

J.C.J Naval Architects

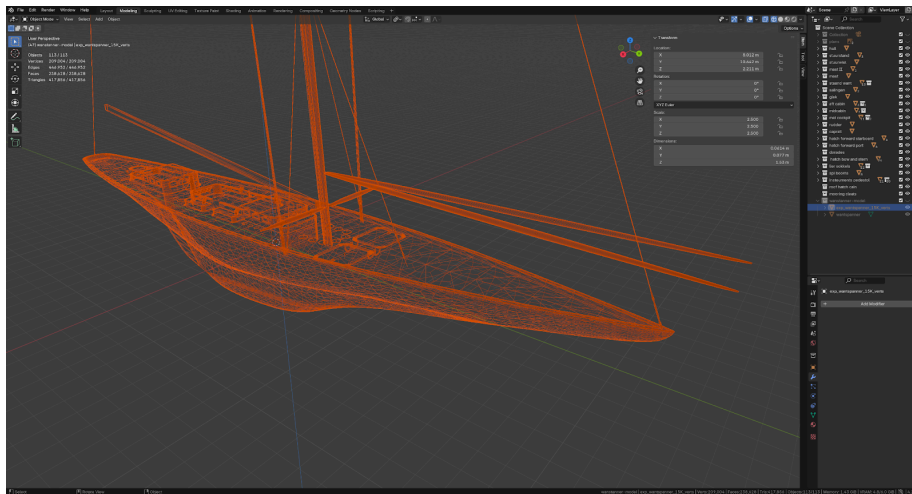
J-CLASS

J-HX

J-HXV

J-HXX

OPERATOR MANUAL



Last Edited: 2026-04-18

1. Hull

J-HX, J-HXV and J-HXX all share the exact same hull shape. They share the same sail wardrobe and the same deck layout as far as sailing hardware is concerned. At a hull length of almost 44 meters and a beam of 6 meters the hull is long and slender. The hull is designed to fit a bow wave induced at a boat speed of 14 knots. 14 knots is the theoretical hull speed. Exceeding 14 knots may be possible in big following seas in extreme winds. Otherwise pushing beyond 14 knots boat speed will only increase loads on rigging till one or another gives way. Be aware of this when wear and tear is introduced as a mechanic in Sailaway.

The empty boat weighs 182 tons and carries 111 ton ballast. Due to the slender hull shape with the extreme overhangs, she has low initial stability that increases rapidly with heel. At optimum the boat heels between 20° and 30°. Reduce sail when heel exceeds 30° the rig is designed to withstand up to 140 tons load on shrouds with a safety factor of 5. Owner operators are advised not to exceed maximum loads. These loads are far in excess of older J-Class vessels. Higher loads are made possible by longitudinal framing and directing load stresses through the structural bulwarks.



2. Rig

J-HX, J-HXV and J-HXX all share the same standing and running rigging and the exact same sail wardrobe.

- Mast
- Boom
- Starboard Spinnaker Boom
- Port Spinnaker Boom
- Starboard Outrigger
- Port Outrigger
- Mainsail without reefs
- 120% Genoa
- 100 % Jib
- 60% Staysail (J4)
- Gennaker
- 1 Forward Stay
- 1 Baby Stay
- 8 Shrouds
- 1 Rear Stay
- 2 Back Stays
- Halyards for Main, Genoa, Jib, Staysail, Gennaker
- Mainsheet
- Boomvang
- Cunningham
- Outhaul
- Staysail Rail Starboard and Port
- Staysail Rail car pulleys Starboard and Port
- Jib Rail Starboard and Port
- Jib Rail car pulleys Starboard and Port
- Genoa Rail Starboard and Port
- Genoa Rail car pulleys Starboard and Port
- Genoa Sheet Starboard and Port
- Jib Sheet Starboard and Port
- Staysail Sheet Starboard and Port
- Gennaker Windward sheets Port and Starboard
- Gennaker Leeward sheets Port and Starboard

3. Jib, Genoa, Staysail (J4)

The Jib and the Genoa share the same pad eyes at the bow of the boat and are hanked / guided on the forward stay / profile . They can be set or peeled inside or outside of each other.

Setting both should have no other effect than induced windage from the Jib, and as the Jib is entirely covered by the Genoa skin to skin wear and tear. Sailaway mechanics for now acts as if the other sail does not exist so you get 100 power from every sail set.

The Staysail(J4) can be set inside the Jib or Genoa to stabilize the gennaker especially on tight reaching courses. The staysail is set ca. 4 m aft of the forward stay.

For classic looks the Jibs and Genoa are sheeted through blocks on Jib / Genoa rails. The rail cars should be pulled backwards by the tension on the sheets.. There are separate pulleys to pull the rail cars forward and change the sheeting angle.

