



500 SHOWDOWN

OPEN CLASS: CHOOSE YOUR WEAPONS

Which 500 is best?

□ Three Japanese-made open class motocrossers hit the starting gate for this year's open class shootout. Kawasaki dropped out of 500cc racing after the dismal success of the KX420, but is expected to release a new KX500 by the end of the year. When the average American motocrosser goes looking for an open class bike, he will find that Suzuki, Yamaha, and Honda hold the market advantage.

Which one is best? Should you spend your money on red or yellow? Is 490 faster

than 480? Can 465 hang in there when the going gets tough? Read on.

WHICH IS THE FASTEST?

Honda's new CR480R was the hands-down horsepower champ in the Oriental sweepstakes. The DeCoster-designed machine hit with abruptness and rifled into the first turn. No matter how many drag races to the first turn we did, the Honda always came out on top. It was the *only* bike of the three to have the power to make up for a bad jump out of the gate and still

beat the others to the first turn.

All three bikes have four-speed transmissions, and all three would be better off with five-speed trannies. Fact! Honda's gearbox worked well, as did the Suzuki RM465, but the YZ490 cogs weren't near as supple as its opponents. Both the Suzuki and Honda were geared for combat, while the YZ490 was overgeared by at least three teeth on the rear sprocket.

With the right gearing (46-tooth rear sprocket) the YZ490 could out-pull the



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In the open class Oriental sweepstakes, big bores and single shocks dominate.



Even cheaters couldn't beat the Honda's awesome 480 mill off the start. "Follow the leader, he's on a Honda" rings true on starts. If the Yamaha wasn't so over-geared it could have given the Honda a race to the first turn.

Suzuki RM465 up the start hill. Yamaha really missed the boat with the YZ490 motor. It is a definite step backwards from the YZ465 motor. Since the 1982 YZ motor is just an overbore of the 1981 motor, it is a case of playing marketplace gymnastics, instead of solid mechanical engineering. Although the YZ made much more power than the Suzuki RM465, the RM was a much better motor. The RM was smooth, subtle and easy to ride, whereas the YZ was a bear. Yamaha failed to produce a clean low end, and the YZ wouldn't rev

out. It made a chunk of power that lay on the band like a brick. You couldn't work with it, and it was too easy to work around it.

Suzuki's RM465 didn't play cubic centimeters this year, and because of that it isn't awesome in the pony department, but it has a sweet powerband. It picked up cleanly (drop the stock pilot to a 45) and revved out quickly. More like a vibrant 250 motor, than an open class monster, the RM was a joy to ride.

Honda has the most power. The CR is

the hardest hitting, most abrupt and two bike lengths better than anything else to the first turn. Suzuki's smooth RM465 got second place by virtue of its flexibility, ease of use, and willingness to hook up. Not a holed machine by any means, the RM is also the kind of motor that wouldn't flub a start so badly that you'd ever end up last. Yamaha is the kind of bike that you could end up last on. It shifted stiffly, made power in a weird part of the curve, had very little range and, although it is fast, it is fast in spite of itself.

OPEN CLASS POWER PACKAGES

HONDA CR480R	.....99
SUZUKI RM465Z	.....93
YAMAHA YZ490J	.....82

WHICH ONE HANDLES THE BEST?

Breaking handling down on the three Japanese open class bikes was easy because only two of the bikes handle—Suzuki and Honda.

Yamaha has built a bike that is a parody of everything that could go wrong in a handling package. It washed out in the turns, couldn't be whipped around berms, was too top-heavy to make stable cuts to the inside, had the nimbleness of a runaway locomotive, and felt heavier than steel and plastic could possibly be. Whoever did the proto testriding back at the Japanese factory ought to be forced to refund his paycheck for that period of time. The YZ490 doesn't have a single outstanding trait in the area of handling, but it does have a few all-time dismal ones.

Thus, in a two-bike category, the choice of Honda or Suzuki depends on the type of track you will be riding on. In all-around conditions (a variety of hard, tight, sand, mud and fast tracks), the Honda is the best handling Japanese-made open class bike. Suzuki likes tight turns, hard terrain and quick tracks. It had a tendency to shake the front end on fast whoops and rough tracks, and was better suited to making radical cuts and inside moves.

On a rough or sandy track the Suzuki would be hard pressed to keep the stabler, more conservatively appointed CR480 in sight, while on a hard, tight track, the Honda could stay within range of the quicker handling and more precise Suzuki. As a relative note, neither handles the *inside* as well as a Maico, or the *rough* as well as a Husqvarna.

500cc HANDLING RANKINGS

HONDA CR480R	.....94
SUZUKI RM465	.....90
YAMAHA YZ490	.....70

WHO HAS THE BEST SUSPENSION?

