



Owner's manual

Assembly instructions and operating instructions



ROWVISTA | ROWMOTION

Table of contents

1	Introduction and important notes	4
1.1	Safety instructions (for all XCAT models)	4
1.2	Important notes on transport and storage	6
1.3	Environmental protection	8
1.4	Instruction style guide	9
1.5	Further information	9
2	XCAT RowVista	10
2.1	RowVista components	11
2.2	Assembly and disassembly of RowVista	13
3	XCAT RowMotion	24
3.1	RowMotion components.....	25
3.2	Assembly and disassembly RowMotion.....	26
4	Maintenance	32
4.1	Blade angle (pitch) of the RowVista® forward rowing sculls.....	32
4.2	Adjusting the clamping ring of the RowMotion® sculls	34

1 Introduction and important notes

This manual is intended to familiarize you with your XCAT model option RowVista and RowMotion and to help you guide your XCAT safely. In addition to the description of the rudder options, it also contains assembly and disassembly of the rudder options and information on safe handling/operation of the XCAT.

The description of the XCAT Basic and other accessories can be found in the "XCAT Basic" manual.

Please keep this manual in a safe place and hand it over to the new owner when you sell the XCAT.

1.1 Safety instructions (for all XCAT models)

Carefully read the following safety instructions and all warnings and notes in this manual before starting up your XCAT.

 **WARNING**

Whether on land or water, STAY AWAY FROM POWER LINES! Contact with power lines can result in serious injury or death.

Inform yourself about the legal regulations of the country or region in which you are commissioning the XCAT.

Make sure that the expected wind and sea conditions correspond to design category C (nearshore waters) and that you and, if applicable, your crew are capable of handling the XCAT in these conditions. Any watercraft, no matter how strongly built, can suffer serious damage from improper handling. This is not compatible with safe boating. Therefore, always adjust the speed and direction of travel of your XCAT to the sea conditions. Take weather reports seriously and be aware of wind conditions, local currents and tides. Be responsible. Do not overestimate your abilities at sea and do not neglect safety regulations. Never use the XCAT or your passengers while under the influence of alcohol, drugs or medication. Protect yourself from the sun in hot weather and take plenty of water to drink.

Before operating the XCAT, check all components for possible damage. Do not let any line or other objects hang away from the boat while driving - there is a risk of getting caught on bushes or stones.

Avoid unnecessary grounding. Never drag the boat over stones. Avoid the risk of injury by making sure that all passengers have legs and arms on the boat before docking and casting off. Learn to handle the boat in a variety of situations. Give your passengers an introduction to how to handle the boat so they can leave control of the boat to another passenger in case of an emergency. Inform a person on shore of destination and planned return.

The maximum recommended payload of **240 kg** and the recommended number of maximum **3 persons** must not be exceeded. Regardless of the number of people on board, the total weight of people and equipment must never exceed the recommended maximum payload. Loading must always be done carefully, distributing the loads appropriately to maintain the design trim.

Protect yourself and, if necessary, your crew by wearing appropriate life jackets/ buoyancy aids and cold weather protective clothing. Take into account that in some countries there are legal requirements to wear buoyancy aids that comply with national rules at all times. If you are sailing the XCAT alone and unattended in waters whose shore you cannot reach by swimming, you should, if necessary, connect yourself to the XCAT with a suitable rubber line (e.g. 6 m long and 5 mm thick). Do not sail alone below 10° Celsius water temperature! Do not use a fixed line to attach yourself to the XCAT. There is a DANGER OF LIFE if the boat capsizes!

Observe the traffic regulations: You always participate in water traffic with your XCAT, even if you use it for your recreational pleasure. Water traffic is regulated by ordinances, which differ according to the area of application. Machine-driven vehicles (motorboats, personal watercraft) are required to give way to sailing vessels. Muscle-powered vehicles without their own boat drive (paddlers, pedal boats, rowing boats) are required to give way to sailing vessels. So always check which XCAT model option you are currently using and who you are obligated to yield to. But forcing right of way is forbidden! Therefore, give way yourself in good time with the "Last Minute Maneuver". Commercial shipping always has the right of way! In the inland and coastal area, it is generally valid that vehicles of the professional navigation have the right of way. This includes in particular: Ferries, work vehicles, police and rescue services, fishing vessels with deployed nets. So keep your distance and avoid them!

