HONDA CR125M

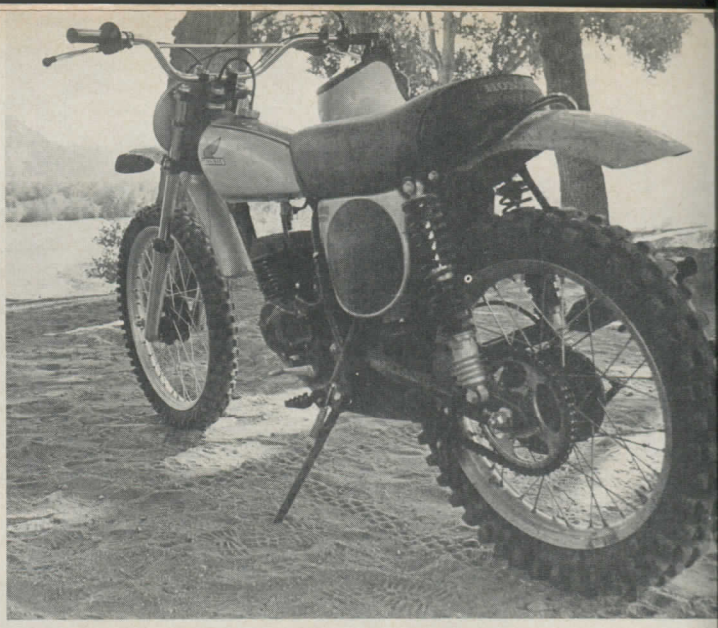
Motocrossers Have Taken The World By Storm. And That May Be Just What Honda Is Going To Do With Motocross.

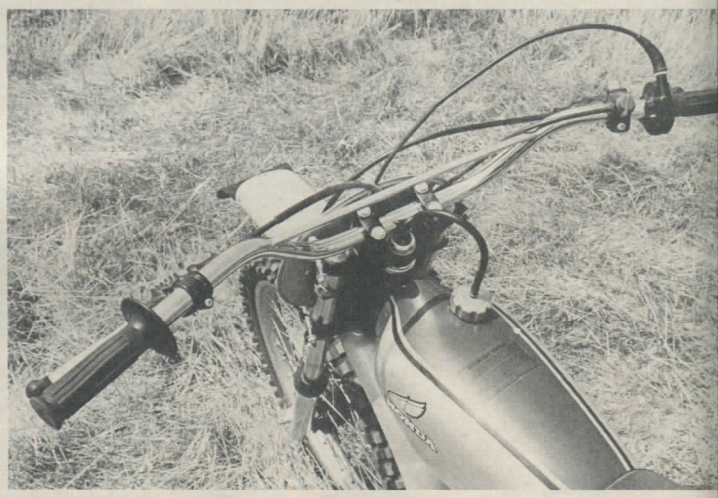
Cycle World Road Test

■ JUST A GLANCE at the dirt riding world these days would be a fast indication of just how popular motocross competition has gotten. No doubt a good reason why Honda has entered the market with serious, uncompromising racers. And the CR125 and 250 motocrossers are the perfect reason why motocrossing is destined to become even more popular.

Never before have production MXers been so complete and ready out of the crate. The owner only need worry about whether or not there is fuel in the tank, air in the tires, and courage and stamina in his system. Honda has literally set a new level of excellence in motocross machinery that will have the rest of the industry straining to match it, much less surpass it.

Though CYCLE WORLD has not formally tested the >





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CR250, the staff has spent much time riding the larger version, wetting our appetites for the 125. Both offer the same basic concept and design, though each will have a different following of riders. No matter where your displacement tastes may lie, however, it will be difficult not to appreciate the CR125.

The little CR looks much the same as the more ferocious 250, but like a sweater washed in hot water...shrunken down some. Elsinore styling has hit on a medium that is both attractive and businesslike, and an eye-catcher at any track. Front and rear fenders, as well as side covers, are molded from tough, flexible plastic. These pieces are finished with a metallic silver paint that is fairly resistant to chipping or marring.

Mud and water protection for the rider is sufficient, but the front fender allows a heavy mud buildup in the cooling fins of the cylinder. There are two screw holes on the front frame downtube to attach plastic shields, available as an accessory from Honda dealers, which deflects most of the mud away from the cylinder and head fins. Side covers also double as number plates and form most of the air box chamber. A stiff rubber flap attached to the lower front portion of the rear fender acts as the floor of the air chamber; the fender itself the rear wall. Though lots of little

cracks and crevices would appear to allow water into the chamber, repeated heavy dousings in the wet stuff failed to dim the Honda's enthusiasm. We suspect that some riders might like the extra insurance that a bit of duct tape would provide.

