1997 BUYER'S GUIDE
Introducing MicroCAT.

It's lightweight, fast, and fun!

The MicroCAT 13 foot long inflatable offers an exciting solution for those seeking true portability in boating. MicroCAT weighs just 68 lbs. and sets up in less than 15 minutes. Imagine an easy-to-peddle, comfortable catamaran that packs up small enough to throw into the trunk (or on a roof rack) to take to your favorite lake, river or oceanfront location.

Because of its light weight and unique, efficient drive system, you can quietly cover the waterfront at speeds to 7 mph while you are exploring, sightseeing, or getting to your favorite fishing spot, while having a low-impact workout at the same time. MicroCAT is durable, and is available with either one or two seats. For details on our 30 day money back guarantee CALL 1-800-451-8746.

MicroCAT

MicroMARINE, Ltd., 55-57 Cape Road, Mendon, MA, USA 01756-1117
Phone: 800-451-8746, Fax: 508-634-0269, Internet: http://www.micromarine.com

Made In The USA

© 1996 MicroMarine, Ltd. MicroCat and the MicroCat logo are Trademarks of MicroMarine Ltd.
Welcome Recumbent Enthusiasts--
To our sixth annual 1997 RCN Recumbent Cyclist News Buyers' Guide. 1997 is gearing up to be a banner year! Recumbent acceptance is at an all time high, even though mainstream bike media seems to be the last to catch on. I guess recumbents are just not "painful" enough for the testosterone-loving-jersey-headed wedge riders. I used to be one, so now I can make fun of them. Truthfully, we're an accepting bunch and the minute the wedgies show genuine interest in recumbents, we slip into recumbent zealot mode. We may have some help this year along those lines. It appears as though some of the BIG BOYS are coming on board!

The biggest news is that HUFFY BICYCLES has purchased ReBike! Kathleen Skewis now heads the ReBike division of Huff. Look for dealer sales, lower prices and much improved availability. This is great news! Look for 707's priced at $299, 2600's at $399, and trikes from $549!

A TREC '98 Rumor surfaced just as we were going to press, see the WHAT-DO-WE-KNOW section of this issue. We'll keep our eyes and ears open.

The new Wheel EvoGLIDE/Linear CLWB looks great. It's a 20/16 lower more compact model with a stiffer rear end, Sachs 3x7 and $999 price tag (Wheel version).

The recumbent deals are the BEST they've ever been, whether it's a $300 ReBike, an $800 BikeE or a $3000 Easy Racer Gold Rush Replica Black Gold. Most manufacturers are offering better value this year and continually refined models. Perfect examples of this are from ATP Vision and Rans, both full lines are even more dished than last year. ATP has improved component specs, cable routing, frame details, and then there's the Metro! This is already the hottest bike of the year. The innovative prototype Vision Sabre may get built if there is enough interest. Rans has refined their seat into the RCN favorite. A new wider seat base, thicker foam and a softer stretchable cover. The Rocket and Tailwind have round-tube CroMo frames, the V-Rex 24 has a Campy crank. The new Rocket Saturn V has a XT/ESP drivetrain, paint and Magura hydraulic brakes all for $1,800. Rans has replaced the KMC chain with Sachs Sedia for 1997.

The biggest surprise for '97 is the new Rans "Glass" (Glissando is a musical term meaning to smoothly transition). The Glass spec lists Magura, the new Grip Shift/ESP 9.0 rear derailleur and shifters, Decore XT, as well as a Cane Creek shock on the spring rear end. The tires are dual 20" 406 Continental Grand Prix models. The Glass retail for $1,995.

The upscale custom guys also offer continued refinement. Lightning has the P-38 X (Decore XT) and "Cammy" models as well as a built-in Lompoc Lightning/M5 Low Racer with monoblade fork. Easy Racers has two distinct Tour Easy models, a more dialled and lower priced EZ-1 and the incredible Gold Rush Replica "Black Gold" with optional Carbon-Fiber fairing and body sock. Rotator is refining the Pursuit/Interceptor as well as the new SWB Tiger. Angletech has updated specs, new models, and even some lower pricing. They have become the new Euro-Bent connection featuring the Torque Mako, Streetfighter and Ostrad suspended recumbents. Also, look for Angletech-bikes this year: the Quadraped/Tri-Speeder trikes, and the all new Angletech SWB Altitude with suspension.

There are many good deals in the low end as well. Besides ReBike, Maxam is back with models starting at $359, the S & B Beach Cruiser and the Rotator Coaster.

On the trike scene, the legendary Windcheetah is back with more mystique than ever. Unfortunately, we were unable to get adequate info from them. Peter Ross' redesigned Trike is available in the USA and there are the Angletech built in Colorado, USA trikes. Greenspeed still looks like the king of the road for an enthusiast trike, though the WizWheelie trike looks inviting at $1,500, though nobody can match the $1,500 ReTrike or S & B at $910.

1997 marks the seventh year of our company. What you may not know about RCN is that it has a tiny editorial staff with one full timer (me). I would like to offer special thank you's to RCN chief graphic guy Mark Colliton (RCN cover design and photo scanning); copy editor Paul Arends; all of the RCN correspondents, writers, supporters and friends; RCN Circulation Manager Marilyn Bryant for putting up with the wild world of recumbent bicycles; and a special thank you to the very loyal RCN readers.

We are enjoying terrific growth that is allowing us to improve the magazine as we go. Our goal is to make each RCN better than the last. We hope you enjoy this edition of the Buyers' Guide. Please let the RCN advertisers know that their support of this publication is important to you. If you're ever in the Seattle area on the first Saturday of the month, drop in on our local ride.

Vince Rasmussen
Robert J. Bryant
Nobody Covers Recumbents Like RCN!

What's Inside!

RCN Editor's Choice/Best for 1997.........................6
Buyer's Guide Primer 1997...............................7
Why Not to Own a Recumbent by BJ Strass..........12
First Ride by ATP Vision...............................13
Buyers' Guide Key........................................14
North American Recumbent Manufacturer Listings..15
Seen and Noted Manufacturer Listings...............47
World Wide Manufacturer Listings.....................51
Homebuilder Notes........................................53
Recumbent Upgrades & Accessories..................54
Buying A Used Recumbent Bicycle....................60
Recumbent Ratings 1997................................61
What-Do-We-Know........................................64

What's Coming Up!

Recumbent Tech: Zzipper Fairings by Richard Drudul.68
Recumbent News............................................70
RCN Dealer Listings......................................76

RCN#39 May/June 1997 We are planning an auxiliary power comparison, a Maxam Reveille review, ATP Fairing/Rain Poncho test, more touring and homebuilder articles. Look for distribution throughout June. We currently have a Turner T-Lite, S & B Beach Cruiser, Tailwind, Screamer and a prototype "Glise" test bikes, a Wheel EvoGLIDE, HPM TriFan and we start our long term AngleTech V-Rex GL63 test this Summer!

RCN is printed six times per year. See page 59 for details or call 206/630-7200 for our current brochure.

RCN MAIN ADDRESS
RCN, PO BOX 50755, Renton, WA 98058-1755

EDITOR & PUBLISHER
Robert J. Bryant — Email: DrRecumbent@aol.com

CIRCULATION MANAGER
Marvin Jayne Bryant — Email: rbryant@comlink.net

ASSOCIATE COPY EDITOR
Paul Arens—Vienna, VA.

RCN COLUMNISTS
Zach Kaplan—Email: zakiplen@comlink.net
Richard Creutz—Email: rcrutz@hotmail.com
BJ Stavas—Email: BJSTAVAS@aol.com
James Vernon—Email: JamesVernon@aol.com

CORRESPONDENTS
Ron Schnick, Portland, OR—West Coast
Mark Colliton—Kensington, MD—East Coast

RCN® Cover: Greg Bower on an ATP Vision R-44. Cover and layout design by Mark Colliton, Kensington Heights Design.

DISCLAIMER: RCN/Robert J. Bryant writings are editorial based on the experience and opinions of Robert J. Bryant and are for entertainment purposes only. The opinions stated in RCN are those of the authors and not necessarily RCN. RCN is reader-supported, and we reserve the right to deny unsolicited contributions. All materials submitted for publication become the property of RCN unless previously negotiated.
Recumbent Bicycles 1997

THE PLAYERS
* Autobike
* Angletech (AT)
* ATV Vision
* BikeE
* Crystal Engineering
* Easy Racers
* Lightning
* Linear
* Greenspeed
* Haluzak
* Human Powered Machines (HPM)
* Infinity
* Just Two Bikes (JTB)
* Maxam
* Parsley Ltd.
* People Movers
* Peugeot
* Personal Transportation (PT)
* Quadricycle
* Rans
* ReBike
* Rhodes Car
* Ride-Rite
* Rotator
* Ryan
* S & B
* Trailemate
* Tricumbent Productions
* Turner Enterprises
* Wheel Recumbents
* Windscheat
* Wz Wheelz

$1300 Rotator Tiger
$1395 Haluzak Horizon
$1395 AT/Rans Rocket BLT63
$1495 Rans V-Rex
$1495 Rans V-Rex 24
$1495 Rans V-Rex 24
$1495 ATV Vision R-42 A/E
$1500 Crystal Speed Ross
$1550 Lightning Stealth LX
$1750 Parsley, PDC
$1795 Haluzak Hybrid Race
$1800 Rans Rocket Saturn V
$1825 ATP R-44
$2000 PM/Haluzak 2000
$2095 Lightning P-38
$2195 Turner T-Lite Deluxe
$2195 Haluzak Traverso (sus)!
$2375 ATV Vision R-45 A/E
$2395 AT/Rans V-Rex GL63
$2470 ATV Vision R-44 GL63
$2550 Lightning P-38 X (xt)
$2550 Lightning P-38 Cumpy
$2570 ATV Vision R-45 GL63
$2600 Lightning M5 Low Racer
$2795 AT/Streetglider GL63
$2990 Greenspeed GBR 2026
$2999 AT/Boulder Altitude GL63
$3499 AT/Ostrad suspension
$3699 AT/Rans V-Rex SS
$4500 Lightning F-40
$4995 Glas-Tec Aerolite
$6000 Lightning R-84

LWB BIKES
* $4700 Rotator Coaster
* $499 Maxam Revelle
* $999 Rotator Coaster 7
* $675 Maxam Revelle LX
* $849 Infinity Alpha
* $990 Peugeot C-24
* $1090 Peugeot 55x3
* $1150 ATV Vision R-40 B/F
* $1200 Linear Folding
* $1395 Haluzak Storm
* $1395 Easy Racers Pursuit
* $1595 Easy Racers Tour Easy EX

CLWB BIKES
* $2998 ReBike 707
* $3494 ReBike 818
* $3999 ReBike 2600
* $359 Maxam Retreat
* $6999 Linear 7-spd.
* $795 BikeE All Around 7-spd.
* $825 ATV Vision Metro NT 7-spd.
* $869 Easy Racers EZ-2 121-spd.
* $895 BikeE RoadE 7-spd.
* $895 BikeE All Around 21-spd.
* $925 ATV Vision Metro ST 21-spd.
* $925 Dopper Beamer
* $995 Rans Tailwind
* $999 Wheel EvoGLIDE
* $1050 Linear Wheel/EvoGLIDE
* $1025 BikeE RoadE 21-spd.
* $2069 ATV/ATP Metro Elan 12-spd.
* $3999 AT/Thorpe Mako

TANDERMS
* $1450 Maxam Trevellion
* $2800 S & B
* $2800 Linear
* $3400 Ryan DuFlex
* $3725 ATV R-82 Double Vision
* $3800 ATV R-82 DV LPS.
* $3995 Rans Screamer
* $4149 AT/Rans Screamer GL24
* $4150 ATV R-85 Double Vision
* $4150 ATV R-85 DV LPS.
* $3999 AT/Rans Screamer o/s

EASY RACERS

TRIKE/QUAD
* $3494 ReBike/VP 7-spd.
* $550 Trailmate FunCycle 1-spd.
* $850 Trailmate Low Rider 1-spd.
* $910 S & B Trike
* $1599 Wz Wheelz 7-spd.
* $1695 HPM Trian
* $1695 HPM Tri-Hauler
* $2995 Earth Traveller
* $2995 Autobike Auburn Replica
* $3000 Crystal Trike
* $2600 Tricumbent Raven
* $2985 Lightning Hand Cycle
* $2990 Greenspeed GTR20/20
* $2995 JTB Montage (quad)
* $3199 AT/Tri-Spreeder
* $3799 AT/Quadraped (see note p/e)
* $4200 Greenspeed GTS Tourer
* $4400 Rubicon
* $5400 Windscheateh
* $6000 Greenspeed Tandum
* $6000 Crystal GEM Tandum
* $6000 PT Trike
* $6600 PT Tandum

BIGGEST SELLERS (sightseers)
* ATV Vision
* BikeE
* Linear
* Rans
* ReBike

RACE HISTORIES/RECORDS
* Easy Racers
* Lightning
* Greenspeed
* Ross
* Rotator
* Infinity

Windscheat □

1997 Buyers Guide 5
RCN BEST RECUMBENTS BESTS or 1997

The following Awards are the editorial opinion, rants and sole decisions of RCN Publisher, Robert J. “Bent Bob” Bryant.


This is the most popular recumbent in the country at this time and already has a waiting list. The rear-suspension, CroMo frame, Nexus-73x7 drive and affordable price make it a BEST BUY. Congratulations to ATP for this excellent product. If you want one in 1997, order ASAP!

The BEST SWB ‘Bent of ’97: Rans Rocket is our absolute favorite. It’s one heck of a deal for the $1095! Consider a custom paint job and Magura brake upgrade and you’re still under $1400. The Saturn V is also very cool.

The BEST CLWB ‘Bent of ’97: The ATP Vision Metro steals the show. The Rans Tellwind is a great under-rated model with dual 20” wheels to boot.

The BEST LWB ‘Bent of ’97: The Easy Racer Tour Easy is still the best. It’s strong, durable and an excellent user-friendly performer as well. The new Rans Gliss suspension bike is the most exciting new LWB to come along in years, though the timing was a bit off for BG awards. This new design is certainly one to watch and may be the shape of LWB recumbents to come.

The BEST High-Performance SWB ‘Bent of ’97: Lighting P-38.

The BEST High-Performance LWB ‘Bent of ’97: EZR GRR Black Gold.

The BEST High-Performance CLWB ‘Bent of ’97: Angletech/Thorpe Mako.

The BEST High-Performance ‘Bent Deal of ’97: Rotator Pursuit.

The BEST Touring LWB ‘Bent of ’97: The Easy Racer Tour Easy EX (ASS) and the Ryan Vanguard (US) are still the best and toughest.


The BEST Trike of ’97: Greenspeed GTR20/20. We are looking forward to the new 40” (more upright) seat angle on this great trike. This is the most durable, tried and true trike there is—no surprises or no urban legends.

The BEST Tandem ‘Bent of ’97: The Rans Screamer is the high-performance duo’s choice, though the Double Vision is perfect for new tandem riding couples, parents with small children and/or US/Vision fans and the Ryan DuFlex is the best value. All three are excellent tandems.

The BEST ‘Bent Enthusiast Deal of ’97: The ’97 Rans Rocket.

The BEST ‘Bent Mix of ’97: Rans for their complete recumbent line, great seat, innovative design and warranty and continued refinement.


The BEST LWB ‘Bent Design Theory: Gardner Martin’s Tour Easy & GRR.

The BEST CLWB ‘Bent Design Theory: Too early to tell.


The BEST New Accessory of ’97: ATP and Rans will have fender-sets available. Now we need are waterproof seat covers!

The BEST ASS (above-seat steering): The Rans fold-forward “Flip it” riserbar; any Easy Racer bars for LWB or CLWB.

The BEST USS (under-seat steering): Halostrak and Ryan bar-end extensions. Mount your controls onto the bar-ends for that pixelo-grip feel!

The BEST ‘Bent Hill Climbers: The Lighting P-38 and the Easy Racer Gold Rush Replica Black Gold. Both are great flat-land performers as well.

The BEST ‘Bent Handling: Easy Racer Gold Rush Replica Black Gold, Lighting P-38, Rans V-Rex24 and Rocket (probably in this order as well).

The BEST ‘Bent Seat: A tough call. My personal favorite is the ’97 Rans. Vision and Lighting seats are also state-of-the-art. Those who don’t like shing/mesh will love the Easy Racer Cobra (composite shell/foam/lycra).

The BEST ‘Bent Cheap-Skate Deals: S & S SWB Beach Cruiser at $295, the S & B trike $910 (only with opt. dual drum brakes), the $359 Maxam Retread and the $499 Maxam Revellie (but what is Beoget?).

The BEST Craftsmanship on a ‘Bent: Gardner Martin’s Easy Racers.

The BEST ‘Bent Building Plans ’97: BenTech SWB and Troyloc FWD.

The BEST ‘Bent Parts Source: Local dealers or RCN advertisers.


The BEST ‘Bent Component: We’re excited with the new SRAM GripShift ESP 2.0 with matching 900 shifters. The throws are short, quick and easy.

The BEST ‘Bent Paint Job: Rans powdertex on the Rocket/Tellwind is glossier than most. The wet-spray on the other models is excellent. Look to Angletech and Cycle Fantasy in Orange, California for dream paint schemes.

The BEST ‘Bent Clippless Pedals—all around: I still ride Shimano SPD’s and like the dual-sidel cleats, though the Speedplay Frogs are popular with readers. Power Grips work well for low-tech/low-budget riders.

The BEST Recumbent Brakes: Magura Shimano 105SC Dual Pivot or Campy for recumby-retro-gourmets. We plan to try some East Superbikes.

The BEST ‘Bent Chain(less)? Any Sacs—it makes a difference, ask Rans!


The BEST ‘Bent Body: Lighting P-G.

The BEST ‘Bent Frame: Zep Designs for everyone!

The BEST ‘Bent Fairing: Rans fairings are included on Stratus and Nimbus with B or C bars (no fairing for the T-Bars yet).

The BEST ‘Bent Trailer: B.O.B., for cargo and now kids!

The BEST ‘Bent Warranty: Limited lifetime warranties from Rans, Vision and Linear: There is a huge difference between 1,3 or 5 years and lifetime.

The BEST ‘Bent Dealer: Your nearest recumbent specialist.

The BEST Custom-spec bikes: Angletech for custom spec and pre-assembly, bench, and road tests. This is an important consideration.

The BEST Industry Come-Back: Kathy Scheman from RedBike/Huffy.

The BEST Industry Rumor: Head guys from Trek discussing their recumbent plans for 1998 at a mid-west shop, believe it or not??

The BEST Industry Rumor II: An industry insider said it absolutely won’t happen, Trek is too conservative. We’ll see in September.

Joe Carlstrom
Robert J. Bryant
BUYING A RECUMBENT

There are many reasons to consider buying a recumbent, but first and foremost is comfort. When you ride a recumbent bicycle you will no longer have an aching back, stiff neck, numb wrists or sore butt. You will be able to ride longer with less fatigue and arrive at your destination feeling refreshed. The reason for this is the relaxed, easy-chair seating position that the recumbent bicycle offers. This laid-back position allows for a better view of the road in front of you as well as the world around you. Another benefit of the recumbent seating position is a more open chest and diaphragm that makes for easier breathing. Recumbents are very versatile machines and can be used for a wide range of applications: recreational and sport riding, daily commuting, as well as fast century and HPV racing. They are optimum for long-distance touring.

SIMPLE RULES

On the surface, choosing a recumbent may seem difficult. It really isn’t, as we will point out with a few basic guidelines:

SET YOUR BUDGET

You can expect to pay twice (or more) for a recumbent over what you would pay for a conventional bicycle. The reasons are: low production numbers, handmade in the USA, costly comfortable world-class seats and the limited component buying power of small manufacturers. Recumbents are more complicated than conventional bikes and take more time to build. Recumbent seats are a perfect example, they must be lightweight and comfortable. They can cost 25-times (or more) that of your off-the-shelf upright gel saddle.

The best values in the recumbent world are with bikes in the $800-$1400 range, however, the best bikes come in the $1400-$3000 range. Beware of that common disease called “one-step-tilt” that has you willing to spend $800, but considering $1500 bikes. The best values are in the CLWB/MWB line. Other enthusiast deals exist, but may need updates in components or other modifications. Lastly, ride all of the different models you can, narrow down the top few candidates and go back and ride them again. Be sure to do your homework and contact a local group.

HOW TO CHOOSE BIKE STYLE

As with conventional bikes, there are recumbent designs for all kinds of riders and all types of riding. These include road bikes, tandems, trikes and specialty bikes. Because there are no arbitrary rules to limit the design process, recumbents come in every shape and size you can imagine. A recumbent may initially feel foreign to you: too sensitive, overly-quick or it may take you some time to get accustomed to the position. These are traits of the recumbent newbie. The words to remember are RELAX! Lean back in the seat, take a deep breath and enjoy the ride. Many of the symptoms can be traced directly to upper-body stiffness from riding your upright. Allow your body to relax and stay loose. Your next decision will be which design style to choose. This comes down to budget, storage, riding-style, and where you live and ride. Apartment dwellers may not want a LWB or tandem. Urban short-hop commuters may not want a high BB (bottom bracket) SWB. Do you have any special limitations? Where do you ride, On smooth pavement, rough road or even off road? How fast do you ride or want to ride?

Lastly, All-Around Commuters—Tourists—Sport Tourers—High Performance Machines exist in every category of these listings. There are fat and skinny tire versions (often of the same model) as well as high or low BB models in each category. Be sure that you understand the differences in order to figure out what design style or variation work best for you.

Listed below is a description for each of the major categories these varied designs fall into:

SWB: (Short Wheelbase) 33” - 47” These recumbents have their crank in front of the head tube and the front wheel tucked under seat or just ahead of the rider’s knees. The SWB is a popular design amongst enthusiasts, home-builders and racers. These bikes are agile, quick-handling, quick-accelerating and extremely responsive. They are also thought of as being excellent climbers, though all are not created equal. Gardner Martin (Easy Riders) calls to dispute this every time it’s printed. SWB models are usually lighter with some weighing in the mid-20 pound range. They fit car racks better and can stow easier than LWB counterparts.

Longer (wheelbase) SWB models can have varying degrees of heel interference where the heel of your foot can cross the path of the front wheel during very low speed sharp turns. While this is initially annoying, the benefits are improved weight distribution, less “pedal-size” and improved high performance/high-speed stability. Seasoned enthusiasts don’t even notice it after awhile.

The shorter the wheelbase, the closer the head tube is to your groin area and with ASS this may be a concern. The heel interference can vary by model, front wheel size and your height (adjustable booms).

Bike height can also be an issue. There are published seat heights from 17" (S & B) on up to 35." The higher the seat, the harder it becomes to sit flat-footed at a stop, which is an important consideration.

SWB USE: These are great all around recreational machines. They fit in bike racks, elevators, apartments and small cars. SWB recumbents can be used for fitness, light touring, commuting and recreational riding. They often take more attention to the road and offer a firmer ride, though this depends on the model. SWB models do not handle as well when fully-loaded. Tourists may want to consider a B.O.B. or similar trailer to tow.

SWB models come equipped with 16” and 20” front wheels. A 16” front wheel should be considered if the rider wants a low seat height.

- Very compact
- Very good performance/acceleration
- Very maneuverable/responsive
- Lightweight
- Fit in tight spaces/car racks
- Great recreational choice

- Quick handling
- More attention to the road
- May be rough riding
- Heel interference (not all)
- High bottom bracket (pedals)
- High e.g. on 20” models

CLWB: Compact Long-Wheelbase or Medium-Wheelbase,
also known as intermediate and “compact” or “metro” bikes 47”-60.” This is the newest designation for recumbents and has become the most popular choice primarily due to the entry-level models. A CLWB recumbent has a similar configuration to the LWB, but has a higher seat/low bottom bracket and the front wheel is ahead of the crankset. The designers have made a conscious effort to shorten the wheelbase to make the bike easier to handle for novice riders. This is primarily done by making the seat higher/wheelbase shorter and/or through the use of smaller diameter wheels. The CLWB recumbent design is the most user-friendly type of recumbent bicycle there is.

The most popular wheel combination is the 20” rear and 16” front. This creates an optimized design that allows a easy step-through frame, though dual 20” wheels are more durable and offer a smoother ride.

CLWB Performance: If the CLWB falls short in any respect it’s in its inability to perform. The way in which designers achieve the CLWB design is to move the rider rearward on the bike. This usually means raising the seat up, thus moving the center of gravity (c.g.) up and back. Riders edging toward 6’7” tall may want to consider models with “XL” frame sizes to achieve better weight distribution for performance and hill climbing.

A benefit to the CLWB design is it’s superior ability to see and be seen in urban traffic and it offers the rider the best view of the road possible on a recumbent. A major detractor is some models have less than comfortable seats by comparison to SWB and LWB machines.

CLWB USE: This is the best entry level style of recumbent. This is probably not the best design for a cross country tour, though it is done quite often. We’ve had reports of Bike7’s in foreign lands and Luke Howie of Easy Racers recently rode the Caribbean Islands on an E2-714. For traveling, this design is very compact. The simplicity of the design is its greatest asset. These bikes are perfect for cruising the beach, the local bike trail or a city commute. They can be the ultimate urban assault vehicle. They are the simplest, easiest to ride and are the most affordable recumbents.

- Easy to ride/learn
- Easy to own/use
- Comfortable ride
- Predictable handling
- Simple design
- Low cost—as low as $299
- Best rainy-day bike
- Best urban/bike trail cruiser

- Can be heavy
- Hill climbing may suffer
- Performance may suffer
- High seating position/c.g.
- Seat comfort suffers

LWB (Long Wheelbase) 60”-714+. LWB models have the front wheel ahead of the crankset. They are very smooth, stable, fast and inspire confidence in first-time riders. There is no heel interference with the LWB and the drivetrains are relatively straightforward. For some, they are less maneuverable than their SWB relatives but generally more stable at speed. LWB recumbents are usually outfitted with the more standard 26” or 700c rear wheels and 20” BMX size front wheels.

Some of the negative features of a LWB can be maneuvering on a busy city street or narrow bike trail. The LWB bikes are usually heavier than SWB models, although there are some exceptions.

- Easy to ride/learn
- Foot flat on the ground at stops
- Smooth comfortable ride
- Low center of gravity
- Smooth predictable handling
- Perfected design
- Great ergonomics
- Best Wheel/tire choices

- LWB monochromatic FLEX (trianulation is important for larger/taller riders)
- Generally heavier than SWB
- Hill climbing can suffer
- Poor low-speed handling
- Storage won’t fit on bumper racks

TRIKES: Immortalized in Richard Ballantine’s “Richard’s Ultimate Bicycle Book,” most readers dream of a recumbent tricycle with a body zooming all over town protected from the weather. These are very expensive and rare.

If you’ve ridden a recumbent trike before, you’ll know that every bit of the trike mystique is true. They are low, sleek, fast and the most fun you can have on 3-wheels.

Before you buy one, consider the following: Trikes take up more than twice as much of the road, you must then compete with cars for a bigger share of that road, many trikes are low, thus harder for drivers to see (some owners and manufacturers argue that this is not an issue). Trikes are usually slower than two-wheelers due to the increased weight and frontal area. Most can roll-over if pushed hard.

As the trike market matures, the vehicles are being separated into two groups. The first is the cruiser-style trikes. These are the most affordable and have two wheels in back. Next are the low-slung racers with two wheels in front. There is no experience quite like zooming around a parking lot in a three wheel human powered sports car.

TRIKE USE: Many recumbent fans have fantasies about fully enclosed, weatherproof, futuristic, streetable HPV’s. This is just a fantasy for most of us as the commercially available models of this type will set you back over $5,000 before you get them state-side (the Solar/ Electric assist Twike is nearly $20K!). Enthusiast trikes are costly to build and very expensive, however, they are the most fun you can have on three wheels. The low-cost trikes are best used for recreational/beach cruisers. They are heavy, have low-end components and just adequate braking systems. True world-class high performance road-worthy trikes come with a hefty price tag. Look for excellent hand-built examples from Greenspeed and others.

The ultimate commuter? I’ll leave that for you to decide. Consider
what it would be like riding with your but 10” off the ground and your head 39” above the road. Imagine riding on a two lane road where autos pass you at 50mph while cursing that you belong on the sidewalk. Trike lovers are very devoted.

- Extremely responsive
- Slot-car like handling
- No balance required
- Very good performance
- Very low to the ground
- Best fun on a recumbent

- Most trikes are heavy
- Radiculous to transport
- Very Expensive
- Make sure braking is adequate
- Frame needs to be torsionally stiff & tougher (triangulation)
- Usually slower than a two-wheeler
- Very low to the ground
- Riders need to learn leonsteinbody English

TANDEMS: This is the big year for tandems. Recumbent manufacturers are hoping that you’ll shell out $2500-$5000 and beyond for a the latest two-place recumbent designs. Their uses are pretty straightforward, but every model differs a bit. The LWB (Ryan) is LONG, and that’s an understatement. It’s a roadliner, and we love it. The LWB recumbent SWB from tandems (Double Vision & Screamer) are probably the best idea, but they differ in sitter position, rider-adjustment, wheel placement, and interference, who will it ride (kids non-cycling spouses?), performance levels and frame design. There are also a few side-by-side tandems and even tandem-quads.

The best benefits of tandeming with a spouse, friend, wife or your kids. From what we’ve seen, the best are the most expensive models.

EASE OF RIDE-ABILITY
Most all commercially available US-built recumbent bicycles can be mastered by the average rider. Some design styles and configurations are more extreme and less user-friendly. Here are the easiest bikes to ride:

The most natural ergonomic position is similar to that of driving an automobile. All CLWB and most LWB bikes have it. Many less extreme SWB bikes do as well.

We have found that the easiest models to ride are trikes and CLWB. The downward pedal angle such as the EZ-1, Metro, Tailwind and BikeE offer the easiest riding position, however, it’s not the most efficient. These models are popular with non-cyclists and those interested in a comfortable, user-friendly machine. LWB bikes with excellent user-friendliness ratings are the Tomi Easy, Stratus, Nimbus, Gliss, and Maxam Reveile.

Next are the ASS SWB and LWB models. Models with a bottom-bracket height at hip level or below, are the easiest of the SWB models to ride—providing you are tall enough to hold the bike up. Then come the USS SWB models and finally the low racers. Trikes are easy to ride as well, though you will need new leaning, braking and riding skills.

Recumbents with the fat tires make riding more comfortable. SWB models with heel interference are more difficult to master, though often times are lower to the ground which is a benefit. Most enthusiasts will have no trouble with any of these designs after some practice.

The ultra extreme Euro-SWB position has yet to catch on in the USA. These models have very reclined (35°) seat angles. The idea is to cut a narrow profile into the wind. Many Euro designers think us Americans are off-the-rocker with our more ergonomic (and conservative) design theories. The Euro-SWB and Low Racer riding positions are absolutely the most difficult to get accustomed too.

Every recumbent rider develops their own theories on the subject of rider ergonomics. Just be sure to make your decision based on what you really want from a bicycle, whether it be total comfort or optimum performance. If it’s a bike you love, you will become at one with it and any slight performance differences can be overcome by your own efficiency and experience.

TECHNO-BABBLE OVERLOAD
Another aspect of recumbent ergonomics is plain and simple economics. Do you get “sucked-up” for your rides with all the garb: Lycra, cleats, clipless pedals and aero helmet or do you wear shorts and shoes running shoes? These are the extremes that may define what type of bike you should buy. Extremists who have the garb, may want a high-end SWB, performance LWB or trike. If you are a fitness rider who cruises the bike trail everyday—maybe you should opt for a CLWB or low BB LWB model such as the Rans Stratus, Nimbus or Tour Easy for user-friendliness. (There are crossover SWB models as well).

As you can see, it’s not just the cost of the bike, but it can be the cost of your riding style. Choose the ultimate enthusiast technoweenie machine, and you need the stuff to go with it. Choose the bike-trail cruiser and just be sure to get a helmet.

HIGH-BB WARNING: You will use leg muscles to hold your feet in an outward pedaling position. Keep in mind that the higher the bike’s bottom bracket (BB above seat height), the more you will need clipless pedals, Power Grips (MTB diagonal strap/pedal) and toe/cleats/straps/cleats work too, though they do not seem as safe in comparison.

Rider conditioning and developing a smooth spinning style is even more important with high-BB models as the blood circulation in your feet is not as good with your feet higher than your hip joints. Potential knee aggravation or injury may also be a concern for big-gear crunchers or those with knee problems. Some riders can pedal with ultra-high BB’s and never experience any pain or discomfort.

UNDERSEAT STEERING (USU)
This is the when the handlebars are placed underneath the recumbent bike’s seat. The steering can be via cables, rod, or direct to the fork (most SWB). All work well and are viable options. When considering performance, underseat steering is less aerodynamic than most upright handlebars, but can be more comfortable for long rides. Underseat steering can also be harder for recumbent novices to learn; however, after a short time, the balance becomes second nature.

Our only objection to underseat steering is when riding in dense urban situations (rush-hour commutes), the handlebars out to the side can make the bikes wider. You will need to be aware of the width more so than on an upright steering bike.

Reach to the handlebars can also be an issue for some riders. Some manufacturers have bar-end extensions which solve this problem (Turner, Ryan and Hahonak). Hyper-extension will cause shoulder discomfort.

Fairings can be mounted to USS models, but it’s more difficult and expensive. The fairings can help make up for any performance loss that USS may create.

ABOVE SEAT STEERING (ASS)
This is your standard bicycle steering set up. For recumbent new-
The Mako folded side. Can you lift it onto a roof rack? Can you place your feet on the ground flat-footed? Do you have arthritis, knee or neck problems? If you are short with a tall bike, your tiptoes will get a workout and you may eventually fall at a stop. If you have arthritis or knee problems, you may not want a really high BB model. If you have neck problems, don’t consider a really laid-back seat. If you have any other hip or tailbone problems, you should test-ride for seat comfort. If you have sensitivity in your groin area, stay away from seats with nose sections and/or seat horns. Recumbent models vary by how they adjust. Some SWB bikes have sliding booms, others have sliding seats. Booms are a hassle as critical chain adjustment is necessary. Sliding seats are not as easy to adjust as they look, but in most cases the are better of the evils. Ask your dealer for a seat-adjustment demo. Be certain to get a properly sized bike. There are no bargains if your bike does not fit. Keep in mind in seam (measured—not pants), X-seam and any other measurements called for. X-seam is measured by sitting flat on the floor with your back against the wall and measure from the bottoms of your feet to the wall (toes in the air). This is the most accurate form of fitting. If you are not of average proportions, insist on an X-seam check.

**COMFORT 101**

This is the single most important aspect of a recumbent bike as you cannot deweight your seat or stand on your pedals. All other recumbent facts and figures aside, if you can’t be completely comfortable on your recumbent seat, keep trying bikes until you are. Seat comfort is a personal issue—so try many. Seat recline can make the difference as to whether or not you will be comfortable on any given seat. The more laid-back you are, the less weight will be on your hips. We’ve noticed that some recumbents come from the factory with the seats fairly upright, so take the time to adjust the recline of your seat, it will make a difference. If you want the most comfortable recumbent, look for the optimum mix of seat comfort and ergonomic rider position for YOUR body. Here is our overview of recumbent seat types:

**SHELL/FOAM:** This is what works perfectly on Easy Racer bikes. If you have a builder who is committed, they can be very comfortable—although sling/mesh seats do have the comfort edge. For performance, the Europeans seem to have proven that a hard shell seat enables the rider to develop more power. We like the Easy Racer Cobra for power-generation, and the Turner seat works well in this respect. Some riders prefer this type of seat. It’s simpler, easier to modify and can make your bike lower to the ground.

**HYBRID:** A high quality mesh back, CroMo frame and a composite base with foam and cover. This is the incredible Rans seat that is even better for 1997. It has a taught mesh back, wider base and thicker foam. It retrofits easily to bonebulbs and other models. This are an extremely comfortable seat and very adjustable (25° recline adjustment). The Rans seat has been the most comfortable for the RCN staff throughout 1996 and into 1997. What changed? The trick is to recline the seat angle back more than you usually do, thus deweighting your hips. The Rans hybrid seat works best on SWB models. On low BB models, some riders may rub the forward edge of the seat with the back side of their legs.

**SLING/MESH/PAD:** This is what’s offered from ATP Vision and Lightning Cycle Dynamics. These seats are either sling or mesh back and a foam pad on top of the mesh base. This is a very comfortable style of seat. Vision and Ryno seats have a sometimes objectionable seat horn that holds the mesh up on the forward edge of the seat. Vision has covered theirs with a foam pad, so you barely notice it.

**SLING/MESH:** This is a CroMo or aluminum frame that has a nylon mesh attached to the frame. The best one we’ve found is the Hulazak. This seat is similar to the old Presto, but the back is higher. The mesh is made by Sew What (former Presto seat mesh maker). Rotator has updated their seat and we like the bungy-cord-lace suspension. It’s similar to the Lightning seat, but lower and made of CroMo. If you’ve ridden a SLING/MESH/FOAM seat,
a SLING/MESH may feel too hard, but recumbent purists may disagree. Keep in mind that sling/mesh seats will not work on all designs. The lower the bottom bracket, the more likely there is to be problems.

SEAT RECLINE ANGLE: An adjustable seat recline angle is a preferred feature as seat recline angles can vary dramatically from the Euro-SWB ultra laid back (35° or so) to a more natural ergonomic angle of 55°-65°. Consider the “Pedal Angle” as well. Take a side-view of any recumbent. Draw an imaginary line down the seat back. Now, draw a second line from the seat back/seat intersection, out to the bottom bracket (pedals) of the bike. Figure the angle, this is the Pedal Angle. The number itself is not as important as what varying angles represent. Bikes like Vision, Ryan and S & B recumbents with very reclined seats and relatively low bottom brackets create a very relaxed and OPEN pedal angle. Straighten up the seat back, raise the bottom bracket above the seat base height and you have a very closed performance-oriented pedal angle. This is very similar to the difference between an upright hybrid bike and a drop-bar racer. Whatever style you choose, be sure it is ergonomically comfortable for your body.

PERFORMANCE 101

Recumbents hold all of the human-powered speed records. They are aerodynamically superior to conventional bicycles; less frontal area means less wind resistance. The Lightning 1-40 currently holds the Race Across America speed record of five days and one hour. Gardner Martin’s Easy Rider Gold Rush, ridden by Fred Foyd Markham, was the winner of the DuPont Prize for breaking 65-mph and rests in the Smithsonian. Fairings for street use are common and optional equipment on many models. They protect you from rain, cold and wind with up to a 30% reduction in drag. The general rule is that an aerodynamic recumbent is about 10% faster than an upright bike. With a fairing, that can increase to 15%-25% faster. With a full fairing, it can be 50-60% faster.

Production recumbents are not always faster than conventional bicycles. It depends on the rider and the machine. To get the performance edge on a recumbent, you need three key things: A. A fast bike, B. A fit rider, C. A fairing. Your best bet is to do your homework and if your goal is performance, be sure that you look for a recumbent designed for this purpose. Pay attention to speed records, racing victories and how active the manufacturer has been in recumbent racing circles. Models can vary by up to 5 mph for the same rider (unfavored). Some riders say “I don’t care about speed.” With an efficient performance bike, you can ride longer and farther with the same amount of energy.

HILL CLIMBING

The best recumbent hill climbers are medium and high-BB SWB performance bikes with stiff booms as well as performance LBW models. SWB models have an edge in low-speed maneuverability, primarily due to bike length. Low LBW machines can be more aerodynamic and coast farther over rolling hills. Bike weight matters unless the weight loss results in an overly flexible frame or boom. Aerodynamics add-ons such as fairings are generally worth the weight penalty.

Exceptions to the above can be found. If you are one, chances are you are in-tune with your machine and a very skilled ‘bent climber.’

Slight design differentials are not as important as rider conditioning. You need to develop a smooth powerful spin to climb steep hills successfully. Cross-train on a stair-stepper or indoor recumbent trainer (intervals and hill simulations really do the trick). Then go out and look for hills to climb. After a month of attacking the hills with a vengeance, you will most likely climb as fast as you did on your wedge and in greater comfort.

NEW RIDER TIPS

The most difficult part of all- finding recumbent models to see and ride. If you can. find a recumbent specialist (that carries many models) or club and try as many bikes as you can. You have already started your quest by purchasing this guide. Your second step will be calling the listed manufacturers and ask them for the name of your closest dealer or owner. Your final step should be the local yellow pages, just to see if you’ve missed anything.

Become educated, do not expect to get this from a dealer or manufacturer. Ride bikes, talk to owners and read RCM issues about models that you are interested in.

Watch out for dealers trying to cash-in on the recumbent wave. Some telltale signs are that there is no knowledgeable recumbent salesperson, bikes are poorly setup and often they will only sell one or two lines. The odds of satisfactorily completing your recumbent education may be hampered and you certainly will not experience the diverse world of recumbent bikes to its full extent. Do yourself a favor and look for a reputable recumbent specialist.

If you have no local dealer, or the bike that you want to see is not represented locally, consider visiting the manufacturer or a regional specialist. Within an hour of test rides you should have an idea of what you want in a recumbent bicycle.

Mail order customers should consider the issue of bike preassembly. Manufacturers have differing and sometimes multiple levels of preassembly, so be sure to ask. You don’t want a box with a frame and another box with parts, when you may be able to pay a few bucks more and be out riding in 15 minutes. If you need to find someone to help set up your bike, ask the manufacturer for a referral.

Recumbents are expensive—and you get what you pay for. While comparing models, keep in mind that even the cheapest ones are built by hand and mostly in the USA by American builders.

TEST RIDE TIPS

Look for an empty parking lot or quiet test ride location. It’s best to avoid attention. You do not want an audience on your first time out, though an experienced recumbent rider or qualified sales rep is handy.

Be sure to leave all of your valuables in your car or with a friend. Wallets, keys and pocket change have a tendency to come out of your pockets when riding a recumbent.

Clipless pedals are a definite plus for recumbent performance. After you’ve mastered the bike, switch over to clipless pedals or a Power-Clip type foot/pedal retention device.

When climbing onto a recumbent, always hold one brake lever as recumbents tend to roll backward unless a brake is applied.

Prepare ahead of time for stops, release one foot early and be ready. Recumbents gives you less balancing time when coming to a stop.

When you start out on a recumbent, place your power-heel in the 1:00 position and give it a goose. More start-out power is necessary when starting out on a recumbent.

CONNECT WITH A GROUP

If there is one aspect of this hobby that you should absolutely do, it’s to go to some local recumbent rides. If you don’t have a local rider group—START ONE! Choose an easy route with a nice cafe along the way. Pick a meeting place once a week or month, and volunteer to show up for a few months. We’ll help too. Send us a rider-group listing for our next issue.

1997 RCN READER BEST AWARDS

BEST SWB RECURBENT
1. Lightning—56%
2. ATP Vision—39%
3. RANS—14%

BEST LBW RECURBENT
1. Easy Rider—76%
2. R-3—19%
3. RANS—14%

BEST CLWB “COMPACT”
1. Vision Metro—49%
2. Bike2—30%
3. Easy Rider EZ—15%

BEST TRIKE
1. Greenspeed—47%
2. Windsor Senator—39%

BEST ABOVE-SEAT-STEERING
1. Easy Rider—41%
2. Lightning—31%
3. ATP Vision—15%

BEST UNDER-SEAT-STEERING
1. ATP Vision—81%
2. Fast—1%
3. Houzak—17%

BEST RECUMBENT MTR
1. RANS—43%
2. Easy Rider—32%
3. Lightning—17%

BEST RECUMBENT DESIGN
1. ATP Vision—29%
2. Lightning—24%
3. Easy Rider—15%
4. RANS—10%

BEST RECUMBENT PERSONALITY
Kevin Clark, Anglesey
Robert B. Bryant, RCN

1997 Buyers Guide 11
View From The Big Chair!

WHY NOT TO OWN A RECUMBENT

by BJ Strass

I believe it has been over 6 years now since I “went Bent.” My first recumbent was a painful thing but it got me started..... It showed me that there was a better way! I had been shown the path and gladly, eagerly, I started running and never looked back. Once smitten it didn’t take long for me to go “Totally Bent” and rid myself of those evil wedgie bikes and replace them with wonderful RECUMBENTS! The happy and wonderful miles then started racking up. A tour of the northwest coast, my first metric century, sponsoring recumbent rallies, my first full century, regular commuting, my minor accomplishments started adding up and I was proud. If it were required of me to wear a robe, shave my head and dance in an airport lobby handing out recumbent propaganda, gladly I would have done it. I had become a total “Bent Head”!

