

OPERATIONS MANUAL



Three G's American Tug

Welcome aboard!

We are happy you have chosen "Three G's" 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.

TABLE OF CONTENTS

	Page
Boat Operation	4
Engine Inspection	4
Start-Up	4
Trim Tabs	5
Getting Underway	5
Cruising	5
Docking	5
Thrusters	6
Shutdown	6
Fueling	7
Boat Electrical	8
AC/DC Panel	8
Battery Switches	8
Shore Power	8
Inverter	9
Solar Panel	10
House Battery Bank 12 Volt	10-11
Battery Parallel Switch	11
Sanitation System	12
Marine Toilet	12
Holding Tank	12-13
Y-Valve	13
Water System	14
Fresh Water Tanks	14
Fresh Water Pump	14
Hot Water	14
Shower	14
Bilge Pumps	15
Galley	16
Stove/Oven	16
Refrigeration	16

Heating System	17
Diesel Heater (DC)	17
Built-In Cabin Heat	17
Engine Heat	17
Electronics	18
VHF Radio, Depth Sounder, Radar	18
GPS/Plotter	18
AIS	18
Entertainment	19
AM/FM Radio	19
TV / VCR	19
WIFI / Internet / Starlink	19
Anchoring	20
Windlass	20
Anchor Chain Color Chart	20
Mooring Cans	21
Dinghy/Outboard	22-23
Crabbing/Fishing	24
Barbecue	24
Bilge Pumps/Safety	24
Thru-Hull Locations	25
Sea Strainers	25
Fuel Burn Chart	26
Converting the Dinette	27

For more Detailed information See the “Owner’s Manual” aboard the boat It provides more detail on the boat systems but is not overly technical.

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 the engine by checking your dipstick located **On the Port side of the Engine and on the Transmission** Look at the etch marks on the dipstick that indicates 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 raw water thru-hull, open the strainer cover, clean the strainer, and reassemble. Remember to reopen the raw water thru-hull. (See section 13.5 in the owner’s manual for detailed instruction)

Start-Up

Turn on the appropriate Electrical Breakers at the main Helm Panel

The boat features a Volvo D4-300, 300 Hp, Electronically Controlled Engine

All Engine system Status are displayed on the Volvo pad and on the integrated Garmin MFD Displays when active

Before starting the engine, do your inspection. The engine will be started from the helm station. Ensure GEARSHIFT is in ‘neutral’, or the engine cannot be started because of the “neutral lockout”. To check that it is in neutral before starting, the Single, Shift/Throttle control can be run up and down and then brought back to the center / neutral position. To Start press **Ignition** then the **Start/Stop** button.

All Primary Electrical Systems are Displayed / Controlled at the Helm Panel

If the engine cranks slowly or fails to turn over, check the condition of the Engine Battery on the Helm Panel. If the battery bank 1 is low, Press the BATTERY COMBINER SWITCH **ON** located on the Helm Panel, to connect the HOUSE BATTERY BANK. **Turn back to AUTO after using.**

Set the engine speed to approximately 800 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 50 PSI. The oil and water temperature should rise slowly.

Note -- If Oil Pressure is low (under 40psi), or Temperature is High (over 200 for water temp, over 230 for oil temp) shut down engine, and inspect the engine compartment, look for possible causes (for example, loss of oil.)

Caution -- If an engine is overheating or there is lack of raw water flow, stop the engine immediately. Recheck the raw water-cooling system to ensure the raw water thru-hull is ‘open’ (handle in-line with valve). Next, check the raw water strainer for debris. If you see debris, close the thru-hull, remove the strainer, clean, re-assemble, and reopen the raw water intake valve (thru-hull). Restart the engine and re-check water flow. If water is not flowing properly, the RAW WATER PUMP may need to be serviced. Seek help.

Trim Tabs

The boat does not have Trim Tabs

Getting Underway

DISCONNECT the shore power:

1. First, turn off all AC breakers (right column of breakers) at the breaker panel
2. Turn power switch on dock unit **off** and disconnect dock end of power cord. Do not drop the end of the cord in the water! Then disconnect the boat end of plug and store cord in lazarette.
3. At the breaker panel, turn on OUTLETS 2 AND CABIN OUTLETS. Turn on your VHF and Electronics.
4. Close the PORTHOLES, WINDOWS, and FORWARD HATCH. 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 will take place at the helm. You may need to position crew to monitor for collisions and guidance.

Engage the GEARSHIFT. The single combined Shift / Throttle control allows easy operation. Cruising speed is about 2100 RPM for 8 knots. Your speed will vary depending upon the weight and weather conditions.

