

Kiwi HPV

The Newsletter of Kiwi Human Powered Vehicles Inc.

caption

December 2010

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Join the NEW forum on the website:

<http://www.kiwhpv.org.nz/phpBB3/>

MARK YOUR DIARIES

CANTERBURY SOCIAL RIDE

Monthly 2nd Sun of the month. All welcome to join us. Refer to the listings below for specific iterations of the upcoming rides. Ride Captain is Symon Holmes, email symon_gnome@slingshot.co.nz phone (03) 349 6414 mobile 021 257 2720

OTAGO SOCIAL RIDE

Monthly 2nd Sun of the month. A small but keen recumbent riding group has started up in Dunedin - HPV Otago - and they do monthly social rides. Contact person is Chris O'Leary email father@emersons.co.nz phone (03) 477 1812

WORLD FUTURE CYCLE CHALLENGE 2011

The World Future Cycle Challenge 2011 is organised by Bicycle SA and takes place 19 to 27 November 2011.

Starting in Renmark SA and finishing in downtown Adelaide.

The event is described as: A unique event that mixes cutting edge technology and cycling. It is basically a stage race for various classes of vehicles ranging from solar powered fully faired racers to streamlined pedal power vehicles. The event is set up for teams of riders and there is the usual requirement for following vehicles, flashing lights, etc.

The 5 race categories are Solar Cycles, Production Electric Cycles, Pedal Prix and Human Powered Cycles, as well as Experimental Cycles. Don't miss the opportunity to build, innovate and compete and create a little history amongst your teammates!

Some OzHPV members have already expressed some interest in participating as either individuals or as part of a team.

More information, entry packs and regulations can be found at the event website. www.bikesa.asn.au/wfcc

email rides@bikesa.asn.au for specific questions regarding the race. Ready. Set. Race!

4th AUSTRALASIAN CYCLING HISTORY CONFERENCE

Michael Toohey

4th AUSTRALASIAN CYCLING HISTORY CONFERENCE

CHRISTCHURCH, NEW ZEALAND

Michael Toohey email: tooheym1@gmail.com

KIWI HPV HUMAN POWER CHALLENGE 2010

Kiwi Human Powered Vehicles Inc

HPC 2010-Full Results

Entry #	Vehicle Name Rider's Name	200m Drags		Everyday Vehicle		Enduro		Overall			
		Time	Place	Score	Place	Score	Laps	Place	Score	Place	
01	Bachetta Café SWB Nick Tucker	26.53	4th	3	3rd	3	22	4th	2	8	3rd
03	ARC LWB Low Racer Aarn Tate	25.80	3rd	4	2nd	4	24	1st	5	13	2nd
04	Lightning SWB Sean Hay	25.41	1st	6	1st	5	23	2nd	4	15	1st
05	Challenge Seiran SWB Martin Welby	27.44	5th	2	4th	2	23	3rd	3	7	4th=
06	700C High Racer SWB Nigel Farrell	-	-	-	-	-	-	-	-	-	-
08	Greenspeed Tricycle Haykey Kaarinaen	55.31	6th	1	-	-	-	-	-	1	6th
09	Tritation Tricycle Nick Johns	25.59	2nd	5	5th	1	17	5th	1	7	4th=

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www.kiwhpv.org.nz



*Images from the 2010
Human Power Challenge*



FESTIVAL OF CYCLING HPV DEMO EVENT

Paul Dunlop

The FoC Demo took place around 2:20pm - 2:30pm or so, in the 15 minute gap that occurs between the end of the women's criterium final and the start of the men's criterium final.

This year's demo was slightly different, in that we were joined by a flotilla of YikeBikes (5 in all) which rode around the course in a cluster. One of the YikeBikers was wearing a Santa costume. All of the HPVs were outpacing them by quite a decent margin.

After the first lap of the demo was completed, Steve Gurney appeared out of nowhere, riding his Sisson SpeedPod bicycle. He rode around the course for the remainder of the demo, going quite a bit faster than all of the HPVs.

His appearance was a surprise, as he had included himself in the event without informing anyone, including the Foc people, beforehand. That was a surprise, but that's fairly typical of how Steve Gurney does things.

In 1990 Steve Gurney's Sisson SpeedPod stirred the biggest controversy in the Coast to Coast race history.

The aerodynamic pod was banned after Gurney won the 1990 Coast to Coast using it, but he brought it out of storage to test police radar at Halswell in 2004.

This may have been its only appearance since then.



Steve Gurney's Sisson Speed pod

VELOMOBILES - DO THEY FAIL THE DAILY USE TEST?

Duncan McDonald

What is a velomobile?

<http://trisled.com.au/whats-a-velomobile.asp>:

"A velomobile is a human powered vehicle which provides riders with weather protection and an aerodynamic advantage through the use of a full or partial fairing (shell). .. velomobiles have a recumbent tricycle inside them which lowers the vehicle's centre of gravity to improve aerodynamic performance. Velomobiles offer riders a comfortable riding position, weather protection, improved speed through an aerodynamic fairing and increased visibility on the road."

Velomobiles are generally based on a tricycle layout for stability but some would argue that a bike with a fairing could also be called a velomobile. A vehicle without a fairing is clearly not a "velomobile" in the accepted usage of the name.

One Man's Opinion

Not everyone agrees that velomobiles are the answer to every commuter's prayers.

