

Operation of Heavy Tow Trucks in South Australia

Revised mass, dimension and operating conditions



Introduction

This policy outlines the Department of Planning, Transport and Infrastructure's (DPTI's) position in relation to:

- heavy vehicle towing operations permitted in South Australia,
- the mass and dimension limits applicable to towing operations, and
- operating conditions and responsibilities for tow truck operators.

This policy replaces the document titled "*Operation of Heavy Tow Trucks in South Australia MR1567*" issued in June 2015.

Objectives of this policy

- Minimise traffic disruption and congestion through the safe, efficient and timely removal of damaged or disabled heavy vehicles from roads
- Assist in the safe and efficient transfer of vehicles between premises
- Incorporate productivity initiatives such as towing a replacement prime mover to regional or remote locations
- Align South Australia's towing operations more closely with other jurisdictions
- Accommodate the steer axle mass limits on the current heavy vehicle fleet

Types of Towing Operation

There are three types of towing operation:

- Emergency / accident towing** - is the removal of a heavy vehicle that has been damaged as a result of an accident and cannot be safely driven on its own from the crash site without compromising the safety of other road users.
- Disabled vehicle towing** - is the removal from a road or road related area of a broken down vehicle due to a mechanical or system failure.
- Towing between premises/depots** - covers all other towing and includes such movements as the transport of a single unladen vehicle between a transport depot and a workshop for service or repairs.

Types of Tow Truck and Methods of Towing

Underlift towing

In South Australia the majority of disabled or damaged vehicles are towed using an underlift tow truck which has a rigid arm that extends under disabled vehicles and lifts one axle or axle-group off the road surface for towing (refer to Image 1.).



Image 1. – Underlift Tow Truck

Stiff Bar towing

Under this policy an underlift tow truck may utilise a ‘drop in’ tow coupling and a stiff bar to tow a Special Purpose Vehicle (SPV) such as a crane, or a bus.

This method of towing is preferable for SPV’s as the underlift method results in significant overloading on the drive group of the tow truck, which impacts on road infrastructure such as bridges and culverts and has a detrimental impact on steering due to insufficient mass on the steer axle of the tow truck.

‘Drop in’ tow couplings must be approved by a Registered Engineering Signatory and must have a modification plate displayed including the rating of the coupling - refer to Image 2 on the following page.

The coupling, including its position on and connection to the tow truck, must be rated in accordance with the requirements of the heaviest vehicle or combination under tow and maximum mass prescribed in the tow truck permit.



Image 2. Example of a rating statement on a 'drop-in' tow coupling

When this method of towing is being used, the towed vehicle must have operational steering and brakes that are capable of being operated by the driver of the disabled vehicle. If this is not possible the disabled vehicle must be transported on a float or low loader combination.

The towed vehicle must be secured to the tow truck using safety chains in addition to the use of the stiff bar. If the disabled vehicle does not have functional lighting the tow operator must use a remote light bar or equivalent lighting method to warn other road users.

Tilt Deck & Low Loader Combinations

There are two other types of vehicles / combinations commonly used in towing operations and these include the:

- tilt-deck rigid truck – a rigid truck where the deck can hydraulically tilt to enable a disabled vehicle to be winched on to its deck, or a
- low deck semi-trailer – a prime mover and semi-trailer combination where the semi-trailer has a low deck and loading ramps or a tilt deck for winching a disabled vehicle on to its deck.

Both of these vehicles / combinations may undertake this activity utilising the [National Class 1 Load Carrying Vehicle Mass Exemption \(Notice\)](#) and the [National Class 1 Load Carrying Vehicle Dimension Exemption \(Notice\)](#); and will therefore no longer be covered by this policy and must comply with the conditions specified in these notices.

Access to the Road Network

A tow truck operating under this policy must be issued with a Class 3 permit by the National Heavy Vehicle Regulator (NHVR).

The permit provides an exemption from certain mass and dimension requirements of the *Heavy Vehicle National Law* and regulations and an authorisation to operate on approved networks when undertaking laden towing.

Applicable Mass and Dimension Limits for Laden Towing

In order to obtain the masses outlined, the minimum internal axle spacing between the steer and drive axle must be:

- for a tandem axle group – greater than or equal to 2.75m
- for a tri-axle group – greater than or equal 5.0m

Emergency / Accident and Disabled Vehicle Towing

The following mass and dimension limits and conditions apply to this towing operation:

Axle Mass (t)		Dimensions (m)	
Single steer axle	7.0t	Width	Approved width of towed vehicle
Twin-steer load sharing axle group	12.0t	Height	4.6m
Tandem axle group (with 8 tyres)	23.0t	Overall length for towing buses	32.0m
Tri-axle group (with 12 tyres)	27.0t	Overall length for heavy vehicle combinations	50.0m

Table 3: Mass & Dimension Limits for Emergency and Disabled Vehicle Towing

Towing between premises / depots

The following mass and dimension limits apply to this towing operation:

Axle Mass (t)		Dimensions (m)	
Single steer axle	7.0t	Width (to allow for distorted/ damaged vehicle)	3.0m
Twin steer load sharing axle group	12.0t	Height	4.6m
Tandem axle group (with 8 tyres)	21.0t	Overall length for towing a single vehicle	26.0m
Tri-axle group (with 12 tyres)	27.0t	Overall length for towing buses	32.0m

Table 1: Mass & Dimension Limits for Towing between Premises / Depots

Unladen Tow Trucks

With the exception of the single steer axle on a tow truck, an unladen tow truck must comply with the mass and dimension limits specified for a single vehicle under the *Heavy Vehicle (Mass, Dimension and Loading) National Regulations (MDLs)*.

