



The British Human  
Power Club



*HPV Nominated For Britain's  
Premier Comedy Award!!*

Winter 1999

Issue 59



Depravo, the Editors' pet rat

## BHPC Newsletter - Issue 59

Front Cover: But Al "Pub Landlord" Murray won...  
Photo by Nigel Sleigh, doctored by the Editor.

Back Cover: **Contents**

Events		<b>3</b>
News, etc.	The Editor	<b>5</b>
Letters		<b>9</b>
BHPC AGM	Dave Larrington	<b>15</b>
Racing News	Richard Middleton, Dave Larrington	<b>20</b>
World Championships '99	Sean Costin	<b>31</b>
Car-Free In Calais	Paul London	<b>34</b>
Cheap Bright Lights...	gNick Green	<b>36</b>
Late-breaking news		<b>38</b>
Suppliers & Wants		<b>39</b>

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**Objectives:** The British Human Power Club was formed to foster all aspects of human-powered vehicles - air, land & water - for competitive, recreational and utility activities, to stimulate innovation in design and development in all spheres of HPV's, and to promote and to advertise the use of HPV's in a wide range of activities. W.C. Fields Forever!

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**Issue 60 closes: 1st March 1999 (inside if wet)**

Letters, articles, pictures, oil wells, etc. are always welcome - please send to the Editor at the address opposite. Technology being what it is these days, we can cope with most file formats readable by a PC (text in ASCII, WordPro/AmiPro or Word easiest to cope with), but if you haven't got one, items on paper are just as acceptable.



## A Day At The Races



### BHPC Events

March 5th	Manchester velodrome
April 16th	Eastway, London E15
May 13th	Milton Keynes Bowl
June 4th	Hayes, Middlesex
June 18th	Castle Combe, near Chippenham, Wiltshire
July 1st	Darley Moor, near Ashbourne, Derbyshire
August 5th/6th	Lancaster
August 26th/27th	Edinburgh, near Norway
September 17th	Curborough, near Lichfield, Staffordshire
October 8th	Eastway

#### Notes:

1. Milton Keynes, Hayes & Darley Moor are on Saturday
2. Manchester and the AGM Meeting will both be points events
3. gNick sez that "there has been a certain amount of interest raised about turning Castle Combe into a distance event of the order of ~50 miles to suit the less sprint orientated rider (and those who've recently done the End to End). This is likely to give rise to some strong feelings so please let me know before Manchester so I can ensure whatever details need to be posted can be."
4. The British champs will again be at Edinburgh as they were in '99 with points being allocated for the park race, the time trial *AND* for the velodrome.
5. gNick also says: "In order to get hold of me my current address is: Church House Barn, Llanllwchaearn, Newtown, Powys, SY16 3BH, Phone 01686 624259. Bear in mind that this is a temporary address that we will probably be in until April at least. If you have difficulty contact Messrs.Larrington or Donaldson who will know how to find me."

#### Other People's Events

TBA (May)	French Championships, Roubaix Contact: Eric Vittecoq ( <a href="mailto:vittecoq@ec-lille.fr">vittecoq@ec-lille.fr</a> )
May 26th-28th	6th Berlin HPV Festival Contact: Joachim Murken ( <a href="mailto:fest2000@hvp.org">fest2000@hvp.org</a> , <a href="http://www.in-berlin.de/User/jojo/HPV/">http://www.in-berlin.de/User/jojo/HPV/</a> )
June 3rd-4th	CycleVision, Lelystad, The Netherlands Contact: ? - not sure yet but try <a href="http://www.ligfiets.net">http://www.ligfiets.net</a>
June 14th-18th	Sea, Sun & Cycles, Cap Ferret (south-west of Bordeaux), France Contact: ? - <a href="http://www.velofutura.com/">http://www.velofutura.com/</a>
July 11th-16th	European HPV Championships, Gent, Belgium
August 5th-6th	24 Hours World Cycle Race, Schötz, Switzerland

#### Notes:

1. At the time of writing, there's still no news of when or where the North American types are planning to put on the 2000 World Championships. So it seems increasingly likely that Euro 2000 will be the Worlds after all.
2. If anyone not net-enabled would like any further details of any of the above events, please give the Editor a shout.

# A Night At The Opera



## Unrace Events...

- (TBA) Late April Modestly-paced day ride based on Cobham, Surrey. Being organised by Ron Beams, aided and abetted by Tom Culver.
- May 25th-30th KM160, Dumfries, Scotland. All manner of cycling events celebrating the 160th anniversary of the Bicycle.  
Contact: Peter Hawkins, 10 Woodhall Terrace, Edinburgh, EH14 5BR. Tel: 0131 453 3366
- June 10th-25th Isle of Wight Cycling Festival  
June 23rd-25th CTC York Rally  
June 25th Glasgow Cyclefest  
July 8th-15th Open Road week, Nottuln, near Münster, Germany  
July 28th-31st Spokesfest, Leicester  
Roger Lovell, c/o Leicester Spokes, PO Box 30, Leicester LE1 9DG. Tel: +44 (0)116 278 1360, e-mail: roger@spokesfest.freemove.co.uk  
<http://www.spokesfest.freemove.co.uk/>
- August 2nd-8th CycleFest 2000, Lancaster  
John Bradshaw, Tel/Fax: 01524 384474 (day) or Tel: 01524 66658 (eve), e-mail: [j.bradshaw@ucsm.ac.uk](mailto:j.bradshaw@ucsm.ac.uk)  
<http://www.whooper.demon.co.uk/cyclefest/>
- August 5th-12th Open Road week, Escrick, near York

### Notes:

1. A recent communique from Bonnie Scotland indicates that the following might also be happening:  
April 9th 40 mile ride in "Lincolnshire", organised by Eric Coles  
June Invitation to participate in Sun Day (International Solar Energy Society)  
June 18th Social Ride, Beckenham, Kent. Organised by Doris + Jim Lugsden  
Roger Lovell also suggested non-race meeting at a Museum etc.  
Roger Hulme - Shropshire Marches ?  
which is all rather cryptic, but doubtless if you contact one or other of the Donaldsons, you may learn much to your advantage.
2. I did have a nice big detailed handout about KM160, but unfortunately I dripped all over it, rendering it impossible to reproduce in the Newsletter. This is because I am an idiot who rides a fully-faired bike to work...



*Yes, I know it's got an engine...  
Built by Geoff Bird, among others, "for a friend"*

# The Editor Snacks On The Bones Of Doug MacClure

## Varnas Do It Again!

While the rest of us were busy not going to Interlaken, the Varna team were busy setting even yet more world records. This from Paul Buttemer:

"In late July of 1999, Team Varna (builder George Georgiev, riders Andrea Blaseckie, Sam Whittingham and Paul Buttemer), and IHPVA officials (Pierre Laliberté, John Tetz and Robert Lafleur) congregated in Blainville, Québec, Canada. PMG Technologies, a company in Blainville, allowed us the use of their large racetrack to make record attempts in various categories as recognised by the IHPVA. For a description of the venue see last year's record report.

## ACKNOWLEDGEMENTS

Once again we would like to thank Pierre Laliberté for the tremendous amount of work he did before, during and after our session at PMG. Many thanks to John Tetz and Robert Lafleur for taking on the tough and thankless job of officiating. We would also again like thank all the staff at PMG Technologies. As usual, they were always friendly, helpful, and frequently went far beyond the call of duty to accommodate our unusual and unfamiliar requests. We hope that we have made a good name for the HPV community at PMG, and that we will be welcome guests in the future.

## RESULTS

The following chart summarises our results. At the date of writing (Aug. 19, 1999), none of these are official, but all have been submitted for approval by the IHPVA.

Event	Time	KPH	MPH	Vehicle	Rider
200 meter sprint (FS)	7.157	100.60	62.52	Varna Mephisto	Sam Whittingham
500 meter sprint (FS)	17.942	100.32	62.35	Varna Mephisto	Sam Whittingham
500 meter sprint (FS)	22.89	78.64	48.87	Varna II	Andrea Blaseckie
1000 meter sprint (FS)	47.558	75.70	47.05	Varna II	Andrea Blaseckie
1 mile sprint (FS)	77.226	75.01	46.62	Varna II	Andrea Blaseckie

## Notes:

- When Sam made the record 500 meter run, the timing equipment failed to record the start of the 200 meter portion of the course. His speed was over 102 kph. Next year...
- In preparation for a possible 12 hour record attempt, Paul did a six hour ride in Varna Orpheus and covered a distance of 340.22 km."



## Matt Weaver Hopes To Do It As Well!

Many, many moons ago, my highly-esteemed predecessor Mr. Kingsbury published a page from "Re-cumbent Cyclist News", featuring a photo of Matt Weaver's proposed new machine. Well, it's become a reality! The photos came via Peter Ross and Matt's father, Dr. John Weaver, while the blurb was lifted from an article in "The Orange County Register" of October 28th 1999, thanks to a reference supplied by Garrie ".DeciMach" Hill. Omitting a certain amount of verbiage about the Dempsey MacCready Prize...



"Can it [90 km in an hour - Ed.] be achieved? Yes, but not easily. Someone can attain 56mph for one hour, MacCready said, and Matt Weaver of Northern California is confident that someone is him.

In 1995, Weaver, 30, an engineer who built soap-box derby cars when he was a kid, designed and built a torpedo-shaped, human-powered vehicle called Virtual Edge that "rides rather effortlessly at 40 mph."



The low-to-the-ground vehicle has the optimum aerodynamic dimensions in part, at least, because it has no windshield creating extra drag. A camera hooked up to a screen inside the cockpit guides Weaver around the track.

"The bike is designed to go 75 mph for an hour," Weaver said. "Paul MacCready talks about doing more with less and that's very much what this bike is all about."

Weaver's first attempt at the prize will be the first week of November at the Las Vegas Motor Speedway. Subsequent attempts at increasing his speeds are planned for California Speedway in late November or early December"

No news as yet as to the results of any runs, but I'm keeping my ear to the ground... Much more info on Matt's machines can be found on Alan Thwait's web site, at <http://www.praxcomm.com/weav.htm>

## Sean Costin Intends To Do It For The First Time

Sean Costin, whose memoirs of Interlaken appear elsewhere in this issue, writes that:

"I have a half written paper on Camera bikes with input from the camera man himself, Matt Weaver."

and

"I am planning a 200M World record attempt this summer, possibly in conjunction with the Varna Team, ... I am working on a new non-faired bike that may make the tailbox issue irrelevant and challenge the UCI hour and 200M records (with the right rider).

...Would you mind putting something in the BHPC about planning a record attempt this summer in case there are any teams interested in the UK. It's much better if you can spread the cost around. They can reach me by e-mail at [seancostin@aol.com](mailto:seancostin@aol.com)"



## Bob Dixon Has Already Gone And Done It

That is, changed the name of the Company Formerly Known As Seat Of The Pants. They're now called Advanced Vehicle Design, which give me an excellent excuse to include a photo of the latest bells and whistles for the Windcheetah.

## Simon Sanderson Stopped Doing It Quite A Long Time Ago (But Might Start Again)

Long-standing members of the Club may remember the name and machines of Simon Sanderson. Although he became engrossed in the speed sailing world many years ago, Simon hasn't altogether lost touch, as the following snippet from BikeFix's web site shows:

"During the morning, local resident Simon Sanderson turned up with his (currently out of commission) monocoque recumbent tricycle, the machine that he used to commute home from London at weekends, a journey that he could do in an astonishing five hours! He also brought his scrapbook of record breaking recumbents from the eighties. At the moment he is busy with an attempt on the world sailing speed record, in a boat that incorporates much of the technology he used on building recumbent bikes, including a carbon fibre honeycomb shell and rigging equipment made by Hope, manufacturer of expensive lightweight hubs. When he's done that hopefully he'll get back into making bikes; he obviously has ideas and experience well ahead of most of us in the business..."

from <http://www.bikefix.co.uk/news2.html>

## Dave Larrington Does It Wrong...

...or "errare humanum est", as they say in Walthamstow. Ron Beams would like to point out that in the picture on p. 13 of Issue 58, I wrongly identified Bob Morgan as Ron, who was in fact the *third* from the left. Ron also notes that his latest machine, pictured on page 14 of the same issue, is in fact the Arrow, not the Acorn, and apologises to John "Arrow Bicycle Company" Lafford for the error.

Meanwhile, Jill Jones would like to point out that her average speed in Lancaster was 18.7 mph and not 17.6 as previously advertised - looks like we lost a lap somewhere...



*Note Bob's HPV transporter in the background...*

## Lynx Red Star Do It With HPV's

This 'ere appeared in the Autumn 1999 edition of "Well Red - The Magazine For Lynx Red Star Customers"



★ ★ ★ wheely red ★ ★ ★

Two-wheeled cycle courier Ray Doyle, 35, took a step into the unknown a year ago when he joined the team running LYNX Red Star's four- and three-wheeled cycle service in London. He has 12 years behind him on two wheels, but since going on more he has found TV fame, appearing in Channel 4's Traffic Jams from Hell. During the show he put the point over for pedal power and told how LYNX Red Star four-wheeled Heavy Goods Cycle Vehicles (HGCVs) dodge jams and cut journey times in London by 25 minutes compared to vans.

"I enjoy the work as it's great to be involved with a 'green' service that beats all the delivery vans – they get caught up in traffic jams that I simply cycle past," he says. "We call the three-wheelers 'trikes' and the four-wheelers 'trawlers'. They are much easier to pedal than you might imagine – and parking attendants are normally nice to us!"

Ray will be spending less time on the road in future, however, as he is now staff and operations manager for the service.

**CALL Red Star ON**  
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for information on all our services

## Oliver Zechlin Did It With Computers

to whit, produced the 1999 HPV CD-ROM. I haven't had the chance to go right through it from stem to stern, but there's bags of good stuff on it, including some fascinating pictures from the Brighton event in 1980, featuring, among others, Dennis Adcock and Ron Beams! Like its predecessors, it's available from Richard Loke - see "Suppliers And Wants" for details.

## The SOE Did It In All Manner Of Odd Ways...

When Sir Winston Churchill instructed the Special Operations Executive to "set Europe ablaze", I'm not sure that the following was *quite* what he had in mind:

"A hollow brass cylinder fitted with explosive and fitted with a pull switch, is pushed inside the barrel of a bicycle pump [and] the safety pin withdrawn. The enemy's pump is replaced by the explosive one and his tyres deflated."

- from the SOE archives, quoted in "The Guardian" not so long ago.

## Kingcycles Do It On 406 Wheels?

David Kemp writes:

"Among the various apocalyptic predictions for the next millennium, including rising sea levels, meteorites striking the earth or even the terrifying prospect of a fair economic playing field in Europe with a single currency, nothing strikes fear into the heart of a Kingcycle owner so much as rumours of the complete disappearance of the 390 front wheel spares!

