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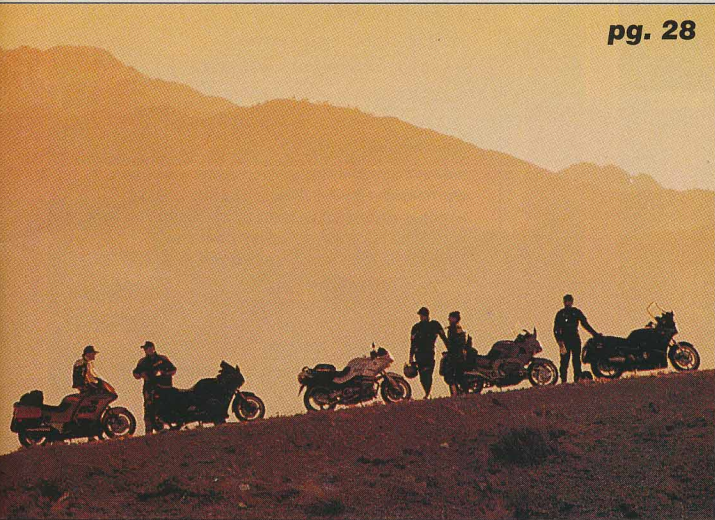
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PHOTO BY RICH COX



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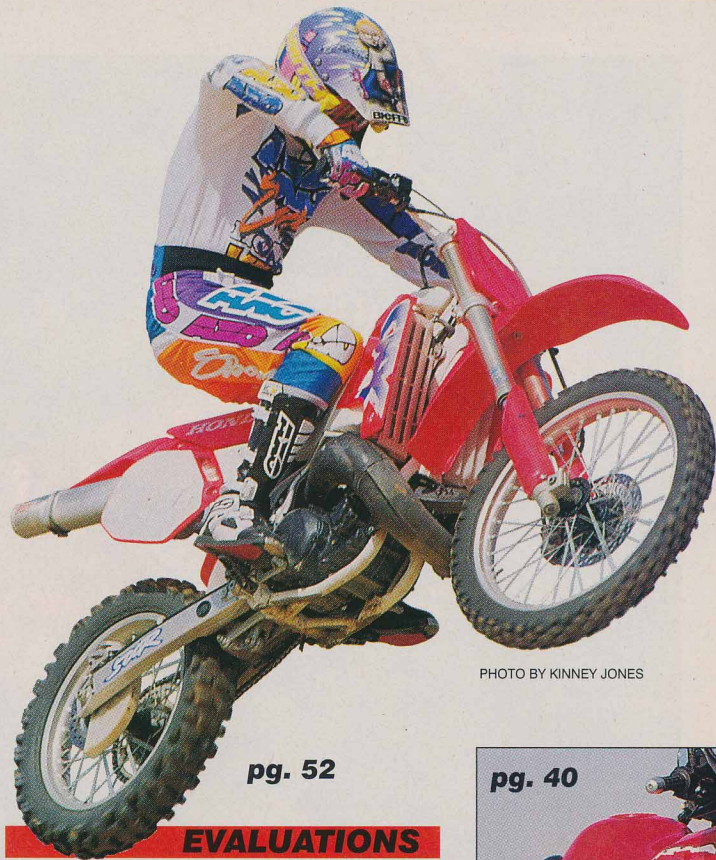


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PHOTO BY KYOICHI NAKAMURA



COVER

BMW's R100RS sport Twin, cleared for takeoff.

Photography by Rich Cox.



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ROOSTIN' AWAY IN HORSEPOWERVILLE

GROUND

OPEN-CLASS TWO-STROKE DIRTBIKES HAVE always been about horsepower. Forget versatility and all-around ridability, it's knob-shredding, rock-chucking, suck-your-breath-away acceleration that appeals to the riders of these 500cc rocketsleds.

