



Department of
Transport

A Guide to The Movement of Towed Agricultural Implements in Western Australia



Thank you to the following organisations for their invaluable assistance with production of this booklet.



Government of **Western Australia**
Department of **Transport**
Driver and Vehicle Services



A Handbook for Western Australian farmers

This handbook is a guide to the safe towing of agricultural implements and an interpretation of the law.

It is NOT the law, but a simplified version of the road rules contained in the *Road Traffic Act 1974* and Regulations, currently in Western Australia. It is not intended to be used as a legal document.

More information can be obtained online at www.transport.wa.gov.au/dvs.

Contacting us

Need help or information?
You can contact us by

Phone: 13 11 56

Fax: 1300 669 995



Available online

This handbook is correct at the time of printing.

The most current version of this handbook can be downloaded in PDF format online at www.transport.wa.gov.au/dvs.

Revised edition date March 2014.

Prepared and published by Department of Transport, Driver and Vehicle Services.

Foreword

As the Minister for Transport, the safety of all road users is of paramount importance to me. Between 2008 and 2012 there have been on average 176 fatal road crashes per year with 55% occurring on the regional road network. This figure is of concern as only 22% of the population of Western Australia live outside the Perth metropolitan area.

In order to improve road safety, the Department of Transport is working with other state government agencies, local government authorities and industry organisations to promote the education of road users regarding traffic regulations and encourage safer driving practices.

Agriculture is an important industry for Western Australia and contributes greatly to the state economy. This updated and revised booklet, which has been prepared by the Agricultural Vehicles Advisory Committee, is produced as a practical guide focused on the needs of the primary producer and those who are involved in the movement of farm equipment. It outlines specific regulations that apply to the movement of agricultural machinery and agricultural implements.

All road users, regardless of the type of vehicle being driven, have a responsibility to drive in safe, considerate and courteous manner.

I encourage you to read this guide and hope that you find it informative.

Minister for Transport

Acknowledgements

This document has been prepared by the Agricultural Vehicles Advisory Committee (AVAC).

AVAC comprises representatives from:

- Western Australian Farmers Federation (WAFF);
- Farm Machinery & Industry Association of WA (FMIA);
- Motor Trade Association of WA (MTAWA);
- Department of Transport (DoT);
- Main Roads Western Australia (MRWA);
- Western Australia Local Government Association (WALGA);
- Western Australia Police; and
- Western Power.

AVACs purpose is to identify regulatory and administrative impediments to primary industry and determine means to rectify them. AVAC was established by the Vehicle Safety and Standards section (VSS) of DoT.

This revised document is now aligned with the most current version of the

- *Road Traffic (Towed Agricultural Implements) Regulations 1995 (TAIR)*;
- *Road Traffic (Vehicle Standards) Regulations 2002*; and
- *Road Traffic (Vehicle Standards) Rules 2002*.

Contents

	Section Title	Page
1	The Impact of Fatigue	6
2	Definitions	7
3	Agricultural Implements	9
4	Vehicle Licence Conditions and Permits	10
5	Vehicle Licence Concessions	15
6	General Requirements for all Towed Agricultural Implements	18
7	Towed Agricultural Implements Summary Chart	21
8	Lighting for Towed Agricultural Implements	23
9	Warning Signs and Signals	26
10	Operation of Pilot Vehicles	32
11	Movement of Towed Agricultural Implements	34
12	Traffic Managed Crossings	36
13	Penalties under the TAIR	37
14	Restraint of Loads	38
15	Additional Information & Website Links	40
16	Conversion Table	41

1. The Impact of Fatigue

Fatigue is a human condition that if ignored will impact on a person's ability to safely control machinery. This booklet provides the information needed to move farming machinery; however it is critical that the driver of that machinery is also fit for the task.

Fatigue results in physical changes to the human body and a gradual shutdown of the brain. The first parts of the brain to be affected are those that control sustained performance and complex decision-making. This gradual deterioration affects our ability to deal with the unexpected and can mean the difference between life and death.

The main causes of fatigue impairment are poor quality or lack of sleep, being awake for long hours and working at times when we would normally be asleep. Being awake for more than 17 hours can create a level of impairment similar to a blood alcohol content of 0.05. People who have been working long hours without sleep and are suffering from fatigue should not drive.

If you are an employer you have a duty of care to ensure employees who drive your vehicles and farm machinery are well rested and are fit for duty. If you plan to move farm machinery on public roads the employees involved should be physically and mentally capable of remaining alert for the duration of the movement.

In Western Australia there are Occupational Safety and Health regulations for fatigue management that, depending on the hours being worked, may apply to your machinery movement. Further information on the regulations as well as general guidance on the management of driver fatigue is contained in the Code of Practice on Fatigue Management for Commercial Vehicle Drivers available from WorkSafe WA.

This publication and other information on driver fatigue can be found on the WorkSafe website at www.commerce.wa.gov.au/worksafe (search 'Driver Fatigue').

2. Definitions

The definitions listed below are taken directly from the *Road Traffic (Towed Agricultural Implements) Regulations 1995* ('TAIR') and the *Road Traffic (Vehicle Standards) Regulations 2002* ('VSR'). They apply to the contents of this handbook.

Definitions (from TAIR)

Flashing Amber Light

A warning light that complies with Schedule 2 clauses 39 and 40 of the *Road Traffic (Vehicle Standards) Regulations 2002*.

Gate to gate

Two gates facing each other, one on each side of a road, where the distance between the 2 centrelines, drawn at right angles to the road, of each gate is 20 metres or less.

Lighting equipment

Lights, reflectors and ancillary equipment.

Night-time

The hours between sunset and sunrise.

Peak hours

7:30am to 9:00am and 4:30pm to 6:00pm on a Monday, Tuesday, Wednesday, Thursday or Friday, other than a public holiday.

Definitions (from VSR)

Agricultural combination

A combination that includes at least one agricultural vehicle.

Agricultural implement

A vehicle without its own motive power, built to perform agricultural tasks.

Agricultural machine

A machine with its own motive power, built to perform agricultural tasks.

Agricultural vehicle

An agricultural implement or agricultural machine.

Escort vehicle

A motor vehicle that is being used —

- (a) to transport a police officer, or other person authorised to direct traffic; and
- (b) to warn other road users of the presence of an oversize vehicle.

Pilot vehicle

A motor vehicle, other than an escort vehicle, being used to warn other road users of the presence of an oversize vehicle.

Unloaded mass

The mass of the vehicle in running order, equipped with all standard equipment and with all fuel and other fluid reservoirs filled to nominal capacity, but unoccupied and without any other load.

Vehicle

A motor vehicle, trailer or combination (including the equipment fitted to, or forming part of, the vehicle).

