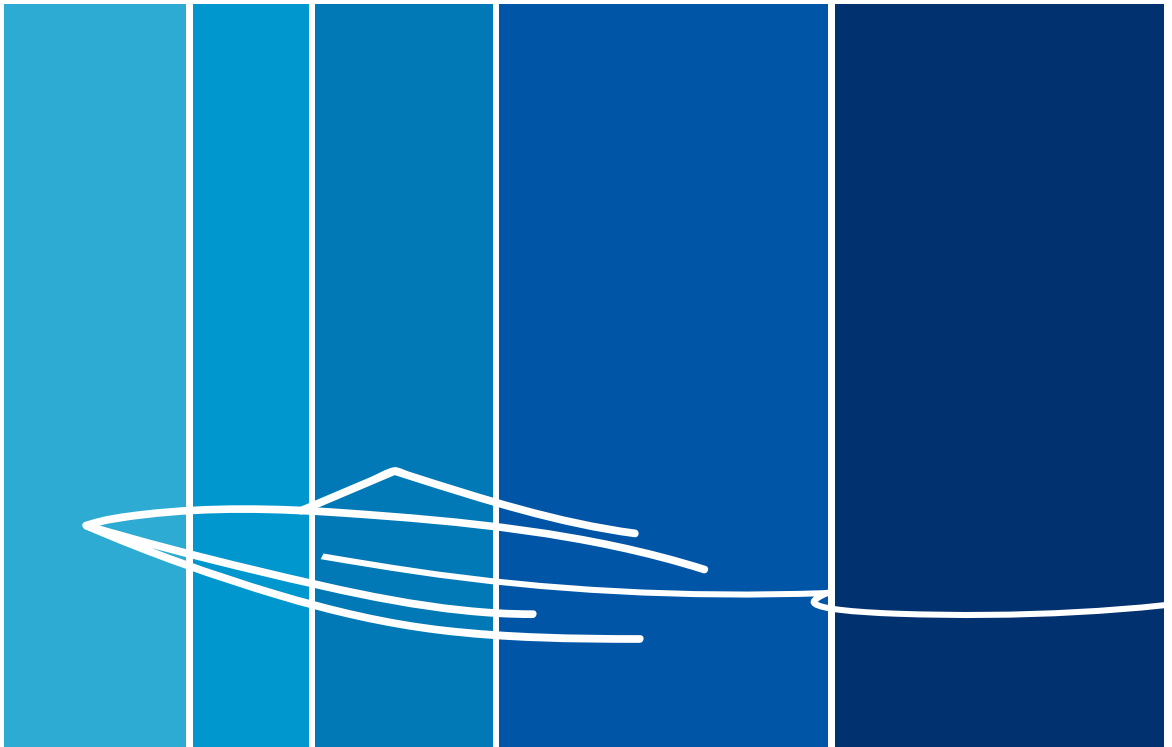


TERRACE | BOATING



ESSENTIAL GUIDE

CONTENTS

Important tips	3
Registrations	3
Maintaining fibreglass hulls	4
Maintaining aluminium hulls	5
Canopy and upholstery.....	6
Windscreens	7
Stainless steel.....	7
Teak	7
Battery care.....	8
Fuelling.....	8
Navigation lights	8
Gauges	9
Trailers.....	10-11
Motors.....	12-13
If you break down on the water	14
Contact information	14
Terrace Boating's final essential boating tips	15

THANK YOU



Congratulations on your purchase and thank you for choosing Terrace Boating. We are proud of the products we sell and want you to have a long enjoyable ownership and relationship with us. At any stage should you have any queries or concerns about the operation of your rig please do not hesitate to contact us.

The following information has been gathered over our many years of experience and is designed to cover areas that may not be mentioned previously or in any manufacturer's books. We consider the following points to be a vital part of 'owner maintenance'. They are necessary not only to ensure hassle free and correct operation of your rig, but also to keep your investment in tip top condition, thus minimising the chance of any further costly repairs.

Whilst the following information has been checked to ensure its accuracy, Terrace Boating does not except any liability in regard to incidents, which may occur through errors and/or omissions.