I was recently riding the bonnie hills around Berwick on Tweed, (on a Bike Culture holiday), in the company of seven other Kingcyclists and the conversation naturally turned more than once to our shared fate: the impending obsolescence of the 'front quarters' of our noble steeds. One of our number subse-



quently contacted Miles Kingsbury and reported the good news that Miles has apparently offered to supply replacement front forks to accommodate the new standard 406 wheel size. As you know, several Kingcycle owners have been running 406 wheels in the existing forks but it's a real squeeze as 406 wheels are obviously 16mm larger than the original 390 (although overall size of course depends on the type of tyre fitted). I understand that the new forks will allow mudguard clearance with most general purpose 406 tyres, but I don't have the precise dimensions. The forks would be as original spec., complete with braze-ons for hub brake arm etc.

Cost is £135 for an individual order (inc VAT and carriage), however, I am told that Miles indicated that a lower cost might be applicable if a larger order was placed together. How practical this would be to organise I don't know. I guess there must be a fair few Kingcycles in the ownership of BHPC members so perhaps you could place a note about this in the next mag., (or print this e-mail). I suggest it might be best to check the details with Miles first: I am passing this on in good faith but it has come via a third party."

## Australians *Don't* Do It Upside Down (Contrary To Popular Opinion)



From Andrew McLachlan came the following: "Attached is a photo I thought you may find interesting. It is an HPV built in Adelaide, South Australia for a team of year 8 girls from Walford Anglican School for Girls to compete in the Australian International Pedal Prix (AIPP) held every year in Murray Bridge, South Australia. The AIPP is a 24 hour endurance race held on a closed street circuit. In 1999 approx 130 teams competed in 4 classes from primary school age to an open category for adults. The Walford team competed in lower secondary class against predominantly all boy teams (47 in this class) and finished 3rd in class and 11th outright. We also competed in a 6 hour sprint race held

recently in Adelaide and won our class and finished third outright.

The car is constructed from chrome-moly tubing, TIG welded, Sachs front hubs, 63 tooth Avitar front chain ring, Shimano rear cluster 8 speed 11 - 28 cassette, Shimano UN 52 crank axle, Dotek Cranks, 20" Araya rims. Body work is Corflute [*Aussie Corriboard - Ed*], front canopy is 6mm blown polycarbonate, canopy over rider is 2mm poly carb sheet. Total vehicle weight is 28kg. More info on the AIPP can be found at <http://www.nexus.edu.au/TeachStud/aipp/>"

Why didn't they have stuff like that when I was a kid??

### **It's Your Letters, It's Your Letters!**

5 Seaton Crescent, St. Annes, Lancs FY8 2RF  
Tel. 01253 725120

Dear Dave & Tina,

Went to my first BHPC race at the Salt Ayre track at Lancaster and really enjoyed myself. It was great to meet some people who didn't laugh at my Kingcycle! It's amazing how many people think I made it myself.

I agree with Steve regarding his comments on scoring. At least I would have scored 1 point for my efforts. 18.7 mph, maybe I should take it up professionally? His comments re. DNF etc seem to make sense.

On a technical note. After abandoning all hope of getting hold of a rear fairing for my Kingcycle I've decided to have a go at making one from some yellow Corriboard ( or is it Correx, anyway, it's plastic and has square cells?). Has anyone any advice on how to neatly fold and join such stuff?

I agree with Tina's comments regarding visibility. As the owner of a Lotus Elise I can vouch for the fact that my head *is* about 8" lower in the car and I don't have any visibility problems with that. To make myself stand out even more, because I'm vain, I've got a flag (from D-tek) on mine (the Kingcycle) at normal bike head height. I've also wired three red LEDs to it at the top. My motorist friends say it really stands out at night as it bobs about above the roofs of the cars behind me. The batteries are four AAs that fit in a little pack velcroed to the inside of the seat webbing and I turn them on and off by disconnecting them at a jack plug. Does anyone have any data on the aerodynamic drag of a flag?

The problem with owning an Elise is that when the sun shines I go out in the car rather than the bike so I'm getting out of the habit of Kingcycling. It should be called a LOFUS with F for Fun! However, at the rate my stomach's expanding due to lack of exercise I won't be able to get into it soon so I'll have to get back on the bike. And no, I've not had any serious trouble with it yet after 8K miles, touch wood. Unfortunately I can't get my Kingcycle on the Elise so I can't get to distant BHPC events and ride.

I went on the Manchester to Blackpool run in July. Out of about 1500 participants there was only one other recumbent, very disappointing! Where are you all? I think it would do a lot to popularise recumbents as a serious form of cycling if more of us went on such events. The atmosphere of the event was really good and my Kingcycle got a lot of attention, particularly as I went zooming past everyone on the downhill bits. Not that you have to ride fast, you've got all day if you want, with plenty of watering holes on the way. That event was very well organised by Bike Events even including transport for you and your bike to the start from Blackpool and vice versa. It was only one of many 30-100 mile social rides that they and other charities and clubs do throughout the country during the summer.

I like the content of the mag as it stands. Even though I'm not a racer I still like to find out about the little tweaks the more inventive amongst us are coming up with and how it affects their performance. It's also the only magazine I know of that deals with the design and making side of things rather than the buying of existing accessories. I think the magazine complements Recumbent UK and the CTC mag etc. and satisfies a need that the others don't.

Keep up the good work.

Keith Rogers.

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8 Edric Road, New Cross Gate, London, SE14 5EL  
26 October 1999

Dear Editorial Team

## **STOUTER TYRES FOR KINGCYCLES**

In issue 57 (yes, yes - I know I'm late), Dave asked about stouter tyres for the rear of the Kingcycle. This is not exactly an answer.

I'm sure there's no connection, but two days after reading Dave's plea, the front tyre of my Kingcycle shed its sidewalls. All at once. Just like that. Although the tread was near perfect - as near perfect as a few years hacking up and down the Old Kent Road allows, anyway - all the amber stuff just upped and flaked off. There's gratitude for you. And so began my personal search for a stouter *front* tyre. Well, any front tyre realistically, as for some reason they have become hard to find ....

When Bikefix quoted £12.50 for a tyre I'd last paid £4.50 for, I knew I had to search harder and further. Along that previously mentioned Old Kent Road, signs had appeared recently pointing the way to a "New Sports Superstore". Naturally I'd ignored them, as I'd ignored the signs for "Peckham Village" (Village???), "All Day Brekfists (sic) £1.99", "Fright (sic) Agents", and so on. Then I happened to be browsing the cycle mags in Elephant and Castle W H Smuts - I never buy the things: I mean there's never even a token recumbent in Mountain Bike UK - when I happened upon a stunning review of what appeared to be a ludicrously underpriced MTB. The manufacturer turned out to be a French outfit called Decathlon, owners of the "New Sports Superstore" (Canada Water Retail Park, Surrey Quays Road, London SE16 2XU 0207 394 2000 [www.decathlon.com](http://www.decathlon.com)). I didn't make the connection between French Decathlon and Kingcycle tyres until later that evening, after a couple of glasses of (Chilean, not French) wine.

The "superstore" is vast: four buildings, of which one is devoted to cycling and in-line skates. Before you get excited - absolutely all the machinery is bog standard upright (or upwrong if you must). But .... if you were in the market for a £99 bike for pootling down to the shops, or a state of the art Campag equipped racer, or that value for money MTB - could do worse than start here .... just buy a Speedy first, OK?

Tyres: I came in for tyres. Good news! Lots of tyres and tubes in a variety of sizes. Almost immediately I found a Swallow tyre in 450 x 35A - good looking tread, bit fatter than I'm used to but that's what I wanted isn't it? - and a mere £6.50. Get it home. Fits fine, looks good. Decide I'll write and tell you at the weekend.

Two days later (Friday). Amazingly, I feel able to leave work shortly before darkness falls. Roll out of the underground garage (yes I know I'm privileged) nonchalantly waving to the security guard, when BANG!! front tyre deflates. Bad news! Two inches of sidewall have separated from the wire bead, the tube has a gash in it that no patch will ever cover, and I'm a Kingcycle-free zone again, until I sidle into Bikefix the next Friday and shell out for two of their ludicrously overpriced ("But they're really rare now.") Hutchinsons. Hooray for London Cycling Campaign discount, even at a meagre 5%. If anyone wants their sole remaining Kingcycle front tyre, note that it is cunningly hidden amongst the 309mm tyres. I've yet to return to Decathlon to test their customer care skills and returns policy, but I will check any other 450A there for obvious weaknesses.

I am getting to the rear tyre, honestly. Decathlon also had in stock tyres from a manufacturer called Impac. Their Rapide model, also £6.50, comes in size 600 x 28A (28 - 541). The Hutchinson HP25 tyre on the rear of my Kingcycle is labelled 600 and 28 - 541/540. So will the Impac Rapide fit the Kingcycle rear? It is a pretty good looking tyre with a nice amber sidewall, light patterned tread. I don't think it's really any stouter than the HP25, but it might prove to an alternative source as the Hutchinsons get harder to find.

So the fact that Decathlon stocks odd sizes of tyre may be good news for recumbent owners. Of course, for most BHPC members the bad news is that Decathlon only has the one store so far in the UK and, yes it's in London. Even if you live in London, Surrey Quays may not exactly be convenient (Larringtons may of course just roll down through the Rotherhithe Tunnel .....). However, if you happen to be a regular visitor to France, they have superstores all over, and I'm willing to bet the prices are considerably lower than Surrey Quays. It is possible to buy on-line, and the website can be read in either French or English.

On another subject - I don't race, I've only been to the AGM once, and I'm never likely to master the building of full race fairings, but I can't live without the BHPC Newsletter. I have renewed my subscription, and I would willingly sell my wife, my six children, the budgie, and the cat, (sorry cat, but it's anything but the bikes) in order to shell out for a life sub if you'd only let me. You can quote me on that.

Regards from one satisfied subscriber,

John Shepherd

Dear Editor,

Dennis' concerns about membership embolden me to suggest that for those approaching my own unparalleled incompetence as a designer and builder the purpose of the HPV club, given the publication of Recumbent UK which seeks to review machines for sale, is now primarily for builders and racers. In a geographically disparate organisation where it can be demonstrated that a member from Aberdeen is incapable of finding a wife from any place closer than Australia, publication of the rolling resistance debate and other technical matters is useful to those of us from the wilds of - er - Leicestershire. Without this we are thrown on our own resources, and whilst Clive Sleath who by virtue of his living in Mountsorrel which is two miles away was one of my resources, he now irritatingly lives in Sandbach which is a hundred miles away and of a Tuesday night I can't pop over and fiddle longingly with his milling machine.

The aspect of communicating with like-minded persons is much treasured, although unlike me Clive is completely mad, he having a) built a miniature wind-tunnel in his garage and b) taken his stone otter collection with him when he moved house. I have always managed to leave my stone otters when moving house thus avoiding unnecessarily cluttering the garage with objects that I seldom use.

Clive being an engineer by profession is a source of useful information but tends to economise with words: nevertheless such comments as can be evoked are to be heeded. He once gave me a (conventional) bike frame with a snapped stem together with the terse observation that 'The handling is adversely affected when the handlebars break off.'

However I have pressed him about his new propane-only (ie no oxygen bottle) brazing torch of which he initially managed the summary 'Awesome'. In a second, and in this case marathon e-mail, he described it slightly more fully as:

Brazing torch, 9SMatic by Sievert/Primus. Got it from Knighton Tools in Leics, funny little place but still supply us at work for tools. Kit consists of superlative piezo ignition handle, large brazing nozzle (7.7kw) can braze up to 32 mm dia pipe + hose + regulator. List price was £136 ish + vat.

I understand he is having great success in brazing together a space-frame machine of thin-gauge steel tubing the details of which will probably emerge when the end of the month arrives and he finds he hasn't used up all the free calls on his mobile.

Yours faithfully,

Richard Middleton

---

S.P. Sparrow  
3 Kiln Court, Mainway, Lancaster, LA1 2AX  
23 October 1999

Dear Dave and Tina...(The loveliest of all possible Tinas!)

I don't know if you'll want to print this [*of course he will – Tina*] but I am writing to let you know the sort of people you are associated with and also to ask a bit of advice from you.

First of all, Me: I am disabled with "acquired brain injuries" from a motorcycle smash three years ago. I slapped the nut on Mother Earth and she was bigger than me! It's left me in a bit of a state! I have some paralysis on my right hand side, face, arm, leg to some extent. I am very unsteady on my feet and I walk with a stick. If I walk more than 100 or so yards I tend to collapse with the exhaustion or fall over with the dizziness! I got epilepsy, diabetes and I am not always in charge of my own head.

My good big brother, Il Pinguino piu grande de la monde, in Leeds, got me onto and old Pashley trike a year or so ago. It was magic! I could ride easier than I can walk and this led to great aspirations

(obsessions?). I moved back up to Lancaster for the family to help with my care needs and, before too long, I got a Longstaff trike conversion and started getting about a little. Then I saw the '98 CycleFest and I was hooked on recumbents! I managed, by hook, crook and begging, to get hold of a Pashley PDQ3. It was great in terms of comfort but it was too wide and, I felt, too short, so I let it go. I also got bloody-minded and decided that I was going to try two wheels for the times when I am up to it, so I got a Dawes Low Rider. Again, I loved it in many ways, it was a great local hack but, in a three-way deal with my brother and another trike for him, it went. Back to uppers! I have a Birdy Blue and the Longstaff trike still.

Now, I miss two wheeled 'bents but I am a dole pauper so I can't afford anything particularly grand. What I would like is a cross between a Kingcycle and a Dawes Low Rider. I want to be able to go local with Lancaster traffic but I also have ambitions for doing what I'd call an Odyssey and spending a week or more doing something like the coast to coast run. The amount of medication I take alone would take a lot of space so the bike needs to be able to pull a Cartman [BoB trailer – Ed] (DAMMIT!!!) or something similar but, as my energy levels are very variable, I need it to be light.

I've only been with the BHPC for three issues of the Newsletter but I have seen enough to realise that there are some good people out there with the skills and brains to put things together and I wondered if any of them are interested in a commission. Are there any recumbents you would reckon fit the bill of what I want? From the Birdy I reckon something with Sachs 3x7 gearing would be a help. If there is anybody who wants to give me help, advice, money, suggestions or insults then please let them give me a ring in Lancaster on 01524 33002 at any time. I can't promise they'll get any sense out of me but some things never change.

The best od(how many d's and s's??)dyssey I would love to do is to see the Spokesfest and the CycleFest in 2000. For me that would be a biggie.

Yours my god it's comin' right at us,

Steve Sparrow

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On the subject of declining membership I found David Kemp's suggestions about "political refugees" from mainstream cycling as a potential source of members, and Editor Dave's comments on newsletter content, particularly interesting.

