Vehicle Standard (Australian Design Rule 43/03 – Vehicle Configuration and Dimensions) 2006

I, JAMES ERIC LLOYD, Minister for Local Government, Territories and Roads, determine this vehicle standard under subsection 7 (1) of the *Motor Vehicle Standards Act 1989*.

Dated 31 July 2006

[SIGNED]

James Eric Lloyd

Minister for Local Government, Territories and Roads

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1. LEGISLATIVE PROVISIONS

1.1. NAME OF STANDARD

1.1.1. This Standard is the Vehicle Standard (Australian Design Rule 43/03 – Vehicle Configuration and Dimensions) 2006.

1.1.2. This Standard may also be cited as Australian Design Rule 43/03 — Vehicle Configuration and Dimensions.

1.2. COMMENCEMENT

1.2.1. This Standard commences on the day after it is registered.

1.3. REPEAL

1.3.1. This Standard repeals each vehicle standard with the name Australian Design Rule 43/03 — Vehicle Configuration and Dimensions that is:

(a) made under section 7 of the Motor Vehicle Standards Act 1989; and

(b) in force at the commencement of this Standard.

1.3.2. This Standard also repeals each instrument made under section 7 of the Motor Vehicle Standards Act 1989 that creates a vehicle standard with the name Australian Design Rule 43/03 — Vehicle Configuration and Dimensions, if there are no other vehicle standards created by that instrument, or amendments to vehicle standards made by that instrument, that are still in force at the commencement of this Standard.

2. FUNCTION

The function of this national standard is to specify requirements for vehicle configuration and dimensions.

3. APPLICABILITY

3.1. Applicability Summary

3.1.1. This national standard applies to the design and construction of vehicles as set out in the table below.

3.1.2. Vehicles certified to any of the "Acceptable Prior Rules" as shown below in the Applicability Table for a particular vehicle category are deemed to comply with this national standard ** provided that *'T-Group'* vehicles meet clause 6.1.2.4 and clause 7.3.1.

3.2. Applicability Table

Vehicle Category	ADR Category Code *	UNECE Category Code *	Manufactured on or After	Acceptable Prior Rules
Moped 2 wheels	LA	L1	1 March 1994	/02 /01
Moped 3 wheels	LB	L2	1 March 1994	/02 /01
Motor cycle	LC	L3	1 March 1994	/02 /01
Motor cycle and sidecar	LD	L4	1 March 1994	/02 /01
Motor tricycle	LE	L5	1 March 1994	/02 /01
Passenger car	MA	M1	1 Jan 1994	/02 /01
Forward-control passenger vehicle	MB	M1	1 Jan 1994	/02 /01
Off-road passenger vehicle	MC	M1	1 Jan 1994	/02 /01
Light omnibus	MD	M2	1 July 1994	/02 /01
Heavy omnibus	ME	M3	1 July 1994	/02 /01
Light goods vehicle	NA	N1	1 July 1994	/02 /01
Medium goods vehicle	NB	N2	1 July 1994	/02 /01
Heavy goods vehicle	NC	N3	1 July 1994	/02 /01
Very light trailer	TA	O1	1 Jan 1994	/02** /01**
Light trailer	TB	O2	1 Jan 1994	/02** /01**
Medium trailer	TC	O3	1 Jan 1994	/02** /01**
Heavy trailer	TD	O4	1 Jan 1994	/02** /01**

4. DEFINITIONS

4.1. Refer to Vehicle Standard (Australian Design Rule Definitions and Vehicle Categories) 2005.

5. TURNING CIRCLE

Every vehicle must have a turning circle in either direction, as determined by reference to the extreme outer edge of the tyre track at ground level, not exceeding 25 metres in diameter.

6. DIMENSIONS OF VEHICLES

6.1. *'Total Length'*, including any *'Equipment'*

6.1.1. Rigid vehicles

6.1.1.1. The *'Total Length'* of any vehicle, other than a *'Semi-trailer'* must not exceed 12.5 metres.

6.1.2. *'Semi-trailers'*

6.1.2.1. The distance from the *'Point of Articulation'* to the line from which the *'Rear Overhang'* is measured must not exceed 9.5 metres.

* The category code may also be in the format L_1, L_A etc.