As per Sailaway mechanic until further notice only the leeward sheet is available. Backing a headsail is not possible. However in tacking the new leeward sheet may have to be tightened (touched) to let the headsail come over to lee.



4. Mainsail

The (racing) mainsail has no reefs. It does have a flattening reef (Cunningham or downhaul) and the boom vang can be used to control tension on the aft leech of the mainsail.

Especially on reaching or downwind courses make sure to induce enough twist in the mainsail.

When wear and tear is introduced in Sailaway be aware that the boom absolutely can not be loaded with lateral forces, thus make sure the boom is not dragged through the water.

On close hauled courses make sure to have the mainsheet traveler on the leeward side to put tension on the aft leech of the main relaxing load on the boom vang. At 25 + m boom length excessive load on the boomvang can easily break the boom.



5. Gennaker

The Gennaker is a relatively flat Asymmetrical Spinnaker that is set from the respective windward Spinnaker Boom. The windward sheet is guided from the windward Spinnaker boom to the windward outrigger. This is vital to be able to set and control the Spinnaker boom close to forward and lead the respective windward Spinnaker sheets outside the shrouds.

Before setting the Gennaker the windward Spinnaker boom as well as the windward outrigger must be rigged. This by Sailaway mechanics is still cosmetic only. *Lines and hardware can not be attached to interactive parts like the spinnaker booms or the outriggers because in the option select to attach hardware and or lines in the "Deck Layout" menu, there is only one single Interactive part listed of many.*

Thus there are no hoists and downhauls attached to the spinnaker boom and outriggers to manipulate them (yet).



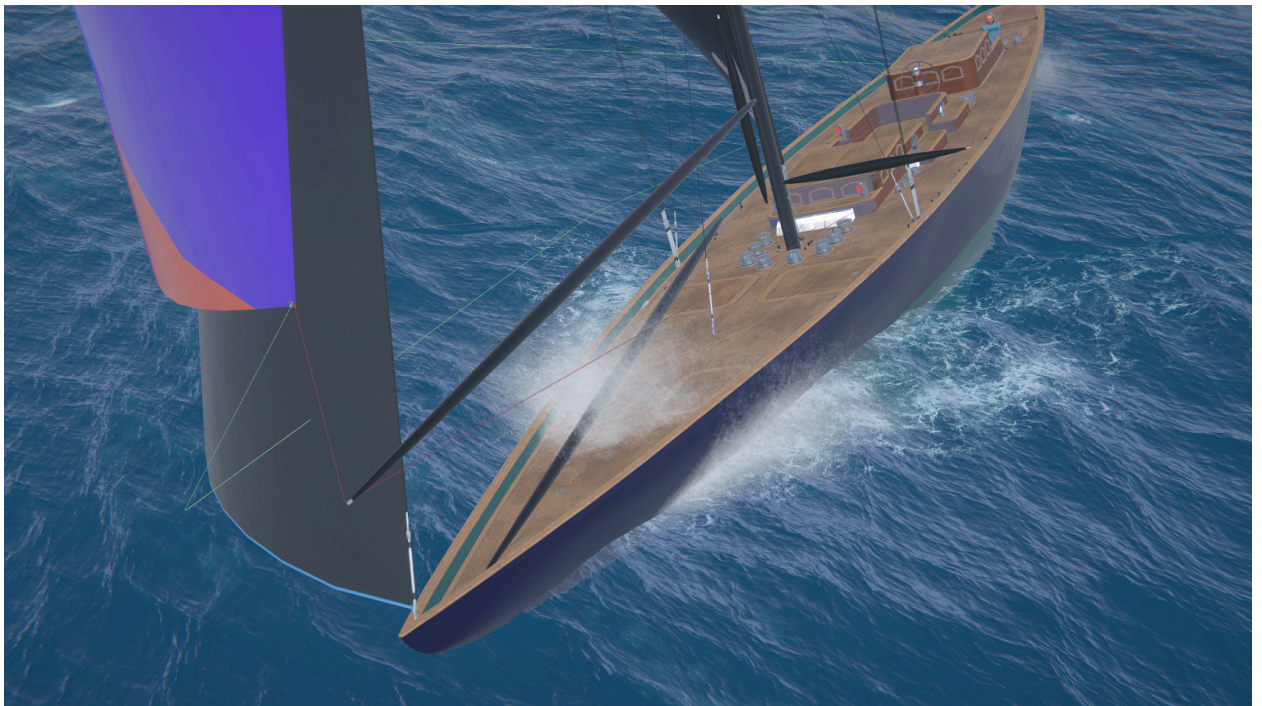
6. Gybing the Gennaker, A-Symmetrical Spinnaker

Gybing the Gennaker is a matter of getting the headsails out of the way. Rigging Spinnaker poles and Outriggers. Big boats require well coordinated crew work. Sailaway III mechanics (for now) over simplifies maneuvers. For this purpose is proposed to penalise “shortcuts” in sail handling by awarding penalties to boats that skip some steps.

