



Heavy Vehicle Road Safety Program



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World's Best Practice for Driving!

You were introduced 'World's Best Practice' for Driving in the light vehicle course. This is when a driver is capable and will drive confidently and correctly in all situations to levels not usually seen in Australia. For fleets, this means achieving better than four avoidable crashes (incidents) for every one million kilometres of exposure. The influences are mostly German and Swedish with philosophies derived from passenger jet pilots.

To make the maximum use of this manual, it must be used as a reference on ADI training programs, delivered by ADI instructors. It is also a useful tool to research and recall the fundamentals of driving. Throughout this manual, you will see the icons below. The purpose of these icons is to associate the image with a question, a statement, or a safety tip. Please refer to your instructor if the message is not clear.



Statement

Key



to Safety



Question

You don't need to be an enthusiast to be a good driver but it does take more motivation, especially when driving a truck with many tonnes of mass behind it. This manual has information and tips to help you to consistently apply and maintain sound driving principles.

In this reference manual, we have attempted to limit the words with the intention of offering clear, concise information. It is intentional that you read and then discuss each appropriate element with your trainer. They are trained to understand each element to a greater level.

Today our task is simply to improve your driving and we will be aiming for World's Best Practice. Regardless of your current standard, we hope to have at least one positive impact. Question our position on subjects. Challenge old myths & ask more questions! We intend that this document be used with a qualified, ADI instructor.



"Enjoy your day, ask questions and aim to be proficient, efficient and competent....to a world standard".

*Cameron Wearing
Director Research & Development*

Introduction

This training program involves a theory content covering Commercial Road Law, the Load Restraint Guide, correct procedures for loading a truck and balancing that load, Chain of Responsibility Legislation and Safe Driving Strategies.

For Drivers, there is also a practical component to the training that may include loading and unloading a vehicle, checking load and weight distribution, securing the load, as well as a practical drive component. As a driver, you will be dealing with a reasonable degree of theory and a significant degree of practical driving. The objective is to educate you in various disciplines and skills required to be a safe, aware and defensive driver.

These skills include, but are not necessarily limited to:

- Knowledge of Commercial Road Law
- Safely perform exacting tasks
- Set high but sustainable driving limits
- Appreciate the difference between gravel and tarmac
- Learn how to be preventative at higher speeds.
- Demonstrate high discipline levels while driving at high speeds
- Protect the integrity of you, the vehicle and the load at all times

In your driving assessment, you will be assessed on your ability to correctly and safely demonstrate each skill. Each of these skills has exacting standards to achieve and these include:

- Ability to prepare the vehicle
- Control the vehicle
- High levels of concentration (awareness)
- Overall balance and control
- General ability to translate what the vehicle is doing
- Sustain safety
- Maintain a safe & defensive on road standard of driving
- Safely and effectively manoeuvre the vehicle

When driving a heavy vehicle there are a number of rules and regulations that state regulators expect a driver to comply with and these rules can vary considerably from driving a light vehicle.

Why The Human Is The Weak Link



It is a fact that parked trucks don't crash.

Human weaknesses include:

1. Self-belief too high? Where would you rate yourself out of 10?
2. Complacency starts early, *"I have driven this road before and I have never....."*
3. Emotion can impact on decisions, for example, angry drivers are harsh
4. Unable to combine speed/mass that exceeds our nature (20 km/h)

Human strengths include:

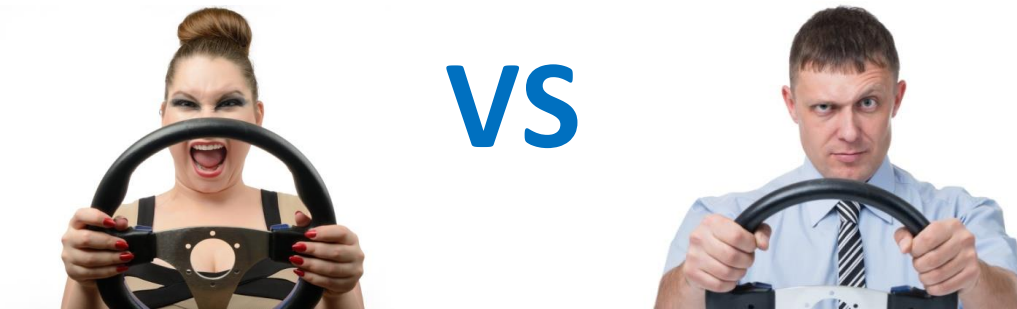
1. The ability to learn and adapt (to speed for example)
2. Very good eyes
3. Judgment
4. Decision making

The examples above define good and bad driving traits. It also helps to know our limitations so we actively prevent ourselves from going beyond these limits. For example:

1. **The physical limitations of the human are quite low.** We know that if our bodies hit a solid object at over 19 km/h, the likelihood of death is around 90%. This is why doctors are concerned with contact sports that potentially have two people running flat out towards each other. Falling from a height of two metres, will do it too. This is also the speed at which you will receive serious brain injury; at best a broken back and why airbags detonate at around 20 km/h (Ref MMAL Product Development 2004).
2. **We also know that humans have not evolved** to naturally appreciate speeds over 20 km/h. Driving at 60 km/h is 3 times faster than our ability to assess speed and that is why driving takes huge amounts of concentration. Surviving a crash over 80 km/h is unlikely. Air bags help to improve this statistic but over 80 km/h into a solid object can still tear the organs (particularly the heart and aorta) from the chest.

The age-old question: who is the better driver: men or women, racing drivers, emergency services?

According to the insurance industry, women present a lower risk. Women crash with third parties and men are more likely to crash by themselves. This still doesn't really answer the question of who is better.



ADI suggests... the person who puts in the mental effort is the better driver.

Until your truck is automated, the responsibility falls directly into the hands of the driver. The problem (as first asked in this element) is often tied into each of the following:

1. **Distractions:** are the single biggest causes of crashes. Distractions also vary in severity. A conversation with a passenger is a low level distraction, while a mobile call is high level. Text messaging is the worst. The mind and eyes are taken off the job.
2. **Vision:** not only are your hands and eyes linked, your eyes help with planning and observing. Most drivers look at the tail lights of the car they are following and will react to conditions. A driver who looks past that same vehicle (about 15 seconds-300 metres down the road) can better see what the vehicle is doing and make a good plan for it. For example, your lane is slowing while the adjacent lane is moving more efficiently, planning to move over can be seamless and efficient.
3. **Concentration:** this is difficult to maintain and is only mastered by a few. In city conditions, a driver will make more observations and decisions and perform more actions per second than a pilot does when preparing to land a passenger aircraft.



The above are the reasons why driving can be such a problem.

Aims

The aims of the Australian Driving Institute Road Safety Program for Heavy Vehicles are to:

- Improve driver safety within your Company by reducing the number of heavy vehicle incidents and personal injuries
- Gain commitment from all employees to adhere to the principles of safer driving on behalf of your company
- Improve driver attitude and behaviour, promoting a professional corporate image above all others

Facts about Driving in the South Pacific

- 98% of crashes are caused by driver error
- Driver fatigue contributes to 30% of fatal crashes in Australia and 12% in New Zealand
- Accidents cost the Australian Industry in excess of \$15 billion each year
- Accidents cost the New Zealand Industry around \$3 billion each year



Statistics

- Work related crashes account for 30% of all fatalities.
- Road crashes make up the most common types of work-related deaths and are also the largest cause of injury and absence from work.
- Research shows that 27% of work vehicles are involved in crashes each year, of which, each incident costs organisations almost \$2000. Total costs allowing for indirect costs such as injuries and replacement vehicles can be much higher.
- Between 50% and 60% of all new vehicles are sold to companies and other organisations.
- Two out of 3 vehicles on the road are making a work related trip. This can greatly increase exposure to risks on the road.
- As well as the psychological effects from workplace road trauma it can also result in lost revenue, lower productivity, increased worker compensation claims and higher insurance premiums.

