

# TSAC Boat Preparation Guidelines

These guidelines are not intended to be a comprehensive set of instructions on how to prepare a boat for towing, but simply to highlight the main points that need to be considered.

These can be split into 3 main categories:

1. Preparing for towing
2. Equipment
3. Before you Leave & On Return

**Note:** TD1 is the orange boat and TD2 is the red boat.

## Preparing for Towing



The Shogun keys are in the white cupboard by the workbench. TD1 has loose petrol tanks which are kept under the seat of the boat and TD2 has an underfloor fuel tank. **Check they are both full, and, if necessary, send someone off with the Shogun to get fuel.**



There are Fastfuel cards which can be used to buy diesel for the Shogun and petrol for the boats (unleaded) – this will only work at Texaco and Morrisons' garages, including Shinner's Bridge garage near the boatshed. The cards should either be in the cupboard or in the centre console of the Shogun. You need a PIN number which is written on the inside of the key cupboard door.



There are 2 cards, each with it's own PIN number – check which one you have.....



The card in the Shogun is with a book for recording mileage and how much fuel was bought.



TD1 uses the type of fuel can shown in the foreground. There are also spare cans used for carrying extra fuel for long trips/expeditions, as shown in the background.



This is the fuelling point in the bow of TD2 just in front of the console. Be very careful when fuelling that you don't get fuel on the deck as it is easy to get "blow back" if you wait for the pump to automatically cut-out like you would with a car.



Also, please don't fill to the very top as this can cause fuel to vent (see below).



TD2 has 2 vents for the underfloor fuel tank, one on the front of the console (the silver "disc" shown in the middle of the photo above).



And one to the rear – make sure these are not obstructed with equipment/dive kit.



The boats have trickle chargers which need to be disconnected before moving the boats. Make sure that the door to the battery compartment is locked in place once the charger cable has been disconnected – you just need to separate the connector block.





Both boats have isolator switches fitted. These need to be turned-on when you arrive, or you won't be able to raise the engine. **It is vital that the switches are left in the off position when the boat is left unattended for any length of time, or when the boat is returned to the boatshed, or the battery may go flat.** This is the isolator on TD2.....



and this is TD1. When charging the two outer (red) switches will be vertical and the central (yellow) one horizontal. Switch them over as shown to power-up the boat. You also need to disconnect the Shogun charger.



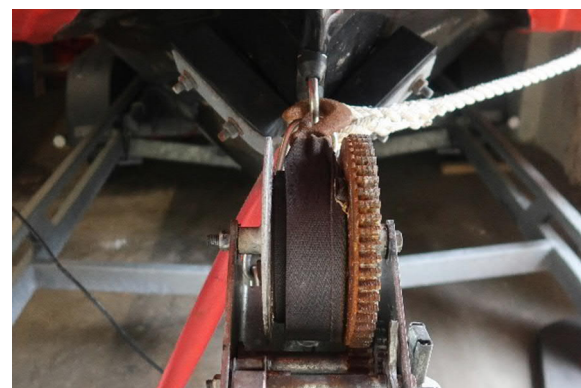
Check the boat tubes are fully inflated and give them a pump if required.



The arrow in the last photo is to the valve where the pump is inserted.



Also check that the rollers on the trailer are lying against the hull and providing support – this is really a check for recovery and boat preparation for towing after diving.



**Make sure that the boat is fully wound against the trailer stop roller and that the winch strap is tight.** It is also worth making sure that the winch is geared to wind and not unwind.





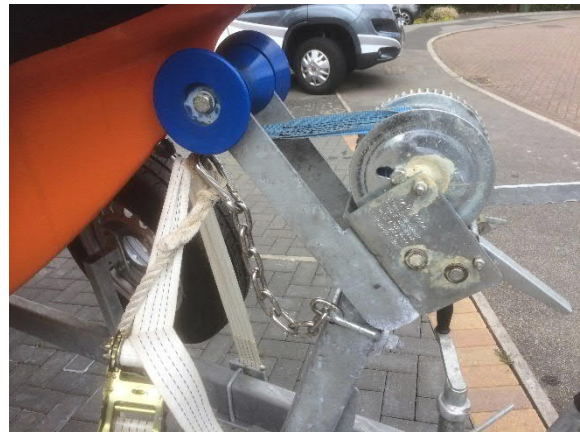
The keel of the boat should be central to the roller stop. If it isn't, loosen the winch and straps and get some help to move it into the correct position. This is TD1, and the previous photo shows TD2.



