Rhodes Operating Guidelines
11/13/08

1 Purpose

The purpose of this manual is to provide use guidelines for "Rhodes", a 22 foot General Boats Rhodes 22 owned by SEAS Monmouth.

The following sections provide an overview of all of the equipment on the boat as well as basic operating procedures for many of its systems. It is hoped that these guidelines will help skippers and their crews have safe, pleasurable and great learning experiences with the boat. ***Authorized SEAS Level 1, 2 and 3 Skippers may operate the boat for independent Charter or Seas Activities***

Because Rhodes is a ***shared*** boat, it is critical that everyone who uses it ***understands and respects*** a simple, basic principle for its operation.

"Please leave the boat in the same or better condition as when you took it out".

This means, for example, that the boat is docked the way you found it, that all the gear and systems are stowed the way you found them, that the port-a-potty is cleaned if you used it, that at least one gas tank is full, etc. This guide contains checklists intended to help you leave the boat the way you found it – please use them.

Section 2 of this guide provides an overview of Rhodes and its equipment. Section 3 contains operating procedures for many of the boat's systems. Checklists are in the Appendix.

Finally, for insurance purposes, if there is anyone on your trip that is not a SEAS member***, they must sign a liability release form***. See appendix for a copy of the release form. There is a section of the on-board copy of this operation manual that has blank forms. Leave the signed form in the empty pocket at the back of the on-board manual.

2 General Description of Rhodes & its Equipment

"***Rhodes***" is a 22 ft. General Boats (Rhodes model 22) powered by a 8Hp Mercury two-stroke outboard. It has a Main (110 sqft) and a 175% (approx 210sqf) Furling Jib Genoa.System. A Spinnaker may be available in the future.