Ian Humphries(www.flyingfurniture.com.au) is forthright in giving his opinion:

"Why do Velomobiles fail the daily commuter test?"

Velomobiles appear faster than standard bicycles on the flat race tracks and long flat rides so why do Velomobiles fail the daily commute test?

(Or more accurately why do they fail to be any faster on your ride to work than a standard bicycle? And why do you arrive so much wetter and sweatier if they are supposed to be more efficient?)

1. Velomobiles are ALL heavy and slow to accelerate to speed after a stop or slow corner
 2. Velomobiles are ALL heavy and sweaty and slow to pedal uphill
 3. ALL stops and starts and any corners you need to slow down for use lots more rider energy
 4. Velomobiles have really POOR ventilation, poor cooling, poor air flow over the pedalling rider
- And 3 other reasons why Velomobiles finish second to the standard bicycle:*
5. Velomobiles have light and fragile and hard to repair body shells or heavy tough body shells
 6. Velomobiles are really expensive and usually use very specialised parts
 7. They can't carry big items and in fact don't carry all that much

All in all there seems to be at least seven reasons why velomobiles fail the daily commuter test."

However, not everyone seems to agree:

Greg Thomas, *1967

Orinda, California, USA; Mango Sport

"I have been riding two and three wheel recumbents since 2001. I became interested in velomobiles in 2008 and commuted with a Go-One3 for a year before switching to a Mango Sport. Velomobiles are incredible machines that satisfy my need for exercise, efficient transportation and beautiful engineering design. After attending both the Left Coast Velomobile Gathering and the Niagara Velomobile Happening I realized that velomobiles also attract a remarkable group of people."

Wilfred Ketelaar, *1977

Noordhorn, The Netherlands; Mango+

"In my childhood I cycled to school every day, rain or shine. Back then I thought the trip of about 6,5 km (one way) was quite long. When I was 20 years old I started to work and the cycling reduced to the occasional trip to the discotheque (which was even further away than my school). Fast forward some ten years and I now was working and living in a different place. My work was about 11 km from my home and I wanted to cover this distance by bike in a comfortable and fast way. So in September 2008 I was the proud owner of my very first recumbent, an apple-green Nazca Fuego, which I still own today. Getting a bit accustomed in the recumbentworld I saw all the pretty velomobiles and as of February 2010 I received my beautiful Sinner Mango+ with the hot flames, which I named Velox Incendia, which is Latin for 'fast fire'. Now I have ridden more than 12.000 km in two years, so you could say I had a new addiction. And the fun doesn't stop there."

Nina Mohrmann, * 1966,

Bielefeld, Germany, Quest 208

"My Dad always used to say that the places I would not be able to reach by bike were the places I would not want to go anyway. Thus, I used to ride my bike a lot. After years in competitive sports I began to intensify my biking a couple of years ago. Inspired by my brother I came to recumbents.

When the plan developed to ride coast to coast in America, I knew that I needed a velomobile to participate. Since a couple of days, I own a Quest and find it to be a blast."

Lee Wakefield, *1985

24 HOUR RECORD HELD BY A VELOMOBILE

How many velomobiles show up for PBP?

One model, the Milan ... currently holds the 24hr record, 1219 km.

<http://www.milan-velomobil.de/news.htm>

ROTO VELO – THE WORLD’S FIRST PLASTIC VELOMOBILE

Tim Marquardt

For those of you who have wondered about the newly released Roto (moulded) Velo (mobile) from Trisled, I thought I might give you a little more info. Firstly, Ben Goodall at Trisled has been planning this trike for many years. I was asked about 12 months ago, along with a few other of Ben’s friends, if we were interested in ‘investing’ in one of the pre-production prototypes, in effect to guarantee he could cover the rather significant tooling costs for the 3 part metal mould. So, naturally after approval from my gorgeous wife, I said “I’d love to”.



Roto-moulded Velomobile from Trisled

Ben outlined the trike: Head out, robust, a little extra ground clearance, acceptable aero. He commissioned a set of moulds based on his CAD drawing, and in May this year, the first couple of fairings appeared, allowing Ben to give us ‘proto-typers’ a chance to ride, assess & comment on his creation. 2 variations were made: a fixed frame & a full suspension frame. The full suspension relied heavily on the structure of the fairing, which was found to be too flexible, and that idea has been dropped for the moment. So, Ben made a few more frame variations, primarily to determine the boom angle, and finally settled on his chassis design. Meanwhile, his partners in the project were working on creating consistent fairings. Apparently there is a fine art in controlling the heat, cooling & spin speeds when roto-moulding polyethylene, and several fairings were tested during this time to get those parameters perfect.

And so it was in early October that Mick Donovan & I headed to Dromana to collect our very own RotoVelos. I was like a kid again... My big green toy was ready to play with. Initial ride was fantastic... it all worked, it stopped, started & turned, and it was easy! I went out onto an open road, and really cranked her

up, and she flew. Actually, she was a bit skittish for my liking. I was braking on the downhill! After a bit, I relaxed my grip on the steering & I found the trike ran more smoothly... maybe I'd created the problem myself.

For me, the speed difference is about 10-15% in favour of the RV. I've yet to be passed on Beach Rd, and have passed my fair share of packs. I have to say, as you'd expect, that uphill is not quite so much fun, but anything remotely flat or downhill, and you really take off.

