

Draft
of
Order on vehicles in testing vehicle combinations with double trailers¹⁾

Pursuant to Section 68(1), first sentence, Section 69(2), Section 70a(2), Section 84(1), Section 85(1), Section 118(15), first sentence, and (16), first sentence, and Section 134e of the Road Traffic Act, cf. Consolidation Act No 1312 of 26 November 2024, as amended by Act No 567 of 27 May 2025, the following is determined by authorisation pursuant to Section 3(1) of Order No 787 of 18 June 2025 on the tasks, powers and right of appeal of the Road Safety Authority:

Scope

§ 1. This order lays down the supplementary rules for vehicles that are part of the testing of vehicle combinations with double trailers.

(2) The test includes a vehicle combination with double trailers consisting of lorries, fifth wheels, dollies and semi-trailers (A-Double), cf. Annex 1.

(3) Semi-trailers that are part of a vehicle combination with double trailers must be designed for the carriage of goods.

§ 2. The Danish Road Directorate issues an order on the road network etc. where driving with vehicle combinations with double trailers is allowed.

Definitions

§ 3. The following definitions apply for the purposes of this order:

1) Vehicle combinations with double trailers: Long vehicle combinations of the EMS2 A-Double type, consisting of a lorry and three trailers, by which the individual vehicles comply with the maximum length provisions in force.

2) Dolly: Rigid drawbar trailers designed for hauling semi-trailers.

Coupling

§ 4. Vehicles that are part of a vehicle combination with double trailers must be registered for coupling that does not require a technical inspection, without prejudice to sections 5 to 7.

§ 5. If the towing lorry is foreign registered, the coupling must be carried out in accordance with the rules of the home country.

¹ A draft of this order has been notified in accordance with Directive (EU) 2015/1535 of the European Parliament and of the Council laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services (codification).

§ 6. If the towing lorry is registered in Denmark and coupled with one or more foreign registered trailers, the couplings must be made in accordance with the rules set out in section 22, since the trailers can be considered to be approved for 'hauling centre-axle trailers' or 'hauling semi-trailers', if the registration certificates contain information equivalent to that of the Danish registration certificates on permissible platform load, semi-trailers' total maximum axle load, trailers' maximum gross weight and V values.

§ 7. It must be possible to check whether the couplings comply with sections 5 and 6 on the basis of the vehicle registration certificates and weighing of the vehicles.

(2) If the registration certificates does not state that the couplings are allowed, cf. (1), documentation from a roadworthiness testing centre stating that the vehicles can be technically and safely coupled together must be present in the vehicle when driving.

(3) If a lower vehicle combination mass is indicated in the foreign lorry's registration certificate than would be used when driving in Denmark, documentation from a roadworthiness testing centre for which vehicle combination mass is technically permissible must be present in the vehicle when driving.

Weight and dimensions

§ 8. The actual gross weight of a vehicle combination with double trailers may not exceed

- 1) 60,000 kg if the distance between the front and rear axles of the vehicle combination is at least 19 m;
- 2) 74,000 kg if the distance between the front and rear axles of the vehicle combination is at least 27 m;
- 3) the technically permissible vehicle combination weight guaranteed by the car manufacturer.

(2) The individual vehicles of a vehicle combination with double trailers may never be loaded with more weight than they are registered or approved to carry.

(3) The individual trailers of a vehicle combination with double trailers may never be loaded with more weight than their coupling equipment is registered or approved for.

(4) Twenty percent of the weight of the vehicle combination must be able to rest on the driving wheels while starting. The axle load on each axle of the lorry may exceed the permissible axle load by up to 30%, provided that it does not exceed the technically permissible axle load guaranteed by the manufacturer when starting. After starting, any unloaded axles must be automatically lowered to the ground or loaded so that no axle load exceeds the permissible axle load, at the latest when the speed exceeds 30 km/h.

(5) Vehicle combinations with double trailers are not required to comply with the requirement that the total actual axle load must not exceed 1.5 times the permissible total weight of the lorry, cf. Order on detailed rules for vehicle fittings and equipment, Annex 1, point 3.01.200 (5).

