

## Interview: Roberto Restelli, Moto Guzzi Italy Technical Director

By [Francesco Scuderi](#) | Posted on March 29, 2007

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Roberto Restelli is one of the most appreciated engineers in Italy and certainly one of the most experienced. Originally from the Milan region, his career has been linked to the Piaggio group since it bought the old Gilera brand where he worked at the time. Passionate about engines since his early childhood, he will continue his apprenticeship with the Pontedera manufacturer: "Above all, this allowed me to learn the industrial reality in the design of a motorcycle or scooter. At Gilera, we manufactured motorcycles in small quantities, at Piaggio it was up to 500 pieces per day... ". At Moto Guzzi since the takeover by Piaggio, Roberto Restelli talks to us about the Bellagio and the brand's future projects in terms of engines.



**Roberto Restelli, Technical Director Moto Guzzi Italy, meets moto-station**

**MS: Mr. Restelli, how did you design this new Moto Guzzi Bellagio ?**

Roberto Restelli: It's an internal idea, dictated by the passion of the people here more than by marketing imperatives. We wanted to develop a custom in the Italian way, that is to say with this zest of sportiness that the Americans or the Japanese do not have on this type of motorcycle (to be put into perspective when we know the Harley- Davidson V Rod and other Suzuki VZ-R 1800 Intruder – Editor's note). We also wanted to keep the soul of Guzzi, namely the characteristics that are specific to the brand. It was the only way to innovate without copying anyone. The commercial target of course remains [Harley-Davidson and its Sporster](#) , but we made this bike with “home style” as they say. There are of course technical developments, in terms of the engine and the chassis, but I sincerely think that a lot of credit goes to a young designer who works at Mandello, Luca Scopel. This boy knows how to use pencils wonderfully when it comes to keeping things simple.

### **What's really new about this engine ?**

Little and a lot at the same time. Starting from the base of the 850 cm<sup>3</sup> block which equips the Brevia , we mainly sought to make this engine fuller at low revs and more expressive in the intermediate range. Different in any case from current productions. To do this, we first worked to find a larger displacement (we had no marketing imperative at this level) without affecting the piston stroke and then on the intake to regulate the quantity of mixture. By reducing each cylinder from 92 mm to 95 mm in diameter, we had our ideal displacement, including erasing many of the annoying vibrations. As for admission, we opted for butterflies diam. 40 mm instead of the 45 mm found on the Brevia; and therefore for smaller conduits which accelerate the flow of the mixture. Finally, the exhaust, composed of two collectors, a plenum chamber and two silencers, also plays an important role in terms of flexibility, as well as meeting Euro-3 requirements at the same time.

### **And the cycle part?**

It was relatively easy to create a frame that could be easy to manufacture, rigid and capable of giving the Bellagio the desired dimensions in terms of wheelbase and caster. You know, with the architecture of the transverse V engine, the possibilities are numerous, but the simplest solution is always the one that gives the most satisfaction in the end. As much for the manufacturer as for the user. The frame of the Bellagio is high-strength steel, nothing more. As for the rims, however, as we wanted tubeless tires and spokes, we chose Excel models...

## Are you working on new engines?

Yes, particularly on the four-valve. The work we are doing on this engine should free up space for us at least for ten years and perhaps open up new horizons in terms of sportier models, given that the Moto Guzzi brand has always been associated to sports practice.

## In which part of the engine do you concentrate your searches?

In terms of distribution of course. The rocker arm system considerably limits the possibility of climbing into the towers. For us, the goal is to reach 9,500 rpm without losing any reliability, while keeping the values that characterize Guzzi mechanics. We are also developing a new single-disc clutch, lighter and more efficient, and we are also working on a new cardan transmission with more efficient shock absorbers.

## This means that we are not likely to soon see, as at BMW, engines with a different architecture on a Guzzi?

You know, if you visit the Moto Guzzi Museum, you will see that we have already manufactured practically every possible architecture, from single to eight cylinders. We must also not forget that even if the brand is doing well today and production continues to increase, just two years ago Moto Guzzi was on the brink of collapse. Give us time to reorganize our production, to win back the hearts of users and you will see that Moto Guzzi will not stay for long only on the current bases. The Piaggio group is currently investing heavily in the brand and has a long-term vision.

## Yes, but you don't say what type of water-cooled engine you are going for. Will it still be V-shaped, with two cylinders?

It is possible that Guzzi will one day release something other than a twin-cylinder...

Par Francesco Scuderi

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