

DIRT BIKE

APRIL 1983 • \$1.75 UK £1.10

HONDA CR480R: THE ONE TO BEAT

HONDA CR250 MEETS ITS MATCH!

SUZUKI PE175: HOW LONG WILL IT FLOAT?

ANDRE
MALHERBE

FREE 1983 RACE CALENDAR INSIDE

YOU CAN
WIN THE
NEXT FREE
HONDA
pg. 59

ALL-NEW KTM 250!



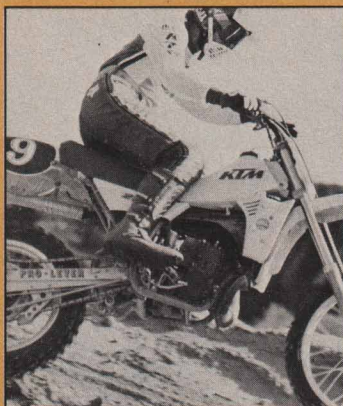
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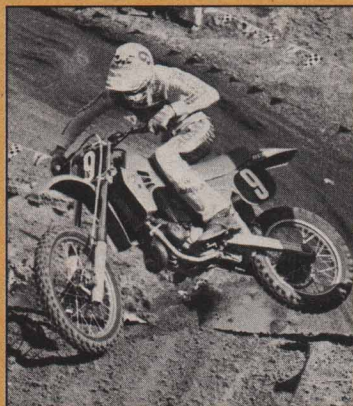
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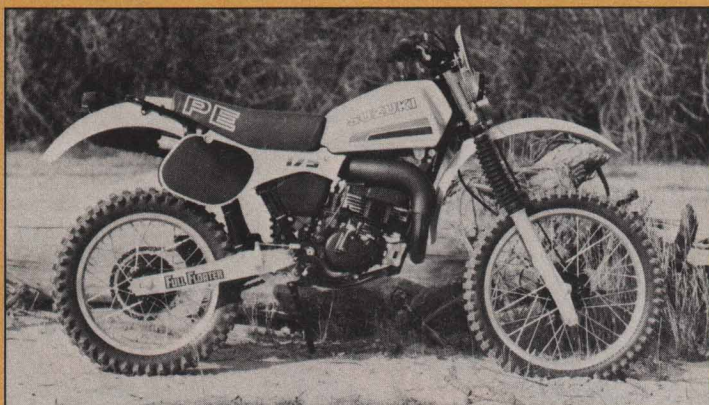
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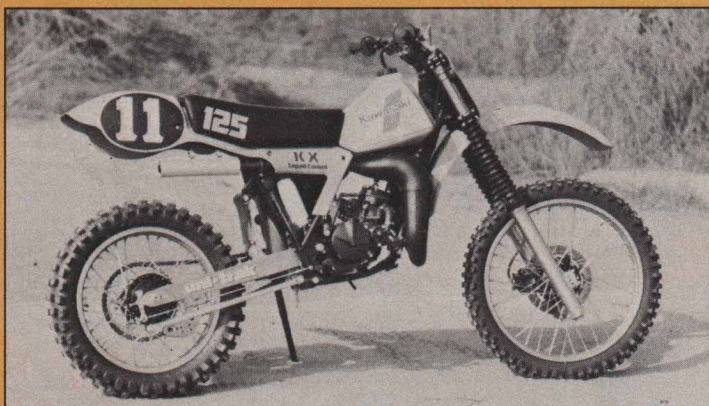
KTM 250MX



RACE CALENDAR



SUZUKI PE175



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ON THE COVER:—Andre Malherbe gets frisky on our CR480. By the way, he liked the bike. Photo by former sign painter S. Hunky. Color separation by Valley Film.