See Addendum A for a full list of Power, Speed and Range Settings

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

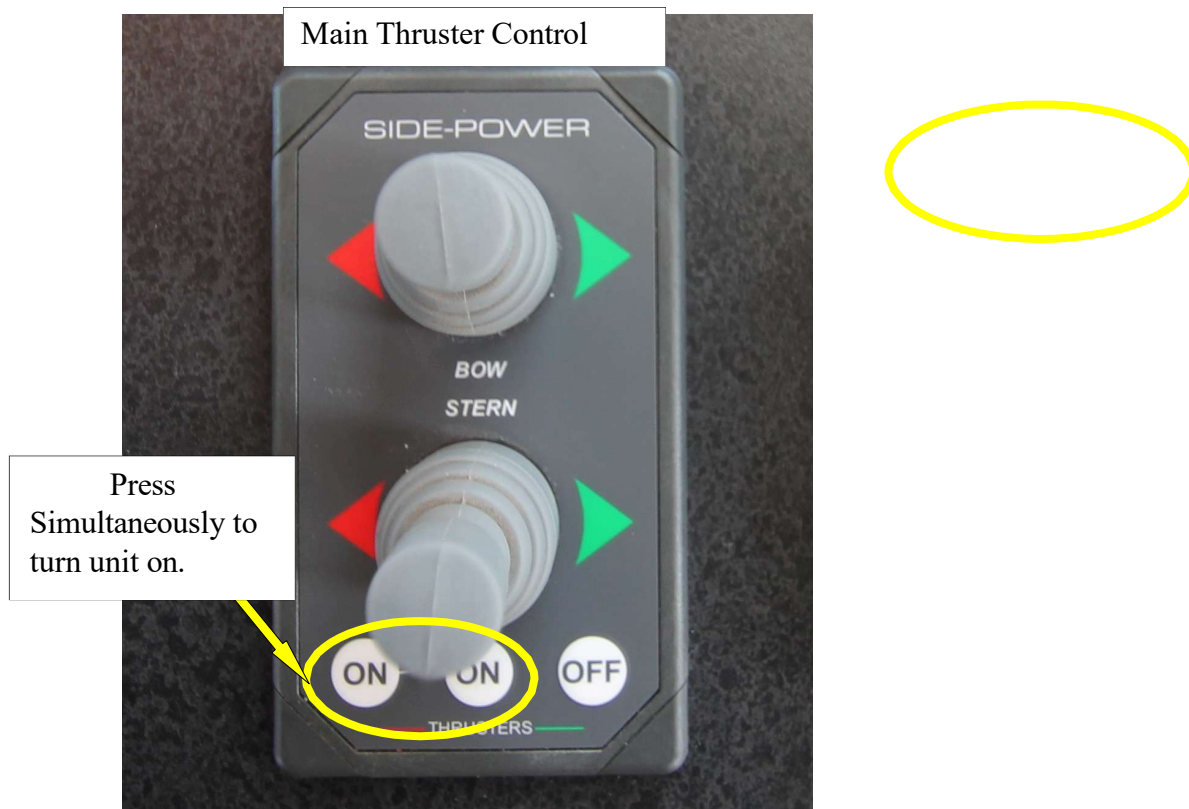
Docking

During docking, 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.

Thrusters

The Ignition must be On for the Thrusters to function

The boat features both **Bow and Stern Thrusters**, controlled at the Helm. These are electrically powered and consume a lot of energy. Turn on by pressing both ON buttons simultaneously. They will automatically turn off after 5 min or so. Use them sparingly, in short bursts (don't hold more than a second or two). Overuse will result in Over Heating / Possible damage, and a quick drain of battery power. Only operate while the engine is running, to supply additional power from the alternator.



Shut-Down

Before shutting down, allow the engine to 'idle' for about 5 minutes to cool gradually and uniformly. The time engaged in preparing to dock the boat is usually sufficient. Ensure the GEARSHIFT is in the 'neutral' position and turn off engine by pressing the **Stop** button, then the **Ignition** button.

Fueling

This system has 2 Tanks totaling 230 Gallons-YOU MUST FILL BOTH SIDES!

OPEN FILLER CAP(S) located on both starboard and port gunnels, near the rear, with a DECK FITTING KEY which is kept on the hook at the entry door. Don't Drop the Caps

MAKE SURE YOU HAVE THE RIGHT FUEL! DIESEL! DIESEL! DIESEL! MAKE SURE IT IS GOING INTO THE RIGHT DECK FILL! DOUBLE-CHECK THAT IT DOESN'T GO INTO THE WATER TANK!

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. Periodically, have someone monitor the Fuel gauge, at the Helm panel.

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 Stain on the hull and 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., Both controlled on the Main Helm Panel.

Battery Switches

The systems are controlled from the MAIN PANEL located at the Helm, along with the DC Breakers and the BATTERY SWITCHES. When not connected to shore power, batteries are providing all power. Therefore, monitor the use of onboard electricity carefully with the volt meters located on the Main Panel. Turn off electrical devices that are not needed. **When not connected to shore power, the Inverter automatically engages to provide AC power to the 120 V circuits. Heavy loads must be removed in this state**

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 signify irregular use or use with discretion.

Shore Power

SHORE POWER supports all AC equipment and receptacles on board, as well as the **Battery Charger / Inverter**. The status can be seen on the **Inverter Display Panel**, mounted on the port end of the Helm Console.

To connect to shore power,

1. Turn off the AC MAIN shore power breaker and the dock breaker before proceeding. These should already be off.
2. Inspect the shore power cable and the dock receptacle before plugging in. There should not be any burn marks or deformed contacts, and the plug should be free of corrosion. Check the power rating/plug size of the nearest dock receptacle (that is 50-amp, 30-amp, 20 amp, or 15 amp). If necessary, add a CORD ADAPTER located in the Propane Locker.
3. Taking care not to drop cord in the water, plug the 30-amp POWER CORD into the boat and then into the dock receptacle (wrap cord around post once to prevent accidental unplugging).
4. Turn on dock power switch
5. Go to the main AC distribution panel and check for proper polarity. If you have a red "reverse polarity" light, then the dock has been wired incorrectly and needs to be corrected before it is safe to turn on shore power. Ignoring this may cause damage to the boat's electrical system and or electrical devices on-board.
6. On the breaker panel, flip the AC Main and the Inverter AC supply breakers to ON. Then turn on appropriate breakers for heater, water heater, etc. Watch your volt meter for load. If the load exceeds rated Amperage and the Voltage drops, you may pop your breaker. If this occurs, wait to turn on one of your systems (i.e., water heater) until your use of power drops and voltage returns to appropriate levels (110-120 volts).

If your outlets fail to work but the AC meter is showing appropriate voltage, check your GFIs to make sure that they have not been tripped.



Inverter

The INVERTER provides AC power to the 110-volt circuits (i.e., the microwave oven and outlets only) when the boat is disconnected from shore power. The inverter does not provide power to the battery charger. Your inverter control panel is located at the end of the Helm Console. Make certain that it is on. The actual inverter is located under the Dinette Seat.

