

Proposal for amendments to Regulation Nos. 13-H and 13 (Brakes of vehicles)

The text reproduced below was prepared by the experts from the International Organization of Motor Vehicle Manufacturers (OICA) in order to transfer the ESC control and tell-tale requirements from Regulations Nos. 13 and 13H to Regulation No. 121. (see also GRSG informal document No. GRSG-101-02 amending Regulation No. 121)

I. Proposal

A. Draft amendments to Regulation N°13H

Regulation N°13H, core of the text

Paragraph 12, amend to read (with the addition of new paragraphs 12.8 and 12.9):

- "12.2. As from 1 November 2011, Contracting Parties applying this Regulation may refuse to grant national or regional type approval if the vehicle type does not meet the requirements of this Regulation by Supplement 9, ~~or Supplement 10, or Supplement 11~~, **Supplement 12, Supplement 13 or Supplement 14** and is not fitted with an Electronic Stability Control System and a Brake Assist System, both meeting the requirements of Annex 9 to this Regulation.
- 12.3. As from 1 November 2013, Contracting Parties applying this Regulation may refuse first national registration of a vehicle which does not meet the requirements of this Regulation as amended by Supplement 9, ~~or Supplement 10, or Supplement 11~~, **Supplement 12, Supplement 13 or Supplement 14** and is not fitted with an Electronic Stability Control System and a Brake Assist System, both meeting the requirements of Annex 9 to this Regulation.
- 12.8. As from the official date of entry into force of the Supplement 14 to the original version of this Regulation, no Contracting Party applying this Regulation shall refuse national or regional type approval of a vehicle type approved to the Supplement 14 to the original version of this Regulation.**
- 12.9. Until 24 months after the date of entry into force of Supplement 14 to the original version of this Regulation, no Contracting Party applying this Regulation shall refuse national or regional type approval of a vehicle type approved to Supplement 13 to the original version of this Regulation."**

Regulation N°13H, Annex 9, Part A

Paragraph 3.4.1.1., amend to read:

- "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~~ **fulfil the relevant the technical requirements of Regulation No. 121;**"

Paragraphs 3.4.1.2. to 3.4.1.5., delete.

Paragraphs 3.4.1.6. to 3.4.1.9., renumber as 3.4.1.2. to 3.4.1.5. Throughout the regulation, re-number the references to these paragraphs accordingly.

Paragraphs 3.5.2. and 3.5.3., amend to read:

- "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 shown for "ESC Off" below or the text "~~ESC OFF~~" **fulfil the relevant technical requirements of 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 below with the text "~~OFF~~" adjacent to the control position for this mode. **fulfil the relevant technical requirements of Regulation No. 121.**

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~~". the symbol for electronic stability control system "off" as defined in Regulation No. 121."

Paragraph 3.6.2.1., amend to read:

"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; **fulfil the relevant technical requirements of Regulation No. 121.**"

Paragraphs 3.6.2.2. to 3.6.2.5., delete.

Paragraphs 3.6.2.6. to 3.6.2.8., renumber as 3.6.2.2. to 3.6.2.4. Throughout the regulation, re-number the references to these paragraphs accordingly.

B. Draft amendments to Regulation N°13

Regulation N°13, core of the text

Insert a new paragraph 12.1.10, to read:

"12.1.10 **As from the official date of entry into force of Supplement 9 to the 11 series of amendments, no Contracting Party applying this Regulation shall refuse national or regional type approval of a vehicle type approved to Supplement 9 to the 11 series of amendments to this Regulation.**"

Paragraph 12.1.10 (former), re-number as paragraph 12.1.11. and amend to read:

"**12.1.11.** Contracting Parties applying this Regulation shall not refuse to grant extensions of approval according to this Regulation as amended by Supplement 5, **Supplement 6, Supplement 7 and Supplement 8** to the 11 series of amendments of this Regulation.

Insert new paragraphs 12.2.11. and 12.2.12, to read:

"**12.2.11.** **Until 24 months after the date of entry into force of Supplement 9 to the 11 Series of amendments to this regulation, no Contracting Party applying this Regulation shall refuse national or regional type approval of a vehicle type approved to Supplement 8 to the 11 series of amendments to this Regulation.**"

Regulation N°13, Annex 21

Paragraph 2.1.4., amend to read:

"2.1.4. Interventions of the vehicle stability function shall be indicated to the driver by a flashing optical warning signal **fulfilling the relevant technical requirements of Regulation N°121.** The indication shall be present as long as the vehicle stability function is in an intervention mode. ~~The yellow warning signals specified in paragraph 2.1.5. below may be used for this~~

~~purpose. [The warning signal specified in paragraph 5.2.1.29.1.2. of this Regulation shall not be used for this purpose.]~~

Additionally ...

...

... shall not generate the above signal.

