

Using CPA2 – Tornado Viking 580

Boat House

Entry and Security

- The Tornado is currently kept at:
Blue water Horizons
Ferrymans Way Off Portland Road
Weymouth
DT4 9YU
Telephone: 01305 782080
Work fax: 01305 786010
E-mail: boats@blue-horizons.co.uk

Preparations

- Take tarpaulin off, fold and stow in corner of compound
- Take wheel clamp off – can be fiddly but juggling angles works – and **TAKE IT WITH YOU IF TOWING THE BOAT AWAY.**
- If some clown's left the handbrake on the brake pads will be jammed on and you may have to hitch the car and try towing/rocking the trailer out of the paddock.
- Inflate tubes to springy firmness but not too hard especially if air temp going to rise during day. Five compartments. Start at front compartment and work towards back at either side alternately. Don't over-inflate any compartment – pump even amounts in each and let final compartments stiffen all.
- Basic checks: fuel (turn ignition on, look at gauge); drain plug securely in; got anchor & rope, flares, first aid kit, fire extinguisher, oxygen, A-flag (slid down behind cable trunking), shot line if needed (if not, leave in compound)
- Check fuel levels in case needs filling on way down – policy is not to leave tank full.
- Check engine is raised position but **SITTING ON SMALL SUPPORT LEG**, not being held up by hydraulics alone.

Hitching and safety checks

- Check safety equipment: anchor & warp, fire extinguisher, flares, VHF works ok, inflator pump, first aid, O2 kit, throwing line, A flag, spare fuel, toolkit, engine oil & spares...
- Check transom strap is ratcheted tight. Check that nose strap near winch is ratcheted tight.
- Fully hitch trailer to car, check nose lever has clicked firmly down. Make sure break-free cable attached to towing bracket of car too, **AND NOT OVER HANDBRAKE LEVER.**

PLEASE LEAVE THIS WITH BOAT KEYS

- Wind the jockey wheel **FULLY** up until it's pretty much jammed, only then release jockey pillar and slide whole thing as far up as possible. Re-clamp it very tight else it can work loose.
- Make sure towing vehicle's number plate is fitted to trailer board. Plug in to car and check all lights working.
- Check and **REALLY TIGHTEN** up the triangular screw handles on the trailer board sliding rods as these easily work loose and drop the trailer board on the road while towing. Best to jiggle the sliding rods while screwing up the handles.

Locking up and leaving

- Once RIB ready to roll, reverse entry procedure to securely lock premises. If gates were open when arrived, leave them open otherwise lock and check.

On the road

Towing law – see website for details but main things are:

- Shouldn't exceed 60mph motorways and dual carriageways, or 50mph other roads.
- Don't use outside lane of 3-lane motorway

Stopping and securing the boat

- **WHENEVER** trailer left unattended (with or without boat on, whether hitched or not), **MUST PUT WHEEL CLAMP ON**. Only insured if clamped, so if stolen while just popping to the loo we're not covered!!! **ALWAYS** use the clamp.
- If leaving in public place for any length of time, remove Chartplotter/GPS, radio (unscrew cover, lift out and unplug at back) and oxygen kit at least. Ideally take fire extinguisher and other small bits too.

Fuel and oil

- On way down to site, put as much fuel in as you think you'll need for the trip (typical day uses 30-40 litres) with regular **UNLEADED PETROL**. Filler cap is on front of console. **DO NOT** lock filler cap as lock can seize shut.
- This boat is four stroke so no 2-stroke oil is needed. Not a bad idea to check oil dipstick in engine compartment occasionally though and top up if needed.
- Pony engine is 2-stroke. Best not to leave much petrol in this as goes stale. Instead, at each refilling, pour contents of spare fuel can into main fuel tank, then top up spare can with fresh **UNLEADED PETROL**. Vital that **UNDER NO CIRCUMSTANCES PUT 2-STROKE OIL IN THE SPARE FUEL CAN**. Add 2-stroke oil to engine fuel reservoir only after adding neat fuel from can as and when needed in emergency (oil and measuring/mixing bottle in battery compartment under console).