When on the water with the XCAT, always carry an alternate emergency propulsion system, such as a paddle, oar system, or outboard motor.

1.2 Important notes on transport and storage

Secure the XCAT during transport, e.g. on the roof of the car, using suitable fastening material, e.g. the XCAT transport kit.

Check the tensioning straps regularly and retighten them if necessary.

Observe the instructions in the manuals for your vehicle and the roof rack system, particularly with regard to maximum roof loads and maximum speeds.

If you store the hulls on the car roof for a long time, loosen the tension straps to prevent the hulls from warping permanently.

Also, when storing the hulls in other rooms such as garage, basement, etc., do not fix the hulls with tension belts.

Do not use tensioning straps with ratchet, as there is a risk that the hulls will be damaged by excessive tensioning. Therefore, only use tensioning straps with a simple clamping lock.

If the hulls are colder than the center and side beams after transport, assembly may be difficult because the distances no longer match due to different expansion coefficients. In this case, store all parts at the same temperature for some time before assembly.

Clean the boat after each use. Free it from salt residues or stones to prevent possible damage.

Always rinse all parts with fresh water after use in salt water.

A plastic polishing compound can be used to polish the hulls for heavier dirt.

Always store the hulls with the keel upwards so that water does not permanently run into the flanges.

Do not store the hulls permanently in the sun on one side, otherwise they may warp.

Do not store the hulls in the sun under a cover. This can cause heat buildup and warping of the hulls.

Do not store the outboard seats permanently in the blazing sun, as they are not completely UV-resistant. Dismantle the outboard seats after sailing and store them in the shade or cover them (also recommended against dirt and especially bird droppings).

Always maintain your XCAT properly and take into account the wear and tear that occurs over time due to frequent use or improper use.

Row&Sail GmbH cannot be held responsible for changes that it has not agreed to.

1.3 Environmental protection



As water sports enthusiasts, we feel the effects of environmental pollution firsthand, so to speak. The feeling of diving into a chemically contaminated muddy broth during take-off and landing above a capsized can thoroughly spoil the fun of water sports. Just as we expect clean water and a biologically intact environment for our recreational sports, we should strive to keep the environmental impact of operating the XCAT as low as possible.

The hull skin of the XCAT is made of HD-PE. A weather-resistant, impact-resistant and dirt-repellent plastic that is easy to clean. Even attached shells are easy to remove. The hulls, filled with EPP particle foam, are extremely impact resistant, unsinkable and almost indestructible. And yet, because of the foam core, very light and stable. HD-PE and EPP are both very environmentally friendly and easy to recycle.

With the XCAT model options, you are always environmentally friendly on the road.

1.4 Instruction style guide

This manual uses different style elements to convey different types of information.

Style element	Meaning
Bold	Information that needs to stand out
1) ... 2) ...	Instructions that you need to follow step by step in the given sequence.
<u>Info:</u>	The keyword Info indicates information that requires your special attention.
<u>Note:</u>	The keyword Note indicates information on how to prevent damage to property.
 CAUTION	The keyword CAUTION indicates dangerous situations that can result in injuries.
 WARNING	The keyword WARNING indicates generally dangerous situations that could result in death or serious injury.

1.5 Further information

For more information on the XCAT model options, accessories and numerous videos on setting up, dismantling and operating the XCAT, please visit:

www.x-cat.com

2 XCAT RowVista

The RowVista forward rudder system eliminates the need to keep turning your head to keep your eyes on the direction of travel. Instead, you row in the same direction as you are facing. The innovative mechanism of the RowVista® allows the rudder blade to be turned up and down, just like traditional sculling.

- Easier to steer the boat by looking ahead → constant course correction.
- The visible blade insert is a huge advantage in stronger waves. You can see the wave troughs → perfect for "Coastal Rowing" and mastering the bow waves of larger ships.
- Thanks to the use of ball bearings, no loss of force in the deflection.

All parts of the rowing system are designed and thought out so that you do not need any tools for assembly and disassembly.

No more misses due to rotation limitation in both directions. RowVista rowing is therefore easier to learn than classic rowing.

The forward rudder sculls are made of lightweight carbon fiber with maximum strength. The sophisticated design provides the perfect basis for the flow of the rudder process with maximum energy efficiency.

