

WHEEL ALIGNMENT

BY JESS THOMAS

I have a 750 K2 Honda and I am not sure if I have a problem. Going down a smooth, flat road at highway speeds, I notice that the bike will drift to the left if I lift both hands off the grips. At speeds lower than 15 mph you can really feel the bike fall to the left.

Riding normally there doesn't seem to be much of a problem, except you feel you can lean the bike over to the left better than to the right. Is there anything you can suggest that I can check or look at to rectify the problem?

*Douglas C. Drake
Barstow, Calif.*

• Did your dealer mention his method of checking your bike's frame alignment? You can check it yourself quickly and easily with a length of string and a plumbob. Put the bike up on its centerstand.

Get a six-foot length of string that pulls straight when you stretch it between your hands. Have someone hold one end of the string about halfway between the ground and the rear axle, while touching the rear edge of the rear tire bead. Run the other end of the string forward and pull it tight enough to be straight at about the same vertical position on the front wheel as on the rear. Swing the string away from the front wheel and then back again until the string just touches the front edge of the rear tire. Now move the front wheel until the front and rear edges of its tire bead are the same distance from the string. The gap between the string and front wheel edges should be equal to half the difference in front and rear tire width. If you have standard tires, this will be almost exactly a half inch. At any rate, the string/tire distance should be the same on both sides of the bike without moving anything except the string itself.

If the distance between the string and front tire is greater on one side, you may be able to correct the situation by adjusting the rear wheel. First check to be sure the rear axle alignment marks are adjusted equally on both sides, but don't take for granted that they are ac-

curately manufactured. The marks are there to indicate when the wheel and its axle spacers are square with the swingarm plates. If something is bent, you can't adjust the wheel more than a couple of notches out of phase to get the wheels to align. More adjustment than that will cock the spacers in the swingarm and the axle will bend seriously when you tighten its nut, causing ruinous tension in the wheel bearings. If the wheels will not align with the wheel adjusters, you have a justifiable warranty claim providing you have not crashed the bike or otherwise damaged the machine.

Don't try bending anything to straighten the frame unless you are an experienced mechanic and have an official Honda shop manual to refer to. The manual has a detailed drawing of the frame which shows all the critical measurements.

While you are at the rear wheel, check the condition of the swing-

arm bushings. Grab the rear wheel at its topmost position and pull it toward you, then push it in the opposite direction to feel for any free play. Be sure that you keep the swingarm pivot bushing well-greased.

The above wheel alignment check was for front-to-back alignment. The wheels may also be skewed if the front fork bracket, the frame, or the swingarm is bent. Select a paved spot that is as level as possible. Place spacers under one leg of the centerstand until the rear wheel is vertical, checking with a plumbob attached to your length of string. You can get a plumbob at the hardware store for about two dollars; if not, a big fishing sinker works pretty well. Hold the string at the tire edge near the highest point and allow the plumbob to settle, almost touching the ground. When the string touches both tire edges at the same time, the rear wheel is vertical.

Now make sure the front wheel is still straight and check it with the plumbob. If both wheels are not perfectly vertical, something is either manufactured wrong or has been bent. If there is enough misalignment to pull strongly to one side, you will be able to find out easily with this method.

—Jess Thomas

PHOTOGRAPHY: BILL DELANEY



Getting proper vertical alignment (above; opp. page, below left) requires plumbob and string. Spacers under centerstand leg will be needed to get rear wheel vertical.



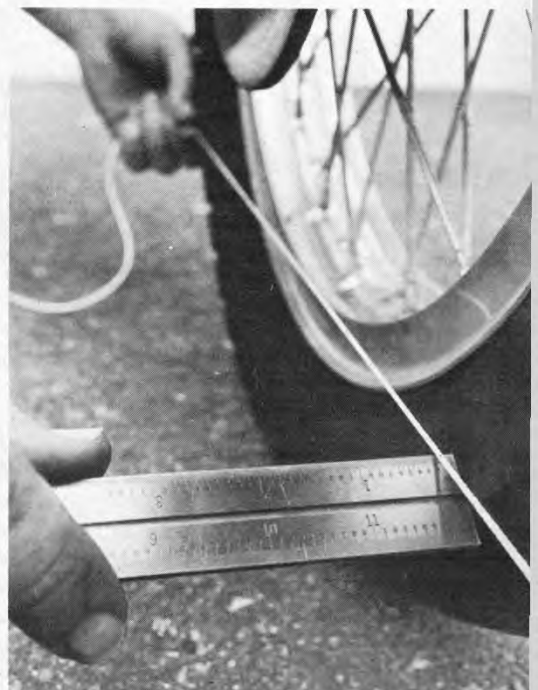
Front-to-back alignment can be checked with string and rule (above; center and right below). You may have to maneuver a bit to clear stands on some bikes.



With front-to-back alignment straight, and the rear wheel vertical, the front wheel should be vertical too.



Be sure that you get a straight draw on the string which should just touch the rear tire's leading edge.



With string keyed to rear tire, upfront string-tire gap should be same on both sides.