Shoestrings isn't the sort of stuff one bloke in his shed can build an HPA out of – not a successful one anyway – go on, prove me wrong! There was a reference to a UK aircraft in this mag a few years ago – what happened to it? Did it fly? News of Human-Powered Aircraft will be infrequent. Boats are a better bet and we sometimes see reference to them. The recent canal boat, for example. Trouble is you need water, and it's usually miles away!

The advantage with bikes is that they are very useful and we all have access to a vast "test, development and training facility" just beyond the front gate. References to other human-power activities will also be few and far between. Most are taken very much for granted, well tried and not very dynamic or interesting... But, I am waiting for someone to tell me about a more efficient way of chopping firewood; I do a lot of that.

If the BHPC has become mainly a cycle racing club – and the number taking part is up slightly this year – then some future racing members as suggested are likely to be competitive types who come across from orthodox bike racing. But, 10 years of shared training at Castle Combe have shown me that they are quite disinterested in other types of bikes. HPV's lack credibility. They are ridden by old geezers like me, who think even Chief Constables are looking younger, not thrusting young athletes.

Cyclists are used to drafting literally and mentally and if leading riders were seen to be riding HPV's (or at least taking them seriously) they would acquire that missing credibility. How such riders could be per-



sueded to take part I'm not sure, they will have complete racing and training schedules and are probably used to a certain degree of financial support! [How much is John Kingsbury paying Rob English\*? – Ed ☺]

Riders at the end of their careers may be suitable targets/candidates. What happened to the Obree HPV Hour Record threat? Only the other day I heard David Duffield, the Eurosport cycling commentator, talking about Chris Boardman's possible retirement after the 2000 Olympics. Chris has expressed an interest in HPV's some years ago – an interest presumably acquired through his contact with Mike Burrows – and can also occasionally be heard discussing bike design, UCI rules and the like on Eurosport. I can't be the only one who has imagined what he would do to the hour record – and to the rest of us in a race... Incidentally, David Duffield, who lives just down the road near Bath, did the commentary (I'm pretty sure) at the Aspro Speed Trials in the early 80's and I think he had something to do with the "Dark Horse" tandem, so he seems to have a long-standing interest in HPV matters. Is he kept up-to-date with Club info? Incidentally 2, I have a rather poor quality video (is it the only one?) of the BBC "Nationwide" programme of this "historic" event.

One suggestion to increase our active racing membership is to have meetings shared with mainstream racers. Fairford and Sparkford are past examples of this. My local cycling club were agreeable to such a suggestion. Most tracks in the country have a weekly track league as well as weekend events and may also be approachable. Other sports seem to cope well with different classes of machine at the same meeting – canoeing, motor sports, sailing, winter sports (luge for the purists, bobsleigh for the technically-obsessed), etc. so why not cycling? This sort of thing may encourage leading riders trying out machines, challenge races, faired HPV's versus 4 man pursuit teams, etc. It would help break down "them and us" attitudes. Venues may be used more fully, costs (and entry fees) may be reduced. And as a bonus, most cycling clubs seem to have experienced teams who like nothing better than counting laps, starting races, shouting at riders, timing, etc. etc. which would go some way towards solving the organisational problems also currently being discussed.

This may also throw up the possibility of "move races". Those of us who build machines devote a great deal of time creating "the most efficient in the world" and then carry it around in the back of a van! Something I hate. Whilst it may not be practical to ride some machines to a race, events more locally would cut down the driving and possibly encourage participants who don't or won't drive.

My own interest in HPV's was stimulated by an article in "New Cyclist" – but I had my first recumbent ride in 1965! David Kemp suggests an ad in the unfortunately-titled "Cycling Weekly". Initially regarded with suspicion, MTB's now feature regularly in this magazine, and in my day it was "Cycling And Mopeds" so attitudes there may not be as entrenched as they seem. They do include short reports of very minor local events, so possibly HPV coverage too. "Cycling Plus" have done various articles over the years which have surely brought a few members. Perhaps cycling journalists could be invited to events at suitable 2high speed2 venues which really demonstrate the potential of our machines. After all there are several riders in the club who can match the UCI hour record on road-going bikes, outdoors!

Increased coverage and popularity may have a negative effect. Some members obviously like the esoteric nature of the club and relish the apparent superiority of their machines. But a club has to grow, or at least develop, otherwise it's just like the local cycling club doing the same thing year in year out. A higher profile and new challenges are needed.

My own enthusiasm is for faired machines, and it strikes me that they make ideal space for sponsors' logos, colourful paintjobs and interesting photographs [I'm still waiting for Ferrari to return my calls ☺ – Ed.]. Whilst it doesn't make you go faster it would add a touch of professionalism (without increasing costs significantly) and may make these machines more appealing to the impressionable and the image conscious. Imagine 15 or 20 fully faired bikes done up like NASCAR race cars thundering round Man-

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\* - apparently young Mr. English is now an Elite category road racer...

chester velodrome! What a race that would make with a full house crowd and a commentator to whip up the enthusiasm! Bike racing as entertainment at last! We could have yellow flag periods, race fixing (or team orders if you prefer), stop-go penalties, etc. etc [And Bob Dixon as the new Bernie Ecclestone?© - Ed]. Cycling enters the 21<sup>st</sup> century!

Further comments on Human-Powered Aircraft. Stimulated by the possibility of winning the Kremer prize for Human-Powered Flight several aircraft were built and flown in the 60's and 70's Puffin 2 was originally built by a group who worked at De Havilland in the mid-60's. It was rebuilt by Dr. Keith Sherwin of Liverpool University whose idea was that competitive events could be held using aircraft with a limited wingspan – still a massive 20 metres – and a greater tolerance of less than perfect weather conditions. What a sport that would be! My favourite HPA, and the one with probably the best “home build” potential is Daniel Perkins' inflatable delta wing aircraft. Weighing an incredible 17.3 kg, it was flown indoors in the airship shed at Cardington. This was in the early 60's. Perkins apparently had a background in textile engineering and so took this novel approach. Several powered aircraft have used this idea including the jolly-sounding Goodyear “Inflatobird”. Why hasn't this idea caught on – it works well with boats and bouncy castles – is it the puncture threat???

The winning of the Kremer Prize in 1977 and the subsequent crossings of the Channel and the Aegean seems to have slowed HPA development significantly. But it is interesting to see the descendants of Paul MacCready's prize-winning HPA's in that amazing fly-by-wire model pterodactyl ornithopter, and his company's solar powered unmanned aircraft which apparently weigh 500 lbs, fly at 20 mph on 6 hp at up to 70,000 feet! They can be used for atmospheric research, investigating the impact of aviation therein, or as a cheaper alternative to satellites for communications relay etc.

Back to Perkins – it seems his aircraft was able to take advantage of flying near the ground, in “ground effect”, where induced drag and thus power needed to fly are considerably reduced. He also performed some experiments which may be of interest to serious minded(!) HPV enthusiasts, on bodies moving near the ground. Does anyone know what people like Keith Sherwin have been up to since those HPA days?

Paul Davies

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*The Editor says: I have unearthed a certain amount of Stuff on the Human-Powered Aircraft scene, which will probably go into the next issue. There's a **lot** of activity on this front in Japan, due to the International Birdman Rally, for which competing teams usually build a complete new aircraft every year as they all end up in the lake sooner or later! The winner in 1998 flew 23 km, so it's not just lunatics falling in the water!*

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## BHPC AGM - October 17<sup>th</sup> 1999

*All pictures by Nigel Sleigh (ours haven't been developed yet...)*

Chairman Dave

Two matters have been on our Leader's mind:

Membership

“I had lunch with Mike Burrows”, quoth the Chairman, at which, to cut a long story short, Richard Ballantine suggested that the Club gives away a year's membership with new recruits. Dave was quite enthusiastic about the idea, but gNick Green less so – “what have we got for them?” he asked. Fiona Grove commented that most of the recumbent dealers have never heard of the Club, though it should be easy enough for *us* to find out who *they* are. Steve Donaldson, like a true Caledonian, suggested supplying “Starter Packs” to shops, as this would be cheaper. The nice bike shop person stamps the card, the purchaser sticks a stamp on it and posts it to the Club, and *then* they get the membership, as people will send off for free stuff *because* it's free. To cut another long story



*Mike Burrows, some time after the lunch in question, with the Ratcatcher9*

lack of insistence on low wind speeds. The IHPVA rules still require minimal wind, but apparently this wasn't measured either during Rosmarie Buehler's hour attempt nor that of Lars Teutenberg earlier this year. John Kingsbury retorted that *they* had never measured wind speed during various attempts either, but there you go.

Peter Ross, who has been very active in affairs of the reconstituted IHPVA, said that many of the IHPVA representatives appeared to be at best tardy in answering their e-mail, and that Christian Meyer appeared to have vanished altogether. He then nominated your Editor to act as the BHPC's representative, but it sez 'ere that this is "on hold".

A certain amount of dissatisfied muttering about the 2000 World Championships then ensued, as there had not then, and moreover still hasn't, been any kind of announcement from the HPVA [North American club] as to when or where they will be held. Not good enough, etc. The meeting decided that the alteration of the World Championships should cease and instead the IHPVA committee should nominate a continental (i.e. European or North American) event to be designated the World Championships. At which point Nigel Sleigh mentioned that the French Championships are highly recommended, and being in Roubaix this year, ought to be a British Championship event as well.

Mr. & Mrs. Secretaries Donaldson

Championship Points

Debate about revisions to the points system for the Club's races, following Sherri's proposal in the last Newsletter. The gross and net result of which was that next year the points will go as follows:

1 <sup>st</sup>	- 20	2 <sup>nd</sup>	- 16	3 <sup>rd</sup>	- 14	4 <sup>th</sup>	- 12	5 <sup>th</sup>	- 10
6 <sup>th</sup>	- 8	7 <sup>th</sup>	- 6	8 <sup>th</sup>	- 4	9 <sup>th</sup>	- 3	10 <sup>th</sup>	- 2
		Finishing race	- 1			Starting race	- 1		

Timing Gear

Thanks to Tim Elsdale for laying on the demonstration at the Hayes meeting in July. Tim stated that the electronic system used in Interlaken had worked very well, but Steve had misgivings about it,

short, Geoff Bird volunteered to produce some sort of leaflet, with a calendar of events and other useful information, possibly even in colour! Most of the next page in the Editor's Notes make absolutely no sense whatsoever. "We are not Roadies and cannot tell the time"? What on earth was I thinking?

IHPVA Stuff

Dave says that the Dempsey-MacCready Prize – for the first 90 km hour – has muddied the waters regarding what does and doesn't constitute a record, due to its



*Messrs. London, Donaldson and Dalton catch some rays...*

getting better organised with the stopwatches, and Pete Cox opined that having to shell out a large lump of cash in order to go racing was perhaps not the best thing to attract new members. Is it possible to *hire* the kit for larger events, such as the European (or World!) Championships? This will be Investigated.

At the Castle Combe event two weeks prior to the AGM, use had been made of Kevin Jenkins' lap scoring spreadsheet, which worked very well. It was reckoned to need a bit of tweaking, but it's cheap (read "free") and Kevin is keen. [Editor's note: Since the AGM I have had a play with Kevin's spreadsheet so that it can now work out results in more detail, automatically update the points tables and various other stuff. Which will probably mean that it will outstrip the performance of the Club's laptop ☺]

Steve Donaldson then volunteered to produce a "How To Run An Event" guide, and expressed gratitude to Iain James for his assistance in running events this year. Ashley Kool suggested the purchase of a whiteboard, to help show all parties what is actually going on on the day. This was carried.

Tim (I assume Tim Elsdale – Ed.) said that having such kit

especially that the cost of the system was equivalent to the amount spent on hiring tracks for three whole seasons, and that the individual transponders were also quite pricey. Dennis Adcock commented that the stopwatch system, while not always as accurate as might be hoped, did at least get people standing around next to the track talking to one another – the whole thing is friendlier. Timing gear would be better for accuracy, and the Club *could* afford it, but is it worth the price? Jonathan Woolrich reckoned not, and that we are slowly



*Long vehicle - the new Trice X2 tandem*

would project a better image and make the Club appear more professional. John Kingsbury, the nasty cynical old fellow, said that we were not even a little bit professional, though wot the blazes that hav to do with anything i do not kno. Mike Burrows said that pro racers are usually timed by men with watches. Brian Dalton was against the purchase as it would make the Club "C & B", but as I can no longer remember what I abbreviated to "C & B", you'll have to take my word for it.

The last word on the subject was from Richard Everett, who reckoned that it wasn't too bright to be spending all that money until we'd addressed the general falling membership, and that we should revisit the whole idea next year. This was agreed.

## Events 2000

Steve said that we had been invited to numerous "outside" cycling events, such as Spokesfest, CycleFest and KM160. Nice, but... as Jonathan Woolrich pointed out, there have been times in the past when the Club has been the "Comic Relief" amid the so-called serious activities. The upshot of which was that he volunteered to act as go-between with the Organisers of at least some such events to ensure that we get treated nicely. Roger Lovell, Mr. Organiser of Spokesfest, said that "non-cycling" events, such as the get-together *chez* Ron Beams earlier this year, were also a good way of raising the profile of the Club and its activities. Nigel Sleigh was more dubious, following his experiences with being a media megastar at the time of some big cycling event in Liverpool - much publicity resulting in absolutely nothing. The best way to spread the word, he opined, is to get out there and *ride* the things.

General mutterings about specific events: KM160 – may be a race, a tour or both. There was a good event in Glasgow this year, which we missed, but apparently it's an annual thing. gNick reckoned that although we *would* go to Spokesfest, any race we held there might not be a points one, depending on the venue(s) to be used. CycleFest, though, *would* be a points event, because Lancaster is dead good. Generally speaking, if Club members are going to a particular organised cycling event, please let us know well in advance, especially Mr. Editor, so that we can actually tell people about it *before* it happens.



*Yes, it is a Rohloff 14-speed hub. I want it...*

Ian Willett commented that the AGM was publicised in the cycling press a couple of years ago, and that we ought to kick them more about listing our events. Pete Cox reckoned that we should send them a list of the month's events, every month and hassle them until the print it, and promptly volunteered to take on this task.

Next year's races – Manchester is on again (details elsewhere). Castle Combe might perhaps be a race for a set distance rather than a set time (anguished groans from Robin Hayes). Start times should be decided upon, publicised and adhered to. Mike Burrows said that a new road circuit is being opened in Kent, while Jonathan Woolrich mentioned the Rockingham Motor Speedway, under construction near Corby, Northants, as a possible venue if we can get it on the cheap. He also said that the Handcycle racers, of whom there were seven at the Curborough event, were planning to organise more events in 2000, some shared with us. They were very happy with the way that the Curborough event went, in spite of the vile weather, and are hoping to get more people to join in.



### Mr. Outgoing Treasurer & Membership Secretary Dennis Adcock

Apropos of membership, Dennis said that membership had been up and down a bit; 275 in 1998 up to 315 but then down again to 215. Having written to 120 non-renewers, the membership is now 262, with many enquiries coming from the BHPC's web site. At which point formal thanks were expressed to John Olson for setting up and administering the web site.

