OPERATIONS MANUAL

GRATITUDE

Bayliner 4387

Welcome aboard!

We are happy you have chosen GRATITUDE for your vacation. We are sure you will enjoy cruising the lovely islands of the Pacific Northwest.

We hope this manual will help you become familiar with the boat. If you have questions about the boat or about places to visit, please do not hesitate to ask the AYC staff.

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BOAT OPERATION

Engine Inspection

Remember your **"WOBBS"** every morning: **W**ater (Coolant), **O**il, **B**ilges (Inspect and Pump-out), **B**elts and **S**ea Strainer.

Check the level of COOLANT in the expansion tanks. Check the level of OIL in each engine by checking your dipsticks located on TOP, AFT portion of each engine. Look at the etch marks on each dipstick that indicate the proper oil level. **DO NOT OVERFILL OIL!** Only fill if oil levels are below the ½ way mark. Please use a paper towel or oil rag, not the dish towels! Check the general condition of the BELTS, HOSES, and FUEL LINES.

Ensure the valve on each RAW WATER THRU-HULL is in the **'open'** position (lever in-line with valve). Observe the glass of each RAW WATER STRAINER for debris. If necessary, close the seacock, open the strainer cover, clean the strainer, and reassemble. Remember to reopen the seacock. Check your generator fluids as well.

Start-Up

Before starting the engines, do your inspection. The engines should be started from the lower helm station.

Ensure GEARSHIFTS are in 'neutral', or the engines cannot be started because of the "neutral lockout". THROTTLES should be run up and down and then brought almost back to the idle position. Insert both keys into the IGNITION SWITCHES. Normally, plan to start the STBD engine first.

Turn the key clockwise partially until the ENGINE ALARM sounds and pre-heat the engine. Turn the key fully clockwise to engage the engine. If the starter does not engage when the key is turned, move the gearshift lever slightly until you find neutral and try again while turning key. NOTE: If turning the key does not start an engine and no sound is made, please recheck that both the UPPER HELM and LOWER HELM GEARSHIFTS are in the neutral position.

If the engine cranks slowly or fails to turn over, check the condition of the battery on the ELECTRICAL PANEL. If the battery is low, try the BATTERY PARALLEL SWITCH located on the LEFT SIDE of the ELECTRICAL PANEL to connect the other engine battery. Turn off after using.

Move the THROTTLE to raise the engine speed to 1000 rpm on the TACHOMETER. Warm the engine for about 5 minutes before engaging transmission. Observe the readings of the gauges. The oil pressure will register about 60 PSI. The engine temperature should rise slowly.

Note -- If oil pressure is low, shut down engine, and inspect engine compartment and look for possible cause (for example, loss of oil.) Caution -- If an engine is overheating or there is lack of raw water expelled in the engine exhaust, stop the engine immediately. Recheck the raw water-cooling system to ensure the seacock is 'open' (handle in-line with valve). Next, check the raw water strainer for debris. Remove the strainer, clean, re-assemble, and reopen the raw water intake valve (seacock). Restart the engine and re-check water flow from the exhaust. If water is not flowing properly, the RAW WATER PUMP may need to be serviced. Seek help.

Trim Tabs

GRATITUDE is equipped with two TRIM TABS (PORT & STBD) which can be operated from either the UPPER or LOWER HELMSTATIONS.

Getting Underway

DISCONNECT the shore power cord (see 110-Volt next page). Close the PORTHOLES, WINDOWS, and FORWARD HATCH. Turn on your VHF and electronics. ASSIGN crew members their various positions. Once outside the marina, idle the engines while crew brings in fenders and lines.

Cruising

All close quarters maneuvering should always take place at the UPPER helm.

Engage the GEARSHIFTS. Ensure the throttles are in the 'idle' position before engaging the gearshifts to avoid transmission damage. Cruising speed is a maximum of about 2500 RPMS. If you run at 1600 RPMS you will cruise at ~8 knots and use only ~1 gallons of diesel per hour. Your speed will vary depending upon the weight and load and weather conditions. TRIM TABS can be put in the "bow down" position.