2.1 RowVista components



RowVista consists of:

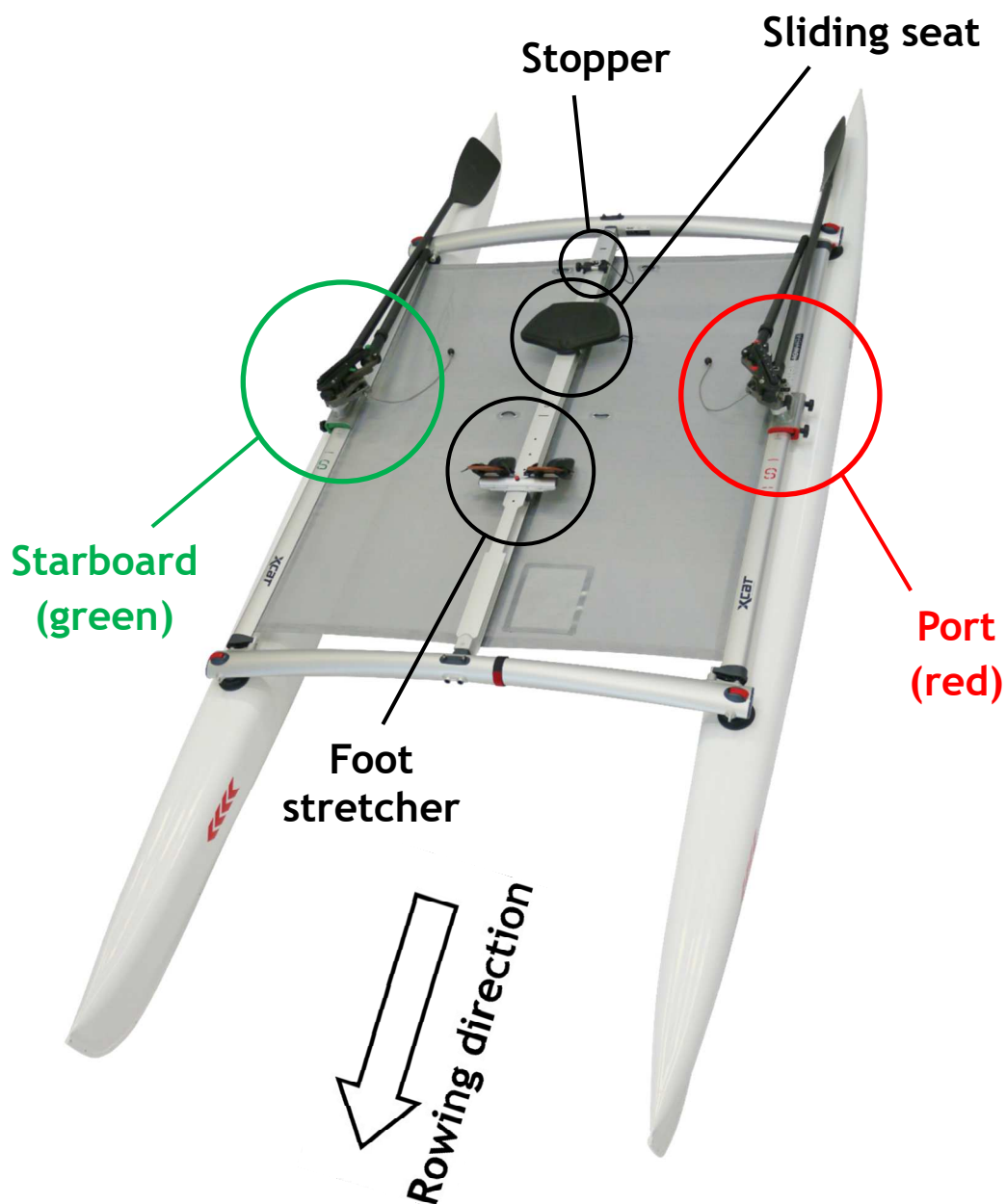
- Foot stretcher (1)
- Sliding seat (2)
- Stopper (3)
- 2x RowVista rowlocks (4)
- 2x Foldable RowVista forward rowing sculls (5)

Bags for RowVista:

- Rowing Gear Bag (6)
- 2x Bag for RowVista (7)



Built-up XCAT with RowVista



2.2 Assembly and disassembly of RowVista

Assemble clamping rowlocks, seat and footstretcher

- 1) Hang the clamping rowlocks on the inside of the side beams first ...

