

Assembly instruction

DS DJURGÅRDEN 3 (1897)



**Rex-Schiffsmodelle
Christian Rex
Sommerkamp 24
24768 Rendsburg**

**www.rex-schiffsmodelle.de
cr@rex-schiffsmodelle.de**

First of all, a few general notes:

The order of the assembly instruction is such that you can finish the model without being unable to install some parts later. Of course you can start with smaller details earlier. The text refers to the fact that parts must be glued on before e.B. the assembly of further parts.

The pictures were taken during the assembly of the prototype – some work steps / parts were changed for the kit to facilitate the completion of the model.

Notes on the colors can be found at the end of the assembly instructions. The colors of Revell cover very well, as well as the colors of Elita – with dark colors usually one application is enough. The model shown has been painted with brush in swab technique, which creates a slightly uneven surface.

The hull is already roughly trimmed and primed. The upper edge of the fuselage may still have to be adjusted in its curved course (see side view). At the bow and at the stern the fuselage is approx. 5mm higher than exactly amidships whereby the curve in the area +/- 10 cm of the middle of the ship runs very flat. The side panel with the many windows gives a good template to draw on the lower edge.

First, however, the fuselage is supplemented by the bow and stern steven (2mm polystyrene). The stevens are glued to the central axis of the fuselage – downwards they are 2mm above the molded hull! The recesses in the steven serve as a marker for the shaft system and the rudder coker. The central axis of the fuselage can be marked with pencil, as well as the recesses for stern tube and rudder. The bore for the stern tube is created with 6mm, the one for the rudder coker with 4mm. Then glue the two steven parts to the fuselage (e.B. with superglue). After curing, the parts that are now in the way for the stern tube and the rudder coker are removed.

A 2x2mm polystyrene profile is glued to the hulls bottom between the two steven parts.



The stern tube and the shafts have already been shortened to the required length. The bearings are not yet fixed firmly. Likewise, you can now also attach a possibility to lubricate the shaft (not included in the kit). To align the two stern tubes, it is helpful to place a tube with a diameter of 4mm between both stern tubes before gluing them to the fuselage. If necessary, some excess polystyrene material can be used to support the stern tubes.



Attention! The shafts can only be pulled outwards later, as the distance between the two stern tubes inside is too short. If necessary, the rudders must be dismantled – the steven has sufficient flexibility for this.

The rudder coker is made of 4mm brass tube (25mm length). The rudder axis consists of a 3mm brass tube (65mm length), which should be provided with a slot at the bottom for holding the rudder blade with a cutting disc. Seen from the propeller, 4mm of the rudder blade are in front of the rudder axis. Rudder koker and rudder axis are guided together through the borehole. The rudder blade is aligned and fixed to the stern (tesakrepp) before the rudder coker is glued to the inside of the hull. Because of the low forces acting on the rudder blade, a support of the rudder coker is not necessary.



The frame (2mm polystyrene) serves as a support for the deck. Hull and superstructure are separated from each other. In the frame there are four 6mm holes, which can also be found in the deck. For a non-slip connection, the kit comes with 6mm polystyrene tube, from which four sections with a length of 5mm are separated. These are glued flush with the top into the deck and thus protrude 4mm downwards and thus reach into the holes in the frame provided for this purpose.

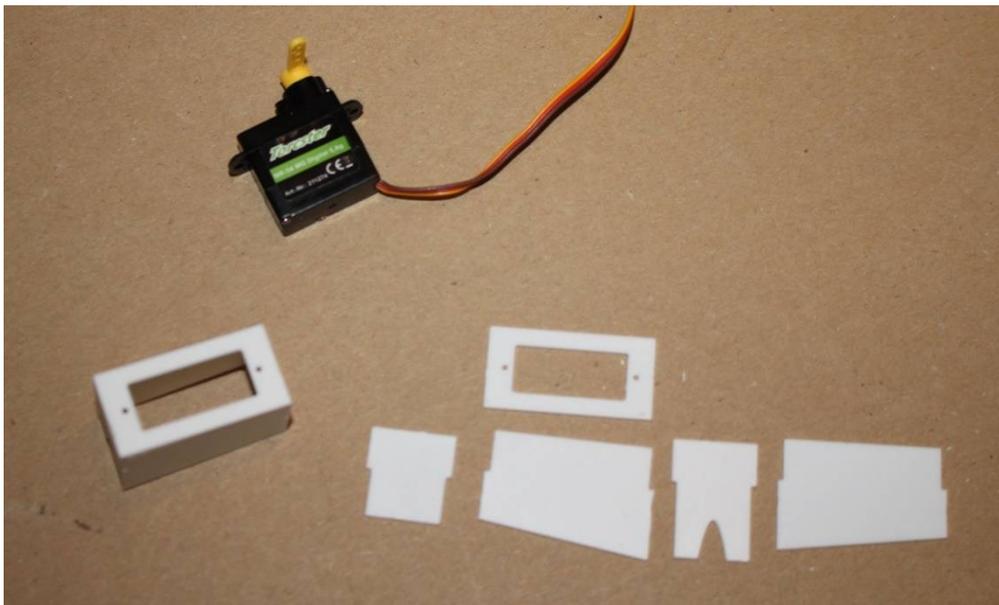


Alternatively, you can also use round neodymium magnets here or create this connection made of brass tube to use it as a plug for a possibly built-in lighting (In the frame a 6mm pipe to which the cables are soldered and in the deck a 5mm pipe (but then the diameter of the hole must be adjusted)).

In order to widen the contact surface between the GRP fuselage and the frame, 2x2mm polystyrene profile is glued into the fuselage at the upper edge.