Yet the class has become more diverse over the last few years. The fixation on mega-horsepower has evolved into

four very fast bikes with a broader range of uses. Yes, the 1993 versions of the Honda CR500, KTM 550 M/XC, Kawasaki KX500 and Yamaha WR500 are still the earth-movingest, hillclimbingest, holeshot-grabbingest off-road vehicles in the world, but there is a lot more to them than that.

Two of the bikes, the CR and the KX, are pure motocrossers. The Honda doesn't look much different from the CR of five years ago, but each year the bike has benefited from small



POUNDERS

improvements that have made it a substantially better machine. Likewise, Kawasaki has had basically the same bike since 1989, with a series of minor improvements to keep it competitive. Both the KTM and the Yamaha are intended for more general off-road riding. Both derive from older MX-based bikes, the M/XC evolving from a previous 500cc model, the WR having its roots in the YZ490 motocrosser.

Cycle World rode this quartet of ground-pounders in an

all-around comparison. We rode them in a wide range of conditions, starting with the deep, loamy natural outdoor motocross course at Southern California's Temecula Motorsports Complex, followed by night supercross at Starwest Supercross Park. After fitting spark arresters, off-road worthiness was judged from rides in high-speed desert terrain, and from tight-and-twisty mountain-trail work. For kicks and a bit of a durability test, we even took the bikes



out to Canta Mar sand dunes in Baja, Mexico.

Honda's CR500 gets power from a 491cc motor; its major change for '93 is a revised gearbox, with slightly wider ratios between the two top gears for added versatility. The Showa suspension received updates front and rear to further smooth out the ride.

Like all four bikes in this shootout, the Honda starts well, but requires a firm kick. Big pluses are the CR's smooth, broad power spread and excellent carburetion—it never detonated or missed a beat during the test. On MX tracks, the power was a perfect blend for hooking up on slippery or tacky surfaces, and pulling on long straights. Its only shortcoming was a flat top-end, which meant the CR rider had to short-shift for best results.

Suspension-wise, the CR was the clear winner for motocross use. Fork and shock alike absorbed small bumps, yet still had the required resistance to bottoming off sky-shot jumps. Stability was great, and the CR was the tightest turner of the bunch, able to knife turns like a good 250.

As smooth as the Honda's powerband seemed on the track, out on the trail at slower speeds, the motor was a little too potent. A good rider can stay on top of the CR on tight trails, but both the Yamaha and KTM were less tiring. Sliding fireroads on the CR wasn't as easy as on the other bikes, and its suspension belied its motocross heritage, tending to feel a little harsh and transferring more jolts to the rider at playbike speeds.

At those slower velocities, we were able to eke out about 60 miles from the commendably narrow, 2.4-gallon fuel tank, though a rider intent on making time will be down to fumes in 30 or so miles. As we've come to expect from Honda, the CR's componentry was generally excellent, although the plastic scratches easily in crashes and the non-O-ring chain needed frequent adjustments compared to the O-ring chains fitted to the KTM and Yamaha. The brakes,

strong and progressive on the track, tended to be a little touchy on the trail.

The other motocross bike, Kawasaki's KX500, would win the class horsepower award if judged by seat-of-the-pants impressions alone. Its 499cc motor comes on softly, but the midrange and top-end are something to be reckoned with, especially for Novice and Intermediate riders. If there is room enough to keep the KX on the pipe, it will pull away from all but the KTM. On the motocross track, the KX is a close second to the

CR in handling and suspension. It's just as stable as the Honda, but won't hug the inside line nearly as well. The front brake was good, if not as strong as the CR's, but the rear unit becomes exceedingly grabby when hot, squeaking and locking-up the rear wheel if not used delicately.

Off-road riding on the KX is best done in wide-open areas, where the bike's power can be better appreciated. It is not without good reason that KX500-mounted teams have cleaned-up in Baja desert races. While the Honda and



Yamaha feel more 250-like in size, the Kawasaki, along with the KTM, has a distinct big-bike feel, even with its smallish, 2.6-gallon fuel tank. During trail riding, this is a hindrance, and although the motor's smooth low-end power is a plus, taming the KX's explosive shift into its power-making mode is not for the out-of-shape or lacking-in-experience. Not helping on tight trails is a first gear that, like the Honda's, is a little tall.