Clamp the clamping rowlocks onto the side beams at the numbering (red clamping rowlock onto the side beam with red marking, green clamping rowlock onto beam with green marking).



- 2) ... and fix it by tightening the turning handles.



- 3) Push the sliding seat onto the center beam.



- 4) Slide the foot stretcher onto the center beam. Pull up the red retention pin of the foot stretcher and snap it into one of the 5 holes on the center beam.



- 5) Attach stopper securing line to rear cross beam and clamp stopper to center beam.



Attaching the RowVista forward rowing sculls

- 1) Connect the rudder blade tube with the tube from the RowVista rudder scull, push in the push button and push together completely until the push button engages.

Note: Rudder blade with red dot onto RowVista with red elements, rudder blade with green dot onto RowVista with green elements.



- 2) Place the RowVista® forward rowing scull onto the rowlock pin.

Note: The scull with the red elements must be on port side and the scull with the green elements must be on starboard side.

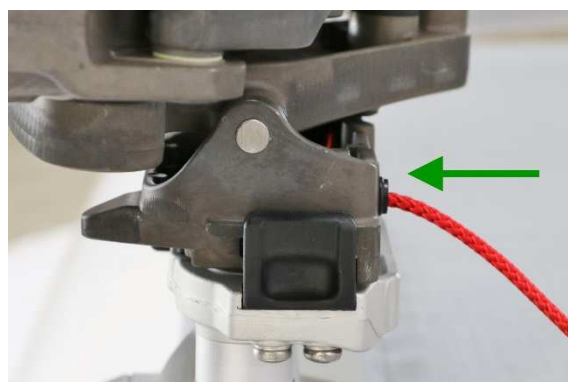


Note: when placing the oar unit onto the pin, the oar must be pivoted so far inwards that the edge of the retention device is exposed.

- 3) Swing the scull outward, ...



- 4) ... until the latch engages.



- 5) To unlock the folded scull, pull the lock button ...



- 6) ... and swing the handle tube inward, ...



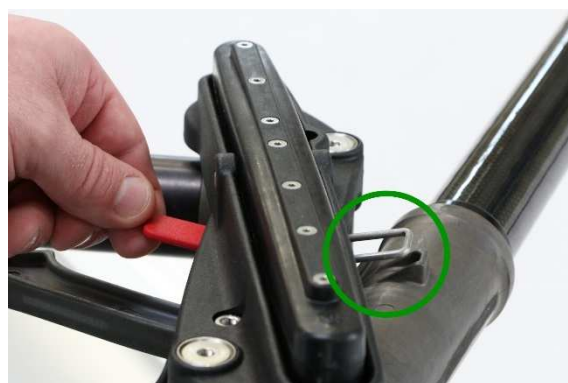
- 7) ... until the locking hook engages.



- 8) Push the blade tube locking lever upwards, ...



- 9) ... to open the blade tube lock.



Removing the RowVista forward rowing sculls

- 1) Move the handle tube to the rear limit stop (handle tube and blade tube form a 90° angle) ...



- 2) ... and push down the blade tube locking lever.



- 3) Open the locking hook of the handle tube ...



- 4) ... and rotate the handle tube until it is parallel to the blade tube.



- 5) Push in the locking knob on the handle tube.



- 6) Pull the release line, stay on the pull ...



- 7) ... and then swing the scull inward, ...



- 8) ... until the pull-off protection is free.

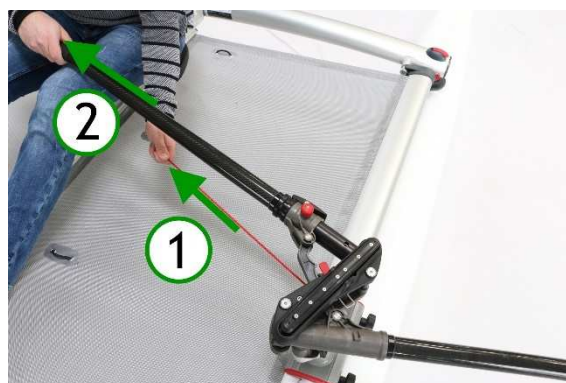


- 9) The rudder scull can now be removed by pulling it off the pin of the rowlock.



Swinging in the RowVista forward rowing sculls on the water

- 1) Pull the release line, stay on the pull ...
- 2) ... and then additionally pull the handle tube, ...



