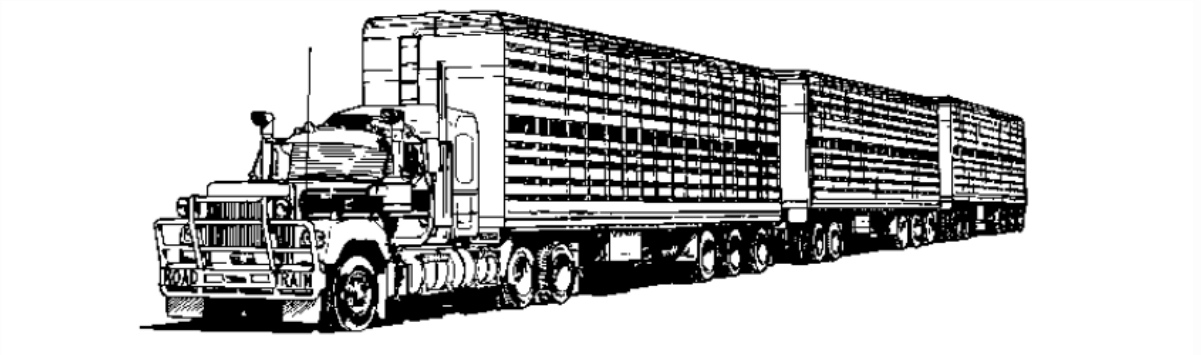
Guideline for Multi-combination Vehicles

Road Trains
B-doubles
B-triples
AB-triples
BAB-quads
ABB-quads



in Queensland

Form Number 1
Version 11
July 2013

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1 Statutory authority

1.1 This guideline is issued under the *Statutory Instruments Act 1992, Part 4, Division 3, Subdivision 2* in accordance with the provisions of the *Transport Operations (Road Use Management—Mass Dimensions and Loading) Regulation 2005, Part 6, Division 1 - Guidelines and the Transport Operations (Road Use Management—Vehicle Standards and Safety) Regulation 2010, Part 3 – Guidelines and permits for the safe movement of vehicles.*

2 Date of commencement

2.1 This form commenced on 30 July 2013.

3 Application

3.1 This guideline is issued as an alternative means of complying with the *Transport Operations (Road Use Management—Mass, Dimensions and Loading) Regulation 2005, Part 3, Division 2 Particular Dimensions, sections 24(1)(a)* and *(c), 26(1)(d)* and *Schedule 1, Section 4 - Mass limits for combinations, subsection (2).*

3.2 The guideline is issued as an exemption of complying with *Transport Operations (Road Use Management—Vehicle Standards and Safety) Regulation 2010, Schedule 1, Part 4, section 22(1)(b)* the requirement relating to the fitment of spray suppression devices to B-doubles.

3.3 The guideline is issued as an alternative means of complying with *Transport Operations (Road Use Management—Vehicle Standards and Safety) Regulation 2010, Schedule 1, Part 5,* section 50, Warning signs for combinations over 22m long, and section 52, Specifications for warning signs.

3.4 The Guideline for Multi-combination Vehicles in Queensland Form Number 1 Version 10 is now repealed.

3.5 This guideline applies to road trains, B-doubles and prime mover/semitrailer combinations towing one converter dolly.

3.6 For the purpose of this guideline:

"**ADR**" means Australian Design Rule.

An **"approval plate"** means a decal, label or plate issued by a competent entity that is made of a material and fixed in such a way that it cannot be removed without being destroyed. The approval plate should be of similar dimensions to the Department of Infrastructure and Transport Compliance Plate Approval (CPA) plate/label (which is, approximately 100mm x 50mm) and contain the following information:

- trade name or mark of the vehicle or FUP Device
- manufacturer of the vehicle or FUP Device
- Vehicle Identification Number (VIN)
- Competent Entity unique identification number
- date of approval or issue of the plate
- Approval Number issued by the Competent Entity
- purpose of the approval, for example. Approval pursuant to Australian Vehicle Standards Amendment Rule 2005 (No…) for a FUP Device, or for a FUP Vehicle, or for cab strength.

"**B-double**" means a combination consisting of a prime mover towing 2 semitrailers, with 1 semitrailer supported at the front by, and connected to, the other semitrailer.

"Competent entity" means a CPA holder of heavy vehicle manufacturing or a person or organisation appointed by an Australian Road Authority, and issued with a unique identification number, to certify that the requirements for front underrun protection and cabin strength have been met, and continue to be met, and who may authorise the fixing of approval plates to a FUPD and a vehicle. In the case of a CPA holder the unique identification number may be the Department of Infrastructure and Transport road certification licence number.

"CPA" means compliance plate approval (indicated by the fitting of a compliance plate/label by the vehicle manufacturer).

