

Proposal for supplement 3 to the 04 series of amendments to UN Regulation No. 127 (Pedestrian safety)

The text reproduced below was prepared by the expert from Germany on behalf of the TF GRSP AVRS, to enable the application of the regulation to vehicles equipped with an ADS [feature type 2]. The modifications to the existing text of the UN Regulation are marked in bold for new or strikethrough for deleted characters.

I. Proposal

Insert a new paragraph 0, to read:

- “0. Introduction**
- 0.1. For supplement 3 to the 04 series of amendments:**
 - 0.1.1. The Regulation is amended to account for vehicles of categories X and Y.**
 - 0.1.2. The Regulation was originally drafted for vehicles with driver. It is the intention of this new amendment to keep the spirit of the regulation and to extend its application to vehicles without driver. In the absence of driver, provisions related to him/her shall not be taken into account if not already covered by this amendment.**
 - 0.1.3. In case of vehicles with an ADS where those vehicles are also equipped with a manual driving mode operating at a speed of more than 6 km/h it is expected that in the manual driving mode the technical requirements can be applied as they would for a conventional vehicle. In a mode where an ADS feature is active the relevant ADS requirements have to be fulfilled.”**

Paragraph 1., amend to read:

- “1. This Regulation applies to motor vehicles of categories M1 and N1.¹**
However, vehicles of category N1 where the driver’s position "R-point" is either forward of the front axle or longitudinally rearwards of the front axle transverse centreline by a maximum of 1,100 mm, are exempted from the requirements of this Regulation. For vehicles of category X, the "R" point of the most forward passenger seat shall be taken instead of the R-point of the driver's seat. For vehicle of category Y,
This Regulation does not apply to vehicles of category M1 above 2,500 kg maximum mass and which are derived from N1 category vehicles, and where the driver’s position "R-point" is either forward of the front axle or longitudinally rearwards of the front axle transverse centreline by a maximum of 1,100 mm; for these vehicle categories Contracting Parties may continue to apply the requirements already in force for that purpose at the time of acceding to this Regulation. For vehicles of category X, the "R" point of the most forward passenger seat shall be taken instead of the R-point of the driver's seat.”

Paragraph 1., footnote 1, amend to read:

- “¹ As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3.), document ECE/TRANS/WP.29/78/Rev.68, para. 2 - <https://unece.org/transport/vehicle-regulations/wp29/resolutions>”**

[To be removed for final document, just a reminder for better comprehension:

2.19. "Driver mass" means the nominal mass of a driver that shall be 75 kg (subdivided into 68 kg occupant mass at the seat and 7 kg luggage mass in accordance with ISO standard 2416–1992).]

Paragraph 2.27., amend to read:

“2.27. "Mass in running order" means the nominal mass of a vehicle as determined by the sum of unladen vehicle mass and driver's mass, **if applicable.**”

Paragraph 2.29., amend to read:

“2.29. "Normal ride attitude" means the vehicle positioned on a flat horizontal surface with its mass in running order, with the tyres inflated to manufacturer recommended pressures, the front wheels in the straight-ahead position and with a passenger mass placed on the front passenger seat. The front seats are placed at the nominal mid-track position. The suspension shall be set in normal running condition as specified by the manufacturer for a speed of 40 km/h. **[For vehicles of category X, two passenger masses are placed on the front seats instead of the driver's and one passenger masses. For vehicles of category Y, no occupant mass is added.]**

Alternatively:

[For vehicles of category X, the mass of a passenger is placed on the frontmost seats each as applicable, instead of the masses of one driver and one passenger. For vehicles of category Y, no occupant mass is added.]”

[To be removed for final document, just a reminder for better comprehension:

2.30. "Passenger mass" means the nominal mass of a passenger that shall be 68 kg, with in addition a 7 kg provision for luggage which shall be located in the luggage compartment(s) in accordance with ISO standard 2416–1992.]

Paragraph 5.3.1.2., amend to read:

“5.3.1.2. ARHSS can be engaged for use in exceptional low speed use cases (e.g. flood/heavy snow) on public roads. In such cases, ARHSS shall automatically return to the normal ride height when the vehicle speed exceeds 25 km/h or when the system is manually disengaged by the driver **or controlled by the ADS**. If an ARHSS for use in exceptional low speed use cases is engaged, it is indicated to the driver at least by an optical warning signal.”

II. Justification

1. See paragraph 0. in the proposal.

2. Additional justification if needed.