NTI’s Guide to the Trucking Industry

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About this publication

NTI’s Guide to the Trucking Industry has been produced to provide general information about the trucking industry in Australia.

The information has been drawn from a number of reliable sources and has been prepared without bias.

This document is intended for use as a guide only.

With 40 years experience in the transport insurance industry, National Transport Insurance (NTI) Limited is the specialist you can rely on.
About the Australian trucking industry

The trucking industry plays a vital role in the prosperity of Australia. The country’s low population density and long distances between markets means the Australian people are heavily reliant upon road freight.

The trucking industry is becoming increasingly complex, and as such, today it is about much more than moving freight from Point A to Point B. In fact, the trucking industry carries three quarters of Australia’s domestic freight, including every item on the shelves of every supermarket.¹

Economic, technological and regulatory factors along with strong competition all impact on the industry and its operators. However, the future looks bright for the trucking industry in Australia. The Australian Bureau of Infrastructure, Transport and Regional Economics predicts that Australia’s total road freight task will more than double between 1999 and 2030.²

INDUSTRY SNAPSHOT
- 523,727 registered trucks ³
- 2,146 million tonnes of freight ⁴
- 16,199 millions of kilometres travelled ⁵
- 246,100 people employed ⁶

¹ Australian Trucking Association, Truck Week, 21-27 February 2010.
² Australian Trucking Association, Truck Week, 21-27 February 2010.
⁵ Australian Trucking Association staff estimate, derived from ABS, Survey of Motor Vehicle Use, 12 months ended October 2007. (ABS cat 9208.0).
Driving the Australian economy

The trucking industry has experienced turbulent times in recent years. Fuel prices reached record highs, profits plummeted and demand fell sharply. However, the 2010–11 financial year saw things start to turn around.

In March 2011, trucking industry revenue was worth $35.6 billion to the Australian economy, representing $1.8 billion in profits and $6.5 billion in wages across 46,636 businesses.

The flooding that occurred in Victoria, New South Wales and Queensland in late 2010 and early 2011 has only had a minimal and short-term impact on the performance of the trucking industry.

Despite the damage to infrastructure and temporary road closures, the industry experienced less than half of 1.0% in lost revenue.

The trucking industry is expected to achieve an annual growth rate of 3.8% for the five years 2011 to 2016 with revenue reaching $42.8 billion by 2015-16.

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7) www.ibisworld.com.au
8) www.ibisworld.com.au
9) www.ibisworld.com.au
Trucking – It’s big business Australia wide

The 46,636 businesses in the trucking industry are located across every Australian state and territory as shown in the following display graphic.\textsuperscript{10}

The majority of Australia’s road freight is moved intrastate. However, the interstate market is growing steadily.\textsuperscript{11} The industry’s forecast freight growth is expected to be extremely high on the shorter interstate corridors, such as Sydney to Melbourne and Sydney to Brisbane.\textsuperscript{12}

\textsuperscript{10} www.ibisworld.com.au
\textsuperscript{12} Australian Trucking Association, Truck Week, 21-27 February 2010.
The operators

There are two types of operators in the Australian trucking industry.

- Hire-and-reward operators – these are transport and logistics businesses that are focused on providing trucking services. The majority of Australia’s road freight is moved by hire-and-reward operators.
- Ancillary operators – these are businesses whose main activity is something other than transport but they have truck fleets to transport their own products.

Approximately 70% of all operators only have one truck in their fleet and approximately 24% have two to four trucks. Less than one half of 1.0% of all operators have fleets with 100+ trucks.¹³

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The operators

OWNERS/OPERATORS AND SMALL-TO-MEDIUM ENTERPRISES (1–14)
Owner/Operator businesses are usually independently owned, and in most cases the business owner is the person responsible for driving and maintaining the vehicle as well as managing the business.
Small-to-medium enterprises are usually small businesses with a specific core competency, such as hauling a certain type of freight. Both are often family run and staff can be sub-contracted or employed.

MID-SIZED FLEETS (15–49)
Mid-sized fleets are becoming increasingly complex to run. They can be involved in short-haul and long-haul runs and everything in between. In order for mid-sized fleet owners to remain profitable, they must get the administrative, safety and maintenance right as well as the sales and service.

