Road Transport (Mass, Loading and Access) Regulation 1996

Repealed version for 1 July 2005 to 29 September 2005 (accessed 9 June 2020 at 17:05)

Schedule 1

Schedule 1 Mass and loading requirements for heavy vehicles

(Clause 7)

Part 1 Mass limits

1 Mass limit for a single vehicle

The total mass of a vehicle and any load must not exceed the vehicle’s GVM.

2 Mass limits for tyres, wheels and axles

(1) The wheel load or axle load must not exceed the limit set by its manufacturer.

(2) The mass on a tyre must not exceed the greatest load capacity determined for the tyre by the manufacturer at a cold inflation pressure that does not exceed:

   (a) 825 kilopascals for a radial ply tyre, or

   (b) 700 kilopascals for any other tyre.

(3) The mass on an axle group or single axle must not exceed the limit provided for it in Table 1.

(4) The mass limit in Table 1 that applies to an axle group that includes a retractable axle must be determined as if the axle did not exist, unless subclause (5) applies.

(5) A retractable axle is part of an axle group for the purposes of Table 1 if, when the mass on the group exceeds:

   (a) 6 tonnes, in the case of a tandem axle group, or

   (b) 11 tonnes, in the case of a tri-axle group,

   the tyres on the axle are in contact with the ground and the load-sharing suspension system is operating on each axle (including the retractable axle) and tyre in the group.

(6) The sum of the mass on the axle groups and single axles on a vehicle or combination must not exceed:

   (a) in the case of a complying bus:

      (i) if the complying bus has two axles—16.0 tonnes, and

      (ii) if the complying bus has a rear tandem axle group fitted with single tyres on one axle and dual tyres on the other axle—20.0 tonnes, and

      (iii) if the complying bus has a rear tandem axle group fitted with dual tyres upon both
axles—22.5 tonnes, and

(a1) in the case of an ultra-low floor bus that has no axle groups and only two single axles—16.0 tonnes, and

(a2) in the case of an articulated ultra-low floor bus that has no axle groups and only three single axles—26.0 tonnes, and

(b) in any other case—the sum of the mass limits of the axle groups and single axles, as provided in Table 1.

(7) For the purposes of Table 1, the tyre width of a radial ply tyre is the number of millimetres marked on the tyre in the position labelled “Section width in mm” on the diagram below clause 1 (3) of Schedule 2.

(8) For the purposes of Table 1, the tyre width of a bias-type tyre is the number of millimetres equal to 25.4 times the number marked on the tyre in the position labelled “Width code in inches” on the diagram below clause 1 (4) of Schedule 2.

(9) If no section width or width code is marked on a tyre, the tyre width for the purposes of Table 1 may be determined by measuring the width of the part of the tyre that normally comes into contact with the road surface.

(10) In this clause and Table 1, ultra-low floor bus means a bus, including an articulated bus, that:

(a) (Repealed)

(b) is equipped with a stairless entry, and

(c) is designed to be accessible by wheelchairs, and

(d) is licensed to carry standing passengers.

Table 1

Mass limits for single axles and axle groups

<table>
<thead>
<tr>
<th>Description of single axle or axle group</th>
<th>Mass Limit (tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single axles and single axle groups</td>
<td></td>
</tr>
<tr>
<td>Single steer axle on:</td>
<td></td>
</tr>
<tr>
<td>(a) a complying bus</td>
<td>6.5</td>
</tr>
<tr>
<td>(b) any other motor vehicle</td>
<td>6.0</td>
</tr>
<tr>
<td>Single axle or single axle group fitted with single tyres with section width of:</td>
<td></td>
</tr>
<tr>
<td>(a) less than 375 mm</td>
<td>6.0</td>
</tr>
<tr>
<td>(b) at least 375 mm but less than 450 mm</td>
<td>6.7</td>
</tr>
</tbody>
</table>
(c) at least 450 mm  

Single axle or single axle group fitted with dual tyres on:

(a) a pig trailer  8.5

(b) a complying bus or a bus licensed to carry standing passengers  10.0

(b1) an ultra-low floor bus that has no axle groups and only two single axles  11.0

(b2) an articulated ultra-low floor bus that has no axle groups and only three single axles  11.0 (but this limit applies to only one single axle fitted with dual tyres per bus)

(c) any other vehicle  9.0

**Twinsteer axle groups**

Twinsteer axle group without a load-sharing suspension system  10.0

Twinsteer axle group with a load-sharing suspension system  11.0

**Tandem axle groups**

Tandem axle group fitted with single tyres with section width of:

(a) less than 375 mm  11.0

(b) 375 mm or more but less than 450 mm  13.3

(c) 450 mm or more  14.0

Tandem axle group fitted with single tyres on one axle and dual tyres on the other axle on:

(a) a complying bus  14.0

(b) any other vehicle  13.0

Tandem axle group fitted with dual tyres on:

