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Economic Commission for Europe**Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****Working Party on Brakes and Running Gear****Seventy-fifth session**

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Item 3(d) of the provisional agenda

Regulations Nos. 13 and 13-H (Braking) –**Braking symbols in Regulation No. 121 (Identification of controls, tell-tales and indicators)****Proposal for amendments to Regulation No. 13-H (Brakes of M₁ and N₁ vehicles)****Submitted by the expert from the United Kingdom***

The text reproduced below was prepared by the expert from the United Kingdom of Great Britain and Northern Ireland to review and simplify the transitional provisions. The modifications to the existing text of the Regulation are marked in bold for new or strikethrough for deleted characters.

* In accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208, para. 106 and ECE/TRANS/2010/8, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

I. Proposal

Paragraph 12, amend to read:

- "12. Transitional Provisions
- 12.1. No Contracting Party applying this UN Regulation shall refuse to grant or refuse to accept UN type approvals under this UN Regulation for vehicle types fitted with a vehicle Electronic Stability Control function (ESC) with Brake Assist Systems (BAS), both meeting Annex 9 of this Regulation, and will be identified by the approval mark as shown in Annex 2 Model A2 or A3.
- 12.2. Contracting Parties applying this Regulation shall continue to grant approvals to those vehicle types not fitted with a Vehicle Stability Function or ESC with BAS, that meet Annex 9 of this Regulation, and will be identified by the approval mark as shown in Annex 2 Model A1.
- 12.3. Contracting Parties applying this Regulation shall not be obliged to accept, for the purpose of national or regional type approval, a vehicle type that is not fitted with a Vehicle Stability Function or ESC with BAS as identified by the approval mark as shown in Annex 2 Model A1.
- 12.4. Contracting Parties applying this UN Regulation shall not refuse to grant extensions of UN type approvals for existing types [regardless of whether they are fitted with a Vehicle Stability Function or ESC with BAS or not] on the basis of the requirement that existed at the time of the original approval.
- 12.5. As from 24 months after the entry into force of the 01 series of Amendments to UN Regulation 121, Contracting Parties applying this UN Regulation shall grant approvals to vehicle types only if the warning signal for ESC function, malfunction and intervention described in paragraphs 3.4, 3.5 and 3.6 of Annex 9 to this Regulation satisfies the requirements for tell tales with respect to symbol and colour, as described in items 43 and 44 of Table 1 to UN Regulation No. 121.
- 12.6. For the purposes of type approval, Supplements to Regulation have immediate effect on their entry into force, unless delayed by a specific transitional provision. For clarity, Supplements to this Regulation entered into force on the following dates:

<i>Supplement level</i>	<i>Entry into force date</i>	<i>Type approval date</i>
1	27 December 2000	27 December 2000
2	20 February 2002	20 February 2002
3	4 April 2005	4 April 2005
4	11 June 2007	11 June 2007
5	10 November 2007	10 November 2009
6	15 October 2008	15 October 2008
8	24 October 2009	24 October 2009
10	9 December 2010	9 December 2010
11	30 January 2011	30 January 2014
12	28 October 2011	28 October 2012
13	13 April 2012	13 April 2012
14	[February 2013]	[February 2013]
15	[January 2014]	[January 2014]

- 12.7. Contracting Parties to this Regulation may refuse national type approvals or national registrations from the dates in the following table unless the vehicle has been issued with a type approval associated with the approval mark of model A2 or A3.