Warning sign

A sign that complies with the specifications in Schedule 2 Division 7 of the *Road Traffic (Vehicle Standards) Regulations 2002*.

Definitions (additional)

The definitions listed below apply to the contents of this handbook.

Pilot/Escort Vehicle Warning Sign

A warning sign as detailed in Schedule 2 Division 7 Subdivisions 1, 2 and 4 of the *Road Traffic (Vehicle Standards) Regulations 2002*.

Portable Warning Sign

A portable warning sign complying with AS3790-1992 (Portable Warning Triangles for Motor Vehicles) as detailed in Regulation 191 of the *Road Traffic Code 2000*.

RAV Network 2

The Restricted Access Vehicle Network 2 of Permitted Roads, published on Main Roads (MR) website or available from MR Heavy Vehicle Operations.

Safe Locking Device

A safe locking device as detailed in Regulation 14(2) of the *Road Traffic (Towed Agricultural Implements) Regulations 1995*.

Safety chain

A safety chain as detailed in Regulation 14(3) and (4) of the *Road Traffic (Towed Agricultural Implements) Regulations 1995*.

Warning Flag

A brightly coloured flag or piece of material as detailed in Regulation 23 of the *Road Traffic (Towed Agricultural Implements) Regulations 1995*.

3. Agricultural Implements

An agricultural implement is a specific piece of equipment that is constructed to perform an agricultural task. It does not have its own motive power and so requires towing to be moved.

A Towed Agricultural Implement does not have to be licensed providing it is towed by a vehicle that is either licensed or operating under a valid permit issued by DoT.

The following items shown in the table below are generally classified as Towed Agricultural Implements; however this list is not exhaustive:

Disc ploughs	Air seeders	Clover harvesters
Blade ploughs	Hay rakes	Harvesters (not self-propelled)
Disc harrows	Augers	Portable crutching cradles
Scarifiers	Sheep showers	Twin implement hitches
Cultivators	Hay balers	Stack hand hay balers
Boom sprayers	Tedders	Hay stackers & elevators
Hay mowers	Field bins	Pasture toppers
Dump rakes	Super spreaders	Animal weighing scales
Stone pickers	Root rakes	Feed out trailers
Rotary hoes	Feed mixers	Portable stockyards
Harrows	Seed graders	Irrigation rain guns
Combines	Comb trailers	Mobile sheep yards

Please note that the above list does not include welders, cement mixers, farm trailers, fuel and water tankers and other items that may not used specifically for agricultural purposes.

As a guide, unless a vehicle can only be used as an Agricultural Implement, it must be licensed by DoT before it is used on public roads.

However, some dual or multi use vehicles may be licensed and receive an Agricultural Machinery or Agricultural Special Purpose concession (see Section 5 - Vehicle Licence Concessions).

4. Vehicle Licence Conditions and Permits

In Western Australia there are three categories of farm machinery use that are covered by the road traffic regulations.

- Towing of Agricultural Implements.
- Driving Self-Propelled Machinery.
- Transport of Oversize Loads on vehicles.

Towing of agricultural implements

Towed Agricultural Implements do not have to be licensed providing they are towed by a vehicle that is either licensed or operating under a valid permit issued by DoT.

For any part of the metropolitan road network within a radius of 30 kilometres of the intersection of St Georges Terrace and Barrack Street, Perth, movement of an agricultural combination over 2.5 metres wide or over 25 metres long requires a permit from Main Roads WA.

Outside of the area defined above, an agricultural combination over 7.5 metres wide or 30 metres long cannot be moved on a road unless a valid Police permit has been issued.

Where a vehicle or any part of an agricultural combination is over 4.3 metres* high, over 5.5 metres wide or may come into contact with a power line, written permission must be obtained from Western Power or Horizon Power before the combination is moved.

*(*4.6 metres when travelling on Main Roads RAV network 2)*



Driving Self-Propelled Machinery

There are special vehicle licence conditions that govern the use and movement of self-propelled machinery such as headers, tractors, etc. These conditions are detailed on the vehicle licence papers and must be complied with at all times.

Examples of Condition codes include:

001 – Licence to be carried in vehicle at all times

003 – Daylight Use Only

012 – To be preceded and followed by pilot vehicles bearing signs

024 – Movement in accordance with Main Roads Department Permit

Class A vehicles are fully compliant road going vehicles which have unconditional access to the road network.

Temporary Movement Permits may be issued by DoT to allow the movement of unlicensed Class A farm vehicles or machinery to and from a place of examination for licensing or repairs prior to licensing. To obtain a temporary permit you will need to provide the following:

- details of the journey;
- driver's details; and
- the engine or chassis number or details of the towing vehicle where the towed vehicle is a trailer or other vehicle capable of being licensed.

Please remember that temporary movement permits are generally only valid for 48 hours from the nominated start time. Any conditions or limitations of use that have been endorsed on the permit by the issuing officer must be complied with. They are not intended for continued use of the vehicle.

Class B or C vehicles have condition codes attached to the vehicle licence, which may restrict the vehicle operation, road access or both.

Special Permits for over-dimensional vehicles may be issued by DoT to move unlicensed Class B and C farm vehicles and machinery. To obtain a permit you will need to provide the following details:

- details of the journey;
- driver's details; and
- details of the vehicle.

Transport of Oversize Loads on vehicles

Where any 'indivisible' load (that is a load that cannot be divided without undue effort and/or expense, including farm machinery carried on a vehicle) is carried on a vehicle and the resulting dimensions exceed 2.5 metres wide; or 19 metres in length an 'Oversize' movement permit is required from Main Roads WA.

Please note: Over-length loads are not permitted on a rigid vehicle.

For any load carried on a vehicle with total dimensions exceeding 4.3 metres* high or 5.5 metres wide, written permission must be obtained from Western Power or Horizon Power before the combination is moved.

(*4.6 metres high when travelling on Main Roads RAV network 2)



Permits

Department of Transport - Temporary Movement Permit

Temporary Movement Permits can be obtained from DoT.

A fee is payable.

Phone: 13 11 56 (DoT Contact Centre)

Website: www.transport.wa.gov.au (search 'Movement Permit')

Visit: Driver and Vehicle Services Centre or regional agent

Please note that online permits are only available for light vehicles under 4,500kg Gross Vehicle Mass (GVM).

Special Permit for Over-Dimensional Vehicles

Special Permits for over-dimensional vehicles can be obtained from DoT.

Up to 14 days notice may be required. A fee is payable.

Phone: 13 11 56 (DoT Contact Centre)

Main Roads WA - Oversize Vehicle Permit

The conditions of movement are endorsed on the permit and a fee is payable. The driver must be aware of the conditions and drive accordingly.

Permits can be obtained from the Heavy Vehicle Operations branch of Main Roads WA.

