Q. How much did it cost?

A. About $30 a pound.

Actually, recumbents start at around $600 and can go as high as you want to pay. Because of their low production volumes, a recumbent tends to be a little more expensive than a comparable mass-produced upright bike.

Q. How fast does it go?

A. Just like any other bike, it goes as fast as you pedal it. In my experience, it's the rider, not the bike, that determines how fast a bicycle goes. And recumbents use your muscles differently than a conventional bike, so you won't get full performance for the first few months.

The question of speed is actually very controversial. In IHPVA (International Human Powered Vehicle Association) sanctioned events, **all** the land speed records are held by recumbent or semi-recumbent designs. However, recumbents are banned from racing by the Union Cycliste Internationale (the governing body for bicycle races). The U.C.I. banned all recumbents and aerodynamic devices from racing in 1934 after a French professional track cyclist named Francois Faure shattered speed records on a recumbent bicycle called the Velocar. The controversy was based on arguments that the Velocar was not a bicycle and therefore the records were not legal.

Q. How do you steer it?

A. My handlebars are under the seat. The Linear LWB has a linkage (Linear calls it a ***drag link***) from the handlebars to the front wheel. The Vision SWB has direct steering, meaning that the handlebars are connected directly to the front wheel like on a conventional bike.

Just like any bike, though, steering is a combination of moving the handlebars and leaning.

Generally, recumbents have either ***above seat steering*** (ASS), or ***under seat steering*** (USS). On the above seat steering bents, the handlebars are located at about shoulder height giving them the "chopper" look. On the under seat steering bikes, they are located just beneath the seat. If you are sitting on a chair right now, let your hands hang loosely at your side; this is where your handlebars would be.

Above seat steering looks more conventional, but USS bents are really no more difficult to control. The choice is really one of personal preference. I started with above seat steering on the Linear LWB and hated it! It didn't feel like riding a bike. I converted to under seat steering—I like it a lot better.

Q. Is it comfortable?

A. It's great! No more sore butt, stiff neck or sore wrists and arms.

Recumbents seats are larger and you actually sit **in** the seat. You aren't perched on top of a narrow saddle which can tend to cause numbness and chafing. The handlebars are either above the seat at shoulder level, or below the seat at a position where your arms hang down naturally. This creates a comfortable ride making long distance riding free from neck strain, saddle sores, and wrist pain.

Q. Is it hard to ride?

A. Not really. It took a little getting used to, but after a few hours of riding it started feeling pretty natural.

In recumbents there are variations in handling just as there are in uprights—some are fast, twitchy racing models and others are smooth, stable touring models.

Q. How is it on hills?

A. Some people think that because you can't stand on the pedals, that you can't ride up hills. Not so. I just use the granny gear and spin my way to the top of hills, but then again, I did that on a conventional bike too.

I'm better at hills than I ever was on a conventional bike because I'm in much better shape. I'm riding more and longer distances because I'm enjoying it more. The way to get good at hills is to ride up lots of them. And you gotta love hills if you live in western Pennsylvania.

Q. Are you disabled?

A. No, but my bike does remind people of a racing wheelchair or a handcycle (hand-powered cycle for paraplegics).

Actually, I first became interested in recumbents because I was tired of pain in my wrists, arms and shoulders. On the bent I can ride until my legs give out.

Q. Are recumbents hard to see?

A. On a recumbent you do sit lower than on a traditional diamond frame bike, but since you're upright rather than hunched over the handlebars, it's not as much lower as you might think. I can see over the tops of cars, but not vans (same as any other bike). And, since bents are unusual and futuristic, they are noticed.

Some recumbent riders feel the need to make themselves more visible. Some add a flag to their bike on an extended rod, and some wear a bright helmet or jacket/vest. As on any other bicycle, it pays to be alert and to assume that drivers aren't paying attention. After all, you have a lot more to lose than they do.

Q. Are recumbents safe?

A. Some argue that recumbents are safer than conventional bicycles.

Because of their low center of gravity, recumbents stop faster. On a long wheelbase recumbent, brakes can be evenly applied to both wheels simultaneously providing more traction without throwing the rider over the handlebars. And in crashes, the rider goes down to the side rather than flying over the handlebars. Forward vision is much better on a bent because of the upright posture. However, rear view mirrors are a necessity because it is much harder to turn and look to the rear.

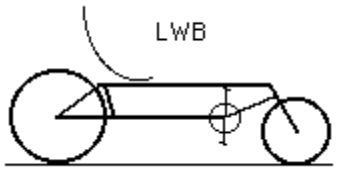
Q. Have recumbents been around a while or are they a recent invention?

A. Recumbents have been around since the mid 1800's with the Macmillan Velocipede and the Challand Recumbent.

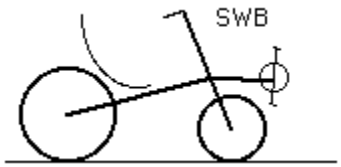
In 1933 Charles Mochet built a supine recumbent named the Velocar. Between the years of 1933 and 1938 pro racer Francois Faure, while riding the Velocar, set several speed records for both the mile and kilometer. In response, the Union Cycliste Internationale banned all recumbents and aerodynamic devices from racing, freezing bicycle and human-powered vehicle development for the next forty years. For over a century the design of the basic diamond frame bicycle has hardly changed.

Q. What are the different styles of recumbents?

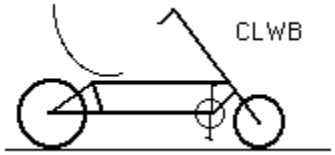
A. The most noticeable difference between the different styles is the length of the bike. There are long wheelbase (LWB), short wheelbase (SWB), and compact long wheelbase bikes (CLWB).



