



## **B-Doubles (including 19 metre B-Doubles)**

January 2002

**This information sheet  
tells you:**

- ▼ **where you are permitted to drive;**
- ▼ **the maximum dimensions;**
- ▼ **axle spacing requirements;**
- ▼ **coupling and braking requirements; and**
- ▼ **the operating conditions (including warning signs)**

**for B-Doubles (including  
19 metre B-Doubles).**



**Roads and Traffic Authority**  
[www.rta.nsw.gov.au](http://www.rta.nsw.gov.au)

# B-Doubles (including 19 metre B-Doubles)

## REGULATIONS

Your job as a driver or owner/operator of a B-Double is to make sure you know what regulations apply to these vehicles and that you follow them. **If you don't follow the regulations you will be breaking the law. This could cost you a lot of money in fines.**

## SAFE TRAVEL

For the safety of others, yourself and your vehicle, you must make sure that you operate your vehicle in a responsible way at all times. Ignoring safety regulations could result in loss of life and income.

## WHAT DOCUMENTS YOU MUST CARRY

You must have, and be able to show, a drivers' licence to drive a B-Double National Licence Class MC (Multi-Combination).

The driver of the B-Double must carry a copy of this information sheet, or the equivalent formal notice, in the driving compartment. You may be asked to show the document to a police officer or RTA officer. If you don't have a copy of the information sheet or notice in your B-Double you could be fined.

## WHERE YOU MAY LEGALLY DRIVE

You may only operate your B-Double on approved routes and must observe the travel restrictions and conditions applying to that route or area. You must not go off an approved B-Double route or area except in an emergency and only if an authorised officer, for example an RTA Inspector or a police officer, permits you to.

It is your responsibility to find out what routes are approved for B-Doubles. If you wish to travel on any road other than those on the approved routes list, you will need to apply to the RTA, or the appropriate Council (for local roads) and follow the requirements set out in the Route Assessment Guidelines for Road Trains and B-Doubles.

Maps and lists of approved routes, restrictions and conditions are available from the RTA. Or you can check the website at [www.rta.nsw.gov.au](http://www.rta.nsw.gov.au).

## ROUTE ASSESSMENT PROCEDURES AND ROUTE INFORMATION FOR B-DOUBLES

As an operator of a B-Double you must get approval for any routes or terminals that have not previously been approved for B-Doubles. Contact an RTA officer (listed below) for the particular route.

Contact officers will:

- discuss route and terminal assessment procedures with you.
- give you copies of gazettals of route approvals.
- tell you if trials are necessary for a route or terminal.

The RTA may also need to talk to other organisations, such as Councils. After any assessment and trials, the RTA Regional Manager will make a decision. You will then get a letter telling you of the decision.

## ROUTE INFORMATION

You can find information about B-Double routes in the permit notice and on the two B-Double maps published by the RTA (*Road Train and B-Double Routes in NSW and ACT and B-Double Routes in Sydney, Newcastle and Wollongong*).

Approved routes are updated regularly on the RTA website at [www.rta.nsw.gov.au](http://www.rta.nsw.gov.au). You can find them by looking under "registration/heavy vehicle information/permit notices". You can also get information about new route approvals from RTA regional contact officers (listed below).

### Contact officers

Route Area		Phone	Fax
Northern			
NSW	Tamworth	02 6768 1401	02 6768 1499
Hunter			
Region	Newcastle	02 4924 0331	02 4924 0342
Southern			
NSW	Wollongong	02 4221 2460	02 4227 3705
South			
Western			
NSW	Wagga Wagga	02 6938 1145	02 6938 1183
Sydney		02 9830 5520	02 9831 0111
Western			
NSW	Parkes	02 6861 1478	02 6861 1414

## DISTANCE BETWEEN VEHICLES

Unless you are:

- overtaking
- driving in a built up area, or
- driving on a multi-lane road

you must travel at least 200 metres behind a long vehicle (7.5 metres long including load) in B-Double areas, or 60 metres behind a long vehicle in all other areas.

