Mechanical Advantage

THE GREAT HANDLEBAR QUESTION

You too can develop a system that better suits your riding style by Sheldon Brown

Should your touring bike have drop handlebars like a racing bike or upright bars like a mountain bike? What about both? The principal advantage of drop bars is that they offer more hand positions to choose from. This is highly desirable when you will be spending many hours on a bike because the abili-

ty to change positions helps keep your hands from stiffening up. Upright mountainbike—type handlebars normally have only one position, though you can supplement that by

installing bar-end extensions or clip-on aero bars.

Upright bars do offer greater versatility in control selection and facilitate the use of mountain bike gearing (what used to be called touring gearing).

Lately, I've been experimenting with using both types of bars on the same bike, and I've come to believe that this setup has much to recommend it for the touring cyclist.

As I've implemented it, the straight bars are mounted above the drop bars, providing an additional riding position, one with a much more upright posture than any provided by a more standard setup. This extra position is particularly good for extended climbs

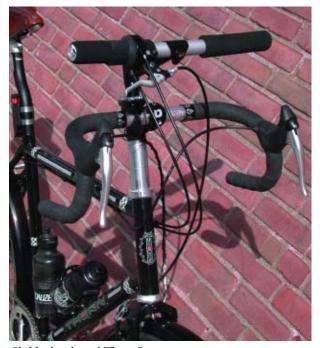
or for when the rider is unusually tired.

Surly Karate Monkey

My initial attempt at implementing this setup was on a bike I built up as a demo for the shop, a Surly Karate Monkey with a Rohloff fourteen-speed hub. The Rohloff hub is quite an expensive item, so I wanted to build up a single demo bike that could be ridden comfortably by riders of widely varying heights.

The Karate Monkey frame is set up for both cantilevers and disc brakes, and it challenged me to put something together that would work with both. As it is set up, the drop bars are pretty low, suitable for a small rider, and the upright bars are quite a lot higher so a tall person can also ride the bike easily.

The drop-bar brake levers are Dia Compe 287Vs, which con-



Sheldon's adapted Thorn Raven.

nect to Tektro direct-pull cantilevers. The straight-bar levers connect to a pair of Avid disc brakes.

Although almost anybody can get comfortable on one or the other handlebar of this bike, few riders would be comfortable switching between them.

Thorn Raven

When I put together my own Rohloff bike, a Thorn Raven, I had to find a way to deal with the absence of a drop-bar shifter for the Rohloff hub, so I decided to do the double handlebar trick again, only with both bars set up for my own size.

The Raven uses an 1-1/8" threadless fork, and the drop bars mount near the top of the steerer,

using a typical threadless type stem. They're set a bit lower than I would normally put them if they were the only bars, giving me some fairly aggressive positioning.

The Raven's fork has a steel steerer, and the inside diameter matches a quill-type stem designed for a 1-1/8" threaded system, so I installed the upper bars with such a stem.

Because the upper bars aren't that much higher than the drops, I found that it was necessary to cut them down pretty short so I could ride on top of the brake hoods without my forearms bumping into the upper bars. It took a bit of experimenting with different stems before I got a good setup, but the result was worth the trouble. I've been riding this bike a lot lately, and it really works very well.

The Raven has Shimano LX "Vbrakes" operated by Dia Compe 287V levers on the drop bars. I rigged a dual control for the front brake, using a BMX brake lever on the upper bar, and a fairly complicated pulley arrangement on the front V brake to allow cable attachment to both arms. There's actually only one inner cable, attached normally to the BMX brake lever, running through the V brake and up another cable to the Dia Compe 287V where the end of the cable is secured by a bolt to the moveable lever. This setup works fine, but it was a major pain to set up and I wouldn't do it again.

I use the rear brake so rarely that I didn't feel any need to rig a double control for

The Brown

I liked the Thorn setup so much I decided to do a similar modification to my bike, the Brown. The Brown is an Italianstyle criterium frame I built thirty years ago, but it's been through a lot of changes since then. As I've grown older, I've found this bike less comfortable than when I built it at age thirty. I hoped to make the Brown an enjoyable, comfortable ride again.

The Brown uses a traditional oneinch threaded headset, so I didn't have an extended steerer to clamp to. Fortunately, there's a readily available device called a handlebar raiser that is designed to fit between a quill stem and the fork steerer. This is primarily intended to allow the

handlebars to be placed much higher than normal. It is a stepped tubular part.

The bottom half is similar to a typical quill stem 7/8-inch (22.2-mm) outside diameter to fit into the steerer.

The upper half is larger, with a 7/8inch inside diameter, to accept a standard quill stem, putting the bottom of the stem well above the top of the bike's steerer. As it happens, the outside diameter of the upper section is one inch, permitting a stem made for a one-inch threadless fork to clamp directly to the stem raiser.

I mounted the drop bars in a threadless stem clamped to the raiser and the short straight bars to a quill stem fitted inside the raiser.

The Brown uses conventional caliper brakes, but I was able to rig dual controls by using a pair of interrupter levers (a.k.a. cyclocross levers). These are normally intended to go on the upper section of a drop handlebar, but I mounted them on the upper bar instead. In the interest of neater cable routing, I ran the cables through them in the opposite direction of the usual arrangement.

This bike has Campagnolo Ergo brakes and shifters on the drop bars, but this setup would also work well with mountain-bike-type shifters on the upper

Either way, you only need a short hand movement to get to the shifter when you're riding on the other handlebar.

The Brown is not set up for heavyduty touring, though it's a great day-tripper. For a more serious touring application, I'd be inclined to go with mountainbike-type shifters on the upper bars, mainly to facilitate using a mountain-bike crank set for a better low-gear range. This type of crank is often a bit fussy to shift with dropbar brake/shift units but, with the shifters made for them, they work flawlessly.

Handling and Performance Issues

The cut-down mountain-bike bars give a rather narrow hand spacing, so the upper position is not ideal for rough surfaces or off-road use. In my installations, I've used rather long forward reach stems for the upper bars, which helps to improve my hand leverage.

The narrowness of the upper bars helps to reduce the aerodynamic penalty of the upright posture. I've found the bike surprisingly fast on group rides even when I'm in the upright position.

I find the upper bars also work fairly well as aero bars, as long as the conditions are smooth enough. This makes for a nice change of pace from time to time and lets

Sheldon Brown is an inveterate bicycle tinkerer. He never met a bicycle part he didn't like and he loves to share his acquired knowledge and skill with others. Feel free to immerse yourself in his website: www.shel donbrown.com