



National Class 2 Performance Based Standards (High Productivity) Authorisation Notice

Reference Vehicle Information Sheet

July 2024

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1 Overview

This Information Sheet contains a list of reference vehicles and the specific requirements they must meet to operate on approved networks under the [National Class 2 Performance Based Standards \(High Productivity\) Authorisation Notice 2024 \(No.1\)](#) (the Notice)

Reference vehicles must comply with the requirements outlined in this document in addition to the conditions outlined in the [National Class 2 Performance Based Standards \(High Productivity\) Authorisation Notice Operator's Guide](#) (the Guide).

Please read the Guide and this document together. For definitions of terms used in this document, refer to the Guide.

Note: Not every network will require compliance with a reference vehicle. If a reference vehicle exists for a network, then the reference vehicle parameters must be complied with.

1.1 Finding a reference vehicle

Use these steps to determine if your vehicle meets the requirements of a reference vehicle for access to an approved network under the Notice:

1. **Open the Operator's Guide:** Start by accessing the [Operator's Guide](#).
2. **Navigate to the network and mapping tab:** Go to the 'Approved routes covered by the Notice' section.
3. **Check reference vehicle columns:** In Table 4 for New South Wales networks and Table 6 for Victoria networks, look at the reference vehicle columns. Networks that require compliance with a reference vehicle will list the reference vehicle type in these columns.
4. **Match the reference vehicle type:** Find the relevant section in this document that corresponds to the reference vehicle type for the approved network.
5. **Confirm compliance:** Check the dimensions and other requirements of all specified reference vehicles to determine which one your vehicle complies with.
6. **Select the corresponding map:** In the National Network Map, choose the map that corresponds to the reference vehicle you comply with.

Note: More than one reference vehicle may be provided under a reference vehicle type, in which case compliance with only one reference vehicle is required.

National Network Map

Network access is mapped individually for each reference vehicle. The National Network Map will show reference vehicle options for a given network in either a list or a drop-down menu. Operators must select the reference vehicle they comply with to view applicable access conditions and restrictions.

1.2 Interpreting reference vehicle tables and diagrams

This information sheet includes diagrams and tables with dimension requirements for each reference vehicle type.

Reference vehicle diagrams

Reference vehicle diagrams illustrate how dimensions are measured on the approved vehicle configuration/s. Each axle is numbered consecutively to match the axle spacings in the dimension requirements table. For example, axle spacing 1-2 from the dimension requirements table is the distance between axle 1 and axle 2 in the corresponding diagram.

Dimension requirement tables

Table 1 (below) explains how to interpret each of the columns in a dimension requirements table.

Table 1: Dimension table column descriptions

Column	Description
Reference vehicle number / Ref #	Reference vehicle number, which differentiates each reference vehicle within a type. For example, ref 1 is reference vehicle 1, while ref 2 is reference vehicle 2 under the same reference vehicle type.
Limit type	Each specified dimension may have minimum and/or maximum values. The vehicle's dimension must fall between these values if both are provided. <ul style="list-style-type: none"> • Minimum = Above and including this value. • Maximum = Up to and including this value.
Overall length / OAL	The overall length of the vehicle combination, measured in metres.
Reference Vehicle Axle Spacing Requirements (m)	The axle spacing is measured from the centre of the first specified axle to the centre of the second specified axle, measured in metres. Axle spacing requirements are expressed using consecutive axle numbers. For example, axle spacing 1-2 is the distance between the first and second axles, while axle spacing 1-12 is the distance between the first and twelfth axles in the configuration.

1.3 Contact us

Check the [Operator's Guide](#) or contact us for further guidance on reference vehicle requirements under the Notice:

- Email: info@nhvr.gov.au
- Phone: 13 NHVR (13 64 87)

2 New South Wales reference vehicles

Under the Notice, certain vehicle configurations must comply with the requirements of a reference vehicle when operating at Tier 3 masses in New South Wales.

2.1 Quad-axle Semitrailer Reference Vehicle

Quad-axle semitrailers that meet the reference vehicle requirements outlined in Table 2 are approved to operate on the PBS Level 1 QML2 Network.

Complying with the reference vehicle means meeting **all** the requirements listed in Table 2 and any relevant conditions outlined in the [Guide](#).

Figure 1 illustrates how dimension requirements are measured on a quad-axle semitrailer.

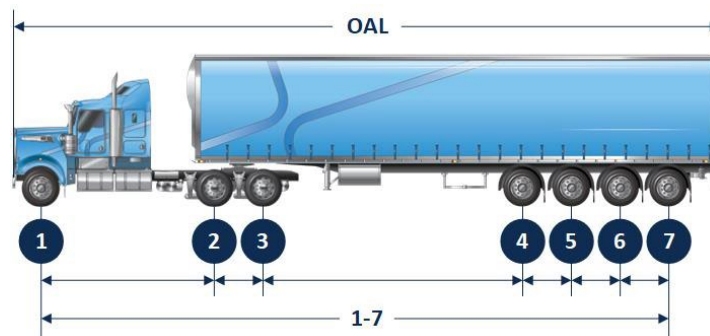


Figure 1: Quad-axle Semitrailer Reference Vehicle diagram

Table 2: Quad-axle Semitrailer Reference Vehicle - Dimension requirements

Ref #	Limit type	OAL (m)	Reference Vehicle Axle Spacing Requirements (m)					
			<i>Axle spacing measured from the centre of the first specified axle to the centre of the second specified axle</i>					
			1-2	2-3	3-4	4-5	5-6	6-7
1	Min	-	3.0	1.2	5.9	1.2	1.2	1.2
	Max	20.0	-	-	-	-	-	-

Note: Vehicles that comply with the Quad-axle Semitrailer Reference Vehicle may also comply with Victoria's Quad Semitrailer General Freight Reference Vehicle. Check the Victorian reference vehicle requirements to confirm compliance.

2.2 A-double Reference Vehicles

A-double reference vehicles 1, 2, and 3 are approved to operate at Tier 3 masses on the following networks:

- PBS 2B Tier 3 GML/CML A-double Network
- PBS 2B Tier 3 HML A-double Network

Table 3 lists each of the A-double Reference Vehicles and the dimension requirements that apply to them.

Complying with a reference vehicle means meeting **all** the requirements for that reference vehicle and any relevant conditions outlined in the [Guide](#).

Figure 2 illustrates how dimensions are measured on the approved A-double (3-2-3) configuration.

