

## SUZUKI RM250 MOTOCROSSER

# LOVE IT OR LEAVE IT

High and mighty  
By The Staff of Dirt Bike



Each motocrosser that we sling a leg over has a personality. One might be a hawk in the turns, while another tracks well at high speeds. Some racers are remembered for suspension, and others for light weight.

The 1980 Suzuki RM250 will surely go down in the books as "the one with the right motor." While it may not put out the absolute peak readings on the dyno, it has the best spread of power of any 250 we've tested to date.

Power starts to build way down in the cellar—almost like a mild 400—and the mid-range is a nice, healthy, smooth surge, with a strong hook of acceleration at the higher revs. All things considered, it's a truly remarkable motor.

We had a chance to ride the RM with a number of other racers on the same testing day. Comments like the follow-

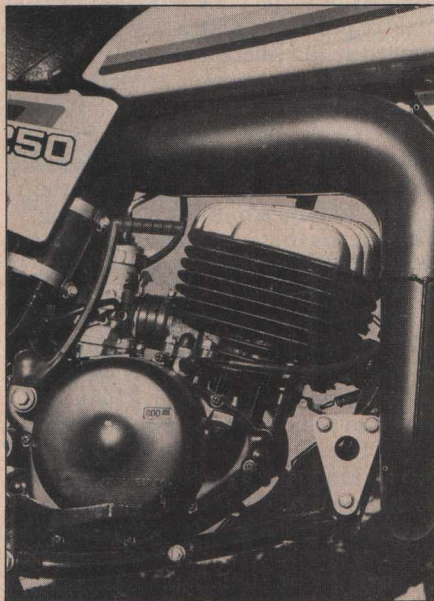


ing were overheard: "I'd sure like to have that RM motor in the YZ frame. Now *that* would be a bike!"

That sort of loose talk tells you a few things. Naturally, you pick up on the fact that the motor is a good thing. Then, there's the hint that there are superior chassis available. Neither conclusion should be jumped to, or ignored. Instead, they should both be examined.

Back to that motor for a moment. Rpm build-up is something that 125 riders do not understand at all; for them, the faster the bike revs, the better. Most Open class bikes have heavier flywheels and build rpm predictably. This leaves the 250 bikes stuck right in the middle. And, here, the variation of power characteristics is almost mind-boggling. Some 250s are nothing more than hairy-chested 125s—the power is delivered like a toggle switch being turned on and off. This sort of explosive power only works under ideal track conditions, or under superbly coordinated riders... or both. Other 250s, like the YZ, have a tremendous mid-range punch, with little down low, and flatten out fairly soon on top, making gearbox selection as critical as picking lines. Most of the 250s around with a good spread of power, simply don't have *enough* power. Here's where the Suzuki engine shines. It seems to have all the best characteristics of various other 250 engine traits... in one package.

Now, handling. We got a mixed set of feedback here. Some riders just did not like the way the RM turned. Period. Other riders got used to the bike after a fairly lengthy period of riding. A very few riders—only two, to be exact—liked the way the bike turned right off.



**The heart of the matter; quite possibly the finest 250cc racing motor we've encountered to date.**



**Our rear Dunlop worked well while the knobs stayed sharp, then deteriorated rapidly as they rounded off.**

What we found out was this: A rider of average or lower skill level will probably not get along with the turning mannerisms of the RM unless he puts in a lot of time in the saddle. These riders cannot expect to hop right on the bike and go quickly and aggressively.

The two riders who did go fast on the bike immediately were both pros. The guys in the middle, those who took an hour or so to adjust to the RM, were probably at Intermediate level or thereabouts. We found a common denominator: Riders who moved around on the bike a lot got used to the RM easily. Those who tended to stay planted in one spot had the most hassle. Maico riders—in general—absolutely detested the RM.

The reason for the difference in the feel of the Suzuki stems from two things. First off, the bike is tall; and secondly, the engine is placed up very high in the frame. While the bike itself is not heavy, the combination of the weight placement and the pegs (high and slightly forward), demands that the Suzuki be treated differently in the turns than most other 250 bikes.

If a first-time RM rider tries to stuff the bike into a turn like he might do with a one-year-old YZ, chances are the front end will flop over and plow through the turn. In order to make the bike work right, the rider will have to get his weight well forward. Not to the front of the saddle, but to the front of the tank. Once the rider learns to "ride the front wheel," the Suzie will work.