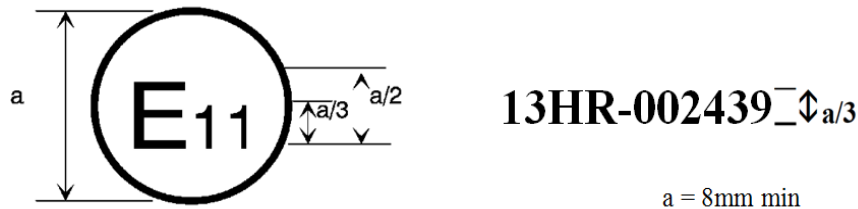
<i>Supplement level</i>	<i>Entry into force date</i>	<i>Delay (if applicable)</i>
7	22 July 2009	1 November 2011 (national type approval) 1 November 2013 (first national registration)
9	17 March 2010	1 November 2011 (national type approval) 1 November 2013 (first national registration)

Annex 2

Model A1, amend to read:

"**Model A1**

(See paragraph 4.4.2. of this Regulation)



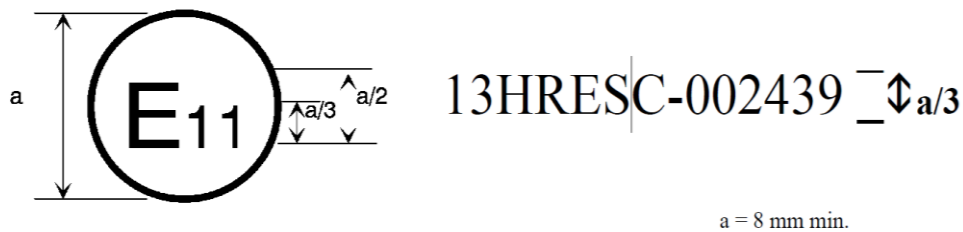
a = 8mm min

The above approval mark affixed to a vehicle shows that the vehicle type concerned has, with regard to braking, been approved in the United Kingdom (E11) pursuant to Regulation No. 13-H under approval number 002439. The first two digits of the approval number indicate that the approval was granted in accordance with the requirements of Regulation No. 13-H in its original form."

Model A2, amend to read:

"**Model A2**

(See paragraph 4.4.3. of this Regulation)



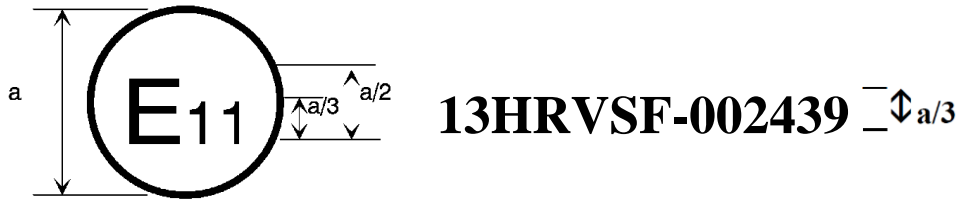
a = 8 mm min.

The above approval mark affixed to a vehicle shows that the vehicle type concerned has, with regard to braking, been approved in the United Kingdom (E11) pursuant to Regulation No. 13-H under approval number 002439. The first two digits of the approval number indicate that the approval was granted in accordance with the requirements of Regulation No. 13-H in its original form. The additional marking "ESC" indicates that the vehicle meets the Electronic Stability Control and Brake Assist System requirements of Annex 9 to this Regulation."

Model A3, amend to read:

"Model A3

(See paragraph 4.4.4. of this Regulation)



a = 8mm min

The above approval mark affixed to a vehicle shows that the vehicle type concerned has, with regard to braking, been approved in the United Kingdom (E11) pursuant to UN Regulation No. 13-H under approval number 002439. The first two digits of the approval number indicate that the approval was granted in accordance with the requirements of UN Regulation No. 13-H in its original form. The additional marking "VSF" indicates that the vehicle meets the Vehicle Stability Function requirements of Annex 21 to UN Regulation No. 13 and Brake Assist System requirements of Annex 9 to this Regulation."

Annex 9

Paragraph 3.4. to 3.6.5., amend to read:

"3.4. ESC malfunction detection

The vehicle shall be equipped with a tell-tale that provides a warning to the driver of the occurrence of any malfunction that affects the generation or transmission of control or response signals in the vehicle's electronic stability control system.

