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REGULATION No. 48 - QUESTION OF INTERPRETATION (Installation of lighting and light-signalling devices)

Transmitted by the Expert from the Netherlands

 $\underline{\text{Note}}$: The text reproduced below was prepared by the expert from the Netherlands in order to initiate an exchange of views on the interpretation of paragraph 5.22. of Regulation No. 48, particularly concerning the issue how to determine the number of driving beam (main-beam) headlamps present in the vehicle for type approval purposes.

 $\underline{\text{Note}} \colon$ This document is distributed to the Experts on lighting and lightsignalling only.

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A. DISCUSSION:

Paragraph 5.22., of Regulation No. 48 states:

"5.22. With the exception of retro-reflectors, a lamp even bearing an approval mark is deemed not to be present when it cannot be made to operate by the sole installation of a filament lamp."

According to the interpretation of this paragraph by the Dutch approval authority, it has been possible to grant type approval to a vehicle (truck) equipped with a total of six main-beam headlamps, physically present on the vehicle. However, the headlamps of this vehicle are connected in such a way that the total number of main-beam headlamps to operate at the same time is limited to four (two pairs). Four is the maximum number of main-beam headlamps allowed.

This particular vehicle is (can be) physically equipped with 3 pairs of main-beam headlamps. One pair consists of the main-beam headlamps in the regular main headlamp units. Apart from this pair, two pairs of extra main-beam headlamps are (can be) installed on the vehicle:

One pair of extra main-beam headlamps installed at the lower (front) part of the vehicle,

and

One pair of extra main-beam headlamps installed at the upper (front) part of the vehicle.

By means of the regular light switch, the driver has the possibility to switch on the pair of main-beams in the regular main headlamp units.

By means of another (second) switch, the driver has the possibility to additionally switch on one pair of extra main-beam headlamps, at the driver's preference according to the driving circumstances, being either:

the high-mounted pair,

or

the low-mounted pair.

It is not possible to switch on both pairs of extra main-beam headlamps at the same time. Therefore, the result is that the total number of main-beam headlamps, which can be made to operate at the same time, is four maximum.

For type approval purposes, the "other" pair of extra main-beam headlamps is deemed not to be present, because it cannot be made to operate at the same time. Important is to note that operation has been made impossible by the switch and not by (temporarily) removing the filament lamp! This is the essence of the Dutch interpretation of ECE Regulation No. 48, paragraph 5.22.

B. CONCLUSIONS:

According to the Dutch interpretation the (maximum) number of main-beam headlamps present on this vehicle, for type approval purposes, is four.

We believe that the described configuration may have important benefits, since it offers the driver the possibility of choosing the best additional lighting, depending on the driving circumstances. This is especially important for trucks.

Furthermore, given this possibility, the installation of these extra main-beam headlamps in this way is subjected to the expert scrutiny during type approval. This contrary to extra main-beams headlamps which are otherwise often installed (retrofitted) after type approval, when the installation is basically at one's own discretion and not submitted to the stringent installation requirements of ECE Regulation No. 48. The frequent retrofitting of extra main-beam headlamps, particularly on trucks, may indicate a need.

Last but not least, the possibility of purchasing a vehicle (truck), type approved with extra main-beam headlamps, might actually reduce the proliferation of the number of extra main-beam headlamps installed (retrofitted) on the vehicle afterwards, in use. Possibly, a thought to ponder ...