



COMPETENCE IN METAL

At the ZukunftsZentrumZollverein in the Zollverein Coal Mine in Essen – also referred to as Triple Z – we advise, inspect and teach. In doing so, we are continuing with the good tradition of industry in the Ruhr region, as our buildings were used for mining until 1967 and for testing the stability and reliability of mining machines.

We have extensive competence in materials technology, materials testing, heat treatment and metallography. We are accredited and certified as an inspection body (DIN EN ISO 17020), testing laboratory (DIN EN ISO 17025) and training provider (ISO 9001, AZAV). We know about metal here in the Ruhr region.

COMPETENCE IN WHEELS AND RAILS

The railway industry is like a highly complex macrocosm of strict rules and clear responsibilities. Only a few institutions are allowed to inspect in this special field – W.S. Werkstoff Service GmbH is one of them.

We bundle and combine all our core competences here: the know-how of the inspection laboratory, training for the international railway sector, the expert knowledge of the inspection body and the performance of audits. Werkstoff Service thus performs a significant task for rail transport safety.

Around the world.



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We offer the following services in our **RailwayCenter**:

NDT COMPETENT BODY

Our services as an NDT competent body include:

- » NDT instructions – preparation and approval
- » Level 3 supervisors for the railway sector
- » NDT audits and process analyses
- » Reference bodies for NDT – production and approval of reference bodies
- » Failure analyses and special investigations
- » NDT inspection technology – support with procurement and implementation

EXPERT ACTIVITY

We offer the following engineering and inspection services:

- » Failure analyses of railway components
- » Failure assessments for companies and authorities
- » Expert activity and inspections in the railway sector
- » Error and condition assessments for processes, products and materials
- » Product and process audits by our IRCA auditors
- » Evaluation of the strength of wheelsets and wheelset components
- » Evaluation of the heat treatment processes of wheelsets components
- » Product and supplier qualifications
- » Quality assurance for manufacturing and maintenance processes
- » Support with approvals

INSPECTION SERVICES

We have particular competences in the non-destructive testing of wheelsets and wheelset components.

We offer the following services:

- » Production-accompanying inspections
- » Materials testing in arbitration procedures
- » Testing during maintenance and servicing
- » Materials testing during product approval processes
- » Special investigations for product and process developments

We have extensive experience in the mechanical and technological materials testing of railway components.

These include:

- » Wheels and wheelset axles
- » Buffers and springs
- » Bearings and bearing housings
- » Rails and switches
- » Weld seams

INSPECTION SUPERVISORS

W.S. Werkstoff Service has qualified and certified inspectors for non-destructive testing in the railway sector for the following inspection processes:

- » Ultrasonic testing (UT)
- » Ultrasonic testing of longitudinally drilled axles
- » Magnetic particle testing (MT)
- » Penetrant testing (PT)
- » Eddy current testing (ET)
- » Visual testing (VT)
- » Mobile hardness testing
- » Mobile spectrometry
- » Training