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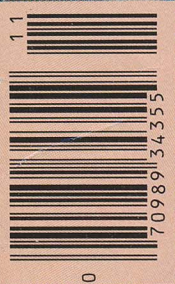
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ON THE COVER: Why didn't Jeff Ward win the 250 championship? He tells all on page 56, while Yamaha's new enduro surprises are on page 30. Wardy photo by Chris Hultner. Cover design by DeWest; separations by Valley Film.



WARNING: Much of the action depicted in this magazine is potentially dangerous. Virtually all of the riders seen in our photos are experienced experts or professionals. Do not attempt to duplicate any stunts that are beyond your own capabilities. Always wear the appropriate safety gear. *Dirt Bike* does all of its testing and photography legally on public land, or private land with permission from the owner(s), and we abide by the local laws concerning vehicle registration and muffler/spark arrester requirements. We are not responsible for quality of aftermarket accessories we use.

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**MOTOCROSS TEST:
1991 HONDA CR500R**

BIG BANG THEORY

*Better living through
horsepower*

By the DIRT BIKE Staff



There are lots of reasons to ride a 500 in motocross. For instance: you might weigh more than a boxcar full of lead bars. Or your favorite track might have gnarly uphills and no downhill all the way around (a geological oddity, to say the least). Or you might get some sick thrill by pulling the holed shot and simply murdering the rest of the pack with roost before they can pass you. The truth is, though, there aren't many *good* reasons to race a 500 in motocross. They have a reputation for exacting an awful lot of work to go no faster. The classes are small, and Open bikes cost more and sell for less when you're done.

Still, we can think of one really good reason for riding a 500: the '91 Honda CR500R. See, in the past, Honda has worked really

Some riders claim that the '90 and '91 CR500Rs don't have enough power, that they're slow compared to earlier CRs. Of course, some riders eat broken glass just for fun.

hard to make the big CR's powerband usable, but in the years when the engine wasn't murderous, the suspension was. Now, for the first time, Honda has both engine and suspension dialed in the same year.

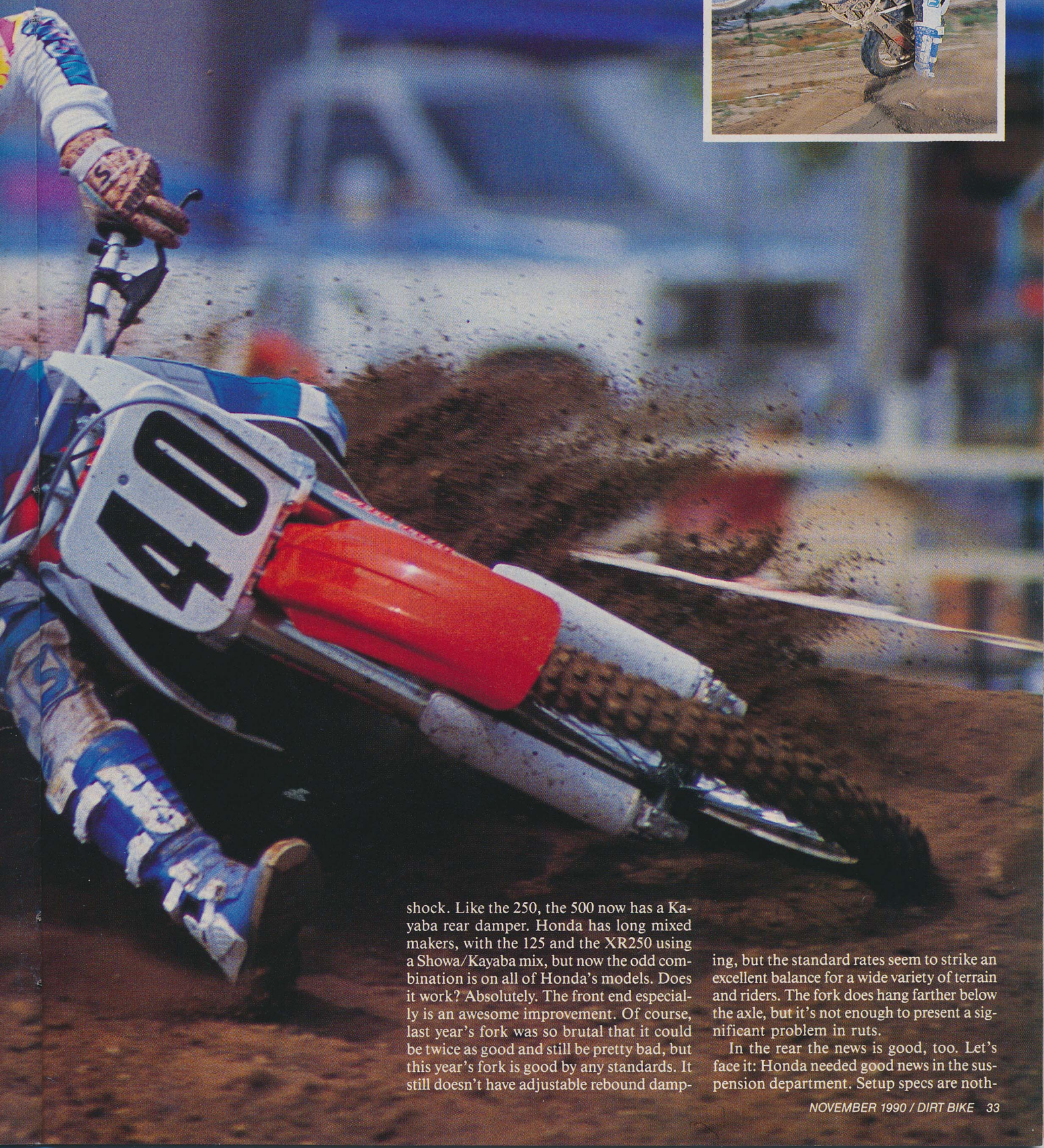
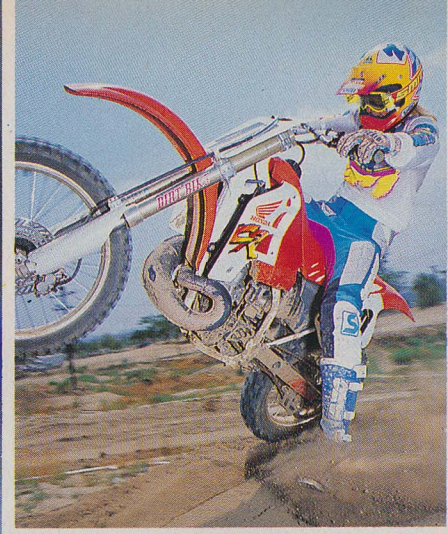
THE LAND OF OPPORTUNITY

