

SUZUKI TM-125

CYCLE RIDER ROAD TEST

When we first picked up this sleek yellow motocrosser we were informed that it was perhaps Suzuki's best venture into building a truly off-road competition machine. With the notorious high side reputation that both the 250 and 400 motocross units carry with them, we hoped that the 125 would be a great improvement. Eventually word of mouth gets around among the local shoes and all the world championships in the world with one-off specials can't continue to sell substantial quantities of production units that are noticeably lacking.

The MT125 certainly looks the part of an all out MX-racer, from the bright yellow paint on the narrow tank to the alloy rims. The 1.3 gallon gas tank, which carries straight gasoline (rather than pre-mix) is good for approximately 45 minutes. The plastic gas cap did not leak one drop of fuel. The breather hose attached to the center of the cap runs into a plastic fitting that attaches to the cross bar on the handlebars. This rather efficient breather manages to keep dirt out of the gas while

simultaneously flushing well enough to prevent any gas spills. In keeping with the prevailing trend these days, the entire engine is painted a flat black. This does tend to dissipate heat quicker than the aluminum colored castings. Care was obviously exercised with all engine castings on our test unit.

Both front and rear fenders are also Suzuki yellow. The front fender is high mounted, just below the triple clamp. Both fenders are made from the very flexible break resistant plastic which will withstand a considerable amount of stress when subjected to the unpleasantness of a rider miscalculation. The right rear section of the rear fender had a tendency to discolor. This was caused by exhaust gases exiting from the nearby silencer.

The engine is a single cylinder two-stroke with a bore and stroke of 56 x 50mm. Total engine capacity is 123ccs. Unlike most motocross racing units the TM125 features oil injection—Suzuki's CCI lubrication system. The letters CCI stand for crank case in-

jection. The oil pump for this system is located just behind the countershaft sprocket on the left hand side of the engine. It feeds oil which is stored in a separate tank to the crankshaft connecting rod bearings and the surface of the piston and cylinder walls.

The amount of oil fed into the engine is controlled by engine speed and the throttle setting. This type of lubrication system generally results in less carbon buildup and less exhaust smoke when compared to the more common oil and gasoline pre-mix. The "right" amount of oil is fed to the engine as it needs it. For the entirety of our test we experienced no plug fouling attributable to too much oil. The convenience of the oil pump setup can't be questioned. The chances of the system failing are remote, but such a failure in a racing engine would most likely result in a wedding of the piston and the cylinder wall.

Suzuki calls their pointless electronic ignition PEI. It uses no mechanical contact breaker points. It is Suzuki's fancy name for a CDI type



It finally happened—they've built a good production racer.

of ignition system. Because of the ignition system, and the metered lubrication, we were able to ride the TM off the pipe without loading it up and fouling a plug.

Starting was quicker and easier on the TM than most road machines that utilize a kick starter. Even on our initial attempt with a cold engine the TM fired on the first kick. Even though it is an all out motocross racer the TM will idle quietly without any outside assistance. After a few seconds the choke could be turned off (it's located on the carburetor) and the engine would continue to idle unattended. It is not necessary to fish for neutral to start the TM. Primary kickstarting is incorporated into the powerplant.

The owner's manual claims 20 horsepower at 10,000 rpm with an un-silenced expansion chamber. The TM is sold with a silencer attached. The manual claims 18 horsepower for the stocker. We feel that these figures may be somewhat unrealistic. The TM did not seem to deliver that much performance.

The five-speed transmission on the TM performed faultlessly for us, as did the clutch. First gear could be engaged shortly after firing up the unit without any lurch or grind. At our particular test circuit we were faced with the problem of third gear being too high and second gear being too low. On other tracks the gap could fall between first and second, or fourth or fifth. Where, is rather immaterial. What is important however, is that the engine of this size produces most of its horsepower and torque at high revs. Unless the engine is kept in this relatively narrow span the results are rather disappointing. The closer ratios possible by adding a sixth gear help the rider stay on that power band.

The throw between shifts is quite short and each shift, either up or down, was both positive and smooth. The 125 exhibited one quality that more road machines should. After twenty minutes of extremely hard operation (during summer heat) neutral was still easy to find when the machine was stopped.

