

1959-1965

Motor Cycle Master Mechanic

Friedel Münch

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4.1 HOREX-MÜNCH IMPERATOR RS

Even though at this time only a few people believed in a future for the motorcycle. Münch was one of them. He stayed loyal to his conviction. He saw future prospects in the development and production of racing motorcycles, which were custom built to the wishes of the riders. Friedel: "When Horex closed the doors; I bought all the tools which were needed to produce the Horex Emperor. I bought it for a small amount of money because they wanted to throw it away. It would have been shredded. I decided (this was before I built the Mammoth,) I wanted to produce an improved version of the Horex Emperor. At this time I also gained the name Horex. Then I drew in the background the letter M, which meant Münch-Horex. And Klee-mann Junior, the young chief told me, 'If anybody ever gets that name, it will be you, you have deserved it'. That's how it went. Because I was already involved with the tuning of standard Horex Emperor engines, for several years, as well as with the unorthodox 350-cc and 500-cc Horex works racers, for me these engines had no secrets anymore."

In 1959 Münch decided to make the RS Emperor engines even better. Friedel: "Then I improved the 2-cylinder Emperor. Originally the Horex engine measured 450 cc, but I raised it to 500. I developed it further and at the end it became 600 cc. There were a lot of technical improvements like crankshaft bearing, con-rods and pistons. It was all on my own initiative."