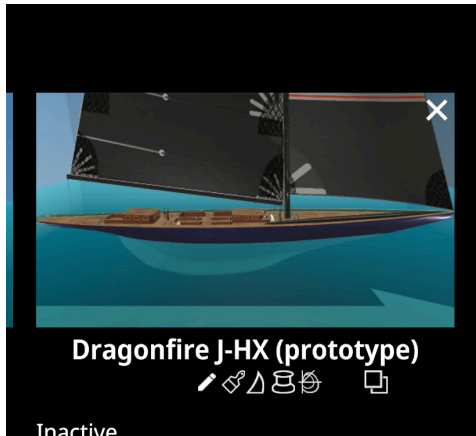
Penalties are voluntary or can be protested when regulations governing races have adopted this recommendation.

Future releases of Sailaway may introduce proper handling of sail setting and trimming for Spinnakers.

1. Dowse Genao, Jib and or Staysail.
2. Then rig the leeward *to become the windward* Spinnaker boom and outrigger.
3. Gybe the Gennaker and trim it.
4. Then take down the now leeward Spinnaker boom and the leeward outrigger.
5. Now you can set Genoa, Jib and or Staysail again.



7. Sailmaker



The boats in your dock “My Boats” all give access to the “Sailmaker” tool. The little sail icon under the image of your boat. It is of vital importance to go to the sailmaker before your first sail. Here you can give the Sail shape. By default the maximum depth of the sail is configured to be at the bottom. For Jibs and Mainsail The J’s like to have the depth way higher, especially the gennaker. You can set the depth at 200% and the depth height at 100%. Sailing down wind, the boat will be stuck at maximum hull speed near 14 kts, so you want to be sailing a course as deep as possible still doing 14 kts A “balloon” form in your gennaker will help achieve that.

The Mainsail has the sail depth by default very low. J-class likes to have depth a lot higher. Try 80% on the vertical position. The depth itself can be considerable also. You have a flattening reef (Cunnigham, downhaul) and the outhaul to trim the sail flat as it can be.. Ease those and the sail will be as deep as it can go never deeper. A deeper sail is not slower BUT allows you to let the sail be as deep as you need it while sailing. You will need to trim to make it flatter and trimmed enough it will still be as flat as a plate with no profile whatsoever.



Proceed similarly with all the other sails you intend to use in weaker wind conditions.

When you come to the storm jib realize that you would only ever need that on a cruise. If you want to take this particular J-Class on a cruise.. Get the boat with a cruising sail wardrobe.

A J-Class with the race sails is not meant to sail in winds stronger than 6 Bft. See the JCJ Naval Architects' buy one get 2 policy. Every J-Class in racing trim comes with a complementary same model J with dacron working sails. That policy will be dropped when boats can have several mainsails and a host more headsails of various types and cuts available.

Once underway in a challenge or a race you should not be able to visit the sailmaker to have the shape of the sail changed mid race or even while already hoisted and far away from land. You could have brought a sewing machine, yarn, sail panels and even glue.. so the mechanics that govern this behaviour may still change.

ATTENTION:

As sails do not interfere with airflow yet, sails that are covered by other sails are not affected at all by those sails. In Sailway III mechanics each sails' forces are calculated disregarding all other sails. Hence sail wardrobe is for authenticity reasons limited. Only 2 stay sails (Jibs, or J's) should be set at one time. During maneuvers there may be overlaps but only when it is clear that the overlap stems from performing the maneuvers that cause the overlap of sails.

In races Gennaker or Asymmetrical Spinnaker may only be sailed together with the J4 Staysail. Overlap with Jib, Genoa, J1, J2, J3 , Storm jib may only occur when it is clear that the overlap stems from performing the maneuvers that cause the overlap of sails.

Please take following table as guide

Mainsail	J1 (Genoa)	J4 (Staysail)
Mainsail	J3 (Jib)	J4 (Staysail)
Mainsail	Gennaker	J4 (Staysail)

Any 4th Sail is either in the process of being hoisted or dowsed.

Until the issue is resolved by physic mechanics in Sailway III this regulation will be part of the J-Class class regulations. While cruising any use of any sail is allowed but it is expected that the image and reputation of the J-Class is respected by all owners.

