

HOT TIPS FOR THE HONDA CRs

Suspension & maintenance guide for the Red Brigade

By Tom Webb

As a group, the CR125, 250 and 480 offer the racer a balanced, nearly complete package. No other manufacturer this year has such a competent lineup. Some have good 125s, others strong 250s. Honda shines in all classes. Why? All of the CRs are sophisticated, light, nimble, fast, can turn, and don't require a major to be competitive. In fact, all of them *can* and *are* raced in stock form, and *can* and *will* win with just normal pre-race wrenching.

But, like all bikes, they have bugs and glitches. Accessory firms are working overtime firing out trick "must-have" bolt-ons for the Hondas. We've lived, raced and worked on them for the last half year. In this time we've discovered some tricks that make the CRs *much* better, some just a little better, and others that let them live.

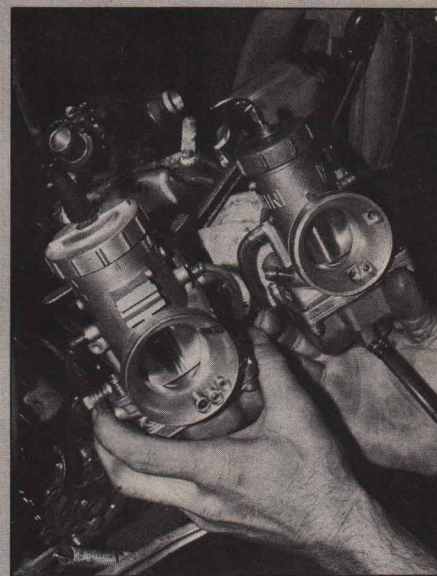
Possibly the biggest deficiency in the CR package is the suspension. It's not that it's bad, it just could be better. In the MX world, all three of the bikes are equipped with what are known as 15-minute shocks. After 15 minutes they fade as fast as disco music. Not a pretty picture. The forks spill into the same vat. Not bad, but they could be more refined.

Secondly, none of the motors can be considered beaters. This means animal abuse, or the ride, ride, ride-without-so-much-as-waving-a-ratchet-by-them syndrome. This won't work. Poof! They explode. Periodic maintenance is a must. Also, there are some performance gains to be had. We didn't opt for major porting work. All of them are fast stock, but a little extra never hurts.

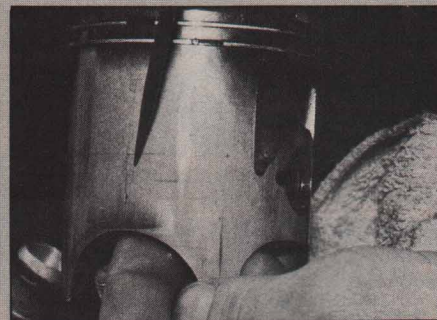
SUSPENSION

As we said before, a rider's initial reaction to the CR is pure joy. Finding fault is a tough job. Once some time is spent trying to maximize the suspension feel, you quickly find the limits of the stock boingers. All of the CRs need fiddling, dialing and oil levels measured before they work decently. But, even after this is done, there's a void, a feeling that lingers after you've just ridden through a tough, gnarly set of whoops or stutter bumps. The bikes need something...

Steve Simons has been making forks and fork kits for years. As of late, he's been working closely with Honda on developing its suspension. In the process, certain things have become clear. The rear leverage ratio just doesn't cut the mustard, it simply



We experimented with a big-bore 40mm Mikuni on the 250. It requires some machining on the carb, but the power gain is incredible.



Check the piston on the 250 every six motos for possible cracks. As you can see here, they do break.

spreads it thin. A change that allows the rear to become more progressive (stiffer) in the last part of the stroke is a step in the right direction.

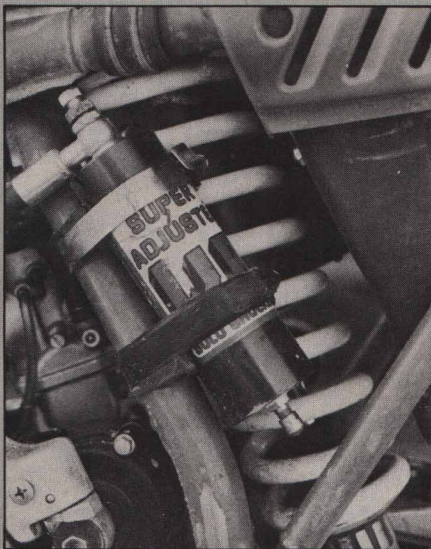
Simons sells a bolt-on link that is now being used by every Pro support rider for Team Honda, and will become stock on the '84 production bikes. It firms up the final few inches of rear travel, making for a ride that is at least 20 percent better than stock. This is with no other changes, just the link. The links are available for all the '83 CRs. They sell for \$99.00.

