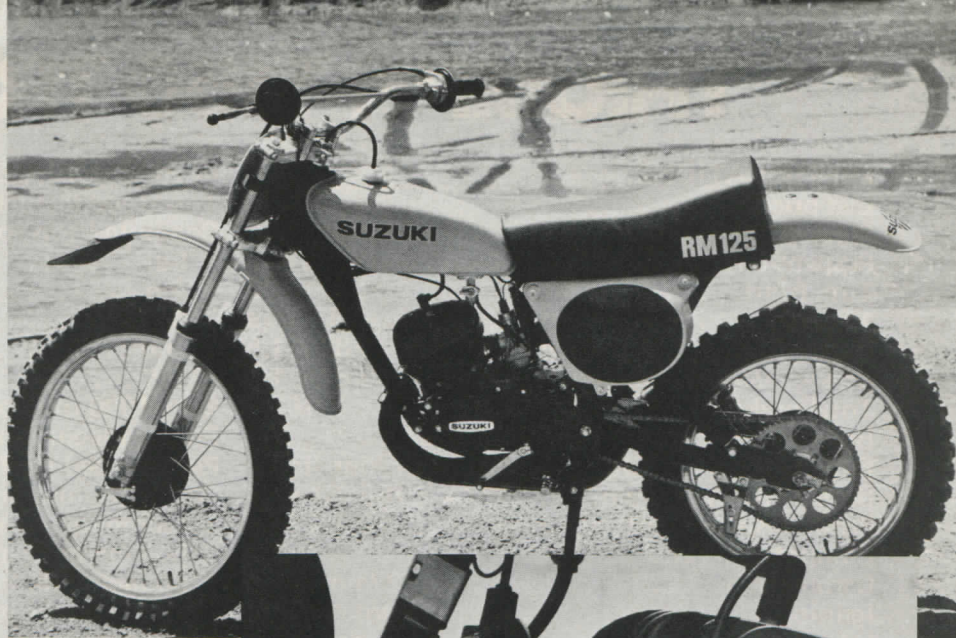


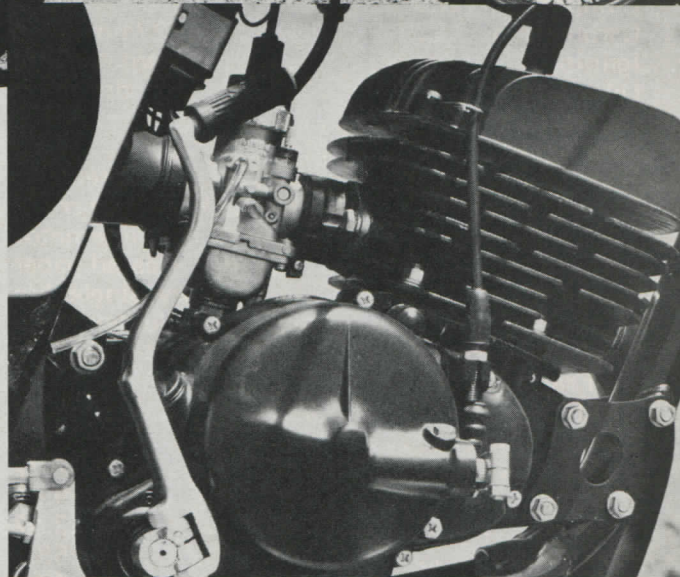
SUZUKI RM125

Budget Racing
Gets A Shot
In The Arm.



■ AS THOUGH THINGS weren't already tough enough in the 125 class, Suzuki has made things even tougher by releasing its snappy new RM125 motocrosser. Was it really necessary? Suzuki thinks so. And after recalling what the old (although not yet dead) TM125 is like, we have to agree. The TM is the small-bore class budget racer. They don't cost much, can be raced right from the crate, and are an excellent learning tool from which to graduate to something like an Elsinore, YZC Yamaha or Can-Am. Of course, Suzuki has sold quite a few TMs; but there was an after-TM market of which they were not getting a piece.