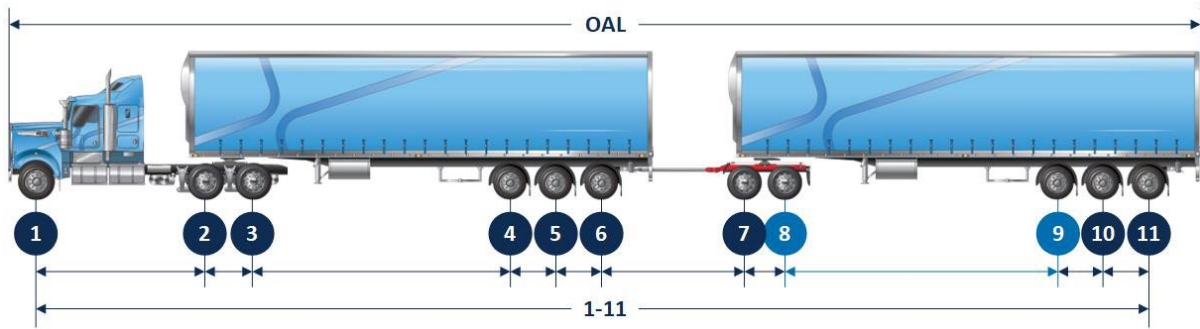


Figure 2: A-double (3-2-3) Reference Vehicle diagram

Table 3: A-double Reference Vehicles - Dimension requirements

Ref #	Limit type	OAL (m)	Reference Vehicle Axle Spacing Requirements (m)										
			Axle spacing measured from the centre of the first specified axle to the centre of the second specified axle										
			1-11	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11
1	Min	-	-	3.0	1.25	5.2	1.2	1.2	5.2	1.2	5.2	1.2	1.2
	Max	30.0	28.8	-	1.4	-	1.55	1.55	-	1.55	-	1.55	1.55
2	Min	-	-	3.0	1.25	6.0	1.2	1.2	3.75	1.2	6.2 ¹	1.2	1.2
	Max	30.0	28.8	-	1.4	-	1.55	1.55	-	1.55	-	1.55	1.55
3	Min	-	-	3.0	1.25	6.3	1.2	1.2	3.75	1.2	6.3	1.2	1.2
	Max	30.0	28.8	-	1.4	-	1.55	1.55	-	1.55	-	1.55	1.55

¹ Distance between **axle 8** and **axle 9** on Reference Vehicle 2 may be reduced from 6.2m to 6.125m if all other measurements comply.

Note: A-double Reference Vehicles have the same dimension requirements as the PBS Level 2B 85.5t General Freight and Volumetric Reference Vehicles operating in Victoria.

3 Victoria reference vehicles

Under the Notice, all approved networks in Victoria require compliance with a reference vehicle. Reference vehicles are categorised according to PBS Level, maximum mass, and the freight types defined below.

- **General Freight reference vehicle:** General Freight reference vehicles are for all eligible configurations that meet the requirements of a specified General Freight reference vehicle, including tankers containing liquid commodities.
- **Volumetric reference vehicle:** Volumetric reference vehicles are restricted to eligible configurations that are tankers containing liquid commodities and that meet the requirements of a specified Volumetric reference vehicle.

Before travelling in Victoria, operators should consult the [Operating a Performance-Based Standards vehicle in Victoria - Industry Guide](#) published by Victoria's Department of Transport and Planning (DTP).

Note: On 3 June 2024, all Victorian networks and reference vehicles under the Notice were reclassified. To confirm how your network or reference vehicle has been reclassified, please refer to the [Victoria PBS High Productivity Network Reclassification 2024 - Information sheet \(PDF, 307KB\)](#).

3.1 PBS Quad Semitrailer General Freight Reference Vehicle

Quad-axle semitrailer configurations that meet the reference vehicle requirements outlined in Table 4 are approved to operate on the PBS Quad Semitrailer General Freight Network.

Complying with the reference vehicle means meeting **all** the requirements listed in Table 4 and any relevant conditions outlined in the [Guide](#).

Figure 3 illustrates how dimension requirements are measured on a quad-axle semitrailer.

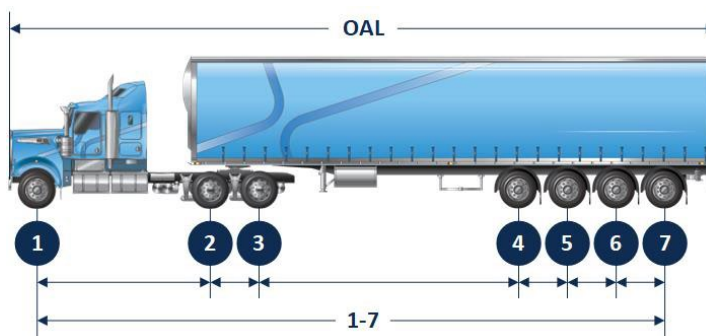


Figure 3: Quad Semitrailer General Freight Reference Vehicle diagram

Table 4: PBS Quad Semitrailer General Freight Reference Vehicle - Dimension requirements

Ref #	Limit type	OAL (m)	Reference Vehicle Axle Spacing Requirements (m)					
			<i>Axle spacing measured from the centre of the first specified axle to the centre of the second specified axle</i>					
			1-2	2-3	3-4	4-5	5-6	6-7
1	Min	-	3.0	1.25	6.8	1.25	1.25	1.25
	Max	20.0	7.0	1.5	-	1.55	1.55	1.55

Note: The Quad Semitrailer General Freight Reference Vehicle complies with the dimension requirements applied to the New South Wales Quad-axle Semitrailer Reference Vehicle.

3.2 PBS Level 2A 74.5t Volumetric Reference Vehicles

Volumetric A-double (2-2-2) configurations that meet the requirements of a reference vehicle outlined in Table 5 are approved to operate on the PBS Level 2A 74.5t Volumetric Network.

Complying with a reference vehicle means meeting **all** the requirements listed in Table 5 and any relevant conditions outlined in the [Guide](#).

Figure 4 illustrates how dimension requirements are measured on a volumetric A-double (2-2-2) configuration.

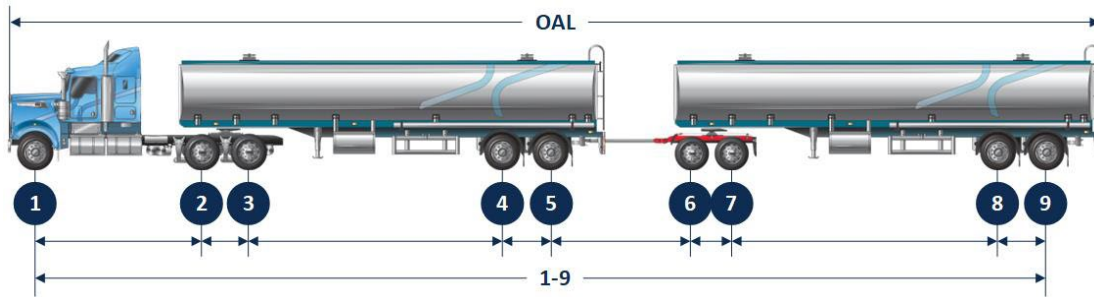


Figure 4: A-double (2-2-2) Volumetric Reference Vehicle diagram

Table 5: PBS Level 2A 74.5t Volumetric Reference Vehicles - Dimension requirements

Ref #	Limit type	OAL (m)	Reference Vehicle Axle Spacing Requirements (m)								
			<i>Axle spacing measured from the centre of the first specified axle to the centre of the second specified axle</i>								
			1-9	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9
1	Min	-	-	3.0	1.25	4.5	1.8	3.5	1.4	4.5	1.8
	Max	26.0	25.0	7.0	1.5	6.0	2.0	4.5	1.6	6.0	2.0
2	Min	-	-	3.0	1.25	4.5	1.8	2.8	1.4	4.5	1.8
	Max	26.0	25.0	7.0	1.5	6.0	2.0	3.5	1.6	6.0	2.0
3	Min	-	-	3.0	1.25	4.5	1.25	5.0	1.25	5.0	1.25
	Max	26.0	25.0	7.0	1.5	6.0	1.55	6.0	1.55	6.0	1.55

3.3 PBS Level 2B Cubic General Freight Reference Vehicles

Vehicle configurations that meet the requirements of a reference vehicle are outlined in Table 6 are approved to operate on the PBS Level 2B Cubic Network.

