

# **Dunbier**

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## **BOAT TRAILER USER'S GUIDE**

**2018/19**



**MELBOURNE**



**BRISBANE**

**SYDNEY**



**ADELAIDE**

**PERTH**

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### **Maintaining The Trailers Galvanized Surface**

Your Dunbier trailer is coated in a galvanized finish, where the trailer has undergone a chemical process that bonds very hot liquid zinc to the trailer and it's components, becoming part of the base metal below it. The zinc covering forms a sacrificial barrier that protects the steel under the zinc, very similar to anodes provided in modern marine engines. The environment in which the trailer is used, stored and maintained determines the level of deterioration of the zinc. In areas of high humidity, high salinity or poor water quality, it is common for the zinc finish to deteriorate very quickly, **and a higher level of care is required to slow the deterioration of the zinc.**

Trailers must be washed thoroughly after use with fresh water and must be **dry before putting into storage in a garage or a well ventilated area.** This particularly applies to high temperature and humidity area's where the garage temperature will exceed 50 deg with the garage doors closed. This accelerates the deterioration of the galvanized surface. It is most probable that salt residues will also drop onto your trailer from the hull above whilst in storage. If this occurs, please wash as soon as practical to prevent the salt chlorides from reacting with the zinc surface whilst drying.

It is normal as the zinc surface ages, that a white powder formation be evident on the galvanized components. This is normal excretion from the zinc, called a calcium carbonate that forms as a layer over the zinc to protect itself from the elements. This is normally evident in the low drainage points of the trailer, where salt residues collect. If this cosmetic only build-up is worrying it can be removed with a wire brush, but is recommended that for maximum protection to be left alone. By regularly maintaining the galvanized surface of your trailer the life of the zinc coating can be enhanced for many years. **Cosmetic appearance of the galvanized surface is not covered by warranty**

### **3 Month Check**

After a 3month period, or approximately 400km of use, start at the front of the trailer and re-tighten all nuts and bolts. It is the nature of zinc to be a very soft material and after a short period of time , the bolts and retainers work into the soft zinc and require retensioning. This will retension any bolts and fasteners.

### **Couplings.**

Connect the coupling to tow ball on the car by placing the coupling directly over the ball, pull up the handle and let the coupling slide down over the ball then release the handle letting it bottom out on the top of the coupling as shown in **Fig 1**. If the coupling handle does not bottom out, check the towball anti-rattle bolt on the front of the coupling is not screwed to far in and stopping the coupling from going completely down over the ball.

Do-not get into the habit of using the spring loaded catch to hold the plunger in the up position when connecting to your vehicle as shown in **Fig 2**. Around 80% of trailer users drive off with the coupling in this position, it then can come off the ball , drops down on to the trailers safety chain and does a lot of damage to the towing vehicle. Not to mention the safety aspect of the situation.

Mechanical, hydraulic and standard couplings as shown in **Fig 2 & 3**. need to be greased at the points arrowed every six months or when there is no grease present on the shafts, at the same time all the bolts and nuts need to be checked for tightness.

### **Safety Chains**

Connect the safety chain to the vehicle with "D" shackle supplied with the trailer, do not use a key pad lock between the safety chain and the towing vehicle while travelling.

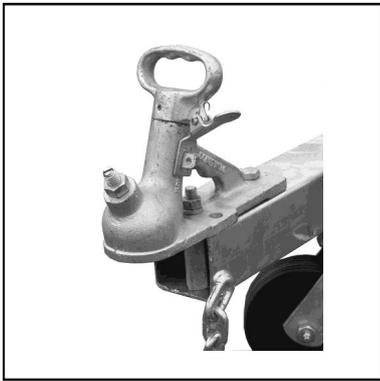


Fig 1.

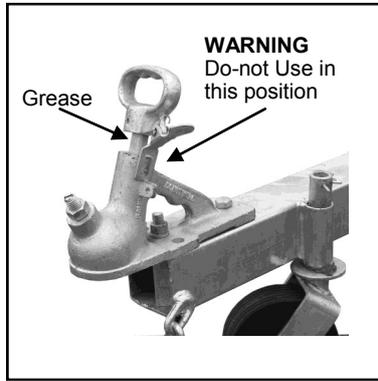


Fig 2.

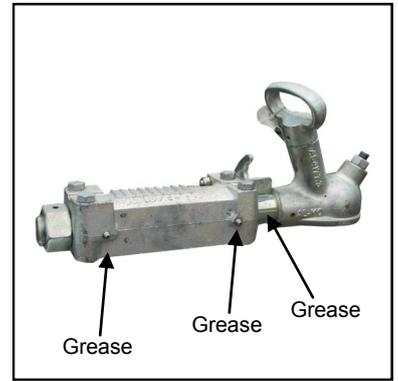


Fig 3.

