

High productivity motor vehicles

The information in this factsheet describes the legal requirements in the Land Transport Rule: Vehicle Dimensions and Mass 2016 that apply to high productivity motor vehicles (HPMVs) operating on a permit.

What is an HPMV?

An HPMV:

- exceeds a mass of 44,000kg and/or the maximum length dimensions allowed for standard vehicles, but meets higher individual axle and axle group limits and is no wider or higher than a standard vehicle, and
- operates under a route specific HPMV permit issued by a road controlling authority (RCA) on roads and bridges that have been determined to be able to accommodate the additional mass and/or length, and
- displays an 'H' sign on the front and rear if specified on the permit or if route specific.



What are the types of HPMV permit?

There are two main types of HPMV permit: overlength and higher mass.

- The NZ Transport Agency can issue an overlength HPMV permit.
- The Transport Agency can issue a higher mass HPMV permit for state highways.
- A local RCA can issue a higher mass HPMV permit for local roads.

Higher mass HPMV permits may allow 'axle weight flexibility'. For details of this please refer to <http://www.nzta.govt.nz/vehicle/your/hpmv/index.html>.

Can I have an HPMV permit?

This factsheet explains how to apply for an HPMV permit, what these permits cover and what special conditions you and your vehicle must meet. You will likely require several HPMV permits for your vehicle. The Transport Agency can issue an HPMV permit for longer vehicles to travel at standard legal axle mass. It can also issue HPMV permits for higher axle mass on specific state highways. For higher mass limits on local roads you will need to apply to the relevant RCA, ie the local council, or in Auckland, Auckland Transport.

For longer vehicles, or operation at higher mass on state highways, you will need to complete a *High productivity motor vehicle permit* application form and send it to a Transport Agency office.

What is a standard vehicle?

If you need information on the dimension and mass limits for **standard motor vehicles**, see Factsheet 13 *Vehicle dimensions and mass*, Factsheet 13a *Heavy rigid vehicles* and Factsheet 13c *Heavy trailers and combination vehicles*, or call our contact centre on 0800 699 000.

What is the HPMV permit process for longer vehicles or higher mass operation on state highways?

There are two types of HPMV permit that may apply to your vehicle. The first is an **overlength** HPMV permit. This is to allow the vehicle to be longer than a standard vehicle. Approval is provided by the Transport Agency, and the permit has no expiry date and may include route restrictions. The second is a route specific *higher mass* HPMV permit, issued by the Transport Agency for a set period of time which will be stipulated on the permit. Another application can be made to renew the permit prior to the expiry date.

What is the HPMV permit process for local roads?

The Transport Agency cannot issue permits for local roads unless requested by the local RCA to do so. You will need to approach the local RCA directly for advice. Local RCAs may have their own forms, so you may need to complete additional applications depending on where you propose to travel.

Overlength HPMV permits

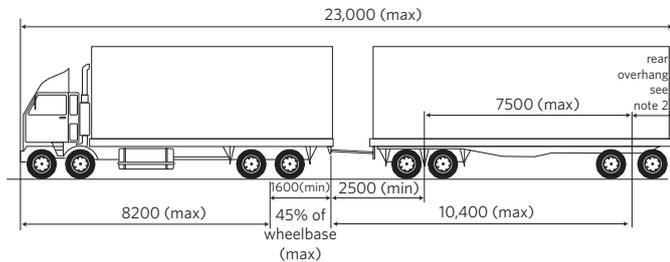
It is possible to design a vehicle combination that does not meet the standard dimension requirements, but still has acceptable performance. For example, the vehicle may have longer overall length to increase deck space, or the truck and trailer may have non-standard lengths within the standard overall length. Any or all of the following dimension requirements can be altered on an HPMV permit, provided that the vehicle meets Transport Agency specified performance standards:

- overall length
- forward distance (including, for a B-train, varying the ratio of the forward distance of the longer trailer/shorter trailer)
- front and/or rear overhang
- rear trailing unit distance
- articulated vehicle point of attachment
- tow coupling position
- coupling point distance
- inter-vehicle spacing
- outside turning circle in either direction for 360-degree turn.