Place me in a group of wedgie pilots and I was like a traveling fire and brimstone preacher at a town square. First I would rip away their notions of what a bike is. Then make them feel silly for believing that to

"properly" complete a century you had to suffer on a USCF/UCC legal bike. My words pulled them in and they listened. No matter how foolish they thought I sounded, the concept was just too exotic and enticing. I could get them secretly wishing for just a little time on a recumbent. After I was finished preaching, many of them may have disliked me, but they UNDERSTOOD about recumbents. This went on for a long time. It probably should be illegal to have as many recumbents as I have owned. There were a lot of wonderful bikes and still are. I still own four recumbents but for the first time in a very long time I am in the market for a……dare I say it……a wedgie……yes a conventional bike!

Now don’t get the wrong idea. Brother BJ has not lost the faith. I will continue to own too many recumbents. But finally I see some very good reasons to own a conventional bike. Let me share these with you and you decide.

1) Anonymity: Even in “oller skate Naked through the crosswalk” California it is still not possible to be anonymous on a recumbent. Though often I don’t mind being the best clown in the parade, more and more I just want to ride to my favorite cafe and not spend all my time explaining recumbents.

2) Practicability: It never fails that I really get a big kick out of seeing a local guy that shows up at my favorite cafe each week on a $2500 full suspension mountain bike. It is obvious that he bought it only because it cost so much and he only rides the six blocks to the cafe and an occasional three or four miles down the bike path. I do not let this bother me, as it makes him happy and in no way is he infringing on me, but it seems like so much of a waste. You can get into the same thing with a recumbent. If you plan on distances it can be a great choice, but if you are only riding to the cafe, go to WalMart and get a $125 single speed cruiser and take an ocean cruise on the savings.

3) Vulnerability: Pretty much any good recumbent is going to be just as safe, if not safer than a wedgie. But how you perceive safety is another thing. Though you typically present a much larger profile on a recumbent they are lower. Really this isn’t usually a problem but if you perceive it to be, it is. Getting out there riding and feeling safe can take some time and some people just don’t have the patience or capacity for this.

4) Speed: Oh here is a real sticking point. Are recumbents faster or slower than wedgies? They are both. The main thing is that almost without exception if you ride a bit and then go to a recumbent you will be slower for a while. The muscles utilized are different on a recumbent, especially the ones with the higher bottom bracket. It is important to accept the slower speed while your muscles adapt. Also watch your knees. On a recumbent your are between two fixed points, the seat and the pedals. You can push harder but you can easily over stress your knees at first. On a wedge your weight is on your safety valve, you can push only as hard as gravity holds your weight down. As for climbing, recumbents climb well but may not climb as fast. This point has been argued over and over but the truth is you are likely to climb a bit slower. If you practice you may climb just as fast or even faster but this is usually the fitness level you have reached on a recumbent as opposed to the wedge. Maybe you didn’t ride as much before because of the discomfort.

5) Versatility: No matter how suspended, dialed in and bulletproof a recumbent is, there are still times it cannot handle with the versatility of a conventional bike. Being able to shift your weight all over, on and off the seat, just isn’t as possible on a recumbent. I have commuted on rough streets with hellish traffic on many different recumbents and as hard core “benthead” as I am, there are times I would have felt better on a wedgie over a recumbent.

6) Cost: If anything scares off buyers this is usually the biggest point. I really cannot believe how cheap conventional bikes are. Anyone can go into a good shop and get a great bike for around $350. This is incredible and they continue get cheaper. A single model of a single brand may be made by the tens of thousands and thus cost of production on an individual unit is practically nothing. Consider a small recumbent builder/manufacturer trying to get the same buyers as the high production bike. Both bikes having the same level of quality and components, but the recumbent may cost double. This isn’t good or bad, it is just that the recumbent builder has to “feed the bulldog” like all of us and from my years in the business, believe me, no one is getting rich off recumbents. Keeping production costs down is much harder. For example take the seat. A bike seat is tiny, universal and highly mass produced. It only has to bear the weight of the rider at the times the rider is on the seat. On a recumbent the seat may contains ten to twenty times as much material. The recumbent seat has to support the rider’s weight and the rider’s torque when pedaling and thus has to be much stronger—a big difference. When you buy a recumbent, expect to pay more for less if you are accustomed to mass produced copycat bikes.

7) Mass Transit: I am truly happy to see more and more it is possible to combine bike travel with train and bus travel. Many buses have racks on the front or back and some Amtrak lines have racks on board. Commuter trains/subways such as Sacramento’s Light Rail or San Francisco’s BART allow bikes on board held by the rider in the aisle. All this thrills me but getting a recumbent on and off the racks or cut the subway door can be much more of a hassle than a conventional.

I am sure there are more reasons that can be found, some credible and some not for owning a conventional bike over a recumbent. Either way, avoid disappointment and own a bike (or bikes) that suits your needs, be it recumbent or conventional.

Ride and Relax……………..BJ □
Your First Recumbent Ride

by ATP Vision Recumbents

RECUINEBNT SET UP

Riding any recumbent is no more difficult than riding a traditional upright bike. If you are new to cycling, you’ll find it easy to learn to ride on a recumbent. If you are an experienced upright rider, you’ll have to learn some new habits, but the benefits of riding a recumbent far outweigh the short learning curve. Either way, it’s important to spend a little time adjusting to your new bike before riding in traffic or committing yourself to a long ride.

First of all, be sure your bike is correctly set up. To ride well you have to be comfortable. Most adjustments should be made by your shop, but see the Owner’s Manual for your bike if you have adjustment questions. The seat angle on Vision recumbents is adjustable, and really affects how you feel on the bike. To start out you will probably want to set the seat as upright (all the way forward) as possible. After you have some experience you can recline the seat incrementally until you find your own ideal position. Make sure the two seat Q.R. skewers are tightened securely.

GET SET & RELAX

If you’re comfortable on your bike, it’s time to go riding. First and foremost, the most important part of riding any bike is to wear proper safety equipment. It is essential to wear a helmet, all the time, anytime you ride. It’s also very important to wear gloves when you ride. If you do have an accident and fall over, you’ll probably catch yourself with your hands, so save your palms and wear gloves. You should also wear protective eye wear as road grit and flying insects do not make for happy eyes. Wearing cycling shoes, shorts and jerseys can help you be more comfortable. A helmet and glasses are essential for safety.

Now you’re all set to hop on and pedal away into the sunset, right? Wrong! The key to riding smoothly and in a controlled fashion on any bicycle, recumbent or not, is to be comfortable enough to relax. If you are nervous and tense, you will tend to ride in a jerky, over-controlling fashion. Not only does this make you more uncomfortable, which leads to even worse riding, but it doesn’t look cool. So you need to approach the bike as your friend, someone you’ll enjoy spending the day with. The intent here is to spend some relaxed time getting to know your bike before you get into traffic or far from home. Practice riding in a parking lot, or any open space with no traffic.

Before you start to ride, look at your gear and make sure that you are set in a good gear to start in. On a flat surface this usually is in the middle chaining (top front) and in one of the three largest cogs (on the back). If the bike is not in one of these gears, have someone hold the rear wheel off the ground so you can spin the cranks and shift the gears. Don’t forget that you should only shift when pedaling! As you gain experience you will find yourself thinking ahead and shifting into a low gear before you come to a stop.

GO RIDING

Now let’s get on the bike. Starting on the left side, hold the seat back with your right hand. Standing in front of the handlebar and facing the bike, swing your right leg over the front boom. You are now looking forward, straddling the bike. Now reach down and grab the handlebar grips, apply the brakes, and sit down. Settle yourself into the seat and get comfortable. Sit awake, rock back and forth and from side to side. Notice how the seat crushes you, and how comfortably close to the ground you are. Grasp the handlebars and rock the front wheel from side to side. Square the brake lever. Yodel a few times. Do whatever it takes to relax. Many first-time riders try to sit forward on the seat, not being used to the relaxed, laid back position. Sit back and enjoy the comfort!

Now pick a dominant leg (for most people this is your right leg). Pick your leg up and swing the crank arm around so you can easily reach the pedal. If you are using clips and straps, slip the pedal clip over your foot, but keep the strap nice and loose to start with. Try catching the clip from underneath with your toe, you might find it easier. Swing the crank around until your foot is in a “cocked” position; somewhere close to the top of the pedal stroke. It’s helpful to squeeze a brake lever, keeping the bike from rolling. When you’re ready, release the brake, and push forward firmly on the pedal. As you start moving, lift your other foot up and keep pedaling. At first you probably will wobble a little, but don’t panic and tense up, just relax and concentrate on making small corrections with the handlebars.

The most common error is to over-control the bike. If you relax and let your hands sit lightly on the handlebars, you will find it easier to avoid this syndrome. Lean back. You probably will try to lean forward, to mimic that “other” type bike you’ve been riding. Another common first time mistake is to stare at your feet, after all, you’ve never seen them before! Look ahead, see the scenery you’ve been missing.

Once you’re riding smoothly in a straight line, it’s time to practice looking around. Compared to a traditional bike you will find yourself looking at the world from a whole new perspective, a comfortable one. A problem you will face is keeping your mind on the road. Since you are riding in a relaxing reclined position it’s all too easy to forget about everything except the scenery in front of you. Looking behind you is not difficult, but it does take practice. As you ride in a straight line, and are sure you’re not about to take a long ride on a short pier, practice swinging your head to the left and right, taking quick glances behind you. The first time you do this you will inevitably shift your weight and hand position, causing the bike to swerve. Don’t panic, this is why we are practicing in the parking lot instead of a congested street. Using a mirror is a good idea, you should find one that works with your bike or helmet. It’s also a good idea to be able to actually look around behind you. This not only gives your options on checking out traffic, but practicing this will increase your skills and confidence on the bike.

RECUINEBNT SKILLS

At this point you should be feeling pretty good about life, zooming along nice and comfortable, relaxed and thinking about how much fun you are going to have on this thing. Before you hit the open road there are a few more exercises you should do. Practice circling, both to the right and to the left. Start out with gentle curves, and progress to tighter and tighter radius “U” turns. You should try to master turning in as tight a curve as possible several times, this gets you ready for the real world of poor directions and detours. If you find yourself wobbling or jerking the handlebars around, you are probably too tense. Relax, let your hands grasp the bars in a light but firm manner. Let your shoulders drop, relax your neck, don’t “death-clench” your teeth. Once you relax you will have more control over the bike.

Next, you should practice using the brakes. Stop and take off a few times, getting a feel for how much pressure on the lever it takes to slow down or stop the bike. Remember to always use both brakes together, with gentle pressure at first to stop the bike smoothly. Drop both your feet to the pavement while giving the brakes the final squeeze to stop the bike. Lean forward a bit and stand up, while reaching behind you for the seat frame to steady the bike. Practice stopping and dismounting, then starting off again. You should also practice stopping by dropping only one leg, typically your non-dominant leg. This exercise will help you deal with momentary stops, such as at stop signs and traffic lights. It does take a little practice to balance the bike leaning onto a single leg.

Remember to keep one hand clamped on a brake to prevent the bike from rolling. I usually cock my “crank-bound” leg for the start, and then hold pressure on the brake until I’m ready to go. You should carefully investigate what happens to the bike with gradually increasing brake pressure, so you will be comfortable with quick decisions on the road.

SHIFTING 21-SPEEDS

The last thing you should practice before hitting the open road is shifting. Be aware of how your gears work. It’s best to only shift with a light load on the pedals (ease up on the pedalling pressure before you shift). This does take some practice, so be patient. Try to anticipate what gear you will need, and when. The front derailleur (left shifter) with it’s three positions controls a bigger “jump” in the gearing, but shifts slower. The rear derailleur (right shifter) operates over a range of seven or eight gears, shifts faster and cleaner when you need it. The most important thing to remember is to practice shifting back to a nice starting gear BEFORE you come to a stop. With a little practice, you’ll know what gear you want for different conditions.

You should now be ready for the world of traffic, pedestrians, animals and other bicycles. Remember to wear your protective gear and be aware of what’s happening around you. Also remember to have fun, relax, and enjoy yourself. My biggest problem is bugs in my teeth, so watch your smile. ☺️
1997 Buyers’ Guide Listing Key

The following categories and background information, abbreviations, etc. will help you decipher the 97 RCBG manufacturers listings.

Model: This is the make and model of the recumbent.

Model/Frame: Choose this section to see the basic frame specifications.

Wheelbase: Actual length in inches, hub axle to hub axle.

Seat Height: The measurement from the ground to the height of your bottom at the base of the seat.

Bottom Bracket Height: The measurement from the ground to the center of the bottom-bracket spindle (pedal axle).

Headtube Angle: The angle of the head-tube in degrees (some mfrs. keep this secret).

Recline Angle: The recline of the seat from the horizontal.

Weight: These are manufacturer published weights. It would be impossible for us to weigh each and every bike in this magazine. Weights vary and published weights can be for a certain size bike without options and sometimes even without pedals.

Weight Distribution: Back (front): This can be particularly important on short SWB models and long LWB models where either the front or rear may be heavily loaded. This is mfr. supplied data.

Frame/ Fork/ Construction: The material and construction method.

Seat Frame/ Material: The seat frame type and material type.

Components: Our best advice is to study up on the various groups and price ranges and watch the specs closely for the potentially hidden low-end components (examples: Cyclone and Beoga). Components vary in class from Shimano RX/ RX100/105/Ultegra for the road and TY/Alvito/STX/Dorei/Lorre/XT/XT/RMT-4 Sachs ranges from Nex/ Centera/Quartz for mountain bikes and New Sport for the road. They are all very good components, and work remarkably well. What goes on your bike will be based upon the bike’s price-point.

Deraileurs (front/rear): The front and rear gear changers. Some models may be one speed or come with an internal hub.

Shifters: This year’s fleet comes with one of five types of shifters: Twist Grip, from Sachs or SRAM Grip Shift. The new SRAM Grip Shift ESP just may be the best twist shifter ever with it’s 1:1 leverage. Bar-Cons (bar-ends): a tried and true shifter that has a “friction” mode. These are made by Shimano and Campagnolo; Rapid-Fire: these are made by Shimano and are underbar dual lever shifters. These are the most complex and are rare on recumbents; Down-tube: racing shifters found on a few bikes; 3x7 Trigger: This is a thumb actuated shifter that shifts the internal three-speed of the hub.

Cranks: There are several types of cranksets from imported one-piece stamped cranks, to old stock Suntour MTB cranks and modern medium level Sachs/Shimano cranks to high end, cold-forged alloy to CNC machined aluminum.

Freespool/Cassette/Middrive: Freespool: These are generally old technology and are found mostly on low-end bikes. Freespool/ Cassettes have replaced freewheels on medium to high end bikes. Middrive: otherwise called intermediate drive is a mid-shaft mounted cassette or freewheel shifted by a rear derailleur.

Chain: This can be an issue for high-quality index shifting systems. The majority of the bikes have at least one KMC chain sold OEM to manufacturers or the much better and more expensive Sachs Sedsport and upper line models offer improved shifting and dependability.

Gear Inch Range: Divide the number of teeth in the rear cog into the front chaining and multiply it by the wheel diameter. A high performance recumbent will need high gears in the 120-150 (Rotate) range. An acceptable low gear for hill climbers is 22 gear inches. If you tow, kids, ride tandems up mountain passes, a low of 16-20 gear inches may be necessary. 7 or 14 speed recumbents are only good for flatland recreational/urban riding.

Brakes (front/rear): Alloy-side-pulls are standard bicycle brakes. Higher-end side-pulls can be road racing brakes. The strongest brakes come from mountain bikes in cantilevers, V-brakes and hydraulic calipers. Be wary of alloy side-pulls and brake-reach BMX side-pulls on both ends of a bike, especially if you plan to tour or ride in hilly country.

Brake Levers: Upgraded models can make a difference for low-end or medium grade brakes.

Wheel Hub/Rim/Spokes: Wheel rim diameter/hub brand/rim brand/spokes by number (hubs/spokes) and SS-Stainless steel.

Tires: These are of medium quality varies by model. Low-end models can use low-pressure tires on juvenile tires, while there are some excellent upgrades available in most sizes.

Bottom Bracket: This is the bearing housing that holds the pedal spindle (axle).

Headset: This is what your fork spins on. Recumbents tend to get harder on headsets, especially SWB models.

Paint/Colors: Most recumbents are powdercoated painted. Upperline bikes are wet-spray, liner or other custom paint.

Rider Height and Adjustment: Rider heights accepted by model/the way in which the bike adjusts: a sliding seat or a telescoping sliding pedal boom.

Suggested Retail Price: This is the price from the manufacturer and does not include shipping and occasionally not dealer setup.

Warranty: These are for the main frame and manufactured parts of the bike (unless otherwise noted). Components have their own warranties based from 60 days to one year. With overseas manufacturers, there will be questions as to returning shipping (as much as $50 each way) or if there is a warranty at all.

The ultimate commitment from manufacturer to customer is a lifetime warranty on the frame. Rear, ATP Bike, Linear and others offer them. Others offer as little as 1-5 year warranties for comparable bikes. We suggest purchasing a model with a lifetime frame warranty or quiz the manufacturers about post warranty coverage. We have heard of some manufacturers covering failures after the warranty is over. Warranties do not cover parts that wear-out from use, are raced or abused.

Changes: The information in this guide is up-to-date as of March 1, 1997. North American manufacturers have been given the opportunity to proof specs, in some cases multiple times. You should expect that these specs may change over the course of the year. This happens more with smaller manufacturers, though be sure to quiz the manufacturer/dealer on the parts that vary from RCBG published specs.

GLOSSARY

Above/Seat Steering (ASS): Headset located above the seat, frame or fork. Above/Seat Steering is an alternate to the tandem arrangement above.

Below/Seat Steering (BSS): Headset located below the seat, frame or fork. Below/Seat Steering is most often used with tandems.

Bike/Handlebars: A rubber (usually) or plastic tip that comes in a variety of shapes, sizes, and materials. They are made of for pedaling efficiency.

Bar-Cons: Bar-ends.

Bar Ends: Mostly used on USB bikes to bring the handlebars forward. They are similar to those found on MTBs.

Bottom Bracket (BB): Pedal axle. BBs vary in spacing, diameter, and bolt pattern.

Handlebars: A primary means by which the rider steers the bicycle.

Crossbar: A crossbar is a tube that crosses (usually) around the tubing junctions. It is often used to smooth or shape a frame joint from a roughness or a uneven joint from natural.

Carbon Fiber: A high-tech, high-strength composite material that is used in bicycles.

C-Gear/Chainrings: A gear or chainring that holds the chain on the sprocket.

Chain-Drive: A method of transferring power from the sprocket to the rear wheel.

Chainring: A sprocket engaged with the chain.

Clubs: The most expensive and exclusive club for the cyclist.

Cranks: Crankset:

Crossbar: A crossbar is a tube that crosses (usually) around the tubing junctions. It is often used to smooth or shape a frame joint from a roughness or a uneven joint from natural.

Direct Steering: A method that does not involve the head-tube.

Forerunner: A forerunner is a bike that is designed for speed racing.

Frame: The frame is the primary structure of the bicycle.

Forks: Forks: The forks are the primary structure of the bicycle.

Freewheel: A freewheel is a sprocket engaged with the chain.

Gears: Gears: A gear is a part of a bicycle.

Inverted fork: A fork that is 180 degrees rotated from a standard fork.

Knee: A knee pad is a device that protects the knee from injury.

Lug: A lug is a round or oval-shaped metal plate that is used to hold a bicycle together.

Mounting: A mounting is a device that holds a bicycle part in place.

Pedals: Pedals are the part of a bicycle that the rider stands on.

Pedals: Pedals are the part of a bicycle that the rider stands on.

Pegs: Pegs are used to hold a bicycle part in place.

Pegs: Pegs are used to hold a bicycle part in place.

Post: A post is a part of a bicycle that is used to hold a part in place.

Q-Way: A Q-Way is a measuring system that is used to measure the distance between the seat and the handlebars.

Rims: Rims are the parts of a bicycle that hold the tires.

Sprockets: Sprockets are the parts of a bicycle that transfer power from the chain to the wheel.

Tandem: A tandem is a bicycle that has two sets of pedals.

Tires: Tires are the parts of a bicycle that are used to ride on.

U-frame: A U-frame is a part of a bicycle that is used to hold the seat in place.

Wheels: Wheels are the parts of a bicycle that are used to ride on.

&copy 2001 RCBG, All rights reserved.
### ATP Vision

#### 1997 ATP Vision R-42 SWB with USS and a 20" front wheel

<table>
<thead>
<tr>
<th>Model</th>
<th>Designer/Date</th>
<th>Design/Steering Type</th>
<th>Wheelbase</th>
<th>Seat/Bottom Bracket Height</th>
<th>Headtube/Seat Recline Angle</th>
<th>Weight/Wt Distribution (lb./ft.)</th>
<th>Frame/Fork/Construction</th>
<th>Seat Frame/Material</th>
<th>Delarueffs (ft./m.)</th>
<th>Shifters</th>
<th>Crankset</th>
<th>Cassette/Chain</th>
<th>Gear Inch Range</th>
<th>Brakes (ft./m.)</th>
<th>Brake Levers</th>
<th>Rear Wheel/Hub/Rim/Spokes</th>
<th>Front Wheel/Hub/Rim/Spokes</th>
<th>Tires (ft./m.)</th>
<th>Bottom Bracket/Headset</th>
<th>Paint/Colors</th>
<th>Rider Height and Adjustment</th>
<th>Model Designed For</th>
<th>Suggested Retail Price</th>
</tr>
</thead>
</table>

#### 1997 ATP Vision R-44 SWB with USS and a 20" front wheel

<table>
<thead>
<tr>
<th>Model</th>
<th>Designer/Date</th>
<th>Design/Steering Type</th>
<th>Wheelbase</th>
<th>Seat/Bottom Bracket Height</th>
<th>Headtube/Seat Recline Angle</th>
<th>Weight/Wt Distribution (lb./ft.)</th>
<th>Frame/Fork/Construction</th>
<th>Seat Frame/Material</th>
<th>Delarueffs (ft./m.)</th>
<th>Shifters</th>
<th>Crankset</th>
<th>Cassette/Chain</th>
<th>Gear Inch Range</th>
<th>Brakes (ft./m.)</th>
<th>Brake Levers</th>
<th>Rear Wheel/Hub/Rim/Spokes</th>
<th>Front Wheel/Hub/Rim/Spokes</th>
<th>Tires (ft./m.)</th>
<th>Bottom Bracket/Headset</th>
<th>Paint/Colors</th>
<th>Rider Height and Adjustment</th>
<th>Model Designed For</th>
<th>Suggested Retail Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-40 A/E (SWB)</td>
<td>Grant Bower/Joe Smith/1993 &amp; 1997</td>
<td>LWB/USS or ASS 16&quot; or 20&quot; ft. whl. 36&quot;</td>
<td>19.5/20&quot; or 21&quot;</td>
<td>20&quot; ft. whl.</td>
<td>N.A./N.A.</td>
<td>1020 Hit Ten DOM steel/CroMo/TiG</td>
<td>Alloy frame/nylon mesh/HD foam pad</td>
<td>Shiman RX100 24 speed</td>
<td>Sachs Wavey</td>
<td>Shiman RX100 38/42/52</td>
<td>Shiman 12-28 8-speed/KMC</td>
<td>SS90</td>
<td>28-113</td>
<td>Dia Compe VC-700 Comline</td>
<td>Shiman RX100 Sun/Sun SS 32&quot;</td>
<td>16&quot; or 20&quot; Front/Rear/Rear Sun SS 32&quot;</td>
<td>Vision 18&quot; HP/Alloy Slick</td>
<td>Shimano cartridge/YST</td>
<td>Powdacco/Burgundy &amp; Metallic Teal</td>
<td>48&quot;-64&quot;/Sliding boom</td>
<td>Multiple-use/Touring/Sport/Commute</td>
<td>$1405</td>
<td></td>
</tr>
<tr>
<td>R-42 A/E (SWB)</td>
<td>Grant Bower/Joe Smith/1993 &amp; 1997</td>
<td>LWB/USS or ASS 16&quot; or 20&quot; ft. whl. 36&quot;</td>
<td>19.5/20&quot; or 21&quot;</td>
<td>20&quot; ft. whl.</td>
<td>N.A./N.A.</td>
<td>1020 Hit Ten DOM steel/CroMo/TiG</td>
<td>Alloy frame/nylon mesh/HD foam pad</td>
<td>Shiman RX100 24 speed</td>
<td>Sachs Wavey</td>
<td>Shiman RX100 38/42/52</td>
<td>Shiman 12-28 8-speed/KMC</td>
<td>SS90</td>
<td>28-113</td>
<td>Dia Compe VC-700 Comline</td>
<td>Shiman RX100 Sun/Sun SS 32&quot;</td>
<td>16&quot; or 20&quot; Front/Rear/Rear Sun SS 32&quot;</td>
<td>Vision 18&quot; HP/Alloy Slick</td>
<td>Shimano cartridge/YST</td>
<td>Powdacco/Burgundy &amp; Metallic Teal</td>
<td>48&quot;-64&quot;/Sliding boom</td>
<td>Multiple-use/Touring/Sport/Commute</td>
<td>$1405</td>
<td></td>
</tr>
</tbody>
</table>

1997 Buyers Guide
## ATP Vision

### The ATP Vision R-40 LWB with USS, 16" front wheel and an ATP Zapper front fairing

<table>
<thead>
<tr>
<th>Model</th>
<th>R-44 A/E (SWB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designer/Date</td>
<td>Grant Bowen/Joel Smith/1996</td>
</tr>
<tr>
<td>Design/Steering Type</td>
<td>SWB/US5 or ASS 16&quot; or 20&quot; ft. whl. 36&quot;</td>
</tr>
<tr>
<td>Wheelbase</td>
<td></td>
</tr>
<tr>
<td>Seat/Bottom Bracket Height</td>
<td>19.5/20&quot; or 21&quot; (20&quot; ft. whl.)</td>
</tr>
<tr>
<td>Headtube/Seat Recntle Angle</td>
<td>N.A./10&quot; adjustable</td>
</tr>
<tr>
<td>Weight/Weight Distribution (lb./ft.)</td>
<td>#23.3/20% - 50%</td>
</tr>
<tr>
<td>Frame/Fork/Construction</td>
<td>4150 CroMo/CroMo/TIG</td>
</tr>
<tr>
<td>Seat Frame/Material</td>
<td>Shimano RX100 24 speed</td>
</tr>
<tr>
<td>Derailleurs (fl./lr.)</td>
<td>Sachs Wavey</td>
</tr>
<tr>
<td>Shifters</td>
<td></td>
</tr>
<tr>
<td>Crankset</td>
<td></td>
</tr>
<tr>
<td>Cassette/Chain</td>
<td>Shimano RX100 30/42/52</td>
</tr>
<tr>
<td>Gear Inch Range</td>
<td>Shimano 12-26/KMC SS90</td>
</tr>
<tr>
<td>Brakes (fl./lr.)</td>
<td>28-113</td>
</tr>
<tr>
<td>Brake Levers</td>
<td>Dia Compe VC-700 cantilever</td>
</tr>
<tr>
<td>Rear Wheel/Hub/Rim/Spokes</td>
<td>Dia Compe PC7</td>
</tr>
<tr>
<td>Tires (fl./lr.)</td>
<td>26&quot;/55-559</td>
</tr>
<tr>
<td>Bottom Bracket/Headset</td>
<td>Vision HP or Schwinn/Ritchey Slick</td>
</tr>
<tr>
<td>Paint/Colors</td>
<td>Paint/Colors: Powdercoat Red or Black</td>
</tr>
<tr>
<td>Rider Height and Adjustment</td>
<td>4(\frac{1}{2})&quot;-6'4&quot; Siding Boom</td>
</tr>
<tr>
<td>Model Designed For</td>
<td>Multiple-use/Touring/Sport/Commuting</td>
</tr>
<tr>
<td>Suggested Retail Price</td>
<td>$1825</td>
</tr>
</tbody>
</table>

### The 1997 ATP Double Vision

<table>
<thead>
<tr>
<th>Model</th>
<th>R-48 A/E (SWB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designer/Date</td>
<td>Grant Bowen/Joel Smith/1993</td>
</tr>
<tr>
<td>Design/Steering Type</td>
<td>SWB/US5 or ASS 16&quot; or 20&quot; ft. whl. 36&quot;</td>
</tr>
<tr>
<td>Wheelbase</td>
<td></td>
</tr>
<tr>
<td>Seat/Bottom Bracket Height</td>
<td>19.5/20&quot; or 21&quot; (20&quot; ft. whl.)</td>
</tr>
<tr>
<td>Headtube/Seat Recntle Angle</td>
<td>N.A./10&quot; adjustable</td>
</tr>
<tr>
<td>Weight/Weight Distribution (lb./ft.)</td>
<td>#23.3/20% - 50%</td>
</tr>
<tr>
<td>Frame/Fork/Construction</td>
<td>4150 CroMo/CroMo/TIG</td>
</tr>
<tr>
<td>Seat Frame/Material</td>
<td>Shimano RX100 24 speed</td>
</tr>
<tr>
<td>Derailleurs (fl./lr.)</td>
<td>Sachs Wavey</td>
</tr>
<tr>
<td>Shifters</td>
<td></td>
</tr>
<tr>
<td>Crankset</td>
<td></td>
</tr>
<tr>
<td>Cassette/Chain</td>
<td>Shimano RX100 30/42/52</td>
</tr>
<tr>
<td>Gear Inch Range</td>
<td>Shimano 12-26/KMC SS90</td>
</tr>
<tr>
<td>Brakes (fl./lr.)</td>
<td>28-113</td>
</tr>
<tr>
<td>Brake Levers</td>
<td>Dia Compe VC-700 cantilever</td>
</tr>
<tr>
<td>Rear Wheel/Hub/Rim/Spokes</td>
<td>Dia Compe PC7</td>
</tr>
<tr>
<td>Tires (fl./lr.)</td>
<td>26&quot;/55-559</td>
</tr>
<tr>
<td>Bottom Bracket/Headset</td>
<td>Vision HP or Schwinn/Ritchey Slick</td>
</tr>
<tr>
<td>Paint/Colors</td>
<td>Any color you want</td>
</tr>
<tr>
<td>Rider Height and Adjustment</td>
<td>4(\frac{1}{2})&quot;-6'4&quot; Siding Boom</td>
</tr>
<tr>
<td>Model Designed For</td>
<td>Multiple-use/Touring/Sport/Commuting</td>
</tr>
<tr>
<td>Suggested Retail Price</td>
<td>$2375</td>
</tr>
</tbody>
</table>

### New for 1997: The Metro suspended (rear) "compact" recumbent is the biggest news from Vision this year. The Metro uses the Nexus internal hub 7 speed and an optional Sachs 3x7. The R-42 has been upgraded to a Shimano RSX drivetrain, Sachs twist shifters, matched with improved cable routing and frame details. The R-42 has Shimano RX100 with an 8-speed Cassette. The Sabre prototype (pictured on the B2 cover) may be available as a frameset in very limited quantities. Contact Vision if you are interested.

Options: The Vision seat bag has a capacity of 800 cu. in., an external pocket and shoulder strap ($80). A rearview mirror, kickstand, inflatable seat cushion, light mount, and seat bag are available. A rack, fairing and maybe even a fender-set are in the works for the Metro. Fairings: Vision Zapper ($425), Rain Poncho (used with Zapper) and a new Zapper for the Metro.

Pre-assembled: Yes (dealer)
Bench tested: Yes (dealer)
Warranty: Lifetiemone-year seat fabric/seat components
Years In Business: 4
Available From: Dealer
RON Articles: RON49, 21, 25, 34, 35, 36

Contact Info:
Advanced Transportation Products
862 Republican St.
Seattle, WA 98109
Tel: 206/667-0231
Fax: 206/667-0175
Email: ATPVision@aol.com
Web: http://cyder.com/Vision

Recumbent Cyclist News #38
Model: ANGLETECH/RANS Rocket BLT63

Design/Steering Type: Wheelbase: 36.75

Seat/Bottom Bracket Height: 23.75/25.5

Headtube/Seat Recline Angle: N.A. 25

Weight/Weight Distribution (lbs/lb):

#83 Sliding seat-varies by rider

Frame/Fork/Construction: 4130 CroMo/CroMo/TIG

Seat Frame/Material: RANS mesh backfoam base

Derailleur(s) (fr./rr.): Sachs Quartz/Shimano 105/8/10 5x7 6sp.

Shifters: Ritchey Logic

Crankset:

Cassette/Chain: Shimano HG 101-12 cassette/Sachs-Sedia

Gear Inset Range: 18.4-140

Brakes (fr./rr.): D. Compe S.T. cantilever/Kool Stop Pads

Rear Wheel/Rim/Tires:

Front Wheel/Rim/Tires:

Tires (fr./rr.):

Tire Make/Model/Size:

Ride Height and Adjustment:

Model Designed For:

Suggested Retail Price: $1399.99

---

Model: ANGLETECH/RANS V-Rex GL63

Design/Steering Type: Wheelbase: 36.75

Seat/Bottom Bracket Height: 23.75/25.5

Headtube/Seat Recline Angle: N.A. 25

Weight/Weight Distribution (lbs/lb):

#83 Sliding seat-varies by rider

Frame/Fork/Construction: 4130 CroMo/CroMo/TIG

Seat Frame/Material: RANS mesh backfoam base

Derailleur(s) (fr./rr.): Sachs Quartz/Shimano 105/8/10 5x7 6sp.

Shifters:

Crankset:

Cassette/Chain: Shimano HG 101-12 cassette/Sachs-Sedia

Gear Inset Range: 18.4-140

Brakes (fr./rr.): D. Compe S.T. cantilever/Kool Stop Pads

Rear Wheel/Rim/Tires:

Front Wheel/Rim/Tires:

Tires (fr./rr.):

Tire Make/Model/Size:

Ride Height and Adjustment:

Model Designed For:

Suggested Retail Price: $1399.99

---

Model: ANGLETECH/RANS V-Rex SS

Design/Steering Type: Wheelbase: 36.75

Seat/Bottom Bracket Height: 23.75/25.5

Headtube/Seat Recline Angle: N.A. 25

Weight/Weight Distribution (lbs/lb):

#83 Sliding seat-varies by rider

Frame/Fork/Construction: 4130 CroMo/CroMo/TIG

Seat Frame/Material: RANS mesh backfoam base

Derailleur(s) (fr./rr.): Sachs Quartz/Shimano 105/8/10 5x7 6sp.

Shifters:

Crankset:

Cassette/Chain: Shimano HG 101-12 cassette/Sachs-Sedia

Gear Inset Range: 18.4-140

Brakes (fr./rr.): D. Compe S.T. cantilever/Kool Stop Pads

Rear Wheel/Rim/Tires:

Front Wheel/Rim/Tires:

Tires (fr./rr.):

Tire Make/Model/Size:

Ride Height and Adjustment:

Model Designed For:

Suggested Retail Price: $1399.99

---

Model: ANGLETECH/Vision® Metro™ Elite

Design/Steering Type: Wheelbase: 36.75

Seat/Bottom Bracket Height: 23.75/25.5

Headtube/Seat Recline Angle: N.A. 25

Weight/Weight Distribution (lbs/lb):

#83 Sliding seat-varies by rider

Frame/Fork/Construction: 4130 CroMo/CroMo/TIG

Seat Frame/Material: RANS mesh backfoam base

Derailleur(s) (fr./rr.): Sachs Quartz/Shimano 105/8/10 5x7 6sp.

Shifters:

Crankset:

Cassette/Chain: Shimano HG 101-12 cassette/Sachs-Sedia

Gear Inset Range: 18.4-140

Brakes (fr./rr.): D. Compe S.T. cantilever/Kool Stop Pads

Rear Wheel/Rim/Tires:

Front Wheel/Rim/Tires:

Tires (fr./rr.):

Tire Make/Model/Size:

Ride Height and Adjustment:

Model Designed For:

Suggested Retail Price: $1399.99

---

Model: ANGLETECH/RANS Stratus SS

Design/Steering Type: Wheelbase: 36.75

Seat/Bottom Bracket Height: 23.75/25.5

Headtube/Seat Recline Angle: N.A. 25

Weight/Weight Distribution (lbs/lb):

#83 Sliding seat-varies by rider

Frame/Fork/Construction: 4130 CroMo/CroMo/TIG

Seat Frame/Material: RANS mesh backfoam base

Derailleur(s) (fr./rr.): Sachs Quartz/Shimano 105/8/10 5x7 6sp.

Shifters:

Crankset:

Cassette/Chain: Shimano HG 101-12 cassette/Sachs-Sedia

Gear Inset Range: 18.4-140

Brakes (fr./rr.): D. Compe S.T. cantilever/Kool Stop Pads

Rear Wheel/Rim/Tires:

Front Wheel/Rim/Tires:

Tires (fr./rr.):

Tire Make/Model/Size:

Ride Height and Adjustment:

Model Designed For:

Suggested Retail Price: $1399.99

---

Model: ANGLETECH/RANS V-Rex SS

Design/Steering Type: Wheelbase: 36.75

Seat/Bottom Bracket Height: 23.75/25.5

Headtube/Seat Recline Angle: N.A. 25

Weight/Weight Distribution (lbs/lb):

#83 Sliding seat-varies by rider

Frame/Fork/Construction: 4130 CroMo/CroMo/TIG

Seat Frame/Material: RANS mesh backfoam base

Derailleur(s) (fr./rr.): Sachs Quartz/Shimano 105/8/10 5x7 6sp.

Shifters:

Crankset:

Cassette/Chain: Shimano HG 101-12 cassette/Sachs-Sedia

Gear Inset Range: 18.4-140

Brakes (fr./rr.): D. Compe S.T. cantilever/Kool Stop Pads

Rear Wheel/Rim/Tires:

Front Wheel/Rim/Tires:

Tires (fr./rr.):

Tire Make/Model/Size:

Ride Height and Adjustment:

Model Designed For:

Suggested Retail Price: $1399.99
AngleTech

The Angletech Streetglider

Model: ANGLETECH/Vision™ R-44/48™ GL63
Design/Steering Type: Crown/Franke Asso/1984
Wheelbase: 26"/27.5"/28.6"
Seat/Bottom Bracket Height: 700C/Sachs Neo 53x7/38c/DT SS 38c
Headtube/Seat Realine Angle: XTR Canti/lever/ioscort V-Brake
Weight/Weight Distribution (lb./ft.): Reynolds 811/80C/Fox/Alloy
Weight/Fork Construction: Reynolds 811/80C/Fox/Alloy
Frame/Fork/Construction: Reynolds 811/80C/Fox/Alloy
Frame/Frame/Construction: Reynolds 811/80C/Fox/Alloy
Crankset: HT Bonded Aluminum/Alloy/Alloy/Bonded
Cassette/Chain: Alum/Alloy/Alloy
Gear Inch Range: Black/Blue/White/Blue
Brakes (ft./in.): Black/Blue/White/Blue
Handlebar/Handlebar: Black/Blue/White/Blue
Shifter (ft./in.): Black/Blue/White/Blue
Footrest (ft./in.): Black/Blue/White/Blue
Cage (ft./in.): Black/Blue/White/Blue
Rim (ft./in.): Black/Blue/White/Blue
Rear Wheel/Hub/Spokes: Black/Blue/White/Blue
Front Wheel/Hub/Spokes: Black/Blue/White/Blue
Tire (ft./in.): Black/Blue/White/Blue
Bottom Bracket/Headset: Black/Blue/White/Blue
Paint/Colors: Black/Blue/White/Blue
Rider Height and Adjustment: Black/Blue/White/Blue
Model Designed For: Black/Blue/White/Blue
Suggested Retail Price: $2471.33

The Angletech V-Rex GL63 with optional suspension fork

Model: ANGLETECH/Vision™ R-44/48™ GL63
Design/Steering Type: Crown/Franke Asso/1984
Wheelbase: 26"/27.5"/28.6"
Seat/Bottom Bracket Height: 700C/Sachs Neo 53x7/38c/DT SS 38c
Headtube/Seat Realine Angle: XTR Canti/lever/ioscort V-Brake
Weight/Weight Distribution (lb./ft.): Reynolds 811/80C/Fox/Alloy
Weight/Fork Construction: Reynolds 811/80C/Fox/Alloy
Frame/Fork/Construction: Reynolds 811/80C/Fox/Alloy
Frame/Frame/Construction: Reynolds 811/80C/Fox/Alloy
Crankset: HT Bonded Aluminum/Alloy/Alloy/Bonded
Cassette/Chain: Alum/Alloy/Alloy
Gear Inch Range: Black/Blue/White/Blue
Brakes (ft./in.): Black/Blue/White/Blue
Handlebar/Handlebar: Black/Blue/White/Blue
Shifter (ft./in.): Black/Blue/White/Blue
Footrest (ft./in.): Black/Blue/White/Blue
Cage (ft./in.): Black/Blue/White/Blue
Rim (ft./in.): Black/Blue/White/Blue
Rear Wheel/Hub/Spokes: Black/Blue/White/Blue
Front Wheel/Hub/Spokes: Black/Blue/White/Blue
Tire (ft./in.): Black/Blue/White/Blue
Bottom Bracket/Headset: Black/Blue/White/Blue
Paint/Colors: Black/Blue/White/Blue
Rider Height and Adjustment: Black/Blue/White/Blue
Model Designed For: Black/Blue/White/Blue
Suggested Retail Price: $2471.33

1997 Buyers Guide

19
The AngleTech Ostrad suspension SWB imported from Germany. A SWB ASS and LWB touring model are also available. RIGHT: AngleTech Screamer tandem

Model:
- Desgn/Date: ANGLETECH/RANS Screamer GLS32ic1
- Design/Steering Type: Rody Schkiter 1986
- Wheelbase: Tandem/ASS V-26/Flop it Ind-coast
- Seat/Bottom Bracket Height: 74.5"
- Headtube/Seat Recline Angle: 25.5°/23.5° (stoker)/20° adjustable
- Weight/Light Distribution (lbs/cto): N/A, 20± adjustable
- Frame/Fork/Construction: #44 (C-4 with I-C beam)/N/A.
- Derailleur (fr/mr): 4130 CroMoNonlube CroMo/TIG
- Crankset: RANS mesh back, forward base (2)
- Cassettes/Chain: Sachs Zurich/White ind. 32 speed
- Gear Inch Range: Ginnell GT600/White ind. (rear)
- Brake: Sugino Rear: 25/6548
- Brakes: Shimano XTR 12-28/Sachs Segisport
- Bottom Bracket/Headset: 18.4-122.5
- Frame: Maviga Himalaya with Kool Stop pads
- Brake Levers: Rear Wheel Hub/Rim/Spokes: 26° Phil Wood/Mavic/DTS 36°
- Front Wheel Hub/Rim/Spokes: 20°/606 Phil Wood/3arsaya/DTS 36°
- Tires (fr/mr): Conti Top Tour, 1-3/8/3 Spec. Fat boy 1.25
- Bottom Bracket/Headset: Phil Wood/Chris King
- Paint/Colors: Custom Deep powder
- Rider Height and Adjustment: Sliding seat
- Model Designed For: HP/Touring/Sport Touring
- Suggested Retail Price: $2499.00

NOTE: The noted recumbent bicycle framesets, seats, handlebars/usual frame parts are manufactured by other recumbent manufacturers and is not covered by this warranty. The bike is available through dealers or direct from the manufacturer.