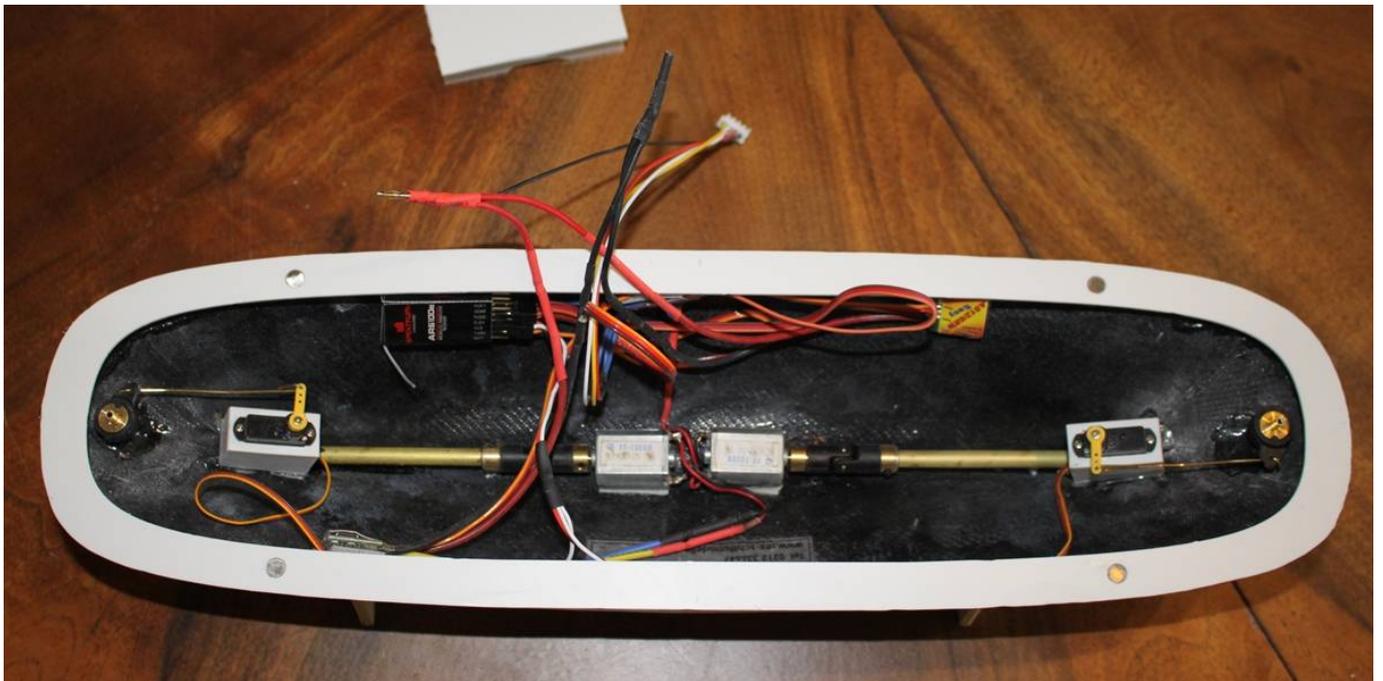
After bonding the frame, any remaining gaps between the frame and the hull must be closed so that no water penetrates here.

The Steven receive a reinforcement of brass U-profile in the upper area.



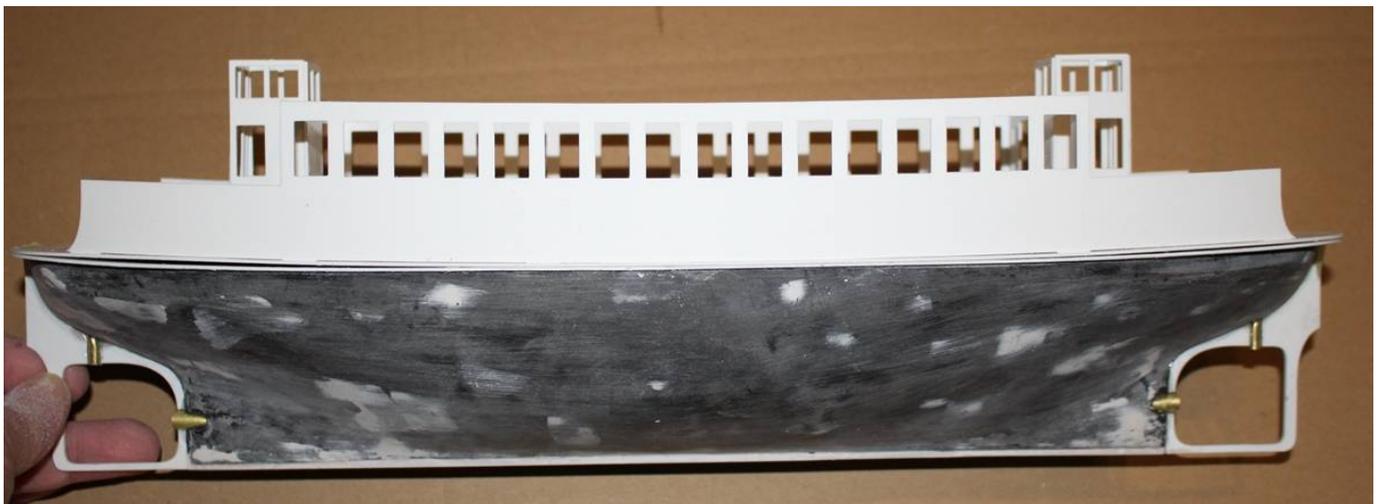
For the installation of micro servos for the rudder system, parts are included that are intended for mounting the servo above the bushing of the stern tube.

For the arrangement of the motors, rudder servos and receiver and speed controller, I attach a picture of my prototype. The battery (AA five-cell) feeds receivers, motors and lighting (motors and all RC components are not included in the kit).

