



ROLL
OFFS
LIMITS

FLAK
JAK

FLAK
JAK

PRO-LINE

CHARGE OF THE LIGHT BRIGADE!

Coming out swinging, with no holds barred

By the Editors of DIRT BIKE



Light weight of the new 250 led to this comment by Hannah: "It feels like a 125 and has the same type of power as my works bike. Not as much, but the same kind of smoothness."



While the 1983 Honda 250 looks a great deal like the 1982 machine, it's totally new from the cases up. Much attention to detail trimmed a lot of weight from the red rooster. Weight, with no gas in the tank, is a svelte 220.5 pounds.

When Honda decides to push for a goal, it usually pulls out all the stops. Part of this push is a massive advertising campaign to extol the virtues of its product. But the most important part of the push has to be the product itself, or the ads end up being just so much smoke blowing in the wind.

Spearheading the approach for the coming year is the Honda CR250R. It's billed as the closest thing to a works bike that you can buy. And, in actual fact, much of the technology that was learned on the expensive works hardware was passed on to the '83 version of the CR250.

HITTING THE SCALES

The clear trend this year seems to be to get the weight of the 125s and 250s down to the FIM/AMA limits. Honda claims a dry weight of 212.8 pounds. Last year's bike had a claimed weight (again, dry) of 219.4 pounds.

When we put the new CR on the revoltingly accurate and recently repainted DB scales (accurate to .000782 nautical mile, more or less), they showed 220.5 pounds, with oil in the forks, water in the radiator and oil in the gearbox. No gas was in the tank at the time of weigh-in.

Allowing for the various needed fluids and such, Honda's weight claims are in the ballpark, but a bit optimistic. The bike is light and, more importantly, feels lighter.

A great deal of attention has been paid to getting the weight positioned as low as possible. In fact, some of the works bikes have heavy steel plates under the frame rails to bring them up to the required weight minimums.

Honda has incorporated accepted and new methods of getting the weight down . . . and down lower. Liberal use of aluminum and magnesium alloys helps. So does making larger tubing with thinner walls.

Simple things like lowering the twin radiators 50mm all add up to less, right where it counts. Even the gas tank is shaped so that a fairly large amount of gas is carried as low as is feasible. One example: The gas petcock is mounted a mere four inches from the top of the carb.

Details also help shed pounds. An aluminum muffler, shift lever and kick-starter are part of the package. And, as per standard practice, the swingarm, links and torque arm are all aluminum alloy.

HONDA CR250R MOTOCROSSER



Hannah at work on our 250 Honda test bike.

NEW THINGS, FEATURES, GOODIES & TRICKERY

In no particular order, here are some of the biggest changes from the 1982 bike to the new CR250.

- Right off, you can spot the electric blue safety-type seat.

- Fresh plastic, including side panels and a reshaped gas tank, give the bike a 'works' look.

- The pipe has been redesigned for more low-end and mid-range torque. It's also tucked in better on the left side, but still hangs way too low on the headpipe section forward of the frame rails. Plan on seeing more than a few dings there.

- Forks are 43mm and have a different compression damping adjustment setup. Now there are 14 clicks available instead of just a few. Travel is right at 12 inches.

- Big changes at the rear end, too. Now the damping is adjustable on both compression and rebound. Last year's hopeless compression-only adjustment has gone the way of the 23-inch front-claw-action tire.

- You'll find 20 rebound adjustments and 12 compression damping adjustments. Travel is just over 12 inches.

- A new reed valve is said to be more sensitive to low pressure pulses, while resisting flutter at higher revs.

- The aluminum silencer you already know about. This will not make the accessory people very happy.

- A new frame, with a very sharp 26.9-degree steering angle, helps with the steering.

- For the first time in two years, they do not have a stupid front numberplate. Small victories, eh?

- The whole rear section comes off like a KTM, so you can get to the shock easily, or service the airbox properly.

- The flow rate and circulation pattern of the twin radiators has been changed. Twin outlets increase flow speed and the result is better cooling.

- Straight-pull spokes make for increased wheel strength.

