

3 Axle Truck & 4 Axle Dog Trailer

January 1997

A notice in the Victoria Government Gazette S147 of 23 December 1996, effective from 1 January 1997, allows 3 axle truck and 4 axle dog trailer combination to gross up to 50 tonnes (t).

Research conducted by ARRB Transport Research Ltd indicates that 4 axles on a dog trailer provides improved stability characteristics, better braking capability and greater efficiency with less road wear for a given payload.

These vehicles will provide significant productivity gains which will boost Victoria's economy.



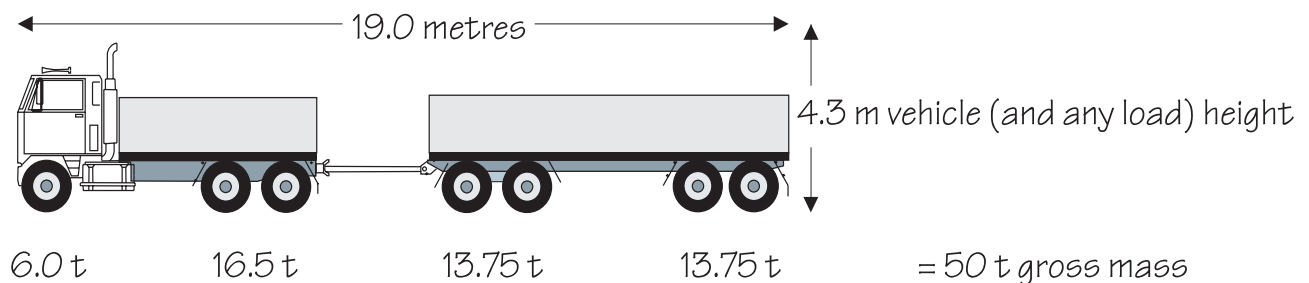
Owner and Driver Responsibility

You may drive throughout Victoria but not where the vehicle exceeds any sign-posted mass or dimension limit applicable to a road, bridge or structure.

Not all roads and intersections are suitable for these vehicles and it is the responsibility of the driver and owner of the vehicle to ensure that the vehicle is used in a safe manner. This includes travel under overhead structures, cables, wires and trees and negotiating curves and intersections.

The Importance of Manufacturer's Ratings

For safety reasons, the total mass of a vehicle and any load that is being carried must not exceed the vehicle manufacturer's ratings, that is, GVM for a truck and GCM for a truck and trailer combination. This includes not exceeding the manufacturer's mass rating on a wheel or axle.



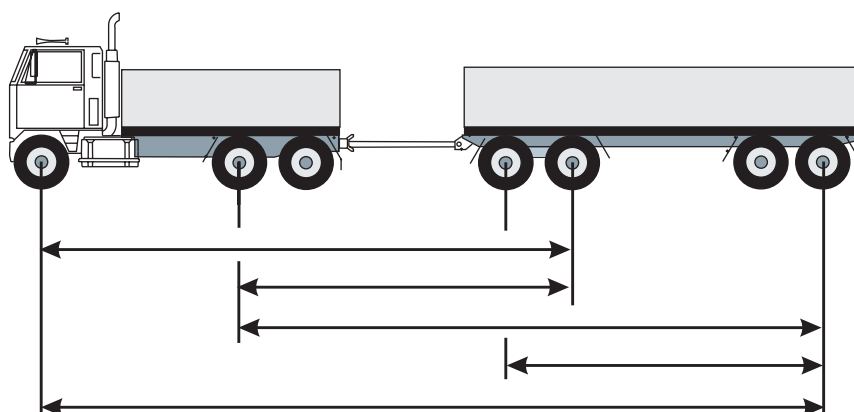
Mass Limits Based on Axle Spacings

The mass limits in Table 1 must not be exceeded in relation to the distances set out in the table that apply to the vehicle or combination.

Each distance in Table 1 refers to:

- the distance from the centre of any single axle to the centre of the furthest axle in any axle group; or
- the greatest distance between the centres of axles in any 2 axle groups.

The mass limits in table 1 apply to the sum of the mass on each axle group or single axle in the distance referred to in the table, including the axles between which the distance is measured.