Kind Regards, Terrace Boating Management

IMPORTANT TIPS

As mentioned previously, the following material has been collected over many years experience and is provided to help you as a supplement to what may not be covered in the owner's manuals.

However, please **read all relevant owners manuals** carefully and carry out their recommendations, as these are more specific to the particular product.

Boat ownership also carries with its responsibilities to yourself, your boating companions and to the general public. Make sure that you are familiar with all the rules and regulations of operating your craft. The respective state authorities have more information booklets on these subjects.

It is very important that you record all the serial numbers that make up your rig. Make sure that you not only record the numbers of the boat, motor and trailer, but also any accessories that may be fitted i.e. depth sounders, radios etc. Such information will be vital in the event that the rig is damaged or stolen.

REGISTRATIONS

New Boats

Your new trailer registration is included at pickup and your Maritime boat registration will arrive in the mail (this can take up to 8 weeks to arrive). Please contact us if you have not received it in this time. New registrations will be in your name.

Used Boats

Your trailer and boat registrations are included at pickup. These will be signed over to you and you will need to transfer them into your name within 14 days at Service NSW. If the registration papers are not available at pickup, they will arrive in the mail and the above mentioned transfer rules apply. We will provide you with a new invoice for transfer purposes.

MAINTAINING FIBREGLASS HULLS



Salt water is probably the biggest enemy of all boats. Always wash the salt water from the hull as soon as possible. This also applies to both the motor and trailer as well as any articles that may have been used in the water such as ski ropes, jackets, kneeboards, fishing gear etc.

Any fibreglass boat can be washed with a soft cloth or sponge and soapy water. Be sure to hose the boat well and make sure that it is left in a storage position that will allow the water to drain to the back of the hull and out the bungs.

The amount of polishing required will depend on where the boat is stored. It is preferable to store the boat out of the sun either in a garage/carport or under a large tarp. If this is the case then polishing once a year with a fine cut polish should be sufficient. For those boats that are moored or stored in direct sunlight then more applications may be needed. If the surface has become dull, an extra cut polish will be required and should be followed by a fine cut.

Harsh marks and grease can be removed from the hull with a solvent. Use a small amount on a cloth and be sure to avoid contact with any chine tapes and stickers.

Sterndrive motors should if possible be left with the engine cover open or at least left ajar. This is to limit condensation in the engine compartment thus minimising the chance of engine parts rusting. Do not do this if it is possible that rain or dirt/dust can enter the engine compartment. It is also crucial that sterndrive hulls be left with the bung out as the starter motor is located quite low on the engine and just one night of heavy rain is enough to submerge it.

MAINTAINING ALUMINIUM HULLS



As with fibreglass hulls, aluminium boats should be washed as soon as possible with a sponge and soapy water. Make sure the boat is hosed out well, both inside and out, and is able to drain properly.

Do not under any circumstances leave hooks, sinkers or any metal objects in the bottom of an aluminium hull, as this will trigger a serious corrosion problem. Paintwork and corrosion damage is not covered under manufactures warranty.

CANOPY & UPHOLSTERY



Canopies and seats should also be washed when washing the boat to remove any salt. Canopy zips can be lubricated with a silicon spray or candle/surf wax if needed. Press-studs will slowly become harder to use and will eventually fail or rip out of the canopy. Canopy clears must never be wiped when dry, as fine scratching will result. Clean with a wet soft cloth.

When towing on highways it is important to remember that you will probably be travelling at twice the speed that you would be going on the water. Most canopies are not designed for this and should be lowered for towing.

Seats and cushions must be left in a position where they will drain and dry and should have a protective coating, like Armoral, applied twice a year.

MATERIALS

WINDSCREENS

It is not easy for boat manufacturers to make windscreens watertight. Sometimes in heavy rain or under direct application of a hose, leaks may occur. The use of non-setting flexible sealants (Sikaflex, Silastic) can reduce this, though they are not very cosmetically attractive. Always wet perspex screens before cleaning with a soft cloth and never allow anyone to wipe them when they are dry or fine scratching may result. Fine scratches can be removed by polishing with a perspex polish or Brasso. Do not polish in a small area as visual distortion may result. You are better off to polish the whole section of a screen that is damaged.

