

SPIRIT III

A 46' NAVIGATOR MOTOR YACHT

OWNERS NOTES - 2007

SPIRIT III PARTICULARS

BUILDER NAVIGATOR
LENGTH 46'
BEAM 15'3"
DRAFT 4'5"
LAUNCHED June, 1996
MAIN ENGINES TWIN VOLVO PENTA TAMD-61-A 306 HP EACH

GENERATOR IN SOUND SHIELD 9KW KOHLER
RADAR/REPEATER FURUNO NAV NET 2 + DEPTH SOUNDER
ELECTRONIC FLUX GATE COMPASS
VHF ICOM W/HAILER LOWER HELM STATION
COMPASS FLUX GATE AND RITCHIE LOWER HELM STATION
BOW THRUSTER SIDE POWER 8 HP
GPS/PLOTTER COM NAV AUTO PILOT – INTERFACED

ELECTRIC DISTRIBUTION PANELS STB. SIDE SALOON - 12 VDT
SEWAGE SYSTEM 70 GALLON HOLDING TANK
FUEL (2 TANKS-250 EACH) TOTAL 500 GALLONS
FUEL FILTERS RACOR W/PRESSURE GAUGES
WATER - 2 TANKS (140 MAIN/90 UNDER MASTER BERTH) 230 GALLONS

WINDLESS MUIR
ANCHORS 45# BRUCE WITH 250' CHAIN AND 40# DANFORTH SPARE
FENDERS 8 EACH 10" X 26"
DINGHY ACHILLES 11' RIB
DINGHY OUT BOARD MOTOR 2 CYCLE MERCURY 25 HP

STATEROOMS 2
HEADS 2
SHOWERS 2
CABIN HEAT WEBASTO DIESEL FORCED AIR + 3 115V SPACE HEATERS
GALLEY COOKING KOHLER Electric-3 burner Plus
CONVECTION/MICROWAVE
BATTERIES 5 DEEP CYCLE
INVERTER MAGNUM 3125 WITH 125 AMP CHARGER
AUTOMATED FIRE SUPPRESSION FIREBOY SYSTEM - in engine room.

Miscellaneous: EZ Docker hook, 2 pair binoculars, navigation charts, cruising guides, barbecue grill, crab ring, * Etc.

SPIRIT III is a Navigator 46 twin screw Motor yacht of traditional yacht design with fiberglass hull, swim step, bow pulpit, flying bridge and is trimmed with stainless steel fittings. The interior is light with big windows and a comfortable saloon area. There are two sleeping areas: the stateroom in the v-berth area and the aft stateroom with queen bed. There are two heads. The galley is all-electric, with stove top, convection/microwave oven and refrigerator/freezer. The engine room has two Volvo Penta 306 hp diesel engines. This Navigator was designed to bring pleasure, fun and enjoyment to all that are reading these 'Owners Notes'. Please enjoy the 360 degree view from Pilot House.

ANCHOR & WINDLASS

THE MASTER CONTROL SWITCH FOR THE WINDLASS IS LOCATED ON THE LEFT HAND SIDE OF THE DISTRIBUTION PANEL. This must be turned on in order to operate the windlass. It is important to have the engines running when raising or lowering the anchor so that they may provide power to the windlass rather than the 12-volt batteries alone.

The anchor windlass is a 12-volt (Vdc) Muir Cougar windlass with activation controls mounted on the deck near the windlass. These push button up/down controls each have protective cover plates that should be closed when not in use. As a safety feature expose just one control button at a time. Caution should be used when raising or lowering the anchor to keep fingers, hands, feet, children and clothing clear of the chain. The anchor is a 45# Bruce with 250' of chain and there is a second anchor on board that is a 40 lb. Danforth with chain and line rode stowed in the lazarette. Anchor light switch is located on lower port side of fly bridge helm and main switch in electric panel.

AUTOMATED FIRE SUPPRESSION

A Fireboy automated fire suppression system is located in the engine room. It has an auto shutdown for both main engines, plus the Kohler generator. When working in the engine room please be careful not to bump your head on this centerline ceiling mounted unit.

Should a fire occur, when it is extinguished by the automated system, the engines may be restarted by switching the centrally located switch, just forward of steering wheel. Turn switch to the right. Note: The system must be recharged after use, before rearming. Also, numerous fire extinguishers are located throughout the boat.