Model:
- Designer/Date: ANGLETECH Tri Speeder Richard Rau 1986
- Design/Steering Type: Trike (two wheels in front)/ASS
- Wheelbase: 40°/Trike 30°
- Seat/Bottom Bracket Height: N.A.
- Headtube/Seat Recline Angle: 15°/N.A. (2 forming)
- Weight/Light Distribution (lbs/cto): #44±7 N.A.
- Frame/Fork/Construction: 4130 CroMo/TIG
- Derailleur (fr/mr): CroMo frame/tall nylon mesh
- Crankset: Shimano RSX 35 speed
- Cassettes/Chain: Ginnell GT600/White ind. (rear)
- Gear Inch Range: Sugino Rear: 25/6548
- Tires (fr/mr): HGS 13-34/12-28/mid-drive/Sachs
- Brakes: 22.8-119
- Bottom Bracket/Headset: Dual Pro/3arsaya VT5000 drum (2)
- Paint/Colors: Phil Wood/3arsaya U-N-2/Cust
- Rider Height and Adjustment: Custom deep powder
- Model Designed For: 5°-67° Sliding seat and boom
- Suggested Retail Price: $3199.00

Model:
- Designer/Date: ANGLETECH Quadruped Gary Hale/Richard Rau
- Design/Steering Type: Trike (two front)/ASS Hand/foot crank
- Wheelbase: 40°/Trike 30°
- Seat/Bottom Bracket Height: N.A.
- Headtube/Seat Recline Angle: 15°/N.A. (2 forms)
- Weight/Light Distribution (lbs/cto): #44±7 N.A.
- Frame/Fork/Construction: 4130 CroMo/TIG
- Derailleur (fr/mr): CroMo frame/tall nylon mesh
- Crankset: Shimano RSX 35 speed
- Cassettes/Chain: Shimano RSX down tube
- Gear Inch Range: Sugino Rear: 25/6548
- Tires (fr/mr): HGS 12-28/mid-drive/Sachs
- Brakes: 22.8-119
- Bottom Bracket/Headset: Dual Pro/3arsaya VT5000 drum (2)
- Paint/Colors: Phil Wood/3arsaya U-N-2/Cust
- Rider Height and Adjustment: Custom deep powder
- Model Designed For: 5°-67° Sliding seat and boom
- Suggested Retail Price: $3799.00

NOTES: The noted recumbent bicycle framesets, seats, handlebars/usual frame parts are manufactured by other recumbent manufacturers and is not covered by this warranty. The bike is available through dealers or direct from the manufacturer.

AngleTech is now distributing the German Ostrad full suspension bikes, the British Streets. (reverse fork) and the new Thorpe Maico GL36. Richard Rau's Quadraped hand/foot trike is now being built under license in Colorado. A foot powered (only) version is available in the Tri-Speeder. There is also an AngleTech spec EasyRider Gold Rush Replica. AngleTech sells a new Moulton suspended upright bikes, Angletouch is available in the Tri-Speeder. The Angletouch is available in the Tri-Speeder. The Angletouch is available in the Tri-Speeder.

Options: AngleTech offers standard and custom Rants and Vision models, a new Sachs 500 equipped superlative Metro with optional travel case. Stock and custom spec Rans Tailwind, Glass, Nimbus, Vision models and the new 33° Nimbus (small) are also available.

Pre-assembled: Yes

Bench tested: Yes, and road tested

Warranty: 1 year

Years in business: 35

Contact Info:
- AngleTech
  315 N. Highway 67
  PO Box 1993
  Woodland Park, CO 80863-1993
  Ph#: Fax#: 719-657-7476
  Order#: 800-793-3038

Email: ANGLEZOOM@aol.com
Web: http://bikeroote.com/AngleTech

Recumbent Cyclist News #88
### Crystal Engineering

**The 1997 Speed Ross with fairing/cargo box**

<table>
<thead>
<tr>
<th>Model: Speed Ross</th>
<th>Model: Trice</th>
<th>Model: Festina</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design/Steering Type: Speed Ross or USS</td>
<td>Trice/SUS two wheels in front</td>
<td>Trice/SUS two wheels in front</td>
</tr>
<tr>
<td>Wheelbase: 40&quot;</td>
<td>39&quot;/track 32&quot;/width 36&quot;</td>
<td>39&quot;/track 32&quot;/width 36&quot;</td>
</tr>
<tr>
<td>Seat/Bottom Bracket Height: 17&quot;/26&quot;</td>
<td>11&quot;/16&quot;</td>
<td>11&quot;/16&quot;</td>
</tr>
<tr>
<td>Headtube/Seat Recline Angle: 70°/45°</td>
<td>N.A./45° non-adjustable</td>
<td>N.A./45° non-adjustable</td>
</tr>
<tr>
<td>Weight/Weight Distribution (lbs.): 245/50%—50%</td>
<td>39/30%—50%</td>
<td>39/30%—50%</td>
</tr>
<tr>
<td>Frame/ Fork/Construction: Cold drawn carbon steel-531/CroMo</td>
<td>Cold drawn carbon steel-531/CroMo</td>
<td>Cold drawn carbon steel-531/CroMo</td>
</tr>
<tr>
<td>Seat Frame/Material: Aluminum/Carbonyl mesh</td>
<td>Aluminum/Carbonyl mesh</td>
<td>Aluminum/Carbonyl mesh</td>
</tr>
<tr>
<td>Shifters: Ultegra Bar-Ends</td>
<td>Ultegra Bar-Ends</td>
<td>Ultegra Bar-Ends</td>
</tr>
<tr>
<td>Crankset: Shimano Deore LX 22/32/42</td>
<td>Shimano Deore LX 22/32/42</td>
<td>Shimano Deore LX 22/32/42</td>
</tr>
<tr>
<td>Gear Inch Range: 21°-103</td>
<td>21°-103</td>
<td>21°-103</td>
</tr>
<tr>
<td>Brakes (fr/hr): Dia Compe VC700 cantilever</td>
<td>Dia Compe VC700 cantilever</td>
<td>Dia Compe VC700 cantilever</td>
</tr>
<tr>
<td>Brake Levers: Dia Compe PC-3N</td>
<td>Dia Compe PC-3N</td>
<td>Dia Compe PC-3N</td>
</tr>
<tr>
<td>Rear Wheel Hub/Rim/Spokes: 700c x 25 or 29</td>
<td>700c x 25 or 29</td>
<td>700c x 25 or 29</td>
</tr>
<tr>
<td>Front Wheel Hub/Rim/Spokes: 20° x 1-1/2&quot;</td>
<td>20° x 1-1/2&quot;</td>
<td>20° x 1-1/2&quot;</td>
</tr>
<tr>
<td>Tires (fr/hr): IRC Roadstar/Schwalbe City Marathon</td>
<td>IRC Roadstar/Schwalbe City Marathon</td>
<td>IRC Roadstar/Schwalbe City Marathon</td>
</tr>
<tr>
<td>Bottom Bracket/Headset: Shimano sealed/Tange Levin</td>
<td>Shimano sealed/Tange Levin</td>
<td>Shimano sealed/Tange Levin</td>
</tr>
<tr>
<td>Paint/Colors: Powdercoat</td>
<td>Powdercoat</td>
<td>Powdercoat</td>
</tr>
<tr>
<td>Rider Height and Adjustment: Sliding boom</td>
<td>Sliding boom</td>
<td>Sliding boom</td>
</tr>
<tr>
<td>Model Designed For: Multiple use</td>
<td>Multiple use</td>
<td>Multiple use</td>
</tr>
<tr>
<td>Suggested Retail Price: $1500</td>
<td>$3500</td>
<td>$3500</td>
</tr>
</tbody>
</table>

### NOTES: The Speed Ross, Festina and Gem are available direct only from the manufacturer. The Trice is available through AngleTech, Fools Crow and People Movers. New for 1997: Until now the Trice available in the US has been a model which was designed in 1990 and made under license by EcoCycle (Corvallis, OR, USA). The Trice now available from US dealers was formerly known as the EuroTrice, and is a much improved 1996 design. The frame and seat are made in England and the components are added by the dealers. EcoCycle no longer builds or markets the Trice. Options: Manufacturer custom and dealer options are available. Fairings: Trice fairings: front-$800/tail-box rear-$500. Warranty: Lifetime-frame Years In Business: 10/250+ bikes Available From: Dealer & Direct RDN Articles: RDN #16 and upcoming

### Model: GEM Sociable Trice

**GEM Sociable Trice**

| Designer/Date: Peter Ross/1995 | Design/Steering Type: Two seat trike/one wheel in front |
| Wheelbase: 70.8" | Seat/Bottom Bracket Height: 17°14" |
| Headtube/Seat Recline Angle: 89°/45° | Weight/Weight Distribution (lbs.): 69/50%—40% |
| Frame/ Fork/Construction: Cold drawn carbon steel/TCG | Frame/ Fork/Construction: Cold drawn carbon steel/TCG |
| Material: Aluminum/Carbonyl mesh | Material: Aluminum/Carbonyl mesh |
| Derailleurs (fr/hr): Shimano STX 21 speed | Derailleurs (fr/hr): Shimano STX 21 speed |
| Shifters: Shimano STX RC 22/32/42 170mm | Shifters: Shimano STX RC 22/32/42 170mm |
| Gear Inch Range: 20° x 1.75" | Gear Inch Range: 20° x 1.75" |
| Brakes (fr/hr): Magura Hydraulic | Brakes (fr/hr): Magura Hydraulic |
| Brake Levers: 200mm 100 psi | Brake Levers: 200mm 100 psi |
| Rear Wheel Hub/Rim/Spokes: Shimano sealed/Tange New Levin | Rear Wheel Hub/Rim/Spokes: Shimano sealed/Tange New Levin |
| Front Wheel Hub/Rim/Spokes: Powdercoat | Front Wheel Hub/Rim/Spokes: Powdercoat |
| Tires (fr/hr): Sliding bottom bracket | Tires (fr/hr): Sliding bottom bracket |
| Bottom Bracket/Headset: Sport Touring/Commuting | Bottom Bracket/Headset: Sport Touring/Commuting |
| Paint/Colors: Powdercoat | Paint/Colors: Powdercoat |
| Rider Height and Adjustment: Multiple use | Rider Height and Adjustment: Multiple use |
| Model Designed For: Sliding boom | Model Designed For: Sliding boom |
| Suggested Retail Price: $6000 | Suggested Retail Price: $6000 |

### Contact Info:

- **Unit 1A Jubilee Wharf**
- **Commercial Road**
- **PENRYN, Cornwall**
- **England TR10 8AQ**
- **Phone: (0114) 1323-5788**
- **Email: tricery@globalnet.co.uk**

- **Fools Crow Cycles**
- **p/n 42-24-4767**
- **Email: edgc@freeenet.tlth.iUs**
- **People Movers**
- **p/n 714-833-3663**
- **Email: Peplemover@aol.com**

### Recumbent Cyclist News #38
Easy Racers, Inc.

Who says "compacts" aren't high performance bikes, EZ-1 doing a wheelie. CENTER: EZ-1's new "wide-base" comfy seat

Melanie Anderson of Freeform Fashions (body sock maker) and Easy Racer Tour Easy on the Pacific Coast near Santa Cruz

---

**Model:**
- **Designer/Date:** Gardner Martin, 1982
- **Wheelbase:** 24.5”
- **Seat/Bracket Height:** 17.25”
- **Headtube/Seat Recline Angle:** 22.5°
- **Weight/Weight Distribution (lbs/ft.):** 39 lbs
- **Frame/Fork Construction:** Steel
- **Cables/Brake Levers:** N/A
- **Cassette/Chain:** Shimano 105, 10-speed
- **Variations:** Gold Rush Replica, "Black Gold"

---

**Gold Rush Replica “Black Gold”**
- **Designer/Date:** Gardner Martin, 1982
- **Wheelbase:** 24.5”
- **Headtube/Seat Recline Angle:** 22.5°
- **Weight/Weight Distribution (lbs/ft.):** 39 lbs
- **Frame/Fork Construction:** Steel
- **Cables/Brake Levers:** N/A
- **Cassette/Chain:** Shimano 105, 10-speed
- **Variations:** Gold Rush Replica, "Black Gold"

---

**New for 1997:** The Tour Easy is now available in a touring (EX) and performance (SS) versions. The Gold Rush Replicas has been upgraded with the Block Gold package that includes upgraded components and a black powdcoating finish. There is also an optional Kevlar fairing (Super Zipper) and body sock. The EX-1 has a new lower price, Grip Shifts, 21-speeds (formerly the Speed Wheel setup) as standard. There is also an optional "wide-base" seat for the EZ-1.

**Options:**
- Rear/Rearrider racks for all models
- Custom 21" Carbon-Fiber fenders
- Rear suspension
- Mirror and bar ends
- 21-speeds using a Shimano Nexus 7 internal gear hub matched with a triple crankset. A larger base seat is optional as well.

**Fairings:**
- Easy Rider standard Zipper $129 and Super Zipper $239
- Black Gold Custom Lynx body stocking with Carbon Fiber Fairing $295

---

**Tour Easy EX (Expedition)**
- **Designer/Date:** Gardner Martin, 1982
- **Wheelbase:** 24.5”
- **Headtube/Seat Recline Angle:** 22.5°
- **Weight/Weight Distribution (lbs/ft.):** 39 lbs
- **Frame/Fork Construction:** Steel
- **Cables/Brake Levers:** N/A
- **Cassette/Chain:** Shimano 105, 10-speed
- **Variations:** Gold Rush Replica, "Black Gold"

---

**Tour Easy SS (Super Sport)**
- **Designer/Date:** Gardner Martin, 1982
- **Wheelbase:** 24.5”
- **Headtube/Seat Recline Angle:** 22.5°
- **Weight/Weight Distribution (lbs/ft.):** 39 lbs
- **Frame/Fork Construction:** Steel
- **Cables/Brake Levers:** N/A
- **Cassette/Chain:** Shimano 105, 10-speed
- **Variations:** Gold Rush Replica, "Black Gold"
ABOVE: The Easy Racer Gold Rush Replica "Black Gold" with fairing, body stocking and optional composite rear wheel.
BELOW: Fast Freddy with the Gold Rush Colorado.

ABOVE: ...And the Lord said, "Let there be long bikes"....and Easy Racer #1 was born—1975
BELOW: Fritz Köhler rode from Mexico to Canada on his EZ-1.
## Greenspeed

**The Greenspeed GTR20/20 Touring Trike**

<table>
<thead>
<tr>
<th>Model</th>
<th>GTR20/20 Touring Trike</th>
<th>GTS20/20 Sports Tourer (Trike)</th>
<th>GTT20/20 Tandem Trike</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design/Steering Type</td>
<td></td>
<td>Trike, two wheels in front/US</td>
<td>Tandem Trike, two wheels in front/US</td>
</tr>
<tr>
<td>Wheelbase</td>
<td></td>
<td>USS 40&quot;/track 31.5&quot;</td>
<td>USS 36&quot;/track 33.5&quot;</td>
</tr>
<tr>
<td>Seat/Bottom Bracket Height</td>
<td></td>
<td>Caster 11&quot;/30° or 40&quot; fixed</td>
<td>Caster 9&quot;/30° or 40&quot; fixed</td>
</tr>
<tr>
<td>Headtube/Seat Recline Angle</td>
<td></td>
<td>track angle #35, N.A.</td>
<td>track angle #63, N.A.</td>
</tr>
<tr>
<td>Weight/Weight Distribution (b/c/ft.)</td>
<td></td>
<td>4130 CroMo/MIG</td>
<td>4130 CroMo/MIG</td>
</tr>
<tr>
<td>Frame/ Fork/Construction</td>
<td></td>
<td>Reynolds 531/Nylon mesh</td>
<td>Reynolds 531/Nylon mesh</td>
</tr>
<tr>
<td>Seat Frame/Material</td>
<td></td>
<td>Sachs 3x7, 63 speeds</td>
<td>Sachs 3x7, 63 speeds</td>
</tr>
<tr>
<td>Derailleurs (ft./mt.)</td>
<td></td>
<td>Shimano Bar-Ends</td>
<td>Shimano Bar-Ends</td>
</tr>
<tr>
<td>Shifters</td>
<td></td>
<td>Sachs 2x2/42/52</td>
<td>Sachs 2x2/42/52</td>
</tr>
<tr>
<td>Crankset</td>
<td></td>
<td>Shimano 11-28/Sachs-Sachs</td>
<td>Shimano 11-28/Sachs-Sachs</td>
</tr>
<tr>
<td>Cassette/Chain</td>
<td></td>
<td>Jano 12-28</td>
<td>Jano 12-28</td>
</tr>
<tr>
<td>Gear Inset Range</td>
<td></td>
<td>Targa Comp Pool 80 psi</td>
<td>Targa Comp Pool 80 psi</td>
</tr>
<tr>
<td>Brake(s)</td>
<td></td>
<td>Powdercoat Green, Red, Yellow,</td>
<td>Powdercoat Green, Red,</td>
</tr>
<tr>
<td>Brake Levers</td>
<td></td>
<td>Blue 4&quot;-6&quot;7 Telescopic (sliding)</td>
<td>Blue 4&quot;-6&quot;7 Telescopic</td>
</tr>
<tr>
<td>Rear Wheel/hub/rim/speaks</td>
<td></td>
<td>(sliding) boom</td>
<td>(sliding) boom</td>
</tr>
<tr>
<td>Front Wheel/hub/rim/speaks</td>
<td></td>
<td>Touring/Commuting</td>
<td>Touring/Commuting</td>
</tr>
<tr>
<td>Tires (ft./mt.)</td>
<td></td>
<td>$3500 Aust.</td>
<td>$4200 Aust.</td>
</tr>
<tr>
<td>Bottom Bracket/Headset</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paint/Colors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rider Height and Adjustment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model Designed For</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suggested Retail Price</td>
<td>$3500 Aust.</td>
<td></td>
<td>$4200 Aust.</td>
</tr>
</tbody>
</table>

**Notes:** Above pricing is for Australian delivery in Australian dollars. To find US equivalent, please check exchange rate. Air freight to North America is approx. $700 Aust.

### GBR20/26 Tourer (SWB)

<table>
<thead>
<tr>
<th>Model</th>
<th>GBR20/26 Tourer (SWB)</th>
<th>GBS20/26 Sports Tourer (SWB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designer/Date</td>
<td>Ian Sima/1985</td>
<td>Ian Sima/1985</td>
</tr>
<tr>
<td>Design/Steering Type</td>
<td>SWB/US</td>
<td>SWB/US</td>
</tr>
<tr>
<td>Wheelbase</td>
<td>39&quot;</td>
<td>37&quot;</td>
</tr>
<tr>
<td>Seat/Bottom Bracket Height</td>
<td></td>
<td>21.5/26</td>
</tr>
<tr>
<td>Headtube/Seat Recline Angle</td>
<td></td>
<td>21.5/26</td>
</tr>
<tr>
<td>Weight/Weight Distribution (b/c/ft.)</td>
<td></td>
<td>21.5/26</td>
</tr>
<tr>
<td>Frame/ Fork/Construction</td>
<td></td>
<td>21.5/26</td>
</tr>
<tr>
<td>Seattube/Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Derailleurs (ft./mt.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shifters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crankset</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freewheel/Cassette/Chain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gear Inset Range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brake(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brake Levers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rear Wheel/hub/rim/speaks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front Wheel/hub/rim/speaks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tires (ft./mt.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bottom Bracket/Headset</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paint/Colors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rider Height and Adjustment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model Designed For</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suggested Retail Price</td>
<td>$2990 Aust.</td>
<td></td>
</tr>
</tbody>
</table>

### GTT20/20 Tandem Trike

<table>
<thead>
<tr>
<th>Model</th>
<th>GTT20/20 Tandem Trike</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designer/Date</td>
<td>Ian Sima/1993</td>
</tr>
<tr>
<td>Design/Steering Type</td>
<td>Tandem Trike, two wheels in front/US</td>
</tr>
<tr>
<td>Wheelbase</td>
<td>USS 36&quot;/track 33.5&quot;</td>
</tr>
<tr>
<td>Seat/Bottom Bracket Height</td>
<td></td>
</tr>
<tr>
<td>Headtube/Seat Recline Angle</td>
<td></td>
</tr>
<tr>
<td>Weight/Weight Distribution (b/c/ft.)</td>
<td></td>
</tr>
<tr>
<td>Frame/ Fork/Construction</td>
<td></td>
</tr>
<tr>
<td>Seattube/Material</td>
<td></td>
</tr>
<tr>
<td>Derailleurs (ft./mt.)</td>
<td></td>
</tr>
<tr>
<td>Shifters</td>
<td></td>
</tr>
<tr>
<td>Crankset</td>
<td></td>
</tr>
<tr>
<td>Freewheel/Cassette/Chain</td>
<td></td>
</tr>
<tr>
<td>Gear Inset Range</td>
<td></td>
</tr>
<tr>
<td>Brake(s)</td>
<td></td>
</tr>
<tr>
<td>Brake Levers</td>
<td></td>
</tr>
<tr>
<td>Rear Wheel/hub/rim/speaks</td>
<td></td>
</tr>
<tr>
<td>Front Wheel/hub/rim/speaks</td>
<td></td>
</tr>
<tr>
<td>Tires (ft./mt.)</td>
<td></td>
</tr>
<tr>
<td>Bottom Bracket/Headset</td>
<td></td>
</tr>
<tr>
<td>Paint/Colors</td>
<td></td>
</tr>
<tr>
<td>Rider Height and Adjustment</td>
<td></td>
</tr>
<tr>
<td>Model Designed For</td>
<td></td>
</tr>
<tr>
<td>Suggested Retail Price</td>
<td>$5000 Aust.</td>
</tr>
</tbody>
</table>

### Contact Info

Greenspeed Recumbents 69 Mountain Gate Dr. Ferntree Gully Victoria, Australia 3158 Ph: (03) 61 3 9750 5541 Fax: (03) 61 3 9752 4115

**Email:** greenship@ozemail.com.au

**Web:** http://www.ihpva.org/conv/Greenspeed/

**1997 Buyers Guide** 25
The Greenspeed GBR20/26 Tourer SWB available with optional full suspension (not shown)

Peter Ross' Crystal Engineering Fastina Low Racer available as a frameset only

The SWB Haluzak Hybrid Race

The LWB Haluzak Storm

ZACH KAPLAN CYCLES

Maximum Performance Recumbents for Transportation
Meticulous Service Unequaled Custom Modifications
FAIRINGS SUSPENSION LIGHTING SYSTEMS
WIDE-RANGE GEARING AND LUBE-INJECTION
CONVERSIONS MANY BRANDS AVAILABLE
INCLUDING IMPORTS

Tel. 415/381-5723 E-mail: zakplan@earthlink.net
Web: http://www.bikeroute.com/Zach
235 Pacific Way, Box 214 Muir Beach, CA 94965 USA

British Built TRICE
Now available from US dealers

- East Coast: Fools Crow Tel. 904/224-4767
- West Coast: People Movers Tel. 714/633-3663
Complete trike or as a frameset, or as plans for home construction
The True Wheel Cycling & Fitness Shop

ATP Vision • Easy Racers
Rans • Haluzak • BikeE
Schwinn Stationary Recumbent Exercisers • Recumbent rentals

Come ride a recumbent while vacationing in Sun Valley, Idaho's beautiful Sawtooth Mountain area. We have the best bike trails in the nation for test-rides and rentals.

Call Today: 208-788-5433 • 800-607-7915
PO Box 1658 • 400 N. Main St. • Hailey, ID 83333
## Bicycles by Haluzak

### The 1997 Haluzak Horizon

<table>
<thead>
<tr>
<th>Model</th>
<th>Horizon</th>
<th>Hybrid Race</th>
<th>Leprechaun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design/Steering Type</td>
<td>SW/B-US (ASS opt.)</td>
<td>SW/B-US (ASS opt.)</td>
<td>SW/B-US (ASS opt.)</td>
</tr>
<tr>
<td>Wheelbase</td>
<td>40.6&quot;</td>
<td>40.6&quot;</td>
<td>39&quot;</td>
</tr>
<tr>
<td>Seat/Bottom Bracket Height</td>
<td>23 7/8&quot;</td>
<td>23 7/8&quot;</td>
<td>21 7/8&quot;</td>
</tr>
<tr>
<td>Headtube/Seat Recline Angle</td>
<td>70°15'</td>
<td>70°15'</td>
<td>70°15'</td>
</tr>
<tr>
<td>Weight/Weight Distribution (blk./ft.)</td>
<td>22.5/40% — 54%</td>
<td>22.5/40% — 54%</td>
<td>26.5/40% — 54%</td>
</tr>
<tr>
<td>Frame/ Fork/Construction</td>
<td>CroMo/Alum/TIG</td>
<td>CroMo/Alum/TIG</td>
<td>CroMo/Alum/TIG</td>
</tr>
<tr>
<td>Seat Frame/Material</td>
<td>Shimano Deore LX 21 speed</td>
<td>Shimano Deore XT 24 speed</td>
<td>Shimano Rapidfire</td>
</tr>
<tr>
<td>Derailleurs</td>
<td>Shimano 11-29/Sachs</td>
<td>Shimano 11-29/Sachs</td>
<td>Shimano 11-29/Sachs</td>
</tr>
<tr>
<td>Shifters</td>
<td>Shimano Deore</td>
<td>Shimano Ultrega</td>
<td>Shimano Ultegra</td>
</tr>
<tr>
<td>Cassette/Chain</td>
<td>Suntour 28/42/50</td>
<td>Shimano 28/42/50</td>
<td>Suntour 152mm (short crank arms)</td>
</tr>
<tr>
<td>Gear Inch Range</td>
<td>Shimano 11-29/Sachs</td>
<td>Shimano 11-29/Sachs</td>
<td>Shimano HG701-28 cassette/Sachs</td>
</tr>
<tr>
<td>Brakes (f.r.)</td>
<td>Cantilever/V-Brake (coming soon)</td>
<td>Cantilever/V-Brake (coming soon)</td>
<td>N.A.</td>
</tr>
<tr>
<td>Brake Levers</td>
<td>Tektro</td>
<td>Tektro</td>
<td>N.A.</td>
</tr>
<tr>
<td>Rear Wheel/Hub/Rim/Spoke</td>
<td>26&quot; x 1.5&quot;/Shimano Deore RX 36&quot; SS</td>
<td>26&quot; x 1.5&quot;/Shimano Deore RX 36&quot; SS</td>
<td>26&quot; x 1.5&quot;/Aluweb/Wein 36&quot; SS</td>
</tr>
<tr>
<td>Front Wheel/Hub/Rim/Spoke</td>
<td>20&quot; x 1.5&quot;/Shimano Deore RX 36&quot; SS</td>
<td>Shimano Frontset 100 psi/Aluweb 20&quot;x 1.5&quot;</td>
<td>16&quot; x 1.35&quot;/Aluweb/Wein 36&quot; SS</td>
</tr>
<tr>
<td>Tires (f.r.)</td>
<td>Shimano UNI3/Tango CD Levin</td>
<td>Shimano UNI3/Tango CD Levin</td>
<td>Primo 349mm Matrix HP</td>
</tr>
<tr>
<td>Bottom Bracket/Headset</td>
<td>Shimano Deore LX 21 speed</td>
<td>Shimano Deore LX 21 speed</td>
<td>Shimano UNI3/Tango CD Levin</td>
</tr>
<tr>
<td>Paint/Colors</td>
<td>Powderrcoat Red, Blue and Green</td>
<td>Powderrcoat Red, Blue and Green</td>
<td>Powderrcoat Red, Blue and Green</td>
</tr>
<tr>
<td>Model Designed For</td>
<td>Touring/Sport/Touring/Commuting/Fitness</td>
<td>$1795</td>
<td>$1095</td>
</tr>
<tr>
<td>Suggested Retail Price</td>
<td>$1495</td>
<td>$1795</td>
<td>N.A.</td>
</tr>
</tbody>
</table>

### The 1997 Haluzak Leprechaun

<table>
<thead>
<tr>
<th>Model</th>
<th>Traverse</th>
<th>Storm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designer/Date</td>
<td>Bill Haluzak/1996</td>
<td>Bill Haluzak/1996</td>
</tr>
<tr>
<td>Design/Steering Type</td>
<td>SW/B-US Suspended (ASS opt.)</td>
<td>SW/B-US</td>
</tr>
<tr>
<td>Wheelbase</td>
<td>40.6&quot;</td>
<td>40&quot;</td>
</tr>
<tr>
<td>Seat/Bottom Bracket Height</td>
<td>23 7/8&quot;</td>
<td>101/3/8&quot;</td>
</tr>
<tr>
<td>Headtube/Seat Recline Angle</td>
<td>70°15'</td>
<td>56°15'</td>
</tr>
<tr>
<td>Weight/Weight Distribution (blk./ft.)</td>
<td>33/45% — 54%</td>
<td>#31/1.0A</td>
</tr>
<tr>
<td>Frame/ Fork/Construction</td>
<td>CroMo, Alum. swing arm/CroMo/TIG</td>
<td>CroMo/CroMo/TIG</td>
</tr>
<tr>
<td>Seat Frame/Material</td>
<td>Alum./Nylon mesh</td>
<td>Alum./Nylon mesh</td>
</tr>
<tr>
<td>Derailleurs</td>
<td>Shimano Deore LX 21 speed</td>
<td>Shimano Deore LX 21 speed</td>
</tr>
<tr>
<td>Shifters</td>
<td>Shimano 11-29/Sachs</td>
<td>Shimano 11-29/Sachs</td>
</tr>
<tr>
<td>Cassette/Chain</td>
<td>Shimano 11-29/Sachs</td>
<td>Shimano 11-29/Sachs</td>
</tr>
<tr>
<td>Gear Inch Range</td>
<td>Shimano GS10-5/28/cassette</td>
<td>Shimano 170mm 38-T.</td>
</tr>
<tr>
<td>Brakes (f.r.)</td>
<td>Shimano Deore LX cantilever/Dis Compe Big Dog Tektro</td>
<td>Shimano 12-28 cassette/Sachs</td>
</tr>
<tr>
<td>Brake Levers</td>
<td>Shimano Deore LS1 SUN 36&quot; SS</td>
<td>Shimano 12-28 cassette/Sachs</td>
</tr>
<tr>
<td>Rear Wheel/Hub/Rim/Spoke</td>
<td>20&quot; x 1.5&quot;/Shimano Deore LS1 SUN 36&quot; SS</td>
<td>Shimano 12-28 cassette/Sachs</td>
</tr>
<tr>
<td>Front Wheel/Hub/Rim/Spoke</td>
<td>Shimano Deore LS1 SUN 36&quot; SS</td>
<td>Shimano GS10-5/28/cassette</td>
</tr>
<tr>
<td>Tires (f.r.)</td>
<td>Shimano Deore LS1 SUN 36&quot; SS</td>
<td>Shimano GS10-5/28/cassette</td>
</tr>
<tr>
<td>Bottom Bracket/Headset</td>
<td>Shimano Deore LS1 SUN 36&quot; SS</td>
<td>Shimano GS10-5/28/cassette</td>
</tr>
<tr>
<td>Paint/Colors</td>
<td>Shimano Deore LS1 SUN 36&quot; SS</td>
<td>Shimano Deore LS1 SUN 36&quot; SS</td>
</tr>
<tr>
<td>Rider Height and Adjustment</td>
<td>Shimano Deore LS1 SUN 36&quot; SS</td>
<td>Shimano Deore LS1 SUN 36&quot; SS</td>
</tr>
<tr>
<td>Model Designed For</td>
<td>Suggested Retail Price</td>
<td>$1215</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$1395</td>
</tr>
</tbody>
</table>
Human Powered Machines

Model: Trek SWB
Designer/Date: Jan VanderTuin, 1998
Wheelbase: SWB/US. (direct or linkage) 33.5" (slightly adjustable)
Headtube: 22.5" & 22.5/21-21/28" & 26/1-4" 
Seat: 6/9 & 7/11/976 with 6" adjustment
Weight/Leg Length: 28 & 31/34/M.A.
Rear Wheel: 8061 Alum/CroMo/TIG
Front Wheel: Alum/Nylon mesh
Sachs 7 speed internal hub
Shimano 94-6.T.
Tires: N/A/Sachs
Brakes: Cantilever/Sachs Drum
Reinforced: Tektron
Back terms: Shimano/356 DT SS
Rider Height: ACS 1.75" 100 psi/Continental Touring
Colors: Shimano sealed/Shimano sealed
5/8-5/10" & 5/8-6/4" Slider seat
Multiple Use
$650/$650

New for 1997: Human Powered Machines is a division of CAT (Center for Appropriate Transport) in Eugene, Oregon. CAT has classes, a co-op work space and rental area, recumbent rentals and diverse bikes new/used. Jan VanderTuin builds the Long-Haul cargo bike used by PedaLisa Express bike messenger firm in Eugene, as well as the Swift folding bike.

Options/Trick: Fenders, rack, Sachs 3/4x and 9-speed. Tritan: fenders, lockable weatherproof rear container. Tri-Hauler: 1/5-ton aluminum flanged, 3 x 4 x 1/5-ton fiberglass container or aluminum flanged. Tritan: 9-speed. NOTE: Tritan is similar to Ryan bike from a few years back. Tri-Hauler is similar to front wheel drive Flava.

Faitings: Faitings are available. Custom Spec Available? Yes

Pre-assembled: Yes
Bench tested: Yes
Warranty: Limited 5 year
Yeast in business: 6
Available From: Direct only
RCN Articles: Upcoming

Contact Info:
Human Powered Machines
Jan VanderTuin
455 West First Ave.
Eugene, OR 97401
P: 541/343-5658
F: 541/343-5658
Fax: 541/343-1015
Email: cat@cat.com
Web: http://www.aff.com/cat

The HPM "Tri-Hauler" FWD for that heavy load. Designer/builder Jan VanderTuin also builds upright WLB cargo bikes.
Infinity Recumbents

Infinity at the RCN road-test facility in Kent, WA (Soos Creek Trail)

Infinity Omega
Ace Tool R & D/1981
LWB/USS
63" and 67"
227/N.A.
73%/N.A., non-adjustable
227%/63%/37%
6000 Series sq. struct. Alum/H/Ten/TiG
Aluminum/mesh
3649

Infinity Alpha
Ace Tool R & D/1981
LWB/USS
63" and 67"
227/N.A.
73%/N.A., non-adjustable
227%/63%/37%
6000 Series sq. struct. Alum/H/Ten/TiG
Aluminum/mesh

Notes: Specs and prices subject to change without notice.
New for 1997: A new company owner will market the bikes out of Scottsdale, Arizona, though Infinity framesets and parts will still be built in Mooresville, Indiana. Look for a total of three new models to be unveiled over the course of the year. Space subject to change.

Options: N.A.
Fairings: Zipp Designs
Custom Spec Available: Direct
Pre-assembled: N.A.
Bench tested: No
Warranty: 3 years, frame
Yrs In Business: 16 yrs, new owner in 1997.
RCN Articles: RCN#22
Contact Info: Infinity Recumbents
8433 E. MacDonald Dr.
Scottsdale, AZ 85250
Ph#1-800-DrBike1 (372-4531)

The All-Aluminum Recumbent

Shown here with optional Aerospoke wheels

INFINITY
Lighter, Stronger, Faster & more Agile.
Complete recumbent bikes ... from $849
"Infinity......the design is nothing short of brilliant."
RCN#22 Summer '94

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 information, please send $1.00 to: Infinity Recumbents, 8433 E. McDonald Dr. Scottsdale, AZ 85250 Call Today For Information Ph#1-800-DrBike1 (372-4531)
### Model:

<table>
<thead>
<tr>
<th>Designer/Date</th>
<th>Wheelbase</th>
<th>Seat/Bottom Bracket Height</th>
<th>Headtube/Seat Recline Angle</th>
<th>Weight/Weight Distribution (lb./ft.)</th>
<th>Frame/Fork/Construction</th>
<th>Seat Frame/Profile</th>
<th>Derailleur(s) (fl./fr.)</th>
<th>Shifters</th>
<th>Crankset</th>
<th>Cassette/Chain</th>
<th>Gear Inch Range</th>
<th>Brakes (fl./fr.)</th>
<th>Brake Levers</th>
<th>Rear Wheel/Hub/Rim/Spokes</th>
<th>Front Wheel/Hub/Rim/Spokes</th>
<th>Tires (fl./fr.)</th>
<th>Bottom Bracket/Headset</th>
<th>Paint/Colors</th>
<th>Rider Height and Adjustment</th>
<th>Model Designed For</th>
<th>Suggested Retail Price</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stealth</strong></td>
<td>Tim Brummer &amp; Steve Delaire/1994</td>
<td>45&quot;</td>
<td>19°/22°</td>
<td>N/A/45°-70°</td>
<td>20°/24°</td>
<td>4300 CrMo/CroMo/braze brazed</td>
<td>Campy Velocita</td>
<td>Campy VelociMonoplanar</td>
<td>Dia Compe PC7</td>
<td>700x23C/28C</td>
<td>Campy Velocita</td>
<td>Matrix/36° SS</td>
<td>Campy Athena/Verona</td>
<td>Blue or Red powdercoat or custom</td>
<td>4°/6°/8° Sliding boom</td>
<td>Multiple use</td>
<td>$14500</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>P-38</strong></td>
<td>Tim Brummer/1984</td>
<td>48&quot;</td>
<td>19°/22°</td>
<td>N/A/45°-60°</td>
<td>20°/24°</td>
<td>4300 CrMo/CroMo/braze brazed</td>
<td>Campy Velocita</td>
<td>Campy VelociMonoplanar</td>
<td>Dia Compe PC7</td>
<td>700x25C</td>
<td>Campy Velocita</td>
<td>Matrix/36° SS</td>
<td>Campy Athena/Verona</td>
<td>Blue or Red powdercoat or custom</td>
<td>4°/6°/8° Sliding boom</td>
<td>Multiple use</td>
<td>$2095</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>P-38 X</strong></td>
<td>Tim Brummer/1986</td>
<td>52&quot;</td>
<td>19°/22°</td>
<td>N/A/45°-65°</td>
<td>20°/24°</td>
<td>4300 CrMo/CroMo/braze brazed</td>
<td>Campy Velocita</td>
<td>Campy VelociMonoplanar</td>
<td>Dia Compe PC7</td>
<td>700x25C</td>
<td>Campy Velocita</td>
<td>Matrix/36° SS</td>
<td>Campy Athena/Verona</td>
<td>Blue or Red powdercoat or custom</td>
<td>4°/6°/8° Sliding boom</td>
<td>Multiple use</td>
<td>$2550</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>P-38</strong></td>
<td>Tim Brummer/1984</td>
<td>48&quot;</td>
<td>19°/22°</td>
<td>N/A/45°-60°</td>
<td>20°/24°</td>
<td>4300 CrMo/CroMo/braze brazed</td>
<td>Campy Velocita</td>
<td>Campy VelociMonoplanar</td>
<td>Dia Compe PC7</td>
<td>700x25C</td>
<td>Campy Velocita</td>
<td>Matrix/36° SS</td>
<td>Campy Athena/Verona</td>
<td>Blue or Red powdercoat or custom</td>
<td>4°/6°/8° Sliding boom</td>
<td>Multiple use</td>
<td>$2095</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>P-38 X</strong></td>
<td>Tim Brummer/1986</td>
<td>52&quot;</td>
<td>19°/22°</td>
<td>N/A/45°-65°</td>
<td>20°/24°</td>
<td>4300 CrMo/CroMo/braze brazed</td>
<td>Campy Velocita</td>
<td>Campy VelociMonoplanar</td>
<td>Dia Compe PC7</td>
<td>700x25C</td>
<td>Campy Velocita</td>
<td>Matrix/36° SS</td>
<td>Campy Athena/Verona</td>
<td>Blue or Red powdercoat or custom</td>
<td>4°/6°/8° Sliding boom</td>
<td>Multiple use</td>
<td>$2550</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 1997 Buyers Guide

- High Performance/Racing
- $8000
## Lightning Cycle Dynamics

### A pack of Lightning F-40's at a California race

<table>
<thead>
<tr>
<th>Model</th>
<th>Lightning M-S Low Racer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designer/Date</td>
<td>T. Brummer/B. Meens/1980</td>
</tr>
<tr>
<td>Design/Steering Type</td>
<td>SWB/ASS</td>
</tr>
<tr>
<td>Wheelbase</td>
<td>48&quot;</td>
</tr>
<tr>
<td>Seat/Bottom Bracket Height</td>
<td>10&quot;/21&quot;</td>
</tr>
<tr>
<td>Headtube/Seat Recline Angle</td>
<td>N.A./38&quot;</td>
</tr>
<tr>
<td>Weight/Weight distribution (lb./ft.)</td>
<td>#30/N.A.</td>
</tr>
<tr>
<td>Frame/Fork/construction</td>
<td>CroMo Aero/CroMo Monobrade/brazed</td>
</tr>
<tr>
<td>Seat frame/material</td>
<td>Fiberglass shell/foam</td>
</tr>
<tr>
<td>Derailleur(s) (fr./rr.)</td>
<td>Shimano Ultegra 16 speed</td>
</tr>
<tr>
<td>Shifters</td>
<td>Grip Shift Cx-DT</td>
</tr>
<tr>
<td>Crankset</td>
<td>Shimano RX100 39/57</td>
</tr>
<tr>
<td>Freewheel/Cassette/Chain</td>
<td>Ultegra 11-28 cassette/4MX SS 91</td>
</tr>
<tr>
<td>Gear Inch Range</td>
<td>42-120</td>
</tr>
<tr>
<td>Brakes (fr./rr.)</td>
<td>Shimano RX100 Dual Pivot</td>
</tr>
<tr>
<td>Brake Lovers</td>
<td>Tektro</td>
</tr>
<tr>
<td>Rear Wheel/hub/rim/spokes</td>
<td>24&quot; x 1&quot;</td>
</tr>
<tr>
<td>Front Wheel/hub/rim/spokes</td>
<td>17&quot; or 20&quot;</td>
</tr>
<tr>
<td>Tires (fr./rr.)</td>
<td>Buyer's Choice</td>
</tr>
<tr>
<td>Bottom Bracket/Headset</td>
<td>Shimano Ultegra</td>
</tr>
<tr>
<td>Paint/colors</td>
<td>Powdercoat/custom</td>
</tr>
<tr>
<td>Rider Height and Adjustment</td>
<td>5&quot;4&quot;-6'8&quot;/Sliding boom</td>
</tr>
<tr>
<td>Model designed for/Purpose</td>
<td>Time Trial</td>
</tr>
<tr>
<td>Suggested Retail Price</td>
<td>$2,995</td>
</tr>
</tbody>
</table>

### Lightning Hand Cycle

<table>
<thead>
<tr>
<th>Model</th>
<th>Lightning Hand Cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designer/Date</td>
<td>John Frank/ Tim Brummer/1985</td>
</tr>
<tr>
<td>Design/Steering Type</td>
<td>Trike Hand Crank/USL-Loam steer</td>
</tr>
<tr>
<td>Wheelbase</td>
<td>N.A./23&quot; track/790</td>
</tr>
<tr>
<td>Seat/Bottom Bracket Height</td>
<td>8'/29&quot; hand crank B.B.</td>
</tr>
<tr>
<td>Headtube/Seat Recline Angle</td>
<td>32&quot;-36&quot; (adjustable)/46&quot;</td>
</tr>
<tr>
<td>Weight/Weight distribution (lb./ft.)</td>
<td>#27/70%—30%</td>
</tr>
<tr>
<td>Frame/Fork/construction</td>
<td>CroMo/CroMo</td>
</tr>
<tr>
<td>Gear Inch Range</td>
<td>CroMo/CroMo-nylon mesh</td>
</tr>
<tr>
<td>Freewheel/Cassette/Chain</td>
<td>Shimano RSX/Decore LX</td>
</tr>
<tr>
<td>Crankset</td>
<td>Shimano RX</td>
</tr>
<tr>
<td>Chainring</td>
<td>Dots Pro II 24/36/46</td>
</tr>
<tr>
<td>Freewheel/Cassette/Chain</td>
<td>Shimano Decore LX 11-28</td>
</tr>
<tr>
<td>Gear Inch Range</td>
<td>22-116</td>
</tr>
<tr>
<td>Brakes (fr./rr.)</td>
<td>Dia Compo</td>
</tr>
<tr>
<td>Brake Lovers</td>
<td>Dia Compo</td>
</tr>
<tr>
<td>Rear Wheel/hub/rim/spokes</td>
<td>25&quot;/RSX/32&quot;</td>
</tr>
<tr>
<td>Front Wheel/hub/rim/spokes</td>
<td>16&quot;/AmBank/SS 24&quot;</td>
</tr>
<tr>
<td>Tires (fr./rr.)</td>
<td>Panasonic/Trimm</td>
</tr>
<tr>
<td>Bottom Bracket/Headset</td>
<td>Shimano Decore LX/none</td>
</tr>
<tr>
<td>Paint/colors</td>
<td>Powdercoat/custom</td>
</tr>
<tr>
<td>Rider Height and Adjustment</td>
<td>Sliding boom</td>
</tr>
<tr>
<td>Model designed for/Purpose</td>
<td>Multiple Use</td>
</tr>
<tr>
<td>Suggested Retail Price</td>
<td>$3,785</td>
</tr>
</tbody>
</table>

**New for '87:** Dual Pivot P-36 brakes, V-Brakes, F-40 rear suspension (April?), front suspension and a new C.R. Stair seat mount. Watch for Lightning carbon cranks soon. Also, a hand-crank bike.

