

INTRODUCTION TO KEELBOAT RACING STANDARD

Standard Description

This Standard is the initial keelboat racing Standard that is part of the Sail Canada Learn to Cruise and Power training system. The Standard will prepare candidates for a role as crew in a club racing environment. The focus of this Standard is on racing rules knowledge and practical application of rules, terminology and procedures used on keelboats on the race course. Practical sessions include practice and coaching on maintaining boat speed as well as the application of the Racing Rules of Sailing.

The program is typically offered in a day sailing or live aboard format. It is envisioned that the day sailing format will be taught in not less than 28 hours of which at least 16 hours should be devoted to practical sessions on water. A challenge of the standard may be accomplished in a minimum of 6 hours afloat plus completion of the written examination.

Objective

To be able to participate in local club white sail (non spinnaker) races as crew and/or helm, of a sloop rigged keelboat of 6 to 12 meters with an outboard or inboard motor in 5 - 20 knots (not gusting over 25 knots) of wind by day, with sufficient understanding of the racing rules, race management procedures, and tactics to successfully complete the race in an enjoyable manner.

Prerequisites

Requirements prior to taking the standard:

- Start Keelboat Sailing Standard, Basic Cruising Standard, Basic Crew Standard or equivalent experience.

Requirements for Certification:

- Pleasure Craft Operator Card (or equivalent).

It is recommended that students have completed the ROC(M) VHF with DSC endorsement.

Note: As a minimum this standard will be adjusted as required every four years to maintain synchronization with the current Racing Rules of Sailing (RRS).

Ashore Knowledge

Section I: Sails and Boat Setup

The candidate must be able to:

1. Name and identify the listed elements of the standing rigging including the effects of tension adjustments to the standing rigging on both mast head and fractional rigs:

Backstay	Shrouds – Verticals & Diagonals
Forestay	Spreaders
Cap Shroud	
2. Identify and describe the following parts:

Whisker Pole	Topping lift
Outboard Headsail Fairlead;	
3. Describe when a whisker pole and/or an outboard lead would be used;
4. Name and describe the following as used to change headsail and mainsail shape and describe their effects on the sail:

Backstay	Mainsheet
Boomvang	Mast Bend
Cunningham	Outhaul
Headsail Sheets	Traveller
Headsail Sheet Fairleads	Telltails/Ticklers
Halyards	Leech Lines
5. Define draft as it applies to the sails, and how it is controlled/adjusted on the sails in accordance with lee and weather helm;
6. Describe the use of single and/or multiple ticklers on a headsail and mainsail;

7. Describe the roles of the various positions within a racing crew:
- | | |
|------------------|------------------|
| Skipper/Owner | Helm |
| Mainsail trimmer | Headsail trimmer |
| Grinder | Tailer |
| Pit | Mast |
| Foredeck | Tactician |

Section II: Weather & Water

The candidate must be able to:

8. Identify the wind speed within 5 knots;
9. Identify local influences on wind speed and direction;
10. Recognize a changing weather system;
11. Describe methods for determining if there is current on the race course and it's general set.

Section III: Racing Rules & Race Management

The candidate must be able to:

12. Demonstrate a basic understanding of the International Sailing Federation (ISAF) Racing Rules of Sailing (RRS) as they apply to a competitor. Specifically the Definitions, Basic Principle, Parts 1, 2 (Section A & B) including all ISAF rule updates and Sail Canada (SC) prescriptions;
13. Identify and explain the meanings and use of Race Committee Signals (RRS Race Signals):
 - a) Postponement Signal (single flag only),
 - b) Abandonment Signal (single flag only),
 - c) Preparatory Signals,
 - d) Recall Signals,
 - e) Shortened Course Signal;
14. Describe the RRS 26 starting sequence as it would be implemented for single and multiple fleet starts;
15. Identify the conditions associated with Individual and General Recalls (RRS 29);
16. Identify the signals associated with Starting Penalties (RRS 30);
17. Describe the appropriate exoneration (as per RRS 44.1 & 44.2) following:
 - a) hitting a mark,
 - b) fouling another competitor;
18. Describe the fundamental steps necessary to file a valid Protest (RRS Part 5, Section A).

a) Foul/Incident,	d) Write Up,
b) Flag & Hail,	e) File/Time Limit,
c) Acceptance (turns)/Denial,	f) Hearing;
19. Identify the parts of a race course:
 - a) Race Committee – Committee/Signal, Pin & Mark Boat,
 - b) Marks – Windward, Offset, Gybe, Leeward, Leeward Gate, Start, Finish,
 - c) Start Line, Starting Area, Finish Line,
 - d) Lay lines, Rhumb line;
20. Describe the types of race course configurations and what constitutes proper completion of a course:
 - a) Windward/Leeward,
 - b) Triangle.

