if we really got to work and made the fullest use of what D.O.D. and N.A.S.A. have been playing with. Thermoplastics, metalic, carbide ceramics, near zero drag bearings, materials less than 1/10th the weight of what we have been working with. Then the stuff I personally submitted for to them which had a 120% success rate, micro-grooving all surfaces parallel to the airflow at maximum speeds, inside and out. Traction tuned fairings and suspensions. The concept of "Clovis Point," the cross section of the Samurai Sword, the "Boattail Spitzer" rifle bullet, and the hot dog surf board.

Use all of these in a trike that has tubeless clincher tires on matching thermoplastic wheels, inflated to 210 psi with helium, all wheels powered, all limbs driving through thermoplastic cranks, on a frame as low slung as a "Windcheetah" but with some adaptation of a Quadraped's drive and steering system with two tandem Sachs seven speed gear boxes in the appropriate ceramics. MacPherson strut front driving and steering wheels, and trailing arm long lever rear swing arm, all with lower leaf spring and upper inflated rubber doughnut. Sling suspension of the body with full support from kestrel to neck. The Lightest lollipop clipless pedals with the show "cleat" placed just forward of the ball of the foot.

My fantasy/ dream/ goal/ minimum for replacing the motor vehicle.

Sincerely,
Mark J. J. Offenbach
Global Corporal Motorless Transport

The NordicTrack Forerunner- Photoby NordicTrack

14

Recumbent Cyclist News
LINEAR
You've never enjoyed riding
(unti you've experienced Linear)
- Folds for easy transportation or storage
- Available at dealers nationwide
- All aluminum
- 21 speeds
- New for '94: Stiffer rear
  triangle and Big Dog
  in dual pivot
  rear brakes

For nearest dealer call 319-252-1637
Linear Bicycles, RR 1, Guttenberg, IA 52052

S & B Recumbent
The Most Affordable On
The Market Today!
Providing Bicyclists with attractiveness, comfort and speed.

Ph #310-608-0008
Ph/ FAX: 310-762-2243
Or Write: S & B Recumbent,
PO Box 3061,
Compton, CA. 90222

The future is fast and affordable.....

The VISION offers a high performance, high quality
recumbent at a breakthrough price - $995! (VR40au). Our
unique convertible wheelbase and above or below steering
options allow you to choose your style. Ten configurations
available for 1994 - including a Deore LX equipped R42
and our 231b R45! Call or write for details today.

New for 1994
- Three different models - ten
different configurations!
- Zzip fairing - fits long and short
wheelbase VISIONs and many other
recumbents - $350.
- Seat back bag - 550cu. in. - $65.
- Chinguard - $19
- Computer mount - $5

ADVANCED TRANSPORTATION PRODUCTS, INC. 6201 Ravenna Ave N.E. Seattle, WA 98115 (206)-789-7323

Recumbent Cyclist News
LINEAR "Scratch & Dent" Special
* New bikes with small cosmetic blem. Limited number available. $979
These are NEW 1994 models!

MAXAM "Fall-Back" Special
* Limited introductory pricing
$389 STANDARD
$575 DELUXE MODEL

RANS "Halloween" Special
* Offer good from Sept. 1 thru Oct. 31, 1994
**21 speed, with fairing
$1129 STRATUS**
$1129 NIMBUS**
$1029 RESPONSE**

FAST FRIENDLY SERVICE
COMPETITIVE PRICES
OPEN SEVEN DAYS
"USA's LARGEST RECUMBENT BIKE SHOP"
980 N. MAIN ST., ORANGE, CA 92667

"MAIL ORDER SPECIALISTS"
VISA - MASTERCARD - DISCOVER
(714) 633-3663
AT LAST!!
RECUMBENT RIDER CLOTHING

ITEM #0001: ALL COTTON SHORT SLEEVE JERSEY WITH POCKETS IN THE FRONT! (RED OR YELLOW), S,M,L OR XL .......... $27.50
ITEM #0002: HELANCA NYLON BIKE SHORTS (BLK ONLY) W/OUT ALL THOSE INSERTS! S,M,L OR XL .............................................. $30.00
ITEM #0003: SAME AS #0002 BUT MADE OF LYCRA............................... $35.00
ITEM #0004: HEADBAND (WHITE ONLY).................................................... $ 4.50

SEND YOUR CHECK OR MONEY ORDER TO:
HAL'S RECUMBENT CYCLES
801 MEYER LANE
REDONDO BEACH, CALIF. 90276-5213

ORDER FORM

NAME:
ADDRESS:
CITY,ST,ZIP:

<table>
<thead>
<tr>
<th>ITEM #</th>
<th>COLOR</th>
<th>SIZE</th>
<th>QTY</th>
<th>PRICE</th>
</tr>
</thead>
</table>

MERCHANDISE TOTAL:
SHIPPING (10% OF TOTAL):
SUBTOTAL:
SALES TAX ON SHIPMENTS TO CA, ADD 8.25%
TOTAL

THANK YOU FOR YOUR ORDER

---

LIGHTNING CYCLE INC.