# B-Doubles (including 19 metre B-Doubles)



## 19 METRE B-DOUBLES

If you operate a B-Double that is not longer than 19 metres, you must comply with all requirements of this information sheet, unless it says otherwise.

If you operate a B-Double 19 metres long or less that has a total mass of 50 tonnes or less, you may drive on all roads unless there is a road sign specifying a load limit.

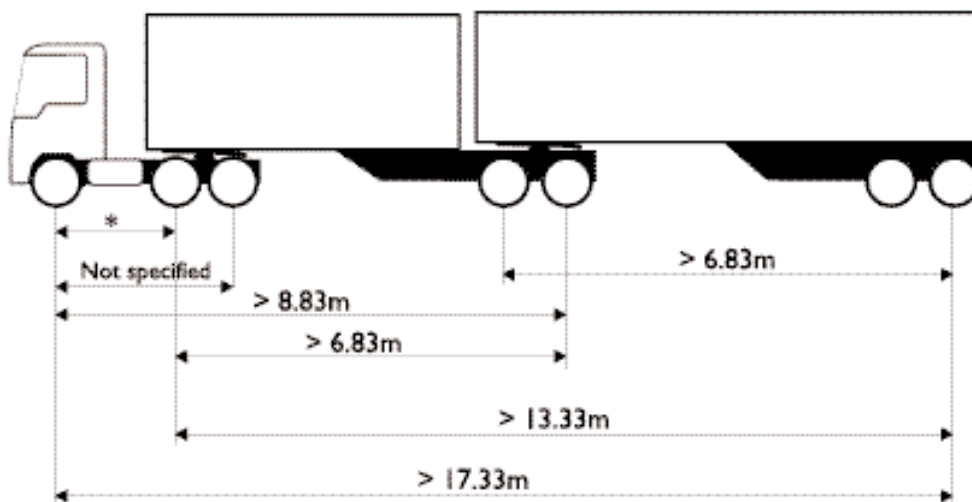
You can drive a B-Double that is 19 metres or less with a mass of **more than 50 tonnes** on routes approved for 25 metre B-Doubles and routes approved specifically for 19 metre B-Doubles weighing more than 50 tonnes.

The diagram below shows the axle spacings you need to get the maximum mass for a 19 metre B-Double.

A prime mover used in a 19 metre B-Double **does not** have to have ABS brakes **unless** hauling dangerous goods.

You **must not** attach a "Long Vehicle" sign to a 19 metre B-Double.

## 19 metre B-double - axle spacings for 55.5 tonnes



\* - This distance must be more than 2.5m or the gross mass of the prime mover cannot exceed 15 tonnes

# B-Doubles (including 19 metre B-Doubles)

## MASS AND DIMENSION LIMITS

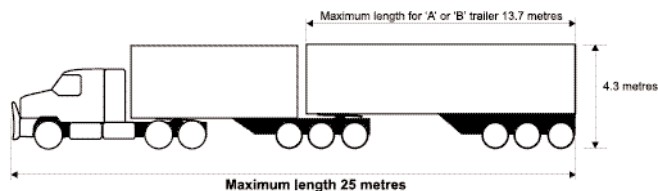
### Maximum dimension limits

Prime movers and semi-trailers must comply with Third Edition Australian Design Rule 43.

A B-Double must not be more than 25.0 metres long or 2.5 metres wide.

If you drive a B-Double higher than 4.3 metres when loaded, but no more than than 4.6 metres high, you must comply with conditions set out in the 4.6 Metre High Vehicle Route Notice 1999.

The Class 3 semi-trailer notice also does not allow trailers longer than 13.7 metres to be used in B-Doubles.



### Maximum axle and axle group mass limits

The maximum axle mass limits for a B-Double must be the **lowest** of:

steering single axle	6.0 tonnes gross
single axle consisting of 4 tyres	9.0 tonnes gross
tandem axle group consisting of 8 tyres	16.5 tonnes gross
Tri-axle group consisting of 12 tyres	20.0 tonnes gross
tri-axle group consisting of 6 tyres with section widths of at least 375 millimetres	20.0 tonnes gross

or

the manufacturer's mass ratings, or

the sum of the mass limits for the tyres fitted to the axles and axle groups

### Maximum gross mass limits

The maximum gross mass limit for a B-Double must be the lowest of:

- the sum of the axle and axle group mass limits listed above
- the sum of the manufacturer's mass limits for the prime mover (GVM) and the semi-trailer (GTM)
- the gross combination mass (GCM) limit specified by the prime mover manufacturer, or
- 62.5 tonnes.