Heavy tow trucks will be provided a steer axle mass exemption up to 7.0 tonnes, provided they comply with the *complying steer axle vehicle* requirements specified in Part 1 of the MDLs.

‘Suitable and Safe Location’

When clearing an accident site (emergency towing) or removing a disabled vehicle / combination that is blocking a roadway, a laden tow truck must tow the vehicle / combination to the nearest **‘suitable and safe’** location. This applies to combinations greater than 26m and oversize or overmass vehicles / combinations.

A **‘suitable and safe’** location is defined as *a place off the road, including to the nearest major regional centre or town, where the vehicle will not disrupt or impact on access to roads or facilities, or on public safety, the environment, or road infrastructure.*

Examples of a suitable and safe location include a:

- hook-up yard,
- parking bay,
- recognised truck stop (with agreement from the management), or
- depot or private property such as a place of repair (again, with agreement from the owner / operator).

Towing a replacement prime mover

SA's heavy vehicle networks cover a large proportion of the state and therefore the likelihood of a vehicle / combination becoming disabled in a remote / regional location, some distance from the vehicle's origin or destination is reasonably high.

Feedback from industry indicates that in cases where a prime mover has become disabled, a significant productivity benefit for the heavy vehicle operator would be realised if the tow truck was allowed to tow a replacement prime mover to the disabled combination.

This amendment will enable the timely and efficient onward journey of the freight and remove the requirement for an additional driver to be despatched. Heavy vehicle permits issued in future will include a condition that allows for a replacement prime mover to be towed to the disabled vehicle.

Operating conditions

Approved routes and areas

A laden tow truck must travel on the following networks:

- 26m B-double (HML) Network, when towing restricted access combinations up to 26m in length - unless it is retrieving a '*general access vehicle*' from a breakdown location or towing to a place of repair or a depot that is not on an approved 26m route,
- 36.5m Road Train (HML) Network when towing combinations greater than 26m and up to 36.5m in length for Emergency / Accident or Disabled Vehicle Towing only, or
- Where the towed vehicle / combination is operating under a permit exemption, the route / network approved for the towed vehicle / combination to access a '**suitable and safe**' location for Emergency / Accident or Disabled Vehicle Towing only.

Bridge restrictions

- A laden tow truck may travel on the approved routes and areas listed above provided it does not cross any mass restricted bridge where the vehicle or combination exceeds the posted mass limit.
- A laden tow truck must not exceed 25kph over any bridge or structure on the South Australian road network when towing a Class 2 vehicle (such as an articulated vehicle, b-double or road train).
- A laden tow truck towing an oversize or overmass vehicle or special purpose vehicle, the following structural restrictions apply, where the existing notice or valid permit for the towed vehicle has:
 - a. unrestricted access over a structure, the laden tow truck must travel at 10 kph over the structure
 - b. a 10 kph over structure restriction, the laden tow truck must travel at 5kph down centreline over structure
 - c. a 5 kph over structure restriction, the laden tow truck is not permitted to travel over the structure.
- For 5kph restrictions over structures, all other traffic must be excluded when the heavy load is traveling down the centre line of the structure(s). A minimum of one escort is required.

Width exemption for towing

- A 3.0m width exemption is applicable for heavy vehicles that have been distorted in an accident to enable it to be towed.

Night travel

- A heavy vehicle or combination that is being towed at night or in low visibility must have:
 - side marker lights turned on and working, or working portable side marker lights fitted;
 - a yellow rotating warning light must be displayed on the tow truck and at the rear of the towed vehicle combination if the combined length of the tow truck and the vehicle being towed is wider than 2.5 metres and / or longer than 22.0 metres;
 - one or more warning lights must be fitted so that at least one light can be clearly visible at a distance of 500 metres in all directions.

Travel during low visibility

Travel in low visibility by a laden truck is only permitted for Emergency / Accident or Disabled Vehicle Towing to clear a roadway and should be to the nearest '**suitable and safe location**'.

Travel time restrictions

With the exception of Emergency / Accident or Disabled Vehicle Towing, a laden tow truck towing a vehicle / combination that exceeds 2.5 metres wide and / or 26.0 metres long must not travel in the Adelaide Metropolitan Area between 7:00am - 9:00am or 4:00pm - 6:00pm, Monday to Friday.

Rail crossing restrictions

Unless specific approval has been granted by the rail infrastructure owner, a tow truck and towed heavy vehicle combination must not exceed the maximum vehicle length approved for the route network at a rail crossing.

To request specific approval to exceed these limits, contact the relevant rail infrastructure owner. Refer to the NHVR website for up-to-date [third party contact details](#)

General conditions

- To minimise axle loadings and the resulting stress on bridges, flat towing or only partial lifting of the towed vehicle's steer axle/s should occur whenever possible.
- A disabled vehicle / combination that is being towed must have a working light-board that:
 - is securely attached to the rear of the towed vehicle and connected to the tow truck; and
 - includes tail, brake and direction indicator lights and rear reflectors that would, if attached to the rear of the tow truck, meet the standards that apply to a tow truck.
- Only single (rigid) vehicles including buses may be towed between premises or depots.
- When towing a disabled restricted access or oversize / overmass vehicle the tow truck operator must comply with routes / areas and conditions specified in the permit or notice that is applicable to the operation of the disabled vehicle or combination.

This includes pilot and escort conditions outlined in the permit or in the DPTI [escorting guidelines for oversize and overmass vehicles and loads in South Australia](#)