



Yamaha seems to be aiming to get another motorcycle this time the 250 MX. While this machine will do an acceptable job on a motocross course, it's much more of an all-around bike than just about any other 250 made. The only exception that comes to mind, is the OSSA 250 Desert Phantom.

And, like the Phantom, the 250 MX is more at home in the desert than on the MX track. About the only thing the Yamaha can't do that the OSSA can, is tight woods riding. Here, the superior low end power of the Desert Phantom stands out.

When you get right down to it, both bikes are misnamed. And, both bikes are excellent all-purpose racers.

An all-purpose racer takes some defining. We define it as a bike that'll work on an MX track and with no modifications, works well in the desert.

Or even a play bike. Or a decent casual trail machine.

For a bike of this nature, the power must come in fairly well down low and be transmitted through at least a five-speed (preferably a six-speed) gearbox. The box, if a five-speeder, should be at least a semi-wide ratio, to give the rider something that'll poke along in low and still give a decent top end in fifth.

As an all-purpose bike, the OSSA is easier to ride than the Yamaha, but the Yamaha has more desirable features. As far as features go, we must mention the Penton as having more features than either bike, but also a horribly expensive machine that is not all that easy to ride for those less than expert level.

The Yamaha, if nothing else, represents an available machine with mini-

mal parts and service hassles. In short, if you're not ultra-serious about any one phase of racing, there probably couldn't be a better choice to make than the 250 Yamaha MX. It'll do most of the things we talked about fairly well and absolutely shines at cross country or desert racing.

Like all bikes that work in several areas, this machine is a compromise of sorts. While several areas of the 250 Yamaha have been compromised, one area must be considered a failure: the entire front end. We really can't see any good points with the entire fork assembly, from the wimpy triple clamps to the flustered damping, to the flexing fork tubes. It is an absolute and total failure.

It's even more so a flop, when you consider that the rear end is probably the finest setup that comes stock on

# 250 YAMAHA MX

*If it had forks, you could call it a Penton.*



250 Yamaha looks almost like its bigger brother, the 400 MX. In fact, it shares many of the same components, including frame, forks and wheels.

[www.legends.yamaha-enduros.com](http://www.legends.yamaha-enduros.com)

any bike offered to the public right now.

Of course, the monocross suspension is heavy. That's one of those compromises we were mentioning earlier. In fact, the whole package comes in about 15 pounds heavier than the successful pure motocross bikes in its class. In this case, we feel that the 15 pounds is a good investment.

In a desert race, you won't notice the weight and under most racing conditions, the action of the monocross rear end is superior enough to justify the weight.

Even though the 250 Yamaha can't be called a stump puller down low, it won't fall on its face if the engine is forced to lug in too high of a gear. In a drag race, the 250 is almost as fast as the 250 YZ. In fact, the only time the quicker revving YZ can pull the MX, is when traction is perfect. Under

all other conditions, rider weight transfer will determine who gets to the first turn quickest.

Right around 5500, the MX has a surge reminiscent of the explosion of an old Suzuki 400. When this hitch in the power curve comes on, it makes the bike fishtail around wildly if the rider is perfectly lined up with his intended direction of travel.

The situation is aggravated by the absolutely seummy rear knobby. This slab of rubber, even with low pressure, allows wheel spin and loss of traction under anything less than perfect course conditions. The Japanese Dunlop Sports Senior looks a great deal like a Pirelli with a squattier profile. Those center knobs are very long and spaced widely apart, offering little resistance to side loads. About the only place they even begin to work, is in sloppy mud condi-

tions, where nothing seems to work much better than anything else.

This combination of shitty rear tire and explosive surge of power was especially difficult to deal with when exiting a corner. Much time was lost by correcting the unwanted slide of the rear end with front end gymnastics. It was actually best to ride the 250 through the corners like a 125, with the engine screaming above the surge point. Of course, this made the low end tractability virtue of the bike an unusable trait.

The first few times we tried to push the Yamaha through a corner, we experienced trouble making the bike hold its line. The machine tended to swing wider than the intended arc, even with power on.