On the financial side, the Club has £3600 in its current account and £4138 in the deposit account, four hundred quid up on last year. Dennis says this is because he didn't have a holiday in 1999...

There then followed the election of person or persons to replace Dennis in his multiple roles. For membership and posting, Dennis Turner and Ian Hague volunteered, but Ian promptly withdrew his candidacy, leaving Dennis unopposed. For the post of Treasurer, Ian again volunteered, as did Fiona Grove, and again withdrew, leaving Fiona as our new Money Bod. The remainder of the Politburo was returned unopposed.

### Mr. Librarian Pete Cox

Pete has now completed the task of producing an index of the Newsletter from Issue 1 to the present day, and that photocopies of anything and everything would be available for the price of an SAE and a couple of stamps (Did I get that right, Pete?). He apologised for the fact that he had been waiting 8 months to get his e-mail fixed, which so far it was not.

### Mr. Newsletter Editor Dave Larrington and Mr. Competition Secretary gNick Green

...appear not to have had their own slot for saying anything, though had made numerous comments throughout the course of the meeting.

### Presentations

The Unfortunate Scotsman Trophy, for ill-fortune, was awarded by Dennis Adcock to Geoff Bird for his outstanding work in testing the relative safety of recumbents versus mountain bikes. Jonathan Woolrich awarded the Homebuilders Trophy jointly to Iain James and Ian Willett, a.k.a. "The Reading Boys", for Iain's Project X" and Ian's "Ironing Board".



No-one was quite sure who should have got the Newcomers award, but to unanimous approval it was decided to award it to Robin Hayes. In order to preserve some semblance of tension about the outcome of the various championships, no announcement will be made at this time as to who won what. Like you care 😊

*In action for the last time this Millennium - Newcomers winner Robin Hayes*

## Curborough 19.9.1999

Words: Richard Middleton. Photos: Tina Larrington



*The latest from Aarn Tate*

Racing not being my forte I am puzzled that Frau Edित्रix Larrington should have asked me to offer a brief report on Curborough unless it is because the task would otherwise fall upon her husband who could be more profitably occupied with the abwaschen. Alternatively it could be because this is the sole race I managed to attend this year, having erroneously imagined that the club had succumbed to consistency and that Darley Moor was not to be held on a Saturday as advertised, and having thereat turned up on the Sunday to the bewilderment of a group of hang-gliderists who nevertheless became gratifyingly enraptured with their first encounter with a recumbent tricycle, albeit mine.

Rain was forecast: nevertheless there was a large turnout including a multitude of arm-powered machines, they having contrived I gather to have their championship race there that day. I parked as close as I could to Old Man Kingsbury on the offchance of overhearing one of his more concise engineering



*The Author, with Clive Sleath in the background*

observations: the last time I had overheard him was at Hayes last year when he said to gNick Green 'That maths on steering? Loadabollocks', whereat my brother, also eavesdropping, quietly explained to me that *Loadabollocks* is an engineering term indicating dissent.

The first race was for faired machines and I bedazzled the crowd with my handsome foam-faired machine which my heartless friend Ruth Wordsworth, great-great-great-great-great niece of someone or other said to be famous, has poetically named *The Whale*. This has the distinction of requiring no number because HPV sticky numbers do not stick to foam fairings. Being a tricycle it affords a stable platform from which to effect a dynamic study of rear fairings: I profited during the race from being able to examine a great number of people's efforts all of which were inferior to my own rear fairing in failing religiously to observe the 22 degree angle narrowing to a truncated Kamm back. Those who were going too fast for me to note any details of their deficiencies at one pass were kind enough to afford me a number of chances: I believe I watched Steves Slade and Donaldson do this four or five times each so I could examine shortcomings in the design of Kingcycle Wasp rear fairings. Ian Chattington taking pity on the fact that he'd only given me a couple of goes to view his tail, performed an exciting sideways manoeuvre not requiring the rotation of wheels, and when he had remounted and gone past me the next time, I was also able to note how the turbulence of his head-fairing - which lacked a back - affected the pattern of blood flow over his right shoulder, a useful substitute for a wind-tunnel experiment (p 342, Hucho, *Aerodynamics of Road Vehicles*, English version 1987, ISBN 0-408-01422-9). Tim the Mighty Hayes had a plastic rear fairing and a partial front fairing and passed me sufficiently slowly a good few times for me to be able to see all the faults in his understanding of practical aerodynamics, and Clive Sleath trundled past on the penultimate lap allowing me a rather thrilling Portillo-glance up what I take to be the billowing skirt he now wears, for undisclosed reasons, on his faired bike.



*Just when he thought it couldn't get any wetter, it suddenly did!*

A dozen Prone machines inexplicably participated in this race and every time one of these went past me at the hairpin a squeal emanated from their carbon-fibre brake discs which until I worked out the connection I mistook for the pouncing cry of a large bird of prey. I say inexplicably because they were unfaired and therefore certain to be slow. After the race I was only able to locate two of these Prone machines: the other eight or so with which the race seemed to be littered during my progress round the track must have suddenly gone home.

After everyone had overtaken a sufficient number of times for me to draw conclusions about whether they exhibited turbulent or separated flow, it rained, so we stopped our race and made the arm-powered people ride. I can never quite get over the determination of some people: the rain was belting it not so

much down as horizontally, and they all gritted their teeth and kept on going. I should have retired myself. I have to admit that any report I can offer of this race will be incomplete on account of I did retire and was sitting in my car. And the rain streaming over the windows prevented me seeing anything at all. But I think I spotted Mike Bishop lurking somewhere underneath a series of tattoos occluding his colossal shoulders. The rain must have affected the electronics of the stopwatches because Kevin Doran on an unfaired bike was going faster than I had been in a faired machine, which is obviously perfectly impossible. And Peter Carruthers was there, his habitual urbane smile unaffected by the untoward precipitation, or perhaps the toward precipitation if you happened to be going into it. There were admittedly lots of other people but I confess that I only recognise the Loughborough ones on account of the number of times I've picked their brains or got them to import Sturmeay Archer Elite drum hubs on stub axles from Denmark for me (Denmark? When they're made in Nottingham?) or, in the case of Mike B, those whom I bump into hammering their M5s through the s-bends of Woodhouse on a summer's afternoon.

After that the rain let off a tiny bit so we allowed the unfaired lumbering slow people to have a little bit of fun, but again the water must have got into the timing equipment because Susan Laughton and Sherri Donaldson, who are only girls, were going faster than me. Hmmph. And Doran again. And gNick Green. Both of whom clearly suffer from an affliction whereby they cannot remember just having participated in one gruelling race. The most interesting thing was the fact that all the timers on my side of the track were not wearing hats and all the timers on the other side of the track were wearing hats and Ian Chattington's, which was not only purple but had earflaps and a peak long enough to qualify for Bisley, occasioned a number of admiring comments especially from Jonathan Woolrich who was anxious to know wherever Ian had got it from. There is no need to mention that Robin Hayes aged ten was racing because otherwise Jane Middleton aged ten may get ideas above her station and then Susie Middleton aged six will want a go and John Middleton aged four will and Heidi Mayer aged more than I am prepared to publish will. Ha! so you didn't know that I share with Larrington a propensity to marry German girls. How else d'you imagine my vocabulary extends to an obscure and valueless word like abwaschen?

I should like to thank the unidentified arm-powered chap in the red car who lent me his waterproof without which I would have been wetter, and I am now able to offer a solution to the question 'Does a faired recumbent trike get wet if you strap it to the roof of your car and drive home at forty miles per hour in a torrential storm?' although I don't think this has yet engaged the curiosity of members of the Club sufficiently to be worth wasting valuable space in answering.

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### **Castle Combe – October 3<sup>rd</sup> 1999**

Ugh! It was windy. Very windy. Even more so than usual. Everyone warned me when I went out for an exploratory lap: "Watch out for the wind at Quarry Corner!". Quarry itself wasn't too bad, but the straight immediately afterwards required leaning at an absurd angle just to keep the bike on the tarmac, and getting into the first chicane was Hard Work. An hour? In this? With *my* reputation? Not my idea of fun at all...

Sensible local Paul Davies had only to look out of the window to see that it was trike weather, while Nigel Leaper chose today to give his new Trilow its first outing. Much the same shape as most of Nigel's menagerie, but with an extra front wheel. A sensible move, that. Not quite so high on the Sensible Scale was the race debut of the faired Prone LP. Matt Norman was volunteered to ride the beast, which has no hand or foot flaps, requires the lid to be taped on, and looks unnervingly like a coffin. Well might he have been apprehensive, after suffering a wind-assisted shunt on his *unfaired* bike at Curborough. Ian Chattington's machine has sprouted a tall blue tail fin, rendering him completely enclosed, at the cost of a substantial amount of side area. Rob English, who slaughtered the unfaired runners at Hayes, had returned, armed with Miles' Wasp equipped with the old blue Bag (I think this was the one Pat Kinch used in Laupen in '94!). Phil Skoyles appeared for the first time this year with the Mean'n'NotGreen low racer, and newcomer M. Penney was down to race his Pashley PDQ. And the rest of us had the same old tat, save that the GTO was now resplendent in its new, Ferrari-inspired colour scheme. The eagerly-anticipated faired K2 was absent, though. John Kingsbury has altered the trail, meaning the "bomb doors" now don't work. Or something.

# Curborough Results

Overall Position	Race Pos		Name	Vehicle	Class	Laps			Km/h	MPH	Position			Points		
	1	2				Min	Sec	F			U	L	A	M	F	U
1	1	1	Steve Slade	Wasp	F	19	34	47	40.6	25.3	1				20	
2	1	2	Steve Donaldson	Wasp	F	19	35	41	39.6	24.6	2				15	
3	1	3	Ian Chatington	Busy Bee	F	18	35	43	37.5	23.3	3				12	
4	1	4	Tim Elsdale	Prone	U	18	36	17	36.9	22.9	1				20	
5	1	5	Matt Norman	Prone	U	17	35	10	36.0	22.4	2				15	
6	1	6	Paul Davies	Faired Bike	F	17	35	35	35.5	22.1	4				10	
7	1	7	Tim Hayes	Ross Low	F	16	34	50	34.2	21.2	5				8	
8	1	8	Nigel Leaper	Low	F	16	34	56	34.1	21.2	6				6	
9	3	1	Derrick Tweedle	Velodynamics	U	16	35	45	33.3	20.7	3				12	
10	3	2	Richard Everett	Windcheetah	U/M	16	36	45	32.4	20.1	4				10	
11	1	9	gNick Green	Wooden Fish On Wheels	F	16	36	53	32.3	20.1	7				4	
12	1	10	Clive Sleath	3 Seasons	F	16	36	54	32.3	20.0	8				3	
13	3	3	Steve Donaldson	Windcheetah	U/M	16	37	05	32.1	20.0	5				2	
14	3	4	Dave Larrington	Kingcycle	U	16	37	33	31.7	19.7	6				6	
15	1	11	Paul London	Falcon	F	15	35	53	31.1	19.3	7				4	
16	3	5	Dave Bridges	New Bodge	U	15	36	21	30.7	19.1	7				3	
17	3	6	Neil Jones	Low Black Bike	U	15	36	24	30.7	19.1	8				3	
18	1	12	Nigel Sleigh	Plastic Maggot	F	16	39	24	30.2	18.8	10				1	
19	1	13	Richard Middleton	The Whale	F	15	37	04	30.1	18.7	11				1	
20	3	7	Susan Laughton	Tchaikovski	U/L	15	37	07	30.1	18.7	9				2	
21	3	8	gNick Green	Windcheetah	U/M	15	38	22	29.1	18.1	10				20	
22	3	9	Sherril Donaldson	Kestrel	U/L	14	36	09	28.8	17.9	11				1	
23	3	10	Kevin Doran	Protobikes III	U/A	14	37	40	27.7	17.2	12				15	
24	3	11	Jill Jones	Polecat	F/L	14	37	51	27.5	17.1	12				12	
25	3	12	Aarn Tate	Aarn	U	13	36	03	26.8	16.7	13				3	
26	3	13	Fiona Grove	Velodynamics	U/L	13	37	01	26.1	16.2	14				10	
27	3	14	Robin Hayes	Mean'n'Green	U	9	35	45	18.7	11.6	15				8	
28	3	15	Sue Hayes	Aerobike Sprint	U/L	9	36	59	18.1	11.3	16				8	
<b>Arms-Only Results</b>																
1	2	1	Kevin Doran	Protobikes III	U/A	14	19	27	26.4	16.4					1	
2	2	1	Mike Bishop	M5 Handcycle	A/U/M	12	19	32	22.5	14.0					2	
3	2	1	Peter Caruthers	-	A/U/M	9	19	57	16.5	10.3					3	
4	2	1	John Hughes	-	A/U/M	9	20	59	15.7	9.8					4	
5	2	1	Matthew Lindley	-	A/U/M	7	22	07	11.6	7.2					5	
6	2	1	Andy Sireli	-	A/U/M	5	18	28	9.9	6.2					6	
7	2	1	Peter Chadwick	-	A/U/M	5	19	22	9.5	5.9					7	
8	2	1	George Nicholls	-	A/U/M	4	22	07	6.6	4.1					8	
															20	
															15	
															12	
															10	
															8	
															6	
															4	
															3	



And they're off! The usual mad sprint down to Quarry, tempered by the need for the faired two-wheelers to allow themselves the entire width of the track to stay out of the boondocks. By the time we've negotiated the first of the two new chicanes, the fast boys are haring off into the middle distance, and I've settled down with Tim Costen's Hurricane and Clive Sleath's 3 Seasons for company. After a while, Clive puts his clog down, and he and Tim depart. The latter succumbed in the end (or perhaps he just found my bike makes for a much more effective windbreak that Clive's tall fabric-faired device) but the 3 Seasons remained tantalisingly out of reach ahead for the remainder of the race.



*Tim Elsdale prepares Matt Norman's steed*

A glance in the mirror after some ten or fifteen minutes reveals two streamliners coming up rapidly from astern – Ian and Rob! Whither Steve Slade? Some way down, it transpires. Once again, the Castle Combe jinx is holding up... The next time the leaders come through, Rob is ahead, but not by much. In the meantime, Phil Skoyles has discovered that his newly-fitted Specialized Fat Boy rear tyre is too Fat a Boy to permit his rear wheel to rotate freely, so he is obliged to call it a day, and Matt Norman has retired his coffin Prone after six laps.

Somewhere after half-distance, our wind-induced misery is compounded by rain. Nigel "Derriboots" Leaper, who has already suffered from the unfamiliar and twitchy handling of his new Trike, and an unshipped chain, now finds himself unable to see out, just as happened at Curborough.



