

# SUZUKI. PERFORMANCE ABOVE ALL



## **RM-80**

For young riders who want to win, riding the 1982 RM-80 is the way to do it. The reason: It's built like the big RMs. The RM-80 is all new. Start with

improved engine performance. Add a Full Floater suspension, leading-axle air forks, box-type swing arm, straight-pull hubs, and AMA number plates. Subtract a few pounds.

The result is the most competitive

80cc motocrosser in its class.

The 1982 RM-80 is a winner. Go for it!

Power Reed engine: For 1982, it has improved power throughout the



Full Floater suspension: The most effective rear suspension available. Keeps you straight and



Leading axle air forks: Offers smoother, surer maneuvering through the roughest corners and whoobs





**NOVEMBER 1981** 

# MATRIKE

**VOLUME 11, NO. 11** 



HONDA XR200R



IT TRICKERY



SIDEHACKS



SUZUKI PE250

On the cover: — David Bailey at work on the all-new '82 KX water-cooler. Photo by

## **TESTS**

KAWASAKI KX125 A8 Water-cooled threat

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Refining the mid-size thumper

SUZUKI PE250 Grunt aplenty

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R ight up front, let's admit there is no valid reason for this bike to exist. No one in his (or her) right mind needs a 760cc motorcycle for the dirt. Least of all, a 760, two-stroke single.

MAICO 760 MEGA

EXPERIMENTAL

BROTHER

Now, that's incredible!

By the Staff of Dirt Bike, with special thanks

to Maico Germany, Maico East, U.S.A. and

extra special thanks to Salvaraj

Narayana for setting the

760 up to factory specs.

Here's an actual photo of a real-live Dirt Bike editor-type in deep trouble on the 760 Maico at the Bi

Everyone knows they can't work, right? And everyone also knows that the lighter, smaller bikes usually turn the fastest lap times at many tracks. So why does a 760 Maico even exist in the first place?

Consider it a noble experiment, if you will. The Maico engineers are a proud, arrogant lot and they love to do things people say simply cannot be done. For example, just a few years ago they made a single-cylinder 125cc road racer that gave the Yamaha twins absolute fits.

The FIM made a special class for bikes used in ISDT competition having over 750cc in displacement; this class was dominated by the huge BMW twins. In 1978, Maico decided they could do the Beemers one better and the 760 Maico was born. They fielded a team of tall, strong, German riders and proceeded to get gold medals right and left. The bikes were incredibly reliable and reportedly easy to ride.

Still, that was all conjecture, as no one outside of a factory rider had ever slung a leg over one of the beasts. Admittedly, the DB staff had a somewhat morbid curiosity and made arrangements to acquire one of the bikes for a

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If you happened to read the Blackwater 100 story in the September '81 issue of Dirt Bike, you'll know that Team DB actually entered and rode the feared Blackwater astride one of the 760s. As luck—and the elements would have it, we ran out of gas repeatedly and were lucky to finish the grueling event before winter set in. Lack of preparation and endless peat bogs had us well into an advanced state of wheelspin and tree smashing.

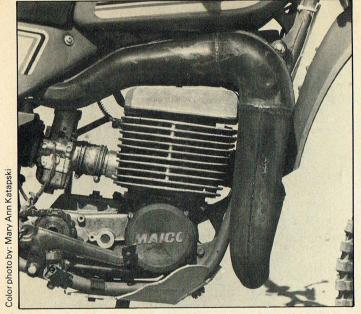
However, we were left with deep and lasting impressions of the 760. Enough so that we had the bike shipped out to us and put it through the moreor-less normal (?) DB test sequence.

First off, you must understand that the 760 draws crowds wherever it goes. At Davis, West Virginia, we had a constant stream of folks walking by and studying the big animal. All of them shook their heads in amazement and many of them asked questions. The same questions that we'll attempt to answer in this test, such as it is.

Probably the most commonly asked question was: "Is it fast?"

Yes, but not like any Open bike you might be familiar with. It doesn't explode and lurch off the line, doing wheelstands all over the place. No sir. It merely pulls like the friendliest tractor you ever did see in your whole life.

The bike peaks out at a mere 4000 rpm. In this day and age of Open bikes turning 7000-plus rpm, it's almost



Fins are actually 11/2 inches wider on each side than the old 501 barrel. Weight difference is about 9 pounds, with all of the weight in the top end.



was received in a more-or-less normal motocross chassis. Other than the El Gronko barrel, the bike looks sort of

leisurely. Peak horsepower is rated at a very conservative 43. However, at a mere 1200 rpm, the massive engine puts out 26 horsepower, more than the hottest 125s produce at peak revs. And we're talking rear wheel horsepower, too. None of those namby-pamby readings at the crank.