### Options
- Lightning offers more custom options than any other mfr.
- Paintings: Lightning Zig Zag (ent.), Super Zig Zag (Zlpa Design), F-40 fiberglass nose-cone, squarish body with a Laxan windscreen.

**Custom Spec Available? Yes**
**Pre-assembled/Bench Tested: Yes**
**Warranty: 3 years**
**Years in business: 16**
**Available From: Dealer & Direct**
**RCN Articles: RCN #7, #15, #24, #36**

**Contact info**
- Lightning Cycle Dynamics, Inc.
  - 312 Ninth St., Ste. B
  - Lompoc, CA 93436
  - Ph: 805/736-0706/Fax:805/737-3266
  - Email: Lightning@ucln.net
  - Web: http://www.bikeroute.com/LightningCycle.html

---

**The next step in the evolutionary cycle. Call,**
**1 800.231-3136**
Linear Mfg.

The 1997 25 pound Linear CLWB stock with a Sachs 3x7 and optional Sachs disk brake.

The 1997 Linear "Foolding" model.

---

**Linear Folding**
- **Model:** Linear Folding
- **Designer/Date:** Dirk Kann/1982
- **Wheelbase:** LWB/US
- **Seat/Bottom Bracket Height:** 26.7/11.8
- **Headtube/Seat Recline Angle:** 70°
- **Weight/Weight Distribution:** 30/60/40%
- **Frame/Fork:** Suntour XC Comp
- **Seat Frame/Material:** Shimano STX
- **Derailleur:** GripShift SRT40
- **Shifters:** Suntour XG Comp
- **Brake Lever:** Dia Compe FSE or Big Dog
- **Rear Wheel/Hub/Rim:** 26 or 700C/Alloy Q.R./36° SS
- **Front Wheel/Hub/Rim:** 20 or 700C/Alloy Q.R./36° SS
- **Paint/Colors:** Suntour X Pro Anodized blue, silver, gold, black
- **Rider Height and Adjustment:** 5'3"-6'3" (custom avail)/Sliding seat Multipurpose
- **Suggested Retail Price:** $1200

---

**Linear Sonix (GW3)**
- **Model:** Linear Sonix (GW3)
- **Designer/Date:** Kenn-Hansel/1995
- **Wheelbase:** SWB/US
- **Seat/Bottom Bracket Height:** 38
- **Headtube/Seat Recline Angle:** 70°
- **Weight/Weight Distribution:** 25/60/40%
- **Frame/Fork:** Suntour XC Comp
- **Seat Frame/Material:** Shimano STX
- **Derailer:** GripShift SRT40
- **Shifters:** Suntour XG Comp
- **Brake Lever:** Dia Compe FSE or Big Dog
- **Rear Wheel/Hub/Rim:** 26 or 700C/Alloy Q.R./36° SS
- **Front Wheel/Hub/Rim:** 20 or 700C/Alloy Q.R./36° SS
- **Paint/Colors:** Suntour X Pro Anodized blue, silver, gold, black
- **Rider Height and Adjustment:** 5'3"-6'3" (custom avail)/Sliding seat Multipurpose
- **Suggested Retail Price:** $1200

---

**Linear CLWB**
- **Model:** Linear CLWB
- **Designer/Date:** Hansel/Wozniak
- **Wheelbase:** CLWB/US
- **Seat/Bottom Bracket Height:** 55°
- **Headtube/Seat Recline Angle:** 70°
- **Weight/Weight Distribution:** 25/60/40%
- **Frame/Fork:** Suntour XC Comp
- **Seat Frame/Material:** Shimano STX
- **Derailer:** GripShift SRT40
- **Shifters:** Suntour XG Comp
- **Brake Lever:** Dia Compe FSE or Big Dog
- **Rear Wheel/Hub/Rim:** 26 or 700C/Alloy Q.R./36° SS
- **Front Wheel/Hub/Rim:** 20 or 700C/Alloy Q.R./36° SS
- **Paint/Colors:** Suntour X Pro Anodized blue, silver, gold, black
- **Rider Height and Adjustment:** 5'3"-6'3" (custom avail)/Sliding seat Multipurpose
- **Suggested Retail Price:** $1200

New for 1997: Linear has two new lower priced models for 1997. This CLWB model was developed in conjunction with Wheel & Sprocket Bike Shop/Wheel Recumbents in Milwaukee, WI and has a non-folded aluminum frame with a smaller 26" wheel combo and sells for $1400. The square steel tube Nexus Linear will be introduced at $950 in May 1997.

**Fairings:** By Zipp Design
**Pre-assembled:** Yes
**Bench tested:** Yes
**Warranty:** Lifetime frame

---

1997 Buyers Guide
Company goes upscale in '97 with New Gold Rush Replica Black Gold


EASY RACERS INC
Box 255 Freedom CA 95019-0253
www.easyracing.com
408-722-9797 Voice/Fax
easyracing@comcast.com

Featuring a suspension frame, this nimble about town machine is an ideal spur-of-the-moment bike. It's easy to ride, easy to maintain, and fits on most standard car racks.

VR-30 Metro Specifications:
• 1.75" TIG welded CroMo mainframe
• "MMC" Suspension System
• Collapsible for transport or storage
• Alloy 170mm crank
• Shimano Cartridge Bottom Bracket
• KMC UG 50 Chain
• 1-1/8" threadless headset
• Alloy quick release front hub
• Alloy rear rim, 20" (406)
• Alloy front rim, 16" (349)
• 29.5 pounds
• 7 Speed: Nexus 7 speed Internal hub
• 21 Speed: Sachs 3x7 Internal hub
• Starting at $825 MSRP

Advanced Transportation Products, Inc.
952 Republican Street, Seattle, WA, USA 98109
Tel. 206/467-0231 • WWW: http://cyclery.com/vision
Maxam, Inc.

The 1997 Maxam Reveille

<table>
<thead>
<tr>
<th>Model: Reveille LX (Beoga 90)</th>
<th>Retreat: ( \text{Beoga 90} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designer/Date: John Day/Chris Day/1994</td>
<td>John Day/Chris Day/1994</td>
</tr>
<tr>
<td>Wheelbase: LWB/ASS</td>
<td>LWB/ASS</td>
</tr>
<tr>
<td>Stem/Bottom Bracket Height: 2-3/4in.</td>
<td>2-3/4in.</td>
</tr>
<tr>
<td>Seat/Frame/Seat Recline Angle: N.A./attached seat recline</td>
<td>N.A./attached seat recline</td>
</tr>
<tr>
<td>Weight/Weight Distribution (fr/r): 44/56%</td>
<td>44/56%</td>
</tr>
<tr>
<td>Frame/Fork/Construction: HiTen/HiTen/MIG</td>
<td>HiTen/HiTen/MIG</td>
</tr>
<tr>
<td>Seat Frame/Material: Beoga 30021 speed (Beoga 90 18-speed)</td>
<td>Beoga 30021 speed (Beoga 90 18-speed)</td>
</tr>
<tr>
<td>Handlebar/Seat Post: Dyna Grip/Scand Index (Opt-Dex)</td>
<td>Dyna Grip/Scand Index (Opt-Dex)</td>
</tr>
<tr>
<td>Freewheel/Chain: 12-20/7-speed, N.A. (14-25 speed)</td>
<td>12-20/7-speed, N.A. (14-25 speed)</td>
</tr>
<tr>
<td>Brake Levers: Alloy canti-lever</td>
<td>Alloy canti-lever</td>
</tr>
<tr>
<td>Rear Wheel/Rim Spokes: N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td>Front Wheel/Rim Spokes: 26&quot; x 1.75/Alloy Q.R. 36&quot; (Steel wheels)</td>
<td>26&quot; x 1.75/Alloy Q.R. 36&quot; (Steel wheels)</td>
</tr>
<tr>
<td>Tires (front): N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td>Tires (rear): Powdercoat Forest Green, Gloss Black</td>
<td>Powdercoat Forest Green, Gloss Black</td>
</tr>
<tr>
<td>Colors: 5&quot;-2&quot; x 2&quot;/Sitting seat</td>
<td>5&quot;-2&quot; x 2&quot;/Sitting seat</td>
</tr>
<tr>
<td>Model Designed For: Multiple use</td>
<td>Multiple use</td>
</tr>
<tr>
<td>Suggested Retail Price: $675 (Beoga 90)</td>
<td>$675 (Beoga 90)</td>
</tr>
</tbody>
</table>

New for 1997: It's time to get out and go! Maxam is back with two new models. The new Retreat "compact" will accept a 20" or 26" back wheel and the new Reveille tandem (LWB rear/SWB front). The Maxam Reveille comes in two versions, the $405 has 18 spokes and steel bolt-on wheels. The Reveille LX has 21 spokes, slightly higher gearing and alloy wheels, it retails for $675. The newly updated Maxam seat is fully suspended 18" wide polyester vinyl mesh that offers comfort, air circulation and back support. Removal of the cover is made easy with convenient velcro fastening. The mesh seat comes in black.

Maxam accepts American Express, Visa, Mastercard and Discover.

Options: RearTrent 14 spd. kit ($108.95); a 26" wheel is available, rear-rack; water-bottle cage; pump; chain guide wheel upgrade; seat bag.

Maxam also offers an "upgrade." The Reveille comes in a standard model and an upgraded "LX."

RCN Articles: Upcoming
Fairings: Available aftermarket by Zep Design
Pre-assembled: Yes
Bench tested: Dealer
Warranty: Lifetime frame, years in business: 6
Available From: Direct or dealer

Contact Info:
Maxam
11238 Sobbing Dr.
Cincinnati, OH 45240
Pn#513/592-0222
Email: Vantage@uol.com

1997 Buyers Guide

The 1997 Maxam Trail 'n' Go tandem

The 1997 Maxam Retreat with optional 26" rear wheel
Pashley Handbuilt Bicycles

COMING SOON TO
A DEALER NEAR YOU

PDQ
Hand made by W.R. Pashley, Ltd.
Stratford-upon-Avon England

---

Model: Pashley PDQ
Designer/Date: Dan Farrell/1986
Design/Steering Type: SWB/ASS
Wheelbase: 37.5
Seat/Bottom Bracket Height: 20.5/21.5
Headtube/Seat Recline Angle: N.A./35°
Weight/Weight Distribution (lb.lf.): Under 28 pounds/140 lbs
Frame/Fork/Construction: Seamless CroMo+Titanium/CroMo/Ti
6063 Aluminum/seat/Valcro
Sachs Centara 3/4" 21 speed
Sachs Powergrip Plus (twist shifter)
Sachs /ST95 with guard 46-T.
Brakes (f.l.r.): N.A.
Brake Levers: Tektro RBP V-Brakes
Crankset: Tektro
Cassette/Chain: 20 x 1.5" 40/6 Sache 3x7/3x8
Front Wheel/Hub/Rim/Spokes: 20 x 1.5" 40/60 Alloy QR, JS0
Tires (f.r.): Nokian City Runner 1.75
Bottom Bracket/Headset: Stronglight Sealed Cass. /YST GeForce Aquamarine Rumboot, Powdercoat
Paint/Color: Sliding boom
Rider Height and Adjustment: Multiple Use
Model Designed For: Est. Retail $1750
Suggested Retail Price:

New for 1987: The Pashley PDQ is based on a North American design which sold well for 10 years. With its versatile, SWB, and near perfect weight distribution, the predecessor of the Pashley PDQ led one major bicycle magazine editor to comment that it was the first recumbent that he had ridden that felt like a bike. Since the seat is fixed and the height adjustment is made by moving it up or down, the weight distribution is very similar to what the weight of the rider was.

The Pashley PDQ is well suited to commuting, day rides, and touring. The PDQ's equal sized 20" (409) wheels give the bicycle a strong, light feel with low inertia. Should the rider wish to tailor the performance of the bike, there are many choices in aftermarket tires. The proven Sachs 3x7 drivetrain provides a wide gear range for most applications.

The Pashley PDQ's full mesh seat allows for ventilation and drainage in wet weather. The seat frame is suspended between the rails, distributing the rider's weight over a large area and providing a measure of isolation from road shock. The seat frame also has a shock absorbing medium between the upper frame and the bike frame. Since this shock absorber is not in line with the pedaling motion, little, if any, energy is lost.

Warranty: 1 year for frame, 6 months for parts. 10 years for seat, 1 year for parts. Available From: Dealers

Manufactured by: W.R. Pashley Ltd. England
Imported and Distributed by: Dmekker Service
6433 116th Ave. SE
Bellevue, WA 98005-3317
Phone: 206-841-7663 Fax: 206-841-0151
Email: mkker@eskom.com
Web: http://www.eskom.com/m-dmekker

More than just a comfortable seat!
World Class Performance

Brad Evans
Junior Class World Champion
Dean Pettersen
Modified Class World Champion
Robert Goodford
Silver Medalist
Steve DeLisle
World Solar Rally Record Holder

Recumbent Cyclist News #38
## RANS Recumbents

### The 1997 Rans V-Rex (25/20)

<table>
<thead>
<tr>
<th>Model:</th>
<th>Rocket:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design/Date:</td>
<td>Randy Schitter/1995</td>
</tr>
<tr>
<td>Design/Steering Type:</td>
<td>SBW/ASS V-Bar/Riser</td>
</tr>
<tr>
<td>Wheelbase:</td>
<td>39.75&quot; 1-frame size</td>
</tr>
<tr>
<td>Seat/Bottom Bracket Height:</td>
<td>22.25/25.5&quot;</td>
</tr>
<tr>
<td>Headtube/Seat Recline Angle:</td>
<td>3/5/6 Sliding seat-variety by rider</td>
</tr>
<tr>
<td>Weight/Weight Distribution (lbs):</td>
<td>4130 CrMo/CroMo/TIG</td>
</tr>
<tr>
<td>Frame/Fork/Construction:</td>
<td>RANS mesh backfoam base</td>
</tr>
<tr>
<td>Seat Frame/Material:</td>
<td>S.T. XC LTD/Shimano Alivio 21 speed</td>
</tr>
<tr>
<td>Derailleur(s) (fl/br):</td>
<td>GripShift SRT400</td>
</tr>
<tr>
<td>Shifters:</td>
<td>Shimano XT-X1 38/46/52 21 speed</td>
</tr>
<tr>
<td>Crankset:</td>
<td>Shimano 1050 11-28 Sachs Sprocket</td>
</tr>
<tr>
<td>Cassette/Chain:</td>
<td>26-105</td>
</tr>
<tr>
<td>Gear Inch Range:</td>
<td>Dia Compe Bulldog/STT.XC LTD cantilever</td>
</tr>
<tr>
<td>Brakes (fl/br):</td>
<td>Tekiro</td>
</tr>
<tr>
<td>Brake Levers:</td>
<td>20.5 x 1.56 2.86 x 2.86</td>
</tr>
<tr>
<td>Rear Wheel/Hub/Rim/Spokes:</td>
<td>Shimano Alivio/SS 36</td>
</tr>
<tr>
<td>Front Wheel/Hub/Rim/Spokes:</td>
<td>20 x 1.75/2.125x36/36</td>
</tr>
<tr>
<td>Tires (fl/br):</td>
<td>Hara Semi-slick 65 psi (upgrades available)</td>
</tr>
<tr>
<td>Bottom Bracket/Headset:</td>
<td>Shimano cartridge/G.T. TC Pro</td>
</tr>
<tr>
<td>Paint/Colors:</td>
<td>Glass Black or Hot Red Powdercoat</td>
</tr>
<tr>
<td>Rider Height and Adjustment:</td>
<td>X-seam range: 36.75-54.25/Sliding seat</td>
</tr>
<tr>
<td>Model Designed for:</td>
<td>Multipurpose</td>
</tr>
<tr>
<td>Suggested Retail Price:</td>
<td>$1800</td>
</tr>
</tbody>
</table>

### The 1997 Rans V-Rex 24 (24/20)

<table>
<thead>
<tr>
<th>Model:</th>
<th>Rocket Saturn V:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design/Date:</td>
<td>Randy Schitter/1995</td>
</tr>
<tr>
<td>Design/Steering Type:</td>
<td>SBW/ASS V-Bar/Flip'N'Riser</td>
</tr>
<tr>
<td>Wheelbase:</td>
<td>39.75&quot; 1-frame size</td>
</tr>
<tr>
<td>Seat/Bottom Bracket Height:</td>
<td>22/25.5&quot;</td>
</tr>
<tr>
<td>Headtube/Seat Recline Angle:</td>
<td>3/5/6 Sliding seat-variety by rider</td>
</tr>
<tr>
<td>Weight/Weight Distribution (lbs):</td>
<td>4130 CrMo/CroMo/TIG</td>
</tr>
<tr>
<td>Frame/Fork/Construction:</td>
<td>RANS mesh backfoam base</td>
</tr>
<tr>
<td>Seat Frame/Material:</td>
<td>S.T. XC LTD/Shimano Alivio 21 speed</td>
</tr>
<tr>
<td>Derailleur(s) (fl/br):</td>
<td>GripShift SRT400</td>
</tr>
<tr>
<td>Shifters:</td>
<td>Shimano Deore XT 42/32/22</td>
</tr>
<tr>
<td>Crankset:</td>
<td>Shimano 1050 11-28 Sachs Sprocket</td>
</tr>
<tr>
<td>Cassette/Chain:</td>
<td>26-104</td>
</tr>
<tr>
<td>Gear Inch Range:</td>
<td>Magura HS 11 hydraulic</td>
</tr>
<tr>
<td>Brakes (fl/br):</td>
<td>Shimano 11-28 Sachs Sprocket</td>
</tr>
<tr>
<td>Brake Levers:</td>
<td>20 x 1.5 x 465/36/36</td>
</tr>
<tr>
<td>Rear Wheel/Hub/Rim/Spokes:</td>
<td>Hara Semi-slick 65 psi (upgrades available)</td>
</tr>
<tr>
<td>Front Wheel/Hub/Rim/Spokes:</td>
<td>Shimano cartridge/G.T. TC Pro</td>
</tr>
<tr>
<td>Tires (fl/br):</td>
<td>Glass Black or Hot Red Powdercoat</td>
</tr>
<tr>
<td>Bottom Bracket/Headset:</td>
<td>X-seam range: 36.75-54.25/Sliding seat</td>
</tr>
<tr>
<td>Paint/Colors:</td>
<td>Multipurpose</td>
</tr>
<tr>
<td>Rider Height and Adjustment:</td>
<td>$1800</td>
</tr>
</tbody>
</table>

### Talwind

<table>
<thead>
<tr>
<th>Model:</th>
<th>Talwind:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design/Date:</td>
<td>Randy Schitter/1995</td>
</tr>
<tr>
<td>Design/Steering Type:</td>
<td>SBW/ASS T-Bar</td>
</tr>
<tr>
<td>Wheelbase:</td>
<td>52.75&quot; 1-frame size</td>
</tr>
<tr>
<td>Seat/Bottom Bracket Height:</td>
<td>23&quot;/19&quot;</td>
</tr>
<tr>
<td>Headtube/Seat Recline Angle:</td>
<td>N.A./N.A. adjustable</td>
</tr>
<tr>
<td>Weight/Weight Distribution (lbs):</td>
<td>29/35 Sliding seat-variety by rider</td>
</tr>
<tr>
<td>Frame/Fork/Construction:</td>
<td>CroMo (round)/CroMo/TIG</td>
</tr>
<tr>
<td>Seat Frame/Material:</td>
<td>RANS mesh backfoam base</td>
</tr>
<tr>
<td>Derailleur(s) (fl/br):</td>
<td>Shimano TY22/SMH Alivio 21 speed</td>
</tr>
<tr>
<td>Shifters:</td>
<td>GripShift SRT400</td>
</tr>
<tr>
<td>Cassette/Chain:</td>
<td>Shimano X-C1 32/46/38</td>
</tr>
<tr>
<td>Gear Inch Range:</td>
<td>Shimano 11-28 Sachs Sprocket</td>
</tr>
<tr>
<td>Brakes (fl/br):</td>
<td>22-105</td>
</tr>
<tr>
<td>Brake Levers:</td>
<td>Shimano 11-28 Sachs Sprocket</td>
</tr>
<tr>
<td>Rear Wheel/Hub/Rim/Spokes:</td>
<td>20 x 1.5 x 465/36/36</td>
</tr>
<tr>
<td>Front Wheel/Hub/Rim/Spokes:</td>
<td>Ultravo/SS 36</td>
</tr>
<tr>
<td>Tires (fl/br):</td>
<td>Hara Semi-slick 65 psi (upgrades available)</td>
</tr>
<tr>
<td>Bottom Bracket/Headset:</td>
<td>Shimano--</td>
</tr>
<tr>
<td>Paint/Colors:</td>
<td>Shimano HS 15 11-28 Sachs Sprocket</td>
</tr>
<tr>
<td>Rider Height and Adjustment:</td>
<td>X-seam range: 36.75-54.25/Sliding seat</td>
</tr>
<tr>
<td>Model Designed for:</td>
<td>Multipurpose</td>
</tr>
<tr>
<td>Suggested Retail Price:</td>
<td>$995</td>
</tr>
</tbody>
</table>

---

### V-Rex

<table>
<thead>
<tr>
<th>Model:</th>
<th>V-Rex:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design/Date:</td>
<td>Randy Schitter/1994</td>
</tr>
<tr>
<td>Design/Steering Type:</td>
<td>SBW/ASS V-Bar/Riser</td>
</tr>
<tr>
<td>Wheelbase:</td>
<td>39.75&quot; 2-frame sizes</td>
</tr>
<tr>
<td>Seat/Bottom Bracket Height:</td>
<td>25/25.5&quot;</td>
</tr>
<tr>
<td>Headtube/Seat Recline Angle:</td>
<td>N.A./N.A. adjustable</td>
</tr>
<tr>
<td>Weight/Weight Distribution (lbs):</td>
<td>27.5/35 Sliding seat-variety by rider</td>
</tr>
<tr>
<td>Frame/Fork/Construction:</td>
<td>4130 CrMo/CroMo/TIG</td>
</tr>
<tr>
<td>Seat Frame/Material:</td>
<td>RANS mesh backfoam base</td>
</tr>
<tr>
<td>Derailleur(s) (fl/br):</td>
<td>Shimano--</td>
</tr>
<tr>
<td>Shifters:</td>
<td>Shimano Deore LX 21 speed</td>
</tr>
<tr>
<td>Crankset:</td>
<td>GripShift SRT600</td>
</tr>
<tr>
<td>Cassette/Chain:</td>
<td>Shimano Deore LX 21 speed</td>
</tr>
<tr>
<td>Gear Inch Range:</td>
<td>Campagnolo Mirage 32/42/52</td>
</tr>
<tr>
<td>Brakes (fl/br):</td>
<td>Shimano 11-28 Sachs Sprocket</td>
</tr>
<tr>
<td>Brake Levers:</td>
<td>Shimano 11-28 Sachs Sprocket</td>
</tr>
<tr>
<td>Rear Wheel/Hub/Rim/Spokes:</td>
<td>20 x 1.5 x 465/36/36</td>
</tr>
<tr>
<td>Front Wheel/Hub/Rim/Spokes:</td>
<td>Hara Semi-slick 65 psi (upgrades available)</td>
</tr>
<tr>
<td>Tires (fl/br):</td>
<td>Shimano--</td>
</tr>
<tr>
<td>Bottom Bracket/Headset:</td>
<td>Shimano--</td>
</tr>
<tr>
<td>Paint/Colors:</td>
<td>Shimano Deore LX cantilever</td>
</tr>
<tr>
<td>Rider Height and Adjustment:</td>
<td>X-seam range: 37.75-54.25/Sliding seat</td>
</tr>
<tr>
<td>Model Designed for:</td>
<td>Multipurpose</td>
</tr>
<tr>
<td>Suggested Retail Price:</td>
<td>$1495</td>
</tr>
</tbody>
</table>

### Status

<table>
<thead>
<tr>
<th>Model:</th>
<th>Status:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design/Date:</td>
<td>Randy Schitter/1978</td>
</tr>
<tr>
<td>Design/Steering Type:</td>
<td>SBW/ASS C (or B bars with fairing)</td>
</tr>
<tr>
<td>Wheelbase:</td>
<td>67.75&quot; 2-frame sizes (37/40)</td>
</tr>
<tr>
<td>Seat/Bottom Bracket Height:</td>
<td>22.5/25&quot;</td>
</tr>
<tr>
<td>Headtube/Seat Recline Angle:</td>
<td>N.A./N.A. adjustable</td>
</tr>
<tr>
<td>Weight/Weight Distribution (lbs):</td>
<td>32/25 Sliding seat-variety by rider</td>
</tr>
<tr>
<td>Frame/Fork/Construction:</td>
<td>4130 CrMo/CroMo/TIG</td>
</tr>
<tr>
<td>Seat Frame/Material:</td>
<td>RANS mesh backfoam base</td>
</tr>
<tr>
<td>Derailleur(s) (fl/br):</td>
<td>Shimano Deore LX 21 speed</td>
</tr>
<tr>
<td>Shifters:</td>
<td>GripShift SRT600</td>
</tr>
<tr>
<td>Cassette/Chain:</td>
<td>Shimano X-C1 21 speed</td>
</tr>
<tr>
<td>Gear Inch Range:</td>
<td>Shimano--</td>
</tr>
<tr>
<td>Brakes (fl/br):</td>
<td>Shimano 11-28 Sachs Sprocket</td>
</tr>
<tr>
<td>Brake Levers:</td>
<td>Shimano 11-28 Sachs Sprocket</td>
</tr>
<tr>
<td>Rear Wheel/Hub/Rim/Spokes:</td>
<td>20 x 1.5 x 465/36/36</td>
</tr>
<tr>
<td>Front Wheel/Hub/Rim/Spokes:</td>
<td>Hara Semi-slick 65 psi (upgrades available)</td>
</tr>
<tr>
<td>Tires (fl/br):</td>
<td>Shimano--</td>
</tr>
<tr>
<td>Bottom Bracket/Headset:</td>
<td>Shimano--</td>
</tr>
<tr>
<td>Paint/Colors:</td>
<td>Shimano--</td>
</tr>
<tr>
<td>Rider Height and Adjustment:</td>
<td>X-seam range: 42.5-54.25/Sliding seat</td>
</tr>
<tr>
<td>Model Designed for:</td>
<td>Multipurpose</td>
</tr>
<tr>
<td>Suggested Retail Price:</td>
<td>$1595</td>
</tr>
</tbody>
</table>

---

1997 Buyers Guide
**RANS Recumbents**

The 1997 Rans Nimbus is one of the most user-friendly recumbents available today. The Stratus dates back to 1978 and was the first recumbent model produced by the Rans company.

| Model | Designer/Date | Design/Steering Type | Wheelbase | Seat/Bottom Bracket Height | Headtube/Seat Recline Angle | Weight/Weight Distribution (lb./ft.) | Frame/Fork/Construction | Seat Frame/Material | Derailleur (lb./ft.) | Shifters | Crankset | Cassette/Chain | Gear Inch Range | Brakes (lb./ft.) | Brake Levers | Rear Wheel/Hub/Rim/Spokes | Front Wheel/Hub/Rim/Spokes | Tires (lb./ft.) | Bottom Bracket/Headset | Paint/Colors | Rider Height and Adjustment | Modular Designed For | Suggested Retail Price |
|-------|---------------|---------------------|-----------|---------------------------|----------------------------|------------------------------------------|-------------------------|-------------------|------------------|-------------|-----------|---------------|----------------|----------------|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Nimbus | Randy Schlichter/1990 | LWB/ASS (C or 6 bars with faling) | 63-3/8" | 23.5"/13.75" | N.A./225" adjustable | 814 lbs/slug | RANS mesh back/foam base | Shimano Deore LX 21 speed | GripShift 7500 | Suntour XC Comp 240/410 | Shimano Hg50 11-28/Sachs Sedi | 20.5-100 | Deore LX cnclider | Tektro | 26" X 1.5"/Shimano Alivio/SS 56" | 20" X 1.5"/Alivio/SS 56" | Haro Slick/Specialized Nimbus | Shimano UN52/YST | Hot Lava and Midnight Blue | X-frame range: 39.7-54/SIDing seat | Multipurpose | $1595 |
| Gliss (new LWB suspension) | Randy Schlichter/1997 | LWB/ASS T-bar, suspended | 64" | 23"/18.75" | N.A./225" adjustable | 420 lbs/slug | RANS mesh back/foam base | Shimano Deore XT 24/32-sp. | GripShift 9000 | Shimano Deore XT 42/52/62 | Shimano IG50 11-28/8-sp/Sachs Sedi | 28-104 | Magura HS 11 Hydraulic | Magura | 20" X 1.5"/Deore XT/DT SS 36" | 20" X 1.5"/Deore XT/Velocity Aero SS 36" | Continental Grand Prix 120 spd | Shimano UN52/Suntour XC Pro | Neon Blue/Silver or Emerald Green/Silver | Sliding seat | Multipurpose | $1965 |

**New for 1997:** The Rocket goes round tube; a new high-end Saturn V Rocket is upgraded across the board and has a TIG ed frame; Magura Hydraulic brakes for the Saturn V and Screamer; the Tailwind gets a new geometry and "T" bar; the Stratus and Nimbus can utilize the Tailwind "T" bar steering; the Screamer gets a Davlin independent coast version; and the new Rans Gliss LWB suspension bike has standard Deore XT, Magura brakes and Grip Shift ESP 8.0; the ZeroG is available in both suspended and hard-fold versions; Rans has adopted their mesh back recumbent seat to household or shop use. Buy a complete click or basic adapter.

**Options:** Rans has a great new seat bag that fits all models; Rans Wear: a variety of Rans T-shirts, the new Screamer sweatshirt and "Speed Comes, Pain Goes" baseball cap; a palaier of 20" tires from Avon Lt. Fender, Continental Grand Prix, Schwinn City Marathon, IRC Roadside and others, Optional Magura Hydraulics with Rans brake calipers are available on all models. Fastings: Rans forings Pre-assembled: Yes Bench tested: Yes Warranty: Lifetime frame, one year seat Years in business: 24 Available For: Dealer 8 Direct RCM Articles: RCM#12, 23, 25, 34 and 37 Contact Info: RANS, Inc. 4900 Highway 183 Alt. Hays, KS 67601 Phone: 910-625-6363 Fax: 910-625-7296 Email: rne@moda-net.com

Recumbent Cyclist News #38
The prototype Rans Gtss with rear suspension will be available in June 1997 (production model will have a fully triangulated frame with the rear stays running out, under the bottom bracket to the head tube)

1997 Buyers Guide
### ReBike 707
**Model:**
- Designer/Date: Kathy Skewes/1993
- Design/Steering Type: CLWB/Above-seat steering
- Wheelbase:
- Seat/Bottom Bracket Height:
- Headtube/Seat Recline Angle:
- Weight/Weight Distribution (lb./l.):
- Frame/Fork/Construction:
- Seat Frame/Materials:
- Derailleur(s) (l./r.):
- Shifters:
- Crankset:
- Freewheel/Chain:
- Gear Inch Range:
- Brakes (l./r.):
- Brake Levers:
- Rear Wheel/Hub/Rim/Spokes:
- Front Wheel/Hub/Rim/Spokes:
- Tires (l./r.):
- Bottom Bracket/Headset:
- Paint/Colors:
- Rider Height and Adjustment:
- Model Designed For:
- Suggested Retail Price: $549-$599

### ReBike 818
**Model:**
- Designer/Date: Kathy Skewes/1993
- Design/Steering Type: CLWB/Above-seat steering
- Wheelbase:
- Seat/Bottom Bracket Height:
- Headtube/Seat Recline Angle:
- Weight/Weight Distribution (lb./l.):
- Frame/Fork/Construction:
- Seat Frame/Materials:
- Derailleur(s) (l./r.):
- Shifters:
- Crankset:
- Freewheel/Chain:
- Gear Inch Range:
- Brakes (l./r.):
- Brake Levers:
- Rear Wheel/Hub/Rim/Spokes:
- Front Wheel/Hub/Rim/Spokes:
- Tires (l./r.):
- Bottom Bracket/Headset:
- Paint/Colors:
- Rider Height and Adjustment:
- Model Designed For:
- Suggested Retail Price: $549-$599

### ReBike 2000
**Model:**
- Designer/Date: Kathy Skewes/1995
- Design/Steering Type: CLWB/Above-seat steering
- Wheelbase:
- Seat/Bottom Bracket Height:
- Headtube/Seat Recline Angle:
- Weight/Weight Distribution (lb./l.):
- Frame/Fork/Construction:
- Seat Frame/Materials:
- Derailleur(s) (l./r.):
- Shifters:
- Crankset:
- Freewheel/Chain:
- Gear Inch Range:
- Brakes (l./r.):
- Brake Levers:
- Rear Wheel/Hub/Rim/Spokes:
- Front Wheel/Hub/Rim/Spokes:
- Tires (l./r.):
- Bottom Bracket/Headset:
- Paint/Colors:
- Rider Height and Adjustment:
- Model Designed For:
- Suggested Retail Price: $549-$599

---

**Contact Info:**
- ReBike
  - 225 Byers Rd.
  - Miami/Fla. 43342
  - Ph:1-888-ReBike 1(732-4531)
  - Fax:937/788-2308
  - Email: rebike@worldnet.att.net
  - Web: http://www.rebike.com

**New for 1997:** A new year of new beginnings. We are extremely proud to announce that ReBike is now a division of Huffy Bicycles. Two of the biggest innovators in biking bring you exciting new opportunities.

**Similar Models:** Pick the black model or any of the new, with the black model or any of the new, with the black model or any of the new, with the black model or any of the new, with the black model or any of the new.

**Options:** Two wheel models come standard with a ReRack and ReBag. Call for ReGear catalog: T-Shirts, caps, and ReBike wear.

**Painting:** None

**Pre-assembled:** Yes

**Bench tested:** Yes

**Warranty:** Lifetime to original owner (frame)

**Years in business:** 6

**Available From:** Dealer & Distributor

**RON Articles:** RON115 and upcoming
Rotator Bicycles

ABOVE: The Rotator Coaster single speed

RIGHT: The Rotator Pursuit with Interceptor with upgraded Kevlar fairing option

Model: Pursuit
Designer/Date: Steve Delaire/1990
Wheelbase: LWB/Above-seat-steering 66"
Seat/Bottom Bracket Height: 18'/N.A.
Headtube/Seat Recline Angle: 200/60%—05%
Frame/Fork/Construction: CroMo/HitT/GT/occ.
Seat frame/Material: CroMo/nylon
Derailleurs (ft./in.): Sturmey-Archer 30-speed
Shifters: Sturmey-Archer Basic Shifters
Crankset: Sturmey-Archer 700mm
Cassette/Chain: 10-135KMC
Gear Inch Range: 25-150
Brakes (ft./in.): Sturmey-Archer
Brake Levers: Sturmey-Archer
Rear Wheel/Hub/Fits/Spokes: 20 x 1.25 406mm/Shimano/SS
Front Wheel/Hub/Fits/Spokes: 20 x 1.25 406mm/Shimano/SS
Tires (ft./in.): 700 x 25 Kenda "Trans-Am"
Bottom Bracket/Headset: None
Paint/Colors: Black
Rider Height and Adjustment: Sliding seat/hose-clamp adjusters
Model Designated For: HP/Road/Sport Touring/Commuting
Suggested Retail Price: $1300/Frameset available

Pre-assembled: Yes
Bench tested: Yes
Warranty: 5 years
Years In business: 10+
Available From: Dealer & Direct
RCN Articles: RCN #57
Contact Info:
Rotator Bicycles
915 Middle Rincon
Santa Rosa, CA 95409
Ph#: 707/530-4203
Fax#: 707/530-5254
Email: N/A
Web: http://www.hpv@ihpva.org

Coaster
Model: Steve Delaire/1996
Wheelbase: LWB/Above-seat-steering 66"
Seat/Bottom Bracket Height: 18'/N.A.
Headtube/Seat Recline Angle: 200/60%—05%
Frame/Fork/Construction: CroMo/HitT/GT/occ.
Seat frame/Material: CroMo/nylon
Derailleurs (ft./in.): Sturmey-Archer 30-speed
Shifters: Sturmey-Archer Basic Shifters
Crankset: Sturmey-Archer 700mm
Cassette/Chain: 10-135KMC
Gear Inch Range: 25-150
Brakes (ft./in.): Sturmey-Archer
Brake Levers: Sturmey-Archer
Rear Wheel/Hub/Fits/Spokes: 20 x 1.25 406mm/Shimano/SS
Front Wheel/Hub/Fits/Spokes: 20 x 1.25 406mm/Shimano/SS
Tires (ft./in.): 700 x 25 Kenda "Trans-Am"
Bottom Bracket/Headset: None
Paint/Colors: Black
Rider Height and Adjustment: Sliding seat/hose-clamp adjusters
Model Designated For: HP/Road/Sport Touring/Commuting
Suggested Retail Price: $1300/Frameset available

New for 1997: The Interceptor fairing kit is a upgrade option for the otherwise similar Pursuit. Nexo 7 spd. is optional on the Coaster. Rotator has captured top awards in 1996 at race events including the Third World Solar Rally in Japan and the IHPPA events in Las Vegas, N.V. With a background in race car fabrication and motorcycle racing, Delaire brings those skills to his recumbent designs. The Pursuit and Tiger models are efficient, comfortable, performance vehicles. The Coaster uses similar design techniques offering a more economical option for those interested in trying their first recumbent.

Options:
- Fairings, lighting kits, Aerospoke wheels, HP tires and custom modification/fabrication
- Fairings: Interceptor fiberglass rear fairing $500 (Kevlar available), fiberglass front fairing $400 (Kevlar available), Alum. Aerofan $250, Super Zippers $190.

The 1997 Rotator Tiger SWB with mid-drive
Ryan Recumbent Bicycles

Model: Vanguard
Designer/Date: Dick Ryan/1989
Design/Steering Type: LWB/US
Wheelbase: 86"-88"
Seat/Bottom Bracket Height: 26-7/8"
Head/tube/Seat Recline Angle: 30°-70°/30°
Weight/Weight Distribution (lb./fl.): CroMo/CroMo/TiG
Frame/Fork/Construction: Alum/Nylon mesh
Seat Frame/Material: Shimano Deore LX 21 spd.
Derailleurs (fl./fr.): Shimano bar-cons (par-end)
Shifters: Shimano 105 30/40/56
Crankset: 11-26/28
Framew/Cassette/Chain: Sachs
Gear Inch Range: 26-125
Brake levers: Shimano Deore LX cantilever
Brakes (fl./fr.): Takuro
Rear Wheel/Hub/Rim/spokes: 26" x 1.25/30mm/Wein-Bon/36" SR
Front Wheel/Hub/Rim/spokes: 20" x 1.25 400mm/Shimano/36" SR
Tires (fl./fr.): Hero slick/Spec Fat Boy 1.25"
Bottom Bracket/Headset: Black or red powdercoat
Point/COLOR: 2 frame sizes to 36" inseam/sliding seat
Rider Height and Adjustment: Touring
Model Designed For: $1650/Frameset $1200
Suggested Retail Price: $2800/Frameset $2600

DuFlex
Designer/Date: Dick Ryan/1993
Design/Steering Type: LWB/Tandem/US
Wheelbase: 86"
Seat/Bottom Bracket Height: 26-7/8"
Head/tube/Seat Recline Angle: 30°-70°/30°
Weight/Weight Distribution (lb./fl.): CroMo/CroMo/TiG
Frame/Fork/Construction: Alum/Nylon mesh
Seat Frame/Material: Shimano Deore LX 24 spd.
Derailleurs (fl./fr.): Shimano bar-cons (par-end)
Shifters: Shimano 105 30/40/56
Crankset: 11-26/28
Framew/Cassette/Chain: Sachs
Gear Inch Range: 26-123
Brake Levers: Shimano Deore LX cantilever/Triple drum drag
Brakes (fl./fr.): Takuro
Rear Wheel/Hub/Rim/spokes: 26" x 1.25/30mm/Wein-Bon/36" SR
Front Wheel/Hub/Rim/spokes: 20" x 1.25 400mm/Shimano/36" SR
Tires (fl./fr.): Hero slick/Spec Fat Boy 1.25"
Bottom Bracket/Headset: Black or red powdercoat
Point/COLOR: to 36" inseam/sliding seat
Rider Height and Adjustment: Touring
Model Designed For: $3000/Frameset $2900
Suggested Retail Price: $3000/Frameset $2900

Options: Tandem case $180; S & S Couplers $600; Computer mount $25; Kickstand $15; Seat pad $20; Blackburn rack $44 and custom paint $100-$145.
Fairings: Ryan Super Zippor available from Zipp Design.
Pre-assembled: Yes
Bench tested: No
Warranty: Lifetime frame
Years in business: 10
Available From: Drive only
RCN Articles: RCM #122
Contact Info:
Ryan Recumbents
6 Gigante Drive
Hampstead, NH
Ph/Fax/603-329-8336
Order: 1-800-632-2869
Email: ryanbike@ryancycles.com
Web: http://www.ryancycles.com

The Most Comfortable Bike You'll Ever Ride.
"Could be the safest and most comfortable bike in the world" Bicycling Magazine, August 1994.

Ryan Recumbent Cycles
PO Box 588, Hampstead NH 03824-0588
Phone/ Fax: 603-329-8336 or 1-800-632-2869
Email: ryanbike@ryancycles.com WEB: WWW.RyanCycles.com

We ship bikes anywhere in the world!

Recumbent Cyclist News #38
S & B Recumbents

ABOVE: The 1997 S & B Tandem
RIGHT-UPPER: The S & B Beach Cruiser
RIGHT-LOWER: The S & B Single

Model: S & B Beach Cruiser
Designer/Date: J. Smith/Jack Baker 1996
Design/Steering Type: SWB/Undershaft-steering
Wheelbase: 39" (10 mm)
Seat/Bottom Bracket Height: 17½" (10 mm)
Headtube/Seat Recline Angle: N.A.
Weight/Weight Distribution (lbs./ft.): 230/85%—40%
Frame/Fork/Construction: N.A.
Seat frame material: Shimano 1/24KMC S900
Derailleur(s) (sltr.): Shimano
Shifters: N.A.
Crankset: 38 T
Cassette/Chain: Shimano 13-34/30 KMC S900
Gear Inch Range: N.A.
Brakes (sltr.): None/Shimano drum
Brake Levers: N.A.
Rear Wheel/Hub/Rim/Spokes: 24" x 2.00/Shimano drum
Front Wheel/Hub/Rim/Spokes: 16" x 2.00
Tires (sltr.): Wide Whitewall
Bottom Bracket/Headset: YSTYST
Point colors: Powdercoat purple, yellow or black
Rider Height and Adjustment: 4'6"—7'/sliding seat
Model Designed For: Cruiser/Urban/Fitness
Suggested Retail Price: $595

Model: S & B Single
Designer/Date: J. Smith/Jack Baker 1993
Design/Steering Type: SWB/Undershaft-steering
Wheelbase: 39" (10 mm)
Seat/Bottom Bracket Height: 17½" (10 mm)
Headtube/Seat Recline Angle: N.A.
Weight/Weight Distribution (lbs./ft.): N.A.
Frame/Fork/Construction: N.A.
Seat frame material: Shimano 1/24KMC S900
Derailleur(s) (sltr.): Shimano
Shifters: N.A.
Crankset: Shimano 13-34/30 KMC S900
Cassette/Chain: Shimano 13-34/30 KMC S900
Gear Inch Range: N.A.
Brakes (sltr.): None/Shimano drum
Brake Levers: N.A.
Rear Wheel/Hub/Rim/Spokes: 26" x 1.5"/Shimano drum
Front Wheel/Hub/Rim/Spokes: 16" x 1-3/8"/Shimano drum
Tires (sltr.): Wide Whitewall
Bottom Bracket/Headset: Shimano UN51/Tioga
Point colors: Powdercoat (your choice)
Rider Height and Adjustment: 4'6"—7'/sliding seat
Model Designed For: Multipurpose
Suggested Retail Price: $715 (1-set), $735 (1-set), $835 (21-set)

Model: S & B Tandem
Designer/Date: J. Smith/Jack Baker 1994
Design/Steering Type: SWB/Undershaft-steering
Wheelbase: 39" (10 mm)
Seat/Bottom Bracket Height: 19½" (10 mm)
Headtube/Seat Recline Angle: N.A.
Weight/Weight Distribution (lbs./ft.): #42%%N.
Frame/Fork/Construction: N.A.
Seat frame material: Shimano 1/24KMC S900
Derailleur(s) (sltr.): Shimano
Shifters: N.A.
Crankset: Shimano 13-30 (front optional)/KMC S900
Cassette/Chain: Shimano 13-30 (front optional)/KMC S900
Gear Inch Range: N.A.
Brakes (sltr.): Drum/Drum
Brake Levers: N.A.
Rear Wheel/Hub/Rim/Spokes: 26" x 1.5"/Shimano drum
Front Wheel/Hub/Rim/Spokes: 16" x 1-3/8"/Shimano drum
Tires (sltr.): Wide Whitewall
Bottom Bracket/Headset: Shimano UN51/Tioga
Point colors: Powdercoat (your choice)
Rider Height and Adjustment: 4'6"—7'/sliding seat
Model Designed For: Multipurpose
Suggested Retail Price: $890

New for 1997: The $595 S & B Beach Cruiser is the best deal! In recusability for 1997, it can be upgraded to a 7.14, 21 speed or a 3x7. Rumor has it that there may be a fully faired S & B Tandem for this year. Options: 7.14 or 21 speeds, Sachs 3x7 ($375 option), Shimano Tioga ($500 option) or Shimano Tioga ($500 option) for the frame. Other options are available for the frame. A higher back seat is also available for an additional ($25) and a cloth/velour seat cover ($25). Electric assist and S & B's are also available.