Heavy Vehicle National Law

In General:

This Law may be cited as the Heavy Vehicle National Law.

This Law came into effect on 10 Feb 2014. (ACT/NSW/QLD/SA/TAS/VIC)

Object of Law

The object of this Law is to establish a national scheme for heavy vehicles on roads in a way that:

- (a) Promotes public safety
- (b) Manages the impact of heavy vehicles on the environment, road infrastructure and public amenity
- (c) Promotes industry productivity and efficiency in the road transport of goods and passengers by heavy vehicles
- (d) Encourages and promotes productive, efficient, innovative and safe business practices



Regulatory framework to achieve object

The object of this Law is to be achieved by a regulatory framework that:

- (a) Establishes the 'National Heavy Vehicle Regulator' with functions directed at ensuring the object is achieved
- (b) Provides for the national registration of heavy vehicles
- (c) Prescribes requirements about the following
 - (i) The standards heavy vehicles must meet when on roads
 - (ii) The maximum permissible mass and dimensions of heavy vehicles used on roads
 - (iii) Securing and restraining loads on heavy vehicles used on roads
 - (iv) Preventing drivers of heavy vehicles exceeding speed limits
 - (v) Preventing drivers of heavy vehicles from driving while fatigued
- (d) Imposes duties and obligations on drivers and the industry.

Legal Requirements for the Truck

It is the responsibility of the driver at all times to ensure the vehicle he/she is driving is roadworthy and legal. As a professional driver it is your responsibility to know the road rules that apply to all vehicles, especially heavy vehicles.

All vehicles with a GVM over 12 tonne must carry at least three reflective warning triangles, in case the vehicle breaks down or loses its load.

Safety Triangle Layout



STEP ONE: Park vehicle as far as possible off the left-hand side of the roadway

STEP TWO: Apply 'Hazard' Indicators

STEP THREE: Place Safety Warning Triangles as per the following:

POSTED ROAD SPEED LIMIT	TRIANGLE LOCATION
80km/h or less	1 Triangle at least 50 metres, but not over 150 metres – behind the vehicle 1 Triangle at the side of the vehicle – closest to traffic 1 Triangle at least 50 metres, but not over 150 metres – in front of the vehicle
Greater than 80km/h	1 Triangle at least 200 metres, but not over 250 metres – behind the vehicle 1 Triangle at the side of the vehicle – closest to traffic 1 Triangle at least 200 metres, but not over 250 metres – in front of the vehicle

*Remember that these are posted or state speed limits, not company limits.

STEP FOUR: Troubleshoot (if safe to do so) and/or call for assistance

This will also mean that you comply with (ARR 207)

Lights and Indicators

All lights and reflectors must work properly, and their lenses must not be damaged.

All rearward facing lights except reversing and indicator lights must be red.

Reflectors must be positioned in the appropriate location:

Reflector Colours & Positions	
Clear	Front of Vehicle or trailer
Amber	Side of vehicle or trailer
Red	Rear of vehicle or trailer

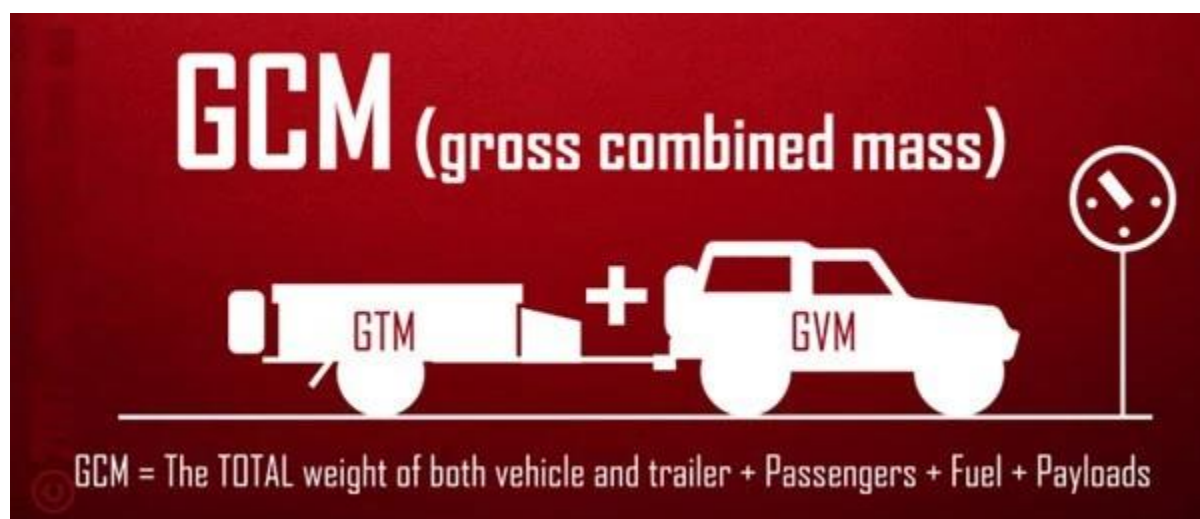
GVM & GCM

All trucks have a rated GVM (Gross Vehicle Mass) and a rated GCM (Gross Combination Mass) that must not be exceeded.

GVM (gross vehicle mass) of a vehicle means the maximum loaded mass of the vehicle.

GCM (gross combination mass) of a motor vehicle means the total maximum loaded mass of the motor vehicle and any vehicles it may lawfully tow at any given time.

It is the responsibility of the driver to ensure the loaded vehicle does not exceed the loading limits or the dimensions and that the load is appropriately restrained.



Legal Requirements for the Driver

Licences:

As a professional driver who holds a heavy vehicle licence, you have additional obligations and responsibilities to the people you share the road with.

A heavy vehicle driver licence carries special responsibilities. Like your private car driver licence, it is a 'contract' or agreement between you as a driver and the rest of society.

However as a professional driver, you must meet certain conditions and rules that apply only to drivers of heavy vehicles.

It is the driver's responsibility to ensure they have the appropriate class of licence for the vehicle he/she is driving.

When driving a vehicle over 4.5 tonne GVM, you must always carry your driver's licence.

South Australian License Classes	
License Class	Authorized Vehicles
R	Any motorcycle or motor trike
C	Any motor vehicle with a gross vehicle mass (GVM) not greater than 4.5 tonne
LR	Any motor vehicle with a gross vehicle mass (GVM) not greater than 8 tonne
MR	A motor vehicle towing a single trailer (other than a semi-trailer) with a GVM not greater than 9 tonne. A special purpose vehicle with 2 axles and a GVM greater than 8 tonne, or 3 or more axles and a GVM not greater than 15 tonne
HR	An articulated bus with three or more axles and a GVM greater than 8 tonne A special purpose vehicle with three or more axles and a GVM greater than 15t
HC	A prime mover to which is attached a single semi-trailer A rigid motor vehicle to which is attached a single trailer with a GVM greater than 9 tonne
MC	Any motor vehicle or combination of motor vehicles

Road Rules:

“As a professional driver it is your responsibility to know the road rules that apply to all vehicles, especially heavy vehicles”

Alcohol, drugs and professional drivers:

Throughout Australia it is illegal to drive while under the influence of alcohol or drugs, including some over the counter and prescription medicines.



Blood Alcohol Concentration (BAC):

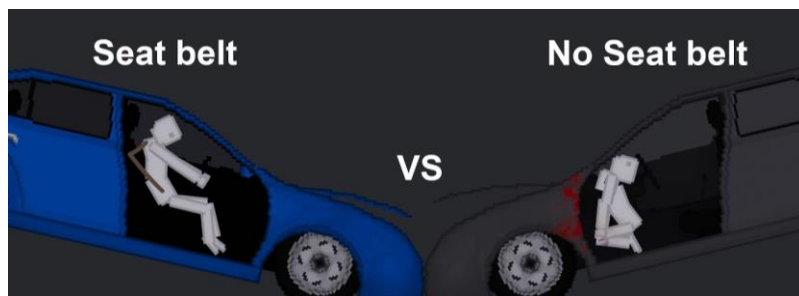
Otherwise, the Road law on BAC varies between the states so the driver of a heavy vehicle should check the laws for the local jurisdiction. Best advice is to not drive a truck with any alcohol in your system.