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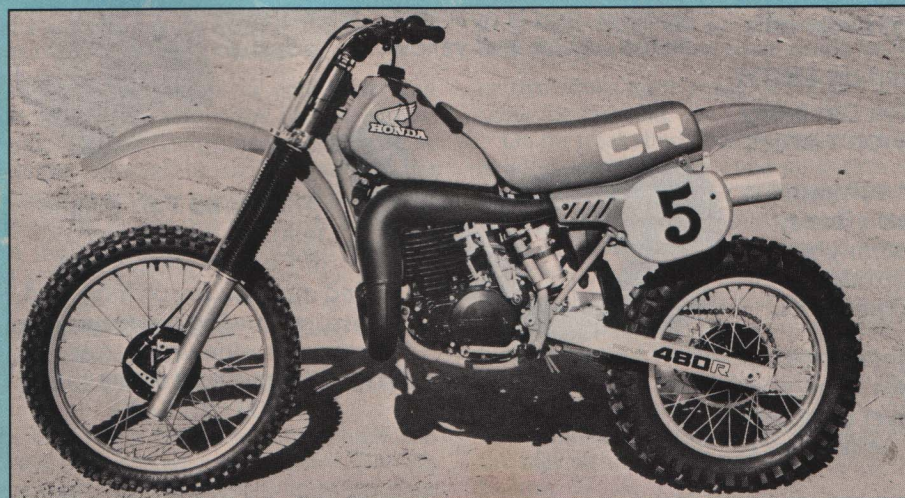
FIRST BLOOD

Big Red strikes hot, fast & furious

By the Staff of DB



For an Open motocrosser, the CR480 has tons of low end. Just a snap of the throttle will whip you out of a sandy turn—explosively!



Although stylish and clean looking, the fenders allowed debris to be flicked up on the bike and rider. We eliminated part of the problem by installing a Gold Belt DeFender on the front.

Time fades away, but life for the Honda engineers never stands still. Their '82 480 was, bar none, the best Open motocrosser available to the public. It was easy to ride, handled well, had a strong motor and a four-speed trans that worked well on a motocross course. Finding fault with the machine proved to be a task, and basic nitpicking was tough even for the *DB* staff.

Several months ago we caught a glimpse of the '83 version. Cosmetically, very little appeared changed. Small details, but nothing that looked earth shattering. Well, even we can be wrong—sometimes. The new 480 had gained a gear, gone on a diet, received a boost in the power department and improved track manners. A whole new ball of wax, so to speak.

FIVE-SPEED CHARMER

As most of you have figured out by now, *Dirt Bike* isn't real fond of any Open bike fitted with a four-speed gearbox. It might work perfectly on a motocross track, but it just plain limits the use of the bike in other areas. Desert, trail and your basic fun riding are all but thrown in the wind with a four-speeder. Specialized machines for every aspect of the sport are a waste for Mr. Joe Average rider. And we agree with Mr. Average.

Honda decided to add a fifth gear to the 480. Although we'd like to take credit for the change, it wasn't our constant harping that motivated them. They tested both a four-speeder and a five-speeder. Lap times were taken on a multitude of tracks. Simply put, the riders went faster on the five-speed bike. Thus, major retooling became a must. An expensive update, but a very worthwhile one. Now the motocrossers are happy and the riders interested in versatility are jumping for joy.

CUT & THRUST POWER

Somehow, the engine was designed with everyone in mind. It pulls strong and clean very low, then snaps hard and fast through the mid-range into the upper Rs. Again, it flattens out earlier than we'd like. Still, by short-shifting and getting in a gear higher than seems right, it cracks out a thrust that rockets you from turn to turn. This bike refuses to be revved hard and long; it falls on its face with this riding tactic. Enter a turn, upshift and peg it.

If the bike had been fitted with heavy flywheels, you'd think it was an enduro bike. Light flywheels, gobs of torque and

a ferocious hit in the mid-range give the engine an easy-to-ride appeal for the average rider, yet let the Pro whip off some serious lap times. You want to go fast, hit it harder and sooner. Then shift. From turn to turn, the bike is as fast as anything going.

In an out-and-out drag race with the Maico 490 Spider, the Honda lost, but not by much. Through the gears the Maico would pull it by about a half-bike length. That's it. Starts never required the use of first gear. We always got off strong using second. Once over the gate, shift immediately.

We also took the CR out for a trailride in our local mountains. The terrain rang-



Now a five-speed, the Honda is versatile because of the torquey motor and the new gearbox. The shock features both adjustable compression and rebound damping.