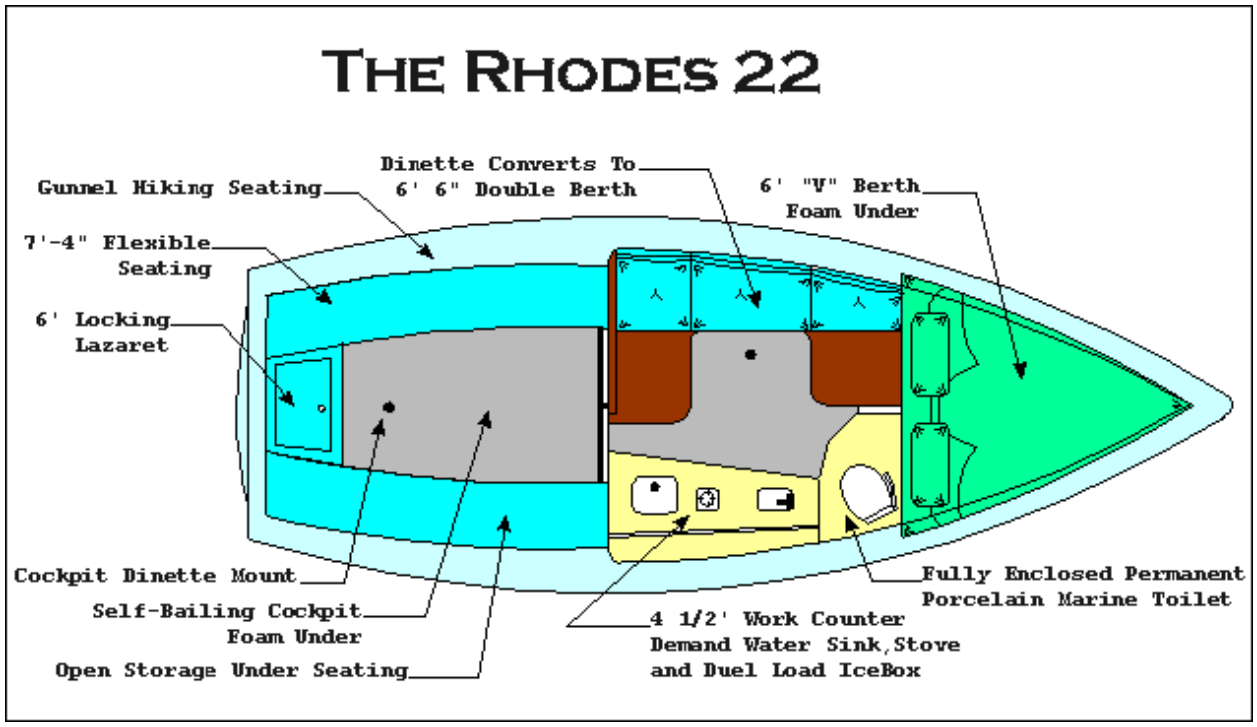
Specifications

- **Length Over All: 22'-0"**
- **Length Waterline: 20'-0"**
- **Beam: 8'-0"**
- **Freeboard, Average: 3'-0"**
- **Cockpit: 7'-4"**
- **Pop Top: 6'-4"**
- **Mast: 26'-0"**
- **Boom: 9'-6"**
- **Spreader Span: 6'-0"**
- **Number Of Stays: 9**

- **Displacement: 2,900 Lbs. Ballast: 700 Lbs.**
- **Draft: Board Up: 20"**
- **Draft Board Down: 4'-0"**

Sail Area: Std: Main:110 Sq.'

Jib:100 Sq.' Total: 210 Sq.'



Rhodes is docked at Marina Bay (Slip 25) in Highlands. The combination for the heads at Marina Bay is 5/3-2-1, pushed sequentially.

2.1 At the Dock

When standing at the dock, take note of the following:

1. Rhodes is docked bow in. Please leave her docked this way.
2. 2 Bow lines, 2 Stern lines, 2 spring lines, at least two fenders on either side.
3. Engine Bracket raised (the prop is out of the water.) Tiller lashed to port. Traveler hauled left in the center position Boom hanging on Topping lift lashed to a stbd line attached to stbd back stay.
4. Companionway door closed tightly and overlapping the teak panels.

2.2 In the Cockpit

When standing in the cockpit, take note of the following equipment:

1. **Rudder and Tiller.** Note that the tiller is lashed to port when the boat is at the dock.

   The stern storage compartment contains, (***1) 6.1 and (1) 3.0 gallon fuel tanks***, the main anchor and a ***spare anchor*** and a ***sea anchor*** (drogue).

   Below the starboard seat is the battery,, spare fenders and a boat pole are stored under the cockpit seats

   2. Companionway Door -- two teak panels secured to the companionway cover

   3. Two Winches (1 port and 1 starboard). Two stern cleats. Two Jib tracks and associated blocks and cars (a aft track on each side of the boat next to the cockpit.)

4.Rollers

5.Outboard Engine mounted on bracket on port side of the transom. Note that the bracket can be raised and lowered – see discussion under Engine for more details.

6. **Portable Manual Bilge Pump** is in V bunk stbd.
7. **Safety Horseshoe & Rack** mounted on the starboard aft stanchion. The Horseshoe is not stowed – please leave it in the rack at all times.
8. **Winch handle holder** on port gunwale**.**
9. **Mainsheet** stowed hanging from aft end of boom.
10. **Traveler** mounted on the Transome deck with a single jam cleat.
11. **Self bailing Cockpit Drain** on cockpit deck below the traveler.
12. **Stern light** mounted on the stern rail.
13. **Topping Lift** – wire line mounted on the stbd backstay above the place where it splits. The boom is stowed with its aft end shackled to the topping lift.
14. **Grab Rails** – one on each side of the cabin deck. Note that these are fragile and should NOT be stepped upon when going forward.

2.3 On the Forward Deck:

When standing at the bow, take note of the location of following items:

1. **(?)Anchor** to be mounted on port stanchion of bow pulpit. Anchor line runs into the V-Berth through a **covered fitting** on deck. There is approximately 110’ of anchor line on the anchor.
2. **(?)Anchor Line Chocks** on deck, one each port and starboard.
3. **Roller Furling Block** on starboard deck is part of the rigging for the roller furling system
4. **Bow lights** -- single housing for both red and green lights mounted on pulpit at the bow.

