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World Forum for Harmonization of Vehicle Regulations

Working Party on Brakes and Running Gear

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Item 6 of the provisional agenda

Regulation No. 90
(Replacement brake linings)

Proposal for amendments to Regulation No. 90

Submitted by the expert from the United Kingdom *

The text reproduced below was prepared by the expert from the United Kingdom in order to incorporate references to the appropriate paragraphs of Regulation 13-H especially as the M₁ category has been removed from Regulation 13. The modifications to the existing text of the Regulation are marked in bold and strikethrough characters.

* In accordance with the programme of work of the Inland Transport Committee for 2006-2010 (ECE/TRANS/166/Add.1, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance performance of vehicles. The present document is submitted in conformity with that mandate.

A. PROPOSAL

Paragraph 2.7., amend to read :

"2.7. "Original brake lining" means a brake lining type referenced in the vehicle type approval documentation, Regulation No. 13, Annex 2, paragraph 8.1.1., **Regulation 13-H, Annex 1, paragraph 7.1.** 2/ or Regulation No. 78, Annex 1, paragraph 5.4.;"

Paragraph 3.2., amend to read:

"3.2. An application may be submitted by the holder of (a) vehicle type approval(s) to Regulation No. 13, **Regulation 13-H** or Regulation No. 78 in respect of a replacement ~~brake lining assemblies or replacement drum brake linings~~ **part** conforming to the type recorded in the vehicle type approval(s) documentation."

Paragraphs 5.3.1.2. amend to read:

5.3.1.2. according to standard **6310:2009**

Paragraphs 5.3.2.2. amend to read:

5.3.2.2. according to standard **6310:2009**

Annex 3

Paragraph 1., amend to read:

"1. Conformance with Regulation No. 13 or 13-H

Compliance with the requirements of Regulation No. 13 **or 13-H** shall be demonstrated in a vehicle test."

Paragraph 1.2., amend to read:

"1.2. The braking system of the vehicle shall be tested according to the requirements for the vehicle category in question (M_1 , M_2 or N_1) in Regulation No. 13, Annex 4, paragraphs 1. and 2 **or Regulation No. 13-H, Annex 3, paragraphs 1 and 2 which ever is appropriate taking into consideration the original approval of the system.** The applicable requirements or tests are:"

Paragraph 1.2.1.1., amend to read:

"1.2.1.1. Type-0 test with engine disconnected, vehicle laden, **according to Regulation No. 13, Annex 4, paragraph 1.4.2. or Regulation No. 13-H, Annex 3, paragraph 1.4.2**"

Paragraph 1.2.1.2., amend to read:

"1.2.1.2. Type-0 test with engine connected, vehicle unladen and laden, according to Regulation No. 13, Annex 4, paragraphs 1.4.3.1. (stability test) and 1.4.3.2 (only the test with initial speed $v = 0.8 v_{\max}$) **or Regulation No. 13-H, Annex 3, paragraphs 1.4.3.1. and 1.4.3.2**"

Paragraph 1.2.1.3., amend to read:

"1.2.1.3. Type-I test, **according to Regulation No. 13, Annex 4, paragraph 1.5. or Regulation No. 13-H, Annex 3, paragraph 1.5**"

Paragraph 1.2.2.1., amend to read:

"1.2.2.1. Type-0 test with engine disconnected, vehicle laden, **according to Regulation No. 13, Annex 4, paragraph 2.2. or Regulation No. 13-H, Annex 3, paragraph 2.2.** (this test may be omitted in cases where it is obvious that the requirements are met, e.g. diagonal split braking system)"

Paragraph 1.2.3.1., amend to read:

"1.2.3.1. **Parking brake** ~~Downhill~~ test at 18 per cent gradient, vehicle laden, **according to Regulation No. 13, Annex 4, paragraph 2.3.1. or parking brake test at 20 per cent gradient, vehicle laden, Regulation No. 13-H, Annex 3, paragraph 2.3.1**"

Paragraph 1.3., amend to read:

"1.3. The vehicle must satisfy all the relevant requirements stated in Regulation No. 13, Annex 4, paragraph 2 **or Regulation No. 13-H, Annex 3, paragraph 2** for that category of vehicle."

Annex 8

Paragraph 1., amend to read:

"1. **COMPLIANCE WITH REGULATION No. 13 or 13-H**

Compliance with the requirements of Regulation No.13 **or 13-H** shall be demonstrated in a vehicle test."

Paragraph 1.1., amend to read:

"1.1. Vehicle test

A vehicle which is representative of the type(s) for which the replacement brake lining assembly approval is required shall be equipped with the replacement brake lining assemblies of the type for which approval is requested and instrumented for brake testing as required by Regulation No. 13 **or 13-H whichever is appropriate**. The vehicle shall be fully laden. Brake linings submitted for test shall be fitted to the relevant brakes and, shall not be burnished."

Paragraph 1.2., amend to read:

"1.2. The parking braking system of the vehicle shall be tested according to all relevant requirements in Regulation No. 13, Annex 4, paragraph 2.3 **or 13-H, Annex 3, paragraph 2.3., whichever is appropriate taking into consideration the original approval of the system.**"

B. JUSTIFICATION:

GRRF agreed to remove category M₁ vehicles from the scope of Regulation No. 13 and incorporate category N₁ vehicles in the scope of Regulation 13-H. However, reciprocal arrangements were not proposed for Regulation No. 90 to take account of these amendments. This proposal is aiming to update the references included in Regulation No. 90 to ensure that a replacement brake lining is tested according to the corresponding test requirements of the original braking system.

To complete the alignment, it is proposed to reference the latest revision of ISO standard 6310 and [delete/maintain] references to previous versions [legality and availability of referencing withdrawn versions].