**Wind-Up or Swing-Up Jockey Wheels**

When manoeuvring your trailer off the vehicle, fitted with wind-up wheels either as standard or optional on any hard or soft surface, the Jockey wheel should be completely in its wound down position as shown in **Fig 2**. With the jockey wheel in its full extended position as in **Fig 3** you will strain and damage the jockey wheel. Bent or strained jockey wheels are not covered by warranty.

**Swing-UP Jockey Wheel Precaution:**

If your trailer is fitted with a Swing-Up jockey wheel be extra careful that when the Jockey wheel is swivelled from horizontal (trailing position) to vertical (manoeuvring position) that the two spring loaded handle extension pins have locked securely into both holes in the jockey wheels mounting plate, before moving the trailer.

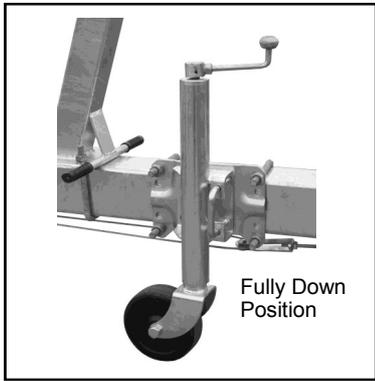


Fig 1.

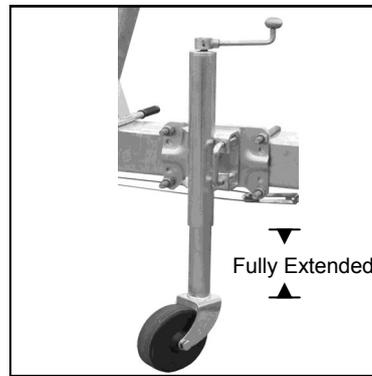


Fig 2.

### **Axles And Springs**

Dunbier recommends that the suspension components be inspected at least twice yearly for any evidence of loose ubolts, bolts and corrosion or breakage of the leaf springs. Painted suspension components should be sprayed regularly with products such as inox type protectants to increase the life of the axles, springs and hubs. Galvanized suspensions require a simular inspection and spraying with the same products and will add to the life of the components.

### **Wheel Bearings**

Should be checked and repacked or replaced every 6 months depending on trailer use. For a quick check, jack up the wheel and give it a wobble from side to side as in **Fig 1**. If there is slack in the bearing you will need to retighten the axle hex nut, then give the wheel a spin, if noisy then change the bearings. If you un-assemble the hub and there is evidence of rust this will also render the bearings unfit for use and require replacement. Part Numbers for bearings and seals shown in **Fig 2**. If your are not experienced in this area seek assistance from a qualified retailer to change the bearings.

### **Wheel Bearing Protectors**

Checking bearing protectors for sufficient grease, with your finger as shown in **Fig 3**. Press on the grease nipple if spongy they have sufficient grease, if firm then they need to be re-greased. Using a grease gun with high temperature wheel bearing grease fill the bearing protector until the spring loaded cap moves outward to contact the retaining circlip. DO NOT OVER FILL. After each trip, check the level of the cap and add grease when necessary. prior to launching..



Fig 1.



Fig 2.



Fig 3.

### **Brakes and Brake Controllers**

The braking system on your Dunbier trailer is generally a disc brake over-ride system, either in mechanical (cable operated) or hydraulic (fluid operated). Hydraulic calipers must be sprayed with an anti-corrosion spray after use and fully serviced every 6 months. Trailers fitted with Hydrastar braking system should cover the Hydrastar unit when standing for long periods to guard against the elements as they are not water proof, never use spray directly with a hose or high pressure spray. Also it is good practice to change the hydraulic oil in the system every 18 months as condensation mixes with the hydraulic oil. For more information refer to your owners manual.

Your mechanical calipers and components are fully galvanized using stainless steel bushes and bolts. The system is reasonably easy to maintain and providing you wash your calipers, discs and cable down straight after a days boating it will provide a long life. Mechanical brake cable generally last some time, however at any sign of deterioration, the cable needs to be replaced. To adjust the tension on mechanical brakes, boat, motor and all equipment needs to be on the trailer. The cable can then be adjusted at the front pulley **Fig 1**. or the adjustment bolt on the calliper **Fig 2**. Remember to leave enough slack in the cable to allow for the flex in the trailer frame.

