



ERF Policy Position on the Revision of the Directive 96/53/EC on Weights and Dimension of Heavy Good Vehicles

ERF calls on European authorities to consider the important road safety implications for passive safety devices

The recent decision of the European Commission to reinterpret the nature of Directive 96/53/EC and to authorise the cross border movement of modular vehicles between countries that accept them domestically has re-ignited the debate about Longer and Heavier Vehicle (LHV).

LHV may bring important benefits to the Europe's economy and society through efficiency gains which are much needed in today's world. Nevertheless, as an association representing the road infrastructure, ERF would like to point out on the potential safety implications that an introduction of LHV may entail, especially when it comes to the introduction of **heavier** vehicles on the road. In particular, ERF would like to raise awareness about a very 'practical' road safety issue which is often neglected in the debate, i.e. road restraint systems.

Road Restraint Systems are an essential road safety component on our roads. On motorways, they protect drivers from their human mistakes by preventing them from hitting road side obstacles or crossing into the other carriage way and being a danger for other drivers.

Road Restraint Systems are designed and tested according to a European Norm (EN 1317) that stipulates, amongst others, the maximum impact conditions a passive safety device can withstand. The key element to be considered here is

the barrier's **containment level** which represents the redirection capacity that is directly linked to the weight of the errant vehicle.

Given the interconnected relationship between the infrastructure and the vehicle, it should come as no surprise that road restraint systems have been designed and tested taking into consideration, by and large, the maximum weights and dimensions of Heavy Good Vehicles operating on Europe's network.

As Table 1 in the Annex shows, road restraint systems are designed and tested to withstand the impact of a maximum 38 tonne truck. Given that the current Directive in force allows a maximum weight of 44 tonnes under certain circumstances, one could argue that even the current European Norm is not 100% synchronised with maximum weight of Heavy Good Vehicles on Europe's roads, a point actually raised during the last meeting of the CEN TC 226, which deals with the standardisation of the road equipment. Nevertheless, the case can be made that passive safety solutions are available for the majority of trucks circulating on most European roads.

Even if solutions do exist, research done by the ERF (Table 2) has demonstrated that many public authorities often choose to opt for containment levels on motorways that do not fully correspond to the specificities of the vehicles circulating on them or are not replaced when required.

The on-going financial crisis means that road maintenance may continue to be insufficient and that public authorities may opt for cheaper solutions which are often at the expense of road safety considerations. Against this troubling background, ERF is concerned that the potential introduction of heavier vehicles on Europe's motorways may entail serious safety implication for the ability of passive safety devices to protect drivers against their own human mistakes. The vehicle and the infrastructure are two elements of the same equation and in this sense, changes in vehicle weights should also be reflected in the infrastructure, including passive safety systems. In practice, this means that **should Heavy Good Vehicles with higher weights than those generally allowed today be permitted to circulate on Europe's roads, then there should be barriers placed that are tested according to the EN 1317 for weights higher than 38 tonnes.**

In this sense, ERF would like to:

- Urge public authorities not to neglect the importance of the road barriers as a cost-effective safety solution and to ensure that solutions implemented on the motorways reflect the realities of freight traffic
- Highlight that the European Norm regarding road restraint systems is not designed to take into account the heavier version of the LHV trucks which can reach up to 60 tonnes. In this sense, the widespread introduction on the road of **heavier vehicles** compared to those currently stipulated in Directive 96/53 should be followed by mandatory appropriate adaptations in the infrastructure. This in turn implies the need to, adapt the European Norm 1317 for Vehicle Restraint Systems, to welcome new containment levels which may take those new vehicles into account in order to ensure at least the same level of safety that we can find today on the roads.

Annexes

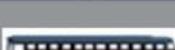
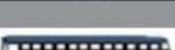
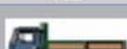
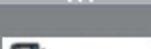
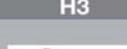
Table 1 – EN 1317 Crash Test Specifications

EN-1317 Containment Level	EN-1317 Test Designation	Vehicle Type	Test Conditions		
			Vehicle Mass (kg)	Speed (km/h)	Angle of Impact (°)
N1	TB31	Light 	1,500	80	20
N2	TB32	Light 	1,500	110	20
	TB11 ^(*)	Light 	900	100	20
H1	TB42	Heavy, non-articulated 	10,000	70	15
	TB11 ^(*)	Light 	900	100	20
L1	TB32	Light 	1,500	110	20
H2	TB51	Bus 	13,000	70	20
	TB11 ^(*)	Light 	900	100	20
L2	TB32	Light 	1,500	110	20
H3	TB61	Heavy, non-articulated 	16,000	80	20
	TB11 ^(*)	Light 	900	100	20
L3	TB32	Light 	1,500	110	20
H4a	TB71	Heavy, non-articulated 	30,000	65	20
	TB11 ^(*)	Light 	900	100	20
L4a	TB32	Light 	1,500	110	20
H4b	TB81	Heavy, articulated 	38,000	65	20
	TB11 ^(*)	Light 	900	100	20
L4b	TB32	Light 	1,500	110	20

(*): Test TB11 is designed to verify that the contention level satisfied by the barrier is compatible with the safety of the occupants of this type of vehicle.

Table 2

Situation in the EU countries :
Minimum legal requirements on motorways*

		Side Barrier	Central Barrier	Bridge Barrier
	Austria	 H2	 H2	 H3
	Belgium	 H2	 H2	 H4b
	Bulgaria	 H1	 H2	 H1
	Czech Republic	 H1	 H2	 H1
	Denmark	 H1	 H2	 H3
	Finland	 N2	 N2	 H2
	France	 N2	 H1	 H2
	Germany	 H1	 H2	 H1
	Ireland	 N2	 H2	 H2
	Italy	 H2	 H3	 H4b
	Holland	 H2	 H2	 H2
	Norway	 N2	 N2	 H2
	Poland	 H1	 H2	 H1
	Spain	 N2	 H1	 H3
	United Kingdom	 N2	 N2	 H1

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