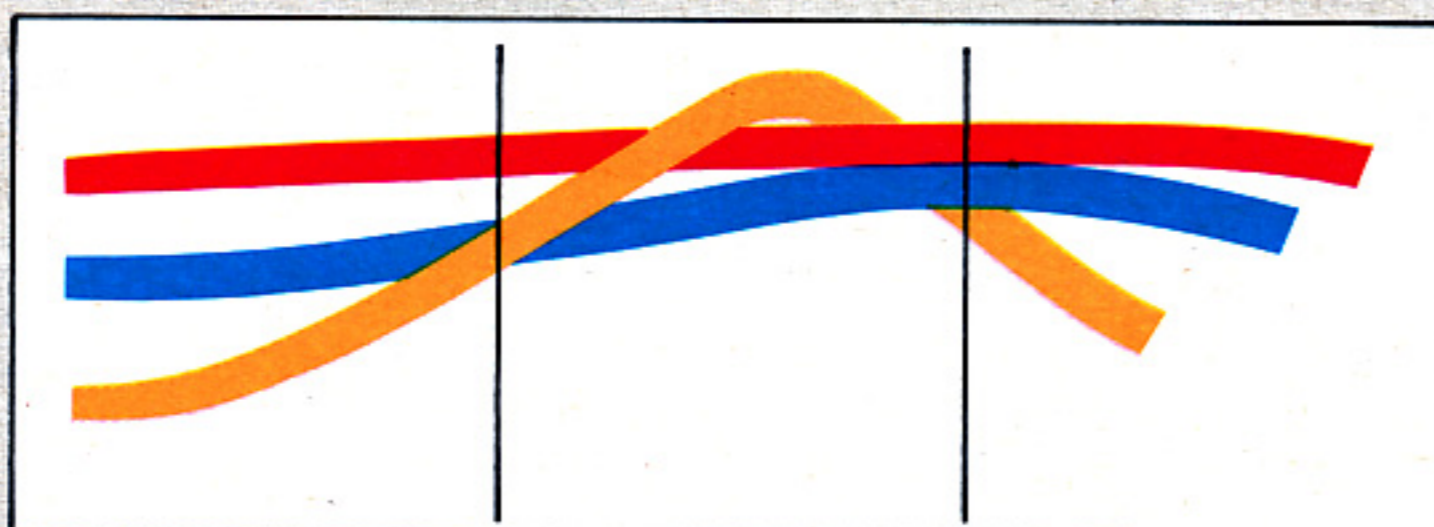
All three bikes buy their forks from Kayaba, and all three use 43mm tubes.