~~The signal shall be visible to the driver, even in daylight, such that the driver can easily verify the satisfactory condition of the signal without leaving the driver's seat."~~

Paragraph 2.1.5., amend to read:

"2.1.5. A vehicle stability function failure or defect shall be detected and indicated to the driver by ~~a yellow~~ **an optical warning signal fulfilling the relevant technical requirements of Regulation N°121.**

The warning signal specified in paragraph 5.2.1.29.1.2. of this Regulation ~~may~~ **shall not** be used for this purpose ~~but shall not be used for interventions as defined in paragraph 2.1.4. of this annex.~~

The warning signal shall be constant and remain displayed as long as the failure or defect persists and the ignition (start) switch is in the 'on' (run) position."

Paragraph 2.1.6., amend to read:

"2.1.6. In the case of a power-driven vehicle equipped with an electric control line and electrically connected to a trailer with an electric control line the driver shall be warned by a specific optical warning signal **fulfilling the relevant technical requirements of Regulation N°121** whenever the trailer provides the information "VDC Active" via the data communications part of the electric control line. The optical signal defined in paragraph 2.1.4. above may be used for this purpose."

II. Justification

GRRF tasked OICA to present a draft proposal in order to transfer the ESC control and tell tale requirements from Regulations No. 13 and 13H to Regulation No. 121.

The same principle has been applied by the United States of America who transposed the functional requirements of the GTR N°8 into Regulation FMVSS 126 and the requirements on controls and telltales into Regulation FMVSS 101.

In addition, the present proposal harmonises the ESC control and telltale requirements for vehicles with braking systems type approved according to Regulation No. 13 or 13H.

A separate document introduces the relevant provisions into Regulation N°121 (Controls and tell-tales).

Concerning the vehicles equipped with a braking system type approved according to Regulation No. 13H, the transfer of the requirements into Regulation No. 121 is neutral. However, for vehicles type approved according to Regulation No. 13, the amendments to Regulation No. 121 add new requirements as Regulation N°13 currently does not require any ESC OFF indication.

Transitional provisions, as defined under paragraph 12, are necessary in particular for vehicles to be approved to Regulation N°13. While the sensors and tell-tale wiring do exist on vehicles in current production, this additional symbol for "ESC-OFF" implies that the logic signal must be now brought to two different lighting devices, hence bringing a revision of the manufacturer's HMI, some changes in the ECU and the necessary subsequent validations to ensure reliability.

As this new proposed tell-tale is primarily intended to harmonise ESC control and tell-tale requirements, and in view of the industrial efforts for re-designing the vehicles currently in production, or whose design is not compatible with the new requirements, it appears reasonable to limit the upgrade to the new types of vehicle. Especially the vehicles in current production, type approved to the 11 series of amendments to Regulation N°13 and complying with the requirements of paragraphs 2.1.4 and 2.1.5 of Annex 21 (i.e. not equipped with the new proposed tell-tale) should be allowed to still get approval to the preceding supplements to the 11 series of amendments to Regulation N°13, until the end of their production.

It is important that the adoption of the amendments to the Regulation N°121 and to the braking regulations are well synchronized in order to avoid legal vacuum or double requirements in the framework of the 58 Agreement.

The deletion of several sub-paragraphs in Regulations No. 13H and N°13 is necessary in order to prevent double-requirements in the braking regulations and Regulation N°121. The following table recalls this transfer of requirements:

	<u>Relevant paragraphs in Regulation N°13, Annex 21</u>	<u>Deleted paragraph in Regulation No. 13H, Annex 9</u>	<u>Equivalent paragraph in Regulation No. 121</u>
ESC malfunction	2.1.5.	3.4.1.2.	5.2.6.
		3.4.1.3. and 3.4.1.4.	Table 1
	2.1.4. (ESC intervention)	3.4.1.5	5.1.2. and 5.3.6.
ESC OFF	2.1.4. (ESC intervention)	3.6.2.1.	5.6.2.
	2.1.1.(d)(iii) and 2.1.5.	3.6.2.2.	5.2.6
	2.1.1.(d)(iii)	3.6.2.3. and 3.6.2.4.	Table 1
	2.1.1.(d)(iii) and 2.1.5.	3.6.2.5.	5.1.2. and 5.3.6.

The proposal for amendments to paragraph 2.1.4. of Annex 21 to Regulation N°13 contain between square brackets [] the re-insertion of the former wording of the regulation which specifically prohibit the use of the warning signal devoted to braking system malfunction defined in paragraph 5.2.1.29.1.2. The transfer of the warning requirements to Regulation N°121, which makes mandatory the yellow ESC symbol, theoretically makes such provision unnecessary. However, the case of Contracting Parties not signatory to Regulation N°121 must be taken into account and GRRF may decide to re-introduce the provision.

Finally, OICA suggests GRRF to generate a debate about the below proposal for simplification:

It is suggested to replace the multiple references to Regulation N°121 by a more general one, similar to the existing reference to Regulation N°10, for example by introducing in both braking regulations a new paragraph 5.1.0. to read:

"5.1.0. All warning signals referred to in this Regulation shall fulfil the technical requirements of the Regulation N°121 as appropriate".