LARGE FLEETS (50–100+)
There are fewer large-fleet owners than mid-sized and small-fleet owners; however, large fleets haul a disproportionately large amount of Australia’s freight. These large businesses are complex to run and need to remain highly competitive if they are to be successful.
The people

Trucking is a labour-intensive industry and a source of employment for 246,100 people in Australia.\textsuperscript{14}

The industry’s forecast growth is expected to bring increased demand for staff across the sector, including increased demand for drivers.

Meeting this demand is critical to the industry’s growth and success. However, while many activities in the trucking industry are heavily regulated, no minimal standards for hiring drivers exist, apart from holding the appropriate vehicle license.

\textsuperscript{14} Bureau of Infrastructure, Transport and Regional Economics, Transport Statistics Yearbook 2009.
The services

The services provided by the Australian trucking industry can be segmented into:

- Long-distance interstate – 21.4%
- Long-distance intrastate – 22.8%
- Short-distance road freight services – 55.8%.¹⁵

Despite only accounting for 2.3% of all registered trucks in Australia, articulated trucks carry 77.3% of all road freight. Over 70% of the distance travelled by these trucks is outside urban areas within their state of registration or interstate.¹⁶

Rigid trucks transport 18.3% of all road freight and light commercial vehicles carry approximately 4.4%.¹⁷

¹⁵) www.ibisworld.com.au
¹⁶) www.ibisworld.com.au
¹⁷) www.ibisworld.com.au
How the trucking industry works

Before freight can be moved from Point A to Point B a relationship must be established between at least two parties – one must have the freight that needs moving (the shipper) and the other must have a means by which to move that freight (the operator).

OPTIONS TO GET THE FREIGHT MOVING
The shipper can choose to use a load broker, freight forwarder or their business’ own internal dispatch department to get their freight moving.

• Load broker – as the name suggests, load brokers find and broker deals with operators who haul freight
• Freight forwarder – also known as a hire-and-reward operator, this type of business specialises in moving freight; it’s their core business
• Internal dispatch – also known as an ancillary operator, this type of business has its own freight department but freight movement is not their core business.

LOADING THE FREIGHT
Each operator’s loading and delivery processes are different. Things like freight type and amount can influence loading and delivery.

Requirements for freight movement can vary, including:

• TL – truck load (or full load)
• LTL – less than a truck load
• Inter-modal – multiple modes of transport required, e.g. truck, rail, air
• Bulk and bulk liquid – unpackaged goods, e.g. timber, fuel, soil.
How the trucking industry works

CONTRACTING AN OPERATOR
Just as there are many different operators, there are many different ways to contract an operator.
• Common – this arrangement is suited to a single shipment and is quoted on a per job basis.
• Contract – once set in place, the contract terms will govern the overall relationship and freight will be moved as required at an agreed rate.
• Subcontracted operators – one operator may subcontract another operator to move the freight; it’s common among large long-haul operators who need to subcontract a small trucking company to make the final delivery.
• Third-party logistics operators – these businesses integrate trucking into their manufacturing operations.

REGULATORY COMPLIANCE
Moving any load in Australia requires compliance with a number of regulations that are concerned with the public’s wellbeing, including safety and environmental management.

In Australia, regulations that cover the trucking industry include but are not limited to:
• Highway and transportation acts
• Labour, safety and criminal codes
• Handling of dangerous goods
• Fuel taxes.
What concerns those in the trucking industry?

**RISING COSTS**

Rising costs impact on a business’ ability to remain profitable and competitive. Regardless of whether an operator is running one truck or 101 trucks, rising costs impact on their bottom line.

World price of crude oil – when the world price of crude oil rises so too does the cost of diesel in Australia. When the cost of crude oil soared to $160US a barrel in 2003 to 2008, expenditure on fuel increased to between 45% and 50% of revenue and forced the introduction of a fuel surcharge.¹⁸

The cost of accident claims – the cost of accident claims has spiralled upward in recent years. This, along with rising reinsurance costs, is forcing insurance premiums to rise.

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¹⁸) www.ibisworld.com.au
What concerns those in the trucking industry?

SAFETY
Despite the public’s perception, safety is paramount to those who work in the trucking industry in Australia. No driver or operator wants to cause damage to property or the environment, or harm to people.

In fact, truck drivers are amongst the most highly-trained drivers on the road today in Australia. They pride themselves on their ability to get their job done safely. Everything they do is undertaken with the utmost care and concern for the wellbeing of themselves and the general public.

