



Orientation to the Navy 44

- The purpose of this presentation is to visually orient you to the Navy 44 by use of flashcard questions.
- The Boat Information Book for United States Naval Academy Navy 44 Sailing Training Craft is the final authority.
- Please do not duplicate and distribute this presentation without the permission of the Naval Academy Sailing Training Officer
- Special thanks to Mr. Dave Riley, who taught me how to sail.
- Comments welcomed!!

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Who designed the boat?

McCurdy & Rhodes

Who built the boat?

Tillotson-Pearson

When was it delivered?

1987

Overall length? 44'0"

Length at waterline? 34'7"

Hull speed? $1.34 * \text{sq root of length at waterline} = 8$ knots

Beam? 12'5"

Draft? 7'3"

Height above water? Including VHF antenna = 65'



Displacement?

27,654 pounds

Ballast?

12,310 pounds

Sail area (max)?

956 sq ft

Can the boat go faster than 8 knots?

Yes, but it can also pitchpole and broach—**so be careful!**

Engine? 37 hp Westerbeke

Fuel capacity? 50 gallons, but only 45 gallons are useable due to shape of tank. (45 gallons at .8 GPH at 6 knots = 337 mile range).

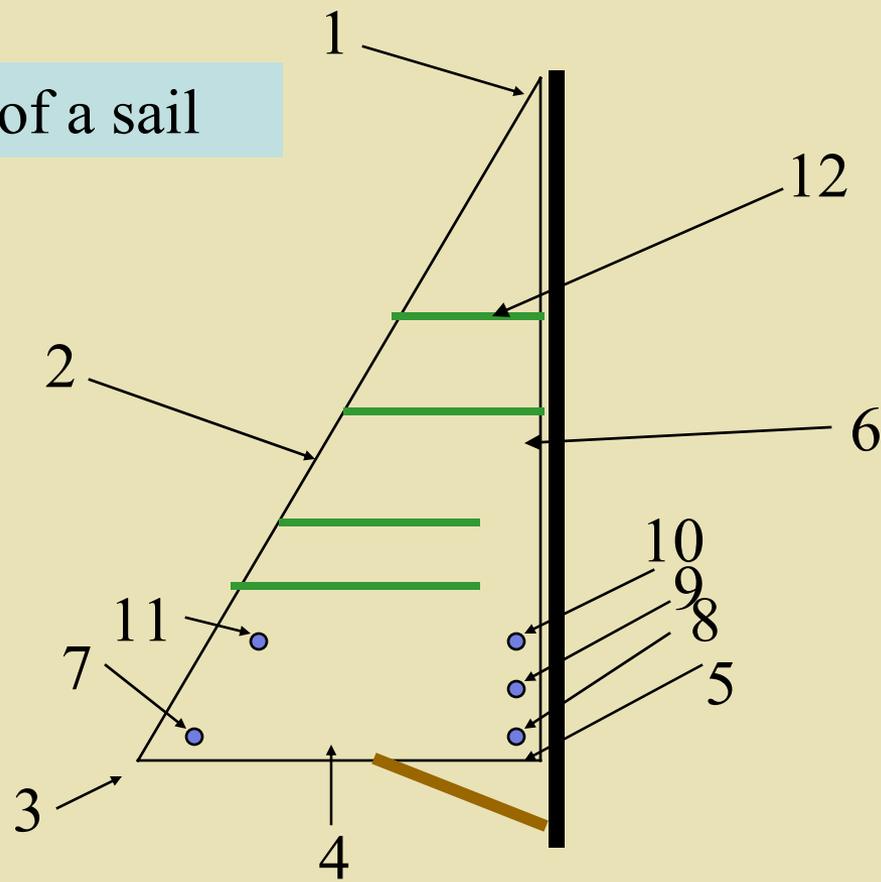
Water capacity?

2 ea 70 gallon tanks + 23 gallon day tank = 163 gallons.

Holding tank?

Only 10 gallons!!

Parts of a sail



- 1. head
- 2. Leech
- 3. Clew
- 4. Foot
- 5. Tack
- 6. Luff
- 7. Clew cringle

- 8. Tack cringle
- 9. Cunningham cringle
- 10 & 11. Reef cringles
- 12. Battens (top two full with batten cars)



What are the seven ways to change the shape of the mainsail?

Adjust the luff of the sail by:

Main halyard, Cunningham, backstay

Tension the foot of the sail by:

Outhaul

Adjust the twist of the sail by:

Main sheet and boomvang

Change the size of the sail by:

Reef

Welcome aboard





1. Boomvang

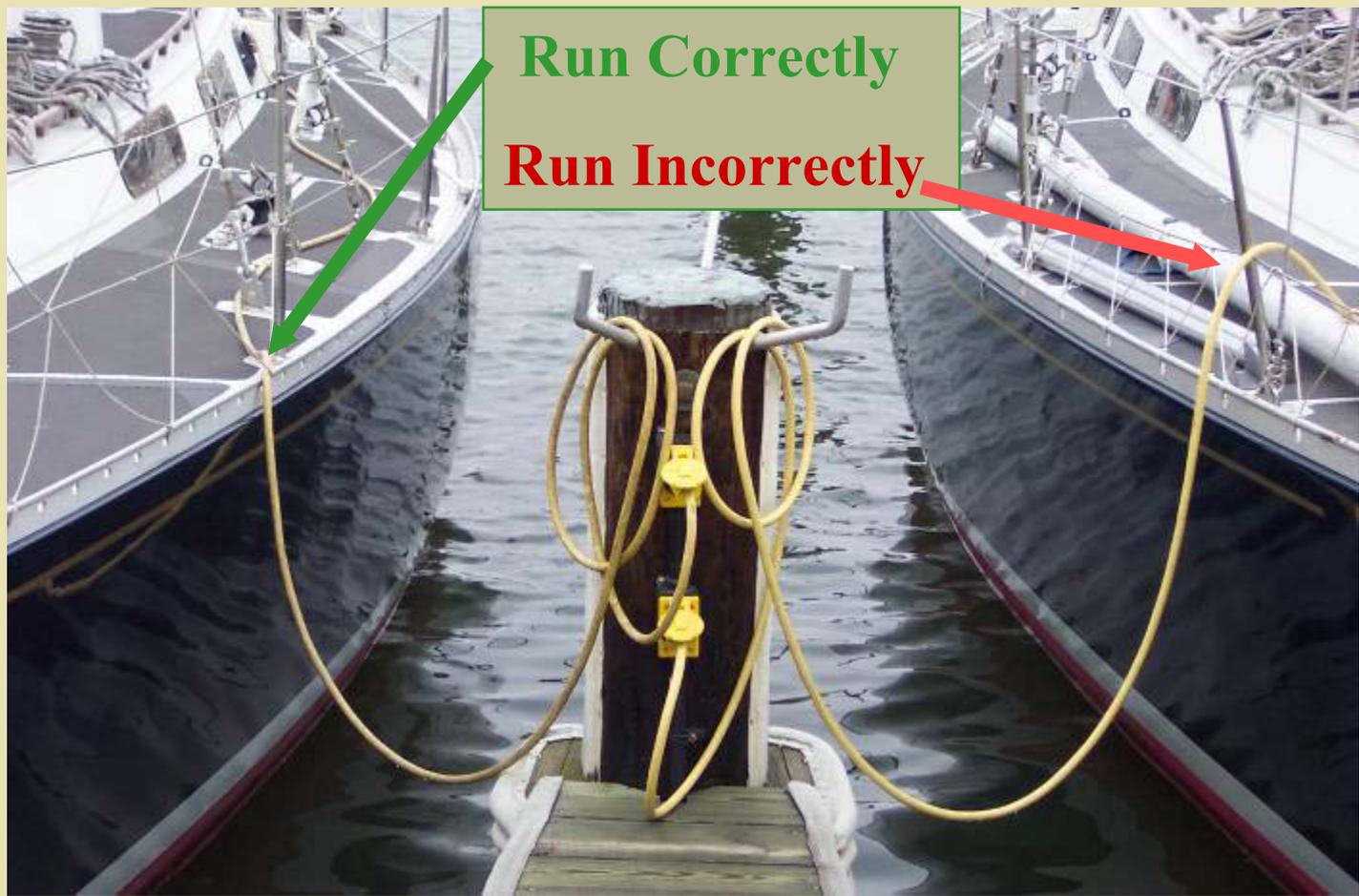
2. Lifeline stanchion

3. Spring line thru closed chock

4. Shroud (3 on each side)

5. Cowl Ventilator, all face forward, except aft two

6. Dorade

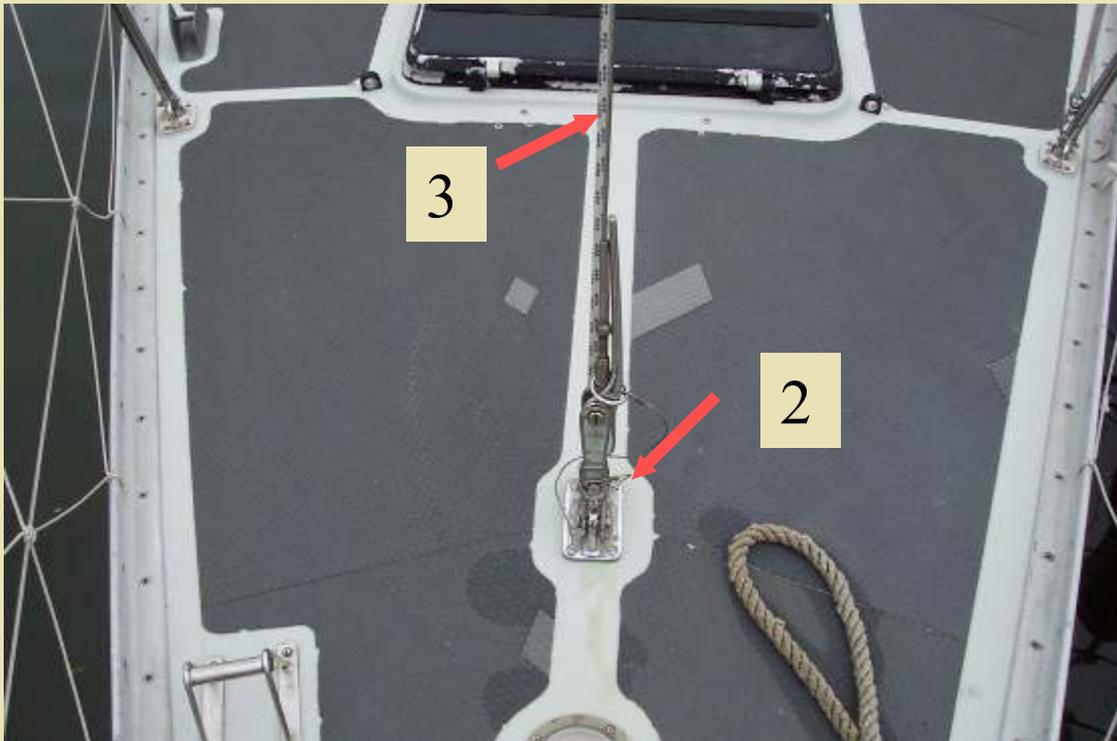


What is the rule about shore power?

Never plug into shore power without being plugged into boat. If the power cord were plugged into shore power and the other end fell in the water, it would short the marina and electrocute anyone in the water.



