

# 125 MX TWIN TEST

YAMAHA YZ 125C  
●SUZUKI RM 125  
MOTOCROSSERS



## SUZUKI RM 125M

Suzuki followed an up-dating program in much the same way that Yamaha has to produce the successor to the Suzuki TM 125. The TM, by the way, was one of the most underrated bikes (by the press) in the class; it was as quick as a stock Elsinore and perhaps the most reliable 125cc motocrosser ever produced. Suzuki, it seems, wasn't willing to push that reliability reputation too far when they introduced the new RM 125M. The machine is quicker and it handles better than any out-of-the-crate 1974 mxer but, if Yamaha's YZ 125C is any indication, the new Suzuki just isn't going to be a match for the 1975-76 machinery.

The Yamaha is truly ready-to-race while the Suzuki is another one of those "potential" machines (like ALL the 1974 models from anyone) that leave the real race preparation to the rider. That sounds bad but there's a method to the madness . . . First, of course, comes reliability; few riders are really good enough to realize the full potential of a machine as highly tuned as the new Yamaha and, while they're learning, they're going to do a lot of rebuilding. The RM 125, like the TM 125, should go for most of a season's racing without anything more than a few spark plugs and a piston ring or two.

Suzuki already has a hop up kit for the RM 125 that the rider can install (a new

carb and porting mods) to boost the power close enough (but not quite equal) to the Yamaha's. The rider has the choice as to just when he's ready to sacrifice reliability for performance. It's not a bad trade-off, particularly for the guys (and that's most of us) who would rather ride than wrench.

The RM's engine has an all-new barrel and head. There's a total of *six* transfer ports to feed the fuel and air the 28mm carburetor supplies from the crankcase to the combustion chamber. The hop up kit includes a 30mm carburetor and some special mods for the ports. The powerband is as wide as that on the TM 125 but there's about ten percent more ponies. The stock five-speed gearbox is, then,



The new Suzuki has two more transfer ports than last year to provide more power but it's still slower than the YZ.

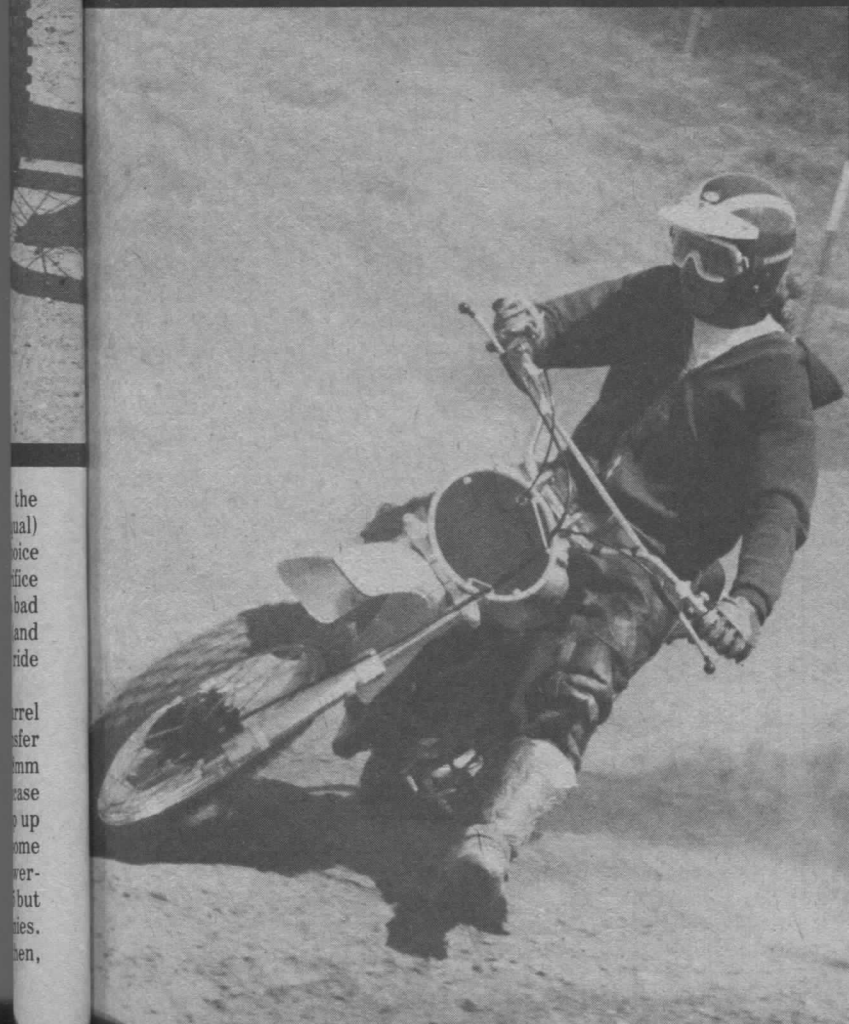
enough for this one. We tried one of the kitted machines and five speeds seemed okay there too.