Cycle World Road Test



So out comes the RM125. Not only is the RM supposed to be a serious effort to take over the lead in the most hotly contested category in racing, but it is also designed to put a few of those after-TM dollars back into Suzuki's pockets.

Then, in a thinly-disguised move, Suzuki simultaneously announced the RM Factory Hop-Up Kit. Something for the post-RM competitor that will take his little screamer and add a little more zip... hopefully enough to make it competitive in the Expert class. We requested both the standard RM and the hot one from U.S. Suzuki. We wanted to see for ourselves the differences, and determine just exactly where each machine fits into the rapidly expanding 125 spectrum.

The RM engine is nearly identical to the TM's. The main difference is porting. While the TM sported a conventional five-port cylinder, the RM has nine ports, six of which are transfers. The main power improvement comes from these transfers and the more efficient exhaust scavenging that they provide.

Of course, both the intake and exhaust ports are larger on the RM cylinder. There's little point to having all that transfer volume if you can't get more mixture in there to begin with, which is one of the reasons for the 28mm Mikuni carburetor. The TM comes with a 26mm jug, and the optional kit includes a monstrous 34. In the optional kit, the RM ports have been opened up even farther, but no new ports are added.

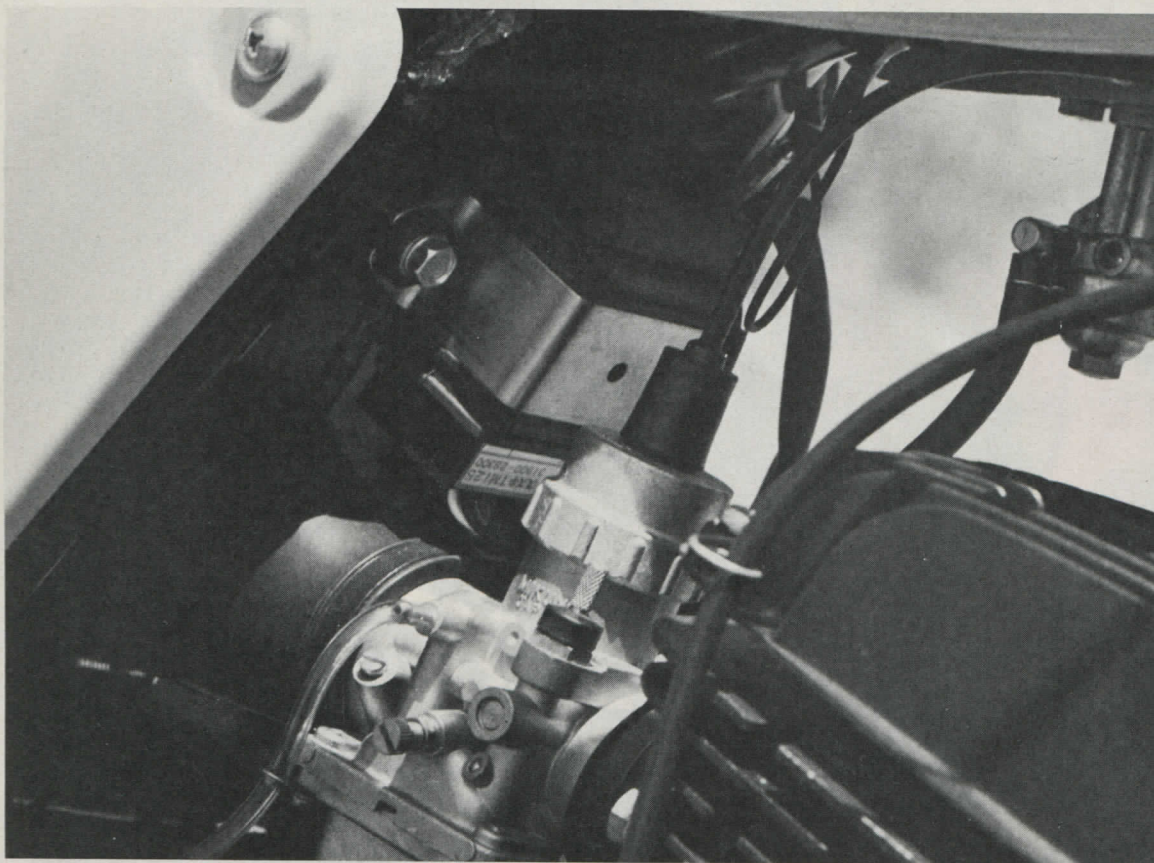
One of the reasons for the abundance of transfers is to keep the engine's cylinder full of fuel without having to go to radical intake or exhaust timing. When properly executed, this nets a broader powerband than might otherwise be possible.

