

■ BASICALLY, THERE are two ways to win races. One is to ride a machine that handles and then finesse your way into the lead by passing in the rough or in turns. The other is to hang in there in the turns and use superior horsepower to pass down the straights.

If you favor this latter strategy, and feel that the 100cc class is where it's happening, the Yamaha LT3 MX is the machine for you.

There is nothing really wrong with the LT3 horsepower approach to racing, but it does tend to limit acceptable race courses. And, as one might expect, the favored courses are smooth, fast ones—courses more in the TT tradition than motocross.

YAMAHA LT3 MX

A 16-BHP Screamer
For Budget Minded Racers

Cycle World Road Test

Because the LT3 is delivered with knobby tires (a 2.75-17 front and a 3.00-18 rear) it is really set up for smooth, so-called motocross tracks with a loose surface. Here the Yamaha is really in its element. As soon as the starter drops the flag, grab about 10,000 rpm on the 10,500 rpm red line and let the claimed 16 bhp carry you into the lead. Initially, the LT3 will try to wheelie, but leaning forward is all that is necessary to remain in control.

Unfortunately, the quickest way around on the LT3 is a line that avoids most of the bumps and/or holes in the course. The forks offer a fairly soft ride, but the rear of the machine takes these irregularities with a severe jarring action. Spring rate is too stiff, even for a 160-lb. rider.

This jarring and accompanying wheel hop, coupled with a short 49.5-in. wheelbase and high center of gravity, make it impossible to leave the power on, because the rear end skates around too much. This is why we emphasize the necessity of a smooth course to remain competitive.

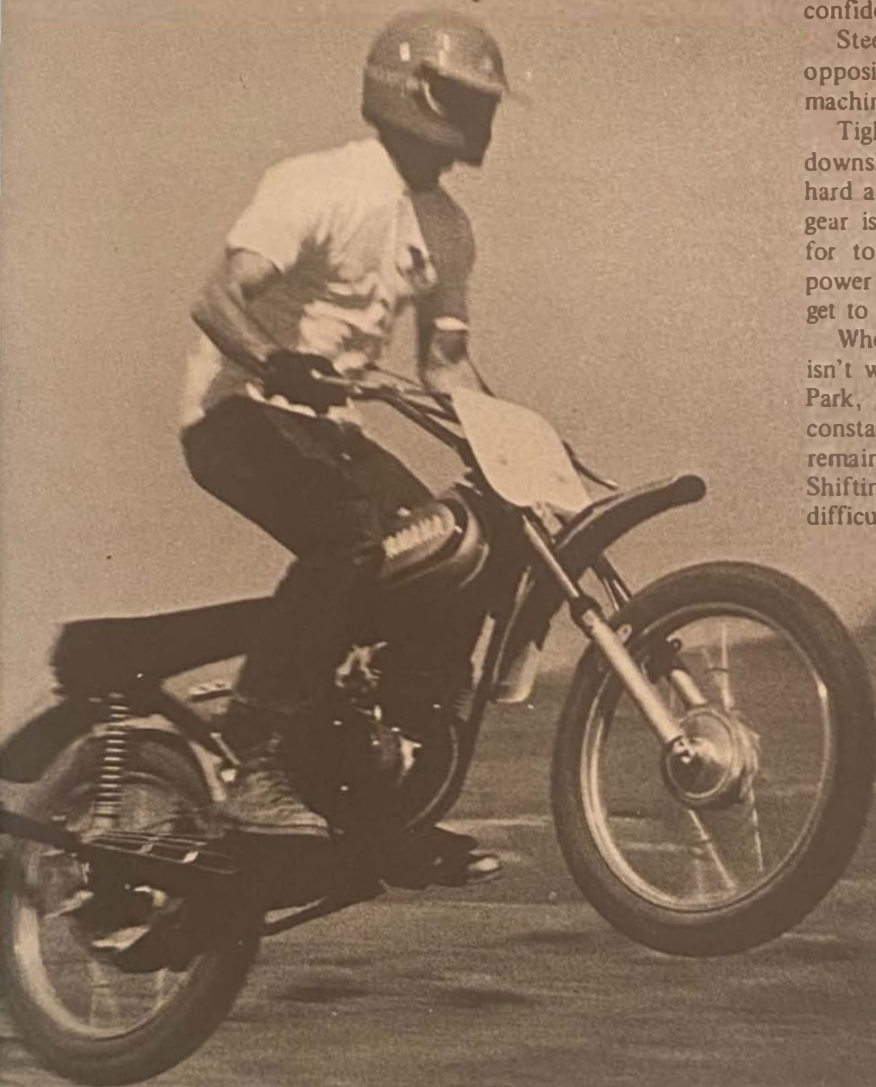
The front brake feels a little spongy when stopping hard at the end of a fast straight, but the rear unit is excellent. Fade is minimal, so repeated late braking is possible without fear of overshooting a turn.

Cornering the LT3 is just plain fun. A couple of quick downshifts are necessary to keep the 100cc Single within its relatively narrow power band. After that's accomplished, just dive in. The LT3 can be leaned over at crazy angles with confidence.