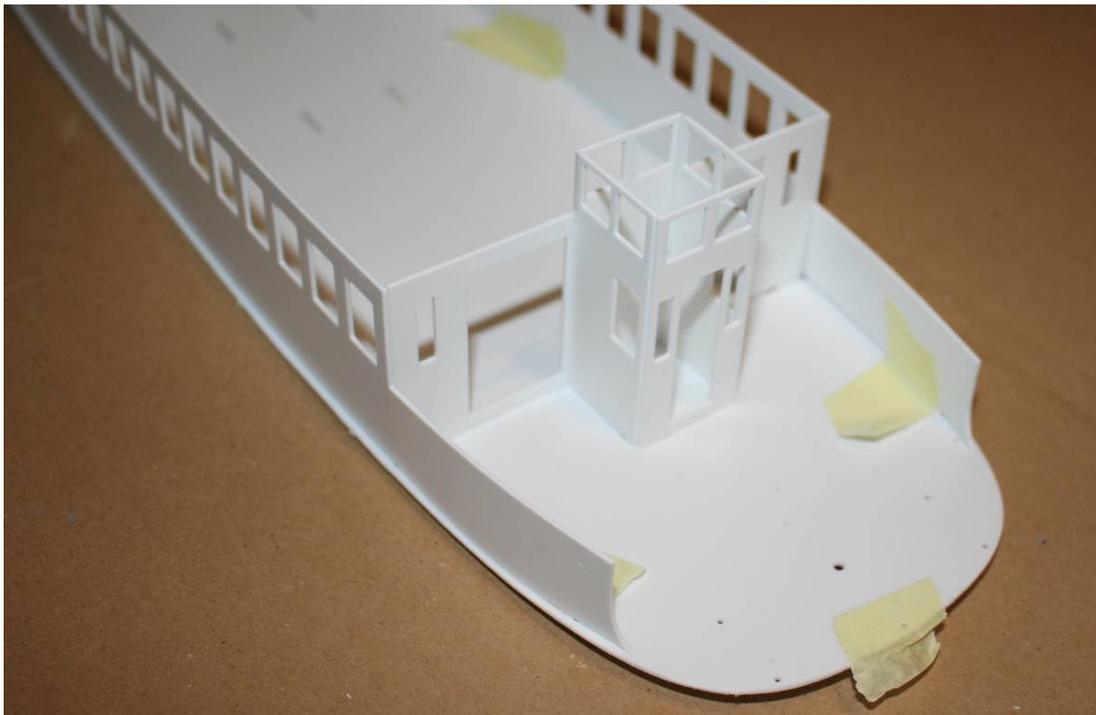
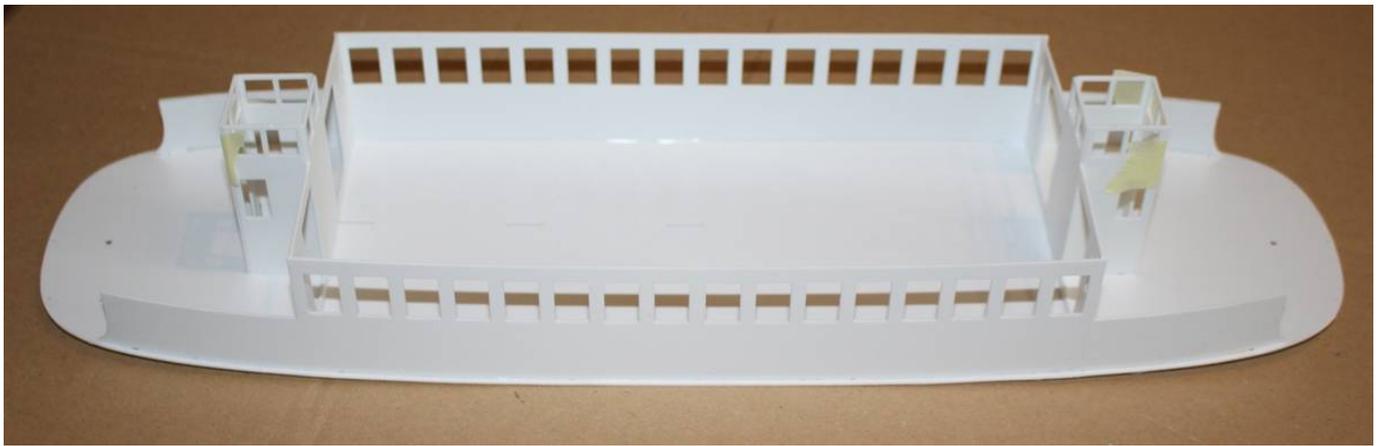


The deck (1mm polystyrene) gets a 1x3mm polystyrene profile as a frame protruding downwards. That also conceals the joint to the hull frame. Be careful when gluing so that the deck is not glued to the hull frame!

Mounting the side walls can be helpful in maintaining the curved shape of the deck. In any case, this is the next construction step.



I installed the transverse walls as well as the walls of the driving stands next during building the prototype and later the frames made of 0.5 polystyrene in the lower areas. But I would advise to first mount the thin frames and then glue the walls on the deck. To find out the positions of the thin frames you should look at the plan of the dismantled superstructure.

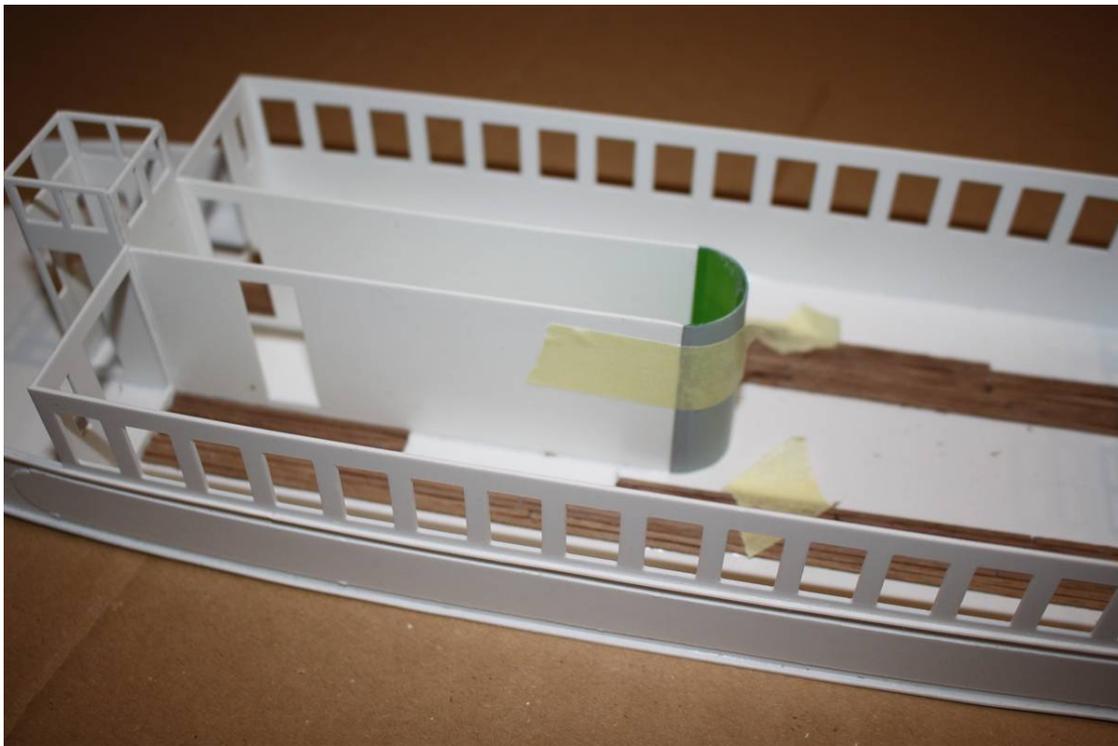


Even if the windows are not yet to be installed, here is the note that the windows are first inserted into the wooden frame (these must be painted beforehand!) and then installed together in the recesses.