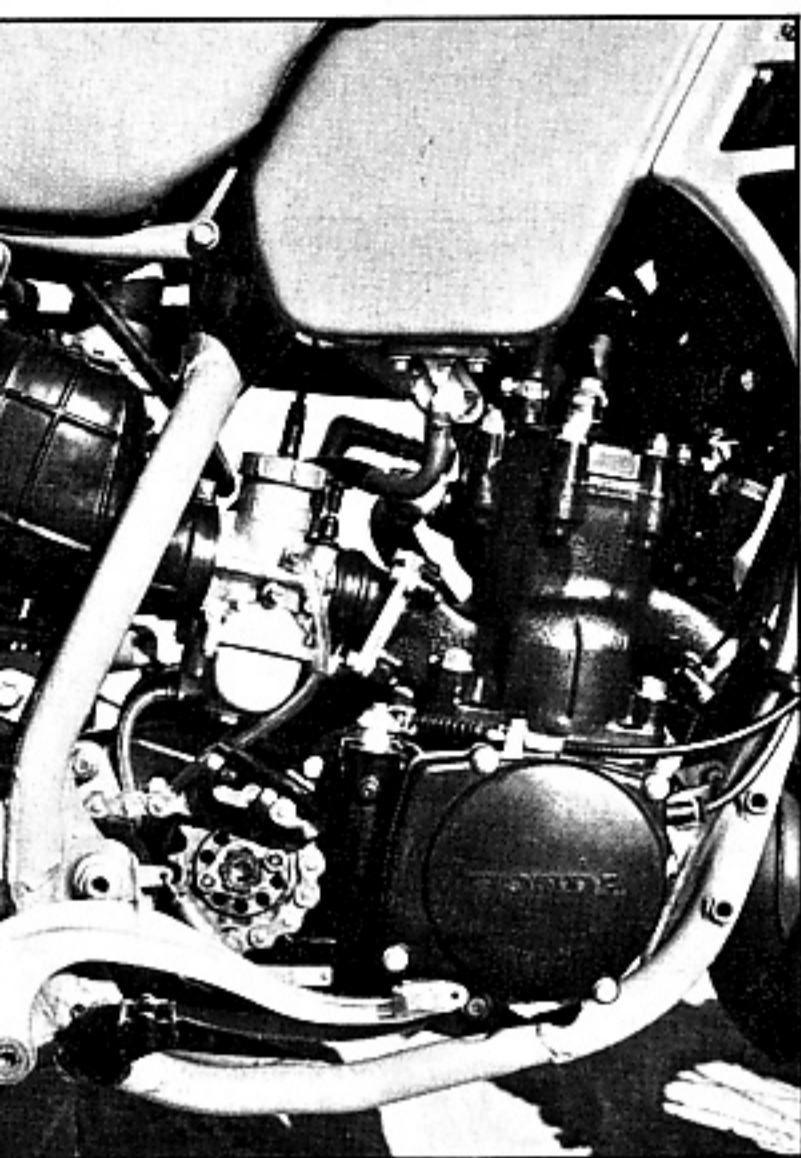
SHARP & SHAKY

If any one thing stands out in that impressive list of changes on the new bike, it has to be that incredible figure of a 26.9-degree rake. Combined with a smallish 4.1-inch trail, it's obvious that the Honda geometry approach has been to make the bike a cornering fanatic.

