



The new mobile test rig
developed by DB Systemtechnik

Wheel Slide Protection: **Static and mobile WSP test rig**

DB Systemtechnik operates a modern hardware-in-the-loop test rig for certifying and testing WSP systems and components.

The WSP test rig of DB Systemtechnik is:

- accredited by DIN EN ISO/IEC 17025
- validated against latest UIC-Leaflet 541-05 and EN 15595
- applicable as class 1, 2 or 3
- using a physical based simulation model for calculating the adhesion between wheel and rail

We offer:

- Certification of WSP systems according to UIC-Leaflet 541-05 and EN 15595
- Certification of WSP components like dump valves and speed sensors
- Optimization of WSP algorithms under realistic and reproducible conditions

Technical details

- Type of vehicles to be tested: loco, passenger coach, multiple unit
- Velocity up to 350 mph
- Up to 6 axles can be tested using real speed sensors
- Pneumatic and electrodynamic brake systems can be simulated

The mobile WSP test rig is the newest development of DB Systemtechnik's brake test department.

It combines the established simulation model of the static WSP test rig with new developed hardware components to simulate speed sensors and dump valves.

With the new mobile test rig, we provide WSP tests outside of the laboratory at every place. Hereby we expand the scope of WSP testing by the following possibilities:

- Systems can be checked for malfunctions directly on the vehicle – cost efficient and timesaving.
- Tests of detection of non-rotating axles (DNRA) can be performed.
- The combination of dynamic tests and mobile WSP rig tests allows to reduce the number of track tests for WSP optimisation.

Technical details

- Type of vehicles to be tested: loco, passenger coach, multiple unit
- Velocity up to 350 mph
- Up to 6 axles can be tested using simulated speed sensors and dump valves, an expansion up to 32 axles is possible
- Pneumatic and electrodynamic brake systems can be simulated

Our knowledge – **Your success**

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