STAINLESS STEEL

All stainless steel, especially in salt water, will eventually develop surface rust or browning. This can easily be removed with a metal polish. Polishing once or twice a year anyway will also help to reduce this and will leave rails etc, bright and shiny.

TEAK

If your boat has teak fitted, maintenance will depend on if it is stored in direct sunlight or not. Teak should be oiled with a teak oil and dry cloth a couple of times a year (more if it is in direct sunlight) and when new, it should be done two or three times in the first couple of months to saturate the wood. Never varnish teak, as the natural oil in the wood will cause any varnishes to flake off.

MAINTENANCE

BATTERY CARE

Most marine batteries are fairly low maintenance and generally only require maintenance of the water levels and terminals. This should be done about every six months or so. Make sure that the terminals are clean and are all fastened tightly. Never disconnect the terminals or turn a battery switch while the motor is running, as alternator damage will result. If your boat is fitted with a battery switch it is a good habit to make sure that it is turned off when the boat is not in use. Every battery will eventually discharge itself over two or three months depending on its age so make sure that you check its condition before you get to the ramp.

FUELLING

Consult your owner's book for the correct type of fuel. We do not recommend any fuels with Ethanol. If spillage occurs during filling make sure that excess fuel is washed off immediately, as it will damage tapes and stickers. Full or semi full fuel tanks can also pressurise on hot days and cause spillage out of the breathers. Try to avoid this, as damage to tapes will also occur and unfortunately this is not considered a warranty claim by the manufacturers.

NAVIGATION LIGHTS

Consult your owner's book for the correct type of navigation lights and the correct fitting and positioning procedure. **It is imperative if you are on the water at night, that the correct navigation lights are fitted and are according to Australian standards. Serious dangers and fine may result if not in accordance to requirements.** If unsure consult Maritime NSW.

GAUGES



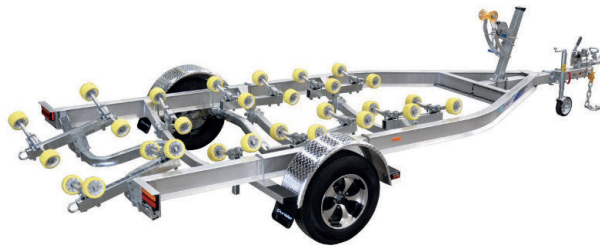
We have found that it is not uncommon for instruments to develop a certain amount of condensation under the glass. This is often the result of atmospheric or storage conditions and will usually disappear over a short time. The condensation will not interfere with the function of the gauge and replaced gauges will possibly still do the same.

Fuel gauges should only be used as a general indicator of fuel levels. Irregular shaped tanks and the location of the sending unit in the tank can introduce considerable error in the fuel gauge reading. We recommend that you start with an empty tank and note how much fuel is needed to reach each marking on the gauge. You will then know when it is time to top up. Remember however that the angle of the tank is going to differ depending on the load in the boat, whether the boat is on a trailer or whether it is on the water.

Speedometers generally rely on water pressure to give a speed-reading. If the intake becomes partially blocked inaccuracies will occur. Jellyfish, weed and mud will cause total or partial failure of the speedometer. Clean the tube usually at the leading edge of the gear case with wire or a drill bit (by hand) slightly smaller in diameter than the tube. If compressed air is available "reverse flush" the tube at the gauge end. Most speedometers will not work below 20kph/12mph.

TRAILERS

As most trailers are delivered to us in either a stack or on the back of a truck, the grease in the hubs has had very little time to work itself through the bearings. As part of our pre-delivery we pump extra grease into the hubs before the boat is delivered, however, more will be needed.



After the trailer has done approximately 20 to 30kms and the grease has all settled there will be air pockets that develop inside the hub. Wherever there is air then the chance of water entry is obviously higher. After this time frame we strongly recommend that you pump more grease into the hubs via the bearing mates (if fitted) to get as much air out as possible. Make sure that an appropriate marine wheel bearing grease is used. Be sure to not overfill the hubs as this can put excess pressure on seals. Most bearing mates have a spring-loaded plate that begins to move when the hub is reaching capacity.

