

# Squishy Suspension?

BY TRICIA SZULEWSKI

## IMPROVE YOUR CRUISER'S HANDLING

I'VE RIDDEN MANY HONDA CRUISERS, AND while they're my bike of choice, I'm usually disappointed by the squishy suspension. Always up for a challenge, I lived with my Shadow ACE's stock setup for more than 20,000 miles. However, when I ditched the bike's wide bars for Flanders 12" apehangers, I decided it was time to upgrade the front suspension. While the apehangers looked cool, it was scary to blast through a sharp turn with no feel of the road beneath the front tire.

I decided to replace the stock fork springs with Progressive Suspension's progressive-rate springs, which offer a rising-rate resistance to compression. With a straight-rate spring, like the stock springs on my Honda, it takes the same amount of force to compress the spring all the way to the end of its travel. With a progressively wound spring, it takes more and more force to compress it per inch. That means the spring is softer at the start of its travel, offering a fairly plush ride, but becomes firm enough at the end of its travel to soak up larger bumps.

Once I'd decided to modify the front suspension, I figured why not upgrade the rear shocks, too? I chose Progressive's 440 I.A.S. (Inertia Active System) Series Shocks in a cool-looking black powdercoat finish. The I.A.S. uses two separate rebound damping circuits to control chassis and wheel movement independently. Preload adjustments are easily made on the fly without tools.

I ordered shocks an inch shorter than stock, which lowers the bike just enough to look good. But I noticed the decreased clearance when I took the MSF Experienced Riders Course and left pieces of my exhaust all over the pavement. With everyday riding, though, I've learned to adjust to the new limitation, and I'm happy with the bike's handling. Up front, the new springs have made a world of difference in the way the front end feels.

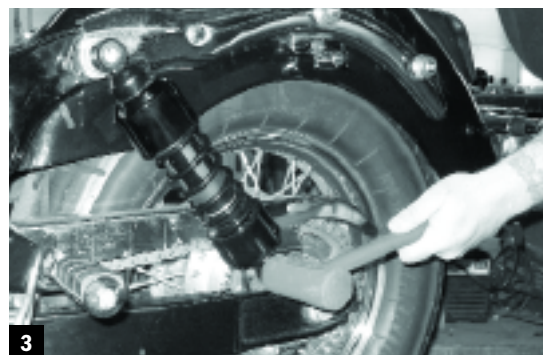
Installing the shocks was cake. The springs were a little trickier, but if you have the equipment and know-how, it's a moderately easy installation. And, considering most metric cruisers come equipped with straight-rate springs, it may be one of the cheapest upgrades you can do to dramatically improve your ride.



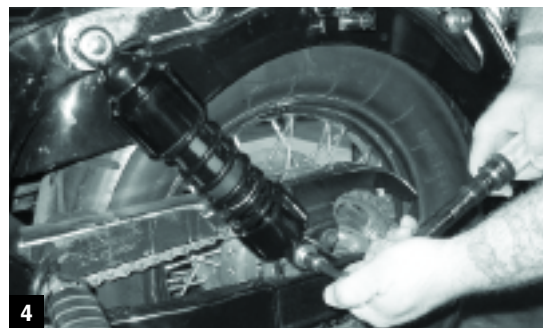
**1** Paul stabilized the rear tire with a jack, removed the two bolts holding the stock shock, and then removed the shock. If your new shocks are the same size as the stockers, you can install one now.



**2** My 440s were an inch shorter than stock, so we had to pull off both stock shocks before installing the new ones.



**3** Paul tapped each new shock onto the mounts with a rubber mallet. Progressive offers a variety of spacers to offset the shocks, but my bike didn't require any.



**4** Putting a bit of blue Loctite on the stock 12mm bolts, Paul tightened them to spec.



**5** Moving on to the fork springs, he removed the brake calliper, loosened the axle nuts, removed the four pinch bolts...



**6** ...and then pulled out the axle and removed the wheel. Then he removed the fender.



**7** Next, Paul loosened the pinch bolts that hold the forks to the triple trees.



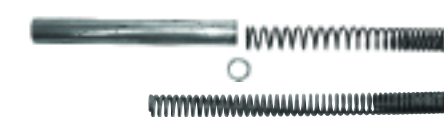
**8** He then twisted and turned the fork legs until they came out.



**9** The fork caps came off with a 22mm wrench.



**10** Paul drained the fork oil into a vat of old oil (to be recycled later).



**11** Here's how Progressive's heavy-duty spring (bottom) compares with the stock spring (top). We had to cut the stock spacer down to 5", to keep the same fork length.



**12** With one fork held stable on the bench press, Paul dropped in the Progressive spring, followed by the stock washer, then the 5" spacer.



**13** Referring to the owner's manual, he measured 16 ounces of 20-weight fork oil and carefully poured it into the fork tube. He did the same with the other fork.



**14** Paul pushed down while tightening the fork cap. You should be careful to put it on straight from the first turn, because it can very easily get cross-threaded.



**15** After spraying a bit of Teflon lube on the fork tube, Paul twisted it back into position and tightened the pinch bolts.



**16** Finally, he bolted the fender back on, sprayed some anti-seize on the axle, and remounted the wheel and brake assembly. By the way, if you're thinking of replacing your brake pads, this would be a great time to do it. **RB**

## SOURCES

Progressive-Rate Street Fork Springs \$76.82  
440 I.A.S. Series Shocks (black) \$507.38  
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