Santana 20 Rigging Instructions for MMRL

There are two Santana 20s:
Club Boat (boat with red stripe): This boat is owned by the club and is available for use by qualified MMRL members when the boat is not being raced.
Bob's Boat (boat with blue stripe): This boat is privately owned and loaned to the club for use only during match racing, weekly racing and regattas unless permission is obtained.

Getting checked out to use the Santana: Each team captain will be responsible for determining when new match racers are proficient enough to be checked out to use the club Santana outside of match racing. In general, sailors should be able to properly rig the Santana without help and be able to confidently sail off the dock and properly dock the boat in a variety of conditions.

Using the Sails: Racing sails should only be used when racing. For practice on the club boat, you may use the factory sails which are on the boat or the practice match racing sails in the shed. If you are just sailing, please use the factory sails. For spinnaker practice, the old spinnakers (one orange and one black and white) may be used. The old spinnakers do not have their own turtle bags, so you will need to remove the racing spinnaker and pack the old spinnaker in. **Please re-pack the racing spinnaker before returning it to the shed.**

NEVER

- **NEVER put sails away wet. If sails are wet, spread out in Match Race shed.**
- **NEVER let go of the halyard or topping lift shackles. When handing a shackle to a teammate, ask if they have it before letting go.**
- **NEVER force anything. If a sail it not going up or a sheet will not move, stop and look for the cause.**
- **NEVER hesitate to ask. If you are not sure if you have rigged something correctly, ask a teammate to double check.**

The Boats:

- The boats are kept on trailers in the west lot, just north of the club boats.
- Only individuals checked out may run the tractor. Do not allow a teammate who is not properly checked out to operate the tractor.
- Full extended tongues on trailers and pullout extension on the tractor stinger.
- Before going down the ramp, unclasp hook on bow eye. This is also a good time to load equipment.
- **Be careful to keep the tongue down when launching Bob's Boat or the rudder may hit the ramp.**
- After boats are launched, place trailers along fence north of the dumpster.
- **DO NOT leave trailers hooked to the tractor.**
- Replace tractor key in lockbox and secure.

Equipment: All match racing equipment is either on the boat or kept in the MMRL shed (west most shed north of the shelter). Please return equipment to the proper location. If you don't know where something goes, please ask. **Report any issues or damage to equipment to your team captain.**

- Spinnaker
  - Spinnaker pole – located on the left side of the shed
  - Spinnaker turtle and sail – hanging on the back wall
  - Spinnaker sheets – two purple lines with white disks and snap shackles hanging on the back wall
  - Practice spinnaker – in gray sail bag to the right on the back wall
  - Spinnakers should not be used in high wind. Use judgment if winds are 15 mph or over.
- Jib
  - Jib sheet – The jib sheet is a red line hanging in the back of the shed. There is a single sheet line per sail.
  - Jib sails – There are three jibs available for use
    - Jib – The normal racing jib is in a gray bag hanging on the wall on the left side of the shed. This sail has a black patch part way up the leech.
    - Blade – This is a smaller, stiffer jib sail that is used in higher winds. The blade is in a red bag hanging at the back of the shed.
    - Old Jib – This is the old match race jib which is smaller than the current jib. This jib is generally used for practice, but may be used if a smaller jib is desired.
  - **Jib sails should be flaked, not rolled**.