This process must be repeated if and when the bearings are ever replaced. It is recommended wheel bearings are checked/replaced every 6 months and they are considered a consumable item and hence are not covered under manufacturers warranty.

TRAILERS CONTINUED

The most important maintenance for trailers is to hose down the frame, springs, brakes and axles to ensure that all salt is removed as soon as possible. If it is at all possible, try and do this at the ramp. If not, as soon as you get home. For those trailers with mechanical disk brakes make sure that you get underneath and hose across to the brake on the other side. Lubrication needs to be applied to pivot points on the calipers, and the pads and cable need to be regularly checked for wear. Brakes on trailers are required in NSW if the tare weight of the package is over 750kg.

Trailers with hydraulic drum brakes require greater attention. It is our recommendation that the hubs be removed periodically (at least twice a year) and the brake components sprayed with some form of protectant. Be careful not to spray the pads, or the drum, as this may cause the brakes to lose effectiveness or even fail.

The fitting of flushing hoses will help reduce drum brake corrosion. A regular check of brake adjustment and wear by us is also recommended. The best time for this to be done is when your boat is in for service.

The rollers and winch gears will also need to be greased periodically. The easiest way to do this is with the boat off the trailer and it should be done approximately once or twice a year. Those trailers fitted with bearing buddies on the hubs will also need to be topped up with grease periodically particularly if the trailer is taken on long hauls. Do not overfill the bearing buddies as this can cause the back seal on the axle to blow out. If you wish, axles and springs can also be coated with some form of protectant such as fish oil or grease to help reduce rusting.

If a trailer is taken on a long haul try and allow the bearing to cool down before immersing them in the water. If they are still hot when they go under the water the heat will naturally suck a bit of water into the bearing regardless of the condition of the seals.

It is also recommended a spare wheel be carried at all times with you in the event a flat tyre occurs. A spare wheel bracket and lock are available to fix the spare wheel securely to your trailer.

MOTORS



Be sure to read the motor manual for correct starting and operating procedures. Some helpful points that may not be mentioned in the manuals are as follows.

During the 'run-in' procedure, as a result of the engine (2 stroke carburetor outboards) running double oil, it is quite common for the engine to smoke a bit more and run 'rough' at idle. A good idea is to also, if possible, open a front clear or hatch to create air flow. This will blow out any smoke caused by the excess oil.

Do not be alarmed if during the 'run-in' time you notice a small amount of black oil dripping from the exhaust. This is just unburnt excess engine oil running back down through the motor. Once you stop running double oil this will correct itself.

As the cowl is fibreglass it is a good idea to polish it with a fibreglass polish to help protect it from the sun and salt. Spraying the motor under the cowl with a water displacer is also recommended every 6 months or so.

Most outboards and stem drives have a start-in-gear protection device. This prevents the motor from starting, unless it is in the neutral position, it has not quite fully engaged neutral gear. If you turn the key and absolutely nothing happens then either wiggle the control handle or gently put it into gear and pull it back into neutral. The motor should now crank over. If the motor is fitted with a safety cutout device then always check its connection if the motor will not start.

MOTORS CONTINUED

To avoid damage to the shift linkages only ever shift gears on an outboard or sterndrive with either the motor running or while the motor is turned off and somebody is rotating the propeller. When shifting gears to move underway, always shift with a firm movement so that the clutch dog engages quickly. Shifting slowly will cause the gears to make a ratcheting noise and wear the edges of the clutch dog over time.

The trim of the motor adjusts the angle at which the outboard or sterndrive leg runs across the water. Correct trim position will depend on a number of factors such as water conditions, boat speed, weight content and weight distribution in the vessel.

As a general rule you have the motor in the fully down position when getting onto the plane. This will help keep the nose of the boat down and the boat will come on to the plane faster and flatter. Once on the plane the motor should be trimmed up a little and you will feel the nose of the boat and the revs of the motor pick up. If you trim up too far then the boat may start to 'porpoise'.