Next in line is the shock itself. The stock units fail, heat up and are ordinary at best. Some of the 250 lines blow off. White Brothers sells a braided replacement line. Still, the better riders and the bucks-up will demand a new shock. We tested both a White Power and an Ohlins shock, with and without the new link. Both offered a much improved ride over the stock Showa unit.

Naturally, we tested both units with the stock link first. Neither shock faded inasmuch as we could tell. Usually our arms turned into extended noodles before heat took its toll on the shock. Then both were run with the Simons link. Again, there was



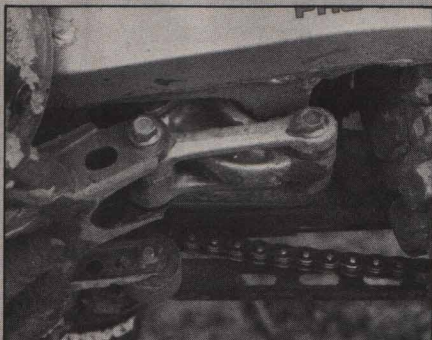
All of the stock CR sprockets wear out quickly. We opted for a Sidewinder unit that's a little heavier, but lasts far longer.



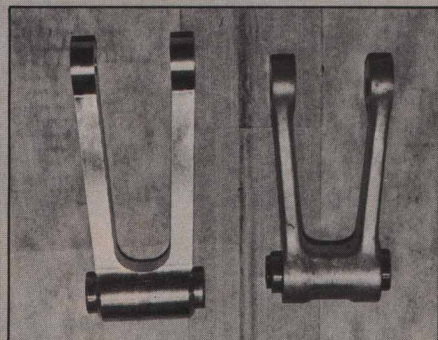
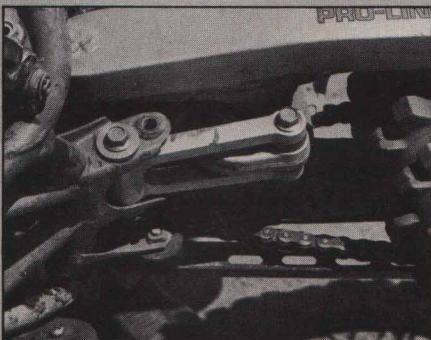
The White Power shock improved the action of the Pro-Link considerably. It doesn't fade like the stocker and offers both adjustable compression and rebound damping.



If you've got the bucks, the Simons UDX Upside-down forks are the best going. We couldn't find a fault in their action; they are the best forks money can buy.



Here you can see the difference between the stock lower link and the Simons link. The Simons link really improved the rear-end action by slightly altering the leverage ratio.



a major improvement felt. The bottom line is this: Overall, the Ohlins felt more supple in both its ability to take the hard hits and the small stutter bumps. The White Power is close, but not quite as supple. Both shocks are expensive; the Ohlins sells for \$368.00 and the White Power goes for \$430.00. The companies that handle them will set them up for your weight and riding ability. White Brothers offers a two-month setup warranty, meaning they'll change it as often as need be until you're satisfied with the White Power shock. Simons handles the Ohlins shock.

With the forks, money is the only thing that will guarantee a better ride. The stockers all suffer from harshness on the big hits, while the mid-range thumps are absorbed fair to middling. No matter how much we fiddled with oil levels and weights, their action never got better than average. Again, Simons offers a fork kit for all three CRs. With it installed, the forks work on the same level as YZ units. Plush and supple, they have the power to take the punishing hits as well. The kit consists of new rods and springs. It sells for \$69.95 and doesn't require much to install.

A final approach only applies to the very

serious racer or the elite packing-major-dinero-in-Mr.-Wallet group. They are the Simons Upside-down UDX forks. We've talked about them before, but dollar for dollar, these are the best forks money can buy. An expert who can't get his paws on hand-me-down factory Showa units should certainly consider the UDX forks.

In 1982 Brad Lackey wasn't forced to use them, he chose them. They offer a ride that no other production fork can match. They are virtually flex-free with their giant triple clamps, 60mm upper tubes and 50mm lower tubes. Inside, they are super complicated, but offer a six-way damping system that is completely adjustable. And, although they appear heavy, they are actually a full four pounds lighter than stock 43mm Showas. For \$679.00, they should be the best. If you've got the money and demand the absolute in performance, they're a deal.

MOTOR MUSTS!

All three motors must be torn down at regular intervals if you want them to live. It's even more important on the 125 and 250. In the Competition Maintenance Schedule on all the bikes, they say to replace the piston and rings after three races

or 200 miles. Our 480 proved that this setup isn't mandatory, as we got nearly 800 miles out of a top end. Still, that's pushing it. Plan on every six races on the 480 piston to play it safe.