Australian truck drivers’ safety record is outstanding particularly when you consider 16,199 million kilometres are travelled annually.\(^{19}\)

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\(^{19}\) Australian Trucking Association, Truck Week, 21-27 February 2010.
What concerns those in the trucking industry?

**POLICY AND LEGISLATION**
Many different policies and different pieces of legislation govern how trucking operators do business in Australia. Changes to policy and legislation can impact on an operator’s ability to remain profitable and their business to remain viable. For example, the introduction of the Carbon Tax will impact on the bottom line of all operators.

Legislation in Australia also dictates the amount of time drivers can spend behind the wheel as well as on and off duty. This legislation impacts on each operator’s planning, pricing and delivery.

**FLUCTUATIONS IN DEMAND**
Manufacturing, retail and wholesale trades are heavy users of the trucking industry. Poor performance in these industries will flow through to operators. Similarly, the transportation of agricultural stock contributes about 25% of trucking industry revenue. Any changes in agricultural output, like those seen in recent years as the result of the drought, will impact on the trucking industry.

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20) www.ibisworld.com.au
What concerns those in the trucking industry?

**INSURANCE**

Insurance is an essential expense for all trucking operators. However, it seems that like everything else, insurance premiums continue to rise too. It’s also a case of buyer beware as not all insurers offer the best value for money or the right coverage when it comes to trucking insurance.

Many different things are driving insurance premiums higher, including:
- The rising cost of accident claims
- The rising cost of equipment replacement and repair
- The rising cost of healthcare for injured drivers
- The rising cost of reinsurance for insurance underwriters.
What concerns those in the trucking industry?

**EQUIPMENT**

Approximately 523,727 21 trucks operate on Australian roads. The trucks that are being driven today are very different to the ones that were driven five years ago. They are more sophisticated and better able to meet the demands of the Australian marketplace; in many cases, they are also more expensive.

Client and driver expectations are forcing operators to keep pace with change and turnover their truck fleet sooner rather than later. Minimisation of environmental impact is also a factor for operators in upgrading to newer and cleaner equipment.

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(ABS cat 9309.0).
Truck and trailer guide

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Rigid Vehicles

**4X4 CAB CHASSIS**
A rigid truck is one where the load carrying section, or body of the vehicle, is built within the vehicle’s parameters.

The base upon which all rigid type trucks are built is called a ‘Cab Chassis’.

The vehicles shown here are Single Drive 4x4 ‘Cab Chassis’.

**RIGID TIPPER**
These trailers can be used to carry a wide range of bulk products, from gravel and sand to grain and edible foodstuffs. These trailers have a tendency to tip over when unloading and require experience to unload safely. These trailers are also an excellent conductor of electricity and must be used with caution around power lines.

Available in any axle configuration with a carrying capacity of 2 to 15 tonne.

Accessories may include, Air operated tail-gate locks, roll-over tarps, tipper bin liners & electronic weighing scales.

In this case the tipper is attached to a rigid vehicle, however the tipper trailer can also be attached to a prime mover (See Prime Mover & Tipper Trailer definition).
Rigid Vehicles

2 AXLE FLAT TOP
The most common types of rigid trucks are 2 Axle rigids. This describes a truck with 1 steering axle and 1 driving axle.

A rigid truck can also have a variety of axle configurations. The axle is the part of the truck to which the wheels are attached.

The vehicle shown here is a 2 Axle rigid fitted with a Flat Top body.

PANTECH ALUMINIUM BODY (VAN)
This type of body construction generally refers to a body fabricated from materials such as aluminium or fiberglass reinforced panels.

This type of body can be constructed on a rigid truck or as a trailer.
Rigid Vehicles

3 AXLE FLAT TOP WITH CONTAINER PINS
This truck generally has 1 steering axle and 2 driving axles.

This is more commonly called a ‘Bogie Drive’.

The truck shown here depicts a 3 Axle rigid fitted with a Flat Top body & container pins.

3 AXLE WITH REAR MOUNTED CRANE
Rigids can also have ‘attachments’.

These increase the cost of the basic vehicle.

This image shows a 3 Axle rigid fitted with a Rear Mounted Crane.
Rigid Vehicles

4 AXLE RIGID
This truck generally has 2 steering axles and 2 driving axles. This is more commonly called a ‘Twin Steer’ or an ‘8 Wheeler’. The last term is obtained by the number of wheels which can be seen, hence the 8.

