

ARMSTRONG TRAILERS PTY LTD

ACN 154243277 | ABN 16154243277

OWNER'S OPERATION, MAINTENANCE & SERVICE MANUAL

75 Midland Hway, Epsom VIC 3551 | info@armstrongtrailers.com.au

Dear Customer,

Welcome to Armstrong Trailers Pty Ltd,
A company dedicated to providing the right product for people on the move.

Armstrong Trailers Pty Ltd is a skilled Australian trailer manufacturer with a commitment to quality service and value for money that can build the trailer that is right for you.

At Armstrong Trailers Pty Ltd, we are dedicated to building our reputation as one of the most accomplished trailer manufacturers in Australia. Our trailers are innovatively designed, very practical, and made to rigorous manufacturing standards.

If you need advice, you can contact us at info@armstrongtrailers.com.au.

Thank you again for choosing Armstrong Trailers Pty Ltd.

Trailer and Owner Details

Trailer Details

V.I.N.		Reg No	
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Dealer		Month / Year of Manufacture	
--------	--	-----------------------------	--

Model		Colour		Delivery Date	
-------	--	--------	--	---------------	--

Owner Details

Company Name					
First Name		Surname			
Address					
		Post Code			
Postal Address					
		Post Code			
Email Address					
Telephone	B/H		Mobile		

WARNING

This Manual contains safety information and instructions for your trailer.

You must read this Manual before loading or towing your trailer.

You must follow all safety precautions and instructions.

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1. SAFETY INFORMATION

1.1 Safety Alert Symbols and Signal Words

This manual provides instructions for the operation and care of your Armstrong Trailers trailer. The instructions of this manual must be followed to ensure the safety of persons and livestock, and satisfactory life of the trailer. Safety precautions to protect against injury or property damage must be followed at all times.

An owner's manual that provides general trailer information cannot cover all of the specific details necessary for the proper combination of every trailer, tow vehicle and hitch. Therefore, you must read, understand and follow the instructions given by the tow vehicle and towbar manufacturers, as well as the instructions in this manual.

Our Trailers are built with components produced by various manufacturers; as such some items may have separate instruction manuals that must be followed.

Safety information in this manual is denoted by the safety alert symbol .

The level of risk is indicated by the following signal words:

 DANGER
WARNING – hazards or unsafe practices which will result in severe injury or death if the warning is ignored
 WARNING
WARNING – hazards or unsafe practices which could result in minor or moderate injury or death if the warning is ignored
 CAUTION
CAUTION – hazards or unsafe practices which could result in minor or moderate injury or death if the warning is ignored
NOTICE
CAUTION – hazards or unsafe practices which could result in minor or moderate injury or death if the warning is ignored

1.2 Major Hazards

Loss of control of the trailer or trailer/tow vehicle combination can result in death or severe injury. The most common causes of loss of control of the trailer are:

- Improper sizing the trailer for the tow vehicle, or vice versa.
- Excessive speed: driving too fast for the conditions.
- Failure to adjust driving behaviour when towing a trailer.
- Overloading and/or improper weight distribution.
- Improper or miss-coupling the trailer to the tow ball.
- Safety chains not attached to the tow vehicle correctly.
- Improper braking and steering under sway conditions.
- Not maintaining proper tyre pressure.
- Not keeping wheel nuts to the correct torque.

1.2.1 Improper Sizing of the Trailer to the Tow Vehicle

Trailers that weigh too much for the towing vehicle can cause stability problem, which can lead to death or severe injury. Furthermore, the additional strain put on the engine drive chain and suspension may lead to serious vehicle maintenance problems. For these reasons the maximum towing capacity of your towing vehicle, in terms of maximum gross trailer weight (ATM) and maximum gross combined weight rating (ATM) can be found in the tow vehicles owner's manual.

DANGER

Use of an under-rated Tow-bar, Ball or tow vehicle can result in loss of control leading to death or severe injury.

Make certain your tow bar and tow vehicle are rated for your trailer.

1.2.2 Driving Too Fast

With ideal road conditions the maximum recommended speed for safely towing a trailer is 110 km/h. If you drive too fast, the trailer is more likely to sway, increasing the possibility of loss of control.

WARNING

Driving too fast for conditions can result in loss of control and cause death or severe injury.

Adjust speed down when towing a trailer.

1.2.3 Failure to Adjust Driving Behaviour When Towing a Trailer

When towing a trailer, you will have decreased acceleration, increased stopping distance and increased turning radius **(WHICH MEANS YOU MUST MAKE WIDER TURNS TO KEEP FROM HITTING KURBS, VEHICLES AND ANYTHING ELSE THAT IS INSIDE THE CORNER)**. Furthermore, the trailer will change the handling characteristics of your towing vehicle, making it more sensitive to steering inputs and more likely to be pushed around in windy conditions or when being passed by large vehicles. In addition, you will need a longer distance to pass due to slower acceleration and increased length. With this in mind:

- Be alert for slippery conditions. You are more likely to be affected by slippery road surfaces when driving towing a trailer than driving without a trailer.
- Anticipate the trailer "swaying" Swaying can be caused by excessive steering, speed, wind gusts, improper weight distribution or by pressure wave created by passing trucks or busses.
- When encountering trailer sway, take your foot off the accelerator, and steer as little as possible to stay on the road. Use small "trim-like" steering adjustments. Do not attempt to steer out of the sway, you'll only make it worse. Also, do not apply the tow vehicles brakes to correct the swaying. The application of the trailer brakes being applied will help straighten the trailer.
- Check rearview mirror frequently to observe the trailer and traffic.
- Use lower gear when driving down steep or long grades. Use the engine and transmission as a brake. Do not ride the brakes, as they can overheat and become ineffective.
- Be aware of your trailer height, especially when approaching bridges, roofed areas and around trees.

1.2.4 Improper Loading

The total weight of the load you put in or on the trailer, plus the empty weight of the trailer itself must not exceed the trailers Gross Trailer Mass (ATM). This information can be found on the compliance plate that is fitted on the trailer, if this plate is not fitted you must weigh it on a commercial weigh bridge. In addition, you must distribute the load in the trailer such that the load on any axle does not exceed the gross axle weight rating.

⚠ WARNING

An overloaded trailer can result in failure or loss of control of the trailer, leading to death or severe injury.

Never load a trailer so that the weight on any tyre exceeds its rating.

Never exceed the trailer Gross Trailer Mass (ATM).

Never exceed the axle load capacity.

1.2.5 Trailer Not Properly Coupled to the Towing Vehicle

It is critical that the trailer be securely coupled to the tow vehicle and that the safety chains are and or emergency breakaway line are correctly attached by using the correct size of rated D-Shackles. Uncoupling may result in death or severe injury to you and others.

⚠ WARNING

Coupling and tow bar selection are critical for safe towing. Uncoupling can result in death or severe injury.

Make sure the Coupling and ball are rated for the trailer.

Make sure the ball size matches the coupling.

Check the ball for wear, corrosion and cracks before connecting the coupling.

Make sure the safety latch on the coupling is all the way down.

⚠ WARNING

An improperly coupled trailer can result in death or severe injury.

Do not move the trailer until:

- the coupling is secured and locked;
- the safety chains are secured to the towing vehicle and crossed over;
- the trailer jacks or jockey wheel are fully retracted (if fitted).

Do not tow the trailer on the road until:

- the brakes are checked (if fitted);
- the breakaway switch is connected to the tow vehicle (if fitted);
- the load is secured; the trailer lights are connected and checked.

1.2.6 Proper Use of Safety Chains

Safety chains are provided so that the trailer remains connected if the trailer comes loose from the tow vehicle for any reason.

⚠ WARNING

Incorrect connection of the safety chains can result in loss of the trailer, leading to death or severe injury if the trailer uncouples from the towing vehicle.