Still, even when some of our average-level riders were told how to corner the RM, they felt much safer and more comfortable hunting for berms. The RM250 is decidedly more at home when the wheels can push against something, rather than searching for traction leaned over on flat ground.

One nice thing about berm-hunting with the RM: The rider did not have to

stay on that berm to get around the turn. Once the front wheel made contact, the rider could then knife off the berm, squaring the corner neatly. All this took was weighting the outside peg, a blast of power and a body shift to the inside. Then, the front wheel of the RM would lift off the berm and fall to the inside line of the turn, letting the rider get on the power immediately, with the bike in a vertical attitude. Not easy to do, but very efficient when done right.

You can tell when you're far enough forward on the RM for the corners by one little thing. Your knee should hit the front fender if you're much over 5'8" tall. As we said, those pegs are located high and forward.

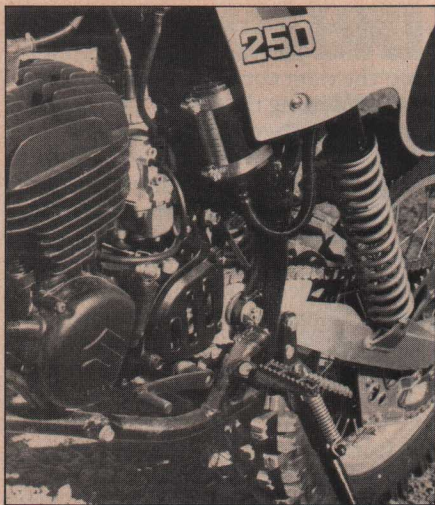
This does a few things to the traits of the RM. It makes the bike very stable over jumps with no tendency to loop out. The RM requires very little concentration when airborne to maintain the correct attitude. You will pay a price over the whoops, though. Here, more pressure is required on the bars to pull the body up and forward than most riders are used to. While smoking it hard over the whoops, the RM rear end will occasionally kick up, but not out.



**Those bulging side panels allowed only a half peg for support.**

While in the air, the rider will find that the RM can be whipped easily from side to side. This can be an aid in correcting a landing, or just getting out of the way of another bike in mid-air. This ease of flopping or tossing the bike around is a benefit in a series of sharp S-turns. Darting and minor angle direction changes are all very easy to accomplish, usually taking no more than a nod of the head, a twist of the throttle and a slight shift of body weight.

What this all boils down to is this: You have to adjust your riding style to the Suzuki, or ride something else. A lot like those old bumper stickers we



**Good change:** refillable and adjustable reservoirs are now standard equipment on the KYB shocks.

used to see that said, "LOVE IT OR LEAVE IT."