For riders not primarily interested in the cut-and-thrust of MX competition, the Yamaha WR500 and the KTM 550 are natural draws, with their large fuel tanks and convenient

GROUND POUNDERS

kickstands (the CR and KX come with prop stands only). The KTM even has a spark arrestor as standard equipment.

A lot of people might call the air-cooled Yamaha WR outdated, but it established a solid placing in this shootout. Though it looks almost identical to the YZ490 motor that debuted almost a decade ago, the WR powerplant has benefited from a host of minor changes. Still, if feel alone were used to judge horsepower, the WR would lose. Its powerband feels broad and torquey, but not all that strong. Yet, surprisingly, the WR was dead-even with the CR500 in all types of drag-race, top-speed and roll-on comparisons. It just didn't feel that fast. Overall, the power delivery was extremely controllable in trail situations, only matched by the KTM. Being air-cooled, the Yamaha motor was mechanically louder than the three water-pumpers, and



the KTM. A slight drawback is that the WR has a layout that tended to cramp larger riders, though a higher-bend handlebar would quickly cure that. The bike comes with a 3.4-gallon fuel tank that hides its bulk well. The sidepanels bulge slightly to meet the tank, but after a short time on the bike, this wasn't noticeable. A quality O-ring chain was basically maintenance-free, and the WR's brakes rank right up there with the Honda's.

KTM decided bigger is better when it enlarged the M/XC from a 500 to a 550, but that doesn't mean the bike is a brutal, uncontrollable beast. In fact, the KTM is a pussycat, albeit one with big, sharp teeth. Fast and friendly is a good description of the Austrian-built motor: For the record, in every drag race, motocross start or roll-on we did, the KTM plain walked away from the other three bikes.

For trail riding, the powerband is smooth and predictable, with tons of torque. Matched with a wide-ratio, five-speed gearbox that has a stump-pulling first gear and a fifth cog that loves fireroads, this could be the ultimate off-road motor for horsepower freaks, pulling long and hard in each gear. As one of our MX testers said, "This

PHOTO BY BRIAN BLADES



more than one test rider commented that if he could ignore the noise, and if the gearbox were a little less notchy, the motor would be near-perfect. For non-Experts, this was definitely the best all-around engine.

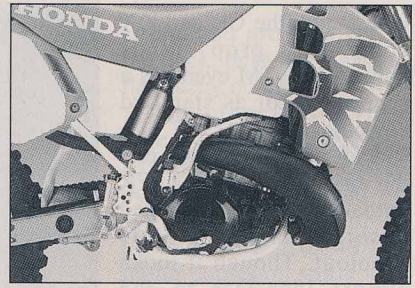
Yamaha set-up the WR with trail riding in mind, and the bike clearly has the best suspension here for slower riding. This is no supercross bike, and even during the less intense handlebar-banging that goes on in Vet motocross, for example, turning the WR required a little work. Take the effort to slide forward onto the tank and point the bike where you want it to go, it responds well. Get lazy, and it's less cooperative.

Away from the track, though, trail riding is the WR's high point, with a plush ride liked by all our testers. The motor's prodigious torque pulls the bike through the toughest situations and its spikeless horsepower curve is easy to modulate. Sliding fireroads, the WR ranked a close second to

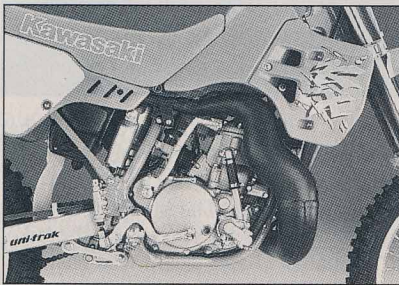




HONDA CR500



For Open-class motocross use, the CR500 motor is as good as it gets. For enduro/playbike riding, a heavy aftermarket flywheel would be a good call. Fitting off-road lights will be tougher: Only the Yamaha comes with a lighting coil.