1. Open skene mooring chock—notice how lines cross before going to the cleat.
2. High field lever for the collapsible inner forestay attached to tang on deck.

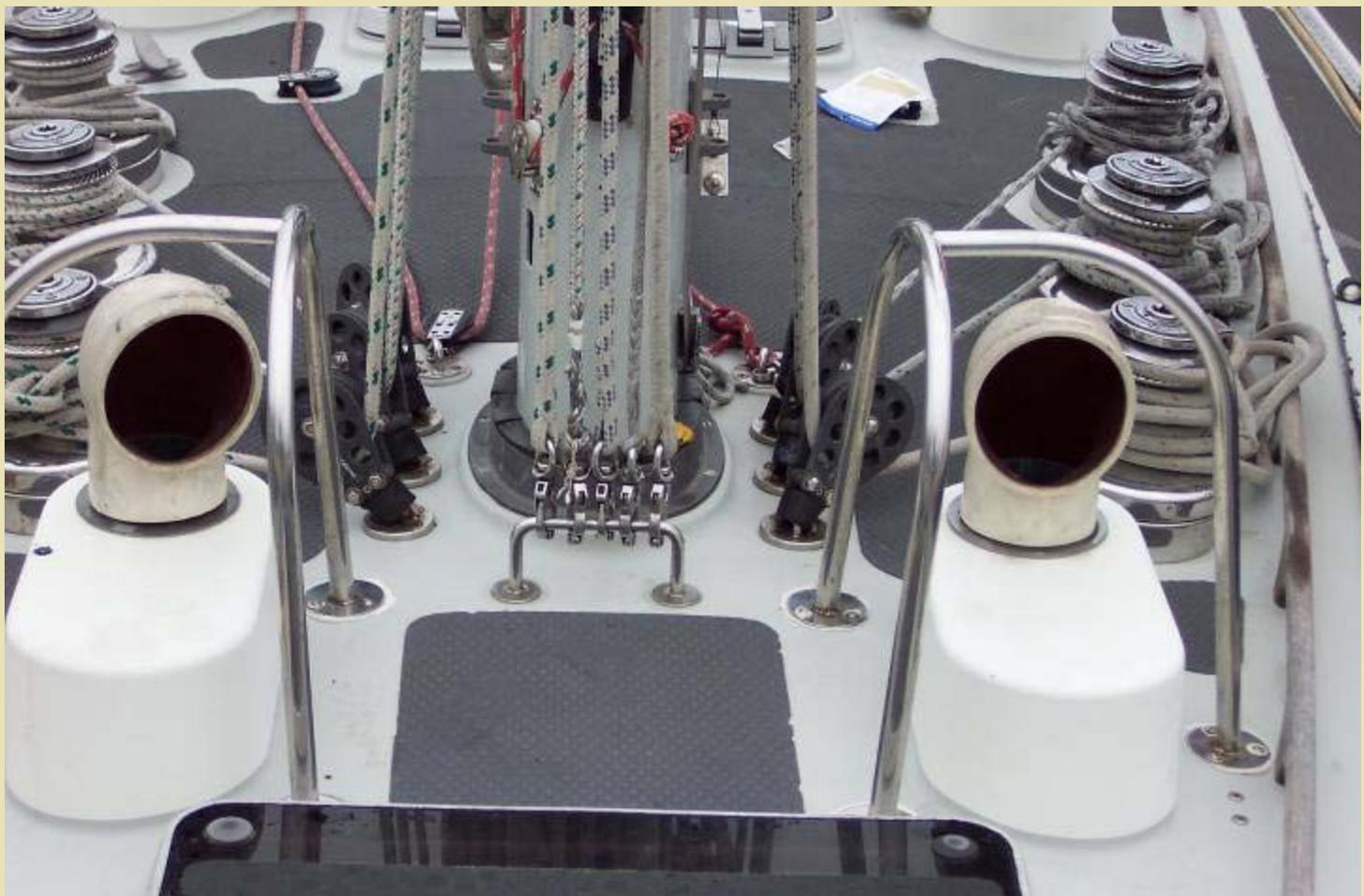


3. Collapsible forestay sail halyard for staysail or storm jib (also used for spinnaker topping lift).



Fairlead

The collapsible inner forestay is brought back around the metal turning fairlead and attached to a bungee.
Note: move forestay before bringing any other halyards back to the bail to reduce chance of tangling lines.