Complete Bicycle or Framesets-Quick
Release Seat and Handelbars for Easy Storage. We Custom Build Recumbents Especially for You!

The Tailwind!

Please Send $2 For Information Package

3819 Rt. 295, Swanton, Ohio 43558 Ph# 419-826-4056

Recumbent Cyclist News
I really enjoy RCN, and especially look forward to articles and pictures from homebuilders. So hopefully sending in mine will inspire more from others.

This project all started with two Tour Easys I built from Gardner Martin’s plans. My only modification to Gardner’s design was to swap his seat for a sling seat, similar to the one in the photo. I’ve also put a self-inflating Thermarest pad in the seat base, a great idea I got from you. My wife and I have toured extensively on the Tour Easys, including a couple of two month cross-country trips and a month in New Zealand. I really love them. They’re comfortable, quick, and real pack mules for touring. But flying them to New Zealand involved major disassembly, fabricating extra-big bike boxes, spending about 4 hours in the Auckland airport reassembling them, then another day plus in Christchurch at the end of the trip scouting up four boxes and going through the disassembly process all over again. By the end of the New Zealand trip I had decided to try and build a touring bike of my own design that would be a smaller LWB, knock down more easily, have two same-size wheels to reduce the number of spare tires and tubes to be carried, and change the steering position of my hands.

Building this bike has been a project without an end. I began the project believing I would get it perfect the first time. Dumb idea. I’ve shortened the frame, changed the steering angle and re-designed the steering system each three times. Now I think the bike’s about as good as it’s going to get. It’s nimble and fun to ride. But I think I can make a better one, so this one’s in the workshop waiting for a stiff breeze while I get started on a new frame design.

The bike is shorter than my Tour Easy by about 16”. The frame is brass brazed chrome moly and the seat’s 1” aluminum tubing. The seat is made in two halves held together by velcro straps sewed to the seat mesh, so it comes apart easily and takes little space when it’s off the bike. The bike has 20” wheels with 100 psi ACS tires. The rear wheel is 48 spoke tandem hub. The front’s a standard 36 hole with a Sachs drum brake. The rear brake is a Pit Bull from Cyclopedia. The bike stops quickly. When it’s not in use the handlebar stalk folds forward down to the frame and out of the way. The front wheel rotates 180 degrees and tucks under the frame. The whole thing should fit snugly in a bike box.

Steering linkage is the same as an underscat steerer’s, using an aluminum rod with rod end bearings. My original design used two handcut nylon gear wheels and a timing belt instead of the rod. I wanted a design that was less susceptible to impact damage - which in my experience would happen when I was 100 miles from anywhere. One gear wheel was mounted under the handlebar steering stem, the other on top of the front fork’s headset. They were joined by a rubber timing belt cut in half and rejoined using cable and a turnbuckle. The steering worked well. I especially liked that I could turn the wheel more than 300 degrees. And if the bike fell over there was no chance a rod would bend or break. The belt was soft, flexible and resilient.

Unfortunately, to keep enough tension on the belt to make the steering work well I had to tighten down the turnbuckle, putting the whole linkage under compression. This meant that the bike went where it was pointed, but wouldn’t self correct, which was very disconcerting. The front wheel wouldn’t turn freely from side to side. So even though I liked the design, the belt is gone in favor of a rod. I’d sure be interested in hearing from anyone with other steering linkage ideas.

I kept shortening the frame for a couple of reasons. Originally I used Georgina Terry’s recommendation of 80 degrees of castor angle, which gave me a steering angle of 70 degrees. But this made the bike absolutely squirrelly. It didn’t want to go straight. Partly I think this is because recumbent geometry is just different from an upright bike’s. Also, the rearward weight distribution of this bike seemed to exaggerate the squirreliness (?) even more. So I shortened the bike and decreased the steering angle. The frame’s now about 3” shorter than when I started. It’s wheelbase is 57 1/2” now. The steering angle’s 64 degrees. My next frame will be about 62” long. I fit on the shorter frame but I think it moves the center of gravity too far backward. And I’ll reduce the steering angle again to 60-62 degrees.

