

MAICO 250 MAG 3

JAWS 3

By the Editors of Dirt Bike

When the new Maico MIs came out, we grabbed the 450 for our first test, just so we could scoop everyone else. In the process of getting through another year, we almost forgot about the 250 Maico. Which is a shame, of sorts.

The 250 MI MAG 3 is quite possibly the finest handling bike we've slung a leg across during this entire year. Only the Kawasaki KDX 175 even comes close to the combination of handling and suspension that the 250 MI offers.

Much of the ease of riding the MI comes from its delivery of power. Very heavy flywheels lurk in the tiny cases of the Maico. This means that the rpm build-up is slower and more predictable. If you're used to the power output of something like a 250 YZ, with its explosive and short jolt of power, the Maico will feel slow at first.

In fact, when we first rode the bike,

it didn't feel competitively fast. As we got more and more time on the bike, the engine loosened up and revved easier. The only time the slow rpm build-up hurt our lap time was on the start, or on a long uphill.

Dyno runs showed that the MI put out competitive horsepower for a 250, right around 31 ponies at the rear wheel, just about the same as a stock YZ250. We felt that the 250 Maico was grossly over-carbureted, with a huge 40 millimeter Bing carb doing the mixing chores. The delivery of power was too soft right off the bottom end.

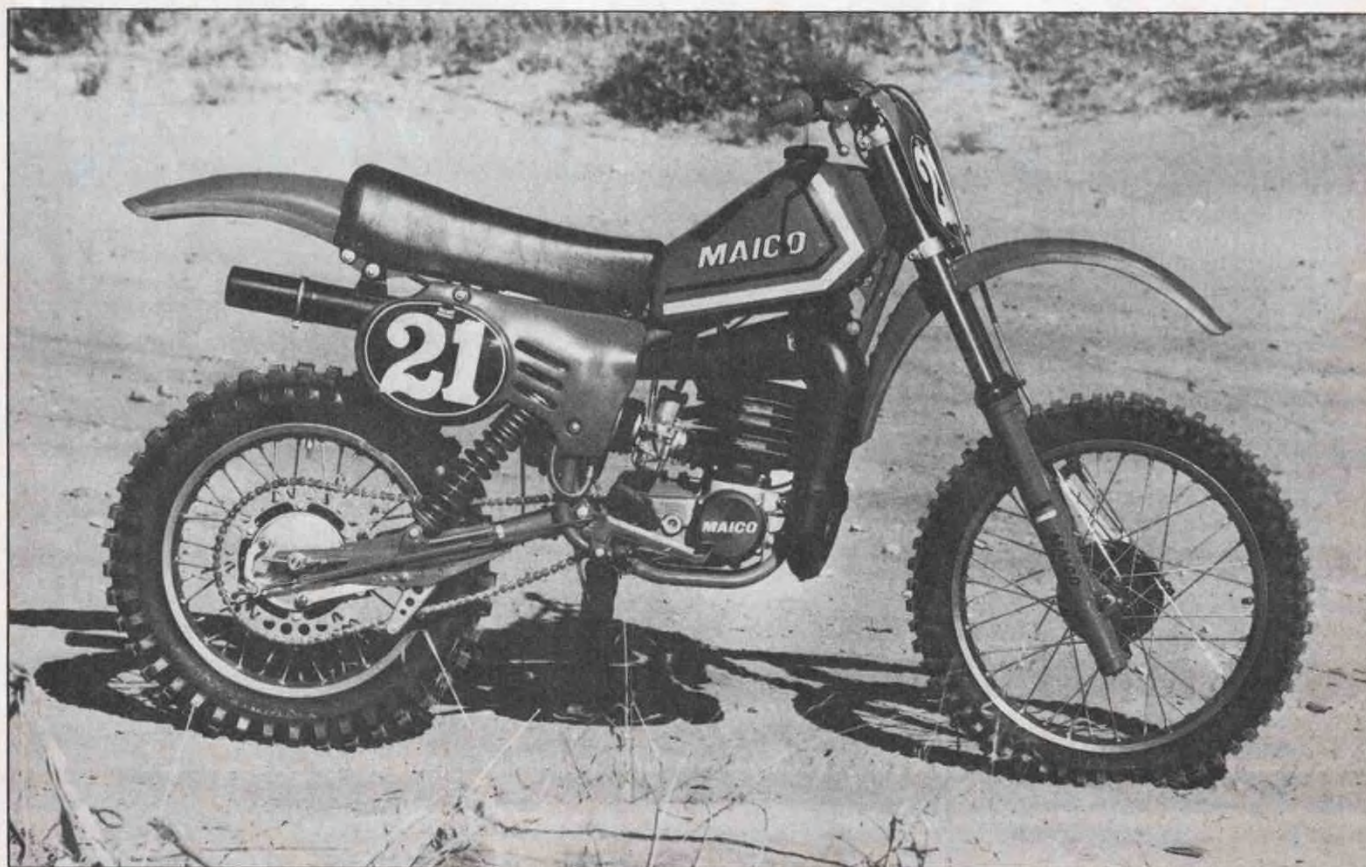
Normally, we would expect some grief with a Bing. But this particular Bing had no blubbering, or detonating throughout the entire range. In fact, the bike was a one-kick starter for the entire test, hot or cold.