In terms of the running gear, I have the standard setup, which is a triple chainring (61/52/4x) linked to an 11-32 rear cassette. Gears are Deore with thumb shifters on the steering bars. Brakes are mechanical disks, which are more than satisfactory to stop me very swiftly. The boom is adjustable, and is done so readily via the foot holes in the base of the fairing. My son, Jack, at 195cm can ride the RV happily, though he is at the end of the extension. I increased the hole in the rear direction, so my other son, Bryce, can also ride it happily, & he is only 160cm. I've added 2 quicklinks to the chain, so I can move the boom & shorten/lengthen the chain very easily & quickly.

Lastly, and this is the really fun bit. I've never been photographed (or should that be iPhoned?) so much... People driving past slow down, and roll down the window, yell Woo Hoo & take a pic. Riding these things is fun, and it makes people smile, both in & out of it. The ultimate in this was the maiden RV group ride, where 8 of these sensational trikes converged on Albert Park Lake (Melbourne). The group then rode to Black Rock & back, and were the cause of many, many smiles, toots & hollers. A truly memorable ride.



RotoVelo comes in many colours, even pink!

TRISLED AVATAR

www.trisled.com.au

Released in 2008, this unique design represents a new era of development and manufacturing for Trisled, drawing on automotive methods for improved precision and performance. With its small frontal area and completely enclosed wheels and rider, this velomobile is built for high performance and speed.

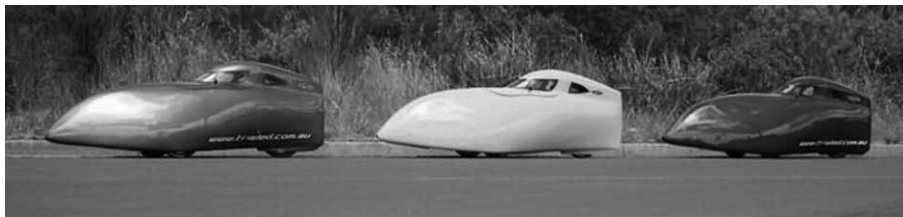
Avatar uses a Rohloff hub in the drivetrain and has elastomers to isolate road vibration.

Building on fifteen years of human powered research and development, our integrated design process and vacuum-infused Kevlar fairing gives Avatar an extraordinary weight of just 25 kilograms. Yes, you heard us right. In just 2 years since we first launched this model, Avatar has lost a massive 3 kilograms!

Trisled's Avatar SuperVelo is designed for speed. Based on the simple principle that going fast improves practicality, this velomobile makes very few compromises. With its small frontal area and completely enclosed wheels and rider, Avatar is arguably the most streamlined and aerodynamically 'pure' velomobile available today.

Years of research and development has maximised the aerodynamic performance of Trisled's human powered vehicles. But it's not just this vehicle's superior speed that stands out. Avatar's smooth symmetrical curves are achieved through computer-assisted design and mold manufacture. Furthermore, our integrated design process encompassing both chassis and fairing makes the Avatar one of the lightest and most holistically designed velomobiles commercially available.

The Avatar SuperVelo has internal front wheel covers for full weather protection. Ventilation is achieved through a rear-wheel vacuum which is designed to operate at average speeds. Avatar comes fitted with fully-adjustable mirrors and features front and side removable and replaceable windscreens. Avatar has an 8.5 meter turning circle which is similar to a small car or motorcycle and is designed to clear spoon drains and speed humps.



CAB-BIKE CABIN

Felix Hohener

Nothing turns more heads on the road than a velomobile (VM). Some VM like the Avatar or Quest have all the curves of a sports car. These velomobiles are the Ferraris of their class, the German made Cab-Bike (CB) is more like a station wagon. From the very outset it was designed with practicality in mind. The Cab-Bike has a fully enclosed top. This makes the Cab-Bike much more pleasant in cold and wet weather but it pays a performance penalty compared to the head-out designs.



The bodywork and chassis are made of fibreglass. Not the lightest material out there but it makes the CB very robust. All three wheels are independently suspended using internal spring type struts.

The drive train, consisting of two or three chains, goes through one idler which is in the bodywork, before it reaches the 14 speed Rholoff Speedhub that gives the Cab-Bike its wide gear range. An intermediate 3 gear Sturmey-Archer hub can be fitted to extend the gear range by a further 6 gears.

The CB has a single chain ring with 53T. The whole drive train is fully enclosed and stays clean much longer than on an upright.

The front two thirds of the top flips open for entering and exiting the vehicle. There are two large openings in the floor near the front so that you can put your feet on the ground when exiting/entering and for ventilation. They also give the

heels clearance when pedalling and are used for the Flintstone reverse gear.

The seat is a pretty standard, but comfortable hardshell seat. It is adjustable for leg length and recline angle so the Cab-Bike can fit a wide range of riders. The steering unit is a tiller. It doesn't have any stops so you can move it around however you like. The steering control is light and needs a bit of getting used to. There is one shifter for the Rohloff (plus one if you have the intermediate gear hub) and one brake lever operating both of the Cab-Bike's 70mm Sturmey-Archer drum brakes. The handlebar is quite narrow, but adequate.



Visibility is good to the sides, but limited close in front of the CB. Increasing the seat angle improves your scope. The front windscreen has a wind screen wiper which is operated by hand. The windscreen also slides most of the way down. This helps to avoid fogging up or if more ventilation is needed. The side windows have small sliding openings to let in the fresh air. They are also needed for a good side view when the side windows fog up. During summer time, it is recommended to remove the back windows, otherwise it is getting too hot. The windows are held in with rubber seals and some small screws and can be removed any time very quickly.