Avoid twists in the winch strap as this will weaken the strap over time.



**Once the boat is winched in position attach the securing chain to the trailer, as a back-up in case the winch or strap fails.** Make sure the winch strap is tight (not loose as shown in the next photo). It also minimizes any tendency for the front of the boat to bounce during towing. This is TD2.....



and this is TD1.



The boats should be strapped down for towing, with straps at bow and stern, as shown below – this is TD2.



TD1 has the same strapping arrangement, but the fixing points differ very slightly.





This is the front strap on TD1 – it goes through the eye bolt on the bow and down to another fixing eye on the other side of the trailer.



TD2 has a similar arrangement – note fixing cleats for strap are on the cross-bar and not outside stringers unlike TD1.



This is the rear strap on TD2. It goes from the trailer up through the eye bolt on the transom, across the engine mounting, through another eye bolt and then back down to the trailer. TD1 is the same.



This is the rear of the trailer for TD2 – the strap end without the ratchet attaches to the rear eye. Note also the securing screw for the trailer bar. Make sure they are tightened before leaving!



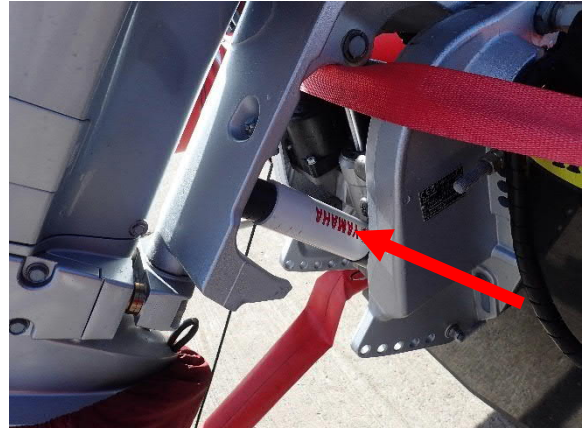
The end with the ratchet is fixed further forward, otherwise the ratchet rubs against the underside of the hull. This is TD2.



And this is the rear strap to TD1 - note position of ratchet.



The boat engine needs to be raised a little before you pull it out of the boat shed to avoid it striking the ground by the door, and then raised fully.



There is a “rest” that the engine should be lowered onto before trailing – see the white “tube” in the middle of the picture of the engine (it “lives” in the stern of the boat when not in use).



Once the engine is on the “rest”, put the propeller cover on and tie it back to the transom.



However, when you’ve been diving and are leaving the launch site, leave the “elephant’s trunk” down to allow the hull to drain on the way home.



Make sure that the trailer board is securely attached to the trailer bar – this is TD2.



And this is TD1.





**Make sure that the jockey wheel is up and locked in place before moving off.....**



There is a securing pin on the top of the jockey wheel to TD2 which needs to be engaged before moving off - this stops the wheel from winding down while under tow.



**and that the handbrake is off** –the handbrake cable should be hanging loosely and not taut.



There is also a locating pin at the bottom.



The emergency brake cable should be secured to a “hard” point on the towing vehicle – it pulls the handbrake on should the towbar coupling fail.



Remember to plug in the trailer electrics, and make sure the cable doesn't drag on the ground, but there needs to be enough slack to allow for cornering.



Both trailers have 13-pin connectors and require an adaptor for the Shogun and older style tow hitches.

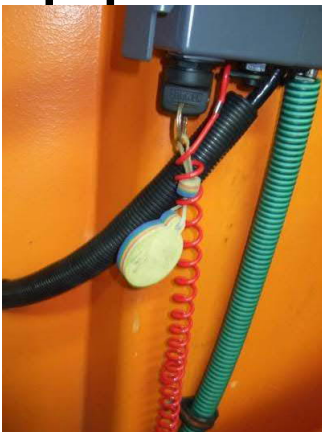


If not connected, then the adaptor must be pushed into place and the rotated to lock and unlock it.