This year might well be the year of the CR500R. Kawasaki chose to leave the KX500 mostly unchanged, yet the CR got everything Honda had on the drawing board. The suspension, especially, is completely different. The fork remains a Showa, but now the

springs are positioned over the cartridges, whereas old Showas had the cartridges inside the springs, which led to oil contamination as the springs rubbed against the aluminum parts. The new cartridges are larger in diameter and, despite that, Honda says the fork, overall, is lighter.

In back, the CR gets the revised linkage ratio that was new on the 250 last year. Those links now have thrust washers on either side that are claimed to reduce friction by 50 percent. The big news, however, is the

Is the Open class making a comeback?
The CR has suspension and a mellow powerband all in one year. ►



shock. Like the 250, the 500 now has a Kayaba rear damper. Honda has long mixed makers, with the 125 and the XR250 using a Showa/Kayaba mix, but now the odd combination is on all of Honda's models. Does it work? Absolutely. The front end especially is an awesome improvement. Of course, last year's fork was so brutal that it could be twice as good and still be pretty bad, but this year's fork is good by any standards. It still doesn't have adjustable rebound damp-

ing, but the standard rates seem to strike an excellent balance for a wide variety of terrain and riders. The fork does hang farther below the axle, but it's not enough to present a significant problem in ruts.

In the rear the news is good, too. Let's face it: Honda needed good news in the suspension department. Setup specs are noth-



HONDA CR500

Engine type	Liquid-cooled 2-stroke
Displacement	491cc
Bore and stroke	89.0mm x 79.0mm
Carburetion	38mm Keihin
Fuel tank capacity	2.4 gal. (9.0 L)
Gearing	14/51
Lighting coil	No
Spark arrester	No
Green sticker legal in stock form	No
Running weight with no fuel	235 lb.
Wheelbase	58.9 in. (1496mm)
Rake/trail	27.8°/115mm
Ground clearance	13.8 in. (350mm)
Seat height	38.2 in. (970mm)
Tire size and type:	
Front	80/100 x 21 Dunlop K490
Rear	110/100 x 18 Dunlop K695

Suspension:

Front	Showa, inverted cartridge, adj. reb./comp., 12.0 in. travel
Rear	Pro Link, Kayaba, aluminum piggyback, adj. reb./comp., 12.8 in. travel

Country of origin	Japan
Suggested retail price	\$4098

Distributor/manufacturer:

American Honda
100 W. Alondra Blvd.
Gardena, CA 90247
(213) 327-8280

PARTS REPLACEMENT COST

Piston	\$54.44
Ring	26.51
Clutch plate (drive)	6.18
Clutch plate(f)	6.26
Front sprocket	11.90
Rear sprocket	54.80
Front brake pads	19.80
Rear brake pads	20.96

ing unusual. For 170-pound pro Pete Murray, the CR was dialed to the typical 100mm of sag and the rebound was set at nine clicks out with the compression screw at 11 clicks. We tested at Perris Raceway's choppy sand course and DeAnza's hard adobe, and finding faults was difficult in either environment. Honda suspension that works . . . what a concept!

BUT IT'S STILL A 500, RIGHT?