Complying with a reference vehicle means meeting **all** the requirements listed in Table 6 and any relevant conditions outlined in the [Guide](#).

- Reference vehicles 1 is restricted to A-double (3-2-3) configurations. Figure 5 illustrates how dimension requirements are measured on this configuration.
- Reference vehicle 2 is restricted to B-double (3-3) configurations. Figure 6 illustrates how dimension requirements are measured on this configuration.

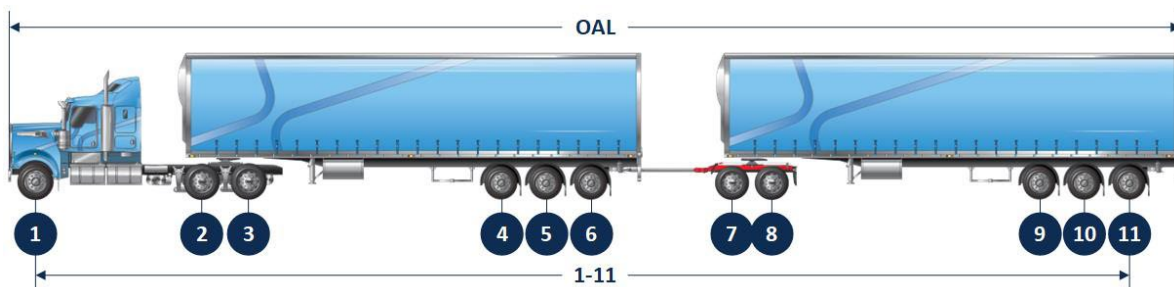


Figure 5: A-double (3-2-3) Cubic General Freight Reference Vehicle diagram

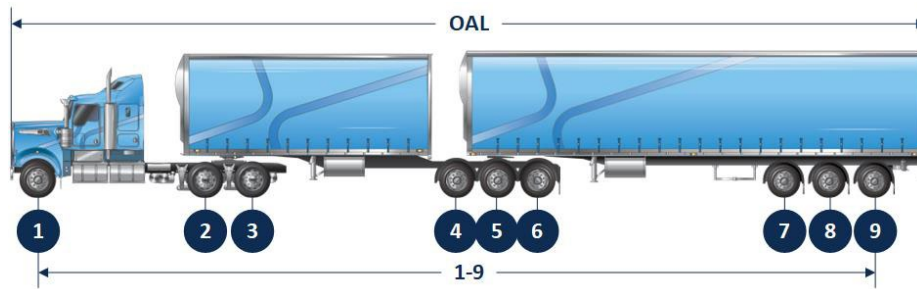


Figure 6: B-double (3-3) Cubic General Freight Reference Vehicle diagram

Table 6: PBS Level 2B Cubic General Freight Reference Vehicles - Dimension requirements

Ref #	Vehicle configuration	Limit type	OAL (m)	Reference Vehicle Axle Spacing Requirements (m)	
				Axle spacing measured from the centre of the first specified axle to the centre of the second specified axle	
				1-9	1-11
1	A-double (3-2-3)	Min	-	-	26.0
		Max	30.0	-	-
2	B-double (3-3)	Min	-	21.0	-
		Max	30.0	-	-

3.4 PBS Level 2B 73.0t General Freight Reference Vehicle

B-double (4-3) configurations that meet the reference vehicle requirements outlined in Table 7 are approved to operate on the PBS Level 2B 73.0t General Freight Network.

Complying with the reference vehicle means meeting **all** the requirements listed in Table 7 and any relevant conditions outlined in the [Guide](#).

Figure 7 illustrates how dimension requirements are measured on a B-double (4-3) configuration.

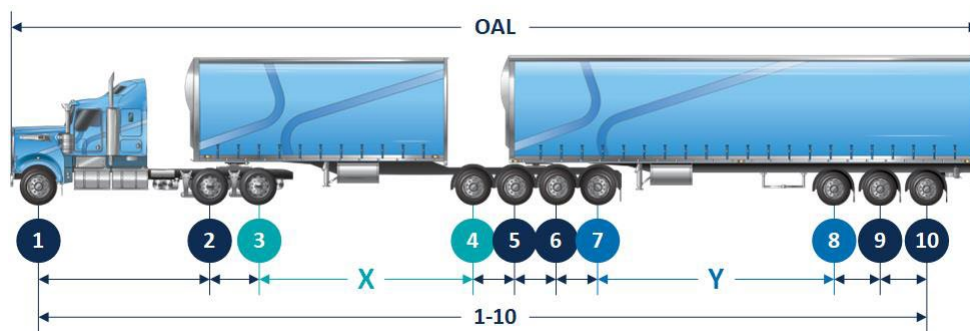


Figure 7: B-double (4-3) General Freight Reference Vehicle diagram

Table 7: PBS Level 2B 73.0t General Freight Reference Vehicle – Dimension requirements

Ref #	Limit type	OAL (m)	Reference Vehicle Axle Spacing Requirements (m)										
			Axle spacing measured from the centre of the first specified axle to the centre of the second specified axle										
			X+Y	1-10	1-2	2-3	3-4 (X)	4-5	5-6	6-7	7-8 (Y)	8-9	9-10
1	Min	-	13.0	-	3.0	1.25	6.0	1.25	1.25	1.25	6.0	1.2	1.2
	Max	30.0	-	28.8	-	1.4	-	1.4	1.4	1.4	-	1.45	1.45

X + Y = Distance between axle 3 and axle 4 (X) + Distance between axle 7 and axle 8 (Y)

3.5 PBS Level 2B 77.5t General Freight Reference Vehicle

B-double (4-4) configurations that meet the reference vehicle requirements outlined in Table 8 are approved to operate on the PBS Level 2B 77.5t General Freight Network.

Complying with the reference vehicle means meeting **all** the requirements listed in Table 8 and any relevant conditions outlined in the [Guide](#).

Figure 8 illustrates how dimension requirements are measured on a B-double (4-4) configuration.

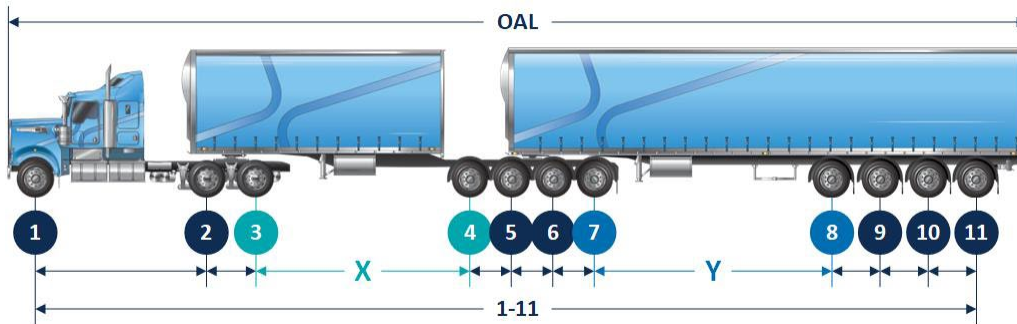


Figure 8: B-double (4-4) General Freight Reference Vehicle diagram

Table 8: PBS Level 2B 77.5t General Freight Reference Vehicle – Dimension requirements

Ref #	Limit type	OAL (m)	Reference Vehicle Axle Spacing Requirements (m)											
			<i>Axle spacing measured from the centre of the first specified axle to the centre of the second specified axle</i>											
			X+Y	1-11	1-2	2-3	3-4 (X)	4-5	5-6	6-7	7-8 (Y)	8-9	9-10	10-11
1	Min	-	13.0	-	3.0	1.25	6.0	1.25	1.25	1.25	6.0	1.25	1.25	1.25
	Max	30.0	-	28.8	-	1.4	-	1.4	1.4	1.4	-	1.4	1.4	1.4

X + Y = Distance between axle 3 and axle 4 (X) + Distance between axle 7 and axle 8 (Y)

3.6 PBS Level 2B 85.5t General Freight Reference Vehicles

A-double (3-2-3) configurations that meet the requirements of a reference vehicle outlined in Table 9 are approved to operate on the PBS Level 2B 85.5t General Freight Network.

