

OSOM heavy vehicle mass assessment

Compliance and Enforcement bulletin 8

This bulletin provides:

- practical advice to help drivers of oversize overmass (OSOM) heavy vehicles and other relevant parties comply with the *Heavy Vehicle National Law (HVNL)* as it relates to heavy vehicle mass, and
- information about methods used to assess compliance with OSOM heavy vehicle mass requirements.

This bulletin does not provide comprehensive information about mass limits for heavy vehicles. For more detail, visit: www.nhvr.gov.au/road-access/mass-dimension-and-loading

What are mass requirements?

The prescribed mass limits for heavy vehicles are set out in the *Heavy Vehicle (Mass, Dimension and Loading) National Regulation 2013* (the Regulation). Other instruments, such as exemption notices, permits or Performance-Based Standards (PBS) vehicle approvals, can also prescribe certain mass limits related to particular vehicles.

How are heavy vehicle mass offences categorised?

Under the HVNL, mass offences are categorised as minor, substantial or severe. The offence category is proportionate to the level of risk to road and public safety, and the potential damage to road infrastructure, all of which increase with the severity of the offence.

For more information on risk-based offence categorisation, visit: www.nhvr.gov.au/risk-based-categorisation-of-offences

Categories of mass offences

Minor

A minor risk breach occurs if the breach is less than the substantial risk breach lower limit.

Substantial

The lower limit of a substantial risk breach is the higher of the following:

- a mass equalling 105% of the maximum mass (rounded up to the nearest 0.1t); or
- 0.5t

The upper limit of a substantial risk breach is less than 120% of the maximum mass.

Severe

The lower limit of a severe risk breach is defined as the mass equalling 120% of the maximum mass rounded up to the nearest 0.1t).

What is measurement adjustment?

Measurement adjustment is a nationally agreed process that applies when a heavy vehicle is being weighed for compliance purposes.

Measurement adjustment recognises that a mass assessment outcome may potentially vary from time-to-time, due to:

- weighing and measuring equipment used
- the inspection site characteristics
- measuring methods
- the conditions under which the measurements are taken.

For example, the measured mass of an axle (or axle group or grouped axle) as indicated on weighing equipment at an inspection site may be slightly higher or lower than the true mass of the axle (or axle group or grouped axle). These slight variations are the result of the factors listed above.

Applying the agreed adjustments to account for possible variations provides fairness to the outcome of the weighing process and ensures the results can be legally relied upon in considering possible enforcement action.

How is OSOM mass measurement adjustment (MMA) applied?

OSOM MMA relies on two key concepts:

- measured mass (MM) – the reading obtained from the weighing equipment
- assessed mass (AM) – the measured mass minus the relevant MMA.

$$MM - MMA = AM$$

The relevant MMA for each axle (or axle group or grouped axle) mass and gross mass is calculated based on:

- the inspection site category
- the type of axle configuration
- the vehicle unit
- weighing method used.

The assessed mass is compared with the applicable mass limit and risk breach breakpoints to determine the severity of any offence that may have occurred.

OSOM Mass measurement adjustments – Fully Blocked

Axle group	Site category		
	1	2	3
Single steer axle	0.3t	0.3t	0.4t
Twin steer axle group	0.3t	0.4t	0.5t
Drive axle group Tandem or Tri-axle	0.5t	1.0t	1.0t
Dolly axle group Single or Tandem	0.5t	1.0t	1.0t
Trailer axle group/ grouped axle Any number of axles or wheels	3.0% of measured mass	3.5% of measured mass	3.5% of measured mass
Gross mass	1.5% of measured mass	1.5% of measured mass	1.5% of measured mass

OSOM Mass measurement adjustments – Partial Blocked

Axle group	Site category		
	1	2	3
Single steer axle	0.3t	0.3t	0.4t
Twin steer axle group	0.3t	0.4t	0.5t
Drive axle group Tandem or Tri-axle	1.3t	1.3t	1.3t
Dolly axle group Single or Tandem	1.3t	1.3t	1.3t
Trailer axle group/ grouped axle Any number of axles or wheels	3.5% of measured mass	4.5% of measured mass	4.5% of measured mass
Gross mass	3.5% of measured mass	3.5% of measured mass	3.5% of measured mass

A *Grouped Axle* configuration refers to more than four axles in a group fitted to a trailer that is not a dog trailer.

The *Fully Blocked* weighing method is where all axles that form part of the OSOM vehicle/combination are weighed at the same height.

The *Partial Blocked* weighing method is where all axles that form part of an OSOM vehicle unit (prime mover or a dolly or a trailer) being weighed are weighed at the same height.

What other actions can be taken?

This section describes the types of actions that can be taken by an authorised officer for HVNL mass breaches.

Minor risk breach:

When a minor breach of a mass requirement is detected the driver or operator may be directed to:

- rectify the breach immediately; or
- move the vehicle (with or without conditions) to a stated place, within a 30km radius from where the vehicle is located, or any point along the forward part of the journey and not move the vehicle until the breach is rectified.

Substantial risk breach

When a substantial breach of a mass requirement is detected, the driver or operator will be issued a written notice, directing them to:

- not move the vehicle until the breach is rectified, or
- move the vehicle to a stated reasonable place and not to move it until the breach is rectified.

Examples of reasonable place include:

- a place where the heavy vehicle can be loaded or unloaded
- a depot of the heavy vehicle
- a weighbridge
- a rest area
- the intended destination of the heavy vehicle's journey, if appropriate.

Severe risk breach

When a severe breach of a mass requirement is detected, the driver or operator will be issued a written notice, directing them to:

- not move the vehicle until the breach is rectified, or
- if there is a risk of harm to public safety or an appreciable risk of harm to the environment, road infrastructure or public amenity, move the vehicle to the nearest stated safe location and not move it until the breach is rectified.

Examples of a safe location include:

- a place where the heavy vehicle can be loaded or unloaded
- a depot of the heavy vehicle
- a weighbridge
- a rest area

A direction given by an authorised officer will be in writing unless the moving of the vehicle is carried out in the presence of, or under the supervision of an authorised officer, in which case the direction can be given verbally.

Driver responsibilities

Before commencing a journey, drivers should ensure:

- the vehicle they are driving complies with the relevant mass requirements
- if the vehicle they are driving is operating under a notice or permit, the vehicle and the operation of the vehicle complies with any conditions specified, including carrying a copy (if required)
- the journey follows the route as approved under the relevant notice or permit, noting any relevant bridge, tunnel or other restrictions.

Operator responsibilities

Vehicle operators should ensure:

- the vehicle and load complies with the relevant mass requirements
- the driver is provided with the appropriate documents required to operate the heavy vehicle in compliance with the HVNL, any instrument or accreditation
- the driver is aware of their responsibilities in regard to the safe operation of the vehicle, including any conditions imposed by a notice or permit under which the vehicle may operate
- the route is approved for travel under the relevant notice or permit noting any relevant bridge, tunnel or other restrictions.



For more information

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