Note -- Avoid higher engine speeds as it causes higher engine temperature, possible damage, and higher fuel consumption.

Docking

During docking, use the FLYBRIDGE HELM for greater visibility to the stern. Have your crew make ready the lines and fenders and give clear instructions on how you will be docking. Often times your crew will need to step off from the swim step with the stern line. Another crew member will need to be at the bow or mid-ships to hand over the next lines.

Rock TRIM TAB switches to the 'bow up' position (8 to 10 seconds) to make slow-speed backing and turning easier. While moving slowly to the dock or mooring location, center the WHEEL (e.g. rudders straight) and use only the GEARSHIFTS and THROTTLES to maneuver the boat.

GRATITUDE is equipped with both a BOW THRUSTER and a STERN THRUSTER. Note the STERN THRUSTER is relatively small and should not be relied upon to dock the AFT end of the boat. Both thrusters can be operated from the UPPER HELM.

Shut-Down

Before shutting down, allow the engines 'idle' for about 5 minutes to cool them gradually and uniformly. The time engaged in preparing to dock the boat is usually sufficient. Ensure each GEARSHIFT is in the 'neutral' position and each THROTTLE is in the 'idle' position. Turn off engines by pressing the KILL ENGINE buttons and verify that the Low Pressure Oil alarm buzzes prior to turning each Key to OFF.

Canvas

GRATITUDE is equipped with a canvas enclosure to provide comfort and flexibility while cruising. Please use the buttons and fasteners embedded in the ceiling in both the flybridge and the mezzanine for pinning the canvas in the UP position. Feel free to open and close provided isinglass windows as desired, but please do not remove windows from the boat and please do not unzip / remove the maroon flybridge ceiling canvas itself.

Fueling (DIESEL)

OPEN FILLER CAP(S) located AMIDSHIPS AFT on both the PORT & STBD sides with a DECK FITTING KEY which is kept in the SALON hanging on the key rack.

MAKE SURE YOU HAVE THE RIGHT FUEL! DIESEL! DIESEL! DIESEL! MAKE SURE IT IS GOING INTO THE RIGHT DECK FILL! DOUBLE-CHECK!

Before pumping, have an oil/fuel sorbs handy to soak up spilled fuel. You should have a rough idea of the number of gallons you will need by the engine hour indicator. Also periodically have someone turn on the key to watch the fuel gauge.

Place the DIESEL nozzle into the tank opening, pump slowly and evenly, and note the sound of the fuel flow. Pumping too fast may not allow enough time for air to escape, which may result in spouting from the tank opening. As the tank fills, the sound will rise in pitch or gurgle. Pay attention to the TANK OVERFLOW VENT on the outside of the hull near the tank opening. The sound may indicate that the tank is nearly full. Top off carefully, and be prepared to catch spilled fuel. Spillage may result in a nasty fine from law enforcement.

Replace each tank cap. *Caution -- Clean up splatter and spillage immediately for environmental and health reasons. Wash hands with soap and water thoroughly.*

BOAT ELECTRICAL

110-Volt AC/DC Panel

The electrical system is divided into two distribution systems: 110-volt AC and 12-volt DC.

Battery Switches

The systems are controlled from the AC ELECTRICAL PANEL, the DC AUXILIARY PANEL, and the BATTERY SWITCHES located STBD side of the SALON. When not connected to shore power, batteries are providing all power. Therefore, monitor the use of onboard electricity carefully with your volt meter located under the LOWER HELM next to the ELECTRICAL PANEL (Xantrex for AC loads), and turn off electrical devices that are not needed.