This was done so that Suzuki might be able to get away with using the old TM five-speed transmission. But did it really work? Yes and No. Yes, in that, while it is pipey, its more efficient on-the-pipe range is wider than, say, a Honda Elsinore's. But no, it isn't really wider than all other 125 MXers'. Comparing it with the Can-Am's output, you can see the difference. At 7000 rpm the Can-Am has nearly a 4hp advantage. At 7500, 5hp. It maintains this 5hp advantage until it peaks at 9000 rpm, at which point the spread increases only slightly to five and a half.

But the Suzuki doesn't quit until another 1000 rpm pass out of its pseudo-muffled exhaust pipe. Still, it comes within only three ponies of matching the C-A. Now, going back and taking an arbitrary figure—such as 10hp—as the on-the-pipe designation point, the Suzuki pulls through a 2500-rpm spread, while the Can-Am's spread is 2250 rpm. Yet the Canadian machine can exceed its power peak by 500 rpm and still not drop off to the point at which the RM peaks. Chalk up one for Can-Am.

Enter the Factory Hop-Up Kit. With these goodies in place, the Suzuki puts out horsepower that is nearly identical to the stock RM's all the way up the line. But when the stocker signs off, the hot engine still wants more. Peaking at 10,500 revs, the modified engine pulls through a 3250-rpm range (taking the same 10hp figure as a starting point). Now that's much better. That's what Suzuki should have done in the first place. And, they came within 0.8hp of unseating the almighty Can-Am as the top-end horsepower king. >





Now comes the interesting part. The Factory Hop-Up Kit consists of an RM cylinder with enlarged ports (something your local porting ace can do, given the proper specs), a 34mm carburetor (which shouldn't cost but a few yen more than the standard carb), and a larger airbox (again, a very slight *cost* difference). Everything else—gaskets, clamps, a new piston, etc.—is the same, with the exception of the pipe. The Factory Kit provides you with a rolled steel expansion chamber to replace the stamped-out stock pipe. The advantage lies in the preciseness of the pipe's design. This is the only area in which a substantial cost increase is obvious to us. Yet all of this sets you back approximately \$200 at your nearest dealer. We like what the Hop-Up Kit does for your motor. We don't like what it does to your pocketbook, particularly when you consider that you could do it piece by piece—using a ported stock cylinder—for a little more than half the price.

Visually, what strikes your immediate interest upon inspection of the RM are the forward-mounted shocks. It has taken an entirely new frame, designed mostly around the shocks, in order to bring it about, but it was worth it. The dampers are Kayaba gas/oil numbers identical to the Kawasaki KX250's (CW, July '75), only a bit smaller. Their performance simply cannot be faulted. They absorb, dampen, and do not fade. More could not be asked.

The front forks are fair. They're certainly an improvement over the TM forks, but they don't perform as well as others we've tried. Some immediate improvement can be gained just by removing the standard fish oil and pouring 210cc Bel-Ray 10-wt. in each leg. The number 1033 kit from Number One Products, which worked wonders for our Yamaha YZC, will also fit the new RM forks. A very worthwhile investment.