It's just that, as we said, the Bing was simply too big for the motor. The bigger the venturi of a carb, the

slower the intake speed at lower revs. And, because the Maico does not have reed valves, the massive carburetor lets the air/gas mixture lieisurely wander into the engine. It's a very safe bet that the 1981 Maico 250 will come with reed valves, and, quite possibly, a Mikuni carb. Developmental work is going on right now. Whether the big bikes get the reeds remains to be seen.

After two riding sessions, we felt that the Maico did not have enough punch off the bottom. Also, we were not getting into the higher gears at all on any of the straights. Our bike came with a 14-tooth countershaft sprocket. An extra sprocket came with the jetting and tools, this one a 13-tooth gear. We slipped it on and were impressed with the difference immediately. The 250 Maico is very, very sensitive to gearing changes.

With the smaller C/S sprocket in place, the Maico would now pull



Sharp Teeth for the Turns

second gear out of corners that previously required first gear. Still, we felt that we should have more snap right at the lower end of the rpm scale, mostly because of the slow rpm build up. You can sacrifice low-end power in a 250 if the revs build quickly, but because of that huge carb and the traditionally heavy Maico flywheels, the build-up of the revs was too slow.

We decided to experiment with a smaller carb to check our ideas out. We tried a 34mm, a 36 and a 38mm Mikuni carb. Of the three, we settled for the 36mm carb. The 34 gave us a snappy lower end and mid-range, but we lost too much power at the high revs. Or rather, we simply lost some revs.

The 38 worked better than the 40mm Bing, but still didn't have what we were looking for. Our 36 Mikuni is basically the same unit that comes on an IT250G, however, there is no reason why any other 36 Mikuni will not work just fine. Here's what the carb comes jetted with for an IT, and here's what we ended up with on the Maico:

JETTING FOR 36 MIKUNI ON IT250G

PILOT JET70
SLIDE CUTAWAY2.0
NEEDLE6F15 or 6F2
MAIN JET350

JETTING FOR SAME CARB FOR MAICO MAG 3

PILOT JET25
SLIDE CUTAWAY2.0
NEEDLE6F15
MAIN JET300

Additionally, we ended up running the clip on the needle in the middle position, but this will surely vary from bike to bike and depend somewhat on the altitude.

With the Mikuni in place and jetted, the Maico responded like a good thing. Now, the MAG 3 would punch out of a slow corner without bogging or hesitating. The mid-range power experienced a huge gain and only a little was taken off the peak power. While we may have lost 800



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rpm off the top, we gained several thousand usable rpm down low. We can recommend this Mikuni conversion without hesitation. It works.