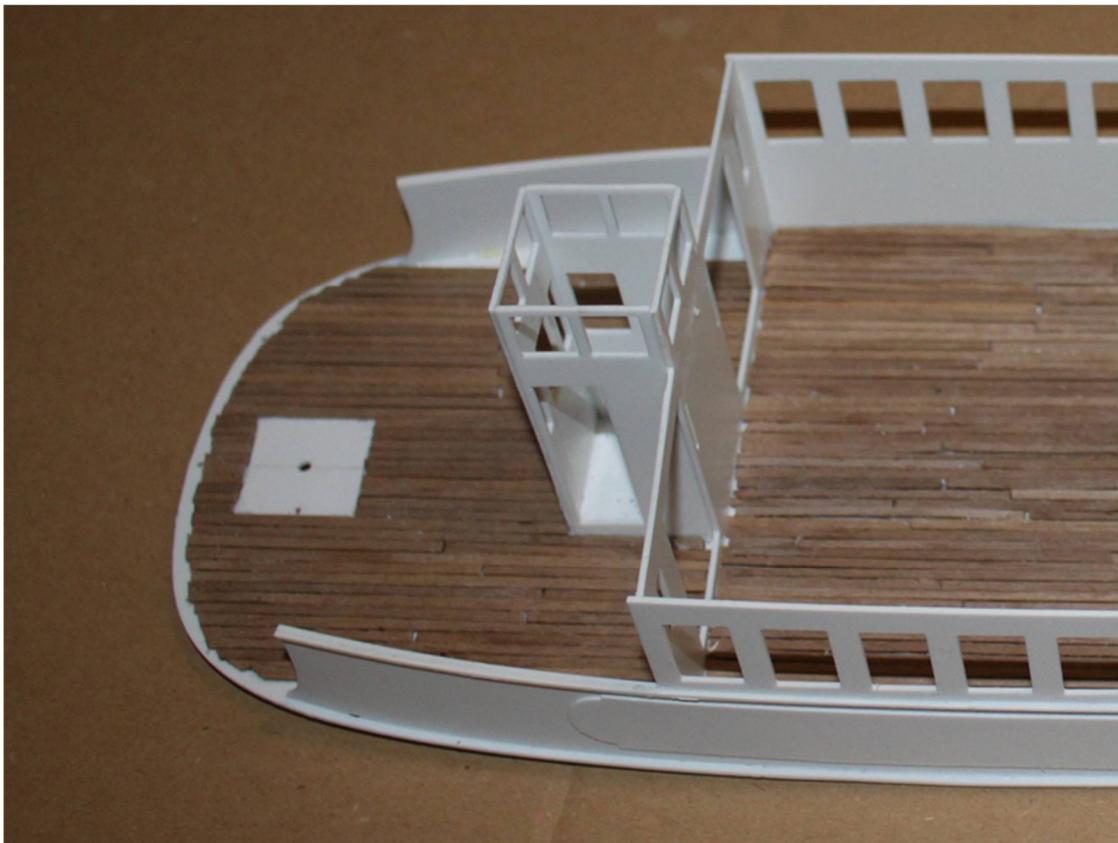
Attention: all openings (windows / doors) must be slightly sanded in the corners. In the case of inner corners, the cutter leaves a curve corresponding to half of the cutter's diameter (in this case 0.5mm).

The walls around the engine room shaft are installed (note the sides! The position of the two doors is determined by the deckplan). So that the round ending of the wall (resin part) does not have to be glued bluntly to the wall, the inside can be lined from behind with 1x3mm polystyrene profile.

Before laying the deckplanks made of walnut wood, the area is marked where later the corrugated panels (resin parts) and the boiler dummy are mounted. Then, conveniently, you start with the planks in the central axis of the deck and go outwards from there. The plank length should not exceed 8cm and should always be slightly offset. Pictures of the original suggest that today there is no longer a very strict system in the installation – but perhaps this did never exist.



(the green wall has been replaced by a resin part!)

