

PROPOSAL FOR CHANGES IN SLED TEST PARAMETERS

Deletion of additional information for the sled tests

- 1.0** sled tests are one of the important tests used for dynamic assessment of vehicle subsystems in crash environment.
- 2.0** these sled tests are specified with
 - 2.1. deceleration corridor (also called as “sled pulse”)
 - 2.2. sled speed,
 - 2.3. stopping distances
 - 2.4. The safety engineers always respect compliance to sled pulse & the sled speed as primary requirements. **Therefore stopping distance requirement is irrelevant for the sled tests & the same should either be removed & termed as “for reference only” for the following regulations :**
 - 2.4.1 **ECE R16 annex 8 – safety belts,**
 - 2.4.2 **ECE R44 appendices 1 & 2 of annex 7 – child restraints**
 - 2.5. The information of the sled mass was useful to select appropriate braking mechanism. However with the progress of the technology, crash safety labs are able to generate the required sled pulse suitable to a sled mass. **Therefore even the information of sled mass has become redundant & should be deleted or term it as “for reference only” from annex 8 of ECE R16.**

Table 1 - Comparison of the sled test parameters

Standard details	Sled test specifications		Sled test parameters depending on the sled pulse		Proposal
	Speed (kmph)	Stopping distance (mm)	Speed (kmph)	Stopping distance (mm)	
ECE R16 – safety belts, annex 8	50 ± 1	400 ± 20	28.9 – 68.9	201 to 766	Delete the speed & stopping distance specifications OR update them to comply with sled pulse
ECE R17 – seat & seat anchorages -	50 +0/-2	nil	35.3 – 49.4	441 - 824	
ECE R44 – child restraints – annex 7 appendix 1- frontal impacts	50 +0/-2	650 ± 30	33.6 – 66.2	373 - 1104	
ECE R44 – child restraints – annex 7 appendix 2- rear impacts	30 +2/-0	275 ± 20	13 – 51.9	76 – 504	
ECE R80 – seat & seat anchorages for large vehicles – appendix 1	30 - 32	nil	17 – 50.9	164 - 1060	