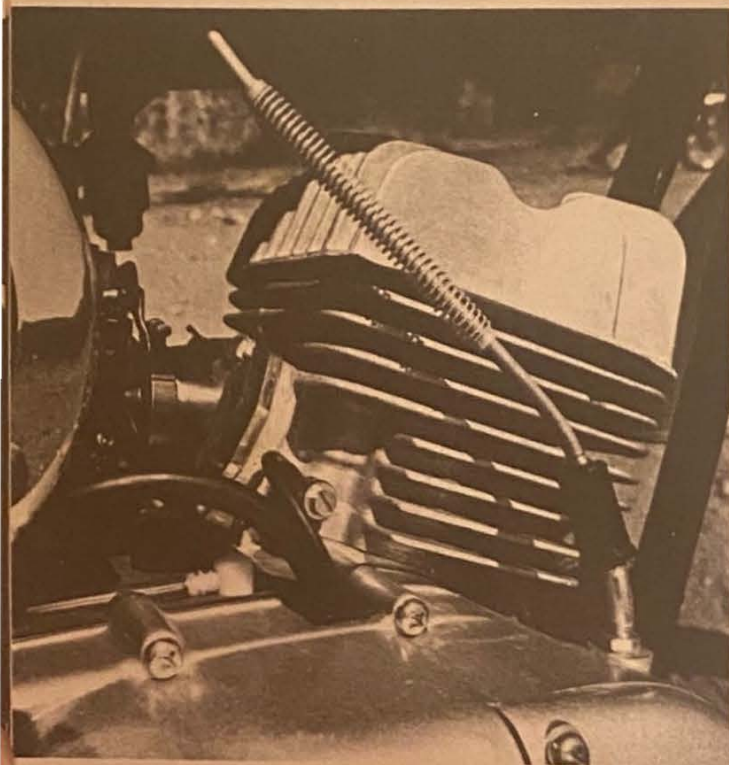
Steering remains precise, so it is easy to get inside the opposition. Sliding is minimal as well, although the rear of the machine does go out rather rapidly when it breaks loose.

Tight turns present more of a problem. Three or four downshifts are often difficult to accomplish when braking hard and jockeying for position at the same time. And, if 1st gear is necessary, that 16 bhp and narrow power band makes for too much wheelspin. It's fun to get sideways with the power on, but this technique is just about the slowest way to get to the next turn.

Whenever racing becomes more work than fun, it really isn't worth it. On rough courses, like the one at Saddleback Park, riding the LT3 ceases to be fun. Gear selection is constant. Five or six seconds is the most you can expect to remain in any of the five speeds, and that's on uphill sections. Shifting requires so much time and concentration that it is difficult to concentrate on the course itself.



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Whenever hard braking is required on rough downhill, the forks bottom. And, those inadequate rear shocks make total control impossible.

If the downhill don't discourage you, lack of traction in tight turns (again due to the narrow power band), and skating through a series of whoop-de-doo's will. The final blow comes when the competition disappears over the hill.

Riding European-type motocross courses may be taking the screaming Yamaha 100 out of its element, but it does prove one thing. Both frame and running gear are capable of withstanding a lot of abuse.

The double-cradle frame is formed from small diameter tubing to keep weight down. In true Japanese trail bike tradition, the engine is nestled high up in the chassis. Lowering this mounting position a couple of inches would improve stability considerably.

Although the swinging arm is strong enough for this application, serious racers will probably lengthen it a couple of inches. The difference in handling between a 49.5 and 52-in. wheelbase chassis is considerable. Ride a lengthened model and you will never go back to stock.

The chassis may be a little short, but components are well thought out. Hubs are full width with a lot of metal around the spoke holes to eliminate failure in this area. The rear brake is actuated by a rod which doesn't stretch like cable versions. The silencer is bolted and clamped on to keep it from parting



with the bike. The side mount air filter with foam unit is easily serviced.

Seemingly everything is compatible with the design concept—everything except the autolube system. On most machines, autolube is fantastic as it eliminates the need to mix oil with the gas. On the LT3, this is not the case.

The owner's manual for this machine emphatically states that a 30:1 ratio of oil and gas must be used in conjunction with the autolube system. To our way of thinking, this eliminates the prime advantage of autolube; especially when you realize that the engine will perform just as well on a richer oil/gas mix with the oil pump and tank removed. Elimination of the package also eliminates potential oil line breakage.

Aside from this inconvenience and the need to be spot on as far as spark plug heat range and jetting are concerned, the little two-stroke is a trouble-free performer, and potentially easy to service. Ignition is provided by a simple flywheel magneto. Occasional cleaning of the points is all that's necessary here. Rubber mounting the 26mm Mikuni carburetor helps maintain float adjustments and main jets can be changed without removing the float bowl, thanks to an external main jet carrier. All that remains is periodic decarboning of the cylinder head, ports, and piston to insure top performance.

Maintenance is simple, but engine design is both radical and

complex. The cylinder has seven ports and the intake phase is greatly extended by use of a reed valve. Because of the reed valve, a specially windowed piston is fitted, which allows earlier intake of the fuel charge. Also, the time allowed for the fuel to reach the crankcase is extended and the reed valve prevents backing up of the fuel charge into the intake tract when crankcase pressure changes from negative to positive.

