

**MACKAY**

The Boat Trailer Specialists



NEW  
TRAILER  
MANUAL

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## ***INTRODUCTION***

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### **Thank you for purchasing a MACKAY MULTI-LINK trailer.**

Your decision will be well rewarded in the knowledge that:

- The design of the trailer is based on many years of experience
- We strive to construct our trailers with the best materials, components and workmanship, and importantly...
- We stand by our product!

We urge you to read this manual carefully to help you understand a number of critical items including; how to use the trailer, how the trailer makes launching and retrieving your boat quicker and easier, as well as general maintenance tips, and warranty advice.

Keep it handy either in your car or boat, as it may prove useful for general maintenance and servicing of your trailer.

While there are a range of measures that you, the new customer must pay attention to (as described in this booklet), the most critical four (4) issues are:

- 1) Service the bearings regularly – at least every 6 months, and before long trips
- 2) Check that brakes are working properly; clean and service them regularly
- 3) Check tyre pressures and wheel nut tightness
- 4) Ensure your boat is properly tied down to the trailer, and is properly supported by the skids and rollers

As your trailer will be subjected to the harshest of environments, it is critical that you trailer is well maintained and serviced as per the schedule and guidelines contained in this booklet. This will ensure a long and hassle free trailer life, and will ensure that your boating experience is always pleasurable.

Happy Trailing!

THE MACKAY TRAILERS MANUFACTURING TEAM

*The general summary advice contained in this booklet is based on Mackay's experience over the years and should not be interpreted as absolute or complete.*



## **MAINTENANCE SCHEDULE BASICS**

The below information is Mackay's recommended guideline to maintaining your trailer and its components.

### **Boat trailers typically need more maintenance, the less they are used!**

Your trailer's moving components i.e. Brakes and bearings are more likely to seize or fail if your trailer is used infrequently, especially over the winter period. It is recommended that you try to mobilize your trailer every 2-3 weeks, and even a short trip around the block will ensure these components remain lubricated and free moving.

Allowing your trailer to sit stagnant for several months then hitching it up for a long haul at the start of the season without any prior maintenance will result in a very high risk of failure.

Mackay recommends that you perform the following tasks:

- Wash your trailer well with fresh water after each use in salt water especially concentrating on brakes (if fitted) any moving components and areas of high concentration of salt water exposure.
- Wash your trailer regularly with heavy duty truck wash.
- Always allow your trailer to dry before storing away.
- Store your trailer in a well ventilated area with low humidity (if possible)
- Service your trailers brakes and bearings once a year or before any long trip (continuous use for more than a couple of hours).
- Country residents frequently travelling long distances should service their trailer twice a year.

Below is a recommended schedule in **order of preference** of the items that should be checked regularly.

1. Bearings/Lubrication..... 6 months – 12 months
2. Tyres..... Check pressures regularly
3. Brakes (if fitted)..... 6 months – 12 months
4. Wheel nuts ..... Check that these are tight as per recommended torque – 6 months
5. Wobble Rollers and Brackets ..... Visually check regularly – service 24 months
6. Springs..... 12 months (with bearings)
7. Bolts & "U"-bolts for tightness ..... Visually check regularly – service 24 months
8. Coupling ..... Visually check for lubrication and locking regularly – service 24 months
9. Winch ..... Visually check with each use for locking and / or defects with webb strap
10. General Check..... Prior to any use – service 24 months

We also recommend that if you have removed any wheels, that the wheel nuts are again checked after a maximum of 100km.

### ***EMERGENCY BREAKDOWNS – WHAT DO YOU NEED?***

Given the fact that breakdowns occur irrespective of good maintenance, we recommend some preparation and planning that may get you and your trailer mobile with little delay or cost. Most common cause of all breakdowns of boat trailers involves either bearings or brakes.

