

You've seen photos of those wild-looking upside-down forks here in *Dirt Bike*, as well as on the track. As of this writing, only 2 riders have access to the innovative Simons Forks: Brad Lackey and Broc Glover. Now a 3rd party is privy to try them: The Staff of *Dirt Bike*.

Yup, we got ourselves a pre-production set of Simons UDX-60s and slapped them on a long-range test bike. The bike was, naturally, our pet Suzuki RM250Z that's been raced steadily since we received it. While the RM forks are good units, there's still always room for improvement. And, we reasoned, if we could detect superior action to an already good set of forks, the test would be most interesting.

Steve Simons, inventor of the forks, showed up at the plush and recently fumigated *Dirt Bike* garages, forks in hand. We outfitted him with the standard radiation badge, a cold can of beer and proceeded to strip the front end from the Suzuki.

With the front end off, we then performed the only difficult part of the switch: pressing the old stem out of the Suzuki triple clamps and into the bottom of the Simons clamps. This is a tricky job, and Steve recommends that it be done by a savvy shop—or better, let him do it for the customer. The charge is a nominal \$15.

INSIDE THE FORKS

Obviously, they are like no other forks on the market. Steve took them apart for the peering *Dirt Bike* lens, and we found out the following facts: Those massive upper tubes are 60mm in diameter; the inner (lower) tubes are 50mm. Clearly, no other forks around are even in the ballpark.

The 60mm tubes are machined from high-quality aircraft aluminum. Wall thickness is .095 inch. The lower tubes are heat-treated 4130 chromoly and have a .050-inch wall thickness. That odd-looking axle clamp at the bottom of the fork assembly is CNC-machined out of aircraft-grade aluminum.

A few facts: Oil capacity (standard level) is 750cc's of 2½-weight PJ1 fork oil—the

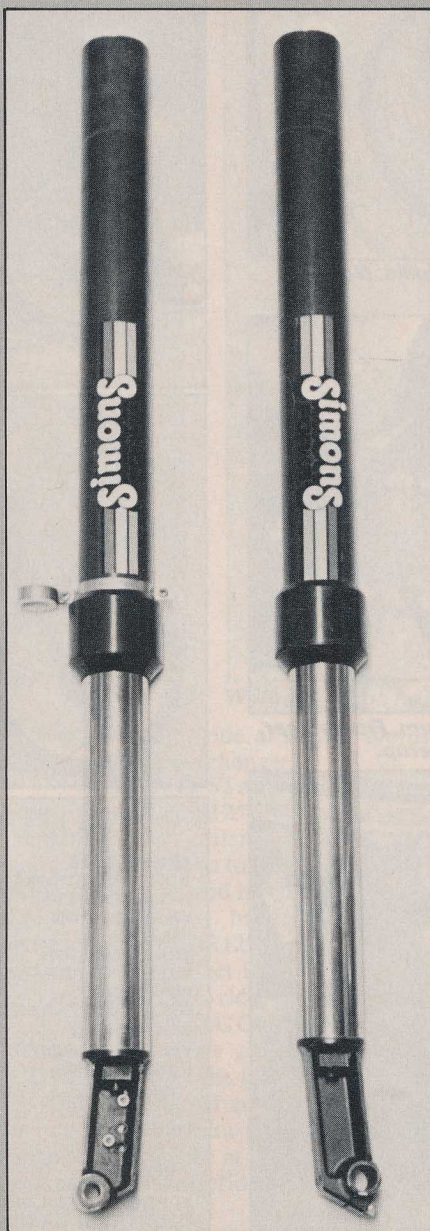


Brad Lackey in action with the trick forks on his works Suzuki. Brad won the Golden State Series handily and will race in Europe using the forks.

SIMONS UPSIDE-DOWN FORKS

DB slaps 'em on our test RM250Z

By the Staff of *Dirt Bike*



Complete for assembly, less triple clamps. Believe it or not, they are lighter than stock Suzuki 38mm forks!

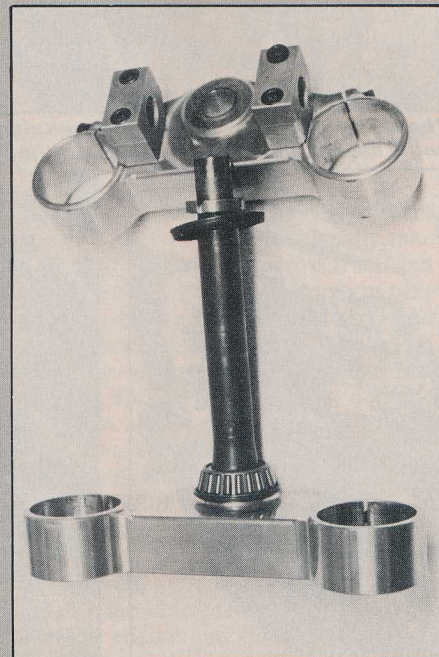
same PJ1 you can find on your dealer's shelves. PJ1 worked with Steve during the development of the forks, and the 2½-weight oil was one of the offsprings of the work. With the forks collapsed, the actual oil level is 1¼ inches from the top of the inner tube.