Most breakers are labeled by colored dots. Green signifies “usually on”. Red is “usually off.” Blue dots are water pressure or water-related like pumps. Yellow signifies electronics or items to use cautiously. No dots are breakers signify irregular use or use with discretion.

Shore Power

SHORE POWER supports all AC equipment and receptacles on board, as well as the battery chargers. To connect to shore power, plug the 30-amp POWER CORD into the boat and then into the dock receptacle. Check the power rating/plug size of the nearest dock receptacle (that is 50-amp, 30-amp, 20 amp, or 15 amp). Turn the dock power on. Cords coming off the bow can be wrapped loosely around the bow line.

At the ELECTRICAL PANEL, turn the SOURCE SELECTOR SWITCH to SHORE and check to verify Voltage. Then turn on appropriate breakers for battery charger, refrigeration, water heater, and other desired loads. Watch you volt meter for load. If the load exceeds voltage, you will pop your breaker. If this occurs, wait to turn on one of your systems (i.e., water heater) until your use of volts drop.

If your outlets fail to work, check your GFIs to make sure that they have not been tripped.

Inverter

The INVERTER provides AC power to the 110-volt receptacle plugs (i.e., the microwave oven) when the boat is disconnected from shore power. The inverter only provides AC power to the AC loads labeled “INV” on the ELECTRICAL PANEL. Your inverter panel is located under the LOWER HELM (labeled Xantrex) with controls to turn it off/on (inverting vs non-inverting). Using the buttons (ENTER and UP/DOWN ARROWS), you can select SETTINGS -> INVERTER -> ENABLED to ensure the Inverter is on and powering the applicable AC loads. The FUNCTION button works as a ‘back’ button and can allow you to back out to the status screen which will show details of Amps/Voltage you are currently drawing from the batteries. For more information on the Inverter control panel, consult the Xantrex instructions manual in the cupboard next to the dinette. The actual inverter is located in the ENGINE COMPARTMENT against the FWD BULKHEAD directly under the LOWER HELM.

The inverter’s power source is the inverter batteries located in the ENGINE COMPARTMENT between the main engines AMIDSHIPS. The quantity of DC power is limited to the capacity of these batteries... Therefore, running hair dryers, toaster, coffeepots, space heater, etc. and will quickly discharge the house/inverter batteries. Use these items VERY SPARINGLY! Monitor your battery usage very carefully!

When connected to shore power, the inverter automatically becomes a battery charger for the 12-volt HOUSE BATTERIES. Should you detect the inverter failing to charge the house batteries, check the circuit breaker in the AC Panel. And the inverter control panel. Also, there is a circuit breaker located on top of the inverter box.

Generator

To start your GENERATOR, first check that your generator's fluids are topped off and the raw water intake is open. The generator controls are located on the ELECTRICAL PANEL. First pre-heat the generator for about 20 seconds. Then while still pre-heating turn the GENERATOR CONTROL SWITCH to START. Hold the switch in that position while the generator catches. (about 5-10 seconds). Make sure water and exhaust is exiting the ENGINE EXHAUST OUTLET on the outside of the boat visible from the STBD SIDE of the SWIM PLATFORM (AFT) at water level and that the Temp, Pressure and Voltage gauges on the ELECTRICAL PANEL are reading appropriately.

After generator is running, turn your AC distribution SOURCE SELECTOR SWITCH to SHIP. Then turn on AC systems as you would on shore power one system at a time.

To turn the generator off, first take off the load by turning off AC breakers. Then turn off main AC distribution switch. Lastly kill the generator by switching generator switch to "off" until it dies.

House Battery (12-Volt) System

10 battery banks support 12-volt DC power: 1) port engine battery 2) starboard engine battery 3) house battery bank 4) Inverter bank 5) Generator battery

The 3 BATTERY SWITCHES are located on the ELECTRICAL PANEL. Normally, leave the ENGINE/ GENERATOR and HOUSE SWITCHES in the 'ON' position. *Note -- Do not change the position of the switches while the engines are running or the alternator diodes will be damaged. Change positions with the engines off.*

Your 12-volt panel shows all the systems supported by your batteries. Primarily you will be turning on the breakers for your lights & water pressure. Bilge pumps should always be left on.