8. Deck Layout

Custom deck layout, hardware and lines will not be available to owners. However you are welcome to suggest improvements and additions that if feasible and agreed upon may be added by the designers at the designers discretion.

9. Livery

Designers cannot prevent owners to go bananas with textures and colors of the boat.

As a class organization owners may come to a gentleman and -lady agreement to use only colors and textures. Please accept the agreement to not use or show any product or company or mark logos or any other advertisement displayed on hull, rig, sails, superstructure other than the mark and logos of the prospective make of the parts of rig, hull or superstructure as is conventional.

It is expected that the image and reputation of the J-Class is respected by all owners.

If you get permission from Lewmar, Harken to place a Lewmar, Harken logo and or trade mark on your boat's winches and winch handles feel free to do so. You should not write Akzo Nobel in big purple letters on the boom.

Feel free to add any logo to a flag hoisted in the shrouds. 1 Flag is attached to the starboard shrouds under the bottom spreader already. In the future expect 3-4 pennants added for Club, Owners and other associations on the port and starboard shrouds.

J1 / J2 / J3 in the future may be "used" for banners to be hoisted when anchored or moored in port. This could be Banners to designate championship winners. Appropriate textures would be provided by race organizers and or class organization.

Since Sailaway v 1.17 or such parts are named

Hull.

