

**WE WILL
NOT STOP TO
ACCELERATE**



HIGH-SPEED



GHH-BONATRANS
Pioneers of wheelset solutions

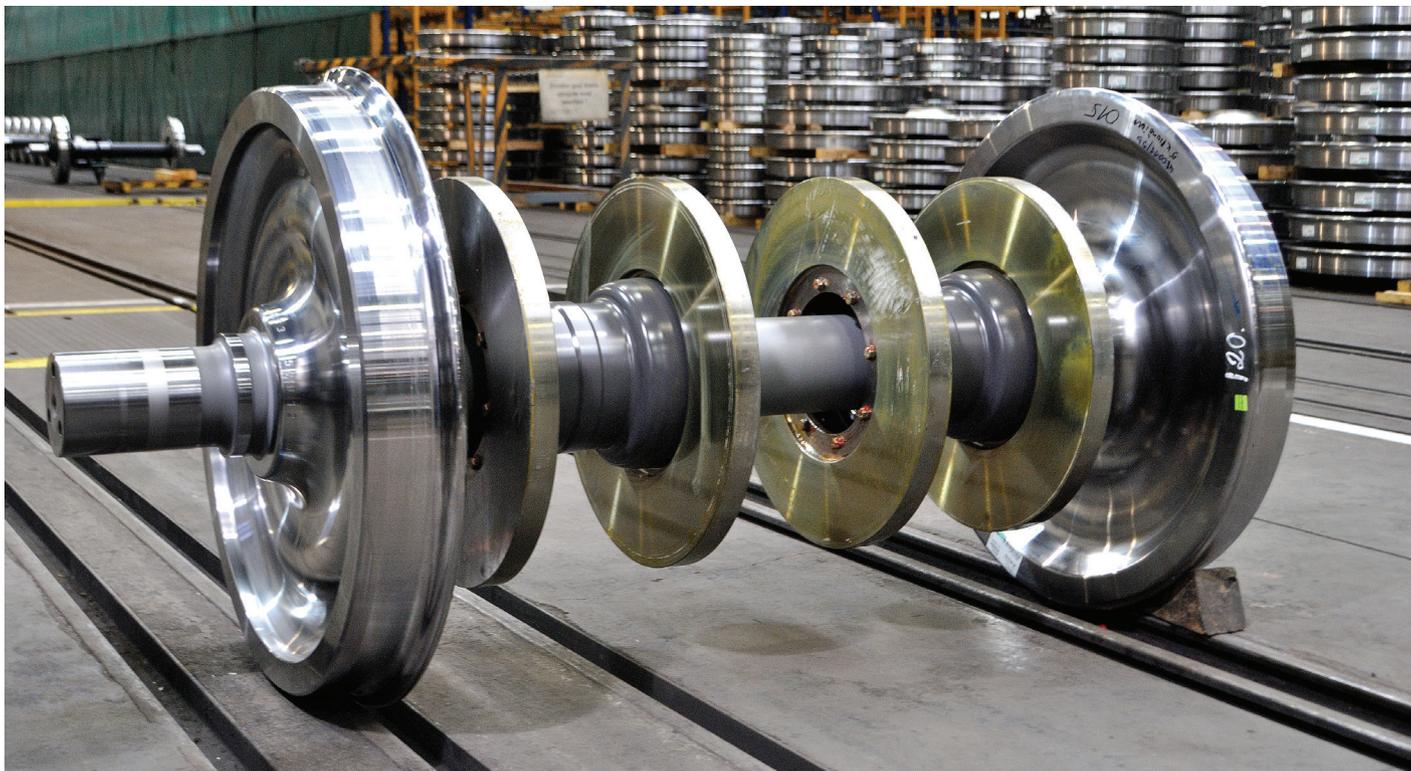
WE WILL NOT STOP TO ACCELERATE

High durability and safety for the world's fastest trains

With years of expertise in wheelset development, we provide high-performance solutions for high-speed rail. Our specialized wheels and axles offer extended service life that help operators reduce operating and maintenance costs while minimizing environmental impacts.

High safety of our products is based on the use of high-quality continuously cast steel, advanced production lines and fully automated quality control of each product.

We supply wheelsets, wheels and axles to the most demanding customers worldwide. Our products are trusted by leading high-speed train manufacturers, such as Alstom (TGV M), Siemens (VELARO MS), Hyundai Rotem (EMU-320), and others.



Key references

ALSTOM



KORAIL

HYUNDAI
Rotem

SIEMENS



SNCF

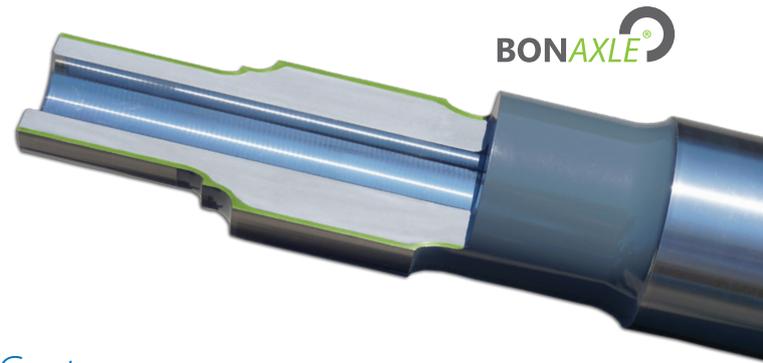
Talgo

Innovative induction-hardened axles

BONAXLE® is an innovative induction-hardened axle designed to enhance safety and reliability of high-speed trains while reducing life cycle costs (LCC). Building on proven technology used in Japanese high-speed trains, GHH-BONATRANS has improved the technology by adapting it to various steel grades and to the full axle length. This innovative technology improves strength of all axle types without changing their geometry and materials, and provides protection against damage of the complete axle. Already in use in Europe and Asia, **BONAXLE®** is helping operators reduce costs.

BONAXLE® key features

- Higher safety and significantly lower LCC
- No seizure during maintenance, no axle damage in operation
- Lower wheel replacement costs
- Extended NDT intervals due to eliminated initiation of cracks
- No need for expensive thick-layer coatings or protective casings
- Enables compliance of older platforms with current safety requirements



Longer service life and lower Life Cycle Costs



BONASTAR®

Advanced steel grades for longer service life of wheels

BONAXLE®

Induction-hardened axle for the entire service life of the rolling stock

BONACOAT®

Coating systems for effective long-term corrosion protection of wheelsets

BONASILENCE®

Highly efficient wheel noise absorbers designed for repeated use (in case of wheel replacement)

Let us protect our planet. Use long-lasting products.

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