House Battery Bank & Switch

The HOUSE BATTERY BANK provides power for all DC systems, except the engines and automatic bilge pumps. When disconnected from shore power, all 12-volt devices drain the house battery. Use devices as needed. The DC voltmeter on the DC panel can be switched between Port, Starboard, and House Battery banks to measure charging or resting battery voltages.

When a battery bank is being charged, the voltage will read from about 13.1 volts to 14.4 volts depending upon state-of-charge of the battery bank. When the battery bank is at rest, (that is, not being charged), the voltmeter can give a rough indication of the state-of-charge of the battery bank.

ENGINE and HOUSE batteries are charged by the engine ALTERNATORS while underway. The engine/house batteries are charged by the BATTERY CHARGER when connected to shore power. Ensure the Battery Charger and Inverter circuit breakers at the electrical panel are ON. The GENERATOR will also charge the batteries.

Voltage (Wet Cell Battery)	Battery State
12.65 volts	100%
12.47 volts	75%
12.25 volts	50%
11.95 volts	25%
11.70 volts	0%

Battery Parallel Switch

The ENGINE BATTERY is connected to both Engines. However, should the engine battery be insufficiently charged to start its engine, the house batteries may be momentarily connected to provide a boost. Turn the CROSSOVER SWITCH located on the ELECTRICAL PANEL to ON. Turn off after the engines start up.

SANITATION SYSTEM

Marine Toilet

It is important that every member of the crew be informed on the proper use of the MARINE TOILET. The valves, openings, and pumps are small and may clog easily. If the toilet clogs, it is YOUR RESONSIBILITY!
Always pump the head for children, so you can make sure nothing foreign is being flushed.

Caution *– **Never** put paper towels, tampons, Kleenex, sanitary napkins, household toilet paper, or food into the marine toilet. Use only the special dissolving marine toilet tissue provided by AYC.*

To use the toilet, move the SELECTOR SWITCH to the 'left' (wet bowl). After using the toilet, move the SELECTOR SWITCH to the 'right' (dry bowl). Pump to remove water from the bowl. Flush sufficiently to move effluent in the hoses; heavy effluent may clog hoses. Clean the toilet as necessary. NOTE: For the FWD HEAD there is just one black button (no switch). Depress the button to wet the bowl prior to use, and to flush after use.

The TOILET THRU-HULLs are located under the GALLEY FLOOR ACCESS HATCH (FWD) and the AFT BERTH ACCESS HATCH (AFT), should you need to shut off the water to the toilet. Clean the toilet as necessary.

Holding Tank

The sanitation HOLDING TANK holds approximately 74 gallons. Be aware of the rate of waste production. (about 1 gallon per flush) With an overfilled tank, it is possible to break a hose, clog a vent, or burst the tank. The result will be indescribable catastrophe and an EXPENSIVE FIX to you. Empty the tank EVERY OTHER DAY to avoid this problem.

The HOLDING TANK is located under the AFT BERTH. There is a tank watch warning light located on the ELECTRICAL PANEL but do not rely upon this as they often get clogged.

The holding tank is emptied in one of two ways:

#1 At the Marine Pump-Out Station, remove the WASTE CAP located on the SWIM PLATFORM STAIRS (second step) when entering the boat. Insert the pump-out nozzle into the waste opening. Double-check your deck fitting! Turn on pump and open valve located on handle. When pumping is finished, close lever on handle and turn off pump. Remove from deck fitting.

If there is a fresh water hose on the dock, rinse the tank by adding 2 minutes of water into tank. Then repump to leave the tank rinsed for the next charter. This also eliminates head odors.

#2 The tank's contents can be discharged with the MACERATOR pump only in Canadian waters.