Complying with a reference vehicle means meeting **all** the requirements listed in Table 9 and any relevant conditions outlined in the [Guide](#).

Figure 9 illustrates how dimension requirements are measured on an A-double (3-2-3) configuration.

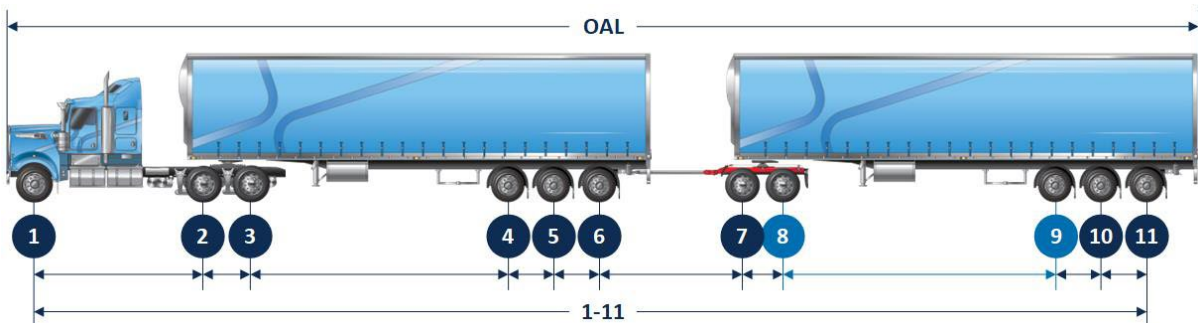


Figure 9: A-double (3-2-3) General Freight Reference Vehicle diagram

Table 9: PBS Level 2B 85.5t General Freight Reference Vehicles – Dimension requirements

Ref #	Limit type	OAL (m)	Reference Vehicle Axle Spacing Requirements (m)										
			<i>Axle spacing measured from the centre of the first specified axle to the centre of the second specified axle</i>										

			1-11	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11
1	Min	-	-	3.0	1.25	5.2	1.2	1.2	5.2	1.2	5.2	1.2	1.2
	Max	30.0	28.8	-	1.4	-	1.55	1.55	-	1.55	-	1.55	1.55
2	Min	-	-	3.0	1.25	6.0	1.2	1.2	3.75	1.2	6.2 ¹	1.2	1.2
	Max	30.0	28.8	-	1.4	-	1.55	1.55	-	1.55	-	1.55	1.55
3	Min	-	-	3.0	1.25	6.3	1.2	1.2	3.75	1.2	6.3	1.2	1.2
	Max	30.0	28.8	-	1.4	-	1.55	1.55	-	1.55	-	1.55	1.55

¹ Distance between **axle 8** and **axle 9** on Reference Vehicle 2 may be reduced from 6.2m to 6.125m if all other measurements comply.

Note: PBS Level 2B 85.5t General Freight Reference Vehicles have the same dimension requirements as A-double Reference Vehicles operating in New South Wales.

3.7 PBS Level 2B 85.5t Volumetric Reference Vehicles

Volumetric A-double (3-2-3) configurations that meet the requirements of a reference vehicle outlined in Table 10 are approved to operate on the PBS Level 2B 85.5t Volumetric Network.

Complying with a reference vehicle means meeting **all** the requirements listed in Table 10 and any relevant conditions outlined in the [Guide](#).

Figure 10 illustrates how dimension requirements are measured on a volumetric A-double (3-2-3) configuration.

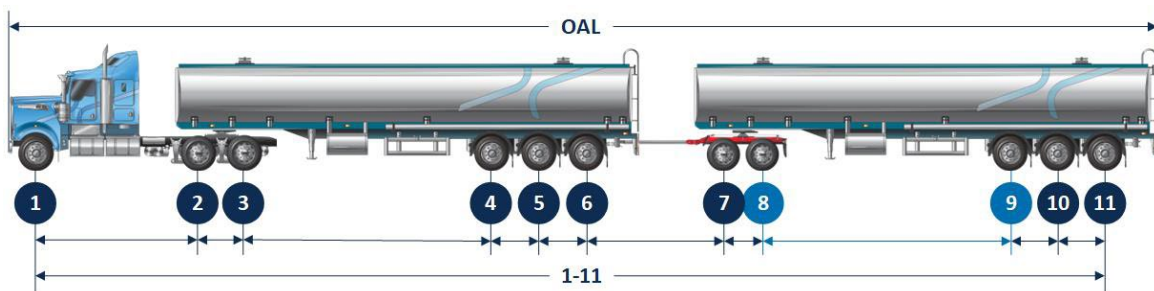


Figure 10: A-double (3-2-3) Volumetric Reference Vehicle diagram

Table 10: PBS Level 2B 85.5t Volumetric Reference Vehicles – Dimension requirements

Ref #	Limit type	OAL (m)	Reference Vehicle Axle Spacing Requirements (m)										
			<i>Axle spacing measured from the centre of the first specified axle to the centre of the second specified axle</i>										
			1-11	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11
1	Min	-	-	3.0	1.25	5.2	1.2	1.2	5.2	1.2	5.2	1.2	1.2
	Max	30.0	28.8	-	1.4	-	1.55	1.55	-	1.55	-	1.55	1.55
2	Min	-	-	3.0	1.25	6.0	1.2	1.2	3.75	1.2	6.2 ¹	1.2	1.2
	Max	30.0	28.8	-	1.4	-	1.55	1.55	-	1.55	-	1.55	1.55
3	Min	-	-	3.0	1.25	6.3	1.2	1.2	3.75	1.2	6.3	1.2	1.2
	Max	30.0	28.8	-	1.4	-	1.55	1.55	-	1.55	-	1.55	1.55

¹ Distance between **axle 8** and **axle 9** on Reference Vehicle 2 may be reduced from 6.2m to 6.125m if all other measurements comply.

Note: PBS Level 2B 85.5t Volumetric Reference Vehicles have the same dimension requirements as A-double Reference Vehicles operating in New South Wales.

3.8 PBS Level 3A 73.0t General Freight Reference Vehicle

B-double (4-3) configurations that meet the reference vehicle requirements outlined in Table 11 are approved to operate on the PBS Level 3A 73.0t General Freight Network.

Complying with the reference vehicle means meeting **all** the requirements listed in Table 11 and any relevant conditions outlined in the [Guide](#).