Phone: 138 HVO (138 486)

Fax: (08) 9475 8455

Website: www.mainroads.wa.gov.au (search 'Heavy Vehicles')

WA Police - Excessively Wide or Long Combination Permit (MR19)

These permits can be obtained from country police stations and are free of charge and valid for 12 months from the date of issue.

A police officer may refuse to issue a permit if the movement of the agricultural combination on all or any part of the route to be followed would endanger safety. The issuing officer may also apply specific conditions to the permit including, but not limited to:

- any speed limit to be observed while moving the combination;
- the route to be followed;
- the times when the combination can be used on a road; and
- any requirement for a police escort.

Horizon Power / Western Power - High Load Authorisation Permit

Operators of vehicles or loads higher than 4.3 metres* or wider than 5.5 metres, must apply for a high load authorisation as per the Main Roads WA Heavy Haulage conditions. (*4.6 metres high when travelling on Main Roads RAV network 2)

Horizon Power

Horizon Power High Loads Team can be contacted by:

Phone: 1800 772 501
E-mail: highwide.loads@horizonpower.com.au
Website: www.horizonpower.com.au (search 'High Wide Load')

A map showing the areas serviced by Horizon Power is available to download from the high and wide vehicles permit page on the Horizon Power website.

Western Power

Western Power may specify the requirement that the vehicle be escorted by a Western Power officer. Refer to the Western Power website for cost and authorisation validity. Western Power Oversize Loads Team can be contacted by:

Phone: 13 10 87
Facsimile: (08) 9225 2004
E-mail: oversize.loads@westernpower.com.au
Website: www.westernpower.com.au (search 'Oversize')

The following information is also available to download from the Oversize vehicles page of the Western Power website:

- Map showing towns and locations in the South West Interconnected System ('SWIS' - the vast majority of which is formed by the Western Power Network).
- A list of Power lines in the Metro area that are less than 4.6m high.
- A list of Power lines in the Country that are less than 4.6m high.

Load Movements Between Western Power and Horizon Power Networks (inter-district)

All applications to transport oversize loads that will require travel between Western Power's network and Horizon Power's network can be lodged as a single application for the inter-district travel no matter where the origin of movement. See either website for further details.

5. Vehicle Licence Concessions

The DoT provides 3 different 'farm' vehicle concessions. An application for a farm vehicle concession can be made at any Driver and Vehicle Services (DVS) centre, DoT regional office or DVS agent.

Application forms are available from the DoT website www.transport.wa.gov.au.

Agricultural Machinery / Special Purpose Vehicles concession (Application Form - VL18)

Concessions are available for agricultural machines or agricultural special purpose vehicles if the vehicle is only used for one of the following:

- to pass from one portion of the farm to another; or
- to travel between a farm and some other place for farming activities; or
- to carry out fire fighting or fire prevention operations; or
- to take part in fire control exercises previously authorised by a bush fire control officer appointed under the *Bush Fires Act 1954*; or
- if the farm is in an area that is declared by the Minister administering the *Agriculture Act 1988* to be drought affected or water deficient, to travel between the farm and a water supply for the purpose of carting water for stock or for domestic purposes.

This concession can be applied to any Agricultural Machinery / Special Purpose vehicle owned by a farmer. There are no restrictions on the amount of vehicles owned by a farmer for this concession type.

Farm Haulage Concession (Application Form - VL21)

A vehicle owner may apply for a concession for any farm vehicle with a tare weight not less than 1524 kg (excluding Agricultural Machinery or Agricultural Special Purpose Vehicles) if the vehicle is used exclusively or principally to carry the products of, or requisites for, the vehicle owner's farming business.

Farm haulage concessions are restricted to one vehicle used in connection with the **same** farming business, unless the vehicle is a combination of Prime Mover and Semi-Trailer.

Farm Vehicle Concession

(Application Form - VL39)

Concessions are available for vehicles owned by a farmer and are granted on the basis that they make limited use of gazetted roads.

Farm vehicles may be driven on public roads only in the following circumstances to travel between:

- one portion of land and another portion of land that are farmed by the vehicle owner, provided that those portions of land are located within the same or adjoining Shire boundary; or
- the farm and some other place to carry out fire fighting or fire prevention operations; or
- to travel between the farm and some other place to take part in fire control exercises previously authorised by a bush fire control officer appointed under the *Bush Fires Act 1954*; or
- if the farm is in an area that is declared by the Minister administering the *Agriculture Act 1998* to be drought affected or water deficient, to travel between the farm and a water supply for the purpose of carting water for stock or domestic purposes.

Vehicles licensed with a 'farm vehicle' concession are issued with special number plates, embossed with the word 'FARM', and must be used only under the above conditions. There is no limit on the number of vehicles that may be licensed under these provisions.

Farm vehicle owners that use their vehicle contrary to the above conditions may be prosecuted for driving an unlicensed vehicle, and their vehicle may not be covered by compulsory third party insurance in the event of a crash.

Farm Fire Fighting Vehicles and Trailers

Vehicles owned by farmers that are fitted or adapted for fire prevention may be licensed at concessional rates if:

- their use on a road is restricted to fire fighting or fire prevention; or
- they are driven to the nearest practicable place for repairs.

Such vehicles must be inspected so the body type may be reassessed to 'Fire Tender'.

Trailers (Tanker – Water/Fuel)

These trailers are not exempt from licensing; however a vehicle licence concession may be available for these types of vehicles.

Vehicle licence concessions will include conditions on the use of the vehicle or the load that may be carried. You should read the vehicle licence papers or consult your nearest Driver and Vehicle Services (DVS) centre, DoT regional office or DVS agent to ensure you comply with the applicable conditions.

Fuel and fire fighting trailers must be inspected to ensure their roadworthiness before a number plate is issued.

Fuel and fire fighting trailers can be licensed at concessional rates for a small fee and are not required to comply fully with all lighting and braking requirements; however licensing conditions restrict their use to the proximity of the farm/farms.

Farmers Rebate – Class 2(F)

Certain vehicles with a tare weight of 2,500kg or more, owned by a farmer, may be eligible for a 50% rebate on the business rate of Compulsory Third Party Insurance (CTPI) premium.

To claim a reduction in CTPI an *'Application for Compulsory Third Party Insurance Class 2(f)'* form (E10) must be completed and submitted at the same time a concession application is made.

6. General Requirements for all Towed Agricultural Implements

Safety of Components

Every component of a towed vehicle being towed on a road must be maintained in such a condition as to ensure the safe use of that towed vehicle.

Folding arms, mechanisms or structures fitted to a towed agricultural implement must be secured by chains, pins or other mechanical means to prevent them moving from the retracted or folded position during on-road movements.

Any component part of, or attachment to, the towed vehicle which is capable of becoming loose or detached from the towed vehicle must be firmly secured.