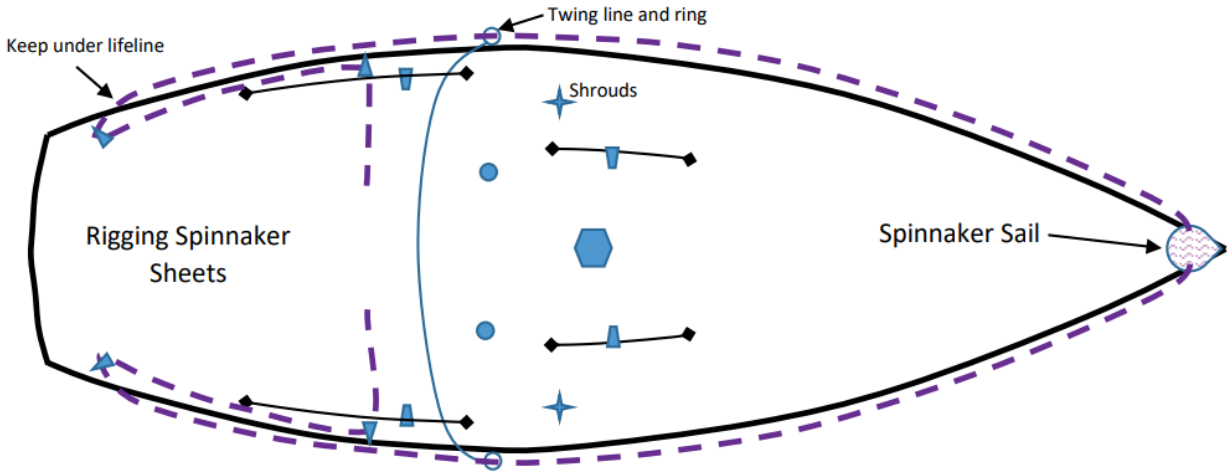
- Mainsail
  - Racing main – The racing main is in a black bag with tan stripes hanging on the left side of the shed
  - Practice main – located on the boat (club boat only)
  - **Mainsail should be rolled, not flaked**.
- PFD – The boats normally have 3 to 4 PFD on board; however, it is the responsibility of each team to ensure they have the required number of PFDs on board. Additional PFDs are located in the middle shed.
- Winch handle – Located in the cabin on each boat.
- Tiller extender – Located in the cabin on each boat.

Rigging

- **Safety** – The Santana will shift quite a bit when someone is getting on or off. If someone is on the boat, say '**Stepping on**' before you get on the boat and '**Stepping off**' before getting off the boat. When moving about the boat, be sure you have three points of contact (i.e. 2 feet and a hand). Lifelines, side stay and the forestay are good hand holds if needed.
- **Spinnaker**
  - **Spinnaker turtle bag** with sail is placed between the bow pulpit and the forestay. The bag should be orientated so the middle attachment point is forward. The bag should be secured at the 3 attachment points.
  - **Spinnaker halyard** –
    - Locate the spinnaker halyard.

- At the bow, locate the spinnaker head (which will be labeled 'Head') in the turtle bag.
- Look up to ensure the spinnaker halyard is clear.
- Attach the spinnaker halyard to the head and push the head back into the bag.

- **Spinnaker sheets** – Purple sheets with white disks. For each sheet
  - Locate the spinnaker clew in the turtle bag. There will be two.
  - Uncoil and clear the spinnaker line.
  - Attach the spinnaker snap shackle to one of the clews and push the clew back into the bag.
  - Run the other end of the sheet aft staying outside the lifelines.
  - At mid ship, pass the sheet through the twing line (metal ring at the end of a blue line) still staying outside the life lines.
  - Run the line aft to the block located where the lifeline ends. Run the sheet through the block and forward.
  - When running the line forward, be sure that it remains under the lifeline and did not accidentally wrapped over the line.
  - Take up slack but do not pull the spinnaker from the bag.
  - Run the sheet to the cleat located on the side of the cockpit.
  - Repeat on the other side.
  - Snug the turtle bag closure to prevent the spinnaker from being accidentally pulled from the bag.