When long-travel suspension is used, seating position is



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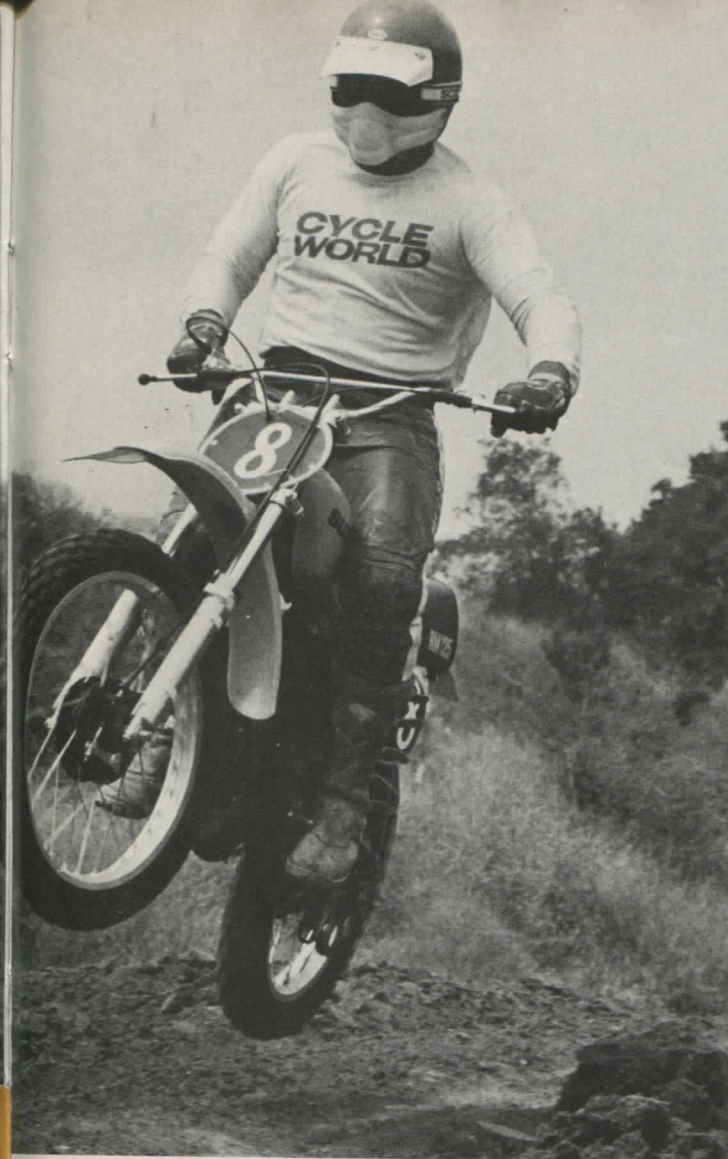
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RM125 HOP-UP KIT

- | | |
|-------------------------|-----------------------------------|
| 1 piston | 1 carburetor inlet hose |
| 1 piston ring set | 1 inlet hose clamp (small) |
| 1 34mm carburetor | 1 inlet hose clamp (large) |
| 1 intake flange | 1 air cleaner assembly |
| 1 intake pipe set screw | 1 muffler assembly |
| 2 flange set screws | 1 muffler support bolt |
| 1 intake pipe gasket | 3 muffler support washers |
| 1 intake pipe | 4 muffler support washer cushions |
| 1 intake pipe clamp | 1 cylinder |
| 1 throttle cable | |

often altered. The seat gets higher and it slants forward. That's precisely what has happened on the RM. The height of the seat might be a bit much for some of the tyke-size banzaiers who fill the ranks of the 125 class, but is something that they'll have to get used to if they want the 7.3 in. of axle travel. The slant of the seat only makes itself felt when stationary or braking for a turn. If it really bothers you, have the front portion of the seat padded a little.

We have complained before and will continue to complain about Suzuki's non-spring-loaded footpegs and the poor adhesion they provide when wet. Taping the pivot junction keeps the pegs from flapping about as you ride, but something should be done about proper cleating for grip.

The rest of the Suzuki is finished in fine style. Takasago ridgeless alloy rims are standard, as are the grit covers on the levers. The chain has two guides. One just before the rear sprocket, one just after the countershaft sprocket. Not only are they guides, but they also have small rubber runners on which the chain rides. Chain adjustment is most critical on the RM. The greater the distance between the swinging arm pivot and the countershaft, the more chain tension will vary with the arc of the swinging arm. At just over 4.75 in., this critical measurement on the Suzuki is far too large to allow for a lackadaisical attitude regarding adjustment. On the Yamaha (2.75 in.) or the Can-Am (3.0 in.), you can occasionally overlook it and ride on. But the Suzuki will spit the chain off if vulture-like vigilance is not maintained.