The RM, like the YZ, has no oil tank or pump so it's back to the old mix-it-in-the-can program. The ignition on both the Suzuki and the Yamaha is solid-state. The cylinder liners in both brands are shrunk in cast iron to permit rebore or port reshaping. The two machines' air cleaners are mounted in giant triangular still-air boxes beneath the seat with fresh air intake in the same place. Both brands have plastic fenders, still air boxes and side number plates with steel fuel tanks.



The Suzuki is a joy in the corners with its quick steering and ultra-low center of gravity. The rider can choose to track or slide through.

Suzuki opted for the lay-down shock absorber method of achieving long-travel rear suspension. The RM 125 has about 7 3/4 inches of rear wheel travel but the shock only has to move about four inches thanks to its cantilevered position. The Suzuki's shocks are the "gas-filled" type with a sealed chamber of nitrogen under 200 psi of pressure inside the shock absorber body. The nitrogen serves the same purpose as it does on the Yamaha, but there is no provision for altering the pressure. The spring pre-load can be adjusted by twisting a cam like those on conventional shock absorbers and there should be a



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choice of springs available later in the year.

The shocks are mounted upside-down and tucked well behind the side number plates and between the fender and the number plates to shield their shafts and seals from dust. The shocks certainly won't last as long as conventional shocks for the simple reason that they must work much harder in that cantilevered position to provide control over the long-travel rear suspension movement. The frame and swing arm are new but the swing arm will fit the older TM Suzuki for those who might want to cobble their own long-travel suspension system.

The RM 125's forks are also designed to fit the older TM model as well as the new machine. They're just not good enough to cope with the terrain or with the weight transfer from the long-travel rear suspension. They offer only about a quarter-inch less travel than the super forks on the YZ but the springs are too soft and the dampening characteristics just don't match those of the rear suspension units. A long-travel rear end isn't of much value if it is constantly pitching the weight forward to forks that can't control it enough to maintain a relatively constant steering (rake and trail) head angle.

The Suzuki's stability over rough ground, then, is sometimes unpredictable. We'd suggest you add the cost of better forks to the price of the machine (and the price of the hop up kit) if you're an amateur or an expert class rider. Hopefully Suzuki or one of the accessory makers can produce a spring and valving kit for the RM 125's forks that will provide the performance they need without the cost of a complete set of Betors or Boges or 250cc MX forks.

**Performance:**

The Suzuki has a bit steeper rake (29 degrees) than the Yamaha (31.5 degrees) angle at the steering crown and proportionally shorter trail (approximately 5 inches vs. 5½ inches). Predictably, then, the Yamaha is more stable down straights having stutter bumps or in deep sand or loam. That difference is even greater than the numbers would indicate, however, because the Suzuki's soft forks compress enough to make the rake even steeper. That compression is unpredictable enough, too, to allow the machine to pitch back and forth to further upset its stability.

Both machines are a bit frightening to ride at first but for entirely different reasons: the Yamaha has an incredible amount of power and it comes on RIGHT NOW, more like a pipy 250 than any 125 we've ridden. It's difficult to keep the front wheel down but, at least, the chassis helps in keeping the rear wheel down (that's part of the reason why the front lofts so easily) and in directing the machine in a straight line. The Suzuki has plenty of power, by 1974 standards,

but the steeper steering angle and, to a lesser extent, the rear wheel movement often allow it to wobble over rough stuff. The Suzuki's rear suspension is good but, again, not quite as able to keep the rear wheel driving over anything as the Yamaha's.

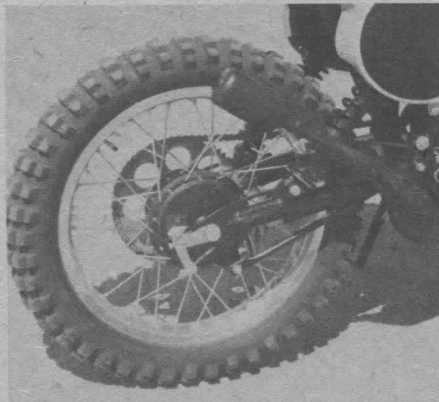
An expert class rider might know enough to move his weight fore and aft

at just the right times (and frequently) to keep the Suzuki driving right alongside the Yamaha over any type of surface; a novice, however, will find that the Suzuki is harder to aim just where he wants it.

The discussion about rake and trail applies, of course, to how the machines steer around a corner. The Yamaha



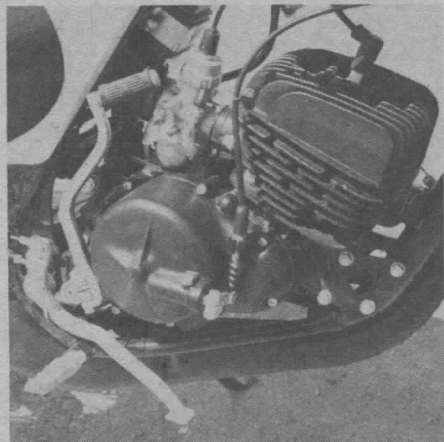
The soft fork springs allowed the front wheel to wash out if the rider didn't concentrate a lot of weight on the front wheel through the turns.



