



# DB Systemtechnik

Your experts on all things  
fatigue strength-related.



# Fatigue strength

## Static fatigue strength testing in the laboratory

Fatigue strength tests verify the service life and safety of technical components.



### Our expertise

- Complex national and international certification processes
- Safeguarding constructions in terms of their safe operation, reliability and cost-effectiveness
- Certification testing for acceptance in accordance with TSI and EBO



### How you benefit

- Extend service life and optimise structures (product development phase)
  - Extend maintenance intervals without interrupting or impairing ongoing operations
  - Protect against recourse claims through accredited test results
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## Measurement runs for torsional vibration

Torsion measurements are carried out to determine the maximum torsional load on axles.



### Our expertise

- Determination of the maximum torsional moment
- Acceptance of the measurement results by the designated body (DeBo)



### How you benefit

- Establish a basis for certifying axle strength
  - Certify the secure transferability of drive and braking torque
  - Obtain vehicle approval
- 

## Track testing

These measurements are used to record the stresses on all components on the moving vehicle.



### Our expertise

- National and international approval in accordance with DIN EN 13749
- Force and voltage testing on components with cracks
- Measurement and recording of load spectra



### How you benefit

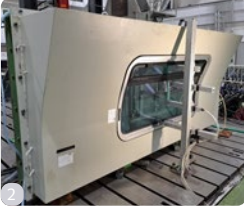
- Extend the service life and maintenance intervals of vehicles
- Optimise structures and constructions
- Provide certification for supervisory authorities
- Ensure safety
- Monitor critical components (e.g. axles, bogies)

## Selected projects



### **GRIMME Landmaschinenfabrik GmbH & Co. KG**

Static and dynamic strength testing for the total service life of the bunker harvester's supporting structure



### **SAINT-GOBAIN INNOVATIVE MATERIALS POLSKA SP. ZO.O.**

Pressure cycle testing in accordance with UIC566 on three side windows



### **German rail vehicle manufacturer**

Bogie frame testing in accordance with DIN EN 13749 for the Jakobs SF7500 motor bogie frame in the laboratory



### **Stadler Rail AG**

Torsion measurements for a multiple unit in accordance with VDB-Schrift 003



### **CRRC Locomotive Co., Ltd.**

Measurements of bogie frame strength in accordance with DIN EN 13749 in operational use



### **Rhätische Bahn AG**

EWI measurement runs – Switzerland: EWI measurements under operational conditions, axle box housing and vehicle body

## Contact persons



### Head of Fatigue Testing

Neele Hartmann

☎ Tel.: +49 152 37 555 438

✉ neele.hartmann@deutschebahn.com



### Head of European Sales

Steve Goebel

☎ Tel.: +49 151 57 604 462

✉ steve.goebel@deutschebahn.com



### Head of DB Group Sales

Frank Feuchter

☎ Tel.: +49 160 97 422 574

✉ frank.feuchter@deutschebahn.com



### Head of International Sales

Sergej Samjatin

☎ Tel.: +49 151 46 118 146

✉ sergej.samjatin@deutschebahn.com

## Publishing details

DB Systemtechnik GmbH  
Völckerstraße 5  
80939 München

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## Information in English

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test laboratory

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