COMPARATIVE 500 POWERBAND CHART

Relative horsepower placement— not a dynamometer reading

LOW END • MID-RANGE • TOP END

HONDA
SUZUKI
YAMAHA

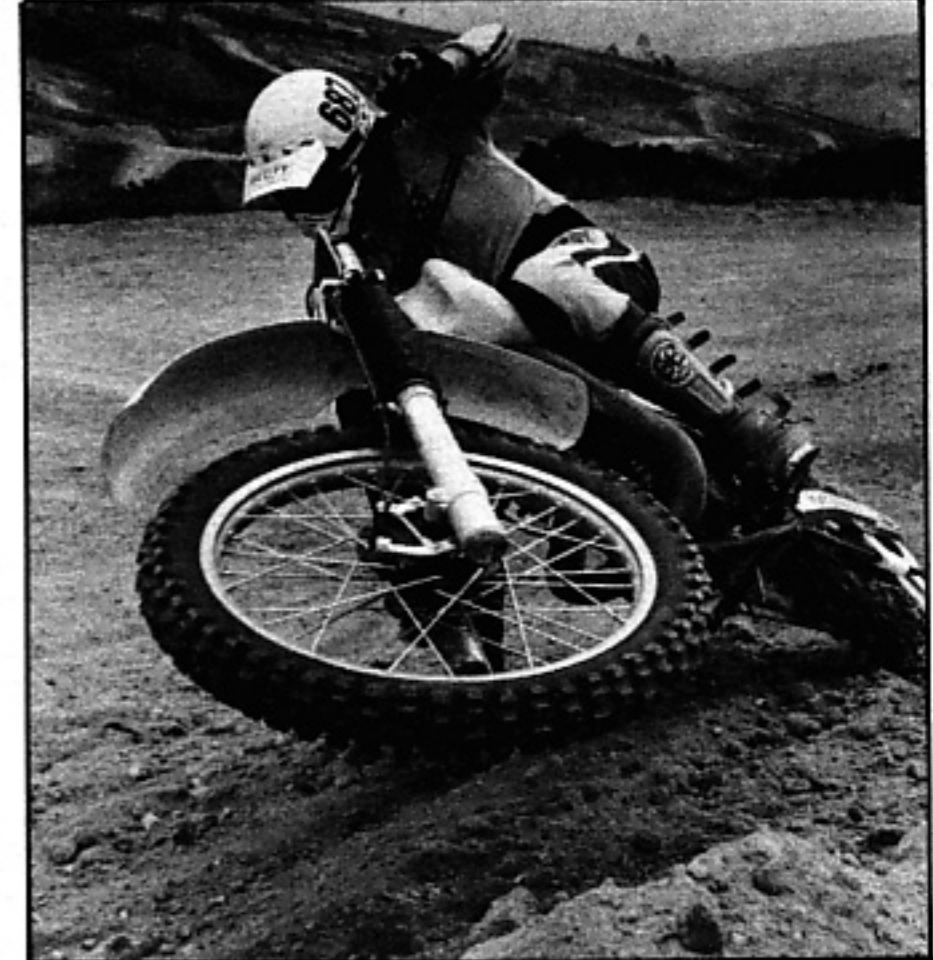




We noticed a tendency of the Honda's rear end to kick out off of jumps. This was disconcerting at times.



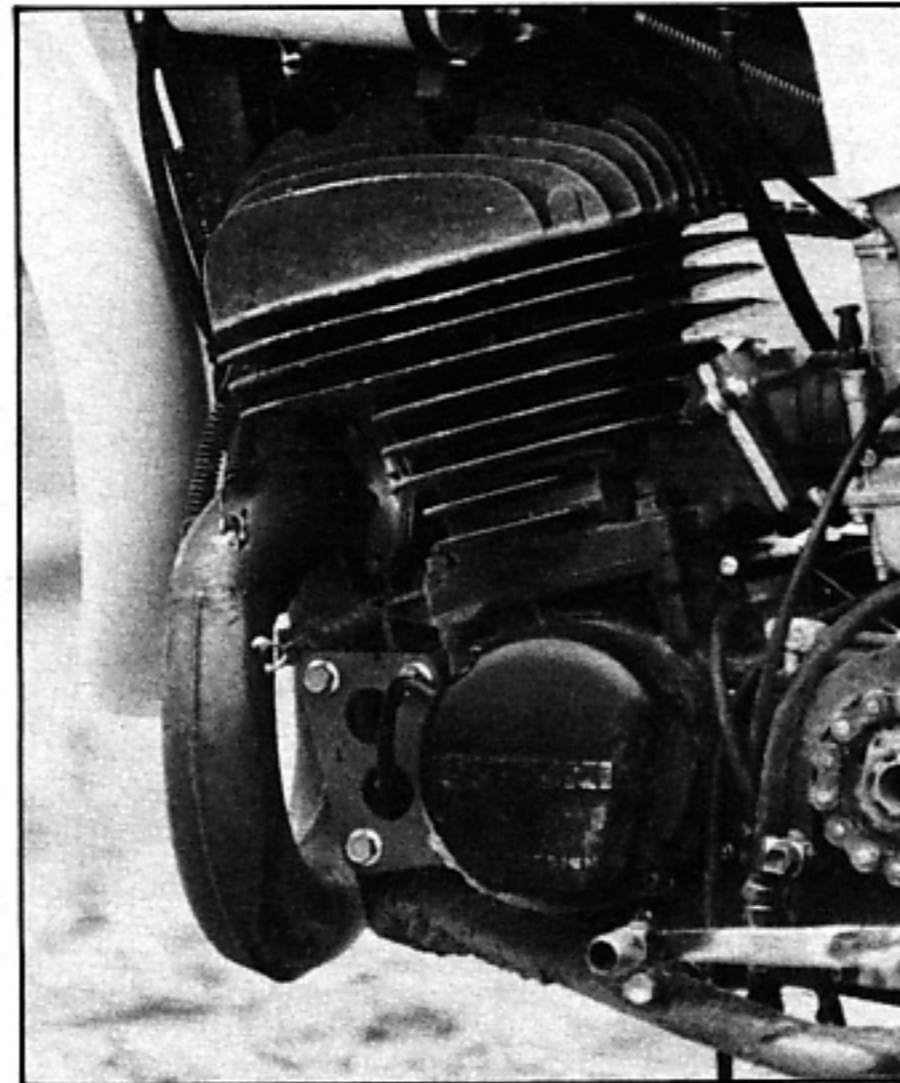
Suzuki's RM465Z was so light and feathery-feeling that it was more like an ultra fast 250 than an open bike.