Riding It Stock

Now that you know what *can* be done with the M1, here's what it's like bone stock. Unlike the 450 Maico we tested in the February issue of *Dirt Bike*, the forks on our bike required zero break-in time to get loose and plush.

Those forks, by the way, have been changed since the first part of the year and now have reduced compression damping. Their action on square-edged bumps was nothing short of phenomenal. Additional wipers have been put on the massive 42mm forks and no leakage was experienced from the seals during our testing.

We couldn't detect any flex with the Maico forks, even in deep sand, purposely wrenching the bars from side to side at low speeds. We can

quite comfortably state that these are the finest forks available on any production bike—bar none. They even felt superior to the forks on the works YZ tested elsewhere in this issue. Travel of the forks is right at 12.2 inches, making it the state of the art as of this writing.

At the rear end, you'll find a sturdy chrome moly swingarm, with long tapered gussets for added strength. Corte Cosso shocks (15.5 inches long) ride on the arm, and the reservoirs are hose-clamped to back the rails of the main frame. These shocks, while basically the same for three years, have been refined a bit with each model run and now are a very acceptable unit. As late as Spring of this year, the spring rate was too soft and the springs sacked easily. A rider could find himself using up all of the available preload after a half-dozen riding sessions. A popular cure was to use Ohlins springs on the Corte Cosso shocks. If our early indications are of any value, this may not be necessary with the latest models. Ours held up well, and we only had to increase the

preload position twice in ten rides. This indicates some improvement in quality control from the Italian shock manufacturers. Travel at the rear is the same as the front, 12.2 inches.

After less than a half hour of riding, the gearbox smoothed up and we could rapidly snub it up or down without the clutch. In fact, you can leave the throttle full on when starting out and shift up through the gears without using the clutch or blipping the throttle.

Tight and Inside

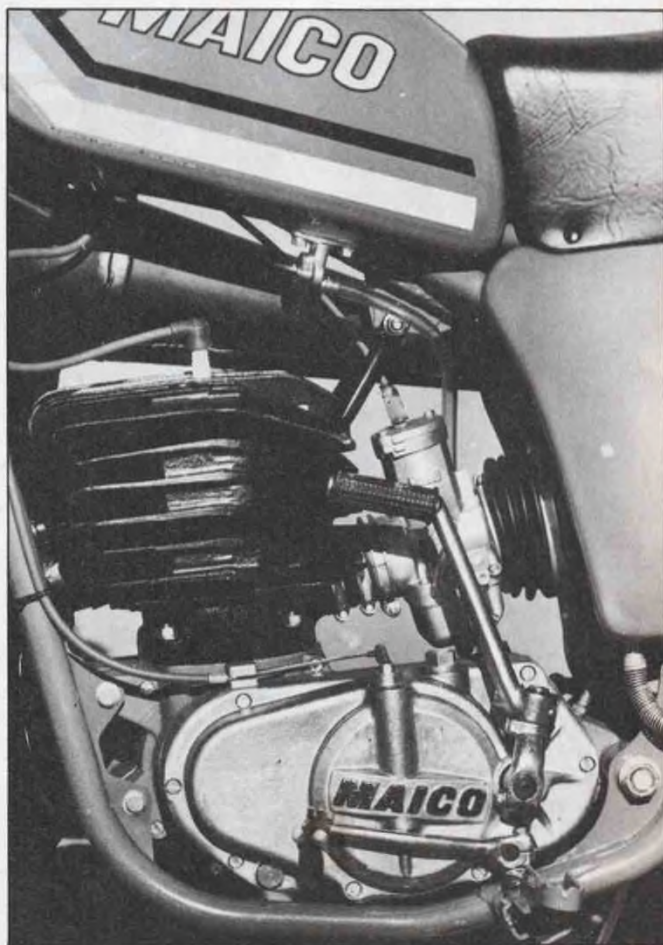
The Maicos legend is simple: Nothing handles like a Maico. Our test 250 was an absolute shark in the corners. The bike would turn under anything else on the track. While others had to seek out berms to pivot against, the rider on the Maico could go on the dry, slippery, flat and foreboding inside line and snake them every time. Here, the slow revving and heavy flywheels helped, as the rider could give the bike just enough gas to let the rear end start to creep out and hold it there. No wasted wheelspin, no sudden lurches of



Magura levers . . . straight-pull throttle. Good stuff. None of our riders cared for the barrel grips.