Figure 11 illustrates how dimension requirements are measured on a B-double (4-3) configuration.

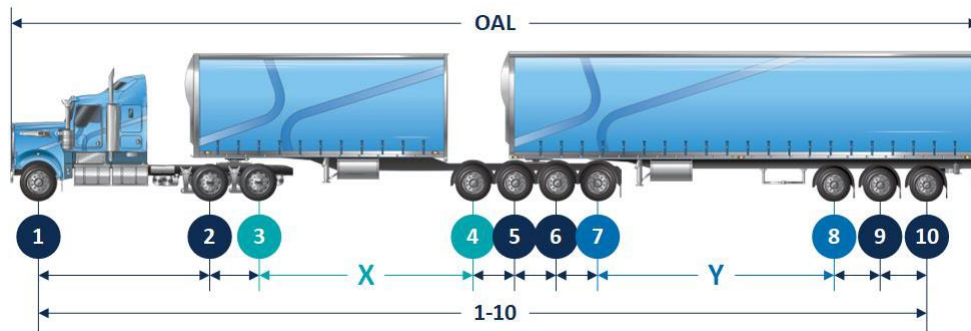


Figure 11: B-double (4-3) General Freight Reference Vehicle diagram

Table 11: PBS Level 3A 73.0t General Freight Reference Vehicle – Dimension requirements

Ref #	Limit type	OAL (m)	Reference Vehicle Axle Spacing Requirements (m)										
			Axle spacing measured from the centre of the first specified axle to the centre of the second specified axle										
			X+Y	1-10	1-2	2-3	3-4 (X)	4-5	5-6	6-7	7-8 (Y)	8-9	9-10
1	Min	30.0	13.0	-	3.0	1.25	6.0	1.25	1.25	1.25	6.0	1.2	1.2
	Max	36.5	-	28.8	-	1.4	-	1.4	1.4	1.4	-	1.45	1.45

X + Y = Distance between axle 3 and axle 4 (X) + Distance between axle 7 and axle 8 (Y)

3.9 PBS Level 3A 77.5t General Freight Reference Vehicle

B-double (4-4) configurations that meet the reference vehicle requirements outlined in Table 12 are approved to operate on the PBS Level 3A 77.5t General Freight Network.

Complying with the reference vehicle means meeting **all** the requirements listed in Table 12 and any relevant conditions outlined in the [Guide](#).

Figure 12 illustrates how dimension requirements are measured on a B-double (4-4) configuration.

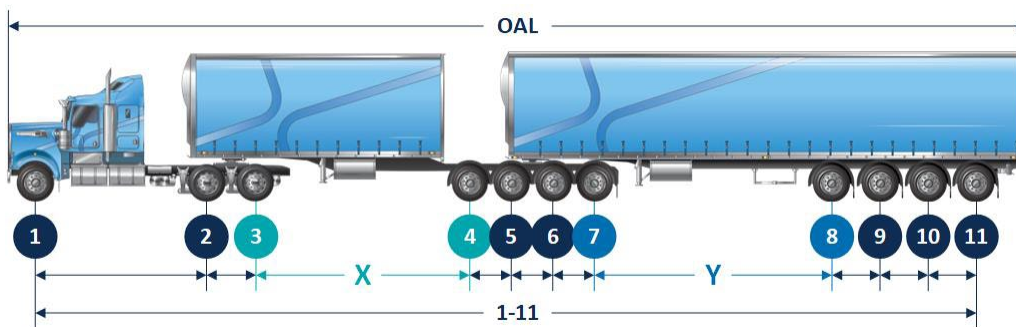


Figure 12: B-double (4-4) General Freight Reference Vehicle diagram

Table 12: PBS Level 3A 77.5t General Freight Reference Vehicle – Dimension requirements

Ref #	Limit type	OAL (m)	Reference Vehicle Axle Spacing Requirements (m)											
			Axle spacing measured from the centre of the first specified axle to the centre of the second specified axle											
			X+Y	1-11	1-2	2-3	3-4 (X)	4-5	5-6	6-7	7-8 (Y)	8-9	9-10	10-11
1	Min	30.0	13.0	-	3.0	1.25	6.0	1.25	1.25	1.25	6.0	1.25	1.25	1.25
	Max	36.5	-	28.8	-	1.4	-	1.4	1.4	1.4	-	1.4	1.4	1.4

X + Y = Distance between axle 3 and axle 4 (X) + Distance between axle 7 and axle 8 (Y)

3.10 PBS Level 3A 85.5t General Freight Reference Vehicles

Vehicle configurations that meet the requirements of a reference vehicle outlined in Table 13 are approved to operate on the PBS Level 3A 85.5t General Freight Network.

Complying with a reference vehicle means meeting **all** the requirements listed in Table 13 and any relevant conditions outlined in the [Guide](#).

- Reference vehicles 1, 2, 3, 4, and 6 are restricted to A-double (3-2-3) configurations. Figure 13 illustrates how dimension requirements are measured on this configuration.
- Reference vehicles 5, and 7 are restricted to A-double (3-3-3) configurations. Figure 14 illustrates how dimension requirements are measured on this configuration.

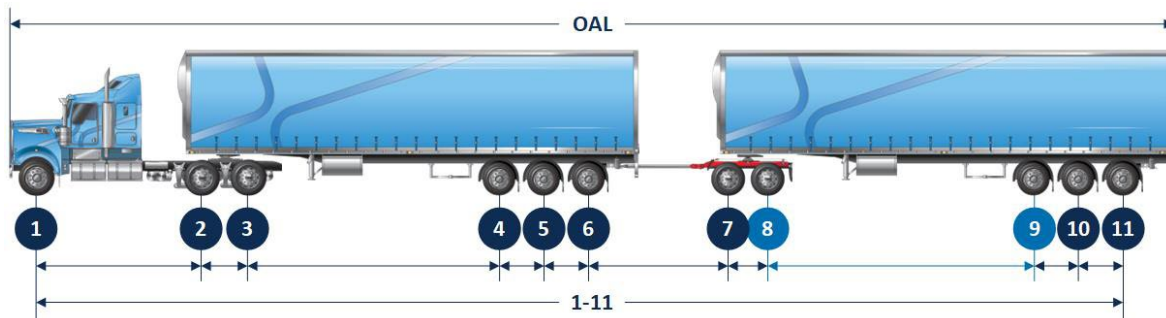


Figure 13: A-double (3-2-3) General Freight Reference Vehicle diagram

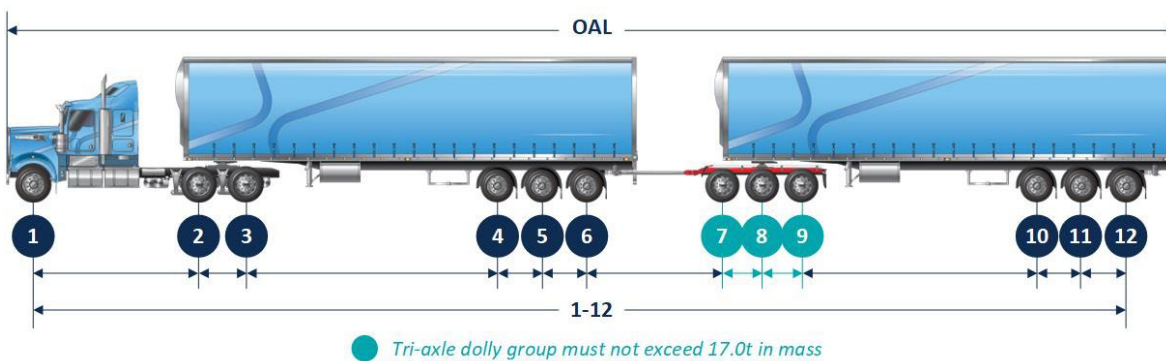


Figure 14: A-double (3-3-3) General Freight Reference Vehicle diagram

Table 13: PBS Level 3A 85.5t General Freight Reference Vehicles – Dimension requirements