BARBECUE

This large grill is stowed in the lazarette on the port side. The small propane tanks are stored on the starboard side in a plastic basket aft under steering arm.

BATTERIES AND CHARGING

There are three 'banks' of batteries on SPIRIT III. The starting battery is used only to start the engines and is charged by the engine alternator when the engines are running, or can be charged by the battery charger when the boat is on shore power or when the generator is running. The house batteries some times called the accessory battery operates the vessels pumps, interior & exterior lights, horns, navigation and radio gear, and inverter, etc. It is charged by the alternator on the starboard engine and when there is 110-volt ac power provided by shore power or the generator. The generator battery is used to start the generator only. It is located outboard of the Kohler generator and is a 4-D amp AGM which is heavy duty enough to start the main engines when properly routed by all battery main switches located behind the port engine above the main battery bank. Additionally, power may be routed to the generator from the main battery bank.

BERTHS

There are two sleeping areas on SPIRIT III. One Stateroom is in the forward 'Vee' area with an island queen berth and storage lockers. This stateroom opens directly into a head with sink, cabinets and shower. There is full standing headroom in this stateroom. The Master Stateroom is aft and has its own head/shower. This stateroom provides hanging lockers, cloths storage and a queen size bed. Also, there is a narrow but long enough berth in the pilothouse for one person.

BILGE PUMPS - (3 each)

The 12-volt electric bilge pumps in SPIRIT III are impeller-type pumps. There is an automatic bilge pump switch ("auto float switch") mounted next to each pump. The 'auto float' switch is wired directly to the battery. Operation of the bilge pumps should be checked frequently by activating the dash panel switch and verify that any water in the bilge is being pumped overboard. Manual switches are located in the main electric panel. Caution: the Federal Water Pollution act prohibits the discharge of oil or waste into navigable waters. If the bilge discharge causes an oily sheen, or discoloration of the water --- stop pumping the bilge.

DINGHY & OUTBOARD

SPIRIT III has an 11' Achilles hard bottom inflatable dinghy with a 25 hp 2 cycle outboard motor, 2 oars, gas cans, and a built-in seat for three or four when under way. The outboard engine is a two-stroke engine and oil must be added to the fuel at 50-1 ratio. Mercury Quicksilver oil is located in the lazarette. The main 6 gallon tank is under the dinghy seating and should be filled by using a black plastic funnel with extension (found

in the lazarette area on starboard side in plastic box). Use a 5 gallon portable fuel can, found on the top of the starboard fuel tank. An additional 1 gallon can is located under the dash of Achilles. An inflatable air pump, as a small anchor and rods are in a white bag in the bow area of the dinghy. A minor repair tool kit is strapped in under the dinghy seat. To start, turn fuel valve on, open choke, open air vent on fuel tank cap and set throttle by aligning the red dot with arrow on the throttle arm. Forward and reverse is controlled with the settings on the throttle arm. Use only regular unleaded 92 octane gas. Make sure to close the air vent on the fuel tank when finished for safety.

Before using the davit, remove the seat back nearest the davit. Otherwise the davit will damage the seat upholstery when the dinghy swings outboard. Please note the direction of the cable wrap around the drum. (If you let the cable full out and wind up the cable the wrong way, it will destroy the cable on the pin. Best not to let out all the way to avoid this happening.) Turn either the generator or the engine (or shore power) on before using the davit to avoid damaging the batteries and discharging the batteries.

DOCKING AND ANCHORING TIPS

There are many, many ways to dock a twin-screw boat and here are just a few suggestions. Remember “stern line” first for safety first. Regardless of which way the wind is blowing, secure the stern line to the dock as quickly as possible. The boat may then be brought parallel and close to the dock with a few gentle forward applications of the outboard engine shift control. The bow thruster greatly adds to control, and will be much appreciated.

Bow Thruster: Installed in 2005. (8” electric power operable from both helms.)
Operation: Both ON buttons must be pressed together to operate. There is a time turn off on this system, so close observation of On Light is necessary. If it automatically turns off, both ON buttons must be pressed together again to operate system..

When dropping the anchor in the Washington State Marine Parks you will find SPIRIT III’s all chain anchor rode a pleasure to work with. With all chain rode and a good holding bottom, a four to one ratio or more will be satisfactory. (In other words if the depth sounder is showing 20’ then 80’ of chain would work. Don’t forget to add even more chain if the incoming tide will add to the depth.) Please be cautious when using the anchor windlass and keep hands, clothing and children clear of the windlass. Suggestion: Always keep one deck mounted up/down control button covered to prevent accidental engagement. Also, please do not store muddy anchor chain as it smells and fouls up the chain locker.

