GS1 standard

For optimized rail infrastructure management

vossloh
enabling green mobility

Vossloh adopts the GS1 standard for optimized rail infrastructure management

In an increasingly complex and connected world, the ability to identify assets reliably and accurately is more crucial than ever. Traceability and information tracking throughout the product life cycle are major challenges, particularly in the rail sector. A unique, unambiguous and constantly updated identification of each asset, from cradle to grave, is essential to ensure track safety, reliability and availability.

The current railway context

Today, most of the assets of railway companies have been identified. However, this identification often remains local and not shared. This poses problems of traceability and information tracking. The same product may have different identifiers depending on the department, company, operator or maintainer. This dispersal of information prevents efficient data capitalization.

The solution: the GS1 standard

To meet these challenges, Vossloh is innovating in the field of rail infrastructure by adopting the GS1 international identification standard.

This standard provides a unique product identifier that can be understood by all players in the value chain.

What is the GS1 standard?

GS1 is a neutral, not-for-profit international organization, created by companies and dedicated to the development of global standards for the identification, communication and sharing of information between companies. Founded in 1973, GS1 enables companies to uniquely identify their products, logistics units, locations, entities and equipment throughout their lifecycle.

In the rail industry, GS1 standards provide a global framework for identifying, capturing and sharing information on rail components, rolling stock and infrastructure. These standards improve the management of the entire lifecycle of railway assets, from manufacturing to maintenance and recycling.

Advantages of GS1 standards

Unique identifiers: Each product receives a unique number, similar to an ID card number, guaranteeing precise, unambiguous identification and time-invariant.

Global interoperability: GS1's global standards facilitate communication between partners (suppliers, customers, maintainers), ensuring that everyone speaks the same language and uses the same unique identifier for each asset.

Improved safety and reliability: Standardized component identification and tracking ensures easy access to essential information, improving the safety and reliability of rail operations.

Regulatory compliance: Adopting GS1 standards helps railway companies meet regulatory requirements for safety and quality management, reinforcing compliance with national and international standards, including the future European Digital Product Passport (DPP) regulation.

Enhanced traceability: GS1 standards ensure detailed tracking of railway infrastructure components and rolling stock throughout their lifecycle, from manufacture to maintenance, guaranteeing complete traceability and increased accountability.

Efficient data exchange: GS1 standards enable transparent, rapid and reliable data sharing between all partners, whether internal to the company or multilateral frameworks, depending on the application.

Concrete examples of Vossloh applications worldwide

Vossloh in Australia and the I-Trace project:
In 2018, Vossloh Cogifer Australia joined the Australian Railways I-Trace project, identifying all its rail track equipment with the unique GS1 codification. Objectives include building an infrastructure catalog, an asset tracking database, parts maintenance management and improved MRO (Maintenance, Repair, and Operations) processes.

Today, over 600 Vossloh turnouts are identified with this type of tag, containing the unique identifier and various other legibly inscribed elements, partially encoded in datamatrix.

Forge, Luxembourg site & Foundry, Outreau site:
Thanks to GS1 identification of forged tongues and crossings, customers benefit from optimized logistics tracking and stock management, improved documentation and asset management, as well as maintenance and operations.

Vossloh's adoption of GS1 standards represents a significant step forward in improving our customers' management of their railway assets and track availability. Indeed, efficient management of rail assets is crucial to guaranteeing track availability, since well-planned, preventive maintenance reduces service interruptions and ensures the safety and fluidity of rail traffic. By making identification unique and facilitating the exchange of information, these standards lay the foundations for a safer, more reliable and more efficient rail industry.