**We recommend the below rescue components and tools:**

- Spare wheel and tyre
- Lazy or Disc Hub complete with bearings and seal – pre-packed with grease
- Spare set of bearings
- Spare axle nuts and split pins
- Small length of rope or tie down strap
- Wheel brace
- Rubber hammer
- Pliers or side cutters
- Large shifter and small shifter

**THE ADVICE PROVIDED BELOW IS A SUMMARY GUIDE ONLY AND DIRECTED AT TRAILER OWNERS WHO HAVE SOME MECHANICAL EXPERIENCE AND ARE IN AN EMERGENCY SITUATION. PLEASE CALL A LOCAL MECHANIC OR AUTO ROADSIDE ASSISTANCE IF THIS DOES NOT APPLY TO YOU.**

### ***BEARING FAILURE – FITTING A RESCUE HUB***

1. Place your jack under the axle close to the affected wheel as possible.  
Loosen wheel nuts slightly prior to raising the trailer.
2. Remove the wheel using your wheel brace.
3. Remove the bearing buddy or dust cap with rubber hammer by tapping around it to work it out as they are only press fitted.
4. Remove the split pin from the axle nut using your pliers.
5. Rotate the axle nut anti-clock ways with large shifter.
6. Remove the brake caliper (if fitted) by removing the two securing bolts.
7. If only fitting a rescue lazy hub – tie up caliper (leave brake lines connected) to axle or chassis using rope or tie down.
8. Remove the affected hub by using rubber hammer and tapping from behind while gently pulling on it.



9. Clean the axle stub and remove seal.
10. Fit new seal (rubber) and fit rescue hub.
11. Fit new axle nut and tighten fully whilst slowly turning the hub (the hub should get hard to turn)
12. Back off the nut until the hub moves freely and you can see the hole in the axle for the split pin in the right position for split pin (most likely ¼ turn).
13. Fit split pin and turn end over axle stub end and hammer flat.
14. Refit Caliper (if fitted a disc hub) ensure the mounting bolts are free of grease. Ensure the hub still spins freely – if not your caliper may have seized also, in this case leave it off.
15. Refit wheel and tyre and tighten tight as possible.
16. Lower trailer and tighten wheel fully.
17. Refit bearing buddy or dust cap by tapping in with the rubber hammer.
18. Continue on your journey at a slow pace if brakes have been detached and seek mechanical assistance as soon as possible to service your caliper and refit and test brakes.

### **HYDRAULIC BRAKE SEIZURE – REMOVING A CALIPER**

1. Remove the wheel (see advice in section above)
2. Remove the brake caliper from the axle (if fitted) by removing the two securing bolts which hold the caliper to the brake plate. Lift the caliper away from the hub, but leave the brake lines connected (so there is no leaking).
3. Tie up caliper (leave brake lines connected) to axle or chassis using rope or tie down.  
**Note:** Loss of brake fluid from the reservoir has the potential to damage the actuator unit.
4. Check brake fluid in reservoir.
5. Turn your brake controller in your car to lowest setting (if electric unit fitted).
6. Continue on your journey at a slow pace as brakes have been detached and seek mechanical assistance as soon as possible to service your caliper, refit and test brakes.

### **BRAKE FAILURE / NO BRAKES (ELECTRIC OVER HYDRAULIC SYSTEMS)**

1. Check settings on your in car kit and ensure it is adjusted correctly – turn up and test.
2. Check the brake fluid level in the reservoir.
3. Check the Connection from trailer to your car – **this is critical and in most cases is the cause of brakes not functioning.** Ensure the terminal pins and sockets are clean and free of corrosion or dirt and also not squashed flat (each male pin should have a visible slot with an opening in the middle) if this is not the case carefully open up with a small flat head screw driver.

4. If none of the above has corrected the issue – contact your local dealer or Mackay Trailers for repair.
5. **Note that with INITIAL installation of the in-car kit**, the auto electrician must connect a hot wire from the positive terminal on the battery to pin no. 2 on the plug, with a 30 amp fuse.

Whilst the above procedures may get you and your trailer mobile again, it is highly recommended that a full service and check by an authorized dealer or mechanic be undertaken immediately. This will ensure that everything is fitted correctly and in good working condition to prevent a future breakdown and possible further damage to key components.

## BEARINGS

Bearing failure is probably the most common problem attributable to boat trailers. Below is a helpful list that can guide you to the type of bearings your trailer may be fitted with.