Chains must:

- fasten to the frame of the tow bar;
- cross chains over underneath the tow bar with minimum slack to permit turning and to hold the draw bar up if the trailer comes loose.

1.2.7 Proper Connection of Breakaway Brake

If fitted with electric brakes rated over 2000kg, your trailer will be fitted with a breakaway brake system that can apply the brakes on your trailer, if your trailer comes loose from the towing vehicle for some reason. You will have separate a separate set of instructions for the breakaway brake if your trailer is so equipped. The breakaway brake system, including the battery charge must be in good condition to be effective.

⚠ WARNING

An ineffective breakaway brake system can result in a runaway trailer, leading to death or severe injury.

Test the function of the breakaway brake system before towing the trailer.

Do not tow the trailer if the breakaway brake system is not working — have it serviced or repaired.

Connect the breakaway cable to the tow vehicle, NOT to the safety chains of the trailer.

USE only rated shackles.

1.2.8 Matching Trailer Coupling and Ball

⚠ DANGER

Use of an underrated coupling, tow ball or tow bar can result in loss of control leading to death or severe injury.

Make sure your coupling is correctly attached to your towing vehicle.

1.2.9 Worn Tyres, Loose Wheel Nuts

Just as with your tow vehicle, the trailer tyres, and wheels are important safety items. Therefore, it is essential to inspect the trailer tires before each tow.

If a tyre has a bald spot, bulge, cut or cracks, or is showing any cords, replace the tire before towing.

Tyres with little tread will not provide adequate friction forces on wet roadways and can result in loss of control, leading to death or server injury.

Improper tyre pressure causes increased tyre wear and may reduce trailer stability, which can result in a tyre blow out or possible loss of control. Therefore, before each tow you must also check the tyre pressures. Remember, the proper tyre pressure is listed on the VIN Plate and should be checked when tyres are cold. Allow 3 hours cool-down after driving as much as 2 kilometres before checking tyre pressures.

⚠ WARNING

Improper tyre pressure may cause an unstable trailer. Blowout and loss of control may occur. Death or serious injury can result.

Make sure of proper tyre pressure before towing the trailer. Inflate tyres to the pressure indicated on the VIN plate label.

The tightness of the wheel nuts is very important in keeping the wheels properly seated to the hub. Before each tow, check to make sure they are tightened to the proper torque.

⚠ WARNING

Metal creep between the wheel rim and nuts WILL CAUSE RIM TO LOOSEN. Death or injury can occur if wheels come off. Tighten wheel nuts before each tow.

The proper tightening sequence and torque values for wheel nuts are listed in the Inspection, Service & Maintenance chapter of this manual. Use a calibrated torque wrench to tighten the wheel nuts.

Wheel nuts are prone to loosen after being first fitted. When driving a new trailer, check to make sure they are tightened to the proper torque after the first 100 kilometres, 1000 kilometres and every 2000 kilometres thereafter. Failure to perform this check can result in a wheel parting from the trailer and a crash, leading to death or serious injury.

⚠ WARNING

Wheel nuts are prone to loosen after first assembly. Death or serious injury can result.

Check wheel nuts for tightness on a new trailer at the first 100 km, 1000 km and every 2000 km thereafter.

⚠ WARNING

Inadequate torque on the wheel nuts can cause a wheel to part while towing. Death or serious injury can result.

Make sure wheel nuts are tightened before towing the trailer.

1.2.10 Weight and Load Distribution

Proper loading of your trailer is essential for your safety. Tyre, wheel, axle, suspension or structural failure can be caused by overloading.

⚠ WARNING

An overloaded trailer can result in failure or loss of control leading to death or serious injury.

Never exceed the Gross Trailer Mass (ATM). Never exceed the axle gross load capacity.

Improper front / rear load distribution can lead to poor trailer sway stability or poor tow vehicle handling. Poor trailer sway stability results from tongue weights that are too low, and poor tow vehicle stability results from tongue weights that are too high.

In Figure 1-1, the second column shows the rule of thumb percentage of the total weight of the trailer, plus its cargo (Gross Trailer Mass "ATM") that should appear on the coupling of the trailer.

For example, a small box trailer with loaded weight 750kg should have 6-10% of 750kg (45-75kg) on the coupling after loading, be sure to check that none of the axles are overloaded.

Coupling Weight as a % of Loaded Trailer Weight	Percentage
Small Trailers (e.g. box trailers)	6–10%
Large Trailers (e.g. tandem trailers)	10–15%

Figure 1-1: Coupling Weight Guide

Uneven left or right load distribution can cause tyre, wheel, axle or structural failure. Be sure your trailer is evenly loaded on the left and right sides. Towing stability also depends on keeping the centre of gravity as low as possible.

⚠ WARNING
An improperly distributed load can result in loss of control of the trailer and can lead to death or serious injury. Proper coupling weight is essential for stable trailer handling. Distribute the load evenly, right and left, to avoid tyre overload. Keeping the centre of gravity low and centred is essential to minimize the risk of a tip-over.

1.2.11 Shifting Cargo

Since the trailer "ride" can be bumpy and rough, you must secure your cargo so that it does not move while the trailer is being towed.

⚠ WARNING
A moving load can result in failure or loss of control of the trailer, and can lead to death or serious injury. You must tie down all loads with proper size fasteners, ropes, straps etc. to prevent the load from moving while travelling.

1.2.12 Inoperable Brakes or Lights

Be sure that the brakes (if equipped) and all lights on your trailer are functioning properly before towing your trailer. Electric brakes and lights on a trailer are controlled via a connection to the tow vehicle, generally with a 7-pin electrical plug. Check the trailer taillights, brake lights and left/right blinkers by having someone in the car to operate them while you look at the trailer lights.

If your trailer has electric brakes, your tow vehicle will have an electric brake controller that sends power to the brakes. (Can also be fitted to the trailer to give power to the brakes)

Before towing the trailer on the road, you must operate the brake controller while trying to pull the trailer in order to confirm that the electric brakes operate. While towing the trailer less than 10kph, manually operate the electric brake controller in the tow vehicle cab. You should feel the operation of the trailer brake.

⚠ WARNING

Failure to connect the tow vehicle lighting and braking to the trailer will result in inoperable lights and brakes and can lead to a collision.

Check that all the trailer lights and brakes work before each tow.

If your trailer has Override Mechanical disc or Hydraulic drum brakes fitted you can check to see if they are operating by driving at 20kph and stopping suddenly you should feel the brakes come on.

1.2.13 Hazards from Operating a Hydraulic Tipper Trailer

The major hazards from operation of a tipper trailer are:

- Overloading
- Improper weight distribution (both side to side and front to back)
- Getting under a raised body
- Not using or improperly using the safety prop
- Modifying or altering hydraulic components
- Not dumping from a solid and level surface
- Not fully opening or removing the rear door/tailgate
- Jerking the trailer or hydraulics to loosen the load
- Trailer coming near or contacting power lines when body is raised

The tow vehicle and trailer **MUST** be on a firm and level surface before raising the body. Raising the body while either are on a soft or uneven surface may result in overturning.

⚠ WARNING

A soft and/or uneven surface may result in the tow vehicle and trailer tipping over when the body is raised.

Raise the body **ONLY** if the tow vehicle and trailer are both on a firm and level surface.

⚠ WARNING

An overloaded trailer or improperly distributed load can result in death or serious injury.

An overloaded trailer can cause the hydraulic system to malfunction, resulting in the tipper body failing.

A load that is improperly distributed can result in the trailer tipping over when the body is raised.

NEVER use an auxiliary device to help the hydraulic system raise the body.

Do not alter or substitute any hydraulic components on the trailer. The hydraulic system is designed with each component being compatible with the safe and reliable operation of the hydraulic system.

⚠ DANGER

NEVER alter or substitute any hydraulic system component. Death or serious injury may result.

An altered or substituted hydraulic system component may malfunction, resulting in the body falling without warning.

