

CHAPTER III - COMMISSIONING AND DECOMMISSIONING

A. Initial Commissioning

The initial commissioning of your yacht is essentially the owner's responsibility. However, the dealer may provide you with this service or recommend a yard which is competent in commissioning Tayana yachts. The initial commissioning is extremely important. In addition to putting the yacht into service, the following functions are also served: shipping damage is revealed. The trucking company is liable for shipping damage, however, they require prompt notification of any claims against them; part shortages are revealed, Tayana boxes the loose gear and provides a packing list, but occasionally errors are made; and quality defects are revealed. Any damage at the destination should be listed on the order receipt or bill of lading. Your yacht is thoroughly checked at the plant. The quality program for each yacht includes a water drench test, functional testing of all systems, and visual checks of the entire yacht. However, overseas and overland travel often cause leaks and other problems which are difficult to detect by visual inspections alone. Engine delivery check-out service is performed at the factory. However, the engine and the alignment of the power transmission system should be re-checked after the yacht is launched.

The following functions should be performed during the initial commissioning. Detailed procedures are described in their respective sections of this manual, and should be reviewed before initiating commissioning.

1. Inspect hull, deck, rudder, propeller and shaft and spar for shipping damage.
2. Inventory all loose gear and report shortages or damaged parts.
3. Your yacht may have been partially winterized for winter shipment. Drain plugs will be found in a bag in one of the lockers. Replace all drain plugs.
4. Install through-hull fittings for owner and/or dealer supplied equipment.
5. Prepare and paint bottom. All residues resulting from lay up and construction of hull must be removed using a wax remover to ensure barrier and/or anti-foulant will adhere. For maximum anti-foulant life, a full second coat of bottom paint is recommended.
6. Check continuity of zincs on shaft and keel. Continuity with all underwater fittings should also be checked with a VOM meter.
7. Check, tighten hose clamps on all underwater fittings, and make sure they're all double clamped.
8. Remove compass, or binnacle plate and tighten all bolts on shift and throttle linkages.

9. Launch and inspect all underwater fittings for leaks.
10. Fill fuel, water, and propane tanks and search for leaks. Ensure that there are no leaks in propane tank storage compartment. Adding water to compartment and looking for leaks may be necessary.
11. Install pulpits, stanchions, lifeline lines, safety lifeline ends and gates.
12. Install standing and running rigging on mast.
13. Install antennas and other electronics on masthead. Check mast wiring and lights.
14. Step mast, set up and adjust rig, pin and tape all turnbuckles, check halyards.
15. Reeve sheets, bend on and hoist sails, furl sails.
16. Align engine to .002" max. clearance.
17. Check oil and water level in engine.
18. Complete installation of owner or dealer supplied equipment.
19. Check battery condition and recharge if necessary.
20. Check engine operation.

Note: Carefully read your engine manual before operating your engine. Do not let the engine idle for an extended period during breakin period.

21. Check operation of all systems and equipment.
22. Check all doors and drawers for proper movement and secure latching.
23. Water test decks, fittings, and ports and search for leaks.
24. Sea trial under power and sail.
25. Re-check for leaks in interior plumbing systems (fuel, water, and waste) and exterior hardware.
26. Clean interior and exterior of yacht thoroughly.

B. Receiving and Commissioning Check List

The next few pages provide you with a checklist to inspect and commission Tayana yachts. Completing this checklist will provide you with a "condition report" of the boat before and after initial commissioning.

Receiving and commissioning check list
(For owner's records)

Comments:

Names of company and individuals involved in commissioning:

Sea trials conducted by:

Compass swung by:

Engine start-up by:

Electronics checked by:

Delivery Inspection

	YES	NO	CORRECTED
Boat properly cradled			
Spars properly cradled			
Free of sideswipe damage			
Companionway seals unbroken			
Absence of exterior hardware theft			
Loose gear inventory complete			
Propeller secured properly			
Rudder moves freely			
Prop shaft turns freely			
All below waterline fastenings are tight			
All plumbing thru-hulls connected and securely fastened			
All thru-hull valves cycled and shut			

Launching Inspection

	YES	NO	CORRECTED
Boat properly slung during launch			
No damage during launch			
Thru-hull fittings leak-free			
Rudder bearing leak-free			
Shaft packing nuts adjust to 1 drop/30 seconds with engine off but newer dripless packing do not drip.			
Thru-hull valves, connecting hoses and plumbing leak-free with valves open			

Engine Installation

	YES	NO	CORRECTED
All mounting bolts tight			
Engine aligned to .002 max. clearance			
Coupling bolts tight			
Shaft set screw tight and secured with safety wire			
Crankcase oil level full			
Transmission gear box oil level full			
Throttle/shift linkage secure			
Engine stop connection secure			
Drain plugs installed and petcocks closed			