Suits trailer typically	Suits tyres typically	Suits axles typically	Inner Bearing	Outer Bearing
Small unbraked trailers, single axle braked models '45' and below, and tandem models '50' & '55'	5.00 x 10, 155 x 13, 155 x 13LT	39mm round, and 40mm solid square	#LM11949/10 HOLDEN LM	#LM67048/10 HOLDEN LM
		50mm tube only if 39mm or 40mm stubs		
Suits braked trailer models '47' and above with exceptions as stated	175 x 13LT, 185 x 14LT	45mm solid square	#LM12749/10 FORD SL	#L68149/10 FORD SL
Suits braked heavy duty trailers normally with GVM rating of 3.5T and above	195 x 14LT, 225/70R15 LT, 31.5 x 15LT	50mm square solid and 65mm tube	#15123 L/CRUISER	#30210J L/CRUISER

\*\*Given Mackay manufactures custom trailers, there would be some rare exceptions to the above.

**YOUR TRAILERS BEARINGS ARE COVERED UNDER A 6 MONTH WARRANTY SO MAINTENANCE AND SERVICE IS CRUCIAL. PLEASE ALSO NOTE THE PROVISIONS OF THE NEW TRAILER WARRANTY AT THE BACK OF THIS DOCUMENT.**



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## **BRAKES**

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Two types of brake calipers can be fitted to your trailer - hydraulic or mechanical disc brakes.

### **HYDRAULIC BRAKES**

These are special marinised calipers that perform very well considering the environment they have to operate in. No adjustments are necessary to this brake - it will automatically adjust itself as the pads wear down. For regular maintenance, check the fluid level in the master cylinder or electric brake actuator unit (if fitted).

When washing your trailer down, don't be frightened to hose the calipers. Put the hose directly on them to give calipers a good wash with fresh water. It is highly recommended that you mobilize your trailer regularly to prevent the caliper pistons from seizing; this will ensure movement and lubrication of the pistons. Even a short trip around the block every few weeks will help.

### **MECHANICAL BRAKES**

The mechanical brake system has a galvanised caliper operated via a cable from the override coupling. Ongoing manual adjustment of the cable is necessary (at least every 6 months). Inspection must be made at regular intervals to ensure the cable is adjusted correctly. This type of brake will not function if the cable is too slack, and will continually operate every time you hit a bump in the road if the cable is too tight.

The correct adjustment is to allow for approx. 10-15mm of travel in the actuation lever at the rear of the coupling before you can feel the brakes starting to grip. Adjusting the brakes is a simple process; your calipers have an adjusting screw secured by a locking nut. To adjust undo the lock nut and then you can either screw the bolt in or out for adjustment.

Best functioning position for the caliper is to adjust the bolt so that the arm pulls at a maximum of 90 degrees to the caliper housing. If you find by pulling on the arm that it travels past the 90 degree position then the adjusting bolt has to be screwed in until the right position is achieved.

If it is less, then bolt will have to be loosened to achieve the same setting. Once this setting is achieved, ensure that the lock nut is retightened. Now set you the handle at your coupling to have 10-15mm play in movement between rear of coupling and handle (part that touches coupling).

You can do this by either using a spacer block or simply locking the handle lock down into the coupling at the correct distance. Finally at the caliper there is a small cable grip on each side, undo one side and pull the cable through as tight as you can, then tighten the clamp. You should now have set you brakes correctly.

**Reversing your trailer with mechanical brakes** - The override coupling has a reversing clip, which is located just behind the coupling head on the round shaft. It will rotate onto or away from the shaft. Its purpose is to lock out your brakes while reversing the trailer. This clip must be rotated onto the shaft to prevent the brakes from being applied when reversing. Make sure clip is located out of the way when travelling otherwise your brakes will not function.

***IF YOUR TRAILER IS FITTED WITH THIS TYPE OF BRAKE, ITS ABILITY TO HELP YOU STOP IS DIRECTLY RELATED TO HOW WELL YOU ADJUST THE CABLE.***



### **COUPLING**

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The premium quality coupling fitted to your trailer is manufactured to meet Australian Standards. It is a precision part designed to take a 50mm-tow ball in good condition. Heavy duty 70mm balls are required when trailers are fitted with special 70mm couplings – however this is only required when the trailer is rated at 3,750kg GVM and up to 4,499kg GVM.

If you have the wrong size ball or it is not of the machined type, you may experience trouble connecting and disconnecting from your vehicle. If this is the case, we strongly suggest you replace your tow ball with the type designed to suit the coupling.