"E-mark" means an approval mark arranged and issued in accordance with Annex 4 "Arrangement of Approval Marks" of UN ECE Regulation 93.

"Front Underrun Protection Device" means a device fitted to a vehicle that has been tested in accordance with UN ECE R93 and complies with the requirements of UN ECE R93 or where approval has been granted by an "E-mark" issued in accordance with UN ECE R93.

"Front Underrun Protection Vehicle" means a vehicle that complies with UN ECE Regulation No 93 (UN ECE R93).

"GCM" means the gross combination mass of a vehicle.

"GVM" means the gross vehicle mass of a vehicle.

“Multi-combination Routes in Queensland” means routes outlined in Attachment “A” of this Guideline if in hard copy or the “Multi-combination routes in Queensland” provided on the Department of Transport and Main Roads website.

"Multi-combination vehicle" means a vehicle combination permitted to operate under this Guideline.

"Protrusions" means a fitting such as ' bull bars', roo-bars', ‘nudge-bars’ etc. and it does not include driving lights, fog lights, running lights, aerials etc.

"Road train" means a combination (other than a B-double) either using a rigid truck hauling unit towing at least one trailer of which the combination length is greater than 19m or a prime mover hauling unit towing at least two trailers and includes a vehicle categorised as a B-triple, AB-triple, BAB-quad, or ABB-quad. (refer to Table 1). (a converter dolly supporting a semitrailer is counted as one trailer).

"Type 1 road train" means a road train using either a rigid truck hauling unit towing one trailer when the combination length is not longer than 31.5m or for a road train using a prime mover hauling unit towing two trailers when the combination length is not longer than 36.5m. B-triple and AB-triple combinations up to 36.5m are categorised as a Type 1 road train.

"Type 2 road train" means a road train using either a rigid truck hauling unit towing two trailers when the combination length is not longer than 47.5m or a road train using a prime mover hauling unit towing three or four trailers when the combination length is not longer than 53.5m. AB-triple combinations longer than 36.5m and up to a length of 44.0m are categorised as a Type 2 road train.

"UN ECE" means United Nations Economic Commission for Europe.

4 Operational

4.1 Approved routes

4.1.1 Road trains and B-doubles may operate on the roads outlined in the "Multi-combination Routes in Queensland" as specified by the vehicle type and subject to any conditions specified on the maps.

Note: Multi-combination routes in Queensland can be accessed via the departmental website: www.tmr.qld.gov.au

4.1.2 B-doubles which are not longer than 19m (19m B-doubles), may operate on all the roads outlined in the "Multi-combination Routes in Queensland" at the mass limits specified in Table 3.

4.1.3 19m B-doubles may also operate on all other roads in Queensland not outlined in the "Multi-combination Routes in Queensland" (general access) at the mass limits specified in Table 4.

4.1.4 For a B-double longer than 19m to operate on roads not marked on maps outlined in the "Multi-combination Routes in Queensland", a permit must be obtained from the Department of Transport and Main Roads. The permit, or a copy, must be carried at all times and produced when required by an authorised officer.

4.1.5 For a road train to operate on roads (other than local authority controlled roads) not marked on the maps outlined in the "Multi-combination Routes in Queensland"; a permit must be obtained from the Department of Transport and Main Roads. The permit, or a copy, must be carried at all times and produced when required by an authorised officer.

4.1.6 For a road train to operate on local authority controlled roads not marked on maps outlined in the "Multi-combination Routes in Queensland", written approval must be obtained from the relevant local authority. The approval should include the maximum lengths of the vehicle combinations approved. The approval, or a copy, must be carried at all times and produced when required by an authorised officer.

4.1.7 Road trains and B-doubles must not operate on roads where traffic signs restrict their use.

4.2 Speed limits

4.2.1 Vehicles operating under this guideline must not exceed the lesser of the displayed speed limit or:

(a) a speed of **90km/h** for:
- a road train or
- a B-triple fitted with mechanical suspension on any trailer axle.

(b) a speed of **100km/h** for:
- a B-double or
- a B-triple combination fitted with air suspension on all trailers axles or
- a prime mover/semitrailer combination towing one converter dolly.

4.3 Travel restrictions

4.3.1 The driver of a multi-combination vehicle must comply with the particular provisions of the *Transport Operations (Road Use Management—Road Rules) Regulation 2010* relating to keeping a minimum distance between long vehicles, not obstructing the path of other drivers, and parking in built-up areas. Drivers must also comply with parking provisions contained in the local laws of a local government.

4.4 Towing a converter dolly

4.4.1 A Type 1 road train or B-double towing a converter dolly is permitted to operate on all road train routes.

4.4.2 A prime mover/semitrailer combination towing one converter dolly is permitted to operate on all 23m or 25m B-double routes and all road train routes.

