PROPOSAL FOR DRAFT AMMENDMENT OF TRANS/WP.29/GRRF/2003/25

Transmitted by the Expert from Japan

5.2.1.30.2, amend to read
5.2.1.30.2 If an endurance braking system is able to generate a retarding force of 2.2 m/s² or more at a vehicle speed of 80 km/h, operation of the system shall generate the signal above.

To add the footnote of 5.2.1.30.3
5.2.1.30.3 Activation of the service braking system by “automatically commanded braking” shall generate the signal.*

* At levels of Automatically Commanded Braking which generate only low retardation which is equal to or less than 0.7 m/s², the signal normally generated may be suppressed when the vehicle speed is equal to or more than 50 km/h.

5.2.1.30.4, amend to read
5.2.1.30.4 Activation of part of the service braking system by “selective braking” may not necessarily generate the signal mentioned above.

Justification
We generally support the UK proposal to produce a standard protocol for illumination of the stop lamp.
However we would like to propose some amendments based on the following stance.
Stop lamp shall be illuminated when the brake system is activated where it is necessary in order to avoid collision by following vehicles.
However in practice, when the system generates low retardation, we do not think it is necessary to give a warning to following drivers as it may cause annoyance. Over frequent illumination of the stop lamp in low deceleration conditions may reduce the importance given to the stop lamp by following drivers because of the low retardation of the vehicle.
Under such conditions, we think it is acceptable that the generated signal may be suppressed.
We need to agree a threshold value and this value should be defined clearly.
However, in case of the service brake activation by the driver, the stop lamp shall illuminate even at low retardation because it serves as an advanced warning of higher deceleration which may follow later.

5.2.1.30.2
In Japan regulations have already been implemented with a threshold value of 2.2 m/s² at a vehicle speed of 80 km/h following safety investigations. This threshold value is also similar to the level in the UK proposal.
Data of exhaust brake for trucks is attached.
It shows the deceleration level of the exhaust brake reaches approximately 2.2 m/s² at 80 km/h.

5.2.1.30.3
Automatically Commanded Braking as used for example in ACC, has the function to provide a fine adjustment of vehicle speed. This level of deceleration is similar to engine brake level and is seldom achieved by drivers.
Data on the comparable unwarned retardation levels associated with engine braking on vehicles currently being used in traffic, is attached.
It shows the deceleration level associated with engine braking reaches approximately 0.7m/s² at 50km/h.

5.2.1.30.4
Selective brake is actuated only under specific conditions in order to stabilize vehicle behavior.
Therefore illumination of the stop lamp is not necessary.
On the other hand, neither is it necessary to suppress the illumination of the stop lamp.
Fig. 1 Exhaust Brake Level

- Truck/Bus
- CW
- GVW
Fig 2 Engine Brake Level

![Graph showing Engine Brake Level for different vehicle speeds and decelerations.]

- Vehicle speed in km/h
- Deceleration in m/s²
- Arrows indicating 1 gear shift down and highest gear for Passenger Vehicles.