Towed Mass Ratios

Agricultural implements being towed behind vehicles such as cars and utilities must comply with towed mass ratio limits. When such a vehicle is used for towing, the towed implement mass must not exceed the Manufacturer's maximum towed mass rating for the towing vehicle or, if no Manufacturer's rating exists, twice the unloaded mass of the towing vehicle.

Agricultural machines including tractors are not required to comply with towed mass ratio limits.

It must be noted, however, that the above towed mass ratio limit may be reduced if the agricultural combination is unable to meet the minimum braking distances specified in the following section titled Brakes.

Brakes

A combination being used on a road must be capable of stopping from a speed of 30 kilometres per hour (or the maximum speed of which it is capable if less than 30 kph) within 15 metres.

Any braking system on a towed vehicle that is compatible with the towing vehicle must be connected and the brakes checked to ensure they are operating, before towing commences.

Mirrors

If the towing vehicle is not mandated to be fitted with mirrors, or the mirrors fitted to the towing vehicle are not adequate to enable the driver to see vehicles approaching from the rear, a flashing amber light must be fitted to, and operated on, an agricultural combination.

Safety Chains and Couplings

Each implement forming part of an agricultural combination being towed on a road must be connected to the towing vehicle or, in the case of a combination consisting of more than one towed implement, to the implement in front of it by a coupling. This coupling must also be used in conjunction with either a safe locking device, safety chains or other safety device compliant with the *Road Traffic (Vehicle Standards) Regulations 2002*.

Specifications

Safety chains must:

- consist of 2 rated chains (eg AS 4177 or AS 2321, as applicable);
- be capable of keeping the agricultural implement in tow in the event of the failure or accidental disconnection of the coupling between the implement and towing vehicle or the implement in front;
- be fitted to the frame or other substantial portion of the agricultural implement and to a substantial portion of the towing vehicle or the implement in front;
- not be liable to accidental disconnection;
- permit all normal turning movements and be as short as possible;
- be fitted in a crossed over position to prevent the forward end of the draw-bar of the towed implement from striking the ground in the event of accidental disconnection;
- have their forward ends fitted to the towing vehicle or another implement as close to the pivot of the coupling as practicable;
- have links of at least 10mm diameter cross-section; and
- be attached to each end by a steel ring or shackle of at least 10mm in diameter.

Safe Locking Device

A safe locking device must consist of a spring clip, split pin or similar device which is designed to mechanically retain the coupling and prevent accidental disconnection, or to stop the draw bar pin from dropping out. The pin used should be steel or some other robust material.

Limit on Individual Agricultural Combinations

No more than 3 agricultural implements may be towed as part of an agricultural combination.

If a vehicle other than an agricultural implement is being towed in the agricultural combination, no more than 2 agricultural implements may be towed as part of the combination.

No more than 1 vehicle that is not an agricultural implement may be towed in an agricultural combination.

Vehicles other than Agricultural Implements

A vehicle, other than an agricultural implement, must not be towed in an agricultural combination if:

- it has a GVM exceeding 4.5 tonnes; or
- it exceeds 2.5 metres in width.

A motor vehicle or pig trailer must not be towed in an agricultural combination if the towing apparatus of another vehicle in the agricultural combination does not have the towing capacity to tow the motor vehicle or pig trailer.

If a motor vehicle or pig trailer (other than an agricultural implement) is being towed in an agricultural combination, the motor vehicle or pig trailer must be the rearmost vehicle in the agricultural combination.

A vehicle, other than an agricultural implement, that is being towed in an agricultural combination must be attached to the vehicle in front of it by:

- a coupling which complies with the *Road Traffic (Vehicle Standards) Regulations 2002* and the *Road Traffic (Vehicle Standards) Rules 2002*; or
- if the towed vehicle is a motor vehicle — an approved towing apparatus (eg. an 'A' frame).

An information brochure on "A"-Frame towing can be found online at www.transport.wa.gov.au (Search 'A Frame Towing').

7. Towed Agricultural Implements Summary Reference Chart

Any "YES" - IS required						
Dimension	Warning Signs	Warning Flags	Portable Warning Signs (Triangles)	Flashing Amber Lights	Clearance Lights	Front Pilot
Width						
≤ 2.5m	NO	NO	YES	YES ¹	NO	NO
> 2.5 ≤ 3.5m	NO	YES	YES	YES	YES	NO
> 3.5 ≤ 5.5m	YES	YES	YES	YES	DAYLIGHT USE ONLY	YES
> 5.5 ≤ 7.5m	YES	YES	YES	YES		YES
> 7.5	YES	YES	YES	YES		YES
Length						
≤ 25m	NO	NO	YES	YES ¹	NO	NO
> 25 ≤ 30m	YES	NO	YES	YES	NO	YES
> 30m	YES	NO	YES	YES	NO	YES
Height						
≤ 4.3m	NO	NO	YES	YES ¹	NO	NO
> 4.3m	NO	NO	YES	YES ¹	NO	NO

YES ¹	If stoplights are not installed on the rear of the implement, or the towing vehicle does not have adequate mirrors
YES ²	Except where the combination is fitted with a flashing amber light(s)
NO ³	Except where the combination may come into contact with an electrical supply line
YES ⁴	Height > 4.6 metres when travelling on Main Roads RAV network 2
YES ⁵	A combination must be fitted with flashing amber lights, reflectors, rear lights and signalling lights when towed at night

***Headlights or daytime running lights on the towing vehicle must be on at all times.**

			Any "NO" - NOT permitted			
Rear Pilot	Police Permit	Western or Horizon Power Permit	Night Use	Travel on Freeways	Travel Within 30 km CBD (Metro)	Travel in Metro Peak Hours
NO	NO	NO	YES ⁵	NO	YES	NO
NO	NO	NO	YES ⁵	NO	YES (MRWA PERMIT)	NO
YES ²	NO	NO	NO	NO	YES (MRWA PERMIT)	NO
YES ²	NO	YES	NO	NO	YES (MRWA PERMIT)	NO
YES	YES	YES	NO	NO	YES (MRWA PERMIT)	NO
NO	NO	NO	YES ⁵	NO	YES	NO
YES ²	NO	NO	NO	NO	YES (MRWA PERMIT)	NO
YES ²	YES	NO	NO	NO	YES (MRWA PERMIT)	NO
NO	NO	NO ³	YES ⁵	NO	YES	NO
NO	NO	YES ⁴	NO	NO	YES	NO

8. Lighting for Towed Agricultural Implements

Daylight Towing

Towed vehicles must be fitted with two stop lights (brake lights) located at the rear which illuminate when the foot brake of the towing vehicle is applied.

These stop lights can be dispensed with if the combination is fitted with a flashing amber light - which must be operating whilst the combination is on the road.