Ref #	Limit type	OAL (m)	Reference Vehicle Axle Spacing Requirements (m)												
			Axle spacing measured from the centre of the first specified axle to the centre of the second specified axle												
			1-11	1-12	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
1	Min	30.0	-	-	3.0	1.25	5.2	1.2	1.2	5.2	1.2	5.2	1.2	1.2	-
	Max	36.5	28.8	-	-	1.4	-	1.55	1.55	-	1.55	-	1.55	1.55	-
2	Min	30.0	-	-	3.0	1.25	6.0	1.2	1.2	3.75	1.2	6.2 ¹	1.2	1.2	-
	Max	36.5	28.8	-	-	1.4	-	1.55	1.55	-	1.55	-	1.55	1.55	-
3	Min	30.0	-	-	3.0	1.25	6.3	1.2	1.2	3.75	1.2	6.3	1.2	1.2	-
	Max	36.5	28.8	-	-	1.4	-	1.55	1.55	-	1.55	-	1.55	1.55	-
4	Min	-	-	-	3.0	1.25	6.2	1.2	1.2	5.2	1.2	6.2	1.2	1.2	-
	Max	36.5	35.3	-	-	1.5	-	1.6	1.6	-	1.6	-	1.6	1.6	-
5	Min	-	-	-	3.0	1.25	6.2	1.2	1.2	5.2	1.2	1.2	6.2	1.2	1.2
	Max	36.5	-	35.3	-	1.5	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6
6	Min	-	-	-	3.0	1.25	6.9	1.2	1.2	3.75	1.2	6.9	1.2	1.2	-

	Max	36.5	35.3	-	-	1.5	-	1.6	1.6	-	1.6	-	1.6	1.6	-
7	Min	-	-	-	3.0	1.25	6.9	1.2	1.2	3.75	1.2	1.2	6.9	1.2	1.2
	Max	36.5	-	35.3	-	1.5	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6

¹ Distance between **axle 8** and **axle 9** on Reference Vehicle 2 may be reduced from 6.2m to 6.125m if all other measurements comply.

3.11 PBS Level 3A 85.5t Volumetric Reference Vehicles

Volumetric A-double (3-2-3) configurations that meet the requirements of a reference vehicle outlined in Table 14 are approved to operate on the PBS Level 3A 85.5t Volumetric Network.

Complying with a reference vehicle means meeting **all** the requirements listed in Table 14 and any relevant conditions outlined in the [Guide](#).

Figure 15 illustrates how dimension requirements are measured on a volumetric A-double (3-2-3) configuration.

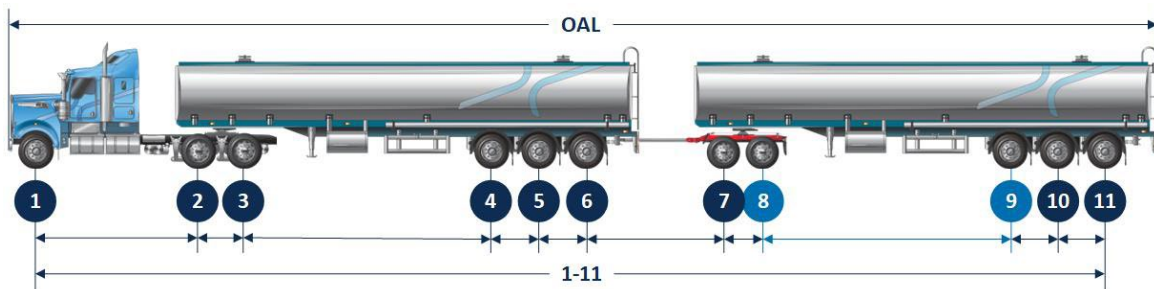


Figure 15: A-double (3-2-3) Volumetric Reference Vehicle diagram

Table 14: PBS Level 3A 85.5t Volumetric Reference Vehicles – Dimension requirements

Ref #	Limit type	OAL (m)	Reference Vehicle Axle Spacing Requirements (m)										
			<i>Axle spacing measured from the centre of the first specified axle to the centre of the second specified axle</i>										
			1-11	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11
1	Min	30.0	-	3.0	1.25	5.2	1.2	1.2	5.2	1.2	5.2	1.2	1.2
	Max	36.5	28.8	-	1.4	-	1.55	1.55	-	1.55	-	1.55	1.55
2	Min	30.0	-	3.0	1.25	6.0	1.2	1.2	3.75	1.2	6.2 ¹	1.2	1.2
	Max	36.5	28.8	-	1.4	-	1.55	1.55	-	1.55	-	1.55	1.55
3	Min	30.0	-	3.0	1.25	6.3	1.2	1.2	3.75	1.2	6.3	1.2	1.2
	Max	36.5	28.8	-	1.4	-	1.55	1.55	-	1.55	-	1.55	1.55

¹ Distance between **axle 8** and **axle 9** on Reference Vehicle 2 may be reduced from 6.2m to 6.125m if all other measurements comply.

3.12 PBS Level 3A 91.0t General Freight Reference Vehicles

Vehicle configurations that meet the requirements of a reference vehicle outlined in Table 15 are approved to operate on the PBS Level 3A 91.0t General Freight Network.

Complying with a reference vehicle means meeting **all** the requirements listed in Table 15 and any relevant conditions outlined in the [Guide](#).

- Reference vehicles 1, 2, and 3 are restricted to B-triple (3-3-3) configurations. Figure 16 illustrates how dimension requirements are measured on this configuration.
- Reference vehicles 4, 5, 6, and 7 are restricted to A-double (3-3-3) configurations. Figure 17 illustrates how dimension requirements are measured on this configuration.