Section IV: Strategy and Tactics

The candidate must be able to:

21. Describe the fundamental factors to be considered when formulating a game plan for a race;
22. Describe the terms “header” and “lift” and how to identify them with the use of a compass;
23. Describe the difference between a loose and close cover;
24. Identify the wind shadow of a boat while sailing upwind and downwind and the importance of maintaining clear air;
25. Describe strategies dealing with marks of the course:
 - a) Approaches to lay lines,
 - b) A tactical mark rounding;
26. Provide appropriate feedback regarding race course situational awareness:
 - a) Incoming traffic,
 - b) Location/position on race course,
 - c) Location of the next mark of the course.

Afloat Skills

Section V: Seamanship

The candidate must be able to:

1. a) Carry out a check of the vessel's required (*Safe Boating Guide*) and recommended equipment in accordance with the *Sail Canada Cruising Boat Checklist*,
 b) demonstrate use and care of onboard equipment
 c) Proper stowage of the equipment;
2. Complete a pre-departure checklist
3. Select, bend on, check and stow sails;
4. Act as crew and helm while demonstrating the proper techniques of beating, reaching and running; tacking and gybing; heading up, bearing away, luffing and heaving to; using the following commands and responses:

<u>Commands</u>	<u>Responses</u>	<u>Alert</u>
"Head Up"		
"Bear Away"		
"Ease Sheets"		
"Tighten Sheets "		
"Ready About"	"Ready"	"Helms-a-Lee"
"Ready to Gybe"	"Ready"	"Gybe-ho"

5. Demonstrate, as crew, the management of the sail plan for different wind conditions while keeping the vessel under control, either through adjusting basic sail shape, changing the sails or a helm adjustment:
 - a) Increasing or decreasing or moving the draft of the sail,
 - b) Reefing and shaking out the reef in the mainsail,
 - c) Changing the headsail,
 - d) Pinching or footing of the helm;
6. Demonstrate the helm and crew action/commands from the time a member of the crew falls overboard without warning, until the crew is safely recovered. Consider the crew overboard is wearing a PFD and able to assist him/herself. Include the following minimum actions:
 - a) Sound alarm "Crew Overboard!",
 - b) Deploy marker and buoyant object(s),
 - c) Appoint and maintain a look out,
 - d) Triangle method of return (under sail),
 - e) Describe at least two methods of getting a person out of the water and back aboard;
7. Participate in all aspects of docking, including helming;
8. Flake or roll sails, stow equipment and put the boat to bed.

Section VI: Racing Situations

The candidate must be able to:

9. Contribute influencing factors to the skipper/tactician to contribute to the formulation of a game plan for a race;
10. Demonstrate appropriate sail trim from for the prevailing conditions on each leg of the course;
11. Demonstrate the ability to call a lay line;
12. Demonstrate tactical mark roundings;
13. Demonstrate appropriate reaction to wind shifts;
14. Demonstrate appropriate reactions to puffs and lulls.

Outcomes and Evaluation

Candidates sailing ability, knowledge and application of racing rules and strategy as well as vessel handling skills will be coached and evaluated throughout the training session. In addition to successful completion of the practical course candidates will be required to complete a closed book written exam that covers theoretical knowledge relevant to this standard. In order to complete certification a mark of 70% is required on the examination.

Additional Notes

This Standard offers candidates the opportunity to develop day and night sailing skills in partnership with an instructor competent in those skills. The course helps sailors develop an understanding of the components of risk that sailors continue to face in their on water activities. Participants in this course will be experience actions and procedures that mitigate risk while underway.

Physical Requirements for Candidates

These training sessions will require short periods of moderate upper body exertion, and a moderate level of arm strength. Participants will have the opportunity to experience sun, wind, spray, rain, and temperatures consistent with the time of year they take part in this activity. When underway the vessel may exhibit irregular motion due to wind and waves and temperatures may be cooler than on land. Participants will be expected to learn and demonstrate skills and perform tasks while the vessel is at the dock, at anchor, and when the vessel is underway. In a day sailing format, vessels will be underway for varying periods of time (up to 8 hours), during daylight, in light to moderate wind and sea conditions. These sessions are suitable for most fitness levels and will provide a good body core workout.

Participants taking courses in “live aboard cruise and learn” formats may also be subject to conditions normally associated with the Intermediate Cruising standard.

Resource Material

Listed alphabetically by title.

2021-2024 The Rules in Practice, Bryan Willis
Getting Started in Sailboat Racing, Adam Cort and Richard Stearns
Illustrated Sail & Rig Tuning, Ivar Dedkan
Performance Racing Tactics , Bill Gladstone, North U.
Performance Sailing and Racing, Steve Colgate
Racing Rules 2021 – 2024 Companion, Bryan Willis
Racing Trim, Bill Gladstone, North U.
Tactics, Rodney Pattison
The Racing Rules of Sailing (including Sail Canada prescriptions) 2021 – 2024
Understanding the Racing Rules of Sailing Through 2024, Dave Perry