Lifelines, Pulpits and Stanchions

	YES	NO	CORRECTED
Pulpits and stanchions secure			
Lifelines properly tensioned			
Lifeline end fittings safety-wired			
Gates function properly			
Lifeline wires free of physical damage			

Spars and Standing Rigging (Pre-stepped)

	YES	NO	CORRECTED
Mast free of physical damage			
Rigging free of physical damage			
Mast wiring and lights functional			
Masthead pins secured			
Spreaders fit and properly secured			
Standing rigging, topping lift properly fastened to spar and pinned, and all fasteners tight			
Halyards installed			

Spars and Rigging (After-stepped)

	YES	NO	CORRECTED
Standing rigging adjusted			
Turnbuckles pinned and taped			
Roller furling systems properly assembled			
Spreader angle corrected			
Mast rake correct			
Winches run free			
Sails fit and furl freely			
Sheets installed and functional			
Halyards function properly			
Mast boot installed (if required)			
Mast lights operational			

Steering Inspection

	YES	NO	CORRECTED
Wheel rotates easily and uniformly, and steering cables properly tensioned			
Compass swung			
No unusual pump noise. (if hydraulic)			
Connections at rudder post tight			

Fresh Water System

	YES	NO	CORRECTED
Cold water runs freely from all faucets			
Hot water runs freely from all faucets			
Hand/foot pump operational			
Shower operates properly			
Electric pump shuts off, w/faucets closed			
Plumbing system free of leaks			

Marine Toilet and Waste Lines

	YES	NO	CORRECTED
Marine toilet operates properly			
Marine toilet free of leaks			
Sinks drain properly and no leaks			
Shower drains properly and no leaks			
Ice box drain functions properly			
Cockpit drains function properly			

Bilge Pump

	YES	NO	CORRECTED
Electric bilge pump operates in manual setting			
Electric bilge pump operates in automatic setting (if installed)			
Manual bilge pump operates properly			

Other Systems & Equipment

	YES	NO	CORRECTED
Stove operates properly			
Engine room blower operates properly			
All dealer or owner installed electronics operate properly			
Emergency tiller operates properly			
All deck mounted winches operate properly			
Anchor rollers rotate smoothly and shaft properly secured			
All deck blocks rotate smoothly			
All port lights and hatches operate correctly; port screens present			

Check Joiner Work

	YES	NO	CORRECTED
All drawers pull smoothly and latch in closed position			
All drawers open smoothly and latch in closed position			
Sole drop-ins fit properly			
Berth access panels fit properly			

Water Test Deck

	YES	NO	CORRECTED
All fasteners tight			
Port lights free of leaks			
Port light drains function properly			
Hatches free of leaks			
Toe rail free of leaks			
Other deck hardware free of leaks			
Cockpit drains operate properly			

Coast Guard Required Safety Gear

	YES	NO	CORRECTED
Life jackets (PFDs)--number, size & type required			
Fire extinguishers--number required and mounted			
Visual distress signals (VDS)--three day/night			
Sound producing devices--horn and bell (7.9")			
Oil pollution placard			
Garbage placard/Waste Management Plan			
Marine sanitation device (MSD) (type I, II or III)			
Copy of Navigation Rules			

Registration/documentation

	YES	NO	CORRECTED
State registration certificate on board			
State numbers affixed properly			
And/Or Certificate of Documentation on board			
Vessel name and hailing port 4" in height			
Documentation number permanently fixed on interior			

Sea Trial

	YES	NO	CORRECTED
Engine, engine controls, engine instruments, and drive train operate properly			
Steering system operates properly			
All sail handling gear operates properly			
All sails OK			
No excessive weather or lee helm			
Mast tuned under sail			
Compass swung			
All electronics operate properly			

Notes on Weather and Sea Conditions

C. Owner Commissioning

Whether you are receiving your Tayana Vancouver 42 new, or purchasing a previously owned yacht, the following discussions regarding commissioning are pertinent to becoming acquainted with the boat. There are a couple of very significant advantages that accrue to the owner who commissions his/her own yacht:

1. A significant monetary savings may result if the owner assembles the yacht and makes it ready for sailing, depending on his skill and experience.
2. The owner will learn the yacht from top to bottom and will benefit greatly from the confidence and practical knowledge that can be used to solve problems in the future.

In addition, there will be increased pride of ownership and a greater tendency to stay on top of necessary care and maintenance which will pay great dividends over the long run.