- 3) ... until the sculls can be swung in.



- 4) Continue to pull on the handle tube until the rudder blade can be placed on the rear crossbeam.



- 5) Push down the blade tube locking lever and repeat the steps with the rudder scull on the other side.



When both rudder blades rest on the rear crossbar, narrow places on the water can be passed more easily.

Catch and end-pull position with the RowVista® forward rowing system

When correctly adjusted, a 30° angle between the scull and the boat should be achieved in the catch position. A stop prevents from further forward swiveling. In this position, the upper body is tilted slightly forward with a straight back, but not resting on the thighs. The view is horizontal and the lower legs are perpendicular to the boat.



In the end pull position, the legs are fully stretched and the view is horizontal. When set correctly, the rowing handles just do not touch the ribs when the upper body is vertical. The back must be kept as straight as possible.



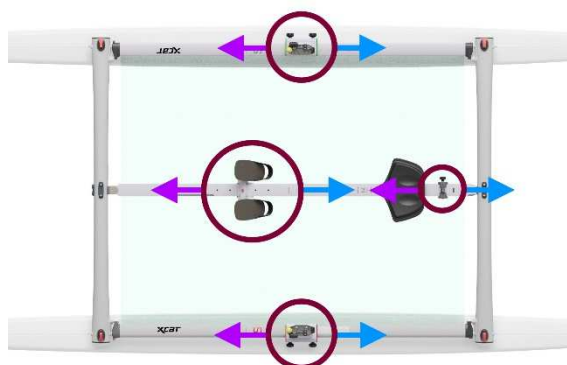
Info: There is also a limit stop for the end pull position. When the stop is reached during rowing and the blade is still in the water, the rudder blade acts like a rudder and you feel a slight jerk. So, it is recommended not to pull all the way to the stop and immediately turn up the rudder blade when it comes out of the water. Then the blade will move out of the water almost by itself due to the water pressure. However, the handles must not be held too tightly.

Adjust seat position

- 1) Position the stopper so that the sliding seat hits the stopper when your legs are completely extended.



- 2) Weight trim:
 If the center of gravity is too far forward or backward during rowing, the foot stretcher can be moved. Pull up the red retention pin of the footstretcher, move the footstretcher and engage the locking bolt in one of the 5 holes on the center beam.
 The clamping studs and the stopper must then also be moved or readjusted by the same distance.



Dismantle RowVista

- 1) Removing the RowVista forward rudder sculls (see instructions starting on page 17).
- 2) Dismantle the clamping rowlocks.
- 3) Pull up the red retention pin of the footstretcher and slide the footstretcher off the center beam.
- 4) Slide the sliding seat off the center beam.
- 5) Remove the stopper.

3 XCAT RowMotion

With just a few parts, you can turn your XCAT into a fully-fledged rowing boat, allowing you to pursue your pleasure on the water even when there is no wind. A catamaran has immense stability and therefore a lot of security.

The RowMotion rudder option is modular and is mounted without tools. The clamping rowlocks can be attached to the side beams as desired. The foot stretcher is slid onto the center beam, adjustable to five positions for optimal weight trim. The sliding seat runs easily on the center beam with ball bearings. Behind the sliding seat, the stopper, which is included, is attached at the appropriate position. This prevents the seat from rolling back further and thus the foot straps do not necessarily have to be used. Thus, barefoot use is also possible without annoying foot straps.

The lightweight partable RowMotion® sculls made of carbon allow space-saving transport. (Length 1.75 m when split). The sculls are connected by a stable push-button fixation.

You will achieve the best rowing performance when rowing alone. However, you can also take a passenger with you when rowing. If you are rowing with two people, pay attention to the weight trim: if you row with too much inclination, you may not be able to get the oar blades completely out of the water during the recovery phase and thus block the rowing movement. For ideal weight trim when rowing with two people, we recommend an additional seat for the center beam (available as an accessory).