A remote search light is operative from the fly bridge. Cover must be removed before use and replaced after use.

Fore & Aft wash down system: The seawater fore and aft washdown system for anchor, etc. must be turned on by a switch on the upper left main panel. Please be sure to keep it in the off position when not in use. The switch position is up for on, and down is off.

Sea water pump is located starboard, out board side, by engine - thru hull is forward of starboard engine with clean able filter. Do not leave switch on. A 25' white hose and nozzle are stored in the open cock pit storage.

FLYING BRIDGE

The flying bridge on SPIRIT III is indeed a pleasure, as it provides open air comfort when under way and a position to watch the world go by when at anchor or dockside. Nearly all of the engine and navigation instrument controls are accessible at the upper helm and there are described in the 'upper/lower helm control' section. One exception is that the engine preheat control is usually at the lower helm station only.

ELECTRICAL DISTRIBUTION PANELS

The 12 volt DC circuit breakers are located on the left hand side and center portion of the master distribution panel, which is located on the starboard side aft of the pilothouse. Here you will find the heavy-duty breakers for the windlass and dinghy hoist. (Note: it is best to have the engine running when either of these two systems is being used. Both the windlass and the dinghy hoist require a large amount of 12 volt DC current and it is best to have the alternator or the engine supply this power rather than take this power from the batteries). SPECIAL NOTICE: There are a few (5) DC circuit breakers in the lower right hand corner of the distribution panel; under the AC circuit breakers; the Cable Master is one of these. The 110 volt AC circuit breakers are located on the right hand side of the distribution panel. These breakers control the shore power and the onboard generator power. The 110 volt AC receptacles look like the receptacles that you have at home. The cooking top and the microwave require 110 volt AC power which comes from the shore power or generator.

3125 watt inverter panel is located on starboard side aft of inverter on control panel. Please switch off when not in use. It has an automatic 125 amp charging system to the house batteries, which are 8D-AGM's. Care must be taken to keep this system operating at least to 11 volts. The Koller genset is the safety back up. The inverter does not operate the hot water heater, range top, or the portable 115 volt AC portable heaters. This is only through the Koller generator set or AC shore power.

ELECTRONICS - all new in 2006

Furuno Nav Net 2 - 36MKM Radar, Depth sounder, and GPS plotter --- all on 17" LED Monitor which can be folded back for visibility purposes. Caution - Do not set anything on monitor, as it could damage the viewing screen).

Auto Pilot - Com-Nav interfaced with electronics and remote on portside helm on fly bridge.

Instructions for electronics can be found in black file folder aft of pilot house door for new electronics.

ENGINES & STARTING PROCEDURE

The main engines on SPIRIT III are Volvo Penta Diesels producing a maximum of 306 horsepower each. On engine start, no long warm-up is required” three or four minutes is sufficient, then load the engine by putting the transmission in gear. Do not run the engine over 1400 RPM until the temperature gauge reads at least 140 degrees Fahrenheit. Do not run the engines for long periods with the transmission in neutral, with no load. Running at RPM less than 1200 RPM for periods more than 15-20 minutes is BAD for the engines. A 5-8 minute cool down is required before shut down.

These Volvo engines are red-lined at 2700 RPM. Maximum cruise is 2500 RPM. However, the realities of vessel hull design and power plant engineering dictate that higher RPM operation is very inefficient on semi-displacement vessels like the SPIRIT III, so here are some operating specifications to be used as guide lines. (Gallons per hour, speeds, and nautical miles/gallon are estimates - per engine).

RPM	GALLONS PER HOUR	SPEED, KNOTS	NAUTICAL MPG
2200	7.0	10.5	1.5
2400	9.5	12.0	1.25
2500	12.0	13.5	1.13

As you can see, each extra knot is very expensive once you have passed “displacement speed” of the vessel hull; this is a semi-Displacement ‘planning hull’ boat”. It is sensible to operate SPIRIT III in the 1600 RPM to 2200 RPM range, and you will enjoy quieter, more pleasant cruising and better economy, too. The owners have found that 9.5-10.9 knots, at approximately 1600 RPM provides a very economical cruise. Occasional RPM levels at 2200 RPM for 10 to 15 minutes are good for the engines and provide a more brisk speed. Additionally, the 1600 RPM level provides a minimal wake and shows good etiquette.