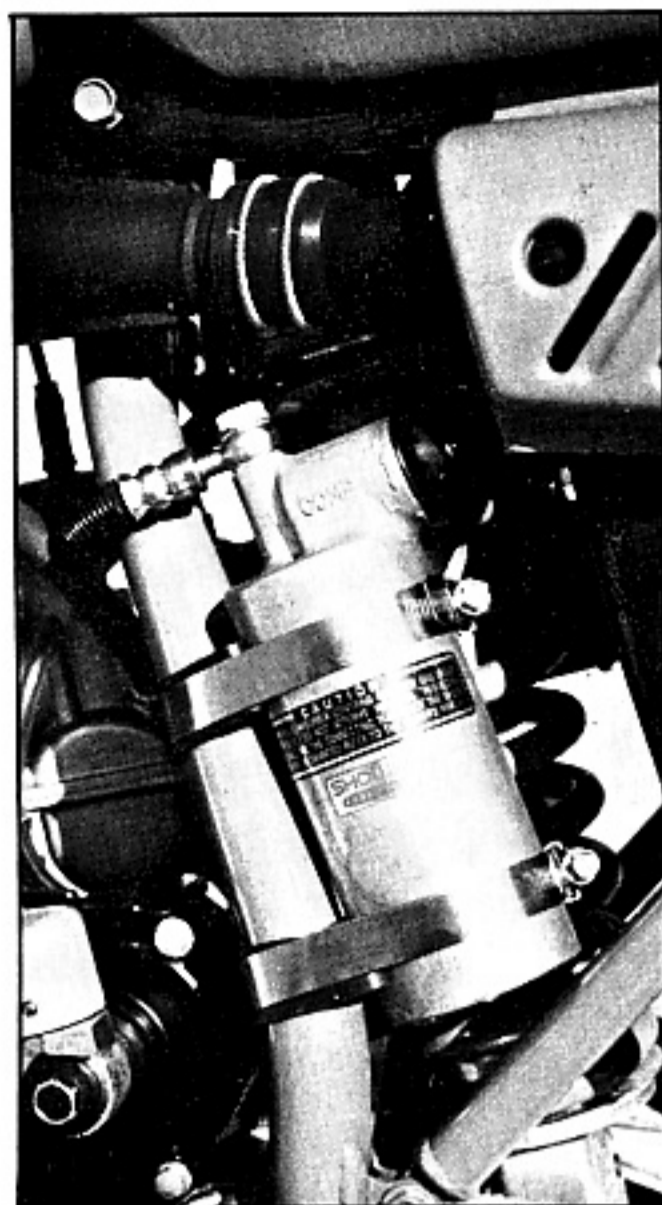
And, in truth, the Honda knifes through the turns with a razorlike precision that's hard—if not impossible—to match. We know of no other production bike with that sharp of a rake.

The CR250 can literally be flicked through the turns without the front end hinting of skittering to the outside. Combining this sort of steering geometry with the light weight and relatively low saddle height of 38 inches, all makes for comfortable directional changes.

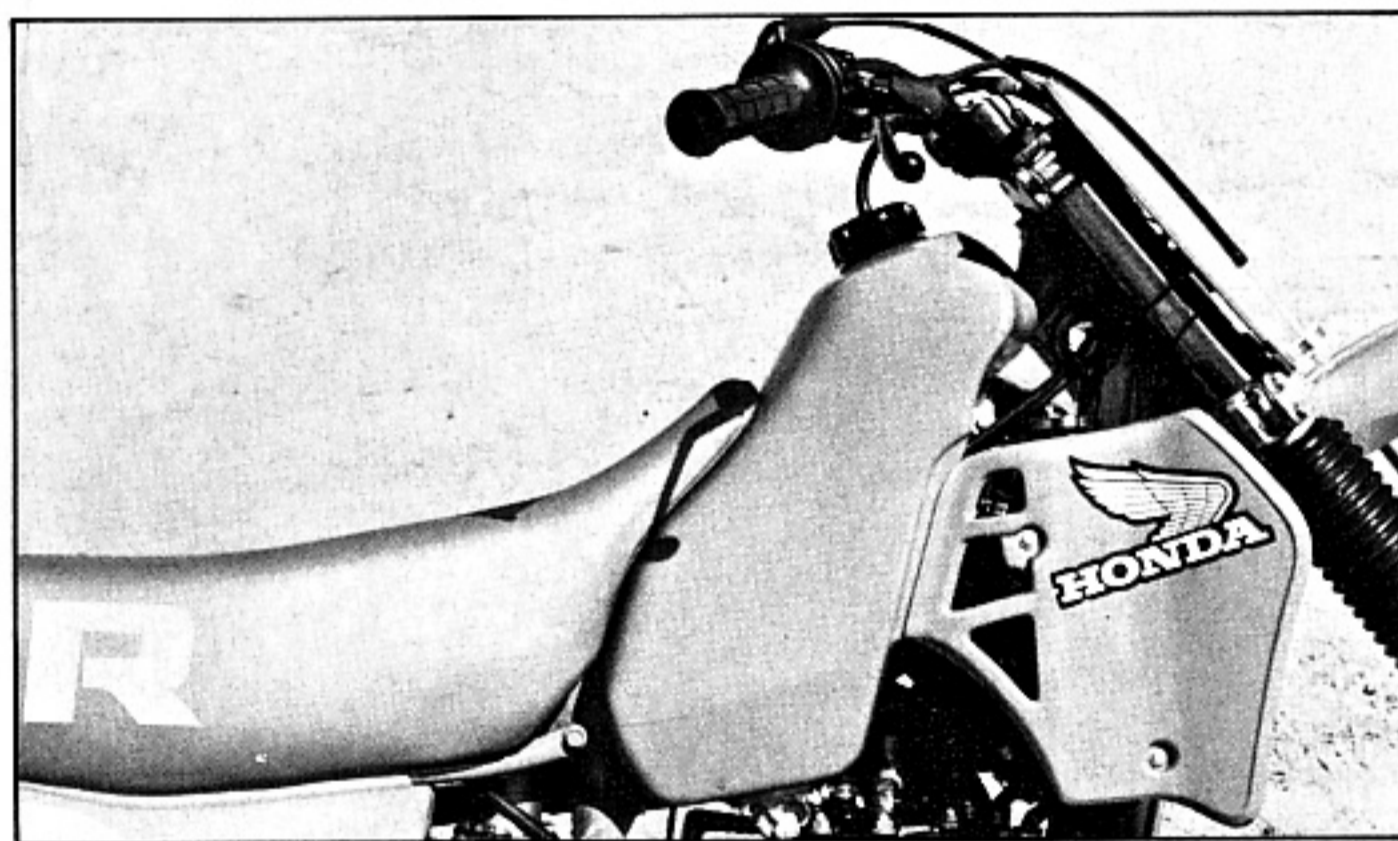
You pay a price, however, for all this nimbleness in the turns; and the price is spooky. The front end shakes badly when coming down from speed if the rider does