Air cap valves are now offset for easier checking. Bars are mounted in rubber, but clamps do not slip.



Huge 40mm Bing carb was too big for the 250 engine. We tried a 36mm Mikuni with great success. Jetting info courtesy of Krause Cycles. Engine cases are tiny; fins are massive. Frame tubes wrap cleanly around engine and offer excellent protection.

power.

While cornering, the rider didn't have to worry about the front end going anywhere. That 3.00x21 Metzeler would plant a large contact patch on the inside of the turn and stick there like a slot car. Not a hint of washout. And the rider would not have to slide up on the tank to get the front end to stick. Which is a lucky thing, because the new Maico tank shape precludes that to a certain extent. Just exactly how do you slide up on a near vertical tank surface? The M1 tank has an even steeper shape to it than the Kawasaki KX's.

Our test riders were happiest with about nine p.s.i. of air in the forks. Any more pressure than this didn't allow the front end to settle properly for cornering, and any less would cause some head-shaking when decelerating and occasionally let the front end tuck under in a slow tight turn. We talked to other Maico riders and they agreed with our pressure preferences, adding that a few pounds either direction made a big difference. Our forks lost pressure overnight, but after cleaning the caps and lightly greasing the O-rings, they stayed airtight for the duration. Those caps must be super clean when they're assembled and the O-rings in good shape.

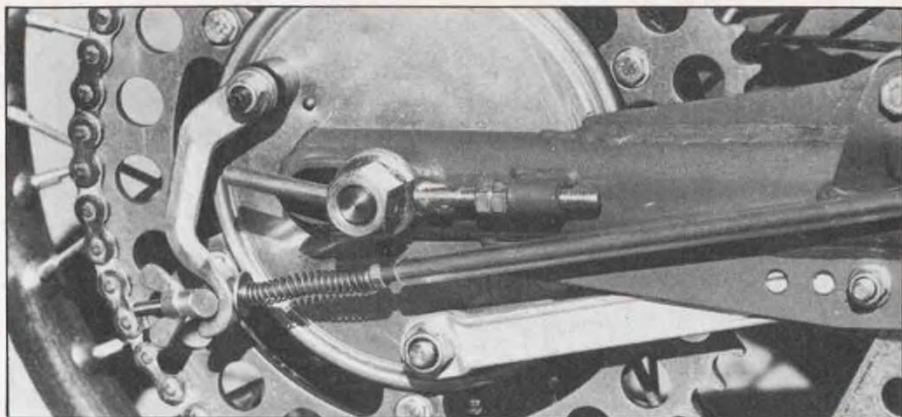
Feelings

When you first sit on a Maico, you're not used to the bike, you feel like you're perched almost on top of the forks. The natural seating position, with arms extended is well forward on the saddle, with your inner thighs touching the back sides of the tank. First impressions of the bars are that they're too wide, too low, and too far forward; but after a few hours of riding, they start to feel correct.