This vehicle is specifically built for carrying bricks. It has load restraint systems that are unique to the product being carried.

CONVENTIONAL SINGLE DRIVE
The prime mover is the part of the Semi-Trailer which provides the motive, or pulling power, for the unit.

The most common types of prime movers are Conventional Single Drive.

This describes a prime mover with 1 steering axle and 1 driving axle and a cabin. The driving position situated behind the engine.
Rigid Vehicles

CONCRETE AGITATOR
A Concrete Agitator is a special concrete transport truck used to transport and mix concrete from a batching plant to a construction site. They are generally a standard rigid truck with a concrete agitator bowl fitted to the rear of the vehicle. When the agitator bowl is full of concrete the truck engine, through a PTO, keeps the agitator bowl spinning to prevent the concrete from setting. Once at a job site the motion of the agitator bowl can be reversed to push out the amount of concrete required from the rear of the vehicle.

Commonly these vehicle types will deliver concrete to domestic building sites and commercial construction sites, making multiple trips each day.

Generally, most concrete truck drivers are subcontractors to major concrete companies. The subcontractor will provide his own truck and the concrete company will own, supply and fit the concrete agitator ‘bowl’ and associated equipment to the rear of the subcontractor’s truck.
Prime Movers

**SINGLE DRIVE CAB OVER**
This describes a prime mover with 1 steering axle and 1 driving axle and a cabin and driving position situated above the engine.

This image shows a Single Drive Cab Over. This type of prime mover is only used when the load being carried is lightweight and the extra cost of a ‘Bogie Drive’ cannot be justified.

**CONVENTIONAL BOGIE DRIVE**
This describes a prime mover with 1 steering axle and 2 driving axles.
Prime Movers

**BOGIE DRIVE CAB OVER**
This describes a prime mover with 1 steering axle and 2 driving axles.

The driving position is above the engine.

**CONVENTIONAL DAY CAB WITH ARTICULATED TIPPING TRAILER**
Prime movers can also be classed by the cab style.

The image here shows a Conventional Day Cab prime mover. These vehicles are generally used for short haul work only. Attached is an Articulated Tipping Trailer.

They are not suited for long haul trips because there is no sleeper cab.
Prime Movers

**CAB OVER WITH SLEEPER CAB**
This describes a vehicle with an attached sleeping area for the driver. It is imperative that during long-haul trips that the driver takes adequate rest breaks to ensure fatigue doesn’t set in.

This can be either in Conventional or Cab Over style.

Therefore the full description of this prime mover would be a ‘Cab Over, Bogie Drive with Sleeper’.
Trailers – Articulated

**TRI-AXLE FLAT TOP TRAILER**
The most common type of trailers are Flat Tops with a Tri-Axle (3 axles) at the rear.

These trailers can be used for a wide range of freight tasks. They are simple in construction and have a low initial cost. This type of trailer forms the base for many other trailer types.

The image depicts a typical Tri-Axle Flat Top Trailer.

**SKEL TRAILER**
The ‘Sliding Skel’ Trailer is used primarily to carry containers. They are called Skel Trailers because they are only a trailer, frame, or skeleton.

The term ‘Sliding’ refers to the fact that the trailer can be altered to suit containers of different sizes.
Trailers – Articulated

**SKEL TRAILER (CONTINUED)**
The rear axle group slides under the trailer frame. It is shown here in the forward position to suit a 20ft container.

The containers are held on the trailer by container pins.

The pin is ‘locked’ by turning the red handle towards the right. This turns the top section of the pin, thus preventing the container from detaching.

**PRIME MOVER WITH SKEL TRAILER**
This image shows a Six-Axle Conventional Prime Mover with sleeper and 40ft on a Skel Trailer.
Trailers – Articulated

PRIME MOVER & TIPPER TRAILERS
These trailers can be used to carry a wide range of bulk products, from gravel and sand to grain and edible foodstuffs. These trailers have a tendency to tip over when unloading and require experience to unload safely. These trailers are also an excellent conductor of electricity and must be used with caution around power lines.