(a) a pig trailer  15.0

(b) any other vehicle  16.5

**Tri-axle groups**
Tri-axle group on a vehicle fitted with single tyres with section width of less than 375 mm on all axles, or single tyres on 1 or 2 axles and dual tyres on the other axle or axles

Tri-axle group on a pig trailer with either single tyres with section width of at least 375 mm, dual tyres on all axles, or a combination of those tyres

Tri-axle group, on a vehicle other than a pig trailer, with either single tyres with section width of at least 375 mm, dual tyres, or a combination of those tyres

**Quad-axle groups**

Quad-axle group fitted with single tyres with section width of less than 375 mm

Quad-axle group fitted with single tyres with section width of at least 375 mm or dual tyres

### 3 Mass limits relating to axle spacing

1. If the total mass of a vehicle or a combination cannot lawfully exceed 42.5 tonnes, the mass limits in Part 1 of Table 2 must not be exceeded in relation to the distances set out in that Part that apply to the vehicle or combination.

2. If the total mass of a vehicle or a combination cannot lawfully exceed 42.5 tonnes, the mass limits in Part 1 of Table 2 apply to the sum of the masses on each axle group or single axle in the distance referred to in that Part, including the axles between which the distance is measured.

3. For any B-double, the mass limits in Part 2 of Table 2 must not be exceeded in relation to the distances set out in that Part that apply to the B-double or any vehicle forming part of it.

4. For any B-double, the mass limits in Part 2 of Table 2 apply to the sum of the masses of each axle group or single axle in the distance referred to in that Part, including the axles between which the distance is measured.

5. For any road train, the mass limit must not exceed that determined or specified by the Authority.

6. For any road train that complies with the limits determined or specified in accordance with subclause (5), the mass limits in Part 3 of Table 2 apply to the sum of the masses of each axle group or single axle in the distance referred to in that Part, including the axles between which the distance is measured.

### 4 Spacing rules

1. A B-double with two tri-axle groups must conform to the formulae:

   \[ x - y \leq 1 \quad \text{and} \quad y - x \leq 13, \]

   where

   \( x \) is the distance in metres between the centres of the closest axles of the second and third axle groups, treating the steer axles as the first axle group and assigning to the next rearmost axle group the description **second axle group** and to each successive axle group a higher ordinal number, and
\( y \) is the distance in metres between the centres in the closest axles of the third and fourth axle groups, treating the steer axles as the first axle group and assigning to the next rearmost axle group the description second axle group and to each successive axle group a higher ordinal number.

(2) The distance between the axles closest to each other in any adjacent multi-axle groups in a B-double must not differ from the distance between the axles closest to each other in any other adjacent multi-axle groups by more than 1 metre.

(3) (Repealed)

(4) The total mass of a vehicle, and any load, must not exceed 15 tonnes if the distance between any 2 axles that are not part of the same axle group is less than 2.5 m.

(5) The total mass of any vehicle that is being towed, and any load, must not exceed 15 tonnes if the distance between the rearmost axle of the preceding vehicle and foremost axle of the succeeding vehicle is less than 2.5 m.

5 Measurement of distances for Table 2

Each distance in Table 2 refers to:

(a) the distance from the centre of any single axle to the centre of any other single axle, or

(b) the distance from the centre of any single axle to the centre of the furthest axle in any axle group, or

(c) the greatest distance between the centres of axles in any 2 axle groups.
Table 2

Part 1—Mass limits relating to axle spacing

<table>
<thead>
<tr>
<th>Distance (metres) between extreme</th>
<th>Mass limit (tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exceeding</td>
<td>Not exceeding</td>
</tr>
<tr>
<td>0</td>
<td>3.7</td>
</tr>
<tr>
<td>3.7</td>
<td>3.8</td>
</tr>
<tr>
<td>3.8</td>
<td>4.0</td>
</tr>
<tr>
<td>4.0</td>
<td>4.2</td>
</tr>
<tr>
<td>4.2</td>
<td>4.3</td>
</tr>
<tr>
<td>4.3</td>
<td>4.5</td>
</tr>
<tr>
<td>4.5</td>
<td>4.7</td>
</tr>
<tr>
<td>4.7</td>
<td>4.8</td>
</tr>
<tr>
<td>4.8</td>
<td>5.0</td>
</tr>
<tr>
<td>5.0</td>
<td>5.2</td>
</tr>
<tr>
<td>5.2</td>
<td>5.3</td>
</tr>
<tr>
<td>5.3</td>
<td>5.5</td>
</tr>
<tr>
<td>5.5</td>
<td>5.7</td>
</tr>
<tr>
<td>5.7</td>
<td>5.8</td>
</tr>
<tr>
<td>5.8</td>
<td>6.0</td>
</tr>
<tr>
<td>6.0</td>
<td>6.2</td>
</tr>
<tr>
<td>6.2</td>
<td>6.3</td>
</tr>
</tbody>
</table>
Part 2—Mass limits relating to axle spacing—B-doubles

For any B-double, the loaded mass of which can lawfully exceed 42.5 tonnes where the distance between the extreme axles is less than 21 metres, the mass limit must not exceed that calculated in accordance with the formula opposite.

\[ M = 15L + 29.5 \]

where

- \( M \) is the mass limit in tonnes
- \( L \) is the distance in metres
For any B-double, the loaded mass of which can lawfully exceed 42.5 tonnes where the distance between the extreme axles is not less than 21 metres, the mass limit must not exceed that specified opposite. For all B-doubles, the sum of the axle loads in any two or more adjacent axle groups (or of any single axle and the axles in one or more adjacent axle groups) must not exceed that calculated in accordance with the formulae opposite.