Watch the rear sprocket, it wears quickly. All of the running gear is very factory looking. The rear brake adjusts at the end of the cable, near the pedal. Loosen the jam nut and then dial in the amount of play you want in the brakes.

ed from fast desert to tight first- and second-gear stuff. In the narrow enduro trails, the low first gear combined with the torque allowed us to navigate all the obstacles without a problem. It pulls plenty strong for the real slow, tight and twisty trails. The light flywheels did make for a stalled motor on occasion, but still the trip proved that the engine is versatile enough to do any type of riding, not just motocross.

SUSPENSION UPDATE: CLICKS THAT SWITCH-HIT

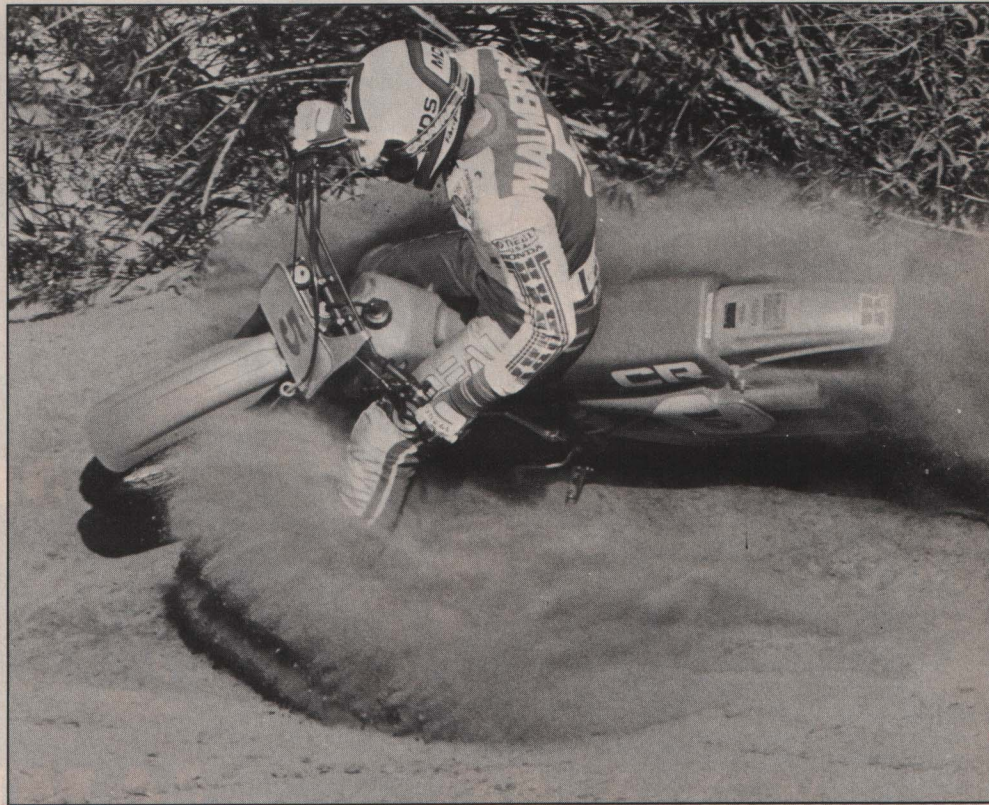
This year's forks are Showa-made and have 14 compression adjustments. The '82s had only three compression clicks and none of them seemed to affect the action. In stock form, the forks came with eight-weight oil, 196mm (7¾ inches) from the

top of the tubes, with springs out and forks collapsed. With the input from Honda's support team riders, we changed it to ten-weight Bel-Ray, 170 mm (6¾ inches) from the top. Run the compression adjustment at six clicks. It's located under the slider, covered by a rubber plug. First screw it all the way in, then back it out six clicks.

The shock too has been updated. It now has both adjustable compression and rebound damping. There are 20 clicks of rebound and the same number for compression. We got the best results with the compression set at zero, the rebound at zero, one, two, or three. This is for riders weighing from 150 to 180 pounds. Heavier riders will need a little more preload, one

provement. Adding ten millimeters to the oil level (making it 160mm from the top) helped, but didn't eliminate the problem. You just have to live with them.

The back half of the suspenders feature a multitude of adjustments, most of them right at your fingertips. As we said before, our best results came with almost no compression damping, very little rebound damping and all the emphasis placed on the correct amount of preload. This affects the way the bike steers and how stable it is at speed. Not enough preload makes it wander and wash in the turns. Too much makes the front end knife under, and fast sections scare you senseless because of the headshake.