Unlike the CR250, the fuel tank on the 125 is formed from steel, rather than aluminum. "Well heck," someone is apt to say, "doesn't that add weight?" Yes it does, but that's just the idea. With an aluminum 1.6-gal. fuel tank in place, the new Honda falls below the F.I.M. minimum weight requirement of 176 lb. for the 125 class. The steel tank makes it legal.

But even with the steel tank fitted, riding the CR125 is like being strapped to a feather that's been drilled full of lightening holes. You don't know it's there. Honda made the frame from chrome moly tubing; that way you get the strength without the weight.

Frame design is straightforward; nothing out of the ordinary here. The single toptube and single downtube are amply braced where they join the steering head. In addition, a smaller horizontal toptube welded between the large tubing sections aids in stiffening the overall structure. Smaller tubing again is used for the engine cradle and the framework supporting the seat and rear end components.

The tubular swinging arm is also chrome moly and rides in special fiber bakelite bearings. This type of material requires no lubrication, and service life should be ample. Should replacement be necessary, the job is an easy one.

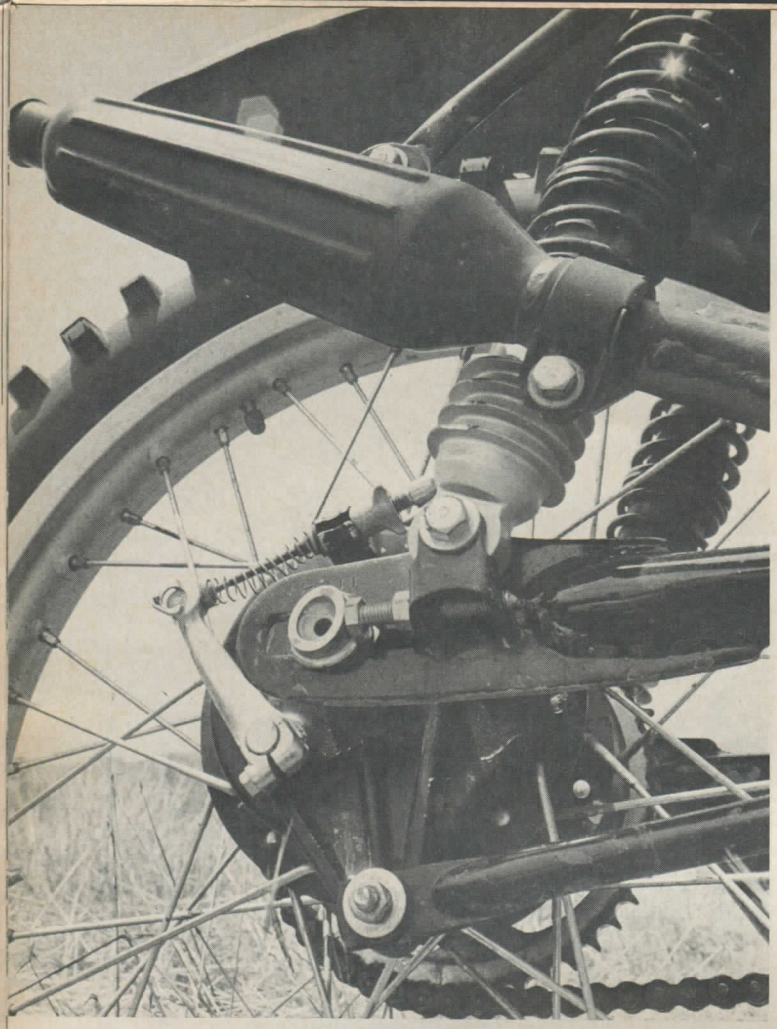
Many racers this size are fairly short coupled but Honda has broken tradition. The new CR's wheelbase measures out to 54 in., long indeed. But the long wheelbase and proper positioning of seat, bars, footpegs and the like, make the 125 a very comfortable bike for both tall and short riders. Comfort, however, is only one of the attributes of a long wheelbase. Excellent handling can be another, when coupled with proper steering geometry and suspension units that work.

With a fork angle of 30.5 degrees and 5.5 in. of trail, the CR125 is one of the most stable machines of this size ever. The center of gravity is just where it should be as well; the final result is a machine that is reluctant to do anything but go straight after a jump or when powering through the whoop-de-doos. Incredible is the only way to describe it.

A glance at the forks will tell you that the suspension is more trick than W.C. Fields in a game of poker. The lower fork legs are cast with offset mounting lugs for the axle, with the resultant forward axle position allowing more suspension travel. And 7.1 in. of fork travel on a 125 is nothing to pass off lightly. Compression and rebound damping characteristics are perfect. This means that the CR forks respond to even slight variances in the terrain, and can handle the big thudding jolts as well. One of our testers had the misfortune of landing off a severe jump sideways on the front wheel. The forks never bottomed and the machine straightened up immediately. That sold him on the Honda's handling and suspension.