After the collapsible inner forestay is brought back and attached, the other five halyards are brought back and attached to this bail. Check to make sure they are not twisted aloft. From left to right facing aft: starboard spinnaker, starboard jib, topping lift, port jib, and port spinnaker.



Handling halyards:

- If you let go of a halyard, it will sky (go to the top of the mast) because the part you are holding weighs less than the part in the mast. So wrap the halyard around your arm once or twice to help maintain control.
- Two people should hold the main halyard because it is sometimes difficult to work with the shackle while securely holding the halyard. Therefore, a second person should help hold the halyard.
- Moving halyards on deck should have this dialogue: You say, “Ease the port jib halyard.” He says, “Ease the port jib halyard **aye**” and eases the halyard on the respective winch. You disconnect and move the halyard to the bail, attach it, jerk on it to make certain it is fast and say, “Port jib halyard made.” He responds, “Port jib halyard made **aye**” and then tensions the halyard on the winch.



What's wrong with this picture?

My hand is upside down, I am about to lose my thumb, and my hand is too close to the winch.



Much better.
Never point
your thumb at
the winch.



What's about to
happen here?

The line is about to jump off the
winch. “Look Mom, I am about
to hold **500 square feet of sail** in
my bare hands!!!

**Always keep you hands lower
than the winch!!!**



Much better. To lower the main halyard, lay out the line four or five feet from the winch, hands lower than the winch, thumbs away from the winch, and let the line feed. If a tangle should occur, there is plenty of room to deal with it before it gets to the winch.



Lines are always dressed after use!!
You should walk the deck to check / redress the halyards before you take over your watch. You need to know that all lines are free to run.

This could cause serious problems in a storm.



Notch in
locked
position

This is the shackle for the main halyard. Turn the notch counter-clockwise 90 degrees and then you will be able to pull it out to open the shackle.