To operate the macerator, depress the MACERATOR ROCKER SWITCHES simultaneously on the DC electrical panel. Listen to the macerator's sound. When the pitch becomes higher, the tank is empty.

Discharge may be observed on the AFT STBD side under the SWIM PLATFORM. It should only take a few minutes to empty the tank

Y-Valve

The Y-VALVE directs waste effluent into the sanitation-holding tank or flushes the effluent 'directly overboard'. The Y-VALVE is located under the AFT BERTH ACCESS HATCH. A plastic strap keeps the handle pointed to the holding tank – the normal position. *Y-valves are usually wire-tied to the holding tank position in respect to Coast Guard regulations. Please leave it "as is" unless there is an emergency. Be familiar with the applicable laws concerning dumping sewage directly overboard.*

WATER SYSTEM

Fresh Water Tank(s)

The FRESH WATER TANK holds 100 gallons. Observe the water level by the gauge at the ELECTRICAL PANEL. Waste water from the sinks and showers drains overboard through various thru-hulls usually located under the sinks.

To refill the tank, remove the WATER CAP located on the STBD DECK AMIDSHIPS. Avoid flushing debris from the deck into the tank opening. DO NOT fill water and diesel at the same time and ensure the fill hole reads WATER, not diesel!

Fresh Water Pump

The WATER PRESSURE PUMP is located in the ENGINE COMPARTMENT against the FWD BULKHEAD on the PORT SIDE. Activate pump at the DC panel by turning on the switch. If the water pump continues to run, you are either out of water or might have an air lock and need to bleed the system by opening up a faucet. If you run out of water SHUT OFF YOUR HOT WATER HEATER on the AC panel. Serious damage can occur!

Hot Water Tank

The HOT WATER HEATER has an 10.5 gallon capacity tank and is available when connected to shore power or via a heat exchanger underway. To use on shore power, flip on the water heater circuit breaker on the AC electrical panel. Do not use the water heater if the water tank level is very low. The water heater is located WATER PRESSURE PUMP is located in the ENGINE COMPARTMENT against the FWD BULKHEAD on the PORT SIDE.

Shower

Before taking a SHOWER, make sure water pressure and shower sump breakers are on. Take only very short “boat” showers (turning off water between soaping up and rinsing). To keep shower tidy wipe down the shower stall and floor. Check for accumulation of hair in the shower and sink drains. Ensure that the faucets and nozzle are completely off after use.

Bilge Pumps

There are three Bilge pumps located FWD, MID and AFT. They can be located via GALLEY FLOOR ACCESS HATCH (FWD), ENGING COMPARMENT BATTERY WELL (MID) and AFT BERTH FLOOR ACCESS HATCH (AFT). All are equipped with automatic float switches, as well as can be operated from the buttons at both the UPPER and LOWER helms.

GALLEY

Stove/oven

The stove and oven are electric. Turn on the "stove" breaker on the AC panel.
When finished cooking turn off the switches and the breaker to ensure there is no accidential or small drain of power.

Refrigerator / Ice Maker

The REFRIGERATOR is dual voltage (12-volt and 110-volt power). It will automatically use 110-volt power when the shore power is connected; otherwise, it will operate on 12-volt power. Monitor the use of the refrigerator when the engines are not charging the 12-volt battery system. The local power switch is located below the front door. It can be turned down to the lowest position when anchored or moored or turned off when turning in for the night.

ELECTRONICS

All electronic manuals are located cupboard next to the dinette.

VHF Radio

There are 2 VHF RADIOS. The first is located at the UPPER HELM under the HELM. There is a second VHF RADIO located at the LOWER HELM. Turn on by turning VOLUME switch to ON. Always monitor channel 16 while underway.

