

Spring Boat Check and Inspection

DIY and Save Money

Prepping your boat for another season is one of the joys of boat ownership. **The spring of 2022 will be especially appreciated** after being locked up in endless anticipation.



For most of us, boating is fun! But for many, there is **disappointment** or even **disaster** on the first few outings in the spring.

A great way to avoid those disappointments and disasters, is to **use a checklist** to ensure you and your boat are prepared, and that you have what you need, if you should need it.

Pilots wouldn't think of taking off without doing a pre-flight check. They make sure that everything is in perfect order, before starting the engines to ensure a problem-free flight.

Forgetting to bring a corkscrew for your wine, a can opener, or a fly swatter to protect yourself from the pesky flies are irritating, **isn't too serious** and can easily be remedied by bringing them the next time; but, having an annoying **water leak** or the VHF radio not working, or your windshield wiper smearing your windshield could put a damper on your outing.

More serious problems like transmission or engine problems, leaky holding tanks, electronics not working, or missing safety items could easily **result in disaster**.

All of these problems are preventable with a simple.....

Spring Boat Check List for Inspection

After the marina has summerized your boat, do a **check and inspection of all the equipment** aboard, while still at the dock first thing in the season. This is one of the best investments you can make to build your confidence that everything is working as it should, **preventing disappointments or disaster**.

You may think this is a tedious process, but after you've done it once, it will become routine.

Start by printing out this checklist.

Take it to your boat, Test and check off all the items, that are applicable. On the reverse of these sheets, add inventory and additional specific items to personalize for your boat.

A few minutes is all it takes to do a thorough inspection of your boat. Turn everything on and test it. Pull out all the lines, including the anchor line and check for any problems.

Your checking is better done, if you go area by area around the boat; so that nothing gets overlooked. You don't want anything to let you down.

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I've **organized the list by area** in such a way, that you can start at the top of the list and walk through the boat. Use this checklist every spring. Each time you use it, make it more complete. This will facilitate inspecting and testing your boat and, because the checklist is on paper and not in your head, portions of the list can be delegated to family members.

Before Launch

Take Cover Off

- For boaters who winter store their boats under a tarp or shrink wrap, keep your **eyes peeled for pests**. Depending on your boat's location, you could be greeted by racoons, birds, skunks, wasps, snakes, bees, cats, etc. Whoever has moved in over the winter and/or early spring will surely have done some damage. Watch for signs of nesting-like rodent droppings, shredded paper, and grass clumps, holes in canvas and chewed upholstery.
- **Check all orifices** like breather outlets, intakes and exhausts for wasp mud or birds nests. I've pulled a bushel basket of straw and grass from the exhaust ports of a 40' Sportfish. All those holes and hoses are needed for your boat to run. Make sure they are all operational.
- **Check your props**. Even small dings damage gears and hurt performance. You can try using two opposing pairs of pliers to straighten a bent blade or tap one hammer against another like a blacksmith. Hold the larger hammer as an anvil and tap on the ding. If badly damaged, you probably should have sent your prop out for reconditioning last fall.
- Check for loose or flaking **anti-fouling paint**. Scrape, clean thoroughly and prepare before applying a new coat.
- **Check the shafts** on inboard power and sail boats to make sure they are centered in their bearings.
- **Check the stuffing box**, as well as the struts. Remember that a minor misalignment at the bearings is multiplied by the length of the shaft.
- Inspect and replace **all sacrificial anodes**, if they have lost half their weight—not just size. Replace a full-size anode, if it looks like swiss cheese. Don't paint them and make sure they are fastened tight.
- Look at the **transducer**. Is it aimed down and clean of algae growth from late summer?
- **Look for dings or chips in gelcoat**—especially along leading edges like the stem, keel and chines. Repair using epoxy filler. Check for hull and deck cracks, as well as loose rub rail, cleats and bow rail.



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- Make sure your **bilge plug** is in!

