



FREEWHEELER NEWS

Newsletter of the Morris Area Freewheelers Bicycle Club

May 6, 2010 Special Edition

Racing Streamliners

By John Tetz

Road streamliners were not popular but for the racers. Streamliners are worth all the time, effort, and energy to produce an exciting vehicle. I have raced Porsches at high speeds, but racing an HPV even though slower, feels to be just as fast and just as exciting.

There is something about going fast using human power that is hard to resist.

Here are several racing streamliners.



The complex combining of many variables



Each of us has their own idea as to what consists of an ideal vehicle.



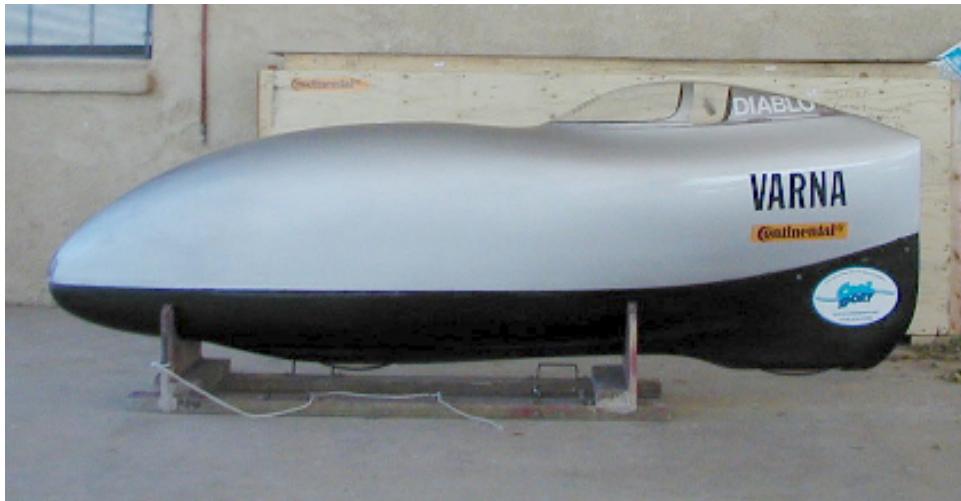
All out performance is paramount. The above vehicle is called a camera bike. A tiny camera mounted up on the tail fin gives the rider a view of the track on a small screen inside the shell. The reason is that windows trip the air flow from laminar to turbulent causing an increase in drag.

The wide variety of vehicles shapes we saw at the inception of the IHPVA no longer exists. By now we have a better understanding of what works and what Nature allows.



647 miles in 24 hours

The record for an up-right is 415 miles
I helped on the design of this vehicle.



82.7 MPH

To see what 82 mph looks like

<http://www.youtube.com/watch?v=PMUNOLwW0io&feature=related>

and

<http://www.youtube.com/watch?v=jQwpGLCAMm4&NR=1>

The incredible thing is this vehicle was designed and built by Bulgarian born **George Georgiev**, trained as a sculptor, not as an engineer.



Georgiev fashioned the vehicle purely by intuition (and years of experience). His hands and eyes are his critics. And it shows in the Varna's deceptively simple clean design, resulting in remarkable aerodynamic efficiency.

As a comparison if you are doing 20 mph on a conventional bike, these streamliners will be doing 35 at the same power.

He literally built the bike around his 5'7" rider, arranging shape and components to **minimize its size and therefore the hole it punches in the air.**



Tight fit to reduce frontal area. Sam Whittingham - can't move his head - only his eyes.



54 mph for an hour. 50 year old Freddy Markham

I was at this event as an official observer.

Here is a video of the last few seconds of the hour run. Freddy is doing around 60 mph.

<http://www.youtube.com/watch?v=jUgXtZFdUcs&feature=related>

Here is his 16 year old daughter, who has done over 50 mph.

http://www.youtube.com/watch?v=Niko6Qo6skE&feature=player_embedded#%20

Typical of how recumbents have been ignored throughout history, the media including the popular bicycling magazines has ignored these incredible accomplishments. Are you aware of these vehicles and their speeds?

You have to ask yourself “**Why?**” These are incredible accomplishments that everyone should know about – but it doesn’t happen. I have yet to meet someone outside the HPV world that knows about this.

These vehicles are highly specialized, highly tuned and cannot be used on the road. However, quite a bit of what was learned from them can be scaled down for use on road vehicles.