For L less than or equal to 11.33 metres, \( M = 3L + 12.5 \) where

- \( M \) is the mass limit in tonnes
- \( L \) is the distance in metres.

For L greater than 11.33 metres

\[ M = 15L + 29.5 \]

where

- \( M \) is the mass limit in tonnes
- \( L \) is the distance in metres.

Part 3—Mass limits relating to axle spacing—Road trains

For any road train the sum of the axle loads of the axles in any two adjacent axle groups (or of any single axle and the axles in an adjacent axle group) must not exceed that calculated in accordance with the formula opposite.

\[ M = 3L + 12.5 \]

where \( M \) is the mass limit in tonnes and L is the distance in metres.

6 Mass limits for combinations

(1) The total mass of a combination other than a road train or B-Double, and any load, must not exceed 42.5 tonnes.

(2) The loaded mass of a dog trailer or pig trailer must not exceed the loaded mass of the towing vehicle.

(3) The total mass of a combination, and any load, must not exceed the towing vehicle’s GCM.

(4) If the manufacturer of a motor vehicle forming part of a road train or B-Double has not determined the GCM of the vehicle, the total mass of the combination and any load must not exceed the number of kilograms worked out using the following formula:

\[ \text{Mass in kg} = \frac{K \times M \times R \times T}{16} \]

where:
\( K \) means:
(a) 0.055 if a single drive axle is fitted to the motor vehicle, or
(b) 0.053 if a single drive tandem axle group is fitted to the motor vehicle, or
(c) 0.051 if a dual drive tandem axle group is fitted to the motor vehicle, and

\( M \) means the number of tyre revolutions per kilometre as specified by the tyre manufacturer for the tyres fitted to the driving axle or axles, and

\( R \) means the overall gear reduction between engine and drive wheels, and

\( T \) means the maximum engine net torque in newton-m.

**Part 2 Size and projection of loads**

7 Size limits

(1) A vehicle or a combination, and its load, must not exceed a size limit set for the vehicle or combination in the *Road Transport (Vehicle Registration) Regulation 1998*.

(2) The distance measured at right angles between the rear overhang line of a vehicle and the rear of any load it is carrying must not exceed the rear overhang that the vehicle is allowed under the *Road Transport (Vehicle Registration) Regulation 1998*.

(3) Despite subclauses (1) and (2):
(a) the height of a vehicle that is carrying vehicles on more than one deck, and its load, must not exceed 4.6 m, and
(b) the distance measured at right angles between the rear overhang line of a trailer carrying vehicles on more than one deck and the rear of the rearmost vehicle on the trailer must not exceed 4.9 m.
(4) Subclause (2) does not apply to the rear overhang of an existing vehicle if:

(a) the vehicle is operated by a registered operator who, on and from the commencement of this subclause, has been continuously recorded as the registered operator of the vehicle under the Road Transport (Vehicle Registration) Act 1997, and

(b) the provisions of Regulation 118 (2) of the Motor Traffic Regulations 1935 (as in force immediately before 1 July 1996) are complied with.

(5) Subclause (4) ceases to have effect on 1 July 2005.

(6) In this clause:

existing vehicle means a vehicle that:

(a) was registered under the Traffic Act 1909 on or before 1 July 1996, and

(b) has been continuously registered (whether under that Act or the Road Transport (Vehicle Registration) Act 1997) since that date.

8 Front and side projections

A load on a vehicle must not project more than 1.2 m in front of the vehicle, or more than 150 mm from the outermost part of either side of it.

Note. The combined dimensions of a vehicle and its load must still meet the requirements of clause 7 of this Schedule even if the load projects from the vehicle in any direction.

9 Rear projections

(1) The rear of a load on a vehicle must carry a warning signal if the load:

(a) projects more than 1.2 m behind the vehicle, or

(b) projects to the rear of the vehicle so that the end of the load cannot be seen easily from
behind, or

(c) is on a pole-type trailer.

(2) In daytime, the warning signal must be a brightly coloured flag or piece of material, with each side at least 300 mm long.

(3) In the night-time, the warning signal must be a red light which can be seen for 200 m.

10 Dangerous projections

A load on a vehicle must not project in a way that is dangerous to a person or to property, even if all dimension and warning requirements are met.

Part 3 Couplings

11 Trailers

(1) A trailer in a combination must be securely coupled to the vehicle in front of it.

(2) The components of a coupling used between vehicles must be compatible and properly connected to each other.