



Antigravity is boring, you can't feel acceleration, how 'bout we trade?

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- ▶ Aprilia's 1200 Dorsoduro
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- ▶ Waterproof Leather Gloves Soaked

Motorcycle

CONSUMER NEWS

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PERIODICALS MAIL

Motion Pro ForkTru

INNOVATION OF THE MONTH

IT'S RARE THAT we come across a product that's so useful we consider it essential for a well-equipped toolbox. The ForkTru is one of those items.

The front fork on a motorcycle needs to have both its legs perfectly parallel in order to telescope smoothly. Unnecessary friction that creates binding can be introduced in a number of ways, any or all of which might be present in your own motorcycle's front end right now.

Stiction is the name for sliding friction, a resistance to initial movement that is magnified by bending forces that occur when we brake hard or hit bumps. High-tech coatings like golden Titanium Nitride or black Diamond Like Carbon are applied to the sliders of high-end sportbikes to reduce this stiction, but common misalignments can make their promised advantage insignificant.

Forks can be pinched together by improper axle fitting during tire changes. The correct technique is to fully seat the threaded end (the most common axle arrangement) but not to tighten the opposite side until the forks have been bounced several times so the opposite leg finds its true center on the axle.

But a more common problem is twisting of the forks, which is easy to do when a machine is tied down in a wheel chock. Twisting can also be created by impacts or improper original setup, so it's actually very common, although it's devilishly hard to see as headlights, fairings, fenders, etc., prevent any easy sighting over the fork tubes for a visual clue. And the technique to correct twisting is very tedious, so few ever do it. The fork needs to be lifted free of the ground, the front



Above: Evidence of misalignment is obvious.

wheel and fender removed, and the upper triple clamp loosened at the top and sides to eliminate any possibility of resistance. The lower clamp, with its double pinch bolts, will then presumably hold the legs perfectly parallel so everything can be carefully refitted and tightened.

The ForkTru measures parallel directly. On dual-sports and off-road bikes, the device can be fitted between the legs relatively quickly. On street and sportbikes, smaller wheels and large brake discs will require removing the front wheel. With

access, its CNC'd V-blocks can be positioned against the sliders or stanchions. A little fiddling with its two thumbscrews will adjust for the exact distance and with one side held flush to the leg, the other side will immediately reveal any misalignment.

Despite my awareness and concern for such problems and honest efforts during service to keep my own bike's fork legs true, I was shocked at the misalignment I found, perhaps 4°. And with no need to disassemble everything, simply slightly loosening the top triple clamp and axle allowed me to hold the front tire (with the wheel vise on my lift, but clamping it between your knees is also effective) and twist with the handlebars to achieve an accurate alignment.

The effect was remarkable. Front stiction, which is often considered acceptable if less than 20–25mm, dropped to less than 6mm! What this means was that the misalignment was creating terrible friction that only served to wear out bushings and prevent the suspension from working as it should.

Why spend thousands to have high-tech suspension if you can't determine if your forks are aligned correctly?

Priced at just \$29.99, we can't recommend this tool highly enough. No technician or serious gearhead should be without one, and certainly no suspension specialist.

Reduce wear and improve suspension action and handling at the same time. You owe it to your bike...and yourself.

—Dave Searle

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