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Working Party on the Transport of Dangerous Goods

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Item 6(a) of the provisional agenda

Proposals for amendments to Annexes A and B of ADR: construction and approval of vehicles

Section 8.1.1: Number of trailers in a transport unit

Transmitted by the Government of Sweden¹

Summary

Executive summary: Introduce the possibility in ADR to use a transport unit consisting of a tractor, a dolly and a trailer.

Discussions on the number of trailers in a transport unit.

Action to be taken: Amend 8.1.1 in ADR.

Related documents: Report of the European Commission on Effects of adapting the rules on weights and dimensions of heavy commercial vehicles as established within Directive 96/53/EC
http://ec.europa.eu/transport/strategies/studies/doc/2009_01_weights_and_dimensions_vehicles.pdf

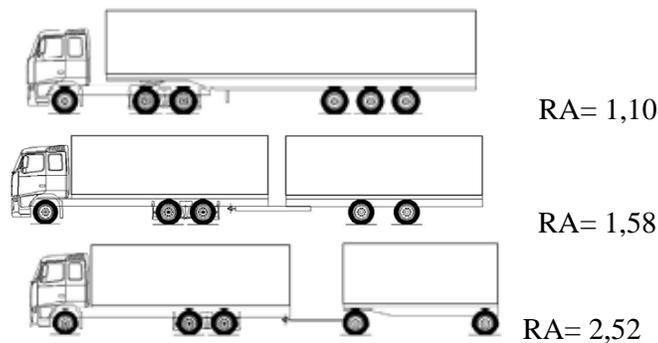
¹ The present document is submitted in accordance with paragraph 1 (c) of the terms of reference of the Working Party, as contained in document ECE/TRANS/WP.15/190/Add.1, which provides a mandate to “develop and update the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)”.

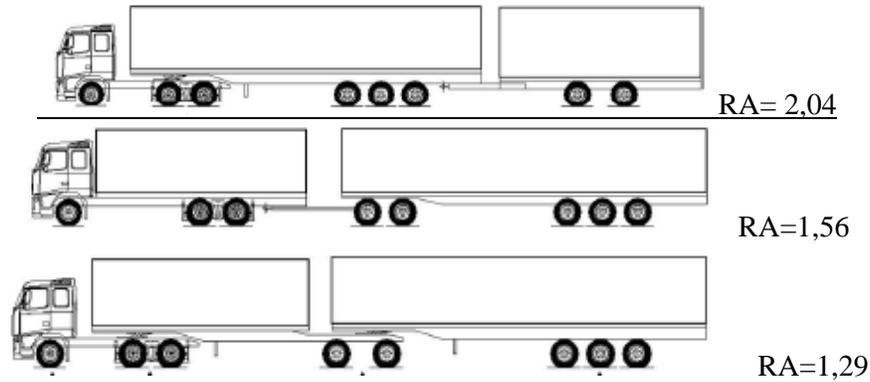
Introduction

1. A transport unit loaded with dangerous goods, in such amount that orange-coloured plates is needed, may not include more than one trailer (or semi-trailer). This provision has been in ADR since long.
2. Mixed loading of different types of goods is often used in the transport of dangerous goods and it is not practical, economical or environmentally friendly to have to maintain two separate transport systems – one for the transport of dangerous goods and another for non-dangerous goods.
3. The development of trailers and vehicle combinations shows a need to adapt ADR in order to take into account progress in science and technology. E.g. a semi-trailer can be fitted with a dolly as a front axle. A dolly is a centre axle trailer, with its own registration plate, intended as a steering axle for a semi-trailer and equipped with a fifth wheel. Suddenly the semi-trailer has become a drawbar trailer and the transport unit consists of two trailers. Thus, this combination is not allowed for carriage of dangerous goods according to section 8.1.1 in ADR.



4. To enable such transport, Sweden has initiated multilateral agreement M198. Sweden cannot see any increased risk when three vehicles (two trailers) are used in a transport unit, even if the quantity of dangerous goods on the same transport unit may increase due to the use of long vehicles. In fact, the dynamic stability (RA) of a combination that consists of a tractor unit, a dolly and a semi-trailer (which is basically a tractor unit-full trailer combination) is proved to be better than the stability for a tractor unit-full trailer combination. This is mainly due to the longer wheelbase of the trailer (see illustration below).
5. For non-dangerous goods we believe the system with dolly is now commonly used and well established throughout Europe, without proving any negative safety implications. For this reason we believe it would seem justifiable to also allow for the use of dolly in the transport of dangerous goods.
6. As a separate, though closely related, issue Sweden would also like to broaden the discussion to hear other countries views regarding future possibilities to use more than one trailer in a transport unit.





Data from the report *Vehicle combinations based on the modular concept. Background and analysis* by John Aurell and Thomas Wadman, Volvo Trucks
http://www.modularsystem.eu/en/facts_and_figures/

7. When Sweden entered the European Union, we maintained the option to allow long vehicles. At the moment we permit road trains of 25.25 m, which is the dimension enabling adaptability to the so called modular system (*Council directive 96/53/EC of 25 July 1996 laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international traffic*). Some other countries (Finland, Norway, Denmark and the Netherlands) apply the same possibility. As far as we are informed, this national possibility for transport of non-dangerous goods has neither lead to any negative competitive conditions for other countries, nor has it proven any negative effects on safety.

8. In those Contracting Parties where the Modular Concept is used, the positive effects on the environment have been confirmed and official statistics shows that the use of longer trucks has a neutral or positive impact on road safety. The system allows for increased loading capacity and reduces the number of transports which means less fuel consumption and reduced carbon dioxide emissions.

9. With the aforementioned background as a starting point, Sweden would like to invite other Contracting Parties of ADR to two separate discussions:

- (a) Acceptance for the use of two trailers in the same transport unit provided one consists of a dolly, see proposal below.
- (b) Is there a future need to keep provisions, specifically for dangerous goods, concerning the number of trailers in a transport unit? How can the regulations be better adapted to further harmonize with other modes and also to meet different transport needs?

Proposals

10. Introduce the following new definition in Chapter 1.2:

“*Dolly*” means a trailer used as a steering axle when coupled via a fifth wheel to a semi-trailer.”

11. Amend Section 8.8.1 as follows (change underlined):

“8.8.1 Transport units

A transport unit loaded with dangerous goods may in no case include more than one trailer (or semi-trailer). However, a semi-trailer coupled to a dolly shall be considered as one trailer.”