As you trim up you will also feel the steering go neutral and come into balance. This is the best way to determine the right angle to run the motor. If you trim down you will feel the best way to determine the right angle to run the motor. If you trim down you will feel the steering pull one way. Also it will pull in the opposite direction if you trim up too far. We strongly recommend that you spend a few hours, if you are new to boating, experimenting with different trim positions at different speeds. Please refer to your owner's book to obtain the full benefit of power tilt and trim adjustments.

In most applications best trim when outboard is 90 degrees to water surface, optimum trim will reduce load on motor and return the best fuel economy.

WHAT DO I DO IF I... BREAK DOWN?

Whilst this is very rare, 90% of the time it is something straightforward like the kill switch cord not clipped in properly or a breather not undone on a fuel tank so stay calm and slowly go through the entire manufacturer's recommended procedures and checks. If you have a phone with you by all means give us a call and we will be of assistance if we can.

We are however unable to offer an 'on-water' breakdown service. This is provided by Marine Rescue NSW and The Water Police. It is a good idea to have their contact call signs or phone numbers available in your boat. We recommend also that you become an auxiliary member of your local volunteer rescue organisation.

CONTACT INFO

Terrace Boating

Phone Number: (02) 49 835 600
Office Hours: Mon-Fri: 8.30am-5.00pm
..... Sat: 8.30am-3.00pm
..... Closed Sundays

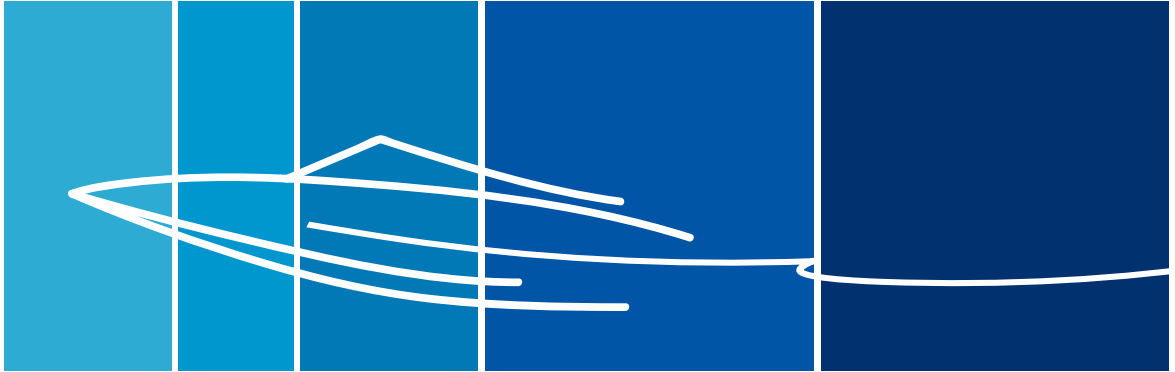
Marine Rescue NSW

Port Stephens: (02) 49 813 585
Lemon Tree Passage: (02) 49 824 981
Newcastle: (02) 49 278 237
Lake Macquarie: (02) 49 713 498

Water Police

Newcastle: (02) 49 028 230
Nelson Bay: (02) 49 849 012

TERRACE BOATING'S FINAL ESSENTIAL BOATING TIPS



As mentioned, boating carries with it many responsibilities to yourself, your passengers and the general boating public. Make sure that you are licensed if necessary and familiar with the rules and regulations. Always tell someone when you are going out and what time you expect to be back. Always check the weather forecast before leaving and don't go if the weather looks unstable.

Also, always be aware of the level of alcohol consumption by yourself and your passengers. The boat capacity plate gives a guide to the maximum number of passengers in good conditions. Always make allowances if unfavourable weather conditions are predicted. In adverse circumstances such as crossing a bar the maximum load may need to be considerably reduced.

In Conclusion...

Thank you once again for choosing Terrace Boating for all your Boating needs. If at any time in the future you need assistance for any boating request or concern please don't hesitate to contact our friendly and helpful staff at Terrace Boating.

We hope that this "Essential Guide for Owners" has increased your boating knowledge and also be used in the many "on water" years to come.