We went back to the pits and resorted to the old trick of raising the fork tubes in the triple clamps, reducing rake and trail in the process. This always makes a Yamaha front end bike better. And, in this case, it made the machine hold its line better. But not good enough. No matter how we tried, the Yamaha would not snub in tight enough. We had to re-evaluate our approach to flat sweeping turns and allow for the tendency of the machine to work its way out.

When there were humps present to punch the bike against, we had no real problem, except for a tendency of the bike to straighten up and return to vertical—even under very heavy throttle.

Handling is almost neutral, except for a tendency to go wide under all turning conditions. At least the bike will respond in the same manner in every corner. You merely adjust for the trail and ride accordingly.

This trait yields a trade-off. In a straight line at high speeds, the 250 Yamaha tracks as well as a set-up desert Bullcog. As delivered, the Yamaha is a natural desert winner. About all the rider would have to do, would be add one tooth on the countershaft sprocket and install a larger gas tank.

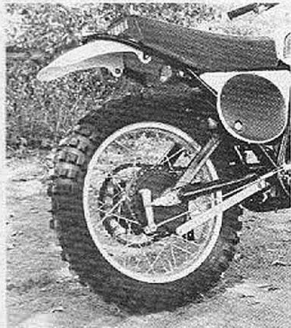
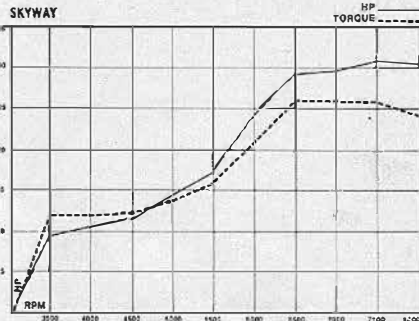
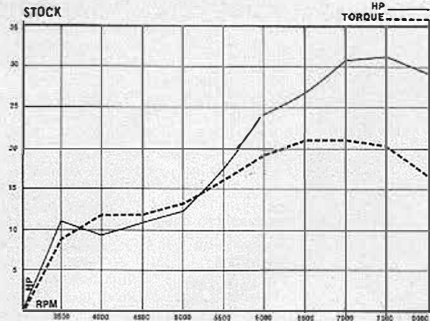
We'd advise leaving the monoshock unit alone. Having ridden several of the "modified" rear ends, we can only say that they're getting a soft ride at the expense of handling. That monoshock unit is set up for racing, not trail riding. Too much chassis wallow results for an ultra soft monoshock and this will put the rider in trouble that cannot be believed.

## —DETAILED

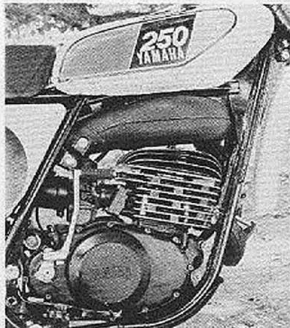
When sitting on the bike, your hands are in a very strange position; the height of the bars is correct, but the width of the bars tends to pull you forward. They would be fine if you have super long arms, like a monkey.

When you start riding the thing, you soon see why they added distance between your hands; you need the

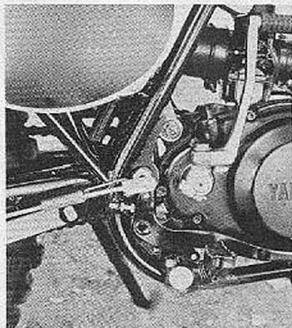




Rear wheel is light and very strong. Tire—trash. Bend the brake rod slightly for less sensitive brake action or suffer some stalling when braking hard approaching bumpy corners.



Pipe is excellent and, for the most part, out of the way. Some riders burned right leg when getting well forward on the tank. This can be cured by lack welding some rod on the pipe bulge to form a heat grid. Plug change is still easy, despite cross-over design.



