

Factsheet

PBS 60 metre Road Trains

The Performance Based Standards (PBS) Scheme offers potential for heavy vehicle operators to achieve higher productivity and improved safety through innovative vehicle designs. The PBS Scheme focuses on how well a vehicle performs on the road, by assessing the particular vehicle design against a set of rigorous safety performance standards, rather than assessing a vehicle based on prescriptive limits. PBS 60 metre road trains are the largest of the PBS vehicles and are considered a safer alternative to prescriptive 53.5 metre road trains.

Performance Standards

PBS 60 metre road trains are designed, manufactured, certified and maintained to meet rigorous safety performance standards. Prescriptive 53.5 metre road trains are only required to meet specified mass and dimension limits. Most prescriptive 53.5 metre road trains will not meet the rigorous PBS standards.

Due to the PBS 60 metre road trains being specifically designed to meet rigorous safety performance standards, they have a much lower risk of rollover, have better braking performance and have much less rear trailer sway than prescriptive 53.5 metre road trains.

Although the vehicle combinations are longer, the swept path of the PBS 60 metre roads is comparable to the 53.5 metre design vehicle used for conducting road designs and route assessments. Therefore, as PBS 60 metre road trains are only approved to operate on existing 53.5 metre routes, there is no requirement for intersection upgrades to accommodate the longer road trains.

The PBS 60 metre road trains are restricted to 90 km/h to ensure optimum safety performance.

Safety Features

In addition to meeting rigorous safety performance standards, it is also a mandatory requirement for prime movers in PBS 60 metre road trains to be fitted with Antilock Braking Systems (ABS) or Electronic Braking Systems (EBS), and for the trailers to be fitted with Trailer Electronic Braking Systems (TEBS) with Rollover Stability Controls (RSC).

These systems ensure stability under braking and further reduce rollover risk.

To ensure other road users are aware of the additional length of the PBS 60 metre road trains, they are required to be fitted with special signage on the rear, as shown below:



Compliance Monitoring

PBS 60 metre road trains are all fitted with in-vehicle telematics systems that are monitored by a third party service provider who are certified by Transport Certification Australia (TCA). The in-vehicle telematics system monitors the vehicle's speed and location. If the vehicle exceeds the allowable speed or travels on a non-approved route, non-conformance reports are sent to Main Roads via TCA.

The in-vehicle telematics systems are also used by the transport companies to monitor driver behaviour and geo-fence areas requiring particular attention, such as known rollover hotspots, town sites, roadworks etc.

Audit Regime

Main Roads administers an audit regime on PBS 60 metre road trains to ensure they are appropriately maintained and continue to perform to a high standard.

Traffic Impacts

There is often a misperception that the type of vehicle being used influences the transport task. However, in reality the transport task is determined by product demand and production output.

As such, if PBS 60 metre road trains are used for a given transport task, instead of prescriptive 53.5 metre road trains, there would be a reduction in vehicle movements due to the additional payload capacity of the PBS 60 metre road trains. This in turn reduces risk exposure.

Although the PBS 60 metre road trains are slightly longer than prescriptive 53.5 metre road trains, the impacts of the additional length are outweighed by the safety benefits and improved performance.

Environmental and Health Impacts

The higher productivity PBS 60 metre road trains are able to perform the transport task in fewer journeys than a prescriptive 53.5 metre road train, which results in reduced harmful emissions.

Further to this, the PBS approved vehicles generally consist of newer prime movers, which have improved emission ratings.

Productivity & Efficiency

There are clear productivity benefits associated with PBS 60 metre road trains. Current operators of the PBS 60 metre road trains have reported significant productivity and efficiency benefits of up to 25%, taking into account the reduced number of journeys and reduced loading / unloading times.

This improved efficiency also provides cost savings due to less fuel consumption.



Road Network Improvements

Main Roads will continue to make improvements to the road network, including additional overtaking lanes, seal widening, shoulder sealing and audible line markings, to make the road network safer for all road users.

Main Roads will install advisory signage on the PBS 60 metre road train routes to ensure other road users are aware of the presence of the longer road trains.