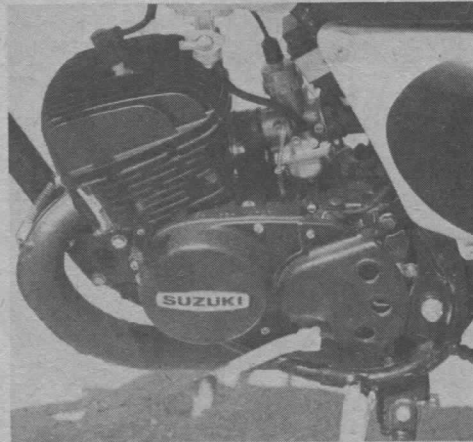
The shock absorbers have nitrogen gas chambers to prevent fade and to help control the dampening. The rear brake is cable-actuated.



The one weak point on the Suzuki: the softly sprung front forks. The front suspension is no match for the rear on the stock machine.



The RM's engine cases are like those on the previous machines but the porting and carburetor are revised to add more power.



The Suzuki's wide power band helps to make the gear ratio spread in the five-speed gearbox adequate for any motocross situation.



really does have to form on the tan slide. It's berms, the provided by Suzuki is a can track steeper for gravity ma

Price ...  
Warranty

**ENGINE**

- Type
- Displace
- Bore & S
- BHP@rpm
- Compre
- Carbure
- Overall g
- First
- Second
- Third
- Fourth
- Fifth
- Sixth

**RUNNING**

- Frame
- Suspens
- front
- rear
- Tires
- front
- rear
- Brakes
- front
- rear
- Electrics

Suzuki's Power, wit



The frame and suspension components are all new on the RM 125 but the swing arm and forks will bolt onto the older TM 125 models.

tremely bumpy, the Suzuki is quicker around most corners.

The distance that Suzuki gains in the turns is lost soon enough on the straights in any race with the YZ 125C. The Suzuki hop up kit will help but there isn't a production 125 made that comes even close to the YZ 125C's power. You'll have to move the YZ's shift lever hundreds of times each lap but we never did miss a shift. Once you get used to riding with the shift lever flicking from gear to gear you'll discover that the YZ can keep up with most 250s. The narrow powerband is enough to force several shifts while the machine is still in the corners and there, again, the Suzuki rider can gain some ground; the RM 125's wide power band demands about half the number of gear changes that the Yamaha needs to maintain its momentum.

Except for a tendency to wander about over rough surfaces, the Suzuki is far more enjoyable to ride. Trouble is, you won't win with it if there's a YZ 125C

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really doesn't want to turn at all. You have to force it to lean and move way up on the tank to get the rear wheel to slide. It's as stable as a train through berms, thanks to the super traction provided by the suspension system. The Suzuki is a bit more of a broadslider. You can track it through a berm but its steeper fork angle and lower center of gravity make it much easier to lean over

and easier to set up into a power slide if that's what you want.

Rough surfaces rock the machine back and forth enough to force the rider to make constant corrections in the handlebar position to negotiate even a fairly smooth flat track-style broadside. In all, though, the Suzuki is a whole lot easier to ride through the turns than the Yamaha and, unless the turn is ex-

#### SUZUKI RM 125M ROAD TEST STATISTICS

Price .....	\$925.00	Distributor .....	U.S. Suzuki Motor Corp., Santa Fe Springs, Calif. 90670
Warranty .....	none		

#### ENGINE

Type .....	Two-stroke, single
Displacement .....	123cc
Bore & Stroke .....	56 x 50mm
BHP@rpm .....	23 @ 10,500
Compression ratio .....	7.4:1
Carburetion .....	28mm Mikuni
Overall gear ratios	
First .....	31.12
Second .....	23.06
Third .....	18.15
Fourth .....	15.17
Fifth .....	13.26
Sixth .....	NA

#### RUNNING GEAR

Frame .....	single down tube
Suspension	
front .....	telescopic forks
rear .....	nitrogen-boosted hydraulic shocks and swing arm
Tires	
front .....	3.00-21 knobby
rear .....	3.50-18 knobby
Brakes	
front .....	internal-expanding drum type
rear .....	internal-expanding drum type
Electrics .....	P.E.I. solid-state ignition lighting

#### GROSS MEASUREMENTS

Weight .....	192 pounds
Front wheel .....	NA
Rear wheel .....	NA
Wheelbase .....	53½ inches
Seat Height .....	35½ inches
Ground Clearance .....	9½ inches
Handlebar Width .....	33½ inches
Fuel Capacity .....	1.4 gallons

#### COMFORT RATING

Vibration .....	5
Suspension .....	8
Noise Level .....	6
Seat .....	8
Handlebars .....	9
Start Mechanism .....	9
Controls .....	9
Stand .....	9
Shift Mechanism .....	9
Switches and instr. ....	8
Overall Rating .....	80

#### PERFORMANCE

¼-mile .....	NA
0 to 60 .....	NA
Braking distance from 60 mph .....	NA

#### SUMMARY

Suzuki's all new 125cc ready-racer suffers from short-travel forks that cannot keep up with the fine long-travel rear suspension. Power, with the optional hop up modifications, is competitive. A relatively low price and reliability should be the machine's best assets. A perfect machine for a beginning racer on a budget.