Access Beginners

Course COURSE ONE

Introduction

This Course is specifically for use with Access Sailing Dinghies, an ideal craft for anyone to learn the basic principles of sailing in a fun and safe environment. Innovative technical modifications mean that even the very young, the very old and the very disabled are now able to learn to sail.

Access 2.3 & 303

These dinghies cannot capsize but it is imperative that the ballasted centreboard is always fully down when sailing, and locked in position. It is also important for stability and ease of control that the sail is reduced (reefed) to the correct size to suit the wind. Refer to "How to Rig an Access Dinghy" for guidance.

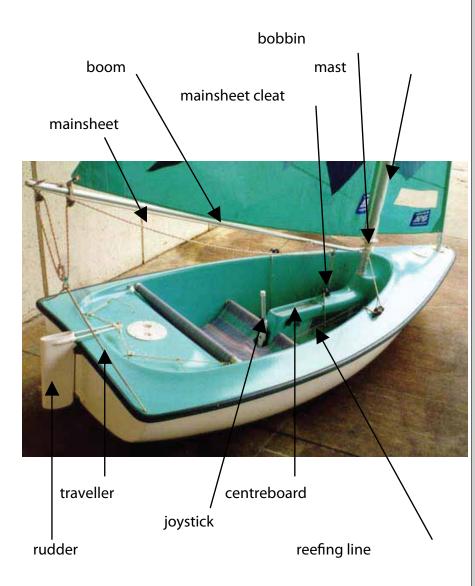
The ABC One

The Course is divided into three sessions and introduces the basic principles of sailing. ABC TWO consolidates previous information and introduces the rules of the road and basic racing rules. Each session has a theory component, followed by practical experience. Each session should take approximately 2½ to 3 hours, though depending on the sailors' capabilities may be much longer or shorter. Each student is given a set of these notes and their sailing history endorsed by the Instructor. Send us a copy of this and we will forward your Certificate to you.

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Session A

Boat Familiarisation



Hints for Instructor

1. Show different parts of the boat and explain what their jobs are.

2.Explain the joystick which turns the boat in the same direction as you want to go.

3.Demonstrate the weight of the centreboard and show the stability it generates. (stand on the gunwale when the boat is launched). Explain that because of the deep centreboard do not sail too close to the shore or they will run aground.

4. Show how the sail area can be reduced in size, (this will be done for those who need it).

5. Show the high boom which clears their heads.

Port and Starboard

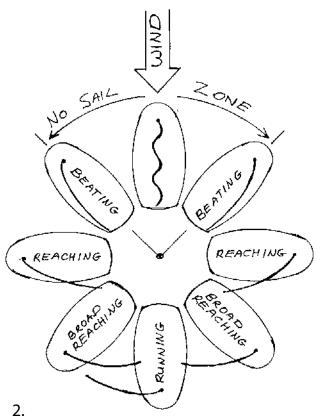
1. When facing forward, the left side of a boat is called Port, and the right side is called Starboard. You can remember this by saying: how much Port is Left in the bottle.

2. To assist in navigating at night, the front of an oncoming boat's Port side has a red light, the Starboard side's light is Green. To remember this think: "Port wine is Red".

3. When 2 sailing boats are on a collision course, the one on the Starboard tack has right of way. A Starboard tack is when the wind is coming over the right hand side of the boat. So Starboard is Right and has Right of way. See Page 12 – Rule 1.

4. An exception to this is when one of the sailing boats on the collision course is sailing into the wind and the other is running with the wind. Here the boat sailing with the wind must give right of way as it is said to be more maneuverable. See Page 12 – Rule 4.

Wind Direction



Set up a boat on shore in the same general direction as the sailors will be going whilst out on the water reaching. Rotate the boat to demonstrate going about and gybing. Demonstrate the correct way to haul in the sheet prior to gybing.

Reaching

In Session A we will be sailing between two buoys at approximately 90 degrees to the wind, this is called reaching.

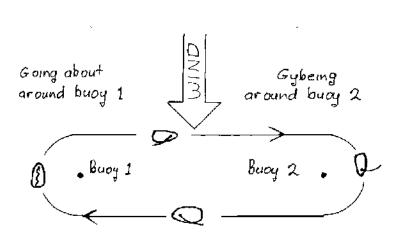
1. When sailing across the wind (reaching), we set the course, then set the sail.

2. Use the joystick to steer the boat in the direction we want to go, then return the joystick to near centre to sail a straight line.