*Front row, L-R: Paul Davies, Rob English  
Back row: gNick Green, The Editor, Chris Cox*

Canopy discarded, he plugs on for a while, before succumbing to a combination of cramp and "something binding". The combination of wind and rain proves too much for Ian, and he decks the Bee at Quarry. A spectating Ian Willett rescues him, and he plods back to the pits for repairs. If the results are to be believed, he gets going again, to claim sixth place at the finish. gNick Green manages to



*Definitely a day for three wheels...*

stay upright this time, but somewhere en route his windscreen goes AWOL. Ah! So *that's* what that strange object I ran over at least twice was ☺

As the rain abates, so do my legs, and when John Lafford and Richard Everett catch us up, Tim latches on and the trio pull away. I can't stay with them, so instead concentrate on the mirrors, hoping that Paul London (back on his Kingcycle) won't catch up and that Rob will. Neither happens – instead I manage to lap Paul on my final tour. So Steve Slade is beaten again, a sterling performance from Rob English in his first faired outing. gNick soldiered on screenless to take third, from Paul Davies, Chris Cox' faired Speedy and the recovered Ian Chattington. Tim Elsdale underlines his Unfaired championship with a convincing win, and seventh overall, while second unfaired machine, and Multi-track victor, is Bob Knight and his Speedy. It's not enough to prevent Richard Everett from taking the title, though. No Ladies racing today – they've got more sense, I suppose.

So the Ladies' and Faired titles are still up for grabs. In the former, Sherri Donaldson holds a narrow lead over defending champion Susan Laughton. I guess the outcome of this may well hinge on whether Susan can make it to Eastway. Things are even more blurred in the Faired class, with Steve Donaldson still ahead. If things go the way of the form book, Steve Slade will win the final round at Eastway, with his rival second, leaving them equal on points... and Mr. Slade being ahead by six wins to three. But if Rob English, or maybe even Ian

Chattington, puts a spanner in the works... Or if JK makes good his threat to bring out the faired K2... Or if the K-drive proves not to be Donaldson-proof... Or if riders of large slow faired machines can be bribed to fail to look in their mirrors at Inopportune Moments... Could be Fun!

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### **AGM Races – October 17<sup>th</sup> 1999**

I was quite sure I'd written something at the time, but it's now two months later and I can't find it if it ever existed at all. What happened? In race one, Rob English went off at a hell of a lick, but suffered from a shed chain on a couple of occasions, putting him out of contention. So Steve Slade won ☺. Steve Donaldson came second, which meant he tied on points for the faired title with Mr. Slade... And Ian Willett lost the Ironing Board at the hairpin, tearing up both his fairing and himself. Meanwhile, back at the start, Tim Elsdale had set off on an exploratory lap in the faired Prone, only for his rear tyre to let go and the machine to execute a set of wild fishtails before toppling gracelessly to the ground. All witnessed by my father-in-law's video camera...

In race two, Dave Richards demonstrated that absence from most of this year's races had not dulled his edge as he came home a lap ahead of the opposition. Susan Laughton won the Ladies' class, which meant she tied on points for the title with Sherri Donaldson... Robin Hayes beat his Mum again ☺ Pete Cox took part on brother Chris' monocoque Giant, only to retire after two laps, gasping "I can't breathe!" And Mike Burrows gave his Ratcatcher 9 its race debut, only to lose out by a scant two seconds to one of his earlier creations, Richard Everett's Windcheetah. So that was that.

## Castle Combe Results

1 Hour + 1 lap - 2.97 km/lap														
Overall Position	Name	Vehicle	Class	Laps	Min	Sec	Km/h MPH		Position			Points		
									F	U	M	F	U	M
1	Rob English	Wasp	F	18	65	06	49.3	30.6	1			20		
2	Steve Slade	Wasp	F	18	68	31	46.8	29.1	2			15		
3	gNick Green	Wooden Fish On Wheels	F	17	68	45	44.1	27.4	3			12		
4	Paul Davies	Trike	F	16	65	34	43.5	27.0	4			10		
5	Chris Cox	Windcheetah	F	16	67	39	42.1	26.2	5			8		
6	Ian Chattington	Busy Bee	F	15	68	03	39.3	24.4	6			6		
7	Tim Elsdale	Prone	U	15	70	31	37.9	23.6		1			20	
8	Nigel Sleigh	Plastic Maggot	F	13	66	06	35.0	21.8	7			4		
9	Clive Sleath	3 Seasons	F	13	68	55	33.6	20.9	8			3		
10	Bob Knight	Windcheetah	U/M	13	69	04	33.5	20.8		2			15	20
11	John Lafford	Arrow 99	U	13	69	37	33.3	20.7		3			12	
12	Tim Costen	Hurricane	U	13	69	43	33.2	20.7		4			10	
13	Richard Everett	Windcheetah	U/M	13	69	46	33.2	20.6		5			8	15
14	Dave Larrington	GTO	F	13	70	39	32.8	20.4		9		2		
15	Paul London	Kingcycle	F	12	70	47	30.2	18.8	10			1		
16	M Penney	PDQ	U	11	67	14	29.2	18.1		6			6	
17	Dennis Adcock	Pig	F	11	67	35	29.0	18.0	11					
DNF	Nigel Leaper	Trilow	F	10	42	20	42.1	26.2						
DNF	Matt Norman	Prone	F	6	25	12	42.4	26.4						
DNF	Phil Skoyles	Mean'n'NotGreen	U	-	-	-	-	-						



*Clockwise from top left: assorted faired machines; Manchester University's quadricycle chases Robin Hayes; Phils Skoyles at the hairpin; Peter Ross with the latest Festina. Photos: Nigel Sleigh*

## AGM Results

O/A Race Pos		30 minutes + 3 laps, 1.64 km/lap										
		Name	Vehicle	Class	Laps	Min	Sec	Km/h	MPH	Position	Points	
									F	U	L	M
1	1	Steve Slade	Wasp	F	18	38	11	46.4	28.8	1		20
2	1	Steve Donaldson	Wasp	F	18	40	10	44.1	27.4	2		15
3	1	Ian Chattington	Busy Bee	F	18	40	11	44.1	27.4	3		12
4	1	gNick Green	Wooden Fish On Wheels	F	16	38	18	41.1	25.5	4		10
5	1	Nigel Leeper	Low	F	16	39	41	39.7	24.7	5		8
6	1	Rob English	Wasp	F	16	39	54	39.5	24.5	6		6
7	2	Dave Richards	Kestrel	U	16	40	25	39.0	24.2	1		20
8	1	Nigel Sleigh	Plastic Maggot	F	14	39	36	34.8	21.6	7		4
9	2	Bob Knight	Windcheetah	U/M	15	42	47	34.5	21.4	2	1	15
10	1	Tim Hayes	Ross Low	F	14	40	27	34.1	21.2	8		3
11	2	John Lafford	Arrow 99	U	14	40	56	33.7	20.9	3		12
12	2	Richard Everett	Windcheetah	U/M	14	41	09	33.5	20.8	4	2	10
13	2	Mike Burrows	Ratcatcher 9	U	14	41	11	33.5	20.8	5		8
14	1	Dave Larrington	GTO	F	13	38	20	33.4	20.7	9		2
15	1	Jonathan Woollich	Windcheetah	F	13	39	22	32.5	20.2	10		1
16	2	Chris Cox	Windcheetah	U/M	14	42	25	32.5	20.2	6	3	6
17	2	David Hembrow	Ross	U	13	41	08	31.1	19.3	7		4
18	2	Terry Power	Inversion	U	13	43	22	29.5	18.3	8		3
19	2	Susan Laughton	Tchaikowski	U/L	13	43	44	29.3	18.2	9	1	2
20	2	Richard Middleton	Green Bicycle	U	13	44	05	29.0	18.0	10		1
21	2	Dennis Adcock	Pig	F	12	41	16	28.6	17.8	11		
22	2	Phil Skoyles	Mean'n'NotGreen	U	12	41	21	28.6	17.7	11		
23	2	Fiona Grove	Velodynamics	U/L	12	42	05	28.1	17.4	12	2	15
24	2	Sherri Donaldson	Kestrel	U/L	12	43	29	27.2	16.9	13	3	12
25	2	Phil Wray	Moulton APB	U	11	40	28	26.7	16.6	14		
26	2	Peter Ross	Festina	U	11	41	00	26.4	16.4	15		
27	2	Ralph Williams	Pashley PDQ	U	12	44	58	26.3	16.3	16		
28	1	Paul London	Falcon	F	10	39	08	25.1	15.6	12		
29	2	Andrew Alexander	Tour Easy	F	11	43	33	24.9	15.4	13		
30	1	Phil Wray	Kingcycle	F	10	41	04	24.0	14.9	14		
31	2	Manchester Uni	?	U/M	9	43	21	20.4	12.7	17	4	
32	2	Robin Hayes	Mean'n'Green	U	8	40	48	19.3	12.0	18		
33	2	Sue Hayes	Aerobike Sprint	U/L	8	45	07	17.4	10.8	19	4	
?	2	Tim Elsdale	Prone	U	?	?	?	?	?	?		
DNF	1	Ian Willett	Ironing Board	F	9	24	09	36.7	22.8			
DNF	2	Pete Cox	Giant Monocoque	U	2	-	-	-	-			

Tim Elsdale started race 2 late and didn't get timed. Sorry Tim, but you \*did\* win the Championship...

A good season's racing, and congratulations to the Champions:

- Unfairly                      Tim Elsdale
- Multi-track                 Richard Everett
- Arm-Powered                Kevin Doran
- Ladies                        Susan Laughton (won more races than Sherri Donaldson)
- Faired                         Steve Donaldson (won fewer race than, but is not, Steve Slade)

### Arm-Powered

Position	Name	Vehicle(s)	Arm-Powered												Total	Worst Three	Adjusted Total
			Eastway	Milton Keynes	Darley Moor	Hayes	Lancaster	Ingliston	Kirkliston	Meadowbank	Curborough	Castle Combe	Eastway AGM				
1	<b>Kevin Doran</b>	<b>Protobikes III</b>	20	20	20	20	20	0	0	0	20	0	0	120	0	120	
2	Eric Bowman	Varna Handcycle	0	0	0	0	15	0	0	0	0	0	0	15	0	15	
2	Mike Bishop	M5 Handcycle	0	0	0	0	0	0	0	0	15	0	0	15	0	15	
4	Peter Carruthers	-	0	0	0	0	0	0	0	12	0	0	0	12	0	12	
5	John Hughes	-	0	0	0	0	0	0	0	10	0	0	0	10	0	10	
6	Matthew Lindley	-	0	0	0	0	0	0	0	8	0	0	0	8	0	8	
7	Andy Sireli	-	0	0	0	0	0	0	0	6	0	0	0	6	0	6	
8	Peter Chadwick	-	0	0	0	0	0	0	0	4	0	0	0	4	0	4	
9	George Nicholls	-	0	0	0	0	0	0	0	3	0	0	0	3	0	3	

### Faired

Position	Name	Vehicle(s)	Faired												Total	Worst Three	Adjusted Total
			Eastway	Milton Keynes	Darley Moor	Hayes	Lancaster	Ingliston	Kirkliston	Meadowbank	Curborough	Castle Combe	Eastway AGM				
1	<b>Steve Donaldson</b>	<b>Wasp</b>	15	15	15	0	20	15	20	20	15	0	15	150	15	135	
2	Steve Slade	Wasp	20	20	20	20	0	0	0	0	20	15	20	135	0	135	
3	gNick Green	Wooden Fish On Wheels	12	12	10	12	15	0	12	15	4	12	10	114	14	100	
4	Ian Chattington	Busy Bee	0	0	0	8	6	12	15	12	12	6	12	83	0	83	
5	Nigel Leaper	Low Trilow	10	8	8	10	12	0	0	0	6	0	8	62	0	62	
6	Paul Davies	Faired Bike Trike	0	10	12	15	0	0	0	0	10	10	0	57	0	57	
7	Tim Hayes	Ross Low	6	4	0	6	8	8	4	8	8	0	3	55	3	52	
8	Nigel Sleigh	Plastic Maggot Millennium Bug	4	0	6	0	10	6	6	6	1	4	4	47	1	46	
9	Nigel Brown	Kingcycle	0	0	0	0	4	20	10	0	0	0	0	34	0	34	
10	Neil Marshall	Kingcycle	0	0	0	0	0	10	8	10	0	0	0	28	0	28	
11	Rob English	Wasp	0	0	0	0	0	0	0	0	0	20	6	26	0	26	
12	Ian Willett	Ironing Board	8	6	0	0	0	0	0	0	0	0	0	14	0	14	
13	Chris Cox	Windcheetah	3	0	0	0	0	0	0	0	0	8	0	11	0	11	
13	Dave Larrington	GTO	0	3	4	0	0	0	0	0	0	2	2	11	0	11	
15	Dennis Adcock	Pig	2	2	2	4	0	0	0	0	0	0	0	10	0	10	
16	Clive Sleath	3 Seasons	0	0	0	0	3	0	0	0	3	3	0	9	0	9	
17	Paul London	(Foam) Falcon Kingcycle	1	1	0	3	0	0	0	0	2	1	0	8	0	8	
18	Dave Bridges	New Bodge	0	0	3	0	0	0	0	0	0	0	0	3	0	3	
19	Andrew Alexander	Tour Easy	0	0	0	2	0	0	0	0	0	0	0	2	0	2	
19	Anne Coulson	Kingcycle	0	0	0	0	2	0	0	0	0	0	0	2	0	2	
21	Bob Dixon	Windcheetah	0	0	0	0	1	0	0	0	0	0	0	1	0	1	
21	Jonathan Woolrich	Windcheetah	0	0	0	0	0	0	0	0	0	1	1	1	0	1	
21	Phil Wray	Kingcycle	0	0	1	0	0	0	0	0	0	0	0	1	0	1	
24	Brian Hampton	AS-327	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24	Jill Jones	Polecat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24	Keith Rogers	Kingcycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24	Matt Norman	Prone	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



Ladies																
Position	Name	Vehicle(s)	Eastway	Milton Keynes	Darley Moor	Hayes	Lancaster	Ingliston	Kirkliston	Meadowbank	Curborough	Castle Combe	Eastway AGM	Total	Worst Three	Adjusted Total
1	<b>Susan Laughton</b>	<b>Tchaikovski</b>	0	0	20	0	20	20	15	20	20	0	20	135	0	135
2	Sherri Donaldson	Kestrel	20	15	15	20	12	15	20	15	15	0	12	159	24	135
3	Fiona Grove	Velodynamics	15	20	12	15	0	0	0	0	10	0	15	87	0	87
4	Sue Hayes	Aerobike Sprint	0	0	0	0	8	12	12	0	8	0	10	50	0	50
5	Jill Jones	Polecat	0	0	10	0	10	0	0	0	12	0	0	32	0	32
6	Lorna Wray	Moulton APB Brompton	0	10	8	0	0	0	0	0	0	0	0	18	0	18
7	Anne Coulson	Kingcycle	0	0	0	0	12	0	0	0	0	0	0	12	0	12