With both the 125 and 250, it is critical to tear the top end down after six hard motos or so. Most of the 250s are breaking pistons. It usually starts with a small crack up the intake side of the skirt. If it goes undetected, your top end turns into a time bomb just waiting to go off. The 125s, as far as we know, aren't breaking pistons, but we haven't had as much time on them as on the 250. Take the time to tear them down and check for possible fault lines. It's worth it.

TRIVIA CLAUSE: WHAT TO LOOK FORWARD TO

Honda went with super-light running gear in an effort to keep the weight down. The stock sprockets are super feathery. They're also made of an aluminum just a tad stronger than butter. Ours wore out very quickly. Sidewinder sprockets are a little heavier, but last three times as long. That's what we chose.

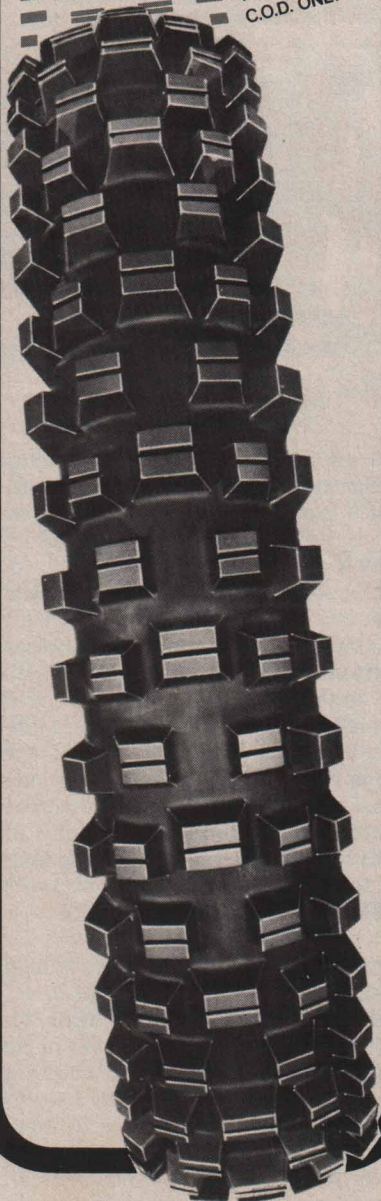
After you've washed your bike, pop off the fork boots at the bottom and clean the

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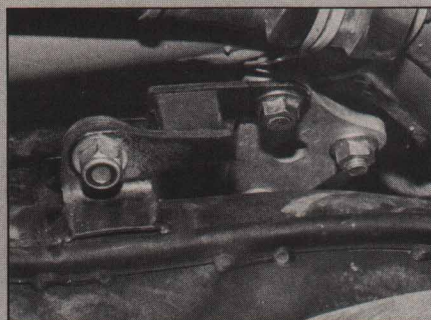
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We liked the Ohlins shock the best. It was a tad more supple than the White Power shock. A heat shield is a must on the 480 pipe. We made this one out of thin aluminum.



The 480 pipe vibrates badly. We welded a tab in the middle of the pipe and bolted on a rubber pipe mount to the motor head stay.

sewage off the seals. All of the stockers are experiencing very short seal life. This helps a lot.

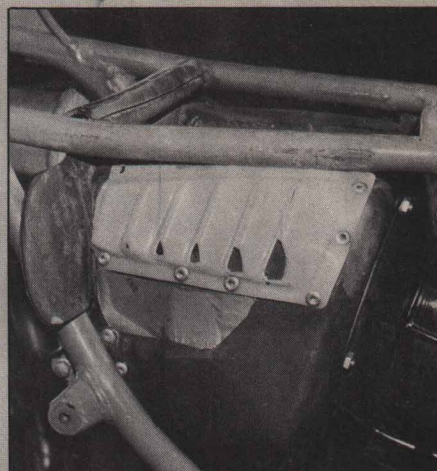
As the linkage on the CRs aren't fitted with zerk fittings, the only way to grease the links is to take them apart. Do so after every three rides. If you don't they wear out and become gouged. This affects how well your rear suspension works and also saves you some big bucks. Replacing the links and associated hardware is expensive.

On the 480, the pipe is fastened in just two places; at the belly of the pipe, and where it slips into the silencer. It rattles mercilessly, drives you nuts and is just stupid. We put another rubber mount on the center of the pipe. A simple tab welded to the pipe that connects to the top motor mount cured the buzzing.