Pro-forma vehicle types

The Transport Agency has pre-approved some acceptable overlength vehicle designs. If these vehicles are used, you still need to apply for a permit and they will have 'automatic' overlength approval for use on all roads at standard axle mass. More details of approved pro-forma designs can be found on the Transport Agency website. Three examples follow:

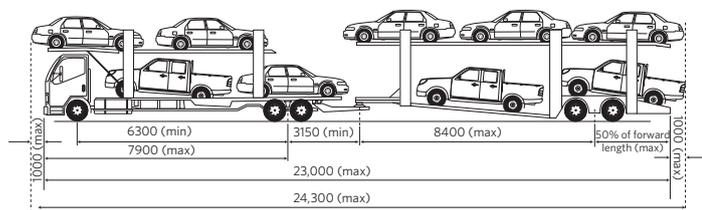
Truck and full trailer



Note 1 Axle groups can be replaced with alternate groups at the same axis points

Note 2 Max. is lesser of 4300 or 50% of wheelbase

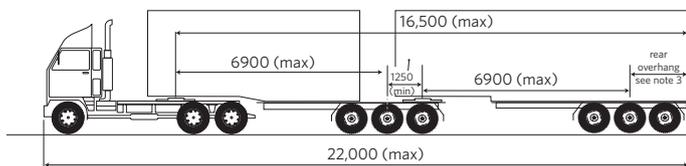
Truck and simple trailer



Note 1 Axle groups can be replaced with alternate groups at the same axis points

Note 2 Up to 1000mm overhang is permitted front and rear but maximum width of overhang is 2000mm

B-train



Note 1 Axle groups can be replaced with alternate groups at the same axis points

Note 2 Tractor can be 3-axle or 4-axle with twin steer

Note 3 1900 (min) Max. is lesser of 4300 or 50% of forward distance

Non pro-forma vehicle types

If the overlength vehicle is not a pro-forma vehicle and is a one-off dedicated combination vehicle, then it will be necessary to include vehicle and route assessment reports together with your application. The reports will need to demonstrate that the vehicle meets Transport Agency specified performance standards. These vehicles may either be given general access approval or a route restricted approval.

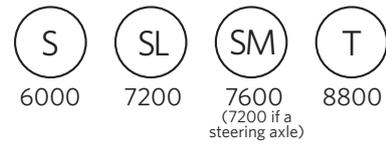
Higher mass HPMV permits

Higher mass axle and axle group limits are available for overall combination mass greater than 44,000kg. When operating at higher mass limits you must remain on the approved route specified on the HPMV permit.

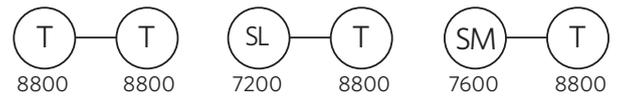
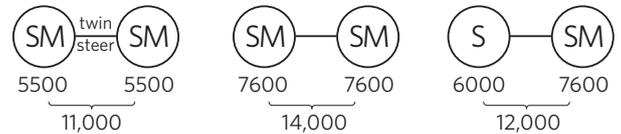
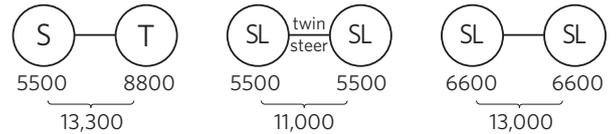
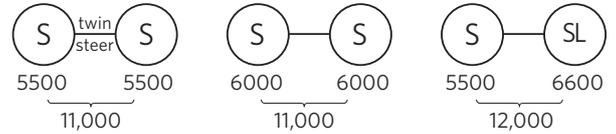
Higher mass limits

Below are the higher mass limits that apply to HPMV permits for combination mass over 44,000kg:

Single axle or axle set (one axle or a dual axle of two axles less than 1 metre apart).



