

Brose e-bike drives: Production Made in Germany



First Brose e-bike drive manufactured: series production started in Brose's Berlin plant on July 15, 2014 in the presence of Peter Schlitt, CEO of Rotwild, Michael Stoschek, Chairman of the Brose Group, Roman Misch, Industrial Engineer for Brose e-bike drives, Egbert Hageböck, ZEG Board Member, Georg Honkomp, Chairman of the ZEG Board, Sven Bauer, Managing Director BMZ GmbH, and Christoph Bantle, Vice President Product Group E-Bike Brose Group

Berlin (15. July 2014)

The international automotive supplier Brose celebrated the series production start of a new electric motor for e-bikes at its Berlin plant on Tuesday in the presence of guests from government and industry. This makes the mechatronics specialist the only supplier to offer a drive system "Made in Germany". The first customers include Bulls and Pegasus (both ZEG) and Rotwild. Brose has invested 3.4 million euros in the set-up of production capacities.

"Today clearly marks a significant milestone in Brose's history as we celebrate for the first time the transfer of our group's technical expertise and values to a new market in exactly the same city where Max Brose founded his first company in 1908," said Michael Stoschek, Chairman of the Brose Group. "Our aim is to become the No. 1 supplier in the premium segment by offering top technology and quality, and then gradually enter the classes below. The expectations are high and encouraged the other shareholders and me to take this step and create the necessary technical and personnel conditions," explained Stoschek.

According to Guido Beermann, Permanent Secretary in Berlin's Senate Department for Economics, Technology and Research, Brose's production start shows "that Berlin's position in the emerging market of electric mobility provides excellent opportunities for additional growth and qualified

employment."

Top quality in development and production

Brose's engineers have developed an innovative drive system for e-bikes over the last three years based on its steering motor for vehicles that has already been produced millions of times. Similar to the development of cars, the mature product has been extensively tested in laboratories and undergone intensive endurance driving tests under extreme conditions in the Alps, covering more than 100,000 kilometers since July 2013.

Bicycle manufacturers benefit not only from Brose's engineering expertise but also from its high quality standards when it comes to production: with an annual production volume of 2.6 million electric drives for cooling fan modules, the Berlin plant has extensive manufacturing expertise. The quality assurance methods established by the automotive industry are also used for the production of the e-bike drives. Moreover, permanent monitoring of the assembly processes and end-of-line testing of all motors ensure maximum quality for customers.

In addition to the in-house manufactured drive, the mechatronic specialist also offers customized complete systems on request. Manufacturers can select from a range of components required for the design of an e-bike: from display and wiring harnesses to the fixture welded to the bicycle frame. The batteries are supplied by BMZ GmbH Karlstein, Europe's largest battery manufacturer and a partner with whom Brose also collaborates to ensure the service for bicycle dealers.

Added value for bicycle manufacturers: tried and tested technology and maximum customization

Weighing just 3.4 kg and generating up to 600 watts of power, Brose's mid-motor features a previously unheard-of power density. This advantage is obtained through the use of weight-reduced, yet higher-strength materials. Its compact design and flexible installation positions enable manufacturers to develop products with superior geometry, balanced weight distribution and agile driving behavior. Thanks to the design, standardized single or multiple chainrings and hence common groupsets can be used.

It is possible to integrate the drive and battery into the frame depending on the customer's requirements and individually adjust the housing covers, providing bike designers with plenty of creative freedom. The driving behavior can also be customized: for instance, the delay in pedal assistance activation and intensity can be varied depending on the model.

"We are convinced that e-bikes will gain increasing acceptance both as exercise equipment and means of transport in our daily lives. Whether in mountain bikes, trekking or cross bikes – we offer ideal system solutions for manufacturers who strive for maximum individuality and top quality," said Christoph Bantle, Vice President Product Group E-Bike Brose Group. "Our motor runs virtually silent and vibration-free. The highly sensible sensor system ensures smooth, yet powerful pedal assistance, thus addressing different target groups.

Available from fall 2014

In May this year, the premium bicycle manufacturer Rotwild presented the versatile All Mountain R.Q1 e-bike fitted with a compact mid-motor supplied by the mechatronics

specialist Brose. The battery is fully integrated in the supporting framework, enabling the R.Q1 to retain its individual appearance and sporty handling, even in the hybrid version. The mountain bike with Brose drive will be available this fall. At the same time, Brose will start supplying Bulls and Pegasus models (both ZEG). Negotiations are underway with other manufacturers.