

KONINKLIJKE AMSTERDAMSCHE ROEI – EN ZEILVEREENIGING 'DE HOOP'

# **INSTRUCTION GUIDE**

for starting rowers

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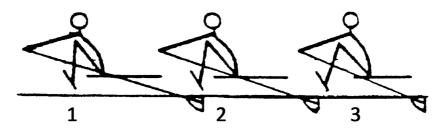
# 1. ROWING TECHNIQUE

The following description of the rowing motion does not contain precise rules regarding movement and posture, but an analysis of a movement that explains its function and its optimal and most economical course. It is the job of the instructors to teach rowing to members who have signed up for instruction. The instructors give precise instructions.

## 1.1 Sculling

When sculling each hand holds an oar at the end of the handle, using mostly the fingers, while the thumbs lie on the handle's head side to gently push the oars into the oarlocks. Starting at the catch *(inpik)* the movement is as follows:

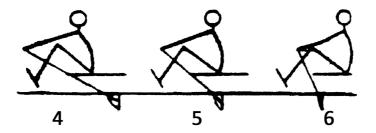
#### Catch (inpik)



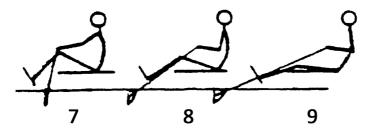
The hands are raised slightly in a swift movement until the blade is completely in the water. This arm movement is made from the shoulders without moving the back (1).

The legs make a pushing movement, while the upper body stays fixed in a forward position.

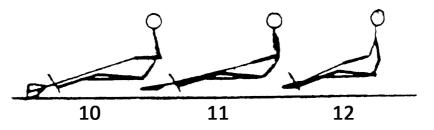
The arms remain stretched out, the wrists are straight. In this manner, the power of the leg muscles is transferred to the oars via the tightened arch of hips, back, shoulders and arms (2 and 3).



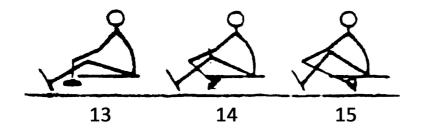
The legs continue to kick out – the arms remain stretched. The blades go through the water in a horizontal movement, just below the water surface. The back is slightly going up, without extending. (4, 5 and 6).



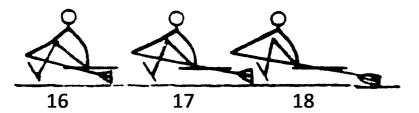
The legs are stretched in a smooth movement – the arms are now activated; the wrists remain horizontal. The upper body is moved backward further (through the vertical) (7 and 8). The moment the hands come together, the left hand moves over the right hand, and slightly in front of it. When the legs are stretched, the arms must be pulled in, with the elbows moving backwards, leaving a little space between body and elbows. The handles move horizontally towards the chest/midriff. The blade is still in the water (9).



The handles are pushed down by the forearms without pressure. The oars move upwards smoothly, so that the blades move vertically out of the water. By turning the wrists, the blades are feathered (= turned in a horizontal position (10 and 11). Immediately after that, the arms are stretched, and the handles move forward over the knees, while the blades skim just above the water and the legs remain stretched. Only after moving away the hands over the knees, the back is bent forward (12).



The seat moves forward smoothly by bending the legs (this phase is called the recovery/*recover*). Halfway through the recovery the blades are smoothly rolled back (squared) to a vertical position (13, 14 and 15).



During the recovery the arms remain stretched, the hands move outward. The legs bend more and more. The blades are moved slowly toward the water (16, 17 and 18).

The total rowing movement is always a smooth continuous flow, without abrupt movements.

## 1.2 Sweep rowing (one oar)

The differences with sculling are:

- the hands are holding one oar, having about two hands width between both hands; the outer hand encloses the end of the handle, while the inside hand turns the oar and presses it into the oarlock.
- Before the start of the stroke, the outer arm is fully extended, the inner arm is relaxed and slightly bent. The inner shoulder is low, and the outer shoulder stretches forward. Both legs are strongly curved; the knee of the leg at the oarlock's side is between the arms, and the other knee is at the outside of the outer arm (so this knee goes slightly outward). The upper body may be slightly turned towards the oarlocks side, depending on the stroke length.

# 2. ROWING COMMANDS

The coxswain (*stuur*) or cox is the person who gives the commands. In a coxless boat, the commands are given by the bow (*boeg*). The rowers immediately follow the commands. The rowers are addressed by their number or board (the bow first, the stroke is 2, 4 or 8, depending on the boat type). In most cases the commands consist of a warning command and an execution command. The commands are executed on the command "nú" (*now*) and are ended (if necessary) by the command "Bedankt" or "Dank je wel" (*thanks / thank you*). A command is often preceded by "Opgelet!" (*Attention!*)

The cox's commands are quick, clearly articulated and flawless, without unnecessary additions as "if you like" or "please".

The following commands have no fixed sequence. At the instruction we learn which commands should be used.

# 2.1 Taking the boat in and out

Before the boat is brought out, the oars are laid down on the platform. This is to prevent the boat to be left alone at the dock, where billowing of the waves can cause damage to it. Carry the oars with the blades in front (the handles pointing upwards to avoid collision with other people), and put them on the platform, out of the way for boats being brought out.

Aan de boorden	(Hands on)
	This is a general call to the rowers to get to the boat for carrying the boat in and out of the boathouse or the water. It is important to agree in advance who will stand where, especially when the command
	<i>"Uitzakken"</i> (Split) will be given. Pay attention to length when carrying fours or eights: from short to long, as seen from the boathouse.
	When the boat will not be carried on the shoulders but in the hands, the rowers must stand opposite each other, towards the front and end of the boat.
Klaar om te tillen	(Ready)
	The rowers have their hands ready at the side of the boat where they
	are lifting, standing in the right place. This must be checked before
	giving the next command!
Tillen gelijk – nú	(Lifting all - now)
	The boat is carefully lifted out of the storage (avoid contact with parts
	from other boats !!) or out of the water.
Tenen aan de rand van het	(Toes at the edge of the dock - now)
vlot – nú	Feet do not protrude over the edge.
Wegzetten – nú	(Push it out - now)
	The boat is put gently into the water as far as possible. Make sure that
	the boat and - most importantly - the fin do not touch the dock.
Meer naar land or meer	(More towards land / more towards sea)
naar zee	Naar land = into the boathouse; naar zee = a little backward towards
	the water.