Verify that there are no overhead power lines near the trailer before raising the body. You can be electrocuted if the trailer comes near or contacts a power line.

⚠ WARNING

Risk of electrocution. Tipper body coming near or contacting power lines may result in electrocution. Electrocution can occur without contact.

Be sure there are no overhead power lines over or near the trailer before raising the body.

The raised body **MUST** be supported by the body safety props before entering the area under the body for any reason. Empty the dump body before using safety props.

⚠ DANGER

Risk of death or serious injury.

NEVER support a loaded tipper body by the safety prop.

Empty the load before using a safety prop.

NEVER enter the area under the tipper body unless the empty body is supported by a safety prop.

⚠ WARNING

Risk of death by crushing. Tipper body can drop unexpectedly.

NEVER go under a raised body. Use a safety prop for maintenance.

1.2.14 Hazards from Modifying Your Trailer

Essential safety items and structural integrity can be damaged by altering your trailer.

Before making any alteration to your trailer, contact Armstrong Trailers Pty Ltd on 03 9359 3122 and describe the alteration you are contemplating. Alteration of the trailer structure or modification of mechanical, electrical, hydraulic or other systems on your trailer must be performed only by qualified technicians who are familiar with the system installed on your trailer.

NOTE: Mudflaps are fitted by on your trailer in accordance with (ADR) Australian Standards, by removing them you are not complying with the Australian road safety rules and you also may void your warranty.

1.2.15 Trailer Towing Guide

Driving a vehicle with a trailer in tow is very different from driving the same vehicle without a trailer in tow. Acceleration, manoeuvrability and braking are all diminished with a trailer in tow. It takes longer to get up to speed, you need more room to turn and pass, and more distance to stop when towing a trailer. You will need to spend time adjusting to the different feel and manoeuvrability of the tow vehicle with a loaded trailer. Because of the significant differences in all aspects of manoeuvrability when towing a trailer, the hazards and risks of injury are also much greater than when driving without a trailer. You are responsible for keeping your vehicle and trailer in control, and for all the damage that is caused if you lose control of your vehicle and trailer.

As you did when learning to drive an automobile, find an undeveloped area with little or no traffic for your first practice towing. Of course, before you start towing the trailer, you must follow all the instructions for inspection, testing, loading and coupling. Also, before you start towing, adjust the mirrors so you can see the trailer as well as the area to the rear of it.

Drive slowly at first, 10 KPH or so, and turn the wheel to get the feel of how the tow vehicle and trailer combination responds. Next, make some right and left-hand turns. Watch in your side mirrors to see how the trailer follows the tow vehicle. Turning with a trailer attached requires more room. Stop the vehicle a few times from speeds no greater than 15 KPH.

It will take practice to learn how to back up a tow vehicle with a trailer attached. Take it slow. Before backing up, get out of the tow vehicle and look behind the trailer to make sure that there are no obstacles. Some drivers place their hands at the bottom of the steering wheel, and while the tow vehicle is in reverse, “think” of the hands as being on the top of the wheel. When the hands move to the right (counter-clockwise, as you would do to turn the tow vehicle to the left when moving forward), the rear of the trailer moves to the right. Conversely, rotating the steering wheel clockwise with your hands at the bottom of the wheel will move the rear of the trailer to the left, while backing up. To straighten the vehicle, either pull forward, or turn the steering wheel in the opposite direction.

1.2.16 Safe Trailer Towing Guidelines

- Re-check the load tie downs to make sure the load will not sift during towing.
- Before towing check the coupling, safety chains, hand brake, tyres, wheels and lights.
- Check the wheel nuts for tightness.
- If fitted with electric brakes, adjust the brake controller to engage the trailer brakes before the tow vehicle brakes.
- Use your mirrors to verify that you have to change lanes.
- Use your indicators well in advance.
- Allow plenty of stopping distance
- Do not drive so fast that the trailer begins to sway due to speed. Never drive faster than 110kph.
- Allow plenty of room for passing. A rule of thumb is that the passing distance with the trailer is 4 times the passing distance without the trailer.
- Use lower gears for climbing and descending grades.
- Do not brake while in a curve unless it is necessary, instead slow down before the curve and power through the curve, this way the towing vehicle remains in charge.
- Do not apply the brakes to correct extreme trailer swaying.
- Make regular stops, about once each hour to confirm that:
 - The coupling is secured to the ball and is locked over
 - Electrical connections are made
 - There is enough slack on the safety chains
 - The tyres are not visibly low on pressure
 - The load is all secure
- Inspect spring and axle bolts also U-bolts for any movement or loosening.

2. COUPLING TO THE TOW VEHICLE

This section provides instructions for the operation and care of a Armstrong Trailers trailer. Safety precautions to protect against injury or property damage must be followed at all times.

This section is organised into the following subsections:

- Using an adequate tow vehicle
- Trailer Information (VIN)
- Coupling the trailer to the tow vehicle
- Loading the trailer
- Checking the trailer for safety before each tow
- Synchronising the brakes
- Uncoupling the trailer

2.1 Use an Adequate Tow Vehicle

If you have a tow vehicle, know your vehicle tow rating and make certain the trailer's rated capacity is less than or equal to the towing vehicle's rated towing capacity.

2.2 Trailer Information (VIN)

The trailer compliance plate is affixed to the trailer and it contains the following information:

- **Manufacturer:** Name of the manufacturer
- **Trailer Model:** Type of trailer
- **Date of Manufacture:** (Day/Month/Year)
- **ATM:** Aggregate Trailer Mass
- **VIN:** Vehicle Identification Number
- **TYRE DETAILS:** Tyre sizes e.g. 185/75LT
- **TARE (ATM):** Weight of the empty trailer
- **TYRE PRESSURE:** 50 PSI = 345 kPa
- **SPEED:** Maximum towing speed

MANUFACTURER _____

VIN NO. _____

DATE OF MAN. _____ MODEL _____

ATM _____ kg GTM _____ kg TARE _____ kg

This Trailer Was Manufactured to Comply With The Road Vehicle Standards VSB1 REV6"

TYRE SIZE _____ RIM SIZE _____

COLD INFLATION PRESSURE _____ PSI TYRE RATING _____ kg

The sum of the load carrying capacities of the tyres fitted to any axle or axle group of the vehicle shall not be less than the relevant load shown above.

The tyres fitted to this vehicle shall have a speed category not less than _____ km/h

2.3 Tow Vehicle

When purchasing a new or second-hand vehicle to tow your trailer, ask the vehicle dealer for advice on how to outfit the towing vehicle. Discuss the following information with the dealer.

Overall carrying and towing capacity of the vehicle: Vehicle manufactures will provide you with the maximum towing capacities of their models.

Towing Hitch: The tow bar attached to your tow vehicle must have a capacity equal or greater than the load rating of the trailer you intend to tow. The Tow bar capacity must also be matched to the tow vehicles capacity.

Brake Controller: The brake controller is part of the tow vehicle and is essential in the operation of the electric brakes on the trailer (if installed). If your trailer has electric brake, it requires a brake controller be installed at the driver's position. The brake controller is not the same as the safety breakaway brake system that is installed on the trailer if over 2000kg rated.

2.4 Coupling and Uncoupling the Trailer

A secure coupling of the trailer to the vehicle is essential. A loss of coupling may result in death or serious injury. Therefore, you must understand and follow all of the instructions for coupling.