Tip Over Axle Tipping Trailer – This trailer has the body built as part of its chassis. Attached to the chassis about half way along the chassis are two draw rods, the front ends of which are attach to the turntable. The hoist is also mounted on the turntable. When the hoist is raised, the draw rods pull the prime mover back towards the trailer which pivots on its rear axle. These trailers are more stable and consequently may be built longer. They generally have a lighter tare weight than the chassis tip trailer and are used for bulk loads such as grain or cotton seed.

Convertible Tip Over Axle Trailer – A convertible tip over axle trailer may be used as a general purpose platform trailer after it has tipped its load of grain. It is equipped with gate sides and curtains would have to be placed inside the gates for grain haulage.
Trailers – Articulated

B-DOUBLE TANKER
The tanker unit shown to the left is fitted with a wide range of safety features. Safety hand rails are fitted along top of trailer. These are folded flat for travelling. When rails are in use the vehicle’s brakes are locked.

Safety cutoff outlet valves are also fitted. This means that the trailer cannot be moved until the discharge hoses have been disconnected.

There is also extensive use of reflective tape and vehicle under-run protection.

PRIME MOVER & REFRIGERATED TRAILER
These types of bodies are split into Chillers and Freezers.

Freezers – These types of bodies are generally the most expensive, both to purchase and repair. The walls are constructed from a fiberglass foam sandwich to control loss of temperature and to keep the product being carried at a temperature below freezing.

Chillers – Although fitted with refrigeration units, these types of bodies are for keeping produce in a chilled state. They do not require the thick walled insulation used for freezer vans. In fact, the most common type of chillers are Tautliners.
Trailers – Articulated

**PRIME MOVER & TAUTLINER**
This type of body is also called a ‘Curtainsider’.

The sides are constructed from heavy, waterproof material and resemble a curtain.

The top of the curtain runs in a track which allows the entire side of the body to be opened up for access to the freight.

This type of body can also be constructed on a rigid vehicle.

**PRIME MOVER & DROP DECK TAUTLINER**
This type of trailer is called a ‘Step Deck’ because of the step section.

This allows more freight to be carried in the rear section of the trailer.

This unit is also fitted with small wheels and tyres at the rear.

This helps in increasing the load carrying area and aids stability by decreasing the Centre of Gravity (CofG).
Trailers – Articulated

LOW PRESSURE BULK TANKER
This type of tanker can be used to transport a variety of powdery products, ranging from cement and fly ash to flour and bulk food stuffs.

The product being carried is discharged using low pressure air supplied from the ‘blower’ fitted under the trailer.

PRIME MOVER & HIGH PRESSURE LPG TANKER
The tanker shown here is a specialised tanker for the transport of Liquefied Petroleum Gas (LPG) at high pressure.
Trailers – Articulated

**PRIME MOVER & LOG JINKER (LOADED)**
Pictured here is a Tri-Axle Log Jinker being loaded.

Should this particular truck be used as a B-Double, a turntable for the second trailer is located under the logs above the Tri-Axle group.

**PRIME MOVER & LOW LOADER**
This type of trailer is used to transport heavy earthmoving equipment such as dozers etc.

These trailers can be built to extend in width and they can have up to four axles (called a Quad).

Each axle can have up to 12 tyres per axle.
Trailers – Articulated

LOW LOADER TURNTABLE
To increase the allowable weight being carried on the Low Loader, they are sometimes coupled to the Prime Mover with a Dolly.

This spreads the weight over more tyres and reduces the impact on the road surface.

A Dolly is a Pig Trailer with one tandem axle group or single axle and a fifth wheel coupling designed to convert a Semi-Trailer into a Dog Trailer.
Trailers – Articulated

**PRIME MOVER & MULTI-COMBINATION TRAILER CONFIGURATION**

Trailers can also be joined to form Multi-Combination units.

These can form a unit such as:
- B-Double
- B-Triple
- Double Trailer Road Train

And many other combinations of different types of trailers.

At the extreme end of the road transport task is the movement of items such as this Generator Rotor (Above)

These items are too large and too heavy to be transported to some locations by any other means.

This particular piece of machinery was transported by sea from Germany to Melbourne, then by road to Lithgow (NSW).

The road trip took over 3 weeks, with 3 Prime Movers pulling and 1 pushing.
Trailers – Articulated

**PRIME MOVER & ROAD TRAIN CONFIGURATION**
This particular Road Train is used to transport cattle. The cattle are carried on both the upper and lower decks of each trailer.

This gives a very heavy load combined with a high centre of gravity.