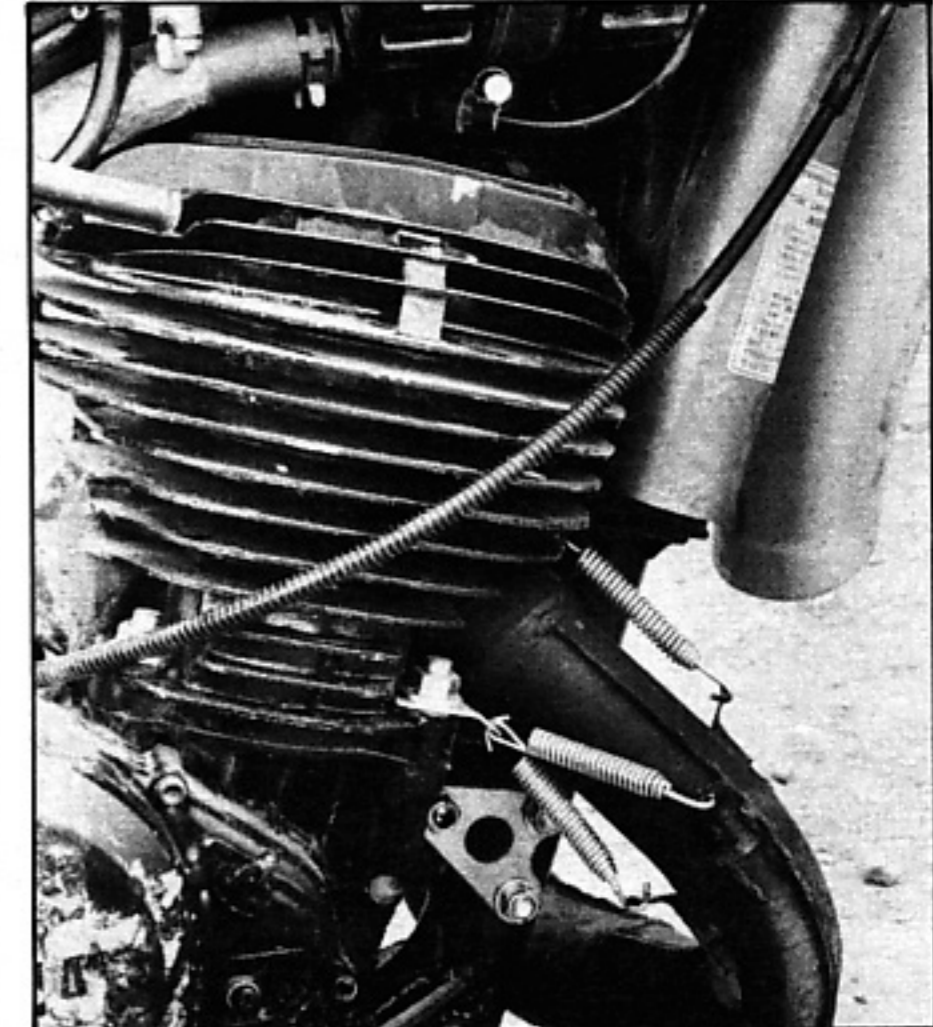
In spite of a totally revamped bike for 1982, Yamaha needs to hit the drawing rooms and do some further revisions on the YZ490. Sad, but true.