The inverter's power source is the DC House batteries located in the Engine Room and Tank compartments. The quantity of DC power is limited to the capacity of these batteries. Therefore, running hair dryers, toaster, coffeepots, electric heater, etc. will quickly discharge the House batteries. Use these items VERY SPARINGLY! Monitor your battery usage carefully!

When connected to shore power, the inverter automatically becomes a battery charger for the 12-volt 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.

If AC Power is not displayed at the main panel, check the Main Supply Breaker at the Port side of the Salon.

The power supplied to **Docks** is highly variable. If insufficient power is available, the supply voltage may drop and limit the efficiency of your onboard systems or cause a fault.



Generator -The boat does not have a Generator

Solar Panel

The boat has a small Solar panel that automatically supplements the other charging systems when Sun is available. The disconnect for this is at the end of the Helm Overhead. There should be no reason to disconnect this.

House Battery (12-Volt) System

DC master breakers and controls are located in the Tank room

Three (ea), D4 Batteries support 12-volt House DC loads. One (ea), D4 Engine battery is dedicated to the Engine.

The House Battery Main Breaker is located at the Helm Panel. Normally, leave the DC MAIN Breaker in the 'ON' position.

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, electronics, VHF, etc. Bilge pumps should always be left on auto.

House Battery Bank & Switch

The HOUSE BATTERY BANK provides power for all DC systems, except the engine and 3 automatic bilge pumps. When disconnected from shore power, all 12-volt devices drain the house battery. Use devices as needed, but conservatively. The DC voltmeter on the Main Panel can be switched between House and Engine 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.

All batteries are charged by the engine ALTERNATOR while underway. The engine & house batteries are charged by the Inverter / BATTERY CHARGER when connected to shore power.

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%

To preserve battery life, charge batteries when they get down to 12.0 volts

Battery Parallel / Combiner Switch (Section 9.4 Owner's Manual)

The ENGINE BATTERY is connected only to the engine. However, should the engine battery be insufficiently charged to start its engine, the House battery may be temporarily connected to provide a boost. Press the BATTERY COMBINER SWITCH located on the Main Helm Panel. Turn off after the engine starts. If the Combiner Switch is left on, it is possible to drain both House and Engine battery banks and you will be disabled.



SANITATION SYSTEM (Section 9.10 Owner's Manual)

Toilet

This is an electrically operated, fresh water system.

It is important that every member of the crew be informed of 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 RESPONSIBILITY! Don't try to force anything through the toilet.

Always pump the head for children, so you can make sure nothing foreign is being flushed.

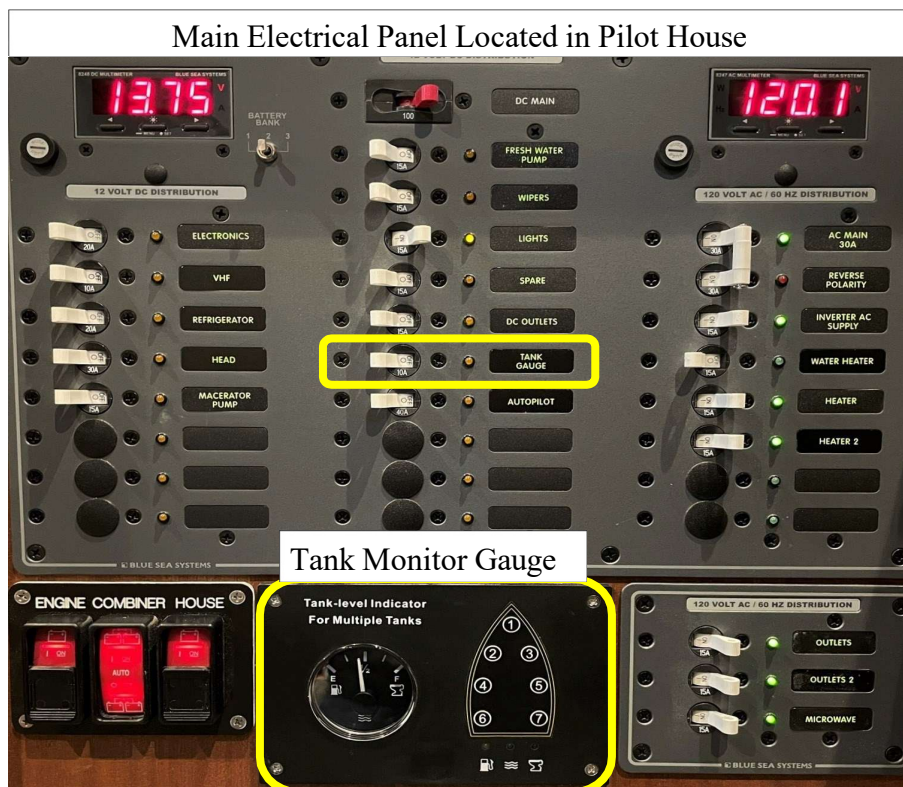
Caution – Never put paper towels, tampons, Kleenex, sanitary napkins, household toilet paper, or food into the marine toilet. Use only the special dissolving marine toilet tissue provided by AYC.

To use the toilet,
Press the Water button briefly to Wet the bowl.
Do your business.
Press the Flush button.

Use this sparingly, the Black water Holding Tank is 45 gallons and it can add up quickly.

Holding Tank

The sanitation HOLDING TANK holds approximately 45 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 hatch at the foot of the master bed. There is a tank level gauge located with the Tank Status displays on the Main Helm Panel. Do not rely upon this as they often get clogged. You may tap the tank or shine through with a flashlight to verify the level.