Trailers with a gross mass over two tonne are fitted with a Hydrastar Hydraulic Electric braking system and disc braked on all four wheels as shown in **Fig 3**. This system needs an in car electronic electric brake controller to operate it correctly, owner supplied and fitted by an auto electrician. The Hydrastar braking unit is mounted high over the coupling and must be kept clear of submersing and high pressure cleaners at all times. A separate Hydrastar manual and wiring diagram comes with the trailer at time of delivery.

Brake controlles- Set brake controller application level approximately half way. Applying too much gain will overheat braking system and bearings. This will affect your warranty.

Hydraulic brake systems require a higher level of maintenance than override mechanical systems, although brake lines are coated , the joiners and hose fittings require regular spraying of protectant. Calipers and pads require yearly service and is suggested that they form part of the boat's schedule yearly service , where callipers are stripped down, lubricated and new pads fitted if required.

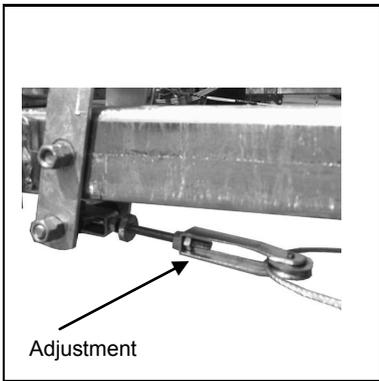


Fig 1.

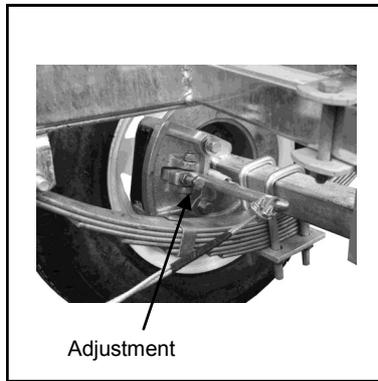


Fig 2.

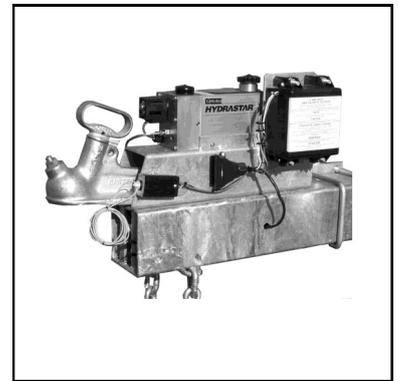


Fig 3.

### **Tyres**

Correct tyre pressures are located on the yellow sticker at the front of your trailer and on the tyre's side wall, regular checks for the correct inflation pressure and uneven tyre wear should be carried out. A boat trailers wheel camber is fixed and cannot be adjusted like a motor vehicle, **a trailers axle will have a bow in the centre between 10mm to 15mm and is in tolerance.**

It is normal for trailers to have a slight run out of wheel camber which in most cases is not noticeable by eye but if the trailer is overloaded or does not have the right inflation pressure in the tyres, rapid wear will occur on the inside edge of the tyres. We recommend for maximum tyre life under normal use, that the tyres be rotated on the rim every 12 months or 6 months for heavy use. If a tandem trailer has excessive side wear on its front tyres only, this has been caused by the trailer not being towed level with the vehicle and has transferred most of the trailers weight to the front wheels. **Note: Tyre wear is not covered by warranty.**

### **Trailer Frame Drainage**

It is imperative that the drain holes throughout the trailer frame are kept clear and checked on a regular basis. This allows for drainage of any trapped water to exit the frame as shown in **Fig 1**.

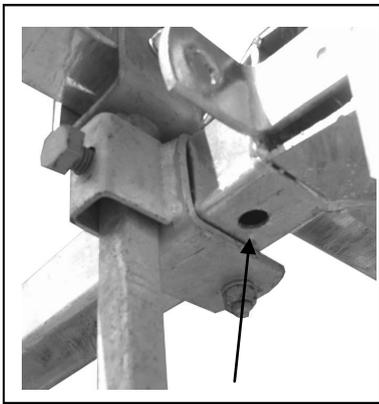


Fig 1.

<p>Problem: In-side edge tyre wear single axle.          Cause: Over loading and tyres not rotated.          Fix: Rotate tyres or rotate on rim.          Problem: In-side tyre edge wear tandem front axle.          Cause: Over loading on the front axle, tyres not rotated.          Fix: Adjust towing level between car &amp; trailer so all weight is on four wheels</p>	
<p>Problem: Side Edge Wear Both Sides of tyre          Cause: Under Inflation.          Fix: Inflate to Correct Pressure.</p>	

**Trailer Lighting**

Lighting and wiring need a six-month inspection to ensure that there is no cracked lenses or corrosion in the wiring loom connecting plugs and the vehicle connections.