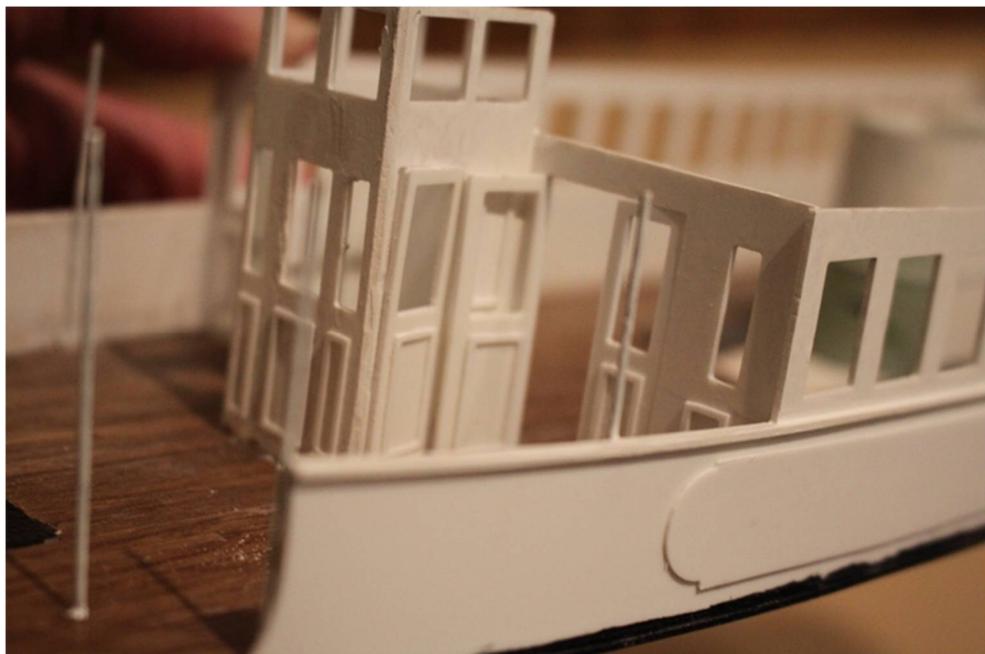
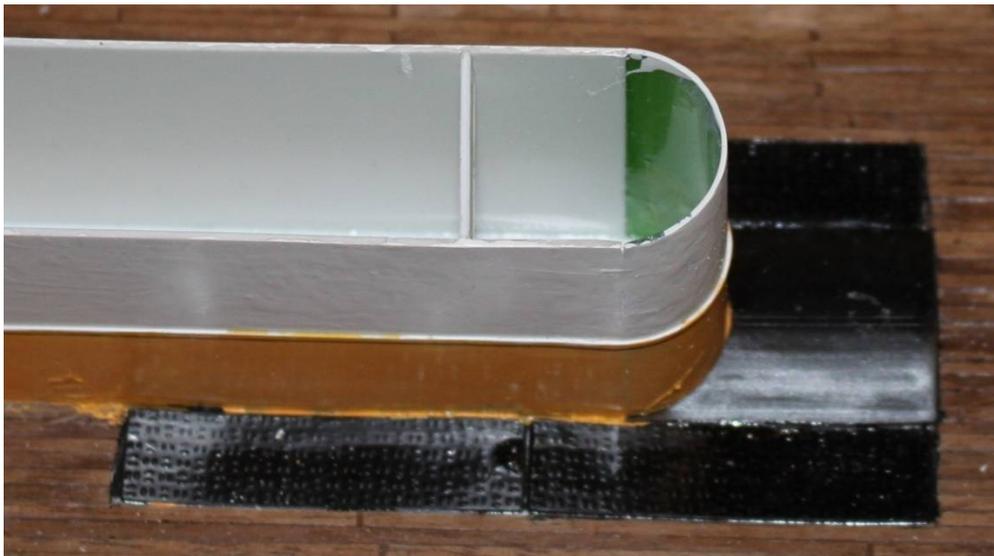
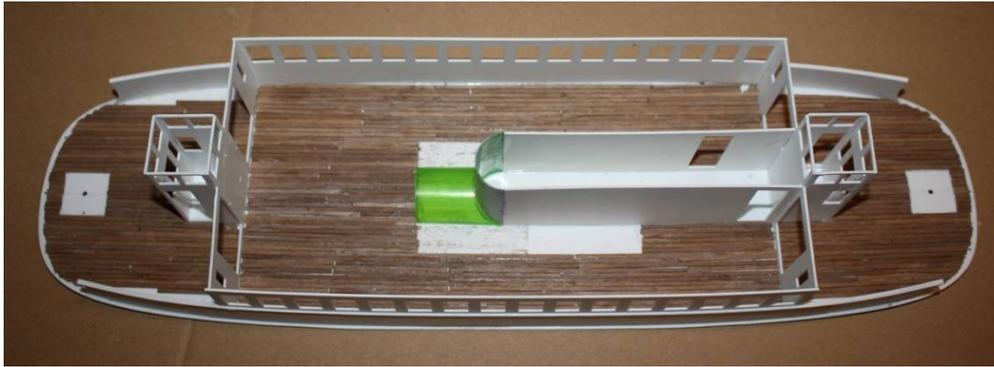


In the case of the open decks, the planks end 4mm in front of the outer edge (measured on the circumferential 1x3mm profile). The holes for the railing and the masts are first simply glued over and later drilled from below. Tip: press a small wooden block or similar on the deck so that the wood does not splinter when piercing!

Joints between the planks and gaps remaining on the outside can be filled well with dark oak wood putty. Then sand and paint with clear lacquer.

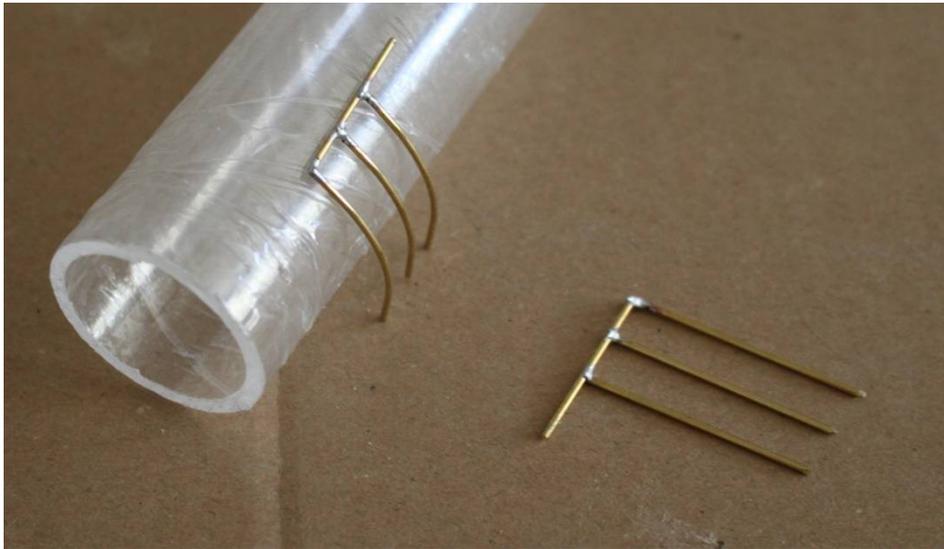
Now the corrugated plates can be mounted. With the square ones on the outer deck, the hole in the middle must be carefully extended to 2mm (when printing the parts, the 2mm hole has unfortunately become smaller). The

resin parts are quite thin and therefore a bit brittle – if there is a slight curvature, this can be smoothed out with very little heat input.