Seatbelts:

It is important for all truck drivers to wear a seatbelt and it is the law: compulsory seatbelt laws have been in place for heavy vehicle drivers since 1st Feb 2000.

It is a common result of not wearing a seatbelt that a person wearing a seatbelt is killed by the out-of-control body of a non-belted person flailing about the cabin.

It is a fact – Seatbelts Save Lives!



Long Vehicles



'Long vehicle' means a vehicle that, together with any load or projection, is 7.5 metres long or longer.

A vehicle that is 7.5 metres long or longer may display the words '[Do not overtake turning vehicle](#)' on one of the rear marking plates. (ARR 28(2).

Road Trains can be up to 53.5 metres long!

Following distance: (ARR 127)

(a) For a long vehicle in a road train area — 200 metres or, if another law of this jurisdiction provides another distance for the area, that distance; or

(b) For a long vehicle in another area — 60 metres or, if another law of this jurisdiction provides another distance for the area, that distance.

This rule does not apply in a built-up area or on a multi-lane road.

Trucks and Buses Use Low Gear signs: (ARR 108)

"If the driver of a truck or bus is driving on a length of road to which a 'trucks and buses use low gear' sign applies, the driver must drive the truck or bus in a gear that is low enough to limit the speed of the truck or bus without the use of a primary brake."



Operating the Vehicle

Pre-operational checks

Pre-Trip Vehicle Inspection: Carry out a Pre-Trip Vehicle Inspection to ensure that the vehicle and trailer(s) are in a safe working condition and comply with appropriate National or State/Territory legislation.

Direction: Move in a clock-wise direction when checking your vehicle. Remember that you are responsible for the vehicle/load so you should take care to check the following and report/repair/replace any defects:

- Fluids and fuel levels: any leaks under the vehicle
- Air pressure: listen for leaks, bleed moisture from tanks where appropriate
- Body damage, lenses intact, mirrors, entry grab points
- Tyres - Tyre tread and inflation plus check that wheel nuts are tight

- ❖ A tyre fitted to the vehicle must have a tread pattern at least 1.5mm deep, other than at tread wear indicators, in a band running continuously (a) Across at least 75% of the tyre width that normally comes into contact with the road and (b) Around the whole circumference of the tyre. HV (VS) NR 28

- Complete a start-up of the truck; check operation of all gauges, check for any warning lights
- Lights and Indicators: check that all lights and indicators are working and that they are clean
- Paperwork and load security: check that you have the correct paperwork for the vehicle that you are driving and that the load is secure
- Fire extinguishers – appropriate for the load being carried and properly secured
- Brake test – tug test of trailer if applicable



Post Trip Vehicle Inspection: Carry out a Post -Trip Vehicle Inspection to ensure that any defects that may have arisen during the last working shift, are promptly detected, reported and rectified to ensure the minimum possible vehicle downtime

Complete the “Pre & Post Trip Vehicle Inspection Check Sheet” for Drivers of Heavy Vehicles. Many companies have a checklist situated “in vehicle” that must be completed prior to driving or when completing a shift.

Changing Wheels

Changing a wheel (flat tyre) can lead to injuries if the task is not tackled correctly, with WHS kept in mind. Wheels are big, heavy and cumbersome.

Injuries can occur to your back, hands, fingers and shoulders from a lifting perspective and to any part of you if levers fly off wheel nuts through not being properly used or attached.

The truck should be on a level flat surface far enough away from passing traffic. Park brake applied and ignition turned off. Hazard lights are the minimum requirement and triangles if you are not able to pull off the road away from traffic.

Tubeless tyres are safe to drive on for a limited distance when in a dual wheel configuration to arrive at a safe place to change the tyre.

Ensure that you have adequately chocked the wheels; use a solid block of wood or similar to place under the jack for greater stability and for extra height for the jack. The block of wood is also an advantage for locking the jack in the toolbox so it does not fall over during travel, allowing the hydraulic oil to leak out.

Keep your back straight at all times when lifting, using the lower body muscles and knees when applying pressure to secure or loosen wheel nuts.

Check markings on the wheel studs for left or right thread - (L or R).

Use a lever under the tyre to remove/replace wheels from the hub. A long lever or bar may be used in such a manner to lift the wheel into the wheel rack, reducing effort on your back.

When replacing a wheel on dual wheel axles, ensure that the outer wheel does not block access to the valve of the inner wheel. Placing the valves directly opposite each other will also give balance to the wheels.

When fitting wheels to a spider hub, ensure that you align the wheels with the use of another block of wood or similar, placed on the ground so that when the set of dual wheels are rotated they align and run straight before releasing the jack.

Wheel nuts are tightened by the “do one miss one” or ‘opposite’ pattern. When they are tight, lower the jack and tighten them again. Tension of the wheel nuts should be checked again after a short period of driving.

Check and ensure all tools and equipment are stowed away before departure.



Cabin Set Up

Getting in and out of the cab

- Always maintain three points of contact.
- Do not jump from the cabin.
- If you do, you will exert 12 times your body weight on your ankles, knees, hips and lower back.
- For an average driver, that is equal to a tonne of shock.



Driving Position

- Driving seats should be easily adjustable.
- Seat suspension should be adjustable to your weight and height.
- Seat pan (up and down) – adjust the incline to 10 degrees or more.
- Back of the seat – set back tilt between 100 to 110 degrees.
- The backrest should support your lower back.
- The seat pan should fit your thighs.
- Adjust your seat far enough forward so your knees are bent and slightly higher than your hips when fully compressing pedals. This avoids putting more strain on your back when stretching for pedals and the steering wheel.
- Use a firm cushion if the seat is too low. The front edge of your seat should also be rounded to prevent sharp edges from compressing the back of your thighs.

Correct adjustment for the driving position will aid comfort, control and help to combat fatigue.



Loading Requirements

A load on a heavy vehicle must **not** be placed in a way that makes the vehicle unstable or unsafe. The load must be secured so it is unlikely to fall or be dislodged from the vehicle: therefore, an appropriate method must be used to restrain the load on a heavy vehicle.

A vehicle must not be operated at a mass limit that will exceed the:

- Manufacturer's GVM/GCM
- Manufacturer's individual component rating
(i.e. axles, springs, tyres etc)
- Statutory mass limits or overall axle group spacing
- Dependant on your company policy, it is preferable that another person be available to assist in the loading process.



If the vehicle and its load are over dimension, make sure that the appropriate 'OVER SIZE' or 'WIDE LOAD' signs are fitted and accompanied with the relevant flags.

Loading equipment onto a truck or trailer

When you are loading plant or equipment onto a truck or trailer, there are some important points to consider when you park the vehicle that the equipment will be loaded onto.

- (1) It is important that the vehicle is standing level or even from a lateral (side) perspective.
- (2) If possible, have the vehicle facing slightly downhill before loading machinery onto it. As the equipment climbs the ramp, the front wheels climb over the hump where the ramps meet the trailer or tray thus lessening the chance of wheel-spin due to the better angle.
- (3) If possible, reduce the angle of the ramps by stopping with the rear wheels of the carrying vehicle (or the trailer axles) in a hollow. Now ensure that your vehicle is secure (i.e. park-brake applied), ensure the ramps are secure. Once the ramps are securely in place, approach the ramps with the vehicle to be loaded and when near, check alignment of each ramp with vehicle wheels before driving up the ramps.



Once the vehicle is correctly positioned on the tray or trailer for correct weight over each axle group, it needs to be appropriately secured. All load binders, ratchet straps, dogs & chains etc., must be in good order and condition and rated for the load that they will secure. Secure the vehicle ready for transit.