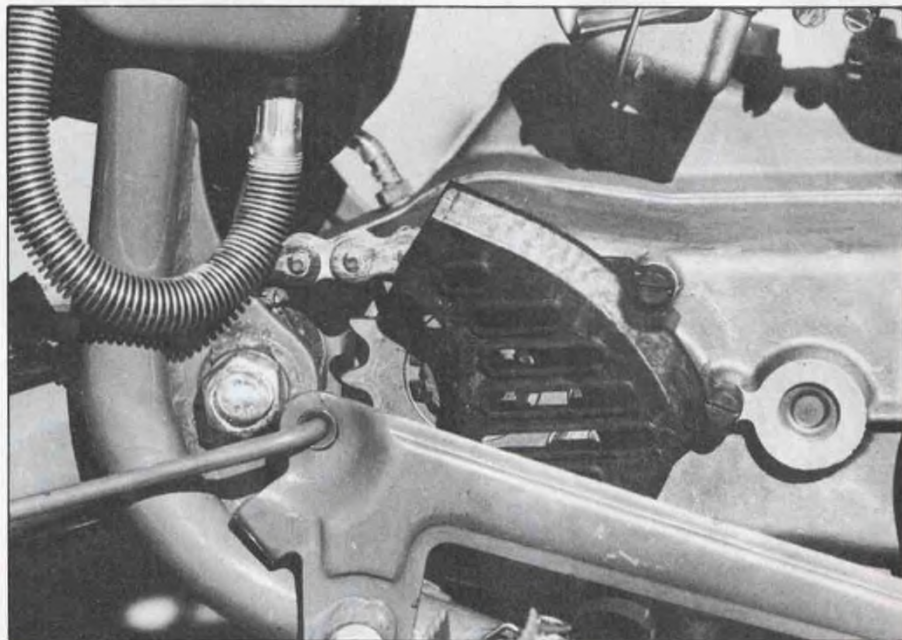
Standing on the Maico is easy, because the transition from sitting to standing is a natural movement, with the side panels bothering the rider only a bit. Riders with plastic boots will be irritated by the bulging panels more than those who wear leather. All things considered, though, the mid-section of the Maico is much slimmer than an RM Suzuki.

Bits and Pieces

Brakes on both ends are good, with the front being a bit mushier than we like. A change to Terry cable improves the braking some, as does one of the longer Krause brake arms. Mr. K's arm is a half-inch longer than the stocker and makes the front brake an



Simple, but clean axle adjusters ride in every strong chrome moly swingarm. Sprocket is full cutaway type and very light.



Countershaft sprocket is very close to swingarm pivot for minimum chain deviation. Reservoirs are tucked in well.



Stout lower legs wrap around a smallish front hub. We slipped a Krause front brake arm (1/2-inch longer) and found the braking vastly improved.



Folding shift lever—good pegs. Kick starter is tucked in cleanly and is easy to use.

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instant two-finger stopper.

While on the subject of cables, it's best to replace the clutch and the front brake cable before you ever take the bike out for a break-in ride. These are very poor cables and we've seen a number of them break.

While we were at it, we also changed the Magura straight-pull throttle—which is a nice unit—for one of the Twisters. This was done because of the carb swap, primarily.

The Magura bulging barrel grips got the razor blade. None of our test riders could get along with them.

No gas cap leakage was experienced with our 250. An inspection of the gas cap showed a new type of neoprene gasket that did the job. It took two hands and twelve fingers to get the gas cap off if you over-tightened it. The plastic tends to expand with heat. Easy does it.

Eight-gauge spokes are now standard on the rear wheel. This has been needed for some time, as breakage has been common with the skinnier spokes.

We found the Maico clutch-pull a lot stiffer than most other bikes, but the action of the clutch was beyond reproach. Picture this: You can walk into the garage, put the ice cold bike into gear, squeeze the clutch in and push the bike across the garage floor with absolutely no dragging! Outstanding.

We even had one of those days at the track where the starter couldn't get everyone to stop creeping. We had the bike in gear with the clutch held in for several minutes without a hint of dragging, packing up or slipping. Also, when you put the bike in gear from neutral, there's no clunking sound and you have to ease the clutch out to make sure you're in gear. Truly amazing.

The Maico still runs a primary chain, instead of a gear drive like just about everyone else. Their rationale is that a chain is more efficient in transmitting power than gears. Unarguable from that standpoint; but the primary chain must be replaced periodically. If the rider lets the chain get too loose and it happens to break, it can take out the whole left side under the primary cover. That could mean a new clutch basket, cover, primary drive, etc. You're talking about a few hundred bucks at that point. Most working pros replace the

primary chain about once a month, and Sportsman riders about every three months. It's an inexpensive item—retailing for around thirteen bucks—and replacing it takes about twenty minutes, if you watch someone do it the right way once.

