

SS&S Chapter 4 Instructor Guide

Rigging and Boat Handling

Slide 1: Rigging and Boat Handling

No comment

Slide 2: Rigging and Boat Handling Part 1 Chapter 4

No comment

Slide 3: Lesson Objectives

- How to rig the sails
- How to depart and return
- How to set and weigh anchor

Slide 4: Stepping the Mast

- Mast base secured with pin-or set in a socket
- Mast Partner- different types

A brace often used with un-stayed masts

Slide 5: Raising the Mast

Suggest using toy sailboat for demo.

- Survey area for power lines
- Secure shrouds/loose wires to mast
- Connect backstay-prevents raising mast too far forward
- Raise mast
- Connect forestay and shrouds
- Mast has slight rake
- Attach boom to mast
- Set rudder/tiller

Ask why: a good reason for student participation

Explain rake—mast tilted back slightly

Slide 6: Attach the Mainsail

- Arrange mainsail with foot exposed
- Feed sail outhaul clew into boom slot at the mast end of the boom
- Feed entire foot of sail onto the boom
- Attach tack and clew to their fittings
- Feed the head of the sail into the mast track (only 1-2 ft)
- Attach the halyard to the sail head
- Insert and secure the battens into their respective slots
- Bundle the remaining sail onto the boom for temporary storage

Review sail rigging terms before covering the procedure. Use chapter 1 illustrations

Also use Slide 7 with explanations

Slide 7: Attach the Mainsail

Use pictures to support the presentation of slide 6



Slide 8: Attaching the Jib

- Unpack and expose the jib's tack cringle
- Attach the jib to the foredeck fitting on the deck
- Attach the jib snap shackles to the forestay
- Attach the jib head to the jib halyard
- Attach jib sheets-if not already attached
- Stuff the jib temporarily to avoid it blowing overboard

Review sail rigging terms before covering the procedure. Use chapter 1 illustrations

Slide 9 shows snap shackles

Slide 9: Attaching the Jib

Use this picture to support the presentation of slide 8



Slide 10: Hoisting the Mainsail

- Boat should be facing into the wind
- All sheets should be free running
- Hoist the mainsail and cleat the halyard
- Put downward tension on sail with the downhaul or equivalent
- All sheets still free

Facing into the wind may not be possible. Experiment with alternatives to reduce danger. Maybe raise jib, sail away and raise mainsail while underway (near into wind).

Ask why – Cleating sheets can be dangerous.

Slide 11: Hoisting the Jib

- Jib on very small boat usually hoisted after mainsail
- On larger boats, getting underway first is often done before hoisting jib/genoa
- Small free bow deck space complicates raising very large genoas

Using auxiliary power underway can hold boat into the wind to simplify hoisting sails.

No quick solutions. How genoa was stowed may determine how it handles while it is being unfurled. Some boats have chutes for genoas.

Slide 12: Roller Furling Headsails

- Commonly used on cruising boats
- Easy to furl and unfurl
- Very large genoas accommodated easily
- Allows partial sail exposure Retract partially in very heavy winds
- Not usually used on racing boats Roller furling disturbs air flow - slightly

Slide 13: Sailing Away from a Mooring

Review mooring rigging terms before presenting slide

- Pull, sail or power boat to the pennant
- Avoid sailing over mooring rigging
- Decide whether to sail ahead or fall back from mooring To avoid jamming centerboard/rudder on mooring gear

Slide 14: Sailing Away from a Dock

- Assess wind and current Explain how to accommodate winds coming from all directions
- Consider using stern or bow line to pivot boat before sailing away.
- Consider problem of sails/boom hitting the dock

Slide 15: Leaving a Beach

- Centerboard/dagger board must be down Boat must sail into the wind and won't hold course with board up
- Crew must be standing waist deep Board down draws 2-3 ft.
- Sheets and tiller are under control when launching Sailing must commence immediately

Slide 16: Returning to a Mooring

- Approach mooring on a close reach
- Question: why a close reach Going into the wind allows stopping and going. Close reach allows steering port or starboard to meet-up with the mooring
- Using mainsail only simplifies control
- Learn how much momentum (carry) your boat has Must stop drive on sails early to allow boat to coast to mooring – and not continue to drive forward

Slide 17 Returning to a Pier

- Returning at an angle avoids boom/sail hitting the pier Allows Steering away from the pier
- Avoid returning direct down wind No way to stop boat
- Brief crew on boat securing procedure Many things have to be done in a few minutes
- Do not jump off Leaping to the pier often results in serious accidents
- Do not use legs to fend off Risk of crushing legs

Slide 18 Returning to a beach

- Few boats sail to the beach gracefully
- Better to sail close to beach and turn sideways
- Raise centerboard/rudder
- Jump overboard with a bow line

Too much to do in a few seconds

Slide 19: Practicing Docking Maneuvers

- Practice docking maneuvers in fair/moderate weather conditions
- Practice using fake obstacles
- Let crew participate

Gain competence in fair weather to improve chances of docking in bad weather

Practice docking using a floating object to represent the dock

Crew may have to replace you in special circumstances

Slide 20: Anchoring Systems

- Choice of anchors and sizes-see marine catalogs
- Anchor rode Scope
- Consider having spare equipment

Marine catalogs offer advice on selecting anchoring gear. Must consider your applications to make selections

Recommend 7 to 1 ratio between length of anchor line and water depth

Larger boats likely to encounter special conditions requiring multiple anchors

Slide 21: Anchoring Location

- Popular anchorages often crowded Allow space for Tide/wind changes
- Avoid crossing another boat's anchor rode
- Consider risk of a large position shift putting you into shallows

Slide 22: Anchoring Procedure

- Approach anchor location from down wind Ask why
- Go beyond the target location-the length of intended anchor rode length (scope) Ask why
- Lower anchor, drive or drift backwards paying out 1/3 of planned scope

Slide 23: Anchoring Procedure

- Cleat anchor to determine if anchor is set well in ground
- If set well, pay out remaining anchor line
- If not, retrieve anchor and try again

Slide 24: Weighing Anchor

- Retrieve anchor manually or with power assistance
 - Anchor usually breaks loose when anchor line is vertical
 - If it doesn't, cleat line very short and drive in tight circle
- Don't power beyond anchor site (initially)
- If not, drive straight over anchor often breaks loose
- Lodged in big rocks may resist attempts to release (Spare anchor justification)