Secure all ramps; ensure there are no loose items inside the truck or on the tray that could cause damage.

Your ability to handle and control your vehicle and trailer is greatly improved when the cargo is properly loaded and the weight is distributed evenly.

Proper balance between the truck and the trailer is essential for a stable, safe towing combination. This includes the distribution of the load on the trailer and the load the trailer puts onto the back of the truck.

The ideal load distribution on the trailer is to have the load concentrated slightly forward of the trailer's axle line so that between 5 per cent and 15 per cent of the trailer weight is transferred downward on the truck's tow bar.



Is this how you would secure the vehicle above?

Too much weight bearing down on the back of the truck will tend to lift its front wheels resulting in poor steering and braking. Conversely, if the centre of the load is behind the trailer axle line it will tend to lift the rear of the truck and result in unstable handling and fishtailing or swaying.

Where the load is spread over the trailer it is important to keep heavier items near the centre of the trailer, both lengthways and sideways to reduce sway and increase trailer stability.

The load the trailer drawbar applies to the tow bar of the tow vehicle should be checked at intervals during loading. This can be achieved by observing the amount of downward movement the trailer placed on the rear of the tow vehicle.

In the case of a semi-trailer the load is to be loaded with an even distribution of the weight of the machine/vehicle so as not to exceed any axle weight limit. Where possible, have the wheels of the vehicle/machine situated over one of the cross members of the trailer for extra stability.

All loads must be properly secured. ***Refer to the Load Restraint Guide.***

Safe Loading Principles

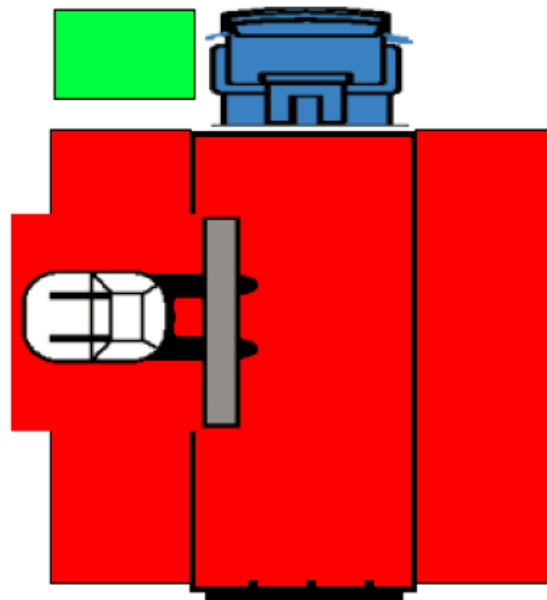
Safe Work Australia Fatality Statistics show that 120 people have been killed whilst loading/unloading heavy vehicles.

Red Zones - DANGER!

NO-ONE is to be in the Exclusion Zone (Red Zone, "no go zone") while machinery is operating. A truck driver or any other person can only enter the Exclusion Zone when clearly instructed by the loading / unloading operator

Green Zones - SAFE

The Safe Zone must be positioned to enable the loading / unloading operator to maintain visual contact whilst operating loading / unloading equipment.

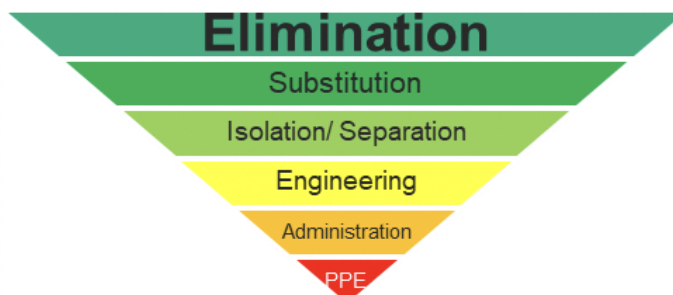


When loading in non-painted areas the same systems apply. Consider using fences, cages, barriers, truck gates, barricades, bollards, tape, chains etc.

Elimination: Separating People and Equipment

Removing people from the work area of operational Powered Mobile Plant (PMP) is the most effective way to eliminate the risk of them being injured.

Exclusion Zones and Safe Zones keep personnel outside of the PMP Operator's blind spots, and away from the risk of contact from operational plant or contact from the load if it were to move or fall.



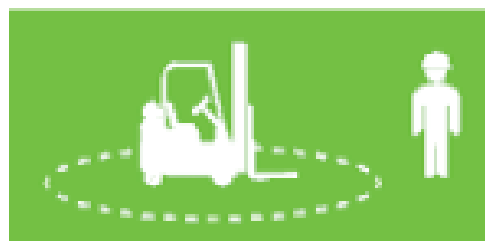
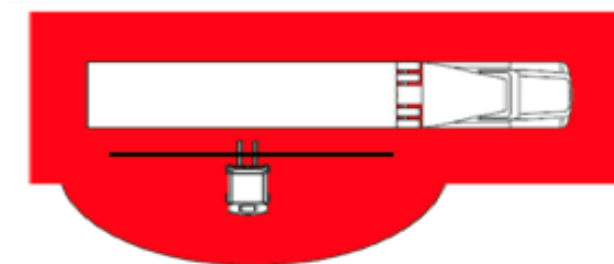
Hierarchy of Risk Control

What is a Driver Safe Zone?

A sign-posted, barricaded area where a Driver must be whilst their vehicle or trailer is being loaded or unloaded.

It creates a physical distance and places a physical barrier between the Driver and the operational plant and its load.

**Driver
Safe
Zone**



A Safe Work Australia study '**Work-Related Fatalities Involving Trucks, Australia, 2003 to 2012**' showed that 120 people were killed whilst loading/unloading a heavy vehicle. There were 20 of those people who were hit by falling cargo.

Load Restraint

Performance Guidelines

It is important with any load that there is good friction between the load and the base of the tray or trailer that it is loaded onto. Steel on steel is poor friction: an intermediate layer of wood or substantial rubber matting will increase the friction and therefore stability of the load.

In records of incidents in the field, often only 1 of the 3 critical components for Load Restraint had been applied at the time of the incident. Such incidents are definitely preventable, because with the addition at least one of the other components the stability of the load would have been far greater.

The critical components are Barriers: Restraint: Friction.

There is much written about correct load restraint, but in short, every load must be restrained to prevent unacceptable movement during all expected conditions of operation.

The restraints will meet the standards if the load doesn't shift when subjected to 80% of the weight of the load under braking, 50% of the load when cornering and under acceleration and 20% of the weight of the load upwards (rough roads).

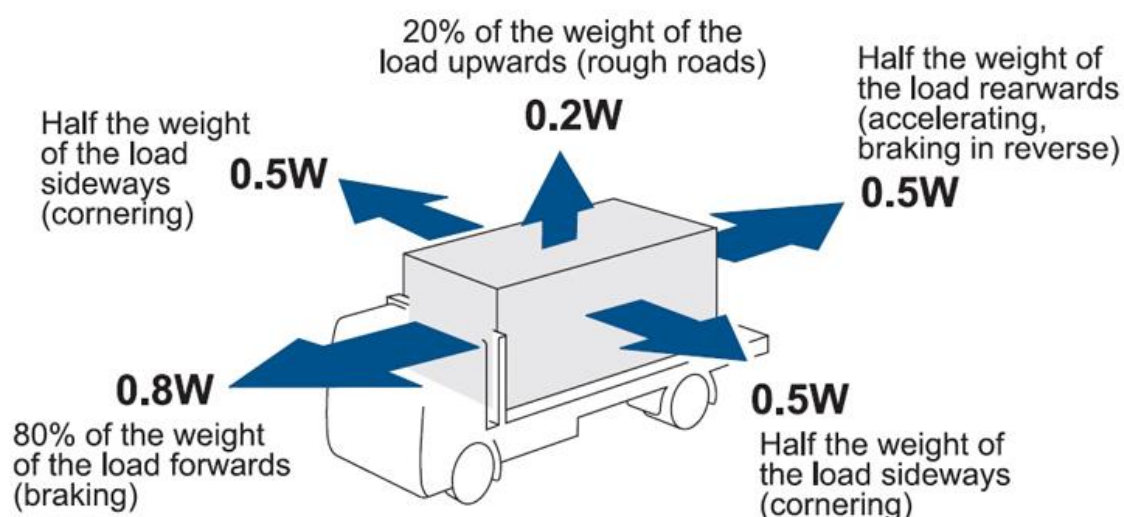
The way your vehicle is loaded is very important for your safety and for the safety of others.

