



Does Size Matter?

Squeezing a wide tyre onto a narrow rim can be a big mistake. Here's why.

Those low-profile 190-series tyres sure look gnarly on the back of a sportbike, and we've seen them pinched onto all sizes of rims. But in reality, a 190/50-17 fits properly only on a 152mm rim, and cramming it onto anything smaller severely changes its profile.

As an experiment, we mounted a 190-series Sports Tyre onto a 140mm rear wheel and took some measurements. Compared to the correctly sized tyre on the same rim, the 190's profile closely matches the 180's near the edges of the tread, but is much lower in the center area-equivalent to about a 6mm change in ride height. Effectively, the wider tyre will give more rake and trail when the bike is vertical, while keeping close to the original geometry when the bike is leaned over. Accounting for one (by changing ride height) will unduly affect the other.

Following our test, we slipped on a 190/50 rear and rode a portion of the test loop for a practical comparison. With no changes to suspension or geometry, the bike felt substantially different with the wider tyre. With the bike straight up and down, steering was slightly sluggish in comparison, but just off vertical, the bike was quite tippy and darted into corners. The light, neutral steering of the tyre was completely changed and the bike lost its balanced feel. The sensation was very much like riding on a tyre squared off from too many highway riding. At higher lean angles, performance was less affected, although making transitions from side to side was unpredictable. And, contrary to the popular myth that the wider tyre puts down a bigger footprint and gives more traction, we felt no improvement in that department from the properly sized tyre.

We've experienced similar changes with a 180-series tyre on a 127mm rim meant for a 170-series bun. Tyre engineers work hard to design and match front and rear profiles for characteristics that we sometimes take for granted. Upsetting that balance is surprisingly easy and you should think twice before sacrificing your tyre's performance for appearance's sake.

Can I put just any Exhaust on my bike?

Adding a full exhaust system or just a slip-on to your bike is as easy as 3-2-1-0.

As a standard rule, you should never, ever, without exception, bolt a race or any after market slip-on or exhaust system to your bike without checking the running of the bike afterwards. The only practical way of checking a modern engine is to put it on a Dyno and check the air/fuel ratio. Not every bike of the same model is exactly the same.

So what is OK for for one, may not be for another. In all honesty, most of the time you're within safe parameters, but enough of the time that I'd say never do it, somewhere in the rev range the bike will run excessively lean. This will cause engine damage.

When buying an aftermarket exhaust product, you must build into your budget a Dyno check. It isn't expensive; about R200. You get a pretty graph afterwards to show to your mates, but above all, you get the peace of mind that you're not doing engine damage. Such evidence that the bike has been properly maintained can also boost its resale value.

Visit your favourite dealer with an in-store Dyno and ask for examples of Dyno Reports on bikes with modified exhaust systems that were found running lean.

Yip, **TECH TALK** will be a regular feature in **Bike Talk** from now on. Shawn du Preez from BMW Ryder Motorrad will be offering his expertise in addressing your questions and concerns in the technical department of your bike. All solutions or suggestions will be verified before publishing to ensure you get the right advice everytime. So, feel free to email or fax **Bike Talk** with your questions.

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