**Manual & Electric Winches**

The winches selected for use on your trailer are of high quality, particularly chosen for that trailer load capacity. However, do not overload your winch, use it only for the application it has been supplied for on normal ramp conditions. All winches are fitted with webbing straps, the same material as seat belts. This material is designed for higher load rating and braking strain, compared to equivalent cables. When you finish with the trailer for the day check that the winch strap is dry, if it is still wet unwind the strap off the winch and let it dry out. This will avoid rusting on the winch drum. Oil the winch shafts, bushes and gears periodically when needed.

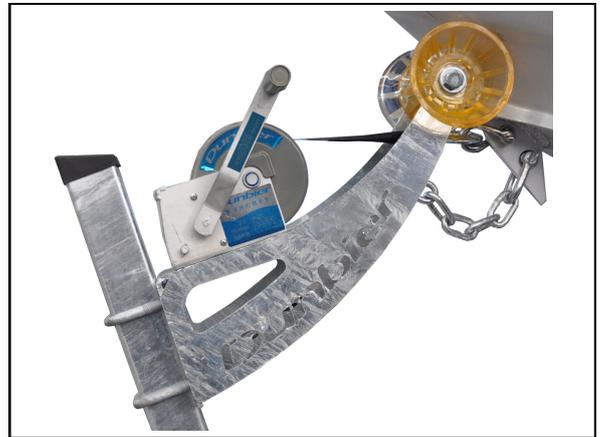
**WARNING BEFORE MOVING YOUR BOAT & TRAILER**

**The Boat Bow Eye Must Be Winched In Firm Under The Bow Eye Roller.**

**Winch Carrier Chain Must Be Connected To The Bow Eye.**

**Boat -To-Trailer To Be In Place**

Failing to do the above may cause damage to the winch and boat which may come off the trailer. Don't rely on the winch strap or cable only, regardless of speed you are towing your boat at. 90% of accidents happen with Bow Chain & Tie-Downs Off while moving at a slow speed up or down a boat ramp.



### **Fitting Boats To The Trailers.**

**For all Boat fit-ups to trailers, adjust winch post and alignment of winch after all other adjustments are made.**

**Sports Series**, Suits both Fibreglass and Aluminium Boats:

Boat should sit hard on all keel rollers, side pads to be positioned as far out from keel as possible then adjusted to take the minimum amount of weight to steady the boat. If they take too much weight of the hull, then the boat will be hard to launch off the trailer.

**Centre-Line Series and Centreline Alloy Series**, Most Suited For Aluminium Boats:

Boat should sit hard on all keel rollers, Centre-Line systems not to be touching any part of the hull, side Teflon skid pads to be positioned as far out from the keel as possible then to be adjusted up firm against the hull of the boat.

**Rollamatic Series**, Suits both Fibreglass and Aluminium Boats:

Set up, with boat sitting firm on the rear cradle and front keel roller, making sure that the rear cradle arms will not hit any strakes when the boat comes off. Adjust all remaining keel and side wobble roller arms up by placing a jack under the leg until all are firm.

### **Fitting Boats To The Trailers.**

**SupaRolla & Alloy Series.** Suits both Fibreglass and Aluminium Boats:

Set the boat on the trailer with all cradles down except the front and rear sets, then adjust each individual set up with a jack under the leg until they are just firm on the hull. All the inside wobble rollers should be as close to the keel as possible, with the outside rollers to be on the far outside of a strake. Every roller should be touching the hull and be clear of any strakes built into the hull.

**Glider Series and Glider Alloy Series**

Setup boat on trailer with all weight on the keel rollers. Roller assemblies or skids are to be setup on the outside of boat chines to aid in centering the boat retrieval.

**AFTER FULL TRAILER ADJUSTMENT YOUR BOAT DOES NOT COME UP THE TRAILER STRAIGHT.**

If all skid pads or roller measurements are correct. Then check that the boat sits horizontal in the water, even a very slight lean will bring the boat up to one side. Move fuel tanks, fishing gear etc, to bring the hull horizontal to the water.

Note: Full multi-roller trailers have a 50mm retrieving tolerance of either side of the centre line of the trailer and this depends on the boats strakes where they are positioned.

## **DUNBIER MARINE PRODUCTS PTY. LTD. (A.C.N.005.081.336) ("DUNBIER") TRAILER WARRANTY**

### **Two Year Frame Warranty**

Dunbier warrants each boat trailer frame and its fabricated steel components including the ball coupling and wheels (but excluding tyres and tubes) to be free of structural or welding defects for a period of two years from the date of original purchase.

