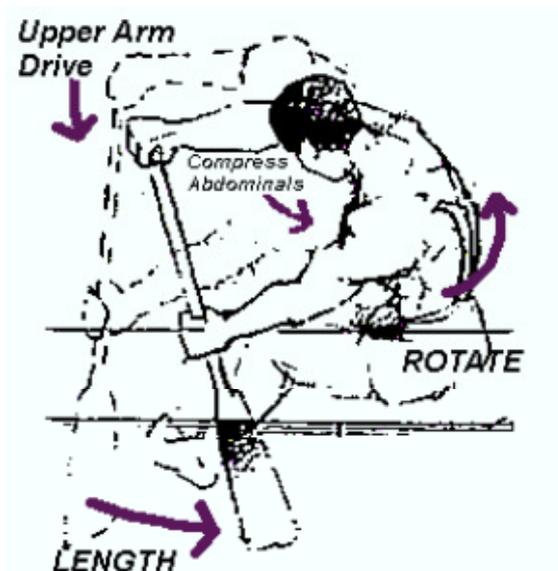


Paddle Technique - Phase Two

Power Phase



Many paddlers think that they are pulling water past their bodies to make the boat move forward; but this doesn't make any sense at all. In fact, the paddle, once it's in the water, moves very little in relation to a fixed point in space and that the boat is actually pulled up to this fixed point during the POWER phase.

This is the power phase and it is a full body endeavour which must coordinate arm, leg and torso muscles into a singular and controlled movement, transmitting power into a linear forward direction. Keeping the paddle relatively vertical and anchored in the water with the arms a paddler must use his/her torso to pull the boat forward. If too much enthusiasm results in pulling the paddle back through the water then energy is lost and a great turgid froth without much forward motion usually results. Much depends on a good solid CATCH, and the rest depends on solid control of power expenditure that accelerates the boat forward.

It helps to imagine that you are hurtling your body up and over the CATCH position by pressing the paddle vertically down. This requires a smooth and continuous motion compressing shoulders downward by crunching your abdominal muscles, at the same time rotating the torso at the waist utilizing the large back muscles i.e. Lats. and Erectors. The upper arm must continue to be held high and drive down with the shoulders to keep the blade locked into its position in the water as the stroke develops. A minor forward push of the upper arm will transmit additional power into the paddle with your Deltoids and Pectorals, however you must keep the fulcrum point of the paddle high, about six inches below the upper hand 'T' piece.

The bottom arm must be strong to keep the blade on a straight track and transmit the power from the torso into the paddle, and will only bend slightly to push the FINISH of the stroke with your Biceps.

Following this motion, the paddle works as a third class level, with the upper hand remaining relatively fixed with the vertical drive of the shoulders and rotation of the torso providing force. Very often, paddlers get into the habit of pushing their upper arm over and downwards at the CATCH, thereby lowering the paddle fulcrum point to the location of their lower hand. The upper hand during this phase should not drop below your shoulders and your forearm should remain parallel to the water surface.

Another problem is that the paddle blade is often not deep enough to maximize the resistance area, particularly at the front end of the POWER phase. The paddler must bend forward to keep the blade buried right up to the shaft. Very often paddlers will also begin to lift their blades gradually out of the water towards the FINISH, which can be seen as their bottom hands rise in relation to the gunwale, starting midway through the stroke. Focusing on a good top arm drive and curling the torso over with your Abdominals to keep the paddle in the water will help.

Adding power to the end of the compression phase relies on a deliberate push just before the FINISH. The paddle must be kept as vertical as possible with forceful upper arm drive downward, as if you were attempting to plant the paddle straight into the ocean bed. This takes tremendous focus to do it well and do it consistently. Efforts must be made to train the deltoids and pectorals to deliver power at this part of the stroke.

***"Keep the paddle vertical during the power phase. The paddle should be in line with the keel line of the (boat). Too often, paddlers tend to follow the side of the (boat) with their paddle. Bow persons' paddle should enter the water away from the sides of the boat and come in so the paddle nearly touches the boat at recovery. Stern paddlers do just the opposite, planting the paddle right beside the boat and coming straight back."* — Peter Heed**

The legs play a much more critical role than one would think as they are used to push the boat forward and lock the body into your seat. They must anchor the body into the boat to the point that your knees can suffer severe strain. Ideally all paddlers should align their outside legs against the gunwale and outside foot rest (or seat in front) so that a continuous line on force is directed into the boat. The inside leg should be tucked under the seat with the knee braced against the inside spine of the boat, which helps lock the body in and assist in an easier rotation. Sitting slightly forward to hang over the front edge of the seat will also help to lock in and provide resistance to the forward motion of the recovery.

is a paddling sin). A good CATCH technique must transmit power into the STROKE phase within a fraction of a second. This is also important to unify CATCH in the boat in order to maximize POWER with each paddler transmitting power into the STROKE at the same time, which is not always apparent. Getting into the water at the same time is one thing; beginning to pull together is another and is vital to a fast boat.

Excess splash or cavitation in the water (trapped air and disturbed water) is an indication that you are applying power with the momentum of the vertical drive, before the paddle is fully buried (lost energy is another paddling sin). The paddle blade at entry should be moving forward at the same speed as the boat in order to avoid such splashing. Smacking the water too aggressively can result in broken paddles and can lead to tension when your teammate

behind you receives an unwanted face full of water. This type of problem is often created by a misapplication of aggression and is usually an indication that a paddler is getting tired or is unable to keep up with the pace. The CATCH is not a power phase, it's how you get into the water. Keep it fast and keep it clean.

Another common mistake is to lunge too far forward with your upper body or to bend excessively at the waist which starts the boat bobbing up and down.

"You want to run a quiet boat. You want a smooth running boat. Every time the boat wiggles left or right or bobs up and down, you lose a little. This can play havoc with your speed and efficiency — be fast." — Peter Heed

Remember that the length of 'the forward stroke' is controlled by a fully extended bottom arm and a rotated torso. You only need to bend far enough forward to bury the blade to its full depth at the CATCH.

Remember also, a powerful CATCH comes from a strong upper arm drive into the water at a forward position which is sharp, clean and instantly transmits power into the STROKE. Once the stroke rating increases to 90 plus, emphasis on the CATCH becomes more important in order to deliver power quickly.