Compact water-pumper engine puts out smooth power from the lower revs all the way to red line. Vibration is almost nil.



Compression damping adjustment is a snap, with the clicker mounted on the reservoir.



Extra effort went into locating the existing weight as low as possible. Radiator and gas tank location and shape assisted in the lower C.G.



The Hurricane took the CR250 to the ragged edge repeatedly, without a bobble.

not have his weight very far to the rear. Even with the proper rider position, the shake is merely reduced, not eliminated.

When braking hard into a set of whoops, the Honda becomes a handful. Even at higher speeds with the power full on, the CR250R moves around a great deal. Constant corrections have to be made and the front end deflects easily when ruts are hit. There's very little self-steering effect.

Still, at low and medium speeds, the quickness is a virtue. This is one bike, though, that would not be happy with a larger countershaft sprocket at a Grand Prix. All things considered, the handling must be considered 'Supercross bred.'

THE MOTOR ELECTRIC

The delivery of the Honda powerplant is perhaps the smoothest of any 250 we've ridden to date. It pulls clean and crisp from the bottom and builds, without any lurches, through the mid-range. Then it revs out nicely, without any wheel-spinning antics.

The power is so smooth, it's deceptive. You move forward quickly and hook up cleanly. For such a fast bike, the power is easy to live with. A Novice could hop on it

and ride it without being intimidated, yet it's fast enough to win in the Expert class.

One test rider said it felt more like an electric motor than a gasoline-powered engine. No vibration comes through to buzz or bother the hands.

Because the power is spread out thoughtfully, the rider can short shift the engine when needed, or brutally overrev, if necessary.

SUSPENSION: MAXIMUM ADJUSTMENTS AVAILABLE

You already know all about the adjustment features. We were able to dial in the rear end to our complete satisfaction without much time or trouble spent, but we never achieved complete satisfaction with the front end. The forks reacted well to small and medium bumps, but felt harsh on sharp-edged ruts and G-outs. They also didn't appear to soak up the truly hard hits as well as we would have liked. A certain amount of shock was transmitted to the rider's wrists. We'd have to rate them better than the 1982 forks, but not by any great amount. Honda has still not yet built a set of forks that we'd write home to Mom about. Close, but no banana.

The rear end was plush, yet firm enough to keep from wallowing. We especially liked the external adjustment on the shock reservoir. It was easy to reach and definite damping changes could be felt when the clicker was moved. We'd have to rate the rear end as vastly improved over the boinger of last year.