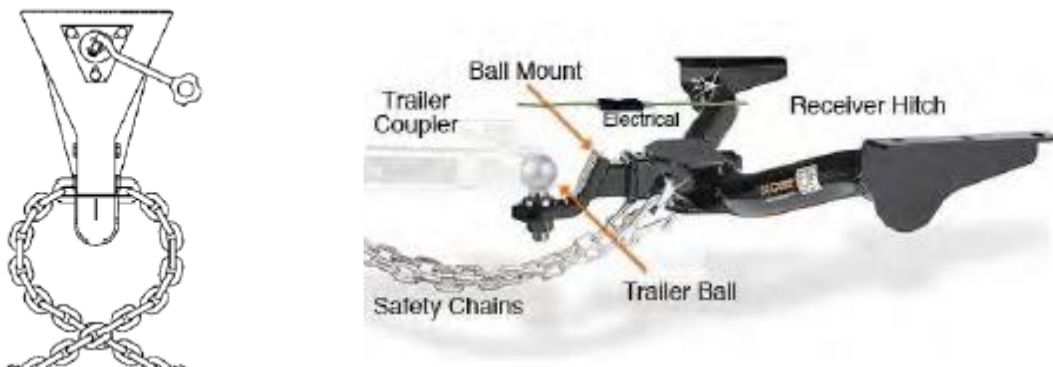
The following parts are involved in making a secure coupling between the trailer and tow vehicle.

Coupling: That part of the trailer connecting mechanism by which the connection is made to the tow bar.

Tow Bar & Tongue: That part of the trailer connecting including the ball support (Tongue) That extends and are attached to the tow bar of the towing vehicle.

Safety Chains: Safety chains are permanently attached to the trailer such that if the coupler connection comes loose, the safety chains can keep the trailer attached to the tow vehicle. With properly fitted safety chains, it is possible to keep the draw bar of the trailer digging into the road pavement, even if the coupling to the ball connection comes apart.

Criss cross the safety cross as in the figure below and be sure to use the correct rated shackles.



⚠ WARNING

Incorrect connection of the safety chains can result in loss of control of the trailer and tow vehicle, leading to death and/or serious injury.

Chains must:

- fasten to the tow vehicle with rated shackles;
- cross underneath coupling and tow bar tongue with minimum slack to permit turning and to hold the draw bar up if the trailer comes apart.

2.5 Before Coupling the Trailer to the Tow Vehicle

Be sure the size and rating of the tow ball matches the coupling size and rating. Balls and couplings are marked with their size and rating.

⚠ WARNING

Coupling to ball mismatch can result in uncoupling, leading to death or serious injury.

Make sure the tow bar and ball are rated for the trailer coupling and that the ball size matches the coupling.

Wipe the ball clean and inspect it visually and by feel for flat spots, cracks or pits.

⚠ WARNING

A worn, cracked or corroded coupling or ball can fail while towing and may result in death or serious injury.

Check the coupling and ball for wear, corrosion and cracks before coupling the trailer.

Replace worn, corroded or cracked parts before connecting to the tow vehicle.

Rock the ball to make sure it is tight to the tow bar, and visually check that the ball nut is solid against the lock washer and tow bar frame.

Wipe the inside and outside of the coupling clean and inspect for cracks and deformations; feel the inside of the coupling for worn spots and pits.

⚠ WARNING

A loose ball nut can result in uncoupling, leading to death or serious injury.

Make sure the ball is tight on the tow bar tongue before coupling.

A trailer can be fitted with different types of couplings but most of them have some type of locking device either on the top or the side.

Open the coupling locking mechanism. Ball couplings have a locking mechanism with an internal moving piece (Ball Clamp) an outside with a latch. See figure 1 & 2

In the open or unlatched position, the coupling is able to drop fully onto the ball. Lower the trailer coupling over the ball, then engage the locking mechanism to hold the coupling to the ball securely.

Be sure the coupling is all the way on the ball and the locking mechanism is engaged. A properly engaged locking mechanism will allow the coupling to raise the rear of the tow vehicle.

Using the trailer Jockey wheel or jack if fitted, test to see that you can raise the rear of the tow vehicle by 30mm after the coupling is locked to the towball.

If the coupling cannot be secured to the tow ball, do not tow the trailer.



Figure 1. 50mm coupling

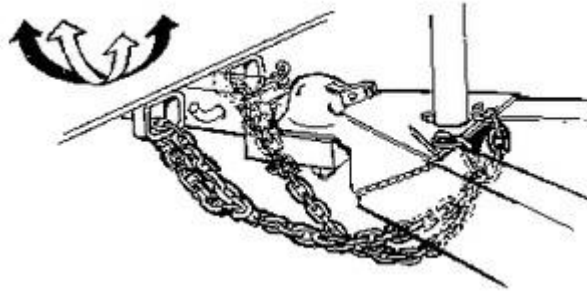


Figure-1

Figure 2. 50mm Override Coupling

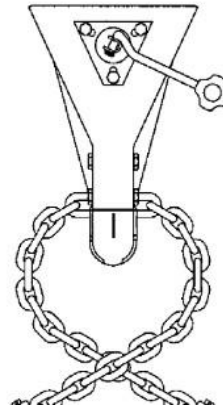


Figure-2

2.6 Connecting the Safety Chains

Visually inspect the safety chains and shackles for wear or damage. Replace worn or damaged safety chains before towing.

Fit the safety chains so that they are:

Criss-cross underneath the coupling so if the trailer uncouples, the safety chains can hold the draw bar up above the road. See figure 1-2

2.7 Connecting the Electrical Cable

Connect the trailer lights to the tow vehicles electrical system using the electrical connector (Plug)

- Check all lights for proper operation.
- Clearance and taillights (Turn on the tow vehicles headlights).
- Brake Lights (Step on the tow vehicle brake pedal)
- Indicator signals (Operate tow vehicle directional signal lever)
- If your trailer has electric brakes, check brakes for proper operation using the brake controller mounted in the cab.

⚠ WARNING

Failure to connect the tow vehicle lighting and braking to the trailer will result in inoperable lights and brakes and can lead to a collision.

Check that all the trailer lights and brakes work before each tow.

2.8 Uncoupling the Trailer

Follow these steps to uncouple you trailer from the tow vehicle.

- Block trailer tyres to prevent the trailer from rolling, before jacking the trailer up.
- Disconnect the electrical connector

- Disconnect the safety chains from the tow vehicle
- Unlock the coupling, by pushing the locking mechanism in and lifting the coupling handle.
- Either use a jockey wheel jack or lift the coupling of the tow ball

3. LOADING THE TRAILER

Improper loading causes many accidents and deaths. To safely load a trailer, you must consider:

- Overall load weight
- Load weight distribution
- Proper coupling weight
- Securing the load

To determine that you have loaded the trailer within its rating, you must consider the distribution of the weight, as well as the total weight of the trailer and its contents. The trailer axles carry most of the total weight of the trailer and its contents. ATM

The maximum weight of a trailer is specified as either its Aggregate Trailer Mass (ATM) Grossor Trailer Mass (ATM).

Aggregate Trailer Mass ATM is the combined weight of the trailer and its full load when it is not coupled to a tow vehicle.

Gross Trailer Mass (ATM) is the weight of the fully loaded trailer imposed on the trailer's axle when it is coupled to the tow vehicle

The remainder of the total weight is carried by the tow vehicle. It is essential for safe towing that the trailer draw bar, coupling and tow vehicle tow bar carry the proper amount of the loaded trailer weight, otherwise the trailer can develop an undesirable sway at towing speeds, or the rear of the towing vehicle can be overloaded. Also, the trailer draw bar can develop cracks either around the coupling or where it meets the chassis of the trailer.

The load distribution must be such that no component part of the trailer is loaded beyond its rating. This means you must consider the rating of the tyres wheels and axles. For tandem or tri-axle trailers, you must make sure that the front to rear load distribution does not result in overloading any axle.

Towing stability also depends on keeping the centre of gravity as low as possible. Load heavy items on the floor and over the axles. When loading additional items, be sure to maintain even side to side weight distribution and proper coupling weight. The total weight of the trailer and its contents must not exceed the total weight rating of the trailer. Gross Trailer Mass (ATM)

⚠ WARNING

An overloaded trailer can result in failure or loss of control of the trailer, leading to death or serious injury.

