



Types of boat, rowing and sculling

Rowing or sweep oared: one oar per person in pairs (2), fours (4) or eights (8)

Sculling: two sculls per person in singles (1x), doubles (2x), quads (4x) or octuples (8x)

Seating positions in a boat

Stern pair

The “stroke” is the rower closest to the stern of the boat. Everyone else follows the stroke’s timing – placing their blades in and out of the water at the same time as stroke. The stroke can communicate with the coxswain (when in a stern coxed boat) to give feedback on how the boat feels. During a race, it is the stroke’s responsibility to establish the crew’s rate (number of strokes per minute) and rhythm. (In coxed boats, the coxswain will assist the stroke in establishing the rate). Because of the great responsibilities, the rower in the stroke seat will usually be one of the most technically sound members of the boat. The next rower (‘seven’ in an eight) sits directly behind stroke and is typically both fit and skilled: this rower acts as a buffer between the stroke and the rest of the crew. They closely follow the rhythm set by the stroke and help transmit this rhythm to the rest of the boat, and particularly to the rowers rowing on the same side as seven, since rowers tend to look at the blades on their side of the boat to check their timing. If the strokeman increases or decreases the stroke rate it is essential that seven follows this change so that it is translated to the rest of the crew. Number seven usually watches the back of number 8 so that they can time when to move up the slide and copy their rhythm.

Middle four

The middle rowers of a crew (numbers 2 and 3 in a four, and 3, 4, 5 and 6 in an eight) are normally the most powerful and heaviest rowers, colloquially known as the Fuel Tank, Engine Room or Power House! The boat pitches less in the middle, and the rowers there have less effect on these movements, being closer to the centre of mass and centre of buoyancy. Therefore, the rowers in the middle of the boat do not have to be as technically sound or reactive to the movements of the boat and can focus more on pulling as hard as they can. It is common practice among crews to put the most technically proficient rowers at the bow and stern and the physically strongest and heaviest rowers in the centre.

Bow pair

The rower closest to the bow of the boat, is usually called either “bow” or the “bowman”. In coxless boats, the bowman is often responsible for giving calls to the crew. The bow pair of bow and “two”, who are the two rowers closest to the boat’s bow, are more responsible for the stability and the direction of the boat than any other pair of rowers, and are often very technical rowers. The bow of a stern-coxed boat is subject to the greatest amount of pitching, requiring the bow pair to be adaptable and quick in their movements.

Boats that are bow-coxed rely on communication between the bowman and the cox – as the cox cannot see boats coming up from behind. Bowmen tend to be the smallest of the rowers in the boat.

Steering

In coxless pairs, quadruple sculls and coxless fours, one of the rowers will be designated to steer. They will control the rudder using lines attached to the toe of one shoe, which pivots around the ball of the foot. The rower who steers is chosen according to experience and the nature of the course on which the boat is rowing: bow has a clear view ahead when looking over one’s shoulder, whereas stroke may be able to steer well on a straight course by pointing the stern at a reference point. A rower steering in the middle of a four or quad is not uncommon, since bow and stroke have other duties already.



Boat rigging

Traditionally a boat is organized so that alternate rowers row on port and starboard (or strokeside and bowside), with stroke on port side (having their blade to their own right) (strokeside). This is sometimes reversed, so that stroke is on the other side (having their blade to their own left); such a boat is usually described as 'bow rigged'. This is often on the basis of the abilities of the available personnel, to allow putting an experienced starboard side (bowside) rower in the stroke seat, for example. The eight in the photograph at the top of this article is bow rigged.

There are other options, and in particular in fours the middle pair may row on the same side: this arrangement means that there is less yawing of the boat through the water throughout the course of the stroke, making it more efficient. The two rowers in the middle, rowing in a 'tandem', need to be well matched and synchronised to make this work (i.e. avoid clashing blades), and the bow person, rowing with a significant gap between them and stroke on their side of the boat, also needs to be able to adapt to the larger space in front of them. Recently around half of finalists in World Cup and World Championship regattas have been rigged with a tandem middle pair, though it is less common at lower levels of competition. Occasionally eights are rigged with one or more tandems: several rigs are possible.