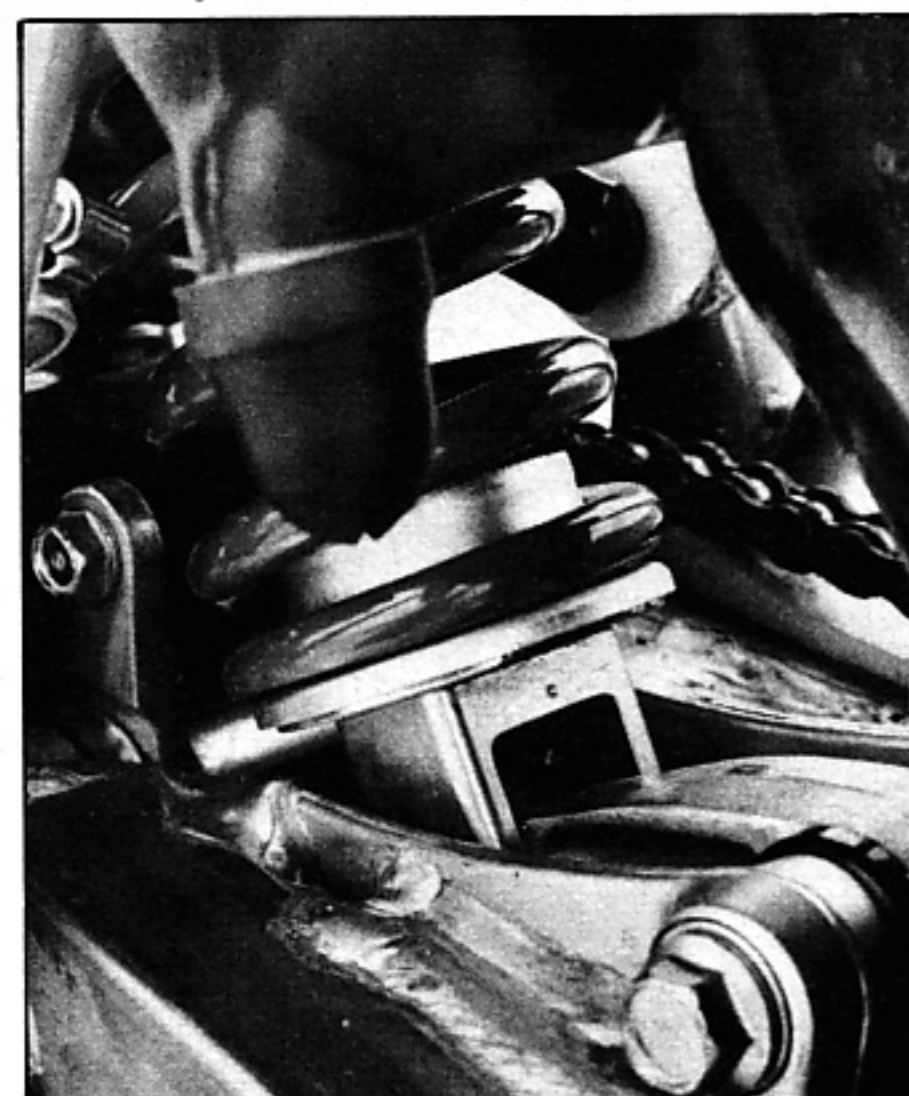
Honda is the hands-down winner of the horsepower derby. It hits hard, fast, and hooks up. The rest is up to you.



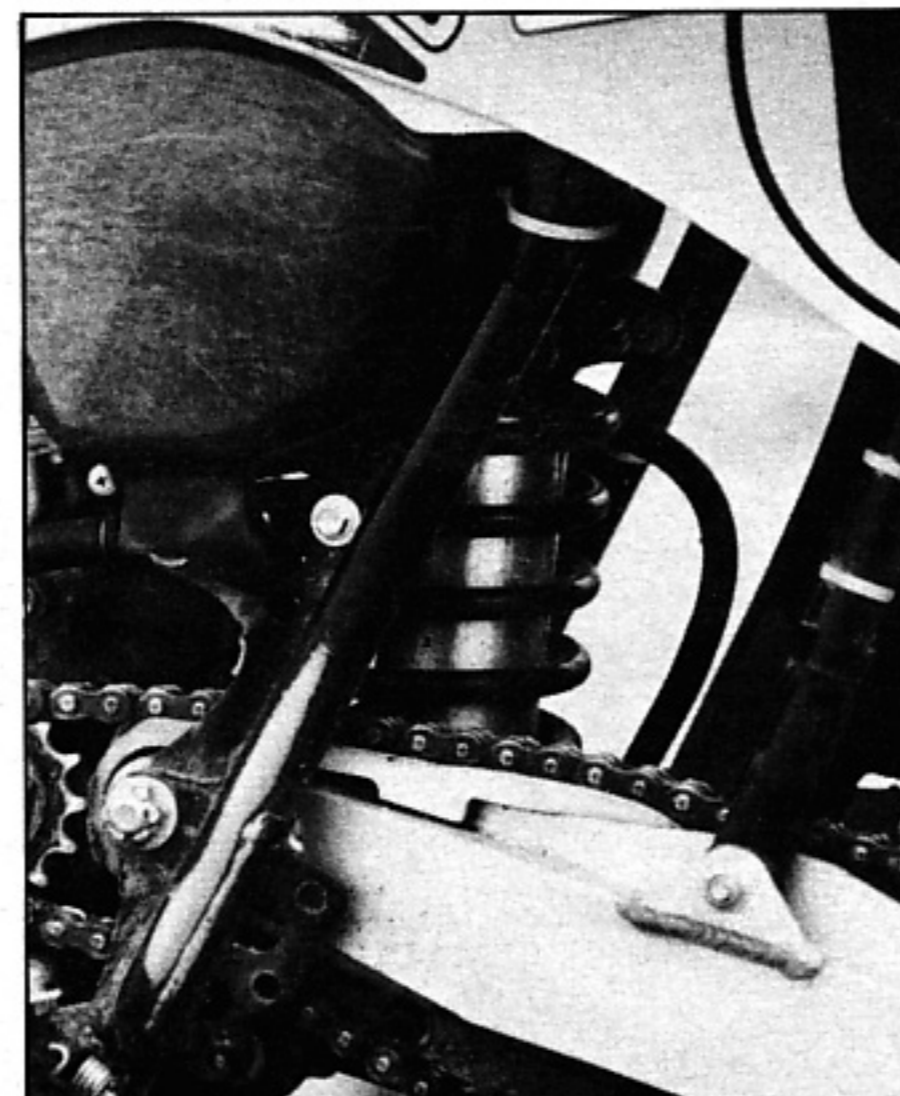
Smooth and steady, the Suzuki engine produces a broad, easy-to-ride power. Four-speed tranny works well.



