## Front Fork Issues

Someone recently complained to me that their 1978 Triumph twin seemed to shimmy or feel unsure at higher speeds. Generally, I like to work from the front wheel going "out". So here's some points to check, presented in the order I'd suggest doing the work...

- Always check the air pressures in both tires as a first step. Modern tires seem to like about 5 PSI higher pressures than those listed in your original owner's manual.
- If your front fork seals are leaking or you are unsure of your fork oil's age, then that's a major concern. Without equal oil levels in both fork legs on compression, one fork will collapse more than the other, slightly bending the front axle. When the axle flexes like this, the front wheel tilts momentarily in another direction just as if you had turned the bars. The effect is that you get micro-steering, or shimmy.
- Later model Triumphs with the aluminum front end specified 190cc of ATF. ATF figures to be between 8 and 10W oil. For high speed work you might experiment with real 10W or 15 W "fork oil", which you can buy at any good motorcycle shop. It's a much slicker lubricant than plain ATF.

For the older front ends with steel fork legs that specified 30W, I use 15W50 Mobile1 synthetic motor oil. Again, real 30W fork oil will be the best solution, but it can be very hard to find since most modern bikes run the much thinner weights.

- Obviously then, loose axles and axle caps can also cause this same wandering axle situation. Torque all axle caps nuts to insure even tightness.
- Check the front wheel bearings for play at the tire between the forks. If you see or feel ANY movement side-to-side at the tire, replace both wheel bearings.
- Check the front tire for cupping due to long usage with low air pressure. If the surface isn't smooth and round, then replace the tire.
- Check the tire center rib or groove for trueness. If you have this feature, then there should be zero perceptible movement side-to-side when you spin the tire. Any perceptible wobble seen in the tire is either the tire or the rim and it must be fixed.
- Obviously, the front wheel has to be statically balanced. This is done OFF the bike to eliminate the possibility of brake drag. This is very easy to check by letting the 2 ends of the front axle rest on 2 tables, placed 6 inches apart, that are both the same height.
- Head post bearings have to be fitted, lubed and adjusted perfectly. You do this with the wheel and front fender OFF the bike. You want to adjust to the exact point where the play disappears, and then STOP. Excess head post bearing tightness causes as many problems as excess looseness.
- Fork springs being different lengths is always an issue on older bikes. Pull the springs and check for equal lengths. Unless you have a spring tester for 2-foot long springs, overall length is the only gauge you'll get. I'd rather buy new springs from a fork spring maker such as Race Tech, rather than some made by a Brit bike accessory maker in Taiwan. Some don't see it this way, but then I really care about where my bike is headed.
- Finally, the front rim and tire must be in the exact center between the front forks. If the wheel is offset to one side, then have the rim moved over.

There are other tips, but that should keep you busy for a day or two and cover about $98 \%$ of all front-end issues.

Although the rear suspension can cause steering issues, most of the time the rear suspension is not the cause. However, a cursory check of the tire's air pressure, wheel bearings and tire conditions using the same criteria given here will help spot any obvious areas for needed maintenance.

Hope this helps!
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