

Guideline for Motor Truck and Dog Trailer Combinations up to 50 tonnes total mass



in Queensland

Form Number 18
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1. This guideline is issued under Section 48 *Transport Operations (Road Use Management – Mass, Dimensions and Loading) Regulation 2005* in accordance with Part 4 Section 22 of the *Statutory Instruments Act 1992*.
2. This form commenced on 31 August 2009.

3. Application

- 3.1 This guideline is issued as an alternative means of complying with Schedule 1 Sections 4 (1) & 4 (2) of the *Transport Operations (Road Use Management – Mass, Dimensions and Loading) Regulation 2005*.
- 3.2 The Guideline for Motor Truck and Dog Trailer Combinations up to 50 Tonnes total mass Form 18 Version 1 is now repealed.
- 3.3 It applies to motor truck and single dog trailer combinations where:
 - (a) The motor truck has a single steer axle or twin steer axle group at the front and a tandem drive axle group at the rear; and
 - (b) The dog trailer has a single axle or tandem axle group at the front and a tandem axle group at the rear.

4. Operational

4.1 Approved routes

- 4.1.1 Motor truck and dog trailer combinations may use all roads in Queensland except those roads signed to restrict their operation.

4.2 Maximum speed

- 4.2.1 Motor truck and dog trailer combinations shall not exceed a speed of 100km/h or any posted speed limit whichever is the lesser.

5. Administration

5.1 Registration

- 5.1.1 The motor truck and the dog trailer shall have current registration and must be registered under category – TRUCK (Trac-Medium).

5.2 Certificate of inspection

- 5.2.1 The motor truck and the dog trailer shall be covered by a current Certificate of Inspection issued in the State or Territory of registration.

6. Standards

6.1 Dimensions

- 6.1.1** The motor truck and the dog trailer shall meet the individual dimension requirements as outlined in the Part 3 *Transport Operations (Road Use Management – Mass, Dimensions and Loading) Regulation 2005*.
- 6.1.2** The maximum length of a motor truck and dog trailer combination operating under this Guideline is 19.0m.
- 6.1.3** The extreme axle spacing of a three axle dog trailer operating under this Guideline shall be a minimum of 3.8m.
- 6.1.4** The maximum height of a motor truck and dog trailer combination operating under this Guideline is 4.3m.

6.2 Axle mass limits

- 6.2.1** All axles/axle groups in the motor truck and dog trailer combination shall be conforming and shall not exceed the mass limits as shown in Schedule 2 of the *Transport Operations (Road Use Management – Mass, Dimensions and Loading) Regulation 2005*.

6.3 Mass limits

- 6.3.1** The mass of a motor truck and dog trailer combination operating under this Guideline shall not exceed any of the following conditions:
 - (a)** The gross combination mass rating as shown on the registration certificate for the motor truck.
 - (b)** The sum of the permissible axle loads.
 - (c)** The maximum mass limit dependent on the extreme axle spacing as specified in Table 1 and Figure 1.
 - (d)** The maximum manufacturer's ratings for the vehicles or components.
 - (e)** Forty-five (45.0) tonnes for a three or four axle motor truck towing a three axle dog trailer.
 - (f)** Fifty (50.0) tonnes for a three or four axle motor truck towing a four axle dog trailer.

6.4 Mass ratio

- 6.4.1** The mass of a three axle dog trailer shall not exceed the mass of the motor truck towing it at any time.
- 6.4.2** The mass of a four axle dog trailer shall not exceed the mass of the motor truck towing it by more than 25 per cent at any time.

6.5 Vehicle and combination axle spacings

- 6.5.1** Mass limits relating to individual axle spacings shall not exceed the limits shown in Table 1. Individual axle spacing in a combination vehicle is:
 - (a)** The distance from the centre of any single axle to the centre of the furthest axle in any axle group; or
 - (b)** The greatest distance between the centres of axles in any two axle groups.
 - (c)** The mass limits in Table 1 apply to the sum of the masses on each axle group or single axle within the distance in the table, including the axles between which the distance is measured, as shown in Figure 1.

6.6 Vehicle suspension

- 6.6.1** The drive axle group of the motor truck and all axles of the dog trailer shall be fitted with air suspension and effective dampers.

6.7 Power requirements for the truck used in the combination

- 6.7.1** Motor truck and dog trailer combinations shall be capable of starting on a 10 percent gradient and maintaining 70km/h on a one percent gradient.
- 6.7.2** The power output of the motor truck's engine compared to the total mass of the combination to achieve the requirements of 6.7.1 is approximately 6.4:1hp/t or 4.8:1kW/t.

For example, an engine with an output of approximately 320hp is required for a combination operating at 50 tonnes.

Appendix

7.1 Table 1
Mass limits based on axle spacing

"L" min (m)	"L" max (m)	Max laden mass (t)	"L" min (m)	"L" max (m)	Max laden mass (t)	"L" min (m)	"L" max (m)	Max laden Mass (t)
3.50	3.70	23.00	6.70	6.80	32.50	9.80	10.00	42.00
3.70	3.80	23.50	6.80	7.00	33.00	10.00	10.50	42.50
3.80	4.00	24.00	7.00	7.20	33.50	10.50	11.00	43.00
4.00	4.20	24.50	7.20	7.30	34.00	11.00	11.50	43.50
4.20	4.30	25.00	7.30	7.50	34.50	11.50	12.00	44.00
4.30	4.50	25.50	7.50	7.70	35.00	12.00	12.50	44.50
4.50	4.70	26.00	7.70	7.80	35.50	12.50	13.00	45.00
4.70	4.80	26.50	7.80	8.00	36.00	13.00	13.50	45.50
4.80	5.00	27.00	8.00	8.20	36.50	13.50	14.00	46.00
5.00	5.20	27.50	8.20	8.30	37.00	14.00	14.50	46.50
5.20	5.30	28.00	8.30	8.50	37.50	14.50	15.00	47.00
5.30	5.50	28.50	8.50	8.70	38.00	15.00	15.50	47.50
5.50	5.70	29.00	8.70	8.80	38.50	15.50	16.00	48.00
5.70	5.80	29.50	8.80	9.00	39.00	16.00	16.50	48.50
5.80	6.00	30.00	9.00	9.20	39.50	16.50	17.00	49.00
6.00	6.20	30.50	9.20	9.30	40.00	17.00	17.50	49.50
6.20	6.30	31.00	9.30	9.50	40.50	17.50		50.00
6.30	6.50	31.50	9.50	9.70	41.00			
6.50	6.70	32.00	9.70	9.80	41.50			

7.2 Figure 1
Example of the calculation of minimum axle group spacing

