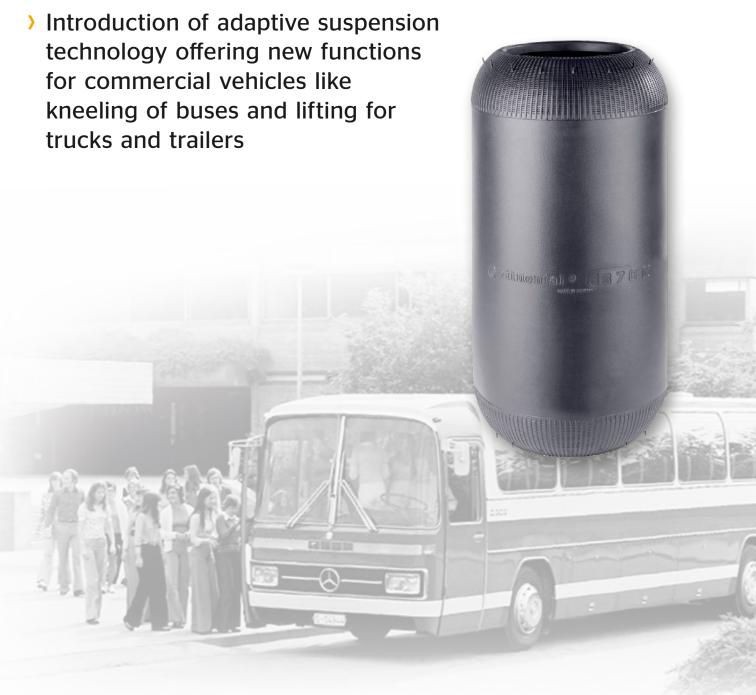


THE EVOLUTION OF AIR SPRING SYSTEMS

ERA OF NEW COMFORT

It All Started with Air Spring Bellows

- Air Spring bellows were used as suspension for commercial vehicles to provide a smoother ride
- New level of comfort enables travel with strongly reduced impacts, vibration and noise





ERA OF SYSTEMS

Integrating Structural Components

- Continental became a full system supplier
- Consolidated Air Spring systems as "full design system" with "integrated structural components"
- Introduction of rigid crimped interfaces and vulcanized structural components enable enhanced kinematic stability for advanced axle designs with maximum travel capacity

 Consolidated system approach with delivery as one-piece design simplifies product handling and streamlines vehicle assembly



ERA OF HIGH TECH

Excellence in Technology

- High Tech development is fundamental to Continental's position as pacemaker in the air spring market
- Introduction of polyamide comfort piston with fully usable inner volume, reducing the air spring weight by up to
 30%, this makes 12 kg weight saving for the truck axle
- Introduction of synthetic rubber compound Chloroprene for Air Springs providing improved weathering resistance (ozone resistance)
- Introduction of high performance modification of Chloroprene Heat RaCR for hot countries life time improvement up to 80°C



ERA OF SUSTAINABILITY

Sustainable Highly Flexible Material

- Continental is committed to the Paris Agreement and is aiming for 100% carbon neutrality by 2050 at the latest - along its entire value chain
- Actively improving the environmental impact of air springs through
 - · use of recycled materials
 - · improved recyclability of materials
 - use of bio-based instead of fossil-based materials



Non 3rd party-certified estimation oriented towards ISO 14040/14067. System boundaries: Cradle-to-gate. Methodology: CML2001, category "Global Warming Potential". Purchased goods (scope 3): Emissions LCA for Experts database & suppliers (If available and 3rd party-certified). Purchased goods (scope 3): Average emission data for green steel from public manufacturer source. Scope 1 & 2 and other Scope 3 emissions: Calculated by using weight-based approach.





Bead Plate

Green steel for bead plate

> 50 % less material Carbon Footprint

Rubber Compound

Replace Chloroprene with Tough RuNR

> 50 % less material Carbon Footprint

Fabric

Replace Polyamide with recycled polyester

40% less materialCarbon Footprint

Piston

Replace Steel with sustainable thermoplastics

40 % less material Carbon Footprint

Possible PCF reduction without changes of basic air spring design > 25 %

LIGHT WEIGHT AIR SPRINGS

Raising Efficiency with Polyamide Solutions

Reducing the air spring weight by up to 30%, this makes 12 kg weight saving for the truck axle

Benefits

- Less fuel consumption
- Reduction of energy and operating costs
-) Payload increase





TOUGH RUNR AIR SPRINGS

Excellence in Technology

Continental's material experts have substituted synthetic rubber with natural rubber that has been improved by ethylene-propylene-diene rubber (EPDM).

By doing so, the rubber compound's carbon backpack is reduced by more than 50 percent while achieving the same product performance

- Tough RuNR offers the perfect combination of material properties with dynamic excellence and protective properties for Air Springs
- Low temperature operability like Natural Rubber (NR)
- Improved aging resistance to tough environmental conditions - high temperature - ozone - UV chemicals - like Chloroprene Rubber (CR)



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