Some rear wheel chatter under braking can be felt. This could be cured by making the rod cross the swingarm pivot dead center with the pedal depressed. As you can see, Yamaha has abandoned the floating brake arm assembly of years past. There are two holes for the rod attachment in the pedal arm. The lower one makes braking less sensitive, but increases rear wheel hop and chatter when locking everything up.

leverage to keep yourself in the saddle.

Seat is one of the best for a long ride. It has enough bounce to be comfortable and it's not the kind that turns to putty after a brisk 20 minutes. Firm, yet comfortable seats are the best for high speed bumps.

In order to cut the weight of the bike, Yamaha has done some weird things to the forks. They're turned down so much that there is horrible flex in the stanchions at almost every speed. We rode a bike that had the stock 7 1/4" forks modified to where they had a full 3 1/2" of sloppy travel. When turning with the power on, they were passable, but on those turns where you come hauling in, pivot hard, then accelerate, the wheel takes a split second to respond. Enough to dump you. When blasting down the straights, the 250 seems to wander, but it's those forks. Like the DT-1s of old.

As on most of the Yamaha MXers, the brakes are strong. A little touchy, but they stop. By bending the brake rod slightly, you can get a little mush before they grab hold.

Fronts are the same; they really stop when you need it. But, a strange

thing happens when the front brakes are applied in a decelerating choppy corner. The lever is pulled from your hand as the forks are compressed. If you were to look at your hand while this was happening, you'd notice your hand pulsing in and out. Very weird, but true.

We blame the cable for being so stiff that it will pull the grip from your hand rather than bend. Combined with the three cable guides holding it in place, tightly in place.

Hitting the bumps, those forks stroke surprisingly well. We installed a Number One kit and they worked even better. In fact, if they didn't flex like Taco minibike forks they'd almost be worth considering.

Yamaha has designed new style tanks for their MXers and did a good job in the process. This tank fits the curves of the bike as well as any tank you could fit on it. It holds enough gas to go a good 45 minutes, but not enough to run in the desert. There are plastic three-gallon models available for the bike.



Flimsy front end is weak point of all Yamaha line of dirt racers. Factory bikes use heavily knurled hubs of greater diameter and much stronger clamps.



NAME AND MODEL ... Yamaha 250 Motocross  
 PRICE, SUGGESTED RETAIL (APPROX.) ... \$1285  
 MOTOR .. Single cylinder, air cooled, reed valve

BORE/STROKE .. Two-stroke  
 70mm/64mm  
 DISPLACEMENT (CC) .. 246cc  
 COMPRESSION RATIO .. 7.54:1  
 CARBURETION .. 38mm Mikuni/reed valve  
 RECOMMENDED STANDARD JETTING FROM

FACTORY:  
 MAIN JET .. 390  
 NEEDLE JET .. 20  
 PILOT (LOW SPEED JET) .. 60  
 NEEDLE .. 6F16 3rd Pos.  
 IDLE AIR SCREW (NUMBER OF TURNS) .. 1 1/2  
 SLIDE .. 3.0 cutaway  
 IGNITION .. CDI electronic  
 RECOMMENDED SPARK PLUG .. B9EV NGK  
 SPECIFIED TIMING .. 2.6mm BDC  
 PRIMARY DRIVE .. Straight cut gears  
 FINAL DRIVE .. 520 DID chain

GEAR RATIOS:

1. 32-13 1.833-1
2. 31-22 1.409-1
3. 28-24 1.166-1
4. 25-22 1.136-1
5. 24-28 .857-1

AIR FILTRATION SYSTEM .. Twin fuzzy filters  
 LUBRICATION .. Premix

RECOMMENDED OIL AND

RATIO OF MIX .. Yamaha's 80  
 FUEL TANK CAPACITY .. 8.0 litres  
 OIL TANK CAPACITY (IF ANY) .. None  
 RECOMMENDED GASOLINE (FACTORY) .. Premium  
 FRAME (TYPE) .. Double down tube  
 WHEELBASE .. 56.3 inches  
 STEERING HEAD ANGLE .. 31 degrees  
 GROUND CLEARANCE .. 9 1/2 inches  
 SEAT HEIGHT .. 33 inches  
 FRONT SUSPENSION .. Internal spring, telescopic 8 inch travel  
 REAR SUSPENSION .. Monocross (airline shock)  
 7 1/2 inch travel with cut spacer  
 5 1/2 inch stock