While on the subject of drives: It's a good idea to drain and replace the gearbox oil after every ride. The tiny gearbox only takes 600cc's of oil, so this is not an expensive process. Reliability of the drivetrain and the gearbox is excellent as long as clean oil is kept in the vitals.

As time gets put on the bike, the

gear shifting gets smoother and smoother. After a few months of operation, the rider will probably want to put fresh Belleville washers in the clutch—another inexpensive and simple operation. Other than the usual nut and bolt tightening, this is just about all a rider will have to do in the way of maintenance on a Maico.

Ignition is Motoplat pointless, so a timing ritual need not be observed.

The air box is huge and easy to get to. It's probably the best on any current bike available.

On the early 1980 Maicos, the rear wheel hit the seat when the shocks got



MAICO 250 MAG 3 Specifications

NAME AND MODEL	Maico 250 MAG 3
ENGINE TYPE	2-stroke, piston port, single
BORE AND STROKE	60mm x 70mm
DISPLACEMENT	247cc
HORSEPOWER (CLAIMED)	40 at 7800 (DIN)
	Actual: 31.0 at 7800 to rear wheel
CARBURETION	40mm Bing
FACTORY RECOMMENDED JETTING:	
MAIN JET	190
NEEDLE JET	276-Z
JET NEEDLE	8GZ
PILOT JET	60
SLIDE NUMBER	2.0
RECOMMENDED GASOLINE	Premium
FUEL TANK CAPACITY	2.5 U.S. gallons
FUEL TANK MATERIAL	Plastic
LUBRICATION	Pre-mix
RECOMMENDED OIL	Bel-Ray 60:1
OIL CAPACITY, GEARBOX	600cc
AIR FILTRATION	Oiled foam in still air box
CLUTCH TYPE	Wet, multi-plate
TRANSMISSION	5-speed, constant mesh
GEARBOX RATIOS:	
1	2.25
2	1.80
3	1.44
4	1.20
5	1.00
GEARING, FRONT/REAR	14/56
IGNITION	Motoplat electronic
PRIMARY KICK SYSTEM?	Yes
RECOMMENDED SPARK PLUG	Champion N-2
SILENCER/SPARK ARRESTOR/QUALITY:	
	Silencer, very quiet
EXHAUST SYSTEM	High-pipe, right side
FRAME, TYPE	Double down-tube, full cradle, chrome-moly tubing
WHEELBASE	57.7 inches
GROUND CLEARANCE	14.2 inches
SEAT HEIGHT	37.8 inches
STEERING HEAD ANGLE (RAKE)	28 degrees

WEIGHT WITH ONE GALLON GAS	226 pounds (dry-218 pounds)
RIM MATERIAL	Aluminum alloy
TIRE SIZE AND TYPE:	
FRONT	3.00x21 Metzeler knobby
REAR	4.50x18 Metzeler knobby
SUSPENSION, TYPE AND TRAVEL:	
FRONT	.42mm tubes, air assisted, 12.2 inches travel
REAR	Swingarm, Corte & Cosso shocks, 12.2 inches travel
INTENDED USE	Motocross
COUNTRY OF ORIGIN	Germany
PRICE APPROX.	\$2390
DISTRIBUTOR:	
East-Maico U.S.A.	1256 Progress Rd, Suffolk, Virginia 23434
West-Maico West, Inc.	110 E. Santa Anita Ave, Burbank, California 91502
Mid-Central-Debenham Imports	RT. 1, Box 211 Antioch, Illinois 60002
PARTS PRICES, HIGH-WEAR ITEMS:	
PISTON ASSEMBLY, COMPLETE	\$71.50
RINGS ONLY	\$23.52
CYLINDER	\$388.35—liner only: \$74
SHIFT LEVER	\$14
BRAKE PEDAL	\$24
FRONT SPROCKET	\$13.20
OVERALL RATING, 0 TO 100, VARIOUS CATEGORIES, KEEPING INTENDED USE OF MACHINE IN MIND:	
HANDLING	99
SUSPENSION	98
POWER	90 stock—95 with Mikuni
COST	80
ATTENTION TO DETAIL	95
EFFECTIVENESS, STONE STOCK	90
	with Mikuni, 96

tired, causing more than a few seat bases to get shredded to bits in the process. Later models, like ours, have a re-designed base for superior clearance. Still, we found a tiny rub mark on the base, but not enough to damage it.