Please remember to put the adaptor back together after towing if you have taken it apart, so that it's available for the next person towing!

## Equipment



Make sure the boat key is in the ignition – it has happened.....



**Always clamp the trailer when you leave it unattended (except in the boatshed) – we're not insured if the trailer isn't clamped.**





There are two clamps and they are both kept in a carrying case like the one shown above. Make sure you have the correct one (the cases are labelled) and that the key is in the case.



Don't forget the handheld radios (check that they are charged).



The oxygen kits and the AED are kept at the back of the boatshed. There are 2 Marinor kits and 1 older one in a grey Peli case (both shown above). Check the green light in the AED is blinking before closing the black case.



Check that the cable tie is intact on the grey kits or the duct tape is across the top of the Marinor kit - this shows that the unit hasn't been opened since it was last checked.



The Marinor kit in TD1 can be secured in the bows using the chord that ties the pump bag to the bow cleat, but slotting it between bag and bow.



The one on TD2 sits onto the bottle rack and is secured with bungees – make sure the lid is facing the stern.



This is the console of TD1.



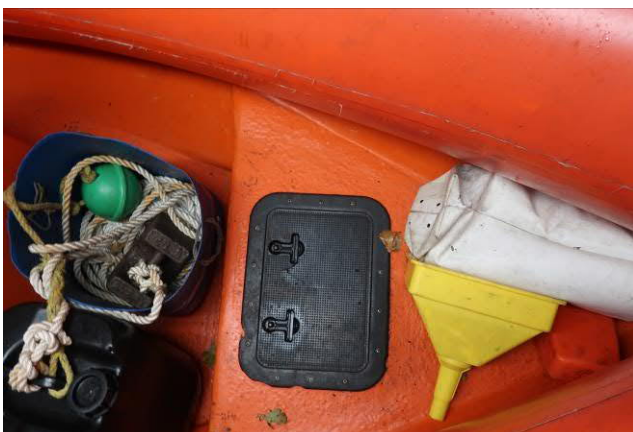
And this is the console on TD2. Both chartplotters are permanently built-in.



Both boats have a switch panel beneath the steering wheel (the picture shows TD1). All switches should be in the off (up) position when the boat is not in use.



The switches are clearly labelled and those for the chartplotter and radio need to be turned on before use. **It is essential that the units are turned on and off using their individual power buttons and not by using the switch panel.**



Make sure you have a pump, a funnel and an anchor and that the anchor is tied in. (Note – the anchor isn't immediately visible when you look at the bows as there in an anchor locker).



You will also need a shot – the Dive Manager (DM) will advise the length required.





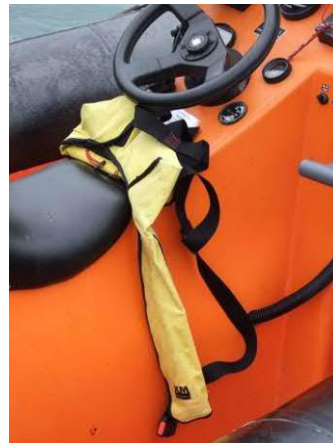
Make sure you have an A-flag and radar reflector in each boat. **The reflector is transported in the boat when on the road, to avoid hitting car park barriers, etc, ...**



and put up once the boat is ready for launching – use the sleeve behind the boat handler for the reflector. **The reflector must be taken down again once the boat is back on the trailer.**



TD1 has a collapsible ladder stored behind the seat. Each boat should also have a lifejacket in it for the boat handler.



**This should be clipped around the bottle rack when the boat is being trailed, to avoid it blowing away.....and not left lying over the seat like this!**



If you are bringing spare fuel make sure the cans are tied in securely before towing. Always use the “boat” type fuel cans in preference to the jerry cans (TD1 only). **All the cans (including those under the seat) should be transported with the bleed screws closed to avoid spilling fuel in the boat – but don’t overtighten the screws!**



However, once on the water the bleed screw on the tank in use should be opened. **They should be checked periodically to make sure they haven’t vibrated shut.**



It is also worth knowing that there is a lever under the seat of TD1 above the fuel cans that allows you to switch from the front can to the back (or vice versa) without having to disconnect the fuel lines – very useful when you are out at sea!



