

26 Metre B-doubles

Introduction

Truck operators have the choice between operating a 25 metre long or a 26 metre long B-double combination in Victoria.

Operators who choose to operate a 26 metre long B-double can do so, provided they comply with the operating conditions.



An example of a complying B-double

Benefits

The introduction of 26 metre B-doubles provides the transport industry with greater flexibility and equipment utilisation, by allowing prime movers with longer wheelbases. This facilitates larger capacity fuel tanks and larger sleeper cabins, and may also improve driver ride, comfort and vehicle handling.

Prime movers as part of a 26 metre B-double are required to have a front underrun protective device fitted. This will benefit other road users by reducing the severity of some crashes involving a B-double.

Vehicles manufactured after 2005 must also have stronger crash-worthy cabins, which will better protect B-double drivers in the event of a crash.



An example of crash-worthy cabins

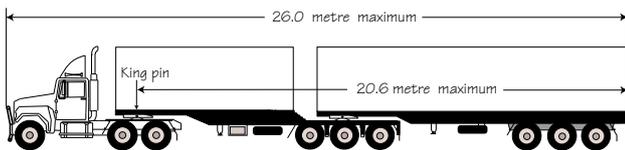
Conditions for operating 26 metre B-doubles in Victoria

The operating conditions for 25 metre B-doubles apply to 26 metre B-doubles in Victoria. These can be found in the VicRoads information bulletin, *B-doubles & Higher Mass Limit Trucks*. However, the following additional conditions must also be met:

- 1) The distance between the point of articulation (kingpin) at the front of the leading semi-trailer and the rear of the combination must be no more than 20.6 metres;
- 2) The prime mover of the combination must be fitted with a front underrun protective device that complies with Regulation No. 93 of the United Nations Economic Commission for Europe (UN ECE);
- 3) Prime movers with a date of manufacture after 2005, must be fitted with a crash worthy drivers cabin that complies with Regulation No. 29 of the UN ECE; and
- 4) Prime movers must not have a load carrying area and may not carry a load on the prime mover.

Limiting trailer length

Limiting the trailer length to 20.6 metres (the distance from the kingpin on the lead trailer to the rearmost part of the rear trailer) limits the swept path of the vehicle and allows 26 metre B-doubles to travel on currently approved B-double roads. This also ensures that the additional length is available for the prime mover and front underrun protective device.



20.6 metre maximum from the kingpin to the rear of the vehicle

B-doubles that exceed the 20.6 metre trailer length limit may not exceed an overall length of 25 metres.

Front Underrun Protective Devices

Under UN ECE Regulation No. 93, Front Underrun Protective Devices (FUPD) are designed to ensure that the safety features of passenger cars (such as air bags and crumple zones) are activated during a collision. This aims to minimise injury by preventing oncoming cars from going underneath the front of trucks.

UN ECE Regulation No. 93 requires that the front underrun protective device must withstand certain forces, have a smooth front and have a maximum ground clearance of 400mm.

A front underrun protection device can either be:

- a specially designed bullbar;
- integrated into the vehicle body; or
- integrated into the body with a compatible bull bar attached.

Fitting a front underrun protection device and stronger cabins can add mass on the steer axle, which may require the king pin lead to be reduced.

For full details see UN ECE Regulations website at: unece.org/trans/



Front underrun protective devices assist in activating safety features in cars

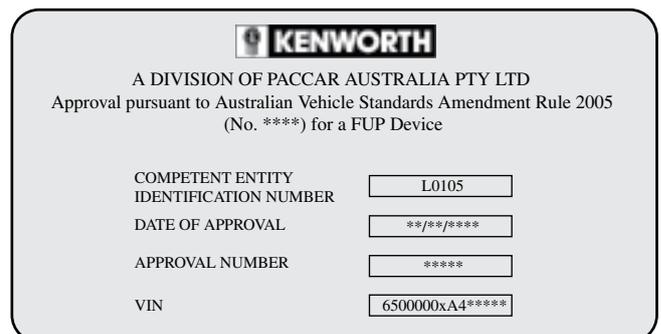
Stronger, safer cabs

The cabin strength requirement provides a safer environment for B-double drivers and passengers.

A prime mover manufactured after 2005 must be fitted with a cabin that complies with UN ECE Regulation No. 29. Such cabins must be able to withstand a series of impact tests against their front, rear and roof. An example of a test is shown below.

Approval plate

Vehicles meeting the UN ECE Regulations must have an approval plate confirming that the prime mover has been fitted with a front underrun protective device and/or increased cabin strength.



An example of an approval plate for a front underrun protective device



Front impact test on a Kenworth

The approval plate must be attached to the:

- bullbar, if it is the FUPD;
- the vehicle body, if it is the FUPD;
- both the bullbar and vehicle body, if both are the FUPD; and
- the cabin, to show increased cabin strength.

The approval plate shall be attached in a position where it may be easily inspected by an enforcement officer.

For vehicles registered in Victoria, approval plates must be obtained from either an engineering signatory for vehicle modifications, truck manufacturers, or bullbar suppliers who are certified under the Vehicle Assessment Signatory Scheme (VASS).

Compliant prime movers registered outside Victoria are required to have approval plates affixed under the registering jurisdictions' procedures.

A list of approval plate providers can be found on the VicRoads website at: vicroads.vic.gov.au

Future

The current United Nations Economic Commission for Europe Regulations No. 93 - Front Underrun Protective Devices (FUPD) does not mandate energy absorption inertia. Whilst some manufacturers are marketing limited energy absorption FUPD, a United Nations standard is yet to be developed. However, the addition of energy absorbing features or crumple zones has an even greater potential to reduce the severity of injuries and the risk of fatalities, and is strongly recommended.



A current example of a bullbar that does not interfere with the integrated energy absorbing FUPD

It is important that bullbars do not interfere or compromise energy absorbing front underrun protective devices. A bullbar has been developed that is designed to protect the vehicle from animal strike damage without compromising the energy absorption characteristics of more advanced front underrun protective devices.

Vehicle mass

26 metre B-doubles may operate up to the current 25 metre B-double mass limits, subject to compliance with the 25 metre B-double operating conditions. This includes operating up to 68.5 tonnes on Higher Mass Limits routes.

Approved routes

A 26 metre B-double may only travel on approved 25 metre B-double routes shown in the VicRoads Information Bulletins; *B-doubles & Higher Mass Limits Trucks* and *Local Roads Approved for B-doubles and Higher Mass Limits Trucks*.

Operators with individual permits for 25 metre B-doubles and who wish to operate on the same roads with a 26 metre B-double are required to re-apply to VicRoads for a new permit.

Documentation

You must carry in the driving compartment of your vehicle the following documents authorising travel on the road you are using:

- this information bulletin;
- the VicRoads information bulletin, *B-doubles & Higher Mass Limits Trucks*;
- the VicRoads publication, *Local Roads Approved for B-Double and Higher Mass Limits Trucks*;
- any permit issued by VicRoads for a B-double to travel on specific roads;
- for vehicles permitted to exceed 4.3 metres high, a copy of the current edition of the VicRoads information bulletin, *Height Clearance on Roads*, which can be found on the VicRoads website at: vicroads.vic.gov.au

Further information

Information regarding the United Nations Economic Commission for Europe Standards can be found on the website: unece.org/trans/main/wp29/wp29regs.html

More information on compliance requirements for 26 metre B-Doubles can be found on the website:

ntc.gov.au

For further information please contact VicRoads' Manager – Statewide Permits by phoning **9881 8852** or visit **vicroads.vic.gov.au**