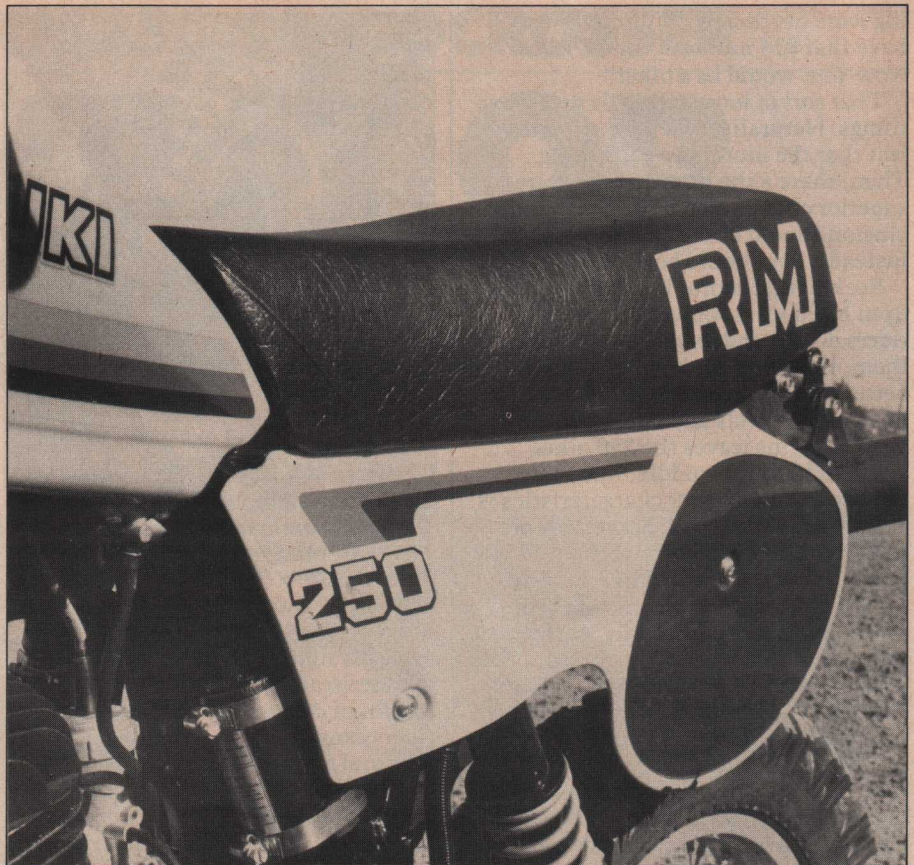
### Suspension

After a few hours of riding, the forks on the RM seated in nicely and gave us a smooth, progressive action. Even when landing from killer jumps, the forks would bottom out with a slight metallic tick and no more. We ran about 11 psi of air pressure in the forks for motocross and a bit more for desert and cross-country work. No flex problem was encountered, even in deep sand. Those KYB/Suzuki forks must be considered excellent. With air caps, and possible oil level and viscosity changes, just about any rider should be able to dial in at least a satisfactory ride up front.

A larger range of adjustment is also available at the rear. A greater range of rebound damping adjustment is there for the asking. This means taking the shock off the bike and the spring off the shock, but the task is not all that difficult.

One of last year's best ideas, the replaceable reservoir for KYB shocks, is now a standard item. This means that the oil can be changed when it gets tired, or the viscosity can be altered to suit certain rider demands. An air fitting is now standard on the reservoir, which should allow the rider the opportunity of screwing up the standard pressure setting in an almost unlimited number of ways.

Our suggestions for the shocks are as follows: Leave them alone, except for preload adjustments as the shock springs settle down. After a dozen or so hours, faster riders might want to increase the rebound damping a bit. And that's it. Quite frankly, the shocks are good enough for a working local Expert rider to use. National-level riders will likely want something a bit more exotic, but then, those sensitive individuals always seem to want some-



**Saddle has a square shape to it at the rear edge which bothers the rider when his weight is well back.**

thing different.

### Through the gears, lightly

It's hard to actually miss a gear on the Suzuki, but shifting does take some care. For best results, the rider should blip off the throttle fractionally and use the clutch. Failure to perform one or both of these functions can mean that the RM will stay in the lower gear while upshifting. Down-gearing presents no problem at all and a mere stab at the lever is all that's required to get the job done.

Neutral is surprisingly easy to find on this RM. Quite a difference from the elusive neutral on the RM125. You can even locate neutral with the engine running.

Spacing of the gears was just about right for any motocross track we've ever been on, yet the top speed of the RM250 is fairly high—probably a good five miles per hour more than any of the other five-speeders.

Second-gear starts are normal and no problem, except for high-traction conditions. Then, it's best to use low and feed the clutch out. Short-shifting to second and then quickly to third seems to make for the best starts to the first turn. The RM likes to pull hard and early in the rev range, and the gearbox spacing works well with this trait.

### Bits and pieces

At the rear, you'll find the by-now typical and virtually useless full-float-

ing rear brake. Some chattering can be felt when braking over stutter-bumps, no matter how sensitive the right foot is. If the brake rod merely actuated over the swingarm pivot, all that full-floating hardware could be done away with.

The front brake proved to be very strong. So strong, in fact, that it took some getting used to. The RM could literally be stood on its nose with excessive pressure. With a few hours, some dirt and liberal doses of abuse, the brake starts to come around and gets less sensitive.

The kickstarter. Ah yes... the kickstarter. In a word, miserable. The pivot point for the kick lever is high on the engine and the arm itself is very long. This means that with the kickstarter in the ready-to-boot position, your knee is near your elbow.

Sometimes the RM250 will fire on the first kick. Sometimes it'll take five or six kicks. You never know which one of these will greet you. There seems to be nothing in between. Either one of five. Odd.