(6) Vehicle combinations with double trailers are not required to comply with the requirement that 20% of the weight of a combination of vehicles must rest on the driving wheels during normal driving, cf. Order on vehicle width, length, height, weight and axle load, Section 23(2).

(7) Vehicle combinations with double trailers are not required to comply with the requirement that the combination of vehicles must be able to turn within a turning circle with an outer radius of 12.50 m and inner radius of 5.30 m, cf. Order on detailed rules for vehicle fittings, equipment and usage, Annex 1, point 4.01.200 (1).

§ 9. A vehicle combination with double trailers, both when laden and unladen, may not have a length exceeding 32.00 m, without prejudice to (2).

(2) A vehicle combination with double trailers that is towed by a lorry using alternative propellants, zero-emission technology or fitted with approved aerodynamic devices or extended cab may not, both when laden and unladen, have a length exceeding 34.00 m, provided that the excess is solely due to technical arrangements for the use of alternative propellants, zero-emission technology, approved aerodynamic devices or extended cab.

(3) The length is measured on the longest protruding parts, with the exceptions set out in the Order on detailed rules for vehicle fittings, equipment and usage, Annex 1, paragraph 3.02.001 (7).

Steering equipment

§ 10. All vehicles in a vehicle combination with double trailers must be equipped with Electronic Stability Control (ESC).

§ 11. In the case of indirect or direct vision, there must be a clear view along the inner side of the entire vehicle combination at a turn of 120° in a circle with an outer radius of 12.50 m.

§ 12. Self-tracking axles on trailers of a vehicle combination with double trailers must lock automatically no later than when the speed exceeds 40 km/h.

(2) A dolly may have a guided or self-tracking axle.

(3) Semi-trailers after a dolly do not have to be fitted with guided axles.

Brakes

§ 13. All vehicles in a vehicle combination with double trailers must be fitted with anti-lock braking systems (ABS) and the Electronic Brake System (EBS).

(2) A trailer authorised to tow another trailer must be equipped with a router so that the EBS brake signal can be used by both the towing trailer and the towed trailers.

§ 14. The performance of the parking brake must be in accordance with Annex 4, point 2.3, of UN Regulation No 13 on uniform provisions concerning the approval of vehicles of categories M, N and O with regard to braking.

(2) A lorry is not required to comply with the requirement of UN Regulation No 13, Annex 4, point 2.3.2., if the parking braking system of the lorry is designed to transmit full brake pressure to the pneumatic control circuit of the trailer when the parking brake of the lorry is applied.

Marking

§ 15. Vehicle combinations with double trailers must be fitted with a retro-reflective sign at the rear of the rear vehicle complying with the requirements in Annex 2, without prejudice to section 26(3).

(2) The sign must be placed to the left of the centre line of the vehicle and no more than two metres above the ground, measured to the bottom edge of the sign.

(3) The sign may only be visible when the vehicle is used in a vehicle combination with double trailers.

Engine

§ 16. The engine of the towing vehicle must have an engine power of at least 5.2 kW/tonne of the actual vehicle combination weight of the vehicle combination.

Bodywork, structure, etc.

§ 17. A vehicle combination with double trailers must have a total of at least nine axles.

§ 18. A lorry used for hauling a vehicle combination with double trailers must have at least three axles.

§ 19. A semi-trailer in a vehicle combination with double trailers must have at least two axles.

§ 20. A dolly in a vehicle combination with double trailers must have two axles.

(2) The semi-trailer platform of a dolly must be placed on a spherical ring with limited turning possibility on either side of $20^{\circ} \pm 2^{\circ}$.

§ 21. Driving on roads other than motorways with trailers, which are fitted with aerodynamic devices, cf. Order on detailed rules for vehicle fittings, equipment and use, Annex 1, section 3.02.001 (2) and (7), which can be folded in or removed, may only take place with such devices in the folded and closed position.

Coupling devices

§ 22. Lorries, dollies and semi-trailers must be registered with D and V values ensuring sufficient strength to withstand the stresses occurring during normal use and load on the vehicle.

(2) The coupling device of the lorry and the king pin of the front semi-trailer must have a D value of at least 150 kN.