Rear suspension units are another high point. Spring rates are such that they will encompass and handle riders of many varying weights, and damping is superb. A bonus feature of the units are finned aluminum oil reservoirs to help dissipate the heat developed by the plunger moving up and down in the shock body, which is using the oil as a dampening medium.

Daido alloy wheels are just about the ultimate for off-road competition and Honda was the first to install them on production machines with its XL250. Honda continues to >



use them on the CR series racers due to their exceptional strength and light weight. The added feature of the D.I.D. wheel is the non-clogging surface design. On the CR125, the smallest Daidos we've ever seen are fitted. Coupled with the tiny, aluminum hubs, unsprung weight is at a bare minimum.

Tires always seem to be a good source for a heated discussion in any pit area and the Bridgestone Knobbies fitted to the 125 will offer a new topic for the Gatorade crowd. Bridgestones have never really been the hot tip in motocross, but now it looks like they have something. The CR125 carries a 3.50-18 at the rear and a 2.75-21 at the front and we couldn't think of a better choice. The tread design worked on a variety of tracks and in deep sandwashes as well. A rider can't ask for much more than that.

The guy giving the new Honda 'Crosser the once-over gets an initial impression of tiny...dainty almost. Though many of the components convey such an impression, it is probably the engine unit that really solidifies that feeling.

Just 10 in. across at its widest point and about a foot tall, the little unit is a gem of engineering. But as trick as it looks, the engine is a fairly conventional two-stroke Single in design. It has a normal inlet port, four transfer ports and a single exhaust port that has "eyebrows" cut into the cylinder. These "eyebrows" effect a quicker port opening as the piston descends after the power stroke. The two-ring aluminum piston is unusual in that it is etched lightly to aid in oil retention for better lubrication and less chance of piston seizure.

What really makes the tiny engine unit unique is the six-speed transmission. It is one of the highpoints of the entire machine. Tiny (thin) gears fit in an extremely narrow transmission case; shifting is excellent either with or without the clutch. The closeness of the gear ratios coupled with the superb shifting characteristics makes keeping the engine "on the pipe" an easy matter if you don't mind rowing hell out of the gear lever.

Clutch pull is velvet smooth and light, not at all like some machines that make you feel as if you're tugging away at a parachute ripcord. The clutch is driven by straight cut gears from the crankshaft and has both an aluminum center and outer housing. Five steel and six fiber plates offer more than enough surface area to prevent clutch slip under the most severe use. Too, no matter how hot we got the unit, it released completely every time.

Total engine dry weight with the carburetor in place is only 46 lb.! Magnesium alloy outer side covers helped attain such a figure, but each component has been designed with ultra-light weight foremost in mind. For example, the entire downswept exhaust system complete with silencer weighs just 6 lb.

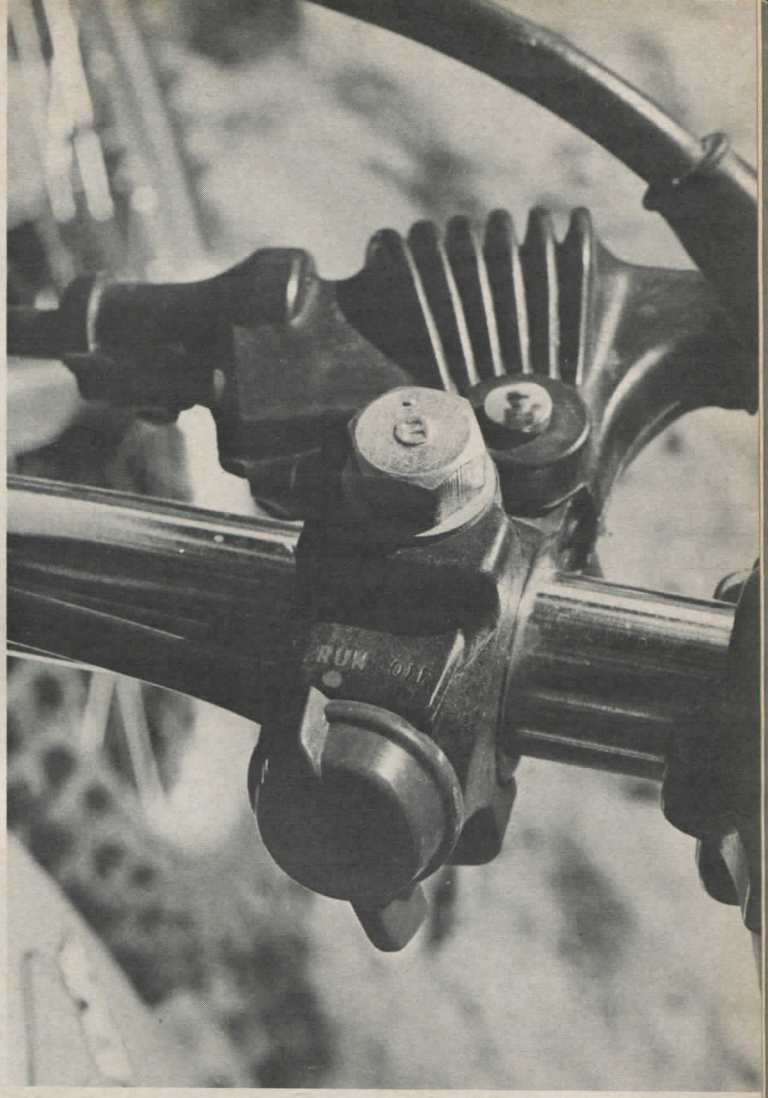
A Keihin piston-type 28mm carburetor attaches to a shock reducing rubber manifold. Inside, the floats are solid plastic to preclude their developing a leak and upsetting the float level. The slide is chrome plated brass for long wear and to help aid the throttle's closing. There is also a clever shield arrangement around the main jet to help obviate any tendency toward the fuel's surging on a bumpy motocross track.