Now, think for a moment about those numbers and try to translate them into some sort of reality in your head. It means that the rider can loaf down the trail at just above idle and, with a flick of the wrist, have a big bucket of torque at his disposal. No radical rpm needed. Just roll that sucker on a little bit and get a lot of forward motion in return.

To try and give you a good idea of what this feels like, think about the following for a moment. The Blackwater race was held in quite possibly the nastiest conditions imaginable. Deep bogs, tight woods, water crossings of death, etc. Grim. Some of the sections threaded through narrow tree-lined paths, with slippery roots criss-crossing the trails. Here, the 760 could be comfortably left in third gear, with no clutch work required.

We could let the rpms drop off to almost nothing and smoothly roll the throttle on; the bike would respond by pulling strongly, with no snatching or grabbing. Almost like a Husky automatic, but with none of the irritating lag and hesitation.

Long uphills were almost a joke. Just leave the bike in third or fourth and roll the throttle on as needed. No down gearing or clutch slipping needed. This was truly the only dirt bike we've

ever ridden that never ran out of power, no matter how low the engine was forced to lug and grunt. The closest thing to a tractor imaginable.

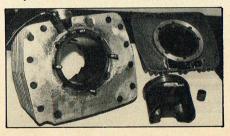
The second most asked question was: "Is it a bear to ride? Must be a real handful, right?"

No. Actually, the bike was incredibly easy to ride. The power delivery was as flat as any stretch of Kansas landscape you can picture. It literally pulled from idle. Now, we know that's a widely overused phrase, one that journalists like to pull out of their editorial hat to "dazzle the spectators." However, in this case, it holds true right down to the gnat's buttocks.

You can chug the 760 right down to the last few wheezes and it'll pull back without a hint of protest. There are no odd surges or sudden bursts of power. Rather, there's a smooth, steady and seemingly endless flow of vibration-



On the right is a 490 Maico piston. The 760 piston on the left dwarfs it.



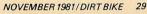
free torque. Combined with the heavy flywheels, there's almost no wheelspin. The meaty Metzeler on the bike simply hooks up and pushes the bike forward with no fuss.

#### NOSHAKES...NOBREAKS

You might well wonder how they get a single-cylinder engine of this size to run without vibrating itself to death. Simple. The crank is balanced as if the engine would turn the more-or-less normal 7000 rpm. But, with the power peaking at 4000, the engine never even gets into the shaking range. In fact, it puts out less vibration than a mildly tuned 250 play bike.

This leads one to ponder a few things. For example, if the big 760 were allowed to run up there in the high rpm range, what kind of horsepower would it turn? The Maico engineers felt 65 to 70 horsepower at the rear wheel was not out of the ballpark. A small drawback is encountered, though, if the 760 is allowed to breathe fully. It'll shear conventional frame tubes in a rather short time. When the engine is allowed to spin to its max, the vibration level becomes unmanageable. No gearbox will tolerate that load for long, and the conventional Maico primary chain drive becomes grossly overstressed. The stock Maico clutch will turn into a stack of Doritos under 70 ponies. Thus, the deliberate detuning is not only desirable, but necessary.

When one considers that a normal 490 Maico can handle a solid 50 horsepower to the rear wheel for a season, with no hassle, then the rather mild 43 horses on the 760 will seem well within sensible boundaries.



## MAICO 760 MEGA

#### THINGS PECULIAR TO THE BEAST

With the stock 2.5-gallon motocross tank in place, the 760 only managed 15 miles before it was sucking wind through the float bowl. Of course, our race test was conducted under some pretty gruesome circumstances: the Blackwater 100. Here, the deep mud had us spinning the rear wheel a great deal. Under normal conditions, 25 to 28 miles can be squeezed out of the stock gas tank. Six Days riders all used larger tanks but still could not manage 50-miles range. Fortunately, gas areas are plentiful at a Six Days.

Oddly enough, the 760 could not be kickstarted when cold. It had to be push-started. Then, after the bike was warmed up, it could be fired as easily as a well-tuned 250. No amount of choking or priming would let the 760 get lit when cold, though. While the big bike could be booted through without using the compression release, it was not the hot ticket. One bite back and the kickstarter could be instantly sheared off. Without using the compression release, a 150-pound man could literally stand on the lever and it wouldn't move through its arc.