Andre Malherbe rode our production bike and felt that the motor was perfect. The only changes he would make would be in the suspension department.

or two clicks more compression and the same for rebound.

On the track, both front and rear action is good. Actually, it's quite an improvement over the '82 CR. The Showa forks' strong suit is in their ability to take the small jars and medium stutter bumps. They work smoothly, don't wrench the rider's arms with harsh action and perform the way you'd expect them to. Their drawback is in taking the hard hit. In comparison to a YZ, they plain hurt your wrists. Dialing in more compression damping stiffens the action throughout the range, taking away the nice virtues they have on the smaller bumps.

Supposedly, the forks are exact copies of the works Showa units. This may be the case, but we still think there's room for im-

Dialing it in is easy. First, set the bike straight up, with the suspension unloaded. Measure from the rear axle to the seat bolt. Then sit on it with your feet on the pegs and measure it again. There should be 90mm to 96mm (3½ to 3¾ inches) of sag.

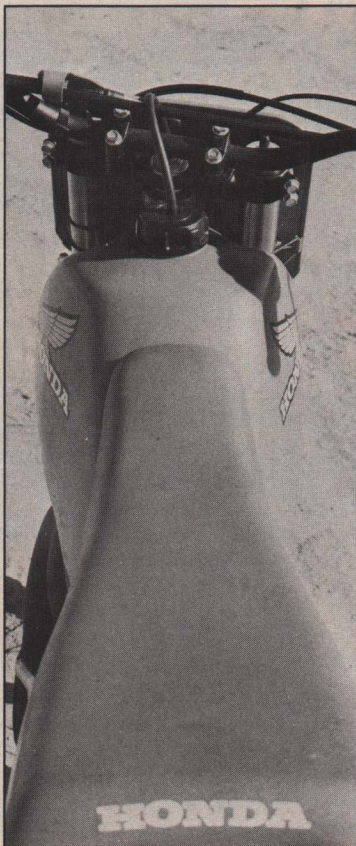
NIMBLE TRACK MANNERS

One lap around the track is proof enough that the CR is the best-turning, lightest Open bike this year. With a 26-degree rake and a dry weight of 226.5 pounds, weighed of course on the resoundly accurate and toxic-free DB scales (accurate to plus or minus .0000019 streebles per whangpo, at 1350 feet above sea level on a balmy afternoon at or around 3:47), the Honda feels more like a 250 than a ponderous Open bike. It can be flicked around in a way that's ridiculous for a big-bore

1983 HONDA CR480R



Throttle, levers, grips and cables are all super deluxe. No one complained about their action.



The tank is slim; this combined with the seat made for easy rider transitions. Shifting your weight around is smooth and natural.

Overall, the CR is the lightest Open 'crosser out. Jumping it felt more like flinging a light weight 250 around than the normal porker 500.



motocrosser. Lines can be changed in the turn if the need arises.

Consider this: The CR250 weighs in at 220.5 and is one of the lightest 250s of the year. With gobs more power and only six pounds of additional weight, it's easy to see why the 480 feels *sooo* good. Honda also tried to keep the weight low. The tank is designed like the works bikes, carrying the fuel down low on the right side. There is no top-heavy feel to the 480.

As with all good things, there are always a few glitches. Headshake when coming down from speed is noticeable. The sharp rake is the reason. It's even more pronounced when there's too much preload. Setting up the shock right is *critical!*

After the 20-minute mark, the shock starts to fade. It doesn't completely go away, but a strong rider can feel it wane. The folks at Works Performance are already working on a remedy: a bigger reservoir with dual lines that circulate the oil.

BITS & PIECES

Since saving weight was a major concern this year, many pieces normally made from steel were constructed of aluminum. All the Pro-Link levers are now aluminum, as are the kickstarter and the muffler. Bridgestone tires also saved weight and not at the expense of traction, either. They work well, especially on hard-packed courses.

The steering stem is aluminum, the footpegs are steel (rather than cast-iron) and the torque arm is machined from aluminum stock.