# 2.2 Preparing the boat

Before stepping into the boat, the oars have to be placed into the oarlocks, and the rudder is attached to the boat.

Close the lids of the aircabins.

Check if the heelstrings are o.k.

First place the oars at the dockside into the oarlocks (convex side up), and then the oars at the waterside. Do not push the waterside oars all the way, but let the handles rest on the platform.

# 2.3 Getting into the boat

The cox holds the boat in the middle, keeping it at some distance from the dock. The boat should not touch the dock, and the riggers must not rest on it (only the oarlock pin may touch the dock). The cox now uses the following commands:

	r
Klaarmaken om in te stappen	(Prepare to get in; this is a warning command) The rowers push the waterside oar further into the oarlock, until the collar touches the oarlock. Both handles are held in the outer hand (= waterside), and moved towards the foot plate to make space for getting in.
Instappen gelijk	(All get in; this is a warning command) The rowers stand at the bow side of their riggers, facing the stern. The oars are pushed out completely. Rowers hold their oars in one hand and pull these up slightly so that the boat lies fixed in the water. The other hand holds the landside gunnel. The waterside blade is flat on the water, hollow side up.
Eén	(One; this is an execution command) The foot on the waterside is put on the landing between the sliding or on the bottom board right above the keel. Never stand on the shell or sliding! The body weight is shifted to the middle of the boat, while pushing it away from the raft a little bit.
Twee	<i>(Two)</i> The other foot is put into the boat too, either (in boats with a landing) directly onto the foot plate or alongside the other foot on the bottom board.
Drie	<i>(Three)</i> The rowers sit down and put both feet into the foot plate.
	NOTE: It is typical for Dutch rowing clubs to have all rowers get into the boat all at the same time. In most countries the rowers with waterbound oars get in first. After they have closed their oarlock gates the other rowers get in. Sculling rowers usually do not get in all at the same time, to avoid unbalance.
Overslagen dicht	<i>(Close gates)</i> The rowers close the waterside oarlock gates; be careful not to lean overboard too much.
Voetenborden stellen	<i>(Set foot plates)</i> The rowers put their handles into their lap. They slide forward, keep their oars fixed between stomach and upper legs, and put their feet on the gunnels. Setting the foot plates can be done on the raft as well as on the water.

The cox gets in after command no. 5 or 6.

# 2.4. Rowing away from the raft

Doortrekken langs het vlot	<i>(Pull through alongside the raft)</i> The rowers pull the boat with their hands towards the end of the raft. The bow of the boat is facing the river.
Met geslipte riem uitzetten	(Push out with "geslipte" oar)
– nú	The rowers push the boat away from the raft. When they can no longer touch it, they move their raftside hand backwards, alongside the body, moving the oar parallel to the platform. When the blade is in the water, they press it gently against the raftside, so that the boat is pushed away further from it. When there is room enough, the blades are pushed out again, and the stroke starts backing <i>(strijken)</i> . The others follow when there is enough space, until the cox says <i>"Dank u"</i> or <i>"Bedankt"</i> .

Afzetten gelijk – nú	(Push out all - now) This command is an alternative for the previous command (with "geslipte riem") or when slipping is not possible. The boat is pushed away from the platform. The landside oar is carefully pulled in from the oarlock, and with the tip it is pressed against the raftside.
Slagklaar maken (warning command)	<i>(Ready all)</i> The rowers prepare themselves, sitting in catch position, blades horizontal on the water, hollow side up.
Slagklaar (warning command)	<i>(Ready all, squared blades in the water)</i> The blades are rotated a quarter turn and hang vertically in the water; hands are relaxed.
Af or Go (execution command)	<i>(Go)</i> The first stroke is made, the rowing continues.

# 2.5 Reducing speed and stopping

Laat lopen	<i>(Easy there)</i> " <i>Laat</i> " is said at the catch, " <i>lopen</i> " is said halfway sliding forward. After " <i>lopen</i> " the oars make their last finish, the blades now stay feathered = in a horizontal position; they are above the water surface. The oars are perpendicular to the boat, legs and arms stretched.
Vast	<i>(Fixed)</i> The blades are laid onto the water surface at a slight angle. When speed has been reduced, the command <i>"Houden"</i> can be given.
Houden (stuur-/bakboord or beide boorden) – nú	<i>(Hold it! etc)</i> The rowers square their blades in the water to a vertical position, the boat comes to a standstill; handles are held level for balance. This command can be given only if speed is not too high (risk of breaking the oars).

# 2.6 Landing

When approaching the dock at average speed, the following commands are made:

Paddle light (lichte haal) – nú	( <i>Paddle light</i> ) Normally, the cox steers the boat in a 30-45° angle (depending on weather conditions) towards the corner of the dock, at a very low speed (see chapter 6).
Stuur-/bakboordriemen hoog	(High oars at bowside/strokeside) Instead of this command also: "Denk aan de riemen aan stuurboord/ bakboord" (Mind the blades at bowside/strokeside); sometimes with the addition "Overhellen naar stuurboord/bakboord" (Lean to bowside/strokeside). The raftside oars are already turned, with the convex side upwards (this rule differs from rowing club).
Bak-/stuurboord klaar om te houden	(Bowside/strokeside ready to hold up) The rowers sit with stretched arms and legs, with the blades high above the water, ready to put them vertically into the water to turn the boat away from the raft.
Houden – nú <i>or</i> Houden bak-/stuurboord – nú	<i>(Hold it up - now)</i> The blades are put into the water almost vertically, and are held firmly. At low speed or when approaching the platform at a slight angle, the command <i>"Vastroeien"</i> can also be given, which means that the blades are held at a 45° angle instead of vertical.

NB The raft is approached against the wind (if possible!).