As you can imagine, there are a few disadvantages:

It does require some experience and a level of skill that is above that of the average homeowner who does some of his own home maintenance. Commissioning is not merely an assembly job. It requires time, probably more than if a commercial yard does the work. Also, one must find a yard that allows owners to work on their own yachts. This is not always easy. Some yards will allow one to do certain things while demanding that certain work and materials be supplied by the yard. This not unreasonable requirement can obviate quickly many of the savings which one might have expected by doing their own commissioning. The commissioning list shown here outlines what is required to commission yachts. You will note that it does not include the installation of such extras as instruments, radios, refrigeration, air conditioning, and similar extras that are normally purchased separately. The list only includes those operations that are required to make the basic yacht ready to sail.

Tools required are generally pretty basic. A good carpenter's tool chest of hand tools (hammer, pliers, rulers, screw drivers, etc.), adjustable wrenches between 1/4" and 1-1/4", a set of box and open end wrenches between 10 and 22 millimeters, an electrical tool box including wire strippers and solder less connectors and terminals, a mechanic's tool box including a feeler gauge, channel locks, and a set of socket wrench's sized above, and a selection of stainless steel fasteners. Also very useful are a portable workbench like the workmate, a 3/8" variable speed electric drill, hole saws, soldering iron with plastic cutter, materials for splicing and whipping line, and a plastic covered notebook.

Most of the items on the commissioning list are pretty self-explanatory. Nevertheless, it would be useful to comment on certain items that seem to be most difficult for people who have never commissioned a yacht before:

General. It is important to check the inventory very carefully. Look in every nook and cranny. The factory is usually very careful and packs all that is supposed to come with the yacht. However, the workmen who do the packing are skilled at putting things where nobody would

think to look. Parts have been discovered several months after the yacht was delivered, and the owners thought they knew every locker in it.

Rigging. You may find that some sail cutting may be necessary as indicated in the list. You will be expected to make arrangements for and pay for such things as adapting the sails to roller furling, and purchase the running rigging.

Electrical System. Make sure that the bonding wires with green insulation are connected to all metal parts such as chainplates, through-hulls, and tanks. Also, be sure to put a zinc on the shaft as this is not done at the factory. A 1 1/4" shaft zinc is required and the width may have to be cut down about 1/8" to fit on the exposed portion of shaft.

Plumbing System. The most critical item is the installation of a propane system if this is part of commissioning on your particular yacht. This system must be done correctly to insure safety. If you are unsure, it would be best to hire professional help.

Machinery System. Most people have never aligned an engine and this is apt to be the most difficult problem. Here again, if one cannot do the alignment with confidence, professional help should be obtained. The yacht's power train will not be warranted if it is found that a failure was due to misalignment.

Miscellaneous Checks and Installations. The most common question is what constitutes minor damage and blemishes. A general rule that is loosely applied is that if the damage were too small to be economically reported to an insurance company it would be repaired as part of the commissioning at no extra cost. Commissioners build this potential extra work into their estimates for commissioning. Some examples of work which would be expected of the commissioning crews (and the owner/commissioner) would be repair of gelcoat scratches, small (say a few inches) gelcoat chips, teak damage which might require minor scarfing, varnish scratches which require revarnishing of say 10 square feet, refinishing minor-scrapes and blemishes on a spar finish. Things that would be beyond commissioning and should be covered by the dealer would include structural damage, major dents in spars, blemishes that require a major refinishing job such as repainting the deck. Note that these are examples only- each situation would have to be dealt with in a case by case basis.

Sea Trials. A sea trial should be done with dealer personnel aboard. The commissioning job will be inspected, all systems will be tested, and if the work is deemed satisfactory the warranty coverage will be undertaken. If some item(s) are not done properly, the warranty will not apply until satisfactory adjustments are made.

D. Decommissioning for Storage (Winterizing)

Winterizing consists of removing gear and equipment that may be damaged, removing liquids that may freeze, thorough cleaning of the yacht, and protecting the yacht from the elements. Procedures for winterizing are described below:

1. Drain fresh water system

- a. Open faucets and run pump until water flow stops.
- b. Disconnect hoses at pump and use air pressure to blow out water in low spots.
- c. Remove drain plug on bottom fitting of water heater.
- d. Pump hand pump until water flow stops.
- e. Leave all faucet valves in open position.

NOTE: Non-toxic anti-freeze for fresh water systems is available from many marine supply stores. This is recommended, since it will protect the system from any accumulations of water that were missed in the draining operations. Disconnect hot water heater in and out hoses and install a length of hose between the two ends. Disconnect hose on top of water tank that goes to pump. Make up an extension hose and put end in non-toxic anti-freeze container. Pump anti-freeze through hot and cold water systems.

2. Head and holding tanks

- a. Winterize head by following the procedure given in the manufacturer's manual. Empty holding tank and rinse with fresh water and pump out again.