Increasing the bore from 465 to 490 didn't necessarily make a good thing better on the YZ. Last year's motor was better.



Honda's Pro-Link Showa shock uses an externally adjustable damping clicker. New leverage ratios work surprisingly well.



Suzuki's Full Floater is the best of the rear suspensions. In two words, confidence inspiring.



Zerk fitting and a larger, more-easily-accessible damping adjuster are nice touches on the Yamaha.

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Suzuki, Yamaha and Honda all design their own damping and spring rates, so the forks are not identical, but the parts are interchangeable. If you were to isolate the forks from the rest of the bike and evaluate them, you would find Yamaha has the best damping, but the stock springs are too soft; Honda has a good set of forks with slightly more stiction than the other two, and Suzuki tends towards a softness.

Stock, with only a change of oil, the Honda has the best forks, with Suzuki second and Yamaha third. If you are allowed to change springs and oil, then all three forks come in for a tie.

FUTILE FORK FINALS

HONDA CR480	.....97
SUZUKI RM465	.....95
YAMAHA YZ490J	.....93

Rear suspension is easier to evaluate because the Suzuki RM465 has the best rear suspension. Although a tad firm, it responded the best to bumps of all sizes. Rarely did the Suzuki ever bottom harshly, and it never made violent kicks or bucks. The Full Floater rear suspension rates number one on open bikes.

Honda's new leverage-ratio Pro-Link is surprisingly good. It was more supple over little bumps than the RM, but in off-throttle situations it had a tendency to kick violently (out to the side). In identical situations the RM felt more secure when the throttle was off, but when the power was on and the CR480 was driving, the rear Showa is hard to fault. Honda runs a close second to Suzuki in most suspension situations. Many pro riders switch the Honda shock over to the optional stiff spring because it does have a tendency to bottom when ridden hard.

The Yamaha rear suspension is too soft in stock form. It must have the stiff 490 spring put on just to ride it. It is a busy rear end and, when compared to the Suzuki and Honda, it isn't in the same league. Yamaha's new linkages don't have the right leverage ratios to get the job done.

Overall, the Suzuki's forks and rear suspension rating are very good, the Honda runs a very close second (when forks and shock are combined), and Yamaha is a distant third.