The Cab-Bike has plenty of easily accessible storage space. It is the velomobile with the most storage room available on the market. This features also enables larger built and clausterphobic people to ride a head in VM. There's room on either side of the seat, around the enclosed rear wheel, and in the upper half of the tail piece. A total of 150kg weight, rider and luggage, can be loaded into the CB.

A bicycle bell is mounted in the nose with a string run into the cabin. The front light is optional and any bicycle light can be fitted. The rear light is just a static light, which should be supplemented with a flashing bicycle light for better visibility. Also, reflectors or reflecting tape needs to be fitted to stay within the laws in New Zealand.

Due to the fully enclosed nature of the CB, indicating turns with the arms is not really practical. The optional indicators are recommended.

There is a roof mounted rear view mirror whose view is better than would be expected. The mirror hole also acts as a ventilation hole.

The Cab-Bike is heavy and brings 43-50kg to the scale, depending on the final configuration.

I bought the CB because I was getting tired of getting wet going to work on an upright bike during winter. Although it doesn't stay 100% dry inside, wearing wet weather gear and having to pack everything water tight is a thing of the past. The CB can be ridden in all weathers with just a T-shirt and shorts. Even if it is below zero degrees, it doesn't take long to warm up in it. I haven't used the car for going to work since I bought the CB nearly 21/2 years ago.

Winds make riding the CB a bit more exciting. Strong wind gusts at higher speeds (>30km/h) will affect holding your line adversely. When the wind isn't blowing strongly, the Cab-Bike is pretty stable. It is tall but not tippy.

The noise level is very dependant on the type of road, the speed travelled, and tyres used. On rough sealed roads at higher speeds it is rather noisy inside, at the same speed on smooth roads the birds can be heard. Removing the rear windows also reduces the internal noise level.

The Cab-Bike is perfect if it is used for going to work, around town, doing some shopping and improving the fitness. However, if you want to do a bit of racing as well, or you live in a hilly area, it is not the velomobile for you.

Positives

- Practical
- Ideal going to work and shopping
- Very good all weather protection
- Spacious

Negatives

- Heavy
- Loud inside
- Fogging up during cold periods

GREENSPEED GLYDE

www.greenspeed.com.au

Greenspeed Glyde Developmental Process

Critical criteria we wanted this vehicle to meet include:

- a full, three-wheel suspension system for pleasurable handling and noise reduction (there is nothing worse than a VM that sounds like a wheelie bin!)
- smooth streamlining - with a coefficient-of-drag (Cd) figure less than 0.12
- total vehicle weight of less than 70 lbs (including either SRAM DualDrive or Rohloff SPEEDHUB)
- quick-adjust for different leg lengths (must be just as easy as for a car)
- a large X-seam range of 36" to 53" (using vertical wall measurements)
- optional 'head inside' or 'head outside' fairing design
- adjustable vents for riding in any conditions
- large luggage capacity
- reversing capability
- wheels isolated from rider (to minimize muck and noise inside the vehicle)
- mid-sized opening hatch (small enough to avoid risk of the wind catching it as it is opened, yet large enough to make for an easy entrance)
- a wide gear range with disc brakes



We didn't feel we could satisfy these criteria with mere add-on's to existing products. It was time to look past previous achievements and make a dedicated velomobile (VM). In 2005 we started work on what we called the Quad, our full-suspension four-wheel disc-brake version of the velomobile. The Quad and its prior versions managed to get rid of the single main frame underneath the rider in favor of two side rails with the seat dropped down to the same level.

In 2006 colleague Michael Rogan realized some of his design ideas coming together while playing with his son's toy collection?and he and Paul Sims got straight into turning the concept into a full-size reality. The result? A space frame in which the frame resembles more of a box that the rider gets into, rather than sits on. Ian immediately saw the merits of it and declared the VM, alongside Anura, top priority for the company's R&D efforts.

The first full project utilizing this space-frame design also tested one of the aero shapes of the NACA (National Advisory Committee for Aeronautics). Although our tests revealed the NACA shape to be deficient in crosswinds, that name stuck and all space frames from that time onwards were referred to as NACA's in the Greenspeed factory. Needless to say we went back to the tear-drop design. The three-wheeler proved very close to the Quad in stability?and for much less weight, so we stuck with it.

Our next three versions of the NACA refined seating and steering mechanisms, saw a few braces added or lost. The final prototype inherits the full suspension, which has been thoroughly tested on the Quad and various other trikes from the MR Components workshop. Only minor refinements are required before the model is released in 2009.

This last prototype has a naked weight of 39.6 lbs, which we found impressive, considering the rigidity of the frame and the fact that this included the full suspension, Shimano 105-level components and a SRAM DualDrive. The weight with the fiberglass fairing on worked out at just shy of 80 lbs.

GREENSPEED GLYDE REVIEW

<http://glydearoundbritain.blogspot.com/2010/04/kit-review-part-1-glyde-review.html>

This review is based on having spent the last two weeks touring on a new Greenspeed Glyde. I previously owned a Quest so this review considers the differences between the Glyde and Quest when used for cycle camping in the UK.

