

Press release

Hankook uses key innovations to deliver a stepped improvement in tyre performance for their new Long-Haul tyre range SmartLine AL50 and DL50

- **Artificial Intelligence supported tyre design optimisation**
- **New materials and 3D printed metal tyre moulds**
- **Up to 15% better fuel efficiency and wet grip performance, even when the tyre tread is in the worn condition**
- **Improved durability whilst preserving the excellent mileage performance of the previous generation of long-haul tyres.**

Neu-Isenburg, Germany, 09 May 2023 – Strong competition, rising fuel and staff costs, and calls for a more sustainable approach: the environment within the logistics and transport industry has become even more challenging. Premium tyre manufacturer Hankook is taking on the challenge with a radically expanded tyre portfolio for long haul vehicles. The new SmartLine AL50 for steering axle and all-position use and the new SmartLine DL50 for the drive axle are specifically designed for the requirements of long haul vehicles. The SmartLine tyres feature considerably less rolling resistance than their AL20w and DL20w predecessors, thanks to a comprehensive technology package. This results in lower fuel usage.

“Our business focus is wholly on the sustainability of our products when developing new tyres. With their newly developed SmartLine tyre treads, Hankook has once more produced sustainable tyres that satisfy many customers’ increasing environmental and economic concerns,” said Sanghoon Lee, President of Hankook Tire Europe.

We aim to deliver best in class performance using all available materials, processing and computer technologies. We can today design, test and produce tyres with significantly improved performance thanks to these innovation investments and using 3D printed tread patterns, the tyre performance is maintained from the 1st to last mm of tread wear. This delivers no compromise performance during the whole tyre life, a genuine step forward in our aim to maximise the value for our fleet partners in Europe,” adds Guy Heywood, Vice President Marketing Strategy Truck and Bus at Hankook Tire Europe.

The new line-up will be introduced into European markets in several stages. The SmartLine AL50 will be available in seven sizes, while the SmartLine DL50 will come in five sizing options.

Details of the steering axle and drive axle models

For the new **SmartLine AL50** for steering axle and all-position use, Hankook's design engineers have managed to reduce rolling resistance by up to 12 per cent compared with the AL20W. Despite its outstanding efficiency, the SmartLine AL50 also contributes to greater safety on the roads, since wet grip braking performance is now 15 per cent more effective compared to earlier generations of tyre model.

The SmartLine AL50 comes in a striking design featuring three parallel tread grooves. The stepped tread groove wall increases stability of the now wider tread blocks. The tread design uses 3D interlocking tread blocks which gives rigidity to the tread contact patch, improving grip, reducing wear, and heat and so increasing mileage and reducing rolling resistance. The 3D printed tread allows for hidden grooves and sipes to be revealed as the tread depth is worn. This means the tyre retains its safety, traction and wet grip performance throughout its life cycle. The hidden tread features are revealed at around 40 per cent wear of the tyre tread. The newly revealed grooves create new channels to evacuate water from the tyre contact patch and also give new gripping surfaces. This means the new tyre excellent wet grip and traction is maintained even as the tyre wears.

Similarly, the **SmartLine DL50** brings together multiple innovations for the drive axle. Compared with its predecessor, the DL20w, rolling resistance is reduced by up to 15 per cent, while wet grip is improved by 10 per cent. Tread features like 3D printed sipes, hidden grooves and self-regenerating sipes deliver a cooler running tread with improved wet grip and traction and so improved mileage and reduced rolling resistance. Wider tread blocks are used to give a solid on road contact, rigidity of the tyre tread and so reduce heat. New tread features appear as the tyre wears to maintain the cool running tread, wet grip and traction so maximising mileage and grip whilst minimising rolling resistance. This delivers a tyre with excellent performance from the 1st to last mm of tread wear.

One important feature of the new SmartLine family is its advanced compounding technology. A carbon-silica dual filler system improves the homogeneity of the rubber compound mix, increasing fuel efficiency. A further feature is that the tyre generates much less heat thanks to Hankook's innovative mixing system (IMS) and the tread block rigidity from the 3D interlocking sipes. The Stiffness Control Contour Technology (SCCT) ensures uniform tread deformation, which counteracts uneven wear through targeted load distribution.

SmartLine tyres display the 3PMSF symbol to indicate unlimited use all year round. Both new SmartLine products are suitable for regrooving, while the high-quality carcass means they can be retreaded.

About Hankook Tire

Hankook Tire manufactures globally innovative, award-winning radial tyres of proven superior quality for passenger cars, light trucks, SUVs, RVs, trucks, and buses as well as motorsports (circuit racing/street circuits/rallies).

Aspiring to bring consumers the utmost excellence in product quality, technological excellence and driving satisfaction, Hankook Tire continuously invests in research and development maintaining five R&D centres and eight production facilities around the world. Bespoke tyre solutions for the European markets as well as European Original Equipment according to the requirements of leading premium car manufacturers, are developed in the company's regional Technical Centre in Hanover/Germany. Production for the European region is taking place in the state-of-the-art manufacturing site in Rácalmás/Hungary which was inaugurated in June 2007 and is continuously being expanded. Currently around 3,000 employees produce up to 19 million tyres a year for passenger cars, SUVs and light trucks.

Hankook Tire's European headquarters are located in Neu-Isenburg near Frankfurt am Main in Germany. The manufacturer operates further branches in several European countries and sells its products through regional distributors in other local markets. Hankook Tire employs approximately 20,000 people worldwide and sells products in over 160 countries. The company has been selected as the technical partner and exclusive tyre supplier of the Generation 3 for the FIA ABB Formula E World Championship, starting 2023. Internationally leading car manufacturers rely on tyres made by Hankook for their original equipment. Approximately 38 percent of the company's global sales are generated within the European and CIS-Region. Hankook Tire has been represented in the renowned Dow Jones Sustainability Index World (DJSI World) since 2016.

For more information please visit www.hankooktire-mediacyenter.com or www.hankooktire.com

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