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**The National Standard of the Russian Federation
Related to Vehicle Handling and Stability**

Transmitted by the Expert from the Russian Federation
(Exchange of information on national requirements on primary safety)

The primary safety requirements being used in the Russian Federation for the purpose of the vehicle type approval homologation are based on the relevant ECE Regulations.

Besides that, the national regulations are developed in regards to such primary safety items as forward visibility and handling and stability.

The subject of forward visibility is not considered in the present document as it is out of the GRRF scope.

In regards to vehicle handling and stability, the regulatory activities of the Russian Federation have included this subject into the mandatory requirements since 1980.

By this time the National Standard of the Russian Federation related to vehicle handling and stability, GOST R 52302-2004 has been approved. The standard sets the test procedures and the related results that are considered corresponding to the acceptable level of handling and stability of modern vehicles.

The attached table includes the brief information related to the specifications of the said standard.

**The National Standard GOST R 52302-2004 of the Russian Federation
Related to Vehicle Handling and Stability**

Vehicle category concerned	Test procedure	Reference concerning the test procedure	Test results and requirements
M, N	Steering effort	ECE Regulations No. 79 (dynamic conditions)	The requirements are set to the steering effort measured on stopped vehicle and at speed 10 km/h with and without power assistance.
M, N	Releasing the steering wheel when a vehicle is driven in a circle	-	The steering wheel shall return to the position of straight driving without driver's assistance and oscillations. The residual steering wheel angle shall be not more than 30% of the initial value.
M1G, M2, M3, N, O, N+O (semi-trailers)	Static tilting on a test platform	ECE Regulations No. 111, Annex 3 (tilting table angle).	Tilting table angle at the time when one wheel of a vehicle lifts off the tilting table and the corresponding roll angle of the vehicle sprung mass. The requirements to the tilting table angle and corresponding roll angle depend on the level of the static stability coefficient, which is a ratio between a half of vehicle track and vehicle height of the center of mass.
M, N	Step steering input	ISO 7401	Characteristics of lateral acceleration and yaw rate in response to the step steering input. The requirements are set to the range of steering wheel angles, yaw rate overflow and time of yaw rate response depending on the level of the vehicle lateral acceleration.
M, N, M+O, N+O	Lane change	The test procedure was described in the Informal Document No. GRRF-55-20	Determination of the maximum speed of the test maneuver (lane change at the distance 16 or 20 m) and the factors that limit the said speed. The requirements are set to the maximum speed of a vehicle at the test maneuver.
M, N, M+O, N+O	Turning	-	Determination of the maximum speed of the test maneuver (entering the circle of 35-m radius) and the factors that limit the said speed. The requirements are set to the maximum speed of a vehicle at the test maneuver.
M3, N, N+O	Straight driving on a line of limited width	-	The angular velocity of steering input shall not exceed the level set by the standard.
M, N, M+O, N+O	Driving in regular conditions (like on the public roads)	-	Determination of recommendable maximum speed of driving in regular conditions by expert evaluation in case if the requirements to the maximum speed of a vehicle at the test maneuvers of lane change and turning had not been met