

BASIC CRUISING STANDARD (Day Skipper – Sail)

Objective

To be able to cruise safely in familiar waters as both skipper and crew of a sloop rigged keelboat of 6 to 10 meters with an outboard or inboard motor in moderate wind and sea conditions by day.

Prerequisites

None.

Ashore Knowledge

Section I: Terms and Definitions

The candidate must be able to:

1. Identify and describe the following:

Hull and keel	Gooseneck
Bow, beam and stern	Boomvang and topping lift
Fenders	Shackles and fairleads
Deck, cabin and companion way	Cleats and winches
Rudder and tiller/wheel	Pulpit and pushpit
Cockpit and self-bailing cockpit	Stanchions and lifelines
Gudgeons and pintles	Main, jib and storm jib
Mast and boom	Genoa and spinnaker
Spreader	Head, tack and clew
Shrouds and stays	Luff, foot and leech
Tangs and turnbuckles	Battens, hanks and slides
Chainplates	Cringles and reef points
Running rigging	Standing rigging
Roller and jiffy/slab reefing	Sheets and halyards
Telltails	Outhaul and cunningham
Spring and breast lines	Roller furling
2. Describe the following with the aid of diagrams:
Ahead, abeam and astern, forward and aft;
3. Define and be able to identify these terms from a diagram:

Port	Underway
Starboard	No way
Windward	In irons
Leeward	Beating
Tacking	Sailing by the lee
Gybing	Running
Close Hauled	On a tack
Port tack	Luffing (of sail)
Starboard tack	Heading up
Leeway	Bearing away
Wash	Wake
Reaching (Close, beam and broad)	

Section II: Gear and Equipment

The candidate must be able to:

4. List from memory:
 - a) Transport Canada (TC) required items for the candidate's boat (*Safe Boating Guide*),
 - b) The rules for care of PFDs and life jackets,
 - c) The recommended method of testing for buoyancy in a PFD;

5. Describe:
 - a) The reasons for keeping gear and equipment stowed in assigned places in a cruising boat,
 - b) The frequency of maintenance of a recreational boat and its equipment so that it is capable of functioning at all times,
 - c) The minimum items recommended for a waterproof emergency kit.

Section III: Safety

The candidate must be able to:

6.
 - a) Describe the purpose of a safety harness and dangers of improper attachment in a cruising boat,
 - b) State the purpose of pulpits and lifelines;
7. Identify the required navigation lights for:
 - a) A vessel under sail, under power, and at anchor and describe the angles of each,
 - b) An unpowered vessel less than 6 meters in length;
8. Define what hypothermia is including:
 - a) The signs and symptoms and the major areas of heat loss to the body,
 - b) Steps for prevention,
 - c) Treatment for mild and severe hypothermia,
 - d) The actions to be taken by one or more individuals in cold water to increase survival time;
9. Define what cold shock is including:
 - a) The signs and symptoms,
 - b) Steps for prevention,
 - c) Treatment for;
10. Define what carbon monoxide poisoning is including:
 - a) The signs and symptoms,
 - b) Steps for prevention,
 - c) Treatment for;
11. Describe the precautions taken to prevent undue magnetic influences to the vessel's compass;
12. Describe the common sources of fire and explosion and list the methods for preventing such occurrences and actions to be taken in the event of an onboard fire;
13. Describe safe refueling procedures;
14. Identify the two scuba diving flags;
15. Describe/list:
 - a) The danger involved in re-charging batteries,
 - b) How to safely launch flares,
 - c) The types of signals used to indicate distress,
 - d) The actions to be taken in case of a capsized;
16. Describe the uses, capabilities and limitations of a yacht radar reflector;
17. State the dangers of overhead power lines;
18. Describe:
 - a) Reasons for filing a float plan and who the plan should be filed with,
 - b) Items of important information which should be included in a float plan,
 - c) Reasons for completing a pre-departure checklist.

Section IV: Rules of the Road and Canadian Regulations

The candidate must be able to:

19. Apply Rules 12 to 17 of the *Collision Regulations* by means of diagrams;
20. Identify and describe the following:

Pleasure craft	Power driven vessel
Sailing vessel	Recommended gross load capacity
Compliance notice / Capacity plate	Recommended safe limit of engine power
21. Identify:
 - a) Four considerations in determining the safe speed to operate a vessel,
 - b) The actions and precautions to be taken in reduced visibility,
 - c) Responsibilities when operating in a commercial traffic lane;



22. Demonstrate knowledge of regulations applying to boaters as follows:
- Identify the minimum required publications for operating a 10 meter pleasure vessel in unfamiliar waters,
 - Describe the guidelines for licensing and how a license number must be marked on a vessel,
 - Identify the principal acts and regulations that a pleasure craft operator should be knowledgeable about and the areas covered by each including:
Canada Shipping Act (2001) *Small Vessel Regulations* *Contraventions Act*
Vessel Operation Restriction Regulations *The Criminal Code of Canada* *Collision Regulations*
Competency of Operators of Pleasure Craft Regulations

Section V: Weather

The candidate must be able to:

23. State three sources of marine weather information;
24. Interpret the marine weather forecast applicable to the area of operation, and describe how to apply the information as follows:
- Determine whether it is safe to set sail in the candidate's boat,
 - Decide what changes are forecast for the next six hours and what expect these should have on the day's planned activities,
 - Identify the wind speeds associated with:
Light winds Moderate winds Strong winds
Strong wind warning Gale warning Storm warning
25. Describe local weather hazards, how they can be identified, the normal warning time available, and the actions to be taken to reduce/avoid effects.