High rpm capability has necessitated the use of ball bearings on the crankshaft and needle bearings on both ends of the connecting rod. A maintenance-free helical gear primary drive and in unit five-speed transmission complete the power unit. In all, it is a proper design.

Because the engine is radical and because it isn't happy unless held flat out, the LT3 is for racers only. It's an excellent machine for small bore TT enthusiasts or for perpetual sportsman novices who delight in blowing their friends into the weeds on a Sunday afternoon. Others need not apply for ownership. ☒

YAMAHA LT3

SPECIFICATIONS

List price	.....	\$514
Suspension, front	.....	telescopic fork
Suspension, rear	.....	swinging arm
Tire, front	.....	2.75-19
Tire, rear	.....	3.00-18
Engine, type	.....	two-stroke Single
Bore x stroke, in., cc	....	2.05 x 1.79, 52 x 45.6
Piston displacement, cu. in., cc	.....	5.92, 97
Compression ratio	.....	7.8:1 (corrected)
Claimed bhp @ rpm	.....	16 @ 10,500
Claimed torque @ rpm lb.-ft.	.....	7.8 @ 9500
Piston speed (@ rpm) ft./min.	..	3133 @ 10,500
Carburetion	.....	VM 26 SC Mikuni
Ignition	.....	flywheel magneto
Oil system	.....	autolube & oil in fuel
Oil capacity, pt.	.....	2.6
Fuel capacity, U.S. gal.	.....	1.6
Recommended fuel	.....	premium
Starting system	.....	kick, folding crank
Air filtration	....	oil-wetted polyurethane foam

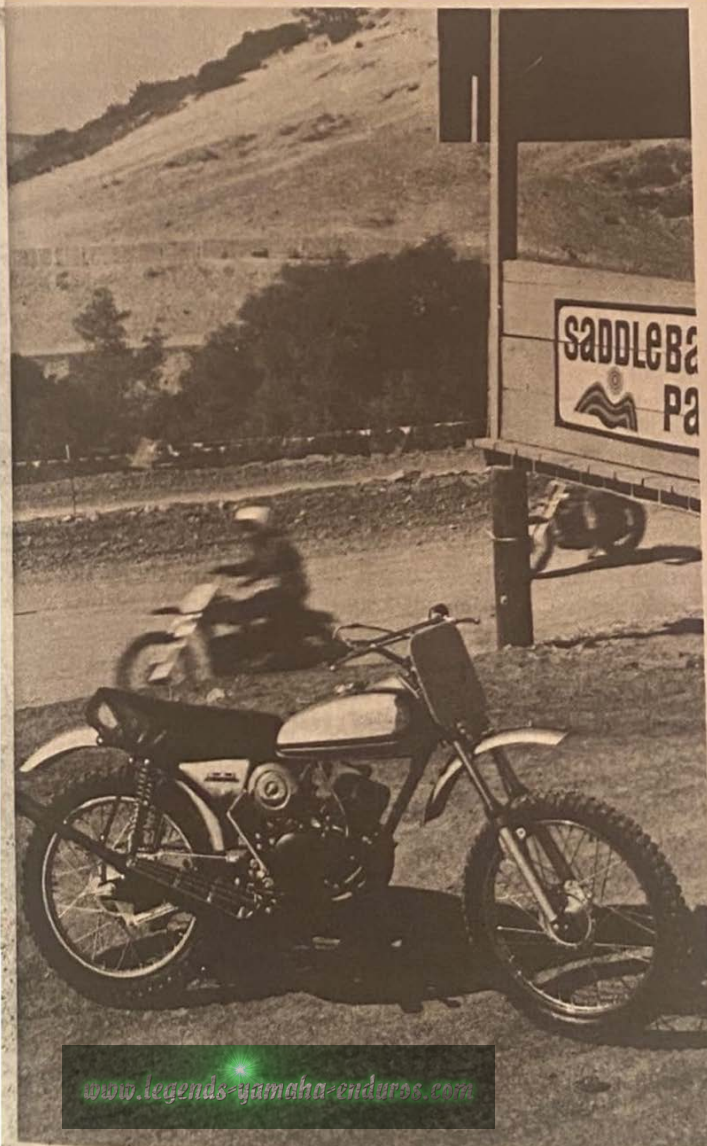
POWER TRANSMISSION

Clutch	.....	wet, multi disc
Primary drive	.....	helical gear
Final drive	.....	single-row chain
Gear ratios, overall: 1		

5th	.....	13.82
4th	.....	15.76
3rd	.....	19.78
2nd	.....	27.11
1st	.....	40.97

DIMENSIONS

Wheelbase, in.	.....	49.5
Seat height, in.	.....	31.0
Seat width, in.	.....	9.5
Handlebar width, in.	.....	31.5
Footpeg height, in.	.....	12.0
Ground clearance, in.	.....	8.6
Curb weight (w/half-tank fuel), lb.	190
Weight bias, front/rear, percent	44.8/55.2



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