### **One Year Warranty**

Dunbier warrants the hot dipped galvanized finished surface of each boat trailer and its components for a period of one year from the date of manufacture on the compliance plate against red rust. This Warranty also extends to galvanized u bolts, nuts, bolts, mechanical braking equipment and the manual winch but excludes the strap or cable.

### **Six Months Warranty**

Dunbier provides a general Warranty as to fitness, for a period of six months from the date of original purchase or within 12 months from the manufactured date on the compliance plate with regard to lighting, hydraulic braking equipment, axles, bearings, seals, tyres (excluding tyre wear), the surface finish of painted or powder coated wheels and jockey wheels.

### **Obligations of Dunbier**

Dunbier shall repair or replace any item covered by the Warranties above, within reasonable time after direction from the Dunbier Office in your state, for the address where the trailer is to be returned.

### **Conditions/Exclusions/Limitations.**

The warranties herein contained extend to the original purchaser (whose details are recorded by Dunbier) only. They do not cover any person to whom a trailer is transferred. Exercise of any of the above Warranties is subject to delivery of the Trailer to Dunbier and to proof of purchase and the date of purchase (as to which Dunbier's records shall be conclusive in the case of disagreement.)

This Warranty does not cover fair, wear and tear on the trailer or the cosmetic appearance of the galvanized surface of a trailer or its components (which change after a trailer leaves Dunbier's factory). It does not extend to rust on painted, powder coated or zinc coated surfaces, brake pads, winch cables, winch straps, bow rollers and keel rollers.

This Warranty shall not extend to any trailer which is found to have been used for off road or any purpose other than that for which it was manufactured; which is found to have been overloaded, (i.e. in excess of the stated mass load on the trailer certification plate), which is altered or modified in any way, or which malfunctions due to prior damage, unreasonable use or failure to provide reasonable and necessary maintenance.

This Warranty will be negated by and Dunbier will not bear any responsibility for any Warranty procedure or charge for work or parts carried out without written authorization by Dunbier.

Except as provided in these conditions, all express and implied warranties, guarantees and conditions under statute or general law as to merchantability, description, quality, suitability or fitness of the goods for any purpose or as to design, assembly, installation, materials or workmanship or otherwise are expressly excluded.

Dunbier is not liable for physical or financial injury, loss or damage or for consequential loss or damage of any kind arising out of the supply, layout, assembly, installation or operation of the goods or arising out of negligence or in any way whatsoever. To the extent permitted by the Australian Consumer Law and relevant state legislation, the sole obligation of Dunbier under this agreement is to use its best endeavours to provide the products, or to repair the products, or repair or replace (at Dunbier's discretion) any part of a product which is found to be defective during the period of warranty.

If the products are supplied to the customer as a "consumer" of goods or services within the meaning of that term in the Australian Consumer Law as amended or relevant state legislation the consumer will have the benefit of certain non-excludable rights and remedies in respect of the products or services and nothing in these terms and conditions excludes or restricts or modifies any condition, warranty, right or remedy which pursuant to the Australian Consumer Law or similar legislation is so conferred. However, if the product is a product not ordinarily acquired for personal, domestic or household use or consumption, pursuant to section 64A of the Australian Consumer Law and similar provisions of relevant state legislation Dunbier limits its liability to payment of an amount equal to the lowest of: cost of replacing the goods or supplying equivalent goods; cost of repair of the goods; the cost of having the goods repaired or replaced.

Dunbier is not to be liable for default or failure in performance of its obligations pursuant to this agreement resulting directly or indirectly from acts of God, civil or military authority, acts of public enemy, war, accidents, fires, explosions, earthquakes, floods, the elements, strikes, labour disputes, shortage of suitable parts, components, materials, labour or transportation or any other cause beyond the reasonable control of Dunbier.

**COMMERCIAL OR OFF ROAD USE:** Dunbier Marine Products P/L do not warrant trailers used Commercially or Off Road or warrant that Dunbier Trailers are suitable for a particular off road or commercial application.

**To our valued purchaser:**

Thank you for purchasing a Dunbier boat trailer.

If you encounter a mechanical problem with this trailer that your selling dealer for some unknown reason, cannot resolve, we at Dunbier would like to hear from you so please feel free to contact our customer relations department at one of our state or international office's listed below.

By purchasing a Dunbier boat trailer you have contributed to keeping Australian manufacturing active in our country. Your feedback and comments are always welcome.

Russell Dunbier  
Managing Director

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