You are legally responsible for your load and any damage or injury it may cause.

Driving over bumps in the road, around curves and corners, and accelerating and braking can cause your load to move.

The force of an impact can move a load that is unstable or not properly secured and you can lose control of your vehicle.

The weight of your load should also be evenly distributed so you can control your vehicle properly.



(W = Weight of the load)

It should be noted:

- That *ropes are extremely ineffective for restraining loads*: even though a rope might feel tight, the amount of tension in it is very low. The tension in a webbing strap is generally about 5 to 10 times more than a rope.
- Again, loading directly onto slippery steel decks, roof racks or A-frames should be avoided. Use wood or rubber to improve the grip. Low Friction is HIGH RISK.

What should you know?

There are fines and penalties for vehicles transporting loads that are not satisfactorily secured.

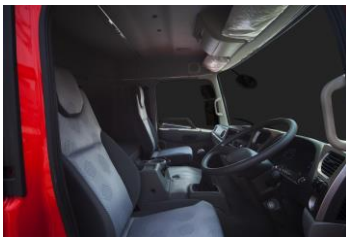
Under the Duty of Care and Load Restraint Legislation part of the liability lies with:



- The loader for ensuring the security of a load
- Anyone who checked the load
- The driver for transporting a load which was not adequately restrained

Load Restraint Safety tips

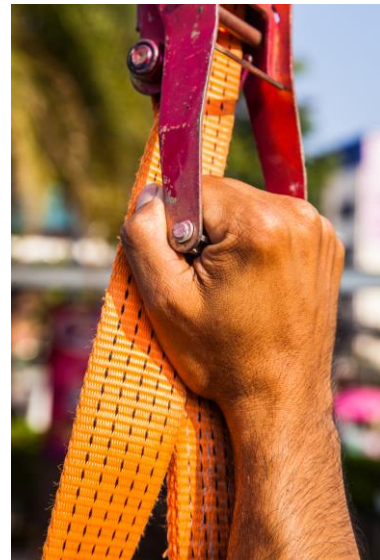
No unsecured equipment in the cabin of the vehicle



Check restraints at every stop



Ensure loads are secure



Recommendations:

- At least each transport office has a copy of the “Load Restraint Guide” if a copy is not made available for each driver.
- The guide is available online and is available in most states at Motor Registration/Licensing offices.
- All drivers should be quizzed on current road law to keep them up to date.
- Management should, at regular intervals inform drivers of any new changes to legal or workplace procedures.

Container Weight Declaration

Under the chain of responsibility, the 'responsible entity' for a freight container must ensure the operator or driver of the vehicle carrying the container is provided, before the start of the journey, with a complying Container Weight Declaration (CWD). A CWD is required even if the freight container is empty at time of transport.

A responsible entity in relation to a freight container is:

- The person who consigned the container for transport by road, if the person was in Australia at the time of consignment, or
- If there is no such person, the person in Australia who arranged for the transport of the container by road.

The contents of the freight container, where possible, must be positioned in a manner to evenly distribute the weight in the freight container.

The contents of the freight container, where possible, must be safely secured in a manner to ensure contents do not shift in transit, with consideration to personnel at delivery site.

A **driver must not** drive a vehicle with a container without first having been provided with a complying CWD.

A CWD may be paper-based, electronic or a placard fixed to the container. This template provides you with a paper-based template. If you are using an electronic or placard form, check that they contain the same information.

Any party in the chain of responsibility may be liable to prosecution if the CWD is missing, inaccurate, false or misleading.

Container Weight Declaration (CWD)				
Container Number <i>(Mandatory)</i>				
Consignor/Sender/Exporter Name and Address <i>(Mandatory if exporting)</i>				
Consignee/Receiver/Importer Name and Address <i>(Mandatory if importing)</i>				
Status	<input type="checkbox"/> Full		<input type="checkbox"/> Empty	
Container Type	<input type="checkbox"/> 20ft	<input type="checkbox"/> 40ft	<input type="checkbox"/> Other	ISO Code:
Cargo Type	<input type="checkbox"/> General	<input type="checkbox"/> Hazard	<input type="checkbox"/> Reefer	<input type="checkbox"/> Other
Commodity Description				
Container Tare Weight				
Contents & Packaging Weight				
Container & Contents Gross Weight <i>(Mandatory – must not exceed gross weight stated on freight container)</i>				
Method of Determining Weight <i>(e.g. estimation, weighing of contents, container & contents or truck & container)</i>				
Name of Person Making Declaration				
Signature of Person Making Declaration				
Date <i>(Mandatory)</i>				

The Trailer

All trailers, like any other vehicle on the road must be roadworthy and meet specific standards and be registered.

Note: The requirements will vary depending on when the trailer was built, its size and its carrying capacity and what it is used for.

Coupling and uncoupling the trailer

Coupling a prime mover and semi-trailer is a task that can lead to serious accidents, injury and vehicle damage if not done correctly.

Check the trailer skid plate, kingpin, airlines, leads and connections for damage.

Follow these steps to perform the task correctly.

Coupling the trailer

Position the vehicle

Reverse the prime mover to within 30 cm of trailer, aligning the prime-mover wheels with the side of the trailer to ensure that the kingpin of the trailer is in line with the turntable jaws. Check that the trailer is chocked.



Return to the cab and reverse the prime mover until the turntable is under the skid plate and stop before coupling. Raise the landing legs clear of the ground by approximately 1 cm.

Connect the trailer by reversing the prime mover. Check the trailer and prime mover security by applying the **tug test - twice**. Switch on all lights including hazards before exiting the cab.



Perform a visual inspection of the turntable to ensure safe coupling then connect brake airlines, electrical leads and other connections.



Raise landing legs to full extent and secure the handle, remove the wheel chocks and check the operation of all lights and indicators on the trailer and prime mover.

Return to the cab and charge the trailer brake air system.

Make sure the top of the turntable is well greased and clean.

If the trailer is too low, the prime mover chassis or edge of the turntable can hit the trailer front instead of going under. If the prime-mover has air suspension this can be deflated to enable the prime mover to be reversed under the trailer skid plate then re-inflate air suspension before coupling.

With spring suspension you will need to wind trailer legs down further to raise the trailer.

Check also that there is enough clearance between the landing gear and the back of the truck frame to allow for turning.

Final check

Run the engine until the air pressure has reached its maximum in the air tanks.

Perform an inspection by walking around the truck and trailer listening for air leaks.

Allow time for air ride systems to prime before moving off as substantial damage may occur if not in the full ride position, this may take time, with some combinations **e.g. B-double and road train.**

Uncoupling the trailer

Secure the vehicle

Before uncoupling: Make sure the truck and trailer are in a straight line, parked on a level area and trailer wheels are chocked before uncoupling.



Ensure they are on a surface firm enough to support the trailer when you wind down the landing legs. If not, large steel plates need to be placed under the landing legs.

Uncoupling the trailer

Apply the prime mover brakes and release trailer air valve.

Uncouple the airlines and all associated connections. Wind down the trailer legs and release the turntable jaws.

Drive forward until the turntable jaws are clear of the trailer pin, approximately 30cm and then lower the prime mover air suspension and drive clear of the trailer. When clear of the trailer, recharge the prime mover suspension.