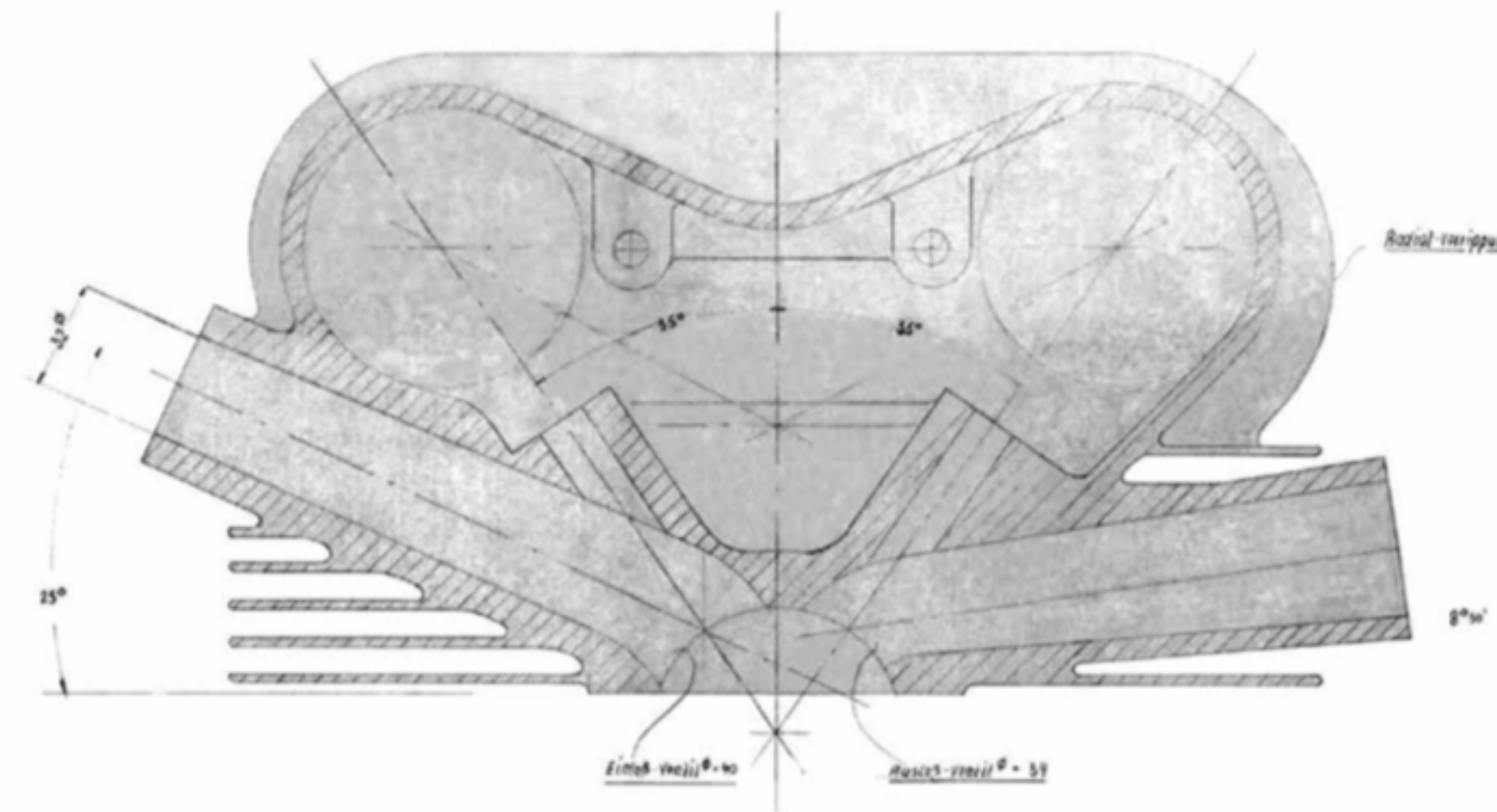


Münch Horex RS built for an American soldier. Two motorcycles were built in this design solely for American customers for participation in regional races.

F. Münch Archive

Friedel is still very proud of his fast Münch Horex RS machines, based on a Horex Emperor engine design.

F. Münch Archive



A drawing of Friedel's RS/500 cylinderhead which he developed for his Emperor-based twins. By increasing the inlet valve's angle to 25 degrees, Friedel tried to increase the filling of the cylinder.

S. Schnitzler Archive/
Drawing by F. Münch



Then, after building two RS machines for a couple of Americans, Münch planned to build yet another small batch of Emperor engines with various displacements to participate in racing. He built these motorcycles with double cradle tube frames, for which the main characteristics were the crossed frame tubes in the area of the steering head. For his RS double camshaft racing machine Münch used a standard type 07 crankcase of a Horex 400; nevertheless he also casted his own crankcase with altered shape. In this crankcase the crankshaft was mounted with an additional roller bearing. Friedel: "The original Emperor only had one centre bearing, which was not a good construction. It was too weak, so I created a new construction with an extra bearing. After this, the Emperor had more power at higher revs. Crankshaft vibrations were reduced considerably. The engine was now reliable. This type won many races in the solo class and also in the sidecar class. I rebuilt many of these engines, not only for professional racers but also for private riders and for road use." To raise power he adapted the crankshaft housing. Therefore Münch welded a transition piece on the crankcase and put it on top of that aluminium cylinder of his own design. Bore and stroke became now 69 x 66 mm. This adaption of the crankcase was necessary, because Münch wanted to replace the usual con-rods for the stronger but longer connecting rods of an NSU Max. On top of these cylinders Münch placed two single cylinder heads of two different types of Horex Regina's. On this cylinder pair Münch placed the cylinder head and the double camshaft housing. The chain to drive both camshafts ran between the cylinders to the sprocket on the crankshaft. For the preparation of the fuel mixture Münch used Dell'Orto 32 SSI s or a double of Edoardo Weber from Bologna, Italy, these depending on the wishes of the customer. Furthermore Münch equipped these engines with a dry clutch of the NSU Max. The 500-cc version, which delivered a genuine 50 hp, had a top speed of nearly 193 kmph (120 mph). The 600-cc version was only marginally faster but had more torque at lower revs. All in all Münch built approximately ten of these engines;

1970-1971 The Bell Era

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Ernst Leverkus: "This is the man who tore around the ring on a push rod BMW faster than the four-cylinder URS. Ferdi Kaczor shattered the ten-year-old lap record on the north slope, although in the meantime, a braking baffle plate had SMBM Archive / Photo E. Leverkus