ENGINE START UP.

1. Check oil dipstick every morning before starting. Dipsticks are easily accessible for both engines in the engine room. Make sure that the oil is reading within the area marked xxx. If low, add oil that is onboard to bring reading into range. Delco 400 (15-40 WT) is provided.
2. Check coolant level in reservoir. Coolant level should be 1” - 2” above bottom.
3. Inspect sea strainer (below engine bulkhead on port side). Also check that stainless steel filter is clear.
4. Inspect absorber blanket under engine for any evidence of leaks.
5. Push glow plug button for 15 to 20 seconds and then start engine by turning the ignition key over one click to check voltage, then all the way over to start. Oil pressure alarm will turn off after a few seconds, as the engine builds oil pressure. Note: If engine charge alarm sounds, turn key 1 click off and wait 30 seconds. Then turn key back to normal position.
6. After the engine is started. Warm the engine for 5 - 8 minutes at 700 RPM. After casting off, put the engine under load (in gear) at 600 to 900 RPM until the temperature

comes up to about 160 degrees. This will take 15 to 20 minutes, long enough to maneuver the boat out of the marina or moorage.

7. When the temperature reaches 160 degrees increase to 1000 RPM until the temperature is 175 degrees. Please do not exceed the 1000 RPM until the operating temperature of 175 degrees has been obtained.

8. The engines will run at full load (1950 to 2150) at 185 degrees. If temperature reaches 200 degrees, back off the RPM.

9. Fuel economy is maximized in the 1600 to 2150 range, at an average of 3.5 GPH per engine running at 1600 rpm. Quite economical.

10. Run the engine at idle for 5 - 7 minutes before shut down in order to cool the engines.

11. ENGINE GAUGES ARE AS FOLLOWS:

Temperature of 185 degrees while under way is AOK. It's OK if temp reaches 190.

Oil pressure -- above 40 psi while under way and above 20 psi at idle.

LUBE OIL REQUIREMENTS:

Volvo main engines and Kohler 9KW generator -- use Chevron Delco 400 15/40 wt. **only**. Oil is located under engines in 1 gallon blue containers. There are 2 gallons of Prestone full strength antifreeze for the fresh water cooling systems of main engines and generator. If needed, please use a 50-1 mix of this and fresh water only.

Transmissions: ZF Hurth 30 weight oil only. If needed, install using small orange long neck funnel. Oil is in 1 qt. Containers on starboard side of lazarette in aft blue plastic box and also starboard side by transmission.

FUEL TANKS

SPIRIT III has two fuel tanks, 250 gallon each and are located port and starboard and outboard of the lazarette. The fuel fill fittings are located in the deck above the tanks inside the aft cockpit. Because there is a possible dollar fine for spilling fuel during the filling operation, it is suggested to have several rags near the nozzle and to monitor the fuel gauges at the lower helm instrument panel. The owners have found that using fuel additive such as Valve Tec diesel guard, not only provides added fuel economy, but dramatically reduces emissions from the engines. We highly recommend its use if for no other reason than more pleasant environment while cruising or using the generator at anchor.

GENERATOR

SPIRIT III has Kohler 9000 watt AC generator that is mainly used for cooking, battery charging, heating hot water, and heat using the portable electric cabin heaters. The generator itself is located in the engine room (aft and starboard) and its crank case oil level should be checked each day before use. When checking the oil, the dipstick must be wiped clean, reinserted and pulled out to read the oil level; as on the first withdrawal it may read 'dry' even though it isn't. The dipstick is on the starboard side of the generator. Most important is to check the sea water strainer to be sure that it has not accumulated a

substantial amount of debris while the generator was running for extended periods, particularly at anchor. If you clean the sea water strainer, be SURE to remember to shut seacock first, then reopen the sea cocks before starting engine.

STARTING & STOPPING THE GENERATOR

1. Make sure that the generator double circuit breaker on the AC panel is OFF.
2. On SPIRIT III there is a single switch that starts the generator. Raise this 'generator start-stop' switch until the generator starts and is running smoothly.
3. After generator has warmed (4 to 5 minutes) change the "Shore Power" selector switch to "Ship's Power" and move the double circuit breaker switch to ON.
4. Make sure that some of the AC circuit breakers are turned to the ON position to put a load on the generator.
5. To shut the generator down, take the load off by flipping the circuit breakers off. Let the generator run for 3 to 5 minutes to cool down and move the double circuit breaker switch to OFF. Then, hold the start-stop switch down.