The brute of the bunch, the KX500's potent powerplant has been proven in national motocross races and grueling Baja competition. It kept the KX close to the Honda during the MX portion of this comparo. A careful throttle hand is a good friend to this motor.



KAWASAKI KX500

bike will get many holeshots.”

Unfortunately, the rest of the bike doesn't quite live up to the motor. The suspension is let down by a White Power fork that jars the rider on sharp hits. Turning the KTM was a low point for test riders. Initially, the fork is too soft, then hits a mid-stroke harshness, making it difficult to hold a line in turns. A re-valving is definitely in order. At least the rear suspension is better, with a very plush feel, especially on big landings or in rolling whoops.

Most of our testers didn't care for the bulky 3.2-gallon fuel tank that doubles as a radiator shroud, though the seat and sidepanels are acceptably thin. KTM has a smaller tank and conventional radiator shrouds as an option for those who want a thinner bike for motocross. The 550 M/XC's footpegs feel as if they are too far back, and the handlebar position is a little high. This was especially noticeable after jumping off one of the other bikes onto the KTM, though all of our riders adapted after a few minutes of saddle time. Front stopping power was a little off the pace. The rear was as good as any of the other three, though it was hard for some test riders to find the pedal. The bike's O-ring chain was tough and didn't need to be adjusted after initial stretching.

There are two distinct winners in this comparison test. If you are strictly a motocross racer, then the best choice is the Honda. The Kawasaki is a close second, followed by the

Yamaha. The KTM gathered poor marks here for its lackluster suspension and handling.

If trail riding is your bag, then take a hard look at the Yamaha. The simplicity of bolting an old, air-cooled motor into a modern chassis has its appeals, especially when the result is a playbike that works as well as this. The WR would be even more appealing if priced a few hundred dollars less than the competition. Even with its old-tech engine, the WR500 costs \$4499—compared to \$4399 for the Kawasaki and \$4349 for the Honda.

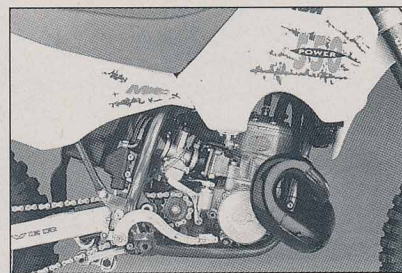
We would choose the KTM second for trail riding. At \$4749, it is a little pricey, but it's hard not to be seduced by that velvet sledgehammer of an engine. The Honda and Kawasaki are too close to call in the trail-riding category. Both will get the job done, and both can be tailored more for play riding with help from the aftermarket.

More tricky to call is the pick for best all-around bike. All four bikes have their strong points, all four have their drawbacks, but it comes down to a choice between the Honda CR500 and the Yamaha WR500. An Expert motocrosser can turn decent laps on the Yamaha, but would stand the best chance of winning on the Honda. For trails and play riding, a good rider will have fun on the Honda, but the Yamaha is the better bike for the majority of riders. Decide where your off-road riding interests lay, then make your choice. □