Depth Sounder

There are 2 DEPTH SOUNDERS, one connected to the UPPER HELM Instrument and the other connected to the GARMINs. To activate the upper DEPTH SOUNDER, press the switch bridge instrument panel. Set the scale, shallow alarm, and deep alarm as desired. The sounder should provide reliable readings in shallow waters. If in doubt, switch it off, then turn it back on to reset sounder. If your reading is blinking, it is a FALSE reading. False readings can occur in depths of more then 200 feet or in areas of string currents or tides.

A second DEPTH SOUNDER is located on the GARMINs. It can be used by turning on the GARMINs and ensuring you are monitoring actual depth (not charted). *Remember to **ALWAYS** consult your charts for depth!*

Radar

To operate the RADAR, turn on the GARMIN, select RADAR (or an overlay that adds RADAR) and toggle the TRANSMIT switch to ON. To turn off, again press TRANSMIT to OFF. Remember you are not allowed to travel in FOG or in serious wind conditions.

Global Positioning System (GPS)

A fixed mount GPS GARMIN is on the RADAR arch above the BRIDGE. Ascertain that your breaker is on and then press the red color 'on/off/light' button to activate. It is networked to the GARMIN Display Units (both upper and lower helms) and will aid in your navigation. Press the 'page' button to scroll through functions. Refer to the manual normally found in the cupboard next to the dinette.

Note -- *GPS is considered a navigation aid. Do not rely on it. Compasses, charts, and dividers are the tools to plot position, course, and speed.*

ENTERTAINMENT

Stereo with Bluetooth + AUX + AM/FM Radio

The Pioneer brand MVH-S301BT unit is located in the BRIDGE under the HELM. It operates like a normal car radio. There are 2 speakers two (stereo) on the bridge. The BALANCE controls the sound distribution in the left and right speakers. For help in pairing to your phone, consult the manual in the cupboard next to the dinette.

Amazon Fire TV + DVD Player

A TV/DVD is stored in the entertainment cabinet in the Salon. To use, turn on the TV (either via remote or button) and if desired, use the input button to turn to DVD. The TV is WiFi enabled to allow for Netflix, Hulu, MAX, etc. Wifi Instructions are located onboard.

ANCHORING

The primary WORKING ANCHOR is a STEEL PLOW and is attached to 200 ft chain and 100 ft nylon rode passed through the deck from the ANCHOR LOCKER. The locker can be accessed through the FWD BERTH in the ceiling. If there is an anchor keeper, release it.

Windlass

The WINDLASS POWER SWITCH is located on the ELECTRICAL PANEL. At the bow, tap gently on the 'down' foot control to lower the anchor. If necessary, guide the anchor over the anchor roller to prevent binding on the pulpit.

Anchor Chain Color Coding

Let out sufficient ANCHOR RODE (chain and nylon line) before setting the anchor. Colored markers are placed every 20 feet on the chain and nylon rode (starting at 60), indicated amount of rode. If the anchorage is crowded put down at least a 3 to 1 scope (60 feet for 20 feet of water), back the anchor in with a short burst from the engine. Then let out additional scope dependent upon conditions.

Before raising the anchor, ALWAYS start the engines as it uses large amounts of power. Turn 'on' the WINDLASS SWITCH and as the boat moves toward the anchor, press the 'up' control to take up slack line. Give the windlass short rests as you are pulling it up. Place yourself in position to guide the anchor onto the roller. As the anchor rises, be careful not to allow it to swing against the hull. Wash it down if you have a wash down pump before it goes into anchor locker.

Close the plastic covers on the FOOT PEDAL CONTROLS. Turn 'off' the WINDLASS POWER SWITCH.

Mooring Cans

Mooring cans have a metal triangle at the top upon which is a metal ring. The metal ring is attached to the chain which secures your boat. IT IS VERY HEAVY. The strongest member of your crew should be picked for this job.

