TITAN ROWING

"10 Things to Know about Rowing"

...plus some other useful tips & terms

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“10 THINGS TO KNOW ABOUT ROWING”

1. **Rowers are probably the world's best athletes**. The sport demands endurance, strength, and an ability to tolerate the pain that their muscles experience in the last 500 meters of a race.

2. **It's the legs.** Rowing only looks like an upper body sport. Although upper body strength is important, the drive, which moves the boat, comes from strong legs. Rowing is one of the few athletic activities that involve all of the body's major muscle groups.

3. **Meters, not miles.** The standard length of a rowing race is 2000 meters in college and 1500 meters in high school competition -- about a mile and a quarter and a mile respectively. Rowers refer to parts of the race in 500-meter sections.

4. **Sweep (like a broom) and sculling (with a "c").** These are the two basic types of rowing: sweep rowing, where the athlete holds one oar with both hands, and sculling, where the athlete has two oars -- one in each hand.

5. **Think even numbers.** Sweep rowers come in 2s (pairs), 4s (fours), and 8s (eights). Scullers can row alone (in a single), with somebody else (in a double) or with three other people (in a quad). Scullers steer their own boat, using a rudder that they move with their foot. Sweep rowers may or may not have a coxswain - the on-the-water coach and person who steers. For example, all eights have a coxswain, but pairs and fours may or may not.

6. **It only looks easy.** Great rowing looks graceful and fluid, but don't be fooled. Pulling oar blades smoothly and effectively through the water while balancing a boat that may be as narrow as 11" across with 10'-12' oars is very difficult work. Watch how quickly that graceful motion before the finish line turns into pain and gasping for air afterwards.

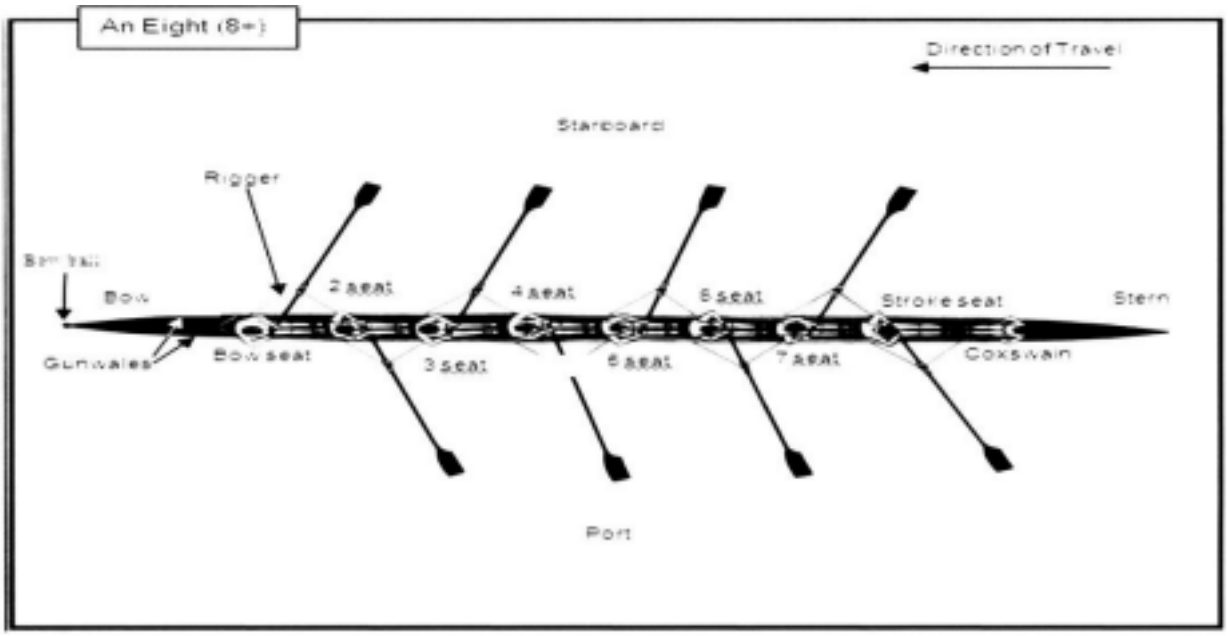
7. **High tech versions of age-old equipment.** Although wooden boats were the norm for many years, most of today's rowing boats -- called shells -- are strong, lightweight carbon fiber. The smallest boat on the water is the single scull, only 27'-30' long, a foot wide and about 30 pounds. The largest is the eight at 60'. Today's oars -- not paddles -- are also incredibly lightweight. Sweep oars are somewhat longer than sculling oars and have longer handles that are made of wood, instead of the rubber grips on sculling oars.

8. **SPM not MPH.** Rowers speak in terms of strokes per minute (SPM); literally the number of strokes the boat completes in a minute's time. The stroke rate at the start might be high -- 38 to 40 -- and then settling down to a slower cadence. Boats often sprint to the finish, taking the rate up once again. The coxswain may call for a Power 10 -- a demand for the crew's best, strongest 10 strokes. Although the number of strokes a boat is capable of rowing per minute is indicative of speed and talent, the boat getting the most distance out of every stroke may win the race.

9. **Timing is everything.** Rowing competitions are typically conducted on six lanes on the water. They follow a double-elimination format in a system designed to identify the fastest six crews for the final race in each category. Heats are first, followed by repechage (French for second-chance) races. There are no style points for rowing -- the boat whose bow crosses the finish line first is the winner.

10. **Teamwork is number one.** Rowing isn't a great choice for athletes looking for MVP status. It is, however, teamwork's best teacher. The athlete trying to stand out in the eight will only make the boat slower. It is the crew made up of individuals willing to sacrifice their goals for the goals of the team; the athletes determined to match their desire, their talent and their oar blade with the rower in front of them, that will be on the medals stand together.