# 2.7 Getting out of the boat

This is the reverse of boarding. The cox gets off first and holds the boat in the middle. The landside oars are laid onto the platform, convex side up; the waterside oars are lying flat upon the water. The cox gives the following commands:

Overslagen los	( <i>Open oarlock gates</i> ) Do not lean over to the water side too much. Hold the handles between your upper legs and chest.
Klaarmaken om uit te stappen	<i>(Prepare to get off)</i> The rowers move the oar handles towards the foot plate, and then hold them in one hand (waterside hand).
Uitstappen gelijk (warning command)	<i>(All get off)</i> The rowers put the waterside foot on the landing, and bend forward as far as possible, with stretched arms. The landside hand lies on the gunnel or on the rigger, the other hand firmly holds the oar(s).
Eén	<i>(One)</i> The rowers raise their body; all weight is on the foot on the landing, so check your balance!
Twee	<i>(Two)</i> The rowers place their landside foot onto the platform. The weight remains in the boat, so the hips are above the boat; keep checking your balance. Do this at ease! Do not step too hastily onto the platform.
Drie	<i>(Three)</i> The other foot is also put onto the platform, taking the body weight with it. The oar on the water side is pulled in, and is removed from the oarlock (or remains in the oarlock, handle on the platform)

# 2.8 Backing (reverse rowing)

The cox holds the rudder straight, holding the cables tight. The boat moves backwards. Turn the rudder in the correct position before you start to row backwards; once in motion, it is very difficult to pull the rudder right.

Strijken gelijk – nú	<i>(Backing - now)</i> The blades are in the water, turned vertical, legs are stretched, hands are near the body. The rowers start backing by pushing the handles forward, with sliding seats.
Stuur-/bakboord strijken – nú	(Backing on bowside/strokeside - now) Equal to the previous command, but only for one side. The blade on the other side is kept horizontal, resting on the water; it is gliding back and forth together with the rowing oar.

# 2.9 Changing direction

Ronden (rondmaken) over bak-/stuurboord – nú	<i>(Spinning over strokeside/bowside)</i> The blade at the side mentioned is turned vertical, the other blade remains flat on the water. Legs are straight, hands are near the body. The squared oar is pushed away from the body, with sliding seat. The hands stay together, so the other oar follows the first one, but is doing nothing. Once the backing oar has reached its end, the other oar starts making a normal stroke. Now the first oar is lying flat on the water, following the other oar. These back and forth movements are repeated until the boat is turned and the command <i>"Bedankt"</i> is given. <i>Ronden</i> is done towards the wind direction.

Stuurboord sterk or bakboord best (execution command)	(Bowside / strokeside firm pressure) The side mentioned is rowing or backing with more pressure than the other side. This command is always followed by the command: "Gelijk" or "Bedankt".
Gelijk or Bedankt	<i>(Even pressure or Thanks)</i> Both sides are rowing with equal pressure again.

# 2.10 Passing obstacles

Slippen beide boorden <i>or</i> Slippen stuur-/bakboord – nú	The oars are positioned parallel to the boat, blades facing the stern. The handle(s) are(is) held at the side of the body. With stable boats, the oars are kept free from the water; with narrow boats they are resting on the water to maintain balance.
Slippen en laten vallen – nú	<i>(Slip and drop - now)</i> The rowers draw their oars parallel to the boat, leaning backwards ( <i>'drop'</i> ) as much as possible to go under a low bridge.
Riemen beide boorden intrekken – nú	( <i>Pull in both sides / bowside/strokeside</i> ) With straight legs, the rowers pull in their oar(s). The blades remain on the water.

# 2.11 Draw pressure

Gewone haal or normale haal	<i>(Normal pressure)</i> Rowing with normal, average draw with regard to power and speed.
Strong paddle or harde haal	<i>(Firm pressure)</i> Rowing with more or much power, speed (sometimes) a little higher.
Light paddle	Rowing with less or little power, speed a bit lower.
Spoelhaal	<i>(Floating draw)</i> Rowing without power, to make the boat go forward very slowly.
Klapje stuur-/bakboord or beide boorden	Make a stroke without sliding forward.

# 2.12 General

Veilig boord houden	This command is given for only one side. The other side is rowing or backing, making a turn. One blade is kept flat on the water (hollow side up), holding the boat steady and level. If the boat is tipped down towards one side, lift your hand at that side and the boat should come level. The main idea is to keep the boat in balance.
Bladen plat op het water	<i>(Blades flat on the water)</i> All blades are kept flat on the water.

# 3. ROWING EXAMS

For the following reasons, it is necessary to have rowing exams.

- prevention of accidents and injuries
- prevention of damage to equipment.

The exams are held by at least two members of the Exams Commission, following the requirements of the Commission.

The instructors submit their students for the exam. The acquired permissions will be registered in the Members' Registration System.

# 3.1 Permissions

The exams are divided into S-I, S-II, S-III (sculling exams) and B-I, B-II and B-III (sweep rowing exams). S-I etc. refers to the permission to use certain boat types. For example: after obtaining the S-I permission, you may use all boats that are in the S-I category (without an instructor), but not those in S-II or other categories.

The first exam S-I / B-I includes basic coxing skills (steering, basic commands).

# 3.2 Requirements for S-I and B-I exam

A reasonable boat control is required, but minor errors are allowed. The boat control must be such that the rower is able to handle C-boats independently, without injuries or damage, from taking the boat out of the storage until getting back from rowing and stowing the boat back into the boathouse. He/she must have enough basic rowing skills to row independently and comfortably in a C2 or C4 boat, without serious errors.

For novice rowers usually 16 basic instruction classes are sufficient to successfully participate in the exam. When the instructor believes that the pupil will be able to pass the exam, he/she will register the candidate for the exam, and invite the examiner to be present during the last lesson. During this lesson, the examiner assesses whether the pupil meets the requirements.

The S I and B I exam consists of a theoretical part and a practical part. The practical part combines a rowing and coxing exam, rowing in a C2x+ (S I) and C2+ (B I), in the immediate vicinity of De Hoop.

#### Theory

- Components of a boat
- Different boat types
- How to make a boat reservation in the e-Captain computer system
- How to fill in the damage and complaints form in the Schadeboek (Damage book)
- Know the fleet's boat types I, II and III, and how they are related to the permissions
- Navigation rules for rowers.

#### Coxing

- Manage the boat crew with regard to:
  - Taking the boat in and out of the water/boathouse
  - Getting in and out of the boat
  - Rowing away from the raft and landing
  - Slowing down and making a (emergency) stop
  - Backing, changing direction and spinning
  - Passing obstacles
  - Differentiation of draw pressure
- Give the correct commands at the right time, with the right intonation and clearly articulated.
- Take wind and possible currents into account.

