



AUSTRALIAN DRAGON BOAT FEDERATION

澳洲龍舟協會



Sweeping a dragon boat



A trained sweep / steerer is an important part of any crew. The sweep is responsible for crew safety on the water and is important to the success of a winning team. A good sweep will have knowledge of boat commands, effects of wind and water conditions. As well, this person will develop instincts of boat balance and create an environment of confidence within the boat. Written information regarding steering is helpful but nothing replaces hours of steering in a boat in various weather and water conditions.

A steering clinic will have a crew of about 12 to 14 paddlers. Usually these paddlers are the other sweeps that are taking part in the clinic. With this many paddlers in a boat, the novice sweep will have at least a good "feel" of how the boat moves. Too

few paddlers in a boat will allow for easy correction but with no sense of the power and weight of a full boat. Too many paddlers and the novice sweep will be overpowered and be unable to "right" the boat in the intended path. The "lighter" 12-14 paddlers in a boat allows the sweep to manoeuvre the boat easier than a full boat.

Different boat models (Champion, Swift, BUK) because of their hull shapes track different than other boats. Some boats are easier to "lose" than others but will be easier to "correct" while other boat hulls track or stay straighter longer but when they do go out of position they are tougher to correct.

The first thing we teach at a clinic is for a sweep to "spin the boat" first clock wise a full 360 degrees and then counter clockwise. This type of manoeuvre is done when the boat is stationary or moving very slowly. The steering oar or sweep is always located at the left side of a dragon boat and usually right behind the tenth paddling row. Key points to remember: for a counter-clockwise spin, the steering oar starts close to the tail of the boat and sweeps out away from the boat and for a clockwise spin, the steering oar starts away from the boat and pulls water towards the boat. For this manoeuvre, the steering oar needs to be pushed down through the "ring or U-bolt or roped pegs" attached to the boat otherwise the handle of the oar will hit the last paddler on the left. The deeper the steering oar is in the water, the more resistance on the blade.

Next, the sweep will be allowed to take control of the boat while half the crew is paddling. Once the sweep gets somewhat of a feel for keeping the boat straight, the rest of the crew can join in.

Key Points:

1/ foot stance - at least shoulder width apart or more. Usually right foot ahead of left foot. Try to keep the legs relaxed as you try to get your "boat balance" or "sea legs". Left foot should be against the left side as much as possible. Left knee or shin can be resting against the left gunwale or left side to extra stability. The right foot is the "pressure foot". Which every direction you want the boat to go or turn you want to make is the side you want to move your right foot towards (i.e.: for right turns your right foot moves to the right side to brace the boat and when moving the boat to the left the right foot will go to the left side to apply pressure on that side).

2/ hand positions - right hand on the "T-handle" at the top and left hand about waist / hip level around mid-shaft.

3/ stand up straight or at least comfortably - many novices will crouch down because they worry about losing balance and/or falling out.

4/ hips squared - I advocate the hips squared with right foot forward. If my torso /

hips face forward , it will give greater stability side to side important for pushing or pulling the steering oar. As well, if my torso is squared, the steering oar is closer to my hip and the steering shaft can rest on my hip. This allows me to push the steering oar out with my hip (instead of just my arms) for right turns which seems to be the common problem for new steerers.

Neutral Position - There is an angle of the steering oar blade that has equal water pressure on both planes of the blade while the boat is moving. This is the neutral position. Most sweeps think that the steering oar handle needs to be over to left side since the steering column is mounted over to that side. Not true, there is "neutral" with the steering handle over the water and "neutral" with the steering handle inside the boat and all angles in between. Facing the front, the "T-handle" will be rotated to about 1 o'clock to 2 o'clock for neutral. The "T-handle" is NOT straight up and down or 12 o'clock for neutral because the steering column being mounted on the left of the boat. By turning the "T-handle" slightly back and forth while the boat is running straight, you will feel the pressure on the steering oar on both sides evenly. This is neutral.

3 Steering Methods

1/ Push and Pull - from the neutral position, if the boat needs to go left, the "T-handle" of the steering oar is pulled towards the steerer. As well the right foot should move to the left side to get better leverage. If the boat needs to go right, the "T-handle" of the steering oar is pushed out. Move your right foot to the right side as much as possible to push off that side. Often used for hard turns and emergency situations

2/ Handle Rotation - from the "neutral" position, if the boat needs to go left, the top part of the "T-handle" needs to rotate away from the steerer (counter-clockwise). If the boat needs to go right, the top part of the "T-handle" needs to rotate towards the sweep (clock-wise). Another explanation used is the "thumb gauge". With the right hand on the "T-handle" and the thumb at the top, if the thumb rotates clock-wise the right the boat will also go right. If the thumb rotates counter clock-wise to the left with the "T-handle", the boat will go left. So therefore whichever way the right thumb points is the direction the boat will go. Often used for fine adjustments and minimizing steering oar resistance. Ideal for races.