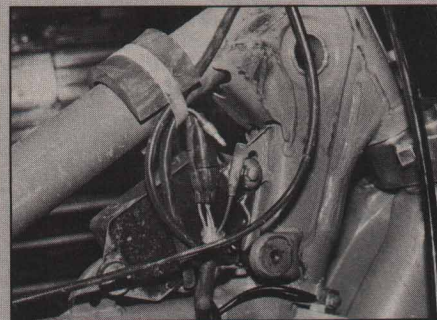
Another hot spot on the 480 is on the pipe itself. It burns the rider's leg right where the numberplate ends. All savvy riders either weld on a heat shield or fabricate one out of aluminum.

MORE JUICE

Because none of the bikes are slow, we didn't take a lot of time to try to suck more horsepower out of them. In fact, we feel that power is a strong point with the CRs. By putting a larger carburetor on the 125 and 250, very little low-end performance



Letting a little more air into the 480 helps performance. After we cut in the slot, a Pro Circuit air vent was installed. This directs the air but keeps out excess muck.



Many dealers are telling 480 owners to unplug the blue wire on the CDI box. This eliminates the rev limiter. Unplugged, the 480 revs to infinity.

was lost and a goodly amount was gained everywhere else. Most of the local 125 hot-shoes are opting for a 36mm Keihin right off the 250. Very little in the way of jetting changes is needed and the mid-range snap and peak-rev punch are enhanced.

With the 250, we experimented with a large-bore 40mm Mikuni. Some machining is needed on the carb to make it fit the manifolds. After that, a serious gain can be expected. Also, the throttle was tossed in favor of a Gunnar Gasser. This too was mandatory. Even with these hassles, overall performance was staggering. In fact, the stock gearing proved far too low, and a drop from the stock 54-tooth rear sprocket to a 50 was needed. We couldn't find an Expert who complained about a lack of zap once the 40mm Mikuni was installed. We know of only one company working on a 40mm Mikuni kit, and that's RJR. Give them a call and see if the effort has panned out.

Riders complaining about a lack of power in the 480 were written off as bird cage candidates. Even so, there are a couple of mods that help with the big-bore.

First, many of the Honda dealers are suggesting that you unplug the blue wire on the upper CDI box. This effectively does

(continued on page 68)

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HONDA HOT TIPS (continued from page 50)

away with the rev limiter on the bike. Unplugged, the 480 will rev into never-never land. American Honda doesn't suggest this. We tried it and it works. One drawback is the possibility of burning out the ignition by overrevving it. It's chancy, but cures the flat top end on the 480.

One other small thing we did was to open up the right side of the airbox. A little more airflow never hurts a big-bore. Over the new hole we pop-riveted a Pro Circuit flow vent. This lets air move freely, yet keeps out most of the giant debris.

IT'S A PAIN, BUT SOMEONE HAS TO DO IT

Most of our mods are either a pain or cost money. You've already shelled out for the bike, why not maintain it? In the long run it has to save you money. The suspension alterations work. They complete the package, making the CRs tough bikes to beat. If you want to win and demand the best, consider what we've said. □

SIMONS—2625 Miller Ave., Mountain View, CA 94040; 415-948-3470. Fork Kits, UDX Upside-Down Forks, Lower Link, Ohlins Shock.

WHITE BROTHERS—1170 Western Ave., Stanton, CA; 714-895-1991. White Power Shock, Braided Aircraft Shock Line.

KRAUSE RACING—305 E. North Ave., Northlake, IL 60164; 312-344-2233. Sidewinder Sprockets.

PRO CIRCUIT—4212 E. LaPalma, Anaheim, CA 92807; 714-993-5400. Airbox Vents.

RJR—22612 Burbank Blvd., Woodland Hills, CA 91367; 213-710-1106. 40mm Mikuni Carburetors.

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LAST OVER

(continued from page 8)

air out of the tires, forks, and shocks until we got them to work to our satisfaction, but after that small bit of tuning we were hitting the trail. Well, there wasn't really a trail, but you get the expression. The ground was loose and rocky, just as we'd expected, and there was more than enough dust, but the lack of atmosphere allowed it to fall back to the ground before it coated our face shields.

But oh, golly gosh, you have no idea what it feels like to ride a 40-pound bike with no gravity or air resistance. The little electric motors felt like 490 Maicos and a 200-foot skyshot was just as simple as blasting up the side of a crater. Wheelies were absolutely nothing at all, so much so that we had to practically sit on the "tank" to keep the front end down in the turns. Roosted rocks were a real hazard, though, and we soon learned to stay back a good distance rather than get hit in the chest with one at about a zillion miles an hour.

What can I say? It was great! Lack of space in this column keeps me from going into greater detail, and if our pictures hadn't been ruined by the lab, we'd be running a full story on the expedition. Oh, well; we'll be going back sometime soon. If any of you readers get the chance to go up there in the near future, go for it! And if you need any info on setting up a bike, give us a call. We'll have the boys in the white suits on you in no time. □