#### Rowing

- Correctly take out the boat and oars, and store them again
- Correctly carry out the commands given by the coxswain (see 'Coxing')
- Correctly adjust the foot plate
- Know how to 'sit the boat'
- Hold the handles correctly and in a relaxed way
- Be able to row using the whole sliding.
- Be able to row waterfree (without the blades touching the water)

- Carry out the finish, recover, catch and draw without major mistakes
- Be able to row simultanuously with the other crew members
- Be able to back down with one oar, and with two oars.

# 3.3 Requirements for S-II and B-II examen

Boat control must be good, meaning: the basic technique, which is examined by a set of criteria, composed by the Exams Commission.

The S-II and B-II exams are held in respectively a C1 and a 4+ in the immediate vicinity of De Hoop. All theory and skills of the S-I or B-I exam must be mastered. In addition, the following requirements apply:

#### Theory

- The candidate must be able to explain the correct rowing technique, especially how a correct finish, recover, catch and draw are done. Therefore he/she has to be acquainted with the rowing terminology.
- Basic knowledge of boat tuning, such as the impact of
  - blade angle
  - oar adjustment
  - oarlock height

#### Practice

- Be able to generally perform a good finish, recover, catch and draw.
- Be able to row with more draw power, maintaining technique and co-ordination
- Show boat control
- Be able to land at the raft both forward and backward (for sculling only)
- After a capsize, react adequately and get into the boat again.

## 3.4 Requirements for S-III en B-III examen

Boat control must be good, both in terms of basic technique as of the details. The candidate is supposed to be able to row in a coxless boat. The rowing experience and the ability to handle difficult situations can be tested – if needs be – by special exercises.

The S-III and B-III exams are taken respectively in a skiff and a 2. The exams are held in the immediate vicinity of the Hope.

All theory and skills of the S-I and S-II or B-I and B-II exams must be mastered. Additionally, the following additional requirements apply:

#### Theory

- Know the different elements of boat tuning. In addition to the previous items, the candidate must also know the effect of:
  - the span
- inward or outward angle of the oarlock
- the through-the-work adjustment

#### Practice

- Be able to perform in details a good finish, recover, catch and draw
- Be able to row with full draw pressure, maintaining technique and co-ordination
- Show boat control at full power and speed
- Be able to row in different draw pressures, with a good rhythm.
- Correctly do the 'Uitlengen' excercise (start rowing with only arms, then arms + back, then add 1/4, 1/2, 3/4 sliding (*kwart, halve, driekwart bank*), and finally with full sliding (*hele bank*). Five strokes each.
- Make the 3rd stop (arms stretched, back bent forward completely, but legs still straight) every third stroke, keeping the blades above the water.

#### Training and exam material

The boat categories are displayed in the reservation system of De Hoop (afschrijven.karzvdehoop.nl). For every exam training boats are available. For S-II and S-II exams you can practice without an instructor, for practicing for B-exams an instructor is always required.

Below is indicated which boat types are used during the exam, in what boat types you can practice and when an instructor must be present. In some cases, you should also consult with the Material Commissar.

	Practice in	Exam in
SI	Boats in S-I category with instructor	C2x+
SII	C1s in S-I category. Or S-II category with instructor	C1
S III	Skiffs in S-II category	Skiff
ΒI	Boats in B-I category with instructor	C2+
ΒII	4+ in B-II category with instructor or after consulting the	4+
	material commissar	
B III	In 2– (B-III category) with instructor or after consulting the	2–
	Material Commissar	

# 3.5 Boot components

These boat components are assumed to be known in the exams:

Boegbal (bowball)	Roerpen (ru
Voorsteven (bow)	Roerblad (ru
Huid (shell)	Diagonaal
Taft (deck)	Spant (fram
Waterkering (splash guard)	Bint / Dwars
Rigger	Kiel (keel)
Dol (oarlock)	Sliding
Boord (gunnel)	Rolbankje (s
Achtersteven (stern)	
Stuurtouw (rudder cable)	

ben (rudder pin) Hie blad (rudder blade) Hie bnaal Vo t (frame rib) Vo Dwarshout (beam) Vlo keel) Ste g Hu ankje (sliding seat) Ov

Hielsteun (heel support) Hielstring (heel strap) Voetenbord (foot plate) Voetriem (foot strap) Vlonder (bottom board) Stuurplaats (cox seat) Huidspant / Rib / Vrang (rib) Overslag / Dolklep (gate) Opstapplankje (landing) Vin (fin or skeg)

#### **BOAT COMPONENTS** 4.

Knowledge of material is necessary to avoid misunderstanding, and to be able to fill in a damage form in the Schadeboek.

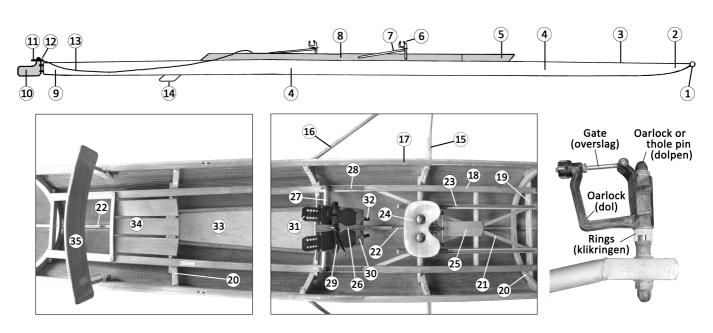
# 4.1 The boat

Looking at a rowing boat, we can distinguish the following components.