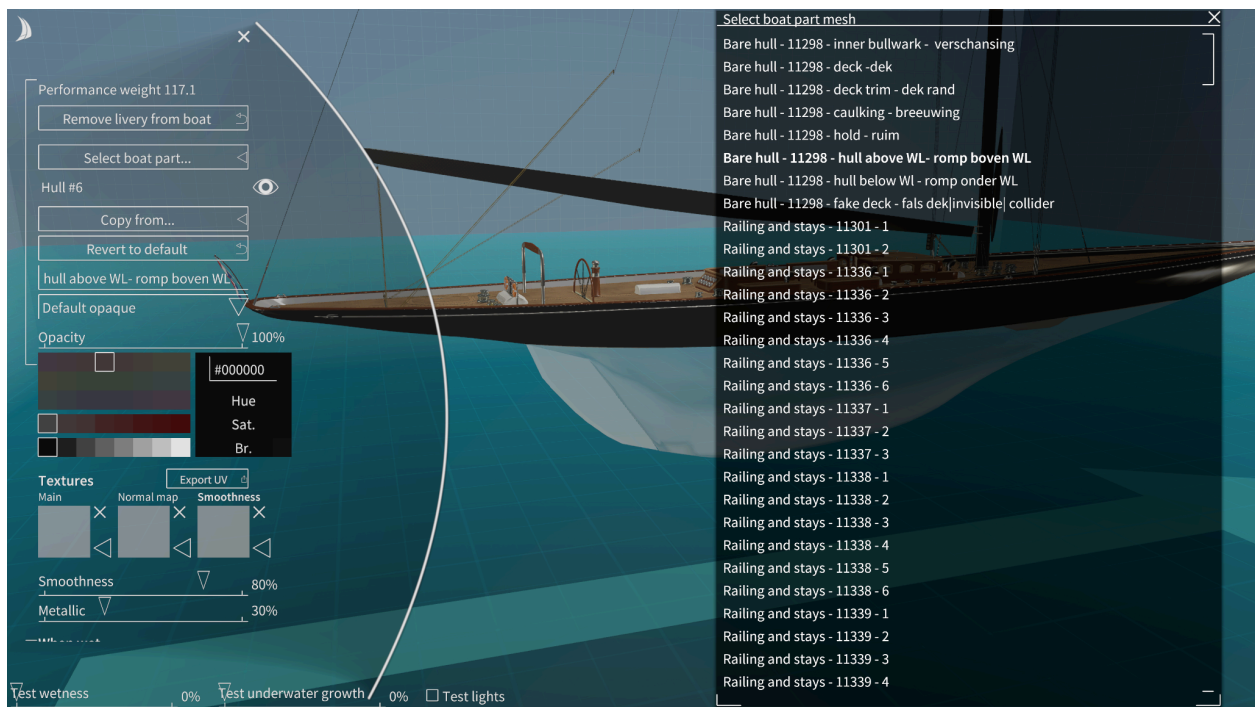
Hull #.1

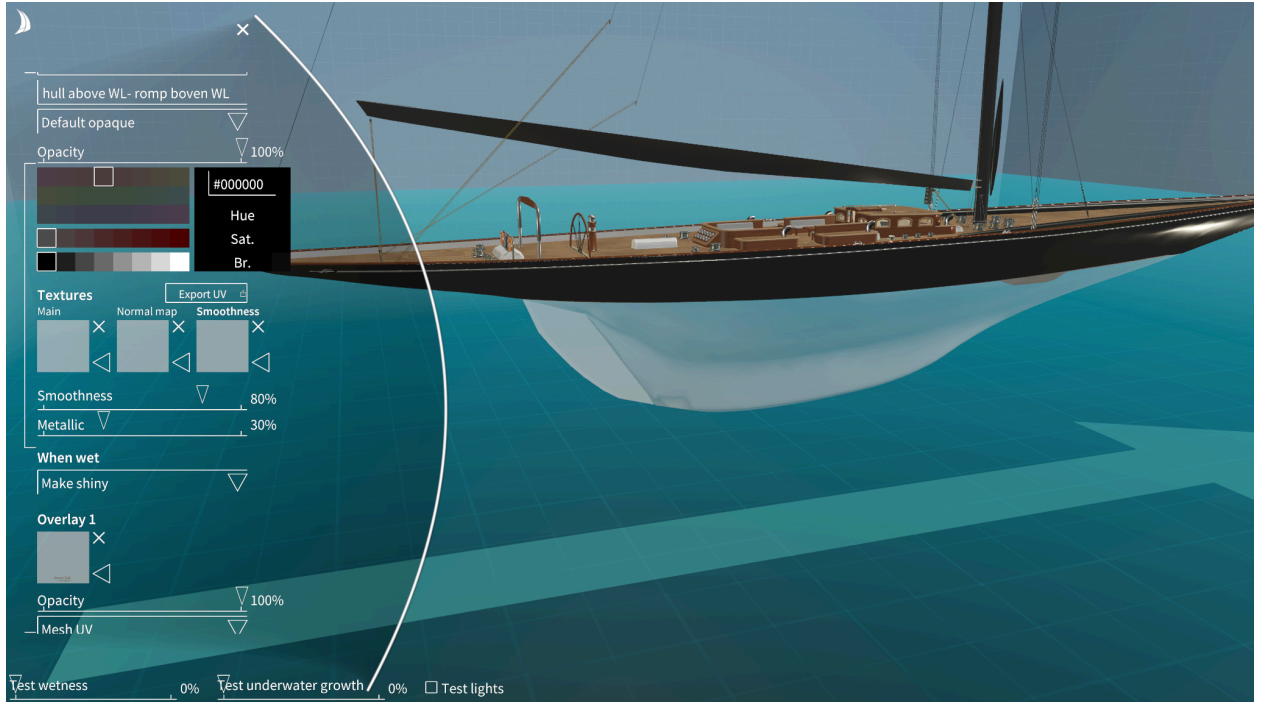
Hull #2619.1 is the inner bulwark usually assigned the same color as the hull above the water line

Hull #.6

Hull #2619.6 is the hull above the waterline ; in an overlay you can add the name , homeport of the boat on the stern.

The Photoshop or Gimp template file @ 4096 x 4096 px is available through the OEYC Discord server. NB downloading the UV image texture from sailaway is a shrunk version at only 1024 x 1024 px. In upload to Sailaway the 4096 x 4096 px image made from the template is scaled down to 2048 x 2048 px.