The Glyde is noticeably smaller than the Quest - it is shorter, lower and seems to be narrower, although on paper I don't think there is a significant difference in width at the widest point. This means that there is potentially less luggage space inside the Glyde, but as my Quest had a 26in rear wheel and the Glyde has a 20in one perhaps it is just differently shaped space. Either way I got my full camping kit packed inside her. I had planned on having some luggage stowed ahead of each wheel well as there is a useful void between the spaceframe

tubes and the bodywork but after a couple of attempts, in practice I found things inevitably shook loose and ended up catching against my feet. For my next trip I will arrange some kind of lightweight wall to create a 'box' either side of the pedal area so this area can be used without this problem occurring.

With care to keep the height down, luggage did stack comfortably either side of the seat and acted as arm rests. With a camelbak hooked just behind the seat the remainder of my stuff was slung around and above the rear wheel box. The areas either side of the seat are not as big and do not run all the way into the tail as they did in the Quest but this didn't really prove to be an issue with the gear I had. Being a smaller machine it should punch through the air better - I didn't have a speedo fitted this trip so I didn't determine if this was true.

The most important improvements the Glyde has over the Quest for this trip were better brakes and gearing. The Glyde I used has twin BB7 mechanical disc brakes - an unfamiliar model to me, I'm used to hydraulic discs. I had no issue with the mechanical side of things but the pads did need 'advancing' to allow for pad wear several times during my trip - once I'd worked out how to do it, it was a routine 5 second job to adjust each one every couple of days. This is something that hydraulic brakes do automatically and something I'd never even needed to consider on the Quest. The stopping power from the discs felt significantly better than the Quest's twin drums. On flats and gentle downhill there is maybe little in it, but I really did prefer the feel of two discs controlled via two separate levers with the nice light modulation that disc brakes have when coming down steeper descents such as the 14% descent down into Dover city centre past the castle. Because of regularly needing to make these adjustments I'm considering upgrading the specification of my own Glyde to have hydraulic discs but it is a tight call whether it is worth the extra cost... Mechanical discs are field-repairable, hydraulic ones are less likely to need attention but more difficult to work on if they do. Drums, as per the Quest, are pretty much bulletproof and maintenance-free. I'd say the choice depends entirely on the terrain where you ride but for me and the areas I ride, discs are an essential choice.

Gearing - the Glyde I've ridden had a Schlumpf Mountain Drive (2 speed bottom bracket hub gear), a SRAM Dual Drive (3 speed hub) and a 9sp cassette. The benefit of the two hub gears is that they can be shifted when stationary (or, more usefully, stalled on a hill). On the leg of the trip I've just completed I expected the mountain drive (MD) to be a luxury that would only be needed occasionally but I think I ended up using at least once every day. With a relatively heavily laden touring bike it can take a degree of effort to pull away from an uphill junction or to make a brisk start from a stop in traffic. With the MD this is just a matter of drop the gear and spin until a higher gear can be picked up. When I asked for an MD on my Quest I found I wasn't the first to ask and the guys at the factory were clearly not impressed with the additional load such low gears would put on the hardware. Greenspeed have designed the Glyde to take the same gearing options as their other trikes so the MD, Dual Drive and even the

Rohloff hub would not be unreasonable options... With the aero benefits of the streamlining I did find that I used the entire range of available gearing. On the good days with a nice quality road and a tail wind like the Dymchurch-Rye section I was heading towards the top end of the available gearing and really eating the miles. The Quest I had had a standard 27sp drivetrain with only the option of juggling the chainring/cassette combination biasing the range towards the 'hilly' or 'sporty' ends. The options fitted to the Glyde gave a gearing range half as wide again as my Quest had. And I used it on this trip!

Handling - whilst I've seen plenty of Quests on the race track, the Glyde is clearly designed from twisty criterium racing heritage. Whilst I've seen Ymte handle a Quest on the race track in a truly impressive way, I never felt entirely comfortable with the joystick steering and the tendency of the Quest to lift a wheel and feeling as if it were beginning to roll when travelling fast through tight corners. I immediately felt at home with the Glyde side-stick steering. This is a little different from the usual Greenspeed arrangement where the handlebars are mounted on a pivot below the seat - in the Glyde the two handles pivot forwards/backwards along a channel in the back of each wheel well. This may sound complicated but is completely intuitive and the same arrangement as used on their SLR race trike (as can be seen here <http://www.wrhpv.com/greenspeed/slr/pic/undersrside.jpg>). A little alarming on first noticing, the Glyde also leans into a turn - the whole trike just leans as a bike would do. When stationary this seems to make the steering feel very heavy - presumably because the steering is lifting one side of the body, but once moving at even a gentle walking pace, this effort is unnoticeable. Throughout the entire length of my 760 mile tour I never once had the sensation that the Glyde was unweighting, let alone lifting a wheel.

Greenspeed pricing Glyde out of the market?

Travis Prebble

www.recumbentjournal.com/blog

Greenspeed now lists the Glyde at \$15,990 USD.

For comparison, bluevelo of Canada lists the Quest at \$8,750, the Team at \$8,450, the Cab-Bike at \$9,650, and the Strada at \$8,450. TriSled is introducing their RotoVelo this year at \$5,990 AUD (\$5,950 USD at publish time).

Is the Glyde enough of a value to justify a price that could net nearly three RotoVelos?

VELONAUTIX

Mick Sims

Mick Sims recently left Greenspeed and has a new project in the works. He sent me this email to tell me a bit more about it...

“At veloNautix we have one very simple goal: to make environmental transport as readily available as we can.