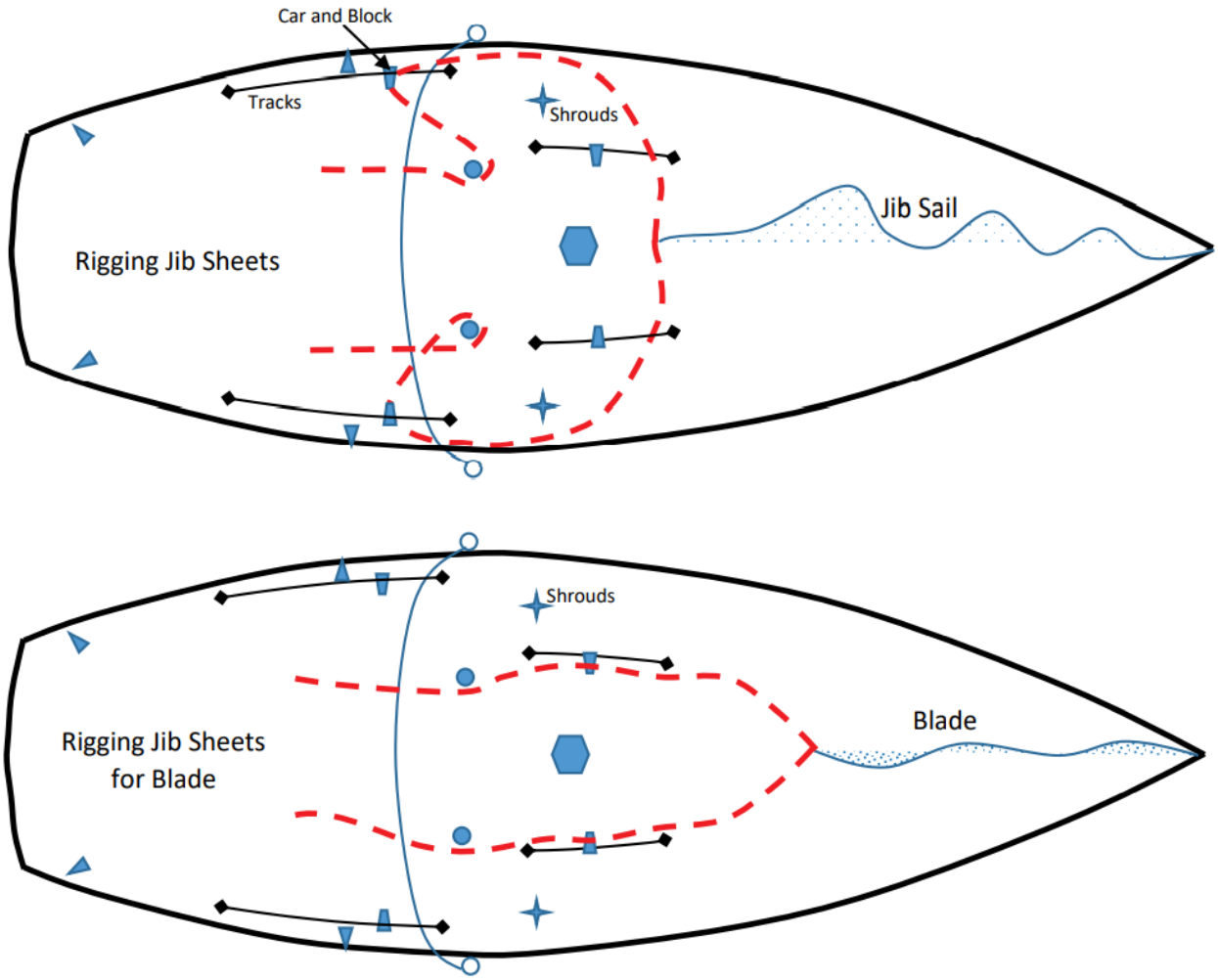


- **Spinnaker pole**
  - Locate the spinnaker pole topping lift.
  - Lookup to ensure the topping lift is clear.
  - Attach the topping lift snap shackle to the bracket located at the center of the pole.
  - Attach one end of the pole to the shrouds with the other end at the foot of the bow pulpit.
  - The topping lift line should be loosened so there is enough line free to run along the deck top to the mast. At the mast, tuck some of the topping lift under the bungee to lightly secure.

- IMPORTANT: If the jib sheets have been rigged prior to rigging the pole, the pole should be below the jib sheets and the topping lift line should run UNDER the jib sheets.

❖ **Jib**

- **Jib sail**
  - Place the jib sail on the bow of the boat with the luff forward and the clew towards the mast. The luff can be identified by the hanks.
  - Place the grommet at the tack of the jib under one of the horn hooks at the bow. The bungee cord located at the bow should be stretched over the end of the hook to lightly secure the sail. When the jib is lowed and raised during a race, the bungee prevents the tack from coming loose.
  - Starting at the bottom of the sail and working upward, attach the hanks to the forestay, ensuring all the hanks are in the same direction.
  - Locate the jib halyard.
  - Lookup to ensure the halyard is clear.
  - Attach the jib halyard to the head of the jib sail.
  - The jib sail is usually not hoisted until just before leaving the dock. When the jib sail is hoisted, drop the halyard into the cabin.
- **Jib sheets**
  - Uncoil the jib sheet (red sheet) and clear the line to remove kinks.
  - Attached the sheets using a cow hitch knot.
    - At the halfway point along the line, fold the line in half to create a bend. Push the bend through the grommet at the clew a few inches.
    - Feed the remainder of the line through the bend and pull snug.
  - The sheets rig differently if using the blade.
    - Normal jib:
      - Run one jib sheet aft around the outside of the side stay to the block on the side of the cockpit.
      - Pass the sheet through the block fore to aft and run forward toward the winch.
    - Blade:
      - Run one jib sheet aft between the mast and the side stays to the block on the cabin top.
      - Pass the sheet through the block fore to aft and run aft toward the winch.
    - Blocks: If there are no block on the sides of the cockpit, they are most likely on the cabin top and vice versa. You will need to relocate the cars holding the blocks to the correct set of tracks.
  - Place a stopper knot in the end of the jib sheet.
  - Repeat for the other side.