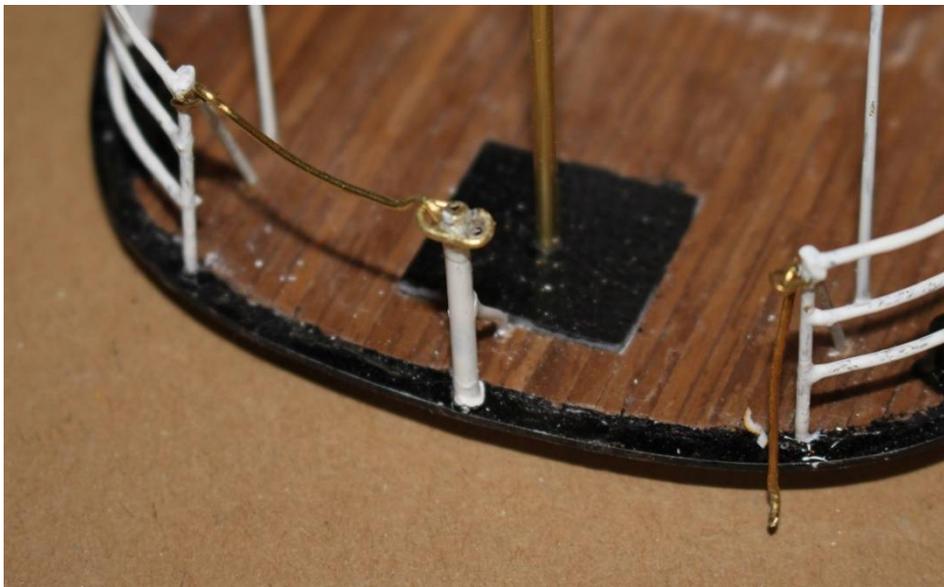
The side wall receives a 1x1mm polystyrene profile in the middle area under the windows, which continues as a 1x2mm final profile to the end of the upper edge of the open decks.

In addition, the two long side panels (0.5mm polystyrene) with the rounded ends are glued on with an even distance up and down.



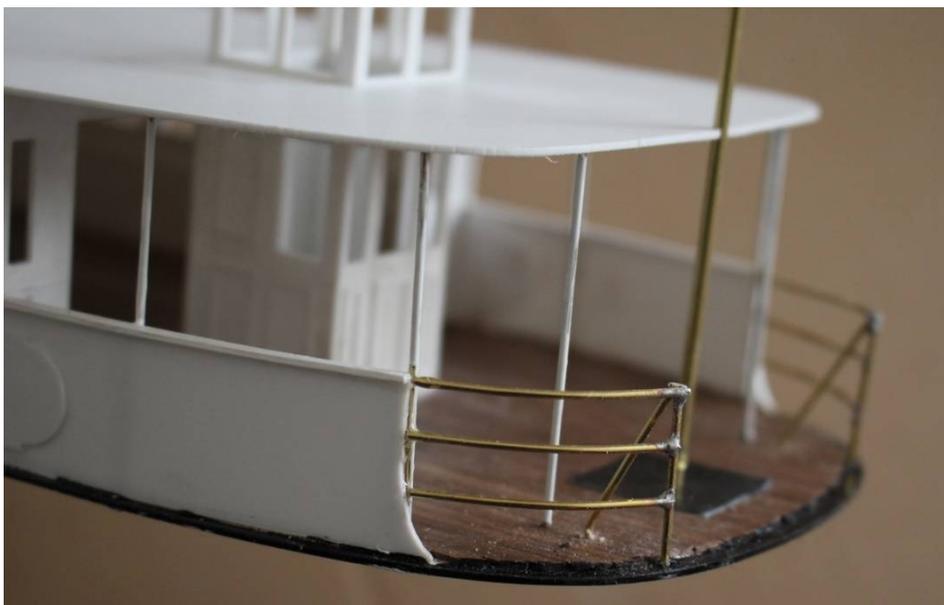
The railing supports and the handrail are made of 1mm measuring base rod. The pulls are made of 0.8mm round rod. The length of the supports is 22mm. It is convenient to work with a little extra length and fix the railing on an auxiliary board on which soldering can be done. The usable length of the handrail is 33mm also here a slight excess is recommended. The pulls are 1mm shorter and are bluntly soldered to the support. The distance between

the pulls is 6mm. After the soldered railing has cooled down, it is aligned with the course of the outer edge of the deck over a round timber. Attention! 2 pairs of mirror-image railing parts are required.



At the upper end you can also attach an eyelet from thin brass wire to accommodate the barrier.

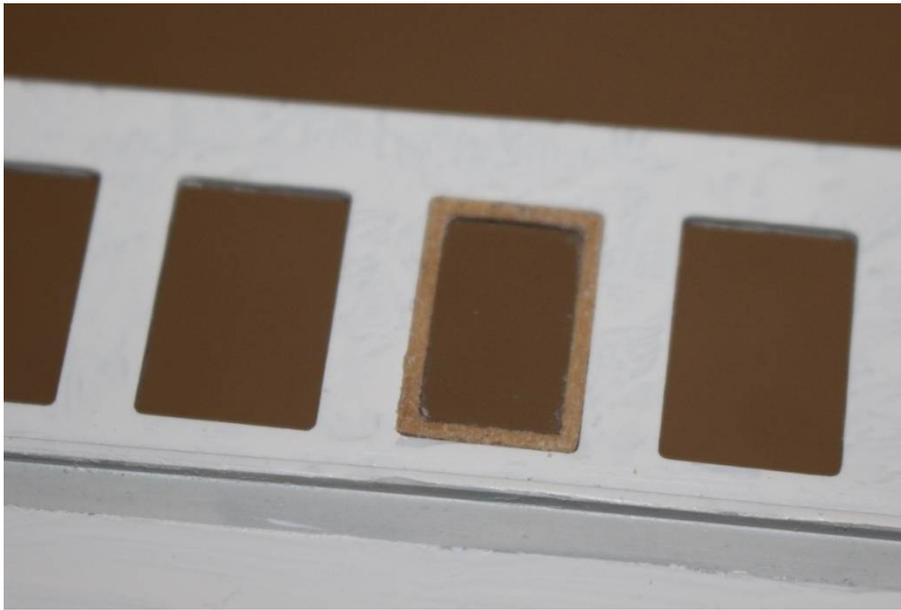
The railing parts are then adjusted in length and glued to the deck and side wall. You also get an oblique support made of 1mm measuring base rod



The middle railing support is slightly wider with 2mm. It receives an eyelet on top of both sides for holding the barriers (open end of the bracket).

According to plan, 6 roof supports made of 1mm brass round rod are to be installed on each side.

The masts are made of 2mm brass tube. The lanterns are attached to them (see side view). At the lower end, these are placed in the central bore of the square corrugated plate. In the roof there is a recess in which the masts hook.



After painting the hull and the structure, the window frames are first painted, then the windows are inserted and then both are fitted together in the openings.