So what is in the pipeline...? Basically we are breaking the R&D into 3 main sections; parts, velo frames, and velo bodies.

Parts will consist of hard to find cycle parts, gear we specifically make and velo specific parts like wheelcovers, wind shields and electricals.

Velo frames will be offered as... fixed race frames and full suspension commuters.

Velo bodies, will break down into corex/coreflute, and hard shell. The corex ones will be for both the frames we make, and as retro-fit kits to standard naked trikes. Our retro-fit kits will come either as plans and the mounting hardware so that you can buy the corex locally, and more complex designs will be available as ready cut in a flat pack.

We will also offer our gear in kit form. Our frame kits will be offered as either just the frame, with or with out running gear, and with or with out corex plans or corex flat pack. Also you will be able to choose other options like wheel covers, clears (wind sheilds and light covers) lights, indicators, solar options, horns, alarms and what ever else we can think of / get our hands on. We'll also work with electric assist manufacturers to get the best fitting options.

Our veloNautix full velo will use the suspended frame and likely only be offered 16/20. The current plan is to simply offer it 'out of the box' fully built, one spec only, everything fitted. Depending on final distribution channels, we may also offer stripped down versions and custom dealer spec.

<http://www.facebook.com/pages/VeloNautix/168747376476960>



PRE CHRISTMAS LOAD CARRYING

Steve Muir

Pre Christmas load carrying. Can't fit it in the car? Then take the bike!

It's been a crazy few days before Christmas - lots of things needed shifting in a short space of time.

It all started with a friend of mine, who I'm going to holiday with in Otago later in the year. He got a great bargain on trade me - two double glazed windows perfect for doing up his older house to survive the Otago winter.



Double glazed windows headed for Otago



They windows were, however, located in the northern suburbs of Christchurch, measured 1.3x1.5 m, and weighed in at over 40kg each. Could I do him a favour and pick them up??? I couldn't fit them in the back of my people mover car, so the obvious solution was to take my bike instead.

Early Sunday morning when the traffic was quiet, I hooked up my home-made three wheel trailer, fitted an old weatherboard or two for supports, chopped up some old foam for padding, and rode the 7km from my place in central city to Burwood.

It's always entertaining watching people's faces when you say you're going to carry some awkward load on your bike, and this certainly got a good reaction.

The journey back with windows strapped onto the trailer was enjoyable, even if it was not the fastest journey I've ever made, and I avoided the quiet back roads with traffic calming judder bars.

The few cars I saw gave me an impressive amount of room when overtaking, and I even got a friendly wave from a waiting car at the two lane QEII roundabout. It all went smoothly and I arrived safely back home with the double glazing well intact. I have, however, declined the opportunity to cycle them from Christchurch to Otago.

Later that day I needed to pick up some Oamaru stone to be used in a camping activity between Christmas and New Year. It was from an artist with some spare blocks of stone who lived about 6km away in the south of Christchurch, and this time the perfect vehicle for the job was the home made 'Tadpole' - a three wheeler with a big bin on the front.



'Tadpole' three wheeled trailer loaded with 120kg of Oamaru stone

I had to decline the generous offer from the artists husband to take the stone for me in his car, and we loaded 120kg of stone into the bin. I got the impression they were expecting to see the wheels explode with each block we placed in, but it handled the weight very well and I plodded all the way back to my place quite happily.

I made a second trip the next day for the remaining 140kg of stone, then I needed to stock up on some more aluminium for a bike trailer workshop I had planned with DOC in Arthurs Pass. I usually get the 5m lengths cut into appropriate sized pieces which makes it easier to carry on one of my standard bike trailers, however cutting charges have been going up, so I decided to take the full 5m lengths on my new design of kayak trailer instead. The trailer is strapped onto the lengths of aluminium towards the rear, and the front end strapped to the pannier rack of the bike. The straps provide enough flex for all turning manoeuvres.



5m lengths of aluminium for more bike trailers on a kayak trailer

In hindsight it would have been better to have fitted a piece of wood to the pannier rack that extends behind the rack. The tube can then be suspended underneath the wood and still clear the back wheel. The aluminium weighed 33.11 kg and I needed to pick up a 25 kg 4yr old on the way home so she got to sit on the home made front seat, which is a bike seat hose clamped to the top bar with footrest on the bottom bar. I was a little nervous about passing lots of stagnant cars while I was cruising down the cycle lanes on the busy Armagh

Street, just in case one didn't notice my extended load and pulled over into it, but fortunately there were no incidents and again I arrived happily back home.

Then to round off the three days of odd-load carrying exercises I picked up a set of skis (no major drama) and loaded the Tadpole up with the last 6 months of accumulated scrap metal that had been causing some marital tension for a while. There was some roofing off-cuts from the latest bike shed, a few old bits of furniture and many dead bikes left over from the free bike maintenance



Scrap metal off to be recycled

workshops we run in Linwood. The useful parts have been removed and will be used for fixing up other bikes at the next workshop on February 13th. The weight of scrap metal was only 30kg but rather awkwardly shaped.

The total weight of awkward loads over the three days was well over 400 kg. If you're in Christchurch feel free to borrow a vehicle for your own load carrying needs, or get in touch to discuss how to build your own.