Fairings: Aftermarket fairings are available.
Pre-assembled: Yes
Bench tested: Yes

Warranty: Frame 18 months
Years in business: 5
Available from: Direct or Dealer
RCN Articles: RCN425
Contact Info:
S & B Recumbent
P.O. Box 3001
Compton, CA 90222
Phone: (310) 762-2243

1997 Buyers Guide 43
**Turner Enterprises**

1997 Turner T-Lites in high-performance and touring models

<table>
<thead>
<tr>
<th>Model</th>
<th>T-Lite</th>
<th>T-Lite Deluxe</th>
<th>New for 1997: Turner has discontinued the 2000 model and is working on a graphite replacement. Both models use the same frame and framekit are available. Turner bikes have a #500 pound capacity. Options: Sachs 8x7, graphite seat shell. Deluxe model comes standard with a lighting system and kickstand. All models will accept a 24&quot;, 26&quot; or 700c rear wheel. Pre-assembled: Yes. Bench tested: Yes. Warranty: One year. Years in business: 11. Available From: Dealer &amp; Distributor. RCN Articles: RCN10/upcoming Contact Info: Turner Enterprises 1360 E. Flamingo Rd. #73 Las Vegas, NV 89119 P#520/290-6646 Email: N.A. Web: <a href="http://www.rnt.com/=%22i-way/Turner.jpg">http://www.rnt.com/=&quot;i-way/Turner.jpg</a>&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design/Steering Type</td>
<td>SWEUSS</td>
<td>SWEUSS</td>
<td></td>
</tr>
<tr>
<td>Wheelbase</td>
<td>39&quot; (38&quot; on small model)</td>
<td>39&quot; (38&quot; on small model)</td>
<td></td>
</tr>
<tr>
<td>Seat/Bottom Bracket Height</td>
<td>22&quot; (19.25&quot;)</td>
<td>22&quot; (19.25&quot;)</td>
<td></td>
</tr>
<tr>
<td>Headtube/Seat Recline Angle</td>
<td>68°/68° adjustable</td>
<td>68°/68° adjustable</td>
<td></td>
</tr>
<tr>
<td>Weight/Weight Distribution (ck/lb.)</td>
<td>#26/#26/35%</td>
<td>#26/#26/35%</td>
<td></td>
</tr>
<tr>
<td>Frame/Fork/construction</td>
<td>CroMo/CroMo/TIG</td>
<td>CroMo/CroMo/TIG</td>
<td></td>
</tr>
<tr>
<td>Seat Frame/Material</td>
<td>Fiberglass/foam/pad/TIG</td>
<td>Fiberglass/foam/pad/TIG</td>
<td></td>
</tr>
<tr>
<td>Derailleurs (fl/tr.)</td>
<td>Sachs 5000 21-speed</td>
<td>Sachs 5000 21-speed</td>
<td></td>
</tr>
<tr>
<td>Shifters</td>
<td>Sachs Pro Shift (twist shifters)</td>
<td>Sachs Pro Shift (twist shifters)</td>
<td></td>
</tr>
<tr>
<td>Crankset</td>
<td>Sachs or similar 30/48/55</td>
<td>Sachs or similar 30/48/55</td>
<td></td>
</tr>
<tr>
<td>Cassette/Chain</td>
<td>13-28/Sachs Sells</td>
<td>13-28/Sachs Sells</td>
<td></td>
</tr>
<tr>
<td>Gear Inch Range</td>
<td>24-58 (24), 26-106 (26), 27-110 (700c)</td>
<td>24-58 (24), 26-106 (26), 27-110 (700c)</td>
<td></td>
</tr>
<tr>
<td>Brakes (fl/tr.)</td>
<td>Odyssey BMX side-pull</td>
<td>Odyssey BMX side-pull</td>
<td></td>
</tr>
<tr>
<td>Brake Levers</td>
<td>Sachs</td>
<td>Sachs</td>
<td></td>
</tr>
<tr>
<td>Rear Wheel/Hub/Rim/Spokes</td>
<td>24&quot;-25&quot;-700c/Sachs 5000/Wein./SS 36&quot;</td>
<td>24&quot;-25&quot;-700c/Sachs 5000/Wein./SS 36&quot;</td>
<td></td>
</tr>
<tr>
<td>Front Wheel/Hub/Rim/Spokes</td>
<td>18&quot; x 1-3/8&quot;/Wein./Sachs 5000/SS 36&quot;</td>
<td>18&quot; x 1-3/8&quot;/Wein./Sachs 5000/SS 36&quot;</td>
<td></td>
</tr>
<tr>
<td>Tires (fl/tr.)</td>
<td>N.A.</td>
<td>N.A.</td>
<td></td>
</tr>
<tr>
<td>Bottom Bracket/Headset</td>
<td>Powdercoat Dk. Blue, Red or Black</td>
<td>Powdercoat Dk. Blue, Red or Black</td>
<td></td>
</tr>
<tr>
<td>Paint/Colors</td>
<td>5-6&quot; Sliding seat</td>
<td>5-6&quot; Sliding seat</td>
<td></td>
</tr>
<tr>
<td>Rider Height and Adjustment</td>
<td>HP/SP Touring/Commuting</td>
<td>HP/SP Touring/Commuting</td>
<td></td>
</tr>
<tr>
<td>Model Designed For</td>
<td>$1250/Frame kit available</td>
<td>$1250/Frame kit available</td>
<td></td>
</tr>
<tr>
<td>Suggested Retail Price</td>
<td>$2195/Frame kit available</td>
<td>$2195/Frame kit available</td>
<td></td>
</tr>
</tbody>
</table>

A custom Turner T-Lite with Sphynx wheel, optional bar-end controls, a custom Idler and modified Ballistic suspension fork—Jeff Bales

Turner T-Lite high-performance gearing and optional Uni-disc wheel cover

44 Recumbent Cyclist News #38
### Wheel Recumbents

<table>
<thead>
<tr>
<th>Model:</th>
<th>Wheel Recumbents/EVO Glide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designer/Date:</td>
<td>Hansel/Wozniak</td>
</tr>
<tr>
<td>Design/Steering Type:</td>
<td>CLWB/Underseat seat steering</td>
</tr>
<tr>
<td>Wheelbase:</td>
<td>62&quot; (65*/extra long models available)</td>
</tr>
<tr>
<td>Headtube/Seat Recline Angle:</td>
<td>25°/17°</td>
</tr>
<tr>
<td>Weight/Weight Distribution (lb.)/ft.:</td>
<td>23.7% — 50%</td>
</tr>
<tr>
<td>Frame/Fork/Construction:</td>
<td>Alum. extrusion/Linear/CrMo/TIT</td>
</tr>
<tr>
<td>Seat/Frame Material:</td>
<td>Alum./Alloy seat/aluminum monoshell, (Linear)</td>
</tr>
<tr>
<td>Derailleurs (fr./fr.):</td>
<td>Sachs 5x7, 21-speed</td>
</tr>
<tr>
<td>Shifters:</td>
<td>Grip Shifts</td>
</tr>
<tr>
<td>Crankset:</td>
<td>Datek forged 48-T</td>
</tr>
<tr>
<td>Cassette/Chain:</td>
<td>Shimano HG 11-28/Sachs</td>
</tr>
<tr>
<td>Gear Inch Range:</td>
<td>21-104</td>
</tr>
<tr>
<td>Brakes (fr./fr.):</td>
<td>Side-cut/Tektro cantilever</td>
</tr>
<tr>
<td>Brake Levers:</td>
<td>Tekiro</td>
</tr>
<tr>
<td>Rear Wheel/Hub/rim/spokes:</td>
<td>20&quot; x 1.75/406/Sachs/SunSP 36</td>
</tr>
<tr>
<td>Front Wheel/Hub/rim/spokes:</td>
<td>16&quot; x 1-3/8/340/Alu/SunSP 36</td>
</tr>
<tr>
<td>Tires (fr./fr.):</td>
<td>Prime 1&quot; 90 psi/RL Edge 20&quot; 100 psi</td>
</tr>
<tr>
<td>Bottom Bracket/Headset:</td>
<td>SunTour Grease Guard</td>
</tr>
<tr>
<td>Paint/Colors:</td>
<td>Anodized Gunmetal, 5-8&quot;2&quot;/sliding seat</td>
</tr>
<tr>
<td>Rider Height and Adjustment:</td>
<td>Sport touring/commuting</td>
</tr>
<tr>
<td>Suggested Retail Price:</td>
<td>$999</td>
</tr>
</tbody>
</table>

**Note:** The Wheel EvoGLIDE is made for Wheel Recumbents by Linear Mfg. A similar model is available through Linear everywhere except within the state of Wisconsin where it is available through Wheel Recumbents and Wheel & Sprocket only.

**New for 1997:** The concept behind the design: The integration of design between Linear Manufacturing and Wheel Recumbents of Wisconsin, has enabled us at Wheel & Sprocket to bring together many ideas. These ideas came from existing recumbent riders, seeing their adaptations, alterations and the experience of our internal recumbent experts. The end result: The EvoGLIDE. This model has been designed to offer you an easy-to-own and ride recumbent cycle, that will fit all sizes and preferences. Stay tuned to RCN for further products news and developments by Wheel Recumbents.

**Options:** A33 available soon. Wheel & Sprocket is a complete full service bike/recumbent dealer and offers a number of options. Financing is available.

**Fairings:** Linear Zipper
**Custom Spec:** Available? Yes
**Pre-assembled:** Yes
**Bench tested:** Yes
**Warranty:** Lifetime
**Years in business:** 15 (Linear/mfr)
**Available From:** Dealer & Direct
**RCN Articles:** Upcoming ‘97

**Contact Info:**
- Wheel Recumbents
  - 6728 S. 106th St.
  - Hales Corner, WI 53130
  - Ph#: 603-362-4537
  - Fax#: 603-362-4537
- Email/Web: N.A.

---

### Zzip Designs

**Home of the Zipper Road Fairing**

Streamline your dreams with **ZIPPERS ROAD FAIRINGS**

**Zzip Designs**
- P.O. Box 14
- Davenport, CA 95017

Send $2 for color brochure

Call Today 1-888-WINSCRN (946-7276)
http://www.discspace.com/Zzip Fax: 408/425-1167

---

1997 Buyers Guide 45
B.O.B. Trailers/Cargo

THE YAK

Model: THE YAK
Designer/Date: Philip Novotny/1993
Design: Cargo Trailer
Frame/construction: 4130 CroMo/TIG
Weight: 12 lbs
Dimensions: 5 1/2 x 17 x 11.5 in. Cargospec 25 x 10 in. x 18.5 in. max. height. Stored dimensions 37 x 17 x 11 in. H.
Capacity: 70 cu. ft.
Wheels/hub/rim/spokes: 16 x 1.75 Q.R. alloy w/ sealed hub/steel spoke w/ 3 point attachment aluminum fender
Attachment: SPECIAL B.O.B. Quick Release for bike rear axle/stainless steel pivots and pins/B.O.B. Quick Release adjust to fit 125-150 mm wheel drop out spacers. Solid axle and geared hub adapters available.
Pivots: Pivots: Replacable DELRINTM bushings on trailer fork pivot
Paint/ colors: Powdercoat Silver
Cargo Bag: Cargo bag "YAK YAK" modular, 5700 cu. in., weather resistant, coated nylon cargo life, 4 way spider bungee cord with 4 lash points.
Safety: Safety flag (2 piece)/tender reflector/wheel reflector/parking feature has replaceable nylon skids
Suggested Retail Price: $259.99
Features:
- Narrow—fits between car and curb
- Ideal cargo system, mounts to most recumbents
- Low center of gravity + low aerodynamic drag
- Front fork folds for compact storage
- Adapts to seconds to most rear hubs
- Adapters available for most solid axle rear hubs including internal gear hubs and Sachs 3x7
- Ideal cargo system for recumbents and tandems
- Kickstand feature when parking (see owners manual)

B.O.B. BOOMER BOOMER D-LUX

B.O.B./1993
Kid Trailer 2 seat
Hi Ten steel-Aluminum Alloy
Foldable (both models)

BOOMER

Model: BOOMER/1993
Designer/Date: Philip Novotny/1993
Design: Cargo Trailer
Frame/construction: 4130 CroMo/TIG
Weight: 10 lbs
Dimensions: 54 x 30 x 13.5 in. L x 22.5 in. W
Capacity: 70 cu. ft.
Wheels/hub/rim/spokes: 20 x 1.75 Q.R. alloy w/ sealed hub/steel spoke w/ 3 point attachment aluminum fender
Attachment: SPECIAL B.O.B. Quick Release for bike rear axle/stainless steel pivots and pins/B.O.B. Quick Release adjust to fit 125-150 mm wheel drop out spacers. Solid axle and geared hub adapters available.
Pivots: Pivots: Replacable DELRINTM bushings on trailer fork pivot
Paint/ colors: Powdercoat Black
Cargo Bag: Cargo space behind seat on both models.
Safety: Safety flag/reflector/4 season maneuver-standard on both models
Suggested Retail Price: $279.99 (alloy)
Features:
- Quick folding feature (both models)
- Allows trailer to fold on center
- Equal left and right turning radius
- Maximum heel clearance when peddaling
- Maximum leg clearance when dismounting, pushing off and starting
- Kickstand feature for parking and loading
- No lunge effect when climbing (common with flex joint trailer systems)
- Rear entry/kids face away from the bike wheel
- Improved visibility for the kids
- Easier to load children (no hitch interference)
- No mud or dangerous objects along from the bike's tires into the face of the kids

Who is B.O.B. anyway?
Staff: a team of passionate cyclists with savvy experience in product development and business, questioning internal combustion.
Location: beautiful San Luis Obispo, California
Agenda: promote cycling as a means of transportation for both recreation and utility.
RIDE BIKES, BRING STUFF!

Boomer: They've taken the conventional two wheel trailer design and created a new center-line attachment system using their patented B.O.B. Quick Release trailer attachment system. No more single arm that clamps to chain stays!
The key to B.O.B. products is the simple, universal attachment system that adapts to virtually any bike. Trailers are attached/detached in seconds. The system is a modified rear wheel quick release with pivots on each end. Attachment to the rear hub gives a bike stable, aerodynamic performance—trailers that perform. A new distinction in the cycling world!

Options: "B.O.B. Nutz" solid axle adapters available in 3 axle sizes.
For Quick Release type hubs and for coaster brake type single speed hub beach cruisers. Internal speed hub adapters are available.
Available From: Dealers and distributors.

Contact Info:
B.O.B. Trailers, Inc.
3641 Sacramento Dr. #3
San Luis Obispo, CA 93401
Phone: 805/543-2554
Fax: 805/543-8454
Email: bobino@callamer.com
Web: http://www.callamer.com/bobino

Recumbent Cyclist News #86
Autobike Creations

Model: Autobike '36 Autum Speedster
Designer/Date: N.A.
Design/Steering Type: Quad pedal car with fiberglass body
Wheelbase/Weight: Dimensions: 4'x8'/175 lbs
Frame/Fork/Seat: 1 spd. (optional Multi-spd.)
Drivetrain: Rear dual brakes
Brakes (f.t/hr.): HD 16"
Wheels (f.t/hr.): Commuting, golf, rentals
Model Designed For: $2950
Suggested Retail Price: N.A.
Warranty: New for 1997: Rumor of a stretch version
Autobike Creations
1404 Madera Rd., Suite N-160
Gilroy, CA 95020
Phone: 408/777-8550

Doppler Cycle Tech

Model:
Designer/Date: Bemmer
Design/Steering Type: M. Swartz/P. Heilsch/1996
Wheelbase/Weight: CWB "Compact" ASS
Frame/Fork/Seat: 54"/290 lbs
Drivetrain: Hiten/Hitent/Tig/Alum./nylon mesh
Brakes (f.t/hr.): Sachs Center/ProShift 7-speed
Wheels (f.t/hr.): Dia Compe Bug Dog/Deore X-LT carrier
Model Designed For:
Suggested Retail Price: 20" x 1.5"/Sachs/368 SS 16" x 1.5"/Sachs/18"
Warranty: Multiple Use
Doppler Cycle Tech
52 Walnut Street
Kitchener, Ontario N2G 1P6, Canada
Phone: 519/579-5479 Fax: 519/742-6107
Email: dopplercycle@sympatico.ca

Earth Traveller

Model: Earth Traveller
Designer/Date: Earl Aldrich/1974
Design/Steering Type: Trike/ASS (two wheels in back)
Wheelbase/Weight: BS"/48 lbs
Frame/Fork/Seat: Chromo/Tig/Turner fg shell/foam seat
Drivetrain: Shimano Acera-X/X/Aluminum
Brakes (f.t/hr.): Pyramid/ s-side pull
Wheels (f.t/hr.): 20" x 1-1/8/27"
Model Designed For:
Suggested Retail Price: Recreational/special needs
Warranty: $900
Earth Traveller
511 S. Main St.
Moscow, ID 83843
Phone: 208/882-0703
Order phone: 1-888-590-1869

Glas Tec

Model: Aerolope
Designer/Date: Boris Lurin/C.R. McColl "1996-1997"
Design/Steering Type: SWB/US (ASS optional)
Wheelbase/Weight: 38"/48 lbs
Frame/Fork/Seat: Chromo/Chrom/Fiberglass shell/foam pad
Drivetrain: Sachs 3x7 (custom optional)
Brakes (f.t/hr.): Dia Compe
Wheels (f.t/hr.): 16"/26"/Wol. Alcy 36"
Model Designed For:
Suggested Retail Price: HP/Racing/Commuting
Warranty: $4900
Glas Tec
3417 E. Michigan St.
Tucson, AZ 85714-2025
Phone: 520/889-0011/Fax: 520/746-4440
Email: N.A.

New for 1997: New fully fared SWB.
Options: Electric Zap seat, custom frame, ASS, drum/dia brakes, lighting systems and custom options.

1997 Buyers Guide 47
### Just Two Bikes

**Model:**
- Montage
- Mulinier/Ahmad/1602
- Quad tandem (2-SWB, USA, side by side)

**Frame/Fork/Seat:**
- 43° VDO
- CroMo/CroMo/TIG/Steel-mesh

**Drivetrain:**
- Shimano/Griff/Shift 21 speed

**Brakes (f/r):**
- Dia Compe Big Dog Caliper

**Wheels (f/r):**
- 26 x 1.5/AHRA/SS 36/28 x 1.25
- Recreational

**Suggested Retail Price:**
- $395 + S/H

**Warranty:**
- 1 year

**JTB:**
- 421 N. Washington Ave.
- White Bear Lake, MN 55111
- Ph: 612/262-1548 Fax: 612/261-9444
- Email: 74771.2737@compuserve.com

*Now for 1997: Rental and special needs versions are available.*

**Options:**
- Adj. seat backs, Nexus-7, double side steering, hand cranking, cradle, canopies and custom signs.

### Personal Transportation

**Model:**
- Tricycle

**Design/Steering Type:**
- Folding Tricycle, two wheels in front

**Frame/Fork/Seat:**
- 36" (track: 48") #42 (loaded #104)
- Aluminum/High Pin TIG

**Drivetrain:**
- Campy-Paul-Sachs/Griff/Shift 21 speed
- Magura Hydraulic

**Brakes (f/r):**
- 27/Phil/Sun/ST 700c/Phil/Sun/486 SS

**Wheels (f/r):**
- Multiple use all weather touring commuter

**Suggested Retail Price:**
- $500

**Warranty:**
- 1 year

**Personal Transportation Ri:**
- 4 Box A45
- Warsaw, IL 60962
- Ph: 714/277-3550
- Fax: 714/277-5160

*New for 1997: High tech suspended ultra deluxe bike. Also available is the Phantom tandem bike $6000.*

**Options:**
- Disc brakes, Zap motor, rack, lights, CD player and race wheels.

### Peugeot/Quetzal

**Model:**
- Peugeot T-105
- Peugeot 1997

**Design/Steering Type:**
- LWB/US

**Wheelbase/Weight:**
- 64.5-62.5" (Adjustable, telescoping frame)
- Allum/CroMo/TIG/Aum/Steel/mesh/trigger/electric

**Drivetrain:**
- Shim. Alloys 8-20.6 speed/Shim. 28/34/42

**Brakes (f/r):**
- Shim. Alloys caliper

**Wheels (f/r):**
- 18/26 x 1.6/2/SHIMANO Q.R./Wheal,
- Touring/Sport Touring/Commuting

**Suggested Retail Price:**
- $1999

**Warranty:**
- Lifetime/Frame

**Contact Info:**
- Procycle Canada
- 9095 26 Ave.
- St. George, Quebec, Canada G6A 1A1
- Ph: 416/392-2965 Fax: 416/277-2763
- Ph: 1-800-543-4142 [US Dist.]

*New for 1997: Quetzal Technology has sold 100 T-105's in Canada. Watch for new steel 24 and 105 speed models priced at $859 and $1099 respectively. For more info, contact your Peugeot dealer or local recumbent specialist.*

### Quadracycle, Inc.

**Model:**
- Quatracsport
- Ed Teesdair

**Design/Steering Type:**
- Quad pedal car

**Frame/Fork/Seat:**
- est. 64" (track: 42")/N.A.
- HT/Ti/Griff

**Drivetrain:**
- SIS 5 speed (optional 21 speed)

**Brakes (f/r):**
- Dual Bend Brakes

**Wheels (f/r):**
- 24" (kids size has 16")
- Multipurpose (all)

**Suggested Retail Price:**
- $2000 (models from $900)

**Warranty:**
- Customcycle, Inc.
- 611 E. 800 S.
- Hamilton, IN 46542
- Ph: 219/488-2283

*New for 1997: Quadracsport (16" kids) and Quadracycle, a four seat pedal car with 21 speeds (est. $900). Options: Basket, deluxe seats, 21-spdy., turn signals, brake lights, bumper, horn and canopy.*
Rhoades National Corp.

Model: Rhoades Car
Designer/Date: Dave Rhodes
Steering Type: Quad pedal car
Weight: N.A.
Frame/Fork/Seat: HTen/MIG
Drivertrain: 6 speed (optional 25 or 36 speed)
Brakes: Disc
Wheels: 20 x 1.75"
Model Designed For: Multipurpose/rental
Suggested Retail Price: From $999
Warranty: 2 year
New for 1997: Rhoades has many different models including 1-2-4 passenger and pickup/cargo haulers.
Options: Deluxe seats, 36 speeds, baskets, lights, bumper, post-traction, windshield, golf bag carrier and canopy.

Ride-Rite Bicycles, Inc.

Model: Advanta SR-1
Designer/Date: Olive Ernest Buckler/1994
Steering Type: OLWB "upright"/Above-seat steering
Weight: 40 lb
Frame/Fork/Seat: CroMo/CroMo/brazed/Moulded-foam-clth
Drivertrain: Sachs Nexus/5000 3 x 7.21 speed
Brakes: Sachs Drum/DiaCompe Big Dog
Wheels: 16"/26"
Model Designed For: Touring/Commute/Sport/Fitness
Suggested Retail Price: $1,495
Warranty: One year
Est. $1,495
New for 1997: This is a new model for 1997.
Options: Model for tall or shorter riders coming.

Trailmate

Model: Lo Rider/Beach-Pool Fun Cycle
Designer/Date: Trailmate
Steering Type: Trike (two in back)/Trike FWD lean steer
Weight: N.A.
Frame/Fork/Seat:HTen/MIG/foam-naugahyde over wood
Drivertrain: 2-speed (optional 3 spd. on some models)
Brakes: Coats: 16"/20"
Wheels: Multipurpose/rental
Model Designed For: Trailmate
Suggested Retail Price: Est. $800/850
Warranty: N.A.
New for 1997: Great entry level recumbents for kids, retirement, rental or special needs.
Note: Check with your local recumbent specialist for Trailmate Info.

Tricumbent Productions, LLC

Model: Raven
Designer/Date: Bill Mason/1996
Steering Type: Trike, two back/rear wheel steer/FWD
Weight: 32"/varies by size/Trick width: 32/544
Frame/Fork/Seat: CroMo/CroMo/Ti/Al/Fiberglass shell/Pad
Drivertrain: Sachs Centera 3 x 7.21 speed/Sachs Twist
Brakes: Shimano Deore LX cantilever
Wheels: 20" x 1-3/8"(41) 36" 65
Model Designed For: HP/Racing/Touring/Commute
Suggested Retail Price: $2900 + $75 8/4 (43 states)
Warranty: One year
New for 1997: N.A.
Options: The Raven is offered in a "builder's kit." A carbon fiber seat shell, colors and gearing changes are available.
WizWheelz

Model:
Designer/Date:
Design/Steering Type:
Wheelbase/Weight:
Frame/Fork/Sou:
Drive/strain:
Brakes (fl./fr.):
Wheels (fl./fr.):
Model Designed For:
Suggested Retail Price:
Warranty:
WizWheelz
599 W. Clinton
Hastings, MI 49058
Ph# (517) 948-4653
Fax# (517) 945-4020
Email: WizWheelz@Aol.com

TerraTrike
J. Wawel/70, Dolez/W, Oom '91-'96
Trike, two in front/ASS
45°/32° track
Foam base/mesh back (RANS)
Sachs Super 777-axd., Sachs 3x7, 21-axd,
Sachs drum
20°/20°/20°Sachs/Velospeed/50° DT SS
Multiple use
$1599
Options: The Sachs Super 7 internal hub
is standard. The Sachs 5x7 21 speed is op-
tional. A full body is in the works and possi-
ibly a "snowmobile."

PRACTICAL & AFFORDABLE
MACHINES
CUSTOM WORK
Youth Framebuilding Apprenticeships
1-800-343-5568
Email: cat@efn.org
http://www.efn.org/~cat

A Project of the Center for
Appropriate Transport

From the designer of the
fastest thing on two wheels...
the fastest thing on three wheels.

WINDCHEETAH

PEOPLE MOVERS
714.633.3663

Charge Your RCN Subscription
People Movers now offers charge-card service on Rec-
current Cyclist News subscriptions, renewals, Buy-
ers Guides and back issues. NO SERVICE CHARGE
on USA or Canadian orders! Give us a call!
-VISA - MASTERCARD- DISCOVER-
PEOPLE MOVERS © 714-633-3663

UNIQUE MACHINES
to buy or rent
2,000 square feet of floored bikes
• In-House Manufacturing
• Home of Human Powered Machines
• Youth Apprenticeships
455 W. 1st Ave., Eugene, Oregon
541/344-1197 http://www.efn.org/~cat
World Wide Manufacturer Listings

**Aerobikes, Ltd.**

Model: Commerter
Type: CWS "Compact" Rear Susp.
Frame: Crome/Mo531/Al spring sus.
Drivertrain: Sachs 21 speed
Brakes: Sturmey Archer drum
Wheels: 70c/20
Purpose: Commuting
Price: £1850/€2250/$2625
US Dealer: Pools Crow Cycles
Contact: Aerobikes Ltd.
Unit 15 Bawsey Yards
Edinburgh EH15 6NT
Phone/Fax: (0114) 131 567 5655
Email: 10042.365.compuServe.com

New for 1997: These new models are similar in the Tour (high spec gearing/brakes) and the Grand Tour (hydraulic disc front brake and lighting system).

**A.S. Engineering**

Model: Trike
Type: FWD suspension
Frame: Alum.
Drivertrain: FWD-U-joints/21-spd.
Brakes: (fr./rr.): hydraulic drum
Wheels: 26"x3 (3)
Purpose: Multipurpose
Price: N.A.
US Distributor: No
Contact: A.S. Engineering
AIAD Alchan Str 12-303
Moscow 117002
Russia
Phone: 7 995 430 3697
New for 1997: N.A.

**Extreme Engineering**

Model: Rubicon
Type: Trike (two wheels in front)
Frame: Rectangular stainless steel
Drivertrain: Sachs New Success
Brakes (fr./rr.): Hope Hydraulic
Wheels: 26"x19" (2)
Purpose: HP/Racing/Tour/Comm.
Price: 29050
US Distributor: People Movers
Contact: Extreme Engineering
22 Old St.
Southport, Merseyside
P92 6DD England
Phone/Fax: (0114) 1704 543916
New for 1997: The Rubicon has a fibreglass seat, column (joystick) steering, and is custom built to fit the rider (no boom or seat adjustments).

**Aeroproject**

Model: N.A.
Type: SWB/ASS
Frame: Crome
Drivertrain: 21 speed
Brakes (fr./rr.): N.A.
Wheels: 70c/20
Purpose: HP/Racing
Price: N.A.
US Distributor: No
Contact: Harig Fahrradbau fur Reisstr.7
Richard Zander-Str.48
D-5166 Bergisch Gladbach
Germany
Phone: N.A.
Fax: N.A.

**Bevo**

Model: Bevo-Bike
Type: CWS "Compact" ASS
Frame: Crome
Drivertrain: 7-spd. Internal
Brakes (fr./rr.): Magura/DiaCompe
Wheels: 26/20
Purpose: Race/Fitness/Comm.
Price: 26500
US Distributor: N.A.
Contact: Voss Spezialrad GmbH
Tulipanweg 2
D-26214 Itzehoe-Eckendorf
Germany
Phone/Fax: (0114) 4021 4149
New for 1997: The Bevo has yet to make it to US shores, we hope for a test bike someday. Voss is also the mfr. for the Brompton recountent kit.

**Flux Fahrrader GmbH**

Model: Several
Type: SWB
Frame: Crome
Drivertrain: N.A.
Brakes (fr./rr.): N.A.
Wheels: N.A.
Purpose: HP/Racing/Comm.
Price: N.A.
US Distributor: No
Contact: Flux Fahrrader GmbH
Kreuzberi Strasse 8
82114 Germany
Phone: (0114) 8142 53190
New for 1997: N.A.

**Kingcycle**

Model: Kingcycle
Type: SWB/ASS
Frame: Reynolds Crome
Drivertrain: 21 speed
Brakes (fr./rr.): Drum or Magura
Wheels: 24/4/50A
Purpose: HP/Racing/Comm.
Price: N.A.
US Distributor: No
Contact: Kingcycle
Lane End Rd., Banda
High Wycombe, Bucks
HP12 4JO England
Phone: (0114) 1494 524000
Fax: (0114) 1494 437591

**Leitra**

Model: Leitra
Type: Trike (two wheels in back)
Frame: Steel
Drivertrain: Sachs 21 speed
Brakes: Sturmey Archer drum
Wheels: 400mm 20" (3)
Purpose: Touring/Comm.
Price: $6,000 USD + SH
US Distributor: No
Contact: Leitra
Box 84, DK-2750, Ballerup, Denmark
Phone: (01145) 4218 5377
New for 1997: This unique trike designed by Carl Georg Rasmussen is steered by levers, has a fibreglass/carbon fiber seat and has a tilt-forward full weatherproof body.

Photo by Oliver Ze-Muin

1997 Buyers Guide 51
World Wide Manufacturer Listings

HP Velo
Model: Street Machine
Type: SWB Full suspension
Frame: CroMo/Sus, fork/TIG
DriveTrain: Sachs 500x3x7
Brakes (ft./m): Magura
Wheels: 700C/20
Purpose: Multipurpose
Price: $3800.00
US Distributor: Contact:
HP Velotechnik
Rossenstr: 80 D-66830 Kriftel, Germany
Ph: (011 49) 0619 21479
New for 1997: HP Velo is planning to introduce an entry level model in ’97. HP will ship into the USA.

Pivot-Liegerader
Model: PureRace and Harpoon
Type: SWB
Frame: CroMo
DriveTrain: N.A.
Brakes (ft./m): N.A.
Wheels: N.A.
Purpose: N.A.
Price: N.A.
US Distributor: Currently looking
Contact: Pivot Liegerader
Ahornstr. 15
58550 Tattlingen, Germany
Ph: (011 49) 7542 5569 Fax: (011 49) 7542 5581
Email: Pivot.Liegerader@t-online.de
Web: http://home.t-online.de/home/pivot.liegerader@t-online.de

Radius
Model: Hermod/Viper
Type: SWB/LWB US suspension
Frame: CroMo
DriveTrain: N.A.
Brakes (ft./m): Magura Hydraulic
Wheels: 27"
Purpose: Touring/Commuting
Price: N.A.
US Distributor: No
Contact: Radius
Fertigung-Verein
Berliner Str. 21
40153 Münster
New for 1997: No news from Germany, however, the Viper has to be one of the slickest recumbents on the planet. Too bad somebody doesn’t import them. We suggest you enlist the help of a dealer to purchase a Radius.

Riley Bicycles
Model: SLC T33/3 Ltd. Bkst
Type: LWB AS8
Frame: Reynolds 531
DriveTrain: Stronglight/SHIMANO
Brakes (ft./m): Cantilever
Wheels: 26x3.0
Purpose: Multipurpose/Touring
Price: $1300/$1000
US Distributor: No
Contact: Riley Cycles
34 Alleage Close
Oxewood Derby
DE21 2SV England
Ph: (011 44) 1532 083617
Fax: (011 44) 1532 083657
New for 1997: New manufacturer and new models. (T3 stands for Town, Touring & Transport.

Slipstream Cycles
Model: Demon
Type: Trike (two wheels in front)
Frame: Ano. Alum. lexicon fiber
DriveTrain: Sachs S/7 21 speed
Brakes (ft./m): Hope Tech discos
Wheels: 26x2.0
Purpose: Multipurpose
Price: N.A.
US Distributor: No
Contact: Slipstream Cycles
PO Box 204, Redheath
Norwich, England NR13 6ES
Ph: (011 44) 1503 721197
Fax: (011 44) 1503 721112

Windcheetah
Model: Windcheetah
Type: Trike (two wheels in front)
Frame: 6060 Aluminum Bored
DriveTrain: TA/Shimano/Carap
Brakes (ft./m): SA Drum ($29.95)
Wheels: 26"/7/7 Moulton
Purpose: HP/Race/Tour/Comm
Price: $5400
US Distributor: Yes
Contact: Seat of the Pants Company
Unit LKP4 L & M Buick. Park
Norman Road, Broadway
Aldingham, Cheshir, England
Ph: (011 44) 0161 628 5575
Fax: (011 44) 161 628 5585
New for 1997: The Windcheetah is now available in the USA through select dealers.
The North American distributor can be reached at 504/626-8625 (PST).

Recumbents as low as.... $359
Maxam is proud to introduce two new recumbent bicycles for "1997." The ReTreat (CLWB) and the Tre'v'illion (tandem) are Maxam's answers to the high priced recumbent. Combined with the already popular Reveille, Maxam has the bike you're looking for at a price you can afford.
Call now and place your order before summer arrives.
513/648-0022

Made in the U.S.A. by Maxam Incorporated

Recumbent Cyclist News #88
Recumbent Homebuilder Ideas

Homebuilder recumbent information is becoming harder to find. Commercially available plans are rare, though there are individuals offering noncommercial plans on the internet if you're willing to do the detective work.

Over the past year recumbents have continued to gain momentum and are becoming more readily available. Unfortunately, this has hurt homebuilders. On the upside, there are more recumbents and parts available for homebuilders to see. We are firm believers in utilizing existing technology and design where applicable, so don't try to reinvent the wheel, unless you want to build more than one (homebuilder syndrome). Forks, steering columns, wheelsets, after that, it's connect the dots.

Our best advice is to think it through before you start. You can buy a complete Maxam for $339, an S&B Bench Cruiser for $395, as well as other incredible values in new or used bikes.

To come up with a realistic comparative price, do a careful cost analysis that includes a decent seat, paint and acceptable materials. Another option would be a frame-kit, possibly even unpainted to save some cash. Greenspeed will even sell a tube set with plans.

Lastly, riding mechanics fool around with junk-bikes for components. Keep in mind the safety aspects of using other castoffs, especially for moving parts (chain and wheels).

PLANS

LWB PLANS: The first and foremost recumbent building plan-seller, Easy Racers Inc., stopped producing plans in 1996. There are plenty of sets out there. Plan sale or want-ads for plans are free to RCN subscribers.

SWB PLANS: The BenTech plans are excellent. For a review, see RCN936. The Rebel plans from New Zealand were still available the last time we checked.

FWD PLANS: Tom Traylor is a FWD pioneer and offers excellent building plans. The background, design theory and jig building information is worth the plan cost.

BMX CONVERSION: The easiest way to get on the road as a homebuilder is to convert a BMX bike. Weid on a boom and add a seat and you're in business. Watch for the RCN homebuilder booklet due out this Spring (SASE to RCN for info).

TRIKE PLANS: Greenspeed and Crystal Engineering (Trice) offer blueprints for the homebuilder. The Hudy manuals are very good, though expensive.

SEATS: The best deal on a recumbent seat is from S & B Recumbents. For around $100, you can get a fiberglass seat shell and cover. The Turner seat is similar, but better. The Rans seat is a great setup for the homebuilder and adapts easily. It comes in varying seatchannel widths that rivet or screw into your top tube. The seat quick releases to the channel. The ATP seat mounts via two quick releases and is another easy retrofit. For the finest recumbent seats expect to pay $200-$300. Old-stock Rans "backset" and ATP models may be available at a savings as well. The lowest cost alternative is to cut two pieces of plywood, connected via a door/panel type hinge and cover with foam and vinyl or similar material. This is the true $20 seat.

UNDERSEAT STEERING: This is a tough one. Cables are the easiest if you can track down an Infinity steering setup, otherwise plan on lots of work.

ABOVE-SEAT STEERING: Clearly the best is the Rans fold-forward "flip it" setup. ATP offers ASS kits as does Haluzak (cheapest).

FORKS: Many recumbent manufacturers are using the same fork. Check with homebuilder parts sellers such as Prairie HPV or manufacturers. This fork is available in 16" and 20" size. Ballistic suspension forks are available in the 20" size from AngleTech and others. Some 16" and 20" steel forks are meant for juveniles and BMX bikes that have 90mm spacing, which can be too narrow for some recumbent front wheels. Most will work, just be sure you are aware of what you have.

FRAME STEEL: You may be able to talk your local recumbent builder into selling you the tube you need, if it is a tube they use. Prairie HPV has frame tubes and homebuilder aircraft sources are another good bet. Check your local scrap yard, second hand bike store, swap meet or if you live in the northwest go to Boeing Superflips.

WHEELS: There are incredible differences in the quality of wheels available. Generic recumbent wheels can be purchased in 16" and 20" sizes from Prarie for under $40 to more than $100 per wheel. A great set of replacement wheels can be purchased from recumbent dealers and manufacturers. NOTE: Don't use steel wheels, upgrade to decent QR hubs with alloy rims.

Keep in mind sizing variations. 20" x 1.5" (406) and 20" x 1-1/8" (451) wheels are different diameter; there are varying 24" and 16" sizes.

INTERNET: Do a search for recumbents, HPV's, IHPVA, and you'll find plenty to keep you busy for hours. Advertisers and sources in RCN have web sites of interest and there is the HPV mailing list (send a message to: majordomo@zippy.econaa.edu to subscribe). Include in the message body "subscribe hpv".

RCN ISSUES: We like think of RCN as a "college course" (OK, maybe an experimental-U course...) on recumbents. The book issues are an invaluable source of information on past, present and future designs.

For 1997, we plan to put out a very basic/no-nonsense homebuilder booklet with homebuilder articles reprinted in a reduced sized (for cheap-skates who'd rather buy parts than magazines...). Send an SASE to: RCN, PO Box 58755, Renton, WA 98058.
Recumbent Accessories/Upgrades

This section includes our thoughts on recumbent components, accessories and options. For more information take a look at our Interbike Report in RCN#36.

AERO WHEELS: Are they more aerodynamic—yes (usually). Are they lighter than spokes—no, not always. Aerocycle (451mm 20's), HED (17 & 24") and SPIN (406mm 20") all manufacturer composite wheels in recumbent sizes. We suggest you ask your manufacturer/dealer for a recommendation.

AERO WHEEL DISC: UNI discs are still available for those who like to be punished (removal for inflation is a real pain). The Lightning wheel covers have a great look and little doors that allow you to fill the tires up without removal.

BELLS/HORN: We use a AirZound from People Movers to get rider's attention on local rides. A Specialized Dri Ringer works better on bike trails with kids, dogs, horses and recumbent cyclists.

BRACKETS: You won't believe what a high-quality set of cables, housing and levers will do for you. Magura hydraulics are even more popular this year with Rans offering them as optional equipment. If you can make them work, Shimano 10SSC and Ultegra dual pivot sidepulls are simple and strong, although they require skinny tires and the pull is on the wrong side for a SWB boom. Lightning has a dual pivot that fits their bikes. AngleTech mounts "V" brackets on SWB models. Upgraded brake pads on caliper brakes are important. Look for Aztec, Kool Stop or Scott Super brake pads.

BAR-ENDS: Do you want your USS recumbent controls to have that "pistol-grip" feel? Add a set of side-stick bar ends with controls to your bike, you won't believe the difference. Besides offering a more confident "in-control" feel, they bring the controls much closer to your body. Some riders have to reach too far for comfort on stock USS. Bar-ends for this purpose can be purchased from Hulakz, Ryan and Turner. Be aware that these work best with bar-end shifters with the brake lever and shifters mounted on the bar-end. Beware of "L" bend brake lever/extensions when used with weak brakes (remember your old Schwinn Varsity?)

CABLE HOUSING: High quality cables and cable housing are a must for often long or creatively routed recumbent cables. We tested the Ride-On housing on the Greenspeed trike and it works great. Cheaper Tip: Spray Tri-Flo into the lines every few months. This makes for smooth operating brakes and shifters. Be sure to keep your systems CLEAN!

CABLE END: Are you always drooling on the pages of the MTB mags at the latest guy-dads? Well, just when we thought we'd heard it all, RCN global goodwill ambassador and West Coast Correspondent, Ron Schmid, has come up with CNC-machined, alien-boy cable-ends in anodized colors. Ron was the first recumbent guy in the world to have Cook Brothers mini-crank -arms skewers on his bike that are custom machined for his Q.R, front wheel on his rare and gorgeous Presto Trind. These are available from Angletech.

CAR RACKS: We use Yakima roof racks with a front fork clamp/ rear tray arrangement. If the bike is too long, you set the rack tray so the frame (just ahead of the rear wheel) lays in the tray on top of some foam. Tandem racks can be used with some modification, and there are extended trays available. Bumper racks works OK on big, wide cars or SWB/CLWB bikes, though we've seen a Tour Easy on the back of a Honda Civic before. If you do this, you may want to remove one or both of your wheels. Monotube bikes sometimes don't mount on bumper racks right, and we've heard of users turning bikes upside down—whatever works! The best rack setup is probably the Draftmaster receiver hitch mount. It will accept recumbent singles and tandems with ease.

COMPUTER: You may want to go with what your recumbent dealers/specialist wants to install and warranty. When in doubt, we've gone with Trek and Schwinn for this reason. If you like gadgets, check out the Avocet 55 with an altitude meter and more numbers than you can reasonably deal with.

