

It used to be when racing a motorcycle over rough ground you would just crash into the bumps and hang on. No finesse, little control, and no thought about improved suspension. Now we are going through a suspension Renaissance. Travel is increasing front and rear, and damping and spring rates are becoming more progressive.

In the category of forks, Betors have often been praised for their smooth operation and feel in the rough. Right now Betors are just about state-of-the-art for production forks, but they can be improved even further.

In extremely rough terrain the damping rod moves up and down very rapidly. On each stroke, oil is forced up through the damper, and the pressure generated spews the fluid way up inside the fork tube and spring. It takes a certain amount of time for the oil to fully drain back down, and often the damper piston is left temporarily without fluid. Result? The piston can't damp without being surrounded by oil, and you take the bumps directly in the form of topping and bottoming.

To keep the oil contained in the piston area requires a simple modification. Take a piece of tubing the same o.d. as the damper rod. The added piece of tubing should be one inch (approx.) long. Weld one end completely shut. Next, carefully weld the finished "cap" onto the top of the damper assembly. Heliarc works best for this. Grind off any excess weld because this cap has to fit up inside the fork spring. After welding, drill four 1/4" holes in the sides of the cap at ninety degree intervals (see diagram).

Another problem inherent in Betor forks is oil leaking (sometimes spurt-ing) out of the breather holes in the fork caps. I used to think Betors were designed that way just to keep the front of your leathers soft and pliable. The fork mod previously described will end this problem of loose lubricant, and no longer will you finish a race with slippery thighs.

FORK FILLING FACTS

Fork filling is easy, right? Just sneak out your wife's best measuring cup, dump in the right amount of your favorite lube, ("Hey Judy, what's 200ccs in ounces?"), then pour the oil into the top of the fork tube.

Right? Well, Rocket Ralph, it's okay. Providing you ride a '68 DT-1, and don't care how the forks work. If you really want to "tune" your forks, you gotta match 'em. Here's the drill: #1—Remove the fork caps and pull out the fork springs. #2—Drain the old oil. #3—Clean out excess oil gathered inside fork tubes and sliders by replacing the drain plugs, then fill each tube to the top with solvent. Gas can be used for this operation, but solvent is better. Let the solvent sit for five to ten minutes. #4—Drain solvent and save. Blow out any excess solvent with air gun. #5—Use the solvent you saved to clean the excess oil off the fork springs (This automatically qualifies you for a W.I.N. button from the President). #6—Replace drain plugs. #7—Leave the front wheel off, but slide the axle back into place to keep the forks even. #8—Rock the whole bike forward on the stand until the bottoms of the forks touch the floor. In this position the forks will be nearly vertical and can be filled more accurately. #9—Pour in your oil directly from the container. Measuring is not necessary here, and because of variations in fork capacity, is sometimes detrimental to handling. #10—Use a flashlight to sight down each tube. Fill each tube until the oil just covers the flat above the piston (the spring sits on this flat). #11—Place your foot on the axle, grab the handlebars, and gently pump the forks up and down. This will displace all the trapped air in the damping system and cause the oil level to drop slightly. #12—Keep your foot on the axle and pull the forks up as far as they'll go. Make sure you can feel the damping rod bumping against the topping spring, then repeat step #10. #13—Repeat steps #11 and #12. Continue to repeat until the oil level remains constant after pumping. Final oil level should be as described in steps #10. #14—Tip the bike back up level on its stand and slip the springs into place. Insert the caps, and you've got it! Matched forks.

One last suggestion if you own a bike running Betor forks. You can keep the fork caps operating (breathing) better by injecting a squirt of WD-40 into the breather hole each time you change the fork oil. Before reassembling, let the caps sit for awhile so the excess WD-40 will drain off. ●

BETOR FORK MODS

MAKING ONE OF THE BEST BESTER

Betor Fork Trickery