Your coupling is fitted with a safety latch, which doubles as a locking device for fitting a padlock.

The reverse latch must be open on override versions. A reversing latch is usually a feature on override couplings only.

The safety latch must be in the locked down position for travelling – failure to do so will result in your trailer becoming disengaged from your car

### **JOCKEY WHEEL**

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Do not expect too much from the jockey wheel. It is designed only to help maneuver your trailer onto your vehicle. Don't use it for wheeling long distances. If possible, reverse your vehicle to the trailer.

If you must wheel the trailer any distance, lower the jockey wheel into its lowest position. This is a lot safer if something does fail.

Always ensure the jockey wheel release handle and spring loaded pins are correctly engaged into the located holes in the clamp. This will prevent a sudden accidental drop. Always be extremely wary of winding the jockey wheel too high as it becomes unstable.

Inspect your jockey wheel regularly including the clamp. Replace if it is damaged. It is not an expensive item. (If replacement is required don't settle for the cheapest you can find - buy one of good quality).

There are many types of jockey wheels available. Always keep in mind the weight and size of your boat and the use that you require the jockey wheel to do. If you are aware that you may need to push the trailer around a lot, a heavier duty version may be required.

***JOCKEY WHEELS ARE COVERED BY A MANUFACTURER'S WARRANTY. DUE TO CONSTANT MIS-USE AND OVERLOAD, A WARRANTY PERIOD OF SIX MONTHS APPLIES TO THIS PRODUCT IN RELATION TO DESIGN FAILURE ONLY. THIS IS NOT A FULLY GALVANISED PRODUCT AND MUST BE WASHED DOWN THOROUGHLY AFTER USE OTHERWISE CORROSION WILL OCCUR.***

***KEEP SMALL CHILDREN AND YOUR FEET AWAY FROM JOCKEY WHEELS, AS FAILURE TO DO SO HAS BEEN KNOWN TO CAUSE SERIOUS INJURY.***



## **WINCH**

Familiarise yourself with the operation of your winch, especially the release and engagement of the pawl. Do not attempt to wind your winch backward with the pawl engaged. Inspect your winch for wear of the cable or strapping regularly and replace if worn or damaged. If you have a multi-speed winch fitted, make sure you lock the pawl in position before changing speed.

- Do not overload your winch or use it for any other purpose than to winch your boat on the trailer.
- Do not allow children to operate the winch.
- Do not use the winch to stop your boat from rolling off by pushing the winch pawl into gear. This may result in your winch sustaining damage.
- Use a safety rope tied to your boat.
- Ensure that you use separate boat tie-downs and turnbuckles to secure your boat the trailer when towing. Do not simply rely on the winch, as this will result in overloading and failure. See below.

***ALWAYS FIT THE SAFETY CHAIN AFTER THE BOAT IS IN THE FINAL POSITION. IT IS ILLEGAL TO TOW YOUR BOAT WITH ONLY THE WINCH HOLDING IT IN PLACE.***

## **TYRES AND WHEELS**

The tyres fitted to your trailer are brand-new and of high quality. Whether your trailer is fitted with 13" or 14" wheels, the tyres fitted will be a radial ply. Radials have more than proven to us that in the long run they are the best tyres provided they are maintained at the correct pressure.

If your trailer has 10" wheels, the tyres fitted will be a conventional cross ply type. The tyres fitted to your trailer carry the intended load specified on your trailers VIN plate. Most tyres are of high load capacity and all braked trailers are fitted with Light Truck 8 ply tyres.

If you are required to replace the tyres they **MUST** be same size and load capacity.

### **WHEEL STUD PATTERNS**

All current trailers wheel stud patterns are:

- for 10" - HT Holden,
- for 13" and 14" 5 stud - FORD, and
- 14" and 15" 6 stud - Land Cruiser

***ENSURE YOUR TYRES ARE MAINTAINED AT THE CORRECT PRESSURE.  
THE CORRECT PRESSURE FOR YOUR TYRES IS LISTED ON THE TYRE.***

## **LIGHTS AND WIRING**

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Our trailers are mostly fitted with LED lights; these lights are fully sealed and are extremely good for both submerging, as well as providing a bright display. The LED lights are also very low maintenance as they do not have globes like the old conventional lights.