2.4 At the Mast

When standing at the mast, take note of the following items (remove the sail cover to see them all).

1. **Steaming Light** – mounted about 1/2 of the way up the mast on its forward edge.
2. **Mast Cleats** (6 total – 2 upper cleats, 3 lower cleat (1 port and stbd side and 1 aft cleat).
3. **Main Halyard** Line runs external to the mast, starboard side. The main halyard is stowed with the shackle end attached to the grab handle and the line end attached to the stbd side jam cleat.
4. **Anchor light** is mounted at the very top of the mast on the center.
5. **Radio Antennae** is mounted on the starboard stern rail.\
6. In the Cabin Area

The cabin is divided into two sections, Salon and V-Berth.

When seated on the salon entrance, take note of the following equipment:

1. **Sink and Icebox.** On the starboard side. There is no icebox drain. The ***sink pump*** is electric and non operational. There is a storage compartment beneath the sink. ***Lubricants, cleaners, bug spray, first aid kit*** and the like are kept in a basket in this compartment.
2. **"Behind the Sink" Open storage Compartment** directly behind the sink. Contains ***Air Horn***, ***Manual Horn***, ***Winch Handle, Bell, Flyswatter and CupHolders*****.**
3. **Electrical panel** (black panel mounted on starboard wall next to sink). There are four switches (cabin, running, mast (anchor light). Note: VHF radio is a direct wire which must be turned off when not in use. Note that all of the ***running lights*** are on a single switch – i.e., that you can't separately operate the steaming light.. ***NOTE: there is no "Main" switch for the battery. So, if you leave any switch on or the VHF Radio on , you are draining the battery.***

   Each of the switches is independently fused. To remove the fuse, insert a small object (like a pencil point) into the hole on the side of the fuse – the fuse assembly will pop out.
4. ***Centerboard trunk*** On floor in front of the companion way with cleat and line for raising/lowering the centerboard. At dock, centerboard is stowed "up" at the dock.
5. ***Salon Table*** -- mounted on the main Berth and in the cockpit .
6. ***Navigation Table*** on starboard side of sink.
7. **Fire extinguisher** -- mounted on bulkhead next to companionway.
8. ***Cabin lights*** are mounted on the V-berth and main cabin bulkhead.
9. ***(?)Temperature & Humidity Gauges*** and a ***Barometer*** are mounted on starboard side of V-berth bulkhead.

When looking into the V-Berth, note the following equipment:

1. ***Box of Lines*** – plastic crate on floor of V-Berth. The heavy purple "doubled-up" lines are the jib sheets; the remaining lines and bungees are spares.
2. ***1 (full) Sail Bags*** (
3. ***Anchor Line "Locker"*** -- plastic crate, sitting on the port side under the bow. The anchor line is fed from/to this box through a deck fitting.
4. ***Port a Potty*** – latched to floor on port side of V-Berth.

2.5 Thru-Hulls, Access to the Bilge

1. ***Bilge Access*** – the bilge can be accessed through square removable wood panel in the deck of the cabin – water may be pumped into sink for discharge overboard.

2.6 At the Engine

When standing at the engine, take note of the following.

1. **Engine Bracket:** The engine is mounted on an adjustable bracket, which is bolted to the transom of the boat. This bracket has a ***raise and lower switch*** on the arm connected to the boat.
2. **Gear Shift** mounted is controlled via the throttle handle. Forward, neutral and reverse are indicated on the handle Always leave the engine in Neutral when docked.
3. **Steering Arm** on the port side of the engine**.** Steering arm can be raised and lowed – stow the boat with the arm up.. The **Kill Switch** is the mounted on the starboard side of the engine and the red button on the engine tiller.
4. **Starter Button, Primer Knob and Fuel Line Coupling** – these are arranged across the front of the engine, just below the cover. The primer knob is black. The engine is started with a recoil starter.
5. ***Lifting handle*** is the grey U-shaped bracket across the front of the engine and just below the primer knob control. **Note: Use the lifting handle, not the steering arm, to raise and lower the engine.**
6. **Tilt Adjustment Knob and Tilt Lock** – The ***tilt lock*** is the black knob located on the port side of the engine bracket. The ***tilt adjustment knob*** is the black button on the starboard side of the engine bracket.