Tutorial

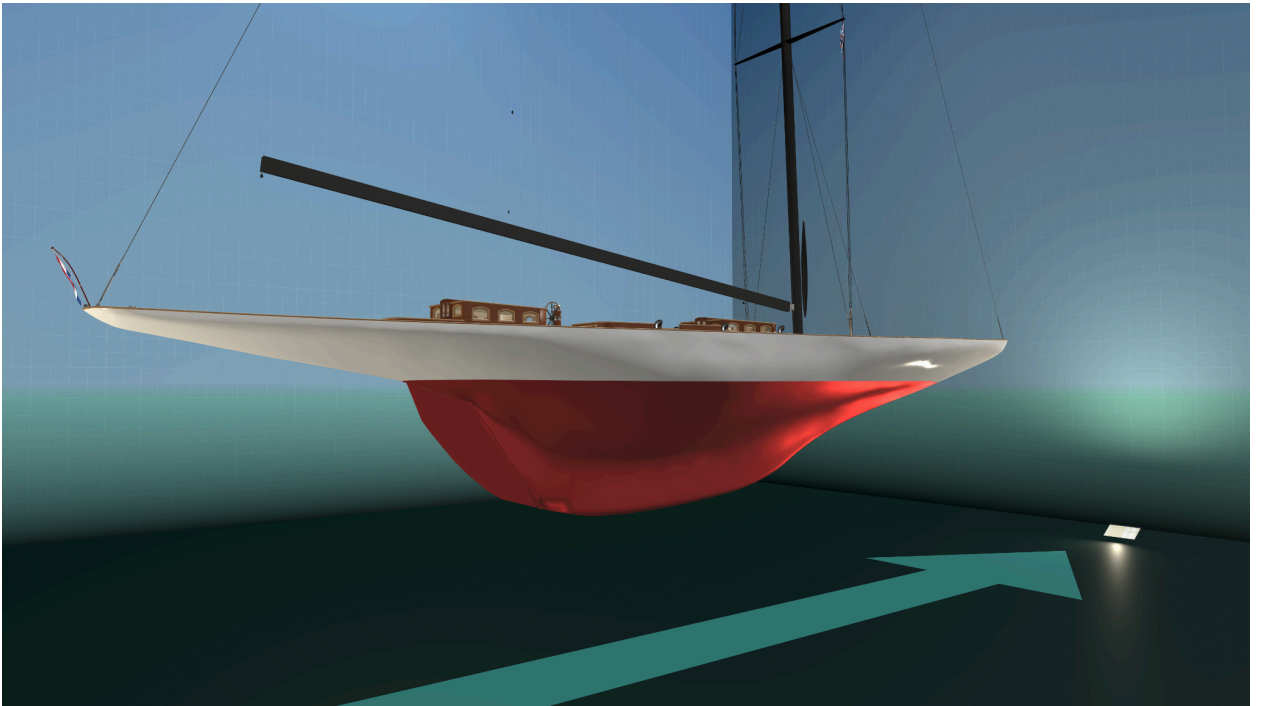
https://youtu.be/OliWMwDT-Y8?si=tRmHTsq8Cyr9tN_c

Hull #2619.7

Hull #2619.7 is the hull below the waterline

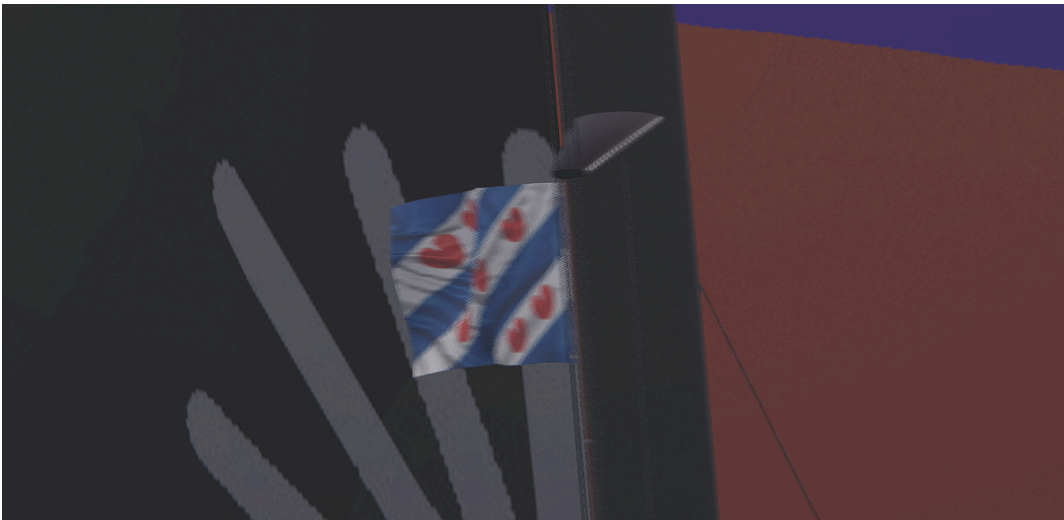
Other Hull submeshes

If you want to change wood textures please contact the **J.C.J. Naval Architects** team / yacht club or one of its members.



Interactive Part #10118 Boom rest / Boom support

The boom rest Interactive Part nr submesh is the wooden plank between the support columns. Here too the name and homeport can be projected from an 4096 x 4096 px overlay. The Photoshop or Gimp template file @ 4096 x 4096 px is available through the OEYC Discord server.



10. Instruments

J-Class in racing mode should have 6 x Mast Foot instruments, with a single digital display well readable by the entire crew from any position on deck and behind the mast.

The Multi Mastfoot-Z instrument has many displays, over time more will be added to the desired display that can be selected in the UI. For this the instrument has to be visible in the UI.

For the J-Class separate single display instruments are created that only have 1 single display. These instruments are placed in the UI and then blended from the UI.

The boat can thus get the Multi Mastfoot Z installed 6 x These need to be shown on the UI then allow clicking through the dozen different displays of which you could show 6 on the 6 displays onboard.