Make an Inventory List – all Boats

- Take a written inventory of what's **aboard from last season** (pail, rope, galley appliances, etc)
- What items you need to **bring from storage** (upholstery, canvas, dishes)
- What you need to **replenish from home** (toiletries, bedding), necessary registration, licences and paperwork, permits, insurance and/or purchase (food and drinks).
- No two boats and no two boaters are the same. Depending on the size and type of your boat, as well as what kind of boating activities you do, your list may vary significantly from my list. **Customize to suit.**

After Launch

Safety Equipment – all Boats

- Pull out all your safety equipment. **Confirm the expiry dates** on date sensitive items like flares and fire extinguishers. Clean, repair, recharge or replace if necessary. Don't buy new flares without checking their expiry dates. [Flares expire four years after date of manufacture](#)—not the date of purchase.
- Have you considered the new CG approved **electronic flare** sets? Remember they are battery powered. Check the battery.
- **Inspect your PFDs** to make sure they haven't been damaged by moisture or four-legged critters over the winter. They could be called on to save your life. Replace, if they aren't perfect. Safety isn't the place to scrimp dollars. You cannot walk home from the middle of the lake.
- Check to make sure your **inflatable PFD's** inflation cartridge is still in the "green".
- Make sure you have the necessary **safety equipment** for your size and type of boat— fire extinguishers (still in the green), flares, jackets, flashlight (good battery), bailing bucket, bilge pump, horn, ring buoy, heaving line, and other safety equipment. Remember a **complete First Aid Kit**. Not only is it law to have the required safety equipment for your boat, but it is also common sense to have it, in case you need it. It is safer for you and your crew.



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- **Pull on all of your bowrails**, side rails and all other safety grab rails. Test for stability. If loose, back off the fasteners, re-apply fresh caulking sealant and re-tighten with larger screws perhaps.



The Engine Compartment – All Boats

- Before you get excited about turning the key(s), check and **charge the batteries**. For serviceable batteries, top up electrolyte levels with distilled water and charge.
- Check all connections to be free of corrosion and are tight. Brush a **solution of baking soda** and water on the terminals and connections to clear away any green corrosion.
- On your batteries, replace easy loosening wing nuts with **stainless steel nuts** and lock washers to avoid poor current flow.
- **Get down beside your motor**. Pull the dip stick. **Check the oil**. Even though the mechanic may have just summarized it, do your own check. Check all **other fluid levels** like power steering and trim fluids.
- **Look at all the belts** for frays and tightness.
- **Check the belts**. If a belt deflects too much under hand pressure between pulleys, either it needs replacing or the equipment needs to be repositioned and retightened, or both.
- **When you start the motor**. If you hear a **squealing sound**, the belts could be loose or slipping. Push on the slipping belt with a big tool to temporarily tighten the belt. This extra tension will get it moving. If it **still slips**, either tighten the belt or hold a bar of hand soap against the slipping belt. This will increase the friction.
- Check the **transparent fuel/water separator** for any signs of water. Clean water will appear below the yellowish gasoline; otherwise, change the filter to avoid fuel issues. Always use high test fuel, rather than ethanol.

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- Keep a **spare separator** or two on board, just in case you pick up water when refueling.
- Check your **inspection bowls** on strainers and gas filters. If they are cloudy, they are no good. You have to be able to see the clear liquid passing through them when the motor is running. Disassemble, clean with soap and water, carefully re-assemble and check the gaskets for leaks. If they don't clean, replace them.
- Look at the **engine mounts**. Make sure there is enough thread above and below the nuts on engine-mount studs. Vibration and settling can cause misalignment. Motor-mount studs should be centered between the mount base fasteners. Mounts should not be leaning to one side.
- Find the **source of an engine noise**. Narrow down the culprit by removing the belts from accessories like alternators one by one. When the noise stops, you've found the offending part.
- **Listen to your motor**. For a closer listen, press the **handle of a large screwdriver**, a stethoscope or a length of hose to your ear. Methodically move your listening device around the engine to help you isolate the source of a noise.
- **Listen to rotational accessories** like alternators, pulleys and shaft-driven pumps. A high-pitched chirp or whine often indicates a bad bearing. Get it checked by a mechanic and repaired.
- Check **all gasketed surfaces** for signs of drips, stains or weepage. Exhaust risers and head gaskets are especially important.
- **Squeeze hoses**. Those that are soft and mushy, cracked, checked, discolored or shedding, can collapse under suction, starving the engine of cooling water, failing and flooding the boat, causing fuel leaks and more.
- **Older fuel lines** can deteriorate on the inside which leads to rubber lumps clogging the hose causing reduced fuel flow. Mechanics blame ethanol in today's fuel.
- Check the outside surfaces of the **fuel tank**, filler hoses and breather hoses for moisture i.e. gasoline.
- If you turn the key and **you hear silence**, check the battery switches to see, if they are turned "on".
- If you turn the key and **hear "click, click"** or "groan, groan", your battery is almost dead. Turn on the charger and wait a while. Check all the battery terminals for corrosion, clean with a wire brush and tighten.
- Try to **wiggle each battery**. It shouldn't budge. Batteries must not move more than one inch in any direction. Tighten or replace your straps or clamps.