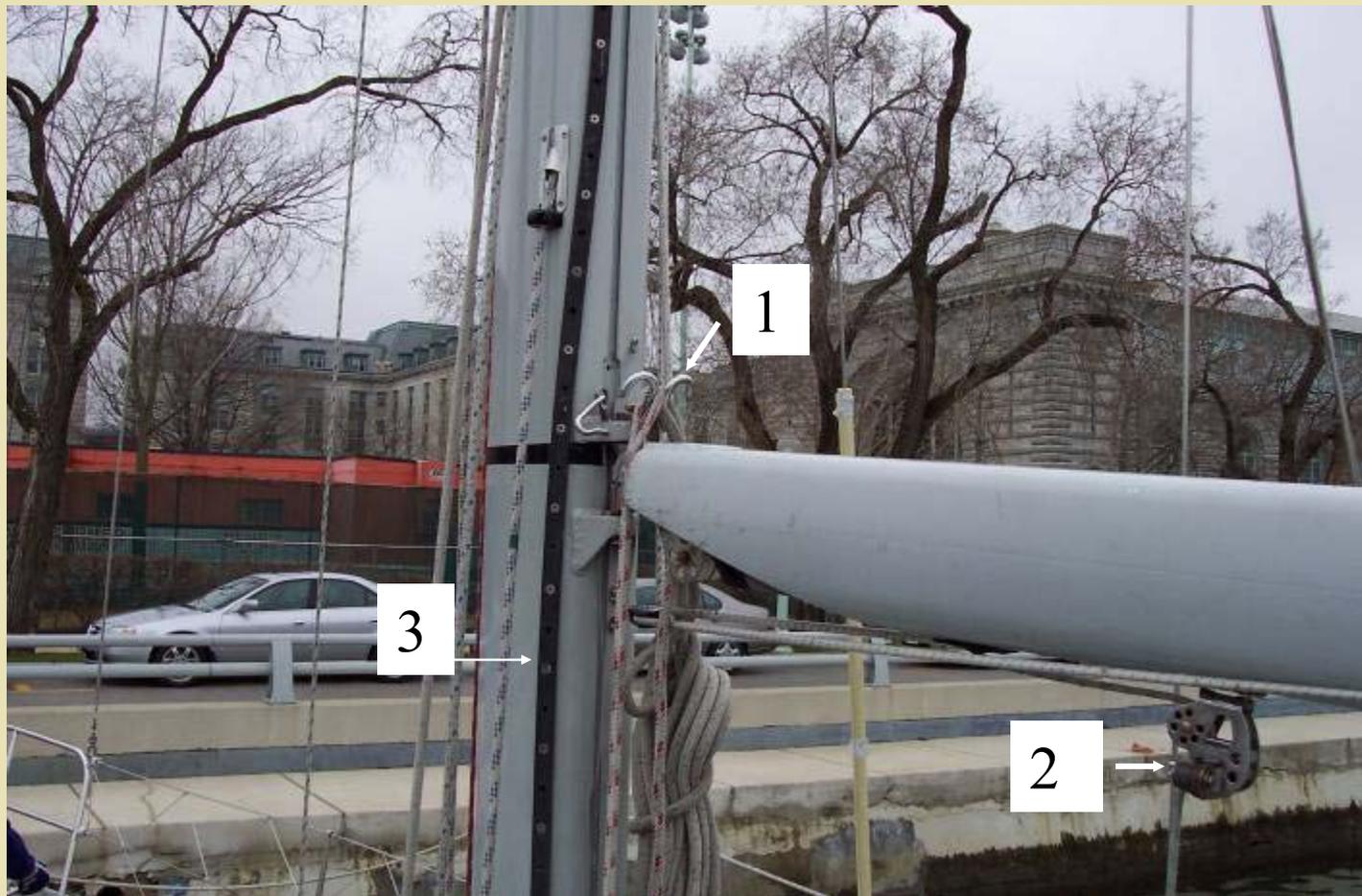


Six winches

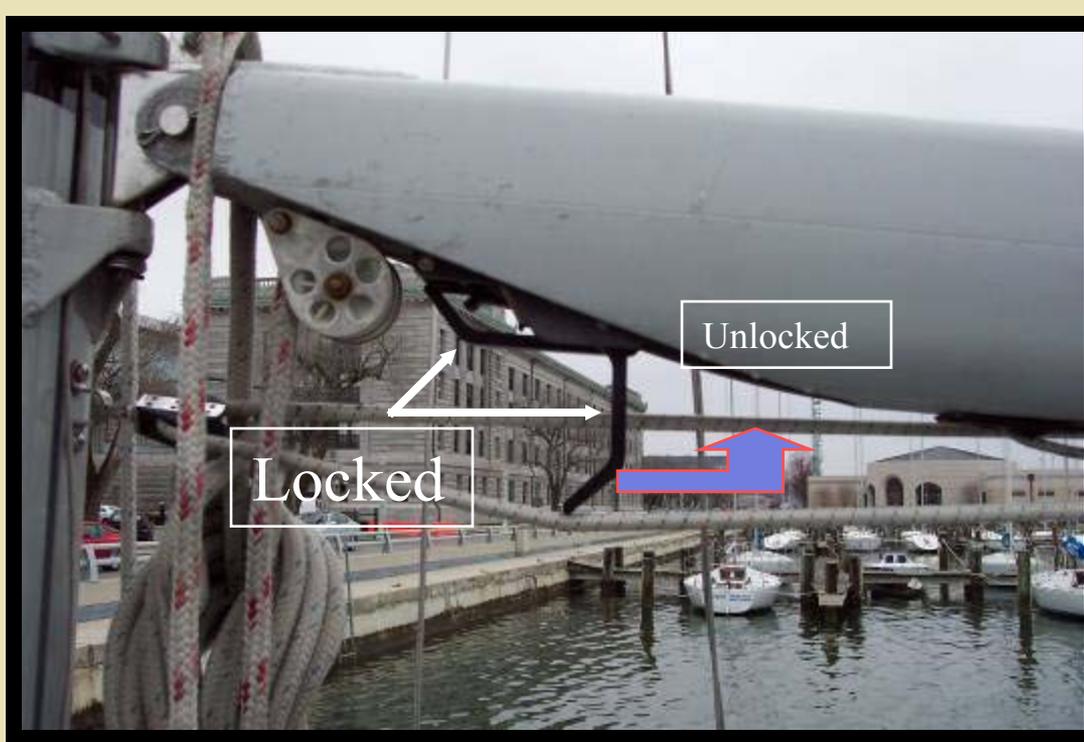
From the bow on the port side: spin, jib, reefing.

From the bow on the starboard side: spin, jib, main

Reefing lines are run through turning blocks and laid on deck. They are put on the reefing winch only when used. Note stopper knots in all lines (except spinnaker sheets).