Launching

Preparation

- Remove prop bag, and nose ratchet strap (see next for how) and take both parts of strap completely off. Tip – store straps in prop bag.
- Release transom strap by squeezing sliding bar near handle of ratchet towards handle itself. This will release ratchet. Swivel handle part until it is pretty much in a straight line with body part. This will release grip on strap and it can now be pulled slack (through slot in the ratchet axle) to release tension. Pull strap completely out of slot and out through both U-bolts on transom. Take both parts of strap completely off and pop in prop bag.
- Remove trailer board and stow. Unscrew knobs at rear of trailer and slide in & clamp trailer board support rods leaving ends horizontal so they don't catch hull or ground.
- Raise main engine fully and lower engine support leg but **LEAVE ENGINE RAISED**. Raise pony engine main leg too.
- Check drain plug in engine-well securely plugged in.
- Raise elephant's trunk auto bailer and cleat it in the closed position.
- Fit any loose electrical equipment like Chart plotter/GPS unit. Slide differential GPS aerial from behind trunking and fit to diff unit on starboard side of A-frame.
- Drop boat into water as normal.

Starting up

- Lower engine to vertical, or if water shallow at least until **INTAKE VENTS FULLY COVERED BY WATER**.
- Check: kill switch securely in place & loose end attached to skipper; and control handle locked into neutral.
- Turn ignition key (electronic - no choke or fast idle required). Engine should fire. If not after a second or two, stop and check why – it should start first time.
- Immediately the engine starts running **CHECK TELLTALE** jet is streaming out of the starboard side of the engine. **IF NOT, STOP ENGINE IMMEDIATELY** and check for intake blockages etc.
- It's good practice to check pony engine too. Switch fuel knob on starboard side of engine to open. Check kill switch in. Open vent on fuel filler cap on top of engine cover. Pull start engine and. **CHECK TELLTALE JET IS RUNNING. IF NOT, STOP ENGINE IMMEDIATELY** and check cause. If running ok, just turn off fuel tap and **LET ENGINE RUN UNTIL CARBURETTORS EMPTY** and it stops of its own accord. Close fuel cap vent and lift pony engine again so prop not causing drag in water.

Retrieving

Preparation

- Best to unload all heavy kit first unless a very good slip and powerful tow vehicle
- Stop engine and lift to fully raised position. Raise pony engine (if down for any reason).

Winching out

- Back trailer into water, release winch and run out strap and hitch to nose. Note that winch is 2-speed so if steep slope/heavy load slide cogs across to engage low gear until level on trailer. Winch onto trailer and tow out of water.
- Once out, drop the elephant's trunk and let water drain out. Remove drain plug and let any water in hull drain out. **DO NOT LOSE DRAIN PLUG**. Best to refit before moving off again.

Cleaning down

- If water supply nearby, often easier to wash the boat and flush main engine on site. Failing this, water supply at boathouse so you can do it there. **NEVER** store the boat for long with engines un-flushed as it can corrode internals.
- To flush main engine, use "ear-muffs" in the toolkit drybox, or in bits bag with keys, or at boathouse. Place securely over cooling water intake slots of engine at base of bottom leg. Fix hose to muffs and turn on water (not too high pressure). Start the engine. **CHECK THE TELLTALE** jet is streaming out of the starboard side of the engine. **IF NOT, STOP THE ENGINE IMMEDIATELY**. If ok, leave running for 2-3 minutes then stop the engine and remove muffs.
- If pony engine has been used at all – even just tested – also need to flush this with clean water but procedure slightly different. As soon as engine started and telltale checked, close fuel supply knob. Leave engine to run until carb drained and engine stops on its own. **LEAVING FUEL IN CARB WILL GUNGE IT UP** and make engine hard/impossible to start in emergency.
- Under **NO CIRCUMSTANCES** run any engine without water to the intake as this will rapidly burn out the coolant impeller.
- Hose down the whole boat and trailer thoroughly to remove salt water.