One of the things you can't get away from on fast 125s is lack of flywheel. The Suzuki is just like so many others in that respect. And taking off requires a little more clutch-slipping than normal, because first gear in the smooth-operating five-speed gearbox is much higher than on 125s with six-speeders.

The two RMs that we had were vastly dissimilar out on the track. The stocker was received by us a few weeks before the modified version, so it had more use. The first day we rode the RM just about every nut on the thing came loose, not to mention the spokes. If you purchase one, go through and Loc-tite those bolts that don't have aircraft locknuts. And use your impact driver on the engine case Phillips screws.

The hopped-up RM didn't loosen anything, other than our minds. It has got power. It really feels like more than just the two hp difference that the dyno shows. But when we went out to take lap times, the stocker was getting around just as fast. We knew right away what it was...the tires.

Suzuki, like most other manufacturers, buys tires in huge quantities. Whoever has the best deal that week gets the purchase order. Most of the time IRC tires find their way to the small Suzukis. But occasionally, a set of Bridgestones (as >



DYNAMOMETER TESTS HORSEPOWER AND TORQUE

ENGINE SPEED	BHP Stock	Hopped-Up	Engine Speed	BHP Stock	Hopped-Up
2000	0.94	0.97	7000	8.74	8.45
2500	1.10	0.86	7500	10.34	11.32
3000	1.76	1.69	8000	13.02	13.89
3500	2.27	2.44	8500	15.15	15.85
4000	2.89	2.94	9000	17.05	17.80
4500	3.26	3.26	9500	19.47	19.73
5000	4.02	3.88	10,000	19.59	21.14
5500	5.36	5.01	10,500	17.77	21.73
6000	6.24	5.54	11,000	10.63	12.46
6500	6.96	6.61			

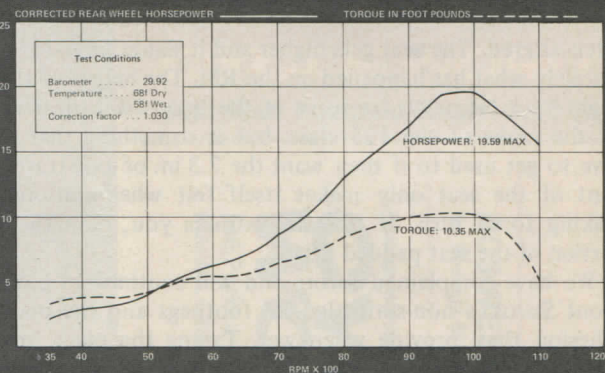
ENGINE SPEED	TORQUE Stock	Hopped-Up	Engine Speed	Torque Stock	Hopped-Up
2000	2.49	2.56	7000	6.56	6.33
2500	2.32	1.81	7500	7.24	7.92
3000	3.09	2.97	8000	8.54	9.12
3500	3.41	3.66	8500	9.35	9.79
4000	3.81	3.85	9000	9.94	10.39
4500	3.81	3.80	9500	10.35	10.90
5000	4.23	4.08	10,000	10.30	11.10
5500	5.11	4.80	10,500	8.88	10.86
6000	5.45	4.85	11,000	5.07	5.94
6500	5.62	5.35			

come fitted to the 125 Elsinore), manage to make their way onto a Suzook. The Bridgestones are far better tires. That was the difference between our test bikes. The stocker had Bridgestones, the modified RM had IRCs. As long as the tracks were damp and loamy, the quicker Suzuki was exactly that—quicker. But when the tracks dried out, the kitted RM couldn't get as much power to the ground. It also steered like one of the first 250 Elsinores, i.e., not at all. Find an RM with Bridgestones in your dealer's showroom and you've saved yourself 50 bucks.