Then there are the sails. The idea of sails has been stuck in my head ever since I gave up on trying to lighten a bike by filling the frame tubes with helium. It turned out I’d need frame tubes so large I’d be pedalling a small dirigible. My wife and I have been touring in so many places when we’ve encountered strong tail winds or near-tail winds. It seems a shame to ignore all those opportunities for coasting instead of pedalling. The sails are made of kite cloth, an ultra light ripstop nylon. The masts are 6’ and the booms 3’. Each boom has about 270 degrees of swing. The booms are independently controlled by mainsheets (lines) connected to the handlebar stem. I’m not sure yet how well all this works. We took the bike to the Washington coast on what turned out to be the one windless weekend of the year. When the breeze did finally come up the bike would sail along the beach nicely without me, but there wasn’t enough wind to move it with me sitting on it. Since the picture was taken I’ve changed the mast mounts so that the masts are now perpendicular, rather than following the seat back angle, to increase the efficiency of the sails. So the jury’s still out on sails. What’s nice about them, if they do work, is that the added weight is probably less than 2 pounds. The sails weigh practically nothing and can be stuffed anywhere.

I’m also interested in building a sailing trike. The Washington ocean beaches are wide and flat. It should be a blast. This is not a new idea, but I’m having trouble finding plans or photos. If any of your readers have information on sailing trikes I’d appreciate hearing from them. Steve Sussman, Box 415, Vashon Island, Washington 98070.
SEPTEMBER 9-12
INTERBIKE 1994
Bicycle Industry Trade Show.
To be held in Anaheim, CA. Interbike
Ph#714-722-0990

SEPTEMBER 21-23
Bicycle Industry Organization (BIO)
Trade Show in Las Vegas, Nevada Ph# 303-444-4BIO

SEPTEMBER 25
Great Lakes HPV Racing Series
Event somewhere in Ohio, Contact Gaylord Hill Ph# 517-263-5803 or Don Barry Ph# 517-831-5298.

SEPTEMBER 26-28
1994 INTERNATIONAL HPV SYMPOSIUM

OCTOBER 2
3rd ANNUAL SACRAMENTO VALLEY RECUMBENT/ HPV RIDE & RALLY will be held. Goethe Park in Rancho Cordova at the edge of Sacramento. Ride will meet at 8am leave at 8:30 and Rally starts at 12:30. Ride will be of your desired length up to 45 miles along the American River Bike Path. Prize for best homebuilt and best custom commercially built. For more info contact: BJ
Introspect Cycle Ph# 916-973-1945

OCTOBER 9-12
INTERBIKE 1994 Bicycle Industry Trade Show.
To be held at the Pennsylvania Convention Center.
Interbike
Ph# 714-722-0990

SUMMER 1995
21st International Human Powered Speed Championships
To be held in The Netherlands.

“Encyclopaedia’s”
Are Here and
“Recumbent Cyclist News” Has Them!

A color magazine/guide to Europe’s finest cycles and related products has just arrived, and believe me, you want one! This premier issue of "93/94 Encyclopaedia" features the latest SWB and LWB recumbents from Europe as well as trikes, work bikes, cycles for families and disabled people, plus a variety of cycle accessories—all designed by Europe’s leading human-power innovators. For your own copy of the coolest, glossiest HPV "encyclopedia" on Earth, just mail a check made out to "Recumbent Cyclist News" for $10 + $2. first class postage & handling - USA/Canada $17 Worldwide Airmail. Write to: RCN, Dept. E, PO Box 58755, Renton, WA 98058-1755

Recumbent Cyclist News
The 16" x 1" Wheel and What It Means

By Charles Brown

Primo has introduced a new 16" x 1" high-pressure tire in conjunction with Sun Metal Rims. This high performance combination was originally meant for racing wheelchairs, and all I've heard about it in the cycling press is two brief mentions in Recumbent Cyclist News.

What you're reading isn't so much an article as a WAKE UP CALL as to what this new wheel could mean for our favorite breed of bicycle.

Recumbent bicycles basically come from two different forms: Too long a wheelbase—making for a huge, unwieldy bike which is difficult to store and transport. And all the extra size adds weight. Too short a wheelbase—making for a bike with the ride of a jackhammer with reasonably good performance tires, and twitchy, skittish steering.

The narrow, high-pressure 16" wheel gives us the opportunity to make the LWB design lighter and more compact by using smaller wheels. Some people have tried putting 20" wheels at both ends of a LWB bike, which results in a greater tendency for the front wheel to skid out. For example: if you hit a patch of gravel during a high-speed turn. Many recumbents go faster than upright designs, thus we have to make sure they steer and stop well.

In order to shrink the wheels without making it more dangerous in a skid, we have to shrink both wheels in proportion to the load carried. The narrow, high-pressure 16" wheel allows us to safely use a 24" back wheel.

Suntour, Shimano and Campagnolo now make "Micro-Drive" cassette freewheels with 11-tooth top cogs which when combined with a 52-tooth chainring, produce a 107" top gear, roughly equivalent to a 52/12 gear with a 700c/27" wheel, and perfectly adequate for an unfaired "Tour Easy-like" bike. The addition of a Super Zepper fairing should allow about a 56 tooth chainring.

