

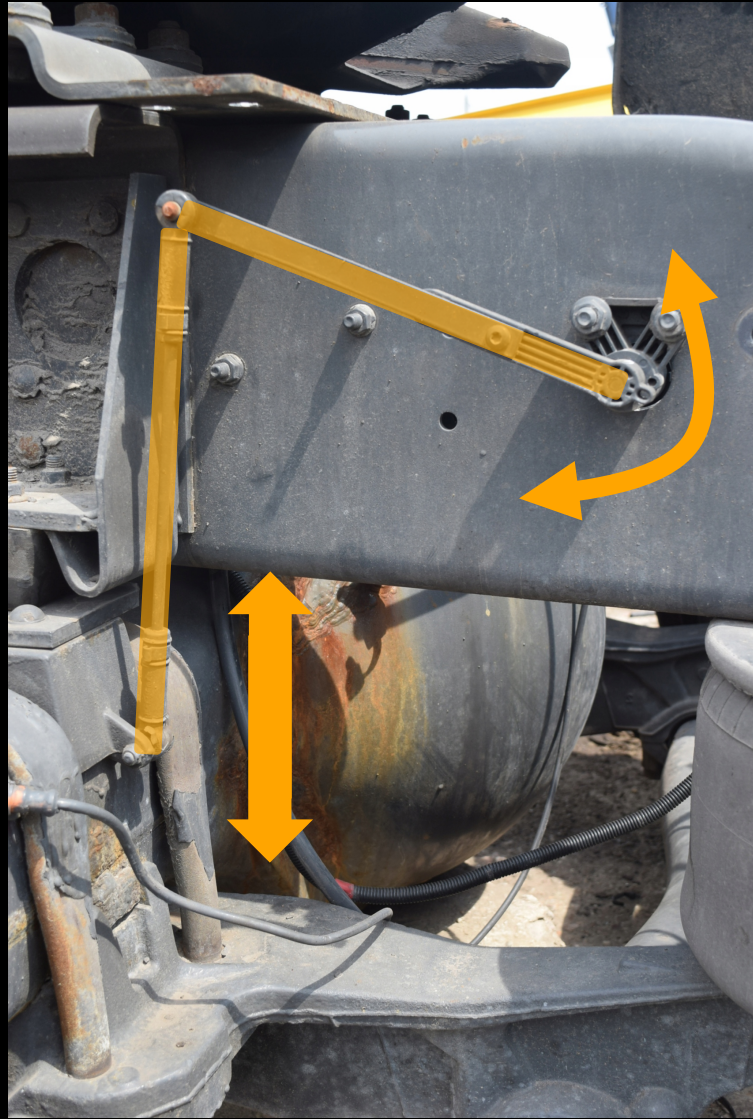
The background features a stylized world map composed of small orange dots. Overlaid on this are several dynamic, curved lines: a solid orange line, a dashed white line, and a dashed orange line. A semi-transparent grey rectangular shape is also visible in the upper right quadrant.

Smart Sensor Air Spring

Your smart way towards a technological leap

Marc Leinemann, Head of Advanced Development Commercial Vehicles, Business Area Advanced Dynamics





Smart Sensor Air Spring

The Challenge – Conventional Height Measurement

**PARTS
HANDLING**

**PLANT
OPERATION**

**VEHICLE
OPERATION**

**SERVICE
HANDLING**

CHALLENGES

- › Number of components >10
- › Installation and calibration
- › Separate wiring harnesses
- › Logistic challenge

- › Dirt and Ice
- › Manipulation
- › Impact damage
- › Diagnosis and Service

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Our Solution – Sensor integration



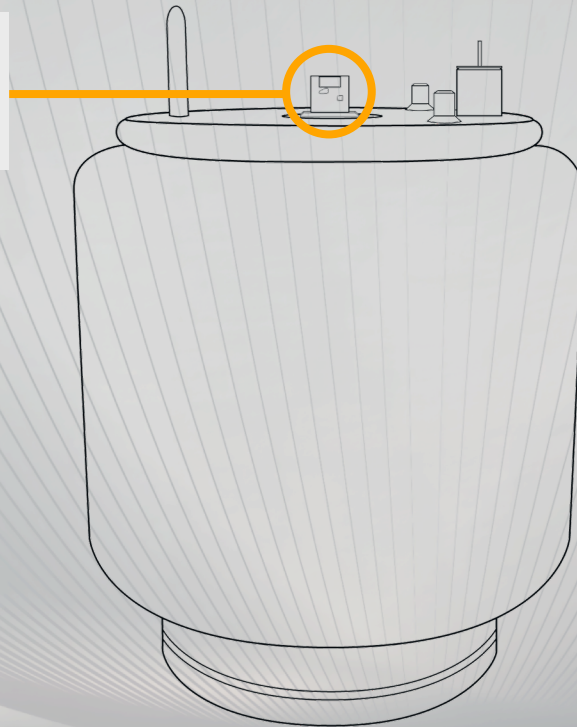
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Our Solution – Sensor integration



UHPS – Ultrasonic Height & Pressure Sensor

- › Contactless and wear free ultrasonic technology
- › Plug & Play solution with integrated height and pressure sensor
- › Reduction of conventional mechanical components and wiring harness handling
- › Enabler for future smart service solutions and autonomous vehicle control



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Your Benefits



INCREASED PLANT PRODUCTIVITY

- › Significant reduction of components
- › Simplified logistics
- › Streamlined vehicle assembly
- › Plug and play without calibration

BENEFITS

RELIABLE PRODUCT

- › Protected inside air spring
- › Digital system with diagnostic range
- › Contactless, wear-free
- › Easy replacement

The background features a light grey gradient. A world map is rendered in a dotted orange pattern. A semi-transparent grey rectangular plane is tilted diagonally across the upper half. Several dashed lines, including a prominent orange one and a white one, curve across the lower half of the image.

Thank you!