

Wheels

SPRING HAS FINALLY sprung in California and we've had a really wet winter. The title of "rainiest in recorded history" is even possible if we have a couple more inches. But despite that, motorcycle manufacturers have been scheduling their new bike introductions in southern California...because it's been even worse in Europe. At least it's not snowing here.

Another kind of drought is also over, the long wait between the first glimpse of new machines at shows and their arrival in showrooms and press fleets. This month, together with other groups of journalists, I've ridden new bikes from Harley-Davidson, Suzuki, Kawasaki and BMW, and each time we have been to Julian in the San Diego mountains. I'm starting to memorize Palomar Mountain Road, a really fun switchback climb equal to anything in the Alps for its pavement quality.

But one particular experience has had me thinking a lot about a subject that's been percolating on my back burners for a while. It had occurred to me that perhaps my most favorite bike in terms of handling was the BMW GS and that it wears wire wheels.

The gradual switch to one-piece alloy wheels was met with zero resistance. All motorcycles wore wires when I started riding. In fact, so did virtually all sports cars, and I can still remember when Enzo Ferrari stated emphatically that his Grand Prix cars would never switch to mag-type wheels. I figured it was a matter of appearance, and I had to agree. Deep Borrani alloy rims laced with chromed spokes and fitted with knock-off hubs were, indeed, a thing of beauty, and it was the same with motorcycles.

Back when chromed steel rims were the basis of most wire wheels, a hallmark of the racer was its deeply ridged alloy wheels, a fashion that has never gone out of style, and I converted one of my own bikes to such a setup years ago. Of course, for dirt racing, the fact that the ridges collected great quantities of dirt during an event and totally spoiled the handling as they got heavier, led first to foam rubber inserts and finally to ridge-less alloy rims, like those from DID.

Wire wheels had another problem that was even worse, regardless of where they were used—inner tubes. Because a tube-type tire didn't have to make an air-tight seal with the rim, changing tires was a lot easier, but punctures were a lot more dangerous. As soon as a tube was breached, air escaped from the tire through the multitude of holes in the rim where the spoke nipples were fitted. The time between the entry of a nail and the complete deflation of the tire could be measured in seconds, and the ones



I suffered in heavy freeway traffic are still vivid in my mind. Oftentimes, a tire would even dismount itself from the rim before you could come to a stop—bad at the back, but even worse on the front.

After this disaster had happened to me at both ends, I began fitting even my street-bikes with two rim locks per wheel. If you haven't seen them, these are big metal-reinforced rubber shoes that bolt to the rim, wedging the tire beads in place so they can't dislodge. But they also make a real pain of tire repairs and they are heavy, defeating part of the wire wheel's appeal. And because they could never seem to be placed exactly opposite one another in the pattern of spokes, additional balancing weights were required, also.

To gain a few precious seconds of time as the tire deflated, whenever I'd change a tire, either mine or for a customer, I'd discard the rim band, a narrow rubber strip designed to prevent chafing between the spoke nipples and the tube, replacing it with a long length of duct tape, torn to fit. If this was rubbed down tight over the nipples, you'd stand a good chance of getting safely stopped.

All of these problems made the transition to one-piece alloy wheels a very desirable change. Maybe home mechanics needed to add bead breakers to their tool kits and shops quickly stopped changing tires by hand and bought machines, but that was the price of progress and well worth it.

So, here's my heresy: I believe wire wheels improve handling on some bikes. Consider if you will the case of the Suzuki M50, a so-called "muscle cruiser" (if any 800cc bike can be so designated), a moder-

ately priced, shaft-driven cruiser wearing alloy wheels that has a touring counterpart, the M50T, equipped with a windshield, saddlebags, floorboards, and...wire wheels. Although the tires and frames are the same, the difference in handling between these two is dramatic. Despite the fact that the stripped-down version is supposed to be the sportier bike, the one with the wire wheels can be ridden with abandon by comparison, grinding the floorboards with ease and delicious precision.

Here's why I think this is true: The wire wheel acts as a kind of primary suspension between the tire and the chassis, absorbing bumps that would otherwise be transferred intact into the axles. Dirt bikes of all kinds continue to use wire wheels partly for this reason, even though wire wheels are more expensive to manufacture. BMW recognizes the fact that wire wheels can take a greater pounding without denting, and specifies that for serious off-road work, the GS model, available with both types, should be equipped with wires. And BMW, as well as several others, have wires that are not compromised by spoke holes in the center of the rim, allowing tubeless tires—eliminating that worry.

Chassis stiffness is the other part of the equation. A very stiff chassis may not need the cushioning effect of wire wheels. Sport-bikes, built with very stiff, lightweight chassis may not benefit. But many bikes aren't nearly so stiff. Quick directional changes will usually reveal whether a chassis is particularly stiff or not, as you can feel a wind-up in the frame in such circumstances. But another test is to shake the bars slightly from side to side while riding in a straight line. I do this when testing, but I don't recommend it to you, because if you get the frequency just right, some bikes will threaten major instability with such a move.

When a bike's chassis is only moderately stiff, the effect of one-piece alloy wheels is to disturb the chassis geometry, making a bike feel as if it is being bounced off-line on rougher roads. Rider confidence decreases in such situations, and confidence is what allows you to ride quickly. Personally, I don't care how fast someone else can go, I stay within my comfort zone.

If anyone has more data on this subject, I'd be happy to share it with the rest of you. Cheers,

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—Dave Searle
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