Rhodes Operating Guidelines

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.

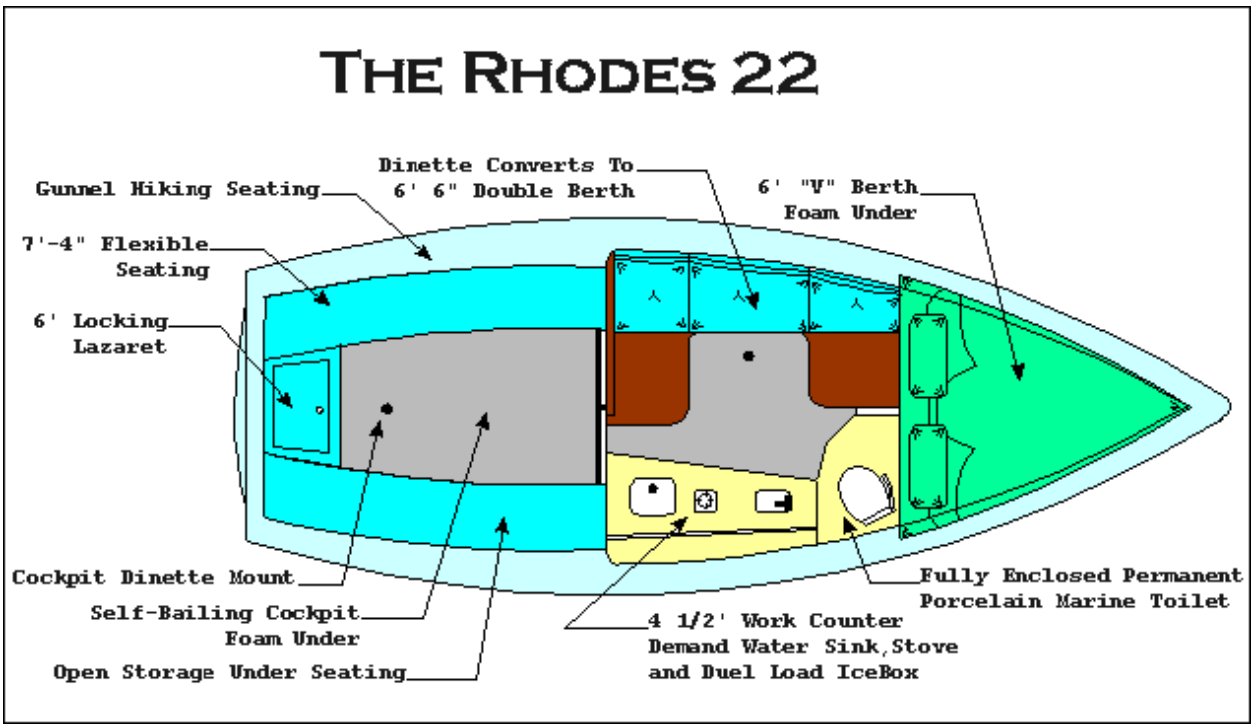
Finally, for insurance purposes, if there is anyone on your trip that is not a SEAS Monmouth member***, they must sign a liability release form***. See appendix for a copy of the release form. There is a section of the on-board copy of this operation manual that has blank forms. Leave the signed form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

General Description of Rhodes & its Equipment

“***Rhodes Less Traveled***” is a 22 ft. General Boats (Rhodes model 22) powered by a 8Hp Mercury two-stroke outboard. It has a Main and a Furling Jib Genoa

Specifications

Length Over All: 22'-0"
Length Waterline: 20'-0"
Beam: 8'-0"
Freeboard, Average: 3'-0"
Cockpit: 7'-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", Board Down: 4'-0"
Sail Area: Std: Main:110 Sq.Ft
Jib:100 Sq.' Total: 210 Sq.Ft



The above schematic is from the manufacturer, it is not an accurate depiction of our particular boat. For instance this shows a permanent toilet; we have a port-a-potty.

Rhodes is on a mooring at Fair Haven Yacht Works. The combination for the heads at FHYW is 4 5 2, pushed sequentially.

While On the Mooring:

Outboard Engine mounted on bracket on port side of the transom. Engine bracket raised and engine tilted (the prop is out of the water.)

Rudder raised and tied, **tiller** tied to the cleats on either side so it is centered.

Companionway hatch closed tightly and overlapping the door panel.

The stern storage compartment (lazarette) contains (***1) 6.1 and (1) 3.0 gallon fuel tanks and*** a ***spare anchor***.

Portable Manual Bilge Pump is in the cabin, under the port seat.

LifeSling mounted on the starboard aft stanchion.

Mainsheet stowed hanging from aft end of boom.

Self bailing Cockpit Drain on cockpit deck below the traveler.

Stern light mounted on the stern rail.

Grab Rails – one on each side of the cabin deck. Note that these are fragile and should NOT be stepped upon when going forward.

On the Forward Deck:

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

Anchor secured to mounting chocks on deck. Anchor line runs into the V-Berth through a **covered fitting** on deck. There is approximately 110' of anchor line on the anchor.