Neat items are the Jaws rims. They are serrated to help grip the tires better and keep them from spinning. Also, they're very strong. Both hubs feature straight-pull spokes. When new, check them constantly. They loosen a lot. The front brake is again a dual-leading shoe stopper, but the lever ratio has been lightened, making the brakes more progressive and not quite as vicious.

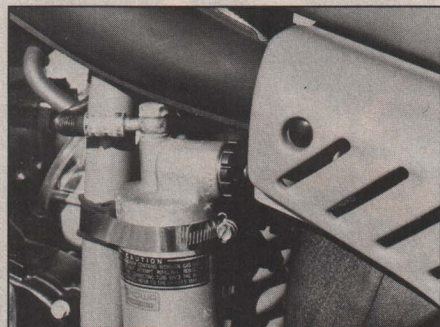
We did very little in the jetting department. All that we changed was the main, from a 180 to 175. This cleaned it up just fine. Access to the carb is tight. By unbolting and removing the back half of the



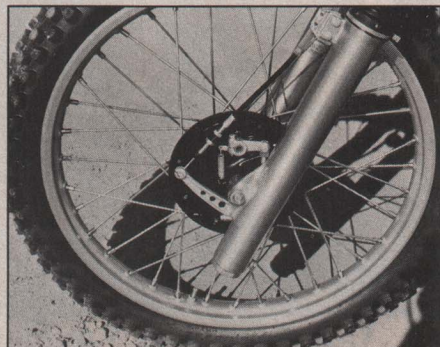
1983 HONDA CR480R



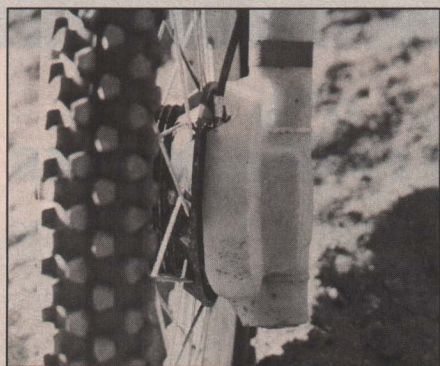
A sharp rake (26 degrees) makes for a quick handler. Slamming into a berm at speed requires a properly timed blast of throttle to keep you from plowing under.



The exposed part of the pipe, just to the left of the side panel, will burn the rider's leg. On top of the reservoir is the compression adjuster.



Up front, the Bridgestone tire works fine, especially on hard tracks. A different ratio on the front brake makes it a more progressive yet still strong stopper.



To keep garbage from collecting in the front brake, we installed a set of HPS guards. They are light, mount in seconds, and really protect the brake gear.

bike, the chore is made easier. This takes about a minute to do; all that's needed is the removal of the three bolts to take off the seat.

The pipe is a two-piece slip-fit unit. When the rear frame section is taken off, the pipe just slips apart. Sano. There is only one mount up front; it vibrates considerably. Also, the side panels are short, leaving the midsection of the chamber exposed. This is right where the rider's leg rests; the result is a hot sensation. A heat shield would be handy.

Some riders are experiencing breakage with the kickstarter. The knuckle splits, leaving the bike kickless. Starting the 480 is somewhat awkward, as the start lever is placed high.

We had no complaints with the bars, levers or throttle action. All are top-notch and very easy in the pull department. The safety seat flows onto the tank nicely, making for a natural feel when transferring your weight forward. Some of the testers

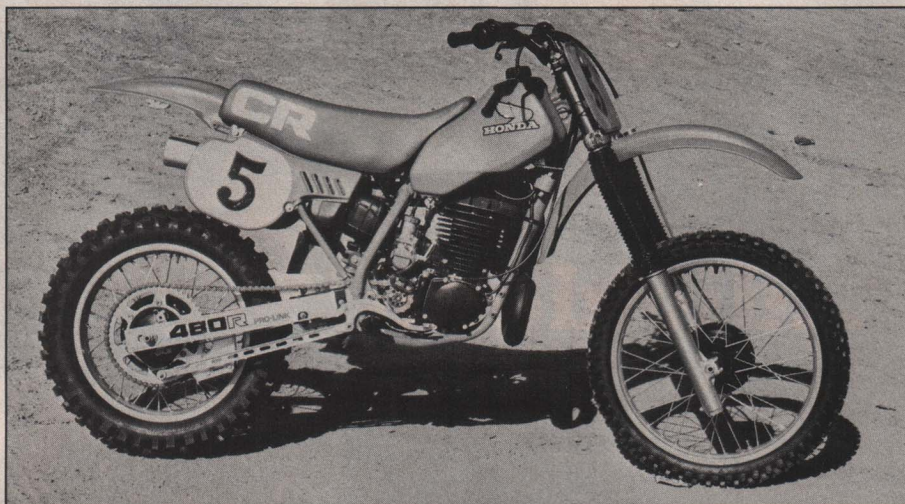
feel that the foam was too soft and rolled over when leaning the bike.