- 1. Boegbal (bow ball)
- 2. Voorsteven/ boeg (bow)
- 3. Taft (deck)
- 4. Huid (shell)
- 5. Waterkering (splash guard)
- 6. Draaidol / dol (oarlock)
- 7. Rigger / uitlegger
- 8. Boord / dolboord (gunnel)
- 9. Achtersteven (stern)
- 10. Roerblad (rudder blade)
- 11. Roerjuk
- 12. Roerpen (rudder pin)
- 13. Stuurtouw (rudder cable)
- 14. Vin (fin; only in boats without keel)

- 15. Rigger-hoofdstang
- 16. Rigger-trekstang 17. Boord (gunnel)
- 18. Lijfhout
- 19. Bint / Dwarshout (rib)
- 20. Spant (frame rib)
- 21. Diagonaal(lat)
- 22. Kiel (keel)
- 23. Sliding
- 24. Rolbankje (sliding seat)
- 25. Opstapplankje (landing)

- 26. Voetenbord (foot plate)
- 27. Spoorstok
- 28. Voetenbordstrip
- 29. Voetriem (foot strap)
- 30. Hielsteun (heel support)
- 31. Hielflex
- 32. Hielstring (heel strap)
- 33. Vlonder (bottom board)
- 34. Stuurplaats (cox seat)
- 35. Rugleuning (back of cox seat)



#### Description of some terms and boat components

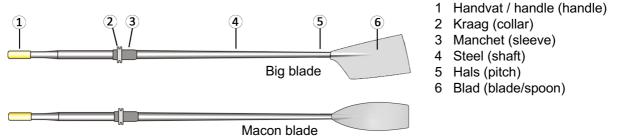
Bakboord	Strokeside = the right side of the boat, as seen from the rower (colour red).
Stuurboord	Bowside = the left side of the boat, as seen from the rower (colour green).
Binten, diagonaallatten	Joists, diagonal slats that form the framework between the sides of the boat.
Buikdenningen	Bottom platform of loose floorboards (a.o. in wherries)
Spanten	Wooden, curved frame ribs that are connected perpendicularly to the keel;
Opanien	they form the boat's core frame, onto which the shell is attached.
Dol, draaidol	Oarlock or swivel, a steel or synthetic device rotating around the fixed oarlock or thole pin; the oar lies in the oarlock, which is usually closed with a gate <i>(overslag)</i> .
Boord, dolboord	Gunnel or gunwale: a bar or strip attached to the top edges of the boat.
Emplacement	Landing between the slidings, to put your foot on (with polyester boats).

Kiel	Keel: bottom beam, the "backbone" of the boat. In traditional boats it is visible both from the outside and inside; in most polyester boats only inside.
Klikringen (snappers)	Coloured plastic rings that are placed at the top or bottom of the oarlock pin. They are used to vary the angle between the oar and the water. Thus, a rower, who is a bit too light or too heavy for the boat, can still get a workable position of the oars by putting the snappers above or under the oarlock.
Opstapplankje	Small wooden landing or step shelf inbetween the slidings.
Pilaartjes	Small wooden pillars, standing on the keel, supporting the joists.
Rigger	Steel or carbon-fibre construction at the sides of the boat, onto which the oarlock is attached. Traditional riggers have a main bar (perpendicular to the boat) and a pull-bar (pointing to the stern). Sometimes there is a third bar pointing towards the bow, called the push-bar. Wingriggers consist of one piece, to provide more stiffness during rowing. They are made of carbon or aluminium.
Rolbank, bankje	Sliding seat.
Slidings	Two rails over which the rower's seat is sliding.
Vinnetje	Fin or skeg: a small, thin steel plate attached to the keel, for stabilising the boat's course (only on racing boats).

# 4.2 Oars

There are two types of oars: those for sweep rowing, and those for sculling, sometimes called "sculls". Oars for sweep rowing are longer and thicker, and therefore heavier than sculls.

In the oar we see the following components:



Strokeside and bowside oars are different. Under the sleeve are wedge-shaped pieces of wood, which give the blade a forward angle during the draw. This position is necessary in order to make a good, horizontal draw. When the oar is used on the wrong side, the blade will go into the water too deep. We call this *"diepen"*.

To recognize strokeside and bowside oars they are often marked with respectively a red and a green colour. In addition, the name of the boat is written on the oar's shaft in such a way that the rower, sitting on his seat, reads the name upside down when it's been put into the wrong oarlock.

All boats have their own oars, with the boat's name on them. In the boathouse they have their own storage place.

#### And further:

Racing boats may only be used after consultation with the racing or material commissar. It is mandatory to reserve a boat prior to the training or tour, using e-Captain (afschrijven.karzvdehoop.nl).

Respect the block hours on Saturday and Sunday morning, as indicated on the website.

In wherries and	l other boats used for touring, the following items must always be present:
Landvast	Mooring rope to tie the boat when mooring.
Pikhaak	Long stick with hook and point, to keep the boat away from the shore or to more it.
Geusje	Small triangular club flag at the prow.
Vlag	National flag at the stern.
Peddel	Paddle: to be able to manoeuvre when this is not possible with the oars.

# 4.3 Prices of shells

To give you an idea of the value of the equipment you will be using, here are some the basic prices for some boats (2007):

Skiff	€ 4.500 (training skiff) $-$ € 12.000 (racing skiff)
C1	€ 6.000
C2x+	€ 12.000
Pair (2x)	€ 7.000 - € 14.000
Quad (4+)	€ 12.000 - € 16.000
C-quad (C4x+)	€ 16.000
Eight	€ 25.000 - € 40.000
Sculls (pair)	€ 600 - € 800
Oar (sweep)	€ 700 - € 900

# 5. BOAT TYPES

By means of construction method of the boat, we distinguish shells (racing boats) and traditional lapstrake boats. Shells are boats of which the skin is constructed of thin sheets of wood or entirely of polyester or other synthetic materials. Lapstrake boats consist of riveted wooden planks.

We distinguish the following categories:

- 1. Racing material
- 2. Tour / recreational material
- 3. Tutorial material

# 1.5 Racing material

#### Sweep rowing

In sweep rowing boats each rower uses one long oar. There are sweep rowing boats for two, four and eight oars. The pairs and quads can be rowed "with cox" (2+ and 4+) or "coxless" (2– and 4–). The eight is always "coxed" (8+).

"Coxless" does not mean "uncontrolled" but it means that the boat is steered by use of a mechanism connecting one of the shoes by wire to the rudder – the swiveling of the shoe turns the rudder. A coxless pair is called "twee-zonder", and a coxless quad is called "vier-zonder".

#### Sculling

In sculling boats each rower uses two sculls, which are shorter than sweep oars.

The single boats in this category are called skiffs (1x); a boat for two persons is called "double two" or "double scull" (dubbeltwee, 2x) and the boats for four persons are called "double quad" or "quadruple scull" (dubbelvier, 4x).

The double two and skiffs are always rowed without coxswain (the rowers steer with their sculls). The quad comes with or without a coxswain (4x + and 4x); in the 4– the rower at bow position steers with the right or left foot.