Hence the vehicle is unstable on rough roads and this is amplified as more trailers are added. On farm roads these vehicles can have up to four trailers.

This picture shows a three trailer road train.

**PRIME MOVER & SIDE LOADER TRAILER**
This trailer allows drivers to load and unload the trailer without the use of separate crane.

These trailers can carry 20ft, 40ft and 2 x 20ft containers.

They are high value trailers due to hydraulics and are very versatile.
Trailers – Rigid

2 AXLE FLAT TOP DOG TRAILER
The term ‘Dog Trailer’ comes from the fact that the trailer follows the towing vehicle ‘like a dog’ - meaning it is obedient.

Dog Trailers can have a range of configurations ranging from Flat Tops to Tippers and Tankers. In their basic form, for example the Flat Top, they are relatively cheap but they are limited in their load-carrying ability because of the axle configurations.

This image shows a 2 Axle Flat Top Dog Trailer fitted with pins for carrying containers.

RIGID TRUCK & DOG TRAILER
Trailers, when attached to a rigid, become part of the unit. Hence, you can have a Rigid & a Dog Trailer.
Trailers – Rigid

**PIG TRAILER**

Another common type of trailer is the Pig Trailer.

The name is derived from the trailer’s behaviour when being towed and when attempting to reverse it.
Other equipment

**RIGID DUMP TRUCK**
This dump truck is commonly used for the cartage of material off road usually in mines and quarries.

They range from 100 to 400 tonne.

**FORK LIFT**
This image depicts a forklift.
Other equipment

EXCAVATOR
An Excavator is a vehicle consisting of an articulated arm (boom, stick), bucket and cab mounted on a pivot (a rotating platform) atop an undercarriage with tracks or wheels used for digging, grading and landscaping, heavy lifting, mining, trenching and dredging. It is available from industrial to mini configuration.

The most common operation of an excavator is to break-up ground, move earth and trenching. These types of units are used frequently on large job sites & road construction.

The conventional bucket can be replaced with a variety of specialised buckets or attachments including, hydraulic rock breaker, angle broom, sweeper, auger, stump grinder, dumping hopper, grapple etc.

Fire, theft, and vandalism are the main reasons for claims with this type of unit, generally attributable to lack of security and open air storage as these units are left ‘on site’ for the duration of the job at hand.
Other equipment

FRONT END LOADER
A Front End Loader is a type of construction equipment that is primarily used to ‘load’ material (asphalt, demolition debris, dirt, feed, gravel, logs, raw minerals, recycled material, rock, sand, wood chips, etc.) into or onto another type of machinery (eg. dump truck, conveyor belt, feed-hooper, rail-car, etc).

Generally we see Front End Loaders as part of earthmoving & tipping type operations. They are also seen as part of site clearing type operations where building rubble is moved by the Front End Loader onto tipping trucks for transportation.

Fire, theft, and vandalism are the main reasons for claims with this type of unit, generally attributable to lack of security and open air storage as these units are left ‘on site’ for the duration of the job at hand.

BACKHOE LOADER
A Backhoe Loader, commonly shortened to ‘Backhoe’, is an engineering vehicle, which consists of a tractor, fitted with a shovel/bucket on the front and a small backhoe on the back. Due to its small size and versatility, backhoe loaders are very common in urban engineering and small construction projects (eg. building a small house or fixing city roads etc).
Other equipment

**SKID STEER LOADER (BOBCAT)**

Although well known in the market place as a Bobcat, this type of vehicle is actually a Skid Steer Loader. Bobcat itself is one of the manufacturers (brand names) of Skid Steer Loaders. It is a rigid frame vehicle with hydraulic lift arms used to attach a wide variety of labour-saving tools or attachments. Though sometimes equipped with tracks, bobcats are typically four-wheel drive vehicles with the left-side drive wheels independent of the right-side drive wheels.

The conventional 4 in 1 bucket can be replaced with a variety of specialised buckets or attachments including backhoe, hydraulic breaker, pallet forks, angle broom, sweeper, auger, mower, stump grinder, tree spade, trencher, dumping hopper, ripper, tillers, grapple, tilt, roller, snow blade, wheel saw, cement mixer, and wood chipper.

