# What To Look For When Buying A New Bike

# **Don't Shop For A Certain Size**

You may not be aware of this: manufacturers measure frame sizes differently. A 55 cm frame of one brand may be quite different to a 55 cm frame of another brand. So don't let anyone tell you what size bike you need until you have selected the brand and model. Yes, even different models of the same brand will have different dimensions for a given frame size. How important is getting the right size? It is probably the single most important aspect of your new bike. Just imagine if you bought the wrong sized shoes. They would be pretty useless, wouldn't they? It's the same with bikes. You may be surprised to know that in order for you to get maximum satisfaction out of your riding, ten dimensions of your bicycle have to be correct *to the centimetre*. Not just one, but ten. And every model can vary in a number of dimensions to another model.

The most certain way to get the right sized bike is to first choose the model you want, then let us work with you to get that perfect size. Unless you have years of experience setting up people on bikes, your chances are pretty slim that the bike you buy will be perfect for you.

# Get Fit!

You may be surprised to know that the majority of people who ride bikes don't know how important it is to have your bicycle correctly fitted to you. And we're not talking about just the right frame size here.

There are those ten other measurements pertaining to your bike that have to be right to the *centimetre* for you to get the most out of your new bike. Certain measurement systems exist such as the JS body measurement tool at the Bike Bug shop (612 9954-5599) which used in conjunction with stationary bike trainer assessment results in a bike set up that will provide you with a **balanced** ride in four respects:

efficiency (power),

handling,

aerodynamics, and

### comfort.

You achieve that balance when you get the bike that's perfect for you *and* you get each of those ten measurements exactly right in setting up your bike.

And those ten measurements? Here they are....

### 1. Crank length

Too short and you'll be losing leverage for hills and acceleration. Too long and your pedal stroke will be compromised. Your knees won't like you either.

## 2. The ball of your foot to the pedal axle

The all of the foot should sit over the pedal axle or up to 5mm infront only. Too far forward and you'll be favouring your hamstrings at the expense of your quads. The result: possibly a loss of efficiency, especially if you are male. Too far back and your Achilles tendon may never be the same. The cleat should transfer power under the ball of the foot to the pedal.

## 3. Knee to the pedal axle

This is a key position to achieving balance on your bike. At horizontal cranks the back of your patella should be plumb in line over the pedal axle. If your knees are too far forward (due mainly to saddle forward position), you'll have too much of your weight forward on the bike and more knee bend (flexion). This will compromise your handling.and subject the knee to higher loads. If you are too far back, the same issues may arise, but for different reasons. Experienced, competitive riders can achieve a balanced rearward position. But under pressure even they will move forward slightly to maximize their efforts.

#### 4. Seat height

The seat height is 0.88 the inseam length to the foot for a 170mm crank arm length and the heel should rest on the pedal at full extension on the bike. . Set it too high and your hips will be rocking and your pedal stroke will be inefficient. Too low and you'll do damage to your knees

#### 5. Seat angle

Comfort is the key here. If you are male, you'll probably like it level. If you are female, you may prefer a very slight dip in the front. If you like your saddle positioned differently, it's often an indicator that something else is wrong with your set-up.

#### 6. Top tube length

The top tube length is an important measurement

on your bike and one that can't be varied. The correct length top tube is the foundation to achieving the balance that you seek.

#### 7. Stem length and...

#### 8. Stem height

Comfort, handling and aerodynamics are in balance when the right stem is used with the right top tube length. Your neck, shoulders and arms should be relaxed and you should feel like your "cockpit" (saddle to handlebars) is roomy enough to comfortably handle the bike.

#### 9. Handlebar width

Achieve a balance between handling, aerodynamics and comfort by selecting handlebars that are suitable to your body and the type of riding that you will be doing.

#### 10. Handlebar rise (MTB or cross bike) or drop (road bike)

Even with 9 positions exactly right, you still want to get No. 10 right to achieve that perfect fit. Too low on this one and you'll lose efficiency, comfort, handling and even aerodynamics. Too high and your handling and aerodynamics will be compromised. Remember, the best bike set-up achieves a balance between efficiency, handling, aerodynamics and comfort that is best suited to your needs. You may want more comfort and handling in a recreational bike or alternatively, more efficiency and aerodynamics if you are racing. An enthusiast mountain biker faced with hills and varying terrain would seek handling and efficiency above comfort and aerodynamics, for instance.

Whatever your style of riding, when you buy your new bike from us we'll work with you to achieve *your* perfect balance in the four areas. And that will make all the difference in the world to the pleasure you derive from riding your new bike.

## **Every Bike Has A Heart And Soul**

The heart and soul of any bicycle is its frame. A superior frame means you will have a bicycle that is a joy to ride. Whether you want a frame that's light for great hill climbing, stiff for blinding acceleration or resilient for a comfortable ride, there is a frame that is just right for you. Three elements are central to a great frame: design, materials and workmanship.

Cheap bikes have cheap frames. At first glance the untrained eye can't see much of a difference, but wait until you start test riding. What an eye-opener! In fact, in a recent survey 92% of the people who test rode bikes said it made a difference in their choice. You can feel the difference between a quality frame and a cheap one even if you have no experience riding bikes. You may not be able to explain it, but you'll feel it. A good frame doesn't just happen, it evolves. First a concept is explored and then prototypes are made. These are tested in the lab and then more importantly, in the great outdoors by experienced cyclists. Further changes are made to improve the ride you'll ultimately get.

Materials used in bikes vary. Aluminium frames for example, come in different commercial grades. The better grades are stiffer and have a longer life. And even amongst the commercial grades, the world's best manufacturers will opt for raw materials that are certified to aerospace quality to deliver you a frame that is a sheer joy to ride. The final key to a great frame is the workmanship. The external and internal wall thicknesses can be shaped to get maximum performance from your bike and even the hand welding found in better bikes will give you a better ride. Remember, you can always change the components on your bike, but changing your frame is a costly exercise. Get the best frame you can afford. You will appreciate the difference every day you ride.

## **Components And Accessories**

Many people base their bicycle purchase on the quality of componentry that they are getting for their money. It is a good idea to compare components, but remember that comparing frames is more important...and harder.

Most manufacturers provide a suitable level of componentry for the quality of frame they are selling. There are many types of componentry which you can choose based solely on your personal preference. In other words, the parts will all work, just choose what feels best to you. Also consider upgrading certain parts of the bike if you are rough on equipment. There are up to 40 different accessories you may want when you buy a new bike. Some will make you more comfortable, others will improve your performance, some will make your riding safer. Others are just fun.

# The Women's Way

You would think that all bike manufacturers – and bike shops! – would recognize the difference between men and women, but they don't. Sure, many offer a step-through frame but that's where it ends. The women's range of mountain, cross and road bikes should feature comfortable women's saddles, a shorter reach to the handlebars so you won't get aching shoulders, rises in the handlebars designed specifically for your riding comfort, and shorter cranks to optimize your efforts.

(Article thanks to RENEGADE CYCLES 43-45 Burns Bay Road Lane Cove NSW 2066 www.renegadecycles.com.au)