   The engine bracket, mentioned above, is used to raise and lower the engine. The tilt can be used to get the engine completely out of the water when under sail – see discussion below. On this engine , the motor is automatically tilt locked when in reverse.
7. **Starter Rope** – handle at the top of the engine. Always check that the gearshift is in ***Neutral*** before pulling the starter rope- there is a starter interlock.
8. **Engine Cover and Latch** – The guts of the engine are covered with a black housing. There is a release latch at the bottom aft end of the housing.
9. **Fuel Line** comes out of a hole in the transom.

3 Suggested Operating Procedures

3.1 Getting Started

1. Remove the companionway panels and stow in cabin.
2. Drop the centerboard when high tide or when clear of the Marina.
3. Turn on the VHF radio. It is good practice to tune in the weather report (press WX button) while preparing the boat. Also, this will verify that the battery is OK. While underway, monitor jointly 13/16/ 9.
4. Bring the winch handle (into winch handle holder and air horn (ready for signaling departure) on deck. (All are in the "behind the sink" compartment).
5. Pump out the bilge. If it takes more than a few pumps to empty the bilge (once the pump is primed and water is flowing) check to see if there are any visible leaks
6. Unlash the tiller.
7. Stow your gear below deck. When stowing gear, be mindful that the boat will heel substantially under sail.
8. ***NOTE: FOR INSURANCE PURPOSES, IF THERE IS ANYONE ON YOUR TRIP THAT IS NOT A SEAS MEMBER, THEY MUST SIGN A RELEASE FORM. SEE APPENDIX FOR AN EXAMPLE OF THE FORM. THERE IS A SECTION OF THE ON-BOARD COPY OF THIS OPERATION MANUAL THAT HAS BLANK FORMS. LEAVE THE SIGNED FORM IN THE EMPTY POCKET AT THE BACK OF THE ON-BOARD MANUAL.***

3.2 Starting the Engine

Note: Before starting the engine, it is good practice to verify that there is sufficient fuel on board for your planned activity (including a reserve). See section on Fuel Management below for some suggested planning techniques.

1. Double check that the ***tiller is unlashed***, and the rudder cord is released for full operation that the ***centerboard is down***, and that the ***engine is in Neutral*** and that the ***Steering Arm*** is in the ***down*** position. Note: you will not be able to pull on the starter cord if the boat is in gear.
2. Lower the engine. (?)This is accomplished by flipping the red ***raise & lower switch*** to the lower position. Then lift till you hear a click; push the engine down into the water until you hear a click then pull up to verify that the engine is locked in the down position. If you lift too high it can lock in the horizontal position. You will need to carefully release metal rod that holds it in place.(?)
3. Connect the gas line, open the vent on the gas tank and squeeze the primer bulb on the hose a few times until pressure is felt.
4. To start the engine, ***double check that the engine is down and primer bulbhas pressure***. Then, pull the primer knob out (twice) and twist all the way to the right for fast idle, then twist the throttle to the start/ neutral position (clearly marked on the steering arm) and pull the starter cord a few times. The engine should start right up. If it doesn't, double check that the throttle is positioned properly and that the fuel line is connected and the bulb has pressure.

Once the engine starts, reduce the idle speed while the engine warms up. If it starts to flutter, try pushing in the primer knob to get it to run more smoothly. If it starts to stall, try priming again to get it to run smoothly.

If while trying to start the engine, you flood it (smell of gas is in the air), you can try disconnecting the gas line, pumping the starter cord a few times and then reconnecting the gas line. This should clear excess gas from the cylinders. Another tactic to clear a flooded engine is to wait (perhaps 15 minutes) before retrying.