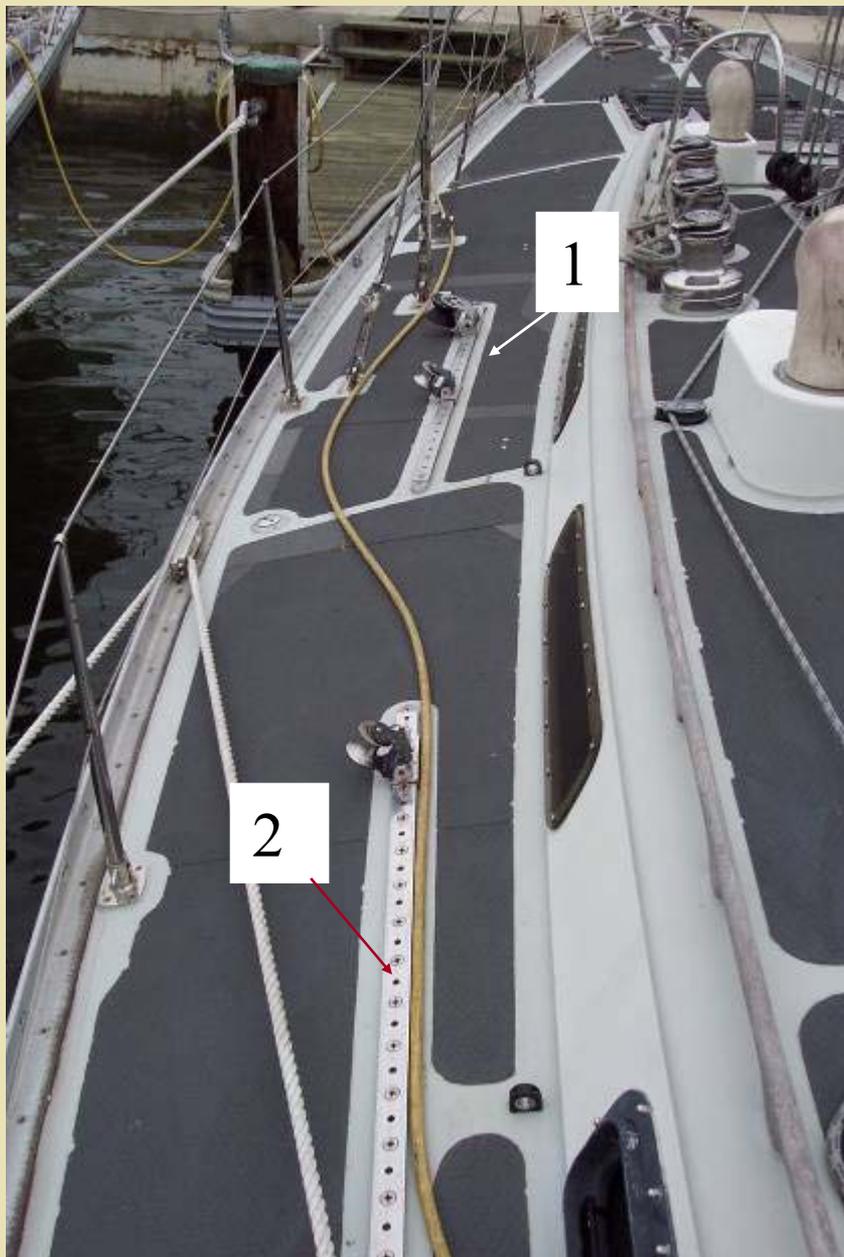
1. Reefing horn—when the sail is lowered, hook the reefing cringle on this horn and push the reefed sail to windward to keep the sail from blowing off the horn.
2. Outhaul
3. This is the track for the storm trysail which is raised by the main halyard.



This allows us to lock in the first reef, take the line off the winch, and then use the same winch to set the second reef.

Reefing clutches—one for first reef and one for second reef

1. When handle is *up and aft*, the reef line is free to run back and forth within the boom.
2. When handle is *down or forward*, as in *this picture* (locked), the reef line may only run toward the winch.



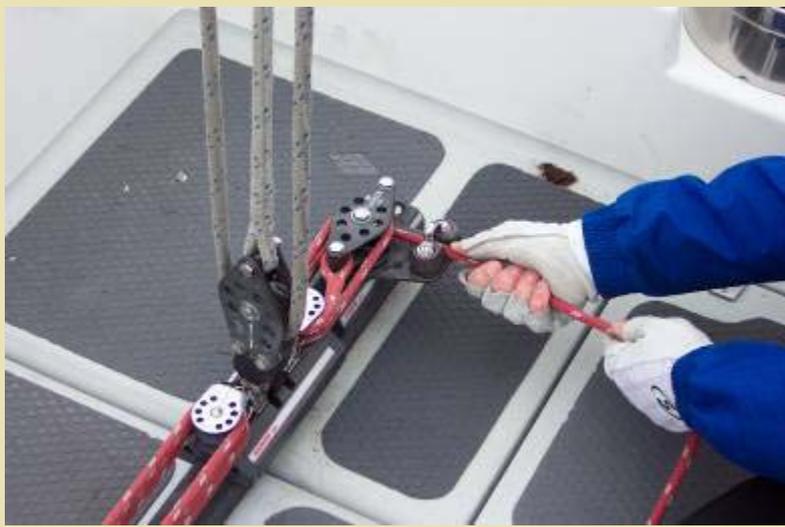
1. Jib track and cars.

2. Genoa track and cars.

Pulling the cars aft tightens the foot of the jib and increases twist at the top of the sail. Moving the cars forward tightens the leech of the sail which decreases sail twist.



1. Primary winch—it is **not** self-tailing!
2. Foot block
3. Spreecher or fiddle block—for spinnaker sheet or storm trysail.
4. Secondary winch



What's wrong?