Generally used for site clearing and earthworks for landscaping etc. Common for the operator to own a rigid tipper truck, transport the skid steer loader to the job site, work during the day on the site with the skid steer loader, utilising the tipper truck to either transport away rubble or bring sand/gravel/dirt to the job site.
Other equipment

COMPACTORS & ROLLERS
Compaction and Vibration Rollers are used for highway construction maintenance projects, landfill, refuse compaction, roads, car parks and specialist surfacing works. They are available in sizes to suit large to small scale. Wheels can be any combination of Polygonal Steel, Smooth Rubber, Steel Barrel and Rubber Coated Barrel.

BULLDOZER
A Bulldozer is a crawler (caterpillar tracked tractor), equipped with a substantial metal plate (known as a blade) and is used to push large quantities of soil, sand, rubble, etc during construction work.
Accidents

HEAVY VEHICLE CRASH
When a heavy vehicle crashes the damage can be quite extensive.

This is caused by the weight of the vehicle, combined with the speed at the point of impact.

ROLL-OVER
As can be seen in the example on this page, even a simple roll-over on a straight road can be enough to destroy a vehicle.
Accidents

**TIPPER ROLL-OVER**

A common type of accident involving Tipper sometimes occurs when the load sticks in the tipper.

This alters the Centre of Gravity (CofG), causing the unit to topple over.

Although this may seem a simple accident, the damage from this can result in the trailers being written off.
## Common trucking-industry terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td><strong>3PL operators</strong></td>
<td>(Third-party logistics operators) extend distribution by integrating trucking into the operations of manufacturers</td>
</tr>
<tr>
<td><strong>Ancillary operators</strong></td>
<td>These are businesses whose main activity is something other than transport but they have truck fleets to transport their own products (also known as internal dispatch)</td>
</tr>
<tr>
<td><strong>Bulk cargo</strong></td>
<td>Unpackaged goods such as wood chips, sand, gravel</td>
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<tr>
<td><strong>Bulk liquid</strong></td>
<td>Bulk liquid goods such as milk, fuel, chemicals</td>
</tr>
<tr>
<td><strong>Freight Forwarder</strong></td>
<td>Also known as hire-and-reward operator, this type of business specialises in moving freight; it’s their core business</td>
</tr>
<tr>
<td><strong>Hire-and-reward operators</strong></td>
<td>These are transport and logistics businesses that are focused on providing trucking services</td>
</tr>
<tr>
<td><strong>Inter-modal</strong></td>
<td>Multiple modes of transport required, e.g. truck, rail, air</td>
</tr>
<tr>
<td><strong>Internal dispatch</strong></td>
<td>Trucking operation arranges delivery of its cargo internally (also known as ancillary operators)</td>
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<tr>
<td><strong>Load broker</strong></td>
<td>As the name suggests, load brokers find and broker deals with operators who haul freight</td>
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<tr>
<td><strong>LTL</strong></td>
<td>Less than truck load</td>
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</tbody>
</table>
## Common trucking-industry terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TL</td>
<td>Truck load (or full load)</td>
</tr>
<tr>
<td>Agitator</td>
<td>A bowl fitted to the rear of a standard rigid truck, used to transport and mix concrete from a batching plant to a construction site.</td>
</tr>
<tr>
<td>B-Double</td>
<td>An articulated vehicle with a second Semi-Trailer attached to the rear of the first Semi-Trailer by means of a turntable.</td>
</tr>
<tr>
<td>Bogie Driver</td>
<td>A Prime Mover or truck with two drive axles at the back. A 6x4 or, if twin steer, 8x4 vehicle.</td>
</tr>
<tr>
<td>Cab-over or Cab-Over Engine (COE)</td>
<td>A truck with the cab mounted directly above the engine and front axle.</td>
</tr>
<tr>
<td>Combination Vehicle</td>
<td>A truck towing one or more trailers.</td>
</tr>
<tr>
<td>Converter Dolly or Dolly</td>
<td>A unit designed to convert a Semi-Trailer to a Dog Trailer.</td>
</tr>
<tr>
<td>Curtainsider or Tautliner</td>
<td>A van-type body with curtain sides that are held down by straps attached to the tie-rail and pulled tight lengthwise by a ratchet.</td>
</tr>
<tr>
<td>Dog</td>
<td>A device used to tension chains when securing loads.</td>
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<td>Dog Trailer</td>
<td>A trailer with two axle groups, the front group being steered by the drawbar coupled to the towing vehicle.</td>
</tr>
<tr>
<td>Excavator</td>
<td>A vehicle consisting of an articulated arm, bucket and cab mounted on a pivot.</td>
</tr>
<tr>
<td>Flat Top</td>
<td>A truck, trailer, or Semi-Trailer that has a flat goods-carrying area without sides.</td>
</tr>
<tr>
<td>Frig Pan</td>
<td>A refrigerated pantechnicon or van, with the body often now made of fibre reinforced plastic (FRP) and usually having a diesel-powered refrigeration unit at the front.</td>
</tr>
<tr>
<td>Gates</td>
<td>Frames used at the front, sides and rear of the load-carrying platform to contain the load.</td>
</tr>
<tr>
<td>Jinker</td>
<td>A trailer designed to transport long logs.</td>
</tr>
<tr>
<td>Pantechnicon, Pan</td>
<td>A completely enclosed van body on a rigid vehicle or Semi-Trailer (eg. furniture van).</td>
</tr>
<tr>
<td>Pig Trailer</td>
<td>A trailer with one axle group, or single axle, near the middle of its load-carrying surface, and connected to the towing vehicle by a drawbar.</td>
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<tr>
<td>Prime Mover</td>
<td>A short wheel based truck used to tow a Semi-Trailer.</td>
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<td>Rigid Motor Vehicle</td>
<td>A vehicle without a trailer.</td>
</tr>
<tr>
<td>Road Train</td>
<td>Either a truck hauling two or more trailers, or a Prime Mover hauling one or more Semi-Trailers connected by dollies.</td>
</tr>
<tr>
<td>Semi or Semi-Trailer</td>
<td>A Semi-Trailer has one axle group at the rear and is designed so that the front is supported by the Prime Mover which is used to tow it.</td>
</tr>
<tr>
<td>Skeletal or Skel Trailer</td>
<td>A trailer or Semi-Trailer that has no tray but has attachments fitted to the frame for the carrying of goods (eg. Twist locks for containers, or bolsters for logs or timber).</td>
</tr>
<tr>
<td>Stock Crate</td>
<td>A truck or trailer body built for carrying livestock.</td>
</tr>
<tr>
<td>Table Top</td>
<td>Truck with a flat bed or tray body.</td>
</tr>
<tr>
<td>Tipper, Tip-Truck or Tip-Trailer</td>
<td>A truck or trailer which can discharge its load by tilting the cargo body.</td>
</tr>
<tr>
<td>Triple Tri-Axle or Triple</td>
<td>A combination of a Prime Mover, Semi-Trailer and two trailers. A three trailer road train.</td>
</tr>
<tr>
<td>TurnTable</td>
<td>A device for coupling a Prime Mover to a Semi-Trailer. The three basic types are greasy plate, ball race and fixed.</td>
</tr>
</tbody>
</table>
Online resources