3.1 RowMotion components



RowMotion consists of:

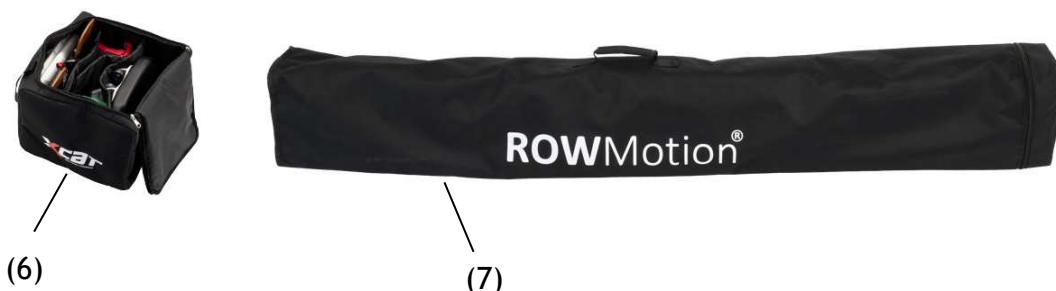
- Foot stretcher (1)
- Sliding seat (2)
- Stopper (3)
- 2x RowMotion rowlocks (4)

additionally sculls are needed:

- 2x Partable RowMotion sculls (5)

Bags for RowMotion:

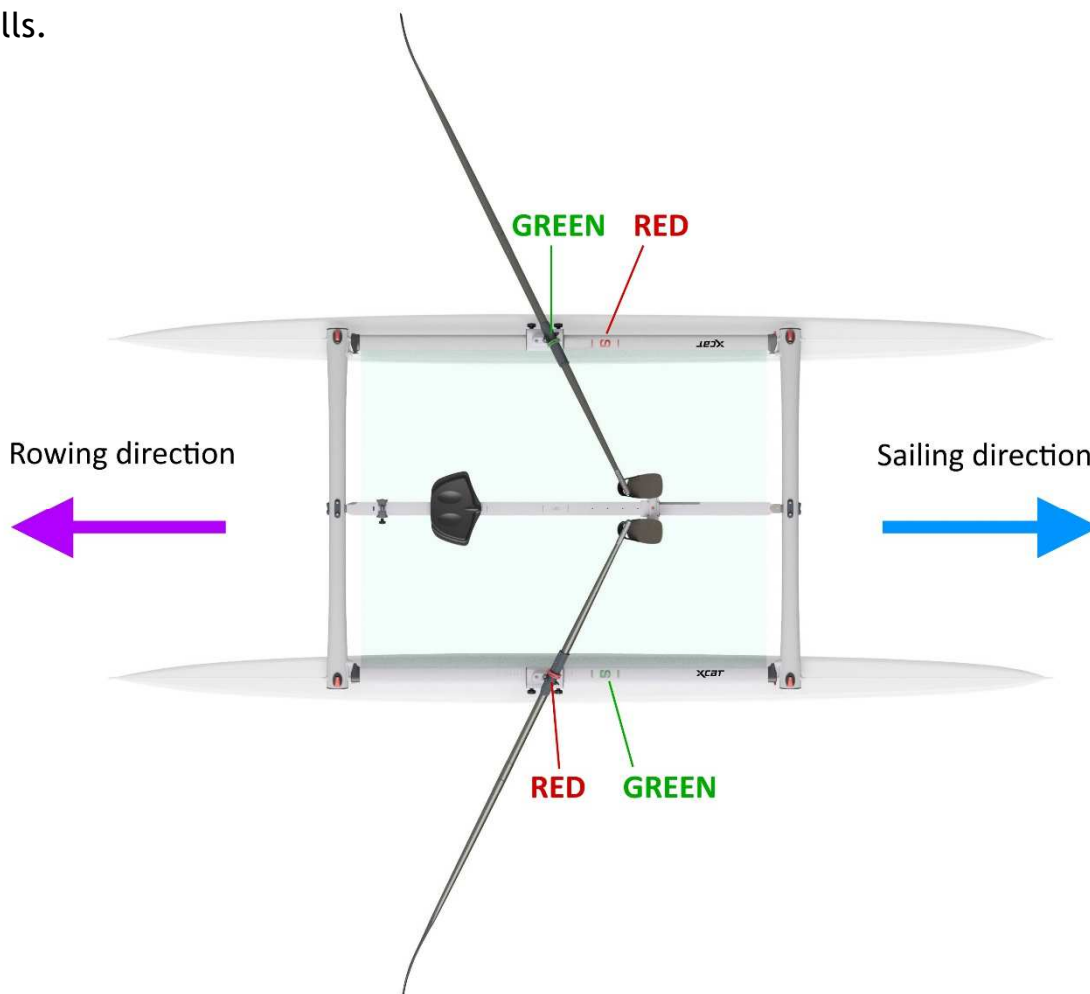
- Rowing Gear Bag (6)
- RowMotion Bag (7)



3.2 Assembly and disassembly RowMotion

Direction of travel when rowing / sailing

Note that when rowing with RowMotion in combination with the sail option, you will be rowing backwards with the XCAT (see also the following picture). If you are only using the XCAT as a rowboat, you can also mount the center beam the other way around and thus row in the direction of travel of the hulls.