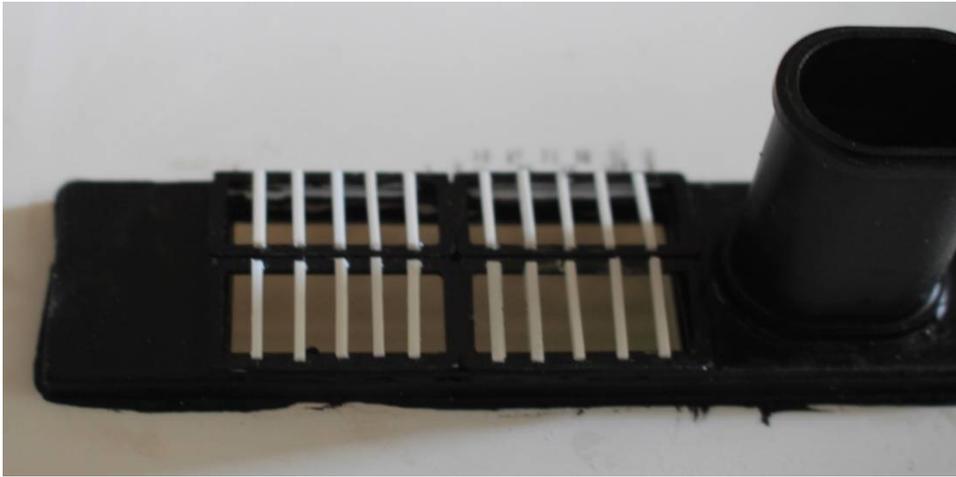
Now it is time for roof assembly, which is actually only loosely laid. The recesses for the skylights of the control stations as well as the masts actually fix it sufficiently.

In the prototype, however, a slight tension arose after the installation of the lighting, which led to the slight arching of the roof and an unsightly gap between the roof and the side wall. I later glued a 2x2mm profile from below to the roof over the entire length of the interior (about 2mm offset inwards: side wall thickness 1mm plus 1mm roof overhang) and then drilled a 1mm hole through sidewall and this profile on each side through which a short, L-shaped curved brass wire is pushed as a fixation.

A 1x2 polystyrene profile is glued to the outer edge of the roof (except on the recesses for the masts).

The base for the engine room skylight, fan and chimney is assembled from the flat polystyrene parts and filled. The flat triangles are glued to the Maschinenraumskylight opening (two directly next to each other in the middle of the opening) and then the frames are mounted. The rods on top are made of 1x1mm profile. After painting, the windows are inserted from the inside.