The vehicle towing an agricultural combination on a road during daylight hours must have its headlights or daytime running lights on and dipped.

Night-Time Towing

A combination that is over 3.5 metres wide or 25 metres long must not be used on a road during night-time.

A combination of lesser dimensions may be used on a road at night if the towing vehicle is licensed or is a tractor licensed for night use.

The headlamps of the towing vehicle must be dipped for on-coming or overtaking vehicles.

The towed vehicle or rear-most vehicle in a combination must be fitted with:

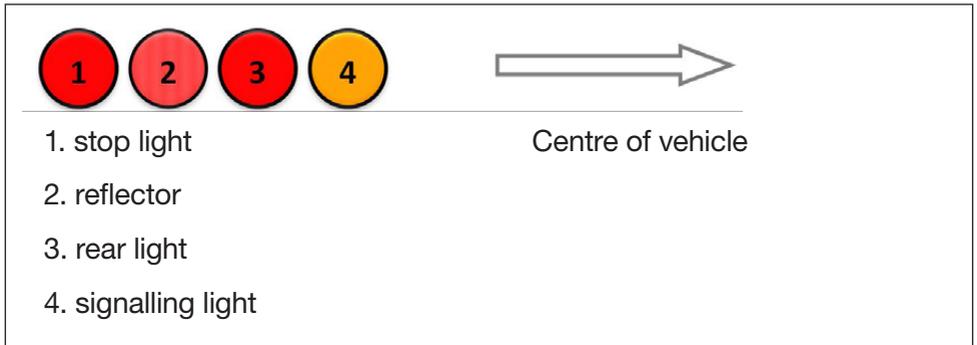
- 2 stop lights (brake lights)
- 2 reflectors;
- 2 rear lights (tail lights);
- 2 signalling lights (indicator lights);
- clearance or side marker lights (for implements over 2.5m wide); and
- a flashing amber light (see Section 9 - Warning Signs and Signals).

Stop lights are not required if a flashing amber light is fitted and used.

Positioning of Lights

Lights and reflectors may be installed on a light board but must be securely fixed by straps or other means to prevent the light board from moving.

Lights and reflectors must be fitted symmetrically, to each side of the vehicle, and where possible, horizontally and in the following sequence from the outer edge inwards:



Where it is not possible to fit the lights horizontally, they must be fitted vertically, with the stop light on the top and the signalling light on the bottom.

Lights and reflectors must be fitted between 400mm and 1500mm above ground level. Where it is not practical to comply with the 1500 mm requirement, then the lights may be fitted higher but must be as near as possible to 1500 mm from the ground.

The outer edge of the reflective or illuminated area must be no more than 400mm from the edges of the towed vehicle.

Reflectors **must** be fitted on the rear of all implements left standing on a road at night.

Specifications

Stop Light

A stop light is lit when the foot brake of the towing vehicle is applied. When lit, a stop light must display a red light that is clearly visible in sunlight up to 60m to the rear of the vehicle.

Rear Light

A rear light has a power not exceeding 7 watts.

When lit, a rear light must display a red light that is clearly visible at night up to 200m to the rear of the vehicle.

Signalling Light

A signalling light is operated by the driver of the towing vehicle from the proper driving position.

When lit, a signalling light must display an amber light that is clearly visible in sunlight up to 60m to the rear of the vehicle.

When switched on, a signalling light must display its light within a maximum of one second then flash at a rate of between 60 to 120 times per minute.

Clearance Light

When lit, a clearance light gives an indication of the width of a towed vehicle when viewed from the front or rear of that vehicle.

Reflector

When illuminated at night by the light from a compliant headlight, a reflector emits a red reflection of the light that is clearly visible at a distance of 100m to the driver of the vehicle from which that light is projected.

A reflector may consist of either of the following:

- Red reflective tape of minimum dimensions 25mm wide by 100mm long; or
- A reflecting lens of minimum 25mm diameter.

However it is recommended that a larger reflector is used wherever possible.

9. Warning Signs and Signals

Flashing Amber Lights

A towing vehicle may be fitted with a flashing amber light which may only be operated when:

- The towing vehicle is towing an agricultural combination on a road at night-time.
- The towed vehicle exceeds 2.5 m in width and 25 m in length on a road.
- The shape and dimensions of the towed vehicle are such as to obscure the driver's rearward view.

A pilot vehicle may be fitted with a flashing amber light which may only be operated when it is piloting an agricultural combination on a road; or

An escort vehicle may be fitted with a flashing amber light which may only be operated when it is escorting an agricultural combination on a road.

Positioning of Flashing Amber Lights

A flashing amber light on any vehicle (other than a police vehicle) must be:

- clearly visible at a distance of 500m in all directions;
- supplemented by one or more additional flashing amber lights so that the light emanating from at least one of them is clearly visible at a distance of 500 m in any direction; and
- fitted to the highest position practicable on the combination.

Specifications

When switched on, a flashing amber light on an oversize vehicle or pilot vehicle must:

- emit a rotating, flashing, yellow or amber coloured light;
- flash between 120 and 200 times a minute;
- have a power of at least 55 watts for a filament globe light;
- have a power of at least 24 watts for an LED light; and
- not be a strobe light.

Hazard warning lights normally in the configuration of indicator lights (which illuminate on both sides together when switched on) **do not** constitute a flashing amber light.

On pilot vehicles, the warning lights must be positioned as shown in the photograph below, or where one light is used it must be central on the roof of the vehicle.



Warning Flags

An agricultural combination over 2.5 metres wide must be fitted with warning flags made of high visibility yellow or orange material that are at least 450mm wide x 450mm long (approx 18 inches x 18 inches).

The flags must be attached to each corner. Two must be at the rear of the combination and two at the front of the towing vehicle or the front of the towed vehicle (whichever is the wider).



Portable Warning Signs

All combinations must carry three portable warning signs that comply with Australian Standard AS3790 (Portable Warning Triangles for Motor Vehicles).

If the combination is disabled or stationary, occupying a hazardous position on a road, the signs are to be placed as follows:

- one between 50 and 150 metres in front of the vehicle;
- one between 50 and 150 metres behind the vehicle; and
- one beside the vehicle on the side nearer to the centre of the carriageway.

At least one sign is to be visible to an approaching driver at a distance of not less than 200m from the sign. All signs must be in good order.