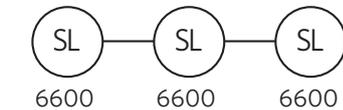
Tandem axle set (two axles spaced more than 1 metre but less than 2 metres apart; note that the 2 metres maximum does not apply to twin-steer axle sets).



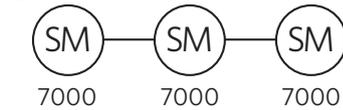
spaced <1.3m = 15,000
≥1.3m = 16,000

with 40/60 load share = 13,600
with 45/55 load share = 14,500

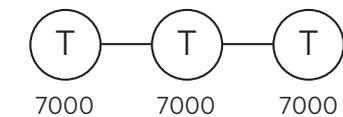
Tri-axle set (three axles spaced more than 2 metres but less than 3 metres apart).



or

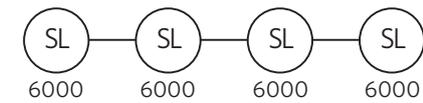


or

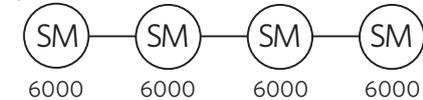


spaced 2.0–2.39m = 16,000
2.4–2.49m = 18,000
2.5–3.0m = 19,000

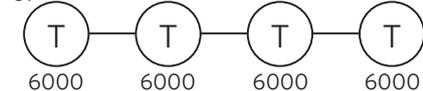
Quad-axle set (four axles spaced not less than 3.75 metres and not more than 4 metres apart).



or



or



spaced 3.75–4m with at least one steering axle = 22,000

The following chart gives the maximum allowed sum of the mass on any two or more axles that together do not constitute a single tandem axle set, a single tri-axle set or single quad-axle set, where the distance from centre of first axle to centre of last axle is 1.8 metres or more (including maximum gross mass).

1.8m but less than 2.0m	15,500kg
2.0m but less than 2.5m	16,000kg
2.5m but less than 3.0m	17,500kg
3.0m but less than 3.3m	19,000kg
3.3m but less than 3.6m	20,000kg
3.6m but less than 4.0m	21,000kg
4.0m but less than 4.4m	22,000kg
4.4m but less than 4.5m	23,000kg
4.5m but less than 4.7m	23,500kg
4.7m but less than 5.0m	24,000kg
5.0m but less than 5.4m	25,000kg
5.4m but less than 5.5m	26,000kg
5.5m but less than 5.8m	26,500kg
5.8m but less than 6.0m	27,000kg
6.0m but less than 6.5m	28,000kg
6.5m but less than 7.0m	29,500kg
7.0m but less than 7.5m	31,000kg
7.5m but less than 8.0m	32,500kg
8.0m but less than 8.5m	34,000kg
8.5m but less than 9.0m	35,000kg
9.0m but less than 9.5m	36,000kg
9.5m but less than 10.0m	37,000kg
10.0m but less than 10.5m	38,000kg
10.5m but less than 11.0m	39,000kg
11.0m but less than 11.5m	40,000kg
11.5m but less than 12.0m	41,000kg
12.0m but less than 12.5m	42,000kg
12.5m but less than 13.0m	43,000kg
13.0m but less than 13.5m	44,000kg
13.5m but less than 14.0m	45,000kg
14.0m but less than 14.5m	46,000kg
14.5m but less than 15.0m	47,000kg
15.0m but less than 15.5m	48,000kg
15.5m but less than 16.0m	49,000kg
16.0m but less than 16.5m	50,000kg
16.5m but less than 17.0m	51,000kg
17.0m but less than 17.5m	52,000kg
17.5m but less than 18.0m	53,000kg
18.0m but less than 18.5m	54,000kg
18.5m but less than 19.0m	55,000kg
19.0m but less than 19.5m	56,000kg
19.5m but less than 20.0m	57,000kg
20.0m but less than 20.5m	58,000kg
20.5m but less than 21.0m	59,000kg
21.0m but less than 21.5m	60,000kg
21.5m but less than 22.0m	61,000kg
22.0m or more	62,000kg or more

Before an HPMV permit is issued, an overweight route assessment will be carried out by the RCA(s) covering your proposed route(s).