Email steve@cycletrailers.co.nz 021 0619296

AN INNER TRAILER

Steve Nurse

For a while now I've been mucking around with bike trailers and recently built one for carrying a large amount of shopping behind a folding bike. Unfortunately this trailer didn't fit on my recumbent and I wanted a trailer for my recumbent so you guessed it, the shopping trailer was due for the chop or rather "annihilation by jigsaw". And rather than building an ordinary trailer, how about one that trails from the front wheel of my bike? (My bike is well-qualified for this type of trailer, being long wheelbase, front wheel drive and having a really big space between the 2 wheels, more about it here:

<http://www.modularbikes.com.au/bigatthefront.html>)



Steve and his inner trailer

So I began work. The trailer has a height limit - it will bang into the bike frame if its too high. Keeping this in mind, I mounted the trailer wheels on the back of the trailer box so the bottom of the trailer could be kept low allowing for reasonable depth. The box is made from unbraced plywood and is therefore a bit wonky and I will see about improvements at a later stage. The drawbar is a 28mm garden stake and it's attached diagonally on the base of the trailer.

Initially I thought I could just drill a hole in the drawbar and hang the trailer on a pin mounted on the

front fork. I made the bracket on the bike, but when the trailer was hitched up it was too high and I couldn't pedal. Back to the drawing board.

Next step was to cut a small extra piece of garden stake and sandwich part of an old bike tyre between the drawbar and the new piece of wood. Apart from anything else, the extra bit of wood helps push the drawbar away from the wheel so the wheel doesn't bang into the drawbar during turns. The tyre was looped at the top and the loop was secured with a few screws, nuts and washers.

Then it was time for a few blockies to sort out any problems. The low ground clearance led to, you guessed it, scraping of the trailer base on the ground and I did a bit of work to fix that. My son Ewan took the main photo the next day when I was on my way to sell books at a book market. Trailer still way too low

and lots of scraping, so en route I stopped and twisted the tyre which the front of the trailer hangs from to bring the drawbar up a bit. And this worked, I arrived, bike, self and cargo and trailer intact at the book market.



Trailer hitch

While at the bookmarket, I readjusted the loop at the front of the trailer and the whole thing worked very well on the way home.

Well what I have here is certainly exotic - an exotic trailer on an exotic bike. Here are some of the advantages and disadvantages of the design.

- Wheels on the trailer are at the back. When compare to a 2 wheel trailer with wheels in the centre, the trailer hitch bears weight and the drawbar must stand more bending force. The bike is front wheel drive so weight on the front wheel is a good thing - there was no wheel slippage when climbing hills.
- This bike plus trailer is much shorter than the standard trailer arrangement. As well, the trailer following behind is very low and would probably need a flag for it to be seen by drivers peering over car bonnets. With the trailer in the centre, a flag is not needed.
- Having the trailer in the middle restricts the height and length of the trailer. Extra volume can be achieved by having a wide trailer, but this starts to make getting on and off the bike difficult.
- Once in motion, the bike and trailer handled ok. But starting was a bit harder than normal, I had to sit on the bike and start pedalling from a standstill. Normally I can start walking or running, then leap onto the bike side saddle and get going that way.
- The current trailer hitch allows the trailer front to “pendulum” about the hitch on the front. There is little resistance to motion from the trailer wheels at the back, so the whole trailer can move back and forth relative to the bike during acceleration / braking creating a not unpleasant “trailer surge” phenomenon.

* Not for the shy and retiring!

SCOTT HUT RECUMBENT RIDE

Pete Hallam



Views on the Scott Hut ride

If you are into off-road recumbent riding then this trip is a must; no traffic, great views and mostly flat easy going.

The track is easy and mostly rideable. There are some steep parts but they give you a chance to look at the great views. Its a 4wd track all the way so expect a little mud, some steep parts and some easy flat riding with great views of the surrounding mountains. It follows a valley and river all the way to Scott hut. you start the track just after the first gate on the rainbow road going from Hanmer to Lake Tennison. in fact if you continue on the track you come out at lake Tennison; but thats a long hard ride. At the start there is a map and DOC sign. There is only one gate to throw your bike over and that's at the start.

Its a trip to a well stocked back country hut. The hut has wood, is free and has a new loo. Great views from the hut and plenty of terrain around it to investigate. From the ground markings there are plenty pigs in the area. There is plenty camping ground around the hut. In the hut there are four or more bunks with some pots and pans and a small wood burner which you can cook on. All bunks have a mattress and one of the bunks had a blanket on it but I would suggest bringing a sleeping bag. There is plenty of wood at the hut but if, not then there are some trees near by for some wood. The river gives water but since there is stock in the area I would suggest boiling it first. The hut is very cute and I assume it used to be a farm hands' hut.

On the way there is a nice waterfall you can walk in to (1 hour walk there) and



some good picture moments but mostly it's a no-detour route.

You can camp at the start but since its only about 30 minutes drive from Hanmer it may be more fun to stay there instead. To get to the start from Hanmer go up Jacks and head towards the ski field. Just after the ski field road there is a gate, the Scott Hut track starts just after that. If you end up at lake Tennyson you have gone too far. To start the ride you lift your bike over the fence at the start, this is the only lifting required.

There is a river all the way on this ride but if you don't have sterilizing tablets or a cooker then don't drink it; take enough water for your trip.

This track is one of the first ones DOC has planned for off road riding so go along, enjoy and then tell DOC how good it is.