- **Mainsail**
  - Unwrap/free the traveler.
  - Uncoil the main sheet and clear the line.
  - Place the rolled mainsail in the cockpit with the luff (bold rope) towards the mast.
  - Release the boom vang.
  - Ensure the main sheet is running free.
  - Locate the main halyard.
  - Lookup to ensure the halyard is clear.
  - Attach the main halyard to the head of the sail.
  - Feed the bolt rope into the mast groove.
  - Hoist the main fully. Best if one person hoists and the other feeds the bolt rope.
  - The main has a cam cleat that holds the halyard, but it will sometimes slip. It is recommended to also secure the halyard with the horn cleat. Allow the main halyard to drop into the cabin.
  - Take the slug located at the clew forward to the mast and feed into to the groove on the boom, sliding it aft.

- Once the slug is at the aft end of the boom, attach the outhaul. If the outhaul will not reach, loosen it (cleat hitch along the boom). Tension the outhaul as desired.
- Remove the boom topping lift from the aft end of the boom and move forward to clip to bungee on the mast. Ensure topping lift does not cross the head of the sail and foul the main halyard.
- Attach the Cunningham hook to the grommet along the luff of the sail. Tension as desired.
- Tension the boom vang as desired.

❖ **Before leaving the dock**

- List minute items
  - If you are not sure if you rigged correctly, have someone double check your rigging.
  - If desired, attach the tiller extender.
  - Locate the winch handle and put in an easy to reach location where it will not easily fall off the boat (usually cockpit floor).
  - Remove fenders and place inside cabin
  - Ensure all the lines running into the cockpit are free (not covered by fenders and personal gear)
  - Check back stay tension
- Personal gear checklist (as needed)
  - Race watch
  - Sailing gloves
  - Water
  - Sunblock
  - Sunglasses
  - PFD
- Before casting off, ensure you have a plan for departure
  - Designate positions (who will helm, cast off, etc.)
  - Ensure everyone knows the procedure for the launch (direction to push bow, will we be raising jib before or after the launch, will we be back winding the jib, etc.)

De-rigging

❖ **On the way back in**

- Deploy fenders
- Ensure bow line is ready

❖ **Jib**

- Once secured, drop the jib halyard (if not already down).
- Ensure the jib does not fall into the water.
- Unhook the jib halyard and secure to bail on bow pulpit.
- Remove the jib sheets and coil.

- Un-hank the jib (keeping them from falling in the water) and detach the tack. Easiest to put one foot on each side of the jib and use your legs to keep if from sliding over the side.
- Carry the jib sail and bag to shore. Spread it out and flake it and bag it.

❖ **Mainsail**
- Remove the Cunningham.
- Attach the boom topping lift (that was secured on the bungee at the mast) to the end of the boom.
- Detach the outhaul and free the slug.
- Tighten and lock the main sheet to keep the boom from swinging.
- As the sail is lowered, roll it. (If too windy, take to shores and roll)
- Detach the main halyard and secure to the outhaul or mast eye.
- Place rolled sail into sail bag.
- Coil and secure the main sheet and the traveler.

❖ **Spinnaker**
- Remove the spinnaker topping lift from the spinnaker pole and secure to the mast eye.
- Detach the spinnaker halyard and secure to bail on bow pulpit.
- Remove the spinnaker sheets and coil.
- Detach the spinnaker turtle bag from the pulpit.

❖ **Closing up (can be done before or after the boat is out of the water)**
- Remove tiller extender and place in cabin and ensure winch handle is in the cabin.
- Secure the tiller handle with a bungee or rope so it will not swing side to side.
- Remove personal gear and any trash from cabin.
- Take equipment off and stow in sheds (remember, **flake the jib, roll the main**)
- Locate the companion way boards and hatch cover.
- Ensure slack is out of all halyards.
- Pull all lines out of the companion way and put boards and hatch in place.
- Lines should be secured in a manner that will keep them off the cockpit and decking so they do not sit in water.

Pulling/Parking the boat
- Use the tractor to pull the boat out and park in appropriate spot.
- Replace covers
- If no one else will be using the tractor, ensure that it is returned to the garage and the key locked up.