The new URS sidecar, now with a chassis by the Swiss Rudi Kurth, will be deployed at Friedel Münch Racing and Sports Motor Manufacturing in Ossenheim, 1970. F. Münch Archive

9.1 THE NEW SOLO'S

At the end of 1969 and the beginning of 1970, George M. Bell was busy working out his plans for the new Münch factory in Albstadt. Everybody saw Bell as a genuine fan of the Münch make, who had invested a lot of money with the intention of significantly increasing production. In spite of the disappointing end of the record attempt in Daytona U.S.A., the future of the new company looked bright. But the various racing projects, which Bell had started, required a lot of attention from the Münch Company. A lot of additional work had to be done, putting the production and the perfection of the Münch motorcycles in Ossenheim under great pressure. A continuous production was out of question. Münch clearly recognized that if Bell hadn't taken over the majority of Clymer's shareholding, it would have meant a premature end to the factory. Bell announced to lower the sales price of the motorcycles for the U.S. market, and especially for the European market, he intended to develop a lighter and cheaper model.

It all seemed secure, with the commercial and financial management controlled by Joachim Marquart. Bell, as well as Münch was convinced that participation in motorcycle racing would have a positive influence on sales. However not everybody was positive about that. Dieter Busch remembers: "Münch invited me and said: Come to Friedberg if you can, we're about to introduce our new company.' I believed this to be Albstadt. In this workshop, some-where high up in a balcony, well, then a kind of businessman, who was also part of the action, delivered a speech and I didn't forget the way he explained the position of both factory halls. The Münch Mammoth series motorcycle was to be produced in one hall. The other would become the home of the race department with the aim of achieving the World Championship in the 500-cc solo and sidecar class. I couldn't keep my mouth shut and laughed out loud in this hall. Peter Kuhn looked at me and asked: 'What are you doing? What do you mean?' Busch spoke aloud: "You may be able to pull this off in the sidecar class, but no way in the solo class against MV Agusta." The plan was that the Münch Company intended to participate in the 500-cc class with two solo motorcycles and in the sidecar class with two sidecar-outfits. Both Helmut Fath and Horst Owesle would race. For Owesle, a new chassis was ordered, manufactured by the Swiss Rudi Kurth. When Bell announced the name, under which they would race in both World Championships, Fath was highly surprised. Bell had decided to use the name Münch-URS. For Helmut Fath, the choice of this name was a source of vexation, instantly having a negative influence on the relationship. Under time pressure, occurred by the record attempt in Daytona, they prepared the new racing engines for the coming season. In a strictly supervised section they worked continuously on the MU 1 and MU 2 solo racing bikes, which were the third and fourth solo machines, equipped with URS engines. In the meantime they looked for riders. Their first choice was German Champion Karl Hoppe who had already raced the URS a few times. For the second machine Bell tried to hire the English rider Rodney Gould. However he didn't give any answer, first he wanted to wait for Yamaha's plans for the season, and finally he did not accept Bell's offer. Then Bell chose the young and promising Ferdinand Kaczor from Altheim, well known for the construction of his own frames, which were the best money could buy. In his daily professional life Kaczor worked in Munich at the BMW motorcycle test department alongside such people as Helmut Dähne, Hartmut Allner and Rupert Bauer. Due to his job as test rider at BMW, Kaczor had a lot of riding experience, especially on the Nürburgring, consequently he played an important part in the development of the chassis for the BMW R 246 series; types R50/5; R60/5 and the R75/5. With Hoppe and Kaczor as riders now meant that Germany, after quite a long time after the withdrawal of BMW from motorcycle racing, once again had an official factory racing team.



Kaczor wasn't just some talented racer; Bell had seen him on the 7th of September 1969 practising for the German Championship race on the Nürburgring. At the race itself, Kaczor