#### Boat type extensions

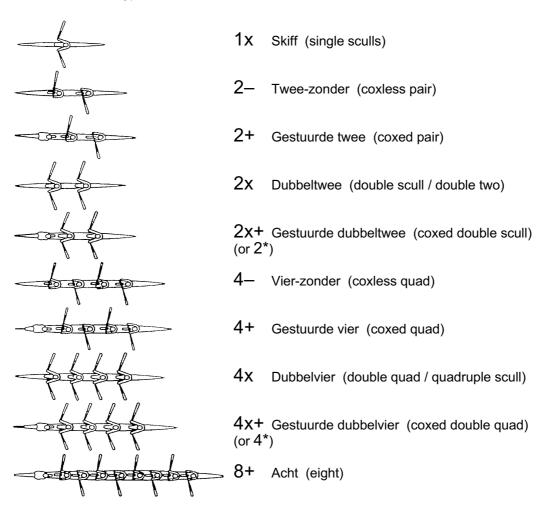
In competition programs the types of boats are indicated with a number and the extension x, -, +, \* and sometimes 'ov'.

The number indicates the number of rowers.

'x' stands for sculling, without 'x' for sweep rowing.

'+' means coxed, '-' coxless; 'ov' stands for traditional.

'\*' = 'x+' means sculling + coxed.



The fleet of De Hoop also contains two unusual numbers: we have a double three (3x), 'Jan van Amstel', and a coxed six (6+), 'Sperwer'. These shells never participate in competitions.

# 2.5 Tour material

#### Wherries

These are broad, lapstrake tour boats (now also in plastic version) with open prow and stern, and always with a cox seat. They can be divided into "outrigged" and less seen "inrigged" wherries.

Those of the first type, also called roller benched ("sliding") wherries can be made for two or four sculls, which makes them a single-wherry (for one rower) or double-wherry (two rowers). De Hoop has one single-wherry: 'Sier de Liefde'.

## Tubs

Tubs resemble wherries, but they are broader and have double oarlocks, so they can be used for both sculling and sweep rowing. A double oarlock has one small and one large oarlock facing each other, connected to the same thole pin. Also, they have adjustable seats (these can be placed on or next to the longitudinal axis of the boat). Tubs are mostly used for sweep rowing and are very suitable as a tutorial boat.

## C and D boats

These types of boats have standard dimensions (as opposed to racing shells, where the construction is free). A C-boat is similar in construction, but a bit shorter and wider (therefore more stable) than a lapstrake boat, and has an inner and outer keel. It has however, a fine (smooth) skin and no deck on the bow and stern. The D-boat resembles a C-boat but is even shorter and wider (and therefore slower). Available numbers in the C-class are C1, C2, C4 and sporadically C8.

#### 3.5 Training material

We distinguish:

- Tubs (see tour material)
- C-boats and D-boats (see tour material)
- Junior boats
- Bak

## **Junior Boats**

The most common types of junior boats are the junior skiff, junior double scull and junior double quad. The rower's weight for junior boats should not exceed ca. 50 kg. A junior double quad can carry max. 225 kg.

## Bak

The bak is used to learn the rowing movement, while remaining stationary. Our club has a new bak-raft with two rowing seats, which can be used for sculling (both) and for sweep rowing (1 strokeside + 1 bowside).

# 6. ROWING AWAY FROM THE RAFT AND LANDING

# 6.1 Rowing away

If nobody is present near the raft to help you to set off, you should be able to do it yourself. The first thing you do is push off the boat a little from the raft by hand. In sculling shells the coxswain gives the command "*Slippend uitzetten - nu*" (Push out with "geslipte" oar).

The rowers put their oars alongside the boat, inbetween the raft and the boat, and then very gently push the boat away from it. Special care should be taken to the bow. When the bow seems about to touch the raft, the oars on the other side of the boat must start backing down a little. When the boat is far enough from the raft, put back the "geslipte" oar and make 1 or 2 strong strokes with it (or backing strokes with the other oar) to bring the boat into the right position. This type of setting off is the most common for the C1 or skiff.

If you are setting off with a quad, it is often the case that only the bow rower has enough space to row on the raftside. The coxswain will tell the bow to make a few strokes until the boat is completely free from the raft. In sweep rowing boats the command given by the cox is: "*Riemen intrekken en uitzetten aan stuurboord/bakboord – Nu*" (Pull in the oars and push out at bowside/strokeside – Now). The rowers pull in the oars and move away from the raft by carefully pushing the blades against it. When the oars are free, move away further from the raft by making short strokes with the raftside oar, either forward or backward (depending on the situation).

# 6.2 Setting off with (strong) wind

When the wind is offshore, setting off will not cause problems. It is more difficult with an onshore wind as the boat is blown against the raft. As soon as the boat is free from the raft, make strokes forward or backward with your raftside oar, so the wind does not get a chance you blow you back against the raft.

# 6.3 Landing

Start your landing manoeuvre by reducing speed in time. Excessive speed is often the cause of damage to boats and oars. So the last hundred feet "*Light paddle*" and timely "*Laat... lopen*" (Let it... go). If it is still too fast say "*Houden*" (*Hold it*). It is better to do it over again or to give a light stroke than to take risks.

The raft is approached at an angle of approximately 30 to 40°, with the bow aimed at the spot where the stern is wanted. The coxswain, or the bow rower in uncoxed boats, checks if all is clear.

In the last few meters he/she looks only at the bowpoint. The bow rower or a single scull rower must be very able to look back. When the bowpoint is close to the raft, the oars at that side are brought above the raft (both hands are kept low), and at the same time the rowers tilt their weight slightly to the other side in order to keep the riggers free from the raft. The waterside blades are holding the water at a 45° angle (= 'vast'), gradually turning to 90° (= 'houden') in order to make the boat land alongside the raft pretty smoothly. The bowpoint should never touch the raft.

## NB

At the command "Vast" (Fixed) and "Houden" (Hold it) arms and legs are stretched and the oars are perpendicular to the boat.

When getting out of the boat, make sure that the riggers do not lean on the raft (to prevent bending). So, when necessary, push the boat a little away from the raft.