Set up RowMotion

- 1) Hang the clamping rowlocks on the inside of the side beams first ...

Clamp rowlocks onto the side beams at the numbering.



- 2) ... and fix it by tightening the turning handles.



- 3) Push the sliding seat onto the center beam.



- 4) Slide the foot stretcher onto the center beam. Pull up the red retention pin of the foot stretcher and snap it onto one of the 5 holes on the center beam.



- 5) Attach stopper safety line to rear cross beam and clamp stopper to center beam.



- 6) Place the sculls in the clamping rowlocks so that the clamping rings (red or green) are in contact with the inside of the dowels.

Note: Scull with the green clamping ring on the side with the red marking "S"



Note: The oarlocks should be turned outwards when inserted and the rudder blades should point in the direction of travel. In this way, the forces generated during rowing can be absorbed by the bolt of the rowlock.



Catch and end-pull position with the RowMotion® rowing system

When correctly adjusted, an angle of approx. 30° should be achieved between the sculls and the boat in the catch position. In this position, the upper body is slightly tilted forward with a straight back, but not resting on the thighs. The view is horizontal and the lower legs are perpendicular to the boat.



In the end-pull position, the legs are fully stretched and the view is horizontal. When set correctly, the rowing handles just do not touch the ribs when the upper body is vertical. The back must be kept as straight as possible.

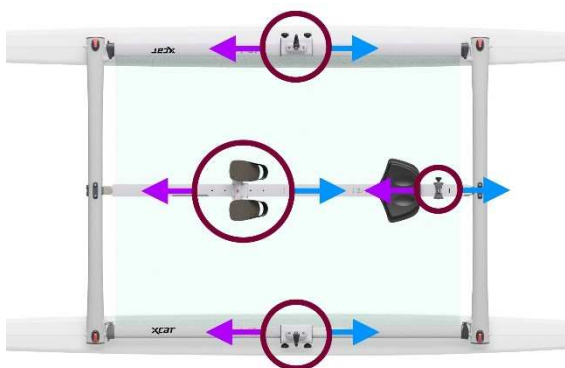


Adjust seat position

- 1) Position the stopper so that the sliding seat hits the stopper when your legs are extended.



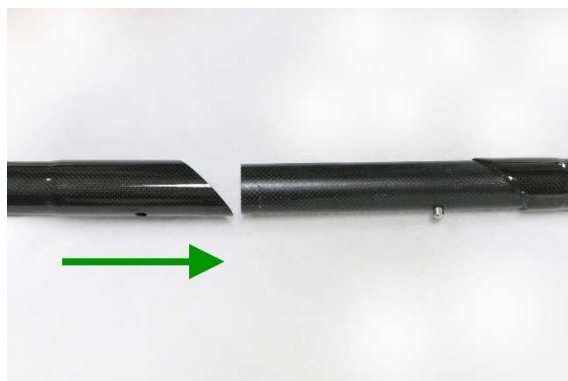
- 2) Weight trim:
 If the center of gravity is too far forward or backward during rowing, the foot stretcher can be moved. Pull up the red retention pin of the foot stretcher, move the foot stretcher and engage the locking bolt in one of the 5 holes on the center beam.
 The clamping rowlocks and the stopper must then also be moved or readjusted by the same distance.



Assembly of the partable RowMotion sculls

- 1) Push the two parts of the sculls together, ...

Note: Blade tube with red dot and handle tube with red clamping ring together
Blade tube with green dot and handle tube with green clamping ring together



- 2) ... push in the push button and slide the tube over it.



- 3) Push the tubes into each other so that the pushbutton can fully engage.



Disassemble RowMotion

- 1) Remove the sculls from the rowlocks.
- 2) Dismantle the clamping rowlocks.
- 3) Pull up the red retention pin of the foot stretcher and slide the foot stretcher off the center beam.
- 4) Slide the sliding seat off the center beam.
- 5) Remove the stopper.