4.4.3 The service brakes of an unloaded converter dolly that weighs less than 3 tonnes do not need to operate as long as the converter dolly breakaway system operates as specified in the *Transport Operations (Road Use Management—Vehicle Standards and Safety) Regulation 2010, Schedule 1, Part 8, Division 3, section 115 – Operation of brakes on trailers or a c*onnection (for example - safety chains) is used as specified in the *Transport Operations (Road Use Management—Vehicle Standards and Safety) Regulation 2010, Schedule 1, Part 12, Division 1, section 143 – Drawbar couplings.*

4.4.4 Mudguards must cover all wheels of the converter dolly.

4.4.5 Rear marking plates, as specified in the *Transport Operations (Road Use Management—Vehicle Standards and Safety) Regulation 2010, Schedule 1, Division 18 section 101 – Rear marker plates*, must be fitted to the rear of the converter dolly.

4.4.6 One warning sign as specified in section 7.5 must be fitted to the rear of the converter dolly.

4.4.7 All lights required under the *Transport Operations (Road Use Management—Vehicle Standards and Safety) Regulation 2010,* must be fitted.

4.5 Carrying unloaded trailers and dollies

4.5.1 Semitrailers towed behind road train rated prime movers are permitted to carry two unladen trailers to a maximum height of 4.6 m, provided:

(a) movement is restricted to road train routes/areas;

(b) the drawbar of the dolly being carried is secured to the trailer loaded above it, so as to minimise rear overhang;

(c) a warning flag is attached to the extreme end of the dolly drawbar; and

(d) if travelling at night, in addition to the flag, a rear facing delineator is attached to the extreme end of the dolly drawbar and a warning light is attached to the rear of the combination vehicle which has contact with the road.

4.5.2 For the purposes of section 4.5.1, the following definitions apply:

(a) A warning flag must be at least 300mm by 300mm in size if coloured red, or 450mm by 450mm in size if coloured yellow or red and yellow.

(b) A delineator is a rigid piece of material at least 300mm by 300mm in size that is coated with yellow retro-reflective material of class 1 or 2 that meets Australian Standard AS 1906 *Retro-reflective Materials and Devices for Road Traffic Control Purposes*.

(c) A warning light is a yellow rotating light that flashes between 120 and 200 times a minute and has a power of at least 55 watts.

4.6 General operating information

4.6.1 In the event of heavy or prolonged rain affecting a route, movements may be deferred until such a time as may be determined by a representative of the Department of Transport and Main Roads. Information on current road closures and current roadwork is available on the following websites: www.131940.com.au or www.racq.com.au.

4.6.2 All combinations mentioned in this guideline must not reverse into or out of roadways or depots.

4.7 Breaking down combinations

4.7.1 A B-double portion of a B-triple, AB-triple, BAB-quad or ABB-quad must comply with all B-double requirements in this guideline, if it is to be used as a B-double.

4.7.2 The B-triple portion of an ABB-quad must comply with all B-triple requirements in this guideline if it is to be used as a B-triple.

5 Dimensions

5.1 Individual dimensions

5.1.1 All rigid trucks, prime movers and trailers must meet the individual dimension requirements in the *Transport Operations (Road Use Management—Mass, Dimensions and Loading) Regulation 2005.*

5.2 B-double combinations

5.2.1 The maximum permissible length for a B-double is 25m.

5.2.2 A B-double exceeding 25m to a maximum length of 26m (26m B-double) is exempt from the requirement of section 5.2.1, provided:

(a) the distance from the centre of the king pin of the first trailer to the rear of the combination does not exceed 20.6m; and

(b) the prime mover complies with section 7.6 'Front underrun protection systems' and section 7.7 'Cabin strength'. Section 5.2.2 (b) is mandatory from 3 October 2009.

5.2.3 A 26m B-double combination may operate on all 25m B-double routes outlined in the "Multi-combination Routes in Queensland" unless otherwise restricted.

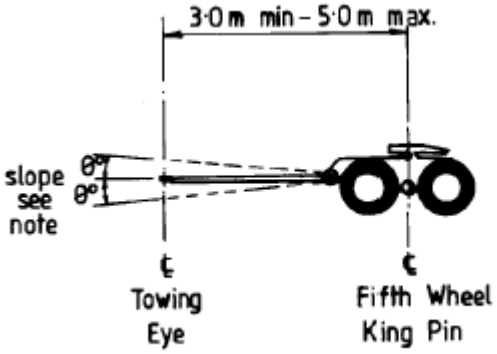
5.3 Road train combinations

5.3.1 Maximum combination lengths of road trains are shown in Table 1.

5.3.2 Only road train configurations as described in Table 1 and prime mover/semitrailer combinations towing one converter dolly are permitted under this guideline.