Driving With A Trailer

Tips for drivers

Remember to allow for extra length and width when towing a trailer, and make sure you pay special attention to the tendency for a trailer to 'cut in' on corners and curves.

The extra weight on your vehicle provided by the trailer and load requires a greater stopping distance when braking. Always allow for this when towing and if you are carrying DG (liquid) allow for fluid surge when stopping

When approaching a corner ensure you have selected the correct gear or the load (mass) of your trailer(s) could cause the vehicle to stall or roll over.

Apply brakes before entering the corner; brakes should **not** be applied when cornering. Apply constant speed through the corner or curves, particularly if the road is wet and slippery.

Reversing a trailer can be difficult and does require extra care and practice. Direction from an outside observer watching the rear of your trailer can be helpful.

When approaching a downhill gradient with a trailer you should select the appropriate low gear and engage the exhaust, or Jacobs Brake or transmission retarder before commencing any descent. This gives you greater vehicle control and reduces the load on your brakes.

Ensure that the mirrors on both sides of your towing vehicle are adjusted appropriately, to give a clear view of vehicles approaching from the rear.

Accelerator, brake and steering must be operated smoothly when towing. Unnecessary steering wheel movements should be avoided because of swaying or snaking of the vehicle and trailer.



Avoid any sudden lane or direction changes



Take care not to hold up traffic unnecessarily.

Safe Driving

Rules to Safe Driving (low risk)



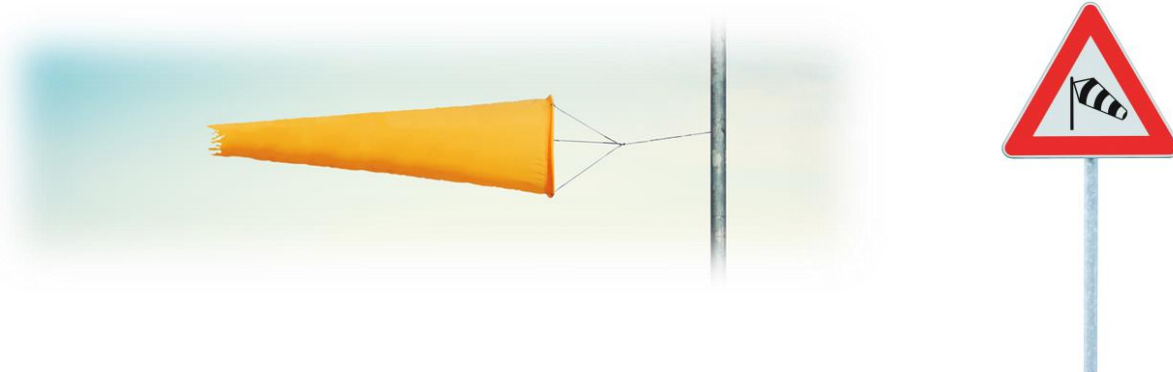
- Drive at a safe speed
- Follow the road rules especially crash avoidance space
- Minimum 5 seconds between vehicles
- Correct road position skills
- Be patient, and when in doubt, don't proceed
- Plan your moves well in advance
- Give correct signals
- Be alert at intersections
- Know your vehicle and its capabilities
- Be polite and considerate towards other road users
- Concentrate; be observant; scanning at all times and be prepared for hazards

DON'T DRINK AND DRIVE!!

**ZERO
TOLERANCE
POLICY**

Cross wind and Trucks

Drivers should heed any “Dangerous Cross Winds” signs. You should reduce your travel speed accordingly.

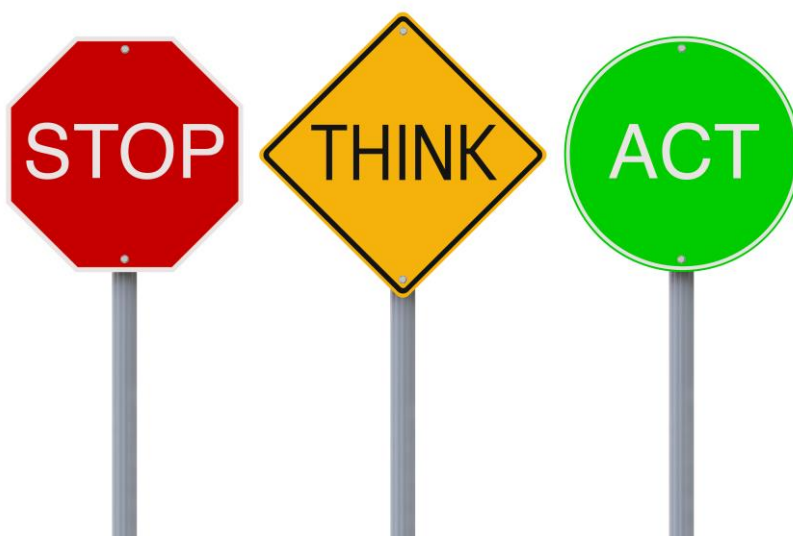


Only overtake trucks if the road is clear and visible a long way ahead (greater than 1km if towing). Once you have made the decision to pass do so quickly and positively. If possible, use in vehicle communications to contact the driver ahead. Remember though it is YOUR responsibility to overtake safely.

Be ready for the ‘buffeting’ effect as you pass a truck.

Remember that the stopping ability of a heavy vehicle is not the same as a standard car.

Slow down and move as far left as practical when meeting a road train or other heavy vehicles on a narrow road. This will prevent flying debris and dust from the oncoming vehicle that may limit visibility or cause windscreen damage.



Slow Speed Manoeuvring

Reversing

- Avoid unnecessary reversing. Plan ahead to use the shortest possible reversing distance. If possible, reverse to the right rather than to the left
- If you are not sure what is behind you, get out, walk back and look. **Before you do, ensure that you have applied the park brake so that your vehicle will not move and be a hazard to you**
- Where possible, always reverse out of traffic and drive forward into traffic
- Before reversing check to see if your mirrors are correctly adjusted to maximize visibility
- Anticipate any objects that you may hit while reversing e.g. poles and fire hydrants, trees, etc. Assess the situation before moving
- Remember that mirror images are reversed. Convex (or cone) mirrors give you a wider view but they make things look further away than they really are
- Consider reversing up a narrow driveway – when you go to leave it will be easier to see pedestrians, other traffic and obstacles
- Always get another person to observe and guide you. Check your company policies and requirements


If in doubt, 'Get Out and Look' (G O A L)

A Safe Work Australia study '**Work-Related Fatalities Involving Trucks, Australia, 2003 to 2012**' showed that 42 people were killed '**Being trapped between stationary and moving objects**'. The report concluded ... 'These often involved being crushed between the truck and a gate or wall due to the truck not being braked properly.'

Hazard Observation

Looking and preparing for hazards does in part, come from experience. The single best way to observe potential hazards is from a distance. The absolute minimum safe following distance for any Heavy Vehicle is 5 seconds, at any speed, from the vehicle ahead of you.

60

At 60km/h you need to have at least  **65 metres**

80

At 80km/h you need to have at least  **88 metres**

100

At 100km/h you need to have at least  **110metres**

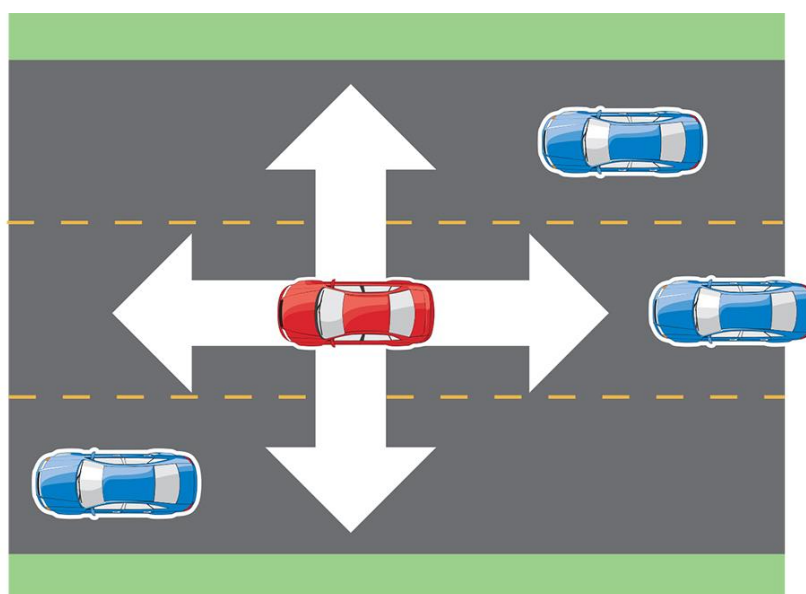
Increase this gap when towing a trailer or when laden with plant or equipment.