5. Once the motor has started, check that a stream of cooling water is being pumped out the starboard side of the engine. If no water is present, stop the engine, raise it and clear any debris that is blocking the intake port on the underside of the anti-ventilation plate – which is the horizontal plate immediately above the prop).
6. It will take a few minutes for the engine to warm up, at which time you can slow the idle speed by twisting the primer knob to the left.

Note: You may need to use the primer knob to start the engine, even if it is warm. Try to restart without the primer knob but, if the engine doesn't restart after 4 or so pulls, try priming with the primer knob. However, once warm the primer knob should be immediately shut off for the engine to run smoothly.

3.3 Stowing the engine

1. While the engine is running, disconnect the gas line and close the vent on the fuel tank. Let the engine run until it is out of gas. ***NOTE: it is very important to double check that the vents on the fuel tanks are closed. If vents are left open, fumes can collect in the bilge and cause a dangerous, potentially explosive, situation***
2. Raise the engine. This is accomplished by flipping the ***raise and lower switch*** to raise, Using the ***lifting handle***, push down on the engine until you hear a click, raise the engine up out of the water until you hear another click and then push down to verify the engine is locked in its up position.
3. Verify that there is at least one full tank of fuel on the boat.

   Note: In general, it is not necessary to replace the fuel you have used on a trip UNLESS there is less than one FULL fuel tank on board. ----- IN THAT CASE, COURTESY AND POLICY IS THAT YOU REFILL THE EMPTY FUEL TANK. ---- If desired, SEAS Monmouth will reimburse you for the fuel. See the section on ***Fuel Replenishment*** below for how to replace fuel.

3.4 Rigging the Sails:

Note: It's good practice to check the rigging and prepare the sails at the dock – especially for a boat that is shared and where you are not always sure as to how the person before you left it. The suggested procedure is to prepare the sails at the dock.

3.4.1 Preparing the Main (suggest you do this at the dock):

1. Remove the sail cover. Untie the mainsheet from the aft end of the boom. Center the traveler. Disconnect the main halyard shackle from the aft end of the boom and connect

it to the head of the main. Secure the main halyard. ***Lower the boom car to its lowest position.***

Loosen the Lazy jacks ?

3.4.2 Getting Under Sail (assuming you prepared the sails as described above):

1. Come into the wind

2. For the mainsail, remove the sail ties. Raise the mainsail, using the (?)winch to tighten the luff (if appropriate for the conditions). Optionally, you can leave the main halyard stowed on the winch and cleat it off on the starboard mid cleat. Release the aft end of the boom from the topping lift.

a. Raise the engine to eliminate its drag on the boat. Note: when the engine is raised on the engine bracket, the prop is still dragging in the water. You can use the engine tilt controls to eliminate this drag. To so this, flip the ***tilt lock*** over to port, pull the ***tilt adjustment knob*** out, reach over the cover and pull up on the back of the engine. The engine will tilt up. Push in the knob to lock the engine in the desired tilted position. To put the engine back down, pull up on the back of the engine, pull out on the ***tilt adjustment knob***, lower the engine into the water and flip the ***tilt lock*** back over to starboard.

3.5 Fuel Management

Note: In general, it is not necessary to replace the fuel you have used on a trip UNLESS there is less than one FULL fuel tank on board. In that case, COURTESY AND POLICY is that you refill the empty fuel tank. If desired, SEAS Monmouth will reimburse you for the fuel.

3.5.1 Fuel Planning

A conservative rule of thumb is that the motor consumes roughly 1.5 gal/hr running at full throttle. (This needs to be verified but is a good starting point). You can therefore plan on roughly 4.0 nautical miles per 1.5 gallon of gas. 2) Plan on using 1/3 of your gas to get to your destination, 1/3 to return, and 1/3 for emergencies. With 6 gallons of fuel, you should therefore not plan on traveling more than 5 nautical miles (one way) without extra fuel. ***Note: If winds and currents are strong, increase the fuel estimate for your trip. For example, if you go back and forth to Sandy Hook Bay against the current – a common occurrence -- plan on using 2 gallons per hour. A good practice is to have both tanks full when going to the Bay.***

On long trips, after using one can of fuel, it's good practice to determine how far you traveled, and what the *actual* average distance per gallon was before using connecting the second can.