3/ Combination of Push/Pull and Handle Rotation - this is probably the most common although either of the other two can be used exclusively during race situations. And probably all have used both methods and some point or another. Footwork / placement is the same for all of the methods.

Technical Explanation - The steering oar mounted on the left side of the boat and the

blade glides through the water. For all intents and purposes, the plane of the blade facing the sweep is the "inside of the blade" and the portion facing away from the sweep is the "outside of the blade". Any water pressure on the "inside of the blade" causes the tail of the boat to shift left and therefore the boat will go right. This is done by either pushing the handle out and/or turning the top of the "T-handle" towards the sweep. Visa versa for the other direction.

CAUTIONS:

As you change from a right turn to left turn, the steering oar shaft will bounce around the steering column / U-bolt / rope. This is normal. The pressure on the steering blade will change from one plane to the other plane (or right side to left side or vice versa) and it is very easy to be knocked off the boat if you are not ready for that pressure shift or if you have "over-steered". Remember that the position of the right foot will give you the stability for the pressure changes from one side of the steering blade to the other. The right foot is placed to whichever side you are trying to move the boat. Also the deeper the steering oar is in the water the less control you will have to manoeuvre the steering oar. It may feel like it is "stuck" or "jammed". I recommend the steering oar blade to be in about half to fully submerged by no deeper. The angle of the steering oar will be about 45 degrees or less. Just tilt the handle downwards and there will be less blade in the water.

Race Situations

It is recommended that a sweep have at least 20 hours of practices before attempting to steer at a competition. During competition and especially for start situations, it is up to the sweep to get the boat on the starting line with minimal energy output from the crew. To be avoided is excessive energy sapping "draw" strokes to bring the boat back into the centre of the lane or backing up at the start line. It is recommended that the boat approaches the start line with the other teams. Setting on the start line too early may cause your boat to drift out of position resulting in necessary draw strokes or having the Starter shoot the gun right after he asks you to back up the boat. Arriving too late on the start line may have you well behind the line when the starter shoots his gun. A cross-wind further emphasizes the importance of approaching the start line together with the other teams. On a left-right cross wind, the boat should be approaching on the left side of the lane because the wind will blow the boat to the centre of the lane. It will take experience to be able to set the boat in the middle of the lane on a windy day. Of course as more and more events have "held starts", some of the race start antics by teams and weather related problems will be eliminated.

Steering Tricks of the Trade:

1/ Emergency corrections - it is easiest to make the boat respond when the crew has their paddles out of the water. "Pump", force, lean or pull on the steering oar when the crew has their paddles in the "up-stroke".

2/ If at the start line the boat drifts towards a buoy and the gun goes off, aim the centre of the boat to go directly over the buoy. This prevent paddlers from adjusting their stroke or losing strokes to avoid buoys.

3/ If your team is late getting to the start line, go straight down the middle of the race course. They can't start the race if you are on the race course.

4/ "Go on the Smoking Gun" - Depending on the type of starting system the event uses or the particular light conditions at race time, sometime you can see the smoke from the starting gun or starting cannon. Sound travels slower than light. You can see the smoke faster than you can hear it. This is especially helpful if you are in the lane farthest away from the starter.

5/ On a tail wind stand up and make yourself big as you can to catch the wind. On a head wind crouch down as low as you can. Same for a cross wind.

6/ Steering oar shaft against your left side or left hip while steering oar blade is in neutral - "Neutral" can be found at various positions of the steering oar from blade out wide away from the boat and blade close the boat. Steering oar shaft on your left hip will give you the optimum stability and power to make the boat go to the right side which is a common problem for novice steerers.

7/ Steering oar blade out of the water. Lean over by bending at the waist and push the steering handle down so the steering oar blade out of the water. You will find that the boat will stay relative straight during a start with the steering oar not in the water. Also practice taking the steering oar out of the water during the race or during practice pieces when the boat is moving smoothly and tracking straight. You will find that the boat can be steered quite easily with minimum blade in the water

Learning to steer comes with practice. At some point you should be able to lean on the oar with full weight or lean backwards and pulling on the oar with full weight. Also, for race situations you will be able to steer with a "light touch" to have the least amount of water resistance on the blade. It is up to the paddlers to win the race but it is the sweep who must create the environment for this to happen.