The clutch is one of the strong points of the TM. Engagement with the wet multi plate unit begins approximately halfway through the travel of the hand lever. The TM has one of the lightest feeling clutches that we have ever used. In fact, it is very similar to a clutch fitted to a 50cc road machine. A minimal amount of effort is required to actuate the clutch lever. After purposely slipping the clutch we did not notice any tendency to overheat or not disengage fully.

As with most motocross units, we shifted the TM without the clutch once the bike was in motion. Shifting to a higher or lower gear in this fashion could be accomplished with no effort.

For a racing two-stroke we found the engine noise to be rather minimal. The exhaust noise is also quite low because of the addition of the silencer at the end of the expansion chamber.

Instead of utilizing an upswept pipe Suzuki has routed the expansion beneath the engine where it in effect doubles as a rather expensive bash plate. The crankcases are protected





by the pipe alone. This is not any great concern for a bike designed for motocross only.

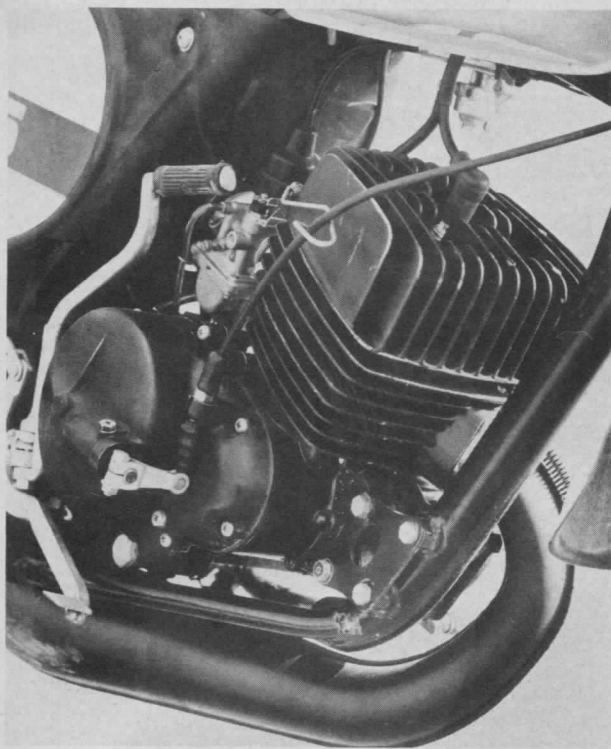
The pipe is more or less tucked out of the way. We did notice that the paint was rubbed off of an area just behind the right footpeg. Obviously our boot heel was just touching the pipe at this point. This did not inconvenience our riding position or comfort.

The carburetor on the TM is a 26mm concentric type Mikuni. We didn't notice any flat spots throughout the entire power range and, all in all, we were well pleased with the operation of the mixer. The air for the carburetor is filtered through a paper element, rather than the washable foam elements found on the majority of off-

road motorcycles today. Unfortunately this paper element cannot be washed and must be replaced when it becomes excessively dirty. On a motocross course this would probably call for replacing this element after every ride.

The frame is a semi double cradle type with a single down tube. It exhibited an extreme amount of stability over the roughest sections of our test course at Indian Dunes. There was no indication of the TM wanting to swap ends while negotiating jumps or whoop-de-dooos.

We feel that the front suspension exhibited what we would consider the proper amount of damping and spring rate necessary for our weight. The spring tension on the rear shocks was just on the verge of being too much.



This was with the springs adjusted to their softest position. (The units are five-way adjustable.) Fortunately, after several races, if your body can stand it, these springs should loosen up and lose some of their tension. Two separate springs, wound at different spring rates, are used to create a progressive approach to suspension.

To get the horsepower to the ground the TM uses a 3.50 x 18 knobby tire. This seems to work well, but we have come to feel more at home with the larger four inch on the rear. The four inch tire transmits power to a greater ground area, provided there is enough horsepower there to turn the larger tire. On the front wheel is a 3.00 x 21 inch knobby that exhibits good traction and handling characteristics in all but the dryest and hardest of corners.