Roller Furling Block on starboard deck is part of the rigging for the roller furling system

Bow lights -- single housing for both red and green lights mounted on pulpit at the bow.

At the Mast

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

Steaming Light – mounted about 1/2 of the way up the mast on its forward edge.

Mast Cleats (5 total – 2 upper cleats, 3 lower cleats (1 each port and starboard side and 1 aft cleat).

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 starboard side jam cleat.

Anchor light is mounted at the very top of the mast on the center.

In the Cabin Area

The cabin is divided into two sections, Salon and V-Berth. When seated in the companionway, take note of the following equipment:

Sink The sink pump is electric and non operational. Tool kit and emergency rigging cutters are beneath the sink.

Icebox is used as a storage compartment for ***emergency flares*****,** ***first aid kit, lubricants, spare parts.***

Behind the Sink Open storage compartment directly behind the sink. Contains ***Air Horn*****,** ***Manual Horn*****,** ***Winch Handle, Bell, Flyswatter and CupHolders*****.**

Battery on the floor on the starboard side next to the steps. There is a red On/Off switch which must be in the Off position when the boat is unattended.

Electrical panel (black panel mounted on starboard wall next to sink). There are four switches - cabin, running, steaming, anchor. Note: VHF radio and depth sounder are on a separate switch below the radio – this switch can be left on since the battery switch turns all power off. 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.

Centerboard trunk On floor in front of the companion way with cleat and line for raising/lowering the centerboard. Centerboard is stowed "up" at the mooring.

Fire extinguisher -- mounted on bulkhead next to companionway.

Cabin lights are mounted on the V-berth and main cabin bulkhead.

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

Box of Lines – plastic crate on floor of V-Berth.

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.

Port a Potty –on floor on starboard side of V-Berth.

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.

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 handle*** on the arm connected to the boat.
2. **Gear Shift** is controlled via the throttle handle. Forward, neutral and reverse are indicated on the handle.
3. **Steering Arm (engine tiller)** on the port side of the engine**.** Steering arm can be raised and lowered – stow the boat with the arm up.. There are two **Kill Switches:** one is on the starboard side of the engine and the other is the red button on the engine tiller.
4. **Primer Knob and Fuel Line Coupling** – these are arranged across the front of the engine, just below the cover. The primer knob is black.
5. **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. Note: Neither of these should be moved or adjusted under normal circumstances.

   The engine bracket, mentioned above, is used to raise and lower the engine. The tilt is 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.
6. **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.
7. **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.
8. **Fuel Line** comes out of a hole in the transom.

Operating Procedures

Getting Started

1. Remove the companionway panels and stow in cabin.
2. Stow your gear below deck. When stowing gear, be mindful that the boat will heel substantially under sail.
3. Lower the centerboard halfway.
4. Turn on the main battery switch and 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.

5. Bring the winch handle into winch handle holder and air horn on deck. (All are in the "behind the sink" compartment).
6. 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. Also check the stern lazarette for water and pump out if necessary.
7. Unlash the tiller.
8. Lower the rudder by untying the line from the cleat, then pulling up on the other line until the rudder swings completely down. Put the downhaul line into the quick release cleat on the tiller. (If the rudder hits bottom, this cleat will pop open and allow the rudder to swing up. If this happens, force the cleat back into the locked position and resecure the line once in deep water again.)
9. ***NOTE: FOR INSURANCE PURPOSES, IF THERE IS ANYONE ON YOUR TRIP THAT IS NOT A SEAS MONMOUTH 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.***

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 engine is in gear.
2. Lower the engine – this is a two-step process. Untilt it by pulling it all the way towards you (prop coming higher out of the water) then lowering it to vertical. Then grab the red handle near the transom and use the instructions on the bracket to guide you in unlocking it and pushing it down to the lowest position.
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. 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. Also make sure that the kill switch on the starboard side is in the up position.

   Once the engine starts, gradually push in the primer knob; once it is all the way in reduce the idle speed by twisting the knob left. 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, pushing the primer knob in, and pumping the starter cord a few times. 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.

   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 pushed in for the engine to run smoothly.

Rigging the Sails:

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

Preparing the Main

Remove the sail cover. Disconnect the main halyard shackle from the cabin top grab rail and connect it to the head of the main. Secure the main halyard.

Once Under Sail

Raise the engine to eliminate its drag on the boat, using both the transom bracket and the tilting mechanism.

Stowing the engine when returning to the mooring

1. With the engine still 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. Then put the gear shift in forward and pull on the back of the engine to tilt it up out of the water. You will hear a series of clicks – experience will tell you that if you pull it too high it releases the tilt mechanism and it goes all the way back down again.
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.