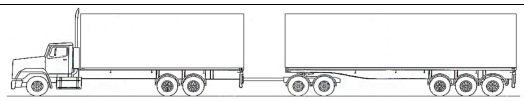
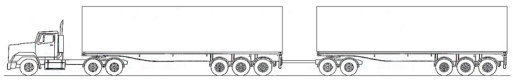
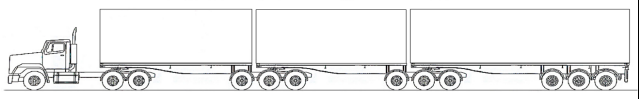
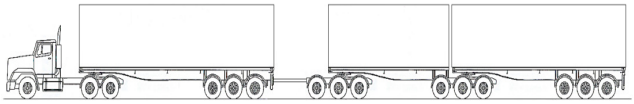
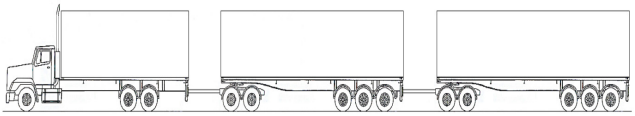
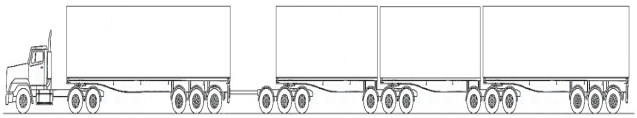
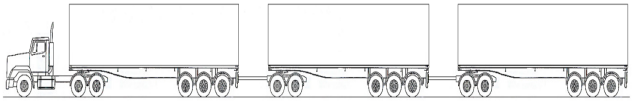
5.4 Drawbars for road trains

5.4.1 The drawbar lengths of converter dollies and dog trailers must conform to the following dimensions:



Note: Operating angle of drawbar to be within 5 degrees of horizontal when the assembled laden road train is standing on a level surface.

Table 1. Maximum Lengths of Road Trains

Vehicle combinations	Max length (metres)	Vehicle category	Combination diagram (See section 6.1.3 for permitted axle groups)
A rigid truck towing one trailer (total length exceeding 19 m)	31.5	Type 1	
A prime mover towing two semitrailers connected by a drawbar	36.5	Type 1	
B-triple: A prime mover towing 3 semitrailers connected by turntable couplings	36.5	Type 1	
AB-triple: A prime mover towing a single semitrailer and a set of B-double trailers, connected by a converter dolly	36.5	Type 1	
Longer AB-triple: (as described above)	44.0	Type 2	(as depicted above)
A rigid truck towing two semitrailers connected by a drawbar	47.5	Type 2	
BAB-quad: A prime mover towing two sets of B-double trailers, connected by a converter dolly	53.5	Type 2	
ABB-quad: A prime mover towing a single semitrailer and a set of B-triple trailers, connected by a converter dolly	53.5	Type 2	
A prime mover towing three semitrailers connected by drawbars	53.5	Type 2	

Note: Drawbar connections may be part of a fixed or converter dolly. A dog trailer has a fixed dolly unless a converter dolly is used to convert a semitrailer to a dog trailer.

6 Mass Limits

6.1 Axle/axle groups

6.1.1 All axle/axle groups in a multi-combination vehicle must be conforming axle/axle groups and must not exceed:

(a) the mass limits in the *Transport Operations (Road Use Management—Mass, Dimensions and Loading) Regulation 2005, Schedule 2*: or

(b) an approval issued under the provisions of the *Transport Operations (Road Use Management—Mass, Dimensions and Loading) Regulation 2005, Part 6 – Guidelines and permits*, which allows a mass limit greater than the mass limit mentioned in 6.1.1(a).

6.1.2 The exception to section 6.1.1 is a road train operating on an approved road train route is permitted to operate up to 6.7 tonnes on the single steer axle provided tyres with a nominal section width of at least 375mm are fitted and manufacturer's ratings and the regulation vehicle width limit are not exceeded.

6.1.3 The following axle groups only, are permitted:

- single and twin steer axles; and
- single and tandem axle (not tri-axle) drive groups; and
- single, tandem and tri-axle trailing groups (including those on dollies);

6.2 Gross combination mass

6.2.1 The total mass of a road train or B-double must not exceed the gross combination mass rating shown on the registration certificate/label issued to the hauling unit, or the sum of permissible axle masses, whichever is the lesser.

6.3 Axle spacing requirements

6.3.1 The sum of the masses on each axle/axle group falling within all the possible variations of axle group spacings (see "B-double extreme axle spacing example" shown in figure 2 in this section) must not be more than the maximum mass specified for the spacing, in accordance with the following conditions:

- for a road train, the axle spacing mass schedule is specified in Table 2; and
- for a B-double on B-double or road train routes, the axle spacing mass schedule is specified in Table 3; and
- for a 19m B-double on general access roads, the axle spacing mass schedule is specified in Table 4.

