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Working Party on the Construction of Vehicles

Working Party on General Safety Provisions (GRSG)  
(Seventy-eighth session, 10-14 April 2000,  
agenda items 7., 8., and 9.)

**PROPOSAL FOR DRAFT AMENDMENTS TO:  
REGULATION No. 18  
(Protection against unauthorized use),  
REGULATION No.97  
(Vehicle alarm systems), and  
DRAFT REGULATION ON THE PROTECTION OF M1 AND N1 CATEGORIES  
OF VEHICLES AGAINST UNAUTHORIZED USE**

Transmitted by the Expert from France

Note: The text reproduced below was prepared by the expert from France with the aim of introducing complementary prescriptions taking into account new electrical/electronic systems used to prevent the unauthorized use of vehicles. It is based on a document distributed without a symbol (informal document No. 1) during the seventy-seventh session (TRANS/WP.29/GRSG/56, paras. 55. and 56.). This document refers, for Regulation No. 18 to document TRANS/WP.29/2000/18, for Regulation No. 97 to its 01 series of amendments, and for the draft Regulation to document TRANS/WP.29/2000/3.

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

**A. PROPOSAL**

**Regulation No. 18,**

Insert a new paragraph 2.7., to read:

"2.7. "Lock" means any device designed and built to work with a key."

Insert a new paragraph 5.1.3., to read:

"5.1.3. The requirement of paragraph 5.1. can be achieved either simultaneously or either previously to the actions described at paragraphs 5.1.1. and 5.1.2".

Paragraph 5.9.1., amend to read:

"5.9.1. It shall not be possible to activate devices to prevent unauthorized use without first setting the engine controls to a stop condition and then performing an action vehicles not interrupted continuation of stopping the engine or without first setting the engine controls to a stop condition and when the speed of the vehicle is zero."

Insert a new paragraph 5.9.3., to read:

"5.9.3. Paragraphs 5.8., 5.8.1. or 5.8.2., and 5.9.2. are only applicable to devices which include mechanical locks."

**Regulation No. 97,**

Paragraph 31.4., amend to read:

"31.4. It shall not be possible for an immobilizer to enter the set state when the vehicle or the engine are not in a stop condition."

**Draft Regulation on the protection of M1 and N1 categories of vehicles against unauthorized use,**

Insert a new paragraph 5.1.7., to read:

"5.1.7. "Lock" means any device designed and built to work with a key."

Insert a new paragraph 5.2.1.3., to read:

"5.2.1.3. The requirement of paragraph 5.1. can be achieved either simultaneously or either previously to the actions described at paragraphs 5.2.1.1. et 5.2.1.2".

Paragraph 5.2.7., amend to read:

" ..... locking systems shall have at least ..... per 5,000 variants."

Insert a new paragraph 5.2.8., to read:

"5.2.8. Regarding the nature of the device to prevent the unauthorized use, paragraph 5.2.6. or 5.2.7., shall be applied."

Paragraphs 5.2.8. to 5.2.10. (former), renumber as paragraphs 5.2.9. to 5.2.11.

Paragraph 5.2.10.1.(former), renumber as paragraph 5.2.11.1. and amend to read:

5.2.11.1. It shall not be possible to activate devices to prevent unauthorized use without first setting the engine controls to a stop condition and then performing an action vehicles not interrupted continuation of stopping the engine or without first setting the engine controls to a stop condition and when the speed of the vehicle is zero."

Paragraph 5.2.10.2. (former), renumber as paragraph 5.2.11.2.

Insert a new paragraph 5.2.11.3., to read:

"5.2.11.3. Paragraphs 5.2.10., 5.2.10.1. or 5.2.10.2., and 5.2.11.2. are only applicable to devices which include mechanical keys."

Paragraphs 5.2.11. to 5.2.14. (former), renumber as paragraphs 5.2.12. to 5.2.15.

Paragraph 5.3.1.3., amend the reference to paragraph 5.2.10. to paragraph 5.2.11.

Paragraph 5.4., amend to read:

" ... and paragraph 8.4. below.

If the technology of the device is such that paragraphs 5 and 6 above and paragraph 33. of Regulation No. 97 are not applicable the technical service shall verify that care has been taken to preserve safety of the vehicle. The functioning process of these devices shall integrate security means to exclude any risk of blocking or accidental dysfunctioning able to compromise the safety of the vehicle."

Paragraph 8.2.4., amend to read:

"8.2.4. It shall be not possible for an immobilizer to enter the set state when the vehicle or the engine are not in a stop condition."

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**B. JUSTIFICATION**

**Re. Regulation No. 18,**

**Re. para. 2.7.:**

General definition of a lock which can be activated by any sort of key (electronic / electrical key, mechanical key, electromechanical key, ...).

**Re. para. 5.1.3.:**

New electromechanical devices to prevent unauthorized use of the vehicle which act on the steering column, requires a short time (a few ms) to achieve the translation and the complete lock.

In the steering column's locks, the starter motor can be launched during that short period. The locking of the steering columns and the authorization to start the engine are obtained simultaneously, regarding the time duration of these actions (typically 30 ms). To take into account new systems, it is necessary to include in paragraph 5.1. that the prescription can be obtained simultaneously with actions described at paragraphs 5.1. and 5.2.

**Re. para. 5.9.1.:**

The functioning of actual devices to prevent unauthorized use, which act on the steering columns include a first position setting the engine control to a stop position, preliminary to any action of setting or unsetting the steering locks which occurs when the key is removed.

New electromechanical systems electrically or electronically controlled can be activated, for example, by an independent push button to achieve the start/stop of the engine.

For these devices, the activation of the steering locks shall be obtained only when the engine is in a stop condition and when the vehicle speed is zero.

The safety presented is higher compared to conventional systems, where it is possible by a voluntary action to remove the key with the vehicle running, with this sort of device, this situation becomes impossible.

**Re. para. 5.9.3.:**

Prescriptions of paras. 5.8., 5.8.1., 5.8.2., and 5.9.2. are not applicable to pure electrical devices.

**Re. Regulation No. 97,**

**Re. para. 31.4.:**

Owners of light industrial vehicle, industrial vehicle or taxi cab, etc... sometimes stop frequently their vehicle, with the engine running. The vehicle is not protected during a short time when they leave their vehicle.

The possibility to have an immobilizer system automatically or voluntarily armed when the driver leaves the vehicle, constitutes a supplementary action to prevent unauthorized use of the vehicle.

The immobilizer should be activated during a theft action and should result in a stop of the engine before any movement of the vehicle.

**Re. Draft Regulation on the protection of M1 and N1 categories of vehicles against unauthorized use,**

**Re. para. 5.1.7.:**

See Re. para. 2.7. of Regulation No. 18

**Re. para. 5.2.1.3.:**

See Re. para. 5.1.3. of Regulation No. 18

**Re. para. 5.2.8.:**

The example given was too orientated, so it is proposed to delete it. Depending on the device used it is only possible to apply either paragraph 5.2.6. or paragraph 5.2.7.

**Re. para. 5.2.10.1.:**

See Re. para. 5.2.9.1. of Regulation No. 18

**Re. para. 5.2.10.3.:**

See Re. para. 5.9.3. of Regulation No. 18

**Re. para. 5.4.:**

The new prescriptions address new electrical/electronic devices

**Re. para. 8.2.4.:**

See Re. para. 31.4. of Regulation No. 97

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