

Railway vehicle assessment



During the approval process for railway vehicles, a wide range of characteristics and functions have to be inspected by a recognised body like TÜV NORD in order to produce the mandatory evidence of safety. The evidence applies throughout Europe and covers 24 different aspects - starting with the brakes and doors, through functional safety up to fire protection and occupational health and safety.

TÜV NORD provides vital support, from the design stage up to creation of expert reports, in order to testify to fulfilment of the preconditions for approval. Our inspection body is recognised by the German Accreditation Body (DAkkS) with regard to rail-related testing and inspection and offers all the services needed for the evidence of safety required by national approval bodies and also by the Technical Specifications for Interoperability of the trans-European rail system (TSI).

The expert assessors from TÜV NORD, who are recognised by the Federal Railway Authority (EBA), have many years of experience in the assessment of all aspects of railway vehicles. If our experts have provided support in development and design processes, the inspection body ensures clear separation of advisory and inspection personnel.

TÜV NORD - Making our world safer.

Our services

Qualification of safety-relevant railway vehicle systems

- Calculation, examination and assessment of system design, fail-safe design and resistance to failure, failure tolerance, failure recognition, hydraulic, pneumatic and electrical circuit diagrams and also safety and function proofs

Qualification of components according to well-established procedures

- Testing and assessment of strength, running dynamics, bogies including material testing, pressure equipment and functional safety
- Certification according to TSI/established proof procedures based on European and international standards
- Testing and assessment of vehicle control systems, braking and traction equipment, doors, fire protection and diagnostic concepts

Qualification of entire vehicles and of vehicle components based on functional safety requirements

- Component certifications according to TSI qualification requirements, using defined proof procedures

Verification and Validation

- Planning and performance of verification and validation during the development process (function tests in the laboratory and in the vehicle)

System-related questions

- Hazard and risk analyses
- Safety-related application conditions
- System design (Diversity/Redundancy)
- Special technical questions (communication networks, train control and remote control systems)

The benefit to you:

- Protection of people and the environment
- Cost-effective procedures and processes
- Independent and need-based advice
- Officially-recognised reports
- Overarching competence of a complete service provider

Our expertise:

- Independence and neutrality
- Specialist independent experts with long-standing experience
- Assessors with EBA-recognition
- Recognition at EPSF, BAV, BMVIT, ACF
- Accredited inspection body according to DIN EN ISO/IEC 17020 (DAkKS)
- Notified Body (NoBo)
- Designated Body (DeBo) (Lux)
- Assessment Body (AsBo)
- Interims DeBo (DE)
- Partner of country and municipal authorities (Landeseisenbahnaufsicht (LfB, TAB))
- Associated partner of the German notified body

We look forward to sharing our expertise with you.
Why not contact us.

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