Securing for transport

- Remove ChartPlotter/GPS unit. We normally leave radio in as long as not left unattended for long.
- Raise engine fully, swivel small support leg upright, then lower engine onto leg to take weight off hydraulics. Re-fit prop bag.
- Check all loose items (e.g. A-flag) secured in hull so they don't blow out in transit.
- Re-fit transom strap. Loop strap round trailer and through own eye, then up through both U-bolts on the transom across outside of pony engine. Fit ratchet portion to trailer in same way. As before, get ratchet body and handle in a straight line. Pull strap fairly tight through the axle slot through outside of joint bend, not inside. Ratchet strap tight.
- Re-fit nose strap. Loop strap half through bow u-bolt and dangle it down. Loop ratchet half round trailer beneath this. Threat strap through ratchet as above and ratchet down tight.
- Slide out the two poles at the rear of trailer and position uprights roughly vertical. Refit trailer board, securing with the "R" clips. **REALLY TIGHTEN** up the triangular screw handles on the trailer board sliding rods by jiggling rods while screwing up the handles. If not really tight, rods can work out and drop trailer board onto road.

- Run cables back along trailer well inboard or through lifeline handles on RIB, then loop round jockey pillar to take up enough slack to stop cables dragging on ground but not so tight it pulls plug out as trailer swivels.
- Lift jockey wheel **FULLY** and clamp securely as before, hitch up and attach break-free cable, connect socket and check lights are working...

Putting back in boat paddock

- Remove all keys from console and **CHECK ALL SWITCHES ON CONSOLE ARE OFF**. No power breaker on modern engines, so leaving any switch on is likely to drain battery by time next used.
- If need to flush engines here, standing pipe near corner of compound with hosesock fitting for our hosepipe.
- Refit boat cover **EVENLY** and **TIE DOWN SECURELY** both by tensioning blue rope running round edge to tuck it under D strakes, and using lines passed underneath hull. Failure to do this will let cover pull loose in winds and full hull with water. Make sure trunk drainer lowered during storage in case happens anyway. Hook flap cover at back with bungees to cover engines.
- Back trailer into compound and **PUT WHEEL CLAMP BACK ON**. Shut compound gate and padlock.
- Check that trailer's **SLIDING NOSE IS EXTENDED**, not compressed in "brakes-on" position. If it is, hitch car, chock wheels and pull nose out else brakes will be applied during storage in WILL bind on.
- Do **NOT** leave trailer parked for long periods with handbrake on. Chock wheels if necessary, but **LEAVE HANDBRAKE OFF** otherwise again brakes will seize to drums and it's a nightmare to free them again.

Possible problems

ChartPlotter won't zoom in

- If plotter not able to show detailed charts, it's because chart card can work loose. Turn off plotter unit. Open compartment on starboard side of console. To left of compartment, there's a black box with protruding cap. Pull this cap off. Underneath is a circuit board card. Pull it gently out then reseat it firmly in place. **CHECK SEALS ON CAP AND REPLACE SECURELY** before closing compartment. Turn plotter back on.

Brakes seized on

- If some idiot left handbrake on last time, or the trailer nose compressed in, brakes will be seized on. Get car to trailer, hitch up and rock trailer back and forward hard. Often frees brakes, but if not diving trip's off and you'll have to spend the day stripping the drums down.

Low rumbling hum/dull rattle from trailer during towing

- Stop immediately and check jockey wheel has not dropped down and is rubbing along road.

Engine alarm goes off

- The second you hear any whistling/beeping noise from the console/engine, **STOP ENGINE IMMEDIATELY**. Means either engine overheating or low on oil. Either way running it on will damage it severely (or totally). Check reason and either top up oil or clear blockages from round cooling water intake slots before trying to restart engine. If alarm goes off **while trying to start** engine initially, probably because kill cord is not fitted – check and refit.

Main engine doesn't start after a couple of seconds

- Check kill switch securely closed as it sometimes gets pulled free by accident
- Check throttle level securely locked in neutral as the engine will not start in gear

Echo Sounder giving strange readings

- Check if transducer at bottom of transom has kicked up, and if so swivel it back to a horizontal position.

Lifting engine with dead electrics

- If for any reason electrical power lost, trim/tilt won't lift engine to allow boat retrieval. Unscrew nylon screw set into engine leg to release hydraulics. Leg can then be lifted manually onto support leg. Don't forget to re-tighten nylon screw again.