Fuel Planning

A conservative rule of thumb is that the motor consumes roughly 1 gal/hr running at full throttle. You can therefore plan on roughly 4.0 nautical miles per 1 gallon of gas. 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 motoring more than 8 nautical miles (one way) without extra fuel. ***Note: If winds and currents are strong, increase the fuel estimate for your trip. A good practice is to have both tanks full when going to Sandy Hook 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.***

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, a plastic graduated measuring bottle and a funnel are stowed in the stern lazarette. The measuring bottle is used to measure the amount of oil for the 50:1 gas/oil mixture ratio*.*

Procedure:

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. When adding fuel, either at a gas station (fuel cans taken by car), at a gas dock (near the Highlands bridge), or using fuel brought in a jerry can, always add a known quantity, preferably a whole number of gallons. Leave some space at the top of the cans to allow for expansion – i.e., don't fill the cans to the brim – leave about 0.5-1" of free space on top.

a. Once the gas has been added, find the fill line for this amount on the measurement bottle corresponding to a 50:1 ratio, and fill with oil to this level. Pour the oil into the gas can. After replacing the cap on the gas can gently shake it to mix the oil and gas.

b. 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.***

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 in the V-Berth, in front of the bulkhead on the starboard side. To make enough room to use the head, raise the hinged panel immediately in front of it.

The head consists of two "containers" – an upper one and a lower one. Each container has a handle and a cap. The upper container contains the bowl and the CLEAN water. The lower container 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 – several pumps may be needed before water starts flowing into the bowl) and then "flush" (by pulling

out and pushing in the handle on the front of the head about halfway up, between the two containers – this is the ***flush valve***). The flush empties the bowl (which is in the upper container) into the lower container.

The two containers are latched together with a slide lever in the back of the unit. Move it to the left to unlatch, to the right to latch. When latched together, the whole unit can be carried on its side, by the container handles in the back. ***Note: Be careful that the flush valve is closed before carrying or pulling them apart.***

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

1. Take the whole unit to the dock.
2. Remove the bottom container (i.e., the waste). Take it to a bathroom and pour it into a toilet.
3. Hose the waste container out thoroughly. Refill the CLEAN water container (upper section). Follow directions on disinfectant cans (if any present on the boat) to add disinfectant.
4. Put two containers back together by positioning them one atop the other then sliding the lever to the right. Double check that the latch engaged. Return unit to V-Berth.

Closing Up the Boat

As mentioned earlier, please leave the boat the way you found it: 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.

Checklists

Pre-Departure

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

Departure from mooring

1. Check current and wind to anticipate their influence upon your departure path, boat movement and heading
2. One crew member at the bow will release the two mooring lines and push the mooring pennant (float and pole) overboard so that it doesn't snag on the boat.
3. Check departure fairway for other boats or obstructions
4. Ensure crew members know their respective roles and responses to skipper 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 mooring

1. Start engine, Lower and secure sails.
2. Stow any unneeded lines / equipment.
3. Observe current / wind in mooring field and approach accordingly. Be aware of unused moorings in the field and avoid them.
4. One crew member at the bow will pick up the mooring pennant, pull it up on deck and secure the first mooring line to the cleat. The second line is then pulled up on the other side of the bow and secured to the same cleat. The pennant is stowed on deck in a way that will prevent it from rolling off the boat in choppy weather..
5. Ensure crew members know their respective roles and responses to skipper commands.

Leaving the Boat the Way You Found It

A - Sails
Mainsail flaked on boom between lazy jacks
Main halyard removed from sail and cleated to starboard cabin top hand rail.
Sail ties and sail cover on.
Jib fully furled with several wraps of the jib sheets around it, and separate line tied around sail.
Jib furling line securely cleated on cabin roof jam cleat
Mainsheet coiled neatly and hanging from aft end of boom.

B – Below
After hailing the FHYW launch for a pick up (channel 9 on the VHF), turn all switches on electrical panel to “OFF” position, and turn the main battery switch off.
Head cleaned and refilled (after use).
Personal gear removed from inside boat.

C – Cockpit and On Deck
Vents closed on both fuel tanks in transom Lazarette.
Engine locked in raised position, tilt out of water.
Centerboard up.
Fuel line inserted into hole (not dangling on the floor).
Rudder up, Tiller lashed on centerline.
Bilge pumped out.
Anchor secured.
Horn, winch handle, bell stowed in “behind the sink” compartment.
Other equipment, fenders, life jackets, extra lines properly stowed.
Clean what needs cleaning.

D – Before Leaving the Boat
Double check the mooring lines, and make sure all items have been stowed correctly.

SEAS Monmouth Release of Liability

Name: _____

Street: _____

City, State, 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: _____

Bridge Statistics

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

Sea Bright/Rumson Bridge: **16'**
Oceanic Bridge (leaving the Navesink for Sandy Hook): **22'**

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 bridge opens on request except on the weekends in the summer - then it's every 30 minutes, on the hour and half-hour. The current in the area of this bridge can be as much as 4 knots. Be very careful; try to avoid going through the bridge at mid-tide. Have the anchor ready for immediate deployment in case of engine trouble.

Oceanic bridge opens on request at all times.

The Highlands bridge is a fixed bridge (65' high).