Standards for Proving Ground Tests

Vehicle handling simulations are intended to recreate the manoeuvres and tests that vehicle engineers carry out using prototype vehicles on the test track or proving ground. Some are defined by the International Standards Organization (ISO), which outlines recommended tests in order to substantiate the handling performance of a new vehicle:

ISO 3888-1:1999	Passenger cars – Test track for a severe lane-change manoeuvre – Part 1: Double lane-change
ISO 3888-2:2002	Passenger cars – Test track for a severe lane-change manoeuvre – Part 2: Obstacle avoidance
ISO 4138:1996	Passenger cars – Steady-state circular driving behaviour – Open-loop test procedure
ISO 7401:2003	Road vehicles – Lateral transient response test methods – Open-loop test methods
ISO 7975:1996	Passenger cars – Braking in a turn – Open-loop test procedure
ISO/TR 8725:1988	Road vehicles – Transient open-loop response test method with one period of sinusoidal input
ISO/TR 8726:1988	Road vehicles – Transient open-loop response test method with pseudo-random steering input
ISO 9815:2003	Road vehicles – Passenger-car and trailer combinations – Lateral stability test
ISO 9816:1993	Passenger cars – Power-off reactions of a vehicle in a turn – Open-loop test method
ISO 12021-1:1996	Road vehicles – Sensitivity to lateral wind – Part 1: Open-loop test method using wind generator input
ISO 13674-1:2003	Road vehicles – Test method for the quantification of on-centre handling – Part 1: Weave test
ISO 14512:1999	Passenger cars – Straight-ahead braking on surfaces with split coefficient of friction – Open-loop test procedure
ISO 15037-1:1998	Road vehicles – Vehicle dynamics test methods – Part 1: General conditions for passenger cars
ISO 15037-2:2002	Road vehicles – Vehicle dynamics test methods – Part 2: General conditions for heavy vehicles and buses
ISO 17288-1:2002	Passenger cars – Free-steer behaviour – Part 1: Steering-release open-loop test method
ISO/TS 20119:2002	Road vehicles – Test method for the quantification of on-centre handling – Determination of dispersion metrics for straight-line driving