<u>Working Paper N°.</u> STD 04-02 4th STD meeting, 26th-27th May 2010 Agenda item 7

TYRES

Regulation No. 117

(UNIFORM PROVISIONS CONCERNING THE APPROVAL OF TYRES WITH REGARD TO ROLLING SOUND EMISSIONS AND TO ADHESION ON WET SURFACES AND TO ROLLING RESISTANCE)

Proposal for draft amendments to Regulation No. 117

Submitted by Canada

The text reproduced below was prepared by Canada. Amendments to paragraph 6.4. and to Annex 7 of informal document GRB-51-26 are proposed. Proposed new text is **<u>underlined</u>**, and proposed text to be deleted is struck through.

Regulation No. 117

A. PROPOSAL

[...]

6. SPECIFICATIONS

[...]

- 6.4. In order to be classified in the category of use 'snow tyre', a tyre is required to meet performance requirements based on a test method by which:
 - (a) the mean fully developed deceleration ("mfdd") in a braking test,
 - (b) or alternatively **a maximum or** <u>an</u> average traction force in a traction test_{$\overline{1}$}.

(c) or alternatively the mean fully developed acceleration in an acceleration test of a candidate tyre is compared to that of a standard reference tyre.

The relative performance shall be indicated by a snow index.

[...]

Annex 7

PROCEDURES FOR SNOW PERFORMANCE TESTING

- [...]
- 1.3. "<u>Traction test</u>" means a series of a specified number of spin-traction test runs according to ASTM standard F1805-06 of the same tyre repeated within a short time frame.

1.4. "<u>Acceleration test</u>" means a series of a specified number of ASR-acceleration test runs of the same tyre repeated within a short time frame

- [...]
- 2. Spin traction method for Class C1 and C2 tyres

The test procedure of ASTM standard F1805-06 shall be used to assess snow performance through spin traction values.

- 2.1. The test course surface shall be composed of a medium packed snow surface, as characterized in Table A2.1 of ASTM standard F1805-06.
- 2.2. The tyre load for testing shall be as per Option 2 in paragraph 11.9.2 of ASTM standard F1805-06.

B. JUSTIFICATION

1. Clarification of the test surface and tyre load for the traction test according to ASTM F1805-06:

As with any testing procedure, it is important that the test surface be as specific as possible to reduce variability, and that the tyre loading conditions be specified.

The ASTM F1805 test method is utilized to characterize winter tyre performance in North America. With a view to address various winter driving conditions, it provides characteristics for five different winter surfaces on which the traction test may be conducted, as well as three options regarding tyre loading.

Of these, the "medium packed snow surface" is used for assessing winter tyre performance in North America, with a test load equal to 74% of the test inflation rated load, as described in Option 2 of paragraph 11.9.2 of the ASTM test method. Under these conditions, tyre performance must exceed 110% of the SRTT if the tyre manufacturer wishes to affix the alpine symbol.

In order to harmonize the meaning of the alpine symbol when the ASTM test method is used, Canada is proposing to amend paragraph 2 of Annex 7 in order to align the test surface and tyre test load with those utilized in North America.

2. Proposed amendments to paragraph 6.4.(b) :

Canada is proposing to remove the reference to a "maximum" traction force in paragraph 6.4.(b), as ASTM test method uses the average traction force in the traction test.

3. Proposed amendments to paragraph 6.4.(c) and removal of the definition of "Acceleration test" in Annex 7:

There is no test procedure associated with this test method, nor any performance criteria specified in 6.4.1.1. Therefore, Canada would suggest deleting them if this option is not used by any Contracting Parties. Should an acceleration test be provided in Regulation No.117, a test procedure would be needed.