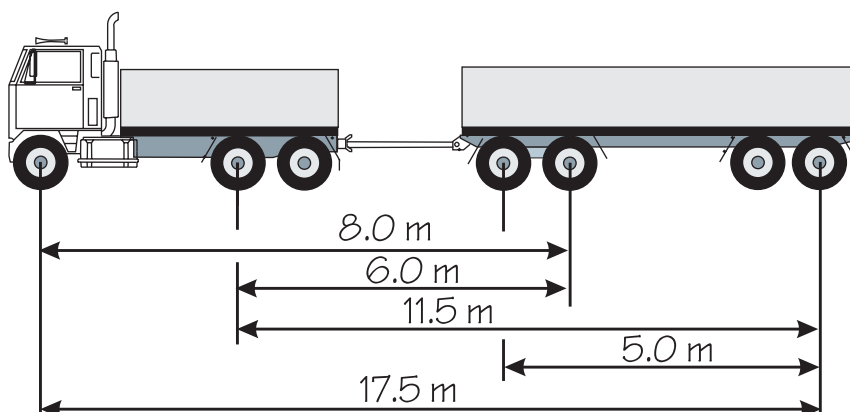
Maximum Mass and Dimension Limits

Distance (metres)		Mass Limit (tonnes)	Distance (metres)		Mass Limit (tonnes)
exceeding	not exceeding		exceeding	not exceeding	
3.5	3.7	23.0	8.0	8.2	36.5
3.7	3.8	23.5	8.2	8.3	37.0
3.8	4.0	24.0	8.3	8.5	37.5
4.0	4.2	24.5	8.5	8.7	38.0
4.2	4.3	25.0	8.7	8.8	38.5
4.3	4.5	25.5	8.8	9.0	39.0
4.5	4.7	26.0	9.0	9.2	39.5
4.7	4.8	26.5	9.2	9.3	40.0
4.8	5.0	27.0	9.3	9.5	40.5
5.0	5.2	27.5	9.5	9.7	41.0
5.2	5.3	28.0	9.7	9.8	41.5
5.3	5.5	28.5	9.8	10.0	42.0
5.5	5.7	29.0	10.0	10.5	42.5
5.7	5.8	29.5	10.5	11.0	43.0
5.8	6.0	30.0	11.0	11.5	43.5
6.0	6.2	30.5	11.5	12.0	44.0
6.2	6.3	31.0	12.0	12.5	44.5
6.3	6.5	31.5	12.5	13.0	45.0
6.5	6.7	32.0	13.0	13.5	45.5
6.7	6.8	32.5	13.5	14.0	46.0
6.8	7.0	33.0	14.0	14.5	46.5
7.0	7.2	33.5	14.5	15.0	47.0
7.2	7.3	34.0	15.0	15.5	47.5
7.3	7.5	34.5	15.5	16.0	48.0
7.5	7.7	35.0	16.0	16.5	48.5
7.7	7.8	35.5	16.5	17.0	49.0
7.8	8.0	36	17.0	17.5	49.5
			17.5	-	50

Table 1 - Mass Limits Based on Axle Spacing

An Example

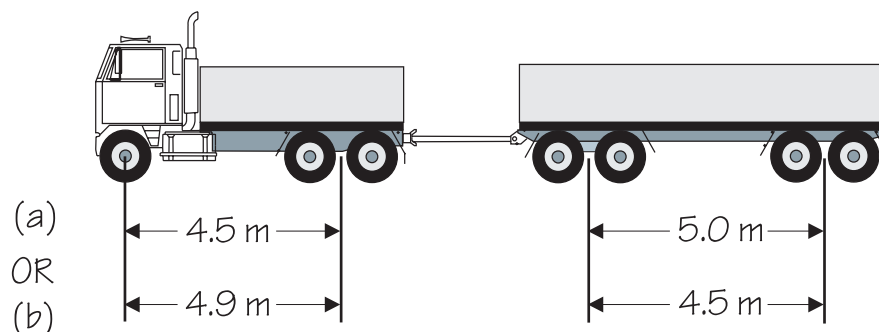
An example of the minimum axle group spacings that are required to operate at the maximum mass limits are:



Maximising Vehicle Stability

To maximise the stability of a truck and dog trailer:

- (a) the wheel base of the motor vehicle (truck) must be a minimum of 4.5 metres and the wheel base of the dog trailer must be a minimum of 5.0 metres; or
- (b) the wheel base of the motor vehicle (truck) must be a minimum of 4.9 metres and the wheel base of the dog trailer must be a minimum of 4.5 metres.



Notwithstanding all the above requirements you should not use an unladen truck to tow a laden trailer which is heavier than the unladen truck.

Vehicle Suspensions

The truck and dog trailer must have air suspensions on all axles, except for the steer axle of the truck which can be either an air or mechanical suspension.

Power to Weight Ratio

The power to weight ratio (the power of the truck's engine in Horse Power compared to the gross mass of the truck and dog trailer) must not be less than 8:1 (HP/t) or 6:1 (kW/t). That is, to gross 50 tonnes, you need at least a 400 HP engine.

Future National Position

There is currently no nationally agreed position on truck-trailer combinations over 42.5 tonnes gross mass. Any future national requirements will only apply to new vehicles registered after any changes become effective.

Detailed Information

For detailed information on requirements, refer to the Victoria Government Gazette No. S147 of 23 December 1996. Copies of the Gazette are available from Information Victoria at 318 Little Bourke Street, Melbourne (phone (03) 9651 4100)

Further Enquiries

For further enquiries, contact VicRoads' Permit Issuing Officers on (03) 9345 4209 or (03) 9881 8852.