Are you not convinced? Well, have a look at the result. The drawings are not to scale, the first is a medium size Tour Easy type and the second uses the same rider position with 24"/16" wheel combination. It is ten-inches shorter than the first!

OTHER ADVANTAGES

The smaller wheels give a much needed weight reduction of about three pounds. This is mostly in rotating weight, providing quicker acceleration and hill climbing.

A partial or full fairing can easily enclose the front wheel, a big source of air drag—not so easy with a 20" front wheel.

With a direct steering angle, LWB recumbent advantages include, a more upright steering angle and less steering mass ahead of the steering axis.

Cyclopedia now offers this new wheel and tire. I am hoping we have even better recumbents in the future.

EDITORS NOTE:

What Charles has described in this article is what the CLWB (Compact Long Wheel Base) is really about, at least for recumbent enthusiasts. It is amazing to me that nobody has used this formula to come out with a high-performance recumbent......YET. Word has it that BikeE has the E-Racer and Easy Racers has the EZ-1, both slated to be 1995 models.

Drawings courtesy of Charles Brown

The World's Most Advanced Bicycle

The Turner LB Recumbent: One ride says it all!

Complete frame-kit...including fork, seat & handlebars. From $375. Ask about the new E-Lite! For more information write or call:

Turner Enterprises
1350 E. Flamingo Rd. #73
Las Vegas, Nevada 89119
Call (602) 290-5646

Recumbent Cyclist News
ADVANCED TRANSPORTATION PRODUCTS: RCN just took delivery of our '94-1/2 R-45 test bike. It is an absolute jewel, with ultra-light Shimano Deore XT components with Grip Shifts and SunTour XC Pro brakes. If you like your R-40/ R-42 you will love the 5-8 pounds the R-45 sheds as well as a possible speed increase of 2 mph! According to RCN Special Correspondent, Bill Dowling, his R-45 is 2 mph faster. Look for a full report in an upcoming RCN. Oh yeah, ATP also called to tell us about a special new model XXXX which should be available sometime in '95. Ph#206-789-7323.

ANGLE TECH: Well, our report on the hydraulically activated drum brakes was a bit premature as there seems to be a snag. Although we heard some news that will knock recumbent technoids' socks off. The best selling model is the new AngleTech/Countertop SE 63, the Sachs 3 x 7 (three speed internal gears that can be shifted at a stop +7 free wheel cogs = 21 speeds X a triple crank = 63. Just don't try and figure out half step/granny gear charts for the '63, it will put your mind on HPV overload. The Presto is arguably the most comfortable riding recumbent made with its seat suspension and optional RST (hard to find elsewhere) suspension. If you want one of these gorgeous machines built for you, plan ahead for '95. Head Angle Tech, Kelvin Clark, called with these new additions for the bike. A Countertop built suspension unit, plus Deore XT derailleurs and '95 model Grip Shift SRT 800 X-Ray are now standard. Angle Tech Ph#714-697-7475.

BIKEE: First a rave review in RCN, then being listed in the Sharper Image Catalog and now a new BikeE is on the way. The 16 spd. has gone by the wayside and a new Sachs 3 x 7 21 speed version which retail for $1090 has taken its place. The 7 spd. model is now available with Sachs components (formerly SunTour). A couple of special options are available, like the "Knobby" is a BikeE outfitted with a 20" MTB tire. Jim Boeder says there is a BikeE rider who spends most of his BikeE time offroad, climbing up long gravel fire roads and even doing single track! Also, a new high performance version that has been spotted in and around Corvallis, Oregon, the "E-Racer" has a cut down seat (so you can lean forward), lower handlebars, narrow 16" front tire, and special 2/3 size Zippier fairing. BikeE expects to have the E-Racer as a 1995 model. Ph#1-800-231-3136.

CYCLOPEDIA: Word on the street is that Gaylord has 16" X 1-3/8" Kenda 110 psi tires as well as the 16" X 1" racing tires in stock. We even heard that he has a few 16" chro-moly forks available. Ph#517-263-5803.

EASY RACERS: Gardner Martin finally fesses up! Remember RCN#21 page 27, the secret spy photo of the E-Z 1, well we have confirmed that the EZ-1 is a new CLWB model from Easy Racers. We even got a chance to ride the prototype and it is neat! The compact wheelbase matched with the trademark (excellent!) Easy Racers handling & style should make for an excellent new model from Easy Racers. Look for the EZ-1 as a 1995 model. The EZ-1 pricing has not been worked out yet, but Easy Racers says that it should fall between $695 and $895.