If you find that you LED lights flash when connected to your vehicle, it is due to the vehicle's computer system not being compatible with the trailer's LED lights. Many if not all European made vehicles experience this problem. If this occurs, please contact your dealer or manufacturer. It is likely that you will need a 'load resistor' installed in your vehicle.

The wiring used in your trailer is the 7 pin Australian Standard. All joins are fully soldered and sealed - you should never have a problem unless the wires have been damaged accidentally. If your vehicle is wired to 5 pin, then it is simply a matter of changing the position of the green and yellow wires in the plug to the vacant position next to each connection.

Note the wiring configuration below.

### **WIRING CONFIGURATION**

1. Yellow Wire..... LHS Indicator
2. Black Wire.....POWER SUPPLY (Electric Brake System)
3. White Wire..... Earth Wire
4. Green Wire..... RHS Indicator
5. Blue Wire.....Auxiliary Brake Actuation (Electric Brake System)
6. Red Wire.....Brake Light
7. Brown Wire..... Tail Light

## **TIPS FOR TOWING YOUR TRAILER**

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### **COUPLING AND UNCOUPLING YOUR TRAILER**

**When coupling, always attempt to select level ground.** If this is not possible, use the hand brake (if brakes are fitted) or chock the trailer wheels to ensure the trailer does not move. When preparing to couple to the trailer, always reverse as close as possible to the trailer.

Fit the coupling to the tow ball ensuring that the safety latch is secure. Fit safety chain or chains to your vehicle and connect the electrical plug. Raise the Jockey Wheel and rotate the swing jockey wheel to its horizontal position. Make sure the pins are locked in.

Uncoupling your trailer is basically the reverse of the above procedures, but remember to secure your trailer before leaving it. Chock the wheels and release the hand brake.



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## **HINTS FOR TOWING**

Safely towing your trailer is important for your own safety and that of other road users. It is essential that the trailer tows well behind your vehicle.

The most critical factor determining how your trailer tows is balance. **To achieve this, your trailer should have between 5 and 10 percent of the total rig weight, (trailer, boat, etc) distributed on the tow ball.** Failing to achieve desired weight on the tow ball will cause the trailer to fishtail while towing. Resetting the balance of trailer is a simple task. Just undo the “U-bolts” holding the subframe to the deck and slide it forwards or backwards.

Similarly, bolt-on mudguards can also be easily adjusted by loosening u-bolts, moving axles and mudguards, and then retightening the u-bolts. It is important to ensure that the new axle position/s do not interfere with the trailer’s cross members.

**When altering the axle position, always make small adjustments in the required direction.**

## **CHECKLIST FOR TOWING**

When coupling your trailer to the vehicle, it is a good habit to walk around the trailer and check the items listed below.

- Coupling secured with safety latch locked in the down position.
- Safety chains fitted (Must be short enough to prevent drawbar from touching the ground. Crossing them over will help prevent this.)
- Hand brake in the “off” position
- Electrical plug fitted
- Tyre pressure correct
- Lights operating correctly
- Boat tie-downs fitted
- Winch safety chains fitted

## **LAUNCHING YOUR BOAT**

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*Mackay Trailers’* innovative design enables you to launch your boat easily.

- Be careful the first few times you launch the boat. Do not release your safety chain or winch strap/cable until you are ready to launch.
- Do not undo the safety chain or winch strap/cable on level ground and then reverse down the ramp. The slightest jerk while reversing could launch your boat onto the ramp well short of the water.
- There is generally no need to submerge your trailer deep in the water. If it is a good ramp, you should only have to submerge approximately halfway up the tyres. (and on a tandem – to the axle on the front tyre) This will change obviously with conditions and ramp gradients. When everyone is

clear and there are no boats behind your boat on the water, release the winch strap/cable and give the boat a push.

- **REMEMBER: Tie a rope to the bow of the boat, especially when you are by yourself.**
- Do not use the winch to stop your boat from rolling off by pushing the winch pawl into gear. This may result in your winch sustaining damage.
- Do not reverse down the ramp at excessive speed then slam the brakes on to launch your boat. This is a dangerous practice and it puts excessive strain on the equipment.
- **Allow the bearings to cool down before submersing your trailer.** If you regularly submerge the bearings when launching, it is recommended that you service your bearings more frequently than listed in the service schedule.

