WOLFGANG BUCHAUER

bauma 2010
Hall A4 Booth 412

Truck stop

WHEN SOME OF THE WORLD'S LARGEST VEHICLES COME TO A QUICK STANDSTILL, THEY RELY ON INNOVATIVE SOLUTIONS TO DO IT SAFELY. EVEN FOR MUCH SMALLER WHEELS, INGENIOUS DESIGNS ARE AVAILABLE

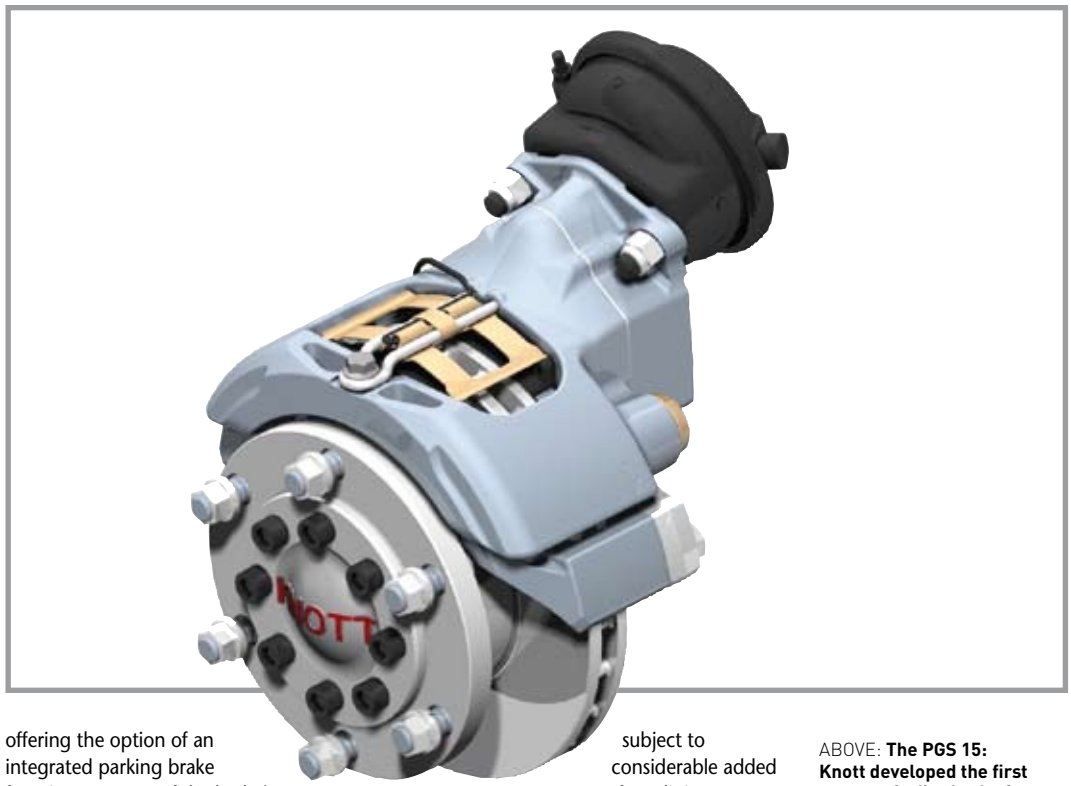
Open-cast mining mega-machines, such as dump trucks the size of houses, always steal the show at Bauma. But look behind the scenes – or rather behind those gigantic wheel rims – and there is a whole host of equally exciting, if smaller-scale, attractions waiting for the specialist to discover. For instance, braking systems capable of masterfully slowing down – and stopping with the utmost efficiency – a several hundred tonne mega dumper truck. Knott GmbH is the company behind this type of brake and many of its far smaller siblings.

For many construction machinery manufacturers, Eggstätt on the shores of Lake Chiemsee in Bavaria, Germany – the home of Knott and its 300-strong workforce – is the Mecca for everything to do with specialist brakes. Many of these OEMs will undoubtedy be making their way to its stand (412) in Hall A4 at this year's Bauma.

Certainly, any manufacturer faced with the headache of squeezing a high-performance brake into a 15in wheel rim should look no further to find a fascinating alternative to the otherwise customary array of drum brakes or hydraulic disc brakes. With its innovative PGS 15 pneumatic disc brake, Knott is setting the standard in terms of compact design.

A feature of this brake is the integration of a Bowden cable-actuated parking brake. The compact design is as simple as it is durable. It saves the need for an additional compressed air reservoir close to the wheel, which is the key to the unmatched compactness of the brake.

This is an interesting new development, and not just for manufacturers of small construction machinery trailers. The PGS 15 combines all the advantages inherent with disc brakes, from high braking output (the brake is currently approved for axle loads of up to 3.2 tonnes) through temperature stability to operating economy, while also offering the option of an integrated parking brake function. Because of the brake's excellent accessibility, the linings and discs can be exchanged in record time. The pot-shaped design of the brake disc even allows a disc change without dismantling the hub.



ABOVE: **The PGS 15: Knott developed the first pneumatic disc brake for 15in wheels**

Active piston return

For classic earthmoving machinery – in other words, dump trucks – Knott is also presenting some exciting avant-garde features on its 6x60 and 6x92 style hydraulic fixed-caliper disc brakes.

These new caliper disc brakes come with an active piston-return system – a helpful feature for disc brakes working in machines designed to traverse difficult terrain. Brakes operating in this type of environment are subject to considerable added wear from lining abrasion due to dirt contaminating the disc surface. Knott's active piston-return system ensures that the disc and brake lining are immediately separated from each other upon completion of the braking process, minimising lining wear. The resulting reduced maintenance downtime and lower operating costs provide considerable benefits for the giant megastars of Bauma.

With such a range of innovations for every size category, Knott remains firmly at the cutting-edge of brake design – proven in practice for over 70 years! **iVT**

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