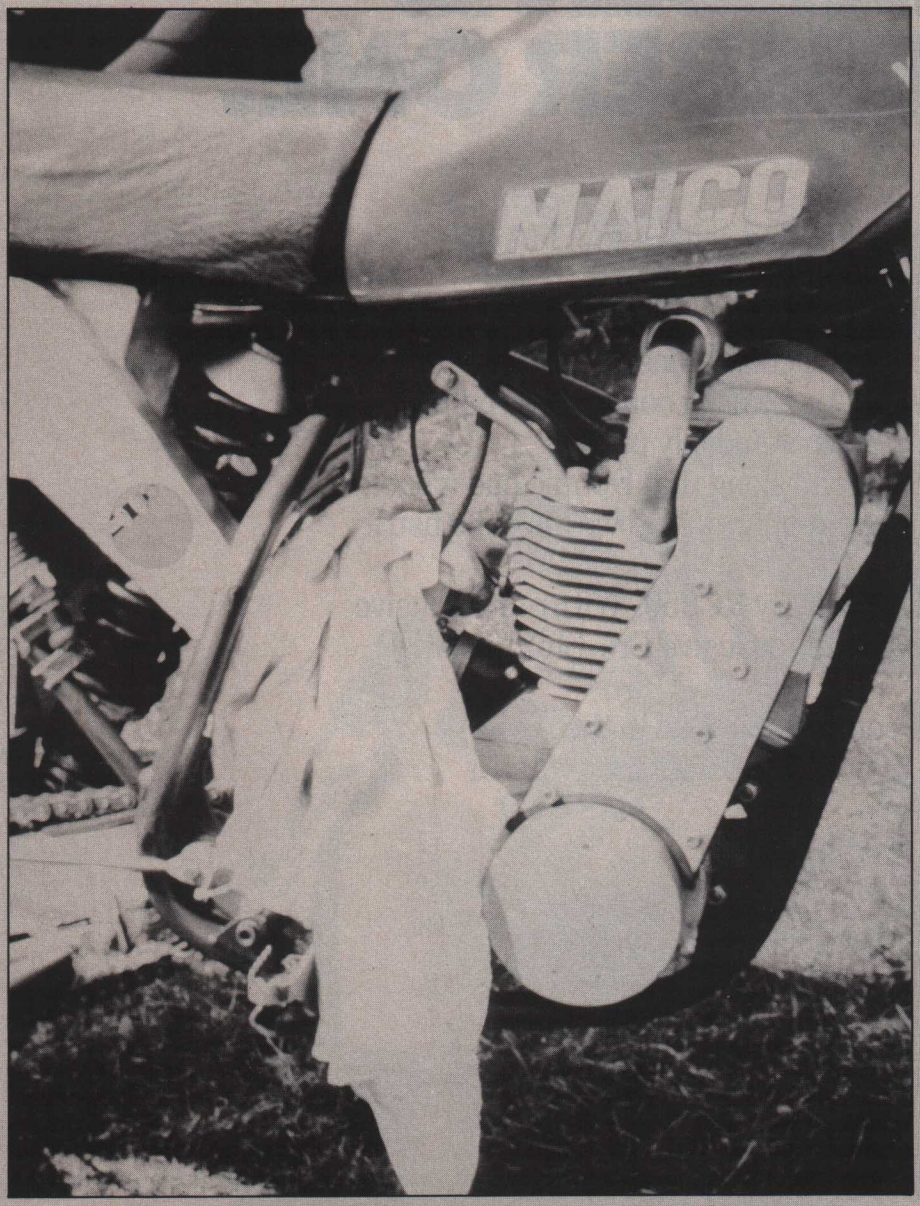
COULD THIS BE THE NEW MAICO FOUR-STROKE?

Exclusive info on the 239-pound wonder bike

By Rick Sieman, with special thanks to Rusty Kowalski



Rag is covering a small Bing carb. Aluminum plate cover shields Gilmer belt that drives the overhead cam. Pick-up is from the mag. Strange pipe over belt cover lets gas/air/oil mix into the inlet after it lubes the roller bearing cam.