As the shock got hot, it seemed to start rebounding a fraction too soon, but that could have been rider fatigue on our part. We'll find out more about the durability and fade qualities of the Pro-Link shock for 1983 as we race test it throughout the year.

WHAT WORKS BEST ON THE 250

Fork tuning is a personal thing, but here are some solid starting points that seem to make a lot of riders happy.

Bel-Ray LT 5 fork oil, 172mm from the top, with the springs out and the forks collapsed. Compression damping should be set on nine (screw it in and back it out nine clicks), no air in the forks.

At the rear, try it first with both the compression and rebound on the softest position. Spring preload is critical. Back off the adjuster quite a bit at first (let the

HONDA CR250R MOTOCROSSER

rear end sag as much as four inches), then take the preload in one-half turn at a time until the steering improves to your satisfaction and the rear end stops bottoming.

Lighter riders might be happy with the stock 6.0 kg spring. Aggressive and heavier riders will want the optional heavy 6.4 kg spring and will have to repeat the preload procedure.

BITS AND PIECES

This was the smoothest and easiest-shifting Honda we've ever ridden. A nudge at the lever was all that was needed. The throw was short and positive.

Brakes up front were strong; so strong that they took some getting used to. The rear was a bit odd. When adjusted loosely, the rear wheel tended to lock up prematurely. When snugged up tight on the adjuster, it took a lot of pressure to slow down the rear wheel. Perhaps the new

shoes need some seating-in time.

Layout is good and fits most riders properly. The bars (personal preference, of course) were too high for all of our test riders. Peg location is also a full inch higher off the ground than several other bikes we had with us.

The safety saddle does not interfere with the rider getting forward on the tank.

BUGS

Glitches are few on the Honda. Attention to detail is unbelievable.

We'd like to see an adjustable rebound feature on the forks and the elimination of the compression adjustment.

Clutch feel is marginal, with engagement accomplished over a fairly narrow range.

The kickstarter is placed very high. Get on a crate to bang it over.

The inner housing of the front brake

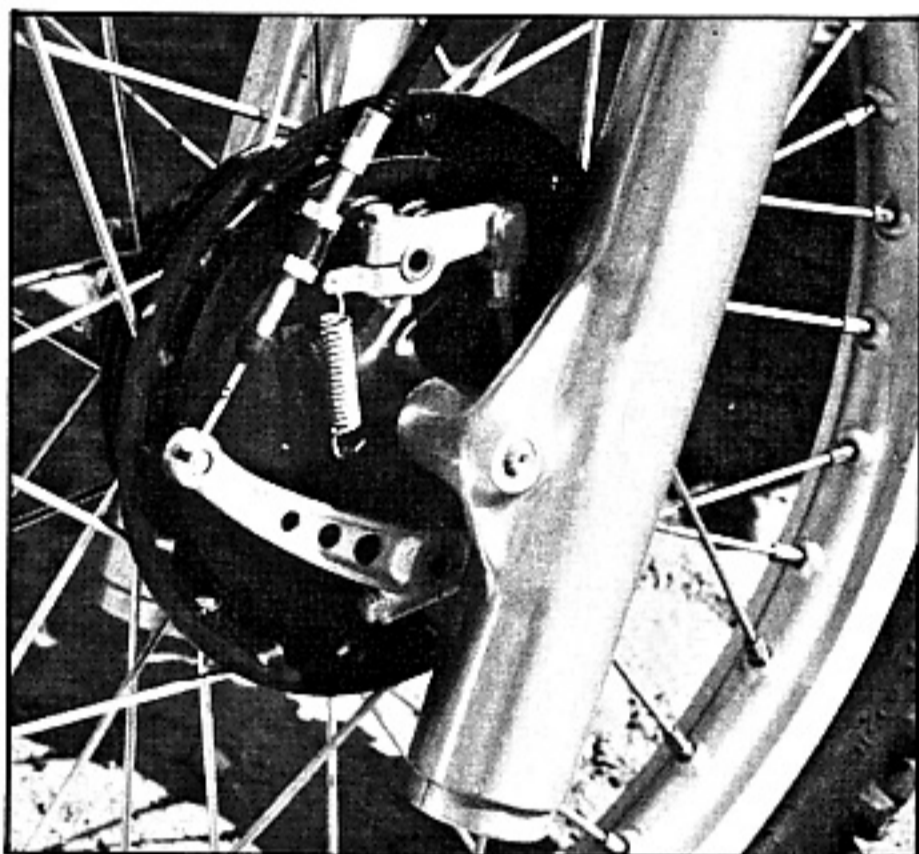
cable tends to slip out of the clamp on the fork leg and tightens up on the front brake adjustment. Safety-wire it into place.