Scott Hut

FLAT-PROOF INDESTRUCTIBLE CITY TYRE

Hutchinson Tires

PARIS, France – The concept was presented at Eurobike 2009 but the bicycle industry had to wait a little longer before Hutchinson could really launch its concept of puncture resistant tyres, the Serenity.



Hutchinson is investing substantially in pneumatic tyre development and already offers a wide range of urban and city tyres. For example the Protect'Air and Protect'Air+ are reinforced anti-puncture models. Now Hutchinson claims the introduction of a market exclusive, 100% flat-proof and indestructible tyre system called the Serenity.

How does Serenity work?

The normal pneumatic tube has been replaced by a solid Hutchinson insert. The insert offers the same performance as a normal air tube. This "solid" tube is used in tandem with a specially beaded Urban Tour + tyre that prevent the tyre coming off the rim. It's a tyre that is well suited to any urban conditions or pavement. According to Hutchinson the Serenity distinguishes itself from all other "solid" type airless tyres by its supple and comfortable ride as well as a more efficient rolling resistance than other tyres of this type.

The Serenity is available in the size 20, 24, 26 x 1.50, 700c x 35 mm and fits on a rim width of maximum 19 millimetres. The use of an inner tube is forbidden as it has to be fitted with the insert. This new tyre concept has a durability of 5,000 kilometres for the tyre and 10,000 kilometres for the insert. Next March the Serenity will be put on the market via approved Hutchinson resellers.

http://www.hutchinsontires.com/en/a_la_une.php?id=221

BRITISH-HUMAN-POWER FORUM

www.british-human-power.com/forum/

When we launched the new site and forum, it quickly grew from a few thousand visitors to way over 100,000 visitors a year, from over 100 countries around the world; a much wider usage than the couple of hundred members of the BHPC.

The success of the general forum of course also reflects the growing popularity of HPV's. Initially, most HPV's were home-built; today, commercial production is widespread. Big events such CycleVision and the annual HPV World Championships attract thousands of visitors. HPV's are more than a few record-breaking machines; the movement is large, and ranges quite literally from Patagonia to Siberia.

Viva la internet! Cyberspace is a perfect meeting place for HPV enthusiasts. The general forum on the BHPC site expanded and grew so quickly, it was decided to separate out the general forum as a new site, <http://www.british-human-power.com/forum/>. This new site and forum being designed to support and promote the British Human Power movement in general rather than being tied to the BHPC. Over the coming weeks, as well as the forum, you will see the launch of Free Blogs for human power builders and enthusiasts, free picture galleries, news as well as an ask the experts section featuring some of the UK's best known Human Powered personalities.

Communications are essential to exchanging news and information. We expect the British Human Power site to continue to grow both in size and international scope, and stimulate even more interest and participation in HPV usage and events. We hope you will join us there.

The British Human Power Team

DIGITAL BICYCLE MIRROR

<http://www.cerevellum.com/hindsight.php>

Cerevellum HINDSIGHT 30

Digital Bicycle Mirror

With the Hindsight 30, you will always be able to know what is approaching from behind, whether a car or an opponent initiating a break-away. The head-unit attaches to the handlebars in front of the stem where it is easily seen and most protected. The small camera unit attaches to the seat post and faces rearward providing you with a clear view of what is behind you.

Evan Solida, a former competitive cyclist and award-winning industrial designer, founded Cerevellum in 2009. The company brings Solida's passions together

to offer innovative solutions for the cycling market. With U.S. patent-pending technology, the HINDSIGHT 30 is the first and only digital rear-view mirror for bicycles.

Originally named the “Echelon”, the HINDSIGHT 30 concept was an immediate success, capturing the IDSA award for design excellence.

The first working prototype began to generate buzz in competition cycling circles where Solida spent much of his time, having been a former state champion.

- * Lithium-ion Battery
- * 3.5” Transflective LCD
- * LED Front and Rear Lights



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Contact Nigel Farrell
 phone 385 9736 (home)
 phone 021 0272 5949 (mobile)
 email ziganig@xtra.co.nz

FWD Tricycle with Rear Wheel Steering

Club member David Green is moving into a smaller home and wishes to sell one of his HPVs. This is a self-built tricycle, with front wheel drive, and rear wheel steering. Perhaps someone, like a street performer, may be interested in such a vehicle. If interested, please contact David to discuss further.

David Green

6 Tothill Place, Christchurch 8053

phone: 03 352 4378 **mobile:** 021 111 4319 **email** green.d@xtra.co.nz

FRONT SCREENS BY GRAEME HOLMES

Graeme Holmes, constructor of the Rapide velomobile has also been working on a Perspex fairing/front windscreen. Anyone who has tried a front screen will know how much comfort they can add to winter riding, which, along with improved aerodynamics, make them a popular way to improve an HPV's practicality.

Graeme is keen to build further screens for Kiwi HPV members.

Those interested should contact him at: gl.holmes@actrix.co.nz

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FOR SALE: SWIFT ADVENTURE TRICYCLE

For maximum comfort and handling in rough road conditions. This trike comes from Michael Rogan in Victoria, Australia and assembled in NZ by a local bike shop. Imported in August 2006, and although its sized to suit someone who's 6ft 3in, the length can be altered to suit a shorter person. I spent over \$5000.00 on the trike, import duty and freight and would like as near to that as possible.

Contact Details:

Patricia Buffery (Rotorua)

Phone: (07) 348 0890

Cell: 021 171 3098

Email: a.p.buffery@clear.net.nz



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