Come up to the CAN into the wind as you would for anchoring. Have crew members on the bow, one with a boat hook and one with a mooring line secured like a bow line. As you are coming slowly up to the can have the crew holding the boat hook point at the can with the hook so the skipper always knows where it is. Hook the can and bring the ring up to the boat to allow the second crew to thread the ring with the line. Release the hold with the boat hook. If your mooring line is led out the starboard chock bring the end of the line back through the port side. You will essentially create a bridle with about 10 feet of slack from the chalk to the can.

BARBECUE

The BARBECUE and MOUNTING BRACKET are stored on the MEZZANINE in the storage bin and under the couch.

Place MOUNTING BRACKET on the SWIM PLATFORM by lowering into the bracket and clipping in to place. Reverse the procedure to dismount barbecue. Attach a PROPANE BOTTLE to the REGULATOR found in the storage bin. Carefully light the unit, preferably with a long-stem butane lighter. The barbecue generates a lot of heat and cooks hot and fast. Store the barbecue unit back in the Mezzanine storage bin. Please wipe with a paper towel before storing to prevent grease and dirt soiling the boat.

Note: Propane bottles are not stocked by AYC. You will need to purchase one if extras are not found on board. Caution -- For safety reasons, do not store an opened propane bottle within the salon or engine compartment. Chances are these will leak slightly once opened and propane gas could settle into low spaces. Store these bottles on the Mezzanine. Ensure gasoline and flammable materials are not near the barbecue.

DINGHY & OUTBOARD MOTOR

Your HIGHFIELD DINGHY with a 25 hp YAMAHA engine is stored on top of the FLYBRDIGE and accessible from the UPPER HELM. It has a capacity of about 1000 pounds (motor, equipment, and 4-6 people).

To deploy the dinghy, first get the DAVIT CONTROL CORD from the SALON Cabinet on the STBD Side (right after you enter from stairs). Take this to the UPPER HELM and unzip the middle panel (or more) of the canvas. Climb from the UPPER HELM PORT COUCH up to the top of the AFT Flybridge. Note: We find it easier to step from the coach up to the Flybridge roof rather than using the three step stair.

We strongly recommend ensuring you are always holding on to a portion of the boat when moving around on top of the Flybridge. Waves and weather can cause sudden movement and grabbing the Dinghy itself is not a reliable place to hold when it is being loaded/unloaded.

Once on the Flybridge roof, carefully move toward the motor controller mounted on the davit arm (grey box on the white steel crane arm). At the top of it you will find a black removal cover at the location in which the DAVIT CONTROL CORD plugs in. Remove and plug in the DAVIT CONTROL CORD.

Next, loosen the ratchet straps connected to the four points of the FLYBRIDGE roof. Ensure you have inserted the DINGHY DRAIN PLUG which is located at the AFT bottom of the Dinghy under the Motor. You are now ready to hoist the dinghy.

Using the DAVIT CONTROL CORD, move the switch to RAISE button to lift the Dinghy off it's platform. Once it is suspended in the air, gently press the Dinghy itself outward toward the AFT end of the boat. Note: Never push/pull on the davit/crane arm itself. Always use the weight of the Dinghy to swing the arm naturally.

Once suspended over the water, use the DAVIT CONTROL CORD and move the switch to LOWER to lower the Dinghy in to the water. We find it easiest to lower the Dinghy half way, drop the DAVIT CONTROL CORD down toward the swim platform and move down to the SWIM PLATFORM to complete the lowering using the DAVIT CONTROL CORD switches from there. Note: ensure passengers are not standing directly below the Dinghy when raising/lowering.

Once the Dinghy is in the water, disconnect the steel carabiner from the Dinghy harness straps. Straps can be unhooked and maintained in the dinghy. The dinghy carabiner and line can be stowed off to the side of the SWIM PLATFORM or up on the Mezzanine, along with the DAVIT CONTROL CORD, until need for retrieval.