Not only can you stop with a reasonable safety cushion - you can see what is going on.

Drivers who don't plan well are constantly shuffling from accelerator to brake, generating excess wear and tear and excess fuel consumption. It is also uncomfortable and the level of risk escalates.

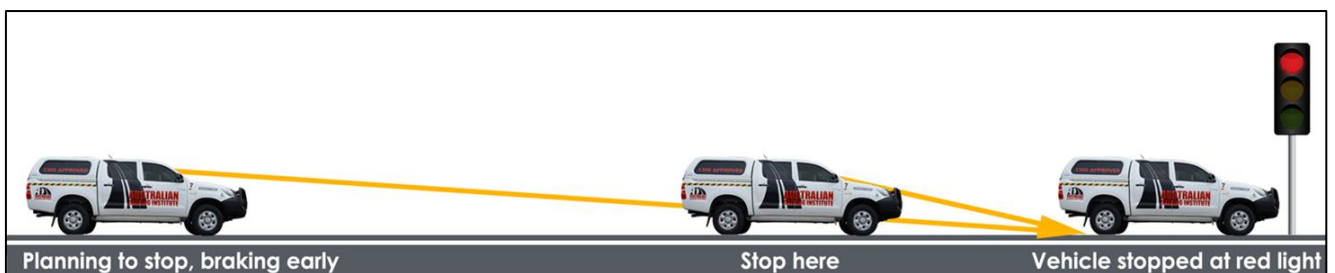
Having a safety cushion around you will help to achieve:

- ✓ Good planning
- ✓ Smooth anticipation by early throttle lift, not brakes



Tips for hazard observations:

- Sit at least four seconds back from vehicles in urban areas
- Judge the closing rate of the vehicle immediately in front
- If the vehicle in front of you brakes then you should brake and maintain the distance between the two vehicles until the speed has dropped significantly and you can close the gap and become stationary
- Observe (and react) to “stale” traffic lights
- Road trains are not to travel closer than 200m apart unless overtaking on the highway
- Indicate early to establish intentions (communication to other road users)
- Position your vehicle so any signal can be seen
- Lift the throttle for anticipation of vehicles stopping or entering from side streets etc.
- When stopping, leave a 5 metre or more gap so you can turn out if the vehicle in front breaks down; or you wish to change lanes
- On average, you will arrive at your destination sooner, with a lower heart rate, lower blood pressure, clearer mind and better productivity
- Left mirror checks are critical when your truck is positioned wider than normal for a left hand turn to allow for the greater turning circle. Car drivers will (and do) try to “undertake” a truck at the worst possible moment! Your observation is paramount in this area



Work Diary Requirements

Information to be included in work diary

Heavy Vehicle (Fatigue Management) National Regulation Work diary requirements 2013 SL No. 78
Note, Section 294 of the Law must be read with section 289 of the Law.

How information requirements apply to a day

(1) In this Part, the requirement to record information for a day continues to apply for each period of work time and rest time the driver has on that day.

(2) However, if the driver stops working on a day and starts a rest break that will continue until the end of the day, the driver may stop recording information for the day when the driver stops working and starts the rest break.

Information to be recorded immediately after starting work:

(1) Immediately after starting work on a day, the driver must record

(a) Day of the week and date

(b) Registration number of the fatigue-regulated heavy vehicle

(c) Driver's name

(d) Driver's current driver licence number

(e) Whether the driver is operating under

(i) Standard hours (including whether the driver is operating under standard hours for solo drivers of a fatigue-regulated bus); or

(ii) BFM hours; or

(iii) AFM hours; or

(iv) Exemption hours; or

(f) Whether the driver is a solo driver or operating under a two-up driving arrangement

(g) If the driver is operating under an operator's BFM accreditation or a work and rest hours exemption Heavy Vehicle (Fatigue Management) National Regulation Work diary requirements 2013 SL No. 78 (permit) granted in combination with an operator's BFM accreditation—the accreditation number for the operator's BFM accreditation, unless the driver has previously recorded the number and it is still current.

(h) If the driver is operating under an operator’s AFM accreditation or a work and rest hours exemption (permit) granted in combination with an operator’s AFM accreditation—the accreditation number for the operator’s AFM accreditation, unless the driver has previously recorded the number and it is still current

(i) The address of the driver’s base, unless the driver has previously recorded the address in relation to the work and it is still current; and

(j) The address of the driver’s record location, unless the driver has previously recorded the address and it is still current; and

(k) The time zone of the driver’s base.

DUPLICATE												NATIONAL DRIVER WORK DIARY DAILY SHEET												WORK DIARY NO. VBL612321	
DRIVER IDENTIFICATION																									
Driver's Name: Shane Russo								Date: 28/08/2014				Day of the Week: S M T W T F S				Driver: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Standard Bus <input type="checkbox"/> BFM <input type="checkbox"/> AFM				Time of daily check (if required): 8.00 AM					
Licence No: ABC1234				Number Plate: AAA 123				Time Zone: State/Territory (Driver Base) ACT NSW NT QLD SA TAS VIC WA				<input type="checkbox"/> Exemption hours (for this 24 hr period only)													
DETAILS OF ACTIVITIES FOR THIS DAY	Number Plate Change and Comments (optional) <small>(e.g. delays, authorised officer notes)</small>																								
	Odometer Reading									94 1501		94 1577		94 1867		942037		Space for you to calculate your work and rest hours (optional)							
	Name of Place at Work and Rest Change <small>(e.g. rest area, truck stop, suburb or town)</small>									Thurgoona		Tucker Box		Marulan		Botony									
	Two-up																								
		midnight 1 2 3 4 5 6 7 8 9 10 11 noon											1 2 3 4 5 6 7 8 9 10 11 midnight											All drivers: calculate totals	
My Work	[Work bars 8-11, 1-5, 6-10]											[Work bars 1-10]											Total Work: 12.25		
My Rest	[Rest bars 1-7, 10-11]											[Rest bars 8-10, 11]											Total Rest: 11.75		
Breach: Breached 24 hours - Worked: 12.25 - Max Work allowed: 12																									
Driver Signature:												TWO-UP DRIVER'S IDENTIFICATION													
To the best of my knowledge and belief the information I have recorded on this daily sheet is true and correct												Two-up Driver's Name:				Two-up Driver's Licence No:				Two-up Driver: <input type="checkbox"/> Standard <input type="checkbox"/> BFM <input type="checkbox"/> AFM <input type="checkbox"/> Exemption hours					
YOU MUST SIGN THIS SHEET BEFORE STARTING A NEW DAILY SHEET												Two-up Driver's Work Diary & Page No:				Two-up Driver's Licence issued:				Two-up Driver's Signature:					
												ACT NSW NT QLD SA TAS VIC WA													

National driver's work diary

A Work Diary is required to be carried and completed by drivers of commercial buses (built to carry more than 12 adults, including the driver) and heavy trucks (greater than 12 tonne GVM) under the following circumstances:

- Driving in NSW, regardless of distance travelled
- Travelling more than 100 kilometres from your driver base (200kms in Queensland)

The Work Diary must be kept up to date at all times if operating under the above conditions. This means that at each change of activity, the work diary must be filled in.