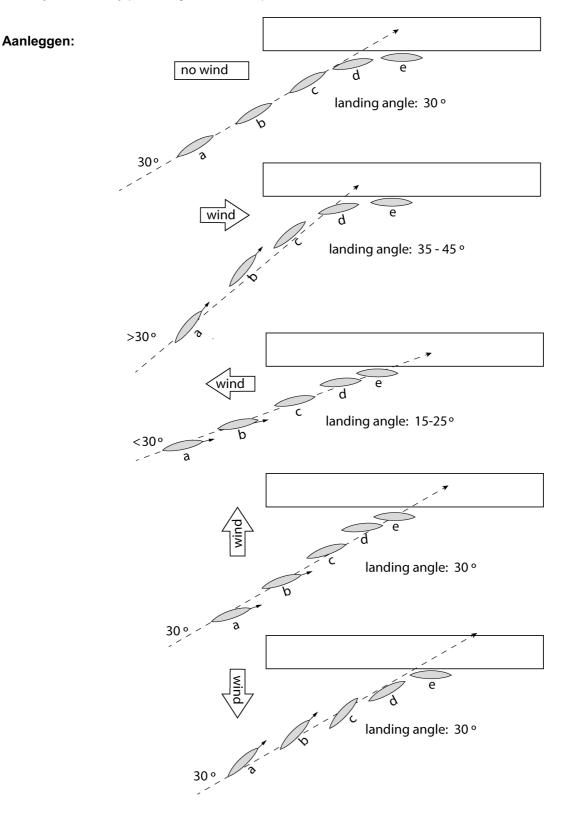
# 6.4 Landing with (strong) wind

Try to always land against the wind, because it is the easiest way to get the speed out of the boat and chances are less that the landing goes wrong. If there is no alternative, take extra care in landing downwind. Keep in mind that you keep momentum longer. Aim the bow of the boat at the spot where you want the stern, otherwise you will pass the raft. If there is a strong downwind, keep a lot of space between the boat and the raft. The wind will do the rest. When you are too close, the riggers will scratch the raft and both may get damaged.

The most difficult way of landing is with the wind away from the raft. The angle between boat and raft must be larger than 45°. If the bow of the boat is almost touching the raft, change to 'vast' (fixed). Don't do this too strong (keep looking at the bow), otherwise the boat will be blown away from the raft.

In C1, skiff and even double scull, it is also possible to land with the stern first, by backing down (*strijken*). You have a better view of the distance between stern and raft. The landing angle and other aspects are the same as for landing with the bow first. At 'vast' and 'houden', you sit at the front end of your slidings, with bent knees and stretched arms. The oars remain in backing down position, but can be held in a tilted position to reduce the effect of 'houden'.

During the landing, the coxswain cannot do much with the rudder. The rowers must have control over the boat. As the coxswain has the best overview, it is his/her task to give the appropriate commands at the right moment. Landing is one of the most difficult manoeuvres in rowing. The skills required for this are only achieved by practicing as much as possible.



# 7. TIPS FOR STEERING

- The coxswain should use the rudder as little as possible. Each use of the rudder can disturb the balance of the boat and slow down the boat.
- Steering should preferably be carried out *when the oars are out of the water* (then steering will be most effective). Do not ask for help from the rowers unless really necessary (because it disturbs their concentration).
- The rudder is only effective if the boat goes faster than the water in which it is travelling. This is of particular interest in running water and with strong winds.
- After a steering manoeuvre the boat will continue to move. Keep that in mind!
- In high waves (caused by e.g. other ships) bring the boat parallel to the waves, and wait. Keep the blades flat on the water and tilt the boat a little towards the other side than where the waves come from. Otherwise the boat will be full of water or might even break. When the waves are less high, if possible position the boat across the waves.
- Hang the steering rope under your armpits in front of your chest, and sit actively.
- Always keep some pressure on the steering rope, to prevent it from lingering around the rudder or fin. It will then be impossible to steer the boat.
- In coxless boats the bow rower gives the commands. Look behind at least every fifth stroke, and more often near obstacles.
- Before starting to back down, make sure the steering rope is held tight and the rudder straight, otherwise it may break.
- Make sure you know how to handle the boat properly and safe under all circumstances.
- When switching from one manoeuvre to another, the command "Laat lopen" (Let it go) must be given.

#### What to do in case of a capsize?

Remember that in water your body temperature will lower 20 to 30 times faster than under dry circumstances. When the water temperature is less than 18°C, there is a risk of hypothermia. The body temperature decreases 1° every 5 minutes. At temperatures below 35°C one can suffer from serious hypothermia!

Go to the shore as quick as you can and climb out of the water. Leave the boat in the water; it can be collected later by somebody else. Keep moving, and take a hot shower as soon as possible. If you don't manage to get out of the water within three to five minutes – for instance because the shore is too far away – climb on top of your capsized boat. Thus you can stop the more rapid cooling off by the water. Try to reach the shore by peddling with your hands. In the Amstel river you will be spotted soon, and help will never be far away.

There are life saving jackets in the De Hoop's boathouse; use them in the cold months, especially in a C1 or skiff!

# 8. NAVIGATION RULES FOR ROWERS

Navigation rules that apply to all waterways in the Netherlands, including the IJsselmeer and the Wadden Sea, are laid down in the Inland Navigation Police Regulations (BPR). On waters with a lot of international shipping, such as the Western Scheldt and the Rhine, Waal and Lek, different regulations apply. The BPR is in force since 1984; its rules have been adjusted to European standards as much as possible.

Damage-free rowing on the Amstel or similar waters does not require knowledge of the entire BPR. The following is a resume of the most relevant navigation rules.

# 8.1 Most relevant navigation rules in the BPR:

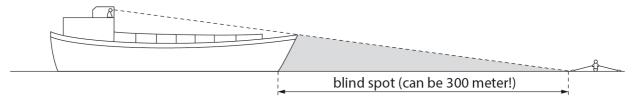
#### Small gives way to big

Rowboats are among the smaller vessels and must therefore always give way to all large vessels, which are all vessels over 20 meters including smaller ferries, fishing vessels and tour boats. Large ships cannot easily manoeuvre or change speed. Give large ships all the space they need and do not manoeuvre yourself in a dangerous situation.

Usually large ships will keep to the middle of the water, so do not take shortcuts and look back regularly in uncoxed numbers. Approaching cargo ships are hardly heard.