The lever goes midway (photo on left) to rear (photo above). Make sure the breather vent is open on both tanks before going to sea, otherwise you will suck in the can you've just switched to!



There is a fuel gauge on the console of TD2, but It can give a false reading if the boat trailer is on a slope, such as the driveway to the boatshed.

## Before you leave



**The tower should give the boat a quick check over before leaving**, including that the trailer board lights are working – they're the one who gets the points on the licence if anything is wrong!



Lower the barrier and padlock it and leave the signs out to make sure that the parking bays remain unoccupied until you return.



## On Return

If there are members of the public around you need to take care that no-one tries to walk behind the boat when you are reversing it.



Give the boat a thorough washing down with the hose both inside and out. Also rinse the rear of the Shogun and chassis.



There are 2 hoses just inside the boatshed door. 1 has a nozzle end and is used for washing down and the other is connected to the “ears” (see arrow) which fit over the engine water intake.



The wheel hubs should also be rinsed – all you need to do is to connect the hose to the connector on the trailer and turn the water on for a minute or two. This is TD2, behind the wheels on the left hand side.



And this is the connector on TD1, in front of the wheels on the left hand side.



Give the engine a thorough rinse with fresh water – let the engine run for at least 5 minutes – **but never run the engine without the water turned on.**



This is how the “ears” should be positioned on the engines. **Always check for the telltale when the engine is running. Also, don’t use both hoses at once if flushing the engine as there isn’t enough pressure and it will overheat.**



When you put the boats in the shed, lower the engines once you’re about halfway in, so they don’t hit the rear wall (the skeg should just be clear of the ground). The engine on TD2 also needs to be rotated to starboard (right) so the boat fits in the shed.



Once the boat is fully in position (there are paint marks on the floor to indicate where the wheels should be) chock the wheels.

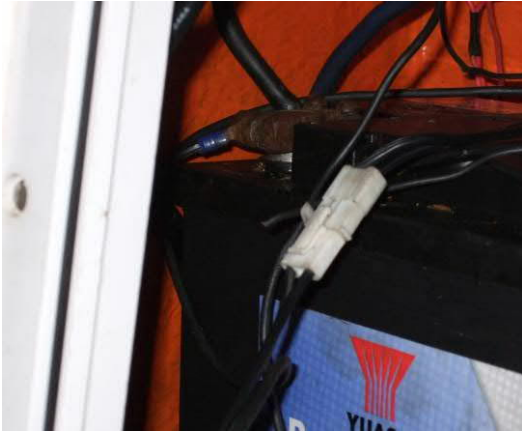


Loosen off the winch strap and boat straps once the boat is back in the shed as they will shrink as they dry and this could damage the tubes.



**Turn off the isolator switches once the boats are back in the shed.** The isolators on TD1 should be left as shown above.





Once the isolators are turned off, reconnect the boat chargers. The connector should only go in one way. Turn the charger back on at the wall once connected.



Both boats have the same type of charger. The blue button at the end (left in photo) should be pressed twice to get the light next to the car illuminated as shown.



In the winter when the Shogun is being used for short runs and using lights, it may be necessary to put it on charge too.



It's black to black and red to red.



Wash the outer black case down to remove salt.



After washing open it to allow the inner case to air and put it back on the shelf.



If it's cold weather and there's a risk of freezing, the water supply to the sink in the corner of the boatshed should be turned off. The picture to the left is water on and to the right water off.

## Shogun

There are some other things to be aware of in relation to the Shogun:

- There is a toolbox in the equipment box under the waterproof liner in the back of the Shogun, plus a set of jump leads.
- There is a blue book in the centre console of the Shogun – please fill in the mileage and litres whenever you buy diesel. There's also a blue waterproof "box" in there for the Shogun keys when you go out on the boat.
- There is a folder in the passenger door side pocket which contains copies of the insurance paperwork, breakdown cover, etc.

Finally, don't forget to put the signs back in the boatshed, lower the barrier and lock-up when you leave.

**Please let the Dive Manager know of any equipment faults so they can let the Diving Officer and Equipment Officer know.**