Working Document

GRRF agreed amendment text (WP.29/2011/94) shown in red
Amendments during 6th meeting in blue

Annex 21 - Appendix 3

VEHICLE STABILITY FUNCTION SIMULATION TOOL TEST REPORT

Test Report Number: ………………..

1.   Identification

1.1.   Name and address of the simulation tool manufacturer

1.2.   Simulation tool identification: name/model/number (hardware and software)

2.   Simulation tool

2.1.   Simulation method (general description, taking into account the requirements of paragraph 1.1. of Appendix 2 to Annex 21)

2.2.   Hardware/software in the loop (see paragraph 1.2. of Appendix 2 to Annex 21)

2.3.   Vehicle loading conditions (see paragraph 1.4 of Appendix 2. to Annex 21)

2.4.   Validation (see paragraph 2. of Appendix 2 to Annex 21)

2.5.   Motion variables (see paragraph 2.1. of Appendix 2 to Annex 21)

~~2.~~3.   Scope of application

3.1.   Vehicle category:

~~3.1.~~ 3.2.   Character of the vehicle ~~(e.g. truck, tractor for semi-trailer, bus, semi-trailer, centre-axle trailer, full trailer)~~

~~3.2.~~ 3.3.   Vehicle configuration: ~~(e.g. 4x2, 4x4, 6x2, 6x4, 6x6)~~

3.4.   Additional steering axles:

3.5   Steering ratio:

3.6.   Drive axles:

3.7.   Lift axles:

3.8.   Engine management:

3.9.   Gearbox type:

3.10.   Drive train options:

3.11.   Differential type:

3.12.   Differential lock(s):

3.13.   Brake system type:

3.14.   Brake type:

3.15.   Anti-lock braking configuration:

3.16.   Wheelbase:

3.17.   Tyre type:

3.18.   Track width:

3.19.   Suspension type:

3.20.   Centre of gravity height:

3.21.   Lateral acceleration sensor position:

3.22.   Yaw rate sensor position:

3.23.   Loading:

3.3. 3.24.   Limiting factors: (e.g. mechanical suspension only)

3.4. 3.25.   Manoeuvre(s) for which the simulator has been validated:

4.   Verifying vehicle test(s)

4.1.   Description of vehicle(s) including the towing vehicle in case of trailer testing:

4.1.1.   Vehicle(s) identification: make/model/VIN

4.1.1.1.   Non-standard fitments:

4.1.2.   Vehicle description, including axle configuration/suspension/wheels, engine and drive line, braking system(s) and vehicle stability function content (directional control/rollover control), steering system, with name/model/number identification:

4.1.3.   Vehicle data used in the simulation (explicit) comparison

4.2.   Description of test(s) including location(s), road/test area surface conditions, temperature and date(s):

4.3.   Results laden and unladen with the vehicle stability function switched on and off, including the motion variables referred to in Annex 21, Appendix 2, Paragraph 2.1. as appropriate:

5.   Simulation results

5.1.   Vehicle parameters and the values used in the simulation that are not taken from the actual test vehicle (implicit): ???????

5.1.   Results laden and unladen with the vehicle stability function switched on and off for each test conducted under Paragraph 3.2. of this Appendix, including the motion variables referred to in Annex 21, Appendix 2, Paragraph 2.1. as appropriate:

6.   Concluding statement

The simulated vehicle behaviour and operation of the vehicle stability function is comparable with that seen in practical vehicle tests.

Yes/No

Limiting factors:

6. 7.   This test has been carried out and the results reported in accordance with Appendix 2 of Annex 21 to ECE Regulation No. 13 as last amended by the ……… Series of Amendments.

Technical Service conducting the test [1]/ …………………………………….

Signed: …………………….. Date: ……………………

Approval Authority [1]/ ……………………………………………………..

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[1]/   To be signed by different persons if the Technical Service and the Approval Authority is the same organisation.