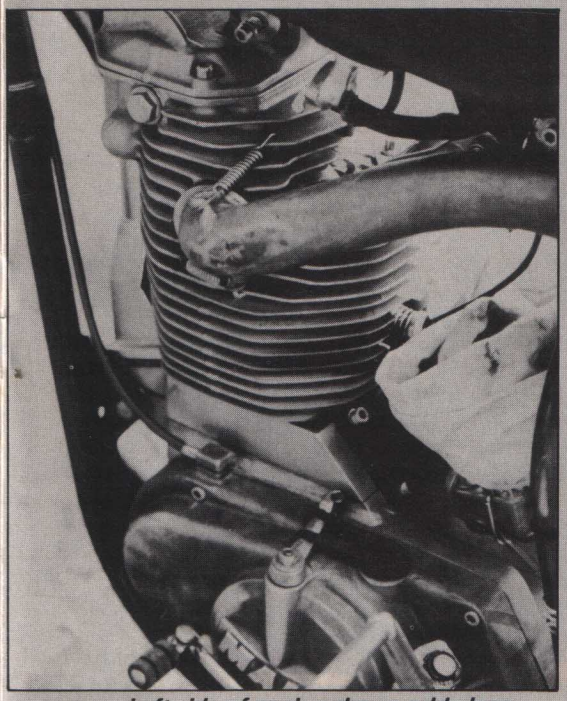
Just when you think you've heard it all, out of the woodwork comes something *really* different! Picture this: A four-stroke engine that's lubricated by oil in the gas, just like any common two-stroke. We received some photos taken at a German enduro of a prototype Maico 527cc four-stroke nestled in a 1982 Alpha frame. At first glance, our man nearly walked by the machine, then just about tripped over his tongue as he noticed the exhaust pipe coming out of the left side of the engine and some odd-looking plumbing that literally defied description.

After a great deal of snooping, he was able to come up with the following information: The bike is unofficial and may . . . or may not . . . be the Maico four-stroke everyone is talking about. Nothing is firm at this time, according to factory spokesmen.

The builder of the engine is a designer/engineer named Laszlo Peres, and to give you an idea of what he's done, he is the man who designed the famed 760 Maico ISDT bikes. The 33-year-old rider/builder likes to take the rulebook and use it to his advantage. As you might know, the 760 Maicos made a shambles of the over-500cc class for three years in a row until they were banned. Since 1981, there's been a rule in effect that allows four-strokes only and they must be over 500ccs.

Well, Laszlo doesn't much care for the extra heft of most four-strokes, so he borrowed some parts from Maico and set about building his "special" four-stroke.

The bottom end is a standard 490 with a special adapter made to take the four-stroke barrel. The gas/oil mixture (40:1) feeds through a reed cage directly into the lower end of the engine. Here, the oil mist lubes the bottom-end bearings just like it would in any two-stroke. The charge is then pushed upstairs via a forward-mounted external transfer. The charge then lubes the roller bearing mounted cam and



Left side of engine shows odd placement of the exhaust pipe. Barrel is mounted on a standard two-stroke bottom end with a special spacer to adopt the four-stroke barrel. Compression release can barely be seen under the pipe at the rear of the barrel.

rockers, finally enters the combustion chamber, and is fired like any other bike.

A gilmer-type belt actuates the cam and is driven from the mag side. No lubrication is necessary for this function. A metal shroud protects the belt and the handmade drive/driven pieces. Everything is painstakingly machined out of aluminum by Peres. Believe it or not, a reed valve is used to keep the charge in the lower end from reentering the smallish, 32mm Bing carb.

According to our sources, the technical specs on the bike (those that are known) are:

- Bore and stroke: 94mm x 76mm (527cc's)
- Compression ratio: 6.5:
- 38.5 horsepower at the rear wheel
- Overhead cam with two parallel valves
- Single ring Mahle piston.
- Compression release in barrel for easier starting.
- No oil pumps of any sort.
- Weight: 239 pounds.

The weight of the bike is a slight problem, as the minimum weight requirement for the over-500cc class is 275 pounds. Supposedly, the bike has tremendous low-end torque, but flattens out way too early. A lot of experimenting is being done as of this writing, trying to shift the torque curve around. The transfer tube from the crank chamber to the head gets hot very quickly and this takes power away. The intake system is not by any means dialed in yet and various diameters and lengths are being tried.

One thing remains constant: Incredible low-end torque is there for the asking. One observer noted: "He hardly ever has to shift, even in the worst imaginable conditions."

The bike is said to be hard to kick over, mostly because of a poor choice of kickstarter pawl selection ratio. With the compression release used, the 527 is very easy to kick over, but harder to start. The bike is a little sloppy on idle and has low flywheel effect, probably due to the charge being compressed in the lower end.

The engine has over 70 hours on it, with no problems whatsoever. Peres even rode the 527 on the Salzburgring roadrace track flat out for a lengthy period of time; it was completely reliable. It has also completed a Two Day Enduro with no complications.

Well, there you have it. Is this possibly the way four-strokes will be in the future? Or is this just one man's experiment? One thing's for sure . . . we'll know within the year. Rumors, they are a-flying! □