



**Economic and Social  
Council**

Distr.  
GENERAL

ECE/TRANS/WP.29/GRSG/2006/26  
28 July 2006

Original: ENGLISH  
ENGLISH AND FRENCH ONLY

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**ECONOMIC COMMISSION FOR EUROPE**

**INLAND TRANSPORT COMMITTEE**

World Forum for Harmonization of Vehicle Regulations (WP.29)

Working Party on General Safety Provisions (GRSG)

Ninety-first session

Geneva, 17-20 October 2006

Item 2.1. of the provisional agenda

**PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 18**

(Protection of vehicles against unauthorized use)

Submitted by the expert from France

Note: The text reproduced below was prepared by the expert from France in order to introduce requirements for electrical parking brakes to be used as devices to prevent unauthorized use. The text is based on the current text of the Regulation, TRANS/WP.29/GRSG/2004/23/Rev.1 as well as informal document No. GRSG-90-6, distributed during the ninetieth GRSG session (ECE/TRANS/WP.29/GRSG/69, para. 25). This document is an alternative proposal to the TRANS/WP.29/GRSG/2004/23/Rev.1 as amended by Annex 3 of the report of the eighty-ninth GRSG session (TRANS/WP.29/GRSG/68, para. 29 and Annex 3). The modifications to the current text of the Regulation or TRANS/WP.29/GRSG/2004/23/Rev.1 are marked in **bold** or ~~strikethrough~~ characters.

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Note: This document is distributed to the Experts on General Safety Provisions only.

A. PROPOSAL

Text of the Regulation,

Paragraph 2.3., amend to read:

- "2.3. "Protective device" means a system designed to prevent unauthorized normal activation of the engine or other source of main engine power of the vehicle in combination with at least one system which:
- (a) locks the steering; **or**
  - (b) locks the transmission; or
  - (c) locks the gearshift control; **or**
  - (d) **locks the wheels with the electrical parking brake.**"

Paragraph 5.9.2., amend to read:

- "5.9.2. In the case of devices acting on the steering, transmission, **wheels** or gear shift control, if the action of key withdrawal activates the device, it shall either necessitate a minimum movement of 2 mm before activation of the device or incorporate an override facility to prevent accidental removal or partial withdrawal of the key."

Paragraph 5.12., amend to read:

- "5.12. **Devices to prevent unauthorized use** by preventing release of the brakes of the vehicle shall **only** be permitted **when the brakes are held in a locked position by a purely mechanical device.**"

Paragraphs 6.2., and 6.2.1., amend to read:

- "6.2. **Devices to prevent unauthorized use by acting on the transmission or the wheels**"

- 6.2.1. **A device to prevent unauthorized use by acting on the transmission or the wheels** shall prevent the ~~rotation of the vehicle's driving wheels~~ **vehicle from being driven away on its wheels. under its own power.**"

Paragraphs 6.2.3. to 6.2.6., amend to read:

- "6.2.3. It shall not be possible for the transmission **or the wheels** to be blocked inadvertently when the key is in the lock of the **device to prevent unauthorized use**, even if the device preventing starting of the engine has come into action or been set to act. **This does not apply wherever the requirements of paragraph 6.2. of this Regulation are met by devices used for another purpose in addition and the lock under the conditions above is necessary for this additional function e.g. electrical parking brake.**

- 6.2.4. The protective device shall be so designed and constructed that it remains fully effective even after some degree of wear as a result of 2,500 locking cycles in each direction. **In the case of a protective device acting on the wheels, each mechanical or electrical sub-part of the device is concerned.**
- 6.2.5. If the protective device .... in which the transmission is **or the wheels are** locked, it shall be so designed ....
- 6.2.6. ~~The protective device~~ **In the case when a protective device acting on the transmission is used, it** shall be strong enough to withstand, without damage likely to compromise safety, the application in both directions and in static conditions of a torque 50 per cent greater than the maximum torque that can normally be applied to the transmission. In determining the level of this testing torque account shall be taken, not of the maximum engine torque, but of the maximum torque that can be transmitted by the clutch or by the automatic transmission."

Insert new paragraphs 6.2.7. and 6.2.8., to read:

- "6.2.7. In the case when a protective device acting on the wheels is used, the vehicle in running order, unoccupied and unladen must be towed by an external mechanism that will provide a sufficient traction force to move it on a horizontal surface. In this condition the vehicle must slide along without any rotation of the wheels.**
- 6.2.8. In the case when a protective device acting on the wheels is used, the parking braking system must be different from the secondary braking system."**

Insert new paragraphs 6.4. and 6.4.1., to read:

~~"6.4. Alternative devices~~

~~6.4.1. Alternative devices are permissible in accordance with the approval authority. Thereby at least an equivalent protection comparable to that required in paragraphs 6.1., 6.2. and 6.3. of this Regulation shall be achieved."~~

## B. JUSTIFICATION

This document aims to allow the use of electrical solutions regarding the parking brakes for the protection against unauthorized use of the vehicles of categories M<sub>2</sub>, M<sub>3</sub>, N<sub>2</sub> and N<sub>3</sub>. The amendments proposed should also be applied to the vehicles of categories M<sub>1</sub> and N<sub>1</sub> as soon as the new technology devices are available and the corresponding Regulation No. 116 is accordingly amended.

The French experts are of the opinion that TRANS/WP.29/GRSG/2004/23/Rev.1, as amended by Annex 3 of the report of the eighty-ninth GRSG session, have to be clarified in order to assure the equivalence between each protective device in terms of efficiency and durability. Therefore, the following amendments are proposed:

Reference to paragraphs 2.3. and 5.9.2.

The harmonization of all the paragraphs dealing with the devices acting on the transmission.

Reference to paragraph 6.2.4.

The paragraph shall take into account the fact that devices acting on the wheels can be complex and can include electrical and mechanical parts.

Reference to paragraphs 6.2.6. and 6.2.7.

Paragraph 6.2.6. now is divided into paragraphs 6.2.6. and 6.2.7. because the devices acting on the transmission or on the wheels are different.

Reference to paragraph 6.2.8.

The paragraph has been added for the safety reasons since only one system for both parking and secondary braking systems are still used on some vehicles.

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