The holding tank is emptied in one of two ways:

#1 At the Marine Pump-Out Station, remove the WASTE CAP located on the Starboard Gunnel, Forward. Insert the pump-out nozzle into the waste opening. Double-check your deck fitting! Turn on pump and open valve (very slowly at first!) located on handle. When pumping is finished, remove from deck fitting, flush with a small amount of sea water, close the lever on the handle and turn off pump.

If there is a fresh water hose on the dock, rinse the tank by adding 2 minutes of water into tank. Then repump. Add Tank Deodorizer Treatment. This also eliminates head odors.

#2 The tank's contents can be discharged with the MACERATOR only in Canadian waters or beyond 3 miles offshore (NEVER IN THE SAN JUAN ISLANDS).

The Macerator is Key operated at the Helm, and the keys are removed to eliminate error. The key is kept in the Drawer under the Passenger Seat. To operate the macerator, Open the Discharge Valve in the Engine Room, then operate the key. Listen to the macerator's sound. When the pitch becomes higher, the tank is empty. Discharge may be observed on the Starboard side. It should only take a few minutes to empty the tank. **Be sure to Close the Discharge Valve and remove the key.**

Waste Discharge Valve

A plastic strap keeps the handle pointed to **Closed – the normal position**. *Discharge 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 2 FRESH WATER TANKS hold 120 gallons. Observe the water level at the Helm Main Panel. Waste water from the sinks and showers drains overboard through various thru-hulls located under the sinks or pumped overboard from the Sump Box.

For filling water tanks, ONLY use the white hose located in the lazarette. This hose is designated for fresh water filling ONLY!

To refill the tank, remove the WATER CAP(S) located on both gunnels and fill both tanks. Avoid flushing debris from the deck into the tank opening. DO NOT fill water and diesel at the same time! **“Do not fill with water from the Pump Out station”**

Fresh Water Pump

The WATER PRESSURE PUMP is located in the Tank Room and flows through a whole house Filter. Activate the pump at the Main DC panel by turning on the FRESH WATER PUMP breaker. 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 BREAKER AND FRESH WATER PUMP BREAKER on the AC panel. Serious damage can occur!

Hot Water Tank

The HOT WATER HEATER has an 11-gallon capacity tank and is available when connected to shore power, via engine heat when underway, or via the Diesel Furnace. 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 in the Tank Room.

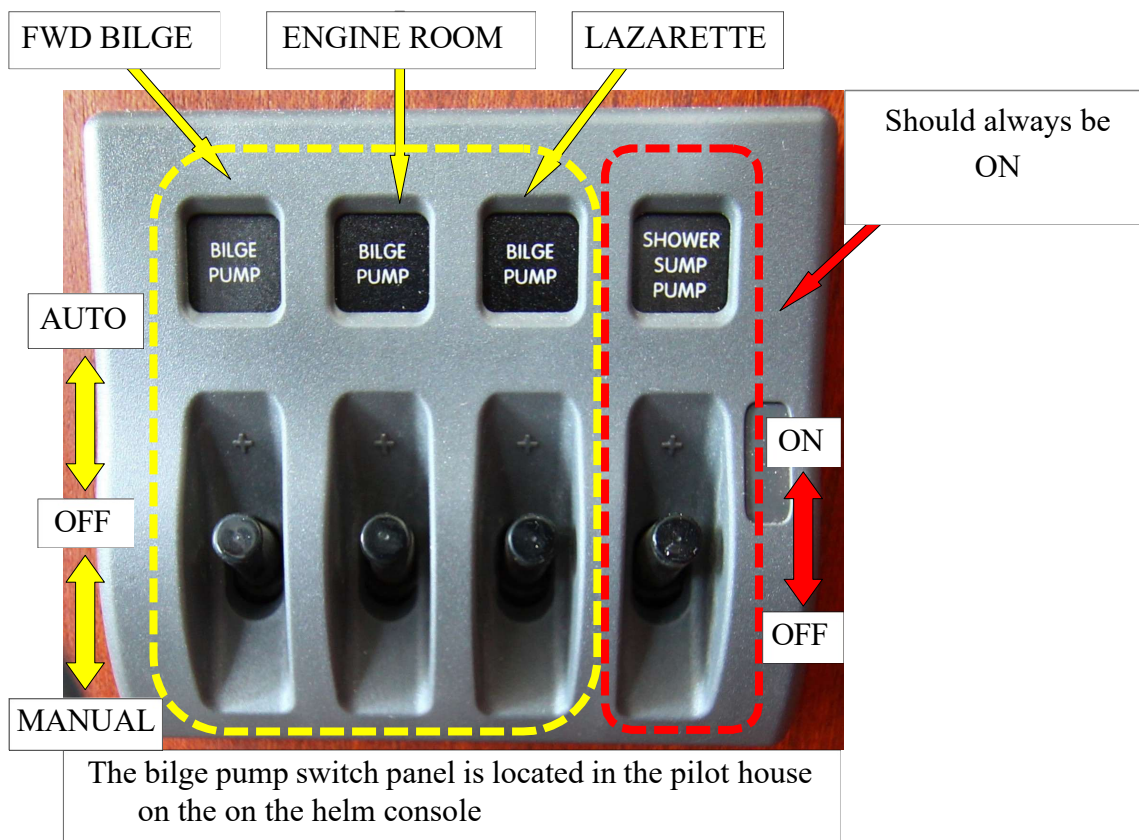
Shower

Before taking a SHOWER, make sure **Fresh Water Pump** breaker is on. **Note: the plumbing is backwards in the shower: hot is cold, cold is hot.** 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. An additional FRESH WATER SHOWER is located on the Port Side, Aft Gunnel. Ensure that the faucets and nozzle are completely off after use.

A pressure RAW WATER WASHDOWN is available from hose spigots both Forward and Aft. To activate, flip the SEA WATER WASHDOWN SWITCH located at the Helm Station. After use, turn the switch off to prevent pump burnout, and ensure no object leans on the switch to turn it on accidentally.