Never load a trailer so that the weight on any tyre exceeds its rating.

Never exceed the trailer Gross Trailer Mass (ATM).

Never exceed an axle gross weight rating.

3.1 Tow Bar Weight

It is critical to have a portion of the trailer load carried by the tow vehicle. That is the trailer draw bar must exert a downward force on the tow bar. This is necessary for two reasons. First, the proper amount of coupling weight is necessary for the tow vehicle to be able to maintain control of the vehicle/trailer system. If, for example the draw bar exerts an upward pull on the tow ball, instead of pushing down on it (because the trailer is overloaded behind its axles) the rear of the tow vehicle can lose traction or grip and cause loss of control. Also, even if there is some weight on the tow ball, but not enough weight the trailer can become unstable at high speeds. Remember the faster you go the more likely the trailer is to sway.

If, on the other hand there is too much weight on the tow ball, the tow vehicle is prone to jack-knife. Furthermore, the front wheels of the tow vehicle can be too lightly loaded and cause loss of steering control and traction.

In the following table is the rule of thumb of percentage of weight on the draw bar.

Coupling Weight as a % of Loaded Trailer Weight	Percentage
Small Trailers	6–10%
Large Trailers	10–15%

4. PRE-TOW AND ON-ROAD CHECKS

4.1 Pre-Tow Checklist

Before towing, double check all these items:

- Tyres, wheels and wheel nut tightness (torque) see chart below
- Tyre Pressure. Inflate tyres on trailer to the value indicated on the VIN plate
- Coupling secured and locked on the tow ball (see the “Coupling to Tow Vehicle” section of this manual)
- Safety chains properly attached to the tow vehicle. (see the “Coupling to Tow Vehicle” section of this manual)
- Test Tail stop and Indicators
- Cargo properly loaded, balanced and tied down. (See the “Loading of the trailer” of this manual)
- Doors and gates latched and secured

4.2 Make Regular Stops

After each 100 kilometres, or one hour if towing, stop and check the following items:

- Coupling secured
- Safety chains are fastened and not dragging
- Load secured
- Gates and doors secured
- Check tyres for signs of abnormal wear and loss of air pressure

4.3 Retighten Wheel Nuts at First 100, 500 and Every 1,000 km Thereafter

Wheel nuts can sift and settle quickly after being first assembled, and must be checked after the **first 100 kilometres, 500 kilometres and every 1000 kilometre thereafter** of driving. Failure to perform this check may result in a wheel coming loose from the trailer, causing a crash leading to death or serious injury. Refer to the Inspection, Service & Maintenance section for proper tightening sequence and torque value for the wheel nut bolts. See chart below.

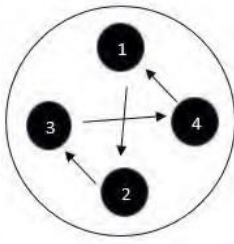
WARNING

Wheel nuts are prone to loosen after being first assembled. Death or serious injury can result.

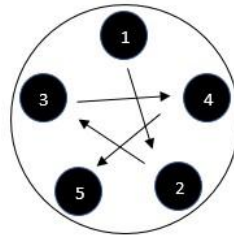
Check wheel nuts for tightness on a new trailer, after re-mounting of a wheel, at 100, 1000 and 2000 km.

4.4 Wheel Nut Torque & Tightening Pattern

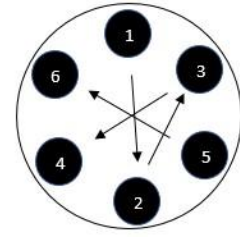
- An impact/rattle gun, if used, must only be used to 'nip up' the wheel nuts (for speed).
- An impact gun should NEVER be used to achieve the final wheel nut torque setting.
- The correct nut torque sequence for the wheel must be used to correctly and centrally locate the wheel on the hub of the trailer.
- It is imperative that the final wheel nut torque must be achieved manually, using a properly calibrated, high quality torque wrench



**4 Lug Tightening
Pattern**



**5 Lug Tightening
Pattern**



**6 Lug Tightening
Pattern**

Torque Setting Guide		
Wheel Stud	Foot Pounds	Newton Metres
1/2" studs	100 ft-lbs	135Nm
5/8" Studs	175 ft-lbs	237Nm

**Most of our trailers have ½" stud so use 135 Nm torque.
4.5-ton trailers have 5/8 studs so use 237 Nm torque**

Important - Please Note:

- It is essential that wheel nuts should be re-torqued after an initial run-in period (pre-determined km's)
- We suggest the wheel nut tension should be re-checked after the first 100 km of operation

5. BREAKING IN A NEW TRAILER

5.1 Adjust Brake Shoes

Brake shoes and drum experience a rapid initial wear. The brakes must be adjusted after the first 200 Kilometres of use, and each 4,000 kilometres thereafter. Most axles are fitted with brake shoes that must be manually adjusted. This must be done by an authorised dealer or mechanic.

If fitted with mechanical cable brakes this can be adjusted by Turing the turn buckle on the cable inwards.

5.2 Retighten Wheel Nuts at First 100 km

Wheel Nuts can sift and settle quickly after being first assembled, and must be checked after the first 100km, 500km and every 1000km. failure to perform this check may result in a wheel coming loose from the trailer.

5.3 Tyre Pressure

Check tyre pressure on all wheels of the trailer. Inflate to the value indicated on the VIN plate located on the left-hand side of the draw bar.

5.4 Check Hubs

Check Hubs after 1000k kilometres for excessive heat. Also push the wheel in and out to see if there is movement in the hub, if so this would need to be adjusted. Overtightening or too lose in the hub can cause bearing damage. Service is required regularly. See service chart below.

6. INSPECTION, SERVICE AND MAINTENANCE

6.1 Inspection, Service & Maintenance Summary Charts

You must inspect, maintain and service you trailer regularly to insure reliable operation. Inspections can be performed by any person or persons but most service must be done by a authorised dealer or mechanic.

Trailer Inspection Service Intervals						
Item	Service Required	Manual Section Reference	Service Interval			
			Before Each Use	Every 3 Months	Every 6 Months	Every Year
U-Bolts	Checked by Dealer					
Breakaway Brakes	Check Operation					
Breakaway Battery	Fully charge, connection clean					
Breakaway Switch	Test Operation & Connection					
Brakes, all types	Check Operation					
Brake Shoes	Check operation			First 200km	4000km	thereafter
Brake Cable	Adjust to each load					
Brakes Hydraulic	Check fluid level & replenish. Check for leaks/ sticking.					
Master Cylinder	Inspect for cracks, leaks, and kinks.		12 months			
Brake Lines	Verify operation/inspect					
Lights	Check for proper operation					
Trailer Body	Wash to remove road grime & grease					
Trailer Chassis	Inspect Chassis & draw bar for cracks					
Welds	Inspect all welds, repair as needed					
Tyres						
	Check Tyre Pressure when cold					
	Rotate tyres					
	Inspect treads & side walls					
Wheel Bearings Hubs						
	Check for free running & lubricant					
	Running in hubs			First 1000	kilometres	

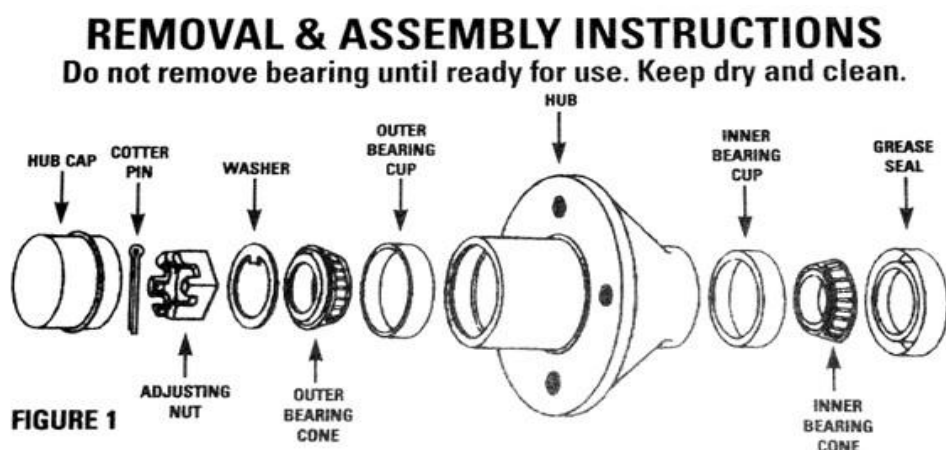
	Service check re-grease or replace					
Override coupling	Re- grease with Hub service					
Cable brake adjustment				Depends on the load		
Axle, spring & coupling Bolts						
	Check for tension					
	Inspect for crakes in the U-bolts					

6.2 Bearing & Hub Service

Disassemble, inspect and re-pack the wheel bearings every 12 months or 10,000 Kilometres, whichever occurs first.