Suzuki will sell a lot of bikes on the showroom floor, if the dealer lets the potential customer sit on the machine. There's an overall good feel about the RM. The bars feel a tad too straight and far forward at first, but this shape puts the rider up forward on the tank where he should be. No one had trouble

adapting to the bars after a few laps.

Only two things bother the otherwise comfortable layout: the bulky width of the side panel area and the square edge of the rear part of the saddle. The shock location causes the explainable bulge at the knees, but there's no justifying the lump at the rear of the saddle. Most butts are round. The saddle has a good contour up near the tank, though.

With Scott boots on, the rider could only get about half of his sole on the left peg. Leather boots were a bit more

forgiving, but still didn't solve the problem.

Our bike vibrated badly, even when fresh. We were told by the macho guys at *Motocross Action Magazine* (down the hall, by the broom closet) that the problem was that the motor mount bolts were too small for the holes. Apparently, they've been "solving" their problem by drilling humongous holes in the cases and putting in bolts the size of baseball bats.

Want to know how to do it right? Of course you do. The problem is not the bolt size, even though the bolts themselves are of poor quality. The problem is that the motor mount tabs are too far

apart. How far? About .060-inch too far, on our bike. We shimmed all but the front motor mounts up with thin washers and the problems went away. The bolts are only 8mm thick and not strong enough to pull the tabs together. Drilling out the holes and bending the tabs in is only asking for cracked or sheared mounting tabs. Those MXA boys really should have known this, but, what the heck... they're young and even poodles can be taught useful tricks, we're told.

Servicing is no real problem. The air filter rides in a decent air box, and no acrobatics are needed to get the thing

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### SUZUKI RM250T Specifications

NAME AND MODEL	Suzuki RM250T
ENGINE TYPE	Two-stroke, reed-valve
BORE & STROKE	67mm x 70mm
DISPLACEMENT	246cc
HORSEPOWER (CLAIMED BY FACTORY)	N/A
CARBURETION	Mikuni 36mm
FACTORY RECOMMENDED JETTING:	
MAIN JET	290
NEEDLE JET	R6
JET NEEDLE	6FJ6-3
PILOT JET	60
SLIDE NUMBER	2
RECOMMENDED GASOLINE	Premium
RECOMMENDED OIL (MFR.)	Suzuki CCI
FUEL TANK CAPACITY	8.5 liters (2.2 gallons)
FUEL TANK MATERIAL	Plastic
GAS/OIL RATIO	20:1
LUBRICATION	Pre-mix
AIR FILTRATION	Foam filter
CLUTCH TYPE	Wet, multi-disc
TRANSMISSION	Five-speed, constant mesh
GEAR BOX RATIOS:	
1	2.07
2	1.75
3	1.35
4	1.10
5	0.91
GEARING, FRONT/REAR	14/49
IGNITION	CDI
PRIMARY KICK SYSTEM?	Yes
RECOMMENDED SPARK PLUG	NGK B9EV
EXHAUST SYSTEM	Expansion chamber, up-pipe
FRAME, TYPE	Chrome moly, single downtube
WHEELBASE	1445mm (56.9 inches)
GROUND CLEARANCE	365mm (14.4 inches)
SEAT HEIGHT AT TANK	980mm (37.3 inches)
STEERING HEAD ANGLE	30 degrees
TRAIL	133mm (5.24 inches)
WEIGHT WITH ONE GALLON GAS	228 pounds (218 dry)
RIM MATERIAL	Aluminum alloy
TIRE SIZES:	
FRONT	3.00x21 knobby
REAR	5.10x18 knobby
SUSPENSION:	
FRONT, TYPE AND TRAVEL	Air/oil leading axle fork/11.2 inches
REAR, TYPE AND TRAVEL	Gas/oil shocks/11.8 inches
INTENDED USE, MFR.	Off-road competition, motocross
COUNTRY OF ORIGIN	Japan
PRICE, APPROX.	\$1819
PARTS PRICES, HIGH WEAR ITEMS:	
PISTON ASSEMBLY, COMPLETE	\$47.87
RINGS ONLY	\$7.36
CYLINDER	\$128.21
SHIFT LEVER	\$10.96
BRAKE PEDAL	\$15.10
FRONT SPROCKET	\$11.05
DISTRIBUTOR:	
U.S. Suzuki	
13767 Freeway Drive	
Santa Fe Springs, California	
OVERALL RATING, FROM 0 TO 100, VARIOUS CATEGORIES, KEEPING INTENDED USE OF MACHINE IN MIND:	
HANDLING	92
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in or out.