Section VI: Duties of the Skipper and Crew

The candidate must be able to:

26. List the main responsibilities of the skipper and crew as listed below:

Skipper

- Safety of crew and boat,
- Briefing on location and operation of lifesaving and other safety equipment prior to getting underway,
- Assigning duties,
- Instruction in the safe use of the boat's equipment while underway,
- Obligations on observing an accident or vessel in distress,
- Actions to demonstrate respect for other boaters and other's property,

Crew

- Obey skipper,
- Assist skipper.

Section VII: Seamanship

The candidate must be able to:

27. Describe the sequence of sail reduction as wind speed increases;
28. Describe the danger of a lee shore;
29. Understand the use of a Canadian Hydrographic chart of the local area as follows:

Describe:

- A chart,
- Aids to Navigation,

Read:

- Depth of water,
- Distance scale,
- Buoys and their significance,
- Types of bottom (sand, rock, mud and clay),
- Under water/surface hazards: kelp, cable, rock, shoals, cribs, wrecks, currents,
- Light symbols,
- Beacons;

30. Use of Tide and Current Tables to find:
 - a) Times and heights of tides at reference ports,
 - b) Direction and rate of current at reference stations;
31. Describe:
 - a) The features of a secure anchorage,
 - b) The holding characteristics of commonly used anchors,
 - c) Suitable rode makeup and handling,
 - d) Scope requirements when anchoring for lunch, overnight and rough weather;
32. Describe the immediate action to be take for the following circumstances:
 - a) Springing a leak,
 - b) Steering fails,
 - c) Grounding at anchor,
 - d) Fouled propeller,
 - e) Standing rigging fails,
 - f) Dragging anchor,
 - g) Running aground,
 - h) Broken halyard,
 - i) Fire;
33. Describe the one commonly accepted use for each of the following knots, bends and hitches:
 - a) Figure Eight,
 - b) Reef Knot,
 - c) Double Sheet Bend,
 - d) Bowline,
 - e) Clove Hitch,
 - f) Round Turn & Two Half Hitches;
34. Describe the use of the VHF radio for receiving weather reports and making emergency calls.

Afloat Skills

(18 hours minimum) Recommended vessel should be a 6 - 10 metre, sloop rigged keelboat with an outboard or inboard engine.

Section VIII: Preliminaries

The candidate must be able to:

1. Demonstrate on land the correct method of putting on a personal flotation device in the water;
2. Demonstrate the correct use of a heaving line;
3. Carry out a check of the vessel's gear and equipment in accordance with the *CYA Cruising Boat Checklist*, and demonstrate use and care of onboard equipment;
4. Select, bend on, check and stow sails;
5. Coil a line and secure (sea coil);
6. Properly stow lines and fenders;
7. Demonstrate how to belay to a cleat;
8. Demonstrate safe winch techniques with particular emphasis on:
 - a) Possible high strain on sheet/halyard,
 - b) How to avoid riding turns (and how to clear),
 - c) Position of hands/fingers,
 - d) Fitting and removal of winch handles.

Section IX: Manoeuvring Under Power

The candidate must be able to:

9. Start auxiliary engine on vessel **and as skipper and crew depart from dock** observing commonly accepted safety practices ;
10. Come to a full stop with **stem (bow)** one half boat length away from a buoy using reverse. (The objective of this manoeuvre is to know how much distance is required to bring a vessel to a full stop. Vessel is to be kept on a straight course while the manoeuvre is being carried out);
11. Manoeuvre and stop a vessel under power to a position alongside and parallel to a dock, portside-to and starboardside-to, not more than two feet off without the aid of lines, without the stern passing a given mark at any time during the manoeuvre;
12. Apply Rules 5 through 18 of the *Collision Regulations* as applied to a vessel under power;
13. Set an anchor under power in water more than three meters in depth, so as not to drag when tested under engine power at half-throttle astern;
14. Raise anchor with boat ready and get under way;

Section X: Handling Under Sail

The candidate must be able to:

15. Hoist the basic sails while under power, at anchor, or mooring (head to wind, hoist mainsail first), set appropriate luff tensions, and flake halyards;
16. Apply Rules 5 through 18 of the *Collision Regulations* as applied to a vessel under sail;
17. Act as skipper and crew 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”		
“Harden Sheets”		
“Ready About”	“Ready”	“Helms-a-Lee”
“Ready to Gybe”	“Ready”	“Gybe-ho”

18. Demonstrate, as skipper and crew, the management of the sail plan for different wind conditions while keeping the vessel under control, either at the helm or controlling the sails by:
 - a) Reefing and shaking out the reef in the mainsail,
 - b) Reefing and shaking out the reef, or changing the headsail.
19. Demonstrate the skipper 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;
20. In response to a Crew Overboard situation, and unassisted, bring the vessel into irons. Start the engine, lower sails ensuring on-board control of all lines, and manoeuvre the vessel under power for a successful Crew Overboard recovery;

Note: Both Performance Objectives (PO's) 19 and 20 above must be completed in reasonable time without losing sight of the victim or marker in the water. For these manoeuvres the crew can consist of three or more, but the student is to describe the actions to be taken if one member of a two person crew falls overboard also, with the vessel under sail.
21. Lower sail while under power or at anchor or a mooring.

Section XI: Making Fast and Snugging Down

The candidate must be able to:

22. **Secure a vessel to a dock using appropriate dock lines to prevent excessive movement and set out fenders correctly.**
23. Tie the following knots, bends and hitches within 30 seconds each:

a) Figure Eight,	d) Bowline,
b) Reef Knot,	e) Clove Hitch,
c) Double Sheet Bend,	f) Round Turn & Two Half Hitches.

Resource Material

Sail Canada *Basic Cruising Skills* by Gillian West