Multi-Track																
Position	Name	Vehicle(s)	Eastway	Milton Keynes	Darley Moor	Hayes	Lancaster	Ingliston	Kirkliston	Meadowbank	Curborough	Castle Combe	Eastway AGM	Total	Worst Three	Adjusted Total
1	<b>Richard Everett</b>	<b>Windcheetah</b>	20	15	0	12	15	20	20	20	20	15	15	172	27	145
2	Bob Knight	Windcheetah	0	20	0	20	20	0	0	0	0	20	20	100	0	100
3	Brian Dalton	Trice	12	10	0	0	0	0	15	15	0	0	0	52	0	52
4	Marcus Hunt	Windcheetah	15	12	0	10	0	0	0	0	0	0	0	37	0	37
5	Chris Cox	Windcheetah	0	0	0	15	0	0	0	0	0	0	12	27	0	27
6	Steve Donaldson	Windcheetah	0	0	0	0	0	0	0	0	15	0	0	15	0	15
7	Chris Martin	Windcheetah	0	0	0	0	12	0	0	0	0	0	0	12	0	12
7	gNick Green	Windcheetah	0	0	0	0	0	0	0	0	12	0	0	12	0	12
9	Ian Squires	Windcheetah	0	0	0	0	10	0	0	0	0	0	0	10	0	10
9	Manchester Uni	?	0	0	0	0	0	0	0	0	0	0	10	10	0	10
11	John Coulson	Windcheetah	0	0	0	0	8	0	0	0	0	0	0	8	0	8
11	Matt Loader	Trice	0	8	0	0	0	0	0	0	0	0	0	8	0	8
13	Guy Greaves	Windcheetah	0	0	0	0	6	0	0	0	0	0	0	6	0	6
14	Eric Bowman	Varna Handcycle	0	0	0	0	4	0	0	0	0	0	0	4	0	4

Unfaired																
Position	Name	Vehicle(s)	Eastway	Milton Keynes	Darley Moor	Hayes	Lancaster	Ingliston	Kirkliston	Meadowbank	Curborough	Castle Combe	Eastway AGM	Total	Worst Three	Adjusted Total
1	<b>Tim Eisdale</b>	<b>Prone</b>	12	10	15	10	20	20	20	20	20	20	0	167	32	135
2	Matt Norman	Prone	15	20	20	15	0	0	0	0	15	0	0	85	0	85
3	Richard Everett	Windcheetah	3	3	0	1	12	12	12	10	10	8	10	81	4	77
4	Bob Knight	Windcheetah	0	6	0	4	15	0	0	0	0	15	15	55	0	55
5	Dave Richards	Kestrel	0	15	0	12	0	0	0	0	0	0	20	47	0	47
6	Andy Harrington	Aerobike	0	0	0	0	0	15	15	15	0	0	0	45	0	45
7	John Lafford	Arrow 99	4	0	0	8	0	0	0	0	0	12	12	36	0	36
8	Susan Laughton	Tchaikovski	0	0	4	0	4	8	6	8	2	0	2	34	0	34
9	Ian Chattington	Ross Festina	20	12	0	0	0	0	0	0	0	0	0	32	0	32
10	Derrick Tweddle	Velodynamics	1	4	12	0	0	0	0	0	12	0	0	29	0	29
11	Akash Chopra	Hornet	0	0	0	0	0	10	0	12	0	0	0	22	0	22

## Unfaired (cont.)

Position	Name	Vehicle(s)	Eastway	Milton Keynes	Darley Moor	Hayes	Lancaster	Ingliston	Kirkliston	Meadowbank	Curborough	Castle Combe	Eastway AGM	Total	Worst Three	Adjusted Total
11	Neil Coles	Festina	0	0	0	0	0	6	10	6	0	0	0	22	0	22
11	Tim Costen	Hurricane	0	0	10	2	0	0	0	0	0	10	0	22	0	22
14	Rob English	Wasp I	0	0	0	20	0	0	0	0	0	0	0	20	0	20
15	Sherri Donaldson	Kestrel	0	0	2	0	0	4	8	4	0	0	0	18	0	18
16	Neil Jones	Low Black Bike	0	0	6	0	8	0	0	0	3	0	0	17	0	17
17	Robin Mather	Comfort & Style	0	8	0	6	0	0	0	0	0	0	0	14	0	14
18	Chris Martin	Windcheetah	0	0	0	0	10	0	0	0	0	0	0	10	0	10
18	Iain James	Project X	10	0	0	0	0	0	0	0	0	0	0	10	0	10
20	Chris Cox	Windcheetah	0	0	0	3	0	0	0	0	0	0	6	9	0	9
20	Dave Redknapp	Quadras	0	1	8	0	0	0	0	0	0	0	0	9	0	9
22	Mike Burrows	Ratcatcher 9	0	0	0	0	0	0	0	0	0	0	8	8	0	8
22	Roan Allen	Humming Bird	8	0	0	0	0	0	0	0	0	0	0	8	0	8
22	Robin Hayes	Mean'n'Green	0	0	0	0	0	3	3	2	0	0	0	8	0	8
22	Steve Donaldson	Windcheetah	0	0	0	0	0	0	0	0	8	0	0	8	0	8
26	Brian Dalton	Trice	0	0	0	0	0	0	4	3	0	0	0	7	0	7
27	Dave Larrington	Kingcycle	0	0	0	0	0	0	0	0	6	0	0	6	0	6
27	Ian Squires	Windcheetah	0	0	0	0	6	0	0	0	0	0	0	6	0	6
27	M Penney	PDQ	0	0	0	0	0	0	0	0	0	6	0	6	0	6
27	Pete Cox	Lune Low Tide	6	0	0	0	0	0	0	0	0	0	0	6	0	6
31	Kevin Doran	Protobikes III	0	0	3	0	2	0	0	0	0	0	0	5	0	5
32	Dave Bridges	New Bodge	0	0	0	0	0	0	0	0	4	0	0	4	0	4
32	Marcus Hunt	Windcheetah	2	2	0	0	0	0	0	0	0	0	0	4	0	4
34	David Hembrow	Flevo Oke-Ja Ross	0	0	0	0	0	0	0	0	0	0	3	3	0	3
34	Dennis Adcock	Pig	0	0	0	0	3	0	0	0	0	0	0	3	0	3
34	Terry Power	Inversion	0	0	0	0	0	0	0	0	0	0	3	3	0	3
37	Bob Thackeray	Spirit	0	0	0	0	0	2	0	0	0	0	0	2	0	2
37	James Murphy Liam Murphy	Kingcycle & TrailerBent	0	0	0	0	0	0	2	0	0	0	0	2	0	2
37	Sue Hayes	Aerobike Sprint	0	0	0	0	0	1	1	0	0	0	0	2	0	2
40	Aarn Tate	Aarn	0	0	1	0	0	0	0	0	0	0	0	1	0	1
40	gNick Green	Windcheetah	0	0	0	0	0	0	0	0	1	0	0	1	0	1
40	John Coulson	Windcheetah	0	0	0	0	1	0	0	0	0	0	0	1	0	1
40	Richard Middleton	Green Bicycle	0	0	0	0	0	0	0	0	0	0	1	1	0	1
44	Bob Johnson	Hi Bike	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	Bob Tennant & ?	Micwic Back-to-Back	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	Eric Bowman	Varna Handcycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	Fiona Grove	Velodynamics	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	Guy Greaves	Windcheetah	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	Lorna Wray	Moulton APB Brompton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	Manchester Uni	?	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	Matt Loader	Trice	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	Peter Ross	Festina	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	Phil Skoyles	Mean'n'NotGreen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	Phil Wray	Moulton APB	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	Ralph Williams	Pashley PDQ	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	Tom Cohen	Road Bike (UCI)	0	0	0	0	0	0	0	0	0	0	0	0	0	0

## My Interlaken Experience

Racing in Europe has been a dream of mine since about 1981. Long before I became involved in HPV racing. I dreamed of being a professional road racer. For me it was very important to race against the Europeans. I have tremendous respect for the high caliber of racing there, particularly in the unfaired and partially faired classes and I wanted to see how I compared. Over the last few years I have made plans



*The author, Sean Costin, aboard the "Monkey Hand"*

to race in the World Championships when they have been in Europe, but was I unable to afford it. This year I planned far in advance, and made sure I would be there.

German word for World Championship, The web site had all the rules, race dates, and information that I needed to feel confident that this would be a quality event. I was not let down.

Travelling is a big part of going to an event like this and many people asked how I got my bike there. I thought I could break my bike down small enough to qualify as luggage, but after breaking it down I realized that this was impossible, so I built a box made of thin plywood panelling and aluminum square tubing and fastened it together with self tapping screws. I also put casters on the bottom and made a locking lid.

When we arrived at the airport the luggage checker asked me what it was. Knowing that it cost \$75 to send a bike, I said it was "experimental exercise equipment." My wife, fearful of interrogation from armed customs agents, turned to me and said "it's a bike!". Apparently this confused the check-in agents. They looked at each other and said "O.K." and no charges were added.

I felt I had a pretty good cycling season going. I was about a mile per hour faster in distance races than last year and had won almost every Stock class (unfaired) race I was in this year. A couple weeks before I left I called my friend Robert LaFleur who had been to some of the European World championships and he said that my times were not at the top level with the low racers in Europe. I panicked and started to make a front fairing which I felt would give me the 2 mph more I was looking for. I finished the fairing 5 days before departure and performed extensive testing - riding over 1/2 mile at



*Also from the USA: Jeff Caswell's MicroBike*



15 mph around the neighborhood. I also talked with fellow WISIL HPV'er Tiger Johnson who had raced cyclo-cross in Switzerland for the U.S. team. He advised me not to let anyone intimidate me. After Tiger came back to the U.S. he won about three national championships, so I tried to take his advice to heart.

The first thing you notice at a European competition that is different from North American racing is that there is an exceptional level of craftsmanship on the majority of



bikes. In the US, about 20% of the racing bikes aren't even painted and a large percentage of the fairings are designed to incorporate duct tape as a permanent component! Most European racers ride stylish low racer bikes made by professional builders and most bikes have some type of composite tailcone made from a good female mold. I can't remember seeing duct tape on anything.

The majority of racers in Europe are non or partially faired. In the World Championships, these two groups were combined into one. In the HPRa, this would be like combining Stock and Superstock classes. The wonderful aspect of this class combination is that there are more strong riders in the

*Two views of the French "Triplette"*

same class, making the whole competition more World class. Frankly, I felt a little intimidated by the quantity and strength of these riders since I am accustomed to racing against only a handful of competitive riders.

Another difference I noticed was that there were very few over 40 racers. I would guess that about 1/3 of the racers in the Midwest are over 40. Some of them are consistent winners. My guess is that the average age of racers in the W.C. was only about 29.

I doubt that I will ever go to a more beautiful World Championships. Everywhere you looked there was a gorgeous mountain peppered with chalets. The Airport venue was very fast, flat and ideal for this type of event. The Airport also had ample space for recumbent demonstration areas, an exposition tent for manufacturers, a Childrens' HPV demo area, an Alternative power demonstration and even the flight of a human powered aircraft. There was a large tent which served many purposes including race meetings, awards ceremonies, rain shelter, snack shop, and beer garden, which could not have been more useful. The organizers did a fantastic job of getting sponsorship from Victorinox and Balmers hostel so that they could produce top quality publicity. On the weekend there must have been at least 600 spectators. The organizers also planned the sequence of events to give the racers rest between endurance events. In my opinion, this event should be considered a blueprint for a successful World Championship. All of the people associated with the planning and running of this event should be very proud.

The racing action was quite extraordinary. On the first day, Denis Mario Ahrens of Germany raced his low racer with home-made tailcone at an average speed of over 52KPH for 18.6 kilometers. In the same race I finished a respectable 16th, but I could tell by my average speed that the fairing I added actually slowed me slightly. I couldn't see through it too well, so I took it off.

The next day was the 1Kilo Standing start and the 200M flying start with 800M run up. I felt that I had the best chance at placing well in these events. All morning I felt nervous in anticipation. I kept thinking to myself that this is my big chance to prove my ability. I had to give it absolutely everything I had. I may never get this chance again.

Just as I rode to the start area, I saw Jim Curry of the Infinity team walking his bike. Jim told me that he has cracked his aluminum frame. I could feel his disappointment, but I knew I would be up to race soon, so I focussed on warming up. I noticed that I couldn't get into my lowest gear, so I decided to place the chain in the first gear figuring that it will fall into second gear after a few strokes. As I launched, I took two powerful strokes and the chain slipped between 1st and 2nd. My leg lunged forward and my foot flailed out of the cleat. I struggled to clip back in the pedal and give it all I had. The rest of the run went well and despite the horrible start, I finished 6th.

After the 1Kilo I was feeling encouraged about a chance at a medal in the 200 Meter which was coming up next. Jim Curry was able to get his cracked aluminum frame rewelded in only two hours with the help of a well connected Erich Balmer who runs a few hostels in town. Despite missing the 1 kilo, Jim was given a special prize to temper his disappointment – a very nice touch from the organizers.

I started my 200 meter run and gave it everything I had. Before the traps my speedometer reads a maximum of 41.5 mph which is faster than I have ever gone, despite going into a slight headwind. After my run I dumped my bike on the ground and started running to the truck which was operating the timing equipment. Race Official Juerg Hoelzle told me that I was in 1st place at a time of 11.29 sec. I've never felt so tickled and happy than at that moment. I knew that I had already beaten one of the best sprinters, Eric Fidder of the Netherlands, and it was just a matter of waiting to see what Frederik Van de Walle of Belgium was going to do. I thought to myself that I had better not go back to the start area to let Frederik know what I had done so as not to stir his competitiveness.

Frederik ran a slower time and I knew at that moment that the Gold was mine. I couldn't believe it. It was a dream come true. Pretty soon the Americans started to show up at the course because they kept hearing my name on the PA system as the leader. This was a sweet comfort. I really enjoyed sharing this victory and the great feeling I had with all of them: Doc Pearson, Jim Curry, Jeff Caswell, Tim Dunsworth and John Tetz were all there with me. I'll never forget those moments.

I also shared my victory with my competitors who instantly became very interested in talking to me and trying the new World's fastest non-faired bike. Previously my bike had only received long stares and polite smiles. I felt the acceptance of the European racers at that point which only made the day more enjoyable.

Later that evening was the awards ceremony for the 200 Meter. My anticipation was high because I saw the award ceremony earlier in the day. There were lots of people cheering and you get to stand on the 1-2-3 podium while an MC calls your name and puts a medallion around your neck - just like in the Olympics. There was much rejoicing that evening with the help of a great local beer called Rugen Brau. I was glad I wore my U.S.A. T-shirt that day, because when you are in the minority like we were, you feel a strong sense of National pride when you win. I made sure that there were at least three people taking pictures so that I could have proof to the folks back home that I really won something. The whole experience made this one of the best days of my life.