We had a slight, irritating leak on our gas cap and talked to a few other RM250 owners with the same gripe.

The stickers are still on our gas tank. Quality seems to have improved over last year's. The ones on the side panels went away quickly, though.

You can count on the fenders cracking easily in the event of a fall. A simple loop-out is just about a guarantee that the rear one will die.

Another word about the nuts and bolts on the RM. They all seem to be of poor quality. We broke a saddle bolt on our RM125 and another on this 250.

Also, the heads on the nuts and bolts come slightly rounded brand-new. You must use a good-quality socket or box wrench to keep from completely rounding them off. An open-end wrench is an immediate kiss of death.

We had very little hassle with spokes and rims. Even after Kenny Zahrt raced the machine four weekends in the pro class, no dents were visible.

Our RM came with Dunlop tires front and rear, but we've seen other brands come stock. It's probably a matter of what the factory receives. The rear tire got a good rating from our test riders while it was fresh and the front received an OK. We ran nine pounds of air up front and ten in the rear for sandy tracks and a bit more at each end for hard-packed stuff.

No trouble was experienced with the chain or sprockets, but the chain did stretch enough to take it to the limit of adjustment after about ten hours of riding.

Control levers seem old-fashioned compared to the shorties and dog-legs we see everywhere else. Cables appear very small and flex a bit, but seem to hold up well in spite of the smallish size.

### Adding it up

What we have here, sport, is a bike that's not for every rider. If a rider is willing to take the time to adapt, and adjust to the way the Suzuki must be ridden, chances are he'll be happy with his bike. If he expects to just sling a leg over it and blow his buddies into the weeds, he might be a bit let down.

This seems to be the price we have to pay as the bikes get closer and closer to factory racers right off of the showroom floors. They become less forgiving and demand more concentration from the rider. But it's only fair. After all, the riders have literally demanded that the factories give them full-blown, work-type machines.

One last item of interest. To date, no other 250 motocrosser we've tested has been able to out-drag the Suzuki to the first turn. That alone ought to lend some patience to those in a hurry to adapt to the RM.

LAST OVER Continued from page 6  
slop. Or how bent the bars can get when the bike flips over half-way up a hill. And how expensive this sport can be if you're not *real* careful.

Obstacles are more or less a turning point, where after a few painful sessions common sense tells you to re-think all of your experience up to this point and try to arrive at a rational conclusion. Most riders have a tendency to slow way down and spend more time thinking of a way over, rather than blindly diving into the jaws. Frustrations come hot and heavy, and everything up to this point was a picnic, but sooner or later the hills start looking smaller, the swamps more shallow, and the whoops go by a lot faster.

Right up to the next level, which is CHASING, where you'll get together with a group of friends and chase each other through the woods, around the track, or whatever. Riding starts to feel a lot better because you're not suffering alone, and there's somebody in the group who rides just as good/bad as you do. Funny thing, if a group consists of five people, say, there's always the same cross-section. Two of the guys are pretty fast, two others are reasonably slow, and the fifth one breaks all the time. The fast guys wait up for the slow ones, and they all try to fix the one bike, which *can't* be anything more serious than a fouled spark plug — "Hey man, you got a B8ES with you?"

In a lot of cases, chasing can be the only choice you have, especially if you happen to be the slowest guy in the bunch. If the shoe's on the other foot, and you happen to be one of the quick ones, then you graduate to the next level, which is PASSING. Passing is another turning point, when all of a sudden the guy in front of you is always *right* in front of you, and you solve the problem of his dust by getting in front of him. At this time you may even be leading the pack, which is a very lofty position whether you're in the woods or play racing on a track. Soon you start noticing that all those obstacles that gave you so much trouble are slipping by underneath, unnoticed. Also, you can spend a whole day in the saddle without crashing—every now and then. And more often than not, you're waiting up for everybody else, and spending a certain amount of time helping people fix their bikes.

And sooner or later you'll reach the tenth step, which isn't necessarily the peak, but a damn comfortable place to pass the time. It's a point called LOOKING BACK, and if you're not careful you may find yourself looking out over a hillside full of squids, saying: "What are those people *doing* to that hill?"