

Independent suspension for the mobility of the future

CORE COMPETENCES: LINKAGES / SPRINGS / DAMPERS

The electrification of buses is often still retained on conventional structures of the drive train of an internal combustion engine. HEMSCHIEDT Fahrwerktechnik works together with Ziehl-Abegg Automotive on an innovative suspension solution that optimally exploits the advantages of electromobility and thus generates additional benefit for bus companies and passengers.

A semi-trailing independent suspension in combination with a hydropneumatic suspension system and the use of an electric wheel hub drive are responsible for an increased space in the interior of the bus and also for an improvement in comfort. The entire drive including control electronics is located inside the rim with optional twin tires or a super single and

provides more space in the middle of the vehicle. By skillful interconnection of the suspension cylinder there is no need of a stabilizer. Thus, a minimum ride height can be achieved, which is based on an elevated curb at stops. Buses are no longer dependent on tipping the entry side and can carry faster and more effectively. In addition, the gangway width in the vehicle can be widened by the axle concept.

The semi-trailing arm axle has been designed modularly so that an air suspension including hydraulic damper and vehicle roll stabilizer as well as a pneumatic brake can be integrated, if the vehicle architecture demands it. A refitting to a hydropneumatic is also possible.

Highlights

-  Optimal suspension solution for electric buses
-  Increased space in the bus interior
-  No tipping off the entry side at stops
-  Modularly designed trailing arm axle

Technical Data

-  Fully electrically driven rear suspension up to 13.5 t axle load
-  Semi-trailing independent suspension
-  Axle width 2510 mm
-  Wheel travel 150 mm
-  Drive power per wheel 120 kW

About HEMSCHIEDT Fahrwerktechnik

HEMSCHIEDT Fahrwerktechnik is a highly specialized supplier of chassis components and systems. Since 1929 the company develops and produces shock absorbers, as well as for more than 20 years hydropneumatic suspension systems, joint systems for buses and wheel guide elements.

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