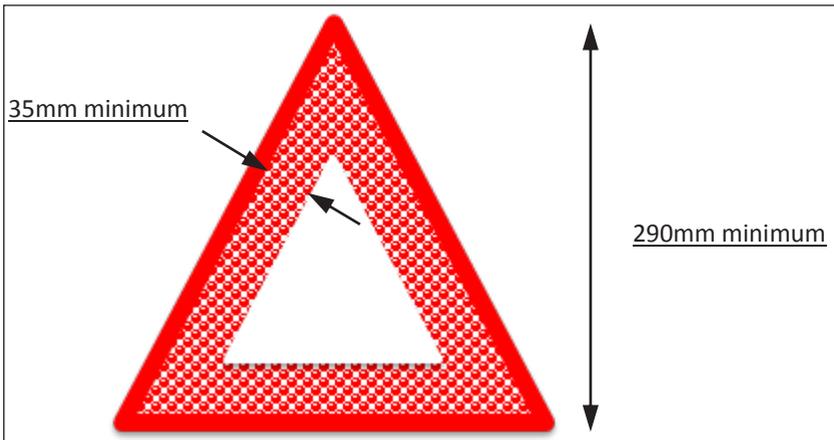
Specifications

A portable warning sign is an equilateral triangle with a minimum height from base to apex of 290mm, constructed of either metal or high impact resistant plastic.

It must be of robust and durable construction and suitable for use in all weathers.

The triangular sign must have red reflective surfaces on both sides.

The triangular sign must be fitted with a device that allows it to stand upright on the road.



'OVERSIZE' Warning Signs

Agricultural combinations over 3.5 metres wide or 25 metres long must not be used on the road unless they are fitted with signs displaying the word 'OVERSIZE'. The signs must be fitted to the front of the towing vehicle and the rear of the last vehicle of the combination.

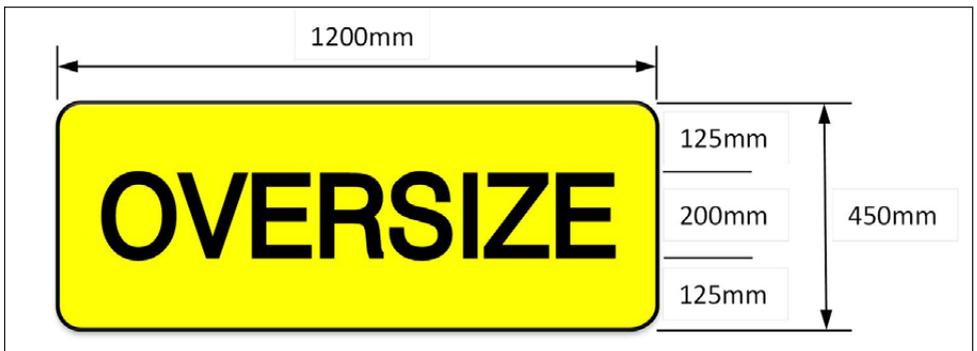
It is recommended that combinations wider than 2.5 metres and up to 3.5 metres wide should also be fitted with warning signs.

Specifications

An 'OVERSIZE' warning sign must:

- have a yellow surface on the sign face which complies with Class 1 or 2 of Australian Standard AS 1906;
- must have a black border at least 20 mm wide around the sign face;
- be made of rigid material unless a rigid sign cannot be adequately mounted on the implement, in which case a flexible (vinyl) sign can be used (no other variations are permitted);
- be at least 1200mm long and 450mm wide;
- have black lettering on a yellow background;
- have the word 'OVERSIZE' in capital letters at least 200mm high and with a brush-stroke 28mm wide [AS 1744 typeface Series C(N)];
- have at least 125 mm from the top of the word 'OVERSIZE' to the top of the sign; and
- have at least 125 mm from the bottom of the word 'OVERSIZE' to the bottom of the sign.

****Please note that homemade signs are not acceptable.***



Warning Signs for Pilot Vehicles

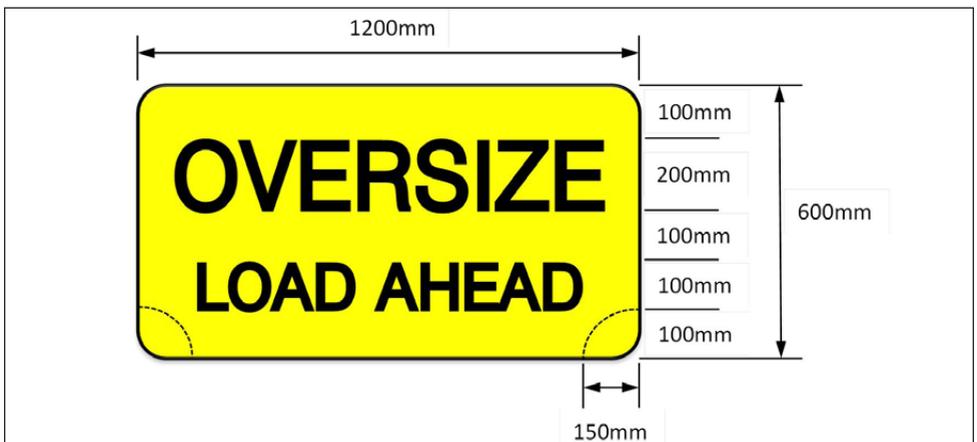
Pilot vehicles must be fitted with a sign displaying the words 'OVERSIZE LOAD AHEAD'

Specifications

A Pilot Vehicle warning sign must:

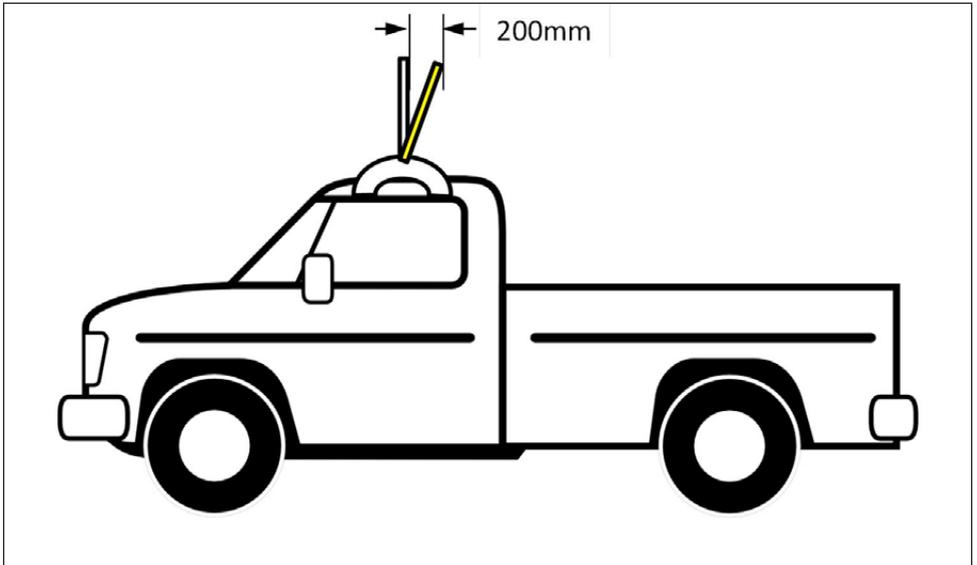
- have a yellow surface on the sign face which complies with Class 1 or 2 of Australian Standard AS 1906;
- have a black border at least 20 mm wide around the sign face;
- be made of rigid material;
- be at least 1200mm long and 600mm wide;
- have black lettering on a yellow background on both faces;
- have the word 'OVERSIZE' in capital letters at least 200mm high and with a brush-stroke 28mm wide (AS 1744 typeface Series CN);
- have the word 'LOAD AHEAD' in capital letters at least 100mm high and with a brush-stroke 15mm wide (AS 1744 typeface Series DN);
- have at least 100 mm from the top of the word 'OVERSIZE' to the top of the sign;
- have at least 300 mm from the bottom of the word 'OVERSIZE' to the bottom of the sign;
- have at least 100 mm from the bottom of the words 'LOAD AHEAD' to the bottom of the sign; and
- may have bottom corner cut-outs not more than 150 mm wide and not more than 100 mm high if they are needed for mounting the flashing amber lights.