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- If you see a liquid that looks like a **chocolate milkshake**, **bubbling** up out of your dip stick tube, turn off the motor immediately. You have water leaking into the oil through a bad gasket or crack. Schedule a visit by your local mechanic. Surgery is required.
- With the motor running, check **all the frost plugs** to be sure each is not leaking water. Rusted plugs leak as badly as a popped plug. Cooling water needs to stay in the motor and not leak into the bilge.
- It is recommended that engine **oil and filter are changed every fall** (not spring), so that the gunk from running is not attacking your motor all winter. This includes your lower unit oil.

The Helm – all Boats

- **Test the shift and throttle.** With motors running, make sure the engine shifts into forward and reverse from neutral, and back again and that the propeller stops turning in neutral. Is it smooth into both forward and reverse? Does the throttle advance only after the shift is fully in gear? If not, call the marina mechanic.
- **Check the trim tabs.**
- **Check the gauges** with the motor running, to be sure they all read as they should. If not, check for a loose connection on the back of the gauge or on the motor, if there's a problem.
- Do all the gauges **register as they should**? Oil high enough? Temp low enough? Any fuel left?
- Check your **idle speed in neutral and also in gear**. If you find that idling is rough, high or low, it could indicate the beginning of trouble. You don't want your engine to shut down while approaching your dock.
- **Hydraulic steering** systems should be properly bled to purge any air bubbles, and checked to ensure they work properly. No skips, binding or excess steering-wheel movement can be allowed.
- Check the rudder/outdrive **steering arm**, steering linkage, and fastening bolts and nuts for integrity, corrosion and tightness.
- Check your steering to ensure you can count on it at all times. While still in your slip, **turn the wheel from lock to lock**. Is there the same number of turns, that you have always had? Try it again while underway and test for any resistance, mushiness or flat spots. If yes, you may just need grease or fluid. If no, get a technician to have a look and correct the problem.

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- **Test your horn.** If it is weak, applying spray lube to its diaphragm can often revitalize it. Just for insurance, carry an air horn as well.
- Check your **windshields and clear curtains.** Any that are fogged or scratched can hinder visibility and therefore, be unsafe. Try a fine microfibre cloth with a spritz of water or take to a canvas shop to replace the plastic.
- Pour some water on your windshield and **turn on your wipers.** If one doesn't move, lift the blade to unstick it from the glass. If it still doesn't move, check the wire connections at the wiper motor and the switch. If it still doesn't move, call a mechanic.
- If the wiper does move and **misses half the glass,** it is time for a new blade.

Electrical and Electronics – all Boats

- Turn on the VHF and do a **radio check** with a buddy or marina office on Channel 68—not Channel 16.
- Check the coaxial **antenna connection** on the back of the VHF, to be sure it is clean and tight.
- Make sure all **other electronic equipment** is operational. Now is the time. Not later, when you are out and depending on it.
- Make sure, that they haven't forgotten how to do their jobs. For example, are your **waypoints still in your GPS** or were they lost when you replaced the batteries?
- Do the charts still come up on **your chart plotter** or was the chip damaged somehow? Repair or replace software or hardware.
- Make sure the **software for all your electronics is the latest.** If not, update from the manufacturer's website.
- Turn on your **running lights.** Are all the bulbs lit?
- Check all other lights on the boat in the **cockpit** and throughout the **cabin.**
- If you switch on **your stereo** to enjoy some tunes and you are greeted with silence, check the breaker or fuse. If it's only on one side, adjust the balance knob, check wire connections on the back of the silent speaker.