4 Maintenance

4.1 Blade angle (pitch) of the RowVista® forward rowing sculls

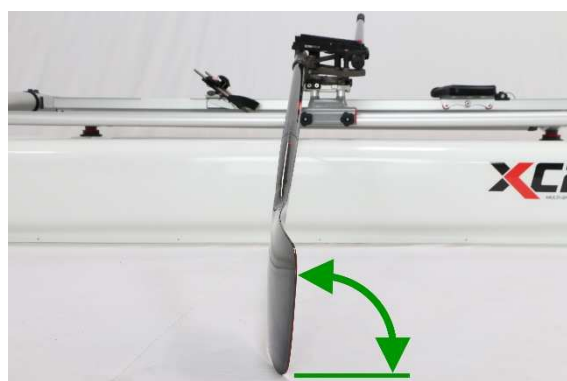
The sculls are correctly adjusted ex works. If, however, the sculls start to oscillate up and down during the stroke, they must be readjusted.

Definition of the correct blade angle

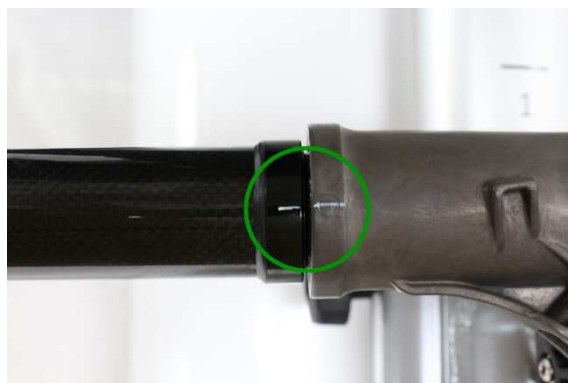
- 1) Swing the scull to the center of the boat (handle tube and blade tube are parallel) and carefully place the blade on the bottom.



- 2) Turn the rudder blade as far as it will go. The angle between the bottom and the rudder blade must never exceed 90° . A slight inclination of the blade as shown in the picture is optimal.



Note: Be sure to mark the position of the stop for reference before adjusting the blade tube.



Adjusting the blade angle

- 1) Turn the fixing screw of the blade tube counterclockwise with a 5 mm Allen key. After approx. 3½ turns, you will feel a slight resistance. Then continue turning until the coupling loosens and the tube can be turned.
- 2) Move the blade to the desired position and retighten the screw. Check the blade angle again after tightening.



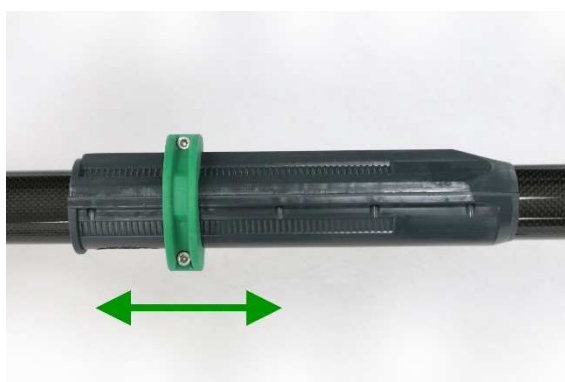
Info: This procedure can also be used to replace the handle or blade tube. Simply turn the screw until the tube can be pulled out.

4.2 Adjusting the clamping ring of the RowMotion® sculls

- 1) Loosen both screws with a 4 mm Allen key, ...



- 2) ... move the clamping ring to the required position and tighten the screws.



Keywords

- Classic reverse rowing system 24
- Environmental protection 8
- Foot stretcher 11, 25
- Forward rowing sculls 11
- Forward rowing system 10
- Further information 9
- Important notes 4, 9
- Instruction style guide 9
- Internet 9
- Power lines 4
- Rowlocks 11, 25
- RowMotion 24
 - adjusting clamping ring 34
 - components 25
 - direction of travel 26
 - disassemble 31
 - seat position 30
 - set up 27
- RowVista 10
 - assemble 13
 - blade angle 32
 - components 11
 - dismantle 23
 - removing 17
 - seat position 22
 - swinging in 19
- Safety instructions 4
- Sculls 25
- Sliding seat 11, 25
- Stopper 11, 25
- Storage
 - important notes 6
- Transport
 - important notes 6
- Videos 9

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