When I release this traveler line out of the cam cleat under load, it and the block will eat my thumb.



Much better.

Tacking



“Port side ready” when sheet is out of the winch jaws and line is free to run.



When jib luffs, call “break” and lift jib sheet straight up off of winch.



“Starboard side ready” when you have sufficient turns on winch and are braced up against the steering pedestal. After “break” is called, sheet in hand-over-hand as rapidly as possible.



Notice how John Kircher sits on his butt when he gets tired and waits for someone else to grind while he tails.



What's wrong?

I have been given the command to take lines in hand and the line is wrapped around me or some boat part. A huge accident is about to occur when the boat backs.



Much better. Make sure all dock lines are **outside the boat** before backing.

Also, make sure all sheets are **inside the boat** to keep them from wrapping around the screw.



What's this?

It is one of two manual 30 gallon per minute pumps. The handle is kept in this sheet locker.



What else is in the port sheet locker?

One of the three 2-1/2 pound dry chemical fire extinguishers found on the 44

Push button macerator pump switch

Let's go below:

What is the first thing you do when you get onboard a Navy 44?

Turn on the VHF radio and tune to 82A so Santee Basin Control and the Robert Crown Center can talk with the boat.



Engage the house batteries—turn pointer up (to both batteries)



Shut DC main circuit

Shut VHF breaker



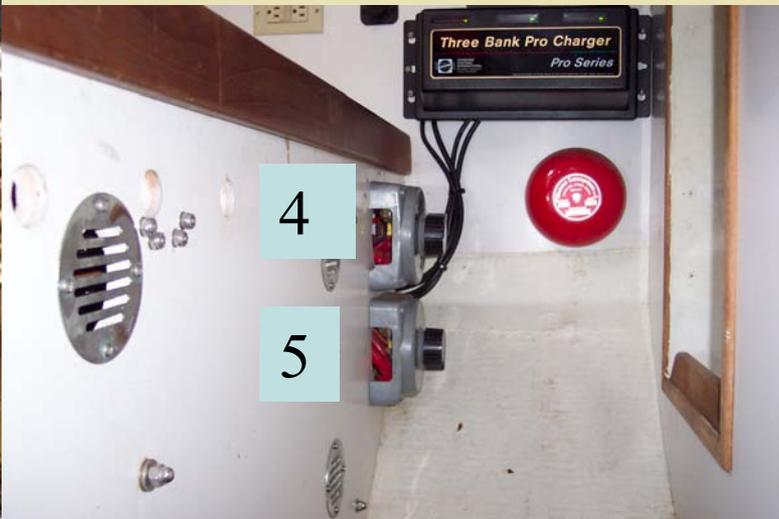
Tune to 82A

Push to turn on
VHF

Adjust speakers to
both so we can
hear both on deck
and below



What's under the navigation table?



1. Battery charger
2. Bilge alarm—sounds like school bell
3. Auto-gravity switches for depth (fathometer) and speed (knot) meters.
4. House battery selector switch—should be either in the “off” or “both” position.
5. Engine start battery selector switch.



By the numbers:

How many alarms on the 44? **Four**

- Engine (same alarm for both)
 - Oil pressure (less than 15 psi)
 - Water temperature (205° F)
- RACOR (water level high enough in filter)
- Bilge - school bell under the navigation table.

(note: you can also set a depth alarm)



How many fire extinguishers ? **Five**

- Three 2-1/2 pound dry chemical
 - Mounted inside the cockpit sheet locker on the forward bulkhead
 - Mounted in the galley
 - Mounted in the forward port hanging locker on the aft bulkhead
- One 5 pound CO2 located just aft the navigation table
- One Halon extinguisher located in the engine compartment



How many through-hulls? **Thirteen**

- Two plugged at bow for provisional head intake and exit
- Two knotmeters transducers in bow compartment
- Two depth sounder transducers in bow compartment
- One seawater intake below galley
- One galley drain below galley
- One head intake and shower sump pump discharge at base of companionway ladder.
- Head discharge below sink in head
- Raw water engine intake aft of engine
- Two cockpit drains in steering compartment

How many bilge pumps?

Three



Two 30 gallon per minute manual pumps



One 58 gallon per minute electric pump



What will the reefer do besides keep food cold?



Therefore, always lock the lid when it is in the open position.

BREAK YOUR FINGERS!!



What happens at the circuit breaker panel when the engine start battery is turned on?

