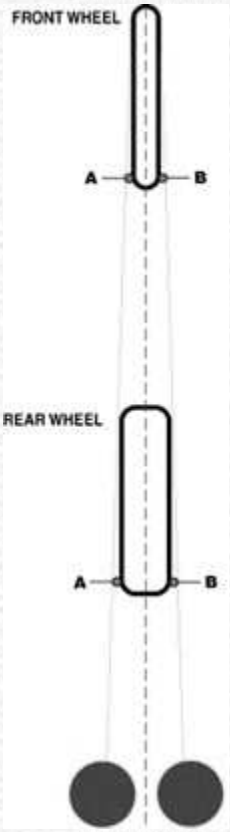
Wheel Alignment

In an ideal world, both your bike wheels will, when travelling in a straight line, be heading in the same direction. If they're not, the machine is likely to be pulling to one side - or steering in one direction easier than the other. This makes the handling a bit strange and will reduce tyre life.



It's relatively rare for people to do a wheel alignment on newer bikes these days mostly because the production tolerances have improved over time and the bike is likely to be pretty straight but this wasn't always the case. Machines built up to even the mid-eighties were often not straight out of the crate.

If you have a look at your conventional chain-drive bike, you'll see the back wheel's position can be altered with the adjusters. Whenever you tension the chain or move the wheel for any reason, you generally just line it up against the alignment marks stamped on the swing arm. If the axle is back three-and-half notches on one side, you make sure it's back three-and-a-half on the other. Unfortunately, these marks are rarely accurate, so a different method is required.

Something worth knowing, though, is that a machine with worn wheel, steering head and /or swing arm bearings will be impossible to get right as each of them will alter alignment. So make sure these basics are okay before you attempt to align the wheels.

Ball of Twine Method

This is easiest with the bike on the side stand (the centre stand usually gets in the way) and propped up as close as possible to vertical. A race stand is often a good option.

Wrap the string around the front of the front wheel, as high as possible without touching any under-bike hardware / frame members, exhaust pipes, etc when you run each end of the twine under the machine. The pictures will give you the idea.

The procedure is to get the front wheel straight, and then the rear wheel adjusted so it is too. What you want to end up with is what we've shown in the main diagram - where the distances "A" (the gap between the string and the edge of the tyre) and "B" (ditto) on the trailing edge of the front wheel are equal to each other; And the distances "A" and "B" on the trailing edge of the back wheel are equal to each other. (Note: the A/B distance on the front wheel will not have to match A/B distance on the rear wheel back.)

This is often best done with two people, one working on each end of the bike. It is a great help to have oil cans / bricks / jack stands to hold the loose ends of the string for you while you fiddle.

Getting it all lined up will be a bit of a fiddle, but simple enough assuming the bike is straight. The exact method isn't critical, so long as you end up with a result that looks like our diagram.

If you cannot get them to align, it is likely the frame isn't straight.

Straight ?

Having both ends of the motorcycle in-line with each other makes cornering more predictable and makes for less wear and tear.

If the bike is so far out of whack that you can't adjust it back, you need to decide whether it's worth getting fixed. We suggest an assessment from a frame expert, who should also be able to quote on what needs to be done to put things right.

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