3. Thru-hulls

- a. For in-water storage, all thru-hull valves, except cockpit scupper valves, should be closed. Put anti-freeze in cockpit scupper hoses so they don't freeze.
- b. For out-of-water storage, leave valves open.

4. Engine

Follow the procedures outlined in your engine operating manual. Generally, these will include:

- a. Engine coolant. Two acceptable methods of winterizing the engine cooling system are:
 - (1) Complete drainage which involves closing thru hulls, removing all drain plugs on the engine and muffler, and opening drain petcocks per manufacturer's instruction. Store with expansion tank cap off and salt water pump cover loose.

(2) Anti-freeze method which includes system to be drained as per instructions above. Close petcocks and replace drain plugs. Disconnect intake side of raw water pump hose and feed it into a bucket of premixed anti-freeze solution. Run engine until anti-freeze is discharged from the exhaust and then shut the engine off. Finally, fill the fresh water cooling system with anti-freeze mixture.

- b. Drain and clean engine seawater strainer and leave top loose.
- c. Check water separators in fuel system for water accumulation. Drain as needed
- d. Check engine handbook for further "lay-up"- details.

Note: Failure to adhere to the manual can affect your engine warranty.

5. Clean yacht interior

- a. Clean and drain bilges.
- b. Remove all perishables.
- c. Wash out and dry refrigerators and/or ice boxes. Leave lids off and/or doors open. Empty all compartments, drawers.
- d. Clean hanging lockers and leave compartments open.
- e. Clean all interior surfaces.
- f. Clean and apply spray lubricant to steering units, engine coupling, hose clamps, rudder packing glands, shaft log packing gland, gate valves, and throttle/shift controls.

6. Remove the following gear:

- a. Electronics. Store at home or send out for any professional attention that may be required.
- b. Compass.
- c. Cushions, seat backs, carpet, curtains, towels, etc. Store in dry area to prevent mildew.
- d. Interior light bulbs. Spray sockets and bases with WD-40 or CRC 6-66 to prevent corrosion.
- e. Batteries. Store in warm, dry location. Check condition periodically and slow charge as required.

- f. Sails. Wash and let dry thoroughly. Store in dry area.
 - 7. Drain shower pan and clean strainer.
 - 8. Wash exterior. Polish, wash, and lubricate metal deck hardware.
 - 9. Clean and preserve spars. Lubricate winches and sheaves. Inspect for any damage.
 - 10. Clean standing rigging and inspect for damage.
 - 11. Review all optional equipment manuals. Follow any winterizing procedures given. Generators, air-conditioning systems, and some refrigeration systems are among those systems which require winterizing.
 - 12. If boat is hauled, clean and inspect bottom thoroughly. Pay particular attention to signs of structural damage to glass, rudder operation, gudgeon weldment and fasteners, electronic senders, thru-hulls, propeller, and zincs.
- NOTE:** If you are uncertain as to where to place the lifting straps, you may wish to disconnect the prop shaft coupling prior to hauling the yacht, and follow hauling instructions in this manual. Generally most yards are familiar with the location of the lifting straps and the keel cut out, so that they will not try to haul on the prop shaft.
- NOTE:** It is a good practice to record items that were given attention and any defects found during decommissioning. This list will be valuable to you when recommissioning in the spring.
- 13. You may wish to use deck covers and/or various devices available to prevent ice formation around a yacht stored in the water. These will provide additional protection to the yacht during the winter months. Consult your local marina for information and sources of this equipment.

E. Recommissioning after Lay-up

Recommissioning after lay-up is somewhat less involved than the initial commissioning. The following steps are suggested:

- 1. Check notes on decommissioning and make any necessary repairs
- 2. Check operation of all thru-hulls before launching boat.
- 3. Apply anti-foulant bottom paint. Add zincs, if required and check continuity.
- 4. Clean exterior of boat thoroughly.
- 5. Re-install charged batteries, checking terminals for correct polarity.

6. Launch, step spar (if unstepped), connect rigging, bend on sails. Check all components prior to re-installing them.
7. Reconnect coupling and check engine alignment.
8. If engine was drained, replace all drain plugs, tighten caps, and shut drain cocks. Fill and bleed engine cooling system.
9. Fill fuel tank. Bleed engine fuel system per instructions in engine manual.
10. Replace hot water heater plug and reconnect water line at pump. Flush the fresh water system, then fill the water tanks.
11. Clean and inspect engine and engine room equipment. Check oil levels throughout.
12. Clean interior thoroughly.
13. Check operation of all systems.
14. Install cushions, carpet, electronics, and other loose gear removed during winterizing.
15. Sea trial.

NOTE: The check list provided in Section III-A will be a useful reference for the yacht's condition after recommissioning.