### ***RETRIEVING YOUR BOAT***

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The objective is to retrieve your boat quickly and safely in all conditions. If you follow the basic rules, it will give you a sound knowledge of what to do.

- Be careful the first few times you retrieve your boat, until you become familiar with your trailer.
- Even if you are an experienced boatie, this trailer may not be familiar to you. Therefore, during the first retrievals choose fine weather and good ramps.
- Do not drive your boat onto the trailer until you have gained sufficient experience to handle it. Things happen so quickly that a slight error in judgment can cause major damage or injury.
- Winch your boat carefully onto the trailer.
- Always fit your safety chain at the front and boat tie downs at the transom. It is illegal to tow an unsecured boat.
- Never trust only the winch to hold your boat on the trailer. Fit the safety chain to the bow of boat before driving up the ramp with your boat in tow.
- In rough conditions, do not try to retrieve your boat by totally submersing the trailer. The trailer is designed to capture the centre of the bow of the boat, but this can not happen if the trailer is under the water. Make the trailer work for you by not reversing too far into the water.
- All standard trailers are designed to have the boat winched on or driven on, **NOT FLOATED ON.**



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## PREVENTING BEARING FAILURE

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1. **Get your bearings serviced regularly** – at least once per 6 months, and definitely before a major trip. Even if your trailer is not being used, condensation of air occurs in the bearing cavity and can cause rust to commence. Deterioration can happen quickly; and often results in problems occurring at the worst possible time.
2. **Check the grease levels yourself**, either by removing the cap or bearing buddy, or looking through the clear lens of the Durahubs (that *Mackay* use). Milky grease is a sign that it has been compromised by water. Repack the bearing with grease if required, but never overfill the cavity or bearing buddy.
3. **Try and avoid submerging your bearings** (and trailer) too deep in the water if you can help it. *Mackay* trailer designs support the launch and retrieval of your boat without deep submerging of the trailer. On a single axle trailer, aim for somewhere between the axle and top of the guards; and with tandems, do not submerge below the front axle line. How deep you go is also governed by how steep or shallow the ramp is.
4. **Ensure your bearings have a cap, cover or bearing buddy**. Covers can and do fall off; however they should be replaced immediately. So not submerge the bearings of the trailer in the water, without a bearing cover of sorts. You're only inviting water in, and major problems down the line. All *Mackay* trailers are supplied with high quality bearing buddies or covers.
5. **Wait for the bearings to cool off before submerging the trailer in water**. After a long trip to the ramp, your bearings and grease will have heated up – but once the bearings are submerged, the cool temperature will cause the grease to contract and 'suck in' water into the bearing cavity.
6. **Feel your hubs for excess heat when travelling**. They should not feel any hotter than a cup of coffee. If they are 'overheating' then if prepared, attend to them yourself, or head to the nearest garage/workshop for some assistance.
7. **Use the correct grease with your bearings**; this should be a high temperature marine grease, ideally lithium based, that will not degrade with water.
8. **Carry a spare set of bearings** with you; and better still a spare hub with bearings in it – to make any changeover very easy. Also ensure that you have the correct bearings, and that these are well seated in the hub.
9. **Use double lip marine grease seals** for better protection against water ingress. *Mackay* uses the highest quality seals in the industry.
10. **Ensure your trailer is built with the best quality components**. *Mackay Trailers* are built in a quality controlled environment, with quality components and trailers are backed up by a proven warranty. About 3 years ago, *Mackay* conducted a research project in conjunction with Monash University, which resulted in a more scientific approach to bearing quality.

*Mackay* uses the highest quality bearings, and a high lithium, high temperature blue marine grease. *Mackay* has quality control systems in its factory and specialised equipment for injecting grease into the bearing and cavity of the hub. Hubs are cleaned prior to assembly to ensure no dust or metal filings are present.

## WARRANTY

With approximately forty year’s experience, *Mackay* has a long term commitment to customer and aftermarket service. Our New Trailer Warranty (NTW) covers the **FITNESS FOR PURPOSE** of the following items from the date<sup>1</sup> of the original purchase by the Consumer.