Finally, it is good practice to monitor the gas used during your trip by looking at the gauge *and* lifting up the can to feel by the weight. ***This is especially true before entering critical situations such as going under bridges, boat congestion, etc. It is far better to change gas cans before you enter these situations than to have to do it when you are in the middle of them.***

3.5.2 Fuel replenishment

NOTE: THE ENGINE IS 2-STROKE THAT REQUIRES A 50:1 FUEL TO OIL MIXTURE. USE UNLEADED REGULAR (I.E., NOT PLUS OR PREMIUM) GAS.

"Outboard Motor Oil MIX" and a plastic graduated measuring bottle are both stowed in the Transom Lazerette. The measuring bottle is used to measure the amount of oil for the 50:1 gas/oil mixture ratio*.*

Procedure:

a. Remove both fuel cans from the transom lazarette

b. If both cans are partially filled, pour contents of one can into the other until the first one is empty, or the second is full. This makes it easier to estimate the needed fuel, i.e., an empty can is 6 gallons. Also, if you add gas to two cans, you either have to measure oil twice, or estimate the oil accurately for each of the two cans. ***Note: A Good practice is to leave some space at the top of the cans to allow for handling and expansion – i.e., don't fill the cans to the brim – leave about 0.5-1"" of free space on top.***

c. Estimate the required amount of gas. For this amount find the fill line on the measurement bottle corresponding to a 50:1 ratio, and fill with oil to this level. Pour the oil into the gas can prior to adding the gasoline. This allows the turbulence of adding the gas to mix the oil and gas better.

d. Double check that both fuel caps and the vents in the caps are closed. Place the refilled cans back into the lazarette. ***NOTE: it is very important to double check that the fuel vents on the gas caps are closed. If vents are left open, fumes can collect in the bilge and cause a dangerous, potentially explosive, situation.***

3.5.3 Operating and Cleaning the Port-A-Potty (the Head)

Note: If the head is used during a trip, courtesy and policy requires that you clean it.

The head is latched to the floor of the V-Berth. Operating instructions are printed on the cover of the head. Toilet paper and disinfectant are stowed on the floor of the hanging locker.

The head consists of two "bottles" – an upper one and a lower one. Each bottle has a handle and a cap. The upper bottle contains the bowl and the CLEAN water. The lower bottle contains the waste (after flushing). In brief, the way it works is that you do your business, pump some fresh water into the bowl (pump is on left rear of seat) and then "flush" (by pulling out and pushing in the handle on the front of the head – this is the ***flush valve***). The flush empties the bowl (which is in the upper bottle) into the lower bottle.

The two bottles can be latched together with the same latches that hold it to the floor. When latched together, the whole unit can be carried on its side, by the bottle handles. Once the latches are off, pulling them apart separates the containers. ***Note: Be careful that the flush valve is closed when you pull them apart.***

At the end of a trip where the head has been used, use the following cleaning procedure:

1. Unlatch the head from the V-Berth floor and carry the whole unit onto the dock.

2. Remove the bottom bottle (i.e., the waste). (The two bottles just pull apart if the latches are open). Take it to a bathroom and pour it into a toilet.
3. Hose the waste bottle out thoroughly. Refill the CLEAN water bottle (upper section). Follow directions on disinfectant cans to add disinfectant.
4. Put two bottles back together, return unit to V-Berth and latch it to the deck.

3.6 Closing Up the Boat

As mentioned earlier, please leave the boat the way you found it: docked stern in, everything put back where you found it, sink and head cleaned, etc. See the "***Leaving the Boat the Way you found it***" checklist for the details.

Appendix 1 – Checklists

Pre-Departure

1. All locks stowed.
2. Centerboard down
3. Bilge pumped out
4. Safety Horseshoe in bracket.
5. Tiller untied
6. Checked VHF Radio and weather.
7. Motor lowered, gas line connected, and air vent opened on gas can.
8. Motor successfully started, cooling water coming out back of engine.
9. Air horn on deck
10. Personal gear stowed.