Bilge Pumps

The boat is equipped with 3 AUTOMATIC BILGE PUMPS. The master switch is located on the Helm panel. Normally, the switch will be left in the AUTO position. These pumps are always active. You may occasionally hear the pump operate due to condensation and water from the shaft log accumulating in the bilge. These may be manually activated at the Helm.



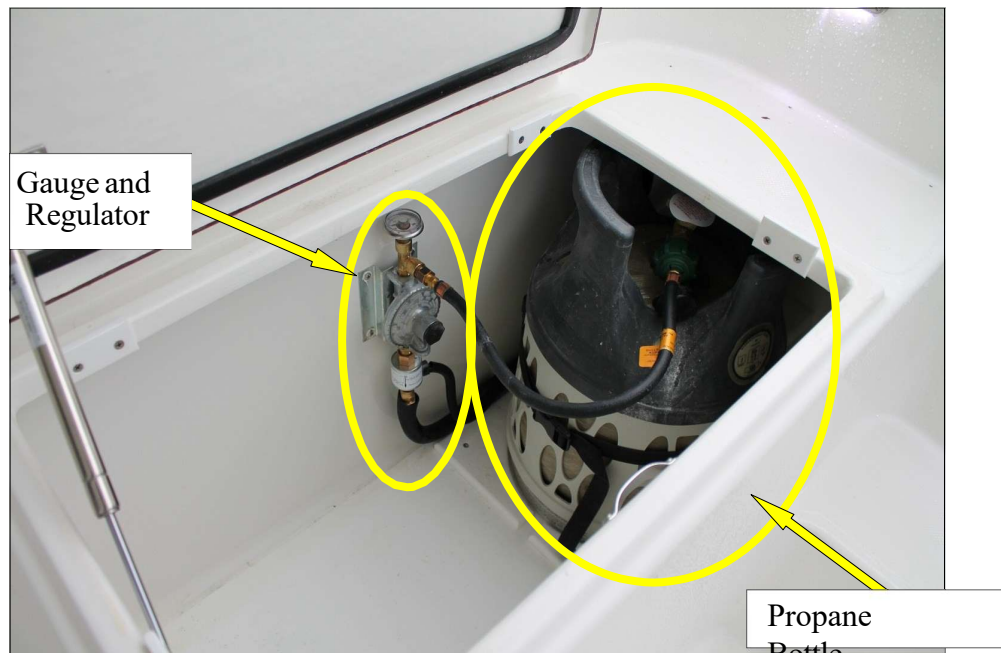
In addition, there is a multi, Bilge Monitoring System that actively checks for High Water in each compartment, if water exceeds the pump switch depth, it will sound an alarm. This system is displayed at the end of the passenger seat, bottom left panel under heater controls.

GALLEY

Stove/Oven

The stove and oven are propane fired. Your propane stove is activated by the following steps:

- #1 Turn on the propane tank located in the propane box in the cockpit.
- #2 Turn on the solenoid switch located inside the rear door, although this will likely already be on. Green dot should be lit.
- #3 Turn on the gas at the stove (Press in knob) and light burner. You need to hold **knob In** for a few seconds while the thermocouple warms up. The same applies to lighting the oven.
- #4 When finished cooking turn off the switches and the propane bottle.



Refrigerator / Freezer

The REFRIGERATOR is 12 VDC. Monitor the use of the refrigerator when not charging the 12-volt battery system. The Refrigerator Thermostat is located above the front door. It can be turned down to the lowest position when anchored or moored. It may be turned off at the Main Helm Panel.

HEATING & SYSTEMS

Diesel Heater (DC)

The DIESEL FORCED-AIR FURNACE is located in the engine room and provides heat via Hot Water in the same way as a household furnace. Turn on the toggle switch labeled SYSTEM HEAT located at the end of the passenger seat. Set the THERMOSTAT to the desired temperature.

Check the furnace EXHAUST PORT located on the Starboard side for any obstruction such as fenders or lines. Do not block this opening when operating the furnace. Heat will damage fiberglass or rubber. Once it is on, allow it to run for at least 15 minutes before turning it off. It takes some time to heat up so it won't start blowing warm air for a while. Turn 'off' the furnace heater by turning /SYSTEM HEAT switch off.



Built-in Cabin Heat (AC)

2 ELECTRIC HEATERS are available-ONLY USE when connected to shore power. One is located at the rear door and one in the main stateroom. These are controlled by their individual thermostats. Make sure the heater and heater 2 breakers on the AC panel are on. **Do not use these when running on DC Power from the Inverter.**

Engine Heat

The Diesel cabin heater is available while underway from engine heat or via the diesel fired furnace. The engine / furnace Hot Water system provides heat in the same way as a car heater.

ELECTRONICS

A Garmin Electronic Manual with operating information is available on the Garmin MFD's

VHF Radio

There is one VHF RADIO located on the Helm Overhead. Make sure the VHF breaker is on, located at the Main Helm Panel.

Always monitor channel 16 while underway.

Depth Sounder

There is one DEPTH SOUNDER, it is available from the Garmin MFD. The boat draft when loaded is approximately 4 ft. The sounder should provide reliable readings in shallow waters. False readings can occur in depths of more than 200 feet or in areas of strong currents or tides. **The Depth Alarm is set at 10 ft.**

*Remember to **ALWAYS** consult your charts for depth!*

Radar

Radar functions are available through the Garmin MFD's
Remember you are not allowed to travel in FOG or in serious wind conditions.

Global Positioning System (GPS)

A fixed mount Garmin GPS is accessed through the Garmin MFD's.
This system is user friendly and provides an abundance of features.
Press the 'page' button to scroll through functions. Refer to the manual on screen.