Coxes

The role of a coxswain is to:

- Steer the boat;
- Provide motivation and encouragement to the crew;
- Inform the crew of where they are in relation to other crews and the finish line;
- Make any necessary race tactic calls. A boat without a cox is known as a coxless or 'straight' boat. While coxless pairs and fours are commonplace, because of the speed and lack of manoeuvrability eights always have a cox.

Some boats are bow-coxed or 'bowloaders' with the coxswain lying in the bow behind the bowman rather than stern-coxed or 'sternloader', with the coxswain sitting in the stern opposite the Stroke. Bowloader eights are rare due to the length of the boat, this would make it difficult for the cox to know where the stern is.

Coxswains used to communicate to the crew by shouting or through a megaphone that was strapped to their head. However, since the late 1970s a "cox box" or speaker and microphone system has enabled even the bowman to hear the coxswain's commands. Such a system is particularly important in bowloaders as the coxswain is facing away from the crew, making it hard for the crew to hear the coxswain's commands unaided.

How does the racing work at Bedford Amateur Regatta?

All races are between two crews racing side by side over a course measuring 1,200 metres. Races start just below Prebend Street Bridge and finish on the Embankment at the Suspension Bridge.

Crews race in different categories dependent upon:

- *Gender*: usually all male (M) or all female (W), though not necessarily coxes
- *Age range*: e.g. Junior (J), Senior (S) or Master (M) and Skill level coupled with previous performance: e.g. Intermediate (IM), Elite (E) Other terms



Types of races

A head race is a time trial competition typically held in the autumn and spring seasons. Rowers race against the clock where the crew or rower completing the course in the shortest time in their age, ability and boat-class category is deemed the winner. In England the largest head race is known as the “Head of the River Race”, which is run annually in March.

Most races that are held in the summer feature side by side racing also called a regatta; all the boats start at the same time from a stationary position and the winner is the boat that crosses the finish line first. The number of boats in a race typically varies between two (which is sometimes referred to as a dual race) to six, but any number of boats can start together if the course is wide enough. Other than Bedford Amateur Regatta the best-known Regatta is run each year and is known as Henley Royal Regatta.

Weight classes

In most levels of rowing there are different weight classes – typically “open” (or referred to as “heavyweight”) and lightweight.

Heavyweight rowers of both sexes tend to be very tall, broad-shouldered, have long arms and legs as well as tremendous cardiovascular capacity and very low body fat ratios. Olympic or International level heavyweight male oarsmen are typically anywhere between 6’3” and 6’9” (190 cm to 206 cm) tall with most being around 6’6” (198 cm) and weighing approximately 225 lb (102 kg) with about 6 to 7% body fat.

Heavyweight women are slightly shorter at around 6’1” (186 cm) and lighter than their male counterparts.

Rowing has a special weight category called lightweight (Lwt for short). According to FISA, this weight category was introduced “to encourage more universality in the sport especially among nations with less statuesque people”. The first lightweight events were held at the World Championships in 1974 for men and 1985 for women. Lightweight rowing was added to the Olympics in 1996.

At international level the limits are:

Men: Crew average 70 kg (154 lb) – no rower over 72.5 kg (160 lb)

Women: Crew average 57 kilograms (125 lb) – no rower over 59 kg (130 lb)

Adaptive rowing

Adaptive rowing is a special category of races for those with physical disabilities. Under FISA rules there are 5 boat classes for adaptive rowers; mixed (2 men and 2 women plus cox) LTA (Legs, Trunk, Arms), mixed intellectual disability (2 men and 2 women plus cox) LTA (Legs, Trunk, Arms), mixed (1 man and 1 woman) TA (Trunk and Arms), and men’s and women’s AS (Arms and Shoulders). Events are held at the World Rowing Championships and were also held at the 2008 Summer Paralympic.