#### Stay away from commercial boats! Commercial shipping has right of way

Cargo ships have a fairly big blind spot because the wheel house is at the rear of the ship. The blind spot is especially in front of the bow. An unloaded ship can therefore have a blind spot of a few hundreds of meters. For your own safety and for the captain's peace of mind, always be able to see the captain in his wheel house. Then he or she will be able to see you too.



Beware: canal tour boats are commercial boats!

#### Keep to the river's bowside

Small boats, including rowboats, that clearly keep "right", are allowed to continue their direction when crossed by other small vessels like sailing boats, motorboats or other rowboats. They must enable other small boats to pass them on strokeside ("left").

#### **Crossing directions**

In situations where it is not possible to keep to bowside, e.g. on open water, the following rules apply:

- Always give way to larger ships!
- Rowboats give way to other rowboats that come from the "right".
- Rowboats give way to sailing boats.
- Motorboats give way to rowboats (but don't count on it!).

A boat, travelling on open water at bowside in a buoyed fairway, keeps bowside; in such a case the rules for travelling bowside apply.

#### Overtaking at strokeside

Like in land traffic, on water overtaking is done "left". When a boat passes you, stick to the bowside of the water to give the overtaker enough space. If necessary, reduce speed to prevent a lengthy passing manoeuvre. Overtaking rowboats should increase their speed.

In a river bend or on crowded water do not row next to another rowboat longer than necessary. Always avoid dangerous situations!

A rowboat that is passing a large ship should choose the safest side, which in most cases is bowside.

#### Give way visibly and on time

When you have to give way according to the navigation rules, make it very clear and as early as possible that you are going to do so. Do not wait until the last moment, and give space generously.

#### Keep track and speed

Do not suddenly change your direction or speed when, according to the navigation rules, you don't have to give way.

#### Do not disturb other traffic

In manoeuvres like landing, leaving, stopping or turning, you must not disturb other smaller vessels. Under no circumstances it is allowed to obstruct larger ships! When leaving from the platform, not only check if your crew is ready, but also if the water is clear.

Do not stop near bridges or close to a blind bend.

When you are going to turn, always check if you will not impede passing boats.

#### Good seamanship

In situations where (seemingly) no rules apply, or where giving way by only one of the ships is no longer sufficient, the other ship must also do everything in its power to prevent a collision. For example, when the captain of another ship sees you too late, or apparently does not know the navigation rules, you will have to give way. In case of a collision, both parties are to blame!

#### Visibility on the water

For the sake of security we advise to wear bright-coloured clothes and/or safety jackets while rowing; this goes in any case for the bowman and the cox!

## 8.2 Sound signals

Large ships use sound signals to announce certain manoeuvres, or to draw attention in dangerous situations. The ship's hooter can give signals of various lengths:

Long hoot:	"" of about 4 seconds.
Short hoot:	"" of about 1 second.
Very short hoot:	"" of about a 1/4 second.

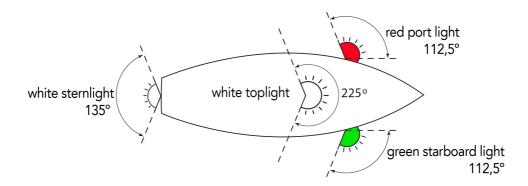
It is advisable for rowers to know the following hoot signals:

	I am turning to bowside (starboard) I am turning to strokeside (port) I am going backwards I cannot manoeuvre, you will have to give way
– – – – – – – – – etc.	Imminent collision!!

Request to open the bridge/lock

# 8.3 Lights

A moving ship has a red light at strokeside (port) and a green light at bowside (starboard). When at night you see both a red and green light approaching you, this means that a moving ship is heading towards you. Get away immediately!



It is compulsory for rowboats after sunset to have a 360° shining white light, which must be higher than the rowers' heads.

# 8.4 Bridges

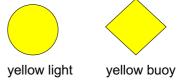
With regard to bridges the following should be known:

- Berlagebrug: this bridge has five passages, of which the middle one is covered by a moving bridge. This middle passage is prohibited for rowers! The other passages can be used. De Hoop has an informal agreement with Rowing Centre Berlagebrug/TopRow to not using the bowside passage to avoid the risk of collisions with beginning rowers.
- Utrechtse Brug: this bridge has three passages. Both bowside and middle passage may be used.
- Rozenoordbrug: this bridge has two openings. Only the bowside passage may be used.

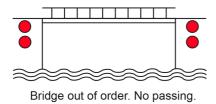
When passing a bridge, always take the opening which is most bowside.

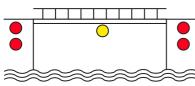
It is not allowed to use bridge passages that are marked by this red-white sign:

The recommended bridge passage is indicated by one of the following yellow signs or buoys:

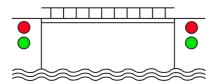


#### Lights at bridges:

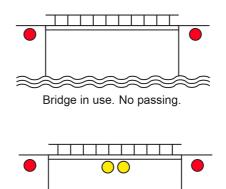




Bridge out of order. Passing allowed. Beware of meeting vessels.



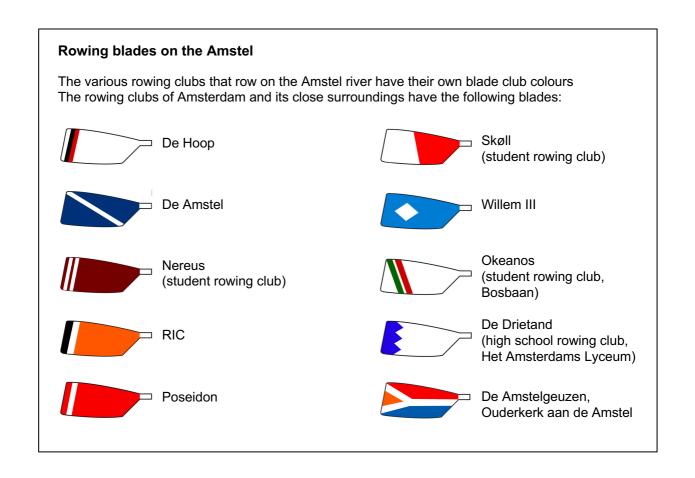
Passing prohibited, will be allowed soon.



Passing under the closed bridge is allowed for you, but not for meeting vessels.



Passing allowed. Beware of meeting vessels.



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