If a trailer wheel bearing is immersed in water, it must be repacked after each immersion

If your trailer has not been used for an extended amount of time, have the bearings inspected and packed more frequently, at least every six months and prior to use.



- After Removing the grease cap, split pin castle nut & washer, remove the hub by pulling on the hub to slide off the axle shaft. NOTE, the outer bearing cone will come out but the outer bearing cups on both sides will stay in the hub as they are pressed on.
- The cups would need to be removed by a qualified person or mechanic.
- Replace bearings that have flat spots on the rollers, broken roller cages, rust or pitting. Always replace the bearings and cups in a set. The inner & outer bearings are to be replaced at the same time.
- Replace seals that have nicks, tears or wears.
- Lubricate the bearings with a high-quality EP-2 automotive wheel bearing grease.
- Every time the wheel hub is removed, and the bearings are reassembled, follow the steps below to check the wheel bearings for free running and adjust.
- Turn the hub slowly, by hand while tightening the castle nut, until you can no longer turn the hub by hand.
- Loosen the castle nut just until you can turn it (*the castle nut*) by hand. Do not turn the hub while castle nut is loose.
- Put a new cotter pin through the castle nut and axle.

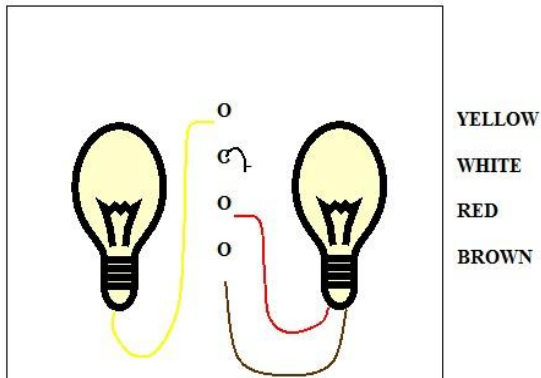
- Check the adjustments. Both the hub and the castle nut should be able to move freely (the castle nut motion will be limited by the Split pin).

7. TECHNICAL REFERENCE

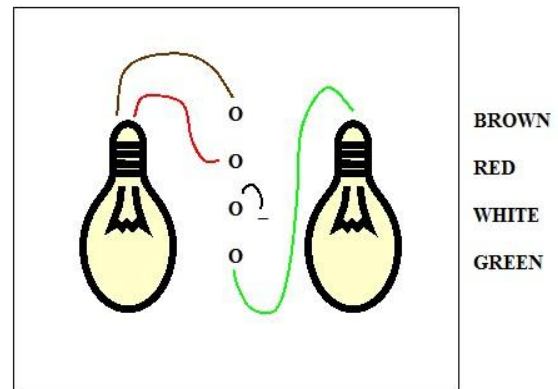
7.1 Trailer Lighting Electrical Connection

The electrical wiring on your Armstrong Trailers trailer has been designed and built in accordance with the Australian Standards ADR that were in effect when the trailer was produced.

LEFT SIDE



RIGHT SIDE



7 Pin Large Round Plug and Socket

PIN No.	CIRCUIT	COLOUR
1	Left-hand turn	Yellow
2	Reversing signal	Black
3	Earth return	White
4	Right-hand turn	Green
5	Service brakes	Blue
6	Stop lamps	Red
7	Rear lamps, clearance & side marker lamps	Brown



7 Pin Plug



7 Pin Socket

*Cable entry view

7 Pin Flat Plug and Socket

PIN No.	CIRCUIT	COLOUR
1	Left-hand turn	Yellow
2	Reversing signal	Black
3	Earth return	White
4	Right-hand turn	Green
5	Service brakes	Blue
6	Stop lamps	Red
7	Rear lamps, clearance & side marker lamps	Brown



7 Pin Plug



7 Pin Socket

*Cable entry view

7.2 Axle Sizes & Bearing Numbers

- 39 mm Round Axle — Standard Holden Bearing LM
- 40 mm Square Axle — Standard Holden Bearing LM
- 45 mm Square Axle — Slimline or Parallel Bearings
- 50 mm Square Axle — Slimline or Parallel Bearings

LM Bearing Sets (Standard Holden)

Part/ Part Number	Housing Diameter Nominal	Bearing Journal/Seal Journal Diameter Nominal
Inner Bearing LM67048/10	59.10 mm	31.75 mm
Outer Bearing LM11949/10	45.20 mm	19.05 mm
Grease Seal 28550	59.10 mm	37.5 mm
Grease Cap	45.20 mm	N/A

Slimline Bearing Sets (Ford Inner)

Part/Part Number	Housing Diameter Nominal	Bearing Journal/Seal Journal Diameter Nominal
Inner Bearing L68149/10	59.10 mm	35.00 mm
Outer Bearing LM12749/10	45.20 mm	22.00 mm
Grease Seal	59.10 mm	43.9 mm
Grease Cap	45.20 mm	N/A

Parallel Bearing Sets

Part/Part Number	Housing Diameter Nominal	Bearing Journal/Seal Journal Diameter Nominal
Inner Bearing L68149/10	59.10 mm	35.00 mm
Outer Bearing L68149/10	59.10 mm	35.00 mm
Grease Seal	59.10 mm	43.9 mm
Grease Cap	63.00 mm	N/A

7.3 Springs

Armstrong Trailers uses a variety of springs depending on the type of trailer and load required. The most common springs used are:

7.4 Slipper Springs

Spring Type	Load Rating
3-Leaf	600 kg
4-Leaf	750 kg
5-Leaf	900 kg
7-Leaf	1,400 kg
9-Leaf	1,500 kg



You must inspect the rear spring shackle for wear over time — as the spring slides back and forth it will cut into the rear spring shackle; if worn, it must be replaced (Figure 2).

Check the front spring shackle for wear in the bolt hole (Figure 1).