The "B-double extreme axle spacing example" in figure 2 indicates the typical axle group spacings that must be considered when referring to these tables.

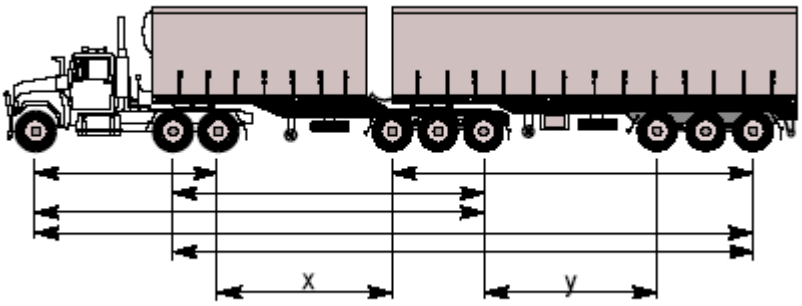


Figure 2: B-double extreme axle spacing example

6.3.2 In addition to the axle spacing requirements in section 6.3.1 B-doubles with tri-axle groups on both trailers (refer to “B-double extreme axle spacing example”) must also comply to the following rules:

(a) where X is greater than Y, the difference between X and Y must not be greater than 1 m; and

(b) where Y is greater than X, the difference between Y and X must not be greater than 1.3m.

6.3.3 The exception to section 6.3.1 is a multi-combination vehicle, operating under an approval as defined in section 6.1.1(b), which is permitted to exceed the maximum mass specified for particular axle spacings as if the vehicle was not subject to the additional mass provided by the approval provided the vehicle complies with the axle spacing schedule formulas.

7 Technical Specifications

7.1 Standards

7.1.1 All units in a multi-combination vehicle must meet the relevant vehicle standards outlined in the *Transport Operations (Road Use Management— Vehicle Standards and Safety) Regulation 2010.*

7.1.2 Despite subsection 7.1.1 B-doubles are exempt from complying with the *Transport Operations (Road Use Management— Vehicle Standards and Safety) Regulation 2010, Part 4 - Division 1 – Section 22(1)(b).* This section relates to the requirement to fit spray suppression devices complying with *Parts 1 and 2 of British Standard AU200-1984 Spray Reducing Devices for Heavy Goods Vehicles*.

7.2 Couplings

7.2.1 Couplings fitted to B-triples, AB-triples, BAB-quads and ABB-quads, in the following locations must have a minimum D-value rating of 162 kN:

- the automatic pin coupling on the rear of the lead trailer; and
- the towing eye of the road train converter dolly; and
- the fifth wheel of the road train converter dolly; and
- the king pin of a B-double lead trailer; and
- all couplings of a B-triple.

7.3 Additional requirements for B-triples

7.3.1 ABS (anti-lock braking system) is required for all units of a B-triple that includes a road tank vehicle carrying dangerous goods. All other B-triples require ABS on the prime mover only. Brake application and release times apply as for B-doubles.

7.3.2 B-triple prime movers must have a minimum engine power of 370 kW (500hp) or be capable of a minimum sustainable speed of 70km/h on a 1% grade at the relevant gross combination mass.

7.3.3 All axles of the trailers of B-triple combinations must have air suspension fitted with effective dampers.

7.3.4 Despite section 7.3.3, trailers used in a B-triple combination may be fitted with mechanical suspension. Please refer to section 4.2 Speed limits for maximum speed limits of this combination.

7.4 Certification

7.4.1 A multi-combination vehicle must be certified with the appropriate code under the National Code of Practice for Commercial Vehicle Modifications. The appropriate codes for a road train, that is not a B-triple, are S8 for the hauling unit and S11 for the trailers. The appropriate code for a B-double or a B-triple is S9. Approvals for road trains and B-doubles issued under the Queensland Code of Practice for Commercial Vehicle Modifications are also acceptable.

7.4.2 A road train certification issued by the Department of Transport and Main Roads is also acceptable for a road train that is not a B-triple.

7.4.3 The certification defined in section 7.4.1, is not required for:

(a) prime movers/trucks manufactured in accordance with ADR 61 and fitted with a vehicle plate or compliance plate containing the words; “ROAD TRAIN” for a road train that is not a B-triple, or “B-DOUBLE” for a B-double or B-triple; or

(b) trailers manufactured in accordance with ADR 61 and fitted with a vehicle plate or compliance plate containing the words “ROAD TRAIN TRAILER” for a road train that is not a B-triple; or

(c) trailers manufactured in accordance to the specifications in the ADR’s and meet all relevant standards of the *Transport Operations (Road Use Management—Vehicle Standards and Safety) Regulation 2010* may be used in B-double or B-triple combinations; or

(d) trailers used in road trains prior to the introduction of ADR 61 (1 July 1991). (Note: These trailers may not be accepted for use in road trains outside Queensland); or

(e) road train consisting of a prime mover/semitrailer combination towing one converter dolly.