End of nit-picking.

WHEN PUSH TURNS TO SHOVE

Obviously, the new Honda is enormously improved. It's light, fast and as smooth as a sewing machine. It's a no-compromise motocross bike. You can forget using the CR250R for just about any other sort of racing. But then, Honda made this machine for a reason: to win at motocross—specifically the new style of motocross: tight, twisty tracks, with wild jumps and wall-like berms.

It's clearly a solid, technically advanced machine. We have only one question: How will it stack up against the full house of other radically improved 250s that we'll test in the months to come? The 250 shoot-out should be closer, tighter and tougher than ever in 1983. And they'll all have to face up to the total commitment from Honda. □



Superior front brake was a one-finger-stopper, due to the double-leading shoe arrangement.



Worm's eye view of the rear end shows adequate clearance for the long travel. Box swingarm does not flex. Oval aluminum muffer gives good volume without taking up lateral space. Bike is extremely narrow.



1983 HONDA CR250R

ENGINE TYPE	Water-cooled, 2-stroke, reed valve, single
BORE AND STROKE	66mm x 72mm
DISPLACEMENT	246cc
CARBURETION	36mm Keihin
FACTORY RECOMMENDED JETTING:	
MAIN JET	160
NEEDLE JET	2.9
JET NEEDLE	28P-3
PILOT JET	N/A
SLIDE NUMBER	N/A
RECOMMENDED GASOLINE	Premium, 92+ octane
FUEL TANK CAPACITY	7.5 L (2.0 gal.)
FUEL TANK MATERIAL	Plastic
LUBRICATION	Oil in gas, 20:1
RECOMMENDED OIL	Bel-Ray
OIL CAPACITY, GEARBOX	0.8 L (0.84 qt.)
AIR FILTRATION	Oiled foam
CLUTCH TYPE	Wet, multi-plate
TRANSMISSION	5-speed, constant mesh
GEARBOX RATIOS:	
1	1.800:1
2	1.470:1
3	1.210:1
4	1.000:1
5	0.833:1
GEARING, FRONT/REAR	14/52
IGNITION	CDI
PRIMARY KICK SYSTEM?	Yes
RECOMMENDED SPARK PLUG	NGK BR8EG, Champ QN-86, ND W24ESR-V
SILENCER/SPARK ARRESTER/QUALITY	Silencer only, fairly quiet

EXHAUST SYSTEM	High pipe, left side
FRAME TYPE	Single down, split cradle
WHEELBASE	1480mm (58.3 in.)
GROUND CLEARANCE	340mm (13.4 in.)
SEAT HEIGHT	965mm (38.0 in.)
STEERING HEAD ANGLE (RAKE)	26.9°
TRAIL	108mm (4.3 in.)
WEIGHT, DRY, OIL IN FORKS AND GEARBOX	220.5 lbs.
RIM MATERIAL	Aluminum alloy
TIRE SIZE AND TYPE:	
FRONT	Air/oil telescopic, adj. comp. damping, 305mm (12.0 in.)
REAR	Pro-Link, single shock, adj. comp. & reb. damping, 310mm (12.2 in.)
INTENDED USE	Motocross
COUNTRY OF ORIGIN	Japan
RETAIL PRICE, APPROX.	\$2218
DISTRIBUTOR:	

American Honda Motor Corp.
100 West Alondra Blvd.
Gardena, California 90247
213-321-8680

PARTS PRICES, HIGH WEAR ITEMS:

N/A at press time.

OVERALL RATING, 0 TO 100, VARIOUS CATEGORIES, KEEPING INTENDED USE OF MACHINE IN MIND:

HANDLING	97
SUSPENSION, FRONT/REAR	95/97
POWER	97
ATTENTION TO DETAIL	99
EFFECTIVENESS, STONE STOCK	97.5