All work and rest must be included in the work diary. The definition of work includes driving, refuelling, loading/unloading, repairs/maintenance, paperwork etc. The activity classes are Work and Rest.

Apart from the information below, there are more obligations that would apply to long haul drivers. We have mainly listed those rules applying to daily drivers.



Legislation – 28th September 2008

Standard Hours legislation which became effective on 28th September 2008 allows for 5 hours work in any 5 ½ hour period: 7 ½ hours work in 8 hours: 10 hours work time in 11 hours: 12 hours work time in 24 hours. In 24 hours there must be 7 continuous hours stationary rest time. Rest times must be at least 15 continuous minutes.

It is the responsibility of the driver to make all the entries in the Work Diary: (under special circumstances this can be altered, but only with prior approval of the appropriate Authority of the Jurisdiction).

Accuracy when filling in the Work Diary is critical and the entries must only be in black or blue biro, with the 2nd & 3rd copies clearly legible.

All original pages of the Log Book should be passed to the driver's employer within 21 days of the date of the activity.

All records must be kept for a period of 3 years.

Fatigue

Fatigue – the quiet killer

Facts

- **Over 50% of all long-distance related crashes are the result of fatigue.**
- **Over 30% of fatigue related crashes are work related.**

Driver fatigue is a major safety hazard:

Fatigue related crashes tend to be more severe with little or no braking and no avoidance action. The risk of serious injury to a driver, passenger or the occupants of other vehicles in fatigue related crashes is very high.

What is driver fatigue?

Driver fatigue is loss of alertness, drowsy driving and falling asleep at the wheel. This can lead to poor judgement, slower reaction time and decreased driving skill levels. If you, as a driver, become drowsy you may drift into a 'micro sleep' (i.e. a brief nap lasting approximately 3 to 5 seconds). At 100 km/h a vehicle can travel up to 100 metres in that time - plenty of time to run off the road into a tree or into another vehicle.

What are the warning signs of driver fatigue?

There are a number of warning signs to indicate you are becoming fatigued. Be honest with yourself and if you recognise any of these warning signs while driving, stop immediately and take a break.

See the list on the next page.



- Have a 15 minute Powernap. You will be surprised how refreshed you will feel!
- Driver fatigue is one of the biggest causes of crashes for heavy vehicle drivers
- In NSW, at least eight per cent of heavy vehicle fatal crashes involve a fatigued heavy vehicle driver
- Many of these crashes occur late at night or early in the morning

As a professional driver, you need to understand what causes fatigue and how to pick up on the early warning signs so that you can do something about it before it affects your driving.

Fatigue is caused by a number of factors, including;

Sleep factors

- Getting less sleep than you need
- Getting less sleep than you need over a number of days
- Trying to sleep during the day

Time of day factors

- Working when you should normally be asleep
- Working in the early hours of the morning
- Working in the early afternoon after a heavy lunch
- Sleeping during the day when you would normally be awake

Work factors

- Long driving hours
- Night time driving
- Irregular hours and early starting times
- Tight scheduling
- Insufficient time to recover from previous work
- Doing non-driving physical work such as loading and unloading
- Poor driving conditions such as hot or wet weather
- Monotonous driving
- Rough/poorly maintained roads

Physical factors

- Poor health and fitness
- Emotional issues
- Medical sleep problems

Signs of driver fatigue

- Yawning
- Fidgeting
- Poor Co-ordination
- Loss of Memory
- Concentration
- Long blinks



Fatigue Management

How can I avoid fatigue?

- Resting and sleeping are the two most important ways to combat fatigue.
- Have a good night's sleep before you start your trip and even have an afternoon nap before starting back on a night shift. You can also take rests early on in the trip before you start feeling fatigued.
- Plan your trip ahead of time to allow for rest breaks.

Examples for how to take reasonable steps

- Break up the trip
- Stop every 2 hours; even have a Power Nap
- Don't let a deadline be just that

Remember, Fatigue can hit you at any time. If you feel tired STOP for a REST

The only true cure for fatigue is good quality sleep.

Anything else is just a short-term stopgap measure

Identifying and assessing aspects of activities that may lead to Contravention (fines)

The following are examples of ways a person may identify and assess the aspects of the activities of both the individual and relevant drivers for that person that may lead to a contravention by someone driving for the person

- (a) Reviewing driving or work schedules and work records (including reviewing opportunities for rest time) of relevant drivers for the person
- (b) Reviewing loading and unloading times and delays at loading and unloading places
- (c) Reviewing contractual arrangements and documentation relating to the consignment and delivery of goods
- (d) Regularly assessing and monitoring work health and safety practices
- (e) Regularly assessing fitness for duty of relevant drivers for the person
- (f) Analysing injury and incident reports
- (g) Consulting the following about ways of identifying and assessing the aspects
 - (i) The relevant drivers for the person
 - (ii) Each other party in the chain of responsibility for the vehicle
 - (iii) Industry bodies
 - (iv) Unions

Heavy vehicle (fatigue management) national regulation

The following are examples for how to take reasonable steps for eliminating or minimising risks of contraventions

- (a) Having workplace procedures and policies relating to fatigue and compliance with maximum work requirements and minimum rest requirements
- (b) Contingency planning in relation to fatigue and compliance with maximum work requirements and minimum rest requirements
- (c) Having a program to report and monitor fatigue-regulated incidents, risks and hazards
- (d) Having a program for assessing fitness for duty of relevant drivers for the person
- (e) Having training and information about fatigue and compliance with maximum work requirements and minimum rest requirements for relevant drivers for the person, the person's staff and other parties in the chain of responsibility for the vehicle
- (f) Having appropriate supervision and management of relevant drivers for the person, the person's staff and other parties in the chain of responsibility for the vehicle
- (g) Scheduling arrangements that have regard to fatigue risks and work and rest hours options
- (h) Allowing for traffic or other delays in scheduling
- (i) Having a system for giving sufficient notice of schedule changes to relevant drivers for the person
- (j) Having a system to maintain equipment, work systems and work records
- (k) Having terms in commercial arrangements with the other parties in the chain of responsibility for the vehicle that are designed to ensure compliance by the parties with laws about fatigue management applying to the parties

Fatigue management tips

Tips to help you to stay alert at the wheel:

- Drivers of heavy vehicles must have 30 minutes of rest time in any 5 ½ hour period.
- When you get out of the vehicle, stretch and walk around, breathing deeply. Have a drink and light snack.
- Eat proper well-balanced meals – not too much and not too little at your usual meal times. This will also ensure that you take regular breaks.
- Avoid fatty foods that make you feel sluggish and foods that contain “Tryptophan” usually white meat such as turkey.
- Avoid too many sweets as they use up your insulin reserves and make you drowsy.
- Avoid driving when you would normally be sleeping.
- Learn to recognise the signs of sleepiness and pull over as soon as possible for a power nap.

The Decision is Yours

Today, we have done our best to improve your knowledge, fill in the gaps compared to Worlds Best Practice and help you to better understand subjects you wanted to learn more about.

There is only so much we can do and now it's up to you when deciding how you drive.

At the end of the day, it is up to YOU as to how well you behave as a driver.

At the end of the day, it is up to YOU as to how safe you will be when you drive.

By applying yourself for the next few weeks, the skills and attitudes will become habit. You will be travelling calmer, displaying better vehicle empathy, your heart rate will be lower and your driving will become measurably safer. Now you will be world class.

The chances of a crash are relatively low, however the consequences can be significant. We have given you the knowledge required to have a crash free life and by applying very simple, repeatable techniques, you will at least reduce the risks.

- Be mentally ready
- Set your cabin correctly
- Keep your distances
- Look up and plan
- Avoid distractions
- Remain vigilant

The question is, to crash or not to crash? You decide.

THE FINAL DECISION IS YOURS