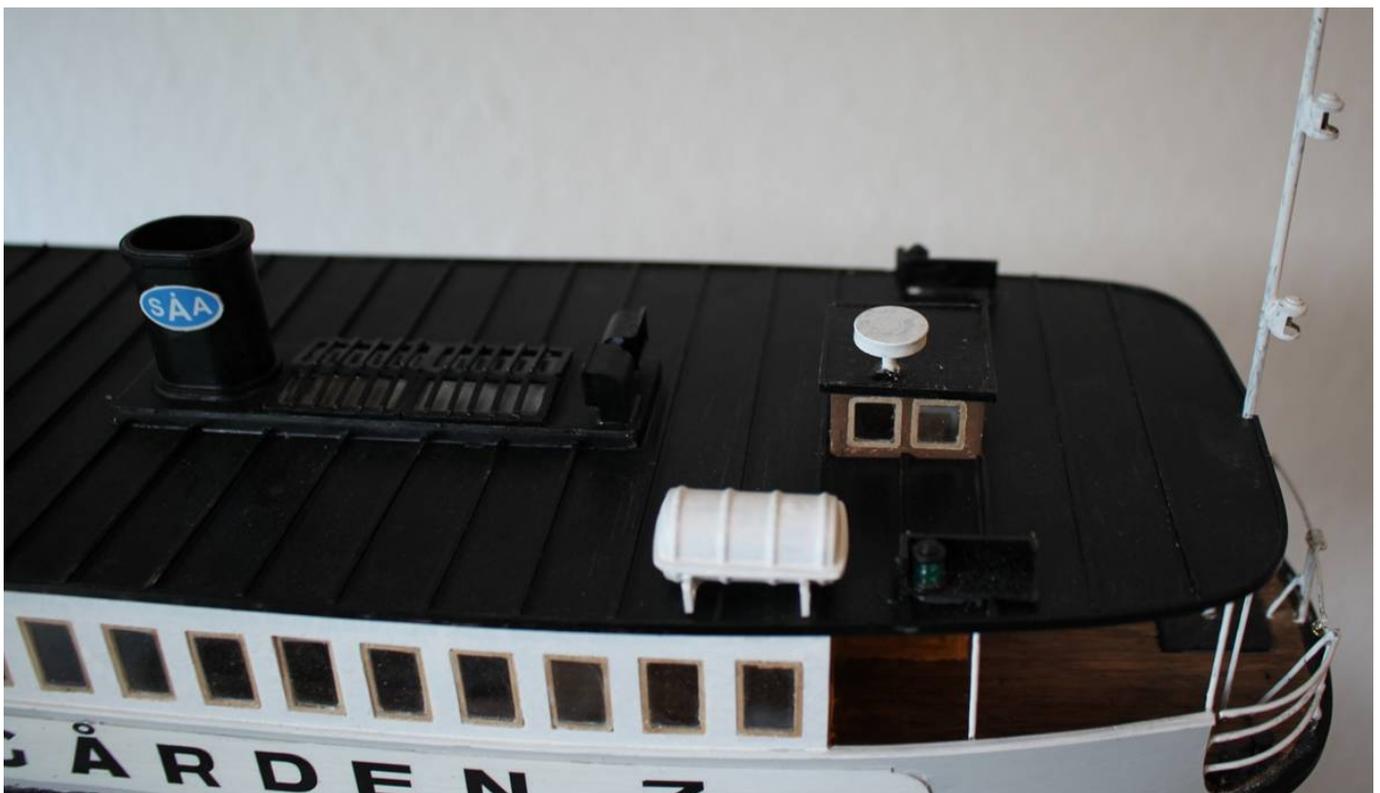


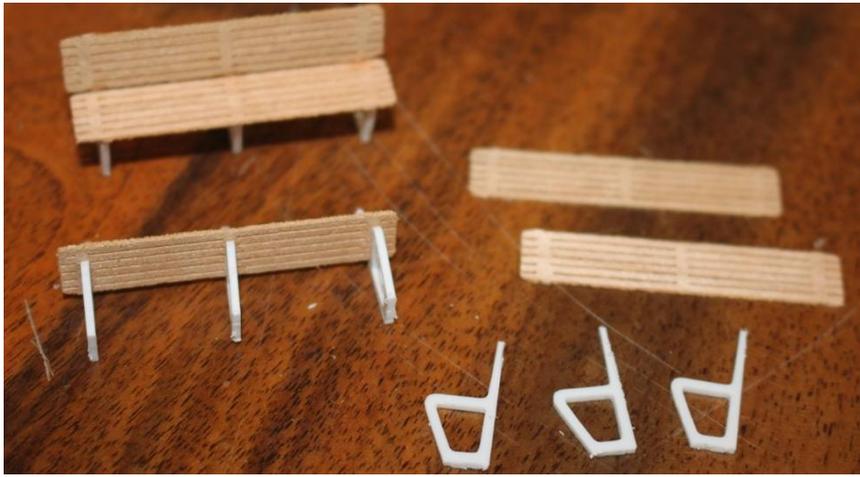


The fan and chimney are glued to the places marked in the plan – I simply glued the plates for the shipping company brand to the chimney (it would be nicer to have a small distance for which you can cut 2 short, narrow strips as spacers from the 0.5mm polystyrene material on each side).

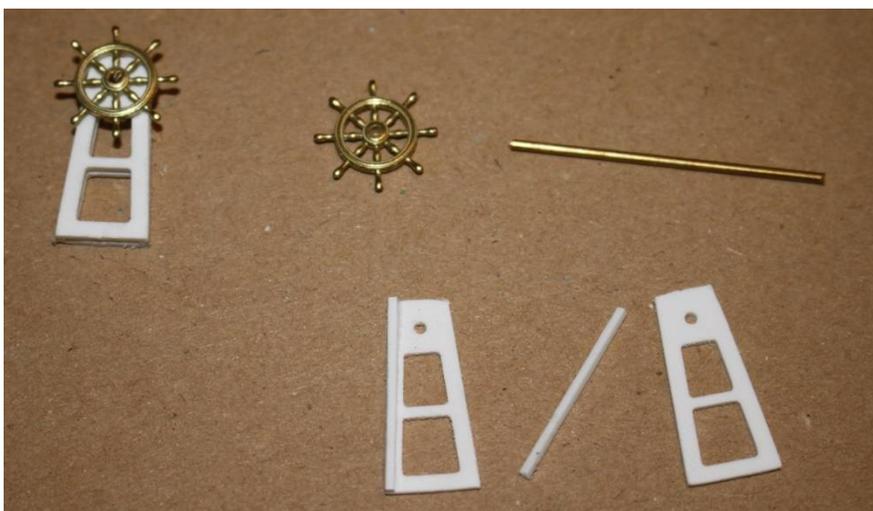
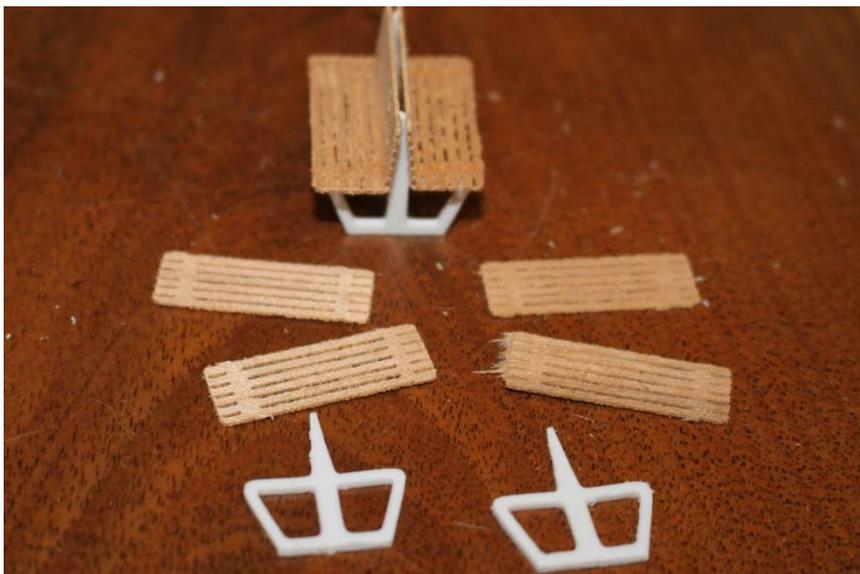
The position lantern boards are attached to 1mm brass wires glued into the holes. It is advisable to first glue the wires to the roof and then glue the lantern board. Make sure that the roof to the bow / stern still rises and that the lantern boards must therefore not be glued flush to the roof.

The roof view also shows the position of the 1x1mm struts that divide the roof across the ship.





The benches consist of milled polystyrene beams and milled seats and backrests. The long benches belong on the inside of the outer wall, the shorter double benches in front of the control stations. It is advisable to first glue the straps with the backrests or seats, then to supplement the other part and then paint. If you first paint the straps and then glue them, the adhesive holds poorly. The finished benches are then glued to the deck according to plan. Inside, it is expedient to start with the middle bank!



The steering stations still receive the steering wheel – the frame in which the chain runs and in which the steering wheel is stored is set up according to the photo.

The roofs of the control stations also receive a frame made of 1x2mm polystyrene and on the underside the second, smaller plate is glued on, which fits exactly into the opening. On the roof of the front control station, the radar (resin part) is glued into the bore.

The decals must be processed in accordance with the instructions. DJURGÅRDEN 3 is not easy to cut out because the distances between the letters are very large. It is recommended to make a copy of the decals and align them with the row of windows. Then the individually cut out letters can also be positioned well.

The decal of the radar was unfortunately not reproduced correctly (unfortunately the last letter is missing).



Colours:

For painting, I recommend Revell Email Color varnishes or paints from Elita.

Underwater vessel:	oxide red / RAL 3009
Wall rail, bollard, chimney, roof etc.:	deepblack / RAL 9005
Walls (upper parts), masts:	pure white / RAL 9010
Bulwark:	light grey / RAL 7035
Walls (lower part):	saffron yellow / RAL 1017