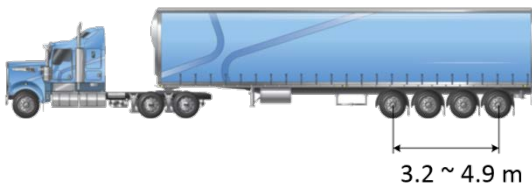


# PBS combinations fitted with quad-axle groups

This document provides information on PBS combinations fitted with quad-axle groups.

## What is a quad-axle group?

A quad axle group means a group of four axles in which the horizontal distance between the centre-lines of the end axles is between 3.2 and 4.9 metres.



## Quad-axle group masses

Quad-axle groups have the following masses under General Mass Limits (GML):

Quad-axle group description	Mass limit (t)
Quad-axle group fitted with single tyres with section widths of less than 375mm	15.0
Quad-axle group fitted with single tyres with section widths of at least 375mm or dual tyres	20.0

Concessional Mass Limits (CML) and Higher Mass Limits (HML) DO NOT apply to quad-axle groups.

## Quad-axle group mass exception limits

The Heavy Vehicle (Mass, Dimension and Loading) National Regulation allows quad-axle group to operate at masses higher than 20 and up to 27 tonnes if:

- (a) all axles in the quad axle group are fitted with dual tyres; and
- (b) PBS vehicle approval is in force for the vehicle that permits a mass of up to 27t on the quad axle group; and
- (c) the vehicle complies with PBS Standards and with the conditions of the PBS vehicle approval.

## PBS Operating Conditions

PBS quad-axle operating conditions
The axles in the quad-axle group must relate to each other through a load-sharing suspension system.
If the quad-axle group is fitted with a retractable axle, the retractable axle must comply with ADR 43/04. The transition mass is 18t.
The quad-axle group must be fitted with either: <ul style="list-style-type: none"> <li>o a steerable axle with no less than 12° steering articulation and an effective automatic centring mechanism; or</li> <li>o another steering mechanism proven to be effective in mitigating the impacts of road scrubbing by tyres.</li> </ul>
A National Heavy Vehicle Accreditation Scheme (NHVAS) - Maintenance Management accreditation of the vehicle must be in force for the operator of the vehicle.

PBS quad-axle operating conditions
Quad-axle Mass Limits (QML) requirements for the operation with mass exceeding 20t on the quad-axle group: <ul style="list-style-type: none"> <li>o the quad-axle group must be fitted with a road-friendly suspension system that is certified for tri-axle groups in accordance with the requirements of VSB 11; and</li> <li>o all axles in the quad-axle group must be fitted with dual tyres; and</li> <li>o A National Heavy Vehicle Accreditation Scheme (NHVAS) - Mass Management accreditation of the vehicle must be in force for the operator of the vehicle.</li> </ul>

## Quad-axle mass exception limits (QML)

PBS vehicle approvals previously issued with CML and HML masses are now replaced with QML1 and QML2 respectively.

For example, a mass table for a PBS quad-axle semi-trailer combination is shown below:

Axle Group Masses	GML	QML 1	QML 2
Steer (t)	6.5*	6.5*	6.5*
Drive (t)	16.5	17.0	17.0
Semi-Trailer (t)	20.0	21.0	27.0

\* Complying steer axle

## Tier 3 bridge assessment

A Tier 3 bridge assessment is required when operating above 21t on the quad-axle group.

## Quad-axle semi-trailer combinations

A quad-axle semi-trailer combination with a quad-axle group mass that does not exceed 20 tonnes is eligible for General Access; provided it complies dimensionally with the Heavy Vehicle (Mass, Dimension and Loading) National Regulation – Length 19 m, Width 2.5 m, Height 4.3 m and Mass 42.5 tonnes).

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Phone: 1300 MYNHVR\* (1300 696 487)

Email: [info@nhvr.gov.au](mailto:info@nhvr.gov.au)

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