HALUZAK HORIZON: RCN had a minor brain lapse as we layed out the last issue. We have just noticed that the new '94-1/2 Horizon has a mono-seat (adjustable) support and the bike's triangulation as well as seat tube (rack mounts?) have disappeared. I suppose this makes it lighter........... We also spaced out and forgot to list the price for the Horizon. The bargain price is $1175, but be quick as we've already heard rumors of a price increase. Ph#707-544-6243. LATE NOTE: The new price as of the bike is $1295.

LAID BACK (Turner's): Milt called to say that he has a few Laid Back "E" frame kits from '92 and '93 that he is blowing out for $250 and $300, they are smaller sizes. Ask about the new E-Lite when you call. Ph#602-290-5646.

LIGHTNING: We've heard an rumor that will be a new SWB monutube Lightning model at the Interbike trade show in September. We've heard a price of $1200 or so....

MT AIRY RECUMBENTS: News from the East Coast is that Larry Black is extremely busy marketing a full line of recumbents in Mt Airy, VA. Larry also put on a great recumbent demonstration at the recent GEAR (LAW) Rally. Contact Mt Airy for recumbent sales, service & rentals. Ph#301-831-5151.

PEOPLE MOVERS: Rumor has it that the Southern California recumbent king recently acquired a once lost shipment of the rare limited production Lightning F-14 SWB recumbents. A few of these bikes are available from $899. Ph#714-633-3663.

RANS: RCN East Coast Correspondent, Mark Colliton, was lucky enough to get the grand tour of the Rans Factory in Hays, Kansas. For those of you who don't know about the Rans history, their primary business is selling kit-airplanes, and they are very successful at it. The airplane bicycle factory now has its own paint shop that is capable of four color fade powdercoat, a plastics division for making airplane cockpit covers, a composite shop for making hi-tech plastic plane parts, metal shop where airframes (and recumbent bike frames) are welded by aircraft certified craftsmen, as well as a full R & D and CAD design facility. If you think about it, these guys could produce a fully faired recumbent commuter or race vehicle completely in house......and we hope they do. Ph#913-625-6346.

RYAN: Dick "the Godfather of Recumbency" & Kari Ryan are busy at work in the new facility in Nashua, NH. Both the DuPlex (formerly Fleetwood) tandem and Vanguard received some great (and well deserved) coverage in the latest Bicycling Magazine. They said about the Vanguard, "Could be the safest and most comfortable bike in the world." Everybody who rides the DuPlex is awestruck. Ryan has really found a niche market with their excellently fully recumbent tandem. Ph# 603-598-1711.

BJ at INTROSPECT CYCLE: has been busy this summer and has introduced some new items to the recumbent market. For the Vision there is the "Vision Chain Management System". This is a new set of double chain idlers which minimize chain slap, maximize tire and brake clearance, and are much quieter than stock. The custom rollers are urethane with double sealed bearings. Price is $60.00 for the kit. Also for the Vision are: Fender sets ($38.00), Single or double behind the seat waterbottle cage mounts ($7.00/16.00), Kickstands ($22.00), Seat set-back modification for early models ($100), Touring rack with modified mounts ($32.00). A similar set of quiet idlers can be purchased for the Revolve, ($40.00), Also there are fenders kits ($38.00) and behind the seat waterbottle cage mounts ($10.00) for most other recumbents. A must have item for any recumbent rider that occasionally drives a car is the "MY OTHER VEHICLE IS HUMAN POWERED" bumper sticker. It is white with blue print and shows five silhouettes similar to popular recumbents ($3.00 each). For more info Contact BJ at Introspect Cycle, 1029 Amberwood Road, Sacramento CA 95864, Phone 916/973-1945. Michigan's first recumbent shop is re-opening this fall. Formerly, Shel's Fat Tire Works, the store is re-opening with a new focus "instead of being a mountain bike shop that also sells a few recumbents we will be a recumbent shop that also sells a few mountain bikes. The name change reflects this change," says Sheldon Herman, the owner of the Recumbent Sea. The tide of the bike world is in the early stages of a sea of change away from mountain bikes towards semi custom recumbents made by small independent manufacturers in the USA. Recumbent Sea will stock Rans, Rebike, Revolve, ATP Vision and Linear. Call the Recumbent Sea at 616-454-3260 to set up a time for a test ride. Out of town guests welcome. Accommodations and meals can be arranged for more distant recumbent seekers.

Recumbent Cyclist News 21
THE BEVO-BIKE

BEVO=EASY COMFORT

Why another recumbent bike? BEVO-Bike is the result of 10 years of experience constructing and trying different designs and concepts plus 8 years experience selling and riding nearly all factory-built recumbents available in recent years.

Possible customers felt LWB recumbents were too difficult to handle in the city, too difficult to store and transport. Many didn’t like the long chain and the sometimes complicated guiding of it to the rear wheel. So we built a Compact Long Wheelbase (CLWB) BEVO-Bike with FWD!

