ASA 102 - KEELBOAT SAILING 2

OVERVIEW:

In ASA 102, you'll expand your sailing knowledge and practical skills, focusing on boat handling, sail trim, and safety procedures. You'll learn to manage a keelboat in winds up to 20 knots, mastering advanced boat handling techniques like tacking, jibing, and docking. You'll also gain insight into controlling sail shape and power through key adjustments to the mainsail and jib, optimizing performance under varying wind conditions. This course emphasizes safety, teaching you essential crew-overboard recovery methods, winch handling, and safe line management. By the end, you'll be equipped to confidently skipper in coastal waters, making informed decisions about safety, sail trim, and boat control for smoother, more efficient sailing.

PREREQUISITES:

- ASA 101 - Keelboat 1

And the ability to demonstrate competencies in all knowledge and skills elements of that Standard.

STUDY MATERIALS:

- Official Textbook Coming Soon

ONLINE CLASSES:

- ASA 102 Online Prep Class

ASA 102 - KEELBOAT SAILING 2 STANDARDS

KNOWLEDGE:

TERMINOLOGY:

1. Define and describe the function of the following terminology and sail parts:

Standing Rigging

- Backstay
- Forestay
- Shroud
- Mast
- Boom
- Spreader

Running Rigging

- Boom vang
- Main sheet
- Jib sheet
- Traveler
- Jib lead
- Main halyard
- Jib halyard
- Outhaul
- Downhaul/cunningham

Sails Rigging

- Mainsail
- Jib / Genoa
- Batten & Batten Pocket
- Head/ Tack/ Clew
- Luff/ Leech/ Foot
- Bolt rope / Luff Slide

Other Parts

- Cleat
- Gooseneck
- Roller furler
- Shackle
- Telltales (luff, leech, in rigging)
- Tiller
- Wheel
- Winch & Winch handle

Crew Roles

- Jib trimmer
- Mainsail trimmer
- Helmsperson

Wind & Trim Concepts

- True wind
- Apparent wind
- Lift
- Flow
- Stall
- Airfoil
- Weather helm
- Chord length
- Angle of Attack Depth (camber or draft)
- Draft position
- Twist

ASA 102 - KEELBOAT SAILING 2 STANDARDS

KNOWLEDGE (CONTINUED):

SAFETY: PREPARATION & PROCEDURES

2. Identify sources of safety information appropriate to your sail plan.
3. List the responsibilities of the skipper to the crew and the sailing vessel.
4. Identify proper crew and skipper preparedness for a day sail.
5. List proper safety gear for vessels approximately 20 to 30 feet in length by day in winds up to 20 knots.
6. Identify the most common danger areas on a boat when sailing upwind, downwind, tacking, jibing, hoisting / dropping sails, docking, and mooring.
7. Describe under which conditions the boom, lines, sheets, and decks become safety issues.
8. Describe proper appropriate line handling procedures and use of a winch / winch handle.
9. Describe safe fending and procedures.
10. Diagram COB procedures including: Figure-8 recovery and Quick-Stop recovery.

BOAT HANDLING:

11. Diagram the proper course, list steps, and commands / communication for the helmsperson and crew when coming about.
12. Explain weather helm and how to control it.
13. Diagram and describe the steps for the helmsperson and crew when jibing.
14. Describe the advantages and challenges of steering with a tiller extension.

TRIM CONCEPTS:

15. Define the elements that affect lift on sailboats.
16. Diagram the apparent wind triangle.
17. Explain the difference between the proper trim and course when close hauled versus proper course and trim for off wind sailing.

SAIL SHAPE AND POWER:

18. Describe the three sources of sail power: angle of attack, sail depth, and twist.
19. Describe two ways to increase or decrease angle of attack/sail power.
20. Describe the difference in sail power between a flat and deep camber sail shape.

ASA 102 - KEELBOAT SAILING 2 STANDARDS

KNOWLEDGE (CONTINUED):

HOW SAIL CONTROLS AFFECT SAIL SHAPE AND POWER:

21. List jib controls and describe impact on angle of attack, depth, draft position, and twist.
22. Describe the impact of jib fairlead position on telltale behavior and the flaw of “even break”.
23. List mainsail controls and describe the impact on angle of attack, depth, draft position, and twist.
24. Explain how boatspeed, pointing ability, heel, and weather helm can be affected by sail trim.
25. Describe the techniques for maximizing sail power in light air by adjusting sail controls and helm.
26. Describe how changes in boom vang tension impact mainsail shape and power when sailing on a reach.

SKILLS:

SAFETY: PREPARATION & PROCEDURES

27. Demonstrate proper use of a winch, winch handle, and handling lines wrapped around a winch.
28. Demonstrate a COB Figure-8 and Quick-Stop recovery in each crew position using proper communication and demonstrating teamwork

BOAT HANDLING:

29. Demonstrate proper technique to rig and get underway, stow and coil for easy release, and proper dropping and stowing of sails.
30. Demonstrate proper driver position and helm technique, including the use of a tiller extension.
31. Demonstrate proper tacking in each crew position including commands, pace of turn, handling the helm, and weight movement.
32. Demonstrate how to sail with the tiller tied off, using weight and trim at both full-speed and down speed.
33. Demonstrate proper jibing in each crew position from a broad reach to a broad reach including commands, rate of turn, handling the helm, weight movement, and proper exit angle.
34. Demonstrate how to come out of irons by sailing backwards and then backing the jib to exit the no sail zone.
35. Demonstrate how to heave-to so the boat will be self-tending, and how to resume sailing.

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SKILLS (CONTINUED):

HOW SAIL CONTROLS AFFECT SAIL SHAPE AND POWER:

36. Demonstrate the use and impact of each jib control.
37. Adjust jib sheet and jib fairlead for optimum moderate air upwind trim.
38. Demonstrate the use and impact of each mainsail control.
39. Use the traveler to control angle of attack, power, heel, and boat balance.
40. Demonstrate the impact of outhaul tension on mainsail shape and power.

UPWIND SAIL TRIM:

41. Steer to optimum telltale performance to maintain full sail power and a consistent angle of heel.
42. Adjust sail controls and helm for optimum sail power in light air.
43. Adjust mainsheet, luff tension and steering (feathering) to depower and control heeling and helm in moderate and fresh conditions.
44. Demonstrate ways to depower with sail controls and with the helm.
45. Demonstrate proper puff response in moderate air and heavy air.
46. Steer upwind “in the groove” and on the high and low edges of the groove
47. Demonstrate the proper technique to set and shake out a mainsail reef.
48. Demonstrate the use of jib telltales for steering upwind

REACHING AND RUNNING SAIL TRIM:

49. Demonstrate proper jib and mainsail trim on a reach, including the use of telltales and boom vang.
50. Change course from close reach to broad reach and back to close reach with trim to match.
51. Demonstrate understanding of sailing by the lee and avoiding an accidental jibe.
52. Demonstrate steering and trimming sails on a wing on wing course.
53. Demonstrate how to maneuver or maintain a steady course by adjusting sail trim and crew weight position.