3.4.1. The ESC malfunction tell-tale:

3.4.1.1. Shall be displayed in direct and clear view of the driver, while in the driver's designated seating position with the driver's seat belt fastened;

3.4.1.2. Shall appear perceptually upright to the driver while driving;

3.4.1.3. Shall be identified by the symbol **and colour** shown for "ESC Malfunction Tell-tale" below or the text "ESC": **as described in Item 43 in Table 1 of UN Regulation No. 121.**



~~3.4.1.4. Shall be yellow or amber in colour;~~

3.4.1.5.4. When illuminated must be sufficiently bright to be visible to the driver under both daylight and night-time driving conditions, when the driver has adapted to the ambient roadway light conditions;

3.4.1.6.5. Except as provided in paragraph 3.4.1.7.6., the ESC malfunction tell-tale shall illuminate when a malfunction exists and shall remain continuously illuminated under the conditions specified in paragraph 3.4. for as long as the malfunction exists, whenever the ignition locking system is in the "On" ("Run") position;

3.4.1.7.6. Except as provided in paragraph 3.4.2., each ESC malfunction tell-tale shall be activated as a check of lamp function either when the ignition locking system is turned to the "On" ("Run") position when the engine is not running,

- or when the ignition locking system is in a position between "On" ("Run") and "Start" that is designated by the manufacturer as a check position;
- 3.4.1.8.7. Shall extinguish at the next ignition cycle after the malfunction has been corrected in accordance with paragraph 5.10.4.;
- 3.4.1.9.8. May also be used to indicate the malfunction of related systems/functions, including traction control, trailer stability assist, corner brake control, and other similar functions that use throttle and/or individual torque control to operate and share common components with ESC.
- 3.4.2. The ESC malfunction tell-tale need not be activated when a starter interlock is in operation.
- 3.4.3. The requirement of paragraph 3.4.1.7.6. does not apply to tell-tales shown in a common space.
- 3.4.4. The manufacturer may use the ESC malfunction tell-tale in a flashing mode to indicate ESC intervention and/or the intervention of ESC-related systems (as listed in paragraph 3.4.1.9-8.)
- 3.5. ESC OFF and other system controls
- The manufacturer may include an "ESC Off" control, which shall be illuminated when the vehicle's headlamps are activated, and which has a purpose to place the ESC system in a mode in which it will no longer satisfy the performance requirements of paragraphs 3., 3.1., 3.2. and 3.3. Manufacturers may also provide controls for other systems that have an ancillary effect upon ESC operation. Controls of either kind that place the ESC system in a mode in which it may no longer satisfy the performance requirements of paragraphs 3., 3.1., 3.2. and 3.3. are permitted, provided that the system also meets the requirements of paragraphs 3.5.1., 3.5.2. and 3.5.3.
- 3.5.1. The vehicle's ESC system shall always return to the manufacturer's original default mode that satisfies the requirements of paragraphs 2. and 3. at the initiation of each new ignition cycle, regardless of what mode the driver had previously selected. However, the vehicle's ESC system need not return to a mode that satisfies the requirements of paragraphs 3. through 3.3. at the initiation of each new ignition cycle if:
- 3.5.1.1. The vehicle is in a four-wheel drive configuration which has the effect of locking the drive gears at the front and rear axles together and providing an additional gear reduction between the engine speed and vehicle speed of at least 1.6, selected by the driver for low-speed, off-road driving; or
- 3.5.1.2. The vehicle is in a four-wheel drive configuration selected by the driver that is designed for operation at higher speeds on snow-, sand-, or dirt-packed roads and that has the effect of locking the drive gears at the front and rear axles together, provided that in this mode the vehicle meets the stability performance requirements of paragraphs 3.1. and 3.2. under the test conditions specified in paragraph 4. However, if the system has more than one ESC mode that satisfies the requirements of paragraphs 3.1. and 3.2. within the drive configuration selected for the previous ignition cycle, the ESC shall return to the manufacturer's original default ESC mode for that drive configuration at the initiation of each new ignition cycle.
- 3.5.2. A control, whose only purpose is to place the ESC system in a mode in which it will no longer satisfy the performance requirements of paragraphs 3., 3.1., 3.2. and 3.3., shall be identified by the symbol **and colour shown for "ESC Off" below or the text "ESC OFF". as described in Item 44 in Table 1 of UN Regulation No. 121**



- 3.5.3. A control for an ESC system whose purpose is to place the ESC system in different modes, at least one of which may no longer satisfy the performance requirements of paragraphs 3., 3.1., 3.2., and 3.3., shall be identified by the symbol **and colour below as described in Item 43 in Table 1 of UN Regulation No. 121** with the text "OFF" adjacent to the control position for this mode.



