

Cagiva Raptor 125

MY AQUILA-CAGIVA, freshly infused with new capital from its latest financial reorganization, is finally turning out new product. In addition to the long-awaited 1000cc version of the F4 and the promised Agostini-signature models, the company will make a strong effort to target greater sales revenue from the other end of the displacement range.

This is the 2006 Raptor 125, obviously a water-cooled *step-down*, by the shape of its intake-manifolding-a-bushing-a-silencer-pipe-and-compact-radius. It's a very pretty piece, employing a massive alloy chassis finished in icy flat black, as well as a stylish "gull wing" pattern wingcase to keep the pipe tucked in tight for maximum cornering clearance, and to deliver maximum street credibility for its price.

The braking performance should be equally eye-ball popping, as the lightweight machine was relatively enormous stopper, especially perforated and fully-floating 120mm disc up front with full-tilt 6-piston Brembo Lever Overcaper, and an appropriately smaller drilled 220mm disc with two-piston caliper at the back, steering



a pair of energy six-spoke 17" light alloy wheels.

Suspension is likewise advanced, inverted 60mm Marzocchi forks fore and a Sachs monoshock aft, both modified to give us an improved side-to-side better handling. All this, Italian to young men should be drilled to attack city traffic on one of those sleek machines. *Reife?*

New 996cc Moto Morini Taking Shape

MOTO MORINI has been suspended animation since the late 1980s when the Cagiva Group, the then-owners of the marque, decided to put production on ice. However, with the current resurgence of an Italian-made brand, the illustrious identity is now in the course of

re-animation, and who better to do it than the successful engine producer Morini Franco Morini of Bologna, whose name suggests a family connection. The old factory last produced a range of 500cc, 75" V-twin, designed by the famous big-Franco-Lambertini.

The first new Moto Morini motorcycle will be a 996cc V-twin, this time in *IT* configuration—the brain-child of that same man, now Designer and Chief Engineer of the project. Photos show the brand-new engine on the test bench fitted with a multitude of sensors with custom built software monitoring its development process.

The internal *IT* crank-shaft was chosen to give the engine both compactness and rigidity, and should prove to be nearly as smooth-running as a *90°* design.

Plucker avers that the engine uses an integral crankcase/inner-linker block design, with "wet" cylinder liners pressed into the cylinder blocks. Inasmuch, narrow-angle 4-valve heads have DOHC driven by a combination of chain and gears, with forward lubrication to plain-bearing shafts via a gear driven internal pump. The gearbox is a six-speed quick-change unit, and the wet clutch is hydraulically operated. Fueling is handled via Magneti Marelli components with the injectors mounted "downhead" style above Steam throttle bodies. Other details are



Mrs. Maria Designer (cousin Morini)

undecided, as the intensive development process continues.

While Franco Lambertini spends his time on the engine unit, designer Luciano Marabese (above) will be responsible for the styling. Born in 1948, he has a fine reputation, having designed for IRIDI (Italy), the Piaggio/Gilera Group (producing a variety of machines from the Dukatus to the KK and KZ models and other Design Award winners), and since then has worked with Aprilia and Moto Guzzi (on the well-received California, Griso and Intra-convertible line) who usually still able to produce some classic Italian designs for the new Moto Morini range, so we suspect the first new Moto Morini will be worth the long wait!

—Doug Jackson

Yema Modena Supermotard Breaks Cover At Last

NOT EVERY new Italian motorcycle must wear a re-animated historic name badge to justify its existence. Yema Modena is a brand new from the ground-up Italian company that has just announced their first motorcycle, the SX2 Supermotard, designed specifically for racing. It either wins races or it doesn't; associations to the past would mean nothing if it fails.

Yema Modena is the result of a fusion between two existing racing companies: I-TGA led by Dario Calzavara and H&F, belonging to one Piero Ferrarri, both of which initially belonged to a man-aging in Modena. Also involved with the project is FWC, the International Watch Company of Switzerland.

The SX2 is powered by an all-new engine, designed and built by Piero Ferrarri with the close collaboration of the Milan Polytechnic Institute, which is equipped with extensive dyno and laboratory facilities.

The liquid-cooled single-cylinder unit is fitted with a custom-rotating balance shaft, features four titanium valves operated by DOHC (pump-driven), and displaces 699 cc (99mm bore x 59 mm stroke). The cylinder bore is Ni-cd plated for heat dissipation and long life, and the engine block uses an aluminum crankcase fitted with magnesium castings.

The crankshaft is a pressed-together unit, suggesting a ball-bearing lower end, and the piston is forged aluminum, with a 100% magnesium composition of 13:1. A state-of-the-art digital integrated injection/ignition system is used. All of the throttle uses two injectors, one mounted high and one low, for excellent response and strong performance at all rpm.

The gearbox is a six-speed cassette type to allow easy ratio-change trackside, and interestingly, the shaft is said to be "dynamometric-roller operated" (apparently it has no return springs to break and leave you stuck in one gear). The wet multi-disc clutch is hydraulically operated and fitted standard with a three-throw lever to prevent wheel lock under heavy deceleration. Both electric and kick-starting is provided.

The rolling chassis is equally impressive. Described as "split-cradle with peripheral gliders," it is made all in 6062 aluminum alloy and extensively milled. The wingcase is in the same material.



Above: Dario Calzavara, Piero Ferrarri and Giorgio Riva

Dillon provides the rear monoshock, which is naturally fully adjustable, and forks on the latest Wilton. Shit or rain from Marzocchi. In addition, the fork tube is adjustable. Notable, too, is the use of

strutbars for the rear sub-frame.

Marzocchi's revised ten-spoke alloy rims, which have reduced mass, but structurally very rigid, and fits an Dunlop radial. Front brake is a 120mm floating disc with a six-piston caliper from Brembo and the rear disc utilizes a single piston caliper.

The current plan is to produce 25 SX2 models this year, 150 in 2005 and 1000 annually by 2007, with a conversion kit being made available to make the bike street-legal if required. In addition, Yema Modena plans to extend the range, even to include enduro models, but always adhering to the high standards established in this, its first-ever creation.

—Doug Jackson

"Back To The Future" Taiwanese Style

MOTORCYCLES were usually featured in World Motorcycling, but this is a novel one. Featuring a cylindric robot oval-top tube frame, it carries its distinctive motor inside the frame like a mini motor-cycle, and extends through a long, narrow upright chassis. To contain the "dropper" styling, the vehicle is very long, although the actual dimensions is not ground up front it rides on either standard cast alloy forks with a short horizontal suspension unit mounted on the top. There is no rear suspension—a true handlebar. The power unit is a 180cc (48mm x 22.5mm) two-stroke that features a ceramic coated cylinder bore, with CDI ignition and an output of just 1.9 hp, but good for a cruising speed of 30 mph. The transmission uses a central-gate clutch and starting is by pull-cord. The fast track capability is one of giving a range of nearly 100 miles. The factory claim that handling and control is excellent. Made in Taiwan, it's called the "JG".

—Doug Jackson



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