Many possible customers liked the seating position on one recumbent and the handlebars of another and the light weight of still another. They asked us to put seat A and the handlebar B to install on recumbent C...

So we made the BEVO-Bike to fit and satisfy them altogether: with an ergonomical seat frame which adjusts for people up to 6’2”, which adjusts the back-support angle from “very upright” to “very flat.” It’s ventilating mesh cover is easily removable for storage and easily adjustable in seconds. The seat surface too can adjust to different angles (independently from the back support). The seat base is leather and can be tensioned accordingly.

The handlebar is positioned where people expect it to be, which requires no extra training and allows every “current” bike-rider to ride the BEVO-Bike at the first try. It allows riding with nearly horizontally stretched arms, which in combination with the bottom bracket position 4” below the seat surface and offers the most favorable riding position for both aerodynamics and comfort. The bars can be adjusted in height and turning the stem or use of any commercially available stems and/or handlebar model, so that anybody can adjust the BEVO-Bike to his individual personal riding position unlike any other recumbents we know.

Where should the bottom bracket be? Racing recumbent have the BB higher than the seat surface, Comfort recumbents have it much lower than the seat surface.

BEVO-Bike’s BB offers the best combination of aerodynamic and comfort under the condition that the seat back can be adjusted. So BEVO-Bikes combination of nearly forward stretching arms, relatively high BB and reclining seat back grants a 30% lower air resistance than a conventional bike and much better aerodynamics than many other seat steered recumbents with low BB.

BEVO-Bike’s FWD allows both fairings as well as auxiliary powered drive systems to the rear wheel. Unlike other recumbents, the baggage is between the wheels and improves the riding qualities instead of making it worse.

We have asked ourselves why most available recumbents have no suspension? Suspension can cause a “swinging effect” on conventional bikes, because the movement of the pedals and suspension are in one direction. But on recumbents, these movements are in different directions so there is absolutely no problem with suspension on a recumbent.

The BEVO-Bike has a light suspension like motorcycles, because we want to protect your neck from the shock of bad roads. If you have ridden an upsuspended recumbent over bad road, you know what we are talking about. BEVO-Bike is made not only for comfortable seating, but also for most comfortable riding.

All of these features are possible by the unique FRONT WHEEL DRIVE of the BEVO-Bike which can be equipped with a 5-speed or 7-speed Gear Hub (Sachs Super-7 offers a 284% gear range). Brakes are Magura hydraulic on the front, and Dia Compe Hybrid on the rear. The front wheel is a 20” (406 ERTO) and a 26” rear. Wheelbase 1.36m; Overall Length: 1.95m; Bottom bracket height: 0.60m; chain wheel: 50T; Sprocket: 16-18T. Gearing Sachs Super-7 ratios: 0.593-0.667-0.809-1.236-1.476-1.585.

VOSS SPEZIAL-RAD GmbH, Hans Voss D-25524, Itzehoe-Edendorf, Tulpenweg 2 Germany

EDITORS NOTE: Voss is an importer of American Recumbents to Germany and this is his first German production model. Linear Mfg. Inc. (importers of many fine European models and mfr. of the Linear LWB) is planning US Distribution for the BEVO and is waiting for the first bike. If you write to BEVO-Bike, please be sure to send along a US Postal International Reply Coupon or two (or a few bucks).

Please send a picture and short article for “RCN’s Cool Bike of the Month” feature to: RCN’s Cool Bike, POB 58755, Renton, WA 98058. It can be a homebuilt, commercially built, personalized bike, commercial prototype or you can be a new manufacturer or an old one with something new.
**RECYCLED BICYCLES**

**PEOPLE MOVERS:** See Us At Our New Location! We specialize in Ryan, Linear, Rans, Infinity, A.T.P. Vision, Huluzak, BikeE, Rotator, Maxum, Comfy, Lighting & ReBike recumbent bicycles. Drop ship anywhere in the USA. People Movers, 980 N. Main, Orange, CA. Phone # 714-633-3663. Your full service recumbent shop. Open 7 days. (CA/23)

****SOUTHERN****/ARIZONA****

Recumbent Bicycles of Northern Arizona. Featuring: ATP Infinity & more. Visit the Grand Canyon...test ride a recumbent. RCNA, 1925 N. Main St, Flagstaff, Arizona, 86004 or call #602-779-3818. (AZ/22)

**RECIPIENT/ HP PARTS:**
Sew What!? Custom Design & Repair: Recumbent Seats, Panniers, Covers, Back Pads and Seat Bags. Affiliated with Angle Lake Cycley for ten years. Quick turn around and free estimates. Sew What!, 1019 18th St. NE #A Auburn, WA 98002. Ph#206-939-4539 or 206-939-6767 10am-7pm. (WA/23)

**PERFORMANCE Road Wheels, 16" and 20" Deore XT Hubs, 36 hole, Sun Mistral or Ariai rims with quick release axles. $79.95 and up--plus shipping. New! 90 psi 16" x 1-3/8" tires. Call People Movers Ph#714-633-6363 (CA/23).