Obviously, lots of gas is wasted as it passes through the combustion chamber. Maybe that's just nature's way of telling us that perhaps a 760 single doesn't make much sense. It was necessary to jet the huge engine on the rich side, just short of blubbering, to get sufficient fuel, and there was still some detonation and pinging under heavy loads. Maico assured us that the detonation would not hurt the engine that it was just a characteristic quirk of the bike.

#### **TECHNICAL TRIVIA**

The 760 runs a normal 490 rod and crank and uses a 250 gearbox to transfer the power. A standard clutch is also used. It held up well for us, with no slippage at all. This speaks highly of the basic Maico drive train.

Our test machine used a standard 1981 mega 2 chassis, with no enduro or ISDT hardware attached. This gave us a bike that weighed just about 10 pounds more than a stock 490. Not bad. After putting in some time on the bike, we started referring to it as "the two-stroke that feels like a fourstroke."

The piston measures a mammoth 107.52mm across and is derived from



### **MAICO MEGA 760**

NAME AND MODEL Maico mega 760 ENGINE TYPE Two-stroke, piston port,	FRAME, TYPE .
air cooled single	WHEELBASE
BORE AND STROKE107.52mm x 83mm	GROUND CLEAF
DISPLACEMENT	SEAT HEIGHT
HORSEPOWER 43.78 at 4000 rpm	STEERING HEAD
CARBURETION 40mm Bing, type V54	TRAIL
RECOMMENDED GASOLINE Premium	WEIGHT WITH O
92 + octane	
FUEL TANK CAPACITY 9.51 liters (2.5 gallons)	RIM MATERIAL
FUEL TANK MATERIAL Plastic	TIRE SIZE AND T
LUBRICATION Oil in gas, pre-mix	FRONT
RECOMMENDED OIL Bel-Ray MC-3;	REAR
	SUSPENSION, T
OIL CAPACITYN/A	FRONT
AIR FILTRATION Oiled foam in still airbox	
CLUTCH TYPE Wet, all metal, multi-plate	REARSv
TRANSMISSION Five-speed	
GEARBOX RATIOS:	INTENDED USE
12.98:1	
2	COUNTRY OF O
3	RETAIL PRICE.
4	
5	DISTRIBUTOR:
GEARING, FRONT/REAR	Maico, U.S.A.
IGNITION Pointless electronic, Bosch	Note: This mode
external rotor	PARTS PRICES.
PRIMARY KICK SYSTEM?Yes	PISTON ASSE
RECOMMENDED SPARK PLUG Champion	RINGS ONLY
N2 or N84G or NGK B9ES	CYLINDER
SILENCER/SPARK ARRESTER/	SHIFTLEVER
QUALITY Silencer only, fairly quiet	BRAKEPEDA
EXHAUSTSYSTEM High-pipe, right side	FRONTSPRO
	THE RESERVE OF THE PARTY OF THE

a Porsche industrial engine, then highly modified. The piston skirts are deeply cut and the slug itself is rather light for something that big. No doubt the lightness also helps to keep the vibration down. A single dykes ring does all the sealing. Ring end gap and piston clearance are critical on the 760, because expansion must be considered. A careful setup will yield a reliable engine, while one set up a fraction too tightly will wear out rapidly. A loose engine will invariably crack skirts and get terrible mileage and performance. Clearly, the 760 is not for Joe Lunch-

#### CANIGET ONE?

No. So don't ask your friendly local dealer. In fact, there are only three of the 760s in existence. We were pleased to be able to get our hands on one. This year (1981), there will be no more

over-750cc classes in the ISDE, so the Maico monsters will be relegated to the factory museum.

HIGH-WEAR ITEMS:

Double downtube, full cradle,

960mm (37.8 inches)

310mm (12 2 inches)

Experimental, Six Days

Competition

\$20 20

N/A-Only three

nounds (dry - 238 pounds)

3.00 x 21 Metzeler two-ply nylon

garm with dual Corte & Cosso shocks, 310mm (12.2 inches

492-1528mm (58.7-60.0 inches

DANGLE (RAKE)

NE GALLON GAS

The factory has no plans to market any version of the 760. They're candid enough to admit that the 400 or 490 can do anything that the 760 could, with less attendant hassle. In retrospect, the 760 was simply made to prove a point and to garner some Gold Medals in Six Days Competition, to keep Maico in the limelight.

Well, they did all that and a little bit more. They made some history. The largest two-stroke single in the history of motorcycles was not only built, but run, successfully in world competition. They had fun, proved a point and left their mark.

It was an honor and a genuine thrill to take the last ride on that warhorse before it was put out to pasture.

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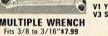
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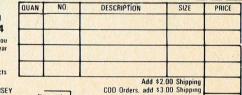
colors. We make these



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