(f) Vehicles registered and approved for use in road train or B-double combinations in other States or Territories and the Federal Interstate Registration Scheme.

7.4.4 B-double prime movers intended for use in road train combinations (except B-triples), must be rated for road train use as defined in clause 7.4.1.

7.4.5 Technical specifications for road train units in use prior to April 1998 will continue to apply. However, upgrading to meet the current Code of Practice for Commercial Vehicle Modifications is permitted.

7.5 Warning Signs

7.5.1 Warning signs must be fitted to all road trains and B-doubles over 22m long, in accordance with *Transport Operations (Road Use Management—Vehicle Standards and Safety) Regulation 2010*, *Schedule 1, Part 5 – Vehicle marking, sections 50, 51 and 52*.

7.5.2 The *Transport Operations (Road Use Management—Vehicle Standards and Safety) Regulation 2010, Schedule 1, Part 5 – Vehicle marking, section 52 (1)* requires that a warning sign must be manufactured from sheet steel at least 0.8 mm thick, or another material of at least the same stiffness, unless it is designed to be fitted to a vehicle using an adhesive, however a flexible sign that is attached to the vehicle by use of clips is acceptable, provided that the sign:

(a) otherwise complies with all requirements of the *Transport Operations (Road Use Management—Vehicle Standards and Safety) Regulation 2010, Schedule 1, Part 5 – Vehicle marking, sections 50, 51 and 52*; and

(b) is attached to a rigid solid vertical surface in a way that the wording and borders of the sign are clearly visible; and

(c) does not flap or otherwise warp under all operating conditions.

7.5.3 A vehicle towing a converter dolly as the rearmost trailer must have the rear warning sign fitted to the rear of the converter dolly.

7.5.4 While *Transport Operations (Road Use Management—Vehicle Standards and Safety) Regulation 2010, Schedule 1, Part 5 – Vehicle marking, section 50 (2)(b)* requires B-triples to display either 'ROAD TRAIN' warning signs or a 'LONG VEHICLE' warning sign, all B-triples operating in accordance with this guideline must only be fitted with a 'LONG VEHICLE' warning sign.

7.5.5 Warning signs must not be displayed on vehicle combinations that are not longer than 22m.

7.6 Front underrun protection systems (UN ECE Regulation No. 93)

7.6.1 The prime mover of a 26m B-double combination must:

(a) be a front underrun protection vehicle, verified by the fitment of an approval plate in the proximity of the vehicle's CPA plate/label; or

(b) be fitted with a front underrun protection device, verified by the fitment of an approval plate on the device in a relatively conspicuous and protected location, typically on the rear face of component.

7.6.2 If any protrusion is fitted to a 26m B-double combination complying with 7.6.1, it must be verified by the fitment of an approval stipulating either the protrusion is a front underrun protection device as outlined in 7.6.1(b) or that the protrusion does not negate the vehicle compliance to the front underrun protection.

7.7 Cabin Strength (UN ECE Regulation No. 29)

7.7.1 The prime mover of a 26m B-double combination manufactured after 31 December 2005, must:

(a) comply with Regulation No. 29 made under the UN ECE Agreement (UN ECE R29) for cabin strength; and

(b) be verified by the fitment of an approval plate in the proximity of the vehicles CPA plate/label.

8 Administration

8.1 Registration

8.1.1 All units in a multi-combination vehicle (hauling unit and all trailers) must be registered in accordance with the *Transport Operations (Road Use Management—Vehicle Registration) Regulation 2010*.