***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.*

AIS

The boat does have AIS (Automatic Identification System) IN *capability* and is accessed thru the Garmin MFD's. This allows you to identify other vessels that are transmitting an AIS identifier.

ENTERTAINMENT

AM/FM Stereo Radio

The Fusion AM/FM radio with Bluetooth connectivity is located at the end of the passenger seat. It operates like a normal car radio. There are 2 speakers (stereo) in the salon.

TV/VCR

A TV is mounted to the back of the passenger seat. It is a Smart TV with typical controls and access to the onboard Starlink system for internet service. It is controlled via a standard remote.

WIFI / Internet

WIFI service is available via Starlink. This has some variability depending on position, weather, etc. The Outlet breaker must be on for the Starlink to be on.

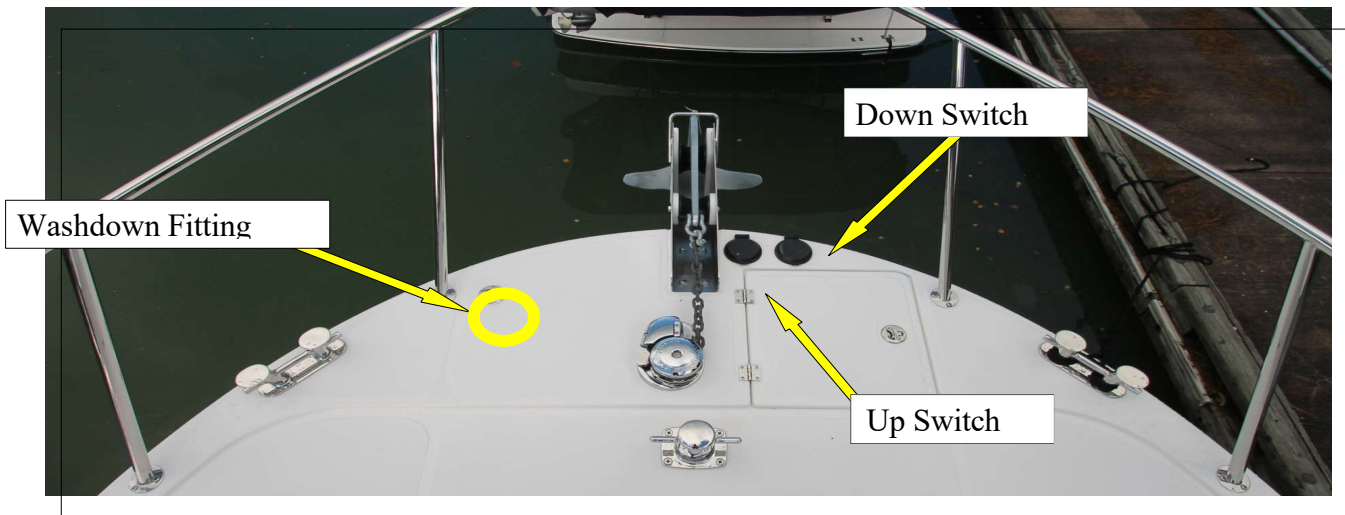
Network: Three G's Starlink Password: 3ThreeGs!

ANCHORING

The primary WORKING ANCHOR is a 40 lb. Claw and is attached to 50 ft of chain and 150 ft. nylon rode passed through the deck and electric Windlass from the ANCHOR LOCKER. The locker can be accessed through the bow hatch. Release the anchor keeper line before anchoring.

Windlass

The Windlass main disconnect is in the master stateroom. Switches at the bow control operation, tap gently on the 'down' foot control to lower the anchor. If necessary, guide the anchor over the anchor roller to prevent binding.



Anchor Chain

Let out sufficient ANCHOR RODE (chain and nylon line) before setting the anchor. Colored markers are placed every 25 feet on the chain and nylon rode, indicated amount of rode. If the anchorage is crowded put down at least a 5 to 1 scope (100 feet for 20 feet of water) 7:1 is preferred, back the anchor in with a short burst from the engine. Then let out additional scope dependent upon conditions.

Lowering the Anchor:

1. Gently tap the Down Switch until the anchor is just out of its cradle, hanging vertically with little to no swaying.
2. Fully engage the Down Switch until the anchor is lowered to your desired depth. You can also release the break to rapidly drop the anchor.

Raising the Anchor

1. Engage the Up Switch until the anchor is shy of the waterline.
2. Slow down slightly and carefully continue to raise the anchor up through the waterline. Take care not to pull the anchor at a speed that will cause it to whip-about.
3. When the anchor shank is just at the roller and is hanging freely without swaying, *gently* tap the Up Switch until the anchor is back in its cradle, and secure.
4. Use the washdown system to clean mud and debris from the chain and anchor.

Before raising the anchor, ALWAYS start the engines as the Windlass uses large amounts of power and you will need to maneuver the boat. As the boat moves toward the anchor, press the 'up' control to take up slack line. Only pull up the anchor when the rode is vertical under the bow. Do not use the windlass to pull the boat toward the anchor. Give the windlass short rests as you are pulling it up

Watch your fingers.

Re-tie the keeper line between the anchor and cleat. Close the plastic covers on the FOOT PEDAL CONTROLS.

A small SPARE Danforth ANCHOR is stowed in the lazarette locker with the 100 ft SPARE ANCHOR RODE. Attach the rode securely to the chain shackle.

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 mooring 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 mooring 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. You should create a bridle with about 10 feet of slack from the chalk to the can.

Our Mooring Hook is a hook & moor which threads the rope for you so you don't have to pull up the heavy chain. You can watch a YouTube video to learn how to use it. It's too hard to describe in words.