6.1.2.2. The forward projection from the *'Point of Articulation'* of the *'Semi-trailer'* portion of an *'Articulated Vehicle'* must be contained within a radius of 1.9 metres.

6.1.2.3. The distance from the *'Point of Articulation'* to the *'Rear End'* must not exceed 12.3 metres.

6.1.2.4. The length available for the carriage of animals on a *'Livestock Trailer'* must not be more than 12.5 metres when measured from the inside of the front wall or door of the trailer to the inside of the rear wall or door of the trailer (as the case may be), and any intervening partition must be disregarded.

6.1.3. Non-rigid vehicles (other than 'Road Trains', 'B-Doubles' and 'Articulated Omnibuses').

6.1.3.1. The *'Total Length'* must not exceed 19.0 metres.

6.1.3.2. *'Drawbar Length'*

6.1.3.2.1. for a trailer having a single *'Axle Group'* the *'Drawbar Length'* must not exceed 8.5 metres.

6.1.3.2.2. For all other trailers the *'Drawbar Length'* must not exceed 5 metres.

6.1.4. *'Articulated Omnibuses'*

6.1.4.1. The 'Total Length' of an 'Articulated Omnibus' must not exceed 18 metres.

6.1.4.2. All parts of an 'Articulated Omnibus' except mirrors and signalling devices must be capable of moving within a circular track having an inner radius of 5.3 metres and an outer radius of 12 metres.

6.2. *'Rear Overhang'* (including any *'Equipment'*)

6.2.1. For a trailer (other than a *'Semi-trailer')* having a single *'Axle Group' the 'Rear Overhang'* must not exceed the length of the load space forward of the line at the rear of the vehicle from which *'Rear Overhang'* is measured, or 3.7 metres whichever is the lesser.

6.2.2. For a *'Semi-trailer' the 'Rear Overhang'* must not exceed 60 per cent of the distance between the centreline of the *'Fifth Wheel'* king pin and the line from which *'Rear Overhang'* of the *'Semi-trailer'* is measured, or 3.7 metres whichever is the lesser.

6.2.3. For all other motor vehicles and trailers (other than *'Semi-trailers')* the *'Rear Overhang'* must not exceed 60 per cent of the distance from the centreline of the front *'Axle'* (or the front *'Axle'* of a *'Twin Steer Axle Group')* to the line from which *'Rear Overhang'* is measured, or 3.7 metres whichever is the lesser.

6.2.4. In the case of a vehicle fitted with *'Twin Steer Axle Group',* the front *'Axle'* of that group must be the *'Axle'* used to determine the permitted *'Rear Overhang'.*

6.3. Height, including any *'Equipment'*

6.3.1. The height of any vehicle, except for a *'Livestock Trailer'* must not exceed 4.3 m.

6.3.2. The height of a *'Livestock Trailer'* must not exceed 4.6 metres.

6.4. *'Ground Clearance'*

The 'Ground Clearance' of a vehicle, other than an L-Group vehicle, measured from a horizontal road surface to any point on the underside of the vehicle except the tyres, wheels and wheel hubs must, under the conditions of *'Maximum Loaded Test Mass'* loading as specified in the relevant braking rule, be not less than:

6.4.1. for any point in the width of the vehicle which is within one metre fore and aft of any *'Axle'*, 100 mm;

6.4.2. for the mid-point between any 2 consecutive *'Axles'*, the dimension in millimetres obtained by multiplying the distance between those 2 *'Axles'* in metres by 33.33; and

6.4.3. for any other point, *'Ground Clearance'* is such that if the wheels of one *'Axle'* are on one plane and the wheels on the next consecutive *'Axle'* are on another plane which intersects the first so that the angle between them is 7 degrees 38 minutes the point will pass over the apex transverse to the vehicle formed by that intersection, as shown in Figure 1.

6.5. *'Overall Width'*, including any *'Equipment'*

6.5.1. The *'Overall Width'* of any motor vehicle (other than an L-Group vehicle) or trailer must not exceed 2,500 mm.

6.5.2. The *'Overall Width'* of an L-Group vehicle must be as follows :

6.5.2.1. In the case of a two wheel vehicle (LA or LC), the maximum width must not exceed 1,000 mm.

6.5.2.2. In the case of a three wheel vehicle (LB or LE) or a motor cycle with a side car (LD), the maximum width must not exceed 1,850 mm.