The exhaust on the MAG 3 is quiet and can be kept that way with regular re-packing of the fiberglass. It's easy to split the muffler for servicing. No excuses for a noisy bike, here.

The pipe is tucked in nicely, but some riders thought a small heat shield should be added on the belly of the pipe up near the tank.

Side panels come off easily for normal maintenance. All nuts and bolts are high-grade stuff.

Air caps have been offset to make checking pressure easier. Tabs on the number plate ears have plastic bolts on for removal. The number plate is held out from the steering head and fork tubes with plastic spacers. Nice touches

A folding shift lever is standard on the MAG 3. Riders with small feet found it a fraction too long. Size ten feet were happy with it.

Fenders were nicely shaped and did a good job of keeping muck, etc., off the rider. M. Robert makes the plastic. We had no cracking or weathering problems.

The Bottom Line

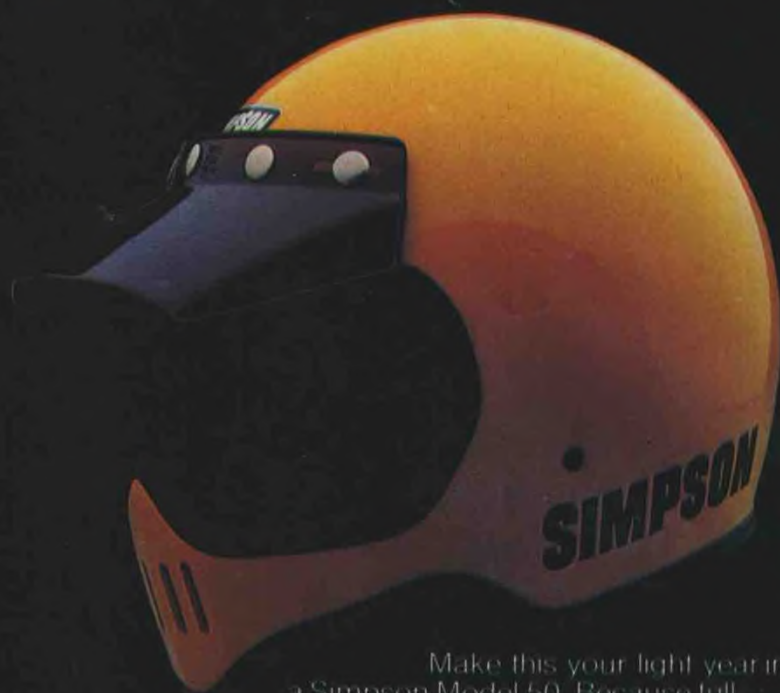
The 250 Maico is expensive. Here's what you're paying for: A very rigid frame, made of the finest steel available, with a fantastic set of forks up front. With the Bing carb, living with the bike is frustrating. With a Mikuni, the bike is a joy to ride and race.

We found the Maico hassle-free, and maintenance was simple and straightforward. No mysteries and no magic formulas required. The power, while competitive, is smooth and easy. All things considered, the Maico is a very easy bike to go fast on. And nothing, repeat *nothing*, else steers with the accuracy of this bike.

When you stack up one 250 racer against another, comparisons are logical. So far, we've said that the YZ is the best all around 250 for 1980. It still is. Because the YZ is a six speeder, it's versatile enough to use for Grand Prix racing, cross country, desert and motocross.

However, for motocross only, the Maico rules the corners. It's a specialist. If you're a specialist, you must think long and hard about the MAG 3. Especially if one knifes under you on a flat corner. □

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