There are no air caps. We asked Steve about the possibilities of air buildup and he stated flatly that that did not ever happen. In fact, when Brad Lackey first rode with the forks, he demanded that air caps be installed so he could bleed out any accumulated pressure after each ride. When no pressure whatsoever was found after many weeks of riding, the air caps were discarded. Part of the reason there's no buildup is that the forks run so cool. With all that aluminum area and the large quantity of oil, the forks barely get warm during operation.

Even though there are optional damping valves available, Steve said that most riders are totally pleased with the forks in standard setup. We rode with the identical forks that Glover used, and required no changes at all.

Probably the most impressive thing about the forks is the low friction level of the seals. With the fork cap unscrewed, Steve could release his grip on the top tube and it could effortlessly plummet downward without a hint of drag. Try that with a "normal" fork. It won't even move!

Three different springs are available. The standard (medium) is an 18-pounder. A light and a heavy will be optional. There will also be alternate damping rates available for those who might have special needs, such as flattrackers, Baja racers and road racers. As delivered, the standard compression and rebound valving seem to fit everyone from a top-level pro to a decent novice. Probably the only tuning



Here are the huge clamps with an RM-250Z stem pressed in place.



Here's our long-range test RM250Z with the UDX-60 forks installed.

that might be required of a rider will be altering the oil level to suit needs. One nice thing: Anyone who happens to own a set of the Simons forks can call and get free tuning advice.

HITTING THE SCALES

Those hefty forks look very heavy, while in fact they're extremely light. We put a set of stock Suzuki forks (piece by piece) on the alarmingly accurate *Dirt Bike* scales (accurate to plus or minus .00000½ microbe per fortnight) and found the following:

STOCK 1982 RM250Z	SIMONS
One fork leg, with oil, no boots . . . 9.75 pounds	One leg, with oil complete . . . 9.0 pounds
Triple clamps, complete with stem . . . 5.75 pounds	Triple clamps, complete with Suzuki stem 5.25 pounds
Stock axle, no nut 0.6 pounds	Axle, no nut . . . 0.5 pounds

Without fork boots, the Simons forks are 2 pounds lighter than stock RM items. Add one pound for boots and clamps and you save a genuine 3 pounds. Truly amazing for such a massive-appearing set of forks! One note: That axle is hollow, 4130 and heat-treated.

HOW DO THEY WORK?

Technical stuff aside, we rode the bike in the desert and on a motocross track. The most impressive thing you can say about the forks is that you forget they're on the bike when you're riding at very high speeds over rough ground. A large rut appears in front of you, you brace for it and whuff! it's gone. You know it was there, because the wheel *did* move up and out of the way, but the harsh impact simply does not come through to the bars or the rider's hands and arms.

You are, however, horribly aware of the rear end. What you formerly never even thought of now becomes the only source for feeling the bumps. It's not that the Suzuki rear end is bad. Far from it. We consider it the standard of the industry. It's just that the forks are so much better that the feeling of the bumps is isolated and you are aware of it.

On the motocross track, we got a firm yet plush feel, and slightly improved steering accuracy. The rigidity of the forks cannot be described. Even in heavy, moist sand, there's not a hint of waggle or flex. When you see a bump, you tend to get an almost arrogant attitude and just nail it.



Steve Simons, inventor of the upside-down forks, shows a pair of stock 38mm RM250 forks against the UDX-60s.



When the fork caps are unscrewed, the springs are lifted with the cap. A clear Lexan tube traps the springs and prevents them from rubbing on the inside of the upper part of the forks.

One side effect was discovered. Because the Simons forks settle more easily on the early part of the stroke, you must slightly back off the shock preload to compensate for it. If you don't do this, the bike will have a tendency to shake its head when coming down from speed. In fact, it's recommended that you run the Simons forks extended slightly more than a stock set of legs.

The *real* bottom line, though, on how these ultratruck forks work, is what the rider thinks. Brad Lackey says, "No way I'm going to Europe without these forks." Broc Glover says, "These are the best forks I've ever used. I'd say they're 30 percent better than my works forks." *Dirt Bike* says, "They're the hot ticket. If you can afford 'em, you'll have the best front end money can buy. Period."

INFORMATION, PRICES, ETC. . .

SIMONS INC., 2625 Miller Avenue, Mountain View, California 94040; (415) 948-3470. Cost, complete with axle—\$598. Stem press service—\$15.00. □

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