

WE SPEAK LOW FLOOR



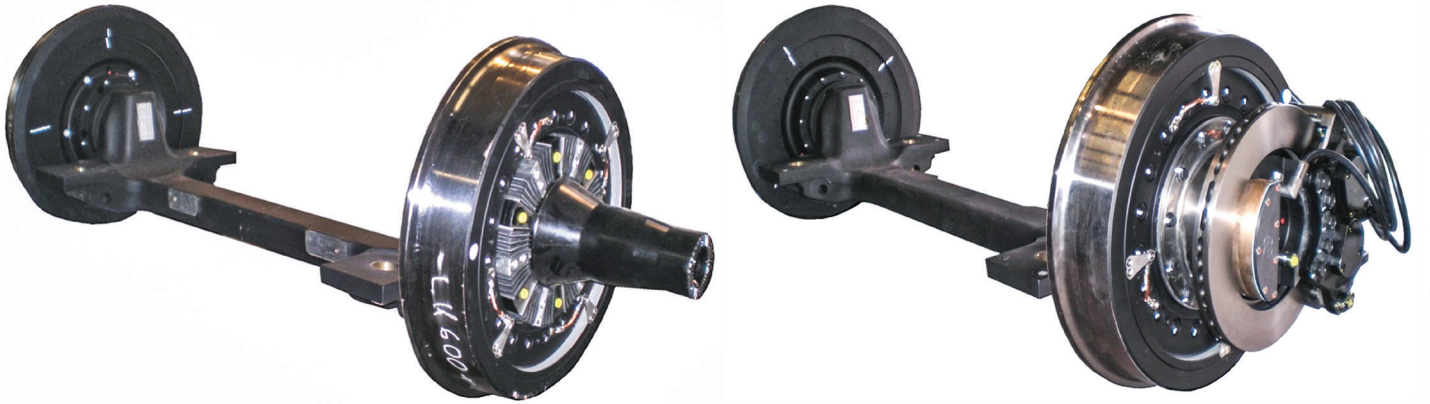
TRAMS AND LRV's



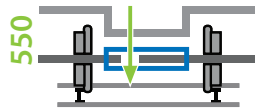
GHH-BONATRANS
Pioneers of wheelset solutions

Sophisticated Solutions for Light Rail Vehicles

GHH-BONATRANS is the world leading supplier of wheelset solutions for low-floor applications. From motor wheelset to the independent wheel axles, we design, engineer and manufacture each element of the wheelset system by development and engineering to production, assembly and maintenance/overhaul, the complete wheelset system is the core of our expertise. We have established long-term partnerships with the major manufacturers of Light Rail Vehicles in order to gain excellent knowledge and provide the best possible expertise and consultancy already in the early stages of product development.



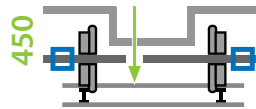
Solutions for all floor levels



Drive and brake between the wheels, but with limited height

Our solution: motor and trailer wheelsets

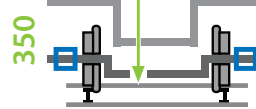
Result: Floor level of 550 mm



No drive nor brake between the wheels

Our solution: motor and trailer wheelsets

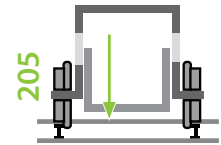
Result: Floor level of 450 mm



No drive nor brake between the wheels, independent wheel axle

Our solution: independent wheels on the axles

Result: Floor level of 350 mm



Running gears with portal frame

Our solution: swivel-mounted independent wheel units, fixed on portal frame

Result: Floor level of 205 mm

Selected customers

ALSTOM

bozankaya

中国中车
CRRC

HYUNDAI
Rotem

pesa

Pragolmex®

SIEMENS

ŠKODA

STADLER

Innovated wheel and axle portfolio



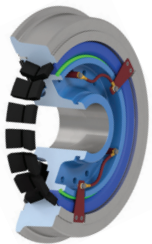
GHH-BONATRANS has developed a new Super-Resilient Wheel up to 6 ton wheel load with a nominal diameter down to 600 mm new / 520 mm worn. The design of all components has been enhanced and the rubber elements have been completely reshaped. Excellent strength of the **GHH®ULTRA-S** was verified by applying the German calculation standards (FEM analysis and assessment of stresses by application of FKM-guideline).

Next generation of independent wheel axle

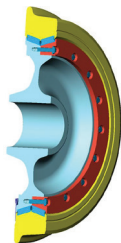
The new 12.5t independent wheel axle is based on the proven and reliable **GHH®V60** wheel type. Its modern upgrade for high axle loads is based on a one-piece, die-forged portal axle design and a pair of tapered roller bearings, adjusted optimally during assembly.

Resilient wheel product range

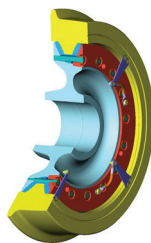
Resilient wheels



BONA E-LOCK®M



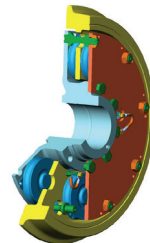
GHH®V15/V30



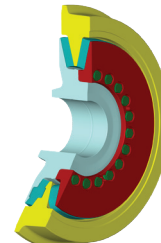
GHH®V60

Split design: One or two rubber rings or a number of rubber elements between wheel tyre and wheel body are mainly loaded by compression respectively shear and compression.

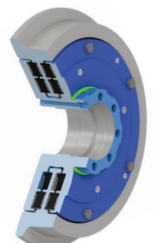
Super-resilient wheels



GHH®ULTRA-P



GHH®ULTRA-S



BONA E-LOCK®L

Split design: A number of rubber segments are pre-stressed between wheel tyre and wheel body by means of pressure disc respectively wedge ring. The rubber pads / elements are loaded by shear – low radial stiffness of resilient wheel!

EN 45545 Compliance

GHH-BONATRANS is the first resilient wheel producer to comply with EN 45545 protection standard on all components of a resilient wheel.

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