Table 2. Axle Spacing/Mass Schedule for Road Trains

Distance between extreme axles of axle groups under consideration (m)		Maximum permitted laden mass on axle groups (t)	Distance between extreme axles of axle groups under consideration (m)		Maximum permitted laden mass on axle groups (t)
Equal to or greater than	Less than		Equal to or greater than	Less than	
3.5	3.7	23	10.2	10.3	43
3.7	3.8	23.5	10.3	10.5	43.5
3.8	4	24	10.5	10.7	44
4	4.2	24.5	10.7	10.8	44.5
4.2	4.3	25	10.8	11	45
4.3	4.5	25.5	11	11.2	45.5
4.5	4.7	26	11.2	11.3	46
4.7	4.8	26.5	11.3	11.5	46.5
4.8	5	27	11.5	11.7	47
5	5.2	27.5	11.7	11.8	47.5
5.2	5.3	28	11.8	12	48
5.3	5.5	28.5	12	12.2	48.5
5.5	5.7	29	12.2	12.3	49
5.7	5.8	29.5	12.3	12.5	49.5
5.8	6	30	12.5	12.7	50
6	6.2	30.5	12.7	12.8	50.5
6.2	6.3	31	12.8	13	51
6.3	6.5	31.5	13	13.2	51.5
6.5	6.7	32	13.2	13.3	52
6.7	6.8	32.5	13.3	13.5	52.5
6.8	7	33	13.5	13.7	53
7	7.2	33.5	13.7	13.8	53.5
7.2	7.3	34	13.8	14	54
7.3	7.5	34.5	14	14.2	54.5
7.5	7.7	35	14.2	14.3	55
7.7	7.8	35.5	14.3	14.5	55.5
7.8	8	36	14.5	14.7	56
8	8.2	36.5	14.7	14.8	56.5
8.2	8.3	37	14.8	15	57
8.3	8.5	37.5	15	15.2	57.5
8.5	8.7	38	15.2	15.3	58
8.7	8.8	38.5	15.3	15.5	58.5
8.8	9	39	15.5	15.7	59
9	9.2	39.5	15.7	15.8	59.5
9.2	9.3	40	15.8	16	60
9.3	9.5	40.5	16	16.2	60.5
9.5	9.7	41	16.2	16.3	61
9.7	9.8	41.5	16.3	16.5	61.5
9.8	10	42	16.5	16.7	62
10	10.2	42.5	16.7	16.8	62.5

Table 2. (continued)

Distance between extreme axles of axle groups under consideration (m)		Maximum permitted laden mass on axle groups (t)	Distance between extreme axles of axle groups under consideration (m)		Maximum permitted laden mass on axle groups (t)
Equal to or greater than	Less than		Equal to or greater than	Less than	
16.8	17	63	23.5	23.7	83
17	17.2	63.5	23.7	23.8	83.5
17.2	17.3	64	23.8	24	84
17.3	17.5	64.5	24	24.2	84.5
17.5	17.7	65	24.2	24.3	85
17.7	17.8	65.5	24.3	24.5	85.5
17.8	18	66	24.5	24.7	86
18	18.2	66.5	24.7	24.8	86.5
18.2	18.3	67	24.8	25	87
18.3	18.5	67.5	25	25.2	87.5
18.5	18.7	68	25.2	25.3	88
18.7	18.8	68.5	25.3	25.5	88.5
18.8	19	69	25.5	25.7	89
19	19.2	69.5	25.7	25.8	89.5
19.2	19.3	70	25.8	26	90
19.3	19.5	70.5	26	26.2	90.5
19.5	19.7	71	26.2	26.3	91
19.7	19.8	71.5	26.3	26.5	91.5
19.8	20	72	26.5	26.7	92
20	20.2	72.5	26.7	26.8	92.5
20.2	20.3	73	26.8	27	93
20.3	20.5	73.5	27	27.2	93.5
20.5	20.7	74	27.2	27.3	94
20.7	20.8	74.5	27.3	27.5	94.5
20.8	21	75	27.5	27.7	95
21	21.2	75.5	27.7	27.8	95.5
21.2	21.3	76	27.8	28	96
21.3	21.5	76.5	28	28.2	96.5
21.5	21.7	77	28.2	28.3	97
21.7	21.8	77.5	28.3	28.5	97.5
21.8	22	78	28.5	28.7	98
22	22.2	78.5	28.7	28.8	98.5
22.2	22.3	79	28.8	29	99
22.3	22.5	79.5	29	29.2	99.5
22.5	22.7	80	29.2	29.3	100
22.7	22.8	80.5	29.3	29.5	100.5
22.8	23	81	29.5	29.7	101
23	23.2	81.5	29.7	29.9	101.5
23.2	23.3	82	29.9	30	102
23.3	23.5	82.5	30	30.2	102.5

Table 2. (continued)

Distance between extreme axles of axle groups under consideration (m)		Maximum permitted laden mass on axle groups (t)	Distance between extreme axles of axle groups under consideration (m)		Maximum permitted laden mass on axle groups (t)
Equal to or greater than	**Less than**		**Equal to or greater than**	**Less than**	
30.2	30.3	103	36.8	37	123
30.3	30.5	103.5	37	37.2	123.5
30.5	30.7	104	37.2	37.3	124
30.7	30.8	104.5	37.3	37.5	124.5
30.8	31	105	37.5	37.7	125
31	31.2	105.5	37.7	37.8	125.5
31.2	31.3	106	37.8	38	126
31.3	31.5	106.5	38	38.2	126.5
31.5	31.7	107	38.2	38.3	127
31.7	31.8	107.5	38.3	38.5	127.5
31.8	32	108	38.5	38.7	128
32	32.2	108.5	38.7	38.8	128.5
32.2	32.3	109	38.8	39	129
32.3	32.5	109.5	39	39.2	129.5
32.5	32.7	110	39.2	39.3	130
32.7	32.8	110.5	39.3	39.5	130.5
32.8	33	111	39.5	39.7	131
33	33.2	111.5	39.7	39.8	131.5
33.2	33.3	112	39.8		132
33.3	33.5	112.5			
33.5	33.7	113			
33.7	33.8	113.5			
33.8	34	114			
34	34.2	114.5			
34.2	34.3	115			
34.3	34.5	115.5			
34.5	34.7	116			
34.7	34.8	116.5			
34.8	35	117			
35	35.2	117.5			
35.2	35.3	118			
35.3	35.5	118.5			
35.5	35.7	119			
35.7	35.8	119.5			
35.8	36	120			
36	36.2	120.5			
36.2	36.3	121			
36.3	36.5	121.5			
36.5	36.7	122			
36.7	36.8	122.5			