## Mass limits relating to axle spacing

As a B-Double operator you must comply with the mass limits in relation to distance between axles as set out in the table below. These limits apply to all B-Doubles and any vehicle forming part of the B-Double.

The mass limits in the table below apply to the sum of the masses of each axle group or single axle. This includes all axles and axle groups that fall within the distance being measured.

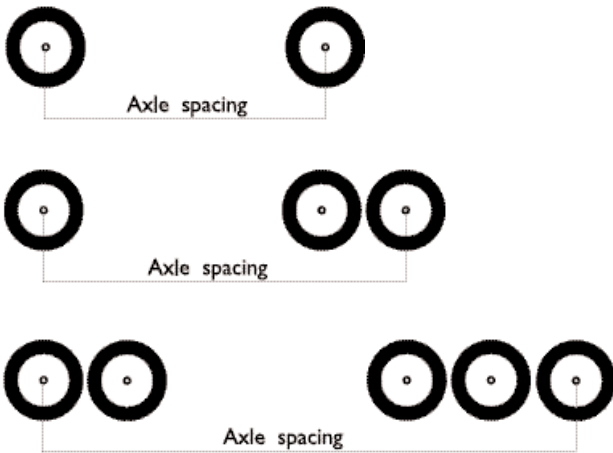
The distances in the table below refer to the distance between the middle of an axle or axle group to the middle of another axle or axle group.

Mass limits relating to axle spacings –

## MASS LIMITS RELATING TO AXLE SPACINGS – B-DOUBLES

For B-Doubles, where the distance between <b>extreme axles</b> is less than 21 metres (e.g. a 19.0 metre B-Double), use this formula to calculate the maximum gross mass.	$M = 1.5L + 29.5$  M is the mass limit in tonnes and L is the distance in metres
For B-Doubles where the distance between <b>extreme axles</b> is more than 21 metres (e.g. a 25 metre B-Double), the maximum load allowed is 62.5 tonnes.	62.5 tonnes maximum
For the <b>internal axle groups</b> of any B-Double, use these formulae to calculate the allowed mass limits.	For L less than or equal to 11.33 metres: $M = 3L + 12.5$ , where: M is the mass limit in tonnes and L is the distance in metres.  For L greater than 11.33 metres: $M = 1.5L + 29.5$ , where: M is the mass limit in tonnes and L is the distance in metres.

# B-Doubles (including 19 metre B-Doubles)



## Spacing rules

A B-Double with two tri-axle groups next to each other must conform to the formulae:

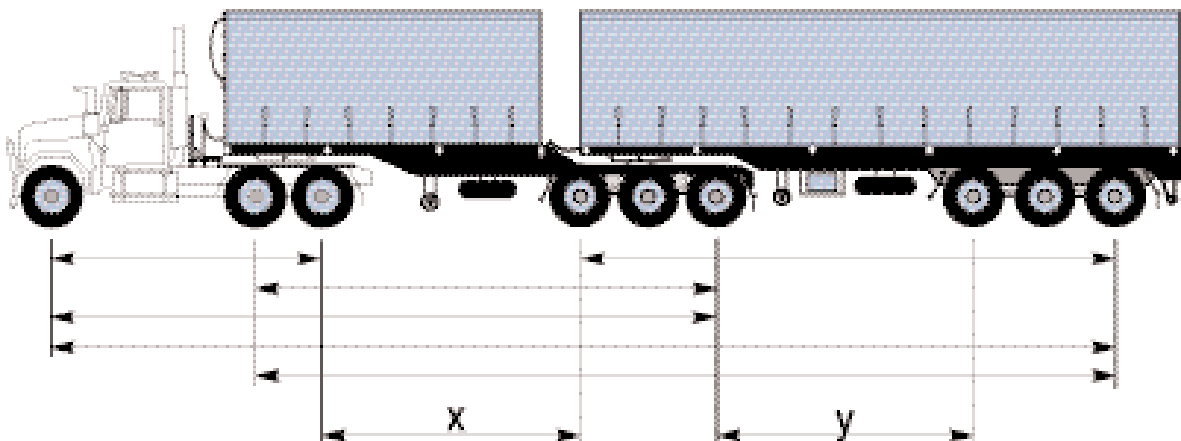
$$x - y \leq 1 \quad \text{and}$$

$$y - x \leq 1.3$$

where

- x is the distance in metres between the centres of the closest axles of the second and third axle groups. The steer axle is the first axle group. The next rearmost axle group is the 'second axle group'. Each successive axle group is given a higher number (third, fourth, etc).
- y is the distance in metres between the centres in the closest axles of the third and fourth axle groups. The steer axles are the first axle group. The 'second axle group' is the next rearmost axle group. Each successive axle group is given a higher number (third, fourth, etc).

In any other B-Double, the distance between the axles closest to each other in any adjacent multi-axle group must not be more than 1 metre difference from the distance between the axles closest to each other in any other adjacent multi-axle groups.



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## 2.5M / 15 TONNES RULE

The total mass of a vehicle and any load, **must not be greater than 15 tonnes** if the distance between any two axles that are not part of the same axle group is **less than 2.5 metres**.

The total mass of any vehicle you are towing, and any load, **must not be greater than 15 tonnes** if the distance between the axle furthest to the back of the vehicle in front and the axle furthest to the front of the following vehicle is **less than 2.5 metres**.

## “LONG VEHICLE” signs

If your B-Double is longer than 22 metres you must clearly display a “Long Vehicle” warning sign at the back of the vehicle.

Do **not** fit a “long vehicle” sign if your vehicle is

- less than 22 metres long or
- does not form part of a B-Double.



The “Long Vehicle” warning sign must comply with the requirements set out in the General B-Double Notice 2000. It is your responsibility to ensure that the warning signs on your B-Double meet the requirements of the permit notice.



## STANDARDS AND SPECIFICATIONS

### Compliance with standards - vehicle construction

The prime mover and semi-trailer of a B-Double must be constructed to comply with the appropriate standards for registration, or the Australian Design Rules (ADR), unless otherwise stated. Where the ADR is different from a standard in this information sheet, you must comply with the ADR.

# B-Doubles (including 19 metre B-Doubles)

## Power of B-Double prime mover

The minimum power required of a hauling unit must be 300 kilowatts **unless** you can show the RTA that your vehicle is capable of:

1. starting movement on a 12% gradient
2. maintaining a constant speed of 70 km/h on a 1% gradient when operating at the nominated Gross Combination Mass.

If the manufacturer does not say what the GCM is of a vehicle forming part of a B-Double, the total mass of the combination and any load must not be greater than the number of kilograms worked out using the following formula:

Mass in kilograms =  $(K \times M \times R \times T) / 16$

where:

K means:

- b) 0.055 if a single drive axle is fitted to the motor vehicle,
- c) 0.053 if a single drive tandem axle is fitted to the motor vehicle, **or**
- d) 0.051 if a dual drive tandem axle group is fitted to the motor vehicle.

**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

**R** - means the overall gear reduction between engine and drive wheels

**T** - means the maximum engine net torque in Newton-metres.

## REQUIRED DEVICES

### Vehicle monitoring devices

You must fit a vehicle monitoring device, such as a tachograph, electronic trip recorder or similar device, to your prime mover whenever it is in B-Double configuration. This monitor must meet RTA Specification 531. The RTA may require you to provide monitor records for the vehicle. Records must be kept for at least six months.