What do I need to know about HPMV permits?

Do I need to carry an HPMV permit with me?

A vehicle operating on an HPMV permit must carry the permit in the truck, and it must be shown to a police officer on request. It is important to comply with all conditions, particularly those relating to mass and route.

What is the cost of an HPMV permit?

- The cost of an HPMV permit is \$54.55 plus GST.

What are the operating requirements for all HPMVs?

In addition to vehicle requirements in Rules and regulations, such as lighting and glazing, there are some particular requirements that must be met on an HPMV permit. These are:

SRT requirements

An HPMV must comply with minimum stability requirements, that is a static roll threshold of 0.35 or greater.

Roll stability control

Roll stability control will be required on any trailer fitted with ABS brakes, or on any new build trailers. Older trailers without ABS brakes may be approved with other conditions. This will be explained as part of the permit application process.

Route restrictions

An HPMV must only operate on roads specified on the HPMV permit:

- if a standard dimension vehicle while loaded above 44,000kg
- if an overlength vehicle at all times.

The permit will explain the roads you can travel on in more detail.

Vehicle mass

A vehicle operating on an HPMV permit must not exceed the gross vehicle mass (GVM) or gross combination mass (GCM) as recorded on its certificate of loading (CoL).

Vehicle brakes

A vehicle operating on an HPMV permit must not exceed the lesser of the:

- brake code mass (BCM), or
- GVM.

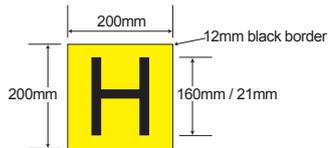
Evidence of this may be asked for as part of the permit application.

Additional requirements for overlength

Depending on the vehicle design, there may be route restrictions which will be identified on the HPMV permit. The operator of a vehicle over 25 metres long will need to get written permission from the rail service operator if the vehicle is going to travel over a level crossing. It is unlikely, however, that a route with a rail crossing would be approved for vehicles over 25 metres long.

Vehicle signage

While operating under the terms of the permit, the vehicle must display a retro-reflective 'H' sign to the front and rear that complies with AS/NZS 1906.1.2007 – *Retro-reflective materials and devices for road traffic control purposes, Part 1: Retro-reflective materials*.



If the permit specifies the roads on which the vehicle may operate as a high-productivity motor vehicle then it must display a high-productivity motor vehicle sign.

What are the specific operating conditions that apply to some HPMVs?

The RCA that issues an HPMV permit may place additional conditions on the operator if it believes they are necessary to protect the safety of other road users or for the protection of infrastructure. These may include, but are not limited to those listed below:

- Stability control systems on truck and/or trailer.
- Higher SRT limits.
- ABS or EBS brake systems.
- Signage indicating the vehicle length.
- Unavailable.
- Company mass compliance systems (eg weighing each load on departure).
- Driver training accreditation. Tracking systems (which may be based on GPS technology).

Where can I find out more?

- Transport Agency website permit portal: <https://hpmvpermits.nzta.govt.nz/>.
- Land Transport Rule: Vehicle Dimensions and Mass 2016.

The information in this factsheet is a general guide only. It is not the source of the law and should not be used in place of authoritative legal documents. Some factsheets are updated frequently and print versions can quickly become out of date. If the currency of the information you are reading is important, check the factsheet index on our website (www.nzta.govt.nz/factsheets) or call us on 0800 108 809.

Contact details

- Call our contact centre: 0800 108 809.
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