Source: U.S. Rowing



SEAT POSITIONS & THEIR PURPOSE

Coxswain -- The Coxswain (pronounced cox'n) commands the shell. It is the responsibility of the Coxswain to plan the race strategy; steer the shell; and motivate the rowers, via commands and encouragement, to pull hard and in unison.

Seat #8 -- The rower with the smoothest stroke and the best rhythm leads the boat and sets the stroke length and cadence. The "stroke" sits nearest the "stern" (rear of the boat or "shell") and the coxswain.

Seat #7 -- The rowers on the opposite side of the "stroke" look to the "7-seat's" oar to get their timing in the boat. The "7-seat must mimic the movement of the "stroke's" body. It is essential that the "stroke" and "7-seat" put their oars in and out of the water simultaneously.

Seat #6 -- The "6-seat" is usually one of the two most powerful rowers in the boat. The "6-seat," "5-seat," "4-seat," and "3-seat" of an eight, called the "middle four or engine room," typically provide most of the power for the boat. The "engine room" four must swing together as a group, using much power from their legs as possible.

Seat #5 -- The "5-seat" is usually the most powerful rower on the starboard side of the boat. This is the most stable seat.

Seat #4 -- This seat is filled by the next most powerful rower on the port side.

Seat #3 -- This rower adds strength and support to the task of rowing the boat through the water.

Seat #2 -- This rower adds strength and support to the task of rowing the boat through the water.

Seat #1 -- The rower with the second smoothest stroke sits in the "bow" (front of the boat) and finishes the race first

CREW GLOSSARY OF TERMS

Blade -- The surface of the oar that pushes and displaces water. Spoon, standard, or Macon blades have a curved blade shape and are often used by less experienced rowers. Hatchet blades, a newer design, have a flat-ended cleaver shape, shorter but with a larger surface area.

Bow -- The forward section of the boat; the end that crosses the finish line first. Also the Seat 1 rower, who occupies the seat closest to the bow.

Catch -- The instant the oar blade enters the water – and the boat's moment of greatest instability (see crab). The catch is done by moving the arms upward; blade should be at almost a right angle to the water.

Coxswain, cox -- The person who commands, motivates, and steers a crewed shell; usually a small, lightweight person. Pronounced "cox-n."

Crab, catching a crab -- An oar blade that gets "stuck" in the water, often because it enters at angle instead of perpendicular and is forced deep into the water and twisted parallel to the boat. The oar suddenly absorbs the energy of the boat's momentum, slowing the boat. It also can flip the rower out of the boat or seriously injure him or her, as the oar handle can hit the rower's head or chest.

Crew -- common American name for the sport of competitive rowing

Double -- A boat with two scullers, each with two oars. Compare to Pair.

Drive -- Power sequence of the stroke, during which the rower presses on the foot stretchers and pulls on the oars, using legs, back, and arms in that order to force the blade through the water, moving the boat forward. For the first half, the rower remains upright as the knees move downward. When the legs are extended, the rower leans back and pulls with the arms (finish).

Eight, eight-person shell -- Boat that seats eight sweep rowers and a coxswain.

Erg, erg machine -- Ergometer or rowing machine, exercise equipment that simulates the motion and stress of rowing; thus used to rowers to build endurance. Erging means using an erg machine.

Finish -- The last phase of the drive, with power coming mainly from the back and arms.

Foot stretcher, stretcher -- An adjustable platform with two inclined footrests on which are mounted shoes or clogs. The shoes or clogs hold the rower's feet fixed during the race. The rower pushes legs against the foot stretcher during the drive phase of the stroke.

Four, four-man shell -- Boat that seats four sweep rowers (each rower has one oar), with or without a coxswain.

Lightweight -- A racing category that refers to the body weight of the rowers. High school lightweight class weight limits are 150 pounds for boys and 130 pounds for girls.

Oar -- A lever used to propel the boat forward.
Oarlock -- A U-shaped frame at the end of the rigger, which holds the oar in place with the help of a gate that closes across the top, and which swivels by rotating around a pin. The oarlock is the fulcrum of the lever.

Pair -- A boat with two sweep rowers (each rower has one oar). Compare to double.

Port -- The left side of the boat when facing forward (toward the bow); to the coxswain's left and the rowers' right. A port rower is a sweep rower who manages an oar on the port side.

Racing Shell -- specifically designed boat for competitive rowing.

Recovery -- Stroke phase between the release and the catch, in which the oar, out of the water, is feathered and brought into position for the next stroke, while the rower moves back up the slide with the knees coming up.

Scull -- (1) n. Oar designed for rowing with a single hand; about 9 feet long, shorter than a two-hand oar.
(2) v. To use a pair of such oars.

Sculling -- Rowing with two oars, one in each hand (an oar rigged on each side of the boat). Scullers row in singles (1X), doubles (2X), and quads (4X). Sculling boats rarely have coxswains. Singles usually steer using the oars; doubles and quads usually control the rudder with a foot.

Single -- Boat that seats one rower who rows with two oars, one in each hand (i.e. one sculler).

Slide -- Set of two runners, or tracks, with wheels mounted underneath each seat in the boat.

Sliding seat -- A rower's seat, with wheels that roll along a track. Permitting each rower's seat to slide forward and back inside the boat allows the legs to provide power for the stroke.

Starboard -- The right side of the boat when facing forward (toward the bow), to the rower's left. A starboard rower is a sweep rower who normally rows an oar on the starboard side.

Stern -- Rear area of boat—common name for coxswain and stern pair Stroke Rate. Cadence of rowing—number count of cycles per minute Sweep (1) n. Sweep oar, an oar designed for use with two hands. (2)