Or you acquire 6 or the single display instruments you desire and place those onboard make them invisible on the UI

NOTE: Mast foot instruments were omitted on release. These will be added in future updates. Particularly on J-HXV and J-HXX

On the dashboard in front of the helm position are 10 dials that show an array of instruments. Each of the instruments are single display and thus only need to be installed on the boat and not be shown in the UI. You will need to acquire all 10 instruments separately. The J-Class are newly built replicas or upgrades refitted old J's that all can sail under the same class rule. GPS is available thus dials will have GPS derived data. Foremost however that's from boat sensors like wind vane, speedometer, log, echo transducers, clinometer sensor, rudder angle sensor etc. These instruments should be dials with an internal diameter of no less than (11 cm ??) and maximum outer diameter of 14 cm

Instruments in the UI placed on the left border with the instruments no higher than 960



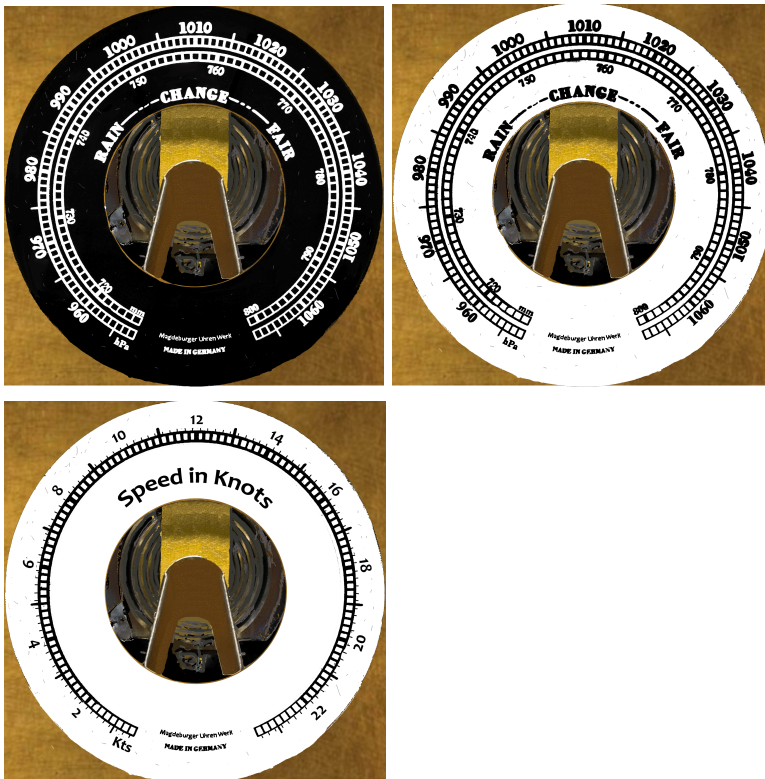
pixels from the bottom in case the screen resolution is changed from 3840 x 1920 to 1920 x 960. Presuming that position 0,0 is in the left bottom corner and is absolutely not relative.

At the helm station on the cap rail lining the cockpit as tablet displaced that can be picked up and moved to a position in view at arms length of the helm. The starboard (right) bevel of the tablet is clickable.

Some other instruments on offer can be used also that may or may not have more than 1 display. To show different displays of the same instrument on a boat however the instrument must be available in the Sailaway User Interface. Until that changes to where settings of instrument displays are saved between sessions, only instruments where you want the default display can be permanently blended out from the User Interface.

Alternatively after choosing displays of the various installed instruments they can all be blended out by pressing the [i] key.

Dedicated instruments for J-Class are under construction.



These instruments only have the dial and the (analog) needles. Eventually all analogue and digital sensors including GPS will have an analog read out. Navigators will find 2

moveable tablets in the aft cockpit when in future updates instruments can be assigned to interactive parts.

11. Placing Instruments

Order of instruments on the onboard mastfoot casing

[1]
[2]
[3]
[4]
[5]
[6]

Order of instruments on the onboard dashboard

Either use the readily available Analog Brass Instrument (4 displays) or wait for Instruments with dedicated dials. Dedicated displays do not have to be chosen every time when you load the boat.

[1][2][3][4][5]
[6][7][8][9][10]

Instruments placement in the UI is read out left to right, top to bottom

Tablets

Order of the instruments on the tablets.

[1][2]

The tablets can hold instruments like the “4 screen chart plotter 16:9” or the “Sailsteer 16:9”. In a future update possibly the Sailaway III map can optionally be projected on the tablets as well.

