**0. MoM**

Kickoff of the WP.15 IWG-EV sub-group "Body-Builders & Trailers" (or Load Protection)

Held via MS Team call, the Wednesday, 13th of July 2022 from 08:00 to 10:30

* + - 1. **Competition guidelines and law compliance policy**

Participants are reminded of the competition guidelines and law compliance policy.

This policy essentially consists of not discussing the market conduct of individual companies and of not exchanging any business sensitive information.

It is requested to strictly follow these guidelines.

See, for the principle the EU competition law details [HERE](https://ec.europa.eu/info/business-economy-euro/doing-business-eu/competition-rules_en).

* + - 1. **Attendance list**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 22w28-3 | ??? | ??? | ??? | ??? |
| [alessandro\_bonanomi@siad.eu](mailto:alessandro_bonanomi@siad.eu) | no |  |  |  |  |
| [andreas.boehmer@chartindustries.com](mailto:andreas.boehmer@chartindustries.com) | no |  |  |  |  |
| [karine.pelletier@volvo.com](mailto:karine.pelletier@volvo.com) | yes |  |  |  |  |
| [KdePutter@rdw.nl](mailto:KdePutter@rdw.nl) | yes |  |  |  |  |
| [Markus.Hermans@dekra.com](mailto:Markus.Hermans@dekra.com) | yes |  |  |  |  |
| [Michael.Bogaert@vervaeke.com](mailto:Michael.Bogaert@vervaeke.com) | yes |  |  |  |  |
| [phil.verhoeven@chartindustries.com](mailto:phil.verhoeven@chartindustries.com) | yes |  |  |  |  |
| [Dario.Pinna@shell.com](mailto:Dario.Pinna@shell.com) | yes |  |  |  |  |

* + - 1. **Approval of the agenda and last MoM**

NA

* + - 1. **Way of Working**

Leader: Kees/Michaël

Meeting frequency and duration: TBD

Meeting via MS Teams.

All documents will be here: <https://wiki.unece.org/pages/viewpage.action?pageId=172851379>

The objective, scope of the sub-group is to at least review/complete/modify the chapters 9.1, 9.3 to 9.8 of the UN ADR agreement to secure the safe use of electrified vehicles for the transport of dangerous goods.

Bodybuilders: We are missing representatives of the industry.

Trailers manufacturers: We are missing representatives of the industry.

Other industries: Please advise.

Feel free to forward information about this working group!

* + - 1. **Introduction of electrified vehicles in the ADR**

**5.1. Kickoff**

For introduction to the kick-off of the body builder and trailer sub-group of the IWG on EV, it was said that three issues could be identified; and a difference should be made for rigid vehicles (trucks with bodies) and trailers (separate from the towing unit).

For rigids, the following could be identified:

* Interaction of the base vehicle with the load compartment,
* Electrical accessories added in the second construction phase such as pumps, load lifts, overfill protections (requiring a battery).

For trailers, three issues could be identified:

* Regenerative braking, energy storage and consequential drive,
* Electrical accessories such as pumps, load lifts, overfill protections, electronic trailers teering (requiring a battery),
* Fitting of traction batteries or fuel containers (H2) for the towing vehicle.

Body builders, on rigid trucks, have to rely on the information of the vehicle manufacturer and have to follow their instructions. Even at this moment, rigids are equipped with additional electrical equipment, sometimes with a separate battery and sometimes supplied by high voltage. Chapters 9.1 and 9.3.to 9.8 of ADR would apply. As the additions to the base vehicle are always fixed together, it would be not too difficult to control.

Trailer constructors are to be seen as Original Equipment Manufacturers of Vehicles. However, there is a difference with truck manufacturers since many critical components are outsourced, for example we could think about axles, braking equipment (incl. ABS and ESP), TPMS, couplings etc. So, to trailer constructors, also the chapter 9.2 applies besides 9.1 and 9.3.to 9.8. Most trailer manufactures are limited in size and trailers are constructed in series of limited size, so their burden to prove or test may be harder.

For trailers, it may also at this moment not be possible to have re-generative braking, re-generative braking means generators on the axles/wheels that may also be used as motors. The latter is, at this moment, not possible from a legal point of view because of the definition of “trailer”. Having re-generative braking means having electric storage complete with inverters and others specific components. It was expressed by the IWG chair that when this becomes reality that a battery may present a similar risk as to rigid trucks. When we come to conclusion on safety of batteries on trucks, it would be easy to transpose this on trailers.

Another issue with trailers is the presence of traction batteries, or fuel containers on trailers to feed the towing vehicle. This is done for improved weight distribution of lack of space on the towing vehicle. It was said that this was already applied on non dangerous goods trucks. These batteries may present a fire hazard and the fuel containers an issue with the connection for fuel to the towing vehicle and closing of closing valves in cases of gaseous fuels if the engine would stop.

De-energizing the electrical system, or isolation of the battery on trailers in zones where explosive atmospheres are present are a concern when having interchangeability, it is however possible.

As most bodies on trucks and trailers are tanks, concerns were expressed on leakage of product on the electric systems and batteries in particular. Subsection 1.1.3.7 and special provision 667 were mentioned as to be taken into account.

**5.2. Reporting to the IWG-EV**

N/A

**5.3. Preparation next WP.15**

N/A

* + - 1. **Action’s list (What/When/Who)**

Only the opened actions, for closed actions see previous MoM.

|  |  |  |
| --- | --- | --- |
| Who | When | What, comments |
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|  |  |  |
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**Date and time of next meeting**

MS-Team meeting the 6th October 2022 from 15:00 to 17:30