Expect very little life out of the rear sprocket. It's aluminum and wears quickly. A little more of the "give-and-take" theory when it comes to saving weight.

We cut a slot in the right side of the airbox to help it breathe better. It helped. The filter is easy to get to and is held on with a wing bolt. Clean out the airbox before installing a fresh filter, as crud will fall inside because of the tight fit.

THE THIRD YEAR IS THE CHARM

Clearly, the CR480 is the most refined, best-handling Open Honda to date. Every year the bike gets better and easier to ride. Precise steering, good suspension, ultra-light weight and great course manners unaccustomed to Open motocrossers make it deluxe. Add to that a torque engine and five-speed gearbox, and you've got a versatile machine that anyone can ride, race or just plain have fun on. It's a winner all the way around. □



HONDA CR480R

ENGINE TYPE	Air-cooled, 2-stroke
BORE AND STROKE	89mm x 76mm
DISPLACEMENT	472cc
CARBURETION	38mm Keihin
FACTORY RECOMMENDED JETTING:	
MAIN JET	180
NEEDLE JET	2.9
JET NEEDLE	28G-3
PILOT JET	200
SLIDE NUMBER	3.0
RECOMMENDED GASOLINE	Premium 92-plus octane
FUEL TANK CAPACITY	9.3 L (2.5 gals.)
FUEL TANK MATERIAL	Plastic
LUBRICATION	Pre-mix
RECOMMENDED OIL	Honda oil at 20:1
OIL CAPACITY, TRANS.	0.9 L (0.95 qt.)
AIR FILTRATION	Oiled foam
CLUTCH TYPE	Wet, multi-disc
TRANSMISSION	5-speed
GEARBOX RATIOS:	
1	1.800:1
2	1.411:1
3	1.157:1
4	0.952:1
5	0.782:1
GEARING, FRONT/REAR	14/54
IGNITION	CDI
PRIMARY KICK SYSTEM?	Yes
RECOMMENDED SPARK PLUG	NGK BR8EG Champion QN-86
SILENCER/SPARK ARRESTER/ QUALITY	Yes/no/good

EXHAUST SYSTEM	Up-pipe, left side
FRAME, TYPE	Semi-double cradle
WHEELBASE	1485mm (58.5 in.)
GROUND CLEARANCE	340mm (13.4 in.)
SEAT HEIGHT	965mm (38.0 in.)
STEERING HEAD ANGLE (RAKE)	26°
TRAIL	98mm (3.9 in.)
WEIGHT WITH OIL IN FORKS AND TRANS,	
NO GAS	226.5 lbs.
RIM MATERIAL	Aluminum
TIRE SIZE AND TYPE:	
FRONT	3.00 x 21 Bridgestone M-33
REAR	1.50/80 x 18 Bridgestone M-32
SUSPENSION, TYPE AND TRAVEL:	
FRONT	Showa leading axle adj. comp. damping, 305mm (12.0 in.)
REAR	Pro-Link, adj. rebound and comp. damping, 315mm (12.4 in.)
INTENDED USE	
	Motocross
COUNTRY OF ORIGIN	
	Japan
RETAIL PRICE, APPROX.	
	\$2398
DISTRIBUTOR:	

PARTS PRICES, HIGH WEAR ITEMS:	
PISTON ASSEMBLY, COMPLETE	\$52.25
RINGS ONLY	14.42
CYLINDER	192.66
SHIFT LEVER	28.86
BRAKE PEDAL	29.60
FRONT SPROCKET	13.89