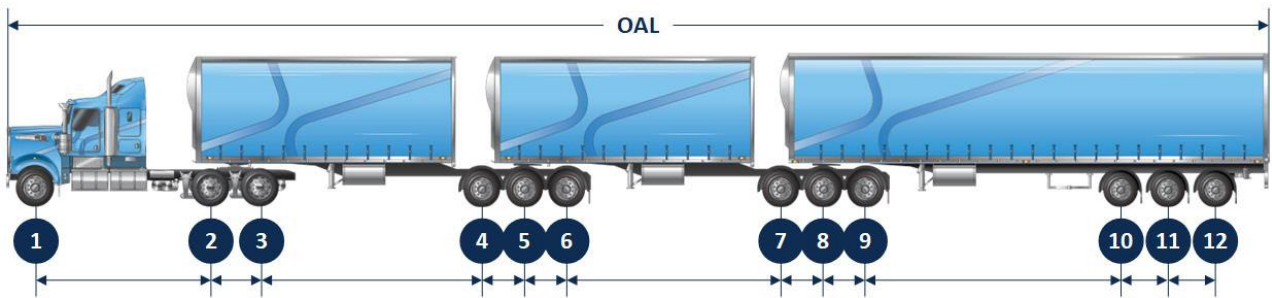


Figure 16: B-triple (3-3-3) General Freight Reference Vehicle diagram

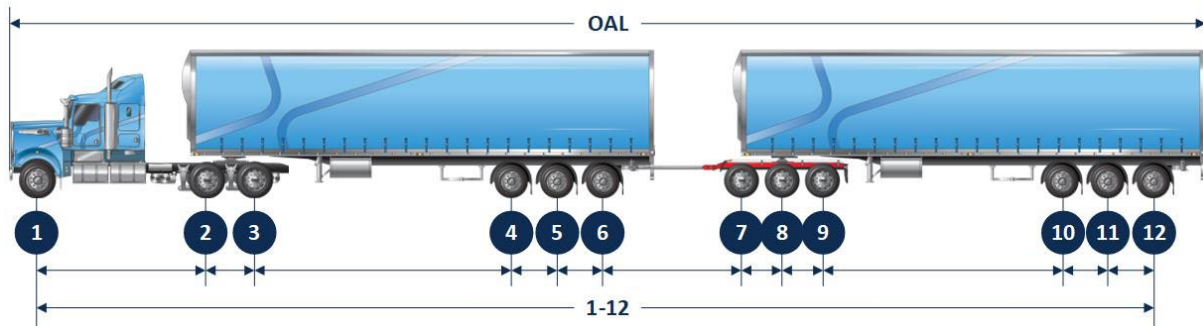


Figure 17: A-double (3-3-3) General Freight Reference Vehicle diagram

Table 15: PBS Level 3A 91.0t General Freight Reference Vehicles – Dimension requirements

Ref #	Limit type	OAL (m)	Reference Vehicle Axle Spacing Requirements (m)											
			<i>Axle spacing measured from the centre of the first specified axle to the centre of the second specified axle</i>											
			1-12	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
1	Min	-	-	3.0	1.2	5.4	1.2	1.2	4.7	1.2	1.2	5.2	1.2	1.2
	Max	36.5	-	-	1.55	-	1.6	1.6	-	1.6	1.6	6.5	1.6	1.6
2	Min	-	-	3.0	1.2	5.4	1.2	1.2	5.4	1.2	1.2	6.5	1.2	1.2
	Max	36.5	-	-	1.55	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6
3	Min	-	-	4.2	1.3	4.2	1.25	1.25	4.2	1.25	1.25	4.2	1.25	1.25
	Max	36.5	-	-	1.3	-	1.25	1.25	-	1.25	1.25	-	1.25	1.25
4	Min	-	-	3.0	1.25	5.2	1.2	1.2	4.0	1.2	1.2	5.2	1.2	1.2
	Max	36.5	28.8	-	1.4	-	1.55	1.55	-	1.55	1.55	-	1.55	1.55
5	Min	-	-	3.0	1.25	5.2	1.2	1.2	4.55	1.2	1.2	4.7	1.2	1.2
	Max	36.5	28.8	-	1.4	-	1.55	1.55	-	1.55	1.55	-	1.55	1.55
6	Min	-	-	3.0	1.25	5.1	1.2	1.2	4.2	1.2	1.2	4.2	1.2	1.2
	Max	36.5	28.8	-	1.4	-	1.55	1.55	-	1.55	1.55	-	1.55	1.55
7	Min	-	-	3.0	1.25	4.2	1.2	1.2	4.2	1.2	1.2	4.2	1.2	1.2
	Max	36.5	28.8	-	1.4	-	1.55	1.55	-	1.55	1.55	-	1.55	1.55

3.13 PBS Level 3A 91.0t Volumetric Reference Vehicles

Volumetric vehicle configurations that meet the requirements of a reference vehicle outlined in Table 16 are approved to operate on the PBS Level 3A 91.0t Volumetric Network.

Complying with a reference vehicle means meeting **all** the requirements listed in Table 16 and any relevant conditions outlined in the [Guide](#).

- Reference vehicles 1, 2, and 3 are restricted to volumetric B-triple (3-3-3) configurations. Figure 18 illustrates how dimension requirements are measured on this configuration.

- Reference vehicles 4, 5, 6, and 7 are restricted to volumetric A-double (3-3-3) configurations. Figure 19 illustrates how dimension requirements are measured on this configuration.

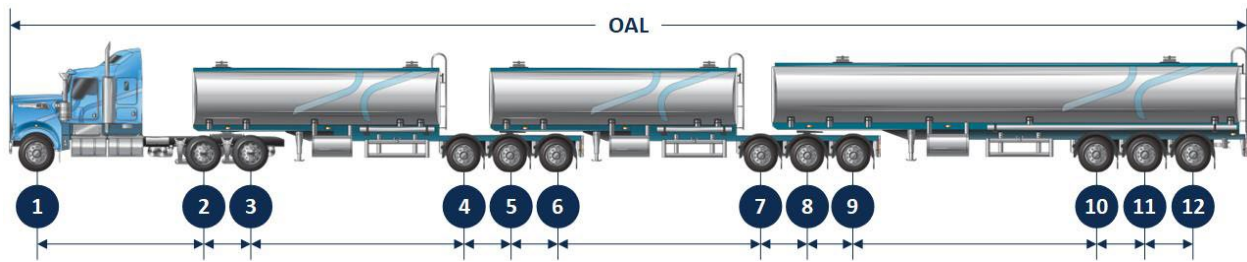


Figure 18: B-triple (3-3-3) Volumetric Reference Vehicle diagram

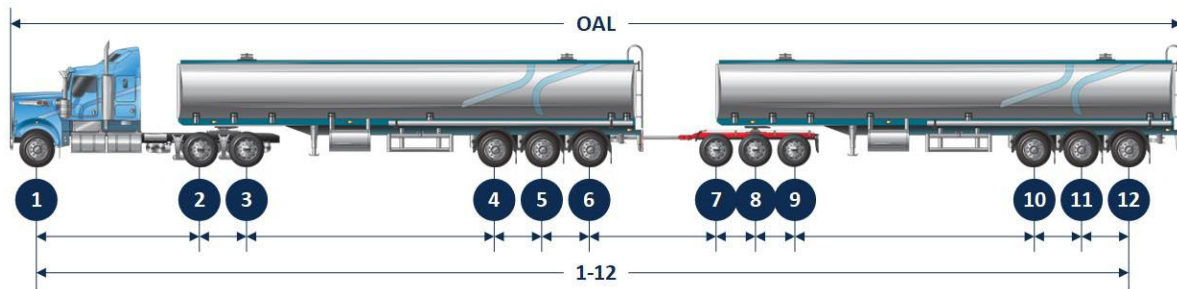


Figure 19: A-double (3-3-3) Volumetric Reference Vehicle diagram

Table 16: PBS Level 3A 91.0t Volumetric Reference Vehicles – Dimension requirements