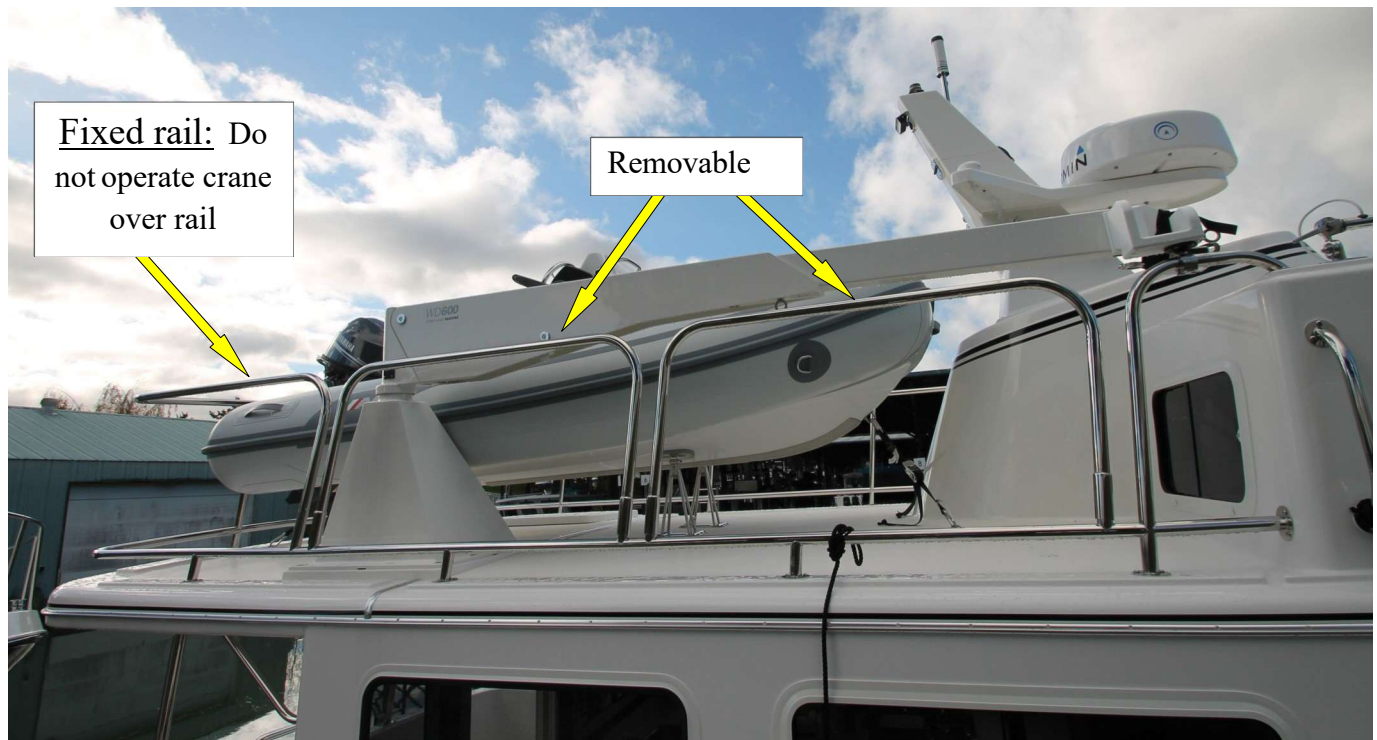
DINGHY & OUTBOARD MOTOR (See Section 16.1 Owner's Manual)

The 10 ft Bullfrog Dingy has a capacity of about 350 pounds and is equipped with a 15 Hp electric start outboard.

The Dinghy is stored above the Salon Deck on removable davit chairs. It is serviced by a 600 lb., Steelhead Crane with Remote Control. **Be sure not to lose the Control overboard.**