7. AXLE CONFIGURATION

7.1. Vehicles must satisfy the following requirements:

7.2. A rigid motor vehicle must be supported by 2 *'Axle Groups'* disposed as follows:

7.2.1. one towards the front of the vehicle, with all wheels connected to the steering system for that part of the vehicle, either a *'Single Axle'* or a *'Twin Steer Axle Group';* and

7.2.2. one towards the rear of the vehicle.

7.3. A *'Semi-trailer'* must be supported towards the rear by an *'Axle Group'*.

7.3.1. Every *'Semi-trailer'* which is extendible or fitted with a sliding *'Axle Group'* must be so constructed that:

7.3.1.1. positive locking devices are utilised;

7.3.1.2. all locking device controls must be in a lockable enclosure when mounted on the chassis;

7.3.1.3. failure of the engagement of the locking device must activate a visible and/or audible warning device;

7.3.1.4. where the locking device is air-operated the supply must be fitted with a protection valve to prevent loss of air to the air brake supply in the event of line fracture or failure; and

7.3.1.5. the movable assembly must be fitted with substantial stops to prevent disconnection from the vehicle in the event of failure of the locking device.

7.4. A trailer other than a *'Semi-trailer'* must be supported by either:

7.4.1. one 'Axle Group'; or

7.4.2. an 'Axle Group' towards both the front and rear of the trailer provided that all wheels in the front 'Axle Group' are connected to the steering mechanism for that part of the vehicle.

8. LOAD SHARING SUSPENSION

8.1. All the *'Axles'* in an *'Axle Group'* other than a *'Twin Steer Axle Group'* must be related to each other through a *'Load Sharing Suspension'* except :

8.1.1. this requirement must not apply to a *'Close Coupled Axle Group'* on any motor vehicle or trailer (including a *'Semi-trailer')* with a *'GVM'* or *'ATM'* less than 4.5 tonnes provided that the load carrying capacity of each of the *'Axles'* and the wheel and tyres fitted to each *'Axle'* is at least 120% of the nominal load imposed on that *'Axle'* with the vehicle or trailer at its *'GVM'* or *'ATM';* and

8.1.2. this requirement must not apply to a *'Close Coupled Axle Group'* fitted with a *'Retractable Axle'* on any motor vehicle or trailer (including a *'Semi-trailer')* with a *'GVM'* or *'ATM'* less than 4.5 tonnes provided that the load carrying capacity of each other *'Axle'* and the wheels and tyres fitted to it is at least equal to the load imposed on that *'Axle'* with the motor vehicle or trailer at its *'GVM'* or *'ATM'* and with the *'Retractable Axle'* retracted.

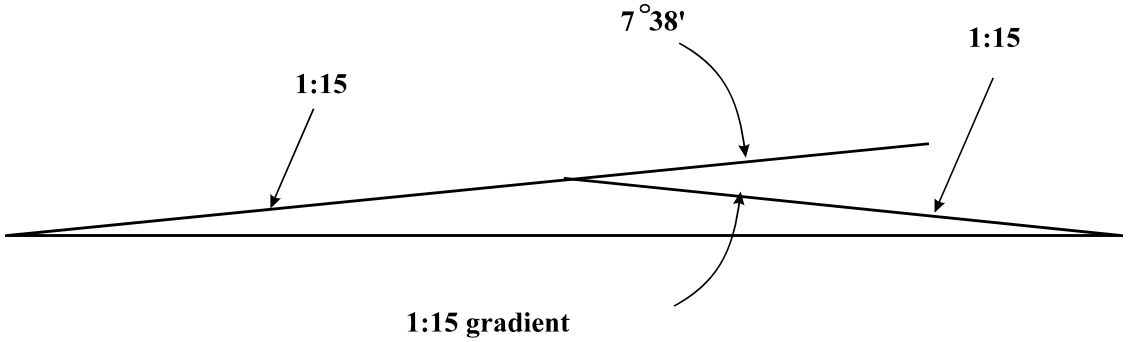

Figure 1