COMPUTER MOUNTS: The best computer/light mount we've seen is ATP Vision and Haltrax. It fits on top of the front derailleur tube of SWB recumbents. Fairing frames on USS recumbents are handy to mount a computer and accessories as well.

CHAIN: If you don't have a Sachs chain on your bike, get one the next time you replace it. Sachs chain is the best. Most riders should notice a difference. Maybe we should take up a collection of KMC chain and send it to a 3rd world country.

CHAIN GUARDS: The best one we've seen is the BikeE. You can make one yourself (see RCN#32).

CLOTHES: Need some 'bent clothes? Check out Alley Mouse's article in RCN#28. The Mouse has located every source for custom bike shorts. We found a few others: Lightning, Angletech and Hal Shafer. Custom-made shorts makers are available in most towns.

CRANKSET UPGRADES: Ritchey Logic and Campagnolo are my favorites, though the Easy Racer Bombe and ATP Vision Cook Brothers CNC-machined (computer milled or "Cost No Concern") are very nice.

DERAILLEURS: It's best to get a front derailleur designed to work with the rear derailleur and chainrings/crankset that you have. We recommend NOT using a MicroDrive style front derailleur with road gearing. Also, we suggest NOT mixing Grip Shifts with Suntour front derailleur. Sachs and Shimano systems intermix just fine.

Most Sachs and Shimano based systems will shift great. The Shimano STX-35 is a great rear derailleur for recumbents. LX is more upright and may or may not shift any better. Shimano XTR is high-end MTB racing and the creme de la creme, though may really just be an exercise in a bent ego-trip. Shimano seems to have the edge with ramped cogs and chainrings. The Sachs Saturn-VGiss Grip Shift ESP system works great with its 1:1 shifting.

We are fans of the Sachs 3x7 internal hub/external 7 speed and Nexus systems. The 3x7 is the only way to go for super-wide-range touring. Driver trains where you need 20-26', 15-17', 10-12', gear inch low and a 140-160+ high gear for screaming down the back sides of mountain passes. Check out Easy Racer Nexus (with a front derailleur) 21 speed EZ-11. The front derailleur is left on to spring the chain.

DRIVETRAIN TWEAKS: The Avid Rollamajig will replace the "C" turn on your rear derailleur housing with a roller and it works! SRAM has the Bass Work which springs the rear derailleur cable. Toos your KMC chain and go for a nice Sachs (brainwashing). Make sure you have high quality index compression, derailleurs, and chainrings. Our advice is to order Sage/Motorcycle and name-brand cables; and lined brake housing and name-brand cables on your bike.

FAIRINGS: Zzip Design manufactures lexan fairings of different sizes, thicknesses and mounting procedures as well as experimenter kits. Your best bet is to discuss fairing availability with the manufacturer or dealer of the bike you intend to buy. Zzip has fairings for almost every recumbent model. Rans offers standard fairings on Sturz/Nimbus LWB models. Angletech has a special SWB Zzipper and the updated “Roots” Presto fairings. ATP Vision has a custom fairing that uses a Zzip bubble and custom mount. This is also a rain poncho. Full bodied bikes are available from Lightning, Ginn, Tec, Leitra and a few more. Fairing kits are available from Cylinder Cycles in Vancouver BC and Rampage has front and rear kits.

Easy Racers has a neat carbon fiber Zzipper-like front fairing with a body sock. A new company, Rampage, offers a Coroplast front and rear fairing kit for SWB models.

Steve Delaire builds a rear cargo/trunk aero tail fairing that works on Rotator models. There is a matching fiberglass front fairing as well. AngleTech builds Root’s In-The-Sky nose cones designed for the Presto’s and similar bikes.

We're also very interested in homebuilt Coroplast/board fairing technology as fiberglass/plugs bodies are generally beyond the realm of the homebuilder.

FENDERS: Chrome cheapies or "shorties" are available in 16" and 20" kid sizes for low-brow specials. It's possible to heat and cut road fenders down in size. Angletech has fender sets/kits, Lightning has mixed sets, Rans and ATP should have fender sets this season. Easy Racers makes Kevlar 20" fenders for both sizes (406 and 451). TTP: RCN#32 has a good home-build fender article.

FOOKS: The best forks are those built in the USA by the manufacturer of the bike—and these are becoming more rare. The few that come to mind are the Lightning P-38, ATP Double Vision and Angletech/Rans Screamer. Second best are custom designed forks to the designer specification. These are found on Easy Racer bicycles. Next, come custom raked forks, such as those on Rans LWB and others. Then comes the off-the-shelf CroMo variety that is so widely used today. Did you know that ATP, Rans, Ryan and Haltrax are using basically the same fork? What has been both known as the J & B CroMo recumbent fork (imported by J & B Pacific; wholesale only) and comes in 16" or 20" sizes. The kind of fork you don't want is a HiTen steel juveniles fork. In many cases you can upgrade to CroMo.

There are aftermarket BMX/
MTH suspension forks available. Check with your manufacturer first and then with your dealer.

**FRAME-SETS:** We DO NOT recommend that customers buy frame-sets unless you have been doing your own mechanic work as a hobby. We DO NOT recommend that you buy a frame/built bike unless the custom spec shop knows what they are doing. Keep in mind that component compatibility issues can ruin your project. These are specialty brakes, wheels and shifters to deal with. And no-dish wheels (ATP) and the compact vs road size drive and gearing combinations issues. We suggest you discuss your gearing/component choices with the manufacturer before you make the order. Stock models hold their value best (notable exception: Angletech).

The only exception to the rule is with low-end or bargain bikes such as Maxam (see upcoming RCN’93), S & B and some Turner frames where you can get on the road inexpensively if you build a frameset.

**HANDLEBARS:** Stock bars are usually the best. For US bikes, adding bar-ends is usually a good idea. For ASS bikes, bars sometimes intermix. We’ve heard of Easy Racer and bars mixing intemix. Tour 3 Easy bars are narrow and stiff. EZ-1 bars are wide and ergonomic with a more relaxed wrist position, Rans “C” are the closed loop (tiller) bars, “B” are the open bars that are the widest and good for broad shouldered riders. The new Rans “T” bars (Tallwindow/Cross bars) will fit Stratus/Nimbus models and offers an upright and forward/shift adjustment. A reason for a swap may be to get a bar/steep that has forward/up/adjustments. This is handy if you’re playing around with fairings, bodies or seat swaps.

Underseat steerers may want to look into bar-end extensions to bring the controls closer. Haluzak, Ryan and Turner all offer this. Side-stick steering such as the Peugeot already has them built in.

**HEADSETS:** Recumbents are hard on headsets, especially SWB models. Don’t skimp here, if you want a really good headset, remember the name Chris King. You should be able to feel the difference. Keep a watchful eye on your headset.

**HUBS:** Shimano and Sachs road and MTB are the best of the mid-range hubs. I don’t like to see imported “Soviet” hubs or mixed combos of outdated stuff on expensive recumbents. Bolt-ons are a no-no unless they are Sachs 3x7 or drum brakes. In the high end Phil Wood, Campagnolo and maybe the new Chris King are preferred.

**LIGHTS:** If you use lights, better discuss with your dealer or manufacturer prior to ordering your bike. The best mounts we’ve seen are from ATP Vision and Haluzak for SWB models and some monotube LWB recumbents. With other LWB bikes, your lights will mount to your ASS, however, you must be a bit creative when you direct your lights through a fairing.

For specific brands, we suggest you read your recumbent dealer/specialist and check out our Interbike report in RCN’93. We liked the G-Wiz and Niterider best.

**LOCKS:** I use a 6’ cable with a really heavy duty Bucfo shackle lock from Angletech, but I don’t live in a high-theft area. Kryptonite U-locks are very good as well.

**MIRRORS:** If you ride a ‘bent, you need a rearview mirror, plain and simple. Check with your manufacturer/dealer and find out what works best with your make/model. And then see what works best for you.

**MOTOR KITS:** The electric Zap sound is cool, and we’re going to get a test unit soon, though we’ve concerned about how long the juice will last on NW hills. We like the commitment to recumbency that Dimension Edge has made. You can turn your ‘bent into a mini-motorbike with one of their aux. power kits.

**PANNIERS:** The coolest on the road are the Lightning aero-panniers. I’ve heard they even give you a performance boost!! AngleTech, Rotator and Greenspeed also have panniers available.

**PEDALS:** Most recumbents in these days come with crampy pedals, this is because most enthusiasts eventually go to clipless. This is a very good idea for any low-LWB or SWB rider (it takes effort to hold your feet outward). It’s best to start using your clipless pedals until you’ve mastered the bike.

If you are a retrograder or just don’t want to spend the money, reconsider your bike choice toward a lower bottom bracket model, or get some PowerGrips (diagonal strap across pedal/low-tech clipless wobble), these work pretty well.

Low-BS LWB models are good candidates for simple platform MTB or BMX pedals. Try the plastic pedals in the junk bin.

**TIP:** The higher the BB (pedals) the more you will need clipless pedals.

**RACKS:** Blackburn MTN racks are the best for most uses, though custom builders are available. The B.O.B. trailer is great for hauling larger loads. Easy Racers (EZ-1) and Bike &I both have underseat panniers. Rans will install panniers at no charge as an option and they are working on a cross rack.

**RETROGRADER STUFF:** There are specialty fan groups for old road and MTB components such as classic Campy, thumbshifters, bar-ends, etc. Heck, even the old SunTour Power-Shifting are popular with the gouches. The best source for this stuff is the Rivendell newsletter, 0ph#10933-7304 and the Bicycle Trader, ph#415/564-2304. Local used bike shops, co-ops and dammengers are a good source of retro parts. If you don’t care about index shifting, components of the 70’s to mid-80’s were great. The final SunTour XC Pro parts were very high quality, as are Campy, Sugino ( Ritchey), Sachs and Shimano thumbshifters.

**SEAT BAGS:** Custom made seat bags by Haluzak, AngleTech/Rans and ATP. Lightning and Bike &I offer handlebar bags. Other bags: LWB ASS recumbents will take handlebar bags.

**SHIFTERS—MANY recumbents come with SRAM Grip Shift ST400 or 600. If you upgrade to a Grip Shift ES30 or FL30 shifter, you will notice much quicker shifts due to the 1/1 shifter ratio. Sachs has twist shifters that work great on recumbents. Beware that they do not have a “friction” (non-index) mode. We still like bar-ends and retro-thumb shifters if you can find them. The White Industries rotational shifters look great too.

Remember that decent index shifting requires frequent maintenance. This means YOU need to learn to do it or PAY somebody else who usually doesn’t care about it as much as you do. If you don’t care or you’re not a racer, why not consider an internally geared hub? Sachs makes 7-speeds, Shimano has the new Nexus (EZ-1 and Metro) and Sachs has the new Elan 12-speed internal hub (AngleTech Metro).

**TIRES:** A simple rule is skinny equals performance and fat equals comfort. Skinny tires are good for light/medium weight bikes/rider; fat tires are good for large/heavy riders or those who are riding less than ideal terrain or commuting/touring. There is a wide variety of tires available today. For 26” and 700c, go with a name-brand quality tire. We like inverted tread Avocet Fasgrips (up to 1.95”), Specialized and Continental (matching Grand Prix’s).

The best 16” front tire available is the ATP/Primo 349mm 16” x 1-3/8”. This is the tire your 16” wheel equipped bikes should have.

For 20” front wheels, you have more choices. The 406mm 20” offers a plethora of tires. The selections for 1997 are downright exciting. There is the tried and true Halo 1.5 slick, to the more rare (RCN favorite) Avocet Fasgrip 1.75 slick. A new breed of skinny 1.25” 406mm tires are available in the Continental Grand Prix (the best recumbent tire we’ve seen) and the Schwinn City Marathon which is an excellent choice. Both are performance tires that fit BMX sized rims. Now consider the many, many 406mm tires available for BMX bikes, from slacks, to semi-knobs to mountain bike tires. The taller 451mm 20” really only offers two useful choices, the 1-1/8” IRC Road/Lite EX and the Primo 1-3/8”. This 100 psi tire has been the mainstay of the performance LWB crowd for years. A new tire, the Primo 1-3/8” is a bit mellower and offers a smoother ride than the Road Lite. Be sure your front and rear tires match up. Vision is working on a new 406 20” Primo 1.5 tire. 1.7” Mouton tires are the most high performance small wheel you can get. They are rare and expensive.

**TRAILERS:** The unofficial recumbent-rider’s trailer is the B.O.B., Phil's new “Beast of Burden” one-wheeled cargo trailer. This incredible product will work on just about any recumbent. Custom spec'd and painted B.O.B.’s are available through AngleTech. If you need to tow kids, B.O.B. has a new kid-friendly trailer and the Burley Delite is refined, tried and true.

**TRAINERS:** We’ve tried riding our bikes indoors with minimal success (though trainers work great as ‘Bent-repair stands). Last November, we picked up a Schwinn AirFlyte “Back Draft” Recumbent test trainer for winter training. It’s heavy and clunky but works great. The seat is only fair (vinyl covered wood). Training indoors for an hour at a time is a pleasure on the Back Draft. It’s got intervals, hills, summit training modes with a five level twist-grip adjustment and other options on the simple and very useful built-in computer. I’ve tried Nordictracks, treadmills and stair-steps (the Back Draft is nearly a stair-steper). For off-season training, nothing can match the AirFlyte for refinement of form.

Our RCN Schwinn indoor recumbent specialist is Bob Cummins from The True Wheel in Hailey, ID. Let Bob fix you up with a Back Draft, ph#208/788-5433.
Recumbent Contacts, Parts and Supplies

The companies listed below are recumbent bike parts, kits, related suppliers and manufacturers. Most manufacturers will sell parts for bikes they build. For further dealer listings contact the individual mfr.’s.

Air'Tech
318 N. Hwy 67
PO Box 1893
Woodland Park, CO 80866-1893
Fax/Fax: 719/687-7475
Email: Anglerzoom@aol.com
Products: Recumbent/RCN dealer, custom spec, special needs, trikes, Euro-bents, parts list. Catalog $2.

Alternative Pedal Sports
7227 26th St.
Rancho Cucamonga, CA
Ph: 1-800-331-8556
Web: http://diskspace.com/aps
Products: Recumbent/RCN dealer.

Angle Lake Cycles
2084 Pacific Hwy. So.
Seattle, WA 98188
Ph: 206/878-7457
Products: Recumbent/RCN dealer.

ATP Vision-See Mfr. Listing

Backsaver
11400 N. Kendall Dr. Ste. 100
Miami, FL 33176
Ph: 1-800-815-8ACK
Products: Recumbent mfr. builds SWB/ASS $1300 bike.

Banana Boy Frames
Rick Oneh
14732 SE 39th St.
Bellevue, WA 98006
Ph: 206/746-7117
Products: Frame building, modifications and custom work.

BenTech
PO Box 198
McKean, PA 16426
Web: http://members.aol.com/dometry/bentech.htm
Products: SWB Recumbent building plans. Bike can be built for $100. CAD designed and fully illustrated

BikePro USA
3701 W. Roanoke
Phoenix, AZ 85009
Ph: 1-800-538-7381
Products: Custom made bike travel bags. Will build to fit.

BicycleE Evolution
985 Irving Rd
Eugene, OR 97404
Ph: 1-800-357-2773
Email: bsi@rio.com
Products: Simple utility bike trailer. Company is co-owned by the BikeFriday folks. Models from $189.

BikeE-See Manufacturer Listing

BikeWorks
12717 4th Ave. W.
Everett, WA 98204
Ph: 206/742-2600
Product: Recumbent/RCN dealer.

B.O.B. Trailers
3641 Sacramento Dr. #3
San Luis Obispo, CA 93401
Ph: 805/541-2554
Email: bobine@callumr.com
Products: BOB one-wheel cargo trailer and new child trailer.

Calhoun Cycle
1622 West Lake St.
Minneapolis, MN 55408
Ph: 612/627-8231
Email: bent4good@aol.com
Products: Recumbent/RCN dealer, rental and service.

Cambie Cycles
3317 Cambie St.
Vancouver, BC, Canada
Ph: 604/674-3616
Email: r-bent@portal.ca
Products: Recumbent dealer, parts, service and a new laminating kit.

Coventry Cycle Works
2025 SE Hawthorne
Portland, OR 97214
Ph: 503/230-7723
Products: Recumbent/RCN dealer.

C.M. Wasson Co.
423 Chasen St.
Palo Alto, CA 94301
Ph: 415/521-0808/Fax: 415/321-8375
Products: US distributor for Brompton folding bicycles and parts.

Crystal Eng.-See Mfr. Listings

CVC Recumbent Cycles
538 41st Ave.
San Francisco, CA 94121
Ph: 415/221-3601
Products: Recumbent dealer.

Dekker Service
5433 116 Ave. SE
Bellevue, WA 98006
Ph: 206/641-9639/Fax: 206/641-0151
Web: http://www.ekmico.com/-medekker
Products: Moulton, Pastley distributor, distributor for the PDQ SWB.

Dick's Recumbent Cycle
7685 Heritage Rd.
Erie, PA 16510
Ph: 1-814-949-3781 or 612/866-5524
Products: RCN/recumbent dealer.

Draffmaster
1300 NE 48th Ave. Ste. 1300
Hillsboro, OR 97124-5009
Ph: 503/693-1962/Fax: 503/693-1057
Products: Receiver hitch bike racks that will carry recumbent singles, LBW and tandem.

Easy Street Recumbents
4507 Red River St.
Austin, TX 78751-4022
Ph: 512/453-0438
Products: Recumbent dealer.

Eugene Cycle Sport
446 E. 13th Ave.
Eugene, OR 97401
Ph: 541/434-5562
Products: Recumbent/RCN dealer.

Eugene Bicycle Works
455 W. 1st Ave.
Eugene, OR 97401
Ph: 503/683-3597
Products: Co-op, rentals and classes.

Fairfield Bicycle Shop
1275 Oscar St.
Victoria BC, Canada V8V 2X6
Products: Recumbent/RCN dealer.

Falmouth Recumbents
PO Box 6781
Portland, ME 04101
Ph: 207/781-4637
Products: Recumbent/RCN dealer.

Flying Dutchman Cycles
PO Box 458
Sharpes, FL 32959
Ph: 352/632-6185
Products: Ks recumbent models.

Fools Crow Cycle
1046 Commercial Dr.
Tallahassee, FL 32310
Ph: 904/224-4767/904/877-6628
Products: Recumbent/RCN dealer, parts and service.

Freeman's Bicycle Repair
1227 Dodge Ave.
Oroville, CA 95965
Products: RCN dealer.

FutureCycles UK
Friends Yard, Forest Row
East Sussex RH18 5EE England
Ph: 0114 1432 822 847
Fax: 0114 1432 822 726
Email: sales@futurecycles.prestel.co.uk

Gaerlan, Inc.
838 Grant Ave., Ste. 410
San Francisco, CA 94108
Ph: 415/362-3866
Products: Homebuilder parts

Glas Tee-see Mfr. Listing

Green Gear Cycle
4055 W. 11th Ave., Ste. 14
Eugene, OR 97402
Ph: 1-800-777-0258
Products: Mfr. of Bike Friday 20” fenders and parts.

Greenspeed-See Mfr. Listings

Haluzak-See Manufacturer Listings

Hall's Recumbent Cycles
801 Meyer Lane
Redondo Beach, CA 90278-5213
Products: Recumbent rider clothes.

HED Cycling Products
1655 5th St.
White Bear Lake, MN
Ph: 612/653-0210/Fax: 612/653-3425
Products: HED wheels.

Hudyn Trikes
Tom McGuiff
PO Box 2244
Indianapolis, IN 46222
Products: Trike building, trike design and fairing building manuals.

Huffy-See ReBike Mfr. Listings

Human Powered Machines-See Mfr. Listings

Infinity-See Manufacturer Listings

Julian Bicycle Co.
PO Box 2036
Julian, CA 92036
Ph: 619/765-2200
Products: Recumbent/RCN dealer.

Lightning-See Mfr. Listings

Linear-See Manufacturer Listings

Loose Screws
12225 Hwy 66
Ashland, OR 97520
Products: Small parts.

Maxam-See Manufacturer Listings

Micromarine, Ltd.
55-57 Cape Road
Seddon, MA 01756-1117
Ph: 508/634-0205 or 1-800-451-8746
Fax: 508/634-0269
Web: http://www.Micromarine.com
Products: MicroCat recumbent pedal powered catamaran.

Mt. Airy Bicycle
4540 Old National Pike
Mt. Airy, MD 21771
Ph: 301/831-5151
Products: Full service recumbent and bicycle dealer, parts and service.

NewSport
17650 140th Ave. SE, Ste.B6-334
Greenspeed GTR 20/20
Touring Tricycle

Want Comfort, Safety, and Performance?

COMFORT

Reynolds 531 seat frame; laid back with open weave mesh, and shock cord lacing.

"The most comfortable "chair" in my house." - Orlando Weihe, Winnipeg, Canada.

"Finished the "Great Eastern 1,000" event with no sore rear end or pain anywhere." - The Greenspeed is definitely the machine to ride on long distance events." - Pete Gifford, North Clifton, England.

"It is fun to ride, incredibly comfortable and motorists give me more room than I used to get on my old bicycle." - Michael Payze, West Footscray, Australia.

SAFETY

"For me the greatest benefit was the stability and the ease of handling." - Dwayne Eagers, Canberra, Australia.

"The brakes are hooked up independently, but you can brake 100% on one side with no problem. It is certainly the most well-balanced trike I have tried. It seems to be impossible to lift up the rear wheel, and the turning radius is super tiny." - Robert Bryant, USA

"The Greenspeed is great. You ride like on rails even when it's very icy." - Andreas Falschner, Schwaz, Austria.

PERFORMANCE

Low center of gravity, low frontal area, centre point steering.

"The sudden acceleration, light and positive steering, fast cornering and powerful braking are an experience not to be missed." - Jim McGurn, "Encyclopedia" 1993/94, U.K.

"The trike is beautiful. The design of your trike is the best I've seen. Boy is this thing fast! And a blast to ride! I have never experienced a trike with this good handling and super positive and light steering. The steering/...front end geometry is fantastic, the best I've tried." - Robert Bryant, USA

"Universally there was great acclamation both for the performance and the construction." - Joe Blake, Perth, Australia.

ENGINEERING

Cro Mo 4130 main frame, 80 ton steel axles, and sealed wheel bearings.

"As for the craftsmanship, the frame tubes are excellent, some are hand优化ized on only one end. The boom is exquisite. The frame with integral triangulated seat (as part of the frame) is a great design. It's stiff, but very light at the same time. The stiffness and strength of the seat, handle bars and all systems together seem to offer the durability (and gorgeous simplicity) that is missing from the other trikes." - Robert Bryant, USA

"What a marvelous life it was! Fourteen months, 206 riding days, 15,085kms. That was our ride around Australia. The Greenspeeds did not let us down once." - Val Wright & Eric Butcher, Ocean Grove, Australia.

FUN


"I will check the alignment but I think it (tyre wear) has been due to my inability to control myself on those corners! It is the best toy I have acquired." - Dr. Lincoln Brett, Perth, Western Australia.

"The feeling of freedom and enjoyment I get when I am riding is amazing." - Philomena Macdonald, Box Hill, Australia.

GREENSPEED RECUMBENTS

69 Mountain Gate Drive, Ferntree Gully, VIC 3156, Australia.

Phone +61 3 9758 5541, Fax +61 3 9752 4115 E-mail greenshp@ozemail.com.au

WEB SITE http://www.ihpva.org/com/Greenspeed/
Welcome to world's 2nd CD-ROM about HPVs. This time we tried to make it all even better.

The new CD-ROM has the following features:

- Full ISO 9660 compatibility: disk readable by all computer systems. PC, Mac, "ix, ...
- Universal HTML desktop interface. Allows easy navigating through all topics of the CD-ROM, with virtual every decent computer system.
- WWW-HPV-homepages - no internet access required.
- More than 1000 pictures of all kind of HPVs. Enhanced quality. Mostly converted from PhotoCD or single pass scanned & edited.
- Plus plus plus

Don't miss out on this wonderful HPV bonanza — available in April 97 for $25 + S/H

For further information you can contact Oliver Zechlin at phone 0163 @ fen.baynet.de

Available from
People Movers
Tel. 714.633.3663
OREGON RECUMBENT HEADQUARTERS

Bringing Service Expertise to Recumbents

- ATP Vision
- HALUZAK
- Linear

Coventry Cycle Works
2025 SE Hawthorne
Portland, OR 97214
503/230-7723
Buying A Used Recumbent Bicycle

Have you ever considered purchasing a used recumbent bicycle? How about buying one through the RCN classifieds long distance? Recumbent bicycles can be expensive and there are many reasons to consider a used bike. Below are some ideas to help you when considering buying a used bike.

SAVINGS
It is possible to save 25%, 30% or even 50% off the cost of a new recumbent by buying used.

The more expensive bikes initially depreciate more, which means more savings to you, and options take a bigger hit than the bike does. The resale on XTR and Ti parts upgrades will not be good.

USED BIKE PRICING
Expect a mint condition low-milage highly desirable model will depreciate 20-25% in the first year. Models that are not as popular will drop even more—up to a 50% initial drop. The more miles and worse condition, the value can plummet to possibly 50%. I've seen this happen on a one-year-old cross-country tourer. You will pay more for a used bike from the manufacturer or specializing dealer. Be sure to ask about service/repairs done and possibly warranty.

Some models hold their value better than others: Lightning P-38, Ryan Vanguard, Easy Racers and other long-established designs. We've seen well-used bikes selling for over $1000 and they usually command a turn-up and some updating.

The market can be saturated with a given model. 1995 Rockets were soft on the market because the price was increased ninety days after bike introduction. Dealers bought up as many as they could. There may be some still out there.

SAFETY
We are only aware of one case of an RCN classifieds sale problem in seven years, it was a complex deal and a planned ripoff from the start. One way to hedge your bet is through an escrow service like the service that People Movers offers. They hold the check until the bike is delivered and everything is OK. This is the safe way to buy a bike mail-order. Another way to do it is make a down payment and then have the bike shipped COD (cash on delivery) specifying a cashiers check for payment. The only problem with this is that you don't always know what is in the box until it's opened—and after the dealer has left with your check.

Be sure to wrap and pack carefully, insure each box and COD each package separately for its value. SWB and some CLWB models will ship in standard bike boxes. Some manufacturers will sell you new boxes and ship them to you fast, though this could cost you up to $50.

REPAIRS
Keep in mind that a well-used bike needs an overhaul once per season (even though most don't get them). This could set you back $100 from a bike shop. Add a new chain ($50) and a new freewheel/cassette ($50). A cost comparison to an equivalent new model is essential.

UPGRADES
The bikes that are really dialed-in evolve over the years and upgrades can be costly. The Primo is a perfect example. In 1995, you could often find used Fiestas for around $1200, but the suspension, brakes, handlebar and idler upgrades were costly. Many purchasers of venerable used Easy Racers may want to upgrade from the old vinyl covered seat, to the new Cobus or even a Rans seat. Keep in mind that this could cost you upwards of $300. Is it still a good deal? Model update costs need to be factored in as well.

COMPONENTS
Specs can vary, especially from small manufacturers, so ask what equipment the bike has on it. Is it a stock machine, built from a frame (extra caution) or a custom spec like Angletech (very desirable)? Suntour equipped models are not as desirable as Shimano or Sachs. Do not even consider anything with heavy/hot steel components unless the frame alone is worth the price.

WARRANTIES
Consider the fact that you won't have a warranty. This even a stronger consideration if you are buying a high-performance, ultra-lightweight or aluminum/composite framed bike. Some manufacturers have been known to offer affordable repairs to the original owner even after the warranty period is up.

DEALS
ATP Vision: A lot of Vision R-40's have been sold. We've seen two year old dealer demos going for $650! These may have Suntour components or low psi 16" tires, but they are sound bikes and good deals.

BikeE: This bike was completely revamped for the 1996 model year. The '95 had a different main-frame extension, seat and fork. Some even had a front derailleur. It's possible to find a used BikeE for less than $300, though frame, fork and seat parts will be difficult to find.

Linear: A lot of Linear's have been sold to recumbent newbies over the years. This has to be the king of the recumbent trade-in. It's possible to find a one-year-old Linear for $800 and sometimes as low as $650, nearly half what it cost new. It's a fine bike, but has been a bit soft on the market. This won't get any better in 1997 with the unveiling of the new CLWB/EvoGlide at $999/$1059, which is a great buy and possibly a better bike as long as you don't need a folder.

R&B: You can get a new "Beach Cruiser" model for $999! It may be possible to find used, unboxed frame-kits or dealer box sales at wholesale prices. R&B offers great deals direct to the customer and the "new" prices are tough to beat. Previous models used lower grade components.

Turner: Until 1996, Turner specialized in 10-speed conversions and frame-kits. They also had the LB-E square tube model that sold new for $599 complete. These can be good deals, but try-before-you-buy. Some early LB-90's had problematic derailleurs post positioning and idler mounts, though they are pretty durable bikes. New models and parts incompatibilities run rampant in frame-kit build-ups.

Hypercycle: This is the forerunner to the Turner and S&B. The imported frames were mild-steel (silver/grey) and prone to breakage. The last California CrMo versions are rare and stronger. Some were early Laid-Back models. Hypercycles can be found at garage sales for $50-$200.

Infinity: In 1993, a new Infinity was only $499 for a 12-speed, add $100 for 18 speed. I've seen them available used for as low as $200. Used Infinity's come up for sale in the $300-$600 range even today. They are good no-frills bikes. Be aware that the early models suffered from occasional frame failures, though Ace Tool Inc. (builder) fixes them affordably. Many Infinity recumbents are used for long-distance touring. The aluminum frame offers a smooth and comfortable ride.

Easy Racers: I've seen Tour Easy with 15,000 mile on them for $750 as well as like new six or seven year old models for $1200, neither of which is good deal considering what it would cost to update them. This good news is that the Tour Easy really holds its value well, maybe the best of all recumbents. The Rans Stratus is a very similar bike, and may be less expensive on the used market. EZ-1's are a good buy, but don't hold their value as well.

R&B: Good deals can be found on new old-stock R&B models. R&B has been in business so long that there are many Stratus and Nimbus models around. Keep in mind that the new seat is much improved over the old "bucket" and as an upgrade will cost you. The seat Q.R.'s that went into production in mid-96 is superior to previous models. Updating requires redrilling the Q.R. hole. The square tube Rockets should be an excellent buy on the used market.

New-Bike-Aholics: There are enthusiasts who buy a new bike every year or two. Their old bikes are usually perfect, dated high-end versions and the deals are good. Look for deals like this in RCN.

RCN: Every Spring we have a list of bikes for sale. If you'd like a copy of the list, please send an SAS (seal in the mail) or email us. These are test bikes, trades, or barters. Act fast, these bikes are offered to dealers as well.

Obscure brands: Lightning Tullwind: neat bikes built by Gene Lint, yet newbies have never heard of them. We've seen one year old low-mileage bikes sell for $750, DH: We've seen a low mileage, mint DH5000 with custom options sell for half what it cost new—and it took a long time to sell it! Consider how popular the bike is when you buy. You may get an excellent bargain when you buy, but lose your shirt on resale. The target models are those from low-key regional builders.

SELLING A 'BENT: Bike values can vary by up to 100% by season. Bikes are soft in the fall and increase in the Spring. April-June are hot months to sell your bike. October-January are the months to buy.

Keep in mind that if you sell your bike to a dealer, you may only get 60%-70% of its retail value. If you consign, expect commissions of 25%-35% to the selling dealer. A trade-in may be worth looking into.

Happy bargain hunting and Viva Recumbency! \^
**Recumbent Ratings 1997**

The ATP Double Vision on a dock—photo by Greg Bower

The Rans Tailwind—photo courtesy of Rans

The below BentBob Ratings are derived from riding and testing of the bikes and the editorial opinion of the RCN publisher. Ratings: 1-Poor, 2-Fair, 3-Good/median/average, 4-Very Good, 5-Excellent. Some items may be listed as both a positive and negative depending on your perspective. Keep in mind that all models have strong and weak points. We hope this information helps you to form your own opinions and we recommend that you test ride as many bikes as you can.

**ATP Vision Metro**
BentBob Rating: 3.7

- Very good stability
- Rear suspension
- Round tube CroMo frame/fork
- Exc: steering geometry
- User friendly entry level bike
- Excellent bargain/first for SSS
- Great SSS handlebars
- Best "compact" value
- Nexus 7-speed or Sachs 3x7 21-speed
- Great Vision seat with seat cap
- Top-4 manufacturer (overall sales)

- Seat recline angle is fixed
- Heavily loaded rear wheel
- Not for racers
- Lackluster powdercoast finish
- Tall riders should consider XL frame
- Place your order now (wait list!)

**ATP Vision R-40 LWB**
BentBob Rating: 3.5

- Versatile modular design (LWB, SWB, USS, ASS, 16" or 20")
- Great seat/cut away sides
- Flat footed stops (most riders)
- Quick release seat/recline adjust
- Great value
- Lifetime frame warranty
- Optional fairing and rain poncho
- Affordable, dependable tourer
- Great Vision seat
- Great accessory line
- Top-4 manufacturer (overall sales)
- Great dealer base

- A Quick handling LWB
- USS = longer learning curve
- USS is wide
- LWB monorail frame flexible
- Not the best high speed choice
- Not for racers
- Seat horn bothers some riders
- ATP USS better than ASS

**ATP Vision R-40 SWB**
BentBob Rating: 3.6

- Minimal heel interference
- 16" or 20" front wheels
- Versatile modular design (LWB, SWB, USS, ASS, 16" or 20")
- Great seat/cut away sides
- Flat footed stops
- Quick release seat slide adjust
- Great value

- Optional fairing and rain poncho
- Very lightweight frame/bike
- Great accessory line
- Great dealer base
- Top-4 manufacturer (overall sales)

- A Quick handling SWB
- Wheelbase is short (36"-38"
- Seat horn bothers some riders
- ATP USS better than ASS
- Frames flexible under load
- Not for racers

**Easy Racer Tour Easy**
BentBob Rating: 4.0

- Very dialed/tried and true
- Great tour/performing LWB
- Excellent high speed stability
- Excellent road manners
- Quality build/Fast Freddie welds 'em
- Custom fork/steering geometry
- Hi-quality triangulated/stiff frame
- Performance bike with race records
- User-friendly bike
- Strong seat and mounts/excellent power generation
- Optional Super Zippor works best on this design
- Optional Rans seat

**ATP Vision L.P.S.**
BentBob Rating: 4.0/2

- A very dialed tandem
- Minimal heel interference
- USS Only
- Great seat/cut away sides
- Quick release seat/recline adjust
- Exc: for couples or parent/child dias
- Lifetime frame warranty
- Great Q/R/adjust seat
- Great accessory line
- Great dealer base

- Very laid back captain position
- Control reach may be issue
- L.P.S. can cause drivetrain oscillation
- Rider sits above front wheel
- Seat horn that bothers some riders
- Long monorail frames flexible
- Magura & drag brake are upgrades
- Sicker adjustments are a pain
- L.P.S. comes with 170mm cranks

**Bike B**
BentBob Rating: 3.5

- Quick steering
- Custom fork/steering geometry
- User friendly city commuter
- Excellent accessories and fairing
- Lifetime frame warranty
- Four distinct models for 1997
- Great dealer base
- Top-4 manufacturer (overall sales)

- Bolt-on mono-stays
- No triangulation
- 3rd generation (previous outdated)
- High upright riding position
- Narrow handlebars (XS only)
- Small seat base/back lacks support
- Heavily loaded rear wheel

**Easy Racers GRR Black Gold**
BentBob Rating: 4.8

- Best performance LWB U can buy
- Best hi-speed stability/road manners
- Custom fork/steering geometry
- Experienced mfr/proven design
- Performance bike with race records
- Excellent quality stiff frame/yet soft
- Exc. LWB climber
- Strong seat and mounts/excellent power generation
- Optional Carbon Fiber Fairing/body sock
- Improved components for '97
Easy Racer EZ-1
BentBOB Rating: 3.5
- Very good stability
- Excellent road manners
- Quality build/Fast Freddie welds 'em
- Custom fork/steering geometry
- User friendly entry level bike
- Excellent bargain/most fun for $$$
- Great ASS handlebars
- New optional wider seat base
- Optional Super Zipper
- New lower price for '97

Chili
- Larger diameter main tube for '97
- Lightweight & low for shorter riders
- Lifetime frame warranty
- A very slow handling LWB
- USB longer learning curve
- LWB monotype frame flexes
- Not the best for hi-speed stability
- Poor documentation (no owners manual or assembly inst.)
- Not for racers

Lightning P-38/X-Campy/F-40
BentBOB Rating: 4.0/4.0/4.0
- Excellent high speed stability
- Excellent road manners
- Cosmot fillet brazed frame/tubes
- Custom fork/steering geometry
- Very comfortable sling/mesh seat
- Performance bike with race records
- Lightweight bike
- "Closed" riding position (upright seat/high BB/more adjustable for '97)
- Flat feet at stops
- Cockpit-like fighter plane feel
- Excellent accessories/F-40 upgrade
- Ecc acceleration and hill climbing
- Optional Lightning wheel discs
- Optional 17" AM/20" front wheel
- Dual pivot brakes
- New seat recline adjustment
- Front suspension option
- Proven design

Grenspeed GTR20/20 Trike
BentBOB Rating: 4.2
- A very strong and durable trike
- Best trike steering geometry
- Best trike handling
- Bungee laced seat
- Components are dialed/Sachs 3x7
- Reynolds 531 steel parts
- Lots of custom options
- Fairing in the works
- New opt. 40° more upright seat
- This trike is LOW!
- A very reclined seat (30°)
- Seat is narrow
- Long wait for delivery
- Virtually no US warranty
- MIG welded frame

Haluzak Hybrid-Race
BentBOB Rating: 3.9
- Stable handling USS SWB
- Monobeam frame for comfort
- Versatile multi-use bike
- Ergonomic bar-end US$8
- Sling/mesh seat
- Very good components/drivetrain
- Exc. idler/chain line/quiet
- Excellent accessories
- ASS now available
- Lifetime frame warranty

Infinity
BentBOB Rating: 3.0
- Aluminum frame for comfort
- Very good steering geometry
- VG stability/quiet quick feeling
- Simple seat slider/cable steering
- Low seat height

Haluzak Storm LWB
BentBOB Rating: 3.0
- LWB monotype frame flexes/may affect performance
- Rear stays flex
- Foam seat base can bottom out

Haluzak Horizon
BentBOB Rating: 3.7
- Seat lumber curve is odd
- Low speed stability/long bike
- Heavy/slower climber
- Component specs need a revamp
- "Closed" or "open" c.g.
- Seat squeeak/added maint.
- ASS not recommended
- Not for racers

Recumbent Cyclist News #38
Rans Rocket/Saturn V
BentBOB Rating: 3.9/4.2
- Very good SWB stability
- Excellent aircraft quality build
- Top-4 manufacturer (overall sales)
- Exc. entry level bike
- New Round Cro-Mo main tube
- Excellent climber
- Dual 20's (wheels) tough/compact
- Optional tilt-forward ASS
- Excellent ergonomic mesh/foam base seat
- New wider seat-base, foam and cover
- Excellent value
- Lifetime frame warranty
- Excellent powdercoat paint (Saturn V wet-spray vertical split paint)
- Now with Sachs Sefid chain
- Lifetime frame warranty
- I.C. (ind. coast) now an option
- Now with Sachs Sedis chain

Rans Stratus/AT GL63
BentBOB Rating: 3.7/4.1
- VG hi-speed stability/road manners
- Excellent aircraft quality build
- Top-4 manufacturer (overall sales)
- Experienced mfr/proven design
- User friendly model
- Exc. quality stiff frame/smooth ride
- New wider seat-base, foam and cover
- 3-handlebar choices (A, B, and D)
- Standard Rans fairing
- Lifetime frame warranty
- Now with Sachs Sedis chain
- Excellent wet-spray paint
- LWB is long/hard to store/haul
- Low speed stability/trimming
- "C" (closed loop) bars flex and tiltер steer
- Seat does not work as well on low-BB models
- Seat is in a more upright position (will not recline as far as others)
- Handlebars flex

Rans Screamer
BentBOB Rating: 4.2
- A very diated tandem
- Best performance tandem choice
- Best ASS
- Great seat/foot foot steps
- New wider seat-base, foam and cover
- Top-4 manufacturer (overall sales)
- Quick release seat/trimmer adjust.
- Tough triangled frame
- Seat adjustments are Q.R. and EZ
- Captain's cockpit is excellent
- Stoker rides in LWB/low-BB pos.
- Magura & drag brake are standard
- LWB is long/hard to store/haul
- Low speed stability
- Very dramatic tiler steer/wheel flop
- LWB monocoque frame flexes
- Short five year warranty
- Hose clamp seat adjusters
- Seat mount lacks a horizontal plane
- Consider Pursuit fairing "Kevlar" upgrade

Richard Schrader's Angletech Tri-Speeder (foot-pedal only version of the Quadruped) built in Colorado, USA—photo courtesy of Angletech

Ryan Vanguard
BentBOB Rating: 4.0
- Great long-distance touring LWB
- Excellent stability/road manners
- Quality build
- Excellent steering geometry
- User friendly bike
- Exc. quality triangulated stiff frame
- Excellent bar-end controls
- Improved front braking/cable routing
- Experienced mfr/proven design
- Updated frame geometry for '97
- Lifetime frame warranty
- Complex steering setup
- Seat horn that bothers some riders
- Angletech sells Rans seat to fit
- LWB is long/hard to store/haul
- High/forward c.g.
- Not for racers

Windcheetah trike
BentBOB Rating: 3.8
- Legendary trike
- Best "road feel" of any trike
- Fiberglass/shell seat
- Kinetic art
- Joy stick controls
- Fastest trike/race records
- New touring options
- Relaying too much on past "legend"
- Past durability/bonding problems
- Long wait for delivery
- Poor N. American representation
- Hard to get info on
- Bonded frame
- Replacement parts???
- Components spec is uncertain
- Very, very expensive
ATP VISION
WHAT DO WE KNOW: When is the pabble stock offering? The Metro is the best "compact" we've seen. The SWB models are cool, and we like the ultra-light R-64 and R-65, but why doesn't ATP promote the LWB models? In our local Seattle area rider group, almost every Vision owner rides in LWB mode. There are even a few "BT's" (LWB/ASS). The LWB Visions are quick handling (Vision trademark?), like their SWB counterparts, but they are the best deal in LWB US$ tourers, though expect some frame flex.

ANGELETCH
WHAT DO WE KNOW: Angeletch now manufactures the Quadruped, Tri-Spreader and Altitude. The Quadruped is a Gary Hale designed hand/foot powered trike that Richard Rau (BikeE) refined over the years. It was taken out of production two years ago, and is now back, built under license by Angeletch in Colorado. I had the opportunity to ride a Quadruped for a week or two years ago and it was the most invigorating and multi-faceted recumbent experience that I've had. Don't get the idea that the arm power will make you go faster. Although invigorating, the "Quad" is not as fast as your V-Rex or Easy Racer. The Tri-Spreader is a foot-powered version of the Quadruped. The Altitude is a Kelvin Clark Boulder Bicycle full suspension dual 20" wheel dream bike. We're expecting this bike will have all of the finest points from the Presto, V-Rex, Rocket and Boulder suspension mountain bikes. The standard frame is CroMo though it's available with an optional aluminum or T frame. Angeletch has become North America's new Euro-connection. Available are the reversed fork Strenglider, the new bonded aluminum compact performance Thorpe Mako, and the German suspended Ostrad. Ostrad also builds a SWB ASS, LWB and back to back tandem (not available in the USA). The Ostrad's have neat suspended forks.

BIKE E
WHAT DO WE KNOW: Four new distinct models for '97. A new fork and wheel options make the BikeE even more refined. We'd like to see a wider seat base and a stiffer, more supportive seat back. BikeE's are readily available for '97. The updates make this the best BikeE to date...until the rumored "no comment" sprung model is unveiled.

CRYSTAL ENGINEERING
WHAT DO WE KNOW: We test rode my first Trice when it was right off the boat in Portland, Oregon in 1990. I was enamored with this snazzy English pedal-powered sports car. Our RCN#16 Trice test issue has been popular, though the review wasn't totally positive. The Trice was just $1500 back then. For 1997 it's $3500! We received a pre-production prototype last summer that was improved, but still had a few bugs. A new '97 Trice originally due here in January has been postponed by slow production. Trice are available from a few US dealers. The Speed Ross is available UK-direct.