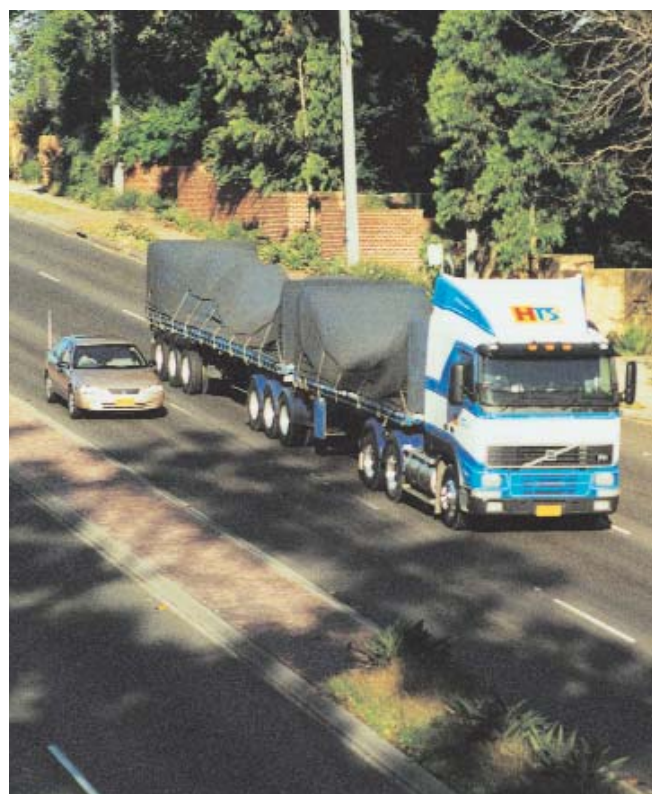
You do not need to fit a vehicle monitoring device if your B-Double is registered under the Interstate Road Transport Act 1985 of the Commonwealth (i.e. under the Federal Interstate Registration Scheme (FIRS)).

For information about fitting or using vehicle monitoring devices on prime movers when the vehicle is not in B-Double configuration, contact the Roads and Traffic Authority Technical Enquiries on email [tech-enq@rta.nsw.gov.au](mailto:tech-enq@rta.nsw.gov.au), phone 1300 137 302 for Sydney, West Gosford, or Wollongong.

### Speed limiting

Your B-Double must be speed limited to a maximum of **100 km/h** according to the *Third Edition Australian Design Rule 65*.

Remember, it is a crime to drive faster than the speed limit set by the law.



# B-Doubles (including 19 metre B-Doubles)



## VEHICLE PERFORMANCE

### Tracking

When travelling in a straight line on a level, smooth surface, all units in a B-Double must track in the path of the prime mover without shifting or swerving more than 100 mm either side of the path of the prime mover.

### Turning capability

A B-Double must be able to turn both left and right within a circle no greater than 25 metres diameter when measured at the outer edge of the tyre track at ground level.

### Spray suppression devices

Spray suppression devices must be fitted to all axle groups and single axles of a B-Double combination. The spray suppression devices must comply with the requirements of *British Standard AU 200 – 1984, Parts 1 and 2*.

### Braking and Coupling Requirements

Prime movers and semi-trailers used in B-Doubles must meet all normal vehicle standards. You must also make sure you follow the standards specific to B-Doubles for braking and coupling requirements.

**It is your responsibility to find out what these standards are and to comply with them at all times.**

You will find detailed specifications in the General B-Double Notice 2000 or check the RTA website at [www.rta.nsw.gov.au](http://www.rta.nsw.gov.au) under Registration/Heavy Vehicle Information/Permit Notices.

## DETAILED INFORMATION

For detailed information about these regulations, refer to the NSW Government Gazette No. 159 of 8 December 2000.

You can get copies of notices referred to in this information sheet, and extra copies of this sheet from any motor registry or the RTA Permits Unit, Ground Level, 260 Elizabeth Street, Surry Hills, NSW, 2010.

## FURTHER ENQUIRIES

If you have any questions about the new regulations, or the contents of this information sheet, contact:



**Roads and Traffic Authority**  
[www.rta.nsw.gov.au](http://www.rta.nsw.gov.au)

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Freight Policy Unit  
Level 9, 260 Elizabeth Street  
Surry Hills, NSW, 2010  
Phone 131 782