The Bilge – All Boats

- **Test the bilge pump.** If the bilge is empty, put some water in with the dock hose or a bucket, to be sure it actually pumps and not just making a noise.

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- **Check the bilge for fresh** oil and/or water. There shouldn't be any.
- If you have a **pink liquid in the bilge**, that's just fresh-water antifreeze.

The Trailer

- **Check the bearings and brakes.** Jack up your trailer and spin the wheels. If you hear grinding, you probably need new bearings.
- With your trailer still jacked up, **grab the top of each tire** and push, then pull on the bottom. If they rock or wobble, service the hub and bearings.
- See Dawsons "[Ramping Your Boat](#)" lesson for more on testing your trailer.

The Seats, Carpet & Canvas – All Boats

- Sit in your **helm seat**, adjust and swivel. If it is stiff, lubricating may help.
- For boats with **snap-out carpet**, be sure all the snaps are connected, so that the carpet doesn't slip out from under your feet. If snaps are missing or damaged, get a canvas expert to replace.
- Install all your canvas. Remember that those **little zipper teeth are weak** and the snaps are strong. So, zip up all the zippers first, then pull to attach the snaps.
- During cool, spring days, the canvas and window panels contract, making it a real thumb buster to get it stretched the last half inch. A tip is to **install the canvas in the warm sunshine**, when possible; otherwise, leave some snaps undone until next weekend.
- If the **zipper cart is hard to move**, rub the track with a lead pencil. The lead will lubricate like oil, but without the stains. It also helps the snaps to open and close easier.
- **Check for loose threads** or frays that may be binding the zipper cart—just like the kids snowsuits.
- Do you get all the **canvas pieces mixed up** every time? Identify with a few inches of red wire on the port panels and green wire on the starboard. Feed the wire through the hole in the tab and twist to secure it. You likely have some telephone wire kicking around your workshop or garage. Pull away the outer cover, and there's your red and green. You don't need the yellow and black.

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The Galley and Head – Cuddy Cabins, Cruisers & Yachts

- Now that you've checked the engine room plumbing, go to the galley and head and ensure the **sink taps and drains don't leak**.
- Switch on the water pressure, and **check for leaks** throughout the whole system. Once all the air is out, the pump shouldn't run. If it does, check for leaks.
- Turn on the **taps in the galley**. Is the water pink? If so, you need to empty out the remaining fresh-water antifreeze. I would recommend that you fill and empty your water tank a couple of times to rinse it out, then refill with clean water.
- If you turn on the **tap and nothing happens**, check the water pressure switch. If the pump runs, but the water doesn't, then fill the water tank. Try again.
- Inspect and test all your **galley appliances, doors, drawers**, etc. Does the frig cool and the stove heat? Do all switches and dials work?
- Make sure all cupboard doors and drawers open and close without binding, and that the **catches catch**. You don't want your food all over the floor, when you hit the first wave.
- **Flush the toilet. Recharge the chemical**, then inspect all connections for dampness with a dry paper towel.
- **Flush with head chemical** being sure to follow the instructions on the container. If you don't do it correctly, it won't work properly. Does water come in? Does the bowl empty?.



Larger Cruisers & Yachts – Additional Checks

- If you **plug in your shore cord** and nothing works, turn on the main breaker and check the cord connections, even bend the tabs a bit on the shore end of your cord. Check the dock breaker.
- **Test all outlets** with a portable lamp or tester. To troubleshoot, start at the on-shore end and make your way to the outlet that you started with, that doesn't work.
- **Inspect your shore cord** for cracks and frays. If there are any, replace it.