REAR SUSPENSION CHART

SUZUKI RM465Z	.....98
HONDA CR480R	.....93
YAMAHA YZ490	.....84

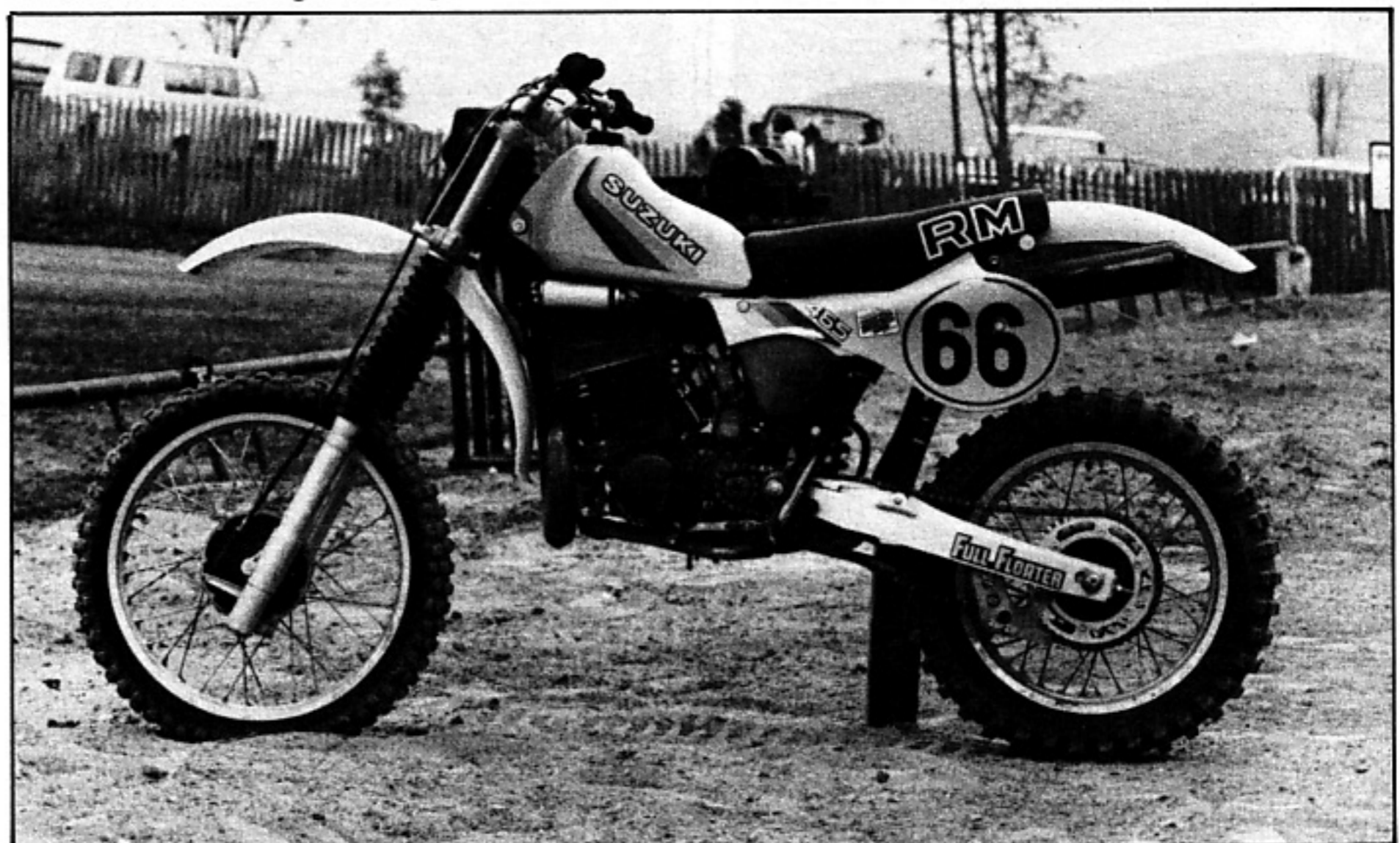
ERGOMETRICS AND RIDEABILITY

How the bike feels, where the controls fall and whether the bike cooperates with the riders is an esoteric category, but it is part and parcel about what motocross is.