****Please note that homemade signs are not acceptable.***



Mounting a Pilot Vehicle warning sign

A warning sign on a pilot vehicle must not lean back more than 200 mm measured horizontally from the top of the sign to a vertical line running through the bottom of the sign.



Warning Sign must not be displayed if not required

A warning sign must not be displayed on a vehicle that is not an oversize vehicle or a pilot vehicle.

10. Pilot Vehicles - Operating Conditions

Requirement for Pilot Vehicles

A combination over 3.5 metres wide or 25 metres long must not be used on a road unless it is accompanied by a front pilot vehicle.

A rear pilot vehicle is not required for a combination up to 7.5 metres wide if the combination has a flashing amber light operating while on the road.

A rear pilot vehicle may be mandatory for any agricultural combination over 7.5 metres wide or over 30 metres long as part of the conditions of the required Police permit.

Positioning of Pilot Vehicles

When an agricultural combination is required to be accompanied by a pilot vehicle (or vehicles, where applicable):

- The front pilot vehicle must be between 300 metres and 500 metres in front of the combination.
- The rear pilot vehicle must be between 300 metres and 500 metres behind the combination.

Towed Agricultural Implement Information

The driver of a pilot vehicle must inform themselves of the dimensions, warning devices, driver requirements and relevant vehicle operational requirements including any conditions, prior to accompanying the Towed Agricultural Implement.

Pilot Vehicle Headlights

Pilot vehicles must operate with their headlights or daytime running lights switched on at all times.

Pilot Vehicle Driver Signals

The driver of a vehicle towing an Agricultural Implement must comply with any direction or signal given by the driver of the front pilot vehicle in relation to the movement of the Agricultural Implement.

Allowing Traffic to Pass

To avoid unnecessary traffic build up, a Towed Agricultural Implement accompanied by a pilot vehicle must pull over on a regular basis to allow traffic to pass. This includes stopping in all parking bays that are suitable and stopping wherever it is safe to do so.

Radio Communication

An oversize combination and the accompanying pilot or escort vehicle must have an electronic device that allows the drivers to communicate with each other. This requirement is waived if an oversize agricultural machine, to which it is impractical to fit a radio or similar device, is towing the combination or if the escort vehicle is a police vehicle.

Carrying Loads

A pilot vehicle may carry a load providing the laden mass of the vehicle does not exceed 4.5 tonnes.

A pilot vehicle may tow a vehicle or an agricultural implement as long as the vehicle's rated gross combination mass is not exceeded and the combination is not greater than 2.5 metres in width or 25 metres in length.

It should be noted that a pilot vehicle towing a vehicle constitutes an 'agricultural combination' as defined under the regulations. This may have an impact where it is intended to move a 'convoy' as no more than two combinations can be moved in a convoy.



11. Movement of Towed Agricultural Implements

Driving Licence Authorisation to Tow Agricultural Implements

Whilst agricultural implements are not required to be licensed, the drivers of vehicles (including tractors) towing these implements must hold a valid driver's licence with the authorisation to drive the appropriate class of vehicle.

Under the National Driver Licensing Scheme, the class of driver's licence is aligned to the gross vehicle mass (GVM) and number of axles of the vehicle (and trailer combination where applicable) being driven. As the vehicle combination increases in size and complexity, the class of licence required to drive the vehicle changes. Therefore whilst a small tractor can be driven on a 'C' (car) class licence, if two or more agricultural implements need to be towed, the driver is required to hold an 'MC' (Multi-Combination) licence. A fact sheet is available from the DoT website (see Section 15, Additional Information & Website Links).

Speed Limits

An agricultural combination in which a motor vehicle is being towed is restricted to:

- a maximum speed limit of 50 kilometres per hour (kph), or
- a maximum speed of 20 kph below the posted speed limit, whichever is less (eg. in a 60 kph zone, the maximum speed permitted is 40 kph).

All other agricultural combinations are restricted to:

- a maximum speed limit of 80 kph, or
- a maximum speed of 20 kph below the posted speed limit, whichever is less.

In addition to the above, the towing vehicle **must** be driven in accordance with any conditions of the vehicle's licence

Freeways

An agricultural combination is not permitted on the Kwinana, Mitchell and Graham Farmer freeways. This prohibition would also apply to any roads declared to be a Freeway in the future.

Metropolitan Area

Agricultural combinations up to 2.5 metres wide and 25 metres long **are not** permitted on the metropolitan road network during peak hour periods on roads within a radius of 30 kilometres of the intersection of St Georges Terrace and Barrack Street, Perth.

Agricultural combinations up to 2.5 metres wide and 25 metres long are permitted to operate within a radius of 30 kilometres of the intersection of St Georges Terrace and Barrack Street, Perth outside of the peak traffic period.

Agricultural combinations larger than 2.5 metres wide and 25 metres long must not be used in the metropolitan area without a permit from the Commissioner of Main Roads (see Section 4, Vehicle Licencing Conditions and Permits).

Parking

A combination over 2.5 metres wide cannot be parked on a road in a built-up area. Outside a built-up area, a combination cannot be parked on a road, except in a truck bay or in an area set aside for the parking of vehicles.

‘Built-up area’ means the territory adjacent to and including any road:

- on which there is provision for lighting by means of street lights;
- which is built-up with structures devoted to business, industry or dwelling at intervals of less than 500m; or
- beyond a sign indicating ‘BUILT-UP AREA’ erected at the roadside to face drivers approaching a development consisting of dwelling houses, business or industrial structures.

Convoys

No more than 2 combinations may be moved in a convoy.

When travelling in a convoy, operators must be aware of traffic congestion and where practicable stop clear of the roadway to allow traffic to overtake.



