



The BMW Boxer engine – unsurpassed for 100 years.

How the young engineer Martin Stolle brought BMW to the motorcycle.

Múnich. Martin Stolle was a talented young engineer in the development department of BMW and he was having great fun riding his motorcycle from the British marque Douglas. After the First World War, his employer – like all German companies – was prohibited from producing aero-engines. They kept their heads above water with large-displacement four-cylinder inline engines for trucks, tractors and boats. A new product needed to be created in order to secure a permanent future. Martin Stolle had the brilliant idea. Inspired by the engine powering his Douglas machine, he designed a 500 cc, air-cooled twin-cylinder engine with horizontally opposed combustion chambers. This type of engine arrangement was already known as a Boxer engine, in which the pistons always operated "one against one" similar to boxing competitors in a fight. The power unit impressed aficionados with its outstanding smooth-running performance right from the start – a quality that continues to excite fans of BMW motorcycles powered by Boxer engines to this day.

In 1920, production of the new engine was launched. At that time, Stolle was just 34 years old and his design of the Boxer engine was based on smooth-running and reliability. In his initial design, he settled for generating 6.5 hp at 4 500 rpm. The new power unit was supplied to various motorcycle manufacturers under the sales designation "Bayern-Kleinmotor" (Bavaria Small Engine). And soon Stolle's development was installed in motorcycles of the brands Helios, Bison, SMW (Stockdorfer Motoren Werke), Corona and Hoco. The most successful motorcycles were manufactured by NürnbergerVictoria-Werke, whose KR 1 model powered by the "Bayern-Kleinmotor" from BMW attracted a large number of purchasers. More than 1 000examples of the first Boxer engine from BMW were installed in this model alone.

Two years after the launch of sales for the new BMW bestseller,Martin Stolle followed in the footsteps of "his" engine. He switched companies and moved to Victoria-Werke where he was involved in other successful motorcycle developments. In Munich, his legacy was not only a groundbreaking engine concept but also a pioneering inspiration for the future of BMW. The company was destined to move forward on two wheels. The development of a complete motorcycle had already begun. In September 1923, the BMW R 32 was presented – naturally powered by a Boxer engine.

The BMW Group

With its four brands BMW, MINI, Rolls-Royce and BMW Motorrad, the BMW Group is the world's leading premium manufacturer of automobiles and motorcycles and also provides premium financial and mobility services. The BMW Group production network comprises 31 production and assembly facilities in 15 countries; the company has a global sales network in more than 140 countries.

In 2019, the BMW Group sold over 2,520,000 passenger vehicles and more than 175,000 motorcycles worldwide. The profit before tax in the financial year 2018 was € 9.815 billion on revenues amounting to € 97.480 billion. As of 31 December 2018, the BMW Group had a workforce of 134,682 employees.





The success of the BMW Group has always been based on long-term thinking and responsible action. The company has therefore established ecological and social sustainability throughout the value chain, comprehensive product responsibility and a clear commitment to conserving resources as an integral part of its strategy.

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