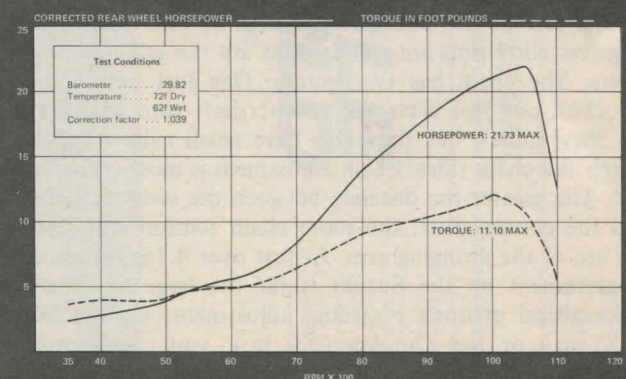
Right about now comes the time when we summarize the test and tell you whether we think the machine is any good or not. Well, the Suzuki is good. But it could be better. Is the stocker faster than the pace-setting Elsinore? Yes. Is it faster than a hopped-up Elsie? Uh-uh. Is the trick RM? Almost. Which brings us to the main problem: only five gears.

If you want to be faster than the souped-up Hondas, you have to take the reporting farther than the factory has with its Hop-Up Kit. That means that you'll probably end up with a narrower powerband. Five speeds can just barely cut it with the existing Hop-Up Kit (which, by the way, has the better powerband of the two versions). Shorten the range any more and you've got to have a six-speed. Otherwise, the engine just won't be able to pull the ratio spread. But six-speed transmissions cost money. Even at the production level. And Suzuki was probably afraid to lose the successful TM-inspired budget-racer image.

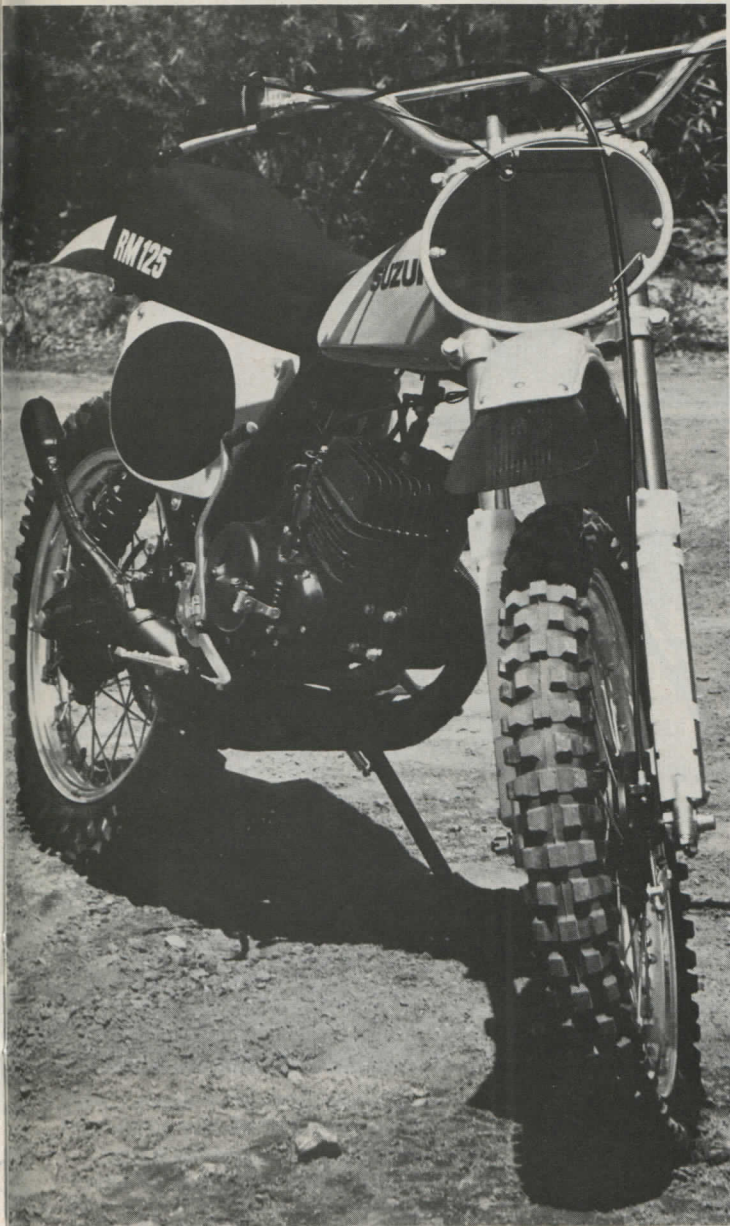
But suppose for a moment that Suzuki had forsaken that image and pulled out all the stops. The Factory Hop-Up Kit (perhaps even in more radical form) as standard equipment, a