INDUSTRY ASSOCIATIONS
Australian Trucking Association (ATA): http://www.atatruck.net.au
Australian Trucking Association – New South Wales (ATA NSW): http://www.atansw.net.au
Australian Livestock Transports Association (ALTA): http://www.alta.org.au
Livestock & Bulk Carriers Association (LBCA): http://www.lbca.org.au
Livestock Transporters Association of QLD (LTAQ): http://www.ltaq.com.au
Livestock Transporters Association of South Australia (LTASA): http://www.ltas.org.au
Livestock Transporters Association of Victoria (LTAV): http://www.ltav.com.au
Livestock and Rural Transport Association of WA (LRTAWA): http://www.lrtawa.org.au
National Road Transport Operators Association (NatRoad): http://natroad.com.au
Northern Territory Road Transport Association (NTRTA): http://ntrta.asn.au
Queensland Trucking Association (QTA): http://www.qta.com.au
South Australian Road Transport Association (SARTA): http://www.sarta.org.au
Western Australian Road Transport Association (WARTA): http://www.warta.com.au
Chartered Institute of Logistics and Transport (CILTA): http://www.cilta.com.au
Australian Transport Safety Bureau: http://www.atsb.gov.au
Australian Government Department of Infrastructure and Transport: http://www.infrastructure.gov.au
National Transport Commission: http://www.ntc.gov.au
TruckSafe Industry Accreditation Program: http://www.trucksafe.com.au
Australia’s leading transport insurance specialist.