Okay, if you've been around long enough to know a kidney belt from a kidney bean, then you know that a 500 is going to be more work than a 250 or 125, no matter how good the suspension is. The truth is that the new CR is still a brute, but it's a brute with manners. Last year Honda pulled its claws and made it smooth and mellow—it's just that no one noticed because the suspension was so flawed. Now that that problem has been fixed, it's apparent just how mellow the motor is. The only real differences this year are a different combustion chamber shape (taller and narrower) and a carburetor change that allows the slide to seal more securely when the throttle is shut. So the motor is pretty much as it was last year—very smooth. The power still hangs out in the lower part of the rpm range (Honda's Open-classes have always been short-shifters). If you rev the CR too high it just vibrates and doesn't really go anywhere but, even at the bottom, the horsepower doesn't hit with a sudden, intimidating burst like the big CRs of the past. It climbs on to the powerband gradually. That's a good thing, because there's an aw-

ful lot of power to climb on to. The Honda is still a 500, and you had better be sure you are pointed where you want to go when you pull the trigger.

There are riders (pros, mostly), though, who miss the old low-end hit. You can spot them at the track—they're the ones hitting the clutch coming out of the turns. For most riders, however, mellower is better.

The truth is that the smoother a bike's power output is, the better it handles—and the CR is a very good-handling bike. No other Open bike made turns as easily as the Honda. Part of that is due to the power, part just because Hondas turn—always have.

Picking a line is as easy as pointing. This year, Honda reduced the rake by a half-degree, decreased the trail slightly and moved the steering head down and back to get a little more weight on the front end for even better turning. In theory, that should make the Honda less stable at speed, but there was little to no headshake for any of our test riders. You can probably credit the fork for that.

REMEMBER THE 1990 250?

Almost everything else that's new on the CR500 is the same stuff that came out on the 250 last year. The airbox is the new, narrow style, and the side number plates and rear fender are integrated. Then there are those white radiator shrouds and bold new graphics. We can get used to the look, but we were disappointed to see the return of the sticker. Last year's 500 had radiator shrouds with the logo actually in the plastic. It was trick; the sticker didn't wind up on your pants after a couple of laps. This year it's back to old-world decal technology. Honda claims the other process was just too expensive.

Bad decals or not, though, the CR500R is an awesome motorcycle. It gives you Open-class horsepower in a machine that doesn't demand much in return. It gives you a realistic alternative to 125s and 250s. It gives you a complete package, one with usable engine and workable suspension.

Even if all that doesn't mean anything, you can still pull a holeshot and roost everyone to death before you get passed. □



FROM TRACK TO TRAIL DESERT WARFARE WITH HONDA'S BIG GUN

• A long, long time ago, motocrossers found out that horsepower doesn't necessarily win motos. Even longer ago, racers learned that it sure helps when it comes to winning in the desert. That's why Honda's CR500 is still one of the most popular bikes in western cross-country racing. The sportsmen classes are just packed with them. Oddly enough, however, few Experts ride CR500s any more. We wanted to know why.

We took our CR to the desert to pound it some more after we pounded it thoroughly on the MX tracks. The first thing we found was that the suspension is just as good off-road as it is on the track. We turned the fork's compression clicker out a couple of positions, and the Showa front end did an excellent job of sucking up the whoops. That is, by the way, what riding in the Southern California desert is all about these days: connecting one whooped-out, over-used trail with another. So if you have a bike that can handle the rough stuff, then you have most of the job done. The CR's rear end, too, is about as good a whoop-buster as you'll find.

In handling, the new CR is much improved over the last model, primarily because the headshake is all but gone. The machine still is very twitchy and that means you've got to pay attention all the time. That's the price of having a bike that's so good in the turns.

However, we also found that the gearbox ratios are too close. With stock gearing the machine tops out too quickly. Desert racers also report that with tall enough gearing (15/45, for fast races), then first gear is way too tall for the tight stuff. The solution is simply

to learn to use that clutch in the tight stuff. A Moose Products ([303] 660-0023) flywheel can help you keep from stalling the engine when the going gets really twisty.

Speaking of tight stuff, there's this business of plug fouling. Our test bike *didn't* foul plugs, which is a very unusual thing for a Honda 500. Many owners report that their bikes foul a plug a week; others, with identical jetting, use the original plug for a full season. No one at Honda has ever given us a good explanation why, but according to Honda's tech whiz Eric Crippa, if you have a plug wetter the problem can be minimized by turning the air screw out 2-1/2 turns and running an extended-electrode spark plug, like a Champion N7YC.

So will the new Honda become the choice for Experts in the desert? Maybe, maybe not. District 37 Expert Mike McDonald races both his Kawasaki KX500 and his Honda CR500 on occasion, and even though he's got the suspension cured on his older CR, he prefers the Kawasaki for high-speed races. "The Kawasaki lets me ride more aggressively. I can get away with things the Honda just wouldn't forgive me for," he reports. "The Honda handles faster; you just think about turning and you're there."

We agree. The Honda might be a bit of a handful in the Expert ranks, but we also know that sportsmen probably won't reach the edge of the envelope as quickly. So even though the new CR scores a solid A in motocross, off road it's a different world—a world where the CR500 has to be content to be merely good, and not exceptional. •

Off-road sleeper? Honda CR500s are popular in the desert with amateurs, but not with experts.