

**GTB Comments relating to documents
ECE/TRANS/WP.29/GRE/2011/02,
ECE/TRANS/WP.29/GRE/2011/22 and
ECE/TRANS/WP.29/GRE/2011/27**

The document ECE/TRANS/WP.29/GRE/2011/22 outlines the GTB response to the proposal submitted by the expert from Germany at the 64th session (GRE-64-57). This response can be summarised as follows:

- a) GTB maintains its opinion that dipped beam headlamps equipped with the proposed 25W Gas Discharge light sources meet the current requirements of Regulation No. 48 and are therefore not required to be installed in conjunction with automatic levelling and cleaning because their objective luminous flux does not exceed 2000 lumens.
- b) The proposed amendment from Germany (ECE/TRANS/WP.29/GRE/2011/02, previously GRE-64-57) could be basically acceptable subject to an adequate transitional provision and subject to review within the transitional period depending upon the results of a study to be carried out by GTB in collaboration with GRE experts.
- c) GTB will present a front lighting road map during the 65th session and will explain that a study based upon glare and visibility considerations is required to review the criteria used to determine when automatic levelling shall be installed. Additionally, initial results of the study will be presented during the consideration of agenda item 5(d).

Additionally, it is necessary for GTB to provide a response to the proposal in GRE/2011/27 which aims to remove the 2000 lumen criterion and to require auto-(static) levelling for all dipped beam headlamps. This GTB response is basically as outlined above because any decision to amend the current requirements in Regulation No.48 should only be taken after a careful study of all factors associated with glare and visibility due to variations in the alignment of the dipped beam.

As mentioned above, and in ECE/TRANS/WP.29/GRE/2011/22, GTB has already initiated a study and organised a forum discussion in Torino, Italy on 25 January where a number of experts presented data and research findings that clearly lead to the following initial conclusions:

- There is no evidence that glare causes road accidents. However it does provoke complaints.
- There is strong evidence that good road illumination produced by efficient headlamps reduces accidents.
- There is no scientific basis for the requirement for automatic (static) levelling. The initial study by GTB has identified research findings that suggest that there is no significant road-safety benefit to be derived from the mandatory installation of auto levelling that would justify the additional costs.
- The 2000lm criterion cannot be justified on safety grounds and it incorrectly distinguishes between light source technologies.
- It is time to carry out a detailed study of the relationship of headlamp alignment and glare in the real-world road traffic conditions. GTB is prepared to lead such an activity in collaboration with GRE. The recent scientific work of CIE TC4-45 and the SAE Pedestrian Visibility Taskforce provides a good basis for glare / visibility investigations.

- With the emphasis upon road traffic safety and upon economic development, and in view of the scientific evidence that already exists, it is clearly not appropriate for GRE to take any short-term action to mandate automatic (static) load compensation for all dipped beam headlamps. The evidence shows that this action as proposed in GRE/2011/27 will add significant costs for the global vehicle manufacturing industry and for the end-user without the claimed benefits of improved road safety.
- GTB strongly recommends that until the completion of the proposed study (that GTB is prepared to lead in close collaboration with GRE), no changes should be introduced into Regulation 48 and the existing 2000 lm criterion should be retained to allow the immediate adoption of 25W Gas Discharge light sources without the requirement for auto levelling. The 25W Gas Discharge technology should be exploited as soon as possible because of the obvious benefits in terms of increased road safety through improved dipped beam performance on vehicles that are currently equipped, for economic reasons, with lower performing halogen light sources.