A ***long wheelbase*** bike (LWB) is 65" to 71". Their ride is quite smooth, comfortable, fast and stable but due to their length, low speed maneuverability can be a bit tricky on busy streets or on narrow paths. Examples: Ryan, Linear LWB ("folder"), Infinity, Vision R-40 LWB.



A ***short wheelbase*** bike (SWB) is 33" to 45". Their front wheel is underneath or a little ahead of the riders knees, with the crankset mounted on a boom. They have quick handling, are easy to maneuver, and they are more compact, making it easier to transport and stow than an LWB. Examples: Lightning P-38, Linear Sonic, Vision R-44.



A ***compact long wheelbase*** bike (CLWB) is 46" to 64". These bikes may be the easiest bikes to learn on. They are responsive, very stable, and with a higher seat they are more visible, making great commuters. Examples: BikeE, Linear CLWB ("Mach III"), Vision R-30 ("Metro").

Q. Where can I find out more about recumbents?

A. You can join the IHPVA (International Human Powered Vehicle Association), PO Box 51255, Indianapolis, IN 46251.

You can subscribe to a magazine called ***Recumbent Cyclists News***. The address is: PO Box 58755 Renton, WA 98058, Email: ***DrRecumbnt@aol.com***.

If you're on the Internet, you can access the IHPVA server or subscribe to the HPV mailing list. To access the server, you can use WWW, or anonymous ftp.

- ⇒ To subscribe, write to: ***majordomo@ihpva.org*** with the message: **subscribe hpv**.
- ⇒ Via WWW, the URL is ***http://www.ihpva.org***.
- ⇒ Via FTP, use the address ***ftp.ihpva.org***.

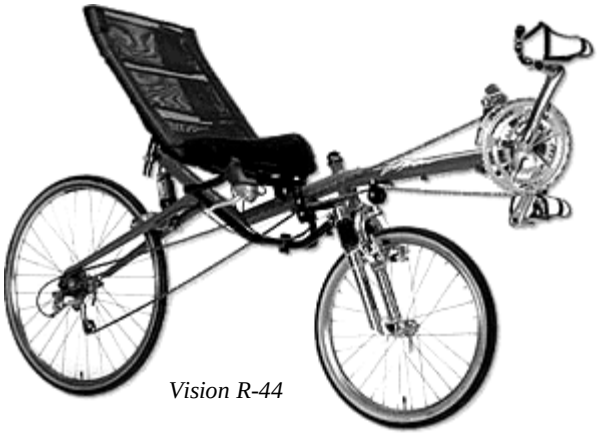
You can contact me, John Strait, at ***jstrait@acm.org*** or visit my web page at ***http://www.fyi.net/~jstrait***.

References:

FAQ for Recumbent Bikes, International Human Powered Vehicle Association, http://ihpva.org/FAQ, maintained by Julie Skopal (jskopal@ihpva.org), 1/10/97.

My FAQ for Recumbent Bikes, Kathy Bilton (kathy@fred.net), 9/27/94.

Rec.Bicycles' Frequently Asked Questions and Interesting Information, ftp://draco.acs.uci.edu /pub/rec.bicycles/faq.*, maintained by Mike Iglesias (iglesias@draco.acs.uci.edu), 4/16/97.

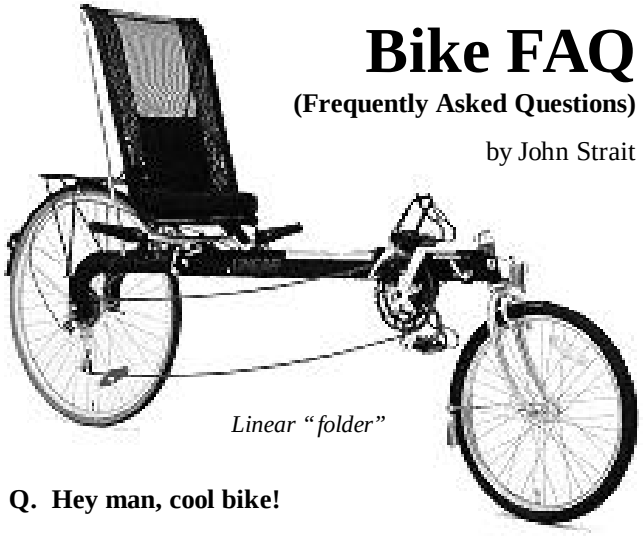


Vision R-44

John's Cool Bike FAQ

(Frequently Asked Questions)

by John Strait



Linear "folder"

Q. Hey man, cool bike!

A. Thanks!

Q. What kind of bike *IS* that?

A. It's a **recumbent** bike, so-called because of the reclined riding position. Many enthusiasts call them **bents**. They usually have two wheels although some have three. They are most often powered by pedaling with your legs, but some bents are hand powered and some are both hand and foot powered.

Q. Did you build that yourself?

A. No, I bought it. Actually, I own two recumbents.

My first (shown at the top of this page) is a **Linear "folder"**, a long wheelbase (LWB), underseat steered (USS) bike. It was made by Linear Manufacturing, Inc. in Guttenburg, Iowa. I bought it through Jerry Kraynick at Kraynick's Bike Shop in Pittsburgh, Pennsylvania.

My new bike (shown on the back of this pamphlet) is a **fully-suspended Vision R-44**, a short wheelbase (SWB), underseat steered (USS) bike. It was made by Advanced Transportation Products, Inc. in Seattle, Washington. I bought it through Luke Breen at Calhoun Cycle in Minneapolis, Minnesota.

There are at least 20 other brands of recumbents on the market.