DOPPLER
WHAT DO WE KNOW: Doppler is a small innovative on-again, off-again recumbent manufacturer from Ontario, Canada. The emphasis is on the new compact "Beamme." We have never been able to see or ride a Doppler bike, ever!

EASY RACER
WHAT DO WE KNOW: A new wide seat and lower price for the EZ-1, but can it withstand the "compact" heat? There are new Tour Easy S9 (SuperSport) and E9 (Expedition) models. There's still a waiting list at Easy Racers. The Black Gold has become a hot seller, and rightfully so, it's a fast LWB. The updated Rans seat option looks great. Still the king of the LWB scene. No LWB handles as well or looks as cool as an Easy Racer. Lord Gardner reigns supreme...our GRR Black Gold test bike is on order.

GREENSPEED
WHAT DO WE KNOW: You should be very careful in choosing your Greenspeed trike so as to get the size, options and special features just for you. Communications across the world can be difficult, although Inn is very close via fax/email. Greenspeed gets our highest trike builder kudos for a job well done. We did get a complaint from a reader who got the X-seam messed up and his GS didn't fit. The message here is CAREFULLY take your measurements. Roundtrip/round the world shipping is expensive.

HALUZAK
WHAT DO WE KNOW: Haluzak will need to work overtime competing with the likes of Rans and ATP Vision. Some of the bikes have taken spec upgrades this year. We hope to test a Travers. The "Storm" doesn't seem to be quite dined in, though the bike has a larger main tube diameter this year. Haluzak is in the process of upgrading Horizon brakes with a cantilever/V-brake combo. They do not use compressionless index housing for their shifters. Haluzak customers love these smooth/durable-handling touring models.

INFINITY RECCUMENTS
WHAT DO WE KNOW: The company was sold. Bikes will now be built by Ace Tool and sold through Dr Bike in Scottsdale, AZ. Expect seat, spec and price changes this year.

LINEAR
WHAT DO WE KNOW: Linear still offers the only "true" folding recumbent. 1997 specs seem to be subject to change with the Big Dog brakes out of production. The Bull Dog replacement is not strong enough. We much prefer the 26" rear wheel. Sonic and tandem are passe' offerings and have an odd very steep head angle (these get thumbs down from several RCN crew members). We have yet to see even a picture of the new square steel Nexus-7 Linear and are anxious. The new Linear CLWB/Wheel EcoGlide may be the best Linear ever. It has a 20"/16" wheel combo and the same aluminum extrusion with the stays shortened and TIG welded on. The bike is significantly shorter, lower and more user-friendly. The spec was done by Wheel and Linear and, in many ways, is better than the upright Folder. The new bike is equipped with a Sachs 3x7 which deletes the derailleur post from the front end. This is another hot model for the entry level/compact market segment.

LIGHTNING
WHAT DO WE KNOW: Lightning's continue to be the most high-performance SWB recumbents available. Owners love them, they always rank high in our reader surveys. The specs are better across the board this year, with the dual pivot brakes, and "X" and "Cummy" edi...
s. Don't look for competitive pricing, you pay for the proven performance. We haven't had a good luck with our past test bikes. We haven't had a P-38 since '93, though we want to try again sometime.

PASHLEY
WHAT-DO-WE-KNOW: The PDQ SWB looks surprisingly like a successful SWB model from Recumbents Past. Gee, we did hear a rumor about this......last fall...... Nah, it couldn't be...... well? The PDQ is built in the UK by Pashley who builds Moule/Leaf and Rover APS's as well as many other interesting pedal powered vehicles. Anyway, this one makes me smile.

RANS
WHAT-DO-WE-KNOW: 1997 is a year of Rans near perfection and BESTS. The Flip-It ASS is the best around. The seat has been the most comfortable of all RCN test bikes this year. There is a wider base, new thicker foam and a new stretchable fabric base cover that makes the seat feel even better. Component spec upgrades throughout, though where you don't find them, you will see new round tube frames replacing the square tubes (Rockett and Tailwind). Rans decided at the last minute to revamp the dual 20’ CLWB Tailwind with a CroMo round main tube! This is a worthy contender. The V-Rex continues to be the best-seller at Rans. It may be the best All-Around SWB. The Angletech versions are just the icing on the cake. The Rans hybrid seat works best on medium-high bottom bracket models. There can be some rubber (back of the leg on the seat edge) on low BB models. Consider adding a seat Q.R. or nut plate bolt to your onboard emergency spare parts kit.

REBIKE
WHAT-DO-WE-KNOW: ReBike has kept a low-profile over the past 6-8 months. Recently, ReBike's Kathie Skewes called to say that her company had been purchased by Huffy Bicycles in Ohio! This is big news. Look for lower pricing and improved availability very soon.

RIDE-RITE
WHAT-DO-WE-KNOW: This is Clive Buckler's Advanta/Polo/Ride-Rite “upright” recumbent. Clive has rewritten the design books. It's high and surprisingly easy to ride. The performance and aerodynamics leave something to be desired, though they already know that. The bikes have excellent components and the frames are built by Steve Delaire (Rotator). We'd love an article on one of these.

ROTATOR
WHAT-DO-WE-KNOW: Steve Delaire has moved into a new shop space and has been very busy. He has done preproduction work for Lightning, Ride-Rite and has been the Gold Rush Repliion frame-builder. He is a talented builder/designer who specializes in high performance. The Coaster is a square tube one or seven-speed version of the Pursuit. The Interceptor kit is a Pursuit option for '97.

RYAN
WHAT-DO-WE-KNOW: Still the best LWB USS tourer. This bike has a laid back seat and a low BB. Some riders don't like the seat form. Some say performance suffers, though we had one report that a reader was a faster bike and better hill climber than his V-Rex, which goes to show that every rider is different. Ryan recumbents are sold manufacturer-direct only. You will find custom-spec dealers willing to build 3x7 equipped and Deore XT Ryan's from a frame kit. There is an upgraded frame geometry/BB position for '97.

S & B
WHAT-DO-WE-KNOW: Jack Baker told us recently that 75% of his sales come from RCN readers. I was shocked, amazed and happy to hear that. I was also concerned because we've never done an in-house review of the S & B. So, we've ordered a Super Deluxe Beach Cruiser. This has to be the best SWB deal in this mag. We love S & B at prices, the fabrication is great, though we'll withhold judgment on the ultra-laid-back geometry until the test comes out. Every bike in the S & B line is a bargain and the craftsmanship is pretty nice as well. Be forewarned that S & B has a menu-pricing schedule. The base price is low, and there are many add-ons from CroMo, to 14-21 speeds, 3x7 hubs, alloy wheels (opt. on some models) to opt. dual drum brakes.

TREK
WHAT-DO-WE-KNOW: We heard that a Trek top-gun told a midwest bike dealer that there WOULD BE a Trek recumbent in 1998 (at Interbike??). The speculation is that it would be a $500+ “compact” style recumbent for the entry level market. An industry insider told us “No Way” will Trek enter this market. Tell Timm/Warner and Sony that RCN is for sale.

TRICUMBENT
WHAT-DO-WE-KNOW: The Raven! This is the unique FWD RWS leaning trike from Wisconsin. A dozen or two have been sold in the last year to owners who really like them. Our experience with the Raven is about 20 minutes in the People Movers parking lot. It's a great parking lot scrambler, though to turn it sharp, one side stick must come way up, the other nearly drags on the ground. The turning radius is very wide. The Raven has decent components and a comfortable seat and both brakes squeeze on the front wheel. After several attempts to get a test drive, we've about given up.

TURNER T-LITE
WHAT-DO-WE-KNOW: We did a road test with Milt Turner and one of his Laid Back '90's in the Rose Bowl parking lot back in 1990 (one of our first tests). He is an associate of S & B's "Smitty" and their recumbent interest goes way, way back (Hyperecycle). Nobody in this business has come so far refining their product as Milt Turner. The T-Lite represents the BEST Turner recumbent to date. Turner even stopped producing the more expensive 2000 because the T-Lite is a better bike. Watch for a review this Spring.

MAXAM
WHAT-DO-WE-KNOW: Maxam is a small company in Ohio that builds LWB and CLWB entry level ASS bikes. Maxam's past woes are basically due to trying to produce a low-priced recumbent in a low-volume market. John and Chris Day are committed to the cause, yet noticeably frustrated. 1997 could be the year for Maxam. The bike itself is a great entry level bargain, maybe a "Poor Man's Tour Easy." The Maxam uses mostly OK components in a triangulated mild-steel frame with a sliding mesh seat that adjusts with two twist-knobs. We don't know what "Beoga" components are, but they're not Shimano, SunTour or Sachs. If you get some, consider they may have a shorter-than-usual lifespan. If the complete bike prices are this low, imagine what the frame prices are. We'll have Revolve and Beach bikes to test this Spring.

PRACTICAL INNOVATIONS
WHAT-DO-WE-KNOW: The Zephyr and Thunderbolt are almost as realistic as Rocky Horror. Both companies are out of business. Mail was returned with no forwarding address, though there was a web-site with freebie (??) Thunderbolt plans and we did hear of at least one person who had seen, ridden and bought a T-Bolt.

PEUGEOT
WHAT-DO-WE-KNOW: We finally got info, though nearly too late for the guide. They have reportedly sold 200 of the T-105's in Canada over the past year, though we only know of one US dealer (Recumbent Models).
The rumor from the '96 CABDA show is that we'll get a test bike, though nobody has told us. We'd like to test this new bike. The upcoming steel models look inviting.

**LINEAR CLWB/EVOLVE**

**WHAT-DO-WE-KNOW:** This bike was designed by Steve Hansel of Linear and the folks at Wheel and Sprocket Bike Shop in Hales Corner, Wisconsin. This compact LWB USS (ASS soon?) bike uses a standard Linear L-1 frame, a shortened rear stay section (stiffer), welded to the main beam, a Sachs 3x7 21-speed, and a 20/16 wheel combo. This is the finest new model we've seen from Linear since the original folding version.

**WINDCHEETAH:**

**WHAT-DO-WE-KNOW:** The saga of the legendary Burrows Windcheetaah could be made into a movie of the week. The original trikes were sold as a kit, 40+ hours of machining were needed to make aluminum tubes to custom casts to create a trike frame. Burrows then farmed out production to various companies. In 1995, the "Speedy" was imported by Linear, Mfg., Inc. Problems developed when anodized tubes would not bond to the aluminum casings. There were also improper tolerances. Linear ceased distribution. At the 1995 Interbike show, HED wheels was handing out Speedy brochures and considering becoming the US distributor, but that never happened. In total surprise, we found Seat-Of-The-Pants (current builder) at Interbike 1996. We were given a careful explanation of what happened and how things had been corrected. Since September, we've heard grand plans from the new Canadian distributor, 15 new upgrades, involvement with Lotus cars, US manufacturing, big bucks, fully faired commuter bodies, involvement by Richard Branson (Virgin Records/Virgin Atlantic/travel/pilot), and an RCN test trike, though we're losing faith in seeing a test trike anytime soon.

Throughout all of this, we couldn't get complete specs, though there are several US dealers who would be happy to help customers with a new Windcheetaah purchase.

**WIZWHEELZ**

**WHAT-DO-WE-KNOW:** This monobeam/monostay trike is built in Wisconsin and uses a RANS seat. The non-triangulated stays are of minor concern considering the side-to-side torque a trike can develop, and our past trike experiences. An initial dealer report was good (Recumbent Sea), and hey, it's built in the USA and costs half what the other tribes do. We do not have a test scheduled as of yet. It seems they have loaned the "test unit" out to another periodical. We hope for a 1997 test bike. If you'd like to see an RCN test, drop WizWheelz a line.

---

**ENTER A NEW DIMENSION IN RECUMBENT TECHNOLOGY**

**THE AEROLEOPE FULL BODY FAIRING**

- Increase your speed by up to 50%
- Carbon Fiber seats 1.5 lbs.
- Carbon Fiber chassis 7 lbs.
- Available complete with cycle or (body only) fitted to your cycle
- Dealer inquiries welcome
- We can ship anywhere in the world

**GLAS-TEC FABRICATING**

520.889.0181/FAX 746.9440
GOING OUT OF BUSINESS SALE

After five years we are calling it quits. Recurrent components, tools and more. Send SASE for a complete inventory list. Call for specifics. Lots of great stuff still available plus we have added more new items to the list. 1 Meridian and 1 Meridian frame set, Custom Maxam Revellie, Gas booster engine kit, Control Tech cantis, Kenda 20" HP, and much more at closeout prices. Send email request to: BJStass@worldnet.att.net or send SASE to: Introspect Cycle/Bicycle Republic, P.O. Box 418364, Sacramento, CA. 95841. Call: 916/331-9317.

1997 EVENTS
LOW DOWN & LAID BACK RIDE
April 6, May 3, June 7 (first Sat. m.o.) Pacific 50s miles RT to the Bk. Diamond Bakery. (Uk. Meridian Park 9:30 am rain or shine) SASE to Recumbent, NW Rides, P.O.B 67975, Renton, WA 98057. Ph: 206/651-5728.

SAN DIEGO RACING SERIES
Saturday April 12th 8am
San Diego Velodrome.
Cost is $15.00 per rider.
"97 HPV Days" are the 2nd Sat. of the month. $7 per day track fee.
Contact: Wm. Volk, 2348 Laguna View Drive, Cardiff CA 92007, Ph: 619/224-8213, Email: Bill_volk@lightspan.com

INFINITY CHALLENGE
April 29, 1997
Midwest HPV Race in Indiana.
Contact: HPR* event see below

MOORESVILLE RACE IN THE PK
April 27, 1997
HPV Race in Mooresville, IN.
Contact: HPR* event see below

MICHIGAN HPV RALLY
May 7, 1997
Waterford, MI
Contact: S.A.S.E. to Michael Elsasser, 2708 Lake Shore Dr., #307, St. Joseph, MI 49085

TWIN CITY HPV RACE
May 17 & 18, 1997
St. Paul, MN
Contact: HPR* event see below

2ND ANNUAL FREEDOM EASY TOUR
May 17 & 18, 1997
Freedom, CA (home of Easy Riders) Contact: SASE to Easy Riders, Inc., PO Box 255-H, Freedom, CA 95019, Ph: 714/602-7675

PEOPLE MOVERS FAIRING SEMINAR
May 17th, 1997
Orange, CA
Workshop to build a Concept fairing. Start to finish for under $150. $25 per person.
Contact: People Movers @ 714/693-6863

RECURRENT DEMO/RIIDE
Sunday, May 23rd 9am-1pm
Ypsilanti, Michigan (near Ann Arbor)
Demo 9am, 25 mile ride at 10am.
Contact Bob Kowalski at 706 Dwight, Ypsilanti, MI 48198, Ph: 313/487-9508 or email Bobb@kowalski.com

MIDWEST "BENT ROUND-UP
May 24 & 25, 1997
Hales Corners, WI
Contact: Wheel & Spokes @ 414/429-6600

MIDWEST RECUMBENT RALLY
June 14th and 15th, 1997
Stevens Point, WI
Contact: Hotel Shoppe ph: 715/341-BIKE

FATHERS DAY "BENT RACE
June 14, 1997
Eldersburg, MD
Contact: Larry Black @ 301/884-8676 or email akcix@mail.com

CENTRAL CA RECUMBENT RALLY
Saturday, June 7th
Fresno, California
55 miles/55 miles 85 miles options
Lunch, patches included, T-shirts available. Helmets required. Fresno Cycling Club, PO Box 11381, Fresno, CA 93773 Contact: Bill Bruce @ 209/225-8581 or email: billb@york.com

NATIONAL HPV CHAMPIONSHIPS
June 25 & 26, 1997
Burlington and Kanohto, WI
Contact: HPR* event see below

RCN OPEN HOUSE/RIDE
July 12, 1997
Kent, WA
Contact: SASE to Recumbent, NW Riders, P.O. Box 1364, Renton, WA 98055

NORTHBROOK 100
August 16, 1997
Northbrook, IL
Contact: HPR* event see below

MT. AIRY BENTENEVENT
August 23 & 24, 1997
Mt. Airy, MD
Contact: Larry Black @ 301/854-5876 or email: akcix@mail.com

INTERBKE INT'L BIKE EXPO
September 4-7, 1997
Anaheim, CA
Contact: Interbike @ 714/768-4161

PEOPLE MOVERS BENT BASH CHARITY Event and Ride to the Beach September 6, 1997
Ocean Beach,
Contact: People Movers @ 714/633-3663

VISION/AMERICAN LUNG ASSOC.
TRI-ISLAND BIKE TREK
September 12-15
Seattle, WA to Victoria BC through the San Juan Islands. Cost: $50-$550 in pledges.
Contact: ATP Vision, Greg Sower @ 208-497-0231

LASSER RECUMBENT RALLY
December 6 & 7, 1997
Daytona Beach, Florida
Contact: SASE to Fred Ungewitter, 1644 Forest Ave., Daytona Beach, FL 32119-1591, freez@america.com

USA RIDER GROUPS
- ALABAMA/GEORGIA (North side): Monthly Rides: 1st Saturday each month, Burr Cist from Hokes Bluff, AL City Hall, Call Dave 205/366-5404 or Email burcise@cyro.com
- CALIFORNIA, EASY RACERS (Watsonville): 3rd Saturday of each month. 9:30am, ph: 408/722-5797
- CALIFORNIA, (Los Angeles area): Meet monthly, third Sunday, 10 am at Burton W. Chavez Park, Montara St. West, Marine Del Rey, CA. Chris Broom Email: cinfo@acmo.com
- CALIFORNIA, PEOPLE MOVERS (Orange County): Monthly rides to the beach in Orange County, Ph: 714/633-3853
- CALIFORNIA, (Palo Alto): Call Alvin Chua ph: 415/571-5147
- CALIFORNIA, (San Diego): William Volk, 2248 Lagoon View Drive, Cardiff CA 92007, Ph: 619/224-8213, Email: billv@gnup.com, Rides on last Sat. of the month. Mission Bay Visitor Center off 15
- CALIFORNIA, EASY RIDERS (San Dimas, CA): Casual recumbent rides meet 2nd to 4th Saturday, 8-10am. $10 for food. Call Leo Kettlmann @ 909/999-0668 or free@earth.net
- COLORADO: Rider Group forming. Call Steve @ 303/650-1287, Email: scarfell@vantage, com, n.co.gov
- FLORIDA, FOLKS, BOW CROCKS, (Tallahassee): Do regular rides including a Sunday "Bike Church" ride. We also do a Full Moon ride monthly. Lites are imperative. Call Ed Deaton @ 813/292-4776 or email: edd@free.net.tl.us
- FLORIDA, LASERRS, Local Association of South East Resident Rides, (Daytona Br, Fl, GA, AL): SASE to Fred Ungewitter, 1644 Forest Ave, Daytona Beach, FL 32119-1591, Ph: 408/765-5766, freez@america.com
- ILLINOIS WIS, HPvery, (Chicago area): Meet the last Sat of each month. Contact: Len Buksztein, 260 S. Champlain, Apt 1, Elgin, IL 60120-6759.
- ILLINOIS, (Chicago area),Contact Joe Dickman @ 773/725-0331 Call to find out about "when & where.

1 Human Powered Raceaycles (HPR) events. For a complete list of events, and a complete set of event descriptions and directions, contact same mail at gsmc@worldnet.att.net or write Dave Hilt, 220 W-Side Drive, Granville, OH 43023

SAVIOR & SOLIZ RECUMBENTS
708 Verhaken
Alvin, TX 77511
Ph: 713/585-4683
"Z BIKE" Frame Kit Starting at $189
Recumbent Tech: The Zzipper Fairing on SWB

Story & photos by Richard Drulé

Like most recumbent cyclists, you’ve probably considered a fairing for your SWB recumbent at one time or another, but wondered if it was worth the cost. I wondered too, but then I said “What the heck” and took the plunge.

And did I ever plunge! I bought not one, but two Super Zzipper fairings—one for me, one for my wife—from Karl Abbe at Zzip Designs. Karl is a joy to deal with—willing to customize the best solution, quick to respond when I needed parts, and full of valuable information.

Here’s what I learned about the Zzipper fairing on a SWB recumbent:

The Speed Thing

The fairing increased my terminal velocity (the fastest speed I could go, pedalling like crazy) on a nearby downhill from 59 km/h to over 70 km/h—an increase of 20%! At cruising speeds, the fairing has boosted my average speed about 5% to 10%. Of course it does nothing for me on an uphill, but the good news is that it doesn’t seem to slow me down, either.

I plan to coerce my wife into sewing a Lycra body stocking, which would attach to the sides of the fairing and the seat. Karl tells me that this should give me an additional 10% boost in speed.

Comfort

On cold mornings when I would otherwise need tights and a jacket, I can get away with shorts and a long-sleeve jersey. My hands still get a breeze on the ASS bars, so I use lightweight gloves when it’s colder. Surprisingly, on hot days I still stay cool—there’s enough of a breeze to avoid overheating.

Riding in rain is better overall with the fairing. Everything from my chest down stays much drier. Even in a heavy downpour, my feet are totally dry (and warm!). And if that’s not dry enough for you, ATP makes a rain poncho that attaches to the top of the fairing, fits over your head and hangs over the back of the seat.

I do get a face full of rain, however. Some of the rain seems to get pushed up and over the top of the fairing into my face. Whether I get significantly more rain in my face than without a fairing, I can’t tell (and I’m not about to get out there in the next downpour to test it out!). Either way—with or without a fairing—my face gets wet, so it’s not a big issue for me.

Several cyclists have asked me if it’s stable in crosswinds (I guess they think it’s like a sail or something). My answer is always “yes,” I find that I don’t get blown around any more than I would without the fairing.

Of yeah, one other nice benefit of the Zzipper—it reflects sunlight at oncoming vehicles. It’s like riding with your high beams on (naturally, this effect only occurs on sunny days).

So What’s The Bad News?

So far, a fairing sounds like the ultimate recumbent add-on. Well, there is a downside—cost. The Super Zzipper fairing is $200, and the mount system is $300 to $350, for a total cost of $500 to $550. For do-it-yourselfers, Karl offers an “experimenter kit” for $150, which includes an unfinished fairing and hardware, but no mount system.

Your bike will be heavier and bigger. The fairing and mount system add as much as 2 kg (4.5 lbs) to the bike, and at least 15 cm (6”) to the length. I really don’t notice the weight or the size except when I’m carrying the bike through the door into and out of the house.

The fairing does reflect some road noise up at you, as well as the noise of the front brake, but very little. I noticed that on a LWB bike with a fairing, the sound was more pronounced, but on my SWB, it’s not an issue.

Choices

If you decide to purchase a Super Zzipper for your SWB, you have several choices:

Karl offers three different fairing bubble shapes. The “Vision” and “P-38” fairings are both quite curved at the bottom to provide better coverage of the sides of the feet on a SWB. The “Vision” fairing is rounded at the top, and the “P-38” fairing is flat across the top. Otherwise, both are identical, and both are about 48 cm (19”) at the top.

Several cyclists have also mounted the “Ryan” fairing on their SWB bikes, even though it’s intended for LWB bikes. It’s 53 cm (21”) wide at the top, so it provides better coverage of the shoulders and hands. However, it doesn’t have the deep foot section of the SWB model.

None of these shapes suited me, so Karl customized what I consider to be the optimum SWB fairing—one with a deep foot section and the 53 cm width at the top.

Karl also makes some of his fairings in two different thicknesses—the thinner 0.060” Lexan shapes 500g (1 lb.) of weight off a fairing compared with the stouter 0.080” Lexan.

Mounts

There are three types of mount systems. The “P-38” mount attaches at two points—a clamp on the bottom bracket and a clamp on the boom to support the top of the fairing. The bottom bracket clamp can be rotated to raise or lower the bottom of the fairing, and the boom clamp can be moved back and forth and raised and lowered to adjust the top of the fairing. For use on the V-Rex, I was concerned that the boom clamp might interfere with the two smaller tubes where they join the boom between the bottom bracket and head tube.

The “Vision” mount attaches at two points—a clamp that fits inside the derailleurs, much like a stem fits inside the steerer tube, and a stabilizer mount that bolts to the frame. Lots of people use this system with no problem. The Vision fairing is less expensive and is available only through ATP dealers.

I bought the “Presto” mount system, which Karl describes as the “Cadillac” version. It’s $50 and 200g (0.5 lbs) more, but offers the ability to adjust the angle of the fairing. It attaches to the bottom bracket and boom, but at a location further back on the boom than the P-38 system. It would not be suitable for a recumbent with a sliding boom if you still wanted to be able to adjust boom length.

Setup Tips

Although I’m still fiddling with the setup of my fairing and my wife’s, in an on-going effort to optimize coverage and aerodynamic benefit, I seem to have the major adjustments figured out, and have learned a lot in the process.

Karl recommends that the top of the fairing should be just below eye level. Originally, I had my fairing set about 5 cm (2”) lower than this recommended position. I later raised it, and noticed a speed improvement. Surprisingly, the fairing obstructs very little of the roadway ahead—just a small section about 30 cm (100 ft) in front of me. I can see hazards on the road clearly through the fairing, well in advance and with plenty of time to steer around them.

I’ve set our fairings with about 1/2” toe clearance, to allow for booties or bunny-robot slippers. I’ve also set the distance between the lower C-bracket and the top crossbar to gently pull the fairing into a slightly longer shape than when it is unmounted—this has the effect of increasing the tension in the sides of the fairing so that they flex less in the wind.

On a SWB recumbent, the optimum cyclist height appears to be
the fairing is positioned much higher. My wife likes this, of course, as it makes her more aerodynamic than me, and gives her a fighting chance when we ride together.

Removing the fairing is simple—just loosen two screws and pop it off. To make removal easier, position the "bird's beak" clamp for the top crossbar with the opening facing forward. When I transport my recumbent on the car, I remove the fairing and toss it in the back seat (I don't bother to detach the bracket and crossbar from the fairing). To prevent scratches, especially when the fairing is off the bike, my wife made covers for our fairings out of an inexpensive soft fabric and elastic. Zip sells fairing covers as well. For shipping, remove the brackets and roll the fairing up into a tube about 75 cm (30") long and less than 15 cm (6") in diameter.

The Bottom Line
$500 is a lot of money, no matter what currency you convert it to. On the other hand, speed and comfort count, otherwise we'd all be riding wedges. It all depends on how much that's worth to you.

There are much less expensive fairing options, most of which involve coroplast, fiberglass and lots of glue, but these can be messy, time-consuming and ugly. If you want to get faired, and you don't want to wait or you're not a do-it-yourselfer, then the Zipper option is a great way to go. It's a well-designed, extremely well-made product backed up by great customer service. For my wife's and my situation, the $1,100 I spent on two fairings and mounts was worth it.

Contact: Zip Designs, PO Box 14, Davenport, CA 95017, ph 408-425-8650/Fax 408-425-1167.

ARE YOU AN RCN SUBSCRIBER?

WHY NOT SUBSCRIBE TODAY?
Call or Email for a FREE brochure.
Ph#206/630-7200
DrRecumbnt@aol.com
http://www.diskspace.com/rcn/
RCN, PO Box 58755
Renton, WA 98058
DON'T MISS A SINGLE ISSUE!

In Minnesota
Do the READIN' (in RCN)
Do the RIDIN' (with us)
Do the 'Rithmetic ($$)

RANS

Test Ride RANS and BikeE at
DICKS RECUMBENT CYCLE
7685 Heritage Road
Eden Prairie, MN 55346
Email: 104315.2602@Compuserve.com
Ph#612/949-3781 or 612/866-5224

1987 Buyers Guide 69
WHEEL RECUMBENTS TO INTRODUCE EVO GLIDE

Hales Corner, WI—The EVO Glide is the first recumbent produced by Wheel Recumbents. More models will be released throughout the year. Wheel Recumbents’ goal is to take current recumbent models and advance the design, thus continuing the revolution of the recumbent. Wheel Recumbents was created by various interests throughout the industry who are dedicated to promoting the sport of recumbent cycling.

The EVO Glide is being distributed by Wheel Recumbents via Wheel & Sprocket in Milwaukee, WI and by Linear.

Wheel Recumbents and Wheel & Sprocket are hosting The Midwest Recumbent Round Up on May 24th & 25th, 1997. Saturday the 24th will feature a recumbent bicycling tour, and Sunday will be a full blown Recumbent Expo and Fair at Wheel and Sprocket’s Recumbent Headquarters in Hales Corner, WI. All recumbent owners and prospects are invited to attend. For more information please call 414/529-6600.

ANGLETech INTRODUCES "MAKO" RECUMBENT

Woodland Park, CO—The British Mako “compact wheelbase” Jag-class recumbents feature a bonded aluminum frame, Noleen oil/coll rear suspension and small package break-down-ability. This new bike offers the best of the “compact design with a seat height a full 6” lower than similar models, and a high bottom bracket for optimum climbing and aerodynamic advantage. Top it off with the Noleen shock rear suspension, elegant anodized finish with tapered stays, rounded gage style seat frame and the smallest transport package of any recumbent available today! A fast, plush touring recumbent.

BONDED FRAMESET—The 2.5” heat treated aluminum frame tube is bonded to heat treated aluminum legs. A bonded aluminum frame has 30,000 psi more yield strength than a TIG welded 6061 aluminum frame. The frame has two cast aluminum “binder rings” to anchor the telescoping section. Tubing is anodized and easily slides in and out for adjustment without any greasy shine you up!

COMPACT PACKAGE—Quick release the handers, seats, wheels, fold under the rear swing arm, slide the frame apart and you have the most compact travel recumbent on the market at 107 cu. in. Even the optional Zippier fairing rolls up! Angletech offers an optional travel case to make this feature even more user friendly.

18” SEAT HEIGHT—A full mesh seat with a high back, lumbar curve, adjustable velcro tensioning and a thin base pad for ultimate comfort. Wind resistance is low, for fast comfortable ride.

REAR SUSPENSION—3” of travel with state of the art Noleen “coil over oil” shock. The swing arm pivots on alien bushings for long life.

ADJUSTABLE “EURO BARS”—Wrap around, easy to reach Euro handlers with liberal vertical adjustment.

QUIET CHAIN MANAGEMENT—Lower-idler-only chain management. By eliminating the upper idler in the system, you get a quiet ride, even on hard climbs.

ANGLETech SPECS—Two models are listed, the GL24 with quality 24 speed drivetrain and the popular GL65 format, with a range spanning 18-140 gear inches.

COMPLETE ASSEMBLY—Road test before shipping to you. For more information call Angletech at 719/687-7475. Email: Angletech@aol.com

SCREAMER GETS INDEPENDENT COAST

Hays, KS—1996 brought the introduction of the Rans Company’s first tandem recumbent two wheeler. I say two wheeler because in the ’70’s we manufactured a three wheeled tandem recumbent sailing machine called the Gemini. The Rans Screamer instantly became a hit and has quickly become the performance tandem of choice. The stock Screamer is no slouch and begs to be ridden.

The 1997 Screamer has received some upgrades. The new one wheel Cheeto front idler is lighter, adjustable, and has reduced drag and noise. We’ve smoothed out the shifting by going with Shimano XT tandem hubs and an eight speed cassette. Also, you will find Magura Hydraulics standard on ’97 Screamer.

The new Screamer IC has independent coasting. This is where you don’t have to tell your partner what your intentions are when it comes to coasting and pedaling. The Screamer IC does have one disadvantage and that is a slight weight increase. The fact that the power source isn’t locked into sync seems to cause what we call tandem “bob” between the riders. This phenomenon may go away as riders become accustomed to each others strengths and weaknesses.

THE TERRA TRIKE IS HERE!

This recumbent trike is the result of years of designing and prototyping human powered vehicles. It has top components, it handles like it’s on rails, and weighs less than 30 pounds. Quarter mile road tests showed an average speed increase of 7 miles per hour over a conventional racing bicycle. The adjustable steering and seat will fit a wide range of riders. It’s stable, safe, fast and fun. Whether you’re looking for high performance, recreation—the ultimate in touring or a great commuter, the TerraTrike has it all. Compare the price (starting at $1599 USA) to other trikes of this quality, and you will see that the TerraTrike is a winner. Ph#616948-4693 Email: WitzWheelz@aol.com

SIT ON IT RALPH!

Hays, KS—Attendees of the bike show saw a good deal more than they expected at the RANS display. Besides all of the really cool bikes, sweatsuits, and hats, was the new Rans Mesh Back Chair! Yes, we are really building those things and...
The Aerolope

Inside the Aerolope

The AngleTech/Streightgilder—photo courtesy of AngleTech

The WizWheelz Terratrike with Rans seat—WizWheelz

they really are for sale. Built around our mesh back seats, these chairs will make a wonderful addition to your
shop or even inside your home! Use it as your compliment to remind you
what you should be doing. We've also found them to be excellent video
game chairs. The chairs use a Rans mesh back V-Rex type seat and feature
12° of fore/aft adjustment and nearly 25° of angle adjustment. The
base only is also available.

AEROLEPE HPV—THE
"CAR-FREE" ALTERNATIVE

Rancho Cucamonga, CA —
Getting rid of the car in favor of bike
exclusivity is a dream many of us
have. Unfortunately, there are times
when only an automobile will do.
Right? Well, not any more...

Alternative Pedal Sports and
Glas-Tec, Inc. are pleased to offer the
exciting new Aerolope HPV!

If you were to design the ultimate
human-powered vehicle for a
car-free lifestyle, what would your
"wish list" include? You would probably
start with such things as streamlined
efficiency, cargo-carrying capacity,
visibility, weather protection, and recumbent comfort. And you'd
like it to be fun.

The Aerolope HPV is now here, with astonishing aerodynamic
speed, enclosed comfort, large interior trunk space, and high visibility.
Best of all, it's a blast to ride! Con-Jected of gel-coat fiberglass, the
Aerolope full-body shell weighs only 18 pounds. Wide side openings
allow great outward vision, ventilation, and room to easily place both feet
out and on the ground when stopped. The standard platform is a SWB
design with underseat steering, a 38" wheelbase. Sells for $1,795.

STREETGLIDER LANDS IN
THE USA

by Kelvin Clark

After working with American recumbents every day (not to say this
is boring), it's refreshing to take on a
special order like Roger Tallon's custom
Streetgilder from Europe!

What's different? The first thing
that you notice upon looking at a
Streetgilder is the very sweeping seat
angle (90°), and a 2.8 fork rake.
The effect is a short 35.8" wheelbase,
and a "pull-to-center" feel when
riding. On a zero-mph U-turn on an
uphill grade, you get a very distinct
"pull-around" effect as well. Think
of it as magnetic steering. This, along
with the 2" diameter main-tube and
short boom extension yield a very stable bike, with no pedal steer
effect when pedalling hard.

Finesse! This is a feature
sometimes missing from the typical
recumbent bicycle. The Streetgilder
has this in abundance. Starting at
the front and working back, the adjustable boom slides into a main tube cut
at a slant rather than a blunt-end cut, a
very elegant effect. The fork is an
investment-cast crowned Reynolds
531 unit, with taper gauge blades. At
the back of the 2" main tube, where
the rear stays hook up, you will find
a radius cut to the tube, sealed off
with a matching cap that has a
threaded braze-on for a fender in
the center. The dropouts are of custom
design with proper braze-ons for disk
and fenders. The upper stays disappear
into the seat back.

At first the seat design, with its
glassfiber base, might not look too
inviting, but this one works! The
backrest has a built-in lumbar curve,
and high back support contoured
to the shoulders. The base is out of the
cutaway nature in shape with a central-
raised contour. Padding is foam
wrapped in Cordura, and fastened
with snaps to the grey fiberglass shell.
There are 6 built in D-rings on the
seat back that you thread a
rackstrap through for holding gear.

Steering is under-seat (USG)
with a tie-rodfink to the fork. Nothing
new, except you realize that the friction
of a typical bearing pivot system
is not there. Looking deeper you notice that the handlebar pivot on the
frame has a roller-bearing insert, very smooth! Also, the Streetgilder makes some nice stainless
bar-ends that finish off the ergonomics
to a near-perfect position. Shimano
Baron (bar-ends) shifters are plugged into the ends.

The seat/crank relationship is
Rans Rocket-like, and the seat is a
high 26°. My 5' 6" self could reach
the ground reasonably due to the cut-
away seat base design. The wheel
layout is 700c x 20" (451mm).

The standard paint finish leaves
something to be desired after seeing
the other manufacturing touches. Our
Streetgilder was custom painted Sat-
turn- Yellow here in Colorado.

The Streetgilder is a great touring/cruising recumbent, with the
most stability of any 36" wheelbase
SWB class bike. You will pay a $500

1997 Buyers Guide
premium over a comparatively equipped Vision VR45, which may cross the bike off your list. But if you like the frame construction details mentioned above that are missing from most of today's recumbents, you'll find it worth the cost.

RAMPAGE INTRODUCES FAIRING KIT

Tucson, AZ—RAMPAGE front and rear fairing kits are assembled by the customer from pre-cut sheets of corrugated plastic (Coroplast is one brand name). It is available in black, white, red, blue, green, yellow, and silver. The customer uses pop-rivets and our clear instructions to fully assemble the kit in 4-6 hours. All of the design work is done allowing the customer to have fun doing the installation. Customers can apply custom vinyl graphics available from any local sign shop.

The front fairing kit retails for $185, the rear $199. The front fairing is more ideally suited for a SWB, but can be adapted to some LWB models with minor modifications by the purchaser. A great combination for LWB owners is to use a Zipp fairing in the front with a rear fairing made of corrugated plastic. The rear fairing holds up to 3.5 cubic feet of cargo and mounts to standard rear luggage racks. It also has hooks supplied to support a Camelback style drinking bag and tube. For safety, there is a mounting area for a rearward red "blinker-light." Front headlight mount is up to the purchaser since there are so many different styles of lights. The corrugated plastic is easy to manipulate with a sharp blade and can be easily modified by the purchaser to have a port for the headlight to shine through, or a mount can be riveted to the exterior of the shell. The front fairing is also designed to give clearance in front of the rider so that entry/exit is simple. Assembly and custom mounting hardware are included.

Recently, I ran a few unscientific speed tests using the new Rampage Cycling Products fairing kits. On a 30 mile ride along a rural road with a fast tailwind, I previously finished just behind the head group. Yesterday, with the new fairing kits, on the same course, with the same riders, I finished far ahead of the head group. Today I rode a course that I've ridden hundreds of times with a previous top speed of 30 mph, today's top speed was 34 mph, an increase of over 13%!

Corrugated plastic is stronger than fiberglass ounce for ounce, is waterproof, UV resistant, difficult to break, impact resistant, easy to work with (no expensive molds are necessary), and lightweight. The front weight is approximately two pounds, the rear almost three pounds. The dimension of the assembled kit is as narrow as possible (18") so that there is as little aerodynamic drag as possible. According to racing aerodynamic books, the cut-off, flat tail section is far more effective at reducing turbulence than if the sides of the rear tail section were brought together (like the point of a min-drop). The kit has been tested on very windy days (30 mph gusts) with minimal buffeting. This is due to the narrow profile of the front fairing and the sloping sides of the rear fairing as can be seen from the side-view pictures.

We believe that there is a market for affordable fairings. We've eliminated anything that could be expensive in the manufacture of the fairings which includes weight, bulk in shipping (our kits ship flat), and labor (the customer does the assembly). If we're correct, our next offering will be a full body kit with open bottom so that the rider can put feet down easily, unlike the heavier and slower composite-bodied bike currently on the market.

For more information, contact Rampage Cycling Products, 1544-B S. Euclid Ave., Tucson, AZ 85713, Ph: (520) 884-4500 or 520/326-4317

Ed. Note: The "Rampage" fairing test bike is a 1996 Turner T-Lite with many custom options including a custom shortened Ballistic front fork, ATR Vision wheels and a ATP Vision chainslider. There will be more about this bike in our Turner T-Lite test.

SACHS 3X7 REALITY CHECK by Kelvin Clark

It has been communicated to me by a number of people the negative perception of the Sachs 3x7 hub in recent RCN coverage. I'd like to comment on our experience with this system so the whole picture is in view and informed choice can be made.

Here at Angle, we've had four models years of 3x7 installations to date, and we're embarking on our 5th. We originally looked into the system for our customers who wanted to "have it all" in the gear range department. To climb the vertical mountain passes, then pedal down the other side.

The 3x7 has been extremely reliable in all circumstances. For example, one of our annual commuters in Denver found his 3x7 provided a 3-speed trike to ride home when his derailleurs were frozen solid. The system has also been reliable on custom Screamair tandems.

A recent RCN article, Alternative Drivetrain Applications, Zach Kaplan commented that the 3x7 "shifts poorly if not at all under load." This is the part that makes me feel like an old fart coming up on 41 years of age! You are not supposed to shift the 3x7 under load, you coast when you shift! This is the way it has always been for internal hub shifting. I learned this when I had a 3-speed bike in my youth. Many study Generation X-ers who have only grown up with derailleurs have missed this principal. This shifting method also allows you to down shift at a stop, an advantage in many peoples eyes. (ever have to make a quick stop, and forget to downshift?). This is one internal hub that allows both trigger shifting methods. Sachs redesigned the trigger six months ago, and it's a quantum leap more precise than the previous shifter, and retrofittable to any 3x7 system. In a rare form of inter-company cooperation, the Sachs folks made the hub compatible with the Shimano HG/IG cassettes that shift the best.

EFFICIENCY: The 6% efficiency loss in under-drive and over-drive range is barely discernible. Keep in mind that the 98% efficient main range is the same as a standard drivetrain, and you are still using this range most of the time. You are using the over-drive range while climbing at a very slow 2-4 mph, your alternative being walking. You are using the over-drive range in a speed range where you have no other choice but to coast on a standard drive. The best example I can cite here is from the Slumgullian Tour on day-one, that ground, with a 40+ mph tailwind. I was able to accelerate to the 40+ mph range and keep increasing speed, while two 21 speed bikes were not able to do so.

WEIGHT: The 3x7 adds about one pound (at the wheel's center). Personally, it's worth it because of what it gives back in expanded range.

The "clicking" sound when pedaling in direct and overdrive is a modest sound. We haven't had any customer complaints about it.

Overall, we like the system and so do many recumbent customers of
ours. It’s not for everyone, and we are very up front with answers before ever taking a bike order. We are very open to building bikes with standards, and have gear charts in our computer to cover standard, 3x7, and mid-drive systems.

For more information, contact: Angletech, 318 N. Highway 67/PO Box 1893, Woodland Park, CO 80863. Ph/Fax: 719-687-7475. Email: Angletech@aol.com

NEW GREENSPEED EXPEDITION TRIKE
Fernilee Gully, Australia—With the advent of the Greenspeed Tandem Trike, it has become obvious that the Greenspeed GTR 20/20 Touring Trike can carry a lot more luggage than there is space for on the standard machine. Thus we are now building a new version, called the “Expedition” trike to suit riders who wish to ride around the world and carry all their camping gear with them, or for people who just want to carry more shopping etc. The wheelbase of the trike has been extended about four inches, an extra strut added, and we have gone up one gauge in the main frame tubing. These are similar to the mods that were made for Val & Eric’s tricycles to enable them to do their 15,000 km Around Australia Tour. However, in addition to these mods, we can also fit a 2nd pair of pannier racks, in front of the standard rear rack, so that a standard “FRONT” pair of cycle pannier bags may be fitted in addition to the standard rear pannier bags.

Furthermore we are also fitting our “tandem” rear wheel to this machine, which has a wider and stronger rim and special 13g stainless steel spokes. Our first machine has been ordered by an American living in Poland, and has been ordered with the optional hydraulic disc brakes, plus the Schullpag Mountain-Drive (MD/2-spdl. crankset). With a single 60-T. chainring, a 13/30 cassette, and a 3x7 hub, the MD gives a gear range from 14 inches to 123 inches in top. Thus we should never run out of brakes or gears!