STOCK



HOPPED-UP



SUZUKI RM125

SPECIFICATIONS

List price	.....	\$925
Suspension, front	.....	telescopic fork
Suspension, rear	.....	swinging arm
Tire, front	.....	3.00-21
Tire, rear	.....	3.50-18
Engine, type	.....	piston-port, two-stroke Single
Bore x stroke, in., mm	.....	2.20 x 1.97; 56 x 50
Piston displacement, cu. in., cc	.....	7.5; 123
Compression ratio	.....	7.4:1
Actual bhp @ rpm	.....	19.59 @ 10,000
		21.73 @ 10,500
Actual torque @ rpm lb.-ft.	.....	10.30 @ 10,000
		10.86 @ 10,500
Piston speed @ rpm ft./min.	.....	3283 @ 10,000
		3447 @ 10,500
Carburetion	.....	28mm Mikuni; 34mm Mikuni
Ignition	.....	PEI
Oil system	.....	pre-mix
Oil capacity, pt.	.....	1.2
Fuel capacity, U.S. gal.	.....	1.3
Recommended fuel	.....	premium
Starting system	.....	primary kick, folding crank
Air filtration	.....	oil-wetted foam

POWER TRANSMISSION

Clutch	.....	multi-disc, wet
Primary drive	.....	straight-cut gears
Final drive	.....	428 single-row chain
Gear ratios, overall: 1		
5th	.....	13.26
4th	.....	15.18
3rd	.....	18.16
2nd	.....	23.07
1st	.....	31.13

DIMENSIONS

Wheelbase, in.	.....	53.5
Seat height, in.	.....	35.5
Seat width, in.	.....	5.5
Handlebar width, in.	.....	33.9
Footpeg height, in.	.....	13.8
Ground clearance, in.	.....	9.6
Front fork rake angle, degrees	.....	29
Trail, in.	.....	4.48
Curb weight (w/half-tank fuel), lb.	.....	197
Weight bias, front/rear, percent	.....	46/54

six-speed tranny, Bridgestone or Yokohama tires (*always*), good footpegs and so on. What if the machine didn't cost \$925, but \$1025. The Monoshock Yamaha is about \$35 cheaper and needs nearly \$100 worth of suspension work before it will handle like the RM. An Elsinore would require \$100-\$150 for an LT rear end and shocks, plus anywhere from \$150 to \$400 in engine work, depending on how much extra punch you wanted. Sure, the Suzuki would receive competition from the Yamaha sales-wise, but at least it wouldn't be a compromise racer. It would be competitive in the Expert class and it would probably stomp the heck out of the Novices.

But someone at Suzuki said no. More money is to be made by building the RM the way it is built and then selling the things that make it the way it should have been built. That someone might be right. The RM is competitive at a Novice stage when stock, and an educated guess would put the potential of the hopped-up version in the Amateur-Intermediate range. But get a bunch of Experts winning on superpowered six-speed RMs, and you get your name in the weekly and monthly trade journals. This is free advertising. This sells more bikes because everybody wants to ride a winner, which in turn produces more winners and more publicity. And the whole thing snowballs.

Suzuki will sell a bunch of RMs. It deserves to. The new MXer is one fine little racer. But many riders will still eventually be forced onto an Elsinore or Yamaha, because their transmissions offer greater usable engine potential. After thinking about it, *we'd* even settle for a compromise, but with a slight difference. The little screamers should be built with the Hop-Up Kit standard and the six-speed available as an option.

If Suzuki is as on the ball as we hope it is, an all-out RM may already be in the works. Heaven knows there's a great little package from which to work. 