Parts required for spring fittings:

1. Front Spring Hanger (Figure 1)
2. Rear Spring Hanger (Figure 2)
3. Bolt 12 mm × 80 mm Hi-Tensile (Figure 3)
4. Nut Nylock 12 mm (Figure 4)



Figure 1



Figure 2

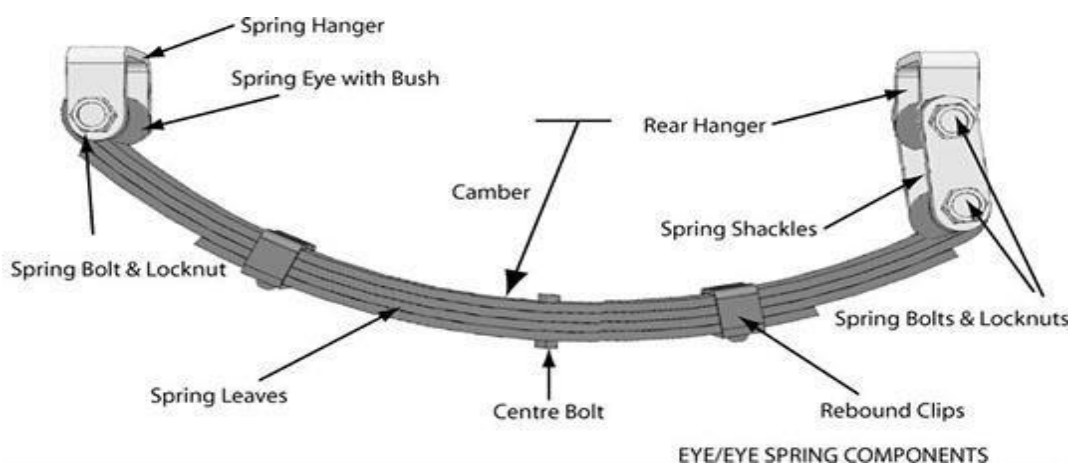


Figure 3



Figure 4

7.5 Shackle Springs



7.6 Rocker Roller Springs

Rocker Roller springs are a load sharing suspension and are used standard on our galvanized trailers, Commercial Trailer, Industrial trailers, Tray top Trailers and all trailers that have a rating over 2000kg.

Rocker springs have wearing parts Roller bush that must be checked for wear, also Grease regularly on the grease nipple points in the centre rocker arm and roller bushes.



7.7 Parts Required for Mounting Axles to the Springs are

There are different size U-bolts and fish plates depending on the axle size (refer to Section 7.2). Parts required for mounting axles to springs:

1. Axle Pads (Figure 1)
2. Fish Plates (Figure 2)
3. U-Bolts (Figure 3)
4. Nut Nylocks (Figure 4)



Figure 1



Figure 2



Figure 3-4

8. MAINTENANCE AND SERVICE RECORDS

Complete a service record each time maintenance is performed. Maintaining accurate records supports any warranty claim and helps ensure the continued safe operation of your trailer.

8.1 Initial — 100 km Service

✓	Initial — 100 km — Item	Action / Notes
☐	Wheel nuts re-torqued (see Section 4.3 for values)	
☐	Tyre pressures checked and adjusted to VIN plate	
☐	Coupling, safety chains, and lights checked	
☐	Load securing reviewed	
Date: _____		Signature: _____

8.2 3 Months Service

✓	3 Months — Item	Action / Notes
☐	Wheels and bearings, check free running and lubrication	
☐	Spring nuts, check tension	
☐	Axle nuts, check tension	
☐	Coupling nuts, check tension	
☐	Brake cable, adjust to load	
☐	Brake shoes, inspect and adjust	
☐	U-bolts, inspect for cracks	
☐	Tyre pressure (cold)	
☐	Wheel nuts, torque check	
☐	Trailer body, wash to remove road grime	
Date: _____		Signature: _____

8.3 6 Months Service

✓	6 Months — Item	Action / Notes
☐	All welds and chassis, inspect, and repair if needed	
☐	Tyre rotation	
☐	Wheel bearing hubs, running-in check and lubrication	
☐	Wheels and bearings, check free running	
☐	Spring, axle, and coupling nuts, check tension	
☐	Brake cable, check and adjust	
☐	Brake shoes, inspect	

✓	6 Months — Item	Action / Notes
☐	U-bolts, inspect for cracks	
☐	Tyre pressure and wheel nut torque	
☐	Inspect the trailer for any cracks	
☐	Wash and remove all road grime	
Date: _____		Signature: _____

8.4 12 Months Service

✓	12 Months — Item	Action / Notes
☐	Wheel bearing hubs, disassemble, inspect, repack (or at 10,000 km)	
☐	Override coupling, regarding grease with hub service	
☐	U-bolts, inspect for cracks and check tension	
☐	Master cylinder, inspect for cracks, leaks, kinks	
☐	Brake lines, verify operation and inspect	
☐	Trailer chassis and drawbar, inspect for cracks	
☐	All welds, inspect and repair as needed	
☐	Spring, axle, and coupling nuts, check tension	
☐	Brake shoes, adjust	
☐	Brake cable, adjust to load	
☐	Tyre pressure and wheel nut torque	
☐	Wash and remove all road grime	
Date: _____		Signature: _____

8.5 18 Months Service

✓	18 Months — Item	Action / Notes
☐	Wheels and bearings, check free running and lubrication	
☐	Spring nuts, check tension	
☐	Axle nuts, check tension	
☐	Coupling nuts, check tension	
☐	Brake cable, adjust to load	
☐	Brake shoes, inspect and adjust	
☐	U-bolts, inspect for cracks	
☐	Tyre pressure (cold)	
☐	Wheel nuts, torque check	
☐	Trailer body, wash to remove road grime	

✓	18 Months — Item	Action / Notes
	Date: _____	Signature: _____

8.6 24 Months Service

✓	24 Months — Item	Action / Notes
☐	Wheel bearing hubs, disassemble, inspect, repack	
☐	Override coupling, regarding grease with hub service	
☐	U-bolts, inspect for cracks and check tension	
☐	Master cylinder, inspect for cracks, leaks, kinks	
☐	Brake lines, verify operation and inspect	
☐	Trailer chassis and drawbar, inspect for cracks	
☐	All welds, inspect and repair as needed	
☐	Spring, axle, and coupling nuts, check tension	
☐	Brake shoes, adjust	
☐	Brake cable, adjust to load	
☐	Tyre pressure and wheel nut torque	
☐	Wash and remove all road grime	
☐	Full bearing repack (if not done at 10,000 km)	
☐	Brake hydraulic system, check fluid level and inspect for leaks	
☐	Inspect trailer body, chassis, and welds	
	Date: _____	Signature: _____

8.7 30 Months Service

✓	30 Months — Item	Action / Notes
☐	Wheel bearing hubs, disassemble, inspect, repack	
☐	Override coupling, regarding grease with hub service	
☐	U-bolts, inspect for cracks and check tension	
☐	Master cylinder, inspect for cracks, leaks, kinks	
☐	Brake lines, verify operation and inspect	
☐	Trailer chassis and drawbar, inspect for cracks	
☐	All welds, inspect and repair as needed	
☐	Spring, axle, and coupling nuts, check tension	
☐	Brake shoes, adjust	
☐	Brake cable, adjust to load	
☐	Tyre pressure and wheel nut torque	

✓	30 Months — Item	Action / Notes
☐	Wash and remove all road grime	
Date: _____		Signature: _____

8.8 36 Months Service

✓	36 Months — Item	Action / Notes
☐	Wheel bearing hubs, disassemble, inspect, repack	
☐	Override coupling, regarding grease with hub service	
☐	U-bolts, inspect for cracks and check tension	
☐	Master cylinder, inspect for cracks, leaks, kinks	
☐	Brake lines, verify operation and inspect	
☐	Trailer chassis and drawbar, inspect for cracks	
☐	All welds, inspect and repair as needed	
☐	Spring, axle, and coupling nuts, check tension	
☐	Brake shoes, adjust	
☐	Brake cable, adjust to load	
☐	Tyre pressure and wheel nut torque	
☐	Wash and remove all road grime	
Date: _____		Signature: _____

8.9 42 Months Service

✓	42 Months — Item	Action / Notes
☐	Wheel bearing hubs, disassemble, inspect, repack	
☐	Override coupling, regarding grease with hub service	
☐	U-bolts, inspect for cracks and check tension	
☐	Master cylinder, inspect for cracks, leaks, kinks	
☐	Brake lines, verify operation and inspect	
☐	Trailer chassis and drawbar, inspect for cracks	
☐	All welds, inspect and repair as needed	
☐	Spring, axle, and coupling nuts, check tension	
☐	Brake shoes, adjust	
☐	Brake cable, adjust to load	
☐	Tyre pressure and wheel nut torque	
☐	Wash and remove all road grime	

