

Mass limits for twinsteer prime movers towing tri-axle semitrailers

Purpose

This information sheet informs heavy vehicle operators of mass limits applicable to a twinsteer prime mover towing a tri-axle semitrailer.

Background

The *Heavy Vehicle (Mass, Dimension and Loading) National Regulation* (MDL Regulation) allows a combination involving a twinsteer prime mover towing a tri-axle semitrailer to operate at 46.5t at General Mass Limits (GML).



Figure 1: Twinsteer prime mover towing tri-axle semitrailer

General mass limits

The limits prescribed in the MDL Regulation for a twinsteer prime mover towing a tri-axle semitrailer operating at GML are outlined in Table 1.

Axle Group		GML (t)	CML (t)	HML (t)
Twinsteer axle group	Non-load sharing	10.0	As per GML	
	Load sharing	11.0	As per GML	
	Euro VI	11.5	As per GML	
Tandem drive axle group		16.5	17.0	
Tri-axle semitrailer		20.0	21.0	22.5
Total Combination Mass	With Euro VI twinsteer	47.0	48.0	50.0
	Other twinsteers	46.5	47.5	49.5

Table 1: General, Concessional and Higher Mass Limits

Alternative total combination mass limits apply in **Tasmania**, via the [Tasmania Class 3 Twinsteer Prime Mover Semitrailer Mass Exemption Notice 2024 \(No.1\)](#), as shown in Table 2:

Authorisation type	Twinsteer axle group type	Euro VI compliant?	Total combination mass limit (t)
Tasmania Class 3 Twinsteer Notice	Non-load sharing	Yes or No	46.5
	Load sharing		47.5
General Mass Limits (GML)	Yes or No	Yes	47.0
		No	46.5

Table 2: Comparison of Tasmania Class 3 Twinsteer Prime Mover Semitrailer Mass Exemption Notice and General Mass Limits.

Some specific axle mass spacing limits apply as conditions of the notice, which vary from those in the MDL Regulation.

Axle and total combination mass limits

For most twinsteer prime mover semitrailer combinations addressed here, the total combination mass limit **is less** than the sum of the combination's axle mass limits.

Where this is the case, operators should ensure they do not exceed the applicable total combination mass limit. This would occur if all axle groups were loaded to their respective mass limit.

Concessional mass limits (CML)

CML allows an operator accredited under the National Heavy Vehicle Accreditation Scheme (NHVAS) to use mass limits above general mass limits.

At CML, the total combination mass limit for an eligible twinsteer prime mover towing a tri-axle semitrailer is increased by 1.0t over GML. Relevant limits are summarised in Table 1.

More information on CML can found at <https://www.nhvr.gov.au/cml>

More information on the NHVAS can be found at <https://www.nhvr.gov.au/nhvas>

Alternative mass limits to those under CML apply in **Tasmania**, via the [Tasmania Class 3 Twinsteer Prime Mover Semitrailer Mass Exemption Notice 2024 \(No.1\)](#). The notice applies the same conditions as CML (i.e. mass management accreditation to NHVAS, the same axle group mass limits as CML), but different total combination mass limits, as shown in Table 3.

Total Combination Mass Limits	GML (t)	CML (t)	Tasmania Class 3 Notice (t)	
			Non-load sharing	Load sharing
With Euro VI twinsteer	47.0	48.0	47.5	48.5
Other twinsteers	46.5	47.5		

Table 3: Comparison of Tasmania Class 3 Twinsteer Prime Mover Semitrailer Mass Exemption Notice and Concessional Mass Limits.

Higher mass limits (HML)

HML allows particular heavy vehicles to access additional mass entitlements over GML and CML, on condition that:

1. Operators of vehicles or combinations running HML on tri-axle groups are accredited under the Mass Management module of NHVAS.
2. The vehicle is operated on the declared HML network while loaded at HML.

HML axle group and total combination mass limits are shown in Table 1.