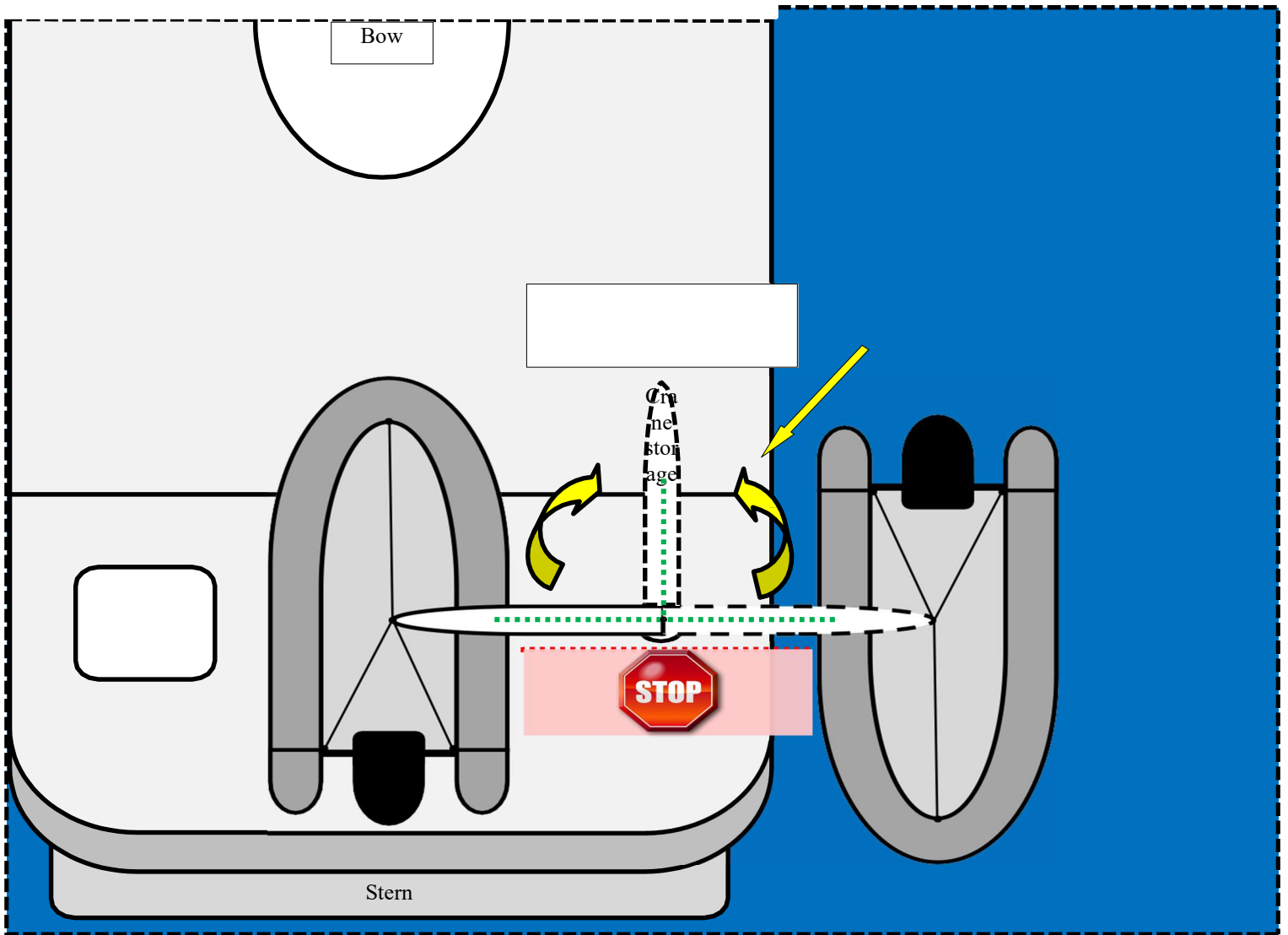
To deploy the dinghy, have at least 2 people on this job and close the hatch to the roof. Remove the upper Starboard Side Rails (2 of them are removable) and 4 hold down straps from bottom of dinghy. Tie a line to the crane to control the swing- the remote only controls up and down. The crane hook apparatus slides out of its holding slot by gliding it aft. Clip the crane hook to the dinghy sling center hook. With the remote, raise the dinghy off it's mounts and manually guide it over the side, making sure not to hit the Starlink. Don't allow it to contact the side of the boat when slowly lowering to the water. Hand the line tied to the bow to a person on the stern so they can control it once it hits the water (this person needs to stay under to roof cover for safety).

Use Caution to avoid Injury or Damage, do not launch in rough or windy conditions.





Rotating the crane beyond its safe operating limit (270 deg.) could result in serious property damage or personal injury.



When towing the Dinghy, assign one of your crew members as the “dinghy” person to be responsible for taking up slack to bring it in tight to the boat any time that you slow down or stop. 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. Measure the crabs using the CRAB MEASURING GAUGE normally located -----. 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. Remember to **Deploy Floats, Mark the Location, Start Recovery, Communicate**. Press the **Mark** button on the GPS. Perhaps even practice with a life jacket. Remember your life jackets are stowed in the Tank Room, accessed from the Salon. A few should always be out and ready along with at least one throw cushion. Your flares and safety equipment are located in the Tank Room, in an orange plastic box.

The boat is equipped with 3 AUTOMATIC BILGE PUMPS. The master switch is located on the Helm 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. These may be manually activated at the Helm.

The ENGINE SPARES BOX is stowed in the Engine Room. This includes oil filter, raw water impeller, pump parts, and other small parts. A minimal Tool kit is located along side.

BARBECUE

The BARBECUE is attached to the swim deck rail.

Attach a PROPANE BOTTLE. Carefully light the unit, preferably with a long-stem butane lighter. The barbecue generates a lot of heat and cooks hot and fast.

Please brush and wipe with paper towels to prevent grease and dirt soiling the boat.

*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 in the Propane cabinet.** Ensure gasoline and flammable materials are not near the barbecue.*

THRU-HULL LOCATIONS

Primary Thru-Hulls and their associated valves are located in the forward Engine Room



SEA STRAINERS

There are 2 Strainers located on the Engine Room Bulkhead. The main serves the Engine and a secondary, small strainer serves the Wash Down pump. Monitor these for trash accumulation and maintain as necessary. **The Engine Strainer is Critical**

Your privacy matters. Firefox now securely routes your DNS requests whenever possible to a partner service to protect you while you browse.

Okay

Disa

Photos Life Onboard Arrangement Plans Brochure & Standard Equipment

RPM	AVG SPEED	GPH	% LOAD	NMPG	RANGE 10% RESERVE
900	4.4	0.5	22	8.80	1822
1100	5.15	0.6	23	8.58	1777
1300	6.05	0.8	25	7.56	1565
1500	6.7	1.3	33	5.15	1067
1700	7.4	1.9	44	3.89	806
1900	7.8	2.5	46	3.12	646
2100	8.4	3.5	47	2.40	497
2300	8.9	5	61	1.78	368
2500	9.5	6.1	68	1.56	322
2700	10.25	7.7	69	1.33	276
2900	11.4	9.4	68	1.21	251
3100	12.7	11	79	1.15	239
3300	14.1	13	86	1.08	225
3500	15.25	14	93	1.09	225
3565	16.65	15			230

362 Speed Data

American Tug 362 Specifications

Converting the Dinette Table to a Bed

1. The table is attached to the wall by a slot bracket NOT A HINGE. Therefore, you must lift the whole table straight up while keeping it level (not just the end).
2. Fold the leg under the table
3. Lift the cushions up and lay the table between the benches
4. Cover the table with the seat back cushions to make a bed.
5. When putting it back to a table, slide the bracket into the slot while keeping the table level.
6. Extend the leg and place the tip securely into the indentation in the floor.

Enjoy your Stay

If you have comments or concerns, please let us know how we can improve.