**USED RECYCLES:**

**FOR SALE:** 1990. Gene Lemle Lighting Tailwind blue, 14 speed, for tall rider. $925. People Movers In Orange, CA Ph#714-633-3663. (CA/23)


**FOR SALE:** 1994 Turner Laid Back E-LITE 18 spd, $539--available soon. Gene Lemle Lighting 21 speed for 6' rider, SCALL. BikeE 21 speed with Sachs 3 X 7 $CALL. All are RCN road test demo's. RCN Ph#206-630-7200. Leave us a Message. (WA/23)

**FOR SALE:** 1990 Gene Lemle Lighting Cycle Tailwind Blue Imron paint, Shimano Deore crank 18 spd, 105SS brakes, XT brake levers plus custom Presto style seat! $899 shipped (USA). 1992-1/2 DIH5000 Deore/XT upgrades, rare Avocet Triple Crank, long frame, Metallic black and loaded. Bikes were custom built for 6' rider. $1499 shipped (USA). Call Clete Ph#206-574-5893 (WA/23-24).

**RECIPIENT CONNECTIONS**

WANT TO BUY: Homemade recumbent frame-sets SWB. Also want to correspond with home-builders in Florida area to exchange ideas. Pete Lardo, PO Box 1834, Flagler Beach, FL 32136 (FL/23)

**INTERNATIONAL HUMAN POWERED SPEED CHAMPIONSHIPS (HPSC) VIDEOS:**
19th Now Available. Also Available 17th & 18th Two Hour NTSC-VHS or 8mm. $25 US, $5 Ex-o-tree overseas. Robert Bryant says, “An RCN Favorite.” Send To: Steve Iles, 5419 Crestlawn Dr., E. Canton, OH 44730. Call #216-489-2470

**RECYCLED DEALERS**

WINDCHEETAH, KINGCYCLE, RADIUS, BROMPTON & LINEAR! Hat's Custom Bikes. We specialize in the finest European HPV's. Personalized service is our specialty. LAX airport pickup & mail-order sales. Come see the new Windcheeta, Kingcycle & Zipper fa irings. By appointment only. Ph#310-376-5882. (CA/23)


**INTROSPECT CYCLE:** Your Northern California Recumbent Specialist. We offer Huluzak, Ryan, A.T.P. Vision, Maxum, Rans & others. Recumbent accessories and custom modifications. We are Vision Experts. Call for our current listing of used recumbents. Showroom hours by appointment only. 1029 Ammerburst Road, Sacramento, CA. 95864. Call B.J. at Ph#916-481-2906.


**WESTERN**/**MICHIGAN:** BIKE SEA (formerly Shi’s Fat Tire Works) Serving Grand Rapids and southwest Michigan. We sell Linear, Rans and ReBike, will add other lines as requested. Test rides, rentals, personal service. Also sell Bianchi, Workman and Burley. Come see us today! 1334 Logan ST, Grand Rapids, MI 49506 or phone #616-454-3260. (MI/23)

**RECYCLED DEALERS**

**FOR SALE:** RYANVANGUARD, bought March ’94, Red with Specialized Computer, Blackburn Mountain Rack and Turbo3Catt Lighting System. $1200 OBO. Ph#508-757-6819 (MA/23-24)

**FOR SALE:** ’93 LINEAR, 42”, gold, underseat steering with MB bar ends, Deore-XT, thumbshifters, 28/38/48 crankset, bike new, Cadillac ride. Tempe, AZ Ph#602-967-3518 (AZ/23)

**FOR SALE:** 1986 TOUR EASY, Medium size, short & long Zippers, computer, bottle holder, mirrors. Best Offer. Phone or FAX Ph#609-327-1336 (NJ/23)

**FOR SALE:** 1986 DeFelice LWB, 18 speeds, handlebars underseat; drum brakes. All original + extras. $300 OBO. Eugene Ph#603-625-9829 (NH/23-24)

**FOR SALE:** 1994 Huluzak Horizon Hybrid Race, Lightweight, narrow wheels, upright and underseat steering, extra (wide tire) fork, XT & 105 component group. All as new. $1500. Ph#904-788-6476 (FL/23)

**FOR SALE:** 1994 S & B Recumbent Tandem, Bike Show Demo 14 speed Sachs Components, alloy wheels, 44 pounds. One only at this price. $1700. Call Jack at S & B, Ph#310-762-2243. (CA/23)