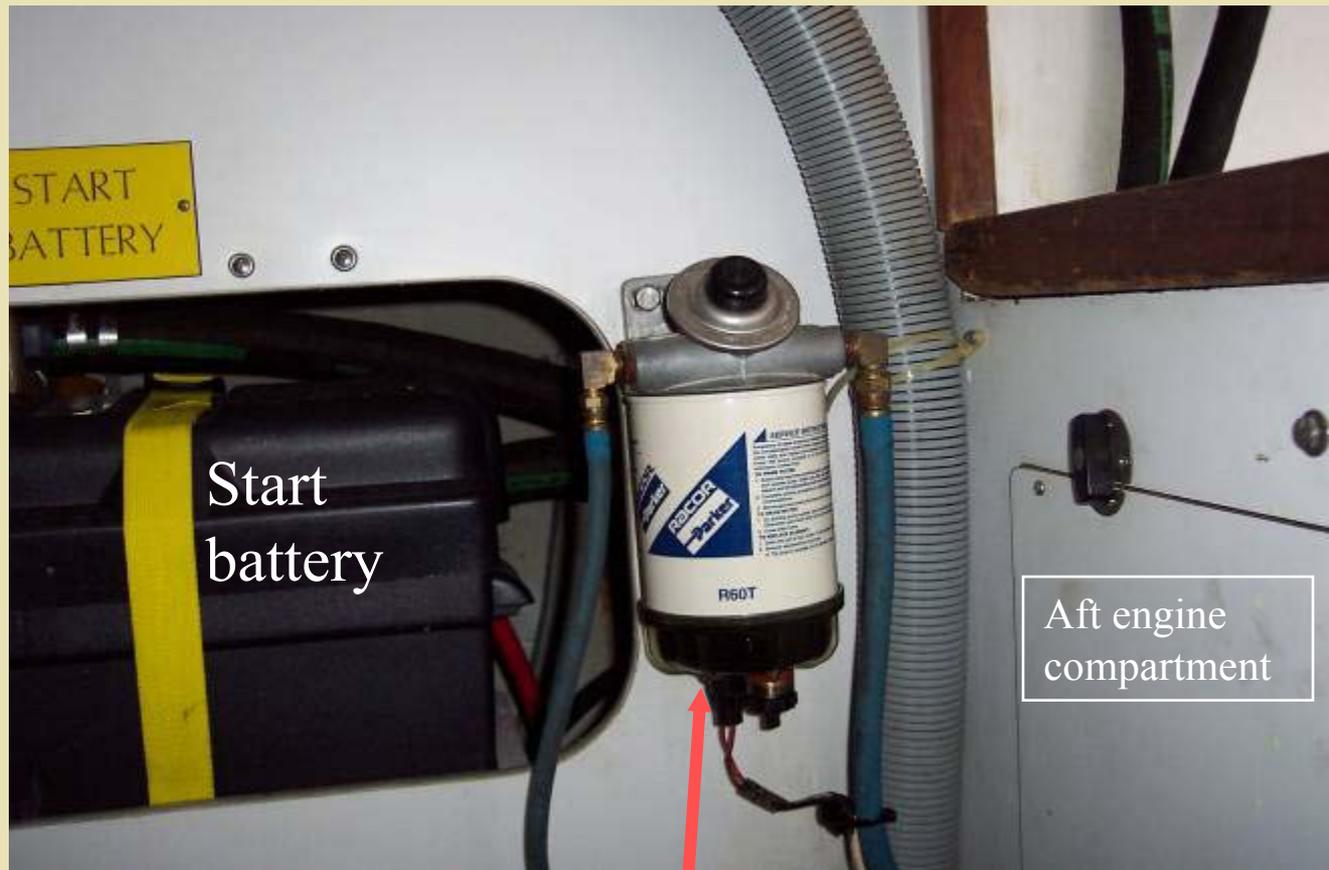
The Racor fuel filter alarm and light are activated for five seconds and **then the alarm and light go out.**

If water in the fuel gets trapped in the Racor filter, the alarm will once again sound for only 5 seconds and the light will come back on.



The Halon fire extinguisher **light comes on and stays on.**

If the Halon fire extinguisher is activated due to an engine fire, the Halon light will go out on the panel.



Racor fuel filter: inspect bottom of filter with a flashlight. If it is amber, then you are looking at diesel (good). If it is clear, you are looking at water (very bad)!



How do you start the engine?

- Perform the engine prestart checklist per SOP.
- Engage the engine battery by rotating engine start (Perco) switch to the up position.
- Check to insure that the “T” handle is all the way depressed.
- Disengage (clutch button out) the transmission and push the engine throttle full forward.
- Turn on the engine alarm—it will sound continuously until the oil pressure reaches the operating level. Leave it on while engine is running!
- Press and hold the engine pre-heat button for 10 seconds.
- While still depressing the pre-heat button, press the engine start button.
- When engine starts, idle back to 600-1000 rpm.
- Check for engine cooling discharge (8 gallons per minute).
- Watch for engine temperature to reach 170-190 degrees and oil pressure to reach 30-60 psi (engine oil alarm ceases).



How do you stop the engine and feather the propeller?

- Get boat speed to approximately 4 knots.
- Shut off fuel supply by pulling the “T” handle up while transmission is still engaged.
- Engine will stop and engine alarm will sound. Turn off engine alarm at breaker panel.
- Place the transmission in neutral with throttle forward.
- Push the “T” handle all the way down.

The engine is now ready to be re-started by pressing the engine pre-heat for 10 seconds and then the engine start button. Note that in an emergency, e.g. person in the water, the engine alarm does not need to be activated in order to start the engine.



Please go to next section for a discussion on how to depart and return to the dock. **You'll be sailing soon!**