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- **Check your BBQ propane.** Check inside all fittings for spiders and cobwebs—an old toothbrush works well. Apply a smear of liquid soap to improve the seal on all connections—hose to tank and hose to BBQ.
- **Connect the propane hose** and turn on the tank valve. Watch for soap bubbles. There should not be any. If there is, turn off the tank to check and replace washers. Retest until there are no bubbles, before lighting.
- If, when trying to **light your BBQ**, it won't light, check the fittings on both ends. Maybe the tank is empty. Give it a shake. If you can hear and feel sloshing inside like jelly, you still have fuel. Disconnect fittings at both ends and check for cracks in the O ring. Replace if cracked. Moisten the O rings with some saliva and reconnect. Turn on and light.
- To **simplify garbage handling** in a galley, hang a grocery store bag on a door or drawer handle. Tie and toss to larger garbage box after each meal. It'll keep down the flies and smell. Keep a handy supply of bags by rolling grocery bags and tying with a twist tie or an elastic to make "sausages".
- If your **frig is still warm** after being on a few hours, check for a "hum". If you can't hear a "hum", check the switch in the frig and the breaker and the shorepower and/or the battery switch. If you do hear a "hum", it probably needs service. Call the marina service department.
- If you find a **ball of shredded paper** inside a cosy spot like a roll of canvas or pail of rags, you've probably got **mice or rats**. Little black droppings and yellow spots will confirm. They'll stay aboard all summer, snacking on leftovers, crumbs, peanuts, bags of cookies, potato chips and garbage.
- The only solution is to **set several mouse or rat traps** baited with peanut butter or cheese in the area where you discovered their presence. Don't throw out the nest 'til you've killed off the whole family—where there's one, there's usually several more.

Sailboats – Additional Checks

- Sailors should **raise the sails on a calm day** in the slip to verify that all the rigging is in good condition and nothing jams.
- Make sure **all equipment functions** properly like winches and furling.



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- **Warm up your outboard**, then put your hand in the outboard motor's telltale stream. It should not be hot. If it is, check the water pump and thermostats.
- Sailors with **inboards or saildrives** refer to the Engine Compartment Section.

Fishing Boats Inboard – Additional Checks

- Fishermen need to **check all your fish finders**, downriggers, live well pumps, bait well pumps, wash down pumps etc.
- Seized or **clogged pumps** could overheat and cause a fire.
- **Warm up your outboard**, then put your hand in the outboard motor's telltale stream. It should not be hot. If it is, check the water pump and thermostats.
- Your outboard motor's fuel primer ball should remain firm once pumped up and the motor is running. If not, check for leaks or replace.



Cruising Sail and Power Boats – Additional Checks

- Cruising boaters should **test your anchor winch** for jams and frays and wiring connections and basic stuff like is the **anchor shackled to the rode**? Pull out check and inventory all your other anchors and rodes.
- All **equipment related to long trips** and remote anchorages should be checked and repaired if necessary.

First Run of the Season – All Boats

- On the first run of the season, here's a few **things to listen for**.
- **Listen for a grinding** or whining noise from a sterndrive, while trimming up and while executing tight turns. This could indicate that a gimbal bearing needs replacing.
- Lift your motor box or hatches. **Look for Niagara Falls** spewing from either loose hoses or a frost plug hole. Either will sink the boat, so get back to the dock and have it fixed.
- **Check all the fuel line** connections and around the base of the **carburetor** for leaks.
- Check to make sure your engine performs at all speeds. **Check wide-open-throttle** early in the season for best results. Cooler temperature is denser resulting in better combustion, and less weight aboard gives better rpms. If it is a bit high in the spring, it's ok.

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- If it doesn't hit the rpms, it would be a good idea to check the drive train, fuel delivery and/or ignition. Correct any problems, so that you don't get stranded on your holiday.
- Caulking and fasteners wear out—they don't last forever. **Inspect all thru-hull fittings, engine and drive train bolts, exhaust runs, drive seals, swim ladders, platforms etc.** If you find any leaks, fix them—nip it in the bud to avoid a potential problem far from repair, on your trip.

Leave your Dock with Confidence

Once everything is inspected, tested and operational, and your checklist is completed, you are ready to leave the dock with the **confidence**, that your **boat's equipment won't let you down**.

But, before heading off on an all-day trip, **take a couple of short shake-down test runs** to confirm that everything works, as it just did at the dock.

Now, you are ready to enjoy your boating season as a Confident Captain!

Return to your Dock with Confidence

After an exciting fun-filled day on the water, with no problems to deal with, the next challenge is **coming back to the dock**.

If your docking includes

- Yelling
- Swearing
- Jumping
- Boat hooks
- Bionics
- Dock helpers or
- Embarrassment....



It is probably time to top up your docking skills.

- Pick up a tip or several from [Dawsons Boat Docking Lessons](#) for fearless returns.

Head out on the water and ENJOY your problem-free boating and docking as **Captain Confidence!**