**FOR SALE:** 1997 LINEAR RECUMBENT, 46” aluminum frame, good condition. Ridden very little. $450. Bruce. Ph#707-252-2785 (Napa CA/23-24)

**FOR SALE:** RCN Test Bikes Linear recumbent New in box. $999. ATP Vision R-40 $899 New in box (one only). and the new Rans V-Rex SWB—we have one NOW! Recumbent Cyclist, Ph#206-630-7200 for updated list SASE or Email: DrRecumbnt@aol.com

**NEW RCN CLASSIFIED AD INFORMATION**

Effective with this issue, all non-commercial paid classified ads will run for "TWO" issues. If you bike sells would like to cancel your ad for the second insertion--please call us ASAP. Free ads run only once—unless we hear from you.

**Classified Ads Rates:** “Parts Wanted,” “Parts For Sale” & “Personal ads” all free to subscribers. “Bikes For Sale”—Each 25 words $12.50. Non-Subscriber rates are: $20 for each 25 words. Commercial classifieds are $1. ea. word (40 word minimum), Name, address & phone counts as 10 words. Please phone 206-630-7200 to request a display-ad rate sheet. Be sure to ask about special first time, special rates and discounts. RCN Classified ads work!
RECUMBENT CYCLIST NEWS

Read all about it! New product information, the latest on all commercially built recumbent bicycles, readers shared experiences and the latest new bicycle technologies. We are positive that you will find our issues and information the most concise every written on the subject of recumbent bicycles. This is the #1 source for recumbent bicycle information in the world today! Become part of bicycling’s future today!

1995 SUBSCRIPTION RATES

- $25 USA Subscription (3rd class mail).
- $40 Deluxe First Class (1 copy mailed in flat envelope).
- $15 USA Trial Subscription (3 issues mailed 3rd class).
- $70 Supporter-V (3 copies mailed 1st class in a flat envelope).
- $100 Supporter-X (10 copies/mailed 2nd Day Priority-US/Can).
- $46 USA Subscription 2-yr. (3rd class).
- $53 Canadian Sub./Canadian funds-check O.K.
- $38 Canadian Sub./US funds-cash or bank draft.
- $50 Worldwide Air Mail-US Funds-cash/draft
- This is a subscription renewal.

BACK ISSUE ordering information

The Recumbent Cyclist back issues can be a valuable resource to new recumbent enthusiasts. They make an excellent recumbent resource library, like a college course on recumbent bicycles & HPV’s. Some back issues are high-quality reprints, others are first printings.

- $5.00 RCN#4 - Ryan Vanguard Review.
- $5.00 RCN#5 - Linear LWB Review.
- $5.00 RCN#6 - Tour Easy/Gold Rush Reviews.
- $5.00 RCN#7 - Lightning P-38 Review.
- $4.50 RCN#8 - '92 Buyers Guide/Homebuilder
- $400 RCN#9 - A.T.P. R-20 SWB/BMX homebuilt
- $5.00 RCN#10 - Laid Back/Thebis reviews.
- $5.00 RCN#11 - Presto Test/SWB Homebuilder.
- $5.00 RCN#12 - Rans Road Test
- $4.00 RCN#13 - R & D Tech E-Z Rider Trike/Homebuilt SWB.
- $4.00 RCN#15 - The ReBike & Tim Brummer's P-38 design.
- $5.00 RCN#16 - The Trice Trike
- $5.00 RCN#17 - The Bike/E/Draining/RCN Policy
- $5.00 RCN#18 - Presto vs. Tour Easy Shootout/LWB homebuilder
- $8.50 RCN#19/20/1994 Recumbent Buyers Guide!
- $5.00 RCN#21 - Gold Rush Replica/ATP Vision test.
- $5.00 RCN#22 - Infinity & Haluzak Horizon Review
- $5.00 RCN#23 - '95 Rans V-Rex SWB & Lightning Tailwind.

POSTAL INFORMATION

-US RUSH/CANADIAN SERVICE—ADD $.50 PER ISSUE
-WORLDWIDE AIRMAIL ADD $2. ea ISSUE (Specials below not valid)
-SPECIAL-A: Six back-issues mailed 2nd Day priority for $27. (#2, #3, #14 & #19 not avail. in special)
-SPECIAL-B: A Set of back issues #2-#22 (no #14) mailed priority for $89.95 mailed 2nd Day Priority. $130 Canadian. $135 World Airmail.

RCN
P.O. Box 58755
Renton, WA 98058-1755 USA

BULK RATE
US POSTAGE
PAID
PERMIT NO. 38
RENTON, WA

Forwarding & Address Correction Requested

If the top line of your label says '94, 10/94 or 11/94 RCN#22, #23 or #24 it is now time to renew.