12. Traffic Managed Crossings

Gate to gate towing

Agricultural implements can be towed across public roads during the day or night, providing the requirements of the Main Roads document *Traffic Management Requirements - Towed Agricultural Implement Crossings (Reference Number 07/2071 D07#103477)* are put in place and followed. This document can be downloaded online at: www.mainroads.wa.gov.au (search 'Agricultural Vehicles').

Other than penalties, the other provisions of the TAIR do not apply. This means that wider and longer combinations than those allowed to be towed along a road can be towed across a road from adjacent gates.

Written approval for the establishment of an agricultural implements crossing point on a road that is under the responsibility of Main Roads WA must be sought and obtained from Main Roads WA. In general roads under this category are 'Highways' or 'Declared Main Roads'.

Written approval is not required for roads that fall under the responsibility of Local Government. However, it may be prudent for the farmer to approach their local government to ensure that the proposed crossing point road meets the conditions of the Traffic Management Requirements document ('TMR').

That means that, providing the conditions of the TMR are in place:

- lamps do not need to be fitted to the agricultural implements or combinations;
- there is no limit to the number of implements being towed; and
- the crossing manoeuvre can be carried out during either the day time or night time.

However, as advised within the TMR, these crossing points cannot be set up on roads that carry more than 500 vehicles per day or when the necessary warning lights cannot be seen from a distance of at least 300m from the crossing.

In all cases the farmer must have a copy of the TMR and ensure that all of the necessary conditions are fulfilled and subsequently followed. Failure to do so will result in an offence being committed.

13. Penalties under TAIR

Driving

Any driver of a towing or pilot vehicle who contravenes the *Road Traffic (Towed Agricultural Implements) Regulations* is liable to a penalty of \$400.

Parking

A person who leaves an agricultural implement on a road or any part of a road at night-time without having reflectors fitted to the implement or fails to place red warning triangles on the road is liable to a penalty of \$400.



14. Restraint of Loads

Carrying a Load

The *Road Traffic Code 2000*, regulation 257 states:

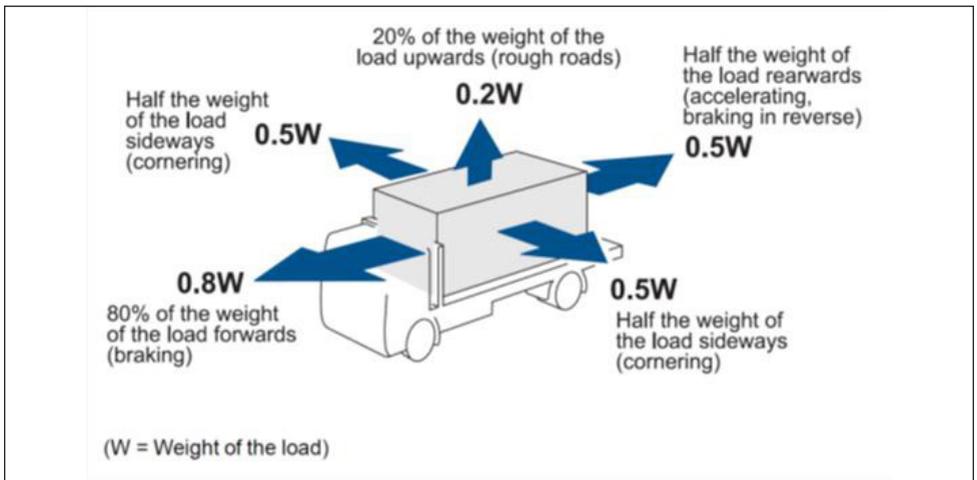
- (1) A person shall not drive a vehicle that is carrying a load, if the load is placed on the vehicle so that it:
 - a) makes the vehicle unstable or otherwise unsafe; or
 - b) projects from the vehicle in a way that is likely to injure a person, obstruct the path of other drivers or pedestrians, or damage a vehicle or anything else (for example, the road surface).
- (2) A person shall not drive a vehicle that is carrying a load, unless the load is restrained on the vehicle so that the load, or any portion of it, is unlikely to:
 - a) fall from the vehicle; or
 - b) become dislodged from the place on the vehicle where it is restrained.
- (3) A person shall not drive a vehicle that is carrying a load, unless the load is restrained on the vehicle by a system appropriate to the load.
- (4) A person shall not drive a vehicle that is carrying a load comprising grain, unless that grain is fully covered or enclosed.



Load Restraint Guide

Both the *Road Traffic (Vehicle Standards) Regulations 2002* and the *Road Traffic Code 2000* require loads that are carried on vehicles using public roads to be restrained in a manner that satisfies the performance requirements of the Load Restraint Guide produced by the National Transport Commission (NTC).

The load restraint system will meet the performance standards if the load does not shift if it is subjected to the forces shown in the figure below:



More comprehensive information about how to practically restrain a load is shown in the Load Restraint Guide. The guide can be downloaded from www.ntc.gov.au.

Vehicles Carting Grain

There continues to be widespread concern at the practice in some country areas of transporting uncovered bulk grain. It is rare for bulk grain to be completely free of contamination by foreign matter, usually seeds of another crop or weed species such as rye grass, dock or radish. Any action that will reduce the spread of weeds by effective covering of bulk loads will benefit the farming community and all primary producers. It is therefore in everyone's interest to ensure that bulk grain loads are fully covered or enclosed.

15. Additional Information & Website Links

Department of Transport

www.transport.wa.gov.au

Fact sheets that relate to the topics below are available from the DoT website

- Licensing Quad Bikes - Farm Use Only
- Licensing Utility Vehicles - Farm Use Only
- Driving authorisation required - Towed Agricultural Implements
- Application for the authorisation to drive 'Towed Agricultural Implements' - HC-X or MC-X

Main Roads WA

www.mainroads.wa.gov.au

RAV Network 2 Roads Tables can be found via the *Heavy Vehicles Operations* homepage on the Main Roads website.

Western Power

www.westernpower.com.au

Horizon Power

www.horizonpower.com.au

National transport Commission

www.ntc.gov.au

WorkSafe WA

www.commerce.wa.gov.au/worksafe

16. Conversion Table

Dimension	Metres	Feet
Length	19	62
	25	82
	30	99
Height	1.5	5
	4.3	14
Width	2.5	8.2
	3.5	11.5
	4.1	13.5
	5.5	18
	7.5	24.5
Distance	15	49.2
	60	196.8
	100	328.1

Notes



Government of **Western Australia**
Department of **Transport**
Driver and Vehicle Services

Disclaimer: The information contained in this publication is provided in good faith and believed to be accurate at time of publication. The State shall in no way be liable for any loss sustained or incurred by anyone relying on the information. 201402.