Starting is usually a snap, hot or cold, but the choke is needed if the engine has had a chance to cool off much. There is also a tendency sometimes for the unit to flood when warm, especially if the gas isn't shut off immediately upon stopping. Response from the 3/8ths turn quick action throttle is really amazing for a 125, although it's necessary to keep the engine buzzing for any really good power. We had several knock-down, shoot-'em-up drag races with other

125 MXers, and found that the new Honda will hold its own with most of them. The most interesting runs were against the new Suzuki racer. With riders of equal weights, they were dead even all the way.

We were doubly impressed with the CR's level of vibration, the lowest of any 125 competition bike we can remember riding. Even at the engine's upper rpm limit, not more than a tingle can be felt through the handlebars and whatever comes through the footpegs isn't noticeable at all. Honda has done a superb job of building both a quiet engine, mechanically, and of quieting the exhaust note, evidentally without power loss. Nineteen bhp at the rear wheel is not unreasonable to expect from the CR125.

Of course, all these parts and pieces and thingies don't do the rider a bit of good if he's not comfortable on the machine. And on a motocross machine you have many things to consider for optimum rider comfort. To go one quick lap on a bumpy course puts the rider in so many different positions (if he's doing it right) that the guy designing the bike probably suffers from hives and twitches most of his working hours. But Honda probably left such an item to a hard working computer, which came up with *the* combination.



Controls are all set precisely where they should be. Saw-toothed foot pegs are mounted low enough to enable a good standing position without having to lean forward over the bars. Different riders go for different bars, but many will be happy with what the Honda comes with. The CR racer is definitely built with the rider in mind. Even the seat is designed to allow the rider freedom of movement, yet is thickly padded and extremely comfortable. Once more, the vinyl covering has just the right surface to keep you from sliding around when you're trying to look like Pierre Karsmakers.

Even the brakes are the hottest thing since taffy apples. You can work the front unit precisely with just one finger; the rear unit has the same exacting feel! When you need them you've got them, yet they never play tricks.

Honda's new CR125 does everything superbly. It is without a doubt the finest handling small bore we have ever ridden. Though the price is expected to be in the $900-1000 bracket, you won't have to add to that total by substituting different parts because the stock ones don't get the job done. That means it's a bargain.

Protos to the people? Right on!

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SPECIFICATIONS

List price	N.A.
Suspension, front	telescopic fork
Suspension, rear	swinging arm
Tire, front	2.75-21
Tire, rear	3.50-18
Engine, type	two-stroke Single
Bore x stroke, in., mm	2.21 x 1.97, 56 x 50
Piston displacement, cu. in., cc	7.63, 123
Compression ratio	7.6:1 (corrected)
Claimed bhp @ rpm	N.A. @ 9500
Claimed torque @ rpm lb.-ft.	N.A. @ 9250
Piston speed @ rpm ft./min.	1870 @ 9500
Carburetion	28mm Keihin
Ignition	magneto CDI
Oil system	oil mist
Oil capacity, pt.	oil in fuel
Fuel capacity, U.S. gal.	1.6
Recommended fuel	premium
Starting system	kick, folding crank
Air filtration	oil-wetted foam

POWER TRANSMISSION

Clutch	multi-plate, wet
Primary drive	gear
Final drive	single-row chain
Gear ratios, overall:1	
6th	11.51
5th	12.53
4th	14.26
3rd	17.00
2nd	21.06
1st	27.86

DIMENSIONS

Wheelbase, in.	54.0
Seat height, in.	32.5
Seat width, in.	8.5
Handlebar width, in.	34.0
Footpeg height, in.	10.5
Ground clearance, in.	7.5
Curb weight (w/half-tank fuel), lb.	183
Weight bias, front/rear, percent	44/56