Alternatively, in the case where the ESC system mode is controlled by a multi-functional control, the driver display shall identify clearly to the driver the control position for this mode using either the symbol in paragraph 3.5.2. or the text "ESC OFF".

- 3.5.4. A control for another system that has the ancillary effect of placing the ESC system in a mode in which it no longer satisfies the performance requirements of paragraphs 3., 3.1., 3.2. and 3.3. need not be identified by the "ESC Off" symbol of paragraph 3.5.2.

3.6. ESC OFF tell-tale

If the manufacturer elects to install a control to turn off or reduce the performance of the ESC system under paragraph 3.5., the tell-tale requirements of paragraphs 3.6.1. to 3.6.4. shall be met in order to alert the driver to the inhibited or reduced state of ESC system functionality. This requirement does not apply for the driver-selected mode referred to in paragraph 3.5.1.2.

- 3.6.1. The vehicle manufacturer shall provide a tell-tale indicating that the vehicle has been put into a mode that renders it unable to satisfy the requirements of paragraphs 3., 3.1., 3.2. and 3.3., if such a mode is provided.

3.6.2. The "ESC Off" tell-tale:

- 3.6.2.1. Shall be displayed in direct and clear view of the driver while in the driver's designated seating position with the driver's seat belt fastened;

- 3.6.2.2. Shall appear perceptually upright to the driver while driving;

- 3.6.2.3. Shall be identified by the symbol and colour ~~shown for "ESC Off" below or the text "ESC OFF"~~, **as described in Item 44 in Table 1 of UN Regulation No. 121**



Or

Shall be identified with the English word "OFF" adjacent to either the control referred to in paragraph 3.5.2. or 3.5.3. or the illuminated malfunction tell-tale;

- ~~3.6.2.4. Shall be yellow or amber in colour;~~

- 3.6.2.5.4. When illuminated, shall be sufficiently bright to be visible to the driver under both daylight and night time driving conditions, when the driver has adapted to the ambient roadway light conditions;
- 3.6.2.6.5. Shall remain continuously illuminated for as long as the ESC is in a mode that renders it unable to satisfy the requirements of paragraphs 3., 3.1., 3.2. and 3.3;
- 3.6.2.7.6. Except as provided in paragraphs 3.6.3. and 3.6.4. each "ESC Off" tell-tale shall be activated as a check of lamp function either when the ignition locking system is turned to the "On" ("Run") position when the engine is not running, or when the ignition locking system is in a position between "On" ("Run") and "Start" that is designated by the manufacturer as a check position.
- 3.6.2.8.7. Shall extinguish after the ESC system has been returned to the manufacturer's original default mode.
- 3.6.3. The "ESC Off" tell-tale need not be activated when a starter interlock is in operation.
- 3.6.4. The requirement of paragraph 3.6.2.7.6. of this section does not apply to tell-tales shown in a common space.
- 3.6.5. The manufacturer may use the "ESC Off" tell-tale to indicate an ESC level of function other than the manufacturer's original default mode even if the vehicle would meet paragraphs 3., 3.1., 3.2. and 3.3. of this section at that level of ESC function."

II. Justification

The Working Party on Brakes and Running Gear requested an ad hoc group form to clarify and update the existing transitional provisions of the current level of UN Regulation No. 13-H. The transitional provisions above reflect the view of the United Kingdom and not necessarily the view of all of the ad hoc group members.