The following day was the Hill Climb. Unfortunately I decided to participate. In general, there was a poor turnout. It was cold, it was raining, it was steep. I think they said it averaged 10 percent slope for 5 kilometers. 10 percent didn't sound threatening to me. How hard can it be?

After 1 kilometer I was walking my bike, my legs were like lactic acid factories and my lungs burned. There must have been 12 switchbacks. I finished dead last - 10 minutes behind the closest rider. Tim Dunsworth who started walking up the hill after I started reached the top ten minutes later. The winner was a Swiss, of course, on a prone bike. Oh well, I still have my medal.

Later that day we rode in parade from the airport to the center of town where the Drag races took place. The drag races were only 50M long and were run 3 riders across. The slowest of the three was eliminated until the final. I had it through the first heat, but in the second, I broke a jack shaft on my bike.



Though many people offered to help, I knew it was hopeless and I would be out of the road race on Saturday.



In a very kind gesture, Frederik Van de Walle offered his back up bike, a Challenge Hurricane, for me to participate in the road race the following day. I really liked this bike, but it was just was not as fast as my Monkey Hand. I would have had a good chance at making the final heat, but got screwed up on the number of laps and I sprinted 1 lap too soon - quite embarrassing. It was not such a bad thing since I was tired of racing and I really wanted to watch the final heat. The three fastest guys were Frederik Van De Walle, Ymte Sybrandy, and Denis Mario Ahrens. They had broken far away from the pack and it came down to the final sprint. Frederik had just enough kick to pull off the victory. Frederik came away from the events with the best overall performance. Not bad for a 20 year old. *[Why hasn't he been slowed down by Beer and Women yet? – Ed.]*

There was so much more I haven't written about: The fully faired bikes, the Women racers, the electric assist vehicles, and the seminar that we skipped because we wanted to take a train up the mountains. I hope someone else can contribute a report on these so I know what I missed. Overall I had a fantastic time. It was a great learning experience.

*Also in Switzerland last summer, the HPV Rail Championships.  
Top: Team Gridelli. Bottom: Snapper, the new World record holder*

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## Carfree in Calais

*Words & Pictures: Paul London*

Gathering on Dover seafront at 6:45 in the morning for a photocall is not my normal way to start the day but 22<sup>nd</sup> September was an unusual day as we are off to France to take part in Carfree day. "We" are a cycling rent-a-crowd comprising Spokes East Kent Cycling Campaign, a posse from Bikefix in London, various local dignitaries and journalists plus a Brox which was to carry the Mayor of Dover into Calais by human power.

HPV's were well represented amongst the 40 making the trip, several Bike E's, a Street Machine, an Anthrotech, a recumbent Brompton, a LWB Vision and my Kingcycle, so together with the plethora of folders in attendance the Brits could either be seen to be the future of transport or just eccentric! We collected our free ferry tickets after the photo session and then rode onto the ship with the intention of





*The no-longer-missing Mayor...*

finding breakfast, I was riding behind the Brox and noticed that the Mayor was not on it, a bit strange I thought.

We arrived in Calais in bright sunshine but no sign of the welcoming party, they were waiting for us at the entrance, about a mile by road, so after a quick spin to warm up, the good burghers of Calais were greeting us. At this point the cry went up "where is the Mayor?" she was nowhere to be seen, having elected to go on board as foot passenger, had missed the boat and was having to come over on the next ferry! Fortunately Dover to Calais is a frequent service so within just a few minutes the whole party were cycling off towards the town centre to see what a car free town can be like.

Two large areas of the town were declared Carfree zones with Gendarmes at each junction preventing excluded vehicles from entering. Calais is not the prettiest of towns, extensive use of explosives in the 1940's has seen to that, but it became a sort of urban paradise for the day with pedestrians, cyclists, horses, a Landtrain and buses



*The author, aboard his Kingcycle, plus the still-not-missing Mayor*

sharing road space without conflict. As the frequent bus services were running through the zones you still had to ride in the right lanes and give proper signals, so it was not the anarchy I thought it might be. The most immediate benefits were the lack of noise and fumes, another sort of pollution was being generated by the horses but even that was being cleared away quickly. Those of us not going to the civic lunch had to fend for ourselves so after a quick cycle around it was time to find a café.



After a good lunch it was time to explore again, though wobbling a bit more than earlier. After taking in the sights for a while I ended up joining the Bikefix and Brox contingent to blag rides on some of the other machines. I set off on the Brox only to hear a thump from behind me, turning around I find Patrick Field has leapt aboard to provide me with a passenger. We head off up the slight incline of the main street picking up an inline skater en-route who is discussing the Paris-Brest-Paris ride with Patrick, I'm not pedalling that far today! The children have been given a half day holiday so the street is busier this afternoon and as we come back down the slope at top speed on the Brox Patrick is making police siren noises with a harmonica to clear our path.

Everyone gathers together at the Town Hall for speeches and champagne and then it's time to catch the ferry home, the bulging panniers and clanking noises from them suggest that most people have taken advantage of the trip to stock up with French produce.

Can Carfree day happen in Britain? The answer is probably YES! Dover and possibly also Canterbury want to take part in 2000. The Environmental Transport Association (the greener alternative to the RAC and AA) want to promote it in Britain so it could come to a town near YOU. If it does get on your HPV and join in as it can be an excellent way to promote the fun and benefits of human power in all its many and varied forms.

## Builders' Corner

*Editor's Note: I have received a most excellent piece from one-half of the Homebuilder Of The Year duo, Iain James, but so far have no photos to accompany the article. So I shall sit on it until the next issue, by which time hopefully pictures will be forthcoming (hint, hint). Instead, Mr. Competition Secretary gNick Green will tell us how to dazzle oncoming motorists...*

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### The Wonderful World Of Cheap Bright Lights

Back in the dim and distant past I decided to do away with the dimness of conventional bike lighting and fit something with a bit of clout. After looking about and talking to people in certain places a revelation was upon me – I had seen the light.

The general line was this: for the same price as a 3W halogen bulb you could buy a 20W sealed dichroic bulb of the type used for interior spotlights. This has one minor drawback in that it runs on 12v and one not so minor one in that it draws 1.67A, which means that for a minimum life of a fully charged battery of 2 hours it needs a capacity of at least 3.33Ah.

For the uninitiated the Power (unit Watt, symbol W) of a device is the Voltage (unit Volt, symbol V) times the Current (unit Amp, symbol A) or  $P=V \times A$  in equation form, and the capacity is measured in Amp hours (unit Ah) which is basically how long the battery can sustain a 1A output.

To increase the voltage output of a battery the cells should be connected in series and to increase the capacity they should be connected in parallel. So for a NiCad D-type battery of 1.25V with a capacity of 1.2Ah to get 12V we need 10 cells in series and to get at least 3.33Ah we need 3 sets in parallel (giving us 3.6AH or 2hrs 9min life). There was no point in even considering disposable batteries so now which kind of rechargeable? There were three basic types under consideration, NiCad, Nickel Metal Hydride (NiMH) and Sealed Lead Acid; the choice was to find the cheapest.

Type	Capacity (Ah)	Cell Voltage (V)	No. Cells Reqd.	Actual Capacity (Ah)	Actual Duration (hr-min)	Total Weight (g/lb.)	Cost per Cell (£)	Total Cost (£)
NiCad (ordinary)	1.2	1.25	30	3.6	2-9	4230/9.3	1.86	55.70
NiCad (industrial)	4	1.2	10	4	2-24	1410/3.11	4.94	49.35
NiMH	5	1.2	10	5	2-54	1500/3.3	11.99	119.85
Sealed Lead Acid	4	12	1	4	2-24	1570/3.46	14.81	14.81

The prices are from Rapid Electronics current catalogue, RS and Farnell are more expensive.

The figures speak for themselves; Sealed Lead Acid is far and away the cheapest and not as excessively heavy as you might expect – remember batteries are HEAVY.

The lamps themselves are 20W spot enclosed dichroic (£3.13 from Farnell) and they fit into a GX5.3 lampholder (£2.10 again from Farnell). The lampholder is not a necessity but it does make for easier bulb changing - you can if you wish directly solder wire to the lamp but then you have to make some kind of holder.

To actually fit the lamp onto the bike depends on how fancy you want to make the fitting. I used the front light that came with the Sanyo Dynapower BB dynamo since I have got several and they are just the right size. I basically stripped out the shell, including the mounting bracket, chucked the lens/reflector (into the spares box obviously), made a new mounting bracket to which the GX5.3 was attached and made a mounting bezel to keep the bulb in place. I am looking at making a composite shell to simplify the process (I've run out of old front lights) so watch this space. One point here is that since dichroics are designed for interior lighting they deflect a lot of heat backwards so if you fit them into a plastic housing allow room for a cooling airflow. When you wire up the light remember that you are putting a fairly hefty current through it so a decent size is a good idea – 1mm<sup>2</sup> will ensure that nothing is lost in transit.

Now onto the final problem Sealed Lead Acid batteries MUST NOT be charged using a standard car battery charger – this will cause all kind of problems like the destruction of the battery so NO.

The safest way to charge a SLA is to use a set voltage, current limited charger. This is not as difficult a proposition as it may seem due to a wonderful voltage regulator called L200, but it will entail a bit of electronics.

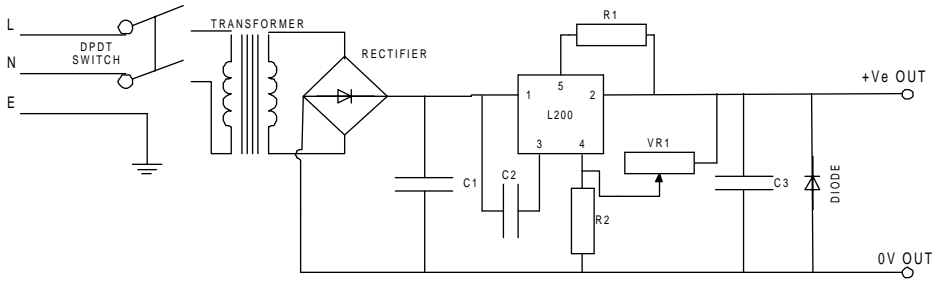
To start with a bit of the principles involved.

The output voltage should be between 2.25V & 2.35V per cell which for a 12V battery with 6 cells gives an output voltage of 13.5V & 14.1V - for the sake of aiming for the middle work to 13.8V. Due to the losses in the circuit the supply voltage should be about 2V higher so if you have a voltmeter and a car battery charger check the output and if it is around 15-16V you already have a power supply – lucky you.

The output current should be limited to 0.25 x battery capacity so for a 4Ah battery the maximum output current (I<sub>max</sub>) should not exceed 1A. (I<sub>max</sub> = 0.25 x 4). For the L200 the max current is about 2A so you could go <sup>max</sup> to using an 8Ah battery or <sup>max</sup> full current (or two 4Ah batteries in parallel) if you have a really long journey or want to use a serious overload on the lighting front).

These conditions mean that although the battery is not being charged as fast as is possible it will not be overloaded and can be left on charge indefinitely with no chance of damage. Important point. The current limit is for trickle charge that is not time sensitive so if you have batteries of differing ratings (I have a 4Ah & a 7Ah) charge at the lower capacity battery rating; unless you can be absolutely sure that you won't try to charge the low capacity battery at the high capacity setting. If you charge a high capacity battery at a low current limit it will charge more slowly, where if you charge a battery at too high a current you will at best have reduced its life and at worst RIP battery.

To simplify the telling I will just give you a circuit diagram – I seem to have lost my breadboard layout anyway.



Sealed Lead Acid Battery Charger Circuit

**Components**

Transformer 50VA 15V

Bridge Rectifier W005

Regulator L200CV

Heatsink to suit L200CV

Capacitors

C1 2200µF 35v/25V Electrolytic

C2 0.22µF Polyester

C3 0.1µF Polyester

Diode IN4148 (1N914)

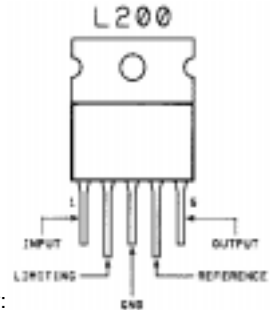
Resistors

R1 0.5Ω 0.6W metal film 1% - sets the current limit calculated by:

$$R1 = 0.45 / I$$

R2 820Ω 0.6W metal film

VR1 10k Sub-miniature Preset 0.15W



L200 pinout

This circuit provides a cheap safe charger for sealed lead acid batteries but it does require a certain amount of electronics skill to put together

When this has all been put together the variable resistor VR1 should be adjusted to give the output voltage required, in this case 13.8V. Should you wish to put a fixed resistor in this place the voltage is given by  $V_{OUT} = 2.77 \times (1 + VR1/R2)$  but it is safer to use a variable resistor to avoid tolerance problems.

Well that's enough for one article, next time I will let you know how I have been getting along using white LEDs and how to make a laser cannon capable of blasting alien battle cruisers into the next universe using only one AA battery.

Byeeeeeeeeee

gNick.

**This Just In...**

**Virtual Edge Record Attempt**

If I remember correctly, this came from Chris Broome:

"Matt Weaver and his team suffered a mechanical failure, a cracked crank arm, just before the Dec 18th track time at the California Motor Speedway in Fontana. A new crank arm was built but they could not get to the speedway in time to run on Dec 18th.

They arrived just as the sun was rising on Dec 19th, but unfortunately the winds were starting to blow. The winds rose steadily during the day, with local TV stations later reporting sustained 40 mph wind speeds.

Matt managed to ride the Virtual Edge with the full body removed for some test runs on the pit straight. The straight was fairly sheltered from the winds, but Matt was still being buffeted quite severely. The winds were howling across the back straight and the major turns of the track. It was very clear that conditions were inappropriate and unsafe for any record attempts.

Matt is hoping to make some practice runs at the track in the next few days. The HPVA and The Dempsey-MacCready Record Committee will hear from Matt when he is ready to schedule his next record attempt."

I am reliably informed that Matt is intending to make another attempt early in the New Year, thus any further news will be in the next Newsletter.

## More On Lap-Scoring

The very wonderful Kevin Jenkins has turned his lap-scoring program into a standalone program, so now we are positively spoiled for choice! Thanks very much, Kevin.



*Before the rain started: Oxfordshire touring types assemble outside the Tweddle residence.*

*Photo: Geoff Bird*

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**e-mail: [info@bikefix.co.uk](mailto:info@bikefix.co.uk)**

**WWW: <http://www.bikefix.co.uk/bikefix.html>**

Recumbent-friendly shop in central London. HP Velotechnik Street Machine & Wavey, BikeE, Pashley PDQ, Flevo Oke-Ja, Trice, Leitra, Anthrotech, plus folders / transportables from Brompton, Birdy, Bernds, Animal & Moulton APB. Alesa rims in 406, 507, 559 and 622 sizes; Continental, Primo and Vredestein tyres in 305, 406, 451 and all the big sizes. Recumbent luggage, fairings and everything else you can fit on a recumbent. Test rides and social weekends. Get on the mailing list...

