Driving Dynamics Test Area

The Vehicle Engineering Test Facility (FTVA) of BASt includes an outside proving ground that is used for testing of vehicle safety, tyre/pavement issues and the safety of road equipment components.

Active vehicle safety and driver assistance systems

Driving dynamics is a major aspect of active vehicle safety. The evaluation of driving behaviour and thus driving safety is only possible with realworld test manoeuvres such as braking, lane change or driving with high lateral accelerations at the physical limits of driving dynamics.

The proving ground allows BASt to perform such tests. The results are used to clarify issues for the development of regulations (e.g. type approval regulations), standards or test methods. Examples are:

- Issues of periodical technical inspection.
- Safety of light quadricycles.
- Evaluation of new wheel/tyre combinations.
- Electronic stability control.

Interaction between vehicle and road

The driving dynamics test area also has a braking track that can be moistened. This allows tests for the development of test methods to evaluate the grip of tyres on wet surfaces while braking. The road is surfaced with a pavement according to ISO 10844. It permits noise measurements on vehicles driving at a constant speed or accelerating while driving past. The measurement of tyre/road noise includes the noise made when driving over bridge expansion joints. Samples of innovative solutions for more silent bridge crossings can be installed in a pit in the free area and can then be driven over by passenger cars at up to 100 km/h.

Road equipment

BASt also tests different road equipment (for example guiding beacons, traffic cones and traffic guidance elements) at its driving dynamics test area. This provides an important contribution to the determination of requirements and test methods for national and European standards. BASt also works at the request of third parties who want to have their designs approved according to the standards in crash tests (rating according to various performance classes).

The national regulations state in agreement with industry, the administration for road construction of the federal states and the Federal Ministry of Traffic that suitability has to be proven by a test report of the BASt. Partly these crash tests are only performed in Germany currently (for example guiding beacons and traffic guidance elements). This provides German industry with the opportunity of presenting the advantages of its safety devices on a global scale.