WHEELS:

FRONT .. 21 inch DID shod/defless  
 REAR .. 18 inch DID shod/defless

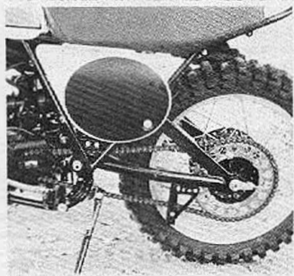
TIRES:

FRONT .. 3.00x21 Nippon Dunlop (fresh)  
 REAR .. 4.50x18 Nippon Dunlop (fresh)

W/AXLES/HUBS:

FRONT .. Internal expanding/conical/cable oper.  
 REAR .. Internal expanding/conical/cable oper.

FUEL TANK MATERIAL .. Aluminum  
 FENDER MATERIAL .. Plastic  
 INSTRUMENTS (IF ANY) .. None  
 WEIGHT (ACTUAL) WITH HALF TANK OF GAS .. 247 lbs.  
 WEIGHT OF FRONT END .. 115 lbs.  
 WEIGHT OF REAR END .. 132 lbs.  
 EXHAUST SYSTEM .. Upsweep expansion chamber  
 SILENCER/SPARK ARRESTER (IF ANY) .. Bull-on silencer  
 STARTER KICK, ELECTRIC, LOCATION) .. Kick, right side  
 PRIMARY START .. Yes  
 GUARANTEE, IF ANY .. Manufacturer defects only  
 INTENDED PURPOSE OF BIKE (FROM MFG) .. Motocross  
 COUNTRY OF MANUFACTURE .. Japan



Keep an eye in the sprocket bolts; ours came loose constantly. Chain guide is wimpy; trailing arm is very strong and flex free.

It's got the same ignition as the other Yams, a CDI unit and a black box. Only problem with the ignition, is the wire hook-ups. We had ours come unplugged a couple of times. By taping or siliconing the connectors, you shouldn't have any problems. One of these times we ripped off the kill button in desperation. If you quits, check the connectors before you get pissed off and start pulling wires.

Unlike the YZ, the MXer has a lighter shifter. On the YZ, if you hit a good square bump, the bike might jump out of gear. This lever is nice and easy to find. Looks to be very strong, also.



Under your right foot, Yamaha has one of the best brake pedals ever. Its only drawback is that it's slightly heavy, but it makes it up in strength. We never did miss the break pedal in one of those moments of desperation. That seems to be the time when you always miss most pedals. It's gnarly enough to hold firm even in the mud. A very fine unit.

Most bikes have a set of half-way decent foot pegs, but the Yamaha has an excellent set of platforms. They have large saw-tooth edges that'll hold even through the deepest mud holes, and have extra length so your boots will last a bunch longer. Short pegs tend to wear the center of the soles out of your boots. If you drill some holes through the top of the peg, the mud

will fall through easier and the pegs will stay cleaner. As they are, they tend to fill up a bit which draws from their efficiency.

Yamaha is still using that crappy chain guide on all of the motocross machines. It's that kind a chain guide that will make you throw your chain if it so much as gets bent slightly in a tight turn. We bent ours in the first riding session. If you spent a little time thinking about it, you could build a good one out of strong aluminum and never have another problem.

Side panels are held in place by Phillips screws. Simple, yet efficient. These side panels fit the contour of the bike perfectly. They are also large enough to hold even a four-digit number, if you have one that big.



That throttle has the best action of any we've felt, and it's very light and strong. Grips are trash. Way too hard for the normal rider.

Yamaha did a little trickery to the rear brake anchor arm. They made an alloy brake strap that looks out of place on the bike. It's the only piece that looks foreign.

By cutting the spacer on the monoshock, you can get an extra inch of travel in the rear.