Ref #	Limit type	OAL (m)	Reference Vehicle Axle Spacing Requirements (m)											
			Axle spacing measured from the centre of the first specified axle to the centre of the second specified axle											
			1-12	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
1	Min	-	-	3.0	1.2	5.4	1.2	1.2	4.7	1.2	1.2	5.2	1.2	1.2
	Max	36.5	-	-	1.55	-	1.6	1.6	-	1.6	1.6	6.5	1.6	1.6
2	Min	-	-	3.0	1.2	5.4	1.2	1.2	5.4	1.2	1.2	6.5	1.2	1.2
	Max	36.5	-	-	1.55	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6
3	Min	-	-	4.2	1.3	4.2	1.25	1.25	4.2	1.25	1.25	4.2	1.25	1.25
	Max	36.5	-	-	1.3	-	1.25	1.25	-	1.25	1.25	-	1.25	1.25
4	Min	-	-	3.0	1.25	5.2	1.2	1.2	4.0	1.2	1.2	5.2	1.2	1.2
	Max	36.5	28.8	-	1.4	-	1.55	1.55	-	1.55	1.55	-	1.55	1.55
5	Min	-	-	3.0	1.25	5.2	1.2	1.2	4.55	1.2	1.2	4.7	1.2	1.2
	Max	36.5	28.8	-	1.4	-	1.55	1.55	-	1.55	1.55	-	1.55	1.55
6	Min	-	-	3.0	1.25	5.1	1.2	1.2	4.2	1.2	1.2	4.2	1.2	1.2
	Max	36.5	28.8	-	1.4	-	1.55	1.55	-	1.55	1.55	-	1.55	1.55
7	Min	-	-	3.0	1.25	4.2	1.2	1.2	4.2	1.2	1.2	4.2	1.2	1.2
	Max	36.5	28.8	-	1.4	-	1.55	1.55	-	1.55	1.55	-	1.55	1.55

3.14 PBS Level 3A 113.5t General Freight Reference Vehicles

AB-triple (3-3-3-3) configurations that meet the requirements of a reference vehicle outlined in Table 17 are approved to operate on the PBS Level 3A 113.5t General Freight Network.

Complying with a reference vehicle means meeting **all** the requirements listed in Table 17 and any relevant conditions outlined in the [Guide](#).

Figure 20 illustrates how dimension requirements are measured on a volumetric AB-triple (3-3-3-3) configuration.

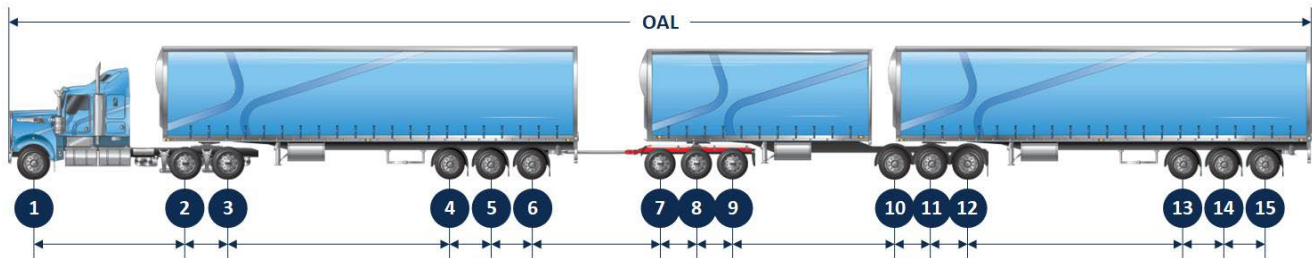


Figure 20: AB-triple (3-3-3-3) General Freight Reference Vehicle diagram

Table 17: PBS Level 3A 113.5t General Freight Reference Vehicles – Dimension requirements

Ref #	Limit type	OAL (m)	Reference Vehicle Axle Spacing Requirements (m)													
			<i>Axle spacing measured from the centre of the first specified axle to the centre of the second specified axle</i>													
			1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15
1	Min	-	3.0	1.2	4.0	1.2	1.2	4.0	1.2	1.2	4.4	1.2	1.2	4.5	1.2	1.2
	Max	36.5	-	1.6	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6
2	Min	-	3.0	1.2	5.2	1.2	1.2	3.7	1.2	1.2	5.2	1.2	1.2	5.2	1.2	1.2
	Max	36.5	-	1.6	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6
3	Min	-	3.0	1.2	4.2	1.2	1.2	4.0	1.2	1.2	4.2	1.2	1.2	3.5	1.2	1.2
	Max	36.5	-	1.6	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6
4	Min	-	3.0	1.2	5.2	1.2	1.2	4.6	1.2	1.2	3.95	1.2	1.2	4.8	1.2	1.2
	Max	36.5	-	1.6	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6

3.15 PBS Level 3A 113.5t Volumetric Reference Vehicles

Volumetric AB-triple (3-3-3-3) configurations that meet the requirements of a reference vehicle outlined in Table 18 are approved to operate on the PBS Level 3A 113.5t Volumetric Network.

Complying with a reference vehicle means meeting **all** the requirements listed in Table 18 and any relevant conditions outlined in the [Guide](#).

Figure 21 illustrates how dimension requirements are measured on a volumetric AB-triple (3-3-3-3) configuration.

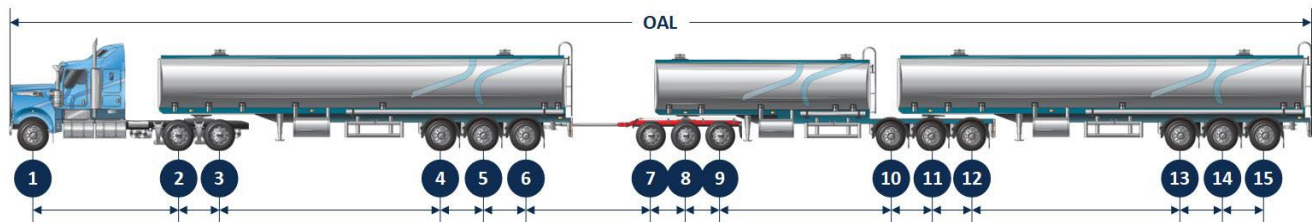


Figure 21: AB-triple (3-3-3-3) Volumetric Reference Vehicle diagram

Table 18: PBS Level 3A 113.5t Volumetric Reference Vehicles – Dimension requirements

Ref #	Limit type	OAL (m)	Reference Vehicle Axle Spacing Requirements (m)													
			<i>Axle spacing measured from the centre of the first specified axle to the centre of the second specified axle</i>													
			1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15
1	Min	-	3.0	1.2	4.0	1.2	1.2	4.0	1.2	1.2	4.4	1.2	1.2	4.5	1.2	1.2
	Max	36.5	-	1.6	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6
2	Min	-	3.0	1.2	5.2	1.2	1.2	3.7	1.2	1.2	5.2	1.2	1.2	5.2	1.2	1.2
	Max	36.5	-	1.6	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6
3	Min	-	3.0	1.2	4.2	1.2	1.2	4.0	1.2	1.2	4.2	1.2	1.2	3.5	1.2	1.2

Ref #	Limit type	OAL (m)	Reference Vehicle Axle Spacing Requirements (m)													
			<i>Axle spacing measured from the centre of the first specified axle to the centre of the second specified axle</i>													
			1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15
	Max	36.5	-	1.6	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6
4	Min	-	3.0	1.2	5.2	1.2	1.2	4.6	1.2	1.2	3.95	1.2	1.2	4.8	1.2	1.2
	Max	36.5	-	1.6	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6	-	1.6	1.6