

Proposal to amend UN Regulation No. [16X] on Direct Vision

I. Proposal

Paragraph 6.2.2., amend to read:

"6.2.2. The subject vehicle shall be assessed with the accelerator heel point positioned at a height from the ground that ~~represents~~ **is no lower than** the mid-point between the height that the manufacturer calculates it would be at for an unladen chassis cab (without body) and that which the manufacturer calculates it would be at when the vehicle is loaded to its technically permissible design maximum.

6.2.2.2. At the choice of the manufacturer the vehicle shall be assessed with the mass in running order(1). In that case, vehicles fitted with suspension enabling their ground clearance to be adjusted shall be tested under the normal conditions of use specified by the vehicle manufacturer."

Add footnote to Paragraph 6.2.2.2:

(1) *As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3.), document ECE/TRANS/WP.29/78/Rev.6, para. 2.2.5.4.*

II. Justification

Paragraph 6.2.2.

Large vehicles have high complexities relating to wheel-base, axle types, upper bodies, powertrains, etc.. and all variants have different ride-height reactions to load distributions. Establishing the exact mid-point may therefore be very complex, additionally such "mid-point" may not exist as physical variant. To avoid or mitigate this complexity it should therefore be allowed to base the certificate on a higher riding variant, assuming this represents a worse case than the mid-point.

Paragraph 6.2.2.2

The "simplified assessment method" allowed for vehicles of categories M2 and N2 is using the front vision method from UN R-125. UN R-125 is based on vehicle in "running order" condition according to R.E. 3 para. 2.2.5.4. With the currently proposed adjustment condition, using the "simplified method" would mandate establishment of two different vehicle loading conditions for side and front vision assessment. It is further assumed that the "running order" condition is a relatively worse case condition for a heavy vehicle, as the loading is relatively low.

UN R-125 considers the effect of active suspension on direct vision performance, which should be considered as well in this regulation.