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**Comfort Cycles, Yate, Gloucestershire**

**Phone: 01454 620377**

Recumbents from Rans, Challenge and M5 (Blue Glide & Citymate). Recumbent-specific luggage from Alfa and M5.

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**Dave Holladay, <Custom=Folder>, PO Box 15174, Glasgow, G4 9LW**

**Phone / Fax: 0141 332 4733**

**e-mail: [custfold@aol.com](mailto:custfold@aol.com)**

Primo 37-349 tyres:

**£14.95 (+ £1.50 p&p)**

Dave can now also supply Primo 37-451 tyres and is investigating the sourcing of other items including IBC hydraulic brakes, small size Salmon mudguards, suspension forks etc.

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**Paul Davies, 2 Fowlswick Cottages, Allington, Chippenham, Wilts, SN14 6LU (2 miles from Castle Combe)**

**Phone: 01249 782554**

Composite products for HPV's:

Mk. 5 bike shell, in 6 separate mouldings, fits SWB bike

from **£350**

Mk. 4 trike shell, in 5 separate mouldings, fits trike approx. 60 cm track, 100 cm wheelbase

from **£250**

Bike front fairing

from **£35**

Bike rear fairing

from **£35**

Seat

from **£35**

Mudguards (20", MTB, 700c)

from **£10**

Etc. etc.

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**Future Cycles, Friends Yard, London Road, Forest Row, East Sussex, RH18 5EE**

**Phone: 01342 822847**

**Fax: 01342 826726**

**e-mail: [bikes@futurecycles.prestel.uk](mailto:bikes@futurecycles.prestel.uk)**

**WWW: <http://www.there.is/futurecycles>**

Trice from:

**£1650**

Flevo Oke-Ja:

**£450**

Windcheetah:

**£2795**

Vision VR40 long and short wheelbase. SWB from:

**£995**

Front suspension add:

**£175**

Rear suspension add:

**£245**

Pashley PDQ from:

**£850**

Spirit LWB. Frame by Chas. Roberts! From:

**£1700**

Speed Ross:

**£875**

Fateba Long Bike – Swiss LWB. Available with S&S couplings

Other Vision models, including tandems, available to order. Plus used machines – please get in touch for details.

We also handle European subscriptions for "Recumbent Cyclist News" (RCN). RCN is 100% dedicated to promoting recumbent bicycles and providing and encouraging communications between HPV enthusiasts, home-builders, dealers and commercial recumbent manufacturers. Annual subscription £25.95 (six issues).

**Greenspeed, 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](mailto:greenshp@ozemail.com.au)**

**WWW: <http://www.greenspeed.com.au>**

Greenspeed trikes are designed for touring, commuting, racing, or just having fun. They have been well tested on Outback Australia Tours, are world renowned for their handling qualities, and have been successful in HPV racing.

GB 16/20 Commuter Bike	SWB, 7-speed	<b>A\$2,100</b>
GBR 20/26 Touring Bike	SWB, 21-speed, Cro Mo 4130 tubing	<b>A\$3,700</b>
GT 16/20 Child's Trike	7-speed, 10 years - 5' (152 cm)	<b>A\$2,200</b>
GT 20/20 Adult Commuter Trike	21-speed	<b>A\$3,400</b>
GTR 20/20 Touring Trike	63-speed, Cro Mo 4130 frame tubing	<b>A\$4,400</b>
GTS 20/20 Sports Tourer	42-speed, Cro-Mo 4130 frame tubing	<b>A\$5,200</b>
GTT 20/20 Tandem Trike	63-speed, Cro Mo 4130 frame tubing	<b>A\$7,400</b>
GTH 20/20 Hand Trike	42-speed, Reynolds 531 frame tubing	<b>A\$4,400</b>

Frame kits, plans and parts (e.g. kingpins) available. Write, fax, e-mail, phone or visit for free information package.

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### **Highpath Engineering - Chris Bell / Dave Wrath-Sharman**

**Phone: 01570 470035**

**e-mail: [chrisbell@argonet.co.uk](mailto:chrisbell@argonet.co.uk)**

Custom milled chainrings - Any size, any shape. Custom freewheels - 5 speed, 6 speed, 6 compact, 7 speed, 8 speed, 8 compact. Freehub sprockets - Any size, alloy or steel. Also CNC machining, frame building and the undertaking of design work.

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### **Hockerton Housing Project Trading Ltd., The Watershed, Gables Drive, Hockerton, Notts, NG25 0QU**

**Phone: 01636 816902**

**Fax: 01636 816902**

**e-mail: [hhp@hockerton.demon.co.uk](mailto:hhp@hockerton.demon.co.uk)**

Hire/Demos/Sales of Flevo Bike, Ross, Anthrotech, Brox plus any others we obtain in the meantime! Also, Site Tours (on foot) of the infamous Hockerton Housing Project- earth sheltered, zero heating, zero CO<sub>2</sub> autonomous housing (as seen on or in every conceivable form of news media in the known Universe!). Full details from Nick Martin at the above address.

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### **Inspired Cycle Engineering Ltd, Unit 9B Spencer Carter Works, Tregonigie Industrial Estate, Falmouth, Cornwall, TR11 4SN**

**Phone / Fax: 01326 378848**

**e-mail: [sales@ice.hpv.co.uk](mailto:sales@ice.hpv.co.uk)**

**WWW: <http://www.ice.hpv.co.uk/>**

ICE manufacture and supply the new much improved range of TRICE recumbent tricycles including the EXPLORER, XL and CLASSIC. X2 and EXPEDITION TANDEM versions of the Trice also now being produced.

A comprehensive range of options and accessories is also available direct from ICE.

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### **Kinetics, 15 Rannoch Drive, Bearsden, Glasgow, G61 2JS**

**Phone / Fax: 0141 942 2552**

**e-mail: [UKKinetics@aol.com](mailto:UKKinetics@aol.com)**

**WWW: <http://users.aol.com/UKKinetics/>**

Wavey: nippy SWB, 20" wheels, ASS	<b>£600</b>
Suspension Wavey: as above with Ballistic suspension forks	<b>£650</b>
StreetMachine: excellent full-suspension SWB, USS fast tourer	<b>£1300</b>
Culty: front-drive, rear-steer leaning suspended trike	<b>£1500</b>
TrailerBent: mounts behind almost any bike. Sachs Super 7 version	<b>£400</b>

We also import the S&S Torque Couplings which braze into any steel frame to split it in half - now available for 50mm tubing - £200. We're also specialising in custom framebuilding, especially the unusual, and have stocks of seamless 50mm cromoly for recumbents, etc. As well as this, we're also agents for ICE Ltd - making the Trice, Ross, Festina, etc., and for Brompton.



**Tina Larrington, 166 Higham Hill Road, London E17 6EJ**

**Phone: 0181 531 4496 (eves / weekends)**  
**e-mail: dr\_technical@cix.compulink.co.uk**

Arty stuff – cartoons, business cards, logos, badges, T-shirts, etc. for builders, dealers and end-users of recumbent cycles. Customers include "Recumbent UK", Animal Bikes, Westcountry Recumbents and the BHPC!

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**MICWIC Ltd, 12 Oaklands Industrial Estate, Braydon, Swindon, Wilts, SN5 0AN**

**Phone/Fax: 01793 852484**  
**e-mail: micwic@btinternet.com**

Designers and Manufacturers of Recumbent Cycles

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**Norfolk Recumbents, Sunville, The Street, Hindolveston, Norfolk, HR20 5DA**

**Phone: 01263 861720**  
**Fax: 01263 861162**

Kingcycle, Pashley, Radius & Sinner recumbents. Recumbent hire from £25, refundable on purchase. Sale of spares, 24 hour cycle recovery, B&B + evening meal available.

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**Simon Gershon, Orbit Cycles, Unit 18, City Road Trading Estate, 295 City Road, Sheffield, S2 5HH**

**Phone: 0114 275 6567**  
**Fax: 0114 270 1016**  
**e-mail: orbit@legend.co.uk**  
**WWW: <http://www.orbit-cycles.co.uk>**

Orbit Crystal recumbent bicycle, Shimano Deore LX components, choice of USS or ASS:	<b>£795</b>
Frameset:	<b>£575</b>
Rear rack add:	<b>£20</b>
Rear mudguard add:	<b>£8</b>

Orbit cycles are available from many dealers nationwide. In addition, you may visit our Sheffield factory on alternate Saturdays between the start of May and the end of August - please call a few days in advance to confirm that we are open! We also offer a cycle hire scheme, for approximately £40-50 per week - again, please call for details. All prices include VAT.

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**Advanced Vehicle Design, L&M Business Park, Norman Road, Altrincham, Cheshire, WA14 4ES**

**Phone: +44 (0)161 928 5575**  
**Fax: +44 (0)161 928 5585**  
**e-mail: sales@windcheetah.co.uk**  
**WWW: <http://www.windcheetah.co.uk/seatofthepants/index.htm>**

Offers the following models (prices exclude VAT):

The Burrows Windcheetah:	<b>£2,400</b>
The Pickup:	<b>£1,400</b>

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**St John Street Cycles, 91-93 St John Street, Bridgwater, Somerset, TA6 5HX**

**Phone: 01278 441500**  
**Fax: 01278 431107**  
**e-mail: sjscycles@dial.pipex.com**  
**WWW: <http://www.sjscycles.com>**

All manner of bits, including hard-to-find tyres. Full mail-order service, on-line ordering now available from web site.

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**Tiptree Designs (incorporating Els Tees), Ian Hague, 24 Cedar Avenue, Tiptree, Colchester, Essex, CO5 0NR**

**Phone: 01621 0815476**

*"Hand Painted T-shirts to the Nobility and Richard in Blackpool"*

**Robert Turner, 2/32 Pentland Drive, Edinburgh, EH10 6PX**

**Phone: 0131 445 7497**  
**e-mail: BicycleBob@compuserve.com**

Variety of parts available while stocks last. Frame building components & accessories; tubing & rod; wheels, tyres & accessories; nuts and bolts; bearings & pulleys; etc. etc. Send A5 SAE for current list.

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**Valley Cycles, Unit 2, Nene Court, The Embankment, Wellingborough, Northants, NN8 1LD**

**Phone: 01933 271030**  
**e-mail: valley@primex.co.uk**

Now importing the BikeE medium wheelbase recumbent bicycle from the USA. From: **£650**

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**Rob Hague, Westcountry Recumbents, 23 Hamber Lea, Bishops Lydeard, Taunton, Somerset, TA4 3NJ**

**Phone: 0870 7401227 (national rate)**  
**Fax available by appointment**  
**e-mail: RobHague@FeetFirst.connectfree.co.uk**  
**WWW: <http://www.wr.hpv.co.uk/>**

Flevobike, Anthrotech, Trice (soon) and Greenspeed machines in Somerset, England.  
Tioga Comp Pool tyres available:

**£13 + p&p**

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## **Small Adz...**

**Tim Hayes. 25 Overton Lane, Hammerwich, Staffs. WS7 0LQ**

**Phone: 01543 684621.**

For sale: Orbit Ross recumbent bike. Hardly used, just one End to End. Genuine reason for sale, I'm never going touring again!! **£500**

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**gNick Green, Church House Barn, Llanllwchaiarn, Newtown, Powys, SY16 3BH**

**Phone: 01686 624259 (eve)**

**e-mail: [gnick@compuserve.com](mailto:gnick@compuserve.com)**

One red fairing, known to me as Morse's Law, never rallied (well I can hardly claim never raced) suit someone no bigger than yours truly with a low bike. Not too sensitive in side winds. Drag in the region of not a lot. Includes spare wet weather lid. Yours for only **£100** (if you want to pay more I'm sure I can accommodate it!)

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**Ron Beams, Coral Gables, Park Lawn Road, Weybridge, Surrey, KT13 9EU**

**Phone: 01932 844038**

Mk. 4 "Eureka" recumbent tricycle with Deuxjohn trailer. Both demountable to carry in car or van. Suitable for touring, shopping, camping, allotment, etc. Some spares; phone for more details or to view.

**£1500**

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**Peter Ross, Crystal Engineering, Unit 9B Spencer Carter Works, Tregonigge Industrial Estate, Falmouth, Cornwall TR11 4SN.**

**Phone/Fax: 01326 378848**

**e-mail: [peterross@crystalengineering.fsbusines.co.uk](mailto:peterross@crystalengineering.fsbusines.co.uk)**

**CRYSTAL ENGINEERING WORKSHOP CLEARANCE SALE**

Long Wheelbase Prototype. Very upright Linear type seat. 700C rear 451x1-1/8" front. Under seat steering. Built 1994. Red. Little used (due to its exceptionally high drag!) **£249**

1994 Speed Ross frameset. Red. Choice of OSS or USS. 700C rear, 451 front. Mesh seat. **£199**

1996 Speed Ross complete, OSS. Cantilever brakes. 700C/451. Mesh seat. 21 gears. Personal vehicle of Peter Ross for three years. Light Blue **£499**

1994 Speed Ross prototype complete with 91 degree head angle and reversed forks./ Very stable at all speeds. USS. Mesh seat, 21 gears. Red. **£399**

1995 Speed Ross with Moulton front suspension (old type), 17" front 700C rear. 18 gears. Light blue (recently re-powder coated). **£349**

1992 Varna Arm Powered racing recumbent trike. Still in primer paint. Not suitable for road use due to restricted lock. **£149**

1985 Arm Powered conversion for Wheelchair. Made in Canada. Rather tatty. **£50**

1994 Arm Powered Trike, as raced in Laupen European Championships. Recumbent. Mesh seat. Unpainted **£199**  
Powder coated **£249**

1998 Electric Trice prototype. Yellow. Fitted 250 watt electric motor driving through the same 21 gear system. Batteries fitted low down to improve stability and allow unrestricted use of rear rack/panniers. Top speed a highly illegal (in the UK) 26 mph. Gives you Chris Boardman performance. Range about 15 miles depending on hills. New price **£2,200**. Sale price **£1500**

Trice. Various Trice from 1994 to 1998. Will be sold as completetrikes or as framesets. All with mesh seats. **£400** upwards.

WARRANTY. All Trice and Speed Ross will be sold with 4 year frame warranty. Add £25 for carriage if not collected.



# Recumbent UK

The independent recumbent magazine for commuters, tourists, randonneurs and anyone else who owns or covets a recumbent. Each issue includes news, technical columns, product tests, completely unreasonable opinions, a 3 month guide to events, a UK source guide, sales & wants, a dealer guide and much much more.

Trial issue : £2.50  
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Sales & Wants/Events listings are freeeeee.....  
send in your name, telephone number, area/country and the details.  
Next Issue: Issue 7