

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

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

Working Party on Lighting and Light-Signalling (GRE)

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 45

(Uniform provisions concerning the approval of  
HEADLAMP CLEANERS AND OF  
POWER-DRIVEN VEHICLES WITH REGARD TO HEADLAMP CLEANERS)

Transmitted by the Expert from the Working Party "Brussels 1952" (GTB)

Note: The text reproduced below was prepared by the expert from GTB in order to align the definitions and test procedures of Regulation No. 45 with the particular characteristics of an adaptive front-lighting system (AFS).

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## A. PROPOSAL

Paragraph 2.1. amend to read:

"Headlamp cleaner" means a complete device with which all or part of the light emitting surface of a headlamp *or an AFS system* can be cleaned;"

After paragraph 6.1. add a new paragraph 6.1.1. to read

"6.1.1. *In case the passing beam is provided by an adaptive front-lighting system (AFS): the headlamp cleaner shall be designed and constructed to clean those parts of the light-emitting surface of the AFS which need, according to the provisions of paragraph 6.20.9.1. of Regulation No. 48, to be installed with a cleaning device.*"

Paragraph 7.1., amend to read:

"7.1. The efficiency of the cleaner shall be tested in accordance with the requirements of annex 4 to this Regulation. The cleaning efficiency at the points on the measuring screen which are specified below shall, after every cleaning period, amount to at least 70 per cent for the passing lamp and also 70 per cent for the optional driving lamp; *in case of an AFS this provision applies to half the sum of the (individually measured) photometric values from those lighting units indicated in paragraph 6.1.1. above and activated for a designated beam.*"

Paragraphs 7.3.1. and 7.3.2., amend to read:

"7.3.1. Headlamps approved in respect of the passing beam only (marking C or HC *or XC/V/E/W/T* in the Approval Mark);  
Measuring points: 50 R(L) and 50 V. 5/

7.3.2. Headlamps approved in respect of the passing beam and the driving beam (marking CR, HCR, C+R, C+HR, HC+R or HC+HR *or XC/V/E/W/R/T*)  
Measuring points; 50R(L) (and 50V if in the same headlamps, different optic systems for the driving lamp and the passing lamp are provided)."

## B. JUSTIFICATION

In relation to the introduction of the AFS, Regulation No. 45 should be amended for clarification. AFS system relevant photometric procedures should apply, depending on the design of the system.

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