If you decide to do this, you'll have to change the spring rate on the rear. Ken Ross has replacement springs available for that unit. Yamaha also has some springs available from their dealers, but the Ross springs come in more spring rates for wider tuning. If you spring the unit too light, then the chassis begins to wallow in the corners. The ride is nice, but the wallowing and flexing is no good.

When the monoshock is properly sprung, it'll feel slightly stiffer than you would like, but only on the small bumps. When you hit the bumps that send fear up your spine, the rear unit strokes like the bump wasn't even there. That's where the monoshock surpasses most rear ends around today. In the desert the monocross system is by far the best. It handles those big road crossings like they were small rolling whoopers. Over the whoops the unit always responds the same way, straight up, never will it swap ends. Only if you let off on the gas, will the bike begin to act strange, but most bikes will do worse than that.

Yamaha has outdone themselves on the construction of the pipe. It has to be one of the lightest pipes around and fits absolutely perfect. It snakes its way up over the engine and back past the air box. In order to remove the pipe easily, they've made the head pipe section a two-piecer. Springs hold the two sections together, but the way it fits they can't come apart anyway. Yamaha has available (courtesy of Skywalker) a spark arrester that makes the MXer legal for forest use. It's a state approved unit and cuts the noise to a minimum, bolts right where the stocker is and adds only a few pounds, a small sacri-



fice for the sake of not getting a big fine.

The air cleaner is the same as the 400, and just about as inefficient, unless you take the time to properly seal and maintain the filters. The stock fuzzy filters last for a short while then begin to fall apart. You can replace them with two kinds of filters we know of. K&N makes a replacement for the unit, as does Twin-Air. Cost difference between the two is great. The K&Ns go for about 11 bucks, while the Twin-Airs are close to thirty bucks.

When you service the filters you should use extra amounts of grease; don't be afraid of using too much, because the filters sit right against the fiberglass of the air box. The sealing ability of the unit is marginal. With the extra amounts of grease, you shouldn't have any problems.

Whenever you have an engine that runs a reed, you should check it about once each month. Simply by taking the carb and the manifold off, you can inspect the reeds. They should sit flush against the reed housing. If they show signs of spreading away from the housing, they should be replaced, or at least turned over. If you turn them over, you should replace them the next time the carb comes off. You have to buy the entire reed cage assembly, but accessory reeds can be purchased. If you break a reed off and suck it into the engine, you're going to have problems. Usually the reed will lodge in the transfer ports and not in the engine. If the reed breaks into small pieces, it may enter the engine.

## SUMMATION

As a package, the Yamaha is just about the only 250 worth considering if you're on a budget and want a bike that's versatile. If you have an OSSA dealer near you, then you might want to consider the Desert Phantom. OSSA dealers are not all that commonplace.

Our advice to you would be to leave the bike alone, other than installing a fork kit in it, and learn to ride the bike with its limitations in mind. After a while, your body will learn to adjust to the quirks of the front end to a certain point.

For desert work, the machine is superb. For play riding, it's enough to pleasantly scare you. Dollar wise, the Yamaha can be purchased comfortably and the usual Yamaha reliability is present. Just keep a close eye on that clutch and gearbox, though. We've had reports...

Don't fart around with the bike. Ride it, enjoy it. It accelerates as hard as anything but a Can-Am 250 and the rear end is the best stock setup in the business. All in all, a decent motorcycle that could have been a great one, if they just hadn't stopped working when they got to the entire front end. But then, that's why companies like Bultaco and Maico are still in business. ●



Steering head strap had holes drilled in it. For lightness? Fork lubes are turned down between the clamps, limiting range of adjustment.



We had an ignition failure which was traced to the coupler from the black box coming loose. It did it twice, then we taped it in place.



Before we located the wiring problem, we'd already ripped out a suspect kill button wire. A mistake on our part, as this is a very good unit with a history of no failures. Oh yes. We tried some Petty hex grips and no one could stand them, even after much trimming with a razor blade. Guess it takes big hands to get along with them.