(3) The front semi-trailer must be registered with additional information 'hauling centre-axle trailers'.

(4) The maximum V value indicated on the registration certificate of the front semi-trailer must be at least 25 kN if the semi-trailer is air suspended and 34 kN if the semi-trailer is mechanically suspended.

(5) The chassis, drawbeam and coupling device of the front semi-trailer and the chassis, drawbar and coupling device of the dolly must have a Dc value of at least 125 kN.

(6) The dolly must be registered with additional information 'hauling semi-trailers'.

(7) The sum of the actual total axle loads of semi-trailers and the dolly may not exceed the value of the total maximum axle load of the semi-trailer shown on the registration certificate of the lorry.

(8) The actual king pin load and total actual axle load of the rear semi-trailer may not exceed the permissible platform load values and the total maximum axle load of the semi-trailer indicated in the registration certificate of the dolly.

(9) The semi-trailer platform and underframe of the dolly must have a D value of at least 135 kN.

UN regulations

§ 23. UN regulations referred to in this Order are not entered into the Danish Official Journal.

(2) UN Regulations referred to in (1) shall apply even if they are not available in Danish.

(3) UN Regulations can be found on the website of the United Nations Economic Commission for Europe at www.unece.org.

Verification

§ 24. When driving with a vehicle combination with double trailers, the registration certificate for each vehicle or a copy thereof and any other documentation or a copy thereof in accordance with Section 7(2) and (3), Section 8(1)(3) and (2) to (4) must be present in the vehicle when driving, on paper or in electronic form, and shown to the police or Danish Road Traffic Authority at their request.

Penal provisions

§ 25. Infringements of sections 4 to 7, section 8(1) to (4), section 9(1) and (2), sections 10 to 21, section 22(3) and (6) to (8), section 24, and driving other types of vehicle combinations with double trailers than those referred to in section 1(2) are punishable by a fine.

(2) For infringements of section 8(1) to (4) and section 22(7) and (8), the owner or user of the vehicle may, in accordance with section 118(14), first sentence, be liable to a fine, even if the infringement cannot be attributed to the person concerned as intentional or negligent.

(3) Companies, etc. (legal persons) may be held criminally liable in accordance with the regulations set out in Chapter 5 of the Penal Code.

Provisions for entry into force and transitional provisions

§ 26. The order enters into force on 1 January 2026.

(2) Order No 1605 of 12 December 2023 on vehicles in experiments with double-trailer vehicle combinations is hereby repealed.

(3) A retro-reflective sign that complies with the requirements previously applicable in Annex 2 to Order No 1605 of 12 December 2023 on vehicles in tests on vehicle combinations with double trailers may be used until 31 December 2027.

Vehicle combinations with double trailers

The following type of vehicle combination is part of the test on vehicle combinations with double trailers and is covered by this order, cf. section 1(2):



Vehicle combinations with double trailers of the EMS2 A-Double type consisting of lorries, fifth wheels, dollies and semi-trailers. The axle configuration may differ from the above illustration.

Retro-reflective sign

The retro-reflective sign for a vehicle combination with double trailers, cf. section 15 (1), must be made with yellow reflecting material surrounded by a red fluorescent edge. The sign shall have the following dimensions:

- 1) The width must be at least 90 cm.
- 2) The height must be at least 45 cm.
- 3) The red fluorescent edge must be 4 cm.

The sign must bear the following graphic illustration of a vehicle combination with double trailers and the text '34 m' or '34 M' with characters at least 7.5 cm high and 'EMS2' with characters at least 3.75 cm high:



The Swedish sign for double-trailer combinations is also recognised, cf. section 15(1). According to Swedish regulations, the sign must be made with a yellow background and red border, which is retro-reflective, and have the following dimensions:

- 1) The width must be at least 90 cm.
- 2) The height must be at least 45 cm and the width/height ratio must be 2: 1.
- 3) The red retro-reflective edge must be 3.0 cm.
- 4) The text must be in black Tratex font with a font size of 7.5 cm.
- 5) If the size of the sign increases, the edge and font size shall be proportionally increased.