HEAD & HOLDING TANK

SPIRIT III is equipped with an electric type of marine head which pumps the waste into a holding tank. The holding tank is emptied either of two ways: by operating an overboard macerator pump controlled at the DC power panel, or by pumping it out at a pump out station ashore. These heads are easy to use, odor free, and reliable. It uses seawater for flushing. To keep it operating properly, use a minimum amount of toilet paper and never put any foreign matter including facial tissue and/or personal hygiene items into the head.

To operate the marine head, open the inlet seacock on the seawater intake (This seacock will be open when you first go aboard.) Before using the head, pump some water in to wet the bowl. After use, pump until the bowl is thoroughly cleaned. Pump a few more times to clean the lines. From the head, the effluent is pumped to the Y that is located under the forward hall access hatch. Be sure to be a minimum of 3 KM offshore before dumping.

HVAC: HEATER & AIR CONDITIONING

The SPIRIT III does not have Air Conditioning, but it does offer three 110 volt AC heaters located in: Main saloon, guest Stateroom and Master Stateroom. The generator should be used for this purpose and for hot water heating. Also, the Webasto diesel hot air furnace takes the chill away nicely while at anchor. When on shore power, the portable Pelonis heaters are great!

Each heater is activated by a circuit breaker on the 12- volt panel and operated with its self contained thermostat.

MANUALS

All manuals for equipment and saloon items are stored in the Information/Maintenance black case located by the pilot house door on top of tool box.

CONVECTION-MICROWAVE

This unit operates on 'Shore Power' or 'Ship Power' (generator) and is controlled just like a home unit. Be sure that the circuit breaker is turned on.

REFRIGERATOR & FREEZER

The refrigerator operates on 110 volts AC and 12 volts DC power. When the 110 volt system is not operating, the refrigerator operates on 12 volts. When an AC source is supplied by a generator or by dockside power, the refrigerator automatically switches over to the 110 volt power supply. The refrigerator is the heaviest continuous draw on the 12 volt DC system. If no other 12 volt accessories are used, the refrigerator can draw a battery dead in less than 24 hours. For this reason it is recommended that when operating on 12 volts, the cold setting on the refrigerator should not be set higher than position two. It is also advisable to turn the refrigerator off at night. If you plan to be out more than one day and cannot connect to dockside power, you should plan to run the generator or engines periodically to maintain a charged battery.

ICE MAKER

The original ice maker has been converted to a freezer compartment for frozen food (or bags of ice) and a portable unit is located in the cockpit, starboard side. It must be filled with water manually as required. It makes ice in approximately 12 minutes and can make up to 35# of ice per day if required. It uses 400 watts of power, or 3 amp, so care is required to not run the batteries down while at anchor.

SHOWERS

Wastewater from the sinks and shower (but not from the toilets) is dumped overboard in accordance with U.S. and Canadian law. From the sink basins, the water simply flows by gravity overboard. Since the floor of the shower is below the water line, a built in shower sump pump under the Y-valve under the galley hatch operates to lift this water above the waterline and dump it overboard. It is important that the 'shower pump' circuit breaker is on when showering. Because the shower drain is relatively small, water usually accumulates in the base unit. The shower drains fairly slowly, which is normal

STEERING SYSTEM

SPIRIT III has a hydraulic steering system with helm pumps (steering wheel) located at both the upper and lower helm stations. With hydraulic steering you may notice a

rhythmic pulsing when turning the wheel and may feel a resistance followed by a distinct sound when coming off of a hard over position, this is not a malfunction it is a normal situation common with hydraulic steering. (Just a reminder, both upper and lower steering work together, so if steering at the lower helm and someone steers at the upper helm, they can change your course). A new Bow Thruster, installed in 2005 provides peace of mind and convenience for both docking and leaving the dock.

STOVE & OVEN

On the SPIRIT III the electric stove top and micro/convection oven operate just like home units. The source of 110 volt AC to operate the stove top can come from either 'dock side shore power' or the generator. Make sure that the stove circuit breaker is turned on with either source. Because of limitation in the power, you can use all three burners, or two burners and the oven, but not all three burners and oven at once. Shore power or generator operates this system.