✓	42 Months — Item	Action / Notes
Date: _____		Signature: _____

8.10 48 Months Service

✓	48 Months — Item	Action / Notes
☐	Wheel bearing hubs, disassemble, inspect, repack	
☐	Override coupling, regarding grease with hub service	
☐	U-bolts, inspect for cracks and check tension	
☐	Master cylinder, inspect for cracks, leaks, kinks	
☐	Brake lines, verify operation and inspect	
☐	Trailer chassis and drawbar, inspect for cracks	
☐	All welds, inspect and repair as needed	
☐	Spring, axle, and coupling nuts, check tension	
☐	Brake shoes, adjust	
☐	Brake cable, adjust to load	
☐	Tyre pressure and wheel nut torque	
☐	Wash and remove all road grime	
Date: _____		Signature: _____

8.11 54 Months Service

✓	54 Months — Item	Action / Notes
☐	Wheel bearing hubs, disassemble, inspect, repack	
☐	Override coupling, regarding grease with hub service	
☐	U-bolts, inspect for cracks and check tension	
☐	Master cylinder, inspect for cracks, leaks, kinks	
☐	Brake lines, verify operation and inspect	
☐	Trailer chassis and drawbar, inspect for cracks	
☐	All welds, inspect and repair as needed	
☐	Spring, axle, and coupling nuts, check tension	
☐	Brake shoes, adjust	
☐	Brake cable, adjust to load	
☐	Tyre pressure and wheel nut torque	
☐	Wash and remove all road grime	
Date: _____		Signature: _____

8.12 60 Months Service

✓	60 Months — Item	Action / Notes
☐	Wheel bearing hubs, disassemble, inspect, repack	
☐	Override coupling, regarding grease with hub service	
☐	U-bolts, inspect for cracks and check tension	
☐	Master cylinder, inspect for cracks, leaks, kinks	
☐	Brake lines, verify operation and inspect	
☐	Trailer chassis and drawbar, inspect for cracks	
☐	All welds, inspect and repair as needed	
☐	Spring, axle, and coupling nuts, check tension	
☐	Brake shoes, adjust	
☐	Brake cable, adjust to load	
☐	Tyre pressure and wheel nut torque	
☐	Wash and remove all road grime	
Date: _____		Signature: _____

8.13 66 Months Service

✓	66 Months — Item	Action / Notes
☐	Wheel bearing hubs, disassemble, inspect, repack	
☐	Override coupling, regarding grease with hub service	
☐	U-bolts, inspect for cracks and check tension	
☐	Master cylinder, inspect for cracks, leaks, kinks	
☐	Brake lines, verify operation and inspect	
☐	Trailer chassis and drawbar, inspect for cracks	
☐	All welds, inspect and repair as needed	
☐	Spring, axle, and coupling nuts, check tension	
☐	Brake shoes, adjust	
☐	Brake cable, adjust to load	
☐	Tyre pressure and wheel nut torque	
☐	Wash and remove all road grime	
Date: _____		Signature: _____

8.14 72 Months Service

✓	72 Months — Item	Action / Notes
☐	Wheel bearing hubs, disassemble, inspect, repack	
☐	Override coupling, regarding grease with hub service	
☐	U-bolts, inspect for cracks and check tension	
☐	Master cylinder, inspect for cracks, leaks, kinks	
☐	Brake lines, verify operation and inspect	
☐	Trailer chassis and drawbar, inspect for cracks	
☐	All welds, inspect and repair as needed	
☐	Spring, axle, and coupling nuts, check tension	
☐	Brake shoes, adjust	
☐	Brake cable, adjust to load	
☐	Tyre pressure and wheel nut torque	
☐	Wash and remove all road grime	
Date: _____		Signature: _____

8.15 78 Months Service

✓	78 Months — Item	Action / Notes
☐	Wheel bearing hubs, disassemble, inspect, repack	
☐	Override coupling, regarding grease with hub service	
☐	U-bolts, inspect for cracks and check tension	
☐	Master cylinder, inspect for cracks, leaks, kinks	
☐	Brake lines, verify operation and inspect	
☐	Trailer chassis and drawbar, inspect for cracks	
☐	All welds, inspect and repair as needed	
☐	Spring, axle, and coupling nuts, check tension	
☐	Brake shoes, adjust	
☐	Brake cable, adjust to load	
☐	Tyre pressure and wheel nut torque	
☐	Wash and remove all road grime	
Date: _____		Signature: _____

8.16 84 Months Service

✓	84 Months — Item	Action / Notes
☐	Wheel bearing hubs, disassemble, inspect, repack	
☐	Override coupling, regarding grease with hub service	
☐	U-bolts, inspect for cracks and check tension	
☐	Master cylinder, inspect for cracks, leaks, kinks	
☐	Brake lines, verify operation and inspect	
☐	Trailer chassis and drawbar, inspect for cracks	
☐	All welds, inspect and repair as needed	
☐	Spring, axle, and coupling nuts, check tension	
☐	Brake shoes, adjust	
☐	Brake cable, adjust to load	
☐	Tyre pressure and wheel nut torque	
☐	Wash and remove all road grime	
Date: _____		Signature: _____

8.17 90 Months Service

✓	90 Months — Item	Action / Notes
☐	Wheel bearing hubs, disassemble, inspect, repack	
☐	Override coupling, regarding grease with hub service	
☐	U-bolts, inspect for cracks and check tension	
☐	Master cylinder, inspect for cracks, leaks, kinks	
☐	Brake lines, verify operation and inspect	
☐	Trailer chassis and drawbar, inspect for cracks	
☐	All welds, inspect and repair as needed	
☐	Spring, axle, and coupling nuts, check tension	
☐	Brake shoes, adjust	
☐	Brake cable, adjust to load	
☐	Tyre pressure and wheel nut torque	
☐	Wash and remove all road grime	
Date: _____		Signature: _____

8.18 96 Months Service

✓	96 Months — Item	Action / Notes
☐	Wheel bearing hubs, disassemble, inspect, repack	
☐	Override coupling, regarding grease with hub service	
☐	U-bolts, inspect for cracks and check tension	
☐	Master cylinder, inspect for cracks, leaks, kinks	
☐	Brake lines, verify operation and inspect	
☐	Trailer chassis and drawbar, inspect for cracks	
☐	All welds, inspect and repair as needed	
☐	Spring, axle, and coupling nuts, check tension	
☐	Brake shoes, adjust	
☐	Brake cable, adjust to load	
☐	Tyre pressure and wheel nut torque	
☐	Wash and remove all road grime	
Date: _____		Signature: _____

9. CONTACT US AND DISCLAIMER

9.1 Contact Details

Contact Method	Details
Address	75 Midland Hway, Epsom VIC 3551
Telephone	03 5448 3266
Email	info@armstrongtrailers.com.au
Website	www.armstrongtrailers.com.au

9.2 Disclaimer

This manual is provided by Armstrong Trailers Pty Ltd for general guidance purposes only. While Armstrong Trailers Pty Ltd has taken reasonable care in preparing this manual, it does not represent a complete, exhaustive, or definitive statement of all information, hazards, obligations, or requirements relevant to the ownership, operation, maintenance, service or use of a Armstrong Trailers Pty Ltd product.

This manual may not account for every trailer configuration, attachment, or application supplied by Armstrong Trailers Pty Ltd, or a third party, and may not address every hazard or risk that may arise in connection with towing, loading, or operating a trailer. It is the owner's and operator's sole responsibility to exercise appropriate care, judgment, and skill at all times.

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This manual does not constitute legal advice. It is the owner's sole responsibility to ensure that the trailer and its operation comply with all applicable legislation, regulations, standards, and codes at the time of use, including but not limited to the Heavy Vehicle National Law, ADR, and all relevant State and Territory road transport laws.

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