Twinsteer semitrailers may operate at HML in the **Australian Capital Territory** and **Queensland**.

They are ineligible to operate at HML in **New South Wales**.

While HML applies to twinsteer semitrailers in **Tasmania**, greater mass limits are available. These limits are described in the following section: *Notices providing similar access to HML*.

In **South Australia** and **Victoria**, allow comparable (but different) mass limits and conditions are available via class 3 notices – as described under *Notices providing similar access to HML*.

More information on HML can be found at <https://www.nhvr.gov.au/hml>

Notices providing similar access to HML

Notices granting similar masses to HML in Victoria, South Australia and Tasmania are described below.

Victoria

Under the [Victoria Class 3 Twinsteer Prime Mover and Semitrailer Combination Mass Exemption Notice 2024](#) and the MDL

Regulation, a twinsteer prime mover towing a tri-axle semitrailer is permitted up to 49.5t.

This notice provides similar mass limits to HML (as shown in Table 1), except:

1. A twinsteer axle group with load sharing suspension is limited to 10.5t. (instead of 11.0t or 11.5t under the MDL)
2. Non-load sharing twinsteer axle groups are ineligible to operate under the notice.

South Australia

A twinsteer prime mover towing a tri-axle semitrailer under the [South Australian Class 3 Road Friendly Suspension Mass Exemption Notice 2023 \(No.1\)](#) is subject to the same mass limits as for HML under the MDL Regulation (and described above in this guide) – i.e. up to 50.0t, depending on a vehicle's particular specifications.

Tasmania

The [Tasmania Class 3 Twinsteer Prime Mover Semitrailer Mass Exemption Notice 2024 \(No.1\)](#) allows a complying twinsteer prime mover towing a tri-axle semitrailer to operate at slightly higher masses than HML. These are described in Table 4.

The authorised network for this notice – the Tasmanian Declared Higher Mass Limits (HML) Route Network – is published on the Department of Stage Growth (DSG) website at https://www.transport.tas.gov.au/vehicles_and_vehicle_inspections/heavy_vehicles/heavy_vehicle_access.

Total Combination Mass Limits	GML Mass Limit (t)	HML (t)	Tasmania Class 3 Notice (t)	
			Non-load sharing	Load sharing
With Euro VI twinsteer	47.0	50.0		
Other twinsteers	46.5	49.5	49.5	50.5

Table 4: Comparison of Tasmania Class 3 Twinsteer Prime Mover Semitrailer Mass Exemption Notice and MDL Higher Mass Limits.

How to apply?

Where access is not available on a published network under a notice, operators may apply for a new twinsteer prime mover and tri-axle semitrailer permit exemption at HML:

1. Go to www.service.nhvr.gov.au and if not already registered, follow the prompts to set up an account.
2. Once registered, from the home screen, click on the 'Application Tracker' tile in the centre of the top row.
3. Click on the 'New Application' button (on the right) and enter a customer reference for your application.
4. Click on the green 'Select Configuration' button and select the 'Prime and semitrailer (incl. HML) configuration set.
5. Select the 'Prime and Semitrailer (Freight)' option.
6. Click the diagram of the prime mover (next to the 'overall' tab and from the 'component' drop down, select the 'Prime mover long bonnet 2-2 axle' option.
7. Add in all VIN and registration details under the vehicle tab.
8. Select the 'overall' tab and select the 'Prime and semitrailer - Higher Mass Limit (HML)' check box.
9. Add in vehicle height and ensure 'Length' field is 'No greater than 19m'.
10. Add in the permit period requested as well as the 'freight' type.
11. Add in requested route.
Please note: only a single route will be considered.
12. Follow the prompts to complete the application.

For more information:

Visit: www.nhvr.gov.au
 Subscribe: www.nhvr.gov.au/subscribe
 Email: info@nhvr.gov.au
 Phone: 13 NHVR* (13 64 87)

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