Departure from slip

1. Check tide current and wind to anticipate their influence upon your departure path, boat movement and heading
2. Station crew member(s) on bow with fender or seat cushion to fend off any bumping/contact with pilings or other boats.
3. Check departure fairway for other boats or obstructions
4. Ensure crew members know their respective roles and responses to skippers commands.
5. Check for other boat traffic and sound horn/ whistle before entering main channel.
6. Proceed to low traffic/safe area before hoisting sail.

Returning to slip

1. Start engine, Lower and secure sails
2. Stow any unneeded lines / equipment
3. Observe current / wind at mariner entrance and approach accordingly
4. Station crew member(s) on deck to fend off pilings, boats and to retrieve docking lines.
5. Ensure crew members know their respective roles and responses to skippers commands.

Appendix 2 – Leaving the Boat the Way You Found It

A - Sails

1. Mainsail flaked on boom between lazy jacks
2. Main halyard shackled to aft end of boom and cleated on aft mast cleat.
3. Sail ties and sail cover on.
4. Boom shackled to topping lift, boom car at its highest position on the mast.
5. Jib fully furled with several wraps of the jib sheets around it
6. Jib furling line securely cleated on cabin roof jam
7. Traveler hauled and cleated all the way to port.
8. Mainsheet coiled neatly and hanging from aft end of boom.

B – Below

1. **All switches on electrical panel in "OFF" position**. VHF Radio turned off separately
2. **Centerboard up.**
3. Icebox cleaned out, sponged out and left open to air out.
4. Sink cleaned.
5. Head cleaned and refilled (after use).
6. Personal gear removed from inside boat.

C – Cockpit and On Deck

1. **Vents closed on both fuel tanks in transom Lazarette**.
2. **Engine locked in raised position, tilt out of water, gearshift in neutral**.
3. Fuel line inserted into hole (not dangling on the floor).
4. **Tiller lashed to port**.
5. Bilge pumped out. Pump stowed in v-bunk compartment.
6. Safety Horseshoe in bracket
7. Anchor secured,.
9. Boat hook stowed under Starboard cockpit seat.
10. Horn, winch handle, bell stowed in "behind the sink" compartment.
11. Other equipment, fenders, life jackets, extra lines properly stowed.
12. Hose down the cockpit, clean what needs cleaning.

D – At the Dock

1. Boat docked Bow to Dock / Stern out.
2. **All six (6) docking lines secured firmly to cleats (2 bow lines, 2 spring lines, 2 stern lines)**
3. Check that the boat floats free of the dock, even at extremes.
4. At least two (2) fenders between the boat and the dock.
6. Stern Lazarette and cabin closed.

Appendix 3

SEAS Monmouth Release of Liability

Name: _____

Street: _____

City, Zip: _____

Phone: _____

The undersigned recognizes that sailing involves certain inherent risks, and agrees to hold harmless and release from liability SEAS Monmouth and/or its members and instructors for any injury or damage suffered.

Signed: _____ _____
Date:

If the individual named above is under 18 years of age, this release must also be signed by a parent or guardian:

Signed: Date: _____

Relationship:

Appendix 4 –River Bridge Statistics

Mast height: approx 26' + radio antenna = 31' above the water.
Local bridge heights:

Sea Bright/Rumson Bridge: **16'**
Oceanic Bridge (up the Navesink towards Red Bank): **22'**
Highlands Bridge: **35'**

4 All these bridges must be raised for Rhodes to pass. Use VHF radio channel 13 to contact the bridgemaster, or one long followed by one short blast of the air horn.

Sea Bright/Rumson & Highlands bridges open on request except on the weekend in the summer - then it's every 30 minutes, Sea Bright on the hour and half-hour, Highlands at a quarter to and a quarter after the hour. The current in the area of these bridges can be as much as 3 knots. Be very careful; try to avoid going through these bridges at mid-tide. Have the anchor ready for immediate deployment in case of engine trouble.

Oceanic bridge opens on request at all times.