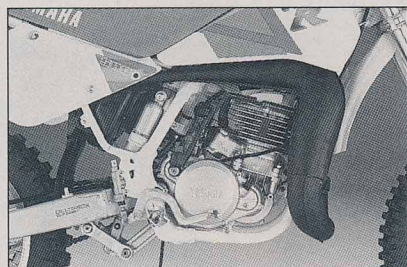
GROUND POUNDERS



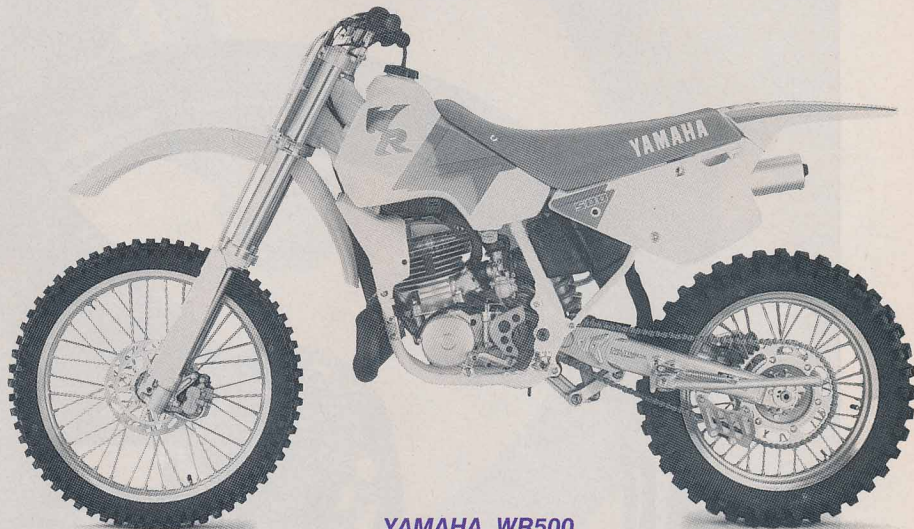
KTM 550 M/XC



KTM's 550 proves the saying, "There's no replacement for displacement." The most powerful engine here, it also is the most manageable. Dropping the previous SEM enduro ignition/lighting coil in favor of a Motoplat motocross ignition offered better starting.



In the past Yamaha's big-bore two-strokes have been plagued by detonation, but we had no such problems even running pump gas. After 400 miles of hard testing, we pulled the top end for inspection and found everything in order.



YAMAHA WR500

	HONDA CR500	KAWASAKI KX500	KTM 550 M/XC	YAMAHA WR500
SPECIFICATIONS				
GENERAL				
List price	\$4349	\$4399	\$4749	\$4499
ENGINE & DRIVETRAIN				
Engine	two-stroke Single	two-stroke Single	two-stroke Single	two-stroke Single
Bore & Stroke	89.0 x 79.0mm	86.0 x 86.0mm	92.2 x 82.0mm	87.0 x 82.0mm
Displacement	491cc	499cc	548cc	487cc
Compression ratio	6.8:1	8.3:1	7.0:1	6.9:1
Carburetion	38mm Keihin	39mm Keihin	38mm Keihin	38mm Mikuni
SUSPENSION				
Front Suspension:				
Claimed wheel travel	12.2 in.	12.2 in.	11.8 in.	11.8 in.
Adjustments	compression and rebound damping	compression and rebound damping	compression and rebound damping	compression and rebound damping
Rear Suspension:				
Claimed wheel travel	12.6 in.	13.0 in.	13.6 in.	12.2 in.
Adjustments	compression and rebound damping, spring preload	compression and rebound damping, spring preload	compression and rebound damping, spring preload	compression and rebound damping, spring preload
CHASSIS				
Weight:				
Tank empty	234 lb.	236 lb.	245 lb.	248 lb.
Tank full	248 lb.	252 lb.	264 lb.	266 lb.
Fuel capacity	2.4 gal.	2.6 gal.	3.2 gal.	3.4 gal.
Wheelbase	59.0 in.	58.7 in.	58.0 in.	59.1 in.
Rake/trail	27.5°/4.7 in.	27.0°/4.6 in.	27.5°/5.0 in.	27.5°/5.0 in.
Seat height (unladen)	36.5 in.	37.6 in.	36.5 in.	37.9 in.
Footpeg height	16.0 in.	17.5 in.	16.1 in.	17.8 in.
Footpeg to seat top	20.5 in.	20.1 in.	20.4 in.	20.1 in.
Ground clearance	12.2 in.	14.1 in.	13.5 in.	13.7 in.