NEW GREENSPEED OPTIONS
Fernilee Gully, Australia—While we find most buyers are very happy with their Greenspeed GTR 20/20 Tandem and GTR 20/20 Tandem trikes, some people feel they need a headrest for neck support due to Greenspeed’s low, zero, seat angle. Although a head rest is optional, it also creates extra air drag, so we are now offering a new 40 degree seat, as well as our 35 degree seat. The seat also has a different shape to enable it to more comfortably fit a greater range of rider sizes. The Sports Tourer will retain its 30 degree seat, and our racing trikes will continue with their 20 degree seats for maximum speed. For those who require more rough road comfort than our sprung seats, fat tires, and frames provide, we are now offering suspension. At the rear we are using a triangulated swing arm with a pneumatic Fox suspension unit. Both the springing and the damping are easily adjusted in these units which are used extensively on MTBs. At the front we are using another MTB suspension, MCU - Micro Cellular polymer, with a sliding kingpin arrangement - light and simple. The first trike to have all three of these options, will be delivered to an outback Western Australian owner by the time you read this, and should get a good test workout!

BROMPTON “FOLDER” CONVERSION KIT
Glade, Germany—No matter how many recumbents you own, LWB or SWB, tricycle, faired or unfaired, there is always one bike in your shed that remains “normal,” the folder. So when going by train every recumbent rider inevitably experiences the inconvenience of an upright riding position. There is a solution coming to bridge this gap.

We have taken the most versatile folder around, the Brompton, and developed a “no-welding” kit to convert it to a recumbent. The Brompton owner can convert without any trace—no “one-way-upright or recumbent decisions.”

The recumbent Brompton will still fold into a really small package. The whole bike can be pulled along on its carrier rack trolleys as usual. There is one minor problem, the bike will no longer fit into its original carrying bag, though we hope to overcome this soon. It still fits into a railway station luggage locker.

The conversion kit consists of the following:

- A foldable seat that remains on the bike when folded.
- A boom and bottom bracket clamps to the steering tube and when folded, swings with the front part of the main frame.
- A lengthened handlebar.
- A belt-drive for transmission from the new bottom bracket.

The converted bike is very easy to ride and it keeps the excellent handling of the original Brompton.

We are about to finish prototyping and expect the kit to be on sale in late Spring 1997. The price is expected to be in the range of about $700 US for the kit (does not include Brompton bike).

For more information, write Julian Neuf, Hafnerberg 2, 21509 Glade, Germany ph# 0411/095104

ATP VISION FOR 1997
Seattle, WA—For 1997 there have been several changes to the Vision recumbent line-up. First, we have added a new model; the R30 Metro. Designed as an affordable, easy to ride around town and commuting bike, the R30 promises to be the hottest bike of 1997 for Vision Recumbents. In addition to designing the R30, the engineers and designers at Vision Recumbents have not been lax. Several improvements have been made to the bike frames. Several components have been completely revamped. The frames of the R40 and R42 have been modified slightly in a couple of ways. First of all, the seat mount on 40 and 42 has been changed to the 44/45 style, so the seat now rests on delrin spacers, not directly on the frame. The cable routing on the bikes has been improved, reducing cable length to improve shifting accuracy. Spec changes are numerous, but to highlight a few:

- R40: Now uses a Shimano RX rear derailleur, rear hub and a Shimano cassette (11-28). The twist shifters are now the new PowerGrip Plus from Sachs, and the brakes are the excellent Dia-Compe VC-2.
- R42 & R44: These bikes pick up a 24 speed drivetrain, utilizing a Shimano RX100 Group (Crank, front and rear derailleur, hub set and 8 speed cassette). Shifters are the new Sachs Wavey, matched to Dia-Compe PC-7 levers and VC-7 cantilevers. Tires are upgraded, a Ritchey Tom Slick now adorns the rear, with the front either being the Vision HP16" or the recently imported Schwalbe 115psi City Marathon 20" x 1.25" (406mm)

R45: Still featuring the Ultegra hubs, Doore XT derailleurs and Cook Brothers crank. For 1997 we’ve added double butted spokes and alloy nipples, Dia Compe PC-7/VC-7 levers and cantilevers and the Sachs Extreme 8-speed shifters. Still the lightest recumbent available, the R45 is a super deluxe speed machine.

The tandems have been so well received, and the components so bombproof and reliable, we’ve decided not to change a thing.

Last but not least, the Sabre has gotten enough miles on it to satisfy the designers. Would anyone out there be interested in a limited production run of framesets? This probably will happen in late spring, and would be framesets only (not complete bikes). Call Vision if you have any interest.

Vision is proud to introduce the newest addition to the family, the R30 Metro. Designed to be an affordable, easy to ride commuter and around town machine, the Metro promises to be the hottest bike of the year for the four year old Seattle company. Featuring a suspension frame, the Metro has a very comfortable ride. Above the seat handlesbars and relatively upright seat position make this the perfect bike for those who find standard recumbents intimidating, yet the machine is a nimble performer.

The suspension swing arm of the bike collapses forward, reducing the wheelbase of the bike to upright standard, this allows the bike to easily be transported on standard auto-
mobile roof racks. The handlebars also disconnect easily, for storage, shipping or transport. Available in a 7 speed version that uses the Shimano Nexus internally geared hub, as well as Sachs 3x7 equipped 21 speed version. Retail prices are $825 (7-spd.) and $875 (21-spd.).

VISION ANNOUNCES NEW ACCESSORIES

A new Light Mount device ($25) installs easily into the derailleur tube on most Vision recumbents (not the Metro/fairing users). Lights attach to the cross tube. The entire unit is held in place by one hex bolt.

Our new Pairing Poncho ($100) is the perfect foul weather companion to our Lexan fairing. The Poncho Buckles around the nose of the ATP Zipper Fairing bubble, then stretches up over your shoulders, providing additional protection from the elements. Made from yellow coated rip-stop nylon with Velcro closures and nylon webbing straps, the Poncho is built to last. It comes with a Lexan face shield that will attach to almost any helmet.

The Poncho adapts to the Vision Fairing. This Lexan bubble provides a distinct aerodynamic advantage as well as protection from the weather. Sold complete with all the hardware required to attach it to your Vision recumbent (does not fit Metro), this sturdy unit will make you more comfortable and help you increase your speed. Once adjusted for your bike, it can be installed or removed in moments. MSRP $425.

Our new mirror is a Rhode Gear. We sell it with a foam shim to allow for easy attachment to our handlebar. Very adjustable, the MR40 has a large viewing area, and will swing out of the way, undamaged, in the event of an accident.

WINCHEETAH IN NJ!

Verona, NJ—In expanding its line of cycles, NorthEast Recumbents is stockimg the Wincheeteaht performance tricycle. The Wincheeteaht tricycle, which had been in a special exhibition at the Museum of Modern Art in New York City, can now be touched and test-riden at NorthEast Recumbents in Verona, New Jersey. Also, in stock and for test rides are the Lightning P-38, Easy Racer Tour Easy and others. NorthEast Recumbents can be reached at 201/239-8968.

MAXIM IS BACK!

Renton, WA—Maxim has a new direction and new models for 1997. A new tandem, the "Tri-volution," has a LBW rear section mated with a high bottom bracket SWB front section. Maxim's Reveille is available at $499. A new $399 CLWB model called the Retreat has a wheelbase of 53.5"-56.3", with dual 20" x 1.75" wheels, six speeds with steel side-pull brakes and a one-piece BMX style crank. The Retreat can be converted from a 20" rear wheel to a 26." For more information, contact: Maxim ph#513/648-0022. Tell them you read about it in RNC!

THE GEM SIDE-BY-SIDE TRICYCLE

Cornwall, England—The bicycle will not replace the car until it offers: protection from weather, the ability to climb hills in comfort and carrying capacity for at least two adults and a child (or the weekly shopping) in comfort.

The GEM is the first step in our plan to develop a "Green" replacement for the family second car. The prototype is intended to test the practicality, comfort, ergonomics and stability of the GEM, which will be offered in several forms. The GEM is being developed with the cooperation of the Department of Energy and the Department of Trade and Industry. The GEM is designed to be an eco-friendly alternative to the car and it is expected to be available in the UK within the next two years. The GEM offers an innovative solution to the problem of urban transport and is expected to be popular among city dwellers. It provides a comfortable and convenient mode of transport that is environmentally friendly.
As a "people-powered" craft, each MicroCAT™ model is also extremely friendly to the environment. They use no oil or fuel, and each model's gearbox is fully enclosed so water cannot get inside and affect the proprietary gearing lubrication.

Offered as optional equipment for customizing: a companion kit (for an added passenger); tow bar, dolly; luggage rack; cup holders; fishing accessories; solar and electric power kits; knotmeter; swim ladder; scuba platform; and handicap accessories.


HUFFY PURCHASES REBIKE

Middletown, OH—What a brilliant combination! ReBike—the fast-selling, lowest priced recumbent in America—has joined forces with Huffy—the #1 domestic manufacturer of bicycles in the USA.

Founder Kathie Skewis continues to provide vision by serving as Director of ReBike. Her proven marketing savvy and Huffy's reputation for quality makes 1997 a sure thing!

Huffy—"America's First Choice" and ReBike — "America's First Recumbent Choice"— now, that's definitely a winning proposition.

PEUGEOT TO INTRODUCE LOWER PRICED MODELS

Kent, WA—Over the past year, Peugeot/Queloz has sold over 200 LWB USS recumbents, mostly in Canada. For 1997, a USA market expansion as well as two or more new models will become available. Watch for a new 24-speed steel version as well as 105spd steel 35x5, all models have mid-drives.

RANS TO USE SACHS CHAIN

Kent, WA—After months of KMC chain rants by RCN publisher Robert Bryant, John Schnitter of the Rans company called for some inhouse testing of Sachs Sedis chain. Sachs chain was installed on a '97 Rans Tandem and a ZeroG and tested by himself and Mark Purdy. Both John and Mark agreed that the chain worked better and shifted better and they have decided to drop KMC chain and install Sachs Sedis on all Rans Recumbent Bicycles.

---

BICYCLES BY HALUZAK

One ride is all it will take you to feel the difference. The Quality is Built-in—not Added-on

PEOPLE MOVERS

714.633.3663

North America's Largest Bicycles By Haluzak Dealer

1997 Buyers Guide 75
MT AIRY RECURBENTS offers a full line of recumbents, including Vision, Easy Racers, Rans, Lightning, Haulzak, BikeE, Linear and others. We buy, trade, and sell RECURBENTS and take trades.

ACCESSORIES: We sell hangings, mounts, computers, carrying bags, racks, car racks, lights and clothing. SERVICE: repairs, frame repair, brazing, and alterations. Free service loaners, delivery, pickup available and same-day service.

MAIL ORDER: We have small, hard-to-find parts available for immediate shipping.

TEST RIDING: We have several acres of smooth, paved, off-street parking area and low traffic rural roads to test bikes in all conditions.

We are in the process of expanding our store to serve our customers more efficiently. A new service area will be included as well as a larger selection of merchandise.

Our parking lot is often a local who's who of recumbent owners sharing their fun and knowledge with newcomers to the sport.

We promote a recumbent race every year in June and our 4th annual BentEvent will be the last week of August. This gala event draws hundreds of people to rural Maryland for a weekend of family fun. Mt Airy Bicycle Ph/301-831-5111 or 888-RECURBENT (order line). Our 7th year of service. Catch our new web site www.bike123.com.

RECURBENTSEA features fine recumbent bikes from Linear, Rans, ATP, BikeE, and many others. I offer free test rides at my shop on Saturdays through the riding season. At other times there is a $75 refundable fee. Appointments are suggested. Ask about our new catalog.

I build up many of our bikes from frame-kits, therefore I can build the bike up the way you want, with the components YOU want. Every order and every bike gets my personal attention. Call us at ph/6616/454-3260 or Email: bike123@juno.com

PEOPLE MOVERS is the premium recumbent dealer in the United States. We represent all makes and models of U.S. made recumbent bikes in addition to several imported models. 1997 will see several trikes added to the People Movers line, which may include the Greenspeed, Windchaser, Trice, Rubicon and others.

People Movers offers many services to meet your recumbent needs including: mail order convenience of bikes, parts and accessories shipped anywhere; custom spec recumbents; custom painting; by-owner escrow service; professional "in-shop" service; custom spec service; credit card convenience; monthly rides and Recumbent Cyclist News subscriptions.

Our store is located in beautiful southeastern California, just 4 miles east of Disneyland and 12 "bike ride" miles from the beach. 980 N. Main St., Orange, CA 92867. Ph/714-633-3663. Open everyday (except major holidays).

Stop in and test ride a recumbent at People Movers the next time you're in southern California. The coffee is always on, the fridge is full of sodas and bottled water and the weather is usually warm and sunny.

NORTHEAST RECURBENTS: We are a recumbent specialty shop with a strong emphasis on customer service and with a commitment to support cycling as a sport and as an alternative mode of transportation. We sell and service recumbent bicycles and tricycles, have an extensive showroom, offer test rides and rent recumbents. Northeast Recumbents stocks ATP Vision, BikeE, Easy Racers, Lightning, Linear, Rans, S & B, and Windchaser cycles as well as a wide range of spare parts and accessories. As an Encyclopedia affiliated shop, we also sell European cycles and sell bikes overseas. Northeast Recumbents is situated next to a quiet residential neighborhood, perfect for extended test rides. We're centrally located in the New York/New Jersey metropolitan area, with easy access by car and public transportation.

NORTHEAST Recumbents 9 Wayland Drive, Verona, NJ 07044. Ph/Fax# 201/239-8068

APS HPV SHOP: Alternative Pedal Sports is much more than a bike shop. We feature full R&D engineering and fabricating services for custom recumbent cycles, futuristic HPVs, and electric-assist systems.

APS features great deals on recumbent two-wheel bikes, tandems, and trikes — along with friendly personal service for the new recumbent buyer. See us on the web at www.diskspace.com/aps, and watch for our new showroom opening for 1997!

IN MINNESOTA by Dick Brown and Dick Weber: This is the story of a partnership formed by the love of cycling and transformed by a love of recumbency. Appropriately enough, it all started because of a numb bottom in San Jose, California. In 1987 Dick Weber (Dick W), had just created a 3000 mile odyssey from Minneapolis to Boulder Creek, 60 miles south of San Francisco. Dick W was newly retired from the VA where he had been a clinical psychologist. While in Boulder Creek he visited his nephew Wes in San Jose. Wes was the owner of a Tour Easy and Dick W bought the opportunity to wobble around the block on the Tour Easy (on his sore bottom). The seed was sown. Two years later Dick located and bought a used RANS Nimbus at the Earth Rider Bike Shop in Tomah, Wisconsin.

1993 — Enter Dick Brown (Dick B). He had retired as the director of Dale Carnegie Training in Maryland. For ten years he had toured the country out of Kalispell, Montana on an upright Cannondale. He then moved to the Minneapolis area in 1991 and met Dick W on a local ride. Dick B was immediately taken with the idea of riding a recumbent to get relief for his knees which had been laced with shrapnel in World War II. He was impressed not only with the comfort of a recumbent, but also with the difficulty of finding recumbents for sale. His entrepreneurial instincts were instantly aroused and before Dick W could say "car back," he found himself on a trip to the Rans factory in Hays, Kansas, where they each bought brand new recumbents. And then a hidden agenda appeared; Dick B convinced his staff that they needed a new dealer in Minneapolis, and Dick's Recumbent Cycle was launched.

Their marketing approach is to take the product to the customer. Everywhere a recumbent rider goes, he gets a lot of attention, and despite the long frigid winters, the Minneapolis metro area has an extensive bike-friendly network of on and off street bikeways and rail trails.

Their first customer was another senior citizen who interrupted them on a ride around Minneapolis’ Lake of the Isles. Dick W had to run behind him while he developed the different sense of balance required on a recumbent. On another occasion when they were on a Madison to Minneapolis camping tour, a van passed them going up hill. The driver waited at the top of the hill to examine their Stratus XT’s and some weeks later bought a RANS Nimbus.

Since those beginnings they eventually put their “IN MINNESOTA” ad in RCN. This has proved to be the most effective vehicle for getting in touch with potential clients. Their most recent sale was to a man who telephoned from Iowa. He needed a recumbent ASAP in order to ride with visiting adult daughters. Dick B and W drove south and met him halfway. He bought the bike and by 5 pm headed back to Iowa completely happy and satisfied. This grassroots approach is one which could grow like the internet and provide a way around the "bike shop" impasse. Dick B and W, who sometimes refer to themselves as "the Recumbent Dicks," have Rans and BikeE demo models in stock. They teach clients how to ride and actually go on rides with customers. Now, that's Full Service Recumbency!

THE BICYCLE SPEAKSMAN: We are a full service, bicycles only shop located just north of Metropolitan Toronto, Ontario, Canada. The shop has been in existence for over ten years and is entering our third season of recumbent and alternative cycling sales and service. This is the only shop in the eastern half of Canada that stocks a variety of recumbents for prospective recumbent riders and enthusiasts to see and try; A variety of trailers for children or luggage are also available. The Bicycle Speaksman owner, Joe Guttman, offers expert, personalized service and advice to all customers. Test rides are available on all models and accompanied, extended rides can be arranged. The terrain around the shop varies from flat residential streets to rolling suburban and country roads. This year, seven models from our four suppliers will be displayed: ATP Vision, BikeE, Linear and Windchaser. Other manufacturers' products may be special ordered.

We are in the process of forming a recumbent cycling/touring club and are soliciting all interested "bent" riders, both experienced enthusiasts and novice, to contact the shop for further information. Monthly rides in the countryside in and around the Greater Toronto Area are being planned. Call us at 905/737-3016.

WHEEL & SPROCKET: Our store opened in 1973 as a tiny bike shop in Milwaukee's southern suburb of Hales Corner. Over the past twenty years, Wheel & Sprocket has grown into a five store chain, with national recognition in quality and
quantity, including the all-time largest Trek dealer in the nation, and a BDS Top 100 Dealer for over seven years. We are consistently Milwaukee's Favorite Bike Shop as voted by the city. Customer Service and quality products are what has driven our growth.

Wheel & Sprocket is a strong community supporter. By providing SAG support and charitable contributions to, at least, every major cycling event in Southeastern Wisconsin, Wheel & Sprocket is able to give back to the community. Wheel & Sprocket also supports the sport by organizing SAGBRAW, an annual bike tour across Wisconsin; Fall Color Festival, a mountain bike ride to raise money for future trail development; and is hosting the first annual Recumbent Round-Up in May.

Chris Kegel, Wheel & Sprocket's owner, started the company as a mechanic and has worked his way to the top. Chris is one of the reasons for Wheel & Sprocket's recumbent enthusiasm. He currently owns three recumbents, which he and his two sons rode on Wheel & Sprocket's annual bike tour of Wisconsin. Wheel & Sprocket looks forward to the growth of recumbents as the next big wave in the bike business. Chris has directed Wheel & Sprocket as an industry trend setter. Wheel & Sprocket was one of the first bicycle dealers in the state; the first to drive Cross Country skiis with enthusiasm in the late 1970's; one of the first shops to start the Mountain Bike craze, and has most recently led the way in recumbent sales as RANS #1 dealer for 1996. Wheel & Sprocket can be reached toll free at, 1-800-392-4537.

**WHY ANGLETECH?** Our company has one of the deepest rooted histories with recumbent bicycles in the USA today. Our first recumbents sold go all the way back to our first Avatar in the late 1970's. In addition, we sold Rans, DeFleche, Counterpoint, and Ryan. Throughout the years our lineup evolves as good recumbent designs come to our attention. With this type of perspective, a thorough phone consultation with us will result in a bike that truly meets your needs.

**FT:** You will find a list of measurements on your Angletech order form that helps us to give you a custom fit, even by mail order! Just as there is a difference in fit between men and women on upright cycles, there are gender specific issues to be addressed in fitting recumbents.

**SELECTION:** In addition to offering the "factory spec" stock models, we offer up to three additional "Angletech spec" versions so you can get the best possible bike for your needs, even Euro 'Bents. The goal here is to avoid the "I've got a recumbent, but I had to sacrifice quality components and finish quality" syndrome. Our custom spec recumbents are "the stuff!"

**CUSTOM SPEC:** Have a desire for a dream bike done YOUR way? A large percentage of our sales are bikes built to order by YOU. We can accommodate almost any request present your ideas for a quote.

**QUALITY BUILD & ROAD TEST:** We carefully assemble your bike and road test it prior to shipping. This may sound like a "take it for granted" thing, but it's not! Most bikes purchased mail order are "label switched" bikes that your selling dealer has never seen, let alone ridden, and require up to $100 in shop assembly at their destination. We build every bike we sell, then it is road tested by two individuals to make sure everything works well. We carefully box your bicycle in a mostly assembled state, designed to be resurrected at your house (even by a mechanically challenged person) without any trouble. The assembly sequence is short, and the most common after the sale comment we receive is that removing the fender wrap is the most time-consuming task! Look forward to your call and questions. Kelvin Clark, Angletech. Tel. 719/687-7475.

Here at JULIAN BICYCLE COMPANY we are bicycle enthusiasts, whether it be recumbent, road or mountain bike, or something in between. We feel every enthusiast should have a quiver of bikes!

We carry recumbents by Rans, Vision, BikeE and we can get you just about any model available including Trikes. We will advise you on the best recumbent for your style of riding. We specialize in building bicycles from the ground up or we can modify stock units to perform at their best. Modifications include upgraded brakes, Gortex shifting cables, and custom gearing for speed and climbing.

We carry traditional road and mountain bikes by Softride and Otis Guy, which offer the most comfortable ride available on a traditional bicycle. We love bicycles. Serving Southern California.

---

**COMING SOON TO A DEALER NEAR YOU**

**PDQ**

Hand made by W.R. Pashley, Ltd.
Stratford-upon-Avon, England
US Importers and Distributors: Dekker Service, Inc.
Phone 206-641-9639 Fax 206-641-0151
Web site: http://www.eskimo.com/~mdeker
Email: mdekker@eskimo.com

---

**Rotator Bicycles**

"WINNER" Production class 1996
World Solar Bicycle Rallye in Japan

- Pursuit
- Interceptor
- Coaster
- Tiger

For a Free Brochure Ph# 707-539-4203
915 Middle Rincon Road, Santa Rosa, CA 94509

Powered by the Human Race

---

1997 Buyers Guide
S & B Recumbents
The Most Affordable Recumbent!
Providing Bicyclists with attractiveness, comfort and speed.

- OUR AFFORDABLE 1997 LINE:
  - $595 Beach Cruiser
  - $715 SWB Single
  - $910 Trike
  - 7/14/21 speed & 3x7 equipped
  - HiTen or CroMo steel frames
  - Tall seat with Velour cover
  - Custom colors & options available

Don't kid yourself.
Our prices are LESS because our overhead is LOWER. Why pay $1200, $1500, $2000 or $3000???
Our bikes are made in the USA of the finest materials. The difference will be in your pocketbook.
Call S & B Today!

Check out our new video—$9.95!

S & B, PO Box 3061, Compton, CA. 90222
Ph #310-608-0008 or 310-762-2243
To you, this may look like just another recumbent bicycle. We prefer to call it the "bicycle of the future." Perfectly balanced, expertly crafted, absorbs road shock while remaining responsive. For us, the Turner T-Lite is a labor of love.

It's the ultimate touring bike. You'll never want to get out of our ergonomic seat. So, sit down, relax, and take off on a Turner T-Lite, the ultimate bicycling experience.
Bicycles by Haluzak

Handcrafted Excellence for the Serious Enthusiast
Send S.A.S.E. for Prices and Specifications
2166 Burbank Ave.
Santa Rosa, CA 95407
Phone: 707-544-6243
Email: bent_one@juno.com
See our web page at: BikeRoute.com/haluzak.html.

We accept VISA & Mastercard
Introducing the ANGLETECH version of the new Vision suspended "Compact" recumbent. Write or call for our specifications of ANGLETECH's many variations including the Sachs Elan Equipped Internal 12-speed model.

IN PRODUCTION NOW!
QUADRAPE TOTAL BODY WORKOUT TRIKE
Excellent for physical therapy too. Also available in the leg-power only TRI-SPEEDER model.

RANS SCREAMER
The four SCREAMER models from ANGLETECH feature such gearhead pleasing options as up to 84 speeds, a custom NOBILETTE tandem-spec front fork for precise handling, a suspended front fork as well as the unique option of independent coasting.

RUBBER!!! AND.....
Looking for an obscure part or quality parts groups to finish your masterpiece? Give us a call! We've got the tires (16", 20", 24", 26", or 700c). From Continental, Haro, Primo, National, Avocet to name just a few. Forks, wheels, lube, you name it, we've got the HPV parts you need waiting on your racks, ready to go!

"ANGLETECH SPEC" THE REAL THING, no caffeine? Ultimate value is not necessarily the cheapest price for a bike with an LX derailer! We offer quality components throughout your bike, right down to the invisible things like cables, brake shoes, chain and build. ANGLETECH SPEC delivers the real value.

'97 ANGLETECH/RANS "V-REX GL63"

'97 RANS ROCKET "ROUND TUBE"

"BIKE TECHNOLOGY FROM A DIFFERENT ANGLE."
RECYCLED DEALERS

JULIAN BICYCLE COMPANY: We sell Comfort and Performance! For the sit-down cyclist who demands the Comfort and Performance of a recumbent, we carry Rans and Easy Racer bikes. For the traditional cyclist or mountain biker, we sell Softride and Out Yee cycles. We set you up PROPERLY! Serving San Diego and Imperial Counties. Julian Bicycle Company, Tel. 619/765-2200. Demo bikes available.

PEOPLE MOVERS--North America's LARGEST Recumbent Bicycle Shop! Featuring: ATP, BikeE, Haluzak, Rans, Easy Racers and more! We are a FULL-SERVICE recumbent MAIL ORDER specialist as well as an "official" RCN agent. Ph/714-633-3563 or Email: PepleMovers@aol.com

20th Century Got You Down? Well, cheer up! The 21st will be much better. Easy Street Recumbents of Austin, Texas offers test rides by appointment. BikeE, Vision, S & B "Doo-moobie" Trike (weight limit 400 pounds!), and more. Call Amy or Mike at 512/453-0438 or http://www.io.com/ ~markovski/easystreet.html (38)

NEW/Demo Recumbents

FOR SALE: RANS V-Rex, extremely low miles, blue color, 21 speeds, Vetta C-20, $1200. Call 616/749-3501 Email ghiensch@qms.net (MI/38)

FOR SALE: ALTERNATIVE BIKESTYLES CLWB prototype, Sturmy Archer 3-speed hub, coaster brake, 20" wheels, $230 Doug ph/419/534-2431 (OH/38)

FOR SALE: 1996 HALUZAK HYBRID RACE (as shown on the cover of the '96 Buyers Guide). Less than 500 miles, nice like new. Reduced to $650. Includes seat pack, SS bottle cages, bar-ends with reverse brake levers & kickstand. Will sell complete bike for less than the cost of the frame alone. $1200.00 Ken Ph/605/484-0110 for details or email: kolus@worldnet.att.net (CA/C6)

FOR SALE: THEBIS 210 TOURING TRIKE Good condition with many extras. All reasonable offers considered or will trade for FDW recumbent of equal value. (Call Don ph/804/874-3003 or email: dosterw@alotal.net (38)

FOR SALE: 1994 COUNTERPOINT PROSTO TI Loaded! Titanium frame and fork. XTR front and back, 23" to 103" gearing. Backless for commuting, fender, mirror, computer, lock, bootie, bottle cage, 20" X 1 1/8" wheels, Zippor front fairing with body stocking. Speedplay pedals and cleats, $350 or BO. Call Bruce at 707/522-2785 (CA/L41)

FOR SALE: TURNER LAID BACK, SWB US$ 7-speed, fits rider 5’1" to 5’7” Like New, $500 + shipping. If interested please call 715-394-7900 or ask for Steve (38)

FOR SALE: RAN VANGARD, 1995, 1,500 miles, Shimano LX, Grifp shift 24 speed, Deore LX brakes, ISCG fenders, custom mount (or light), speedometer and mirror. Immac. $1,200 shipping, nolubov@aol.com or call Maria, Ph/310-862-1379 (CA/C6)

FOR SALE: RAN VANGARD, red, up to 500 miles, 21-speed Deore XT, Rapidfire shifters, Phil Wood rear hub, better than new. Call Dave at 203/492-3454. (AL/39)


FOR SALE: RANS V-Rex XT 63 Speed, less than 75 miles, 40 frame, 2400 wheel combo, pearl, white with stem, Grizshifter, Sachs 3x7 hub, New $250, asking $1849 plus shipping. Ph/503/524-6625 or marvel6@teleport.com (OR/38)

FOR SALE: DAHON upright folder, Stainless steel, 16" whl, rack, fenders, kickstand, exc. cond. $225. Call Bob 516/698-5939

INTERCEPTOR by ROTATOR

915 Middle Rincon Rd
San Rosa, CA 95409
ph. 707-539-4208

Guaranteed to Increase your avg. speed Recumbents starting @ $995.00

Recumbent Cyclist News #38
A complete selection of components and supplies for the owner-built recumbent!

PRAIRIE DESIGNS / HPV SUPPLY
21804 S. BROADACRES RD
PRETTY PRAIRIE, KS 67570
316-495-8237

The True Wheel Cycling & Fitness Shop
Rams • Easy Racer
Vision • Haluzak • BikeE
Schwinn Stationary Recumbent Exercisers
Bob Cummins - Owner
Reggie Solomon - Head Wrench
P.O. Box 1656 • 400 North Main Street • Halley, Idaho 83333
(208) 788-5433 • 800-607-7915

BIKE WORKS
Your recumbent source in the PACIFIC NORTHWEST
Specializing in ATP VISION
See, Examine & test ride Short, long, intermediate, & tandem recumbents
We speak recumbentese & provide unmatched customer service
12717 4th Ave. W.
Everett, WA 98204
206/742-2600
206/348-7999

FALMOUTH RECUMBENT BICYCLES
PO BOX 6781
PORTLAND, MAINE 04101
• COMFORTABLE, SAFE, FAST
• DEMONSTRATION RIDES BY APPOINTMENT
• CALL TODAY 207/781-4637
Fast Rocky on the EZ1—courtesy of Easy Racers, Inc.

STRaighten UP AND RIDE-RITE!
Backrest adjusts as you ride
Never any foot/pedal interference
Easy familiar handling

EASY RACERS, INC.
2891 Freedom Blvd., Watsonville, CA 95076
www.easyracers.com
408-722-9797
ROAD & RACE PROVEN RECUMBENTS
Laidback and Loving it
Gardner Martin

NEW/Demo RECUMBENTS
• • • NEW/Demo RECUMBENT SALE • • •
FOR SALE: VISION VR40T-ASS, 16" Avail., $695.
FOR SALE: BikeE 21-spd-XL frame, Blue $500.
All bikes with full warranty, EZ Rider Cycles, Jeramiah & Cindy Mangin, PO Box 856, Davenport, WA 99122.
Call 509/725-4248. (WA/38).
FOR SALE: RCN test bikes. S.A.S.E. to: RCN, POB
80755, Renton, WA 98058. Email:DrRecumbent@aol.com

DIMENSION EDGE
ENGINES KITS FOR YOUR RECUMBENT.
STREET LEGAL!!
Dimension EDGE makes power engine kits for upgrkts, foders and recumbents.
Call Today 1-406-245-5880
See us on the web: www.wpc.net/edgekit

Build your own Custom Bike
Framebuilding parts, bike components, small wheels, tires, rims, wheelsets, etc. Everything for the home builder. Visa/MC accepted. Visit our web site for monthly specials. Free brochure. Gaetlan Custom Cycles
838 Grant Ave. #410 SF, CA 94108
(415)362-3866 • FAX (415) 677-8943
JFreewheel@aol.com
http://members.aol.com/buildhpv/bike.html

1997 Buyers Guide

Is this your first copy of RCN? Why not subscribe? Regular issues of RCN will bring you up to speed and keep you informed with the world of recumbents. See page 59 for subscription information.

Top Components Light Weight High Performance Starting At $1599

The TerraTrike
By WizWheels

COMING IN 1997
The world's Premier Recumbent Web Site
http://www.recumbent.com

Recumbent Rental

Next time you’re in Minneapolis, you’ll want to rent a ‘bent and ride the 40-mile paved bikeway of the Chain of Lakes. Vision, Rans, Bike-E, or convert a friend on the Rans Screamer.

Cahoun Cycle (612) 827-8331 ben@4good@aol.com

Recumbent Sea

We feature fine Recumbent bikes from Linear, Rons, ATP, Bike-E, Peugeot, and many others. We offer free test rides at our shop in Moline, Michigan. On Saturdays thru the riding season and on other times. It is best to call and make sure before coming to Moline. New for 1997: Look for the official Recumbent Sea catalog of our favorite Recumbents, special needs and other offbeat bikes. It is our portable store for those who cannot get to Moline. Pick some favorites, call me to talk about it and soon the UPS guys will bring a shiny new Recumbent to your door.

Recumbent Sea
PO Box 286
1225 Rosewood
Moline Michigan 69335

Call us today 616-454-3260 or 616-877-2050
Email: bikewalls@juno.com

Tour Easy Proven Comfort! Laid back and lovin' it!
Long tour or short commute. Your Easy has been there. Your America. Your Canada. Your around the world. 22 million miles since 1975. Quality and Reliability. Comfort and Performance. Tour Rims fit 7” to 3”. Guaranteed opportunity to save your health today. Come ready to ride at a price you can afford $1,295. Urgent. Call Today:
Easy Racers Inc Voice/Fax: 408-722-0191 POB 255 Freedom CA 95699 oneasyi@ao.com http://www.easyracers.com

In Toronto

Bike E, Vision, Linear, Windcheetah

The Bicycle Spokesman
10212 A Yonge St.
Richmond Hill, Ont.
(905) 737-4343

In the San Francisco area

CVC
Recumbent Cycles
Call for appointment:
(415) 221-3601

Recumbent Cyclist News #38
America's Fastest Selling, Lowest Priced Recumbent

now even more comfortable, more affordable, more riding enjoyment

presenting the

all NEW 1997 ReBike® 2600

When The Washington Post reviewed ReBike and said, "the recumbent has finally come of age," they joined a long list of critics who raved about ReBike's innovative design. Last year we introduced ReBike 2600 - our high performance, 26" rear wheel bike for true riding enthusiasts - and it quickly became our most popular model. The ReBike tradition of excellence continues as we reintroduce you to ReBike 2600 - restyled for enhanced stability, increased comfort and total riding pleasure.

FULLY LOADED with ReBike's acclaimed original features. A new level of comfort and ease of riding became a trademark of every ReBike. The 2600 has it all: • high handlebars help relieve wrist stress and pressure, • padded back rest delivers unparalleled back & neck support, • comfortable, extra wide seat, • extra wide tires absorb road shock while providing added stability. All that and more!

NEW INNOVATIONS FOR 1997. A bundle of new design features:
• Quick seat adjustment now moves up & down AND back & forth for optimum positioning. The saddle now adjusts for the perfect fit. • Dual springs increase stability with added control. • New stay mounting prevents chain slap. • Re-engineered rear stays redistribute pivot placement to increase the performance of the cantilever brakes. • Adjustable ReBag for added carrying options. • Repositioned reflector for added visibility.

Call us toll free 1-888-ReBike1
for more info, to receive our new brochure, and to hear about our NEW PRICING for '97! Call ReBike toll free today at 1-888-732-4531.
Recumbent Superstore!

We don't have the square footage of Pet Food Warehouse, but we do have all the stuff for your 'bent. Including a full array of chamoisless shorts: Cannondale undershorts, Bouré lycra/spandex six-panel shorts and Mt. Borah ATB style double-shorts.

CALHOUN CYCLE Free Shipping 1622 W. Lake Street, Minneapolis (612) 827-8231 bentsgood@aol.com

LIGHTNING

The only company with a wide range of performance recumbents to exactly suit your needs:

STEALTH: Affordable High Performance.
New! Petite Frame
P-38: 25 lbs. Legendary Performance & Design Features, including Cast Lugs, Forged Dropouts & Custom Forks
F-40: World's Fastest Road Bike!
Unlike other brands, we sell THE SAME BIKE that has set numerous world records.
R-84: 19 lbs. Carbon Fiber frame with dual suspension standard. How to pass upright UCI bikes even on steep climbs.

"The GREAT SERVICE and cooperation I have always received for my P-38 played a big part in my desire to obtain an R-84"
Dick Anderson, Lightning owner for 6 years

LIGHTNING CYCLE DYNAMICS
312 Ninth Street • Lompoc, CA 93436
(805) 736-0700

“A BRILLIANT DESIGN!”
BICYCLING MAGAZINE, AUG. ’94

- Only Lightning offers a lightweight suspension fork, custom designed for recumbents, on ALL our models, either standard or optional.
- Patented designs deliver unmatched performance, proven by 20 world records, and over 100 race victories. Lightning was the FIRST HPV to break 50, 55, 60 mph, winning the Abbot prize in the process.

Why Go Slow?

LIGHTNING SPEED ADVANTAGE

CLIMB FLAT DOWNTOWN

.25 .5 .1 .25 .42 5 8

Horsepower SLOPE % GENERIC RECUMBENTS
Featuring the World's Best Values in Recumbent Cycles
Located in Southern California's Inland Empire

Two miles from the Ontario International Airport, and 35 miles from Los Angeles.
CALL: 800/331-8556 Fax: 909/466-0013
9722 Sixth Street, Rancho Cucamonga, CA 91730
See us on the Web at: http://diskapace.com/aps

NorthEast Recumbents
BikeE / Vision / Lightning / Easy Racers / Windcheeta...& more for test rides & showroom
CALL Tel. & Fax: 201-233-8968
9 Wayland Drive, Verona, NJ 07044

1997 RCN Printing Schedule
RCN is printed bimonthly on a six issue per year schedule. For 1997, we are adding one issue to our line-up by making the 1997 Buyers’ Guide a single issue instead of a double. Here is the 1997 schedule:

- RCN#87—Jan/Feb ’97
- RCN#88—Mar/Apr ’97
- RCN#89—May/June ’97
- RCN#90—July/Aug ’97
- RCN#91—Aug/Sept ’97
- RCN#92—Nov/Dec ’97

RCN has been printed and mailed on time since our inception in the summer of 1991. This is an ambitious schedule for us. RCN Roundups 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 dated by two weeks by the time you receive them.

RCN#93 is your last issue
Glenn Fearing
549 Main St.
Stoaktown, WA 98008

If you have any questions about your renewal or if you think we’ve made a mistake, drop us a note, email to DrRecumbent@aol.com or voice mail at phone# 206/630-7200. We’ll send a copy of your current label and an explanation.

Camble Cycles
Canada’s Premiere Recumbent Retailer
Over 10 years experience! Featuring ATP Vision, S & B, homebuilds and others.
3317 Camble St.
Vancouver, B.C. Canada V6Z 2W8
Tel. 604-874-3616 Email: r-bent@portal.ca

RANS Co. 4600 Highway 183 Alt. Hays, Kansas 67601 PHONE 913.625.6346 FAX 913.625.2795
Cruise in Comfort on a Linear Bicycle

The New 25 pound Linear CLWB

Linear Bicycles
32744 Kestrel Ave.
Guttenberg, IA 52052
For your nearest dealer call

Call: 319-252-1637
Fax: 319-252-3305

North America's only FOLDING recumbent!

The Linear CLWB has 20"/16" wheels, a stiffer frame and a Sachs 3x7!

LINEAR
ALUMINUM RECUMBENT BICYCLE

Fits on standard auto bumper racks!

Now offering Sachs 3x7 and disk brake options

LINEAR
Our bikes have a Full LIFETIME frame warranty

Ask about our New Lower Priced Models for 1997
PEOPLE MOVERS NEWS
PepleMovers@aol.com

PEOPLE MOVERS is a mail order specialist and a full service shop. We will ship anywhere.

ITEMS FOR SALE:

AIR ZOUND HORS are $29.95. Order two for just $49.95 and Save $10!

SPINNIES can save your life. They are just $3.99 or $7.99 each plus $3 shipping. Get these colorful wind & eye catchers today.

WHITE LIGHTNING keeps your chain clean and trouble free. Get the new Super Size (9.5 fl. oz) for just $10.79

-----GIFT CERTIFICATES-----

From People Movers make great gifts for all occasions. Give somebody something special from People Movers. Available in any amount.

WINDCHEETAH TEAMS UP WITH PEOPLE MOVERS IN 1997!!!

People Movers is now the official rep for Windcheetah (Speedy) recumbent trikes in Southern California, Arizona & Nevada. Stop in and see the fastest thing on three wheels.

GREENSPEED trike orders will be taken on a continuing basis. Each time we get a group of six buyers we will place an order. Delivery time varies, but is usually 3 months after the order is placed. Get in line for your Greenspeed today. Framesets run $2100 and complete trikes start at $3200.

SELLING OR BUYING A BIKE? Do it the SAFE way. Call People Movers about our ESCROW service. It protects buyers and sellers several ways. Buyers can use their credit card to purchase a bike. We will issue you a check. We reship your bike to the buyer once funds are secured. Buyers are assured that their funds are safe. We offer many services to make your transaction go smoothly.

SIX STOLEN BIKES STILL MISSING

A blue Lightning P-38 #733, a blue BikeE #196272, a red BikeE (#19680), a purple BikeE (19846), a Black BikeE (19601) and a red EZ-1 (#189) were in the six bikes stolen from People Movers.

RECURBENT BRANDS AND MODELS

- ATP VISION R30, R40, R42, R44, R45, R82, R85 - EASY RACER Gold Rush Replica, Tour Easy, EZ1 - LIGHTNING F40, P38, Stealth - HALUZAK Horizon, Leprechaun, Hybrid Race, Traverse, Storm - BIKEE - LINEAR LWB, SWB, CLWB, Tandum - RANS Glass, Tailwind, Rocket, V-Rex, Nimbus, Stratus, Screamer - RYAN Vanguard, DuPlex (custom builds) - PEUGEOT - And other models.....

- People Movers Windbreakers-full hood with 1/2 zip front. Front zipper pocket. Folds into its own pouch. Navy blue, 100% nylon shell, XL $29.95 (includes shipping).

- T-SHIRTS ARE JUST $15 EACH
  1. "RIDE THE NEW WAVE"
  2. "SIT AND GET FIT"
  3. "I'M A BIKE POTATO"

PARTS CATALOG

SEND AN S.A.S.E. (550e) FOR PEOPLE MOVERS FREE PARTS AND ACCESSORIES CATALOG

Visit our web page
HTTP://WWW.PEOPLEMOVERS.COM

PEOPLE MOVERS IS OPEN SEVEN DAYS A WEEK. WE ARE A FULL SERVICE SHOP AND SHOWROOM. WE MAIL ORDER PARTS & BIKES EVERYWHERE. 3 MILES EAST OF DISNEYLAND AT 980 N. MAIN ST. ORANGE, CALIFORNIA 92867

CALL 714/633-3663

VISA • DISCOVER • MASTERCARD

CONSIGNMENTS ARE ALWAYS WELCOME
Wheel & Sprocket is America's Newest Recumbent Headquarters!

In Just One Year:
* Wheel & Sprocket became the Nations #1 Rans Dealer
* Wheel Recumbents introduced the EvoGLIDE, the first of many advanced designs

Here's the Wheel & Sprocket story:
Wheel & Sprocket started back in 1973 as a tiny shop in Milwaukee, Wisconsin. In the last 20 years, we have grown to one of the largest bike shops in the nation. We have won several awards, including being past ten years, but really customer service. What Chris Kegel. Chris started the owner of all five locations. come recumbent crazed, and his enthusiasm is spreading fast!

Wheel & Sprocket is looking forward to extending our resources and expertise in bringing recumbents to the World! Please give us a call, we are looking forward to talking to you. Whether you are looking for a new recumbent or just want to talk to the friendly recumbent staff about your ideas, Wheel & Sprocket is your Recumbent Headquarters!

Linear, Rans, BikeE, & The EvoGLIDE exclusive!

Recumbent Round-Up
May 24 & 25th
Everyone Welcome!

Wheel & Sprocket
5722 S. 108th Street, Hales Corners, Wisconsin • 800-362-4537
People Movers Presents...
The 1997 Vision™ Recumbent Bicycles

Sales * Service * Rentals
Demos * Mail Order
714 633-3663
Open 7 Days

980 N. Main St.
Orange, CA 92867
Visa * M/C * Discover
PepleMovrs@AOL.com
http://www.PeopleMovers.Com

Vision™ Recumbents are proudly built by the crew at...
Advanced Transportation Products 952 Republican Street, Seattle WA 98109
206-467-0231  FAX:0175 - ATPVision@AOL.com - http://Cyclery.com/Vision