Period	What’s covered?
<b>2 years</b>	Trailer frame and subframe against structural or welding defects, trailer coupling and wheel rims
<b>1 year</b>	Hot dipped galvanizing finish against red rust for one year from the date of manufacture on the compliance plate, winch (excluding strap), brake calipers, jockey wheel, roller arms, axles and springs
<b>6 months</b>	Wheel bearings (excluding water entry), lights, tyres (excluding tyre wear), seals, hydraulic braking equipment and surface finish of wheels.
<b>Not covered</b>	<p>Cosmetic appearance, white rust i.e. natural oxidation of the galvanised surface, brake pads and brake cables, winch straps, bow, keel &amp; wobble rollers, skids, rubber wheels, galvanizing on moving components such as springs, axles and other moving parts, misuse, damage caused by alterations or modifications, fair wear &amp; tear, accidents, the effects of overloading stated capacity or incorrect boat setup, roller adjustment or setup alignment, offroad use. Claims Arising from negligence, accidental or consequential loss or damage - to the owner or to a third party, or failure to perform recommended maintenance services.</p> <p>The <b>Mackay NTW</b> does not cover: (1) Trailer owners who are not the original purchaser; (2) <b>Trailer owners who use the trailer for commercial purposes.</b></p>

*Mackay’s* liability is limited to making good on the all warranties, through repair or replacement according to methods or solutions decided by *Mackay* Staff. It is the owner’s responsibility and cost to return the trailer to the Dealer or *Mackay* Multi-Link for approved warranty work.

The Mackay New Trailer Warranty is validated upon return to Mackay of the Warranty Registration on the Mackay Trailers website as per the link at the bottom of this page.

Mackay requires that the Dealer complete the Trailer Scheduled Services - and record details thereof on the Mackay website - for the New Trailer Warranty (NTW) to remain valid.

<http://www.mackaytrailers.com/parts-repairs/warranty-registration>

### DEALER PRE-DELIVERY SERVICE

<sup>1</sup>In addition, *Mackay* requires that the dealer service the bearings and brakes/brake system, and provide timely written proof of this service to *Mackay*, if the trailer is sold in the period 6 months after the date of manufacture.

### AFTERMARKET ASSISTANCE

*Mackay Trailers* have an experienced team that have the knowledge and experience to help resolve problems you may be experiencing, provide advice or just supply general information. You can contact us from Monday – Friday, 8:00m – 4pm as per the contact details below, except during periods of factory shutdown and public holidays.

## **TEN TIPS FOR BETTER TOWING**

1. Make certain your trailer is in good working condition before the seasons use.
2. Always ensure that you carry a spare set of bearings and the necessary tools to replace if required – especially if departing on a big trip.
3. Check your trailers wheel nuts and tyre pressures before use.
4. Always try to allow your bearings and brakes time to cool before submerging in the water. It is very tempting at times! For example: *“Fantastic we just got here! And what great timing... the ramp is free! Let’s get in there straight away!”*. Not allowing these crucial moving parts to cool can lead to shortened life of the parts and even failure.
5. Tie-downs are essential equipment for ensuring your boat is secure and your trailer cradles the boat the way it should.
6. Test and check brakes and lighting
7. Mechanical cable brakes are the most common form of brake system – ensure your brakes are adjusted correctly. There should be approximately 20mm of movement between your Brake handle and rear of coupling piston.
8. Rock your boat from the side very firmly and there should be no movement between the boat and trailer – they should both move as one. If there is movement a roller reset is most likely required.
9. When loaded you boat with gear for the big holiday spread the load so that a down force weight of 10% of your overall capacity is still maintained. Best way to achieve this try to place heavier items directly over your trailer axle and if this can not be done for whatever reason place items of similar weight either side of the axle at approximately the same distance from the trailer axle.
10. Always wash you trailer thoroughly with fresh water after use especially around your trailers brakes and running gear. Store your trailer in a dry and well ventilated area (after it is dry).

**WE TRUST THIS BOOKLET IS OF ASSISTANCE, AND WOULD APPRECIATE ANY FEEDBACK TO IMPROVE FUTURE VERSIONS.**

### **CONTACT INFORMATION**

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