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Hilton Hayward, Cell 083 402 6049, hilton@haywardsuspension.co.za, www.haywardsuspension.co.za



IMPORTANT THINGS TO CONSIDER FOR MAXIMUM SUSPENSION PERFORMANCE

There are many problem areas on the bike that can affect handling and suspension performance negatively. Handlebar mountings, tires, wheels, chain, bearings, frame, suspension mountings can when not in correct state all result in bad handling that often is mistaken for poor suspension performance. I will cover all those components over the next articles.

Handlebar height:

One thing I notice often is how many bikes have handlebar raisers. Using raisers moves your weight upwards and backwards on the bike and this in turn affects the bikes centre of gravity. Constructors design a bike with a specific centre of gravity in mind and every mm that you move your weight upwards and backwards affects this. In practice what now happens is that it becomes more difficult to put pressure on the front wheel, especially in corners. This can cause under steering or bad traction on the front wheel. It also unweights the fork too much which leads to comfort and performance problems. I am 6 foot 1" and stand 90% of the time when I ride (this is how you should ride!) and never use raisers. If you look at any bike competing in the world champs you will hardly ever see raisers even on the tall riders' bikes. In fact many top enduro riders even use lower handlebars to enable them to

get as much pressure on the front wheel as possible for maximum traction to make up time in corners! If you use raisers because your back hurts or standing feels uncomfortable, then I suggest you visit your physio more often, or train your legs so that you can bend your knees a little more!

If you buy a steering damper make sure it mounts above the handlebar and not below for this same reason.

Tyres:

Tyre condition type and pressure play a big role for good traction, suspension performance and comfort. Use good name brand tyres as these have the most carefully constructed side walls with the most suitable stiffness. Tyre side wall stiffness is

a science and is critical for good suspension performance. Tyres and suspension combine to work hand in hand and much development is done together between suspension tuners and tyre technicians to find the best possible combinations. In fact in road racing this is one of the most important areas.

Tyre condition is obviously also a big factor, but this is common sense.

Be careful when fitting tyres that the rim saver or tyre bead is seated properly on the rim so the tyres run perfectly round and in balance. When fitting a new tyre pump it up very hard (around 5 bar) to make sure the tire bead is out evenly all around the rim. If it will not pop out let the tyre down and put liquid soap around the bead. Pump it up again and see that it pops out properly. Only now can you let down the tyre to your desired pressure. If you ride down a tar road and your wheels tend to hop then you can be sure that they are out of balance or the tyre bead is stuck in the rim. On dirt it is harder to notice! If on tar roads you feel this then do something about it because it will affect traction, comfort and suspension performance. I would also recommend checking sideways run out by spinning the wheel once your bike is on the centre stand. If your wheel is buckled then get it straightened.

Never run more than 1 bar in the tyres or traction and comfort are badly compromised. I run 0,9 bar on my bike. You want to find the balance between low pressure for better traction and enough pressure to avoid impact flats. Hard pressures kill suspension comfort and traction. Tyre pressure and side wall stiffness work together to create good traction comfort and suspension performance.

Next week I will continue with more areas that can affect suspension performance. Until then, get rid of your bar raisers, mount your damper above the handle bar, and run the correct tyre pressure with properly fit tyres and you will be sure to have a better riding experience already!