3. Let the rope out until the sail is flapping in the breeze – this is a good way to see the direction of the wind.

4. Pull in the rope until the sail just stops flapping – this is the basic setting for the direction you want to travel.

5. Remember this concept – change the direction of the boat and change the setting of the sail.



Session A is sailed reaching as it puts off the complication of leeway until the sailors are more experienced.

Set up two buoys about 50 m apart to sail a sausage going about at one end and gybing at the other.

It is imperative to set the correct course for the learner sailor to ensure that this initial experience is achievable and therefore enjoyable.

Overly reef the sails for the initial experience.

Maybe use of the description "clockwise" and "anti-clockwise" to help explain the direction around the buoys.

Going About

1. When you turn around the buoy and the wind is coming from in front of the boat the turn is called "going about".

2. To "go about" we push the joystick away from the sail and hold it there.

3. The boat turns, and as the wind fills the sail from the other side return the joystick to near centre.

4. Let the sail out until it starts flapping and then pull the rope until the sail just stops flapping.

5. The wind will often change direction and therefore it is important to keep checking that the sail is set correctly.

Gybeing

1. When the wind comes from the back of the boat and crosses behind the sail, the turn is called a "gybe".

2. To "gybe", the correct technique is to pull in the sail just prior to the turn.

3. Then push the joystick toward the sail and hold it there while the boom sweeps across overhead.

4. Then centre the joystick to head the boat on the new course.

5. Ease out the sail until it just begins to flap, then pull it in until it just stops flapping.

Returning to Shore

Explain what to do when approaching the pontoon or shoreline so the boat does not run aground. You slow the boat by easing out the sail and /or pointing into the wind before you get to shore or to the pontoon. Ensure that the students understand that if things get out of control, let go of rope and steer into the wind and the rescue boat will come to their aid if they cannot get going again.

The significance of gybeing is better understood and controlled when introduced early like this alongside "going about".

Reef the sails even further in a strong breeze.

Session B

Broad Reaching

Reaching is sailing at approximately 90 degrees, or at right angles across the wind. If the wind is coming from slightly in front (less than 90 degrees) it's called tight reaching, if it's coming from behind a little it's called broad reaching.

When broad reaching, sail a straight line to the next buoy easing the sheet out so the sail is approximately at right angles to the wind.

Aerodynamics

A sail working to windward and reaching obeys the same laws as an aeroplane wing. The air is parted at the leading edge and that which passes over the curved top of the wing has to travel faster than the air which goes straight along the wing's flat under surface. This creates a low pressure in front and above the wing which the wing lifts to fill. To develop more lift for low speed operation the pilot lowers the ailerons on the wing's after edge which greatly increases the distance the upper air must travel, and therefore its speed, with a resulting lower pressure which "sucks" harder at the wing. A sail works the same way, the wind parting at the mast, the sail being cut and shaped with a similar cord [cross section] to the wing. The sail can be adjusted to alter its draught and therefore the pressures it generates. On Access Dinghies the sail draught and area can be altered by adjusting the outhaul and by rotating the mast or "reefing".

> On the white board draw a typical wing section with ailerons and show the comparison to the aerofoil shape of the sail.

Beating

1. It is not possible to sail straight into the wind as the boat will be blown backwards. It is possible though to sail into the wind at an angle of approximately 45 degrees. This is called "beating".

2. To beat into the wind we pull in the sail and point the boat gradually up into the breeze until the sail first begins to flap. Then quickly, before loosing speed, steer back slightly until the sail first re-fills. This is the course to hold in relation to the wind. Refer to the paragraph called "Aerodynamics" to see how a sail works just like an aeroplane's wing.

3. The correct beating course is therefore governed by the direction of the wind. As the wind shifts you need to follow it by changing the direction of the boat. This is called "sailing on the edge", "sailing close to the wind", or "beating to windward".

4. Trying to sail to a buoy to windward is like climbing a slippery mountain, you trudge uphill and if you aren't careful can slide back down and have to do it all again.

5. To climb this mountain with maximum efficiency we have to point as high as possible into the wind, yet still maintain enough power to achieve adequate boat speed through the waves. When you get it right some call this sailing "in the groove". The compromise is finding the balance between sailing too high into the wind and stalling, and sailing too low, wasting ground already won (sliding back down the mountain).

6. As the wind is always shifting we also need to be constantly checking on its direction and that we are sailing "in the groove". This is done regularly by very carefully pointing up into the breeze till you sense the leading edge is about to luff, then quickly, before you loose power and stall, pushing the boat back on course with the sail