Dished aluminum rims are used front and rear to help keep the weight of the TM down, provided you don't have to ride in the mud. Then the rims will pick up quantities of mud. Security bolts are used both front and rear to allow for the low air pressures necessary for off-road competition.

We liked the setup and behavior of the rear brake. The pedal is easily reached and the internal expanding brake exhibited good feel while requiring little pressure to actuate the shoes.

The front brake, on the other hand, required considerably more effort before anything began to happen. We were told that the brake shoes had been replaced just before our test so it is possible that the shoes had not bedded themselves yet. However we feel it is more a problem of leverage than anything else. Riders with large

hands, or those who do not like a sensitive brake, will definitely feel at home on the TM. Even under extremely hard braking the front binder gave no sign of locking up.

The TM125 is a small bike that is built to fit medium as well as smaller sized riders. The distance between the footpegs and the handlebars make it quite comfortable to stand on the pegs without having the feeling of being hunched over or leaning forward to reach the handlebars. The seat is placed high enough so that the distance between it and the footpegs will not cramp riders with longer legs. The distance from the seat to the ground is low enough to allow both feet to be planted firmly on the ground.

We are extremely happy to see that Suzuki has placed a kill button on their machine that is located on the left side of the handlebars. Most manufacturers still seem to prefer the right side. Perhaps they would change their mind if they ever had a bike "run away" wide open. We feel that a rider can take better advantage of this switch if it is positioned on the left side of the bar. With the magneto type PEI it is not necessary to fit an ignition switch and the kill switch doubles as the ignition on/off switch.

The footpegs are made from cast aluminum and came through the rigors of our testing with flying colors. These folding pegs offered a good amount of traction for our feet, even through wet conditions. After a few hard hours on the TM125 the Road Test Editor initially questioned the suggestion that it was the best that Suzuki has to offer in their motocross line. He had not ridden the larger MXers. When apprised of their behavior he began to understand why the 125 seems like Suzuki's best to date. The TM is a good but not exceptional racer. It handles reasonably well and has a fair amount of power. It is economically priced and should prove to be quite reliable. However there are other (usually more expensive) units on the market that do handle better and produce more power. The best, in our opinion though, costs little more than the Suzuki.

The TM appears to be a machine that is well thought out, well engineered and well built. The basic package is there and continued effort could make it even more competitive. Hopefully the effort made with the 125 indicates that Suzuki is finally ready to join the rest of the Big Four in getting serious about building good production racers. They have proven that they can do it on the international race tracks. The 125 indicates that maybe they now want to build something good for Joe Rider too.

Bob Braverman/Walt Fulton, Jr.



SUZUKI TM 125

Engine type	single cylinder, two-stroke
Bore and stroke	56 x 50mm
Displacement	123cc
Compression ratio	7.5:1
Claimed horsepower	18 hp @ 10,000 rpm with silencer
Claimed torque	10.0 ft. lbs. @ 8000 rpm with silencer
Engine red lines @	10,000 rpm
Ignition	P.E.I.
Starting system	kick, in any gear
Carburetion	26mm Mikuni
Lubrication	CCI (oil injection)
Type of transmission	constant mesh 5-speed
Clutch	wet multiplate
Internal gear ratios	(1) 2.14, (2) 1.59, (3) 1.25, (4) 1.05, (5) 0.91
Final ratio	13.19
Countershaft sprocket	15
Rear wheel sprocket	61
Length	79.1 in.
Wheelbase	52.6 in.
Ground clearance	7.9 in.
Listed dry weight	189 lbs.
Front tire size	3.00x21 in.
Front brake type	internal expanding
Rear tire size	3.50x18 in.
Rear brake type	internal expanding
Air filtration	dry paper
Fuel tank capacity	1.3 gal.
Fuel reserve	0.3 gal.
Oil tank capacity	1.2 pt.
Gear box capacity	1.2 pt.
Front suspension	telescopic double damping
Rear suspension	5 way adjustable spring over shock
Frame type	semi double cradle
Exhaust system	silenced expansion chamber
Color	yellow
Retail price, Los Angeles	\$626
Distributor:	
	U.S. Suzuki
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	Santa Fe Springs, Calif. 90670