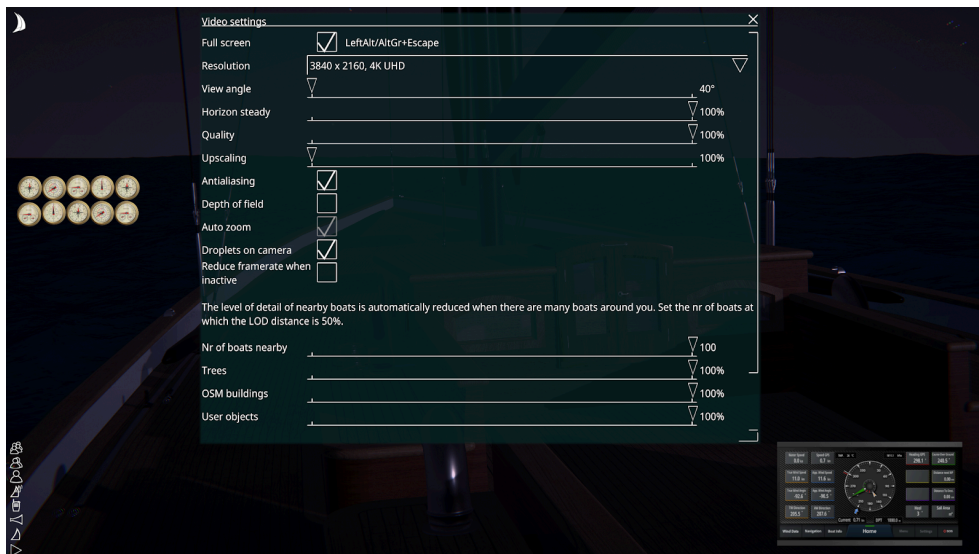
12. Cabin Doors and Cabin Hatches

Cabin doors and hatches have handles, only the handles are clickable.

In rough seas it may be difficult to hover the mouse over the handles. In that case make the avatar (camera) tilt and bob up and down with the boat instead of keeping stable and even parallel to the horizon.

In the Menus open Settings , Video Settings, and change the position of the “Horizon Steady” slider.

Be weary as this setting may cause disorientation and nausea.

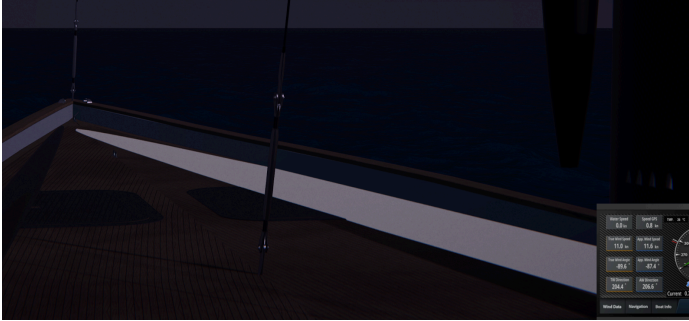


Handles on hatches and doors.

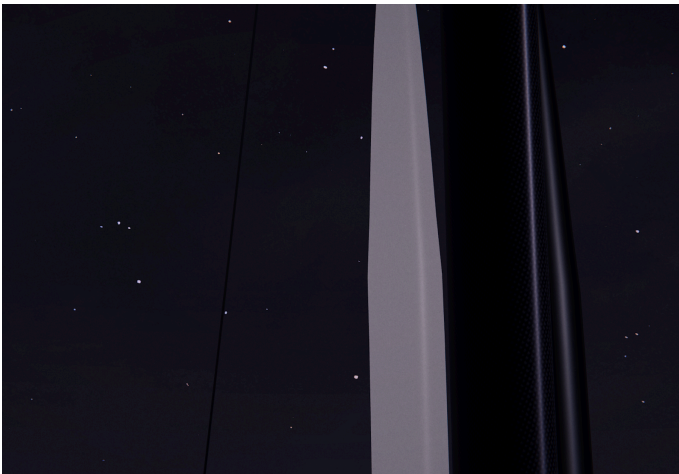


13. Spinnakerboom and Outrigger interaction

Spinnaker Boom and Outrigger have a small clickable area where the rigging of the Spinnaker Boom or Outrigger is initiated or return to its resting place is initiated. For the outrigger that is at ca 75% of its length to the outside ca at the shrouds when rigged or near the top when placed against the mast in its resting position .. For the spinnaker boom that is at 75% of its length towards the bow.



Spinnaker boom highlighted on mouse over.



Outrigger highlighted on mouse over.

14. Boom rest, Boom support

J-Class do not have a boom vang the boom is hoisted by the topping lift when the sail cover is dressed over the main and boom then the boom rests on the boom rest, support. Sailaway III mechanics does not allow this (yet.) However J-Class usual bear their name on the boom rest. Also unwearry guests find protection from boom and lines crossing over the cockpit.

15.

text

16.

17.

18.

19.

20.