NOTE: The generator is rated at 9000 watts and considering that each top stove element is about 1500 watts and the oven is also about 1500 watts, it is easy to determine that the stove alone can use up to one half or more of the generator's output. The Convection/Microwave is about 1500 to 2000 watts; a hair dryer about 750 to 1200 watts and the hot water heater will draw about 1500 to 2000 watts. The Gen Set should be operated at 60% load minimum.

WATER & TANKS

The 140 gallon water tank is located forward of the engine room and is filled by the single fill pipe on the portside swim step aft of cockpit. The water line from the tank leads to the fresh water pump under the galley floor. Provided its circuit breaker is 'ON', this pump will run whenever its built-in pressure switch detects low pressure. There is also an "accumulator tank" located here; it provides a "pressure head" for the pump, so that the pump doesn't have to run so often. A 12 volt air pump is located in boxes fwd in engine room. 18 psi is required in the accumulator tank for normal operation. This should be checked every week of operation. Water is distributed directly to the cold-water faucet lines. In addition, water goes to the boat's hot water heater under the port cockpit hatch. This heater uses two energy sources, (1) heat from the engine, so that when ever the boat's motors are running or has recently been operated, there is hot water; and (2) 110 volts AC from shore power or the generator when the breaker on the AC panel is turned on. The heater is insulated well enough to keep hot water overnight without power.

An extra 90 gallon potable water tank, installed in 2007, is located under the master stateroom queen berth, giving the vessel 230 US gallons total for extended cruising. To access water from new 90 gallon under berth tank, the line valve must be open. Valve is located starboard side forward of genase and is white in color.

A separator quarter turn valve is located behind the starboard main engine near the potable water pump. It must be opened to access the under berth 90 gallon tank.

SPARES

MAIN ENGINE SPARES:

1. 2 sets belts, 2 water pump impellers, injector pump + separate gasket and macerator pump are located in the forward guest stateroom on starboard side pull down door under step up to berth.
2. Port side door under step up to berth contains tool bag.
3. Top drawer in galley bar/counter contains minor tools and assorted light bulbs.
4. More tools and supplies are available found in containers and boxes in between engines.
5. A combination metric wrench set is in its holder (blue plastic box) port side forward in lazarette.
6. A 12 volt clip on compressor is located in a gray case forward in engine room as is a 3/8" 115 volt drill motor.

SECURITY/LOCKING SYSTEM

The lazarette/engine room is manually lockable by utilizing the chrome handle located in the saloon near TV/music system.

ADDITIONAL INFORMATION

SPIRIT III has continually been upgraded since 2004, providing added convenience and pleasure to the boating experience. The owners are long time boaters and enjoy their limited time aboard as their busy lives permit.

In 2005:

A special emphasis on safety for all aboard should be evident such as additional boarding rails and grab handles on the transom together with towing eyes. New shafts and Nibral Class S props were installed. (As there is no room for the re-trued original props, a call to area (360) 683-7094 or (360) 461-6967 will get as fast as possible response for delivery) A new Bruce 45 lb. Anchor was installed and a 40 lb. Danforth is located in the lazarette as a spare.

In 2006:

The interior woodwork was refinished with 4 coats of polyurethane, new carpets, additional bilge pump in the new bow thruster bilge. A new Go Light remote spot light was installed. New Furuno 36 N.M. radar and electronics package was installed and is interfaced with a new ComNav autopilot with fly bridge remote.

In 2007:

A 3 section "man overboard" ladder is located on the port side, under side of the swim step. It is designed for EMERGENCY use only. At the top of the swim step is 21" above

the water, a short knotted 3/4" red color line is fastened to the safety rail for aid in boarding. It may appear a bit tacky, but is a real safety must have. Also, there is a rope/step boarding ladder in storage in cockpit open storage. Please use it for swimming, etc.

A man overboard marker is located in the open compartment on the inside of the transom. Additionally, there is a heavy duty 12' extendable boat pole located there.

Life rings are located in the cockpit portside, and flybridge forward starboard side. Please remember to attach a line before deploying in an emergency.

You will find extra flashlight batteries in the saloon area in the drawer under the original freezer/icemaker.

The ships library is now located in the forward stateroom, starboard side, up and to the rear of the upper cabinets.

There are two wool blankets, one in each stateroom, for emergency use in the event someone falls overboard and may be affected by hypothermia.