Table 3. Axle Spacing/Mass Schedule for B-doubles on B-double and Road Train Routes

Distance between extreme axles of axle groups under consideration (m)		Maximum permitted laden mass on axle groups (t)	Distance between extreme axles of axle groups under consideration (m)		Maximum permitted laden mass on axle groups (t)
Equal to or greater than	Less than		Equal to or greater than	Less than	
3.5	3.7	23	10.2	10.3	43
3.7	3.8	23.5	10.3	10.5	43.5
3.8	4	24	10.5	10.7	44
4	4.2	24.5	10.7	10.8	44.5
4.2	4.3	25	10.8	11	45
4.3	4.5	25.5	11	11.2	45.5
4.5	4.7	26	11.2	11.3	46
4.7	4.8	26.5	11.3	11.7	46.5
4.8	5	27	11.7	12	47
5	5.2	27.5	12	12.3	47.5
5.2	5.3	28	12.3	12.7	48
5.3	5.5	28.5	12.7	13	48.5
5.5	5.7	29	13	13.3	49
5.7	5.8	29.5	13.3	13.7	49.5
5.8	6	30	13.7	14	50
6	6.2	30.5	14	14.3	50.5
6.2	6.3	31	14.3	14.7	51
6.3	6.5	31.5	14.7	15	51.5
6.5	6.7	32	15	15.3	52
6.7	6.8	32.5	15.3	15.7	52.5
6.8	7	33	15.7	16	53
7	7.2	33.5	16	16.3	53.5
7.2	7.3	34	16.3	16.7	54
7.3	7.5	34.5	16.7	17	54.5
7.5	7.7	35	17	17.3	55
7.7	7.8	35.5	17.3	17.7	55.5
7.8	8	36	17.7	18	56
8	8.2	36.5	18	18.3	56.5
8.2	8.3	37	18.3	18.7	57
8.3	8.5	37.5	18.7	19	57.5
8.5	8.7	38	19	19.3	58
8.7	8.8	38.5	19.3	19.7	58.5
8.8	9	39	19.7	20	59
9	9.2	39.5	20	20.3	59.5
9.2	9.3	40	20.3	20.7	60
9.3	9.5	40.5	20.7	21	60.5
9.5	9.7	41	21		62.5
9.7	9.8	41.5			
9.8	10	42			
10	10.2	42.5			

Table 4. Axle Spacing/Mass Schedule for 19m B-doubles on General Access Roads

Distance between extreme axles of axle groups under consideration (m)		Maximum permitted laden mass on axle groups (t)	Distance between extreme axles of axle groups under consideration (m)		Maximum permitted laden mass on axle groups (t)
Equal to or greater than	Less than		Equal to or greater than	Less than	
3.5	3.7	23	10.5	11	43
3.7	3.8	23.5	11	11.5	43.5
3.8	4	24	11.5	12	44
4	4.2	24.5	12	12.5	44.5
4.2	4.3	25	12.5	13	45
4.3	4.5	25.5	13	13.5	45.5
4.5	4.7	26	13.5	14	46
4.7	4.8	26.5	14	14.5	46.5
4.8	5	27	14.5	15	47
5	5.2	27.5	15	15.5	47.5
5.2	5.3	28	15.5	16	48
5.3	5.5	28.5	16	16.5	48.5
5.5	5.7	29	16.5	17	49
5.7	5.8	29.5	17	17.5	49.5
5.8	6	30	17.5		50
6	6.2	30.5			
6.2	6.3	31			
6.3	6.5	31.5			
6.5	6.7	32			
6.7	6.8	32.5			
6.8	7	33			
7	7.2	33.5			
7.2	7.3	34			
7.3	7.5	34.5			
7.5	7.7	35			
7.7	7.8	35.5			
7.8	8	36			
8	8.2	36.5			
8.2	8.3	37			
8.3	8.5	37.5			
8.5	8.7	38			
8.7	8.8	38.5			
8.8	9	39			
9	9.2	39.5			
9.2	9.3	40			
9.3	9.5	40.5			
9.5	9.7	41			
9.7	9.8	41.5			
9.8	10	42			
10	10.5	42.5			