



Shifting Gears and Conquering Hills

Since this week will be the first time to ride up small hills, we thought this was the time to explain about shifting gears. On Bellville Ride 5, you will see your first hills on Coushatta Road which is at the END of the ride. You may be a little tired then, so we hope this note will get you mentally prepared. By the end of the training series, you will be a pro on shifting and hill climbing which will make riding the MS-150 far easier. The nice thing about the hills is the downside. All the work is up front.

Before diving into how to shift, let's first discuss the different parts on your bike that work together to shift gears.

Thanks to Bike Adventures for this information.

Most bikes have two sets of gears:

- The front chainring – located near your pedals. You might see bikes with 1, 2 or 3 rings in the front. Typically, on new bikes you'll see 1 or 2. We will talk about bikes with 2 chainrings for the purpose of this article. These two rings are used to make bigger jumps in your gearing to make your pedal strokes easier or harder. Your smaller chainring in the front is an easier gear and will be what you use while climbing. Your larger chainring is a harder gear and will be what you use when descending and on flats.
- The rear cassette – located on the rear wheel hub, typically has 10 or 11 gears. This rear cassette is how you make minor adjustments while you ride to make pedaling easier or harder and to keep a steady cadence in the face of small changes in elevation or wind. Each piece of the rear cassette is known as a “cog” and in the back, your larger cog equates to easier pedaling and your smaller cog equates to harder pedaling.
- You'll notice that when you shift to an easier gear (small chainring in the front and/or bigger cogs in the back) your cadence will increase naturally and when you shift into a harder gear (big chainring in front and/or smaller cogs in the back) your cadence will naturally slow,

Along with your gears, you also have derailleurs and shifters.

- Derailleur: This piece maintains proper tension on your chain and moves the chain up and down your cassette in the back, and back and forth between your chainrings in the front.
- Shifters: To move the derailleur you'll use the shifters on the handlebars of your bike. Your right hand will control your rear derailleur, thus in charge of those minor changes in gearing and your left hand will control your front derailleur for when you need to make those bigger jumps.

Cadence, Shifting and Climbing

The general idea of riding is that you want to try to keep a steady cadence (how many times your feet/pedals rotate per minute) whether you are riding uphill, downhill or flat. A cadence of 80 to 90 rpm on flats is usually accepted as the “ideal”. What you want to feel while you ride is the sense of putting some power into your wheels but not overworking and mashing through each pedal stroke. Your pedaling should feel smooth with a little resistance, you shouldn't feel like your feet are just spinning freely.

Now let's talk about changes in elevation. When you see a hill coming up, it's smart to start downshifting (moving into easier gears) early on so that you don't get stuck when you hit the hill. Remember that your front chainring (controlled by your left hand) is going to give you a bigger jump in gearing, so use the left hand to shift to the small chainring in the front when you reach your hill. You won't be about to shift your small chainring in the front under a load. So, do it first before you get into the hill.

Then use the right hand to adjust your rear cogs, moving yourself to the larger (or largest) of the back cogs for the easiest pedaling. Even in this easier gear (small chainring in the front, biggest cog in the

back) you will still probably pedal quite hard up certain hills! If you're comfortable standing up on your pedals, you can do that to make your uphill riding somewhat easier. If not, stay seated and keep turning those pedals over until you reach the top! Again, it is important to maintain your cadence.

Once you crest your hill, you're going to want to shift up to your harder gears so that you maintain resistance through the pedals and control of your bike. If you leave the bike in its easiest gear and start going downhill, you lose the opportunity to build speed and lose momentum for the next hill. Click through a few gears with your right hand to start shifting up (aka to a smaller rear cog), then use your left hand to move to the big chainring in the front. Once you feel resistance again, you're set. You don't have to pedal while riding downhill, but in reality, you want to keep your cadence and avoid a lactic acid build up in your legs.

A few final tips:

- Slower riders should keep right when climbing hills. Dangerous situations occur when this courtesy is not followed.
- Don't expend too much energy ahead of the hills. Keep a mental and physical reserve.
- Don't forget to hydrate!
- Don't stop at the bottom of a hill.
- Always pull off the road if you do stop at the top.

Hill riding is the same as flat road riding except you are working twice as hard half the time, right? We welcome your comments and suggestions.

Happy hill riding! You CAN conquer hills. Keep your cadence!

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