When you are ready to re-stow the Dinghy, reconnect the harness straps to the frame and the carabiner and Dingy raise line to the harness. Ensure individuals are clear of the area and using the DAVIT CONTROL CORD to raise the Dinghy back to the flybridge. Note: We recommend you sling both the black mooring lines and the blue davit guide line over the side of the dinghy so that they are easily accessible when you return up to the Flybridge roof to guide in the dingy.

Once dinghy is at flybridge level, use the black dock lines (connected to dinghy) and blue guide line (connected to davit) to pull the dinghy back over the rooftop mount. Note: We recommend gently guiding the motor under the davit pole and then resuming pulling in the dinghy. This portion can take patience, but if you need to use force please ensure you are pulling hard on the black dock lines (pulling in the dinghy) not the blue line so as to avoid damage to the davit arm.

Once suspended over the resting mounts use the DAVIT CONTROL CORD to lower the dinghy back in to place. Note: We find it at times easier to raise the dingy up a little and swing it port to STBD and then lower while it is swinging stbg (backing) in to place. Once seated on its mounts, reattach the four ratchet straps and disconnect the DAVIT CONTROL CORD, leaving the steel carabiner also still connected to the harness ring.

When towing your dinghy, always keep it tight to the boat any time that you slow down or stop, assign one of your crew members as the “dinghy” person to be responsible for taking up slack. You don’t want to wrap a propeller.

Coast Guard regulations state that any child 14 and under must wear a life jacket in a dinghy. It is a good idea for EVERYONE to follow this rule.

CRABBING & FISHING

Always check the fishing and crabbing requirements before you leave on your cruise. You will need a license. Many areas are CLOSED to crabbing and fishing on certain months.

CRAB AWAY FROM THE BOAT! Lines can get wrapped around props. Fish-flavored cat food with the pop-up ringed lids work the best for a nice neat way to bait the ring. After 15-20 minutes, retrieve the crab line and ring quickly. Keep the male crabs of proper size (usually 6 ¼ inches across the carapace). Boil crabs about 12 minutes to cook.

After using, wash equipment thoroughly with fresh water (available from the cockpit shower faucet). *Note -- Please do not store wet rings and gear inside the boat.*

OTHER: Safety & Bilge Pumps

SAFETY should be paramount in your daily cruising. A MAN OVERBOARD DRILL should be discussed and perhaps even practiced with a life jacket. Remember your lifejackets are stowed in the SALON cabinet. A few should always be out and ready. Your flares and safety equipment are located on the Mezzanine.

GRATITUDE is equipped with AUTOMATIC BILGE PUMPs. The master switch is located on the electrical panel. Normally, the switch will be left in the AUTO position. You may occasionally hear the pump operate due to condensation and water from the shaft log accumulating in the bilge.

An AUXILIARY HAND OPERATED BILGE PUMP is operated using the handle provided for that purpose (located on Mezzanine). This is used only in emergency situations.

The ENGINE SPARES BOX (plastic blue color) is stowed in the FWD Engine Compartment. This includes oil filter, raw water impeller, pump parts, injectors, and other small parts.

THRU-HULL LOCATIONS

Thru-Hull Penetration	Location
FWD Sanitary Inlet Seacock	FWD Galley Access Hatch
AFT Sanitary Inlet Seacock	AFT Berth Access Hatch
FWD Sanitary Discharge	FWD Port Side Below head Portlight
AFT Sanitary Discharge	AFT Transom above STBD rudder
PORT Engine SW Intake	Engine Compartment, FWD of PORT Engine
STBD Engine SW Intake	Engine Compartment, FWD of STBD Engine
Generator SW Intake	Engine Compartment, FWD of PORT Engine

SEA STRAINERS

Thru-Hull Penetration	Location
PORT Engine SW Strainer	Engine Compartment, FWD of PORT Engine
STBD Engine SW Strainer	Engine Compartment, FWD of STBD Engine
Generator SW Strainer	Engine Compartment, FWD of PORT Engine