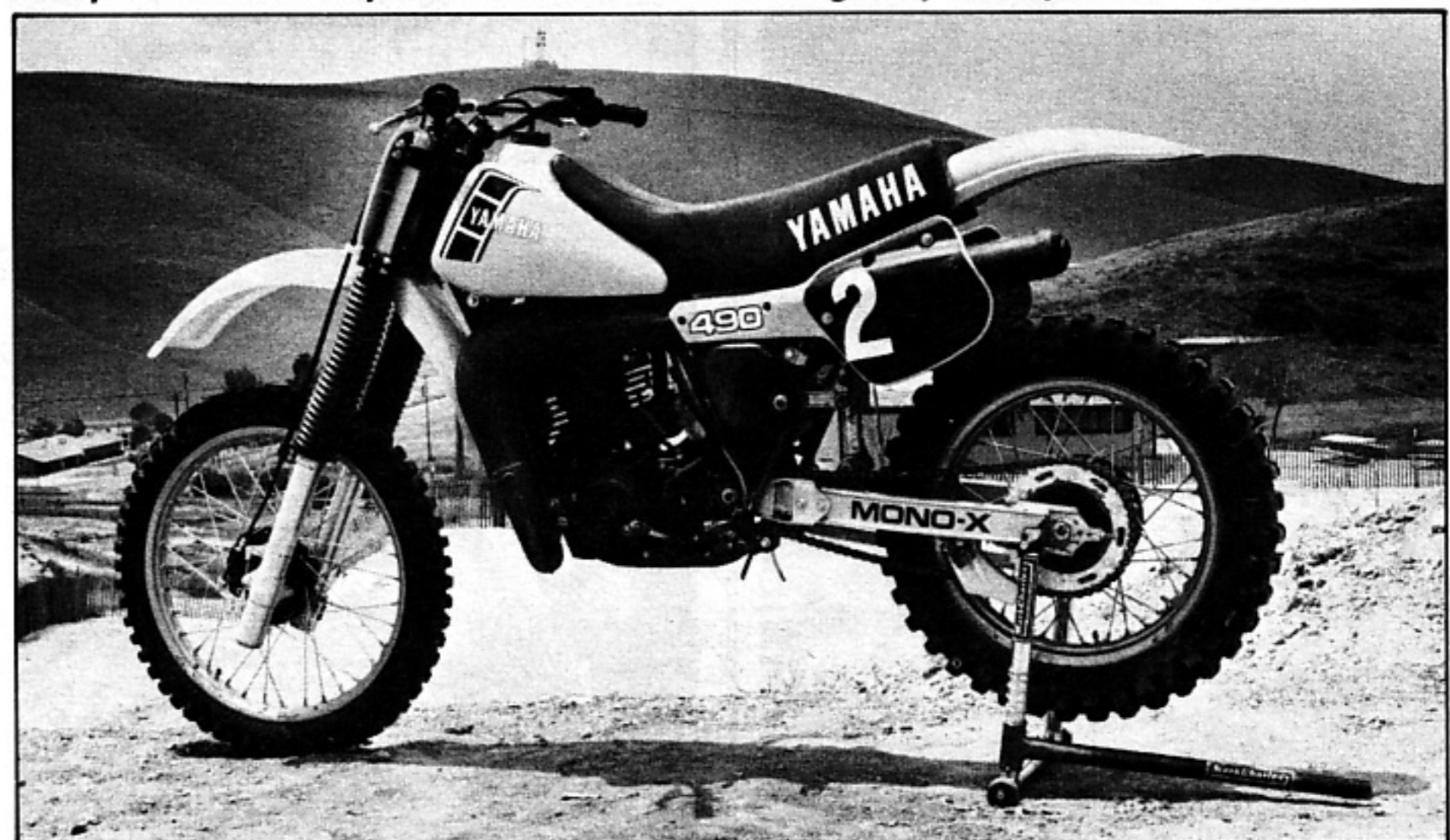
(continued on page 72)



Honda has built a demanding, brutally fast open class racer that commands attention. It also gets the job done.



Suzuki's 465 was the easiest to ride of the Japanese big bores. Handling is spot on, except for a tendency to shake its head on fast, gnarly whoops.



Missing the boat might well have been the best bet for Yamaha's latest open class creature. Portliness and bad handling manners leave it struggling for third place in the shootout.

OPEN SHOOTOUT

(continued from page 32)

The Suzuki RM465Z is the most comfortable feeling and most rideable. It is five pounds lighter than the Honda, and ten pounds less than the Yamaha. It's motor is unruffled and easy to ride. On the track, an average rider will go faster on the Suzuki than he will on either of the other bikes. It makes very few demands, hands out no major surprises, and is the optimum bike for the junior-level rider.

Honda is the second-lightest bike in the test, and it is the most powerful. All of our test riders had the same complaint about the Honda: The abrupt power brought on by light flywheel effect did not work well with the touchy rear brake. Every rider stalled the Honda at least once in the course of a race. The rear brake is so strong and the flywheel inertia so weak that the rear brake acts as a kill switch. With some adjustment we got used to it, but the abrupt power is something that makes the Honda better suited to a more skilled rider (intermediate level or higher).

Yamaha is the heaviest of the three bikes, but it also has the lowest seat height. With a lower seat height and "small" feel to it, the Yamaha could have pulled out some points, but it is just *low*, not small. The gas tank feels about three feet wide, and the seat slopes steeply up the tank, forcing the rider into the hollow. Movement on the YZ is limited and the top-heavy feel makes the bike a handful to play with.

BONUS POINTS

SUZUKI RM465	96
HONDA CR480R	92
YAMAHA YZ490	85

WHO'S TOPS NOW?

Honda is! The Honda CR480 is the best of the Japanese open class motocrossers. It is fast, good handling, decently suspended and well appointed. Although the type of power and level of excellence required to make it work are at the high ends of the talent chart, the CR480 stands out. It is an expert-level open class bike.

Suzuki runs a respectable second place to the Honda. Not as fast as the 480 in terms of sheer power, it still shines because of the versatility of its smooth and manageable motor. The Suzuki is the lightest bike, quickest handling and most fun to ride. It would be the pick of the newcomer, junior or rider who wants to ride the bike fast instead of sitting on top of a bike that goes fast.

It is amazing that Yamaha could build a bike that is so far out of the ballpark in terms of powerband, suspension, gearing, handling and weight. Normally a manufacturer can't build a bike without winning at least one category or coming close. This bike was a loser on the drawing boards and Yamaha would have been better off by re-releasing the 1981 YZ465. □